SED-R-296
Excerpted Portions of SS-29 Well File
I.19-06-016
ALJs: Hecht/Poirier
Date Serviced: May 7, 2021

SS #29

AC_CPUC_0117951

# SOUTHERN CALIFORNIA GAS COMPANY
## DAILY WELL ACTIVITY REPORT

FIELD Aliso Cyn. WELL NAME SS-29 CONTRACTOR N/A RIG No. _____

RIG DAYS N/A. MWO# _____ / TOTAL COST ESTIMATE $ _____

RIG DATE 11-27-91 GWO# _____ / TOTAL COST ESTIMATE $ _____

RIG SUPERVISOR JD Woods DAILY COST $ 6,768

CUMULATIVE COST $ 414,464

CASING: OD _____ in. LINER OD _____ in.
DEPTH _____ ft. TOP _____ ft.
BOTTOM _____ ft.

### BRIEF DESCRIPTION OF ACTIVITIES

LATC Ticket For SS-29

### MUD PROPERTIES

| MUD TYPE | FUNNEL VISCOSITY SEC | WATER LOSS CC | DENSITY #/CU. FT. | YIELD POINT #/100 SQ. FT. | PLASTIC VISC CP | pH | SOLIDS % | SUSPENDED SOLIDS % |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| ELAPSED TIME (HR) | OPERATIONS SEQUENCE & DETAIL |
|---|---|
| | |



AC_CPUC_0117952

# SOUTHERN CALIFORNIA GAS COMPANY
# DAILY WELL COST REPORT

Well SS 29 Date 11/20/91 Initials JPN

**Daily Base Costs**

Rig $ N/A /hour x _____ hours = $ _____ /day
Extra Labor ..... $ _____ /day
Rig Supervisor ..... $ _____ /day
BOPE Rental ..... $ _____ /day
Drillpipe Rental ..... $ _____ /day Subtotal $ _____

| Contractor Name | Ticket Number | Contractor Index | Work Category | Functional Index | Total |
|---|---|---|---|---|---|
| Daily Base Cost | — | — | | 01 | $ |
| Shaffer | 4137 | S,07 | MT | 46 | 702.25 |
| Shaffer, additional To repair BOPE | 36262 | S07 | MI | 43 | 70 |
| ATC | 12218 | R06 | MI | 46 | 5,705 |
| John Thomas | 39590 | T03 | ZZ | 46 | 120 |
| John Thomas, | 38747 | T03 | ZZ | 44 | 171 |
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| | | | | | |
| | | LATE CHARGES | | | |
| | | | | | |
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Daily Total $ 6,768
Previous Total $ 407,696
Cumulative Total $ 414,464

**Work Categories**

PR Pre-rig work, well kill
MI Move in - rig up, install & test BOPE
CO Initial/final clean out
DD Drilling
LR Leak repair - cmt. sqz., casing patch
FF Fishing
PB Plugback, redrill
ST Stimulation - acid wash, reperforating
GP Gravel pack
IT Isolation test - noise log, WSO test
WW Wellhead work
CI Run casing/inner-string/liner
TP Run tbg. & prod. equip.
AA Abandonment
RR Rig repairs
SB Stand-by
MO Rig down - move out
PO Post-rig work
ZZ Miscellaneous

**Functional Indexes**

10 Tubular goods
11 Tubing accessories, packers
12 Wellhead equip. & svcs.
13 Gravel pack equip. & svcs.
14 Casing accessories
20 Bits
21 Fluids
22 Cement, acid, sand, chemicals & pumping svcs.
23 Nitrogen and coil tubing svcs.
24 Filtering and solids control
30 Service tools
31 Fishing tools & svcs.
32 Hole openers, mills, junk subs, reamers, stabilizers
33 Coring, dynadrills & directional svcs.
35 Piano wire equip. & svcs.
40 Open & cased hole logging
41 Other Wireline svcs.
42 Production logging
43 Hydrotest, torque, tong svcs., thread washing
44 Trucking, hauling, cranes & hot shots
45 Vacuum trucking, disposal charges
46 Tank rental, misc. rentals
47 Site preparation
60 Miscellaneous

# SOUTHERN CALIFORNIA GAS COMPANY
# DAILY WELL ACTIVITY REPORT

FIELD Aliso Cyn WELL NAME SS-29 CONTRACTOR N/A. RIG No. _____

RIG DAYS N/A. MWO# 99412. / TOTAL COST ESTIMATE $ _____

RIG DATE 11-7-91 GWO# _____ / TOTAL COST ESTIMATE $ _____

RIG SUPERVISOR JDW DAILY COST $ 7476

CUMULATIVE COST $ 415,172.

CASING: OD _____ in. LINER OD _____ in.
DEPTH _____ ft. TOP _____ ft.
BOTTOM _____ ft.

## BRIEF DESCRIPTION OF ACTIVITIES

Late Ticket For SS-29.

## MUD PROPERTIES

| MUD TYPE | FUNNEL VISCOSITY SEC | WATER LOSS CC | DENSITY #/CU. FT. | YIELD POINT #/100 SQ. FT. | PLASTIC VISC CP | pH | SOLIDS % | SUSPENDED SOLIDS % |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| ELAPSED TIME (HR) | OPERATIONS SEQUENCE & DETAIL |
|---|---|
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SOUTHERN CALIFORNIA GAS COMPANY

AC_CPUC_0117954

# SOUTHERN CALIFORNIA GAS COMPANY
# DAILY WELL COST REPORT

Well SS-29. Date 11/7/ Initials JDW.

**Daily Base Costs**

Rig $ N/A. /hour x _____ hours = $ _____ /day
Extra Labor ..... $ _____ /day
Rig Supervisor ..... $ _____ /day
BOPE Rental ..... $ _____ /day
Drillpipe Rental ..... $ _____ /day Subtotal $ _____

| Contractor Name | Ticket Number | Contractor Index | Work Category | Functional Index | Total |
|---|---|---|---|---|---|
| Daily Base Cost | — | — | | 01 | $ |
| Hydro-Test | 59616 | H10 | TP | 43 | 1,050. |
| John Thomas. | 38855 | J03 | ZZ | 46 | 240 |
| John Thomas. | 38745 | J03. | ZZ | 44 | 260 |
| DesAutelle & Son. | 10459 | D— | MO | 45 | 1,174. |
| Venviro Tek | 26392 | V14 | MO | 45 | 584 |
| DesAutelle & Son | 10482 | D— | MO | 45 | 254 |
| Venviro Tek | 26377. | V14 | MO | 45 | 979 |
| DesAutelle & Son | 10483 | D— | MO | 45 | 635. |
| Venviro Tek | 26384 | V14 | MO | 45 | 979. |
| DesAutelle & Son | 10493 | D— | MO | 47 | 750 |
| DesAutelle & Son, | 10458. | D— | MO | 45 | 571 |
| | | | | | |

Daily Total $ 7,476
Previous Total $ 407,696
Cumulative Total $ 415,172.

**Work Categories**

PR Pre-rig work, well kill
MI Move in - rig up, install & test BOPE
Initial/final clean out
ning
epair - cmt. sqz., casing
drill
id wash,
IT Isolation test - noise log, WSO test
WW Wellhead work
CI Run casing/inner-string/liner
TP Run tbg. & prod. equip.
AA Abandonment
RR Rig repairs
SB Stand-by
MO Rig down - move out
PO Post-rig work
ZZ Miscellaneous

**Functional Indexes**

10 Tubular goods
11 Tubing accessories, packers
12 Wellhead equip. & svcs.
13 Gravel pack equip. & svcs.
14 Casing accessories
20 Bits
21 Fluids
22 Cement, acid, sand, chemicals & pumping svcs.
23 Nitrogen and coil tubing svcs.
24 Filtering and solids control
30 Service tools
31 Fishing tools & svcs.
32 Hole openers, mills, junk subs, reamers, stabilizers
33 Coring, dynadrills & directional svcs.
35 Piano wire equip. & svcs.
40 Open & cased hole logging
41 Other Wireline svcs.
42 Production logging
43 Hydrotest, torque, tong svcs., thread washing
44 Trucking, hauling, cranes & hot shots
45 Vacuum trucking, disposal charges
46 Tank rental, misc. rentals
47 Site preparation
60 Miscellaneous

# SOUTHERN CALIFORNIA GAS COMPANY
## DAILY WELL ACTIVITY REPORT

FIELD Aliso Cyn. WELL NAME SS-29 CONTRACTOR CPS RIG No. D-7

RIG DAYS 41 MWO# 99412 / TOTAL COST ESTIMATE $

RIG DATE 11-6-91 GWO# / TOTAL COST ESTIMATE $

RIG SUPERVISOR JD Woods DAILY COST $ 20,350

CASING: OD 7" in. DEPTH 8180 ft. LINER OD 5" in. TOP 8075 ft. BOTTOM 9077 ft. CUMULATIVE COST $ 407,696

<Release Rig 11-6-91 AT 8:00 pm.

BRIEF DESCRIPTION OF ACTIVITIES

Finished Run Tubing. Latch-in To otis packer. pulled 20,000# wt over. space out with 8000# wt on packer. Test seals and packer. 1500 psi (ok) Loadout Hydrotest. Removed BOP and Load. installed xmas Tree Test to 5000 psi (ok) with Santa Paula wireline run in open otis "XD" sliding sleeve. Loadout S.P.W. Line. Change Fluid over To 2% KCL water. 340 BBLS. Double inhib. <11-7-91> Loadout Rig

MUD PROPERTIES

| MUD TYPE | FUNNEL VISCOSITY SEC | WATER LOSS CC | DENSITY #/CU. FT. | YIELD POINT #/100 SQ. FT. | PLASTIC VISC CP | pH | SOLIDS % | SUSPENDED SOLIDS % |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| TIME LOG FROM | TIME LOG TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 6:00 | 7:00 | 1 | 6 | Open well W/0 psi Hydro Test 2nd IN well |
| 7:00 | 8:00 | 1 | 6 | Hydro Test IN well |
| 8:00 | 9:00 | 1 | 6 | " " " " |
| 9:00 | 10:00 | 1 | 6 | " " " " - Rig down Hydro Test |
| 10:00 | 11:00 | 1 | 21 | Land Into Packer - Space Out - Pull 20,000 over - 6,000 down |
| 11:00 | 12:00 | 1 | 21 | Land Into Donut - Run In Packing studs - Install Back Press Valve |
| 12:00 | 1:00 | 1 | 14 | nipple down stack |
| 1:00 | 2:00 | 1 | 14 | nipple down stack |

DRILLER Jimeau

| FOOTAGE FROM | FOOTAGE TO | DR-D RM-R CORE-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL-S PAR-P COM-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Release Rig, 8:00 pm | | 11-6-91 | | | | | | |

| DEVIATION RECORD | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

| TIME LOG FROM | TIME LOG TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 2:00 | 3:00 | 1 | 14 | nipple down stack |
| 3:00 | 4:00 | 1 | 14 | nipple up Production Tree |
| 4:00 | 5:00 | 1 | 15 | Test Production Tree To 5500 psi |
| 5:00 | 6:00 | 1 | 11 | Rig up Archer Reed. Open sliding sleeve-Rig down W/L |
| 6:00 | 7:00 | 1 | 5 | change over well Thru sleeve AT 7966'. |
| 7:00 | 8:00 | 1 | 5 | change over well - secure well load Release Rig |
| | | | | |
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DRILLER

**LLING REPORT FORM**

# SOUTHERN CALIFORNIA GAS COMPANY
## DAILY WELL COST REPORT

Well SS-29 (#)  Date 11/6/91  Initials JDW.

**Daily Base Costs**

| | | |
|---|---|---|
| Rig $ 240 /hour x 14 hours = | $ 3,360 | /day |
| Extra Labor 7 X 25 . 3 MEN EXTRA 11 HOURS | $ 1,000 | /day |
| Rig Supervisor | $ 425 | /day |
| BOPE Rental | $ 600 | /day |
| Drillpipe Rental | $ | /day |
| | Subtotal $ | 5,385 |

| Contractor Name | Ticket Number | Contractor Index | Work Category | Functional Index | Total |
|---|---|---|---|---|---|
| Daily Base Cost | — | — | | 01 | $ 5,385 |
| SANTA PAULA wireline | 0019 | — | TP | 41 | 603 |
| ASSOCIATED SERV. | 4190 | A07 | WW | 12 | 390 |
| RTC. | 2343. | R06 | TP | 44 | 479. |
| RTC. | 2342 | R06 | TP | 44 | 1,392. |
| OTIS. | 419259 | 008 | TP | 11 | 7,136 |
| RTC. | 12205 | R06 | ZZ | 60 | 714 |
| D&S INC. | 10354 | D— | ZZ | 46 | 324 |
| D&S INC VAC TRUCK | 10241 | D— | ST | 45 | 666 |
| VENVIROTEK. | 26292 | V14 | ST | 45 | 790 |
| VENVIROTEK, | 26293 | V14 | ST | 45 | 790 |
| D&S Trucking | 10240 | D— | ST | 45 | 698. |
| D&S Trucking, | 10455 | D— | CO | 45 | 698 |
| D&S Trucking, H | 10453 | D— | CO | 45 | 285 |

| | |
|---|---|
| Daily Total | $ 20,350 |
| Previous Total | $ 387,346 |
| Cumulative Total | $ 407,696 |

**Work Categories**

- PR Pre-rig work, well kill
- MI Move in - rig up, install & test BOPE
- CO Initial/final clean out
- DD Drilling
- LR Leak repair - cmt. sqz., casing patch
- FF Fishing
- PB Plugback, redrill
- ST Stimulation - acid wash, reperforating
- GP Gravel pack
- IT Isolation test - noise log, WSO test
- WW Wellhead work
- CI Run casing/inner-string/liner
- TP Run tbg. & prod. equip.
- AA Abandonment
- RR Rig repairs
- SB Stand-by
- MO Rig down - move out
- PO Post-rig work
- ZZ Miscellaneous

**Functional Indexes**

- 10 Tubular goods
- 11 Tubing accessories, packers
- 12 Wellhead equip. & svcs.
- 13 Gravel pack equip. & svcs.
- 14 Casing accessories
- 20 Bits
- 21 Fluids
- 22 Cement, acid, sand, chemicals & pumping svcs.
- 23 Nitrogen and coil tubing svcs.
- 24 Filtering and solids control
- 30 Service tools
- 31 Fishing tools & svcs.
- 32 Hole openers, mills, junk subs, reamers, stabilizers
- 33 Coring, dynadrills & directional svcs.
- 35 Piano wire equip. & svcs.
- 40 Open & cased hole logging
- 41 Other Wireline svcs.
- 42 Production logging
- 43 Hydrotest, torque, tong svcs., thread washing
- 44 Trucking, hauling, cranes & hot shots
- 45 Vacuum trucking, disposal charges
- 46 Tank rental, misc. rentals
- 47 Site preparation
- 60 Miscellaneous

# SOUTHERN CALIFORNIA GAS COMPANY
# DAILY WELL ACTIVITY REPORT

FIELD Aliso Cyn. WELL NAME SS-29 CONTRACTOR CPS RIG No. D-7

RIG DAYS 40 MWO# 99412. / TOTAL COST ESTIMATE $

RIG DATE 11-5-91 GWO# / TOTAL COST ESTIMATE $

RIG SUPERVISOR J D Woods. DAILY COST $ 4,005

CASING: OD 7" in. DEPTH 8180' ft. LINER OD 5" in. TOP 8075 ft. BOTTOM 9077. ft. CUMULATIVE COST $ 387,346.

## BRIEF DESCRIPTION OF ACTIVITIES

Finished picking up Tubing, Latch in packer Pull 20,000# WT. over. Set 10,000# WT on packer. Test packer and seal AT 1500psi. (OK) Change 3 1/8" VALVE on Tubing head INSTALL New stud and packing For. Tubing Hanger. Test To 1500psi. (OK) Pull out made up Production Equip. Hydro Test. in To 4,000 PSI. Kill String, See well.

## MUD PROPERTIES

| MUD TYPE | FUNNEL VISCOSITY SEC | WATER LOSS CC | DENSITY #/CU. FT. | YIELD POINT #/100 SQ. FT. | PLASTIC VISC CP | pH | SOLIDS % | SUSPENDED SOLIDS % |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

## TIME LOG

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 6:00 | 7:00 | 1 | 6 | Open Well with 0 PSI - Fill Well W/65 BBLS. Pick up 2 7/8 TBG |
| 7:00 | 9:00 | 1 | 6 | Pick up Tubing |
| 9:00 | 9:00 | 1 | 6 | Pick up 2 7/8 Tubing - Found PKR AT 8038 TBG measurement |
| 9:00 | 10:00 | 1 | 21 | Land Test Seals W/ 20,000 over & 10,000 down - Test To 1500 PSI |
| 10:00 | 11:00 | 1 | 22 | Change out 3" Valve on BOTTOM OF Well Head |
| 11:00 | 12:00 | 1 | 22 | Change out 5 Packing Studs on Donut Landing Flange |
| 12:00 | 1:00 | 1 | 6 | Pull out Well |
| 1:00 | 2:00 | 1 | 6 | Pull out Well |

DRILLER Junior

| FOOTAGE FROM | FOOTAGE TO | DR-D RM-R CORE-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL-S PAR-P COM-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
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| DEVIATION RECORD | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
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## TIME LOG

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 3:00 | 3:00 | 1 | 6 | Pull out Well - Lay down Test Seals |
| 3:00 | 4:00 | 1 | 6 | SOLID Test Seals - NO-GO - Sliding sleeve, G.L.M 4000 psi - Rig up Hydro-Test |
| 4:00 | 5:00 | 1 | 6 | Test TBG IN Well |
| 5:00 | 6:00 | 1 | 6 | Test TBG IN Well - 54 stds IN - Secure Well |

DRILLER

**LLING REPORT FORM**

AC_CPUC_0117958

# SOUTHERN CALIFORNIA GAS COMPANY
# DAILY WELL COST REPORT

Well SS-29 #  Date 11/5/91  Initials JDW

**Daily Base Costs**

| | | |
|---|---|---|
| Rig $ 240 /hour x 12 hours = | $ 2,880 | /day |
| Extra Labor 4 x 25 | $ 100 | /day |
| Rig Supervisor | $ 425 | /day |
| BOPE Rental | $ 600 | /day |
| Drillpipe Rental | $ | /day |
| | Subtotal $ | 4,005 |

| Contractor Name | Ticket Number | Contractor Index | Work Category | Functional Index | Total |
|---|---|---|---|---|---|
| Daily Base Cost | — | — | | 01 | $ 4,005 |
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| Daily Total | $ 4,005 |
| Previous Total | $ 383,341 |
| Cumulative Total | $ 387,346 |

**Work Categories**

- PR Pre-rig work, well kill
- MI Move in - rig up, install & test BOPE
- CO Initial/final clean out
- DD Drilling
- LR Leak repair - cmt. sqz., casing patch
- FF Fishing
- PB Plugback, redrill
- ST Stimulation - acid wash, reperforating
- GP Gravel pack
- IT Isolation test - noise log, WSO test
- WW Wellhead work
- CI Run casing/inner-string/liner
- TP Run tbg. & prod. equip.
- AA Abandonment
- RR Rig repairs
- SB Stand-by
- MO Rig down - move out
- PO Post-rig work
- ZZ Miscellaneous

**Functional Indexes**

- 10 Tubular goods
- 11 Tubing accessories, packers
- 12 Wellhead equip. & svcs.
- 13 Gravel pack equip. & svcs.
- 14 Casing accessories
- 20 Bits
- 21 Fluids
- 22 Cement, acid, sand, chemicals & pumping svcs.
- 23 Nitrogen and coil tubing svcs.
- 24 Filtering and solids control
- 30 Service tools
- 31 Fishing tools & svcs.
- 32 Hole openers, mills, junk subs, reamers, stabilizers
- 33 Coring, dynadrills & directional svcs.
- 35 Piano wire equip. & svcs.
- 40 Open & cased hole logging
- 41 Other Wireline svcs.
- 42 Production logging
- 43 Hydrotest, torque, tong svcs., thread washing
- 44 Trucking, hauling, cranes & hot shots
- 45 Vacuum trucking, disposal charges
- 46 Tank rental, misc. rentals
- 47 Site preparation
- 60 Miscellaneous

# SOUTHERN CALIFORNIA GAS COMPANY
## DAILY WELL ACTIVITY REPORT

FIELD Aliso Cyn. WELL NAME SS 29 CONTRACTOR CPS RIG No. D-7

RIG DAYS 39 MWO# 99442 / TOTAL COST ESTIMATE $

RIG DATE 11-4-91 GWO# / TOTAL COST ESTIMATE $

RIG SUPERVISOR JD Woods. DAILY COST $ 15,388.

CUMULATIVE COST $ 383,341

CASING: OD 7" in. DEPTH 8180. ft. LINER OD 5" in. TOP 8075' ft. BOTTOM 9077' ft.

BRIEF DESCRIPTION OF ACTIVITIES

Pulled out Rig up H.L.S. made up otis "BWB" 7" packer Ran in set AT 8030'. POH. Loadout H.L.S. made up otis Test Seal measure in picking up 2 7/8" 8rd. Tubing.

(Had BOP Drill with crew. 44 sec)

MUD PROPERTIES

| MUD TYPE | FUNNEL VISCOSITY SEC | WATER LOSS CC | DENSITY #/CU. FT. | YIELD POINT #/100 SQ. FT. | PLASTIC VISC CP | pH | SOLIDS % | SUSPENDED SOLIDS % |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| TIME LOG FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS Held B.O.P. drill 44 secs Dan |
|---|---|---|---|---|
| 6:00 | 7:00 | 1 | 6 | Open well w/ B.O.P. - Fill well w/ 84 BBLS - Run 25 JTS 2 7/8 |
| 7:00 | 8:00 | 1 | 6 | Run out well |
| 8:00 | 9:00 | 1 | 6 | Run out well |
| 9:00 | 10:00 | 1 | 21 | R/S up shooting Flange - R/S up Halliburton Logging service |
| 10:00 | 11:00 | 1 | 11 | Run 7" Packer with Halliburton Logging service |
| 11:00 | 12:00 | 1 | 11 | " " " " " " |
| 12:00 | 1:00 | 1 | 11 | Set 7" Packer @ 8030 |
| 1:00 | 2:00 | 1 | 11 | Run 7" Packer |

DRILLER Jimenez

| FOOTAGE FROM | TO | DR-D RM-R CORE-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL-S PAR-P COM-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
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| DEVIATION RECORD | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|---|
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| TIME LOG FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 2:00 | 3:00 | 1 | 11 | Rig down H.L.S. - Install Picture nipple |
| 3:00 | 4:00 | 1 | 6 | Make up OTIS 3.25 SEAL ASSY - Run in well with 2 7/8 TBG |
| 4:00 | 5:00 | 1 | 6 | Run in well with 2 7/8 TBG |
| 5:00 | 6:00 | 1 | 6 | Run in well 197 JTS - Secure well |
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DRILLER

**LLING REPORT FORM**

# SOUTHERN CALIFORNIA GAS COMPANY
# DAILY WELL COST REPORT

Well SS-29 Date 11/4/91 Initials JDW.

**Daily Base Costs**

| | | |
|---|---|---|
| Rig $ 2.40 /hour x 12. hours = | $ 2,880 | /day |
| Extra Labor 6 x 25 2 men x 12 | $ 870 | /day |
| Rig Supervisor | $ 425 | /day |
| BOPE Rental | $ 600 | /day |
| Drillpipe Rental | $ | /day |
| | Subtotal $ | 4775 |

| Contractor Name | Ticket Number | Contractor Index | Work Category | Functional Index | Total |
|---|---|---|---|---|---|
| Daily Base Cost | — | — | | 01 | $ 4775 |
| H.L.S. | 68379 | H22 | TP | 41 | 2,388. |
| Sinclair mud | 2437 | S-33 | CO | 21 | 1,343. |
| B.S.T. | 8645 | B24 | TP | 11 | 1,606. |
| SHAFFER | 25085 | S07 | WW | 12. | 3,574 |
| SHAFFER | 24837 | S07. | TP | 10 | 1,702. |
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|---|---|
| Daily Total | $ 15,388. |
| Previous Total | $ 367,953 |
| Cumulative Total | $ 383,341. |

**Work Categories**

- PR Pre-rig work, well kill
- MI Move in - rig up, install & test BOPE
- CO Initial/final clean out
- DD Drilling
- LR Leak repair - cmt. sqz., casing patch
- FF Fishing
- PB Plugback, redrill
- ST Stimulation - acid wash, reperforating
- GP Gravel pack
- IT Isolation test - noise log, WSO test
- WW Wellhead work
- CI Run casing/inner-string/liner
- TP Run tbg. & prod. equip.
- AA Abandonment
- RR Rig repairs
- SB Stand-by
- MO Rig down - move out
- PO Post-rig work
- ZZ Miscellaneous

**Functional Indexes**

- 10 Tubular goods
- 11 Tubing accessories, packers
- 12 Wellhead equip. & svcs.
- 13 Gravel pack equip. & svcs.
- 14 Casing accessories
- 20 Bits
- 21 Fluids
- 22 Cement, acid, sand, chemicals & pumping svcs.
- 23 Nitrogen and coil tubing svcs.
- 24 Filtering and solids control
- 30 Service tools
- 31 Fishing tools & svcs.
- 32 Hole openers, mills, junk subs, reamers, stabilizers
- 33 Coring, dynadrills & directional svcs.
- 35 Piano wire equip. & svcs.
- 40 Open & cased hole logging
- 41 Other Wireline svcs.
- 42 Production logging
- 43 Hydrotest, torque, tong svcs., thread washing
- 44 Trucking, hauling, cranes & hot shots
- 45 Vacuum trucking, disposal charges
- 46 Tank rental, misc. rentals
- 47 Site preparation
- 60 Miscellaneous

STANDARD SESNON #30 - ALISO CANYON
TOUR SHEETS

AC_CPUC_0117962

# SOUTHERN CALIFORNIA GAS COMPANY
## DAILY WELL ACTIVITY REPORT

FIELD Aliso Canyon WELL NAME 5530 CONTRACTOR Late Charge RIG No. _____

RIG DAYS _____ MWO# _____ / TOTAL COST ESTIMATE $ _____

RIG DATE 5-16-89 GWO# _____ / TOTAL COST ESTIMATE $ _____

RIG SUPERVISOR Bradbury DAILY COST $ 180

CUMULATIVE COST $ _____

CASING: OD _____ in. LINER OD _____ in.
DEPTH _____ ft. TOP _____ ft.
BOTTOM _____ ft.

### BRIEF DESCRIPTION OF ACTIVITIES

Washed well Head & Collar down after Move Out,

### MUD PROPERTIES

| MUD TYPE | FUNNEL VISCOSITY SEC | WATER LOSS CC | DENSITY #/CU. FT. | YIELD POINT #/100 SQ. FT. | PLASTIC VISC CP | pH | SOLIDS % | SUSPENDED SOLIDS % |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| ELAPSED TIME (HR) | OPERATIONS SEQUENCE & DETAIL |
|---|---|
| | |

SOUTHERN CALIFORNIA GAS COMPANY

AC_CPUC_0117963

# SOUTHERN CALIFORNIA GAS COMPANY
## DAILY WELL COST REPORT

Well 5530 Date 5/16/89 Initials EG

**Daily Base Costs**

Rig $ _____ /hour x _____ hours = $ _____ /day
Extra Labor ..... $ _____ /day
Rig Supervisor ..... $ _____ /day
BOPE Rental ..... $ _____ /day
Drillpipe Rental ..... $ _____ /day Subtotal $ _____

| Contractor Name | Ticket Number | Contractor Index | Work Category | Functional Index | Total |
|---|---|---|---|---|---|
| Daily Base Cost | — | — | | 01 | $ |
| Advanced Pressure Washing | 602 | A32 XXX | MO | 60 | 180 ✓ |
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Daily Total $ 180 ✓
Previous Total $ _____
Cumulative Total $ _____

**Work Categories**

- PR Pre-rig work, well kill
- MI Move in - rig up, install & test BOPE
- CO Initial/final clean out
- DD Drilling
- LR Leak repair - cmt. sqz., casing patch
- FF Fishing
- PB Plugback, redrill
- ST Stimulation - acid wash, reperforating
- GP Gravel pack
- IT Isolation test - noise log, WSO test
- WW Wellhead work
- CI Run casing/inner-string/liner
- TP Run tbg. & prod. equip.
- AA Abandonment
- RR Rig repairs
- SB Stand-by
- MO Rig down - move out
- PO Post-rig work
- ZZ Miscellaneous

**Functional Indexes**

- 10 Tubular goods
- 11 Tubing accessories, packers
- 12 Wellhead equip. & svcs.
- 13 Gravel pack equip. & svcs.
- 14 Casing accessories
- 20 Bits
- 21 Fluids
- 22 Cement, acid, sand, chemicals & pumping svcs.
- 23 Nitrogen and coil tubing svcs.
- 24 Filtering and solids control
- 30 Service tools
- 31 Fishing tools & svcs.
- 32 Hole openers, mills, junk subs, reamers, stabilizers
- 33 Coring, dynadrills & directional svcs.
- 35 Piano wire equip. & svcs.
- 40 Open & cased hole logging
- 41 Other Wireline svcs.
- 42 Production logging
- 43 Hydrotest, torque, tong svcs., thread washing
- 44 Trucking, hauling, cranes & hot shots
- 45 Vacuum trucking, disposal charges
- 46 Tank rental, misc. rentals
- 47 Site preparation
- 60 Miscellaneous

Marilyn FYI

# SOUTHERN CALIFORNIA GAS COMPANY
## DAILY WELL ACTIVITY REPORT

FIELD Aliso Cyn WELL NAME SS-30 CONTRACTOR _____ RIG No. _____

RIG DAYS Late MWO# 99934 / TOTAL COST ESTIMATE $ _____

RIG DATE 4-20-89 GWO# _____ / TOTAL COST ESTIMATE $ _____

RIG SUPERVISOR W.L. KillebRew DAILY COST $ 986

CUMULATIVE COST $ 47,681

CASING: OD _____ in. LINER OD _____ in.
DEPTH _____ ft. TOP _____ ft.
BOTTOM _____ ft.

| BRIEF DESCRIPTION OF ACTIVITIES |
|---|
| Late Ticket |

| MUD PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| MUD TYPE | FUNNEL VISCOSITY SEC | WATER LOSS CC | DENSITY #/CU. FT. | YIELD POINT #/100 SQ. FT. | PLASTIC VISC CP | pH | SOLIDS % | SUSPENDED SOLIDS % |
| | | | | | | | | |

| ELAPSED TIME (HR) | OPERATIONS SEQUENCE & DETAIL |
|---|---|
| | |

AC_CPUC_0117965

# SOUTHERN CALIFORNIA GAS COMPANY
# DAILY WELL COST REPORT

Well SS # 30 Date 4 / 20 / 89 Initials W.L.K.

**Daily Base Costs**

Rig $ _____ /hour x _____ hours = $ _____ /day
Extra Labor ..... $ _____ /day
Rig Supervisor ..... Late Ticket ..... $ _____ /day
BOPE Rental ..... $ _____ /day
Drillpipe Rental ..... $ _____ /day Subtotal $ _____

| Contractor Name | Ticket Number | Contractor Index | Work Category | Functional Index | Total |
|---|---|---|---|---|---|
| Daily Base Cost | — | — | | 01 | $ |
| Kristie | 2003 | K07 | CO | 45 | 480 |
| Venvirotek | 5707 | V14 | CO | 45 | 506 |
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Daily Total $ 986
Previous Total $ 46,695
Cumulative Total $ 47,681

**Work Categories**

PR Pre-rig work, well kill
MI Move in - rig up, install & test BOPE
[illegible]nitial/final clean out
[illegible]rilling
[illegible]ak repair - cmt. sqz., casing
[illegible]tch
[illegible]shing
[illegible]ugback, redrill
[illegible]mulation - acid wash, perforating
GP [illegible]vel pack
IT Isolation test - noise log, WSO test
WW Wellhead work
CI Run casing/inner-string/liner
TP Run tbg. & prod. equip.
AA Abandonment
RR Rig repairs
SB Stand-by
MO Rig down - move out
PO Post-rig work
ZZ Miscellaneous

**Functional Indexes**

10 Tubular goods
11 Tubing accessories, packers
12 Wellhead equip. & svcs.
13 Gravel pack equip. & svcs.
14 Casing accessories
20 Bits
21 Fluids
22 Cement, acid, sand, chemicals & pumping svcs.
23 Nitrogen and coil tubing svcs.
24 Filtering and solids control
30 Service tools
31 Fishing tools & svcs.
32 Hole openers, mills, junk subs, reamers, stabilizers
33 Coring, dynadrills & directional svcs.
35 Piano wire equip. & svcs.
40 Open & cased hole logging
41 Other Wireline svcs.
42 Production logging
43 Hydrotest, torque, tong svcs., thread washing
44 Trucking, hauling, cranes & hot shots
45 Vacuum trucking, disposal charges
46 Tank rental, misc. rentals
47 Site preparation
60 Miscellaneous

# SOUTHERN CALIFORNIA GAS COMPANY
## DAILY WELL ACTIVITY REPORT

FIELD ALISO CNY WELL NAME SS #30 CONTRACTOR _____ RIG No. _____

RIG DAYS LATE MWO# 99934 / TOTAL COST ESTIMATE $ _____

RIG DATE 3-7-89 GWO# _____ / TOTAL COST ESTIMATE $ _____

RIG SUPERVISOR W. L. KILLEBREW DAILY COST $ 374

CUMULATIVE COST $ 46695

CASING: OD _____ in. LINER OD _____ in.
DEPTH _____ ft. TOP _____ ft.
BOTTOM _____ ft.

| BRIEF DESCRIPTION OF ACTIVITIES |
|---|
| LATE CHARGE |

| MUD PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| MUD TYPE | FUNNEL VISCOSITY SEC | WATER LOSS CC | DENSITY #/CU. FT. | YIELD POINT #/100 SQ. FT. | PLASTIC VISC CP | pH | SOLIDS % | SUSPENDED SOLIDS % |
| | | | | | | | | |

| ELAPSED TIME (HR) | OPERATIONS SEQUENCE & DETAIL |
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SOUTHERN CALIFORNIA GAS COMPANY

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# SOUTHERN CALIFORNIA GAS COMPANY
# DAILY WELL COST REPORT

Well SS#30 Date 3 / 7 / 89 Initials WLK

**Daily Base Costs**

Rig $ _____ /hour x _____ hours = $ _____ /day
Extra Labor ..... $ _____ /day
Rig Supervisor ... LATE CHARGE ..... $ _____ /day
BOPE Rental ..... $ _____ /day
Drillpipe Rental ..... $ _____ /day Subtotal $ _____

| Contractor Name | Ticket Number | Contractor Index | Work Category | Functional Index | Total |
|---|---|---|---|---|---|
| Daily Base Cost | — | — | | 01 | $ |
| So. CA. GAS CO | 36684 | S 11 | TP | 11 | 374 ✓ |
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Daily Total $ 374 ✓
Previous Total $ 46321
Cumulative Total $ 46695 ✓

**Work Categories**

PR Pre-rig work, well kill
MI Move in - rig up, install & test BOPE
CO Initial/final clean out
DD Drilling
LR Leak repair - cmt. sqz., casing patch
FF Fishing
PB Plugback, redrill
ST Stimulation - acid wash, reperforating
GP Gravel pack
IT Isolation test - noise log, WSO test
WW Wellhead work
CI Run casing/inner-string/liner
TP Run tbg. & prod. equip.
AA Abandonment
RR Rig repairs
SB Stand-by
MO Rig down - move out
PO Post-rig work
ZZ Miscellaneous

**Functional Indexes**

10 Tubular goods
11 Tubing accessories, packers
12 Wellhead equip. & svcs.
13 Gravel pack equip. & svcs.
14 Casing accessories
20 Bits
21 Fluids
22 Cement, acid, sand, chemicals & pumping svcs.
23 Nitrogen and coil tubing svcs.
24 Filtering and solids control
30 Service tools
31 Fishing tools & svcs.
32 Hole openers, mills, junk subs, reamers, stabilizers
33 Coring, dynadrills & directional svcs.
35 Piano wire equip. & svcs.
40 Open & cased hole logging
41 Other Wireline svcs.
42 Production logging
43 Hydrotest, torque, tong svcs., thread washing
44 Trucking, hauling, cranes & hot shots
45 Vacuum trucking, disposal charges
46 Tank rental, misc. rentals
47 Site preparation
60 Miscellaneous

# SOUTHERN CALIFORNIA GAS COMPANY
## DAILY WELL ACTIVITY REPORT

FIELD Aliso Canyon WELL NAME SS 30 CONTRACTOR N/A RIG No. _____

RIG DAYS N/A MWO# 99934 / TOTAL COST ESTIMATE $ _____

RIG DATE 3-3-89 GWO# _____ / TOTAL COST ESTIMATE $ _____

RIG SUPERVISOR J.D. Woods DAILY COST $ 140

CASING: OD _____ in. LINER OD _____ in. CUMULATIVE COST $ 46,321

DEPTH _____ ft. TOP _____ ft.

BOTTOM _____ ft.

### BRIEF DESCRIPTION OF ACTIVITIES

Late Ticket For SS #30

For cutting up tubing for lab samples.

### MUD PROPERTIES

| MUD TYPE | FUNNEL VISCOSITY SEC | WATER LOSS CC | DENSITY #/CU. FT. | YIELD POINT #/100 SQ. FT. | PLASTIC VISC CP | pH | SOLIDS % | SUSPENDED SOLIDS % |
|---|---|---|---|---|---|---|---|---|
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| ELAPSED TIME (HR) | OPERATIONS SEQUENCE & DETAIL |
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SOUTHERN CALIFORNIA GAS COMPANY

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# SOUTHERN CALIFORNIA GAS COMPANY
## DAILY WELL COST REPORT

Well SS-#30 Date 3/3/89 Initials JDW

**Daily Base Costs**

Rig $ N/A /hour x _____ hours = $ _____ /day
Extra Labor ..... $ _____ /day
Rig Supervisor ..... $ _____ /day
BOPE Rental ..... $ _____ /day
Drillpipe Rental ..... $ _____ /day Subtotal $ _____

| Contractor Name | Ticket Number | Contractor Index | Work Category | Functional Index | Total |
|---|---|---|---|---|---|
| Daily Base Cost | — | — | | 01 | $ |
| RTC. | 3412. | R06. | ZZ | 60 | 140. |
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Daily Total $ 140
Previous Total $ 46,181
Cumulative Total $ 46,321

**Work Categories**

PR Pre-rig work, well kill
MI Move in - rig up, install & test BOPE
CO Initial/final clean out
DD Drilling
LR Leak repair - cmt. sqz., casing patch
FF Fishing
PB Plugback, redrill
ST Stimulation - acid wash, reperforating
GP Gravel pack
IT Isolation test - noise log, WSO test
WW Wellhead work
CI Run casing/inner-string/liner
TP Run tbg. & prod. equip.
AA Abandonment
RR Rig repairs
SB Stand-by
MO Rig down - move out
PO Post-rig work
ZZ Miscellaneous

**Functional Indexes**

10 Tubular goods
11 Tubing accessories, packers
12 Wellhead equip. & svcs.
13 Gravel pack equip. & svcs.
14 Casing accessories
20 Bits
21 Fluids
22 Cement, acid, sand, chemicals & pumping svcs.
23 Nitrogen and coil tubing svcs.
24 Filtering and solids control
30 Service tools
31 Fishing tools & svcs.
32 Hole openers, mills, junk subs, reamers, stabilizers
33 Coring, dynadrills & directional svcs.
35 Piano wire equip. & svcs.
40 Open & cased hole logging
41 Other Wireline svcs.
42 Production logging
43 Hydrotest, torque, tong svcs., thread washing
44 Trucking, hauling, cranes & hot shots
45 Vacuum trucking, disposal charges
46 Tank rental, misc. rentals
47 Site preparation
60 Miscellaneous

# SOUTHERN CALIFORNIA GAS COMPANY
## DAILY WELL ACTIVITY REPORT

FIELD Aliso Cyn WELL NAME SS #30 CONTRACTOR _____ RIG No. _____

RIG DAYS Late charge MWO# 99934 / TOTAL COST ESTIMATE $ _____

RIG DATE 2-14-89 GWO# _____ / TOTAL COST ESTIMATE $ _____

RIG SUPERVISOR W. L. Killebrew DAILY COST $ 2300

CASING: OD _____ in. LINER OD _____ in. CUMULATIVE COST $ 46,181

DEPTH _____ ft. TOP _____ ft.

BOTTOM _____ ft.

### BRIEF DESCRIPTION OF ACTIVITIES

LATE CHARGE

### MUD PROPERTIES

| MUD TYPE | FUNNEL VISCOSITY SEC | WATER LOSS CC | DENSITY #/CU. FT. | YIELD POINT #/100 SQ. FT. | PLASTIC VISC CP | pH | SOLIDS % | SUSPENDED SOLIDS % |
|---|---|---|---|---|---|---|---|---|
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| ELAPSED TIME (HR) | OPERATIONS SEQUENCE & DETAIL |
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# SOUTHERN CALIFORNIA GAS COMPANY
# DAILY WELL COST REPORT

Well SS #30 Late CHARGE  Date 2/14/89  Initials WLK

**Daily Base Costs**

Rig $ _____ /hour x _____ hours = $ _____ /day
Extra Labor ..... $ _____ /day
Rig Supervisor ..... $ _____ /day
BOPE Rental ..... $ _____ /day
Drillpipe Rental ..... $ _____ /day  Subtotal $ _____

| Contractor Name | Ticket Number | Contractor Index | Work Category | Functional Index | Total |
|---|---|---|---|---|---|
| Daily Base Cost | — | — | | 01 | $ |
| So. CA. GAS Co. | 36681 | 511. | WW. | 12. | 2300 ✓ |
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Daily Total $ 2300 ✓
Previous Total $ 43881
Cumulative Total $ 46181 ✓

**Work Categories**

PR Pre-rig work, well kill
MI Move in - rig up, install & test BOPE
CO Initial/final clean out
DD Drilling
LR Leak repair - cmt. sqz., casing patch
FF Fishing
PB Plugback, redrill
ST Stimulation - acid wash, reperforating
GP Gravel pack
IT Isolation test - noise log, WSO test
WW Wellhead work
CI Run casing/inner-string/liner
TP Run tbg. & prod. equip.
AA Abandonment
RR Rig repairs
SB Stand-by
MO Rig down - move out
PO Post-rig work
ZZ Miscellaneous

**Functional Indexes**

10 Tubular goods
11 Tubing accessories, packers
12 Wellhead equip. & svcs.
13 Gravel pack equip. & svcs.
14 Casing accessories
20 Bits
21 Fluids
22 Cement, acid, sand, chemicals & pumping svcs.
23 Nitrogen and coil tubing svcs.
24 Filtering and solids control
30 Service tools
31 Fishing tools & svcs.
32 Hole openers, mills, junk subs, reamers, stabilizers
33 Coring, dynadrills & directional svcs.
35 Piano wire equip. & svcs.
40 Open & cased hole logging
41 Other Wireline svcs.
42 Production logging
43 Hydrotest, torque, tong svcs., thread washing
44 Trucking, hauling, cranes & hot shots
45 Vacuum trucking, disposal charges
46 Tank rental, misc. rentals
47 Site preparation
60 Miscellaneous

Corrected

# SOUTHERN CALIFORNIA GAS COMPANY
## DAILY WELL ACTIVITY REPORT

FIELD Aliso Cyn. WELL NAME SS-30 CONTRACTOR _____ RIG No. _____

RIG DAYS Late MWO# _____ / TOTAL COST ESTIMATE $_____

RIG DATE 2-7-89 GWO# _____ / TOTAL COST ESTIMATE $_____

RIG SUPERVISOR W.L. Killebrew DAILY COST $ 1659

CASING: OD _____ in. LINER OD _____ in. CUMULATIVE COST $ 43881

DEPTH _____ ft. TOP _____ ft.

BOTTOM _____ ft.

### BRIEF DESCRIPTION OF ACTIVITIES

Late Charge

### MUD PROPERTIES

| MUD TYPE | FUNNEL VISCOSITY SEC | WATER LOSS CC | DENSITY #/CU. FT. | YIELD POINT #/100 SQ. FT. | PLASTIC VISC CP | pH | SOLIDS % | SUSPENDED SOLIDS % |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| ELAPSED TIME (HR) | OPERATIONS SEQUENCE & DETAIL |
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# SOUTHERN CALIFORNIA GAS COMPANY
# DAILY WELL COST REPORT

Well SS #30 Date 2/7/89 Initials WLK

**Daily Base Costs**

Rig $ _____ /hour x _____ hours = $ _____ /day
Extra Labor ..... $ _____ /day
Rig Supervisor ..... $ _____ /day
BOPE Rental ..... $ _____ /day
Drillpipe Rental ..... $ _____ /day Subtotal $ _____

| Contractor Name | Ticket Number | Contractor Index | Work Category | Functional Index | Total |
|---|---|---|---|---|---|
| Daily Base Cost | — | — | | 01 | $ |
| RTC | 42-425. | R06. | TP. | 44. | 422 ✓ |
| RTC | 42-1266. | R06. | TP. | 44. | 298 ✓ |
| RTC | 1889. | R06. | ZZ. | 44. | 99 ✓ |
| Kristie | 1950. | K07. | CO. | 45. | 540 ✓ |
| Kristie | 1952. | K07. | CO. | 45. | 300 ✓ |
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Daily Total $ 1659 ✓
Previous Total $ 42,222
Cumulative Total $ 43,881 ✓

**Work Categories**

PR Pre-rig work, well kill
MI Move in - rig up, install & test BOPE
CO Initial/final clean out
DD Drilling
LR Leak repair - cmt. sqz., casing patch
FF Fishing
PB Plugback, redrill
ST Stimulation - acid wash, reperforating
GP Gravel pack
IT Isolation test - noise log, WSO test
WW Wellhead work
CI Run casing/inner-string/liner
TP Run tbg. & prod. equip.
AA Abandonment
RR Rig repairs
SB Stand-by
MO Rig down - move out
PO Post-rig work
ZZ Miscellaneous

**Functional Indexes**

10 Tubular goods
11 Tubing accessories, packers
12 Wellhead equip. & svcs.
13 Gravel pack equip. & svcs.
14 Casing accessories
20 Bits
21 Fluids
22 Cement, acid, sand, chemicals & pumping svcs.
23 Nitrogen and coil tubing svcs.
24 Filtering and solids control
30 Service tools
31 Fishing tools & svcs.
32 Hole openers, mills, junk subs, reamers, stabilizers
33 Coring, dynadrills & directional svcs.
35 Piano wire equip. & svcs.
40 Open & cased hole logging
41 Other Wireline svcs.
42 Production logging
43 Hydrotest, torque, tong svcs., thread washing
44 Trucking, hauling, cranes & hot shots
45 Vacuum trucking, disposal charges
46 Tank rental, misc. rentals
47 Site preparation
60 Miscellaneous

Corrected

# SOUTHERN CALIFORNIA GAS COMPANY
## DAILY WELL ACTIVITY REPORT

FIELD Aliso Cyn WELL NAME SS # 30 CONTRACTOR CPS RIG No. 72

RIG DAYS 6

RIG DATE 2-3-89

RIG SUPERVISOR JD woods

MWO# 99934 / TOTAL COST ESTIMATE $ 35,000

GWO# _____ / TOTAL COST ESTIMATE $ 24,993

DAILY COST $ 25,163

CUMULATIVE COST $ 42,392. 222.

CASING: OD 7" in. DEPTH 9248' ft.

LINER OD _____ in. TOP _____ ft. BOTTOM _____ ft.

### BRIEF DESCRIPTION OF ACTIVITIES

Finished Hydro Testing Tubing in well. Space out Change Fluid in well over To 2% KCL WATER. 340 BBLS. Land Tubing with 49,000 on Donut, 5000 down on packer, Removed B.O.P. & Instal. XMAS Tree. Test 3000 PSI, Release Rig 5:00 pm. Tear out Rig.

### MUD PROPERTIES

| MUD TYPE | FUNNEL VISCOSITY SEC | WATER LOSS CC | DENSITY #/CU. FT. | YIELD POINT #/100 SQ. FT. | PLASTIC VISC CP | pH | SOLIDS % | SUSPENDED SOLIDS % |
|---|---|---|---|---|---|---|---|---|
| 2% KCL. | | | 63 T.F. | | | | | |

### OPERATIONS SEQUENCE & DETAIL

| ELAPSED TIME (HR) | OPERATIONS SEQUENCE & DETAIL |
|---|---|
| | |

| TIME LOG FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 600 | 700 | 1 | 6 | BLED WELL @ PSI OPEN WELL INSTALL TEST TOOLS IN Tbg & TEST to 4000 PSI SER. EQUIPMENT |
| 700 | 800 | 1 | 6 | RIW HYDROTEST 2 7/8" Tbg 4000 PSI |
| 800 | 900 | 1 | 6 | RIW HYDROTEST 2 7/8 Tbg 4000 PSI |
| 900 | 1000 | 1 | 6 | RIW HYDROTEST 2 7/8" Tbg 4000 PSI TEST PUP'S & DOUGHNUT |
| 1000 | 1100 | 1/2 - 1/2 | 6 | RIG DOWN HYDROTEST Rig up To CHANGE WELL OVER TO K.C.L |
| 1100 | 1200 | 1 | 5 | CHANGE WELL OVER TO 2% K.C.L WATER. |
| 1200 | 100 | 1/2 1/2 | 5 21 | CHANGE WELL OVER TO 2% KCL WATER. LATCH ON PKR pull 18,000# OVER. LAND ON DOUGHNUT |
| 100 | 200 | 1/2 1/2 | 21 14 | SCREW IN DOUGHNUT SCREW INSTALL B.P NIPPLE DOWN B.O.P DRILLER W. Jones |

| FOOTAGE FROM | TO | DR-D RM-R CORE-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SCI-S PACKER-P COMP-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | Release Rig 5: PM. | | | | | | | | |
| | | | | 2-3-89 | | | | | | | | |

| DEVIATION RECORD | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

| TIME LOG FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 200 | 300 | 1 | 14 | Nipple Down BOP & SET OUT |
| 300 | 400 | 1 | 14 | INSTALL XMAS TREE & flange up |
| 400 | 500 | 1 | E | TEST XMAS TREE TO 3000 PSI REMOVE B.P SHUT WELL IN |
| 500 | 600 | 1 | 22 | READY Rig for move |
| 600 | 700 | 1 | 22 | READY Rig for move |
| | | | | |
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DRILLER W. Jones

AC_CPUC_0117975

# SOUTHERN CALIFORNIA GAS COMPANY
## DAILY WELL COST REPORT

Well SS- 30 Date 2/3/89 Initials JDW

**Daily Base Costs**

Rig $ 200 /hour x 11 hours = $ 2200 /day
~~Extra~~ Labor 100 X 2 ..... $ 200 /day
Rig Supervisor ..... $ 550 /day
BOPE Rental ..... $ 400 /day
Drillpipe Rental ..... $ ____ /day Subtotal $ 3356

| Contractor Name | Ticket Number | Contractor Index | Work Category | Functional Index | Total |
|---|---|---|---|---|---|
| Daily Base Cost | — | — | TP | 01 | $ 3350. ✓ |
| SHAFFER | 23125 23126 | S07. | WW. | 12. | 3,094. ✓ |
| SHAFFER. | 23120. | S07. | TP. | 10. | 739 ✓ |
| Hydro-Test. | 46827. | #10. | TP. | 43. | ~~2,150~~ 1980 |
| Associated. | 001439. | A07. | WW. | 12. | 330. ✓ |
| SOCAL GAS CO. | 397734. | S-11. | TP. | 10. | 15,500 ✓ |
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Daily Total $ ~~25,163~~ 24,993
Previous Total $ 17,229
Cumulative Total $ ~~42,392~~ 42,222

**Work Categories**

PR Pre-rig work, well kill
MI Move in - rig up, install & test BOPE
CO Initial/final clean out
DD Drilling
LR Leak repair - cmt. sqz., casing patch
FF Fishing
PB Plugback, redrill
ST Stimulation - acid wash, reperforating
GP Gravel pack
IT Isolation test - noise log, WSO test
WW Wellhead work
CI Run casing/inner-string/liner
TP Run tbg. & prod. equip.
AA Abandonment
RR Rig repairs
SB Stand-by
MO Rig down - move out
PO Post-rig work
ZZ Miscellaneous

**Functional Indexes**

10 Tubular goods
11 Tubing accessories, packers
12 Wellhead equip. & svcs.
13 Gravel pack equip. & svcs.
14 Casing accessories
20 Bits
21 Fluids
22 Cement, acid, sand, chemicals & pumping svcs.
23 Nitrogen and coil tubing svcs.
24 Filtering and solids control
30 Service tools
31 Fishing tools & svcs.
32 Hole openers, mills, junk subs, reamers, stabilizers
33 Coring, dynadrills & directional svcs.
35 Piano wire equip. & svcs.
40 Open & cased hole logging
41 Other Wireline svcs.
42 Production logging
43 Hydrotest, torque, tong svcs., thread washing
44 Trucking, hauling, cranes & hot shots
45 Vacuum trucking, disposal charges
46 Tank rental, misc. rentals
47 Site preparation
60 Miscellaneous

# SOUTHERN CALIFORNIA GAS COMPANY
# DAILY WELL ACTIVITY REPORT

FIELD Aliso Cyn. WELL NAME SS #30 CONTRACTOR CPS RIG No. 72

RIG [illegible] 5

MWO# 99934 / TOTAL COST ESTIMATE $ 35,000

RIG DATE 2-2-89

GWO# _____ / TOTAL COST ESTIMATE $ _____

RIG SUPERVISOR JD Woods

DAILY COST $ 3350

CUMULATIVE COST $ 17,229

CASING: OD 7" in. DEPTH 9248' ft. LINER OD _____ in. TOP _____ ft. BOTTOM _____ ft.

BRIEF DESCRIPTION OF ACTIVITIES

Fill well # 6 BBLS. Finished picking up Tubing CKS latch on pkr 20,000# over set 10,000# on packer. Test 30 minutes with 1500 psi. (OK) measure out of well. made up production equipment. Hydro Testing in well to 4000 psi. Sec well.

MUD PROPERTIES

| MUD TYPE | FUNNEL VISCOSITY SEC | WATER LOSS CC | DENSITY #/CU. FT. | YIELD POINT #/100 SQ. FT. | PLASTIC VISC CP | pH | SOLIDS % | SUSPENDED SOLIDS % |
|---|---|---|---|---|---|---|---|---|
| Polymer. | | | 63. | | | | | |

OPERATIONS SEQUENCE & DETAIL

DAY TOUR

| TIME LOG FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 600 | 700 | 1 | 6 | BLED WELL Ø PSI OPEN WELL fill hole TOOK 46 BBLS HAUL IN 2 7/8 Tbg |
| 700 | 800 | 1 | 6 | HAUL IN 2 7/8" Tbg & PICK up |
| 800 | 900 | 1 | 6 | pick up 2 7/8" Tbg LATCH ON PKR Pull 20,000# OVER 20 MIN |
| 900 | 1000 | ½-½ | E/6 | TEST PKR & CSG to 1500 PSI USING HydroTEST CHART RELEASE |
| 1000 | 1100 | 1 | 6 | POW MEASURE OUT |
| 1100 | 1200 | 1 | 6 | POW MEASURE OUT |
| 1200 | 100 | 1 | 6 | POW MEASURE OUT |
| 100 | 200 | 1 | 6 | POW MEASURE OUT |

DRILLER W. Jones

| FOOTAGE FROM | TO | DR..D RM--R CORE..C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000's | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SCL..S PUMP..P ACTUAL..A COMP..C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
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| DEVIATION RECORD | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

EVENING TOUR

| TIME LOG FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 200 | 300 | 1 | 6 | POW MEASURE OUT BREAK off LATCH 2 SEALS |
| 300 | 400 | 1 | 6 | made up Prod EQUIPMENT & TEST 4000 PSI RIW TEST 2 7/8 |
| 400 | 500 | 1 | 6 | RIW HydroTEST 2 7/8 Tbg 4000 PSI |
| 500 | 600 | 1 | 6 | RIW HydroTEST 2 7/8 Tbg 4000 PSI Rig DOWN |
| | | | | HydroTEST tools SHUT IN WELL with PIPE & |
| | | | | HYDRIL BALL VALVE |

DRILLER W. Jones

# SOUTHERN CALIFORNIA GAS COMPANY
## DAILY WELL COST REPORT

Well SS-#30 Date 2/2/89 Initials JDW

**Daily Base Costs**

| | | |
|---|---|---|
| Rig $ 200 /hour x 12 hours = | $ 2400 | /day |
| Extra Labor | $ | /day |
| Rig Supervisor | $ 550 | /day |
| BOPE Rental | $ 400 | /day |
| Drillpipe Rental | $ | /day |
| | Subtotal $ | 3350 |

| Contractor Name | Ticket Number | Contractor Index | Work Category | Functional Index | Total |
|---|---|---|---|---|---|
| Daily Base Cost | — | — | | 01 | $ 3,350 |
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|---|---|
| Daily Total | $ 3350 |
| Previous Total | $ 13,879 |
| Cumulative Total | $ 17,229 |

**Work Categories**

- PR Pre-rig work, well kill
- MI Move in - rig up, install & test BOPE
- CO Initial/final clean out
- DD Drilling
- LR Leak repair - cmt. sqz., casing patch
- FF Fishing
- PB Plugback, redrill
- ST Stimulation - acid wash, reperforating
- GP Gravel pack
- IT Isolation test - noise log, WSO test
- WW Wellhead work
- CI Run casing/inner-string/liner
- TP Run tbg. & prod. equip.
- AA Abandonment
- RR Rig repairs
- SB Stand-by
- MO Rig down - move out
- PO Post-rig work
- ZZ Miscellaneous

**Functional Indexes**

- 10 Tubular goods
- 11 Tubing accessories, packers
- 12 Wellhead equip. & svcs.
- 13 Gravel pack equip. & svcs.
- 14 Casing accessories
- 20 Bits
- 21 Fluids
- 22 Cement, acid, sand, chemicals & pumping svcs.
- 23 Nitrogen and coil tubing svcs.
- 24 Filtering and solids control
- 30 Service tools
- 31 Fishing tools & svcs.
- 32 Hole openers, mills, junk subs, reamers, stabilizers
- 33 Coring, dynadrills & directional svcs.
- 35 Piano wire equip. & svcs.
- 40 Open & cased hole logging
- 41 Other Wireline svcs.
- 42 Production logging
- 43 Hydrotest, torque, tong svcs., thread washing
- 44 Trucking, hauling, cranes & hot shots
- 45 Vacuum trucking, disposal charges
- 46 Tank rental, misc. rentals
- 47 Site preparation
- 60 Miscellaneous

# SOUTHERN CALIFORNIA GAS COMPANY
## DAILY WELL ACTIVITY REPORT

FIELD Aliso Cyn WELL NAME 55-30 CONTRACTOR CPS RIG No. 72
RIG DAYS 4 MWO# 99934 / TOTAL COST ESTIMATE $ 35,000
RIG DATE 2-1-89 GWO# _____ / TOTAL COST ESTIMATE $ _____
RIG SUPERVISOR J D Woods DAILY COST $ 4883
CASING: OD 7" in. LINER OD _____ in. CUMULATIVE COST $ 13,879
DEPTH 9248 ft. TOP _____ ft.
BOTTOM _____ ft.

BRIEF DESCRIPTION OF ACTIVITIES

Fill well 39 BBLS, Repair Rig. 1 hours. Finished pulling out LAY down product Equipment, made up TEST SEAL Run in Hydro TEST Tubing To 3000 PST, TEAR OUT Hydro TEST LAY down TOTAL of 56 Joints BAD. picked up 27 Joints 2⅞ N 80 Tubing Secure well

MUD PROPERTIES

| MUD TYPE | FUNNEL VISCOSITY SEC | WATER LOSS CC | DENSITY #/CU. FT. | YIELD POINT #/100 SQ. FT. | PLASTIC VISC CP | pH | SOLIDS % | SUSPENDED SOLIDS % |
|---|---|---|---|---|---|---|---|---|
| Polymer. | | | 63 | | | | | |

ELAPSED TIME (HR) | OPERATIONS SEQUENCE & DETAIL

TIME LOG

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS SERVICE EQUIPMENT |
|---|---|---|---|---|
| 6:00 | 7:00 | 1 | 5 | OPEN Well @ P.S.I & Filled Took 54 bbls & Mixed 87 bbls Poly |
| 7:00 | 8:00 | 1 | 6 | P.O.W |
| 8:00 | 9:00 | 1 | 6 | P.O.W & LAYED down Prod |
| 9:00 | 10:00 | 1 | 21 | LOAD out Prod EQUIPMENT |
| 10:00 | 11:00 | 1 | 6 | Rig up Hydo TEST & Made up TEST Seals & No 60 & TESTING Hole |
| 11:00 | 12:00 | 1 | 6 | TEST IN Hole @ 5000 P.S.I |
| 12:00 | 1:00 | 1 | 6 | R.I.W TESTING |
| 1:00 | 2:00 | 1 | 6 | " " " |

DRILLER K. K. Jones

| FOOTAGE FROM | FOOTAGE TO | DR-D RM-R CORE-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 100's | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SCL-S PART-P COMP-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (NOTE LAYED down) 56 JTS BAD TBG | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

TIME LOG

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 2:00 | 3:00 | 1 | 6 | TESTING TBG @ 5,000 P.S.I |
| 3:00 | 4:00 | 1 | 6 | " " " & LAYED down Hydo TEST TOOLS |
| 4:00 | 5:00 | 1 | 6 | LAYED down 56 JTS BAD TBG & Picked up 27 JTS NEW TBG |
| 5:00 | 6:00 | 1 | 6 | LOAD out BAD TBG & Closed Well in w/ Pipe Rams & BLS & Ball Valve |
| 6:00 | 7:00 | | | |

DRILLER K. K. Jones

AC_CPUC_0117979

# SOUTHERN CALIFORNIA GAS COMPANY
# DAILY WELL COST REPORT

Well SS-30 Date 2/1/89 Initials JPW

**Daily Base Costs**

Rig $ 200 /hour x 12 hours = $ 2400 /day
2 – Extra Labor ... 5.0 ... X ... 12 ... $ 600 /day
Rig Supervisor ... $ 550 /day
BOPE Rental ... $ 400 /day
Drillpipe Rental ... $ _____ /day
Subtotal $ 3950

| Contractor Name | Ticket Number | Contractor Index | Work Category | Functional Index | Total |
|---|---|---|---|---|---|
| Daily Base Cost | – | – | | 01 | $ 3950 |
| OTIS | 911703 | 009 | TP | 11 | 219 |
| BAKER | 337-66918 | 836 | TP | 11 | 714 |
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Daily Total $ 4,883
Previous Total $ 8,996
Cumulative Total $ 13,879

**Work Categories**

PR Pre-rig work, well kill
MI Move in - rig up, install & test BOPE
CO Initial/final clean out
DD Drilling
LR Leak repair - cmt. sqz., casing patch
FF Fishing
PB Plugback, redrill
ST Stimulation - acid wash, reperforating
GP Gravel pack
IT Isolation test - noise log, WSO test
WW Wellhead work
CI Run casing/inner-string/liner
TP Run tbg. & prod. equip.
AA Abandonment
RR Rig repairs
SB Stand-by
MO Rig down - move out
PO Post-rig work
ZZ Miscellaneous

**Functional Indexes**

10 Tubular goods
11 Tubing accessories, packers
12 Wellhead equip. & svcs.
13 Gravel pack equip. & svcs.
14 Casing accessories
20 Bits
21 Fluids
22 Cement, acid, sand, chemicals & pumping svcs.
23 Nitrogen and coil tubing svcs.
24 Filtering and solids control
30 Service tools
31 Fishing tools & svcs.
32 Hole openers, mills, junk subs, reamers, stabilizers
33 Coring, dynadrills & directional svcs.
35 Piano wire equip. & svcs.
40 Open & cased hole logging
41 Other Wireline svcs.
42 Production logging
43 Hydrotest, torque, tong svcs, thread washing
44 Trucking, hauling, cranes, shot shots
45 Vacuum trucking, disposal charges
46 Tank rental, misc. rentals
47 Site preparation
60 Miscellaneous

# SOUTHERN CALIFORNIA GAS COMPANY
## DAILY WELL ACTIVITY REPORT

FIELD Aliso Cyn. WELL NAME SS - 30 CONTRACTOR CPS RIG No. 72

RIG DAYS 3 MWO# 99934 / TOTAL COST ESTIMATE $ 35000

RIG DATE 1-31-89 GWO# _____ / TOTAL COST ESTIMATE $ /

RIG SUPERVISOR J.D. Woods DAILY COST $ 3,600

CASING: OD 7" in. DEPTH 9248' ft. LINER OD _____ in. TOP _____ ft. BOTTOM _____ ft.

CUMULATIVE COST $ ~~9,946~~ - 750 = 8996

BRIEF DESCRIPTION OF ACTIVITIES

Rig up working floor. Rig up and fill well 130 BBLS, circulate bottom up. work and turn tubing to release from packer pulling out of well. Found 6 joints full of hole between 900' and 2250' pipe is soft, some is flat above pin end from tongs, Pulled to kill string. Sec well,

MUD PROPERTIES

| MUD TYPE | FUNNEL VISCOSITY SEC | WATER LOSS CC | DENSITY #/CU. FT. | YIELD POINT #/100 SQ FT. | PLASTIC VISC CP | pH | SOLIDS % | SUSPENDED SOLIDS % |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| TIME LOG FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS Service Equipment |
|---|---|---|---|---|
| 6:00 | 7:00 | 1 | 21 | Rigged up Work Floor |
| 7:00 | 8:00 | 1 | 21 | " " " |
| 8:00 | 9:00 | 1 | 21 | " " " |
| 9:00 | 10:00 | 1 | 5 | Open Well @ P.S.I & Rig To Circ |
| 10:00 | 11:00 | 1 | 5 | Pumped 128 bbls & broke Circ |
| 11:00 | 12:00 | 1 | 5 | Circ Well |
| 12:00 | 1:00 | 1/2 | 5-6 | Circ Well & Att To Release From Packer |
| 1:00 | 2:00 | 1 | 6 | Att To Release From Packer |

DRILLER H. K. Jones

| FOOTAGE FROM | TO | DR-D RM-R CORE-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 100:= | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SCL-S PAPER-P COM-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
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| DEVIATION RECORD | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|---|
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| TIME LOG FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 2:00 | 3:00 | 1 | 6 | Released & P.O.W laying down JTS W/ Pin Holes |
| 3:00 | 4:00 | 1 | 6 | P.O.W laying down JTS W/ Pin Holes |
| 4:00 | 5:00 | 1 | 6 | P.O.W To 3049' |
| 5:00 | 6:00 | 1 | 6 | P.O.W & Closed Well in w/ Pipe Rams Bag & Ball Valve |
| 6:00 | 7:00 | | | |

# SOUTHERN CALIFORNIA GAS COMPANY
# DAILY WELL COST REPORT

Well SS-#30 Date 1/31/89 Initials JDW

**Daily Base Costs**

Rig $ 200 /hour x 12 hours = $ 2400 /day
Extra Labor ..... $ _____ /day
Rig Supervisor ..... $ 550 /day
BOPE Rental ..... $ 650 /day
Drillpipe Rental ..... $ _____ /day Subtotal $ 3600

| Contractor Name | Ticket Number | Contractor Index | Work Category | Functional Index | Total |
|---|---|---|---|---|---|
| Daily Base Cost | — | — | | 01 | $ 3600 |
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Daily Total $ 3600
Previous Total $ 6,146
Cumulative Total $ 9746
- 750
8,996

**Work Categories**

PR Pre-rig work, well kill
MI Move in - rig up, install & test BOPE
CO Initial/final clean out
DD Drilling
LR Leak repair - cmt. sqz., casing patch
FF Fishing
PB Plugback, redrill
ST Stimulation - acid wash, reperforating
GP Gravel pack
IT Isolation test - noise log, WSO test
WW Wellhead work
CI Run casing/inner-string/liner
TP Run tbg. & prod. equip.
AA Abandonment
RR Rig repairs
SB Stand-by
MO Rig down - move out
PO Post-rig work
ZZ Miscellaneous

**Functional Indexes**

10 Tubular goods
11 Tubing accessories, packers
12 Wellhead equip. & svcs.
13 Gravel pack equip. & svcs.
14 Casing accessories
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23 Nitrogen and coil tubing svcs.
24 Filtering and solids control
30 Service tools
31 Fishing tools & svcs.
32 Hole openers, mills, junk subs, reamers, stabilizers
33 Coring, dynadrills & directional svcs.
35 Piano wire equip. & svcs.
40 Open & cased hole logging
41 Other Wireline svcs.
42 Production logging
43 Hydrotest, torque, tong svcs, thread washing
44 Trucking, hauling, cranes & hot shots
45 Vacuum trucking, disposal charges
46 Tank rental, misc. rentals
47 Site preparation
60 Miscellaneous

Corrected

# SOUTHERN CALIFORNIA GAS COMPANY
## DAILY WELL ACTIVITY REPORT

FIELD Aliso Canyon WELL NAME SS # 30 CONTRACTOR CPS RIG No. 72

RIG DAYS 2 MWO# 99934 / TOTAL COST ESTIMATE $ 35,000

RIG DATE 1-30-89 GWO# _____ / TOTAL COST ESTIMATE $ _____

RIG SUPERVISOR J.D. Woods DAILY COST $ 4046

CASING: OD 7" in. DEPTH 9248 ft. LINER OD _____ in. TOP _____ ft. BOTTOM _____ ft.

CUMULATIVE COST $ 5396

BRIEF DESCRIPTION OF ACTIVITIES

Rig up M-72 on SS 30. Removed X-MAS Tree, installed Shaffer, 7 1/16" x 5000 psi B.O.P.E.. Test Blind Rams, 2 7/8 pipe rams, and choke manifold to 3000 psi. Test Hydril bag to 2,300 psi. Sec well. Steve Mulqueen with Dog. Wave test.

MUD PROPERTIES

| MUD TYPE | FUNNEL VISCOSITY SEC | WATER LOSS CC | DENSITY #/CU. FT. | YIELD POINT #/100 SQ. FT. | PLASTIC VISC CP | pH | SOLIDS % | SUSPENDED SOLIDS % |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

RECORD

DAY TOUR

| TIME LOG FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 600 | 700 | 1 | 1 | Rigged up Equipment |
| 700 | 800 | 1 | 1 | " " " |
| 800 | 900 | 1 | 1 | " " " |
| 900 | 1000 | 1 | 1 | " " " |
| 1000 | 1100 | 1 | 1 | " " " |
| 1100 | 1200 | 1 | 1 | Raised Rig & Tied down |
| 1200 | 100 | 1 | 1 | " " " |
| 100 | 200 | 1 | 14 | Remove Tree |

DRILLER H.K. Jones

| FOOTAGE FROM | TO | DR-D RM-R CORE-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 100's | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL-S PAR-P CON-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
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| DEVIATION RECORD | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

EVENING TOUR

| TIME LOG FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 200 | 300 | 1 | 14 | Nipple up B.O.P.E |
| 300 | 400 | 1 | 14 | " " " |
| 400 | 500 | 1/2 1/2 | 14-15 | Nipple up & Rig up Hydo Test & Test Blind Rams & 300 |
| 500 | 600 | 1 | 15 | (20 Mins OK) Test Pipe Rams 3000 P.S.I 20 Mins OK) & Test K |
| | | | | 2300 P.S.I 20 Mins & Closed Well IN w/ Pipe Rams |
| | | | | Bag & Ball Valve |

DRILLER H. Jones

# DRILLING REPORT FORM

# SOUTHERN CALIFORNIA GAS COMPANY
# DAILY WELL COST REPORT

Well STANDARD SESNON 30 Date 1/30/89 Initials J.D.W.

**Daily Base Costs**

Rig $ 200 /hour x 5 hours = $ 1000 /day
Extra Labor ...100...x...7 ..... $ 700 /day
Rig Supervisor ..... $ 550 /day
BOPE Rental ..... $ 650 /day
Drillpipe Rental ..... $ ____ /day Subtotal $ 2900

| Contractor Name | Ticket Number | Contractor Index | Work Category | Functional Index | Total |
|---|---|---|---|---|---|
| Daily Base Cost | — | — | MI | 01 | $ 2,900 |
| H&H Oil Tool (Rig Move) | 27286. | H03 | MI. | 44. | 506 |
| RTC. (Rig Move) | 42-1264. | R061 | MI. | 44. | 298 |
| Hydro Test, | 46636. | H10 | MI. | 43. | 342 |
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| | | | | Daily Total | $ 4046 |
| | | | | Previous Total | $ 1350 |
| | | | | Cumulative Total | $ 5396 |

**Work Categories**

PR Pre-rig work, well kill
MI Move in - rig up, install & test BOPE
CO Initial/final clean out
DD Drilling
LR Leak repair - cmt. sqz., casing patch
FF Fishing
PB Plugback, redrill
ST Stimulation - acid wash, reperforating
GP Gravel pack
IT Isolation test - noise log, WSO test
WW Wellhead work
CI Run casing/inner-string/liner
TP Run tbg. & prod. equip.
AA Abandonment
RR Rig repairs
SB Stand-by
MO Rig down - move out
PO Post-rig work
ZZ Miscellaneous

**Functional Indexes**

10 Tubular goods
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32 Hole openers, mills, junk subs, reamers, stabilizers
33 Coring, dynadrills & directional svcs.
35 Piano wire equip. & svcs.
40 Open & cased hole logging
41 Other Wireline svcs.
42 Production logging
43 Hydrotest, torque, tong svcs., thread washing
44 Trucking, hauling, cranes & hot shots
45 Vacuum trucking, disposal charges
46 Tank rental, misc. rentals
47 Site preparation
60 Miscellaneous

Corrected

# SOUTHERN CALIFORNIA GAS COMPANY
## DAILY WELL ACTIVITY REPORT

FIELD Aliso Cyn WELL NAME SS #30 CONTRACTOR CPS RIG No. 72

RIG DAYS 1 MWO# 99934 / TOTAL COST ESTIMATE $ 35000

RIG DATE 1-28-89 GWO# _____ / TOTAL COST ESTIMATE $ _____

RIG SUPERVISOR W.L. Killebrew DAILY COST $ 1350

CASING: OD 7" in. LINER OD _____ in. CUMULATIVE COST $ 1350

DEPTH 9248 ft. TOP _____ ft.

BOTTOM _____ ft.

### BRIEF DESCRIPTION OF ACTIVITIES

Load Rig - moved from Porter 32 to Standard Seymont #30

Rigging up

### MUD PROPERTIES

| MUD TYPE | FUNNEL VISCOSITY SEC | WATER LOSS CC | DENSITY #/CU. FT. | YIELD POINT #/100 SQ. FT. | PLASTIC VISC CP | pH | SOLIDS % | SUSPENDED SOLIDS % |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| DEVIATION RECORD | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

| TIME LOG FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 700 | 800 | 1 | | Load out Equipment & Move Equipment To S.S.30 |
| 800 | 900 | 1 | | " " " " |
| 900 | 1000 | 1 | | " " " " |
| 1000 | 1100 | | | " " " " |
| 1100 | 1200 | | | Rig up |
| 1200 | 100 | | | " " |
| 100 | 200 | | | " " |
| 200 | 300 | | | " " |

DRILLER H.K. JONES

| FOOTAGE FROM | TO | DR.-D RM.-R CORE-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000's | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.-S PAR.-P COMP.-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

| DEVIATION RECORD | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

| TIME LOG FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| | | | | |
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| | | | | DRILLER |

LING REPORT FORM

AC_CPUC_0117985

# SOUTHERN CALIFORNIA GAS COMPANY
## DAILY WELL COST REPORT

Well Standard Session #30 Date 1/28/89 Initials WZK

**Daily Base Costs**

| | | |
|---|---|---|
| Rig $ _____ /hour x _____ hours = | $ _____ | /day |
| Extra Labor 32 HRS X 25.00 | $ 800 ✓ | /day |
| Rig Supervisor | $ 550 | /day |
| BOPE Rental | $ _____ | /day |
| Drillpipe Rental | $ _____ | /day |
| | Subtotal $ | 1350 ✓ |

| Contractor Name | Ticket Number | Contractor Index | Work Category | Functional Index | Total |
|---|---|---|---|---|---|
| Daily Base Cost | — | — | MI | 01 | $ 1350 |
| | | | | | |
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| | | |
|---|---|---|
| Daily Total | $ | 1350 ✓ |
| Previous Total | $ | — |
| Cumulative Total | $ | 1350 ✓ |

**Work Categories**

- PR Pre-rig work, well kill
- MI Move in - rig up, install & test BOPE
- CO Initial/final clean out
- DD Drilling
- LR Leak repair - cmt. sqz., casing patch
- FF Fishing
- PB Plugback, redrill
- ST Stimulation - acid wash, reperforating
- GP Gravel pack
- IT Isolation test - noise log, WSO test
- WW Wellhead work
- CI Run casing/inner-string/liner
- TP Run tbg. & prod. equip.
- AA Abandonment
- RR Rig repairs
- SB Stand-by
- MO Rig down - move out
- PO Post-rig work
- ZZ Miscellaneous

**Functional Indexes**

- 10 Tubular goods
- 11 Tubing accessories, packers
- 12 Wellhead equip. & svcs.
- 13 Gravel pack equip. & svcs.
- 14 Casing accessories
- 20 Bits
- 21 Fluids
- 22 Cement, acid, sand, chemicals & pumping svcs.
- 23 Nitrogen and coil tubing svcs.
- 24 Filtering and solids control
- 30 Service tools
- 31 Fishing tools & svcs.
- 32 Hole openers, mills, junk subs, reamers, stabilizers
- 33 Coring, dynadrills & directional svcs.
- 35 Piano wire equip. & svcs.
- 40 Open & cased hole logging
- 41 Other Wireline svcs.
- 42 Production logging
- 43 Hydrotest, torque, tong svcs., thread washing
- 44 Trucking, hauling, cranes & hot shots
- 45 Vacuum trucking, disposal charges
- 46 Tank rental, misc. rentals
- 47 Site preparation
- 60 Miscellaneous

# SOUTHERN CALIFORNIA GAS COMPANY
## DAILY WELL ACTIVITY REPORT

FIELD Aliso Cyn. WELL NAME SS#30 CONTRACTOR CPS RIG No. 72

RIG DAYS 1 MWO# 99933 / TOTAL COST ESTIMATE $ 40,000

RIG DATE 1-27-89 GWO# _____ / TOTAL COST ESTIMATE $ _____

RIG SUPERVISOR W.L.K./Eb Rew DAILY COST $ 750

CASING: OD 7" in. LINER OD _____ in. CUMULATIVE COST $ 750

DEPTH 9248' ft. TOP _____ ft.

BOTTOM _____ ft.

### BRIEF DESCRIPTION OF ACTIVITIES

Lower DERRICK - TEARING DOWN

### MUD PROPERTIES

| MUD TYPE | FUNNEL VISCOSITY SEC | WATER LOSS CC | DENSITY #/CU. FT. | YIELD POINT #/100 SQ. FT. | PLASTIC VISC CP | pH | SOLIDS % | SUSPENDED SOLIDS % |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| DEVIATION RECORD | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

| TIME LOG FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 4:00 | 5:00 | 1 | 14 | TEST TREE TO 5000 P.S.I & Rig DOWN Rig |
| 5:00 | 6:00 | 1 | 14 | TEST TREE & CLOSED WELL IN @ TREE Rig DOWN |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | DRILLER |

| FOOTAGE FROM | TO | DR..D RM..R CORE..C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 100's | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL..S PAR..P COM..C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
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| | | | | | | | | | | | | |

| DEVIATION RECORD | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

| TIME LOG FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| | | | | |
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| | | | | DRILLER |

AC_CPUC_0117987

# SOUTHERN CALIFORNIA GAS COMPANY
# DAILY WELL COST REPORT

Well GS #30 Date 1/27/89 Initials W.L.K.

**Daily Base Costs**

Rig $ _____ /hour x _____ hours = $ _____ /day
Extra Labor ... 8 hrs ... 25.00 ... $ 200 /day
Rig Supervisor ... $ 550 /day
BOPE Rental ... $ _____ /day
Drillpipe Rental ... $ _____ /day Subtotal $ 750

| Contractor Name | Ticket Number | Contractor Index | Work Category | Functional Index | Total |
|---|---|---|---|---|---|
| Daily Base Cost | — | — | | 01 | $ 750 |
| | | | | | |
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Daily Total $ 750
Previous Total $ 0
Cumulative Total $ 750

**Work Categories**

PR Pre-rig work, well kill
MI Move in - rig up, install & test BOPE
CO Initial/final clean out
DD Drilling
LR Leak repair - cmt. sqz., casing patch
FF Fishing
PB Plugback, redrill
ST Stimulation - acid wash, reperforating
GP Gravel pack
IT Isolation test - noise log, WSO test
WW Wellhead work
CI Run casing/inner-string/liner
TP Run tbg. & prod. equip.
AA Abandonment
RR Rig repairs
SB Stand-by
MO Rig down - move out
PO Post-rig work
ZZ Miscellaneous

**Functional Indexes**

10 Tubular goods
11 Tubing accessories, packers
12 Wellhead equip. & svcs.
13 Gravel pack equip. & svcs.
14 Casing accessories
20 Bits
21 Fluids
22 Cement, acid, sand, chemicals & pumping svcs.
23 Nitrogen and coil tubing svcs.
24 Filtering and solids control
30 Service tools
31 Fishing tools & svcs.
32 Hole openers, mills, junk subs, reamers, stabilizers
33 Coring, dynadrills & directional svcs.
35 Piano wire equip. & svcs.
40 Open & cased hole logging
41 Other Wireline svcs.
42 Production logging
43 Hydrotest, torque, tong svcs. thread washing
44 Trucking, hauling, cranes & shots
45 Vacuum trucking, disposal charges
46 Tank rental, misc. rentals
47 Site preparation
60 Miscellaneous

Date: 2/3/89 Field: ALISO CANYON Well: SS 30

Rig: M-72 Tool Pusher: [signature] (signature) Company Representative: (signature)

## TOUR CHECKS

Morning Volume to Fill Hole (bbls) 0 Formation Pressure (psig) 1600 Were any DOG inspections required? YES X NO

Accumulator Pressure (psig) 3100 Mud gradient (psi/ft)=[(#/ft$^3$)/144] .4375 If "Yes", reason(s) for inspection(s)

Emergency Supply Pressure (psig) 2000 TVD of zone (ft) 7563 Inspector's Name:

Manifold Pressure (psig) 1800 Hydrostatic Pressure (psig) 3308 Was the inspection waived? YES NO If n

Annular Preventer Pressure (psig) 1100 did the inspector sign tour sheet? YES NO

Accumulator Fluid Level (ft/in) 2/2 Overbalance (psig) 1708

Check of remote visual indicator(s) ✓ ( ✓ = OK, X = problem)

## TRIP CHECKS

| No. Stands Pulled | Trip No. | Vol. to Fill Hole (bbls) | No. Stands Run | Trip No. | Time for Hole to Stabilize (secs) |
|---|---|---|---|---|---|
| | | | 10 | 1 | 0 |
| | | | 10 | 1 | 0 |
| | | | 10 | 1 | 0 |
| | | | 10 | 1 | 0 |
| | | | 10 | 1 | 0 |
| | | | 10 | 1 | 0 |
| | | | 10 | 1 | 0 |
| | | | 10 | 1 | 0 |
| | | | 5 | 1 | 0 |
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## MUD PROPERTIES

Mud Type KCL

Funnel Viscosity sec.

Water Loss cc

Density #/cu.ft.

Yield Pt. #/100 sq.ft.

pH

Solids %

Suspended Solids %

Comments: CHANGEOVER FROM POLYMER TO KCL

Were the following actuated during the trip?

Pipe Rams -- Yes ✓ No / Annular Preventer -- Yes ✓ No / Kelly Cocks -- Yes No ✓

Blind Rams -- Yes No ✓ / Adjustable Choke -- Yes ✓ No / Safety Ball Valve -- Yes ✓ No

Are low rate circulating pressure (LRCP) and pump strokes recorded on tour sheet? YES

REW
11-21-86

Date: 2/2/89 Field: ALISO CANYON Well: STANDARD SESNON # 30

Rig: M-72 Tool Pusher: _____ (signature) Company Representative: J Dawards (signature)

## TOUR CHECKS

Morning Volume to Fill Hole (bbls) 46 Formation Pressure (psig) 1600 Were any DOG inspections required? YES___ NO✓

Accumulator Pressure (psig) 3000 Mud gradient (psi/ft)=[(#/ft$^3$)/144] .4375 If "Yes", reason(s) for inspection(s) _____

Emergency Supply Pressure (psig) 2200 TVD of zone (ft) 7563 Inspector's Name: _____

Manifold Pressure (psig) 1600 Hydrostatic Pressure (psig) 3308 Was the inspection waived? YES___ NO___ If n

Annular Preventer Pressure (psig) 1200 did the inspector sign tour sheet? YES___ NO

Accumulator Fluid Level (ft/in) 2/3 Overbalance (psig) 1708

Check of remote visual indicator(s) ✓ ( ✓ = OK, X = problem)

## TRIP CHECKS

| No.Stands Pulled | Trip No. | Vol. to Fill Hole (bbls) | No.Stands Run | Trip No. | Time for Hole to Stabilize (secs) |
|---|---|---|---|---|---|
| 10 | 1 | 1.0 | 10 | 2 | 0 |
| 10 | 1 | 1.0 | 10 | 2 | 0 |
| 10 | 1 | 1.0 | 10 | 2 | 0 |
| 10 | 1 | 1.0 | 10 | 2 | 0 |
| 10 | 1 | 1.0 | 10 | 2 | 0 |
| 10 | 1 | 1.0 | 5 | 2 | 0 |
| 10 | 1 | 1.0 | | | |
| 10 | 1 | 1.0 | | | |
| 10 | 1 | 1.0 | | | |
| 10 | 1 | 1.0 | | | |
| 10 | 1 | 1.0 | | | |
| 10 | 1 | 1.0 | | | |
| 10 | 1 | 1.0 | | | |
| 10 | 1 | 1.0 | | | |
| 1 | 1 | .1 | | | |

## MUD PROPERTIES

Mud Type POLYMER

Funnel Viscosity 47 sec.

Water Loss _____ cc

Density 63 #/cu.ft.

Yield Pt. _____ #/100 sq.ft.

pH _____

Solids _____ %

Suspended Solids _____ %

Comments: _____

Were the following actuated during the trip?

Pipe Rams -- Yes ✓ No ___ / Annular Preventer -- Yes ✓ No ___ / Kelly Cocks -- Yes ___ No ✓

Blind Rams -- Yes ✓ No ___ / Adjustable Choke -- Yes ✓ No ___ / Safety Ball Valve -- Yes ✓ No ___

Are low rate circulating pressure (LRCP) and pump strokes recorded on tour sheet? YES

REW
11-21-86

Date: 2/1/89 Field: Aliso Well: SS-#30

Rig: M-72 Tool Pusher: Dave (signature) Company Representative: J. D. Woods (signature)

## TOUR CHECKS

Morning Volume to Fill Hole (bbls) 59 Formation Pressure (psig) 1600 Were any DOG inspections required? YES___ NO___

Accumulator Pressure (psig) 2950 Mud gradient (psi/ft)=[(#/ft$^3$)/144] .435 If "Yes", reason(s) for inspection(s)_____

Emergency Supply Pressure (psig) 1950 TVD of zone (ft) 8854 Inspector's Name:_____

Manifold Pressure (psig) 1600 Hydrostatic Pressure (psig) 3888 Was the inspection waived? YES___ NO___ If n

Annular Preventer Pressure (psig) 1000 did the inspector sign tour sheet? YES___ NO

Accumulator Fluid Level (ft/in) 2' 1/4" Overbalance (psig) 2288

Check of remote visual indicator(s)_____ ( ✓ = OK, X = problem)

## TRIP CHECKS

| No. Stands Pulled | Trip No. | Vol. to Fill Hole (bbls) | No. Stands Run | Trip No. | Time for Hole to Stabilize (secs) |
|---|---|---|---|---|---|
| | | | 10 | 1 | 0 |
| | | | 10 | 1 | 0 |
| | | | 10 | 1 | 0 |
| Pulled | 3049' | & laid | 10 | 1 | 0 |
| down | bad | joints | 10 | 1 | 0 |
| | | | 10 | 1 | 0 |
| | | | 10 | 1 | 0 |
| | | | 10 | 1 | 0 |
| | | | 10 | 1 | 0 |
| | | | 10 | 1 | 0 |
| | | | 10 | 1 | 0 |
| | | | 10 | 1 | 0 |
| | | | 10 | 1 | 0 |
| | | | 10 | 1 | 0 |
| | | | 10 | 1 | 0 |
| | | | 10 | 1 | 0 |

## MUD PROPERTIES

Mud Type Poly

Funnel Viscosity 50 sec.

Water Loss_____ cc

Density 6.3 #/cu.ft.

Yield Pt._____ #/100 sq.ft.

pH_____

Solids_____ %

Suspended Solids_____ %

Comments:_____

Were the following actuated during the trip?

Pipe Rams -- Yes ✓ No___ / Annular Preventer -- Yes ✓ No___ / Kelly Cocks -- Yes___ No ✓

Blind Rams -- Yes ✓ No___ / Adjustable Choke -- Yes ✓ No___ / Safety Ball Valve -- Yes ✓ No___

Are low rate circulating pressure (LRCP) and pump strokes recorded on tour sheet? yes

REW
11-21-86

AC_CPUC_0117991

Date: 1/31/89 Field: Aliso Well: S-S-#30

Rig: M-72 Tool Pusher: Dayton (signature) Company Representative: J.D. Woods (signature)

## TOUR CHECKS

Morning Volume to Fill Hole (bbls) 0 Formation Pressure (psig) 1600 Were any DOG inspections required? YES___ NO

Accumulator Pressure (psig) 3000 Mud gradient (psi/ft)=[(#/ft$^3$)/144] .4375 If "Yes", reason(s) for inspection(s)

Emergency Supply Pressure (psig) 1950 TVD of zone (ft) 8884 Inspector's Name:

Manifold Pressure (psig) 1300 Hydrostatic Pressure (psig) 3888 Was the inspection waived? YES ✓ NO___ If n

Annular Preventer Pressure (psig) 1100 did the inspector sign tour sheet? YES___ NO

Accumulator Fluid Level (ft/in) 2'10 Overbalance (psig) 2288

Check of remote visual indicator(s) ✓ ( ✓ = OK, X = problem)

## TRIP CHECKS

| No. Stands Pulled | Trip No. | Vol. to Fill Hole (bbls) | No. Stands Run | Trip No. | Time for Hole to Stabilize (secs) |
|---|---|---|---|---|---|
| 10 | 1 | 1.4 | | | |
| 10 | 1 | 1.4 | | | |
| 10 | 1 | 1.4 | | | |
| 10 | 1 | 1.4 | | | |
| 10 | 1 | 1.4 | | | |
| 10 | 1 | 1.4 | | | |
| 10 | 1 | 1.4 | | | |
| 10 | 1 | 1.4 | | | |
| 8 | 1 | 1.1 | | | |

## MUD PROPERTIES

Mud Type PHP

Funnel Viscosity 45 sec.

Water Loss cc

Density 63 #/cu.ft.

Yield Pt. #/100 sq.ft.

pH

Solids %

Suspended Solids %

Comments:

Were the following actuated during the trip?

Pipe Rams -- Yes ✓ No___ / Annular Preventer -- Yes ✓ No___ / Kelly Cocks -- Yes___ No ✓ No Kelly Used

Blind Rams -- Yes___ No ✓ / Adjustable Choke -- Yes ✓ No___ / Safety Ball Valve -- Yes ✓ No___

Are low rate circulating pressure (LRCP) and pump strokes recorded on tour sheet? YES

REW
11-21-86

AC_CPUC_0117992

No. 153716

# DAILY DRILLING REPORT — REPORT NO. 7

| LEASE | WELL NO. | API WELL NUMBER | DATE |
|---|---|---|---|
| ALISO CANYON | SS#30 | 7-7350 | 2-3-89 |

| OPERATOR | CONTRACTOR | RIG NO. |
|---|---|---|
| SOUTHERN CALIF GAS CO. | CALIF PROD SERVICE | M-72 |

SIGNATURE OF OPERATOR'S REPRESENTATIVE: J.D. Wanke

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: L Dayton

| D.P. SIZE | WT./FT. | GRADE | TOOL JT O.D. | TYPE THREAD | STRING NO. |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |

| PUMP NO. | PUMP MANUFACTURER | TYPE | STROKE LENGTH |
|---|---|---|---|
| 41 | O.P.I | 500 AWS | 4"X6" |

FIELD OR DIST.: ALISO CANYON — COUNTY: L.A. — STATE: CALIF

| LAST CASING TUBING OR LINER | SIZE | MAKE | WT. & GR. | NO. JOINTS | FEET | RKB. TO CSG. HD. | SET AT |
|---|---|---|---|---|---|---|---|
| | 11 3/4" | | 42 47# | | | | 2500' |
| | 7" | | 23 26 29# | | PERFS 8884' TO 9240' | | 9240' |
| | | | | | BAKER model "D" PKR AT 8840' | | |

WIRE LINE RECORD — REEL NO.

| SIZE | NO. LINES | FT. SLIPPED |
|---|---|---|
| 1" | 8 | |

FT. CUT OFF: — PRESENT LENGTH:

TON MI. OR TRIPS SINCE LAST CUT:

CUMULATIVE TON MI. OR TRIPS:

## TIME DISTRIBUTION – HOURS

| CODE NO. | OPERATION | MORN. | DAY | EVE. |
|---|---|---|---|---|
| 1. | RIG UP AND TEAR DOWN | | | |
| 2. | DRILL ACTUAL | | | |
| 3. | REAMING | | | |
| 4. | CORING | | | |
| 5. | CONDITION MUD & CIRCULATE | | 2 | |
| 6. | TRIPS | | 4½ | |
| 7. | LUBRICATE RIG | | | |
| 8. | REPAIR RIG | | | |
| 9. | CUT OFF DRILLING LINE | | | |
| 10. | DEVIATION SURVEY | | | |
| 11. | WIRE LINE LOGS | | | |
| 12. | RUN CASING & CEMENT | | | |
| 13. | WAIT ON CEMENT | | | |
| 14. | NIPPLE UP B.O.P. | | 2½ | |
| 15. | TEST B.O.P. | | | |
| 16. | DRILL STEM TEST | | | |
| 17. | PLUG BACK | | | |
| 18. | SQUEEZE CEMENT | | | |
| 19. | FISHING | | | |
| 20. | DIR. WORK | | | |
| 21. | OTHER Ready Rig | | 1 | |
| 22. | | | 2 | |
| 23. | | | | |
| COMPLETION | A. PERF'R'T'N | | | |
| | B. TBG TRIPS | | | |
| | C. TREATING | | | |
| | D. SWABBING | | | |
| | E. TESTING | | 1 | |
| | F. ADDIT'N'L | | | |
| | G. | | | |
| TOTALS | | | 13 | |

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

| | | | |
|---|---|---|---|
| HRS. W/CONTR. D.P. | | | |
| HRS. W/OPR. D.P. | | | |
| HRS. WO/D.P. | | | |
| HRS. STANDBY | | | |
| TOTAL DAY WORK | | | |

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

TOTAL MUD COST

## DRILLING ASSEMBLY (At end of tour)

| NO. | | FT. |
|---|---|---|
| | BIT | FT. |
| | STB RMR OD | FT. |
| | D.C. ID OD | FT. |
| | STB RMR OD | FT. |
| | D.C. ID OD | FT. |
| | STB RMR OD | FT. |
| | STANDS DP | FT. |
| | SINGLES DP | FT. |
| | KELLY DOWN | FT. |
| | TOTAL | FT. |
| | WT. OF STRING | LBS. |

## BIT RECORD

BIT NO. / SIZE / IADC CODE / MFG. / TYPE / SER. NO. / JETS 1/32" / TFA in² / DEPTH OUT / DEPTH IN / TOTAL FTG. / TOTAL HRS.

DULL: CUT. STRUC. I O D L B G O R

GPM/PUMP-PSI

## MUD RECORD

TIME / WEIGHT / PRESSURE GRADIENT / VISC.-SEC. / PV/YP / GELS. / WL -CC'S. / pH / SOLIDS %

MUD & CHEMICALS ADDED: TYPE / AMT. / TYPE / AMT.

MORNING TOUR / DAY TOUR / EVENING TOUR

## FOOTAGE / FORMATION (SHOW CORE RECORD)

| FROM | TO | DR..D RM..R CORE..C | CORE NO. | FORMATION (SHOW CORE RECORD) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL. PARAL-P COMPL'D C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

DEVIATION RECORD: DEPTH / DEV. / DIRECTION (×3)

## MORNING TOUR

| TIME LOG FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| | | | | CUMULATIVE FLUID LOSS IN WELL = 287 BBLS |
| | | | | STORAGE TANKS VOLUME #1 = 21 BBLS KCL WATER |
| | | | | #2 = 334 BBLS POLYMER |
| | | | | CIRC PIT VOLUME = 12 BBLS |
| | | | | TOTAL SURFACE VOLUME = 367 BBLS |
| | | | | KILL SPEED 3 Bpm 115 spm 250 pSI Depth 8764' |

DRILLER

## DAY TOUR

| TIME LOG FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 600 | 700 | 1 | 6 | BLED WELL @ 75I OPEN WELL INSTALL TEST TOOLS IN Tbg & TEST TO 4000PSI SER. EQUIPMENT |
| 700 | 800 | 1 | 6 | RIW HYDROTEST 2⅞" Tbg 4000 PSI |
| 800 | 900 | 1 | 6 | RIW HYDROTEST 2⅞ Tbg 4000 PSI |
| 900 | 1000 | 1 | 6 | RIW HYDROTEST 2⅞" Tbg 4000 PSI TEST PUPS & DOUGHNUT |
| 1000 | 1100 | ½-½ | 6 | RIG DOWN HYDROTEST RIG UP TO CHANGE WELL OVER TO K.C.L |
| 1100 | 1200 | 1 | 5 | CHANGE WELL OVER TO 2% K.C.L WATER. |
| 1200 | 100 | ½ ½ | 5 21 | CHANGE WELL OVER TO 2% KCL WATER. LATCH ON PKR pull 18,000# OVER. LAND ON DOUGHNUT |
| 100 | 200 | ½ ½ | 21 14 | SCREW IN DOUGHNUT SCREW INSTALL B.P NIPPLE DOWN B.O.P |

DRILLER W. Jones

## EVENING TOUR

Release Rig 5:PM. 2-3-89

| TIME LOG FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 200 | 300 | 1 | 14 | NIPPLE DOWN BOPE SET OUT |
| 300 | 400 | 1 | 14 | INSTALL XMAS TREE & FLANGE UP |
| 400 | 500 | 1 | E | TEST XMAS TREE TO 3000 PSI REMOVE B.P SHUT WELL IN |
| 500 | 600 | 1 | 22 | READY RIG FOR MOVE |
| 600 | 700 | 1 | 22 | READY RIG FOR MOVE |

DRILLER W. Jones

## DRILLING CREW PAYROLL DATA

DATE 2-3-89

WELL NAME & NO. STANDARD SESNON #30 7-7350

COMPANY SOUTHERN CALIF GAS CO.

TOOL PUSHER Dayton RIG NO. M-72

### MORNING TOUR — P.M. — A.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | | | | |
| DRKMAN | | | | |
| MTRMAN | | | | |
| FIREMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | " " NOTE LAND ON DOUGHNUT with 8,000# ON PACKER | | |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

### DAY TOUR 6:00 A.M. 7:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | 013 31 | W. JONES | 13 | 2 |
| DRKMAN | 025 56 | T. BLEDSOE | 13 | 3 |
| MTRMAN | 023 60 | W. KENNEDY | 13 | 7 |
| FIREMAN | 026 18 | J. OLIVARES | 13 | 7 |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | Rig & CREW | 11 | |
| TRAINEE | | LABOR ONLY | 2 | |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

### EVENING TOUR — P.M. — P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | | | | |
| DRKMAN | | | | |
| MTRMAN | | | | |
| FIREMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |

6AM – 5PM Rig & Crew 11 HRS

5PM – 7PM Crew Only 2 HRS

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

FORM 3T-5 PRINTED IN U.S.A. APPROVED APPROVED

**IADC – API OFFICIAL DAILY DRILLING REPORT FORM**

APPROVED APPROVED No. 153716

AC_CPUC_0117993

No. 153715

# DAILY DRILLING REPORT — REPORT NO. 6

| LEASE | WELL NO. | API WELL NUMBER | DATE |
|---|---|---|---|
| ALISO CANYON | S.S #30 | 7-7350 | 2-2-89 |

| OPERATOR | CONTRACTOR | RIG NO. |
|---|---|---|
| SOUTHERN CALIF GAS CO. | CALIF PROD SERVICE | M-72 |

SIGNATURE OF OPERATOR'S REPRESENTATIVE: J.D Woods

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: L Dayton

| D.P. SIZE | WT./FT. | GRADE | TOOL JT O.D. | TYPE THREAD | STRING NO. |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |

| PUMP NO. | PUMP MANUFACTURER | TYPE | STROKE LENGTH |
|---|---|---|---|
| 41 | O.P.I | 500 AWS | 4"x6" |

| FIELD OR DIST. | COUNTY | STATE |
|---|---|---|
| ALISO | L.A | CALIF |

LAST CASING TUBING OR LINER

| SIZE | MAKE | WT. & GR. | NO. JOINTS | FEET | RKB. TO CSG. HD. | SET AT |
|---|---|---|---|---|---|---|
| 11 3/4" | | 42# 47# | | | | 2500' |
| 7" | | 23 26 29# | Perf's | 8884' to 9240' | | 9240' |
| | BAKER PACKER Model "D" @ 8840' | | | | | |

WIRE LINE RECORD — REEL NO.

SIZE 1" | NO. LINES 8 | FT. SLIPPED

FT. CUT OFF | PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

## TIME DISTRIBUTION — HOURS

| CODE NO. | OPERATION | MORN. | DAY | EVE. |
|---|---|---|---|---|
| 1. | RIG UP AND TEAR DOWN | | | |
| 2. | DRILL ACTUAL | | | |
| 3. | REAMING | | | |
| 4. | CORING | | | |
| 5. | CONDITION MUD & CIRCULATE | | | |
| 6. | TRIPS | | 11½ | |
| 7. | LUBRICATE RIG | | | |
| 8. | REPAIR RIG | | | |
| 9. | CUT OFF DRILLING LINE | | | |
| 10. | DEVIATION SURVEY | | | |
| 11. | WIRE LINE LOGS | | | |
| 12. | RUN CASING & CEMENT | | | |
| 13. | WAIT ON CEMENT | | | |
| 14. | NIPPLE UP B.O.P. | | | |
| 15. | TEST B.O.P. | | | |
| 16. | DRILL STEM TEST | | | |
| 17. | PLUG BACK | | | |
| 18. | SQUEEZE CEMENT | | | |
| 19. | FISHING | | | |
| 20. | DIR. WORK | | | |
| 21. | | | | |
| 22. | | | | |
| 23. | | | | |
| COMPLETION | A. PERF'R'T'N | | | |
| | B. TBG TRIPS | | | |
| | C. TREATING | | | |
| | D. SWABBING | | | |
| | E. TESTING | | | 1/2 |
| | F. ADDIT'N'L | | | |
| | G. | | | |
| TOTALS | | | | 12 |

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

| | |
|---|---|
| HRS. W/CONTR. D.P. | |
| HRS. W/OPR. D.P. | |
| HRS. WO/D.P. | |
| HRS. STANDBY | |
| TOTAL DAY WORK | |
| NO. OF DAYS FROM SPUD | |
| CUMULATIVE ROTATING HRS. | |
| TOTAL MUD COST | |

## DRILLING ASSEMBLY (At end of tour) — DAY TOUR

| NO. | | FT. |
|---|---|---|
| | BIT | |
| | STB RMR OD | |
| | D.C. ID OD | |
| | STB RMR OD | |
| | D.C. ID OD | |
| | STB RMR OD | |
| | STANDS DP | |
| | SINGLES DP | |
| | KELLY DOWN | |
| | TOTAL | |
| | WT. OF STRING | LBS. |

## BIT RECORD — DAY TOUR

BIT NO. | SIZE | IADC CODE | MFG. | TYPE | SER. NO. | JETS 1/32" /TFA in² | DEPTH OUT | DEPTH IN | TOTAL FTG. | TOTAL HRS.

DULL: CUT. STRUC. I O D L; B G O R

GPM/PUMP-PSI

## MUD RECORD — DAY TOUR

TIME | WEIGHT | PRESSURE GRADIENT | VISC.-SEC. | PV/YP | GELS. | WL -CC'S. | pH | SOLIDS %

MUD & CHEMICALS ADDED: TYPE | AMT. | TYPE | AMT.

MORNING TOUR

## FOOTAGE — DAY TOUR

| FROM | TO | DR.-D RM.-R CORE.-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.-S PARL.-P COMP.-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |

DEVIATION RECORD: DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

## TIME LOG — DAY TOUR

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| | | | | CUMULATIVE FLUID LOSS IN WELL = 287 BBLS |
| | | | | STORAGE TANKS VOLUME #1 = 0 BBLS |
| | | | | #2 = 264 BBLS K.C.L |
| | | | | CIRC PIT VOLUME = 18 BBLS |
| | | | | TOTAL SURFACE VOLUME = 282 BBLS |
| | | | | KILL SPEED 3BBLS PER MIN 250 PSI DEPTH 8764' |

DRILLER

## DRILLING ASSEMBLY (At end of tour) — DAY TOUR

| NO. | | FT. |
|---|---|---|
| | BIT | |
| | STB RMR OD | |
| | D.C. ID OD | |
| | STB RMR OD | |
| | D.C. ID OD | |
| | STB RMR OD | |
| | STANDS DP | |
| | SINGLES DP | |
| | KELLY DOWN | |
| | TOTAL | |
| | WT. OF STRING | LBS. |

## BIT RECORD — DAY TOUR

BIT NO. | SIZE | IADC CODE | MFG. | TYPE | SER. NO. | JETS 1/32" /TFA in² | DEPTH OUT | DEPTH IN | TOTAL FTG. | TOTAL HRS.

DULL: CUT. STRUC. I O D L; B G O R

GPM/PUMP-PSI

## MUD RECORD — DAY TOUR

TIME | WEIGHT | PRESSURE GRADIENT | VISC.-SEC. | PV/YP | GELS. | WL -CC'S. | pH | SOLIDS %

MUD & CHEMICALS ADDED: TYPE | AMT. | TYPE | AMT.

DAY TOUR

## FOOTAGE — DAY TOUR

| FROM | TO | DR.-D RM.-R CORE.-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.-S PARL.-P COMP.-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |

DEVIATION RECORD: DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

## TIME LOG — DAY TOUR

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 600 | 700 | 1 | 6 | BLED WELL @ PSI OPEN WELL FILL HOLE TOOK 44 BBLS HAUL IN 2⅞ Tbg |
| 700 | 800 | 1 | 6 | HAUL IN 2⅞" Tbg & PICK UP |
| 800 | 900 | 1 | 6 | PICK UP 2⅞" Tbg LATCH ON PKR Pull 20,000# OVER 20 MIN |
| 900 | 1000 | ½-½ | E/6 | TEST PKR & CSG to 1500 PSI using HydroTest CHART RELEASE S/PKR |
| 1000 | 1100 | 1 | 6 | POW MEASURE OUT |
| 1100 | 1200 | 1 | 6 | POW MEASURE OUT |
| 1200 | 100 | 1 | 6 | POW MEASURE OUT |
| 100 | 200 | 1 | 6 | POW MEASURE OUT |

DRILLER W. Jones

## DRILLING ASSEMBLY (At end of tour) — EVENING TOUR

| NO. | | FT. |
|---|---|---|
| | BIT | |
| | STB RMR OD | |
| | D.C. ID OD | |
| | STB RMR OD | |
| | D.C. ID OD | |
| | STB RMR OD | |
| 55 | STANDS DP Tbg | 3504' FT. |
| | SINGLES DP | FT. |
| | KELLY DOWN | FT. |
| | TOTAL | FT. |
| | WT. OF STRING | LBS. |

## BIT RECORD — EVENING TOUR

BIT NO. | SIZE | IADC CODE | MFG. | TYPE | SER. NO. | JETS 1/32" /TFA in² | DEPTH OUT | DEPTH IN | TOTAL FTG. | TOTAL HRS.

DULL: CUT. STRUC. I O D L; B G O R

GPM/PUMP-PSI

## MUD RECORD — EVENING TOUR

TIME | WEIGHT | PRESSURE GRADIENT | VISC.-SEC. | PV/YP | GELS. | WL -CC'S. | pH | SOLIDS %

MUD & CHEMICALS ADDED: TYPE | AMT. | TYPE | AMT.

EVENING TOUR

## FOOTAGE — EVENING TOUR

| FROM | TO | DR.-D RM.-R CORE.-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.-S PARL.-P COMP.-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |

DEVIATION RECORD: DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

## TIME LOG — EVENING TOUR

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 200 | 300 | 1 | 6 | POW MEASURE OUT BREAK off HATCH 2 SEALS |
| 300 | 400 | 1 | 6 | made up Prod EQUIPMENT & TEST 4000 PSI RIW TEST 2⅞ Tbg |
| 400 | 500 | 1 | 6 | RIW HydroTest 2⅞ Tbg 4000 PSI |
| 500 | 600 | 1 | 6 | RIW HydroTest 2⅞ Tbg 4000 PSI Rig Down Hydrotest tools Shut in well with PIPE RAMS Hydril Ball VALVE |

DRILLER W. Jones

## DRILLING CREW PAYROLL DATA

DATE 2-2-89

WELL NAME & NO. STANDARD SESNON #30 7-7350

COMPANY SOUTHERN CALIF GAS CO

TOOL PUSHER Dayton RIG NO. M-72

MORNING TOUR ____ P.M. ____ A.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | Held 30 min. Safety Meeting | | | |
| DRKMAN | with Crew | | | |
| MTRMAN | C.P.S. Safety Director | | | |
| FIREMAN | Wayne Dean | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

DAY TOUR 6:00 A.M. 6:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | 013 31 | W. JONES | 12 | 2 |
| DRKMAN | 025 56 | T. BLEDSOE | 12 | 3 |
| MTRMAN | 015 88 | H.W JONES | 12 | 7 |
| FIREMAN | 025 18 | J. OLIVARES | 12 | 7 |
| FLRMAN | | | | |
| FLRMAN | | Rig & CREW | 12 | |
| FLRMAN | | NO ACC | | |
| TRAINEE | | | | |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR ____ P.M. ____ P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | | | | |
| DRKMAN | | | | |
| MTRMAN | | | | |
| FIREMAN | | | | |
| FLRMAN | | Rig & Crew 12 hrs | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT



AC_CPUC_0117994

No. 153714

# DAILY DRILLING REPORT — REPORT NO. 5

| LEASE | WELL NO. | API WELL NUMBER | DATE |
|---|---|---|---|
| Aliso Canyon | S.S. 30# | 7-7350 | 2-1-89 |

| OPERATOR | CONTRACTOR | RIG NO. |
|---|---|---|
| Southern Calif Gas Co | Calif Prod Service | M-72# |

SIGNATURE OF OPERATOR'S REPRESENTATIVE: J.D. Woods

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: J Dayton

| D.P. SIZE | WT./FT. | GRADE | TOOL JT O.D. | TYPE THREAD | STRING NO. |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |

| PUMP NO. | PUMP MANUFACTURER | TYPE | STROKE LENGTH |
|---|---|---|---|
| 41 | O.P.I | 500 AWS | 4x6" |

FIELD OR DIST. Aliso | COUNTY L.A | STATE Calif

LAST CASING TUBING OR LINER

| SIZE | MAKE | WT. & GR. | NO. JOINTS | FEET | RKB. TO CSG. HD. | SET AT |
|---|---|---|---|---|---|---|
| 11 3/4 | | 42 47 | | | | 2500 |
| 7" | | 23 26 29 | Perfs | 8884' TO 9240' | | 9240' |
| Baker Packer Model "D" @ 8840' | | | | | | |

WIRE LINE RECORD — REEL NO.

| SIZE | NO. LINES | FT. SLIPPED |
|---|---|---|
| 1" | 8 | |

FT. CUT OFF | PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

## TIME DISTRIBUTION — HOURS

| CODE NO. — OPERATION | MORN. | DAY | EVE. |
|---|---|---|---|
| 1. RIG UP AND TEAR DOWN | | | |
| 2. DRILL ACTUAL | | | |
| 3. REAMING | | | |
| 4. CORING | | | |
| 5. CONDITION MUD & CIRCULATE | | 1 | |
| 6. TRIPS | | 10 | |
| 7. LUBRICATE RIG | | | |
| 8. REPAIR RIG | | | |
| 9. CUT OFF DRILLING LINE | | | |
| 10. DEVIATION SURVEY | | | |
| 11. WIRE LINE LOGS | | | |
| 12. RUN CASING & CEMENT | | | |
| 13. WAIT ON CEMENT | | | |
| 14. NIPPLE UP B.O.P. | | | |
| 15. TEST B.O.P. | | | |
| 16. DRILL STEM TEST | | | |
| 17. PLUG BACK | | | |
| 18. SQUEEZE CEMENT | | | |
| 19. FISHING | | | |
| 20. DIR. WORK | | | |
| 21. OTHER | | 1 | |
| 22. | | | |
| 23. | | | |
| COMPLETION A. PERF'R'T'N | | | |
| B. TBG TRIPS | | | |
| C. TREATING | | | |
| D. SWABBING | | | |
| E. TESTING | | | |
| F. ADDIT'N'L | | | |
| G. | | | |
| TOTALS | | 12 | |

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

| | | | |
|---|---|---|---|
| HRS. W/CONTR. D.P. | | | |
| HRS. W/OPR. D.P. | | | |
| HRS. WO/D.P. | | | |
| HRS. STANDBY | | | |
| TOTAL DAY WORK | | | |

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

TOTAL MUD COST

## DRILLING ASSEMBLY (At end of tour)

| NO. | | |
|---|---|---|
| | BIT | FT. |
| | STB RMR OD | FT. |
| | D.C. ID OD | FT. |
| | STB RMR OD | FT. |
| | D.C. ID OD | FT. |
| | STB RMR OD | FT. |
| | STANDS DP | FT. |
| | SINGLES DP | FT. |
| | KELLY DOWN | FT. |
| | TOTAL | FT. |
| | WT. OF STRING | LBS. |

## BIT RECORD

| | |
|---|---|
| BIT NO. | |
| SIZE | |
| IADC CODE | |
| MFG. | |
| TYPE | |
| SER. NO. | |
| JETS 1/32" /TFA in² | |
| DEPTH OUT | |
| DEPTH IN | |
| TOTAL FTG. | |
| TOTAL HRS. | |
| DULL CUT. STRUC. I O D L B G O R | |
| GPM/PUMP-PSI | |

## MUD RECORD

| | | | |
|---|---|---|---|
| TIME | | | |
| WEIGHT | | | |
| PRESSURE GRADIENT | | | |
| VISC.-SEC. | | | |
| PV/YP | / | / | / |
| GELS. | / | / | / |
| WL -CC'S. | | | |
| pH | | | |
| SOLIDS % | | | |

MUD & CHEMICALS ADDED

| TYPE | AMT. | TYPE | AMT. |
|---|---|---|---|
| | | | |

MORNING TOUR

## FOOTAGE / FORMATION

| FROM | TO | DR.-D RM.-R CORE.-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.-S PAR.EL.-P COMP.-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

TIME LOG

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS | | |
|---|---|---|---|---|---|---|
| | | | | Cumulative Fluid lost in well | 241 | bbls |
| | | | | Storage Tanks Vol No# 1 | 0 | bbls |
| | | | | No# 2 | 264 | bbls |
| | | | | Circ Pit Vol | 64 | bbls |
| | | | | Total Surface Vol | 328 | bbls |
| | | | | Kill Speed @ 36bbl P.M. @ 115 SPM @ 250 P.S.I. @ 8764' | | |

DRILLER H.K. Jones

## DRILLING ASSEMBLY (At end of tour)

| NO. | | |
|---|---|---|
| | BIT | FT. |
| | STB RMR OD | FT. |
| | D.C. ID OD | FT. |
| | STB RMR OD | FT. |
| | D.C. ID OD | FT. |
| | STB RMR OD | FT. |
| | STANDS DP | FT. |
| | SINGLES DP | FT. |
| | KELLY DOWN | FT. |
| | TOTAL | FT. |
| | WT. OF STRING | LBS. |

## BIT RECORD

| | |
|---|---|
| BIT NO. | |
| SIZE | |
| IADC CODE | |
| MFG. | |
| TYPE | |
| SER. NO. | |
| JETS 1/32" /TFA in² | |
| DEPTH OUT | |
| DEPTH IN | |
| TOTAL FTG. | |
| TOTAL HRS. | |
| DULL CUT. STRUC. I O D L B G O R | |
| GPM/PUMP-PSI | |

## MUD RECORD

| | | | |
|---|---|---|---|
| TIME | | | |
| WEIGHT | | | |
| PRESSURE GRADIENT | | | |
| VISC.-SEC. | | | |
| PV/YP | / | / | / |
| GELS. | / | / | / |
| WL -CC'S. | | | |
| pH | | | |
| SOLIDS % | | | |

MUD & CHEMICALS ADDED

| TYPE | AMT. | TYPE | AMT. |
|---|---|---|---|
| | | | |

DAY TOUR

## FOOTAGE / FORMATION

| FROM | TO | DR.-D RM.-R CORE.-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.-S PAR.EL.-P COMP.-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

TIME LOG

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 6:00 | 7:00 | 1 | 5 | Service Equipment OPEN Well @ P.S.I. & Filled Tank 596bbls & Mixed 876bbls Poly |
| 7:00 | 8:00 | 1 | 6 | P.O.W |
| 8:00 | 9:00 | 1 | 6 | P.O.W & Layed down Prod |
| 9:00 | 10:00 | 1 | 21 | Load out Prod Equipment |
| 10:00 | 11:00 | 1 | 6 | Rig up Hydo Test & Made up Test Seals & No/Go & Testing Hole |
| 11:00 | 12:00 | 1 | 6 | Test in Hole @ 5000 P.S.I. |
| 12:00 | 1:00 | 1 | 6 | R.I.W Testing |
| 1:00 | 2:00 | 1 | 6 | " " " |

DRILLER H.K. Jones

EVENING TOUR

## FOOTAGE / FORMATION

| FROM | TO | DR.-D RM.-R CORE.-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.-S PAR.EL.-P COMP.-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (NOTE Layed down) 56 JTS Bad TBG | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

TIME LOG

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 2:00 | 3:00 | 1 | 6 | Testing TBG @ 5,000 P.S.I. |
| 3:00 | 4:00 | 1 | 6 | " " " & Layed down Hydo Test Tools |
| 4:00 | 5:00 | 1 | 6 | Layed down 56 JTS Bad TBG & Picked up 27 JTS New TBG |
| 5:00 | 6:00 | 1 | 6 | Load out Bad TBG & Moved Well in w/ Pipe Rams & Rig & Ball Valve |
| 6:00 | 7:00 | | | |

DRILLER H.K. Jones

## DRILLING CREW PAYROLL DATA

7-7350

DATE 2-1-89

WELL NAME & NO. Standard Sesnon# 30

COMPANY Southern Calif Gas Co

TOOL PUSHER Dayton RIG NO. M-72#

MORNING TOUR ____ P.M. ____ A.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | | | | |
| DRKMAN | | | | |
| MTRMAN | | | | |
| FIREMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

DAY TOUR 6:00 A.M. 6:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | CONFIDENTIAL | H.K. Jones | 12 | 2 |
| DRKMAN | | W. Kennedy | 12 | 3 |
| MTRMAN | | H.W. Jones | 12 | 7 |
| FIREMAN | | S. Guerrero | 12 | 7 |
| FLRMAN | | D To lay down Bad TBG | | |
| FLRMAN | | T. Bledsoe | 12 | 7 |
| FLRMAN | | J. Olivares | 12 | 7 |
| TRAINEE | | NO ADC | | |
| | | Rig Crew | 12 | |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR ____ P.M. ____ P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | | | | |
| DRKMAN | | | | |
| MTRMAN | | | | |
| FIREMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |

Rig + 4 man crew 12 hrs 1 man for 12 hrs 2 Extra men for 12 hrs to help lay down bad tubing

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

FORM 3T-5 PRINTED IN U.S.A. APPROVED APPROVED

**IADC – API OFFICIAL DAILY DRILLING REPORT FORM**

APPROVED APPROVED No. 153714

AC_CPUC_0117995

No. 153713

# DAILY DRILLING REPORT — REPORT NO. 4

| LEASE | WELL NO. | API WELL NUMBER | DATE |
|---|---|---|---|
| Aliso Canyon | S.S. #30 | 7-7350 | 1-31-89 |

| OPERATOR | CONTRACTOR | RIG NO. |
|---|---|---|
| Southern Calif Gas Co | Calif Prod Service | M-#72 |

| SIGNATURE OF OPERATOR'S REPRESENTATIVE | SIGNATURE OF CONTRACTOR'S TOOL PUSHER |
|---|---|
| J.D. Woods | J. Dayton |

| D.P. SIZE | WT./FT. | GRADE | TOOL JT O.D. | TYPE THREAD | STRING NO. | PUMP NO. | PUMP MANUFACTURER | TYPE | STROKE LENGTH |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 41 | O.P.I | 500 AWS | 4X6" |

| FIELD OR DIST. | COUNTY | STATE |
|---|---|---|
| Aliso | L.A | Calif |

LAST CASING TUBING OR LINER

| SIZE | MAKE | WT. & GR. | NO. JOINTS | FEET | RKB. TO CSG. HD. | SET AT |
|---|---|---|---|---|---|---|
| 11 3/4 | | 42 #47 | | | | 2500 |
| 7" | | 23 #26 | 239 Perfs | 8884 | 9240 | 9240 |
| BAKER RETRIEVA | | "D" Packer | | | | 8840 |

WIRE LINE RECORD — REEL NO.

| SIZE | NO. LINES | FT. SLIPPED |
|---|---|---|
| 1 | 8 | |

FT. CUT OFF — PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

## TIME DISTRIBUTION — HOURS

| CODE NO. — OPERATION | MORN. | DAY | EVE. |
|---|---|---|---|
| 1. RIG UP AND TEAR DOWN | | | |
| 2. DRILL ACTUAL | | | |
| 3. REAMING | | | |
| 4. CORING | | | |
| 5. CONDITION MUD & CIRCULATE | | 3½ | |
| 6. TRIPS | | 5½ | |
| 7. LUBRICATE RIG | | | |
| 8. REPAIR RIG | | | |
| 9. CUT OFF DRILLING LINE | | | |
| 10. DEVIATION SURVEY | | | |
| 11. WIRE LINE LOGS | | | |
| 12. RUN CASING & CEMENT | | | |
| 13. WAIT ON CEMENT | | | |
| 14. NIPPLE UP B.O.P. | | | |
| 15. TEST B.O.P. | | | |
| 16. DRILL STEM TEST | | | |
| 17. PLUG BACK | | | |
| 18. SQUEEZE CEMENT | | | |
| 19. FISHING | | | |
| 20. DIR. WORK | | | |
| 21. OTHER | | 3 | |
| 22. | | | |
| 23. | | | |
| COMPLETION A. PERF'R'T'N | | | |
| B. TBG TRIPS | | | |
| C. TREATING | | | |
| D. SWABBING | | | |
| E. TESTING | | | |
| F. ADDIT'N'L | | | |
| G. | | | |
| TOTALS | | 12 | |

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

| | | | |
|---|---|---|---|
| HRS. W/CONTR. D.P. | | | |
| HRS. W/DPR. D.P. | | | |
| HRS. WO/D.P. | | | |
| HRS. STANDBY | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| TOTAL DAY WORK | | | |

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

TOTAL MUD COST

## DRILLING ASSEMBLY (At end of tour) / BIT RECORD / MUD RECORD

| NO. | DRILLING ASSEMBLY (At end of tour) | | BIT RECORD | | MUD RECORD | | |
|---|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | | |
| | | | SIZE | | WEIGHT | | |
| | STB RMR OD | FT. | IADC CODE | | PRESSURE GRADIENT | | |
| | D.C. ID OD | FT. | MFG. | | VISC.-SEC. | | |
| | STB RMR OD | FT. | TYPE | | PV/YP | / | / / |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | / | / / |
| | STB RMR OD | FT. | JETS 1/32" /TFA in² | | WL -CC'S. | | |
| | | | | | pH | | |
| | | | DEPTH OUT | | SOLIDS % | | |
| | | | DEPTH IN | | MUD & CHEMICALS ADDED | | |
| | STANDS DP | FT. | TOTAL FTG. | | TYPE | AMT. | TYPE AMT. |
| | SINGLES DP | FT. | TOTAL HRS. | | | | |
| | KELLY DOWN | FT. | DULL CUT. STRUC. I O D L B G O R | | | | |
| | TOTAL | FT. | | | | | |
| | WT. OF STRING | LBS. | GPM/PUMP-PSI | | | | |

MORNING TOUR

## FOOTAGE / FORMATION (SHOW CORE RECOVERY)

| FROM | TO | DR.-D RM.-R CORE.-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.-S PARE'L-P COMP'D-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

TIME LOG

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| | | | | Cumulative Fluid lost in Well 182 bbls |
| | | | | Storage Tanks No# 1 36 bbls Poly |
| | | | | No# 2 351 bbls K.C.I |
| | | | | Circ Pit Vol ~~0~~ bbls |
| | | | | Total Surface Vol 387 bbls |
| | | | | Kill Speed @ 3 bbls @ 115 S.P.M @ 250 psi 8764 |

DRILLER H.K. JONES

DAY TOUR

## FOOTAGE / FORMATION (SHOW CORE RECOVERY)

| FROM | TO | DR.-D RM.-R CORE.-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.-S PARE'L-P COMP'D-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

TIME LOG

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 6:00 | 7:00 | 1 | 21 | Rigged up Work Floor Service Equipment |
| 7:00 | 8:00 | 1 | 21 | " " " |
| 8:00 | 9:00 | 1 | 21 | " " " |
| 9:00 | 10:00 | 1 | 5 | Open Well @ P.S.I & Rig To Circ |
| 10:00 | 11:00 | 1 | 5 | Pumped 128 bbls & broke Circ |
| 11:00 | 12:00 | 1 | 5 | Circ Well |
| 12:00 | 1:00 | ½-½ | 5-6 | Circ Well & ATT To Release From Packer |
| 1:00 | 2:00 | 1 | 6 | ATT To Release From Packer |

DRILLER H. K. JONES

EVENING TOUR

## FOOTAGE / FORMATION (SHOW CORE RECOVERY)

| FROM | TO | DR.-D RM.-R CORE.-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.-S PARE'L-P COMP'D-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

TIME LOG

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 2:00 | 3:00 | 1 | 6 | Released & P.O.W laying down JTS w/ Pin Holes |
| 3:00 | 4:00 | 1 | 6 | P.O.W laying down JTS w/ Pin Holes |
| 4:00 | 5:00 | 1 | 6 | P.O.W To 3049' |
| 5:00 | 6:00 | 1 | 6 | P.O.W & Closed Well in w/ Pipe Rams Bag & Ball Valve |
| 6:00 | 7:00 | | | |

DRILLER H. K. Jones

7-7350

## DRILLING CREW PAYROLL DATA

DATE 1-31-89

WELL NAME & NO. Standard Season #30

COMPANY Southern Calif Gas Co

TOOL PUSHER J. Dayton RIG NO. M-#72

MORNING TOUR _____ P.M. _____ A.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | | | | |
| DRKMAN | | | | |
| MTRMAN | | | | |
| FIREMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

DAY TOUR 6:00 A.M. 6:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | CONFIDENTIAL | H.K. Jones | 12 | 2 |
| DRKMAN | | W. Kennedy | 12 | 3 |
| MTRMAN | | H.W. Jones | 12 | 7 |
| FIREMAN | | S. Guerrero | 12 | 7 |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |
| | | Rig & Crew No Acc | 12 | |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR _____ P.M. _____ P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | | | | |
| DRKMAN | | | | |
| MTRMAN | | | | |
| FIREMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |
| | | & Crew 12 | | |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

FORM 3T-5 PRINTED IN U.S.A. APPROVED APPROVED

**IADC – API OFFICIAL DAILY DRILLING REPORT FORM**

APPROVED APPROVED No. 153713

AC_CPUC_0117996

No. 153712

# DAILY DRILLING REPORT — REPORT NO. 3

| LEASE | WELL NO. | API WELL NUMBER | DATE |
|---|---|---|---|
| ALISO CANYON | SS #30 | 7-7350 | 1-30-89 |

| OPERATOR | CONTRACTOR | RIG NO. |
|---|---|---|
| SOUTHERN CALIF GAS CO. | CALIF PROD SERVICE | M-72 |

SIGNATURE OF OPERATOR'S REPRESENTATIVE: J.D. Woods

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: J Dayton

| D/P. SIZE | WT./FT. | GRADE | TOOL JT O.D. | TYPE THREAD | STRING NO. |
|---|---|---|---|---|---|
| | | | | | |

| PUMP NO. | PUMP MANUFACTURER | TYPE | STROKE LENGTH |
|---|---|---|---|
| 41 | OPI | 500 AWS | 4X6 |

FIELD OR DIST.: ALISO CANYON — COUNTY: L.A. — STATE: CALIF

| LAST CASING TUBING OR LINER | SIZE | MAKE | WT. & GR. | NO. JOINTS | FEET | RKB. TO CSG. HD. | SET AT |
|---|---|---|---|---|---|---|---|
| | 11 3/4 | | 42 47 # | | | | 2500 |
| | 7 | | 23 26 29# | | PERFS @ 8884 TO 9240 | | 9240 |
| | BAKER RETRIEVA 'D' AT 8840 | | | | | | |

WIRE LINE RECORD — REEL NO.: SIZE 1 — NO. LINES 8 — FT. SLIPPED — FT. CUT OFF — PRESENT LENGTH — TON MI. OR TRIPS SINCE LAST CUT — CUMULATIVE TON MI. OR TRIPS

## TIME DISTRIBUTION – HOURS

| CODE NO. – OPERATION | MORN. | DAY | EVE. |
|---|---|---|---|
| 1. RIG UP AND TEAR DOWN | | 7 | |
| 2. DRILL ACTUAL | | | |
| 3. REAMING | | | |
| 4. CORING | | | |
| 5. CONDITION MUD & CIRCULATE | | | |
| 6. TRIPS | | | |
| 7. LUBRICATE RIG | | | |
| 8. REPAIR RIG | | | |
| 9. CUT OFF DRILLING LINE | | | |
| 10. DEVIATION SURVEY | | | |
| 11. WIRE LINE LOGS | | | |
| 12. RUN CASING & CEMENT | | | |
| 13. WAIT ON CEMENT | | | |
| 14. NIPPLE UP B.O.P. | | 3½ | |
| 15. TEST B.O.P. | | 1½ | |
| 16. DRILL STEM TEST | | | |
| 17. PLUG BACK | | | |
| 18. SQUEEZE CEMENT | | | |
| 19. FISHING | | | |
| 20. DIR. WORK | | | |
| 21. | | | |
| 22. | | | |
| 23. | | | |
| COMPLETION A. PERF'R'T'N | | | |
| B. TBG TRIPS | | | |
| C. TREATING | | | |
| D. SWABBING | | | |
| E. TESTING | | | |
| F. ADDIT'N'L | | | |
| G. | | | |
| TOTALS | | 12 | |

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

| | | | |
|---|---|---|---|
| HRS. W/CONTR. D.P. | | | |
| HRS. W/DPR. D.P. | | | |
| HRS. WO/D.P. | | | |
| HRS. STANDBY | | | |
| TOTAL DAY WORK | | | |

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

TOTAL MUD COST

## DRILLING ASSEMBLY (At end of tour)

| NO. | | FT. |
|---|---|---|
| | BIT | |
| | STB RMR OD | |
| | D.C. ID OD | |
| | STB RMR OD | |
| | D.C. ID OD | |
| | STB RMR OD | |
| | STANDS DP | |
| | SINGLES DP | |
| | KELLY DOWN | |
| | TOTAL | |
| | WT. OF STRING | LBS. |

## BIT RECORD

BIT NO. / SIZE / IADC CODE / MFG. / TYPE / SER. NO. / JETS 1/32" /TFA in² / DEPTH OUT / DEPTH IN / TOTAL FTG. / TOTAL HRS.

DULL: CUT. STRUC. I O D L / B G O R

GPM/PUMP-PSI

## MUD RECORD

TIME / WEIGHT / PRESSURE GRADIENT / VISC.-SEC. / PV/YP / GELS. / WL -CC'S. / pH / SOLIDS %

MUD & CHEMICALS ADDED: TYPE | AMT. | TYPE | AMT.

MORNING TOUR

## DRILLING ASSEMBLY (At end of tour)

| NO. | | FT. |
|---|---|---|
| | BIT | |
| | STB RMR OD | |
| | D.C. ID OD | |
| | STB RMR OD | |
| | D.C. ID OD | |
| | STB RMR OD | |
| | STANDS DP | |
| | SINGLES DP | |
| | KELLY DOWN | |
| | TOTAL | |
| | WT. OF STRING | LBS. |

## BIT RECORD

BIT NO. / SIZE / IADC CODE / MFG. / TYPE / SER. NO. / JETS 1/32" /TFA in² / DEPTH OUT / DEPTH IN / TOTAL FTG. / TOTAL HRS.

DULL: CUT. STRUC. I O D L / B G O R

GPM/PUMP-PSI

## MUD RECORD

TIME / WEIGHT / PRESSURE GRADIENT / VISC.-SEC. / PV/YP / GELS. / WL -CC'S. / pH / SOLIDS %

MUD & CHEMICALS ADDED: TYPE | AMT. | TYPE | AMT.

DAY TOUR

## DRILLING ASSEMBLY (At end of tour)

| NO. | | FT. |
|---|---|---|
| | BIT | |
| | STB RMR OD | |
| | D.C. ID OD | |
| | STB RMR OD | |
| | D.C. ID OD | |
| | STB RMR OD | |
| | STANDS DP | |
| | SINGLES DP | |
| | KELLY DOWN | |
| | TOTAL | |
| | WT. OF STRING | LBS. |

## BIT RECORD

BIT NO. / SIZE / IADC CODE / MFG. / TYPE / SER. NO. / JETS 1/32" /TFA in² / DEPTH OUT / DEPTH IN / TOTAL FTG. / TOTAL HRS.

DULL: CUT. STRUC. I O D L / B G O R

GPM/PUMP-PSI

## MUD RECORD

TIME / WEIGHT / PRESSURE GRADIENT / VISC.-SEC. / PV/YP / GELS. / WL -CC'S. / pH / SOLIDS %

MUD & CHEMICALS ADDED: TYPE | AMT. | TYPE | AMT.

EVENING TOUR

## FOOTAGE / FORMATION (SHOW CORE RECOVERY)

| FROM | TO | DR..D RM..R CORE..C | CORE NO. | FORMATION | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SCL-S PARFL-P COM'B-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |

## DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

## TIME LOG

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| | | | | CUMULATIVE FLUID LOSS IN WELL = 0 |
| | | | | STORAGE TANKS VOLUME #1 = 213 bbls Poly |
| | | | | #2 = 351 bbls K.C.l |
| | | | | VOLUME IN CIRC PIT = 0 |
| | | | | TOTAL SURFACE VOLUME = 569 |

DRILLER H. K. Jones

## FOOTAGE / FORMATION (SHOW CORE RECOVERY)

| FROM | TO | DR..D RM..R CORE..C | CORE NO. | FORMATION | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SCL-S PARFL-P COM'B-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |

## DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

## TIME LOG

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 600 | 700 | 1 | 1 | Rigged up Equipment |
| 700 | 800 | 1 | 1 | " " " |
| 800 | 900 | 1 | 1 | " " " |
| 900 | 1000 | 1 | 1 | " " " |
| 1000 | 1100 | 1 | 1 | " " " |
| 1100 | 1200 | 1 | 1 | Raised Rig & Tied down |
| 1200 | 100 | 1 | 1 | " " " |
| 100 | 200 | 1 | 14 | Remove Tree |

DRILLER H. K. Jones

## FOOTAGE / FORMATION (SHOW CORE RECOVERY)

| FROM | TO | DR..D RM..R CORE..C | CORE NO. | FORMATION | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SCL-S PARFL-P COM'B-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |

## DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

## TIME LOG

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 200 | 300 | 1 | 14 | Nipple up B.O.P.E |
| 300 | 400 | 1 | 14 | " " " |
| 400 | 500 | ½ ½ | 14-15 | Nipple up & Rig up Hydo Test & Test Blind Rams @ 3000 PSI (20 MINS OK) Test Pipe Rams 3000 P.S.I 20 MINS OK & Test Bag 2300 P.S.I 20 MINS & Closed Well in w/ Pipe Rams Bag & Ball Valve |
| 500 | 600 | 1 | 15 | |

DRILLER H. K. Jones

## DRILLING CREW PAYROLL DATA

DATE 1-30-89

WELL NAME & NO. STANDARD SESON #30 — 7-7350

COMPANY SOUTHERN CALIF GAS CO.

TOOL PUSHER DAYTON — RIG NO. M-72

MORNING TOUR _____ P.M. _____ A.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | | HELD B.O.P DRLS 41 SEC | | |
| DRKMAN | | HELD SAFTY MEETING fo | | |
| MTRMAN | | | | |
| FIREMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | (NOTE: NO GAS CO LINE AVAILABLE TO THE CHOKE LINE INTAKE) | | |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

DAY TOUR 600 A.M. 6:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | 0 2550 | H. K. JONES | 12 | 2 |
| DRKMAN | 0 2360 | W. KENNEDY | 12 | 3 |
| MTRMAN | 0 1588 | H. W. JONES | 12 | 7 |
| FIREMAN | 0 2399 | S. GUERRERO | 12 | 7 |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |
| | | LABOR ONLY | 7 | |
| | | Rig & CREW | 5 | |
| | | NO ACC | | |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR _____ P.M. _____ P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | | | | |
| DRKMAN | | | | |
| MTRMAN | | | | |
| FIREMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |

Labor only to Rig up + Dress Rig + Crew RH

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

FORM 3T-5 — PRINTED IN U.S.A. — APPROVED — APPROVED

**IADC – API OFFICIAL DAILY DRILLING REPORT FORM**

APPROVED — APPROVED — No. 153712

AC_CPUC_0117997

No. 153711

# DAILY DRILLING REPORT — REPORT NO. 2

| LEASE | WELL NO. | API WELL NUMBER | DATE |
|---|---|---|---|
| ALISO CANYON | S.S. 30# | 7- 7350 | 1-28-89 |

| OPERATOR | CONTRACTOR | RIG NO. |
|---|---|---|
| SOUTHERN CALIF GAS CO. | CALIF PROD SERVICE | M-72 |

| SIGNATURE OF OPERATOR'S REPRESENTATIVE | SIGNATURE OF CONTRACTOR'S TOOL PUSHER |
|---|---|
| W.L. Killebrew | L Dayton |

| D.P. SIZE | WT./FT. | GRADE | TOOL JT O.D. | TYPE THREAD | STRING NO. |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |

| PUMP NO. | PUMP MANUFACTURER | TYPE | STROKE LENGTH |
|---|---|---|---|
| 41 | OPI | 500 AWS | 4x6 |

| FIELD OR DIST. | COUNTY | STATE |
|---|---|---|
| ALISO CANYON | L.A. | CALIF |

LAST CASING TUBING OR LINER

| SIZE | MAKE | WT. & GR. | NO. JOINTS | FEET | RKB. TO CSG. HD. | SET AT |
|---|---|---|---|---|---|---|
| 11 3/4 | | 42 47 # | | | | 2500 |
| 7 | | 23 26 29# | PRESH | 8884 TO | 9240 | 9240 |
| | BAKER RETRIEVA-"D"-PKR | | | 8840 | | |

WIRE LINE RECORD — REEL NO.

| SIZE | NO. LINES | FT. SLIPPED |
|---|---|---|
| 1 | 8 | |

FT. CUT OFF — PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

## TIME DISTRIBUTION – HOURS

| CODE NO. | OPERATION | MORN. | DAY | EVE. |
|---|---|---|---|---|
| 1. | RIG UP AND TEAR DOWN | | 8 | |
| 2. | DRILL ACTUAL | | | |
| 3. | REAMING | | | |
| 4. | CORING | | | |
| 5. | CONDITION MUD & CIRCULATE | | | |
| 6. | TRIPS | | | |
| 7. | LUBRICATE RIG | | | |
| 8. | REPAIR RIG | | | |
| 9. | CUT OFF DRILLING LINE | | | |
| 10. | DEVIATION SURVEY | | | |
| 11. | WIRE LINE LOGS | | | |
| 12. | RUN CASING & CEMENT | | | |
| 13. | WAIT ON CEMENT | | | |
| 14. | NIPPLE UP B.O.P. | | | |
| 15. | TEST B.O.P. | | | |
| 16. | DRILL STEM TEST | | | |
| 17. | PLUG BACK | | | |
| 18. | SQUEEZE CEMENT | | | |
| 19. | FISHING | | | |
| 20. | DIR. WORK | | | |
| 21. | | | | |
| 22. | | | | |
| 23. | | | | |
| COMPLETION | A. PERF'R'T'N | | | |
| | B. TBG TRIPS | | | |
| | C. TREATING | | | |
| | D. SWABBING | | | |
| | E. TESTING | | | |
| | F. ADDIT'N'L | | | |
| | G. | | | |
| TOTALS | | | 8 | |

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

| | | | |
|---|---|---|---|
| HRS. W/CONTR. D.P. | | | |
| HRS. W/OPR. D.P. | | | |
| HRS. WO/D.P. | | | |
| HRS. STANDBY | | | |
| TOTAL DAY WORK | | | |

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

TOTAL MUD COST

## DRILLING ASSEMBLY (At end of tour)

| NO. | | | |
|---|---|---|---|
| | BIT | | FT. |
| | STB RMR OD | | FT. |
| | D.C. ID OD | | FT. |
| | STB RMR OD | | FT. |
| | D.C. ID OD | | FT. |
| | STB RMR OD | | FT. |
| | STANDS DP | | FT. |
| | SINGLES DP | | FT. |
| | KELLY DOWN | | FT. |
| | TOTAL | | FT. |
| WT. OF STRING | | | LBS. |

## BIT RECORD

| | | | |
|---|---|---|---|
| BIT NO. | | | |
| SIZE | | | |
| IADC CODE | | | |
| MFG. | | | |
| TYPE | | | |
| SER. NO. | | | |
| JETS 1/32" /TFA in² | | | |
| DEPTH OUT | | | |
| DEPTH IN | | | |
| TOTAL FTG. | | | |
| TOTAL HRS. | | | |
| DULL CUT. STRUC. I O D L B G O R | | | |
| GPM/PUMP-PSI | | | |

## MUD RECORD

| | | | | |
|---|---|---|---|---|
| TIME | | | | |
| WEIGHT | | | | |
| PRESSURE GRADIENT | | | | |
| VISC.-SEC. | | | | |
| PV/YP | / | / | / | |
| GELS. | / | / | / | |
| WL -CC'S. | | | | |
| pH | | | | |
| SOLIDS % | | | | |

MUD & CHEMICALS ADDED

| TYPE | AMT. | TYPE | AMT. |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |

MORNING TOUR

## FOOTAGE

| FROM | TO | DR..D RM..R CORE..C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL..S PARAL..P COMP..C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| TIME LOG FROM | TIME LOG TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

DRILLER

## FOOTAGE

| FROM | TO | DR..D RM..R CORE..C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL..S PARAL..P COMP..C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| TIME LOG FROM | TIME LOG TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 700 | 800 | 1 | | Load out Equipment & Move Equipment To S.S.30 |
| 800 | 900 | 1 | | " " " " |
| 900 | 1000 | 1 | | " " " " |
| 1000 | 1100 | | | " " " " |
| 1100 | 1200 | | | Rig up |
| 1200 | 100 | | | " " |
| 100 | 200 | | | " " |
| 200 | 300 | | | " " |

DRILLER H. K. JONES

EVENING TOUR

## FOOTAGE

| FROM | TO | DR..D RM..R CORE..C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL..S PARAL..P COMP..C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| TIME LOG FROM | TIME LOG TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

DRILLER

## DRILLING CREW PAYROLL DATA

DATE 1-28-89

WELL NAME & NO. STANDARD SESON #30 7- 7350

COMPANY SOUTHERN CALIF GAS CO.

TOOL PUSHER DAYTON RIG NO. M-72

MORNING TOUR _____ P.M. _____ A.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | | | | |
| DRKMAN | | | | |
| MTRMAN | | | | |
| FIREMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

DAY TOUR 7:00 A.M. 3:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | 0 25 00 | H. K. JONES | 8 | 2 |
| DRKMAN | 0 23 60 | W. KENNEDY | 8 | 3 |
| MTRMAN | 0 15 88 | H. W. JONES | 8 | 7 |
| FIREMAN | 0 23 79 | S. GUERRERO | 8 | 7 |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | LABOR ONLY | 8 | |
| TRAINEE | | | | |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR _____ P.M. _____ P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | | | | |
| DRKMAN | | | | |
| MTRMAN | | | | |
| FIREMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |

Crew only 8 hrs to MI & Rig up

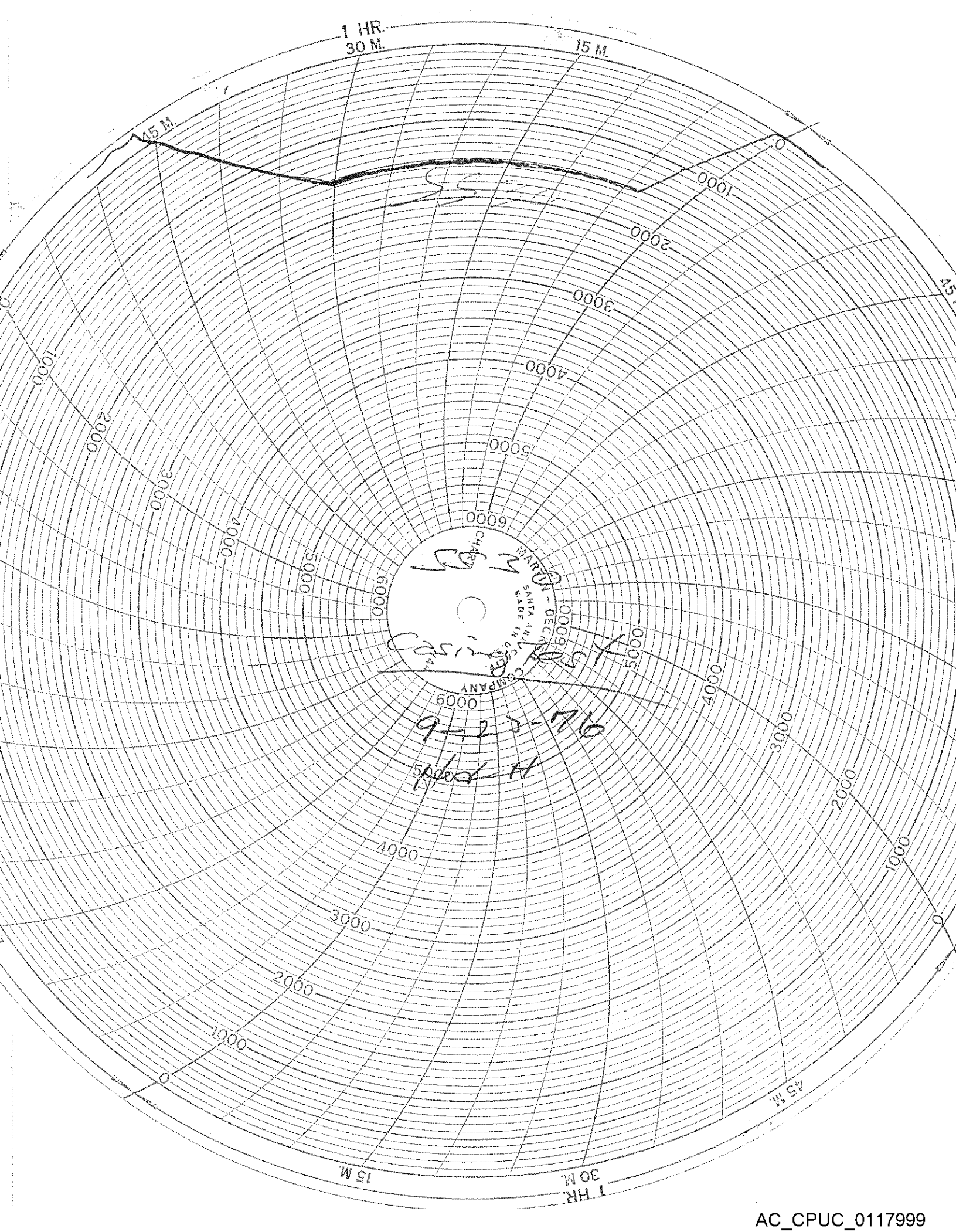
NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

FORM 3T-5 PRINTED IN U.S.A. APPROVED APPROVED

**IADC – API OFFICIAL DAILY DRILLING REPORT FORM**

APPROVED APPROVED No. 153711

AC_CPUC_0117998

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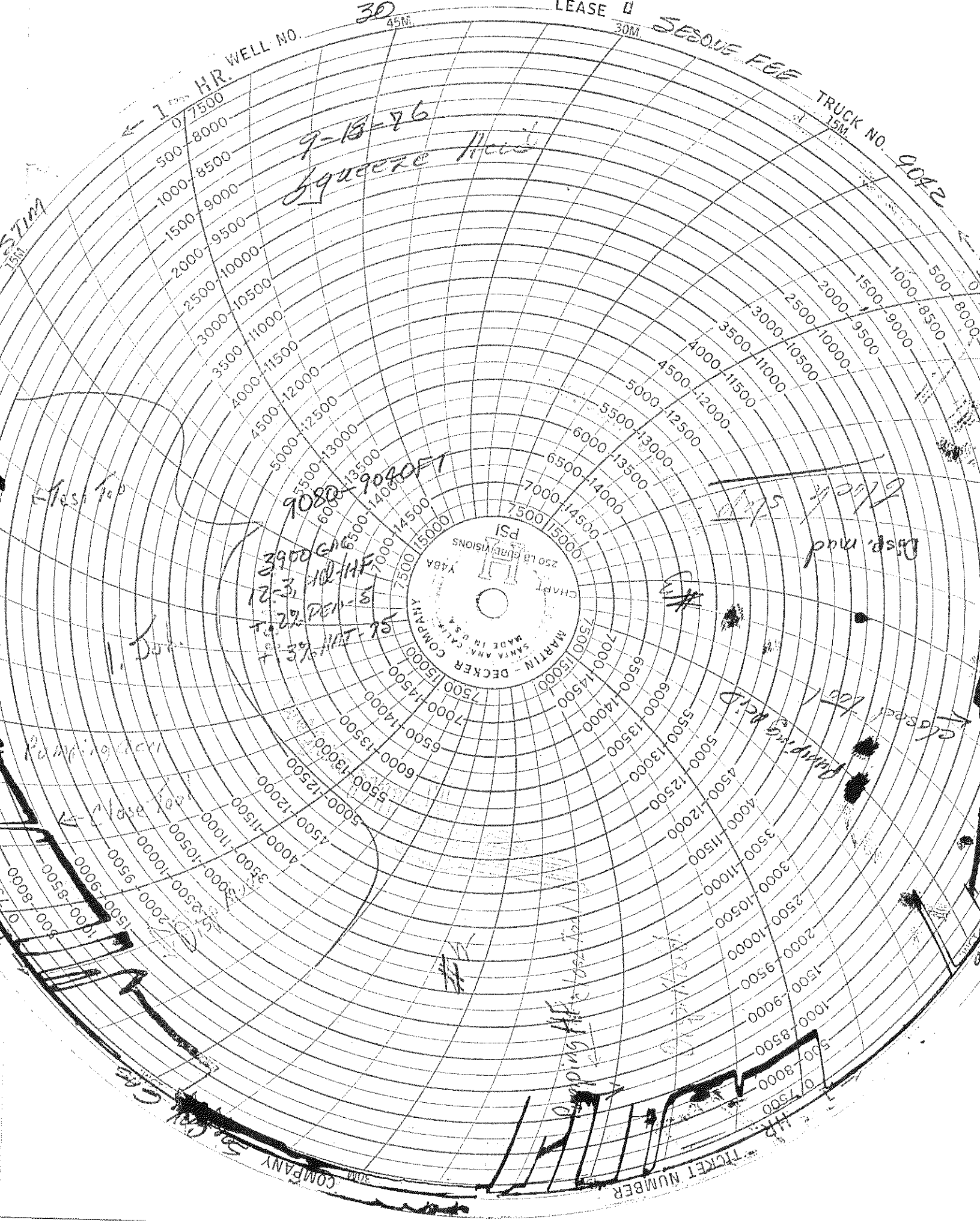
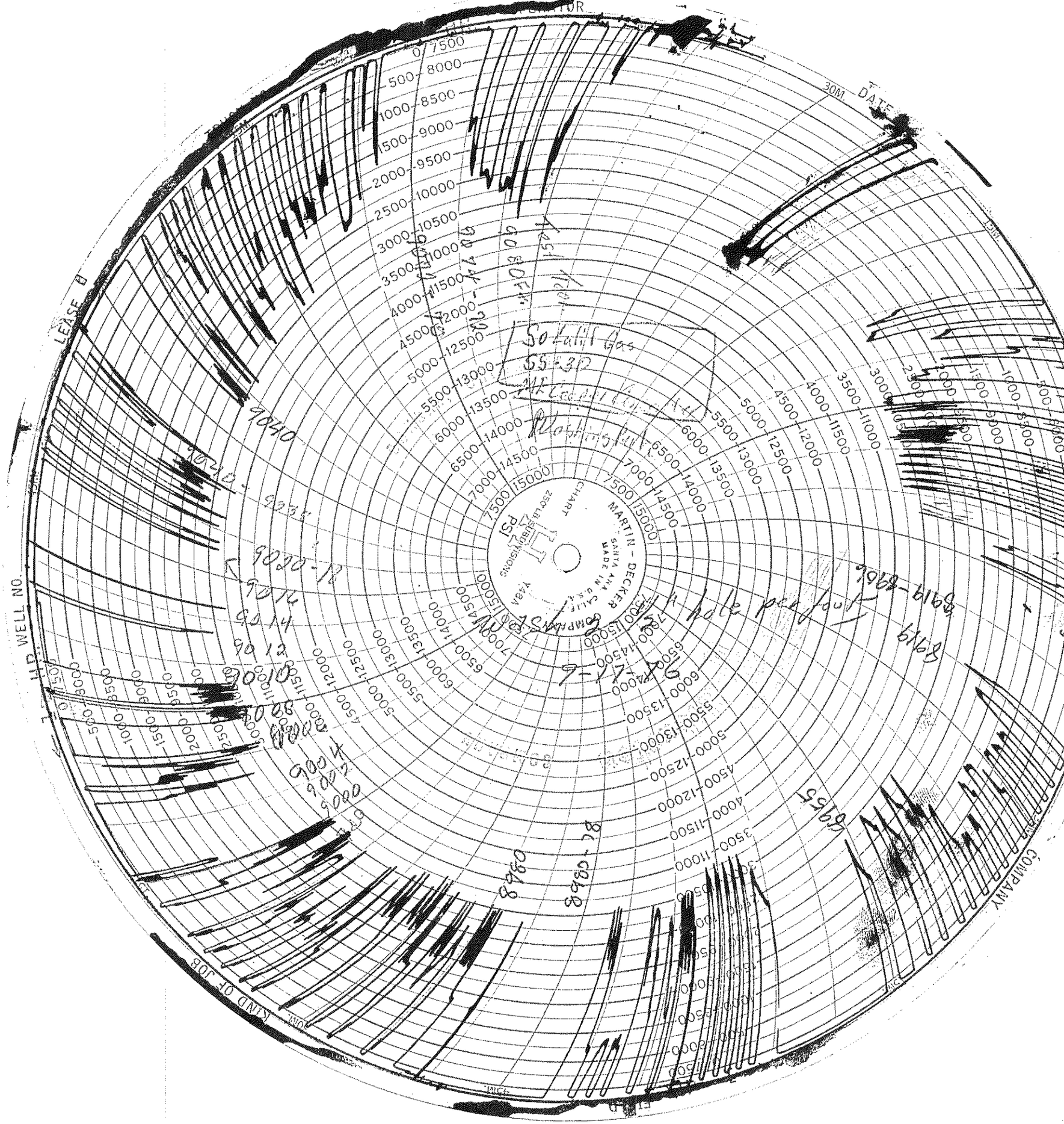
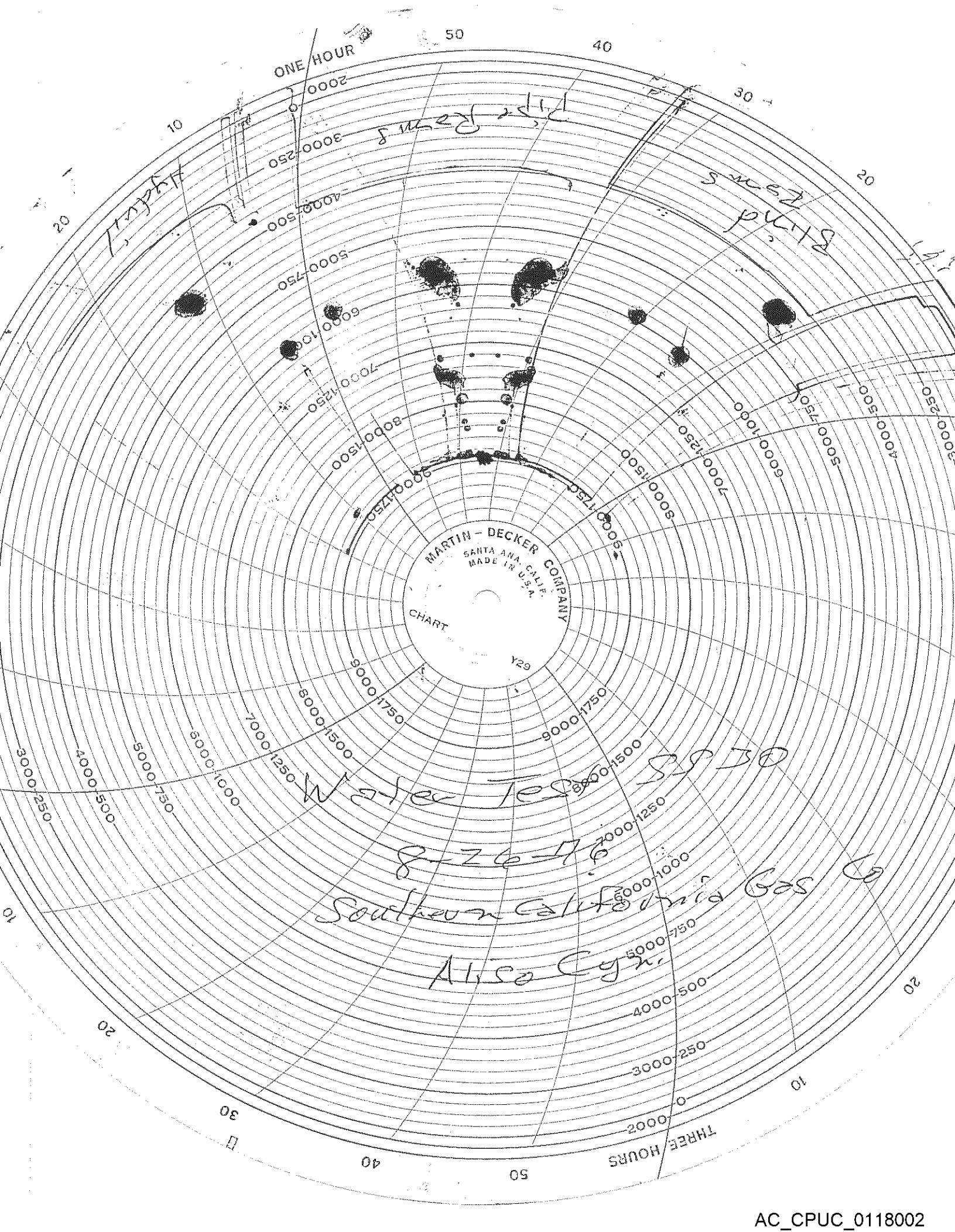
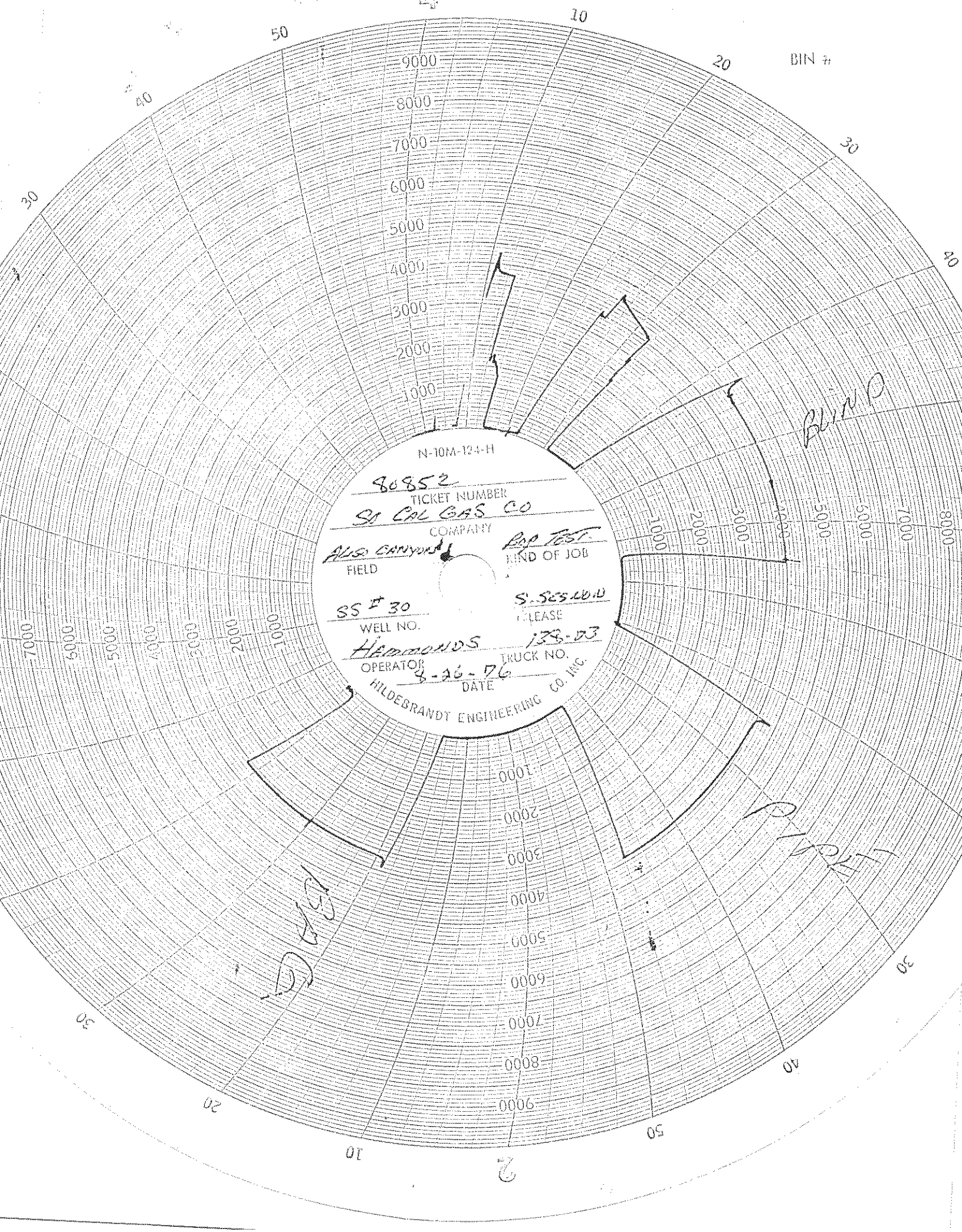

LEASE
SEQUOIA FOE
TRUCK NO. 9042
WELL NO. 30
HR.
9-18-76
Squeeze Hole
9080-9080-7
Disp. mud
Clean out
Pump & Rev. Circ.
Test Top
Reversing Valve
COMPANY
TICKET NUMBER
MARTIN - DECKER COMPANY
SANTA ANA, CALIF.
MADE IN U.S.A.
PSI
CHART
250 LB. PRESSURE DIVISIONS
Y48A

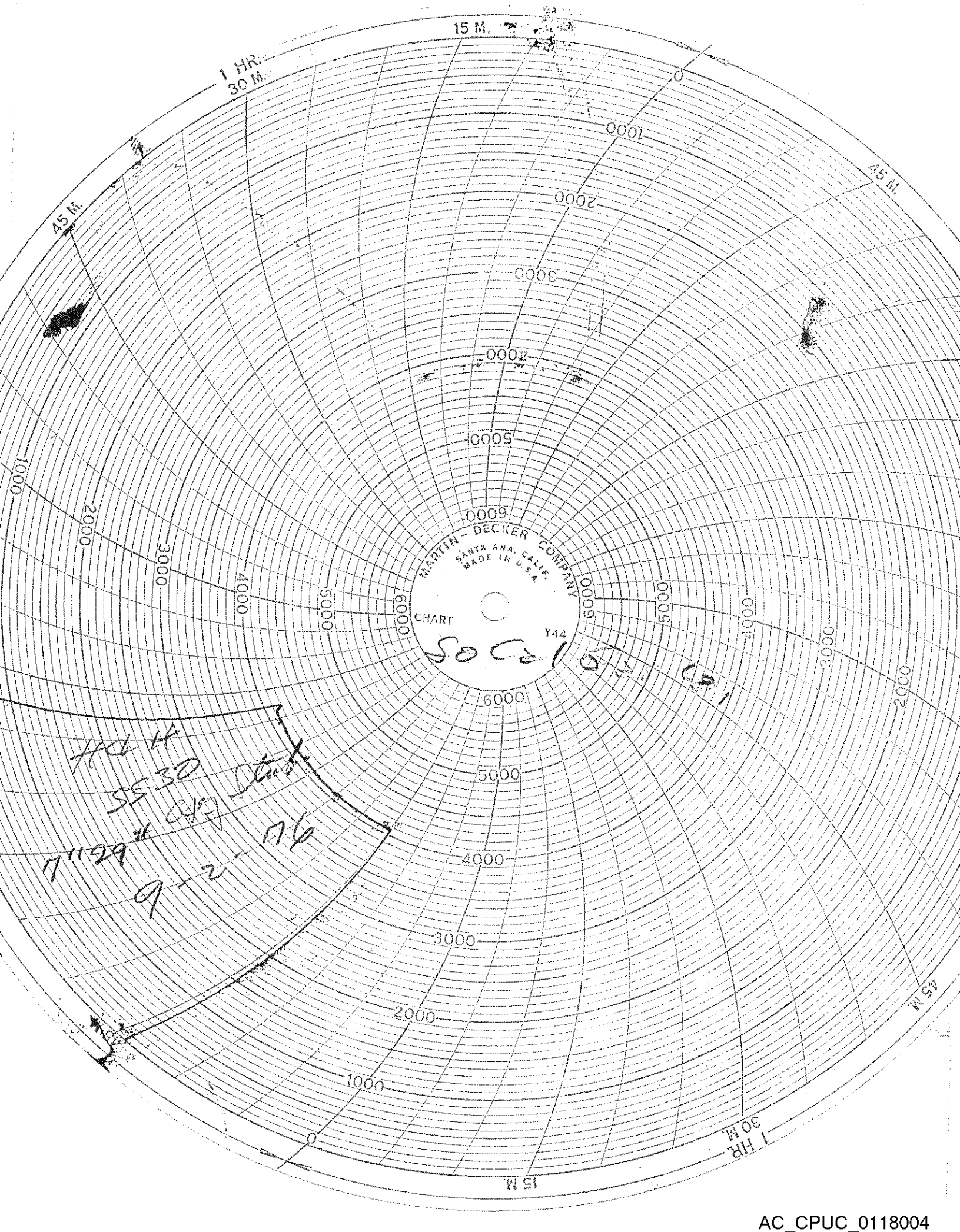

MARTIN – DECKER
SANTA ANA, CALIF.
MADE IN U.S.A.
V-18A
CHART
PSI
COMPANY
LEASE
WELL NO.
KIND OF JOB
DATE
30M
So Calif Gas
SS-32
Wellhead
Wellhead
Wellhead

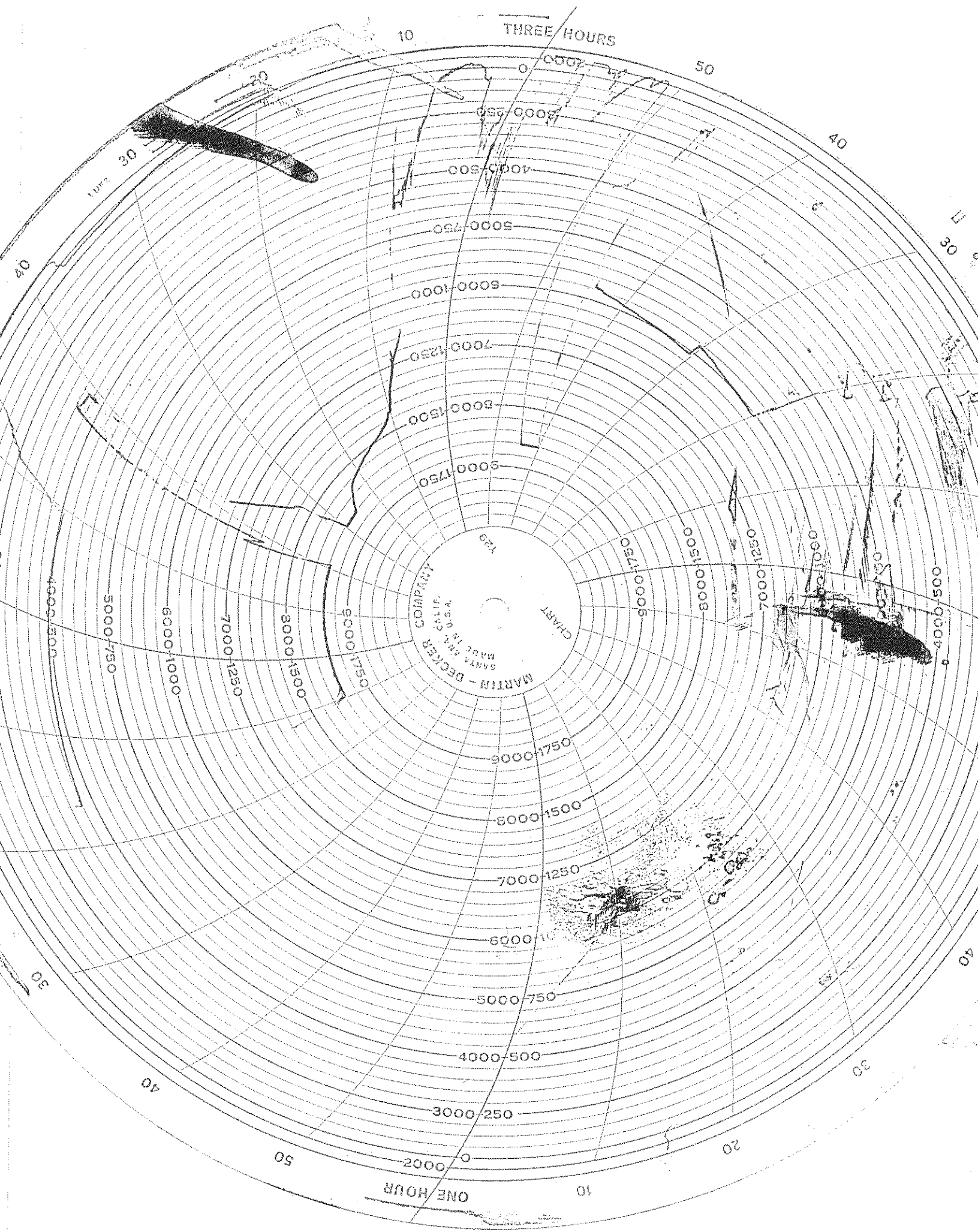



AC_CPUC_0118002




AC_CPUC_0118003


15 M.
1 HR. 30 M.
45 M.
0
1000
2000
3000
4000
5000
6000
MARTIN-DECKER COMPANY
SANTA ANA, CALIF.
MADE IN U.S.A.
CHART
Y44
SoCal
HCAF
SS30
7"H2O
7"H2O
9-2-14

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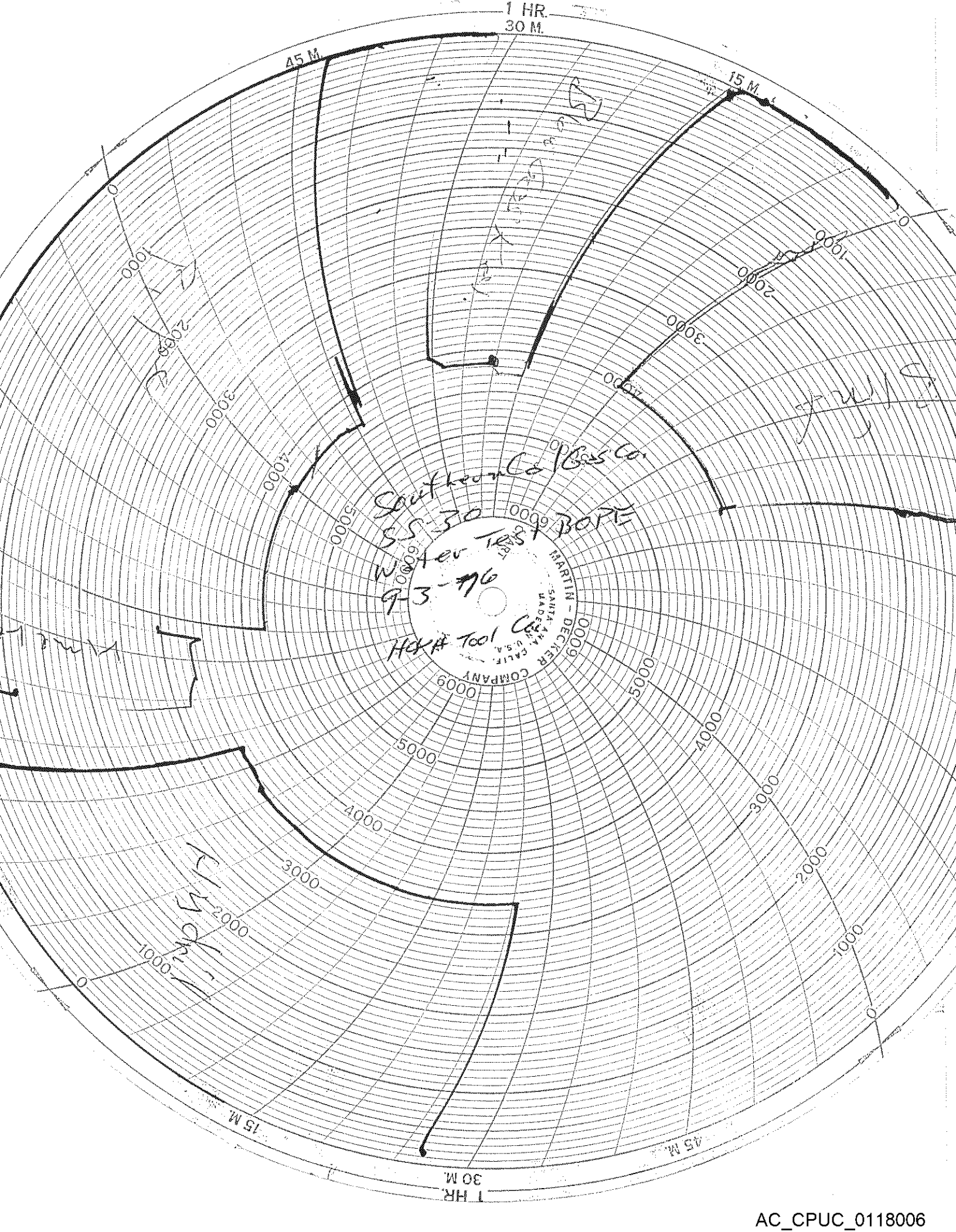


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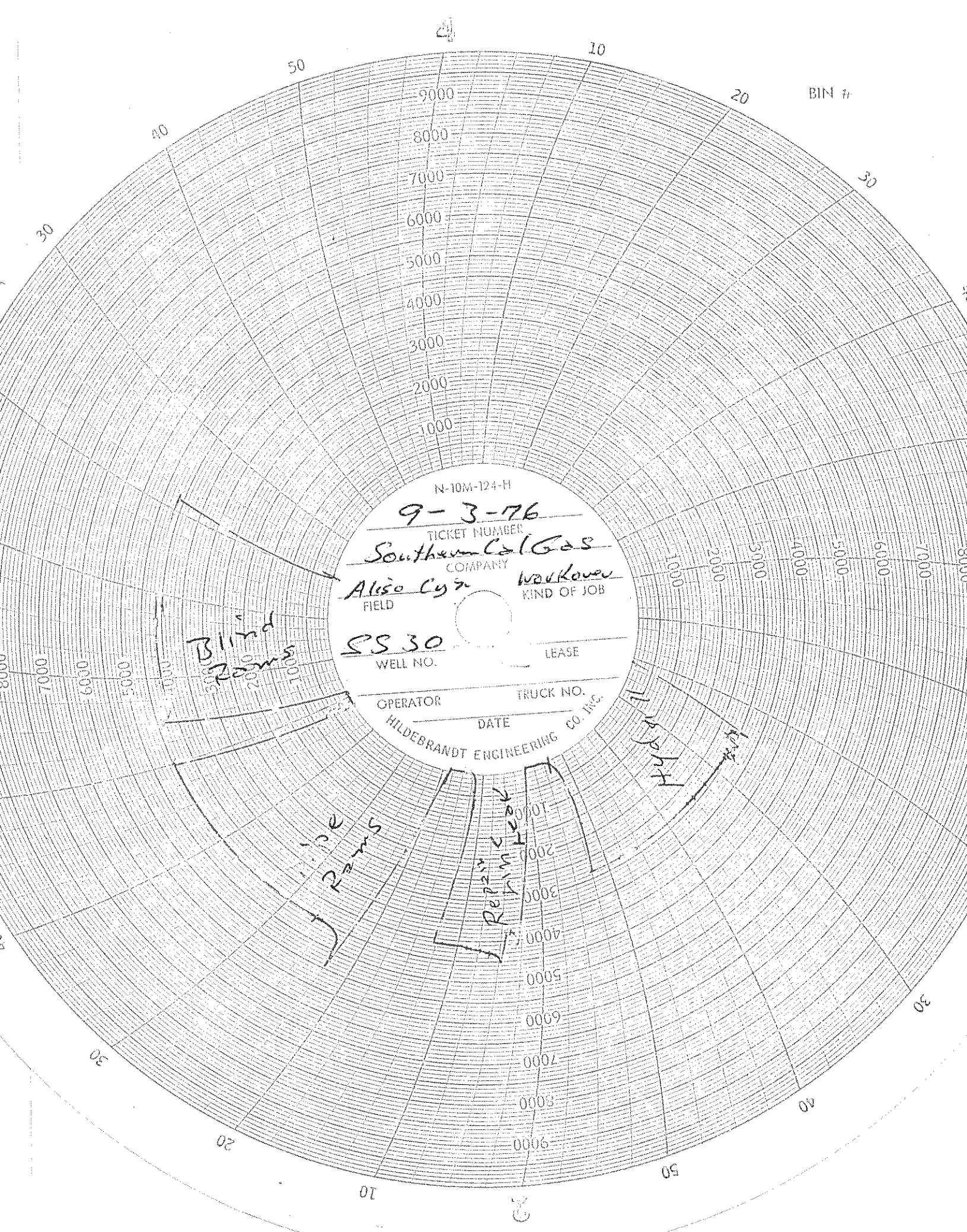


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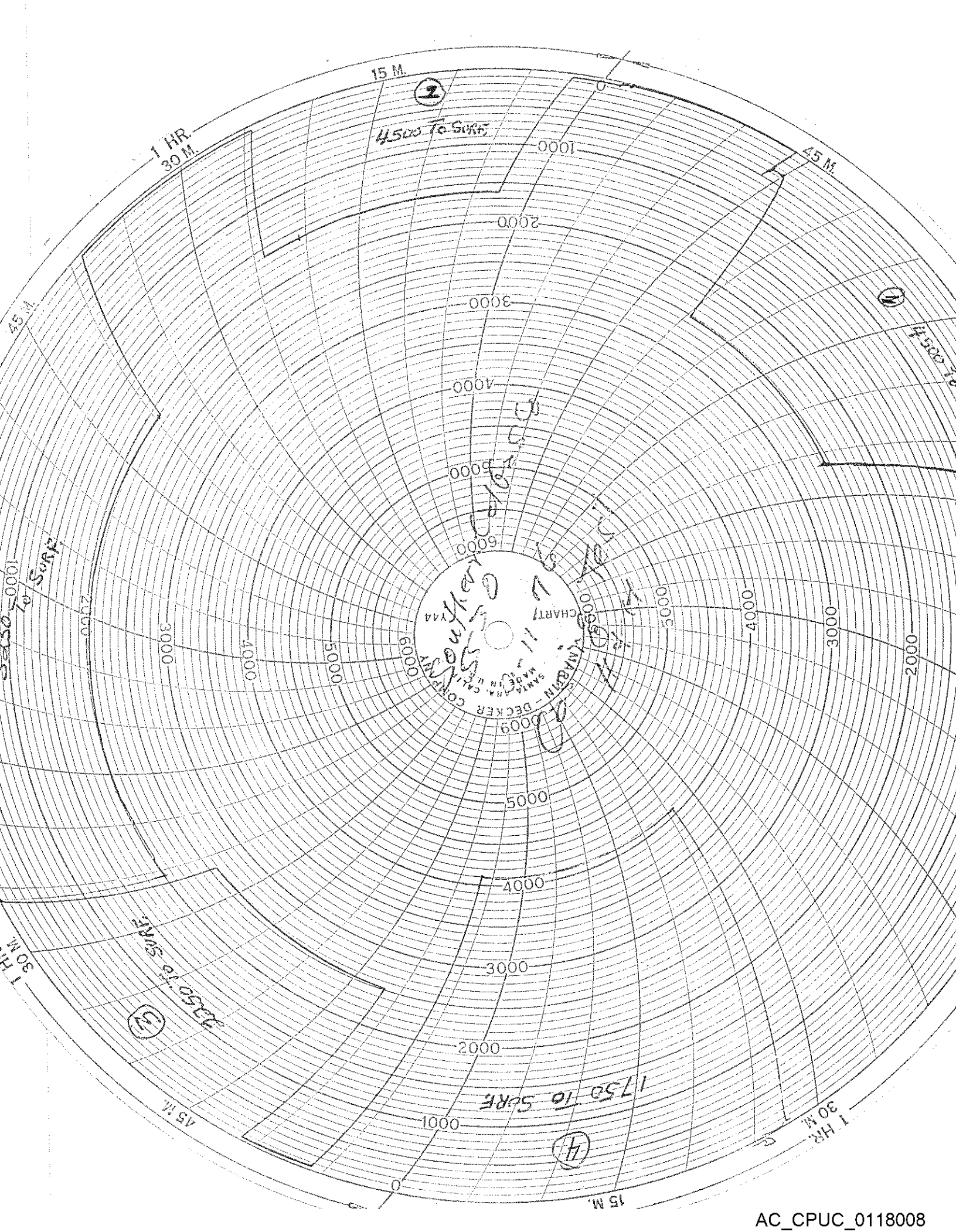


AC_CPUC_0118008

No. 5503

# DAILY DRILLING REPORT

REPORT NO. 25 — 3-5643

| LEASE | WELL NO. | API WELL NUMBER | DATE |
|---|---|---|---|
| ALISO CYN. | SS #30 | STANDARD SESNON #30 | 9-23-76 |

| OPERATOR | CONTRACTOR | RIG NO. |
|---|---|---|
| So Calif Gas Co. | Calif Prod Serv. | D-3 |

SIGNATURE OF OPERATOR'S REPRESENTATIVE: E C Bradley

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: J. L. Boggs

| A.P. SIZE | WT./FT. | GRADE | TOOL JT O.D. | TYPE THREAD | STRING NO. |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |

| PUMP NO. | PUMP MANUFACTURER | TYPE | STROKE LENGTH |
|---|---|---|---|
| | | | |
| | | | |

FIELD OR DIST.: ALISO CYN. — COUNTY: LOS-ANGELES — STATE: CALIFORNIA

LAST CASING TUBING OR LINER

| SIZE | MAKE | WT. & GR. | NO. JOINTS | FEET | RKB. TO CSG. HD. | SET AT |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |

WIRE LINE RECORD — REEL NO.

| SIZE | NO. LINES | FT. SLIPPED |
|---|---|---|
| | | |

FT. CUT OFF — PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

## TIME DISTRIBUTION – HOURS

| CODE NO. – OPERATION | MORN. | DAY | EVE. |
|---|---|---|---|
| 1. RIG UP AND TEAR DOWN | | | 8 |
| 2. DRILL ACTUAL | | | |
| 3. REAMING | | | |
| 4. CORING | | | |
| 5. CONDITION MUD & CIRCULATE | | | |
| 6. TRIPS | | | |
| 7. LUBRICATE RIG | | | |
| 8. REPAIR RIG | | | |
| 9. CUT OFF DRILLING LINE | | | |
| 10. DEVIATION SURVEY | | | |
| 11. WIRE LINE LOGS | | 1½ | |
| 12. RUN CASING & CEMENT | | | |
| 13. WAIT ON CEMENT | | | |
| 14. NIPPLE UP B.O.P. | | | |
| 15. TEST B.O.P. | | | |
| 16. DRILL STEM TEST | | | |
| 17. PLUG BACK | | | |
| 18. SQUEEZE CEMENT | | | |
| 19. FISHING | | | |
| 20. DIR. WORK | | | |
| 21. TRAVEL | | 1 | |
| 22. OTHER | | 6½ | |
| 23. | | | |
| COMPLETION A. PERF'R'T'N | | | |
| COMPLETION B. TBG TRIPS | | | |
| COMPLETION C. TREATING | | | |
| COMPLETION D. SWABBING | | | |
| COMPLETION E. TESTING | | | |
| COMPLETION F. ADDIT'N'L | | | |
| COMPLETION G. | | | |
| TOTALS | | 9 | 8 |

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

| | | | |
|---|---|---|---|
| HRS. W/CONTR. D.P. | | | |
| HRS. W/OPR. D.P. | | | |
| HRS. WO/D.P. | | | |
| HRS. STANDBY | | | |
| TOTAL DAY WORK | | | |

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

TOTAL MUD COST

## DRILLING ASSEMBLY (At end of tour) — BIT RECORD — MUD RECORD

| DRILLING ASSEMBLY | | BIT RECORD | | MUD RECORD | |
|---|---|---|---|---|---|
| BIT | FT. | BIT NO. | | TIME | |
| | | SIZE | | WEIGHT | |
| STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | |
| D.C. ID OD | FT. | TYPE | | VISC.–SEC. | |
| STB RMR OD | FT. | JETS 1/32" | | PV/YP | / / / |
| D.C. ID OD | FT. | SER. NO. | | GELS. | / / / |
| STB RMR OD | FT. | DEPTH OUT | | WL –CC'S. | |
| | | DEPTH IN | | pH | |
| | | TOTAL FTG. | | SOLIDS % | |
| | | TOTAL HRS. RUN | | | |
| STANDS DP | FT. | COND. 1/8's T/B/ GAGE | | MUD & CHEMICALS ADDED | |
| SINGLES DP | FT. | GPM/ PD–PSI | / / | TYPE AMT. TYPE AMT. | |
| KELLY DOWN | FT. | | | | |
| TOTAL | FT. | | | | |
| WT. OF STRING | LBS. | | | | |

MORNING TOUR

### FOOTAGE — FORMATION (SHOW CORE RECOVERY)

| FROM | TO | DR.–D RM.–R CORE.–C | CORE NO. | FORMATION | ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL–1 PAR'L'L–2 COM'D–C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

TIME LOG

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

DRILLER

DAY TOUR

### FOOTAGE — FORMATION (SHOW CORE RECOVERY)

| FROM | TO | DR.–D RM.–R CORE.–C | CORE NO. | FORMATION | ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL–1 PAR'L'L–2 COM'D–C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

TIME LOG

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 6:00 | 11:00 | 5 | | WAITING ON ARCHER REED |
| 11:00 | 11:30 | ½ | | RIGGED UP ARCHER REED |
| 11:30 | 1:00 | 1½ | | SET PLUG IN TUBING @ 8930' |
| 1:00 | 2:00 | 1 | | TESTED CASING & SEAL @ 1500 FOR 20 MIN. OK. FROM 8940 TO SURFACE |
| | | | | SERV. THE RIG AND THE EQUIP. |

DRILLER David D. Eaton

EVENING TOUR

### FOOTAGE — FORMATION (SHOW CORE RECOVERY)

| FROM | TO | DR.–D RM.–R CORE.–C | CORE NO. | FORMATION | ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL–1 PAR'L'L–2 COM'D–C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

TIME LOG

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 2:00 | | | | LOWERED MAST. LOADED OUT EQUIP. |
| | 10:00 | 8 | | |

DRILLER

## DRILLING CREW PAYROLL DATA

No. 5503

DATE THUR. 9-23-76 — CPS JOB # 3-5643

WELL NAME & NO. STANDARD SESNON #30

COMPANY So Calif Gas Co

TOOL PUSHER J. L. Boggs — RIG NO. D-3

MORNING TOUR _____ P.M. _____ A.M.

| CREW | SOC. SEC. NO. | NAME | HRS. |
|---|---|---|---|
| DRILLER | | | |
| DRKMAN | | | |
| MTRMAN | | | |
| FIREMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| TRAINEE | | | |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

DAY TOUR 5:00 A.M. 2:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. |
|---|---|---|---|
| DRILLER | 560 25 | D. EATON | 9 |
| DRKMAN | 367 3 | S. DORFMEIER | 9 |
| MTRMAN | 375 0 | B. FRENCH | 9 |
| FIREMAN | 375 6 | K. WILDER | 9 |
| FLRMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| TRAINEE | | | |
| | | RIG | 9 |
| | | PUMP | Ø |
| | | CREW | 9 |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 2:00 P.M. 10:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. |
|---|---|---|---|
| DRILLER | 367 6 | B. DAVIS | 8 |
| DRKMAN | 371 9 | T. BRANDON | 8 |
| MTRMAN | 375 8 | J. TOOPS | 8 |
| FIREMAN | 377 3 | P. SELMSER | 8 |
| FLRMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| TRAINEE | | | |
| | | RIG | 8 |
| | | PUMP | Ø |
| | | CREW | 8 |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

Form 3T-5 — Printed in U. S. A. — APPROVED — APPROVED

**IADC – API OFFICIAL DAILY DRILLING REPORT FORM**

APPROVED — APPROVED

AC_CPUC_0118009

No. 5502

# DAILY DRILLING REPORT

REPORT NO. 24 — 3-5643

| LEASE | WELL NO. | API WELL NUMBER | DATE |
|---|---|---|---|
| ALISO CYN. | SS #30 | STANDARD SESNON #30 | 9-22-76 |

| OPERATOR | CONTRACTOR | RIG NO. |
|---|---|---|
| So CALIF GAS Co. | CALIF PROD SERV. | D-3 |

SIGNATURE OF OPERATOR'S REPRESENTATIVE: E C Anderson

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: J L Boggs

| D.P. SIZE | WT./FT. | GRADE | TOOL JT O.D. | TYPE THREAD | STRING NO. |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |

| PUMP NO. | PUMP MANUFACTURER | TYPE | STROKE LENGTH |
|---|---|---|---|
| 10 | EMSCO | D-300 | 14x5½ |

FIELD OR DIST.: ALISO CYN. — COUNTY: LOS ANGELES — STATE: CALIFORNIA

LAST CASING TUBING OR LINER

| SIZE | MAKE | WT. & GR. | NO. JOINTS | FEET | RKB. TO CSG. HD. | SET AT |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |

WIRE LINE RECORD — REEL NO.

| SIZE | NO. LINES | FT. SLIPPED |
|---|---|---|
| | | |

FT. CUT OFF — PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

## TIME DISTRIBUTION – HOURS

| CODE NO. – OPERATION | MORN. | DAY | EVE. |
|---|---|---|---|
| 1. RIG UP AND TEAR DOWN | | | |
| 2. DRILL ACTUAL | | | |
| 3. REAMING | | | |
| 4. CORING | | | |
| 5. CONDITION MUD & CIRCULATE | | | 4 |
| 6. TRIPS | | 1 | |
| 7. LUBRICATE RIG | | | |
| 8. REPAIR RIG | | | |
| 9. CUT OFF DRILLING LINE | | | |
| 10. DEVIATION SURVEY | | | |
| 11. WIRE LINE LOGS | | | |
| 12. RUN CASING & CEMENT | | | |
| 13. WAIT ON CEMENT | | | |
| 14. NIPPLE UP B.O.P. | | | |
| 15. TEST B.O.P. | | | |
| 16. DRILL STEM TEST | | | |
| 17. PLUG BACK | | | |
| 18. SQUEEZE CEMENT | | | |
| 19. FISHING | | | |
| 20. DIR. WORK | | | |
| 21. TRAVEL | | 1 | |
| 22. OTHER | | 7 | 4 |
| 23. | | | |
| COMPLETION A. PERF'R'T'N | | | |
| B. TBG TRIPS | | | |
| C. TREATING | | | |
| D. SWABBING | | | |
| E. TESTING | | | |
| F. ADDIT'N'L | | | |
| G. | | | |
| TOTALS | | 9 | 8 |

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

| | | | |
|---|---|---|---|
| HRS. W/CONTR. D.P. | | | |
| HRS. W/OPR. D.P. | | | |
| HRS. WO/D.P. | | | |
| HRS. STANDBY | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| TOTAL DAY WORK | | | |

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

TOTAL MUD COST

## DRILLING ASSEMBLY (At end of tour) / BIT RECORD / MUD RECORD

| NO. | DRILLING ASSEMBLY | | BIT RECORD | | MUD RECORD | |
|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | |
| | | | SIZE | | WEIGHT | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | |
| | D.C. ID OD | FT. | TYPE | | VISC.–SEC. | |
| | STB RMR OD | FT. | JETS 1/32" | | PV/YP | / |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | / |
| | STB RMR OD | FT. | DEPTH OUT | | WL –CC'S. | |
| | | | DEPTH IN | | pH | |
| | | | TOTAL FTG. | | SOLIDS % | |
| | | | TOTAL HRS. RUN | | | |
| | STANDS DP | FT. | COND. 1/8's T/B/ GAGE | | MUD & CHEMICALS ADDED | |
| | SINGLES DP | FT. | GPM/ PD–PSI | / | TYPE / AMT. / TYPE / AMT. | |
| | KELLY DOWN | FT. | | | | |
| | TOTAL | FT. | | | | |
| WT. OF STRING | | LBS. | | | | |

| NO. | DRILLING ASSEMBLY | | BIT RECORD | | MUD RECORD | |
|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | |
| | | | SIZE | | WEIGHT | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | |
| | D.C. ID OD | FT. | TYPE | | VISC.–SEC. | |
| | STB RMR OD | FT. | JET 1/32" | | PV/YP | / |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | / |
| | STB RMR OD | FT. | DEPTH OUT | | WL –CC'S. | |
| | | | DEPTH IN | | pH | |
| | | | TOTAL FTG. | | SOLIDS % | |
| | | | TOTAL HRS. RUN | | | |
| | STANDS DP | FT. | COND. 1/8's T/B/ GAGE | | MUD & CHEMICALS ADDED | |
| | SINGLES DP | FT. | GPM/ PD–PSI | / | TYPE / AMT. / TYPE / AMT. | |
| | KELLY DOWN | FT. | | | | |
| | TOTAL | FT. | | | | |
| WT. OF STRING | | LBS. | | | | |

| NO. | DRILLING ASSEMBLY | | BIT RECORD | | MUD RECORD | |
|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | |
| | | | SIZE | | WEIGHT | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | |
| | D.C. ID OD | FT. | TYPE | | VISC.–SEC. | |
| | STB RMR OD | FT. | JETS 1/32" | | PV/YP | / |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | / |
| | STB RMR OD | FT. | DEPTH OUT | | WL –CC'S. | |
| | | | DEPTH IN | | pH | |
| | | | TOTAL FTG. | | SOLIDS % | |
| | | | TOTAL HRS. RUN | | | |
| | STANDS DP | FT. | COND. 1/8's T/B/ GAGE | | MUD & CHEMICALS ADDED | |
| | SINGLES DP | FT. | GPM/ PD–PSI | / | TYPE / AMT. / TYPE / AMT. | |
| | KELLY DOWN | FT. | | | | |
| | TOTAL | FT. | | | | |
| WT. OF STRING | | LBS. | | | | |

MORNING TOUR

## FOOTAGE / FORMATION (SHOW CORE RECOVERY)

| FROM | TO | DR.–D RM.–R CORE.–C | CORE NO. | FORMATION | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.–S PAR.–P RET.–R COM.–C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| TIME LOG FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

DRILLER

DAY TOUR

## FOOTAGE / FORMATION (SHOW CORE RECOVERY)

| FROM | TO | DR.–D RM.–R CORE.–C | CORE NO. | FORMATION | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.–S PAR.–P RET.–R COM.–C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| TIME LOG FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 6:00 | 7:00 | 1 | | FINISHED HYDRO TESTING & CHANGEING COLLARS, IN THE HOLE |
| 7:30 | | | | STAB IN TO PKR SET 10,000 DOWN SPACED OUT, LANDED |
| | | | | TUBING WITH 10,000 COMP. CHECKED LATCH IN PULLED 25,000 |
| | 8:30 | 1 | | OVER WEIGHT OF TUBING LANDED TUBING. |
| 9:30 | 9:00 | ½ | | RIGGED DOWN HYDRO-TEST & H&H TOOLS CLEAN PIT. |
| 9:00 | 12:00 | 3 | | REMOVED BOP INSTALED TUBING X-MAS TREE TESTED SAME |
| 12:00 | 2:00 | 2 | | @ 4500 FOR 30 MIN OK. |

DRILLER David Eaton

EVENING TOUR

## FOOTAGE / FORMATION (SHOW CORE RECOVERY)

| FROM | TO | DR.–D RM.–R CORE.–C | CORE NO. | FORMATION | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.–S PAR.–P RET.–R COM.–C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| TIME LOG FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 2:00 | 3:00 | 1 | | TESTED TREE @ 5,000# -20 MIN. |
| 3:00 | \ | \ | | CHANGED OVER TO LEASE WATER |
| | 7:00 | 4 | | RIGGING DOWN. @ E.O.T. CLOSED WELL IN, SHUT JOB DOWN. |
| 7:00 | | | | |
| | | | | |
| | | | | |
| | 10:00 | 3 | | |

DRILLER

## DRILLING CREW PAYROLL DATA

No. 5502

DATE WED 9-22-76 — GPS JOB # 3-5643

WELL NAME & NO. STANDARD SESNON #30

COMPANY So CALIF GAS Co

TOOL PUSHER J. L. Boggs — RIG NO. D-3

MORNING TOUR _____ P.M. _____ A.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | | | | |
| DRKMAN | | | | |
| MTRMAN | | | | |
| FIREMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

DAY TOUR 5:00 A.M. 2:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | CONFIDENTIAL | D. EATON | 9 | 2 |
| DRKMAN | | S. DORFMEIER | 9 | 3 |
| MTRMAN | | B. FRENCH | 9 | 7 |
| FIREMAN | | K. WILDER | 9 | 7 |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |
| | | RIG | 9 | |
| | | PUMP | 8 | |
| | | CREW | 9 | |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 2:00 P.M. 10:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | CONFIDENTIAL | B. DAVIS | 8 | 2 |
| DRKMAN | | T. BRANDON | 8 | 3 |
| MTRMAN | | J. TOOPS | 8 | 7 |
| FIREMAN | | P. SELMSER | 8 | 7 |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |
| | | RIG | 8 | |
| | | PUMP | 4 | |
| | | CREW | 8 | |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

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**IADC – API OFFICIAL DAILY DRILLING REPORT FORM**

APPROVED — APPROVED

AC_CPUC_0118010

No. 5501

3-564.3

# DAILY DRILLING REPORT — REPORT NO. 23

| LEASE | WELL NO. | API WELL NUMBER | DATE |
|---|---|---|---|
| ALISO CYN | SS # 30 | STANDARD SESNON # 30 | 9-21-76 |

| OPERATOR | CONTRACTOR | RIG NO. |
|---|---|---|
| So CALIF GAS CO | CALIF PROD SERV. | D-3 |

SIGNATURE OF OPERATOR'S REPRESENTATIVE: Edward Brandon

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: L. J. Boggs

| D.P. SIZE | WT./FT. | GRADE | TOOL JT O.D. | TYPE THREAD | STRING NO. |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |

| PUMP NO. | PUMP MANUFACTURER | TYPE | STROKE LENGTH |
|---|---|---|---|
| 10 | EMSCO | D-300 | 14 x 5½ |

FIELD OR DIST.: ALISO CYN. | COUNTY: LOS ANGELES | STATE: CALIFORNIA

LAST CASING TUBING OR LINER

| SIZE | MAKE | WT. & GR. | NO. JOINTS | FEET | RKB. TO CSG. HD. | SET AT |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |

WIRE LINE RECORD — REEL NO.

| SIZE | NO. LINES | FT. SLIPPED |
|---|---|---|
| FT. CUT OFF | PRESENT LENGTH | |

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

## TIME DISTRIBUTION — HOURS

| CODE NO. | OPERATION | MORN. | DAY | EVE. |
|---|---|---|---|---|
| 1. | RIG UP AND TEAR DOWN | | | |
| 2. | DRILL ACTUAL | | | |
| 3. | REAMING | | | |
| 4. | CORING | | | |
| 5. | CONDITION MUD & CIRCULATE | | | |
| 6. | TRIPS | | 8 | 8 |
| 7. | LUBRICATE RIG | | | |
| 8. | REPAIR RIG | | | |
| 9. | CUT OFF DRILLING LINE | | | |
| 10. | DEVIATION SURVEY | | | |
| 11. | WIRE LINE LOGS | | | |
| 12. | RUN CASING & CEMENT | | | |
| 13. | WAIT ON CEMENT | | | |
| 14. | NIPPLE UP B.O.P. | | | |
| 15. | TEST B.O.P. | | | |
| 16. | DRILL STEM TEST | | | |
| 17. | PLUG BACK | | | |
| 18. | SQUEEZE CEMENT | | | |
| 19. | FISHING | | | |
| 20. | DIR. WORK | | | |
| 21. | TRAVEL | | 1 | |
| 22. | OTHER | | | |
| 23. | | | | |
| COMPLETION | A. PERF'R'T'N | | | |
| | B. TBG TRIPS | | | |
| | C. TREATING | | | |
| | D. SWABBING | | | |
| | E. TESTING | | | |
| | F. ADDIT'N'L | | | |
| | G. | | | |
| TOTALS | | | 9 | 8 |

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

| | | | |
|---|---|---|---|
| HRS. W/CONTR. D.P. | | | |
| HRS. W/OPR. D.P. | | | |
| HRS. WO/D.P. | | | |
| HRS. STANDBY | | | |
| TOTAL DAY WORK | | | |

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

TOTAL MUD COST

## DRILLING ASSEMBLY (At end of tour) / BIT RECORD / MUD RECORD

| DRILLING ASSEMBLY | | BIT RECORD | | MUD RECORD | |
|---|---|---|---|---|---|
| BIT | FT. | BIT NO. | | TIME | |
| | | SIZE | | WEIGHT | |
| STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | |
| D.C. ID OD | FT. | TYPE | | VISC.-SEC. | |
| STB RMR OD | FT. | JETS 1/32" | | PV/YP | |
| D.C. ID OD | FT. | SER. NO. | | GELS. | |
| STB RMR OD | FT. | DEPTH OUT | | WL -CC'S. | |
| | | DEPTH IN | | pH | |
| | | TOTAL FTG. | | SOLIDS % | |
| | | TOTAL HRS. RUN | | | |
| STANDS DP | FT. | COND. 1/8's T/B/ GAGE | | MUD & CHEMICALS ADDED | |
| SINGLES DP | FT. | GPM/ PD-PSI | | TYPE / AMT. / TYPE / AMT. | |
| KELLY DOWN | FT. | | | | |
| TOTAL | FT. | | | | |
| WT. OF STRING | LBS. | | | | |

MORNING TOUR

## FOOTAGE / FORMATION (SHOW CORE RECOVERY)

| FOOTAGE FROM | FOOTAGE TO | DR.-D RM.-R CORE.-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.-S PART.EL-P COMP.D-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

TIME LOG

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| | | | | NOTE ON HYDRO-TESTING IN HOLE! |
| | | | | DRIFTED CEMENT OUT OF TUBING. |

DRILLER

DAY TOUR

## DRILLING ASSEMBLY (At end of tour) / BIT RECORD / MUD RECORD

| DRILLING ASSEMBLY | | BIT RECORD | | MUD RECORD | |
|---|---|---|---|---|---|
| BIT | FT. | BIT NO. | | TIME | |
| | | SIZE | | WEIGHT | |
| STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | |
| D.C. ID OD | FT. | TYPE | | VISC.-SEC. | |
| STB RMR OD | FT. | JET 1/32" | | PV/YP | |
| D.C. ID OD | FT. | SER. NO. | | GELS. | |
| STB RMR OD | FT. | DEPTH OUT | | WL -CC'S. | |
| | | DEPTH IN | | pH | |
| | | TOTAL FTG. | | SOLIDS % | |
| | | TOTAL HRS. RUN | | | |
| STANDS DP | FT. | COND. 1/8's T/B/ GAGE | | MUD & CHEMICALS ADDED | |
| SINGLES DP | FT. | GPM/ PD-PSI | | TYPE / AMT. / TYPE / AMT. | |
| KELLY DOWN | FT. | | | | |
| TOTAL | FT. | | | | |
| WT. OF STRING | LBS. | | | | |

## FOOTAGE / FORMATION (SHOW CORE RECOVERY)

| FOOTAGE FROM | FOOTAGE TO | DR.-D RM.-R CORE.-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.-S PART.EL-P COMP.D-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

TIME LOG

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 600 | | | | SERV THE RIG & THE EQUIP. |
| | | | | HYDRO TESTING, CHANGING COLLARS @ 5000 PSI FOR 1 MIN. |
| | 2:00 | | | HELD BOP DRILL 9-21-76 |

DRILLER David Eaton

EVENING TOUR

## DRILLING ASSEMBLY (At end of tour) / BIT RECORD / MUD RECORD

| DRILLING ASSEMBLY | | BIT RECORD | | MUD RECORD | |
|---|---|---|---|---|---|
| BIT | FT. | BIT NO. | | TIME | |
| | | SIZE | | WEIGHT | |
| STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | |
| D.C. ID OD | FT. | TYPE | | VISC.-SEC. | |
| STB RMR OD | FT. | JETS 1/32" | | PV/YP | |
| D.C. ID OD | FT. | SER. NO. | | GELS. | |
| STB RMR OD | FT. | DEPTH OUT | | WL -CC'S. | |
| | | DEPTH IN | | pH | |
| | | TOTAL FTG. | | SOLIDS % | |
| | | TOTAL HRS. RUN | | | |
| STANDS DP | FT. | COND. 1/8's T/B/ GAGE | | MUD & CHEMICALS ADDED | |
| SINGLES DP | FT. | GPM/ PD-PSI | | TYPE / AMT. / TYPE / AMT. | |
| KELLY DOWN | FT. | | | | |
| TOTAL | FT. | | | | |
| WT. OF STRING | LBS. | | | | |

## FOOTAGE / FORMATION (SHOW CORE RECOVERY)

| FOOTAGE FROM | FOOTAGE TO | DR.-D RM.-R CORE.-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.-S PART.EL-P COMP.D-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

TIME LOG

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 2:00 | | | | HYDRO-TESTING IN HOLE @ 5,000 PSI FOR 1 MIN, CHANGING & BAKER-SEALING COLLARS @ E.O.T. |
| | 10:00 | 9 | | |

DRILLER

## DRILLING CREW PAYROLL DATA — No. 5501

DATE TUE. 9-21-76

WELL NAME & NO. STANDARD SESNON #30 — CPS JOB # 3-564.3

COMPANY So CALIF GAS CO.

TOOL PUSHER L. J. Boggs — RIG NO. D-3

MORNING TOUR ____ P.M. ____ A.M.

| CREW | SOC. SEC. NO. | NAME | HRS. |
|---|---|---|---|
| DRILLER | | | |
| DRKMAN | | | |
| MTRMAN | | | |
| FIREMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| TRAINEE | | | |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

DAY TOUR 5:00 A.M. — 2:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. |
|---|---|---|---|
| DRILLER | 562-5 | D. EATON | 9 |
| DRKMAN | 367-3 | S. DORFMEIER | 9 |
| MTRMAN | 375-0 | B. FRENCH | 9 |
| FIREMAN | 373-6 | K. WILDER | 9 |
| FLRMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| TRAINEE | | | |
| | | RIG | 8 |
| | | PUMP | 0 |
| | | CREW | 9 |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 2:00 P.M. — 10:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. |
|---|---|---|---|
| DRILLER | 367-6 | B. DAVIS | 8 |
| DRKMAN | 371-9 | T. BRANDON | 8 |
| MTRMAN | 372-8 | J. TOOPS | 8 |
| FIREMAN | 377-3 | P. SELMSER | 8 |
| FLRMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| TRAINEE | | | |
| | | RIG | 8 |
| | | PUMP | 0 |
| | | CREW | 8 |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

Form 3T-5 — Printed in U. S. A. — APPROVED — APPROVED

**IADC – API OFFICIAL DAILY DRILLING REPORT FORM**

APPROVED — APPROVED

AC_CPUC_0118011

No. 5499

DAILY DRILLING REPORT — REPORT NO. 21 — #3-5643

| LEASE | WELL NO. | API WELL NUMBER | DATE |
|---|---|---|---|
| ALISO CYN | S.S. #30 | | 9-18-76 |

| OPERATOR | CONTRACTOR | RIG NO. |
|---|---|---|
| SO CALIF GAS CO. | CALIF. PROD. SVC | D-3 |

SIGNATURE OF OPERATOR'S REPRESENTATIVE: G. H. Dawson

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: O. K. Elston

| D.P. SIZE | WT./FT. | GRADE | TOOL JT O.D. | TYPE THREAD | STRING NO. |
|---|---|---|---|---|---|
| | | | | | |

| PUMP NO. | PUMP MANUFACTURER | TYPE | STROKE LENGTH |
|---|---|---|---|
| 10 | EMSCO | D-300 | 14x5½ |

FIELD OR DIST.: ALISO CYN. | COUNTY: L.A. | STATE: CA.

LAST CASING TUBING OR LINER

| SIZE | MAKE | WT. & GR. | NO. JOINTS | FEET | RKB. TO CSG. HD. | SET AT |
|---|---|---|---|---|---|---|
| | | | | | | |

WIRE LINE RECORD — REEL NO.

| SIZE | NO. LINES | FT. SLIPPED |
|---|---|---|
| | | |

FT. CUT OFF | PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

DRILLING CREW PAYROLL DATA — No. 5499 #3-5643

DATE 9-18-76

WELL NAME & NO. S.S. #30

COMPANY SO. CALIF. GAS CO. G. H. Dawson

TOOL PUSHER O. K. Elston — RIG NO. D-3

## TIME DISTRIBUTION – HOURS

| CODE NO. | OPERATION | MORN. | DAY | EVE. |
|---|---|---|---|---|
| 1. | RIG UP AND TEAR DOWN | | | |
| 2. | DRILL ACTUAL | | | |
| 3. | REAMING | | | |
| 4. | CORING | | | |
| 5. | CONDITION MUD & CIRCULATE | | | 2 |
| 6. | TRIPS | | 1 | 5½ |
| 7. | LUBRICATE RIG | | | |
| 8. | REPAIR RIG | | | |
| 9. | CUT OFF DRILLING LINE | | | |
| 10. | DEVIATION SURVEY | | | |
| 11. | WIRE LINE LOGS | | | |
| 12. | RUN CASING & CEMENT | | | |
| 13. | WAIT ON CEMENT | | | |
| 14. | NIPPLE UP B.O.P. | | | |
| 15. | TEST B.O.P. | | | |
| 16. | DRILL STEM TEST | | | |
| 17. | PLUG BACK | | | |
| 18. | SQUEEZE CEMENT | | | |
| 19. | FISHING | | | |
| 20. | DIR. WORK | | | |
| 21. | TRAVEL | | 1 | |
| 22. | OTHER | | ½ | ½ |
| 23. | ACID WASH | | 6½ | |
| COMPLETION | A. PERF'R'T'N | | | |
| | B. TBG TRIPS | | | |
| | C. TREATING | | | |
| | D. SWABBING | | | |
| | E. TESTING | | | |
| | F. ADDIT'N'L | | | |
| | G. | | | |
| TOTALS | | | 9 | |

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

| | | | |
|---|---|---|---|
| HRS. W/CONTR. D.P. | | | |
| HRS. W/OPR. D.P. | | | |
| HRS. WO/D.P. | | | |
| HRS. STANDBY | | | |
| TOTAL DAY WORK | | | |

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

TOTAL MUD COST

## DRILLING ASSEMBLY (At end of tour) / BIT RECORD / MUD RECORD

| DRILLING ASSEMBLY | FT. | BIT RECORD | MUD RECORD |
|---|---|---|---|
| BIT | FT. | BIT NO. | TIME |
| | | SIZE | WEIGHT |
| STB RMR OD | FT. | MFG. | PRESSURE GRADIENT |
| D.C. ID OD | FT. | TYPE | VISC.–SEC. |
| STB RMR OD | FT. | JETS 1/32" | PV/YP |
| D.C. ID OD | FT. | SER. NO. | GELS. |
| STB RMR OD | FT. | DEPTH OUT | WL –CC'S. |
| | | DEPTH IN | pH |
| | | TOTAL FTG. | SOLIDS % |
| | | TOTAL HRS. RUN | |
| STANDS DP | FT. | COND. 1/8's T/B/ GAGE | MUD & CHEMICALS ADDED: TYPE / AMT. / TYPE / AMT. |
| SINGLES DP | FT. | GPM/ PD–PSI | |
| KELLY DOWN | FT. | | |
| TOTAL | FT. | | |
| WT. OF STRING | LBS. | | |

MORNING TOUR

## DRILLING ASSEMBLY (At end of tour) / BIT RECORD / MUD RECORD

| DRILLING ASSEMBLY | FT. | BIT RECORD | MUD RECORD |
|---|---|---|---|
| BIT | FT. | BIT NO. | TIME |
| | | SIZE | WEIGHT |
| STB RMR OD | FT. | MFG. | PRESSURE GRADIENT |
| D.C. ID OD | FT. | TYPE | VISC.–SEC. |
| STB RMR OD | FT. | JET 1/32" | PV/YP |
| D.C. ID OD | FT. | SER. NO. | GELS. |
| STB RMR OD | FT. | DEPTH OUT | WL –CC'S. |
| | | DEPTH IN | pH |
| | | TOTAL FTG. | SOLIDS % |
| | | TOTAL HRS. RUN | |
| STANDS DP | FT. | COND. 1/8's T/B/ GAGE | MUD & CHEMICALS ADDED: TYPE / AMT. / TYPE / AMT. |
| SINGLES DP | FT. | GPM/ PD–PSI | |
| KELLY DOWN | FT. | | |
| TOTAL | FT. | | |
| WT. OF STRING | LBS. | | |

DAY TOUR

## DRILLING ASSEMBLY (At end of tour) / BIT RECORD / MUD RECORD

| DRILLING ASSEMBLY | FT. | BIT RECORD | MUD RECORD |
|---|---|---|---|
| BIT | FT. | BIT NO. | TIME |
| | | SIZE | WEIGHT |
| STB RMR OD | FT. | MFG. | PRESSURE GRADIENT |
| D.C. ID OD | FT. | TYPE | VISC.–SEC. |
| STB RMR OD | FT. | JETS 1/32" | PV/YP |
| D.C. ID OD | FT. | SER. NO. | GELS. |
| STB RMR OD | FT. | DEPTH OUT | WL –CC'S. |
| | | DEPTH IN | pH |
| | | TOTAL FTG. | SOLIDS % |
| | | TOTAL HRS. RUN | |
| STANDS DP | FT. | COND. 1/8's T/B/ GAGE | MUD & CHEMICALS ADDED: TYPE / AMT. / TYPE / AMT. |
| SINGLES DP | FT. | GPM/ PD–PSI | |
| KELLY DOWN | FT. | | |
| TOTAL | FT. | | |
| WT. OF STRING | LBS. | | |

EVENING TOUR

## MORNING TOUR

FOOTAGE FROM / TO | DR..D RM–R CORE..C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE / S.P.M. | PUMP NO. LINER SIZE / S.P.M. | METHOD RUN SGL–S PAR'EL–P COM'D–C

DEVIATION RECORD: DEPTH / DEV. / DIRECTION (×3)

TIME LOG FROM / TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

NOTE ON ACID SQEEZE JOB
WITH BAKERES FUL-BORE SET AT 9023 SQEEZED AWAY 5900 GAL OF 12% HF ACID
@ 8959 SQEEZED AWAY 4000 GALS.
PULLED OUT TO 8856 SQEEZED AWAY 4270 GAL
FILLED HOLE WITH 28 BBLS AFTER SQEEZE

DRILLER

MORNING TOUR ____ P.M. ____ A.M.

| CREW | SOC. SEC. NO. | NAME | HRS. |
|---|---|---|---|
| DRILLER | | | |
| DRKMAN | | | |
| MTRMAN | | | |
| FIREMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| TRAINEE | | | |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

## DAY TOUR

FOOTAGE FROM / TO | DR..D RM–R CORE..C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE / S.P.M. | PUMP NO. LINER SIZE / S.P.M. | METHOD RUN SGL–S PAR'EL–P COM'D–C

DEVIATION RECORD: DEPTH / DEV. / DIRECTION (×3)

TIME LOG FROM / TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS |
|---|---|---|---|---|
| | | | | SERV. RIG & EQUIP. |
| 6:00 | | | | RIH TO 9023' USING HALLIBURTON & BAKER'S F. BORE, SPOTTED FOLLOWING AMTS OF 12% HF ACID @ INDICATED DEPTHS: 3900 GALS @ 9023', 4,000 GALS @ 8959', 4270 GALS @ 8856'. RELEASED & SAFETIED TOOL. RIGGED HALLIBURTON |
| | 12:30 | 6½ | | DOWN. FILLED HOLE W/ 28 BBLS. |
| 12:30 | | | | RIGGED GUIBERSON DOWN. P.O.H. @ E.O.T. |
| | 2:00 | 1½ | | |

DRILLER G. H. Dawson

DAY TOUR 5:00 A.M. 2:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. |
|---|---|---|---|
| DRILLER | 36 76 | B. DAVIS | 9 |
| DRKMAN | 37 19 | T. BRANDON | 9 |
| MTRMAN | 37 28 | J. TOOPS | 9 |
| FIREMAN | 37 73 | P. SELMSER | 9 |
| FLRMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| TRAINEE | | | |
| | | RIG | 8 |
| | | PUMP | 1 |
| | | CREW | 9 |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

## EVENING TOUR

FOOTAGE FROM / TO | DR..D RM–R CORE..C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE / S.P.M. | PUMP NO. LINER SIZE / S.P.M. | METHOD RUN SGL–S PAR'EL–P COM'D–C

DEVIATION RECORD: DEPTH / DEV. / DIRECTION (×3)

TIME LOG FROM / TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS |
|---|---|---|---|---|
| 2:00 | 3:00 | 1 | | PULL OUT OF HOLE W/ Baker F Bore |
| 3:00 | 6:00 | 3 | | RUN IN HOLE W/ BIT SCRAPPER |
| 6:00 | 8:00 | 2 | | CIRC. HOLE @ 9240 |
| 8:00 | 9:30 | 1½ | | PULL OUT OF HOLE |
| 9:30 | 10:00 | ½ | | CLOSED WELL IN SHUT JOB DOWN |

DRILLER B. J. French

EVENING TOUR 2:00 P.M. 10:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. |
|---|---|---|---|
| DRILLER | 37 90 | B. J. FRENCH | 8 |
| DRKMAN | 36 73 | S. DORFMEIER | 8 |
| MTRMAN | 37 36 | K. Wilder | 8 |
| FIREMAN | 37 90 | J. K. Ward | 8 |
| FLRMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| TRAINEE | | | |
| | | RIG | 8 |
| | | PUMP | 2 |
| | | CREW | 8 |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

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**IADC – API OFFICIAL DAILY DRILLING REPORT FORM**

APPROVED — APPROVED

AC_CPUC_0118012

No. 5498

DAILY DRILLING REPORT — REPORT NO. 20 — #3-5643

| LEASE | WELL NO. | API WELL NUMBER | DATE |
|---|---|---|---|
| ALISO CYN. | SS #30 | | 9-17-76 |

| OPERATOR | CONTRACTOR | RIG NO. |
|---|---|---|
| SO. CALIF. GAS CO. | CALIF. PROD. SVC. | D-3 |

SIGNATURE OF OPERATOR'S REPRESENTATIVE: P. H. Margetts

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: J. L. Boggs

| D.P. SIZE | WT./FT. | GRADE | TOOL JT. O.D. | TYPE THREAD | STRING NO. |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |

| PUMP NO. | PUMP MANUFACTURER | TYPE | STROKE LENGTH |
|---|---|---|---|
| 10 | EMSCO | D-300 | 14x5½ |

FIELD OR DIST.: ALISO CYN. — COUNTY: L.A. — STATE: CA

LAST CASING TUBING OR LINER

| SIZE | MAKE | WT. & GR. | NO. JOINTS | FEET | RKB. TO CSG. HD. | SET AT |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |

WIRE LINE RECORD — REEL NO.

| SIZE | NO. LINES | FT. SLIPPED |
|---|---|---|
| | | |

FT. CUT OFF — PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

## TIME DISTRIBUTION – HOURS

| CODE NO. – OPERATION | MORN. | DAY | EVE. |
|---|---|---|---|
| 1. RIG UP AND TEAR DOWN | | | |
| 2. DRILL ACTUAL | | | |
| 3. REAMING | | | |
| 4. CORING | | | |
| 5. ~~CONDITION MUD~~ & CIRCULATE | | 1½ | 1½ |
| 6. TRIPS | | | 6 |
| 7. LUBRICATE RIG | | | |
| 8. REPAIR RIG | | | |
| 9. CUT OFF DRILLING LINE | | | |
| 10. DEVIATION SURVEY | | | |
| 11. WIRE LINE LOGS | | | |
| 12. RUN CASING & CEMENT | | | |
| 13. WAIT ON CEMENT | | | |
| 14. NIPPLE UP B.O.P. | | | |
| 15. TEST B.O.P. | | | |
| 16. DRILL STEM TEST | | | |
| 17. PLUG BACK | | | |
| 18. SQUEEZE CEMENT | | | |
| 19. FISHING | | | |
| 20. DIR. WORK | | | |
| 21. TRAVEL | | 1 | |
| 22. OTHER | | | ½ |
| 23. WASH PERFS | | 6½ | |
| COMPLETION A. PERF'R'T'N | | | |
| B. TBG TRIPS | | | |
| C. TREATING | | | |
| D. SWABBING | | | |
| E. TESTING | | | |
| F. ADDIT'N'L | | | |
| G. | | | |
| TOTALS | | 9 | 9 |

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

| | | | | |
|---|---|---|---|---|
| HRS. W/CONTR. D.P. | | | | |
| HRS. W/OPR. D.P. | | | | |
| HRS. WO/D.P. | | | | |
| HRS. STANDBY | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| TOTAL DAY WORK | | | | |

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

TOTAL MUD COST

## MORNING TOUR

| NO. | DRILLING ASSEMBLY (At end of tour) | | BIT RECORD | | MUD RECORD | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | | | | |
| | | | SIZE | | WEIGHT | | | | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | | | | |
| | D.C. ID OD | FT. | TYPE | | VISC.-SEC. | | | | |
| | STB RMR OD | FT. | JETS 1/32" | | PV/YP | / | / | / | |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | / | / | / | |
| | STB RMR OD | FT. | DEPTH OUT | | WL -CC'S. | | | | |
| | | | DEPTH IN | | pH | | | | |
| | | | TOTAL FTG. | | SOLIDS % | | | | |
| | | | TOTAL HRS. RUN | | | | | | |
| | STANDS DP | FT. | COND. 1/8's T/B/ GAGE | | MUD & CHEMICALS ADDED | | | | |
| | SINGLES DP | FT. | GPM/ PD-PSI | / | TYPE | AMT. | TYPE | AMT. | |
| | KELLY DOWN | FT. | | | | | | | |
| | TOTAL | FT. | | | | | | | |
| | WT. OF STRING | LBS. | | | | | | | |

| FOOTAGE FROM | FOOTAGE TO | DR..D RM-R CORE..C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.-S PAR'EL-P COM'B-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| TIME LOG FROM | TIME LOG TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

DRILLER

## DAY TOUR

| NO. | DRILLING ASSEMBLY (At end of tour) | | BIT RECORD | | MUD RECORD | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | | | | |
| | | | SIZE | | WEIGHT | | | | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | | | | |
| | D.C. ID OD | FT. | TYPE | | VISC.-SEC. | | | | |
| | STB RMR OD | FT. | JET 1/32" | | PV/YP | / | / | / | |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | / | / | / | |
| | STB RMR OD | FT. | DEPTH OUT | | WL -CC'S. | | | | |
| | | | DEPTH IN | | pH | | | | |
| | | | TOTAL FTG. | | SOLIDS % | | | | |
| | | | TOTAL HRS. RUN | | | | | | |
| | STANDS DP | FT. | COND. 1/8's T/B/ GAGE | | MUD & CHEMICALS ADDED | | | | |
| | SINGLES DP | FT. | GPM/ PD-PSI | / | TYPE | AMT. | TYPE | AMT. | |
| | KELLY DOWN | FT. | | | | | | | |
| | TOTAL | FT. | | | | | | | |
| | WT. OF STRING | LBS. | | | | | | | |

| FOOTAGE FROM | FOOTAGE TO | DR..D RM-R CORE..C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.-S PAR'EL-P COM'B-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| TIME LOG FROM | TIME LOG TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 6:00 | 12:30 | 6½ | | SERV. RIG & EQUIP. WASHED PERFS. FROM 8880'-9080. USING HALLIBURTON |
| 12:30 | | | | CIRC. HOLE. |
| | 2:00 | 1½ | | |

DRILLER

## EVENING TOUR

| NO. | DRILLING ASSEMBLY (At end of tour) | | BIT RECORD | | MUD RECORD | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | | | | |
| | | | SIZE | | WEIGHT | | | | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | | | | |
| | D.C. ID OD | FT. | TYPE | | VISC.-SEC. | | | | |
| | STB RMR OD | FT. | JETS 1/32" | | PV/YP | / | / | / | |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | / | / | / | |
| | STB RMR OD | FT. | DEPTH OUT | | WL -CC'S. | | | | |
| | | | DEPTH IN | | pH | | | | |
| | | | TOTAL FTG. | | SOLIDS % | | | | |
| | | | TOTAL HRS. RUN | | | | | | |
| | STANDS DP | FT. | COND. 1/8's T/B/ GAGE | | MUD & CHEMICALS ADDED | | | | |
| | SINGLES DP | FT. | GPM/ PD-PSI | / | TYPE | AMT. | TYPE | AMT. | |
| | KELLY DOWN | FT. | | | | | | | |
| | TOTAL | FT. | | | | | | | |
| | WT. OF STRING | LBS. | | | | | | | |

| FOOTAGE FROM | FOOTAGE TO | DR..D RM-R CORE..C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.-S PAR'EL-P COM'B-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| TIME LOG FROM | TIME LOG TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 2:00 | 3:30 | 1½ | | SERV. RIG & EQIP. CIRC HOLE |
| 3:30 | 4:00 | ½ | | REMOVED GUIBERSON STRIPER |
| 4:00 | 7:00 | 3 | | PULLED OUT OF THE HOLE W/ WASHER LOADED OUT SAME |
| 7:00 | | | | MADE UP BAKERES FUL-BORE RAN IN THE HOLE TO |
| | | | | 9661 INSTALED GUIBERSON STRIPER CLOSED WELL |
| | 10:00 | 3 | | IN SHUT JOB DOWN |

DRILLER David E. Toops

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

TOTAL MUD COST

Form 3T-5 — Printed in U. S. A. — APPROVED — APPROVED

**IADC – API OFFICIAL DAILY DRILLING REPORT FORM**

DRILLING CREW PAYROLL DATA — No. 5498 #3-5643

DATE 9-17-76

WELL NAME & NO. S.S #30

COMPANY SO. CALIF. GAS CO. P.H. Margetts

TOOL PUSHER J. L. Boggs — RIG NO. D-3

MORNING TOUR _____ P.M. _____ A.M.

| CREW | SOC. SEC. NO. | NAME | HRS. |
|---|---|---|---|
| DRILLER | | | |
| DRKMAN | | | |
| MTRMAN | | | |
| FIREMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| TRAINEE | | | |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

DAY TOUR 5:00 A.M. 2:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. |
|---|---|---|---|
| DRILLER | 36 76 | B. DAVIS | 9 |
| DRKMAN | 37 19 | T. BRANDON | 9 |
| MTRMAN | 37 28 | J. TOOPS | 9 |
| FIREMAN | 37 73 | P SELMSER | 9 |
| FLRMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| TRAINEE | | | |
| | | RIG | 8 |
| | | PUMP | 2 |
| | | CREW | 9 |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 2:00 P.M. 10:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. |
|---|---|---|---|
| DRILLER | 56 25 | D. EATON | 8 |
| DRKMAN | 36 73 | S. DOREMEIER | 8 |
| MTRMAN | 37 50 | B FRENCH | 8 |
| FIREMAN | 37 36 | K. WILDER | 8 |
| FLRMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| TRAINEE | | | |
| | | RIG | 8 |
| | | PUMP | 1½ |
| | | CREW | 8 |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

APPROVED — APPROVED

AC_CPUC_0118013

No. 5497

DAILY DRILLING REPORT — REPORT NO. 19 — CPS JOB NO. 3-5643

| LEASE | WELL NO. | API WELL NUMBER | DATE |
|---|---|---|---|
| ALISO CYN. | SS #30 | STANDARD SESNON #30 | 9-16-76 |

| OPERATOR | CONTRACTOR | RIG NO. |
|---|---|---|
| So CALIF GAS CO | CALIF PROD SERV. | D-3 |

SIGNATURE OF OPERATOR'S REPRESENTATIVE: G. R. Wargats

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: D. L. Boggs

| O.D. SIZE | WT./FT. | GRADE | INCL JT O.D. | TYPE THREAD | STRING NO. |
|---|---|---|---|---|---|
| | | | | | |

| PUMP NO. | PUMP MANUFACTURER | TYPE | STROKE LENGTH |
|---|---|---|---|
| 10 | EMSCO | D-300 | 14 x 5½ |

FIELD OR DIST.: ALISO CYN — COUNTY: LOS ANGELES — STATE: CALIFORNIA

LAST CASING TUBING OR LINER

| SIZE | MAKE | WT. & GR. | NO. JOINTS | FEET | RKB. TO CSG. HD. | SET AT |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |

WIRE LINE RECORD — REEL NO.

| SIZE | NO. LINES | FT. SLIPPED |
|---|---|---|
| | | |

FT. CUT OFF — PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

DRILLING CREW PAYROLL DATA — No. 5497

DATE THUR. 9-16-76 — CPS JOB NO. 3-5643

WELL NAME & NO. STANDARD SESNON #30

COMPANY So CALIF. GAS CO. G. R. Wargats

TOOL PUSHER D. L. Boggs — RIG NO. D-3

## TIME DISTRIBUTION – HOURS

| CODE NO. – OPERATION | MORN. | DAY | EVE. |
|---|---|---|---|
| 1. RIG UP AND TEAR DOWN | | | |
| 2. DRILL ACTUAL | | | |
| 3. REAMING | | | |
| 4. CORING | | | |
| 5. ~~CONDITION MUD~~ & CIRCULATE | | 3½ | |
| 6. TRIPS | 1½ | 4½ | 4½ |
| 7. LUBRICATE RIG | | | |
| 8. REPAIR RIG | | | |
| 9. CUT OFF DRILLING LINE | | | |
| 10. DEVIATION SURVEY | | | |
| 11. WIRE LINE LOGS | | | |
| 12. RUN CASING & CEMENT | | | |
| 13. WAIT ON CEMENT | | | |
| 14. NIPPLE UP B.O.P. | | | |
| 15. TEST B.O.P. | | | |
| 16. DRILL STEM TEST | | | |
| 17. PLUG BACK | | | |
| 18. SQUEEZE CEMENT | | | |
| 19. FISHING | | | |
| 20. DIR. WORK | | | |
| 21. TRAVEL | | 1 | |
| 22. OTHER | 1 | | ½ |
| 23. | | | |
| COMPLETION A. PERF'R'T'N | | | |
| B. TBG TRIPS | | | |
| C. TREATING | | | |
| D. SWABBING | | | |
| E. TESTING | | | |
| F. ADDIT'N'L | | | |
| G. | | | |
| TOTALS | 1½ | 9 | 5 |

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

| | | | |
|---|---|---|---|
| HRS. W/CONTR. D.P. | | | |
| HRS. W/OPR. D.P. | | | |
| HRS. WO/D.P. | | | |
| HRS. STANDBY | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| TOTAL DAY WORK | | | |
| | | | |
| NO. OF DAYS FROM SPUD | | | |
| CUMULATIVE ROTATING HRS. | | | |
| TOTAL MUD COST | | | |

## DAY TOUR

### DRILLING ASSEMBLY (At end of tour)

| NO. | | | |
|---|---|---|---|
| 1 | BIT | 50 | FT. |
| | STB RMR OD | | FT. |
| | D.C. ID OD | | FT. |
| | STB RMR OD | | FT. |
| | D.C. ID OD | | FT. |
| | STB RMR OD | | FT. |
| 1 | SCRAPER | 4.50 | |
| 20 | STANDS DP | 1247.19 | FT. |
| | SINGLES DP | | FT. |
| | KELLY DOWN | | FT. |
| | TOTAL | | FT. |
| WT. OF STRING | | | LBS. |

### BIT RECORD

| | |
|---|---|
| BIT NO. | |
| SIZE | |
| MFG. | |
| TYPE | |
| JETS 1/32" | |
| SER. NO. | |
| DEPTH OUT | |
| DEPTH IN | |
| TOTAL FTG. | |
| TOTAL HRS. RUN | |
| COND. 1/8's T/B/ GAGE | |
| GPM/ PD–PSI | |

### MUD RECORD

| | |
|---|---|
| TIME | |
| WEIGHT | |
| PRESSURE GRADIENT | |
| VISC.–SEC. | |
| PV/YP | |
| GELS. | |
| WL –CC'S. | |
| pH | |
| SOLIDS % | |

MUD & CHEMICALS ADDED

| TYPE | AMT. | TYPE | AMT. |
|---|---|---|---|
| | | | |

### DRILLING ASSEMBLY (At end of tour)

| NO. | | | |
|---|---|---|---|
| 1 | BIT ~~SCRAPER~~ | 5.00 | FT. |
| | STB RMR OD | | FT. |
| | D.C. ID OD | | FT. |
| | STB RMR OD | | FT. |
| | D.C. ID OD | | FT. |
| | STB RMR OD | | FT. |
| 49 | STANDS DP | 921.97 | FT. |
| | SINGLES DP | | FT. |
| | KELLY DOWN | 15.00 | FT. |
| | TOTAL | 923.97 | FT. |
| WT. OF STRING | | 58,000 | LBS. |

### BIT RECORD

| | |
|---|---|
| BIT NO. | |
| SIZE | |
| MFG. | |
| TYPE | |
| JET 1/32" | |
| SER. NO. | |
| DEPTH OUT | |
| DEPTH IN | |
| TOTAL FTG. | |
| TOTAL HRS. RUN | |
| COND. 1/8's T/B/ GAGE | |
| GPM/ PD–PSI | |

### MUD RECORD

| | |
|---|---|
| TIME | |
| WEIGHT | |
| PRESSURE GRADIENT | |
| VISC.–SEC. | |
| PV/YP | |
| GELS. | |
| WL –CC'S. | |
| pH | |
| SOLIDS % | |

MUD & CHEMICALS ADDED

| TYPE | AMT. | TYPE | AMT. |
|---|---|---|---|
| | | | |

### DRILLING ASSEMBLY (At end of tour)

| NO. | | | |
|---|---|---|---|
| | BIT | | FT. |
| | STB RMR OD | | FT. |
| | D.C. ID OD | | FT. |
| | STB RMR OD | | FT. |
| | D.C. ID OD | | FT. |
| | STB RMR OD | | FT. |
| | STANDS DP | | FT. |
| | SINGLES DP | | FT. |
| | KELLY DOWN | | FT. |
| | TOTAL | | FT. |
| WT. OF STRING | | | LBS. |

### BIT RECORD

| | |
|---|---|
| BIT NO. | |
| SIZE | |
| MFG. | |
| TYPE | |
| JETS 1/32" | |
| SER. NO. | |
| DEPTH OUT | |
| DEPTH IN | |
| TOTAL FTG. | |
| TOTAL HRS. RUN | |
| COND. 1/8's T/B/ GAGE | |
| GPM/ PD–PSI | |

### MUD RECORD

| | |
|---|---|
| TIME | |
| WEIGHT | |
| PRESSURE GRADIENT | |
| VISC.–SEC. | |
| PV/YP | |
| GELS. | |
| WL –CC'S. | |
| pH | |
| SOLIDS % | |

MUD & CHEMICALS ADDED

| TYPE | AMT. | TYPE | AMT. |
|---|---|---|---|
| | | | |

FOOTAGE — FROM / TO — DR.–D RM.–R CORE.–C — CORE NO. — FORMATION (SHOW CORE RECOVERY) — ROTARY RPM — WT. ON BIT 1000# — PUMP PRESS — PUMP NO. LINER SIZE / S.P.M. — PUMP NO. LINER SIZE / S.P.M. — METHOD RUN SGL.–S PARL.–P COMP.–C

DEVIATION RECORD — DEPTH / DEV. / DIRECTION (×3)

TIME LOG FROM / TO — ELAPSED TIME — CODE NO. — DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 12:00 | 1:00 | 1 | | SERV THE RIG AND THE EQUIP |
| 1:00 | 1:30 | ½ | | RIGGED DOWN DRESSER-ATLAS WIRE LINE SERV. |
| | | | | RUNNING IN THE HOLE WITH BIT & SCRAPER |
| | | | | CLOSED WELL IN SHUT THE JOB DOWN |

DRILLER David Eaton

FOOTAGE — FROM / TO — DR.–D RM.–R CORE.–C — CORE NO. — FORMATION (SHOW CORE RECOVERY) — ROTARY RPM — WT. ON BIT 1000# — PUMP PRESS — PUMP NO. LINER SIZE / S.P.M. — PUMP NO. LINER SIZE / S.P.M. — METHOD RUN SGL.–S PARL.–P COMP.–C

DEVIATION RECORD — DEPTH / DEV. / DIRECTION (×3)

TIME LOG FROM / TO — ELAPSED TIME — CODE NO. — DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 6:00 | 8:00 | 2 | | SERV. RIG & EQUIP. |
| 8:00 | 11:30 | 3½ | | RIH TO 9240' W/BIT & SCRAPER. |
| 11:30 | | | | CIRC. HOLE CLEAN. |
| | | | | P.O.H. C.E.O.T. |
| | 2:00 | 2½ | | |

DRILLER G. R. Wargats

MORNING TOUR 12:00 P.M. 1:30 A.M.

| CREW | SOC. SEC. NO. | NAME | HRS. |
|---|---|---|---|
| DRILLER | CONFIDENTIAL | D. EATON | 1½ |
| DRKMAN | | S. DORFMEIER | 1½ |
| MTRMAN | | B. FRENCH | 1½ |
| FIREMAN | | K. WILDER | 1½ |
| FLRMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| TRAINEE | | | |
| | | RIG | 1½ |
| | | PUMP | Ø |
| | | CREW | 1½ |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

DAY TOUR 5:00 A.M. 2:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. |
|---|---|---|---|
| DRILLER | CONFIDENTIAL | B. DAVIS | 9 |
| DRKMAN | | T. BRANDON | 9 |
| MTRMAN | | J. TOOPS | 9 |
| FIREMAN | | P SELMSER | 9 |
| FLRMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| TRAINEE | | | |
| | | RIG | 8 |
| | | PUMP | 3½ |
| | | CREW | 9 |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

## EVENING TOUR

FOOTAGE — FROM / TO — DR.–D RM.–R CORE.–C — CORE NO. — FORMATION (SHOW CORE RECOVERY) — ROTARY RPM — WT. ON BIT 1000# — PUMP PRESS — PUMP NO. LINER SIZE / S.P.M. — PUMP NO. LINER SIZE / S.P.M. — METHOD RUN SGL.–S PARL.–P COMP.–C

DEVIATION RECORD — DEPTH / DEV. / DIRECTION (×3)

TIME LOG FROM / TO — ELAPSED TIME — CODE NO. — DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 2:00 | 4:00 | 2 | | SERV. the Rig and the EQUIP. |
| | | | | Finished pulling out of the hole. |
| | | | | Broke off bit and SCRAPER |
| 4:00 | | | | Make up. circ. wash tool |
| | 6:30 | 2½ | | Ran in hole to 9661 |
| 6:30 | 7:00 | ½ | | CLOSED WELL IN SHUT JOB DOWN |

DRILLER David Eaton

EVENING TOUR 2:00 P.M. 7:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. |
|---|---|---|---|
| DRILLER | CONFIDENTIAL | D. EATON | 5 |
| DRKMAN | | S. DORFMEIER | 5 |
| MTRMAN | | B. FRENCH | 5 |
| FIREMAN | | K. WILDER | 5 |
| FLRMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| TRAINEE | | | |
| | | RIG | 5 |
| | | PUMP | Ø |
| | | CREW | 5 |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

Form 3T-5 — Printed in U. S. A. — APPROVED — APPROVED

**IADC – API OFFICIAL DAILY DRILLING REPORT FORM**

APPROVED — APPROVED

AC_CPUC_0118014

No. 5496

DAILY DRILLING REPORT — REPORT NO. 18 — #3-5643

| LEASE | WELL NO. | API WELL NUMBER | DATE |
|---|---|---|---|
| ALISO CYN. | S.S. #30 | | 9-15-76 |

| OPERATOR | CONTRACTOR | RIG NO. |
|---|---|---|
| SO. CALIF. GAS CO. | CALIF. PROD. SVC. | D-3 |

SIGNATURE OF OPERATOR'S REPRESENTATIVE: C. M. Dargatz

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: J. L. Boggs

| D.P. SIZE | WT./FT. | GRADE | TOOL JT O.D. | TYPE THREAD | STRING NO. |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |

| PUMP NO. | PUMP MANUFACTURER | TYPE | STROKE LENGTH |
|---|---|---|---|
| 10 | EMSCO | D-300 | 14X5½ |

FIELD OR DIST.: ALISO CYN. — COUNTY: L.A. — STATE: CA.

LAST CASING TUBING OR LINER

| SIZE | MAKE | WT. & GR. | NO. JOINTS | FEET | RKB. TO CSG. HD. | SET AT |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |

WIRE LINE RECORD — REEL NO.

| SIZE | NO. LINES | FT. SLIPPED |
|---|---|---|
| | | |

FT. CUT OFF — PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

## TIME DISTRIBUTION – HOURS

| CODE NO. – OPERATION | MORN. | DAY | EVE. |
|---|---|---|---|
| 1. RIG UP AND TEAR DOWN | | | |
| 2. DRILL ACTUAL | | 2½ | |
| 3. REAMING | | | |
| 4. CORING | | | |
| 5. CONDITION MUD & CIRCULATE | | 2½ | |
| 6. TRIPS | | 2 | 2 |
| 7. LUBRICATE RIG | | | |
| 8. REPAIR RIG | | | |
| 9. CUT OFF DRILLING LINE | | | |
| 10. DEVIATION SURVEY | | | |
| 11. WIRE LINE LOGS | | | |
| 12. RUN CASING & CEMENT | | | |
| 13. WAIT ON CEMENT | | | |
| 14. NIPPLE UP B.O.P. | | | |
| 15. TEST B.O.P. | | | |
| 16. DRILL STEM TEST | | | |
| 17. PLUG BACK | | | |
| 18. SQUEEZE CEMENT | | | |
| 19. FISHING | | | |
| 20. DIR. WORK | | | |
| 21. TRAVEL | | 1 | |
| 22. OTHER | | 1 | |
| 23. | | | |
| COMPLETION A. PERF'R'T'N | | | 8 |
| B. TBG TRIPS | | | |
| C. TREATING | | | |
| D. SWABBING | | | |
| E. TESTING | | | |
| F. ADDIT'N'L | | | |
| G. | | | |
| TOTALS | | 9 | 10 |

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

| | | | |
|---|---|---|---|
| HRS. W/CONTR. D.P. | | | |
| HRS. W/OPR. D.P. | | | |
| HRS. WO/D.P. | | | |
| HRS. STANDBY | | | |
| TOTAL DAY WORK | | | |

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

TOTAL MUD COST

### MORNING TOUR

| NO. | DRILLING ASSEMBLY (At end of tour) | | |
|---|---|---|---|
| | BIT | | FT. |
| | | | |
| | STB RMR OD | | FT. |
| | D.C. ID OD | | FT. |
| | STB RMR OD | | FT. |
| | D.C. ID OD | | FT. |
| | STB RMR OD | | FT. |
| | | | |
| | | | |
| | STANDS DP | | FT. |
| | SINGLES DP | | FT. |
| | KELLY DOWN | | FT. |
| | TOTAL | | FT. |
| WT. OF STRING | | | LBS. |

BIT RECORD: BIT NO. | SIZE | MFG. | TYPE | JETS 1/32" | SER. NO. | DEPTH OUT | DEPTH IN | TOTAL FTG. | TOTAL HRS. RUN | COND. 1/8's T/B/ GAGE | GPM/ PD-PSI

MUD RECORD: TIME | WEIGHT | PRESSURE GRADIENT | VISC.-SEC. | PV/YP | GELS. | WL -CC'S. | pH | SOLIDS % | MUD & CHEMICALS ADDED (TYPE, AMT., TYPE, AMT.)

### DAY TOUR

| NO. | DRILLING ASSEMBLY (At end of tour) | | |
|---|---|---|---|
| 1 | BIT ESCRAPER | 5.00 | FT. |
| | | | |
| | STB RMR OD | | FT. |
| | D.C. ID OD | | FT. |
| | STB RMR OD | | FT. |
| | | | |
| | | | |
| 149 | STANDS DP | 9219.97 | FT. |
| | SINGLES DP | | FT. |
| | KELLY DOWN | 15.00 | FT. |
| | TOTAL | 9239.97 | FT. |
| WT. OF STRING | 58,000 | | LBS. |

BIT RECORD: BIT NO. | SIZE | MFG. | TYPE | JET 1/32" | SER. NO. | DEPTH OUT | DEPTH IN | TOTAL FTG. | TOTAL HRS. RUN | COND. 1/8's T/B/ GAGE | GPM/ PD-PSI

MUD RECORD: TIME | WEIGHT | PRESSURE GRADIENT | VISC.-SEC. | PV/YP | GELS. | WL -CC'S. | pH | SOLIDS % | MUD & CHEMICALS ADDED (TYPE, AMT., TYPE, AMT.)

### EVENING TOUR

| NO. | DRILLING ASSEMBLY (At end of tour) | | |
|---|---|---|---|
| | BIT | .50 | FT. |
| | | | |
| | STB RMR OD | | FT. |
| | D.C. ID OD | | FT. |
| | STB RMR OD | | FT. |
| | D.C. ID OD | | FT. |
| | STB RMR OD | | FT. |
| | SCRAPER | 4.50 | |
| | | | |
| 20 | STANDS DP | | FT. |
| | SINGLES DP | | FT. |
| | KELLY DOWN | | FT. |
| | TOTAL | | FT. |
| WT. OF STRING | | | LBS. |

BIT RECORD: BIT NO. | SIZE | MFG. | TYPE | JETS 1/32" | SER. NO. | DEPTH OUT | DEPTH IN | TOTAL FTG. | TOTAL HRS. RUN | COND. 1/8's T/B/ GAGE | GPM/ PD-PSI

MUD RECORD: TIME | WEIGHT | PRESSURE GRADIENT | VISC.-SEC. | PV/YP | GELS. | WL -CC'S. | pH | SOLIDS % | MUD & CHEMICALS ADDED (TYPE, AMT., TYPE, AMT.)

### MORNING TOUR

FOOTAGE: FROM | TO — DR.-D RM.-R CORE.-C — CORE NO. — FORMATION (SHOW CORE RECOVERY) — ROTARY RPM — WT. ON BIT 1000# — PUMP PRESS — PUMP NO. LINER SIZE | S.P.M. — PUMP NO. LINER SIZE | S.P.M. — METHOD RUN SGL.-S PAR'EL-P COM'D-C

DEVIATION RECORD: DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

TIME LOG: FROM | TO — ELAPSED TIME — CODE NO. — DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

NOTE ON PERFS, WITH 2-½" HOLES PER FOOT
9080' - 9040' WITH GOLDEN JET CHARGE
9020' - 8972' PERFORATEING DONE BY
8955' - 8921' DRESSER-ATLAS
8906' 8894'

DRILLER David Eaton

### DAY TOUR

FOOTAGE: FROM | TO — DR.-D RM.-R CORE.-C — CORE NO. — FORMATION (SHOW CORE RECOVERY) — ROTARY RPM — WT. ON BIT 1000# — PUMP PRESS — PUMP NO. LINER SIZE | S.P.M. — PUMP NO. LINER SIZE | S.P.M. — METHOD RUN SGL.-S PAR'EL-P COM'D-C

DEVIATION RECORD: DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

TIME LOG: FROM | TO — ELAPSED TIME — CODE NO. — DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS |
|---|---|---|---|---|
| | | | | SERV. RIG & EQUIP. |
| 6:00 | 8:30 | 2½ | | RIH TO 9100' CLEANED OUT TO 9240', WORKING |
| | | | | THROUGH TIGHT SPOT @9210' |
| 8:30 | 11:00 | 2½ | | CIRC. HOLE CLEAN. |
| 11:00 | 12:00 | 1 | | RIG DOWN & LOADED OUT POWER SWIVEL & GUIB. |
| 12:00 | | | | P.O.H. @ E.O.T. |
| | 2:00 | 2 | | HELD B.O.P.E. DRILL |

DRILLER J. L. Boggs

### EVENING TOUR

FOOTAGE: FROM | TO — DR.-D RM.-R CORE.-C — CORE NO. — FORMATION (SHOW CORE RECOVERY) — ROTARY RPM — WT. ON BIT 1000# — PUMP PRESS — PUMP NO. LINER SIZE | S.P.M. — PUMP NO. LINER SIZE | S.P.M. — METHOD RUN SGL.-S PAR'EL-P COM'D-C

DEVIATION RECORD: DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

TIME LOG: FROM | TO — ELAPSED TIME — CODE NO. — DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS |
|---|---|---|---|---|
| 200 | 330 | 1½ | | FINISHED PULLING OUT OF THE HOLE WITH B.I.T & SCRAPER |
| 330 | 400 | ½ | | RIGGED UP DRESSER ATLAS WIRE LINE SERV. |
| 400 | | | | PERFORATED WITH 2-½" HOLES PER FOOT WITH GOLDEN- |
| | 1200 | 8 | | JET CHARGE, AS PROGRAMED |

DRILLER David Eaton

## DRILLING CREW PAYROLL DATA

No. 5496 #3-5643

DATE 9-15-76

WELL NAME & NO. S.S. #30

COMPANY SO. CALIF. GAS CO. C. M. Dargatz

TOOL PUSHER J. L. Boggs — RIG NO. D-3

MORNING TOUR _____ P.M. _____ A.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | | | | |
| DRKMAN | | | | |
| MTRMAN | | | | |
| FIREMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

DAY TOUR 5:00 A.M. 2:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | 36 76 | B. DAVIS | 9 | 2 |
| DRKMAN | 37 19 | T. BRANDON | 9 | 3 |
| MTRMAN | 37 28 | J. TOOPS | 9 | 7 |
| FIREMAN | 37 73 | P. SELMSER | 9 | 7 |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |
| | | RIG | 8 | |
| | | PUMP | 5 | |
| | | CREW | 9 | |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 200 P.M. 12:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | 56 25 | D. EATON | 10 | 2 |
| DRKMAN | 36 73 | S. DOREMEIER | 10 | 3 |
| MTRMAN | 37 50 | B. FRENCH | 10 | 7 |
| FIREMAN | 37 36 | K. WILDER | 10 | 7 |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |
| | | RIG | 10 | |
| | | PUMP | 0 | |
| | | CREW | 10 | |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

Form 3T-5 — Printed in U. S. A. — APPROVED — APPROVED

**IADC – API OFFICIAL DAILY DRILLING REPORT FORM**

APPROVED — APPROVED

AC_CPUC_0118015

No. 5495

# DAILY DRILLING REPORT — REPORT NO. 17 — #3-5643

| LEASE | WELL NO. | API WELL NUMBER | DATE |
|---|---|---|---|
| ALISO CYN. | SS #30 | | 9-14-76 |

| OPERATOR | CONTRACTOR | RIG NO. |
|---|---|---|
| SO CALIF GAS CO. | CALIF PROD SVC. | D-3 |

SIGNATURE OF OPERATOR'S REPRESENTATIVE: R M Morgan

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: J. L. Boggs

| D.P. SIZE | WT./FT. | GRADE | TOOL JT O.D. | TYPE THREAD | STRING NO. |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |

| PUMP NO. | PUMP MANUFACTURER | TYPE | STROKE LENGTH |
|---|---|---|---|
| 10 | EMSCO | D-300 | 14x5½ |

FIELD OR DIST.: ALISO CYN. COUNTY: L.A. STATE: CA.

LAST CASING TUBING OR LINER

| SIZE | MAKE | WT. & GR. | NO. JOINTS | FEET | RKB. TO CSG. HD. | SET AT |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |

WIRE LINE RECORD — REEL NO.

| SIZE | NO. LINES | FT. SLIPPED |
|---|---|---|
| | | |

FT. CUT OFF | PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

## TIME DISTRIBUTION — HOURS

| CODE NO. — OPERATION | MORN. | DAY | EVE. |
|---|---|---|---|
| 1. RIG UP AND TEAR DOWN | | | |
| 2. DRILL ACTUAL | | | 4 |
| 3. REAMING | | | |
| 4. CORING | | | |
| 5. CONDITION MUD & CIRCULATE | | 1½ | 2 |
| 6. TRIPS | | 5½ | 2 |
| 7. LUBRICATE RIG | | | |
| 8. REPAIR RIG | | | |
| 9. CUT OFF DRILLING LINE | | | |
| 10. DEVIATION SURVEY | | | |
| 11. WIRE LINE LOGS | | | |
| 12. RUN CASING & CEMENT | | | |
| 13. WAIT ON CEMENT | | | |
| 14. NIPPLE UP B.O.P. | | | |
| 15. TEST B.O.P. | | | |
| 16. DRILL STEM TEST | | | |
| 17. PLUG BACK | | | |
| 18. SQUEEZE CEMENT | | | |
| 19. FISHING | | | |
| 20. DIR. WORK | | | |
| 21. TRAVEL | | 1 | |
| 22. OTHER | | 1 | |
| 23. | | | |
| COMPLETION A. PERF'R'T'N | | | |
| COMPLETION B. TBG TRIPS | | | |
| COMPLETION C. TREATING | | | |
| COMPLETION D. SWABBING | | | |
| COMPLETION E. TESTING | | | |
| COMPLETION F. ADDIT'N'L | | | |
| COMPLETION G. | | | |
| TOTALS | | 9 | 8 |

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

| | |
|---|---|
| HRS. W/CONTR. D.P. | |
| HRS. W/OPR. D.P. | |
| HRS. WO/D.P. | |
| HRS. STANDBY | |
| TOTAL DAY WORK | |
| NO. OF DAYS FROM SPUD | |
| CUMULATIVE ROTATING HRS. | |
| TOTAL MUD COST | |

## DRILLING ASSEMBLY (At end of tour) / BIT RECORD / MUD RECORD

| NO. | DRILLING ASSEMBLY | | BIT RECORD | | MUD RECORD | |
|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | |
| | | | SIZE | | WEIGHT | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | |
| | D.C. ID OD | FT. | TYPE | | VISC.-SEC. | |
| | STB RMR OD | FT. | JETS 1/32" | | PV/YP | |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | |
| | STB RMR OD | FT. | DEPTH OUT | | WL -CC'S. | |
| | | | DEPTH IN | | pH | |
| | | | TOTAL FTG. | | SOLIDS % | |
| | | | TOTAL HRS. RUN | | | |
| | STANDS DP | FT. | COND. 1/8's T/B/ GAGE | | MUD & CHEMICALS ADDED | |
| | SINGLES DP | FT. | GPM/ PD-PSI | | TYPE / AMT. / TYPE / AMT. | |
| | KELLY DOWN | FT. | | | | |
| | TOTAL | FT. | | | | |
| | WT. OF STRING | LBS. | | | | |

MORNING TOUR

| NO. | DRILLING ASSEMBLY | | BIT RECORD | | MUD RECORD | |
|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | |
| | | | SIZE | | WEIGHT | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | |
| | D.C. ID OD | FT. | TYPE | | VISC.-SEC. | |
| | STB RMR OD | FT. | JET 1/32" | | PV/YP | |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | |
| | STB RMR OD | FT. | DEPTH OUT | | WL -CC'S. | |
| | | | DEPTH IN | | pH | |
| | | | TOTAL FTG. | | SOLIDS % | |
| | | | TOTAL HRS. RUN | | | |
| | STANDS DP | FT. | COND. 1/8's T/B/ GAGE | | MUD & CHEMICALS ADDED | |
| | SINGLES DP | FT. | GPM/ PD-PSI | | TYPE / AMT. / TYPE / AMT. | |
| | KELLY DOWN | FT. | | | | |
| | TOTAL | FT. | | | | |
| | WT. OF STRING | LBS. | | | | |

DAY TOUR

| NO. | DRILLING ASSEMBLY | | BIT RECORD | | MUD RECORD | |
|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | |
| | | | SIZE | | WEIGHT | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | |
| | D.C. ID OD | FT. | TYPE | | VISC.-SEC. | |
| | STB RMR OD | FT. | JETS 1/32" | | PV/YP | |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | |
| | STB RMR OD | FT. | DEPTH OUT | | WL -CC'S. | |
| | | | DEPTH IN | | pH | |
| | | | TOTAL FTG. | | SOLIDS % | |
| | | | TOTAL HRS. RUN | | | |
| | STANDS DP | FT. | COND. 1/8's T/B/ GAGE | | MUD & CHEMICALS ADDED | |
| | SINGLES DP | FT. | GPM/ PD-PSI | | TYPE / AMT. / TYPE / AMT. | |
| | KELLY DOWN | FT. | | | | |
| | TOTAL | FT. | | | | |
| | WT. OF STRING | LBS. | | | | |

EVENING TOUR

## FOOTAGE / FORMATION / DEVIATION RECORD

| FOOTAGE FROM | FOOTAGE TO | DR..D RM..R CORE..C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SCL..S PAR'EL..P COM'B..C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

DRILLER

## TIME LOG — MORNING TOUR

| TIME LOG FROM | TIME LOG TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| | | | | |

## TIME LOG — DAY TOUR

| TIME LOG FROM | TIME LOG TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 6:00 | 8:00 | 2 | | RIH TO 8890' |
| 8:00 | | | | RIGGED UP GUIBERSON & POWER SWIVEL. CIRC. OVER |
| | 10:00 | 2 | | PLUG, RELEASED SAME. & CIRC. |
| 10:00 | 1:30 | 3½ | | P.O.H BROKE DOWN & LOADED OUT JOHNSTON'S TOOLS |
| 1:30 | | | | MADE UP BIT & SCRAPER ON TBG. RIH. W/SAME @ E.O.T. |
| | 2:00 | ½ | | |

DRILLER

## TIME LOG — EVENING TOUR

| TIME LOG FROM | TIME LOG TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 2:00 | 3:30 | 1½ | | FINISHED RUNNIN IN THE HOLE WITH BIT & SCRAPER |
| 3:30 | 7:30 | 4 | | TAG FILL @ 8919 CLEANED OUT CEMENT FROM 8919 TO 9095 |
| 7:30 | 9:30 | 2 | | CIRC HOLE CLEAN |
| 9:30 | 10:00 | ½ | | PULLED OUT TO ABOVE PERFS CLOSED WELL IN SHUT JOB DWN |

DRILLER

## DRILLING CREW PAYROLL DATA

No. 5495 #3-5643

DATE 9-14-76

WELL NAME & NO. SS #30

COMPANY SO CALIF GAS CO. R M Morgan

TOOL PUSHER J. L. Boggs RIG NO. D-3

MORNING TOUR ____ P.M. ____ A.M.

| CREW | SOC. SEC. NO. | NAME | HRS. |
|---|---|---|---|
| DRILLER | | | |
| DRKMAN | | | |
| MTRMAN | | | |
| FIREMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| TRAINEE | | | |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

DAY TOUR 5:00 A.M. 2:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. |
|---|---|---|---|
| DRILLER | 36 76 | B DAVIS | 9 |
| DRKMAN | 37 19 | T. BRANDON | 9 |
| MTRMAN | 37 28 | J. TOOPS | 9 |
| FIREMAN | 37 73 | P. SELMSER | 9 |
| FLRMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| TRAINEE | | | |
| | | RIG | 8 |
| | | PUMP | 1½ |
| | | CREW | 9 |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 2:00 P.M. 10:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. |
|---|---|---|---|
| DRILLER | 56 25 | D. EATON | 8 |
| DRKMAN | 36 73 | S. DORFMEIER | 8 |
| MTRMAN | 37 50 | B. FRENCH | 8 |
| FIREMAN | 37 90 | J.K. WARD | 8 |
| FLRMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| TRAINEE | | | |
| | | RIG | 8 |
| | | PUMP | 6 |
| | | CREW | 8 |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT



AC_CPUC_0118016

No. 5494 #3-5643

# DAILY DRILLING REPORT — REPORT NO. 16

| LEASE | WELL NO. | API WELL NUMBER | DATE |
|---|---|---|---|
| ALISO CYN. | SS #30 | | 9-13-76 |

| OPERATOR | CONTRACTOR | RIG NO. |
|---|---|---|
| SO. CALIF. GAS CO. | CALIF. PROD. SVC. | D-3 |

SIGNATURE OF OPERATOR'S REPRESENTATIVE: T. Mangan

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: J. L. Boyce

| D.P. SIZE | WT./FT. | GRADE | TOOL JT O.D. | TYPE THREAD | STRING NO. |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |

| PUMP NO. | PUMP MANUFACTURER | TYPE | STROKE LENGTH |
|---|---|---|---|
| 10 | EMSCO | D-300 | 14x5½ |

FIELD OR DIST.: ALISO CYN. | COUNTY: L.A. | STATE: CA

LAST CASING TUBING OR LINER

| SIZE | MAKE | WT. & GR. | NO. JOINTS | FEET | RKB. TO CSG. HD. | SET AT |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |

WIRE LINE RECORD — REEL NO.

| SIZE | NO. LINES | FT. SLIPPED |
|---|---|---|
| | | |

FT. CUT OFF | PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

## TIME DISTRIBUTION — HOURS

| CODE NO. — OPERATION | MORN. | DAY | EVE. |
|---|---|---|---|
| 1. RIG UP AND TEAR DOWN | | | |
| 2. DRILL ACTUAL | | | |
| 3. REAMING | | | |
| 4. CORING | | | |
| 5. CONDITION MUD & CIRCULATE | | | 2½ |
| 6. TRIPS | | 6 | 4½ |
| 7. LUBRICATE RIG | | | |
| 8. REPAIR RIG | | | |
| 9. CUT OFF DRILLING LINE | | | |
| 10. DEVIATION SURVEY | | | |
| 11. WIRE LINE LOGS | | | |
| 12. RUN CASING & CEMENT | | | |
| 13. WAIT ON CEMENT | | | |
| 14. NIPPLE UP B.O.P. | | | |
| 15. TEST B.O.P. | | | |
| 16. DRILL STEM TEST | | | |
| 17. PLUG BACK | | | |
| 18. SQUEEZE CEMENT | | | |
| 19. FISHING | | | |
| 20. DIR. WORK | | | |
| 21. TRAVEL | | 1 | |
| 22. OTHER | | 2 | 1 |
| 23. | | | |
| COMPLETION A. PERF'R'T'N | | | |
| B. TBG TRIPS | | | |
| C. TREATING | | | |
| D. SWABBING | | | |
| E. TESTING | | | |
| F. ADDIT'N'L | | | |
| G. | | | |
| TOTALS | | 9 | 8 |

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

| | |
|---|---|
| HRS. W/CONTR. D.P. | |
| HRS. W/OPR. D.P. | |
| HRS. WO/D.P. | |
| HRS. STANDBY | |
| TOTAL DAY WORK | |
| NO. OF DAYS FROM SPUD | |
| CUMULATIVE ROTATING HRS. | |
| TOTAL MUD COST | |

## DRILLING ASSEMBLY (At end of tour)

| NO. | | | |
|---|---|---|---|
| | BIT | | FT. |
| | | | |
| | STB RMR | OD | FT. |
| | D.C. ID | OD | FT. |
| | STB RMR | OD | FT. |
| | D.C. ID | OD | FT. |
| | STB RMR | OD | FT. |
| | | | |
| | | | |
| | STANDS DP | | FT. |
| | SINGLES | DP | FT. |
| | KELLY DOWN | | FT. |
| | TOTAL | | FT. |
| WT. OF STRING | | | LBS. |

## BIT RECORD

| | |
|---|---|
| BIT NO. | |
| SIZE | |
| MFG. | |
| TYPE | |
| JETS 1/32" | |
| SER. NO. | |
| DEPTH OUT | |
| DEPTH IN | |
| TOTAL FTG. | |
| TOTAL HRS. RUN | |
| COND. 1/8's T/B/ GAGE | |
| GPM/ PD-PSI | |

## MUD RECORD

| | |
|---|---|
| TIME | |
| WEIGHT | |
| PRESSURE GRADIENT | |
| VISC.-SEC. | |
| PV/YP | |
| GELS. | |
| WL.-CC'S. | |
| pH | |
| SOLIDS % | |

MUD & CHEMICALS ADDED

| TYPE | AMT. | TYPE | AMT. |
|---|---|---|---|
| | | | |

MORNING TOUR

## FOOTAGE / FORMATION

| FROM | TO | DR.-D RM.-R CORE.-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.-S PAR.-P COM.-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

TIME LOG

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

DRILLER

DAY TOUR

## FOOTAGE / FORMATION

| FROM | TO | DR.-D RM.-R CORE.-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.-S PAR.-P COM.-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

TIME LOG

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 6:00 | | | | SERV. RIG & EQUIP. |
| | | | | P.O.H. W/ RET. TOOL. RIH W/ BIT & SCRAPER |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| 2:00 | 8 | | | |

DRILLER

EVENING TOUR

## FOOTAGE / FORMATION

| FROM | TO | DR.-D RM.-R CORE.-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.-S PAR.-P COM.-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

TIME LOG

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 2:00 | 2:30 | ½ | | SERV THE RIG AND THE EQUIP. |
| 2:30 | 3:00 | ½ | | FINISHED RUNNING IN THE HOLE WITH BIT & SCRAPER |
| 3:00 | 3:30 | ½ | | TAG SAND AT 8868 INSTALED GUIBERSON PICKED UP SWIVEL. |
| 3:30 | 6:00 | 2½ | | CLEANED OUT SAND FROM 8868' TO TOP of Plug @ 8890' |
| 6:00 | 9:30 | 3½ | | CIRC HOLE CLEAN |
| 9:30 | 10:00 | ½ | | PULLED OUT OF THE HOLE WITH BIT AND SCRAPER |
| | | | | MADE UP RET. TOOL RUNNING IN THE HOLE AT END OF TR |
| | | | | HELD BOP DRILL 9-13-76 |

DRILLER David O Eaton

## DRILLING CREW PAYROLL DATA

No. 5494 #3-5643

DATE 9-13-76

WELL NAME & NO. S.S. #30

COMPANY SO. CALIF. GAS CO. T. Mangan

TOOL PUSHER J. L. Boyce RIG NO. D-3

MORNING TOUR _____ P.M. _____ A.M.

| CREW | SOC. SEC. NO. | NAME | HRS. |
|---|---|---|---|
| DRILLER | | | |
| DRKMAN | | | |
| MTRMAN | | | |
| FIREMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| TRAINEE | | | |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

DAY TOUR 5:00 A.M. 2:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. |
|---|---|---|---|
| DRILLER | CONFIDENTIAL | B. DAVIS | 9 |
| DRKMAN | | T. BRANDON | 9 |
| MTRMAN | | J. TOOPS | 9 |
| FIREMAN | | P. SELMSER | 9 |
| FLRMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| TRAINEE | | | |
| | | RIG | 8 |
| | | PUMP | Ø |
| | | CREW | 9 |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 2:00 P.M. 10:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. |
|---|---|---|---|
| DRILLER | CONFIDENTIAL | D. EATON | 8 |
| DRKMAN | | S. DOREMEIER | 8 |
| MTRMAN | | B. FRENCH | 8 |
| FIREMAN | | T. BRANDON | 1 |
| FLRMAN | | J.K. WARD | 7 |
| FLRMAN | | | |
| FLRMAN | | | |
| TRAINEE | | | |
| | | RIG | 8 |
| | | PUMP | 3 |
| | | CREW | 8 |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

Form 3T-5 Printed in U. S. A. APPROVED APPROVED

**IADC – API OFFICIAL DAILY DRILLING REPORT FORM**

APPROVED APPROVED

AC_CPUC_0118017

No. 5492

DAILY DRILLING REPORT — REPORT NO. 14 — 3-5643

| LEASE | WELL NO. | API WELL NUMBER | DATE |
|---|---|---|---|
| ALISO CYN. | SS #30 | STANDARD SESNON #30 | 9-10-76 |

| OPERATOR | CONTRACTOR | RIG NO. |
|---|---|---|
| So CALIF GAS Co | CALIF PROD SERV | |

SIGNATURE OF OPERATOR'S REPRESENTATIVE: E C Shaffer

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: J. L. Boggs

| D.P. SIZE | WT./FT. | GRADE | TOOL JT. O.D. | TYPE THREAD | STRING NO. |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |

| PUMP NO. | PUMP MANUFACTURER | TYPE | STROKE LENGTH |
|---|---|---|---|
| 10 | EMSCO | D-300 | 14 x 5½ |

FIELD OR DIST.: ALISO CYN — COUNTY: LOS ANGELES — STATE: CALIFORNIA

LAST CASING TUBING OR LINER

| SIZE | MAKE | WT. & GR. | NO. JOINTS | FEET | RKB. TO CSG. HD. | SET AT |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |

WIRE LINE RECORD — REEL NO.

| SIZE | NO. LINES | FT. SLIPPED |
|---|---|---|
| | | |

FT. CUT OFF — PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

DRILLING CREW PAYROLL DATA — No. 5492

DATE FRI 9-10-76 — CPS JOB # 3-5643

WELL NAME & NO. STANDARD SESNON #30

COMPANY So CALIF GAS CO

TOOL PUSHER J. L. Boggs — RIG NO. D-3

## TIME DISTRIBUTION – HOURS

| CODE NO. – OPERATION | MORN. | DAY | EVE. |
|---|---|---|---|
| 1. RIG UP AND TEAR DOWN | | | |
| 2. DRILL ACTUAL | | | |
| 3. REAMING | | | |
| 4. CORING | | | |
| 5. CONDITION MUD & CIRCULATE | | | |
| 6. TRIPS | | 4½ | 5 |
| 7. LUBRICATE RIG | | | |
| 8. REPAIR RIG | | | |
| 9. CUT OFF DRILLING LINE | | | |
| 10. DEVIATION SURVEY | | | |
| 11. WIRE LINE LOGS | | 1½ | |
| 12. RUN CASING & CEMENT | | | |
| 13. WAIT ON CEMENT | | | |
| 14. NIPPLE UP B.O.P. | | | |
| 15. TEST B.O.P. | | | |
| 16. DRILL STEM TEST | | | |
| 17. PLUG BACK | | | |
| 18. SQUEEZE CEMENT | | | |
| 19. FISHING | | | |
| 20. DIR. WORK | | | |
| 21. TRAVEL | | 1 | |
| 22. OTHER | | 2 | 3 |
| 23. | | | |
| COMPLETION A. PERF'R'T'N | | | |
| COMPLETION B. TBG TRIPS | | | |
| C. TREATING | | | |
| D. SWABBING | | | |
| E. TESTING | | | |
| F. ADDIT'N'L | | | |
| G. | | | |
| TOTALS | | 9 | 8 |

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

| | |
|---|---|
| HRS. W/CONTR. D.P. | |
| HRS. W/OPR. D.P. | |
| HRS. WO/D.P. | |
| HRS. STANDBY | |
| TOTAL DAY WORK | |
| NO. OF DAYS FROM SPUD | |
| CUMULATIVE ROTATING HRS. | |
| TOTAL MUD COST | |

## DRILLING ASSEMBLY (At end of tour) / BIT RECORD / MUD RECORD

| NO. | DRILLING ASSEMBLY | | BIT RECORD | | MUD RECORD | |
|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | |
| | | | SIZE | | WEIGHT | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | |
| | D.C. ID OD | FT. | TYPE | | VISC.-SEC. | |
| | STB RMR OD | FT. | JETS 1/32" | | PV/YP | |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | |
| | STB RMR OD | FT. | DEPTH OUT | | WL -CC'S. | |
| | | | DEPTH IN | | pH | |
| | | | TOTAL FTG. | | SOLIDS % | |
| | | | TOTAL HRS. RUN | | | |
| | STANDS DP | FT. | COND. 1/8's T/B/ GAGE | | MUD & CHEMICALS ADDED | |
| | SINGLES DP | FT. | GPM/ PD-PSI | | TYPE / AMT. / TYPE / AMT. | |
| | KELLY DOWN | FT. | | | | |
| | TOTAL | FT. | | | | |
| | WT. OF STRING | LBS. | | | | |

MORNING TOUR

| NO. | DRILLING ASSEMBLY | | BIT RECORD | | MUD RECORD | |
|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | |
| | | | SIZE | | WEIGHT | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | |
| | D.C. ID OD | FT. | TYPE | | VISC.-SEC. | |
| | STB RMR OD | FT. | JET 1/32" | | PV/YP | |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | |
| | STB RMR OD | FT. | DEPTH OUT | | WL -CC'S. | |
| | | | DEPTH IN | | pH | |
| | | | TOTAL FTG. | | SOLIDS % | |
| | | | TOTAL HRS. RUN | | | |
| | STANDS DP | FT. | COND. 1/8's T/B/ GAGE | | MUD & CHEMICALS ADDED | |
| | SINGLES DP | FT. | GPM/ PD-PSI | | TYPE / AMT. / TYPE / AMT. | |
| | KELLY DOWN | FT. | | | | |
| | TOTAL | FT. | | | | |
| | WT. OF STRING | LBS. | | | | |

DAY TOUR

| NO. | DRILLING ASSEMBLY | | BIT RECORD | | MUD RECORD | |
|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | |
| | | | SIZE | | WEIGHT | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | |
| | D.C. ID OD | FT. | TYPE | | VISC.-SEC. | |
| | STB RMR OD | FT. | JETS 1/32" | | PV/YP | |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | |
| | STB RMR OD | FT. | DEPTH OUT | | WL -CC'S. | |
| | | | DEPTH IN | | pH | |
| | | | TOTAL FTG. | | SOLIDS % | |
| | | | TOTAL HRS. RUN | | | |
| | STANDS DP | FT. | COND. 1/8's T/B/ GAGE | | MUD & CHEMICALS ADDED | |
| | SINGLES DP | FT. | GPM/ PD-PSI | | TYPE / AMT. / TYPE / AMT. | |
| | KELLY DOWN | FT. | | | | |
| | TOTAL | FT. | | | | |
| | WT. OF STRING | LBS. | | | | |

EVENING TOUR

## FOOTAGE / FORMATION / PUMP

| FOOTAGE FROM | FOOTAGE TO | DR.-D RM.-R CORE.-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.-S PARL.-P COMP.-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

TIME LOG

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

DRILLER

## FOOTAGE / FORMATION / PUMP

| FOOTAGE FROM | FOOTAGE TO | DR.-D RM.-R CORE.-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.-S PARL.-P COMP.-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

TIME LOG

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 6:00 | 9:00 | 2 | | SERV. THE RIG & EQUIP |
| 9:00 | 9:30 | ½ | | FINISHED PULLING OUT OF THE HOLE |
| 9:30 | 11:00 | 1½ | | RIGGED UP McCULLOUGH WIRE LINE SERV. |
| 11:00 | 10:30 | ½ | | RAN IN WITH WIRE LINE TO 9953 SHOT 4-½" HOLES @ 9953 |
| 10:30 | 11:30 | 1 | | RIGGED DOWN McCULLOUGH WIRE LINE SERV. |
| 11:30 | 2:00 | 2½ | | MADE UP LYNNES TESTER |
| | | | | RUNNING IN THE HOLE WITH TESTER @ END OF TOUR |

DRILLER David Eaton

## FOOTAGE / FORMATION / PUMP

| FOOTAGE FROM | FOOTAGE TO | DR.-D RM.-R CORE.-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.-S PARL.-P COMP.-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| WSOK on Wales 8853' | Petro P Wyatt | Div Of Oil & Gas | | | | | | |

TIME LOG

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 2:00 | 3:00 | 1 | | FINISHED RIH W/LYNNES TESTER. SET SAME W/TAIL @ |
| 3:00 | 4:30 | 1½ | | 8821. MADE WSO. TEST. |
| 4:30 | 8:30 | 4 | | P.O.H. BROKE DOWN & LOADED OUT TESTER. |
| 8:30 | | | | RIH OPEN-ENDED @ E.O.T. CLOSED WELL IN, SHUT JOB |
| | | | | DOWN. |
| | 10:00 | 1½ | | |

DRILLER Jack McCall

MORNING TOUR — P.M. — A.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | | | | |
| DRKMAN | | | | |
| MTRMAN | | | | |
| FIREMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

DAY TOUR 5:00 A.M. 3:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | 562 5 | D EATON | 9 | 2 |
| DRKMAN | 567 3 | S. DOREMEIER | 9 | 3 |
| MTRMAN | 375 0 | B. FRENCH | 9 | 7 |
| FIREMAN | 379 1 | BL. FAUSNET | 9 | 7 |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |
| | | RIG | 9 | |
| | | PUMP | 9 | |
| | | CREW | 9 | |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 2:00 P.M. 10:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | 367 6 | B. DAVIS | 8 | 2 |
| DRKMAN | 371 9 | T. BRANDON | 8 | 3 |
| MTRMAN | 372 8 | J. TOOPS | 8 | 7 |
| FIREMAN | 377 3 | P. SELMSER | 8 | 7 |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |
| | | RIG | 8 | |
| | | PUMP | 8 | |
| | | CREW | 8 | |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

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**IADC – API OFFICIAL DAILY DRILLING REPORT FORM**

APPROVED — APPROVED

AC_CPUC_0118018

No. 5493

DAILY DRILLING REPORT — REPORT NO. 15 — 3-5643

| LEASE | WELL NO. | API WELL NUMBER | DATE |
|---|---|---|---|
| ALISO CYN. | SS #30 | STANDARD SESNON #30 | 9-11-76 |

| OPERATOR | CONTRACTOR | RIG NO. |
|---|---|---|
| So CALIF GAS CO. | CALIF PROD SERV. | D-3 |

SIGNATURE OF OPERATOR'S REPRESENTATIVE: E. C Brumley

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: J. L. Boggs

| D.P. SIZE | WT./FT. | GRADE | TOOL JT O.D. | TYPE THREAD | STRING NO. |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |

| PUMP NO. | PUMP MANUFACTURER | TYPE | STROKE LENGTH |
|---|---|---|---|
| 10 | EMSCO | D-300 | 14 X 5½ |

FIELD OR DIST.: ALISO CYN. — COUNTY: LOS ANGELES — STATE: CALIFORNIA

LAST CASING TUBING OR LINER

| SIZE | MAKE | WT. & GR. | NO. JOINTS | FEET | RKB. TO CSG. HD. | SET AT |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |

WIRE LINE RECORD — REEL NO.

| SIZE | NO. LINES | FT. SLIPPED |
|---|---|---|
| | | |

FT. CUT OFF — PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

## TIME DISTRIBUTION – HOURS

| CODE NO. – OPERATION | MORN. | DAY | EVE. |
|---|---|---|---|
| 1. RIG UP AND TEAR DOWN | | | |
| 2. DRILL ACTUAL | | | 2 |
| 3. REAMING | | | |
| 4. CORING | | | |
| 5. CONDITION MUD & CIRCULATE | | | 1 |
| 6. TRIPS | | 3 | 4 |
| 7. LUBRICATE RIG | | | |
| 8. REPAIR RIG | | | |
| 9. CUT OFF DRILLING LINE | | | |
| 10. DEVIATION SURVEY | | | |
| 11. WIRE LINE LOGS | | | |
| 12. RUN CASING & CEMENT | | | |
| 13. WAIT ON CEMENT | | | |
| 14. NIPPLE UP B.O.P. | | | |
| 15. TEST B.O.P. | | | |
| 16. DRILL STEM TEST | | | |
| 17. PLUG BACK | | | |
| 18. SQUEEZE CEMENT | | | |
| 19. FISHING | | | |
| 20. DIR. WORK | | | |
| 21. TRAVEL | | 1 | |
| 22. OTHER | | 2 | 1 |
| 23. TESTING CSG | | 3 | |
| COMPLETION A. PERF'R'T'N | | | |
| COMPLETION B. TDG TRIPS | | | |
| COMPLETION C. TREATING | | | |
| COMPLETION D. SWABBING | | | |
| COMPLETION E. TESTING | | | |
| COMPLETION F. ADDIT'N'L | | | |
| COMPLETION G. | | | |
| TOTALS | | 9 | 8 |

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

| | | | |
|---|---|---|---|
| HRS. W/CONTR. D.P. | | | |
| HRS. W/OPR. D.P. | | | |
| HRS. WO/D.P. | | | |
| HRS. STANDBY | | | |
| TOTAL DAY WORK | | | |

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

TOTAL MUD COST

## DAY TOUR

| NO. | DRILLING ASSEMBLY (At end of tour) | | BIT RECORD | | MUD RECORD | | |
|---|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | | |
| | | | SIZE | | WEIGHT | | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | | |
| | D.C. ID OD | FT. | TYPE | | VISC.–SEC. | | |
| | STB RMR OD | FT. | JETS 1/32" | | PV/YP | / | / |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | / | / |
| | STB RMR OD | FT. | DEPTH OUT | | WL –CC'S. | / | / |
| | | | DEPTH IN | | pH | | |
| | | | TOTAL FTG. | | SOLIDS % | | |
| | | | TOTAL HRS. RUN | | | | |
| | STANDS DP | FT. | COND. 1/8's T/B/ GAGE | | MUD & CHEMICALS ADDED | | |
| | SINGLES DP | FT. | GPM/ PD–PSI | / | TYPE / AMT. / TYPE / AMT. | | |
| | KELLY DOWN | FT. | | | | | |
| | TOTAL | FT. | | | | | |
| | WT. OF STRING | LBS. | | | | | |

## DAY TOUR

| NO. | DRILLING ASSEMBLY (At end of tour) | | BIT RECORD | | MUD RECORD | | |
|---|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | | |
| | | | SIZE | | WEIGHT | | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | | |
| | D.C. ID OD | FT. | TYPE | | VISC.–SEC. | | |
| | STB RMR OD | FT. | JET 1/32" | | PV/YP | / | / |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | / | / |
| | STB RMR OD | FT. | DEPTH OUT | | WL –CC'S. | / | / |
| | | | DEPTH IN | | pH | | |
| | | | TOTAL FTG. | | SOLIDS % | | |
| | | | TOTAL HRS. RUN | | | | |
| | STANDS DP | FT. | COND. 1/8's T/B/ GAGE | | MUD & CHEMICALS ADDED | | |
| | SINGLES DP | FT. | GPM/ PD–PSI | / | TYPE / AMT. / TYPE / AMT. | | |
| | KELLY DOWN | FT. | | | | | |
| | TOTAL | FT. | | | | | |
| | WT. OF STRING | LBS. | | | | | |

## EVENING TOUR

| NO. | DRILLING ASSEMBLY (At end of tour) | | BIT RECORD | | MUD RECORD | | |
|---|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | | |
| | | | SIZE | | WEIGHT | | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | | |
| | D.C. ID OD | FT. | TYPE | | VISC.–SEC. | | |
| | STB RMR OD | FT. | JETS 1/32" | | PV/YP | / | / |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | / | / |
| | STB RMR OD | FT. | DEPTH OUT | | WL –CC'S. | / | / |
| | | | DEPTH IN | | pH | | |
| | | | TOTAL FTG. | | SOLIDS % | | |
| | | | TOTAL HRS. RUN | | | | |
| | STANDS DP | FT. | COND. 1/8's T/B/ GAGE | | MUD & CHEMICALS ADDED | | |
| | SINGLES DP | FT. | GPM/ PD–PSI | / | TYPE / AMT. / TYPE / AMT. | | |
| | KELLY DOWN | FT. | | | | | |
| | TOTAL | FT. | | | | | |
| | WT. OF STRING | LBS. | | | | | |

## MORNING TOUR

FOOTAGE FROM / TO — DR..D RM–R CORE..C — CORE NO. — FORMATION (SHOW CORE RECOVERY) — ROTARY RPM — WT. ON BIT 1000# — PUMP PRESS — PUMP NO. LINER SIZE / S.P.M. — PUMP NO. LINER SIZE / S.P.M. — METHOD RUN SGL–S PAR'L–P COM'P–C

DEVIATION RECORD — DEPTH / DEV. / DIRECTION (×3)

TIME LOG FROM / TO — ELAPSED TIME — CODE NO. — DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

DRILLER

## DAY TOUR

FOOTAGE FROM / TO — DR..D RM–R CORE..C — CORE NO. — FORMATION (SHOW CORE RECOVERY) — ROTARY RPM — WT. ON BIT 1000# — PUMP PRESS — PUMP NO. LINER SIZE / S.P.M. — PUMP NO. LINER SIZE / S.P.M. — METHOD RUN SGL–S PAR'L–P COM'P–C

DEVIATION RECORD — DEPTH / DEV. / DIRECTION (×3)

| TIME LOG FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 6:00 | 7:00 | 1 | | SERV. THE RIG AND THE EQUIP |
| 7:00 | 8:30 | 1½ | | PULLED OUT OF THE HOLE |
| 8:30 | 9:30 | 1 | | MADE UP BAKER'S FUL-BORE RAN IN THE HOLE TO 4500' |
| 9:30 | 10:00 | ½ | | RIGGED UP H&H PUMP TEST CASING FROM 8860 TO 4500 OK. |
| 10:00 | 11:30 | 1½ | | TEST FROM 4500 TO SURF. @ 1500 PSI FOR 20 MIN. OK. |
| 11:30 | 12:30 | 1 | | PULLED OUT OF THE HOLE TO 3250 TESTED CASING @ 2000 PSI OK |
| 12:30 | 1:30 | 1 | | PULLED OUT OF THE HOLE 2250 TESTED CASING @ 2500 PSI FOR 20 MIN OK. |
| 1:30 | 2:00 | ½ | | PULLED OUT TO 1750 TEST CASING @ 4000 PSI FOR 20 MIN RIGGED DOWN H&H |
| | | | | PULLED OUT OF THE HOLE |

DRILLER David Eaton

## EVENING TOUR

FOOTAGE FROM / TO — DR..D RM–R CORE..C — CORE NO. — FORMATION (SHOW CORE RECOVERY) — ROTARY RPM — WT. ON BIT 1000# — PUMP PRESS — PUMP NO. LINER SIZE / S.P.M. — PUMP NO. LINER SIZE / S.P.M. — METHOD RUN SGL–S PAR'L–P COM'P–C

DEVIATION RECORD — DEPTH / DEV. / DIRECTION (×3)

| TIME LOG FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 2:00 | 2:30 | ½ | | FINISHED P.O.H. BROKE & LOADED OUT F. BORE. |
| 2:30 | 5:00 | 2½ | | RIH TO 8856.' RIGGED UP GUIBERSON & SWIVEL. |
| 5:00 | | | | TRADED OUT POWER SWIVELS. RIGGED POOR-BOY DOWN & POWER |
| | 8:00 | 3 | | SWIVEL UP. DRILLED FROM 8856'–8868' UNABLE TO |
| | | | | GO FURTHER. RIGGED CIRC. EQUIP. DOWN. |
| 8:00 | | | | P.O.H. @ E.O.T. CLOSED WELL IN, SHUT-TOOL DOWN |
| | 10:00 | 2 | | |

DRILLER

## DRILLING CREW PAYROLL DATA

No. 5493

DATE SAT. 9-11-76 — CPS JOB # 3-5643

WELL NAME & NO. STANDARD SESNON #30

COMPANY So CALIF GAS CO.

TOOL PUSHER J. L. Boggs — RIG NO. D-3

MORNING TOUR _____ P.M. _____ A.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | | | | |
| DRKMAN | | | | |
| MTRMAN | | | | |
| FIREMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

DAY TOUR 3:00 A.M. 2:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | 56 25 | D. ERTON | 9 | 2 |
| DRKMAN | 36 73 | S. DORFMEIER | 9 | 3 |
| MTRMAN | 37 50 | B. FRENCH | 9 | 7 |
| FIREMAN | 37 90 | J.K. WARD | 9 | 7 |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |
| | | RIG | 8 | |
| | | PUMP | Ø | |
| | | CREW | 9 | |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 2:00 P.M. 10:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | 36 76 | B. DAVIS | 8 | 2 |
| DRKMAN | 37 19 | T. BRANDON | 8 | 3 |
| MTRMAN | 37 28 | J. TOOPS | 8 | 7 |
| FIREMAN | 37 73 | P. SELMSER | 8 | 7 |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |
| | | RIG | 8 | |
| | | PUMP | 2 | |
| | | CREW | 8 | |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

Form 3T-5 — Printed in U. S. A. — APPROVED — APPROVED

**IADC – API OFFICIAL DAILY DRILLING REPORT FORM**

APPROVED — APPROVED

AC_CPUC_0118019

No. 5491

# DAILY DRILLING REPORT

REPORT NO. 13 — 3-5643

| LEASE | WELL NO. | API WELL NUMBER | DATE |
|---|---|---|---|
| ALISO CYN. | SS 30 | STANDARD SESNON #30 | 9-9-76 |

| OPERATOR | CONTRACTOR | RIG NO. |
|---|---|---|
| So CALIF GAS Co | CALIF PROD SERV. | D-3 |

| SIGNATURE OF OPERATOR'S REPRESENTATIVE | SIGNATURE OF CONTRACTOR'S TOOL PUSHER |
|---|---|
| E C Dralle | J. J. Boggs |

| D.P. SIZE | WT./FT. | GRADE | TOOL JT O.D. | TYPE THREAD | STRING NO. |
|---|---|---|---|---|---|
| | | | | | |

| PUMP NO. | PUMP MANUFACTURER | TYPE | STROKE LENGTH |
|---|---|---|---|
| 10 | EMSCO | D-300 | 14 x 5½ |

FIELD OR DIST. ALISO CYN. | COUNTY LOS ANGELES | STATE CALIFORNIA

LAST CASING TUBING OR LINER

| SIZE | MAKE | WT. & GR. | NO. JOINTS | FEET | RKB. TO CSG. HD. | SET AT |
|---|---|---|---|---|---|---|
| | | | | | | |

WIRE LINE RECORD — REEL NO.

| SIZE | NO. LINES | FT. SLIPPED |
|---|---|---|
| | | |

FT. CUT OFF | PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

## TIME DISTRIBUTION – HOURS

| CODE NO. – OPERATION | MORN. | DAY | EVE. |
|---|---|---|---|
| 1. RIG UP AND TEAR DOWN | | | |
| 2. DRILL ACTUAL | | | 2 |
| 3. REAMING | | | |
| 4. CORING | | | |
| 5. ~~CONDITION MUD~~ & CIRCULATE | | | 3 |
| 6. TRIPS | | 7 | 2½ |
| 7. LUBRICATE RIG | | | |
| 8. REPAIR RIG | | | |
| 9. CUT OFF DRILLING LINE | | | |
| 10. DEVIATION SURVEY | | | |
| 11. WIRE LINE LOGS | | | |
| 12. RUN CASING & CEMENT | | | |
| 13. WAIT ON CEMENT | | | |
| 14. NIPPLE UP B.O.P. | | | |
| 15. TEST B.O.P. | | | |
| 16. DRILL STEM TEST | | | |
| 17. PLUG BACK | | | |
| 18. SQUEEZE CEMENT | | | |
| 19. FISHING | | | |
| 20. DIR. WORK | | | |
| 21. TRAVEL | | 1 | |
| 22. OTHER | | 1 | ½ |
| 23. | | | |
| COMPLETION A. PERF'R'T'N | | | |
| B. TBG TRIPS | | | |
| C. TREATING | | | |
| D. SWABBING | | | |
| E. TESTING | | | |
| F. ADDIT'N'L | | | |
| G. | | | |
| TOTALS | | 9 | 8 |

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

| | | | |
|---|---|---|---|
| HRS. W/CONTR. D.P. | | | |
| HRS. W/OPR. D.P. | | | |
| HRS. WO/D.P. | | | |
| HRS. STANDBY | | | |
| TOTAL DAY WORK | | | |
| NO. OF DAYS FROM SPUD | | | |
| CUMULATIVE ROTATING HRS. | | | |
| TOTAL MUD COST | | | |

## DRILLING ASSEMBLY (At end of tour) — BIT RECORD — MUD RECORD

| NO. | DRILLING ASSEMBLY | | BIT RECORD | | MUD RECORD | |
|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | |
| | | | SIZE | | WEIGHT | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | |
| | D.C. ID OD | FT. | TYPE | | VISC.–SEC. | |
| | STB RMR OD | FT. | JETS 1/32" | | PV/YP | / / / |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | / / / |
| | STB RMR OD | FT. | DEPTH OUT | | WL –CC'S. | |
| | | | DEPTH IN | | pH | |
| | | | TOTAL FTG. | | SOLIDS % | |
| | | | TOTAL HRS. RUN | | | |
| | STANDS DP | FT. | COND. 1/8's T/B/ GAGE | / | MUD & CHEMICALS ADDED: TYPE / AMT. / TYPE / AMT. | |
| | SINGLES DP | FT. | GPM/ PD–PSI | / | | |
| | KELLY DOWN | FT. | | | | |
| | TOTAL | FT. | | | | |
| | WT. OF STRING | LBS. | | | | |

MORNING TOUR

| NO. | DRILLING ASSEMBLY | | BIT RECORD | | MUD RECORD | |
|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | |
| | | | SIZE | | WEIGHT | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | |
| | D.C. ID OD | FT. | TYPE | | VISC.–SEC. | |
| | STB RMR OD | FT. | JET 1/32" | | PV/YP | / / / |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | / / / |
| | STB RMR OD | FT. | DEPTH OUT | | WL –CC'S. | |
| | | | DEPTH IN | | pH | |
| | | | TOTAL FTG. | | SOLIDS % | |
| | | | TOTAL HRS. RUN | | | |
| | STANDS DP | FT. | COND. 1/8's T/B/ GAGE | / | MUD & CHEMICALS ADDED: TYPE / AMT. / TYPE / AMT. | |
| | SINGLES DP | FT. | GPM/ PD–PSI | / | | |
| | KELLY DOWN | FT. | | | | |
| | TOTAL | FT. | | | | |
| | WT. OF STRING | LBS. | | | | |

DAY TOUR

| NO. | DRILLING ASSEMBLY | | BIT RECORD | | MUD RECORD | |
|---|---|---|---|---|---|---|
| 1 | BIT SCRAPER 5.00 | FT. | BIT NO. | | TIME | |
| | | | SIZE | | WEIGHT | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | |
| | D.C. ID OD | FT. | TYPE | | VISC.–SEC. | |
| | STB RMR OD | FT. | JETS 1/32" | | PV/YP | / / / |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | / / / |
| | STB RMR OD | FT. | DEPTH OUT | | WL –CC'S. | |
| | | | DEPTH IN | | pH | |
| | | | TOTAL FTG. | | SOLIDS % | |
| | | | TOTAL HRS. RUN | | | |
| 143 | STANDS DP 8849. — | FT. | COND. 1/8's T/B/ GAGE | / | MUD & CHEMICALS ADDED: TYPE / AMT. / TYPE / AMT. | |
| | SINGLES DP | FT. | GPM/ PD–PSI | / | | |
| | KELLY DOWN 6. — | FT. | | | | |
| | TOTAL 8860' | FT. | | | | |
| | WT. OF STRING 53,000 | LBS. | | | | |

EVENING TOUR

## FOOTAGE — FORMATION (SHOW CORE RECOVERY)

| FROM | TO | DR..D RM..R CORE..C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.–S PARREL–P COM'D–C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |

DEVIATION RECORD — DEPTH / DEV. / DIRECTION / DEPTH / DEV. / DIRECTION / DEPTH / DEV. / DIRECTION

## TIME LOG — DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| | | | | |

DRILLER

## FOOTAGE — FORMATION (SHOW CORE RECOVERY)

| FROM | TO | DR..D RM..R CORE..C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S. P. M. | METHOD RUN SGL.–S PARREL–P COM'D–C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |

DEVIATION RECORD — DEPTH / DEV. / DIRECTION / DEPTH / DEV. / DIRECTION / DEPTH / DEV. / DIRECTION

## TIME LOG — DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 6:00 | 6:30 | ½ | | SERV. THE RIG & EQUIP |
| 6:30 | 10:30 | 4 | | BLEED DOWN CASING & TUBING |
| 10:30 | 11:00 | ½ | | PULLED OUT OF THE HOLE BAKERS FULBORE WOULD NOT SAFETY |
| 11:00 | 2:00 | 3 | | REPLACED BAD 2" VALVE IN BOP |
| | | | | MADE UP BIT AND SCRAPER RUNNING IN THE HOLE |
| | | | | HELD BOP DRILL 9-9-76 |

DRILLER David Eaton

## FOOTAGE — FORMATION (SHOW CORE RECOVERY)

| FROM | TO | DR..D RM..R CORE..C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.–S PARREL–P COM'D–C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |

DEVIATION RECORD — DEPTH / DEV. / DIRECTION / DEPTH / DEV. / DIRECTION / DEPTH / DEV. / DIRECTION

## TIME LOG — DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 2:00 | 2:30 | ½ | | FINISHED RIH. TAGGED CMT @ 8772' |
| 2:30 | 3:00 | ½ | | RIGGED UP POWER SWIVEL & GUIBERSON |
| 3:00 | 5:00 | 2 | | DRILLED OUT CMT. FROM 8772'–8860' |
| 5:00 | 8:00 | 3 | | CIRC. HOLE |
| 8:00 | 8:30 | ½ | | RIGGED POWER SWIVEL & GUIBERSON DOWN. T- |
| 8:30 | | | | P.O.H. @ E.O.T. CLOSED WELL IN, SHUT IAB/ DOWN. |
| | 10:00 | 1½ | | |

DRILLER

## DRILLING CREW PAYROLL DATA

No. 5491
OPS JOB # 3-5643

DATE THUR. 9-9-76
WELL NAME & NO. STANDARD SESNON #30
COMPANY So CALIF GAS CO
TOOL PUSHER J. J. Boggs RIG NO. D-3

MORNING TOUR ____ P.M. ____ A.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | | | | |
| DRKMAN | | | | |
| MTRMAN | | | | |
| FIREMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

DAY TOUR 5:00 A.M. 2:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | 562 5 | D. EATON | 9 | 2 |
| DRKMAN | 36 73 | S. DORFMEIER | 9 | 3 |
| MTRMAN | 37 50 | B. FRENCH | 9 | 7 |
| FIREMAN | 37 81 | B.L. FAUSNET | 9 | 7 |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |
| | | RIG | 8 | |
| | | PUMP | Ø | |
| | | CREW | 9 | |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 2:00 P.M. 10:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | 36 76 | B. DAVIS | 8 | 2 |
| DRKMAN | 37 19 | T. BRANDON | 8 | 3 |
| MTRMAN | 37 28 | J. TOOPS | 8 | 7 |
| FIREMAN | 37 73 | P. SELMSER | 8 | 7 |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |
| | | RIG | 8 | |
| | | PUMP | 3 | |
| | | CREW | 8 | |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT



AC_CPUC_0118020

No. 5490

# DAILY DRILLING REPORT

REPORT NO. 12 — 3-5643

| LEASE | WELL NO. | API WELL NUMBER | DATE |
|---|---|---|---|
| ALISO CYN. | SS #30 | STANDARD SESNON #30 | 9-8-76 |

| OPERATOR | CONTRACTOR | RIG NO. |
|---|---|---|
| So CALIF GAS Co | CALIF PROD SERV. | D 3 |

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [illegible]

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: J. J. Boggs

| D.P. SIZE | WT./FT. | GRADE | TOOL JT O.D. | TYPE THREAD | STRING NO. |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |

| PUMP NO. | PUMP MANUFACTURER | TYPE | STROKE LENGTH |
|---|---|---|---|
| 10 | EMSCO | D-30 | 14X5½ |

| FIELD OR DIST. | COUNTY | STATE |
|---|---|---|
| ALISO CYN | LOS ANGELES | CALIFORNIA |

LAST CASING TUBING OR LINER

| SIZE | MAKE | WT. & GR. | NO. JOINTS | FEET | RKB. TO CSG. HD. | SET AT |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |

WIRE LINE RECORD — REEL NO.

| SIZE | NO. LINES | FT. SLIPPED |
|---|---|---|
| | | |

FT. CUT OFF | PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

## TIME DISTRIBUTION – HOURS

| CODE NO. – OPERATION | MORN. | DAY | EVE. |
|---|---|---|---|
| 1. RIG UP AND TEAR DOWN | | | |
| 2. DRILL ACTUAL | | | |
| 3. REAMING | | | |
| 4. CORING | | | |
| 5. CONDITION MUD & CIRCULATE | | ½ | |
| 6. TRIPS | | 3½ | |
| 7. LUBRICATE RIG | | | |
| 8. REPAIR RIG | | | |
| 9. CUT OFF DRILLING LINE | | | |
| 10. DEVIATION SURVEY | | | |
| 11. WIRE LINE LOGS | | | |
| 12. ~~CASING~~ & CEMENT | | 2 | |
| 13. WAIT ON CEMENT | | | |
| 14. NIPPLE UP B.O.P. | | | |
| 15. TEST B.O.P. | | | |
| 16. DRILL STEM TEST | | | |
| 17. PLUG BACK | | | |
| 18. SQUEEZE CEMENT | | 3½ | |
| 19. FISHING | | | |
| 20. DIR. WORK | | | |
| 21. TRAVEL | 1 | | |
| 22. OTHER | 2 | ½ | |
| 23. | | | |
| COMPLETION A. PERF'R'T'N | | | |
| B. TBG TRIPS | | | |
| C. TREATING | | | |
| D. SWABBING | | | |
| E. TESTING | | | |
| F. ADDIT'N'L | | | |
| G. | | | |
| TOTALS | 9 | 8 | |

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

| | | | |
|---|---|---|---|
| HRS. W/CONTR. D.P. | | | |
| HRS. W/OPR. D.P. | | | |
| HRS. WO/D.P. | | | |
| HRS. STANDBY | | | |
| | | | |
| | | | |
| | | | |
| TOTAL DAY WORK | | | |
| NO. OF DAYS FROM SPUD | | | |
| CUMULATIVE ROTATING HRS. | | | |
| TOTAL MUD COST | | | |

## DRILLING ASSEMBLY (At end of tour)

| NO. | | | |
|---|---|---|---|
| BIT | | | FT. |
| STB RMR | OD | | FT. |
| D.C. ID | OD | | FT. |
| STB RMR | OD | | FT. |
| D.C. ID | OD | | FT. |
| STB RMR | OD | | FT. |
| STANDS DP | | | FT. |
| SINGLES | DP | | FT. |
| KELLY DOWN | | | FT. |
| TOTAL | | | FT. |
| WT. OF STRING | | | LBS. |

## BIT RECORD

| | |
|---|---|
| BIT NO. | |
| SIZE | |
| MFG. | |
| TYPE | |
| JETS 1/32" | |
| SER. NO. | |
| DEPTH OUT | |
| DEPTH IN | |
| TOTAL FTG. | |
| TOTAL HRS. RUN | |
| COND. 1/8's T/B/ GAGE | |
| GPM/ PD–PSI | |

## MUD RECORD

| | |
|---|---|
| TIME | |
| WEIGHT | |
| PRESSURE GRADIENT | |
| VISC.–SEC. | |
| PV/YP | |
| GELS. | |
| WL –CC'S. | |
| pH | |
| SOLIDS % | |

MUD & CHEMICALS ADDED

| TYPE | AMT. | TYPE | AMT. |
|---|---|---|---|
| | | | |

MORNING TOUR

## FOOTAGE

| FROM | TO | DR.–D RM.–R CORE.–C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.–S PAR'L–P COMB.–C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| TIME LOG FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| | | | | |

DRILLER

DAY TOUR

## FOOTAGE

| FROM | TO | DR.–D RM.–R CORE.–C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.–S PAR'L–P COMB.–C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| TIME LOG FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 600 | 630 | ½ | | FINISHED RUNNING IN HOLE TO 8664 |
| 630 | 700 | ½ | | RIGGED UP DOWELL |
| 700 | 930 | 2½ | | SET CEMENT TOOL @ 8664 SPOTED CEMENT BACKSIDE OUT |
| 930 | 1230 | 3 | | PULLED OUT OF THE HOLE |
| 1230 | 200 | 1½ | | WAITING ON FULL-BORE |

DRILLER David Eaton

EVENING TOUR

## FOOTAGE

| FROM | TO | DR.–D RM.–R CORE.–C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.–S PAR'L–P COMB.–C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| TIME LOG FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 2'.00 | | | | W/O. BAKER |
| | | | | MADE UP FULL-BORE ON TBG. RIH TO 8664' TESTED CSG. |
| | | | | FROM 8664' TO SURFACE @ 1,000# - 10 MIN - TEST O.K. |
| | | | | CMT. JOB #2 - SQUEEZED 100 SKS. CLASS 'G' NEET CMT. |
| | | | | TESTED @ 4,000# - TEST O.K. BROKE OUT DOWELL. CLOSED |
| | | | | WELL IN, SHUT TOR DOWN. |
| | 10'.00 | 8 | | HELD B.O.P.E. DRILL |

DRILLER [signature]

## DRILLING CREW PAYROLL DATA

No. 5490

DATE WED. 9-8-76

CPS JOB # 3-5643

WELL NAME & NO. STANDARD SESNON #30

COMPANY So CALIF GAS CO.

TOOL PUSHER J. J. Boggs RIG NO. D-3

MORNING TOUR _____ P.M. _____ A.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | | | | |
| DRKMAN | | | | |
| MTRMAN | | | | |
| FIREMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

DAY TOUR 5'.00 A.M. 2'.00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | | D. EATON | 9 | 2 |
| DRKMAN | | S. DORFMEIER | 9 | 3 |
| MTRMAN | CONFIDENTIAL | B.L. FAUSNET | 9 | 7 |
| FIREMAN | | J.K. WARD | 9 | 7 |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |
| | | RIG | 8 | |
| | | PUMP | Ø | |
| | | CREW | 9 | |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 2'.00 P.M. 10'.00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | | B. DAVIS | 8 | 2 |
| DRKMAN | | T. BRANDON | 8 | 3 |
| MTRMAN | CONFIDENTIAL | J. TOOPS | 8 | 7 |
| FIREMAN | | P. SELMSER | 8 | 7 |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |
| | | RIG | 8 | |
| | | PUMP | Ø | |
| | | CREW | 8 | |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

Form 3T-5 Printed in U. S. A. APPROVED APPROVED

**IADC – API OFFICIAL DAILY DRILLING REPORT FORM**

APPROVED APPROVED

AC_CPUC_0118021

No. 5489

# DAILY DRILLING REPORT

REPORT NO. 11

3-5643

| LEASE | WELL NO. | API WELL NUMBER | DATE |
|---|---|---|---|
| ALISO CYN. | SS #30 | STANDARD SESNON #30 | 9-7-76 |

| OPERATOR | CONTRACTOR | RIG NO. |
|---|---|---|
| So CALIF GAS Co | CALIF PROD SERV | D-3 |

SIGNATURE OF OPERATOR'S REPRESENTATIVE: S C [illegible]

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: J. F. Boggs

| D.P. SIZE | WT./FT. | GRADE | TOOL JT O.D. | TYPE THREAD | STRING NO. | PUMP NO. | PUMP MANUFACTURER | TYPE | STROKE LENGTH |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 10 | EMSCO | D-300 | 14x5½ |
| | | | | | | | | | |

FIELD OR DIST.: ALISO CYN. | COUNTY: LOS ANGELES | STATE: CALIFORNIA

LAST CASING TUBING OR LINER

| SIZE | MAKE | WT. & GR. | NO. JOINTS | FEET | RKB. TO CSG. HD. | SET AT |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |

WIRE LINE RECORD — REEL NO.

| SIZE | NO. LINES | FT. SLIPPED |
|---|---|---|
| FT. CUT OFF | PRESENT LENGTH | |
| TON MI. OR TRIPS SINCE LAST CUT | | |
| CUMULATIVE TON MI. OR TRIPS | | |

## TIME DISTRIBUTION – HOURS

| CODE NO. | OPERATION | MORN. | DAY | EVE. |
|---|---|---|---|---|
| 1. | RIG UP AND TEAR DOWN | | | |
| 2. | DRILL ACTUAL | | | |
| 3. | REAMING | | | |
| 4. | CORING | | | |
| 5. | CONDITION MUD & CIRCULATE | | ½ | |
| 6. | TRIPS | | 1½ | 3½ |
| 7. | LUBRICATE RIG | | | |
| 8. | REPAIR RIG | | | |
| 9. | CUT OFF DRILLING LINE | | | |
| 10. | DEVIATION SURVEY | | | |
| 11. | WIRE LINE LOGS | | | 3½ |
| 12. | RUN CASING & CEMENT | | | |
| 13. | WAIT ON CEMENT | | | |
| 14. | NIPPLE UP B.O.P. | | | |
| 15. | TEST B.O.P. | | | |
| 16. | DRILL STEM TEST | | | |
| 17. | PLUG BACK | | | |
| 18. | SQUEEZE CEMENT | | | |
| 19. | FISHING | | | |
| 20. | DIR. WORK | | | |
| 21. | TRAVEL | | 1 | |
| 22. | OTHER | | 6½ | 1 |
| 23. | | | | |
| COMPLETION | A. PERF'R'T'N | | | |
| | B. TBG TRIPS | | | |
| | C. TREATING | | | |
| | D. SWABBING | | | |
| | E. TESTING | | | |
| | F. ADDIT'N'L | | | |
| | G. | | | |
| TOTALS | | | 9 | 8 |

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

| | | | | |
|---|---|---|---|---|
| HRS. W/CONTR. D.P. | | | | |
| HRS. W/OPR. D.P. | | | | |
| HRS. WO/D.P. | | | | |
| HRS. STANDBY | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| TOTAL DAY WORK | | | | |

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

TOTAL MUD COST

## MORNING TOUR

### DRILLING ASSEMBLY (At end of tour)

| NO. | | | |
|---|---|---|---|
| BIT | | | FT. |
| | | | |
| STB RMR | OD | | FT. |
| D.C. ID | OD | | FT. |
| STB RMR | OD | | FT. |
| D.C. ID | OD | | FT. |
| STB RMR | OD | | FT. |
| STANDS DP | | | FT. |
| SINGLES | DP | | FT. |
| KELLY DOWN | | | FT. |
| TOTAL | | | FT. |
| WT. OF STRING | | | LBS. |

### BIT RECORD

| | | | |
|---|---|---|---|
| BIT NO. | | | |
| SIZE | | | |
| MFG. | | | |
| TYPE | | | |
| JETS 1/32" | | | |
| SER. NO. | | | |
| DEPTH OUT | | | |
| DEPTH IN | | | |
| TOTAL FTG. | | | |
| TOTAL HRS. RUN | | | |
| COND. 1/8's T/B/ GAGE | | | |
| GPM/ PD-PSI | / | / | / |

### MUD RECORD

| | | | |
|---|---|---|---|
| TIME | | | |
| WEIGHT | | | |
| PRESSURE GRADIENT | | | |
| VISC.-SEC. | | | |
| PV/YP | / | / | / |
| GELS. | / | / | / |
| WL -CC'S. | | | |
| pH | | | |
| SOLIDS % | | | |

MUD & CHEMICALS ADDED

| TYPE | AMT. | TYPE | AMT. |
|---|---|---|---|
| | | | |

### FOOTAGE

| FROM | TO | DR..D RM..R CORE..C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.-S PART'L-P COMP'D-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

TIME LOG

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

DRILLER

## DAY TOUR

### DRILLING ASSEMBLY (At end of tour)

| NO. | | | |
|---|---|---|---|
| BIT | | | FT. |
| | | | |
| STB RMR | OD | | FT. |
| D.C. ID | OD | | FT. |
| STB RMR | OD | | FT. |
| D.C. ID | OD | | FT. |
| STB RMR | OD | | FT. |
| STANDS DP | | | FT. |
| SINGLES | DP | | FT. |
| KELLY DOWN | | | FT. |
| TOTAL | | | FT. |
| WT. OF STRING | | | LBS. |

### BIT RECORD

| | | | |
|---|---|---|---|
| BIT NO. | | | |
| SIZE | | | |
| MFG. | | | |
| TYPE | | | |
| JET 1/32" | | | |
| SER. NO. | | | |
| DEPTH OUT | | | |
| DEPTH IN | | | |
| TOTAL FTG. | | | |
| TOTAL HRS. RUN | | | |
| COND. 1/8's T/B/ GAGE | | | |
| GPM/ PD-PSI | / | / | / |

### MUD RECORD

| | | | |
|---|---|---|---|
| TIME | | | |
| WEIGHT | | | |
| PRESSURE GRADIENT | | | |
| VISC.-SEC. | | | |
| PV/YP | / | / | / |
| GELS. | / | / | / |
| WL -CC'S. | | | |
| pH | | | |
| SOLIDS % | | | |

MUD & CHEMICALS ADDED

| TYPE | AMT. | TYPE | AMT. |
|---|---|---|---|
| | | | |

### FOOTAGE

| FROM | TO | DR..D RM..R CORE..C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.-S PART'L-P COMP'D-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

TIME LOG

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 6:00 | 11:30 | 5½ | | SERV. THE RIG AND THE EQUIP. |
| 11:30 | 12:00 | ½ | | BACKSCUDDLE SAND FROM 8855 TO 8860 W/ POWER SWIVEL |
| 12:00 | 12:30 | ½ | | BACKSCUDDLE CLEAN. |
| 12:30 | 2:00 | 1½ | | RIGGED DOWN POWER SWIVEL & GUIBERSON STRIPER |
| | | | | PULLING OUT OF THE HOLE |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

DRILLER D K Eaton

## EVENING TOUR

### DRILLING ASSEMBLY (At end of tour)

| NO. | | | |
|---|---|---|---|
| BIT | | | FT. |
| | | | |
| STB RMR | OD | | FT. |
| D.C. ID | OD | | FT. |
| STB RMR | OD | | FT. |
| D.C. ID | OD | | FT. |
| STB RMR | OD | | FT. |
| STANDS DP | | | FT. |
| SINGLES | DP | | FT. |
| KELLY DOWN | | | FT. |
| TOTAL | | | FT. |
| WT. OF STRING | | | LBS. |

### BIT RECORD

| | | | |
|---|---|---|---|
| BIT NO. | | | |
| SIZE | | | |
| MFG. | | | |
| TYPE | | | |
| JETS 1/32" | | | |
| SER. NO. | | | |
| DEPTH OUT | | | |
| DEPTH IN | | | |
| TOTAL FTG. | | | |
| TOTAL HRS. RUN | | | |
| COND. 1/8's T/B/ GAGE | | | |
| GPM/ PD-PSI | / | / | / |

### MUD RECORD

| | | | |
|---|---|---|---|
| TIME | | | |
| WEIGHT | | | |
| PRESSURE GRADIENT | | | |
| VISC.-SEC. | | | |
| PV/YP | / | / | / |
| GELS. | / | / | / |
| WL -CC'S. | | | |
| pH | | | |
| SOLIDS % | | | |

MUD & CHEMICALS ADDED

| TYPE | AMT. | TYPE | AMT. |
|---|---|---|---|
| | | | |

### FOOTAGE

| FROM | TO | DR..D RM..R CORE..C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.-S PART'L-P COMP'D-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

TIME LOG

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 2:00 | 4:00 | 2 | | FINISHED P.O.H. BROKE OFF BIT & SCRAPER. |
| 4:00 | | | | USING MCCULLOUGH W/L SVC. SHOT 4 HOLES @ 8864' |
| | 7:30 | 3½ | | |
| 7:30 | | | | MADE UP JOHNSTON'S SQUEEZE TOOL ON 2⅞" TBG. |
| | | | | RIH W/SAME SLOWLY @ E.O.T. CLOSED WELL IN, |
| | | | | SHUT JOB DOWN |
| | 10:00 | 2½ | | |

DRILLER [signature]

## DRILLING CREW PAYROLL DATA

No. 5489

DATE TUE 9-7-76

WELL NAME & NO. STANDARD SESNON #30 CPS JOB # 3-5643

COMPANY So CALIF GAS Co

TOOL PUSHER J. F. Boggs RIG NO. D-3

### MORNING TOUR ____ P.M. ____ A.M.

| CREW | SOC. SEC. NO. | NAME | HRS. |
|---|---|---|---|
| DRILLER | | | |
| DRKMAN | | | |
| MTRMAN | | | |
| FIREMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| TRAINEE | | | |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

### DAY TOUR 5:00 A.M. 3:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. |
|---|---|---|---|
| DRILLER | 56:25 | D. EATON | 9 |
| DRKMAN | 36:73 | S. DOREMEIER | 9 |
| MTRMAN | 37:50 | B. FRENCH | 9 |
| FIREMAN | 37:81 | B.L. FAUSNET | 9 |
| FLRMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| TRAINEE | | | |
| | | RIG | 8 |
| | | PUMP | 5 |
| | | CREW | 9 |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

### EVENING TOUR 2:00 P.M. 10:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. |
|---|---|---|---|
| DRILLER | 36:76 | B. DAVIS | 8 |
| DRKMAN | 37:19 | T. BRANDON | 8 |
| MTRMAN | 37:28 | J. TOOPS | 8 |
| FIREMAN | 37:73 | P. SELMSER | 8 |
| FLRMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| TRAINEE | | | |
| | | RIG | 8 |
| | | PUMP | ∅ |
| | | CREW | 8 |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

Form 3T-5 Printed in U. S. A.

APPROVED APPROVED

**IADC – API OFFICIAL DAILY DRILLING REPORT FORM**

APPROVED APPROVED

AC_CPUC_0118022

No. 5488 (#3-5643)

# DAILY DRILLING REPORT — REPORT NO. 10

| LEASE | WELL NO. | API WELL NUMBER | DATE |
|---|---|---|---|
| ALISO CYN. | S.S. #30 | | 9-4-76 |

| OPERATOR | CONTRACTOR | RIG NO. |
|---|---|---|
| SO. CALIF. GAS CO. | CALIF. PROD. SVC. | D-3 |

SIGNATURE OF OPERATOR'S REPRESENTATIVE: E. C. Dudley

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: J. L. Boggs

| D.P. SIZE | WT./FT. | GRADE | TOOL JT O.D. | TYPE THREAD | STRING NO. |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |

| PUMP NO. | PUMP MANUFACTURER | TYPE | STROKE LENGTH |
|---|---|---|---|
| 10 | EMSCO | D-300 | 14X5½ |

FIELD OR DIST.: ALISO CYN. COUNTY: L.A. STATE: CA.

LAST CASING TUBING OR LINER

| SIZE | MAKE | WT. & GR. | NO. JOINTS | FEET | RKB. TO CSG. HD. | SET AT |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |

WIRE LINE RECORD — REEL NO.

| SIZE | NO. LINES | FT. SLIPPED |
|---|---|---|
| | | |

FT. CUT OFF | PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

## TIME DISTRIBUTION – HOURS

| CODE NO. | OPERATION | MORN. | DAY | EVE. |
|---|---|---|---|---|
| 1. | RIG UP AND TEAR DOWN | | | |
| 2. | DRILL ACTUAL | | | |
| 3. | REAMING | | | |
| 4. | CORING | | | |
| 5. | CONDITION MUD & CIRCULATE | | | |
| 6. | TRIPS | | 4 | 5½ |
| 7. | LUBRICATE RIG | | | |
| 8. | REPAIR RIG | | | |
| 9. | CUT OFF DRILLING LINE | | | |
| 10. | DEVIATION SURVEY | | | |
| 11. | WIRE LINE LOGS | | | |
| 12. | RUN CASING & CEMENT | | | |
| 13. | WAIT ON CEMENT | | | |
| 14. | NIPPLE UP B.O.P. | | | |
| 15. | TEST B.O.P. | | | |
| 16. | DRILL STEM TEST | | | |
| 17. | PLUG BACK | | | |
| 18. | SQUEEZE CEMENT | | | |
| 19. | FISHING | | | |
| 20. | DIR. WORK | | | |
| 21. | TRAVEL | 1 | | |
| 22. | OTHER | 4 | 2½ | |
| 23. | | | | |
| COMPLETION | A. PERF'R'T'N | | | |
| | B. TBG TRIPS | | | |
| | C. TREATING | | | |
| | D. SWABBING | | | |
| | E. TESTING | | | |
| | F. ADDIT'N'L | | | |
| | G. | | | |
| TOTALS | | | 9 | 8 |

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

| | | | |
|---|---|---|---|
| HRS. W/CONTR. D.P. | | | |
| HRS. W/OPR. D.P. | | | |
| HRS. WO/D.P. | | | |
| HRS. STANDBY | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| TOTAL DAY WORK | | | |
| | | | |
| NO. OF DAYS FROM SPUD | | | |
| CUMULATIVE ROTATING HRS. | | | |
| TOTAL MUD COST | | | |

## DRILLING ASSEMBLY (At end of tour) / BIT RECORD / MUD RECORD

| DRILLING ASSEMBLY | | BIT RECORD | | MUD RECORD | |
|---|---|---|---|---|---|
| BIT | FT. | BIT NO. | | TIME | |
| | | SIZE | | WEIGHT | |
| STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | |
| D.C. ID OD | FT. | TYPE | | VISC.–SEC. | |
| STB RMR OD | FT. | JETS 1/32" | | PV/YP | / / / |
| D.C. ID OD | FT. | SER. NO. | | GELS. | / / / |
| STB RMR OD | FT. | DEPTH OUT | | WL –CC'S. | |
| | | DEPTH IN | | pH | |
| | | TOTAL FTG. | | SOLIDS % | |
| | | TOTAL HRS. RUN | | | |
| STANDS DP | FT. | COND. 1/8's T/B/ GAGE | | MUD & CHEMICALS ADDED: TYPE / AMT. / TYPE / AMT. | |
| SINGLES DP | FT. | GPM/ PD–PSI | / / | | |
| KELLY DOWN | FT. | | | | |
| TOTAL | FT. | | | | |
| WT. OF STRING | LBS. | | | | |

MORNING TOUR

## FOOTAGE / FORMATION / DEVIATION RECORD / TIME LOG

| FOOTAGE FROM | TO | DR.–D RM.–R CORE.–C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SQ.–S PAR.–P COM.–C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD: DEPTH / DEV. / DIRECTION / DEPTH / DEV. / DIRECTION / DEPTH / DEV. / DIRECTION

| TIME LOG FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

DRILLER

DAY TOUR

## FOOTAGE / FORMATION / DEVIATION RECORD / TIME LOG

| FOOTAGE FROM | TO | DR.–D RM.–R CORE.–C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SQ.–S PAR.–P COM.–C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD: DEPTH / DEV. / DIRECTION / DEPTH / DEV. / DIRECTION / DEPTH / DEV. / DIRECTION

| TIME LOG FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 6:00 | 7:00 | 1 | | SERV. RIG & EQUIP |
| | | | | RIH. PULLED JOHNSTON B. PLUG. P.O.H. BROKE DOWN & |
| | | | | LOADED OUT SAME |
| 7:00 | | | | MADE UP JOHNSTON RET. TOOL ON TBG RIH W/SAME TO |
| | 11:00 | 4 | | B. PLUG @ 8890' RELEASED TOOL & SET SAME @ 8890' |
| 11:00 | | | | P.O.H. TO 8840' RIGGED UP DWELL. SPOTTED 6 SKS |
| | | | | "20-40" SAND ON PLUG @ E.O.T. |
| | 2:00 | 3 | | |

DRILLER

EVENING TOUR

## FOOTAGE / FORMATION / DEVIATION RECORD / TIME LOG

| FOOTAGE FROM | TO | DR.–D RM.–R CORE.–C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SQ.–S PAR.–P COM.–C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD: DEPTH / DEV. / DIRECTION / DEPTH / DEV. / DIRECTION / DEPTH / DEV. / DIRECTION

| TIME LOG FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 2:00 | 5:00 | 3 | | SERV THE RIG & THE EQUIP. |
| 5:00 | 5:30 | ½ | | POLLED OUT OF THE HOLE |
| 5:30 | 6:30 | 1 | | RIGGED UP MCCULLOUGH WIRE LINE SERV. |
| 6:30 | 7:00 | ½ | | RAN IN THE HOLE WITH WIRE SERV TRG SHND @ 8942' |
| 7:00 | 9:30 | 2½ | | RIGGED DOWN MCCULLOUGH WIRE LINE SERV |
| 9:30 | 10:00 | ½ | | MADE UP BIT AND SCRAPER RAN IN THE HOLE |
| | | | | CLOSED WELL IN SHUT JOB DOWN |
| | | | | HELD BOP DRILL 9-4-76 |

DRILLER David E. Eaton

## DRILLING CREW PAYROLL DATA

No. 5488 (#3-5643)

DATE 9-4-76

WELL NAME & NO. S.S. #30

COMPANY SO. CALIF. GAS CO.

TOOL PUSHER J. L. Boggs RIG NO. D-3

MORNING TOUR ____ P.M. ____ A.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | | | | |
| DRKMAN | | | | |
| MTRMAN | | | | |
| FIREMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

DAY TOUR 5:00 A.M. 2:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | 36 76 | B. DAVIS | 9 | 2 |
| DRKMAN | 37 19 | T. BRANDON | 9 | 3 |
| MTRMAN | 37 28 | J. TOOPS | 9 | 7 |
| FIREMAN | 37 73 | P SELMSER | 9 | 7 |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |
| | | RIG | 8 | |
| | | PUMP | Ø | |
| | | CREW | 9 | |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 2:00 P.M. 10:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | 56 25 | D EATON | 8 | 2 |
| DRKMAN | 36 73 | S. DORFMEIER | 8 | 3 |
| MTRMAN | 37 50 | B. FRENCH | 8 | 7 |
| FIREMAN | 37 36 | K. WILDER | 8 | 7 |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |
| | | RIG | 8 | |
| | | PUMP | Ø | |
| | | CREW | 8 | |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

Form 3T-5 Printed in U. S. A.

APPROVED APPROVED

**IADC – API OFFICIAL DAILY DRILLING REPORT FORM**

APPROVED APPROVED

AC_CPUC_0118023

No. 5487 #3-5643

# DAILY DRILLING REPORT — REPORT NO. 9

| LEASE | WELL NO. | API WELL NUMBER | DATE |
|---|---|---|---|
| ALISO CYN. | S.S. #30 | | 9-3-76 |

| OPERATOR | CONTRACTOR | RIG NO. |
|---|---|---|
| SO. CALIF. GAS CO. | CALIF. PROD. SVC. | D-3 |

| SIGNATURE OF OPERATOR'S REPRESENTATIVE | SIGNATURE OF CONTRACTOR'S TOOL PUSHER |
|---|---|
| E.C. Bradbury | J. L. Boggs |

| D.P. SIZE | WT./FT. | GRADE | TOOL JT O.D. | TYPE THREAD | STRING NO. |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |

| PUMP NO. | PUMP MANUFACTURER | TYPE | STROKE LENGTH |
|---|---|---|---|
| 10 | EMSCO | D-300 | 14x5½ |

FIELD OR DIST.: ALISO CYN | COUNTY: LA | STATE: CA

LAST CASING TUBING OR LINER

| SIZE | MAKE | WT. & GR. | NO. JOINTS | FEET | RKB. TO CSG. HD. | SET AT |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |

WIRE LINE RECORD — REEL NO.

| SIZE | NO. LINES | FT. SLIPPED |
|---|---|---|
| | | |

FT. CUT OFF | PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

## TIME DISTRIBUTION — HOURS

| CODE NO. | OPERATION | MORN. | DAY | EVE. |
|---|---|---|---|---|
| 1. | RIG UP AND TEAR DOWN | | | |
| 2. | DRILL ACTUAL | | | |
| 3. | REAMING | | | |
| 4. | CORING | | | |
| 5. | CONDITION MUD & CIRCULATE | | | |
| 6. | TRIPS | | | |
| 7. | LUBRICATE RIG | | | |
| 8. | REPAIR RIG | | | |
| 9. | CUT OFF DRILLING LINE | | | |
| 10. | DEVIATION SURVEY | | | |
| 11. | WIRE LINE LOGS | | | |
| 12. | RUN CASING & CEMENT | | | |
| 13. | WAIT ON CEMENT | | | |
| 14. | NIPPLE UP B.O.P. | | | |
| 15. | TEST B.O.P. | | | 5 |
| 16. | DRILL STEM TEST | | | |
| 17. | PLUG BACK | | | |
| 18. | SQUEEZE CEMENT | | | |
| 19. | FISHING | | | |
| 20. | DIR. WORK | | | |
| 21. | TRAVEL | | 1 | |
| 22. | OTHER | | 8 | 3 |
| 23. | | | | |
| COMPLETION | A. PERF'R'T'N | | | |
| | B. TBG TRIPS | | | |
| | C. TREATING | | | |
| | D. SWABBING | | | |
| | E. TESTING | | | |
| | F. ADDIT'N'L | | | |
| | G. | | | |
| TOTALS | | | 9 | 8 |

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

| | | | |
|---|---|---|---|
| HRS. W/CONTR. D.P. | | | |
| HRS. W/OPR. D.P. | | | |
| HRS. WO/D.P. | | | |
| HRS. STANDBY | | | |
| TOTAL DAY WORK | | | |

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

TOTAL MUD COST

## MORNING TOUR

| NO. | DRILLING ASSEMBLY (At end of tour) | | BIT RECORD | | MUD RECORD | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | | | | |
| | | | SIZE | | WEIGHT | | | | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | | | | |
| | D.C. ID OD | FT. | TYPE | | VISC.-SEC. | | | | |
| | STB RMR OD | FT. | JETS 1/32" | | PV/YP | / | / | / | |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | / | / | / | |
| | STB RMR OD | FT. | DEPTH OUT | | WL -CC'S. | | | | |
| | | | DEPTH IN | | pH | | | | |
| | | | TOTAL FTG. | | SOLIDS % | | | | |
| | | | TOTAL HRS. RUN | | | | | | |
| | STANDS DP | FT. | COND. 1/B's T/B/ GAGE | | MUD & CHEMICALS ADDED | TYPE | AMT. | TYPE | AMT. |
| | SINGLES DP | FT. | GPM/ PD-PSI | / | | | | | |
| | KELLY DOWN | FT. | | | | | | | |
| | TOTAL | FT. | | | | | | | |
| WT. OF STRING | | LBS. | | | | | | | |

| FOOTAGE FROM | FOOTAGE TO | DR.-D RM-R CORE-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.-S PAR'EL-P COM'P-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| TIME LOG FROM | TIME LOG TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| | | | | |

DRILLER

## DAY TOUR

| NO. | DRILLING ASSEMBLY (At end of tour) | | BIT RECORD | | MUD RECORD | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | | | | |
| | | | SIZE | | WEIGHT | | | | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | | | | |
| | D.C. ID OD | FT. | TYPE | | VISC.-SEC. | | | | |
| | STB RMR OD | FT. | JET 1/32" | | PV/YP | / | / | / | |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | / | / | / | |
| | STB RMR OD | FT. | DEPTH OUT | | WL -CC'S. | | | | |
| | | | DEPTH IN | | pH | | | | |
| | | | TOTAL FTG. | | SOLIDS % | | | | |
| | | | TOTAL HRS. RUN | | | | | | |
| | STANDS DP | FT. | COND. 1/B's T/D/ GAGE | | MUD & CHEMICALS ADDED | TYPE | AMT. | TYPE | AMT. |
| | SINGLES DP | FT. | GPM/ PD-PSI | / | | | | | |
| | KELLY DOWN | FT. | | | | | | | |
| | TOTAL | FT. | | | | | | | |
| WT. OF STRING | | LBS. | | | | | | | |

| FOOTAGE FROM | FOOTAGE TO | DR.-D RM-R CORE-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.-S PAR'EL-P COM'P-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| TIME LOG FROM | TIME LOG TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 6:00 | 11:30 | 5½ | | SERV. RIG & EQUIP. |
| 11:30 | 2:00 | 2½ | | UNLANDED 7" LANDED SAME W/240,000# ON SLIPS. INSTALLED SEAL FLANGE, TBG HANGER & B.O.P.E. |
| | | | | HELD B.O.P.E. DRILL |

DRILLER

## EVENING TOUR

| NO. | DRILLING ASSEMBLY (At end of tour) | | BIT RECORD | | MUD RECORD | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | | | | |
| | | | SIZE | | WEIGHT | | | | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | | | | |
| | D.C. ID OD | FT. | TYPE | | VISC.-SEC. | | | | |
| | STB RMR OD | FT. | JETS 1/32" | | PV/YP | / | / | / | |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | / | / | / | |
| | STB RMR OD | FT. | DEPTH OUT | | WL -CC'S. | | | | |
| | | | DEPTH IN | | pH | | | | |
| | | | TOTAL FTG. | | SOLIDS % | | | | |
| | | | TOTAL HRS. RUN | | | | | | |
| | STANDS DP | FT. | COND. 1/B's T/B/ GAGE | | MUD & CHEMICALS ADDED | TYPE | AMT. | TYPE | AMT. |
| | SINGLES DP | FT. | GPM/ PD-PSI | / | | | | | |
| | KELLY DOWN | FT. | | | | | | | |
| | TOTAL | FT. | | | | | | | |
| WT. OF STRING | | LBS. | | | | | | | |

| FOOTAGE FROM | FOOTAGE TO | DR.-D RM-R CORE-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.-S PAR'EL-P COM'P-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| TIME LOG FROM | TIME LOG TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 2:00 | 4:00 | 2 | | SERV. THE RIG AND THE EQUIP. |
| 4:00 | 5:00 | 1 | | FINISHED TESTING SEALS FLANGES |
| 5:00 | 10:00 | 5 | | FINISHED INSTALING BOP + KILL LINES |
| | | | | TESTED BOP HYDRIL @ 3000 O.K. PIPE RAMS + BLINDS @ 4000 |
| | | | | ALL TESTS OK FOR 20 MIN. |

DRILLER

## DRILLING CREW PAYROLL DATA

No. 5487 #3-5643

DATE 9-3-76

WELL NAME & NO. S.S. #30

COMPANY SO. CALIF. GAS CO.

TOOL PUSHER J. L. Boggs RIG NO. D-3

MORNING TOUR ____ P.M. ____ A.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | | | | |
| DRKMAN | | | | |
| MTRMAN | | | | |
| FIREMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

DAY TOUR 5:00 A.M. 2:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | 36 76 | B. DAVIS | 9 | 2 |
| DRKMAN | 37 19 | T. BRANDON | 9 | 3 |
| MTRMAN | 37 28 | J. TOOPS | 9 | 7 |
| FIREMAN | 37 73 | P. SELMSER | 9 | 7 |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |
| | | RIG | 8 | |
| | | PUMP | Ø | |
| | | CREW | 9 | |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 2:00 P.M. 10:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | 56 25 | D. EATON | 8 | 2 |
| DRKMAN | 36 73 | S. DOREMEIER | 8 | 3 |
| MTRMAN | 37 50 | B. FRENCH | 8 | 7 |
| FIREMAN | 37 36 | K. WILDER | 8 | 7 |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |
| | | RIG | 8 | |
| | | PUMP | Ø | |
| | | CREW | 8 | |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

Form 3T-5 Printed in U. S. A.

APPROVED APPROVED

**IADC – API OFFICIAL DAILY DRILLING REPORT FORM**

APPROVED APPROVED

AC_CPUC_0118024

No. 5487 #3-5643

# DAILY DRILLING REPORT — REPORT NO. 9

| LEASE | WELL NO. | API WELL NUMBER | DATE |
|---|---|---|---|
| ALISO CYN. | S.S. #30 | | 9-3-76 |

| OPERATOR | CONTRACTOR | RIG NO. |
|---|---|---|
| SO. CALIF. GAS CO. | CALIF. PROD. SVC. | D-3 |

| SIGNATURE OF OPERATOR'S REPRESENTATIVE | SIGNATURE OF CONTRACTOR'S TOOL PUSHER |
|---|---|
| E.C. Bradbury | J. L. Boggs |

| D.P. SIZE | WT./FT. | GRADE | TOOL JT O.D. | TYPE THREAD | STRING NO. |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |

| PUMP NO. | PUMP MANUFACTURER | TYPE | STROKE LENGTH |
|---|---|---|---|
| 10 | EMSCO | D-300 | 14x5½ |

FIELD OR DIST.: ALISO CYN | COUNTY: LA | STATE: CA

LAST CASING TUBING OR LINER

| SIZE | MAKE | WT. & GR. | NO. JOINTS | FEET | RKB. TO CSG. HD. | SET AT |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |

WIRE LINE RECORD — REEL NO.

| SIZE | NO. LINES | FT. SLIPPED |
|---|---|---|
| | | |

FT. CUT OFF | PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

## TIME DISTRIBUTION — HOURS

| CODE NO. | OPERATION | MORN. | DAY | EVE. |
|---|---|---|---|---|
| 1. | RIG UP AND TEAR DOWN | | | |
| 2. | DRILL ACTUAL | | | |
| 3. | REAMING | | | |
| 4. | CORING | | | |
| 5. | CONDITION MUD & CIRCULATE | | | |
| 6. | TRIPS | | | |
| 7. | LUBRICATE RIG | | | |
| 8. | REPAIR RIG | | | |
| 9. | CUT OFF DRILLING LINE | | | |
| 10. | DEVIATION SURVEY | | | |
| 11. | WIRE LINE LOGS | | | |
| 12. | RUN CASING & CEMENT | | | |
| 13. | WAIT ON CEMENT | | | |
| 14. | NIPPLE UP B.O.P. | | | |
| 15. | TEST B.O.P. | | | 5 |
| 16. | DRILL STEM TEST | | | |
| 17. | PLUG BACK | | | |
| 18. | SQUEEZE CEMENT | | | |
| 19. | FISHING | | | |
| 20. | DIR. WORK | | | |
| 21. | TRAVEL | | 1 | |
| 22. | OTHER | | 8 | 3 |
| 23. | | | | |
| COMPLETION | A. PERF'R'T'N | | | |
| | B. TBG TRIPS | | | |
| | C. TREATING | | | |
| | D. SWABBING | | | |
| | E. TESTING | | | |
| | F. ADDIT'N'L | | | |
| | G. | | | |
| TOTALS | | | 9 | 8 |

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

| | | | |
|---|---|---|---|
| HRS. W/CONTR. D.P. | | | |
| HRS. W/OPR. D.P. | | | |
| HRS. WO/D.P. | | | |
| HRS. STANDBY | | | |
| TOTAL DAY WORK | | | |

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

TOTAL MUD COST

## MORNING TOUR

| NO. | DRILLING ASSEMBLY (At end of tour) | | BIT RECORD | | MUD RECORD | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | | | | |
| | | | SIZE | | WEIGHT | | | | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | | | | |
| | D.C. ID OD | FT. | TYPE | | VISC.-SEC. | | | | |
| | STB RMR OD | FT. | JETS 1/32" | | PV/YP | / | / | / | |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | / | / | / | |
| | STB RMR OD | FT. | DEPTH OUT | | WL -CC'S. | | | | |
| | | | DEPTH IN | | pH | | | | |
| | | | TOTAL FTG. | | SOLIDS % | | | | |
| | | | TOTAL HRS. RUN | | | | | | |
| | STANDS DP | FT. | COND. 1/8's T/B/ GAGE | | MUD & CHEMICALS ADDED | | | | |
| | SINGLES DP | FT. | GPM/ PD-PSI | / | TYPE | AMT. | TYPE | AMT. | |
| | KELLY DOWN | FT. | | | | | | | |
| | TOTAL | FT. | | | | | | | |
| | WT. OF STRING | LBS. | | | | | | | |

| FOOTAGE FROM | FOOTAGE TO | DR.-D RM.-R CORE.-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.-S PARL.-P COMP.-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| TIME LOG FROM | TIME LOG TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| | | | | |

DRILLER

## DAY TOUR

| NO. | DRILLING ASSEMBLY (At end of tour) | | BIT RECORD | | MUD RECORD | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | | | | |
| | | | SIZE | | WEIGHT | | | | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | | | | |
| | D.C. ID OD | FT. | TYPE | | VISC.-SEC. | | | | |
| | STB RMR OD | FT. | JET 1/32" | | PV/YP | / | / | / | |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | / | / | / | |
| | STB RMR OD | FT. | DEPTH OUT | | WL -CC'S. | | | | |
| | | | DEPTH IN | | pH | | | | |
| | | | TOTAL FTG. | | SOLIDS % | | | | |
| | | | TOTAL HRS. RUN | | | | | | |
| | STANDS DP | FT. | COND. 1/8's T/D/ GAGE | | MUD & CHEMICALS ADDED | | | | |
| | SINGLES DP | FT. | GPM/ PD-PSI | / | TYPE | AMT. | TYPE | AMT. | |
| | KELLY DOWN | FT. | | | | | | | |
| | TOTAL | FT. | | | | | | | |
| | WT. OF STRING | LBS. | | | | | | | |

| FOOTAGE FROM | FOOTAGE TO | DR.-D RM.-R CORE.-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.-S PARL.-P COMP.-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| TIME LOG FROM | TIME LOG TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 6:00 | 11:30 | 5½ | | SERV. RIG & EQUIP. |
| 11:30 | 2:00 | 2½ | | UNLANDED 7" LANDED SAME W/240,000# ON SLIPS. INSTALLED SEAL FLANGE, TBG HANGER & B.O.P.E. |
| | | | | HELD B.O.P.E. DRILL |

DRILLER

## EVENING TOUR

| NO. | DRILLING ASSEMBLY (At end of tour) | | BIT RECORD | | MUD RECORD | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | | | | |
| | | | SIZE | | WEIGHT | | | | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | | | | |
| | D.C. ID OD | FT. | TYPE | | VISC.-SEC. | | | | |
| | STB RMR OD | FT. | JETS 1/32" | | PV/YP | / | / | / | |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | / | / | / | |
| | STB RMR OD | FT. | DEPTH OUT | | WL -CC'S. | | | | |
| | | | DEPTH IN | | pH | | | | |
| | | | TOTAL FTG. | | SOLIDS % | | | | |
| | | | TOTAL HRS. RUN | | | | | | |
| | STANDS DP | FT. | COND. 1/8's T/B/ GAGE | | MUD & CHEMICALS ADDED | | | | |
| | SINGLES DP | FT. | GPM/ PD-PSI | / | TYPE | AMT. | TYPE | AMT. | |
| | KELLY DOWN | FT. | | | | | | | |
| | TOTAL | FT. | | | | | | | |
| | WT. OF STRING | LBS. | | | | | | | |

| FOOTAGE FROM | FOOTAGE TO | DR.-D RM.-R CORE.-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.-S PARL.-P COMP.-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| TIME LOG FROM | TIME LOG TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 2:00 | 4:00 | 2 | | FINISHED TESTING SEALS FLANGES |
| 4:00 | 5:00 | 1 | | FINISHED INSTALING BOP + KILL LINES |
| 5:00 | 10:00 | 5 | | TESTED BOP HYDRIL @ 3000 OK. PIPE RAMS + BLINDS @ 4000 ALL TESTS OK FOR 20 MIN. |

DRILLER

## DRILLING CREW PAYROLL DATA

No. 5487 #3-5643

DATE 9-3-76

WELL NAME & NO. S.S. #30

COMPANY SO. CALIF. GAS CO.

TOOL PUSHER J. L. Boggs RIG NO. D-3

### MORNING TOUR — _____ P.M. _____ A.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | | | | |
| DRKMAN | | | | |
| MTRMAN | | | | |
| FIREMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |
| | | | | |
| | | | | |
| | | | | |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

### DAY TOUR 5:00 A.M. 2:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | 36 76 | B. DAVIS | 9 | 2 |
| DRKMAN | 37 19 | T. BRANDON | 9 | 3 |
| MTRMAN | 37 28 | J. TOOPS | 9 | 7 |
| FIREMAN | 37 73 | P. SELMSER | 9 | 7 |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |
| | | | | |
| | | RIG | 8 | |
| | | PUMP | Ø | |
| | | CREW | 9 | |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

### EVENING TOUR 2:00 P.M. 10:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | 56 25 | D. EATON | 8 | 2 |
| DRKMAN | 36 73 | S. DOREMEIER | 8 | 3 |
| MTRMAN | 37 50 | B. FRENCH | 8 | 7 |
| FIREMAN | 37 36 | K. WILDER | 8 | 7 |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |
| | | | | |
| | | RIG | 8 | |
| | | PUMP | Ø | |
| | | CREW | 8 | |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

Form 3T-5 Printed in U. S. A. APPROVED APPROVED

**IADC – API OFFICIAL DAILY DRILLING REPORT FORM**

APPROVED APPROVED

AC_CPUC_0118025

No. 5486

# DAILY DRILLING REPORT

REPORT NO. 8 #3-5643

| LEASE | WELL NO. | API WELL NUMBER | DATE |
|---|---|---|---|
| ALISO CYN. | SS #30 | | 9-2-76 |
| **OPERATOR** | | **CONTRACTOR** | **RIG NO.** |
| SO. CALIF GAS CO. | | CALIF. PROD. SVC. | D-3 |
| **SIGNATURE OF OPERATOR'S REPRESENTATIVE** | | **SIGNATURE OF CONTRACTOR'S TOOL PUSHER** | |
| S C Anderson | | J. L. Boggs | |

| D.P. SIZE | WT./FT. | GRADE | TOOL JT. O.D. | TYPE THREAD | STRING NO. |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |

| PUMP NO. | PUMP MANUFACTURER | TYPE | STROKE LENGTH |
|---|---|---|---|
| 10 | EMSCO | D-300 | 14X51/2 |

FIELD OR DIST. ALISO CYN. COUNTY L.A STATE CA

| LAST CASING TUBING OR LINER | SIZE | MAKE | WT. & GR. | NO. JOINTS | FEET | RKB. TO CSG. HD. | SET AT |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

WIRE LINE RECORD REEL NO.

| SIZE | NO. LINES | FT. SLIPPED |
|---|---|---|
| FT. CUT OFF | PRESENT LENGTH | |
| TON MI. OR TRIPS SINCE LAST CUT | | |
| CUMULATIVE TON MI. OR TRIPS | | |

## TIME DISTRIBUTION – HOURS

| CODE NO. – OPERATION | MORN. | DAY | EVE. |
|---|---|---|---|
| 1. RIG UP AND TEAR DOWN | | | |
| 2. DRILL ACTUAL | | | |
| 3. REAMING | | | |
| 4. CORING | | | |
| 5. CONDITION MUD & CIRCULATE | | | |
| 6. TRIPS | | | |
| 7. LUBRICATE RIG | | | |
| 8. REPAIR RIG | | | |
| 9. CUT OFF DRILLING LINE | | | |
| 10. DEVIATION SURVEY | | | |
| 11. WIRE LINE LOGS | | | |
| 12. RUN CASING & CEMENT | | | |
| 13. WAIT ON CEMENT | | | |
| 14. NIPPLE UP B.O.P. | | | |
| 15. TEST B.O.P. | | | |
| 16. DRILL STEM TEST | | | |
| 17. PLUG BACK | | | |
| 18. SQUEEZE CEMENT | | | |
| 19. FISHING | | | |
| 20. DIR. WORK | | | |
| 21. TRAVEL | 1 | | |
| 22. OTHER | 8 | 9 | |
| 23. | | | |
| COMPLETION A. PERF'R'T'N | | | |
| COMPLETION B. TBG TRIPS | | | |
| COMPLETION C. TREATING | | | |
| COMPLETION D. SWABBING | | | |
| COMPLETION E. TESTING | | | |
| COMPLETION F. ADDIT'N'L | | | |
| COMPLETION G. | | | |
| TOTALS | 9 | 9 | |

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

| | |
|---|---|
| HRS. W/CONTR. D.P. | |
| HRS. W/OPR. D.P. | |
| HRS. NO/D.P. | |
| HRS. STANDBY | |
| TOTAL DAY WORK | |
| NO. OF DAYS FROM SPUD | |
| CUMULATIVE ROTATING HRS. | |
| TOTAL MUD COST | |

## DRILLING ASSEMBLY (At end of tour)

| NO. | | | |
|---|---|---|---|
| | BIT | | FT. |
| | STB RMR | OD | FT. |
| | D.C. ID | OD | FT. |
| | STB RMR | OD | FT. |
| | D.C. ID | OD | FT. |
| | STB RMR | OD | FT. |
| | STANDS DP | | FT. |
| | SINGLES | DP | FT. |
| | KELLY DOWN | | FT. |
| | TOTAL | | FT. |
| WT. OF STRING | | | LBS. |

## BIT RECORD

| | |
|---|---|
| BIT NO. | |
| SIZE | |
| MFG. | |
| TYPE | |
| JETS 1/32" | |
| SER. NO. | |
| DEPTH OUT | |
| DEPTH IN | |
| TOTAL FTG. | |
| TOTAL HRS. RUN | |
| COND. 1/8's T/B/ GAGE | |
| GPM/ PD-PSI | |

## MUD RECORD

| | |
|---|---|
| TIME | |
| WEIGHT | |
| PRESSURE GRADIENT | |
| VISC.-SEC. | |
| PV/YP | |
| GELS. | |
| WL -CC'S. | |
| pH | |
| SOLIDS % | |

MUD & CHEMICALS ADDED

| TYPE | AMT. | TYPE | AMT. |
|---|---|---|---|
| | | | |

MORNING TOUR

## DRILLING ASSEMBLY (At end of tour)

| NO. | | | |
|---|---|---|---|
| | BIT | | FT. |
| | STB RMR | OD | FT. |
| | D.C. ID | OD | FT. |
| | STB RMR | OD | FT. |
| | D.C. ID | OD | FT. |
| | STB RMR | OD | FT. |
| | STANDS DP | | FT. |
| | SINGLES | DP | FT. |
| | KELLY DOWN | | FT. |
| | TOTAL | | FT. |
| WT. OF STRING | | | LBS. |

## BIT RECORD

| | |
|---|---|
| BIT NO. | |
| SIZE | |
| MFG. | |
| TYPE | |
| JET 1/32" | |
| SER. NO. | |
| DEPTH OUT | |
| DEPTH IN | |
| TOTAL FTG. | |
| TOTAL HRS. RUN | |
| COND. 1/8's T/B/ GAGE | |
| GPM/ PD-PSI | |

## MUD RECORD

| | |
|---|---|
| TIME | |
| WEIGHT | |
| PRESSURE GRADIENT | |
| VISC.-SEC. | |
| PV/YP | |
| GELS. | |
| WL -CC'S. | |
| pH | |
| SOLIDS % | |

MUD & CHEMICALS ADDED

| TYPE | AMT. | TYPE | AMT. |
|---|---|---|---|
| | | | |

DAY TOUR

## DRILLING ASSEMBLY (At end of tour)

| NO. | | | |
|---|---|---|---|
| | BIT | | FT. |
| | STB RMR | OD | FT. |
| | D.C. ID | OD | FT. |
| | STB RMR | OD | FT. |
| | D.C. ID | OD | FT. |
| | STB RMR | OD | FT. |
| | STANDS DP | | FT. |
| | SINGLES | DP | FT. |
| | KELLY DOWN | | FT. |
| | TOTAL | | FT. |
| WT. OF STRING | | | LBS. |

## BIT RECORD

| | |
|---|---|
| BIT NO. | |
| SIZE | |
| MFG. | |
| TYPE | |
| JETS 1/32" | |
| SER. NO. | |
| DEPTH OUT | |
| DEPTH IN | |
| TOTAL FTG. | |
| TOTAL HRS. RUN | |
| COND. 1/8's T/B/ GAGE | |
| GPM/ PD-PSI | |

## MUD RECORD

| | |
|---|---|
| TIME | |
| WEIGHT | |
| PRESSURE GRADIENT | |
| VISC.-SEC. | |
| PV/YP | |
| GELS. | |
| WL -CC'S. | |
| pH | |
| SOLIDS % | |

MUD & CHEMICALS ADDED

| TYPE | AMT. | TYPE | AMT. |
|---|---|---|---|
| | | | |

EVENING TOUR

## FOOTAGE / FORMATION

| FOOTAGE FROM | FOOTAGE TO | DR.-D RM.-R CORE.-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL. PAR'L-S PAR'L-P COMB.-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| TIME LOG FROM | TIME LOG TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

DRILLER

## FOOTAGE / FORMATION

| FOOTAGE FROM | FOOTAGE TO | DR.-D RM.-R CORE.-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL. PAR'L-S PAR'L-P COMB.-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| TIME LOG FROM | TIME LOG TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 6:00 | | | | SERV. RIG & EQUIP. |
| | | | | FILLED SURFACE STRING W/20 BBLS (APPROX) FRESH WATER |
| | | | | CUT OFF CONDUCTOR PIPE. WELDED NEW CSG. HANGER ON |
| | | | | 11 3/8" PUP. CUT & THREADED 7". PRESSURE TESTED CSG. HANGER |
| | | | | WELD @ 1700# -20 MIN-O.K.) INSTALLED 7" 29# COLLARS; |
| | | | | NIPPLE. PRESSURE TESTED SAME @ 4,000# @ E.O.T. |
| | 2:00 | 8 | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

DRILLER

## FOOTAGE / FORMATION

| FOOTAGE FROM | FOOTAGE TO | DR.-D RM.-R CORE.-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL. PAR'L-S PAR'L-P COMB.-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| TIME LOG FROM | TIME LOG TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 2:00 | 4:00 | 2 | | SERV. RIG & EQUIP. |
| | | | | CONT TESTING 7" CASING @ 4000# BY OK |
| 4:00 | | | | WELDED CASING HEAD ON & HEATED SAME & WRAPED |
| | 10:00 | 6 | | SAME WITH ASBESTIS BLANKETS TO COOL. |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

DRILLER

## DRILLING CREW PAYROLL DATA

No. 5486

DATE 9-2-76 #3-5643

WELL NAME & NO. SS #30

COMPANY SO CALIF. GAS CO.

TOOL PUSHER J. L. Boggs RIG NO. D-3

MORNING TOUR _____ P.M. _____ A.M.

| CREW | SOC. SEC. NO. | NAME | HRS. |
|---|---|---|---|
| DRILLER | | | |
| DRKMAN | | | |
| MTRMAN | | | |
| FIREMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| TRAINEE | | | |
| | | | |
| | | | |
| | | | |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

DAY TOUR 5:00 A.M. 2:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. |
|---|---|---|---|
| DRILLER | 36 76 | B. DAVIS | 9 |
| DRKMAN | 37 19 | T. BRANDON | 9 |
| MTRMAN | 37 28 | J. TOOPS | 9 |
| FIREMAN | 37 73 | P. SELMSER | 9 |
| FLRMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| TRAINEE | | | |
| | | RIG | 8 |
| | | PUMP | 8 |
| | | CREW | 9 |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 2:00 P.M. 10:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. |
|---|---|---|---|
| DRILLER | 56 25 | D. EATON | 8 |
| DRKMAN | 36 73 | S. DORFMEIER | 8 |
| MTRMAN | 37 50 | B. FRENCH | 8 |
| FIREMAN | 37 36 | K. WILDER | 8 |
| FLRMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| TRAINEE | | | |
| | | RIG | 8 |
| | | PUMP | 8 |
| | | CREW | 8 |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

Form 3T-5 Printed in U. S. A.

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**IADC – API OFFICIAL DAILY DRILLING REPORT FORM**

APPROVED APPROVED

AC_CPUC_0118026

No. 5485

# DAILY DRILLING REPORT

REPORT NO. 7 #3-5643

| LEASE | WELL NO. | API WELL NUMBER | DATE |
|---|---|---|---|
| ALISO CYN. | S.S. #30 | | 9-1-76 |

| OPERATOR | CONTRACTOR | RIG NO. |
|---|---|---|
| SO CALIF GAS CO. | CALIF. PROD. SVC. | D-3 |

SIGNATURE OF OPERATOR'S REPRESENTATIVE: S C Smith

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: J. S. Boggs

| D.P. SIZE | WT./FT. | GRADE | TOOL JT I.D. | TYPE THREAD | STRING NO. |
|---|---|---|---|---|---|
| | | | | | |

| PUMP NO | PUMP MANUFACTURER | TYPE | STROKE LENGTH |
|---|---|---|---|
| 10 | EMSCO | D-300 | 14 x 5½ |

FIELD OR DIST. ALISO CYN. | COUNTY L.A. | STATE CA

LAST CASING TUBING OR LINER

| SIZE | MAKE | WT. & GR. | NO. JOINTS | FEET | RKB. TO CSG. HD. | SET AT |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |

WIRE LINE RECORD — REEL NO.

| SIZE | NO. LINES | FT. SLIPPED |
|---|---|---|
| | | |

FT. CUT OFF | PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

## TIME DISTRIBUTION – HOURS

| CODE NO. | OPERATION | MORN. | DAY | EVE. |
|---|---|---|---|---|
| 1. | RIG UP AND TEAR DOWN | | | |
| 2. | DRILL ACTUAL | | | |
| 3. | REAMING | | | |
| 4. | CORING | | | |
| 5. | CONDITION MUD & CIRCULATE | | | |
| 6. | TRIPS | | | |
| 7. | LUBRICATE RIG | | | |
| 8. | REPAIR RIG | | | |
| 9. | CUT OFF DRILLING LINE | | | |
| 10. | DEVIATION SURVEY | | | |
| 11. | WIRE LINE LOGS | | | |
| 12. | RUN CASING & CEMENT | | | |
| 13. | WAIT ON CEMENT | | | |
| 14. | NIPPLE UP B.O.P. | | | |
| 15. | TEST B.O.P. | | | |
| 16. | DRILL STEM TEST | | | |
| 17. | PLUG BACK | | | |
| 18. | REMOVE SQUEEZE CEMENT | | 8 | |
| 19. | FISHING | | | |
| 20. | DIR. WORK | | | |
| 21. | TRAVEL | | 1 | |
| 22. | OTHER | | | |
| 23. | | | | |
| COMPLETION | A. PERF'R'T'N | | | |
| | B. TBG TRIPS | | | |
| | C. TREATING | | | |
| | D. SWABBING | | | |
| | E. TESTING | | | |
| | F. ADDIT'N'L | | | |
| | G. | | | |
| TOTALS | | | 9 | |

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

| | |
|---|---|
| HRS. W/CONTR. D.P. | |
| HRS. W/OPR. D.P. | |
| HRS. WO/D.P. | |
| HRS. STANDBY | |
| TOTAL DAY WORK | |
| NO. OF DAYS FROM SPUD | |
| CUMULATIVE ROTATING HRS. | |
| TOTAL MUD COST | |

## MORNING TOUR

| NO. | DRILLING ASSEMBLY (At end of tour) | | BIT RECORD | | MUD RECORD | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | | | | |
| | | | SIZE | | WEIGHT | | | | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | | | | |
| | D.C. ID OD | FT. | TYPE | | VISC.-SEC. | | | | |
| | STB RMR OD | FT. | JETS 1/32" | | PV/YP | / | / | / | |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | / | / | / | |
| | STB RMR OD | FT. | DEPTH OUT | | WL.-CC'S. | | | | |
| | | | DEPTH IN | | pH | | | | |
| | | | TOTAL FTG. | | SOLIDS % | | | | |
| | | | TOTAL HRS. RUN | | | | | | |
| | STANDS DP | FT. | COND. 1/8's T/B/ GAGE | | MUD & CHEMICALS ADDED | | | | |
| | SINGLES DP | FT. | GPM/ PD-PSI | / | TYPE | AMT. | TYPE | AMT. | |
| | KELLY DOWN | FT. | | | | | | | |
| | TOTAL | FT. | | | | | | | |
| | WT. OF STRING | LBS. | | | | | | | |

## DAY TOUR

| NO. | DRILLING ASSEMBLY (At end of tour) | | BIT RECORD | | MUD RECORD | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | | | | |
| | | | SIZE | | WEIGHT | | | | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | | | | |
| | D.C. ID OD | FT. | TYPE | | VISC.-SEC. | | | | |
| | STB RMR OD | FT. | JET 1/32" | | PV/YP | / | / | / | |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | / | / | / | |
| | STB RMR OD | FT. | DEPTH OUT | | WL.-CC'S. | | | | |
| | | | DEPTH IN | | pH | | | | |
| | | | TOTAL FTG. | | SOLIDS % | | | | |
| | | | TOTAL HRS. RUN | | | | | | |
| | STANDS DP | FT. | COND. 1/8's T/B/ GAGE | | MUD & CHEMICALS ADDED | | | | |
| | SINGLES DP | FT. | GPM/ PD-PSI | / | TYPE | AMT. | TYPE | AMT. | |
| | KELLY DOWN | FT. | | | | | | | |
| | TOTAL | FT. | | | | | | | |
| | WT. OF STRING | LBS. | | | | | | | |

## EVENING TOUR

| NO. | DRILLING ASSEMBLY (At end of tour) | | BIT RECORD | | MUD RECORD | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | | | | |
| | | | SIZE | | WEIGHT | | | | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | | | | |
| | D.C. ID OD | FT. | TYPE | | VISC.-SEC. | | | | |
| | STB RMR OD | FT. | JETS 1/32" | | PV/YP | / | / | / | |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | / | / | / | |
| | STB RMR OD | FT. | DEPTH OUT | | WL.-CC'S. | | | | |
| | | | DEPTH IN | | pH | | | | |
| | | | TOTAL FTG. | | SOLIDS % | | | | |
| | | | TOTAL HRS. RUN | | | | | | |
| | STANDS DP | FT. | COND. 1/8's T/B/ GAGE | | MUD & CHEMICALS ADDED | | | | |
| | SINGLES DP | FT. | GPM/ PD-PSI | / | TYPE | AMT. | TYPE | AMT. | |
| | KELLY DOWN | FT. | | | | | | | |
| | TOTAL | FT. | | | | | | | |
| | WT. OF STRING | LBS. | | | | | | | |

## MORNING TOUR

FOOTAGE FROM / TO | DR..D RM..R CORE..C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.-S PAR.EL-P COM.D-C

DEVIATION RECORD: DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

TIME LOG FROM / TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

DRILLER

## DAY TOUR

FOOTAGE FROM / TO | DR..D RM..R CORE..C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.-S PAR.EL-P COM.D-C

DEVIATION RECORD: DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

| TIME LOG FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 6.00 | | | | SERV. RIG & EQUIP |
| | | | | JACKHAMMERING OUT CELLAR |
| | 2:00 | 8 | | |

DRILLER

## EVENING TOUR

FOOTAGE FROM / TO | DR..D RM..R CORE..C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.-S PAR.EL-P COM.D-C

DEVIATION RECORD: DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

| TIME LOG FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 2.00 | | | | SERV. THE RIG AND THE EQUIP |
| | | | | JACKHAMMERING & DIGGING OUT CELLAR. |
| | 10:00 | 8 | | |

DRILLER

## DRILLING CREW PAYROLL DATA

No. 5485

DATE 9-1-76 #3-5643

WELL NAME & NO. S.S. #30

COMPANY SO. CALIF. GAS CO

TOOL PUSHER J. S. Boggs RIG NO. D-3

MORNING TOUR ____ P.M. ____ A.M.

| CREW | SOC. SEC. NO. | NAME | HRS. |
|---|---|---|---|
| DRILLER | | | |
| DRKMAN | | | |
| MTRMAN | | | |
| FIREMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| TRAINEE | | | |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

DAY TOUR 5:00 A.M. 2:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. |
|---|---|---|---|
| DRILLER | CONFIDENTIAL | B. DAVIS | 9 |
| DRKMAN | | T. BRANDON | 9 |
| MTRMAN | | J. TOOPS | 9 |
| FIREMAN | | P. SELMSER | 9 |
| FLRMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| TRAINEE | | | |
| | | RIG | 8 |
| | | PUMP | 0 |
| | | CREW | 9 |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 2:00 P.M. 12:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. |
|---|---|---|---|
| DRILLER | CONFIDENTIAL | D. EATON | 8 |
| DRKMAN | | S. DORFMEIER | 8 |
| MTRMAN | | B. FRENCH | 8 |
| FIREMAN | | K. WILDER. | 8 |
| FLRMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| TRAINEE | | | |
| | | RIG | 8 |
| | | PUMP | 0 |
| | | CREW | 8 |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

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**IADC – API OFFICIAL DAILY DRILLING REPORT FORM**

APPROVED APPROVED

AC_CPUC_0118027

No. 5484 #3-5643

# DAILY DRILLING REPORT — REPORT NO. 6

| LEASE | WELL NO. | API WELL NUMBER | DATE |
|---|---|---|---|
| ALISO CYN. | S.S. #30 | | 8-31-76 |

| OPERATOR | CONTRACTOR | RIG NO. |
|---|---|---|
| SO. CALIF GAS CO. | CALIF PROD. SVC. | D-3 |

SIGNATURE OF OPERATOR'S REPRESENTATIVE: E. A. Sulk

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: J. L. Boggs

| D.P. SIZE | WT./FT. | GRADE | TOOL JT O.D. | TYPE THREAD | STRING NO. |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |

| PUMP NO. | PUMP MANUFACTURER | TYPE | STROKE LENGTH |
|---|---|---|---|
| 10 | EMSCO | D-300 | 14 X 5½ |
| | | | |

FIELD OR DIST.: ALISO CYN. COUNTY: L.A. STATE: CA

LAST CASING TUBING OR LINER

| SIZE | MAKE | WT. & GR. | NO. JOINTS | FEET | RKB. TO CSG. HD. | SET AT |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |

WIRE LINE RECORD — REEL NO.

| SIZE | NO. LINES | FT. SLIPPED |
|---|---|---|
| | | |

FT. CUT OFF | PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

## TIME DISTRIBUTION — HOURS

| CODE NO. | OPERATION | MORN. | DAY | EVE. |
|---|---|---|---|---|
| 1. | RIG UP AND TEAR DOWN | | | |
| 2. | DRILL ACTUAL | | | |
| 3. | REAMING | | | |
| 4. | CORING | | | |
| 5. | CONDITION MUD & CIRCULATE | | | |
| 6. | TRIPS | | 4½ | |
| 7. | LUBRICATE RIG | | | |
| 8. | REPAIR RIG | | | |
| 9. | CUT OFF DRILLING LINE | | | |
| 10. | DEVIATION SURVEY | | | |
| 11. | WIRE LINE LOGS | | | |
| 12. | RUN CASING & CEMENT | | | |
| 13. | WAIT ON CEMENT | | | |
| 14. | NIPPLE UP B.O.P. | | | |
| 15. | TEST B.O.P. | | | |
| 16. | DRILL STEM TEST | | | |
| 17. | PLUG BACK | | | |
| 18. | SQUEEZE CEMENT | | | |
| 19. | FISHING | | | |
| 20. | DIR. WORK | | | |
| 21. | TRAVEL | | 1 | |
| 22. | OTHER | | 5½ | 9 |
| 23. | | | | |
| COMPLETION | A. PERF'R'T'N | | | |
| | B. TBG TRIPS | | | |
| | C. TREATING | | | |
| | D. SWABBING | | | |
| | E. TESTING | | | |
| | F. ADDIT'N'L | | | |
| | G. | | | |
| TOTALS | | | 9 | 9 |

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

| | |
|---|---|
| HRS. W/CONTR. D.P. | |
| HRS. W/OPR. D.P. | |
| HRS. WO/D.P. | |
| HRS. STANDBY | |
| TOTAL DAY WORK | |
| NO. OF DAYS FROM SPUD | |
| CUMULATIVE ROTATING HRS. | |
| TOTAL MUD COST | |

## DRILLING ASSEMBLY (At end of tour) / BIT RECORD / MUD RECORD

| NO. | DRILLING ASSEMBLY | | BIT RECORD | | MUD RECORD | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | | | | |
| | | | SIZE | | WEIGHT | | | | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | | | | |
| | D.C. ID OD | FT. | TYPE | | VISC.-SEC. | | | | |
| | STB RMR OD | FT. | JETS 1/32" | | PV/YP | / | / | / | |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | / | / | / | |
| | STB RMR OD | FT. | DEPTH OUT | | WL -CC'S. | | | | |
| | | | DEPTH IN | | pH | | | | |
| | | | TOTAL FTG. | | SOLIDS % | | | | |
| | | | TOTAL HRS. RUN | | | | | | |
| | STANDS DP | FT. | COND. 1/8's T/B/ GAGE | | MUD & CHEMICALS ADDED | TYPE | AMT. | TYPE | AMT. |
| | SINGLES DP | FT. | GPM/ PD-PSI | / | | | | | |
| | KELLY DOWN | FT. | | | | | | | |
| | TOTAL | FT. | | | | | | | |
| WT. OF STRING | | LBS. | | | | | | | |

MORNING TOUR

## FOOTAGE / FORMATION

| FROM | TO | DR.-D RM.-R CORE.-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SOL.-S PAR.EL-P COM.-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

TIME LOG

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

DRILLER

## DRILLING ASSEMBLY (At end of tour) / BIT RECORD / MUD RECORD

| NO. | DRILLING ASSEMBLY | | BIT RECORD | | MUD RECORD | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | | | | |
| | | | SIZE | | WEIGHT | | | | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | | | | |
| | D.C. ID OD | FT. | TYPE | | VISC.-SEC. | | | | |
| | STB RMR OD | FT. | JET 1/32" | | PV/YP | / | / | / | |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | / | / | / | |
| | STB RMR OD | FT. | DEPTH OUT | | WL -CC'S. | | | | |
| | | | DEPTH IN | | pH | | | | |
| | | | TOTAL FTG. | | SOLIDS % | | | | |
| | | | TOTAL HRS. RUN | | | | | | |
| | STANDS DP | FT. | COND. 1/8's T/B/ GAGE | | MUD & CHEMICALS ADDED | TYPE | AMT. | TYPE | AMT. |
| | SINGLES DP | FT. | GPM/ PD-PSI | / | | | | | |
| | KELLY DOWN | FT. | | | | | | | |
| | TOTAL | FT. | | | | | | | |
| WT. OF STRING | | LBS. | | | | | | | |

DAY TOUR

## FOOTAGE / FORMATION

| FROM | TO | DR.-D RM.-R CORE.-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SOL.-S PAR.EL-P COM.-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

TIME LOG

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 6:00 | | | | SERV. RIG & EQUIP. (FILLED HOLE-70BBLS) |
| | 8:30 | 2½ | | SET JOHNSTON BRIDGE PLUG @ 8850'. P.O.H. TO 8795' |
| 8:30 | 12:00 | 3½ | | TESTED PLUG @ 1,000# - 20 MIN. |
| 12:00 | 12:30 | ½ | | P.O.H. W/ RET. TOOL |
| | | | | RIH W/ JOHNSTON B. PLUG SET SAME @ 100' - TESTED |
| | | | | SAME @ 1,500# - 20 MIN. |
| 12:30 | 1:00 | ½ | | FINISHED TEST (ABOVE) P.O.H. W/ RET. TOOL |
| 1:00 | | | | CELLAR WORK - REMOVING B.O.P.E @ E.O.T. |
| | 2:00 | | | |

DRILLER

## DRILLING ASSEMBLY (At end of tour) / BIT RECORD / MUD RECORD

| NO. | DRILLING ASSEMBLY | | BIT RECORD | | MUD RECORD | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | | | | |
| | | | SIZE | | WEIGHT | | | | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | | | | |
| | D.C. ID OD | FT. | TYPE | | VISC.-SEC. | | | | |
| | STB RMR OD | FT. | JETS 1/32" | | PV/YP | / | / | / | |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | / | / | / | |
| | STB RMR OD | FT. | DEPTH OUT | | WL -CC'S. | | | | |
| | | | DEPTH IN | | pH | | | | |
| | | | TOTAL FTG. | | SOLIDS % | | | | |
| | | | TOTAL HRS. RUN | | | | | | |
| | STANDS DP | FT. | COND. 1/8's T/B/ GAGE | | MUD & CHEMICALS ADDED | TYPE | AMT. | TYPE | AMT. |
| | SINGLES DP | FT. | GPM/ PD-PSI | / | | | | | |
| | KELLY DOWN | FT. | | | | | | | |
| | TOTAL | FT. | | | | | | | |
| WT. OF STRING | | LBS. | | | | | | | |

EVENING TOUR

## FOOTAGE / FORMATION

| FROM | TO | DR.-D RM.-R CORE.-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SOL.-S PAR.EL-P COM.-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

TIME LOG

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 2:00 | 5:00 | 3 | | SERV. THE RIG & EQUIP. |
| 5:00 | 6:00 | 1 | | REMOVED BOP CLEANED OUT CELLAR |
| 6:00 | 6:30 | ½ | | RIGGED UP CASING JACKS |
| 6:30 | 10:00 | 3½ | | MADE UP MID-WAYS SPEAR & TOOLS |
| 10:30 | | | | UNLANDED CASING CUT WELL HEAD OFF FILLED SURFACE |
| | | | | STRING CELLAR WORK. |

DRILLER

DRILLING CREW PAYROLL DATA — No. 5484 #3-5643

DATE 8-31-76

WELL NAME & NO. S.S. #30

COMPANY SO. CALIF GAS CO.

TOOL PUSHER J. L. Boggs — RIG NO. D-3

MORNING TOUR ____ P.M. ____ A.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | | | | |
| DRKMAN | | | | |
| MTRMAN | | | | |
| FIREMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

DAY TOUR 5:00 A.M. 2:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | CONFIDENTIAL | B. DAVIS | 9 | 2 |
| DRKMAN | | T. BRANDON | 9 | 3 |
| MTRMAN | | J. TOOI | — | — |
| FIREMAN | | P SELMSER | 9 | 7 |
| FLRMAN | | B.L. FAUSNET | 9 | 7 |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |
| | | RIG | 8 | |
| | | PUMP | 1 | |
| | | CREW | 9 | |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 2:00 P.M. 10:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | CONFIDENTIAL | D. EATON | 8 | 2 |
| DRKMAN | | S. DOREMEIER | 8 | 3 |
| MTRMAN | | B. FRENCH | 8 | 7 |
| FIREMAN | | K. WILDER | 8 | 7 |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |
| | | RIG | 8 | |
| | | PUMP | 0 | |
| | | CREW | 8 | |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

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**IADC – API OFFICIAL DAILY DRILLING REPORT FORM**

APPROVED APPROVED

AC_CPUC_0118028

No. 5483 #3-5643

# DAILY DRILLING REPORT — REPORT NO. 5

| LEASE | WELL NO. | API WELL NUMBER | DATE |
|---|---|---|---|
| ALISO CYN. | SS #30 | | 8-30-76 |

| OPERATOR | CONTRACTOR | RIG NO. |
|---|---|---|
| SO. CALIF. GAS CO. | CALIF. PROD SVC | D-3 |

SIGNATURE OF OPERATOR'S REPRESENTATIVE: E. E. Guilkey

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: J. L. Boggs

| D.P. SIZE | WT./FT. | GRADE | TOOL JT O.D. | TYPE THREAD | STRING NO. |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |

| PUMP NO. | PUMP MANUFACTURER | TYPE | STROKE LENGTH |
|---|---|---|---|
| 10 | EMSCO | D-300 | 14X5½ |

FIELD OR DIST.: ALISO CYN. | COUNTY: L.A. | STATE: CA

| LAST CASING TUBING OR LINER | SIZE | MAKE | WT. & GR. | NO. JOINTS | FEET | RKB. TO CSG. HD. | SET AT |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

WIRE LINE RECORD — REEL NO.

| SIZE | NO. LINES | FT. SLIPPED |
|---|---|---|
| FT. CUT OFF | PRESENT LENGTH | |
| TON MI. OR TRIPS SINCE LAST CUT | | |
| CUMULATIVE TON MI. OR TRIPS | | |

## TIME DISTRIBUTION — HOURS

| CODE NO. — OPERATION | MORN. | DAY | EVE. |
|---|---|---|---|
| 1. RIG UP AND TEAR DOWN | | | |
| 2. DRILL ACTUAL | | | |
| 3. REAMING | | | |
| 4. CORING | | | |
| 5. CONDITION MUD & CIRCULATE | | | |
| 6. TRIPS | | ½ | 3½ |
| 7. LUBRICATE RIG | | | |
| 8. REPAIR RIG | | | |
| 9. CUT OFF DRILLING LINE | | | |
| 10. DEVIATION SURVEY | | | |
| 11. WIRE LINE LOGS | | 7½ | 4½ |
| 12. RUN CASING & CEMENT | | | |
| 13. WAIT ON CEMENT | | | |
| 14. NIPPLE UP B.O.P. | | | |
| 15. TEST B.O.P. | | | |
| 16. DRILL STEM TEST | | | |
| 17. PLUG BACK | | | |
| 18. SQUEEZE CEMENT | | | |
| 19. FISHING | | | |
| 20. DIR. WORK | | | |
| 21. TRAVEL | | 1 | |
| 22. OTHER | | | |
| 23. | | | |
| COMPLETION A. PERF'R'T'N | | | |
| COMPLETION B. TBG TRIPS | | | |
| COMPLETION C. TREATING | | | |
| COMPLETION D. SWABBING | | | |
| COMPLETION E. TESTING | | | |
| COMPLETION F. ADDIT'N'L | | | |
| COMPLETION G. | | | |
| TOTALS | | 9 | 8 |

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

| | |
|---|---|
| HRS. W/CONTR. D.P. | |
| HRS. W/OPR. D.P. | |
| HRS. WO/D.P. | |
| HRS. STANDBY | |
| TOTAL DAY WORK | |
| NO. OF DAYS FROM SPUD | |
| CUMULATIVE ROTATING HRS. | |
| TOTAL MUD COST | |

## DRILLING ASSEMBLY (At end of tour) / BIT RECORD / MUD RECORD

| NO. | DRILLING ASSEMBLY | | BIT RECORD | | MUD RECORD | |
|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | |
| | | | SIZE | | WEIGHT | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | |
| | D.C. ID OD | FT. | TYPE | | VISC.-SEC. | |
| | STB RMR OD | FT. | JETS 1/32" | | PV/YP | |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | |
| | STB RMR OD | FT. | DEPTH OUT | | WL -CC'S. | |
| | | | DEPTH IN | | pH | |
| | | | TOTAL FTG. | | SOLIDS % | |
| | | | TOTAL HRS. RUN | | | |
| | STANDS DP | FT. | COND. 1/B's T/B/ GAGE | | MUD & CHEMICALS ADDED | |
| | SINGLES DP | FT. | GPM/ PD-PSI | | TYPE AMT. TYPE AMT. | |
| | KELLY DOWN | FT. | | | | |
| | TOTAL | FT. | | | | |
| | WT. OF STRING | LBS. | | | | |

MORNING TOUR

| NO. | DRILLING ASSEMBLY | | BIT RECORD | | MUD RECORD | |
|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | |
| | | | SIZE | | WEIGHT | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | |
| | D.C. ID OD | FT. | TYPE | | VISC.-SEC. | |
| | STB RMR OD | FT. | JET 1/32" | | PV/YP | |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | |
| | STB RMR OD | FT. | DEPTH OUT | | WL -CC'S. | |
| | | | DEPTH IN | | pH | |
| | | | TOTAL FTG. | | SOLIDS % | |
| | | | TOTAL HRS. RUN | | | |
| | STANDS DP | FT. | COND. 1/8's T/B/ GAGE | | MUD & CHEMICALS ADDED | |
| | SINGLES DP | FT. | GPM/ PD-PSI | | TYPE AMT. TYPE AMT. | |
| | KELLY DOWN | FT. | | | | |
| | TOTAL | FT. | | | | |
| | WT. OF STRING | LBS. | | | | |

DAY TOUR

| NO. | DRILLING ASSEMBLY | | BIT RECORD | | MUD RECORD | |
|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | |
| | | | SIZE | | WEIGHT | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | |
| | D.C. ID OD | FT. | TYPE | | VISC.-SEC. | |
| | STB RMR OD | FT. | JETS 1/32" | | PV/YP | |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | |
| | STB RMR OD | FT. | DEPTH OUT | | WL -CC'S. | |
| | | | DEPTH IN | | pH | |
| | | | TOTAL FTG. | | SOLIDS % | |
| | | | TOTAL HRS. RUN | | | |
| | STANDS DP | FT. | COND. 1/8's T/B/ GAGE | | MUD & CHEMICALS ADDED | |
| | SINGLES DP | FT. | GPM/ PD-PSI | | TYPE AMT. TYPE AMT. | |
| | KELLY DOWN | FT. | | | | |
| | TOTAL | FT. | | | | |
| | WT. OF STRING | LBS. | | | | |

EVENING TOUR

## FOOTAGE / FORMATION (SHOW CORE RECOVERY) / DEVIATION RECORD

| FOOTAGE FROM | FOOTAGE TO | DR..D RM-R CORE..C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL-S PAR'L-P COM'D-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

## TIME LOG / DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

| TIME LOG FROM | TIME LOG TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| | | | | |

DRILLER

## FOOTAGE / FORMATION (SHOW CORE RECOVERY) / DEVIATION RECORD

| FOOTAGE FROM | FOOTAGE TO | DR..D RM-R CORE..C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S. P. M. | METHOD RUN SGL-S PAR'L-P COM'D-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

## TIME LOG / DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

| TIME LOG FROM | TIME LOG TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 6:00 | 6:30 | ½ | | SERV. RIG & EQUIP |
| 6:30 | | | | P.O.H. W/BIT & SCRAPER |
| | | | | RIGGED UP DRESSER-ATLAS LOGGING AS PROGRAMMED |
| | 2:00 | 7½ | | |

DRILLER

## FOOTAGE / FORMATION (SHOW CORE RECOVERY) / DEVIATION RECORD

| FOOTAGE FROM | FOOTAGE TO | DR..D RM-R CORE..C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL-S PAR'L-P COM'D-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

## TIME LOG / DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

| TIME LOG FROM | TIME LOG TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 2:00 | 6:00 | 4 | | SERV THE RIG AND THE EQUIP. |
| 6:00 | 6:30 | ½ | | LOG WELL AS PROGRAMED |
| 6:30 | 10:00 | 3½ | | RIGGED DOWN DRESSER-ATLAS WIRE LINE SERV. |
| | | | | RUN IN HOLE W/PLUG TO 8785 SHUT JOB DOWN |
| | | | | TILL A.M. |

DRILLER David O Eaton

## DRILLING CREW PAYROLL DATA

No. 5483 #3-5643

DATE 8-30-76

WELL NAME & NO. S.S. #30

COMPANY SO. CALIF. GAS CO.

TOOL PUSHER J. L. Boggs RIG NO. D-3

MORNING TOUR _____ P.M. _____ A.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | | | | |
| DRKMAN | | | | |
| MTRMAN | | | | |
| FIREMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

DAY TOUR 5:00 A.M. 2:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | 36 76 | B. DAVIS | 9 | 2 |
| DRKMAN | 37 19 | T. BRANDON | 9 | 3 |
| MTRMAN | 37 28 | J. TOOPS | 9 | 7 |
| FIREMAN | 37 73 | P SELMSER | 9 | 7 |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |
| | | RIG | 8 | |
| | | PUMP | 8 | |
| | | CREW | 9 | |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 2:00 P.M. 10:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | 56 25 | D. EATON | 8 | 2 |
| DRKMAN | 36 73 | S. DORFMEIER | 8 | 5 |
| MTRMAN | 37 50 | B. FRENCH | 8 | 7 |
| FIREMAN | 37 36 | K. WILDER | 8 | 7 |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |
| | | RIG | 8 | |
| | | PUMP | ⊖ | |
| | | CREW | 8 | |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

Form 3T-5 Printed in U. S. A. APPROVED APPROVED

**IADC – API OFFICIAL DAILY DRILLING REPORT FORM**

APPROVED APPROVED

AC_CPUC_0118029

No. 5482

DAILY DRILLING REPORT — REPORT NO. # 4

| LEASE | WELL NO. | API WELL NUMBER | DATE |
|---|---|---|---|
| ALISO CYN- | 55 #30 | STANDARD SESNON #30 | 8-28-76 |

| OPERATOR | CONTRACTOR | RIG NO. |
|---|---|---|
| So CALIF GAS CO- | CALIF Prod. Service | D-3 |

| SIGNATURE OF OPERATOR'S REPRESENTATIVE | SIGNATURE OF CONTRACTOR'S TOOL PUSHER |
|---|---|
| E C Butler | |

| D.P. SIZE | WT./FT. | GRADE | TOOL JT. O.D. | TYPE THREAD | STRING NO. | PUMP NO. | PUMP MANUFACTURER | TYPE | STROKE LENGTH |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| | | | | | | | | | |

FIELD OR DIST. ALISO CYN- | COUNTY L-A- | STATE CALIF-

LAST CASING TUBING OR LINER

| SIZE | MAKE | WT. & GR. | NO. JOINTS | FEET | RKB. TO CSG. HD. | SET AT |
|---|---|---|---|---|---|---|
| | | | | | | |

WIRE LINE RECORD — REEL NO.

| SIZE | NO. LINES | FT. SLIPPED |
|---|---|---|
| | | |

FT. CUT OFF | PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

DRILLING CREW PAYROLL DATA — No. 5482

DATE 8-28-76

WELL NAME & NO. STANDARD SESNON #30 = 35643

COMPANY So CALIF GAS CO-

TOOL PUSHER _____ RIG NO. D-3-

## TIME DISTRIBUTION – HOURS

| CODE NO. – OPERATION | MORN. | DAY | EVE. |
|---|---|---|---|
| 1. RIG UP AND TEAR DOWN | | | |
| 2. DRILL ACTUAL | | | |
| 3. REAMING | | | |
| 4. CORING | | | |
| 5. CONDITION MUD & CIRCULATE | | | 3 |
| 6. TRIPS | | ½ | 4½ |
| 7. LUBRICATE RIG | | | |
| 8. REPAIR RIG | | | |
| 9. CUT OFF DRILLING LINE | | | |
| 10. DEVIATION SURVEY | | | |
| 11. WIRE LINE LOGS | | | |
| 12. RUN CASING & CEMENT | | | |
| 13. WAIT ON CEMENT | | | |
| 14. NIPPLE UP B.O.P. | | | |
| 15. TEST B.O.P. | | | |
| 16. DRILL STEM TEST | | | |
| 17. PLUG BACK | | | |
| 18. SQUEEZE CEMENT | | | |
| 19. FISHING | | | |
| 20. DIR. WORK | | | |
| 21. Travel | | 1 | |
| 22. Other | | ½ | ½ |
| 23. | | | |
| COMPLETION A. PERF'R'T'N | | | |
| COMPLETION B. TBG TRIPS | | | |
| COMPLETION C. TREATING | | | |
| COMPLETION D. SWABBING | | | |
| COMPLETION E. TESTING | | | |
| COMPLETION F. ADDIT'N'L | | | |
| COMPLETION G. | | | |
| TOTALS | | 9 | 8 |

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

| | | | |
|---|---|---|---|
| HRS. W/CONTR. D.P. | | | |
| HRS. W/OPR. D.P. | | | |
| HRS. WO/D.P. | | | |
| HRS. STANDBY | | | |
| TOTAL DAY WORK | | | |
| NO. OF DAYS FROM SPUD | | | |
| CUMULATIVE ROTATING HRS. | | | |
| TOTAL MUD COST | | | |

## DRILLING ASSEMBLY (At end of tour) / BIT RECORD / MUD RECORD

| NO. | DRILLING ASSEMBLY | | BIT RECORD | | MUD RECORD | |
|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | |
| | | | SIZE | | WEIGHT | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | |
| | D.C. ID OD | FT. | TYPE | | VISC.–SEC. | |
| | STB RMR OD | FT. | JETS 1/32" | | PV/YP | |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | |
| | STB RMR OD | FT. | DEPTH OUT | | WL –CC'S. | |
| | | | DEPTH IN | | pH | |
| | | | TOTAL FTG. | | SOLIDS % | |
| | | | TOTAL HRS. RUN | | | |
| | STANDS DP | FT. | COND. 1/8's T/B/ GAGE | | MUD & CHEMICALS ADDED | |
| | SINGLES DP | FT. | GPM/ PD–PSI | | TYPE AMT. TYPE AMT. | |
| | KELLY DOWN | FT. | | | | |
| | TOTAL | FT. | | | | |
| | WT. OF STRING | LBS. | | | | |

MORNING TOUR

| NO. | DRILLING ASSEMBLY | | BIT RECORD | | MUD RECORD | |
|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | |
| | | | SIZE | | WEIGHT | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | |
| | D.C. ID OD | FT. | TYPE | | VISC.–SEC. | |
| | STB RMR OD | FT. | JET 1/32" | | PV/YP | |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | |
| | STB RMR OD | FT. | DEPTH OUT | | WL –CC'S. | |
| | | | DEPTH IN | | pH | |
| | | | TOTAL FTG. | | SOLIDS % | |
| | | | TOTAL HRS. RUN | | | |
| | STANDS DP | FT. | COND. 1/8's T/B/ GAGE | | MUD & CHEMICALS ADDED | |
| | SINGLES DP | FT. | GPM/ PD–PSI | | TYPE AMT. TYPE AMT. | |
| | KELLY DOWN | FT. | | | | |
| | TOTAL | FT. | | | | |
| | WT. OF STRING | LBS. | | | | |

DAY TOUR

| NO. | DRILLING ASSEMBLY | | BIT RECORD | | MUD RECORD | |
|---|---|---|---|---|---|---|
| | BIT SCRAPER 4.50 | FT. | BIT NO. | | TIME | |
| | | | SIZE | | WEIGHT | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | |
| | D.C. ID OD | FT. | TYPE | | VISC.–SEC. | |
| | STB RMR OD | FT. | JETS 1/32" | | PV/YP | |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | |
| | STB RMR OD | FT. | DEPTH OUT | | WL –CC'S. | |
| | | | DEPTH IN | | pH | |
| MINUS 10 | | | TOTAL FTG. | | SOLIDS % | |
| | | | TOTAL HRS. RUN | | | |
| 149 | STANDS DP 9246.21 | FT. | COND. 1/8's T/B/ GAGE | | MUD & CHEMICALS ADDED | |
| | SINGLES DP | FT. | GPM/ PD–PSI | | TYPE AMT. TYPE AMT. | |
| | KELLY DOWN | FT. | | | | |
| | TOTAL 9241.71 | FT. | | | | |
| | WT. OF STRING 54,000 | LBS. | | | | |

EVENING TOUR

## FOOTAGE / FORMATION (SHOW CORE RECOVERY)

| FROM | TO | DR.–D RM.–R CORE.–C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.–S PAR.EL–P COM.D-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

TIME LOG

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| | | | | |

DRILLER

MORNING TOUR — P.M. _____ A.M. _____

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | | | | |
| DRKMAN | | | | |
| MTRMAN | | | | |
| FIREMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

## FOOTAGE / FORMATION (SHOW CORE RECOVERY)

| FROM | TO | DR.–D RM.–R CORE.–C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.–S PAR.EL–P COM.D-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

TIME LOG

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 6:00 | 8:30 | 2½ | | PULLING OUT of Hole S.L.M. |
| 8:30 | 10:00 | 1½ | | LAID down BOTTOM ASSY. |
| 10:00 | 2:00 | D | | MAKE UP BIT & SCRAPPER RUN IN Hole |

DRILLER B.J. French

DAY TOUR — 5:00 A.M. 3:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | 37 50 | B.J. FRENCH | 9 | 2 |
| DRKMAN | 36 73 | S. DonFMeier | 9 | 3 |
| MTRMAN | 37 36 | K. Wilder | 9 | 7 |
| FIREMAN | 37 90 | J.K. WARD | 9 | 7 |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |
| | | RIG | 8 | |
| | | PUMP | 8 | |
| | | Crew | 9 | |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

## FOOTAGE / FORMATION (SHOW CORE RECOVERY)

| FROM | TO | DR.–D RM.–R CORE.–C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.–S PAR.EL–P COM.D-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

TIME LOG

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 2:00 | | | | FINISHED RIH W/BIT & SCRAPER TO 9242' |
| | 4:00 | 2 | | |
| 4:00 | | | | CIRC. HOLE |
| | 7:00 | 3 | | |
| 7:00 | | | | P.O.H. @ EOT. CLOSED WELL IN, SHUT JOB DOWN |
| | 10:00 | 3 | | HELD B.O.P. & DRILL |

DRILLER

EVENING TOUR — 2:00 P.M. 10:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | 36 76 | B. DAVIS | 8 | 2 |
| DRKMAN | 37 19 | T. BRANDON | 8 | 3 |
| MTRMAN | 37 28 | J. TOOPS | 8 | 7 |
| FIREMAN | 37 73 | P. SELMSER | 8 | 7 |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |
| | | RIG | 8 | |
| | | PUMP | 3 | |
| | | CREW | 8 | |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

Form 3T-5 Printed in U. S. A.

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**IADC – API OFFICIAL DAILY DRILLING REPORT FORM**

APPROVED APPROVED

AC_CPUC_0118030

No. 5481

# DAILY DRILLING REPORT

REPORT NO. 3

~~5-5643~~ 3-5643

| LEASE | WELL NO. | API WELL NUMBER | DATE |
|---|---|---|---|
| ALISO CYN. | ~~55~~ #30 | STANDARD SESNON #30 | 8-27-76 |

| OPERATOR | CONTRACTOR | RIG NO. |
|---|---|---|
| So CALIF GAS Co | CALIF PROD SERV. | D-3 |

| SIGNATURE OF OPERATOR'S REPRESENTATIVE | SIGNATURE OF CONTRACTOR'S TOOL PUSHER |
|---|---|
| [signature] | J. L. Boggs |

| D.P. SIZE | WT./FT. | GRADE | TOOL JT O.D. | TYPE THREAD | STRING NO. |
|---|---|---|---|---|---|
| | | | | | |

| PUMP NO. | PUMP MANUFACTURER | TYPE | STROKE LENGTH |
|---|---|---|---|
| 10 | EMSCO | D-300 | 14x5½ |

| FIELD OR DIST. | COUNTY | STATE |
|---|---|---|
| ALISO CYN | LOS ANGELES | CALIFORNIA |

LAST CASING TUBING OR LINER

| SIZE | MAKE | WT. & GR. | NO. JOINTS | FEET | RKB. TO CSG. HD. | SET AT |
|---|---|---|---|---|---|---|
| | | | | | | |

WIRE LINE RECORD — REEL NO.

| SIZE | NO. LINES | FT. SLIPPED |
|---|---|---|
| | | |

FT. CUT OFF | PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

## TIME DISTRIBUTION – HOURS

| CODE NO. – OPERATION | MORN. | DAY | EVE. |
|---|---|---|---|
| 1. RIG UP AND TEAR DOWN | | | |
| 2. DRILL ACTUAL | | | |
| 3. REAMING | | | |
| 4. CORING | | | |
| 5. CONDITION MUD & CIRCULATE | | 4 | 4 |
| 6. TRIPS | | | 3 |
| 7. LUBRICATE RIG | | | |
| 8. REPAIR RIG | | | |
| 9. CUT OFF DRILLING LINE | | | |
| 10. DEVIATION SURVEY | | | |
| 11. WIRE LINE LOGS | | 4 | |
| 12. RUN CASING & CEMENT | | | |
| 13. WAIT ON CEMENT | | | |
| 14. NIPPLE UP B.O.P. | | | |
| 15. TEST B.O.P. | | | |
| 16. DRILL STEM TEST | | | |
| 17. PLUG BACK | | | |
| 18. SQUEEZE CEMENT | | | |
| 19. FISHING | | | |
| 20. DIR. WORK | | | |
| 21. TRAVEL | | 1 | |
| 22. OTHER | | | 1 |
| 23. | | | |
| COMPLETION A. PERF'R'T'N | | | |
| B. TBG TRIPS | | | |
| C. TREATING | | | |
| D. SWABBING | | | |
| E. TESTING | | | |
| F. ADDIT'N'L | | | |
| G. | | | |
| TOTALS | | 9 | 8 |

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

| | | | |
|---|---|---|---|
| HRS. W/CONTR. D.P. | | | |
| HRS. W/OPR. D.P. | | | |
| HRS. WO/D.P. | | | |
| HRS. STANDBY | | | |
| TOTAL DAY WORK | | | |

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

TOTAL MUD COST

## MORNING TOUR

| NO. | DRILLING ASSEMBLY (At end of tour) | | BIT RECORD | | MUD RECORD | | |
|---|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | | |
| | | | SIZE | | WEIGHT | | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | | |
| | D.C. ID OD | FT. | TYPE | | VISC.–SEC. | | |
| | STB RMR OD | FT. | JETS 1/32" | | PV/YP | / | / |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | / | / |
| | STB RMR OD | FT. | DEPTH OUT | | WL –CC'S. | | |
| | | | DEPTH IN | | pH | | |
| | | | TOTAL FTG. | | SOLIDS % | | |
| | | | TOTAL HRS. RUN | | | | |
| | STANDS DP | FT. | COND. 1/8's T/B/ GAGE | | MUD & CHEMICALS ADDED | | |
| | SINGLES DP | FT. | GPM/ PD–PSI | / | TYPE | AMT. | TYPE AMT. |
| | KELLY DOWN | FT. | | | | | |
| | TOTAL | FT. | | | | | |
| | WT. OF STRING | LBS. | | | | | |

| FOOTAGE FROM | TO | DR..D RM–R CORE..C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL–S PAR'L–P COM'B–C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |

| DEVIATION RECORD | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

| TIME LOG FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| | | | | |

DRILLER

## DAY TOUR

| NO. | DRILLING ASSEMBLY (At end of tour) | | BIT RECORD | | MUD RECORD | | |
|---|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | | |
| | | | SIZE | | WEIGHT | | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | | |
| | D.C. ID OD | FT. | TYPE | | VISC.–SEC. | | |
| | STB RMR OD | FT. | JET 1/32" | | PV/YP | / | / |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | / | / |
| | STB RMR OD | FT. | DEPTH OUT | | WL –CC'S. | | |
| | | | DEPTH IN | | pH | | |
| | | | TOTAL FTG. | | SOLIDS % | | |
| | | | TOTAL HRS. RUN | | | | |
| | STANDS DP | FT. | COND. 1/8's T/B/ GAGE | | MUD & CHEMICALS ADDED | | |
| | SINGLES DP | FT. | GPM/ PD–PSI | / | TYPE | AMT. | TYPE AMT. |
| | KELLY DOWN | FT. | | | | | |
| | TOTAL | FT. | | | | | |
| | WT. OF STRING | LBS. | | | | | |

| FOOTAGE FROM | TO | DR..D RM–R CORE..C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S. P. M. | METHOD RUN SGL–S PAR'L–P COM'B–C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |

| DEVIATION RECORD | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

| TIME LOG FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 6 00 | 10 00 | 4 | | SERV. THE RIG AND THE EQUIP. |
| 10 00 | 2 00 | 4 | | RIGGED UP ARCHER-REED WIRE LINE PULLED TUB PLUG |
| | | | | RIGGING UP KILL LINE CIRC. WELL @ END of TOUR. |

DRILLER [signature]

## EVENING TOUR

| NO. | DRILLING ASSEMBLY (At end of tour) | | BIT RECORD | | MUD RECORD | | |
|---|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | | |
| | | | SIZE | | WEIGHT | | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | | |
| | D.C. ID OD | FT. | TYPE | | VISC.–SEC. | | |
| | STB RMR OD | FT. | JETS 1/32" | | PV/YP | / | / |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | / | / |
| | STB RMR OD | FT. | DEPTH OUT | | WL –CC'S. | | |
| | | | DEPTH IN | | pH | | |
| | | | TOTAL FTG. | | SOLIDS % | | |
| | | | TOTAL HRS. RUN | | | | |
| | STANDS DP | FT. | COND. 1/8's T/B/ GAGE | | MUD & CHEMICALS ADDED | | |
| | SINGLES DP | FT. | GPM/ PD–PSI | / | TYPE | AMT. | TYPE AMT. |
| | KELLY DOWN | FT. | | | | | |
| | TOTAL | FT. | | | | | |
| | WT. OF STRING | LBS. | | | | | |

| FOOTAGE FROM | TO | DR..D RM–R CORE..C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL–S PAR'L–P COM'B–C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |

| DEVIATION RECORD | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

| TIME LOG FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 2:00 | 6:00 | 4: | | CONT. TO KILL WELL |
| 6:00 | 7:00 | 1 | | REMOVED DO-NUT STUDS |
| 7:00 | | | | RELEASED PKR. P.O.H. MEAS OUT @ E.O.T. CLOSED |
| | | | | WELL IN, SHUT JOB DOWN |
| | 10:00 | 3 | | |

DRILLER [signature]

## DRILLING CREW PAYROLL DATA

No. 5481

DATE FRI 8-27-76

WELL NAME & NO. STANDARD SESNON #30 3-5643

COMPANY So CALIF GAS CO

TOOL PUSHER J. L. Boggs RIG NO. D-3

MORNING TOUR _____ P.M. _____ A.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | | | | |
| DRKMAN | | | | |
| MTRMAN | | | | |
| FIREMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

DAY TOUR 5:00 A.M. 2:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | 56 25 | D. EATON | 9 | 2 |
| DRKMAN | 36 73 | S. DOREMEIER | 9 | 3 |
| MTRMAN | 37 50 | B. FRENCH | 9 | 7 |
| FIREMAN | 37 73 | P SELMSER | 9 | 7 |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |
| | | RIG | 8 | |
| | | PUMP | 4 | |
| | | CREW | 9 | |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 2:00 P.M. 10:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | 36 76 | B DAVIS | 8 | 2 |
| DRKMAN | 37 19 | T. BRANDON | 8 | 3 |
| MTRMAN | 37 28 | J. TOOPS | 8 | 7 |
| FIREMAN | ~~37~~ 73 | P. SELMSER | — | 7 |
| FLRMAN | 37 36 | K. WILDER | 8 | 7 |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |
| | | RIG | 8 | |
| | | PUMP | 4 | |
| | | CREW | 8 | |

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

Form 3T-5 Printed in U. S. A.

APPROVED APPROVED

**IADC – API OFFICIAL DAILY DRILLING REPORT FORM**

APPROVED APPROVED

AC_CPUC_0118031

No. 5480

# DAILY DRILLING REPORT — REPORT NO. (2) 3-5643

| LEASE | WELL NO. | API WELL NUMBER | DATE |
|---|---|---|---|
| ALISO CYN | SS #30 | STANDARD SESNON #30 | 8-26-76 |

| OPERATOR | CONTRACTOR | RIG NO. |
|---|---|---|
| So CALIF GAS CO. | CALIF PROD SERV. | D-3 |

| SIGNATURE OF OPERATOR'S REPRESENTATIVE | SIGNATURE OF CONTRACTOR'S TOOL PUSHER |
|---|---|
| E.C. Bradley | J. Dutton |

| D.P. SIZE | WT./FT. | GRADE | TOOL JT. O.D. | TYPE THREAD | STRING NO. | PUMP NO. | PUMP MANUFACTURER | TYPE | STROKE LENGTH |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 10 | EMSCO | D-300 | 14x5½ |
| | | | | | | | | | |

FIELD OR DIST. ALISO CYN | COUNTY LOS ANGELES | STATE CALIFORNIA

LAST CASING TUBING OR LINER

| SIZE | MAKE | WT. & GR. | NO. JOINTS | FEET | RKB. TO CSG. HD. | SET AT |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |

WIRE LINE RECORD — REEL NO.

| SIZE | NO. LINES | FT. SLIPPED |
|---|---|---|
| | | |

FT. CUT OFF | PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

## TIME DISTRIBUTION — HOURS

| CODE NO. — OPERATION | MORN. | DAY | EVE. |
|---|---|---|---|
| 1. RIG UP AND TEAR DOWN | | 8 | 1 |
| 2. DRILL ACTUAL | | | |
| 3. REAMING | | | |
| 4. CORING | | | |
| 5. CONDITION MUD & CIRCULATE | | | |
| 6. TRIPS | | | |
| 7. LUBRICATE RIG | | | |
| 8. REPAIR RIG | | | |
| 9. CUT OFF DRILLING LINE | | | |
| 10. DEVIATION SURVEY | | | |
| 11. WIRE LINE LOGS | | | |
| 12. RUN CASING & CEMENT | | | |
| 13. WAIT ON CEMENT | | | |
| 14. NIPPLE UP B.O.P. | | | 1 |
| 15. TEST B.O.P. | | | 5 |
| 16. DRILL STEM TEST | | | |
| 17. PLUG BACK | | | |
| 18. SQUEEZE CEMENT | | | |
| 19. FISHING | | | |
| 20. DIR. WORK | | | |
| 21. TRAVEL | | 1 | |
| 22. OTHER | | | 1 |
| 23. | | | |
| COMPLETION A. PERF'R'T'N | | | |
| COMPLETION B. TBG TRIPS | | | |
| COMPLETION C. TREATING | | | |
| COMPLETION D. SWABBING | | | |
| COMPLETION E. TESTING | | | |
| COMPLETION F. ADDIT'N'L | | | |
| COMPLETION G. | | | |
| TOTALS | | 9 | 8 |

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

| | | | |
|---|---|---|---|
| HRS. W/CONTR. D.P. | | | |
| HRS. W/OPR. D.P. | | | |
| HRS. WO/D.P. | | | |
| HRS. STANDBY | | | |
| TOTAL DAY WORK | | | |

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

TOTAL MUD COST

## DRILLING ASSEMBLY (At end of tour) / BIT RECORD / MUD RECORD

| NO. | DRILLING ASSEMBLY | | BIT RECORD | | MUD RECORD | |
|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | |
| | | | SIZE | | WEIGHT | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | |
| | D.C. ID OD | FT. | TYPE | | VISC.-SEC. | |
| | STB RMR OD | FT. | JETS 1/32" | | PV/YP | |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | |
| | STB RMR OD | FT. | DEPTH OUT | | WL -CC'S. | |
| | | | DEPTH IN | | pH | |
| | | | TOTAL FTG. | | SOLIDS % | |
| | | | TOTAL HRS. RUN | | | |
| | STANDS DP | FT. | COND. 1/8's T/B/ GAGE | | MUD & CHEMICALS ADDED | |
| | SINGLES DP | FT. | GPM/ PD-PSI | | TYPE / AMT. / TYPE / AMT. | |
| | KELLY DOWN | FT. | | | | |
| | TOTAL | FT. | | | | |
| | WT. OF STRING | LBS. | | | | |

MORNING TOUR

| NO. | DRILLING ASSEMBLY (At end of tour) | | BIT RECORD | | MUD RECORD | |
|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | |
| | | | SIZE | | WEIGHT | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | |
| | D.C. ID OD | FT. | TYPE | | VISC.-SEC. | |
| | STB RMR OD | FT. | JET 1/32" | | PV/YP | |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | |
| | STB RMR OD | FT. | DEPTH OUT | | WL -CC'S. | |
| | | | DEPTH IN | | pH | |
| | | | TOTAL FTG. | | SOLIDS % | |
| | | | TOTAL HRS. RUN | | | |
| | STANDS DP | FT. | COND. 1/8's T/B/ GAGE | | MUD & CHEMICALS ADDED | |
| | SINGLES DP | FT. | GPM/ PD-PSI | | TYPE / AMT. / TYPE / AMT. | |
| | KELLY DOWN | FT. | | | | |
| | TOTAL | FT. | | | | |
| | WT. OF STRING | LBS. | | | | |

DAY TOUR

| NO. | DRILLING ASSEMBLY (At end of tour) | | BIT RECORD | | MUD RECORD | |
|---|---|---|---|---|---|---|
| | BIT | FT. | BIT NO. | | TIME | |
| | | | SIZE | | WEIGHT | |
| | STB RMR OD | FT. | MFG. | | PRESSURE GRADIENT | |
| | D.C. ID OD | FT. | TYPE | | VISC.-SEC. | 8 |
| | STB RMR OD | FT. | JETS 1/32" | | PV/YP | |
| | D.C. ID OD | FT. | SER. NO. | | GELS. | |
| | STB RMR OD | FT. | DEPTH OUT | | WL -CC'S. | |
| | | | DEPTH IN | | pH | |
| | | | TOTAL FTG. | | SOLIDS % | |
| | | | TOTAL HRS. RUN | | | |
| | STANDS DP | FT. | COND. 1/8's T/B/ GAGE | | MUD & CHEMICALS ADDED | |
| | SINGLES DP | FT. | GPM/ PD-PSI | | TYPE / AMT. / TYPE / AMT. | |
| | KELLY DOWN | FT. | | | | |
| | TOTAL | FT. | | | | |
| | WT. OF STRING | LBS. | | | | |

EVENING TOUR

## FOOTAGE / FORMATION (SHOW CORE RECOVERY) / PUMP NO. / METHOD RUN

| FOOTAGE FROM | FOOTAGE TO | DR.-D RM.-R CORE.-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SCL.-S PAR'L.-P COM'D.-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| TIME LOG FROM | TIME LOG TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| | | | | |

DRILLER

## FOOTAGE / FORMATION (SHOW CORE RECOVERY) / PUMP NO. / METHOD RUN

| FOOTAGE FROM | FOOTAGE TO | DR.-D RM.-R CORE.-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S. P. M. | METHOD RUN SCL.-S PAR'L.-P COM'D.-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| TIME LOG FROM | TIME LOG TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 6:00 | | | | SERV. THE RIG & THE EQUIP. |
| | | | | MOVED RIG AND EQUIP FROM SESNON FEE #7 TO |
| | | | | STANDARD SESNON # 30 RIG UP MAST RIGGING UP |
| | | | | PUMP |
| | 2:00 | 8 | | |

DRILLER David O Eaton

## FOOTAGE / FORMATION (SHOW CORE RECOVERY) / PUMP NO. / METHOD RUN

| FOOTAGE FROM | FOOTAGE TO | DR.-D RM.-R CORE.-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SCL.-S PAR'L.-P COM'D.-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| TIME LOG FROM | TIME LOG TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 2:00 | 4:00 | 2 | | REMOVED PROD HEAD, INSTALLED CLASS III B.O.P.E. |
| 4:00 | | | | TESTED B.O.P.E. USING DOWELL ($H_2O$) & NOWSCO ($N_2$) |
| | | | | AS FOLLOWS CSO & P. RAMS @ 4,000#-20 MIN. HYDRIL |
| | 9:00 | 5 | | @ 3000#-20 MIN. - TESTS O.K |
| 9:00 | | | | RIGGING UP PUMP & RIGGING TO PULL TBG. |
| | | | | CLOSED WELL IN, SHUT JOB DOWN. |
| | 10:00 | 1 | | |

DRILLER

## DRILLING CREW PAYROLL DATA — No. 5480 / 3-5643

DATE THUR. 8-26-76

WELL NAME & NO. STANDARD SESNON #30

COMPANY So CALIF GAS Co

TOOL PUSHER J. Dutton — RIG NO. D-3

MORNING TOUR ____ P.M. ____ A.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | | | | |
| DRKMAN | | | | |
| MTRMAN | | | | |
| FIREMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

DAY TOUR 500 A.M. 2:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | 56 25 | D. EATON | 9 | 2 |
| DRKMAN | 36 73 | S. DOREMEIER | 9 | 3 |
| MTRMAN | 37 50 | B. FRENCH | 9 | 7 |
| FIREMAN | 37 36 | K. WILDER | 9 | 7 |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |
| | | RIG | 9 | |
| | | PUMP | 0 | |
| | | CREW | 9 | |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 2:00 P.M. 10:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | 36 76 | B. DAVIS | 8 | 2 |
| DRKMAN | 37 19 | T. BRANDON | 8 | 3 |
| MTRMAN | 37 28 | J. TOOPS | 8 | 7 |
| FIREMAN | 37 73 | P. SELMSER | 8 | 7 |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |
| | | RIG | 8 | |
| | | PUMP | 0 | |
| | | CREW | 8 | |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

Form 3T-5 Printed in U. S. A. APPROVED APPROVED

**IADC – API OFFICIAL DAILY DRILLING REPORT FORM**

APPROVED APPROVED

AC_CPUC_0118032

No. 5479

# DAILY DRILLING REPORT

REPORT NO. 1 3-5643

| LEASE | WELL NO. | API WELL NUMBER | DATE |
|---|---|---|---|
| 17LISO CYN. | SS #30 | STANDARD SESNON | 8-25-7 |

| OPERATOR | CONTRACTOR | RIG NO. |
|---|---|---|
| So CALIF GAS | CALIF PROD SERV. | D-3 |

SIGNATURE OF OPERATOR'S REPRESENTATIVE: E C Bradley

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: J S Dutton

FIELD OR DIST.: ALISO CYN | COUNTY: L.A. | STATE: CALIF

| D.P. SIZE | WT./FT. | GRADE | TOOL JT O.D. | TYPE THREAD | STRING NO. |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |

| PUMP NO. | PUMP MANUFACTURER | TYPE | STROKE LENGTH |
|---|---|---|---|
| 10 | EMSCO | D-300 | 14x5½ |
| | | | |

LAST CASING TUBING OR LINER

| SIZE | MAKE | WT. & GR. | NO. JOINTS | FEET | RKB. TO CSG. HD. | SET AT |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

WIRE LINE RECORD — REEL NO.

| SIZE | NO. LINES | FT. SLIPPED |
|---|---|---|
| | | |

FT. CUT OFF | PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

## TIME DISTRIBUTION – HOURS

| CODE NO. – OPERATION | MORN. | DAY | EVE. |
|---|---|---|---|
| 1. RIG UP AND TEAR DOWN | | | |
| 2. DRILL ACTUAL | | | |
| 3. REAMING | | | |
| 4. CORING | | | |
| 5. CONDITION MUD & CIRCULATE | | | |
| 6. TRIPS | | | |
| 7. LUBRICATE RIG | | | |
| 8. REPAIR RIG | | | |
| 9. CUT OFF DRILLING LINE | | | |
| 10. DEVIATION SURVEY | | | |
| 11. WIRE LINE LOGS | | | |
| 12. RUN CASING & CEMENT | | | |
| 13. WAIT ON CEMENT | | | |
| 14. NIPPLE UP B.O.P. | | | |
| 15. TEST B.O.P. | | | |
| 16. DRILL STEM TEST | | | |
| 17. PLUG BACK | | | |
| 18. SQUEEZE CEMENT | | | |
| 19. FISHING | | | |
| 20. DIR. WORK | | | |
| 21. | | | |
| 22. | | | |
| 23. | | | |
| COMPLETION A. PERF'R'T'N | | | |
| B. TBG TRIPS | | | |
| C. TREATING | | | |
| D. SWABBING | | | |
| E. TESTING | | | |
| F. ADDIT'N'L | | | |
| G. | | | |
| TOTALS | | | |

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

| | | | |
|---|---|---|---|
| HRS. W/CONTR. D.P. | | | |
| HRS. W/OPR. D.P. | | | |
| HRS. WO/D.P. | | | |
| HRS. STANDBY | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| TOTAL DAY WORK | | | |

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

TOTAL MUD COST

## DRILLING ASSEMBLY (At end of tour) — MORNING TOUR

| NO. | | | |
|---|---|---|---|
| BIT | | | FT. |
| | | | |
| STB RMR | OD | | FT. |
| D.C. ID | OD | | FT. |
| STB RMR | OD | | FT. |
| D.C. ID | OD | | FT. |
| STB RMR | OD | | FT. |
| | | | |
| | | | |
| | | | |
| STANDS DP | | | FT. |
| SINGLES | DP | | FT. |
| KELLY DOWN | | | FT. |
| TOTAL | | | FT. |
| WT. OF STRING | | | LBS. |

## BIT RECORD — MORNING TOUR

| | |
|---|---|
| BIT NO. | |
| SIZE | |
| MFG. | |
| TYPE | |
| JETS 1/32" | |
| SER. NO. | |
| DEPTH OUT | |
| DEPTH IN | |
| TOTAL FTG. | |
| TOTAL HRS. RUN | |
| COND. 1/8's T/B/ GAGE | |
| GPM/ PD–PSI | |

## MUD RECORD — MORNING TOUR

| | |
|---|---|
| TIME | |
| WEIGHT | |
| PRESSURE GRADIENT | |
| VISC.–SEC. | |
| PV/YP | |
| GELS. | |
| WL –CC'S. | |
| pH | |
| SOLIDS % | |

MUD & CHEMICALS ADDED

| TYPE | AMT. | TYPE | AMT. |
|---|---|---|---|
| | | | |

## FOOTAGE — MORNING TOUR

| FROM | TO | DR.–D RM.–R CORE.–C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.–S PAR.EL–P COM.D–C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

## TIME LOG — MORNING TOUR

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| | | | | |

DRILLER

## DRILLING ASSEMBLY (At end of tour) — DAY TOUR

| NO. | | | |
|---|---|---|---|
| BIT | | | FT. |
| | | | |
| STB RMR | OD | | FT. |
| D.C. ID | OD | | FT. |
| STB RMR | OD | | FT. |
| D.C. ID | OD | | FT. |
| STB RMR | OD | | FT. |
| | | | |
| | | | |
| | | | |
| STANDS DP | | | FT. |
| SINGLES | DP | | FT. |
| KELLY DOWN | | | FT. |
| TOTAL | | | FT. |
| WT. OF STRING | | | LBS. |

## BIT RECORD — DAY TOUR

| | |
|---|---|
| BIT NO. | |
| SIZE | |
| MFG. | |
| TYPE | |
| JET 1/32" | |
| SER. NO. | |
| DEPTH OUT | |
| DEPTH IN | |
| TOTAL FTG. | |
| TOTAL HRS. RUN | |
| COND. 1/8's T/B/ GAGE | |
| GPM/ PD–PSI | |

## MUD RECORD — DAY TOUR

| | |
|---|---|
| TIME | |
| WEIGHT | |
| PRESSURE GRADIENT | |
| VISC.–SEC. | |
| PV/YP | |
| GELS. | |
| WL –CC'S. | |
| pH | |
| SOLIDS % | |

MUD & CHEMICALS ADDED

| TYPE | AMT. | TYPE | AMT. |
|---|---|---|---|
| | | | |

## FOOTAGE — DAY TOUR

| FROM | TO | DR.–D RM.–R CORE.–C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.–S PAR.EL–P COM.D–C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

## TIME LOG — DAY TOUR

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| | | | | |

DRILLER

## DRILLING ASSEMBLY (At end of tour) — EVENING TOUR

| NO. | | | |
|---|---|---|---|
| BIT | | | FT. |
| | | | |
| STB RMR | OD | | FT. |
| D.C. ID | OD | | FT. |
| STB RMR | OD | | FT. |
| D.C. ID | OD | | FT. |
| STB RMR | OD | | FT. |
| | | | |
| | | | |
| | | | |
| STANDS DP | | | FT. |
| SINGLES | DP | | FT. |
| KELLY DOWN | | | FT. |
| TOTAL | | | FT. |
| WT. OF STRING | | | LBS. |

## BIT RECORD — EVENING TOUR

| | |
|---|---|
| BIT NO. | |
| SIZE | |
| MFG. | |
| TYPE | |
| JETS 1/32" | |
| SER. NO. | |
| DEPTH OUT | |
| DEPTH IN | |
| TOTAL FTG. | |
| TOTAL HRS. RUN | |
| COND. 1/8's T/B/ GAGE | |
| GPM/ PD–PSI | |

## MUD RECORD — EVENING TOUR

| | |
|---|---|
| TIME | |
| WEIGHT | |
| PRESSURE GRADIENT | |
| VISC.–SEC. | |
| PV/YP | |
| GELS. | |
| WL –CC'S. | |
| pH | |
| SOLIDS % | |

MUD & CHEMICALS ADDED

| TYPE | AMT. | TYPE | AMT. |
|---|---|---|---|
| | | | |

## FOOTAGE — EVENING TOUR

| FROM | TO | DR.–D RM.–R CORE.–C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL.–S PAR.EL–P COM.D–C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

DEVIATION RECORD

| DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

## TIME LOG — EVENING TOUR

| FROM | TO | ELAPSED TIME | CODE NO. | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS |
|---|---|---|---|---|
| 400 | | | | SERV. RIG & EQUIP. |
| | 1000 | | | CLEAN TANKS RIGGED DOWN MAST & CPS EQUIP |

DRILLER

## DRILLING CREW PAYROLL DATA

No. 5479 3-5643

DATE WED. 8-25-76

WELL NAME & NO. ~~SESNON~~ SS #30

COMPANY So CALIF GAS CO

TOOL PUSHER J S Dutton RIG NO. D-3

MORNING TOUR ____ P.M. ____ A.M.

| CREW | SOC. SEC. NO. | NAME | HRS. |
|---|---|---|---|
| DRILLER | | | |
| DRKMAN | | | |
| MTRMAN | | | |
| FIREMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| TRAINEE | | | |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

DAY TOUR ____ A.M. ____ P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. |
|---|---|---|---|
| DRILLER | | | |
| DRKMAN | | | |
| MTRMAN | | | |
| FIREMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| FLRMAN | | | |
| TRAINEE | | | |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 400 P.M. 10:00 P.M.

| CREW | SOC. SEC. NO. | NAME | HRS. | |
|---|---|---|---|---|
| DRILLER | CONFIDENTIAL | D. EATON | 6 | 2 |
| DRKMAN | | T. BRANDON | 6 | 3 |
| MTRMAN | | J TOOPS | 6 | 7 |
| FIREMAN | | P SELMER | 6 | 7 |
| FLRMAN | | | | |
| FLRMAN | | | | |
| FLRMAN | | | | |
| TRAINEE | | | | |
| | | RIG | 6 | |
| | | PUMP | Ø | |
| | | CREW | 6 | |

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

Form 3T-5 Printed in U. S. A.

APPROVED APPROVED

**IADC – API OFFICIAL DAILY DRILLING REPORT FORM**

APPROVED APPROVED

AC_CPUC_0118033

# FLO-LOG INC.

Company So Cal Gas Co
Type of Survey Temp-Noise Log
Date of Survey 11-17-87, 11-18-87
Lease, Well No. SS #29
Field ALISO CANYON

AC_CPUC_0118034

# FLO-LOG

**PRODUCTION LOGGING SURVEY DATA SHEET**

COMPANY So Cal Gas Co DATE 11-18-87

WELL NO. SS #29 FIELD Aliso canyon

COUNTY L/A STATE Calif.

REPRESENTATIVE ~~Dave~~ Horstman SURVEY CREW Bailey, sturgess

TYPE OF SURVEY Modified Noise LOG

PURPOSE OF SURVEY Relog after plug set in NO-go (TBG)

## CASING AND TUBING RECORD

| SIZE | WEIGHT | FROM | TO |
|---|---|---|---|
| See | Data | sheet | |
| From | 11-17-87 | | |

Effective Depth 9077 PLug

Perforations

W.S.O. C.P.

Tubing Size 2 7/8 Depth 8049

Packer(s) 8040

Mandrel(s)

Measurement Datum ? See DATA

Reference Point

## WELL STATUS gas storage S/I

Meter Rate — BWPD Oil Rate — b/d

Flow Loss — BWPD Oil Gravity — °

Obs. Rate — BWPD Gas Rate — Mcf/d

Reported Tbg Press. — psi Obs. 2180

Reported Csg Press. NO-GO psi Obs. 2180

Pickup 8038 ← DDA Fill —

Bottom Temp. N/A °F Fluid Level N/A

no temp RUN

### SPINNER STATS

| Depth | Counts | Rate | Depth | Counts | Rate |
|---|---|---|---|---|---|
| | | | | | |

Reset Depth (from) 8048 (to) 8038

Depth Corrected to ~~top of~~ plug -18'

Logging Unit 711 Line Size 3/16 Line Length 10,000

Tools Used Head, SB, SB, SB, CCL temp, Noise Stab

Tool Numbers 4029

Tool Diameter 1 3/8

Time Arrived on Location 11:15 Off Location 12:45 Total Hours 1.5

| Time of Run | Run No. | Type of Survey | Survey Calib. | Line Speed | Direction | Logged Interval (from) | (to) |
|---|---|---|---|---|---|---|---|
| 11:35A | one | Noise Log | N | — | up | 8038 | 6000 |
| | | | | | | | |
| | | | | | | | |
| | Just | noise | Log | | RW | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

REMARKS: well HAD very High Amount of Noise thru Zone and up thru Entire well, plug was set in TBG and Relogged to check for Leak OR Just Zone activity

FLO-LOG INC.

# NOISE LOG DATA SHEET

Page one

Company So Cal Gas Co Well No. 1SS #29

Date 11-18-87 Noise Tool Number 4079 Calibration N

| Time | DEPTH | 200 Hz | 600 Hz | 1000 Hz | 2000 Hz | REMARKS |
|---|---|---|---|---|---|---|
| 11:35 AM | 8030 | 62.5 | 34.9 | 27.9 | 2.7 | MODIfied |
| | 8020 | 42.3 | 28.0 | 18.8 | 2.9 | Noise Log |
| | 8000 | 20.9 | 18.1 | 16.2 | 2.4 | |
| | 80 | 19.0 | 16.60 | 15.50 | 2.10 | 20mV |
| | 60 | 19.0 | 16.66 | 15.48 | 2.11 | Ringing flowing Sound |
| | 40 | 18.70 | 16.70 | 15.44 | 2.13 | |
| | 20 | 21.3 | 18.9 | 17.3 | 2.1 | 200 mV |
| | 7900 | 23.7 | 20.2 | 18.0 | 2.0 | |
| | * | | | | | |
| | 7850 | 25.4 | 22.8 | 20.6 | 2.1 | Log 1 |
| | 7800 | 26.0 | 23.4 | 20.5 | 2.1 | |
| | 7750 | 23.5 | 21.0 | 18.6 | 2.4 | |
| | 7700 | 22.8 | 19.4 | 17.8 | 2.0 | |
| | 7650 | 24.4 | 20.9 | 18.5 | 2.6 | |
| | 7600 | 22.7 | 18.7 | 16.0 | 2.5 | |
| | * | | | | | 100' STOPS 200 mV |
| | 7500 | 18.6 | 14.5 | 12.1 | 2.1 | |
| | 7400 | 15.52 | 11.49 | 9.40 | 1.84 | 20 mV |
| | 7300 | 12.72 | 7.97 | 5.66 | 1.98 | |
| | 7200 | 12.29 | 7.32 | 5.11 | 1.92 | End of log # 1 |
| 11:55 | * | | | | | |
| | 8030 | 94.5 | 54.3 | 41.7 | 2.6 | log # 2 Repeat 200mV |
| | 8000 | 27.0 | 24.1 | 21.2 | 2.4 | |
| | 7950 | 27.1 | 24.6 | 22.1 | 2.2 | |
| | 7900 | 25.9 | 22.9 | 20.6 | 2.5 | |
| | 7850 | 26.5 | 24.7 | 22.9 | 2.4 | |
| | 7800 | 25.8 | 24.0 | 21.3 | 2.6 | Log 2 |
| | 7750 | 26.8 | 24.6 | 22.5 | 2.1 | |
| | 7700 | 22.6 | 19.9 | 17.6 | 2.3 | |
| | 7650 | 20.9 | 18.5 | 16.7 | 2.1 | |
| | 7600 | 19.6 | 17.5 | 15.3 | 2.7 | |
| | * | | | | | 100' STOPS |
| 11.59 | 7500 | 17.6 | 14.8 | 12.8 | 2.2 | |
| | 7400 | 14.6 | 11.9 | 10.1 | 2.2 | |
| | 7300 | 13.6 | 10.0 | 7.3 | 2.5 | |
| | 7200 | 9.57 | 6.96 | 5.43 | 1.85 | 20mV End of Repeat log #2 |

AC_CPUC_0118037

FLO-LOG INC.

# NOISE LOG DATA SHEET



Company Southern Calif Gas Co. Well No. SS #29

Date 11-18-89 Noise Tool Number 4079 Calibration

| Time | DEPTH | 200 Hz | 600 Hz | 1000 Hz | 2000 Hz | REMARKS |
|---|---|---|---|---|---|---|
| 12:05 | 7000 | 11.82 | 9.73 | 8.48 | 2.03 | log #7 continued |
| | 6800 | 8.95 | 7.14 | 6.14 | 2.09 | |
| | 6600 | 6.95 | 5.14 | 4.07 | 1.97 | |
| | 6400 | 6.65 | 5.87 | 5.32 | 1.92 | |
| | 6200 | 6.25 | 5.34 | 4.92 | 1.95 | |
| 12:12 | 6000 | 5.91 | 5.08 | 4.61 | 1.93 | |
| | | | | | | END OF Log |

# FLO-LOG

**PRODUCTION LOGGING SURVEY DATA SHEET**

COMPANY So CAL Gas Co DATE 11-17-87

WELL NO. SS #29 FIELD Aliso Canyon

COUNTY L/A STATE Calif.

REPRESENTATIVE Jim Mansdoerfer SURVEY CREW Bailey, Sturgess

TYPE OF SURVEY Temp & Noise Log

PURPOSE OF SURVEY Ck for shoe & WSO Leak

## CASING AND TUBING RECORD

| SIZE | WEIGHT | FROM | TO |
|---|---|---|---|
| 7" | 23-26 | 0 | 8180 |
| 5" | 18 | 8075 | 9790 |
| | | | |
| | | | |

Effective Depth 9077 PLUG Cmt'd
Perforations 8456 - 8727

W.S.O. 8180 C.P. —

Tubing Size 2 7/8 Depth 8049
Packer(s) 8040
Mandrel(s) —

Measurement Datum KB 7'
Reference Point MAT

## WELL STATUS Gas Storage (S/I)

Meter Rate — BWPD Oil Rate — b/d
Flow Lose — BWPD Oil Gravity — °
Obs. Rate — BWPD Gas Rate — Mcf/d
Reported Tbg Press. — psi Obs. 2180
Reported Csg Press. — psi Obs. 2160

Pickup 8994 Fill 83'
Bottom Temp. 191.0° °F Fluid Level 8540 ± Temp

### SPINNER STATS

| Depth | Counts | Rate | Depth | Counts | Rate |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |

Reset Depth (from) 8107 (to) 8075
Depth Corrected to -32' to L.J.

Logging Unit 711 Line Size 3/16 Line Length 10,000
Tools Used Head, SB, SB, SB, ccl, temp, cap, Noise 4079
Tool Numbers
Tool Diameter 1 3/8

Time Arrived on Location 11:45A Off Location 3:45 Total Hours 4.0

| Time of Run | Run No. | Type of Survey | Survey Calib. | Line Speed | Direction | Logged Interval (from) | (to) |
|---|---|---|---|---|---|---|---|
| 12:00 | one | temp/ccl | 5"/inch | 90 | DN | 200 | 9026 |
| Repeat | TWO | Temp/ccl | 5"/inch | 80 | DN | 7800 | 9000 |
| 1:30 pm | three | Noise Log | normal | — | UP | 9000 | 200' |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

REMARKS: possible Shoe Leak (700mv of noise)

| | | | |
|---|---|---|---|
| REFERENCE DATUM | | ELEVATION | |
| LOG MEASURED FROM | 7' K.B. | CORRECTED TO | CASED TOP |
| DRILLING MEAS. FROM | K.B. | PERMANENT DATUM | GROUND |
| TOP OF LOGGED INTERVAL | 8200' | BOTTOM LOGGED INTERVAL | 8594' |
| TYPE OF FLUID IN HOLE | GAS | FLUID LEVEL | 8340' TEMPERATIVE |
| LOG RECORDED BY | D. BAILEY | WITNESSED BY | JIM MARSHHEFER |

| TUBING AND TUBING RECORD | | | | WELL STATUS | 51 GAS STORAGE | | |
|---|---|---|---|---|---|---|---|
| SIZE | WEIGHT | GRADE | DEPTH | | Primary | Producing | Injection |
| 11-3/4" | 54.5# | | 1042' | Gas | 1196 | | 1196 |
| 7" | 23.0# | H | 8185' | Oil | 2180 | | 2180 |
| 4-1/2" | 12.6# | BUTT | 8073' | Water | | | |
| | | | | Gas Lift | | | |

| CASING | 2-7/8" TO 8045' | METHOD | CO | Starts | on |
|---|---|---|---|---|---|
| MILLING | NONE | Production Zone | | | |
| PERFORATING | NONE | Reservoir Temp. | | | |
| PERFORATING | 8434- 8727' W [INTERVALS | BOTTOM TEMPERATURE | 191°F | | |

| | |
|---|---|
| CASING AND TUBING | 711 |
| GOOD HOLE | HEAD,CLUSIMED BARS,CCL,TEMP,CAPACITANCE,NOISE |
| TOOL NUMBERS | 6379 |
| Diameter 1.50" | 5 |

RESULTS AND REMARKS: FIRST SURVEY ON 11-17-07 SHOWED NOISE ACTIVITY IN THE STORAGE ZONE.

THE SECOND SURVEY ON 11-18-07 WAS RUN AFTER SETTING A PLUG IN THE TUBING TAIL, EVEN THOUGH THERE I [illegible] NOISE ACTIVITY, THE NOISE FREQUENCY DOES NOT APPEAR TO BE ORIGINATING IN THE TOOL NOISE OR RESPONDING TO DISTANT ZONE ACTIVITY.

| | | | |
|---|---|---|---|
| Sec. Twp. Rge. | 36 - 32S - 23E | Other Services | |
| Permanent Datum | GROUND | Elev. | K.B. 7 ft. |
| Log Measured From | K.B. 7 ft. Above Perm. Datum | | D.F. 6 ft. |
| Drilling Measured From | K.B. | | G.L. 1 ft. |

COUNTY Ellis STATE Kansas

WELL Standard #29 FIELD Dreiling

COMPANY Flo-Log, Inc.

TEMPERATURE AND NOISE LOG

RUN ONE FOR DATE AND NOISE

RECORDED BY DATE

WITNESSED BY

FLO-LOG

WELL NO. Standard #29

DATE 11-17-07
11-18-07

SECTION

TEMPERATURE

Log #1 (11-17-07)

Log #2 11-17-07 (11:04hrs)

Log 3 (11-18-07)

Log #4 (11-18-07)

AC_CPUC_0110040

| | |
|---|---|
| PERMANENT DATUM | ELEVATION |
| LOG MEASURED FROM 7' B.F. | CORRECTED TO LOWER TOP |
| DRILLING MEASURED FROM KB | PERMANENT DATUM STORAGE |
| TOP OF LOGGED INTERVAL 6000 | BOTTOM LOGGED INTERVAL 8994 |
| TYPE OF FLUID IN HOLE GAS | FLUID LEVEL |
| LOG RECORDED BY BAILEY | WITNESSED BY JIM MACKOSKEE |

| | | |
|---|---|---|
| RUN NO. | ONE | |
| DATE | 11-17-87 | |
| TYPE LOG | TEMP | |
| DEPTH-DRILLER | 8994' | |
| DEPTH-LOGGER | 8993' | |
| BTM. LOG INTERVAL | 8990' | |
| TOP LOG INTERVAL | 6000' | |
| CASING-DRILLER | 7" @ 6045' | |
| CASING-LOGGER | 6045' | |
| BIT SIZE | 6" | |
| TYPE FLUID IN HOLE | GAS | |
| DENS. / VISC. | | |
| PH / FLUID LOSS | | |
| SOURCE OF SAMPLE | | |
| RM @ MEAS. TEMP. | | |
| RMF @ MEAS. TEMP. | | |
| RMC @ MEAS. TEMP. | | |
| SOURCE OF RMF / RMC | | |
| RM @ BHT | | |
| TIME SINCE CIRC. | | |
| MAX. REC. TEMP. | | |
| EQUIP. LOCATION | | |
| RECORDED BY | | |
| WITNESSED BY | | |

| | |
|---|---|
| RUN NO. | ONE |
| DATE | 11-17-87 |
| TYPE LOG | TEMP |
| DEPTH-DRILLER | 8994' |
| DEPTH-LOGGER | 8993' |
| BTM. LOG INTERVAL | 8990' |
| TOP LOG INTERVAL | 6000' |
| CASING-DRILLER | 7" @ 6045' |
| CASING-LOGGER | 6045' |
| BIT SIZE | 6" |
| TYPE FLUID IN HOLE | GAS |
| DENS. / VISC. | |
| PH / FLUID LOSS | |
| SOURCE OF SAMPLE | |
| RM @ MEAS. TEMP. | |
| RMF @ MEAS. TEMP. | |
| RMC @ MEAS. TEMP. | |
| SOURCE OF RMF / RMC | |
| RM @ BHT | |
| TIME SINCE CIRC. | |
| MAX. REC. TEMP. | |
| EQUIP. LOCATION | |
| RECORDED BY | |
| WITNESSED BY | |

| | |
|---|---|
| RUN NO. | |
| DATE | |
| TYPE LOG | |
| DEPTH-DRILLER | |
| DEPTH-LOGGER | |
| BTM. LOG INTERVAL | |
| TOP LOG INTERVAL | |
| CASING-DRILLER | |
| CASING-LOGGER | |
| BIT SIZE | |
| TYPE FLUID IN HOLE |

| | |
|---|---|
| PERMANENT DATUM | ELEVATION |
| LOG MEASURED FROM 3' G.L. | GROUND ELEV. 13606 TOP |
| DRILLING MEASURED FROM KB | TOTAL DEPTH (DRILLER) 8793' |
| TYPE OF LOGGING UNIT(S) USED | BOTTOM LOGGED INTERVAL 8793' |
| TYPE OF FLUID IN HOLE GAS | PLUG BACK INTERVAL 8758 MANOMETER |
| GAS MEASURED BY X - BASIN | DATE(S) RUN 11-17-97 |

| CASING AND TUBING RECORD | | | |
|---|---|---|---|
| SIZE | WEIGHT | GRADE | DEPTH |
| 9 5/8" | 36# | J55 | 2100 |
| 4 1/2" | 10.5# | K55 | 8793 |
| 2 7/8" | 6.5# | J55 | 7100 |

| TUBING RECORD | | | |
|---|---|---|---|
| SIZE | WEIGHT | GRADE | DEPTH |
| 2-7/8" | 6.5# | J55 | 8656 |

| PACKER RECORD | | | |
|---|---|---|---|
| MANUFACTURER | MODEL | SIZE | DEPTH |
| BAKER | | 5.75 | 8656 |

| | |
|---|---|
| BOTTOM HOLE TEMPERATURE | 191°F |
| SPECIAL EQUIPMENT AND SERVICES | |
| LOGGING UNIT NO. | 711 |
| RECORDED BY | HEAD,CLINKER HARD,CCL,TEMP,CAPACITANCE,NOISE |
| WITNESSED BY | MIKE |

| | |
|---|---|
| MAXIMUM RECORDED TEMPERATURE | 191°F @ INTERVALS |
| LOGGING UNIT NO. | 711 |
| RECORDED BY | HEAD,CLINKER HARD,CCL,TEMP,CAPACITANCE,NOISE |
| WITNESSED BY | MIKE |

RESULTS AND REMARKS: FIRST SURVEY ON 11-17-97 SHOWED MUCH ACTIVITY IN THE STORAGE ZONE.

THE SECOND SURVEY ON 11-18-97 WAS RUN AFTER SETTING A PLUG IN THE TUBING TAIL. EVEN THOUGH THERE IS TOTAL ZONAL ISOLATION, THE TEMPERATURE SHOWS NO INITIAL CHANGE IN ACTIVITY. HENCE, THE TOOL MUST BE RESPONDING TO DISTANT ZONE ACTIVITY.

| | |
|---|---|
| COMPANY | FLO-LOG INC. |
| WELL | Standard #29 |
| FIELD | Basin Dakota |
| COUNTY | San Juan |
| STATE | New Mexico |
| LOCATION | Sec. 29, T32N, R10W |
| OTHER SERVICES | |
| PERMANENT DATUM | |
| ELEV. | K.B. |
| LOG MEASURED FROM | K.B. |
| DRILLING MEASURED FROM | K.B. |
| DATE | 11-17-97, 11-18-97 |
| RUN NO. | ONE |
| DEPTH-DRILLER | 8793 |
| DEPTH-LOGGER | 8793 |
| BTM. LOG INTERVAL | 8758 |
| TOP LOG INTERVAL | 0 |
| CASING-DRILLER | 9 5/8" @ 2100 |
| CASING-LOGGER | 2100 |
| BIT SIZE | 7 7/8" |
| TYPE FLUID IN HOLE | GAS |
| DENS. / VISC. | |
| PH / FLUID LOSS | |
| SOURCE OF SAMPLE | |
| RM @ MEAS. TEMP. | |
| RMF @ MEAS. TEMP. | |
| RMC @ MEAS. TEMP. | |
| SOURCE RMF / RMC | |
| RM @ BHT | |
| TIME SINCE CIRC. | |
| MAX. REC. TEMP. | 191°F |
| EQUIP. NO. & LOCATION | 711 |
| RECORDED BY | HEAD,CLINKER HARD,CCL,TEMP,CAPACITANCE,NOISE |
| WITNESSED BY | MIKE |

TEMPERATURE AND NOISE LOG

To Accompany Sundry Notice Dated 12-2-97

Re: Packer Leakage Test

FLO-LOG INC.

WELL NO. Standard #29 DATE 11-17-97 11-18-97

SECTION

TEMPERATURE

80° 85° 90° 95° 100° 105° 110°

2-7/8" 6.5# J55 TUBING

LOG #1 (11-17-97)

10.0mv 100.0mv

CBP PRESENT

PLUG SET @ 8758'

155°

150°

LOG #2 11-18-97 (10.0mv) (100.0mv)

PLUG LOCATED @ 8758'

LOG 2 (11-18-97) 10.0mv 100.0mv

LOG #1 (11-17-97) 10.0mv 100.0mv

AC_CPUC_0110042

FLO-LOG INC.

# NOISE LOG DATA SHEET

Page ONE

Company So Cal Gas Co  Well No. SS #29

Date 11-17-87  Noise Tool Number _____  Calibration Normal

| Time | DEPTH | 200 Hz | 600 Hz | 1000 Hz | 2000 Hz | REMARKS |
|---|---|---|---|---|---|---|
| | 8900 | 2.13 | 2.03 | 1.99 | 1.87 | 50' STOPS 20mV |
| | 50 | 2.21 | 2.13 | 2.05 | 1.90 | |
| | 8800 | 2.17 | 2.05 | 2.02 | 1.90 | |
| | 50 | 2.42 | 2.16 | 2.09 | 1.91 | |
| | 8700 | 28.9 | 13.1 | 7.5 | 3.5 | 200 mV Sounds like gas Flo |
| | 50 | 39.3 | 24.9 | 11.6 | 7.1 | |
| | 8600 | 524 | 397 | 253 | 47 | 2V |
| | 50 | 685 | 419 | 297 | 72 | |
| | 8500 | 678 | 436 | 296 | 80 | |
| | 50 | 582 | 493 | 347 | 55 | |
| 13:35 | 8400 | 500 | 427 | 325 | 53 | (log 1) |
| | 50 | 501 | 431 | 310 | 59 | |
| | 8300 | 481 | 445 | 324 | 66 | |
| | 50 | 432 | 369 | 276 | 39 | |
| | 8200 | 427 | 351 | 272 | 39 | possible shoe leak |
| | 50 | 391 | 314 | 243 | 31 | |
| | 8100 | 416 | 361 | 263 | 38 | 2 Volts |
| | 50 | 299 | 232 | 194 | 20 | |
| | 8000 | 486 | 403 | 295 | 25 | |
| | 50 | 165 | 139 | 117 | 13 | |
| | 7900 | 180 | 163 | 140 | 11 | |
| | 50 | 178 | 171 | 150 | 9 | |
| | * | | | | | 100' STOP |
| | 7800 | 187 | 168 | 141 | 7 | |
| | * | | | | | |
| | 7500 | 157 | 136 | 97 | 3 | |
| 1:00p | 8900 | 2.42 | 2.14 | 2.05 | 1.91 | 20 mV |
| | 50 | 2.56 | 2.30 | 2.18 | 1.98 | Log 2 |
| | 8600 | 2.25 | 2.19 | 2.08 | 1.97 | |
| | 50 | 2.66 | 2.14 | 2.05 | 1.92 | Repeat |
| | 8700 | 16.62 | 7.17 | 4.64 | 2.46 | |
| | 50 | 26.7 | 18.6 | 6.3 | 2.1 | |
| | 8600 | 560 | 293 | 272 | 44 | 2V |
| | 50 | 696 | 416 | 297 | 73 | |
| | 8500 | 773 | 484 | 325 | 101 | log 2 continued Page 2 |

AC_CPUC_0118043

FLO-LOG INC.

# NOISE LOG DATA SHEET

Page 9

Company So Cal Gas Co Well No. SS #29

Date 11-17-87 Noise Tool Number _____ Calibration _____

| Time | DEPTH | 200 Hz | 600 Hz | 1000 Hz | 2000 Hz | REMARKS |
|---|---|---|---|---|---|---|
| 2:03 pm | 8250 | 585 | 506 | 361 | 66 | 2U 50' STOPS |
| | 8200 | 565 | 492 | 345 | 59 | Repeat log #2 |
| | 50 | 509 | 435 | 309 | 55 | Continued |
| | 8300 | 489 | 421 | 313 | 47 | |
| | 50 | 472 | 402 | 292 | 45 | |
| | 8200 | 2164 | 401 | 298 | 39 | |
| | 50 | 437 | 378 | 276 | 36 | |
| | 8100 | 463 | 395 | 285 | 35 | |
| | 50 | 322 | 270 | 196 | 23 | 2U 50' STOPS |
| | 8000 | 530 | 439 | 312 | 33 | |
| | 50 | 184 | 169 | 139 | 16 | |
| | 7900 | 192 | 180 | 150 | 13 | |
| | 56 | 197 | 181 | 150 | 11 | |
| | 7866 | 218 | 203 | 165 | 13 | |
| | * | | | | | |
| 2:15 pm | 7500 | 167 | 149 | 102 | 7 | End of Repeat |
| | * | | | | | |
| | 7400 | 161.4 | 142.7 | 92.4 | 3.3 | |
| | 7200 | 129.6 | 104.9 | 62.8 | 2.9 | Log # 1 continued |
| | 7000 | 124.4 | 103.7 | 55.8 | 2.8 | 200' STOPS 200mV |
| | 6800 | 93.7 | 77.6 | 56.4 | 3.5 | |
| | 6600 | 84.8 | 69.1 | 46.8 | 2.6 | |
| | 6400 | 71.00 | 55.7 | 36.5 | 3.0 | |
| | 6200 | 53.8 | 41.5 | 25.3 | 2.5 | Log 1 Cont |
| | 6000 | 46.3 | 36.9 | 25.6 | 2.9 | |
| | 5800 | 38.9 | 31.7 | 24.5 | 2.3 | |
| | 5600 | 31.5 | 25.7 | 20.5 | 2.1 | |
| | 5400 | 28.2 | 22.5 | 16.7 | 2.1 | |
| | 5200 | 25.3 | 19.6 | 14.1 | 2.1 | |
| | 5000 | 22.1 | 17.0 | 12.0 | 2.1 | |
| | * | | | | | 500' STOPS |
| | 4500 | 11.69 | 8.81 | 6.35 | 1.74 | 20mV |
| | 4000 | 10.13 | 7.82 | 5.35 | 1.88 | |
| | 3500 | 7.83 | 5.35 | 3.56 | 1.99 | |
| | 3000 | 6.92 | 4.67 | 3.41 | 2.22 | |
| | 2500 | 7.86 | 3.75 | 2.45 | 1.91 | |

FLO-LOG INC.

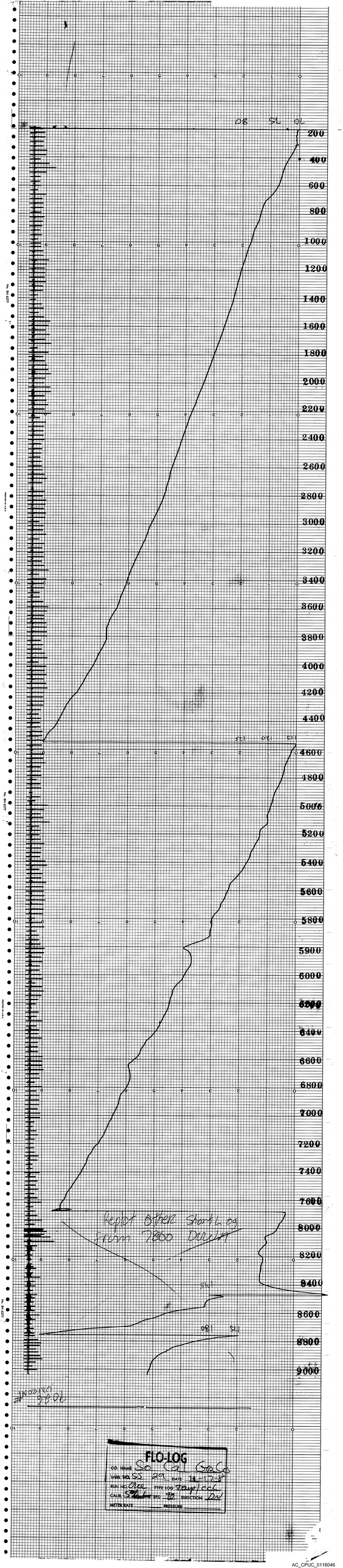
# NOISE LOG DATA SHEET

Page THREE

Company So Cal Gas Co  Well No. SS #29

Date 11-17-87  Noise Tool Number _____  Calibration _____

| Time | DEPTH | 200 Hz | 600 Hz | 1000 Hz | 2000 Hz | REMARKS |
|---|---|---|---|---|---|---|
| 2:59 | 2000 | 4.78 | 2.89 | 2.21 | 1.87 | 20 mV 500' STOPS |
| | 1500 | 8.75 | 6.32 | 4.33 | 2.23 | |
| | 1000 | 8.65 | 4.82 | 3.24 | 2.00 | |
| | 500 | 6.22 | 3.60 | 2.77 | 2.06 | |
| | X | | | | | |
| | 200 | 13.65 | 8.13 | 5.99 | 2.01 | |

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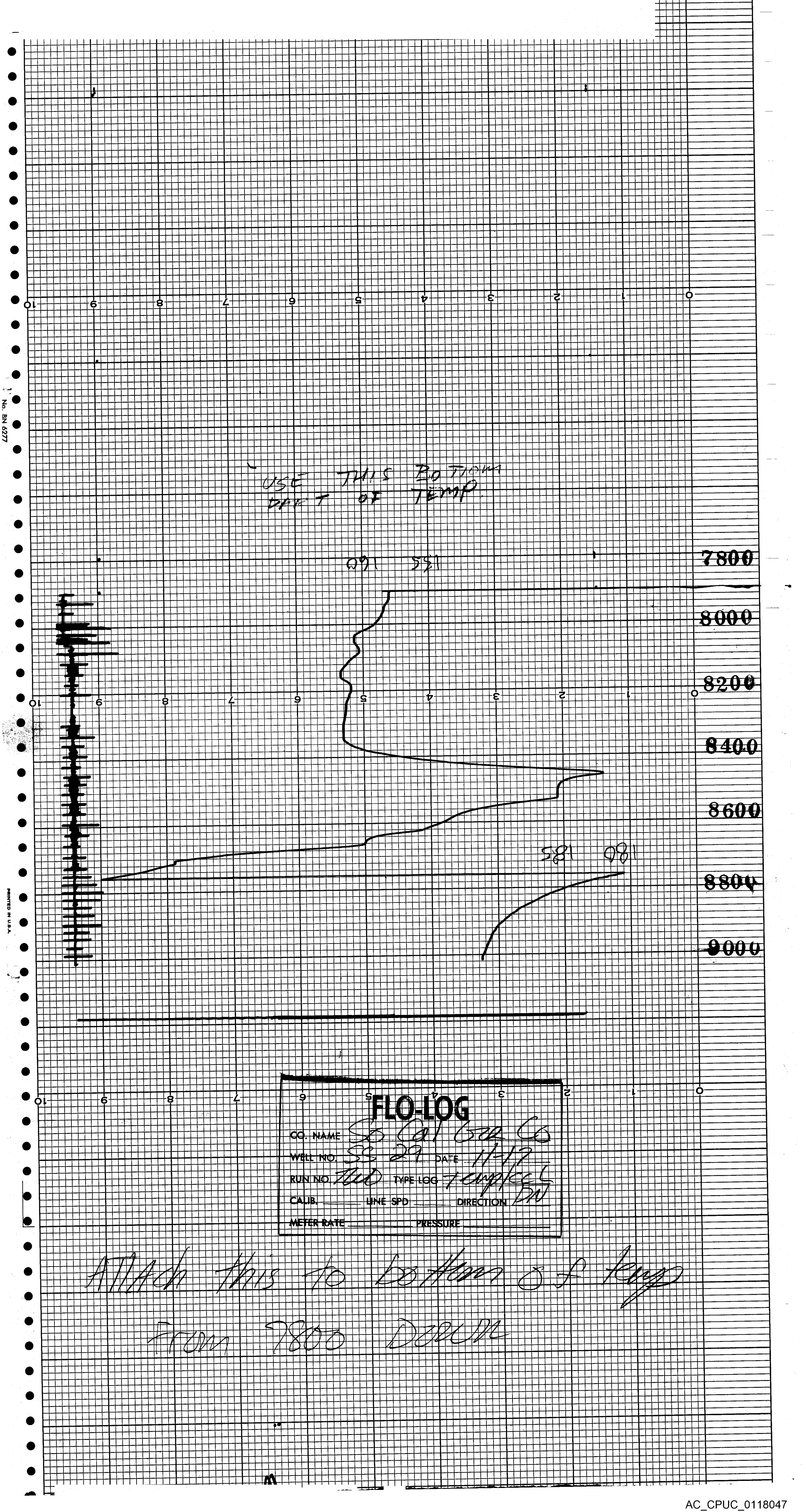



No. BN 6277
PRINTED IN U.S.A.

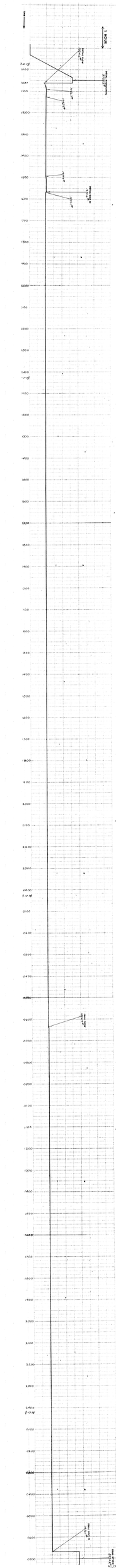
AC_CPUC_0118047

[redacted]

Standard Sesnon 29 Aliso Cyn.
Well Log File

AC_CPUC_0118048

# PRESSURE LOG



0600

0700

FINAL HYDROSTATIC
3754.2 #

SHUT IN
#

1 HOUR

Form J-228a

AC_CPUC_0118050

PACIFIC LIGHTING SERVICE CO.
"Standard Sesnon" 29
~~"SFLD" SS 29~~
Sec. 28-3N-16W   ALISO CANYON

SCHLUMBERGER WELL SURVEYING CORPORATION
HOUSTON, TEXAS

Electrical Log

COMPANY TIDE WATER ASSOC OIL COMPANY

WELL STANDARD SESNON

NO. 1-29 037-~~000~~41

FIELD ALISO CANYON

LOCATION 28 - 3N - 16W

COUNTY LOS ANGELES

STATE CALIFORNIA

Location of Well

Elevation: D.F.:
K.B.: 2856
or G.L.:

FILING No.

These data are furnished by TIDE WATER ASSOC. OIL CO. for the CONFIDENTIAL use of Division of Oil & Gas 2-15-54 by J R [illegible]

RUN No.	1	2	3	4	5
Date	6-24-53	7-9-53	7-29-53	8-7-53	8-24-53
First Reading	5948	8183	8808	8940	9072
Last Reading	1040	5984	8183	8808	8940
Feet Measured	4908	2235	625	132	132
Csg. Schlum.	1040	----	8180	----	----
Csg. Driller	1042	1042	8180	8180	8180
Depth Reached	5949	8184	8809	8941	9073
Bottom Driller	5948	8185	8810	8941	9072
Depth Datum	K.B.	K.B.	K.B.	K.B.	K.B.
Mud Nat.	Oil Emul	Carb+Lig	Oil Emul	Oil Emul	Carbonox
" Density	76	77½	73	78	75
" Viscosity	39	55	44	42	30/500CC
" Resist.	2.3 @ 94 °F	3.3 @ 80 °F	1.9 @ 94 °F	2.0 @ 85 °F	1.8 @ 74 °F
" Res. BHT	1.8 @ 127 °F	2.0 @ 139 °F	1.2 @ 161 °F	1.1 @ 163 °F	.94 @ 166 °F
" pH	12 @ 94 °F	11 @ 80 °F	12 @ 94 °F	12 @ 85 °F	12 @ 74 °F
" Wtr. Loss	-- CC 30 min.	-- CC 30 min.	-- CC 30 min.	-- CC 30 min.	-- CC 30 min.
Max. Temp. °F	127°F.	139°F.	161°F.	163°F.	166°F.
Bit Size	10 5/8"	10 5/8"	6 1/8"	6 1/8"	6 1/8"
Spcgs.—AM	16"-M	16"-M	16"-M	16"-M	16"-M
~~AO~~--	10	10	10	10	10
AO..	19	19	19	19	19
Opr. Rig Time	2 hrs.	2½ hrs.	2 hrs.	2 hrs.	2¼ hrs.
Truck No.	NH-1733	NH-1720	NH-1732	NH-1720	NH-1732
Recorded By	FMesenbrink	Barbarick	Barbarick	Murphy	Barbarick

FOLD HERE

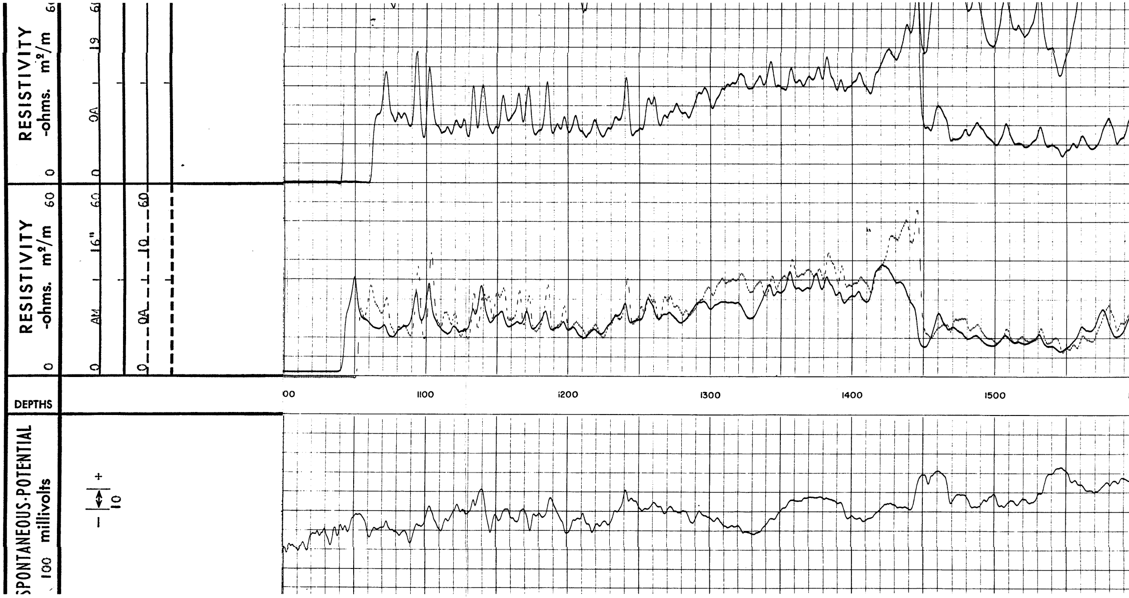
Date	8-29-53	9-1-53	9-4-53	9-7-53	9-11-53
First Reading	9202	9362	9503	9644	9787
Last Reading	9072	9202	9362	9503	9644
Feet Measured	130	160	141	141	143
Csg. Schlum.	----	----	----	----	----
Csg. Driller	8180	8180	8180	8180	8180
Depth Reached	9203	9363	9504	9645	9788
Bottom Driller	9202	9363	9504	9643	9790
Depth Datum	K.B.	K.B.	K.B.	K.B.	K.B.
Mud Nat.	Carbonox	Carbonox	Carbonox	Carbonox	Oil Emul
" Density	76	77	75	76	78
" Viscosity	34	50	42	45	40
" Resist.	3.3 @ 68 °F	1.6 @ 97 °F	2.0 @ 93 °F	2.5 @ 85 °F	1.8 @ 86 °F
" Res. BHT	1.5 @ 169 °F	@ °F	1.1 @ 184 °F	1.3 @ 184 °F	.94 @ 184 °F
" pH	10 @ 68 °F	12 @ 97 °F	12 @ 93 °F	12 @ 85 °F	12 @ 86 °F
" Wtr. Loss	-- CC 30 min.	-- CC 30 min.	-- CC 30 min.	-- CC 30 min.	-- CC 30 min.
Max. Temp. °F	169°F.		184°F.	184°F.	184° F.
Bit Size	6 1/8"	6 1/8"	6 1/8" + 5 1/8"	6 1/8" + 5 1/8"	6 1/8" + 5 7/8"
Spcgs.—AM	16"-M	" 16"-M	16"-M	16"-M	16"-M
~~AO~~--	10	10	10	10	10
AO..	19	19	19	19	19
Opr. Rig Time	1¾ hrs.	1¾ hrs.	2½ hrs.	2½ hrs.	2 hrs.
Truck No.	NH-1720	NH-1732	NH-1720	NH-1720	NH-1733
Recorded By	Mesenbrink	Barbarick	Murphy	Murphy	CGibson
Witness By	Bovyer	Burns	Burns	Burns	Burns

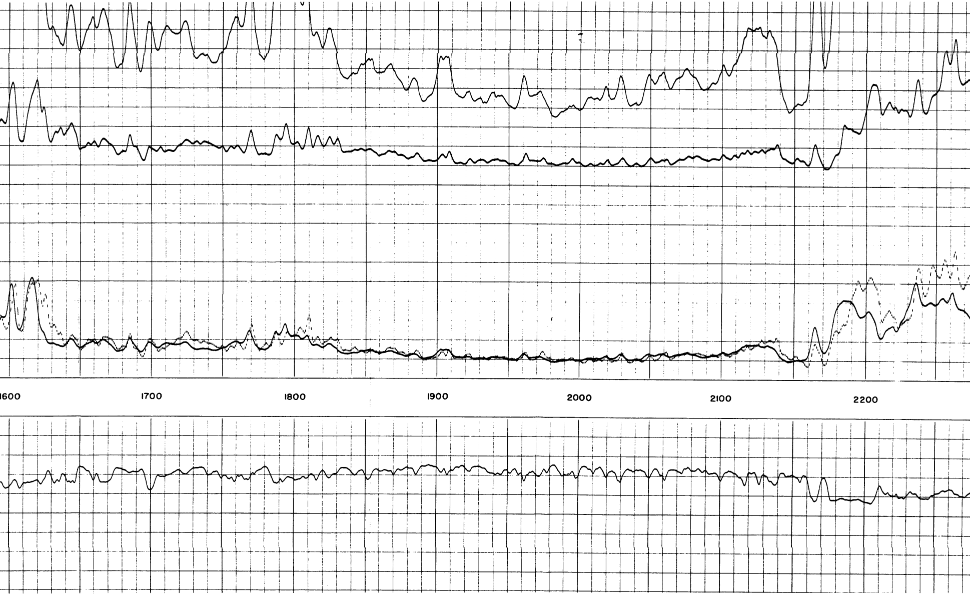
RUN No.	11				
Date	9-13-53				
First Reading	9790				
Last Reading	8650				
Feet Measured	1140				
Csg. Schlum.	----				
Csg. Driller	8180				
Depth Reached	9791				
Bottom Driller	9790				
Depth Datum	K.B.				
Mud Nat.	Carb+Oil Emul				
" Density	77				
" Viscosity	31				
" Resist.	2.0 @ 90 °F	@ °F	@ °F	@ °F	@ °F
" Res. BHT	1.0 @ 190 °F	@ °F	@ °F	@ °F	@ °F
" pH	12 @ 90 °F	@ °F	@ °F	@ °F	@ °F
" Wtr. Loss	-- CC 30 min.	CC 30 min.	CC 30 min.	CC 30 min.	CC 30 min.
Max. Temp. °F	190°F.				
Bit Size	6 1/8"				
Spcgs.—AM	16"-M				
~~AO~~--	10				
AO..	19				
Opr. Rig Time	2¼ hrs.				
Truck No.	NH-1732				
Recorded By	HBarbarick				

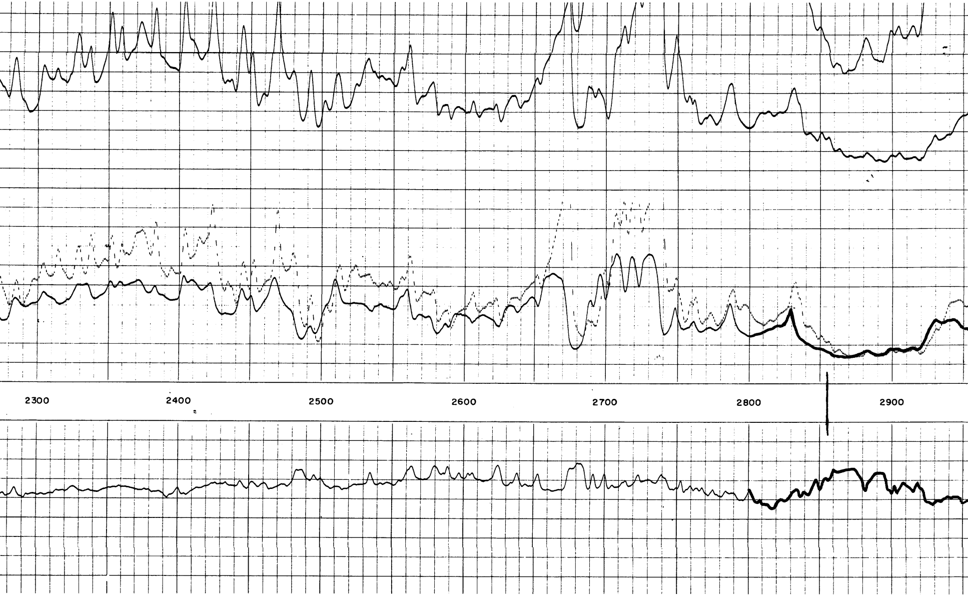
EMARKS Hole Size:
un 1 10 5/8" - 5948
un 2 10 5/8" - 8185
un 3 6 1/8" - 8810
un 4 6 1/8" - 8941
un 5 6 1/8" - 9072
un 6 6 1/8" - 9202
un 7 6 1/8" - 9363
Run 8 6 1/8" - 9444, 5 1/8" - 9504
Run 9 6 1/8" - 9629, 5 1/8" - 9643
Run 10 6 1/8" - 9770, 5 7/8" - 9790
Run 11 6 1/8" - 9790

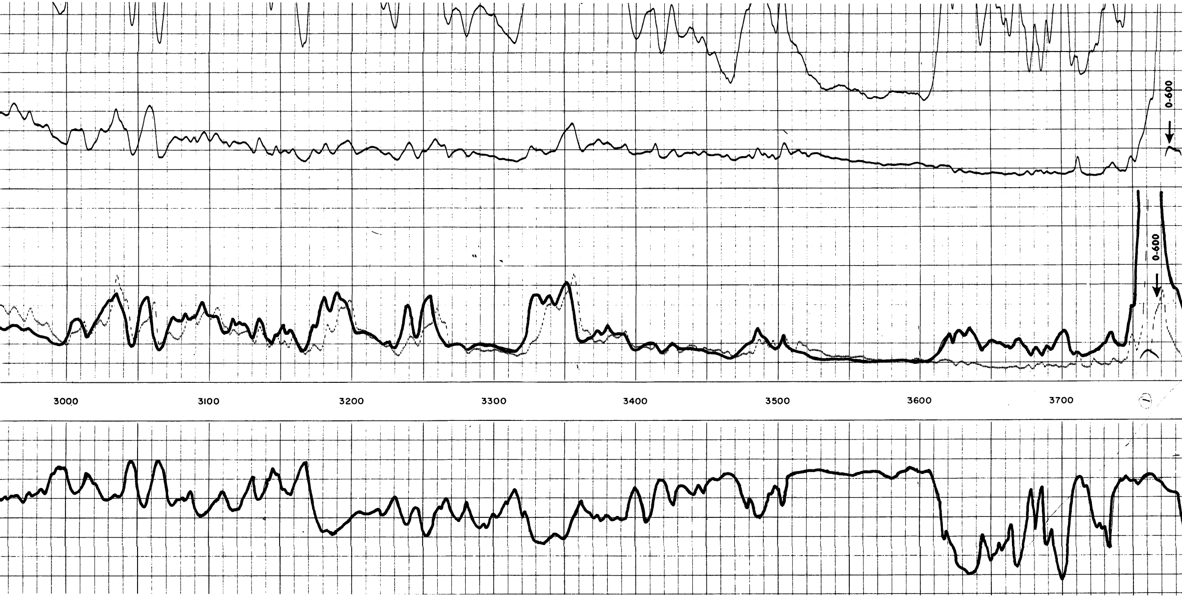
Films Used:
Run 1 1040 - 5942
Run 2 5942 - 8182
Run 3 8182 - 8642
Run 4 8642 - 8892
Run 5 and Run 7 Omitted
Run 6 8892 - 9164
Run 8 9164 - 9418

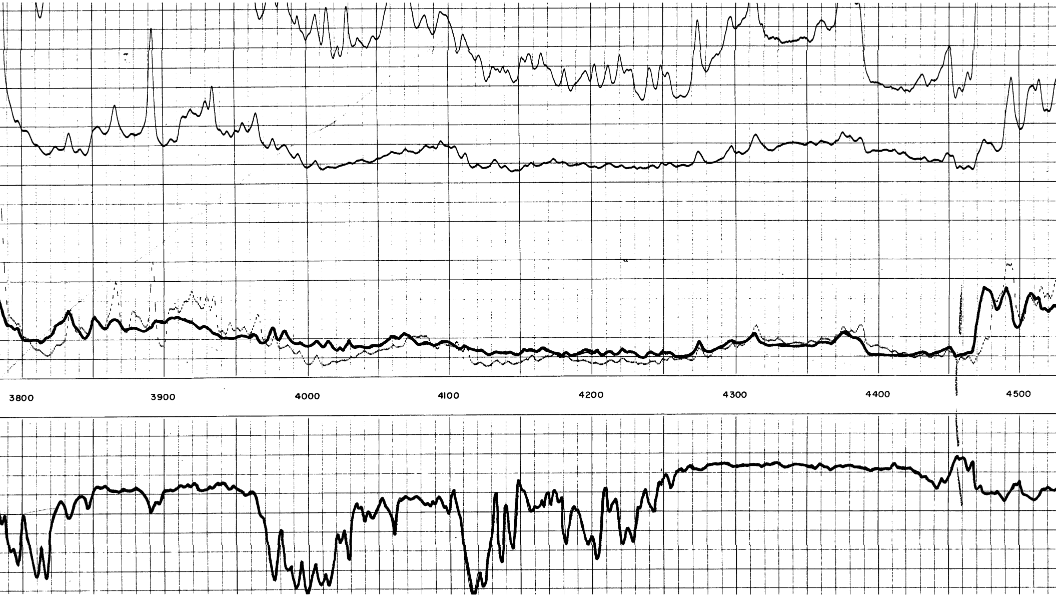
EMARKS
Run No. 11 is 5" Balloon Scale only.
Run 9 9418 - 9644
Run 10

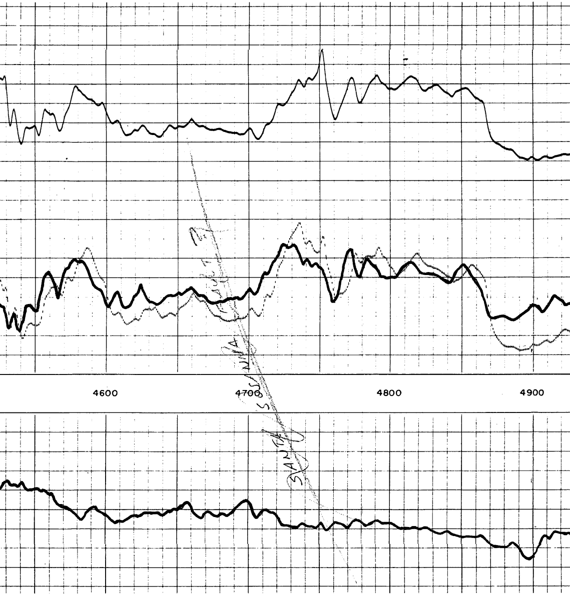


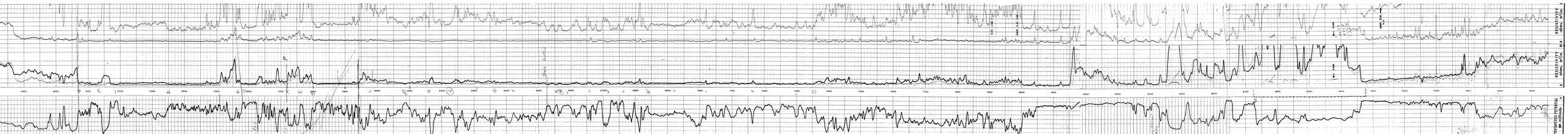


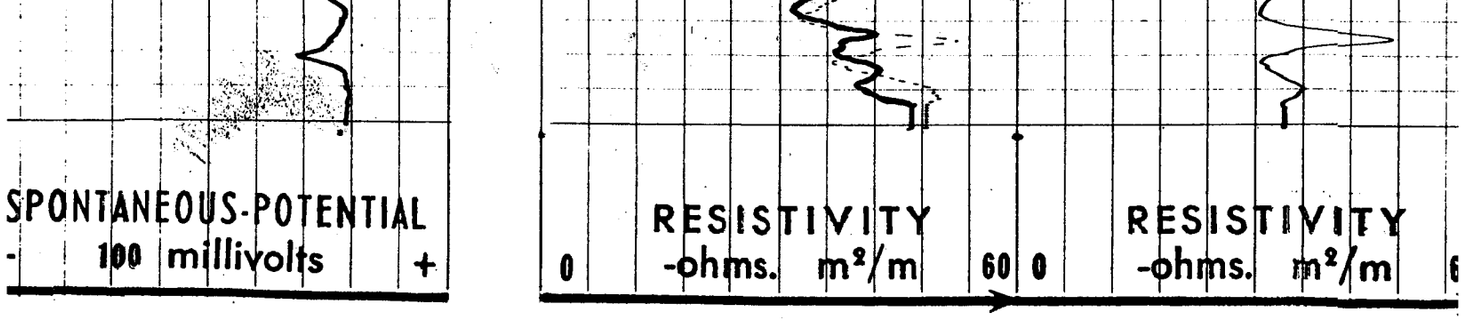









RESISTIVITY
ohms m²/m
SPONTANEOUS POTENTIAL
millivolts

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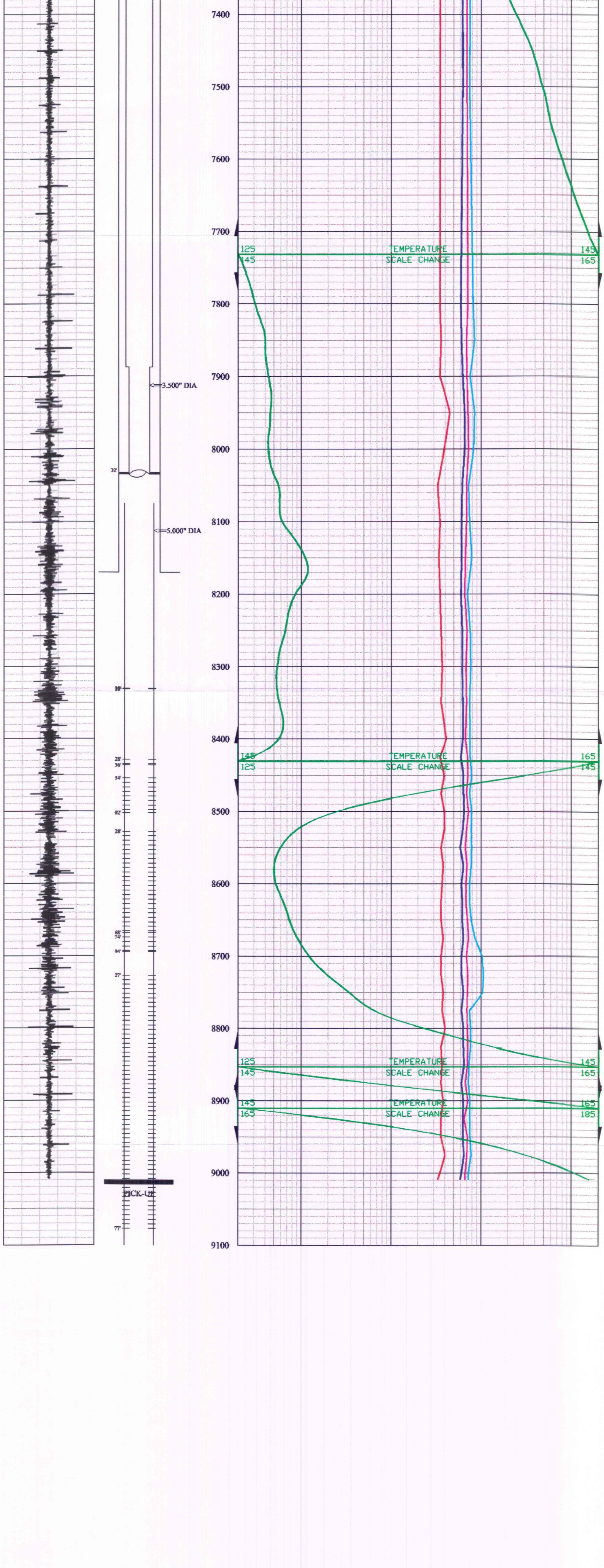


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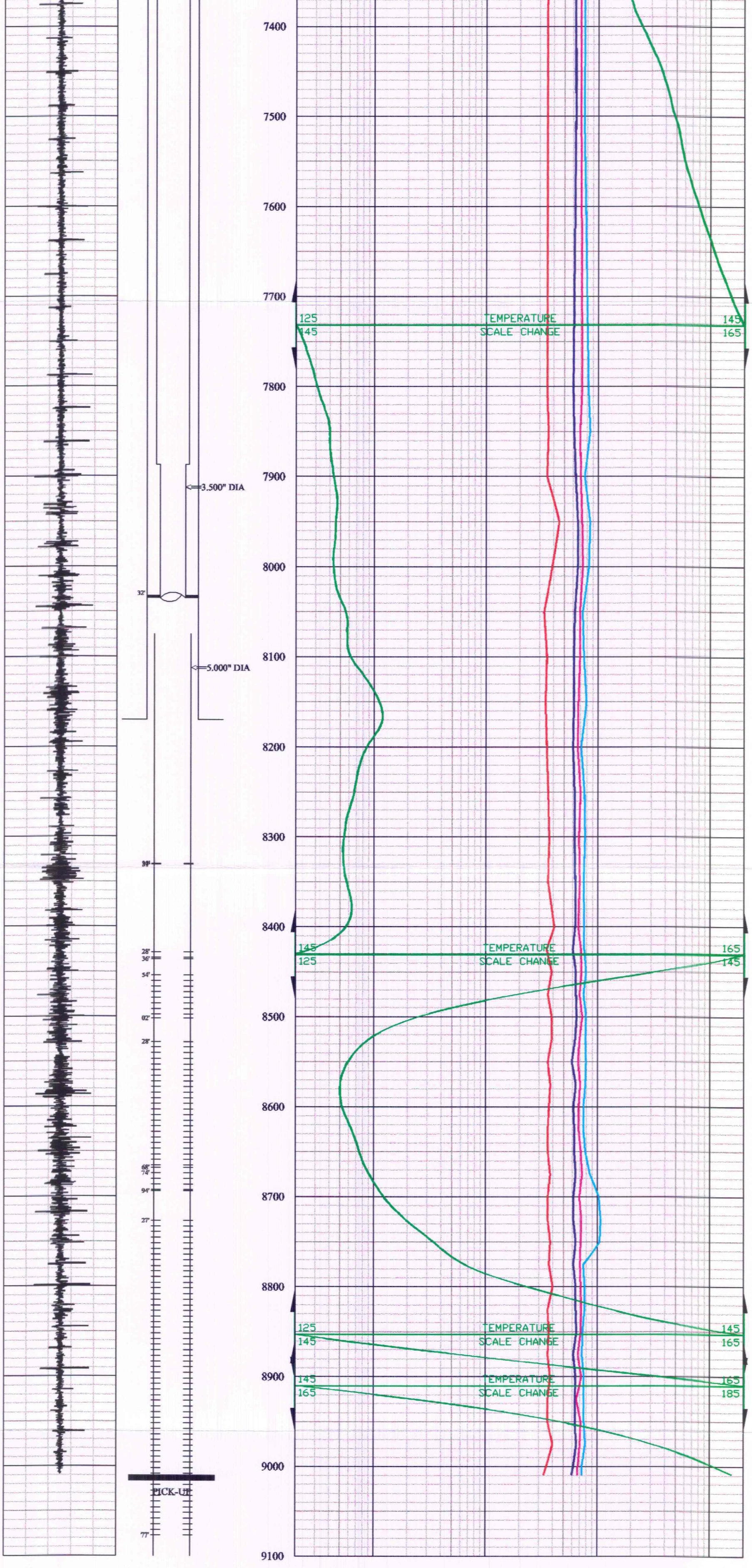

7400
7500
7600
7700
7800
7900
8000
8100
8200
8300
8400
8500
8600
8700
8800
8900
9000
9100
125
145
TEMPERATURE
SCALE CHANGE
145
165
145
125
TEMPERATURE
SCALE CHANGE
165
145
125
145
TEMPERATURE
SCALE CHANGE
145
165
145
165
TEMPERATURE
SCALE CHANGE
165
185
3.500" DIA
5.000" DIA
32'
PICK-UP

| | | | |
|---|---|---|---|
| PERMANENT DATUM | 7' K.B. | ELEVATION | 2849' |
| LOG MEASURED FROM | 7' AGL. | CORRECTED TO | LINER TOP |
| TOTAL DEPTH | 9077' PBTD | OBSERVED DEPTH (Pickup) | 8998 |
| TOP OF LOGGED INTERVAL | 7800 | BOTTOM LOGGED INTERVAL | 8998 |
| TYPE OF FLUID IN HOLE | GAS | FLUID LEVEL | NONE |
| LOG RECORDED BY | FINDLAY | WITNESSED BY | R. ADAMCZYK |

CASING AND TUBING RECORD

| Size | Weight | From | To |
|---|---|---|---|
| 11-3/4 | 42 &47 | 0 | 1042 |
| 7 | 23 &26 | 0 | 8180 |
| 5 | 18 | 8075 | 9790 |
| TUBING | 2-7/8" TO 8040 | | |
| PACKER(S) | 8040 | | |
| MANDREL(S) | 8002 | | |
| PERFORATIONS | 8456-8694 | | |

WELL STATUS: CASING FLOW

| | Pressure | Producing | Injecting | Shut-in |
|---|---|---|---|---|
| TBG | | 2410 | | 2450 |
| CSG | | | | |

INJ. RATE: TYPE
OBS. RATE

| METERED PRODUCTION RATES | | | *API |
|---|---|---|---|
| | Oil | Gravity: | |
| | Water | | |
| | Gas | 15MMcf/d | |
| BOTTOM TEMPERATURE | | 188.4° | |

| | | | |
|---|---|---|---|
| LOGGING UNIT | 711 | LINE SIZE 3/16" | LINE LENGTH |
| TOOLS USED | 4-5' BARS.CAPACITANCE.COLLAR LOCATOR.TEMPERATURE.SPINNER | | |
| TOOL NUMBERS | | | |
| DIAMETER 1-3/8" | | | |

RESULTS AND REMARKS: OBSERVED THE MAJOR SOURCE OF GAS TO ENTER BETWEEN 8456 (TOP PERF) AND 8465'. THERE MUST BE ANOTHER SMALL ENTRY AROUND 8685' SINCE THERE IS A COOLING ON THE TEMPERATURE THERE.

THE HEATING ON THE TEMPERATURE BELOW 8727 SUGGESTS LITTLE OR NO GAS HAS BEEN MOVING DOWN THERE. HOWEVER, THE CAPACITANCE SHOWS NO LIQUIDS AT THE BOTTOM OF THE WELL. ONLY GAS. SINCE ONE NORMALLY EJECTS TO FIND SOME LIQUIDS AT BOTTOM. PERHAPS THE LIQUIES WERE LIIFTED OR PUSHED AWAY BY A SMALL AMOUNT OF GAS.

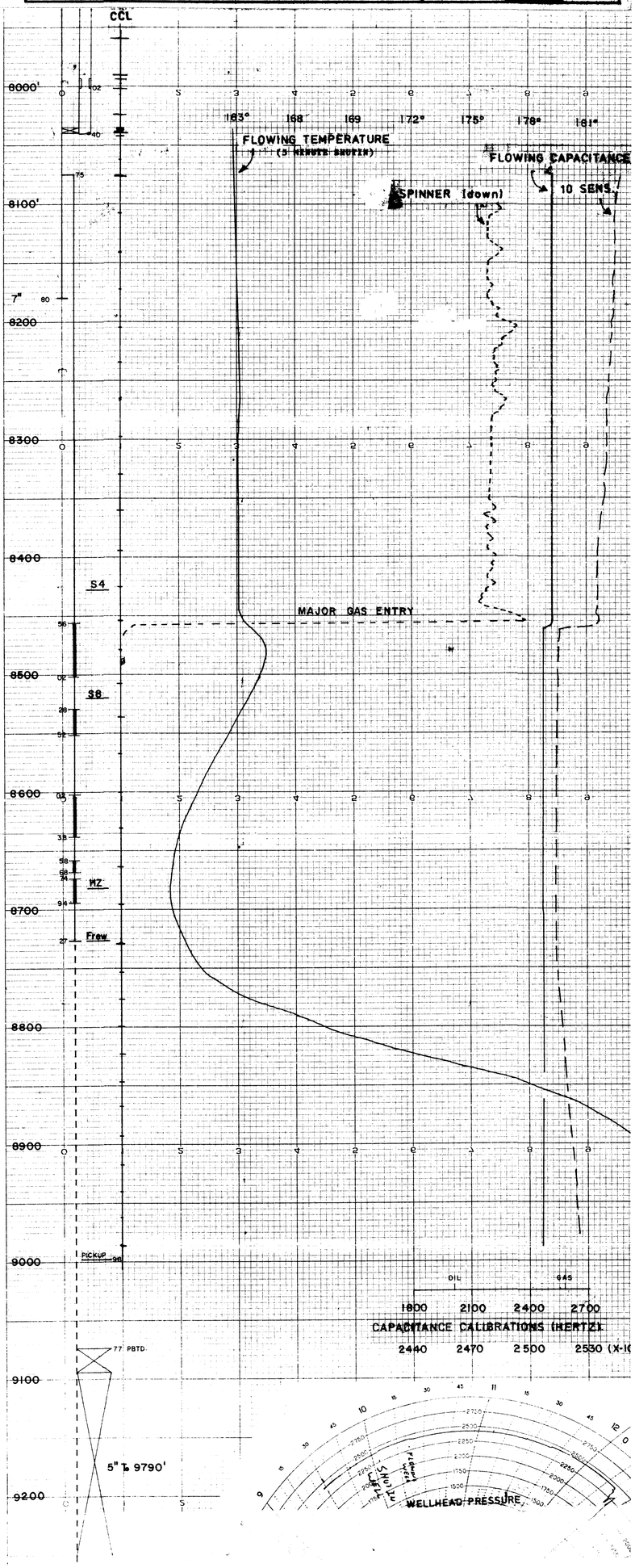
FIELD INVENTORY WAS 44.092 BCF DURING THE SURVEY.

COMPANY: SOUTHERN CALIFORNIA GAS
WELL NO.: STANDARD SESNON 29
FIELD: ALISO CANYON
COUNTY: LOS ANGELES STATE: CA
DATE: 7-25-90

# FLO-LOG INC.

## FLUID ENTRY SURVEY

PURPOSE OF SURVEY: FIND SOURCE OF GAS




AC_CPUC_0118058

# FLO-LOG INC.

## NOISE AND TEMPERATURE SURVEY

COMPANY SOUTHERN CAL. GAS OFFICE BLDG CANYON | WELL NAME & NO. STANDARD SCIMON #29

### SURVEY DATA

| | |
|---|---|
| DATE OF SURVEY | 10-21-91 / 10-17-91 |
| RUN NUMBER | ONE |
| FIRST READING | SURFACE WATER |
| FLUID TYPE | WATER |
| FLUID LEVEL | 9563' |
| MEASURED FROM | GROUND LEVEL |
| LOGGING DEPTH (DRLR) | 9800' |
| LOGGING DEPTH (WLM) | 9800' |
| CASING RECORDED BY | ALL CASINGS |
| LOG RECORDED BY | Mr. BRAND |
| WITNESSED BY | MR. CHUCK JOHN FOR SOUTHERN CALIFORNIA GAS CO. |
| REMARKS | FIELD INVENTORY WAS AS NOTED. |

### WELLBORE DATA

| CASING RECORD | SIZE | WEIGHT | FROM | TO |
|---|---|---|---|---|
| 1ST STRING | 11 3/4" | 42 & 47# | 0' | 1042' |
| 2ND STRING | 7" | 23 & 26# | 0' | 8782' |
| PLUG BACK TD | 7" | 26# | 8782' | 9780' |

| | | | |
|---|---|---|---|
| OPEN HOLE | DRILLBIT TO | 9780' | |
| CASING RECORD | FROM | TO | |
| 1ST STRING | 0' | 1042' | |
| 2ND STRING | 0' | 8782' | |
| PRODUCTION | 8782' | 9779' | SLOTTED |

PRESSURE: 2300 PSIG

8782'

@ 2100' 9563'

CASING SHOE

| | |
|---|---|
| CASING JNT | 112 |
| LENGTH OF TOOL | 3.5' |
| DIAMETER OF TOOL | 1 1/2" |

LINE SIZE 3/16" | LINE LENGTH 24,600' | TOOL NO. 4954

### MEASUREMENT BEFORE DEPTH REFERENCE

LINER TOP

TEMPERATURE

| 75° | 80° | 85° | 90° | 95° | 100° | 105° |
|---|---|---|---|---|---|---|

FREQUENCY RESPONSE (AMPLIFICATION) 2000 HERTZ | 1000 HERTZ | 600 HERTZ | 200 HERTZ (LO FREQUENCY)

VOLTS

9800'

9563'

(REPEAT #1)

(REPEAT #2)

FLUID LEVEL 9563'

(LOGGED ON 10-21-1991

PRESSURES: CASING: 1600 psig TUBING: 2100 psig

REPEAT #1

NEAR GAS FLOW

NEAR LOOSE GAS SOUND

(REPEAT #2 AT EXPANDED SCALE OF 1"=20')

(LOGGED ON 10-18-1991 DRIVEN BY MOORE

PRESSURES: CASING: 2150 psig TUBING: 2100 psig

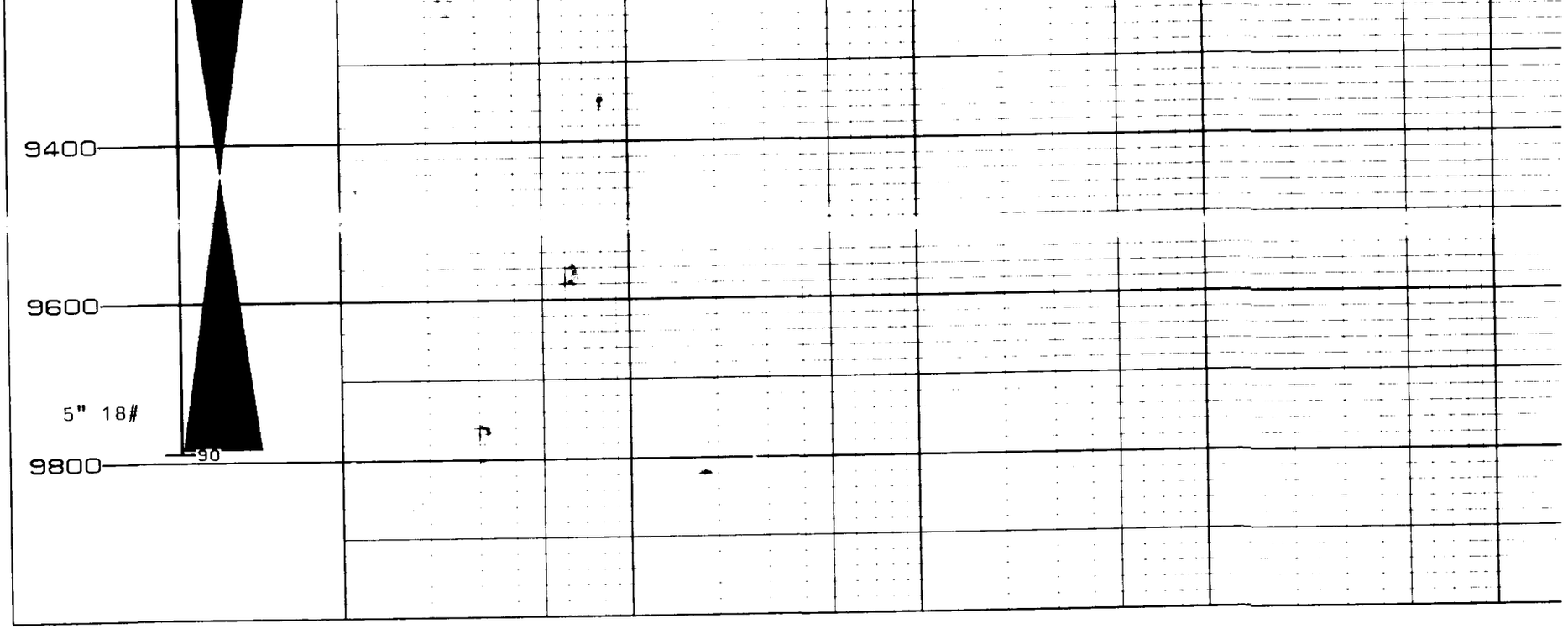
REPEAT #1 (@ 10-17-91)

(LOGGED ON 10-17-1991 DRIVEN BY MOORE

PRESSURE: CASING: 1750 psig TUBING: 2500 psig

(REPEAT #1 (@ 10-17-91)

AC_CPUC_119801


9400
9600
5" 18#
90
9800

PRODUCTION LOGGING SERVICES, INC.

# TEMPERATURE & NOISE LOG
## STANDARD SESNON 29

COMPANY SOUTHERN CALIFORNIA GAS COMPANY
WELL S.S. 29 FIELD ALISO CANYON
COUNTY L.A. STATE CA

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Type Log | | | | | | | |
| Depth - Driller | 9094 | | | | | | |
| Depth - Logger | 9094 | | | | | | |
| Bottom Logged Interval | 9090 | | | | | | |
| Top Logged Interval | 9000 | | | | | | |
| Casing - Logger | 5" | | | | | | |
| Bit Size | 4" | | | | | | |
| Type Fluid in Hole | SALT WATER | | | | | | |
| Density / Viscosity | | | | | | | |
| Max. Rec. Temp. Deg. F. | | | | | | | |
| Estimated Temp. | | | | | | | |
| Operating Rig Time | | | | | | | |
| Recorded By | LARRY CLIFF | | | | | | |
| Witnessed By | | | | | | | |

DRILL DATA

| Run No. | Bore-Hole Record | | Casing Record | | |
|---|---|---|---|---|---|
| | Size | To | Size | Wgt. | To |
| 1 | 4" | 9094 | 5" | 15 | 9090 |
| 2 | 4" | 9094 | 5" | 15 | 9090 |
| 3 | 4" | 9094 | 5" | 15 | 9090 |

| | | | |
|---|---|---|---|
| Type Log | | | |
| Depth - Driller | 9094 | | |
| Depth - Logger | 9094 | | |
| Bottom Logged Interval | 9090 | | |
| Top Logged Interval | 9000 | | |
| Casing - Logger | 5" | | |
| Bit Size | 4" | | |
| Type Fluid in Hole | SALT WATER | | |
| Density / Viscosity | | | |
| Max. Rec. Temp. Deg. F. | | | |
| Estimated Temp. | | | |
| Operating Rig Time | | | |
| Recorded By | LARRY CLIFF | | |
| Witnessed By | | | |

| Run No. | Bore-Hole Record | | Casing Record | | |
|---|---|---|---|---|---|
| | Size | To | Size | Wgt. | To |
| 1 | 4" | 9094 | 5" | 15 | 9090 |
| 2 | 4" | 9094 | 5" | 15 | 9090 |
| 3 | 4" | 9094 | 5" | 15 | 9090 |

DRILL DATA

| Run No. | Bore-Hole Record | | Casing Record | | |
|---|---|---|---|---|---|
| | Size | To | Size | Wgt. | To |
| 1 | 4" | 9094 | 5" | 15 | 9090 |
| 2 | 4" | 9094 | 5" | 15 | 9090 |
| 3 | 4" | 9094 | 5" | 15 | 9090 |

Type Log
Depth - Driller 9094
Depth - Logger 9094
Bottom Logged Interval 9090
Top Logged Interval 9000
Casing - Logger 5"
Bit Size 4"
Type Fluid in Hole SALT WATER
Density / Viscosity
Max. Rec. Temp. Deg. F.
Estimated Temp.
Operating Rig Time
Recorded By LARRY CLIFF
Witnessed By

# FLO-LOG INC.

## NOISE AND TEMPERATURE SURVEY

COMPANY So. Cal. Gas Co. FIELD Aliso Canyon WELL NAME & NO. Standard Sesnon #29

### SURVEY DATA

| | |
|---|---|
| DATE OF SURVEY | 8-30-90 |
| WELL STATUS | GAS STORAGE |
| TYPE OF FLUID | OIL & WATER |
| FLUID RATE (B) | SHUTIN |
| EFFECTIVE DEPTH | 9027' PBTD |
| LOGGERTS DEPTH (PICKUP) | 8992' |
| AMOUNT OF FILL | 85' |
| LOG WITNESSED BY: | R. MCDONALD |
| LOG RECORDED BY | J. RISER |
| REASON FOR SURVEY | CHECK SHOE AND CHECK TEMPERATURE ANOMALIES @ 8000' |

RESULTS AND REMARKS:

SUBSURFACE SAFETY VALVE IS OPEN.
FIELD VOLUME IS 46.524 MCF.

### WELLBORE DATA

CASING AND TUBING RECORD

| | SIZE | WEIGHT | FROM | TO | PRESSURE | FLUID LEVEL |
|---|---|---|---|---|---|---|
| | 11-3/4" | 42 & 47# | 0' | 1042' | | |
| | 7 | 23 & 26 | 0 | 8180 | 2500 PSI | |
| | 5 | 18 | 8072 | 9790 | | NONE OBS. |
| | 2-7/8" | TUBING | 0 | 8049 | 2500 PSI | |

PACKER (S) 8040 MANDREL (S)

PERFORATIONS 8456-8694' @ INTERVALS 8727-9077-9027' SLOTTED

LOGGING UNIT 711 LINE SIZE 3/16" LINE LENGTH 23900' NOISE TOOL NO. 4030

DIAGRAM OF TOOLS USED:

DIAMETER OF TOOLS 1-3/8"

3-60° SINKER BARS, COLLAR LOCATOR, TEMPERATURE,NOISE

MEASUREMENT DATUM 7' K.B.
DEPTH REFERENCE LINER TOP

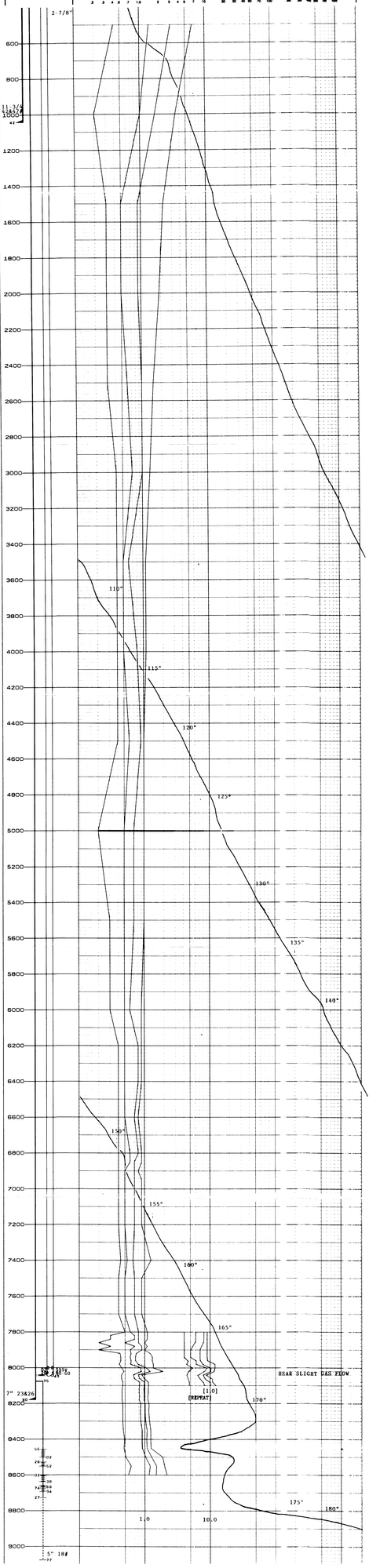
TEMPERATURE

70° 75° 80° 85° 90° 95° 100°

FREQUENCY RESPONCE (HI FREQUENCY) 2000 HERTZ 1000 HERTZ 600 HERTZ 200 HERTZ (LO FREQUENCY)

MILLIVOLTS

2 3 4 5 7 10 2 3 4 5 7 10 20 30 40 50 70 100 200 300 400 500 700 1000




AC_CPUC_0118062

# FLO-LOG INC.

## NOISE AND TEMPERATURE SURVEY

COMPANY SOUTHERN CAL. GAS FIELD ALISO CANYON WELL NAME & NO. STANDARD SESNON #29

### SURVEY DATA

| | |
|---|---|
| DATE OF SURVEY | 8-8-90 |
| WELL STATUS | GAS STORAGE SHUT-IN |
| TYPE OF FLUID | OIL & WATER & GAS |
| FLUID RATE (B) | NONE |
| EFFECTIVE DEPTH | 9094 PBTD |
| LOGGER'S DEPTH (PICKUP) | 8993 |
| AMOUNT OF FILL | 101 |
| LOG WITNESSED BY | |
| LOG RECORDED BY | J. RISER |
| REASON FOR SURVEY | CHECK FOR CASING SHOE I.E.R. |

RESULTS AND REMARKS:

### WELLBORE DATA

CASING AND TUBING RECORD

| | SIZE | WEIGHT | FROM | TO | PRESSURE | FLUID LEVEL |
|---|---|---|---|---|---|---|
| | 11-3/4" | 42 & 47# | 0 | 1042 | 2482 | |
| | 7 | 23 & 26 | 0 | 8180 | | |
| | 5 | 18 | 8075 | 9790 | | |
| | 2-7/8 | TUBING | 0 | 8049 | 2450PSI | |

PACKER (S) 8040 MANDREL (S) NONE

PERFORATIONS 8456-8694 & INTERVALS 8727-9077 SLOTTED

LOGGING UNIT 711 LINE SIZE 3/16" LINE LENGTH 23,950' NOISE TOOL NO. 2107

DIAGRAM OF TOOLS USED:

DIAMETER OF TOOLS 1-3/8"

3-60° BARS, CAPACITANCE, COLLAR LOCATOR, TEMPERATURE, NOISE

MEASUREMENT DATUM
7' DF
DEPTH REFERENCE
TUBING TAIL

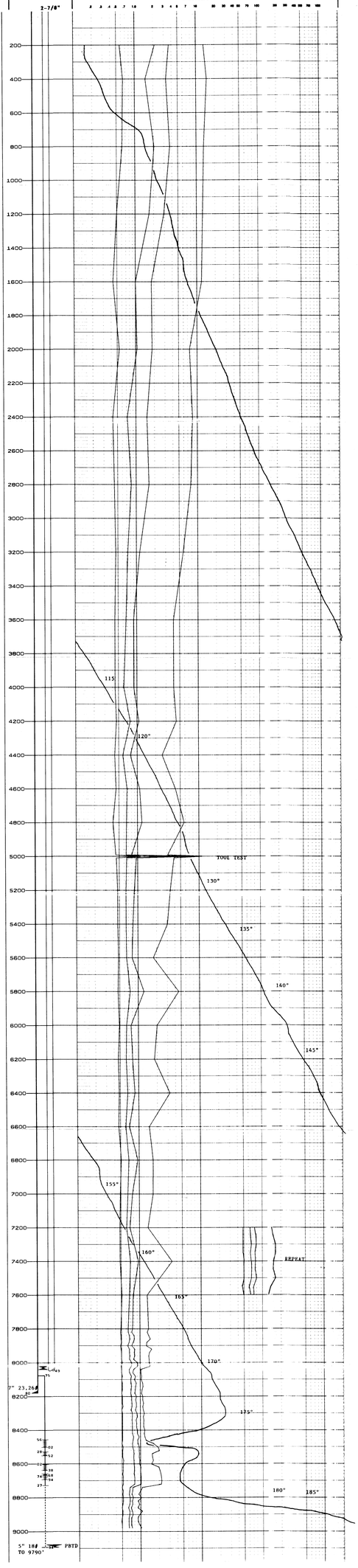
TEMPERATURE

75° 80° 85° 90° 95° 100° 105°

FREQUENCY RESPONCE: (HI FREQUENCY) 2000 HERTZ 1000 HERTZ 600 HERTZ 200 HERTZ (LO FREQUENCY)

MILLIVOLTS

2-7/8"




AC_CPUC_0118063

| | |
|---|---|
| PERMANENT DATUM | 7 EB |
| LOG MEASURED FROM | 7 AGL |
| TOTAL DEPTH | 9077 |
| TOP OF LOGGED INTERVAL | 100 |
| TYPE OF FLUID IN HOLE | WATER |
| LOG RECORDED BY | HELMS |

| | |
|---|---|
| ELEVATION | |
| CORRECTED TO | LINER TOP |
| OBSERVED DEPTH (Finish) | 9011 |
| BOTTOM LOGGED INTERVAL | 9011 |
| FLUID LEVEL | 8881 |
| WITNESSED BY | ROBINSON |

CASING AND TUBING RECORD

| Size | Weight | From | To |
|---|---|---|---|
| 11 3/4 | 42 & 47 | 0 | 1042 |
| 7 | 23 & 26 | 0 | 8180 |
| 5 | 18 | 8073 | 9190 |

| | |
|---|---|
| TUBING | 2-7/8" TO 8049 |
| PACKERS | 8040 |
| BAKER/MLBS | SSSV @ 8002 |
| PERFORATIONS | 8436-9077 AT INTERVALS |

| | |
|---|---|
| LOGGING UNIT | 712 |
| TOOLS USED | 2-5" TUNGSTEN BARS, CAPACITANCE,CCL,TEMP.,NOISE |
| TOOL NUMBERS | |
| DIAMETER | 1-3/8" |

WELL STATUS: SHUTIN GAS STORAGE

| | Producing | Injecting | Shut-in |
|---|---|---|---|
| TBG PRESS. | | | 2100 |
| CSG PRESS. | | | 2100 |
| INJ. RATE | | TYPE | |
| OBS. RATE | | | |
| METERED PRODUCTION RATES | Oil | Gravity | °API |
| | Water | | |
| | Gas | | |

BOTTOM TEMPERATURE 191.2°

LINE SIZE 3/16" LINE LENGTH 22,000

RESULTS AND REMARKS:

COMPANY SOUTHERN CALIFORNIA GAS
WELL NO. SS STORAGE #29
FIELD
COUNTY Los Angeles STATE CA
DATE 10-20-89

FLO-LOG INC.
TEMPERATURE & NOISE

PURPOSE OF SURVEY
CHECK FOR POSSIBL GAS MIGRATION UP PAST SHOE

10.0 MILLIVOLTS
1.0 2 3 4 5 6 7 8 9

2-7/8"
11-3/4" @ 1042
7" @ 8180
5" @ 9190

70° 100° 100 200°

100°
130°
140°
150°
160°
170°
180°
190°

8002
8073
8180
8436
8440
8456
9190
9190'

2-1 8350'
2-4 8440'

NO
100 MV
100 MV

RERUN AFTER SEALING ALL SURFACE VALVES

| | |
|---|---|
| PERMANENT DATUM | 7,840 |
| TOTAL DEPTH | 9200 |
| DEPTH DRILLER | 9200 |
| TYPE OF FLUID IN HOLE | GEL |
| LOG RECORDED BY | J. BAILEY |

| | |
|---|---|
| ELEVATION | |
| CORRECTED TO | 1,910' TOF |
| PERMANENT DATUM (Formation) | 7,840 |
| MEASURED FROM (Elevation) | 9200 |
| ELEV. LEVEL | 9,540' TEMPERATURE |
| RECORDED BY | JIM MAGGINETTE |

| | |
|---|---|
| DATE | 11/17/87, 11/18/87 |
| RUN NO. | ONE |
| TYPE LOG | RADIAL CALIPER, TEMP. |
| DEPTH-DRILLER | 9200 |
| DEPTH-LOGGER | 9200 |
| BTM. LOG INTERVAL | 9200 |
| TOP LOG INTERVAL | SURFACE |
| CASING-DRILLER | 13 3/8" @ 1,910' |
| CASING-LOGGER | 1,910' |
| BIT SIZE | 12 1/4" |
| TYPE FLUID IN HOLE | GEL |
| DENS. VISC. | 9.2 LBS/GAL 40 SEC |
| PH | 10.5 |
| FLUID LOSS | 6 CC |
| SOURCE OF SAMPLE | CIRCULATED |
| RM @ MEAS. TEMP. | .2 @ 150 |
| RMF @ MEAS. TEMP. | .2 @ 150 |
| RMC @ MEAS. TEMP. | .2100 |
| SOURCE RMF | RMC |
| RM @ BHT | |
| TIME SINCE CIRC. | 24 HRS. |
| MAX. REC. TEMP. | 150 |
| EQUIP. LOCATION | 91 GAS STORAGE |
| RECORDED BY | J. BAILEY |
| WITNESSED BY | |

| | |
|---|---|
| CASING RECORD | SIZE / WGT. / GRADE / FROM / TO |
| | 13 3/8" / 54.5# / K-55 / SURFACE / 1910' |
| | 9 5/8" / 47# / S-95 / 1910' / 9700' |
| | 5" / 18# / S-95 / 9700' / 9200' |
| TUBING RECORD | 2 7/8" EU 8RD&" / 9000' |
| PACKER SET AT | NONE |
| BRADENHEAD | NONE |
| PERFORATING | 8656- 8727' @ INTERVALS |

| | |
|---|---|
| LOGGING UNIT | 314 |
| TRUCK NBR. | |
| REMARKS | |
| Scale Int. 1:50" | |

| | |
|---|---|
| LOGGING DISTRICT | NOB |
| LOGGING ENGINEER | |
| WITNESS | |

RESULTS AND REMARKS: FIRST SURVEY ON 11-17-87 SHOWED MUCH ACTIVITY IN THE 8656-8727' PERFORATED INTERVAL.

THE SECOND SURVEY ON 11-18-87 WAS RUN AFTER SETTING A PLUG IN NO VISAN SLIP. HIGH TEMPS FROM 11-17-87 STILL SOME RESIDUAL HEATH. THE HIGH FREQUENCY DOES SHOW NO LOCAL ACTIVITY. HENCE, THE COOL MUDD IS RESPONDING TO DISTANT ZONE ACTIVITY.

Sec. Twp. Rge. Qtr.
Acctg. Code
Permit No.
Field
County
State
Location
Other Services
Date
Run No.
Type Log
Depth-Driller
Depth-Logger
Bottom Log Interval
Top Log Interval
Casing-Driller
Casing-Logger
Bit Size
Type Fluid in Hole
Dens. Visc.
pH
Fluid Loss
Source of Sample
Rm @ Meas. Temp.
Rmf @ Meas. Temp.
Rmc @ Meas. Temp.
Source Rmf
Rm @ BHT
Time Since Circ.
Max. Rec. Temp.
Equip. Location
Recorded By
Witnessed By

FLO-LOG INC.
TEMPERATURE AND RADIAL CALIPER
Acctg. Code
Permit No.
Field
County
State
Location
Other Services
Date
Run No.
Type Log
Depth-Driller
Depth-Logger
Bottom Log Interval
Top Log Interval
Casing-Driller
Casing-Logger
Bit Size
Type Fluid in Hole
Dens. Visc.
pH
Fluid Loss
Source of Sample
Rm @ Meas. Temp.
Rmf @ Meas. Temp.
Rmc @ Meas. Temp.
Source Rmf
Rm @ BHT
Time Since Circ.
Max. Rec. Temp.
Equip. Location
Recorded By
Witnessed By

FLO-LOG INC.
TEMPERATURE AND RADIAL CALIPER
Acctg. Code
Permit No.
Field
County
State
Location
Other Services
Date
Run No.
Type Log
Depth-Driller
Depth-Logger
Bottom Log Interval
Top Log Interval
Casing-Driller
Casing-Logger
Bit Size
Type Fluid in Hole
Dens. Visc.
pH
Fluid Loss
Source of Sample
Rm @ Meas. Temp.
Rmf @ Meas. Temp.
Rmc @ Meas. Temp.
Source Rmf
Rm @ BHT
Time Since Circ.
Max. Rec. Temp.
Equip. Location
Recorded By
Witnessed By

FLO-LOG INC.
TEMPERATURE AND RADIAL CALIPER

FLO-LOG

WELL NO. Standard #25
Seimon

DATE 11-17-87
11-18-87

TEMPERATURE

85° 90° 95° 100° 105° 110°

200'
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
3200
3400
3600
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

3-7/8"

7 5/8" @ 6,200'

9 5/8" @ 9,700'

5" @ 9,200'

SURVEY #1 (11-17-87)

10.0mv

100.0mv

HIGH FREQUENCY

SURVEY #2 11-17-87)
(10.0mv)
(100.0mv)

SURVEY #2 (11-18-87)

10.0mv

100.0mv

SURVEY #1 (11-18-87)

10.0mv

100.0mv

AC_CPUC_0118065

# TRIANGLE SERVICE, INC.

## AUDIO ANALYZER SURVEY

COMPANY SOUTHERN CALIFORNIA GAS COMPANY

WELL STANDERD 29 FIELD ALISO CANYON

COUNTY L.A. STATE CALIFORNIA

OTHER SERVICES:

ELEVATIONS:
KB.
DF.
GL.

**WELL DATA**

| | | Casing and Tubing Record | | | |
|---|---|---|---|---|---|
| Date | 10-3-1980 | | | | |
| Run No. | | Size | Wgt. | From | To |
| Type Log | A/A | 7" | | 0 | 8180' |
| Depth — Drill | | 5" | | 8075' | 8727' |
| Depth — Log (Pick up) | | | | | |
| Bottom Logged Interval | 8600' | | | | |
| Top Logged Interval | 500' | | | | |
| Type Hole Fluid | Gas | Packer @ | | | |
| Fluid Level | | Tbg. Tail to | | | |
| Max. Rec. Temp. °F. | | Perforations | | | |
| Recorded By | Clark-Gilson-Sawyer | | | | |
| Witnessed By | Bob Hazel | Measurement Reference | | | |

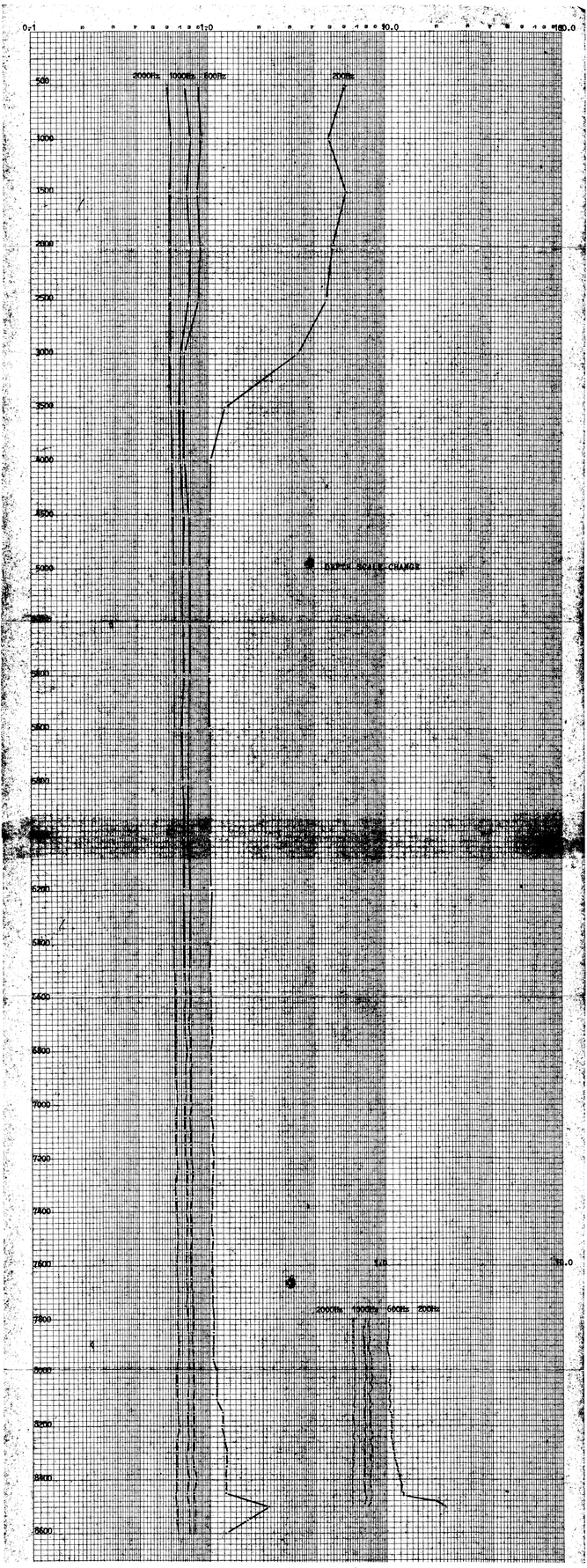
**EQUIPMENT and TEST DATA**

| | | | |
|---|---|---|---|
| Run No. | | Truck No. | 1650 |
| Well Status | Shut in | Tool No. | 114 |
| Production — Oil, b/d | 0 | Tool Size | 3/16" |
| Water, b/d | 0 | | |
| Gas, mcf | 0 | | |
| Injection Rate | 0 | | |
| Pressure — TBG. psi | 2900 PSI | | |
| CSG. psi | 0 | | |
| Log Speed — fpm | | | |
| Temp. Sens. °F./inch | | R/A Sens. | |
| Diff. Sens. | | R/A Spacing | |
| T.C. | | | |

**SURVEY RESULTS:** A/A indicates no gas movement

**REMARKS:**

Form 128

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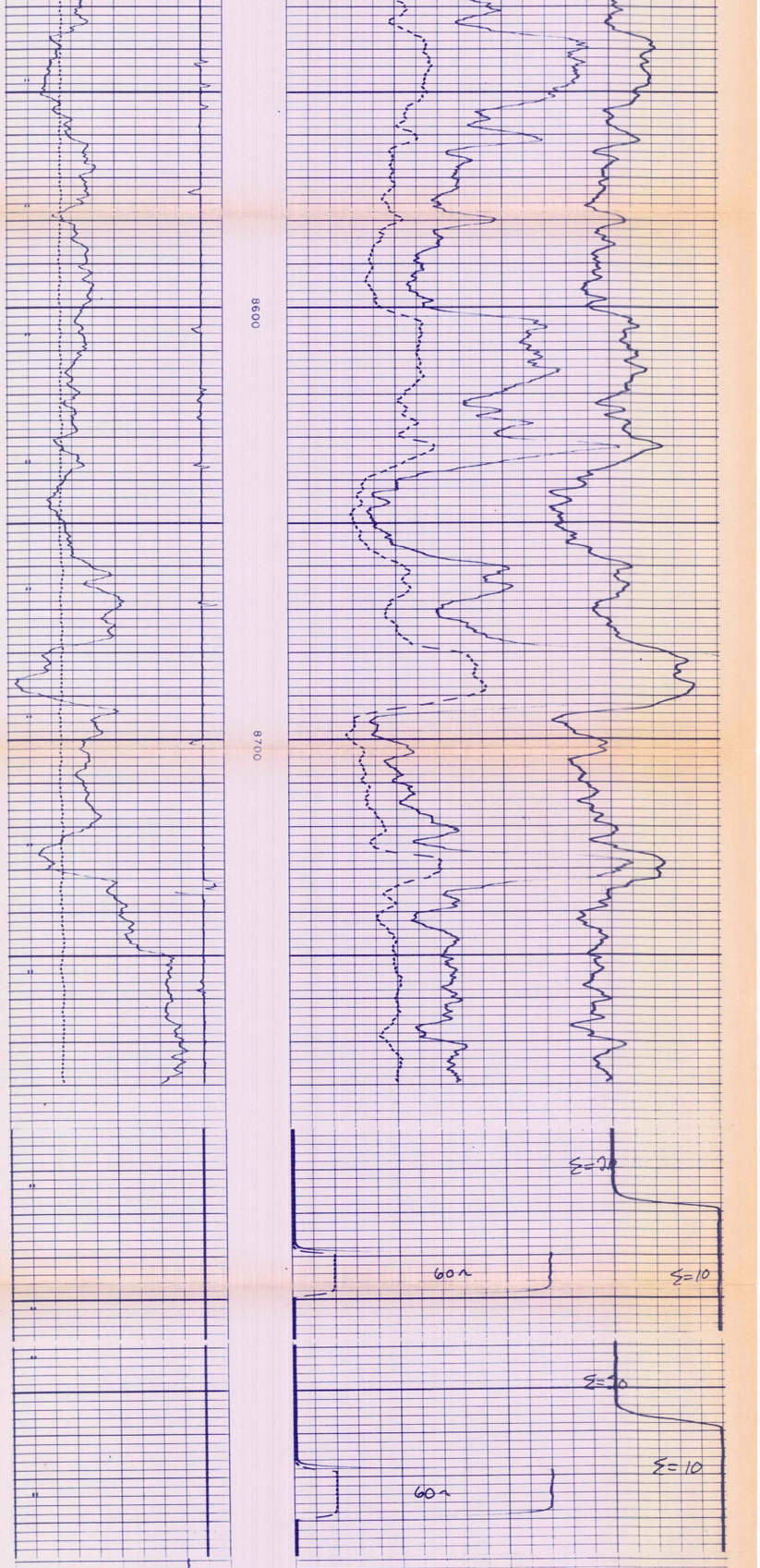
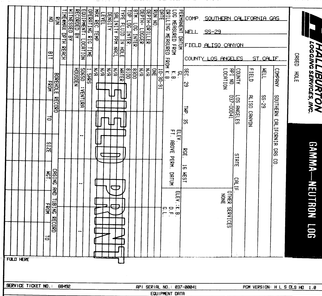



GR Calibration
After Log

| | |
|---|---|
| API UNITS OF CALIB. STD | 224 |
| SENSITIVITY READING | 200 |
| MULTIPLIER | X1 |
| ZERO SUPPRESSION | 0 |
| TIME CONSTANT | 3.0 |
| MEASURED CHART DIVISIONS | 6.0 |

GR Calibration
Before Log

| | |
|---|---|
| API UNITS OF CALIB. STD | 224 |
| SENSITIVITY READING | 200 |
| MULTIPLIER | X1 |
| ZERO SUPPRESSION | 0 |
| TIME CONSTANT | 3.0 |
| MEASURED CHART DIVISIONS | 6.0 |




FIELD NOTE

SERVICE TICKET NO. 69452 API SERIAL NO. 037-00041 FCM VERSION H.L.S DLS HO 1.0

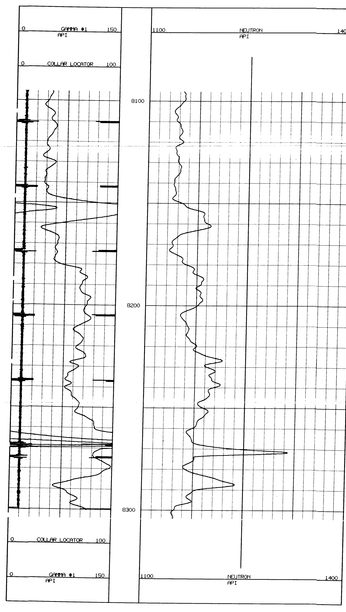
| DOWN | | RUN NO. | | RUN NO. | | TEMPERATURE | |
|---|---|---|---|---|---|---|---|
| RUN NO. | ONE | SERIAL NO. | 27912 | SERIAL NO. | 27912 | SERIAL NO. | |
| SERIAL NO. | 27912 | MODEL NO. | CNSG | MODEL NO. | CNSG | MODEL NO. | |
| MODEL NO. | CNSG | DIAMETER | 1-11/16" | DIAMETER | 1-11/16" | DIAMETER | |
| DIAMETER | 1-11/16" | LOG TYPE | N/A | LOG TYPE | N/A | | |
| DETECTOR MODEL NO. | N/A | SOURCE TYPE | 3MCi-AM | | | | |
| TYPE | SCINT | STRENGTH | 67-SNB | | | | |
| LENGTH | N/A | SERIAL NO. | | | | | |
| DISTANCE TO SOURCE | 4.5 | STRENGTH | 5Ci | | | | |

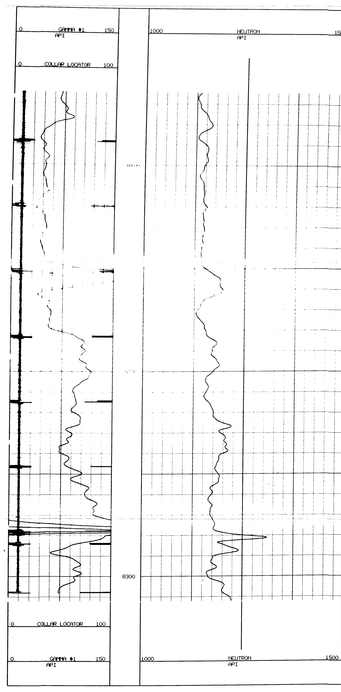
LOGGING UNITS

| DOWN | | | | GAMMA | | TEMPERATURE | | NEUTRON | | |
|---|---|---|---|---|---|---|---|---|---|---|
| RUN | DATUM | SPEED | TOOL | SCALE | | SCALE | | SCALE | | |
| NO. | ITEM | FT./MIN. | POSITION | TC/TL | L | F | TC/TL | L | F | TC/TL | L | F | MISC |
| ONE | 8300 | 30 | FREE | 5CF | 0 | 100 | | | | 1KC | 1100 | 1400 | |

REMARKS: LOG RUN TO POSITION TOP GUNS
FIRST PASS GUNS 5 DEEP
SECOND PASS GUNS ON DEPTH

HALLIBURTON LOGGING SERVICES, INC. DOES NOT GUARANTEE THE ACCURACY OF ANY INTERPRETATION OF LOG DATA. CONVERSION OF LOG DATA TO PHYSICAL WELL PARAMETERS OF RECOMMENDATIONS WHICH MAY BE GIVEN BY HLS PERSONNEL OF WHICH ANY EMPLOYEE ON THE LOG OR IN ANY OTHER FORM OF ANY KIND OF SUCH DATA. INTERPRETATIONS, CONVERSIONS OR RECOMMENDATIONS MADES THAT HLS IS NOT RESPONSIBLE. EXCEPT WHERE DUE TO GROSS NEGLIGENCE OF WILFUL MISCONDUCT FOR ANY LOSS, DAMAGES OR EXPENSES RESULTING FROM THE USE THEREOF.




WELL LOCATION ALISO CANYON
WELL NAME SS-29

ENG H L S DLS CH U4 20 LIS 07-27-90

LOG TAPE ID 300870001
DATE 10-30-91

ENG H L S DLS CH U4 20 LIS 07-27-90
SUB SERIAL # MODEL SOURCE # CALB # INTL INTL MPRC INT2 DLY TCH
GR 27912 CNSG SMSR 250 0 2403 2077 0 0 7.5 AS
NDR 27912 CNSG 01-228 0 1 1 0 0 4 AS
CCL 27912 CNSG 01 0 1 0 0125 0 0 0 4 AS

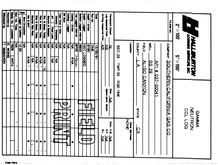
ENG H L S DLS CH U4 20 LIS 07-27-90
SERVICE ID TRK UNIT SCL RPRATE TYPE STYP OPFL DFFL OFF LIS OVCT
L P L_P
GR 1 1 API 0 1.00 Y Y 0 LIN 1.25 1.75 0 Y VNYZ
NDR 1 4 API 1000 1500 Y Y 0 LIN 1.25 1.75 0 Y VNYZ
CCLU 6 1 0 1.00 Y Y 0 LIN 0 0 0 Y GNN

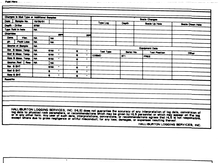
ENG H L S DLS CH U4 20 LIS 07-27-90
PLOT TABLE

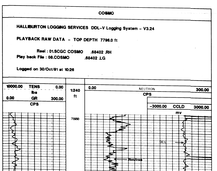
| OPFL | | | UDR | | | OPFZ | | |
|---|---|---|---|---|---|---|---|---|
| SCALE 2400 | ANNOTATION 100 | SCALE 0 | ANNOTATION 100 | SCALE 0 | ANNOTATION 100 | | | |
| TRK1 LIN | TRK2 LIN | TRK3 LIN | TRK1 LIN | TRK2 LIN | TRK3 LIN | TRK1 LIN | TRK2 LIN | TRK3 LIN |

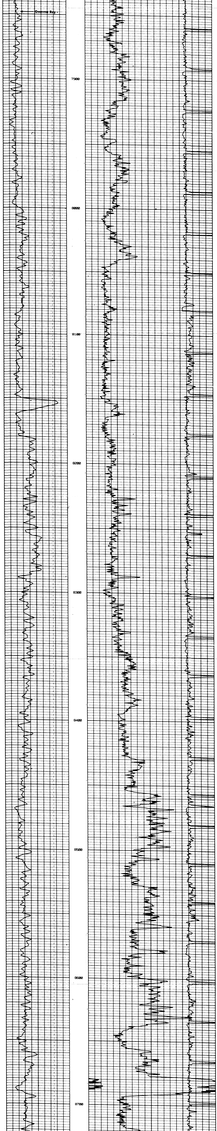
ENG H L S DLS CH U4 20 LIS 07-27-90
PARAMETER TABLE

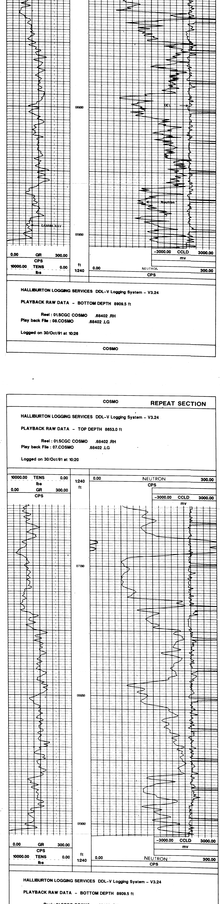
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| TBKY OFF | TAPE 1 | RATE 30 | TOOL A=2 | ACZP 18 | DSHF 64 | 7-16 NO | |
| THSU 0 | THSZ 10 | DIST 2.441 | PIP 1.59375 | TOD 1 | KT 1 | KSLS 1 | |
| TRIG NEG | MSGP ON | VISW 80 | SMSH 13 | GRSM ON | | | |
| MMDU CLSH | SO 0 | CMCT 0 | ASKV NO | | | | |
| BS 0 | CSIZ 0 | TELE YES | LIS YES | DLV YES | DSP UP | PLOT FULL | |








AC_CPUC_01160721

Play back File : 07.COSMO .68402 .LG

Logged on 30/Oct/91 at 10:20

COSMO **REPEAT SECTION**

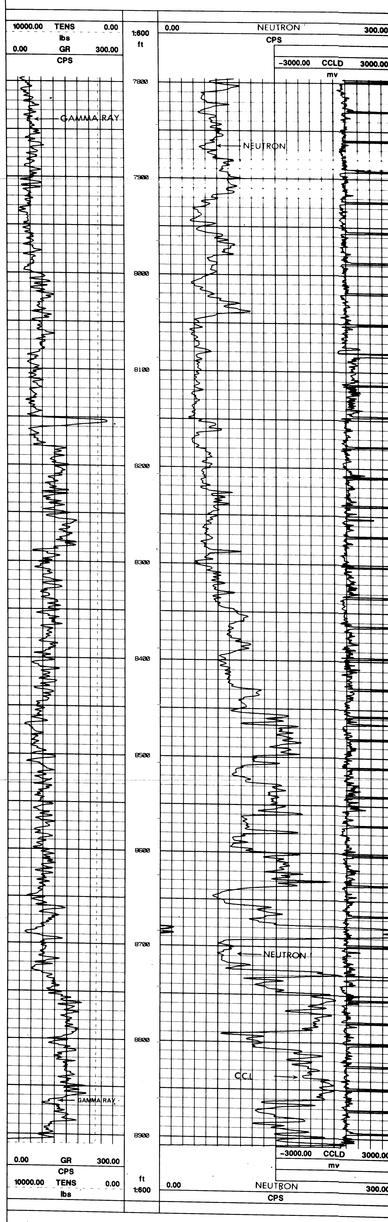
COSMO

HALLIBURTON LOGGING SERVICES DDL-V Logging System - V3.24

PLAYBACK RAW DATA - TOP DEPTH 7796.2 ft

Reel : 01.SCGC COSMO .68402 .RH
Play back File : 08.COSMO .68402 .LG

Logged on 30/Oct/91 at 10:26




HALLIBURTON LOGGING SERVICES DDL-V Logging System - V3.24

PLAYBACK RAW DATA - BOTTOM DEPTH 8909.7 ft

Reel : 01.SCGC COSMO .68402 .RH
Play back File : 08.COSMO .68402 .LG

Logged on 30/Oct/91 at 10:26

COSMO

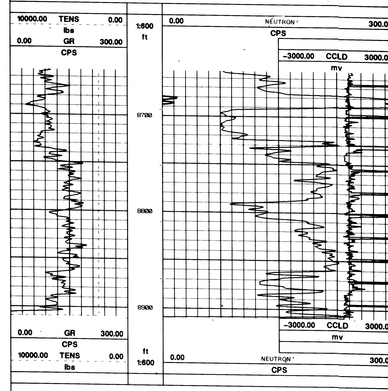
COSMO **REPEAT SECTION**

HALLIBURTON LOGGING SERVICES DDL-V Logging System - V3.24

PLAYBACK RAW DATA - TOP DEPTH 8653.0 ft

Reel : 01.SCGC COSMO .68402 .RH
Play back File : 07.COSMO .68402 .LG

Logged on 30/Oct/91 at 10:20




HALLIBURTON LOGGING SERVICES DDL-V Logging System - V3.24

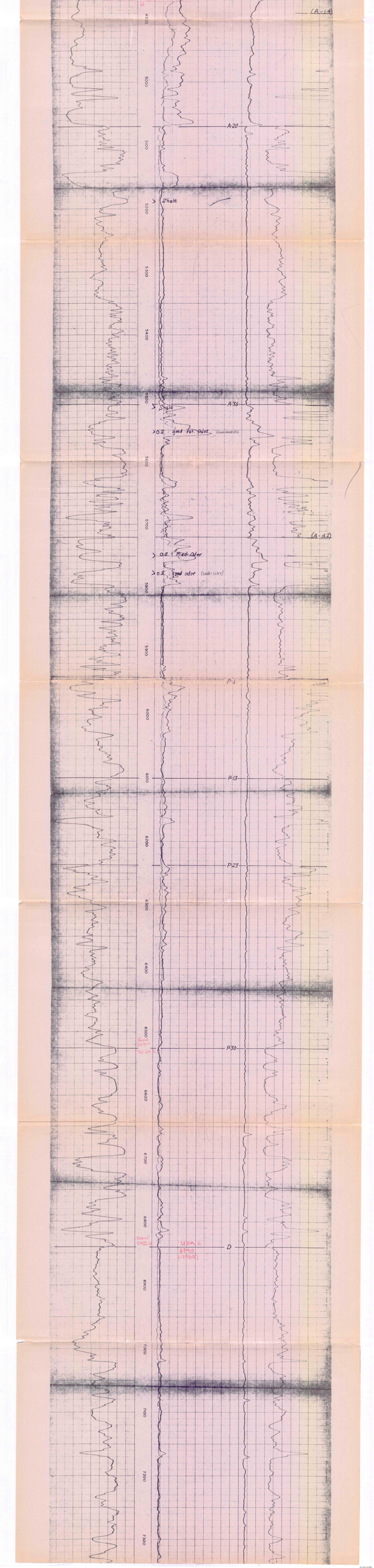
PLAYBACK RAW DATA - BOTTOM DEPTH 8909.5 ft

Reel : 01.SCGC COSMO .68402 .RH
Play back File : 07.COSMO .68402 .LG

Logged on 30/Oct/91 at 10:20

COSMO **REPEAT SECTION**

AC_CPUC_0118072


(A-14)
A-20
Shale
A-36
Shale
>0.3 good Pet Odor
(A-12)
>0.3 Med Oder
>0.3 good odor
P-7
P-13
P-23
P-39
D
5000
5100
5200
5300
5400
5500
5600
5700
5800
5900
6000
6100
6200
6300
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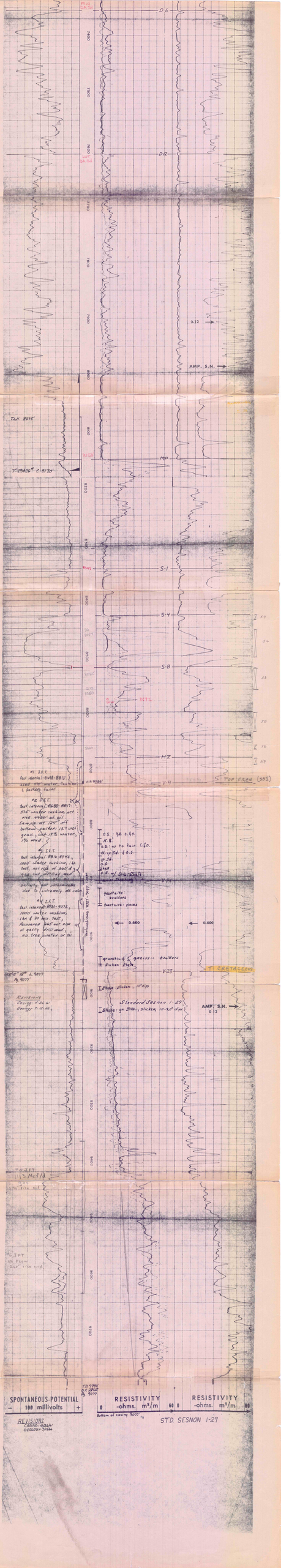
6900
7000
7100
7200


Mud
D-6
D-12
AMP. S.N.
TLN 8075'
MP
S-1
S-4
S-8
HZ
V-14
TOP FREN (503)
#1 IFT
#2 IFT
#3 IFT
#4 IFT
#5 IFT
#6 IFT
V-23
T1 CRETACEOUS
Standard Sesnon 1-29
STD SESNON 1-29
SPONTANEOUS POTENTIAL
100 millivolts
RESISTIVITY
-ohms. m²/m
REVISIONS

T.D. 9790'
D.F. 2856
Pg. 9077

SPONTANEOUS-POTENTIAL
– 100 millivolts +

RESISTIVITY
0 -ohms. m²/m 60

RESISTIVITY
0 -ohms. m²/m 60

Bottom of casing 9077'

REVISIONS
CASING - 4/26/61
GEOLOGY - 7/12/66

STD. SESNON 1-29

K+E SEMI-LOGARITHMIC 3 CYCLES X 150 DIVISIONS
KEUFFEL & ESSER CO. MADE IN U.S.A.

47 5490

SS #29

11-17-81

6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

2
4
80
56
2
26
50
2
38
66
56
74
98
37
98
77
9770
TD.

P.U @ 9005

Tool Check

open bleeder valve
To check tool

4 5 6 7 8 9 10
20 30 40 50 10

Format: Azimuthal Resistivity 3 Track Vertical Scale: 2" per 100 feet Creation Date: Sat, Feb 10, 2007, 10:44:03 PM

To: Jim [illegible]

SS-29

5529

(SP)

0 MV 100

(AO10)

0 OHMM 60

(AM16)

0 OHMM 60

(AO19)

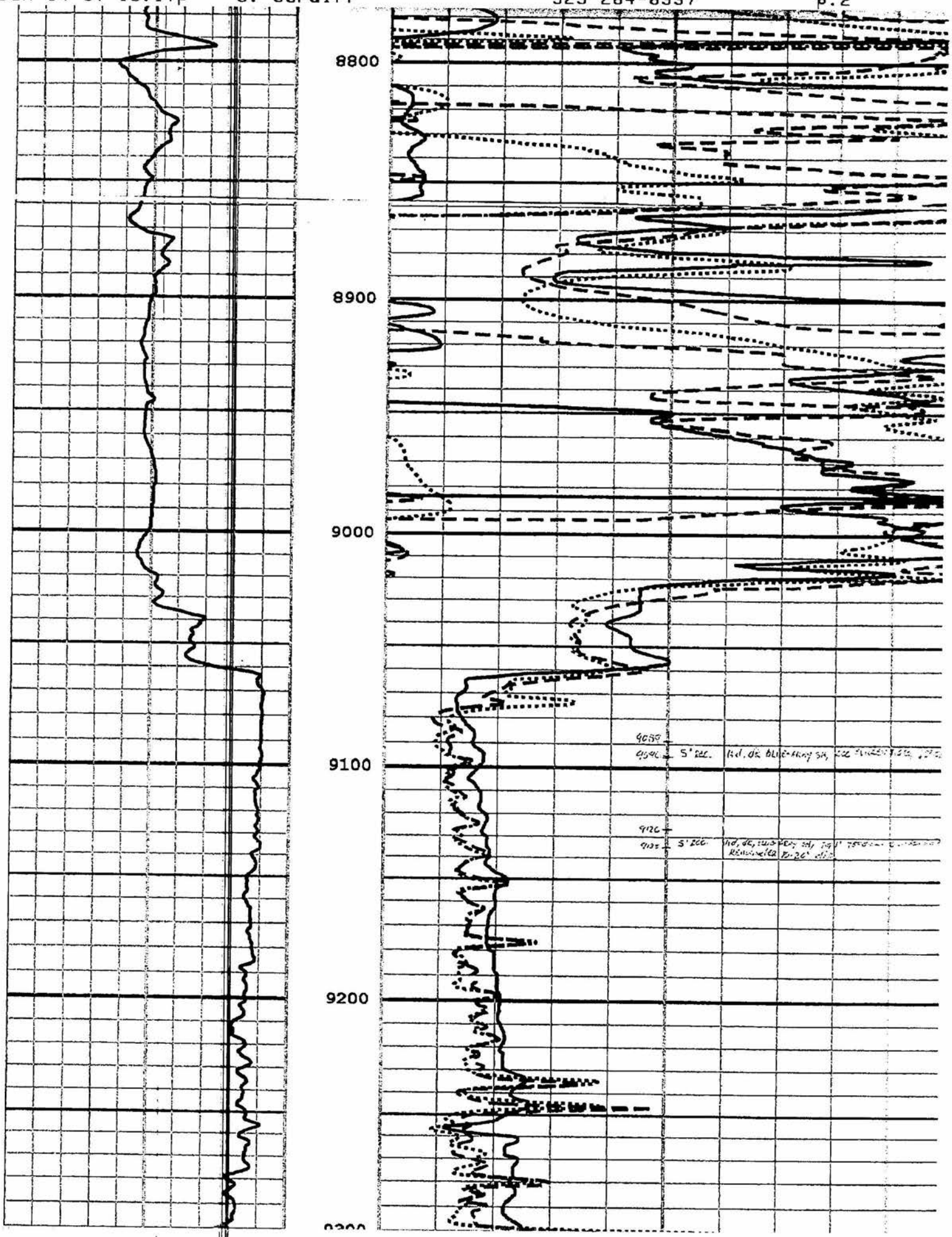
0 OHMM 60

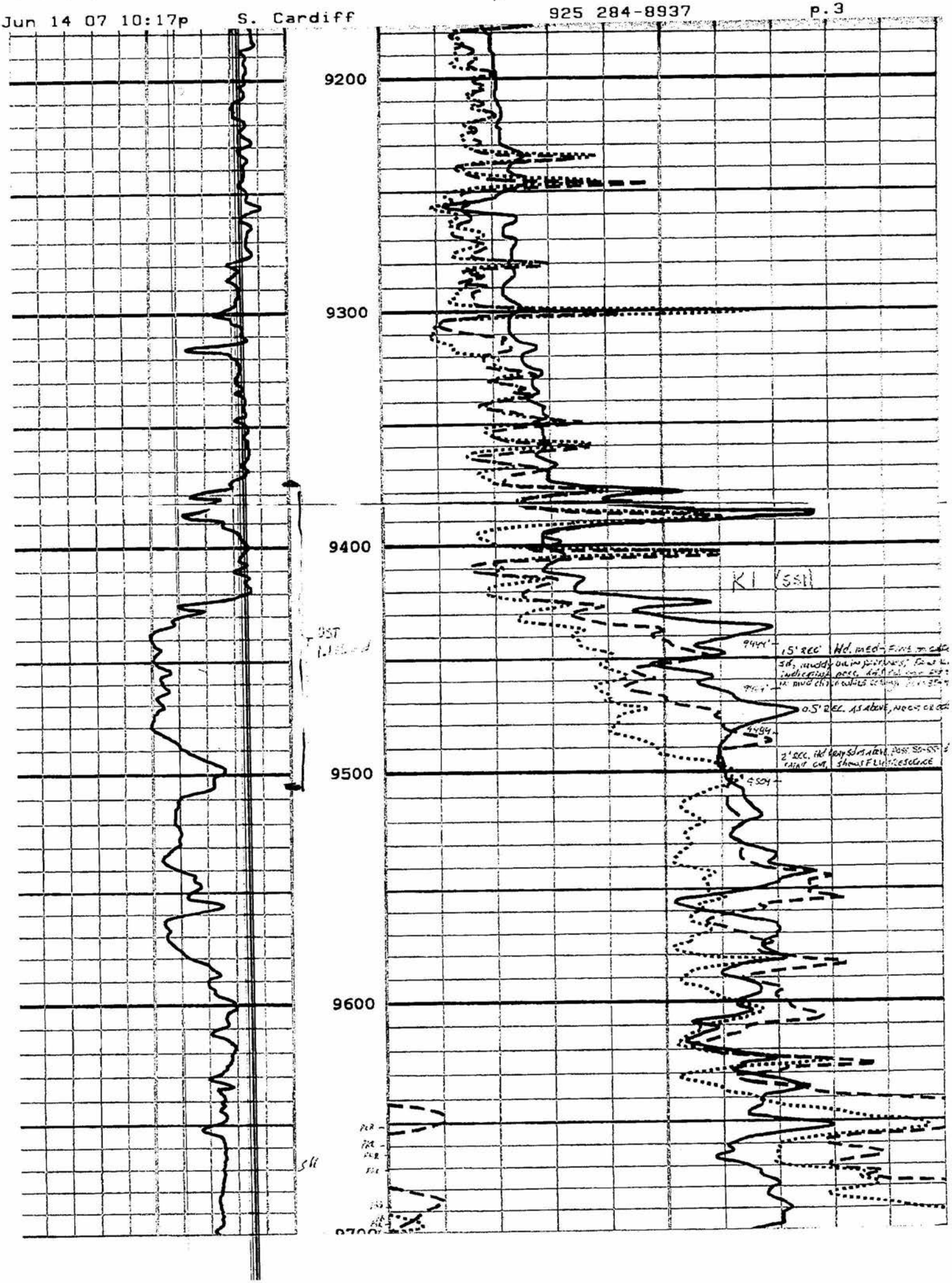
8500

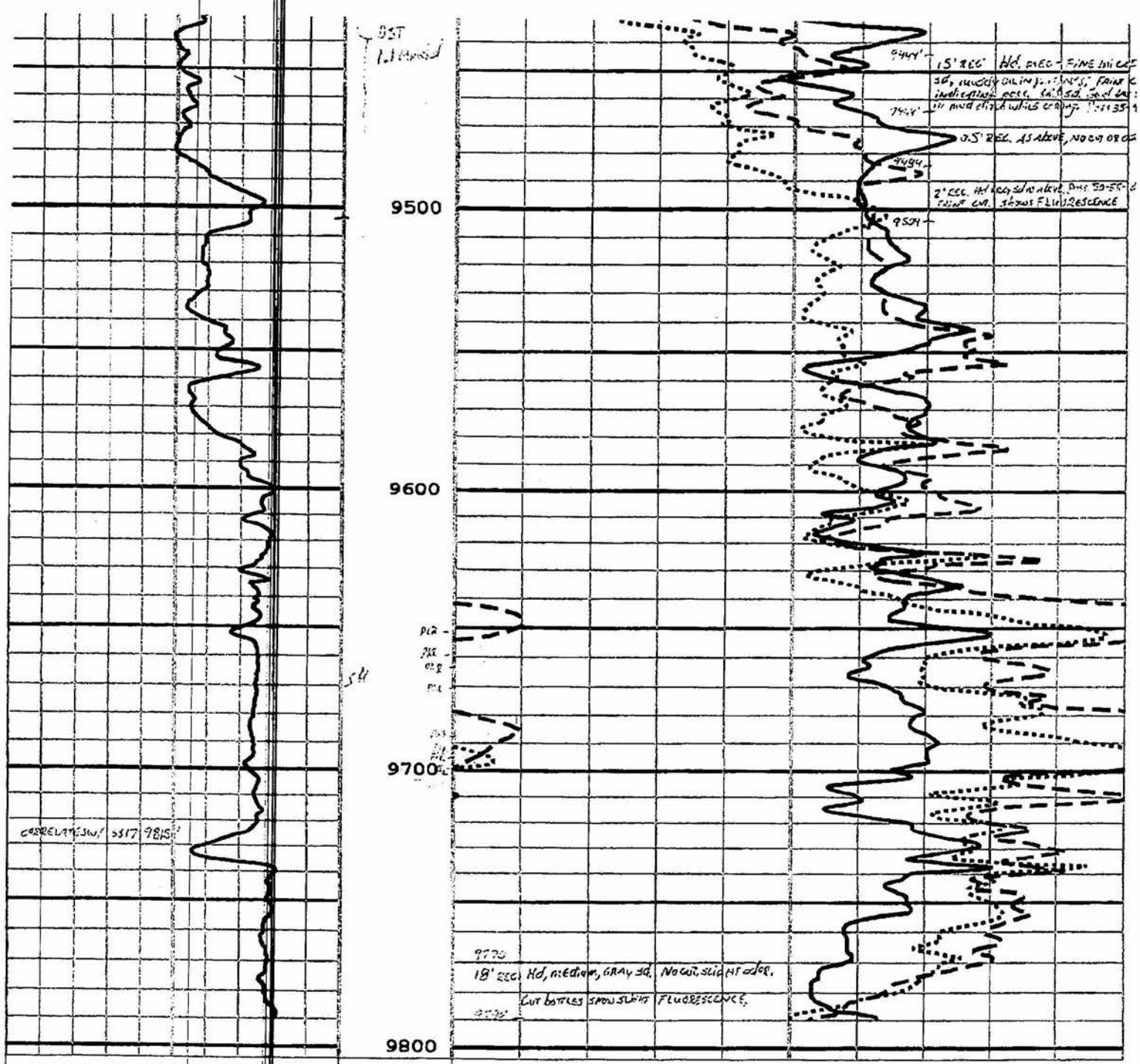
8600

8700

FREW


8800
8900
9000
9100
9200


9200
9300
9400
9500
9600
9700
DST
SH
K1 (SH)
944'
15' REC
0.5' REC. AS ABOVE
2' REC.

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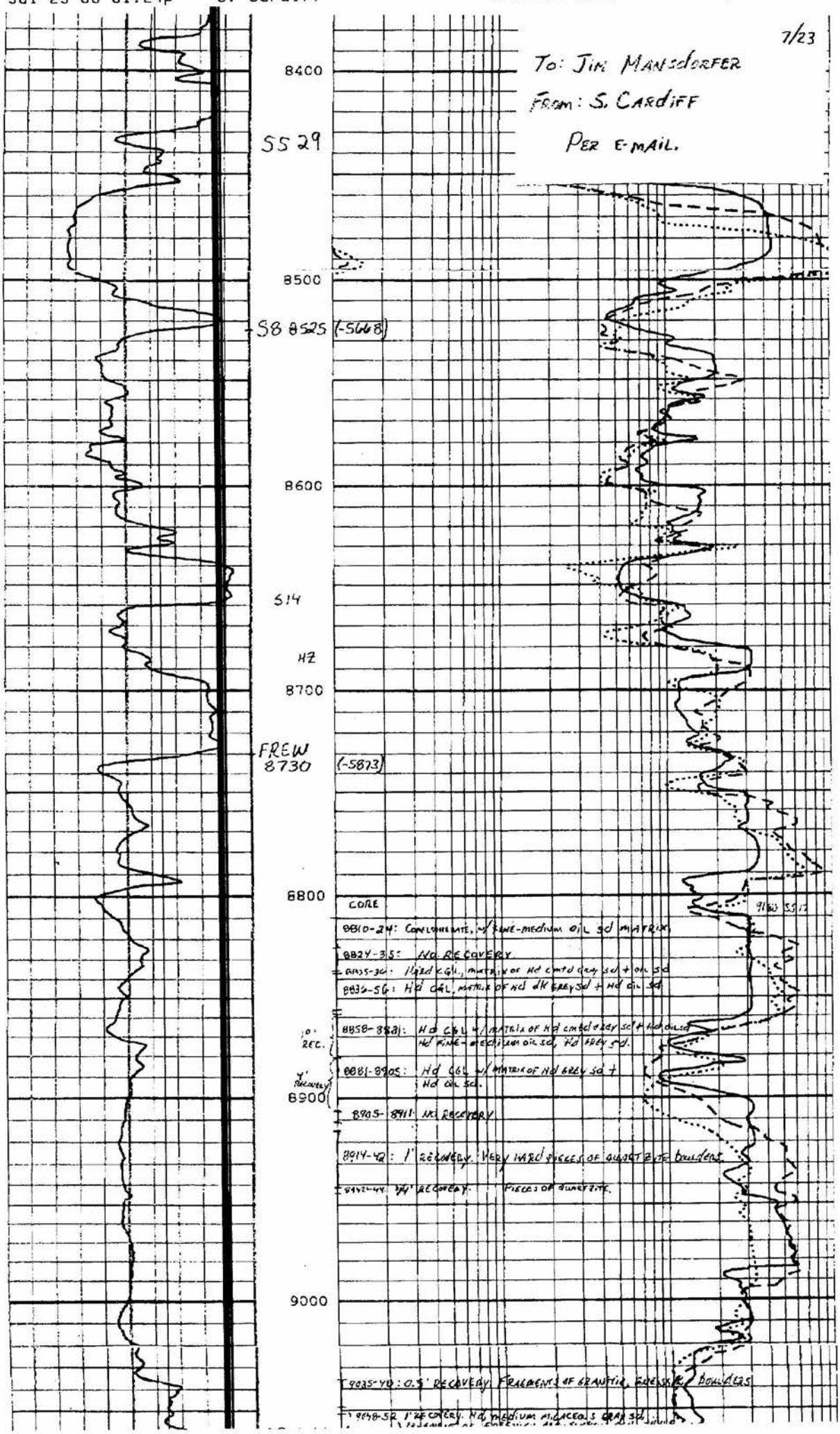
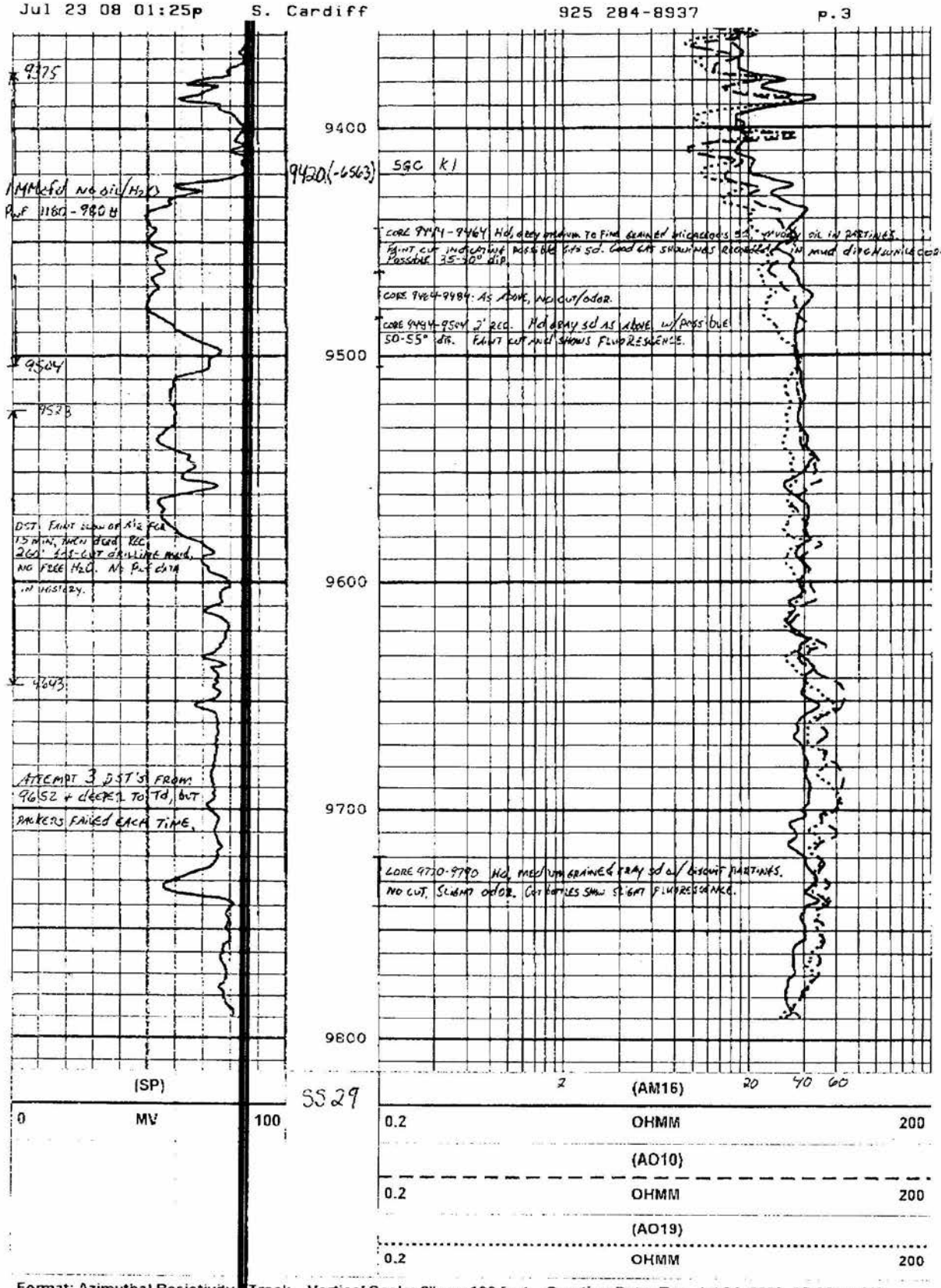
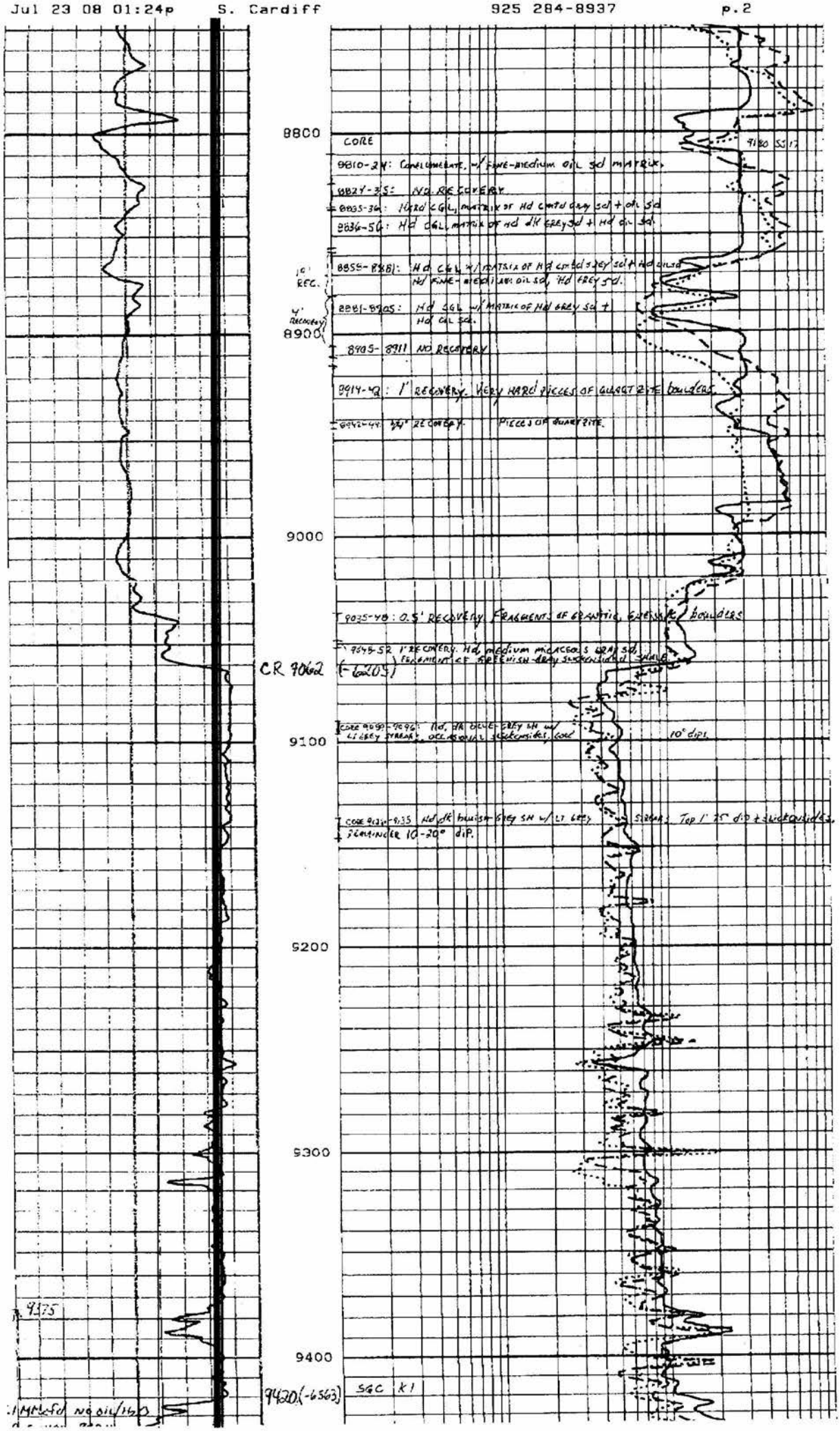

7/23
To: JIM MANSDORFER
FROM: S. CARDIFF
PER E-MAIL.
8400
SS 29
8500
S8 8525 (-5668)
8600
S14
HZ
8700
FREW 8730 (-5873)
8800
CORE
8810-24: CONGLOMERATE, w/ FINE-MEDIUM OIL SD MATRIX
8824-35: NO RECOVERY
8835-36: HD CGL, MATRIX OF HD CMTD GRAY SD + OIL SD
8836-58: HD CGL, MATRIX OF HD dK GREY SD + HD OIL SD
8858-8881: HD CGL w/ MATRIX OF HD CMTD GREY SD & HD OILED HD FINE-MEDIUM OIL SD, HD GREY SD.
10' REC.
8881-8905: HD CGL w/ MATRIX OF HD GREY SD + HD OIL SD.
4' RECOVERY
8900
8905-8911: NO RECOVERY
8914-42: 1' RECOVERY. VERY HARD PIECES OF QUARTZITE BOULDERS
8942-44: 2' RECOVERY. PIECES OF QUARTZITE.
9000
9035-40: 0.5' RECOVERY. FRAGMENTS OF GRANITIC GNEISS BOULDERS
9048-58: 1' RECOVERY. HD MEDIUM MICACEOUS GRAY SD




Format: Azimuthal Resistivity Track Vertical Scale: 2" per 100 feet Creation Date: Tue, Jul 01, 2008, 05:05:58 PM




AC_CPUC_0118088

Standard Sesnon 29 Aliso Cyn.
Well History File

DHS viewer
Not installed or wrong
version
update from login
page

**WORKOVER PROGRAM**

OPERATOR: Southern California Gas Company

FIELD: Aliso Canyon

WELL: SS 29

CONTRACTOR: Pride 447

OBJECTIVE: Install SCSSV

APPROXIMATE LOCATION:

ELEVATION: Ground level 2849'. Take all measurements from KB 7' above ground level.

SAFETY: Hard hats are to be worn by all personnel on or near a rig. No smoking is permitted within 100' of the wellhead or near any other flammable material.

PRESENT CONDITIONS:

| | | | | |
|---|---|---|---|---|
| 0' | - 999' | 11-3/4" | 42# . | |
| 999' | 1042' | 11-3/4 | 47# | |
| 0' | 974' | 7" | 23# | N-80 |
| 974' | 4454' | 7" | 23# | J-55 |
| 4454' | 6494' | 7" | 23# | N-80 |
| 6494' | 8170' | 7" | 26# | N-80 Otis 'BWB'@ 8032' |
| 8075' | 9790' | 5" | 18# | See perforation detail on mechanical. WSO squeezed w/100 sx @ 8330'-8331'. |

2-7/8" Tubing Detail Attached

WORK CATEGORY:

PR

- o Prepare surface as required.
- o Perform any required piano wire work.
- o Spot open top storage tank on location.
- o Check with the Storage Field Engineer to determine any changes and condition of the well since writing of this program and current bottom-hole pressure in the vicinity of the well.
- o Well Kill Requirements:

  a. Top of zone 8428' M. D.
  b. Estimated bottom-hole pressure = 3150 psig.
  c. Calculated fluid density to provide 300 psi overbalance =59 lbs / cu.ft. Use 63 lbs/cu.ft 2% KCl fluid.
  d. Wellbore fluid volumes:

| | | |
|---|---|---|
| Tubing | = | 47 bbls. |
| Casing/Liner | = | 19 bbls. |
| Annulus | = | 254 bbls. |
| Total | | 320 bbls. |

* Be sure to bleed off surface string annulus.

* Maintain surface fluid volume equal to or greater than well volume during workover.

PROGRAM

MI 1. Move in and rig up.

- o Bleed off all casing annuli to zero pressure.
- o Rig up drip pans and plastic sheeting and dike area as necessary for spill control.
- o Be sure well is completely dead. Notify Drilling Engineer if well is not in this condition.
- o Set equalizing back pressure valve in doughnut.
- o Remove xmas tree. Send xmas tree in for repairs as required.

WW 2. Install 9" Class III 5000 psi BOPE.

- o Include Hydril bag and double gate with 2-7/8" pipe rams and blind rams.
- o Bag and both sets of rams are to be actuated hydraulically by a 3000 psi, minimum 60 gallon accumulator with dual remote controls and auxiliary nitrogen.
- o Install 9" 5000 psi spool with choke and kill lines as well as check valve.
- o Choke manifold to have discharge to Gas Company system, with block

valve and bleeder as well as connections to fluid tank.

- o Inspect Hydril bag when installing BOPE.
- o Use new Rx API rings on all untested BOPE connections.

WW 3. Pressure test BOPE.

- o Blind rams, 2-7/8" pipe rams and choke manifold are to be tested to 5000 psi with water.
- o Test Hydril bag to 3500 psi with water.

CO 4. Pull tubing.

- o Remove back pressure valve.
- o Release tubing from packer.
- o If unable to release from packer, contact the Drilling Engineer. Have tubing visually inspected while pulling out of hole. Send good tubing in for rack inspection.

5. Install tubing string.

- o Gator hawk tubing to 4000 psig while running in well.
- o Tubing string to include :

Otis guide shoe
Otis seal assembly, (2) seals
Otis J-latch
Crossover from seal assembly to 3-1/2"8Rd EUE

One joint 3-1/2" 8Rd EUE tubing
3-1/2" Otis XN no-go nipple (2.666" ID).
One joint 3-1/2" 8Rd EUE tubing
Otis 3-1/2" "XD" sliding sleeve (closed).
One joint 3-1/2" 8Rd EUE tbg.
3-1/2" BST KBMG gas lift mandrel with dummy valve.
One joint 3-1/2" 8Rd EUE tbg.
Crossover 3-1/2" 8Rd EUE pin X 4-1/2" 8Rd EUE box
4-1/2" 8Rd EUE tubing to approximately 500' from surface.
Crossover 4-1/2" 8Rd EUE pin X 3-1/2" 8Rd EUE box
One 3-1/2" Baker T5 series SCSSV
3-1/2" 8Rd EUE tubing and pups to surface as necessary.

- Pull 20,000 lbs over tubing weight to check latch on packer.
- Space out and land tubing on Otis model "BWB" packer at 8032' with 10,000#.
- Pressure casing to 1500 psig ,keep tubing full and check for return.
- Run in with wireline and open sliding sleeve.

  Test SCSSV in accordance with attached procedure.

CO 6. Remove BOPE and Install Xmas Tree.

- Install equalizing back pressure

valve in tubing hanger.

- o Remove BOPE.
- o Install xmas tree.
- o Pressure test seals, xmas tree, seal flange, and tubing head to 5000 psig with oil for 20 minutes.
- o Tighten all wellhead bolts.
- o Check and close all wellhead valves.
- o Install tapped blind flanges with bleeder valves on all wellhead valves.

MO 7. Rig down and move out rig.

- o Inform the Storage Field Engineer before moving off wellsite so proper wellsite safety protection can be arranged.
- o Release rig.
- o Clean up wellsite. All trash, debris, equipment and materials to be removed from site.

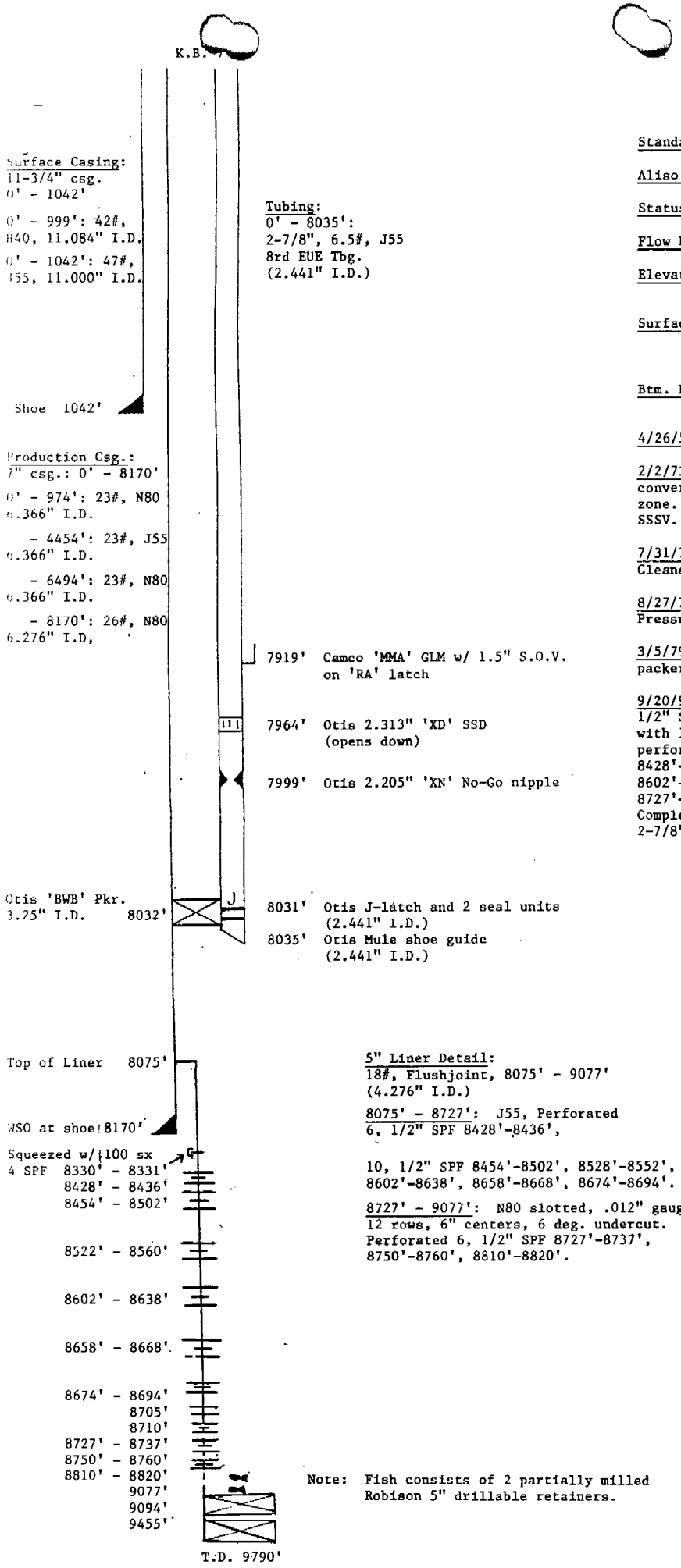
A walk-through inspection by a Drilling Department representative and the Storage Field Engineer or their designee is conducted after the site is cleaned.

E. S. Sinclair

October 07, 1994

Approved: _____
J. D. Mansdorfer

cc:
| | |
|---|---|
| I. R. Binmore | w/o att. |
| N. W. Buss | w/o att. |
| T. Holland | w/o att |
| D. G. Neville | att. |
| CPS Tool Pushers | att. |
| H. Robinson | w/o att. |
| T. Schroeder | w/o att. |
| M. A. Woiemberghe | w/o att. |
| Well file | att. |




Standard Sesnon #29

Aliso Canyon

**Status:** Injection/Withdrawal

**Flow Regime:** Casing Flow

**Elevation:** 2849' G.L.
7' K.B.
KB to MV: 6'

**Surface Location:** Approximately 750'S & 6100'W of Station 84, T3N, R16W, Sec. 28

**Btm. Hole Loc:** Straight Hole at effective TVD of 9077'.

**4/26/53 - 9/29/53:** Well spudded and completed.

**2/2/73 - 2/28/73:** Pressure tested 7" casing, converted to gas storage by perforation in Sesnon zone. Cleaned out to 9074'. Ran tubing with SSSV.

**7/31/73 - 8/7/73:** Installed wireline SSSV. Cleaned out to 9077'.

**8/27/77 - 9/9/77:** Cleaned out to 9072'. Pressure tested casing. Reran tubing with SSSV.

**3/5/79 - 3/10/79:** Replaced safety system. Set packer at 8040'.

**9/20/91 - 11/6/91:** Milled packer. Shot 4, 1/2" SPF at 8330' - 8331'. Squeezed shoe leak with 100 sx class "G" cement. Ran tubing conveyed perforation guns and shot 6, 1/2" SPF at: 8428'-8436', 8454'-8502', 8522'-8560', 8602'-8636', 8660'-8668', 8674'-8694', 8727'-8737', 8750'-8760', 8810'-8820'. Completed with 7" Otis "BWB" packer and 2-7/8" tubing.

| Volume | Cu.Ft. | Bbls. |
|---|---|---|
| Tubing | 261 | 46.5 |
| Annulus | 1427 | 254 |
| Casing/Liner | 109 | 19 |
| Total | 1797 | 319.5 |

**5" Liner Detail:**
18#, Flushjoint, 8075' - 9077'
(4.276" I.D.)

8075' - 8727': J55, Perforated 6, 1/2" SPF 8428'-8436',

10, 1/2" SPF 8454'-8502', 8528'-8552', 8602'-8638', 8658'-8668', 8674'-8694'.

8727' - 9077': N80 slotted, .012" gauge, 12 rows, 6" centers, 6 deg. undercut. Perforated 6, 1/2" SPF 8727'-8737', 8750'-8760', 8810'-8820'.

Top Of Zones

| | M.D. |
|---|---|
| MP | 8150' |
| S1 | 8346' |
| S2 | 8382' |
| S4 | 8428' |
| S8 | 8522' |
| Frew | 8728' |

Note: Fish consists of 2 partially milled Robison 5" drillable retainers.

Reviewed

| Department | By: | Date |
|---|---|---|
| Drilling | R.H. Doull | 9/1/92 |
| Petroleum Eng. | | 9/1/92 |
| Division | | 9/11/92 |

AC_CPUC_0118097

OTIS

GENERAL PRODUCT INFORMATION

No. 12.1.1.2A

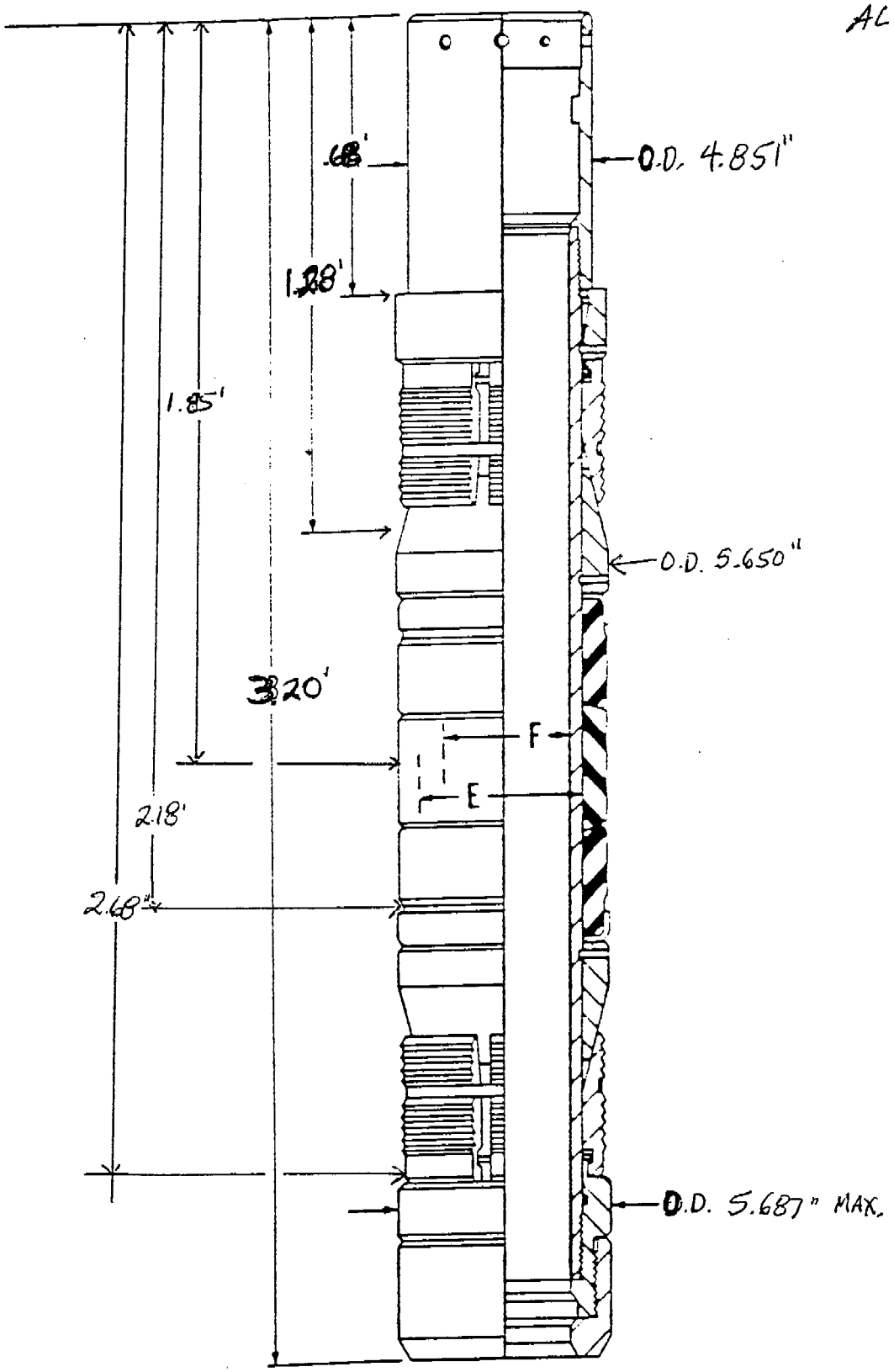
Product Code

Date: 11-4-91

Product Name: 'WE' Permanent Packer

Page: 1

SOU CAL GAS CO.
ALISO CANYON
SS#29




PACKER - OTIS BWB (212BWB 70700-A) 3.25" I.D.

23-29#

**Note:** These instructions describe desired results from use of Otis equipment, but such results are not guaranteed. Operation of equipment is subject to mechanical limitations and Otis shall only be liable for its merchandise and service as set forth in its general terms and conditions.



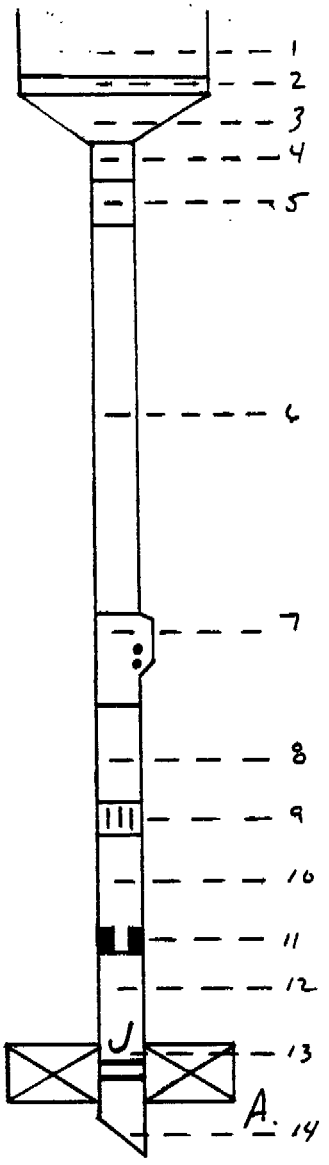
AC_CPUC_0118098

# TUBING DETAIL

WELL: STANDARD SESNON #29
FIELD: ALISO CANYON

STATUS: Injection/Withdrawal
DATE: 11-6-91

DIAGRAM




| | TUBING | TUBING | TUBING | |
|---|---|---|---|---|
| SIZE | 2 7/8" | | | |
| WEIGHT | 6.5 | | | |
| GRADE | J55 | | | |
| THREAD | 8RD EUE | | | |
| DEPTH | 8035' | | | |
| I.D. | 2.441 | | | |
| DRIFT ID | 2.347 | | | |
| O.D. | 3.668 TJ | | | |

| ITEM # | DESCRIPTION | LENGTH | DEPTH |
|---|---|---|---|
| 1. | KB | 6.92 | 6.92 |
| 2. | G.L. TO TBG HEAD | -.14 | 6.78 |
| 3. | HANGER 7" 2 7/8" EUE X 2 7/8" EUE BOX | .60 | 7.38 |
| 4. | FATIGUE NIPPLE 2 7/8 EUE PIN X PIN | .68 | 8.06 |
| 5. | PUP JT 2 7/8" 6.5# N80 EUE | 4.09 | 12.15 |
| 6. | 250 JTS. 2 7/8" 6.5# J55 EUE | 7907.35 | 7919.50 |
| 7. | BST 'MMA' GLM W/ 1 1/2" RA LATCH | 12.92 | 7932.42 |
| 8. ✓ | 1 JT. 2 7/8 EUE J55 TBG. | 31.49 | 7963.91 |
| 9. ✓ | OTIS 2.313" 'XD' SSD | 3.21 | 7967.12 |
| 10. ✓ | 1 JT 2 7/8" EUE J55" TBG | 31.55 | 7998.67 |
| 11. ✓ | OTIS 2.205" 'XN' NO-GO NIPPLE | 1.28 | 7999.50 |
| 12. ✓ | 1 JT. 2 7/8" EUE J55 TBG | 31.55 | 8031.50 |
| 13. ✓ | OTIS J-LATCH W/ 2 SEAL UNITS | 1.50 / 2.49 | 8032 |
| 14. ✓ | OTIS MULE SHOE GUIDE | .60 | |
| 15. | | | |
| 16. | | | |
| 17. | | | |
| 18. | A. OTIS 7" 23-29# 'BWB' PKR | | |
| 19. | 3.25" I.D. SET AT: | | 8032' |
| 20. | | | |
| | TUBING LANDED W/ 8000# | | |
| | DOWN ON PACKER | | |

AC_CPUC_0118099

# WELLHEAD DESCRIPTION

Well No. SS-29

Field Aliso

Date Prepared 5-4-81

Wellhead Mfgr Shaffer

1. Casing Head Shaffer Size 13-5/8" Type KD

   Slips & Pack-off 13-5/8" x 7"

   A. Surface Csg. Size 11-3/4" Wt 42# Grade H-40

   B. Casing Head Valve Marpac Size 2" 3000 psi Fig.No. CSB-790-JN

2. Seal Flange Shaffer Size 13-5/8" x 10" 5000 psi

   A. Type Seal PS Ring BX-160 & R-54

3. Tubing Head Shaffer Size 10" x 8" 5000 psi Type 63-L-1

   Ring R-54 & Ring R-50

   Outlets 2-3" Sec.Seal PS

   Valve Removal Thrd 2-1/2" API

   A. Tubing Hanger Shaffer Size 8" x 2-7/8" Type AJO

   B.P.V. Size 2-7/8" Thrd

   B. Tubing Head Valves 2 Mc Evo Size 3" 5000 psi Fig.No. 129

   C. Automatic Csg. Valve WKM Size 3" 5000 psi Fig.No. 114522

4. Adapter Seal Flange Shaffer Size 8"x2-1/2"x 2-9/16" Type AJO

   A. Ring Size R-50 & R-27

5. Master Valve McEvoy Size 2-1/2" 5000 psi Fig.No. 129

6. Xmas Tree Cross Shaffer Size 2-9/16"x2-9/16"x2-1/16"x 2-1/16"x2" Bore Thru 2-9/16"

   Across 2-1/16"

7. Tubing Wing Valves Rockwell Size 2" 5000 psi Fig.No. 21055

   A. Automatic Tbg. Valve WKM Size 2" 5000 psi Fig. No. 114522

8. Unibolt Size 3" 5000 psi Inside Thrds

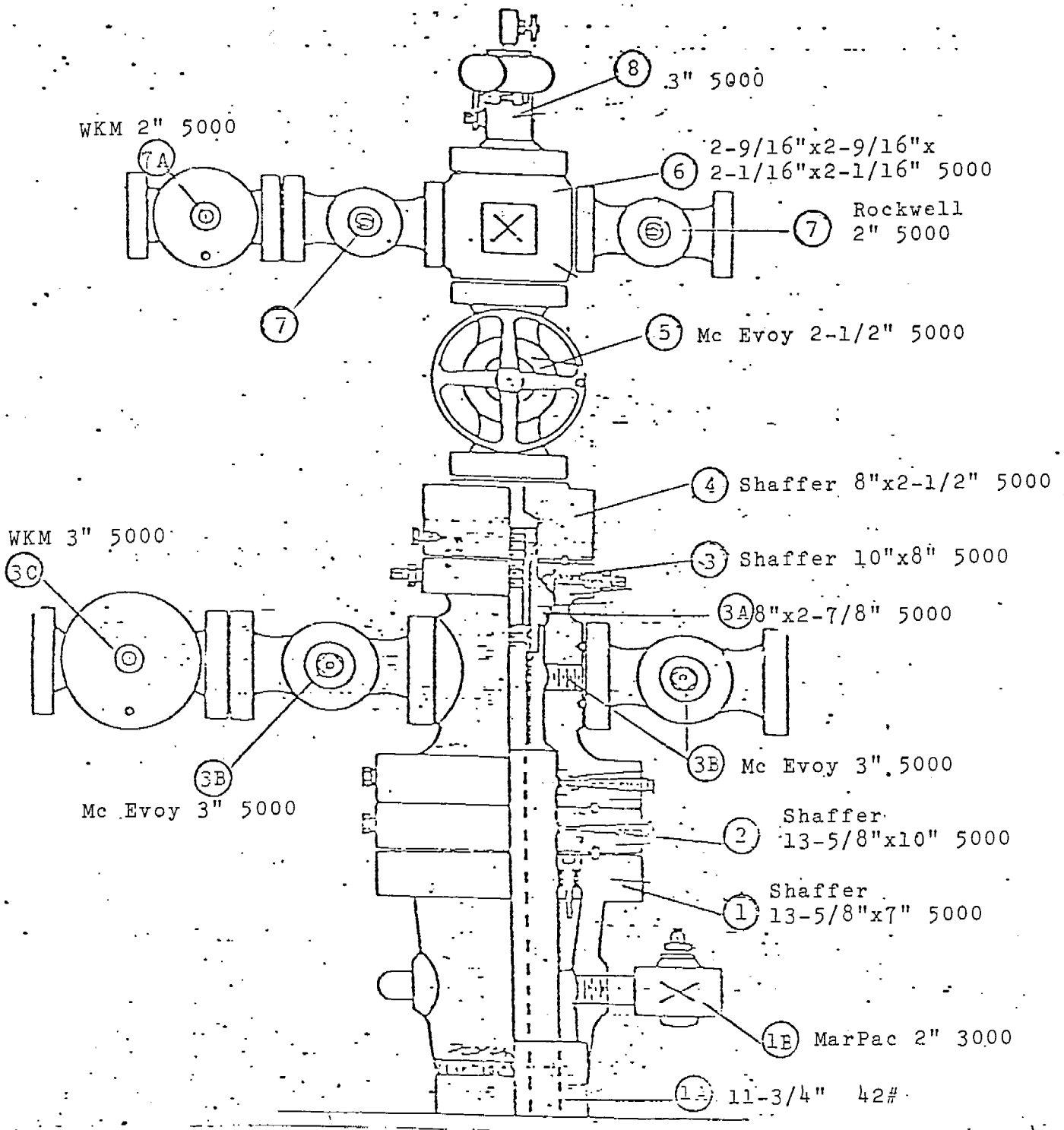
9. Wt. Landed in Csg. Head 8170' 7" Wt. 26# 23# Grade N-80 ST&C

10. Wt. Landed on Doughnut 8030' 2-7/8" 10,000 Wt. 6.5 Grade N-80 8Rd EUE

11. Tubing Head to Ground Level

AC_CPUC_0118100

# TYPE IV




Well Name: SS 29 - Aliso Canyon

Mfgr.: Shaffer

Date Prepared: 12-20-82

AC_CPUC_0118101

SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

# DIVISION OF OIL AND GAS

## History of Oil or Gas Well

Operator Southern California Gas Company Field Aliso Canyon County Los Angeles
Well Standard Sesnon #29, Sec. 28, T 3N, R 16W, SB B. & M.
A.P.I. No. 037-00041 Name R.D. Phillips (Person submitting report) Title Agent (President, Secretary or Agent)
Date November 26, 1991.

Signature R.M. Dowell
R. M. Dowell for R. D. Phillips
P. O. Box 3429 Terminal Annex, Los Angeles, CA 90051 (213) 244-2666
(Address) (Telephone Number)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests and initial production data.

| Date | |
|---|---|
| 1991 | |
| 9-20 | Set in rig pump. Removed lines from casing and well head. Killed and shut in well. |
| 9-23 | Moved in and rigged up. Circulated well and spotted 100 Bbls high viscosity pill. |
| 9-24 | Filled well. Installed back pressure plug. Removed tree and installed BOPE. Tested blind, pipe rams and choke manifold to 4000 psi. Tested annular preventor to 2850 psi. BOPE test waived by Steve Fields with D.O.G. |
| 9-25 | Replaced packing in donut studs. Pressure tested donut studs to 3000 psi. Released from packer. Began laying down 2-7/8" tubing. |
| 9-26 | Rig down for repairs. |
| 9-27 | Pulled and laid down 259 joints of 2-7/8" J-55 tubing and production equipment. Ran in with bit and scraper on 2-3/8" drill pipe. |
| 9-28 | Finished picking up and running drill pipe to packer at 8042'. Pulled out of well. Made up Otis packer retrieving tool. Ran in well to 7340'. |

OG103 (6/91/GSR1/5M)
Mailed 12/6/91

AC_CPUC_0118102

9-30 Ran in well with packer retrieving tool to 8029'. Latched into packer at 8040' and pulled 30,000 lbs over string weight. Released packer. Pulled and laid down packer. Made up 4-1/8" bit on 5" 18# scraper, 116' of 3-1/8" drill collars and 945' of 2-3/8" tubing crossed over to 2-7/8" drill pipe. Ran in well to 8000'.

10-01 Ran in well to 9010'. Hit fill at 9067'. Cleaned out to 9072'. Unable to clean out past 9072' (T.D. 9077'). Circulated well clean. Pulled out of well. Made up and ran 5" drillable retainer. Set retainer at 8345'. Pulled up to 8042'.

10-02 Ran in well to 8343'. Pressure tested cement retainer to 1200 psi. Changed well over to clean 2% KCl water. Pulled up to 8075' and dumped 1 sack of 8-12 gravel and displaced with 36 Bbls of KCl water. Waited one hour. Ran in and tagged top of sand at 8335'. Pulled out of well. Ran 3-1/8" perforating gun on wireline. Stopped at 8309' (26' high). Ran in well with 4-1/8" mill.

10-03 Measured in well with drill pipe and tagged fill at 8322'. Changed well over to polymer fluid. Cleaned out fill to 8337'. Milled up cement retainer and pushed down well to 9055'. Unable to get deeper. Circulated well clean. Pulled to kill string.

10-04 Pulled out of well. Ran and set 5" cement retainer on wireline at 8361'. Tested cement retainer to 1200 psi. Ran in well with 1040' of 2-3/8" tubing tail on 2-7/8" drill pipe to 8361'. Changed well over to 2% KCl water with tubing tail at 8346'. Dumped 1 sack of 8-12 gravel and displaced with 34 Bbl KCl water. Pulled to top of 5" liner. Shut well in.

10-05 Ran in well and tagged top of sand at 8351'. Pulled out of well. Shot four 3/8" holes from 8330' to 8331'. Pressure holes to 2200 psi. Bled off 450 psi in 20 min. Ran in well with 5" full bore packer with 30' of 2-3/8" tubing tail and 315' of 2-3/8" tubing above tool crossed over to 2-3/8" drill pipe.

10-07 With tubing tail at 8334', pumped 50 cu.ft. of 12% HCl/3% HF acid and displaced with 28 Bbls of KCL water. Set packer at 8303' and pumped 50 cu.ft. of acid out holes at 8330'. Final injection rate: 1-1/2 Bbls/min at 1700 psi. Pulled up and placed tail at 8120' and packer at 8087'. Squeezed 25 cu.ft. 6% HCl/1-1/2% HF acid followed by 50 cu.ft. Class "G" cement with fluid loss additives. Final squeeze pressure: 1600 psi at 4 cu.ft/min. Displaced holes by 25 cu.ft. Waited 4 hours on cement. Pulled tool loose and reset packer at 8018'. Could not obtain pressure test on packer and/or unloading tool. Pulled to kill string.

10-08 Pulled out of well. Replaced full bore packer with same. Ran in well to 8120'. Packer failed to hold pressure. Pulled out of well. Ran in well with 63' of 2-3/8" tubing tail with drill pipe tester, and 7" full bore packer on 2-7/8" drill pipe. Ran in well to 2569'. Set packer (would not hold pressure). Dropped ball in test sub. Drill pipe would not test.

10-09 Located leak in drill pipe on 27th and 28th joint connection. Ran in well with 7" full bore packer and drill pipe tester on 2-7/8" drill pipe with 60' tubing tail below packer and set at 8120'. Attempted to break down holes at 8330'. Failed to achieve breakdown. Pulled out of well to 2193'.

10-10 Pulled out of well. Made up 356' of 2-3/8" tubing and full bore packer. Tested to 3000 psi. Ran in well to 8324'. Spotted 50 cu.ft. of acid. Established injection rate of 7 cu.ft./min at 1950 psi. Pulled tubing tail up to 8120'. Mixed and pumped 50 cu.ft. of class "G" cement. Displaced with 39-1/2 Bbls KCl water. Squeezed 36 cu.ft. class "G" cement. Final squeeze pressure: 2560 psi.

10-11 Released packer and pulled out of well. Ran in well with 4-1/8" bit on 5" scraper. Tagged top of cement at 8196'. Drilled hard cement from 8196' to 8326'. Pulled to liner top.

10-12 Ran in to 8326'. Drilled out cement to 8343'. Circulated well clean at 8351'. Pressure tested squeeze holes at 8330' to 2160 psi for 30 minutes (410 psi bleed off). Pulled out of well. Made up 30' of 2-3/8" tubing tail on 5" full bore packer with 315' of 2-3/8" tubing crossed over to 2-7/8" drill pipe. Ran in well to 8029'.

10-14 Ran in well with 5" full bore packer to 8334'. Pressure tested holes at 8330' to 2200 psi for 20 min. Pulled out of well. Ran in well with 4-1/8" mill on four 3-1/8" drill collars, 945' of 2-3/8" tubing and 2-7/8" drill pipe to 8347'. Changed over hole fluid to polymer fluid. Pulled up to 8026'.

10-15 Ran in well to 8347'. Milled on 5" bridge plug from 8361' to 8363'. Pushed junk down well to 9035'. Milled for one hour without success. Pulled out of well. Ran in well with 7" RTTS packer with pressure control valve and circulating port to 7998'.

10-16 Rigged up flow lines to Gas Co. withdrawal system. Tested lines to 3000 psi. Flowed well for 12 hours.

10-17 Ran noise log survey from 8560' to 5000'. Anomaly detected across downhole tools.

10-18 Ran noise log survey from 8600' to surface. Anomaly detected across down hole tools.

10-19 Installed and pressure tested surface lines to 2000 psi. Placed well on injection for 10 hours. Surface injection pressure: 2620 psi (120 psi over shut in wellhead pressure). Closed down hole and surface valves.

10-21 Opened subsurface valve. Ran noise log survey from 8600' to surface. Noise log indicated possible gas movement up above the M-P marker. Pumped 30 Bbls of high vis pill followed by 30 Bbls of polymer fluid. Opened circulating port. Rigged down surface flow lines.

10-22 Released packer. Pulled out of well. Ran in well with full bore packer with mechanical circulating port to 7544'. Rigged up flow lines.

10-23 Finished rigging up flow lines. Tested flow lines to 3000 psi. Injected gas to provide 1800 psi underbalance. Placed well on withdrawal.

10-24 Continued withdrawal from well. Total hours on withdrawal: 17-1/2; Final surface flowing pressure: 850 psi.

10-25 Detected leak on surface flow manifold above wellhead. Re-killed well.

10-26 Rigged up and tested surface lines to 3000 psi. Placed well on withdrawal for 9 hours. Shut in well.

10-27 Ran temperature and noise log surveys. Logs indicated no gas movement behind casing. Pumped 80 Bbls to kill well. Dismantled surface flow line. Released packer.

10-28 Bled off 100 psi on drill pipe and casing. Pulled out of well. Made up 4-1/8" mill on 166' of 3-1/8" drill collars and 918' of 2-3/8" drill pipe crossed over to 2-7/8" drill pipe. Ran in well to 9035'. Milled on retainer and pushed it down to 9055'. Milled on retainer at 9055'.

10-29 Ran in well to 9055'. Milled on retainer. Cleaned out to 9066'. Mill stopped. Changed over hole fluid to clean filtered KCl water. Pulled out of well to 2782'.

10-30 Pulled out of well. Installed shooting flange. Ran Gamma Ray/Neutron collar log from 8900' to 7800'. Made up tubing conveyed perforating guns and ran in well to 3862', filling drill pipe so as to provide 500 psi underbalance.

10-31 Ran in well. Ran Gamma Ray/CCL log and correlated guns. Set Otis packer at 8306'. Tested surface lines to 3000 psi. Tested packer to 1000 psi. Dropped bar. No blow or fluid rise to surface. Unsuccessfully attempted to fish drop bar on wireline.

11-01 Attempted to fish drop bar. Fill apparently above bar. Pulled packer loose and pulled out of well. All guns fired. Made up 4-1/4" bit on 5" scraper, 3-1/8" drill collars and 2-3/8" drill pipe crossed over to 2-7/8" drill pipe. Ran in well to liner top.

11-02 Ran in and tagged fill at 9050'. Cleaned out to 9066'. Pulled out of well laying down drill pipe. Picked up 2-7/8" tubing and ran in well to kill string.

11-04 Pulled kill string out of well. Ran and set 7" Otis "BWB" packer on wireline at 8030'. Made up test seals on 2-7/8" 8RD tubing and started in well.

11-05 Finished picking up tubing. Latched into packer. Pulled 20,000 lbs over string weight to check latch. Set 10,000 lbs on packer. Tested packer and seals to 1500 psi. Changed 3-1/8" valve on tubing head and tested to 1500 psi. Pulled out of well. Made up production equipment and ran in well Hydrotesting to 4000 psi. Ran in well to kill string.

11-06 Finished running tubing. Latched in to packer. Pulled 20,000 lbs over string weight to check latch. Landed with 8,000 lbs on packer. Tested seals and packer to 1500 psi. Removed BOPE. Installed xmas tree. Tested to 5000 psi. Opened Otis "XD" sliding sleeve. Changed fluid over to double inhibited 2% KCl. Released rig.

WELL NO. SS 29

LOCATION Aliso Canyon

DATE WANTED 11-10-94

REQUESTED BY ESS

| | SIZE | FOOTAGE | DESCRIPTION |
|---|---|---|---|
| CASING | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| TUBING | 3-1/2" | 600' | 8 Rd EUE |
| | 4-1/2" | 7500' | 8 Rd EUE |
| | | | |
| | | | |
| | | | |
| LINER & ACCESSORIES | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | DESCRIPTION | | |
| CASING HEAD | | | |
| | | | |
| | | | |
| | | | |
| TUBING HEAD | Cross 3-1/8" x 3-1/8" x 3-1/8" x 2-1/16" | | |
| | 9" x 3-1/8" x 5000# Double Studded AJO Seal Flange | | |
| | 9" x 3-1/8" EUE 8 Rd Type 75 AJO Tubing Hanger | | |
| | 3" x 3-1/8"x5000# Unibolt Cap | | |
| | One 3-1/8" Wing Valve, One 3-1/8" Master Valve, One 2-16" Wing | | |
| MISCELLANEOUS | Baker Series T5 SCSSV | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

STANDARD SESNON #29 - ALISO CANYON

Program to replace packer, pressure test casing and install new down hole safety system.

CASING WITHDRAWAL AND INJECTION

Take all measurements from original derrick floor 6.92' above ground.

PRESENT CONDITION:

11 3/4" cemented 1042' 42# H-40
7" cemented 8170', WSO on shoe
1002' 5" landed 9077', T.D., 9790', plugged
with cement to 9094', cp'd 8725', top 8075'
Slotted 9077' - 8727', WSO on lap
Water not shut off 8710', squeezed, WSO 8705'
Perforated 8694' - 8674'
8668' - 8658'
8638' - 8602'
8552' - 8528'
8502' - 8456'
18# J-55 flush joint

| CASING DETAILS: | | | 100% Safety Factor BURST | COLLAPSE |
|---|---|---|---|---|
| 7" | 0 - 974' | 23# N-80 | 6340 | 4300 |
| | 974' - 4452' | 23# J-55 | 4360 | 3290 |
| | 4452' - 6494' | 23# N-80 | 6340 | 4300 |
| | 6494' - 8170' | 26# N-80 | 7240 | 5320 |
| 5" | 8075' - 8725' | 18# J-55 | 7000 | 6530 |

TUBING DETAIL:

Baker Model "D" packer 8517' (5")
Camco hydrostatic packer 8421' (5")
2 3/8" and 2 7/8" 8rd EUE J-55 landed 8522'
Camco 1.81" "NOGO" nipple 8518' (plug in place)
2 3/8" Otis polished nipple 8505'
2 3/8" slotted tubing 8503' - 8483'
Otis X nipple 2 3/8" 8482'
Otis polished nipple 8478'
2 3/8" slotted tubing 8476' - 8456'
Otis X nipple 2 3/8" 8455'
Otis X nipple 2 3/8" 8390'
Camco sliding sleeve 8359' (open)
Otis X nipple 2 7/8" 8017'
4 Camco gas lift mandrels with valves
2 3/8" tubing to 8048', 2 7/8" to surface

AC_CPUC_0118108

PROGRAM:

1. Move in and rig up. Pressure test wellhead seals to 4000 psi.

2. Kill well with 74#/cu. ft. brine polymer drilling fluid. Check bottom hole pressure before moving in rig. Volume of well = 360 barrels.

3. Install back pressure valve in doughnut. Remove Xmas tree and install class III 5000 psi BOPE. Pressure test complete shut-off rams and pipe rams to 4000 psi with water and nitrogen.

4. Unseat Camco hydrostatic packer (turn to release) and pull tubing. If necessary cut tubing to recover packer. Mill over and recover Model "D" packer at 8517'.

5. Run 6 1/8" bit and casing scraper. Clean out to top of 5" liner at 8075'. Run 4 1/8" bit and casing scraper. Clean out to 9077'.

6. Set bridge plug at 8425' and test with rig pump. Circulate out polymer drilling fluid with fresh water treated with surface tension agent. pressure test casing, using cement retainer and cement pump truck equipped with calibrated pressure chart and pressure gauge, as follows:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3800' | to | 8425' | with | 2500 psi | for | 60 | minutes |
| 3800' | " | Surface | " | 2700 psi | " | 60 | " |
| 3300' | " | " | " | 2900 psi | " | 60 | " |
| 2900' | " | " | " | 3100 psi | " | 60 | " |
| 2500' | " | " | " | 3300 psi | " | 60 | " |
| 2000' | " | " | " | 3500 psi | " | 60 | " |
| 1100' | " | " | " | 4000 psi | " | 60 | " |

Change to polymer drilling fluid.

7. Perform any remedial work indicated by pressure testing. Pull bridge plug at 8425'.

8. Run Otis Permatrieve packer on wire line and using reference collars set packer near 8430'. Do not set packer in a collar.

9. Run 2 3/8" and 2 7/8" tubing, change collars, clean pins, apply Baker seal, and hydrotest to 5000 psi holding each test for one minute. Tubing to include:

Otis production tube
" 4 seals
" Latch-in-locator
" 10' heavy wall tube
" 1.56" "NOGO" nipple with 2 3/8" threads
" 20' heavy wall tube
" annular flow safety system
2 3/8" tubing to 8000'
2 7/8" tubing to surface with top 500' N-80 tubing

10. Land tubing on packer with up to a maximum of 10,000 pounds on packer - pull 25,000 pounds over weight of tubing to check latch.

AC_CPUC_0118109

PROGRAM: (Concluded)

11. Set back pressure valve in doughnut. Remove BOPE and reinstall Xmas tree. Pressure test Xmas tree to 5000 psi.

12. Circulate brine polymer drilling fluid out of well with waste salt water. Set tubing plug in "NOGO" nipple. Pressure test seals and packer to 2000 psi. Pull tubing plug and release rig.

G. C. ABRAHAMSON
August 25, 1977

cc: Rig Supervisor
Contract Pusher (2)
Relief Rig Supervisor
Book Copy

B. Jones ✓
D. Smiley
J. Melton
D. Justice )
M. Grijalva)

Division of Oil and Gas

Well File
Spare Copy

GCA/jp

AC_CPUC_0118110

TIME AND COST ESTIMATES - Standard Sesnon #29 (Aliso Canyon)

Work over rig - 2 Tours - 6day week

TIME ESTIMATE

| ITEM | TOURS |
|---|---|
| Move in and rig up | 2 |
| Kill well | 1 |
| Install B.O.P.E. and test | 1 |
| Pull tubing and packer | 4 |
| Mill over "D" packer | 4 |
| Clean out to 9077' | 3 |
| Pressure test | 4 |
| Remedial contingency | 4 |
| Run packer | 1 |
| Complete well | 4 |
| Sub-Total | 28 |
| Contingencies | 3 |
| Grand Total | 31 Tours |

CALENDAR DAYS = 18

COST ESTIMATE

| ITEM | $ |
|---|---|
| Rig 31 x 8 x 150 | 37,000 |
| Drilling fluid | 5,000 |
| Fishing and milling | 6,000 |
| Pressure test | 6,000 |
| Remedial contingency | 6,500 |
| Packer and safety valve | 15,000 |
| Tubing replacement | 5,000 |
| Trucking and miscellaneous | 10,000 |
| Sub-Total | $ 90,500 |
| Company Labor | 3,000 |
| Contingencies | 7,500 |
| Mud Plant Prorate | 7,500 |
| Grand Total | $108,500 |

COST BREAKDOWN

| | |
|---|---|
| Company Labor | $ 3,000 |
| Direct Non Labor | 23,000 |
| Direct Contract | 82,500 |
| Total | $108,500 |

2/28/77

AC_CPUC_0118111

## TUBING DETAIL

| No. Jts. | Item | Length | Depth |
|---|---|---|---|
| | Below K. B. | 6.90 | |
| | 2-7/8" donut and pup joint | 6.00 | |
| | 2-7/8" EU 8 thd. pup jt. | 3.95 | |
| 184 | 2-7/8" EU 8 thd. J-55 tubing | 5668.65 | |
| | 2-7/8" EU 8 thd. pup jt. | 4.05 | 5689.55 |
| | 2-1/2" Camco KBMG mandrel w/1/4" BK 925# valve | 7.35 | 5696.90 |
| 40 | 2-7/8" EU 8 thd. J-55 | 1224.08 | |
| | 2-7/8" EU 8 thd. pup jt. | 4.03 | 6925.01 |
| | 2-1/2" Camco KBMG mandrel w/1/4" BK 915# valve | 7.35 | 6932.36 |
| 34 | 2-7/8" EU 8 thd. J-55 tubing | 1041.10 | |
| | 2-7/8" EU 8 thd. pup jt. | 4.08 | 7977.54 |
| | 2-1/2" Camco KBMG mandrel w/1/4" BK 905# valve | 7.35 | 7984.89 |
| 1 | 2-7/8" EU 8 thd. J-55 tubing | 31.37 | |
| | 2-7/8" x 2.313" Otis "X" landing nipple | 1.00 | 8017.26 |
| 1 | 2-7/8" EU 8 thd. J-55 tubing | 30.23 | |
| | 2-7/8" x 2-3/8" EU 8 thd. crossover | 1.15 | 8048.64 |
| 9 | 2-3/8" EU 8 thd. J-55 tubing | 273.63 | |
| | 2-3/8" Camco B mandrel w/1/4" J-40 895# valve | 4.10 | 8326.37 |
| 1 | 2-3/8" EU 8 thd. J-55 tubing | 30.15 | |
| | 2-3/8" x 1.93 Camco sliding sleeve | 2.70 | 8359.22 |
| 1 | 2-3/8" EU 8 thd. J-55 tubing | 29.97 | |
| | 2-3/8" x 1.875 Otis "X" landing nipple | .95 | 8390.14 |
| 1 | 2-3/8" EU 8 thd. J-55 tubing | 29.98 | |
| | 2-3/8" x 5" 18# Camco Hydrostatic set packer HRP-1 16 turns right to release | 5.65 | |
| 1 | 2-3/8" EU 8 thd. J-55 tubing | 29.73 | |
| | 2-3/8" x 1.875 Otis "X" landing nipple | .95 | 8456.45 |
| | 2-3/8" EU 8 thd. pup jt. w/20 mesh slots | 10.00 | 8466.45 |
| | 2-3/8" EU 8 thd. pup jt. w/20 mesh slots | 10.00 | 8476.45 |
| | 2-3/8" Otis polish nipple | 1.50 | 8477.95 |
| | 2-3/8" EU 8 thd. pup jt. | 4.20 | |
| | 2-3/8" x 1.875 Otis "X" landing nipple | .95 | 8483.10 |
| | 2-3/8" EU 8 thd. pup jt. w/20 mesh slots | 10.20 | 8493.30 |
| | 2-3/8" EU 8 thd. pup jt. w/20 mesh slots | 10.00 | 8503.30 |
| | 2-3/8" Otis polish nipple | 1.50 | 8504.80 |
| | 2-3/8" EU 8 thd. pup jt. | 4.05 | |
| | 2-3/8" EU 8 thd. pup jt. | 8.00 | |
| | 2-3/8" x 1.81 Camco type "D" seating nipple | .95 | 8517.80 |
| | 2-3/8" Baker locator sub for Model "D" packer @ 8517' | .40 | 8518.20 |
| | Baker seals 5 sets for Model "D" packer | 4.60 | 8522.22 |

NOTE: The slotted tubing above is J-55 with special clearance N-80 collars slotted 20M, 12 rows, 1-1/2" slots on 6" centers.

AC_CPUC_0118112

CULATION SHEET

REF. _____ 2-17-73

BY DSS

CHECKED _____

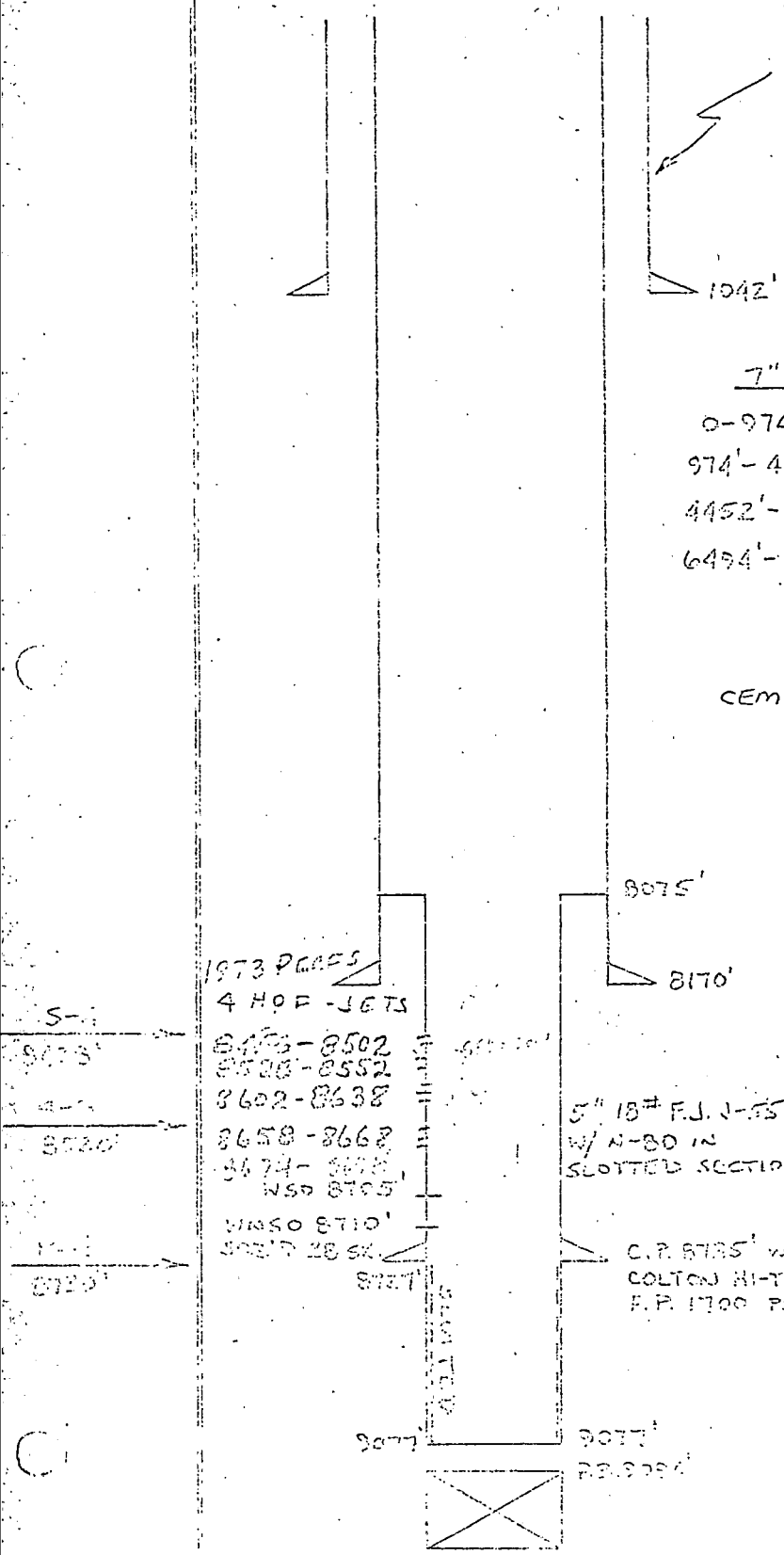
DATE 12-22-72

SHEET NO. ____ OF ____ SHEETS

TITLE STANDARD SESSION 29

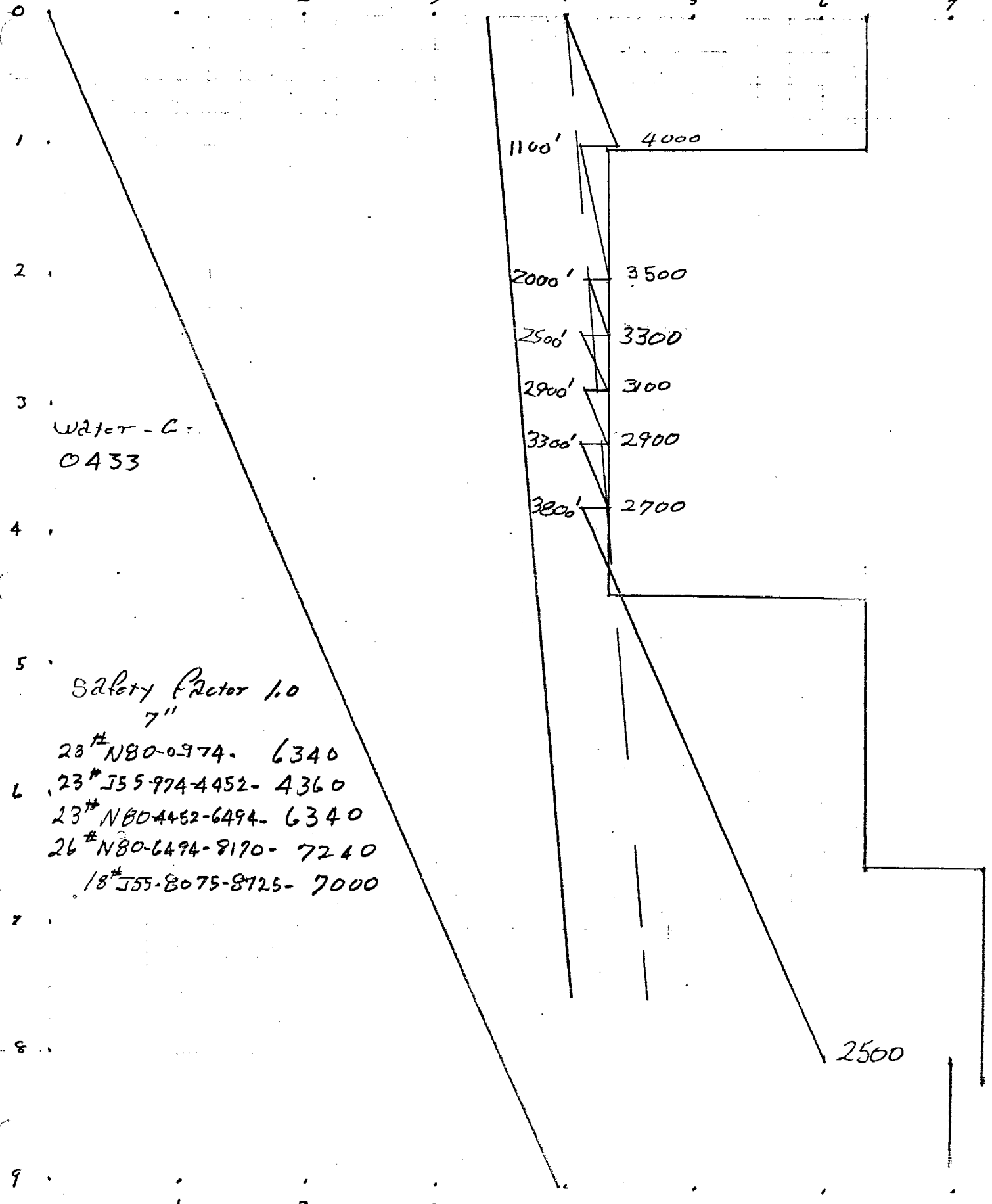
ELEV. G.L. 2848.77'

ORIG. ZERO 6.92' ABOVE G.L.




AC_CPUC_0118113

PRESSURE test STANDARD SESNON #29 ALISO CANYON




Water - C -
0433

Safety Factor 1.0

7"
23# N80-0-974. 6340
23# J55-974-4452- 4360
23# N80-4452-6494- 6340
26# N80-6494-8170- 7240
18# J55-8075-8725- 7000

AC_CPUC_0118114

1-71
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GAS RESEARCH AND ENGINEERING SERVICE
5119 KINSIE STREET
LOS ANGELES, CALIFORNIA 90040
PHONE 261-9726

VICTOR F. GARMAN

ROBERT P. CHAFFEY

## GAS ANALYSIS BY CHROMATOGRAPH

SOUTHERN CALIFORNIA GAS COMPANY

Sample Description: Gas from SS - 29 (Gas Flowing)

Date 3-11-74 10:39 a.m. Type 2 Area or/ Plant No. Aliso Canyon Meter No. or Sample No. SG-N181

ANALYSIS REPORT

1. ROYALTY GAS
2. OTHER GAS
3. L. P. G.
4. GASOLINE

1. BREA
2. LONG BEACH
3. VENTURA
4. TEN SECTIONS

5. MOLINO
6. SACRAMENTO RIVER GAS SYSTEM
7. ALASKA

| | MOL. % | | G/M | | LIQUID VOL. % | | B.T.U. | SPEC. GRAV. |
|---|---|---|---|---|---|---|---|---|
| $O_2$ | .01 | | | | | | | |
| $N_2$ | .93 | | | | | | | |
| $Co_2$ | 2.28 | | | | | | | |
| $H_2$ | | | | | | | | |
| Air | | | | | | | | |
| Methane | 89.86 | | | | | | | |
| Ethane | 5.21 | | | | | | | |
| Propane | 1.08 | | .298 | | | | | |
| Iso - Butane | .11 | + | .036 | + .237 | | | | |
| N - Butane | .20 | | .063 | | | | | |
| Iso - Pentane | .06 | + | .022 | + .138 | | | | |
| N - Pentane | .06 | | .022 | | | | | |
| Hexane | .06 | | .025 | | | | | |
| Heptane | .07 | | .032 | | | | | |
| Octane | .06 | | .031 | | | | | |
| Nonane plus | .01 | | .006 | | | | | |
| Decane | | | | | | | | |
| TOTAL | 100.00 | | .535 | | | | 1055 | .628 |

Pressure 580 psig

AC_CPUC_0118115

BY DSS

TITLE STANDARD SESNON 29

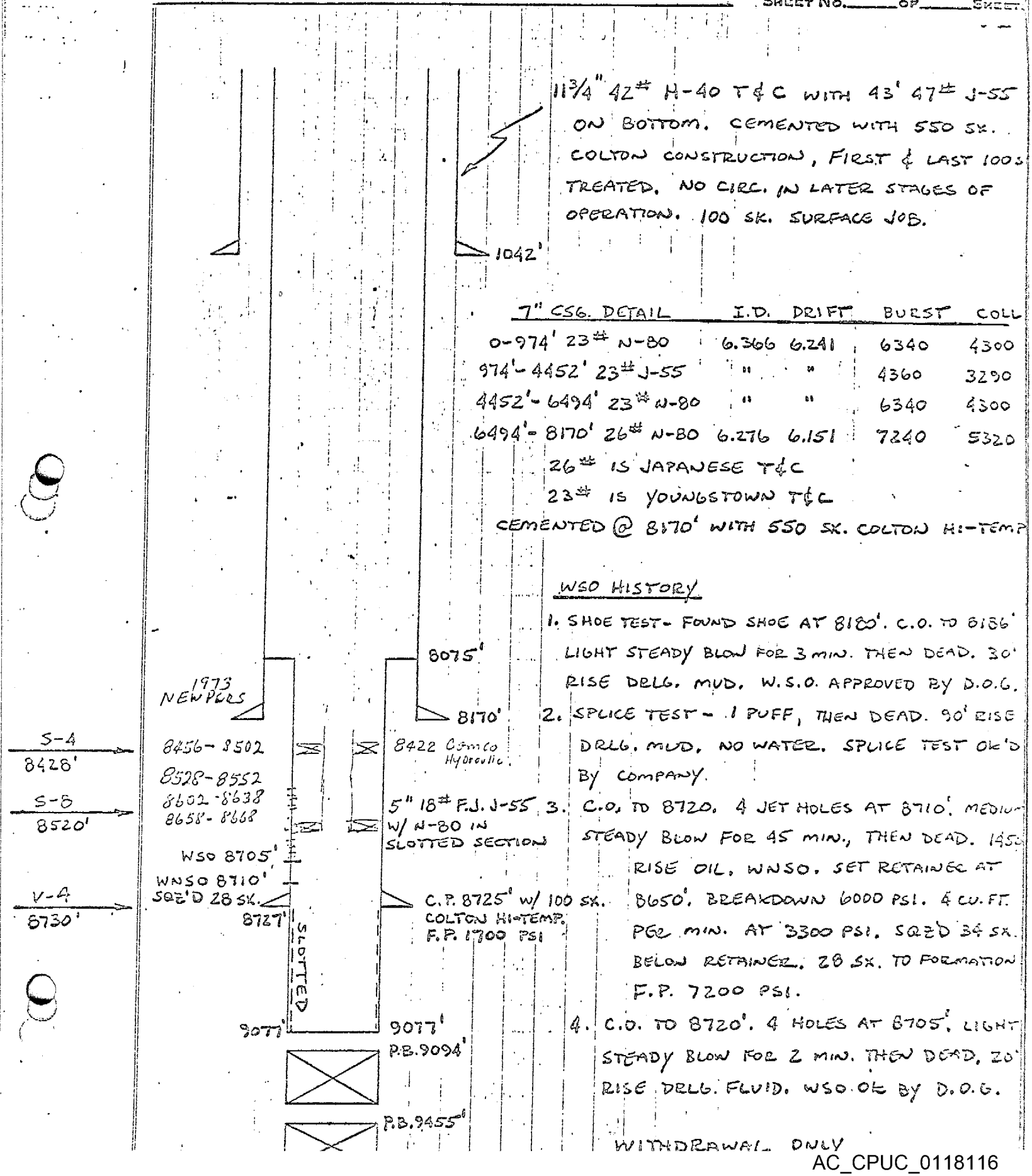
CHECKED

ELEV. G.L. 2848.77'

DATE 12-22-72

ORIG. ZERO 6.92' ABOVE G.L.

SHEET NO. ____ OF ____ SHEET




7" CSG. DETAIL

| | I.D. | DRIFT | BURST | COLL |
|---|---|---|---|---|
| 0-974' 23# N-80 | 6.366 | 6.241 | 6340 | 4300 |
| 974'-4452' 23# J-55 | " | " | 4360 | 3290 |
| 4452'-6494' 23# N-80 | " | " | 6340 | 4300 |
| 6494'-8170' 26# N-80 | 6.276 | 6.151 | 7240 | 5320 |

26# IS JAPANESE T&C

23# IS YOUNGSTOWN T&C

CEMENTED @ 8170' WITH 550 SK. COLTON HI-TEMP

WSO HISTORY

1. SHOE TEST - FOUND SHOE AT 8180'. C.O. TO 8186' LIGHT STEADY BLOW FOR 3 MIN. THEN DEAD. 30' RISE DRLG. MUD. W.S.O. APPROVED BY D.O.G.
2. SPLICE TEST - 1 PUFF, THEN DEAD. 90' RISE DRLG. MUD, NO WATER. SPLICE TEST OK'D BY COMPANY.
3. C.O. TO 8720. 4 JET HOLES AT 8710'. MEDIUM STEADY BLOW FOR 45 MIN., THEN DEAD. 1450' RISE OIL, WNSO. SET RETAINER AT 8650'. BREAKDOWN 6000 PSI. 4 CU. FT. PER MIN. AT 3300 PSI. SQZ'D 34 SX. BELOW RETAINER. 28 SX. TO FORMATION F.P. 7200 PSI.
4. C.O. TO 8720'. 4 HOLES AT 8705'. LIGHT STEADY BLOW FOR 2 MIN. THEN DEAD. 20' RISE DRLG. FLUID. WSO OK BY D.O.G.

WITHDRAWAL ONLY

AC_CPUC_0118116

1-71
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VICTOR F. GARMAN ROBERT P. CHAFFEY

GAS ANALYSIS BY CHROMATOGRAPH

SOUTHERN CALIFORNIA GAS COMPANY

Sample Description: SS - 29 (8000') 1500 psig, 177°F.

Received Date 5-4-73 Type 2 Area or/ Plant No. Aliso Canyon Meter No. or Sample No. SG-N113

ANALYSIS REPORT

1. ROYALTY GAS
2. OTHER GAS
3. L. P. G.
4. GASOLINE

1. BREA
2. LONG BEACH
3. VENTURA
4. TEN SECTIONS

5. MOLINO
6. SACRAMENTO RIVER GAS SYSTEM
7. ALASKA

NOTE: Water in sample tank.

| | MOL. % | | Mol. % w/Air | | LIQUID VOL. % | | B.T.U. | SPEC. GRAV. |
|---|---|---|---|---|---|---|---|---|
| $O_2$ | .00 | | .090 | | | | | |
| $N_2$ | .37 | | .708 | | | | | |
| $Co_2$ | .16 | | .156 | | | | | |
| $H_2$ | | | | | | | | |
| Air | | | | | | | | |
| Methane | 91.52 | | 91.131 | | | | | |
| Ethane | 4.62 | | 4.596 | | | | | |
| Propane | 1.78 | | 1.769 | | | | | |
| Iso - Butane | .27 | + | .270 | + | | | | |
| N - Butane | .42 | | .419 | | | | | |
| Iso - Pentane | .16 | + | .159 | + | | | | |
| N - Pentane | .14 | | .139 | | | | | |
| Hexane | .18 | | .184 | | | | | |
| Heptane | .21 | | .212 | | | | | |
| Octane | .11 | | .114 | | | | | |
| Nonane | .05 | | .046 | | | | | |
| Decane plus | .01 | | .007 | | | | | |
| TOTAL | 100.00 | | 100.000 | | | | 1119 | .629 |

AIR FREE

AC_CPUC_0118117

Shaffer

201 S. REDWOOD AVE., P. O. BOX 398, BREA, CALIFORNIA 92621, 714/529-2134

Southern California Gas Company
P. O. Box 3249, Terminal Annex
Los Angeles, California 90051

ATTENTION: ROD GEDDIS

STANDARD SESNON 29
tubing head

This is to certify that this equipment, Serial # 1886I-T has been tested to A.P.I. specifications and witnessed by me this date 2/8/73.

RUCKER SHAFFER

R. L. Dowell

Robert L. Dowell
Sales Engineer

RLD:cn

AC_CPUC_0118118

DAILY DRILLING REPORT

2-23 Pulled Johnston 5" bridge plug from 8578' which was run on 2-17-73. Ran Baker squeeze tools to treat two sections of Sesnon Zone with Clay-Loc. Treated perforations 8528'to 8552' (24'), 8602' to 8638' (36') with Clay-Loc and KCL (300 barrels each). Attempted to treat perforations 8658' to 8668' and 8674' to 8694'. Unable to pump away fluid at 3500 psi. Decision was made to discontinue treatment. Pulled tools out of liner.

2-24 Pulled squeeze tools. Ran 5" Baker Model D packer to 8519'. Ran 481' of 2-3/8" tubing string, Baker nipples, Page valves, Camco packer, two circulating sleeves, two gas lift valves. Could not run 2-7/8" tubing because collar would not accept 1/4" liner protector. These required special machining for set of 2-7/8" collar

2-25 Shut-in.

2-26 Ran and tested 2-7/8" tubing string at 5000 psi. Ran and tested 1/4" control line at 5000 psi. Landed tubing string with 9000 lbs. on the Baker packer. Tested rubing hanger--control line connection, 5000 psi.

2-27 Removed BOPE. Installed well head. Tested at 5000 psi; tubing hanger seals and lower seals on extended neck; upper seals on extended neck and area above; control line port connection and both seals on extended neck. Displaced 210 barrels of fluid; set Camco packer with nitrogen pressure. Opened circulating sleeve to perforated 8456' to 8502'.

2-28 Displaced 200 barrels of salt water with nitrogen (down annulus to #1 gas lift valve at 5695'). Pulling nitrogen from annulus and tubing to -0- pressure. Left all well heads closed. 5000 psi on 1/4" control line. Moved out equipment.

AC_CPUC_0118119

SS 29

DAILY DRILLING REPORT

2-12 Opened valve at surface for final flow at 6:20 AM. Flowed for 12 hours. Maximum rate of 2.7 $M^2$cf/d. Shut-in at tool at 6:20 PM.

2-13 Pulled tester loose. Dropped down with tester to retrieve and relocate bridge plug in preparation to retest upper S-8 sand. Could feel to fill and had no apparent difficulty latching onto bridge plug. Could not pull plug loose. Could not back tester off of plug. Jarred for 5 hours with no results. Maximum pull was 90,000 lbs., dropped bar and back scuttled for 6 hours through knock out plug in tubing at 8305'. Mud in good condition. Rigged up McCullough. Ran chemical cutter in tubing and cut same at 8301'. Wire line measurement 8297'. Pipe measurement pulled out of hole. Top of fish at 8297'.

2-14 Made up fishing tool consisting of overshot for 2-3/8" tubing, four 3-3/4" drill collars, bumper sub, and s jars. Ran overshot to 8297' and latched onto fish. Jarred loose. Pulled out of hole with tubing and test string leaving bridge plug only in hole. Started in with bridge plug overshot.

2-15 Could not latch onto bridge plug fish. Circulated out fill but could make little hole with overshot. Pulled out and ran Johnston tungsten carbide toothed retrieving tool. Circulated and drilled using tongs. Latched onto and released bridge plug. Pulled out of hole without fish. Laid down drill collars and started back in with overshot bumper sub and jars.

2-16 & 17 Recovered 5" bridge plug. Reran test tools and flow tested from 8578' to 8516'. Left 5" bridge plug at 8578'.

2-18 Shut in.

2-19, 20 & 21
Ran 7" bridge plug to 8065'. Tested to 1050 psi for 10 minutes.

2-22 Pulled tubing. Removed BOPE. Removed old well head. Installed well head. Reinstalled BOPE. Tested rams and Hydril at 1200 psi for 15 minutes. Pulled bridge plug from 8065'. Ran 5" bridge plug and packer. Treated S-4 zone (8456' to 8502') with Clay-Loc. Treated upper S-8 Zone (8528' to 8552' and 8602' to 8638'). Relocated tools. Attempted to Clay-Loc treat lower S-8 (8658' to 8668' and 8674' to 8694'). Unable to pump any material away to formation at 3500 psi.

AC_CPUC_0118120

SS 29

DAILY DRILLING REPORT

2-2 through
2-6 Mixed fluid and killed well. Moved in CPS and rigged up. Installed BOPE. Pulled tubing and packer. Ran 4-1/8" bit and 5" scraper. Found fill at 8970'. Cleaned out sand bridges and tagged bottom at 9074'. Circulated on bottom for 2 hours.

2-7 Ran 7" casing scraper and tagged top of liner at 8082'. Rigged up Dresser Atlas. Ran Cement Bond Log 7950' to 9056'. Neutron Life-time Log and Gama Ray Log 8280' to 9050', and Densi Log 8294' to 8788'. Cement bond at top of S-4, very good. Good WSO at shoe above. No WSO test at top of S-4 is required.

2-8 Ran in with bridge plug on full bore packer. Set bridge plug at 8065'. Pulled full bore to 8025' and tested bridge plug with 1910' psi for 15 minutes, OK. Pulled up and set full bore at 3444'. Tested 3444' to 8065' with 2060 psi for 15 minutes, OK. Tested from surface to 3444' with 2550 psi for 15 minutes, OK. Pulled up and set full bore at 2341'. Tested from surface to 2341' with 3000 psi for 15 minutes, OK. Pulled up and set full bore at 1180'. Tested from surface to 1180' with 3550 # casing. Test OK. Ran in from 1180' and retrieved bridge plug. Rigged up Dresser-Atlas. Jet perforated four 1/2" holes per foot: 8528' to 8552', 8602'to 8638', 8658' to 8668' and 8674' to 8694'.

2-9 Made up and ran Johnston tester and bridge plug. Set bridge plug at 8715'. Pulled up and set test tool at 8486', tail to 8511'. Opened tool at 11:12 AM. Could not overcome minimum trap pressure. Maximum pressure, 142 psi. Closed tool at 12:32 PM. Recovered bridge plug and set at 8580'. Pulled up and set test tool at 8480', tail to 8505'. Opened tool to 1:10 PM. Tool open 1 hour Maximum pressure, 20 psi. Recovered bridge plug and set at 8515'. Started out of hole with tester. Fluid heading out of hole at 5918' above tester. Dropped bars. Back scuttled valves, did not spot. Continued pulling test tool and turning heading fluid to tanks. Total fluid rise, approximately 300' of thin oily gas cut workover fluid and 5600' of gas cut oil. Recovered fine sand and test tool. Charts showed first test OK. Second test plugged tool. Rigged up Dresser-Atlas and Jet perforated four 1/2" holes per foot at 8456' to 8502'.

2-10 Made up and ran Johnston tester. Set packer at 8436' with tail to 8454'. Opened tool at 10:37 AM. Shut-in at surface after 5 hour clean up flow.

2-11 Idle.

AC_CPUC_0118121

Shaffer

201 S. REDWOOD AVE., P. O. BOX 398, BREA, CALIFORNIA 92621, 714/529-2134

Southern California Gas Company
P. O. Box 3249, Terminal Annex
Los Angeles, California 90051

ATTENTION: ROD GEDDIS

STANDARD - SESNON 29

Csg head 4 1/16 3/4" studs

This is to certify that this equipment, Serial # 15099

has been tested to A.P.I. specifications and witnessed

by me this date 1/2/72.

RUCKER SHAFFER

R L Dowell

Robert L. Dowell
Sales Engineer

RLD:cn

AC_CPUC_0118122

FORM 107

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

# DIVISION OF OIL AND GAS

## Notice of Intention to Deepen, Redrill, Plug or Alter Casing in Well

This notice must be given before work begins; one copy only

Los Angeles Calif. January 19, 1973

DIVISION OF OIL AND GAS

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of deepening, redrilling, plugging or altering casing at Well No. SFZU SS29 well file
(Cross out unnecessary words)

_____, Sec. 28, T. 3N, R. 16W, SB B. & M.

Aliso Canyon Field, Los Angeles County.

The present condition of the well is as follows:

1. Total depth. 9790'; Pg. 9094'

2. Complete casing record, including plugs:

11-3/4", 42# C 1042'
7" 23# & 26# C 8170'; WSO out shoe, 8180'*
1002'-5", 18# L 9077'
Pf: 8727'-9077' (120M x 12R x 6"C)
TLH 8075'
WSO - 8705'*

* Approved by D.O.G.

3. Last produced. _____ (Date) _____ (Oil, B/D) _____ (Water, B/D) _____ (Gas Mcf/D)

The proposed work is as follows:

Jet perforate four 1/2" holes per foot and/or reperforate 2-1/2" holes per foot in the Sesnon zone as required to convert well to a gas storage well.

P. O. Box 54790, Terminal Annex
Los Angeles, California 90054
(Address)

(213) 689-3561
(Telephone No.)

Pacific Lighting Service Company
(Name of Operator)

By R. S. Magruder Jr.

ADDRESS ONE COPY OF NOTICE TO DIVISION OF OIL AND GAS IN DISTRICT WHERE WELL IS LOCATED

AC_CPUC_0118123

JOHNSTON

# PRESSURE LOG*

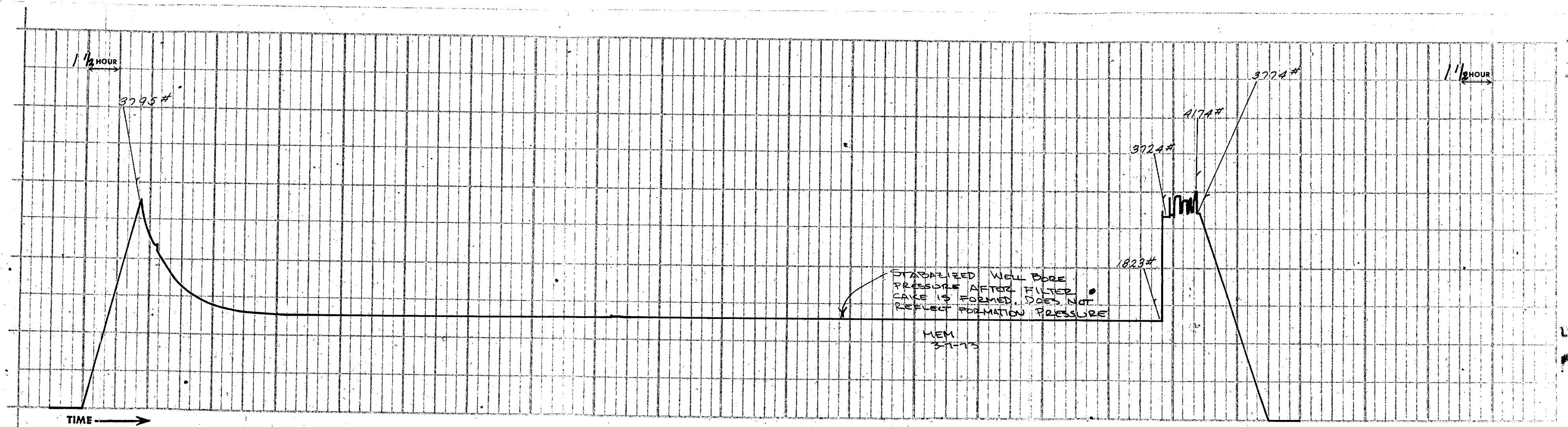
Field Report No. 29031-Z

Instrument: Number T-504

Capacity 7000 p.s.i.

Depth — ft.

*a continuous tracing of the original chart




MEM 3-7-73

Form J-231b

AC_CPUC_0118124

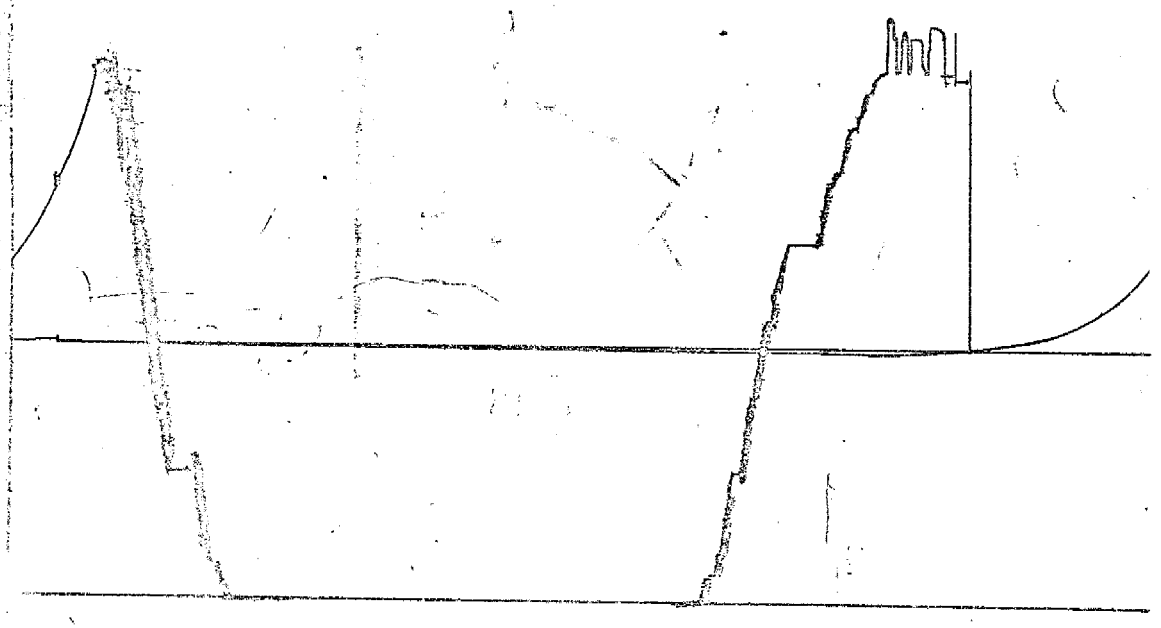
SOUTHERN CALIFORNIA GAS COMPANY
S.S. #29
LOS ANGELES COUNTY, CALIFORNIA
FIELD: ALISO CANYON
DATE: 2-23-73

INSTRUMENT RUN BELOW RETRIEVABLE
BRIDGE PLUG.

JOHNSTON

| FIELD REPORT NO. | RECORDER NO. |
|---|---|
| 29031 Z | T-504 |
| CAPACITY | REPORTS REQUESTED |
| 7000# | 5- |

b.b/tw
8552



AC_CPUC_0118125

JOHNSTON

Schlumberger

# technical report

F. R. # 02553 C

COMPANY SOUTHERN CALIFORNIA GAS COMPANY WELL S.S. #29 TEST NO. 3 COUNTY LOS ANGELES STATE CALIFORNIA

AC_CPUC_0118126

JOHNSTON

# PRESSURE LOG*

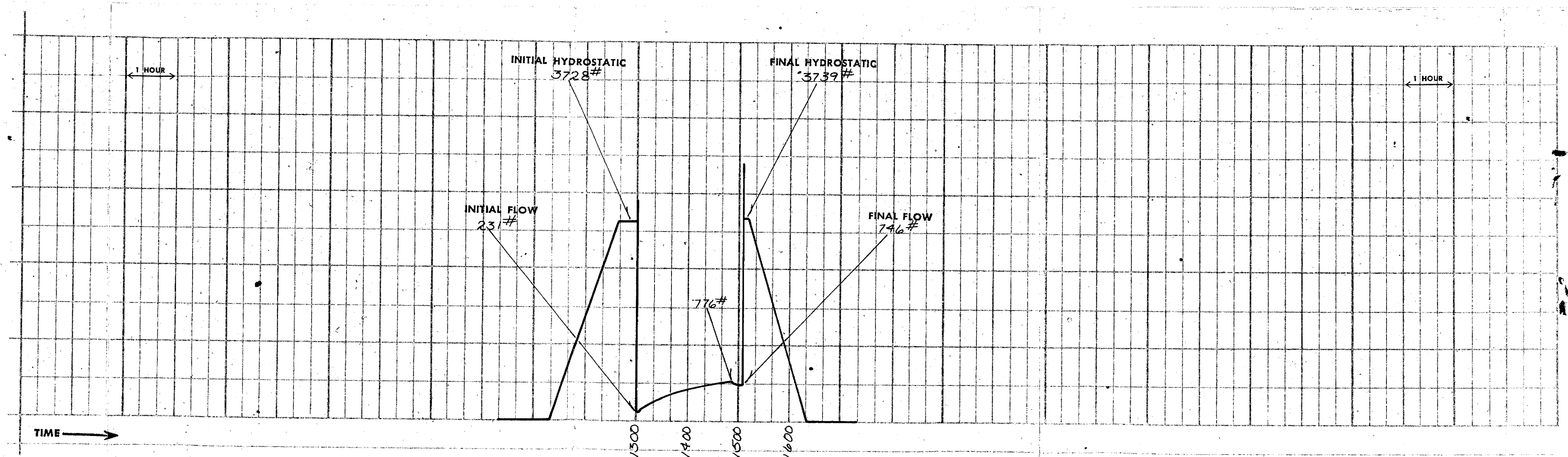
Field Report No. 02553C

Instrument:
Number T-159

Capacity 7000 p.s.i.

Depth 8530 ft.

*a continuous tracing of the original chart




Form L-238h

AC_CPUC_01118127

JOHNSTON
...found a better way

## SURFACE INFORMATION

| Description (Rate of Flow) | Time | Pressure (P.S.I.G.) | Surface Choke |
|---|---|---|---|
| Opened Tool | 1300 | - | - |
| PULLED PACKER LOOSE | 1505 | - | - |

| Cushion Type | Amount | Pressure | Bottom Choke Size |
|---|---|---|---|
| | - | | 1/2" |

## MUD DATA

Mud Type SALT WATER GEL Wt. 63
Viscosity 45 Water Loss - C.C.
Resist: of Mud - @ - °F; of Filtrate - @ - °F
Chloride Content - PPM

## EQUIPMENT & HOLE DATA

Type Test M. F. E. CASING
Formation Tested FREW
Elevation - Ft.
Net Productive Interval 34 Ft.
Estimated Porosity - %
All Depths Measured From KELLY BUSHING
Total Depth - Ft.
Main Hole/Casing Size 7"
Rat Hole/Liner Size 5" x 18#
Drill Collar Length - I.D. -
Drill Pipe Length 8493' I.D. -
Packer Depth(s) 8516 Ft.

## MULTI-FLOW EVALUATOR FLUID SAMPLE DATA

Sampler Pressure ____ P.S.I.G. at Surface
Recovery: Cu. Ft. Gas ____
cc. Oil ____
cc. Water ____
cc. Mud ____
Tot. Liquid cc. ____
Gravity ____ °API @ ____ °F.
Gas/Oil Ratio ____ cu. ft./bbl.

| | | RESISTIVITY | CHLORIDE CONTENT |
|---|---|---|---|
| Recovery Water | @ °F. | | ppm |
| Recovery Mud | @ °F. | | |
| Recovery Mud Filtrate | @ °F. | | ppm |
| Mud Pit Sample | @ °F. | | |
| Mud Pit Sample Filtrate | @ °F. | | ppm |

| RECOVERY DESCRIPTION | FEET | BARRELS | % OIL | % WATER | % OTHERS | API GRAVITY | RESISTIVITY | CHL. PPM |
|---|---|---|---|---|---|---|---|---|
| OIL (APPROXIMATELY) | 2076 | 10.0 | 100 | | | @ °F. | @ °F. | |
| | | | | | | @ °F. | @ °F. | |
| | | | | | | @ °F. | @ °F. | |
| | | | | | | @ °F. | @ °F. | |
| | | | | | | @ °F. | @ °F. | |
| | | | | | | @ °F. | @ °F. | |
| | | | | | | @ °F. | @ °F. | |
| | | | | | | @ °F. | @ °F. | |

Remarks: ____

Address 1200 WEST LINCOLN STREET; MONTEBELLO, CALIFORNIA 90640

Company SOUTHERN CALIFORNIA GAS COMPANY Field ALISO CANYON
Well S.S. #29 Location -
Test Interval 8528' TO 8552' Test # 3 Date 2-17-73

County LOS ANGELES State CALIFORNIA
Technician FRY (VENTURA) Test Approved By MR. DON SMILEY

Field Report No. 02553 C
No. Reports Requested 5

AC_CPUC_0118128

JOHNSTON
...found a better way

## PRESSURE DATA

| | | | | |
|---|---|---|---|---|
| Instrument No. | | T-159 | T-217 | |
| Capacity (P.S.I.G.) | | 7000 | 7000 | |
| Instrument Depth | | 8530' | 8535' | |
| Instrument Opening | | INSIDE | OUTSIDE | |
| Pressure Gradient P.S.I./Ft. | | | | |
| Well Temperature °F. | | 183 | 183 | |
| Initial Hydrostatic Mud | A | 3728 | 3767 | |
| Initial Shut-in | B | - | - | |
| Initial Flow | C | 231 | 229 | |
| | C-1 | 776 | 802 | |
| | | | | |
| Final Flow | D | 746 | 772 | |
| Final Shut-in | E | - | - | |
| Final Hydrostatic Mud | F | 3739 | 3775 | |

Field Report No. 02553 C

TIME DATA

| | Time Given | Time Computed |
|---|---|---|
| | - Mins. | Mins. |
| | - Mins. | Mins. |
| | - Mins. | Mins. |
| | - Mins. | Mins. |
| | 125 Mins. | Mins. |
| | - Mins. | Mins. |

Remarks:

*Shut in pressure did not reach static reservoir pressure.

Clock Travel _____ inches per min.

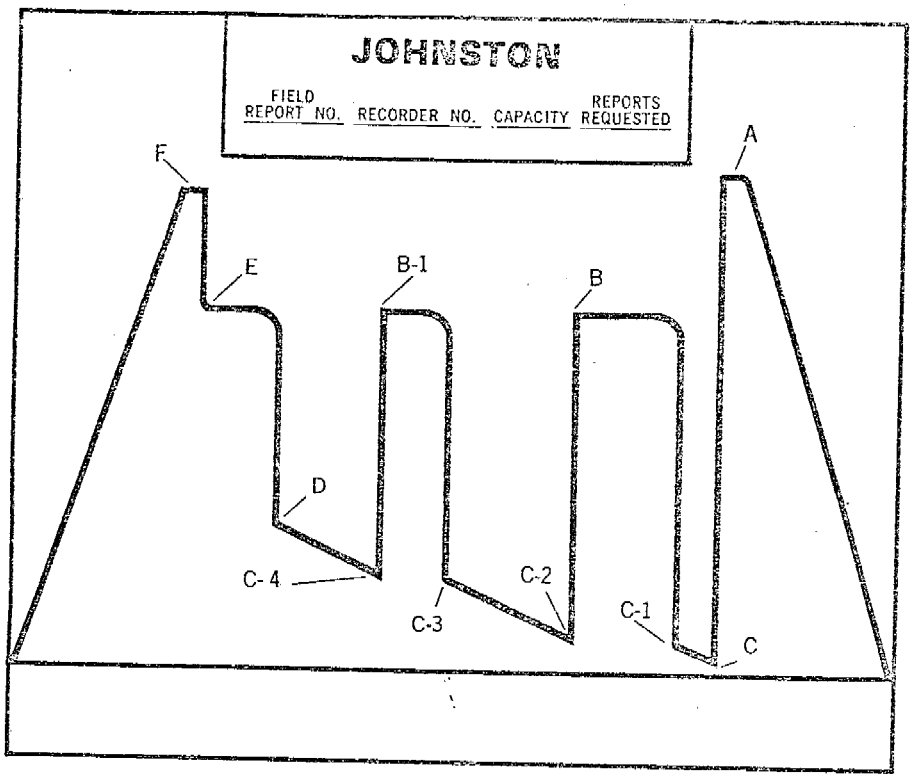
## PRESSURE INCREMENTS

| Point Minutes | Pressure | $\frac{T+\Delta t}{\Delta t}$ | Point Minutes | Pressure | $\frac{T+\Delta t}{\Delta t}$ | Point Minutes | Pressure | $\frac{T+\Delta t}{\Delta t}$ |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

AC_CPUC_0118129

JOHNSTON
...found a better way

# GUIDE TO IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS



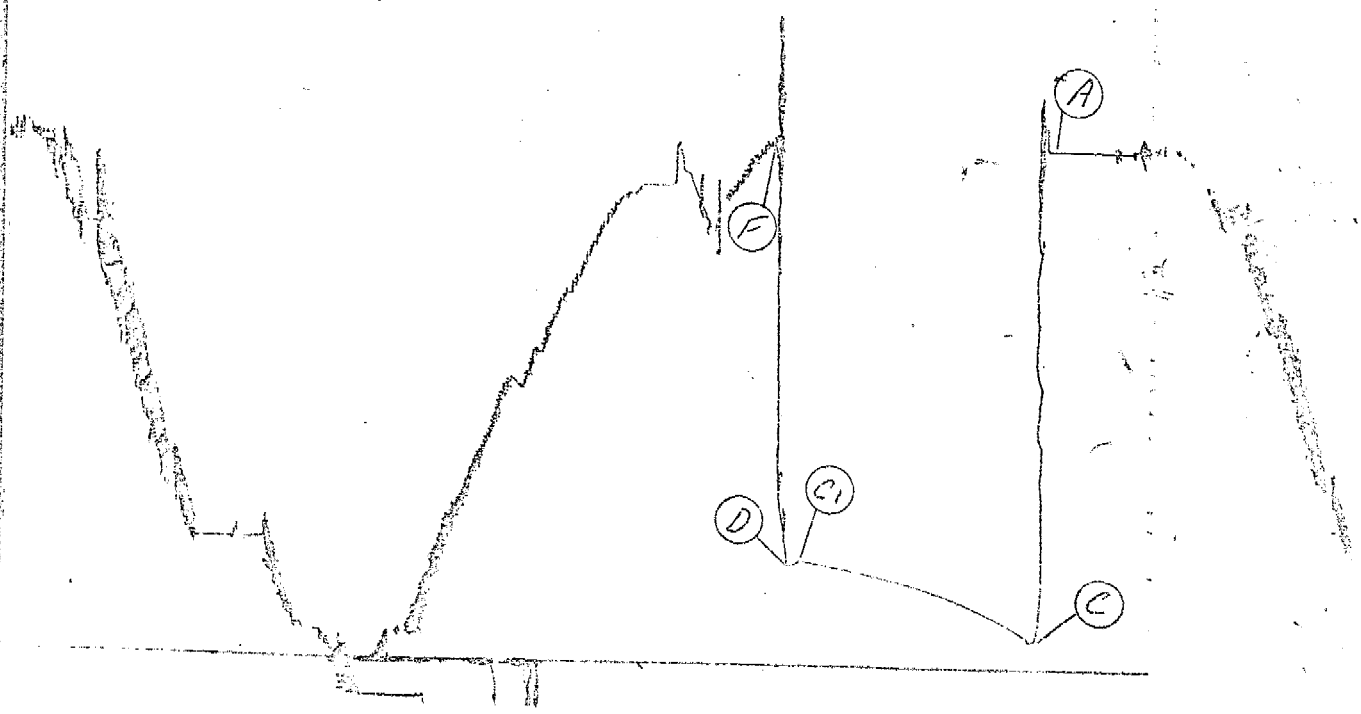

A. Initial Hyd. Mud
B. Initial Shut-in
C. Initial Flow
D. Final Flow
E. Final Shut-in
F. Final Hyd. Mud

*The following points are either fluctuating pressures or points indicating other packer settings, (testing different zones).*

A-1, A-2, A-3, etc. Initial Hyd. Pressures
B-1, B-2, B-3, etc. Subsequent Shut-in Pressures
C-1, C-2, C-3, etc. Flowing Pressures
D-1, D-2, D-3, etc. Subsequent Final Flow Pressures
E-1, E-2, E-3, etc. Subsequent Final Shut-in Pressures
F-1, F-2, F-3, etc. Final Hyd. Mud Pressures
Z — Special pressure points such as pumping pressure recorded for formation breakdown.

JOHNSTON

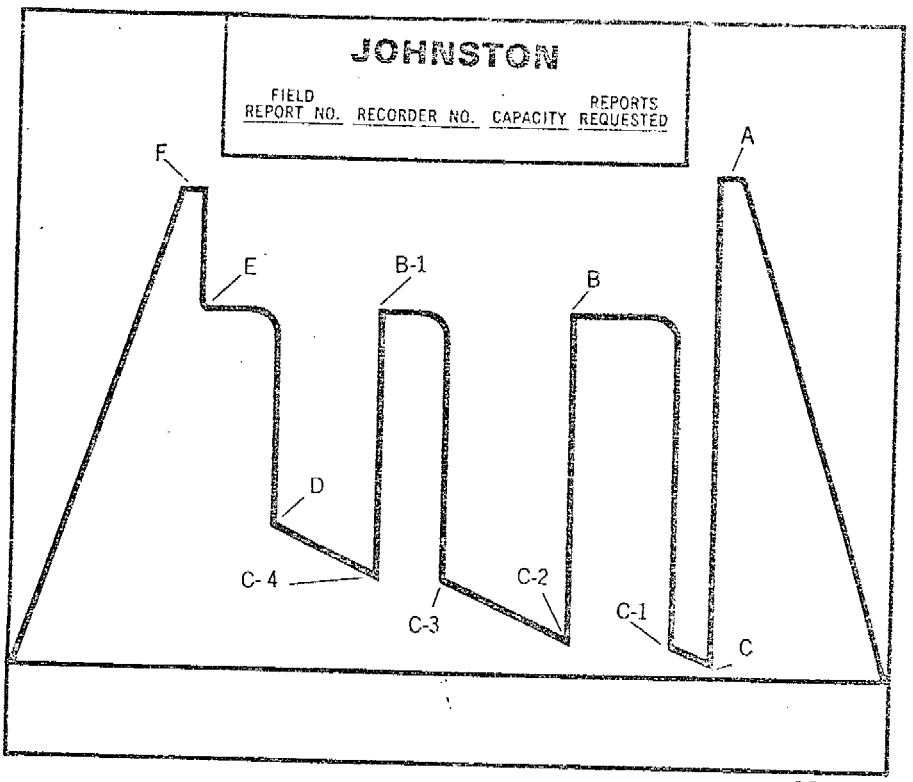
| FIELD REPORT NO. | RECORDER NO. |
|---|---|
| 02553 C | T-159 |
| **CAPACITY** | **REPORTS REQUESTED** |
| 7000# | 5+ |




AC_CPUC_0118130

JOHNSTON
...found a better way

# GUIDE TO IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS



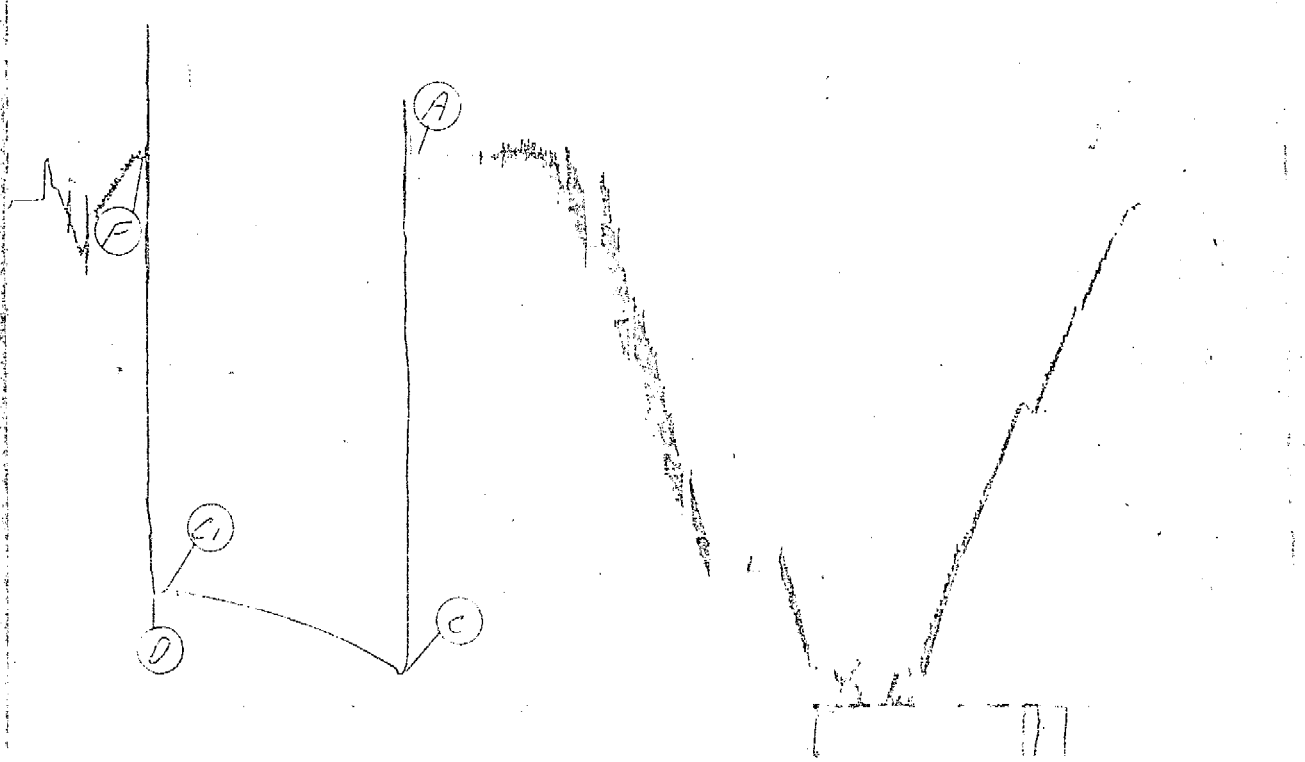

A. Initial Hyd. Mud
B. Initial Shut-in
C. Initial Flow
D. Final Flow
E. Final Shut-in
F. Final Hyd. Mud

***The following points are either fluctuating pressures or points indicating other packer settings, (testing different zones).***

A-1, A-2, A-3, etc. Initial Hyd. Pressures
B-1, B-2, B-3, etc. Subsequent Shut-in Pressures
C-1, C-2, C-3, etc. Flowing Pressures
D-1, D-2, D-3, etc. Subsequent Final Flow Pressures
E-1, E-2, E-3, etc. Subsequent Final Shut-in Pressures
F-1, F-2, F-3, etc. Final Hyd. Mud Pressures
Z — Special pressure points such as pumping pressure recorded for formation breakdown.

JOHNSTON

| FIELD REPORT NO. | RECORDER NO. |
|---|---|
| 02553 C | T-217 |
| **CAPACITY** | **REPORTS REQUESTED** |
| 7000# | 5+ |




AC_CPUC_0118131

COMPANY SOUTHERN CALIFORNIA GAS COMPANY WELL S.S. #29 TEST NO. 2 COUNTY LOS ANGELES STATE CALIFORNIA

JOHNSTON

Schlumberger

# technical report

F. R. # 20090 B

AC_CPUC_0118132

**JOHNSTON** ...found a better way

## SURFACE INFORMATION

| Description (Rate of Flow) | Time | Pressure (P.S.I.G.) | Surface Choke |
|---|---|---|---|
| Opened Tool (2-10-73) | 1037 | - | 1/8" |
| OPENED ON SURFACE | 1047 | 980 | " |
| | 1055 | 1039 | 3/8" |
| | 1110 | 921 | 1/2" |
| | 1140 | 668 | " |
| | 1240 | 730 | " |
| | 1340 | 747 | " |
| | 1440 | 757 | " |
| CLOSED ON SURFACE | 1537 | 762 | " |
| (INITIAL SHUT-IN) | | | |
| (2-12-73) | | | |
| OPENED WELL TO TRAP | 0620 | 1180 | CLOSED |
| | 0700 | 779 | 1/2" |
| | 0800 | 810 | " |
| | 0930 | 827 | " |
| | 1030 | 807 | " |
| | 1130 | 767 | " |
| | 1230 | 777 | " |
| | 1330 | 767 | " |
| | 1430 | 767 | " |
| | 1630 | 765 | " |
| | 1730 | 765 | " |
| | 1820 | 765 | " |
| CLOSED FOR FINAL SHUT-IN | 1823 | 765 | " |
| (2-13-73) | | | |
| PULLED PACKER LOOSE | 0640 | - | - |

| Cushion Type | Amount | Pressure | Bottom Choke Size |
|---|---|---|---|
| | - | | 1/2" |

## MUD DATA

Mud Type WATER AND GEL Wt. 63

Viscosity - Water Loss - C.C.

Resist: of Mud - @ - °F; of Filtrate - @ - °F

Chloride Content - PPM

## EQUIPMENT & HOLE DATA

Type Test M. F. E. CASING

Formation Tested -

Elevation - Ft.

Net Productive Interval 46 Ft.

Estimated Porosity - %

All Depths Measured From KELLY BUSHING

Total Depth 9077 Ft.

Main Hole/Casing Size 7"

Rat Hole/Liner Size 5"

Drill Collar Length - I.D. -

Drill Pipe Length 8395' I.D. -

Packer Depth(s) 8423 Ft.

## MULTI-FLOW EVALUATOR FLUID SAMPLE DATA

Sampler Pressure ____ P.S.I.G. at Surface

Recovery: Cu. Ft. Gas

cc. Oil

cc. Water

cc. Mud

Tot. Liquid cc.

Gravity ____ °API @ ____ °F.

Gas/Oil Ratio ____ cu. ft./bbl.

| | RESISTIVITY | CHLORIDE CONTENT |
|---|---|---|
| Recovery Water | ____ @ ____ °F. | ____ ppm |
| Recovery Mud | ____ @ ____ °F. | |
| Recovery Mud Filtrate | ____ @ ____ °F. | ____ ppm |
| Mud Pit Sample | ____ @ ____ °F. | |
| Mud Pit Sample Filtrate | ____ @ ____ °F. | ____ ppm |

| RECOVERY DESCRIPTION | FEET | BARRELS | % OIL | % WATER | % OTHERS | API GRAVITY @ °F. | RESISTIVITY @ °F. | CHL. PPM |
|---|---|---|---|---|---|---|---|---|
| - | | | | | | | | |
| | | | | | | @ °F. | @ °F. | |
| | | | | | | @ °F. | @ °F. | |
| | | | | | | @ °F. | @ °F. | |
| | | | | | | @ °F. | @ °F. | |
| | | | | | | @ °F. | @ °F. | |
| | | | | | | @ °F. | @ °F. | |
| | | | | | | @ °F. | @ °F. | |
| | | | | | | @ °F. | @ °F. | |

Remarks:

Address 1200 WEST LINCOLN; MONTEBELLO, CALIFORNIA 90640; ATTN: MR. DON SMILEY

Company SOUTHERN CALIFORNIA GAS COMPANY Field ALISO CANYON

Well S.S. #29 Location -

Test Interval 8456' TO 8502' Test # 2 Date 2-10-73

County LOS ANGELES State CALIFORNIA

Technician BOGGS (VENTURA) Test Approved By MR. D. S. SMILEY

Field Report No. 20090 B

No. Reports Requested 5

AC_CPUC_0118133

JOHNSTON
...found a better way

## PRESSURE DATA

| | | | | |
|---|---|---|---|---|
| Instrument No. | | T-159 | T-217 | |
| Capacity (P.S.I.G.) | | 7000 | 7000 | |
| Instrument Depth | | 8435' | 8439' | |
| Instrument Opening | | INSIDE | INSIDE | |
| Pressure Gradient P.S.I./Ft. | | | | |
| Well Temperature °F. | | 183 | 183 | |
| Initial Hydrostatic Mud | A | 3729.3 | 3749.5 | |
| Initial Shut-in | B | 1470.6 | - | |
| Initial Flow | C | 1304.6 | 1303.1 | |
| | C-3 | 1419.4 | 1398.2 | |
| | C-4 | 1447.1 | - | |
| Final Flow | D | 1424.9 | - | |
| Final Shut-in | E | 1476.1 | - | |
| Final Hydrostatic Mud | F | 3754.2 | 3779.9 | |
| Remarks: | C-1 | 1456.7 | 1457.7 | |
| | C-2 | 1442.9 | 1437.9 | |

Field Report No. 20090 B

TIME DATA

| | Time Given | Time Computed |
|---|---|---|
| | 2323 Mins. | 2322 Mins. |
| | 300 Mins. | 303 Mins. |
| | - Mins. | - Mins. |
| | - Mins. | - Mins. |
| | 723 Mins. | 721 Mins. |
| | 737 Mins. | 737 Mins. |

INSTRUMENT NUMBER T-217; THE CLOCK STOPPED AT POINT "C-3" LABELED ON CHART, THEN BEGAN RUNNING AGAIN DURING THE FINAL SHUT-IN.

*Shut in pressure did not reach static reservoir pressure.

Clock Travel 0.02059 inches per min.

## PRESSURE INCREMENTS

| INITIAL FLOW | | | FINAL FLOW | | | INITIAL SHUT-IN | | |
|---|---|---|---|---|---|---|---|---|
| Point Minutes | Pressure | $\frac{T+\Delta t}{\Delta t}$ | Point Minutes | Pressure | $\frac{T+\Delta t}{\Delta t}$ | Point Minutes | Pressure | $\frac{T+\Delta t}{\Delta t}$ |
| C 0 | 1304.6 | | C-4 0 | 1447.1 | | C-3 0 | 1419.4 | |
| 2 | 1321.2 | | 1 | 1442.9 | | 2 | 1442.9 | |
| 4 | 1344.7 | | 2 | 1436.0 | | 4 | 1462.3 | |
| 6 | 1364.1 | | 3 | 1431.8 | | 6 | 1467.8 | |
| 8 | 1397.3 | | 4 | 1429.1 | | 8 | 1469.2 | |
| 10 | 1426.3 | | 5 | 1429.1 | | 10 | 1470.6 | |
| 12 | 1444.3 | | 6 | 1429.1 | | | NO CHANGE IN PRESSURE | |
| 14 | 1452.6 | | 7 | 1429.1 | | | FROM 10 MINUTES THROUGH | |
| 16 | 1456.7 | | 8 | 1429.1 | | | 2322 MINUTES | |
| 18 | 1456.7 | | 9 | 1429.1 | | B 2322 | 1470.6 | |
| 20 | 1456.7 | | 10 | 1429.1 | | | | |
| 22 | 1448.4 | | 20 | 1429.1 | | | FINAL SHUT-IN | |
| 24 | 1447.1 | | 30 | 1427.7 | | D 0 | 1424.9 | |
| 26 | 1444.3 | | 40 | 1427.7 | | 1 | 1459.5 | |
| 28 | 1444.3 | | 50 | 1426.3 | | 2 | 1466.4 | |
| 30 | 1442.9 | | 60 | 1426.3 | | 3 | 1469.2 | |
| 32 | 1441.5 | | 70 | 1426.3 | | 4 | 1472.0 | |
| 34 | 1441.5 | | 80 | 1426.3 | | 5 | 1474.7 | |
| 36 | 1427.7 | | 90 | 1424.9 | | 6 | 1476.1 | |
| 38 | 1422.2 | | | NO CHANGE IN PRESSURE | | | NO CHANGE IN PRESSURE | |
| 40 | 1419.4 | | | FROM 90 MINUTES THROUGH | | | FROM 6 MINUTES THROUGH | |
| 42 | 1419.4 | | | 721 MINUTES | | | 737 MINUTES | |
| 44 | 1418.0 | | D 721 | 1424.9 | | E 737 | 1476.1 | |
| 46 | 1418.0 | | | | | | | |
| 48 | 1418.0 | | | | | | | |
| 50 | 1419.4 | | | | | | | |
| | NO CHANGE IN PRESSURE | | | | | | | |
| | FROM 52 MINUTES THROUGH | | | | | | | |
| | 303 MINUTES | | | | | | | |
| C-3 303 | 1419.4 | | | | | | | |

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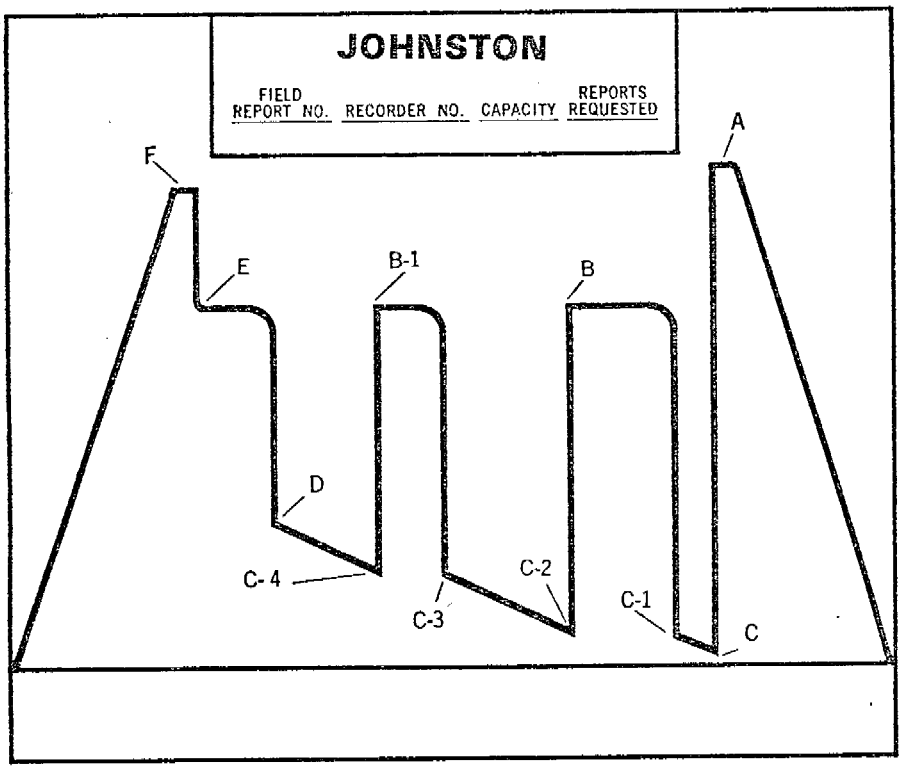
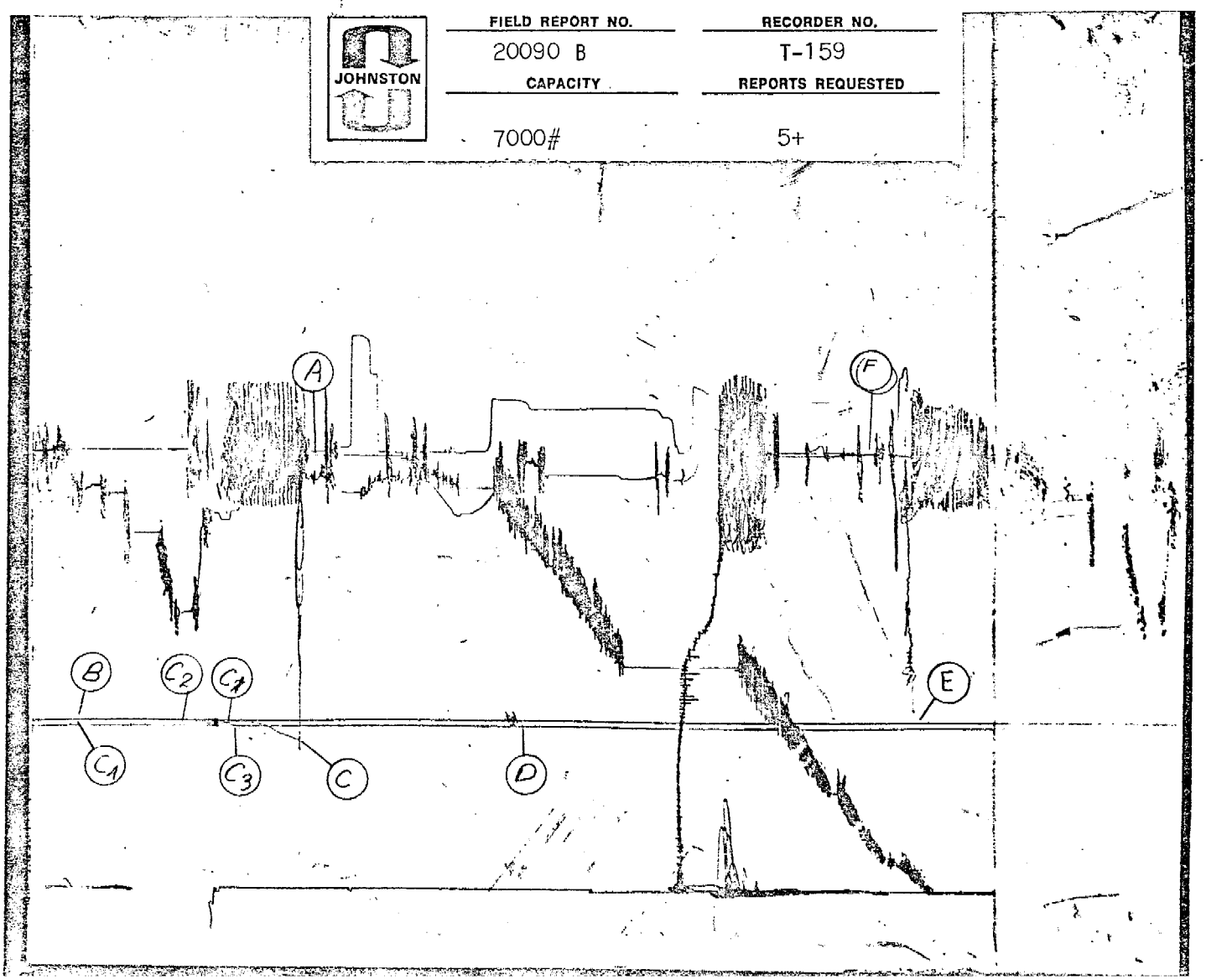
# GUIDE TO IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS




A. Initial Hyd. Mud
B. Initial Shut-in
C. Initial Flow
D. Final Flow
E. Final Shut-in
F. Final Hyd. Mud

***The following points are either fluctuating pressures or points indicating other packer settings, (testing different zones).***

A-1, A-2, A-3, etc. Initial Hyd. Pressures
B-1, B-2, B-3, etc. Subsequent Shut-in Pressures
C-1, C-2, C-3, etc. Flowing Pressures
D-1, D-2, D-3, etc. Subsequent Final Flow Pressures
E-1, E-2, E-3, etc. Subsequent Final Shut-in Pressures
F-1, F-2, F-3, etc. Final Hyd. Mud Pressures
Z — Special pressure points such as pumping pressure recorded for formation breakdown.

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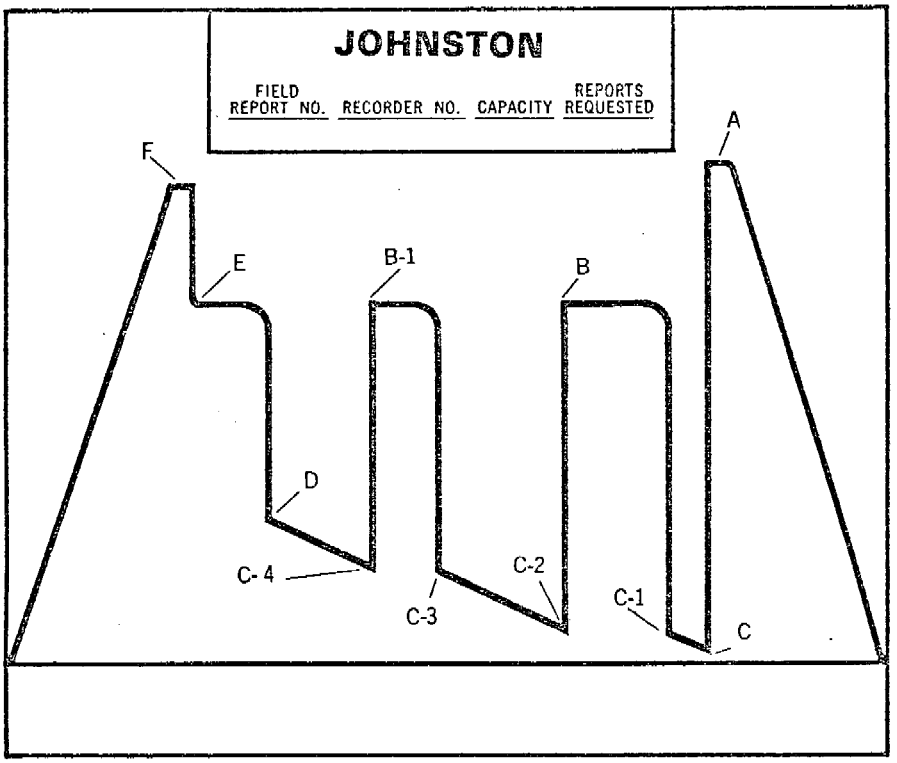
# GUIDE TO IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS

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C. Initial Flow
D. Final Flow
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F. Final Hyd. Mud

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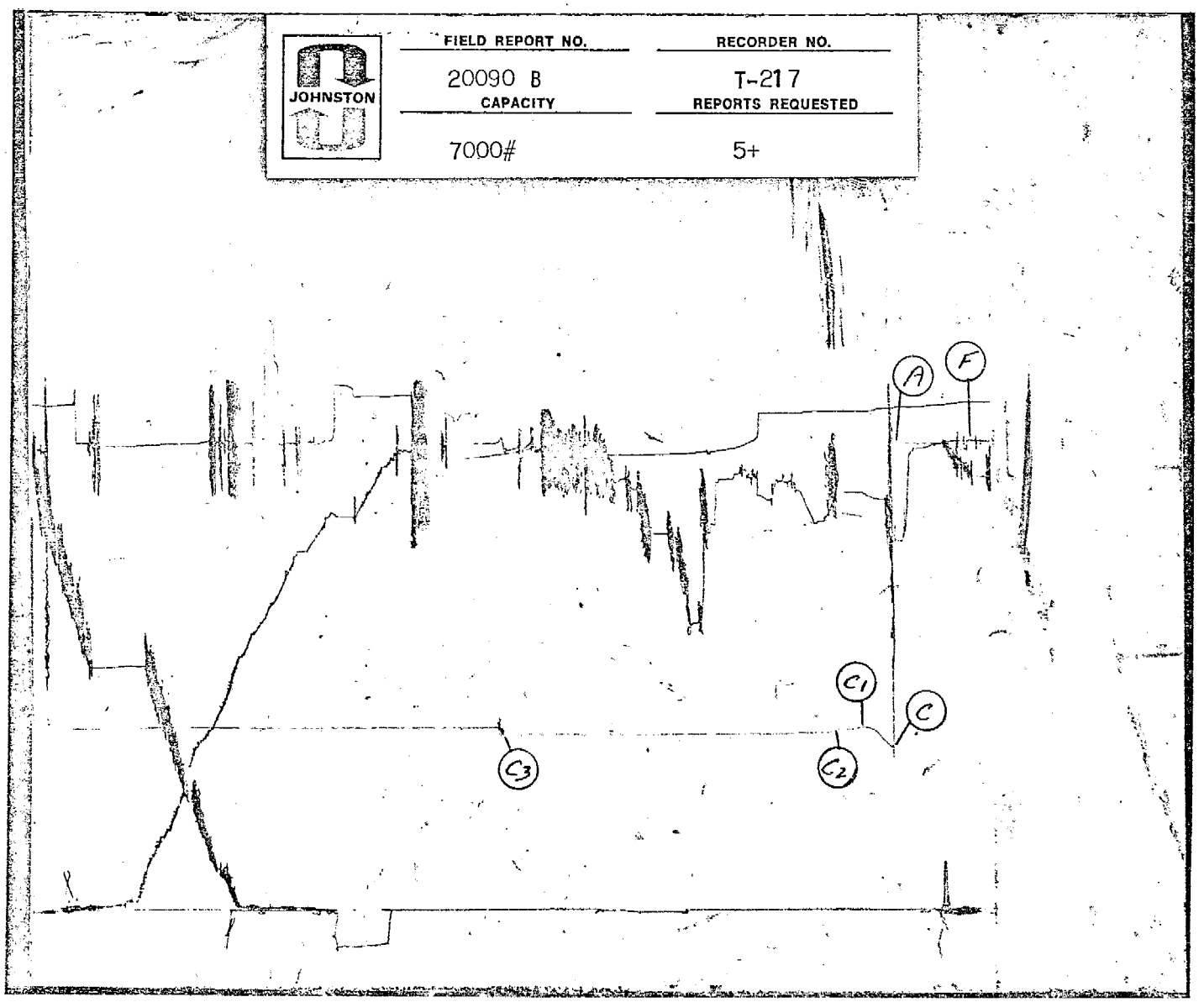


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Schlumberger

# technical report

F. R. # 20089 B

COMPANY SOUTHERN CALIFORNIA GAS COMPANY WELL S.S. #29 TEST NO. 1 COUNTY LOS ANGELES STATE CALIFORNIA

AC_CPUC_0118137

JOHNSTON

# PRESSURE LOG*

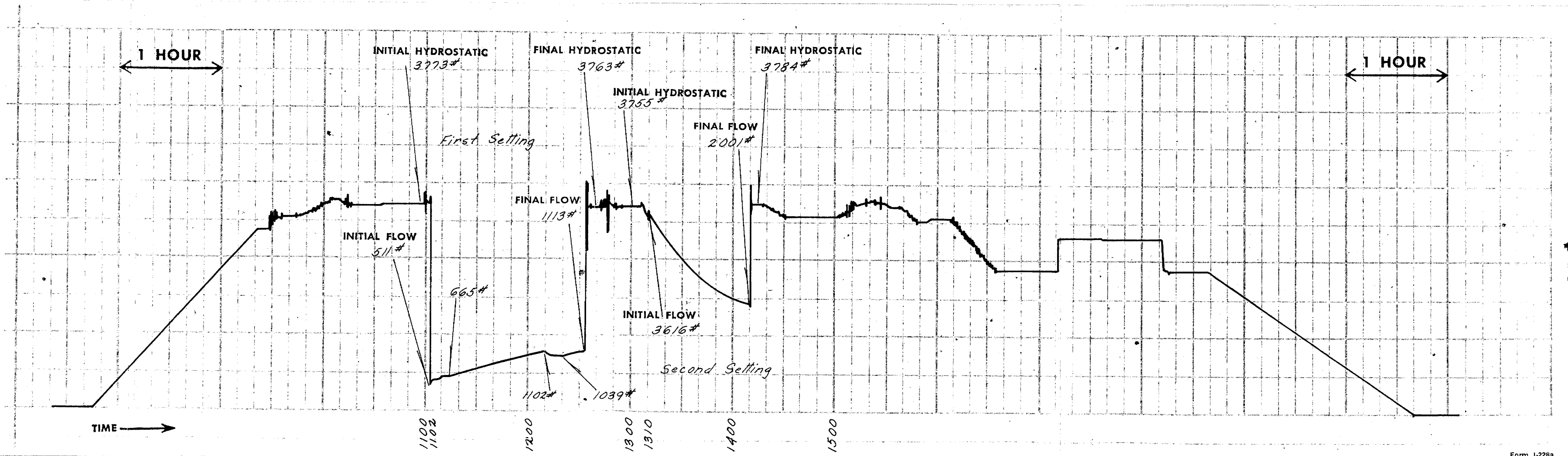
Field Report No. 20089 B

Instrument: Number T-159

Capacity 7000 p.s.i.

Depth 1st setting 8498 ft.
2nd setting —

*a continuous tracing of the original chart




Form J-228a

AC_CPUC_0118138

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## SURFACE INFORMATION

| Description (Rate of Flow) | Time | Pressure (P.S.I.G.) | Surface Choke |
|---|---|---|---|
| Opened Tool | 1102 | - | - |
| | 1115 | 102 | - |
| | 1135 | 125 | - |
| | 1150 | 137 | - |
| | 1205 | 142 | - |
| OPENED LINE AND BLED OFF | | | |
| PRESSURE IN 15 MINUTES. | | | |
| PULLED PACKER LOOSE | 1232 | - | - |
| RETRIEVED BRIDGE PLUG. | | | |
| RE-SET BRIDGE PLUG ABOVE | | | |
| PERFORATIONS AT 8528' TO | | | |
| 8552'. | | | |
| RE-SET PACKER | 1308 | - | - |
| RE-OPENED TOOL | 1310 | - | - |
| LIGHT BLOW FOR BALANCE OF | | | |
| TEST. | | | |
| PULLED PACKER LOOSE | 1410 | - | - |

| Cushion Type | Amount | Pressure | Bottom Choke |
|---|---|---|---|
| | - | | Size 1/2" |

## MUD DATA

Mud Type WATER WITH GEL Wt. 63
Viscosity - Water Loss - C.C.
Resist: of Mud - @ - °F; of Filtrate - @ - °F
Chloride Content - PPM

## EQUIPMENT & HOLE DATA

Type Test M. F. E. CASING
Formation Tested -
Elevation - Ft.
Net Productive Interval 90 Ft.
Estimated Porosity - %
All Depths Measured From -
Total Depth 9077 Ft.
Main Hole/Casing Size 7"
Rat Hole/Liner Size 5"
Drill Collar Length - I.D. -
Drill Pipe Length 8456' I.D. -
Packer Depth(s) 8486 Ft.

## MULTI-FLOW EVALUATOR FLUID SAMPLE DATA

Sampler Pressure _____ P.S.I.G. at Surface
Recovery: Cu. Ft. Gas _____
cc. Oil _____
cc. Water _____
cc. Mud _____
Tot. Liquid cc. _____
Gravity _____ °API @ _____ °F.
Gas/Oil Ratio _____ cu. ft./bbl.

| | RESISTIVITY | CHLORIDE CONTENT |
|---|---|---|
| Recovery Water | _____ @ _____ °F. | _____ ppm |
| Recovery Mud | _____ @ _____ °F. | |
| Recovery Mud Filtrate | _____ @ _____ °F. | _____ ppm |
| Mud Pit Sample | _____ @ _____ °F. | |
| Mud Pit Sample Filtrate | _____ @ _____ °F. | _____ ppm |

| RECOVERY DESCRIPTION | FEET | BARRELS | % OIL | % WATER | % OTHERS | API GRAVITY | RESISTIVITY | CHL. PPM |
|---|---|---|---|---|---|---|---|---|
| GAS | - | - | | | | @ °F. | @ °F. | |
| DRILLING FLUID | 300 | - | | | | @ °F. | @ °F. | |
| OIL | 5500 | - | | | | @ °F. | @ °F. | |
| | | | | | | @ °F. | @ °F. | |
| | | | | | | @ °F. | @ °F. | |
| | | | | | | @ °F. | @ °F. | |
| | | | | | | @ °F. | @ °F. | |
| | | | | | | @ °F. | @ °F. | |

Remarks:

Address 1200 WEST LINCOLN; MONTEBELLO, CALIFORNIA 90640; ATTN: MR. DON SMILEY

Company SOUTHERN CALIFORNIA GAS COMPANY Field ALISO CANYON
Well S.S. #29 Location -
Test Interval 8528' TO 8552'; 8602' TO 8638'; 8658' TO 8668'; 8674' TO 8694' Test # 1 Date 2-9-73
County LOS ANGELES State CALIFORNIA
Technician BOGGS (VENTURA) Test Approved By MR. D. S. SMILEY
Field Report No. 20089 B
No. Reports Requested 5

AC_CPUC_0118139

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## PRESSURE DATA

| | | 1ST. SETTING | | 2ND. SETTING | |
|---|---|---|---|---|---|
| Instrument No. | | T-159 | | | |
| Capacity (P.S.I.G.) | | 7000 | | | |
| Instrument Depth | | 8498' | | - | |
| Instrument Opening | | INSIDE | | | |
| Pressure Gradient P.S.I./Ft. | | | | | |
| Well Temperature °F. | | 160 | | | |
| Initial Hydrostatic Mud | A | 3773 | A-1 | 3755 | |
| Initial Shut-in | B | - | | - | |
| Initial Flow | C | 511 | C-4 | 3616 | |
| | C-1 | 665 | | - | |
| | C-2 | 1102 | | - | |
| Final Flow | D | 1113 | D-1 | 2001 | |
| Final Shut-in | E | - | | - | |
| Final Hydrostatic Mud | F | 3763 | F-1 | 3784 | |
| Remarks: | C-3 | 1039 | | | |

Field Report No. 20089 B

TIME DATA

| | Time Given 1ST. SETTING | Time GIVEN 2ND. SETTING |
|---|---|---|
| | - Mins. | - Mins. |
| | - Mins. | - Mins. |
| | - Mins. | - Mins. |
| | - Mins. | - Mins. |
| | 90 Mins. | 60 Mins. |
| | - Mins. | - Mins. |

*Shut in pressure did not reach static reservoir pressure.*

Clock Travel _____ inches per min.

## PRESSURE INCREMENTS

| Point Minutes | Pressure | $\frac{T+\Delta t}{\Delta t}$ | Point Minutes | Pressure | $\frac{T+\Delta t}{\Delta t}$ | Point Minutes | Pressure | $\frac{T+\Delta t}{\Delta t}$ |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

AC_CPUC_0118140

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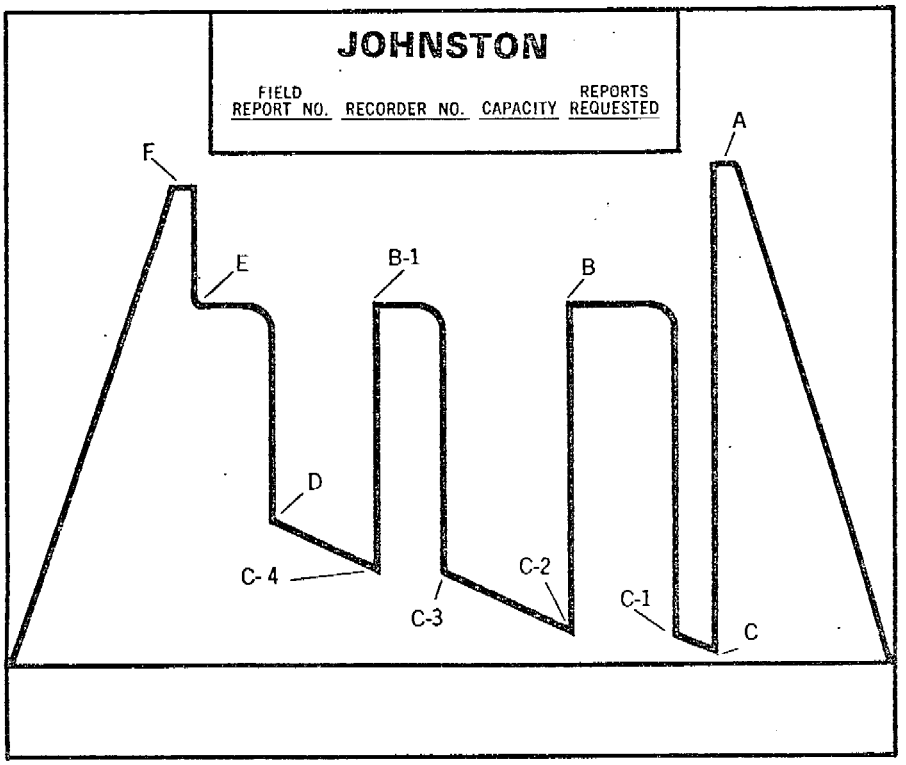
# GUIDE TO IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS

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F. Final Hyd. Mud

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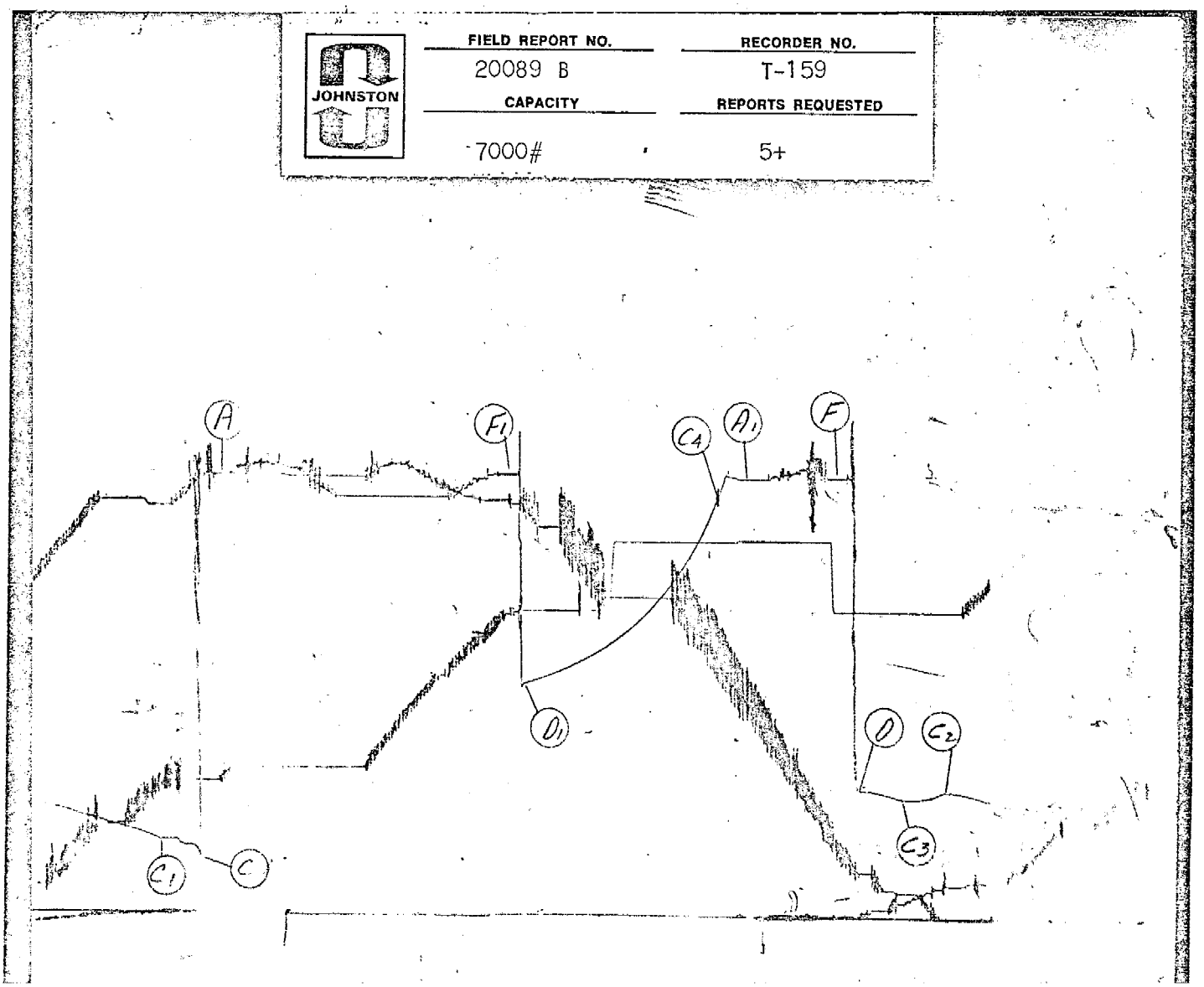


AC_CPUC_0118141

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## PRESSURE DATA

| | | 1ST. SETTING | 2ND. SETTING |
|---|---|---|---|
| Instrument No. | | T-217 | |
| Capacity (P.S.I.G.) | | 7000 | |
| Instrument Depth | | 8503' | - |
| Instrument Opening | | INSIDE | |
| Pressure Gradient P.S.I./Ft. | | | |
| Well Temperature °F. | | 160 | |
| Initial Hydrostatic Mud | A | 3797 | A-1 3776 |
| Initial Shut-in | B | - | - |
| Initial Flow | C | 503 | C-4 3643 |
| | C-1 | 646 | - |
| | C-2 | 1115 | - |
| Final Flow | D | 1115 | D-1 1988 |
| Final Shut-in | E | - | - |
| Final Hydrostatic Mud | F | 3785 | F-1 3796 |
| Remarks: | C-3 | 1044 | |

Field Report No. 20089 B

### TIME DATA

| | Time Given 1ST. SETTING | Time GIVEN 2ND. SETTING |
|---|---|---|
| | - Mins. | - Mins. |
| | - Mins. | - Mins. |
| | - Mins. | - Mins. |
| | - Mins. | - Mins. |
| | 90 Mins. | 60 Mins. |
| | - Mins. | - Mins. |

*Shut in pressure did not reach static reservoir pressure.

Clock Travel _____ inches per min.

## PRESSURE INCREMENTS

| Point Minutes | Pressure | $\frac{T+\Delta t}{\Delta t}$ | Point Minutes | Pressure | $\frac{T+\Delta t}{\Delta t}$ | Point Minutes | Pressure | $\frac{T+\Delta t}{\Delta t}$ |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

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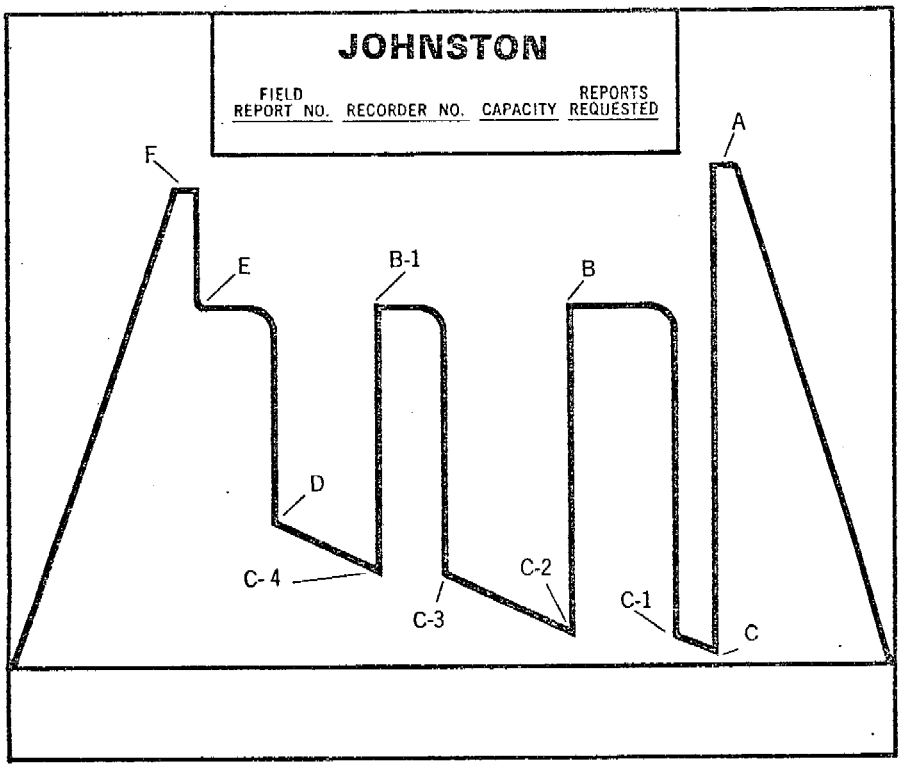
# GUIDE TO IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS

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B. Initial Shut-in
C. Initial Flow
D. Final Flow
E. Final Shut-in
F. Final Hyd. Mud

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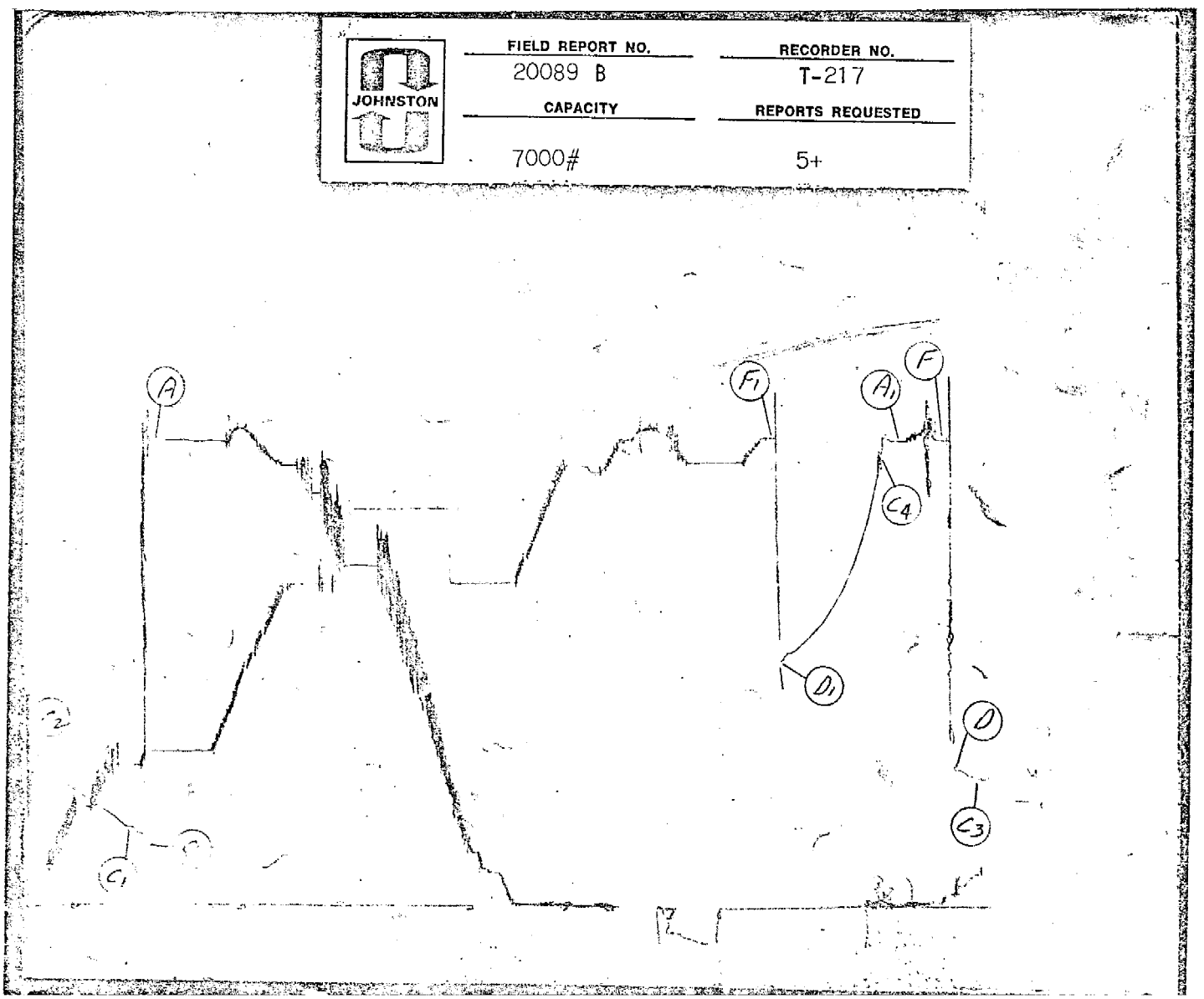


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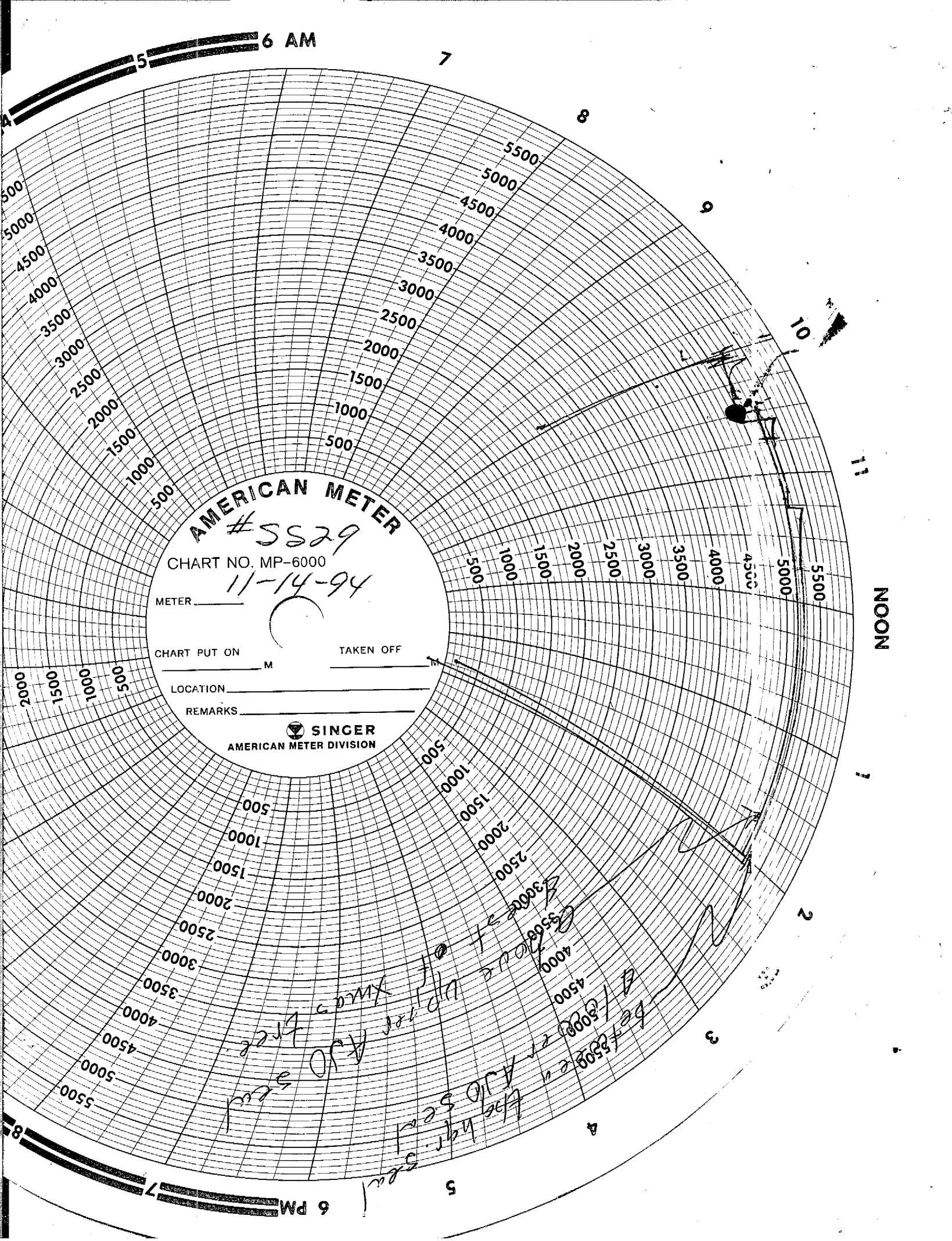



AC_CPUC_0118144

Report Date: 03/16/95

DAILY WELL ACTIVITIES SS 29

| DATE | ACTIVITY/REMARKS |
|---|---|

02/05/91 Sand test: SIWHP 1660, FWHP 1505, FWHT 110, ER 0.1, Q 25 MMcf/d

05/07/91 Ran temperature survey, some cooling above S-1, work over planned for SL repair, PU - 8800' (stop depth)

09/19/91 Installed two temporary - set rig anchors

09/19/91 Ran temperature survey, cooling above S-1, rig moving in on 9/20/91 to workover well, PU - 9025' (Inv - 63.0 BCF).

09/20/91 Well workover: well killed by rig personnel estimate 600 bbls lost to formation during well kill, milled old packer, squeezed cement @ 8330' re[erfprated well from 8428'-8820' OA, installed new packer and ran tubing, rig released 11/6/91

10/27/91 Ran noise log (during workover), quiet following squeeze, OK (Inv - 59.1 BCF)

12/19/91 Unloaded well into flowline, delay in unloading well due to full-field SI and continuing construction work on West side of field, temporary-set rig anchors (2) removed.

01/08/92 Sandtest: SIWHP - 1880, FWHP - 1320, FWHT - 104, SC - 0.800, ER - 1.3, Q - 18, Inv - 38.1

04/27/92 Ran temperature survey, temp. breaks near top of S-1 (cement squeeze @ 8330'), OK, PU - 9025' (Inv - 12.9 BCF)

08/13/92 Ran temperature survey, temp. gradient appears to break high (near 8125'), plan detail, PU - 9030' (Inv - 44.4 BCF)

09/14/92 Ran temperature detail (7000'-TD), most of cooling is confined to below S-4 top, cooling is below squeeze job OK, PU - 9050' (Inv - 52.0 BCF)

Report Date: 02/08/90

DAILY WELL ACTIVITIES SS 29

| DATE | ACTIVITY/REMARKS |
|---|---|
| 01/04/89 | Sand tested, WKM partially closed during test, took well out of service to inspect the valve, piping and instrumentation. Sand tested: SIWHP 1560, FWHP 1070, FWHT 95, SC 1.20", ER 1.10%, Q 33 MMcf/d |
| 01/09/89 | Inspected casing WKM and casing lateral, OK. Put well back in service. |
| 01/09/89 | Removed 1.20" choke, installed 1.30" choke |
| 01/17/89 | Removed 1.30" choke, installed Open choke. Sand tested SIWHP 1280, FWHP 505, FWHT 95, SC Open, ER 0.8%, Q 25 MMcf/d |
| 04/07/89 | Removed Open choke, installed 1.20 choke |
| 04/21/89 | Ran temperature survey, OK |
| 09/28/89 | Ran temperature survey, OK |
| 10/20/89 | Ran temperature and noise survey, noise at shoe, will run tracer survey |
| 11/10/89 | Ran R/A tracer survey to check for shoe leak, survey shows gas movement outside the casing past the MP zone |
| 12/13/89 | Sand test: SIWHP 2030, FWHP 1570, FWHT 105, SC 1.10, ER 3.4%, Q 40 MMcf/d |
| 01/03/90 | Removed 1.10 choke, installed 1.20 choke |
| 01/04/90 | Sand test: SIWHP 1570, FWHP 1090, FWHT 104, SC 1.2, ER 6%, Q 34 MMcf/d |
| 01/04/90 | Sandtested: SIWHP 1570, FWHP 1090, FWHT 104, Choke 1.2, Rate 34, Eros 6.0 |

Report Date: 02/15/89

DAILY WELL ACTIVITIES SS 29

| DATE | ACTIVITY/REMARKS |
|---|---|
| 05/26/83 | Ran temperature survey, no anomalies |
| 10/25/83 | Ran temperature survey, no anomalies |
| 03/28/84 | Ran temperature survey, no anomalies |
| 08/23/84 | Ran temperature survey, no anomalies |
| 01/30/85 | Sand test: no choke, SIWHP 1330 psi, Q 30 MMcf/d, ER 2.38% |
| 04/02/85 | Ran bottomhole pressure survey |
| 04/17/85 | Ran bottomhole pressure survey, pressure at datum (8256') 1537 psi, FL 8470' |
| 04/29/85 | Ran temperature survey insufficient shut-in prior to survey, no apparent anomalies |
| 08/12/85 | Ran temperature survey, OK |
| 01/07/86 | Sand testing: SC 1.30, SIWHP 1850, ER 0.2%, Q 47 MMcf/d |
| 03/20/86 | Ran temperature survey, OK |
| 09/04/86 | Ran temperature survey, slight anomaly above S-1, will run detail. |
| 09/16/86 | Ran detail (7300'-9000') survey, OK. |
| 12/08/86 | Sand testing: SC 1.30, SIWHP 1730, ER 12.0% (6" line); Q 40 MMcf/d |
| 02/03/87 | Eroded sacrificial sand probe. |
| 02/05/87 | X-rayed casing w/d lateral, OK. |
| 02/06/87 | Sand testing: SC 1.30, SIWHP 1215, ER 9.3% (6" line); Q 13 MMcf/d |
| 03/20/87 | Ran temperature survey, temp breaks slightly high, will monitor. |
| 09/24/87 | Ran temperature survey, anomaly above shoe possibly due to inadequate shut-in, will rerun |
| 11/12/87 | Ran temperature survey, anomaly above shoe, plan noise log. |
| 11/17/87 | Ran noise log to investigate temp anomaly shoe, high noise levels present, plan to set plug and rerun. |
| 11/18/87 | Set blanking plug in nipple @ 8029', ran noise log above plug. Noise levels were an order of magnitude lower than without the plug but still indicative of possible leak, plan tracer survey. |
| 11/19/87 | Pulled blanking plug. |
| 11/20/87 | Attempted to run tracer survey but ejector tool malfunctioned. |
| 11/30/87 | Attempted to run tracer survey but background log indicated well still contaminated from previous attempt |
| 12/08/87 | Ran tracer survey to check shoe leak, first run after shooting tracer showed large "bump" @ MP which was absent on second and all subsequent runs, no other indication of leakage. |
| 03/16/88 | Ran temperature survey, OK |
| 04/22/88 | Ran pressure survey, FL 8500', P @ S-4 (8428') 2024 psi |
| 10/14/88 | Ran temperature survey, OK |
| 01/03/89 | Removed 1.10" choke, installed 1.20" choke |

WELL ACTIVITY REPORTS FOR SS 29

| DATE | ACTIVITY/REMARKS |
|---|---|
| 1/11/79 | Attempted to pull separation tool. Would not come |
| 1/12/79 | Pulled separation tool and SSSV |
| 1/24/79 | Flow test: 13.7 MM, SIWHP - 1820 psi |
| 3/19/79 | Unloaded well. Rig work completed, changed to new Camco tubing retrieveable safety system |
| 3/28/79 | Foster shot fluid level. FL 8349 SIWHP 1760 |
| 4/4/79 | Revised tubing detail |
| 4/11/79 | Foster shot fluid level. FL 8349 SIWHP 1750 |
| 5/4/79 | Put well on tubing cleanup flow 5/2/79. S/I well 5/3/79. Realsed well for injeciton |
| 8/10/79 | Ran temperature survey. Could not get down. Plug in new Camco SSSV |
| 8/15/79 | Pulled Otis choke. Made feeler run to 9047' |
| 10/11/79 | Hanson set empty choke mandrel. ID .750 |
| 10/23/79 | Foster shot fluid level. FL 8189 SIWHP 2910 |
| 10/29/79 | Foster shot fluid level. FL 8213 SIWHP 3020 |
| 11/5/79 | Foster shot fluid level. FL 8213 SIWHP 2960 |
| 11/13/79 | Foster shot fluid level. FL 8217 SIWHP 3060 |
| 11/21/79 | Foster shot fluid level. FL 8217 SIWHP 3050 |
| 11/26/79 | Foster shot fluid level. FL 8220 SIWHP 3050 |
| 6/10/80 | Smith attempted temperature survey. Hydrate plug below master valve. Dumped methanol in well but still could not get through plug. |
| 8/26/80 | Archer-Reed pulled BH choke, choke holder had come off and went to bottom of well. Cost $206.50 |
| 9/8/80 | Gurevich ran temperature survey |
| 10/3/80 | Triangle ran noise log. (No apparent leak) Cost $2,628.00 |
| 10/10/80 | Archer-Reed set .860 BHC. Cost $186.50 |
| 4/27/81 | Fred ran temperature survey |
| 9/17/81 | Fred pulled BHC |
| 9/18/81 | Pruett pulled BHC. Cost $291.00 |
| 9/21/81 | Harry ran temperature survey |
| 9/24/81 | Pruett ran BHC. Cost $343.00 |
| 9/25/81 | Pruett pulled BHC |
| 10/6/81 | Triangle ran noise log |
| 11/20/81 | Pruett ran BHC |
| 12/4/81 | Installed snad test probes |
| 12/14/81 | Ran sand tests |
| 1/26/82 | Pruett pulled BHC |
| 1/27/82 | Sand testing |
| 6/22/82 | Temperature survey. No anomalies. |
| 7/9/82 | Ran 2½" Otis BHC, didn't set reran choke to 8027'. Well back in service. Archer Reed #32753, $428.00 |
| 10/18/82 | Temperature survey. No anomalies |
| 11/3/82 | Reran BHC. Archer Reed #33172, $803.50 |
| 2/14/83 | Archer Reed pulled Otis 2.205" choke from 8029'. AR#33498, $115.00 |

INTEROFFICE SOUTHERN CALIFORNIA gas COMPANY CORRESPONDENCE

Richard L. Adamczyk

TO J. B. Lane FROM Richard L. Adamczyk DATE September 13, 1990

SUBJECT SS 29 Workover, Aliso Canyon

The workover to repair the SS 29 suspected shoe leak should be deferred. A noise log was run on 8/30/90. Additional discussion and evaluation indicates that the suspected leak does not warrant remedial action at this time.

Plans are to closely monitor the well over the next year. A noise log and tracer survey may be run next year if temperature survey results show an anomaly.

However, if inventory reaches approximately 55 BCF this fall, we plan on running a tracer survey at that time.

If you have any questions, please advise.

RLA:ll

cc: N. W. Buss
R. C. Hazel
L. D. Krohmer
M. E. Melton
Well History File

64-F

file

INTEROFFICE CORRESPONDENCE

SOUTHERN CALIFORNIA gas COMPANY

M E Melton

TO R. W. Weibel FROM M. E. Melton DATE April 12, 1988

SUBJECT Deferral and Monitoring Plan for SS-29 Possible Shoe Leak

I agree with Jim Mansdorfer's memo of January 8, 1988 and Ken Taira's memo of April 8, 1988. SS-29 should be deferred until a new monitor log is run in the Fall.

Should further monitoring indicate the need for workover, repair the leak first, then consider stimulation as recommended by WelChem.

MEM:hr
Attachment

Approved by: R W Weibel
R. W. Weibel

cc: J. D. Mansdorfer
R. E. Wallace

64-F

AC_CPUC_0118150

INTEROFFICE SOUTHERN CALIFORNIA gas COMPANY CORRESPONDENCE

TO M. E. Melton FROM K. M. Taira DATE April 8, 1988

SUBJECT Monitor SS-29 for Possible Shoe Leak

SS-29 is a casing-flow injection/withdrawal well that may have a small shoe leak. Attached is Jim Mansdorfer's memo in which he estimates a 95% probability of a shoe leak.

RECOMMENDATION

Continue to monitor the probable shoe leak. Repeat the noise R/A tracer surveys when the reservoir is at a higher pressure. If the shoe leak becomes bad enough to require a workover, use the following workover procedure:

1. Kill well and pull 2-7/8" tubing string.

2. Pull Baker Retrieva-D packer.

3. Pull liner and squeeze cement at shoe or use an inflatable packer.

4. Consider stimulation as proposed by WelChem.

5. Re-install packer and tubing string.

DISCUSSION

In his memo, Jim explains that temperature surveys run on September 24, 1987 and November 12, 1987 indicated gas moving to the MP. Two noise surveys, on November 17 and on November 18 (after a tubing plug was set) both indicated gas movement above the shoe. A R/A tracer survey on December 8 showed an accumulation of tracer at 8160', the location of the MP. This accumulation of tracer then disappears quickly. Jim tells me that this is characteristic of shoe leaks at Aliso Canyon.

I agree with Jim's conclusion that there is probably a very small shoe leak in this well and that we should continue to monitor it.

KMT:hr
Attachments

64-F

VR 1/19/88
8829

SOUTHERN CALIFORNIA gas COMPANY

INTEROFFICE CORRESPONDENCE

JDM

TO R. W. Weibel FROM J. D. Mansdorfer DATE Jan. 14, 1988

SUBJECT Aliso Canyon Shoe Leaks

Currently there are four wells at Aliso Canyon that have indications of shoe leaks on both noise logs and RA tracer surveys. These wells are IW-77, SS-17, SS-29, and SS-30. A fifth well, F-6, had indications of a possible shoe leak on the noise log, but like SS-30 it does not have an injection or kill line and we did not get a tracer survey run on it before reservoir pressure was drawn down. Because there is no known way of calculating the leakage rate of shoe leaks, and since according to your memo of January 6 the average cost of repairing shoe leaks in 1986-87 was over $400,00, the merit of repairing these leaks is problematical. I will defer this decision to you. In the following paragraphs is some pertinent information, and attached are specifics on each well.

MP-Zone

On all four tracer surveys, the only indication of gas moving up was a "bump" at the MP zone. My interpretation of this behavior is that the MP zone is acting as the "receiving zone" for the gas that is moving up. Our recent test of the MP zone in Porter 4 indicates that this zone is very tight, so that the amount of gas that could be injected into it from the storage zone must be very low.

Surface Indications

None of the five wells currently have high annulus pressure or gas present in the soil (as of the Jan 7 flame ionization survey), although several nearby wells do exhibit these symptoms.

Helium Level of Upper Producing Zones

The fourth quarter helium survey of wells producing from zones above the storage zone continued its general downward trend. Only one well had over 20 ppm helium (storage gas is typically 300-400 ppm, native California gas is 5 ppm). Since these zones are significantly below hydrostatic pressure, they would be a logical "receiving zone" for any gas that gets past the MP. Even if all the gas produced from these zones was storage gas, its annual value would be approximately equal to the cost of just one shoe leak repair.

JDM:db

Attachments

cc: N. D. Stevenson
Well Files
A:M43

64-F

SOUTHERN CALIFORNIA gas COMPANY

INTEROFFICE CORRESPONDENCE

JDM

TO R. W. Weibel FROM J. D. Mansdorfer DATE Jan. 8, 1988

SUBJECT SS-29 Shoe Leak

Temperature surveys run on September 24 and November 12, 1987 indicated possible migration from the storage zone up to the MP. A noise log run on November 17 had noise levels of 500 mV. A noise log run on November 18 after setting a plug had noise levels of about 25 mV. A tracer survey was attempted on November 20 but was scrubbed because of a malfunction in the ejector tool. This contaminated the well and it was several weeks before another attempt could be made. On December 8 a tracer survey was successfully run, and indicated gas going away at the MP. I estimate a 95% probability that gas is moving up outside the casing to the MP.

JDM:db

cc: N. D. Stevenson
Well File

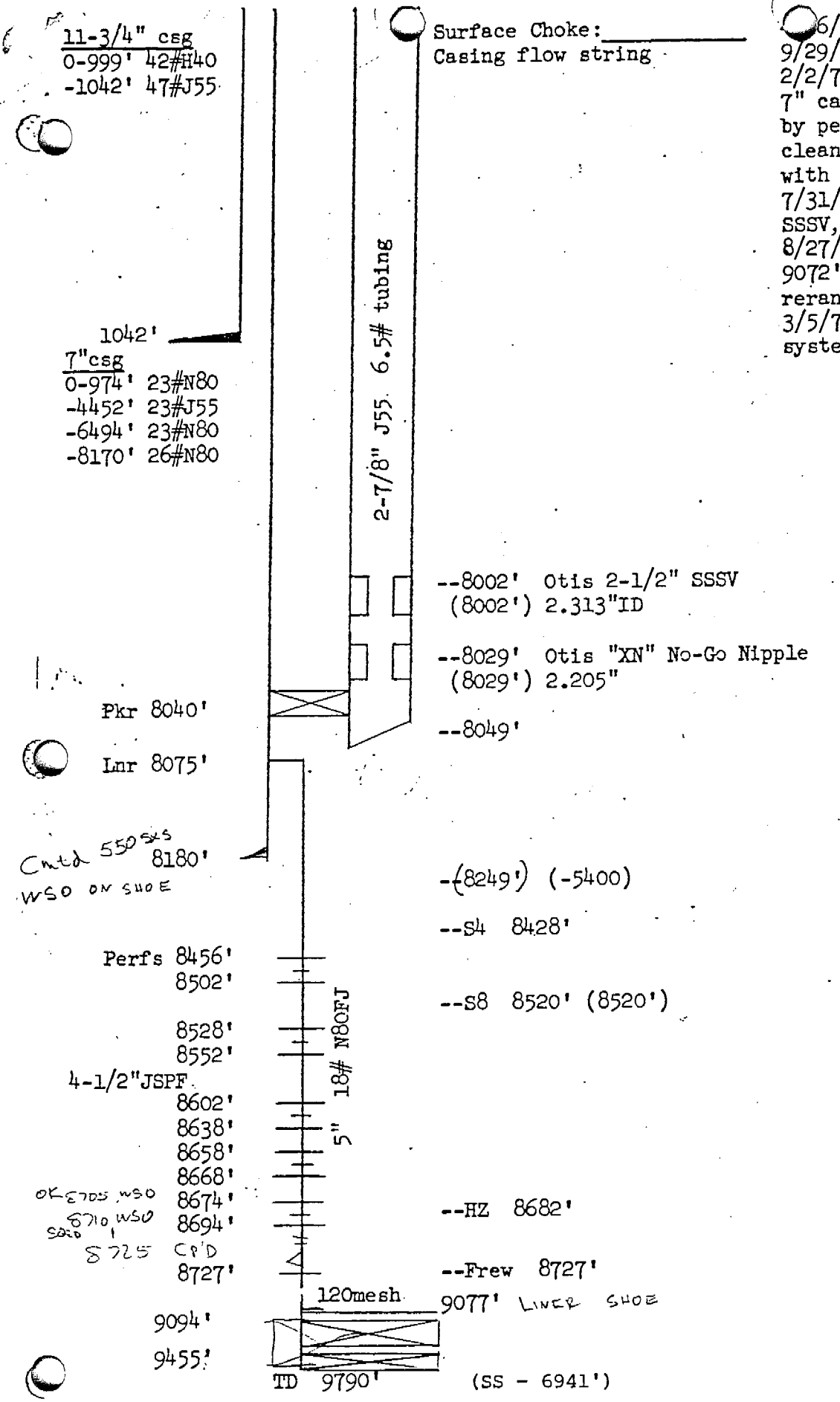
A:M45

64-F

AC_CPUC_0118153

Elevation: 2849' DF: 7'

Standard Sesnon 29




6/53 Well spud
9/29/53 Well completed
2/2/73-2/28/73 Pressure tested 7" casing, converted to gas storag by perforating in Sesnon Zone, cleaned out to 9074', ran tubing with SSSV
7/31/73-8/7/73 Installed wireline SSSV, cleaned out to 9077'
8/27/77-9/9/77 Cleaned out to 9072', pressure tested casing, reran tubing with SSSV
3/5/79-3/10/79 Replaced safety system, set packer at 8040'

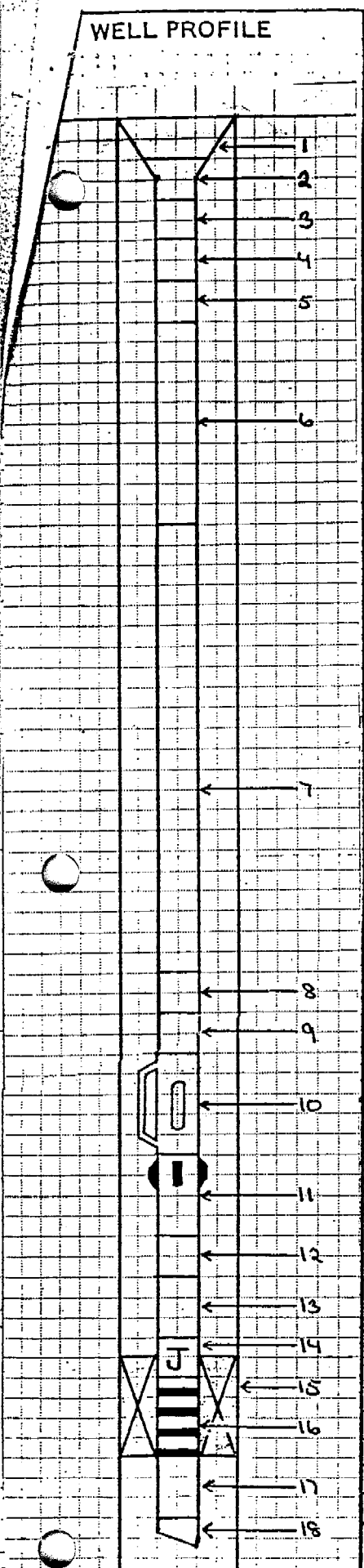
WELL VOLUME

| | Cu.Ft. | Bbl. |
|---|---|---|
| Tubing | 262 | 47 |
| Csg/Lnr. | 105 | 19 |
| Annulus | 1405 | 250 |

6/12/84

AC_CPUC_0118154

WELL PROFILE




Southern California Gas Co.
OPERATOR

WELL # S.S. #29

FIELD Aliso Canyon

COUNTY Los Angeles

STATE California

DATE March 13, 1979

☐ NEW COMPLETION ☐ WORKOVER

| | CASING | LINER | TUBING 1 | TUBING 2 | TUBING 3 |
|---|---|---|---|---|---|
| SIZE | | | | | |
| WEIGHT | | | | | |
| GRADE | | | | | |
| THREAD | | | | | |
| DEPTH | | | | | |

| ITEM NO. | TUBING DETAILS | LENGTH | DEPTH |
|---|---|---|---|
| 1. | Kelly Bushing | 6.92 | - |
| 2. | Tubing Hanger | .30 | 6.92 |
| 3. | Pup Jt. 2 7/8" 6.5# N-80 8rd EUE | 1.18 | 7.72 |
| 4. | Pup Jt. 2 7/8" 6.5# N-80 8rd EUE | 3.15 | 8.90 |
| 5. | Pup Jt. 2 7/8" 6.5# N-80 8rd EUE | 10.25 | 12.05 |
| 6. | 16 joints 2 7/8" 6.5# N-80 8rd EUE | 500.84 | 22.30 |
| 7. | 243 Joints 2 7/8" 6.5# J-55 8rd EUE | 7473.19 | 523.14 |
| 8. | Pup Jt. 2 7/8" 6.5# N-80 8rd EUE | 4.09 | 7996.33 |
| 9. | Otis "X" nipple 2.350" I.D. | 1.13 | 8000.42 |
| 10. | Otis Annular Flow Safety System 4.88" O.D., 2.313" I.D. | 7.66 | 8001.55 |
| 11. | Otis blast joint with 4 centralizers 5.50" O.D., 2.375" I.D. | 19.82 | 8009.21 |
| 12. | Otis "XN" No-Go Nipple 2.205" I.D. | 1.17 | 8029.03 |
| 13. | Otis Blast Joint 3.668" O.D. 2.375" I.D. | 9.80 | 8030.20 |
| 14. | Otis "J" latch locator | 1.16 | 8040.00 |
| 15. | Otis "Permatrieve" 7" packer (new) (20-26#) 5.87" O.D. 3.25" I.D. | 4.16 | 8040.00 |
| 16. | Otis seal assembly (4) 3.29" O.D., 2.38" I.D. | 4.05 | 8041.16 |
| 17. | Otis Production Tube | 2.96 | 8045.21 |
| 18 | Otis Guide Shoe | .42 | 8048.17 |
| | End of Tubing | | 8048.59 |

NOTES

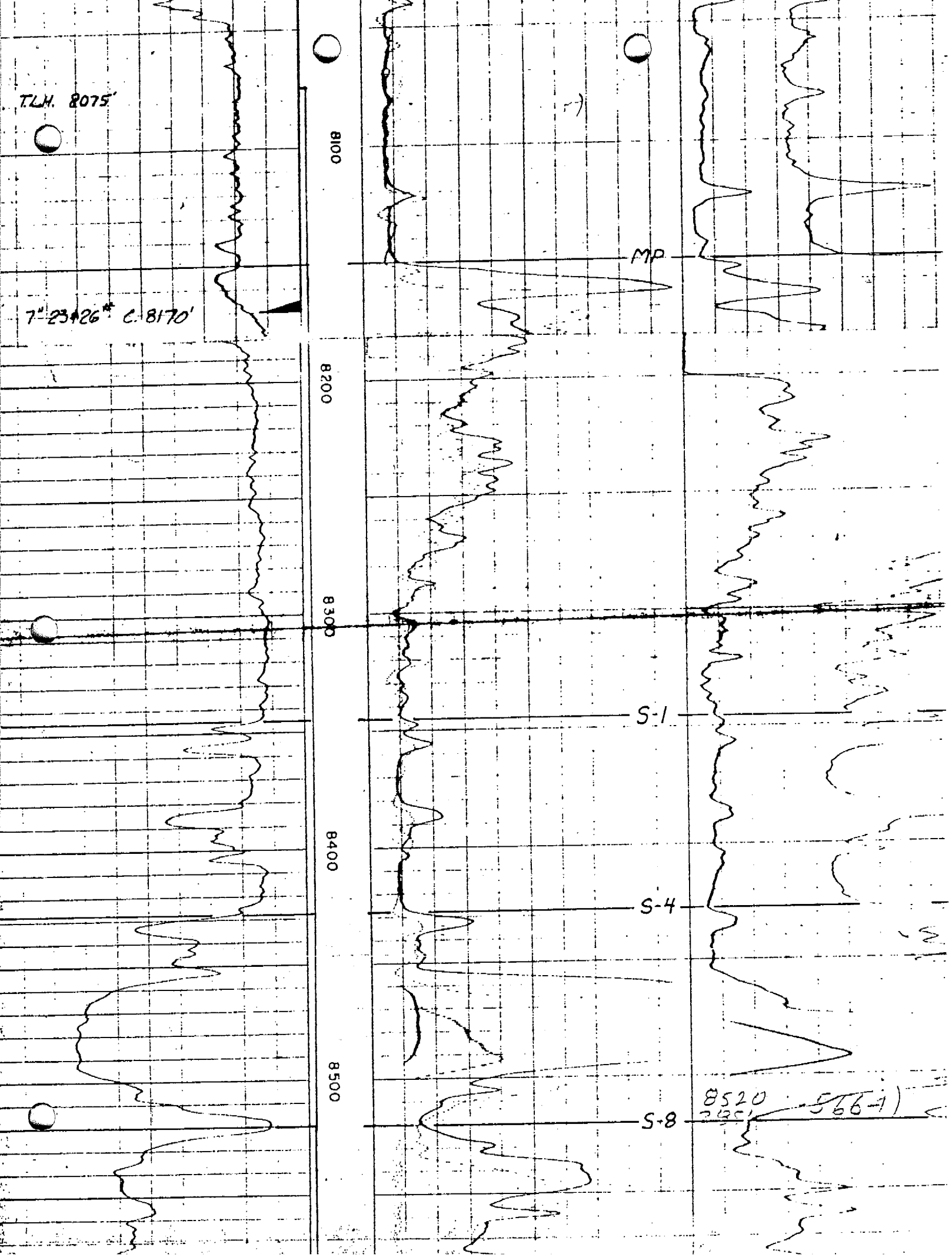
Side door choke in safety system

Tubing landed with 10,000X compression on packer

Corrected tubing measurments (7,482.13) to meet wireline measurments.

COMMENTS:

AC_CPUC_0118155




AC_CPUC_0118156

ALISO CANYON

SS 29

SHUT IN 5 DAYS PRIOR TO SURVEY.

INJ WELL 323 INJ PRIOR TO SHUT IN

55-29 9-24-87

80 100 120 140 160 180

0 1000 2000 3000 4000 5000 6000 7000 8000 9000

ANOMALY ABOVE SHOE POSSIBLY DUE TO INADEQUATE SHUT-IN. WILL RERUN.

TBG 2180

CSG 2180

T.D. 9021

PKR 8840

SHOE 9120

100 FT/MIN

RUN 9-25-87

55-29

461510

10 X 10 TO THE CENTIMETER
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0118157

10 DAYS

ALISO CANYON

SS 29

SS-29
11-12-87

50 70 90 110 130 150 170

0 1 2 3 4 5 6 7 8 9

1000 2000 3000 4000 5000 6000 7000 8000 9000

ANOMALY ABOVE SHOE - PLAN
NOISE LOG

T - 2180
C - 2160
TD 9025'

RUN-READ RM
PLOT RM

SS-27
11-13-87

100-FT/INCH

H-25-84

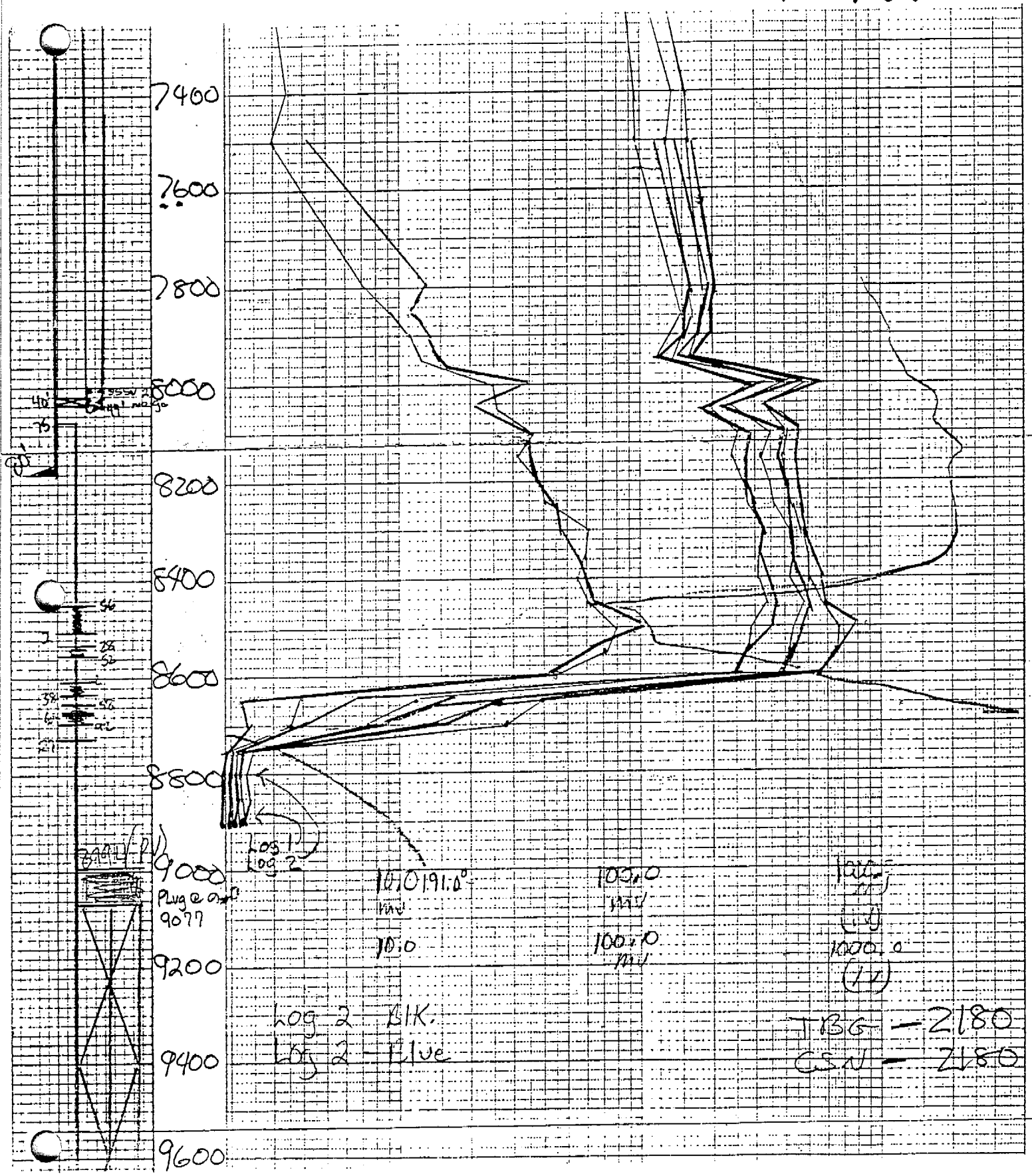
46 1510

10 X 10 TO THE CENTIMETER 18 X 25 CM
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0118158

SS-29

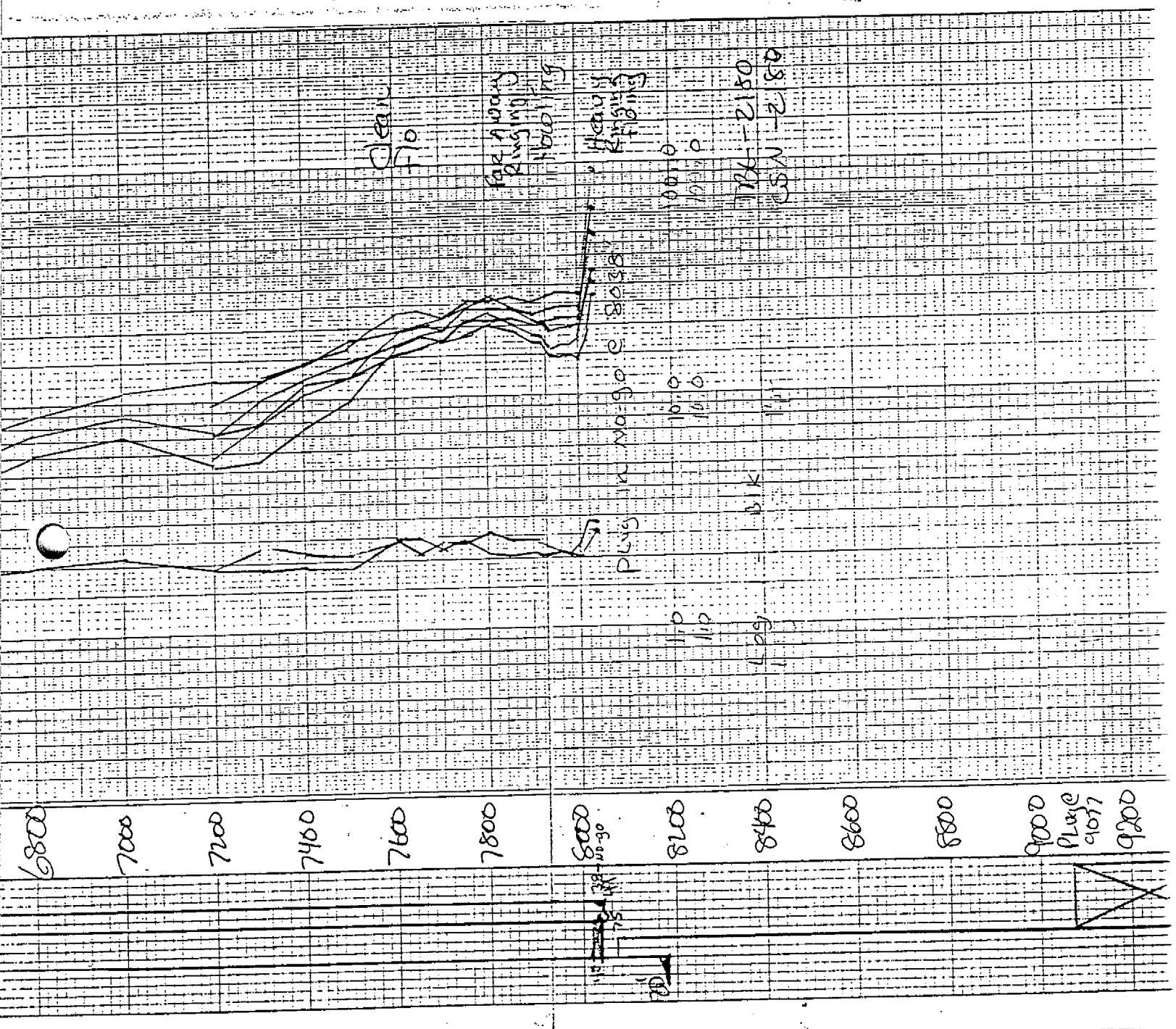
11-17-87




AC_CPUC_0118159

SS-29
11-18-87

w/ PLUG




AC_CPUC_0118160

R/A Tracer Summary: 55-29 (11-20-87)

Injected 100 mc of Iodine 131 tracer from 8440'-8460' with well on slight injection: Tubing pressure of 2190 psig (2180 psig shut-in); Casing pressure of 2180 psig (shut-in). Made three runs with tubing on injection and casing shut-in and observed a relatively consistent increase in count rates throughout the well. Put casing on injection (approx. 2190 psig) and two more runs (runs #4 & 5). Again, a consistent increase in count rate was observed throughout the well. Prior to making run #6, the gamma ray tool was removed from the well and cleaned in an attempt wether tool contamination had occurred.

Ran back in with tools and made two additional runs (#'s 6 & 7) with well shut-in. Again, the increased count rates were observed throughout the well. Placed the well on slight injection and made three more runs (#'s 8, 9 & 10) each displaying the same character as runs #1-7. Finally, the injection pressure was increased to approx. 2240 psig (tubing & casing) and logged again with the same character observed as before. All indications pointed to a malfunction of the injector tool. Will place well on injection and attempt another R/A tracer in 1-2 weeks.

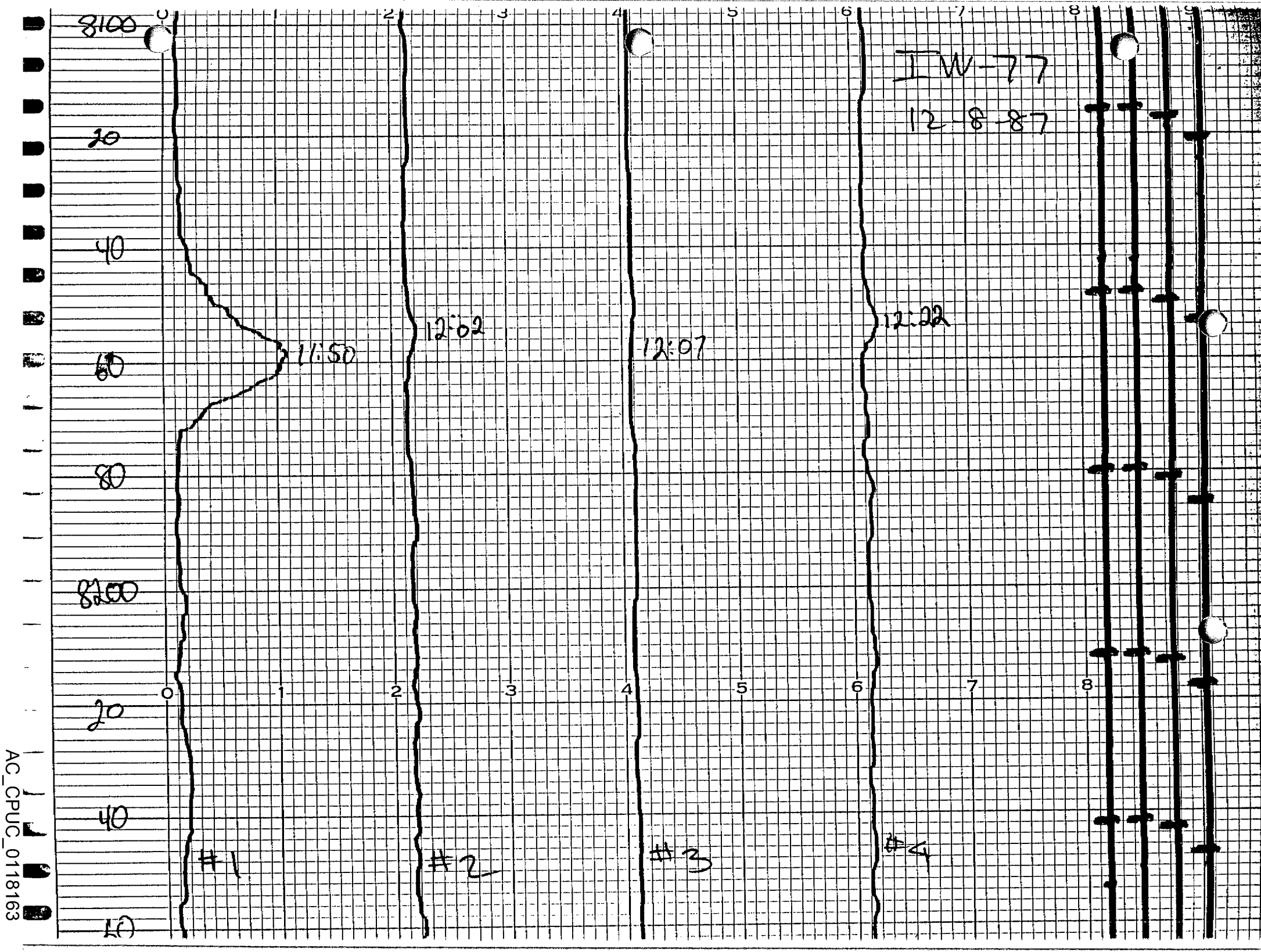
AC_CPUC_0118161

R/A Tracer Summary: SS-29 (12-8-87)

Injected 100 mc of Iodine 131 from 8460'-8440' with well on slight injection: Tubing pressure = Csg. pressure = 1845 psig (1840 psig shut-in). Made 12 runs during which several minor accumulations of tracer were observed. The most significant accumulation was recorded on run #1 at approximately 8150' (correlates with zone just below the MP). However, the accumulation at 8150' was not observed on subsequent runs leading me to conclude that either the tracer was inside the well and was subsequently pushed out the perforations, or that the accumulation had built up inside the pipe and was displaced into the zone below the MP.

Injection pressure was increased to approximately 1850-1855 psig and five more runs were made (#'s 13-17) during which the tracer accumulations noted on previous runs did not appear to increase in magnitude or change in character. Possibly these accumulations are at collars or irregularities inside the pipe. Logged through the slug on run #17 and observed count rates as high as 1000 cps from 8460'-8440'. The count rates dropped back to the background level above 8440' indicating good slug isolation. I recommend running another R/A on this well at higher inventory prior to drawing any conclusions or planning a course of action.

AC_CPUC_0118162




AC_CPUC_0118163

# WELLHEAD DESCRIPTION

Well No. SS-29

Field Aliso

Date Prepared 5-4-81

Wellhead Mfgr Shaffer

1. Casing Head Shaffer Size 13-5/8" Type KD

   Slips & Pack-off 13-5/8" x 7"

   A. Surface Csg. Size 11-3/4" Wt 42# Grade H-40

   B. Casing Head Valve Marpac Size 2" 3000 psi Fig.No. CSB-790-JN

2. Seal Flange Shaffer Size 13-5/8" x 10" 5000 psi

   A. Type Seal PS Ring BX-160 & R-54

3. Tubing Head Shaffer Size 10" x 8" 5000 psi Type 63-L-1

   Ring R-54 & Ring R-50

   Outlets 2-3" Sec.Seal PS

   Valve Removal Thrd 2-1/2" API

   A. Tubing Hanger Shaffer Size 8" x 2-7/8" Type AJO

   B.P.V. Size 2-7/8" Thrd

   B. Tubing Head Valves 2 Mc Evoy Size 3" 5000 psi Fig.No. 129

   C. Automatic Csg. Valve WKM Size 3" 5000 psi Fig.No. 114522

4. Adapter Seal Flange Shaffer Size 8"x2-1/2"x 2-9/16" Type AJO

   A. Ring Size R-50 & R-27

5. Master Valve McEvoy Size 2-1/2" 5000 psi Fig.No. 129

6. Xmas Tree Cross Shaffer Size 2-9/16"x2-9/16"x2-1/16"x 2-1/16"x2" Bore Thru 2-9/16"

   Across 2-1/16"

7. Tubing Wing Valves Rockwell Size 2" 5000 psi Fig.No. 21055

   A. Automatic Tbg. Valve WKM Size 2" 5000 psi Fig. No. 114522

8. Unibolt Size 3" 5000 psi Inside Thrds

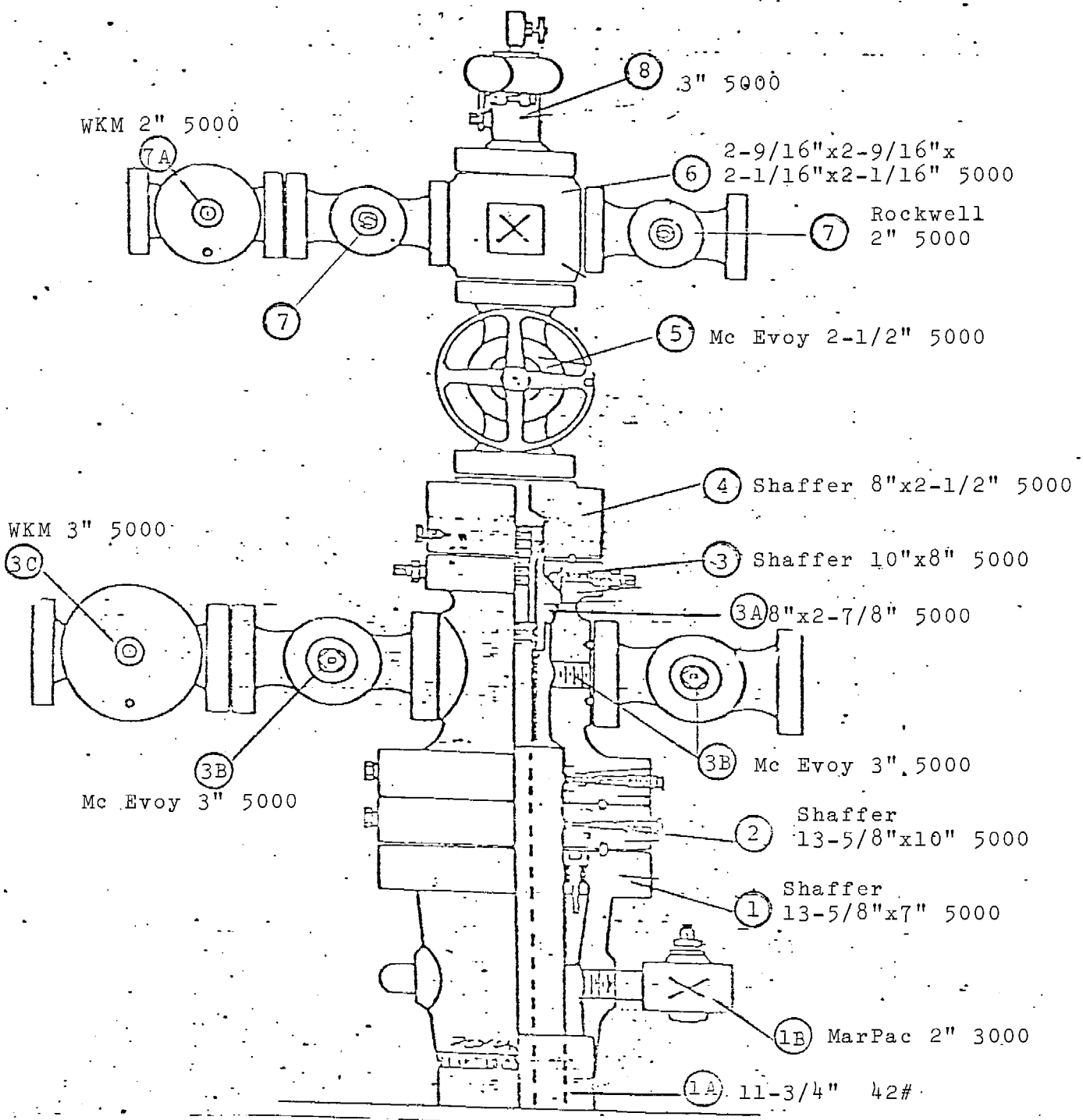
9. Wt. Landed in Csg. Head 8170' 7" Wt. 26# 23# Grade N-80 ST&C

10. Wt. Landed on Doughnut 8030' 2-7/8" 10,000 Wt. 6.5 Grade N-80 8Rd EUE

11. Tubing Head to Ground Level

AC_CPUC_0118164

# TYPE IV



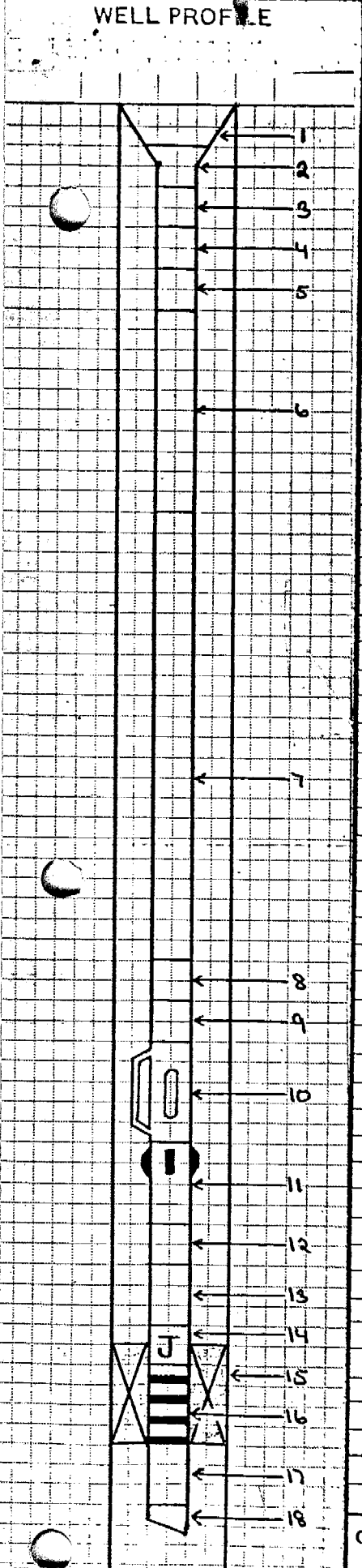

Well Name: SS 29 - Aliso Canyon

Mfgr.: Shaffer

Date Prepared: 12-20-82

AC_CPUC_0118165

WELL PROFILE




OPERATOR: Southern California Gas Co.

WELL #: S.S. #29

FIELD: Aliso Canyon

COUNTY: Los Angeles

STATE: California

DATE: March 13, 1979

☐ NEW COMPLETION ☐ WORKOVER

| | CASING | LINER | TUBING 1 | TUBING 2 | TUBING 3 |
|---|---|---|---|---|---|
| SIZE | | | | | |
| WEIGHT | | | | | |
| GRADE | | | | | |
| THREAD | | | | | |
| DEPTH | | | | | |

| ITEM NO. | TUBING DETAILS | LENGTH | DEPTH |
|---|---|---|---|
| 1. | Kelly Bushing | 6.92 | - |
| 2. | Tubing Hanger | .30 | 6.92 |
| 3. | Pup Jt. 2 7/8" 6.5# N-80 8rd EUE | 1.18 | 7.72 |
| 4. | Pup Jt. 2 7/8" 6.5# N-80 8rd EUE | 3.15 | 8.90 |
| 5. | Pup Jt. 2 7/8" 6.5# N-80 8rd EUE | 10.25 | 12.05 |
| 6. | 16 joints 2 7/8" 6.5# N-80 8rd EUE | 500.84 | 22.30 |
| 7. | 243 Joints 2 7/8" 6.5# J-55 8rd EUE | 7473.19 | 523.14 |
| 8. | Pup Jt. 2 7/8" 6.5# N-80 8rd EUE | 4.09 | 7996.33 |
| 9. | Otis "X" nipple 2.350" I.D. | 1.13 | 8000.42 |
| 10. | Otis Annular Flow Safety System 4.88" O.D., 2.313" I.D. | 7.66 | 8001.55 |
| 11. | Otis blast joint with 4 centralizers 5.50" O.D., 2.375" I.D. | 19.82 | 8009.21 |
| 12. | Otis "XN" No-Go Nipple 2.205" I.D. | 1.17 | 8029.03 |
| 13. | Otis Blast Joint 3.668" O.D. 2.375" I.D. | 9.80 | 8030.20 |
| 14. | Otis "J" latch locator | 1.16 | 8040.00 |
| 15. | Otis "Permatrieve" 7" packer (new) (20-26#) 5.87" O.D. 3.25" I.D. | 4.16 | 8040.00 |
| 16. | Otis seal assembly (4) 3.29" O.D., 2.38" I.D. | 4.05 | 8041.16 |
| 17. | Otis Production Tube | 2.96 | 8045.21 |
| 18 | Otis Guide Shoe | .42 | 8048.17 |
| | End of Tubing | | 8048.59 |

NOTES

Side door choke in safety system

Tubing landed with 10,000X compression on packer

Corrected tubing measurments (7,482.13) to meet wireline measurments.

COMMENTS:

AC_CPUC_0118166

Recd GSL 9/9/77
file

INTEROFFICE SOUTHERN CALIFORNIA gas COMPANY CORRESPONDENCE

Gift

TO JOHN L. MELTON FROM G. C. ABRAHAMSON DATE September 8, 1977

SUBJECT SAND NOTED IN STANDARD SESNON #29 - Aliso Canyon

When we pulled the tubing out of STANDARD SESNON #29, 40' of fine (face-powder type) sand was packed in the blanking plug landed at 8517'. The sand evidently came from the $S_4$ Zone since it was the only Zone above there.

c.c. Ben Jones ✓

GCA/jp

FORM 64-1D

AC_CPUC_0118167

cc: RWW ✓
ESS
Sr. D.E. 11/15/89
m

SOUTHERN CALIFORNIA gas COMPANY

INTEROFFICE CORRESPONDENCE

TO N. W. Buss
M. E. Melton

FROM S. P. Robinson

DATE 11/14/89

SUBJECT Shoe Leak Repair for SS-29 - Aliso Canyon

Repair the shut-off leak on SS-29 and plug back the HZ and Frew intervals.

The radioactive tracer survey run on 11/10/89 verified the shoe leak that the 11/87 and 10/89 noise logs showed. Gas is moving up past the top of the Sesnon zone to the MP sand and above (See Figure 1).

While working on SS-29, we should take advantage of an opportunity to improve the well low inventory deliverability. We can do this by plugging back the HZ and Frew intervals. Fluids from these intervals load up the well at low inventories.

Include the following in the rework:

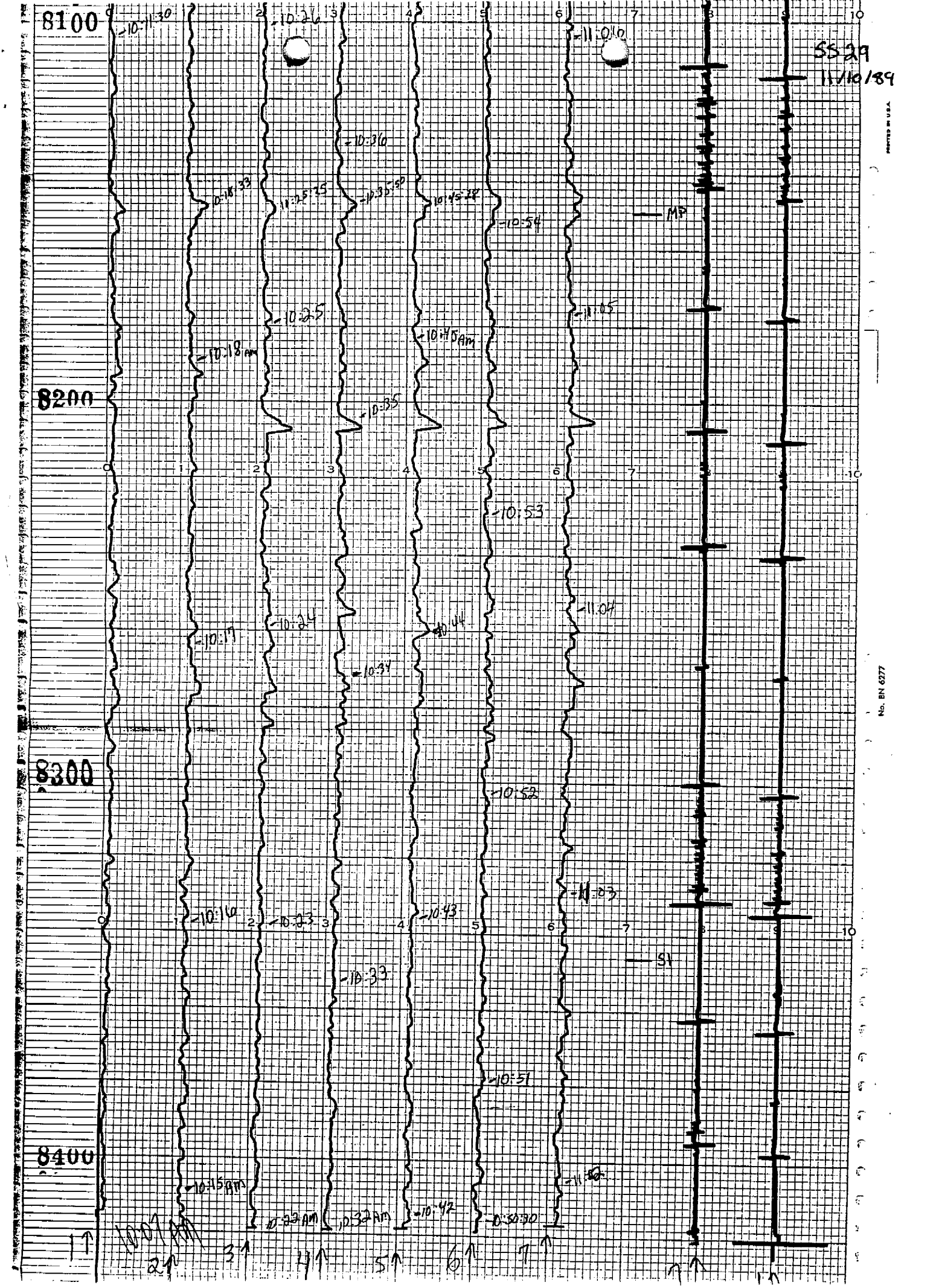
- Cement squeeze to shut off the leak between the sesnon and MP.
- Plug back the well at the base of the Sesnon (approximately 8695').
- Run a casing inspection log to 8075'.
- Complete the well with Otis 2.205 XN, 2-7/8 XD SSD, 2-7/8 GLM
- Rebuild the master valve and casing wing valves.

The Division pre and post rig cost should be $10,000 ($2000 labor; $3000 non-labor; $5000 contract).

SPR:db

cc: N. D. Stevenson

64-F

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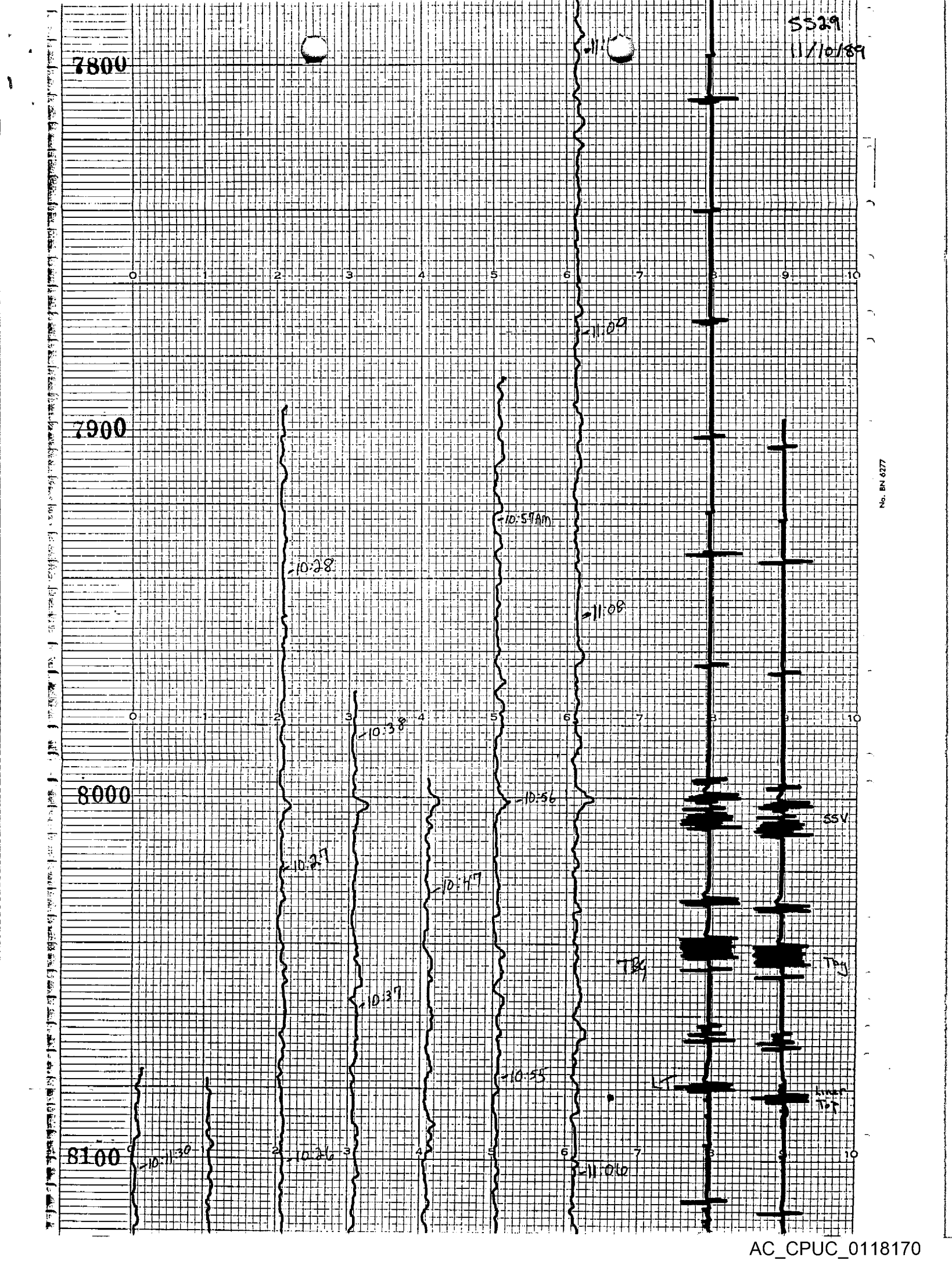


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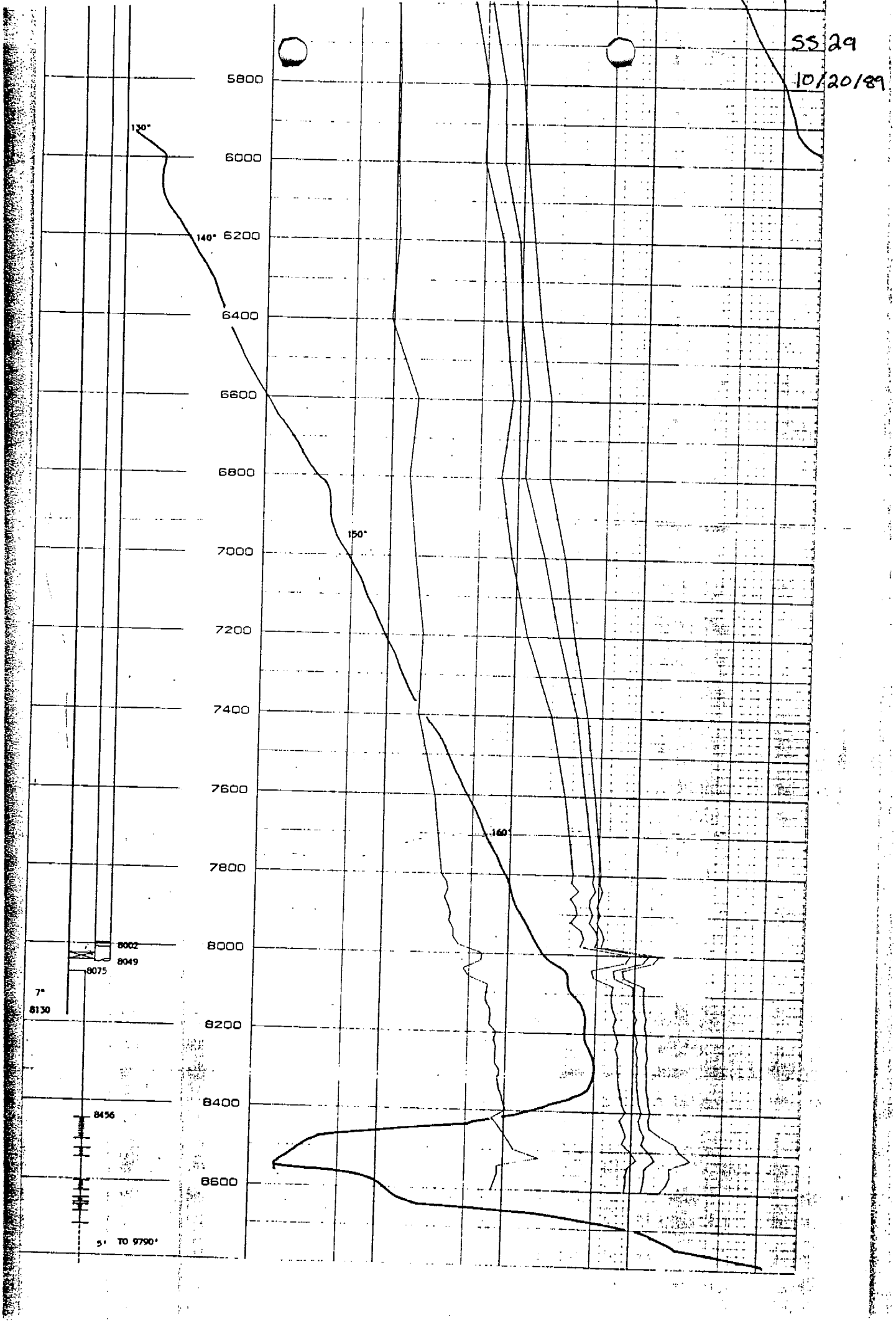
SS 29
10/20/89
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
130°
140°
150°
160°
8002
8049
8075
7"
8130
8456
5" TO 9790'

Dict 10/3/88 mc

SOUTHERN CALIFORNIA gas COMPANY

INTEROFFICE CORRESPONDENCE

TO Recipients of Aliso Canyon FROM R. E. Wallace DATE Oct. 3, 1988

SUBJECT Changes to the Porter 37, Porter 46, Sesnon 8 and Sesnon 9 Programs

Please note the following changes to the subject well workover program:

| Step | Changes |
|---|---|
| 7 | Include an Otis "XD" sliding sleeve and one joint of tubing, one joint above the No-Go Nipple. |
| 8 | Increase the pressure test from 1500 psi to 1900 psi. |

REW:mc

64-F

AC_CPUC_0118172

xc: REW
RMD 55-29

INTEROFFICE CORRESPONDENCE

SOUTHERN CALIFORNIA gas COMPANY

M E Melton

TO R. W. Weibel FROM M. E. Melton DATE Sept. 2, 1988

SUBJECT Candidate Wells for Casing Inspection, Aliso Canyon Field

Attached is Dave Horstman's recommendations and priorities for inspection of casing flow wells originally completed in the 1940's and 50's.

I agree with Dave's priorities and recommend that all 19 wells listed be logged and pressure tested over the next two year period.

MEM:hr
Attachments

cc: N. W. Buss
J. D. Mansdorfer

SOUTHERN CALIFORNIA gas COMPANY

INTEROFFICE CORRESPONDENCE

TO M. E. Melton FROM D. R. Horstman DATE August 30, 1988

SUBJECT Candidate Wells for Casing Inspection, Aliso Canyon Field

Attached is a listing of all casing flow wells of 1940's and 1950's vintage currently in operation at the subject field. It is recommended that casing inspection surveys (vertilogs) be run to determine the mechanical condition of each well casing. In addition, each well should be pressure tested to identify any leaks at the casing collars.

The wells included on the attached list are prioritized based upon deliverability, operational history, and the length of time since their last workover. Please advise should you have any questions or require additional information.

DRH:hr
Attachments

## Aliso Canyon Casing Flow Wells of 1940's and 1950's Vintage

| Well | Completed | Deliverability @ 19.8 Bcf (MMcf/d) | Most Recent Workover | Comments | Priority |
|---|---|---|---|---|---|
| P 34 | 5/45 | 9 | 10/77 | Casing pressure tested, SSSV run. | High |
| P 37 | 8/46 | 24 | 9/77 | Casing pressure tested, SSSV run. | High |
| P 44* | 1/56 | 26 | 4/78 | Redrilled from 7805', casing patch set 3971'-4012', SSSV run. | Low |
| P 46 | 2/44 | 35 | 8/77 | Reperf'd 7730'-7920', SSSV run. | High |
| P 47 | 8/43 | 21 | 6/77 | Pulled 2-3/8" liner, squeezed perf's @ various depths. Temp anomaly @ shoe (3/23/88). | Low |
| SS 2 | 9/43 | 16 | 8/83 | Repaired shoe leak, CBL run 7/73. | Low |
| SS 4 | 1/45 | 0(FL) | 12/81 | Repaired shoe leak, CBL run 11/80. | Low |
| SS 6 | 9/45 | 10 | 9/82 | Repaired shoe leak, CBL and TDT run 5/73. | Low |
| SS 7 | 2/46 | 1 | 9/77 | Casing pressure tested, SSSV run. | Medium |
| SS 8 | 8/46 | 15 | 7/78 | Casing pressure tested, SSSV repaired. | High |
| SS 9 | 2/47 | 15 | 2/79 | Casing pressure tested, SSSV replaced. | High |
| SS 10* | 6/47 | 25 | 12/78 | Casing patch run 4474'-4516', SSSV replaced. | Low |
| SS 11 | 11/47 | 9 | 6/80 | Repaired shoe leak. CBL and TDT run 7/73. New temp anomaly @ shoe (2/88). | Low |
| SS 17** | 6/51 | 7 | 8/77 | Casing pressured tested, SSSV run. Well has a shoe leak. | Low |

Aliso Canyon Casing Flow Wells
of 1940' & 1950's Vintage


| Well | Completed | Deliverability @ 19.8 Bcf (MMcf/d) | Most Recent Workover | Comments | Priority |
|---|---|---|---|---|---|
| SS 24 | 4/53 | 11 | 3/85 | Repaired shoe leak. CBL run 7/73. | Low |
| SS 25 | 2/54 | 38 | 2/79 | Replaced SSSV. Temp anomaly @ shoe (3/3/88). | Low |
| SS 29** | 9/53 | 22 | 3/79 | Replaced SSSV and set packer @ 8040'. Well has a shoe leak. | Low |
| F 2 | 7/44 | 1 | 9/77 | Casing pressure tested, SSSV run. | Medium |
| F 4 | 1/48 | 12 | 9/77 | Workover planned for 1988. Will log at that time. | - |
| F 5 | 7/48 | 2 | 8/77 | SSSV run. | Medium |

* Equipped with casing patch.
** Identified shoe leak. Casing will be inspected during workover.
FL - Fluid loaded

DRH:hr
8/30/88

SOUTHERN CALIFORNIA gas COMPANY

# INTEROFFICE CORRESPONDENCE

TO D. S. Smiley FROM G. C. Abrahamson DATE February 28, 1979

SUBJECT Program to Install New Style Camco Tubing Retrievable Safety System in Standard Sesnon #29, Aliso Canyon.

Please find attached program, budget cost estimates and material requests for Standard Sesnon #29, Aliso Canyon.

We are estimating 16 - 8 hr. tours or 9 calendar days and total GWO cost of $65,000.

No D.O.G. Notice's are required for this job.

We understand this work is to be done with CPS Rig #D-4 following standby during withdrawal test.

If you desire any changes in the attached material, please advise.

GCA/er

64-D

AC_CPUC_0118177

# WORKOVER PROGRAM

OPERATOR: Southern California Gas Company

FIELD: Aliso Canyon

WELL: Standard Sesnon #29

CONTRACTOR: California Production Service Rig #D-4

APPROXIMATE LOCATION: 750' S and 6100' W of Station #84

ELEVATION: Ground level 2848.77' Take all measurements from original derrick floor 6.92' above ground.

SAFETY: Hard hats are to be worn by all personnel on or near a rig. No smoking is permitted within 100' of the wellhead.

Present conditions:

11-3/4" 47# J-55, 42# H-40 cemented 1042'
7" cemented 8170', WSO on shoe

Casing detail

| | | | |
|---|---|---|---|
| 8170' - 6494' | 26# | N-80 | ST&C |
| 6494' - 4452' | 23# | N-80 | ST&C |
| 4452' - 974' | 23# | J-55 | ST&C |
| 974' - Surface | 23# | N-80 | ST&C |

T.D. 9790' - plug 9094'

1002' 5" 18# F.J. landed 9077', slotted
9077' - 8727', top liner 8075'
cp'd 8725' w/100 sacks
WSO on splice at 8075'
4-1/2" holes 8710', squeezed 34 sacks
4-1/2" holes 8705', WSO by DOG
Shot 4-1/2" holes per.foot 8694' - 8674', 8668' - 8658', 8638' - 8602' and 8552' - 8528'. 8502' - 8456'

AC_CPUC_0118178

Tubing Detail:

Otis 5" permatrieve packer 8301'
Otis production tube
Otis 4 seals
Otis latch-in-locator
Otis 10' blast joint
Otis 1.56" "XN" nipple
Otis 20' blast joint
Otis 2-3/8" annular flow safety system
2-3/8" tubing to 7900'
2-7/8" tubing to surface
weight of tubing 42,000#

Program:

Kill well with 63#/cu.ft. waste salt water mixed with HEC polymer provided by Professional Drilling Fluid Services. Obtain assistance from Aliso Canyon shift foreman. Bleed off gas to gas company system. Volume of well = 350 bbls. Pump down tubing at about 3 bbls. per minute using Halliburton pumping agent.

1. Move in and rig up California Production Service Rig #D-4 with Baker Tank.

2. Set back pressure valve in doughnut. Remove Xmas tree.

3. Install H & H Oil Tool Co., Inc. Class III 3000 psi B.O.P.E. Equipment to include "GK" Hydril bag and double gate both hydraulically operated with 80 gallon 3000 psi accumulator, auxiliary nitrogen and dual control stations. Also install 8 x 8" 3000 psi spool with 3000 psi choke and kill manifold with discharges to Gas Company system and Baker Tank. Discharge to Gas Company system to include a block valve and bleeder. Use new API Rings on any untested B.O.P.E. connections.

4. Pressure test blind rams, 2-7/8" pipe rams and choke manifold to 3,000 psi with water and nitrogen. Pressure test Hydril bag to 2,000 psi with water and nitrogen.

5. Pull 2-7/8" and 2-3/8" tubing laying down production equipment, production tube, 4 seals, latch-in-locator, 10' and 20' blast joints, 1.56" "XN" nipple and 2-3/8" annular flow safety system. Otis to clean, inspect, repair and pressure test for reuse. Pull 1,000# - 2,000# over weight of tubing (42,000#) and turn to the right to release latch. Use Otis service man if necessary.

6. Run 6-1/8" bit and casing scraper to 2-7/8" tubing and clean out to top of 5" liner at 8075'.

7. Run 2-7/8" and 2-3/8" tubing with Otis retrieving tool. Recover 5" permatrieve packer from 8301'. If unable to retrieve packer mill and push packer to 9077'. If packer is recovered run 4-1/8" bit and casing scraper and clean out to 9077'

AC_CPUC_0118179

8. Run Otis Permatrieve packer on Go wire line and using reference collars set packer near 8050' but do not set packer in a collar.

9. Run 2-7/8" tubing with seals and locator sub. Change collars, clean pins and apply Baker seal. Land tubing on packer with 10,000#. Close pipe rams and pressure test seals and packer to 1500 psi keep tubing full and observe for returns.

10. Run 2-7/8" tubing applying Baker seal to doubles. Also drift and hydrotest to 5,000 psi holding each test for one minute.

Tubing to include:

Otis 2-7/8" production tube
Otis 4 seals
Otis latch-in-locator
Otis 10' heavy wall tube - 2-7/8" threads
Otis 2.205" "XN" nipple 2-7/8" threads
Otis 20' heavy wall tube - 2-7/8" threads
Otis 2-7/8" annular flow safety system
2-7/8" tubing to surface.

11. Space out and land tubing on packer with up to 10,000# on packer. Pull 35,000# over weight of tubing to check latch.

12. Set back pressure valve in doughnut. Remove B.O.P.E. and install Xmas tree. Pressure test Xmas tree to 5,000 psi for 20 minutes.

13. Circulate polymer drilling fluid out of well with waste salt water. Tighten all wellhead bolts. Check all wellhead valves closed. Install blind flanges on wellhead valves. Release Rig.

G. C. Abrahamson
2/28/79 GCA

cc: Rig Supervisor
Relief Rig Supervisor
Contract Pusher (2)

A. A. Awalt
D. S. Smiley
J. W. Tenfelder

Well File

AC_CPUC_0118180

WELL NO. Standard Sesnon #29 DATE WANTED: 3/8/79

LOCATION: Aliso Canyon REQUESTED BY: G. C. Abrahamson (GCA)

| | SIZE | FOOTAGE | DESCRIPTION |
|---|---|---|---|
| CASING | | | |
| | | | |
| | | | |
| | | | |
| TUBING | | | |
| | | | |
| | 2-7/8" | 300' | 65# 8Rd EUE J-55 |
| | | | |
| | | | |
| LINER and ACCESSORIES | | | |
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| | | | |
| | | | |
| | | | |
| | DESCRIPTION | | |
| CASING HEAD | | | |
| | | | |
| | | | |
| | | | |
| TUBING HEAD | | | |
| | | | |
| | | | |
| | | | |

NOTE: For MISCELLANEOUS - see Page 2.

WELL NO. Standard Sesnon #29 DATE WANTED: 3/8/79 GWA

LOCATION: Aliso Canyon REQUESTED BY: G. C. Abrahamson

| | DESCRIPTION |
|---|---|
| MISCELLANEOUS | Otis production tube |
| | Otis 4 seals |
| | Otis Latch-in-locator |
| | Otis 10' blast joint |
| | Otis 2.205" "XN" nipple |
| | Otis 20' blast joint |
| | Otis 2-7/8" annular flow safety system |
| | 20 2-7/8" N-80 8Rd EUE tubing collars |
| | 260 2-7/8" N-55 8Rd EUE tubing collars |
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AC_CPUC_0118182

# SOUTHERN CALIFORNIA GAS COMPANY
## DAILY WELL ACTIVITY REPORT

FIELD Aliso Canyon WELL NAME SS-29 CONTRACTOR Pride RIG No. 447

RIG DAYS 8 MWO# _____ / TOTAL COST ESTIMATE $_____

RIG DATE 11-14-94 GWO# 93496 / TOTAL COST ESTIMATE $_____

RIG SUPERVISOR S.L. McLean DAILY COST $ 2618

CUMULATIVE COST $ 125349

CASING: OD 7 in. DEPTH 8170 ft. LINER OD 5 in. TOP 8075 ft. BOTTOM 9790 ft.

### BRIEF DESCRIPTION OF ACTIVITIES

Opened well in A.M. No pressure on casing or tubing. Rigged up ISI and shot fluid level in tubing. Found fluid at 1261'. Bled pressure from SSSV and shot fluid level. Showed SSSV closed at 500'. Set BPV

### MUD PROPERTIES

| MUD TYPE | FUNNEL VISCOSITY SEC | WATER LOSS CC | DENSITY #/CU. FT. | YIELD POINT #/100 SQ. FT. | PLASTIC VISC CP | pH | SOLIDS % | SUSPENDED SOLIDS % |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| ELAPSED TIME (HR) | OPERATIONS SEQUENCE & DETAIL |
|---|---|
| | and nippled down BOPE. Installed and tested tree to 5000 PSI. Transferred fluid to SS-9. Rigged down and moved off. Release rig at 2:00 PM on 11-14-94. |



AC_CPUC_0118183

# SOUTHERN CALIFORNIA GAS COMPANY
## DAILY WELL COST REPORT

Well SS-29 Date 11 / 15 / 94 Initials SLMc

**Daily Base Costs**

| | | | |
|---|---|---|---|
| Rig $ 159 /hour x 8 hours = | $ 1272 | /day | |
| Extra Labor 3425 | $ 75 | /day | |
| Rig Supervisor | $ 500 | /day | |
| BOPE Rental | $ 175 | /day | |
| Drillpipe Rental | $ | /day | Subtotal $ 2022 |

| Contractor Name | Ticket Number | Contractor Index | Work Category | Functional Index | Total |
|---|---|---|---|---|---|
| Daily Base Cost | — | — | | 01 | $ 2022.00 |
| Associated Serv. | 6687 | A07 | WW | 12 | 440.00 |
| ISI | 10428 | | IT | 60 | 156.00 |
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Daily Total $ 2618

Previous Total $ 122731

Cumulative Total $ 125349

**Work Categories**

- PR Pre-rig work, well kill
- MI Move in - rig up, install & test BOPE
- CO Initial/final clean out
- DD Drilling
- LR Leak repair - cmt. sqz., casing patch
- FF Fishing
- PB Plugback, redrill
- ST Stimulation - acid wash, reperforating
- GP Gravel pack
- IT Isolation test - noise log, WSO test
- WW Wellhead work
- CI Run casing/inner-string/liner
- TP Run tbg. & prod. equip.
- AA Abandonment
- RR Rig repairs
- SB Stand-by
- MO Rig down - move out
- PO Post-rig work
- ZZ Miscellaneous

**Functional Indexes**

- 10 Tubular goods
- 11 Tubing accessories, packers
- 12 Wellhead equip. & svcs.
- 13 Gravel pack equip. & svcs.
- 14 Casing accessories
- 20 Bits
- 21 Fluids
- 22 Cement, acid, sand, chemicals & pumping svcs.
- 23 Nitrogen and coil tubing svcs.
- 24 Filtering and solids control
- 30 Service tools
- 31 Fishing tools & svcs.
- 32 Hole openers, mills, junk subs, reamers, stabilizers
- 33 Coring, dynadrills & directional svcs.
- 35 Piano wire equip. & svcs.
- 40 Open & cased hole logging
- 41 Other Wireline svcs.
- 42 Production logging
- 43 Hydrotest, torque, tong svc, thread washing
- 44 Trucking, hauling, cranes & hot shots
- 45 Vacuum trucking, disposal charges
- 46 Tank rental, misc. rentals
- 47 Site preparation
- 60 Miscellaneous

# SOUTHERN CALIFORNIA GAS COMPANY
## DAILY WELL ACTIVITY REPORT

FIELD Aliso Canyon WELL NAME SS-29 CONTRACTOR Pride RIG No. 447

RIG DAYS 7 MWO# _____ / TOTAL COST ESTIMATE $ _____

RIG DATE 11-12-94 GWO# 93496 / TOTAL COST ESTIMATE $ _____

RIG SUPERVISOR Steven L. McLean DAILY COST $ 27,989

CASING: OD 7 in. LINER OD 5 in. CUMULATIVE COST $ 122,731

DEPTH 8170 ft. TOP 8075 ft.

BOTTOM 9790 ft.

### BRIEF DESCRIPTION OF ACTIVITIES

Opened well in A.M. No pressure on casing or tubing. Pulled 2⅞" doughnut and installed fatigue nipple and new 3½" doughnut. Tested subsurface safety valve to 5000 PSI. Landed doughnut with 8-10K on packer. Rigged up wireline

### MUD PROPERTIES

| MUD TYPE | FUNNEL VISCOSITY SEC | WATER LOSS CC | DENSITY #/CU. FT. | YIELD POINT #/100 SQ. FT. | PLASTIC VISC CP | pH | SOLIDS % | SUSPENDED SOLIDS % |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| ELAPSED TIME (HR) | OPERATIONS SEQUENCE & DETAIL |
|---|---|
| | to set plug in "XN" nipple at 7999'. Ran in after setting plug and attempted to open sliding sleeve at 7965'. Circulated down casing/tubing annulus and pressured up to 1000 psi (sleeve not open). Pulled plug, assumed set in sleeve, and redressed. Added weight bar and reran plug. Set down again in sliding sleeve. Pulled plug and made up 2"/16" gauge ring. Ran through sliding sleeve and set down on "XN" nipple. Gauged plug and found to be 2.75" and ID through sleeve 2.75". Rigged down wireline and will check subsurface safety valve with fluid level equipment in AM on 11-14-94. Shut down operations. |

SOUTHERN CALIFORNIA GAS COMPANY

AC_CPUC_0118185

# SOUTHERN CALIFORNIA GAS COMPANY
## DAILY WELL COST REPORT

Well SS-29 Date 11 / 12 / 94 Initials SLMc

**Daily Base Costs**

| | | | |
|---|---|---|---|
| Rig $ 1860 /hour x 10 hours = | $ 1860 | /day | |
| Extra Labor (3x25) | $ 75 | /day | |
| Rig Supervisor | $ 500 | /day | |
| BOPE Rental | $ 350 | /day | |
| Drillpipe Rental | $ | /day | Subtotal $ 2785~ |

| Contractor Name | Ticket Number | Contractor Index | Work Category | Functional Index | Total |
|---|---|---|---|---|---|
| Daily Base Cost | — | — | | 01 | $ |
| FMC/Gator Hawk | | 917 | TP | 43 | 5474~ |
| Halliburton | 617360 | H04 | TP | 11 | 3985~ |
| | 617361 | H04 | TP | 11 | 1389~ |
| Oil Field Rental | 1-042-4-0562 | 011 | TP | 30 | 205~ |
| Shaffer Oil Tool | 26965 | S07 | WW | 12 | 1222~ |
| Baker Oil Tools | 10041 | B36 | TP | 11 | 2047 |
| | 10042 | B36 | TP | 11 | 10882~ |
| | | | | | |
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| | |
|---|---|
| Daily Total | $ 27,989~ |
| Previous Total | $ 94,742~ |
| Cumulative Total | $ 122,731~ |

**Work Categories**

- PR Pre-rig work, well kill
- MI Move in - rig up, install & test BOPE
- CO Initial/final clean out
- DD Drilling
- LR Leak repair - cmt. sqz., casing patch
- FF Fishing
- PB Plugback, redrill
- ST Stimulation - acid wash, reperforating
- GP Gravel pack
- IT Isolation test - noise log, WSO test
- WW Wellhead work
- CI Run casing/inner-string/liner
- TP Run tbg. & prod. equip.
- AA Abandonment
- RR Rig repairs
- SB Stand-by
- MO Rig down - move out
- PO Post-rig work
- ZZ Miscellaneous

**Functional Indexes**

- 10 Tubular goods
- 11 Tubing accessories, packers
- 12 Wellhead equip. & svcs.
- 13 Gravel pack equip. & svcs.
- 14 Casing accessories
- 20 Bits
- 21 Fluids
- 22 Cement, acid, sand, chemicals & pumping svcs.
- 23 Nitrogen and coil tubing svcs.
- 24 Filtering and solids control
- 30 Service tools
- 31 Fishing tools & svcs.
- 32 Hole openers, mills, junk subs, reamers, stabilizers
- 33 Coring, dynadrills & directional svcs.
- 35 Piano wire equip. & svcs.
- 40 Open & cased hole logging
- 41 Other Wireline svcs.
- 42 Production logging
- 43 Hydrotest, torque, tong svc, thread washing
- 44 Trucking, hauling, cranes & hot shots
- 45 Vacuum trucking, disposal charges
- 46 Tank rental, misc. rentals
- 47 Site preparation
- 60 Miscellaneous

# SOUTHERN CALIFORNIA GAS COMPANY
## DAILY WELL ACTIVITY REPORT

FIELD Aliso Canyon WELL NAME SS-29 CONTRACTOR Pride RIG No. 447

RIG DAYS 6 MWO# _____ / TOTAL COST ESTIMATE $ _____

RIG DATE 11-11-94 GWO# 93496 / TOTAL COST ESTIMATE $ _____

RIG SUPERVISOR Steven L. McLean DAILY COST $ 54231~

OD 5 in. CUMULATIVE COST $ 94742~

CASING: OD 7 in. LINER TOP 8075 ft.

DEPTH 8170 ft. BOTTOM 9790 ft.

### BRIEF DESCRIPTION OF ACTIVITIES

Opened well in A.M. No pressure on casing or tubing. Pumped 20 bbls of 2% KCL fluid. Measured and picked up 4½" tubing. Gator Hawked tested to 4000 psi. Made up 3½" tubing and safety valve. RIH and tagged packer at

### MUD PROPERTIES

| MUD TYPE | FUNNEL VISCOSITY SEC | WATER LOSS CC | DENSITY #/CU. FT. | YIELD POINT #/100 SQ. FT. | PLASTIC VISC CP | pH | SOLIDS % | SUSPENDED SOLIDS % |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| ELAPSED TIME (HR) | OPERATIONS SEQUENCE & DETAIL |
|---|---|
| | 8032'. Pulled 20K over string weight and set down 10K to obtain space out. POOH with 3½" tubing to safety valve. Made up safety valve line and tested to 5000 psi. RIH banding line and testing tubing. Made up doughnut and pup it to space out. When breaking out pup the threads crossed in the top of doughnut. Called Shaffer and new doughnut would be ready in A.M. Landed tubing on 2 7/8" doughnut and secured well and rig. |

SOUTHERN CALIFORNIA GAS COMPANY

AC_CPUC_0118187

# SOUTHERN CALIFORNIA GAS COMPANY
# DAILY WELL COST REPORT

Well SS-29 Date 11 / 11 / 94 Initials SLMC

**Daily Base Costs**

Rig $ 186 /hour x 10 hours = $ 1860 /day
Extra Labor (10X31) (4X25) $ 410 /day
Rig Supervisor $ 500 /day
BOPE Rental $ 1250 /day
Drillpipe Rental $ /day Subtotal $ 4020

| Contractor Name | Ticket Number | Contractor Index | Work Category | Functional Index | Total |
|---|---|---|---|---|---|
| Daily Base Cost | — | — | | 01 | $ |
| H&H Casing | 6704 | H01 | TP | 43 | 3118~ |
| H&H Oil Tool | 38015 | H03 | TP | 44 | 1003~ |
| | 38016 | H03 | TP | 44 | 836~ |
| 591.14' | 3½" EUE 8RND 9.3# N-80 ABMod. | | R-2 | 4.75/ft | 2808~ |
| 7381.88' | 4½" LTEC 11.6# N-80 | | R-2 | 5.75/ft | 42446~ |
| | | | | | |
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| | | | | | |

Daily Total $ 54231~
Previous Total $ 40511~
Cumulative Total $ 94742~

**Work Categories**

PR Pre-rig work, well kill
MI Move in - rig up, install & test BOPE
CO Initial/final clean out
DD Drilling
LR Leak repair - cmt. sqz., casing patch
FF Fishing
PB Plugback, redrill
ST Stimulation - acid wash, reperforating
GP Gravel pack
IT Isolation test - noise log, WSO test
WW Wellhead work
CI Run casing/inner-string/liner
TP Run tbg. & prod. equip.
AA Abandonment
RR Rig repairs
SB Stand-by
MO Rig down - move out
PO Post-rig work
ZZ Miscellaneous

**Functional Indexes**

10 Tubular goods
11 Tubing accessories, packers
12 Wellhead equip. & svcs.
13 Gravel pack equip. & svcs.
14 Casing accessories
20 Bits
21 Fluids
22 Cement, acid, sand, chemicals & pumping svcs.
23 Nitrogen and coil tubing svcs.
24 Filtering and solids control
30 Service tools
31 Fishing tools & svcs.
32 Hole openers, mills, junk subs, reamers, stabilizers
33 Coring, dynadrills & directional svcs.
35 Piano wire equip. & svcs.
40 Open & cased hole logging
41 Other Wireline svcs.
42 Production logging
43 Hydrotest, torque, tong svc, thread washing
44 Trucking, hauling, cranes & hot shots
45 Vacuum trucking, disposal charges
46 Tank rental, misc. rentals
47 Site preparation
60 Miscellaneous

# SOUTHERN CALIFORNIA GAS COMPANY
## DAILY WELL ACTIVITY REPORT

FIELD Aliso Canyon WELL NAME SS-29 CONTRACTOR Pride RIG No. 447

DAYS 5 MWO# _____ / TOTAL COST ESTIMATE $ _____

RIG DATE 11-10-94 GWO# 93496 / TOTAL COST ESTIMATE $ _____

RIG SUPERVISOR Steven L McLean DAILY COST $ $5687

CASING: OD 7 in. DEPTH 8170 ft. LINER OD 5 in. TOP 8075 ft. BOTTOM 9790 ft.

CUMULATIVE COST $ $40511

### BRIEF DESCRIPTION OF ACTIVITIES

Opened well in AM. No pressure on casing or tubing. Pumped 20 bbls of 2% KCL water. Pulled out of the hole with 100 jts of 2 7/8" tubing. Laid down production equipment. Changed pipe rams from 2 7/8" to 4 1/2". Rigged up to run 3 1/2" and 4 1/2" production equipment. Made up and tested (4000 psi) 3 1/2" production equipment. Changed out 3 1/2" test equipment to 4 1/2". Made up and ran 4 1/2" production tubing. Tested to 4000 psi. RIH to 6000' and shut in until A.M.

### MUD PROPERTIES

| MUD TYPE | FUNNEL VISCOSITY SEC | WATER LOSS CC | DENSITY #/CU. FT. | YIELD POINT #/100 SQ. FT. | PLASTIC VISC CP | pH | SOLIDS % | SUSPENDED SOLIDS % |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| ELAPSED TIME (HR) | OPERATIONS SEQUENCE & DETAIL |
|---|---|

# SOUTHERN CALIFORNIA GAS COMPANY
# DAILY WELL COST REPORT

Well SS-29 Date 11 / 10 / 94 Initials SLMc

**Daily Base Costs**

| | | |
|---|---|---|
| Rig $ 186 /hour x 14 hours = | $ 2604 | /day |
| Extra Labor 4X25 (12X27) | $ 424 | /day |
| Rig Supervisor | $ 500 | /day |
| BOPE Rental | $ 125 | /day |
| Drillpipe Rental | $ | /day |
| | Subtotal $ 3653 | |

| Contractor Name | Ticket Number | Contractor Index | Work Category | Functional Index | Total |
|---|---|---|---|---|---|
| Daily Base Cost | — | — | | 01 | $ |
| Barnett T&K | 38325 41556 38011 | | TP | 44 | 493 |
| H&H T&K | 38014, 38013 | | TP | 44 | 1541 |
| | | | | | |
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# SOUTHERN CALIFORNIA GAS COMPANY
## DAILY WELL ACTIVITY REPORT

FIELD Alesio Canyon WELL NAME SS-29 CONTRACTOR Pride RIG No. 447

DAYS 4 MWO# _____ / TOTAL COST ESTIMATE $ _____

RIG DATE 11-9-94 GWO# 93496 / TOTAL COST ESTIMATE $ _____

RIG SUPERVISOR Steven L. McLean DAILY COST $ 15,314

CUMULATIVE COST $ 34824

CASING: OD 7 in. DEPTH 8170 ft. LINER OD 5 in. TOP 8075 ft. BOTTOM 9790 ft.

### BRIEF DESCRIPTION OF ACTIVITIES

Opened well in A.M. No pressure on casing or tubing. Mixed and pumped a HEC high vis pill (100 bbls) Fluid level at 842' before pill and returns to surface while displacing pill. Shut fluid level 30 minutes

### MUD PROPERTIES

| MUD TYPE | FUNNEL VISCOSITY SEC | WATER LOSS CC | DENSITY #/CU. FT. | YIELD POINT #/100 SQ. FT. | PLASTIC VISC CP | pH | SOLIDS % | SUSPENDED SOLIDS % |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| ELAPSED TIME (HR) | OPERATIONS SEQUENCE & DETAIL |
|---|---|
| | after displacement and found fluid level at 218'. Rigged up to pull 2 7/8" tubing. Pulled and laid down 153 joints. Left 3000' of kill string in well. Secured well and shut down until A.M. |



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# SOUTHERN CALIFORNIA GAS COMPANY
# DAILY WELL COST REPORT

Well SS-29 Date 11 / 9 / 94 Initials SLMC

**Daily Base Costs**

| | | |
|---|---|---|
| Rig $ 186 /hour x 9 hours = | $ 1674 | /day |
| Extra Labor 2@ 85 and 3@ 25 | $ 245 | /day |
| Rig Supervisor | $ 500 | /day |
| BOPE Rental | $ 125 | /day |
| Drillpipe Rental | $ | /day |

Subtotal $ 2544~

| Contractor Name | Ticket Number | Contractor Index | Work Category | Functional Index | Total |
|---|---|---|---|---|---|
| Daily Base Cost | — | — | | 01 | $ |
| Shaffer Oil Tool | 26957 | 507 | WW | 12 | 10,923~ |
| MI Fluids | D07208 | M26 | PR | 21 | 1511~ |
| ISI | 10426 | NA | ZZ | 60 | 340~ |
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Daily Total $ 15,318

Previous Total $ 19,506

Cumulative Total $ 34,824

**Work Categories**

- PR Pre-rig work, well kill
- MI Move in - rig up, install & test BOPE
- CO Initial/final clean out
- DD Drilling
- LR Leak repair - cmt. sqz., casing patch
- FF Fishing
- PB Plugback, redrill
- ST Stimulation - acid wash, reperforating
- GP Gravel pack
- IT Isolation test - noise log, WSO test
- WW Wellhead work
- CI Run casing/inner-string/liner
- TP Run tbg. & prod. equip.
- AA Abandonment
- RR Rig repairs
- SB Stand-by
- MO Rig down - move out
- PO Post-rig work
- ZZ Miscellaneous

**Functional Indexes**

- 10 Tubular goods
- 11 Tubing accessories, packers
- 12 Wellhead equip. & svcs.
- 13 Gravel pack equip. & svcs.
- 14 Casing accessories
- 20 Bits
- 21 Fluids
- 22 Cement, acid, sand, chemicals & pumping svcs.
- 23 Nitrogen and coil tubing svcs.
- 24 Filtering and solids control
- 30 Service tools
- 31 Fishing tools & svcs.
- 32 Hole openers, mills, junk subs, reamers, stabilizers
- 33 Coring, dynadrills & directional svcs.
- 35 Piano wire equip. & svcs.
- 40 Open & cased hole logging
- 41 Other Wireline svcs.
- 42 Production logging
- 43 Hydrotest, torque, tong sv thread washing
- 44 Trucking, hauling, cranes & hot shots
- 45 Vacuum trucking, disposal charges
- 46 Tank rental, misc. rentals
- 47 Site preparation
- 60 Miscellaneous

# SOUTHERN CALIFORNIA GAS COMPANY
## DAILY WELL ACTIVITY REPORT

FIELD Alesio Canyon WELL NAME SS 29 CONTRACTOR Pride RIG No. 447

DAYS 3 MWO# _____ / TOTAL COST ESTIMATE $ _____

RIG DATE 11-8-94 GWO# 93496 / TOTAL COST ESTIMATE $ _____

RIG SUPERVISOR Steven L McLean DAILY COST $ 13644

CUMULATIVE COST $ 19506

CASING: OD 7 in. DEPTH 8170 ft. LINER OD 5 in. TOP 8075 ft. BOTTOM 9790 ft.

### BRIEF DESCRIPTION OF ACTIVITIES

Bled well down in AM with only a small amount of gas. Worked tubing out of packer without pulling seal assembly. Rigged up to run gyro survey inside tubing. Could not get below "XN" nipple at 7999'. Pulled out with

### MUD PROPERTIES

| MUD TYPE | FUNNEL VISCOSITY SEC | WATER LOSS CC | DENSITY #/CU. FT. | YIELD POINT #/100 SQ. FT. | PLASTIC VISC CP | pH | SOLIDS % | SUSPENDED SOLIDS % |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| ELAPSED TIME (HR) | OPERATIONS SEQUENCE & DETAIL |
|---|---|
| | gyro and rigged down. Pulled seals out of packer and well Kicked. Shut-in well with 600 psi on casing, circulated out gas, lost circulation, pumped 270 bbls and bled pressure to zero. Mixed a 100 bbl HEC pill. Pumped pill and followed with 50 bbls of 2% KCl water. No returns. Shut well in until A.M. |



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# SOUTHERN CALIFORNIA GAS COMPANY
# DAILY WELL COST REPORT

Well SS-29 Date 11 / 8 / 94 Initials SLMC

**Daily Base Costs**

| | | |
|---|---|---|
| Rig $ 186 /hour x 12 hours = | $ 2232 | /day |
| Extra Labor 3X25 | $ 75 | /day |
| Rig Supervisor | $ 500 | /day |
| BOPE Rental | $ 125 | /day |
| Drillpipe Rental | $ | /day |
| | Subtotal $ 2932 ~ | |

| Contractor Name | Ticket Number | Contractor Index | Work Category | Functional Index | Total |
|---|---|---|---|---|---|
| Daily Base Cost | — | — | | 01 | $ |
| Weatherford | 135632 | W02 | MI | 43 | 515 ~ |
| MI Fluids | D07204 | M26 | PR | 21 | 727 60/xx |
| Baker Hughes | 39200 | B22 | ZZ | 41 | 6000 ~ |
| BST Lift Systems | 1796 | B24 | TP | 60 | 3469 43 |
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| | |
|---|---|
| Daily Total | $ 13,644 ~ |
| Previous Total | $ 5862 ~ |
| Cumulative Total | $ 19506 ~ |

**Work Categories**

- PR Pre-rig work, well kill
- MI Move in - rig up, install & test BOPE
- CO Initial/final clean out
- DD Drilling
- LR Leak repair - cmt. sqz., casing patch
- FF Fishing
- PB Plugback, redrill
- ST Stimulation - acid wash, reperforating
- GP Gravel pack
- IT Isolation test - noise log, WSO test
- WW Wellhead work
- CI Run casing/inner-string/liner
- TP Run tbg. & prod. equip.
- AA Abandonment
- RR Rig repairs
- SB Stand-by
- MO Rig down - move out
- PO Post-rig work
- ZZ Miscellaneous

**Functional Indexes**

- 10 Tubular goods
- 11 Tubing accessories, packers
- 12 Wellhead equip. & svcs.
- 13 Gravel pack equip. & svcs.
- 14 Casing accessories
- 20 Bits
- 21 Fluids
- 22 Cement, acid, sand, chemicals & pumping svcs.
- 23 Nitrogen and coil tubing svcs.
- 24 Filtering and solids control
- 30 Service tools
- 31 Fishing tools & svcs.
- 32 Hole openers, mills, junk subs, reamers, stabilizers
- 33 Coring, dynadrills & directional svcs.
- 35 Piano wire equip. & svcs.
- 40 Open & cased hole logging
- 41 Other Wireline svcs.
- 42 Production logging
- 43 Hydrotest, torque, tong svc, thread washing
- 44 Trucking, hauling, cranes & hot shots
- 45 Vacuum trucking, disposal charges
- 46 Tank rental, misc. rentals
- 47 Site preparation
- 60 Miscellaneous

# SOUTHERN CALIFORNIA GAS COMPANY
## DAILY WELL ACTIVITY REPORT

FIELD Aliso Canyon WELL NAME SS 29 CONTRACTOR Pride RIG No. 447

DAYS 2 MWO# _____ / TOTAL COST ESTIMATE $_____

RIG DATE 11-7-94 GWO# 93496 / TOTAL COST ESTIMATE $_____

RIG SUPERVISOR Steve McLean DAILY COST $ 2932

CUMULATIVE COST $ 5862

CASING: OD 7 in. DEPTH 8170 ft. LINER OD 5 in. TOP 8075 ft. BOTTOM 9790 ft.

### BRIEF DESCRIPTION OF ACTIVITIES

Opened well up (Csg Press 2500 PSI, Tbg Press 2400 PSI). Rigged up to pump and choke ready to kill well. Wait on SCG Field operator to open line to bleed well down. Killed well with 345 bbls of 2% KCL water. Installed BPV, nipped

### MUD PROPERTIES

| MUD TYPE | FUNNEL VISCOSITY SEC | WATER LOSS CC | DENSITY #/CU. FT. | YIELD POINT #/100 SQ. FT. | PLASTIC VISC CP | pH | SOLIDS % | SUSPENDED SOLIDS % |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| ELAPSED TIME (HR) | OPERATIONS SEQUENCE & DETAIL |
|---|---|
| | down tree and installed BOPE. Changed pipe rams and function tested blind rams. Pressure tested BOPE with test pump. Rigged up to pull tubing. Unscrewed tubing hold down studs. Secured well and rig until AM. |

# SOUTHERN CALIFORNIA GAS COMPANY
# DAILY WELL COST REPORT

Well 55-29 Date 11 / 7 / 94 Initials SLMC

**Daily Base Costs**

Rig $ 1186 /hour x 12 hours = $ 2232 /day
Extra Labor 3X25 $ 75 /day
Rig Supervisor $ 500 /day
BOPE Rental $ 125 /day
Drillpipe Rental $ ~ /day Subtotal $ 2932

| Contractor Name | Ticket Number | Contractor Index | Work Category | Functional Index | Total |
|---|---|---|---|---|---|
| Daily Base Cost | — | — | | 01 | $ |
| | | | | | |
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Daily Total $ 2932
Previous Total $ 2930
Cumulative Total $ 5862

**Work Categories**

PR Pre-rig work, well kill
MI Move in - rig up, install & test BOPE
CO Initial/final clean out
DD Drilling
LR Leak repair - cmt. sqz., casing patch
FF Fishing
PB Plugback, redrill
ST Stimulation - acid wash, reperforating
GP Gravel pack
IT Isolation test - noise log, WSO test
WW Wellhead work
CI Run casing/inner-string/liner
TP Run tbg. & prod. equip.
AA Abandonment
RR Rig repairs
SB Stand-by
MO Rig down - move out
PO Post-rig work
ZZ Miscellaneous

**Functional Indexes**

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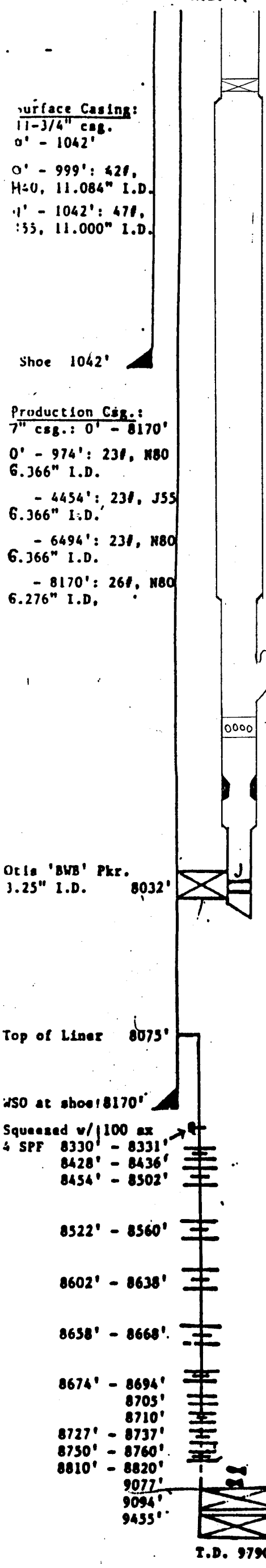
45 Vacuum trucking, disposal charges
46 Tank rental, misc. rentals
47 Site preparation
60 Miscellaneous




Tubing
3½", 9.3#, N-80, EUE, 8RND
0-490'
4½", 11.6#, N-80, LTEC
490-7887'
3½", 9.3#, N-80, EUE, 8RND
7887'-8030'

**Standard Sesnon #29**

**Aliso Canyon**

**Status:** Injection/Withdrawal

**Flow Regime:** Tubing Flow

**Elevation:** 2849' G.L.
7' K.B.
KB to MV: 6'

**Surface Location:** Approximately 750'S & 6100'W of Station 84, T3N, R16W, Sec. 28

**Btm. Hole Loc:** Straight Hole at effective TVD of 9077'.

**4/26/53 - 9/29/53:** Well spudded and completed.

**2/2/73 - 2/28/73:** Pressure tested 7" casing, converted to gas storage by perforation in Sesnon zone. Cleaned out to 9074'. Ran tubing with SSSV.

**7/31/73 - 8/7/73:** Installed wireline SSSV. Cleaned out to 9077'.

**8/27/77 - 9/9/77:** Cleaned out to 9072'. Pressure tested casing. Reran tubing with SSSV.

**3/5/79 - 3/10/79:** Replaced safety system. Se packer at 8040'.

**9/20/91 - 11/6/91:** Milled packer. Shot 4, 1/2" SPF at 8330' - 8331'. Squeezed shoe leak with 100 sx class "G" cement. Ran tubing conveye perforation guns and shot 6, 1/2" SPF at: 8428'-8436', 8454'-8502', 8522'-8560', 8602'-8636', 8660'-8668', 8674'-8694', 8727'-8737', 8750'-8760', 8810'-8820'. Completed with 7" Otis "BWB" packer and 2-7/8" tubing.

11/4/94 - 11/14/94: Replaced 2⅞" tubing with 3½" and 4½" tubing flow production string

| Volume | Cu.Ft. | Bbls. |
|---|---|---|
| Tubing | 676 | 120 |
| Annulus | 916 | 163 |
| Casing/Liner | 109 | 19 |
| Total | 1701 | 302 |

**5" Liner Detail:**
18#, Flushjoint, 8075' - 9077'
(4.276" I.D.)

8075' - 8727': J55, Perforated
6, 1/2" SPF 8428'-8436',

10, 1/2" SPF 8454'-8502', 8528'-8552', 8602'-8638', 8658'-8668', 8674'-8694'.

8727' - 9077': N80 slotted, .012" gauge, 12 rows, 6" centers, 6 deg. undercut. Perforated 6, 1/2" SPF 8727'-8737', 8750'-8760', 8810'-8820'.

**Top Of Zones**

| | M.D. |
|---|---|
| MP | 8150' |
| S1 | 8346' |
| S2 | 8382' |
| S4 | 8428' |
| S8 | 8522' |
| Frew | 8728' |

**Note:** Fish consists of 2 partially milled Robison 5" drillable retainers.

**Reviewed**

| Department | By: | Date |
|---|---|---|
| Drilling | Steve Sam Clem | 11/14/94 |
| Petroleum Eng. | | |
| Division | | |

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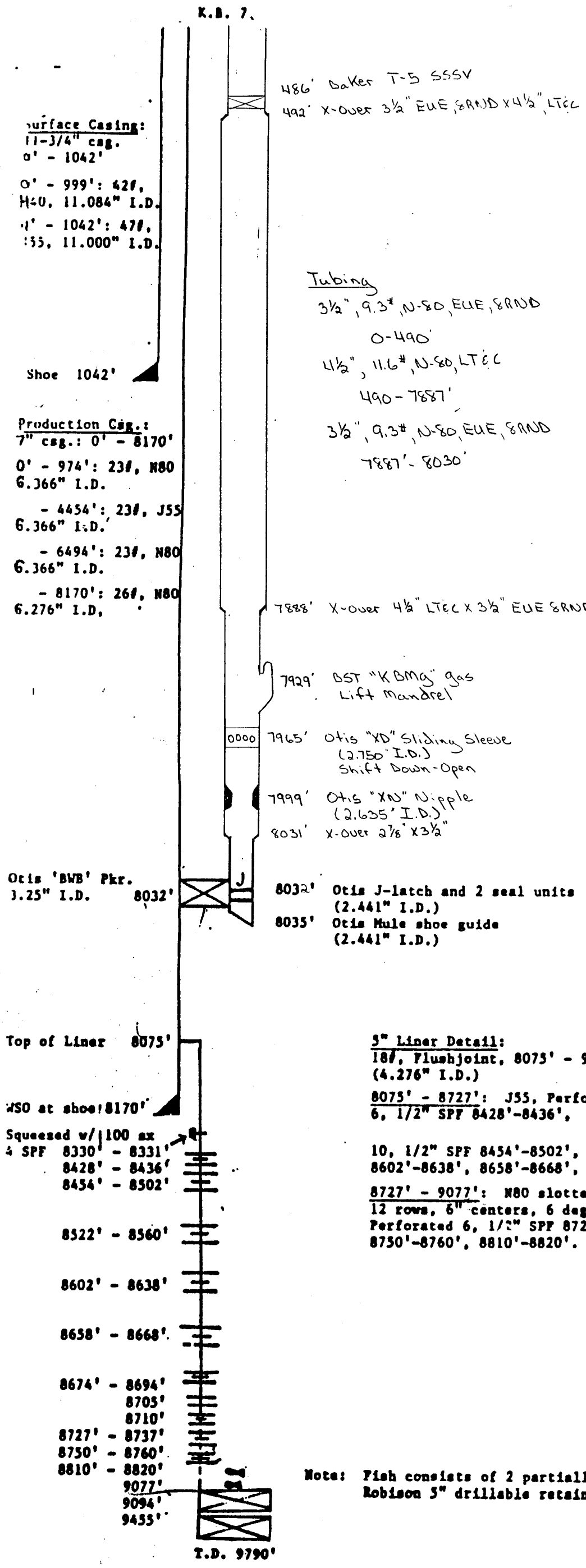


**Standard Sesnon #29**

**Aliso Canyon**

**Status:** Injection/Withdrawal

**Flow Regime:** Tubing Flow

**Elevation:** 2849' G.L.
7' K.B.
KB to MV: 6'

**Surface Location:** Approximately 750'S & 6100'W of Station 84, T3N, R16W, Sec. 28

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**9/20/91 - 11/6/91:** Milled packer. Shot 4, 1/2" SPF at 8330' - 8331'. Squeezed shoe leak with 100 sx class "G" cement. Ran tubing conveyed perforation guns and shot 6, 1/2" SPF at: 8428'-8436', 8454'-8502', 8522'-8560', 8602'-8636', 8660'-8668', 8674'-8694', 8727'-8737', 8750'-8760', 8810'-8820'. Completed with 7" Otis "BWB" packer and 2-7/8" tubing.

**11/4/94 - 11/14/94:** Replaced 2⅞" tubing with 3½" and 4½" tubing flow production string.

| Volume | Cu.Ft. | Bbls. |
|---|---|---|
| Tubing | 676 | 120 |
| Annulus | 916 | 163 |
| Casing/Liner | 109 | 19 |
| Total | 1701 | 302 |

**5" Liner Detail:**
18#, Flushjoint, 8075' - 9077'
(4.276" I.D.)

8075' - 8727': J55, Perforated
6, 1/2" SPF 8428'-8436',

10, 1/2" SPF 8454'-8502', 8528'-8552', 8602'-8638', 8658'-8668', 8674'-8694'.

8727' - 9077': N80 slotted, .012" gauge, 12 rows, 6" centers, 6 deg. undercut. Perforated 6, 1/2" SPF 8727'-8737', 8750'-8760', 8810'-8820'.

**Top Of Zones**

| | M.D. |
|---|---|
| MP | 8150' |
| S1 | 8346' |
| S2 | 8382' |
| S4 | 8428' |
| S8 | 8522' |
| Frew | 8728' |

**Note:** Fish consists of 2 partially milled Robison 5" drillable retainers.

**Reviewed**

| Department | By: | Date |
|---|---|---|
| Drilling | Steve Sam Clean | 11/14/94 |
| Petroleum Eng. | | |
| Division | | |

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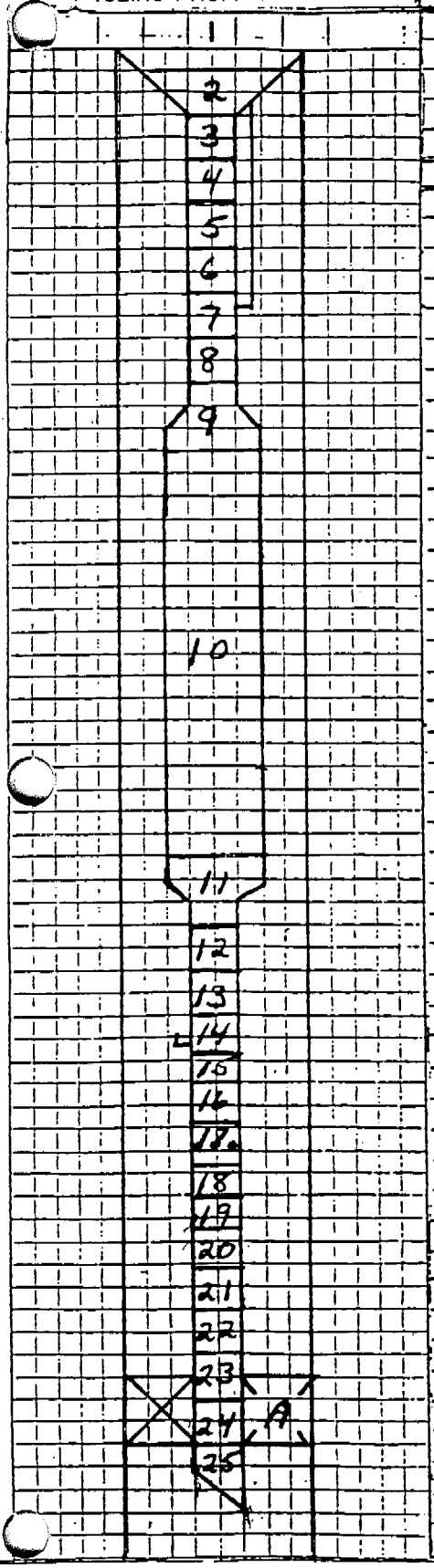
# TUBING DETAIL

WELL: SS-29
FIELD: SESNON

STATUS: Tubing FLOW
DATE: 11-11-94

TUBING PROFILE




| | TUBING | TUBING | TUBING | |
|---|---|---|---|---|
| SIZE | 3½" | 4½" | 3½" | |
| WEIGHT | 9.3# | 11.6# | 9.3# | |
| GRADE | N-80 | N-80 | N-80 | |
| THREAD | BUB | LTC | BUB | |
| DEPTH | 490' | 7887' | 8029' | |

| ITEM # | TUBING DETAIL | DRIFT I.D. | O.D. | LENGTH | DEPTH |
|---|---|---|---|---|---|
| 1. | K.B. | — | — | 7.00 | 7.00 |
| 2. | DONUT | — | — | .50 | 7.50 |
| 3 | 3½" FATIGUE Nipple | 2.867 | 3.500 | .62 | 8.12 |
| 4. | 3½" N-80 Pup JT. BUB | 2.867 | 4.500 | 2.14 | 10.26 |
| 5. | 15 JTS. 3½" N-80 Tubing BUB | 2.867 | 4.500 | 466.65 | 476.91 |
| 6. | 3½" Pup JT. N-80 BUB | 2.867 | 4.500 | 4.05 | 480.96 |
| 7. | 3½" BAKER T-5 SF. VALVE | 2.813 | 5.375 | 5.47 | 486.43 |
| 8. | 3½" Pup JT. N-80 BUB | 2.867 | 4.500 | 4.17 | 490.60 |
| 9. | X-OVER 3½ BUB X 4½ LTC | 3.125 | 4.500 | 1.56 | 492.16 |
| 10. | 198 JTS 4½" Tubing LTC | 4.000 | 5.000 | 7394.84 | 7887.00 |
| 11. | X-OVER 4½ LTC X 3½ BUB | 3.500 | 5.000 | 1.76 | 7888.76 |
| 12. | 1-JT. 3½" N-80 Tubing BUB | 2.867 | 4.500 | 30.17 | 7918.93 |
| 13. | 3½" N-80 Pup JT. BUB | 2.867 | 4.500 | 3.95 | 7922.88 |
| 14. | 3½" BST "K" BM 6" GAS | 2.867 | 5.000 | 6.15 | 7929.03 |
| | LIFT MANDREL W/ 1" | — | — | — | — |
| | Dummy VALVE ON In-Latch | — | — | — | — |
| 15. | 3½" N-80 Pup JT. BUB | 2.867 | 4.500 | 1.48 | 7930.51 |
| 16. | 1-JT. 3½" N-80 Tubing BUB | 2.867 | 4.500 | 31.46 | 7961.97 |
| 17. | 3½" "X" D' Sliding SLEEVE | 2.750 | 4.000 | 3.60 | 7965.57 |
| 18. | 3½" N-80 Pup JT. BUB | 2.867 | 4.500 | 1.08 | 7966.65 |
| 19. | 1-JT. 3½" N-80 Tubing BUB | 2.867 | 4.500 | 31.40 | 7998.05 |
| 20. | 2.635 XN Nipple | 2.635 | 4.500 | 1.35 | 7999.40 |
| 21. | 1-JT. 3½" N-80 Tubing BUB | 2.867 | 4.500 | 30.56 | 8029.96 |
| 22. | X-OVER 3½" BUB X 2 7/8 BUB | 2.441 | 4.500 | 1.64 | 8031.60 |
| 23. | J-LATCH ASSY. ABOVE | 2.347 | 4.000 | .40 | 8032.00 |
| — | J-LATCH ASSY. in pkr | — | — | .75 | 8032.75 |
| 24. | SEAL ASSY. -2- | 2.347 | 3.250 | 2.00 | 8034.75 |
| 25 | 45° GUIDE SHOE | 2.347 | 3.200 | .43 | 8035.18 |
| A | 7" 23-29# BWB Packer W/ 2 SAT @ 8,032'. | | | | |
| | up WT. 96,000# | | | | |
| | DN. WT. 84,000# | | | | |
| | Tubing Landed W/ 10,000# ON pkr. | | | | |

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# PIPE TALLY

75-4½

LOCATION Standard Season 29 DATE 11-10-94

MAKE ____ TYPE ____ SIZE ____ WT. ____ GRADE ____ THREAD ____

REMARKS 3½ GUE 8rd w/ Production Equipment & 4½ 2tc

| No. | LENGTH FEET | | TOTALS FEET | No. | LENGTH FEET | | TOTALS FEET | No. | LENGTH FEET | | TOTALS FEET |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 43 | 6.5 | 1 | 37 | 28 | | 1 | 37 | 32 | |
| 2 | 2 | 00 | 2.00 | 2 | 37 | 26 | | 2 | 37 | 31 | |
| 3 | .1 | 15 | 40/75 J Lokq | 3 | 37 | 27 | | 3 | 37 | 30 | |
| 4 | 1 | 64 | ⊗ 2.3/4 P 3.1/2 B | 4 | 37 | 28 | | 4 | 37 | 27 | |
| 5 | 31 | 56 | 1JT | 5 | 37 | 34 | | 5 | 37 | 30 | |
| 6 | 1 | 35 | XN 21635 | 6 | 37 | 32 | | 6 | 37 | 28 | |
| 7 | 31 | 40 | 1JT | 7 | 37 | 33 | | 7 | 37 | 28 | |
| 8 | 3 | 60 | SSD XD | 8 | 37 | 30 | | 8 | 37 | 30 | |
| 9 | 1 | 08 | P.J | 9 | 37 | 32 | | 9 | 37 | 29 | |
| 0 | 31 | 36 | JT 3136 | 0 | 37 | 39 | | 0 | 37 | 26 | |
| — | 105 | 57 | | — | 373 | 09 ✓ | | — | 372 | 91 ✓ | |
| 1 | 1 | 48 | P J | 1 | 37 | 35 | | 1 | 37 | 28 | |
| 2 | 6 | 15 | 6Lm | 2 | 37 | 32 | | 2 | 37 | 30 | |
| 3 | 3 | 95 | PJ | 3 | 37 | 34 | | 3 | 37 | 30 | |
| 4 | 30 | 17 | 1JT | 4 | 37 | 30 | | 4 | 37 | 30 | |
| 5 | 1 | 76 | ⊗ 3½ P 4½ Litae | 5 | 37 | 33 | | 5 | 37 | 28 | |
| 6 | 37 | 28 | | 6 | 37 | 32 | | 6 | 37 | 28 | |
| 7 | 37 | 26 | | 7 | 37 | 31 | | 7 | 37 | 30 | |
| 8 | 36 | 28 | | 8 | 37 | 28 | | 8 | 37 | 28 | |
| 9 | 37 | 30 | | 9 | 37 | 33 | | 9 | 37 | 28 | |
| 0 | 37 | 38 | | 0 | 37 | 31 | | 0 | 37 | 25 | |
| — | 229 | 01 ✓ | | — | 373 | 19 ✓ | | — | 372 | 85 ✓ | |
| 1 | 37 | 39 | | 1 | 37 | 32 | | 1 | 37 | 32 | |
| 2 | 37 | 39 | | 2 | 37 | 35 | | 2 | 37 | 32 | |
| 3 | 37 | 29 | | 3 | 37 | 30 | | 3 | 37 | 26 | |
| 4 | 37 | 28 | | 4 | 37 | 32 | | 4 | 37 | 30 | |
| 5 | 37 | 36 | | 5 | 37 | 30 | | 5 | 37 | 27 | |
| 6 | 37 | 32 | | 6 | 37 | 26 | | 6 | 37 | 26 | |
| 7 | 37 | 31 | | 7 | 37 | 31 | | 7 | 37 | 26 | |
| 8 | 37 | 31 | | 8 | 37 | 31 | | 8 | 37 | 30 | |
| 9 | 37 | 32 | | 9 | 37 | 27 | | 9 | 37 | 31 | |
| 0 | 37 | 28 | | 0 | 37 | 34 | | 0 | 37 | 29 | |
| — | 373 | 25 ✓ | | — | 373 | 08 ✓ | | — | 372 | 89 ✓ | |

Hunter-Bakersfield Printing Inc

TALLIED BY ____ 2945.84

75- 4½ 4-3½

AC_CPUC_0118200

# PIPE TALLY

90-4½

LOCATION SS 29 DATE 11-10-94

MAKE _____ TYPE _____ SIZE _____ WT. _____ GRADE _____ THREAD _____

REMARKS 4½ LTC Page 2

SS 29

| No. | LENGTH FEET | | TOTALS FEET | | No. | LENGTH FEET | | TOTALS FEET | | No. | LENGTH FEET | | TOTALS FEET | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 37 | 27 | | | 1 | 37 | 30 | | | 1 | 37 | 24 | | |
| 2 | 37 | 30 | | | 2 | 37 | 28 | | | 2 | 37 | 30 | | |
| 3 | 37 | 28 | | | 3 | 37 | 26 | | | 3 | 37 | 28 | | |
| 4 | 37 | 27 | | | 4 | 37 | 29 | | | 4 | 37 | 24 | | |
| 5 | 37 | 30 | | | 5 | 37 | 28 | | | 5 | 37 | 34 | | |
| 6 | 37 | 30 | | | 6 | 37 | 29 | | | 6 | 37 | 25 | | |
| 7 | 37 | 28 | | | 7 | 37 | 28 | | | 7 | 37 | 35 | | |
| 8 | 37 | 32 | | | 8 | 37 | 30 | | | 8 | 37 | 32 | | |
| 9 | 37 | 33 | | | 9 | 37 | 30 | | | 9 | 37 | 32 | | |
| 0 | 37 | 32 | | | 0 | 37 | 27 | | | 0 | 37 | 34 | | |
| — | 372 | 97 | | | — | 372 | 85 | | | — | 373 | 03 | | |
| 1 | 37 | 33 | | | 1 | 37 | 28 | | | 1 | 37 | 33 | | |
| 2 | 37 | 31 | | | 2 | 37 | 22 | | | 2 | 37 | 30 | | |
| 3 | 37 | 34 | | | 3 | 37 | 30 | | | 3 | 37 | 28 | | |
| 4 | 37 | 31 | | | 4 | 37 | 33 | | | 4 | 37 | 30 | | |
| 5 | 37 | 31 | | | 5 | 37 | 31 | | | 5 | 37 | 28 | | |
| 6 | 37 | 32 | | | 6 | 37 | 30 | | | 6 | 37 | 30 | | |
| 7 | 37 | 25 | | | 7 | 37 | 31 | | | 7 | 37 | 31 | | |
| 8 | 37 | 31 | | | 8 | 37 | 30 | | | 8 | 37 | 30 | | |
| 9 | 37 | 30 | | | 9 | 37 | 27 | | | 9 | 37 | 28 | | |
| 0 | 37 | 33 | | | 0 | 37 | 31 | | | 0 | 37 | 28 | | |
| — | 373 | 11 | | | — | 372 | 93 | | | — | 372 | 96 | | |
| 1 | 37 | 31 | | | 1 | 37 | 28 | | | 1 | 37 | 32 | | |
| 2 | 37 | 30 | | | 2 | 37 | 28 | | | 2 | 37 | 22 | | |
| 3 | 37 | 34 | | | 3 | 37 | 27 | | | 3 | 37 | 28 | | |
| 4 | 37 | 31 | | | 4 | 37 | 28 | | | 4 | 37 | 30 | | |
| 5 | 37 | 28 | | | 5 | 37 | 24 | | | 5 | 37 | 28 | | |
| 6 | 37 | 30 | | | 6 | 37 | 29 | | | 6 | 37 | 26 | | |
| 7 | 37 | 31 | | | 7 | 37 | 30 | | | 7 | 37 | 27 | | |
| 8 | 37 | 27 | | | 8 | 37 | 30 | | | 8 | 37 | 30 | | |
| 9 | 37 | 26 | | | 9 | 37 | 30 | | | 9 | 37 | 24 | | |
| 0 | 37 | 30 | | | 0 | 37 | 24 | | | 0 | 37 | 28 | | |
| — | 372 | 98 | 111906 | | — | 372 | 78 | 1118.56 | | — | 372 | 75 | 111874 | |

Hunter-Baxersfield Printing Inc

27
75 2.5
90
150 90/2

TALLIED BY _____

1118.56

75

3356.36

106 – 102

AC_CPUC_0118201

G W. O. No. 93496

# MISCELLANEOUS JOB REPORT

DIVISION SS-29 DISTRICT Aliso Canyon SHEET 3 OF 3 SHEETS

DATE STARTED 11-4-94 DATE COMPLETED 11-14-94 DATE REPORTED 11-14-94

DESCRIBE BRIEFLY THE WORK PERFORMED

DESCRIBE THE UNIT OF EQUIPMENT, FACILITY, OR PLANT, AND STATE WHETHER IT WAS INSTALLED, REMOVED, RELOCATED, ALTERED, REPAIRED, OR ABANDONED. DESCRIPTION SHOULD INCLUDE SIZE, TYPE, AND LOCATION. UNDER THE DESCRIPTION SHOULD BE LISTED THE MAJOR ITEMS OF MATERIAL USED. IT IS NOT NECESSARY TO LIST MISCELLANEOUS FITTINGS 2" AND LESS IN SIZE WHICH ARE INCIDENTAL TO THE JOB UNLESS THE JOB IS COLLECTIBLE.

| QUANTITY | | |
|---|---|---|
| 1 | 9" X 3½", EUE, 8RND, Type 75 Tubing Hanger | # 4215 SHAFFER 26965 |
| 1 | 3½", EUE, 8R, N-80 Pup St. (2.00') | MDR-254455 BLACK GOLD 23331 TO WEST COAST |
| 1 | 3½", EUE, 8R, N-80 Pup St. (.68') | MDR-254455 BLACK GOLD 23331 MDR 254461 |
| 1 | ~~9" X 3½", EUE, 8RND, Type 75 Tubing Hanger~~ | ~~# 26956~~ |
| | Wellhead Equipment & Tree | |
| 1 | 9" X 3⅛", 5000# DS Seal Flange | # 26956 SHAFFER |
| 2 | 3⅛", 5000# Barton Gate Valve | # 26956 SHAFFER |
| 1 | 3⅛" X 3⅛" X 3⅛" X 2 1/16" Studded Cross | # 26956 SHAFFER |
| 1 | 2 1/16 X 2" LP, 5000# Flange | MDR-254428 SHAFF |
| 1 | 3⅛" X 2" LP, 5000# Flange | MDR-254428 SHAFF |
| 1 | 3⅛" 5000# Blind Flange | MDR-254428 SHAFF |
| 1 | 2 1/16", 5000# Barton Gate Valve | MDR-254428 SHAFF |
| 1 | 9" X 3½" EUE, 8RND, Type 75 Tubing Hanger | # 26956 SHAFFER |
| | DAMAGED WHEN INSTALLED REMOVED AND SENT TO WEST COAST FOR INSPECTION | MDR 254461 |

SIGNED _____ APPROVED _____

SOUTHERN CALIFORNIA GAS CO.—6-E

AC_CPUC_0118202

# MISCELLANEOUS JOB REPORT

W. O. No. 93496

DIVISION SS-29 DISTRICT Aliso Canyon SHEET 2 OF 3 SHEETS

DATE STARTED 11-4-94 DATE COMPLETED 11-14-94 DATE REPORTED 11-14-94

DESCRIBE BRIEFLY THE WORK PERFORMED

DESCRIBE THE UNIT OF EQUIPMENT, FACILITY, OR PLANT, AND STATE WHETHER IT WAS INSTALLED, REMOVED, RELOCATED, ALTERED, REPAIRED, OR ABANDONED. DESCRIPTION SHOULD INCLUDE SIZE, TYPE, AND LOCATION. UNDER THE DESCRIPTION SHOULD BE LISTED THE MAJOR ITEMS OF MATERIAL USED. IT IS NOT NECESSARY TO LIST MISCELLANEOUS FITTINGS 2" AND LESS IN SIZE WHICH ARE INCIDENTAL TO THE JOB UNLESS THE JOB IS COLLECTIBLE.

| QUANTITY | |
|---|---|
| | Installed In The Well |
| 1 | Otis 45° Mule Shoe (2.441" ID) Reran |
| 1 | Otis "S" Latch and Seal Assy. Rebuilt/Reran HALLIBURTON 617360-7 |
| 1 | X-Over 2 7/8", 6.5# 8RND EUE x 3½", 9.3# 8RND EUE (1.64') # 95-1002 T1 TAGAD |
| 1 | Otis "XN" Nipple (1.35') #BL-92-07758 HALLIBURTON 617360-7 |
| 1 | 3½", 9.3#, N-80, EUE 8R Pup St. (1.08') #BL-92-07758 HALLIBURTON 617360-7 |
| 1 | 3½" "XD" Sliding Sleeve (3.60') # BL-92-07758 HALLIBURTON # 617360-7 |
| 1 | 3½", 9.3# N-80 EUE 8R Pup St (1.48') # BL-91-02946 BST # 1796 |
| 1 | 3½" EUE 8R KBMg Mandrel (6.15') # BL-91-02946 BST 1796 |
| 1 | DU-1-Orifice (Dummy Valve) #BL-91-02946 BST 1796 |
| 1 | M-Latch Class "A" Repair MDR-252721 BST 1796 |
| 1 | SOV - Operating Valve (2700 PSI) # BL-91-02946 BST 1796 DELIVERED TO REPAIR |
| 1 | 3½" EUE 8R N-80 Pup St (3.95') #BL-91-02946 BST 1796 |
| 1 | X-Over 3½" 9.3# EUE x 4½", 11.6# LTEC (1.76') # 95-1002 T1 TAGAD |
| 4 | Sts 3½" 9.3# EUE 8RND N-80 (124.49') # 7705 |
| 198 | Sts 4½", 11.6#, LTEC, N-80 Tubing (7394.84') # 7705 |
| 1 | X-Over 4½", 11.6#, LTEC x 3½", 9.3# EUE (1.56') # 95-1002 T1 TAGAD |
| 1 | 3½" EUE 8R N-80 Pup St (4.17') CS-010042 BAKER |
| 1 | 3½", SCSSV T-5 Subsurface Safety Valve Baker CS-010042 |
| 1 | 3½" EUE 8R N-80 Pup St (1.14') CS-010042 |
| 15 | Sts 3½" 9.3# EUE 8RND N-80 (466.65') # 7705 |
| 1 | 3½" EUE 8R N-80 Pup St. (2.14') Black Gold 53331 TO WESTCO MDR 254461 BAKER |
| 1 | 3½" EUE 8R N-80 Pup St (1.65') CS-010042 TO WEST CO. MDR 254461 |

SIGNED _____ APPROVED _____

SOUTHERN CALIFORNIA GAS CO.—6-E

AC_CPUC_0118203

G. W. O. No. 93496

# MISCELLANEOUS JOB REPORT

DIVISION SS-29 DISTRICT Aliso Canyon SHEET 1 OF 3 SHEETS

DATE STARTED 11-4-94 DATE COMPLETED 11-14-94 DATE REPORTED 11-14-94

DESCRIBE BRIEFLY THE WORK PERFORMED

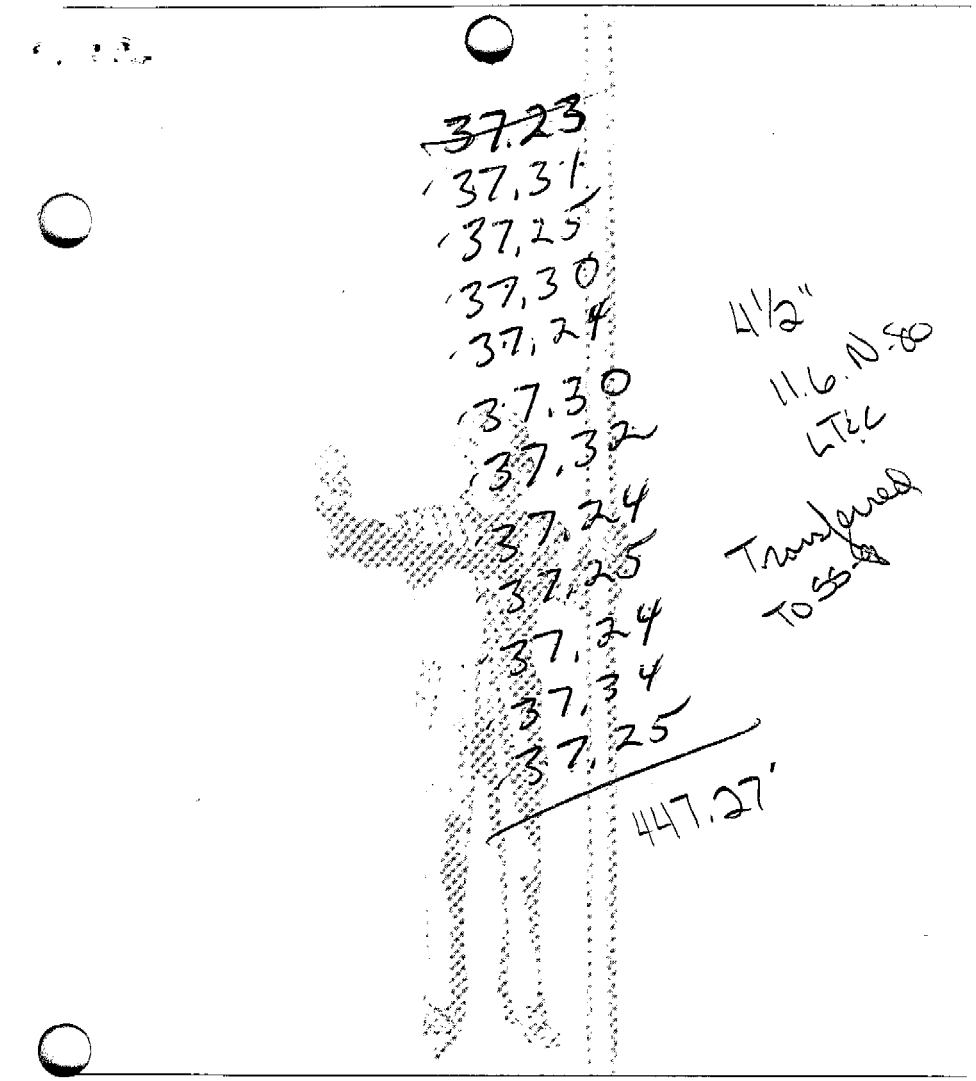
DESCRIBE THE UNIT OF EQUIPMENT, FACILITY, OR PLANT, AND STATE WHETHER IT WAS INSTALLED, REMOVED, RELOCATED, ALTERED, REPAIRED, OR ABANDONED. DESCRIPTION SHOULD INCLUDE SIZE, TYPE, AND LOCATION. UNDER THE DESCRIPTION SHOULD BE LISTED THE MAJOR ITEMS OF MATERIAL USED. IT IS NOT NECESSARY TO LIST MISCELLANEOUS FITTINGS 2" AND LESS IN SIZE WHICH ARE INCIDENTAL TO THE JOB UNLESS THE JOB IS COLLECTIBLE.

| QUANTITY | |
|---|---|
| | Removed From the Well |
| 253 Jts | 2 7/8" EUE 8RND 6.4# J-55 Tubing MDR - 254451/254452 |
| 1 | Camco "MMA" GLM w/ 1.5 S.O.V. on RA Latch MDR 252723 |
| 2 | 2 7/8" EUE 8RND 6.4# J-55 Pup Jt 4.09' & .68' MDR - 254453 |
| 1 | Otis "XD" SSD (2.313" ID) MDR - 252685 |
| 1 | Otis "XN" No-Go nipple MDR - 252685 |
| 1 | Otis J-Latch and 2 seal units (2.441 ID) - Rebuilt/Reran |
| 1 | Otis Mule Shoe (2.441 ID) - Reran |
| | |
| | Wellhead and Tree |
| 1 | Flange 9" x 2 9/16" - 5000# ASD DS Seal Flange MDR - 254429 Shaffer |
| 1 | Cross 2 9/16" x 2 9/16" x 2 1/16" x 2 1/16" 5000# Studded Cross MDR - 254429 |
| 1 | Flange 2 1/16" - 5000# Blind MDR - 254429 |
| 1 | X-Mas Tree Cap 3" x 2 9/16" 5000# Uni Bolt MDR - 254429 |
| 1 | Valve - 2 9/16" 5000# Barton gate MDR - 254430 |
| 1 | Valve 2 9/16" 5000# Barton gate MDR - 254430 |
| | |
| 1 | Tubing Hanger 7" 2 7/8" x 2 7/8" EUE 8RND |
| | |
| | NOT NIPPLED TO SS 9 |
| 12 | 4 1/2" 11.6# N-80 LT&C MBMS MDR 254459 |
| 1 | 3 1/2" EUE N-80 OR 9.3# MBMS " |
| | |

SIGNED S. McLEAN APPROVED

SOUTHERN CALIFORNIA GAS CO.-6-E

AC_CPUC_0118204




**Call the Otis divisional office nearest you!**

| Anchorage, AK | Santa Fe Springs, CA | Elk City, OK | Denver, CO | Oklahoma City, OK |
|---|---|---|---|---|
| (907) 276-4054 | (213) 864-3701 | Completions (405) 225-6371 Special Services (405) 225-1630 | (303) 832-7541 | (405) 632-2361 |

75-4½

# PIPE TALLY

LOCATION Standard Season 29 DATE 11-10-94

MAKE _____ TYPE _____ SIZE _____ WT. _____ GRADE _____ THREAD _____

REMARKS 3½ Gas Sled w/ Production Equipment & 4½ 2 tc

| No. | LENGTH FEET | | TOTALS FEET | No. | LENGTH FEET | | TOTALS FEET | No. | LENGTH FEET | | TOTALS FEET |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 43 | 6.5 | 1 | 37 | 28 | | 1 | 37 | 32 | |
| 2 | 2 | 06 | 2.00 | 2 | 37 | 26 | | 2 | 37 | 31 | |
| 3 | 1 | 15 | 40/75 Jt Lost | 3 | 37 | 27 | | 3 | 37 | 30 | |
| 4 | 1 | 44 | ⊗ 2 7/8 P 3½ B | 4 | 37 | 28 | | 4 | 37 | 27 | |
| 5 | 31 | 56 | IJT | 5 | 37 | 34 | | 5 | 37 | 30 | |
| 6 | 1 | 35 | XN 2.635 | 6 | 37 | 32 | | 6 | 37 | 28 | |
| 7 | 31 | 40 | IJT | 7 | 37 | 33 | | 7 | 37 | 28 | |
| 8 | 3 | 40 | SSD XD | 8 | 37 | 30 | | 8 | 37 | 30 | |
| 9 | 1 | 08 | P.J | 9 | 37 | 32 | | 9 | 37 | 29 | |
| 0 | 31 | 36 | JT 8136 | 0 | 37 | 39 | | 0 | 37 | 26 | |
| — | 105 | 57 | | — | 373 | 09 ✓ | | — | 372 | 91 ✓ | |
| 1 | 1 | 48 | P J | 1 | 37 | 35 | | 1 | 37 | 28 | |
| 2 | 4 | 15 | 6 Lm | 2 | 37 | 32 | | 2 | 37 | 30 | |
| 3 | 3 | 95 | PJ | 3 | 37 | 34 | | 3 | 37 | 30 | |
| 4 | 30 | 17 | IJT | 4 | 37 | 30 | | 4 | 37 | 30 | |
| 5 | 1 | 76 | ⊗ 3½ P 4½ Ltac | 5 | 37 | 33 | | 5 | 37 | 28 | |
| 6 | 37 | 28 | | 6 | 37 | 32 | | 6 | 37 | 28 | |
| 7 | 37 | 26 | | 7 | 37 | 31 | | 7 | 37 | 30 | |
| 8 | 36 | 28 | | 8 | 37 | 28 | | 8 | 37 | 28 | |
| 9 | 37 | 30 | | 9 | 37 | 33 | | 9 | 37 | 28 | |
| 0 | 37 | 38 | | 0 | 37 | 31 | | 0 | 37 | 25 | |
| — | 229 | 01 ✓ | | — | 373 | 19 ✓ | | — | 372 | 85 ✓ | |
| 1 | 37 | 39 | | 1 | 37 | 32 | | 1 | 37 | 32 | |
| 2 | 37 | 39 | | 2 | 37 | 35 | | 2 | 37 | 32 | |
| 3 | 37 | 29 | | 3 | 37 | 30 | | 3 | 37 | 26 | |
| 4 | 37 | 28 | | 4 | 37 | 32 | | 4 | 37 | 30 | |
| 5 | 37 | 36 | | 5 | 37 | 30 | | 5 | 37 | 27 | |
| 6 | 37 | 32 | | 6 | 37 | 26 | | 6 | 37 | 26 | |
| 7 | 37 | 31 | | 7 | 37 | 31 | | 7 | 37 | 26 | |
| 8 | 37 | 31 | | 8 | 37 | 31 | | 8 | 37 | 30 | |
| 9 | 37 | 32 | | 9 | 37 | 27 | | 9 | 37 | 31 | |
| 0 | 37 | 28 | | 0 | 37 | 34 | | 0 | 37 | 29 | |
| — | 373 | 25 ✓ | | — | 373 | 08 ✓ | | — | 372 | 89 ✓ | |

Hunter-Bakersfield Printing Inc

TALLIED BY _____ 2945.84

75- 4½ 4-3½

AC_CPUC_0118206

# PIPE TALLY

90-4½

LOCATION SS 29 DATE 11-10-94

MAKE _____ TYPE _____ SIZE _____ WT. _____ GRADE _____ THREAD _____

REMARKS 4½ LTC Page 2

| No. | LENGTH FEET | TOTALS FEET | No. | LENGTH FEET | TOTALS FEET | No. | LENGTH FEET | TOTALS FEET |
|---|---|---|---|---|---|---|---|---|
| 1 | 37 27 | | 1 | 37 30 | | 1 | 37 24 | |
| 2 | 37 30 | | 2 | 37 28 | | 2 | 37 30 | |
| 3 | 37 28 | | 3 | 37 24 | | 3 | 37 28 | |
| 4 | 37 27 | | 4 | 37 29 | | 4 | 37 24 | |
| 5 | 37 30 | | 5 | 37 28 | | 5 | 37 34 | |
| 6 | 37 30 | | 6 | 37 29 | | 6 | 37 25 | |
| 7 | 37 28 | | 7 | 37 28 | | 7 | 37 35 | |
| 8 | 37 32 | | 8 | 37 30 | | 8 | 37 32 | |
| 9 | 37 33 | | 9 | 37 30 | | 9 | 37 32 | |
| 0 | 37 32 | | 0 | 37 27 | | 0 | 37 34 | |
| — | ~~372 97~~ ✓ | | — | ~~372 85~~ ✓ | | — | ~~373 03~~ ✓ | |
| 1 | 37 33 | | 1 | 37 28 | | 1 | 37 33 | |
| 2 | 37 31 | | 2 | 37 22 | | 2 | 37 30 | |
| 3 | 37 34 | | 3 | 37 30 | | 3 | 37 28 | |
| 4 | 37 31 | | 4 | 37 33 | | 4 | 37 30 | |
| 5 | 37 31 | | 5 | 37 31 | | 5 | 37 28 | |
| 6 | 37 32 | | 6 | 37 30 | | 6 | 37 30 | |
| 7 | 37 25 | | 7 | 37 31 | | 7 | 37 31 | — |
| 8 | 37 31 | | 8 | 37 30 | | 8 | 37 30 | |
| 9 | 37 30 | | 9 | 37 27 | | 9 | 37 28 | |
| 0 | 37 33 | | 0 | 37 31 | | 0 | 37 28 | |
| — | ~~373 11~~ ✓ | | — | ~~372 93~~ ✓ | | — | ~~372 96~~ ✓ | |
| 1 | 37 31 | | 1 | 37 28 | | 1 | 37 32 | |
| 2 | 37 30 | | 2 | 37 28 | | 2 | 37 22 | |
| 3 | 37 34 | | 3 | 37 27 | | 3 | 37 28 | |
| 4 | 37 31 | | 4 | 37 28 | | 4 | 37 30 | |
| 5 | 37 28 | | 5 | 37 24 | | 5 | 37 28 | |
| 6 | 37 30 | | 6 | 37 29 | | 6 | 37 26 | |
| 7 | 37 31 | | 7 | 37 30 | | 7 | 37 27 | |
| 8 | 37 27 | | 8 | 37 30 | | 8 | 37 30 | |
| 9 | 37 26 | | 9 | 37 30 | | 9 | 37 24 | |
| 0 | 37 30 | | 0 | 37 24 | | 0 | 37 28 | |
| — | ~~372 98~~ | 111906 | — | ~~372 78~~ ✓ | 1118.56 | — | ~~372 75~~ ✓ | 111874 |

Hunter-Bakersfield Printing Inc

75 2.7
81 2.5
156 90
1/2

118.56

TALLIED BY _____ 75

3356.36

106 – 102

AC_CPUC_0118207

# PIPE TALLY

33-4½

LOCATION _____ DATE _____

MAKE _____ TYPE _____ SIZE _____ WT. _____ GRADE _____ THREAD _____

REMARKS Page 3

4½ Cut C, ⊗ Safty + 3½ Gas

| No. | LENGTH FEET | | TOTALS FEET | | No. | LENGTH FEET | | TOTALS FEET | | No. | LENGTH FEET | | TOTALS FEET | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 37 | 25 | | | 1 | 37 | 30 | | | 1 | 37 | 23 | out | 4½ |
| 2 | 37 | 28 | | | 2 | 37 | 29 | | | 2 | 37 | 31 | | |
| 3 | 37 | 23 | | | 3 | 37 | 32 | 501.04 | | 3 | 37 | 25 | | |
| 4 | 37 | 27 | | | 4 | 1 | 56 | ⊗ 499.48 | | 4 | 37 | 30 | | |
| 5 | 37 | 30 | | | 5 | 4 | 17 | 495.31 | | 5 | 37 | 24 | | |
| 6 | ~~35~~ 37 | ~~98~~ | | | 6 | 5 | 47 | 489.84 | | 6 | 37 | 30 | | |
| 7 | 37 | 25 | | | 7 | 4 | 05 | 485.79 | | 7 | 37 | 32 | | |
| 8 | 37 | 29 | | | 8 | 30 | 17 | 453.62 (3½) | | 8 | 37 | 24 | | |
| 9 | 37 | 26 | | | 9 | 31 | 40 | 424.22 | | 9 | 37 | 25 | | |
| 0 | 37 | 26 | | | 0 | 31 | 32 | 392.90 | | 0 | 37 | 24 | | |
| — | ~~371~~ | ~~40~~ | | | — | — | — | | | — | — | — | | |
| 1 | 37 | 24 | | | 1 | 30 | 01 | 362.89 | | 1 | 37 | 34 | | |
| 2 | 37 | 30 | | | 2 | 31 | 36 | 331 53 | | 2 | 37 | 25 | out | 4½ |
| 3 | 37 | 27 | | | 3 | 31 | 45 | 300 08 | | 3 | | | | |
| 4 | 37 | 27 | | | 4 | 31 | 36 | 268 72 | | 4 | | | | |
| 5 | 37 | 26 | | | 5 | 31 | 35 | 237 37 | | 5 | | | | |
| 6 | 37 | 28 | | | 6 | 31 | 35 | 206 02 | | 6 | | | | |
| 7 | 37 | 30 | | | 7 | 31 | 35 | 174 67 | | 7 | | | | — |
| 8 | 37 | 28 | | | 8 | 31 | 39 | 143 28 | | 8 | | | | |
| 9 | 37 | 26 | | | 9 | 31 | 36 | 111 92 | | 9 | | | | |
| 0 | 37 | 30 | | | 0 | 30 | 03 | 81 89 | | 0 | | | | |
| — | ~~372~~ | ~~76~~ | | | — | — | — | | | — | — | — | | |
| 1 | 37 | 26 | | | 1 | 31 | 35 | 50 54 | | 1 | | | | |
| 2 | 37 | 25 | | | 2 | 31 | 40 | 19.14 | | 2 | | | | |
| 3 | 37 | 28 | | | 3 | 31 | 46 | Out | | 3 | | | | |
| 4 | 37 | 29 | | | 4 | | | | | 4 | | | | |
| 5 | 37 | 26 | | | 5 | | | | | 5 | | | | |
| 6 | 37 | 26 | | | 6 | | | | | 6 | | | | |
| 7 | 37 | 29 | | | 7 | | | | | 7 | | | | |
| 8 | 37 | 31 | | | 8 | | | | | 8 | | | | |
| 9 | 37 | ~~22~~ | | | 9 | | | | | 9 | | | | |
| 0 | 37 | 27 | | | 0 | | | | | 0 | | | | |
| — | ~~372~~ | ~~69~~ | | | — | — | — | | | — | — | — | | |

Hunter-Bakersfield Printing, Inc

7/19.05

TALLIED BY _____

AC_CPUC_0118208

Load #2

**WEST COAST PIPE INSPECTION**
**&**
**MAINTENANCE**
5900 East Lerdo Highway • Shafter, CA 93263
Phone: (805) 399-1163

# TALLY SHEET

DATE 11/8/94 JOB ORDER NO. 7705

PAGE _____ OF _____ LOAD _____ OF _____

SERVICED BY SOUTHERN CALIFORNIA GAS COMPANY - Ex: WCPI/Tryad Service, Shafter, CA

SOLD TO SOUTHERN CALIFORNIA GAS COMPANY

DESCRIPTION 4-1/2" O.D. 11.60# N-80 8rd LT&C R-3 (Bottom of Load) ☒ INSPECTED ☐ NON-INSPECTED

| | | | | |
|---|---|---|---|---|
| BEGINNING INVENTORY | 69 | JOINT COUNT | 67 | |
| TOTAL LOAD | 67 Unsp rack | FOOTAGE | 2515.70 | |
| ENDING INVENTORY | 2 | 7,800' Appx to fill out load | | |

| | | | | | |
|---|---|---|---|---|---|
| 1 | 3750 | 3750 | 3760 | 3750 | |
| 2 | 3760 | 3760 | 3750 | 3760 | |
| 3 | 3750 | 3750 | 3760 | 3760 | |
| 4 | 3750 | 3750 | 3750 | 3750 | |
| 5 | 3760 | 3750 | 3750 | 3760 | |
| 6 | 3760 | 3750 | 3760 | 3750 | |
| 7 | 3760 | 3750 | 3750 | 3760 | |
| 8 | 3750 | 3760 | 3750 | | |
| 9 | 3760 | 3750 | 3760 | | |
| 10 | 3760 | 3750 | 3760 | | |
| 11 | 3760 | 3750 | 3750 | | |
| 12 | 3760 | 3750 | 3750 | | |
| 13 | 3750 | 3760 | 3750 | | |
| 14 | 3750 | 3760 | 3760 | | |
| 15 | 3760 | 3760 | 3750 | | |
| 16 | 3750 | 3760 | 3760 | | |
| 17 | 3750 | 3760 | 3760 | | |
| 18 | 3750 | 3760 | 3750 | | |
| 19 | 3760 | 3760 | 3760 | | |
| 20 | 3750 | 3760 | 3750 | | |
| TOTAL | 751.00 | 751.00 | 750.80 | 262.90 | |

| | | |
|---|---|---|
| CARRY OVER | 5372.70 | 143 |
| SHEET | 2515.70 | 67 |
| TOTAL | 7888.40 | 210 |

TALLY APPROVED BY: _____

TRUCK CO. H & H Oil Tool - Will Call

THE INVENTORY OF PIPE DESCRIBED ABOVE HAS BEEN PROPERLY LOADED AND SECURED ONTO THE TRANSPORTING VEHICLE.

_____ 11-9-94
DRIVER'S SIGNATURE DATE

Creative Printing 2153

AC_CPUC_0118209

Load #1

**WEST COAST PIPE INSPECTION**
**&**
**MAINTENANCE**

5900 East Lerdo Highway • Shafter, CA 93263
Phone: (805) 399-1163

# TALLY SHEET

DATE 11/8/94 JOB ORDER NO. 7705

PAGE ____ OF ____ LOAD ____ OF ____

SERVICED BY SOUTHERN CALIFORNIA GAS COMPANY - Ex: WCPI/Tryad Service, Shafter, CA

SOLD TO SOUTHERN CALIFORNIA GAS COMPANY

DESCRIPTION 4-1/2" O.D. 11.60# N-80 8rd LT&C R-3 (Bottom of Load) NKK ☒ INSPECTED ☐ NON-INSPECTED

BEGINNING INVENTORY JOINT COUNT 89

TOTAL LOAD 89 FOOTAGE 3345.40

ENDING INVENTORY 7,800' Approximately Needed

| | | | | | |
|---|---|---|---|---|---|
| 1 | 3780 | 3760 | 3760 | 3760 | 3760 |
| 2 | 3780 | 3760 | 3760 | 3760 | 3750 |
| 3 | 3770 | 3760 | 3750 | 3760 | 3750 |
| 4 | 3780 | 3650 | 3750 | 3760 | 3750 |
| 5 | 3780 | 3750 | 3750 | 3760 | 3760 |
| 6 | 3780 | 3750 | 3750 | 3760 | 3760 |
| 7 | 3780 | 3760 | 3750 | 3760 | 3760 |
| 8 | 3780 | 3770 | 3760 | 3760 | 3750 |
| 9 | 3780 | 3760 | 3750 | 3760 | 3750 |
| 10 | 3760 | 3760 | 3750 | 3760 | |
| 11 | 3750 | 3770 | 3750 | 3760 | |
| 12 | 3780 | 3770 | 3760 | 3750 | |
| 13 | 3750 | 3770 | 3760 | 3760 | |
| 14 | 3760 | 3770 | 3760 | 3760 | |
| 15 | 3750 | 3770 | 3760 | 3760 | |
| 16 | 3760 | 3760 | 3760 | 3760 | |
| 17 | 3750 | 3750 | 3760 | 3760 | |
| 18 | 3750 | 3750 | 3760 | 3760 | |
| 19 | 3760 | 3760 | 3750 | 3760 | |
| 20 | 3760 | 3760 | 3760 | 3760 | |
| TOTAL | 753.40 | 751.10 | 751.10 | 751.90 | 337.90 |

CARRY OVER

SHEET 3345.40 89 JT

TOTAL 3345.40 89 JT

TALLY APPROVED BY:

TRUCK CO. H & H Oil Tool - Will Call

THE INVENTORY OF PIPE DESCRIBED ABOVE HAS BEEN PROPERLY LOADED AND SECURED ONTO THE TRANSPORTING VEHICLE.

DRIVER'S SIGNATURE 11-8-94 DATE

Creative Printing 2153

AC_CPUC_0118210

Load #1

**WEST COAST PIPE INSPECTION**
**&**
**MAINTENANCE**

5900 East Lerdo Highway • Shafter, CA 93263
Phone: (805) 399-1163

# TALLY SHEET

DATE 11/8/94 JOB ORDER NO. 7705

PAGE _____ OF _____ LOAD _____ OF _____

SERVICED BY SOUTHERN CALIFORNIA GAS COMPANY - Ex: WCPI/Tryad Service, Shafter, CA

SOLD TO SOUTHERN CALIFORNIA GAS COMPANY

DESCRIPTION 3-1/2" O.D. 9.30# N-80 8rd EUE R-2 (Top of Load) ☐ INSPECTED ☐ NON-INSPECTED

| | | | |
|---|---|---|---|
| BEGINNING INVENTORY | 24 | JOINT COUNT | 20 |
| TOTAL LOAD | 20 | FOOTAGE | 631.90 |
| ENDING INVENTORY | 4 | | 620' |

| | | | | | |
|---|---|---|---|---|---|
| 1 | 3180 | | | | |
| 2 | 3070 | | | | |
| 3 | 3190 | | | | |
| 4 | 3200 | | | | |
| 5 | 3180 | | | | |
| 6 | 3180 | | | | |
| 7 | 3070 | | | | |
| 8 | 3190 | | | | |
| 9 | 3180 | | | | |
| 10 | 3190 | | | | |
| 11 | 3050 | | | | |
| 12 | 3180 | | | | |
| 13 | 3190 | | | | |
| 14 | 3180 | | | | |
| 15 | 3180 | | | | |
| 16 | 3190 | | | | |
| 17 | 3050 | | | | |
| 18 | 3180 | | | | |
| 19 | 3180 | | | | |
| 20 | 3180 | | | | |
| TOTAL | 631.90 | | | | |

CARRY OVER

SHEET 631.90 20 ✓

TOTAL 631.90 20 ✓

TALLY APPROVED BY:

TRUCK CO. H & H Oil Tool - Will Call

THE INVENTORY OF PIPE DESCRIBED ABOVE HAS BEEN PROPERLY LOADED AND SECURED ONTO THE TRANSPORTING VEHICLE.

Bob Hans — DRIVER'S SIGNATURE

11-8-94 — DATE

Creative Printing 2153

AC_CPUC_0118211

Load #3

**WEST COAST PIPE INSPECTION**
**&**
**MAINTENANCE**
5900 East Lerdo Highway • Shafter, CA 93263
Phone: (805) 399-1163

# TALLY SHEET

DATE 11/8/94 JOB ORDER NO. 7705

PAGE _____ OF _____ LOAD _____ OF _____

SERVICED BY SOUTHERN CALIFORNIA GAS COMPANY - Ex: WCPI/Tryad Service, Shafter, CA

SOLD TO SOUTHERN CALIFORNIA GAS COMPANY

DESCRIPTION 4-1/2" O.D. 11.60# N-80 8rd LT&C R-3 (Bottom of Load) ☒ INSPECTED ☐ NON-INSPECTED

| | | | |
|---|---|---|---|
| BEGINNING INVENTORY | 123 | JOINT COUNT | 54 |
| TOTAL LOAD | 54 Dump rest | FOOTAGE | 2027.30 |
| ENDING INVENTORY | 67 | | 7,800' ~~Approximately~~ Full Load |

| | | | | | |
|---|---|---|---|---|---|
| 1 | ~~B~~770 | 3750 | 3750 | | |
| 2 | 3750 | 3760 | 3750 | | |
| 3 | 3750 | 3760 | 3750 | | |
| 4 | 3760 | 3750 | 3760 | | |
| 5 | 3760 | 3750 | 3750 | | |
| 6 | 3750 | 3750 | 3760 | | |
| 7 | 3760 | 3760 | 3750 | | |
| 8 | 3750 | 3750 | 3750 | | |
| 9 | 3750 | 3760 | 3760 | | |
| 10 | ~~8~~3750 | 3750 | 3760 | | |
| 11 | ~~3~~750 | 3750 | 3760 | | |
| 12 | 3750 | 3750 | 3760 | | |
| 13 | 3760 | 3760 | 3760 | | |
| 14 | 3750 | 3750 | 3750 | | |
| 15 | 3760 | 3760 | | | |
| 16 | 3750 | 3750 | | | |
| 17 | 3750 | 3750 | | | |
| 18 | 3750 | 3760 | | | |
| 19 | 3750 | 3760 | | | |
| 20 | 3750 | 3760 | | | |
| TOTAL | 750.70 | 750.90 | 525.70 | | |

| | | |
|---|---|---|
| CARRY OVER | 3345.40 | 89 |
| SHEET | 2027.30 | 54 |
| TOTAL | 5372.70 | 143 |

TALLY APPROVED BY:

TRUCK CO. H & H Oil Tool - Will Call

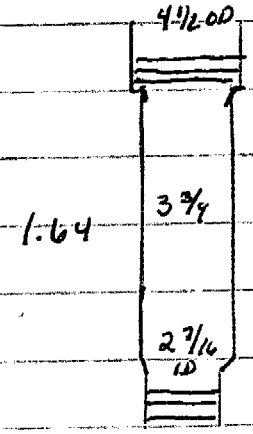
THE INVENTORY OF PIPE DESCRIBED ABOVE HAS BEEN PROPERLY LOADED AND SECURED ONTO THE TRANSPORTING VEHICLE.

Tom L 11-9-94
DRIVER'S SIGNATURE DATE

Creative Printing 2153

AC_CPUC_0118212

⊗ ○ used on SS-29 ○ 11-12-94

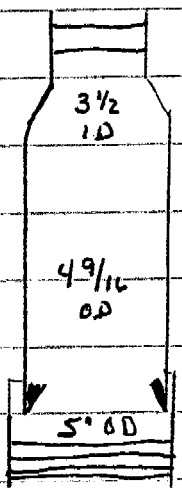



1.64

3½ 6ue 8rd Coupling

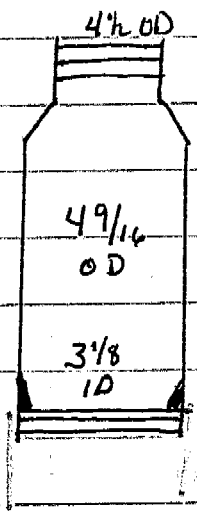
2⅞ 6ue Pin

3½ 6ue 8rd Pin




1.76

4½ LT+C Coupling




1.56

3½ 6ue Coupling

4½ LT+C Pin

AC_CPUC_0118213

**WORKOVER PROGRAM**

| | |
|---|---|
| OPERATOR: | Southern California Gas Company |
| FIELD: | Aliso Canyon |
| WELL: | SS 29 |
| CONTRACTOR: | Pride 447 |
| OBJECTIVE: | Install SCSSV |
| APPROXIMATE LOCATION: | |
| ELEVATION: | Ground level 2849'. Take all measurements from KB 7' above ground level. |
| SAFETY: | Hard hats are to be worn by all personnel on or near a rig. No smoking is permitted within 100' of the wellhead or near any other flammable material. |

PRESENT CONDITIONS:

| | | | | |
|---|---|---|---|---|
| 0' | - 999' | 11-3/4" | 42# . | |
| 999' | 1042' | 11-3/4 | 47# | |
| 0' | 974' | 7" | 23# | N-80 |
| 974' | 4454' | 7" | 23# | J-55 |
| 4454' | 6494' | 7" | 23# | N-80 |
| 6494' | 8170' | 7" | 26# | N-80 Otis 'BWB'@ 8032' |
| 8075' | 9790' | 5" | 18# See perforation detail on mechanical. WSO squeezed w/100 sx @ 8330'-8331'. | |

2-7/8" Tubing Detail Attached

WORK CATEGORY:

PR

- o Prepare surface as required.
- o Perform any required piano wire work.
- o Spot open top storage tank on location.
- o Check with the Storage Field Engineer to determine any changes and condition of the well since writing of this program and current bottom-hole pressure in the vicinity of the well.
- o Well Kill Requirements:

  a. Top of zone 8428' M. D.
  b. Estimated bottom-hole pressure = 3150 psig.
  c. Calculated fluid density to provide 300 psi overbalance =59 lbs / cu.ft. Use 63 lbs/cu.ft 2% KCl fluid.
  d. Wellbore fluid volumes:

| | | |
|---|---|---|
| Tubing | = | 47 bbls. |
| Casing/Liner | = | 19 bbls. |
| Annulus | = | 254 bbls. |
| Total | | 320 bbls. |

  * Be sure to bleed off surface string annulus.

* Maintain surface fluid volume equal to or greater than well volume during workover.

PROGRAM

MI 1. Move in and rig up.

- o Bleed off all casing annuli to zero pressure.
- o Rig up drip pans and plastic sheeting and dike area as necessary for spill control.
- o Be sure well is completely dead. Notify Drilling Engineer if well is not in this condition.
- o Set equalizing back pressure valve in doughnut.
- o Remove xmas tree. Send xmas tree in for repairs as required.

WW 2. Install 9" Class III 5000 psi BOPE.

- o Include Hydril bag and double gate with 2-7/8" pipe rams and blind rams.
- o Bag and both sets of rams are to be actuated hydraulically by a 3000 psi, minimum 60 gallon accumulator with dual remote controls and auxiliary nitrogen.
- o Install 9" 5000 psi spool with choke and kill lines as well as check valve.
- o Choke manifold to have discharge to Gas Company system, with block

valve and bleeder as well as connections to fluid tank.

- o Inspect Hydril bag when installing BOPE.
- o Use new Rx API rings on all untested BOPE connections.

WW 3. Pressure test BOPE.

- o Blind rams, 2-7/8" pipe rams and choke manifold are to be tested to 5000 psi with water.
- o Test Hydril bag to 3500 psi with water.

CO 4. Pull tubing.

- o Remove back pressure valve.
- o Release tubing from packer.
- o If unable to release from packer, contact the Drilling Engineer. Have tubing visually inspected while pulling out of hole. Send good tubing in for rack inspection.

5. Install tubing string.

- o Gator hawk tubing to 4000 psig while running in well.
- o Tubing string to include :

Otis guide shoe
Otis seal assembly, (2) seals
Otis J-latch
Crossover from seal assembly to 3-1/2"8Rd EUE

One joint 3-1/2" 8Rd EUE tubing
3-1/2" Otis XN no-go nipple (2.666" ID).
One joint 3-1/2" 8Rd EUE tubing
Otis 3-1/2" "XD" sliding sleeve (closed).
One joint 3-1/2" 8Rd EUE tbg.
3-1/2" BST KBMG gas lift mandrel with dummy valve.
One joint 3-1/2" 8Rd EUE tbg.
Crossover 3-1/2" 8Rd EUE pin X 4-1/2" 8Rd EUE box
4-1/2" 8Rd EUE tubing to approximately 500' from surface.
Crossover 4-1/2" 8Rd EUE pin X 3-1/2" 8Rd EUE box
One 3-1/2" Baker T5 series SCSSV
3-1/2" 8Rd EUE tubing and pups to surface as necessary.

- Pull 20,000 lbs over tubing weight to check latch on packer.

- Space out and land tubing on Otis model "BWB" packer at 8032' with 10,000#.

- Pressure casing to 1500 psig ,keep tubing full and check for return.

- Run in with wireline and open sliding sleeve.

Test SCSSV in accordance with attached procedure.

CO 6. Remove BOPE and Install Xmas Tree.

- Install equalizing back pressure

valve in tubing hanger.

- o Remove BOPE.
- o Install xmas tree.
- o Pressure test seals, xmas tree, seal flange, and tubing head to 5000 psig with oil for 20 minutes.
- o Tighten all wellhead bolts.
- o Check and close all wellhead valves.
- o Install tapped blind flanges with bleeder valves on all wellhead valves.

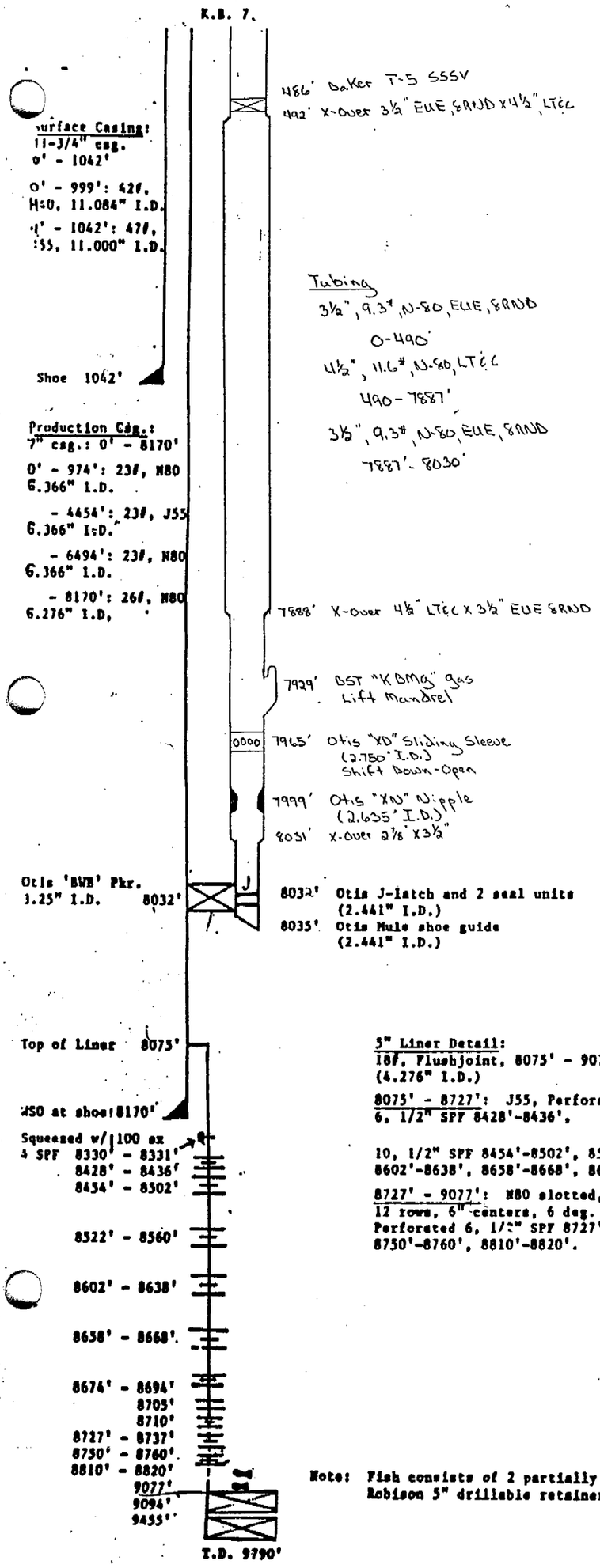
MO 7. Rig down and move out rig.

- o Inform the Storage Field Engineer before moving off wellsite so proper wellsite safety protection can be arranged.
- o Release rig.
- o Clean up wellsite. All trash, debris, equipment and materials to be removed from site.

A walk-through inspection by a Drilling Department representative and the Storage Field Engineer or their designee is conducted after the site is cleaned.

E. S. Sinclair

AC_CPUC_0118219




**Standard Sesnon #29**

**Aliso Canyon**

| | |
|---|---|
| **Status:** | Injection/Withdrawal |
| **Flow Regime:** | Tubing Flow |
| **Elevation:** | 2849' G.L.<br>7' K.B.<br>KB to MV: 6' |
| **Surface Location:** | Approximately 750'S & 6100'W of Station 84, T3N, R16W, Sec. 28 |
| **Btm. Hole Loc:** | Straight Hole at effective TVD of 9077'. |

**4/26/53 - 9/29/53:** Well spudded and completed.

**2/2/73 - 2/28/73:** Pressure tested 7" casing, converted to gas storage by perforation in Sesnon zone. Cleaned out to 9074'. Ran tubing with SSSV.

**7/31/73 - 8/7/73:** Installed wireline SSSV. Cleaned out to 9077'.

**8/27/77 - 9/9/77:** Cleaned out to 9072'. Pressure tested casing. Reran tubing with SSSV.

**3/5/79 - 3/10/79:** Replaced safety system. Set packer at 8040'.

**9/20/91 - 11/6/91:** Milled packer. Shot 4, 1/2" SPF at 8330' - 8331'. Squeezed shoe leak with 100 sx class "G" cement. Ran tubing conveyed perforation guns and shot 6, 1/2" SPF at: 8428'-8436', 8454'-8502', 8522'-8560', 8602'-8636', 8660'-8668', 8674'-8694', 8727'-8737', 8750'-8760', 8810'-8820'. Completed with 7" Otis "BWB" packer and 2-7/8" tubing.

**11/4/94 - 11/14/94:** Replaced 2⅞" tubing with 3½" and 4½" tubing flow production string.

| Volume | Cu.Ft. | Bbls. |
|---|---|---|
| Tubing | 676 | 120 |
| Annulus | 916 | 163 |
| Casing/Liner | 109 | 19 |
| Total | 1701 | 302 |

**5" Liner Detail:**
18#, Flushjoint, 8075' - 9077' (4.276" I.D.)

8075' - 8727': J55, Perforated 6, 1/2" SPF 8428'-8436',

10, 1/2" SPF 8454'-8502', 8528'-8552', 8602'-8638', 8658'-8668', 8674'-8694'.

8727' - 9077': N80 slotted, .012" gauge, 12 rows, 6" centers, 6 deg. undercut. Perforated 6, 1/2" SPF 8727'-8737', 8750'-8760', 8810'-8820'.

**Top Of Zones**

| | M.D. |
|---|---|
| MP | 8150' |
| S1 | 8346' |
| S2 | 8382' |
| S4 | 8428' |
| S8 | 8522' |
| Frew | 8728' |

**Note:** Fish consists of 2 partially milled Robison 5" drillable retainers.

**Reviewed**

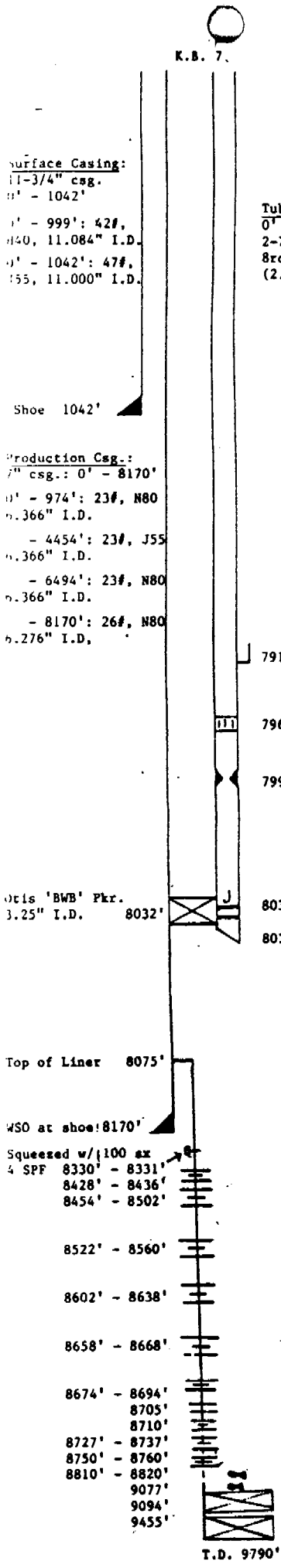
| Department | By: | Date |
|---|---|---|
| Drilling | [signature] | 11/14/94 |
| Petroleum Eng. | | |
| Division | | |

AC_CPUC_0118220

October 07, 1994

Approved: J.D. Mansdorfer
J. D. Mansdorfer

| | | |
|---|---|---|
| cc: | I. R. Binmore | w/o att. |
| | N. W. Buss | w/o att. |
| | T. Holland | w/o att |
| | D. G. Neville | att. |
| | CPS Tool Pushers | att. |
| | H. Robinson | w/o att. |
| | T. Schroeder | w/o att. |
| | M. A. Woiemberghe | w/o att. |
| | Well file | att. |




**Standard Sesnon #29**

**Aliso Canyon**

**Status:** Injection/Withdrawal

**Flow Regime:** Casing Flow

**Elevation:** 2849' G.L.
7' K.B.
KB to MV: 6'

**Surface Location:** Approximately 750'S & 6100'W of Station 84, T3N, R16W, Sec. 28

**Btm. Hole Loc:** Straight Hole at effective TVD of 9077'.

**4/26/53 - 9/29/53:** Well spudded and completed.

**2/2/73 - 2/28/73:** Pressure tested 7" casing, converted to gas storage by perforation in Sesnon zone. Cleaned out to 9074'. Ran tubing with SSSV.

**7/31/73 - 8/7/73:** Installed wireline SSSV. Cleaned out to 9077'.

**8/27/77 - 9/9/77:** Cleaned out to 9072'. Pressure tested casing. Reran tubing with SSSV.

**3/5/79 - 3/10/79:** Replaced safety system. Se packer at 8040'.

**9/20/91 - 11/6/91:** Milled packer. Shot 4, 1/2" SPF at 8330' - 8331'. Squeezed shoe leak with 100 sx class "G" cement. Ran tubing conveye perforation guns and shot 6, 1/2" SPF at: 8428'-8436', 8454'-8502', 8522'-8560', 8602'-8636', 8660'-8668', 8674'-8694', 8727'-8737', 8750'-8760', 8810'-8820'. Completed with 7" Otis "BWB" packer and 2-7/8" tubing.

| Volume | Cu.Ft. | Bbls. |
|---|---|---|
| Tubing | 261 | 46.5 |
| Annulus | 1427 | 254 |
| Casing/Liner | 109 | 19 |
| Total | 1797 | 319.5 |

**5" Liner Detail:**
18#, Flushjoint, 8075' - 9077'
(4.276" I.D.)

8075' - 8727': J55, Perforated 6, 1/2" SPF 8428'-8436',

10, 1/2" SPF 8454'-8502', 8528'-8552', 8602'-8638', 8658'-8668', 8674'-8694'.

8727' - 9077': N80 slotted, .012" gauge, 12 rows, 6" centers, 6 deg. undercut. Perforated 6, 1/2" SPF 8727'-8737', 8750'-8760', 8810'-8820'.

**Top Of Zones**

| | M.D. |
|---|---|
| MP | 8150' |
| S1 | 8346' |
| S2 | 8382' |
| S4 | 8428' |
| S8 | 8522' |
| Frew | 8728' |

Note: Fish consists of 2 partially milled Robison 5" drillable retainers.

**Reviewed**

| Department | By: | Date |
|---|---|---|
| Drilling | R.H. Duell | 9/1/92 |
| Petroleum Eng. | | 9/1/92 |
| Division | | 9/1/92 |

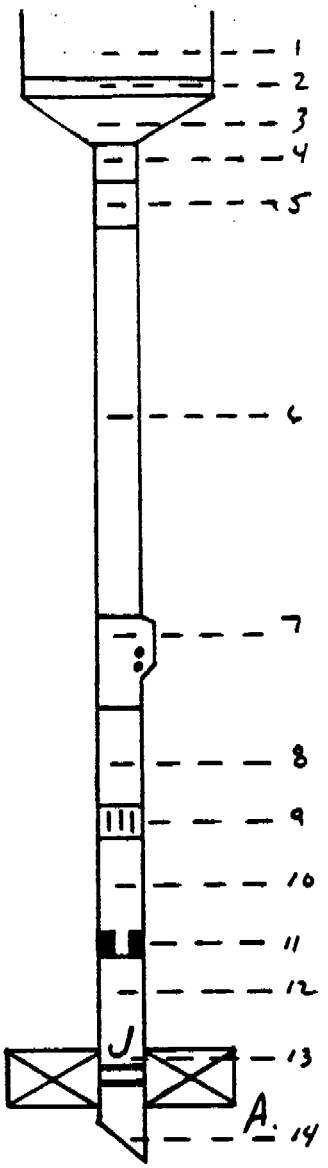
AC_CPUC_0118222

# TUBING DETAIL

WELL: STANDARD SESNON #29
FIELD: ALISO CANYON

STATUS: Injection/Withdrawal
DATE: 11-6-91

DIAGRAM




| | TUBING | TUBING | TUBING | |
|---|---|---|---|---|
| SIZE | 2 7/8 | | | |
| WEIGHT | 6.5 | | | |
| GRADE | J55 | | | |
| THREAD | 8RD EUE | | | |
| DEPTH | 8035' | | | |
| I.D. | 2.441 | | | |
| DRIFT ID | 2.347 | | | |
| O.D. | 3.668 TC | | | |

| ITEM # | DESCRIPTION | LENGTH | DEPTH |
|---|---|---|---|
| 1. | KB | 6.92 | 6.92 |
| 2. | G.L. TO TBG HEAD | -.14 | 6.78 |
| 3. | HANGER 7" 2 7/8" EUE X 2 7/8" EUE Box | .60 | 7.38 |
| 4. | FATIGUE NIPPLE 2 7/8 EUE Pin x Pin | .68 | 8.06 |
| 5. | PUP JT 2 7/8" 6.5# N80 EUE | 4.09 | 12.15 |
| 6. | 250 JTS. 2 7/8" 6.5# J55 EUE | 7907.35 | 7919.50 |
| 7. | BST 'MMA' GLM W/ 1 1/2" RA LATCH | 12.92 | 7932.42 |
| 8. ✓ | 1 JT. 2 7/8 EUE J55 TBG. | 31.49 | 7963.91 |
| 9. ✓ | OTIS 2.313" 'XD' SSD | 3.21 | 7967.12 |
| 10. ✓ | 1 JT 2 7/8" EUE J55" TBG | 31.55 | 7998.67 |
| 11. ✓ | OTIS 2.205" 'XN' NO-GO NIPPLE | 1.28 | 7999.50 |
| 12. ✓ | 1 JT. 2 7/8" EUE J55 TBG | 31.55 | 8031.50 |
| 13. ✓ | OTIS J-LATCH W/ 2 SEAL UNITS | 1.50 / 2.49 | 8032 |
| 14. ✓ | OTIS MULE SHOE GUIDE | .60 | |
| 15. | | | |
| 16. | | | |
| 17. | | | |
| 18. | A. OTIS 7" 23-29# 'BWB' PKR | | |
| 19. | 3.25" I.D. SET AT: | | 8032' |
| 20. | | | |
| | TUBING LANDED W/ 8000# | | |
| | DOWN ON PACKER | | |

AC_CPUC_0118223

OTIS

GENERAL PR UCT INFORMATION

Doc: 212.1.1.2A

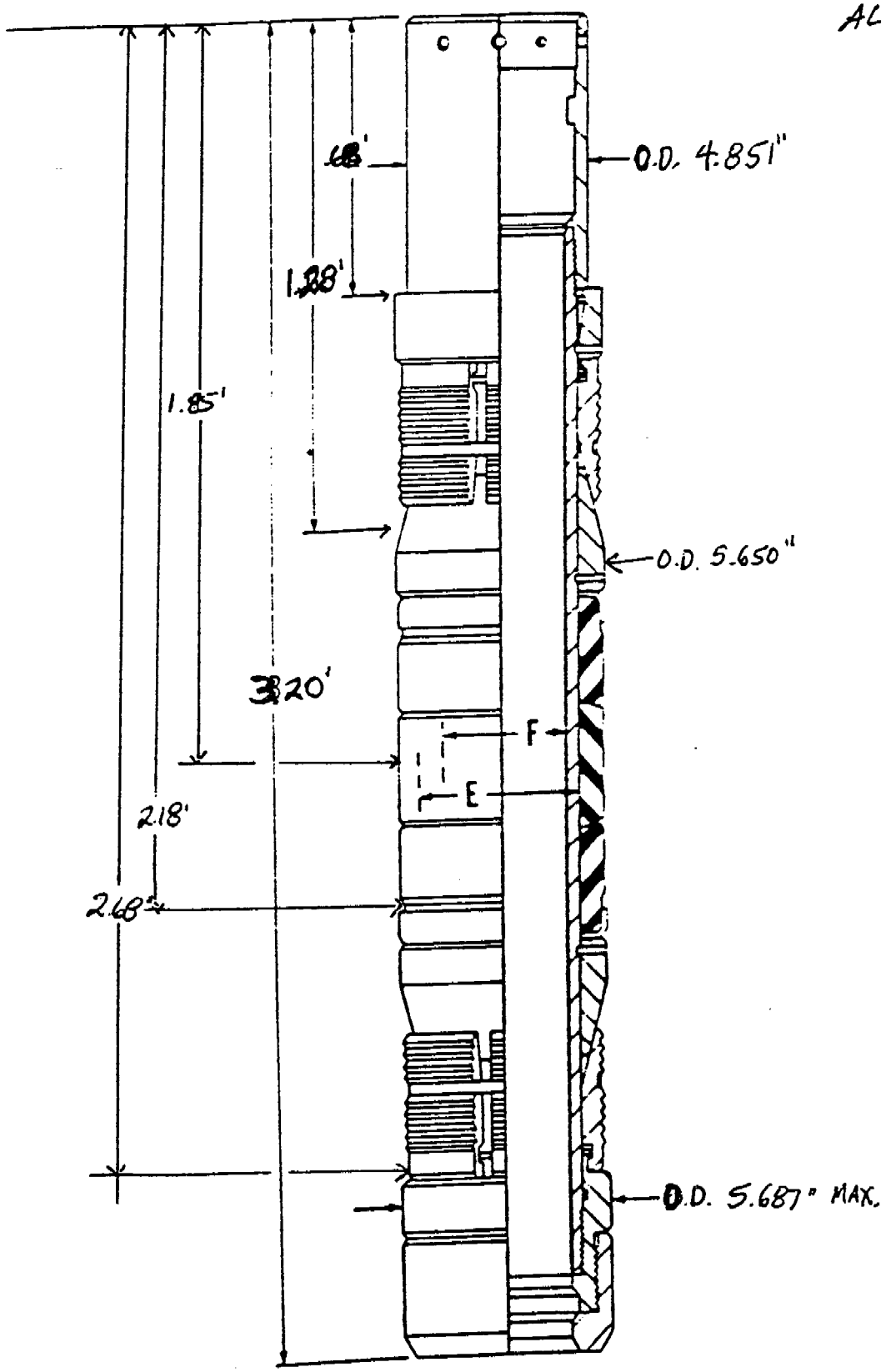
Product Code

Date: 11-4-91

Product Name: 'WE' Permanent Packer

Page: 1

SOU CAL GAS CO.
ALISO CANYON
SS#29



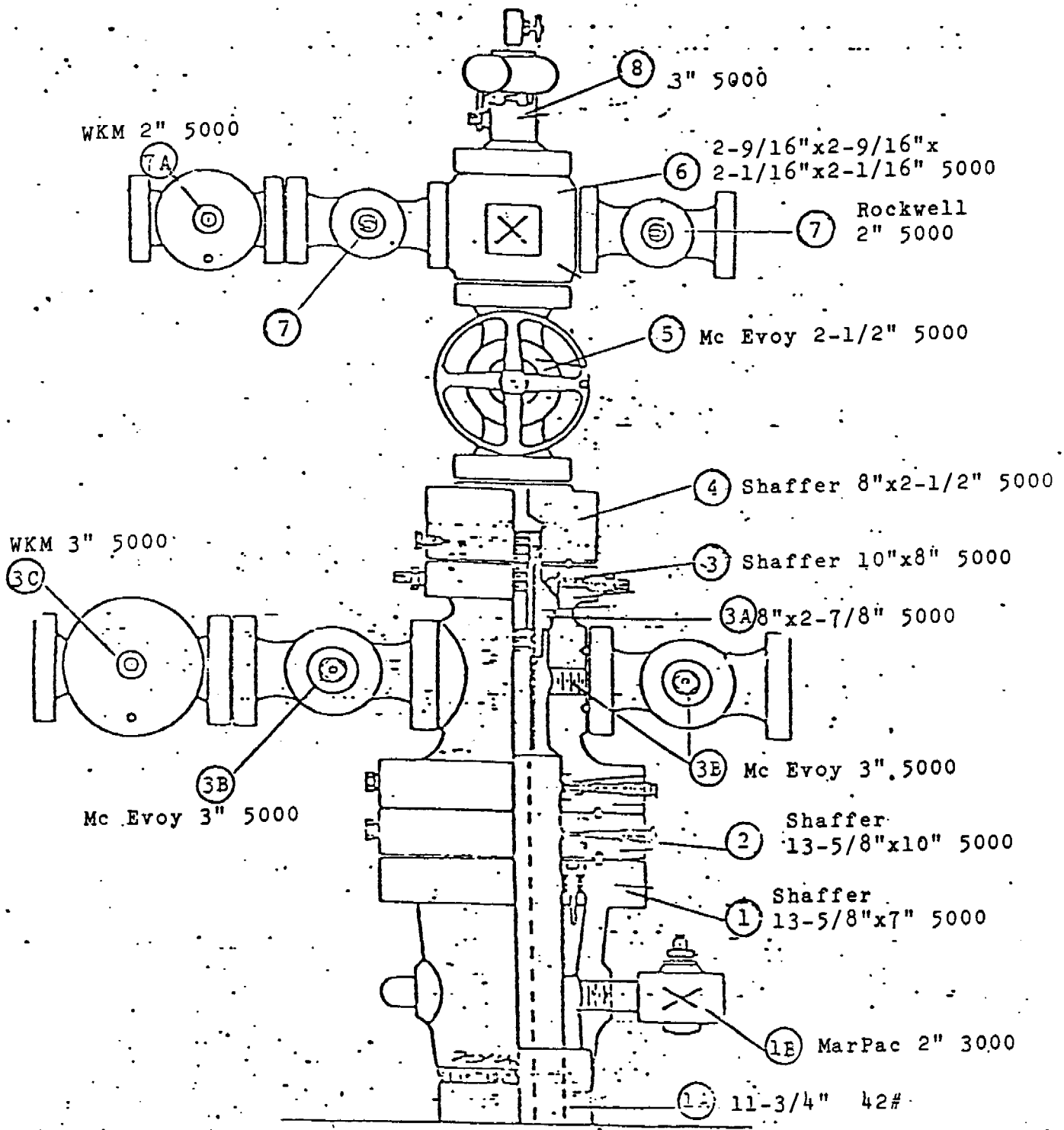

PACKER - OTIS BWB (212BWB 70700-A) 3.25" I.D.
23-29#

Note: These instructions describe desired results from use of Otis equipment but such results are not guaranteed. Operation of equipment is subject to mechanical limitations and Otis shall only be liable for its merchandise and service as set forth in its general terms and conditions

Otis Engineering Corporation • Dallas, Texas, U.S.A.

AC_CPUC_0118224

# TYPE IV




Well Name: SS 29 - Aliso Canyon

Mfgr.: Shaffer

Date Prepared: 12-20-82

# WELLHEAD DESCRIPTION

Well No. SS-29

Field Aliso

Date Prepared 5-4-81

Wellhead Mfgr Shaffer

1. Casing Head Shaffer Size 13-5/8" Type KD
   Slips & Pack-off 13-5/8" x 7"
   A. Surface Csg. Size 11-3/4" Wt 42# Grade H-40
   B. Casing Head Valve Marpac Size 2" 3000 psi Fig.No. CSB-790-JN
2. Seal Flange Shaffer Size 13-5/8" x 10" 5000 psi
   A. Type Seal PS Ring BX-160 & R-54
3. Tubing Head Shaffer Size 10" x 8" 5000 psi Type 63-L-1
   Ring R-54 & Ring R-50
   Outlets 2-3" Sec.Seal PS
   Valve Removal Thrd 2-1/2" API
   A. Tubing Hanger Shaffer Size 8" x 2-7/8" Type AJO
   B.P.V. Size 2-7/8" Thrd
   B. Tubing Head Valves 2 Mc Evoy Size 3" 5000 psi Fig.No. 129
   C. Automatic Csg. Valve WKM Size 3" 5000 psi Fig.No. 114522
4. Adapter Seal Flange Shaffer Size 8"x2-1/2"x 2-9/16" Type AJO
   A. Ring Size R-50 & R-27
5. Master Valve McEvoy Size 2-1/2" 5000 psi Fig.No. 129
6. Xmas Tree Cross Shaffer Size 2-9/16"x2-9/16"x2-1/16"x 2-1/16"x2" Thru 2-9/16" Bore Across 2-1/16"
7. Tubing Wing Valves Rockwell Size 2" 5000 psi Fig.No. 21055
   A. Automatic Tbg. Valve WKM Size 2" 5000 psi Fig. No. 114522
8. Unibolt Size 3" 5000 psi Inside Thrds
9. Wt. Landed in Csg. Head 8170' 7" Wt. 26# 23# Grade N-80 ST&C
10. Wt. Landed on Doughnut 8030' 2-7/8" 10,000 Wt. 6.5 Grade N-80 8Rd EUE
11. Tubing Head to Ground Level

AC_CPUC_0118226

SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

# DIVISION OF OIL AND GAS

## History of Oil or Gas Well

Operator Southern California Gas Company Field Aliso Canyon County Los Angeles
Well Standard Sesnon #29, Sec. 28, T 3N, R 16W, SB B. & M.
A.P.I. No. 037-00041 Name R.D. Phillips (Person submitting report) Title Agent (President, Secretary or Agent)
Date November 26, 1991.

Signature R.M. Dowell
R. M. Dowell for R. D. Phillips
P. O. Box 3429 Terminal Annex, Los Angeles, CA 90051 (213) 244-2666
(Address) (Telephone Number)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests and initial production data.

| Date | |
|---|---|
| 1991 | |
| 9-20 | Set in rig pump. Removed lines from casing and well head. Killed and shut in well. |
| 9-23 | Moved in and rigged up. Circulated well and spotted 100 Bbls high viscosity pill. |
| 9-24 | Filled well. Installed back pressure plug. Removed tree and installed BOPE. Tested blind, pipe rams and choke manifold to 4000 psi. Tested annular preventor to 2850 psi. BOPE test waived by Steve Fields with D.O.G. |
| 9-25 | Replaced packing in donut studs. Pressure tested donut studs to 3000 psi. Released from packer. Began laying down 2-7/8" tubing. |
| 9-26 | Rig down for repairs. |
| 9-27 | Pulled and laid down 259 joints of 2-7/8" J-55 tubing and production equipment. Ran in with bit and scraper on 2-3/8" drill pipe. |
| 9-28 | Finished picking up and running drill pipe to packer at 8042'. Pulled out of well. Made up Otis packer retrieving tool. Ran in well to 7340'. |

OG103 (8/91/GSR1/SM)

Mailed 12/6/91

AC_CPUC_0118227

9-30 Ran in well with packer retrieving tool to 8029'. Latched into packer at 8040' and pulled 30,000 lbs over string weight. Released packer. Pulled and laid down packer. Made up 4-1/8" bit on 5" 18# scraper, 116' of 3-1/8" drill collars and 945' of 2-3/8" tubing crossed over to 2-7/8" drill pipe. Ran in well to 8000'.

10-01 Ran in well to 9010'. Hit fill at 9067'. Cleaned out to 9072'. Unable to clean out past 9072' (T.D. 9077'). Circulated well clean. Pulled out of well. Made up and ran 5" drillable retainer. Set retainer at 8345'. Pulled up to 8042'.

10-02 Ran in well to 8343'. Pressure tested cement retainer to 1200 psi. Changed well over to clean 2% KCl water. Pulled up to 8075' and dumped 1 sack of 8-12 gravel and displaced with 36 Bbls of KCl water. Waited one hour. Ran in and tagged top of sand at 8335'. Pulled out of well. Ran 3-1/8" perforating gun on wireline. Stopped at 8309' (26' high). Ran in well with 4-1/8" mill.

10-03 Measured in well with drill pipe and tagged fill at 8322'. Changed well over to polymer fluid. Cleaned out fill to 8337'. Milled up cement retainer and pushed down well to 9055'. Unable to get deeper. Circulated well clean. Pulled to kill string.

10-04 Pulled out of well. Ran and set 5" cement retainer on wireline at 8361'. Tested cement retainer to 1200 psi. Ran in well with 1040' of 2-3/8" tubing tail on 2-7/8" drill pipe to 8361'. Changed well over to 2% KCl water with tubing tail at 8346'. Dumped 1 sack of 8-12 gravel and displaced with 34 Bbl KCl water. Pulled to top of 5" liner. Shut well in.

10-05 Ran in well and tagged top of sand at 8351'. Pulled out of well. Shot four 3/8" holes from 8330' to 8331'. Pressure holes to 2200 psi. Bled off 450 psi in 20 min. Ran in well with 5" full bore packer with 30' of 2-3/8" tubing tail and 315' of 2-3/8" tubing above tool crossed over to 2-3/8" drill pipe.

10-07 With tubing tail at 8334', pumped 50 cu.ft. of 12% HCl/3% HF acid and displaced with 28 Bbls of KCL water. Set packer at 8303' and pumped 50 cu.ft. of acid out holes at 8330'. Final injection rate: 1-1/2 Bbls/min at 1700 psi. Pulled up and placed tail at 8120' and packer at 8087'. Squeezed 25 cu.ft. 6% HCl/1-1/2% HF acid followed by 50 cu.ft. Class "G" cement with fluid loss additives. Final squeeze pressure: 1600 psi at 4 cu.ft/min. Displaced holes by 25 cu.ft. Waited 4 hours on cement. Pulled tool loose and reset packer at 8018'. Could not obtain pressure test on packer and/or unloading tool. Pulled to kill string.

10-08 Pulled out of well. Replaced full bore packer with same. Ran in well to 8120'. Packer failed to hold pressure. Pulled out of well. Ran in well with 63' of 2-3/8" tubing tail with drill pipe tester, and 7" full bore packer on 2-7/8" drill pipe. Ran in well to 2569'. Set packer (would not hold pressure). Dropped ball in test sub. Drill pipe would not test.

10-09 Located leak in drill pipe on 27th and 28th joint connection. Ran in well with 7" full bore packer and drill pipe tester on 2-7/8" drill pipe with 60' tubing tail below packer and set at 8120'. Attempted to break down holes at 8330'. Failed to achieve breakdown. Pulled out of well to 2193'.

10-10 Pulled out of well. Made up 356' of 2-3/8" tubing and full bore packer. Tested to 3000 psi. Ran in well to 8324'. Spotted 50 cu.ft. of acid. Established injection rate of 7 cu.ft./min at 1950 psi. Pulled tubing tail up to 8120'. Mixed and pumped 50 cu.ft. of class "G" cement. Displaced with 39-1/2 Bbls KCl water. Squeezed 36 cu.ft. class "G" cement. Final squeeze pressure: 2560 psi.

10-11 Released packer and pulled out of well. Ran in well with 4-1/8" bit on 5" scraper. Tagged top of cement at 8196'. Drilled hard cement from 8196' to 8326'. Pulled to liner top.

10-12 Ran in to 8326'. Drilled out cement to 8343'. Circulated well clean at 8351'. Pressure tested squeeze holes at 8330' to 2160 psi for 30 minutes (410 psi bleed off). Pulled out of well. Made up 30' of 2-3/8" tubing tail on 5" full bore packer with 315' of 2-3/8" tubing crossed over to 2-7/8" drill pipe. Ran in well to 8029'.

10-14 Ran in well with 5" full bore packer to 8334'. Pressure tested holes at 8330' to 2200 psi for 20 min. Pulled out of well. Ran in well with 4-1/8" mill on four 3-1/8" drill collars, 945' of 2-3/8" tubing and 2-7/8" drill pipe to 8347'. Changed over hole fluid to polymer fluid. Pulled up to 8026'.

10-15 Ran in well to 8347'. Milled on 5" bridge plug from 8361' to 8363'. Pushed junk down well to 9035'. Milled for one hour without success. Pulled out of well. Ran in well with 7" RTTS packer with pressure control valve and circulating port to 7998'.

10-16 Rigged up flow lines to Gas Co. withdrawal system. Tested lines to 3000 psi. Flowed well for 12 hours.

10-17 Ran noise log survey from 8560' to 5000'. Anomaly detected across downhole tools.

10-18 Ran noise log survey from 8600' to surface. Anomaly detected across down hole tools.

10-19 Installed and pressure tested surface lines to 2000 psi. Placed well on injection for 10 hours. Surface injection pressure: 2620 psi (120 psi over shut in wellhead pressure). Closed down hole and surface valves.

10-21 Opened subsurface valve. Ran noise log survey from 8600' to surface. Noise log indicated possible gas movement up above the M-P marker. Pumped 30 Bbls of high vis pill followed by 30 Bbls of polymer fluid. Opened circulating port. Rigged down surface flow lines.

10-22 Released packer. Pulled out of well. Ran in well with full bore packer with mechanical circulating port to 7544'. Rigged up flow lines.

10-23 Finished rigging up flow lines. Tested flow lines to 3000 psi. Injected gas to provide 1800 psi underbalance. Placed well on withdrawal.

10-24 Continued withdrawal from well. Total hours on withdrawal: 17-1/2; Final surface flowing pressure: 850 psi.

10-25 Detected leak on surface flow manifold above wellhead. Re-killed well.

10-26 Rigged up and tested surface lines to 3000 psi. Placed well on withdrawal for 9 hours. Shut in well.

10-27 Ran temperature and noise log surveys. Logs indicated no gas movement behind casing. Pumped 80 Bbls to kill well. Dismantled surface flow line. Released packer.

10-28 Bled off 100 psi on drill pipe and casing. Pulled out of well. Made up 4-1/8" mill on 166' of 3-1/8" drill collars and 918' of 2-3/8" drill pipe crossed over to 2-7/8" drill pipe. Ran in well to 9035'. Milled on retainer and pushed it down to 9055'. Milled on retainer at 9055'.

10-29 Ran in well to 9055'. Milled on retainer. Cleaned out to 9066'. Mill stopped. Changed over hole fluid to clean filtered KCl water. Pulled out of well to 2782'.

10-30 Pulled out of well. Installed shooting flange. Ran Gamma Ray/Neutron collar log from 8900' to 7800'. Made up tubing conveyed perforating guns and ran in well to 3862', filling drill pipe so as to provide 500 psi underbalance.

10-31 Ran in well. Ran Gamma Ray/CCL log and correlated guns. Set Otis packer at 8306'. Tested surface lines to 3000 psi. Tested packer to 1000 psi. Dropped bar. No blow or fluid rise to surface. Unsuccessfully attempted to fish drop bar on wireline.

11-01 Attempted to fish drop bar. Fill apparently above bar. Pulled packer loose and pulled out of well. All guns fired. Made up 4-1/4" bit on 5" scraper, 3-1/8" drill collars and 2-3/8" drill pipe crossed over to 2-7/8" drill pipe. Ran in well to liner top.

11-02 Ran in and tagged fill at 9050'. Cleaned out to 9066'. Pulled out of well laying down drill pipe. Picked up 2-7/8" tubing and ran in well to kill string.

11-04 Pulled kill string out of well. Ran and set 7" Otis "BWB" packer on wireline at 8030'. Made up test seals on 2-7/8" 8RD tubing and started in well.

11-05 Finished picking up tubing. Latched into packer. Pulled 20,000 lbs over string weight to check latch. Set 10,000 lbs on packer. Tested packer and seals to 1500 psi. Changed 3-1/8" valve on tubing head and tested to 1500 psi. Pulled out of well. Made up production equipment and ran in well Hydrotesting to 4000 psi. Ran in well to kill string.

11-06 Finished running tubing. Latched in to packer. Pulled 20,000 lbs over string weight to check latch. Landed with 8,000 lbs on packer. Tested seals and packer to 1500 psi. Removed BOPE. Installed xmas tree. Tested to 5000 psi. Opened Otis "XD" sliding sleeve. Changed fluid over to double inhibited 2% KCl. Released rig.

WELL NO. SS 29

LOCATION Aliso Canyon

DATE WANTED 11-10-94

REQUESTED BY ESS

| | SIZE | FOOTAGE | DESCRIPTION |
|---|---|---|---|
| CASING | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| TUBING | 3-1/2" | 600' | 8 Rd EUE |
| | 4-1/2" | 7500' | 8 Rd EUE |
| | | | |
| | | | |
| | | | |
| LINER & ACCESSORIES | | | |
| | | | |
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| | | | |
| | | | |
| | DESCRIPTION | | |
| CASING HEAD | | | |
| | | | |
| | | | |
| | | | |
| TUBING HEAD | Cross 3-1/8" x 3-1/8" x 3-1/8" x 2-1/16" | | |
| | 9" x 3-1/8" x 5000# Double Studded AJO Seal Flange | | |
| | 9" x 3-1/8" EUE 8 Rd Type 75 AJO Tubing Hanger | | |
| | 3" x 3-1/8"x5000# Unibolt Cap | | |
| | One 3-1/8" Wing Valve, One 3-1/8" Master Valve, One 2-16" Wing | | |
| MISCELLANEOUS | Baker Series T5 SCSSV | | |
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| | | | |

11-06-91 Woods

Day 41. Finished running tubing. Latched in to Otis packer. Pulled 20,000 lbs over. Spaced out with 8,000 lbs on packer. Tested seals and packer to 1500 psi (o.k.). Loaded out Hydro-test. Removed BOPE and load. Installed xmas tree. Tested to 5000 psi with Santa Paula wireline. Ran in and opened Otis "XD" sliding sleeve. Loaded out SP wireline. Changed fluid over to 2% kcl water (340 Bbls double inhibited.

MWO 99412 $346,000

Daily $ 20,350
Cumulative $407,696

10-31-91 Dayton
Day 36. Ran in well. Rigged up HLS loggers. Ran Gamma Ray/CCL log and correlated guns. Set Otis packer at 8306'. Tested surface lines to 3000 psi. Tested packer to 1000 psi. Dropped bar. No blow or fluid rise to surface. Rigged up Otis wireline to fish drop bar. Unable to fish bar. Shut in well.
MWO 99412 $346,000 Daily $ 10,621
Cumulative $288,657

11-01-91 Dayton
Day 37. Attempted to fish drop bar. Fill apparently above bar. Pulled packer loose and pulled out of well. All guns fired. Made up 4-1/4" bit on 5" scraper, 3-1/8" drill collars and 2-3/8" drill pipe, x-over to 2-7/8" drill pipe. Ran in well to liner top.
MWO 99412 $346,000 Daily $ 48,710
Cumulative $337,367

11-02-91 Dayton
Day 38. Ran in and tagged fill at 9050'. Cleaned out to 9066'. Pulled out of well laying down drill pipe. Picked up 2-7/8" tubing.
MWO 99412 $346,000 Daily $ 30,586
Cumulative $367,953

11-04-91 Woods
Day 39. Pulled kill string out of well. Made up and ran 7" Otis "BWB" packer on wireline. Set packer at 8030'. Made up Otis test seals on 2-7/8" 8RD tubing and started in well.
MWO 99412 $346,000 Daily $ 15,388
Cumulative $383,341

11-05-91 Dayton
Day 40. Finished picking up tubing. Latched into packer. Pulled 20,000 lbs over string weight. Set 10,000 lbs on packer. Tested packer and seals to 1500 psi (o.k.). Changed 3-1/8" valve on tubing head. Installed new stud and packing for tubing hanger. Tested to 1500 psi. Pulled out. Made up production equipment. Hydro-tested to 4000 psi. Ran in to kill string. Secured well.
MWO 99412 $346,000 Daily $ 4,005
Cumulative $387,346

10-24-91 Hemmerly
Day 29. Continued withdrawal from well until 12:00 noon. Total hours on withdrawal: 17-1/2; Final surface flowing pressure: 850 psi.
MWO 99412 $346,000 Daily $ 3,938
Cumulative $234,705

10-25-91 Hemmerly
Day 30. Rigged up Flo-Log to run noise survey. Detected leak on HRS flow manifold above wellhead. Re-killed well.
MWO 99412 $346,000 Daily $ 4,561
Cumulative $239,266

10-26-91 Woods
Day 31. Rigged up and tested surface lines to 3000 psi. Placed well on withdrawal at 9:00 a.m. Shut well in at 6:00 p.m.
MWO 99412 $346,000 Daily $ 4,469
Cumulative $243,735

10-27-91 Woods
ON 10/21 INDICATE LEAK ON NOISE LOG, 6 DAYS LATTER - RETEST & NO LEAK. NO ADDITIONAL WORK WAS DONE.
Day 32. Rigged up Flo-Log. Ran temperature and noise log. Log indicated no gas movement behind casing. Loaded out Flo-Log. Pumped 80 Bbls to kill well. Tore out surface line. Released packer. Pulled 3 stands. Secured well.
MWO 99412 $346,000 Daily $ 7,879
Cumulative $251,614

10-28-91 Dayton
Day 33. Bled off 100 psi on drill pipe and casing. Filled well with 66 Bbls. Pulled out of well. Made up 4-1/8" mill on 166' of 3-1/8" drill collars and 918' of 2-3/8" drill pipe x-over to 2-7/8" drill pipe. Ran in well to 9035'. Milled on retainer and pushed it down to 9055'. Milled on retainer at 9055'.
MWO 99412 $346,000 Daily $ 12,690
Cumulative $264,304

10-29-91 Dayton
Day 34. Filled well. Ran in well to 9055'. Milled on retainer. Cleaned out to 9066'. Mill stopped. Changed over hole fluid to clean filtere 67 pcf KCl water. Pulled out of well to 2782'. Shut in well.
MWO 99412 $346,000 Daily $ 4,240
Cumulative $268,544

10-30-91 Dayton
Day 35. Pulled out of well. Installed shooting flange. Rigged up HLS and ran Gamma Ray/Neutron collar log from 8900' to 7800'. Made up VANN tubing conveyed perforating guns and ran in well to 3862'. Shut in well.
MWO 99412 $346,000 Daily $ 9,492
Cumulative $278,036

10-16-91 Hemmerly
Day 22. Rigged up flow lines to Gas Co. withdrawal system Tested lines to 3000 psi using Hydrotest. Flowed well for 12 hours. Shut well in at 1:00 a.m.
MWO 99412 $346,000 Daily $ 5,643
Cumulative $179,107

10-17-91 Hemmerly
Day 23. Rigged up Flo-Log. Ran noise from 8560' to 5000'. Anomaly detected across downhole tools. Shut well in.
MWO 99412 $346,000 Daily $ 4,949
Cumulative $184,056

10-18-91 Hemmerly
Day 24. Rigged up Flo-Log. Ran noise log from 8600' to surface. Anomaly detected across down hole tools. Rigged down Flo-Log. Secured well.
MWO 99412 $346,000 Daily $ 11,051
Cumulative $195,107

10-19-91 Hemmerly
Day 25. Installed and pressure tested surface lines to 2000 psi. Placed well on injection for 10 hours. Surface injection pressure: 2620 psi (120 psi over shut in wellhead pressure). Closed down hole and surface valves. Secured well.
MWO 99412 $346,000 Daily $ 4,180
Cumulative $199,287

10-21-91 Hemmerly
Day 26. Opened subsurface valve. Rigged up Flo-log. Ran noise log from 8600' to surface. Noise log indicates apparent gas movement up above the M-P marker. Rigged down Flo-log. Pumped 30 Bbls of high vis pill followed by 30 Bbls of 67 Pcf polymer. Opened circulating port. Rigged down surface flow lines.
MWO 99412 $346,000 Daily $ 8,152
Cumulative $207,439

10-22-91 Hemmerly
Day 27. Released packer. Pulled out of well. Ran in well with Baker full bore packer with mechanical circulating port to 7544'. Rigged up flow lines. Secured well.
MWO 99412 $346,000 Daily $ 4,180
Cumulative $211,619

10-23-91 Hemmerly
Day 28. Finished rigging up flow lines. Tested to 3000 psi. Injected gas to provide 1800 psi underbalance. Placed well on withdrawal.
MWO 99412 $346,000 Daily $ 19,148
Cumulative $230,767

10-10-91 Dayton
Day 17. Pulled out of well. Made up 356' of 2-3/8" tubing and tool. Tested to 3000 psi. Ran in well to 8324'. Spotted 9 Bbls of 12% HCl/3%HF mud acid. Established injection rate of 7 cu.ft./min at 1950 psi. Pulled tubing tail up to 8120'. Mixed and pumped 50 cu.ft. of class "G" cement. Displaced with 39-1/2 Bbls KCl water. Final squeeze pressure: 2560 psi.
MWO 99412 $346,000 Daily $ 16,910
Cumulative $153,674

10-11-91 Dayton
Day 18. Released packer and pulled out of well. Made up 4-1/8" bit on 5" scraper. Ran in well. Tagged top of cement at 8196'. Drilled hard cement from 8196' to 8326'. Pulled to liner top. Shut in well.
MWO 99412 $346,000 Daily $ 4,794
Cumulative $158,468

10-12-91 Dayton
Day 19. Ran in to 8326'. Drilled out cement to 8343'. Circulated well clean at 8351'. Pressure tested squeeze holes at 8330' to 2160 psi for 30 minutes (410 psi bleed off). Pulled out of well. Made up 30' of 2-3/8" tubing tail on 5" full bore packer with 315' of 2-3/8" x-over to 2-7/8" drill pipe. Ran in well to 8029'. Shut in well.
MWO 99412 $346,000 Daily $ 4,420
Cumulative $162,888

10-14-91 Hemmerly
Day 20. Ran in well with 5" full bore packer to 8334'. Pressure tested holes at 8330' to 2200 psi for 20 min. Pulled out of well. Ran in well with 4-1/8" mill on four 3-1/8" drill collars, 945' of 2-3/8" tubing and 2-7/8" drill pipe to 8347'. Changed over hole fluid to 67 pcf polymer. Pulled up to 8026'.
MWO 99412 $346,000 Daily $ 6,396
Cumulative $161,284

10-15-91 Hemmerly
Day 21. Ran in well to 8347'. Milled on 5" bridge plug from 8361' to 8363'. Pushed junk down well to 9035'. Milled for one hour without success. Pulled out of well. Ran in well with 7" RTTS packer with pressure control valve and pumped out circulating port to 7998'. Secured well.
MWO 99412 $346,000 Daily $ 4,180
Cumulative $173,464

10-05-91 Dayton

Day 13. Ran in well and tagged top of sand at 8351'. Pulled out of well. Rigged up HLS wireline and shot 4-3/8" holes from 8330' to 8331'. Pressure holes to 2200 psi. Bled off 450 psi in 20 min. Made up 5" full bore packer with 30' of 2-3/8" tubing tail and 315' of 2-3/8" tubing above tool to drill pipe. Ran in well.

MWO 99412 $346,000 Daily $ 19,320
Cumulative $104,464

10-07-91 Dayton

Day 14. With tubing tail at 8334', pumped 50 cu.ft. of mud acid and displaced with 28 Bbls of KCL water. Set packer at 8303' and pumped 50 cu.ft. of acid out holes at 8330'. Final injection rate: 1-1/2 Bbls/min at 1700 psi. Pulled up and placed tail at 8120' and packer at 8087'. Pumped 4-1/2 Bbls, of 6% HC1/1-1/2% HF acid then one Bbl of KCL water followed by 9 Bbls of "G" cement and one Bbl water. Displaced with 20 Bbls of KCL water and closed tool. Pumped 4-1/2 Bbls of 6% HC1/1-1/2% HF cu.ft. of "G" cement with 2 gallons per sack D-603 and 2 gallons per sack D-L04 and .02 gallons per sack D-47. Displaced with 39-3/4 Bbls KCL water (final psi 1660 rate 3/4 Bbl/min. Cleared holes with 25 cu.ft. of KCL water. Waited 4 hours on cement. Pulled tool loose and reset packer at 8018'. Could not obtain pressure test on packer and/or unloading tool. Pulled to kill string. Shut in well.

MWO 99412 $346,000 Daily $ 11,259
Cumulative $222,059

10-08-91 Dayton

Day 15. Pulled out of well. Changed out full bore packer. Ran in well to 8120' with tubing tail packer at 8087'. Tested packer (would not hold). Pulled out of well. Made up 63' of 2-3/8" tubing tail on 7" full bore with drill pipe. Tested sub. Crossed back to drill pipe. Ran in well to 2569'. Set packer (would not hold pressure). Dropped ball. Drill pipe would not test. Closed in well.

MWO 99412 $346,000 Daily $ 8,761
Cumulative $129,053

10-09-91 Dayton

Day 16. Located leak in drill pipe on 27th and 28th joint connection. Ran in well and set 7" full bore packer and drill pipe tester on 2-7/8" drill pipe with 60' tubing tail below packer at 8120'. Rigged up cementers. Attempted to break down holes at 8330'. Failed to achieve breakdown. Pulled out of well to 2193'. Secured well.

MWO 99412 $346,000 Daily $ 7,711
Cumulative $136,764

9-30-91 Dayton
Day 8. Ran in well to 8029'. Pumped 65 Bbls to fill well. Latched into packer at 8040' and pulled 30,000 lbs over string weight. Released packer. Pulled out of well. Laid down packer. Made up 4-1/8" bit on 5" 18# scraper, 116' of 3-1/8" drill collars and 945' of 2-3/8" tubing. Crossed over to 2-7/8" drill pipe. Ran in well to 8000'. Shut in well.
MWO 99412 $346,000 Daily $ 6,355
Cumulative $ 43,383

10-01-91 Dayton
Day 9. Ran in well to 9010'. Hit fill at 67'. Cleaned out to 9072'. Unable to clean out past 9072' (T.D. 9077'). Circulated well clean. Pulled out of well. Made up and ran 5" drillable retainer. Set retainer at 8345'. Pulled up to 8042'. Shut well in.
MWO 99412 $346,000 Daily $ 8,217
Cumulative $ 51,600

10-02-91 Dayton
Day 10. Ran in well to 8343'. Pressure tested cement retainer to 1200 psi for 20 minutes (o.k.). Changed well over to clean 2% kcl water. Pulled up to 8075' and dumped 1 sack of 8-12 gravel and displaced with 36 Bbls of kcl water. Wated one hour. Ran in and tagged top of sand at 8335'. Pulled out of well. Rigged up HLS and ran 3-1/8" gun. Stopped 8309' 26' high. Ran in well with 4-1/8" mill. Measured in well.
MWO 99412 $346,000 Daily $ 17,305
Cumulative $ 68,905

10-03-91 Dayton
Day 11. Measured in well with drill pipe and tagged fill 8322'. Changed well over to 66# CaCl2 polymer. Cleaned out fill to 8337'. Milled up cement retainer and pushed down well to 9055'. Unable to get deeper. Circulated well clean. Pulled to kill string.
MWO 99412 $346,000 Daily $ 4,315
Cumualtive $ 73,220

9-20-91 Dayton
Day 1. Set in rig pump. Removed lines from casing and well head. Mixed 30 Bbls of high vis pill and 38 Bbls, 60 vis of polymer and pumped down tubing. Opened up casing with 2650 psi on casing. Pumped 567 Bbls of 60 vis polymer. Mixed and pumped 100 Bbls of high vis pill in casing, psi 100 tubing psi 0. Shut in well.
MWO 99412 $346,000 Daily $ 1,728
Cumulative $ 1,728

9-23-91 Dayton
Day 2. Set in rig and rigged up. Circulated well and spotted 100 Bbls high vis pill. Shut in well.
MWO 99412 $346,000 Daily $ 2,020
Cumulative $ 3,748

9-24-91 Dayton
Day 3. Filled well with 92 Bbls. Installed back pressure plug in tubing hanger. Removed tree and installed 8" 5000 psi BOPE. Tested blind, pipe rams and choke manifold to 4000 psi. Tested bag to 2850 psi. Closed in well. BOPE test waived by Steve Fields with D.O.G.
MWO 99412 $346,000 Daily $ 5,128
Cumulative $ 8,876

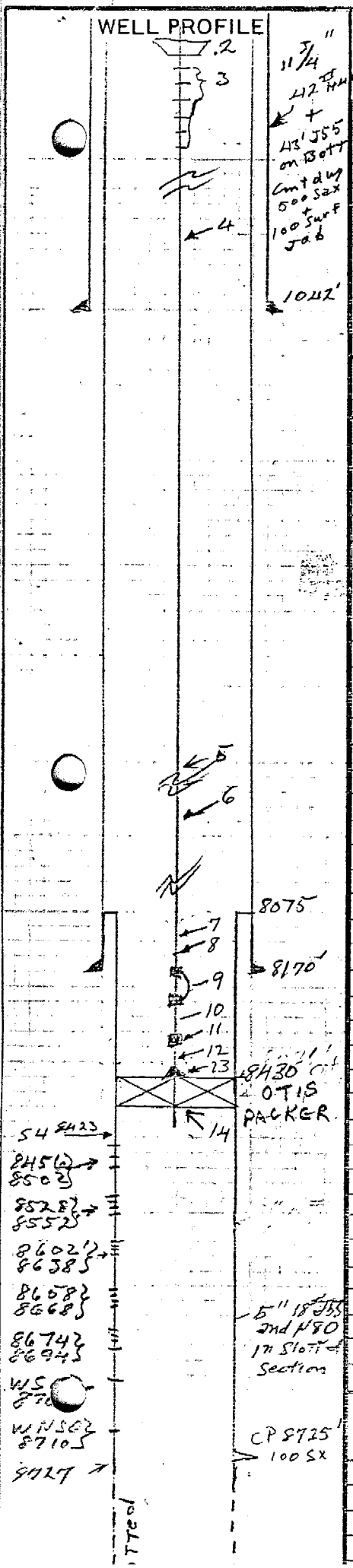
9-25-91 Hemmerly
Day 4. Replaced packing in donut studs. Pressure tested donut studs to 3000 psi for 20 minutes. Removed donut studs. Released from packer. Began laying down 2-7/8" tubing.
MWO 99412 $346,000 Daily $ 17,125
Cumulative $ 26,001

9-26-91 Dayton
Day 5. Rig down for repairs.
MWO 99412 $346,000 Daily $ 0
Cumulative $ 26,001

9-27-91 Woods
Day 6. Mixed 70 Bbls of high vis pill. Pumped down pipe. Pumped 100 Bbls of polymer fluid with no returns. Pulled and laid down 259 joints 2-7/8" tubing J-55, and production equipment. Made up bit and scraper. Picked up and ran 2-7/8" IF drill pipe.
MWO 99412 $346,000 Daily $ 3,776
Cumulative $ 31,701

9-28-91 Woods
Day 7. Finished picking up and running drill pipe to packer at 8042'. Pumped 80 Bbls of high vis pill. Followed with 35 fluid, with returns. Pulled out of well. Made up Otis packer retrieving tool. Ran in to 7340'. Secured well.
MWO 99412 $346,000 Daily $ 5,327
Cumulative $ 37,028

WELL PROFILE




| | |
|---|---|
| OPERATOR | Southern California Gas Company |
| WELL # | STANDARD SESNON #29 |
| FIELD | Aliso Canyon |
| COUNTY | Los Angeles |
| STATE | California |
| DATE | September 9, 1977 |

☐ NEW COMPLETION ☒ WORKOVER

| | CASING | LINER | TUBING 1 | TUBING 2 | TUBING 3 |
|---|---|---|---|---|---|
| SIZE | | | | | |
| WEIGHT | | | | | |
| GRADE | | | | | |
| THREAD | | | | | |
| DEPTH | | | | | |

| ITEM NO. | TUBING DETAILS | LENGTH | DEPTH |
|---|---|---|---|
| 1 | KB to Doughnut | | 6.92 |
| 2 | Doughnut | .80 | 7.72 |
| 3 | 4' Pup 3' Pup 2' Pup 6' Pup 10' Pup | 24.00 | 31.72 |
| 4 | 248 Jts. 2 7/8" Tubing (Top 16=N-80) | 7957.69 | 7989.41 |
| 5 | Crossover 27/8" EU 8rd x 2 3/8" EU 8rd | .85 | 7990.26 |
| 6 | 13 Jts. 2 3/8" EU 8rd Tubing | 395.84 | 8386.61 |
| 7 | 2 3/8" x 4' Pup | 4.10 | 8390.20 |
| 8 | 2 3/8" x 1' Nipple | 1.09 | 8391.29 |
| 9 | 2 3/8" Otis Annulus Flow Safety System | 8.25 | 8399.54 |
| 10 | 2 3/8" x 20' Blast Joint (Otis) | 19.89 | 8419.43 |
| 11 | 2 3/8" x 1.56 NO-GO | 1.12 | 8420.55 |
| 12 | 2 3/8" x 10' Blast Joint | 9.88 | 8430.43 |
| 13 | Otis Latch for Permatriev & Packer | .71 | 8431.14 |
| 14 | Otis Seals, Extension & Mule Shoe | 6.82 | 8437.96 |
| | PRESSURE TESTED CASING: | | |
| | 3800' to 8425' 2500 psi 1 Hour O.K. | | |
| | 3800' to Surface 2700 psi 1 Hour O.K. | | |
| | 3300' " " 2900 psi " " | | |
| | 2900' " " 3100 psi " " | | |
| | 2500' " " 3300 psi " " | | |
| | 2000' " " 3500 psi " " | | |
| | 1100' " " 4000 psi " " | | |

AC_CPUC_0118241

- Meet to

1) Review what to do with damaged hangers.
2) check on MDR for tubing.
3) Original 2 pcs from Black Gold to Junk.

AC_CPUC_0118242

BAKER OIL TOOLS
A Baker Hughes company

# BAKER OIL TOOLS
# CERTIFICATION REPORT

THIS COPY TO REMAIN ON LOCATION

LOCATION: BROKEN ARROW
SUBSURFACE SAFETY EQUIPMENT

## MANUFACTURER DATA

MANUFACTURER: BAKER OIL TOOLS EQUIPMENT NAME: FLAPPER SAFETY VALVE

API LICENSE: 14A-0004 EXPIRATION DATE: 01/19/97 MARKING DATE: N/A

SPPE CERTIFICATION: OCS-116 EXPIRATION DATE: 08/07/96 MARKING DATE: 10/20/94

MODEL NUMBER: 824-80-2810 SERIAL NUMBER: 135608-2-B

RATED WORKING PRESSURE: 5,000 SIZE: 3 1/2"

TEMPERATURE RATING: MIN: 20 MAX: 300 CLASS OF SERVICE: 3S2

## SSSV FUNCTIONAL TEST DATA

OPENING PRESSURES WITH "0" TUBING PRESSURE: MAX: 1,300 MIN: 1,300

CLOSING PRESSURES WITH "0" TUBING PRESSURE: MAX: 700 MIN: 700

PERFORMED BY: SHIRL BROWN DATE: 10/20/94

## CERTIFICATION DATA

I HEREBY CERTIFY THAT THE ABOVE EQUIPMENT HAS MET OR EXCEEDED ALL REQUIREMENTS OF THE REFERENCED STANDARD(S) CITED IN EFFECT ON THE STAMPING DATE AS APPLICABLE. I ALSO CERTIFY THAT PERFORMANCE TEST NUMBER

SWRI: #1146 DATED: 07/15/93

BAKER: N/A DATED: N/A

REPRESENTS THAT THIS EQUIPMENT DESIGN HAS BEEN PERFORMANCE TESTED IN ACCORDANCE WITH THE REFERENCED STANDARDS.

NAME: [signature] TITLE: QA/E DATE: 10/20/94

## SHIPPING REPORT

PURCHASER: The Gas Company ORDER NO: CS 01 0042 SHIP DATE: 11-11-94

I HEREBY CERTIFY THAT THE ABOVE EQUIPMENT HAS MET OR EXCEEDED ALL REQUIREMENTS OF REFERENCE STANDARDS CITED ABOVE.

NAME: [signature] TITLE: Dly Rep DATE: 11-14-94

## RECEIVING REPORT - OPERATOR DATA

DATE RECEIVED: 11-11-94

COMPANY NAME: The Gas Company

ORGANIZATION UNIT: The Gas Company

FIELD: Aliso Canyon

LEASE: 55

WELL: 29

CONDITION PRIOR TO INSTALLATION: New

CONNECTIONS TIGHT: Yes

OPENING PRESSURE: 1225

CLOSING PRESSURE: ~~1ES~~ 1200

INSPECTED BY: [signature]

INSPECTOR/SUPERVISOR:

CRR-1A (REV 12, 03/01/94)

THIS COPY TO REMAIN ON LOCATION

AC_CPUC_0118243

# BAKER OIL TOOLS CERTIFICATION REPORT

BAKER OIL TOOLS
A Baker Hughes company

LOCATION: BROKEN ARROW
SUBSURFACE SAFETY EQUIPMENT

## MANUFACTURER DATA

MANUFACTURER: BAKER OIL TOOLS EQUIPMENT NAME: BOTTOM SUB

API LICENSE: 14A-0004 EXPIRATION DATE: 01/19/97 MARKING DATE: N/A

SPPE CERTIFICATION:OCS-116 EXPIRATION DATE: 08/07/96 MARKING DATE: 09/21/94

MODEL NUMBER: 824-94-2801 SERIAL NUMBER: 133511-1-B

RATED WORKING PRESSURE: 5,000 SIZE: 3 1/2 X 2.81

TEMPERATURE RATING: MIN: N/A MAX:N/A CLASS OF SERVICE: 3S2

## SSSV FUNCTIONAL TEST DATA

OPENING PRESSURES WITH "0" TUBING PRESSURE: MAX: N/A MIN: N/A

CLOSING PRESSURES WITH "0" TUBING PRESSURE: MAX: N/A MIN: N/A

PERFORMED BY: N/A DATE: N/A

## CERTIFICATION DATA

I HEREBY CERTIFY THAT THE ABOVE EQUIPMENT HAS MET OR EXCEEDED ALL REQUIREMENTS OF THE REFERENCED STANDARD(S) CITED IN EFFECT ON THE STAMPING DATE AS APPLICABLE. I ALSO CERTIFY THAT PERFORMANCE TEST NUMBER

SWRI: N/A DATED: N/A

BAKER: #1030 DATED: 04/13/94

REPRESENTS THAT THIS EQUIPMENT DESIGN HAS BEEN PERFORMANCE TESTED IN ACCORDANCE WITH THE REFERENCED STANDARDS.

NAME: [signature] TITLE: [signature] DATE: 10/27/94

## SHIPPING REPORT

PURCHASER: The Yasco ORDER NO: CS010042 SHIP DATE: 11-11-94

I HEREBY CERTIFY THAT THE ABOVE EQUIPMENT HAS MET OR EXCEEDED ALL REQUIREMENTS OF REFERENCE STANDARDS CITED ABOVE.

NAME: [signature] TITLE: Duty Rep DATE: 11-14-94

## RECEIVING REPORT - OPERATOR DATA

DATE RECEIVED: COMPANY NAME:

ORGANIZATION UNIT: FIELD:

LEASE: WELL:

CONDITION PRIOR TO INSTALLATION: CONNECTIONS TIGHT:

OPENING PRESSURE: CLOSING PRESSURE:

INSPECTED BY: INSPECTOR/SUPERVISOR:

CRR-1A (REV 12, 03/01/94)

AC_CPUC_0118244

# BAKER OIL TOOLS CERTIFICATION REPORT

BAKER OIL TOOLS
A Baker Hughes company

LOCATION: BROKEN ARROW
SUBSURFACE SAFETY EQUIPMENT

MANUFACTURER DATA

MANUFACTURER: BAKER OIL TOOLS EQUIPMENT NAME: NIPPLE ADAPTER

API LICENSE: 14A-0004 EXPIRATION DATE: 01/19/97 MARKING DATE:N/A

SPPE CERTIFICATION:OCS-116 EXPIRATION DATE: 08/07/96 MARKING DATE:06-15-94

MODEL NUMBER: 824-90-2841 SERIAL NUMBER: 130092-1B-12

RATED WORKING PRESSURE: 5,000 SIZE: 3 1/2

TUBING RETRIEVABLE ONLY: TEMPERATURE RATING: MIN: N/A MAX: N/A

INTERNAL YIELD PRESSURE: N/A PSIG CLASS OF SERVICE: 3S2

COLLAPSE PRESSURE: N/A PSIG

TENSILE LOAD STRENGTH: N/A PSIG

---

SSSV FUNCTIONAL TEST DATA

OPENING PRESSURES: MAX: N/A MIN: N/A

CLOSING PRESSURES: MAX: N/A MIN: N/A

LEAKAGE RATE: 100% WORKING PRESSURE: 0 LOW PRESSURE GAS: 0

PERFORMED BY: SHIRL BROWN DATE: 04-26-94

---

CERTIFICATION DATA

I HEREBY CERTIFY THAT THE ABOVE EQUIPMENT HAS MET OR EXCEEDED ALL REQUIREMENTS OF THE REFERENCED STANDARD(S) CITED IN EFFECT ON THE STAMPING DATE AS APPLICABLE. I ALSO CERTIFY THAT PERFORMANCE TEST NUMBER SWRI#: N/A DATED: N/A REPRESENTS THAT THIS EQUIPMENT DESIGN HAS BEEN PERFORMANCE TESTED IN ACCORDANCE WITH THE REFERENCED STANDARDS.

NAME: [signature] TITLE: QA. Engineer DATE: 17-June-94

SHIPPING REPORT SHIP DATE:

PURCHASER: The Gas Co ORDER NO: CS01 0042 SHIP BY: 11-11-94

I HEREBY CERTIFY THAT THE ABOVE EQUIPMENT HAS MET OR EXCEEDED ALL REQUIREMENTS OF REFERENCE STANDARDS CITED ABOVE.

NAME: [signature] TITLE: QA. Engineer DATE: 17-June-94

RECEIVING REPORT - OPERATOR DATA

DATE RECEIVED: COMPANY NAME:

ORGANIZATION UNIT: FIELD:

LEASE: WELL:

CONDITION PRIOR TO INSTALLATION: CONNECTIONS TIGHT:

OPENING PRESSURE: CLOSING PRESSURE:

INSPECTED BY: INSPECTOR/SUPERVISOR:

CRR-1A (REV 11. 04-24-92)

AC_CPUC_0118245

BAKER OIL TOOLS
A Baker Hughes company

SC S.S.V. APPEARANCE

THIS COPY TO REMAIN ON LOCATION

P. O. Box 3048
Houston, Texas 77253-3048
Tel: 713/923-9351
Fax: 713/923-9528
Telex: 4620079 BAKR UI

1) UPON ARRIVAL ON LOCATION VERIFY CERTIFICATION PAPERS (SER. NOS. AND COMMODITY NUMBERS MATCH) WITH VALVE.

Top Sub 824-90-2841 13560 8-2-B

PAPERS: BTM Sub 824-94-2801 SER.# & DUE DATE: 13009 2-1B YES ✓ NO___
VALVE: 824-80-2810 SER.# & DUE DATE: 135608-2-B YES ✓ NO___

2) CHECK SAFETY VALVE APPEARANCE.

| | | |
|---|---|---|
| VALVE DAMAGED | YES___ | NO ✓ |
| SET SCREWS INSTALLED | YES ✓ | NO___ |
| THREADS DAMAGED | YES___ | NO ✓ |
| PACKING DAMAGED | YES___ | NO ✓ |
| PORT PLUGGED | YES ✓ | NO___ |

3) WIRELINE RETRIEVABLE SAFETY VALVE.

| | | |
|---|---|---|
| FISHING NECK TIGHT | YES___ | NO___ |
| LOCK TIGHT | YES___ | NO___ |
| RUN TOOLS INSTALL OKAY | YES___ | NO___ |
| VALVE UNLOCKS WITH RUN TOOL INSTALLED | YES___ | NO___ |
| VALVE LOCKS WITH RUN TOOL OFF | YES___ | NO___ |
| FISHING NECK OKAY | YES___ | NO___ |
| PULLING TOOL LATCHES & UNLOCKS VALVE | YES___ | NO___ |

4) CHECK FOR OCS STAMPING.

STAMPED YES ✓ NO___

PRERUN CHECK

5) VALVE OPENING AND CLOSING.

1: OPENING 1225 CLOSING 1200
2: OPENING 1250 CLOSING 1225

6) HYDRO STATIC TEST VALVE OPEN. 5,000 psi

TEST PRESSURE: 5-K- PSI LEAKS: YES___ NO ✓

7) HYDRO STATIC TEST VALVE CLOSED.

TEST PRESSURE: 2,000 psi LEAKS: YES___ NO ✓

RUN

8) INSTALL CONTROLLINE.

CHECK FURREL OKAY: YES ✓ NO___

AC_CPUC_0118246

THE GAS COMPANY
PORTER

SS-29
SS-29
ALISO CANYON
CALIFORNIA

# S U R V E Y  L I S T I N G

by
Baker Hughes INTEQ

Your ref : SEEKER GYRO
Our ref : svy3727
License :

Date printed : 12-Dec-94
Date created : 8-Nov-94
Last revised : 8-Nov-94

Field is centred on 0.000,0.000,999.00000,+
Structure is centred on 0.000,0.000,3.00000,N

Slot location is s0 0 7.442,w1 30 18.968
Slot Grid coordinates are N -229.216, E -1864.293
Slot local coordinates are 750.00 S 6100.00 W
Reference North is True North

AC_CPUC_0118247

**11/04/94** Jackson

Day 1. Moved rig to SS 29. Mixed 2% KCl workover fluid treated with biocide.

GWO 93496

| | |
|---|---|
| Daily | $ 2,930 |
| Cumulative | $ 2,930 |

**11/07/94** McLean

Day 2. Opened well (casing press 2500 psi, tubing press 2400 psi). Rigged up pump and choke manifold. Prepared tokill well. Waited on field operator to open line to bleed well down. Killed well with 345 bbls of 2% KCl water. Installed BPV, nippled down tree and installed BOPE. Changed pipe rams and function tested blind rams. Pressure tested BOPE with test pump. Rigged up to pull tubing. Unscrewed tubing hold down studs.

GWO 93496

| | |
|---|---|
| Daily | $ 2,932 |
| Cumulative | $ 5,862 |

**11/08/94** McLean

Day 3. Bled well down with only a small amount of gas. Worked tubing out of packer without pulling seal assembly. Rigged up to run gyro survey inside tubing. Could not get below XN nipple at 7999'. Pulled out with gyro and rigged down. Pulled seals out of packer and well kicked. Shut in well with 600 psi on casing. Circulated out gas, lost circulation, pumped 270 bbls and bled pressure to zero. Mixed a 100 bbl HEC pill. Pumped pill and followed with 50 bbls of KCl water. No returns.

GWO 93496

| | |
|---|---|
| Daily | $ 13,644 |
| Cumulative | $ 19,506 |

**11/09/94** McLean

Day 4. Opened well. No pressure on casing or tubing. Mixed and pumped a HEC high vis pill (100 bbls). Fluid level at 842' before pill and returns to surface while displacing pill. Shot fluid level 30 minutes after displacement and found fluid level at 218'. Rigged up to pull 2-7/8" tubing. Pulled and laid down 153 joints. Left 3000' of kill string in well.

GWO 93496

| | |
|---|---|
| Daily | $ 15,314 |
| Cumulative | $ 34,824 |

**11/10/94** McLean

Day 5. Opened well. No pressure on casing or tubing. Pumped 20 bbls of 2% KCl water. Pulled out of well with 100 joints of 2-7/8" tubing. Laid down production equipment. Changed pipe rams from 2-7/8" to 4-1/2". Rigged up to run 3-1/2" and 4-1/2" production equipment. Made up and tested (4000 psi) 3-1/2" production equipment. Changed out 3-1/2" test equipment to 4-1/2". Made up and ran 4-1/2" production tubing. Tested to 4000 psi. Ran in hole to 6000'.

GWO 93496

| | |
|---|---|
| Daily | $ 5,687 |
| Cumulative | $ 40,511 |

**11/11/94** McLean

Day 6. Opened well. No pressure on casing or tubing. Pumped 20 bbls of 2% KCl fluid. Measured and picked up 4-1/2" tubing. Externally pressure tested to 4000 psi. Made up 3-1/2" tubing and SCSSV. Ran in well and tagged packer at 8032'. Pulled 20,000 lbs over string weight and set down 10,000 lbs to obtain space out. Pulled out of well with 3-1/2" tubing to SCSSV. Made up control line and tested to 5000 psi. Ran in well banding line and testing tubing. Made up doughnut and pup joint to space. When breaking out pup, the threads crossed in the top of doughnut. Landed tubing on 2-7/8" doughnut and secured well.

GWO 93496

| | |
|---|---|
| Daily | $ 54,231 |
| Cumulative | $ 94,742 |

**11/14/94** McLean

Day 8. Opened well. No pressure on casing or tubing. Rigged up to shoot fluid level in tubing. Found fluid at 1261'. Bled pressure from SSSV and shot fluid level. Showed SSSV closed at 500'. Set BPV and nippled down BOPE. Installed and tested tree to 5000 psi. Transferred fluid to SS-9. Rigged down and moved off. Released rig.

GWO 93496

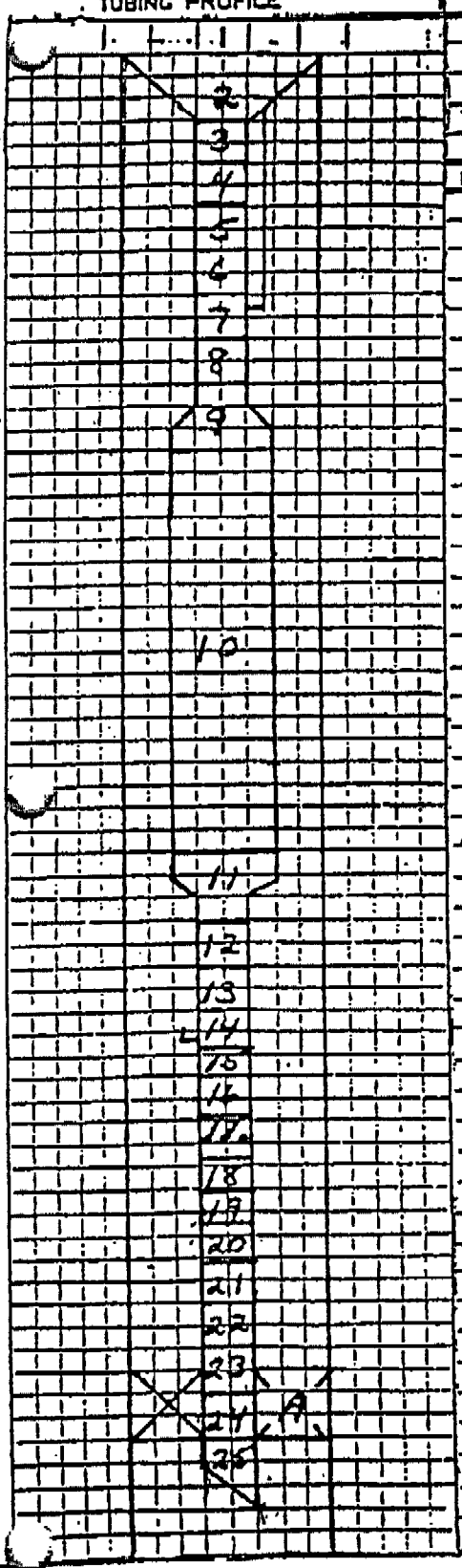
| | |
|---|---|
| Daily | $ 2,618 |
| Cumulative | $ 125,349 |

TUBING DETAIL

WELL: SS-29
FIELD: SESNON

STATUS: Tubing Flow
DATE: 11-11-94

TUBING PROFILE



| | TUBING | TUBING | TUBING | |
|---|---|---|---|---|
| SIZE | 3½" | 4½" | 3½" | |
| WEIGHT | 9.3 # | 11.6 # | 9.3 # | |
| GRADE | N-80 | N-80 | N-80 | |
| THREAD | EUE | LTC | EUE | |
| DEPTH | 490' | 7887' | 8029' | |

| ITEM # | TUBING DETAIL | DRIFT | I.D. | O.D. | LENGTH | DEPTH |
|---|---|---|---|---|---|---|
| 1. | K.B. | — | — | | 7.00 | 7.00 |
| 2. | DONUT | — | — | | .50 | 7.50 |
| 3. | 3½" Fox Eue Nipple | 2.867 | 3.500 | | .62 | 8.12 |
| 4. | 3½" N-80 Pup JT. EUE | 2.867 | 4.500 | | 2.14 | 10.26 |
| 5. | 15 JTS. 3½" N-80 Tubing EUE | 2.867 | 4.500 | | 466.65 | 476.91 |
| 6. | 3½" Pup JT. N-80 EUE | 2.867 | 4.500 | | 4.05 | 480.96 |
| 7. | 3½" B Hook X-5 SF. Valve | 2.813 | 5.375 | | 5.47 | 486.43 |
| 8. | 3½" Pup JT. N-80 EUE | 2.867 | 4.500 | | 4.17 | 490.60 |
| 9. | X-OVER 3½ EUE X 4½ LTC | 3.125 | 4.500 | | 1.56 | 492.16 |
| 10. | 198 JTS 4½" Tubing LTC | 4.000 | 5.000 | | 7394.84 | 7887.00 |
| 11. | X-OVER 4½ LTC X 3½ EUE | 3.500 | 5.000 | | 1.26 | 7888.26 |
| 12. | 1-JT. 3½" N-80 Tubing EUE | 2.867 | 4.500 | | 30.17 | 7918.43 |
| 13. | 3½" N-80 Pup JT. EUE | 2.867 | 4.500 | | 3.95 | 7922.38 |
| 14. | 3½" BST "CAMCO" Gas Lift Mandrel w/ 1" Dummy Valve Shear-Latch | 2.867 | 5.000 | | 6.15 | 7928.03 |
| 15. | 3½" N-80 Pup JT. EUE | 2.867 | 4.500 | | 1.48 | 7930.61 |
| 16. | 1-JT. 3½" N-80 Tubing EUE | 2.867 | 4.500 | | 31.46 | 7961.97 |
| 17. | 3½" "X" D'S Tubing SVBBV | 2.750 | 4.500 | | 3.60 | 7965.57 |
| 18. | 3½" N-80 Pup JT. EUE | 2.867 | 4.500 | | 1.08 | 7966.65 |
| 19. | 1-JT. 3½" N-80 Tubing EUE | 2.867 | 4.500 | | 31.40 | 7998. |
| 20. | 2.635 "XN" Nipple | 2.635 | 4.500 | | 1.35 | 7999.70 |
| 21. | 1-JT. 3½" N-80 Tubing EUE | 2.867 | 4.500 | | 30.56 | 8028.96 |
| 22. | X-OVER 3½" EUE X 2⅞ EUE | 2.441 | 4.500 | | 1.64 | 8031.60 |
| 23. | "T"-LATCH ASSY. ABOVE | 2.347 | 4.000 | | .40 | 8032.00 |
| — | "T"-LATCH Assy in pkr | — | — | | .75 | 8032.75 |
| 24. | SEAL ASSY. -2- | 2.347 | 3.250 | | 2.00 | 8034.75 |
| 25 | 45° Guide Shoe | 2.347 | 3.200 | | .43 | 8035.18 |
| A | 7" 23-29# BWB Packer w/ 2 SBTB's @ 8032'. | | | | | |

W/O WT. 96,000#
L/O WT. 84,000#

Tubing Landed w/ 10,000# on pkr.

| Post-it" Fax Note 7671 | Date | # of pages ▶ |
|---|---|---|
| To DAN NEVILLE | From R. JACKSON | |
| Co./Dept. DRILLING | Co. ALISO | |
| Phone # | Phone # | |
| Fax # 213 244 8222 | Fax # | |

AC_CPUC_0118250

FORM 101
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

# DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
FEB 17 1954
LOS ANGELES, CALIFORNIA

## LOG AND CORE RECORD OF OIL OR GAS WELL

Operator TIDE WATER ASSOCIATED OIL COMPANY Field ALISO CANYON

Well No. Standard-Seamon 1-#29 Sec. 28, T. 3 N, R. 16 W, S.B. B. & M.

## FORMATIONS PENETRATED BY WELL

| DEPTH TO Top of Formation | DEPTH TO Bottom of Formation | Thickness | Drilled or Cored | Recovery | DESCRIPTION |
|---|---|---|---|---|---|
| SCHLUMBERGER SIDEWALL SAMPLES | | | | | |
| 5750' | | | | 1/2" | Fine to medium grained, brown oil sand. Medium odor. |
| 5553' | | | | 3/4" | Conglomeritic, light brown oil sand. Good petroleum odor. |
| 5188' | | | | 1-1/2" | Gray with greenish cast, sandy shale. |
| 5050' | | | | 3/4" | Fine to coarse grained, light brown unevenly saturated oil sand. Good petroleum odor. |
| 4734' | | | | 1/2" | Conglomeritic, light brown, oil sand. |
| 4660' | | | | 1/2" | As above. |
| 4584' | | | | 3/4" | As above with pebbles 1/2" in diameter. |
| 4510' | | | | 1" | As above. |
| 4459' | | | | No recovery. | |
| 4410' | | | | 2" | Dark, greenish-brown shale with abundant foraminifers |
| 4330' | | | | No recovery. | |
| 3590' | | | | 1-1/2" | Sandy, dark brown shale. |
| 5778' | | | | 1/2" | Soft, medium grained, light brown oil sand. Good od or. (Looks wet.) |
| 5633' | | | | No recovery. | |
| 5515' | | | | 1/4" | Hard fragments of dark brown silty shale. |
| 4461' | | | | 1/2" | Firm, light gray sandy siltstone. |
| 3764' | | | | 1/2" | Hard, brittle, dark gray, micaceous, silty limestone with free oil in fractures. |
| 3350' | | | | 1/2" | Soft, coarse, poorly sorted, light brown, undersaturated oil sand. Good petroleum o |
| 3255' | | | | 1/2" | Firm, medium grained, oil stained, gray sa Fair odor. |
| 3189' | | | | 1/2" | Firm, fine grained, brown oil sand. Good petroleum odor. |
| 3094' | | | | No recovery. | |
| 3037' | | | | 1/4" | Fragments to soft green siltstone. |
| 2940' | | | | 2" | Firm, fine grained, greenish-brown, oil stained siltstone with occasional megafos Fair odor. (Looks tight.) |
| 2185' | | | | No recovery. | |
| 2000' | | | | 2" | Soft, light green, sandy, siltstone with occasional dark spots possibly due to carb aceous material. |
| 1420' | | | | 1/4" | Hard, gray, weathered granitic rock. May pebble or part of boulder. In area of hea lost circulation. Note thick mud cake. |

2/10
S.M, SS 29 CORE DESCRIPTIONS. A COPY HAS BEEN FILED AT ALISO. S.C.

AC_CPUC_0118251

FORM 101
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

# DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
FEB 17 1954
-2-
LOS ANGELES, CALIFORNIA

## LOG AND CORE RECORD OF OIL OR GAS WELL

Operator TIDE WATER ASSOCIATED OIL COMPANY Field ALISO CANYON

Well No. Standard-Sesnon 1-#29 Sec. 28, T. 3 N, R. 16 W, S.B. B. & M.

## FORMATIONS PENETRATED BY WELL

| DEPTH TO Top of Formation | DEPTH TO Bottom of Formation | Thickness | Drilled or Cored | Recovery | DESCRIPTION |
|---|---|---|---|---|---|
| 6" DIAMOND CORE BARREL | | | | | |
| 8682' | 8683' | | | No recovery. | |
| 8683' | 8686' | | | 6" | Very hard Quartzite. |
| 5-7/8" MERCURY CORE BARREL | | | | | |
| 8810' | 8824' | | | 7' | Conglomerate with matrix of fine to medium oil sand. Good cut and odor. |
| 8824' | 8835' | | | No recovery. | |
| 8835' | 8836' | | | 1' | Hard conglomerate with matrix of hard cemented gray sand and hard oil sand. No to fair cut and odor. |
| 8836' | 8856' | | | 7' | Hard conglomerate with matrix of hard dark gray sand and hard oil sand. No to fair cut and odor. |
| 8858' | 8881' | | | 19' | 8' Hard conglomerate with matrix of hard cemented gray sand and hard oil sand. No to fair cut and odor.<br>4' Hard fine to medium oil sand. Fair t good cut and fair odor.<br>2' Shell. (Very hard, limey, gray sand.<br>2' Hard oil sand, as above.<br>1'6" Shell, as above.<br>1'6" Hard, medium oil sand and gray sand, possibly brecciated. No to fair cut and odor. |
| 8881' | 8905' | | | 4' | 2' Hard conglomerate with matrix of hard gray sand and hard oil sand.<br>2' As above, with more hard gray sand an firm oil sand than previous cores. I to good cut and no to fair odor. Had two 2" streaks of hard gray shale wit minor sheering evident. |
| 8905' | 8911' | | | No recovery | |
| 8914' | 8942' | | | 1' | Very hard pieces of quartzite boulders. |
| 5-7/8" REED CONVENTIONAL CORE BARREL | | | | | |
| 8942' | 8944' | | | 0'3" | Three small pieces of quartzite. |
| 9035' | 9048' | | | 0'6" | Fragments of granitic and gneissic boulder |
| 9048' | 9052' | | | 1'0" | Hard, medium grained, micaceous gray sand. No cut, faint odor. One fragment of hard greenish-gray slickensided shale on botto |

AC_CPUC_0118252

FORM 101
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

# DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
FEB 17 1954
LOS ANGELES, CALIFORNIA

## LOG AND CORE RECORD OF OIL OR GAS WELL

Operator TIDE WATER ASSOCIATED OIL COMPANY Field ALISO CANYON

Well No. Standard-Sesnon 1-#29 Sec. 28, T. 3 N, R. 16 W, S.B. B. & M.

## FORMATIONS PENETRATED BY WELL

| DEPTH TO Top of Formation | DEPTH TO Bottom of Formation | Thickness | Drilled or Cored | Recovery | DESCRIPTION |
|---|---|---|---|---|---|
| 5-7/8" REED CONVENTIONAL CORE BARREL (cont.) | | | | | |
| 9089' | 9096' | | | 5' | Hard, dark blue-gray shale with numerous light gray streaks and occasional slickensides. Good 10° dips. |
| 9126' | 9135' | | | 5' | Hard, dark bluish-gray shale with numerous light gray streaks. Top 1' shows 75° dips and slickensiding. Remainder 10-20° dips. |
| 9444' | 9464' | | | 15' | Hard, gray, medium to fine grained micaceous sand. Breaks readily into pieces 1/2" to 2" in length with muddy oil in partings. Faint cut indicating possible gas sand. Good gas showings recorded in mud ditch while coring. Possible 35-40° dip. |
| 9464' | 9484' | | | 0'6" | As above. No cut or odor. |
| 9484' | 9504' | | | 2' | Hard gray sand as above with possible 50-55° dips. Faint cut and shows fluorescence. |
| 9770' | 9790' | | | 18' | Hard, medium grained, gray sand, with biscuit partings. No cut. Slight odor. Cut bottles shows slight fluorescence. |

AC_CPUC_0118253

SC 1

FORM 101
CALIFORNIA STATE PRINTING OFFICE

To: Jim MANSDORFER

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

# DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
FEB 17 1954
LOS ANGELES, CALIFORNIA

## LOG AND CORE RECORD OF OIL OR GAS WELL

Operator TIDE WATER ASSOCIATED OIL COMPANY Field ALISO CANYON

Well No. Standard-Seaport 1-#29 Sec. 28, T. 3 N, R. 16 W, S.B. B. & M.

## FORMATIONS PENETRATED BY WELL

| DEPTH TO Top of Formation | DEPTH TO Bottom of Formation | Thickness | Drilled or Cored | Recovery | DESCRIPTION |
|---|---|---|---|---|---|
| SCHLUMBERGER SIDEWALL SAMPLES | | | | | |
| 5750' | | | | 1/2" | Fine to medium grained, brown oil sand. Medium odor. |
| 5553' | | | | 3/4" | Conglomeritic, light brown oil sand. Good petroleum odor. |
| 5188' | | | | 1-1/2" | Gray with greenish cast, sandy shale. |
| 4750' | | | | 3/4" | Fine to coarse grained, light brown unevenly saturated oil sand. Good petroleum odor. |
| 4734' | | | | 1/2" | Conglomeritic, light brown, oil sand. |
| 4660' | | | | 1/2" | As above. |
| 4584' | | | | 3/4" | As above with pebbles 1/2" in diameter. |
| 4520' | | | | 1" | As above. |
| 4459' | | | | No recovery. | |
| 4410' | | | | 2" | Dark, greenish-brown shale with abundant foraminifers |
| 4330' | | | | No recovery. | |
| 3590' | | | | 1-1/2" | Sandy, dark brown shale. |
| 5778' | | | | 1/2" | Soft, medium grained, light brown oil sand. Good od or. (Looks wet.) |
| 5633' | | | | No recovery. | |
| 5515' | | | | 1/4" | Hard fragments of dark brown silty shale. |
| 4461' | | | | 1/2" | Firm, light gray sandy siltstone. |
| 3764' | | | | 1/2" | Hard, brittle, dark gray, micaceous, silty limestone with free oil in fractures. |
| 3350' | | | | 1/2" | Soft, coarse, poorly sorted, light brown, undersaturated oil sand. Good petroleum o |
| 3255' | | | | 1/2" | Firm, medium grained, oil stained, gray sa Fair odor. |
| 3189' | | | | 1/2" | Firm, fine grained, brown oil sand. Good petroleum odor. |
| 3094' | | | | No recovery. | |
| 3037' | | | | 1/4" | Fragments to soft green siltstone. |
| 2948' | | | | 2" | Firm, fine grained, greenish-brown, oil stained siltstone with occasional megafos Fair odor. (Looks tight.) |
| 2185' | | | | No recovery. | |
| 2000' | | | | 2" | Soft, light green, sandy, siltstone with occasional dark spots possibly due to carb aceous material. |
| 1420' | | | | 1/4" | Hard, gray, weathered granitic rock. May pebble or part of boulder. In area of hea lost circulation. Note thick mud cake. |

AC_CPUC_0118254

FORM 101
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

# DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
FEB 17 1954
-2-
LOS ANGELES, CALIFORNIA

## LOG AND CORE RECORD OF OIL OR GAS WELL

Operator TIDE WATER ASSOCIATED OIL COMPANY Field ALISO CANYON

Well No. Standard-Sesnon 1-#29 Sec. 28, T. 3 N, R. 16 W, S.B. B. & M.

## FORMATIONS PENETRATED BY WELL

| DEPTH TO Top of Formation | DEPTH TO Bottom of Formation | Thickness | Drilled or Cored | Recovery | DESCRIPTION |
|---|---|---|---|---|---|
| 6" DIAMOND CORE BARREL | | | | | |
| 8682' | 8683' | | | No recovery. | |
| 8683' | 8686' | | | 6" | Very hard Quartzite. |
| 5-7/8" MERCURY CORE BARREL | | | | | |
| 8810' | 8824' | | | 7' | Conglomerate with matrix of fine to medium oil sand. Good cut and odor. |
| 8824' | 8835' | | | No recovery. | |
| 8835' | 8836' | | | 1' | Hard conglomerate with matrix of hard cemented gray sand and hard oil sand. No to fair cut and odor. |
| 8836' | 8856' | | | 7' | Hard conglomerate with matrix of hard dark gray sand and hard oil sand. No to fair cut and odor. |
| 8858' | 8881' | | | 19' | 8' Hard conglomerate with matrix of hard cemented gray sand and hard oil sand. No to fair cut and odor.<br>4' Hard fine to medium oil sand. Fair to good cut and fair odor.<br>2' Shell. (Very hard, limey, gray sand.<br>2' Hard oil sand, as above.<br>1'6" Shell, as above.<br>1'6" Hard, medium oil sand and gray sand, possibly brecciated. No to fair cut and odor. |
| 8881' | 8905' | | | 4' | 2' Hard conglomerate with matrix of hard gray sand and hard oil sand.<br>2' As above, with more hard gray sand an firm oil sand than previous cores. N to good cut and no to fair odor. Had two 2" streaks of hard gray shale wit minor shearing evident. |
| 8905' | 8911' | | | No recovery | |
| 8911' | 8942' | | | 1' | Very hard pieces of quartzite boulders. |
| 5-7/8" REED CONVENTIONAL CORE BARREL | | | | | |
| 8942' | 8944' | | | 0'3" | Three small pieces of quartzite. |
| 9035' | 9048' | | | 0'6" | Fragments of granitic and gneissic boulder |
| 9048' | 9052' | | | 1'0" | Hard, medium grained, micaceous gray sand. No cut, faint odor. One fragment of hard greenish-gray slickensided shale on botton |

AC_CPUC_0118255

FORM 101
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

# DIVISION OF OIL AND GAS

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## FORMATIONS PENETRATED BY WELL

| DEPTH TO Top of Formation | DEPTH TO Bottom of Formation | Thickness | Drilled or Cored | Recovery | DESCRIPTION |
|---|---|---|---|---|---|
| 5-7/8" REED CONVENTIONAL CORE BARREL (cont.) | | | | | |
| 9089' | 9096' | | | 5' | Hard, dark blue-gray shale with numerous light gray streaks and occasional slickensides. Good 10° dips. |
| 9126' | 9135' | | | 5' | Hard, dark bluish-gray shale with numerous light gray streaks. Top 1' shows 75° dips and slickensiding. Remainder 10-20° dips. |
| 9444' | 9464' | | | 15' | Hard, gray, medium to fine grained micaceous sand. Breaks readily into pieces 1/2" to 2" in length with muddy oil in partings. Faint cut indicating possible gas sand. Good gas showings recorded in mud ditch while coring. Possible 35-40° dip. |
| 9464' | 9484' | | | 0'6" | As above. No cut or odor. |
| 9484' | 9504' | | | 2' | Hard gray sand as above with possible 50-55° dips. Faint cut and shows fluorescence. |
| 9770' | 9790' | | | 18' | Hard, medium grained, gray sand, with biscuit partings. No cut. Slight odor. Cut bottles shows slight fluorescence. |

AC_CPUC_0118256

# STANDARD SESNON 29
# ALISO CANYON

**Surface Casing:**
11-3/4"
0' - 999', 42# H40
999' - 1042', 47# K55

**Production Casing:**
7"
0' - 974' 23# N80
974' - 4454' 23# J55
4454' - 6494' 23# N80
6494' - 8170' 26# N80

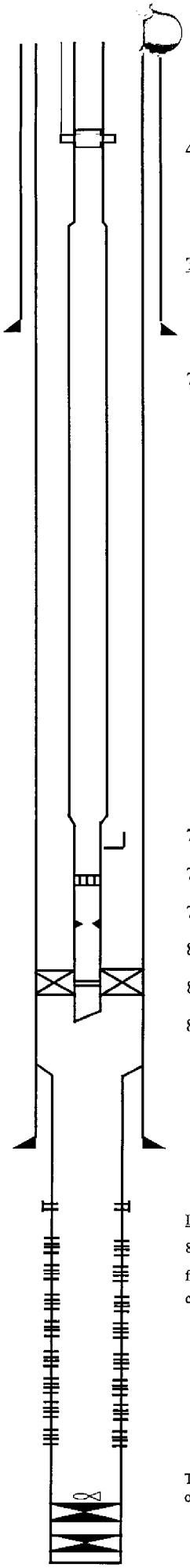
**7" Otis BWB packer at 8032'**

**Liner:**
5" 18# Flushjoint
8075' - 9077'

**Liner detail:**
8075' - 8727': J55 Perforated 6, 1/2" spf; 8428' - 8436' 10, 1/2" spf; 8454' - 8502', 8528' - 8552', 8602' - 8638', 8658' - 8668', 8674' - 8694'.
8727' - 9077': N80 Slotted .012" x 12 rows x 6" centers
Perforated 6, 1/2" spf
8727' - 8737', 8750' - 8760', 8810' - 8820'.

Cement plug: 9094' - 9200'
9455' - 9650'

Original TD at 9790'



486' Baker Model T5 SCSSV

**Tubing**
0' - 490' (3-1/2" 9.3# N80 8rd EUE)
490' - 7887' (4-1/2" 11.6# N80 8rd EUE)
7887' - 8030' (3-1/2" 9.3# N80 8rd EUE)

7923' KBMG GLM w/ 1.0" latch
7962' Otis XD Sliding Sleeve (2.750")
7999' Otis XN Nipple (2.750" bore, 2.635" nogo)
8029' 3-1/2" x 2-7/8" crossover (2.441" ID)
8032' Otis J- latch and seal units (2)
8035' Otis guide shoe

Liner Squeezed
8330' - 8331' perforated w/ four 1/2" holes and squeeze cemented with 100 sx cement

Top of fish at 9074' which consists of two partially milled drillable retainers

| | |
|---|---|
| **Elevation (GRD):** | 2849' ASL |
| **Elevation (KB):** | 2856' ASL |
| **Elevation (KB):** | 7' AGL |
| **Status:** | Injection/Withdrawal |
| **Flow Regime:** | Tubing Flow |
| **Surface Loc.:** | 750' S and 6100' W from station 84 |
| **Bottomhole Loc.:** | At 7994' MD (7993' TVD), wellbore is 63' S and 58' W of surface location. |

4/26/53 - 9/29/53: Well drilled and completed.

2/2/73 - 2/28/73: Converted well to gas storage by perforating in Sesnon zone. Pressure tested 7" casing. Cleaned out to 9074'. Ran tubing with SSSV.

8/27/77 - 9/9/77: Installed wireline SSSV. Cleaned out to 9077

3/5/79 - 3/10/79: Replaced SSSV.

9/20/91 - 11/6/91: Workover to repair shoe leak. Milled packer. Perforated four 1/2" holes 8330' - 8331'. Squeezed holes with 100 sx class G cement. Ran tubing conveyed perforating guns and shot various intervals at 6 spf with 1/2" holes. Ran Otis BWB packer at 8032' and 2-7/8" tubing without SSSV.

11/4/94 - 11/14/94: Converted well from casing flow to tubing flow. Installed SCSSV and ran large diameter tubing string.

| | Well Volume Cu. Ft. | Bbl |
|---|---|---|
| Tubing | 676 | 120 |
| Casing | 916 | 163 |
| Csg/Lnr | 109 | 19 |
| Total | 1701 | 302 |

| Zone Tops | | |
|---|---|---|
| MP | 8150' | (8149') |
| S1 | 8346' | (8345') |
| S4 | 8428' | (8427') |
| S6 | 8452' | (8451') |
| S8 | 8522' | (8521') |
| Frew | 8728' | (8727') |

| | Reviewed By | Date |
|---|---|---|
| Drilling: | DG Neville | 5/17/95 |
| Petroleum: | R Patterson | 5/17/95 |
| Region: | W Sweeney | 5/19/95 |

Jim Dayton 11\14\94, DG Neville 5/15/95
W:\AC\SS29\\MEC_SS29.PUB

AC_CPUC_0118257

THE GAS COMPANY
PORTER,SS-29
ALISO CANYON,CALIFORNIA

SURVEY LISTING Page 1
Your ref : SEEKER GYRO
Last revised : 8-Nov-94

| Measured Depth | Inclin. Degrees | Azimuth Degrees | True Vert. Depth | RECTANGULAR COORDINATES | | Dogleg Deg/100Ft | Vert Sect |
|---|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 N | 0.00 E | 0.00 | 0.00 |
| 100.00 | 0.28 | 198.18 | 100.00 | 0.23 S | 0.08 W | 0.28 | 0.22 |
| 200.00 | 0.45 | 199.72 | 200.00 | 0.83 S | 0.28 W | 0.17 | 0.80 |
| 300.00 | 0.30 | 344.41 | 300.00 | 0.94 S | 0.49 W | 0.72 | 1.02 |
| 400.00 | 0.22 | 44.84 | 400.00 | 0.56 S | 0.42 W | 0.27 | 0.69 |
| 500.00 | 0.08 | 30.44 | 500.00 | 0.36 S | 0.25 W | 0.15 | 0.44 |
| 600.00 | 0.07 | 268.25 | 600.00 | 0.31 S | 0.28 W | 0.13 | 0.41 |
| 700.00 | 0.18 | 346.25 | 700.00 | 0.15 S | 0.38 W | 0.18 | 0.37 |
| 800.00 | 0.33 | 322.20 | 799.99 | 0.23 N | 0.60 W | 0.18 | 0.24 |
| 900.00 | 0.38 | 262.30 | 899.99 | 0.42 N | 1.10 W | 0.36 | 0.44 |
| 1000.00 | 0.72 | 266.70 | 999.99 | 0.34 N | 2.06 W | 0.35 | 1.15 |
| 1100.00 | 0.35 | 292.21 | 1099.98 | 0.41 N | 2.97 W | 0.44 | 1.72 |
| 1200.00 | 0.66 | 261.82 | 1199.98 | 0.45 N | 3.82 W | 0.40 | 2.28 |
| 1300.00 | 0.14 | 276.92 | 1299.98 | 0.38 N | 4.52 W | 0.52 | 2.80 |
| 1400.00 | 0.20 | 198.95 | 1399.98 | 0.22 N | 4.70 W | 0.22 | 3.04 |
| 1500.00 | 0.52 | 194.71 | 1499.97 | 0.39 S | 4.88 W | 0.32 | 3.60 |
| 1600.00 | 0.50 | 182.52 | 1599.97 | 1.27 S | 5.01 W | 0.11 | 4.34 |
| 1700.00 | 0.56 | 193.35 | 1699.96 | 2.18 S | 5.14 W | 0.12 | 5.10 |
| 1800.00 | 0.49 | 181.24 | 1799.96 | 3.09 S | 5.27 W | 0.13 | 5.85 |
| 1900.00 | 0.52 | 184.94 | 1899.96 | 3.97 S | 5.31 W | 0.04 | 6.53 |
| 2000.00 | 0.46 | 248.11 | 1999.95 | 4.57 S | 5.72 W | 0.52 | 7.25 |
| 2100.00 | 0.24 | 224.12 | 2099.95 | 4.87 S | 6.24 W | 0.26 | 7.82 |
| 2200.00 | 0.60 | 220.44 | 2199.95 | 5.42 S | 6.73 W | 0.36 | 8.56 |
| 2300.00 | 1.28 | 241.05 | 2299.94 | 6.36 S | 8.05 W | 0.74 | 10.14 |
| 2400.00 | 1.44 | 248.00 | 2399.91 | 7.37 S | 10.19 W | 0.23 | 12.34 |
| 2500.00 | 1.36 | 244.23 | 2499.88 | 8.36 S | 12.43 W | 0.12 | 14.59 |
| 2600.00 | 1.45 | 241.29 | 2599.85 | 9.49 S | 14.61 W | 0.11 | 16.90 |
| 2700.00 | 1.42 | 231.93 | 2699.82 | 10.86 S | 16.70 W | 0.24 | 19.32 |
| 2800.00 | 1.28 | 227.36 | 2799.79 | 12.38 S | 18.50 W | 0.17 | 21.66 |
| 2900.00 | 1.11 | 220.81 | 2899.77 | 13.87 S | 19.95 W | 0.22 | 23.75 |
| 3000.00 | 0.88 | 221.70 | 2999.75 | 15.18 S | 21.10 W | 0.23 | 25.48 |
| 3100.00 | 0.64 | 204.44 | 3099.74 | 16.26 S | 21.83 W | 0.33 | 26.77 |
| 3200.00 | 0.99 | 190.91 | 3199.73 | 17.61 S | 22.23 W | 0.40 | 28.04 |
| 3300.00 | 0.89 | 207.68 | 3299.72 | 19.16 S | 22.76 W | 0.29 | 29.52 |
| 3400.00 | 0.92 | 195.28 | 3399.71 | 20.62 S | 23.33 W | 0.20 | 30.98 |
| 3500.00 | 0.90 | 178.98 | 3499.69 | 22.18 S | 23.52 W | 0.26 | 32.26 |
| 3600.00 | 0.61 | 202.90 | 3599.69 | 23.46 S | 23.72 W | 0.42 | 33.33 |
| 3700.00 | 0.52 | 179.99 | 3699.68 | 24.41 S | 23.93 W | 0.24 | 34.17 |
| 3800.00 | 0.69 | 222.63 | 3799.68 | 25.31 S | 24.34 W | 0.47 | 35.10 |
| 3900.00 | 0.60 | 234.42 | 3899.67 | 26.06 S | 25.18 W | 0.16 | 36.23 |
| 4000.00 | 1.02 | 250.89 | 3999.66 | 26.66 S | 26.44 W | 0.47 | 37.53 |
| 4100.00 | 1.07 | 226.56 | 4099.64 | 27.59 S | 27.96 W | 0.44 | 39.25 |
| 4200.00 | 1.21 | 251.96 | 4199.62 | 28.56 S | 29.64 W | 0.52 | 41.10 |
| 4300.00 | 0.72 | 235.71 | 4299.61 | 29.24 S | 31.16 W | 0.55 | 42.64 |
| 4400.00 | 0.94 | 262.84 | 4399.60 | 29.70 S | 32.50 W | 0.44 | 43.88 |
| 4500.00 | 0.42 | 290.75 | 4499.59 | 29.67 S | 33.65 W | 0.60 | 44.64 |
| 4600.00 | 0.36 | 272.40 | 4599.59 | 29.53 S | 34.31 W | 0.14 | 44.99 |
| 4700.00 | 0.83 | 272.37 | 4699.58 | 29.48 S | 35.35 W | 0.47 | 45.66 |
| 4800.00 | 0.82 | 284.13 | 4799.57 | 29.28 S | 36.76 W | 0.17 | 46.48 |
| 4900.00 | 0.65 | 287.64 | 4899.57 | 28.93 S | 38.00 W | 0.17 | 47.07 |

All data is in feet unless otherwise stated
Coordinates from SS-29 and TVD from wellhead (2856.00 Ft above mean sea level).
Vertical section is from wellhead on azimuth 222.94 degrees.
Declination is 0.00 degrees, Convergence is 0.00 degrees.
Calculation uses the minimum curvature method.
Presented by Baker Hughes INTEQ

AC_CPUC_0118258

THE GAS COMPANY
PORTER,SS-29
ALISO CANYON,CALIFORNIA

SURVEY LISTING Page 2
Your ref : SEEKER GYRO
Last revised : 8-Nov-94

| Measured Depth | Inclin. Degrees | Azimuth Degrees | True Vert. Depth | RECTANGULAR COORDINATES | | Dogleg Deg/100Ft | Vert Sect | |
|---|---|---|---|---|---|---|---|---|
| 5000.00 | 0.32 | 276.96 | 4999.56 | 28.73 S | 38.81 W | 0.34 | 47.47 | |
| 5100.00 | 0.10 | 229.66 | 5099.56 | 28.75 S | 39.16 W | 0.26 | 47.72 | |
| 5200.00 | 0.08 | 183.07 | 5199.56 | 28.88 S | 39.23 W | 0.08 | 47.87 | |
| 5300.00 | 0.38 | 163.63 | 5299.56 | 29.27 S | 39.14 W | 0.30 | 48.09 | |
| 5400.00 | 0.50 | 165.38 | 5399.56 | 30.01 S | 38.94 W | 0.12 | 48.49 | |
| 5500.00 | 0.61 | 173.06 | 5499.55 | 30.96 S | 38.76 W | 0.14 | 49.07 | |
| 5600.00 | 0.59 | 177.51 | 5599.55 | 32.00 S | 38.68 W | 0.05 | 49.78 | |
| 5700.00 | 0.46 | 193.35 | 5699.54 | 32.90 S | 38.75 W | 0.19 | 50.48 | |
| 5800.00 | 0.48 | 218.47 | 5799.54 | 33.62 S | 39.10 W | 0.20 | 51.24 | |
| 5900.00 | 0.62 | 225.51 | 5899.54 | 34.32 S | 39.74 W | 0.15 | 52.20 | |
| 6000.00 | 0.72 | 234.52 | 5999.53 | 35.06 S | 40.64 W | 0.15 | 53.35 | |
| 6100.00 | 0.84 | 229.08 | 6099.52 | 35.91 S | 41.70 W | 0.14 | 54.70 | |
| 6200.00 | 0.77 | 233.93 | 6199.51 | 36.78 S | 42.80 W | 0.10 | 56.08 | |
| 6300.00 | 0.86 | 224.09 | 6299.50 | 37.71 S | 43.86 W | 0.16 | 57.49 | |
| 6400.00 | 0.74 | 201.80 | 6399.49 | 38.85 S | 44.62 W | 0.33 | 58.84 | |
| 6500.00 | 1.05 | 229.58 | 6499.48 | 40.05 S | 45.56 W | 0.52 | 60.35 | |
| 6600.00 | 0.70 | 216.69 | 6599.47 | 41.13 S | 46.62 W | 0.40 | 61.87 | |
| 6700.00 | 1.21 | 205.43 | 6699.45 | 42.58 S | 47.44 W | 0.54 | 63.49 | |
| 6800.00 | 1.24 | 217.23 | 6799.43 | 44.39 S | 48.55 W | 0.25 | 65.57 | |
| 6900.00 | 1.15 | 230.45 | 6899.41 | 45.89 S | 49.98 W | 0.29 | 67.64 | |
| 7000.00 | 0.99 | 228.08 | 6999.39 | 47.11 S | 51.40 W | 0.17 | 69.50 | |
| 7100.00 | 1.02 | 196.78 | 7099.38 | 48.54 S | 52.30 W | 0.54 | 71.16 | |
| 7200.00 | 1.15 | 200.70 | 7199.36 | 50.33 S | 52.91 W | 0.15 | 72.89 | |
| 7300.00 | 0.54 | 192.82 | 7299.35 | 51.73 S | 53.37 W | 0.62 | 74.22 | |
| 7400.00 | 0.63 | 216.47 | 7399.34 | 52.63 S | 53.80 W | 0.25 | 75.18 | |
| 7500.00 | 0.73 | 188.46 | 7499.34 | 53.70 S | 54.22 W | 0.34 | 76.25 | |
| 7600.00 | 1.09 | 196.95 | 7599.32 | 55.24 S | 54.59 W | 0.39 | 77.63 | |
| 7700.00 | 0.84 | 209.94 | 7699.31 | 56.78 S | 55.23 W | 0.34 | 79.20 | |
| 7800.00 | 1.39 | 204.19 | 7799.29 | 58.53 S | 56.10 W | 0.57 | 81.06 | |
| 7900.00 | 1.60 | 209.76 | 7899.25 | 60.85 S | 57.29 W | 0.26 | 83.57 | |
| 7994.00 | 1.20 | 212.06 | 7993.23 | 62.83 S | 58.46 W | 0.43 | 85.82 | |
| 9077.00 | 1.20 | 212.06 | 9075.99 | 82.06 S | 70.51 W | 0.00 | 108.10 | PROJECTED |

DLS

All data is in feet unless otherwise stated
Coordinates from SS-29 and TVD from wellhead (2856.00 Ft above mean sea level).
Vertical section is from wellhead on azimuth 222.94 degrees.
Declination is 0.00 degrees, Convergence is 0.00 degrees.
Calculation uses the minimum curvature method.
Presented by Baker Hughes INTEQ

Comments in wellpath

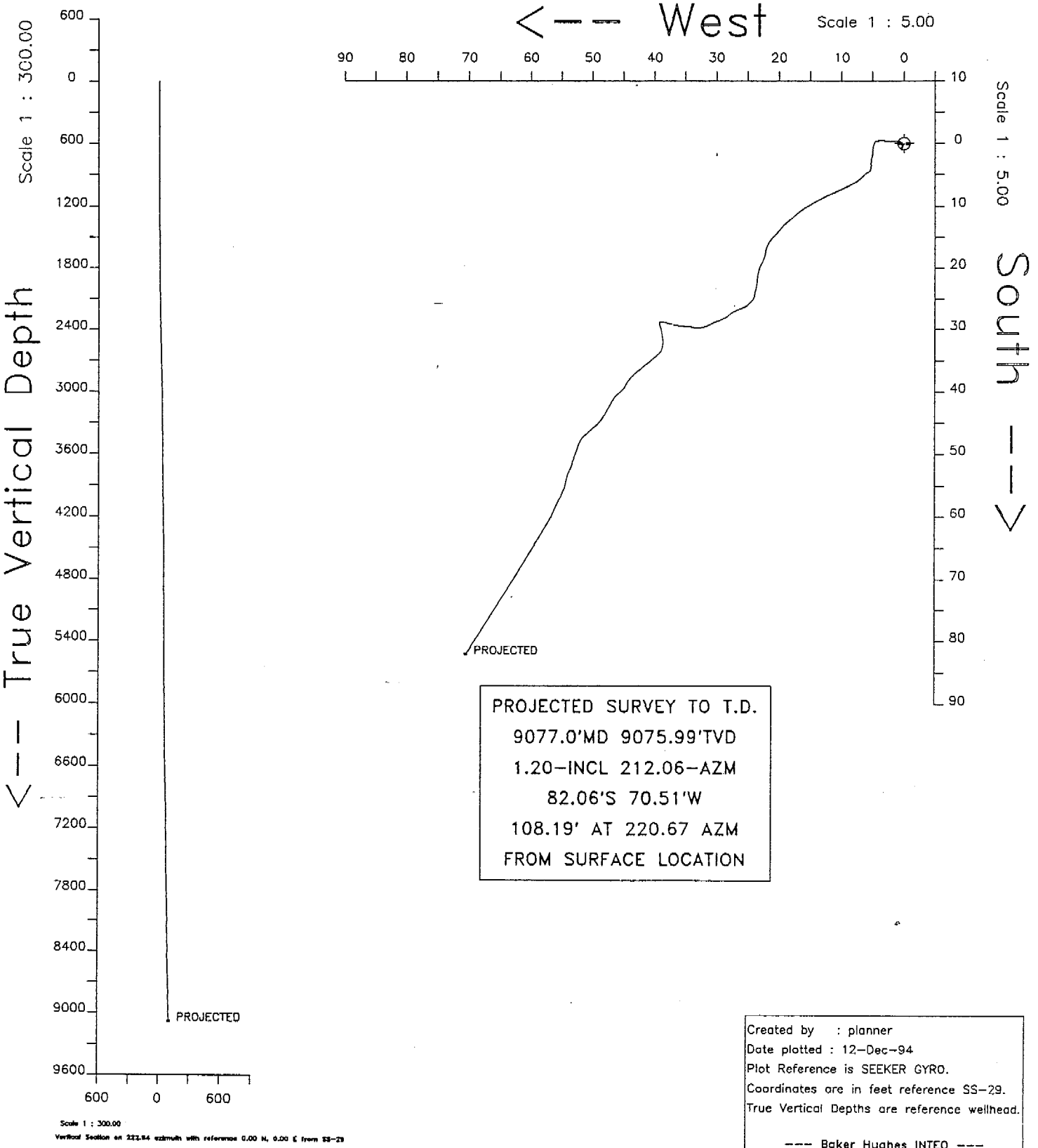
| MD | TVD | Rectangular Coords. | | Comment |
|---|---|---|---|---|
| 9077.00 | 9075.99 | 82.06 S | 70.51 W | PROJECTED |

All data is in feet unless otherwise stated
Coordinates from SS-29 and TVD from wellhead (2856.00 Ft above mean sea level).
Bottom hole distance is 108.19 on azimuth 220.67 degrees from wellhead.
Vertical section is from wellhead on azimuth 222.94 degrees.
Declination is 0.00 degrees, Convergence is 0.00 degrees.
Calculation uses the minimum curvature method.
Presented by Baker Hughes INTEQ

# THE GAS COMPANY

Structure : PORTER  Well : SS-29
Field : ALISO CANYON  Location : CALIFORNIA

BAKER HUGHES INTEQ




PROJECTED SURVEY TO T.D.
9077.0'MD 9075.99'TVD
1.20-INCL 212.06-AZM
82.06'S 70.51'W
108.19' AT 220.67 AZM
FROM SURFACE LOCATION

Created by : planner
Date plotted : 12-Dec-94
Plot Reference is SEEKER GYRO.
Coordinates are in feet reference SS-29.
True Vertical Depths are reference wellhead.

--- Baker Hughes INTEQ ---

AC_CPUC_0118261

# SCHLUMBERGER WELL SURVEYING CORPORATION

HOUSTON, TEXAS

SCHLUMBERGER

# Electrical Log

COUNTY LOS ANGELES
FIELD ALISO CANYON
LOCATION 28 - 3N - 16W
WELL STANDARD SESNON NO. 1-29
COMPANY TIDE WATER ASSOC. OIL COMPANY

COMPANY TIDE WATER ASSOC OIL COMPANY
WELL STANDARD SESNON NO. 1-29
FIELD ALISO CANYON
LOCATION 28 - 3N - 16W
COUNTY LOS ANGELES
STATE CALIFORNIA

Location of Well

Elevation: D.F.:
K.B.: 2856
or G.L.:

FILING No.

| RUN No. | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| Date | 6-24-53 | 7-9-53 | 7-29-53 | 8-7-53 | 8-24-53 |
| First Reading | 5948 | 8183 | 8808 | 8940 | 9072 |
| Last Reading | 1040 | 6984 5948 | 8183 | 8808 | 8940 |
| Feet Measured | 4908 | 2235 | 625 | 132 | 132 |
| Csg. Schlum. | 1040 | ---- | 8180 | ---- | ---- |
| Csg. Driller | 1042 | 1042 | 8180 | 8180 | 8180 |
| Depth Reached | 5949 | 8184 | 8809 | 8941 | 9073 |
| Bottom Driller | 5948 | 8185 | 8810 | 8941 | 9072 |
| Depth Datum | K.B. | K.B. | K.B. | K.B. | K.B. |
| Mud Nat. | Oil Emul | Carb+Lig | Oil Emul | Oil Emul | Carbono |
| " Density | 76 | 77½ | 73 | 78 | 75 |
| " Viscosity | 39 | 55 | 44 | 42 | 30/500CC |
| " Resist. | 2.3@ 94°F | 3.3@ 80°F | 1.9@ 94°F | 2.0@ 85°F | 1.8@ 74°F |
| " Res. BHT | 1.8@127°F | 2.0@139°F | 1.2@161°F | 1.1@163°F | .94@166°F |
| " pH | 12 @ 94°F | 11 @ 80°F | 12 @ 94°F | 12 @ 85°F | 12 @ 74°F |
| " Wtr. Loss | -- CC 30 min. | -- CC 30 min. | -- CC 30 min. | -- CC 30 min. | -- CC 30 min. |
| Max. Temp. °F | 127°F. | 139°F. | 161°F. | 163°F. | 166°F. |
| Bit Size | 10⅝" | 10⅝" | 6¼" | 6¼" | 6¼" |
| Spcgs.—AM | 16"-M | 16"-M | 16"-M | 16"-M | 16"-M |
| AO-- | 10 | 10 | 10 | 10 | 10 |
| AO.. | 19 | 19 | 19 | 19 | 19 |
| Opr. Rig Time | 2 hrs. | 2½ hrs. | 2 hrs. | 2 hrs. | 2½ hrs. |
| Truck No. | NH-1733 | NH-1720 | NH-1732 | NH-1720 | NH-1732 |
| Recorded By | Emesenbrink | Barbarick | Barbarick | Murphy | Barbarick |
| Witness By | Burns | Burns | Bowyer | Burns | Burns |

| RUN No. | 6 |
|---|---|
| Date | 8-2[illegible] |
| First Reading | 92 |
| Last Reading | 90 |
| Feet Measured | 1 |
| Csg. Schlum. | -- |
| Csg. Driller | 81 |
| Depth Reached | 92 |
| Bottom Driller | 92 |
| Depth Datum | K. |
| Mud Nat. | Carbon |
| " Density | 76 |
| " Viscosity | 32 |
| " Resist. | 3.3@ 6 |
| " Res. BHT | 1.5@16 |
| " pH | 10 @ |
| " Wtr. Loss | -- CC 30 |
| Max. Temp. °F | 169° |
| Bit Size | 6¼" |
| Spcgs.—AM | 16" |
| AO-- | 10 |
| AO.. | 19 |
| Opr. Rig Time | 1½ hr |
| Truck No. | NH-17 |
| Recorded By | Mesen |
| Witness By | Bowye |

| RUN No. | 11 |
|---|---|
| Date | 9-13- |
| First Reading | 97 |
| Last Reading | 86 |
| Feet Measured | 11 |
| Csg. Schlum. | -- |
| Csg. Driller | 81 |
| Depth Reached | 97 |
| Bottom Driller | 97 |
| Depth Datum | K. |
| Mud Nat. | Carb+ |
| " Density | 77 |
| " Viscosity | 31 |
| " Resist. | 2.0@ |
| " Res. BHT | 1.0@ |
| " pH | 12 @ |
| " Wtr. Loss | -- CC |
| Max. Temp. °F | 190 |
| Bit Size | 6¼" |
| Spcgs.—AM | 16" |
| AO-- | 10 |
| AO.. | 19 |
| Opr. Rig Time | 2½ |
| Truck No. | NH-1 |
| Recorded By | HBar |
| Witness By | Bowye |

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| Run No. | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|
| | 8-29-53 | 9-1-53 | 9-4-53 | 9-7-53 | 9-11-53 |
| Reading | 9202 | 9362 | 9503 | 9644 | 9787 |
| Reading | 9072 | 9202 | 9362 | 9503 | 9644 |
| Measured | 130 | 160 | 141 | 141 | 143 |
| Schlum. | ---- | ---- | ---- | ---- | ---- |
| Driller | 8180 | 8180 | 8180 | 8180 | 8180 |
| Reached | 9203 | 9363 | 9504 | 9645 | 9788 |
| Driller | 9202 | 9363 | 9504 | 9643 | 9790 |
| Datum | K.B. | K.B. | K.B. | K.B. | K.B. |
| Mat. | Carbonox | Carbonox | Carbonox | Carbonox | Oil Emul |
| Density | 76 | 77 | 75 | 76 | 78 |
| Viscosity | 34 | 50 | 42 | 45 | 40 |
| Resist. | 3.3@ 68 °F | 1.5@ 97 °F | 2.0@ 93 °F | 2.5@ 85 °F | 1.8@ 86 °F |
| Res. BHT | 1.5@169 °F | @ °F | 1.1@184 °F | 1.3@184 °F | .94@184 °F |
| pH | 10 @ 68 °F | 12 @ 97 °F | 12 @ 93 °F | 12 @ 85 °F | 12 @ 86 °F |
| Filtr. Loss | -- CC 30 min. | -- CC 30 min. | -- CC 30 min. | -- CC 30 min. | -- CC 30 min. |
| Temp. °F | 160° F. | | 184° F. | 184° F. | 184° F. |
| | $6\frac{1}{8}$" | $6\frac{1}{8}$" | $6\frac{1}{8}$"+$5\frac{1}{8}$" | $6\frac{1}{8}$"+$5\frac{1}{8}$" | $6\frac{1}{8}$"+$5\frac{1}{8}$" |
| A-M | 16"-M | 16"-M | 16"-M | 16"-M | 16"-M |
| A 0-- | 10 | 10 | 10 | 10 | 10 |
| A O.. | 19 | 19 | 19 | 19 | 19 |
| Log Time | $1\frac{3}{4}$ hrs. | $1\frac{3}{4}$ hrs. | $2\frac{1}{2}$ hrs. | $2\frac{1}{2}$ hrs. | 2 hrs. |
| No. | NH-1720 | NH-1732 | NH-1720 | NH-1720 | NH-1733 |
| Rec'd By | Mesenbrink | Barbarick | Murphy | Murphy | CGibson |
| Op. By | Bovyer | Burns | Burns | Burns | Burns |

| Run No. | 11 |
|---|---|
| | 9-13-53 |
| Reading | 9790 |
| Reading | 8650 |
| Measured | 1140 |
| Schlum. | ---- |
| Driller | 8180 |
| Reached | 9791 |
| Driller | 9790 |
| Datum | K.B. |
| Mat. | Carb+Oil Emul |
| Density | 77 |
| Viscosity | 31 |
| Resist. | 2.0@ 90 F |
| Res. BHT | 1.0@190 F |
| pH | 12 @ 90 F |
| Filtr. Loss | -- CC 30 min. |
| Temp. F | 190° F. |
| | $6\frac{1}{8}$" |
| A-M | 16"-M |
| A 0-- | 10 |
| A O... | 19 |
| Log Time | $2\frac{1}{4}$ hrs. |
| No. | NH-1732 |
| Rec'd By | HBarbarick |
| Op. By | Bovyer |

Films Used:
Run 1 1040 - 5942
Run 2 5942 - 8182
Run 3 8182 - 8642
Run 4 8642 - 8892
Run 5 and Run 7 Omitted
Run 6 8892 - 9164
Run 8 9164 - 9418
Run 9 9418 - 9634
Run 10 9634 - 9787

REMARKS: Hole Size: Run 1 $10\frac{1}{4}$" - 1040; Run 2 $10\frac{1}{4}$" - 8185; Run 3 $6\frac{1}{8}$" - 8810; Run 4 $6\frac{1}{8}$" - 8941; Run 5 $6\frac{1}{8}$" - 9072; Run 6 $6\frac{1}{8}$" - 9202; Run 7 $6\frac{1}{8}$" - 9363; Run 8 $6\frac{1}{8}$" - 9444+$5\frac{1}{8}$" - 9444; Run 9 $6\frac{1}{8}$" - 9629+$5\frac{1}{8}$" - 9643; Run 10 $6\frac{1}{8}$" - 9770+$5\frac{1}{8}$" - 9790; Run 11 $6\frac{1}{8}$" - 9790

REMARKS: Run No. 11 16 5" Balloon Scale only.

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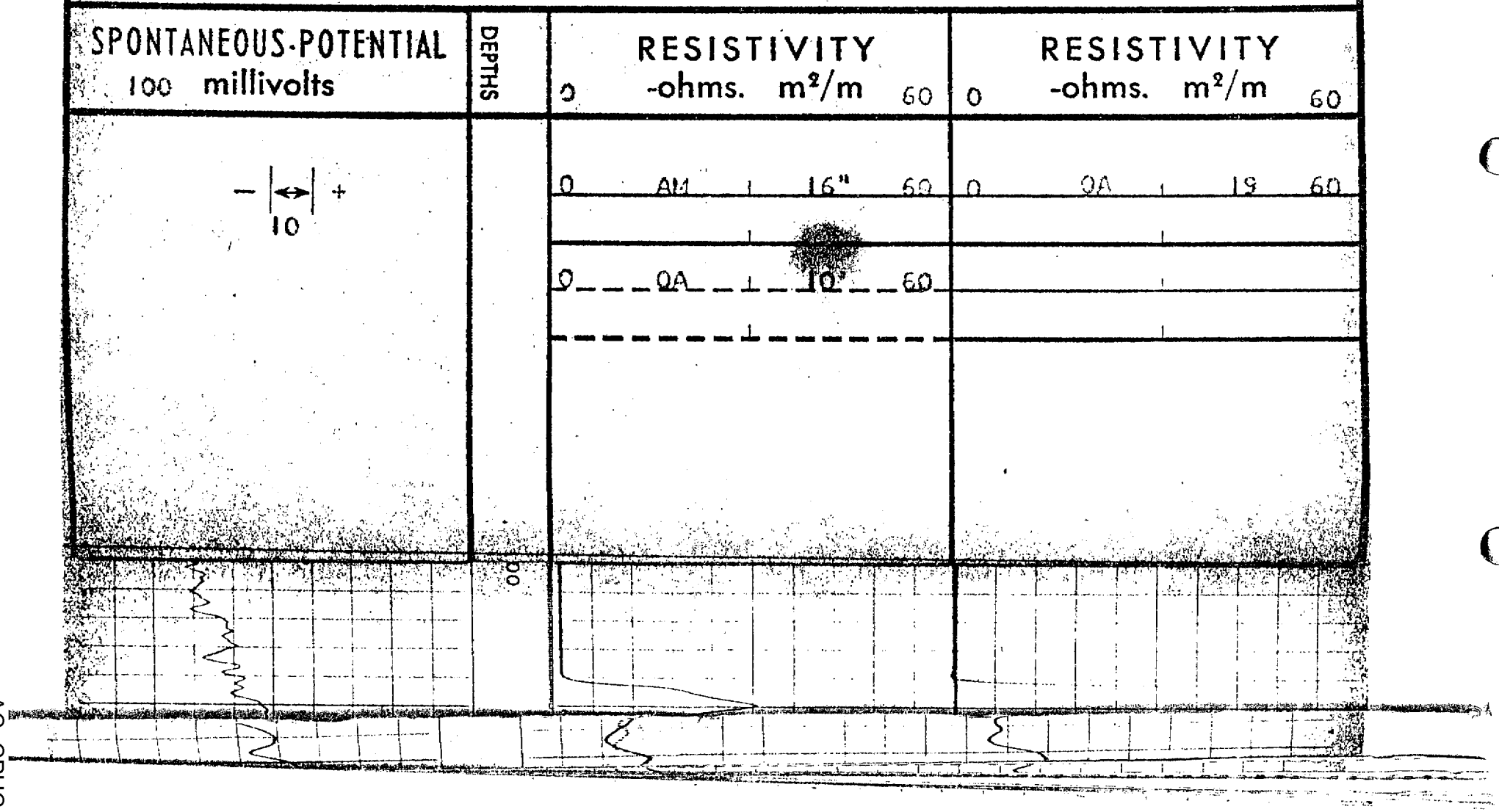
Run 7 6¼" - 9363

Run 6 8892 - 9164
Run 8 9164 - 9418
Run 9 9418 - 9634
Run 10 9634 - 9787

REMARKS
Run No. 11 is 5" Balloon Scale only.

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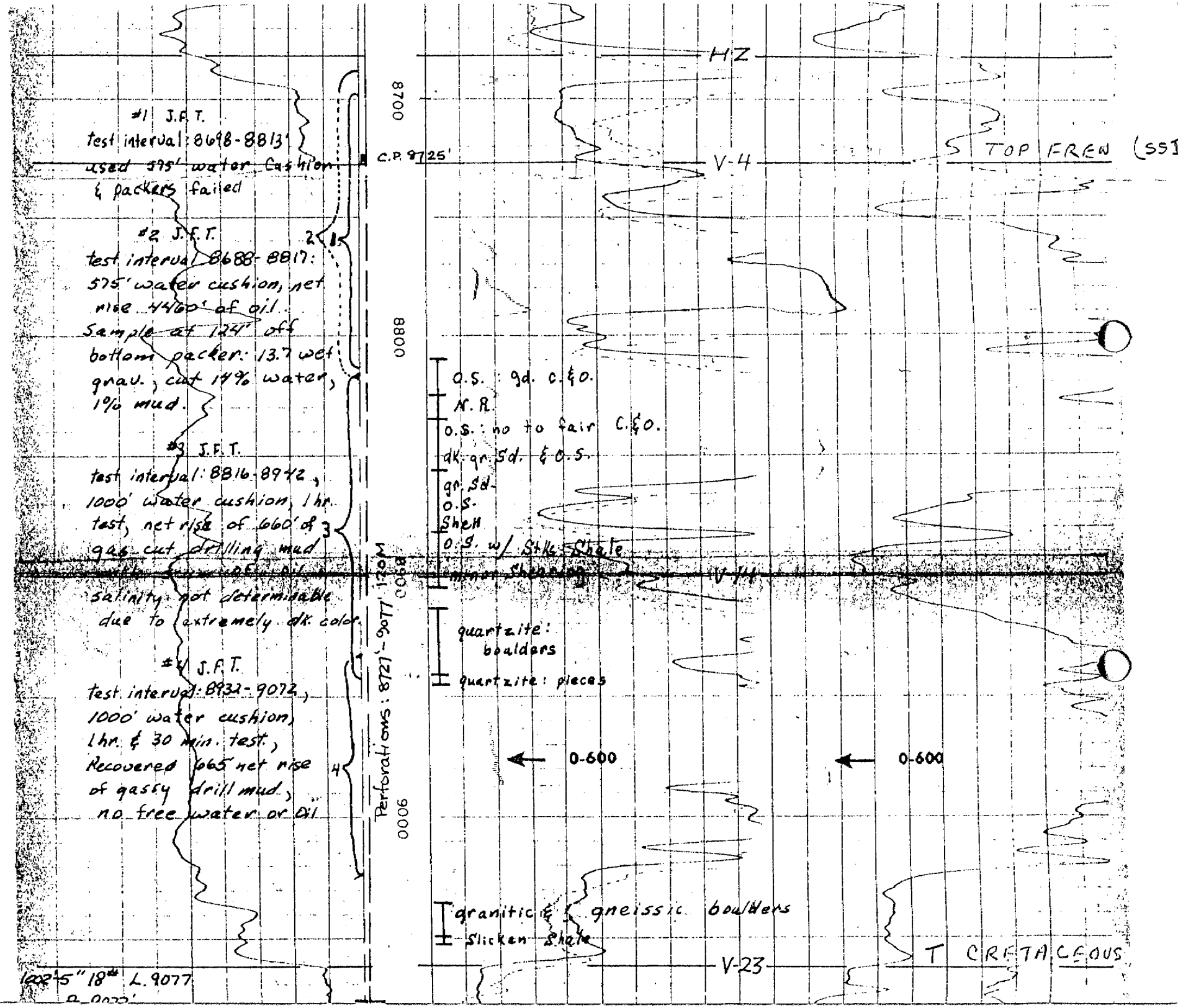


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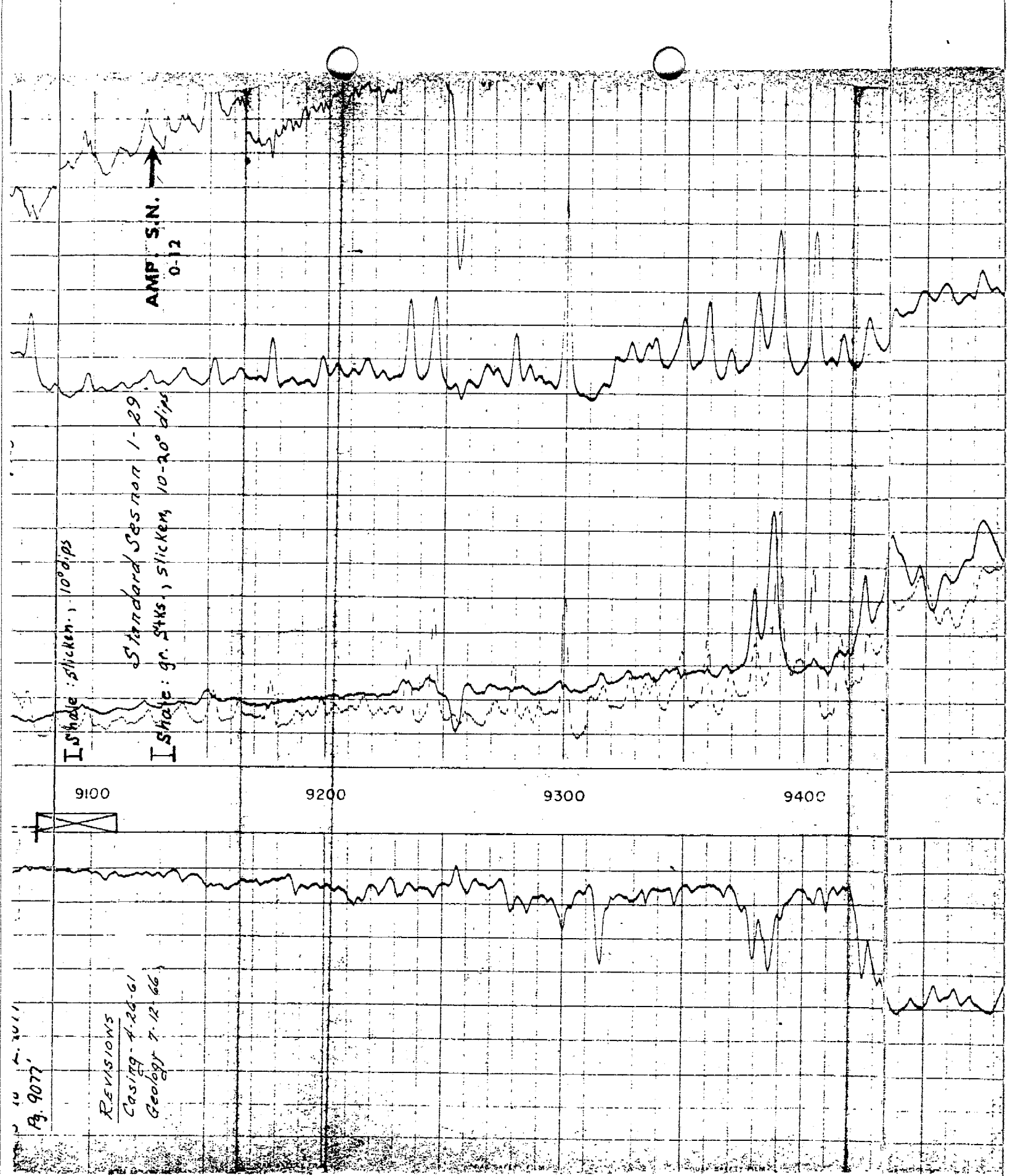


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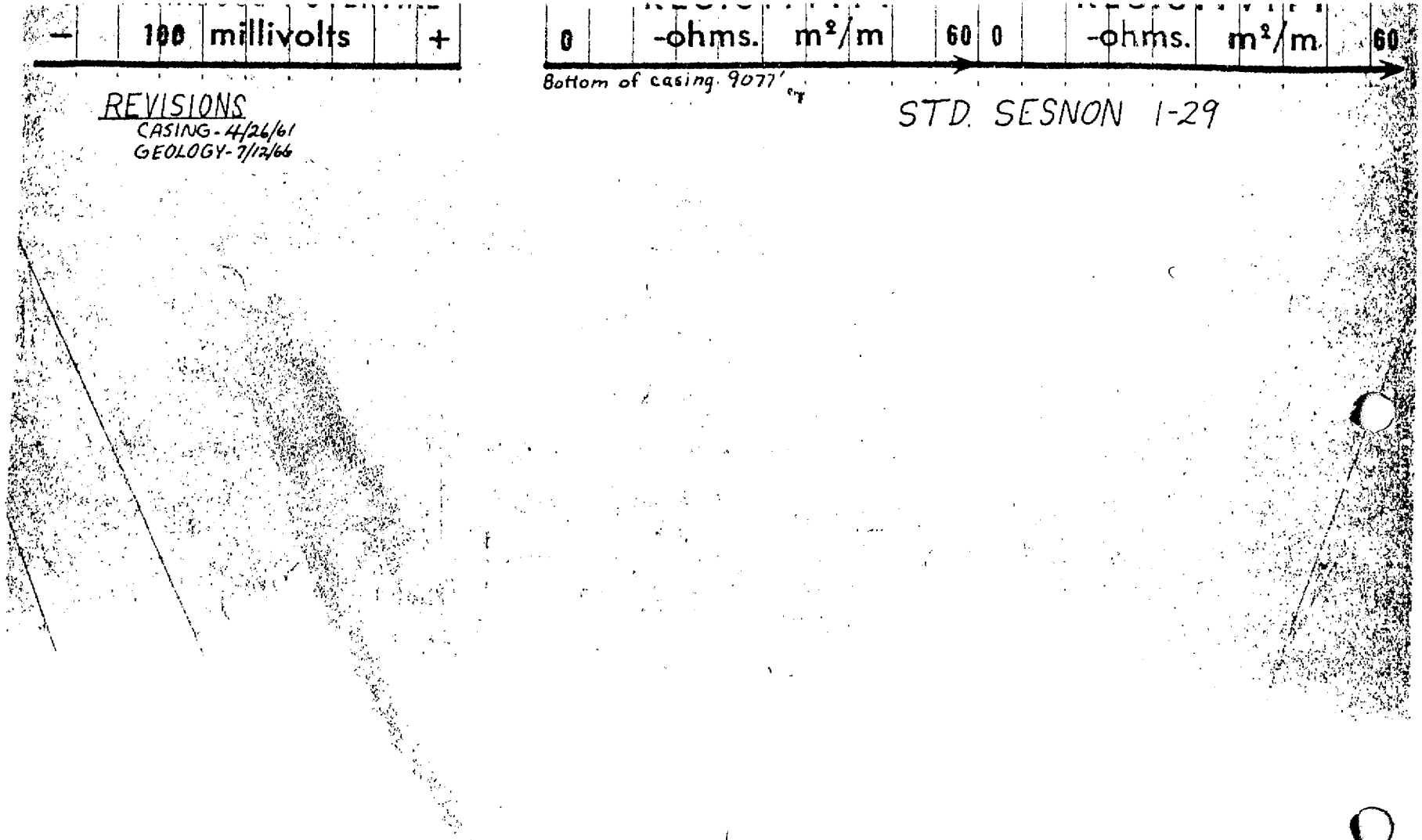


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# SCHLUMBERGER WELL SURVEYING CORPORATION

HOUSTON, TEXAS

SCHLUMBERGER

# Electrical Log

COMPANY TIDE WATER ASSOC OIL COMPANY

WELL STANDARD SESNON NO. 1-29

FIELD ALISO CANYON

LOCATION 26 - 3N - 16W

COUNTY LOS ANGELES

STATE CALIFORNIA

Location of Well

Elevation: D.F.:
K.B.: 2856
or G.L.:

FILING No.:

COUNTY LOS ANGELES
FIELD or ALISO CANYON
LOCATION 26 - 3N - 16W
WELL STANDARD SESNON NO. 1-29
COMPANY TIDE WATER ASSOC. OIL COMPANY

| RUN No. | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| Date | 6-24-53 | 7-9-53 | 7-29-53 | 8-7-53 | 8-24-53 |
| First Reading | 5948 | 8163 | 8808 | 8940 | 9072 |
| Last Reading | 1040 | 5984 5772 | 8163 | 8808 | 8940 |
| Feet Measured | 4908 | 2235 | 625 | 132 | 132 |
| Csg. Schlum. | 1040 | ---- | 8180 | ---- | ---- |
| Csg. Driller | 1042 | 1042 | 8180 | 8180 | 8180 |
| Depth Reached | 5949 | 8184 | 8809 | 8941 | 9073 |
| Bottom Driller | 5948 | 8185 | 8810 | 8941 | 9072 |
| Depth Datum | K.B. | K.B. | K.B. | K.B. | K.B. |
| Mud Nat. | Oil Emul | Carb+Lig | Oil Emul | Oil Emul | Carbonox |
| " Density | 76 | 77½ | 73 | 78 | 75 |
| " Viscosity | 39 | 55 | 44 | 42 | 30/500CC |
| " Resist. | 2.3@ 94°F | 3.3@ 80°F | 1.9@ 94°F | 2.0@ 85°F | 1.8@ 74°F |
| " Res. BHT | 1.8@127°F | 2.0@139°F | 1.2@161°F | 1.1@163°F | .94@166°F |
| " pH | 12 @ 94°F | 11 @ 80°F | 12 @ 94°F | 12 @ 85°F | 12 @ 74°F |
| " Wtr. Loss | -- CC 30 min. | -- CC 30 min. | -- CC 30 min. | -- CC 30 min. | -- CC 30 min. |
| Max. Temp. °F | 127°F. | 139°F. | 161°F. | 163°F. | 166°F. |
| Bit Size | 10" | 10" | 6¼" | 6¼" | 6¼" |
| Spcgs.—AM | 16"-M | 16"-M | 16"-M | 16"-M | 16"-M |
| AO— | 10 | 10 | 10 | 10 | 10 |
| AO.. | 19 | 19 | 19 | 19 | 19 |
| Opr. Rig Time | 2 hrs. | 2½ hrs. | 2 hrs. | 2 hrs. | 2½ hrs. |
| Truck No. | NH-1733 | NH-1720 | NH-1732 | NH-1720 | NH-1732 |
| Recorded By | Mesenbrink | Barbarick | Barbarick | Murphy | Barbarick |
| Witness By | Burns | Burns | Bovyer | Burns | Burns |

| RUN No. | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|
| Date | 8-25-53 | 9-1-53 | 9-4-53 | 9-7-53 | 9-11-53 |
| First Reading | 9202 | 9362 | 9503 | 9644 | 9787 |
| Last Reading | 9072 | 9202 | 9362 | 9503 | 9644 |
| Feet Measured | 130 | 160 | 141 | 141 | 143 |
| Csg. Schlum. | ---- | ---- | ---- | ---- | ---- |
| Csg. Driller | 8180 | 8180 | 8180 | 8180 | 8180 |
| Depth Reached | 9203 | 9363 | 9504 | 9645 | 9788 |
| Bottom Driller | 9202 | 9363 | 9504 | 9643 | 9790 |
| Depth Datum | K.B. | K.B. | K.B. | K.B. | K.B. |
| Mud Nat. | Carbonox | Carbonox | Carbonox | Carbonox | Oil Emul |
| " Density | 76 | 77 | 75 | 76 | 78 |
| " Viscosity | 34 | 50 | 42 | 45 | 40 |
| " Resist. | 3.3@ 68°F | 1.6@ 97°F | 2.0@ 93°F | 2.5@ 85°F | 1.8@ 86°F |
| " Res. BHT | 1.5@169°F | @ °F | 1.1@184°F | 1.3@184°F | .94@184°F |
| " pH | 10 @ 68°F | 12 @ 97°F | 12 @ 93°F | 12 @ 85°F | 12 @ 86°F |
| " Wtr. Loss | -- CC 30 min. | -- CC 30 min. | -- CC 30 min. | -- CC 30 min. | -- CC 30 min. |
| Max. Temp. °F | 169°F. | | 184°F. | 184°F. | 184°F. |
| Bit Size | 6¾" | 6¼" | 6¾"+5⅞" | 6¾"+5⅞" | 6¾"+5⅞" |
| Spcgs.—AM | 16"-M | 16"-M | 16"-M | 16"-M | 16"-M |
| AO— | 10 | 10 | 10 | 10 | 10 |
| AO.. | 19 | 19 | 19 | 19 | 19 |
| Opr. Rig Time | 1½ hrs. | 1¾ hrs. | 2½ hrs. | 2½ hrs. | 2 hrs. |
| Truck No. | NH-1720 | NH-1732 | NH-1720 | NH-1720 | NH-1733 |
| Recorded By | Mesenbrink | Barbarick | Murphy | Murphy | CGibson |
| Witness By | Bovyer | Burns | Burns | Burns | Burns |

| RUN No. | 11 |
|---|---|
| Date | 9-13-53 |
| First Reading | 9790 |
| Last Reading | 8650 |
| Feet Measured | 1140 |
| Csg. Schlum. | ---- |
| Csg. Driller | 8180 |
| Depth Reached | 9791 |
| Bottom Driller | 9790 |
| Depth Datum | K.B. |
| Mud Nat. | Carb+Oil Emul |
| " Density | 77 |
| " Viscosity | 31 |
| " Resist. | 2.0@ 90°F |
| " Res. BHT | 1.0@190°F |
| " pH | 12 @ 90°F |
| " Wtr. Loss | -- CC 30 min. |
| Max. Temp. °F | 190°F. |
| Bit Size | 6¾" |
| Spcgs.—AM | 16"-M |
| AO— | 10 |
| AO.. | 19 |
| Opr. Rig Time | 2¼ hrs. |
| Truck No. | NH-1732 |
| Recorded By | Barbarick |
| Witness By | Bovyer |

REMARKS: Hole Size: Run 1 10¼" - 5948 - 1040, Run 2 10¼" - 8185 - 5942, Run 3 6¾" - 8810 - 8182, Run 4 6¾" - 8941 - 8642, Run 5 6¾" - 9202 - 8892, Run 6 6¾" - 9444 - 9202, Run 7 6¾" - 9629 - 9362, Run 8 6¾" - 9643 - 9503, Run 9 6¾" - 9770 - 9644, Run 10 6¾" - 9790 - 9787, Run 11 6¾" - 9790 - 9644. Films Used: Run 1 Omitted, Run 2 and Run 3 Omitted, Run 4 Omitted, Run 5 and Run 6 Omitted, Run 7 Omitted, Run 8 Omitted, Run 9 Omitted, Run 10 Omitted, Run 11 Omitted

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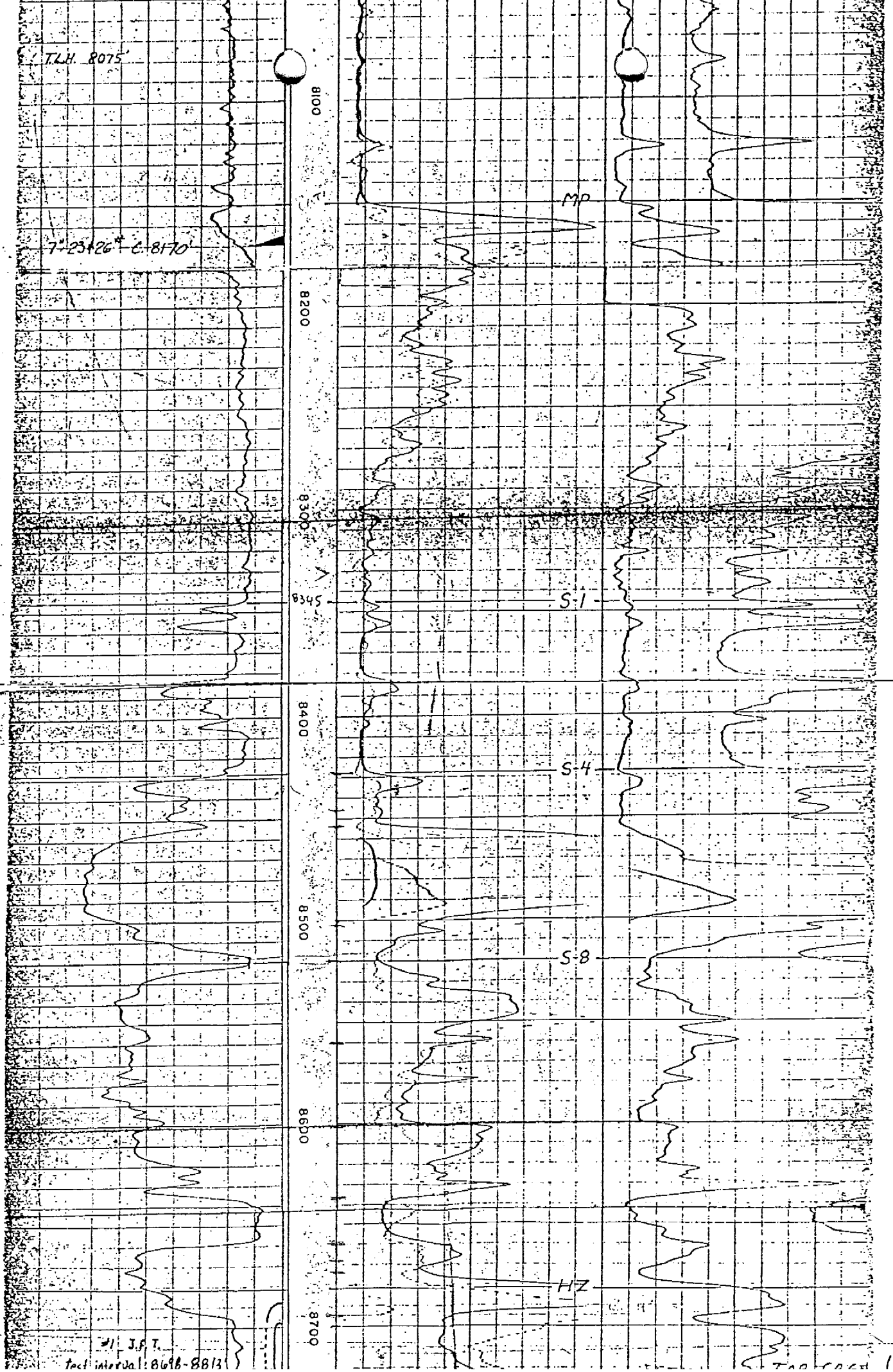
| | | |




AC_CPUC_0118274

# WORKOVER PROGRAM

OPERATOR: Southern California Gas Company

FIELD: Aliso Canyon

WELL: Standard Sesnon #29

CONTRACTOR: CPS D-7

OBJECTIVE: Repair shoe leak

APPROXIMATE LOCATION: 750' South and 6100' West from Station #84.

ELEVATION: Ground level 2848.77 feet. Take all measurements from original derrick floor 6.92' above ground level.

SAFETY: Hard hats are to be worn by all personnel on or near a rig. No smoking is permitted within 100' of the wellhead or near any other flammable material.

PRESENT CONDITIONS:

| | | |
|---|---|---|
| 11-3/4" | 0'-1042' | 42# H-40 to 999' |
| | | 47# J-55 to 1042' |
| 7" | 0'-8180' | 23# N-80 to 974' |
| | | 23# J-55 to 4452' |
| | | 23# N-80 to 6494' |
| | | 26# N-80 to 8180', packer at 8040', 3.25" ID |
| 5" Liner | | |
| 8075'-9077' | | 18# N-80 FJ |
| | | Perforations four .31" holes per foot. |
| | | 8456'-8502' 8658'-8668' |
| | | 8528'-8552' 8674'-8694' |
| | | 8602'-8638' |
| | | 8727'-9077' 120 mesh |

2-7/8" Tubing Detail

Otis guide shoe
Otis production tube
Otis seal assembly 3.29" OD, 2.38" ID
Otis J-latch locator
Otis blast joint 3.668" OD 2.375" ID
Otis "XN" No-Go Nipple 2.205" ID
Otis blast joint with 4 centralizers 5.50" OD, 2.375" ID
Otis annular flow safety system 4.88" OD, 2.313" ID
Otis "X" Nipple 2.350" ID
Pup joint 6.5# N-80 8rd EUE
243 joints 6.5# J-55 8rd EUE tubing
16 joints 6.5# N-80 8rd EUE tubing
Pups 6.5# N-80 8rd EUE to surface

WORK CATEGORY:

PR

- o Prepare surface as required.
- o Perform any required piano wire work.
- o Spot open top storage tank on location.
- o Check with Resident Reservoir Engineer to determine any changes and condition of the well since writing of this program and current bottom-hole pressure in the vicinity of the well.
- o Kill well if necessary.
- o Well Kill Requirements:
  - a. Top of storage zone = 8428' M.D. 8422' T.V.D.
  - b. Estimated bottom-hole pressure = 3450 psig.
  - c. Calculated fluid density to provide 500 psi overbalance = 67.54 lb./cu.ft. Use 68 lb./cu.ft. fluid to kill well.
  - d. Hydrostatic pressure of calculated fluid density (c) = 3950 psig.
  - e. Overbalance = 500 psi.
  - f. Wellbore fluid volumes:

| | | |
|---|---|---|
| Tubing | = | 47 bbls. |
| Annulus | = | 250 bbls. |
| Casing Liner | = | 19 bbls. |
| | | 316 bbls. Total |

Note:

- * Pump filtered workover fluid down tubing at 3 bbls/min. through sliding sleeve at 8002'.
- * Bleed off any gas to Gas Company system.
- * Obtain assistance from Aliso Canyon shift supervisor when killing well.

* Be sure to bleed off surface string annulus.

* Maintain surface volume equal to or greater than well volume during workover.

PROGRAM

MI 1. Move in and rig up.

- o Bleed off all casing annuli to zero pressure.
- o Be sure well will stand full of fluid before proceeding. Notify the Sr. Drilling Engineer if well is not in this condition. Dike area as necessary for spill control.
- o Set equalizing back pressure valve in doughnut.
- o Remove xmas tree. Send xmas tree in for repairs as required.

WW 2. Install 9" Class III 5000 psi BOPE.

- o Include Hydril bag and double gate with 2-7/8" pipe rams and blind rams.
- o Bag and both sets of rams are to be actuated hydraulically by a 3000 psi, minimum 60 gallon accumulator with dual remote controls and auxiliary nitrogen. Accumulator fluid should have sufficient antifreeze added to sustain -20°F ambient temperature.
- o Install 5000 psi spool with choke and kill lines as well as check valve.
- o Choke manifold to have discharge to Gas Company system, with block valve and bleeder as well as connections to Baker tank.
- o Inspect Hydril bag when installing BOPE.
- o Use new Rx API rings on all untested BOPE connections.

WW 3. Pressure test BOPE.

- o Blind rams, 2-7/8" pipe rams and choke

manifold are to be tested to 4000 psi with water.

- o Test Hydril bag to 2850 psig with water.
- o Division of Oil and Gas to be given sufficient notice to allow a witness to be present.

CO 4. Pull tubing.

- o Remove back pressure valve.
- o Release tubing from seals.
- o Pull and lay down 2-7/8" tubing and production equipment. (If unable to release from packer, contact the Sr. Drilling Engineer).
- o Send tubing in to West Coast for inspection.
- o Send safety system to salvage. Send No-Go, latch and seals for inspection.

CO 5. Clean out well.

- o Pick up 2-7/8" drill pipe.
- o Run 6-1/8" bit, 7" casing scraper on 2-7/8" drill pipe and clean out to top of packer at 8040'.

CO 6. Retrieve 7" Permatrieve packer.

- o Run in with Otis pulling tool on 2-7/8" drill pipe and make a straight pull of 30,000# over tubing weight to release packer.
- o Pull packer and send to Otis stock.

CO 7. Clean out to TD.

- o Run 4-1/8" bit and 5" casing scraper on 1050' of 2-3/8" 8rd tubing and 2-7/8" drill pipe and clean out from 8075' to 9077'.

FF 8. Perforate 500 psig underbalanced in fluid with eight 1/2" diameter holes per foot and at 45° spiral phasing.

- o Filter workover fluid using DE filter and a 2-micron nominal cartridge filter in series.

- Run Gamma Ray log with collar locator and use for depth correlation.
- Run in with tubing conveyed perforation guns and position guns to perforate the following intervals:

| | |
|---|---|
| 8428'-8436' | 8660'-8668' |
| 8454'-8502' | 8674'-8694' |
| 8522'-8560' | 8727'-8737' |
| 8602'-8636' | 8750'-8760' |
| | 8810'-8820' |

- If well will flow, allow flow for two hours before pulling perforating assembly.
- Pull perforating assembly from hole.

LR 9. Run Bridge Plug and cap with sand.

- Review guidelines in Company job instruction #224.6005.
- Run and set drillable bridge plug with top at 8345'.
- Cap plug with 8-12 sand to about 10' above top of plug using a dump bailer.

PF 10. Shoot WSO holes.

- Shoot four 1/2" holes at 8330'.

LR 11. Establish Injectivity.

- Change over to clean 2% KCl water.
- Run a 5" retrievable squeeze packer and set at 8240' with a 90' tail. Pump clean KCl water and attempt to establish an injection rate of at least 5 cu.ft./min.
- If established injection rate is below 5 cu.ft./min., spot 50 cu.ft. of 12% HCL/3% HF acid at the 2-3/8" 8rd tubing tail and squeeze it. Do not exceed a surface pressure of 2200 psig or a fracture gradiant of 0.7.
- If unable to establish injectivity, contact the Sr. Drilling Engineer.

LK 12. Squeeze Cement.

- o Pressure test lines and surface connections to 3000 psig, then unset packer.
- o Batch mix 50 cu.ft. of cement slurry.
- o Check makeup water volumes and slurry density prior to pumping.
- o Pump 25 cu.ft. of 6% HCL/1.5% HF acid pre-flush down tubing.
- o Pump 50 cu.ft. batch mixed slurry behind pre-flush. Maintain pressure equal to differential hydrostatic of the tubing and annulus on the annulus with a choke valve on the squeeze manifold.
- o Displace cement slurry with KCl water.
- o When pre-flush is about 10' from the squeeze tool, set packer and proceed to squeeze cement away.
- o When pressure build-up and lock-up is obtained, clear tool, shut down pump and W.O.C. for at least four hours.
- o If no pressure build-up is obtained, pull up and backscuttle 150% of work string volume and repeat Step 13.

LR 13. Clean out cement and pressure test.

- o Pull and lay down squeeze tools.
- o Drill out cement to top of cement plug at ±8335'.
- o Using the rig pump, pressure test squeeze job to surface pressure of 1500 psig but not more than o.70 psi/ft. pressure gradient of TVD for 15 minutes. If unsuccessful, repeat from Step 11.

CO 14. Clean out.

- o Run with 2-3/8" tubing x-over to 2-7/8" drill pipe, 5" casing scraper and 4-1/8" bit, and

clean out to bottom at 9077'.

LR 15. Flow test and noise log.

- o Notify station 24 hours in advance prior to flowing well. Well is to be manned at all times while flowing.
- o Run pressure control valve above packer and set test packer at approximately 8050' in 7" casing.
- o Run 2-7/8" drill pipe with circulating point at about 8040' and land in packer.
- o Unload and flow well for 12 hours.
- o Shut in well for 12 hours.
- o Noise log well and determine if leak has been repaired.
- o If noise log shows anomaly, repeat from Step 11. Do not shoot new holes unless authorized by the Sr. Drilling Engineer.
- o Pull out of hole and lay down tools.

TP 16. Install 7" packer.

- o Using reference collars, set Otis 7" 26# BWB packer on wireline at approximately 8030', but do not set packer in a collar.

CO 17. Run and land tubing.

- o Pick up and run 2-7/8" 6.5# J-55 tubing, drifting and hydrotesting to 4000 psi.

Tubing to Include:

Otis guide shoe
Otis production tube
Otis seal element with two seals
Otis J-latch locator
One joint of 2-7/8" tubing
Otis 2.205" XN No-Go nipple
One joint 2-7/8" tubing
Otis 2-7/8" XD sliding sleeve 2.313" ID. (closed)

One joint 2-7/8" tubing
GLM with 1-1/2" Pump-out valve set at 2700 psig differential
2-7/8" tubing with pups to surface

- o Pressure test packer to 1500 psig using a chart recorder.
- o Keep drill pipe full and observe for returns.
- o Circulate polymer completion fluid out of well with clean, double inhibited 2% KCl water with coat 7726.
- o Pull 20,000# over weight of tubing to check latch.
- o Space out and land tubing with 6,000# on packer.

WW 18. Remove BOPE and install xmas tree.

- o Install equalizing back pressure valve in doughnut.
- o Remove BOPE.
- o Install xmas tree.
- o Tighten all wellhead bolts.
- o Pressure test seals, xmas tree, innerstring spool, seal flange and tubing head to 5000 psig with oil for 20 minutes.
- o Check and close all wellhead valves.
- o Install tapped flanges with bleeder valves on all wellhead valves.
- o Open sliding sleeve.

MO 20. Rig down and move out rig.

- o Inform Resident Engineer and Station Supervisor before moving off wellsite so proper wellsite safety protection can be arranged.
- o Release rig.

- Clean up well site. All trash, debris, equipment and materials to be removed from site.

- Conduct walk-through with a Drilling department representative and a designee from the station after the site is cleaned up.

E. S. Sinclair
September 10, 1991

Approved: _____ 9-24-91
J. B. Lane

cc: C. C. Affelt
R. M. Dowell
J. A. Hemmerly
J. B. Lane
T. D. McMahon
M. E. Melton
R. L. Patterson
R. D. Phillips
J. P. Wesson
P. D. Yu
Rig Supervisor
Contract Tool Pusher (2)

NOTE: Filing of "Notice" and well history not required by D.O.G.

SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

# DIVISION OF OIL AND GAS

## History of Oil or Gas Well

Operator Southern California Gas Co. Field or County Aliso Canyon
Well S.S. #29, Sec. 28, T 3N, R 16W, SB B. & M.
A.P.I. No. Name P.S. Magruder Jr. (Person submitting report) Title Agent (President, Secretary or Agent)
Date March 13, 1979, 19

Signature P.S. Magruder Jr.

P.O. Box 3249 Terminal Annex, Los Angeles, Ca. 90051 (Address)
P.S. Magruder Jr. (213) 689-3561 (Telephone Number)

**History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests and initial production data.**

Date

GWO 98480

1979

Program: Remove 2 3/8" safety system and 5" packer from 5" liner at 8,420'. Set a packer in the 7" casing near 8,040' and install an Otis 2 7/8" annular flow safety system. Return the well to gas storage service.

3-5 0 Day. Killed well with 350 barrels of 63# brine-polymer completion fluid

3-6 1st Day. Moved California Production Service Co. rig #D-4 onto wellsite and rigged up. Mixed a total of 260 barrels of polymer completion fluid and obtained full circulation. Removed xmas tree and installed BOPE.

3-7 2nd Day. Tested BOPE, blind rams, 2 7/8" pipe rams and choke manifold to 3,000 psi, Hydril "GK" to 2,000 psi with water and nitrogen. Released from 5" Otis "Permatrieve" packer at 8,420'. Circulated gas cut mud from well. Pulled out of hole measuring tubing. Ran in with Otis retrieving tool and released packer. Pulling out of well.

3-8 3rd Day. Recovered 5" Otis "Permatrieve" packer from 8,420'. Ran in well with 7" casing scraper and cleaned out to 8,075'. Pulled out and ran in well with 5" casing scraper and cleaned out to 9,071'. Pulling out of well.

3-9 4th Day. Finished pulling out of well. Ran 7" Otis "Permatrieve" packer and set at 8,040'. Ran in well with Otis Latch-in Locator and 2 seals, changing tubing collars. Latched into packer and pulled 30,000# to check latch. Set 10,000# on packer and tested annulus to 1,500 psi. Pulling out of well.

3-10 5th Day. Finished pulling out of well. Ran Otis annular flow safety system. Hydrotested tubing to 5,000 psi. Landed tubing on packer at 8,040' with 10,000#. Pulled up 30,000# over weight of string to check packer and latch. String weight 53,000# on hook. Removed BOPE. Installed xmas tree and tested to 5,000 psi. Displaced brine-polymer completion fluid from well with 350 barrels of waste lease water. Released rig at 10:00 p.m., 3-10-79.



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10/5/77

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

# DIVISION OF OIL AND GAS

## History of Oil or Gas Well

Operator Southern California Gas Company Field or County Aliso Canyon
Well name and No. STANDARD SESNON #29, Sec. 28, T 3N, R 16W, S.B.B. & M.
A.P.I. well No. 037-00041 Name P. S. Magruder, Jr. (Person submitting report) Title Agent (President, Secretary or Agent)
Date September 24, 19 77.

Signature P. S. Magruder Jr.

P.O. Box 3249 Terminal Annex, Los Angeles, Ca., 90051 (Address) (213) 689-3561 (Telephone Number)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests and initial production data.

| Date | |
|---|---|
| 8-27-77 | Moved California Production Service Rig #M 28 from Standard Sesnon #24 location. Circulated hole volume to work gas out of drilling fluid. |
| 8-28-77 | Rig and crew idle. |
| 8-29-77 | Installed plug in doughnut; removed tree; installed 8" Class III B.O.P.E. and tested with water and nitrogen as follows:<br>Hydril 3000 psi 20 minutes - O.K.<br>Pipe Rams 4000 psi 20 minutes - O.K.<br>Blind Rams " " " " - O.K. |
| 8-30-77 | Released Camco hydrostatic packer and Baker locator seal assembly. Pulled out of well tallying tubing. Started back into well. Took gas kick. Killed well. Made up Baker milling tool on Baker junk basket, Bowen hydraulic jars and three 20' 2 3/8" drill collars. Ran tubing to top of liner.<br>NOTE: There was 40' of fine sand inside the tubing string above tubing plug at base of S4 sand. |
| 8-31-77 | Milled over and recovered Baker 5" Model "D" packer. Mde up Robison 7" casing scraper and 6 1/8" bit and ran to 8075'. Started out of hole. |
| 9-1-77 | Pulled 7" casing scraper and 6 1/8" bit out of well. Ran 5" scraper and 4 1/8" bit to 9072'. (Cleaned out hard asphalt foundation from 9026' -9072'). Started out of well with 4 1/8" bit and scraper. Power tongs broke down - ordered set from H. & H. Started out of well again and their power tongs failed. |
| 9-2-77 | Finished pulling 4 1/8" bit and 5" scraper out of well. Ran Johnston 5" Retrievable bridge plug and set at 8425'. Pressured plug and pumped fluid away under 1450 psi. Pulled Retrieving tool. Ran Johnston 5" 18# Bob Cat packer to 8375'. Set and pressured 5" bridge plug to 1500 psi 10 minutes; held O.K. |

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9-3-77 Pressure tested annulus...(retainer at 8425') to 2500 psi - held O.K. Released retrievable retainer and pressured casing to 2500 psi - held O.K. Displaced polymer mud from well with fresh water treated with surface tension agent. Pulled 5" retrievable retainer out of well - ran 7" retainer to 3800' and pressure tested as follows:

| | | | | | |
|---|---|---|---|---|---|
| 3800' | to | 8425' | at 2500 psi | for 60 | minutes |
| 3800' | " | Surface | " 2700 psi | " 60 | " |
| 3300' | " | " | " 2900 psi | " 60 | " |
| 2900' | " | " | " 3100 psi | " 60 | " |

All above tests O.K.

9-4-77 Rig and crew idle.

9-5-77 (Holiday) Rig and crew idle.

9-6-77 Continued pressure testing casing, as follows:

| | | | | | |
|---|---|---|---|---|---|
| 2500' | to | Surface | with 3300 psi | for 60 | minutes |
| 2000' | " | " | " 3700 psi | " 60 | " |
| 1100' | " | " | " 4000 psi | " 60 | " |

Above tests O.K.
Pulled out of well with 7" retainer. Ran tubing in hole to retrieve 5" 18# bridge plug.

9-7-77 Retrieved Johnston 5" 18# retrievable bridge plug. Changed out tubing collars and Baker sealed tubing pins. Using GO-International, set Otis 5" Permatrieve wireline packer at 8415'.

9-8-77 Made up Otis seal assembly; 2 3/8" x 10' blast joint; 2 3/8" x 1.56" NO-GO nipple; 2 3/8" x 20' blast joint; Otis annular flow safety system and tested to 5000 psi. Ran tubing to 8415' hydrotesting to 5000 psi and latched into Otis packer. Pulled 25,000# over tubing weight on packer (67,000# gross weight) and landed with 7000# set-down weight on packer. Installed back-pressure valve in doughnut. Removed B.O.P.E. and installed Christmas tree.

9-9-77 Tested Xmas tree to 5000 psi. Displaced polymer drilling fluid with lease salt water. Set Otis 1.56" blanking plug in "NO-GO" nipple at 9405'. Pressure tested packer and seals under 2000 psi. (Held O.K.). Released rig.

GCA/nd

AC_CPUC_0118286

FORM 103 SUBMIT IN DUPLICATE Δ OSP

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

# DIVISION OF OIL AND GAS

## History of Oil or Gas Well

OPERATOR Pacific Lighting Service Company FIELD Aliso Canyon

Well No. SS-29, Sec. 28, T. 3N, R. 16W, S.B. B. & M.

Date ____, 19____ Signed ____

P. O. Box 54790, Terminal Annex
Los Angeles, California 90054 (213) 689-3561 Title Agent
(Address) (Telephone Number) (President, Secretary or Agent)

It is of the greatest importance to have a complete history of the well. Use this form to report a full account of all important operations during the drilling and testing of the well or during re-drilling, altering of casing, plugging, or abandonment with the dates thereof. Be sure to include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, shooting and initial production data.

| Date | |
|---|---|
| 1973 | The following is for the well file only. It does not have to be submitted to the Division of Oil & Gas. |
| 7-31 | PROGRAM: (1) Pull tubing and remove 1/4" control line and tubing safety valve.<br>(2) Install nipples for wireline safety valve.<br>(3) Install slotted tubing for sand control. |
| 7-31 | Pulled Camco "CA" blanking plug from 8520' and confirmed that sleeves at 8348' and 8488' were open in order to kill well.<br><br>Moved in California Production Service rig with pump and shaker tank at 2:00 PM and began rigging up. |
| 8-1 | Killed and circulated well with 332 barrels brine-polymer workover fluid. Installed and tested Class III B.O.P.E. Pulled 8000' tubing and 1/4" control line. |
| 8-2 | Filled hole with 8 barrels. Completed pulling tubing. Lost 12 1/2" x 16" steel banding clamps and top rubber off Camco HRP-1-SP 5" packer. Laid down Camco packer and Page safety valve. Ran 2-1/4" O.D. sawtooth collar and 665' of 1-1/4" Hydrill drill rod on 2-7/8" tubing. Sat down on Model "D" packer at 8520' tubing measurements but rotated through OK. Hit top of fill at 9035'. |
| 8-3 | Circulated out soft fill of mud and a small amount of sand from 9035 to bottom at 9077'. Pulled tubing and laid down 665' of 1-1/4" drill rod. Made up and ran completion tubing to 6000' then shut down for the week-end. |
| 8-4&5 | Idle. |
| 8-6 | Completed running tubing. Hung tubing above packer at 8518' and circulated out mud with salt water, using 310 barrels. Landed tubing with 4000 pounds on Model "D" packer at 8518'. Ran Camco type "CA" 2-3/8" blanking plug and set in Camco "D" nipple at 8517' to isolate S-8 zone. Ran Otis type "X" 2-3/8" plug and set in Otis "X" nipple at 8455'. Pressured tubing to 3500 psi with hot oil truck |

AC_CPUC_0118287

1973

8-6 con't. and set Camco HRP-1 2-3/8" x 5" packer at 8420'. Tested packer at 1500 psi for 5 minutes--Ok. Removed B.O.P.E. and installed and tested production head at 4500 psi for 20 minutes--Ok. Started rigging out.

8-7 Completed moving out and released rig at 10:00 AM. Fluid will be unloaded with nitrogen to top gas lift valve at 5690' and the tubing plug will be pulled from 8455' to make well ready for production.

AC_CPUC_0118288

FORM 103 SUBMIT IN DUPLICATE Δ OSP

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

# DIVISION OF OIL AND GAS

## History of Oil or Gas Well

OPERATOR Pacific Lighting Service Co. FIELD Aliso Canyon

Well No. SFZU SS-29, Sec. 28, T. 3N, R. 16W, SB B. & M.

Date October 19, 1973 Signed P. S. Magruder, Jr.

P.O. Box 54790, Terminal Annex
Los Angeles, CA 90054 (213) 689-3561 Title Agent

(Address) (Telephone Number) (President, Secretary or Agent)

It is of the greatest importance to have a complete history of the well. Use this form to report a full account of all important operations during the drilling and testing of the well or during re-drilling, altering of casing, plugging, or abandonment with the dates thereof. Be sure to include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, shooting and initial production data.

| Date 1973 | |
|---|---|
| 2-2 to 2-5 | Moved in California Production Service and rigged up. Mixed Brine Polymer workover fluid and killed well. Installed and tested Class III BOPE. |
| 2-6 | Pulled tubing and packer. Ran 4-1/8" bit and 5" casing scraper. Hit fill at 8970'. Cleaned out sand bridges and tagged bottom at 9074'. Circulated on bottom for 2 hours. |
| 2-7 | Ran 7" casing scraper and tagged top of liner at 8082'. Rigged up Dresser Atlas. Ran Cement Bond log 7950-9056', Densilog 8294-8788', and Neutron Lifetime/Gamma Ray logs 8280-9050'. |
| 2-8 | Made up and ran Baker model "C" bridge plug on fullbore packer, set bridge plug at 8065'. Set fullbore at 8025' and tested bridge plug with 1910 psi for 15 minutes, OK. Pulled up and set fullbore at 3444'. Tested 3444-8065' with 2060 psi for 15 minutes, OK. Tested from surface to 3444' with 2550 psi for 15 minutes, OK. Pulled up and set fullbore at 2341'. Tested from surface to 2341' with 3000 psi for 15 minutes, OK. Set fullbore packer at 1180' and tested from surface to 1180' with 3550 psi for 15 minutes, OK. 7" casing, OK. Ran in from 1180' and retrieved bridge plug. Rigged up Dresser Atlas. Jet perforated four 0.31" holes per foot 8528-8552', 8602-8638', 8658-8668', and 8674-8694'. Used 11 gram charges and 3-1/2" hollow carriers. |
| 2-9 | Made up and ran Johnston tester and bridge plug. Set bridge plug at 8715'. Pulled up and set test tool at 8486' with tail to 8511'. Opened tool at 11:12 a.m. Strong blow building to 142 psi at end of test. Closed tool at 12:32 p.m. Recovered bridge plug and reset same at 8580'. Set test tool at 8480' with tail to 8505'. Opened tool at 1:10 p.m. Light to medium blow throughout one hour test. |

AC_CPUC_0118289

1973

Reset bridge plug at 8515'. Started out of hole with tester. Fluid heading out of tubing 5918' above tester. Dropped bar but backscuttle valve failed to open. Continued pulling tester and turning heading fluid to tanks. Total fluid rise approximately 300' of thin, oily, gas cut workover fluid and 5600' of gas cut oil. Recovered fine sand in test tool. Charts showed first test OK; IH 3773 psi, IF 511 psi, FF 1113 psi, FH 3763 psi. Plugged tool on second test. Rigged up Dresser Atlas and jet perforated four 0.31" holes per foot 8456-8502'. Used charges and carriers as above.

2-10 Made up and ran Johnston tester. Set packer at 8436' with tail to 8454'. Opened tool at 10:37 a.m. Shut in at surface after 5 hour clean up flow.

2-11 Idle

2-12 Opened surface valve for final flow at 6:20 a.m. Flowed S-4 zone for 12 hours. Maximum rate 2.7 $M^2$cf/D. Shut in at tool at 6:20 p.m.

2-13 Pulled tester loose. Ran in to retrieve and relocate bridge plug in preparation to retest perforations 8528-8552'. Could feel no fill and had no apparent difficulty latching onto bridge plug. Could not pull plug loose and could not back tester off of plug. Jarred for 5 hours with no results. Dropped bar. Backscuttled and conditioned mud above 8305'. Rigged up McCullough and made chemical cut at 8297'. Pulled out leaving 213' of fish and bridge plug in hole.

2-14 Made up fishing tools consisting of overshot for 2-3/8" tubing, four 3-3/4" drill collars, bumper sub, and jars. Ran in to 8297' and latched onto fish. Jarred loose. Pulled out of hole with tubing and test tools leaving bridge plug only in hole. Sand in Tester. Charts OK. IH 3729 psi, IF 1305 psi, FF 1425 psi, ISI 1471 psi, FSI 1476 psi, FH 3754 psi.

2-15 Ran overshot for bridge plug retrieving neck. Circulated out small amount of sand on top of plug but could make no hole with overshot. Pulled out and ran Johnston tungsten carbide toothed retrieving tool. Circulated and drilled with tongs. Latched onto and released bridge plug. Pulled out without plug.

2-16 Ran overshot, bumper sub, and jars. Found bridge plug at 9039'. Latched onto and recovered plug. Changed tubing line.

2-17 Made up and ran Johnston bridge plug and tester. Set bridge plug at 8578'. Pulled up and set tester at 8516' with tail to 8535'. Opened tool at 1:00 p.m. Shut in at surface during entire test. Closed tool at 3:00 p.m. Dropped bar and backscuttled approximately 10 bbls. of gas cut oil. Estimated fluid rise 2076'. Pulled tester. Sanded up but charts OK. IH 3728 psi, IF 231 psi, FF 776 psi, FH 3739 psi.

2-18 Idle

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1973

2-19 Ran 7" bridge plug to 8065'. Closed rams and tested plug with 1050 psi for 10 minutes. Removed BOPE and tubing head. Rigged up casing jacks and 7" spear. Unlanded 7" casing. Cut and removed 11-3/4" casing head. Welded extension on 7" casing.

2-20 X-rayed 7" weld, OK. Welded on new 11-3/4" 5000 psi casing head. X-rayed OK. Relanded 7" casing with 171,000 lbs. Installed new seal flange and tubing head. Tested seals with 3500 psi.

2-21 Re-installed BOPE and tested with 1250 psi. Retrieved 7" bridge plug from 8065'. Ran 5" bridge plug and squeeze packer.

2-22 Set bridge plug at 8525' and packer at 8436'. Pumped 276 bbls. Halliburton Claylok and 276 bbls. KCl through perforations 8456-8502'. Pulled tools. Retrieved 5" Johnston bridge plug from 8578'. Ran 5" bridge plug and squeeze packer.

2-23 Set bridge plug at 8659' and packer at 8525'. Pumped 360 bbls. Halliburton Claylok and 360 bbls. KCl through perforations 8528-8552' and 8602-8638'. Attempted to treat perforations 8658-8668' and 8674-8694'. Unable to pump into formation with 3500 psi.

2-24 Ran Baker model "D" packer on wireline and set same at 8517'. Started in hole with completion string including 2-3/8" x 5" Camco HRP-1-SP packer, 2-3/8" Page RTL safety valve, and 1/4" control line.

2-25 Idle

2-26 Continued running completion string. Hydro-Tested 2-7/8" tubing to 5000 psi. Spaced out and landed tubing with 9000 lbs. on model "D". Tested 1/4" control line through doughnut with 5000 psi.

2-27 Removed BOPE and installed production head. Tested seals with 5000 psi. Displaced 310 bbls. workover fluid with lease salt water through circulating sleeve. Ran No-Go plug into Camco landing nipple at 8517' and closed circulating sleeve. Pressured tubing to set Camco packer at 8422'. Opened S-4 production sleeve.

2-28 Unloaded 200 bbls. salt water with nitrogen. Blew down tubing and casing. Tore out CPS. Well ready for gas lift and production line hookups.

CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

# DIVISION OF OIL AND GAS

## History of Oil or Gas Well

OPERATOR TIDE WATER ASSOCIATED OIL COMPANY FIELD ALISO CANYON

Well No. Standard-Gesnon 1-#29, Sec. 28, T. 3 N, R. 16 W, S.B. B. & M.

Signed J. E. Weaver Jr.

Date February 11, 1953 Title Agent (President, Secretary or Agent)

It is of the greatest importance to have a complete history of the well. Use this form in reporting the history of all important operations at the well, together with the dates thereof, prior to the first production. Include in your report such information as size of hole drilled to cementing or landing depth of casings, number of sacks of cement used in the plugging, number of sacks or number of feet of cement drilled out of casing, depth at which cement plugs started, and depth at which hard cement encountered. If the well was dynamited, give date, size, position and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position and results of pumping or bailing.

Date

1953

LOCATION: 750' South and 6100' West of Station #84 (From Gas Unit)

1953

ELEVATION: 2848.77' Mat
2855.69' Derrick Floor

3/3-4/25 Surveying location, moved in equipment to start grading, graded road and rig site, dug rat hole and cellar, built foundation forms, oil roads, poured foundation concrete, erected derrick, installed sub-base, rigged up rotary.

4/26 Spudded 15" hole at 5:00 AM and drilled to 201'.

4/27-5/1 Drilled 15" hole from 201' to 1006'. Reduced size of hole to 10-5/8" and drilled to 1115'.

5/2 Drilled 10-5/8" hole from 1115' to 1234'.

5/3 Reamed and opened hole to 1042'.

5/4 Ran and cemented 11-3/4" T & C Youngstown casing at 1042' with 550 sacks Colton construction cement; first and last 100 sacks treated with quick setting chemical. Bottom 43' is 47# J-55 and remainder is 42# H-40. Pressure rose from 200-400# when plugs bumped. Time 5:15 AM. No circulation in latter stages of operation. Pumped in 100 sacks around outside of casing which filled to surface. B.J. Service.

5/5 Installed cellar connections. Cleaned out cement from 1042' to 1234'.

5/6 Drilled 10-5/8" hole from 1234' to 1387'. Lost circulation while drilling at 1285'. Regained with hulls and gel.

5/7 Drilled 10-5/8" hole from 1387' to 1394'. Lost circulation while drilling at 1394'. Hung drill pipe at 1380' and pumped in 150 sacks Colton construction cement. Went in with bit and found no cement. Hung drill pipe at 1380' and pumped in 100 sacks Colton construction cement. Found top of cement at 1325'.

5/8 Drilled 10-5/8" hole from 1394' to 1520'. Lost circulation at 1394'. Regained with hulls and gel.

5/9 Drilled 10-5/8" hole from 1520' to 1725'. Lost circulation at 1725'. Regained with hulls and gel.

5/10-5/11 Drilled 10-5/8" hole from 1725' to 2384'. Lost circulation while drilling at 2350'. After 9-1/2" hours recovered circulation with hulls and gel.

5/12-5/14 Drilled 10-5/8" hole from 2384' to 3398'. Lost circulation while drillin at 3398' Hung drill pipe at 1217' and pumped in 100 sacks Colton construction cement. Found top of cement at 1320'. Hung drill pipe at 1217' and pumped in 100 sacks Colton construction cement.

5/15 Attempting to regain lost circulation.

5/16 Drilled 10-5/8" hole from 3398' to 3504'.

AC_CPUC_0118292

OPERATOR: TIDE WATER ASSOCIATED OIL COMPANY

WELL NO.: Standard-Gesnon 1-#29, Aliso Canyon Field



1953

5/17 Lost circulation. With drill pipe hanging at 1400', pumped in four batches (100 sacks each) Colton construction cement.

5/18 Lost circulation. Hung drill pipe at 1407' and pumped in 100 sacks Colton construction cement. Found top of cement at 1320'. Hung drill pipe at 1314' and pumped in 100 sacks Colton construction cement. Found top of cement at 1240'.

5/19 Drilled 10-5/8" hole from 3504' to 3566'. Lost circulation and stuck drill pipe at 1658'. Spotting oil.

5/20 Backed off drill pipe at 1158'. Washing over at 1206'.

5/21 Washing over fish at 1445'.

5/22 Made cut at 1536' and recovered 187' of fish.

5/23 Washed over fish at 1616' which fell down hole. Located top at 2046'.

5/24 Recovered fish. Unable to maintain circulation. Hung drill pipe at 1470'. Pumped in 100 sacks Colton Hi-temperature cement. Found top of cement at 1460'. Hung drill pipe at 1314'. Pumped in 150 sacks Colton construction cement. Found top at 1254'. Hung drill pipe at 1232' and pumped in 75 sacks Colton construction cement. Found top at 1232'. Hung drill pipe at 1232' and pumped in 75 sacks Colton construction cement. Found top of cement at 1198'.

5/25 Cleaned out cement from 1198' to 1397' when lost circulation. In six operations, by hanging drill pipe from 1397' to 1520', pumped in 600 s acks Colton construction cement. After last cement job, found top of cement at 1061'. Lost circulation while drilling out at 1450'.

5/26 Pumped in 900 sacks treated construction cement in stages from 1520' to shoe. With cement cleaned out 1' below shoe, 1043', hung drill pipe at 1029' and pumped in 100 sacks treated construction cement. Closed rams and squeezed. Final pressure 1000#. Located top of cement at 1043'. Held 950# pressure O.K.

5/27 Cleaned out cement from 1043' to 1350' in 50' stages, which held 500# O.K. until lost circulation at 1350'. Hung drill pipe at 1350' and pumped in 150 sacks treated Colton construction cement. Found top of cement at 1050'. Drilled out cement to 1359' when lost circulation. Hung drill pipe at 1350' and pumped in 50 sac sacks treated Colton construction cement. Found top of cement at 1310'.

5/28 Cleaned out cement from 1310' to 1600'. Cleaned out at 3200' with full circulation

5/29 Cleaned out to 3567'. Started out of hole to 3350', then backed down to 3417' and circulated. Lost circulation and stuck drill pipe. Spotted 110 barrels of oil but could not work pipe free.

5/30 Ran Magnatector and backed off 4" drill pipe at 1262'.

5/31 Top of 4-1/2" drill pipe at 1262'. Washed over drill pipe to 1383'. Cut and recovered 98' of drill pipe. Top of fish at 1360'. Washed over to 1410' and lost circulation.

6/1 Top of 4-1/2" drill pipe fish at 1360'. With drill pipe hanging at 1337', pumped in a mixture of 25 sacks Bentonite, 28 sacks Aquagel and 25 barrels Diesel oil. Final pressure 200#. Cleaned out to top of fish with bit. Washed over fish to 1437' when lost circulation.

6/2 Regained circulation with Kellseal, rice hulls and feathers. Washed over drill pipe fish from 1360' to 1563' and made cut #2 at 1548'. Recovered 188' of fish.

6/3 Washed over drill pipe fish to 1862'. Cut and recovered 313'.

6/4 Cut and recovered 315' of drill pipe fish. Top now at 2176'.

6/5 Washed over drill pipe fish to 2504'. Cut and recovered 308'. Top of fish at 2484'. Washed over drill pipe fish at 2815'. Cut and recovered 317'. Top of fish at 2801'.

6/6 Washed over drill pipe fish to 3120'. Cut and recovered 310'. Top of fish at 3111'.

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OPERATOR: TIDE WATER ASSOCIATED OIL COMPANY

WELL NO.: Standard-Sesnon 1-#29, Aliso Canyon Field



1953

6/7 Washed over drill pipe fish to 3300'. Cut and recovered 189'. Top of fish at 3300'. Remainder of fish in hole, a single and two drill collars.

6/8 Washed over drill collars to 3342'.

6/9 Recovered remainder of fish. Cleaning up fish and tools.

6/10 Drilled 10-5/8" hole from 3566' to 3605'.

6/11-22 Drilled 10-5/8" hole from 3605' to 5672'. Repaired brake.

6/23-24 Drilled 10-5/8" hole from 5672' to 6008'. Ran Schlumberger electric log at 5948' and took sidewall samples at 5750', 5553', 5188', 4850', 4734', 4660', 4584', 4510', 4459', 4410', 4330' and 3590'.

6/25-7/8 Drilled 10-5/8" hole from 6008' to 8173'.

7/9 Drilled 10-5/8" hole from 8173' to 8185'. Ran Schlumberger electric log and took sidewall samples.

7/10 Ran and cemented 7" 23 & 26# T & C Youngstown and Japanese casing at 8170' with 550 sacks Colton Hi-temperature cement. Pressure increased from 900-1600# when plugs bumped. Time 3:00 PM. B.J. Service. Used two pump trucks. Casing detail is as follows: 1676' 26# N-80 Japanese casing on bottom; balance is all Youngstown casing: 2042' 23# N-80; 3478' 23# J-55; 974' 23# N-80. Had full circulation while cementing.

7/11 Standing cemented. Laying down drill pipe.

7/12 Standing cemented. Making up 2-7/8" drill pipe.

7/13 Found top of cement at 8145' and shoe of 7" casing at 8180'. Drilled 6-1/8" hole to 8186'.

7/14 Ran Johnston tester on 2-7/8" drill pipe and set packer at 8160' with tailpipe to 8175'. Used 600' of water cushion. Opened tester at 2:25 PM. Had light, steady blow for 3 minutes, then dead for balance of 1 hour test. Closed tester at 3:25 PM. Recovered water cushion and 30' net rise of drilling mud. Pressure bomb charts checked details of test. Water shutoff witnessed and approved by Division of Oil and Gas. Drilled 6-1/8" hole from 8186' to 8196'.

7/15-20 Drilled 6-1/8" hole from 8196' to 8682'.

7/21 Recovered cone with magnetic basket. Reamed 6-1/8" hole from 8170' to 8682'.

7/22 Cored with 6" Diamond core barrel from 8682' to 8686'.

7/23-29 Drilled 6-1/8" hole from 8686' to 8810'. Ran Schlumberger electric log at 8810'.

7/30 Cored 5-7/8" hole from 8810' to 8824' with Mercury Diamond Head bit. Ran Johnston formation tester on 2-7/8" drill pipe with 115' of perforated tailpipe. Set packers at 8709' and 8698'. Used 575' water cushion. Opened tester at 4:45 PM. Packers failed.

7/31 Drilled 6-1/8" hole from 8824' to 8825'. Ran Johnston formation tester on 2-7/8" drill pipe and set dual packers at 8638' and 8695' with 129' of perforated tailpipe. Used 575' water cushion. Opened tester at 1:55 PM. Had faint, steady blow to end of test at 3:05 PM. Had net rise of 4460' of oil, most of which blew from drill pipe. During test, pressure charts increased from 700-1775# and were still rising. Sample at 3977' off bottom packer tested 12.0 wet gravity, cut 42% mud and emulsion, 4% silt. Sample at 1975' off bottom packer tested 16.5 wet gravity, cut 20% muc and emulsion, 4% silt. Sample at 1055' off bottom packer tested 17.6 wet gravity, cut 16% emulsion 2% silt and sand. Sample at 515' off bottom packer tested 17.9 wet gravity, cut 3% water, 2.8% emulsion and 1% mud. Sample at 124' off bottom packer tested 13.7 wet gravity, cut 14% water and 1% mud.

8/1-5 Cored 5-7/8" hole from 8825' to 8911' with Mercury Diamond Head bit.

8/6 Drilled 6-1/8" hole from 8911' to 8914'. Cored 5-7/8" hole from 8914' to 8921'.

8/7 Cored 5-7/8" hole from 8921' to 8942'.

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OPERATOR: TIDE WATER ASSOCIATED OIL COMPANY

WELL NO.: Standard-Sesnon 1-#29, Aliso Canyon Field



1953

8/8 Ran Schlumberger electric log at 8942'. Ran Johnston formation tester on 2-7/8" drill pipe and set packers at 8825' and 8816' with perforated tailpipe to 8942'. Used 1000' water cushion. Opened valve at 8:55 AM. Had light, steady blow for 15 minutes, decreasing to faint steady blow at end of 1 hour test. Recovered cushion and 660' net rise of gas-cut drilling mud with scum of oil. Filtered fresh water sample with difficulty. Unable to determine exact salinity due to extremely dark color. Pressure bomb charts indicated a pressure rise from 600# (cushion) to 900# during test. Reaming 5-7/8" hole to 6-1/4" hole.

8/9 Reamed 5-7/8" hole to 6-1/4". Cored 5-7/8" hole with Reed conventional bit from 8942' to 8944'. Ran Magnetic junk basket and recovered iron from bit.

8/10 Milled on iron.

8/11-14 Drilled 6-1/8" hole from 8944' to 8974'. Milling on iron.

8/15 Milled on iron.

8/16 Milled on cone. Drilled 6-1/8" hole from 8974' to 8980'.

8/17-21 Drilled 6-1/8" hole from 8980' to 9043'.

8/22-24 Cored 5-7/8" hole from 9043' to 9052'. Opened 5-7/8" hole to 6-1/8" from 9035' to 9072'. Reamed hole from 8914' to 9072'. Ran Schlumberger electric log at 9072'. Reamed hole from 8914' to 9072'.

8/25 Ran Johnston formation tester on 2-7/8" drill pipe and set packers at 8932' and 8943' with tailpipe to 9072'. Used 1000' water cushion. Opened tester at 5:45 AM. Had light, steady blow throughout 1 hour and 30 minute test. Recovered 665' net rise of gassy drilling mud. No free water or oil. Pressure bomb charts increased from 550-800# during test. Drilled 6-1/8" hole from 9072' to 9074'.

8/26 Drilled 6-1/8" hole from 9074' to 9089'. Cored 5-7/8" hole from 9089' to 9092'.

8/27 Cored 5-7/8" hole from 9092' to 9096'. Drilled 6-1/8" hole from 9096' to 9126'.

8/28 Cored 5-7/8" hole from 9126' to 9135'; opened hole to 6-1/8" then drilled ahead to 9165' with 6-1/8" bit.

8/29 Drilled 6-1/8" hole from 9165' to 9212'. Ran Schlumberger electric log at 9202'.

8/30-9/1 Drilled 6-1/8" hole from 9212' to 9388'. Ran Schlumberger electric log and Dipmeter at 9363'.

9/2-3 Drilled 6-1/8" hole from 9388' to 9484'.

9/4 Cored 5-7/8" hole from 9484' to 9504'. Ran Schlumberger electric log at 9504'. Opened 5-7/8" hole to 6-1/8" to 9504'.

9/5 Ran Johnston formation tester on 2-7/8" drill pipe and set packers at 9375' and 9365' with perforated tailpipe to 9504'. Used 1000' water cushion. Opened tester at 12:55 PM. Had medium, steady blow for 5 minutes, increasing to strong, steady blow for next 7 minutes, at which time gas surfaced; 2 minutes later water cushion surfaced (14 minutes). Well blew water cushion for 45 minutes and drilling mud for 50 minutes with gas at 1113 MCF/day rate. Closed tester at 2:35 PM after 1 hour and 35 minute test. Recovered 540' rise of gas cut drilling fluid. No free oil or water. Pressure bomb charts indicated a decrease from 1100-980# during period of test.

9/6-9/7 Drilled 6-1/8" hole from 9504' to 9629'. Cored 5-7/8" hole from 9629' to 9643'. Ran Schlumberger electric log at 9643'.

9/8 Reamed 6-1/8" hole from 9420' to 9643'. Ran Johnston tester on 2-7/8" drill pipe with packers set at 9523' and 9514' and bottom of perforated tailpipe at 9643'. Used 1000' water cushion. Opened valve at 9:00 PM and had faint blow of air for 15 minutes, then died. Closed valve at 10:00 PM after being open 1 hour. Recovered 260' gas cut drilling mud. No free water. Charts checked details of test.

9/9-10 Drilled 6-1/8" hole from 9643' to 9770'. Cored with 5-7/8" Reed Conventional Barrel from 9770' to 9775'.

9/11 Cored 5-7/8" hole from 9775' to 9790'. Ran Schlumberger electric log at 9790' and opened 5-7/8" hole to 6-1/8" from 9770' to 9790'.

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OPERATOR: TIDE WATER ASSOCIATED OIL COMPANY

WELL NO.: Standard-Sesnon 1-#29, Aliso Canyon Field



1953

9/12 Ran Johnston tester on 2-7/8" drill pipe and set packers at 9652' and 9659' with tailpipe to 9790'. Used 1000' water cushion. Opened tester at 3:30 AM but packers failed. Reran Johnston tester and set packers at 9664' and 9671' with tailpipe to 9790'. Used 1000' water cushion. Opened tester at 11:00 PM but packers failed.

9/13 Cleaned out to bottom with 6-1/8" bit. Ran Johnston tester on 2-7/8" drill pipe and set packers at 9696' and 9687' with tailpipe to 9790'. Used 1000' water cushion. Opened tester at 5:00 PM but packers failed. Running Schlumberger electric log, Dipmeter, Caliper and Microlog.

9/14 Completed Schlumberger services. Cleaned out to bottom with 6-1/8" bit and reamed tight spots.

9/15 Ran Johnston forma tion tester on 2-7/8" drill pipe with bottom of perforated tailpipe at 9790'. Set top packer at 9693' and lower packer at 9700'. Opened valve at 6:00 AM but packers failed. Making up tubing.

9/16 Hung 2-7/8" tubing at 9650'. Pumped in 35 sacks Colton Hi-temperature cement. Final pressure 1300#. Time 9:35 AM. B.J. Service. Found top of cement at 9455'. Hung 2-7/8" tubing at 9200' and pumped in 35 sacks Colton Hi-temperature cement. Final pressure 1300#. Time 7:20 PM. B.J. Service. Found top of cement at 9094'.

9/17 Reamed 6-1/8" hole.

9/18 Landed 1002' 5" 18# F.J. liner at 9077' including 350' of perforations from 8727' to 9077'. Top of Burns liner hanger at 8075'. Perforations are N-80, 120 mesh, 12 rows, 6" centers, 6° undercut, by Pacific. Blank is J-55. Hung 2-7/8" drill pipe at 8104' and cemented 5" liner through Baker C.P. collar at 8725' with 100 s acks Colton Hi-temperature cement. Final pressure 1700#. Time 11:30 AM. B.J. Service.

9/19 Standing cemented.

9/20 Ran Johnston tester on 2-7/8" drill pipe to test 5" to 7" casing splice. Set packer at 8070' with perforated tailpipe to 8085'. Used 500' water cushion. Opened tester at 10:20 AM. Had one puff, then dead for duration of 1 hour 5 minute test. Recovered 90' net rise of drilling mud. No free water. Charts checked details of test. Found top of hard cement in 5" liner at 8122'. Drilled out cement from 8157' to 8366' and drilled out cement from 8366' to 8720'.

WSO splice

9/21 Conditioned mud. Running Johnston formation tester.

9/22 Ran Johnston combination gun and tester on 2-7/8" drill pipe. Shot four jet holes at 8710'. Used 500' water cushion. Opened valve at 1:15 AM. Had medium, steady blow for 45 minutes, then dead for balance of 1 hour test. Recovered 1450' net rise of oil. Average of four samples: gravity 16.2; cut 40% water; 133 grains per gallon. Believe oil to be from Frew Zone. Water shutoff witnessed but not approved by Division of Oil and Gas. Scraped 5" liner and ran Baker Model "K" retainer on 2-7/8" drill pipe and tubing. Attempted to set retainer at 6850' but ball would not seat. Time 3:30 AM 9-23-53.

9/23 Ran Baker Model "K" retainer on 2-7/8" tubing and drill pipe and set retainer at 8650'. Applied pressure to holes at 8710'. Formation broke down at 6000# and took fluid at rate of 4 cu. ft. per minute at 3300#. Opened circulating ports and mixed 50 sacks Colton Hi-temperature cement preceeded by 15 cu. ft. of water and followed by 251 cu. ft. of water. Closed circulating ports. Squeezed 34 sacks below retainer. Final pressure 7200#. Time 10:50 AM. B.J. Service. Backed off retainer and backscuttled an estimated 16 sacks of cement. Drilled up retainer and hard cement from 8647' to 8720'.

Cmt. 4 H.S. 8710

9/24 Ran Johnston combination gun and tester on 2-7/8" drill pipe and shot four holes at 8705'. Set packer at 8666' with perforated tailpipe to 8687'. Used 700' water cushion Opened tester at 1:35 PM. Had light steady blow for 2 minutes, then dead for balance of 1 hour and 10 minute test. Recovered 20' net rise of drilling fluid. Charts confirmed results of test. Water shutoff witnessed and approved by Division of Oil and Gas. Drilled out hard cement from 8720' to 8725'. Cleaned out to 9077'.

WSO # 8705

OPERATOR: TIDE WATER ASSOCIATED OIL COMPANY

WELL NO.: Standard-Seanon 1-#29, Aliso Canyon Field



1953

9/25 Displaced mud in liner with oil. Laid down 2-7/8" drill pipe. Tore out cellar connections. Running 2-7/8" tubing with Guiberson packer on bottom, [illegible]

9/26 Finished running 2-7/8" tubing and set packer at 8043'. Connected up Christmas tree. Started swabbing.

9/27 Swabbed. Fluid level at 3400'.

9/28 Swabbed well to 3600' fluid level when fluid started rising at approximately 8:00 PM. Continued swabbing and well started flowing at 3:00 AM 9-29-53. Well swabbed and flowed 188 barrels of circulating oil to 6:00 AM 9-29-53; 48/64" bean; no tubing or casing pressures. Total circulating oil recovered 293 barrels of 360 originally put in

9/29 In 24 hours well flowed 260 barrels gross fluid; 20.0% water, 7.0% mud, 27.0% total cut; 190 barrels net oil, of which 123 barrels is formation oil; 17.5 gravity; 40/64" bean; 50# tubing pressure; 150# casing pressure; 449 MCF gas.

9/30 Tearing out rotary. In 24 hours well flowed 146 barrels gross fluid; 9.8% water, 0.2% sand; 10.0% total cut; 131 barrels net oil; 18.6 wet gravity; 48/64" bean; 50# tubing pressure; 150# casing pressure.

| | Gross | Net | Cut | Wet Gravity | Bean | Tubing Pressure | Casing Pressure | MCF Gas | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 10/1 | 141 | 127 | 10.0% | 18.6 | 48/64 | 50# | 150# | 381 | | |
| | Cut includes 9.0% water and 1.0% mud. | | | | | | | | | |
| 10/2 | 125 | 116 | 7.0% | 19.5 | 48/64 | 50# | 150# | 348 | | |
| 10/3 | 124 | 115 | 7.0% | 19.8 | 48/64 | 50# | 250# | 288 | | |
| 10/4 | 123 | 117 | 4.7% | 19.2 | 48/64 | 50# | 225# | 273 | | |
| 10/5 | 125 | 115 | 8.0% | 19.0 | 48/64 | 50# | 250# | 248 | | |
| 10/6 | 124 | 114 | 8.4% | 19.1 | 48/64 | 150# | 225# | 231 | | |
| 10/7 | 124 | 122 | 1.8% | 20.0 | 48/64 | 75# | 225# | 230 | | |
| 10/8 | 123 | 122 | 1.0% | 19.5 | 48/64 | 50# | 225# | 44 | 193 | Inj |
| 10/9 | 104 | 93 | 10.6% | 19.5 | 48/64 | 50# | 925# | 117 | 132 | " |
| 10/10 | 104 | 100 | 4.0% | 19.8 | 64/64 | 50# | 900# | 102 | 180 | " |
| 10/11 | 113 | 110 | 3.2% | 19.5 | 64/64 | 50# | 900# | 112 | 176 | " |
| 10/12 | 111 | 103 | 7.2% | 19.2 | 64/64 | 100# | 900# | 269 | 179 | " |
| 10/13 | 98 | 93 | 5.1% | 20.0 | 64/64 | 75# | 900# | 132 | 144 | " |
| | Injection line froze. | | | | | | | | | |
| 10/14 | 59 | 57 | 4.0% | 19.1 | 64/64 | 50# | 900# | 101 | | |
| | Well stopped producing on gas lift at 4:00 PM. | | | | | | | | | |

10/15 In 8 hours well flowed 17 barrels gross fluid, then died. Shut in for 16 hours to build up pressures.

10/16 Shut in.

10/17 In 3 hours well flowed 11 barrels gross fluid, then died. Shut in for 21 hours.

10/18 Well would not flow. Shut in to build up pressures. 600# tubing pressure; 900# casing

10/19 In 16 hours well flowed on gas lift 92 barrels gross fluid, 90 barrels net oil, 2.0% cut, 20.9 gravity, 600# tubing pressure, 900# casing pressure.

10/20 In 24 hours well flowed on gas lift 92 barrels gross fluid, 88 barrels net oil, 4.0% cut, 19.8 gravity, 50# tubing pressure, 900# casing pressure, 64/64" bean.

10/21 In 19 hours well flowed on gas lift 65 barrels gross fluid, 62 barrels net oil, 4.0% cut, 19.4 gravity, 50# tubing pressure, 925# casing pressure, 64/64" bean. Injection line froze.

| | | | | | | | | MCF Inj. | MCF Net |
|---|---|---|---|---|---|---|---|---|---|
| 10/22 | 86 | 84 | 3.1% | 19.7 | 64/64 | 50# | 925# | 29 | 65 |
| | Gas lift line froze. Off 2 hours. | | | | | | | | |
| 10/23 | 22 | 20 | 10.0% | 19.5 | 64/64 | 50# | 925# | 30 | 33 |
| | Gas lift line froze. Off 18 hours. | | | | | | | | |
| 10/24 | 114 | 85 | 25.0% | 17.2 | 64/64 | 50# | 900# | 85 | 82 |
| 10/25 | 170 | 165 | 3.0% | 20.0 | 64/64 | 50# | 900# | 200 | 131 |
| 10/26 | 125 | 120 | 3.5% | 19.5 | 64/64 | 50# | 900# | 40 | 141 |

OPERATOR: TIDE WATER ASSOCIATED OIL COMPANY

WELL NO.: Standard-Seanon 1-#29, Aliso Canyon Field



| 1953 | Gross | Net | Cut | Gravity | Bean | Tubing Pressure | Casing Pressure | MCF Inj. | MCF Net |
|---|---|---|---|---|---|---|---|---|---|
| 10/27 | 140 | 115 | 18.0% | 19.0 | 64/64 | 50# | 925# | 50 | 130 |
| 10/28 | 110 | 83 | 25.0% | 19.0 | 64/64 | 50# | 925# | 40 | 127 |
| 10/29 | 93 | 82 | 12.0% | 18.8 | 64/64 | 50# | 900# | 37 | 95 |
| 10/30 | 103 | 96 | 7.3% | 19.2 | 64/64 | 50# | 900# | 66 | 136 |
| 10/31 | 103 | 75 | 28.0% | 18.5 | 64/64 | 150# | 900# | 55 | 177 |
| 11/1 | 92 | 82 | 11.0% | 19.8 | 64/64 | 100# | 900# | 48 | 182 |
| 11/2 | 93 | 78 | 14.0% | 19.0 | 64/64 | 100# | 900# | 26 | 156 |
| 11/3 | 63 | 59 | 7.0% | 19.0 | 64/64 | 100# | 900# | 26 | 138 |
| 11/4 | 90 | 81 | 10.0% | 19.0 | 64/64 | 100# | 900# | 21 | 137 |
| 11/5 | 65 | 60 | 7.0% | 19.0 | 64/64 | 100# | 900# | 10 | 0 |
| 11/6 | 100 | 93 | 7.0% | 19.0 | 64/64 | 100# | 900# | 0 | 90 |
| 11/7 | 95 | 88 | 7.0% | 19.0 | 64/64 | 100# | 900# | 40 | 84 |
| 11/8 | 95 | 88 | 7.0% | 19.0 | 64/64 | 100# | 900# | 93 | 117 |
| 11/9 | 134 | 125 | 7.0% | 19.0 | 64/64 | 100# | 900# | 57 | 148 |
| 11/10 | 87 | 81 | 7.0% | 19.0 | 64/64 | 100# | 900# | 43 | 84 |
| 11/11 | 97 | 89 | 7.0% | 19.0 | 64/64 | 100# | 900# | 52 | 96 |
| 11/12 | 76 | 71 | 7.0% | 19.0 | 64/64 | 100# | 950# | 39 | 122 |
| 11/13 | 76 | 71 | 7.0% | 19.5 | 64/64 | 100# | 925# | 59 | 128 |
| 11/14 | 76 | 71 | 7.0% | 19.5 | 64/64 | 100# | 925# | 30 | 150 |
| 11/15 | 129 | 120 | 7.0% | 19.5 | 64/64 | 100# | 925# | 200 | 79 |
| 11/16 | 72 | 67 | 7.0% | 19.5 | 64/64 | 100# | 925# | 90 | 169 |
| 11/17 | 60 | 56 | 7.0% | 19.5 | 64/64 | 100# | 925# | 56 | 80 |
| 11/18 | 53 | 49 | 7.0% | 19.5 | 64/64 | 100# | 925# | 17 | 45 |

## CASING RECORD

11-3/4" 42 & 47# C 1042'
7" 23 & 26# C 8180'
1002' 5" 18# L 9077' inc. 350' pfs. Top 8075'

## TUBING RECORD

2-7/8" L w/packer 8043' 5" values

AC_CPUC_0118298

SUBMIT LOG IN DUPLICATE

FILL T... IN WITH TYPEWRITER. WRITE ON ONE SIDE OF P...

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

# DIVISION OF OIL AND GAS

## WELL SUMMARY REPORT

Operator TIDE WATER ASSOCIATED OIL COMPANY Field ALISO CANYON

Well No. Standard-Suman 1-29 Sec. 29, T. 3 N, R. 15 W S.B. B. & M.

Location 750' South and 620' West of Station #84 Elevation of ground above sea level 2018.77 feet.

All depth measurements taken from top of derrick floor which is 6.92 feet above ground.

In compliance with the provisions of Chapter 93, Statutes of 1939, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Date February 21, 1954 Signed J. E. Weaver

J. L. Berger (Engineer or Geologist) O. O. Suman (Superintendent) Title Agent (President, Secretary or Agent)

Commenced drilling April 25, 1953 Completed drilling September 24, 1953 Drilling tools Cable Rotary

Total depth 9790' Plugged depth 9058'

Junk

GEOLOGICAL MARKERS — DEPTH

Commenced producing September 29, 1953 (date) Flowing/gas lift/pumping (cross out unnecessary words)

On gas lift 20/8/53

20/25/53 production

Production after 30 days

| Clean Oil bbl. per day | Gravity Clean Oil | Per Cent Water including emulsion | Gas Mcf. per day | Tubing Pressure | Casing Pressure |
|---|---|---|---|---|---|
| 165 | 20.0 | 3.0% | 131 | 50# | 930# |
| 49 | 19.5 | 7.0% | 45 | 100# | 525# |

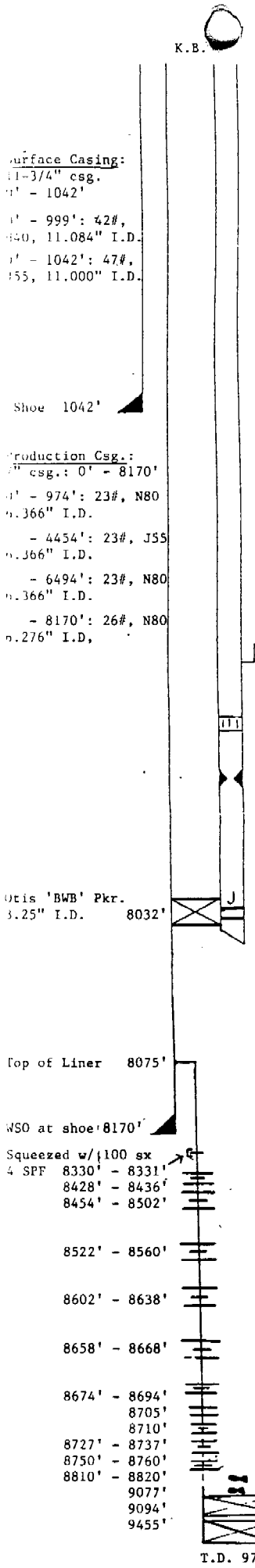
CASING RECORD (Present Hole)

| Size of Casing (A. P. I.) | Depth of Shoe | Top of Casing | Weight of Casing | New or Second Hand | Seamless or Lapweld | Grade of Casing | Size of Hole Drilled | Number of Sacks of Cement | Depth of Cement if through perfs |
|---|---|---|---|---|---|---|---|---|---|
| 12-3/4" | 2082' | 0' | 42 & 47# | New | Seamless | H-40, J-55 | 15" | 850 | |
| 7" | 8160' | 0' | 23 & 26# | New | Seamless | J-55, N-80 | 10-1/2" | 500 | |
| 5" | 9077' | 8075' | 18# | New | Seamless | N-80 FJ | 6-3/8" | 100 | 8178 |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

PERFORATIONS

| Size of Casing | From | To | Size of Perforations | No. of Rows | Distance Between Centers | Method of Perforations |
|---|---|---|---|---|---|---|
| 5" | 8727 ft. | 9077 ft. | 180 Holes | 12 | 6" | 60° Oriented by Gun |
| | ft. | ft. | | | | |
| | ft. | ft. | | | | |
| | ft. | ft. | | | | |
| | ft. | ft. | | | | |

AC_CPUC_0118299




Tubing:
0' - 8035':
2-7/8", 6.5#, J55
8rd EUE Tbg.
(2.441" I.D.)

7919' Camco 'MMA' GLM w/ 1.5" S.O.V. on 'RA' latch

7964' Otis 2.313" 'XD' SSD (opens down)

7999' Otis 2.205" 'XN' No-Go nipple

8031' Otis J-latch and 2 seal units (2.441" I.D.)

8035' Otis Mule shoe guide (2.441" I.D.)

5" Liner Detail:
18#, Flushjoint, 8075' - 9077'
(4.276" I.D.)

8075' - 8727': J55, Perforated 6, 1/2" SPF 8428'-8436',

10, 1/2" SPF 8454'-8502', 8528'-8552', 8602'-8638', 8658'-8668', 8674'-8694'.

8727' - 9077': N80 slotted, .012" gauge, 12 rows, 6" centers, 6 deg. undercut. Perforated 6, 1/2" SPF 8727'-8737', 8750'-8760', 8810'-8820'.

Note: Fish consists of 2 partially milled Robison 5" drillable retainers.

Standard Sesnon #29

Aliso Canyon

Status: Injection/Withdrawal

Flow Regime: Casing Flow

Elevation: 2849' G.L.
7' K.B.
KB to MV: 6'

Surface Location: Approximately 750'S & 6100'W of Station 84, T3N, R16W, Sec. 28

Btm. Hole Loc: Straight Hole at effective TVD of 9077'.

4/26/53 - 9/29/53: Well spudded and completed.

2/2/73 - 2/28/73: Pressure tested 7" casing, converted to gas storage by perforation in Sesnon zone. Cleaned out to 9074'. Ran tubing with SSSV.

7/31/73 - 8/7/73: Installed wireline SSSV. Cleaned out to 9077'.

8/27/77 - 9/9/77: Cleaned out to 9072'. Pressure tested casing. Reran tubing with SSSV.

3/5/79 - 3/10/79: Replaced safety system. Set packer at 8040'.

9/20/91 - 11/6/91: Milled packer. Shot 4, 1/2" SPF at 8330' - 8331'. Squeezed shoe leak with 100 sx class "G" cement. Ran tubing conveyed perforation guns and shot 6, 1/2" SPF at: 8428'-8436', 8454'-8502', 8522'-8560', 8602'-8636', 8660'-8668', 8674'-8694', 8727'-8737', 8750'-8760', 8810'-8820'. Completed with 7" Otis "BWB" packer and 2-7/8" tubing.

| Volume | Cu.Ft. | Bbls. |
|---|---|---|
| Tubing | 261 | 46.5 |
| Annulus | 1427 | 254 |
| Casing/Liner | 109 | 19 |
| Total | 1797 | 319.5 |

Top Of Zones

| | M.D. |
|---|---|
| MP | 8150' |
| S1 | 8346' |
| S2 | 8382' |
| S4 | 8428' |
| S8 | 8522' |
| Frew | 8728' |

Reviewed

| Department | By: | Date |
|---|---|---|
| Drilling | R.M. Duell | 9/1/92 |
| Petroleum Eng. | | 9/1/92 |
| Division | | 9/1/92 |

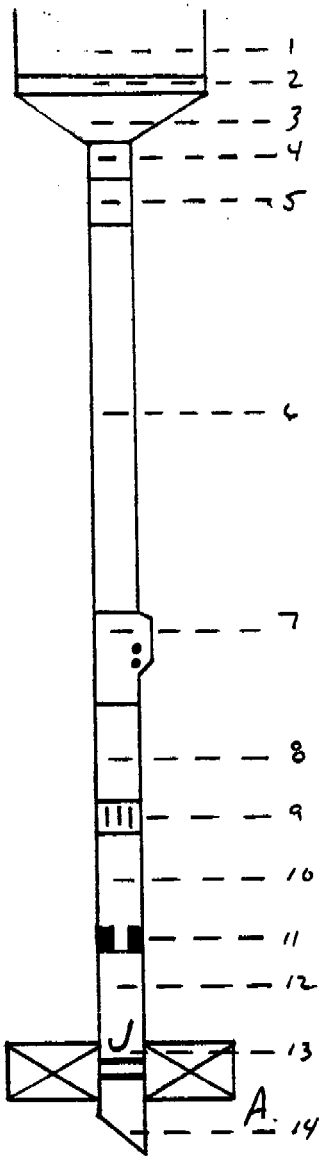
AC_CPUC_0118300

# TUBING DETAIL

WELL: STANDARD SESNON #29
FIELD: ALISO CANYON

STATUS: Injection/Withdrawal
DATE: 11-6-91

DIAGRAM




| | TUBING | TUBING | TUBING | |
|---|---|---|---|---|
| SIZE | 2 7/8" | | | |
| WEIGHT | 6.5 | | | |
| GRADE | J55 | | | |
| THREAD | 8RD EUE | | | |
| DEPTH | 8035' | | | |
| I.D. | 2.441 | | | |
| DRIFT ID | 2.347 | | | |
| O.D. | 3.668 TJ | | | |

| ITEM # | DESCRIPTION | LENGTH | DEPTH |
|---|---|---|---|
| 1. | KB | 6.92 | 6.92 |
| 2. | G.L. TO TBG HEAD | -.14 | 6.78 |
| 3. | HANGER 7" 2 7/8" EUE X 2 7/8" EUE BOX | .60 | 7.38 |
| 4. | FATIGUE NIPPLE 2 7/8 EUE PIN X PIN | .68 | 8.06 |
| 5. | PUP JT 2 7/8" 6.5# NBO EUE | 4.09 | 12.15 |
| 6. | 250 JTS. 2 7/8" 6.5# J55 EUE | 7907.35 | 7919.50 |
| 7. | BST 'MMA' GLM W/ 1 1/2" RA LATCH | 12.92 | 7932.42 |
| 8. | 1 JT. 2 7/8 EUE J55 TBG. | 31.49 | 7963.91 |
| 9. | OTIS 2.313" 'XD' SSD | 3.21 | 7967.12 |
| 10. | 1 JT 2 7/8" EUE J55" TBG | 31.55 | 7998.67 |
| 11. | OTIS 2.205" 'XN' NO-GO NIPPLE | 1.28 | 7999.50 |
| 12. | 1 JT. 2 7/8" EUE J55 TBG | 31.55 | 8031.50 |
| 13. | OTIS J-LATCH & 2 SEAL UNITS | 1.50 / 2.49 | 8032 |
| 14. | OTIS MULE SHOE GUIDE | .60 | |
| 15. | | | |
| 16. | | | |
| 17. | | | |
| 18. | A. OTIS 7" 23-29# 'BWB' PKR | | |
| 19. | 3.25" I.D. SET AT: | | 8032' |
| 20. | | | |
| | TUBING LANDED W/ 8000# | | |
| | DOWN ON PACKER | | |

AC_CPUC_0118301

8-6-73

## TUBING DETAIL

| No. Jts. | Item | Length | Depth |
|---|---|---|---|
| | Below K. B. | 6.90 | |
| | 2-7/8" donut and pup joint | 6.00 | |
| | 2-7/8" EU 8 thd. pup jt. | 3.95 | |
| 184 | 2-7/8" EU 8 thd. J-55 tubing | 5668.65 | |
| | 2-7/8" EU 8 thd. pup jt. | 4.05 | 5689.55 |
| | 2-1/2" Camco KBMG mandrel w/1/4" BK 925# valve | 7.35 | 5696.90 |
| 40 | 2-7/8" EU 8 thd. J-55 | 1224.08 | |
| | 2-7/8" EU 8 thd. pup jt. | 4.03 | 6925.01 |
| | 2-1/2" Camco KBMG mandrel w/1/4" BK 915# valve | 7.35 | 6932.36 |
| 34 | 2-7/8" EU 8 thd. J-55 tubing | 1041.10 | |
| | 2-7/8" EU 8 thd. pup jt. | 4.08 | 7977.54 |
| | 2-1/2" Camco KBMG mandrel w/1/4" BK 905# valve | 7.35 | 7984.89 |
| 1 | 2-7/8" EU 8 thd. J-55 tubing | 31.37 | |
| | 2-7/8" x 2.313" Otis "X" landing nipple | 1.00 | 8017.26 |
| 1 | 2-7/8" EU 8 thd. J-55 tubing | 30.23 | |
| | 2-7/8" x 2-3/8" EU 8 thd. crossover | 1.15 | 8048.64 |
| 9 | 2-3/8" EU 8 thd. J-55 tubing | 273.63 | |
| | 2-3/8" Camco B mandrel w/1/4" J-40 895# valve | 4.10 | 8326.37 |
| 1 | 2-3/8" EU 8 thd. J-55 tubing | 30.15 | |
| | 2-3/8" x 1.93 Camco sliding sleeve | 2.70 | 8359.22 |
| 1 | 2-3/8" EU 8 thd. J-55 tubing | 29.97 | |
| | 2-3/8" x 1.875 Otis "X" landing nipple | .95 | 8390.14 |
| 1 | 2-3/8" EU 8 thd. J-55 tubing | 29.98 | |
| | 2-3/8" x 5" 18# Camco Hydrostatic set packer HRP-1 16 turns right to release | 5.65 | |
| 1 | 2-3/8" EU 8 thd. J-55 tubing | 29.73 | |
| | 2-3/8" x 1.875 Otis "X" landing nipple | .95 | 8456.45 |
| | 2-3/8" EU 8 thd. pup jt. w/20 mesh slots | 10.00 | 8466.45 |
| | 2-3/8" EU 8 thd. pup jt. w/20 mesh slots | 10.00 | 8476.45 |
| | 2-3/8" Otis polish nipple | 1.50 | 8477.95 |
| | 2-3/8" EU 8 thd. pup jt. | 4.20 | |
| | 2-3/8" x 1.875 Otis "X" landing nipple | .95 | 8483.10 |
| | 2-3/8" EU 8 thd. pup jt. w/20 mesh slots | 10.20 | 8493.30 |
| | 2-3/8" EU 8 thd. pup jt. w/20 mesh slots | 10.00 | 8503.30 |
| | 2-3/8" Otis polish nipple | 1.50 | 8504.80 |
| | 2-3/8" EU 8 thd. pup jt. | 4.05 | |
| | 2-3/8" EU 8 thd. pup jt. | 8.00 | |
| | 2-3/8" x 1.81 Camco type "D" seating nipple | .95 | 8517.80 |
| | 2-3/8" Baker locator sub for Model "D" packer @ 8517' | .40 | 8518.20 |
| | Baker seals 5 sets for Model "D" packer | 4.60 | 8522.22 |

NOTE: The slotted tubing above is J-55 with special clearance N-80 collars slotted 20M, 12 rows, 1-1/2" slots on 6" centers.

AC_CPUC_0118302

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

# DIVISION OF OIL AND GAS

## History of Oil or Gas Well

OPERATOR TIDE WATER ASSOCIATED OIL COMPANY FIELD ALISO CANYON

Well No. Standard-Gesmon 1-#29, Sec. 28, T. 3 N, R. 16 W, S.B. B. & M.

Signed J. E. Weaver Jr.

Date February 11, 1953 Title Agent (President, Secretary or Agent)

It is of the greatest importance to have a complete history of the well. Use this form in reporting the history of all important operations at the well, together with the dates thereof, prior to the first production. Include in your report such information as size of hole drilled to cementing or landing depth of casings, number of sacks of cement used in the plugging, number of sacks or number of feet of cement drilled out of casing, depth at which cement plugs started, and depth at which hard cement encountered. If the well was dynamited, give date, size, position and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position and results of pumping or bailing.

Date

1953

LOCATION: 750' South and 6100' West of Station #84 (From Gyro Test)

ELEVATION: 2848.77' Mat
2855.69' Derrick Floor

1953

3/3-4/25 Surveying location, moved in equipment to start grading, graded road and rig site, dug rat hole and cellar, built foundation forms, oil roads, poured foundation concrete, erected derrick, installed sub-base, rigged up rotary.

4/26 Spudded 15" hole at 5:00 AM and drilled to 201'.

4/27-5/1 Drilled 15" hole from 201' to 1005'. Reduced size of hole to 10-5/8" and drilled to 1115'.

5/2 Drilled 10-5/8" hole from 1115' to 1234'.

5/3 Reamed and opened hole to 1042'.

5/4 Ran and cemented 11-3/4" T & C Youngstown casing at 1042' with 550 sacks Colton construction cement; first and last 100 sacks treated with quick setting chemical. Bottom 43' is 47# J-55 and remainder is 42# H-40. Pressure rose from 200-400# when plugs bumped. Time 5:15 AM. No circulation in latter stages of operation. Pumped in 100 sacks around outside of casing which filled to surface. B.J. Service

5/5 Installed cellar connections. Cleaned out cement from 1042' to 1234'.

5/6 Drilled 10-5/8" hole from 1234' to 1387'. Lost circulation while drilling at 1285'. Regained with hulls and gel.

5/7 Drilled 10-5/8" hole from 1387' to 1394'. Lost circulation while drilling at 1394'. Hung drill pipe at 1380' and pumped in 150 sacks Colton construction cement. Went in with bit and found no cement. Hung drill pipe at 1380' and pumped in 100 sacks Colton construction cement. Found top of cement at 1325'.

5/8 Drilled 10-5/8" hole from 1394' to 1520'. Lost circulation at 1394'. Regained with hulls and gel.

5/9 Drilled 10-5/8" hole from 1520' to 1725'. Lost circulation at 1725'. Regained with hulls and gel.

5/10-5/11 Drilled 10-5/8" hole from 1725' to 2384'. Lost circulation while drilling at 2350'. After 9-1/2" hours recovered circulation with hulls and gel.

5/12-5/14 Drilled 10-5/8" hole from 2384' to 3398'. Lost circulation while drilling at 3398. Hung drill pipe at 1217' and pumped in 100 sacks Colton construction cement. Found top of cement at 1320'. Hung drill pipe at 1217' and pumped in 100 sacks Colton construction cement.

5/15 Attempting to regain lost circulation.

5/16 Drilled 10-5/8" hole from 3398' to 3504'.

AC_CPUC_0118303

OPERATOR: TIDE WATER ASSOCIATED OIL COMPANY

WELL NO.: Standard-Gesnon 1-#29, Aliso Canyon Field



1953

5/17 Lost circulation. With drill pipe hanging at 1400', pumped in four batches (100 sacks each) Colton construction cement.

5/18 Lost circulation. Hung drill pipe at 1407' and pumped in 100 sacks Colton construction cement. Found top of cement at 1320'. Hung drill pipe at 1314' and pumped in 100 sacks Colton construction cement. Found top of cement at 1240'.

5/19 Drilled 10-5/8" hole from 3504' to 3566'. Lost circulation and stuck drill pipe at 1658'. Spotting oil.

5/20 Backed off drill pipe at 1158'. Washing over at 1206'.

5/21 Washing over fish at 1445'.

5/22 Made cut at 1536' and recovered 187' of fish.

5/23 Washed over fish at 1616' which fell down hole. Located top at 2046'.

5/24 Recovered fish. Unable to maintain circulation. Hung drill pipe at 1470'. Pumped in 100 sacks Colton Hi-temperature cement. Found top of cement at 1460'. Hung drill pipe at 1314'. Pumped in 150 sacks Colton construction cement. Found top at 1254'. Hung drill pipe at 1232' and pumped in 75 sacks Colton construction cement. Found top at 1232'. Hung drill pipe at 1232' and pumped in 75 sacks Colton construction cement. Found top of cement at 1198'.

5/25 Cleaned out cement from 1198' to 1397' when lost circulation. In six operations, by hanging drill pipe from 1397' to 1520', pumped in 600 sacks Colton construction cement. After last cement job, found top of cement at 1061'. Lost circulation while drilling out at 1450'.

5/26 Pumped in 900 sacks treated construction cement in stages from 1520' to shoe. With cement cleaned out 1' below shoe, 1043', hung drill pipe at 1029' and pumped in 100 sacks treated construction cement. Closed rams and squeezed. Final pressure 1000#. Located top of cement at 1043'. Held 950# pressure O.K.

5/27 Cleaned out cement from 1043' to 1350' in 50' stages, which held 500# O.K. until lost circulation at 1350'. Hung drill pipe at 1350' and pumped in 150 sacks treated Colton construction cement. Found top of cement at 1050'. Drilled out cement to 1359' when lost circulation. Hung drill pipe at 1350' and pumped in 50 sacks treated Colton construction cement. Found top of cement at 1310'.

5/28 Cleaned out cement from 1310' to 1600'. Cleaned out at 3200' with full circulation

5/29 Cleaned out to 3567'. Started out of hole to 3350', then backed down to 3417' and circulated. Lost circulation and stuck drill pipe. Spotted 110 barrels of oil but could not work pipe free.

5/30 Ran Magnatector and backed off 4" drill pipe at 1262'.

5/31 Top of 4-1/2" drill pipe at 1262'. Washed over drill pipe to 1383'. Cut and recovered 98' of drill pipe. Top of fish at 1360'. Washed over to 1410' and lost circulation.

6/1 Top of 4-1/2" drill pipe fish at 1360'. With drill pipe hanging at 1337', pumped in a mixture of 25 sacks Bentonite, 28 sacks Aquagel and 25 barrels Diesel oil. Final pressure 200#. Cleaned out to top of fish with bit. Washed over fish to 1437' when lost circulation.

6/2 Regained circulation with Kellseal, rice hulls and feathers. Washed over drill pipe fish from 1360' to 1563' and made cut #2 at 1548'. Recovered 188' of fish.

6/3 Washed over drill pipe fish to 1862'. Cut and recovered 313'.

6/4 Cut and recovered 315' of drill pipe fish. Top now at 2176'.

6/5 Washed over drill pipe fish to 2504'. Cut and recovered 308'. Top of fish at 2484'. Washed over drill pipe fish at 2815'. Cut and recovered 317'. Top of fish at 2801'.

6/6 Washed over drill pipe fish to 3120'. Cut and recovered 310'. Top of fish at 3111'.

AC_CPUC_0118304

OPERATOR: TIDE WATER ASSOCIATED OIL COMPANY

WELL NO.: Standard-Sesnon 1-#29, Aliso Canyon Field



1953

6/7 Washed over drill pipe fish to 3300'. Cut and recovered 189'. Top of fish at 3300'. Remainder of fish in hole, a single and two drill collars.

6/8 Washed over drill collars to 3342'.

6/9 Recovered remainder of fish. Cleaning up fish and tools.

6/10 Drilled 10-5/8" hole from 3566' to 3605'.

6/11-22 Drilled 10-5/8" hole from 3605' to 5672'. Repaired brake.

6/23-24 Drilled 10-5/8" hole from 5672' to 6008'. Ran Schlumberger electric log at 5948' and took sidewall samples at 5750', 5553', 5188', 4850', 4734', 4660', 4584', 4510', 4459', 4410', 4330' and 3590'.

6/25-7/8 Drilled 10-5/8" hole from 6008' to 8173'.

7/9 Drilled 10-5/8" hole from 8173' to 8185'. Ran Schlumberger electric log and took sidewall samples.

7/10 Ran and cemented 7" 23 & 26# T & C Youngstown and Japanese casing at 8170' with 550 sacks Colton Hi-temperature cement. Pressure increased from 900-1600# when plugs bumped. Time 3:00 PM. B.J. Service. Used two pump trucks. Casing detail is as follows: 1676' 26# N-80 Japanese casing on bottom; balance is all Youngstown casing: 2042' 23# N-80; 3478' 23# J-55; 974' 23# N-80. Had full circulation while cementing.

7/11 Standing cemented. Laying down drill pipe.

7/12 Standing cemented. Making up 2-7/8" drill pipe.

7/13 Found top of cement at 8145' and shoe of 7" casing at 8180'. Drilled 6-1/8" hole to 8186'.

7/14 Ran Johnston tester on 2-7/8" drill pipe and set packer at 8160' with tailpipe to 8175'. Used 600' of water cushion. Opened tester at 2:25 PM. Had light, steady blow for 3 minutes, then dead for balance of 1 hour test. Closed tester at 3:25 PM. Recovered water cushion and 30' net rise of drilling mud. Pressure bomb charts checked details of test. Water shutoff witnessed and approved by Division of Oil and Gas. Drilled 6-1/8" hole from 8186' to 8196'.

7/15-20 Drilled 6-1/8" hole from 8196' to 8682'.

7/21 Recovered cone with magnetic basket. Reamed 6-1/8" hole from 8170' to 8682'.

7/22 Cored with 6" Diamond core barrel from 8682' to 8686'.

7/23-29 Drilled 6-1/8" hole from 8686' to 8810'. Ran Schlumberger electric log at 8810'.

7/30 Cored 5-7/8" hole from 8810' to 8824' with Mercury Diamond Head bit. Ran Johnston formation tester on 2-7/8" drill pipe with 115' of perforated tailpipe. Set packers at 8709' and 8698'. Used 575' water cushion. Opened tester at 4:45 PM. Packers failed.

7/31 Drilled 6-1/8" hole from 8824' to 8825'. Ran Johnston formation tester on 2-7/8" drill pipe and set dual packers at 8688' and 8695' with 129' of perforated tailpipe. Used 575' water cushion. Opened tester at 1:55 PM. Had faint, steady blow to end of test at 3:05 PM. Had net rise of 4460' of oil, most of which blew from drill pipe During test, pressure charts increased from 700-1775# and were still rising. Sample at 3977' off bottom packer tested 12.0 wet gravity, cut 42% mud and emulsion, 4% sil Sample at 1975' off bottom packer tested 16.5 wet gravity, cut 20% muc and emulsion, 4% silt. Sample at 1055' off bottom packer tested 17.6 wet gravity, cut 16% emulsi 2% silt and sand. Sample at 515' off bottom packer tested 17.9 wet gravity, cut 3% water, 2.8% emulsion and 1% mud. Sample at 124' off bottom packer tested 13.7 wet gravity, cut 14% water and 1% mud.

8/1-5 Cored 5-7/8" hole from 8825' to 8911' with Mercury Diamond Head bit.

8/6 Drilled 6-1/8" hole from 8911' to 8914'. Cored 5-7/8" hole from 8914' to 8921'.

8/7 Cored 5-7/8" hole from 8921' to 8942'.

AC_CPUC_0118305

OPERATOR: TIDE WATER ASSOCIATED OIL COMPANY

WELL NO.: Standard-Sesnon 1-#29, Aliso Canyon Field



1953

8/8 Ran Schlumberger electric log at 8942'. Ran Johnston formation tester on 2-7/8" drill pipe and set packers at 8825' and 8816' with perforated tailpipe to 8942'. Used 1000' water cushion. Opened valve at 8:55 AM. Had light, steady blow for 15 minutes, decreasing to faint steady blow at end of 1 hour test. Recovered cushion and 660' net rise of gas-cut drilling mud with scum of oil. Filtered fresh water sample with difficulty. Unable to determine exact salinity due to extremely dark color. Pressure bomb charts indicated a pressure rise from 600# (cushion) to 900# during test. Reaming 5-7/8" hole to 6-1/4" hole.

8/9 Reamed 5-7/8" hole to 6-1/4". Cored 5-7/8" hole with Reed conventional bit from 8942 to 8944'. Ran Magnetic junk basket and recovered iron from bit.

8/10 Milled on iron.

8/11-14 Drilled 6-1/8" hole from 8944' to 8974'. Milling on iron.

8/15 Milled on iron.

8/16 Milled on cone. Drilled 6-1/8" hole from 8974' to 8980'.

8/17-21 Drilled 6-1/8" hole from 8980' to 9043'.

8/22-24 Cored 5-7/8" hole from 9043' to 9052'. Opened 5-7/8" hole to 6-1/8" from 9035' to 9072'. Reamed hole from 8914' to 9072'. Ran Schlumberger electric log at 9072'. Reamed hole from 8914' to 9072'.

8/25 Ran Johnston formation tester on 2-7/8" drill pipe and set packers at 8932' and 8943' with tailpipe to 9072'. Used 1000' water cushion. Opened tester at 5:45 AM. Had light, steady blow throughout 1 hour and 30 minute test. Recovered 665' net rise of gassy drilling mud. No free water or oil. Pressure bomb charts increased from 550-800# during test. Drilled 6-1/8" hole from 9072' to 9074'.

8/26 Drilled 6-1/8" hole from 9074' to 9089'. Cored 5-7/8" hole from 9089' to 9092'.

8/27 Cored 5-7/8" hole from 9092' to 9096'. Drilled 6-1/8" hole from 9096' to 9126'.

8/28 Cored 5-7/8" hole from 9126' to 9135'; opened hole to 6-1/8" then drilled ahead to 9165' with 6-1/8" bit.

8/29 Drilled 6-1/8" hole from 9165' to 9212'. Ran Schlumberger electric log at 9202'.

8/30-9/1 Drilled 6-1/8" hole from 9212' to 9388'. Ran Schlumberger electric log and Dipmeter at 9363'.

9/2-3 Drilled 6-1/8" hole from 9388' to 9484'.

9/4 Cored 5-7/8" hole from 9484' to 9504'. Ran Schlumberger electric log at 9504'. Open 5-7/8" hole to 6-1/8" to 9504'.

9/5 Ran Johnston formation tester on 2-7/8" drill pipe and set packers at 9375' and 9365' with perforated tailpipe to 9504'. Used 1000' water cushion. Opened tester at 12:55 PM. Had medium, steady blow for 5 minutes, increasing to strong, steady blow for nex 7 minutes, at which time gas surfaced; 2 minutes later water cushion surfaced (14 min utes). Well blew water cushion for 45 minutes and drilling mud for 50 minutes with g at 1113 MCF/day rate. Closed tester at 2:35 PM after 1 hour and 35 minute test. Re covered 540' rise of gas cut drilling fluid. No free oil or water. Pressure bomb charts indicated a decrease from 1100-980# during period of test.

9/6-9/7 Drilled 6-1/8" hole from 9504' to 9629'. Cored 5-7/8" hole from 9629' to 9643'. Ran Schlumberger electric log at 9643'.

9/8 Reamed 6-1/8" hole from 9420' to 9643'. Ran Johnston tester on 2-7/8" drill pipe wit packers set at 9523' and 9514' and bottom of perforated tailpipe at 9643'. Used 1000 water cushion. Opened valve at 9:00 PM and had faint blow of air for 15 minutes, the died. Closed valve at 10:00 PM after being open 1 hour. Recovered 260' gas cut dril ing mud. No free water. Charts checked details of test.

9/9-10 Drilled 6-1/8" hole from 9643' to 9770'. Cored with 5-7/8" Reed Conventional Barrel 9770' to 9775'.

9/11 Cored 5-7/8" hole from 9775' to 9790'. Ran Schlumberger electric log at 9790' and opened 5-7/8" hole to 6-1/8" from 9770' to 9790'.

AC_CPUC_0118306

OPERATOR: TIDE WATER ASSOCIATED OIL COMPANY

WELL NO.: Standard-Seamon 1-#29, Aliso Canyon Field



1953

9/12 Ran Johnston tester on 2-7/8" drill pipe and set packers at 9652' and 9659' with tailpipe to 9790'. Used 1000' water cushion. Opened tester at 3:30 AM but packers failed. Reran Johnston tester and set packers at 9664' and 9671' with tailpipe to 9790'. Used 1000' water cushion. Opened tester at 11:00 PM but packers failed.

9/13 Cleaned out to bottom with 6-1/8" bit. Ran Johnston tester on 2-7/8" drill pipe and set packers at 9696' and 9687' with tailpipe to 9790'. Used 1000' water cushion. Opened tester at 5:00 PM but packers failed. Running Schlumberger electric log, Dipmeter, Caliper and Microlog.

9/14 Completed Schlumberger services. Cleaned out to bottom with 6-1/8" bit and reamed tight spots.

9/15 Ran Johnston forma tion tester on 2-7/8" drill pipe with bottom of perforated tailpipe at 9790'. Set top packer at 9693' and lower packer at 9700'. Opened valve at 6:00 AM but packers failed. Making up tubing.

9/16 Hung 2-7/8" tubing at 9650'. Pumped in 35 sacks Colton Hi-temperature cement. Final pressure 1300#. Time 9:35 AM. B.J. Service. Found top of cement at 9455'. Hung 2-7/8" tubing at 9200' and pumped in 35 sacks Colton Hi-temperature cement. Final pressure 1300#. Time 7:20 PM. B.J. Service. Found top of cement at 9094'.

9/17 Reamed 6-1/8" hole.

9/18 Landed 1002' 5" 18# F.J. liner at 9077' including 350' of perforations from 8727' to 9077'. Top of Burns liner hanger at 8075'. Perforations are N-80, 120 mesh, 12 rows, 6" centers, 6° undercut, by Pacific. Blank is J-55. Hung 2-7/8" drill pipe at 8104' and cemented 5" liner through Baker C.P. collar at 8725' with 100 s acks Colton Hi-temperature cement. Final pressure 1700#. Time 11:30 AM. B.J. Service.

9/19 Standing cemented.

9/20 Ran Johnston tester on 2-7/8" drill pipe to test 5" to 7" casing splice. Set packer at 8070' with perforated tailpipe to 8085'. Used 500' water cushion. Opened tester at 10:20 AM. Had one puff, then dead for duration of 1 hour 5 minute test. Recovered 90' net rise of drilling mud. No free water. Charts checked details of test. Found top of hard cement in 5" liner at 8122'. Drilled out cement from 8157' to 8366' and drilled out cement from 8366' to 8720'.

9/21 Conditioned mud. Running Johnston formation tester.

9/22 Ran Johnston combination gun and tester on 2-7/8" drill pipe. Shot four jet holes at 8710'. Used 500' water cushion. Opened valve at 1:15 AM. Had medium, steady blow for 45 minutes, then dead for balance of 1 hour test. Recovered 1450' net rise of oil. Average of four samples: gravity 16.2; cut 40% water; 133 grains per gallon. Believe oil to be from Frew Zone. Water shutoff witnessed but not approved by Division of Oil and Gas. Scraped 5" liner and ran Baker Model "K" retainer on 2-7/8" drill pipe and tubing. Attempted to set retainer at 6850' but ball would not seat. Time 3:30 AM 9-23-53.

9/23 Ran Baker Model "K" retainer on 2-7/8" tubing and drill pipe and set retainer at 8650' Applied pressure to holes at 8710'. Formation broke down at 6000# and took fluid at rate of 4 cu. ft. per minute at 3300#. Opened circulating ports and mixed 50 sacks Colton Hi-temperature cement preceeded by 15 cu. ft. of water and followed by 251 cu. ft. of water. Closed circulating ports. Squeezed 34 sacks below retainer. Final pressure 7200#. Time 10:50 AM. B.J. Service. Backed off retainer and backscuttled an estimated 16 sacks of cement. Drilled up retainer and hard cement from 8647' to 8720'.

9/24 Ran Johnston combination gun and tester on 2-7/8" drill pipe and shot four holes at 8705'. Set packer at 8666' with perforated tailpipe to 8687'. Used 700' water cushic Opened tester at 1:35 PM. Had light steady blow for 2 minutes, then dead for balance of 1 hour and 10 minute test. Recovered 20' net rise of drilling fluid. Charts confirmed results of test. Water shutoff witnessed and approved by Division of Oil and Gas. Drilled out hard cement from 8720' to 8725'. Cleaned out to 9077'.

AC_CPUC_0118307

OPERATOR: TIDE WATER ASSOCIATED OIL COMPANY

WELL NO.: Standard-Seanon 1-#29, Aliso Canyon Field



1953

9/25 Displaced mud in liner with oil. Laid down 2-7/8" drill pipe. Tore out cellar connections. Running 2-7/8" tubing with Guiberson packer on bottom, [illegible]

9/26 Finished running 2-7/8" tubing and set packer at 8043'. Connected up Christmas tree. Started swabbing.

9/27 Swabbed. Fluid level at 3400'.

9/28 Swabbed well to 3600' fluid level when fluid started rising at approximately 8:00 PM. Continued swabbing and well started flowing at 3:00 AM 9-29-53. Well swabbed and flowed 188 barrels of circulating oil to 6:00 AM 9-29-53; 48/64" bean; no tubing or casing pressures. Total circulating oil recovered 293 barrels of 360 originally put i

9/29 In 24 hours well flowed 260 barrels gross fluid; 20.0% water, 7.0% mud, 27.0% total cut; 190 barrels net oil, of which 123 barrels is formation oil; 17.5 gravity; 40/64" bean; 50# tubing pressure; 150# casing pressure; 449 MCF gas.

9/30 Tearing out rotary. In 24 hours well flowed 146 barrels gross fluid; 9.8% water, 0.2% sand; 10.0% total cut; 131 barrels net oil; 18.6 wet gravity; 48/64" bean; 50# tubing pressure; 150# casing pressure.

| | Gross | Net | Cut | Wet Gravity | Bean | Tubing Pressure | Casing Pressure | MCF Gas | |
|---|---|---|---|---|---|---|---|---|---|
| 10/1 | 141 | 127 | 10.0% | 18.6 | 48/64 | 50# | 150# | 381 | |
| | Cut includes 9.0% water and 1.0% mud. | | | | | | | | |
| 10/2 | 125 | 116 | 7.0% | 19.5 | 48/64 | 50# | 150# | 348 | |
| 10/3 | 124 | 115 | 7.0% | 19.8 | 48/64 | 50# | 250# | 288 | |
| 10/4 | 123 | 117 | 4.7% | 19.2 | 48/64 | 50# | 225# | 273 | |
| 10/5 | 125 | 115 | 8.0% | 19.0 | 48/64 | 50# | 250# | 248 | |
| 10/6 | 124 | 114 | 8.4% | 19.1 | 48/64 | 150# | 225# | 231 | |
| 10/7 | 124 | 122 | 1.8% | 20.0 | 48/64 | 75# | 225# | 230 | |
| 10/8 | 123 | 122 | 1.0% | 19.5 | 48/64 | 50# | 225# | 44 | 193 |
| 10/9 | 104 | 93 | 10.6% | 19.5 | 48/64 | 50# | 925# | 117 | 132 |
| 10/10 | 104 | 100 | 4.0% | 19.8 | 64/64 | 50# | 900# | 102 | 180 |
| 10/11 | 113 | 110 | 3.2% | 19.5 | 64/64 | 50# | 900# | 112 | 176 |
| 10/12 | 111 | 103 | 7.2% | 19.2 | 64/64 | 100# | 900# | 269 | 179 |
| 10/13 | 98 | 93 | 5.1% | 20.0 | 64/64 | 75# | 900# | 132 | 144 |
| | Injection line froze. | | | | | | | | |
| 10/14 | 59 | 57 | 4.0% | 19.1 | 64/64 | 50# | 900# | 101 | |
| | Well stopped producing on gas lift at 4:00 PM. | | | | | | | | |
| 10/15 | In 8 hours well flowed 17 barrels gross fluid, then died. Shut in for 16 hours to build up pressures. | | | | | | | | |
| 10/16 | Shut in. | | | | | | | | |
| 10/17 | In 3 hours well flowed 11 barrels gross fluid, then died. Shut in for 21 hours. | | | | | | | | |
| 10/18 | Well would not flow. Shut in to build up pressures. 600# tubing pressure; 900# casi | | | | | | | | |
| 10/19 | In 16 hours well flowed on gas lift 92 barrels gross fluid, 90 barrels net oil, 2.0% cut, 20.9 gravity, 600# tubing pressure, 900# casing pressure. | | | | | | | | |
| 10/20 | In 24 hours well flowed on gas lift 92 barrels gross fluid, 88 barrels net oil, 4.0% cut, 19.8 gravity, 50# tubing pressure, 900# casing pressure, 64/64" bean. | | | | | | | | |
| 10/21 | In 19 hours well flowed on gas lift 65 barrels gross fluid, 62 barrels net oil, 4.0% cut, 19.4 gravity, 50# tubing pressure, 925# casing pressure, 64/64" bean. Injection line froze. | | | | | | | MCF Inj. | MCF N |
| 10/22 | 86 | 84 | 3.1% | 19.7 | 64/64 | 50# | 925# | 29 | 65 |
| | Gas lift line froze. Off 2 hours. | | | | | | | | |
| 10/23 | 22 | 20 | 10.0% | 19.5 | 64/64 | 50# | 925# | 30 | 33 |
| | Gas lift line froze. Off 18 hours. | | | | | | | | |
| 10/24 | 114 | 85 | 25.0% | 17.2 | 64/64 | 50# | 900# | 85 | 82 |
| 10/25 | 170 | 165 | 3.0% | 20.0 | 64/64 | 50# | 900# | 200 | 131 |
| 10/26 | 125 | 120 | 3.5% | 19.5 | 64/64 | 50# | 900# | 40 | 141 |

AC_CPUC_0118308

OPERATOR: TIDE WATER ASSOCIATED OIL COMPANY

WELL NO.: Standard-Sesnon 1-#29, Aliso Canyon Field



| 1953 | Gross | Net | Cut | Gravity | Bean | Tubing Pressure | Casing Pressure | MCF Inj. | MCF Net |
|---|---|---|---|---|---|---|---|---|---|
| 10/27 | 140 | 115 | 18.0% | 19.0 | 64/64 | 50# | 925# | 50 | 130 |
| 10/28 | 110 | 83 | 25.0% | 19.0 | 64/64 | 50# | 925# | 40 | 127 |
| 10/29 | 93 | 82 | 12.0% | 18.8 | 64/64 | 50# | 900# | 37 | 95 |
| 10/30 | 103 | 96 | 7.3% | 19.2 | 64/64 | 50# | 900# | 66 | 136 |
| 10/31 | 103 | 75 | 28.0% | 18.5 | 64/64 | 150# | 900# | 55 | 177 |
| 11/1 | 92 | 82 | 11.0% | 19.8 | 64/64 | 100# | 900# | 48 | 182 |
| 11/2 | 93 | 78 | 14.0% | 19.0 | 64/64 | 100# | 900# | 26 | 156 |
| 11/3 | 63 | 59 | 7.0% | 19.0 | 64/64 | 100# | 900# | 26 | 138 |
| 11/4 | 90 | 81 | 10.0% | 19.0 | 64/64 | 100# | 900# | 21 | 137 |
| 11/5 | 65 | 60 | 7.0% | 19.0 | 64/64 | 100# | 900# | 10 | 0 |
| 11/6 | 100 | 93 | 7.0% | 19.0 | 64/64 | 100# | 900# | 0 | 90 |
| 11/7 | 95 | 88 | 7.0% | 19.0 | 64/64 | 100# | 900# | 40 | 84 |
| 11/8 | 95 | 88 | 7.0% | 19.0 | 64/64 | 100# | 900# | 93 | 117 |
| 11/9 | 134 | 125 | 7.0% | 19.0 | 64/64 | 100# | 900# | 57 | 148 |
| 11/10 | 87 | 81 | 7.0% | 19.0 | 64/64 | 100# | 900# | 43 | 84 |
| 11/11 | 97 | 89 | 7.0% | 19.0 | 64/64 | 100# | 900# | 52 | 96 |
| 11/12 | 76 | 71 | 7.0% | 19.0 | 64/64 | 100# | 950# | 39 | 122 |
| 11/13 | 76 | 71 | 7.0% | 19.5 | 64/64 | 100# | 925# | 59 | 128 |
| 11/14 | 76 | 71 | 7.0% | 19.5 | 64/64 | 100# | 925# | 30 | 150 |
| 11/15 | 129 | 120 | 7.0% | 19.5 | 64/64 | 100# | 925# | 200 | 79 |
| 11/16 | 72 | 67 | 7.0% | 19.5 | 64/64 | 100# | 925# | 90 | 169 |
| 11/17 | 60 | 56 | 7.0% | 19.5 | 64/64 | 100# | 925# | 56 | 80 |
| 11/18 | 53 | 49 | 7.0% | 19.5 | 64/64 | 100# | 925# | 17 | 45 |

## CASING RECORD

11-3/4" 42 & 47# C 1042'
7" 23 & 26# C 8180'
10021' 5" 18# L 9077' inc. 350' pfs. Top 8075'

## TUBING RECORD

2-7/8" L w/packer 8043' 5 5 values

AC_CPUC_0118309

FORM 100
Approved, State printing office

SUBMIT LOG IN DUPLICATE
FILL THIS IN WITH TYPEWRITER. WRITE ON ONE SIDE OF PAPER

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

# DIVISION OF OIL AND GAS

## WELL SUMMARY REPORT

Operator TIDE WATER ASSOCIATED OIL COMPANY Field ALISO CANYON

Well No. Standard-Semmon 1-A29 Sec. 28, T. 3 N, R. 16 W S.B. B. & M.

Location 750' South and 6100' West of Station #84 Elevation of ground above sea level 2048.77 feet.

All depth measurements taken from top of derrick floor which is 6.92 feet above ground.

In compliance with the provisions of Chapter 93, Statutes of 1939, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Date February 21, 1954 Signed J. E. Weaver

J. R. Berger (Engineer or Geologist) O. O. Suman (Superintendent) Title Agent (President, Secretary or Agent)

Commenced drilling April 25, 1953 Completed drilling September 24, 1953 Drilling tools Cable Rotary

Total depth 9790' Plugged depth 9054'

Junk

GEOLOGICAL MARKERS — DEPTH

Commenced producing September 29, 1953 (date) Flowing/gas lift/pumping (cross out unnecessary words)

On gas lift 10/8/53

10/25/53 ~~Initial~~ production

Production after 30 days

| Clean Oil bbl. per day | Gravity Clean Oil | Per Cent Water including emulsion | Gas Mcf. per day | Tubing Pressure | Casing Pressure |
|---|---|---|---|---|---|
| 165 | 20.0 | 3.0% | 131 | 50# | 930 |
| 49 | 19.5 | 7.0% | 45 | 100# | 925 |

CASING RECORD (Present Hole)

| Size of Casing (A. P. I.) | Depth of Shoe | Top of Casing | Weight of Casing | New or Second Hand | Seamless or Lapweld | Grade of Casing | Size of Hole Drilled | Number of Sacks of Cement | Depth of Cem if through perf. |
|---|---|---|---|---|---|---|---|---|---|
| 12-3/4" | 1042' | 0' | 42 & 47# | New | Seamless | H-40, J-55 | 15" | 650 | |
| 7" | 8160' | 0' | 23 & 26# | New | Seamless | J-55, S-95 | 10-5/8" | 500 | |
| 5" | 9077' | 8075' | 18# | New | Seamless | J-55 N-80 S.J. | 6-3/8" | 100 | 872 |
| | | | | | | | | | |
| | | | | | | | | | |

PERFORATIONS

| Size of Casing | From | To | Size of Perforations | Number of Rows | Distance Between Centers | Method of Perforations |
|---|---|---|---|---|---|---|
| 5" | 8727 ft. | 9077 ft. | 120 Mesh | 12 | 6" | 60° Undercut by Pac |
| | ft. | ft. | | | | |
| | ft. | ft. | | | | |
| | ft. | ft. | | | | |

AC_CPUC_0118310

FORM 103 SUBMIT IN DUPLICATE Δ OSP

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

# DIVISION OF OIL AND GAS

## History of Oil or Gas Well

OPERATOR Pacific Lighting Service Co. FIELD Aliso Canyon

Well No. SFZU SS-29, Sec. 28, T. 3N, R. 16W, SB B. & M.

Date October 19, 1973 Signed P. S. Magruder, Jr.

P.O. Box 54790, Terminal Annex
Los Angeles, CA 90054 (213) 689-3561 Title Agent

(Address) (Telephone Number) (President, Secretary or Agent)

It is of the greatest importance to have a complete history of the well. Use this form to report a full account of all important operations during the drilling and testing of the well or during re-drilling, altering of casing, plugging, or abandonment with the dates thereof. Be sure to include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, shooting and initial production data.

| Date | |
|---|---|
| 1973 | |
| 2-2 to 2-5 | Moved in California Production Service and rigged up. Mixed Brine Polymer workover fluid and killed well. Installed and tested Class III BOPE. |
| 2-6 | Pulled tubing and packer. Ran 4-1/8" bit and 5" casing scraper. Hit fill at 8970'. Cleaned out sand bridges and tagged bottom at 9074'. Circulated on bottom for 2 hours. |
| 2-7 | Ran 7" casing scraper and tagged top of liner at 8082'. Rigged up Dresser Atlas. Ran Cement Bond log 7950-9056', Densilog 8294-8788', and Neutron Lifetime/Gamma Ray logs 8280-9050'. |
| 2-8 | Made up and ran Baker model "C" bridge plug on fullbore packer, set bridge plug at 8065'. Set fullbore at 8025' and tested bridge plug with 1910 psi for 15 minutes, OK. Pulled up and set fullbore at 3444'. Tested 3444-8065' with 2060 psi for 15 minutes, OK. Tested from surface to 3444' with 2550 psi for 15 minutes, OK. Pulled up and set fullbore at 2341'. Tested from surface to 2341' with 3000 psi for 15 minutes, OK. Set fullbore packer at 1180' and tested from surface to 1180' with 3550 psi for 15 minutes, OK. 7" casing, OK. Ran in from 1180' and retrieved bridge plug. Rigged up Dresser Atlas. Jet perforated four 0.31" holes per foot 8528-8552', 8602-8638', 8658-8668', and 8674-8694'. Used 11 gram charges and 3-1/2" hollow carriers. |
| 2-9 | Made up and ran Johnston tester and bridge plug. Set bridge plug at 8715'. Pulled up and set test tool at 8486' with tail to 8511'. Opened tool at 11:12 a.m. Strong blow building to 142 psi at end of test. Closed tool at 12:32 p.m. Recovered bridge plug and reset same at 8580'. Set test tool at 8480' with tail to 8505'. Opened tool at 1:10 p.m. Light to medium blow throughout one hour test. |

AC_CPUC_0118311

1973

Reset bridge plug at 8515'. Started out of hole with tester. Fluid heading out of tubing 5918' above tester. Dropped bar but backscuttle valve failed to open. Continued pulling tester and turning heading fluid to tanks. Total fluid rise approximately 300' of thin, oily, gas cut workover fluid and 5600' of gas cut oil. Recovered fine sand in test tool. Charts showed first test OK; IH 3773 psi, IF 511 psi, FF 1113 psi, FH 3763 psi. Plugged tool on second test. Rigged up Dresser Atlas and jet perforated four 0.31" holes per foot 8456-8502'. Used charges and carriers as above.

2-10 Made up and ran Johnston tester. Set packer at 8436' with tail to 8454'. Opened tool at 10:37 a.m. Shut in at surface after 5 hour clean up flow.

2-11 Idle

2-12 Opened surface valve for final flow at 6:20 a.m. Flowed S-4 zone for 12 hours. Maximum rate 2.7 $M^2$cf/D. Shut in at tool at 6:20 p.m.

2-13 Pulled tester loose. Ran in to retrieve and relocate bridge plug in preparation to retest perforations 8528-8552'. Could feel no fill and had no apparent difficulty latching onto bridge plug. Could not pull plug loose and could not back tester off of plug. Jarred for 5 hours with no results. Dropped bar. Backscuttled and conditioned mud above 8305'. Rigged up McCullough and made chemical cut at 8297'. Pulled out leaving 213' of fish and bridge plug in hole.

2-14 Made up fishing tools consisting of overshot for 2-3/8" tubing, four 3-3/4" drill collars, bumper sub, and jars. Ran in to 8297' and latched onto fish. Jarred loose. Pulled out of hole with tubing and test tools leaving bridge plug only in hole. Sand in Tester. Charts OK. IH 3729 psi, IF 1305 psi, FF 1425 psi, ISI 1471 psi, FSI 1476 psi, FH 3754 psi.

2-15 Ran overshot for bridge plug retrieving neck. Circulated out small amount of sand on top of plug but could make no hole with overshot. Pulled out and ran Johnston tungsten carbide toothed retrieving tool. Circulated and drilled with tongs. Latched onto and released bridge plug. Pulled out without plug.

2-16 Ran overshot, bumper sub, and jars. Found bridge plug at 9039'. Latched onto and recovered plug. Changed tubing line.

2-17 Made up and ran Johnston bridge plug and tester. Set bridge plug at 8578'. Pulled up and set tester at 8516' with tail to 8535'. Opened tool at 1:00 p.m. Shut in at surface during entire test. Closed tool at 3:00 p.m. Dropped bar and backscuttled approximately 10 bbls. of gas cut oil. Estimated fluid rise 2076'. Pulled tester. Sanded up but charts OK. IH 3728 psi, IF 231 psi, FF 776 psi, FH 3739 psi.

2-18 Idle

1973

2-19 Ran 7" bridge plug to 8065'. Closed rams and tested plug with 1050 psi for 10 minutes. Removed BOPE and tubing head. Rigged up casing jacks and 7" spear. Unlanded 7" casing. Cut and removed 11-3/4" casing head. Welded extension on 7" casing.

2-20 X-rayed 7" weld, OK. Welded on new 11-3/4" 5000 psi casing head. X-rayed OK. Relanded 7" casing with 171,000 lbs. Installed new seal flange and tubing head. Tested seals with 3500 psi.

2-21 Re-installed BOPE and tested with 1250 psi. Retrieved 7" bridge plug from 8065'. Ran 5" bridge plug and squeeze packer.

2-22 Set bridge plug at 8525' and packer at 8436'. Pumped 276 bbls. Halliburton Claylok and 276 bbls. KCl through perforations 8456-8502'. Pulled tools. Retrieved 5" Johnston bridge plug from 8578'. Ran 5" bridge plug and squeeze packer.

2-23 Set bridge plug at 8659' and packer at 8525'. Pumped 360 bbls. Halliburton Claylok and 360 bbls. KCl through perforations 8528-8552' and 8602-8638'. Attempted to treat perforations 8658-8668' and 8674-8694'. Unable to pump into formation with 3500 psi.

2-24 Ran Baker model "D" packer on wireline and set same at 8517'. Started in hole with completion string including 2-3/8" x 5" Camco HRP-1-SP packer, 2-3/8" Page RTL safety valve, and 1/4" control line.

2-25 Idle

2-26 Continued running completion string. Hydro-Tested 2-7/8" tubing to 5000 psi. Spaced out and landed tubing with 9000 lbs. on model "D". Tested 1/4" control line through doughnut with 5000 psi.

2-27 Removed BOPE and installed production head. Tested seals with 5000 psi. Displaced 310 bbls. workover fluid with lease salt water through circulating sleeve. Ran No-Go plug into Camco landing nipple at 8517' and closed circulating sleeve. Pressured tubing to set Camco packer at 8422'. Opened S-4 production sleeve.

2-28 Unloaded 200 bbls. salt water with nitrogen. Blew down tubing and casing. Tore out CPS. Well ready for gas lift and production line hookups.

NOTE: Filing of "Notice" and well history not required by D.O.G.

SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

# DIVISION OF OIL AND GAS

## History of Oil or Gas Well

Operator Southern California Gas Co. Field or County Aliso Canyon
Well S.S. #29, Sec. 28, T 3N, R 16W, SB B. & M.
A.P.I. No. Name P.S. Magruder Jr. (Person submitting report) Title Agent (President, Secretary or Agent)
Date March 13, 1979, 19

Signature P.S. Magruder Jr.
P.S. Magruder Jr.

P.O. Box 3249 Terminal Annex, Los Angeles, Ca. 90051 (Address)
(213) 689-3561 (Telephone Number)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests and initial production data.

| Date | |
|---|---|
| 1979 | GWO 98480<br>Program: Remove 2 3/8" safety system and 5" packer from 5" liner at 8,420'. Set a packer in the 7" casing near 8,040' and install an Otis 2 7/8" annular flow safety system. Return the well to gas storage service. |
| 3-5 | 0 Day. Killed well with 350 barrels of 63# brine-polymer completion fluid |
| 3-6 | 1st Day. Moved California Production Service Co. rig #D-4 onto wellsite and rigged up. Mixed a total of 260 barrels of polymer completion fluid and obtained full circulation. Removed xmas tree and installed BOPE. |
| 3-7 | 2nd Day. Tested BOPE, blind rams, 2 7/8" pipe rams and choke manifold to 3,000 psi, Hydril "GK" to 2,000 psi with water and nitrogen. Released from 5" Otis "Permatrieve" packer at 8,420'. Circulated gas cut mud from well. Pulled out of hole measuring tubing. Ran in with Otis retrieving tool and released packer. Pulling out of well. |
| 3-8 | 3rd Day. Recovered 5" Otis "Permatrieve" packer from 8,420'. Ran in well with 7" casing scraper and cleaned out to 8,075'. Pulled out and ran in well with 5" casing scraper and cleaned out to 9,071'. Pulling out of well. |
| 3-9 | 4th Day. Finished pulling out of well. Ran 7" Otis "Permatrieve" packer and set at 8,040'. Ran in well with Otis Latch-in Locator and 2 seals, changing tubing collars. Latched into packer and pulled 30,000# to check latch. Set 10,000# on packer and tested annulus to 1,500 psi. Pulling out of well. |
| 3-10 | 5th Day. Finished pulling out of well. Ran Otis annular flow safety system. Hydrotested tubing to 5,000 psi. Landed tubing on packer at 8,040' with 10,000#. Pulled up 30,000# over weight of string to check packer and latch. String weight 53,000# on hook. Removed BOPE. Installed xmas tree and tested to 5,000 psi. Displaced brine-polymer completion fluid from well with 350 barrels of waste lease water. Released rig at 10:00 p.m., 3-10-79. |

AC_CPUC_0118314

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

# DIVISION OF OIL AND GAS

## History of Oil or Gas Well

Operator Southern California Gas Company Field or County Aliso Canyon
Well name and No. STANDARD SESNON #29, Sec. 28, T 3N, R 16W, S.B.B. & M.
A.P.I. well No. 037-00041 Name P. S. Magruder, Jr. (Person submitting report) Title Agent (President, Secretary or Agent)
Date September 24, 19 77

Signature P S Magruder Jr.

P.O. Box 3249 Terminal Annex, Los Angeles, Ca., 90051 (Address) (213) 689-3561 (Telephone Number)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests and initial production data.

| Date | |
|---|---|
| 8-27-77 | Moved California Production Service Rig #M 28 from Standard Sesnon #24 location. Circulated hole volume to work gas out of drilling fluid. |
| 8-28-77 | Rig and crew idle. |
| 8-29-77 | Installed plug in doughnut; removed tree; installed 8" Class III B.O.P.E. and tested with water and nitrogen as follows:<br>Hydril 3000 psi 20 minutes - O.K.<br>Pipe Rams 4000 psi 20 minutes - O.K.<br>Blind Rams " " " " - O.K. |
| 8-30-77 | Released Camco hydrostatic packer and Baker locator seal assembly. Pulled out of well tallying tubing. Started back into well. Took gas kick. Killed well. Made up Baker milling tool on Baker junk basket, Bowen hydraulic jars and three 20' 2 3/8" drill collars. Ran tubing to top of liner.<br>NOTE: There was 40' of fine sand inside the tubing string above tubing plug at base of S4 sand. |
| 8-31-77 | Milled over and recovered Baker 5" Model "D" packer. Mde up Robison 7" casing scraper and 6 1/8" bit and ran to 8075'. Started out of hole. |
| 9-1-77 | Pulled 7" casing scraper and 6 1/8" bit out of well. Ran 5" scraper and 4 1/8" bit to 9072'. (Cleaned out hard asphalt foundation from 9026' -9072'). Started out of well with 4 1/8" bit and scraper. Power tongs broke down - ordered set from H. & H. Started out of well again and their power tongs failed. |
| 9-2-77 | Finished pulling 4 1/8" bit and 5" scraper out of well. Ran Johnston 5" Retrievable bridge plug and set at 8425'. Pressured plug and pumped fluid away under 1450 psi. Pulled Retrieving tool. Ran Johnston 5" 18# Bob Cat packer to 8375'. Set and pressured 5" bridge plug to 1500 psi 10 minutes; held O.K. |

AC_CPUC_0118315

9-3-77 Pressure tested annulus...(retainer at 8425') to 2500 psi - held O.K. Released retrievable retainer and pressured casing to 2500 psi - held O.K. Displaced polymer mud from well with fresh water treated with surface tension agent. Pulled 5" retrievable retainer out of well - ran 7" retainer to 3800' and pressure tested as follows:

| | | | | | |
|---|---|---|---|---|---|
| 3800' | to | 8425' | at 2500 psi | for 60 | minutes |
| 3800' | " | Surface | " 2700 psi | " 60 | " |
| 3300' | " | " | " 2900 psi | " 60 | " |
| 2900' | " | " | " 3100 psi | " 60 | " |

All above tests O.K.

9-4-77 Rig and crew idle.

9-5-77 (Holiday) Rig and crew idle.

9-6-77 Continued pressure testing casing, as follows:

| | | | | | |
|---|---|---|---|---|---|
| 2500' | to | Surface | with 3300 psi | for 60 | minutes |
| 2000' | " | " | " 3700 psi | " 60 | " |
| 1100' | " | " | " 4000 psi | " 60 | " |

Above tests O.K.
Pulled out of well with 7" retainer. Ran tubing in hole to retrieve 5" 18# bridge plug.

9-7-77 Retrieved Johnston 5" 18# retrievable bridge plug. Changed out tubing collars and Baker sealed tubing pins. Using GO-International, set Otis 5" Permatrieve wireline packer at 8415'.

9-8-77 Made up Otis seal assembly; 2 3/8" x 10' blast joint; 2 3/8" x 1.56" NO-GO nipple; 2 3/8" x 20' blast joint; Otis annular flow safety system and tested to 5000 psi. Ran tubing to 8415' hydrotesting to 5000 psi and latched into Otis packer. Pulled 25,000# over tubing weight on packer (67,000# gross weight) and landed with 7000# set-down weight on packer. Installed back-pressure valve in doughnut. Removed B.O.P.E. and installed Christmas tree.

9-9-77 Tested Xmas tree to 5000 psi. Displaced polymer drilling fluid with lease salt water. Set Otis 1.56" blanking plug in "NO-GO" nipple at 9405'. Pressure tested packer and seals under 2000 psi. (Held O.K.). Released rig.

GCA/nd

AC_CPUC_0118316

FORM 103

SUBMIT IN DUPLICATE

Δ OSP

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

# DIVISION OF OIL AND GAS

## History of Oil or Gas Well

OPERATOR Pacific Lighting Service Company FIELD Aliso Canyon

Well No. SS-29, Sec. 28, T. 3N, R. 16W, S.B. B. & M.

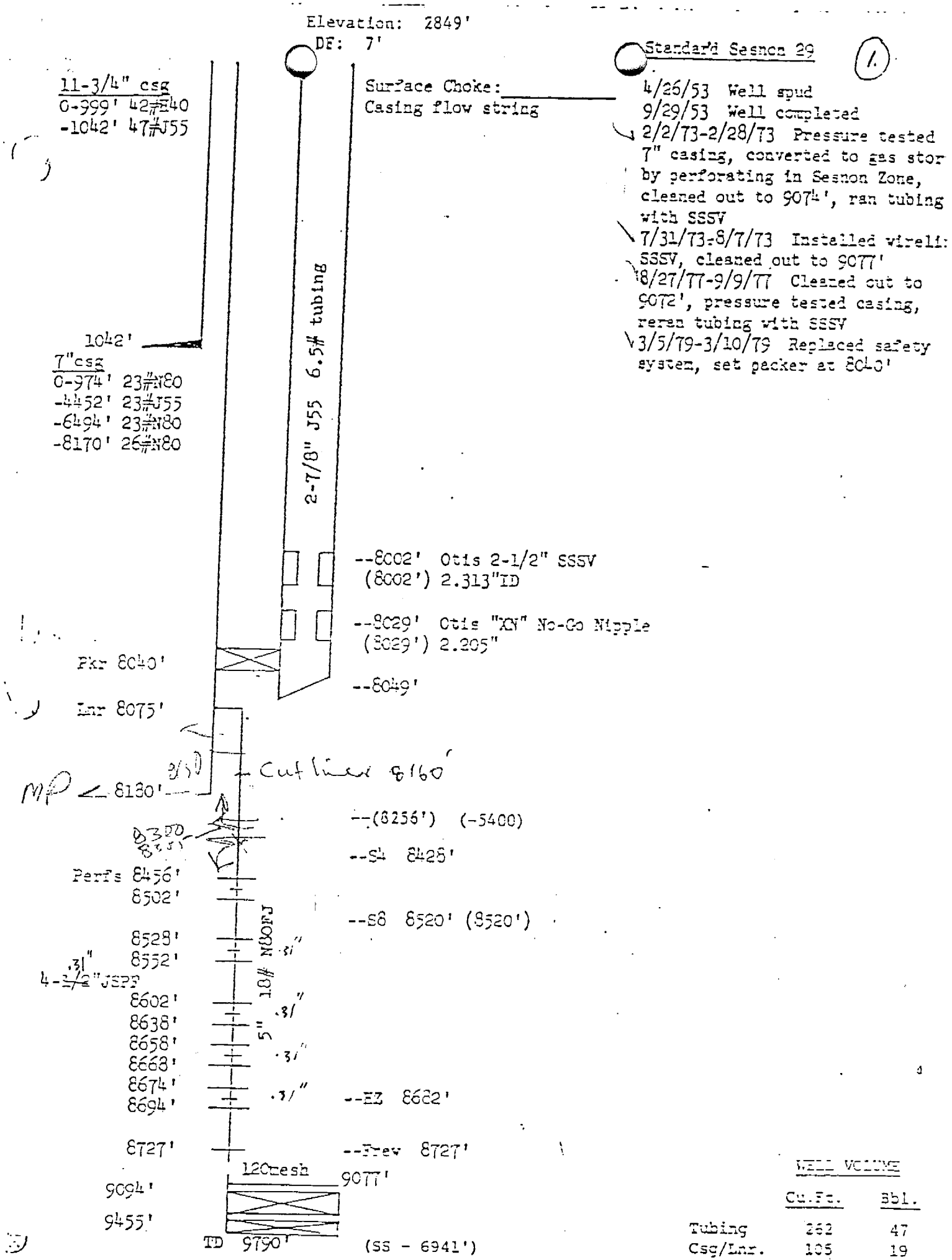
Date ____, 19____ Signed ____

P. O. Box 54790, Terminal Annex
Los Angeles, California 90054 (213) 689-3561 Title Agent
(Address) (Telephone Number) (President, Secretary or Agent)

It is of the greatest importance to have a complete history of the well. Use this form to report a full account of all important operations during the drilling and testing of the well or during re-drilling, altering of casing, plugging, or abandonment with the dates thereof. Be sure to include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, shooting and initial production data.

| Date | |
|---|---|
| 1973 | The following is for the well file only. It does not have to be submitted to the Division of Oil & Gas. |
| 7-31 | PROGRAM: (1) Pull tubing and remove 1/4" control line and tubing safety valve.<br>(2) Install nipples for wireline safety valve.<br>(3) Install slotted tubing for sand control. |
| 7-31 | Pulled Camco "CA" blanking plug from 8520' and confirmed that sleeves at 8348' and 8488' were open in order to kill well.<br><br>Moved in California Production Service rig with pump and shaker tank at 2:00 PM and began rigging up. |
| 8-1 | Killed and circulated well with 332 barrels brine-polymer workover fluid. Installed and tested Class III B.O.P.E. Pulled 8000' tubing and 1/4" control line. |
| 8-2 | Filled hole with 8 barrels. Completed pulling tubing. Lost 12 1/2" x 16" steel banding clamps and top rubber off Camco HRP-1-SP 5" packer. Laid down Camco packer and Page safety valve. Ran 2-1/4" O.D. sawtooth collar and 665' of 1-1/4" Hydrill drill rod on 2-7/8" tubing. Sat down on Model "D" packer at 8520' tubing measurements but rotated through OK. Hit top of fill at 9035'. |
| 8-3 | Circulated out soft fill of mud and a small amount of sand from 9035 to bottom at 9077'. Pulled tubing and laid down 665' of 1-1/4" drill rod. Made up and ran completion tubing to 6000' then shut down for the week-end. |
| 8-4&5 | Idle. |
| 8-6 | Completed running tubing. Hung tubing above packer at 8518' and circulated out mud with salt water, using 310 barrels. Landed tubing with 4000 pounds on Model "D" packer at 8518'. Ran Camco type "CA" 2-3/8" blanking plug and set in Camco "D" nipple at 8517' to isolate S-8 zone. Ran Otis type "X" 2-3/8" plug and set in Otis "X" nipple at 8455'. Pressured tubing to 3500 psi with hot oil truck |

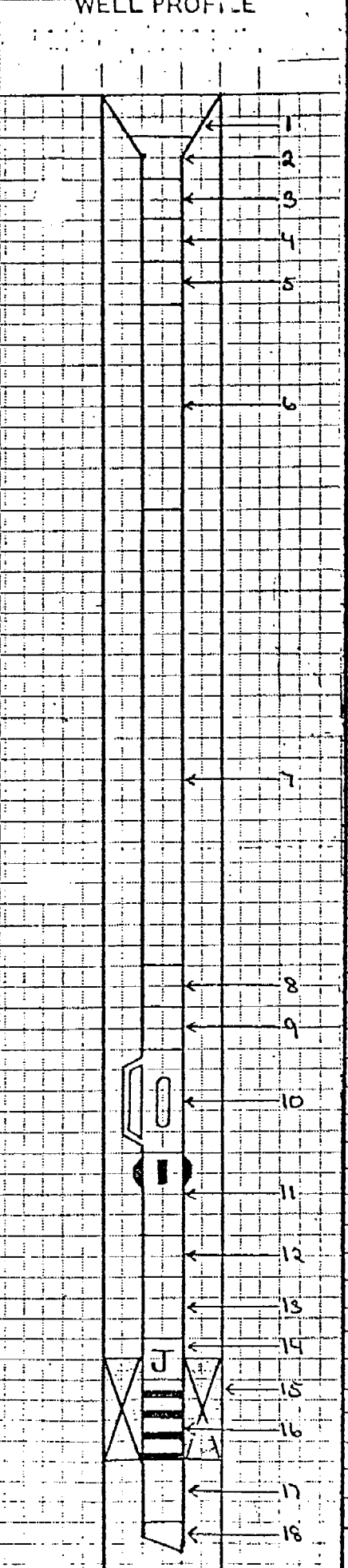
AC_CPUC_0118317




| WELL VOLUME | Cu.Ft. | Bbl. |
|---|---|---|
| Tubing | 262 | 47 |
| Csg/Lnr. | 105 | 19 |
| Annulus | 1405 | 250 |

AC_CPUC_0118318

WELL PROFILE




Southern California Gas Co.
OPERATOR

WELL S.S. #29

FIELD Aliso Canyon

COUNTY Los Angeles

STATE California

DATE March 13, 1979

☐ NEW COMPLETION ☐ WORKOVER

| | CASING | LINER | TUBING 1 | TUBING 2 | TUBING 3 |
|---|---|---|---|---|---|
| SIZE | | | | | |
| WEIGHT | | | | | |
| GRADE | | | | | |
| THREAD | | | | | |
| DEPTH | | | | | |

| ITEM NO. | TUBING DETAILS | LENGTH | DEPTH |
|---|---|---|---|
| 1. | Kelly Bushing | 6.92 | - |
| 2. | Tubing Hanger | .30 | 6.92 |
| 3. | Pup Jt. 2 7/8" 6.5# N-80 8rd EUE | 1.18 | 7.72 |
| 4. | Pup Jt. 2 7/8" 6.5# N-80 8rd EUE | 3.15 | 8.90 |
| 5. | Pup Jt. 2 7/8" 6.5# N-80 8rd EUE | 10.25 | 12.05 |
| 6. | 16 joints 2 7/8" 6.5# N-80 8rd EUE | 500.84 | 22.30 |
| 7. | 243 Joints 2 7/8" 6.5# J-55 8rd EUE | 7473.19 | 523.14 |
| 8. | Pup Jt. 2 7/8" 6.5# N-80 8rd EUE | 4.09 | 7996.33 |
| 9. | Otis "X" nipple 2.350" I.D. | 1.13 | 8000.42 |
| 10. | Otis Annular Flow Safety System 4.88" O.D., 2.313" I.D. | 7.66 | 8001.55 |
| 11. | Otis blast joint with 4 centralizers 5.50" O.D., 2.375" I.D. | 19.82 | 8009.21 |
| 12. | Otis "XN" No-Go Nipple 2.205" I.D. | 1.17 | 8029.03 |
| 13. | Otis Blast Joint 3.668" O.D. 2.375" I.D. | 9.80 | 8030.20 |
| 14. | Otis "J" latch locator | 1.16 | 8040.00 |
| 15. | Otis "Permatrieve" 7" packer (new) (20-26#) 5.87" O.D. 3.25" I.D. | 4.16 | 8040.00 |
| 16. | Otis seal assembly (4) 3.29" O.D., 2.38" I.D. | 4.05 | 8041.16 |
| 17. | Otis Production Tube | 2.96 | 8045.21 |
| 18 | Otis Guide Shoe | .42 | 8048.17 |
| | End of Tubing | | 8048.59 |

NOTES

Side door choke in safety system

Tubing landed with 10,000X compression on packer

Corrected tubing measurments (7,482.13) to meet wireline measurments.

COMMENTS:

AC_CPUC_0118319

8-6-73

## TUBING DETAIL

| No. Jts. | Item | Length | Depth |
|---|---|---|---|
| | Below K. B. | 6.90 | |
| | 2-7/8" donut and pup joint | 6.00 | |
| | 2-7/8" EU 8 thd. pup jt. | 3.95 | |
| 184 | 2-7/8" EU 8 thd. J-55 tubing | 5668.65 | |
| | 2-7/8" EU 8 thd. pup jt. | 4.05 | 5689.55 |
| | 2-1/2" Camco KBMG mandrel w/1/4" BK 925# valve | 7.35 | 5696.90 |
| 40 | 2-7/8" EU 8 thd. J-55 | 1224.08 | |
| | 2-7/8" EU 8 thd. pup jt. | 4.03 | 6925.01 |
| | 2-1/2" Camco KBMG mandrel w/1/4" BK 915# valve | 7.35 | 6932.36 |
| 34 | 2-7/8" EU 8 thd. J-55 tubing | 1041.10 | |
| | 2-7/8" EU 8 thd. pup jt. | 4.08 | 7977.54 |
| | 2-1/2" Camco KBMG mandrel w/1/4" BK 905# valve | 7.35 | 7984.89 |
| 1 | 2-7/8" EU 8 thd. J-55 tubing | 31.37 | |
| | 2-7/8" x 2.313" Otis "X" landing nipple | 1.00 | 8017.26 |
| 1 | 2-7/8" EU 8 thd. J-55 tubing | 30.23 | |
| | 2-7/8" x 2-3/8" EU 8 thd. crossover | 1.15 | 8048.64 |
| 9 | 2-3/8" EU 8 thd. J-55 tubing | 273.63 | |
| | 2-3/8" Camco B mandrel w/1/4" J-40 895# valve | 4.10 | 8326.37 |
| 1 | 2-3/8" EU 8 thd. J-55 tubing | 30.15 | |
| | 2-3/8" x 1.93 Camco sliding sleeve | 2.70 | 8359.22 |
| 1 | 2-3/8" EU 8 thd. J-55 tubing | 29.97 | |
| | 2-3/8" x 1.875 Otis "X" landing nipple | .95 | 8390.14 |
| 1 | 2-3/8" EU 8 thd. J-55 tubing | 29.98 | |
| | 2-3/8" x 5" 18# Camco Hydrostatic set packer HRP-1 16 turns right to release | 5.65 | |
| 1 | 2-3/8" EU 8 thd. J-55 tubing | 29.73 | |
| | 2-3/8" x 1.875 Otis "X" landing nipple | .95 | 8456.45 |
| | 2-3/8" EU 8 thd. pup jt. w/20 mesh slots | 10.00 | 8466.45 |
| | 2-3/8" EU 8 thd. pup jt. w/20 mesh slots | 10.00 | 8476.45 |
| | 2-3/8" Otis polish nipple | 1.50 | 8477.95 |
| | 2-3/8" EU 8 thd. pup jt. | 4.20 | |
| | 2-3/8" x 1.875 Otis "X" landing nipple | .95 | 8483.10 |
| | 2-3/8" EU 8 thd. pup jt. w/20 mesh slots | 10.20 | 8493.30 |
| | 2-3/8" EU 8 thd. pup jt. w/20 mesh slots | 10.00 | 8503.30 |
| | 2-3/8" Otis polish nipple | 1.50 | 8504.80 |
| | 2-3/8" EU 8 thd. pup jt. | 4.05 | |
| | 2-3/8" EU 8 thd. pup jt. | 8.00 | |
| | 2-3/8" x 1.81 Camco type "D" seating nipple | .95 | 8517.80 |
| | 2-3/8" Baker locator sub for Model "D" packer @ 8517' | .40 | 8518.20 |
| | Baker seals 5 sets for Model "D" packer | 4.60 | 8522.22 |

NOTE: The slotted tubing above is J-55 with special clearance N-80 collars slotted 20M, 12 rows, 1-1/2" slots on 6" centers.

AC_CPUC_0118320

TEL NO. Sep 11,91 8:10 P.15

FORM 109-A (10-48)

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

SEP 30 1953
LOS NIETOS

# Report on Test of Water Shut-off
(FORMATION TESTER)

No. T 153-1158

Los Angeles 15, Calif. September 29, 1953

Mr F C Foster
Box Y
Los Nietos, Calif.
Agent for TIDE WATER ASSOCIATED OIL CO

DEAR SIR:

Your well No. Standard-Vesnon 1-A 29, Sec. 28, T 3 N, R 16 W, S B B & M.
Aliso Canyon Field, in Los Angeles County, was tested for water shut-off on September 22, 1953. Mr. O. J. Horkovich, Inspector, designated by the supervisor, was present as prescribed in Secs. 3222 and 3223, Ch. 93, Stat. 1939; there were also present J. Poyner, Engineer; H. N. Frantz, Drilling Foreman.

Shut-off data: 5 in. 18 lb. casing was cemented through perforations at 8731 ft. on September 18, 1953 in 6 in. hole with 100 sacks of cement XXXXX of which 30 sacks was left in casing.

Casing record of well: 11-3/4" cem. 1042'; 7" cem. 8180', W.S.O.; 5" ld. 9083', top at 8681', C.P. 8731', perf. 8731'-9083', four 1/2" holes 8710', W.S.O. Plugged with cement 9450'-9455' and 9200'-9094'.

Present depth 9790 ft. / Bridged with cement from 8731 ft. to 8720 ft. Cleaned out to 8720 ft. for test.
A pressure of XXX lb. was applied to the inside of casing for XXX min. without loss after cleaning out to XXX ft.
A Johnston gun and tester was run into the hole on 2-7/8 & 2- in. drill pipe-tubing, with 750 ft. of water-XXX cushion, and packer set at 8668 ft. with tailpiece to 8725 ft.
Tester valve, with 3/8 in. bean, was opened at 1120 a.m. and remained open for 1 hr. and XXX min. During this interval there was a medium steady blow for 45 min., no blow for 5 min., then a faint blow for 10 min.

THE INSPECTOR ARRIVED AT THE WELL AT 8150 A.M. AND MR. POYNER REPORTED:

1. A 6" rotary hole was drilled from 8185' to 9790'.
2. On September 16, 1953, 35 sacks of cement was pumped into the hole through 2-7/8" drill pipe hanging at 9650', filling to 9455'.
3. On September 16, 1953, 35 sacks of cement was pumped into the hole through 2-7/8" drill pipe hanging at 9200', filling to 9094'.
4. The 5" casing was cemented as noted above.
5. A Johnston tester was run into the hole and the test indicated that no fluid has access to the well between the 7" and 5" casings.
6. Cement was drilled out of the 5" casing from 8355' to 8720' (equivalent to 23 sacks), and the hole was cleaned out to 8720'.
7. The 5" casing was shot-perforated with four 1/2" holes at 8710'.

THE INSPECTOR REPORTED:

1. When the drill pipe was removed, 1729' net rise consisting of 1000' of gas-cut, thin drilling fluid, grading to 729' of oil, was found in the drill pipe above the tester.
2. The recording pressure bomb chart showed that the tester valve was open 1 hr.

The test was completed at 7105 a.m.

THE 5" SHUT-OFF AT 8710' IS APPROVED.

DIVISION

cc T L Park
Jos Jensen
J R Poyner (2)

R. D. BUSH, State Oil and Gas Supervisor

By [signature], Deputy

AC_CPUC_0118321

SOUTHERN CALIFORNIA gas COMPANY

INTEROFFICE CORRESPONDENCE

TO R. D. Phillips
J. B. Lane

FROM P. D. Yu

DATE July 19, 1991

SUBJECT Workover Recommendation for SS 29 at Aliso Canyon

We recommend that SS 29 be worked over. The proposed work is to repair the shoe leak and reperforate the Sesnon, HZ and Upper Frew zones. Our analysis indicates that all these zones are gas productive.

Temperature, noise and tracer surveys demonstrate that this well has a shoe leak. A shoe leak investigation history is summarized in Appendix I. Reperforating will increase gas deliverability. To evaluate the current status of the producing zones, a spinner survey (spinner, temperature and capacitance) was run on 7/25/90. It was discovered that most of the gas was flowing from a 9' interval (8456' to 8465' ELM) in the S-6. The capacitance tool detected no liquid level in the wellbore.

Based on an examination of recent sand test data, this well is capable of producing approximately 40 MMCF/D at 35 Bcf inventory and approximately 20 MMCF/D at 10 Bcf inventory. After reperforating, it is estimated that it will produce at least 55 MMCF/D at 35 Bcf inventory and at least 30 MMCF/D at 10 Bcf inventory.

WORKOVER RECOMMENDATIONS

In conjunction with standard operating practices employed in the Drilling Department, the following items are emphasized and recommended.

1) In the process of killing the well, spearhead the kill fluid with 0.5% PQA for clay stabilization.

2) Pull the 2-7/8" tubing string.

3) Clean out wellbore to PBTD of 9077' MD.

4) Make a bit and casing scrapper run. Run a casing inspection log in the 7" casing from 8075' MD to the surface.

5) Cut the 5" liner at approximately 8160' MD. After perforating the 7" casing, repair the shoe leak by squeeze cementing. Pressure test the casing. Dress off top of liner. Run in with lead seal drive-over adapter.

6) Prior to zone perforating, filter the completion fluid in order to maximize well productivity. Utilize a plate and frame diatomaceous earth (DE) filter and a 2-micron nominal cartridge filter in series.

AC_CPUC_0118322

7) Perforate the following intervals underbalanced at 8 SPF with tubing conveyed guns. Surge the perforations.

| | | |
|---|---|---|
| S-4: | 8428' - 8436' | ELM |
| S-6: | 8454' - 8502' | ELM |
| S-8: | 8522' - 8560' | ELM |
| | 8602' - 8636' | ELM |
| | 8660' - 8668' | ELM |
| HZ: | 8674' - 8694' | ELM |
| FREW: | 8727' - 8737' | ELM |
| | 8750' - 8760' | ELM |
| | 8810' - 8820' | ELM |

8) Rerun the 2-7/8" tubing string. Equip the tubing string with a No-Go nipple, sliding sleeve and gas lift mandrel equipped with pump-out plug.

If you have any questions, please advise.

Original Request Submitted by: Steve Robinson

Prepared by: R. L. Adamczyk
R. L. Adamczyk

Reviewed by: M. E. Melton
M. E. Melton

RLA:bb
Attachments
(WOSSREV)

cc: R. L. Adamczyk
M. E. Melton
R. L. Patterson
R. W. Weibel

APPENDIX I

SS 29 Shoe Leak Investigation History

In his memo dated 11/14/89, Steve Robinson recommended a shoe leak repair for this well. In his memo dated 11/29/89, Richard Adamczyk concurred with the shoe leak repair since temperature, noise and tracer surveys demonstrated that the well had a shoe leak.

In September of 1990, it was decided to defer the SS 29 workover after an 8/30/90 noise log indicated that the suspected leak did not warrant remedial action at that time. Plans were made to closely monitor the well over the next year.

The temperature survey run on 10/11/90 (Inventory = 48.5 Bcf) shows a temperature break at 8350' MD. The noise/temperature survey run on 12/5/90 (Inventory = 56.0 Bcf) shows a temperature break at 8150' MD (or 30' above the 7" casing shoe) and very high noise levels in the vicinity of the shoe. These two surveys are attached.

The magnitude of leakage is further emphasized by Thermo's concern that their nearby well, DA 2, was starting to produce an increased amount of gas. And helium counts increased to 49 PPM in October, 1990 from 2 PPM in May, 1990. Historically the helium in DA 2 has fluctuated with inventory, but the October level of 49 PPM is twice as high as it has ever been at previous high inventories. It appears that work on this well should not be further delayed.

AC_CPUC_0118324

ALISO CANYON

SS 29

3.

SS-29 Orig. TD

TCP 0

0

1

2

3

4

5

6

7

8

9

1000

2000

3000

4000

5000

6000

7000

8000

9000

16 1512

cooling: 4500'-6000'

No. Temp. break @ Shoe

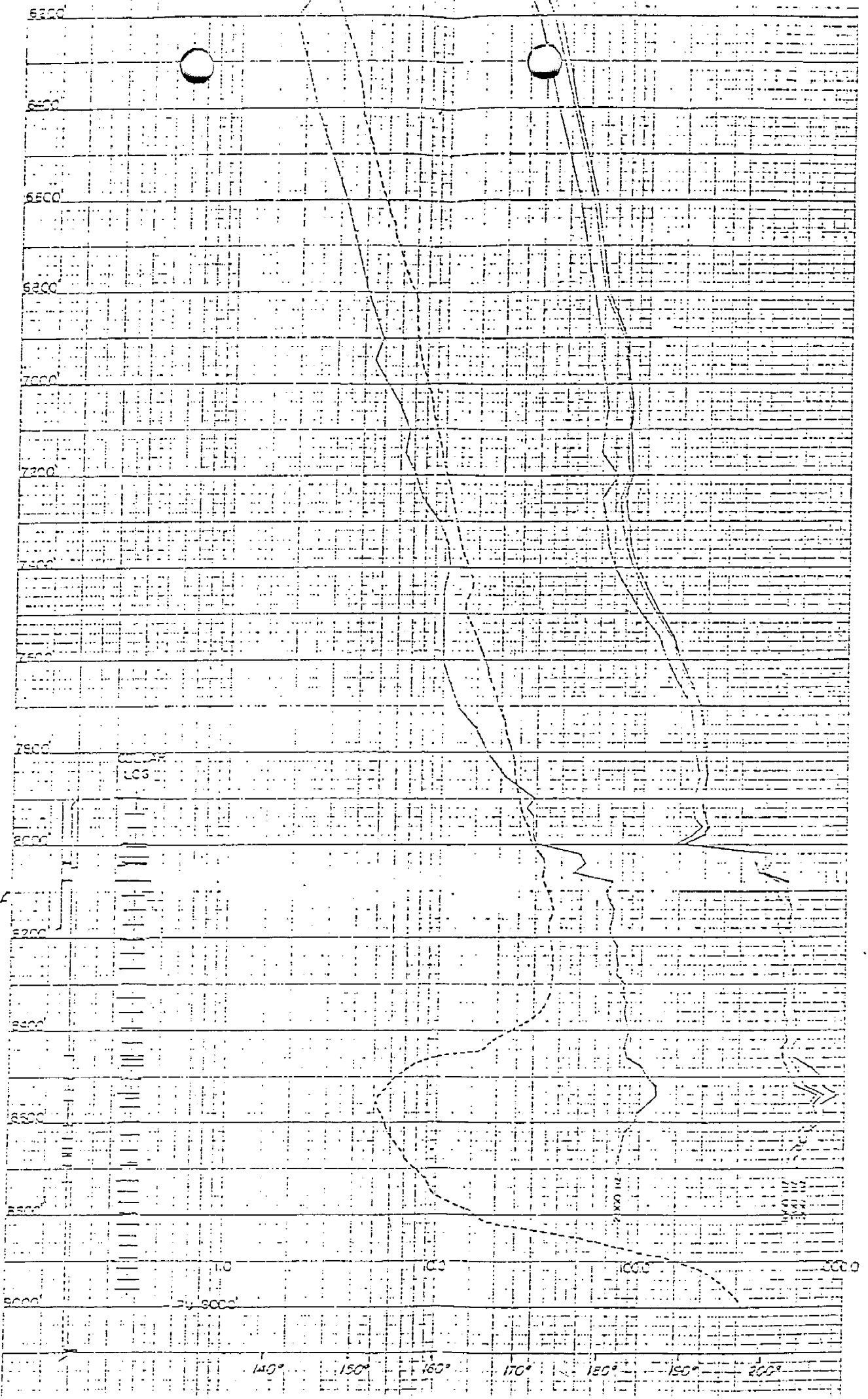
11/10/89: RA tag movement to MP ± ↑

11/11/89: noise in zone @ shoe. CONTINUE TO MONITOR.

Will N.L./inTracer @ '90 Hi-INV. to Verify S.L.

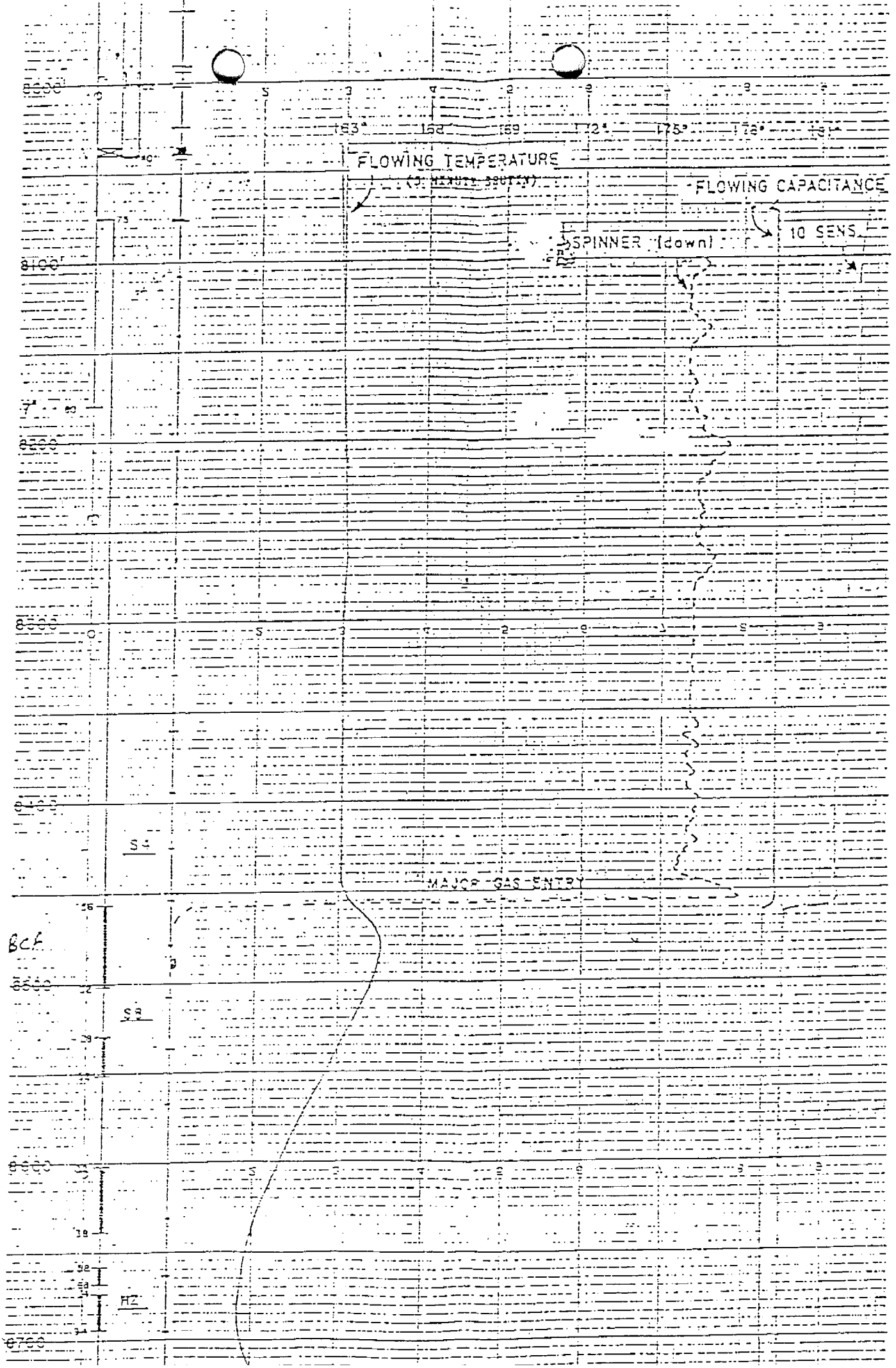
AC_CPUC_0118325

(4.)




SS 29
NOISE / TEMP.
SURVEY
12/5/90
INV. = 56.0 BCF

(5.)




SS 29
SPINNER
SURVEY
7/25/90
INV. = 44.3 BCF
RATE =
15 MMCF/D

SOUTHERN CALIFORNIA gas COMPANY

INTEROFFICE CORRESPONDENCE

TO N. W. Buss
M. E. Melton

FROM S. P. Robinson

DATE 11/14/89

SUBJECT Shoe Leak Repair for SS-29 - Aliso Canyon

Repair the shut-off leak on SS-29 and plug back the HZ and Frew intervals.

The radioactive tracer survey run on 11/10/89 verified the shoe leak that the 11/87 and 10/89 noise logs showed. Gas is moving up past the top of the Sesnon zone to the MP sand and above (See Figure 1).

While working on SS-29, we should take advantage of an opportunity to improve the well low inventory deliverability. We can do this by plugging back the HZ and Frew intervals. Fluids from these intervals load up the well at low inventories.

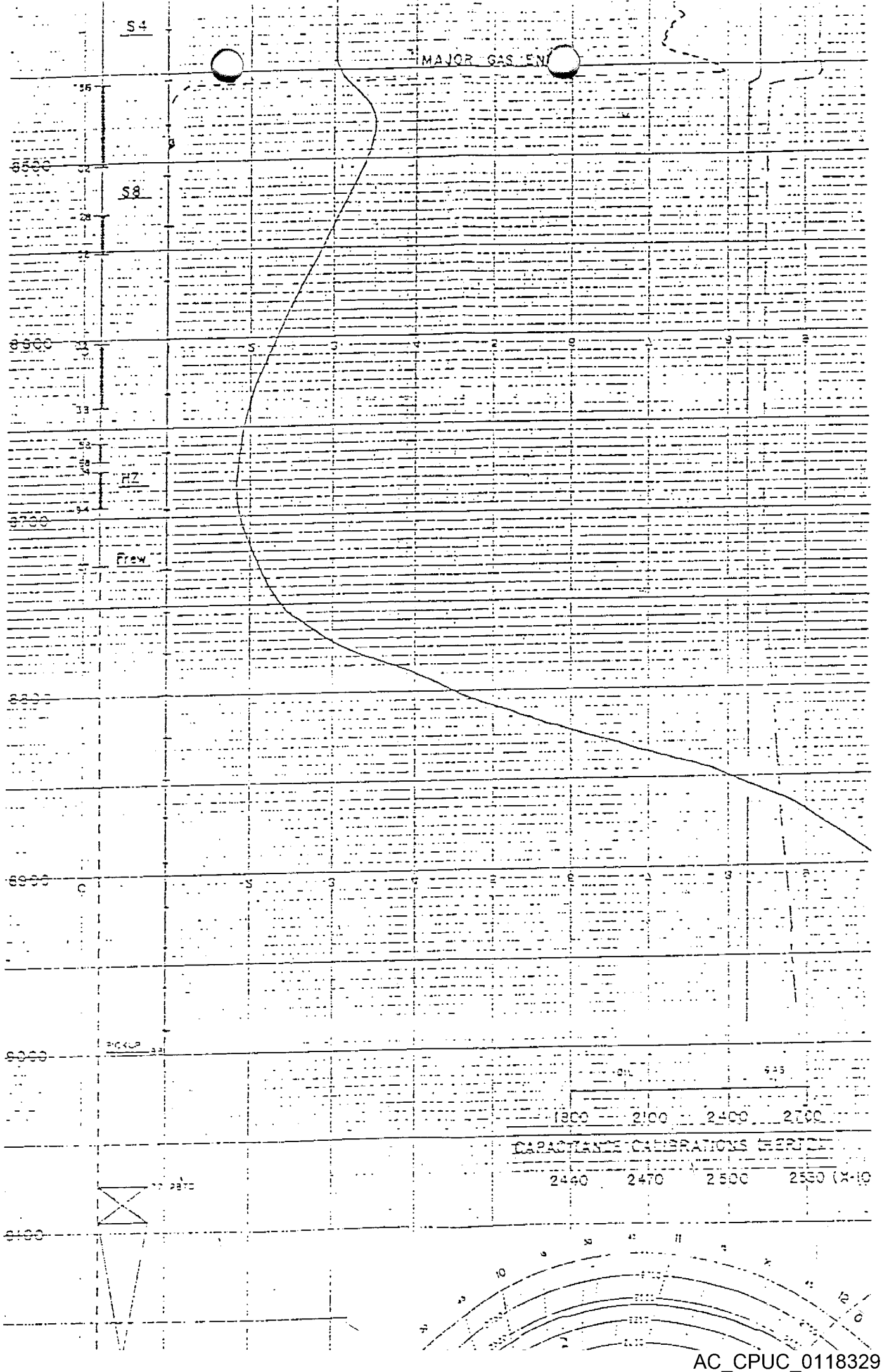
Include the following in the rework:

- Cement squeeze to shut off the leak between the sesnon and MP.
- Plug back the well at the base of the Sesnon (approximately 8695').
- Run a casing inspection log to 8075'.
- Complete the well with Otis 2.205 XN, 2-7/8 XD SSD, 2-7/8 GLM
- Rebuild the master valve and casing wing valves.

The Division pre and post rig cost should be $10,000 ($2000 labor; $3000 non-labor; $5000 contract).

SPR:db

cc: N. D. Stevenson

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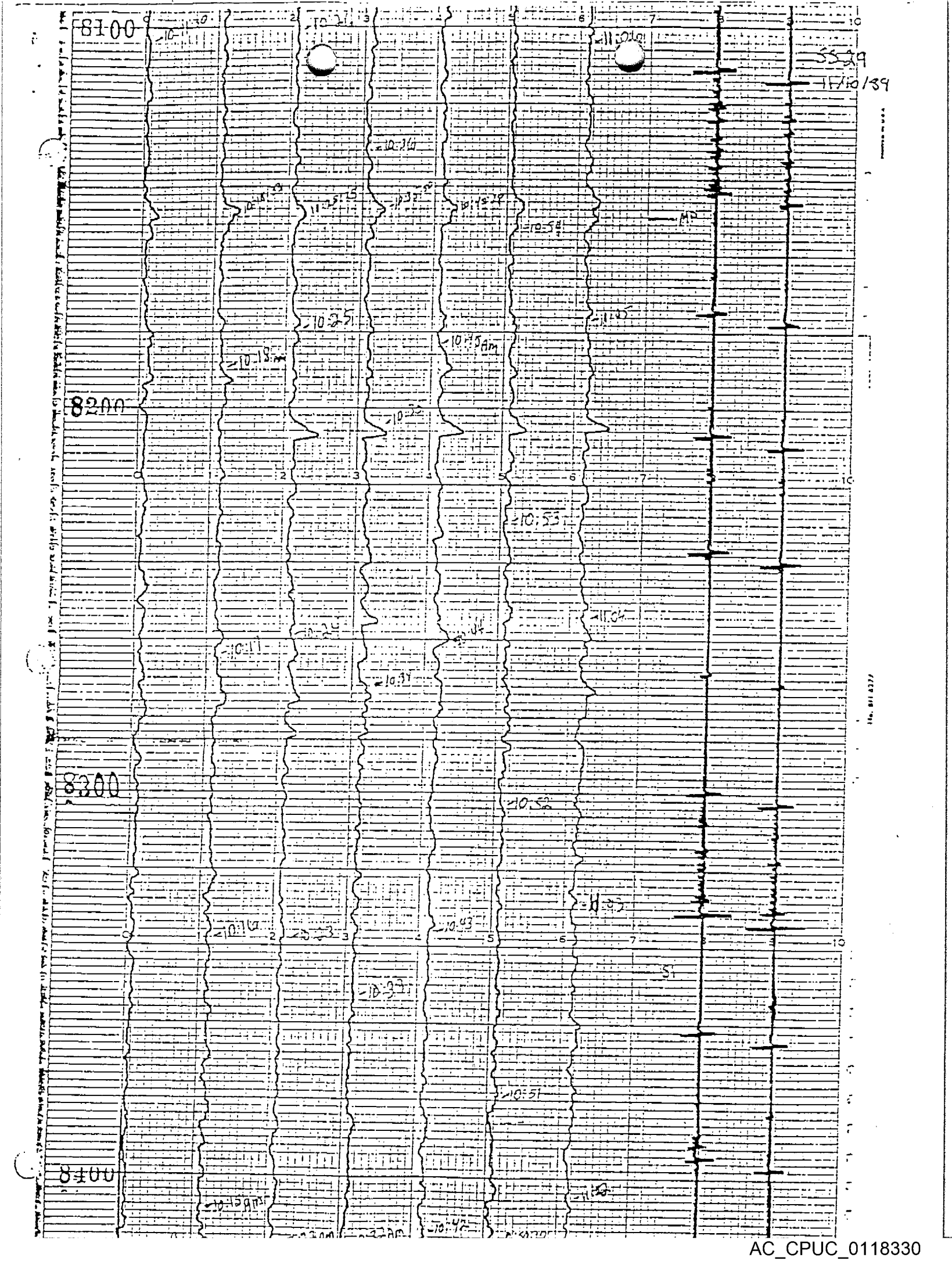


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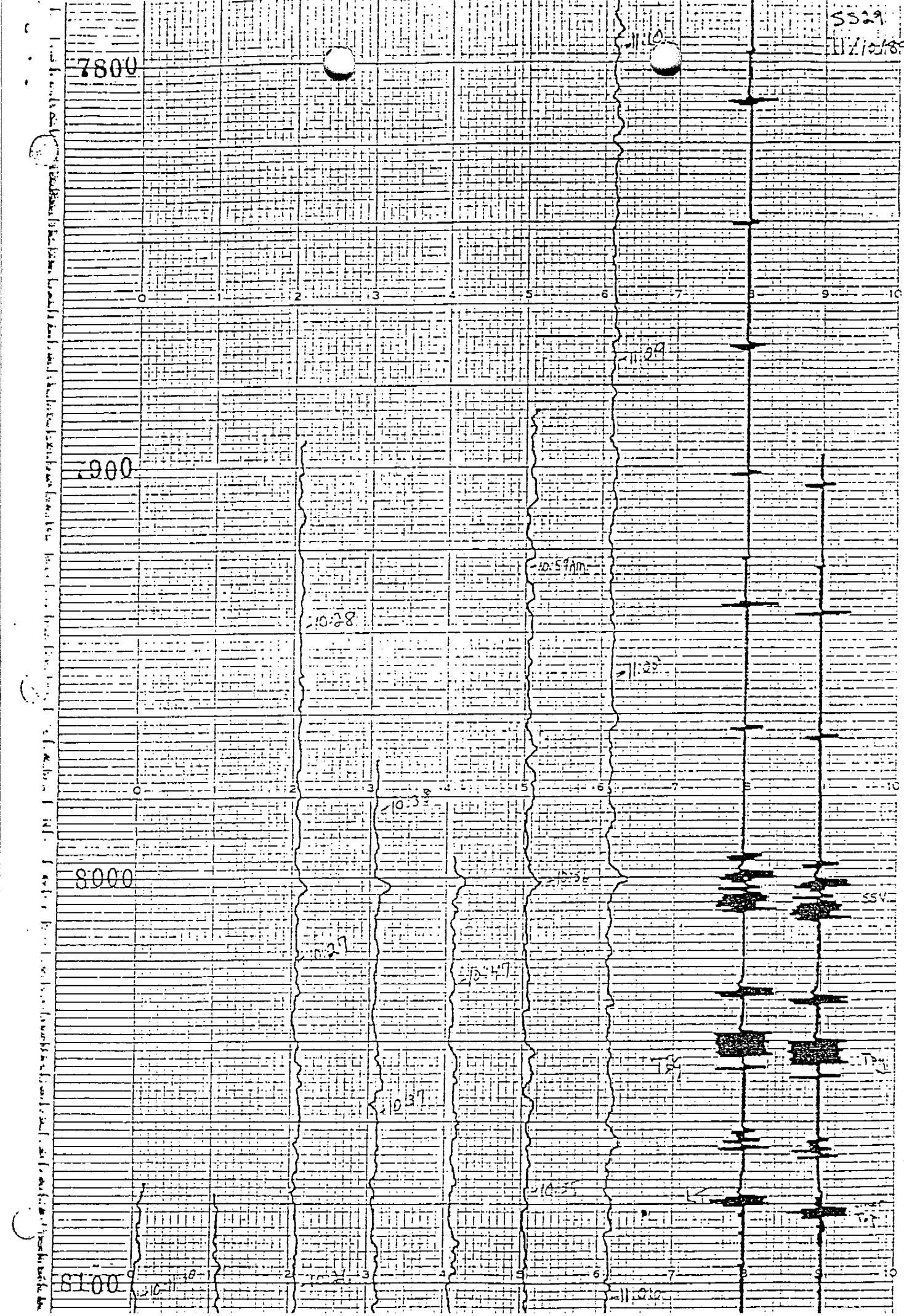


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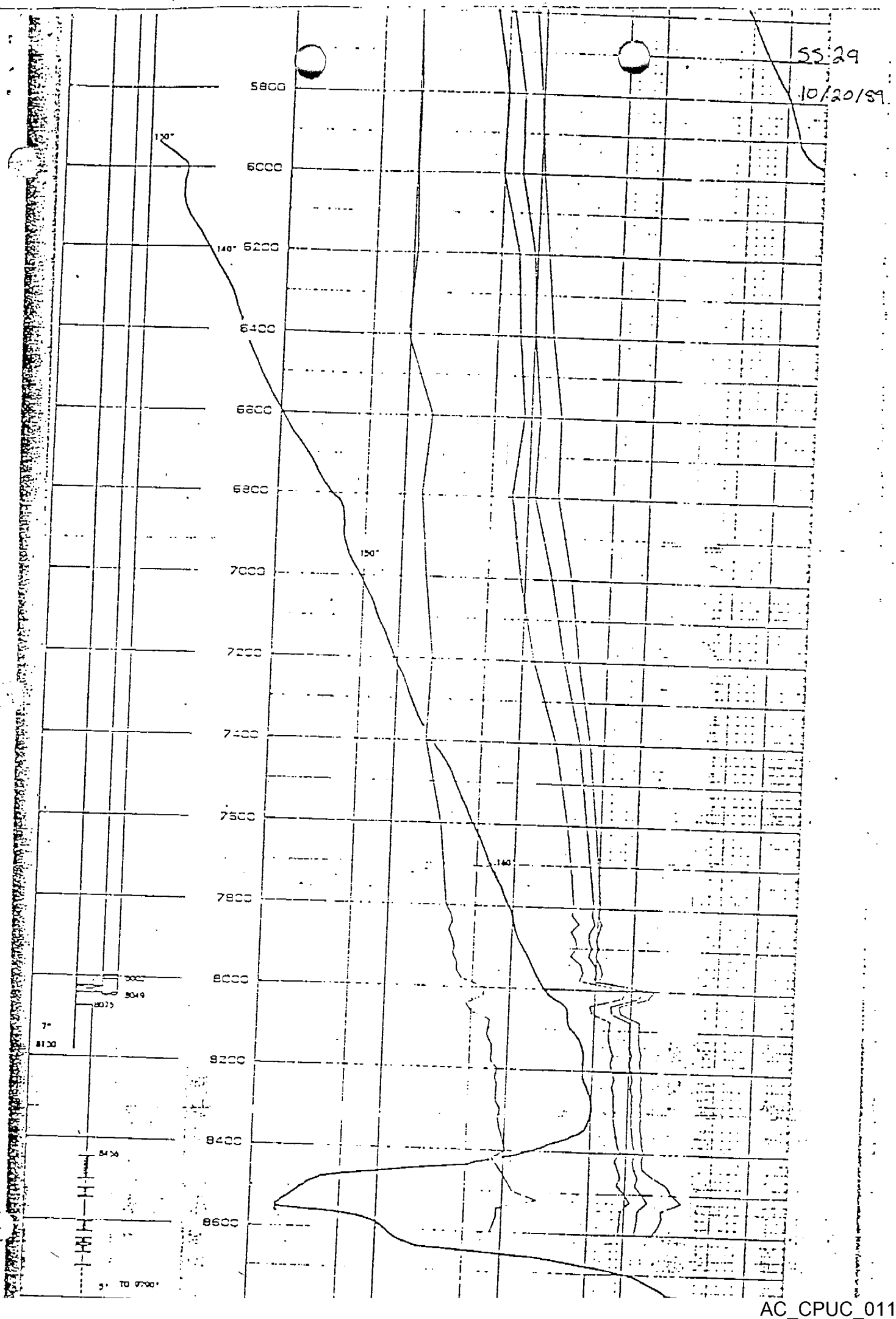



AC_CPUC_0118332

Southern California Gas Company
Cost Estimating Sheet



WELLNAME: SS 29
MWO Account Number:99412 GWO Account Number:
Begin Date: 09/10/91 End Date: 10/05/91 PPP#:
Job Category: SL Shoe leak repair

Date: 07/24/91
Field:ALISO CANYON
Rig Code: CPS D-7

| Pr St | M/ G | FI | WC | Description of Expenditure | Rig Hrs | Serv. Contr | Purch Mater | Store Mater | Co Labor | Sub-total | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | M | 01 | PR | Pre-rig work, well kill | 0 | 0 | 11000 | 0 | 0 | 11000 | |
| | M | 49 | | Tank rental,misc. rental. | | 4000 | 0 | 0 | 0 | 4000 | 15000 |
| 2 | M | 01 | RM | RIG MOVE | 12 | 4800 | 0 | 0 | 0 | 4800 | |
| | M | 44 | | Trucking,hauling | | 5000 | 0 | 0 | 0 | 5000 | |
| | M | 45 | | Cranes | | 5000 | 0 | 0 | 0 | 5000 | 14800 |
| 3 | M | 01 | MI | Rig up, install & test BOPE | 24 | 9600 | 0 | 0 | 0 | 9600 | |
| | M | 04 | | BOPE svcs,API rings | | 1000 | 0 | 0 | 0 | 1000 | |
| | M | 12 | | Wellhead equip. & svcs. | | 1000 | 0 | 0 | 0 | 1000 | |
| | M | 44 | | Trucking,hauling | | 2500 | 0 | 0 | 0 | 2500 | |
| | M | 45 | | Cranes | | 2500 | 0 | 0 | 0 | 2500 | 16600 |
| 4 | M | 01 | PT | Recover tubing | 24 | 9600 | 0 | 0 | 0 | 9600 | |
| | M | 31 | | Fishing tools & svcs. | | 10000 | 0 | 0 | 0 | 10000 | 19600 |
| 5 | M | 01 | LT | Lay down tubing | 12 | 4800 | 0 | 0 | 0 | 4800 | 4800 |
| 6 | M | 01 | PD | Pick up drillpipe | 12 | 4800 | 0 | 0 | 0 | 4800 | 4800 |
| 7 | M | 01 | Pk | Retrieve packer | 36 | 14400 | 0 | 0 | 0 | 14400 | |
| | M | 31 | | Fishing tools & svcs. | | 10000 | 0 | 0 | 0 | 10000 | |
| | M | 77 | | Mill | | 5000 | 0 | 0 | 0 | 5000 | |
| | M | 41 | | Other Wireline svcs. | | 2000 | 0 | 0 | 0 | 2000 | 31400 |
| 8 | M | 01 | CS | Scrape csg/clean out | 12 | 4800 | 0 | 0 | 0 | 4800 | |
| | M | 20 | | Bits | | 1500 | 0 | 0 | 0 | 1500 | |
| | M | 69 | | SCRAPER | | 2000 | 0 | 0 | 0 | 2000 | |
| | M | 24 | | Filtering and solids control | | 4000 | 0 | 0 | 0 | 4000 | |
| | M | 44 | | Trucking,hauling | | 2500 | 0 | 0 | 0 | 2500 | 14800 |
| 9 | M | 01 | LL | Log well | 12 | 4800 | 0 | 0 | 0 | 4800 | |
| | M | 16 | | Run logs(vertilog,caliper,etc) | | 9500 | 0 | 0 | 0 | 9500 | 14300 |
| 10 | M | 01 | Pf | Re/Perforation | 12 | 4800 | 0 | 0 | 0 | 4800 | |
| | M | 30 | | Service tools | | 30000 | 0 | 0 | 0 | 30000 | 34800 |
| 11 | M | 01 | LR | LEAK REPEAR CMT. SQZ. CASING | 42 | 16800 | 0 | 0 | 0 | 16800 | |
| | M | 11 | | Tubing accessories,packers | | 10000 | 0 | 0 | 0 | 10000 | |
| | M | 22 | | Cement,acid,sand,chemicals | | 22000 | 0 | 0 | 0 | 22000 | |
| | M | 47 | | Pumping svcs | | 12000 | 0 | 0 | 0 | 12000 | |
| | M | 41 | | Other Wireline svcs. | | 3000 | 0 | 0 | 0 | 3000 | 63800 |
| 12 | M | 01 | CO | Initial/final clean out | 24 | 9600 | 0 | 0 | 0 | 9600 | |
| | M | 20 | | Bits | | 1500 | 0 | 0 | 0 | 1500 | |
| | M | 06 | | Pressure test | | 1500 | 0 | 0 | 0 | 1500 | |
| | M | 09 | | Install Lead Seal | | 4500 | 0 | 0 | 0 | 4500 | 17100 |
| 13 | M | 01 | IP | INSTALL PACKER | 12 | 4800 | 0 | 0 | 0 | 4800 | |
| | M | 78 | | Prod. Packer | | 0 | 8000 | 0 | 0 | 8000 | |
| | M | 06 | | Pressure test | | 1500 | 0 | 0 | 0 | 1500 | |
| | M | 41 | | Other Wireline svcs. | | 3500 | 0 | 0 | 0 | 3500 | 17800 |
| 14 | M | 01 | TP | Run tbg. & prod. equip. | 12 | 4800 | 0 | 0 | 0 | 4800 | |
| | M | 10 | | Tubular goods | | 0 | 5000 | 0 | 0 | 5000 | |
| | M | 52 | | hydrotest | | 550 | 0 | 0 | 0 | 550 | |

Southern California Gas Company
Cost Estimating Sheet



WELLNAME: SS 29 Date: 07/24/91
MWO Account Number:99412 GWO Account Number: Field:ALISO CANYON
Begin Date: 09/10/91 End Date: 10/05/91 PPP#: Rig Code: CPS D-7
Job Category: SL Shoe leak repair

| Pr St | M/ G | FI | WC | Description of Expenditure | | Rig Hrs | Serv. Contr | Purch Mater | Store Mater | Co Labor | Sub-total | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | M | 44 | | Trucking,hauling | | | 1500 | 0 | 0 | 0 | 1500 | 11850 |
| 15 | M | 01 | WW | Wellhead work | | 12 | 4800 | 0 | 0 | 0 | 4800 | |
| | M | 12 | | Wellhead equip. & svcs. | | | 1500 | 0 | 0 | 0 | 1500 | |
| | M | 51 | | Xmas tree scvs | | | 1500 | 0 | 0 | 0 | 1500 | 7800 |
| 16 | M | 01 | MO | Rig down-move out | | 6 | 2400 | 0 | 0 | 0 | 2400 | 2400 |
| | | | | MWO Cost Estimate => | | 264 | 267650 | 24000 | 0 | 0 | 291650 | |
| | | | | GWO Cost Estimate => | | 0 | 0 | 0 | 0 | 0 | | 0 |
| | | | | Total Estimate => | 291650 | 264 | 267650 | 24000 | 0 | 0 | 291650 | 0 |
| | | | | 20% Contingency | 53530 | 53 | 53530 | | | | | |
| | | | | Division Pre/Post-Rig | 15000 | | 9000 | 2500 | 0 | 3500 | | |
| | | | | GRAND TOTALS => | 360180 | 317 | 330180 | 26500 | 0 | 3500 | | |
| | | | | Estimate days => | | 26 | | | | | | |

# PRE/POST WELLSITE REVIEW

WELL: _____ FIELD: _____ RIG: _____

I PRE RIG WALKTHROUGH

A. SURFACE AREA:

B. WELL CELLAR:

C. WELLHEAD:

D. WELLHEAD MODIFICATIONS:

DATE: _____ DRILLING DEPARTMENT: _____ STATION SUPERVISOR: _____ RESIDENT ENGINEER: _____

II POST RIG WALKTHROUGH

DATE RIG MOVED OFF WELL: _____

A. SURFACE AREA:

B. WELL CELLAR:

C. WELLHEAD:

WELL RELEASED TO STATION: YES ____ NO ____ DATE: _____

DRILLING DEPARTMENT: _____ STATION SUPERVISOR: _____ RESIDENT ENGINEER: _____

AC_CPUC_0118335

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
**DIVISION OF OIL AND GAS**

# Notice of Intention to Rework Well

This notice and indemnity or cash bond shall be filed, and approval given, before rework begins. If operations have not commenced within one year of receipt of the notice, this notice will be considered cancelled.

| FOR DIVISION USE ONLY | | |
|---|---|---|
| BOND | FORMS | |
| | OGD 114 | OGD 121 |
| | | |

DIVISION OF OIL AND GAS

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to rework well Standard Sesnon #29 (Well designation), API No. 037-00041

Sec. 29, T. 35, R. 16W, S.B. B. & M., Aliso Canyon Field, Los Angeles County.

The present condition of the well is as follows:

1. Total depth 9790', plug at 9094'.

2. Complete casing record, including plugs and perforations (present hole)

| | | |
|---|---|---|
| 0'-1042' | 11-3/4" | Cemented 1042' |
| 0'-8180' | 7" | Cemented 8180' WSO at shoe |
| 8075'-9077' | 5" | Landed 9077' top 8075' cemented 8725', Slotted 120 mesh, 9077'-8727' Squeezed 8700'-8705' (WSO). Perforation Intervals: 8456'-8502', 8528'-8552', 8602'-8638', 8658'-8668', 8674'-8694' |

3. Present producing zone name Sesnon ; Zone in which well is to be recompleted _____

4. Present zone pressure 3450 psig ; New zone pressure _____

5. Last produced Gas Storage Operation (Date) _____ (Oil, B/D) _____ (Water, B/D) _____ (Gas, Mcf/D)

(or)

Last injected Gas Storage Operation (Date) _____ (Water, B/D) _____ (Gas, Mcf/D) _____ (Surface pressure, psig)

6. Is this a critical well according to the definition on the reverse side of this form? ☐ (Yes) ☒ (No)

The proposed work is as follows:

1. Move in, rig up, kill well and, install and pressure test BOPE.
2. Pull and lay down 2-7/8" tubing.
3. Retrieve 7" packer.
4. Clean out well and run casing inspection log.
5. Perforate intervals: 8428'-8436', 8454'-8502', 8522'-8560', 8602'-8636', 8660'-8668', 8674'-8694', 8727'-8737', 8750'-8760', 8810'-8820'.
6. Shoot holes and cement squeeze casing shoe leak.
7. Flow and noise log well.

Note: If well is to be redrilled, show proposed new bottom-hole coordinates and true vertical depth.

***It is understood that if changes in this plan become necessary, we are to notify you immediately.***

Address P. O. Box 3249, Terminal Annex (Street)

Los Angeles, California 90051 (City) (State) (Zip)

Telephone Number (213) 689-3925

Southern California Gas Company (Name of Operator)

By J. B. Lane for R. D. Phillips (Agent) (Name-Printed)

J. B. Lane 11 SEP 91 (Name-Signature) (Date)

Type of Organization Corporation (Corporation, Partnership, Individual, etc.)

OG107 (2/86/DWRR/5M)

AC_CPUC_0118336

NOTICE OF INTENTION TO REWORK WELL
DIVISION OF OIL AND GAS
Supplemental page
Well Name: Standard Sesnon #29
API. NO.: 037-00041

The proposed work is as follows (con'd):

8. Install 7" packer.
9. Install 2-7/8" tubing, remove BOPE and install wellhead.
10. Return well to service.

AC_CPUC_0118337

FORM 100-A (10-48)

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

SEP 30 1953
LOS NIETOS

# Report on Test of Water Shut-off
(FORMATION TESTER)

No. T 153-1158

Los Angeles 15, Calif. September 29, 1953

Mr P C Foster
xxx Box X
Los Nietos, Calif.
Agent for TIDE WATER ASSOCIATED OIL CO

DEAR SIR:

Your well No. "Standard-Seaboard 1" 29, Sec. 28, T 2 S, R 16 W, S B B & M.
Aliso Canyon Field, in Los Angeles County, was tested for water shut-off on September 22, 1953. Mr. O. J. Markovich, Inspector, designated by the supervisor, was present as prescribed in Secs. 3222 and 3223, Ch. 93, Stat. 1939; there were also present J. Poyer, Engineer; R. N. Frantz, Drilling Foreman.

Shut-off data: 5 in. 18 lb. casing was cemented through perforations at 8731 ft. on September 18, 1953 in 6 in. hole with 100 sacks of cement xxxxx of which 30 sacks was left in casing.

Casing record of well: 11-3/4" cem. 1042'; 7" cem. 8180', W.S.O.; 5" ld. 9063', top at 8081', O.D. 8731', perf. 8731'-9063', four 1/2" holes 8710', W.S.O. Plugged with cement 9450'-9455' and 9200'-9004'.

Present depth 9790 ft. / Bridged with cement from 8731 ft. to 8720 ft. Cleaned out to 8720 ft. for test.
A pressure of xxx lb. was applied to the inside of casing for xxx min. without loss after cleaning out to xxx ft.
A Johnston gun and tester was run into the hole on 2-7/8 & 2-3/8 in. drill pipe-tubing, xxxxx with 750 ft. of water-xxx cushion, and packer set at 8668 ft. with tailpiece to 8720 ft.
Tester valve, with 3/8 in. bean, was opened at 1120 a.m. and remained open for 1 hr. and xxx min. During this interval there was a medium steady blow for 45 min., no blow for 5 min., then a faint blow for 10 min.

THE INSPECTOR ARRIVED AT THE WELL AT 0130 A.M. AND MR. POYER REPORTED:

1. A 6" rotary hole was drilled from 8185' to 9790'.
2. On September 16, 1953, 35 sacks of cement was pumped into the hole through 2-7/8" drill pipe hanging at 9550', filling to 9455'.
3. On September 16, 1953, 35 sacks of cement was pumped into the hole through 2-7/8" drill pipe hanging at 9200', filling to 9004'.
4. The 5" casing was cemented as noted above.
5. A Johnston tester was run into the hole and the test indicated that no fluid has access to the well between the 7" and 5" casings.
6. Cement was drilled out of the 5" casing from 8355' to 8720' (equivalent to 23 sacks), and the hole was cleaned out to 8720'.
7. The 5" casing was shot-perforated with four 1/2" holes at 8710'.

THE INSPECTOR REPORTED:

1. When the drill pipe was removed, 1729' net rise consisting of 1000' of mud-cut, thin drilling fluid, grading to 729' of oil, was found in the drill pipe above the tester.
2. The recording pressure bomb chart showed that the tester valve was open 1 hr.

The test was completed at 7105 a.m.

THE 5" SHUT-OFF AT 8710' IS APPROVED.

DIVISION

cc T L Park
Jos Jensen
J R Poyer (2)

R. D. BUSH, State Oil and Gas Supervisor
By O. J. Markovich, Deputy

AC_CPUC_0118338

Recld 8-31-77
GSD

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

# DIVISION OF OIL AND GAS

## Notice of Intention to Rework Well

This notice and indemnity or cash bond shall be filed, and approval given, before rework begins. If operations have not commenced within one year of receipt of the notice, this notice will be considered cancelled.

| FOR DIVISION USE ONLY | | |
|---|---|---|
| BOND | | |
| | OGD114 | OGD121 |
| | | |

DIVISION OF OIL AND GAS

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to rework well No. STANDARD SESNON #29, API No. -,

Sec. 29, T. 3S, R. 16W, S.B. B. & M., Aliso Canyon Field, Los Angeles County.

The present condition of the well is as follows:

1. Total depth. 9790' - plug at 9094'

2. Complete casing record, including plugs and perforations:

11 3/4" cemented 1042'

7" cemented 8170', WSO on shoe

1002' 5" landed 9077', top 8075', cp'd 8725', WSO on lap
slotted 9077'-8727'
squeezed 8700' - WSO 8705'
perforated at intervals 8694'-8456'

3. Present producing zone name SESNON & FREW Zone in which well is to be recompleted -

4. Present zone pressure 3650 psi New zone pressure -

5. Last produced Gas Storage Well
(Date) (Oil, B/D) (Water, B/D) (Gas, Mcf/D)

or

6. Last injected
(Date) (Water, B/D) (Gas, Mcf) (Surface pressure, psig.)

The proposed work is as follows:

1. Move in and rig up. Kill well. Install B.O.P.E. and pressure test.
2. Pull tubing and packer. Mill over and recover packer.
3. Clean out to 9077'. Pressure test 5" and 7" casings.
4. Perform any remedial work indicated by pressure testing.
5. Ran packer. Run tubing with down-hole safety system.
6. Return well to gas storage service.

It is understood that if changes in this plan become necessary we are to notify you immediately.

Address P.O. Box 3249, Terminal Annex
(Street)
Los Angeles, California 90051
(City) (State) (Zip)
Telephone Number (213) 689-3561

SOUTHERN CALIFORNIA GAS COMPANY
(Name of Operator)
By P. S. Magruder Jr
(Name) P. S. Magruder, Jr. (Date) 8-25-77
Type of Organization Corporation
(Corporation, Partnership, Individual, etc.)

OG107 (8-75—GSRI—15M)

AC_CPUC_0118339

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

# DIVISION OF OIL AND GAS

## Report on Operations

No. T 277-235

Mr. P. S. Magruder, Jr., Agent
So. Calif. Gas Co.
P.O. Box 54790 Terminal Annex
Los Angeles, Calif. 90024

Santa Paula, Calif.
Sept. 12, 1977

DEAR SIR:

Operations at well No. "SFZU" SS-29, API No. 037-00041, Sec. 28, T. 3N, R. 16W, S.B., B & M. Aliso Canyon Field, in Los Angeles County, were witnessed on 8/29/77. Mr. T. M. Callaway, representative of the supervisor was present from 1630 to 2100. There were also present E. Bradbury, engr.

Present condition of well: No additions to the casing record since proposal dated 1/19/73.

The operations were performed for the purpose of Testing the blowout prevention equipment and installation

DECISION:

THE BLOWOUT PREVENTION EQUIPMENT AND INSTALLATION ARE APPROVED.

b

M. G. MEFFERD
~~JOHN F. MATTHEWS, JR.~~
State Oil and Gas Supervisor

By John L Gordon Deputy

OG109 (2-75—OSP-20M)

30986-705 2-75 20M ① ◊ OSP

AC_CPUC_0118340

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

No. P 277-320

# REPORT ON PROPOSED OPERATIONS

Santa Paula, California

Mr. P. S. Magruder, Jr., Agent
So. Calif. Gas Co.
P.O. Box 54790 Terminal Annex
Los Angeles, Calif. 90024

Sept. 1, 1977

Your rework proposal to gas storage well "SFZU" SS-29 (Name and number)

, A.P.I. No. 037-00041, Section 28, T. 3N, R. 16W,

S.B. B. & M., Aliso Canyon field, Los Angeles County,

dated 8-25-77, received 8-31-77, has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. The drilling fluid used shall be of a quality and in sufficient quantity to control all subsurface conditions in order to prevent blowouts; and a reserve supply of this material shall be kept on hand to meet any emergency.
2. Blowout prevention equipment, at least of theDivision of Oil and Gas Class III,3M rating, shall be installed and maintained in operating condition at all times. The BOPE and choke system shall be tested under a pressure of at least 1500 psi.
3. THIS DIVISION SHALL BE NOTIFIED TO WITNESS A PRESSURE TEST OF THE BLOWOUT PREVENTION EQUIPMENT BEFORE COMMENCING DOWNHOLE OPERATIONS.

NOTE: A COPY OF THIS APPROVAL SHALL BE POSTED AT THE WELL SITE PRIOR TO COMMENCING OPERATIONS.

Blanket Bond
MD:b

3 copies - Blue
Pink - Gray
xc - Pink - Back
xc -

M. G. MEFFERD
State Oil and Gas Supervisor

By John L. Hardoin
Deputy Supervisor

John L. Hardoin

OG111 (11-76-GSR1-30M)

AC_CPUC_0118341

INTEROFFICE SOUTHERN CALIFORNIA gas COMPANY CORRESPONDENCE

TO Mr. L. K. Harrington FROM A. E. Russell DATE

SUBJECT Approval of MWO for Wellwork on Standard Sesnon #29 - Aliso Canyon

Attached for your approval is MWO No. 99412 for $361,000 to repair a casing shoe leak in well SS #29.

SS #29 is a withdrawal well in the Aliso Canyon Storage Field. The well recently developed a casing shoe leak thus creating a potential for gas to migrate outside the wellbore. The leak will have to be repaired to ensure well integrity and to prevent gas from migrating outside the wellbore.

If you agree with this proposal please approve the attached MWO.

Funds for this project are available in the 1991 Storage Operations Operating and Maintenance Plan.

JUL 26 1991

# MISCELLANEOUS WORK ORDER

M.W.O. NO. 99412

DIVISION North Basin DEPT. Storage Operations ORG. CODE KZ DATE 7-24-91

THIS M.W.O., WHEN PROPERLY APPROVED, WILL AUTHORIZE A DIRECT EXPENDITURE OF $

To repair casing shoe leak in well SS #29.

REASON FOR REQUEST

To repair well casing leak and to ensure well integrity.

| ESTIMATE OF DIRECT COST | AMOUNT |
|---|---|
| Labor | 4,000 00 |
| Non-Labor | 27,000 00 |
| Contract | 330,000 00 |
| TOTAL ESTIMATED DIRECT COSTS | 361,000 00 |

| % | ACCOUNT | AMOUNT |
|---|---|---|
| | 352 | |
| | 108.11 | |
| | 108.14 | |
| | | |
| | | |
| | | |

TO BE BILLED TO: (INCLUDE ADDRESS OF BILLEE)

PLANT ACCOUNTING APPROVAL:

REMARKS: The total cost includes $15,000 for Division pre/post well work.

| REQUESTED BY: | PREPARED BY: | EXAMINED & APPROVED BY: | | |
|---|---|---|---|---|
| J. B. Lane | E. S. S. | R. D. Phillips | J. F. Guy | R. L. Rudzik |

MANAGEMENT APPROVALS L. K. Harrington L. M. Stewart A. E. Russell

AC_CPUC_0118343

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
**DIVISION OF OIL AND GAS**

# Notice of Intention to Rework Well

This notice and indemnity or cash bond shall be filed, and approval given, before rework begins. If operations have not commenced within one year of receipt of the notice, this notice will be considered cancelled.

| FOR DIVISION USE ONLY | | |
|---|---|---|
| BOND | FORMS | |
| | OGD 114 | OGD 121 |
| | | |

DIVISION OF OIL AND GAS

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention

to rework well Standard Sesnon #29 (Well designation), API No. 037-00041

Sec. 29, T. 35, R. 16W, S.B. B. & M., Aliso Canyon Field, Los Angeles County.

The present condition of the well is as follows:

1. Total depth 9790', plug at 9094'.

2. Complete casing record, including plugs and perforations (present hole)

| | | |
|---|---|---|
| 0'-1042' | 11-3/4" | Cemented 1042' |
| 0'-8180' | 7" | Cemented 8180' WSO at shoe |
| 8075'-9077' | 5" | Landed 9077' top 8075' cemented 8725', Slotted 120 mesh, 9077'-8727' Squeezed 8700'-8705' (WSO). Perforation Intervals: 8456'-8502', 8528'-8552', 8602'-8638', 8658'-8668', 8674'-8694' |

3. Present producing zone name Sesnon ; Zone in which well is to be recompleted _____

4. Present zone pressure 3450 psig ; New zone pressure _____

5. Last produced Gas Storage Operation (Date) _____ (Oil, B/D) _____ (Water, B/D) _____ (Gas, Mcf/D)

(or)

Last injected Gas Storage Operation (Date) _____ (Water, B/D) _____ (Gas, Mcf/D) _____ (Surface pressure, psig)

6. Is this a critical well according to the definition on the reverse side of this form? ☐ (Yes) ☒ (No)

The proposed work is as follows:

1. Move in, rig up, kill well and, install and pressure test BOPE.
2. Pull and lay down 2-7/8" tubing.
3. Retrieve 7" packer.
4. Clean out well and run casing inspection log.
5. Perforate intervals: 8428'-8436', 8454'-8502', 8522'-8560', 8602'-8636', 8660'-8668', 8674'-8694', 8727'-8737', 8750'-8760', 8810'-8820'.
6. Shoot holes and cement squeeze casing shoe leak.
7. Flow and noise log well.

Note: If well is to be redrilled, show proposed new bottom-hole coordinates and true vertical depth.

***It is understood that if changes in this plan become necessary, we are to notify you immediately.***

Address P. O. Box 3249, Terminal Annex (Street)

Los Angeles, California 90051 (City) (State) (Zip)

Telephone Number (213) 689-3925

Southern California Gas Company (Name of Operator)

By J. B. Lane for R. D. Phillips (Agent) (Name - Printed)

J. B. Lane 11 SEP 91 (Name - Signature) (Date)

Type of Organization Corporation (Corporation, Partnership, Individual, etc.)

AC_CPUC_0118344

NOTICE OF INTENTION TO REWORK WELL
DIVISION OF OIL AND GAS
Supplemental page
Well Name: Standard Sesnon #29
API. NO.: 037-00041

The proposed work is as follows (con'd):

8. Install 7" packer.
9. Install 2-7/8" tubing, remove BOPE and install wellhead.
10. Return well to service.

AC_CPUC_0118345

OUG-JBL
cc: HR
RP

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

No.P291- 389
Field Code 010
Area Code 00
New Pool Code 30
Old Pool Code 30

# PERMIT TO CONDUCT WELL OPERATIONS
GAS STORAGE

R.D. Phillips, Agent
Southern Calif. Gas Company
810 S. Flower St.
Los Angeles, CA. 90017

Ventura, California
September 17, 1991

Your proposal to rework well "SFZU" SS-29, A.P.I. No. 037-00041, Section 28, T. 3 N, R. 16W, S.B. B.&M., Aliso Canyon field, any area, Sesnon pool, Los Angeles County, dated 9/11/91, received 9/12/91, has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. Blowout prevention equipment conforming to DOG Class III 5M requirements shall be installed and maintained in operating condition at all times.
2. Hole fluid of a quality and in sufficient quantity is used to control all subsurface conditions in order to prevent blowouts.
3. Wire line operations are conducted through at least a 5M lubricator.
4. This office shall be consulted before initiating any changes or additions to this proposed operation, or if operations are to be suspended.
5. THIS DIVISION SHALL BE NOTIFIED:
   a. To inspect the installed blowout prevention equipment before commencing downhole operations.
   b. Witness Noise Log after remedial work.

Blanket Bond
SF:ljg

Engineer Steve Fields

Phone (805) 654-4761

M.G. MEFFERD, State Oil and Gas Supervisor

By Patrick J. Kinnear
Deputy Supervisor

A copy of this permit and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.
OGIII

AC_CPUC_0118346

OTIS

GENERAL PRODUCT INFORMATION

212.1.1.2A

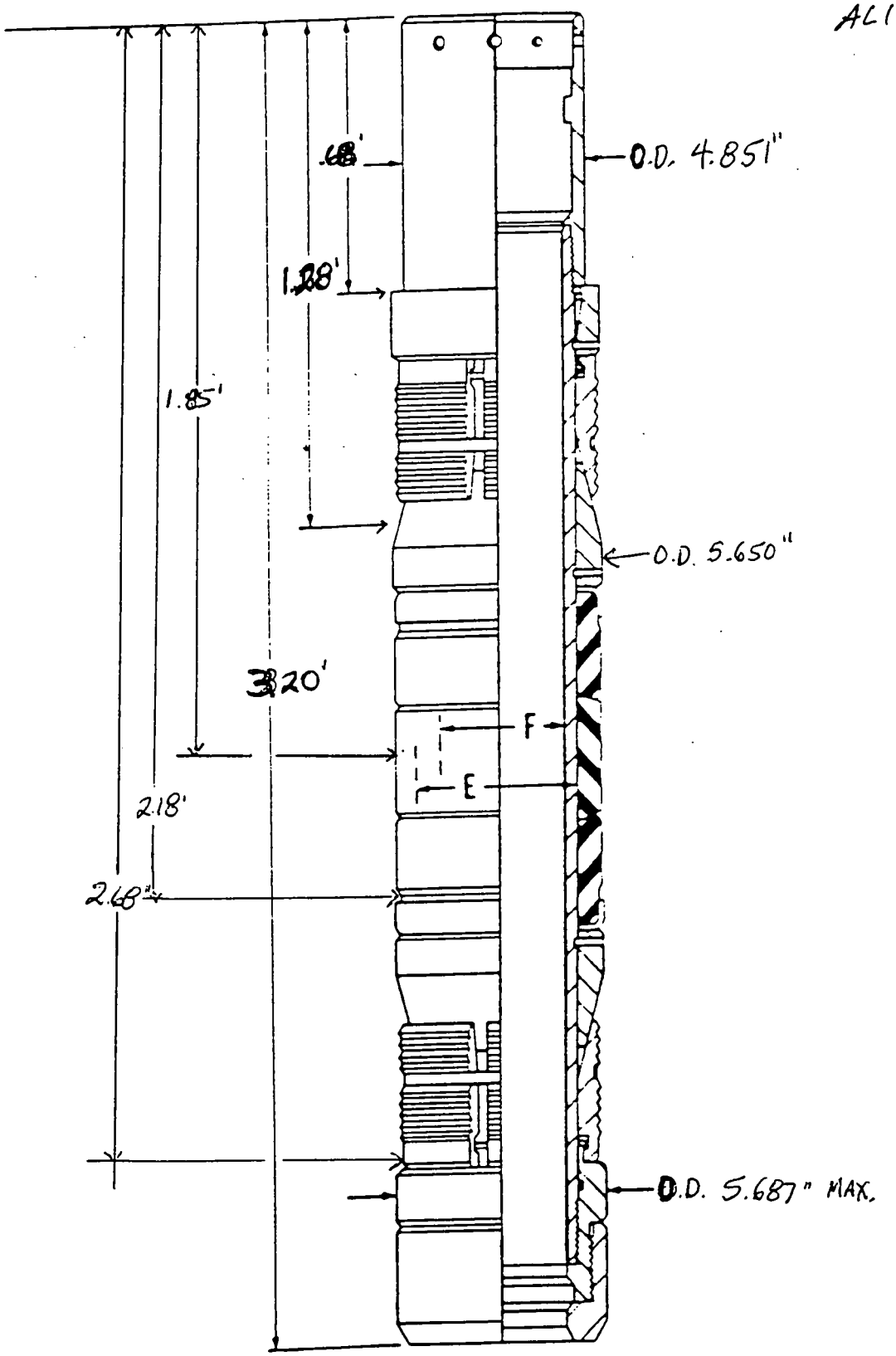
Product Code

Date: 11-4-91

Product Name: 'WE' Permanent Packer

Page: 1

SOU CAL GAS CO.
ALISO CANYON
SS#29




PACKER - OTIS BWB (212BWB 70700-A) 3.25" I.D.

23-29#

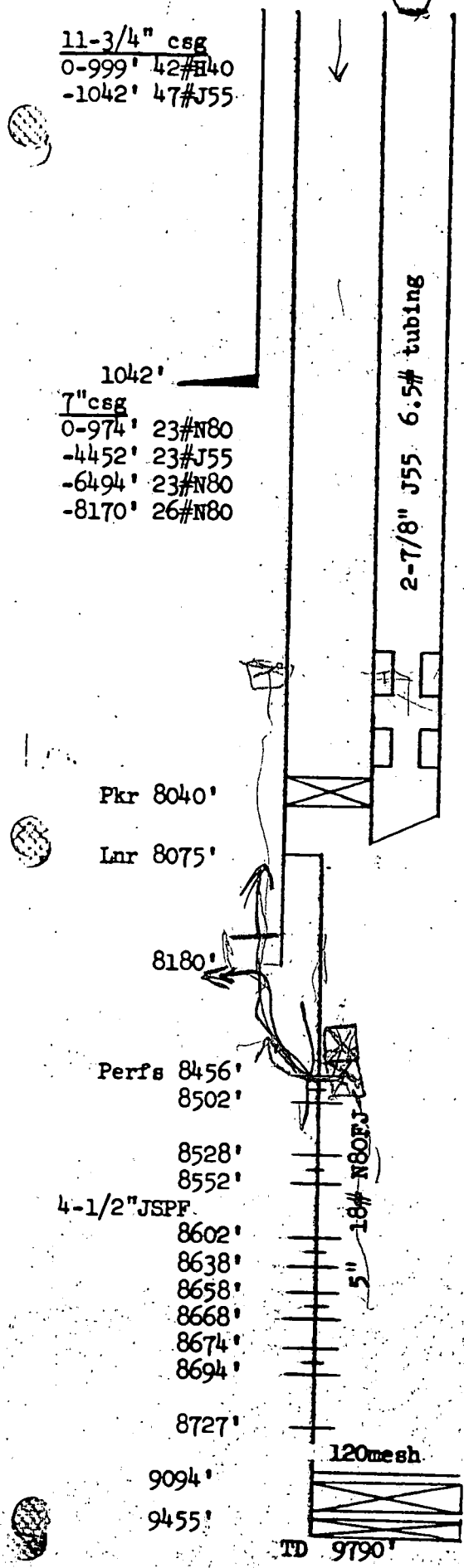
Note: These instructions describe desired results from use of Otis equipment, but such results are not guaranteed. Operation of equipment is subject to mechanical limitations and Otis shall only be liable for its merchandise and service as set forth in its general terms and conditions.

Otis Engineering Corporation • Dallas, Texas, U.S.A.

AC_CPUC_0118347

Elevation: 2849'
: 7'

Standard Sesnon 29




Surface Choke: _____
Casing flow string

--8002' Otis 2-1/2" SSSV
(8002') 2.313"ID

--8029' Otis "XN" No-Go Nipple
(8029') 2.205"

--8049'

--(8256') (-5400)

--S4 8428'

--S8 8520' (8520')

--HZ 8682'

--Frew 8727'

9077'

(SS - 6941')

4/26/53 Well spud
9/29/53 Well completed
2/2/73-2/28/73 Pressure tested 7" casing, converted to gas store by perforating in Sesnon Zone, cleaned out to 9074', ran tubing with SSSV
7/31/73-8/7/73 Installed wirelin SSSV, cleaned out to 9077'
8/27/77-9/9/77 Cleaned out to 9072', pressure tested casing, reran tubing with SSSV
3/5/79-3/10/79 Replaced safety system, set packer at 8040'

WELL VOLUME

| | Cu.Ft. | Bbl. |
|---|---|---|
| Tubing | 262 | 47 |
| Csg/Lnr. | 105 | 19 |
| Annulus | 1405 | 250 |

6-16-86

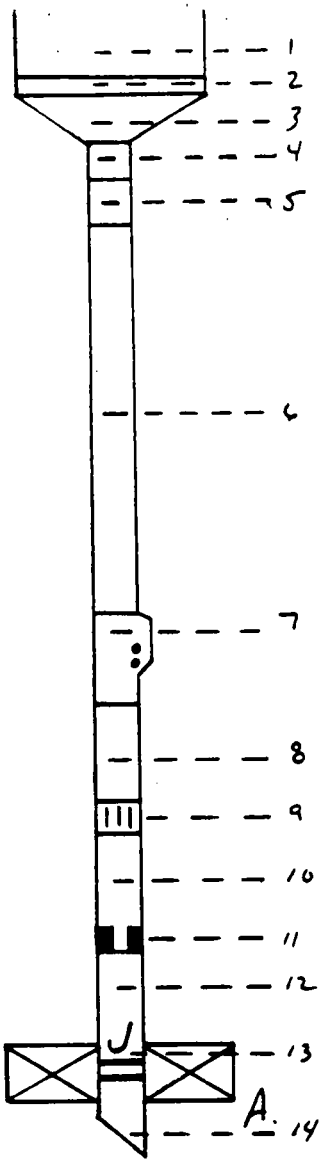
AC_CPUC_0118348

# TUBING DETAIL

WELL: STANDARD SESNON #29
FIELD: ALISO CANYON

STATUS: Injection/Withdrawal
DATE: 11-6-91

DIAGRAM




| | TUBING | TUBING | TUBING | |
|---|---|---|---|---|
| SIZE | 2 7/8 | | | |
| WEIGHT | 6.5 | | | |
| GRADE | J55 | | | |
| THREAD | 8RD EUE | | | |
| DEPTH | 8035' | | | |
| I.D. | 2.441 | | | |
| DRIFT ID | 2.347 | | | |
| O.D. | 3.668 JT | | | |

| ITEM # | DESCRIPTION | LENGTH | DEPTH |
|---|---|---|---|
| 1. | KB | 6.92 | 6.92 |
| 2. | G.L. TO TBG HEAD | -.14 | 6.78 |
| 3. | HANGER 7" 2 7/8" EUE X 2 7/8" EUE BOX | .60 | 7.38 |
| 4. | FATIGUE NIPPLE 2 7/8 EUE PIN X PIN | .68 | 8.06 |
| 5. | PUP JT 2 7/8" 6.5# N80 EUE | 4.09 | 12.15 |
| 6. | 250 JTS. 2 7/8" 6.5# J55 EUE | 7907.35 | 7919.50 |
| 7. | BST 'MMA' GLM W/ 1 1/2" RA LATCH | 12.92 | 7932.42 |
| 8. | 1 JT. 2 7/8 EUE J55 TBG. | 31.49 | 7963.91 |
| 9. | OTIS 2.313" 'XD' SSD | 3.21 | 7967.12 |
| 10. | 1 JT 2 7/8" EUE J55" TBG | 31.55 | 7998.67 |
| 11. | OTIS 2.205" 'XN' NO-GO NIPPLE | 1.28 | 7999.50 |
| 12. | 1 JT. 2 7/8" EUE J55 TBG | 31.55 | 8031.50 |
| 13. | OTIS J-LATCH W/ 2 SEAL UNITS | 1.50 / 2.49 | 8032 |
| 14. | OTIS MULE SHOE GUIDE | .60 | |
| 15. | | | |
| 16. | | | |
| 17. | | | |
| 18. | A. OTIS 7" 23-29# 'BWB' PKR | | |
| 19. | 3.25" I.D. SET AT: | | 8032' |
| 20. | | | |
| | TUBING LANDED W/ 8000# | | |
| | DOWN ON PACKER | | |

AC_CPUC_0118349

OTIS

GENERAL PRODUCT INFORMATION

N 212.1.1.2A

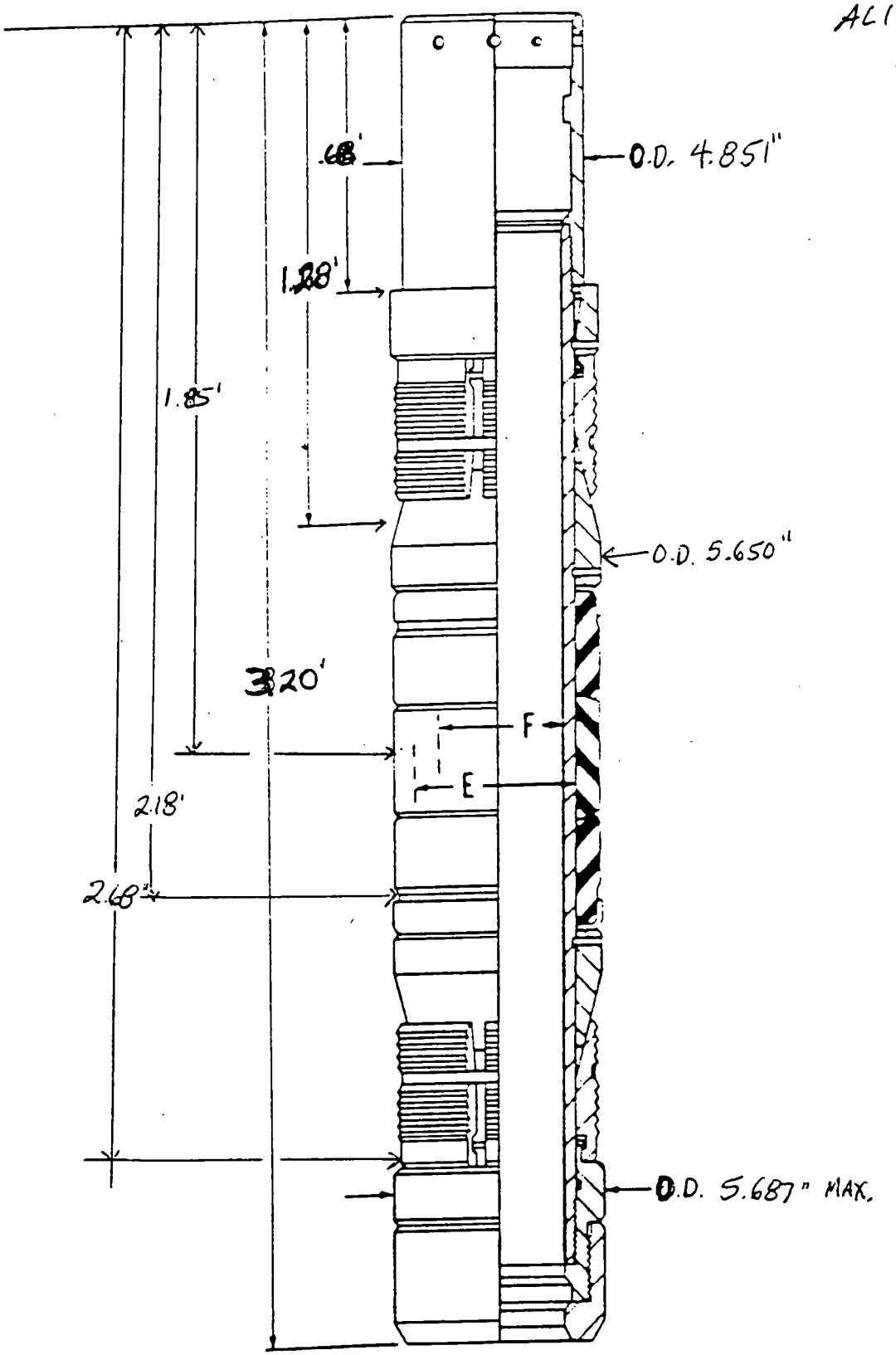
Product Code:

Date: 11-4-91

Product Name: 'HE' Permanent Packer

Page: 1

SOU CAL GAS CO.
ALISO CANYON
SS#29




PACKER - OTIS BWB (212BWB 70700-A) 3.25" I.D.
23-29#

**Note:** These instructions describe desired results from use of Otis equipment but such results are not guaranteed. Operation of equipment is subject to mechanical limitations and Otis shall only be liable for its merchandise and service as set forth in its general terms and conditions.

Otis Engineering Corporation • Dallas, Texas, U.S.A.

AC_CPUC_0118350

Orig-JRL
cc: FK
RP

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

No. P291- 389
Field Code 010
Area Code 00
New Pool Code 30
Old Pool Code 30

# PERMIT TO CONDUCT WELL OPERATIONS
## GAS STORAGE

R.D. Phillips, Agent
Southern Calif. Gas Company
810 S. Flower St.
Los Angeles, CA. 90017

Ventura, California
September 17, 1991

Your proposal to rework well "SFZU" SS-29, A.P.I. No. 037-00041, Section 28, T. 3 N, R. 16W, S.B. B.&M., Aliso Canyon field, any area, Sesnon pool, Los Angeles County, dated 9/11/91, received 9/12/91, has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. Blowout prevention equipment conforming to DOG Class III 5M requirements shall be installed and maintained in operating condition at all times.
2. Hole fluid of a quality and in sufficient quantity is used to control all subsurface conditions in order to prevent blowouts.
3. Wire line operations are conducted through at least a 5M lubricator.
4. This office shall be consulted before initiating any changes or additions to this proposed operation, or if operations are to be suspended.
5. THIS DIVISION SHALL BE NOTIFIED:
   a. To inspect the installed blowout prevention equipment before commencing downhole operations.
   b. Witness Noise Log after remedial work.

Blanket Bond
SF:ljg

Engineer Steve Fields

Phone (805) 654-4761

M.G. MEFFERD, State Oil and Gas Supervisor

By Patrick J. Kinnear
Patrick J. Kinnear
Deputy Supervisor

A copy of this permit and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.
OG111

AC_CPUC_0118351

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

No. P 277-320

# REPORT ON PROPOSED OPERATIONS

Santa Paula, California

Mr. P. S. Magruder, Jr., Agent
So. Calif. Gas Co.
P.O. Box 54790 Terminal Annex
Los Angeles, Calif. 90024

Sept. 1, 1977

Your rework proposal to gas storage well "SFZU" SS-29 (Name and number), A.P.I. No. 037-00041, Section 28, T. 3N, R. 16W, S.B. B. & M., Aliso Canyon field, Los Angeles County, dated 8-25-77, received 8-31-77, has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. The drilling fluid used shall be of a quality and in sufficient quantity to control all subsurface conditions in order to prevent blowouts; and a reserve supply of this material shall be kept on hand to meet any emergency.
2. Blowout prevention equipment, at least of theDivision of Oil and Gas Class III, 3M rating, shall be installed and maintained in operating condition at all times. The BOPE and choke system shall be tested under a pressure of at least 1500 psi.
3. THIS DIVISION SHALL BE NOTIFIED TO WITNESS A PRESSURE TEST OF THE BLOWOUT PREVENTION EQUIPMENT BEFORE COMMENCING DOWNHOLE OPERATIONS.

NOTE: A COPY OF THIS APPROVAL SHALL BE POSTED AT THE WELL SITE PRIOR TO COMMENCING OPERATIONS.

Blanket Bond
MD:b

3 Copies
- Buff
Pink - Buff
xc - Blue-Back
xc - Blue-Back

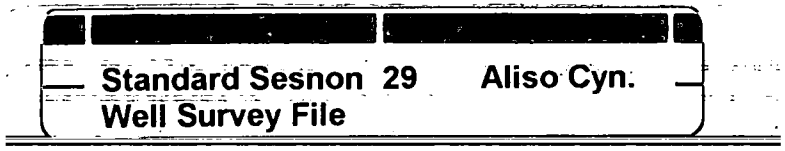
M. G. MEFFERD
State Oil and Gas Supervisor

By John L. Hardoin
Deputy Supervisor

John L. Hardoin

OG111 (11-76—GSR1—30M)

AC_CPUC_0118352




AC_CPUC_0118353

# SOUTHERN CALIFORNIA GAS COMPANY
## SUB-SURFACE PRESSURE SURVEY

FIELD ALISO WELL SS-29 DATE

RECORDER NO. RUN NO. SHEET NO. OF SHEETS BY

CLOCK HOURS TIME CLOCK STARTED TIME RUN COMPLETED

WELL CONDITION DURING RUN, SHUT-IN FLOWING INJECTION

HOURS WELL, SHUT-IN FLOWING INJECTION BEFORE RUN

WELL HEAD PRESSURE

TUBING

CASING

FLOW RATE

GAS MCF/D

OIL BBL'S/D

WATER BBL'S/D

GOR

MAXIMUM TEMPERATURE

ZERO POINT 5½ @ M/V

PICK-UP

DATUM 8256 (-5400)

| | SIZE | DEPTH |
|---|---|---|
| TUBING | 2 7/8 | 8049 |
| CASING | 7 | 8180 |
| CASING SHOE | | |
| LINER | 5 | |
| TOP | | 8075 |
| BOTTOM | | 9077 |

PERFORATION

TOP

BOTTOM

**SURVEY DATA**

| DEPTH | | STYLUS DEFLECTION | PRESSURE | GRADIENT PSI/100 FT |
|---|---|---|---|---|
| VERTICAL | MEASURED | | | |
| 0 | 0 | | | |
| 5000 | 5000 | | | |
| 6000 | 6000 | | | |
| 7000 | 7000 | | | |
| 8000 | 8000 | | | |
| 8256 | 8256 DAT | | | |
| 8428 | 8428 S-4 | | | |
| 8520 | 8520 S-8 | | | |
| 8700 | 8700 | | | |
| 8900 | 8900 | | | |
| 9000 | 9000 | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

SPECIAL INSTRUCTIONS: TBG TAIL 8049
TD 9077

BY

REMARKS:

NOTE: REVISED PRESSURE SURVEY SHEET, BASED ON TEMPERATURE SURVEY
MOVED UP SOME BOTTOM STOPS, ADDED A COUPLE STOPS NEAR BOTTOM (JDM: 6/86)

FIELD OPERATOR

CHART READ BY

SOUTHERN CALIFORNIA GAS CO.—4296

AC_CPUC_0118354

# PRUETT WIRELINE SERVICE

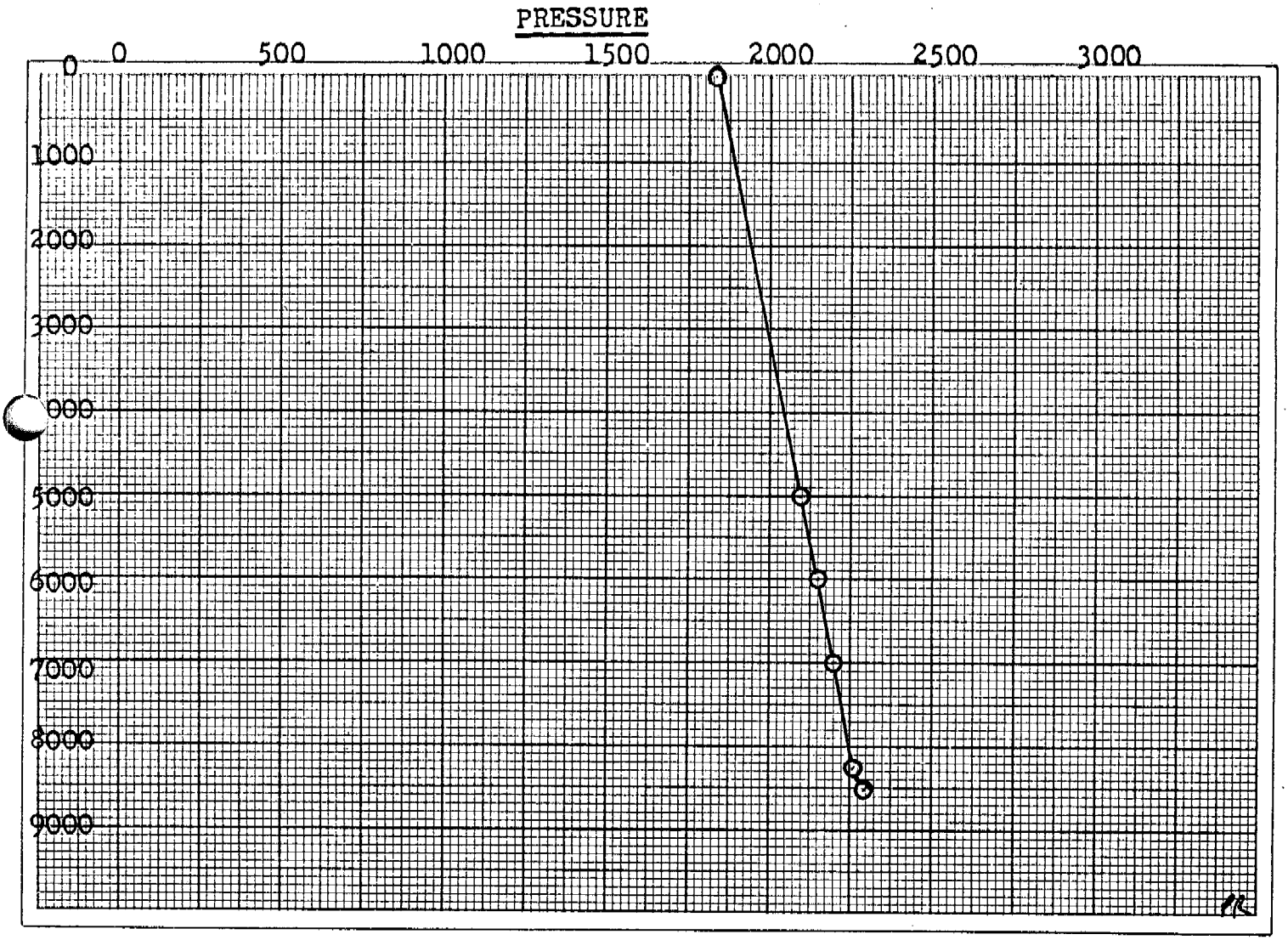
8915 Rosedale Hwy, Bakersfield, Ca. 93308
(805) 589-2768

## SUB—SURFACE PRESSURE SURVEY

COMPANY Southern California Gas FIELD Aliso Canyon WELL NAME SS 29

| | | | | | |
|---|---|---|---|---|---|
| TOTAL DEPTH | -- | WELL STATUS | Static | BOMB HUNG @ | none |
| CASING | -- | CASING PRESSURE | -- | TIME ON BOTTOM | 11:38am |
| LINER | -- | TUBING PRESSURE | -- | TIME OFF BOTTOM | 11:40am |
| PERFORATIONS | -- | ZONE | none | SHUT IN | none |
| MPP | -- | MAX °F | 190.4° | ON PRODUCTION | none |
| TUBING DETAIL | 2 7/8" @ 8048' ** | | | PURPOSE | Pressure Gradient Survey |

| | | | |
|---|---|---|---|
| DATE | 3-23-79 | | |
| ELEMENT RANGE | 5350 PSI | | |
| ZERO POINT | 6.92' | | |
| ELEVATION | none | | |
| PICKUP | none made | | |




| MEASURED DEPTH | PRESSURE |
|---|---|
| 0 | 1833 |
| 5000 | 2094 |
| 6000 | 2148 |
| 7000 | 2199 |
| 8249 | 2263 |
| 8520 | 2293 |
| Measured MPP 8520 | 2293 |

**SURVEY DATA**

** Safety @ 8001'

| VERTICAL DEPTH | GRADIENT |
|---|---|
| | .052 |
| | .054 |
| | .051 |
| | .051 |
| | .111 |

M. McShane
3-31-79

S Wilson

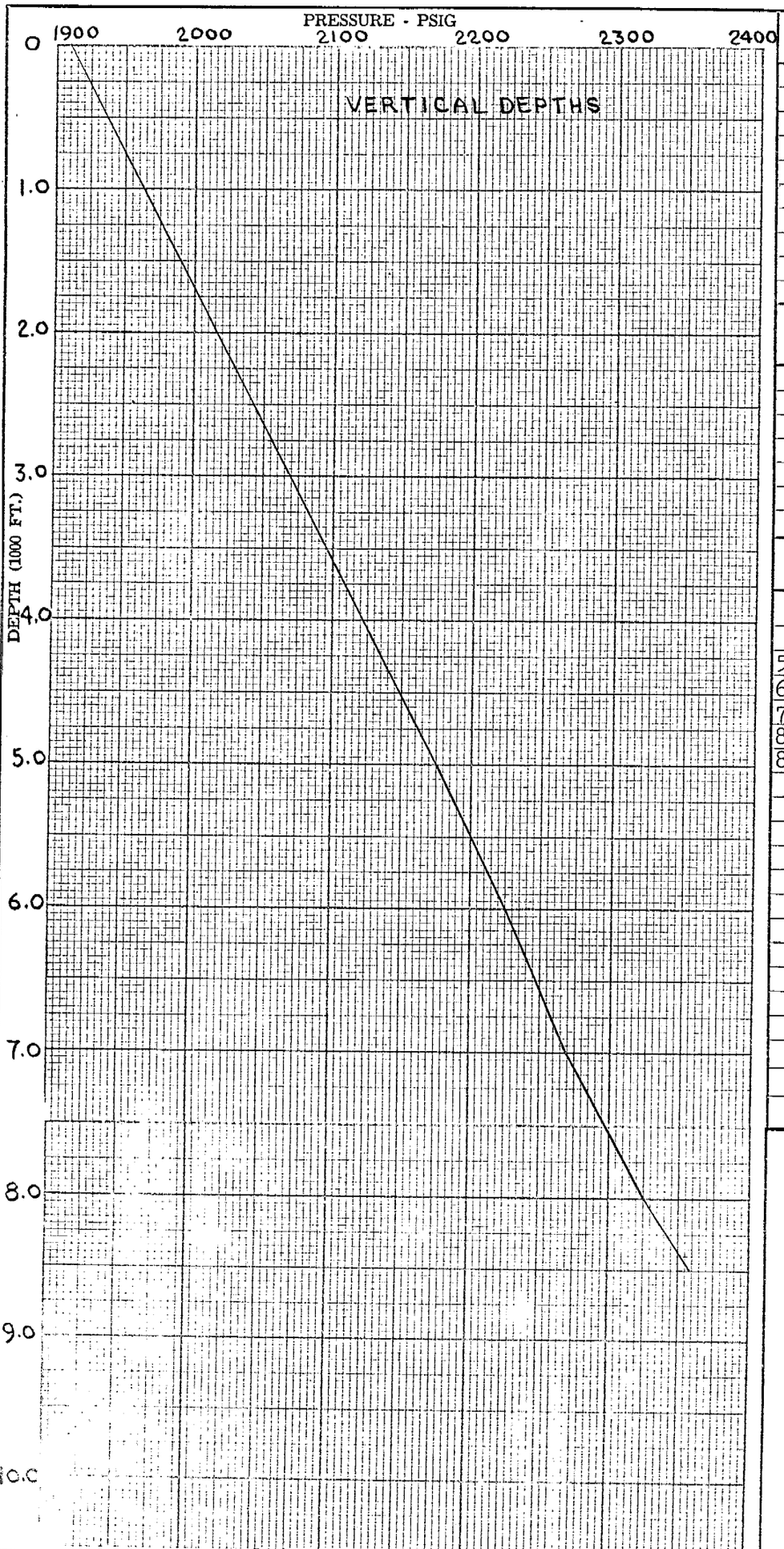
AC_CPUC_0118355

TECHNICAL SERVICE CO.
801 West 14th Street
Long Beach, California 90813

Phones: 24 Hours
Long Beach - 436-9901

# SUB-SURFACE PRESSURE DATA

Company: So. California Gas Co. Field: Aliso Date: 5-2-75 Run No.:
Well: S. S. 29 Zone: Elev.:
Purpose: Static Pressure Gradient Survey Status: Shut In
Total Depth: Effect. Depth:
Casing Size: Depth: Liner Size: Top: Bottom:
Perforations:
Tubing: 2-7/8" & 2-3/8" to 8518' (plug), G. L. Valves @ 5697', 6932', 7985', 8326', "X" Nipple @ 8017', 8390', 8456', 8483', Sliding Sleeve @ 8359', Packer @ 8420', 8518'




## OBSERVATIONS

| | |
|---|---|
| Stabilization Period - Hrs. | |
| Gross Oil Rate - B/D | |
| Net Oil Rate - B/D | |
| Formation Gas MCF/D | |
| Formation Gas-Oil Ratio CFT/BBL | |
| Circulated Gas MCF/D | |
| Oil Dry Gravity - °A.P.I. | |
| Casinghead Pressure - PSIG | |
| Tubinghead Pressure - PSIG | 1910 |
| Casing Fluid Level - Ft. | |

## RESULTS

| | |
|---|---|
| Gross Productivity Index | B/D PSI |
| Net Productivity Index | B/D PSI |
| Static M.E.P. - Run No. | PSI |
| Static M.E.P. - Projected | PSI |
| Gross Absolute Potential | B/D |
| Net Absolute Potential | B/D |
| Datum Pressures: | |

| Traverse Depth MD Feet | VD | Pressure PSIG | Gradient PSI/FT |
|---|---|---|---|
| 0 | 0 | 1910 | |
| 5000 | 5000 | 2175 | 0.053 |
| 6000 | 6000 | 2225 | 0.050 |
| 7000 | 7000 | 2269 | 0.044 |
| 8000 | 8000 | 2325 | 0.050 |
| 8500 | 8500 | 2358 | 0.066 |

COMMENTS: Zero: Mat + 7.0'. Maximum temperature not recorded.

AC_CPUC_0118356

# PACIFIC LIGHTING SERVICE COMPANY

## SUB-SURFACE PRESSURE SURVEY

FIELD Aliso Canyon WELL S. S. 29 DATE 5-2-75

RECORDER No. 2900 RUN No. ____ SHEET No. ____ OF ____ SHEETS BY ____

CLOCK HOURS 3 TIME CLOCK STARTED ____ TIME RUN COMPLETED ____

WELL CONDITION DURING RUN, SHUT IN ____ FLOWING ____ INJECTION ____

HOURS WELL, SHUT-IN ____ FLOWING ____ INJECTION ____ BEFORE RUN ____

WELL HEAD PRESSURE

TUBING 1910

CASING ____

FLOW RATE

GAS MCF/D ____

OIL BBL'S/D ____

WATER BBL'S/D ____

GOR ____

MAXIMUM TEMPERATURE --

ZERO POINT 7.0'

PICK-UP ____

DATUM 8524'

| | SIZE | DEPTH |
|---|---|---|
| TUBING | | |
| CASING | | |
| CASING SHOE | | |
| LINER | | |
| TOP | | |
| BOTTOM | | |
| PERFORATION | | |
| TOP | | |
| BOTTOM | | |

SURVEY DATA

| DEPTH | | STYLUS DEFLECTION | PRESSURE | GRADIENT PSI/100 F |
|---|---|---|---|---|
| MEASURED | VERTICAL | | | |
| 0 | 0 | 1.030 | 1910 | |
| 5000 | 5000 | 1.174 | 2175 | 0.053 |
| 6000 | 6000 | 1.201 | 2225 | 0.050 |
| 7000 | 7000 | 1.225 | 2269 | 0.044 |
| 8000 | 8000 | 1.255 | 2325 | 0.056 |
| 8500 | 8500 | 1.273 | 2358 | 0.066 |

SPECIAL INSTRUCTIONS: ____

BY ____

REMARKS: ____

FIELD OPERATOR Harlan

CHART READ BY Smith

PLS FORM 501

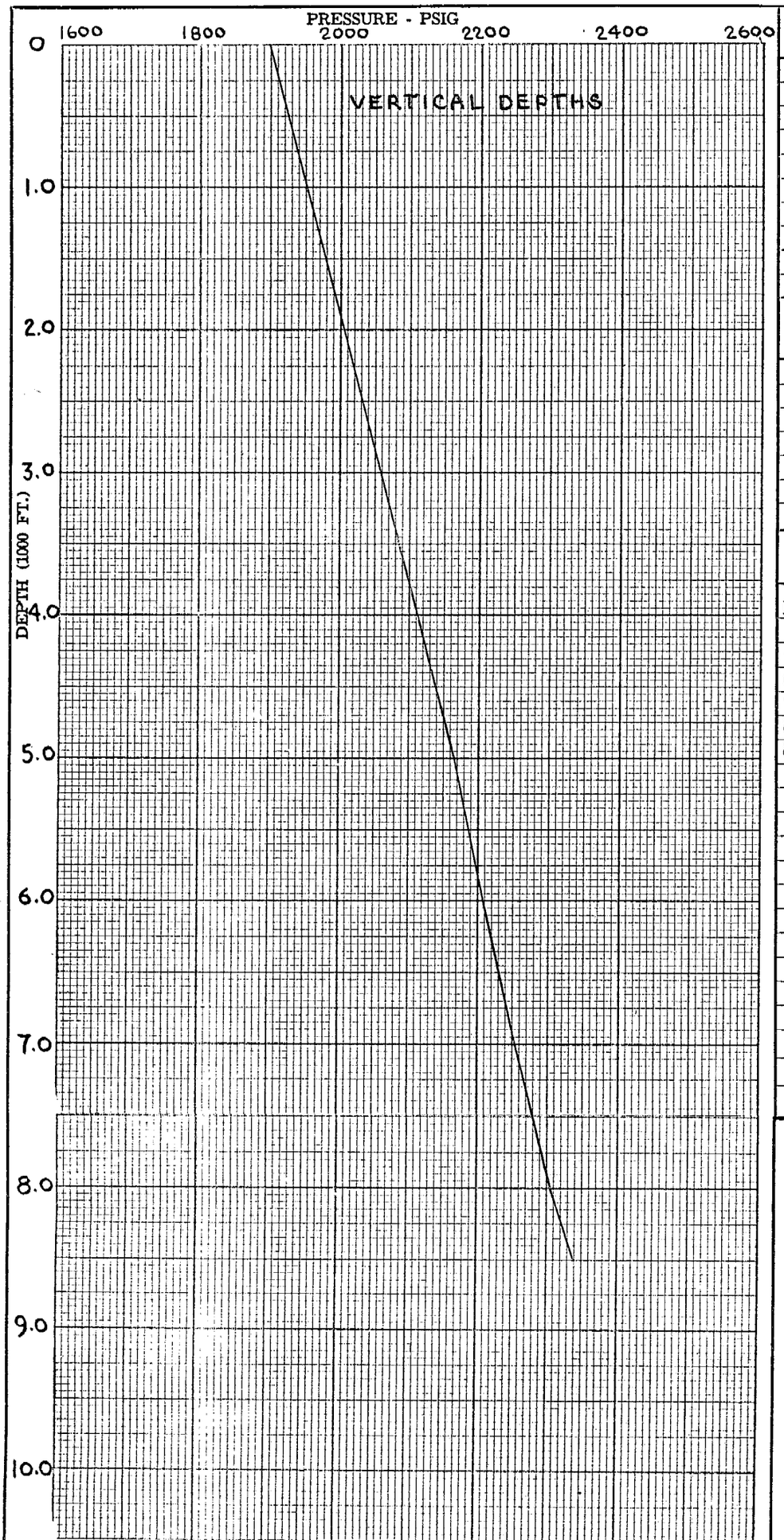
AC_CPUC_0118357

TECHNICAL SERVICE CO.
801 West 14th Street
Long Beach, California 90813

Phones: 24 Hours
Long Beach - 436-9901

# SUB-SURFACE PRESSURE DATA

Company: So. California Gas Co. Field: Aliso Date: 4-23-75 Run No.:
Well: S. S. 29 Zone: Elev.:
Purpose: Static Pressure Gradient Survey Status: Shut In
Total Depth: Effect. Depth:
Casing Size: Depth: Liner Size: Top: Bottom:
Perforations:
Tubing: 2-7/8" & 2-3/8" to 8518' (plug), G. L. Valves @ 5697', 6932', 7985', 8326', "X" Nipple @ 8017', 8390', 8456', 8483', Sliding Sleeve @ 8359', Packer @ 8420', 8518'




## OBSERVATIONS

| | |
|---|---|
| Stabilization Period - Hrs. | |
| Gross Oil Rate - B/D | |
| Net Oil Rate - B/D | |
| Formation Gas MCF/D | |
| Formation Gas-Oil Ratio CFT/BBL | |
| Circulated Gas MCF/D | |
| Oil Dry Gravity - °A.P.I. | |
| Casinghead Pressure - PSIG | |
| Tubinghead Pressure - PSIG | 1899 |
| Casing Fluid Level - Ft. | |

## RESULTS

| | |
|---|---|
| Gross Productivity Index | B/D PSI |
| Net Productivity Index | B/D PSI |
| Static M.E.P. - Run No. | PSI |
| Static M.E.P. - Projected | PSI |
| Gross Absolute Potential | B/D |
| Net Absolute Potential | B/D |
| Datum Pressures: | |

| Traverse Depth Feet MD | VD | Pressure PSIG | Gradient PSI/FT |
|---|---|---|---|
| 0 | 0 | 1899 | |
| 5000 | 5000 | 2164 | 0.053 |
| 6000 | 6000 | 2208 | 0.044 |
| 7000 | 7000 | 2253 | 0.045 |
| 8000 | 8000 | 2304 | 0.051 |
| 8500 | 8500 | 2338 | 0.068 |

COMMENTS: Zero: Mat + 6.92'. Maximum temperature 182° F. .

AC_CPUC_0118358

PACIFIC LIGHTING SERVICE COMPANY

SUB-SURFACE PRESSURE SURVEY

FIELD Aliso Canyon WELL S. S. 29 DATE 4-23-75

RECORDER No. 2900 RUN No. ____ SHEET No. ____ OF ____ SHEETS BY ____

CLOCK HOURS 3 TIME CLOCK STARTED ____ TIME RUN COMPLETED ____

WELL CONDITION DURING RUN, SHUT IN ____ FLOWING ____ INJECTION ____

HOURS WELL, SHUT-IN ____ FLOWING ____ INJECTION ____ BEFORE RUN ____

WELL HEAD PRESSURE

TUBING 1899

CASING ____

FLOW RATE

GAS MCF/D ____

OIL BBL'S/D ____

WATER BBL'S/D ____

GOR ____

MAXIMUM TEMPERATURE 182° F.

ZERO POINT 7.0'

PICK-UP ____

DATUM 8524'

| | SIZE | DEPTH |
|---|---|---|
| TUBING | 2-3/8" | 8522' |
| CASING | | |
| CASING SHOE | | |
| LINER | | |
| TOP | | |
| BOTTOM | | |
| PERFORATION | | |
| TOP | | |
| BOTTOM | | |

SURVEY DATA

| DEPTH | | STYLUS DEFLECTION | PRESSURE | GRADIENT PSI/100 FT |
|---|---|---|---|---|
| MEASURED | VERTICAL | | | |
| 0 | 0 | 1.024 | 1899 | |
| 5000 | 5000 | 1.168 | 2164 | 0.053 |
| 6000 | 6000 | 1.192 | 2208 | 0.044 |
| 7000 | 7000 | 1.216 | 2253 | 0.045 |
| 8000 | 8000 | 1.244 | 2304 | 0.051 |
| 8500 | 8500 | 1.262 | 2338 | 0.068 |

SPECIAL INSTRUCTIONS: ____

BY ____

REMARKS: Unit 1 Survey sequence #3

FIELD OPERATOR Harlan

CHART READ BY Robinson - Smith

PLS FORM 501

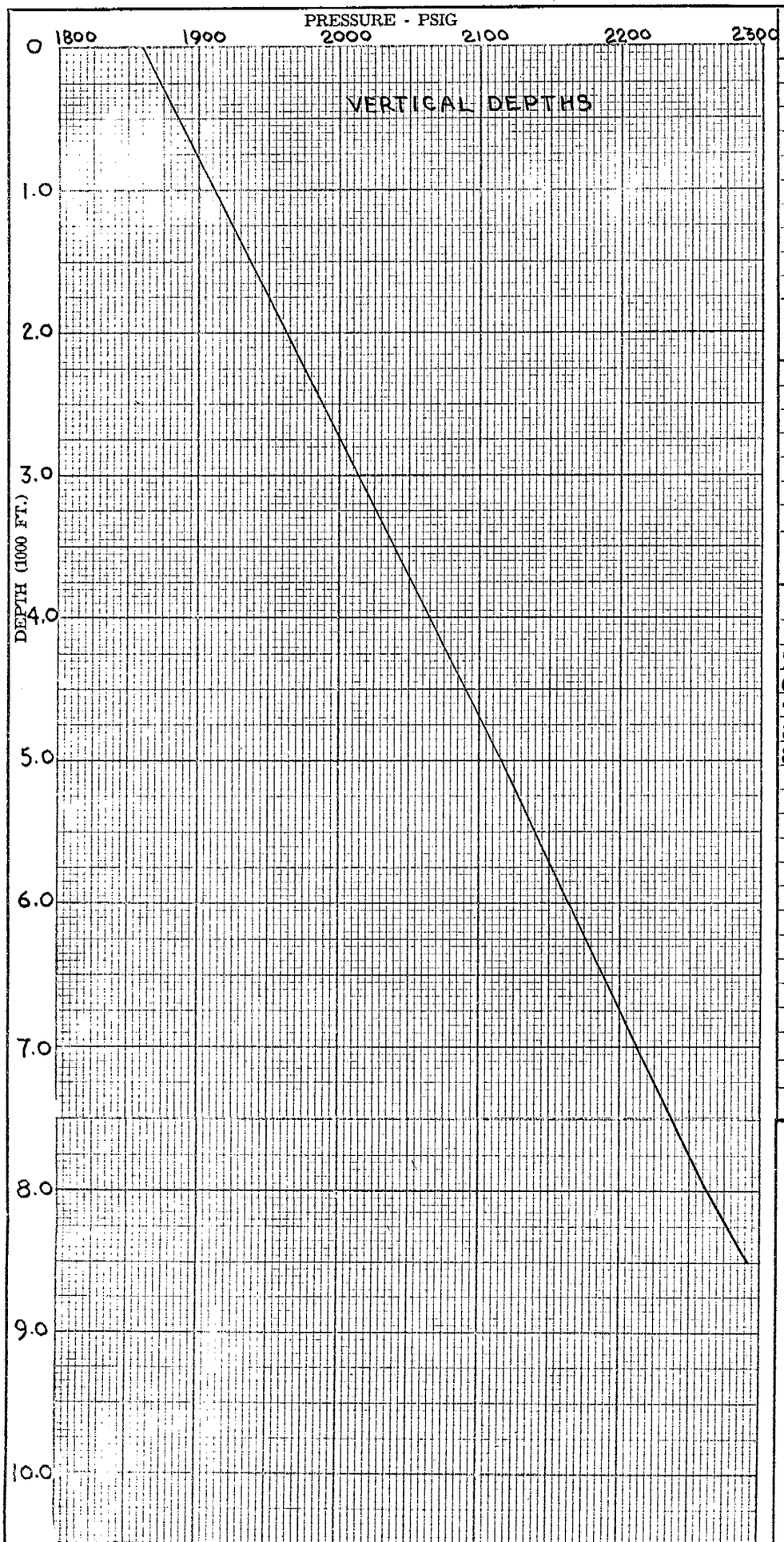
AC_CPUC_0118359

TECHNICAL SERVICE CO
801 West 14th Street
Long Beach, California 90813

Phones: 24 Hours
Long Beach - 436-9901

# SUB-SURFACE PRESSURE DATA

Company So. California Gas Co. Field Aliso Canyon Date 4-11-75 Run No.
Well Standard Sesnon 29 Zone Elev.
Purpose Static Pressure Gradient Survey Status Shut In
Total Depth Effect. Depth
Casing Size Depth Liner Size Top Bottom
Perforations
Tubing 2-7/8" & 2-3/8" to 8518' (plug), G. L. Valves @ 5697', 6932', 7985', 8326', "X" Nipple @ 8017', 8390', 8456', 8483', Sliding Sleeve @ 8359', Packer @ 8420', 8518'




## OBSERVATIONS

| | |
|---|---|
| Stabilization Period - Hrs. | |
| Gross Oil Rate - B/D | |
| Net Oil Rate - B/D | |
| Formation Gas MCF/D | |
| Formation Gas-Oil Ratio CFT/BBL | |
| Circulated Gas MCF/D | |
| Oil Dry Gravity - °A.P.I. | |
| Casinghead Pressure - PSIG | |
| Tubinghead Pressure - PSIG | 1860 |
| Casing Fluid Level - Ft. | |

## RESULTS

| | |
|---|---|
| Gross Productivity Index | B/D PSI |
| Net Productivity Index | B/D PSI |
| Static M.E.P. - Run No. | PSI |
| Static M.E.P. - Projected | PSI |
| Gross Absolute Potential | B/D |
| Net Absolute Potential | B/D |
| Datum Pressures: | |

| Traverse Depth Feet MD | VD | Pressure PSIG | Gradient PSI/FT |
|---|---|---|---|
| 0 | 0 | 1860 | |
| 5000 | 5000 | 2116 | 0.051 |
| 6000 | 6000 | 2164 | 0.048 |
| 7000 | 7000 | 2212 | 0.048 |
| 8000 | 8000 | 2262 | 0.050 |
| 8500 | 8500 | 2292 | 0.060 |

Datum 8522 P=2293

COMMENTS Zero: K. B. 6.92'. Maximum temperature 170° F.

AC_CPUC_0118360

# PACIFIC LIGHTING SERVICE COMPANY

## SUB-SURFACE PRESSURE SURVEY

FIELD Aliso Canyon WELL S. S. 29 DATE 4-11-75

RECORDER NO. 2900 RUN NO. ____ SHEET NO. ____ OF ____ SHEETS BY ____

CLOCK HOURS 3 TIME CLOCK STARTED ____ TIME RUN COMPLETED ____

WELL CONDITION DURING RUN, SHUT IN ____ FLOWING ____ INJECTION ____

HOURS WELL, SHUT-IN ____ FLOWING ____ INJECTION ____ BEFORE RUN ____

WELL HEAD PRESSURE

TUBING 1860

CASING ____

FLOW RATE

GAS MCF/D ____

OIL BBL'S/D ____

WATER BBL'S/D ____

GOR ____

MAXIMUM TEMPERATURE 170° F.

ZERO POINT 7.0'

PICK-UP ____

DATUM 8524'

| | SIZE | DEPTH |
|---|---|---|
| TUBING | | |
| CASING | | |
| CASING SHOE | | |
| LINER | | |
| TOP | | |
| BOTTOM | | |
| PERFORATION | | |
| TOP | | |
| BOTTOM | | |

SURVEY DATA

| DEPTH | | STYLUS DEFLECTION | PRESSURE | GRADIENT PSI/100 FT |
|---|---|---|---|---|
| MEASURED | VERTICAL | | | |
| 0 | 0 | 1.003 | 1860 | |
| 5000 | 5000 | 1.142 | 2116 | 0.051 |
| 6000 | 6000 | 1.168 | 2164 | 0.048 |
| 7000 | 7000 | 1.194 | 2212 | 0.048 |
| 8000 | 8000 | 1.221 | 2262 | 0.050 |
| 8500 | 8500 | 1.237 | 2292 | 0.060 |

SPECIAL INSTRUCTIONS: ____

BY ____

REMARKS: Survey sequence #2 - Unit 2

FIELD OPERATOR Harlan

CHART READ BY Robinson - Smith

PLS FORM 501

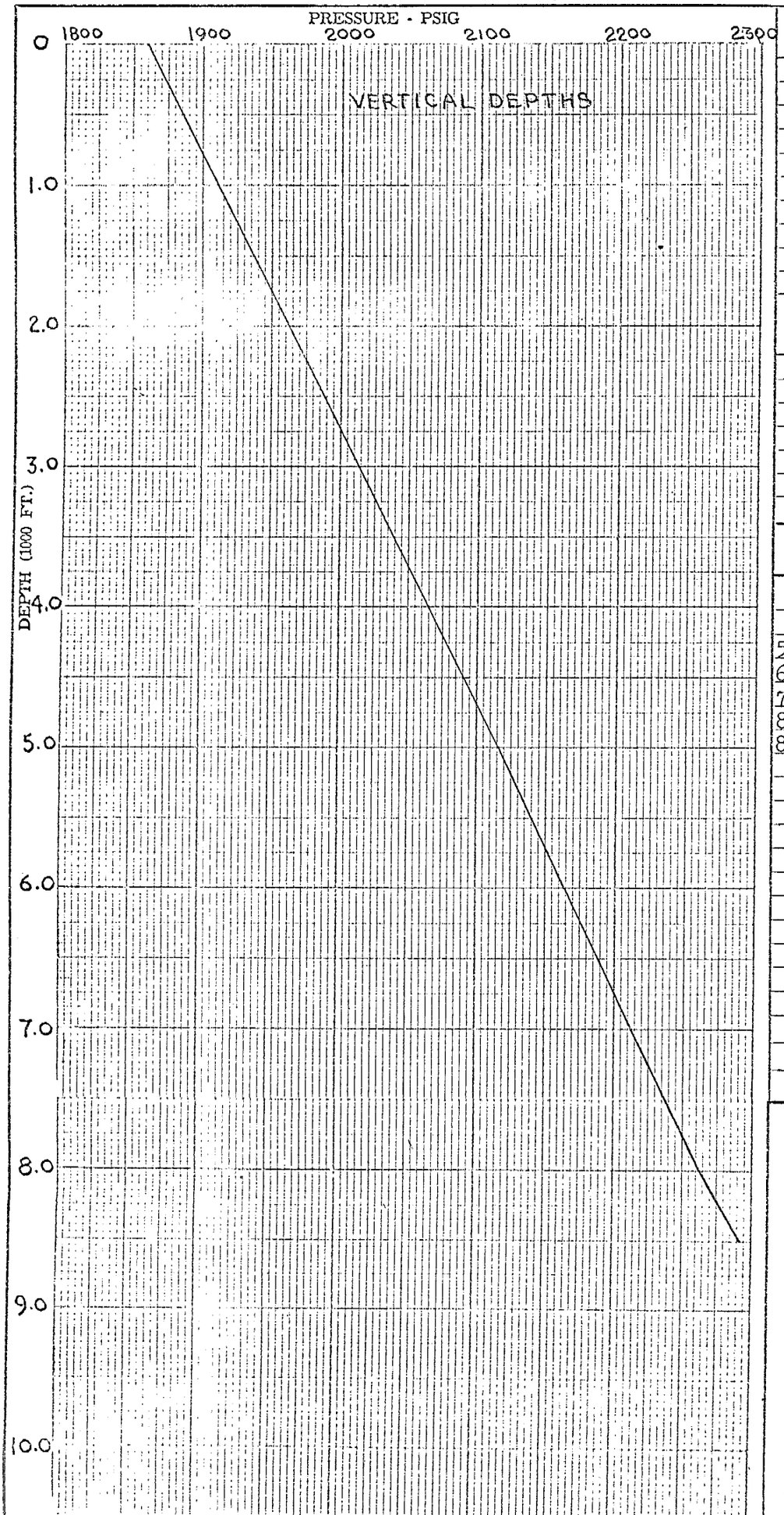
AC_CPUC_0118361

TECHNICAL SERVICE CO
801 West 14th Street
Long Beach, California 90813

Phones: 24 Hours
Long Beach - 436-9901

# SUB-SURFACE PRESSURE DATA

Company So. California Gas Co. Field Aliso Canyon Date 4-11-75 Run No.
Well Standard Sesnon 29 Zone Elev.
Purpose Static Pressure Gradient Survey Status Shut In
Total Depth Effect. Depth
Casing Size Depth Liner Size Top Bottom
Perforations
Tubing 2-7/8" & 2-3/8" to 8518' (plug), G. L. Valves @ 5697', 6932', 7985', 8326', "X" Nipple @ 8017', 8390', 8456', 8483', Sliding Sleeve @ 8359', Packer @ 8420', 8518'




## OBSERVATIONS

| | |
|---|---|
| Stabilization Period - Hrs. | |
| Gross Oil Rate - B/D | |
| Net Oil Rate - B/D | |
| Formation Gas MCF/D | |
| Formation Gas-Oil Ratio CFT/BBL | |
| Circulated Gas MCF/D | |
| Oil Dry Gravity - °A.P.I. | |
| Casinghead Pressure - PSIG | |
| Tubinghead Pressure - PSIG | 1860 |
| Casing Fluid Level - Ft. | |

## RESULTS

| | |
|---|---|
| Gross Productivity Index | B/D PSI |
| Net Productivity Index | B/D PSI |
| Static M.E.P. - Run No. | PSI |
| Static M.E.P. - Projected | PSI |
| Gross Absolute Potential | B/D |
| Net Absolute Potential | B/D |
| Datum Pressures: | |

| Traverse Depth MD Feet | VD | Pressure PSIG | Gradient PSI/FT |
|---|---|---|---|
| 0 | 0 | 1860 | |
| 5000 | 5000 | 2116 | 0.051 |
| 6000 | 6000 | 2164 | 0.048 |
| 7000 | 7000 | 2212 | 0.048 |
| 8000 | 8000 | 2262 | 0.050 |
| 8500 | 8500 | 2292 | 0.060 |

COMMENTS Zero: K. B. 6.92'. Maximum temperature 170° F.

AC_CPUC_0118362

PACIFIC LIGHTING SERVICE COMPANY

SUB-SURFACE PRESSURE SURVEY

FIELD Aliso Cyn WELL SS 29 DATE 12-20-74

RECORDER NO. 12327 RUN NO. ___ SHEET NO. ___ OF ___ SHEETS BY Wilson

CLOCK HOURS 1½ TIME CLOCK STARTED 1.04 TIME RUN COMPLETED ___

WELL CONDITION DURING RUN, SHUT IN ___ FLOWING ___ INJECTION ___

HOURS WELL, SHUT-IN ___ FLOWING ___ INJECTION ___ BEFORE RUN ___

WELL HEAD PRESSURE

TUBING ___

CASING ___

FLOW RATE

GAS MCF/D ___

OIL BBL'S/D ___

WATER BBL'S/D ___

GOR ___

MAXIMUM TEMPERATURE 194°

ZERO POINT 7'

PICK-UP ___

DATUM 8524 *

| | SIZE | DEPTH |
|---|---|---|
| TUBING | 2 3/8" | 8522' |
| CASING | ___ | ___ |
| CASING SHOE | | ___ |
| LINER | ___ | |
| TOP | | ___ |
| BOTTOM | | ___ |
| PERFORATION | | |
| TOP | | ___ |
| BOTTOM | | ___ |

SURVEY DATA

| DEPTH MEASURED | DEPTH VERTICAL | STYLUS DEFLECTION | PRESSURE | GRADIENT PSI/~~100~~ FT |
|---|---|---|---|---|
| 0 | 0 | 1.362 | 2189.19 | |
| 5000 | 5000 | 1.551 | 2998.07 | 0.1618 |
| 6000 | 6000 | 1.587 | 3067.57 | 0.0695 |
| 7000 | 7000 | 1.622 | 3135.14 | 0.0676 |
| 8000 | 8000 | 1.657 | 3202.70 | 0.0676 |
| 8500 | 8500 | 1.675 | 3237.45 | 0.0695 |
| | | | | |
| | (Calc.) | Datum | 3239.1 | |

SPECIAL INSTRUCTIONS: Plug @ 5517

BY ___

REMARKS: Extrapolate to datum, DO Not Go To NO-GO
Plug at 8517'.

FIELD OPERATOR ___

CHART READ BY

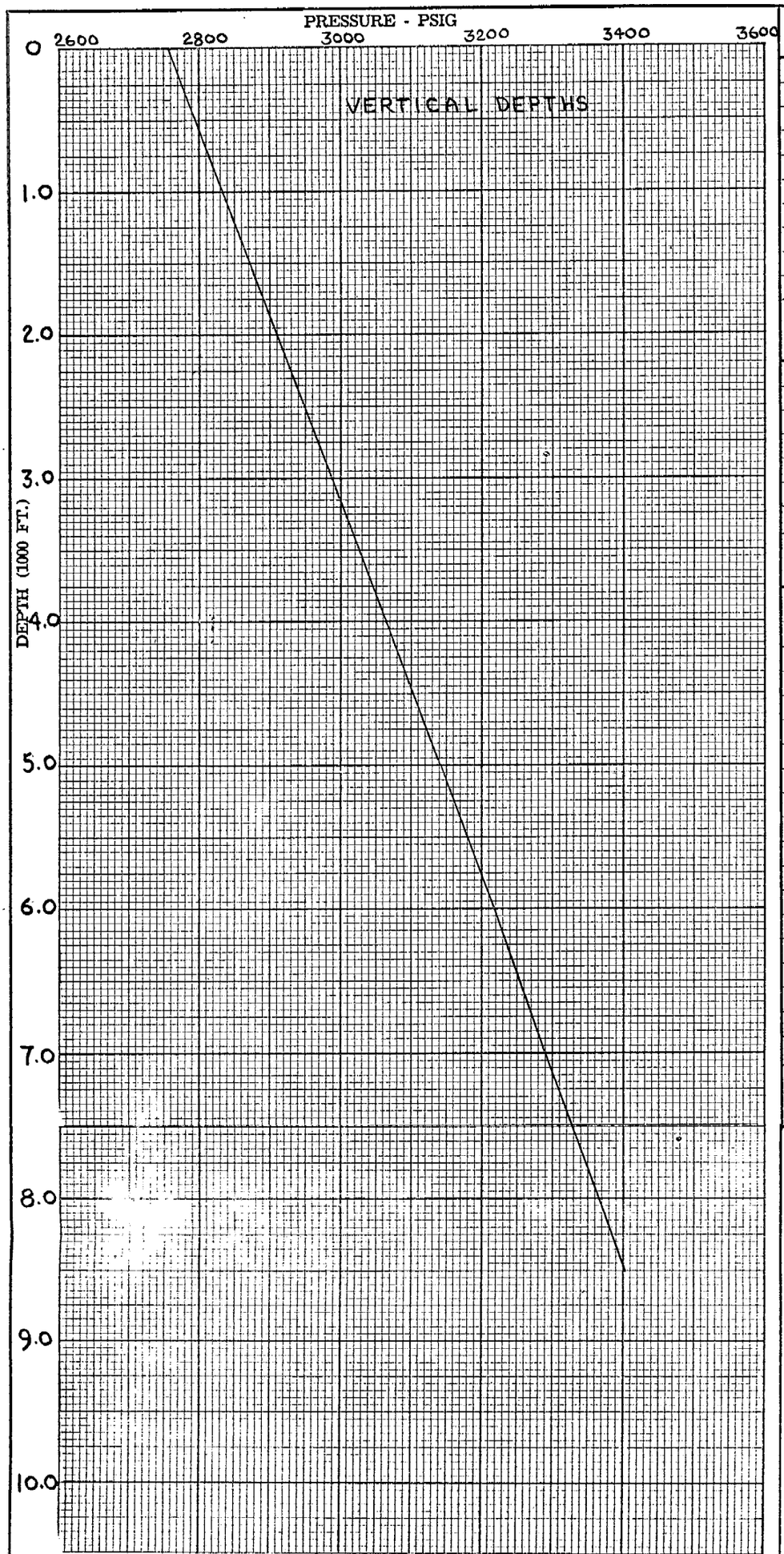
AC_CPUC_0118363

TECHNICAL SERVICE CO.
801 West 14th Street
Long Beach, California 90813

Phones: 24 Hours
Long Beach - 436-9901

# SUB-SURFACE PRESSURE DATA

Company: So. California Gas Co. Field: Aliso Canyon Date: 11-20-74 Run No.:
Well: S. S. #29 Zone: Elev.: Mat + 7'
Purpose: Static Pressure Survey Status: Shut In
Total Depth: Effect. Depth:
Casing Size: Depth: Liner Size: Top: Bottom:
Tubing: 2-7/8" to 8049', 2-3/8" to 8522', "KBMG" Mandrels @ 5697', 6933', 7985', 8326', 2-3/8" Sliding Sleeve @ 8359', Camco HRP-1 Packer @ 8426', 2-3/8" Plugged @ 8518', Baker Model "D" Packer @ 8522'




## OBSERVATIONS

| | |
|---|---|
| Stabilization Period - Hrs. | |
| Gross Oil Rate - B/D | |
| Net Oil Rate - B/D | |
| Formation Gas MCF/D | |
| Formation Gas-Oil Ratio CFT/BBL | |
| Circulated Gas MCF/D | |
| Oil Dry Gravity - °A.P.I. | |
| Casinghead Pressure - PSIG | |
| Tubinghead Pressure - PSIG | 2756 |
| Casing Fluid Level - Ft. | |

## RESULTS

| | |
|---|---|
| Gross Productivity Index | B/D PSI |
| Net Productivity Index | B/D PSI |
| Static M.E.P. - Run No. | PSI |
| Static M.E.P. - Projected | PSI |
| Gross Absolute Potential | B/D |
| Net Absolute Potential | B/D |
| Datum Pressures: | |

| Traverse Depth Feet MD | VD | Pressure PSIG | Gradient PSI/FT |
|---|---|---|---|
| 0 | 0 | 2756 | |
| 5000 | 5000 | 3141 | .077 |
| 6000 | 6000 | 3218 | .077 |
| 7000 | 7000 | 3290 | .072 |
| 8000 | 8000 | 3365 | .075 |
| 8500 | 8500 | 3401 | .072 |

COMMENTS: Zero: 7.0' above mat. Maximum temperature 156° F.
Survey sequence #3

AC_CPUC_0118364

# PACIFIC LIGHTING SERVICE COMPANY

## SUB-SURFACE PRESSURE SURVEY

FIELD Aliso Canyon WELL S. S. 29 DATE 11-20-74

RECORDER NO. 4770 RUN NO. ____ SHEET NO. ____ OF ____ SHEETS BY ____

CLOCK HOURS 3 TIME CLOCK STARTED ____ TIME RUN COMPLETED ____

WELL CONDITION DURING RUN, SHUT IN ____ FLOWING ____ INJECTION ____

HOURS WELL, SHUT-IN ____ FLOWING ____ INJECTION ____ BEFORE RUN ____

WELL HEAD PRESSURE

TUBING 2756

CASING ____

FLOW RATE

GAS MCF/D ____

OIL BBL'S/D ____

WATER BBL'S/D ____

GOR ____

MAXIMUM TEMPERATURE 156° F.

ZERO POINT 7.0'

PICK-UP ____

DATUM 8524'

| | SIZE | DEPTH |
|---|---|---|
| TUBING | ____ | ____ |
| CASING | ____ | ____ |
| CASING SHOE | | ____ |
| LINER | ____ | |
| TOP | | ____ |
| BOTTOM | | ____ |
| PERFORATION | | |
| TOP | | ____ |
| BOTTOM | | ____ |

SURVEY DATA

| DEPTH | | STYLUS DEFLECTION | PRESSURE | GRADIENT PSI/100 F |
|---|---|---|---|---|
| MEASURED | VERTICAL | | | |
| 0 | 0 | 1.441 | 2756 | |
| 5000 | 5000 | 1.642 | 3141 | .077 |
| 6000 | 6000 | 1.682 | 3218 | .077 |
| 7000 | 7000 | 1.720 | 3290 | .072 |
| 8000 | 8000 | 1.759 | 3365 | .075 |
| 8500 | 8500 | 1.778 | 3401 | .072 |

SPECIAL INSTRUCTIONS: ____

BY ____

REMARKS: Survey sequence #3

FIELD OPERATOR Baker

CHART READ BY Smith

PLS FORM 501

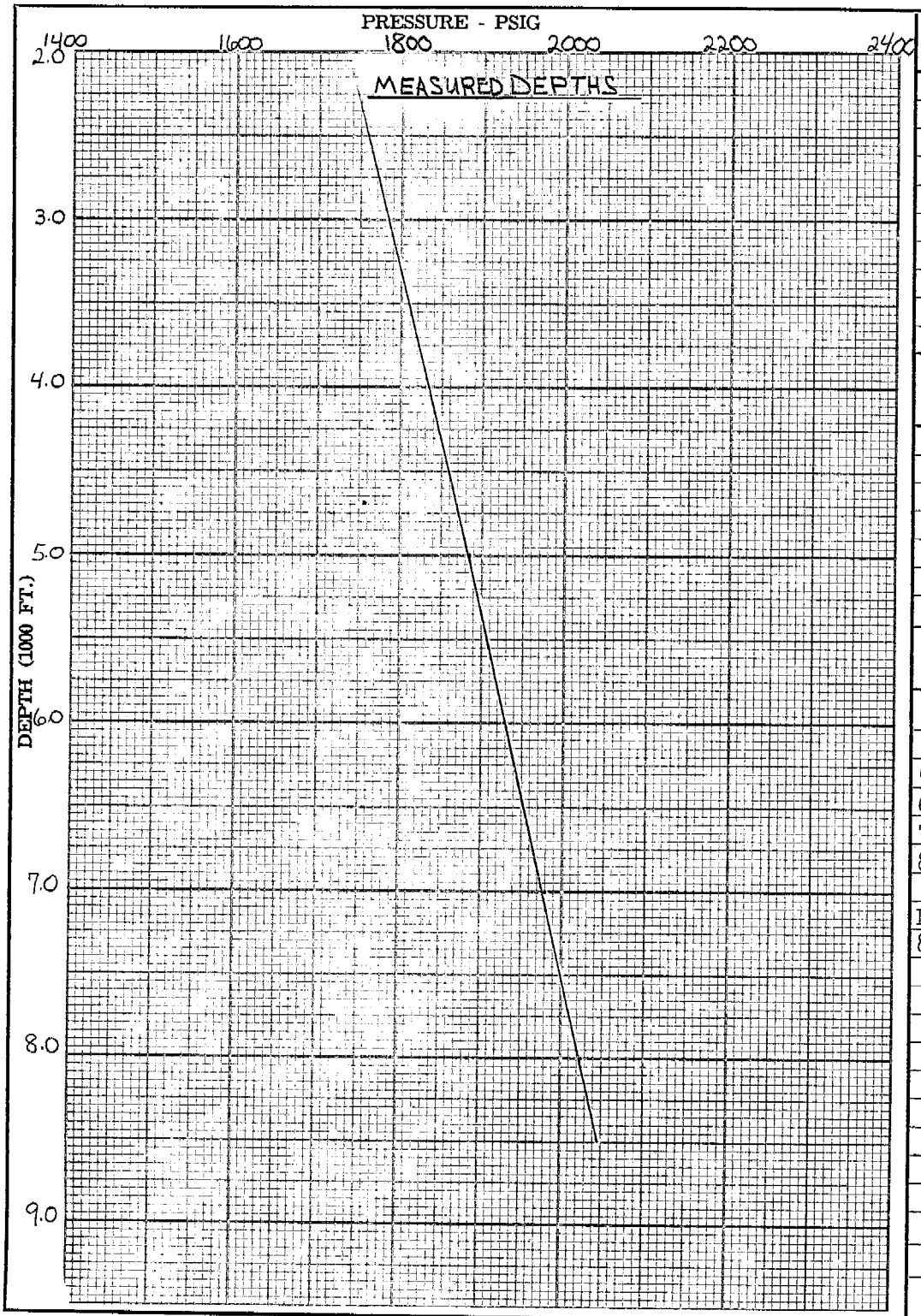
AC_CPUC_0118365

TECHNICAL SERVICE CO.
801 West 14th Street
Long Beach, California 90813

Phones: 24 Hours
Long Beach - 436-9901

# SUB-SURFACE PRESSURE DATA

Company: So. California Gas Co. Field: Aliso Canyon Date: 1-15-74 Run No.:
Well: S. S. #29 Zone: Elev.: Mat + 7'
Purpose: Static Pressure Gradient Survey Status: Shut In
Total Depth: Effect. Depth:
Casing Size: Depth: Liner Size: Top: Bottom:
Tubing: 2-7/8" to 8049'. 2-3/8" to 8522'. "KBMG" Mandrels @ 5697', 6933', 7985', & 8326'. 2-3/8" Sliding Sleeve @ 8359'. Camco HRP-1 Packer @ 8426' 2-3/8" Plugged @ 8518'. Baker Model "D" Packer @ 8522'




## OBSERVATIONS

| | |
|---|---|
| Stabilization Period - Hrs. | |
| Gross Oil Rate - B/D | |
| Net Oil Rate - B/D | |
| Formation Gas MCF/D | |
| Formation Gas-Oil Ratio CFT/BBL | |
| Circulated Gas MCF/D | |
| Oil Dry Gravity - °A.P.I. | |
| Casinghead Pressure - PSIG | |
| Tubinghead Pressure - PSIG | 1638 |
| Casing Fluid Level - Ft. | |

## RESULTS

| | |
|---|---|
| Gross Productivity Index | B/D PSI |
| Net Productivity Index | B/D PSI |
| Static M.E.P. - Run No. | PSI |
| Static M.E.P. - Projected | PSI |
| Gross Absolute Potential | B/D |
| Net Absolute Potential | B/D |
| Datum Pressures: | |

| Traverse Depth MD Feet | VD | Pressure PSIG | Gradient PSI/FT MD |
|---|---|---|---|
| 0 | 0 | 1638 | |
| 5000 | 5000 | 1883 | 0.049 |
| 6000 | 6000 | 1928 | 0.045 |
| 7000 | 7000 | 1980 | 0.052 |
| 8000 | 8000 | 2023 | 0.049 |
| | | | |
| Datum | | | |
| 8500 | 8500 | 2046 | 0.046 |

COMMENTS: Maximum Temperature 218° F.
Zero: Mat + 7'

By: Pate - Snider - Homer

AC_CPUC_0118366

SS 29
5-1-73




K&E 10 X 10 TO THE CENTIMETER 46 1510
18 X 25 CM. MADE IN U.S.A.
KEUFFEL & ESSER CO.

AC_CPUC_0118367

O.K.

# PACIFIC LIGHTING SERVICE COMPANY

## SUB-SURFACE PRESSURE SURVEY

FIELD Aliso Canyon WELL SS 29 DATE 6-1-73

RECORDER NO. _____ RUN NO. ____ SHEET NO. ____ OF ____ SHEETS BY _____

CLOCK HOURS _____ TIME CLOCK STARTED _____ TIME RUN COMPLETED _____

WELL CONDITION DURING RUN, SHUT IN _____ FLOWING _____ INJECTION _____

HOURS WELL, SHUT-IN _____ FLOWING _____ INJECTION _____ BEFORE RUN _____

WELL HEAD PRESSURE

TUBING _____

CASING _____

FLOW RATE

GAS MCF/D _____

OIL BBL'S/D _____

WATER BBL'S/D _____

GOR _____

MAXIMUM TEMPERATURE _____

ZERO POINT 7'

PICK-UP _____

DATUM 8521'

| | SIZE | DEPTH |
|---|---|---|
| TUBING | | |
| CASING | | |
| CASING SHOE | | |
| LINER | | |
| TOP | | |
| BOTTOM | | |
| PERFORATION | | |
| TOP | | |
| BOTTOM | | |

SURVEY DATA

| DEPTH | | STYLUS DEFLECTION | PRESSURE | GRADIENT PSI/100 FT |
|---|---|---|---|---|
| MEASURED | VERTICAL | | | |
| 0 | 0 | | 1168 | |
| 5000 | 5000 | | 1328 | .032 |
| 6000 | 6000 | | 1356 | .028 |
| 7000 | 7000 | | 1388 | .032 |
| 8000 | 8000 | | 1425 | .037 |
| 8500 | 8500 | | 1442 | .034 |
| 8521* | 8521 | | 1443 | .048 |

SPECIAL INSTRUCTIONS: * EXTRAPOLATE TO DATUM. DO NOT GO TO NO-GO PLUG AT 8521'.

BY _____

REMARKS: _____

FIELD OPERATOR _____

CHART READ BY _____

PLS FORM 501

AC_CPUC_0118368

# Archer - Reed

WIRE LINE SERVICE

205 Baldwin Ave. Ventura, Calif. 93030

VENTURA 642-7061
LONG BEACH 591-0921

## SUB-SURFACE DATA

Company Southern Calif. Gas Co. Field Date 5-1-73 Run No. 1

Well Std. Sessnon #29 Zone Elev.

Purpose Status

Total Depth Effect. Depth

Casing Size Depth Liner Size Top Bottom

Perforations

Tubing

| | | | |
|---|---|---|---|
| Company | Southern Calif. Gas Co. | | |
| Well | Std. Sessnon #29 | | |
| Date | | Date | |
| Arrive | A P | Arrive | A P |
| Leave | A P | Leave | A P |
| Inst. | No. 6788 Size 3450 | | |
| | No. 7580 Size 43-270 | | |
| Clock | No. Hrs. 3 | | |
| | No. Hrs. 3 | | |
| Stylus Marked | 12:21 PM | | A P |
| Pressure On | 12:25 PM | | A P |
| Depth | 8500 Zero KB | | |
| At Depth Date | 5-1-73 Time 1:08 PM | | A P |
| Off Depth Date | 5-1-73 Time 1:23 PM | | A P |
| Shut In Date | unknown Time | | A P |
| Start Press Tbg. | Csg. | | # |
| Final Press Tbg. | Csg. | | # |
| Pick-up | 8500 Temp. 177 | | F |

OBSERVATIONS

| | |
|---|---|
| Stabilization Period - Hrs. | |
| Gross Oil Rate - B/D | |
| Net Oil Rate - B/D | |
| Formation Gas MCF/D | |
| Formation Gas - Oil Ratio CFT/BBL | |
| Circulated Gas MCF/D | |
| Oil Dry Gravity - °A.P.I. | |
| Casinghead Pressure - PSIG | |
| Tubinghead Pressure - PSIG | |
| Casing Fluid Level - Ft. | |

| TIME | DEPTH | SCALE | PSI or °F | TIME | DEPTH | SCALE | PSI or °F |
|---|---|---|---|---|---|---|---|
| / | PRESSURE | | | /TEMPERATURE | | | |
| 1225 /1230 | 0 | .678 | 1168 | 1225/1230 | 0 | .050 | 68 |
| 1240 /1245 | 5000 | .769 | 1328 | 1240/1245 | 5000 | .245 | 118 |
| 1247 /1252 | 6000 | .785 | 1356 | 1247/1252 | 6000 | .345 | 135 |
| 1255 /100 | 7000 | .803 | 1388 | 1255/ 100 | 7000 | .446 | 151 |
| 102 /107 | 8000 | .824 | 1425 | 102/ 107 | 8000 | .512 | 160 |
| 108 / | 8500 | .834 | 1442 | 108/ | 8500 | .647 | 177 |
| 113 / | 8500 | .834 | 1442 | 113/ | 8500 | .647 | 177 |
| 118 / | 8500 | .834 | 1442 | 118/ | 8500 | .647 | 177 |
| 123 / | 8500 | .834 | 1442 | 123/ | 8500 | .647 | 177 |
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COMMENTS

By

AC_CPUC_0118369

ALISO CANYON

SS 29

SS29 9-19-91

80 100 120 140 160 180

Cooling above S1.
Rig moving in
ASAP to correct
shoe leak.

T.D. 9025'
T 2810
C 2810

RUN DEAD PLOT

INV. 630 Out of Service: 5 DAYS

100 FT/MIN

4-25-84

46 1512

10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0118370

ALISO CANYON
R 3/25/92
SS 29

SS 29 5-7-91

70 90 110 130 150 170

0 1 2 3 4 5 6 7 8 9

0 1000 2000 3000 4000 5000 6000 7000 8000 9000

Some cooling above S1. Well scheduled for workover to repair shoe leak.

Stop 8200'
T 2210
C 2210
RUN DEAD PLOT: 7hr

Out of Service: 5 DAYS

100 FT/MIN

H-25-84

46 1512

10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0118371

SHUT IN 5 DAYS PRIOR TO SURVEY. 5529 11-28-90

INJ WD 1.75 HOURS PRIOR TO SHUT IN.

SS-29

SS-29 11-28-90

149 153 157 161 165 169

7500 7700 7900 8100 8300 8500 8700 8900 9100

Shoe appears ok
Disregard gradient
7500' - 7840'
Will run Noise Log

PKR 8040'
LNR 8075'
SHOE 8180'
PERFS 8456

9077'

TBG 3880
CSG 3880
P.U. 9024'

RUN C.V. AREA PLOT > RM

46 1512

10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

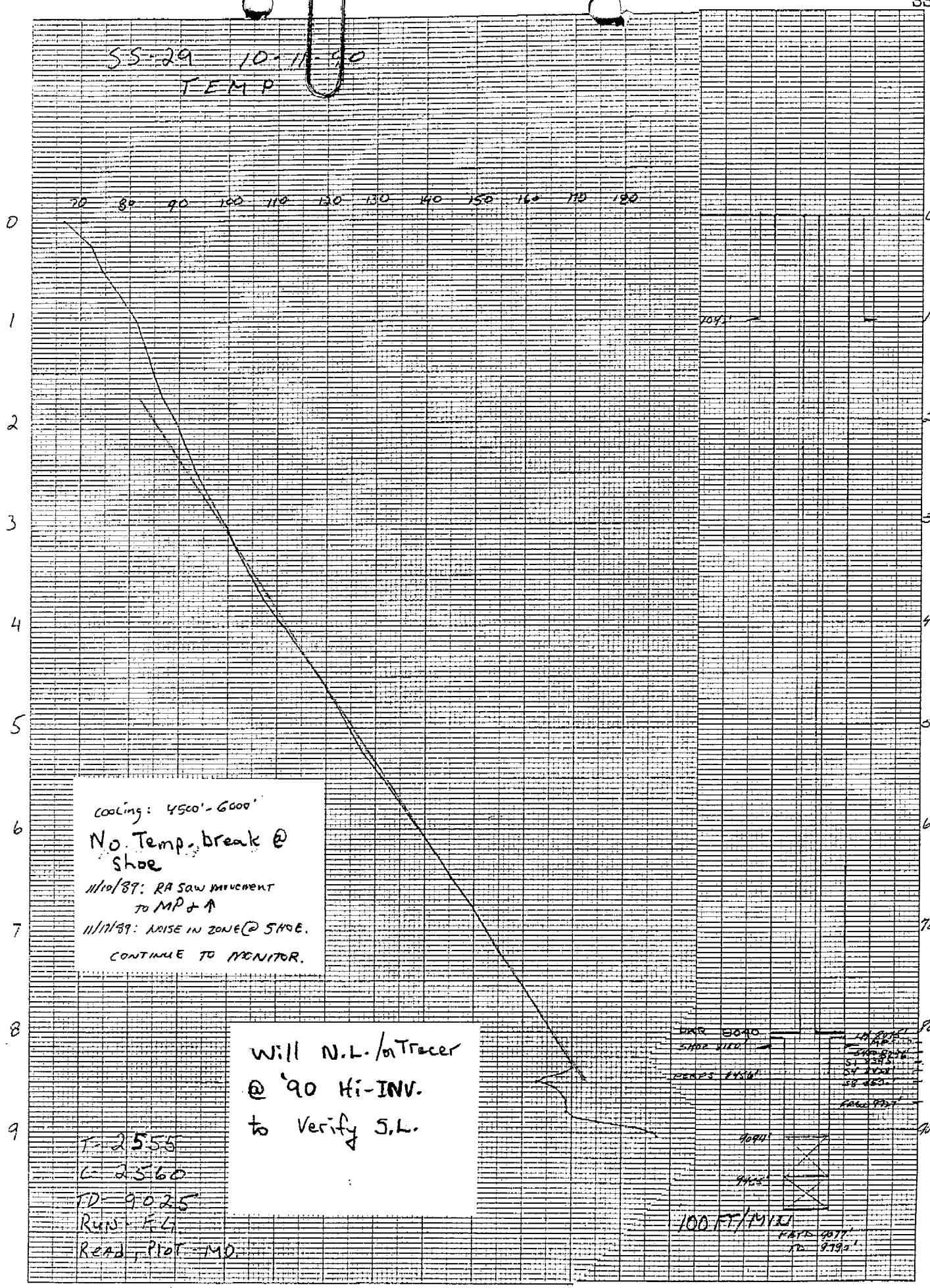
AC_CPUC_0118372

ALISO CANYON

SS 29

SS-29 10-11-90

TEMP




SHUT IN 5 days + PRIOR TO SURVEY.

INJ/WD _____ HOURS PRIOR TO SHUT IN.

4-25-84

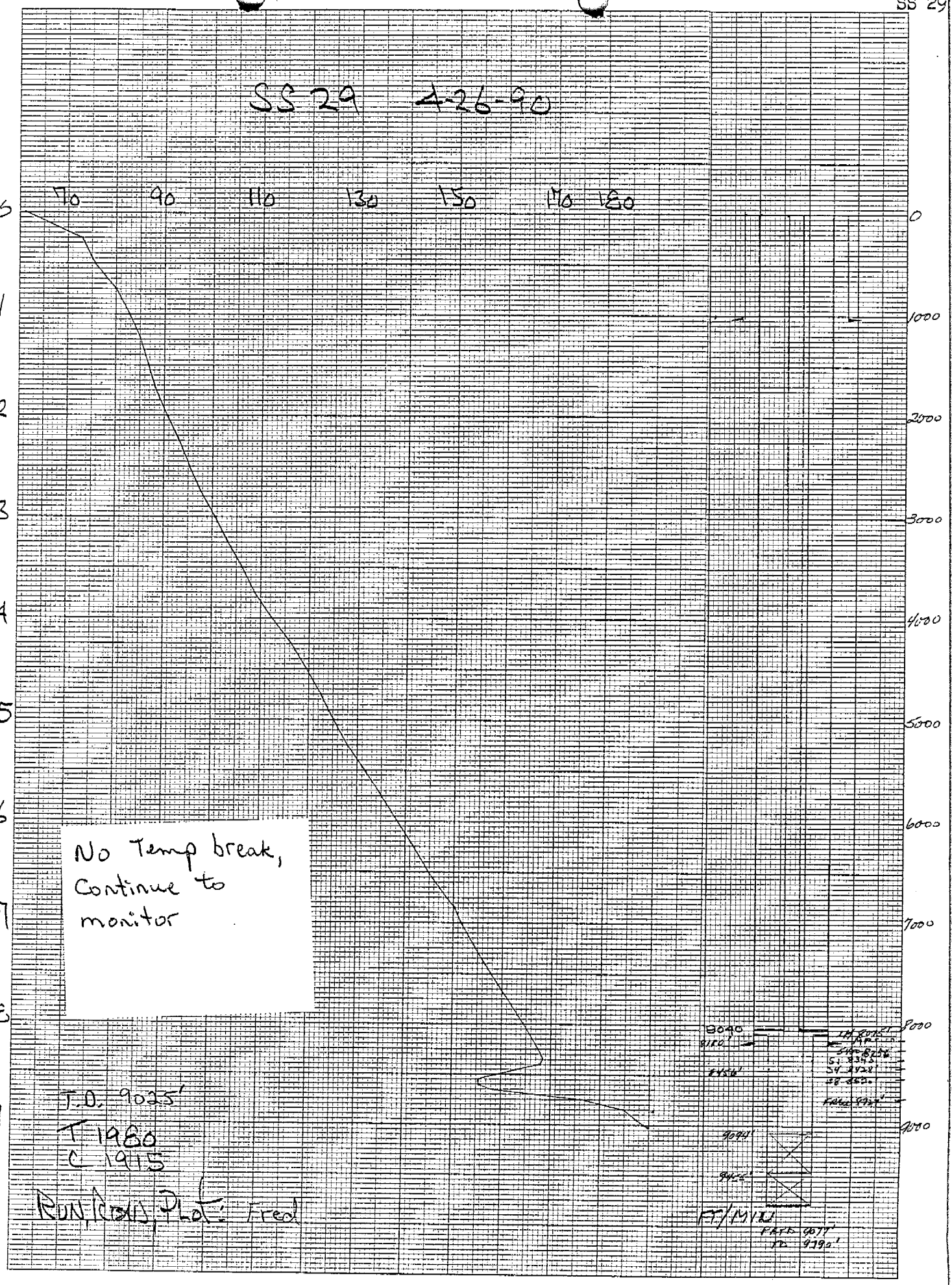
KE 10 X 10 TO THE CENTIMETER 18 X 25 CM. KEUFFEL & ESSER CO. MADE IN U.S.A.

46 1512

AC_CPUC_0118373

ALISO CANYON

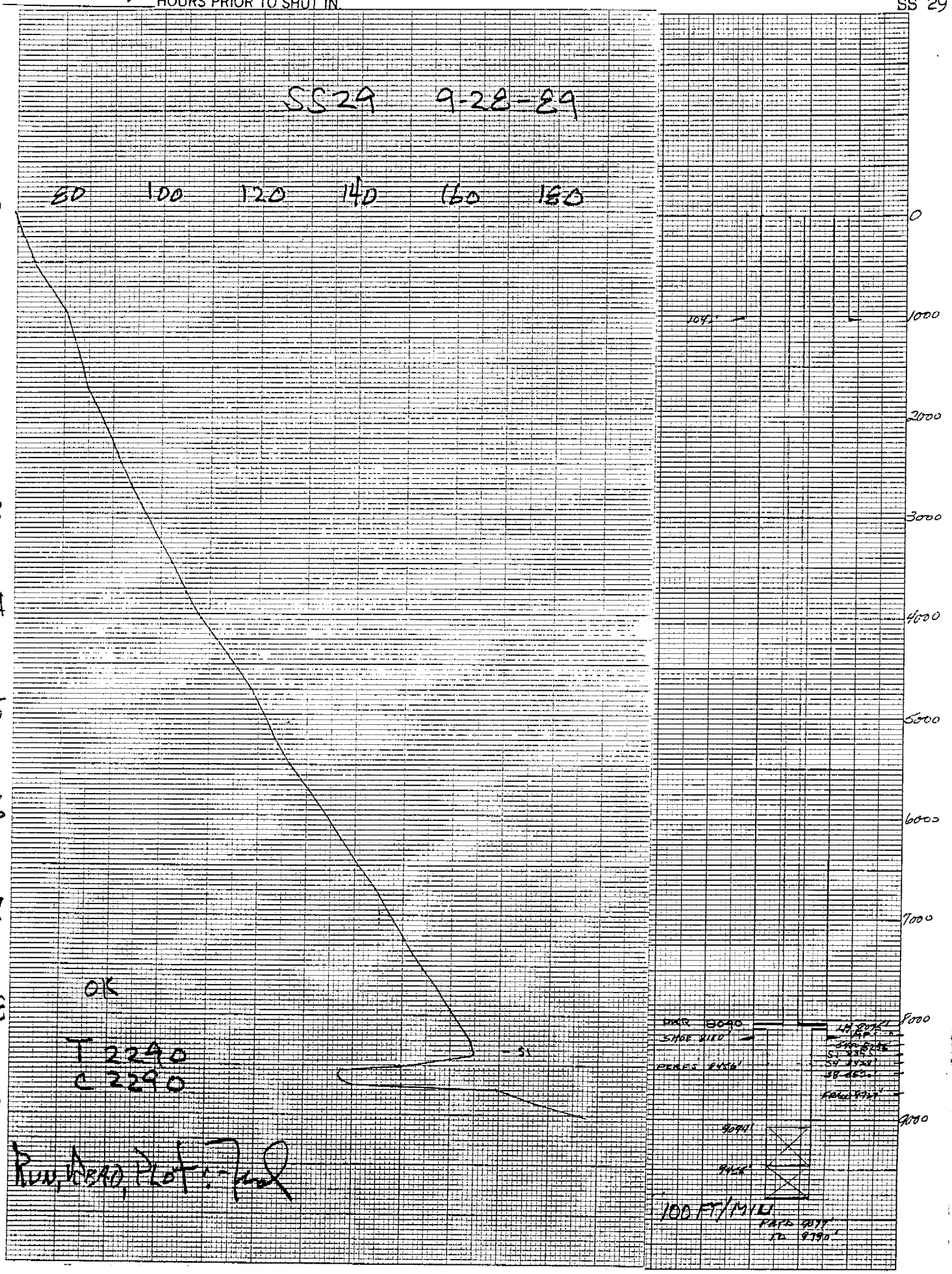
SS 29




46 1512
10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

SHUT IN 14 days PRIOR SURVEY.
INJ/WD HOURS PRIOR TO SHUT IN.

ALISO CANYON
SS 29




46 1512

10 X 10 TO THE CENTIMETER
KEUFFEL & ESSER CO. MADE IN U.S.A.

4-25-84

AC_CPUC_0118375

ALISO CANYON

SS 29

SS-29

4-21-89

70 90 110 130 150 170 190

0 1000 2000 3000 4000 5000 6000 7000 8000 9000

TBG 1740
CSG 1740
T.D. 9024'

OK

PKR 8040
SHOE 8180'

100 FT/MIN

RUN SDC
READ
PLOT RM

SS-29

4-21-89

AC_CPUC_0118376

SHUT IN 30+ DAY PRIOR SURVEY.

INJ/WD _____ HOURS PRIOR SHUT IN.

ALISO CANYON

SS 29

SS29 10-14-88

90 110 130 150 170 190

0 1000 2000 3000 4000 5000 6000 7000 8000 9000

S-1

OK

T 2 8S

C 2 8S

RUN, TEXD, PLOT, ETC

4-25-84

46 1512

10 X 10 TO THE CENTIMETER
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0118377

ALISO CANYON

SS 29

IN 16 DAYS PRIOR TO

INJWD 12 HRS HOURS PRIOR TO STOP IN

SS 29 3-16-88

50 60 70 80 90 100 110 120 130 140 150 160 170 180

0 1 2 3 4 5 6 7 8 9

0 1000 2000 3000 4000 5000 6000 7000 8000 9000

OK

T 1570
C 1575

RUN, READ, PLOT

RCS/4/20/88 4-25-84

46 1510

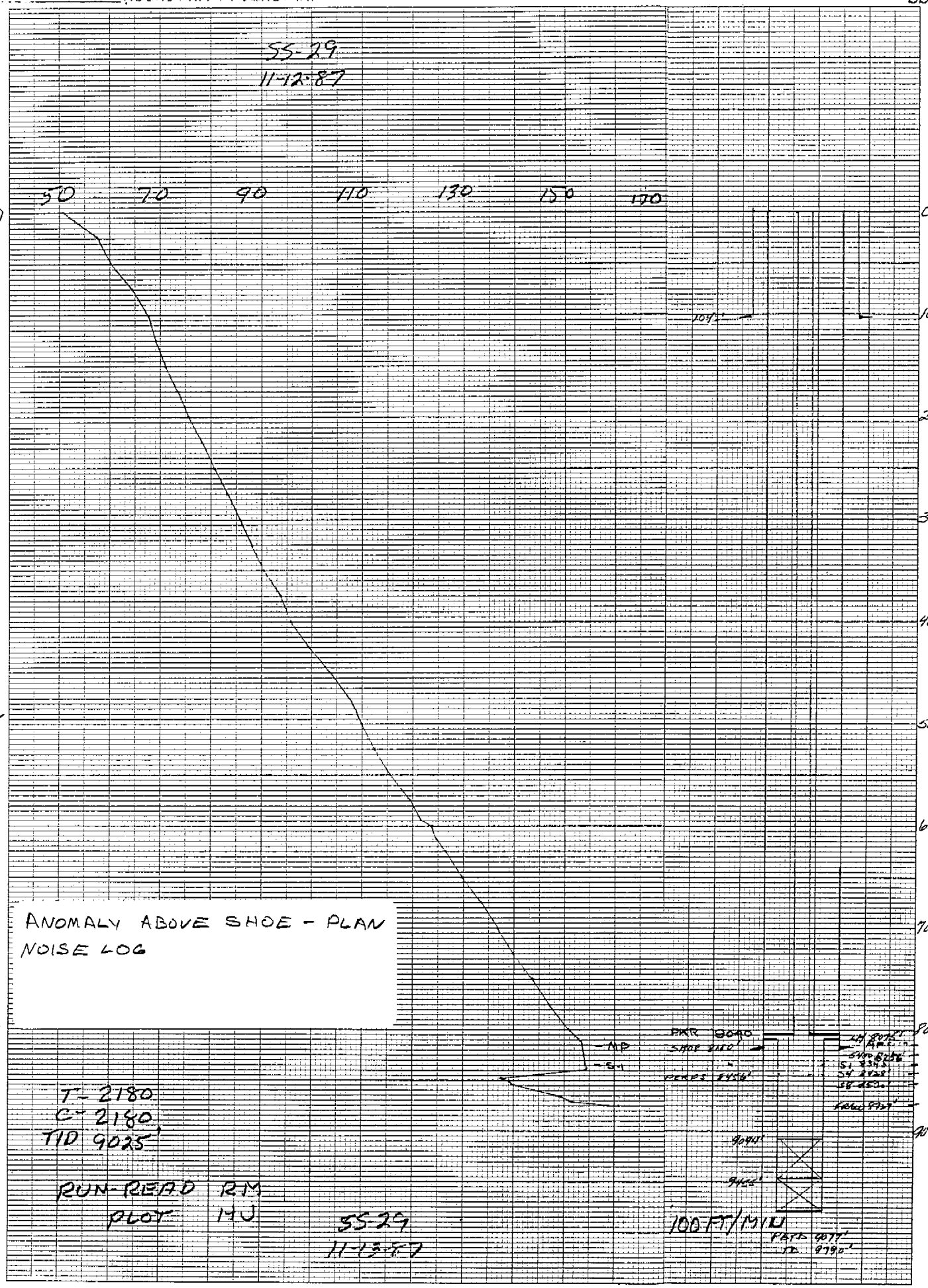
10 X 10 TO THE CENTIMETER 18 X 25 CM
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0118378

10 DAYS

ALISO CANYON

SS 29




46 1510

10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

4-25-84

RCSP 12/17/87

AC_CPUC_0118379

ALISO CANYON

SS 29

SHUT IN 5 DAYS PRIOR TO SURVEY.

INJ/WD 323 INJ [illegible] TO SHUT IN

SS-29 9-24-87

80 100 120 140 160 180

0 1000 2000 3000 4000 5000 6000 7000 8000 9000

461510

ANOMALY ABOVE SHOE POSSIBLY DUE TO INADEQUATE SHUT-IN. WILL RERUN.

TBG 2180

CSG 2180

T.D. 9021'

PKR 8940

SHOE 9180'

PERFS 8956

9094'

9144'

100 FT/MIN

RUN 9-25-87

SS-29

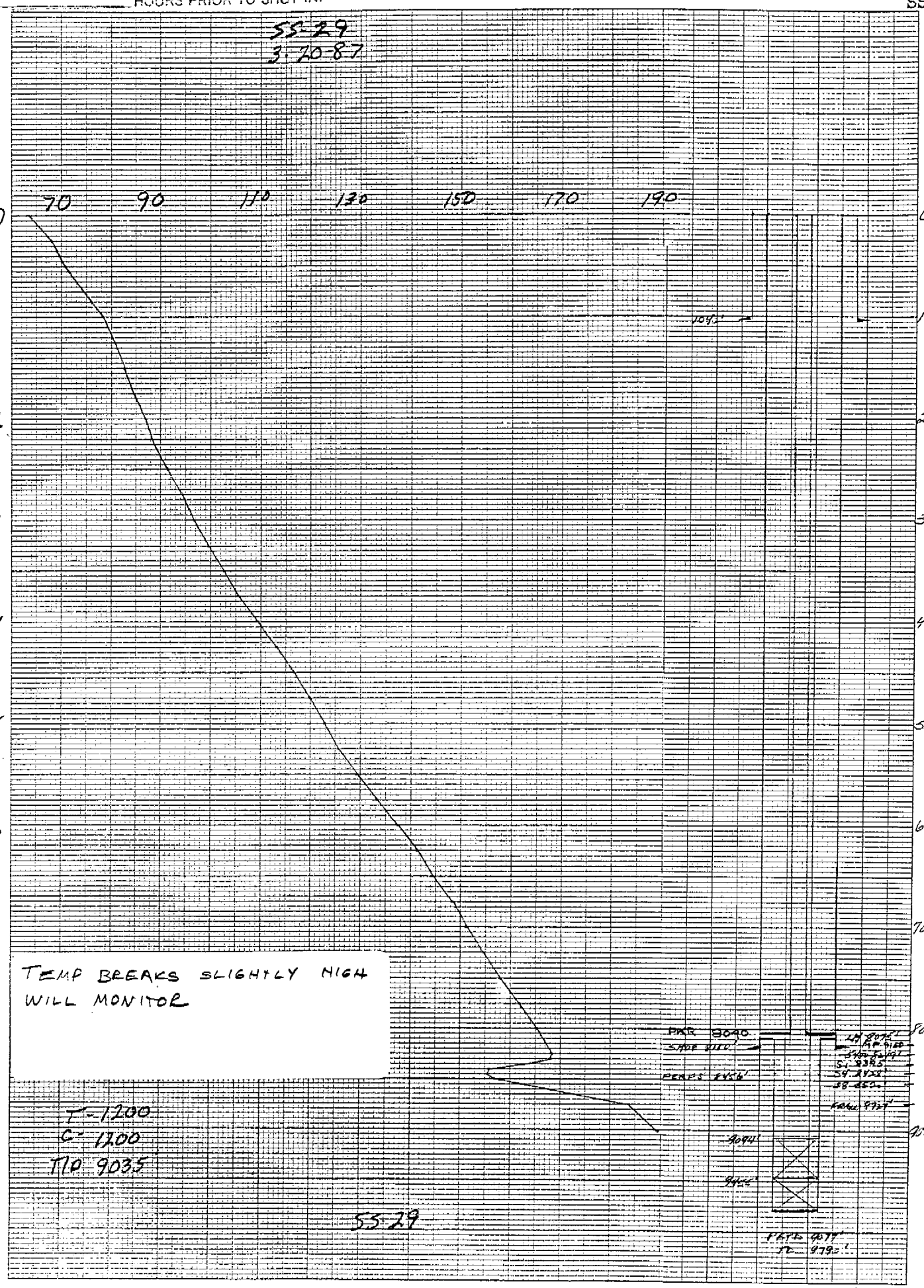
RCP 10/16/87

10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0118380

SHUT IN 23 days PRIOR SURVEY.
INJ WD HOURS PRIOR TO SHUT IN.

SS 29




46 1512

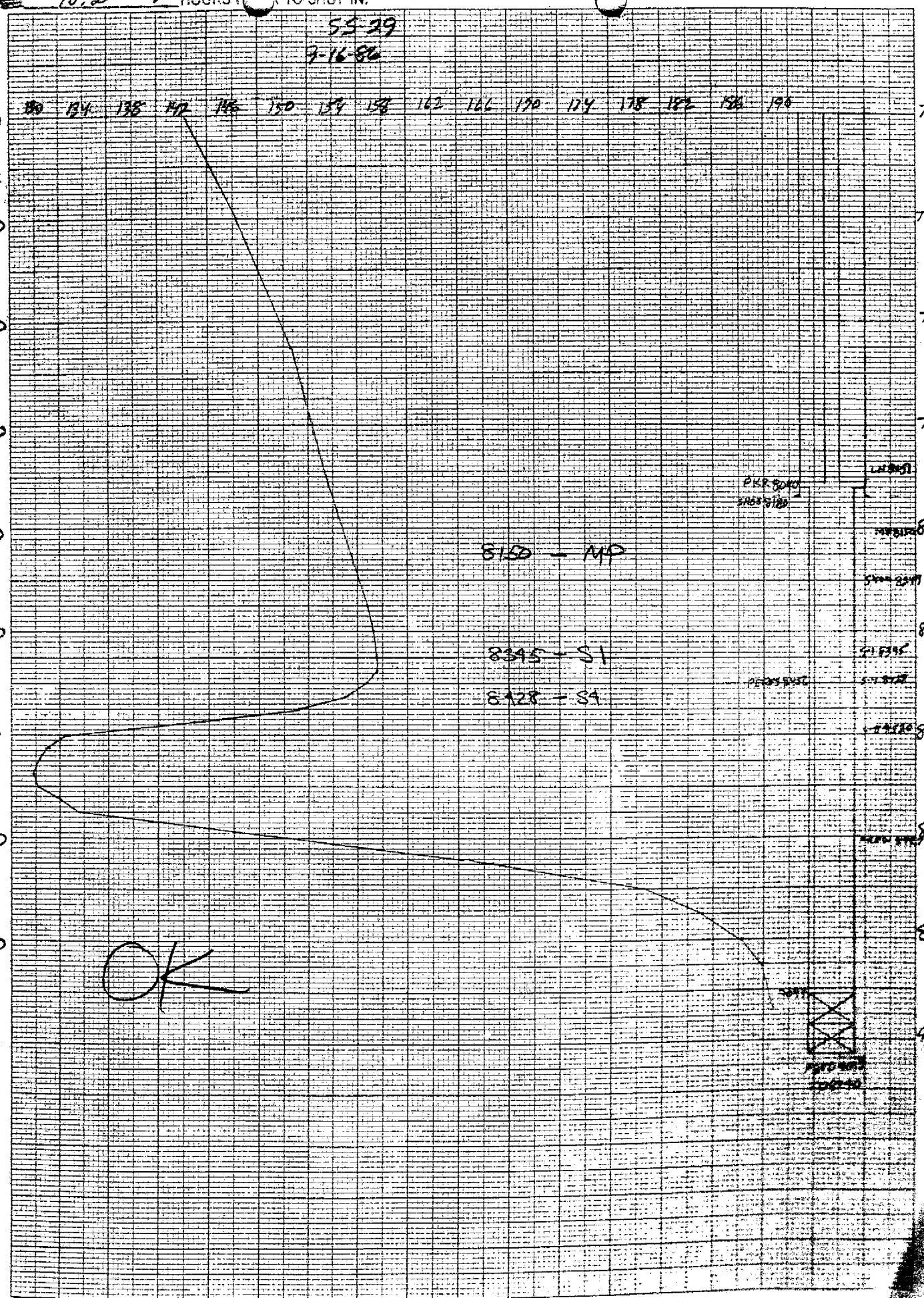
10 X 10 TO THE CENTIMETER 10 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

REC'D 4-25-84
4-7157

AC_CPUC_0118381

SHUT IN 4 days PRIOR TO SURVEY.
IN 98.2 HOURS PRIOR TO SHUT IN.

55-29
9-16-86




46 1512

10 X 10 TO THE CENTIMETER IN A
KEUFFEL & ESSER CO MADE IN U.S.A.

AC_CPUC_0118382

SS 29

SS 29
9-4-86

80 100 120 140 160 180

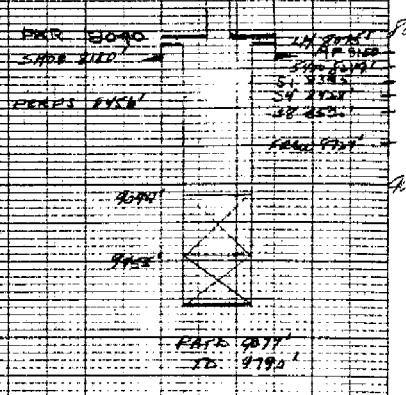
SLIGHT ANOMALY ABOVE S-1
WILL RUN DETAIL

T- 2330
C- 2330
TIO 9033

100 FT/MIN

HFJ

- AP
- S1



SS-29
9-5-86

H-25-84

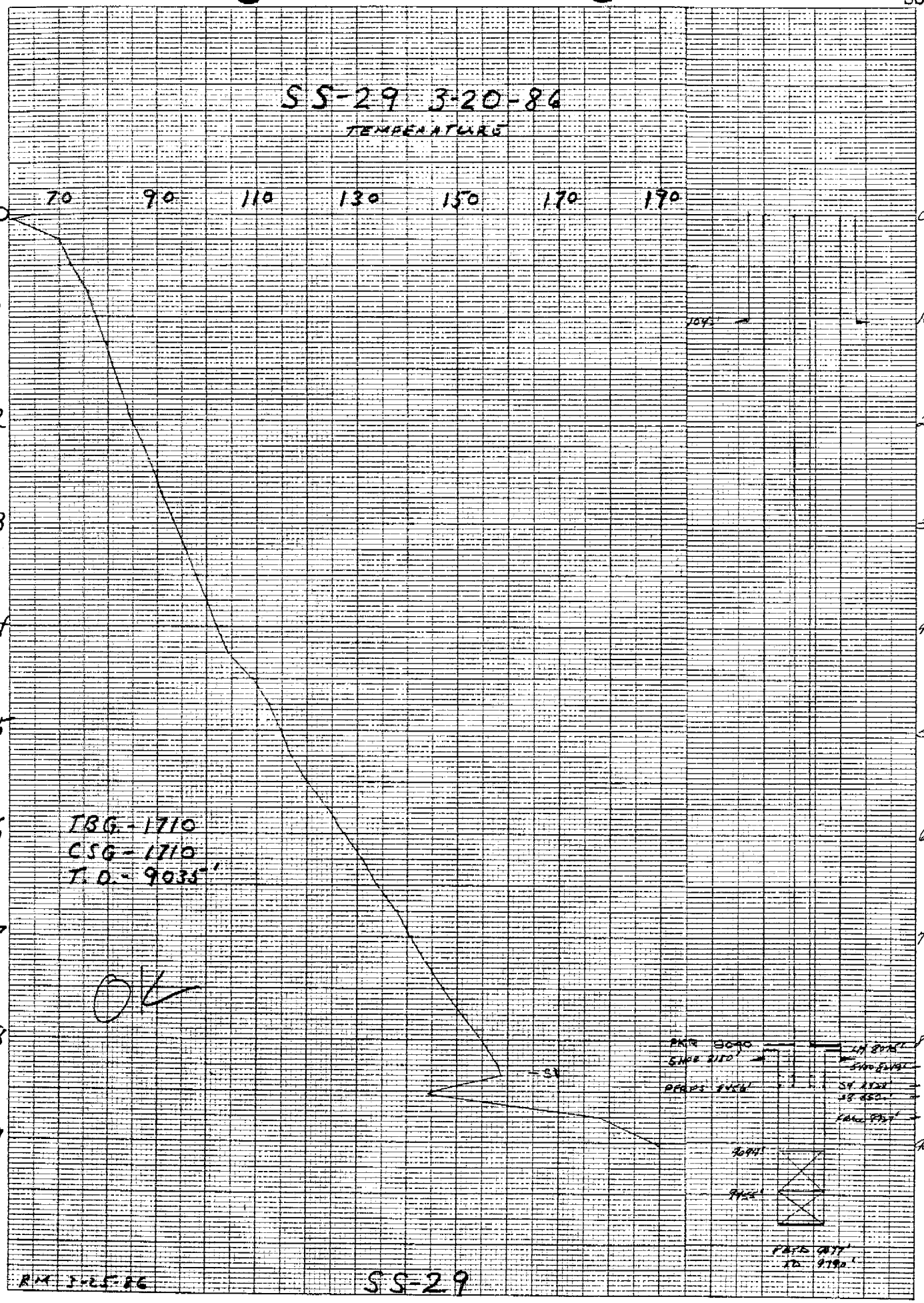
46 1512

KE 10 X 10 TO THE CENTIMETER
KEUFFEL & ESSER CO MADE IN U.S.A.

AC_CPUC_0118383

SHUT-IN 12 days PRIOR TO SURVEY.
FOUND ____ HOURS PRIOR TO SHUT IN.

SS 29




46 1512

K+E 10 X 10 TO THE CENTIMETER 25 X 25 CM
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0118384

SHUT IN 5 days PRIOR TO SURVEY.

WD 6.3 HOURS P[illegible] TO SHUT IN.

SS 29

SS-29 8-12-85

50 70 90 110 130 150 170 190

0 1 2 3 4 5 6 7 8 9

0 1000 2000 3000 4000 5000 6000 7000 8000 9000

T- 1940
C- 1940
TD- 9030

RUN RENO H.S. PLOT R.M. 8-13-85

SS-29

4-25-84

AC_CPUC_0118385

SS-29 4-29-85

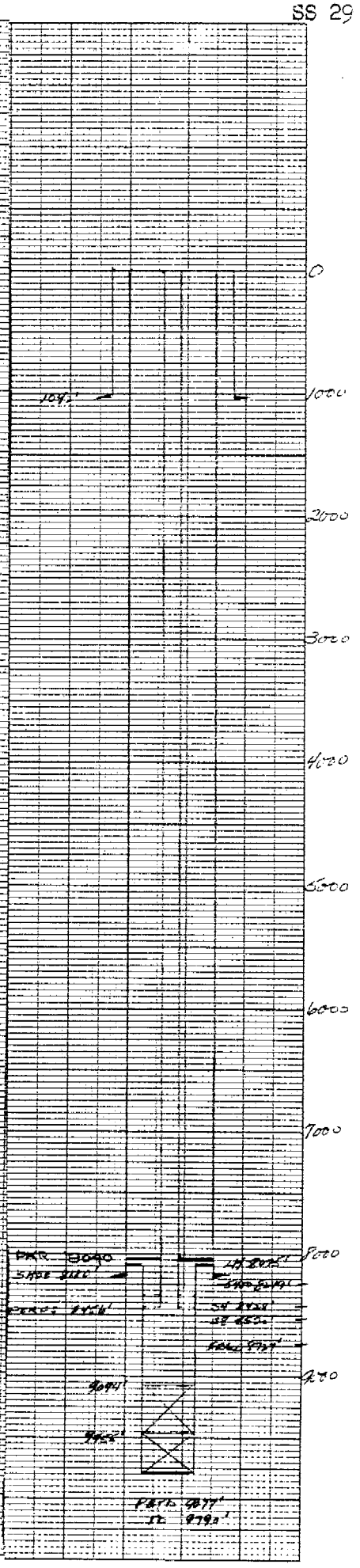
80 100 120 140 160 180 200

INSUFFICIENT SHUT IN PRIOR TO SURVEY, NO APPARENT ANOMALIES

TBG 1590 PSI

CSG 1560 PSI

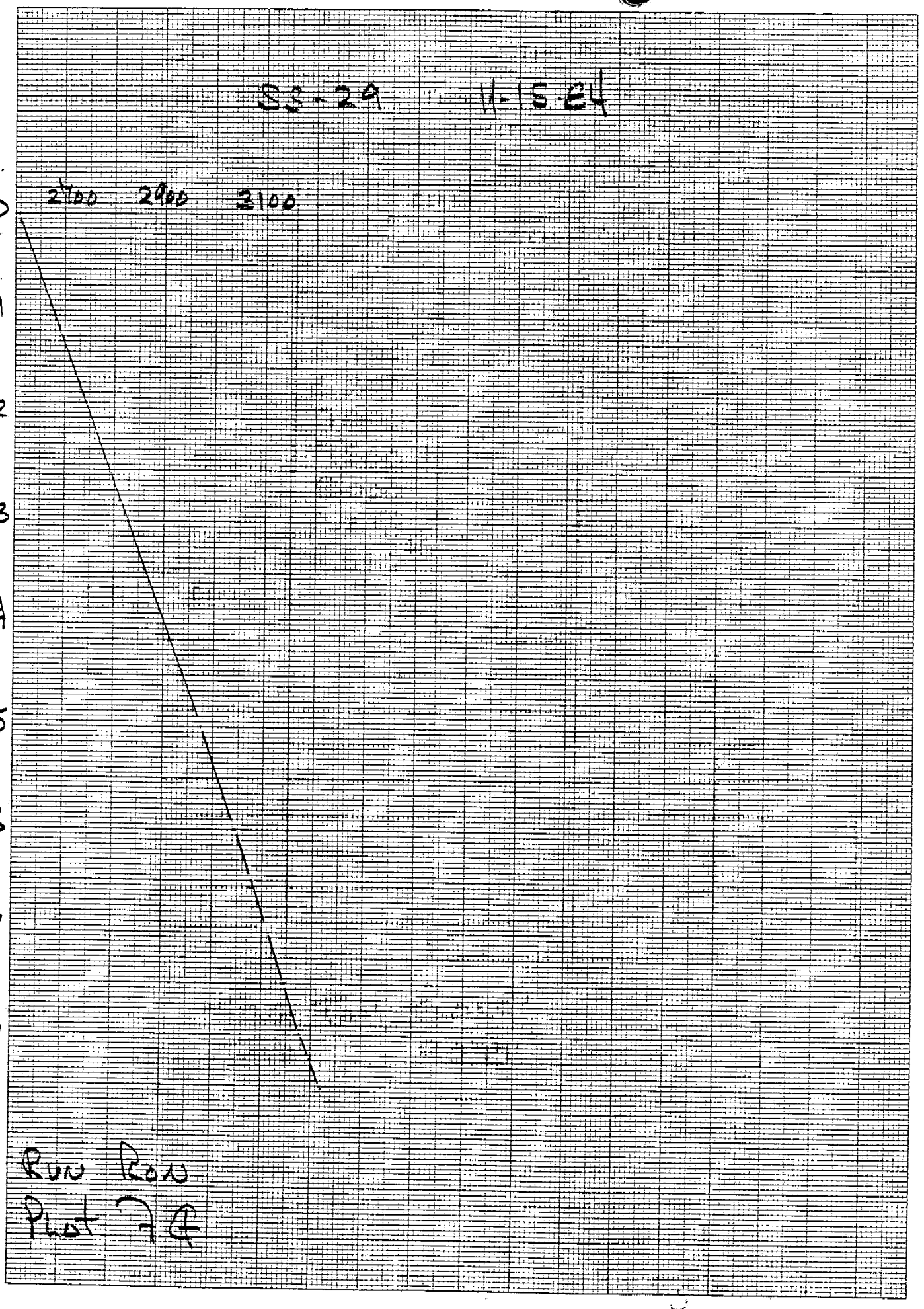
RUN #1
RUN #2
Plot 7Q



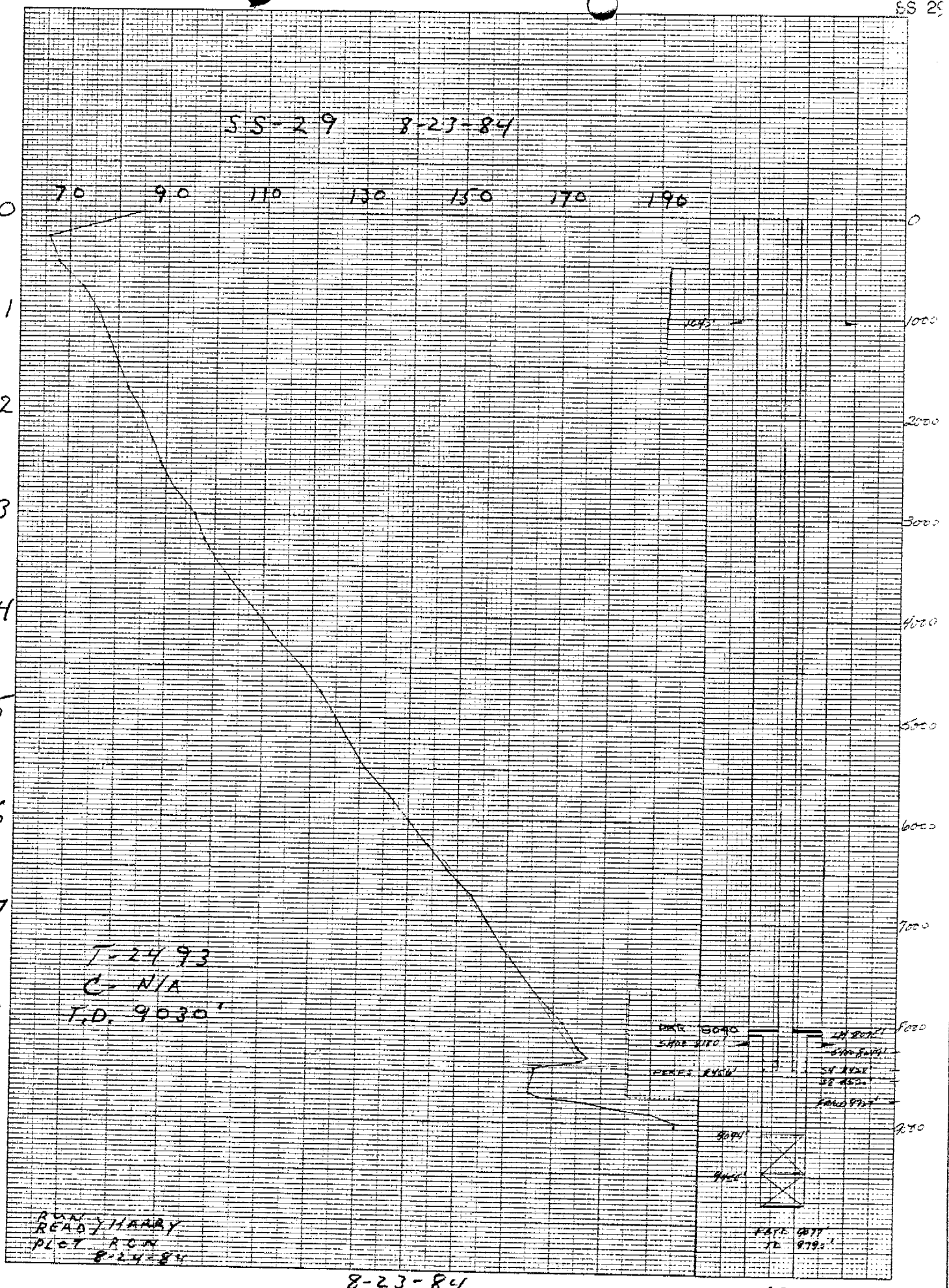

4-25-84

46 1512
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0118386




AC_CPUC_0118387



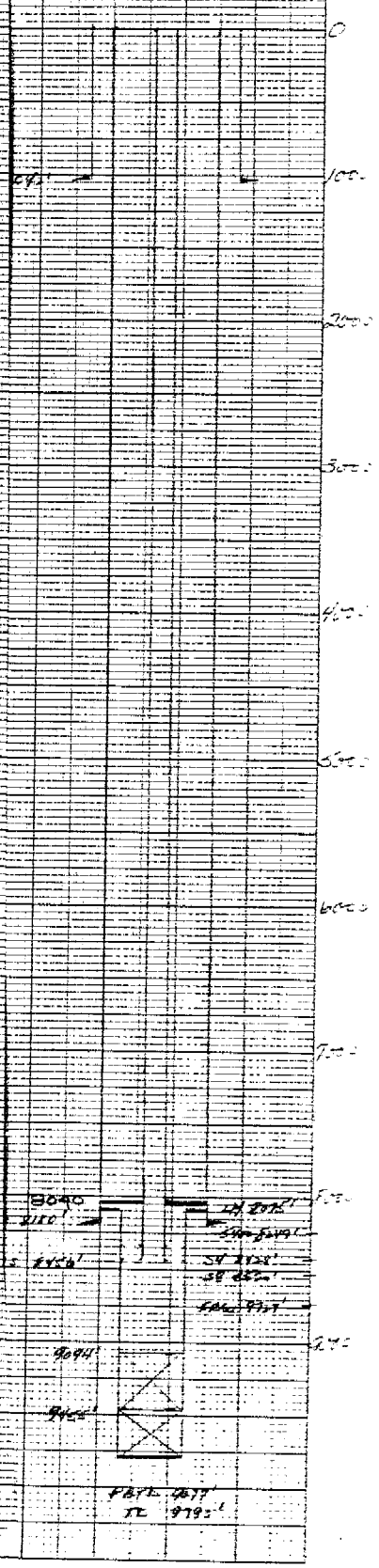

46 1512
KE 10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0118388

SS 29

SS 29 3-20-81

60 80 100 120 140 160 180



RED-PLOT 7.6

REW RM

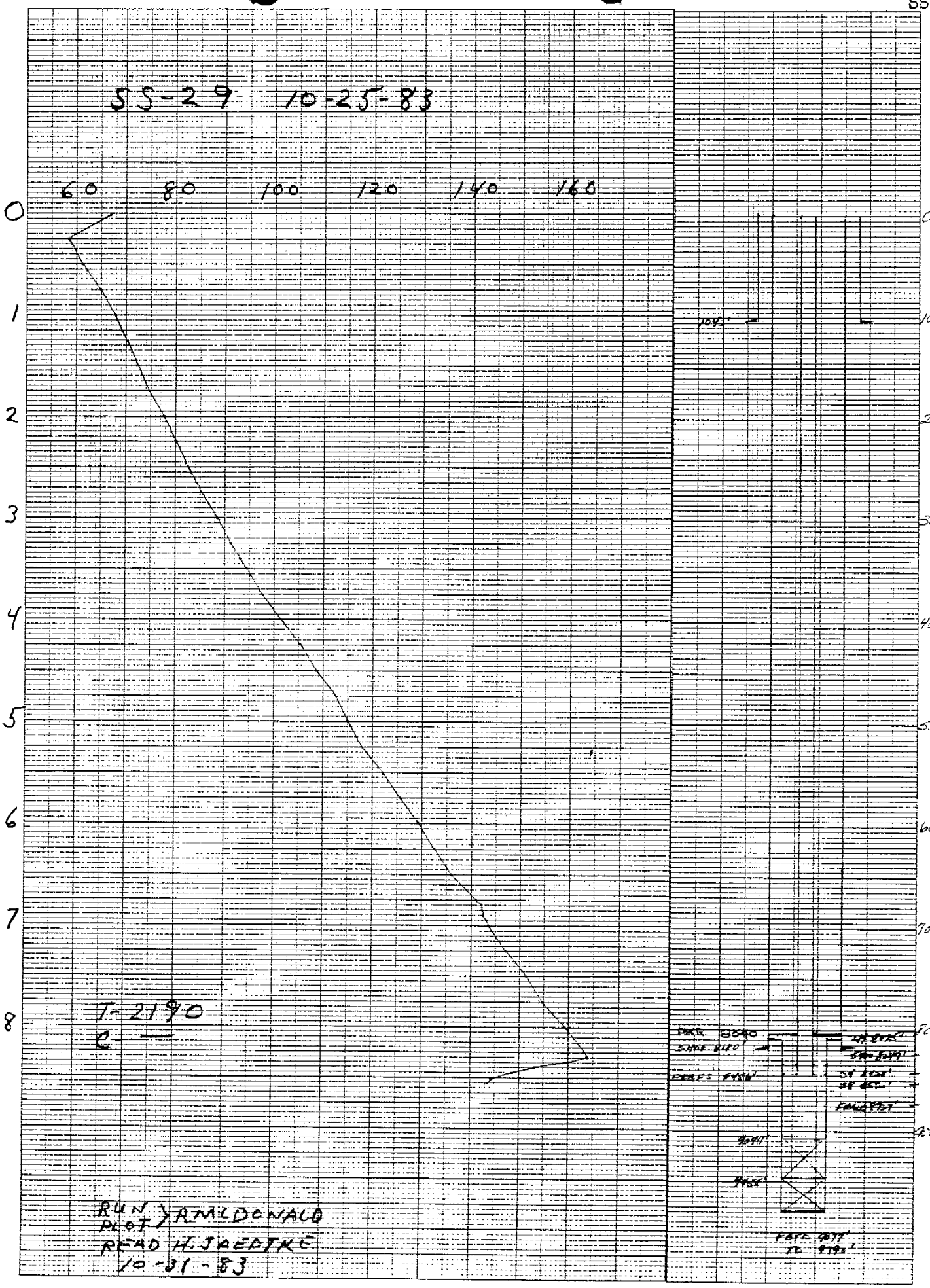
T 1600

C

46 1512

10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0118389




46 1512
10 X 10 TO THE CENTIMETER
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0118390

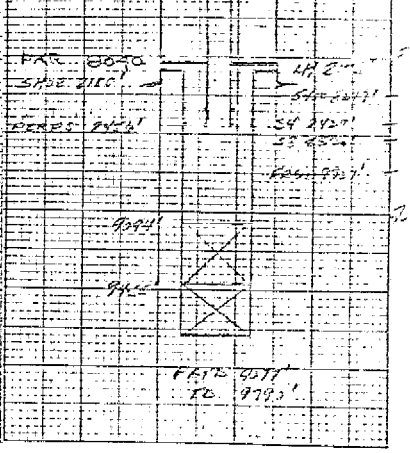
SS-29 5-26-83

80 100 120 140 160

0 1 2 3 4 5 6 7 8

T-195.0
C-NIL

RUN-SP. MCDONALD
PLOT-P. MCDONALD
READ-H. SHEDTKE
5-31-83



46 1512
K+E 10 X 10 TO THE CENTIMETER 10 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

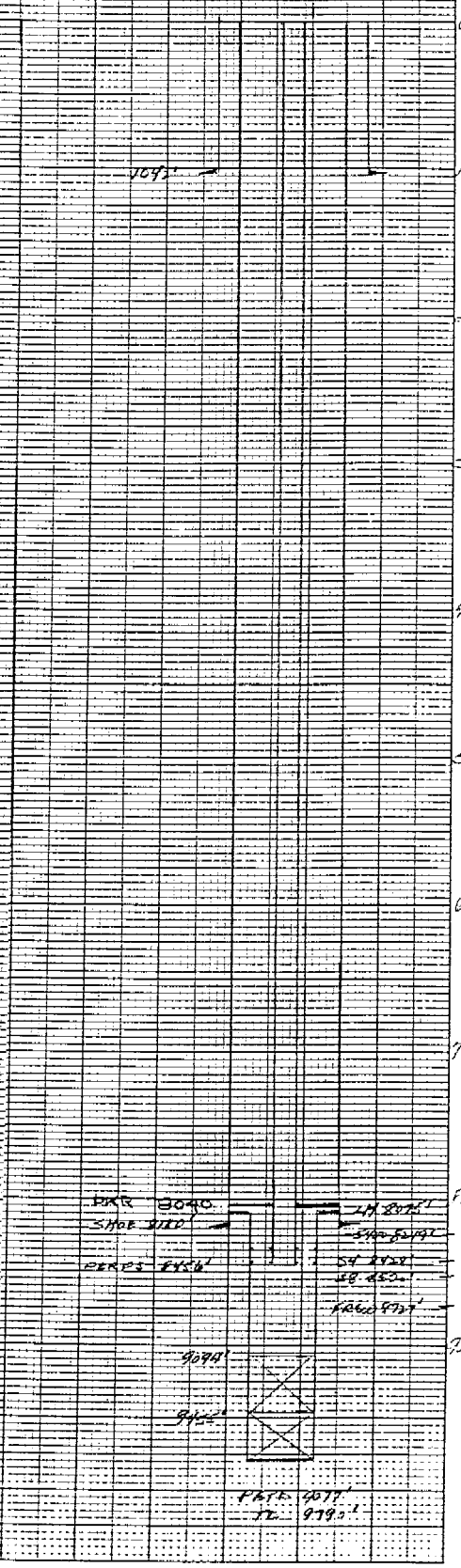
AC_CPUC_0118391

SS-29 10-18-82

80 100 120 140 160

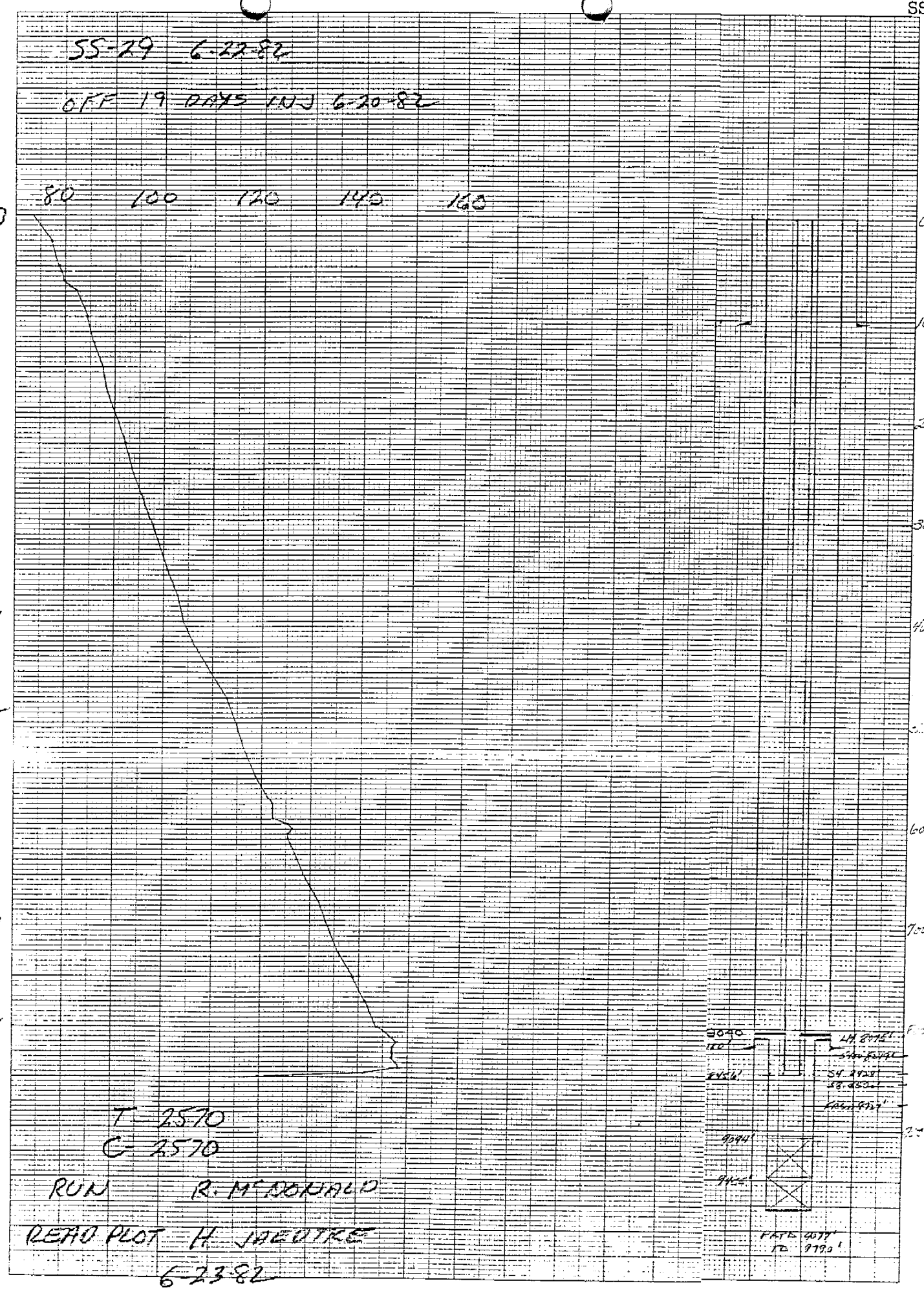
T- 2880
C- 2880

RUN-PLOT H JAECKE
READ R. McDONALD




46 1512
10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.
K+E

AC_CPUC_0118392




46 1512
10 X 10 TO THE CENTIMETER
KEUFFEL & ESSER CO. MADE IN U.S.A.
X 25 CM.

AC_CPUC_0118393

SS-29
9-21-81
OFF INJ. 9-17-81

80 100 120 140 160

0 1 2 3 4 5 6 7 8

T - 2780
C - 2780

9-25-81 Harry Jacobs

46 1512
K+E 10 X 10 TO THE CENTIMETER 18 X 25 CM
KEUFFEL & ESSER CO. MADE IN U.S.A.

RCS/9-30-81

AC_CPUC_0118394

SS-29 4-29-81

3 DAYS SINCE WELL ON

70 90 110 130 150 170

0 1 2 3 4 5 6 7 8

0 1000 2000 3000 4000 5000 6000 7000 8000

10941

SHOE 8210'
PKR 8431'
PERFS 8456'

CP 8078'
SLIP 8191'
SN 8428'
SB 8450'
PERF 8454'

9094'
9456'

PBTD 9077'
TD 9790'

TUBING - 2150

CASING - 2780

READ BY GUREVICH
PLOT BY M. NELSON

46 1512

K+E 10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0118395

Southern California Gas Company
Aliso Canyon

Well SS-29 Date 4-27-81 Element No 39138 Clock Hours _____

Tubing Press. 2750 Status _____ Time Clock Started _____ Time Clock Off _____

Casing Press. 2780 Pick-Up _____ Operator JA _____ ' per Minute

Time Press. on _____ Time Start Down _____ Zero Point -7

| Depth | Elapse Time | Deflection | Temp. | Depth | Elapse Time | Deflection | Temp. |
|---|---|---|---|---|---|---|---|
| 0 | 5[illegible] | OVER .136 | 73.4 | 5000 ✓ | 55.0 | .365 | 117.0 |
| 250 | 7.5 | .128 | 71.5 | 5250 | 57.5 | .377 | 118.9 |
| 500 | 10. | .138 | 73.8 | 5500 | 60. | .396 | 121.9 |
| 750 | 12.5 | .146 | 75.7 | 5750 | 62.5 | OVER .420 | 125.1 |
| 1000 ✓ | 15.0 | .158 | 78.5 | 6000 ✓ | 65.0 | .455 | 129.7 |
| 1250 | 17.5 | .168 | 80.8 | 6250 | 67.5 | .464 | 130.9 |
| 1500 | 20. | .176 | 82.6 | 6500 | 70. | .487 | 133.9 |
| 1750 | 22.5 | .185 | 84.7 | 6750 | 72.5 | .519 | 137.8 |
| 2000 ✓ | 25.0 | .195 | 87.0 | 7000 ✓ | 75.0 | .537 | 139.9 |
| 2250 | 27.5 | .205 | 89.1 | 7250 | 77.5 | .560 | 142.6 |
| 2500 | 30. | .215 | 91.0 | 7500 | 80. | .585 | 145.6 |
| 2750 | 32.5 | .226 | 93.1 | 7750 | 82.5 | .615 | 148.8 |
| 3000 ✓ | 35.0 | .235 | 94.8 | 8000 | 85.0 | .645 | 151.8 |
| 3250 | 37.5 | .248 | 97.2 | | | | |
| 3500 | 40. | .262 | 99.8 | | 87.5 | | |
| 3750 | 42.5 | .275 | 102.2 | | | | |
| 4000 ✓ | 45. | .284 | 103.9 | | | | |
| 4250 | 47.5 | .302 | 107.2 | | | | |
| 4500 | 50. | .329 | 111.4 | | | | |
| 4750 | 52.5 | .350 | 114.7 | | | | |

AC_CPUC_0118396

| | | | |
|---|---|---|---|
| 50 | 5.5 | .101 | 65.2 |
| 100 | 6.0 | .115 | 68.5 |
| 150 | 6.5 | .123 | 70.3 |
| 200 | 7.0 | .124 | 70.6 |
| | | | |
| 5800 | 63.0 | .427 | 126.0 |
| 5850 | 63.5 | .431 | 126.6 |
| 5900 | 64.0 | .433 | 126.8 |
| 5950 | 64.5 | .435 | 127.1 |

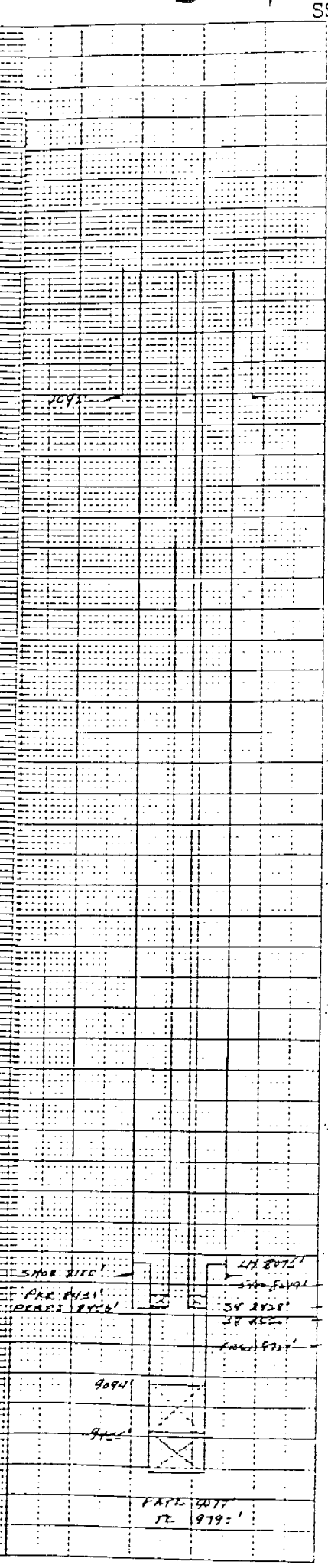
AC_CPUC_0118397

SS29

SS 2

SS-29 9-8-80

100 120 140 160



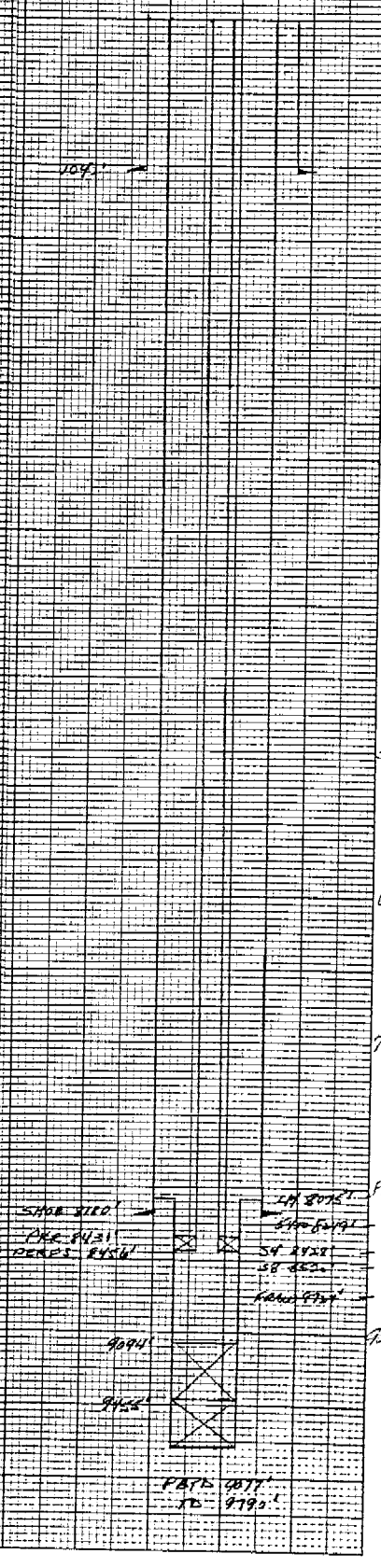
46 1512

AC_CPUC_0118398

SS 2

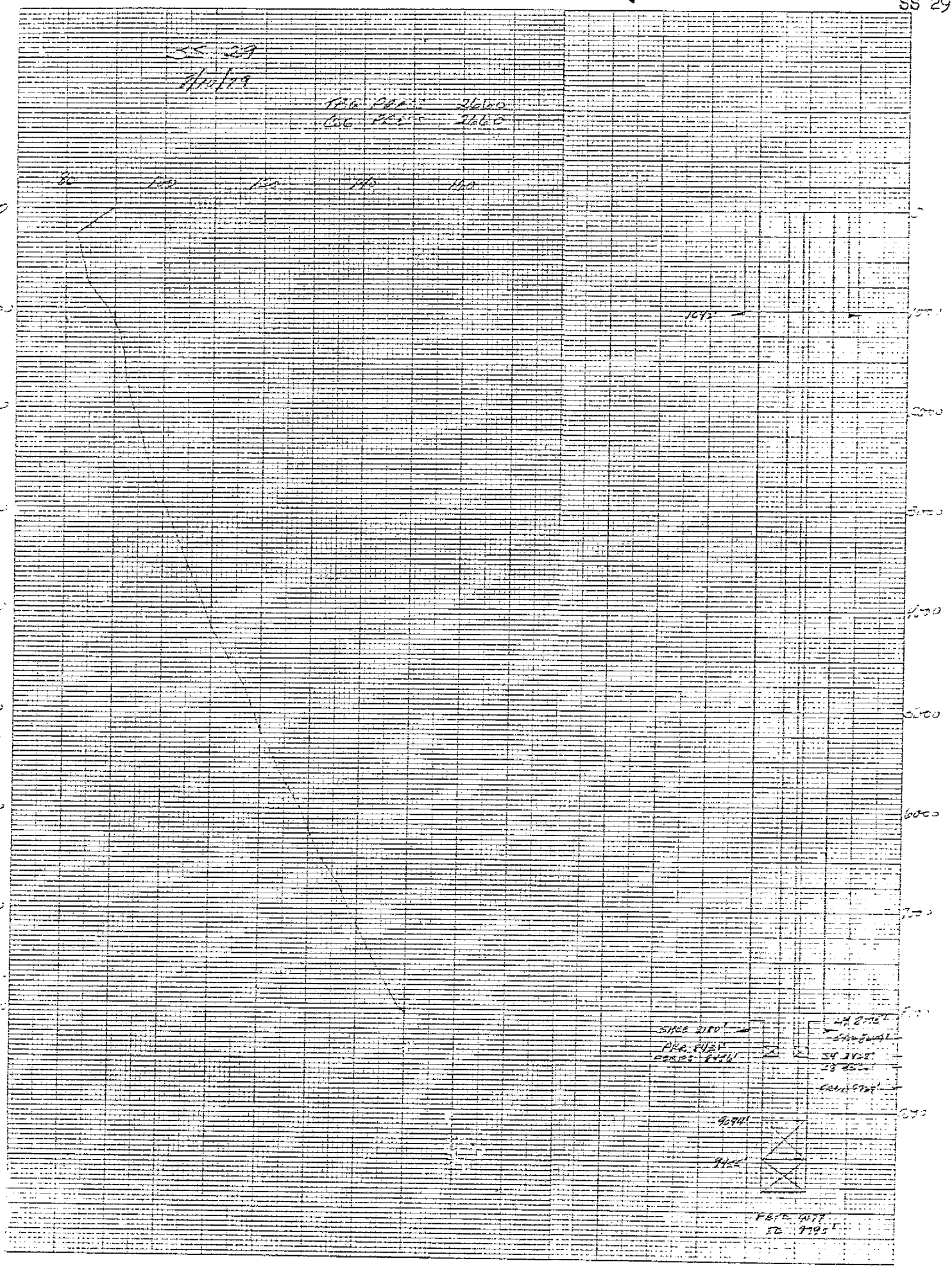
SS-29 6-27-20

90 110 130 150 170



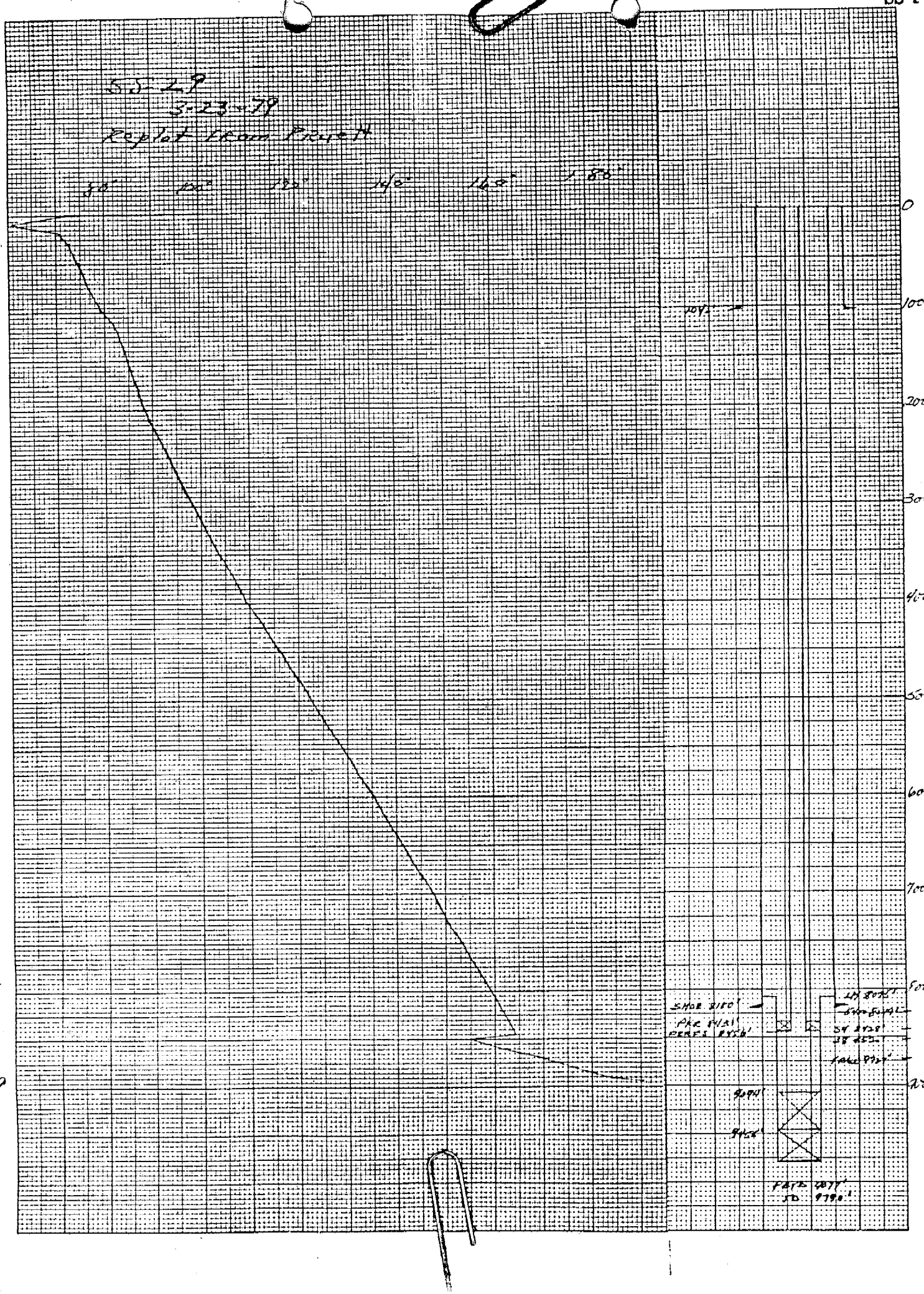

46 1512
K&E 10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0118399



46 1512
10 X 10 TO THE CENTIMETER 18 X 25 CM
KEUFFEL & ESSER CO MADE IN USA

5-5-79
5-23-79
Replot from Page 4




AC_CPUC_0118401

# PRUETT WIRELINE SERVICE

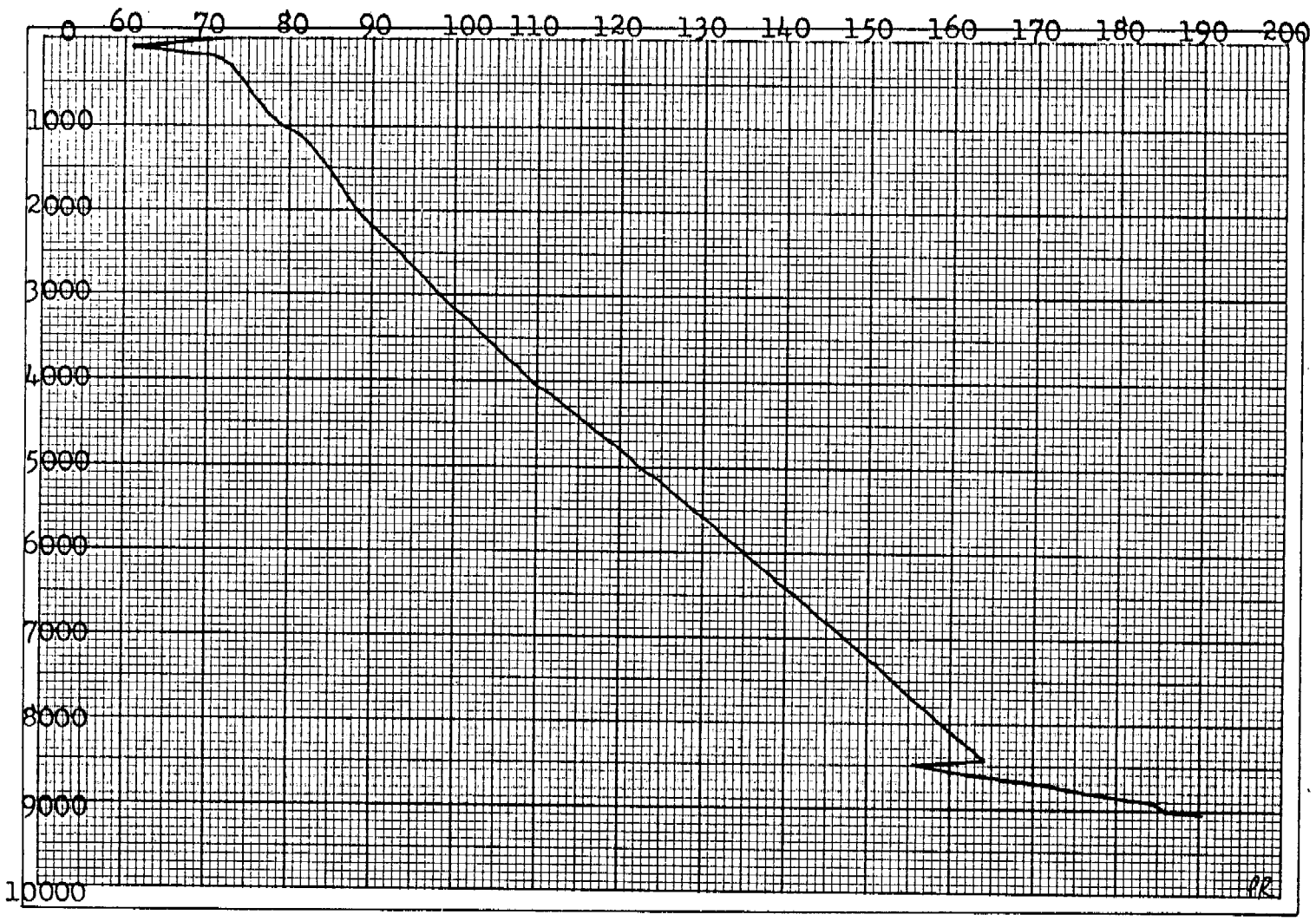
8915 Rosedale Hwy, Bakersfield, Ca. 93308
(805) 589-2768

## SUB—SURFACE TEMPERATURE SURVEY

COMPANY Southern California Gas FIELD Aliso Canyon WELL NAME SS 29

| | | | | | |
|---|---|---|---|---|---|
| TOTAL DEPTH --- | WELL STATUS Static | BOMB HUNG @ none | DATE 3-23-79 |
| CASING -- | CASING PRESSURE -- | TIME ON BOTTOM 10:30am | ELEMENT RANGE 60-200° |
| LINER --- | TUBING PRESSURE -- | TIME OFF BOTTOM 10:35am | ZERO POINT 6.92' |
| PERFORATIONS --- | ZONE none | SHUT IN none | ELEVATION none |
| MPP -- | MAX. °F 190.4° | ON PRODUCTION none | PICKUP 9038' |
| TUBING DETAIL 2 7/8" @ 8048' ** | | PURPOSE Traverse Temperature Survey | |

TEMPERATURE




### SURVEY DATA

SEE ATTACHED

** Safety @ 8001'

S Wilson

AC_CPUC_0118402

# PRUETT WIRELINE SERVICE

8915 Rosedale Hwy, Bakersfield, Ca. 93308
(805) 589-2768

## SUB—SURFACE TEMPERATURE SURVEY

COMPANY Southern California Gas FIELD Aliso Canyon WELL NAME SS 29

| | | | | | |
|---|---|---|---|---|---|
| TOTAL DEPTH -- | WELL STATUS Static | BOMB HUNG @ none | DATE 3-23-79 |
| CASING -- | CASING PRESSURE -- | TIME ON BOTTOM 10:30am | ELEMENT RANGE 60-200° |
| LINER -- | TUBING PRESSURE -- | TIME OFF BOTTOM 10:35am | ZERO POINT 6.92' |
| PERFORATIONS -- | ZONE none | SHUT IN none | ELEVATION none |
| MPP -- | MAX. °F. 190.4° | ON PRODUCTION none | PICKUP 9038' |
| TUBING DETAIL 2 7/8" @ 8048' | | PURPOSE Traverse Temperature Survey | |

### SURVEY DATA

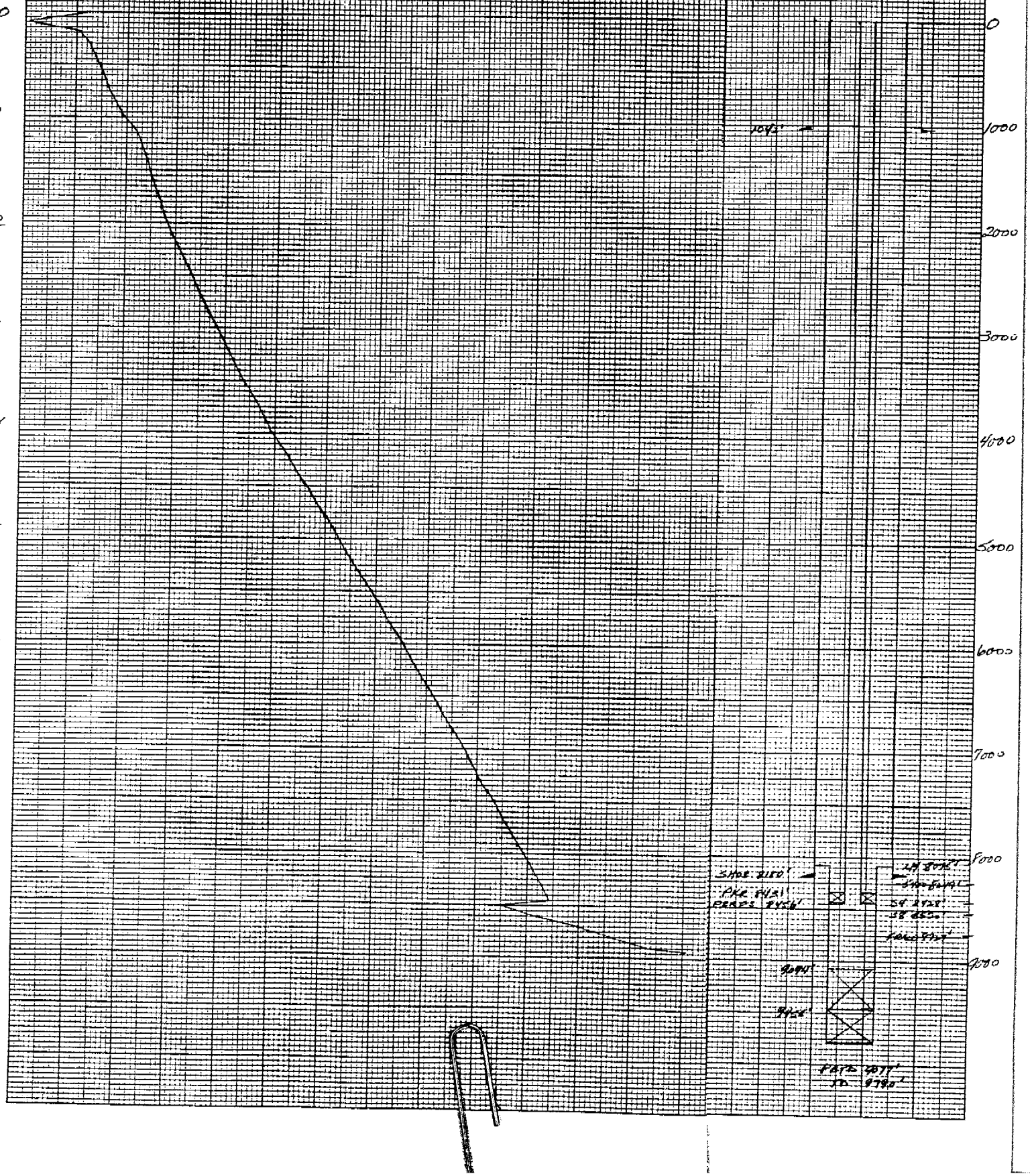
| DEPTH | TEMPERATURE | DEPTH | TEMPERATURE | DEPTH | TEMPERATURE |
|---|---|---|---|---|---|
| 0 | 72.6 | 3100 | 99.4 | 6200 | 137.8 |
| 100 | 60.9 | 3200 | 100.6 | 6300 | 138.9 |
| 200 | 70.8 | 3300 | 101.7 | 6400 | 140.1 |
| 300 | 72.9 | 3400 | 102.8 | 6500 | 141.3 |
| 400 | 73.8 | 3500 | 103.8 | 6600 | 142.6 |
| 500 | 74.7 | 3600 | 105.0 | 6700 | 143.8 |
| 600 | 75.4 | 3700 | 106.2 | 6800 | 145.0 |
| 700 | 76.2 | 3800 | 107.4 | 6900 | 146.2 |
| 800 | 77.2 | 3900 | 108.5 | 7000 | 147.4 |
| 900 | 78.4 | 4000 | 109.6 | 7100 | 148.5 |
| 1000 | 79.8 | 4100 | 111.0 | 7200 | 149.7 |
| 1100 | 81.2 | 4200 | 112.3 | 7300 | 150.9 |
| 1200 | 82.5 | 4300 | 113.6 | 7400 | 152.1 |
| 1300 | 83.4 | 4400 | 114.9 | 7500 | 153.3 |
| 1400 | 84.2 | 4500 | 116.2 | 7600 | 154.4 |
| 1500 | 84.9 | 4600 | 117.5 | 7700 | 155.5 |
| 1600 | 85.6 | 4700 | 118.8 | 7800 | 156.7 |
| 1700 | 86.4 | 4800 | 120.2 | 7900 | 158.0 |
| 1800 | 87.0 | 4900 | 121.5 | 8000 | 159.1 |
| 1900 | 87.7 | 5000 | 122.6 | 8100 | 160.3 |
| 2000 | 88.5 | 5100 | 124.0 | 8200 | 161.5 |
| 2100 | 89.4 | 5200 | 125.3 | 8300 | 162.7 |
| 2200 | 90.5 | 5300 | 126.6 | 8400 | 163.7 |
| 2300 | 91.5 | 5400 | 127.9 | 8450 | 164.1 |
| 2400 | 92.5 | 5500 | 129.2 | 8500 | 155.5 |
| 2500 | 93.5 | 5600 | 130.4 | 8600 | 162.3 |
| 2600 | 94.4 | 5700 | 131.7 | 8700 | 170.0 |
| 2700 | 95.4 | 5800 | 132.8 | 8800 | 175.9 |
| 2800 | 96.4 | 5900 | 134.1 | 8900 | 184.2 |
| 2900 | 97.3 | 6000 | 135.3 | 9000 | 186.2 |
| 3000 | 98.3 | 6100 | 136.6 | 9038 | 190.4 |

Instrument Serial No. 41724, calibrated 11-15-77.
Survey traversed 100' per minute.

S Wilson

AC_CPUC_0118403

5-7-29
3-23-79
Exploit Room Page #




46 1512
KEUFFEL & ESSER CO MADE IN U.S.A.

AC_CPUC_0118404

SS-29 2-23-78 R Cann

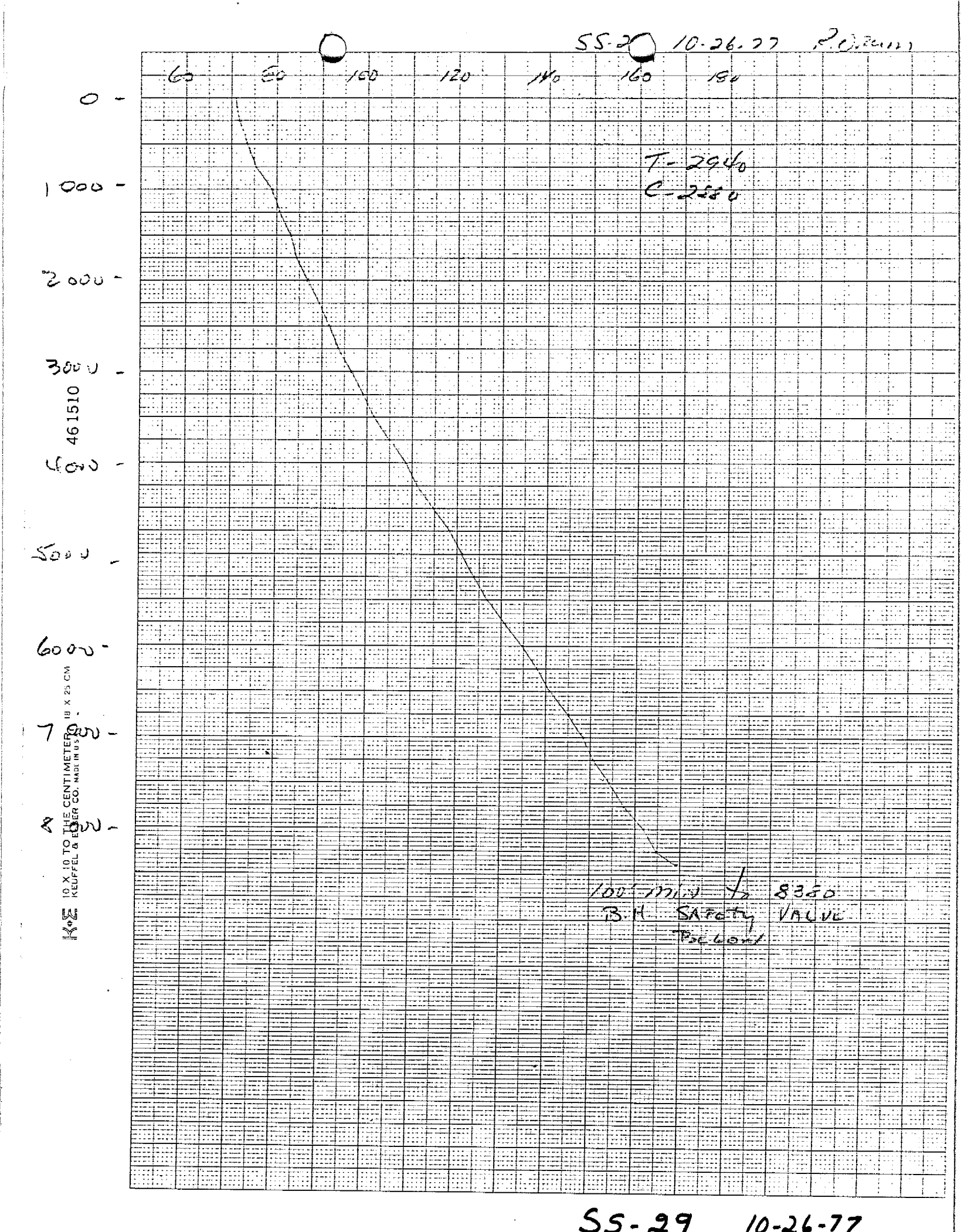
60 80 100 120 140 160 180

T- 1980 (S. VALVE etc)
C- 2250

B.H.T. 100' min to 8385'
B.H. SAFETY VALVE BELOW

A.C. SS-29 (2-23-78)

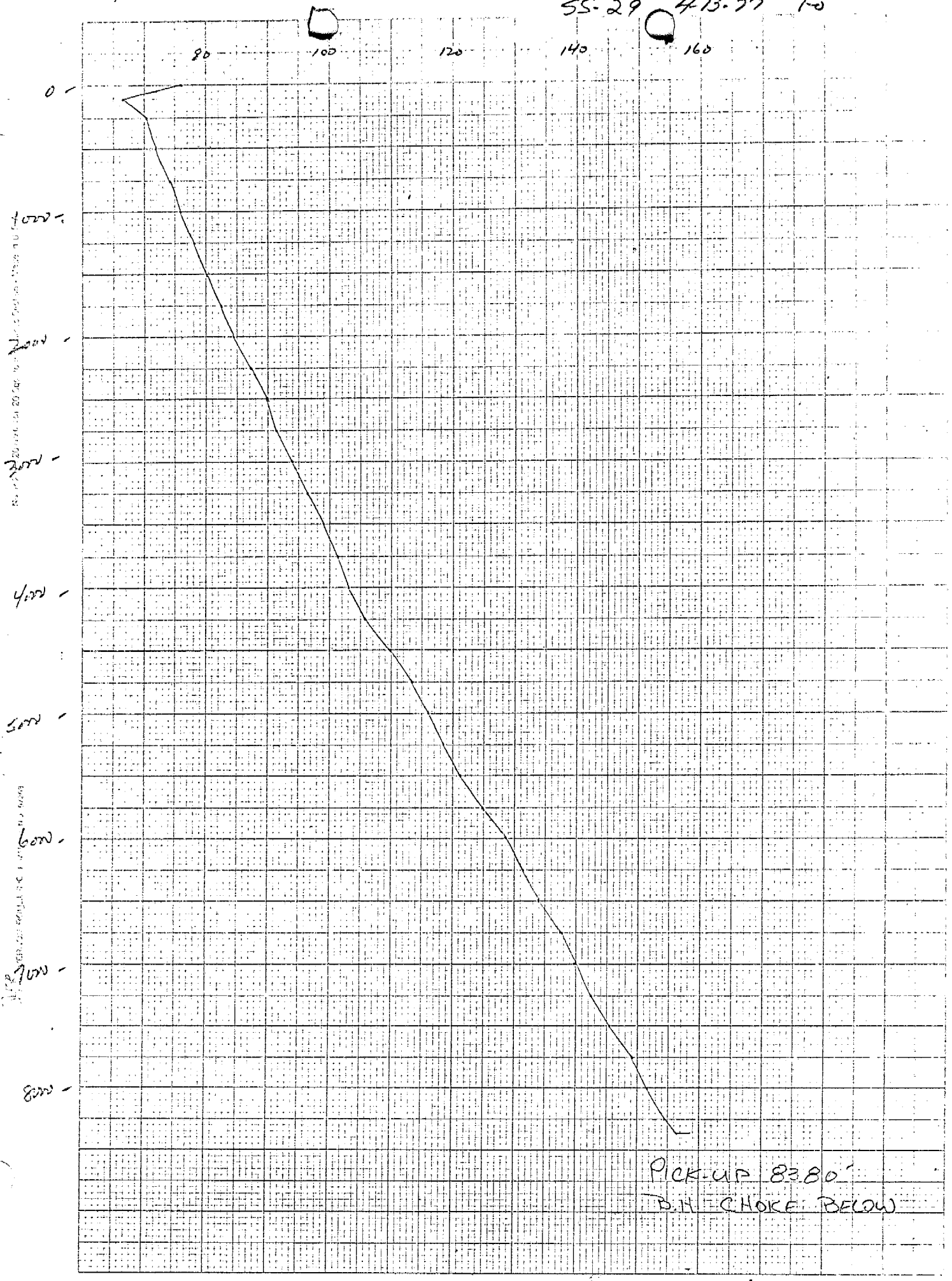
AC_CPUC_0118405




SS-29 10-26-77

AC_CPUC_0118406

55-29 4-13-77 R2




PICK-UP 8380'
B.H. CHOKE BELOW

SS#29

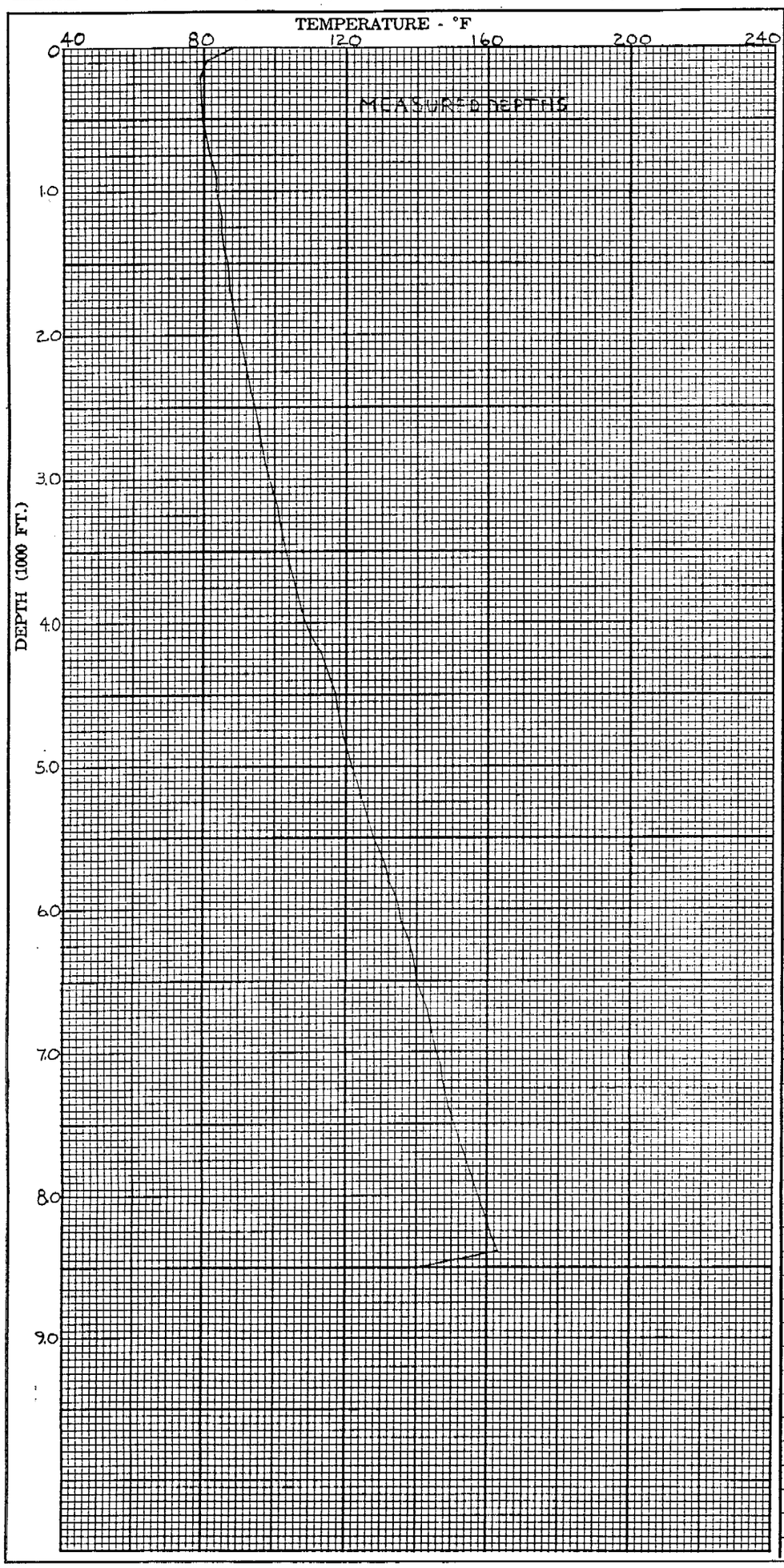
AC_CPUC_0118407

TECHNICAL SERVICE CO.
801 West 14th Street
Long Beach, California 90813

Phones: 24 Hours
Long Beach - 436-9901

# SUB-SURFACE TEMPERATURE DATA

Company So. California Gas Co. Field Aliso Canyon Date 9-24-76 Run No.
Well S. S. 29 Zone Elev.
Purpose Static Temperature Survey Status Shut In
Total Depth Effect. Depth
Casing Size Depth Liner Size Top Bottom
Perforations
Tubing 2-7/8" & 2-3/8" to 8522', G. L. Valves @ 5697', 6932', 7985', 8326', "X" Nipple @ 8017', 8390', 8456', 8483', Sliding Sleeve @ 8359', Packer @ 8420', 8518'




| OBSERVATIONS | |
|---|---|
| Stabilization Period - Hrs. | |
| Gross Oil Rate - B/D | |
| Net Oil Rate - B/D | |
| Formation Gas MCF/D | |
| Formation Gas-Oil Ratio CFT/BBL | |
| Circulated Gas MCF/D | |
| Oil Dry Gravity - °A.P.I. | |
| Casinghead Pressure - PSIG | |
| Tubinghead Pressure - PSIG | |
| Casing Fluid Level - Ft. | |

| Traverse Depth Feet | Temperature °F | Traverse Depth Feet | Temperature °F |
|---|---|---|---|
| 0 | 89.1 | 5000 | 121.2 |
| 100 | 81.0 | 5100 | 122.6 |
| 200 | 79.5 | 5200 | 123.7 |
| 300 | 79.3 | 5300 | 124.9 |
| 400 | 79.3 | 5400 | 126.1 |
| 500 | 79.5 | 5500 | 127.7 |
| 600 | 80.6 | 5600 | 129.5 |
| 700 | 81.4 | 5700 | 130.6 |
| 800 | 82.5 | 5800 | 131.6 |
| 900 | 83.4 | 5900 | 133.8 |
| 1000 | 83.8 | 6000 | 134.5 |
| 1100 | 84.4 | 6100 | 135.7 |
| 1200 | 84.8 | 6200 | 137.3 |
| 1300 | 85.0 | 6300 | 138.2 |
| 1400 | 85.5 | 6400 | 139.2 |
| 1500 | 86.3 | 6500 | 139.7 |
| 1600 | 86.7 | 6600 | 141.3 |
| 1700 | 87.2 | 6700 | 142.8 |
| 1800 | 88.2 | 6800 | 143.6 |
| 1900 | 88.9 | 6900 | 144.5 |
| 2000 | 89.9 | 7000 | 145.5 |
| 2100 | 90.8 | 7100 | 146.7 |
| 2200 | 91.6 | 7200 | 147.0 |
| 2300 | 92.4 | 7300 | 148.2 |
| 2400 | 93.3 | 7400 | 149.4 |
| 2500 | 94.1 | 7500 | 150.9 |
| 2600 | 95.1 | 7600 | 152.0 |
| 2700 | 95.8 | 7700 | 153.6 |
| 2800 | 96.6 | 7800 | 155.0 |
| 2900 | 97.6 | 7900 | 156.5 |
| 3000 | 98.7 | 8000 | 157.5 |
| 3100 | 99.5 | 8100 | 159.3 |
| 3200 | 100.3 | 8200 | 160.3 |
| 3300 | 101.4 | 8300 | 161.5 |
| 3400 | 102.3 | 8400 | 163.7 |
| 3500 | 103.2 | 8500 | 141.7 |
| 3600 | 104.3 | | |
| 3700 | 105.3 | | |
| 3800 | 106.0 | | |
| 3900 | 107.3 | | |
| 4000 | 108.8 | | |
| 4100 | 110.1 | | |
| 4200 | 112.9 | | |
| 4300 | 114.0 | | |
| 4400 | 115.6 | | |
| 4500 | 116.3 | | |
| 4600 | 117.5 | | |
| 4700 | 118.3 | | |
| 4800 | 119.2 | | |
| 4900 | 120.2 | | |

COMMENTS Zero: Mat + 7.0'

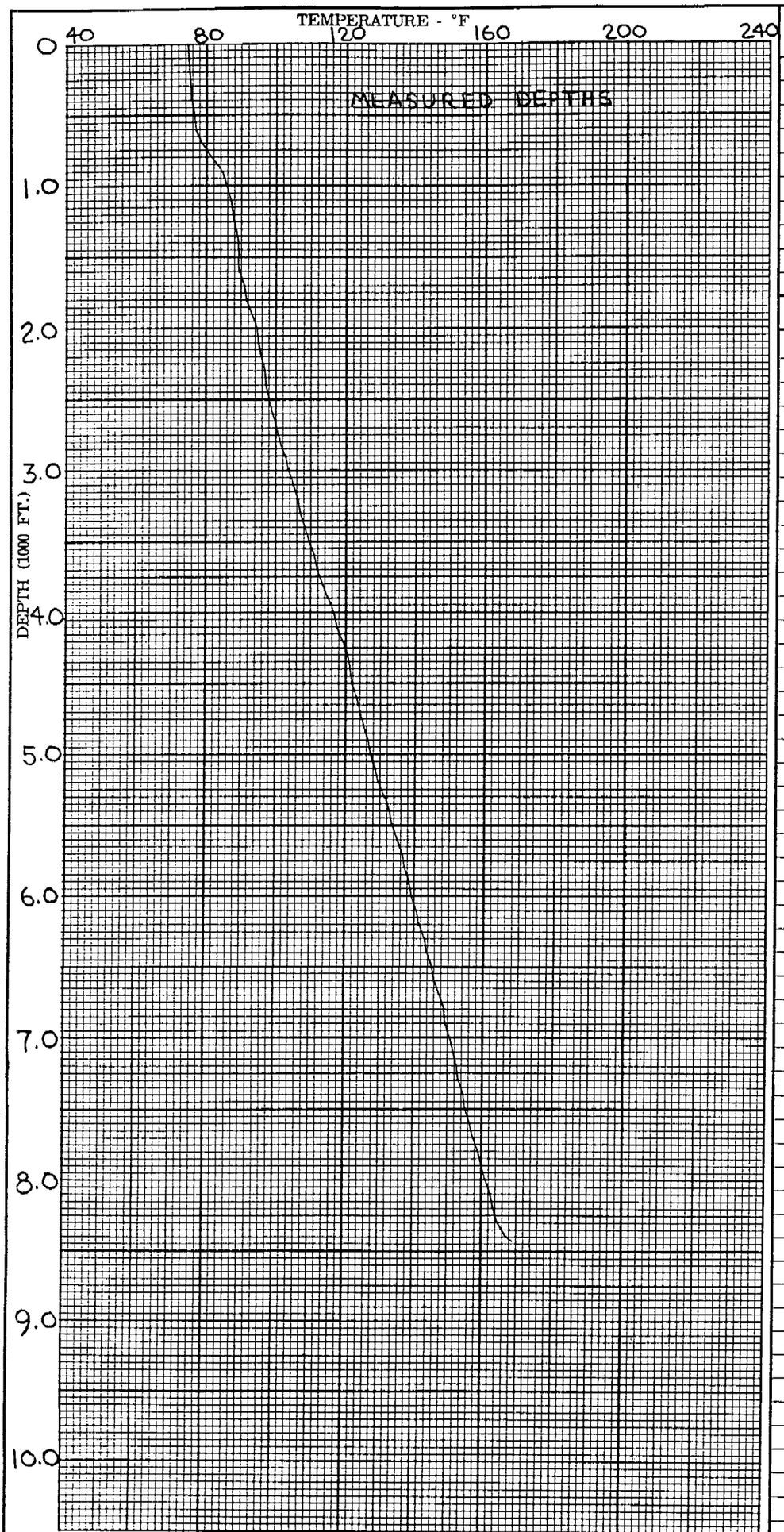
AC_CPUC_0118408

TECHNICAL SERVICE CO.
801 West 14th Street
Long Beach, California 90813

Phones: 24 Hours
Long Beach - 436-9901

# SUB-SURFACE TEMPERATURE DATA

Company: So. California Gas Co. Field: Aliso Canyon Date: 3-18-76 Run No.:
Well: S. S. 29 Zone: Elev.:
Purpose: Static Temperature Survey Status: Shut In
Total Depth: Effect. Depth:
Casing Size: Depth: Liner Size: Top: Bottom:
Perforations:
Tubing: 2-7/8" & 2-3/8" to 8522', G. L. Valves @ 5697', 6932', 7985', 8326', "X" Nipple @ 8017', 8390', 8456', 8483', Sliding Sleeve @ 8359', Packer @ 8420', 8518'




| OBSERVATIONS | |
|---|---|
| Stabilization Period - Hrs. | |
| Gross Oil Rate - B/D | |
| Net Oil Rate - B/D | |
| Formation Gas MCF/D | |
| Formation Gas-Oil Ratio CFT/BBL | |
| Circulated Gas MCF/D | |
| Oil Dry Gravity - °A.P.I. | |
| Casinghead Pressure - PSIG | |
| Tubinghead Pressure - PSIG | |
| Casing Fluid Level - Ft. | |

| Traverse Depth Feet | Temperature °F | Traverse Depth Feet | Temperature °F |
|---|---|---|---|
| 0 | 75.1 | 5000 | 127.3 |
| 100 | 75.1 | 5100 | 128.3 |
| 200 | 75.1 | 5200 | 129.6 |
| 300 | 75.3 | 5300 | 131.0 |
| 400 | 75.6 | 5400 | 132.2 |
| 500 | 76.5 | 5500 | 133.6 |
| 600 | 77.2 | 5600 | 134.9 |
| 700 | 78.4 | 5700 | 136.1 |
| 800 | 81.7 | 5800 | 137.2 |
| 900 | 84.6 | 5900 | 138.1 |
| 1000 | 85.9 | 6000 | 139.6 |
| 1100 | 86.7 | 6100 | 140.2 |
| 1200 | 87.7 | 6200 | 141.3 |
| 1300 | 88.1 | 6300 | 142.8 |
| 1400 | 89.1 | 6400 | 143.8 |
| 1500 | 89.7 | 6500 | 144.8 |
| 1600 | 89.9 | 6600 | 145.9 |
| 1700 | 90.8 | 6700 | 147.7 |
| 1800 | 91.6 | 6800 | 148.8 |
| 1900 | 93.2 | 6900 | 149.2 |
| 2000 | 94.2 | 7000 | 150.3 |
| 2100 | 95.0 | 7100 | 151.4 |
| 2200 | 95.9 | 7200 | 152.3 |
| 2300 | 96.7 | 7300 | 153.3 |
| 2400 | 97.2 | 7400 | 154.4 |
| 2500 | 98.0 | 7500 | 155.4 |
| 2600 | 98.9 | 7600 | 156.5 |
| 2700 | 100.0 | 7700 | 157.5 |
| 2800 | 101.4 | 7800 | 159.1 |
| 2900 | 102.8 | 7900 | 160.0 |
| 3000 | 103.8 | 8000 | 161.2 |
| 3100 | 105.0 | 8100 | 162.6 |
| 3200 | 106.1 | 8200 | 163.6 |
| 3300 | 107.1 | 8300 | 164.6 |
| 3400 | 108.4 | 8400 | 167.5 |
| 3500 | 109.5 | 8425 | 168.5 |
| 3600 | 110.8 | | |
| 3700 | 111.9 | | |
| 3800 | 113.4 | | |
| 3900 | 114.9 | | |
| 4000 | 116.4 | | |
| 4100 | 117.6 | | |
| 4200 | 119.0 | | |
| 4300 | 120.1 | | |
| 4400 | 121.1 | | |
| 4500 | 121.8 | | |
| 4600 | 123.0 | | |
| 4700 | 124.0 | | |
| 4800 | 125.2 | | |
| 4900 | 126.2 | | |

COMMENTS: Zero: Mat + 7.0'

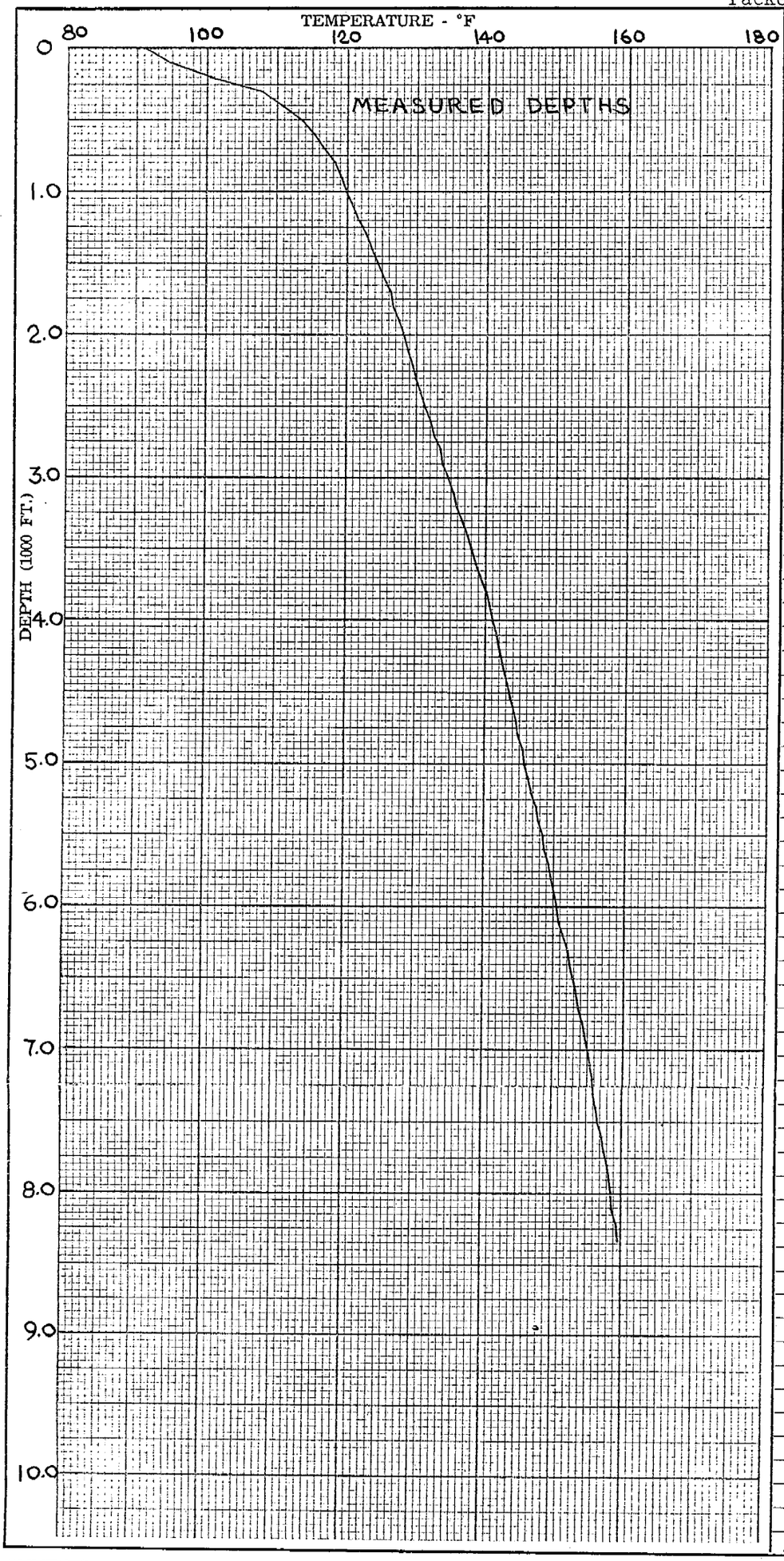
AC_CPUC_0118409

TECHNICAL SERVICE CO
801 West 14th Street
Long Beach, California 90813

Phones: 24 Hours
Long Beach - 436-9901
Ventura - - 642-3794

# SUB-SURFACE TEMPERATURE DATA

Company: So. California Gas Co. Field: Aliso Canyon Date: 3-18-75 Run No.:
Well: S. S. 29 Zone: Elev.:
Purpose: Sub-Surface Temperature Survey Status: Flowing from Casing
Total Depth: Effect. Depth:
Casing Size: Depth: Liner Size: Top: Bottom:
Perforations:
Tubing: 2-7/8" to 8049', 2-3/8" to 8522', KBMG Mandrels @ 5697', 6933', 7985', 8326', 2-3/8" Sliding sleeve @ 8359', Camco HRP-1 Packer @ 8426', 2-3/8" Plugged @ 8518', Baker Model "D" Packer @ 8522'

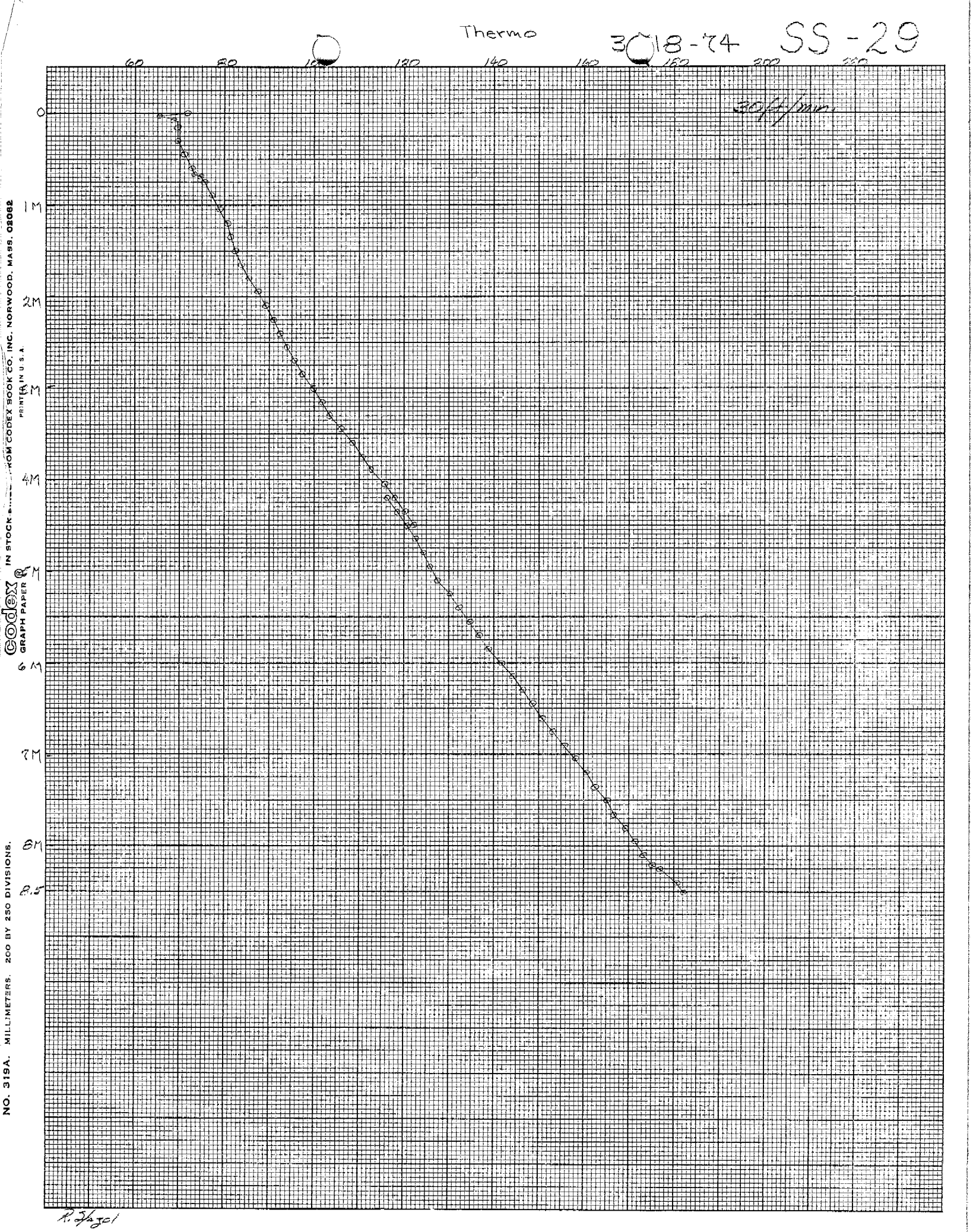



| OBSERVATIONS | |
|---|---|
| Stabilization Period - Hrs. | |
| Gross Oil Rate - B/D | |
| Net Oil Rate - B/D | |
| Formation Gas MCF/D | |
| Formation Gas-Oil Ratio CFT/BBL | |
| Circulated Gas MCF/D | |
| Oil Dry Gravity - °A.P.I. | |
| Casinghead Pressure - PSIG | |
| Tubinghead Pressure - PSIG | |
| Casing Fluid Level - Ft. | |

| Traverse Depth Feet | Temperature °F | Traverse Depth Feet | Temperature °F |
|---|---|---|---|
| 0 | 91.4 | 5000 | 145.7 |
| 100 | 94.8 | 5100 | 146.3 |
| 200 | 100.4 | 5200 | 146.8 |
| 300 | 107.9 | 5300 | 147.4 |
| 400 | 110.4 | 5400 | 147.8 |
| 500 | 113.6 | 5500 | 148.4 |
| 600 | 115.3 | 5600 | 148.7 |
| 700 | 116.9 | 5700 | 149.2 |
| 800 | 118.3 | 5800 | 149.7 |
| 900 | 119.1 | 5900 | 150.0 |
| 1000 | 119.9 | 6000 | 150.4 |
| 1100 | 120.9 | 6100 | 150.9 |
| 1200 | 121.7 | 6200 | 151.4 |
| 1300 | 122.8 | 6300 | 152.0 |
| 1400 | 123.6 | 6400 | 152.3 |
| 1500 | 124.4 | 6500 | 152.8 |
| 1600 | 125.2 | 6600 | 153.2 |
| 1700 | 126.2 | 6700 | 153.6 |
| 1800 | 126.6 | 6800 | 154.1 |
| 1900 | 127.5 | 6900 | 154.5 |
| 2000 | 128.1 | 7000 | 155.0 |
| 2100 | 128.8 | 7100 | 155.3 |
| 2200 | 129.4 | 7200 | 155.7 |
| 2300 | 129.9 | 7300 | 155.9 |
| 2400 | 130.6 | 7400 | 156.3 |
| 2500 | 131.2 | 7500 | 156.6 |
| 2600 | 132.0 | 7600 | 157.1 |
| 2700 | 132.5 | 7700 | 157.5 |
| 2800 | 133.5 | 7800 | 158.0 |
| 2900 | 133.8 | 7900 | 158.2 |
| 3000 | 134.6 | 8000 | 158.5 |
| 3100 | 135.3 | 8100 | 158.8 |
| 3200 | 135.9 | 8200 | 159.1 |
| 3300 | 136.6 | 8300 | 159.4 |
| 3400 | 137.4 | 8329 | 159.6 |
| 3500 | 138.0 | | |
| 3600 | 138.7 | | |
| 3700 | 139.3 | | |
| 3800 | 140.0 | | |
| 3900 | 140.5 | | |
| 4000 | 141.0 | | |
| 4100 | 141.6 | | |
| 4200 | 142.0 | | |
| 4300 | 142.6 | | |
| 4400 | 143.0 | | |
| 4500 | 143.4 | | |
| 4600 | 144.0 | | |
| 4700 | 144.4 | | |
| 4800 | 144.8 | | |
| 4900 | 145.4 | | |

COMMENTS

AC_CPUC_0118410




AC_CPUC_0118411

# PACIFIC LIGHTING SERVICE COMPANY
## SUB-SURFACE TEMPERATURE SURVEY

FIELD Aliso Canyon WELL SS-29 DATE 3-18-74

RECORDER NO. 13440 RUN NO. ___ SHEET NO. 2 OF 2 SHEETS BY R. Hazel

CLOCK HOURS 3 TIME CLOCK STARTED 1244P TIME RUN COMPLETED ___

WELL CONDITION DURING RUN, SHUT-IN ___ FLOWING ___ INJECTION ___

HOURS WELL, SHUT-IN ___ FLOWING ___ INJECTION ___ BEFORE RUN ___

WELL HEAD PRESSURE

TUBING 1780#

CASING ___

FLOW RATE

GAS MCF/D ___

OIL BBL'S/D ___

WATER BBL'S/D ___

GOR ___

AMBIENT TEMPERATURE ___

ZERO POINT 6.9' above donut

PICK-UP ___

DATUM ___

FLUID LEVEL ___

| | SIZE | DEPTH |
|---|---|---|
| TUBING | 2 7/8 | 8048 |
| | 2 3/8 | 8522 |
| CASING | No Go plug | 8517.8' |
| CASHING SHOE | | |
| LINER | | |
| TOP | | |
| BOTTOM | | |
| PERFORATION | | |
| TOP | | |
| BOTTOM | | |

SPECIAL INSTRUCTIONS

Traverse from 4200' to 8500' @ 30'/min. Stop at 4200' for 15 min. Stop line sum 300'

BY ___

REMARKS - USE REVERSE SIDE

R. Hazel (R. Bu)

FIELD OPERATOR

CHART READ BY ___

PLSS FORM 500

SURVEY DATA

| DEPTH MEASURED | DEPTH VERTICAL | Lapsed Time | STYLUS DEFLECTION | TEMPERATURE |
|---|---|---|---|---|
| 4200 | | 24 | .081 | 116.2 |
| 4350 | | | .089 | 118.7 |
| 4500 | | 34 | .096 | 120.8 |
| 4650 | | | .103 | 122.7 |
| 4800 | | 44 | .110 | 124.3 |
| 4950 | | | .117 | 125.9 |
| 5100 | | 54 | .125 | 127.7 |
| 5250 | | | .136 | 130.3 |
| 5400 | | 64 | .145 | 132.3 |
| 5550 | | | .156 | 134.9 |
| 5700 | | 74 | .165 | 136.9 |
| 5850 | | | .174 | 139.0 |
| 6000 | | 84 (14) | .186 | 141.8 |
| 6150 | | | .197 | 144.3 |
| 6300 | | 96 | .209 | 146.6 |
| 6450 | | | .220 | 148.7 |
| 6600 | | 106 | .232 | 150.9 |
| 6750 | | | .244 | 153.1 |
| 6900 20. | | 116 | .259 | 155.8 |
| 7050 | | | .272 | 158.2 |
| 7200 | | 126 | .285 | 160.6 |
| 7350 | | | .296 | 162.6 |
| 7500 | | 136 | .312 | 165.2 |
| 7650 | | | .323 | 166.9 |
| 7800 | | 146 | .339 | 169.4 |
| 7950 | | | .352 | 171.5 |
| 8100 * | | 156 | .363 | 173.2 |
| 8250 | | | .387 | 177.0 |
| 8400 | | 168 | .412 | 180.6 |
| 8500' | 351 | | .424 | 182.2 |
| 8524' | | | | 182.6 |
| 8210 | | | .375 | 175.1 |

AC_CPUC_0118412

# PACIFIC LIGHTING SERVICE COMPANY
## SUB-SURFACE TEMPERATURE SURVEY

FIELD Aliso Canyon WELL SS-29 DATE 3-18-74

RECORDER NO. 1853 RUN NO. ___ SHEET NO. 1 OF 2 SHEETS BY R. Hazel

CLOCK HOURS 8 TIME CLOCK STARTED 927 Am TIME RUN COMPLETED ___

WELL CONDITION DURING RUN, SHUT-IN ___ FLOWING ___ INJECTION ___

HOURS WELL, SHUT-IN ___ FLOWING ___ INJECTION ___ BEFORE RUN ___

WELL HEAD PRESSURE

TUBING 1780#

CASING ___

FLOW RATE

GAS MCF/D ___

OIL BBL'S/D ___

WATER BBL'S/D ___

GOR ___

AMBIENT TEMPERATURE ___

ZERO POINT 6.9' above ground

PICK-UP ___

DATUM ___

FLUID LEVEL ___

| | SIZE | DEPTH |
|---|---|---|
| TUBING | ___ | ___ |
| CASING | ___ | ___ |
| CASHING SHOE | | ___ |
| LINER | ___ | |
| TOP | | ___ |
| BOTTOM | | ___ |
| PERFORATION | | |
| TOP | | ___ |
| BOTTOM | | ___ |

SPECIAL INSTRUCTIONS ___

Traverse from 0' to 4500' @ 30'/min. Stopped at 0' for 10 min. Swab line down 200'.

BY ___

REMARKS - USE REVERSE SIDE

R. Hazel (Ron G.)
FIELD OPERATOR

CHART READ BY

SURVEY DATA

| DEPTH MEASURED | DEPTH VERTICAL | Lapsed TIME | STYLUS DEFLECTION | TEMPERATURE |
|---|---|---|---|---|
| 0 | | 17 | .258 | 71.7 |
| 150 | | | .227 | 69.5 |
| 300 | | 27 | .227 | 69.5 |
| 450 | | | .249 | 71.0 |
| 600 | | 37 | .273 | 72.7 |
| 750 | | | .314 | 75.5 |
| 900 | | 47 | .339 | 77.1 |
| 1050 | | | .365 | 78.9 |
| 1200 | | 54 (7) | .390 | 80.6 |
| 1350 | | | .404 | 81.4 |
| 1500 | | 64 | .420 | 82.4 |
| 1650 | | | .445 | 83.9 |
| 1800 | | 74 | .470 | 85.4 |
| 1950 | | | .505 | 87.4 |
| 2100 | | 84 | .534 | 89.2 |
| 2250 | | | .567 | 91.0 |
| 2400 | | 94 | .595 | 92.4 |
| 2550 | | | .621 | 94.0 |
| 2700 | | 104 | .650 | 95.6 |
| 2850 | | | .687 | 97.5 |
| 3000 | | 114 | .730 | 100.0 |
| 3150 | | | .767 | 101.8 |
| 3300 | | 124 | .801 | 103.5 |
| 3450 | | | .852 | 106.0 |
| 3600 | | 134 | .905 | 108.6 |
| 3750 | | | .952 | 110.8 |
| 3900 | | 144 | .998 | 112.8 |
| 4050 | | | 1.065 | 115.9 |
| 4200 | | 154 | 1.116 | 118.0 |
| 4350 | | 159 (5) | 1.160 | 120.1 |
| 4500 | | 167 (13) | 1.209 | 122.1 |
| | | | | |
| 40' | | | .178 | 65.6 |
| 75' | | | .220 | 68.9 |
| 90' | | | .227 | 69.5 |
| 160 | | | .282 | 73.3 |
| 190 | | | .303 | 74.8 |

PLSS FORM 500

AC_CPUC_0118413

# Archer - Reed

WIRE LINE SERVICE

205 Baldwin Ave. Ventura, Calif. 93030

VENTURA 642-7061
LONG BEACH 591-0921


## SUB-SURFACE DATA

Company Southern Calif. Gas Co. Field Date 5-1-73 Run No. 1

Well Std. Sessnon #29 Zone Elev.

Purpose Status

Total Depth Effect. Depth

Casing Size Depth Liner Size Top Bottom

Perforations

Tubing

| | |
|---|---|
| Company | Southern Calif. Gas Co. |
| Well | Std. Sessnon #29 |
| Date | Date |
| Arrive A P | Arrive A P |
| Leave A P | Leave A P |
| Inst. No. | 6788 Size 3450 |
| Inst. No. | 7580 Size 43-270 |
| Clock No. | Hrs. 3 |
| Clock No. | Hrs. 3 |
| Stylus Marked | 12:21 PM A P |
| Pressure On | 12:25 PM A P |
| Depth | 8500 Zero KB |
| At Depth Date | 5-1-73 Time 1:08 PM A P |
| Off Depth Date | 5-1-73 Time 1:23 PM A P |
| Shut In Date | unknown Time A P |
| Start Press Tbg. | Csg. # |
| Final Press Tbg. | Csg. # |
| Pick-up | 8500 Temp. 177 F |

### OBSERVATIONS

| | |
|---|---|
| Stabilization Period - Hrs. | |
| Gross Oil Rate - B/D | |
| Net Oil Rate - B/D | |
| Formation Gas MCF/D | |
| Formation Gas - Oil Ratio CFT/BBL | |
| Circulated Gas MCF/D | |
| Oil Dry Gravity - °A.P.I. | |
| Casinghead Pressure - PSIG | |
| Tubinghead Pressure - PSIG | |
| Casing Fluid Level - Ft. | |

| TIME | DEPTH | SCALE | PSI or °F | TIME | DEPTH | SCALE | PSI or °F |
|---|---|---|---|---|---|---|---|
| / | PRESSURE | | | /TEMPERATURE | | | |
| 1225 /1230 | 0 | .678 | 1168 | 1225/1230 | 0 | .050 | 68 |
| 1240 /1245 | 5000 | .769 | 1328 | 1240/1245 | 5000 | .245 | 118 |
| 1247 /1252 | 6000 | .785 | 1356 | 1247/1252 | 6000 | .345 | 135 |
| 1255 /100 | 7000 | .803 | 1388 | 1255/ 100 | 7000 | .446 | 151 |
| 102 /107 | 8000 | .824 | 1425 | 102/ 107 | 8000 | .512 | 160 |
| 108 / | 8500 | .834 | 1442 | 108/ | 8500 | .647 | 177 |
| 113 / | 8500 | .834 | 1442 | 113/ | 8500 | .647 | 177 |
| 118 / | 8500 | .834 | 1442 | 118/ | 8500 | .647 | 177 |
| 123 / | 8500 | .834 | 1442 | 123/ | 8500 | .647 | 177 |
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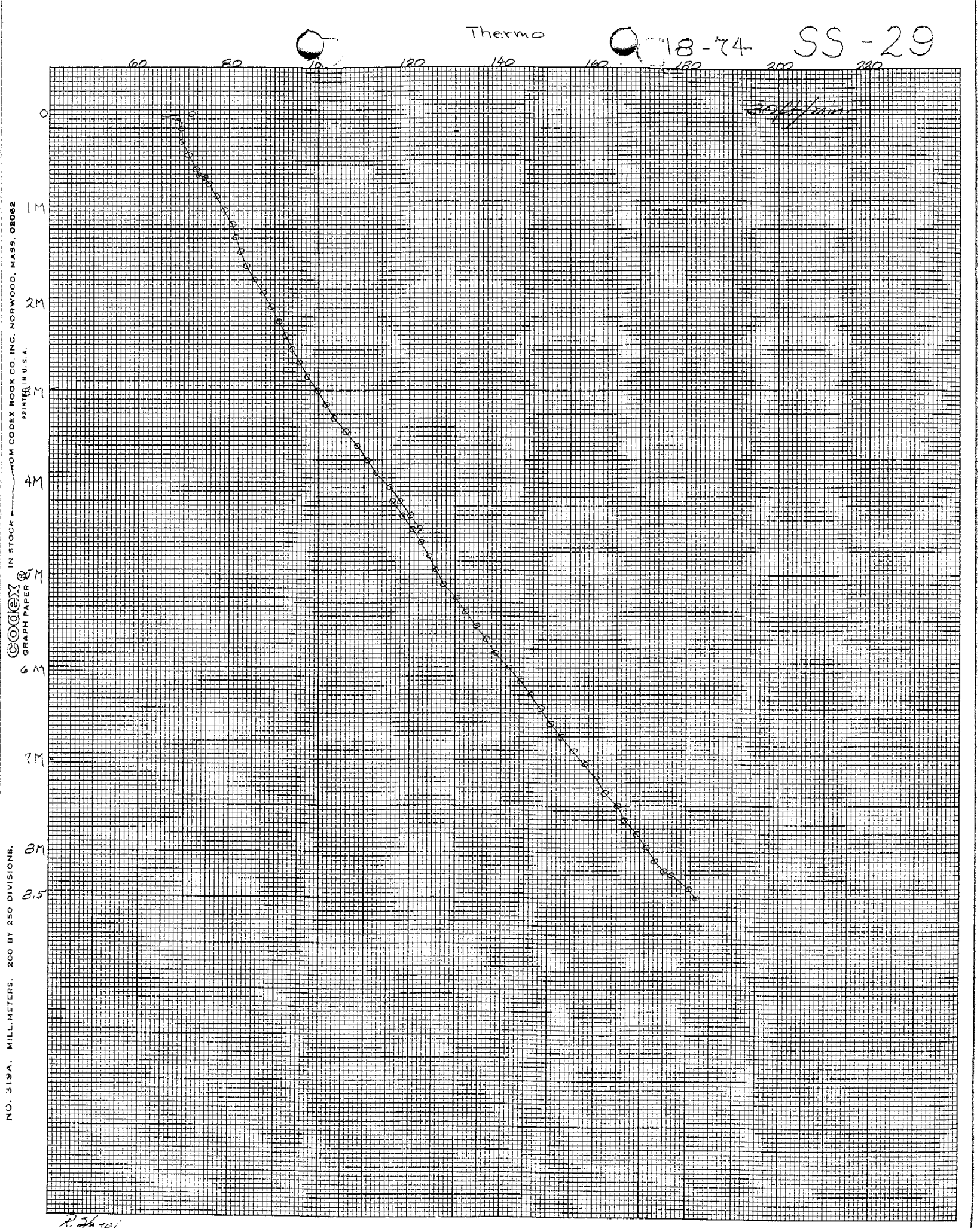
COMMENTS

Ru

AC_CPUC_0118414



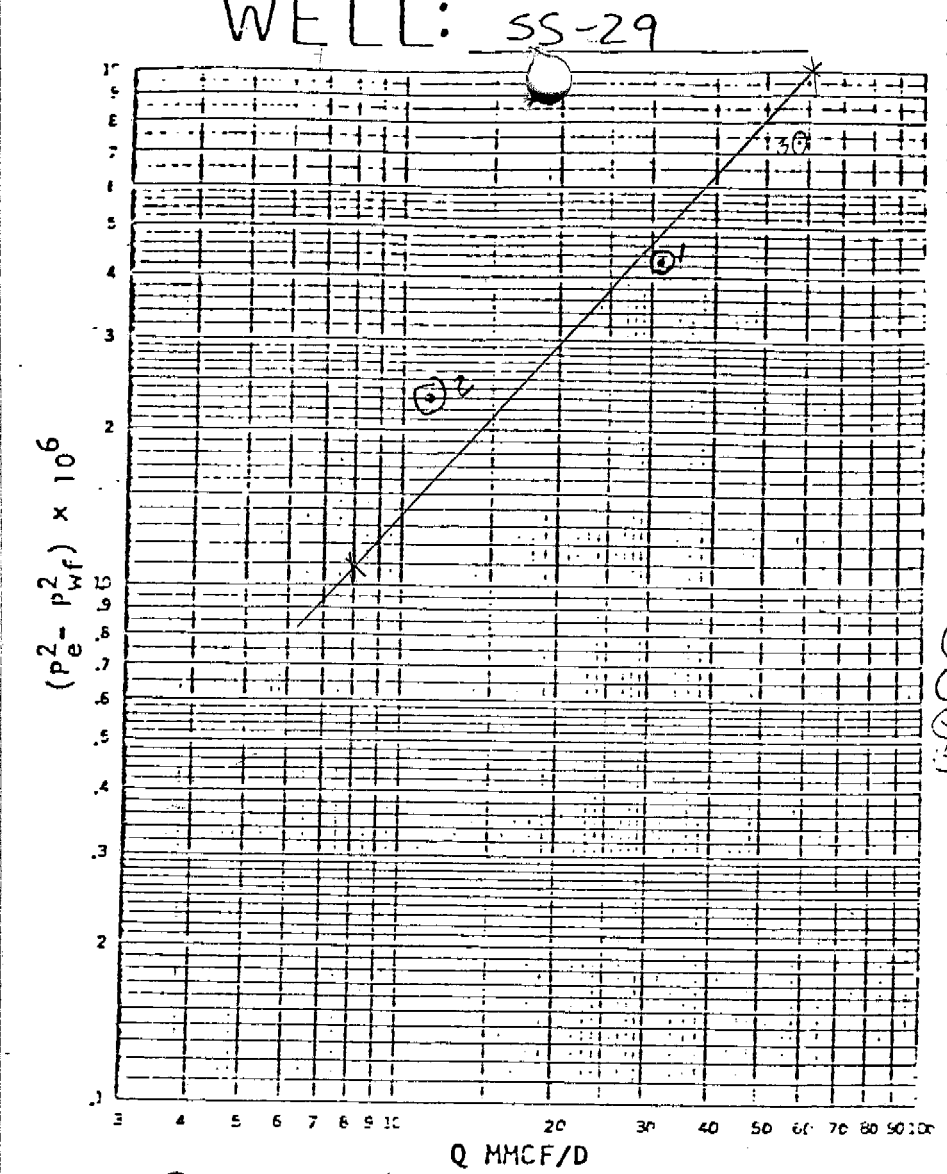

AC_CPUC_0118415

Standard Sesnon 29 Aliso Cyn.
Well Test File

AC_CPUC_0118416

WELL: SS-29

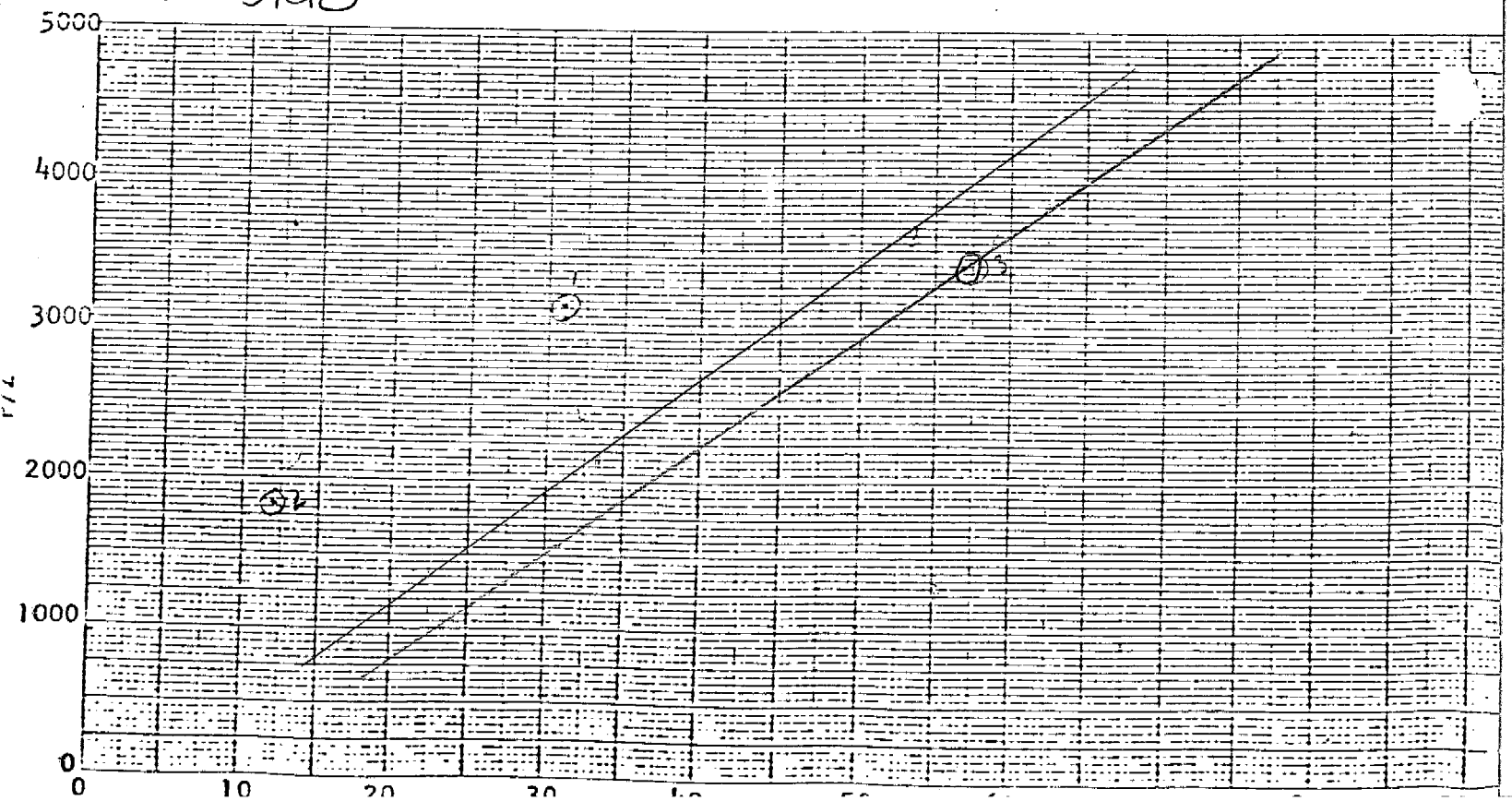
| MARKER | TD | LENGTH | D | CSG ID |
|---|---|---|---|---|
| 7" 23# | 6494 | 6494 | " | 6.366" |
| 26# | 8002 | 1508 | D x 5.37" | 6.276" |
| | | | " | " |
| | | | " | " |
| | | | " | " |
| SSSV | 8002 | 0 | 2.313" | |
| TBG Pt 1 | 8029 | 27 | 2.441" | |
| TBG Pt 2 | | | " | |
| TBG Pt 3 | | | " | |
| BHC | 8029 | 0 | 2.205" | |
| TBG TAIL | 8049 | 20 | 2.441" | |
| CSG Pt 1 | | | " | |
| CSG Pt 2 | | | " | |
| LNR TOP | 8075 | 26 | 6.276" | |
| S8 / MPP | 8520 | 445 | 4.276" | |



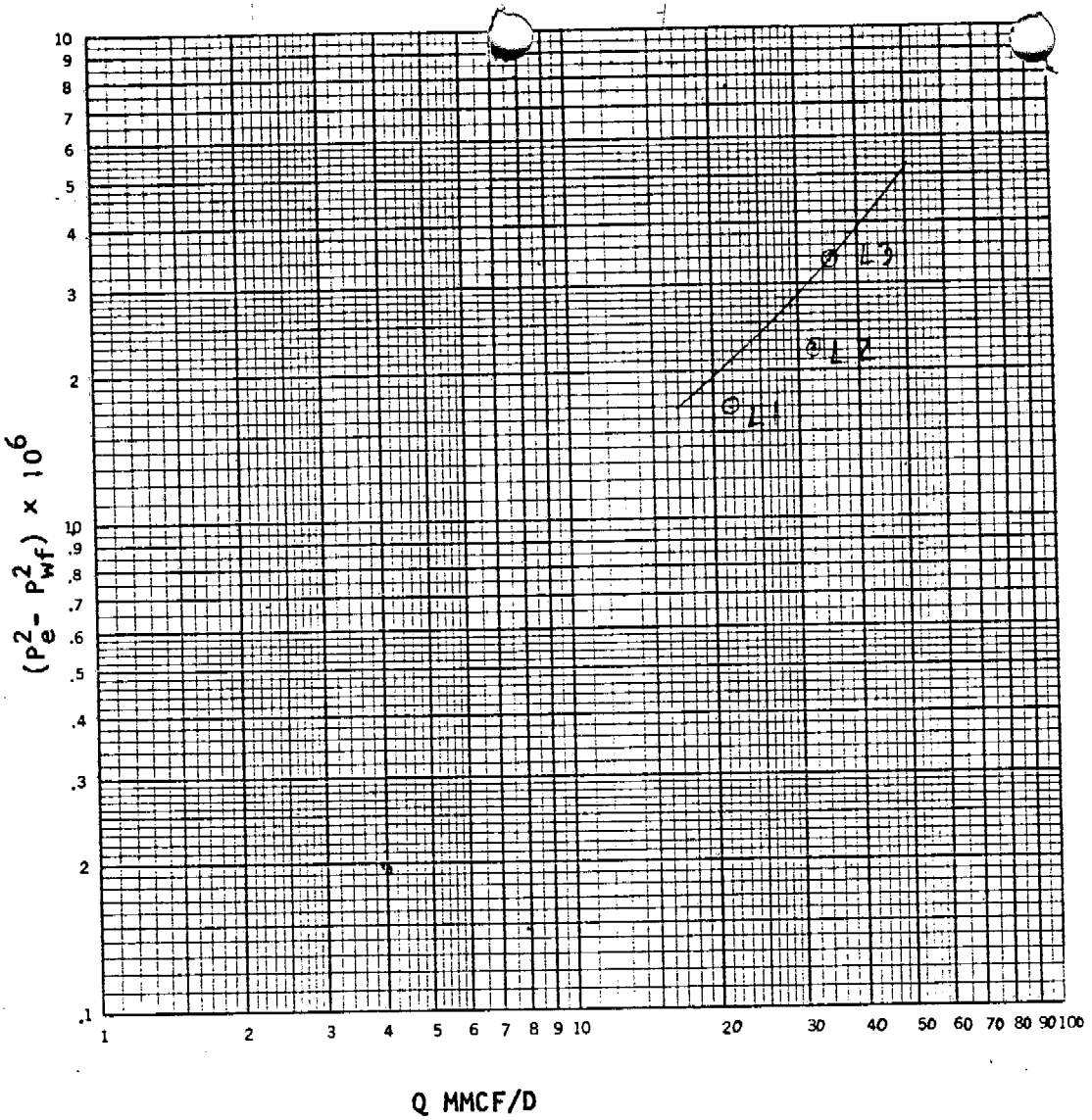

| DATE | SIWHP | Q | $\Delta P^2$ | P/Z |
|---|---|---|---|---|
| ① 12-14-81 | 2200 | 31000 | 4.31 | 317 |
| ② 1-27-82 | 1360 | 12000 | 2.30 | 182 |
| ③ 11-9-82 | 2400 | 57000 | 1.29 | 352 |
| ④ 12-20-82 | 1620 | 34000 | 2.45 | 247 |

C = .02447

n = .9128




AC_CPUC_0118417

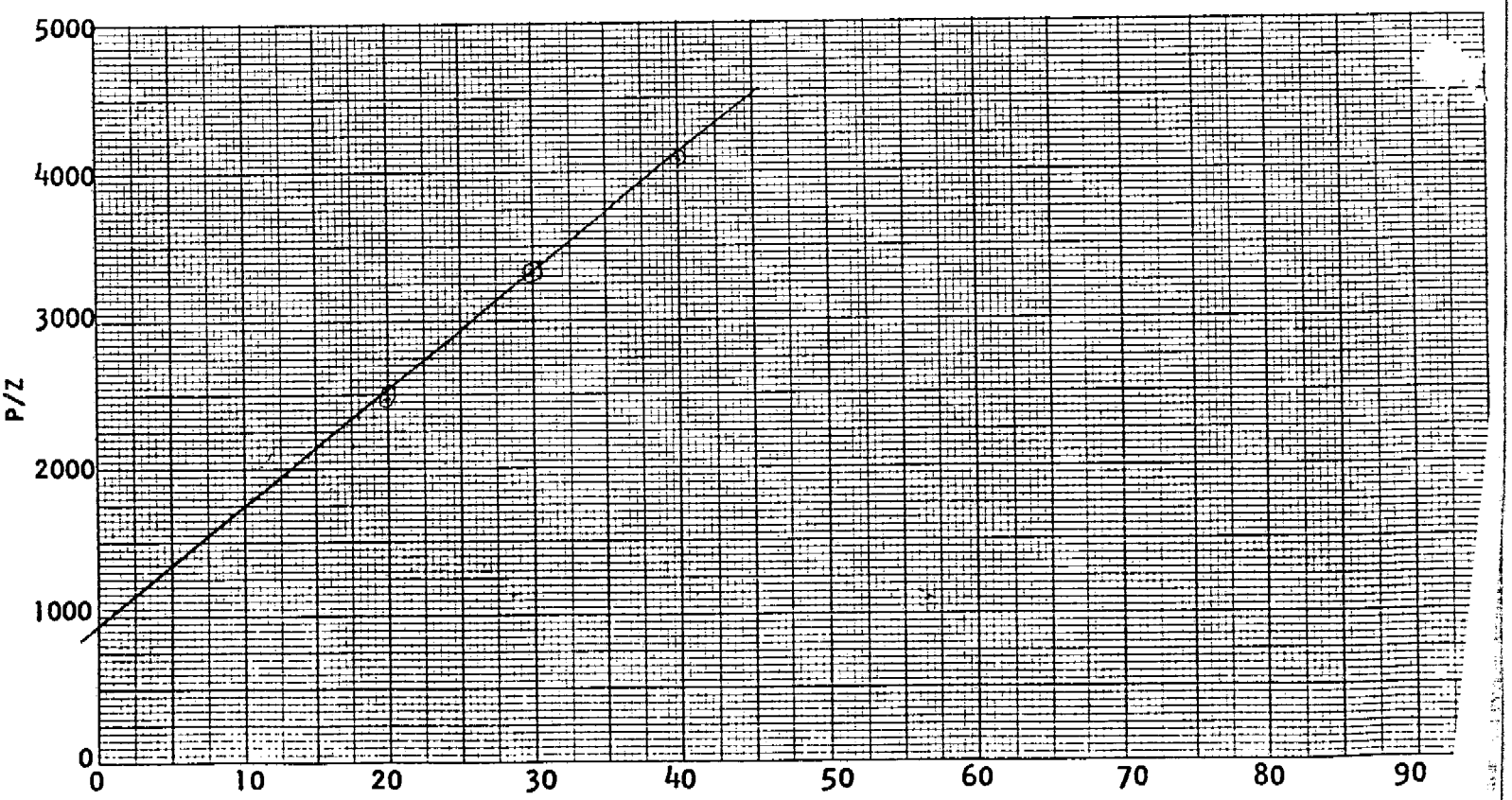



FIELD: ALISO

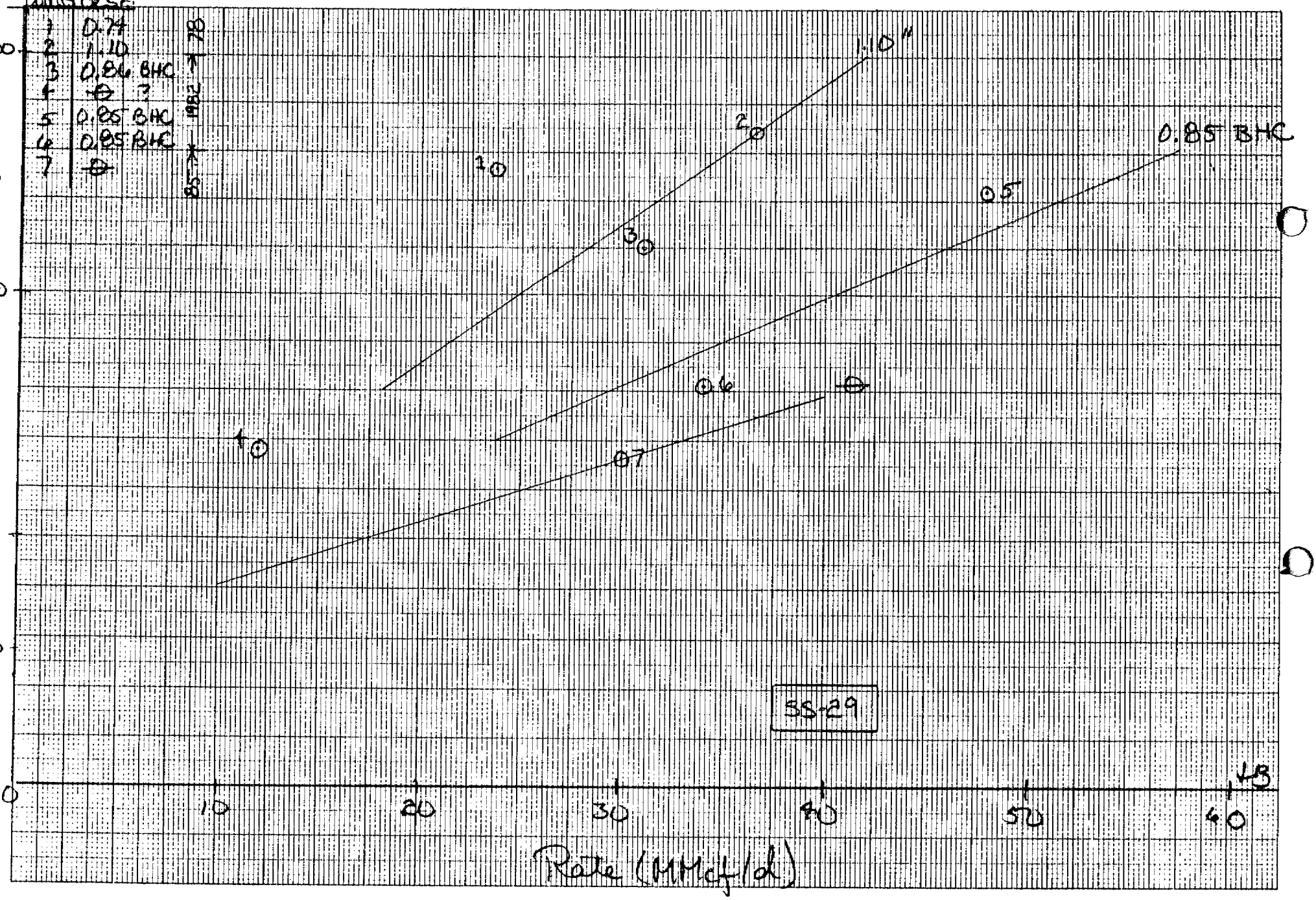
WELL: SS 29

DATE: 10/17/78

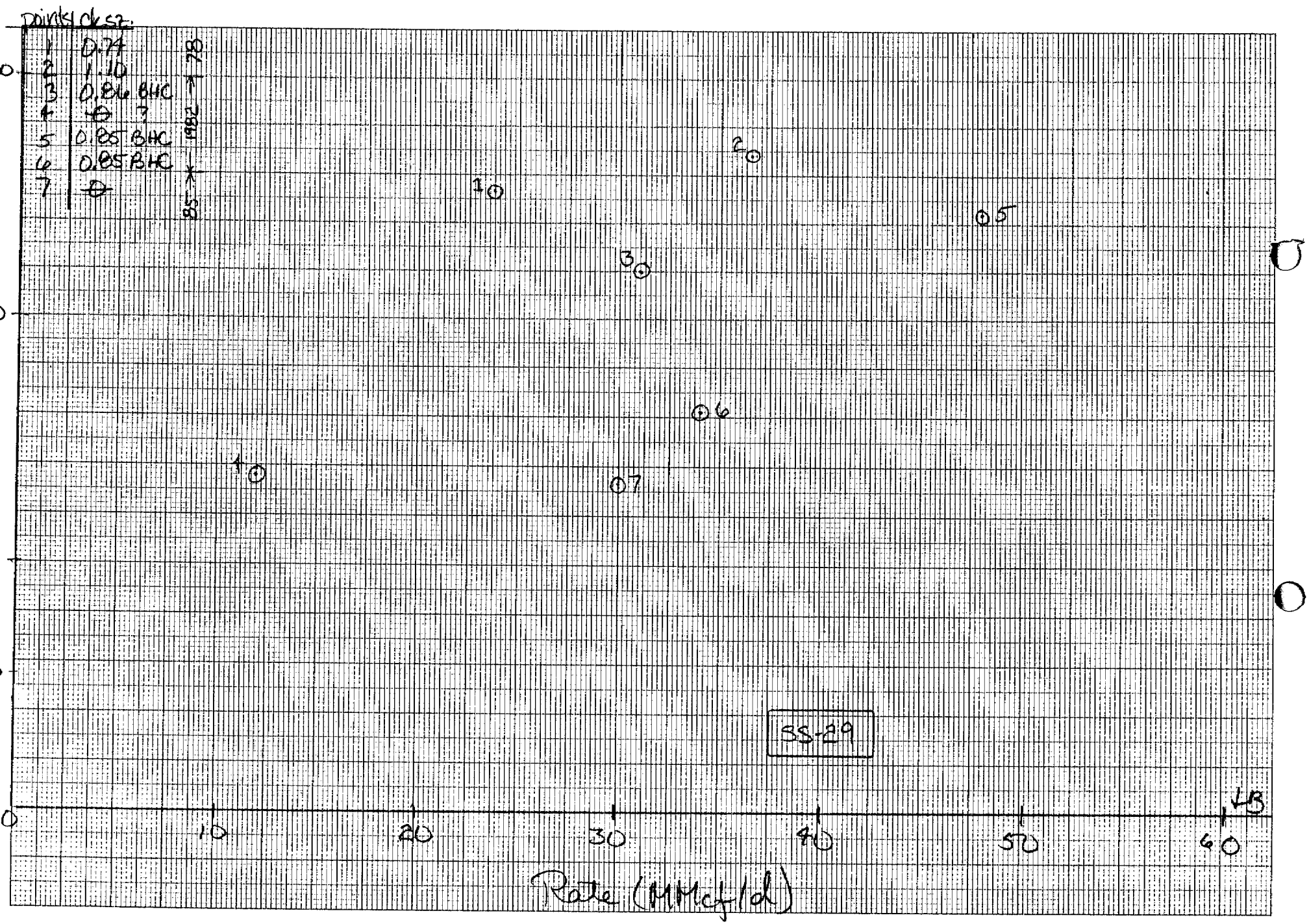
| TEST NO. | Q | $\Delta P^2$ | DATE |
|---|---|---|---|
| L1 | 23.5 | 1.7 | |
| L2 | 32.5 | 2.2 | |
| L3 | 35.2 | 3.38 | |




AC_CPUC_0118418




AC_CPUC_0118419




AC_CPUC_0118420

SOUTHERN CALIFORNIA GAS COMPANY

Compiled 9.16.85 Date JB

Checked ..... Checked .....

Approved ..... Job No. .....

WELL NAME: SS-29 workovers; 3.79 repl. SSSV

WELL TEST INFORMATION

16 hr flow test values unless noted – erosion rates on 6" pipe

| | DATE | SIWHP (psig) | FWHP (psig) | FW TEMP. (°F) | RATE (MMcf/d) | $\Delta P^2$ (x $10^6$ psia) | P/Z (psia) | CHOKE (in.) BHC | CHOKE (in.) SFC | INVENTORY (Bcf) | $P_{DS}/T_{DS}$ (psig/°F) | EROSION (%) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 7.11.78 | 2535 | 1925 | 93 | 23.7 | | | | 0.74 | | 590 25 | | 1 |
| 2 | 9.5.78 | 2680 | 1300 | 74 | 36.5 | | | | 1.10 | | 620 44 | | 2 |
| 3 | 12.14.81 | 2200 | 580 | 68 | 31 | | | 0.86 | — | | — | | 3 |
| 4 | 1.27.82 | 1360 | 560 | 86 | 12 | | | suspect BHC still in well | ⊖ | | — | ⊖ | 4 |
| 5 | 11.9.82 | 2440 | 600 | 52 | 48 | | | 0.85 | | | — | 8.46 | 5 |
| 6 | 12.20.82 | 1620 | 525 | 75 | 34 | | | 0.85 | | | — | 1.72 | 6 |
| 7 | 1.30.85 | 1330 | 530 | — | 30 | | | | ⊖ | | — 97 | 2.38 | 7 |

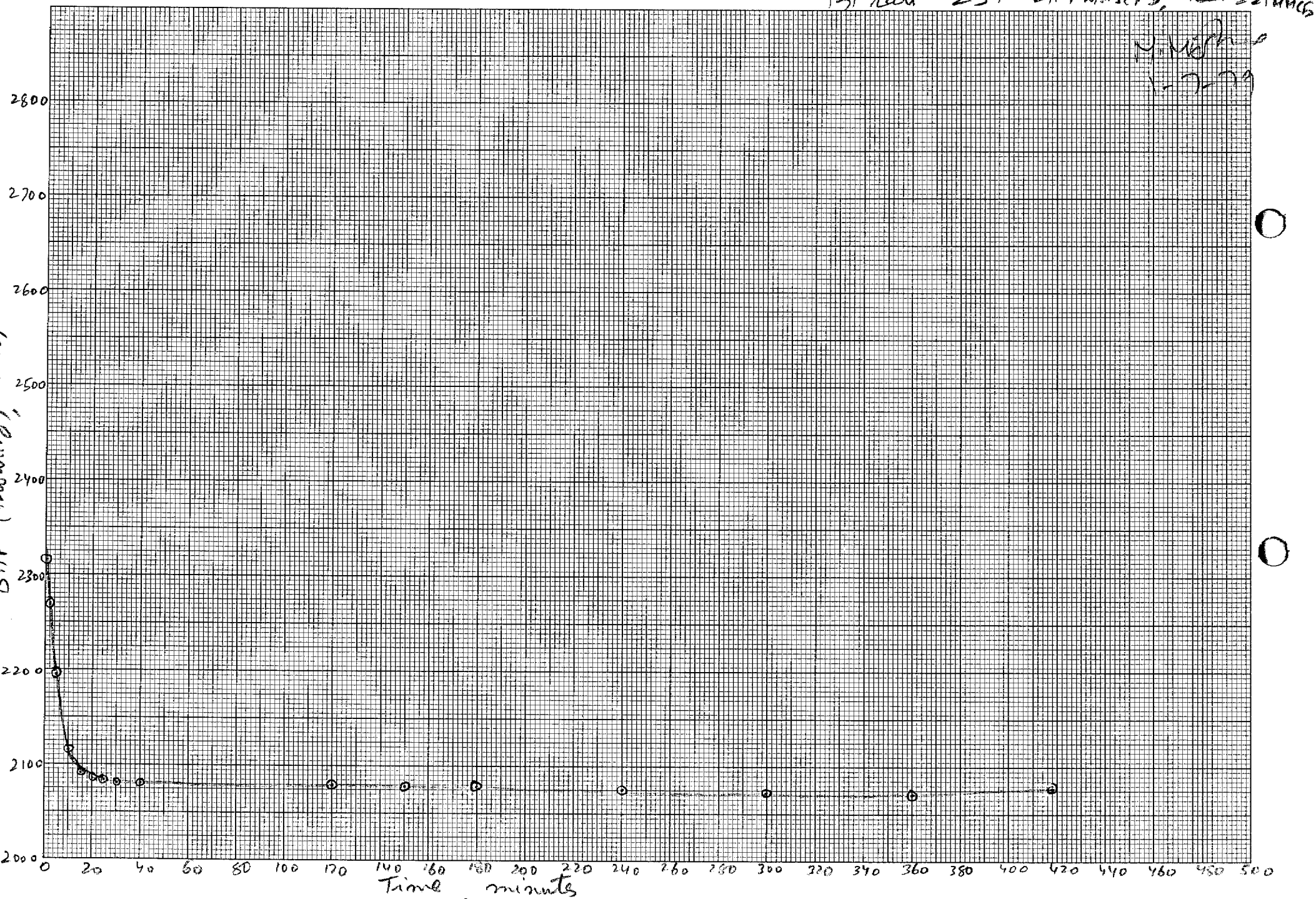
AC_CPUC_0118421

K+E 10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

461510

SS-29 date of test 4-19-76 current rate = 21 MMCFD

Test rate 23.1 - 21.4 MMSCFD,




AC_CPUC_0118422

CALCULATION SHEET

REF. Also

BY MEM - BEJ

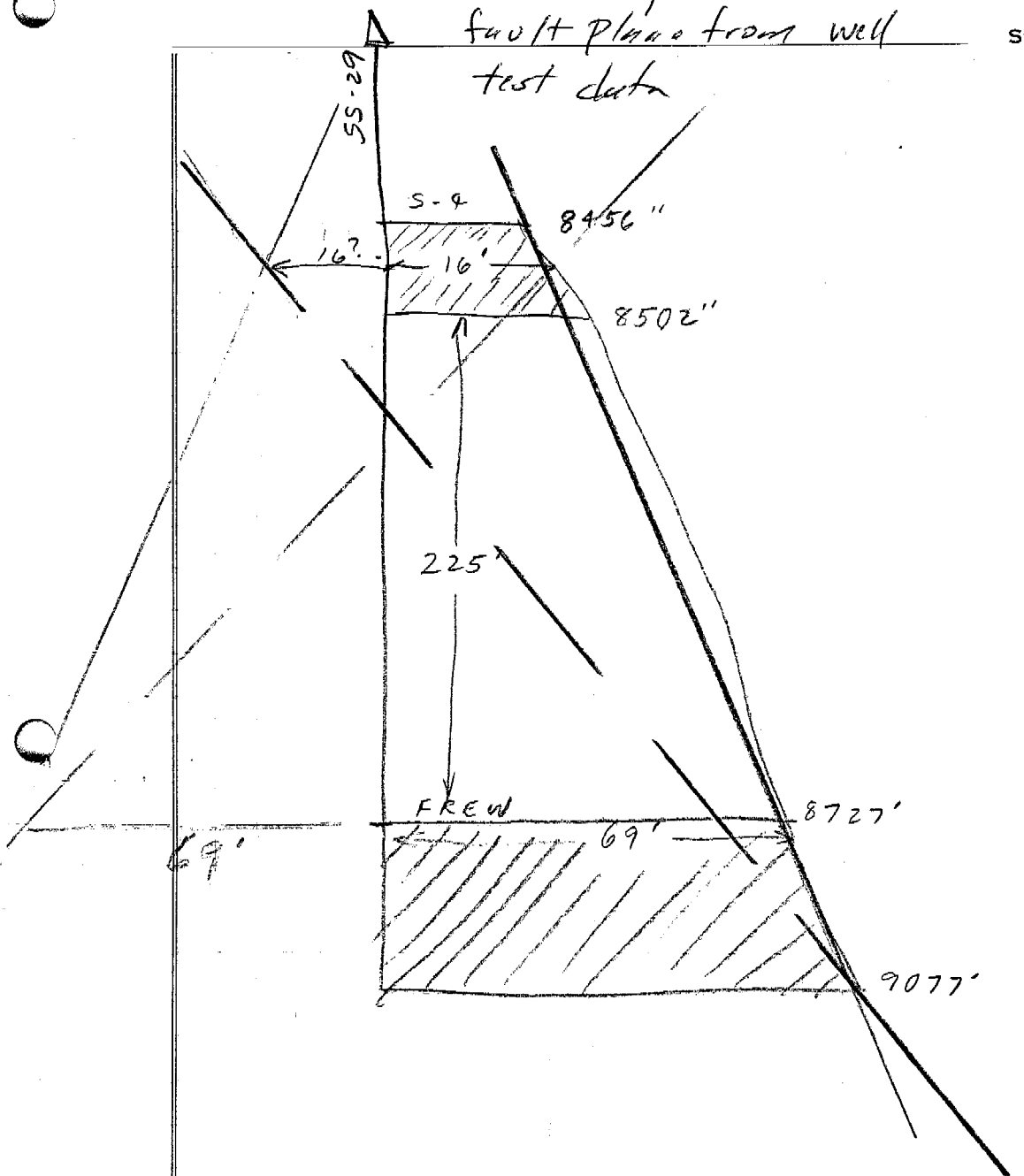
CHECKED -

DATE March 1973

SHEET NO. ____ OF ____ SHEETS

TITLE SS-29 well test

Possible interpretations of fault plane from well test data




PLS FORM 19

AC_CPUC_0118423

JOHNSTON

P. O. BOX 36369 ■ HOUSTON, TEXAS

*A Division of Schlumberger Technology Corporation*

**SERVICE CONTRACT & FIELD REPORT**

20090 B

## SURFACE DATA

| Description (Rate of Flow) | Time Date | Pressure P.S.I.G. | Surface Choke |
|---|---|---|---|
| Set Packer 2-10-73 | 1035 | | |
| Opened Tool | 1037 | | |
| SHUT IN @ SURFACE TO | 1047 | 980 | 1/8 |
| OPEN TO FLOW - 1047 | 1055 | 1039 | 1/8 |
| ~~Closed for Initial Shut-in~~ | 1110 | 921 | 1/2 |
| | 1140 | 668 | 1/2 |
| Finished Shut-in | 1240 | 730 | 1/2 |
| ~~Re-opened Tool~~ | 1340 | 747 | 1/2 |
| | 1440 | 757 | 1/2 |
| | 1537 | 762 | 1/2 |
| CLOSED IN @ SURFACE 2-10-73 | 1537 | | |
| P.S.I. AT SURFACE 2-12-73 | 0620 | 1180 | |
| OPEN WELL TO TANK - 2-12-73 | 0620 | | |
| | 0700 | 779 | 1/2 |
| | 0800 | 810 | 1/2 |
| | 0930 | 827 | 1/2 |
| | 1030 | 807 | 1/2 |
| | 1130 | 767 | 1/2 |
| | 1230 | 777 | 1/2 |
| | 1330 | 767 | 1/2 |
| 6300 | 1430 | 767 | 1/2 |
| | 1630 | 765 | 1/2 |
| | 1730 | 765 | 1/2 |
| | 1820 | 765 | 1/2 |
| Closed for Final Shut-in 2-12-73 | 1823 | 765 | |
| Pulled Packer Loose 2-13-73 | 0640 | | |

| Cushion Type | Amount | Pressure |
|---|---|---|
| | 0 | |

Bottom Choke Size 1/2

## HOLE DATA

Conventional ☐ Straddle ☐ MFE ☒

| | | | |
|---|---|---|---|
| Formation Tested | | Elevation | Ft. |
| Net Productive Interval | 46 Ft. | Est. Porosity | % |
| All Depths Measured From | KB | Total Depth | 9077 Ft. |
| Open Hole Size | | Rat Hole Size | |
| Casing Size | 7" | Liner Size | 5" |

## MUD DATA

| | | | |
|---|---|---|---|
| Mud Type | WATER & GEL | | |
| Weight | 63 | Viscosity | Water Loss C.C. |
| Resist: of Mud | @ °F; of Filtrate | @ °F | Chloride PPM |

## EQUIPMENT SEQUENCE

| Show Price* or Indicate X For Extra Services To Be Charged | Code | Components | Type | Size | Length-Depth | I. D. |
|---|---|---|---|---|---|---|
| | | TUBING | EUE | 2 1/16 | | |
| | | TUBING | EUE | 2 3/8 | | |
| 41.00 | 137 | REV. CIRC VALVE | K-0 | 2 3/8 | .85 | |
| | | LIFT NIPPLE | | 2 3/8 | 4.60 | |
| 609.00 | 101 | MFE TOOL | | 3 1/16 | 10.05 | |
| | | MFE BIAS | | 3 1/16 | 1.77 | |
| 160.00 | 117 | JARS | FJ | 3 1/16 | 6.40 | |
| | | PACKER | MST | 5" | 5.35 | 8423 |
| | | PERFS | Slot | 2 1/8 | 8.00 | |
| | | RECORDER | T | 3 1/8 | 5.05 | 84. |
| | | RECORDER | T | 3 1/8 | 5.05 | 8443 |
| | | RUNNING CAP | | 5" | 3.70 | 8446 |
| 192.00 | 102 | 24 HR CLOCK | | | | |
| 246.00 | 103 | 24 HR CLOCK | | | | |
| 1248.00 | | | | | | |

| RECOVERY DESCRIPTION | FEET | BARRELS | % OIL | % WATER | % OTHERS | API GRAV. | RESIST. | CHL. PPM |
|---|---|---|---|---|---|---|---|---|
| | | | | | | @ °F | @ °F | |
| | | | | | | @ °F | @ °F | |
| | | | | | | @ °F | @ °F | |
| | | | | | | @ °F | @ °F | |
| | | | | | | @ °F | @ °F | |
| | | | | | | @ °F | @ °F | |

Reversed Out: Time Started: Time Finished: Pump Pressure P.S.I.G.

Remarks:

To: JOHNSTON: You are hereby requested to perform or attempt to perform the following service(s) or furnish the following equipment, on a rental or purchase basis, as indicated:

## WELL IDENTIFICATION

Well Owner: SOUTHERN CALIF GAS Co. Reports Address: AT DON SMILEY 1200 W. LINCOLN MONTEBELLO, CALIF

Well & No. SS # 29 Field: ALISO CAN County: LOS ANGELES State: CALIF

Tested Interval: 8456 Ft. To 8502 Ft. Test No. 2 Location:

Said well has been drilled to 9077 - WORKOVER ft. and is in good condition.

The undersigned, hereinafter referred to as customer, agrees to pay you for the above specified service(s) or equipment (leased or purchased), and any additional service(s) or equipment requested, at Johnston's office in Houston, Harris County, Texas, in accordance with the provisions of your current applicable price schedule.

In consideration of the prices as are set out in your current applicable price schedule, we choose to be bound by the terms and conditions set out on the reverse side hereof, including the assumption by us of the liabilities and responsibilities contained in the hold harmless and exculpatory clauses, rather than enter into a different contract and furnish you insurance against the liabilities and responsibilities herein assumed by us.

If signed by an agent on behalf of customer, said agent represents that he has full authority from his principal to execute same; in the absence of authority, the signer agrees that he shall be obligated hereunder as Customer.

Customer's Name SOUTHERN CALIF GAS Co (PRINT) Address 1200 W LINCOLN MONTEBELLO, CALIF

Invoice Mailing Address SAME

X By D. A. Smiley

(SIGNATURE OF CUSTOMER OR AUTHORIZED REPRESENTATIVE) (TITLE AND ADDRESS IF EXECUTED BY CUSTOMER'S REPRESENTATIVE)

## M.F.E. SAMPLER DATA

Sampler Drained: ☐ on location ☐ service center ☐ other

☐ laboratory - Name

Address

| Recovery | | Resistivity | Chl. Content |
|---|---|---|---|
| Cu. Ft. Gas | Recovered Water @ °F | | PPM |
| C.C. Oil | Recovered Mud @ °F | | |
| C.C. Water | Rec. Mud Filtrate @ °F | | PPM |
| C.C. Mud | Pit Mud @ °F | | |
| Gravity °API °F | Pit Mud Filtrate @ °F | | PPM |
| Gas/Oil Ratio | | | Cu. Ft./Bbl. |
| Sampler Pressure | | | P.S.I.G. at Surface |

I certify that the above ordered services and/or equipment have been performed or furnished.

By J. N. Bugg, Johnston Operator

Test Accepted as ☐ Successful ☐ Unsuccessful Johnston District 315

X By D. A. Smiley Date

(Signature of Customer or His Authorized Representative)

By

(Please Print the Above Signature)

B 20090 Customer Purchase Order No.

## INSTRUMENT DATA

| | | | | | |
|---|---|---|---|---|---|
| Instrument No. | T-159 | T 217 | | | |
| Capacity (P.S.I.G.) | 7000 | 7000 | | | |
| Depth | 8438 | 8443 | | | |
| Inside-outside | IN | IN | | | |
| Clock Cap. Hr. | 60 | 96 | | | |
| Temperature °F. | 183 | 183 | | | |
| I. Hyd. P.S.I.G. | | | | | |
| I. Flow P.S.I.G. | | | | | |
| I.S.I. P.S.I.G. | | | | | |
| 2nd Flow P.S.I.G. | | | | | |
| 2nd S.I. P.S.I.G. | | | | | |
| F. Flow P.S.I.G. | | | | | |
| F.S.I. P.S.I.G. | | | | | |
| F. Hyd. P.S.I.G. | | | | | |

Extra Technical Reports

Marine Operations: Inland ☒ Offshore ☐

Tool Rental Time Hours

Operator's Time Hours

Mileage Miles

Special Data Analysis ☐ Breakdown ☐

Make of Gun Used: Jet Bullet

No. of Shots Intervals Perforated

Total *All prices estimated and subject to correction.

| | Date | Time |
|---|---|---|
| On Location | 2-10 | 0630 |
| Started Operations | 2-10 | 0700 |
| Ceased Operations | 2-14 | 1700 |
| Off Location | 2-14 | 1800 |

FORM J-184 (REV. 6-66)

AC_CPUC_0118424

WELL TEST FILE

STAND OESNO 29 GI[illegible]

1/64

1000" TUB- 1050" CHS.

| DATE | 24 HR GAS RATE | FLUID GROSS | FLUID NET |
|---|---|---|---|
| MARCH 18 | 1836 MCF | 18.0 | 12.0 |
| MARCH 23 | 1964 MCF | 12.0 | 8.0 |
| APRIL 2 | 2483 MCF | 16.0 | 12.0 |
| APRIL 6 | 2361 MCF | 13.0 | 11.0 |

AC_CPUC_0118425

JOHNSTON

P. O. BOX 36369 ■ HOUSTON, TEXAS

*A Division of Schlumberger Technology Corporation*

**SERVICE CONTRACT & FIELD REPORT**

20090 B

## SURFACE DATA

| Description (Rate of Flow) | Time / Date | Pressure P.S.I.G. | Surface Choke |
|---|---|---|---|
| Set Packer 2-10-73 | 1035 | | |
| Opened Tool | 1037 | | |
| SHUT IN @ SURFACE TO | 1047 | 980 | 1/8 |
| OPEN TO TANK - 1047. | 1055 | 1039 | 1/8 |
| ~~Closed for Initial Shut-in~~ | 1110 | 921 | 1/2 |
| | 1140 | 668 | 1/2 |
| Finished ~~Shut-in~~ | 1240 | 730 | 1/2 |
| Re-opened Tool | 1340 | 707 | 1/2 |
| | 1440 | 757 | 1/2 |
| | 1537 | 762 | 1/2 |
| CLOSED IN @ SURFACE 2-10-73 | 1537 | | |
| P.S.I. AT SURFACE 2-12-73 | 0620 | 1180 | |
| OPEN WELL TO TRAP - 2-12-73 | 0620 | | |
| | 0700 | 779 | 1/2 |
| | 0800 | 810 | 1/2 |
| | 0935 | 827 | 1/2 |
| | 1030 | 807 | 1/2 |
| | 1132 | 767 | 1/2 |
| | 1232 | 777 | 1/2 |
| | 1330 | 767 | 1/2 |
| 1530 | 1430 | 767 | 1/2 |
| | 1630 | 765 | 1/2 |
| | 1730 | 765 | 1/2 |
| | 1820 | 765 | 1/2 |
| Closed for Final Shut-in 2-12-73 | 1823 | 765 | |
| Pulled Packer Loose 2-13-73 | 0640 | | |

| Cushion Type | Amount | Pressure |
|---|---|---|
| | 0 | |

Bottom Choke Size 1/2

## HOLE DATA

Conventional ☐ Straddle ☐ MFE ☒

Formation Tested — Elevation — Ft.

Net Productive Interval 46 Ft. — Est. Porosity — %

All Depths Measured From K.B. — Total Depth 9077 Ft.

Open Hole Size 8 3/4 — Rat Hole Size

Casing Size 7" — Liner Size 5"

## MUD DATA

Mud Type WATER & GEL

Weight 63 — Viscosity — Water Loss — C.C.

Resist. of Mud @ °F — Filtrate @ °F — Chloride PPM

Show Price* or Indicate X For Extra Services To Be Charged: CODE

## EQUIPMENT SEQUENCE

| | | Components | Type | Size | Length-Depth | I.D. |
|---|---|---|---|---|---|---|
| | | TUBING | EUE | 2 1/8 | | |
| | | TUBING | EUE | 2 1/8 | | |
| 41.00 | 137 | REC. CIRCULAR | KO | 2 3/8 | .85 | |
| | | LIFT NIPPLE | | 2 3/8 | 4.60 | |
| 609.00 | 101 | MFE TOOL | | 3 1/8 | 10.05 | |
| | | MFE BIAS | | 3 1/8 | 1.77 | |
| 160.00 | 117 | JARS | FJD | 3 1/8 | 6.40 | |
| | | PACKER | HNT | 5" | 5.35 | 8423 |
| | | PERFS | Slot | 2 7/8 | 8.00 | |
| | | REC CARRIER | T | 3 1/8 | 5.05 | 84. |
| | | REC CARRIER | T | 3 1/8 | 5.05 | 84.3 |
| | | C TRP RUNNING | | 5" | 3.70 | 84.15 |
| 192.00 | 102 | 2 JTS @ 600 | | | | |
| 246.00 | 103 | 2 JTS @ 780 | | | | |
| 1248.00 | | | | | | |

| RECOVERY DESCRIPTION | FEET | BARRELS | % OIL | % WATER | % OTHERS | API GRAV. | RESIST. | CHL. PPM |
|---|---|---|---|---|---|---|---|---|
| | | | | | | @ °F | @ °F | |
| | | | | | | @ °F | @ °F | |
| | | | | | | @ °F | @ °F | |
| | | | | | | @ °F | @ °F | |
| | | | | | | @ °F | @ °F | |
| | | | | | | @ °F | @ °F | |

Reversed Out: Time Started: — Time Finished: — Pump Pressure — P.S.I.G.

Remarks:

To: JOHNSTON: You are hereby requested to perform or attempt to perform the following service(s) or furnish the following equipment, on a rental or purchase basis, as indicated:

## WELL IDENTIFICATION

Well Owner: SOUTHERN CALIF GAS Co. — Reports Address: 1200 W. LINCOLN MONTEBELLO, CALIF — AT DON SMILEY

Well & No. S.S. # 29 — Field: ALISO CAN — County: LOS ANGELES — State: CALIF

Tested Interval: 8456 Ft. To 8502 Ft. — Test No. 2 — Location:

Said well has been drilled to 9077 - WORKED ft. and is in good condition.

The undersigned, hereinafter referred to as customer, agrees to pay you for the above specified service(s) or equipment (leased or purchased and any additional service(s) or equipment requested, at Johnston's office in Houston, Harris County, Texas, in accordance with the provisions of your current applicable price schedule.

In consideration of the prices as are set out in your current applicable price schedule, we choose to be bound by the terms and conditions set out on the reverse side hereof, including the assumption by us of the liabilities and responsibilities contained in the hold harmless and exculpatory clauses, rather than enter into a different contract and furnish you insurance against the liabilities and responsibilities herein assumed by us.

If signed by an agent on behalf of customer, said agent represents that he has full authority from his principal to execute same; in the absence of such authority, the signer agrees that he shall be obligated hereunder as Customer.

Customer's Name SOUTHERN CALIF GAS Co. (PRINT) — Address 1200 W LINCOLN MONTEBELLO, CALIF

Invoice Mailing Address SAME

X By W. S. Smiley (SIGNATURE OF CUSTOMER OR AUTHORIZED REPRESENTATIVE) (TITLE AND ADDRESS IF EXECUTED BY CUSTOMER'S REPRESENTATIVE)

## M.F.E. SAMPLER DATA

Sampler Drained: ☐ on location ☐ service center ☐ other

☐ laboratory - Name

Address

| Recovery | | Resistivity | Chl. Content |
|---|---|---|---|
| Cu. Ft. Gas | Recovered Water | @ °F | PPM |
| C.C. Oil | Recovered Mud | @ °F | |
| C.C. Water | Rec. Mud Filtrate | @ °F | PPM |
| C.C. Mud | Pit Mud | @ °F | |
| Gravity °API °F | Pit Mud Filtrate | @ °F | PPM |
| Gas/Oil Ratio | | | Cu. Ft./Bbl. |
| Sampler Pressure | | | P.S.I.G. at Surface |

## INSTRUMENT DATA

| | | | | | | |
|---|---|---|---|---|---|---|
| Instrument No. | T-159 | T-217 | | | | |
| Capacity (P.S.I.G.) | 7000 | 7000 | | | | |
| Depth | 8438 | 8443 | | | | |
| Inside-outside | IN | IN | | | | |
| Clock Cap. Hr. | 60 | 96 | | | | |
| Temperature °F. | 183 | 183 | | | | |
| I. Hyd. P.S.I.G. | | | | | | |
| I. Flow P.S.I.G. | | | | | | |
| I.S.I. P.S.I.G. | | | | | | |
| 2nd Flow P.S.I.G. | | | | | | |
| 2nd S.I. P.S.I.G. | | | | | | |
| F. Flow P.S.I.G. | | | | | | |
| F.S.I. P.S.I.G. | | | | | | |
| F. Hyd. P.S.I.G. | | | | | | |

I certify that the above ordered services and/or equipment have been performed or furnished.

By J. M. Boggs, Johnston Operator

Test Accepted as ☐ Successful ☐ Unsuccessful Johnston District 315

X By W. S. Smiley Date

(Signature of Customer or His Authorized Representative)

By

(Please Print the Above Signature)

B 20090 Customer Purchase Order No.

Extra Technical Reports

Marine Operations: Inland ☒ Offshore ☐

Tool Rental Time ____ Hours

Operator's Time ____ Hours

Mileage ____ Miles

Special Data Analysis ☐ Breakdown ☐

Make of Gun Used: Jet ____ Bullet ____

No. of Shots ____ Intervals Perforated ____

1248 Total

*All prices estimated and subject to correction.

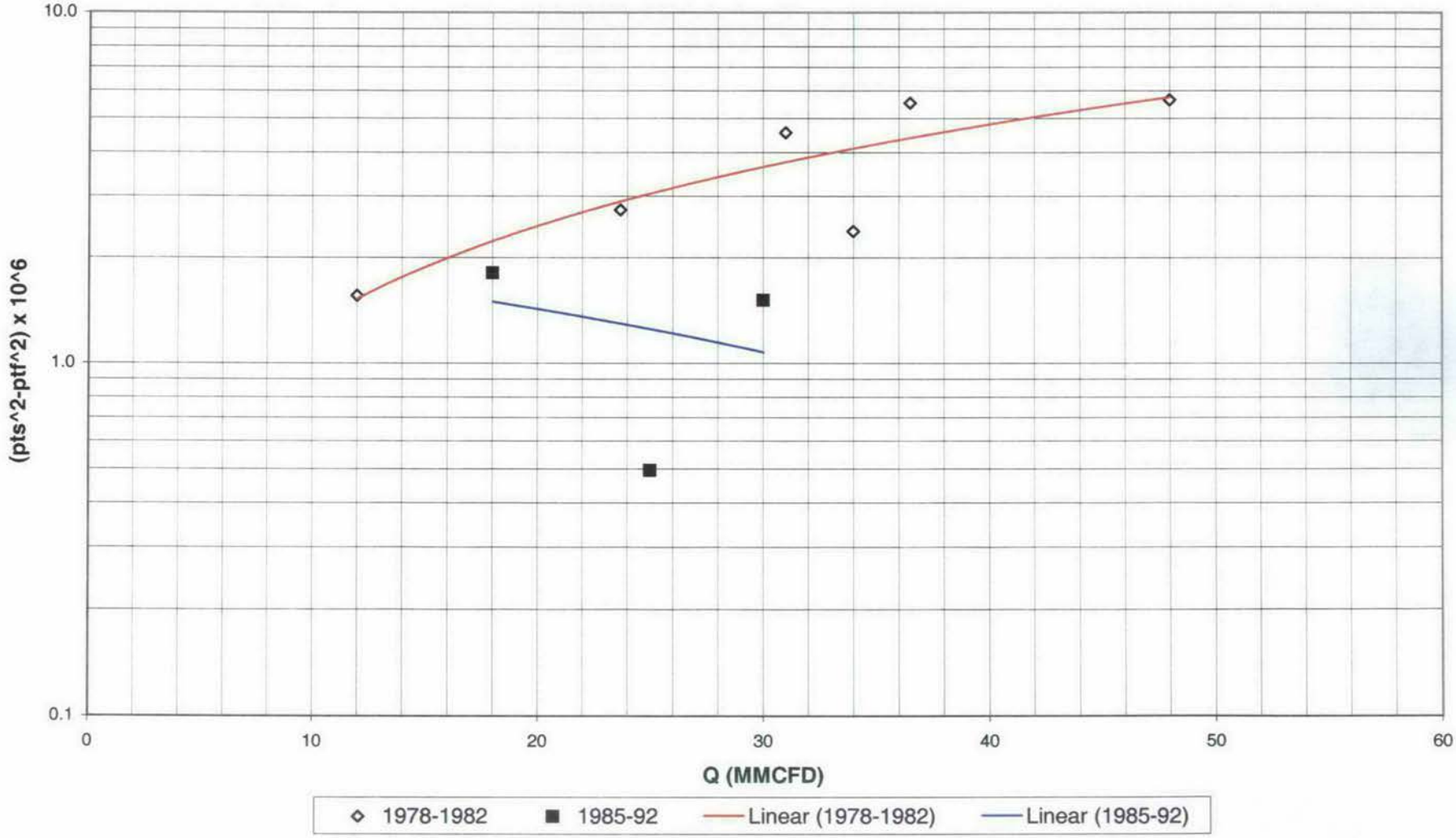
| | Date | Time |
|---|---|---|
| On Location | 2-10 | 0630 |
| Started Operations | 2-10 | 0700 |
| Ceased Operations | 2-14 | 1700 |
| Off Location | 2-14 | 1900 |

FORM J-184 (REV. 6-66)

AC_CPUC_0118426

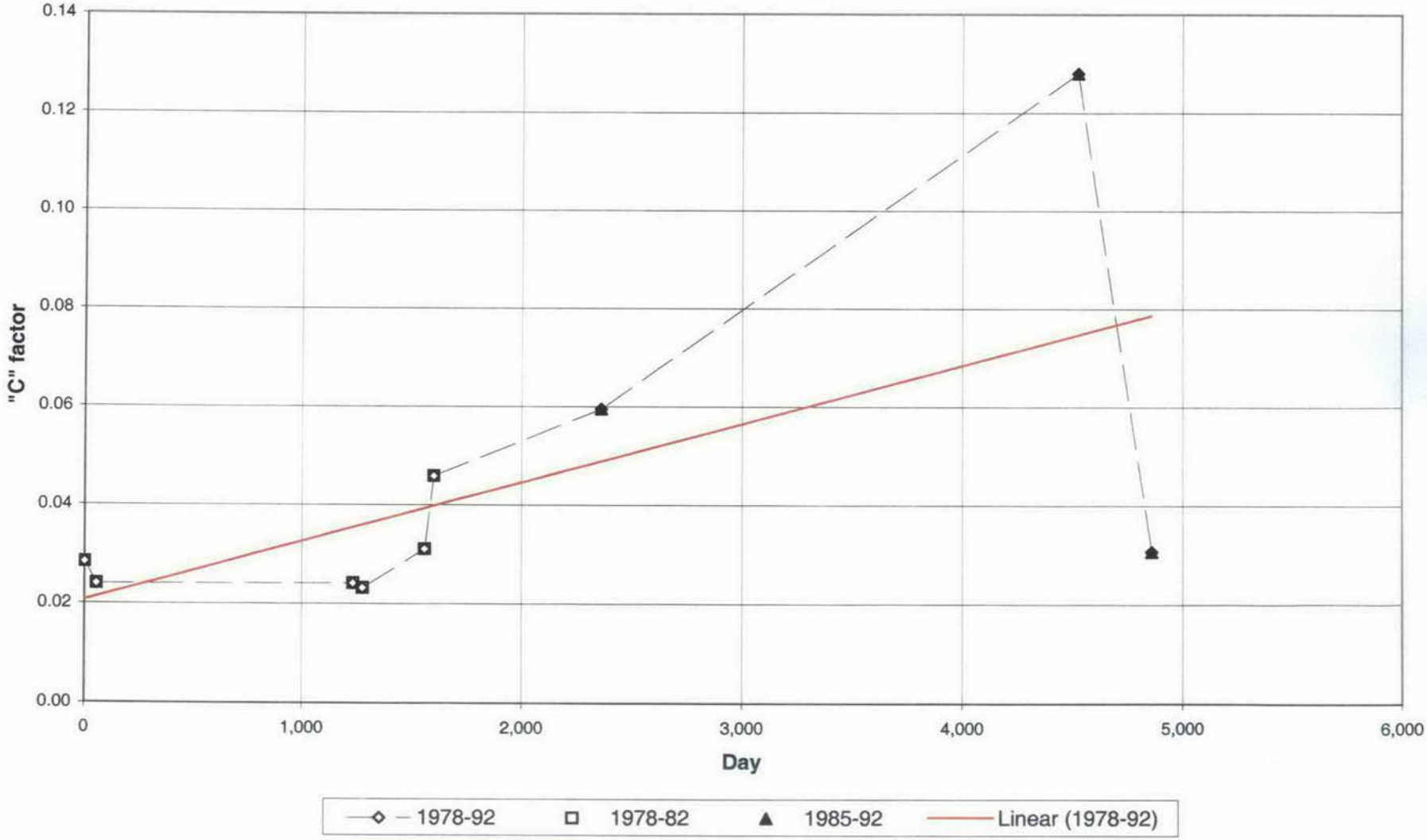
| Day | Date | (T/C/D) | SIWHP | FWHP | Choke (in.) | DS | E (%) | Q (MMCFD) | (Pts^2-Ptf^2) x 10^6 | "C" | Check |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 7/11/1978 | C | 2535 | 1925 | 0.74 | 590 | 3.5 | 23.7 | 2.738 | 0.028 | 24 |
| 56 | 9/5/1978 | C | 2680 | 1300 | 1.1 | 620 | | 36.5 | 5.533 | 0.024 | 36 |
| 1235 | 12/14/1981 | C | 2200 | 580 | 0.86 | | | 31 | 4.551 | 0.024 | 31 |
| 1278 | 1/27/1982 | C | 1360 | 560 | | | | 12 | 1.559 | 0.023 | 12 |
| 1560 | 11/9/1982 | C | 2440 | 600 | 0.85 | | 8.5 | 48 | 5.648 | 0.031 | 48 |
| 1601 | 12/20/1982 | C | 1620 | 525 | 0.85 | | 1.7 | 34 | 2.381 | 0.046 | 34 |
| 2361 | 1/30/1985 | C | *1330* | 530 | | | 2.4 | 30 | 1.511 | 0.060 | 30 |
| 4526 | 2/5/1991 | C | 1660 | 1505 | | | 0.1 | 25 | 0.495 | 0.128 | 25 |
| 4859 | 1/8/1992 | C | 1880 | 1320 | 0.80 | | 1.3 | 18 | 1.808 | 0.031 | 18 |

**Figure 1**
**SS-29**
**Wellhead Performance Curves**




AC_CPUC_0118428

**Figure 2**
**SS-29**
**"C" factor v. Time**




AC_CPUC_0118429

NODAL ANALYSIS RESULTS
**********

SS 29 SAND TEST 11/82

SUMMARY OF GENERAL INPUT DATA
**********

GAS GRAVITY = .63
WELLHEAD PRESSURE,PSIG = 600.0

SUMMARY OF INPUT DATA FOR RESERVOIR MODULE
**********

AVERAGE RESERVOIR PRESSURE,PSIG = 3032. Z=.8912

P/Z = 3402

INFLOW
******

CALCULATED AOF= 74259.05

| FLOW RATE | NODE PRESSURE,PWF |
|---|---|
| 57000. | 1454. |

SUMMARY OF INPUT DATA FOR WELL MODULE
**********

WELL CONFIGURATION
**********

| DEPTH | TUBING DIA. | ANGLE | CASING DIA. | TUBING I.D. |
|---|---|---|---|---|
| 8002. | 2.875 | .00 | 6.366 | .000 |
| 8011. | 2.205 | .00 | .000 | .000 |
| 8049. | 2.441 | .00 | .000 | .000 |
| 8075. | .000 | .00 | 6.366 | .000 |
| 8575. | .000 | .00 | 4.277 | .000 |

PIPE ABS. ROUGHNESS,IN. = .00094
BOTTOM-HOLE TEMPERATURE,DEG-F = 158.
NUMBER OF LENGTH INCREMENTS = 10

PRESSURE DROP CORRELATION:
CULLENDER AND SMITH

OUTFLOW
*******

| FLOW RATE | PWH | NODE PRESSURE,PWF | WELLHEAD TEMP. |
|---|---|---|---|
| 57000. | 600. | 1364. | 52. |

$\Delta P^2 = 7.33 \times 10^6$

AC_CPUC_0118430

WELL: SS 29

FLOW: CSG / ~~TBG~~

| | TVD' |
|---|---|
| (1) SSSV: | 8002' |
| (2) S8/~~MPP~~: | 8520' |
| (3) -5400: | 8299' |
| (4) Gas Gr: | 0.63 |
| (6) $T_{avg}$: | 119 °F |
| (5) $T_{bh}$: | 169 °F |

MD S8: 8250'

| TVD' MARKER LLLL'. D.DDD" | | |
|---|---|---|
| (20) | 0.0 | |
| (21) | 0.0 | |
| (22) | 8002. 5137 | |
| (23) | 0.2313 | |
| (24) | 27.2491 | |
| (25) | 0.2205 | |
| (26) | 20.2941 | |
| (27) | 26.6276 | |
| (28) | 445.4276 | |
| (29) | 0.0 | |

| | DATE: 12-14-81 | | DATE: 1-27-82 | | DATE: 11-9-82 | | DATE: 12-20-82 | | DATE: | |
|---|---|---|---|---|---|---|---|---|---|---|
| | TEST: 1 | | TEST: 2 | | TEST: 3 | | TEST: 4 | | TEST: | |
| | $P_{up}$.$T_{up}$: 580 .068 | | $P_{up}$.$T_{up}$: 560 .086 | | $P_{up}$.$T_{up}$: 600 .052 | | $P_{up}$.$T_{up}$: 525 .077 | | $P_{up}$.$T_{up}$: . | |
| | SIWHP: 2200 psi | | SIWHP: 1360 psi | | SIWHP: 2400 psi | | SIWHP: 1900 psi | | SIWHP: psi | |
| | SIBHP's | | SIBHP's | | SIBHP's | | SIBHP's | | SIBHP's | |
| | SSSV: 2700 psi | | SSSV: 1656 psi | | SSSV: 2992 psi | | SSSV: 1990 psi | | SSSV: psi | |
| | S8/MPP: 2736 psi | | S8/MPP: 1677 psi | | S8/MPP: 3022 psi | | S8/MPP: 2007 psi | | S8/MPP: psi | |
| | -5400: 2717 psi | | -5400: 1666 psi | | -5400: 3011 psi | | -5400: 1993 psi | | -5400: psi | |
| | $P_{up}$: 580 psi | | $P_{up}$: 560 psi | | $P_{up}$: 600 psi | | $P_{up}$: 525 psi | | $P_{up}$: psi | |
| | $P_{dn}$: 570 psi | | $P_{dn}$: 560 psi | | $P_{dn}$: psi | | $P_{dn}$: psi | | $P_{dn}$: psi | |
| | $T_{up}$: 68 °F | | $T_{up}$: 86 °F | | $T_{up}$: 0520 °F | | $T_{up}$: 77.5 °F | | $T_{up}$: °F | |
| | S. Chk: — " | | S. Chk: — " | | S. Chk: — " | | S. Chk: " | | S. Chk: " | |
| | Q: 31000 MCF/D | | Q: 12000 MCF/D | | Q: 57000 MCF/D | | Q: 37000 MCF/D | | Q: MCF/D | |
| | Erosion: 6.6 % | | Erosion: 0 % | | Erosion: 2.4% | | Erosion: 1.7% | | Erosion: % | |
| | Oil Prod: — B/D | | Oil Prod: — B/D | | Oil Prod: — B/D | | Oil Prod: — B/D | | Oil Prod: B/D | |
| | ° API: — | | ° API: — | | ° API: — | | ° API: — | | ° API: | |
| | ANALYZE | DESIGN | ANALYZE | DESIGN | ANALYZE | DESIGN | ANALYZE | DESIGN | ANALYZE | DESIGN |
| (20) | | | | | | | | | | |
| (21) | | | | | | | | | | |
| (22) | 580 | | 560 | | 600 | | 525 | | | |
| (23) | 881 | | 710 | | 1199 | | 962 | | | |
| (24) | 895 | | 712 | | 1233 | | 879 | | | |
| (25) | 912 | | 716 | | 1275 | | 901 | | | |
| (26) | 1752 | [0.86 BHC] | 719 | | 1314 | | 2026 | [D... | | |
| (27) | 1759 | | 722 | | 1344 | | 2035 | | | |
| (28) | 1761 | | 723 | | 1345 | | 2036 | | | |
| (29) | 1789 | | 734 | | 1398 | | 2066 | | | |
| | | | | | | | | | | |
| $\Delta P^2$: | 4.31 X $10^6$ | | 2.30 X $10^6$ | | 7.29 X $10^6$ | | -2.45 X $10^6$ | | X $10^6$ | |
| Design Q: | MCF/D | | MCF/D | | MCF/D | | MCF/D | | MCF/D | |
| Dsgn$\Delta P^2$: | X $10^6$ | | X $10^6$ | | X $10^6$ | | X $10^6$ | | X $10^6$ | |
| Dsgn Chk: | " | | " | | " | | " | | " | |
| By: | JBL | $\frac{P}{Z}$ = 3175 | JBL | $\frac{P}{Z}$ = 1823 | DM | $\frac{P}{Z}$ = 3526 | DM | $\frac{P}{Z}$ = 238 | | |

AC_CPUC_0118431

WELL: 55-29

LOW: (CSG)/TBG

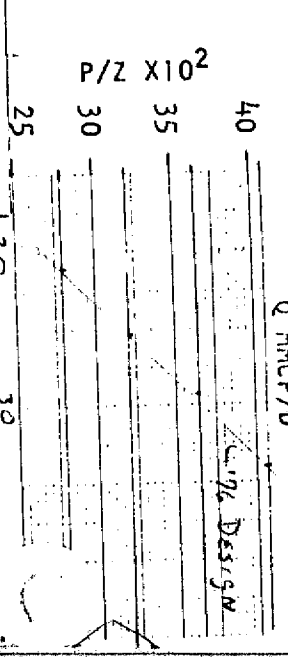
| MARKER | TVD' |
|---|---|
| SG/ TBG | |
| P S.CHK | |
| SSSV | 8390 |
| 8 / MFP | 8520' |
| 8 / MFP psia | |
| -5400' | 8249' |
| SIBHPest | |
| Pavg ann | |
| Zavg ann | |

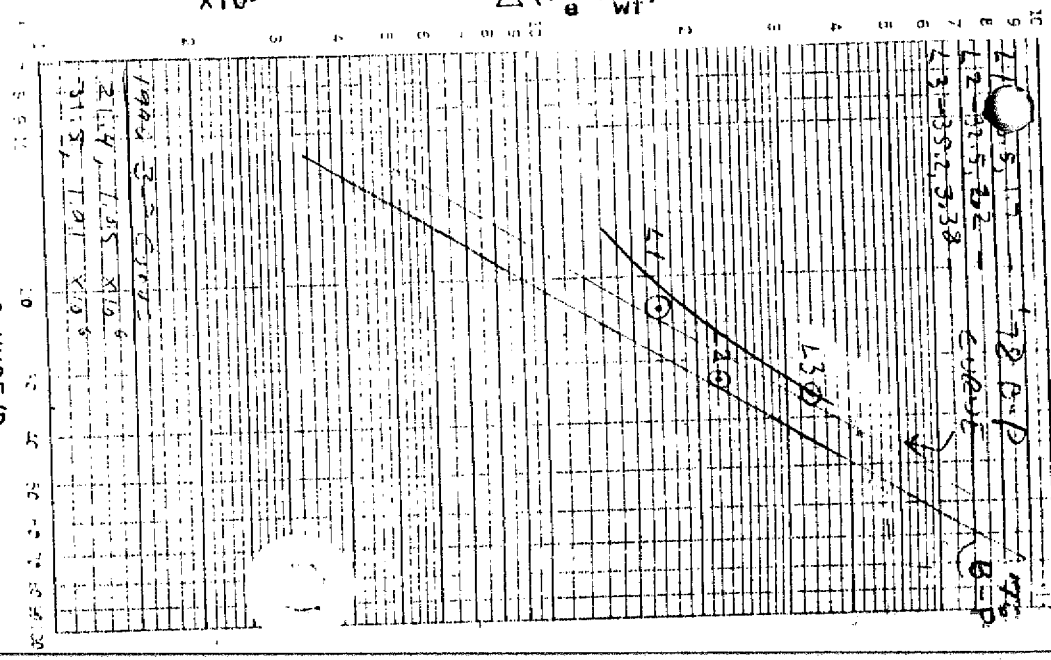
No directional survey

| | TEST #: 2-1 | TEST #: 2-2 | TEST #: 2-3 | TEST #: |
|---|---|---|---|---|
| | DATE: 9-11-78 | DATE: 8-29-78 | DATE: | DATE: |
| S.I. PSIG GAUGE | 2535 | 2600 | 2680 | |
| S.I. PSIG BOMB | — | — | — | |
| FLOWING PSIG ANALYSE CALC | 1920 | 1670 | 1280 | |
| FLOWING PSIG ANALYSE MEAS | 2780 / 1920 | 2330 / — | 2520 / 1380 | |
| FLOWING PSIG DESIGN PRED. | | 1678 | 1259 | |
| | 3130 / 2464 | 3209 / 2164 | 3306 / 2613 | |
| | 3140 / 2864 | 3220 / 2833 | 3316 / 2782 | |
| | 3155 / 2878 | 3234 / 2848 | 3331 / 2747 | |
| | 3119 | 3198 | 3294 | |
| | 3141 | 3220 | 3317 | |
| | 2838 | 2910 | 2999 | |
| | .8160 | .8174 | .8200 | |
| | Rec'md: — " Chk | Rec'md: .9 " Chk | Rec'md: 1.10" Chk | Rec'md: .750" Chk |
| | For: — MCF/D | For: 31M MCF/D | For: 36.11 MCF/D | For: 35.3 MCF/D |
| | By: — On: — | By: CJ On: 8/19/78 | By: WLC On: 8-30-78 | By: JWT On: 9/07/78 |
| SHUT IN SURVEY BOMB | 68 / — | 72 / — | 68 / — | — / — |
| FLOWING BOMB ESTIMATED | 90 / — | 100 / — | 74 / — | — / — |
| | 169 / — / 150 | 171 / — / 150 | 177 / — / — | — / — / — |
| | 119 / — / 120 | 119 / — / 110 | 117 / — / — | — / — / — |
| CHK SIZE | SURFACE .741" SSSV .750" BHC NONE" | SURFACE .9" SSSV .750" BHC .750" | SURFACE 1.100" SSSV .750" BHC NONE" | SURFACE 1.0" SSSV .750" BHC NONE" |
| Pup, Tup sf chk | 1920 psig, 89 F | 1670 psig, 96 F | 1280 psig, 74 F | ____ psig, ____ F |
| Pdn, Tdn sf chk | 580 psig, 24 F | 620 psig, 30 F | 620 psig, 85 F | ____ psig, ____ F |
| Q, $\Delta(P_e^2-P_{wf}^2)$ | 23,515 MCF/D, 1.7 X10^6 | 32,196 MCF/D, 2.2 X10^6 | 35,201 MCF/D, 3.5 X10^6 | ____ MCF/D, ____ X10^6 |
| OIL PRODUCTION | — °API @ 60°F, — % BS&W | — °API @ 60°F, — % BS&W | — °API @ 60°F, — % BS&W | — °API @ 60°F, — % BS&W |

| MARKER | TO | LENGTH | D | CSG ID | TBG OD |
|---|---|---|---|---|---|
| 7" 23# | 6494' | 6494' | " | 6.366" | 2.875" |
| 7" 26# | 7990' | 1500' | " | 6.276" | 2.875" |
| 7" 26# | 8075' | 85' | 5.137" | 6.276" | 2.375" |
| 5" 18# | 8400' | 325' | 3.1410" | 4.276" | 2.375" |
| | | | " | | |
| SSSV | 8400' | 0 | 1.875" | | |
| TBG Pt 1 | 8421' | 21' | 1.995" | | |
| TBG Pt 2 | | | " | | |
| TBG Pt 3 | | | " | | |
| BHC | 8421' | 0 | 1.56" | | |
| TBG TAIL | 8438' | 16' | 1.995" | | |
| CSG Pt 1 | | | " | | |
| CSG Pt 2 | | | " | | |
| LNR TOP | | | " | | |
| S8 / MFP | 8520' | 82' | 4.276" | | |

SSV is choke
No BHC n= C=




JWT:jwt (rev. 8/08/78) TEST WORKSHEET

AC_CPUC_0118432

WELL NO: 55-

CHOKE & PRESSURE WORKSHEET

| ANALYSE | DESIGN | $P_a$ | (00) $T_a$ | (11) $Z_a$ | (22) Q | (B) D'' | (C) L' | (D) $P_{wh}$ | (E) $P_{bh}$ |
|---|---|---|---|---|---|---|---|---|---|
| | | 55V IS CHOKE | | | | — | — | — | — |
| B | | 1525 | 120 | .8349 | 33.200 | 5.137 | 3078 | (1280) | 1694 |
| C | | 1700 | 140 | .8476 | | 3.14 | 325 | 1604 | 1730 |
| D | | | | | | .350 | 0 | 1730 | 2693 |
| E | | 2700 | | .8366 | | 1.995 | 21 | 2693 | 2711 |
| F | | | | | | 1.56 | 0 | 2711 | 2791 |
| G | | 2750 | | .8364 | | 1.095 | 16 | 2741 | 2755 |
| | | | ↓ | | ↓ | 4.276 | 12 | 2755 | 2761 |
| | 4B | 2700 | 140 | .8356 | 40.000 | 4.276 | 32 | 2705 | 2718 |
| | C | | | | | 1.095 | 16 | 2685 | 2703 |
| | D | 2615 | | .8353 | | 1.56 | 0 | 2646 | 2687 |
| | E | 2650 | | .8349 | | 1.995 | 21 | 2622 | 2646 |
| | F | | | | | .350 | 0 | 39.041 ↓ | 2622 |
| | G | 2622 | ↓ | .8344 | | 3.14 | 325 | * WELL CANNOT | |
| | H | | 120 | | ↓ | 5.137 | 3078 | FLOW 40 MCF/D. WILL | |
| | | | | | | | | TRY 36 MCF | |
| | 4H' | 1700 | 120 | .8476 | ↑ | 5.137 | 3078 | | |
| | G' | 1650 | ↑ | .8407 | | 3.14 | 325 | | |
| | F' | ↑ | | ↑ | | .350 | 0 | 36.280 | 2715 |
| | E' | 2725 | | .8360 | | 1.995 | 21 | 2715 | 2734 |
| | D' | ↑ | | ↑ | | 1.56 | 0 | 2734 | 2767 |
| | C' | | | | | 1.095 | 16 | 2767 | 2781 |
| | B' | 2735 | 140 | .8364 | 36.400 | 4.276 | 32 | 2781 | 2788 |
| | | | | | Q = | 1.100 | | | |

9-6-78: FOR FINAL TEST BEAN WAS .750 SSV NO SURFACE CHOKE OR BHC FOR 36.3 MM²

WELL HAS SMALL FIELD PIPING & 1.1" CHK WILL REMAIN TO ASSIST FIELD OPERATORS IN PUTTING WELL ON.

| AN. | DS. | (22) Q | (E') $\Delta(P_e^2-P_{wf}^2)$ | (D') SIBHP psig | $P_{wf}$ @S8 psig |
|---|---|---|---|---|---|
| 3C | | 35.200 | $3.38 \times 10^8$ | 3316 | 2761 |
| | 4A | 40.000 | $3.65 \times 10^6$ | 3316 | 2716 |
| | 4A' | 36.400 | $3.24 \times 10^6$ | 3316 | 2788 |

NOTE: (D') must be hit before (E')

| ANAL. | DSGN. | (00) $T_{up}$ | (B) CHK'' | (A') $P_{up}$ | (B') $P_{dn}$ | $Q_{sub}$ | $Q_{crit}$ | $Q_{meas}$ |
|---|---|---|---|---|---|---|---|---|
| 2A | | [illegible] | 1.100 | [illegible] | [illegible] | — | 39.232 | 35.2 |
| | 4I | 100 | 1.100 | 1221 | 600 | — | 36.964 | — |

AC_CPUC_0118433

WELL NO: 55-

CHOKE & PRESSURE WORKSHEET

| ANALYSE | DESIGN | $P_a$ | (00) $T_a$ | (11) $Z_a$ | (22) D'' | (33) Q | (C) L' | (D) $P_{wh}$ | (E) $P_{bh}$ |
|---|---|---|---|---|---|---|---|---|---|
| 2B | | 1925 | 120 | .8770 | 5.137 | 32.500 | 8075 | (690) | 2119 |
| C | | 2150 | 140 | .8352 | 3.14 | | 325 | 2119 | 2164 |
| D | | | | | .750 | | 0 | 2164 | 2800 |
| E | | 2825 | | .8379 | 1.995 | | 21 | 2800 | 2815 |
| F | | | | | 1.56 | | 0 | 2815 | 2840 |
| G | | 2850 | | .8384 | 1.995 | | 16 | 2840 | 2891 |
| H | | | ↓ | | 4.276 | ↓ | 82 | 2891 | 2858 |
| | | | 55 | | 15 CHOKE | | | | |
| 2G' | | 2925 | 140 | .8379 | 1.995 | 32.500 | 16 | 2915 | 2827 |
| H' | | 2850 | ↓ | .8384 | 4.276 | ↓ | 82 | 2827 | 2733 |
| | 3B | 2750 | 140 | .8384 | 4.276 | 36.000 | 82 | 2757 | 2771 |
| | C | 2725 | | .8360 | 1.995 | | 16 | 2743 | 2757 |
| | D | | | | 1.995 | | 21 | 2724 | 2743 |
| | E | | | | .750 | | 0 | 1670 | 2724 |
| | F | 1650 | ↓ | .9497 | 3.14 | | 325 | 1654 | 1670 |
| | G | 1450 | 120 | .8395 | 5.137 | ↓ | 8075 | 1259 | 1654 |
| | H | | 100 | – | 1.1 | 37.689 | 0 | 600 | 1259 |

| ANALYSE | DESIGN | $P_a$ | (00) $T_a$ | (11) $Z_a$ | (22) D'' | (33) Q | (C) L' | (D) $P_{wh}$ | (E) $P_{bh}$ |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

| AN. | DS. | Q | $\Delta(P_e^2-P_{wf}^2)$ | $P_e$ psia | $P_{wf}$ psia | $P_{wf}$ psig |
|---|---|---|---|---|---|---|
| 2I | | 32.5 | $2.2 \times 10^6$ | 3234 | 2873 | 2858 |
| 2I' | | 32.5 | $2.3 \times 10^6$ | 3234 | 2848 | 2833 |
| | 3A | 36.0 | $2.7 \times 10^6$ | 3234 | 2785 | 2771 |

| ANAL. | DSGN. | (44) $T_{up}$ | (55) CHK'' | (A) $P_{up}$ | (B) $P_{dn}$ | (A') $Q_{sub}$ | (B') $Q_{crit}$ | (C') $T_{dn}$ | $\Delta T$ |
|---|---|---|---|---|---|---|---|---|---|
| 2A | | 90 | .9 | 1670 | 620 | | 33.673 | -19 | 52.5 |
| 2D | | 140 | .750 | 2800 | 2164 | 32.5 | | 106 | |
| 2E | | 140 | .750 | 3296 | 2815 | 32.5 | | 119 | |
| | 3E | 140 | .750 | 2724 | 1670 | 36.0 | | 77 | |
| | 3H | 100 | 1.1 | 1259 | 600 | | 37.689 | 15 | |

JWT:cma (rev. 8/9/78

AC_CPUC_0118434

WELL NO: SS-29

CHOKE & PRESSURE WORKSHEET

| ANALYSE | DESIGN | $P_a$ | (A') $T_a$ | (B') $Z_a$ | (A) $L'$ | (B) Q | (C) D'' | (D) $P_{wh}$ | (E) $P_{bh}$ |
|---|---|---|---|---|---|---|---|---|---|
| 1A | | 2200 | 100 | .7845 | 8075 | 26,200 | 5.137 | 1920→ | 2128 |
| 1B | | | 127 | | 325 | | 3.140 | 2928 | 2964 |
| C | | | 145 | | 0 | | .750 | 2464 | 2823 |
| D | | 2825 | 145 | .8433 | 21 | | 1.995 | 2823 | 2833 |
| E | | | 150 | | 0 | | 1.56 | 2833 | 2850 |
| F | | 2875 | 150 | .8497 | 16 | | 1.995 | 2850 | 2858 |
| G | | | 150 | | 82 | ↓ | 4.276 | 2858 | 2869 |
| | 2B | 2750 | 150 | .8472 | 82 | 30,000 | 4.276 | 2769 | 2770 |
| | C | | ↓ | | 16 | | 1.995 | 2753 | 2769 |
| | D | | | | 0 | | 1.56 | 2730 | 2753 |
| | E | 2725 | 149 | .8468 | 21 | | 1.995 | 2716 | 2730 |
| | F | | | | 0 | | .750 | 2170 | 2716 |
| | G | 2925 | 110 | .8043 | 325 | | 3.140 | 2129 | 2170 |
| | H | | | | 8075 | ↓ | 5.137 | 1678 | 2129 |

| AN. | DS. | Q | $\Delta(P_e^2-P_{wf}^2)$ | $P_e$ psia | $P_{wf}$ psia | $P_{wf}$ psig |
|---|---|---|---|---|---|---|
| 1H | | 26,200 | $1.7 \times 10^6$ | 3155 | 2878 | 2864 |
| | 2A | 30,000 | $2.2 \times 10^6$ | 3155 | 2785 | 2770 |

| ANAL. | DSGN. | (A) $P_{up}$ | (B) $P_{dn}$ | (C) $T_{up}$ | (D) CHK'' | (E) | (A') $Q_{sub}$ | (B') $Q_{crit}$ | (C') $T_{dn}$ |
|---|---|---|---|---|---|---|---|---|---|
| 1A | | 1920 | 530 | 89 | .174 | | | 26,237 | |
| 1G | | 2823 | 2464 | 145 | .750 | | 26,200 | 127° | |
| 1E | | 2850 | 2833 | 150 | 1.56 | | 26,600 | 149° | |
| | 2D | 2753 | 2730 | 150 | 1.56 | | 30,402 | 149° | |
| | 2F | 2716 | 2170 | 149 | .750 | | 30,000 | 119° | |
| | 2I | 1678 | 580 | 100 | .9 | | 30,600 | 118° | |

JWT:cma (rev. 8/9/78

AC_CPUC_0118435

WELL NO: SS-29 DATE: 1-30-85 OPERATOR: _____ TEST NO: _____

B. H. CHOKE: — " SURF. CHOKE: — " BOMBS RUN?: ~~YES~~ / NO

FLOWING STRING: CSG/~~TBG~~ . SAFETY VALVE ~~IN~~ / OUT? PROBE REMARKS. _____

LIQUIDS _____ bbls. WATER CUT (%BS&W): _____ OIL GRAVITY: _____ @ _____ °F

PROBE INFORMATION:

| NUMBERS: | US#1 | US#2 | DS#1 89 ✓ | DS#2 90 ✓ |
|---|---|---|---|---|
| AVG. WT. BEFORE: | | | 136.1555 | 136.1666 |
| WT. AFTER. | #1 | | .1525 | .1637 |
| 6" 60' | #2 | | .1523 | 1636 |
| | #3 | | | |
| EROSION AREA: | #1 | | 0 | 0 |
| EST. RATE | #2 | | | |
| 13 M² | #3 | | 322 | 322 |
| HOURS OF FLOW: | | | 6.75 | 6.75 |
| EROSION RATE: | | | 2.38 | 2.26 |

| ELAP TIME | TIME OF DAY | CSG PRESSURE | TBG PRESSURE | UPSTREAM SURFACE CHOKE PRESSURE | UPSTREAM SURFACE CHOKE TEMP. | DOWNSTREAM SURFACE CHOKE PRESSURE | DOWNSTREAM SURFACE CHOKE TEMP. | GAS FLOW RATE STATIC | DIFFERENTIAL | TEMPERATURE | COEFFICIENT | RATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SEUT IN | 8 00 A | 1330 | 1330 | | 37 | | 37 | | | | | |
| 1/2 | 8 35 A | 550 | 1090 | | | 550 | 83 | | | | | |
| 1 3/4 | 945 | 570 | 1100 | | | 570 | 93° | | | | | |
| 3 3/4 | 11 45 A | 555 | 1090 | | | 555 | 90° | | | | | |
| 6 3/4 | 2 45 P | 530 | 1080 | | | 530 | 97° | | | | | 30 MM |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | SS-29 | | | | | | JDM |

AC_CPUC_0118436

WELL NO: 55-29 DATE: 12-[illegible]-82 OPERATOR: _____ TEST NO: _____

B. H. CHOKE: 0.85 " SURF.CHOKE: NO " BOMBS RUN?: YES / NO

FLOWING STRING: CSG/TBG . SAFETY VALVE IN / OUT? PROBE REMARKS. _____

LIQUIDS _____ bbls. WATER CUT (%BS&W): _____ OIL GRAVITY: _____ @ _____ °F

PROBE INFORMATION:

| | US#1 | US#2 | DS#1 | DS#2 |
|---|---|---|---|---|
| NUMBERS: | 40 | 41 | 42 | 43 |
| AVG. WT. BEFORE: | 136.5535 | 136.6339 | 136.6325 | 136.5789 |
| WT. AFTER. #1 | 136.5516 | 136.6320 | 136.6309 | 136.5772 |
| #2 | 136.5514 | 136.6320 | 136.6305 | 136.5771 |
| C/W 6" #3 | | | | |
| EROSION AREA: #1 | | | | |
| #2 | 0 | 0 | 0 | 0 |
| 55-29 #3 | 3.22 | 3.22 | 3.22 | 3.22 |
| HOURS OF FLOW: | 6 | 6 | 6 | 6 |
| EROSION RATE: | 1.72 | 1.63 | 1.55 | 1.51 |

EST RATE 24 MZ

| ELAPSED TIME | TIME OF DAY | CSG PRESSURE | TBG PRESSURE | UPSTREAM SURFACE CHOKE PRESSURE | UPSTREAM SURFACE CHOKE TEMP. | DOWNSTREAM SURFACE CHOKE PRESSURE | DOWNSTREAM SURFACE CHOKE TEMP. | GAS FLOW RATE STATIC | DIFFERENTIAL | TEMPERATURE | COEFFICIENT | RATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SHUT IN | 8 20 A | 1620 | 1620 | 1620 | 65° | 1620 | 65° | | | | | 32 MZ |
| 1/2 | 8 50 A | 530 | 900 | 530 | 66° | 530 | 66 | | | | | |
| 1 1/2 | 10 00 A | 530 | 800 | 530 | 75° | 530 | 75 | | | | | |
| 2 3/4 | 11 15 A | 530 | 780 | 530 | 79° | 530 | 79 | | | | | |
| 4 3/4 | 1 00 P | 530 | 800 | 530 | 74° | 530 | 74 | | | | | |
| | 2 20 P | 525 | 800 | 525 | 75° | 525 | 75 | | | | | 34 MZ |

AC_CPUC_0118437

WELL NO: 5529 DATE: 11-0-82 OPERATOR: _____ TEST NO: _____

B. H. CHOKE: 0,85 " SURF.CHOKE: _____ " BOMBS RUN?: ~~YES~~ / NO

FLOWING STRING: CSG/~~TBG~~ SAFETY VALVE ~~NO~~ OUT? PROBE REMARKS.

5529 6"

LIQUIDS _____ bbls. WATER CUT (%BS&W): _____ OIL GRAVITY: _____ @ _____ °F

PROBE INFORMATION:

| | US#1 | US#2 | DS#1 | DS#2 |
|---|---|---|---|---|
| NUMBERS: | 77 | 81 | 92 | 99 |
| AVG. WT. BEFORE: | 137,2512 | 137,2876 | 137,3812 | 137,2348 |
| WT. AFTER. #1 | 137,2481 | 137,2778 | 137,3783 | 137,2315 |
| #2 | | | | |
| LOSS | 0,0031 | 0,0098 | 0,0029 | 0,0033 |
| EROSION AREA: #1 | 0 | 0 | 0 | 0 |
| #2 | 322 | 322 | 322 | 322 |
| #3 | | | | |
| HOURS OF FLOW: | 6 | 6 | 6 | 6 |
| EROSION RATE: | 2,67 % | 8,46 % | 2,50 % | 2,85 % |

| TIME ELA | TIME OF DAY | CSG PRESSURE | TBG PRESSURE | UPSTREAM SURFACE CHOKE PRESSURE | UPSTREAM SURFACE CHOKE TEMP. | DOWNSTREAM SURFACE CHOKE PRESSURE | DOWNSTREAM SURFACE CHOKE TEMP. | GAS FLOW RATE STATIC | DIFFERENTIAL | TEMPERATURE | COEFFICIENT | RATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SHUT IN | 8:45 AM | 2440 | 2440 | 2440 | 42° | 2440 | 42° | | | | | |
| 30 MIN | 9:15 AM | 600 | 1100 | 600 | 57° | 600 | 57° | | | | | 57 m² |
| 1 HR | 9:45 | 600 | 1100 | 600 | 56° | 600 | 56° | | | | | |
| 2 HR | 10:45 | 600 | 1100 | 600 | 56° | 600 | 56° | | | | | |
| 4 HR | 12:45 | 600 | 1100 | 600 | 56 | 600 | 56° | | | | | |
| 6 HR | 2:45 | 600 | 1000 | 600 | 52° | 600 | 52° | | | | | 48 m² |

PROBES SENT TO LAB 11-10-82

AC_CPUC_0118438

B. H. CHOKE: NO " SURF. CHOKE: NO " BOMBS DOWN?: [redacted] / NO

FLOWING STRING: CSG/[redacted] SAFETY VALVE [redacted] / OUT? PROBE REMARKS.

LIQUIDS _____ bbls. WATER CUT (%BS&W): _____ OIL GRAVITY: _____ @ _____ °F

PROBE INFORMATION:

| | US#1 | US#2 | DS#1 #3 | DS#2 |
|---|---|---|---|---|
| NUMBERS: | | | | |
| AVG. WT. BEFORE: | | | 136.5146 | |
| WT. AFTER. | | | 136.5166 | |
| | #1 | | 136.5160 | |
| | #2 | | | |
| | #3 | | | |
| EROSION AREA: | #1 | | 3.22 $in^2$ | |
| | #2 | | | |
| | #3 | | | |
| HOURS OF FLOW: | | | 6.25 hrs | |
| EROSION RATE: | | | — | |

6" CASING 60° LAT

SS 29

EST. RATE 19

| ELAPSED TIME | TIME OF DAY | CSG PRESSURE | TBG PRESSURE | UPSTREAM SURFACE CHOKE PRESSURE | UPSTREAM SURFACE CHOKE TEMP. | DOWNSTREAM SURFACE CHOKE PRESSURE | DOWNSTREAM SURFACE CHOKE TEMP. | GAS FLOW RATE STATIC | DIFFERENTIAL | TEMPERATURE | COEFFICIENT | RATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SHUT IN | 7:40 A | 1360 | 1360 | 1360 | 40° | 1360 | 40° | | | | | 16.3 $M^2$ |
| 1/2 | 8:15 A | 570 | 810 | 570 | 72° | 570 | 72° | | | | | |
| 2 1/4 | 10:00 A | 580 | 930 | 580 | 86° | 580 | 86° | | | | | |
| 3 1/4 | 11:00 A | 570 | 930 | 570 | 87° | 570 | 87° | | | | | |
| 6 1/4 | 1:50 P | 560 | 930 | 560 | 86° | 560 | 86° | | | | | 12 $m^2$ |

RETURNED TO SERVICE 1-27-82 [redacted]

AC_CPUC_0118439

WELL NO: SS 29 DATE: 12-14-81 OPERATOR: REX & R[illegible] TEST NO: _____

B. H. CHOKE 0.860 " SURF. CHOKE: NO " BOMBS RUN? ~~YES~~ / NO

FLOWING STRING: CSG/~~TBG~~ SAFETY VALVE ~~IN~~ / OUT? PROBE REMARKS. _____

LIQUIDS _____ bbls. WATER CUT (%BS&W): _____ OIL GRAVITY: _____ @ _____ °F

PROBE INFORMATION:

| | US#1 | US#2 | DS#1 | DS#2 |
|---|---|---|---|---|
| NUMBERS: | 38 | | | |
| AVG. WT. BEFORE: | 134.1455 | | | |
| WT. AFTER. #1 | 134.1363 | | | |
| #2 | 134.1363 | | | |
| #3 | | | | |
| EROSION AREA: #1 | 3.89 in² | | | |
| #2 | | | | |
| #3 | | | | |
| HOURS OF FLOW: | 6 | | | |
| EROSION RATE: | 6.6 % | | | |

6" c LATI

5529

(4.9 m²) 24 m²

CST DAILY

| ELAPSED TIME | TIME OF DAY | CSG PRESSURE | TBG PRESSURE | UPSTREAM SURFACE CHOKE PRESSURE | UPSTREAM SURFACE CHOKE TEMP. | DOWNSTREAM SURFACE CHOKE PRESSURE | DOWNSTREAM SURFACE CHOKE TEMP. | GAS FLOW RATE STATIC | DIFFERENTIAL | TEMPERATURE | COEFFICIENT | RATE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SHUT IN | 7:50 PM | 2200 | 2200 | 2200 | 62° | 2200 | 62° | | | | | |
| 1/2 HR | 8:15 PM | 560 | 930 | 560 | 60° | 560 | 60° | | | | | 44 m² |
| 2 HR | 9:50 | 570 | 960 | 570 | 74° | 570 | 74° | | | | | |
| 3 HR | 10:50 | 590 | 1010 | 590 | 68° | 580 | 68° | | | | | |
| 4 HR | 12:50 | 580 | 960 | 580 | 70° | 570 | 70° | | | | | |
| 6 HR | 2:50 PM | 580 | 960 | 580 | 68° | 570 | 68° | | | | | 31 m² |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

LEFT OUT OF SERVICE FOR YOUR INSP. 12-15-81

AC_CPUC_0118440

NO:

| TEST NO. & DATE | PROBE NO. | PROBE LOCATION | ERODED AREA (XXX) | AVERAGE INITIAL WEIGHT (gm) | WEIGHT AFTER TEST (gm) | CHANGE IN WEIGHT (mg) | ERODED AREA (sq In) | EROSION FACTOR | CHOKE & TEST Q | RECM'D NEXT CHOKE & TEST Q | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1, 7-11-78 | 83 | [illegible] | | [illegible] | [illegible] | 2.0 | 3.24 * | .013 | .241 54 [illegible] | | |
| 2, 8-29-78 | 338 | DS #1 | | 138.2576 | 138.2515 | 0.3 | 3.24 * | .0018 | .1998 32.5 | | |
| 3, 9-5-78 | 364 | US #1 | ↗ | [illegible] | 144.5539 | -0.0 * | | .0 | 1.10 sort 35.2 | | * negative weight loss |
| | 365 | DS #1 | ↘ | 144.2455 | 144.2496 | 0.4 | 3.24 * | .0006 | | | |

AC_CPUC_0118441

RT: JW 7/3/78

WELL NO: 55-28 DATE: 8-5-78 OPERATOR: Summers TEST NO: L-3

B. H. CHOKE: _____" SURF. CHOKE: 1.100 " (LATERAL) / VESSEL TEST?

FLOWING STRING: (CSG) TBG SAFETY VALVE (IN) OUT ? BOMBS RUN?: YES / (NO)

PROBE ID NO'S--RISER: _____ US#1 #36d US#2 _____ DS#1 #365 DS#2 _____

PROBE AND BULL PLUG REMARKS: _____

WATER CUT (% BS & W): _____ OIL GRAVITY: _____ @ _____ °F

| ELAPSED TIME | TIME OF DAY | AIR TEMPERATURE | CSG PRESSURE | TBG PRESSURE | UPSTREAM SURFACE CHOKE | | DOWNSTREAM SURFACE CHOKE | | GAS FLOW RATE | | | | LIQUIDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | PRESSURE | TEMPERATURE | PRESSURE | TEMPERATURE | STATIC | DIFFERENTIAL | TEMPERATURE | RATE | |
| SHUT IN | 8:45A | | 2680 | 2665 | | | | | | | | | |
| 0:00 | 8:50A | START FLOW TEST | | | | | | | | | | | |
| 0:05 | | | | | | | ↓ | | | | | | |
| 0:10 | | | | | | | | | | | | | |
| 0:15 | | | | | | | | | | | | | |
| 0:25 | | | | | | | | | | | | | |
| 0:35 | | | | | | | | | | | | | |
| 0:45 | | | | | | | | | | | | | |
| 1:00 | 9:50A | 71° | | 2500 | 1330 | 86° | 630 | 58° | 7.1 | 6.7 | 60° | 36,762 | |
| 1:15 | | | | | | | | | | | | | |
| 1:30 | | | | | | | | | | | | | |
| 1:45 | | | | | | | | | | | | | |
| 2:00 | 10:50 | 64° | | 2380 | 1320 | 80° | 620 | 54° | 7.1 | 6.7 | 60° | 36,762 | |
| 2:30 | | | | | | | | | | | | | |
| 3:00 | 11:50 | 63° | | 2320 | 1320 | 79° | 610 | 53° | 7.1 | 6.7 | 60° | 36,762 | |
| 3:30 | | | | | | | | | | | | | |
| 4:00 | 12:50 | 70° | | 2250 | 1310 | 76° | 620 | 47° | 7.1 | 6.65 | 60° | 36,488 | |
| 4:30 | | | | | | | | | | | | | |
| 5:00 | 1:50 | 62° | | 2200 | 1300 | 75° | 620 | 45° | 7.1 | 6.65 | 60° | 36,488 | |
| 5:30 | | | | | | | | | | | | | |
| 6:00 | 2:50 | 61° | | 1520 | 1300 | 74° | 620 | 44° | 7.1 | 6.5 | 60° | 36,488 | |
| 6:30 | | | | | | | | | | | | | |
| 7:00 | 3:50 | 60° | | 2620 | 1290 | 74° | 620 | 45° | 7.1 | 6.45 | 60° | 35,390 | |
| 7:30 | | | | | | | | | | | | | .7729 |
| 8:00 | 4:50 | 60° | | 2580 | 1280 | 74° | 620 | 45° | 7.1 | 6.45 | 60 | 35,390 | |

JWT/wlc (rev. 7/19/78) Field Test Data Sheet 7.09 6.43 39.201

AC_CPUC_0118442

# API GRAVITY DETERMINATION WORKSHEET

WELL # _____

Hydrometer reads _____ ° API at _____ °F.

Go to API charts, find corrected reading for this temp. and the closest numbers either side of the hydrometer reading. (Example: Hydrometer reads 42.6, low is 42, high is 43.)

LOW

_____ . _____

+ . □

_____

_____ . _____

ACTUAL

_____ . □ → Put this number in all boxes. To calculate corrected reading use LOW if this number is less than or equal to 5, use HIGH if this number is greater than 5.

This is the corrected reading @ 60°

HIGH

_____ . _____

- 1 . 0

_____

_____ . _____

+ . □

_____

_____ . _____

EXAMPLE

Hydrometer reads 46.7 ° API at 97 °F.

Look at API chart under 46 & 47 next to 97°.

LOW

42 . 9

+ . 7

_____

_____ . _____

ACTUAL

46 . 7 → Put a 7 in all boxes.

Since 7 is greater than 5 do calculations in HIGH.

HIGH

43 . 9

-1 . 0

42 . 9

+ . 7

_____

43 . _____

Don't do anything here

This is your corrected reading at 60°F →

## ORIFICE PLATE COEFFICIENTS

PLATE SIZE _____ "  METER SIZE 100"/300"  FIELD VESSEL # _____

| TEMP. | 100"/1000# | 300"/1000# |
|---|---|---|
| 10° | | |
| 20° | | |
| 30° | | |
| 40° | | |
| 50° | | |
| 60° | | |
| 70° | | |

AC_CPUC_0118443

WELL NO: SS-29 DATE: 8-29-78 OPERATOR: F. VALDEZ TEST NO: L-2

B. H. CHOKE: .750 " SURF CHOKE: .900 " (LATER) / VESSEL TEST?

FLOWING STRING: (CSG) / TBG SAFETY VALVE (IN) / OUT ? BOMBS RUN?: YES / (NO)

PROBE ID NO'S--RISER: _____ US#1 _____ US#2 _____ DS#1 338 DS#2 _____

PROBE AND BULL PLUG REMARKS: PROBE # 338 SHOW NO BUFFING

WATER CUT (% BS & W): _____ OIL GRAVITY: _____ @ _____ °F

| ELAPSED TIME | TIME OF DAY | AIR TEMPERATURE | CSG PRESSURE | TBG PRESSURE | UPSTREAM SURFACE CHOKE | | DOWNSTREAM SURFACE CHOKE | | GAS FLOW RATE | | | | LIQUIDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | PRESSURE | TEMPERATURE | PRESSURE | TEMPERATURE | STATIC | DIFFERENTIAL | TEMPERATURE | RATE | |
| OUT IN | 7:30A | 83° | 2600 | 26200 | | | | | | | | | |
| 0:00 | 7:45 | | BEGAN | FLOW | TEST | | | | | | | | |
| 0:05 | | | | | | | | | | | | | |
| 0:10 | | | | | | | | | | | | | |
| 0:15 | | | | | | | | | | | | | |
| 0:25 | | | | | | | | | | | | | |
| 0:35 | | | | | | | | | | | | | |
| 0:45 | | | | | | | | | | | | | |
| 1:00 | 8:45 | 90° | | 2560 | 1720 | 91° | 610 | 33° | 7.00 | 6.15 | 39° | 33.269 | |
| 1:15 | | | | | | | | | | | | | |
| 0 | | | | | | | | | | | | | |
| 1:45 | | | | | | | | | | | | | |
| 2:00 | 9:45 | 88° | | 2480 | 1710 | 92° | 615 | 34° | 7.00 | 6.05 | 39° | 32.728 | |
| 2:30 | | | | | | | | | | | | | |
| 3:00 | 10:45 | 90° | | 2430 | 1700 | 93° | 610 | 32° | 7.00 | 6.00 | 38° | 32.458 | |
| 3:30 | | | | | | | | | | | | | |
| 4:00 | 11:45 | 91° | | 2380 | 1700 | 93° | 620 | 32° | 7.00 | 6.00 | 38° | 32.458 | |
| 4:30 | | | | | | | | | | | | | |
| 5:00 | 12:45P | 91° | | 2340 | 1695 | 93° | 620 | 31° | 7.00 | 6.00 | 37° | 32.458 | |
| 5:30 | | | | | | | | | | | | | |
| 6:00 | 1:45 | 93° | | 2290 | 1680 | 92° | 620 | 30° | 7.00 | 6.00 | 36° | 32.458 | |
| 6:30 | | | | | | | | | | | | | |
| 7:00 | 2:45 | 95° | | 2260 | 1680 | 92° | 620 | 30° | 7.00 | 6.00 | 36° | 32.458 | |
| 7:30 | | | | | | | | | | | | | |
| 8:00 | 3:45 | 94° | | 2230 | 1670 | 90° | 620 | 30° | 7.00 | 6.00 | 36° | 32.458 | |



AC_CPUC_0118444

AC_CPUC_0118445

Hydrometer reads _____° API at _____°F.

Go to API charts, find corrected readings for this temp. and the closest numbers either side of the hydrometer reading. (Example: Hydrometer reads 42.6, low is 42, high is 43.)

LOW

ACTUAL

HIGH

_____ . ☐ → Put this number in all boxes. To calculate corrected reading use LOW if this number is less than or equal to 5, use HIGH if this number is greater than 5.

_____ . 0

+ . ☐

This is the corrected reading @ 60°

Hydrometer reads 46.7° API at 97°F.

Look at API chart under 46 & 47 next to 97°.

LOW

ACTUAL

HIGH

42 . 9

46 . 7 → Put a 7 in all boxes.

Since 7 is greater than 5 do calculations in HIGH.

43 . 0

- 1 . 0

42 . 8

+ . 7

Don't do anything here

This is your corrected reading at 60°F → 42 . 7

CRUDE PLATE COEFFICIENTS

PLATE SIZE 8 X 4.375 "  METER SIZE 100"/300"  FIELD VESSEL #_____

| TEMP. | 100"/1000# | 300"/1000# |
|---|---|---|
| 10° | | |
| 20° | | |
| 30° | | |
| 40° | | |
| 50° | | |
| 60° | | .772800 |
| 70° | | |

WELL NO: 55-29 DATE: 7-11-78 OPERATOR: Summers TEST NO: 4-1

B. H. CHOKE: _____" SURF. CHOKE: .94 " ORIFICE PLATE SIZE: _____"

FLOWING STRING: (CSG) TBG ORIFICE PLATE COEFF: 72800 @ 60° F

ROBE ID. NO'S: RISER: _____ US#1 _____ US#2 _____ DS#1 N 85 DS#2 _____

PROBE & BULL PLUG REMARKS: No marks —

WATER CUT ( % BS & W ): _____ OIL GRAVITY: _____ @ _____ F

| ELASPED TIME | TIME OF DAY | AIR TEMPERATURE | CSG PRESSURE | TBG PRESSURE | UPSTREAM SURFACE CHOKE PRESSURE | UPSTREAM SURFACE CHOKE TEMPERATURE | DOWNSTREAM SURFACE CHOKE PRESSURE | DOWNSTREAM SURFACE CHOKE TEMPERATURE | GAS FLOW RATE STATIC | GAS FLOW RATE DIFFERENTIAL | GAS FLOW RATE RATE | LIQUIDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| shut in | 9 15 A | 78° | 2535 | 2965 | | | | | | | | |
| 0:00 | 9 30 A | | | | | | | | | | | |
| 0:05 | | | | | | | | | | | | |
| 0:10 | | | | | | | | | | | | |
| 0:15 | | | | | | | | | | | | |
| 0:25 | | | | | | | | | | | | |
| 0:35 | | | | | | | | | | | | |
| 0:45 | | | | | | | | | | | | |
| 1:00 | 10 30 A | 81° | 300+ | | 1920 | 85° | 570 | 19° | 7.18 | 4.5 | 23.522 | |
| 1:15 | | | | | | | | | | | | |
| 1:30 | | | | | | | | | | | | |
| 1:45 | | | | | | | | | | | | |
| 2:00 | 11 30 A | 80° | | 3000+ | 1930 | 91° | 570 | 23° | 7.18 | 4.5 | 23.522 | |
| 2:30 | | | | | | | | | | | | |
| 3:00 | 12 30 P | 80° | | 2950 | 1940 | 92° | 585 | 25° | 7.18 | 4.25 | 23.574 | |
| 3:30 | | | | | | | | | | | | |
| 4:00 | 1 30 P | 83° | | 2910 | 1940 | 93° | 585 | 25° | 7.24 | 4.5 | 23.718 | |
| 4:30 | | | | | | | | | | | | |
| 5:00 | 2 30 P | 85° | | 2875 | 1930 | 93° | 590 | 25° | 7.25 | 4.5 | 23.751 | |
| 5:30 | | | | | | | | | | | | |
| 6:00 | 3 30 P | 87 | | 2845 | 1925 | 93° | 590 | 25° | 7.24 | 4.5 | 23.718 | |
| 6:30 | | | | | | | | | | | | |
| 7:00 | 4 30 P | 83.5 | | 2815 | 1925 | 92° | 580 | 24° | 7.22 | 4.4 | 23.127 | |
| 7:30 | | | | | | | | | | | | |
| 8:00 | 5 30 P | 75° | | 2780 | 1920 | 89° | 580 | 24° | 7.21 | 4.48 | 23.515 | |

7/15/78

AC_CPUC_0118446

Compiled _____ Date _____

Checked _____ Checked _____

Approved _____ Job No. _____

~~#5~~

SOUTHERN CALIFORNIA GAS COMPANY

SS29

See Spot CHECKS by Meter DEPT.

SOUTHERN CALIFORNIA GAS CO.—1373

~~2-1/2 HOUR FLOW TEST~~

| | | |
|---|---|---|
| WELL NAME | SS29 | 17 m² |
| DATE | | |
| BOTTOM HOLE CHOKE | .584 | |
| SURFACE CHOKE | NONE | |
| FLOW T or C | C | |
| METER NO. | V-503 | |
| INITIAL SHUT-IN PRESSURE T | | PSIG |
| C | | PSIG |
| TIME ON | | |
| FINAL FLOWING PRESSURE T | | PSIG |
| C | | PSIG |
| TIME OFF | | |
| FINAL RATE | | MMCF/D |

Flowing pressure must be upstream of surface choke, if any.

| DATE | RATE |
|---|---|
| 12-6-75 | 19.74 MMCF/D |
| 12-21-75 | 16.56 |
| 1-13-76 | 13.74 |

AC_CPUC_0118447

Well No. 55-29 Test Rate = 26.1

Top @ 6X4.000 Type of Meas. Flu Orifice None

| Date | Time | Casing Press. | Diff. | Flowing Temp. | Remarks |
|---|---|---|---|---|---|
| 12-6-75 | 4:25 PM | 547# | 56" | 76° | MCF 56.18 - site |
| 12-7-75 | 9:35 PM | 549# | 53" | 78° | " |
| 12-8-75 | 1:15 PM | 540# | 54" | 78° | " |
| 12-12-75 | 2:00 PM | 563# | 53" | 82° | " |
| 12-13-75 | 1:50 P.M. | 559# | 48" | 82° | " |
| 12-17-75 | 2:40 P.M. | 545# | 41" | 87° | " |
| 12-18-75 | 3:25 | 543# | 40" | 87° | " |
| 12-19-75 | 1:45 | 560 | 42" | 87° | " |
| 12-20-75 | 12:40 | 562# | 40" | 90 | " |
| 12-21-75 | 12 | 561# | 40" | 91° | " |
| 12-22-75 | 1 P.M. | 570# | 28" | 81° | " |
| 12-23-75 | 3 P.M. | 561# | 31" | 92° | " |
| 12-24-75 | 11:30 A.M. | 542# | 36" | 92° | " |
| 12-25-75 | 10:30 A.M. | 564 | 34" | 93° | " |
| 12-26-75 | 8 A.M. | 562# | 29" | 92° | " |
| 12-27-75 | 9 A.M. | 543# | 30" | 93° | " |
| 12-28-75 | 12:20 P.M. | 550# | 28" | 94° | " |

| | | | | | |
|---|---|---|---|---|---|
| 12-6-75 | | 549# 7.50 | 56" 7.49 | 76° | 56.18 |
| 12-21-75 | | 561# 7.51 | 40" 6.31 | 90° | 47.89 |
| 1-13-76 | | 550# 7.51 | 28" 5.29 | 94° | 39.73 |

AC_CPUC_0118448

Nov. 5,6, 1975



AC_CPUC_0118449

Compiled _____ Date _____

Checked _____ Checked _____

Approved _____ Job No. _____

SOUTHERN CALIFORNIA GAS COMPANY

Crew B

Zuniga, Rompel

SOUTHERN CALIFORNIA GAS CO.—1373

DATE 11-6-75

WELL NAME SS 29

B. H. CHOKE .584"

SURFACE CHOKE None

DESIGN RATE 25 MM

INITIAL SHUT-IN PRESSURE

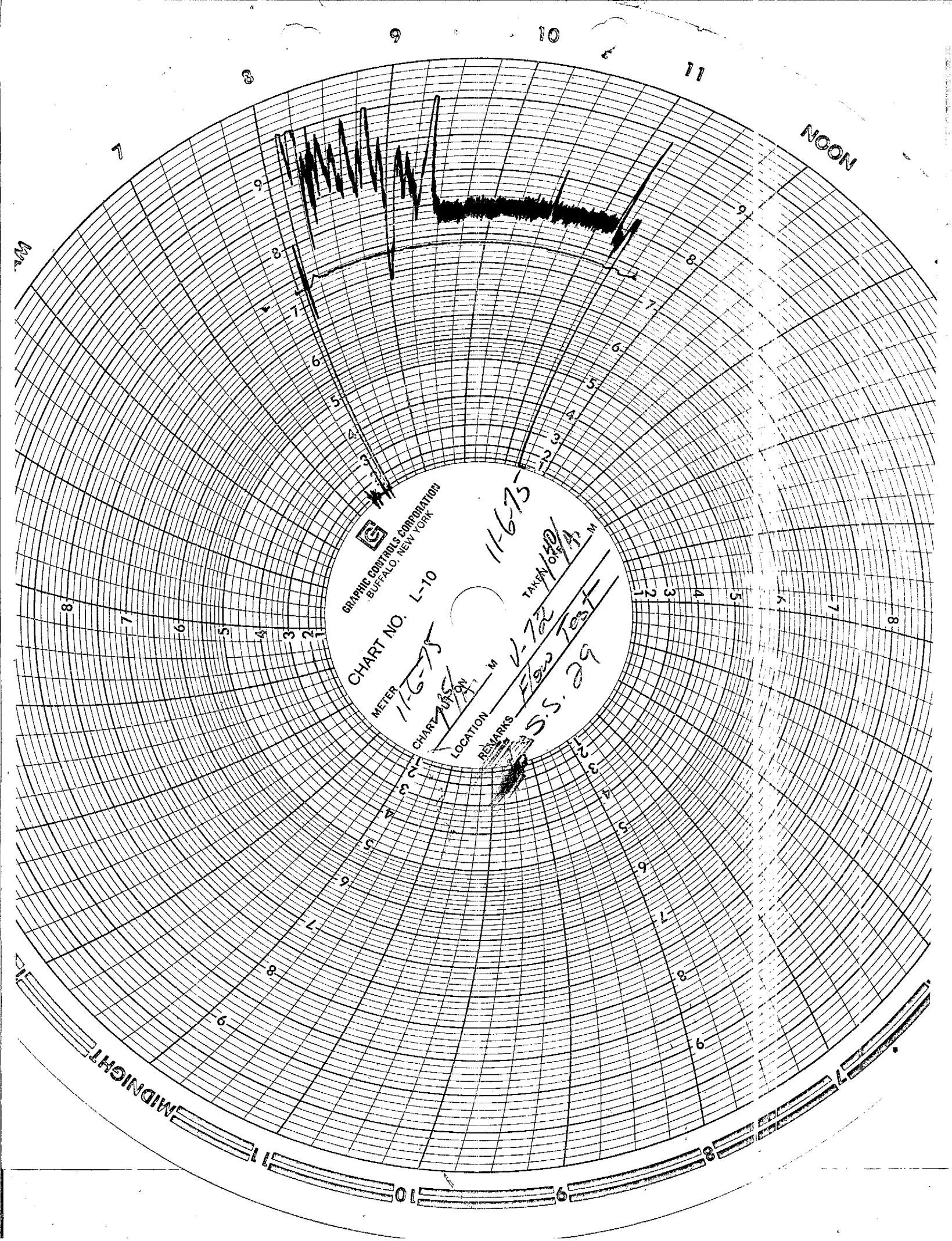
Tubing 2660 CASING 2650

| TIME | CASING PRESSURE | TUBING PRESS | TEMP. | GAS RATE | NOTES. |
|---|---|---|---|---|---|
| 8 00 AM | | | | | START TEST |
| 8 05 AM | 2280 | 2320 | 73° | 27.55 | |
| 8 10 A | 2000 | 2090 | 72.5° | 27.60 | |
| 8 15 A | 1800 | 1910 | 74° | 26.25 | |
| 8 20 A | 1700 | 1810 | 75° | 27.10 | |
| 8 25 A | 1560 | 1680 | 76° | 27.45 | |
| 8 30 A | 1460 | 1600 | 77° | 27.55 | |
| 8 35 A | 1360 | 1525 | 77.5° | 28.20 | |
| 8 40 A | 1230 | 1400 | 78.5° | 26.75 | |
| 8 45 A | 1140 | 1330 | 79° | 28.15 | |
| 8 50 A | 1000 | 1200 | 79° | 26.80 | |
| 8 55 A | 920 | 1125 | 80° | 27.30 | |
| 9 00 AM | 960 | 1135 | 92° | 24.60 | |
| 9 05 AM | 860 | 1060 | 93° | 27.30 | |
| 9 15 AM | 760 | 975 | 84° | 27.30 | |
| 9 18 A | 620 | 930 | 84° | 28.20 | |
| 9 30 A | 570 | 830 | 85° | 2640 | |
| 9 45 A | 570 | 830 | 87.5° | 26.21 | |
| 10 00 A | 570 | 830 | 89° | 26.21 | |
| 10 15 A | 570 | 830 | 91.5° | 26.21 | |
| 10 30 A | 570 | 830 | 93° | 26.54 | |
| 10 45 A | 570 | 830 | 94° | 26.54 | |
| 11 00 A | 570 | 830 | 93° | 26.54 | |
| 11 15 A | 570 | 830 | 94° | 26.12 | |

NO BUFFING

ADD TO READY

AC_CPUC_0118450




AC_CPUC_0118451

# NODAL ANALYSIS RESULTS
**********

SS 29 @ 0 INVENTORY

## SUMMARY OF GENERAL INPUT DATA
**********

GAS GRAVITY = .63
WELLHEAD PRESSURE,PSIG = 500.0

## SUMMARY OF INPUT DATA FOR RESERVOIR MODULE
**********

AVERAGE RESERVOIR PRESSURE,PSIG = 1667.

## INFLOW
******

CALCULATED AOF= 22624.92

| FLOW RATE | NODE PRESSURE,PWF |
|---|---|
| 57000. | 0. |
| 28000. | 0. |
| 14000. | 1024. |

17940

## SUMMARY OF INPUT DATA FOR WELL MODULE
**********

### WELL CONFIGURATION
**********

| DEPTH | TUBING DIA. | ANGLE | CASING DIA. | TUBING I.D. |
|---|---|---|---|---|
| 8002. | 2.875 | .00 | 6.366 | .000 |
| 8011. | 2.205 | .00 | .000 | .000 |
| 8049. | 2.441 | .00 | .000 | .000 |
| 8075. | .000 | .00 | 6.366 | .000 |
| 8575. | .000 | .00 | 4.277 | .000 |

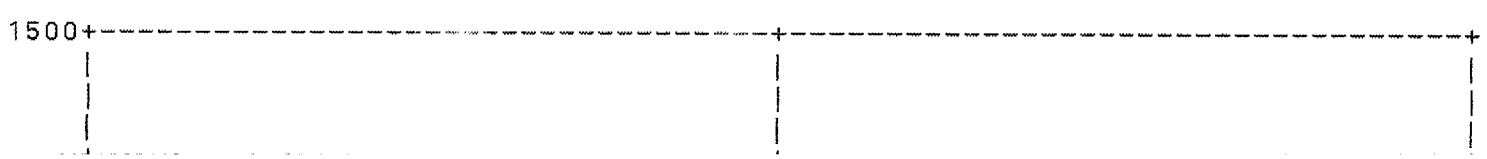
PIPE ABS. ROUGHNESS,IN. = .00094
BOTTOM-HOLE TEMPERATURE,DEG-F = 158.
NUMBER OF LENGTH INCREMENTS = 10

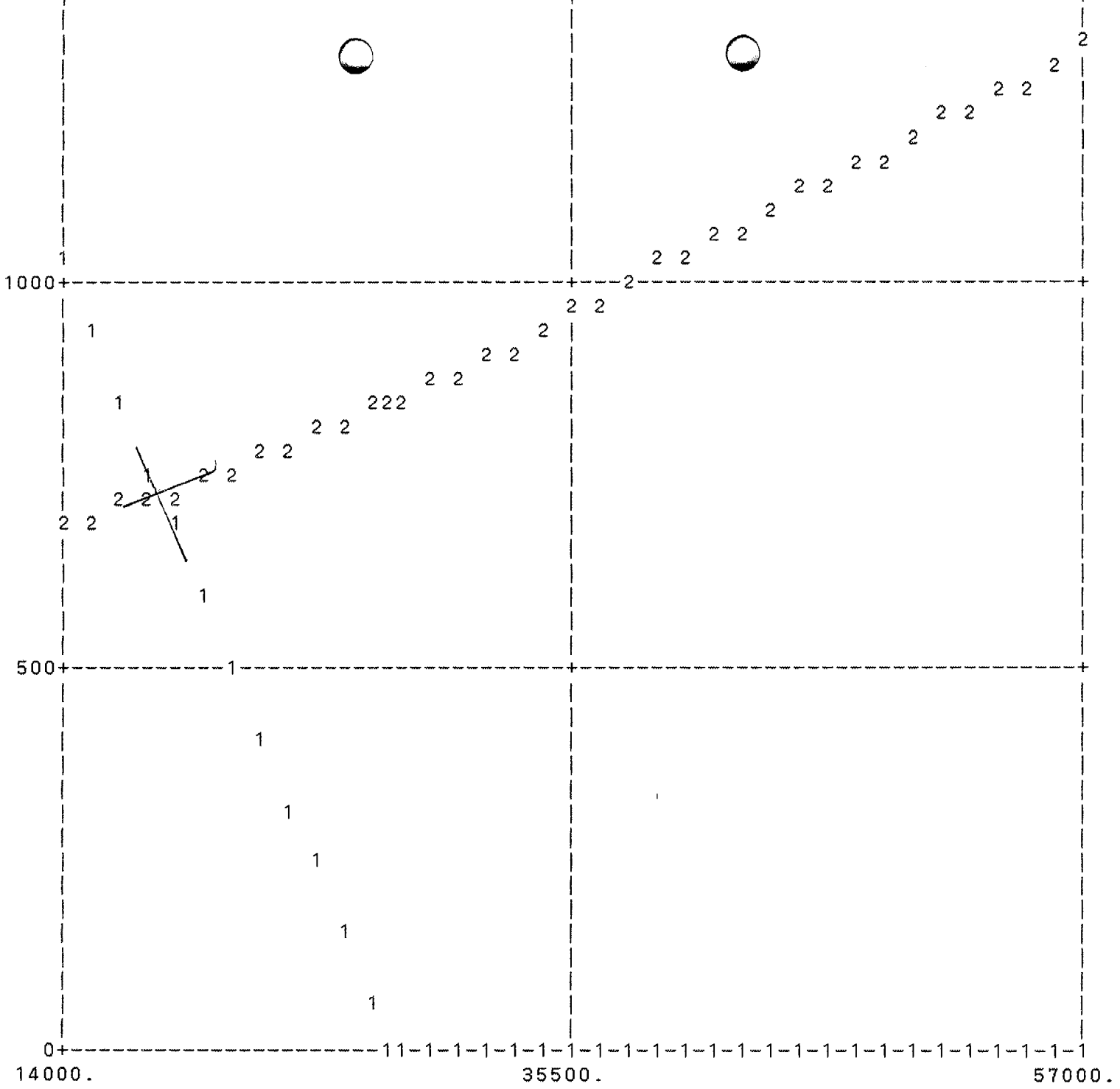
PRESSURE DROP CORRELATION:
CULLENDER AND SMITH

## OUTFLOW
*******

| FLOW RATE | PWH | NODE PRESSURE,PWF | WELLHEAD TEMP. |
|---|---|---|---|
| 57000. | 500. | 1303. | 52. |
| 28000. | 500. | 840. | 52. |
| 14000. | 500. | 678. | 52. |

PRESSURE, PSIG vs GAS RATE






| GAS RATE | NODE PRESSURES, PSIG | | | | |
|---|---|---|---|---|---|
| (MSCF/DAY) | 1 | 2 | 3 | 4 | 5 |
| 57000. | 0. | 1303. | | | |
| 28000. | 0. | 840. | | | |
| 14000. | 1024. | 678. | | | |

# NODAL ANALYSIS RESULTS

SS 29 @ -10 INVENTORY

## SUMMARY OF GENERAL INPUT DATA

GAS GRAVITY = .63
WELLHEAD PRESSURE,PSIG = 500.0

## SUMMARY OF INPUT DATA FOR RESERVOIR MODULE

AVERAGE RESERVOIR PRESSURE,PSIG = 1421.

### INFLOW

CALCULATED AOF= 16489.88

| FLOW RATE | NODE PRESSURE,PWF |
|---|---|
| 57000. | 0. |
| 28000. | 0. |
| 1000. | 1377. |

13,755

## SUMMARY OF INPUT DATA FOR WELL MODULE

### WELL CONFIGURATION

| DEPTH | TUBING DIA. | ANGLE | CASING DIA. | TUBING I.D. |
|---|---|---|---|---|
| 8002. | 2.875 | .00 | 6.366 | .000 |
| 8011. | 2.205 | .00 | .000 | .000 |
| 8049. | 2.441 | .00 | .000 | .000 |
| 8075. | .000 | .00 | 6.366 | .000 |
| 8575. | .000 | .00 | 4.277 | .000 |

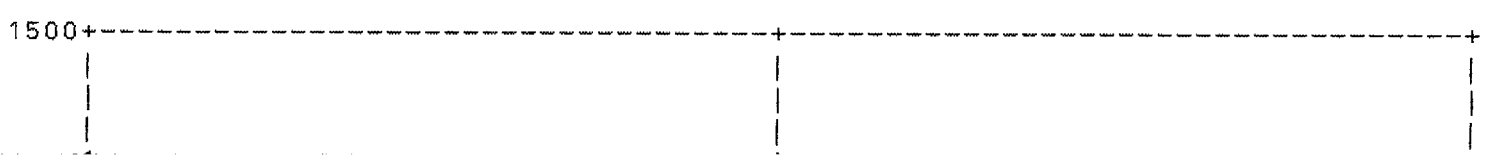
PIPE ABS. ROUGHNESS,IN. = .00094
BOTTOM-HOLE TEMPERATURE,DEG-F = 158.
NUMBER OF LENGTH INCREMENTS = 10

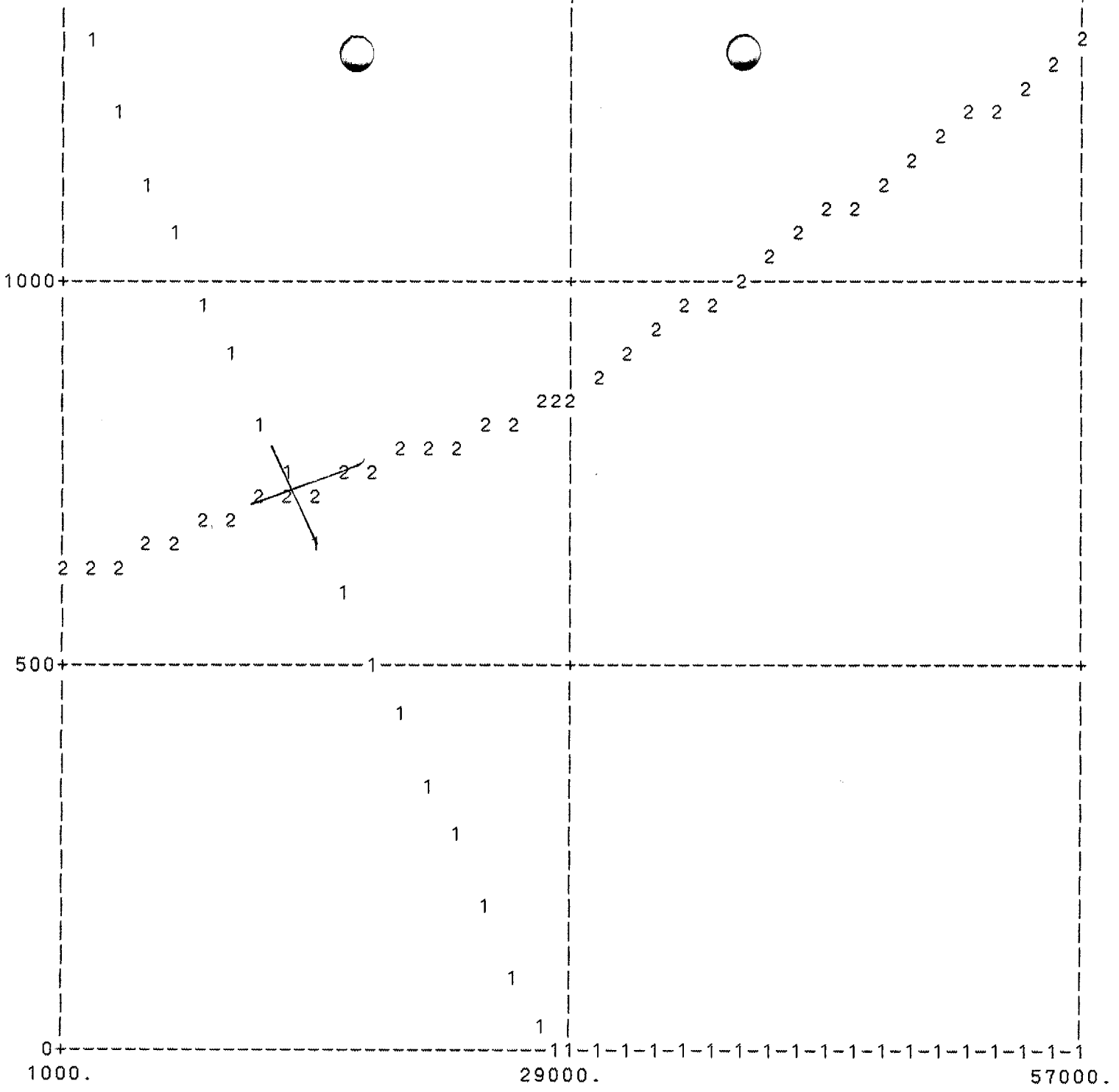
PRESSURE DROP CORRELATION:
CULLENDER AND SMITH

### OUTFLOW

| FLOW RATE | PWH | NODE PRESSURE,PWF | WELLHEAD TEMP. |
|---|---|---|---|
| 57000. | 500. | 1303. | 52. |
| 28000. | 500. | 840. | 52. |
| 1000. | 500. | 611. | 52. |

PRESSURE, PSIG vs GAS RATE






GAS RATE (MSCF/DAY)

| GAS RATE (MSCF/DAY) | NODE PRESSURES, PSIG 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| 57000. | 0. | 1303. | | | |
| 28000. | 0. | 840. | | | |
| 1000. | 1377. | 611. | | | |

AC_CPUC_0118455

# NODAL ANALYSIS RESULTS

SS 29 @ -20 INVENTORY

## SUMMARY OF GENERAL INPUT DATA

GAS GRAVITY = .63
WELLHEAD PRESSURE,PSIG = 500.0

## SUMMARY OF INPUT DATA FOR RESERVOIR MODULE

AVERAGE RESERVOIR PRESSURE,PSIG = 1163.

### INFLOW

CALCULATED AOF= 11095.82

| FLOW RATE | NODE PRESSURE,PWF |
|---|---|
| 57000. | 0. |
| 28000. | 0. |
| 1000. | 1109. |

10,645

## SUMMARY OF INPUT DATA FOR WELL MODULE

### WELL CONFIGURATION

| DEPTH | TUBING DIA. | ANGLE | CASING DIA. | TUBING I.D. |
|---|---|---|---|---|
| 8002. | 2.875 | .00 | 6.366 | .000 |
| 8011. | 2.205 | .00 | .000 | .000 |
| 8049. | 2.441 | .00 | .000 | .000 |
| 8075. | .000 | .00 | 6.366 | .000 |
| 8575. | .000 | .00 | 4.277 | .000 |

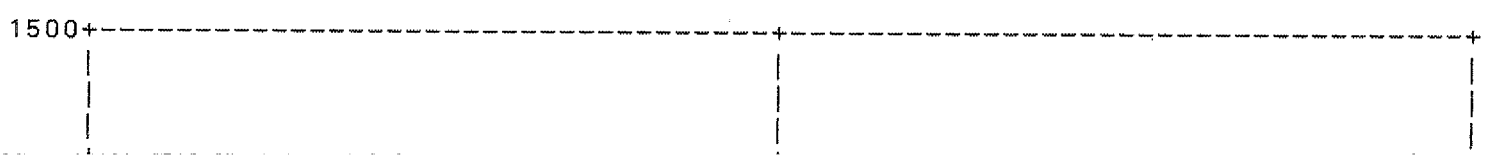
PIPE ABS. ROUGHNESS,IN. = .00094
BOTTOM-HOLE TEMPERATURE,DEG-F = 158.
NUMBER OF LENGTH INCREMENTS = 10

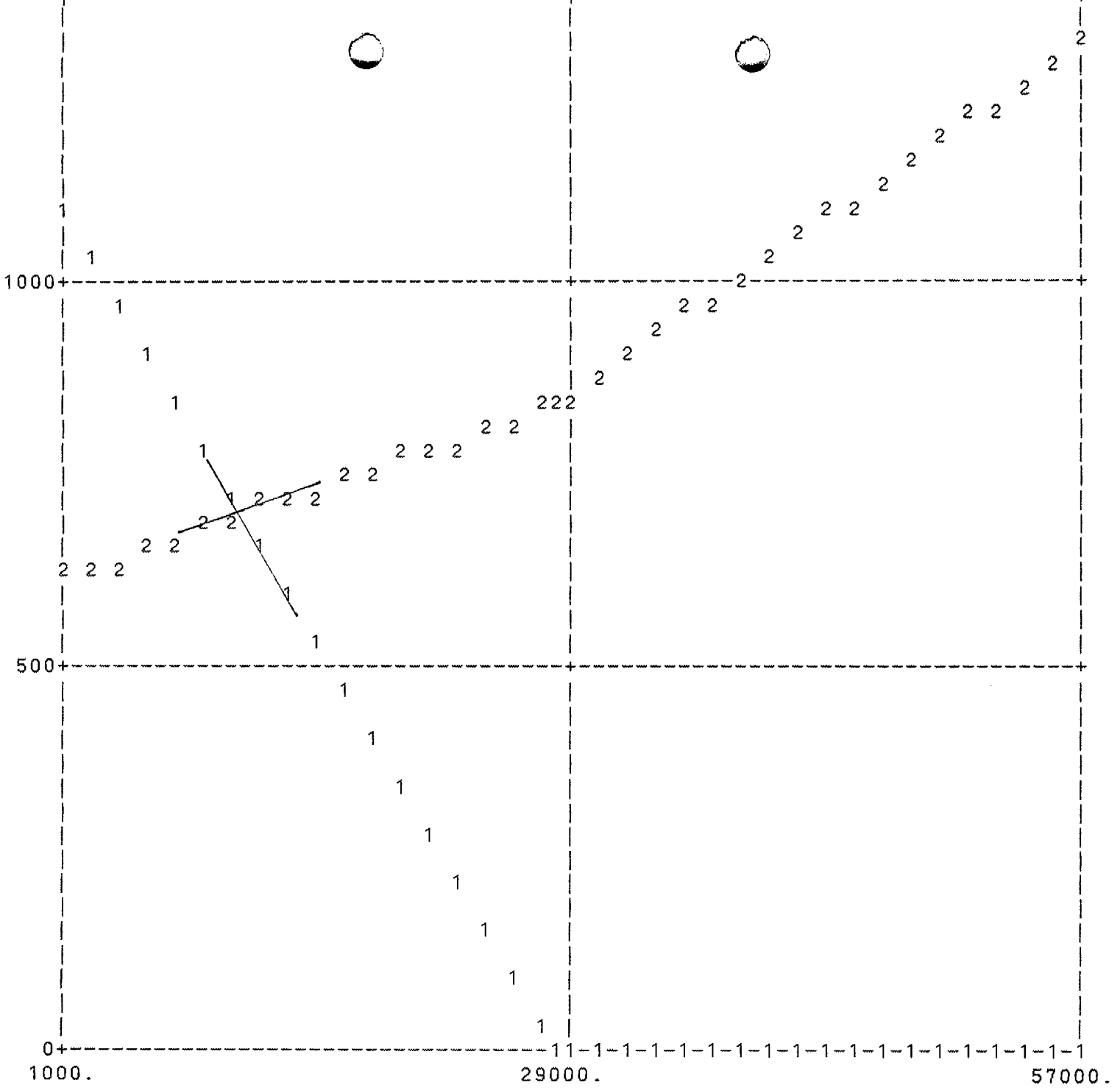
PRESSURE DROP CORRELATION:
CULLENDER AND SMITH

### OUTFLOW

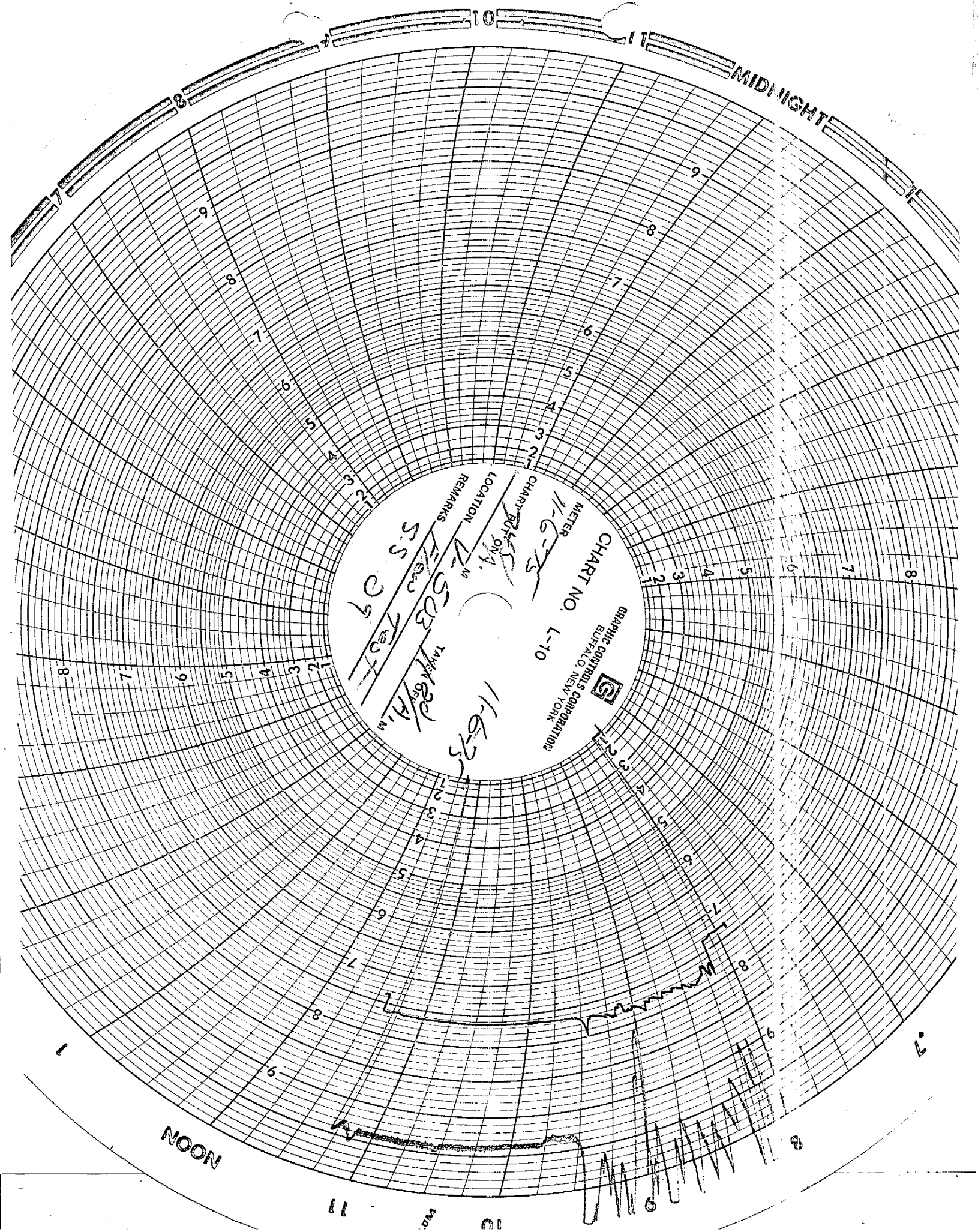
| FLOW RATE | PWH | NODE PRESSURE,PWF | WELLHEAD TEMP. |
|---|---|---|---|
| 57000. | 500. | 1303. | 52. |
| 28000. | 500. | 840. | 52. |
| 1000. | 500. | 611. | 52. |

PRESSURE, PSIG vs GAS RATE






| GAS RATE (MSCF/DAY) | NODE PRESSURES, PSIG | | | | |
|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
| 57000. | 0. | 1303. | | | |
| 28000. | 0. | 840. | | | |
| 1000. | 1109. | 611. | | | |




AC_CPUC_0118458

(B) after NOON

Compiled _____ Date _____ SOUTHERN CALIFORNIA GAS COMPANY

Checked _____ Checked _____

Approved _____ Job No. SS29

SOUTHERN CALIFORNIA GAS CO.—1373

DATE 11-5-75

WELL NAME SS29

B. H. CHOKE 0.584

SURFACE CHOKE 0.900

DESIGN RATE 25 m²

INITIAL SHUT-IN PRESSURE

TUBING 2660 CASING 2650

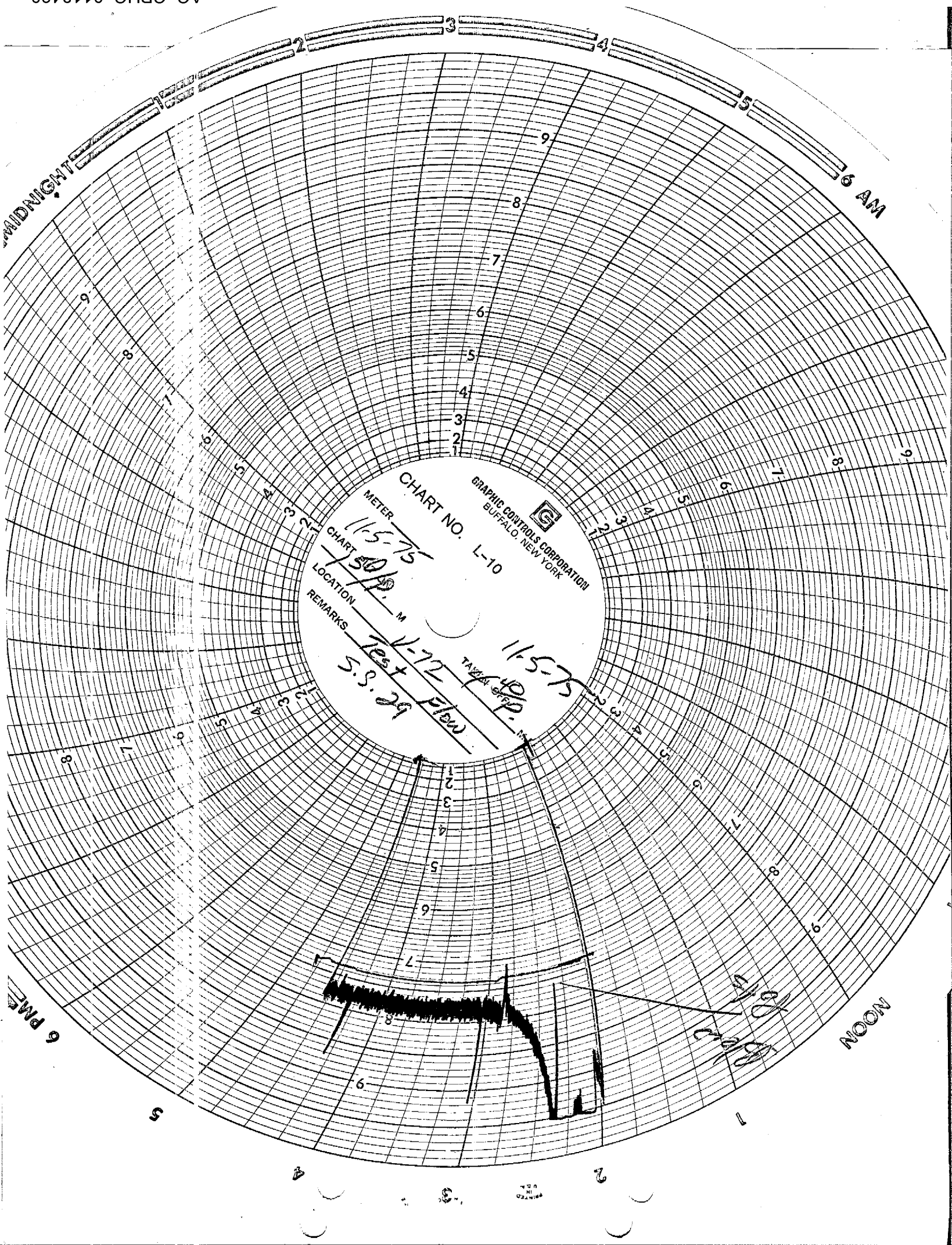
89° - 97°

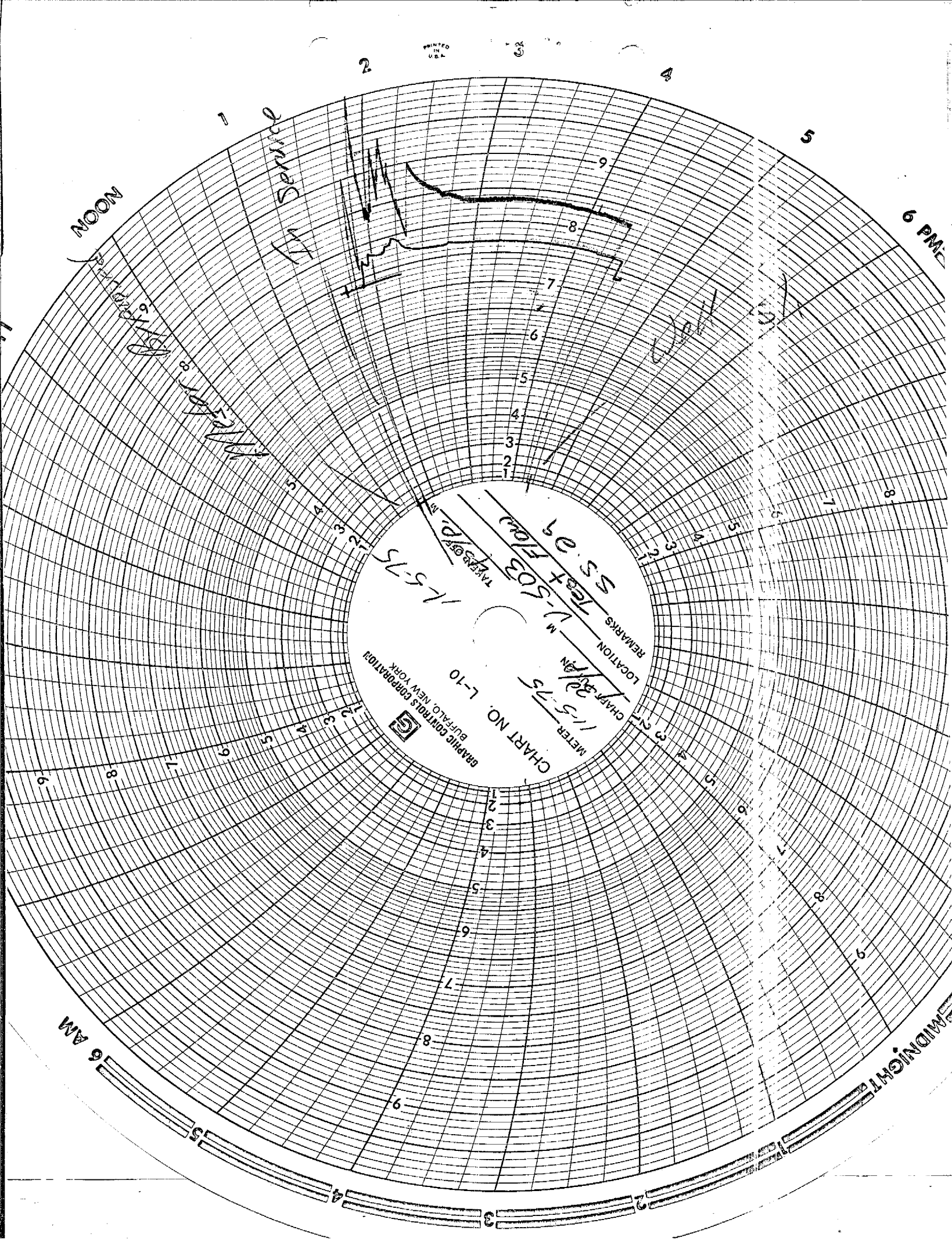
| TIME | CASING PRESSURE UP | CASING PRESSURE DOWN | TUBING PRESS | TEMP. UP | TEMP. DOWN | GAS RATE V-72 | | NOTES. | |
|---|---|---|---|---|---|---|---|---|---|
| 1 55 PM | 2650 | | 2660 | | | | | Start | Test |
| 2 00 PM | 2050 | 1730 | 2260 | 73.5° | 83° | 9.55 | 31.58 | | |
| 2 05 PM | 1850 | 1500 | 1920 | 73.5° | 79.5° | 9.0 | 29.76 | | |
| 2 10 PM | 1700 | 1240 | 1830 | 74.5° | 79° | 9.5 | 31.41 | | |
| 2 15 PM | 1550 | 1020 | 1720 | 75.5 | 77° | 9.55 | 31.58 | | |
| 2 20 PM | 1420 | 850 | 1560 | 77° | 72° | 9.3 | 30.75 | | |
| 2 25 PM | 1350 | 640 | 1490 | 77° | 70° | 8.5 | 28.11 | | |
| 2 30 PM | 1260 | 590 | 1440 | 78° | 65.5° | 8.5 | 28.11 | VALVE wide open | |
| 2 35 PM | 1240 | 580 | 1420 | 79° | 64° | 8.4 | 27.78 | | |
| 2 40 PM | 1280 | 580 | 1400 | 79.5° | 64° | 8.1 | 26.79 | | |
| 2 45 PM | 1270 | 580 | 1400 | 80° | 64° | 8.0 | 26.45 | | |
| 3 00 PM | 1270 | 580 | 1390 | 82° | 64.5° | 7.8 | 25.88 | | |
| 3 15 PM | 1270 | 580 | 1390 | 84.5° | 65° | 7.8 | 25.88 | | |
| 3 30 PM | 1270 | 580 | 1390 | 86° | 64.5° | 7.8 | 25.88 | | |
| 3 45 PM | 1270 | 580 | 1400 | 87° | 63° | 7.8 | 25.88 | | |
| 4 00 PM | 1270 | 580 | 1400 | 87° | 61.5° | 7.75 | 25.72 | | |
| 4 30 PM | 1275 | 580 | 1400 | 85° | 57° | 7.75 | 25.72 | Well SI | |

NO BUFFING - DOWNSTREAM Ø PLATE

AC_CPUC_0118459

AC_CPUC_0118460






AC_CPUC_0118461

Oct. 9, 1975

AC_CPUC_0118462

SS-29

10-9-75

G.A.R.

# CHOKE TEST
## (CASING WITHDRAWAL)

| TIME | $P_{CASING}$ (PSIG) | $P_{TUBING}$ (PSIG) | $T_{CASING}$ (°F) | $Q_{GAS}$ ($M^2CF/D.$) | REMARKS |
|---|---|---|---|---|---|
| 1:10 P.M. | 2710 | 2750 | 73 | | SHUT-IN |
| 1:15 | 2710 | 2750 | 73 | | ON FLOW |
| 1:17 | 2300 | 2380 | 72 | | SAFETY VALVE CLOSED. |
| 1:19 | 2500 | 2575 | 72 | | ON FLOW. |
| 1:25 | 2175 | 2250 | 72 | | SAFETY VALVE CLOSED |
| 1:27 | 2370 | 2425 | 72 | | ON FLOW |
| 1:35 | 1940 | 2000 | 72 | | SAFETY VALVE CLOSED |
| 1:36 | 1950 | 2050 | 72 | | ON FLOW |
| 1:45 | 1600 | 1800 | 74 | | HEADER VALVE 50% OPEN |
| 1:50 | 1440 | 1650 | 80 | | |
| 2:00 | 1250 | 1475 | 81 | | HEADER VALVE 75% OPEN |
| 2:15 | 1050 | 1275 | 85 | | |
| 2:30 | 1060 | 1300 | 87 | | |
| 2:45 | 940 | 1190 | 87 | | |
| 3:00 | 680 | 1000 | 87 | 32.0 | H. VALVE 100% OPEN. |
| 3:15 | 630 | 925 | 84 | 31.1 | |
| 3:30 | 630 | 925 | 84 | 31.1 | AVG. RATE = ± 30.7 $M^2CF/D.$ |
| 3:45 | 630 | 925 | 84 | 30.2 | |
| 4:00 | 630 | 925 | 84 | 30.7 | SHUT-IN. |

Closing Due to High Pressure Downstream of Valve.

Pinching Header Valve to Restrict Flow

DESIGNED RATE = 26 $M^2CF/D.$ (CASING WITHDRAWAL)

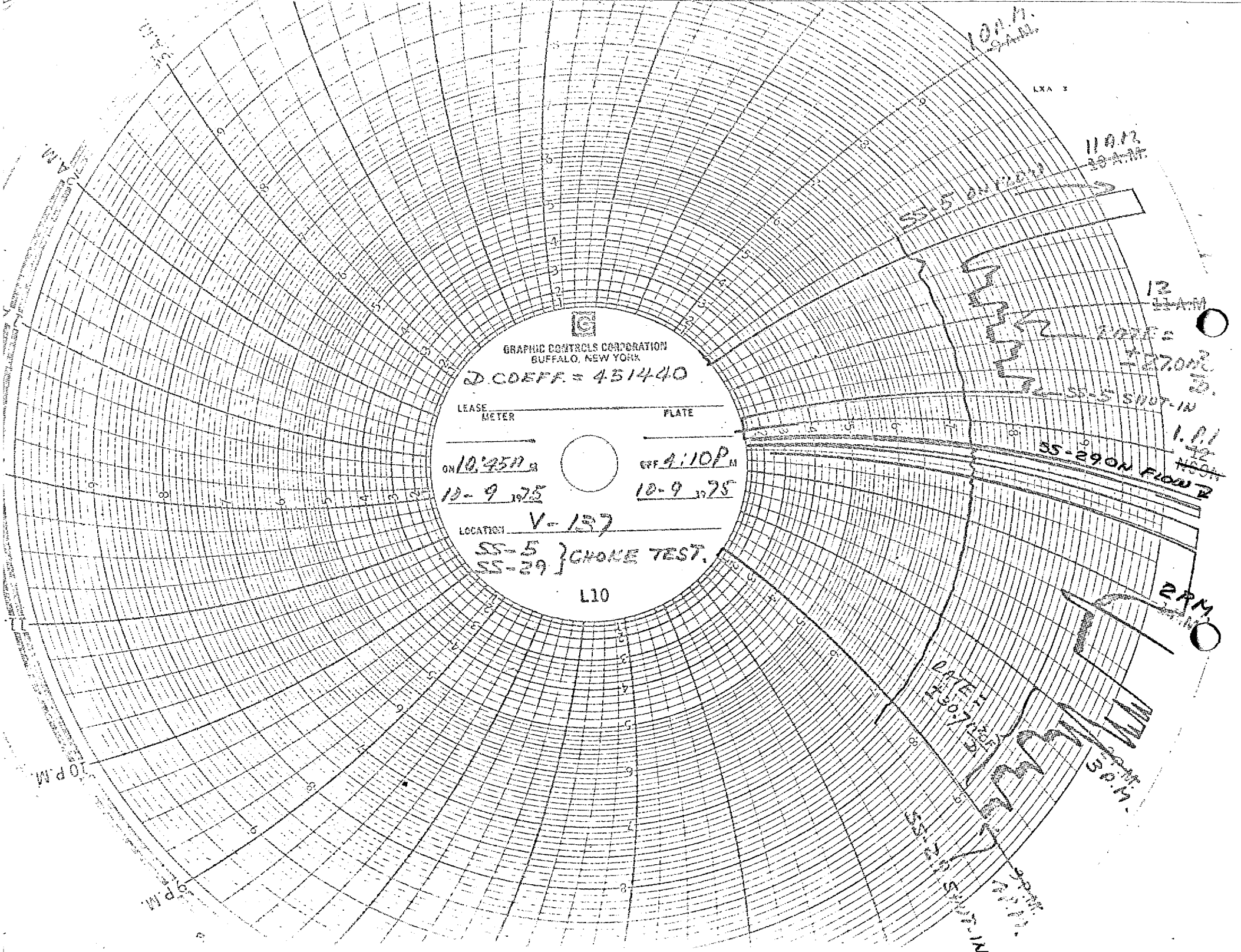
0.613" BOTTOM HOLE CHOKE INSTALLED ON 9-17-75

TEMPERATURE OF ENVIRONMENT – (70-75)°F.

NO SURFACE CHOKE.

INSPECTION OF BAR STOCK SHOWED VERY LIGHT BUFFING. BAR STOCK CLEAN

AC_CPUC_0118463




AC_CPUC_0118464

1-71
Printed in U. S. A.

GAS RESEARCH AND ENGINEERING SERVICE
5119 KINSIE STREET
LOS ANGELES, CALIFORNIA 90040
PHONE 261-9726

VICTOR F. GARMAN

ROBERT P. CHAFFEY

GAS ANALYSIS BY CHROMATOGRAPH

SOUTHERN CALIFORNIA GAS COMPANY

Sample Description: SS - 29 (8000') 1500 psig, 177°F.

Received
Date 5-4-73 Type 2 Area or/ Plant No. Aliso Canyon Meter No. or Sample No. SG-N113

ANALYSIS REPORT

1. ROYALTY GAS
2. OTHER GAS
3. L. P. G.
4. GASOLINE

1. BREA
2. LONG BEACH
3. VENTURA
4. TEN SECTIONS

5. MOLINO
6. SACRAMENTO RIVER GAS SYSTEM
7. ALASKA

NOTE: Water in sample tank.

| | MOL. % | | Mol. % w/Air | | LIQUID VOL. % | | B.T.U. | SPEC. GRAV. |
|---|---|---|---|---|---|---|---|---|
| $O_2$ | .00 | | .090 | | | | | |
| $N_2$ | .37 | | .708 | | | | | |
| $Co_2$ | .16 | | .156 | | | | | |
| $H_2$ | | | | | | | | |
| Air | | | | | | | | |
| Methane | 91.52 | | 91.131 | | | | | |
| Ethane | 4.62 | | 4.596 | | | | | |
| Propane | 1.78 | | 1.769 | | | | | |
| Iso - Butane | .27 | + | .270 | + | | | | |
| N - Butane | .42 | | .419 | | | | | |
| Iso - Pentane | .16 | + | .159 | + | | | | |
| N - Pentane | .14 | | .139 | | | | | |
| Hexane | .18 | | .184 | | | | | |
| Heptane | .21 | | .212 | | | | | |
| Octane | .11 | | .114 | | | | | |
| Nonane | .05 | | .046 | | | | | |
| Decane plus | .01 | | .007 | | | | | |
| TOTAL | 100.00 | | 100.000 | | | | 1119 | .629 |

AIR FREE

AC_CPUC_0118465

```
DESTINATION CODE?
1108#?
JOB QUEUED  18:41:28  10/29/75
OUTPUT NAME:  NO2167 CO
>GU/L NO2167 CO
JOB # 2167 NOT FOUND
>DO R
FILE NOT FOUND
>OP NO2167 CO
>DO REPOT
FILE NOT FOUND
>DO REPORT
 ALISO CANYON SS #29 CHOKE ANALYSIS AT 3500 PSIA

 MAX RATE FOR BOTTOM HOLE CHOKE DESIGN... 25000.0 MCF/D
 FLOWING BOTTOM HOLE PRESS AT MAX RATE....  3033.0 PSIG
 FLOWING BOTTOM HOLE TEMP AT MAX RATE....   120.1 DEG F
 EST PRESS DROP (PBH-PWH) AT MAX RATE.....   648.6 PSI
 NORMAL RATE FOR SURFACE PLATE DESIGN.... 22500.0 MCF/D
 FLOWING BOTTOM HOLE PRESS AT NORM RATE...  3081.0 PSIG
 FLOWING BOTTOM HOLE TEMP AT NORM RATE...   124.3 DEG F
 EST PRESS DROP (PBH-PWH) AT NORM RATE.....   633.4 PSI
 GATHERING SYSTEM PRESSURE.................   550.0 PSIG
 GAS GRAVITY.....................................   .630
 BOTTOM HOLE SHUT-IN PRESSURE.............  3485.3 PSIG
 BOTTOM HOLE SHUT-IN TEMPERATURE.........   159.6 DEG F


 ID OF CASING.............................  6.2860 INCHES
 OD OF TUBING.............................  2.8580 INCHES
 FRICTION FACTOR CORRECTED FOR MEASURED DEPTH...  .0140
 MEASURED DEPTH..'........................  8331.0 FEET
 VERTICAL DEPTH...........................  8331.0 FEET
 MAX ALLOW BOTTOM HOLE CHOKE DIAMETER...  1.0000 INCHES
 ACTUAL BOTTOM HOLE CHOKE DIAMETER.....    .0000 INCHES
 ACTUAL SAFETY VALVE DIAMETER..........    .0000 INCHES
 ACTUAL SURFACE PLATE DIAMETER.........    .0000 INCHES


 MAX RATE= 25000.0 MCF/D AT 3033.0 PSIG AND 120.1 DEG F  (FLOWING AT VALVE LOCATION)

 DIAMETER OF BOTTOM HOLE CHOKE FOR MAX RATE=  .584 INCHES

 FLOWING WELLHEAD TEMP AT MAX RATE=  57.7 DEG F

 NORMAL RATE= 22500.0 MCF/D AT 3081.0 PSIG AND 124.3 DEG F  (FLOWING AT VALVE LOCATI

 DIAMETER OF SURFACE PLATE FOR NORMAL RATE =  .703 INCHES

 FLOWING TEMP UPSTREAM OF SURFACE PLATE=  74.5 DEG F

 FLOWING TEMP DOWNSTREAM OF SURFACE PLATE =   6.3 DEG F

  3047.7   829.9   829.9   564.7  3095.7  2344.1  2344.1  1820.6   564.7
   580.1   506.0   506.0   517.7   584.3   548.6   543.6   534.5   466.3



EXECUTION TERMINATED BY AN ATTEMPT TO READ THRU AN END OF FILE
  I/O  CALLED AT SEQUENCE NUMBER 00107 OF MAIN PROGRAM
 FORTRAN LIBRARY LEVEL: 10.5
* RUN,D   DSS09,LG2127,2,100                N BLG2DSS0                    2167
2167   29 OCT 75   18:41:22   IDENT DSS09     ACCOUNT LG2127   CARDS IN
```

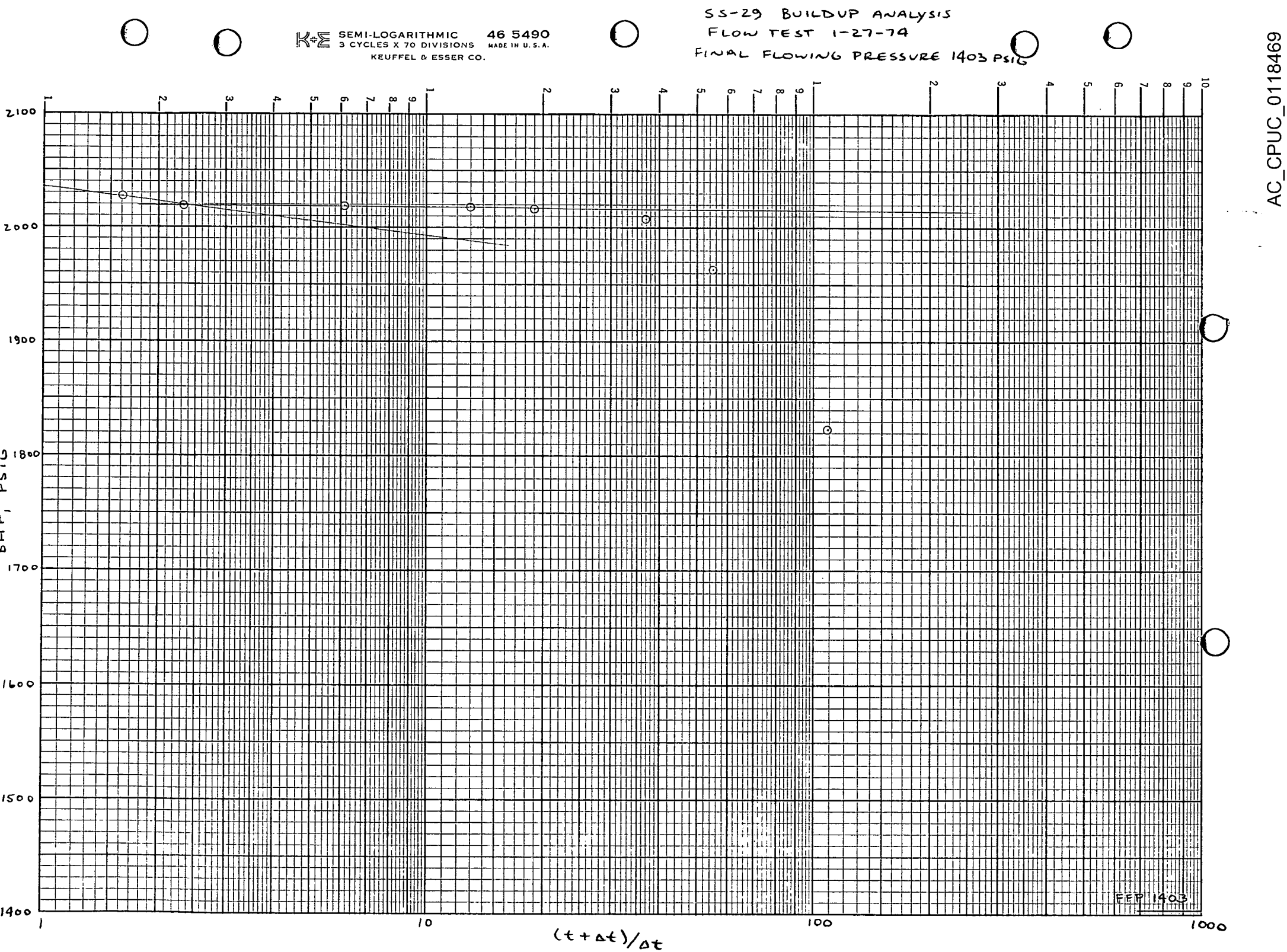
AC_CPUC_0118466

Jan. 28, 1974

AC_CPUC_0118467

```
PRSS29 ED   04/11/74  16:19:08  LA

      10 @ RUN,D   DSS14,LG2127,3,100
      20 @ MSG PLEASE SEND TO D SMILEY, ML 1405
      30 @ XQT CUR
      40 FSTIN RADGAS/RDH
      50 @N XQT MAIN
      60  ALISO CANYON, SS29, PREDICTIONS BASED ON RZ MODEL OF FLOW TEST 1-27-74
      70    10    1   16    1    0    1    0
      80        .178         5.       750.      1707.      2050.       640.       520.
      90        .628       590.     3.878      .0140      8331.
     100        413.       .971      .0124
     110        615.       .947      .0129
     120        815.       .930      .0133
     130       1015.       .915      .0137
     140       1215.       .902      .0142
     150       1415.       .895      .0146
     160       1615.       .880      .0151
     170       1815.       .868      .0156
     180       2015.       .863      .0162
     190       2215.       .859      .0167
     200       2415.       .856      .0174
     210       2615.       .857      .0181
     220       2815.       .860      .0187
     230       3015.       .867      .0193
     240       3215.       .875      .0199
     250       3515.       .890      .0209
     260        43.0
     270       105.0
     280         0.0
     290         .13
     300       .0073
     310 0
     320           5        1.0     99    1    1    1    20000.
     330           2        5.0     99    0    0    1    20000.
     340           3       15.0     99    0    0    1    20000.
     350           2       60.0     99    0    0    1    20000.
     360           3      180.0     99    0    0    1    20000.
     370           1      720.0     99    0    0    1    20000.
     380           1     1440.0      1    0    0    1    20000.
     390 0
     400     1     1
     410        23.7
     420 0
     430 0
>
```




AC_CPUC_0118469

Compiled _____ Date _____

Checked _____ Checked _____

Approved _____ Job No. _____

SOUTHERN CALIFORNIA GAS COMPANY

SS-29 BUILDUP ANALYSIS

FLOW TEST 1-27-74

FINAL FLOWING PRESSURE 1403 PSIG

SOUTHERN CALIFORNIA GAS CO.—1973

| t, min. | Δt, min. | t + Δt | (t+Δt)/Δt | P, PSIG |
|---|---|---|---|---|
| 540 | 5 | 545 | 109 | 1822 |
| | 10 | 550 | 55 | 1963 |
| | 15 | 555 | 37 | 2008 |
| | 30 | 570 | 19 | 2017 |
| | 45 | 585 | 13 | 2019 |
| | 105 | 645 | 6.14 | 2019 |
| | 405 | 945 | 2.33 | 2019 |
| | 885 | 1425 | 1.61 | 2027 |

AC_CPUC_0118470

Compiled _____ Date 1-28-74

Approved _____ No _____

Pacific Lighting Service Company

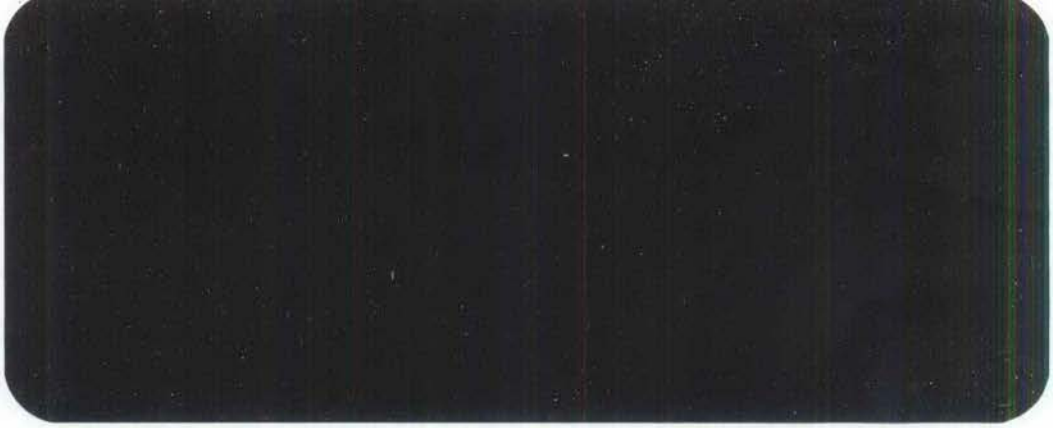
# WELL TEST DATA SHEET

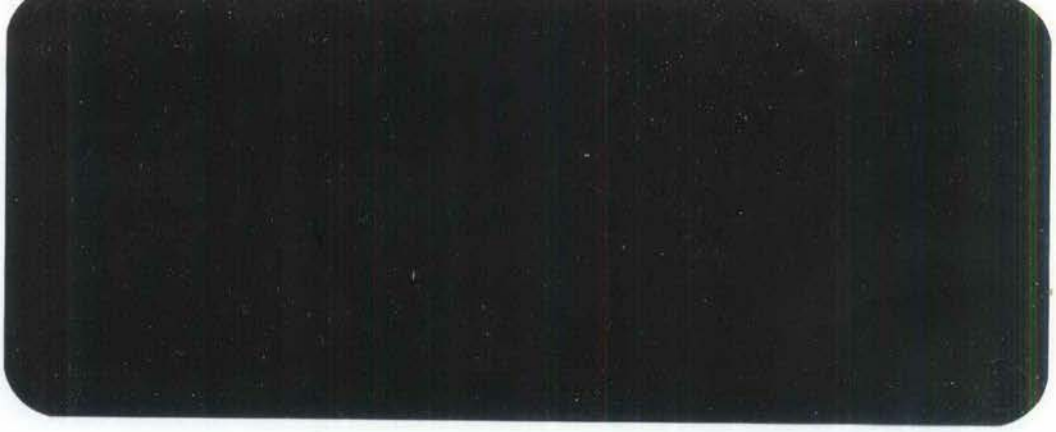
## WELL # SS-29

| TIME | FLOW THRU | CHOKE SIZE | RATE MCFD | PRESS. UPSTREAM FR CHOKE | PRESS. DOWNSTREAM FR CHOKE | TUBING PRESSURE SHUT-IN | TEMP | BAR STK COND | FLUID RATES |
|---|---|---|---|---|---|---|---|---|---|
| 8:10 | — | INITAL PRESS | | 1600 | | 1620 | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| 8:15 | CASING | 32/64 | | 1360 | 650 | 1420 | | OK | |
| 8:30 | " | " | | 1360 | 660 | 1420 | | OK | |
| 8 55 | " | " | 8.8 | 1380 | 660 | 1440 | | OK | GR. 16 NT. 12 |
| 9 10 | " | " | | 1380 | 650 | 1440 | | OK | |
| 9 40 | " | " | | 1400 | 650 | 1460 | | " | |
| 10 10 | " | " | 9.4 | 1400 | 650 | 1470 | 38° | " | |
| 10 40 | " | " | | 1400 | 650 | 1480 | 39° | " | |
| 11 10 | " | " | | 1400 | 650 | 1480 | 39° | " | |
| 11 15 | | 48/64 | CHANGE CHOKE SIZE | | | | | | |
| 11:30 | " | " | | 1180 | 750 | 1320 | 54° | " | |
| 11 40 | " | " | | 1140 | 740 | 1300 | 58° | " | |
| 11 55 | " | " | 14.3 | 1150 | 740 | 1310 | 60° | " | |
| 12 30 | " | " | | 1160 | 750 | 1320 | 64° | SLT Abrasion | |
| 1 00 | " | " | | 1160 | 740 | 1310 | 63.5° | " | GR. 27.1 NT. 20.5 |
| 1 30 | " | " | 15.2 | 1160 | 740 | 1310 | 64.3° | " | |
| 2 00 | " | " | | 1160 | 740 | 1310 | 70.5° | " | GR. 33.7 NT. 25.3 |
| 2 15 | " | 64/64 | Change Choke Size | | | | | | |
| 2 30 | " | " | | 960 | 810 | 1180 | 81° | SLT Abrasion | |
| 2 45 | " | " | | 950 | 800 | 1175 | 86° | " | |
| 3 00 | " | " | 18.0 | 950 | 800 | 1180 | 86.1° | Light Abrasion | |
| 3 30 | " | " | | 950 | 800 | 1170 | 88° | " | 44.9 G 33.5 N |
| 4 00 | " | " | | 940 | 800 | 1170 | 91° | " | |
| 4 30 | " | " | | 940 | 790 | 1170 | 91° | " | |
| 5 00 | " | " | 17.6 | 930 | 790 | 1150 | 92° | " | |
| 5 15 | S/I | | | | | | | | GR - 48.8 Net. - 36.4 |

PLS-307

AC_CPUC_0118471





# Archer - Reed

WIRE LINE SERVICE

205 Baldwin Ave. Ventura, Calif. 93030

VENTURA 642-7061
LONG BEACH 591-0921

## SUB-SURFACE DATA

Company Southern Calif. Gas Co. Field Aliso Date 1-27-74 Run No.

Well SS #29 Zone Elev.

Purpose Status

Total Depth Effect. Depth

Casing Size Depth Liner Size Top Bottom

Perforations

Tubing

Company Southern Calif. Gas Co.

Well SS #29

| | |
|---|---|
| Date 1-27-74 | Date 1-29-74 |
| Arrive 12:00 PM A P | Arrive 8:00 AM A P |
| Leave 4:00 PM A P | Leave 12:00 PM A P |

Inst. No. 5375 Size 3350 / No. Size

Clock No. 510 Hrs. 72 / No. Hrs.

Stylus Marked 3:05 PM A P

Pressure On 3:13 PM A P

Depth 8331 Zero KB

At Depth Date 1-27-74 Time 3:33 PM A P

Off Depth Date 1-29-74 Time 8:00 AM A P

Shut In Date 1-29-74 Time 8:15 AM A P

Start Press Tbg. 1645 Csg. #

Final Press Tbg. 1645 Csg. #

Pick-up Temp. 203 F

OBSERVATIONS

| | |
|---|---|
| Stabilization Period - Hrs. | |
| Gross Oil Rate - B/D | |
| Net Oil Rate - B/D | |
| Formation Gas MCF/D | |
| Formation Gas - Oil Ratio CFT/BBL | |
| Circulated Gas MCF/D | |
| Oil Dry Gravity - °A.P.I. | |
| Casinghead Pressure - PSIG | |
| Tubinghead Pressure - PSIG | |
| Casing Fluid Level - Ft. | |

| TIME | DEPTH | SCALE | PSI or °F | TIME | DEPTH | SCALE | PSI or °F |
|---|---|---|---|---|---|---|---|
| 1-27-74 | SHUT-IN | | | 11:19 AM | | 1.019 | 1726 |
| 4:00 PM | | 1.203 | 2035 | 11:20 | | 1.009 | 1709 |
| 1-28-74 | | | | 11:25 | | .975 | 1652 |
| 12:00 AM | | 1.203 | 2035 | 11:30 | | .960 | 1626 |
| 8:00 AM | | 1.203 | 2035 | 11:45 | | .951 | 1611 |
| FLOWING | | | 32/64 | 12:00 PM | | .951 | 1611 |
| 8:15 AM | | 1.203 | 2035 | 12:30 | | .948 | 1606 |
| 8:16 | | 1.186 | 2007 | 1:00 PM | | .946 | 1603 |
| 8:17 | | 1.152 | 1950 | 1:30 | | .946 | 1603 |
| 8:18 | | 1.123 | 1901 | 2:00 PM | | .946 | 1603 |
| 8:19 | | 1.107 | 1874 | 2:15 | | .946 | 1603 |
| 8:20 | | 1.097 | 1857 | CHANGE BEAN | | | 64/64 |
| 8:25 | | 1.067 | 1806 | 2:15 | | .946 | 1603 |
| 8:30 | | 1.055 | 1786 | 2:16 | | .926 | 1569 |
| 8:35 | | 1.053 | 1783 | 2:17 | | .911 | 1544 |
| 8:45 | | 1.057 | 1790 | 2:18 | | .901 | 1527 |
| 8:55 | | 1.060 | 1795 | 2:19 | | .890 | 1508 |
| 9:00 AM | | 1.063 | 1800 | 2:20 | | .884 | 1498 |
| 9:15 | | 1.068 | 1808 | 2:25 | | .865 | 1466 |
| 9:30 | | 1.073 | 1817 | 2:30 | | .857 | 1453 |
| 10:00 AM | | 1.081 | 1830 | 2:45 | | .853 | 1446 |
| 10:30 | | 1.080 | 1828 | 3:00 PM | | .852 | 1444 |
| 11:00 AM | | 1.083 | 1833 | 4:00 PM | | .841 | 1425 |
| 11:15 | | 1.086 | 1838 | 5:00 PM | | .828 | 1403 |
| CHANGE BEAN | | | 48/64 | 5:15 | | .828 | 1403 |
| 11:15 | | 1.086 | 1838 | SHUT-IN | 5:15 PM | | |
| 11:16 | | 1.068 | 1808 | 5:15 | | .828 | 1403 |
| 11:17 | | 1.047 | 1773 | 5:20 | | 1.076 | 1822 |
| 11:18 | | 1.032 | 1747 | 5:25 | | 1.160 | 1963 |

COMMENTS

By

AC_CPUC_0118474

# Archer - Reed

WIRE LINE SERVICE

205 Baldwin Ave. Ventura, Calif. 93030

VENTURA 642-7061
LONG BEACH 591-0921

## SUB-SURFACE DATA

Company _____ Field _____ Date _____ Run No. _____

Well _____ Zone _____ Elev. _____

Purpose _____ Status _____

Total Depth _____ Effect. Depth _____

Casing Size _____ Depth _____ Liner Size _____ Top _____ Bottom _____

Perforations _____

Tubing _____

Company

Well

Date / Date

Arrive A P / Arrive A P

Leave A P / Leave A P

Inst. No. Size / No. Size

Clock No. Hrs. / No. Hrs.

Stylus Marked A P

Pressure On A P

Depth Zero

At Depth Date Time A P

Off Depth Date Time A P

Shut In Date Time A P

Start Press Tbg. Csg. #

Final Press Tbg. Csg. #

Pick-up Temp. F

OBSERVATIONS

| | |
|---|---|
| Stabilization Period - Hrs. | |
| Gross Oil Rate - B/D | |
| Net Oil Rate - B/D | |
| Formation Gas MCF/D | |
| Formation Gas - Oil Ratio CFT/BBL | |
| Circulated Gas MCF/D | |
| Oil Dry Gravity - °A.P.I. | |
| Casinghead Pressure - PSIG | |
| Tubinghead Pressure - PSIG | |
| Casing Fluid Level - Ft. | |

| TIME | DEPTH | SCALE | PSI or °F | TIME | DEPTH | SCALE | PSI or °F |
|---|---|---|---|---|---|---|---|
| 5:30 PM | | 1.187 | 2008 | / | | | |
| 5:45 | | 1.192 | 2017 | / | | | |
| 6:00 PM | | 1.193 | 2019 | / | | | |
| 7:00 PM | | 1.193 | 2019 | / | | | |
| 1-29-74 | | | | / | | | |
| 12:00 AM | | 1.193 | 2019 | / | | | |
| 8:00 AM | | 1.198 | 2027 | / | | | |
| / | | | | / | | | |
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COMMENTS _____

By _____

AC_CPUC_0118475

# Archer - Reed
WIRE LINE SERVICE

205 Baldwin Ave. Ventura, Calif. 93030

VENTURA 642-7061
LONG BEACH 591-0921

## SUB-SURFACE DATA

Company Southern Calif. Gas Co. Field Aliso Date 1-27-74 Run No.
Well SS #29 Zone Elev.
Purpose Status
Total Depth Effect. Depth
Casing Size Depth Liner Size Top Bottom
Perforations
Tubing

Company Southern Calif. Gas Co.
Well SS #29

| | | | |
|---|---|---|---|
| Date 1-27-74 | | Date 1-29-74 | |
| Arrive 12:00 PM | A P | Arrive 8:00 AM | A P |
| Leave 4:00 PM | A P | Leave 12:00 PM | A P |
| Inst. No. 5375 | | Size 3350 | |
| Inst. No. | | Size | |
| Clock No. 510 | | Hrs. 72 | |
| Clock No. | | Hrs. | |

Stylus Marked 3:05 PM A P
Pressure On 3:13 PM A P

Depth 8331 Zero KB
At Depth Date 1-27-74 Time 3:35 PM A P
Off Depth Date 1-29-74 Time 8:00 AM A P
Shut In Date 1-29-74 Time 8:15 AM A P
Start Press Tbg. 1645 Csg. #
Final Press Tbg. 1645 Csg. #

Pick-up Temp. 203 F

OBSERVATIONS

| | |
|---|---|
| Stabilization Period - Hrs. | |
| Gross Oil Rate - B/D | |
| Net Oil Rate - B/D | |
| Formation Gas MCF/D | |
| Formation Gas - Oil Ratio CFT/BBL | |
| Circulated Gas MCF/D | |
| Oil Dry Gravity - °A.P.I. | |
| Casinghead Pressure - PSIG | |
| Tubinghead Pressure - PSIG | |
| Casing Fluid Level - Ft. | |

| TIME | DEPTH | SCALE | PSI or °F |
|---|---|---|---|
| 1-27-74 | SHUT-IN | | |
| 4:00 PM | | 1.203 | 2035 |
| 1-28-74 | | | |
| 12:00 AM | | 1.203 | 2035 |
| 8:00 AM | | 1.203 | 2035 |
| FLOWING | | | 32/64 |
| 8:15 AM | | 1.203 | 2035 |
| 8:16 | | 1.186 | 2007 |
| 8:17 | | 1.152 | 1950 |
| 8:18 | | 1.123 | 1901 |
| 8:19 | | 1.107 | 1874 |
| 8:20 | | 1.097 | 1857 |
| 8:25 | | 1.067 | 1806 |
| 8:30 | | 1.055 | 1786 |
| 8:35 | | 1.053 | 1783 |
| 8:45 | | 1.057 | 1790 |
| 8:55 | | 1.060 | 1795 |
| 9:00 AM | | 1.063 | 1800 |
| 9:15 | | 1.068 | 1808 |
| 9:30 | | 1.073 | 1817 |
| 10:00 AM | | 1.081 | 1830 |
| 10:30 | | 1.080 | 1828 |
| 11:00 AM | | 1.083 | 1833 |
| 11:15 | | 1.086 | 1838 |
| CHANGE BEAN | | | 48/64 |
| 11:15 | | 1.086 | 1838 |
| 11:16 | | 1.068 | 1808 |
| 11:17 | | 1.047 | 1773 |
| 11:18 | | 1.032 | 1747 |
| 11:19 AM | | 1.019 | 1726 |
| 11:20 | | 1.009 | 1709 |
| 11:25 | | .975 | 1652 |
| 11:30 | | .960 | 1626 |
| 11:45 | | .951 | 1611 |
| 12:00 PM | | .951 | 1611 |
| 12:30 | | .948 | 1606 |
| 1:00 PM | | .946 | 1603 |
| 1:30 | | .946 | 1603 |
| 2:00 PM | | .946 | 1603 |
| 2:15 | | .946 | 1603 |
| CHANGE BEAN | | | 64/64 |
| 2:15 | | .946 | 1603 |
| 2:16 | | .926 | 1569 |
| 2:17 | | .911 | 1544 |
| 2:18 | | .901 | 1527 |
| 2:19 | | .890 | 1508 |
| 2:20 | | .884 | 1498 |
| 2:25 | | .865 | 1466 |
| 2:30 | | .857 | 1453 |
| 2:45 | | .853 | 1446 |
| 3:00 PM | | .852 | 1444 |
| 4:00 PM | | .841 | 1425 |
| 5:00 PM | | .828 | 1403 |
| 5:15 | | .828 | 1403 |
| SHUT-IN | 5:15 PM | | |
| 5:15 | | .828 | 1403 |
| 5:20 | | 1.076 | 1822 |
| 5:25 | | 1.160 | 1963 |

COMMENTS

By

AC_CPUC_0118476

# Archer - Reed
WIRE LINE SERVICE
205 Baldwin Ave. Ventura, Calif. 93030
VENTURA 642-7061
LONG BEACH 591-0921


## SUB-SURFACE DATA

Company _____ Field _____ Date _____ Run No. _____
Well _____ Zone _____ Elev. _____
Purpose _____ Status _____
Total Depth _____ Effect. Depth _____
Casing Size _____ Depth _____ Liner Size _____ Top _____ Bottom _____
Perforations _____
Tubing _____

Company
Well
Date / Date
Arrive A P / Arrive A P
Leave A P / Leave A P
Inst. No. Size / No. Size
Clock No. Hrs. / No. Hrs.
Stylus Marked A P
Pressure On A P
Depth Zero
At Depth Date Time A P
Off Depth Date Time A P
Shut In Date Time A P
Start Press Tbg. Csg. #
Final Press Tbg. Csg. #
Pick-up Temp. F

OBSERVATIONS

| | |
|---|---|
| Stabilization Period - Hrs. | |
| Gross Oil Rate - B/D | |
| Net Oil Rate - B/D | |
| Formation Gas MCF/D | |
| Formation Gas - Oil Ratio CFT/BBL | |
| Circulated Gas MCF/D | |
| Oil Dry Gravity - °A.P.I. | |
| Casinghead Pressure - PSIG | |
| Tubinghead Pressure - PSIG | |
| Casing Fluid Level - Ft. | |

| TIME | DEPTH | SCALE | PSI or °F | TIME | DEPTH | SCALE | PSI or °F |
|---|---|---|---|---|---|---|---|
| 5:30 PM | | 1.187 | 2008 | / | | | |
| 5:45 | | 1.192 | 2017 | / | | | |
| 6:00 PM | | 1.193 | 2019 | / | | | |
| 7:00 PM | | 1.193 | 2019 | / | | | |
| 1-29-74 | | | | / | | | |
| 12:00 AM | | 1.193 | 2019 | / | | | |
| 8:00 AM | | 1.198 | 2027 | / | | | |
| / | | | | / | | | |
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COMMENTS _____

By _____

AC_CPUC_0118477

# Archer - Reed

WIRE LINE SERVICE

205 Baldwin Ave. Ventura, Calif. 93030

VENTURA 642-7061
LONG BEACH 591-0921

## SUB-SURFACE DATA

Company Southern Calif. Gas Co. Field Aliso Date 1-27-74 Run No.

Well SS #29 Zone Elev.

Purpose Status

Total Depth Effect. Depth

Casing Size Depth Liner Size Top Bottom

Perforations

Tubing

Company Southern Calif. Gas Co.

Well SS #29

| | | | |
|---|---|---|---|
| Date 1-27-74 | | Date 1-29-74 | |
| Arrive 12:00 PM | A P | Arrive 8:00 AM | A P |
| Leave 4:00 PM | A P | Leave 12:00 PM | A P |
| Inst. No. 5375 | Size 3350 | | |
| No. | Size | | |
| Clock No. 510 | Hrs. 72 | | |
| No. | Hrs. | | |

Stylus Marked 3:05 PM A P

Pressure On 3:13 PM A P

Depth 8331 Zero KB

At Depth Date 1-27-74 Time 3:33 PM A P

Off Depth Date 1-29-74 Time 8:00 AM A P

Shut In Date 1-29-74 Time 8:15 AM A P

Start Press Tbg. 1645 Csg. #

Final Press Tbg. 1645 Csg. #

Pick-up Temp. 203 F

OBSERVATIONS

| | |
|---|---|
| Stabilization Period - Hrs. | |
| Gross Oil Rate - B/D | |
| Net Oil Rate - B/D | |
| Formation Gas MCF/D | |
| Formation Gas - Oil Ratio CFT/BBL | |
| Circulated Gas MCF/D | |
| Oil Dry Gravity - °A.P.I. | |
| Casinghead Pressure - PSIG | |
| Tubinghead Pressure - PSIG | |
| Casing Fluid Level - Ft. | |

| TIME | DEPTH | SCALE | PSI or °F |
|---|---|---|---|
| 1-27-74 | SHUT-IN | | |
| 4:00 PM | | 1.205 | 2035 |
| 1-28-74 | | | |
| 12:00 AM | | 1.203 | 2035 |
| 8:00 AM | | 1.203 | 2035 |
| FLOWING | | | 32/64 |
| 8:15 AM | | 1.203 | 2035 |
| 8:16 | | 1.186 | 2007 |
| 8:17 | | 1.152 | 1950 |
| 8:18 | | 1.123 | 1901 |
| 8:19 | | 1.107 | 1874 |
| 8:20 | | 1.097 | 1857 |
| 8:25 | | 1.067 | 1806 |
| 8:30 | | 1.055 | 1786 |
| 8:35 | | 1.053 | 1783 |
| 8:45 | | 1.057 | 1790 |
| 8:55 | | 1.060 | 1795 |
| 9:00 AM | | 1.063 | 1800 |
| 9:15 | | 1.068 | 1808 |
| 9:30 | | 1.073 | 1817 |
| 10:00 AM | | 1.081 | 1830 |
| 10:30 | | 1.080 | 1828 |
| 11:00 AM | | 1.083 | 1833 |
| 11:15 | | 1.086 | 1838 |
| CHANGE BEAN | | | 48/64 |
| 11:15 | | 1.086 | 1838 |
| 11:16 | | 1.068 | 1808 |
| 11:17 | | 1.047 | 1773 |
| 11:18 | | 1.032 | 1747 |

| TIME | DEPTH | SCALE | PSI or °F |
|---|---|---|---|
| 11:19 AM | | 1.019 | 1726 |
| 11:20 | | 1.009 | 1709 |
| 11:25 | | .975 | 1652 |
| 11:30 | | .960 | 1626 |
| 11:45 | | .951 | 1611 |
| 12:00 PM | | .951 | 1611 |
| 12:30 | | .948 | 1606 |
| 1:00 PM | | .946 | 1603 |
| 1:30 | | .946 | 1603 |
| 2:00 PM | | .946 | 1603 |
| 2:15 | | .946 | 1603 |
| CHANGE BEAN | | | 64/64 |
| 2:15 | | .946 | 1603 |
| 2:16 | | .926 | 1569 |
| 2:17 | | .911 | 1544 |
| 2:18 | | .901 | 1527 |
| 2:19 | | .890 | 1508 |
| 2:20 | | .884 | 1498 |
| 2:25 | | .865 | 1466 |
| 2:30 | | .857 | 1453 |
| 2:45 | | .853 | 1446 |
| 3:00 PM | | .852 | 1444 |
| 4:00 PM | | .841 | 1425 |
| 5:00 PM | | .828 | 1403 |
| 5:15 | | .828 | 1403 |
| SHUT-IN | 5:15 PM | | |
| 5:15 | | .828 | 1403 |
| 5:20 | | 1.076 | 1822 |
| 5:25 | | 1.160 | 1963 |

COMMENTS

By

AC_CPUC_0118478

# Archer - Reed

WIRE LINE SERVICE

205 Baldwin Ave. Ventura, Calif. 93030

VENTURA 642-7061
LONG BEACH 591-0921


## SUB-SURFACE DATA

Company _____ Field _____ Date _____ Run No. _____

Well _____ Zone _____ Elev _____

Purpose _____ Status _____

Total Depth _____ Effect. Depth _____

Casing Size _____ Depth _____ Liner Size _____ Top _____ Bottom _____

Perforations _____

Tubing _____

Company

Well

Date / Date

Arrive A P / Arrive A P

Leave A P / Leave A P

Inst. No. Size / No. Size

Clock No. Hrs. / No. Hrs.

Stylus Marked A P

Pressure On A P

Depth Zero

At Depth Date Time A P

Off Depth Date Time A P

Shut In Date Time A P

Start Press Tbg. Csg. #

Final Press Tbg. Csg. #

Pick-up Temp. F

OBSERVATIONS

| | |
|---|---|
| Stabilization Period - Hrs. | |
| Gross Oil Rate - B/D | |
| Net Oil Rate - B/D | |
| Formation Gas MCF/D | |
| Formation Gas - Oil Ratio CFT/BBL | |
| Circulated Gas MCF/D | |
| Oil Dry Gravity - °A.P.I. | |
| Casinghead Pressure - PSIG | |
| Tubinghead Pressure - PSIG | |
| Casing Fluid Level - Ft. | |

| TIME | DEPTH | SCALE | PSI or °F | TIME | DEPTH | SCALE | PSI or °F |
|---|---|---|---|---|---|---|---|
| 5:30 PM | | 1.187 | 2008 | / | | | |
| 5:45 | | 1.192 | 2017 | / | | | |
| 6:00 PM | | 1.193 | 2019 | / | | | |
| 7:00 PM | | 1.193 | 2019 | / | | | |
| 1-29-74 | | | | / | | | |
| 12:00 AM | | 1.193 | 2019 | / | | | |
| 8:00 AM | | 1.198 | 2027 | / | | | |
| / | | | | / | | | |
| / | | | | / | | | |
| / | | |

**Archer - Reed**
WIRE LINE SERVICE
205 Baldwin Ave. Ventura, Calif. 93030
VENTURA 642-7061
LONG BEACH 591-0921

# SUB-SURFACE DATA

Company Southern Calif. Gas Co. Field Aliso Date 1-27-74 Run No.
Well SS #29 Zone Elev.
Purpose Status
Total Depth Effect. Depth
Casing Size Depth Liner Size Top Bottom
Perforations
Tubing

Company Southern Calif. Gas Co.
Well SS #29

| | | | |
|---|---|---|---|
| Date 1-27-74 | | Date 1-29-74 | |
| Arrive 12:00 PM | A P | Arrive 8:00 AM | A P |
| Leave 4:00 PM | A P | Leave 12:00 PM | A P |
| Inst. No. 5375 | | Size 3350 | |
| Inst. No. | | Size | |
| Clock No. 510 | | Hrs. 72 | |
| Clock No. | | Hrs. | |

Stylus Marked 3:05 PM A P
Pressure On 3:13 PM A P
Depth 8331 Zero KB
At Depth Date 1-27-74 Time 3:35 PM A P
Off Depth Date 1-29-74 Time 8:00 AM A P
Shut In Date 1-29-74 Time 8:15 AM A P
Start Press Tbg. 1645 Csg. #
Final Press Tbg. 1645 Csg. #
Pick-up Temp. 203 F

OBSERVATIONS

| | |
|---|---|
| Stabilization Period - Hrs. | |
| Gross Oil Rate - B/D | |
| Net Oil Rate - B/D | |
| Formation Gas MCF/D | |
| Formation Gas - Oil Ratio CFT/BBL | |
| Circulated Gas MCF/D | |
| Oil Dry Gravity - °A.P.I. | |
| Casinghead Pressure - PSIG | |
| Tubinghead Pressure - PSIG | |
| Casing Fluid Level - Ft. | |

| TIME | DEPTH | SCALE | PSI or °F |
|---|---|---|---|
| 1-27-74 | SHUT-IN | | |
| 4:00 PM | | 1.203 | 2035 |
| 1-28-74 | | | |
| 12:00 AM | | 1.203 | 2035 |
| 8:00 AM | | 1.203 | 2035 |
| FLOWING | | | 32/64 |
| 8:15 AM | | 1.203 | 2035 |
| 8:16 | | 1.186 | 2007 |
| 8:17 | | 1.152 | 1950 |
| 8:18 | | 1.123 | 1901 |
| 8:19 | | 1.107 | 1874 |
| 8:20 | | 1.097 | 1857 |
| 8:25 | | 1.067 | 1806 |
| 8:30 | | 1.055 | 1786 |
| 8:35 | | 1.053 | 1783 |
| 8:45 | | 1.057 | 1790 |
| 8:55 | | 1.060 | 1795 |
| 9:00 AM | | 1.063 | 1800 |
| 9:15 | | 1.068 | 1808 |
| 9:30 | | 1.073 | 1817 |
| 10:00 AM | | 1.081 | 1830 |
| 10:30 | | 1.080 | 1828 |
| 11:00 AM | | 1.083 | 1833 |
| 11:15 | | 1.086 | 1838 |
| CHANGE BEAN | | | 48/64 |
| 11:15 | | 1.086 | 1838 |
| 11:16 | | 1.068 | 1808 |
| 11:17 | | 1.047 | 1773 |
| 11:18 | | 1.032 | 1747 |

| TIME | DEPTH | SCALE | PSI or °F |
|---|---|---|---|
| 11:19 AM | | 1.019 | 1726 |
| 11:20 | | 1.009 | 1709 |
| 11:25 | | .975 | 1652 |
| 11:30 | | .960 | 1626 |
| 11:45 | | .951 | 1611 |
| 12:00 PM | | .951 | 1611 |
| 12:30 | | .948 | 1606 |
| 1:00 PM | | .946 | 1603 |
| 1:30 | | .946 | 1603 |
| 2:00 PM | | .946 | 1603 |
| 2:15 | | .946 | 1603 |
| CHANGE BEAN | | | 64/64 |
| 2:15 | | .946 | 1603 |
| 2:16 | | .926 | 1569 |
| 2:17 | | .911 | 1544 |
| 2:18 | | .901 | 1527 |
| 2:19 | | .890 | 1508 |
| 2:20 | | .884 | 1498 |
| 2:25 | | .865 | 1466 |
| 2:30 | | .857 | 1453 |
| 2:45 | | .853 | 1446 |
| 3:00 PM | | .852 | 1444 |
| 4:00 PM | | .841 | 1425 |
| 5:00 PM | | .828 | 1403 |
| 5:15 | | .828 | 1403 |
| SHUT-IN | 5:15 PM | | |
| 5:15 | | .828 | 1403 |
| 5:20 | | 1.076 | 1822 |
| 5:25 | | 1.160 | 1963 |

COMMENTS

By

AC_CPUC_0118480

# Archer - Reed
WIRE LINE SERVICE
205 Baldwin Ave. Ventura, Calif. 93030
VENTURA 642-7061
LONG BEACH 591-0921


## SUB-SURFACE DATA

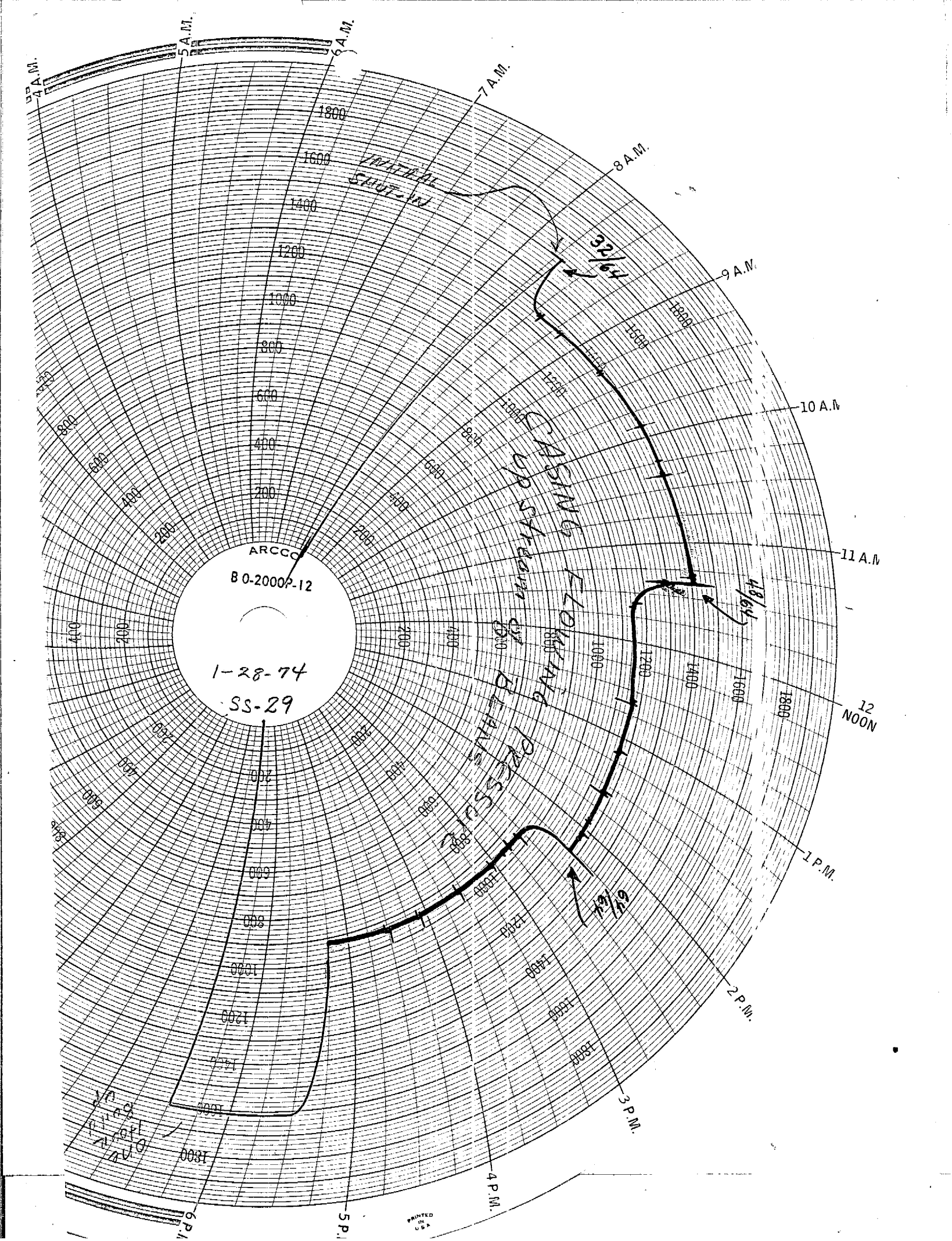
Company _____ Field _____ Date _____ Run No. _____
Well _____ Zone _____ Elev _____
Purpose _____ Status _____
Total Depth _____ Effect. Depth _____
Casing Size _____ Depth _____ Liner Size _____ Top _____ Bottom _____
Perforations _____
Tubing _____

| | | | |
|---|---|---|---|
| Company | | | |
| Well | | | |
| Date | | Date | |
| Arrive | A P | Arrive | A P |
| Leave | A P | Leave | A P |
| Inst. | No. | Size | |
| | No. | Size | |
| Clock | No. | Hrs. | |
| | No. | Hrs. | |
| Stylus Marked | | | A P |
| Pressure On | | | A P |
| Depth | | Zero | |
| At Depth | Date | Time | A P |
| Off Depth | Date | Time | A P |
| Shut In | Date | Time | A P |
| Start Press | Tbg. | Csg. | # |
| Final Press | Tbg. | Csg. | # |
| Pick-up | | Temp. | F |

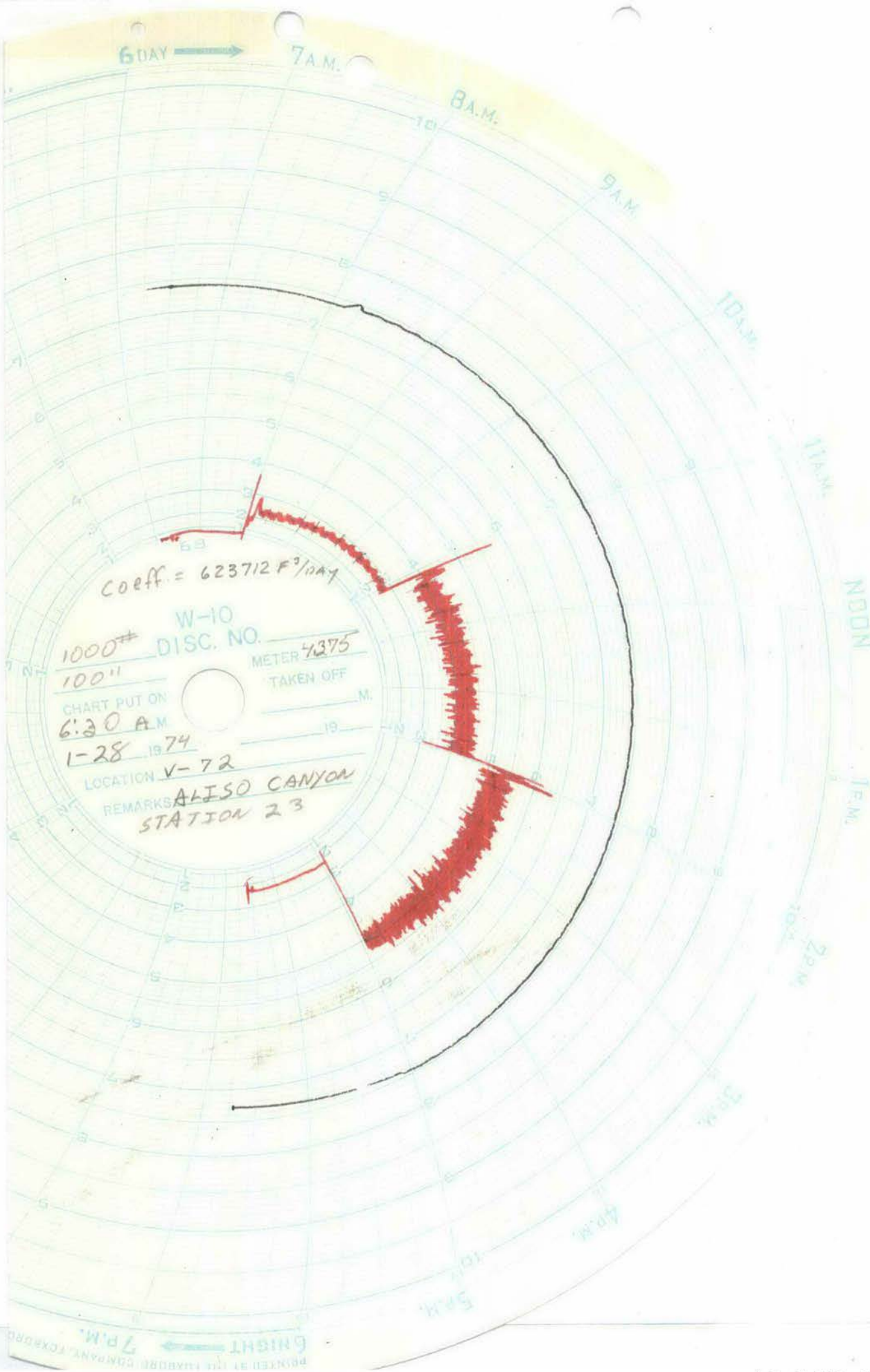
OBSERVATIONS

| | |
|---|---|
| Stabilization Period - Hrs. | |
| Gross Oil Rate - B/D | |
| Net Oil Rate - B/D | |
| Formation Gas MCF/D | |
| Formation Gas - Oil Ratio CFT/BBL | |
| Circulated Gas MCF/D | |
| Oil Dry Gravity - °A.P.I. | |
| Casinghead Pressure - PSIG | |
| Tubinghead Pressure - PSIG | |
| Casing Fluid Level - Ft. | |

| TIME | DEPTH | SCALE | PSI or °F | TIME | DEPTH | SCALE | PSI or °F |
|---|---|---|---|---|---|---|---|
| 5:30 PM | | 1.187 | 2008 | / | | | |
| 5:45 | | 1.192 | 2017 | / | | | |
| 6:00 PM | | 1.193 | 2019 | / | | | |
| 7:00 PM | | 1.193 | 2019 | / | | | |
| 1-29-74 | | | | / | | | |
| 12:00 AM | | 1.195 | 2019 | / | | | |
| 8:00 AM | | 1.198 | 2027 | / | | | |
| / | | | | / | | | |
| / | | | | / | | | |
| / | | |




AC_CPUC_0118482


6 DAY
7 A.M.
8 A.M.
9 A.M.
10 A.M.
11 A.M.
NOON
1 P.M.
2 P.M.
3 P.M.
4 P.M.
5 P.M.
6 P.M.
7 P.M.
NIGHT
Coeff = 623712 F³/DAY
W-10
1000#
DISC. NO.
100"
METER 4375
TAKEN OFF
CHART PUT ON
6:30 A.M.
1-28 1974
LOCATION V-72
REMARKS ALISO CANYON
STATION 23

AC_CPUC_0118484

WELL TEST PRESSURE OBSERVATION CODING FORM

HEADER CARD #1

ALISO CANYON STORAGE FLD — CC 1-24 FIELD NAME

PRESSURE BUILD-UP TEST — CC 25-48 TYPE OF TEST

SS-29 U SESNON ZONE — CC 49-72 WELL IDENTIFICATION

HEADER CARD #2

4-6-73 TO 4-9-73 — CC 1-24 TEST DATE

44 — CC 25-29 NUMBER OF OBSERVATIONS

86400 — CC ~~25~~ 31-45 DELTA T

CC 46-60 DEPTH TO DATUM

1169 — CC 61-75 STARTING PRESSURE

DATA CARDS

| TIME FROM START HOURS CC 7-9 | TIME FROM START MIN CC 10-11 | PRESSURE CC 16-21 |
|---|---|---|
| | 01 | 1264 |
| | 2 | 1315 |
| | 3 | 1334 |
| | 4 | 1345 |
| | 5 | 1348 |
| | 6 | 1349 |
| | 7 | 1350 |
| | 8 | 1350 |
| | 9 | 1350 |
| | 10 | 1353 |
| | 12 | 1353 |
| | 14 | 1354 |
| | 16 | 1355 |
| | 18 | 1355 |
| | 20 | 1356 |
| | 22 | 1356 |
| | 24 | 1356 |
| | 26 | 1357 |
| | 28 | 1357 |
| | 30 | 1360 |
| | 42 | 1362 |
| | 50 | 1357 |
| → 1 | 00 | 1366 |
| 1 | 10 | 1363 |
| 1 | 20 | 1409 |

| TIME FROM START HOURS CC 7-9 | TIME FROM START MIN CC 10-11 | PRESSURE CC 16-21 |
|---|---|---|
| 2 | 00 | 1400 |
| 5 | 00 | 1400 |
| 10 | 00 | 1400 |
| 15 | 00 | 1401 |
| 20 | 00 | 1402 |
| 22 | 00 | 1402 |
| 22 | 30 | 1411 |
| 23 | 00 | 1410 |
| 25 | 00 | 1410 |
| 30 | 00 | 1413 |
| 35 | 00 | 1413 |
| 40 | 00 | 1415 |
| 45 | 00 | 1416 |
| 50 | 00 | 1418 |
| 55 | 00 | 1419 |
| 60 | 00 | 1420 |
| 65 | 00 | 1421 |
| 70 | 00 | 1418 |
| 72 | 00 | 1415 |

Inf-Sys 7 K.P.

Inf-Sys 7 K.P.

AC_CPUC_0118485

Compiled _____ Date _____

Approved _____ No. _____

Pacific Lighting Service and Supply Company

STO – SESNON Z9, V SESNON ZONE

Pressure build up test.

SI 4/6/73

DATUM = 8456

| | Schedule Time After SI. | Actual Time | Pressure P.S.I. ΔP | BHP P + ΔP - 24 | | | |
|---|---|---|---|---|---|---|---|
| PRIOR TO SI | 0 | 1:00 PM | 998 195 | 1169 | | | |
| | 1 | 1:01 | 1085 203 | 1264 | | | |
| | 2 | 1:02 | 1119 220 | 1315 | | | |
| | 3 | 1:03 | 1135 223 | 1334 | | | |
| | 4 | 1:04 | 1144 225 | 1345 | | | |
| | 5 | 1:05 | 1147 226 | 1348 | | | |
| | 6 | 1:06 | 1148 225 | 1349 | | | |
| | 7 | 1:07 | 1149 226 | 1350 | | | |
| | 8 | 1:08 | 1149 225 | 1350 | | | |
| | 9 | 1:09 | 1149 225 | 1350 | | | |
| | 10 | 1:10 | 1150 227 | 1353 | | | |
| | 12 | 1:12 | 1150 227 | 1353 | | | |
| | 14 | 1:14 | 1151 227 | 1354 | | | |
| | 16 | 1:16 | 1152 227 | 1355 | | | |
| | 18 | 1:18 | 1152 227 | 1355 | | | |
| | 20 | 1:20 | 1153 227 | 1356 | | | |
| | 22 | 1:22 | 1153 227 | 1356 | | | |
| | 24 | 1:24 | 1153 227 | 1356 | | | |
| | 26 | 1:26 | 1154 227 | 1357 | | | |
| | 28 | 1:28 | 1154 227 | 1357 | | | |
| | 30 | 1:30 | 1156 228 | 1360 | | | |
| | 42 | 1:42 | 1158 228 | 1362 | Wire Going into hole | | |
| | 50 | 1:50 | 1154 227 | 1357 | Bomb on bottom 1:52 | | |
| 1 | 60 | 2:00 | 1161 229 | 1366 | Lubricator leaking had to bring | | |
| 1 10 | 70 | 2:10 | 1159 228 | 1363 | bomb back out of hole. | | |
| 1 21 | 81 | 2:21 | 1155 225 | | Bomb started back into | | |
| 1 30 | 90 | 2:30 | 1155 | | hole 2:12 bomb on bottom | | |
| 1 40 | 100 | 2:40 | 1153 | | 2:18 | | |
| 1 50 | 110 | 2:50 | 1152 | | | | |

Form 307

AC_CPUC_0118486

SS-29 - S-4 zone (18/64)

Opened & production on 3/1/73

| | | | |
|---|---|---|---|
| 3/18 | 18 B/D gross | 12 B/D net | 1.836 Mcf |
| 3/23 | 12 B/D gross | 8 B/D net | 1.964 Mcf |
| 4/2 | 16 B/D gross | 12 B/D net | 2.483 Mcf |
| 4/6 | 13 B/D gross | 11 B/D net | 2.361 Mcf |

1000 tbg
1050 csg

Shut-in on 4/6/73 avg 2.40

AC_CPUC_0118487

TECHNICAL SERVICE CO.
801 West 14th Street
Long Beach, California 90813

Phones: 24 Hours
Long Beach - 436-9901
Ventura - - - 648-4888

# SUB-SURFACE PRESSURE DATA

Company So. California Gas Company Field Aliso Canyon Date 4-(6-9)-73 Run No.
Well Standard Sesnon No. 29 Zone Elev. 2848.77'
Purpose Pressure Build-Up Survey Status Shut In
Total Depth 9790' Effect. Depth 9077'
Casing Size 7" Depth 8170' Liner Size 5" Top 8075' Bottom 9077'
Perforations 8502' - 9077' @ Intervals
Tubing 2-7/8" to 8028', 2-3/8" 8669'. G/L Mandrals @ 5684', 6919', 8002', 8385'.
Sleeves @ 8351', 8488'. Pkr. 8521'

DEPTH:

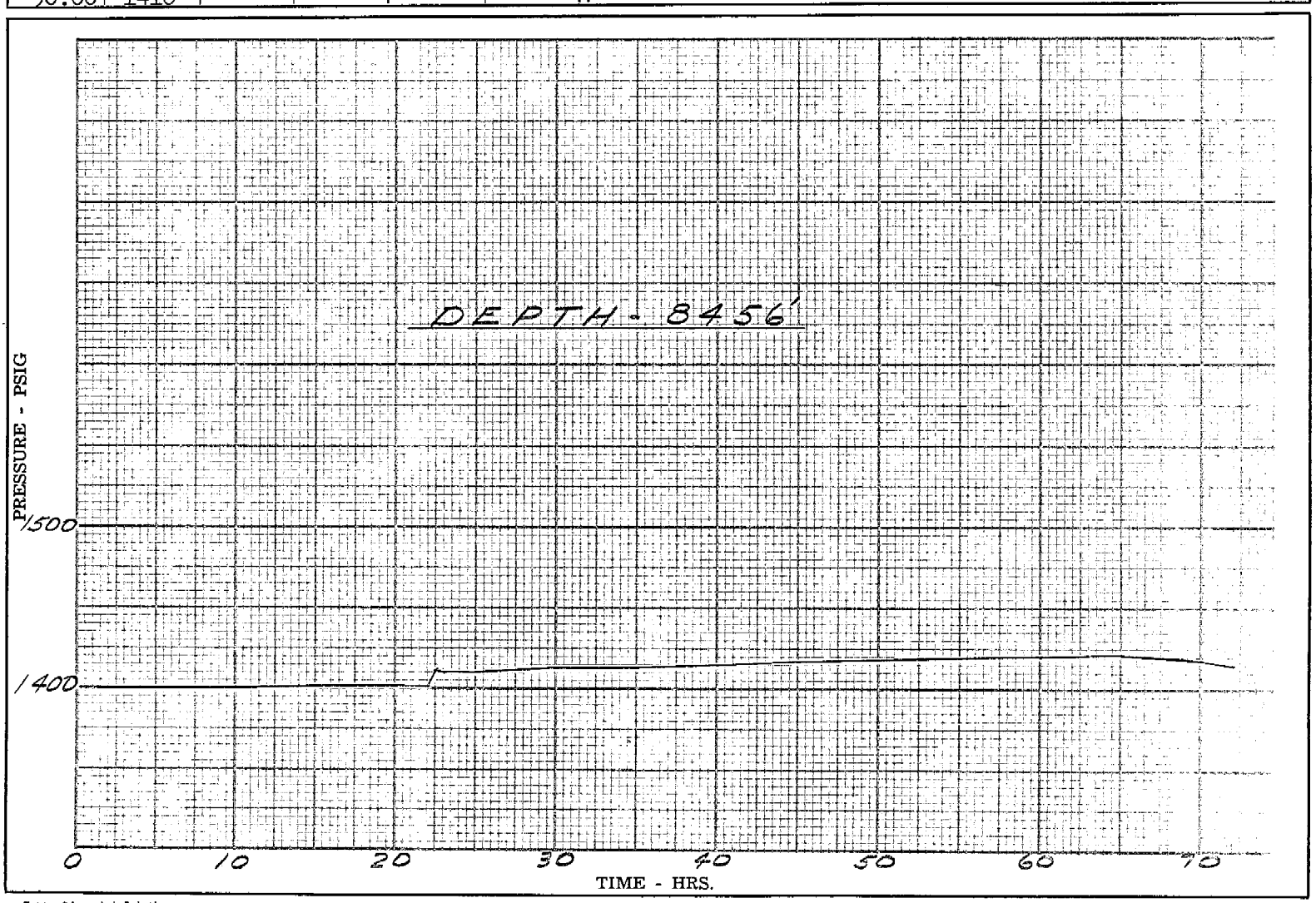
| Time Hrs. | Pressure PSIG | Time Hrs. | Pressure PSIG | Time Hrs. | Pressure PSIG |
|---|---|---|---|---|---|
| 1:20 | 1400 | 55:00 | 1419 | Check | Instr. |
| 2:00 | 1400 | 60:00 | 1420 | 1:20 | 1402 |
| 5:00 | 1400 | 65:00 | 1421 | 10:00 | 1400 |
| 10:00 | 1400 | 70:00 | 1418 | 22:00 | 1402 |
| 15:00 | 1401 | 72:00 | 1415 | 22:30 | 1412 |
| 20:00 | 1402 | | | 25:00 | 1412 |
| 22:00 | 1402 | | | 35:00 | 1413 |
| 22:30 | 1411 | | | 50:00 | 1417 |
| 23:00 | 1410 | | | 60:00 | 1419 |
| 25:00 | 1410 | | | 70:00 | 1417 |
| 30:00 | 1413 | | | 72:00 | 1415 |
| 35:00 | 1413 | | | | |
| 40:00 | 1415 | | | | |
| 45:00 | 1416 | | | | |
| 50:00 | 1418 | | | | |

OBSERVATIONS

Stabilization Period - Hrs. 72:00 | Shut-in 4/6 1:00 p.m.
Run No.
Time at Depth 4/6 2:20 p.m.
Time off Depth 4/9 1:00 p.m.
Csg. PSIG: Start - End 1050 - 1150
Tbg. PSIG: Start - End 1000 - 1138
Zero: K. B. 6.9'

Comments:
Maximum Temperature 182° F

By: Harlan - Snider - Homer




T-16—Pfanstiel Printing

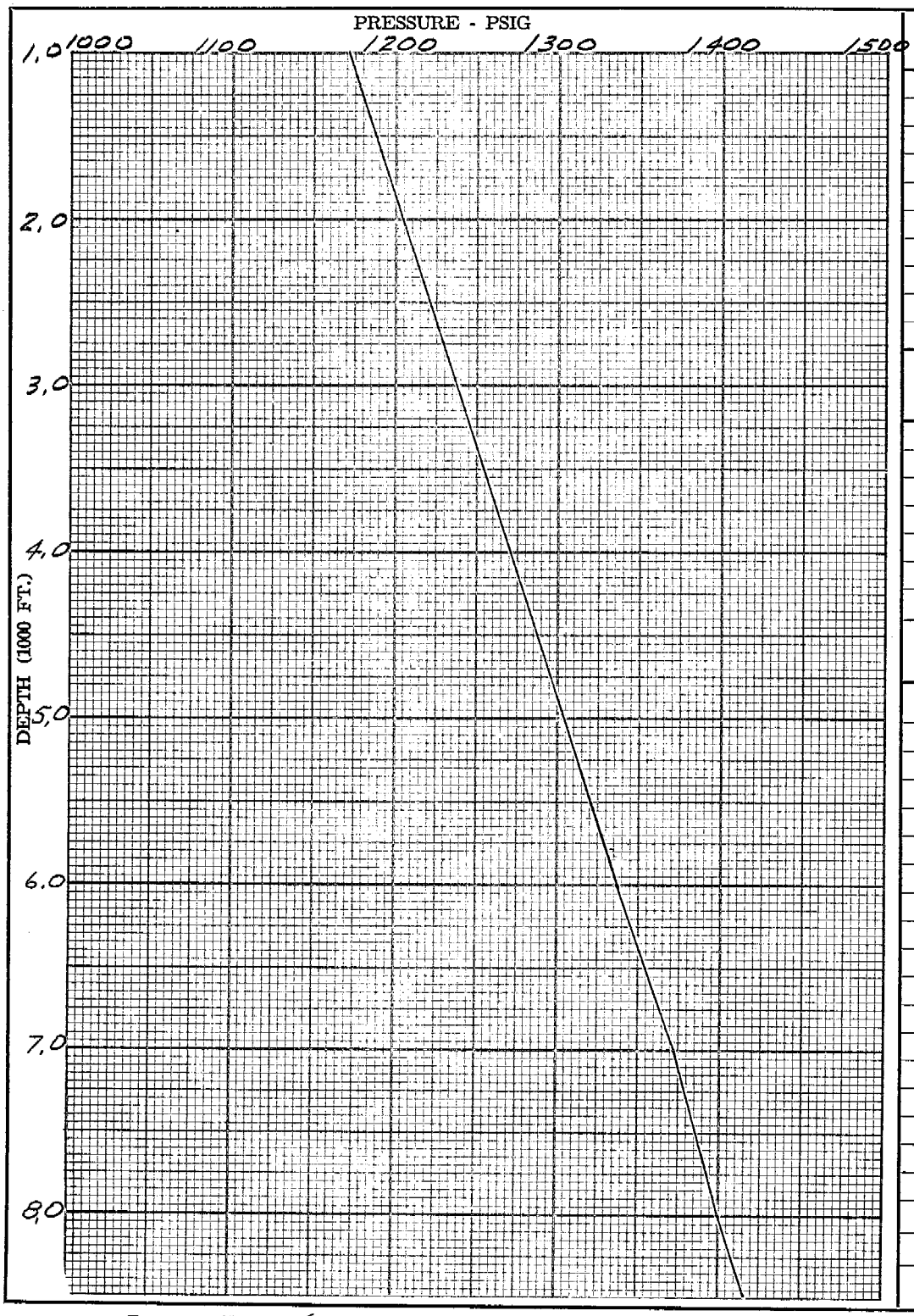
AC_CPUC_0118488

TECHNICAL SERVICE CO.
801 West 14th Street
Long Beach, California 90813

Phones: 24 Hours
Long Beach - 436-9901

# SUB-SURFACE PRESSURE DATA

Company So. California Gas Company Field Aliso Canyon Date 4-9-73 Run No.
Well Standard Sesnon No. 29 Zone Elev. 2848.77'
Purpose Static Pressure Survey Status Shut In
Total Depth 9790' Effect. Depth 9077'
Casing Size 7" Depth 8170' Liner Size 5" Top 8075' Bottom 9077'
Perforations 8502' - 9077' @ Intervals
Tubing 2-7/8" to 8028', 2-3/8" 8669'. G/L Mandrals @ 5684', 6919', 8002', 8385'. Sleeves @ 8351', 8488'. Pkr. 8521'




## OBSERVATIONS

| | |
|---|---|
| Stabilization Period - Hrs. | 72:00 |
| Gross Oil Rate - B/D | |
| Net Oil Rate - B/D | |
| Formation Gas MCF/D | |
| Formation Gas-Oil Ratio CFT/BBL | |
| Circulated Gas MCF/D | |
| Oil Dry Gravity - °A.P.I. | |
| Casinghead Pressure - PSIG | 1150 |
| Tubinghead Pressure - PSIG | 1138 |
| Casing Fluid Level - Ft. | |

## RESULTS

| | |
|---|---|
| Gross Productivity Index | B/D PSI |
| Net Productivity Index | B/D PSI |
| Static M.E.P. - Run No. | PSI |
| Static M.E.P. - Projected | PSI |
| Gross Absolute Potential | B/D |
| Net Absolute Potential | B/D |
| Datum Pressures: | |

| Traverse Depth Feet | Pressure PSIG | Gradient PSI/FT |
|---|---|---|
| 0 | 1138 | |
| 5000 | 1300 | 0.032 |
| 6000 | 1336 | 0.036 |
| 7000 | 1372 | 0.036 |
| 8000 | 1399 | 0.027 |
| 8456 | 1415 | 0.035 |
| | | |
| Check Instr. | | |
| 0 | 1139 | |
| 5000 | 1300 | |
| 6000 | 1334 | |
| 7000 | 1371 | |
| 8000 | 1398 | |
| 8456 | 1415 | |

COMMENTS Zero: K. B. 6.9'

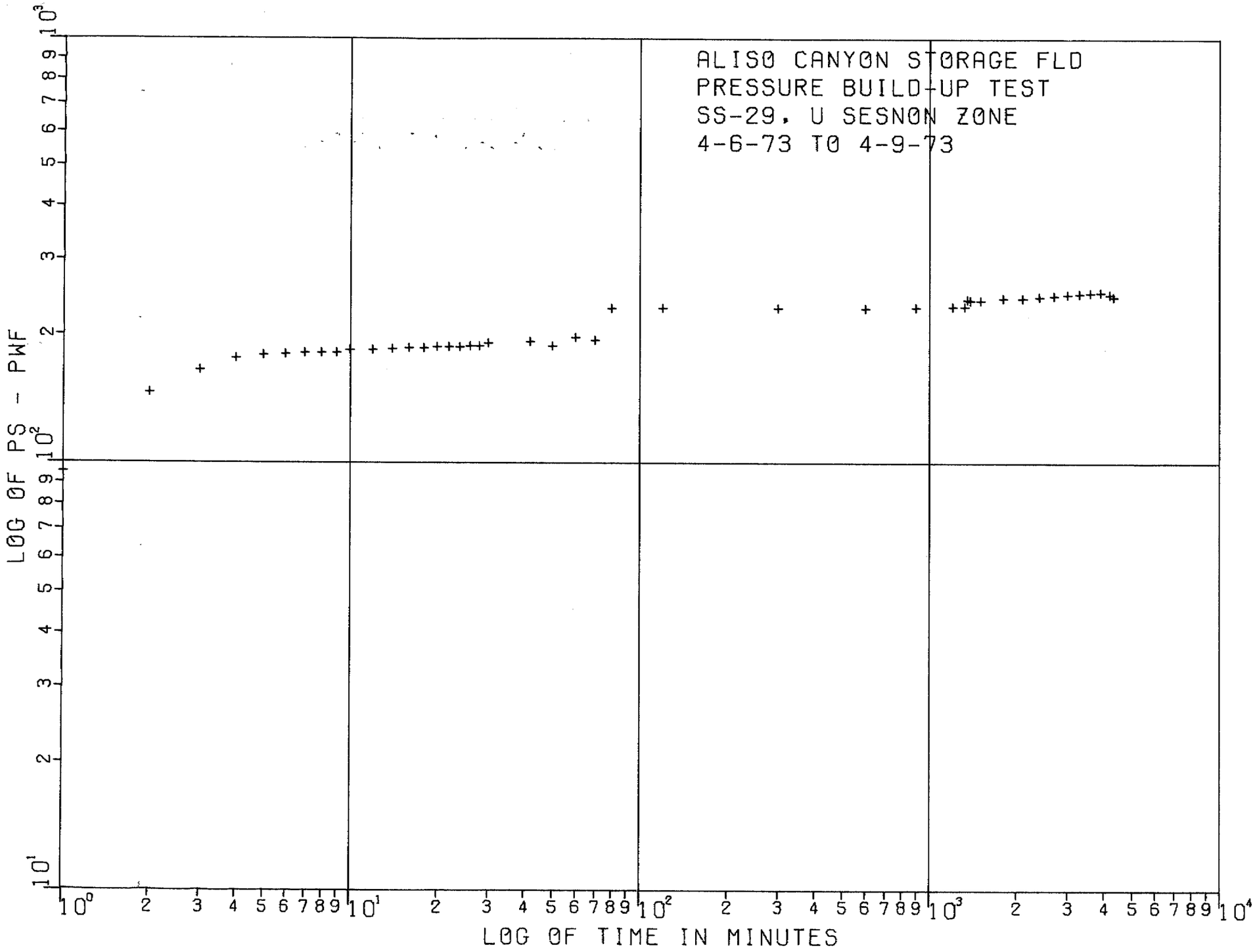
By Worley - Homer

AC_CPUC_0118489

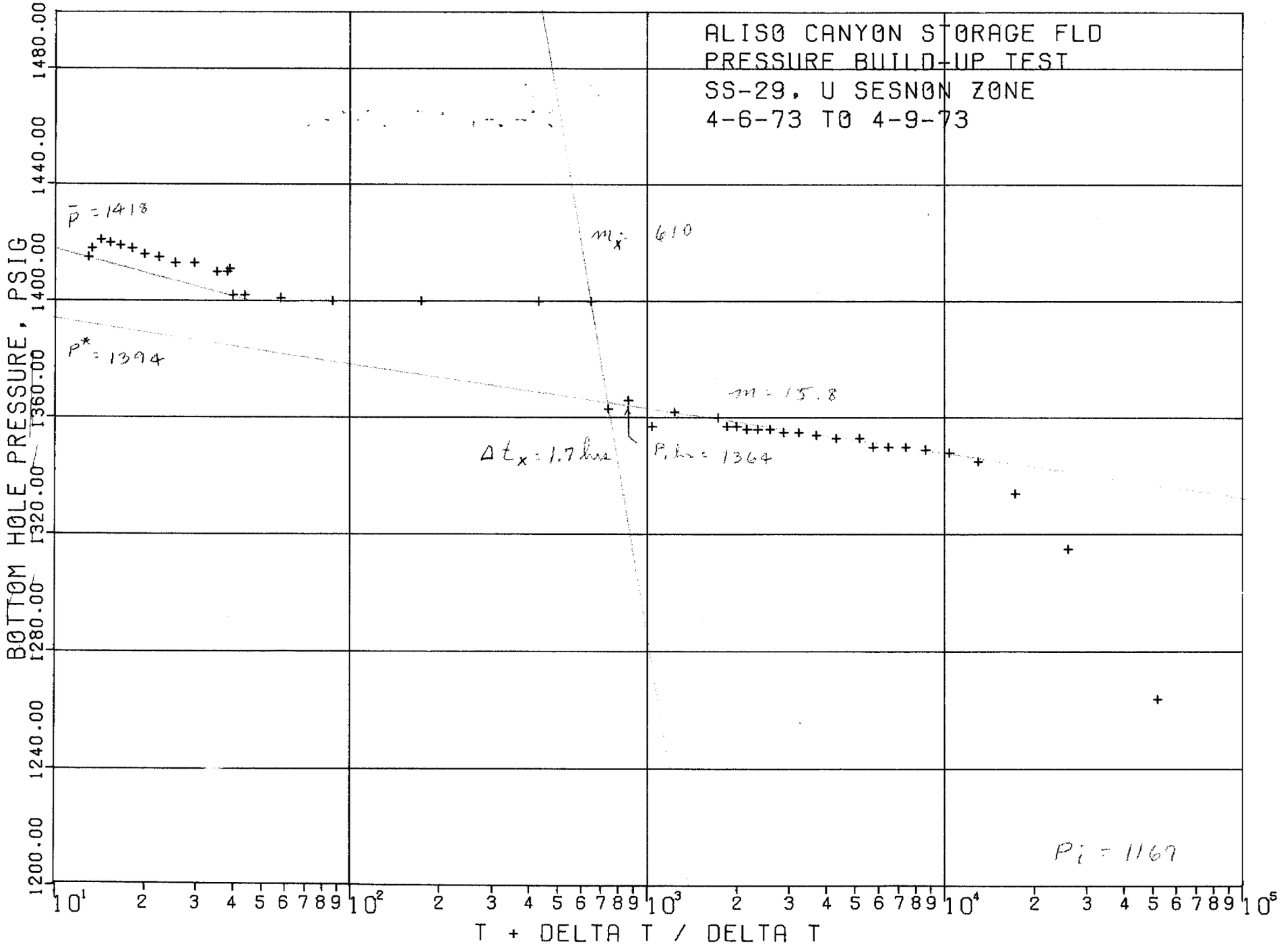
ALISO CANYON STORAGE FLD SS-29, U SESNON ZONE PRESSURE BUILD-UP TEST 4-6-73 TO 4-9-73

| DELTA T | T + DT / DT | SURFACE PRESSURE | BOTTOM HOLE PRESSURE | PS - PWF |
|---|---|---|---|---|
| 1.0 | 51841,000 | 1264,0 | 1264,0 | 95,0 |
| 2.0 | 25921,001 | 1315,0 | 1315,0 | 146,0 |
| 3.0 | 17281,000 | 1334,0 | 1334,0 | 165,0 |
| 4.0 | 12961,000 | 1345,0 | 1345,0 | 176,0 |
| 5.0 | 10369,000 | 1348,0 | 1348,0 | 179,0 |
| 6.0 | 8641,000 | 1349,0 | 1349,0 | 180,0 |
| 7.0 | 7406,714 | 1350,0 | 1350,0 | 181,0 |
| 8.0 | 6481,000 | 1350,0 | 1350,0 | 181,0 |
| 9.0 | 5761,000 | 1350,0 | 1350,0 | 181,0 |
| 10.0 | 5185,000 | 1353,0 | 1353,0 | 184,0 |
| 12.0 | 4321,000 | 1353,0 | 1353,0 | 184,0 |
| 14.0 | 3703,857 | 1354,0 | 1354,0 | 185,0 |
| 16.0 | 3241,000 | 1355,0 | 1355,0 | 186,0 |
| 18.0 | 2881,000 | 1355,0 | 1355,0 | 186,0 |
| 20.0 | 2593,000 | 1356,0 | 1356,0 | 187,0 |
| 22.0 | 2357,364 | 1356,0 | 1356,0 | 187,0 |
| 24.0 | 2161,000 | 1356,0 | 1356,0 | 187,0 |
| 26.0 | 1994,846 | 1357,0 | 1357,0 | 188,0 |
| 28.0 | 1852,429 | 1357,0 | 1357,0 | 188,0 |
| 30.0 | 1729,000 | 1360,0 | 1360,0 | 191,0 |
| 42.0 | 1235,286 | 1362,0 | 1362,0 | 193,0 |
| 50.0 | 1037,800 | 1357,0 | 1357,0 | 188,0 |
| 60.0 | 865,000 | 1366,0 | 1366,0 | 197,0 |
| 70.0 | 741,571 | 1363,0 | 1363,0 | 194,0 |
| 80.0 | 649,000 | 1400,0 | 1400,0 | 231,0 |
| 120.0 | 433,000 | 1400,0 | 1400,0 | 231,0 |
| 300.0 | 173,800 | 1400,0 | 1400,0 | 231,0 |
| 600.0 | 87,400 | 1400,0 | 1400,0 | 231,0 |
| 900.0 | 58,600 | 1401,0 | 1401,0 | 232,0 |
| 1200.0 | 44,200 | 1402,0 | 1402,0 | 233,0 |
| 1320.0 | 40,273 | 1402,0 | 1402,0 | 233,0 |
| 1350.0 | 39,400 | 1411,0 | 1411,0 | 242,0 |
| 1380.0 | 38,565 | 1410,0 | 1410,0 | 241,0 |
| 1500.0 | 35,560 | 1410,0 | 1410,0 | 241,0 |
| 1800.0 | 29,800 | 1413,0 | 1413,0 | 244,0 |
| 2100.0 | 25,686 | 1413,0 | 1413,0 | 244,0 |
| 2400.0 | 22,600 | 1415,0 | 1415,0 | 246,0 |
| 2700.0 | 20,200 | 1416,0 | 1416,0 | 247,0 |
| 3000.0 | 18,280 | 1418,0 | 1418,0 | 249,0 |
| 3300.0 | 16,709 | 1419,0 | 1419,0 | 250,0 |
| 3600.0 | 15,400 | 1420,0 | 1420,0 | 251,0 |
| 3900.0 | 14,292 | 1421,0 | 1421,0 | 252,0 |
| 4200.0 | 13,343 | 1418,0 | 1418,0 | 249,0 |
| 4320.0 | 13,000 | 1415,0 | 1415,0 | 246,0 |

AC_CPUC_0118490




AC_CPUC_0118491




AC_CPUC_0118492

ALISO CANYON FIELD
STORAGE FIELD

WELL NO, SS 29, U SESNON ZONE TEST DATES 4- 6-73 THROUGH 4- 9-73

BASIC DATA

| | | | | | |
|---|---|---|---|---|---|
| NET HYDROCARBON THICKNESS | = 46,00 | OIL SATURATION | = ,230 | WELLBORE RADIUS | = ,204 |
| NET GAS SAND THICKNESS | = 46,00 | GAS SATURATION | = ,300 | WITHDRAWAL RATE | = 2,40 |
| POROSITY, PHI | = ,080 | WATER SATURATION | = ,470 | | |

DATA FROM TESTS

PRESSURE BUILDUP

| | |
|---|---|
| VOLUME FACTOR, BG | ,01244 |
| COMPRESSIBILITY, CT | ,00031 |
| VISCOSITY, MU | ,01433 |
| SLOPE, M | 15,800 |
| P(I) = P AT SHUT-IN | 1169, |
| P* = EXTRAPOLATED P | 1394, |
| P(1 HR) | 1364, |
| P-BAR AVERAGE P | 1418, |
| BOUNDARY TIME-LAG | 1,70 |
| BOUNDARY SLOPE | 610,000 |

AC_CPUC_0118493

ALISO CANYON FIELD
STORAGE FIELD

WELL NO. SS 29, U SESNON ZONE TEST DATES 4- 6-73 THROUGH 4- 9-73

TEST RESULTS

PRESSURE BUILDUP

| | |
|---|---|
| CONDUCTANCE, KH | 785.36 |
| PERMEABILITY, K | 17.07 |
| SKIN EFFECT, S | 7.50 |
| PRESSURE LOSS, DELP | 103. |
| PRODUCTIVITY INDEX ACTUAL | 1901.4 |
| PRODUCTIVITY INDEX IDEAL | 3507.6 |
| FLOW EFFICIENCY | .542 |
| DISTANCE TO NEAREST BOUNDARY | 291.874* |

* INDICATES MORE THAN ONE BOUNDARY

AC_CPUC_0118494

FEB 12-13, 1973

AC_CPUC_0118495

Compiled _____ Date _____

Approved _____ No. _____

Pacific Lighting Service Company

SS 29

CLEANUP FLOW

| | ΔT | PRESS | | DT | PRESS | | |
|---|---|---|---|---|---|---|---|
| | | | | init dwgd | 3729.3 | | |
| 10:47 1/8" | 0 | | | 0 | 1304.6 | | |
| | 2 | 1304.6 | | 2 | 1321.2 | | |
| | 4 | | | 4 | 1344.7 | | |
| | 6 | | | 6 | 1364.1 | | |
| 10:55 | 8 | | | 8 | 1397.3 | | |
| 3/8" | 10 | | | 10 | 1426.3 | | |
| | 12 | | | 12 | 1444.3 | | |
| | 14 | | | 14 | 1452.6 | | |
| | 16 | | | 16 | 1456.7 | | |
| | 18 | | | 18 | ↓ | | |
| | 20 | | | 20 | ↓ | | |
| | 22 | | | 22 | 1448.4 | | |
| 11:10 | 23 | | | 24 | 1447.1 | | |
| 1/2" | 25 | | | 26 | 1444.3 | | |
| | 27 | | | 28 | 1444.3 | | |
| | 29 | | | 30 | 1442.9 | | |
| | 31 | | | 32 | 1441.5 | | |
| 11:20 | 33 | | | 34 | 1441.5 | | |
| | 43 | | | 36 | 1427.7 | | |
| 11:40 | 53 | | | 38 | 1422.2 | | |
| | 1hr 23 | | | 40 | 1419.4 | | |
| 12:40 | 1hr 53 | | | 42 | 1419.4 | | |
| | 2hr 53 | | | 44 | 1418.0 | | |
| | 3 hr 53 | | | 46 | 1418.0 | | |
| | 4 hr 50 | | | 48 | 1418.0 | | |
| | | | | 50 | 1419.4 | | |
| | | | | ↓ | ↓ | | |
| | | | | 4 hr 50 | ↓ | | |
| | | | | 303 min | | | |

PLS-307

AC_CPUC_0118496

Compiled _____ Date _____

Approved _____ No. _____

Pacific Lighting Service Company

SS 29

T 159 7000 psi T: 183°

SHUT-IN After Cooling

INSIDE INST

| | ΔT | PRESS |
|---|---|---|
| | | |
| 15:37 | 0 | 1419.4 |
| | 2 | 1442.9 |
| | 4 | 1462.3 |
| | 6 | 1467.8 |
| | 8 | 1469.2 |
| | 10 | 1470.6 |
| | 12 | |
| | 14 | |
| | 16 | |
| | 18 | |
| | 20 | |
| | 22 | |
| 16:00 | 23 | |
| | 33 | |
| | 45 | |
| | 53 | |
| | 1hr 3 min | |
| | 1 13 | |
| 17:00 | 1 23 | |
| | 1 53 | |
| 18:00 | 2 23 | |
| | 3 23 | |
| | 4 23 | |
| | 5 23 | |
| | 6 23 | |
| | 7 23 | |
| 24:00 | 8 23 | |
| 6 | 14 23 | |
| 12 | 20 23 | |
| 18 | 26 23 | |
| 24 | 32 23 | |
| 3/12 6:20 AM | 38 N 43 | |

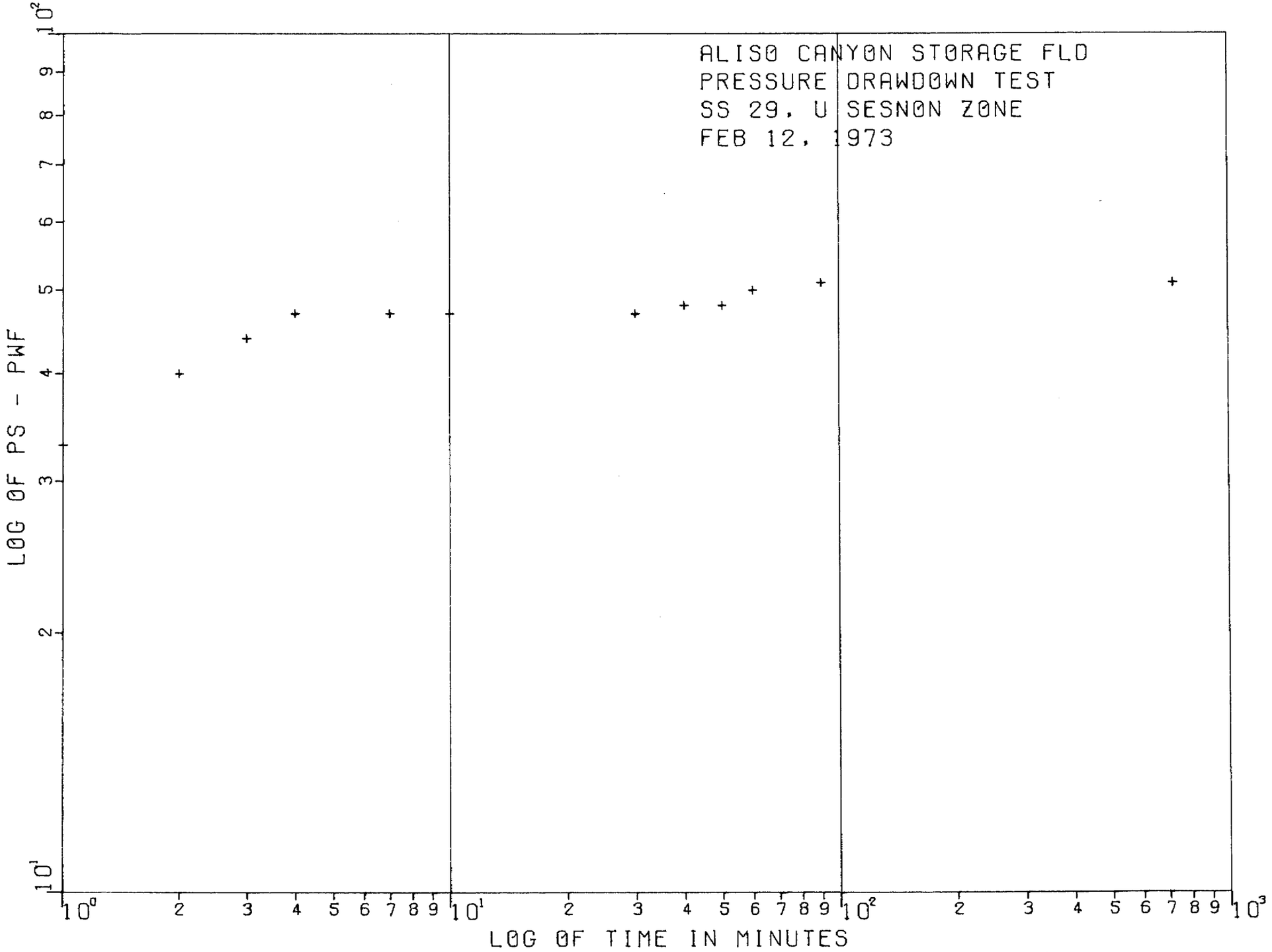
PLS-307

AC_CPUC_0118497

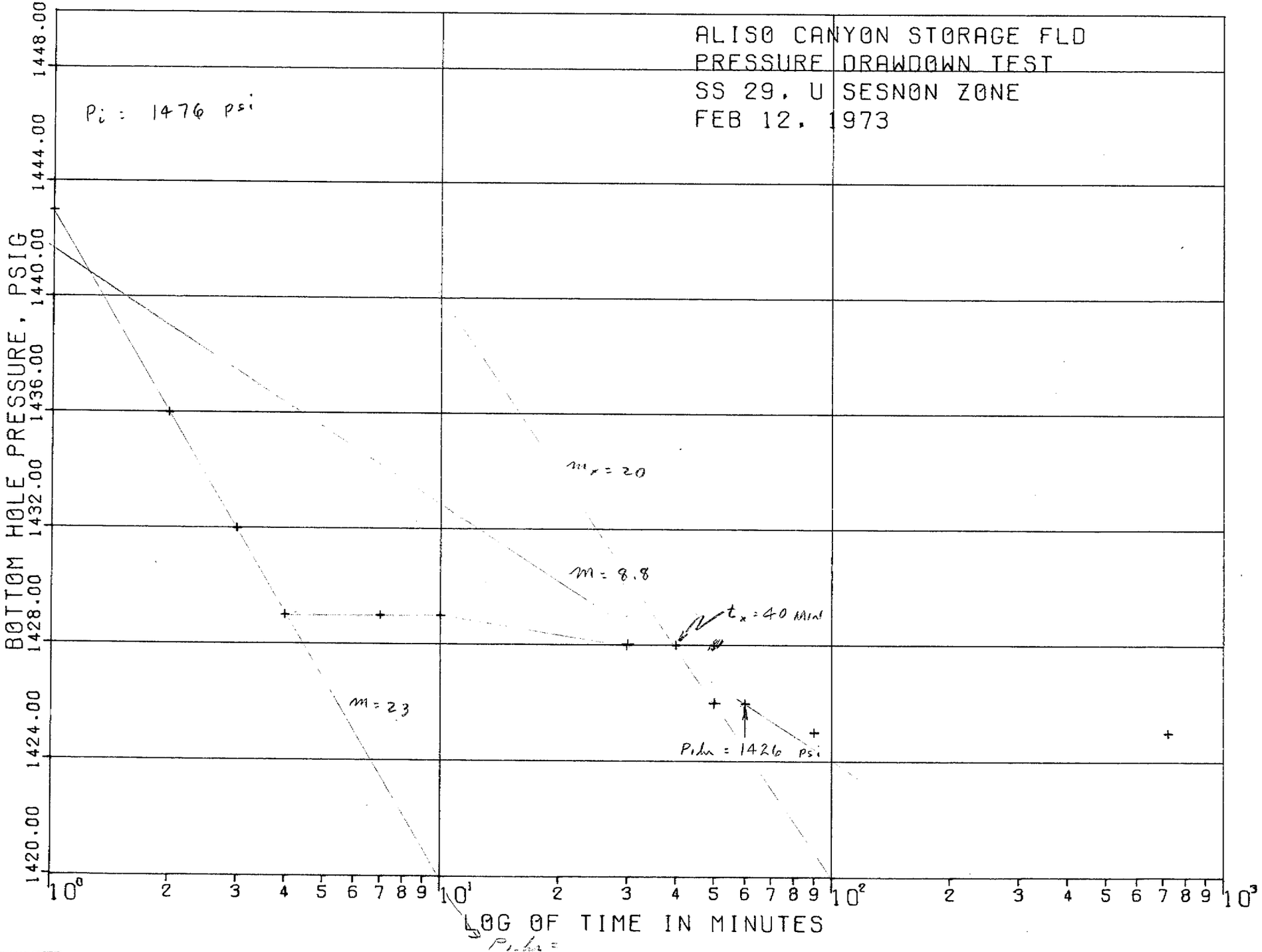
ALISO CANYON STORAGE FLD SS 29, U SESNON ZONE PRESSURE DRAWDOWN TEST FEB 12, 1973

| DELTA T | T + DT / DT | SURFACE PRESSURE | BOTTOM HOLE PRESSURE | PS - PWF |
|---|---|---|---|---|
| 1.0 | 1,000 | 1443,0 | 1443,0 | 33,0 |
| 2.0 | 1,000 | 1436,0 | 1436,0 | 40,0 |
| 3.0 | 1,000 | 1432,0 | 1432,0 | 44,0 |
| 4.0 | 1,000 | 1429,0 | 1429,0 | 47,0 |
| 7.0 | 1,000 | 1429,0 | 1429,0 | 47,0 |
| 10.0 | 1,000 | 1429,0 | 1429,0 | 47,0 |
| 30.0 | 1,000 | ~~1429,0~~ 1428. | ~~1429,0~~ 1428. | 47,0 |
| 40.0 | 1,000 | 1428,0 | 1428,0 | 48,0 |
| 50.0 | 1,000 | ~~1428,0~~ 1426. | ~~1428,0~~ 1426. | 48,0 |
| 60.0 | 1,000 | 1426,0 | 1426,0 | 50,0 |
| 90.0 | 1,000 | 1425,0 | 1425,0 | 51,0 |
| 723.0 | 1,000 | 1425,0 | 1425,0 | 51,0 |

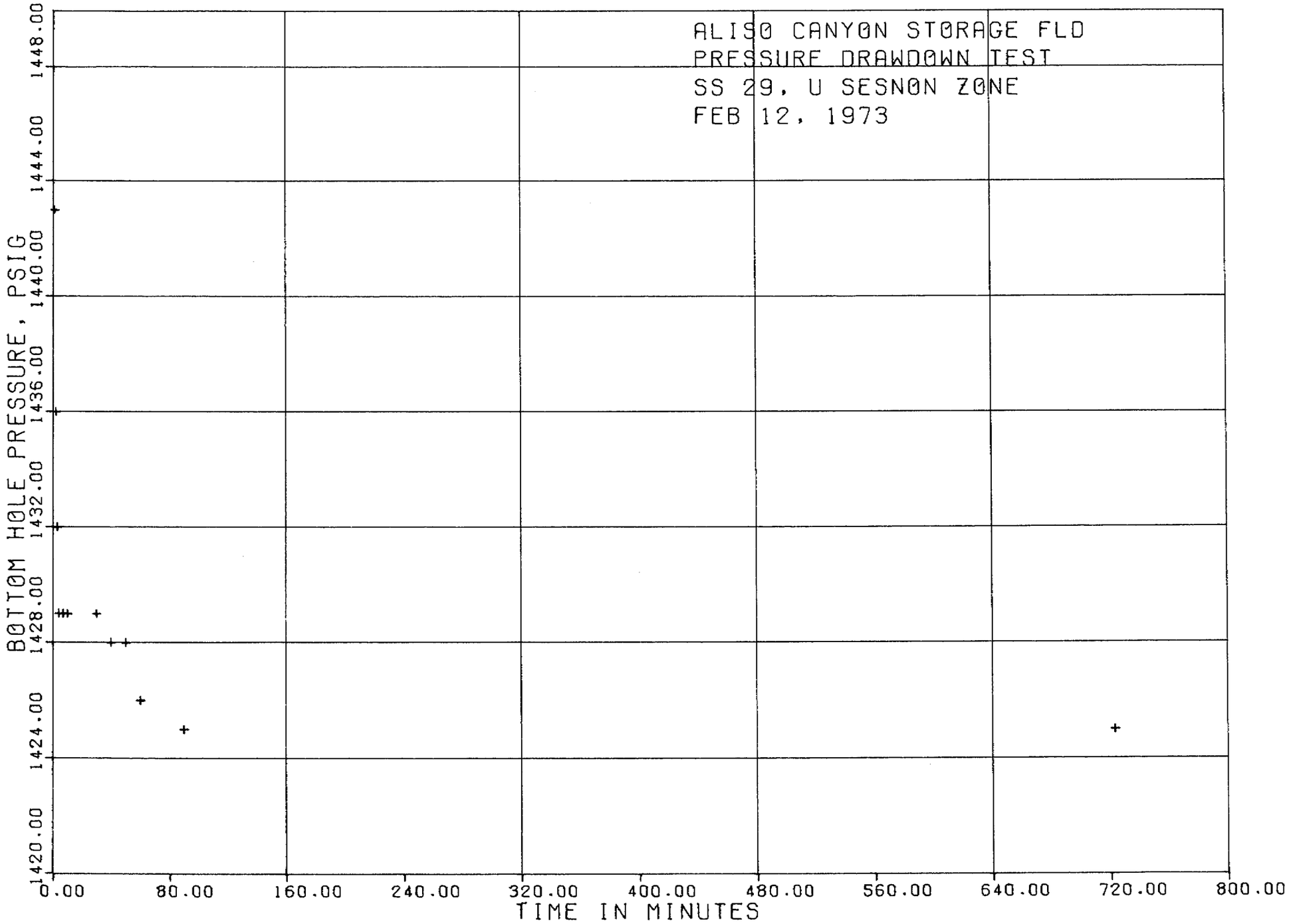
AC_CPUC_0118498




AC_CPUC_0118499




AC_CPUC_0118500




AC_CPUC_0118501

Compiled _____ Date _____

Approved _____ No. _____

Pacific Lighting Service Company

SS 29

FINAL FLOW

| | ΔT | PRESS |
|---|---|---|
| | 0 | 1470.6 |
| | ~~0~~ | ~~1447.1~~ |
| (10b) | 1 | 1442.9 |
| | 2 | 1436.0 |
| | 3 | 1431.8 |
| | 4 | 1429.1 |
| | ~~5~~ | |
| | ~~6~~ | |
| | 7 | 1429. |
| | ~~8~~ | |
| | ~~9~~ | |
| 6:30 (9b) | 10 | 1429. |
| | ~~20~~ | ↓ |
| | 30 | 1427.7 ← |
| 7:00 | 40 | 1427.7 |
| | ~~1 hr 50 min~~ | 1426.3 ← |
| 8:00 (8b) | 1 hr 0 | 1426.3 |
| | | ↓ |
| | 1 hr 30 min | 1424.9 |
| | ~~2 hr 0~~ | |
| 12:00 | ~~5 hr 0~~ | |
| | ~~8 hr 40~~ | |
| 18:23 (7b) | 12 03 | 14.25 |

721

PLS-307

AC_CPUC_0118502

Compiled _____ Date _____

Approved _____ No. _____

Pacific Lighting Service Company

SS 29

FINAL SHUT-IN

| | ΔT | PRESS |
|---|---|---|
| 18:23 | 0 | ~~1424.9~~ |
| | 1 min | 1459.5 |
| | 2 | 1466.4 |
| | 3 | 1469.2 |
| | 4 | 1472.0 |
| | 5 | 1474.7 |
| | 6 | 1476.1 |
| | 7 | |
| | 8 | |
| | 9 | |
| | 10 | |
| | 11 | |
| 18:35 | 12 | |
| | 22 | |
| | 32 | |
| 19:00 | 47 | |
| | 1 hr 17 min | |
| 20:00 | 1 hr 47 min | |
| | 2 \| 47 | |
| | 3 \| 47 | |
| | 4 \| 47 | |
| 24:00 | 5 \| 47 | |
| | 8 \| 47 | |
| 6:40 | 12 ↓ \| 27 ↓ | 1476 |

737

PLS-307

AC_CPUC_0118503

1424.9

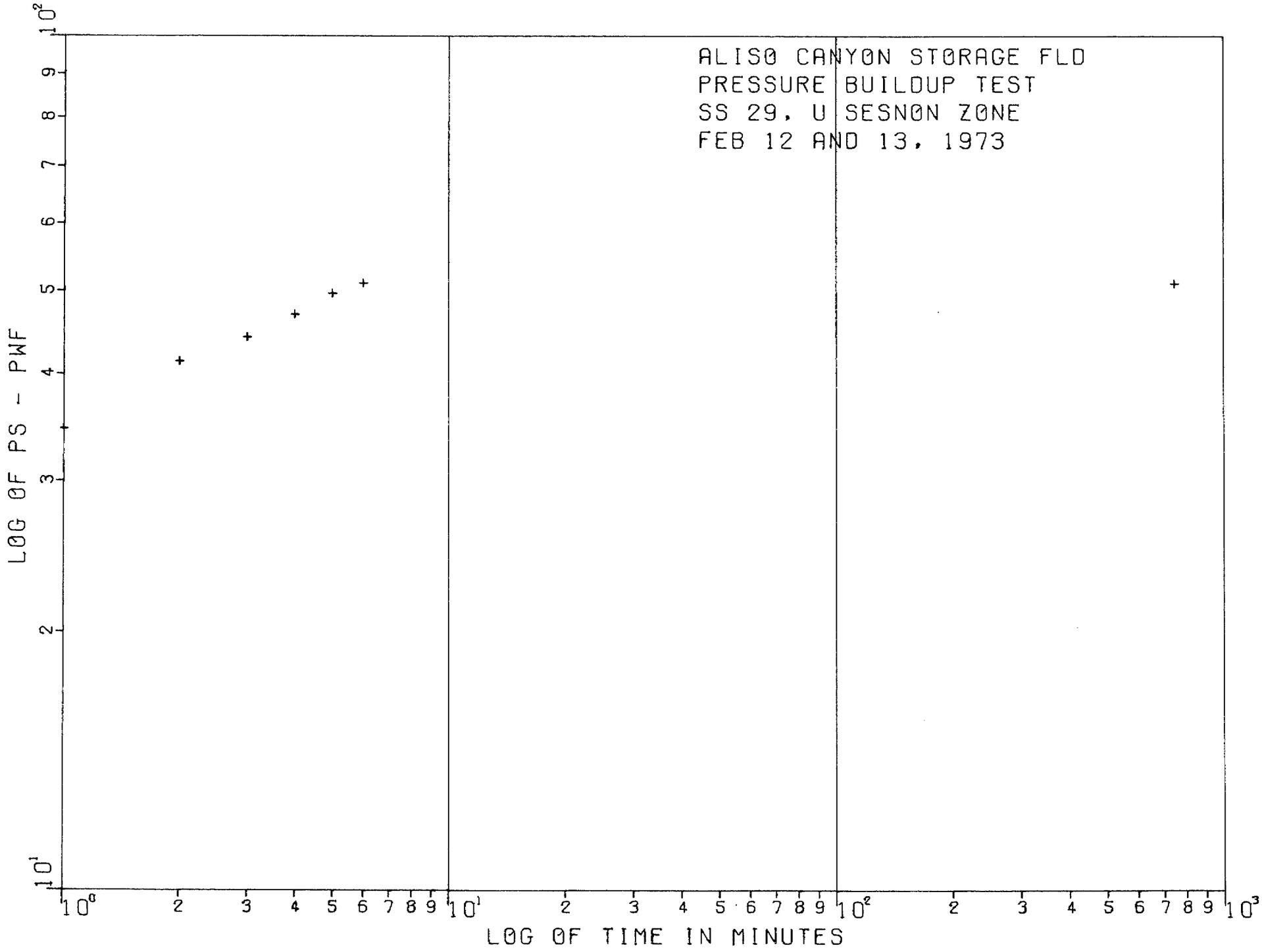
ALISO CANYON STORAGE FLD SS 29, U SESNON ZONE PRESSURE BUILDUP TEST FEB 12 AND 13, 1973

| DELTA T | T + DT / DT | SURFACE PRESSURE | | BOTTOM HOLE PRESSURE | PS - PWF |
|---|---|---|---|---|---|
| 1.0 .5 | 724,000 → 1447 | 1459,5 | 1456.7 | 1459,5 | 34,5 |
| 2.0 1.5 | 362,500 → 483 | 1466,4 | 1469.9 | 1466,4 | 41,4 |
| 3.0 2.5 | 242,000 → 290.2 | 1469,2 | 1469.2 | 1469,2 | 44,2 |
| 4.0 3.5 | 181,750 → 207.6 | 1472,0 | 1470.6 | 1472,0 | 47,0 |
| 5.0 4.5 | 145,600 → 161.7 | 1474,7 | 1473.3 | 1474,7 | 49,7 |
| 6.0 5.5 | 121,500 → 132.5 | 1476,1 | 1476.1 | 1476,1 | 51,1 |
| 747.0 6.5 | 1,968 → 112.2 | 1476,1 | (6½=7.0 same) | 1476,1 | 51,1 |
| 7.0 | 104.3 | | | | |

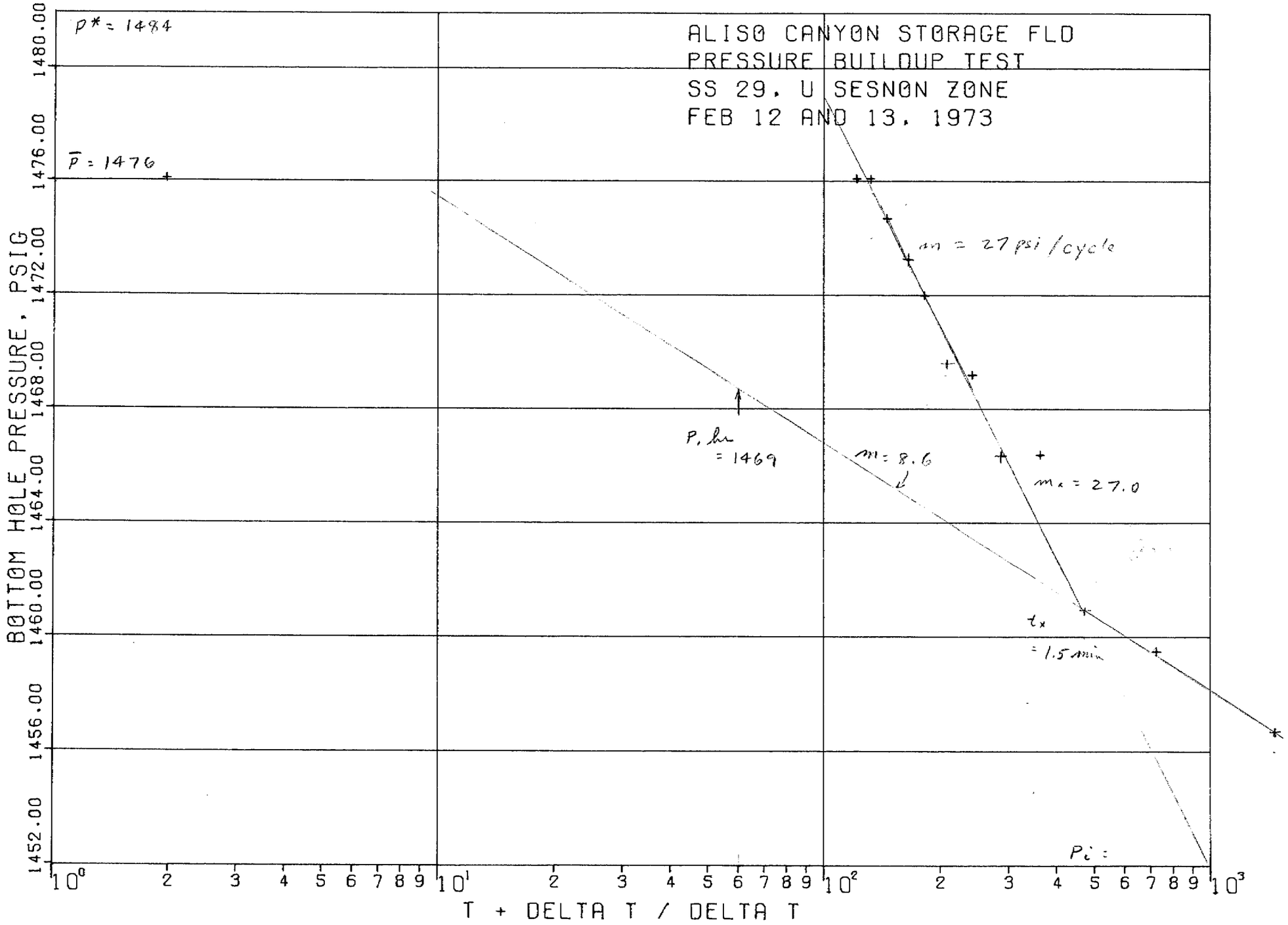
Note:

6.1
9.7
T.9

AC_CPUC_0118504




AC_CPUC_0118505




AC_CPUC_0118506

INDIVIDUAL WELL PERFORMANCE TESTS
ALISO CANYON FIELD
STORAGE FIELD

WELL NO, SS 29, U SESNON ZONE TEST DATES 2-12-73 THROUGH 2-13-73

BASIC DATA

| | | | | | |
|---|---|---|---|---|---|
| NET HYDROCARBON THICKNESS | = 46,00 | OIL SATURATION | = ,230 | WELLBORE RADIUS | = ,204 |
| NET GAS SAND THICKNESS | = 46,00 | GAS SATURATION | = ,300 | WITHDRAWAL RATE | = 2,70 |
| POROSITY, PHI | = ,080 | WATER SATURATION | = ,470 | | |

DATA FROM TESTS

| | PRESSURE DRAWDOWN | PRESSURE BUILDUP |
|---|---|---|
| VOLUME FACTOR, BG | ,02226 | ,01089 |
| COMPRESSIBILITY, CT | ,00054 | ,00028 |
| VISCOSITY, MU | ,01329 | ,01463 |
| SLOPE, M | 8,800 | 8,600 |
| P(I) = P AT SHUT-IN | 1476, | 1425, |
| P* = EXTRAPOLATED P | | 1484, |
| P(1 HR) | 1426, | 1469, |
| P-BAR AVERAGE P | 1425, | 1476, |
| BOUNDARY TIME-LAG | | ,00 |
| BOUNDARY SLOPE | | 27,000 |

AC_CPUC_0118507

ALISO CANYON FIELD
STORAGE FIELD

WELL NO. SS 29, U SESNON ZONE

TEST DATES 2-12-73 THROUGH 2-13-73

TEST RESULTS

| | PRESSURE DRAWDOWN TRANSIENT | PRESSURE DRAWDOWN LATE TRANSIENT | PRESSURE BUILDUP |
|---|---|---|---|
| CONDUCTANCE, KH | 2630.30 | .00 | 1449.90 |
| PERMEABILITY, K | 57.18 | .00 | 31.52 |
| SKIN EFFECT, S | -.54 | .00 | -1.18 |
| PRESSURE LOSS, DELP | -4. | 0. | -9. |
| PRODUCTIVITY INDEX ACTUAL | | | 8157.3 |
| PRODUCTIVITY INDEX IDEAL | | | 7097.1 |
| FLOW EFFICIENCY | | | 1.149 |
| DISTANCE TO NEAREST BOUNDARY | | | 15.998* |

* INDICATES MORE THAN ONE BOUNDARY

AC_CPUC_0118508

ALISO CANYON FIELD
STORAGE FIELD

WELL NO; SS 29, U SESNON ZONE

TEST DATES 2-12-73 THROUGH 2-13-73

BASIC DATA

| | | | | | |
|---|---|---|---|---|---|
| NET HYDROCARBON THICKNESS | = 46,00 | OIL SATURATION | = ,230 | WELLBORE RADIUS | = ,204 |
| NET GAS SAND THICKNESS | = 46,00 | GAS SATURATION | = ,300 | WITHDRAWAL RATE | = 2,70 |
| POROSITY, PHI | = ,080 | WATER SATURATION | = ,470 | | |

DATA FROM TESTS

| | PRESSURE DRAWDOWN | PRESSURE BUILDUP |
|---|---|---|
| VOLUME FACTOR, BG | ,02226 | ,01089 |
| COMPRESSIBILITY, CT | ,00054 | ,00028 |
| VISCOSITY, MU | ,01329 | ,01463 |
| SLOPE, M | 8,800 | 8,600 |
| P(I) = P AT SHUT-IN | 1476, | 1425, |
| P* = EXTRAPOLATED P | | 1484, |
| P(1 HR) | 1426, | 1469, |
| P-BAR AVERAGE P | 1425, | 1476, |
| BOUNDARY TIME-LAG | | ,00 |
| BOUNDARY SLOPE | | 27,000 |

AC_CPUC_0118509

ALISO CANYON FIELD
STORAGE FIELD

WELL NO, SS 29, U SESNON ZONE

TEST DATES 2-12-73 THROUGH 2-13-73

TEST RESULTS

| | PRESSURE DRAWDOWN TRANSIENT | PRESSURE DRAWDOWN LATE TRANSIENT | PRESSURE BUILDUP |
|---|---|---|---|
| CONDUCTANCE, KH | 2630,30 | ,00 | 1449,90 |
| PERMEABILITY, K | 57,18 | ,00 | 31,52 |
| SKIN EFFECT, S | -,54 | ,00 | -1,18 |
| PRESSURE LOSS, DELP | -4, | 0, | -9, |

| | |
|---|---|
| PRODUCTIVITY INDEX ACTUAL | 8157,3 |
| PRODUCTIVITY INDEX IDEAL | 7097,1 |
| FLOW EFFICIENCY | 1,149 |

| | |
|---|---|
| DISTANCE TO NEAREST BOUNDARY | 15,998* |

* INDICATES MORE THAN ONE BOUNDARY

AC_CPUC_0118510

SS-29
UPPER SESNOM

FINAL FLOW
PERF'D 4 HPF
8456 - 8502
BRIDGE PLUG 8515

Shut in press - 1180

SS# 29

6:20 AM open 1180 37/64 bean
6:21 - 950
6:22 - 890
6:23 - 859
6:24 - 830
6:25 - 810
6:26 - 790
6:27 - 785
6:28 - 775
6:29 - 772
6:30 - 775
6:31 - 775
6:32 - 775
6:33 - 770
6:34 - 765
6:35 - 762
6:36 - 760
6:37 - 763
6:38 - 763
6:39 - 763
6:40 - 763
6:45 - 767
6:50 - 767
6:55 - 775
7:00 - 779
7:10 - 810
7:20 - 830
7:30 - 855
7:40 - 870
7:50 - 850
8:00 - 810
8:10 - 817
8:20 - 820
8:30 - 820
9:30 - 827
10:30 - 807
11:30 - 767
12:30 - 777
1:30 - 767
2:30 - 767
3:30 - 767
4:30 - 765
5:30 - 765
6:30 - 765 shut in.

AC_CPUC_0118511

FEB 12, 1973 FLOW TEST ON STANDARD SNOW 29

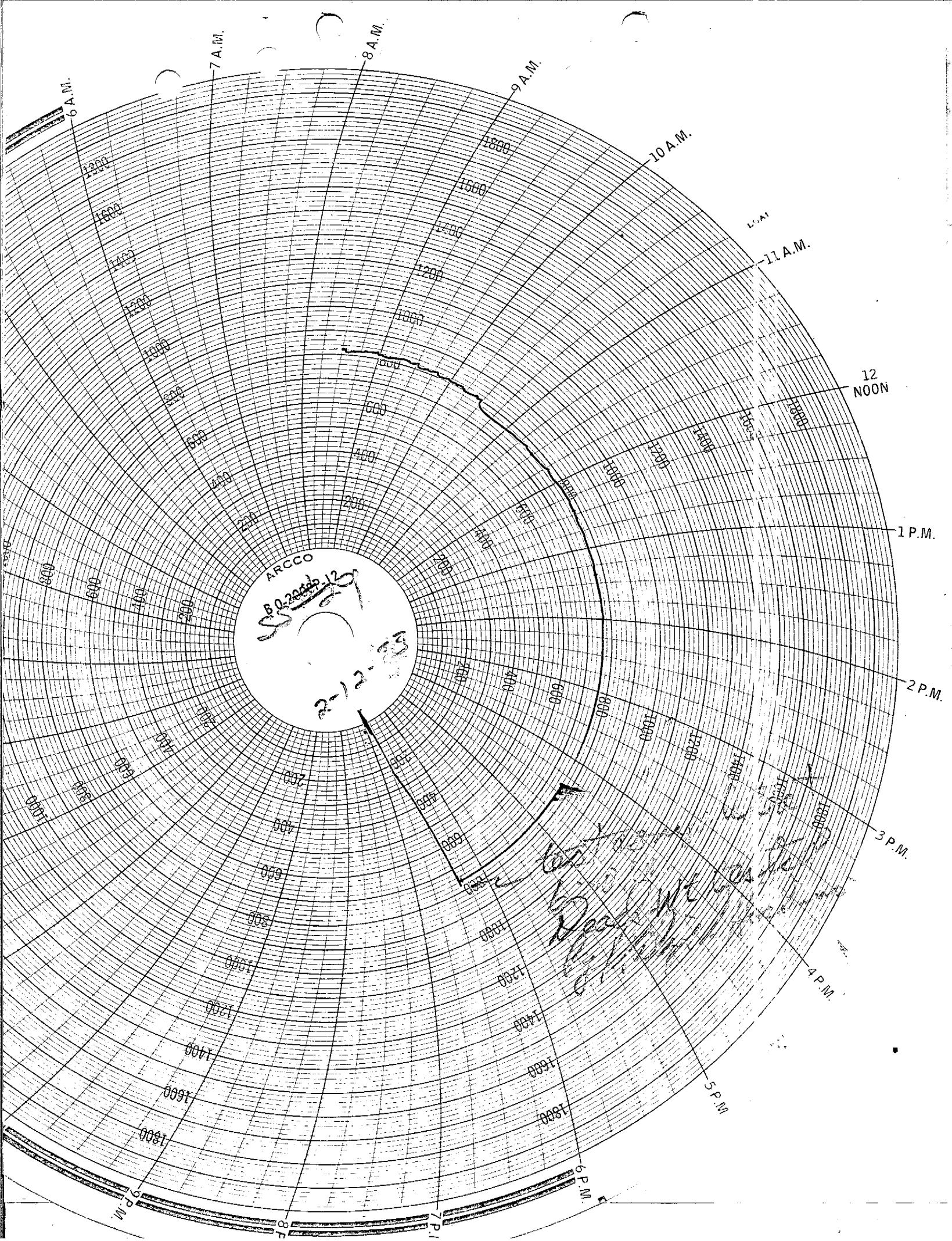
COEFF 151010

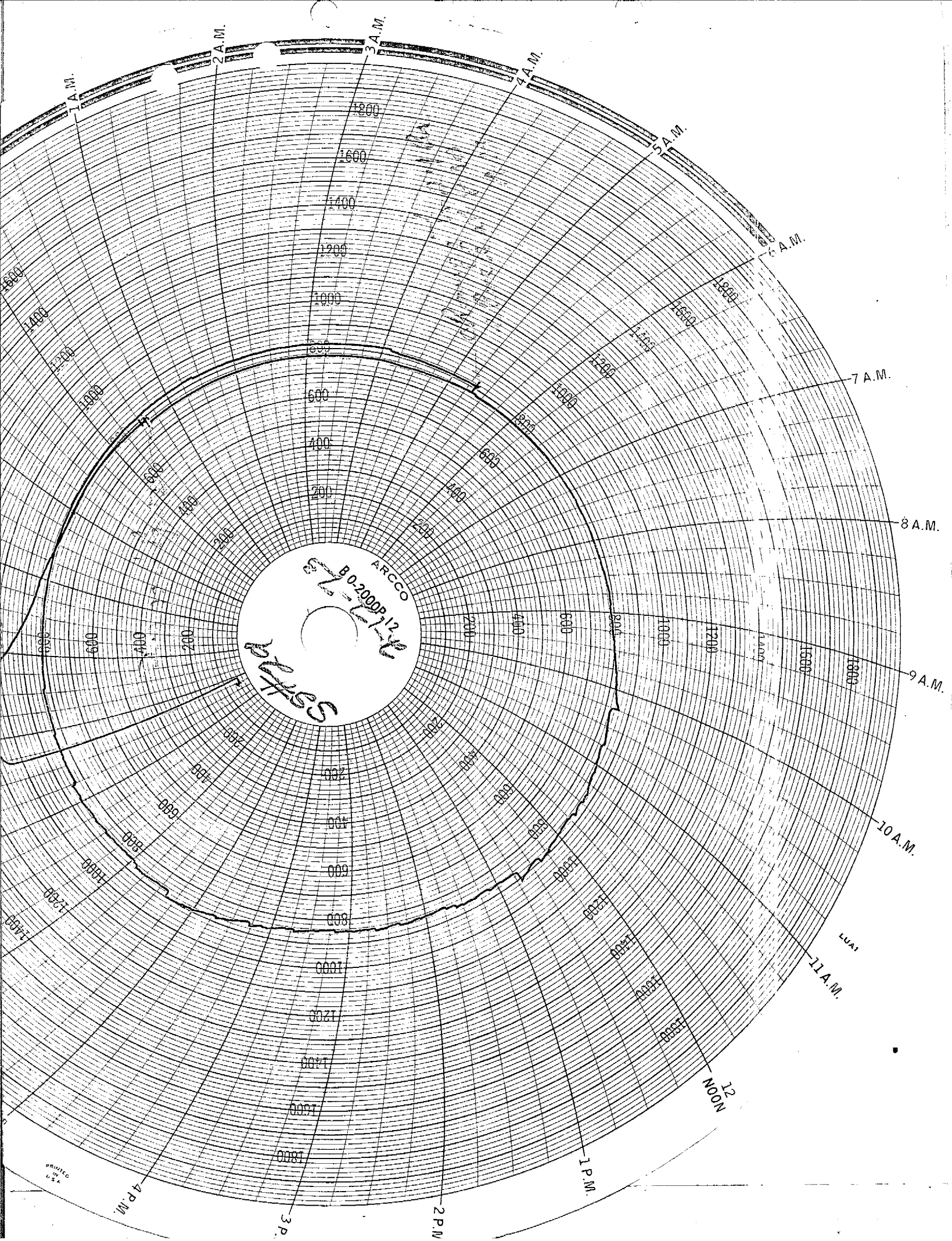
| BEAN SIZE | TIME | PLATE SIZE | 24 Hr GAS RATE | FLUID GROSS | FLUID NET | |
|---|---|---|---|---|---|---|
| | 6:20 AM | OPENED WELL | | | | SI PRESS ON WELL 1180 psi |
| 32/64 | 7:00 AM | HX 3.000 | 2591 | 0.0 | 0.0 | |
| " | 8:00 AM | " " | 2375 | 1.7 | 1.2 | |
| " | 9:00 AM | " " | 2412 | 3.2 | 2.3 | |
| " | 10:00 AM | " " | 2573 | 3.4 | 2.6 | |
| " | 11:00 AM | " " | 2732 | 3.9 | 3.0 | |
| " | 12:00 N | " " | 2742 | 4.3 | 3.4 | |
| " | 1:00 PM | " " | 2753 | 5.1 | 4.0 | |
| " | 2:00 PM | " " | 2753 | 5.7 | 4.6 | |
| " | 3:00 PM | " " | 2753 | 6.3 | 5.2 | |
| " | 4:00 PM | " " | 2753 | 7.2 | 5.7 | |
| " | 5:00 PM | " " | 2699 | 8.1 | 6.5 | |
| " | 6:20 PM | SHUT IN | 2720 | 9.4 | 7.5 | |

TOTAL FLUID = 9.4 bbls.
WATER = 1.9 "
OIL = 7.5 "
TOTAL GAS PROD = 13.48 MCF

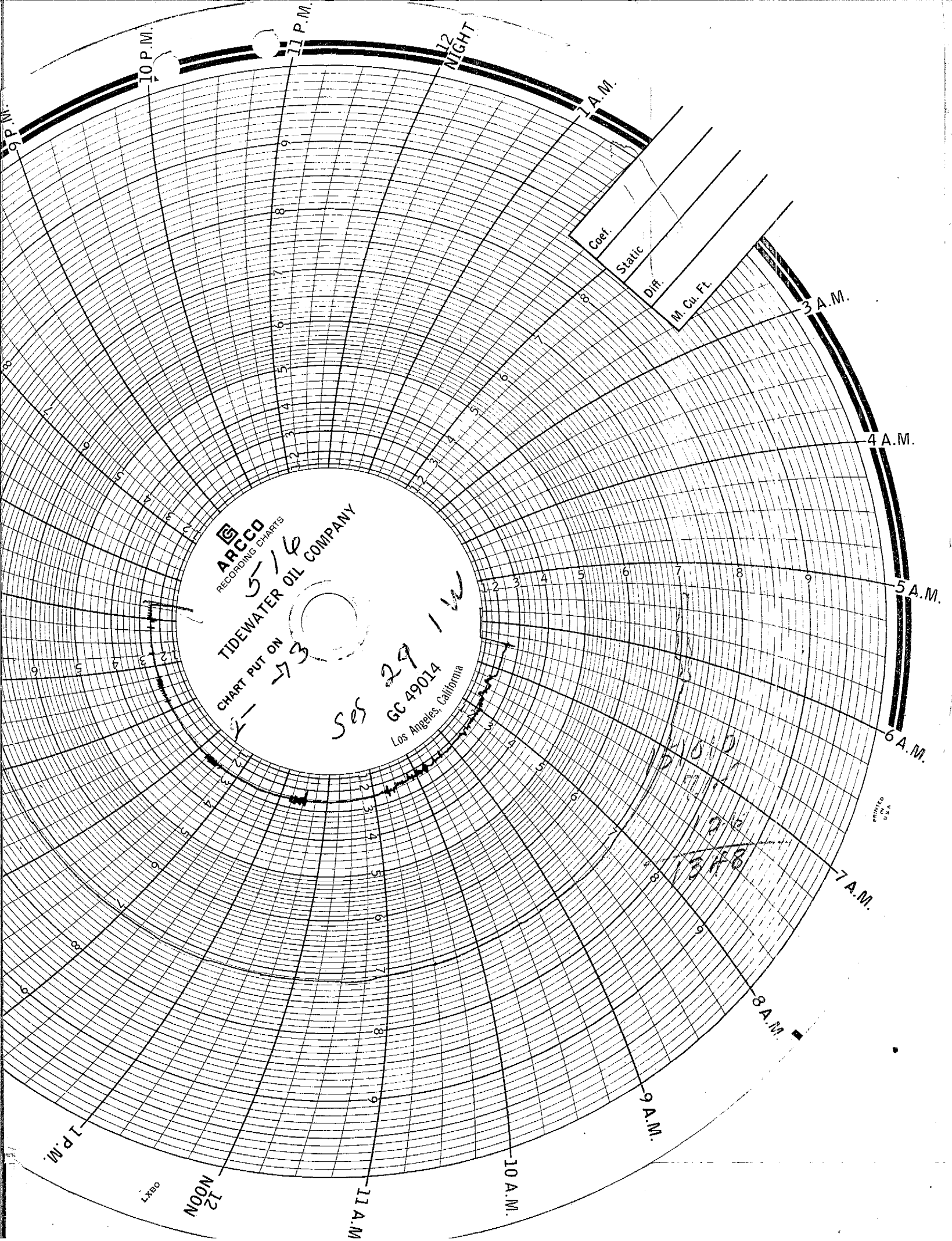
L. L. Schwab

AC_CPUC_0118512


6 A.M.
7 A.M.
8 A.M.
9 A.M.
10 A.M.
11 A.M.
12 NOON
1 P.M.
2 P.M.
3 P.M.
4 P.M.
5 P.M.
6 P.M.
ARCCO




AC_CPUC_0118514




AC_CPUC_0118515

Open at 10:37 → 10:39 - 330# SS #29 Feb 10 1973

10:41 - 330 #
10:42 - 465
10:43 - 605
10:44 - 222
10:45 - 824
10:46 - 918
10:47 - 980 - Pressure fluctuation
10:48 - 1010
10:49 - 1041
10:50 - 1060 INITIAL FLOW
10:51 - 1078
10:52 - 1082
10:53 - 1090
10:54 - 1100
10:55 - 1039 Pressure broke.
11:00 - 957
11:05 - 937
11:10 - 921 Pressure broke (FTL ready)
11:15 - 710
11:20 - 622
11:30 - 700
11:40 - 640
11:49 - 747
2:37 762 shut in
2:38 - 987
2:39 - 1061
2:40 - 1118
2:41 - 1147 INITIAL SHUT IN
2:42 - 1170
2:43 - 1179
2:44 - 1180
2:45 - 1180
2:46 - 1180
2:47 - 1180
2:48 - 1180
2:49 - 1180
2:50 - 1180

S-4
PERF'D 4 HPF
8456 - 8502
B.P. 8515

AC_CPUC_0118516

55. #24

8:55 - 1180
9:00 - 1180
9:05 - 1180
9:10 - 1180
9:15 - 1180
9:20 - 1180
9:40 - 1180
10:00 - 1180
10:20 - 1180
10:25 - 1180
4:37 1180

AC_CPUC_0118517

FLOW TEST ON STAND SESNON 29 FEB 10, 1973

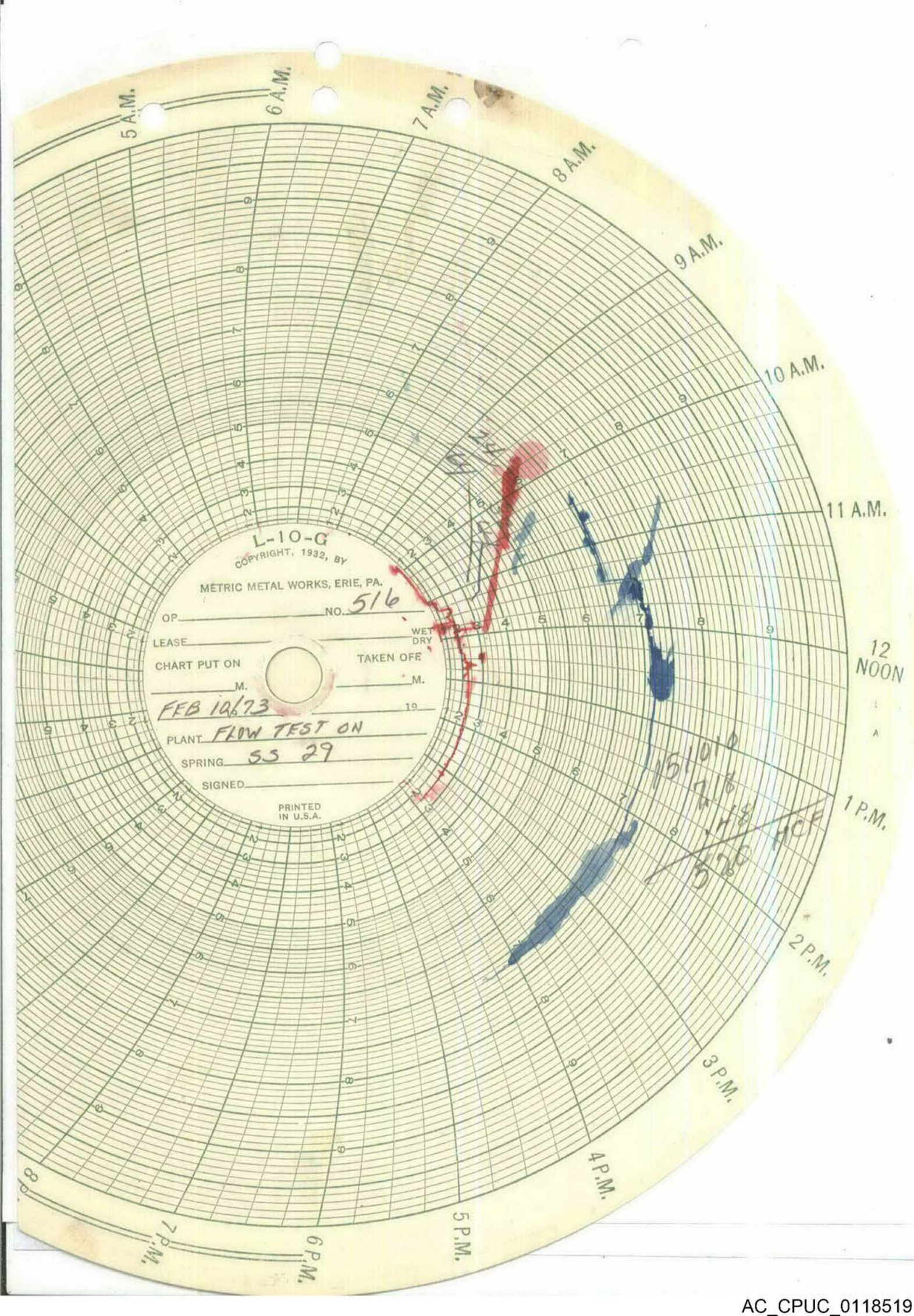
COEFF

| BEAN SIZE | TIME | PLATE SIZE | 24 HR GAS RATE | FLUID GROSS | FLUID NET |
|---|---|---|---|---|---|
| OPENED TESTER | 10:37 AM | | | | |
| 24/64 | 10:55 AM | HX 3.000 | 1125 | — | — |
| 32/64 | 11:10 AM | " " | | | |
| " | 11:20 AM | " " | — | 9.2 | 8.3 |
| " | 11:30 AM | " " | 2126 | 10.3 | 9.3 |
| " | 12:30 PM | " " | 2283 | 12.4 | 11.0 |
| " | 1:30 PM | " " | 2338 | 13.4 | 11.4 |
| " | 2:30 PM | " " | 2664 | 14.3 | 11.8 |
| " | 3:45 PM | " " | 2718 | 15.4 | 12.2 |
| " | 3:50 PM | SHUT IN | 2718 | — | — |

TOTAL FLUID = 15.4 bbls
WATER = 3.2 bbls
OIL = 12.2 bbls
TOTAL GAS PROD = 520 MCF

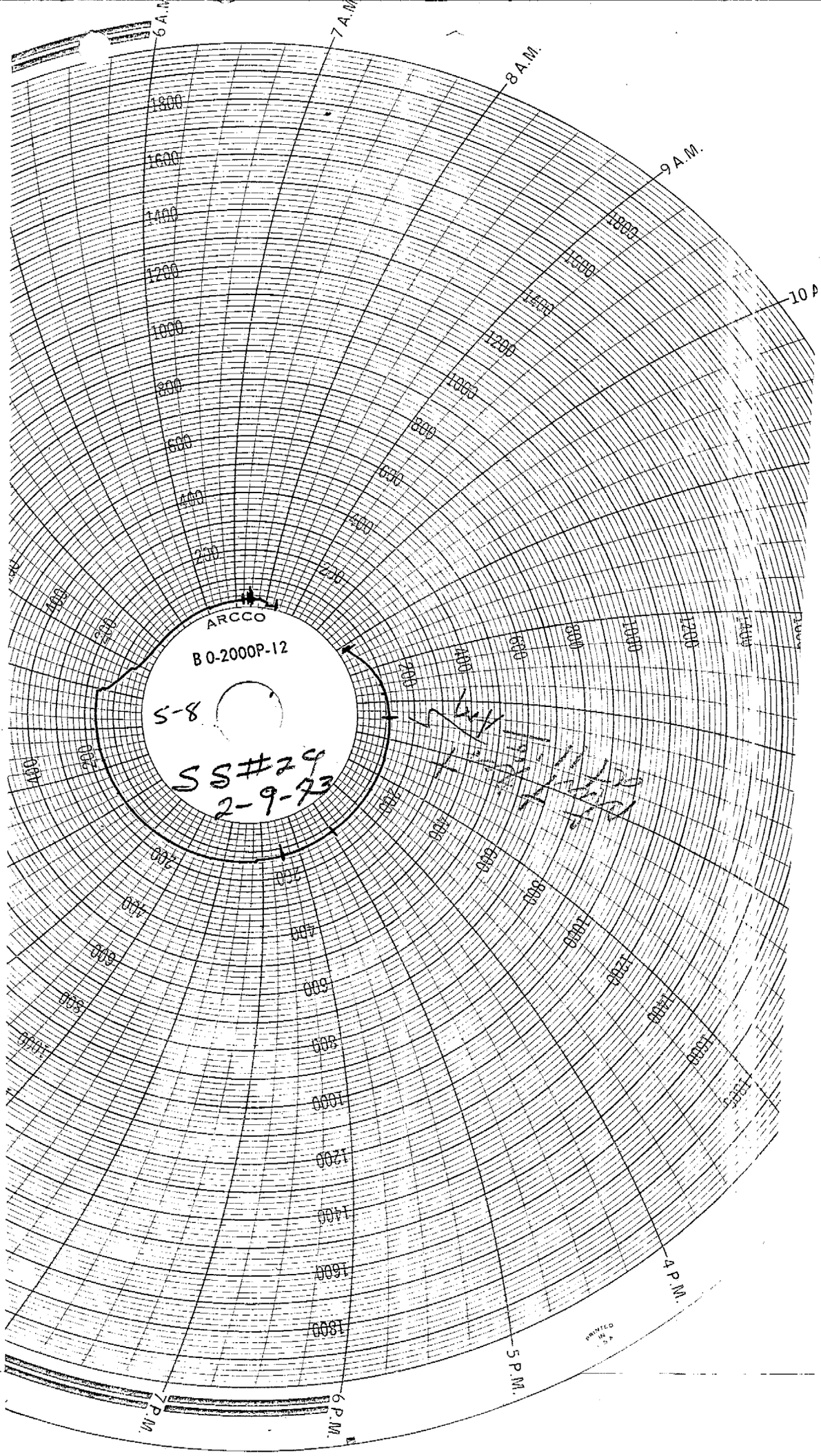
L. J. Schwab

AC_CPUC_0118518




AC_CPUC_0118519

AC_CPUC_0118520


6 A.M.
7 A.M.
8 A.M.
9 A.M.
10 A
4 P.M.
5 P.M.
6 P.M.
7 P.M.
ARCCO
B 0-2000P-12
S-8
SS#29
2-9-73

JAN 16-25, 1973

AC_CPUC_0118522

WELL TEST PRESSURE OBSERVATION CODING FORM

HEADER CARD #1

ALISO CANYON STORAGE FLD
CC 1-24 FIELD NAME

PRESSURE BUILDUP TEST
CC 25-48 TYPE OF TEST

PER CAMCO PRESSURE BOMB

SS 29 FREW ZONE
CC 49-72 WELL IDENTIFICATION

HEADER CARD #2

JAN 16-19, 1973
CC 1-24 TEST DATE

56
CC 25-29 NUMBER OF OBSERVATIONS

24
CC 30-45 DELTA T

0
CC 46-60 DEPTH TO DATUM

500
CC 61-75 STARTING PRESSURE

DATA CARDS

| TIME FROM START HOURS CC 7-9 | TIME FROM START MIN CC 10-11 | PRESSURE CC 16-21 |
|---|---|---|
| | 1.5 | 6,32 |
| | 1.6 | 6,89 |
| | 1.8 | 7,62 |
| | 2.0 | 7,71 |
| | 2.2 | 7,87 |
| | 2.5 | 7,93 |
| | 3.0 | 7,98 |
| | 3.5 | 8,03 |
| | 4.0 | 8,08 |
| | 4.5 | 8,17 |
| | 5.5 | 8,26 |
| .1 | 0.5 | 8,34 |
| .1 | 1.5 | 8,42 |
| .1 | 2.5 | 8,47 |
| .1 | 3.5 | 8,51 |
| .1 | 4.5 | 8,54 |
| .1 | 5.5 | 8,57 |
| .2 | 0.5 | 8,59 |
| .2 | 1.5 | 8,62 |
| .3 | 1.5 | 8,71 |
| .4 | 1.5 | 8,75 |
| .5 | 1.5 | 8,77 |
| .6 | 1.5 | 8,82 |
| .7 | 1.5 | 8,90 |
| .8 | 1.5 | 8,98 |

| TIME FROM START HOURS CC 7-9 | TIME FROM START MIN CC 10-11 | PRESSURE CC 16-21 |
|---|---|---|
| .9 | 1.5 | 9,06 |
| 1.0 | 1.5 | 9,13 |
| 1.1 | 1.5 | 9,19 |
| 1.2 | 1.5 | 9,26 |
| 1.3 | 1.5 | 9,34 |
| 1.4 | 1.5 | 9,41 |
| 1.5 | 1.5 | 9,44 |
| 1.6 | 1.5 | 9,51 |
| 1.7 | 1.5 | 9,57 |
| 1.8 | 1.5 | 9,61 |
| 2.0 | 1.5 | 9,72 |
| 2.2 | 1.5 | 9,79 |
| 2.4 | 1.5 | 9,90 |
| 2.6 | 1.5 | 9,97 |
| 2.8 | 1.5 | 10,04 |
| 3.0 | 1.5 | 10,09 |
| 3.2 | 1.5 | 10,14 |
| 3.4 | 1.5 | 10,20 |
| 3.6 | 1.5 | 10,23 |
| 3.8 | 1.5 | 10,27 |
| 4.0 | 1.5 | 10,34 |
| 4.2 | 1.5 | 10,39 |
| 4.4 | 1.5 | 10,44 |
| 4.6 | 1.5 | 10,46 |
| 4.8 | 1.5 | 10,50 |

Sys-DP 14 K.P.

Inf-Sys 3 K.P.

Cont. on next page

AC_CPUC_0118523

WELL TEST PRESSURE OBSERVATION CODING FORM

HEADER CARD #1

ALISO CANYON STORAGE FLD
CC 1-24 FIELD NAME

PRESSURE BUILDUP TEST
CC 25-48 TYPE OF TEST

SS 29
CC 49-72 WELL IDENTIFICATION

HEADER CARD #2

JAN 16-19, 1973
CC 1-24 TEST DATE

CC 25-29 NUMBER OF OBSERVATIONS

24
CC 30-45 DELTA T

0
CC 46-60 DEPTH TO DATUM

5000
CC 61-75 STARTING PRESSURE

continued from 1st page
DATA CARDS

| TIME FROM START HOURS CC 7-9 | TIME FROM START MIN CC 10-11 | PRESSURE CC 16-21 |
|---|---|---|
| 50 | 15 | 1054 |
| 52 | 15 | 1058 |
| 54 | 15 | 1062 |
| 71 | 45 | 1071 |
| add → 194 | 00 | 1089 |
| 218 | 00 | 1103 |

| TIME FROM START HOURS CC 7-9 | TIME FROM START MIN CC 10-11 | PRESSURE CC 16-21 |
|---|---|---|
| | | |

Inj-Sta 3 K.P.

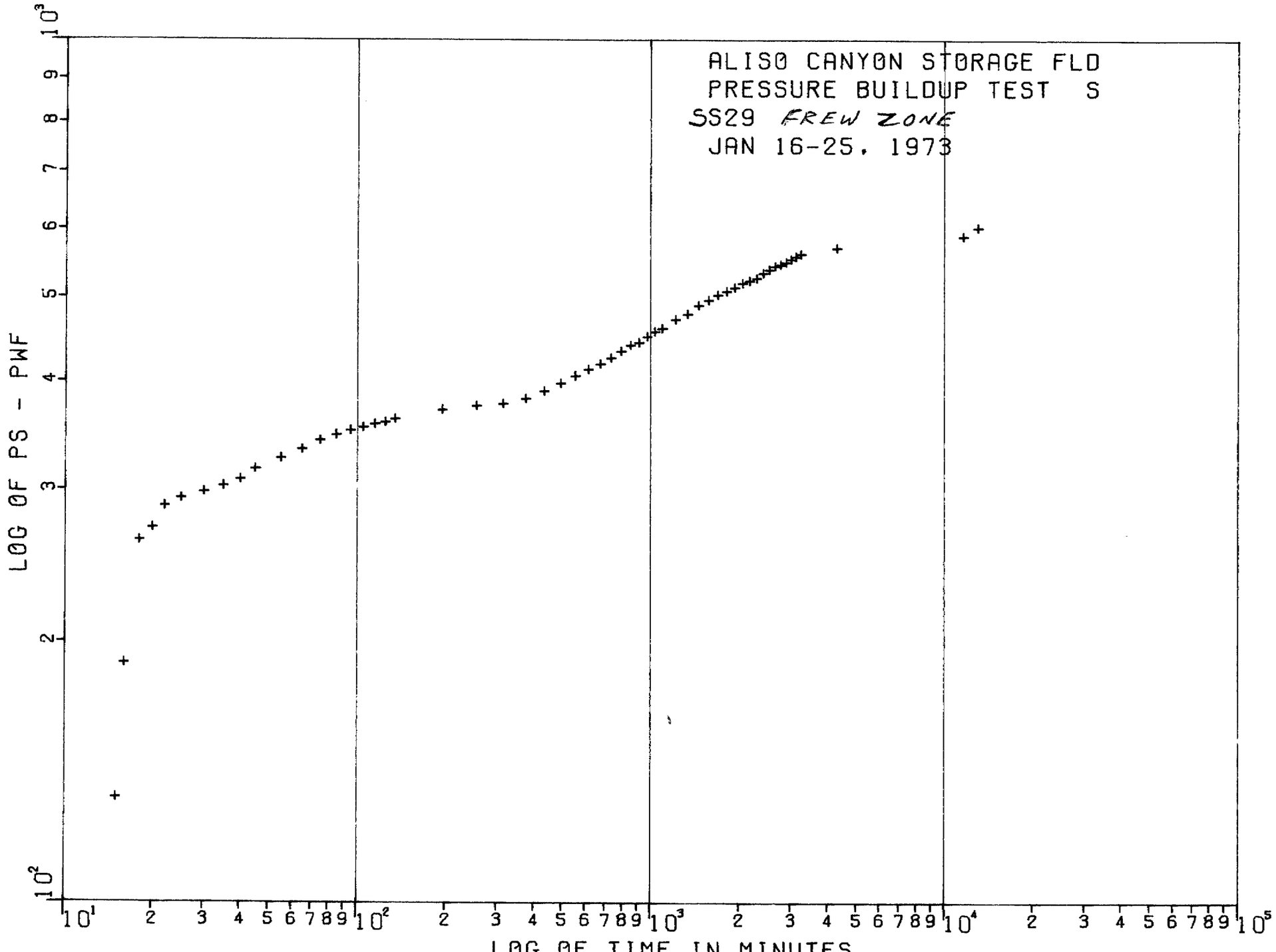
Inj-Sta 4 K.P.

AC_CPUC_0118524

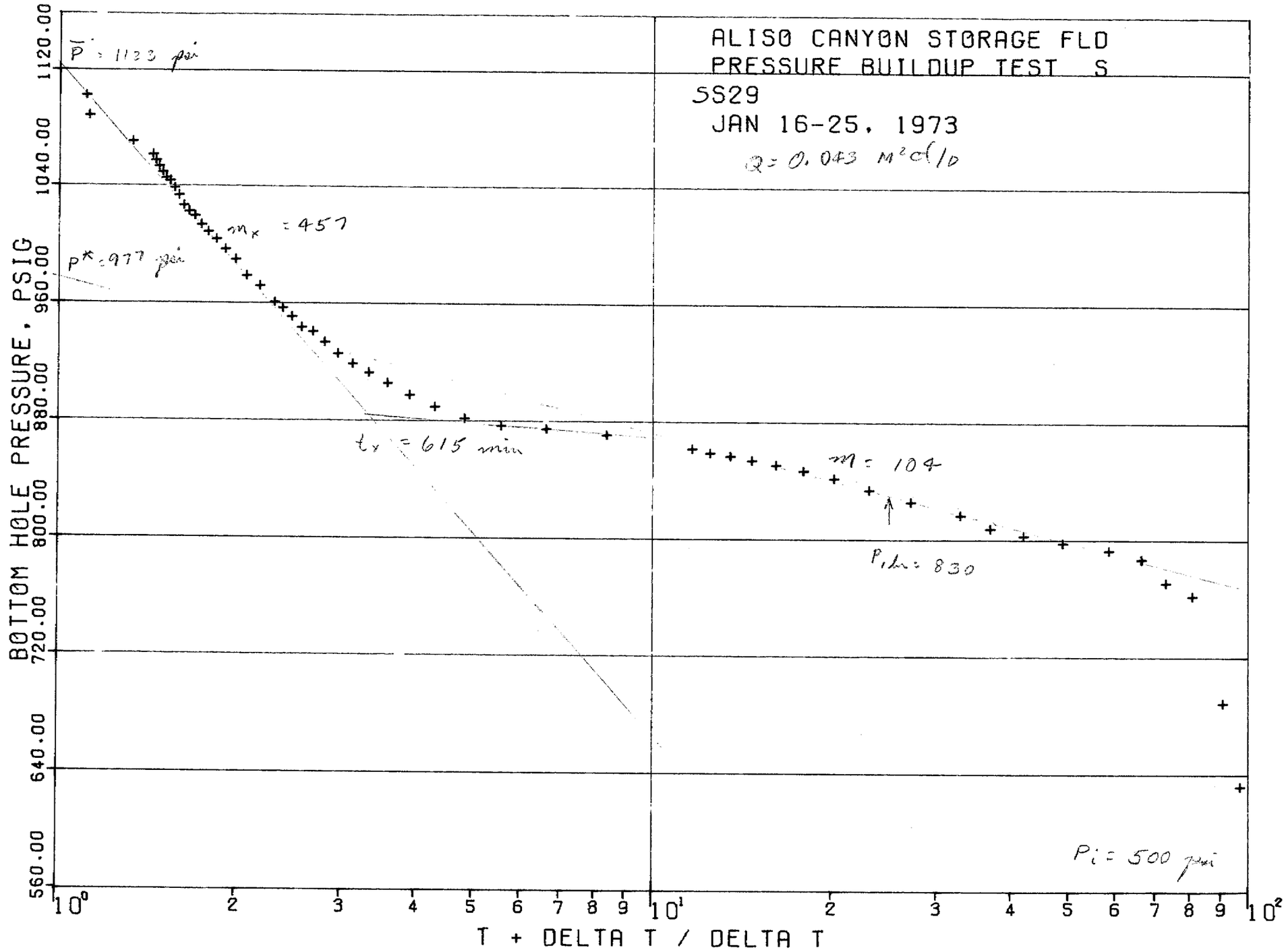
ALISO CANYON STORAGE FLD 5829, [illegible] Zone — PRESSURE BUILDUP TEST 9 JAN 16-25, 1973

| DELTA T | T + DT / DT | SURFACE PRESSURE | BOTTOM HOLE PRESSURE | PS - PWF |
|---|---|---|---|---|
| 15.0 | 97.000 | 632.0 | 632.0 | 132.0 |
| 16.0 | 91.000 | 689.0 | 689.0 | 189.0 |
| 18.0 | 81.000 | 762.0 | 762.0 | 262.0 |
| 20.0 | 73.000 | 771.0 | 771.0 | 271.0 |
| 22.0 | 66.455 | 787.0 | 787.0 | 287.0 |
| 25.0 | 58.600 | 793.0 | 793.0 | 293.0 |
| 30.0 | 49.000 | 798.0 | 798.0 | 298.0 |
| 35.0 | 42.143 | 803.0 | 803.0 | 303.0 |
| 40.0 | 37.000 | 808.0 | 808.0 | 308.0 |
| 45.0 | 33.000 | 817.0 | 817.0 | 317.0 |
| 55.0 | 27.182 | 826.0 | 826.0 | 326.0 |
| 65.0 | 23.154 | 834.0 | 834.0 | 334.0 |
| 75.0 | 20.200 | 842.0 | 842.0 | 342.0 |
| 85.0 | 17.941 | 847.0 | 847.0 | 347.0 |
| 95.0 | 16.158 | 851.0 | 851.0 | 351.0 |
| 105.0 | 14.714 | 854.0 | 854.0 | 354.0 |
| 115.0 | 13.522 | 857.0 | 857.0 | 357.0 |
| 125.0 | 12.520 | 859.0 | 859.0 | 359.0 |
| 135.0 | 11.667 | 862.0 | 862.0 | 362.0 |
| 185.0 | 8.385 | 871.0 | 871.0 | 371.0 |
| 255.0 | 6.647 | 875.0 | 875.0 | 375.0 |
| 315.0 | 5.571 | 877.0 | 877.0 | 377.0 |
| 375.0 | 4.840 | 882.0 | 882.0 | 382.0 |
| 435.0 | 4.310 | 890.0 | 890.0 | 390.0 |
| 495.0 | 3.909 | 896.0 | 896.0 | 398.0 |
| 555.0 | 3.595 | 906.0 | 906.0 | 406.0 |
| 615.0 | 3.341 | 913.0 | 913.0 | 413.0 |
| 675.0 | 3.133 | 919.0 | 919.0 | 419.0 |
| 735.0 | 2.959 | 926.0 | 926.0 | 426.0 |
| 795.0 | 2.811 | 934.0 | 934.0 | 434.0 |
| 855.0 | 2.684 | 941.0 | 941.0 | 441.0 |
| 915.0 | 2.574 | 944.0 | 944.0 | 444.0 |
| 975.0 | 2.477 | 951.0 | 951.0 | 451.0 |
| 1035.0 | 2.391 | 957.0 | 957.0 | 457.0 |
| 1095.0 | 2.315 | 961.0 | 961.0 | 461.0 |
| 1215.0 | 2.185 | 972.0 | 972.0 | 472.0 |
| 1335.0 | 2.079 | 979.0 | 979.0 | 479.0 |
| 1455.0 | 1.990 | 990.0 | 990.0 | 490.0 |
| 1575.0 | 1.914 | 997.0 | 997.0 | 497.0 |
| 1695.0 | 1.850 | 1004.0 | 1004.0 | 504.0 |
| 1815.0 | 1.795 | 1009.0 | 1009.0 | 509.0 |
| 1935.0 | 1.744 | 1014.0 | 1014.0 | 514.0 |
| 2055.0 | 1.701 | 1020.0 | 1020.0 | 520.0 |
| 2175.0 | 1.662 | 1023.0 | 1023.0 | 523.0 |
| 2295.0 | 1.627 | 1027.0 | 1027.0 | 527.0 |
| 2415.0 | 1.596 | 1034.0 | 1034.0 | 534.0 |
| 2535.0 | 1.568 | 1039.0 | 1039.0 | 539.0 |
| 2655.0 | 1.542 | 1044.0 | 1044.0 | 544.0 |
| 2775.0 | 1.519 | 1046.0 | 1046.0 | 546.0 |
| 2895.0 | 1.497 | 1050.0 | 1050.0 | 550.0 |
| 3015.0 | 1.478 | 1054.0 | 1054.0 | 554.0 |
| 3135.0 | 1.459 | 1058.0 | 1058.0 | 558.0 |
| 3255.0 | 1.442 | 1062.0 | 1062.0 | 562.0 |
| 4305.0 | 1.334 | 1071.0 | 1071.0 | 571.0 |
| 11640.0 | 1.164 | 1089.0 | 1089.0 | 589.0 |
| 13010.0 | 1.136 | 1103.0 | 1103.0 | 603.0 |

AC_CPUC_0118525




AC_CPUC_0118526




AC_CPUC_0118527

Mario

① @ (sp) XQT (sp) CUR

② FSTIN (sp) ALITAB/RDH

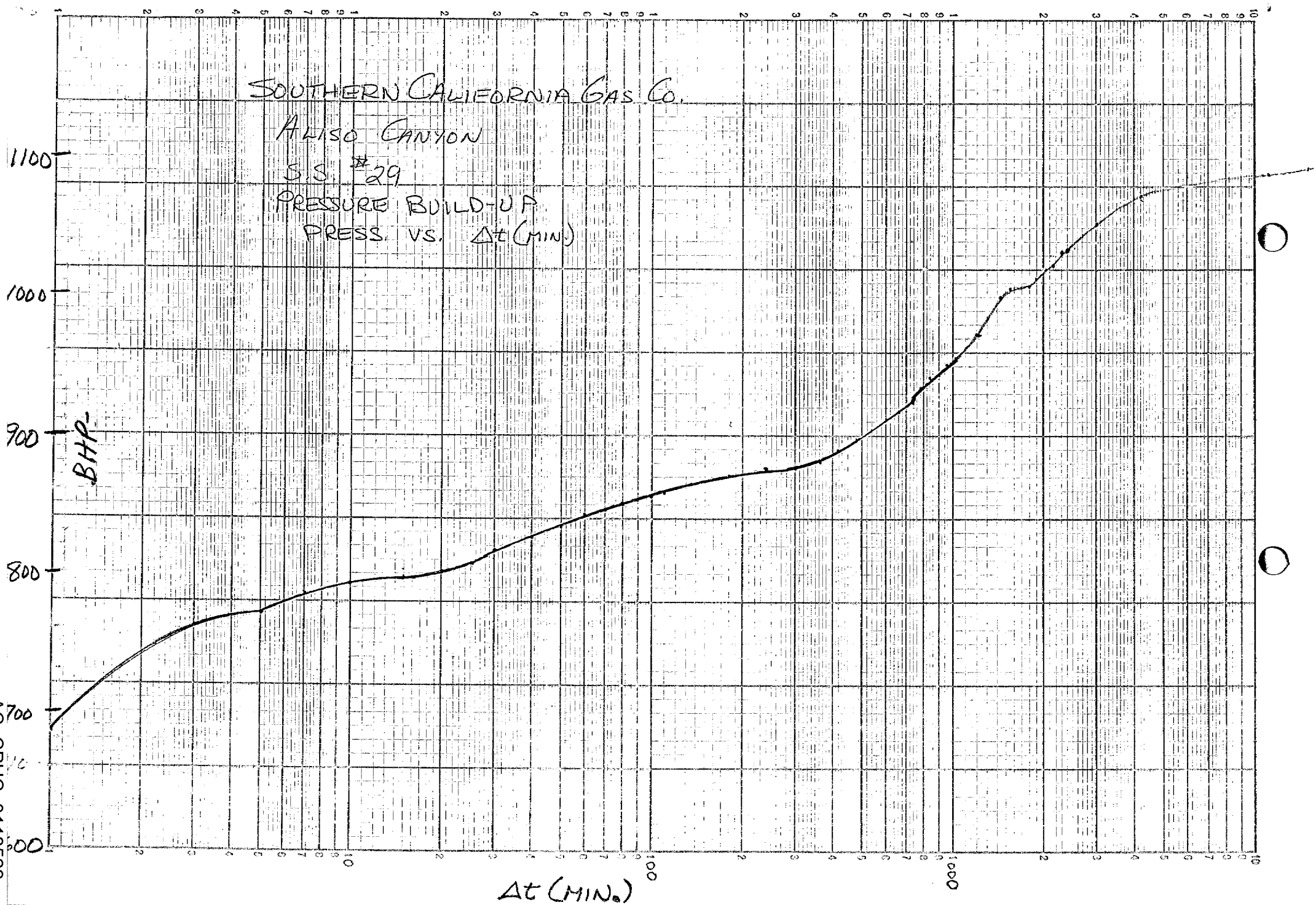
③ PCH (sp) 1

Fr: Fairbanks to 1108

Ben Barker Harlan
1-19-73
Marion

AC_CPUC_0118528

SEMI-LOGARITHMIC 46 5390
4 CYCLES X 60 DIVISIONS
KEUFFEL & ESSER CO.




AC_CPUC_0118529

ENGINEERING DATA

SOUTHERN CAL. GAS CO.
ALISO CANYON

| ΔT. | PRESSURE | Δt(MIN.) |
|---|---|---|
| | 354# | AT 0' IN LUBRICATOR |
| 15 | 632# | AT BOTTOM HOLE (8510') |
| 16 | 689 | - 1 |
| 18 | 762 | - 3 |
| 20 | 771 | - 5 |
| 22 | 787 | - 7 |
| 25 | 793 | - 10 |
| 30 | 798 | - 15 |
| 35 | 803 | - 20 |
| 40 | 808 | - 25 |
| 45 | 817 | - 30 |
| 55 | 826 | - 40 |
| 65 | 834 | - 50 |
| 75 | 842 | - 60 |
| 85 | 847 | - 70 |
| 95 | 851 | - 80 |
| 105 | 854 | - 90 |
| 115 | 857 | - 100 |
| 125 | 859 | - 110 |
| 135 | 862 | - 120 |
| 195 | 871 | - 180 |
| 255 | 875 | - 240 |
| 315 | 877 | - 300 |
| 375 | 882 | - 360 |
| 435 | 890 | - 420 |
| 495 | 898 | - 480 |
| 555 | 906 | - 540 |
| 615 | 913 | - 600 |
| 675 | 919 | - 660 |
| 735 | 926 | - 720 |
| 795 | 934 | - 780 |
| 855 | 941 | - 840 |
| 915 | 944 | - 900 |
| 975 | 951 | - 960 |
| 1035 | 957 | - 1020 |

| PRESSURE | Δt(MIN.) |
|---|---|
| 1095 961# | - 1080 MIN. |
| 1215 972 | - 1200 |
| 1335 979 | - 1320 |
| 1455 990 | - 1440 |
| 1575 997 | - 1560 |
| 1695 1004 | - 1680 |
| 1815 1009 | - 1800 |
| 1935 1014 | - 1920 |
| 2055 1020 | - 2040 |
| 2175 1023 | - 2160 |
| 2295 1027 | - 2280 |
| 2415 1034 | - 2400 |
| 2535 1039 | - 2520 |
| 2655 1044 | - 2640 |
| 2775 1046 | - 2760 |
| 2895 1050 | - 2880 |
| 3015 1054 | - 3000 |
| 3135 1058 | - 3120 |
| 3255 1062 | - 3240 |
| | CLOCK STOPPED |
| | MAX. BUILD-UP |
| 4305 1071# | - 4290 MIN. |
| 11520 1089 | |
| 13001 1103 | |

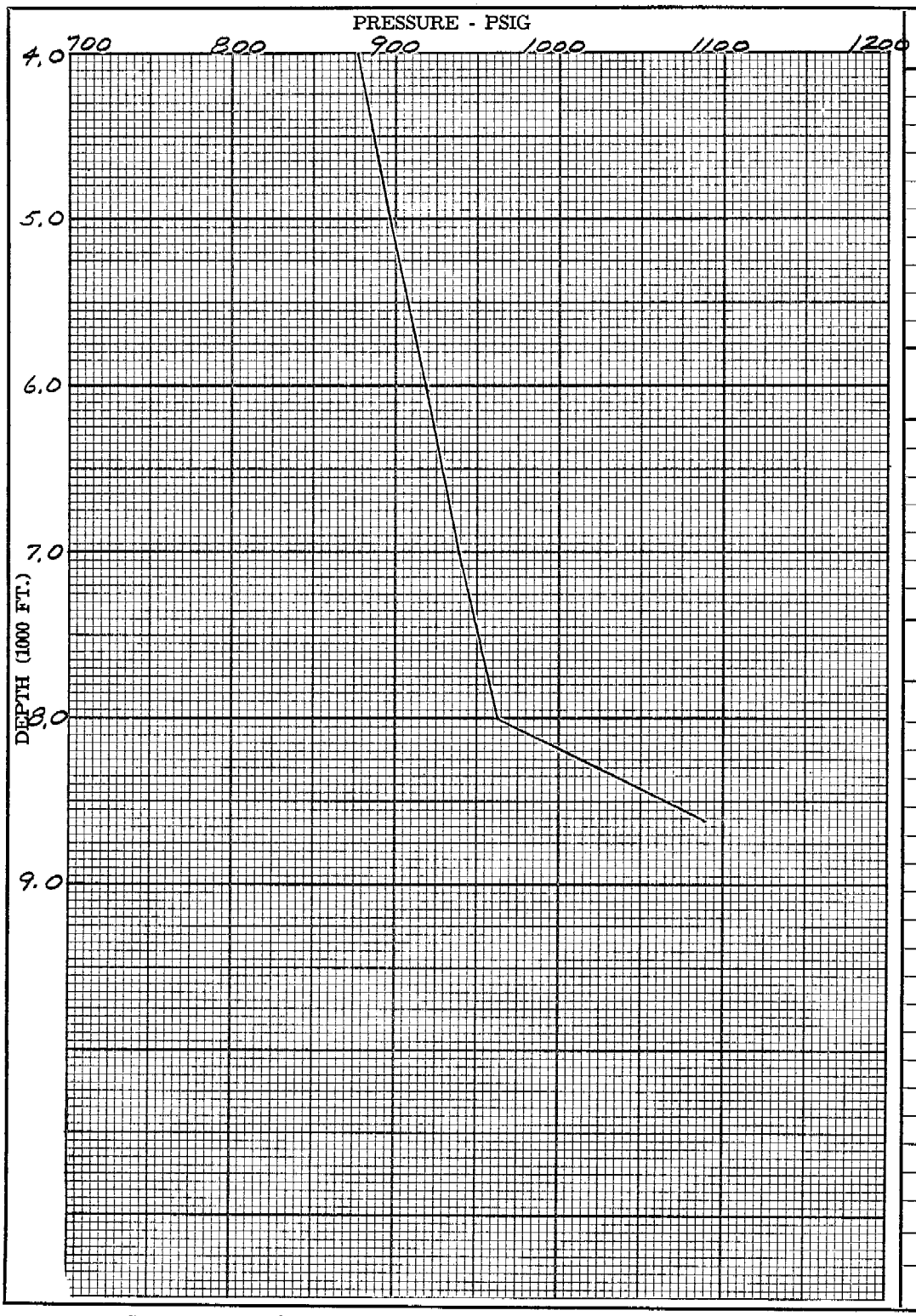
AC_CPUC_0118530

TECHNICAL SERVICE CO
801 West 14th Street
Long Beach, California 90813

Phones: 24 Hours
Long Beach - 436-9901

# SUB-SURFACE PRESSURE DATA

Company Southern Calif. Gas Company Field Aliso Canyon Date 1-24-73 Run No. In
Well Standard Sesnon #29 Zone Elev.
Purpose Static Pressure Gradient Survey Status Shut In
Total Depth Effect. Depth
Casing Size Depth Liner Size Top Bottom
Perforations
Tubing 2-1/2" & 2", X-over @ 8028'. G/L mandrels @ 1654', 3049', 4335', 5566', 6212', 7502', 8212', 8631'




## OBSERVATIONS

| | |
|---|---|
| Stabilization Period - Hrs. | |
| Gross Oil Rate - B/D | |
| Net Oil Rate - B/D | |
| Formation Gas MCF/D | |
| Formation Gas-Oil Ratio CFT/BBL | |
| Circulated Gas MCF/D | |
| Oil Dry Gravity - °A.P.I. | |
| Casinghead Pressure - PSIG | 769 |
| Tubinghead Pressure - PSIG | 794 |
| Casing Fluid Level - Ft. | |

## RESULTS

| | |
|---|---|
| Gross Productivity Index | B/D PSI |
| Net Productivity Index | B/D PSI |
| Static M.E.P. - Run No. | PSI |
| Static M.E.P. - Projected | PSI |
| Gross Absolute Potential | B/D |
| Net Absolute Potential | B/D |
| Datum Pressures: | |

| Traverse Depth Feet | Pressure PSIG | Gradient PSI/FT |
|---|---|---|
| 0 | 794 | |
| 4000 | 877 | 0.021 |
| 5000 | 897 | 0.020 |
| 6000 | 918 | 0.021 |
| 7000 | 939 | 0.021 |
| 8000 | 962 | 0.023 |
| 8615 | 1089 | 0.207 |
| | | |
| Check | Instr. | |
| 0 | 794 | |
| 4000 | 879 | |
| 5000 | 903 | |
| 6000 | 924 | |
| 7000 | 944 | |
| 8000 | 966 | |
| 8615 | 1093 | |

COMMENTS Zero: 10' Above Mat

By Harlan-Worley-Homer

AC_CPUC_0118531

TECHNICAL SERVICE CO.
801 West 14th Street
Long Beach, California 90813

Phones: 24 Hours
Long Beach - 436-9901
Ventura - - - 648-4888

# SUB-SURFACE PRESSURE DATA

Company Southern Calif. Gas Company Field Aliso Canyon Date 1-(24-25)-73 Run No.
Well Standard Sesnon #29 Zone Elev.
Purpose Pressure Buildup Survey Status Shut In
Total Depth Effect. Depth
Casing Size Depth Liner Size Top Bottom
Perforations
Tubing 2-1/2" & 2", X-over @ 8028'. G/L mandrels @ 1654', 3049', 4335', 5566', 6212', 7502', 8212', 8631'

DEPTH: 8615'

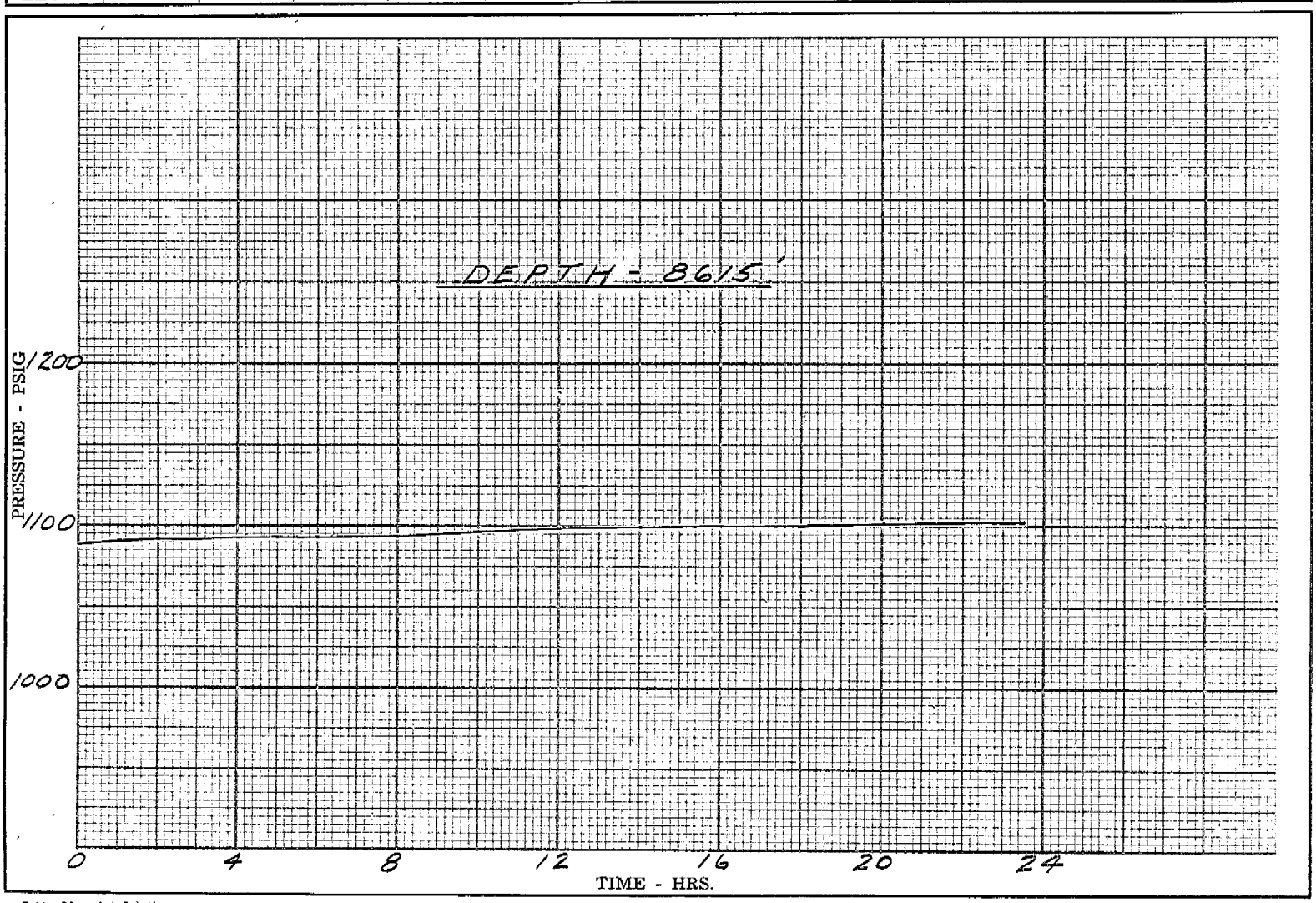
| Time Hrs. | Pressure PSIG | Time Hrs. | Pressure PSIG | Time Hrs. | Pressure PSIG |
|---|---|---|---|---|---|
| 0:00 | 1089 | 23:25 | 1102 | Check | Instr. |
| 1:00 | 1090 | | | 0:00 | 1093 |
| 2:00 | 1091 | | | 5:00 | 1095 |
| 3:00 | 1091 | | | 10:00 | 1098 |
| 4:00 | 1092 | | | 16:00 | 1100 |
| 5:00 | 1093 | | | 20:00 | 1102 |
| 6:00 | 1093 | | | 23:25 | 1103 |
| 8:00 | 1094 | | | | |
| 10:00 | 1096 | | | | |
| 12:00 | 1098 | | | | |
| 14:00 | 1099 | | | | |
| 16:00 | 1100 | | | | |
| 18:00 | 1100 | | | | |
| 20:00 | 1101 | | | | |
| 22:00 | 1102 | | | | |

OBSERVATIONS

| | |
|---|---|
| Stabilization Period - Hrs. 23:25 | Shut-in |
| Run No. | |
| Time at Depth 2:20 PM | |
| Time off Depth 1:45 PM | |
| Csg. PSIG: Start - End 769 - 780 | |
| Tbg. PSIG: Start - End 794 - 805 | |
| Zero: 10' Above Mat | |

Comments:
Maximum Temperature 186°F.

By: Harlan-Worley-Homer

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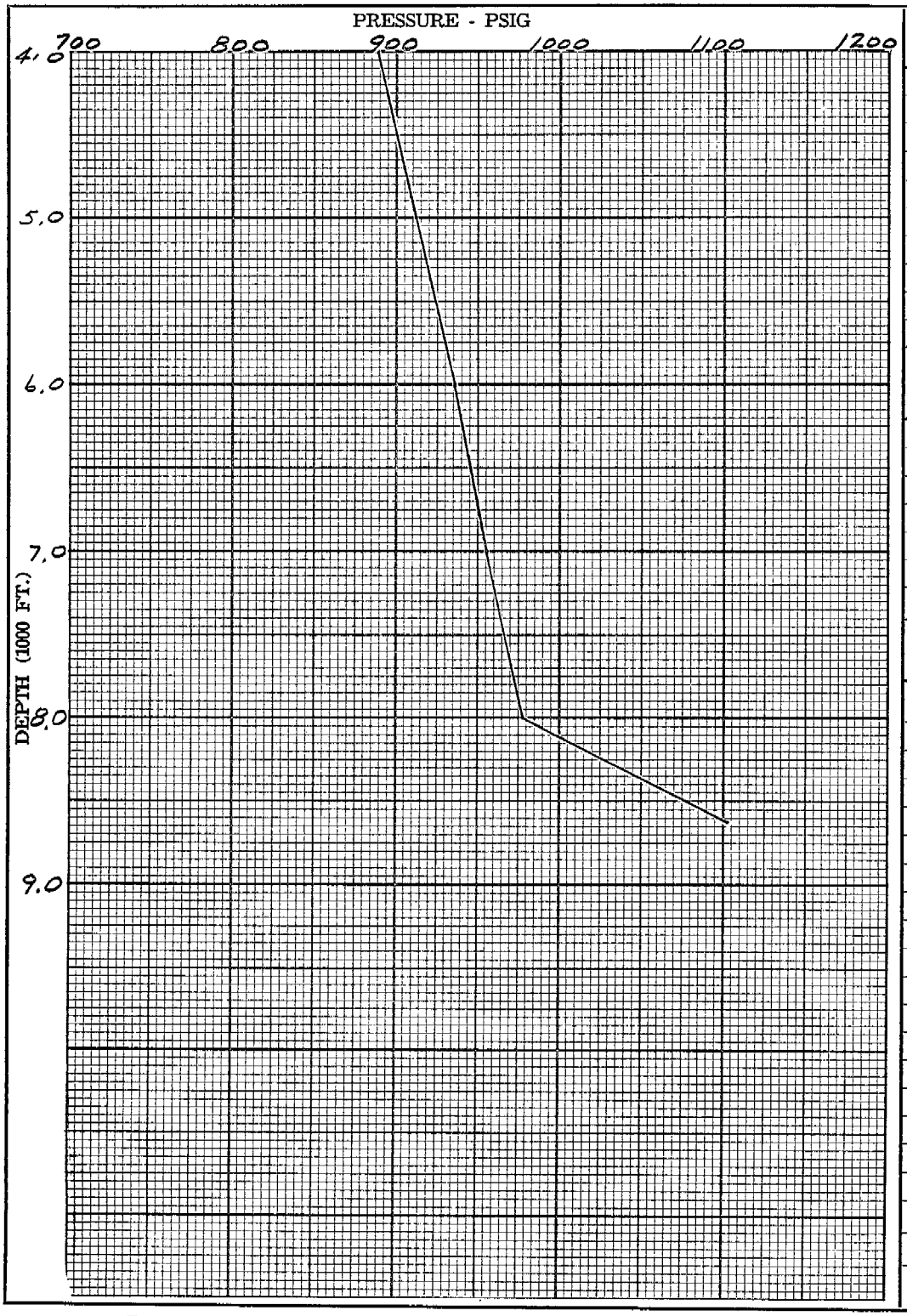
AC_CPUC_0118532

TECHNICAL SERVICE CO
801 West 14th Street
Long Beach, California 90813

Phones: 24 Hours
Long Beach - 436-9901

# SUB-SURFACE PRESSURE DATA

Company Southern Calif. Gas Company Field Aliso Canyon Date 1-25-73 Run No. Out
Well Standard Sesnon #29 Zone Elev.
Purpose Static Pressure Gradient Survey Status Shut In
Total Depth Effect. Depth
Casing Size Depth Liner Size Top Bottom
Perforations
Tubing 2-1/2" & 2", X-over @ 8028'. G/L mandrels @ 1654', 3049', 4335', 5566', 6212', 7502', 8212', 8631'




## OBSERVATIONS

| | |
|---|---|
| Stabilization Period - Hrs. | |
| Gross Oil Rate - B/D | |
| Net Oil Rate - B/D | |
| Formation Gas MCF/D | |
| Formation Gas-Oil Ratio CFT/BBL | |
| Circulated Gas MCF/D | |
| Oil Dry Gravity - °A.P.I. | |
| Casinghead Pressure - PSIG | 780 |
| Tubinghead Pressure - PSIG | 805 |
| Casing Fluid Level - Ft. | |

## RESULTS

| | |
|---|---|
| Gross Productivity Index | B/D PSI |
| Net Productivity Index | B/D PSI |
| Static M.E.P. - Run No. | PSI |
| Static M.E.P. - Projected | PSI |
| Gross Absolute Potential | B/D |
| Net Absolute Potential | B/D |
| Datum Pressures: | |

| Traverse Depth Feet | Pressure PSIG | Gradient PSI/FT |
|---|---|---|
| 0 | 805 | |
| 4000 | 889 | 0.021 |
| 5000 | 912 | 0.023 |
| 6000 | 935 | 0.023 |
| 7000 | 955 | 0.020 |
| 8000 | 977 | 0.022 |
| 8615 | 1102 | 0.203 |
| | | |
| Check | Instr. | |
| 0 | 803 | |
| 4000 | 887 | |
| 5000 | 909 | |
| 6000 | 931 | |
| 7000 | 955 | |
| 8000 | 978 | |
| 8615 | 1103 | |

COMMENTS Zero: 10' Above Mat

By Harlan-Worley-Homer

AC_CPUC_0118533

# INDIVIDUAL WELL PERFORMANCE TESTS
## ALISO CANYON FIELD
## STORAGE FIELD

WELL NO. SS 29, FREW ZONE

TEST DATES 1-16-73 THROUGH 1-25-73

### BASIC DATA

| | | | | | |
|---|---|---|---|---|---|
| NET HYDROCARBON THICKNESS | = 313.00 | OIL SATURATION | = .400 | WELLBORE RADIUS | = .204 |
| NET GAS SAND THICKNESS | = 10.00 | GAS SATURATION | = .300 | WITHDRAWAL RATE | = .04 |
| POROSITY, PHI | = .100 | WATER SATURATION | = .300 | | |

### DATA FROM TESTS

PRESSURE BUILDUP

| | |
|---|---|
| VOLUME FACTOR, BG | .02225 |
| COMPRESSIBILITY, CT | .00060 |
| VISCOSITY, MU | .01329 |
| SLOPE, M | 104.000 |
| P(I) = P AT SHUT-IN | 500. |
| P* = EXTRAPOLATED P | 977. |
| P(1 HR) | 830. |
| P-BAR AVERAGE P | 1123. |
| BOUNDARY TIME-LAG | 10.20 |
| BOUNDARY SLOPE | 457.000 |

AC_CPUC_0118534

WELL NO. SS 29, FREW ZONE

TEST RESULTS

TEST DATES 1-16-73 THROUGH 1-25-73

PRESSURE BUILDUP

| | |
|---|---|
| CONDUCTANCE, KH | 3.54 |
| PERMEABILITY, K | .35 |
| SKIN EFFECT, S | -.72 |
| PRESSURE LOSS, DELP | -65. |
| PRODUCTIVITY INDEX ACTUAL | 16.1 |
| PRODUCTIVITY INDEX IDEAL | 14.1 |
| FLOW EFFICIENCY | 1.136 |
| DISTANCE TO NEAREST BOUNDARY | 68.732* |

* INDICATES MORE THAN ONE BOUNDARY

AC_CPUC_0118535

ALISO CANYON FIELD
STORAGE FIELD

WELL NO, SS 29,FREW ZONE TEST DATES 1-16-73 THROUGH 1-25-73

BASIC DATA

| | | | | | |
|---|---|---|---|---|---|
| NET HYDROCARBON THICKNESS | = 313,00 | OIL SATURATION | = ,400 | WELLBORE RADIUS | = ,204 |
| NET GAS SAND THICKNESS | = 10,00 | GAS SATURATION | = ,300 | WITHDRAWAL RATE | = ,04 |
| POROSITY, PHI | = ,100 | WATER SATURATION | = ,300 | | |

DATA FROM TESTS

PRESSURE BUILDUP

| | |
|---|---|
| VOLUME FACTOR, BG | ,02225 |
| COMPRESSIBILITY, CT | ,00060 |
| VISCOSITY, MU | ,01329 |
| SLOPE, M | 104,000 |
| P(I) = P AT SHUT-IN | 500, |
| P* = EXTRAPOLATED P | 977, |
| P(1 HR) | 830, |
| P-BAR AVERAGE P | 1123, |
| BOUNDARY TIME-LAG | 10,20 |
| BOUNDARY SLOPE | 457,000 |

AC_CPUC_0118536

ALISO CANYON FIELD
STORAGE FIELD

WELL NO. SS 29,FREW ZONE TEST DATES 1-16-73 THROUGH 1-25-73

TEST RESULTS

PRESSURE BUILDUP

| | |
|---|---|
| CONDUCTANCE, KH | 3,54 |
| PERMEABILITY, K | ,35 |
| SKIN EFFECT, S | -,72 |
| PRESSURE LOSS, DELP | -65, |
| PRODUCTIVITY INDEX ACTUAL | 16,1 |
| PRODUCTIVITY INDEX IDEAL | 14,1 |
| FLOW EFFICIENCY | 1,136 |
| DISTANCE TO NEAREST BOUNDARY | 68,732* |

* INDICATES MORE THAN ONE BOUNDARY

AC_CPUC_0118537

ALISO CANYON STORAGE FLD SS29, FRew ZONE PRESSURE BUILDUP TEST S JAN 16-25, 1973

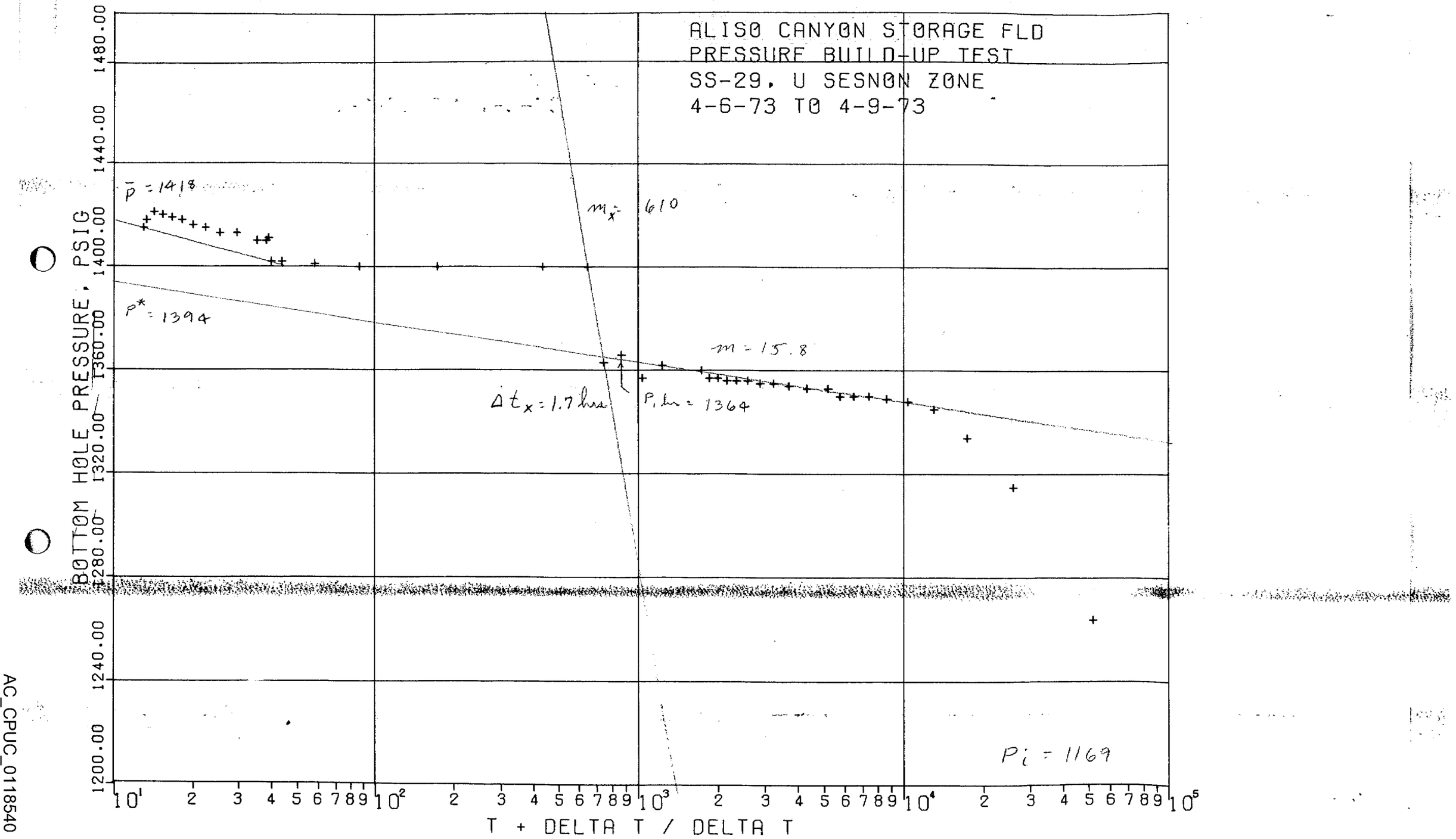
| DELTA T | T + DT / DT | SURFACE PRESSURE | BOTTOM HOLE PRESSURE | PS - PWF |
|---|---|---|---|---|
| 15.0 | 97,000 | 632,0 | 632,0 | 132,0 |
| 16.0 | 91,000 | 689,0 | 689,0 | 189,0 |
| 18.0 | 81,000 | 762,0 | 762,0 | 262,0 |
| 20.0 | 73,000 | 771,0 | 771,0 | 271,0 |
| 22.0 | 66,455 | 787,0 | 787,0 | 287,0 |
| 25.0 | 58,600 | 793,0 | 793,0 | 293,0 |
| 30.0 | 49,000 | 798,0 | 798,0 | 298,0 |
| 35.0 | 42,143 | 803,0 | 803,0 | 303,0 |
| 40.0 | 37,000 | 808,0 | 808,0 | 308,0 |
| 45.0 | 33,000 | 817,0 | 817,0 | 317,0 |
| 55.0 | 27,182 | 826,0 | 826,0 | 326,0 |
| 65.0 | 23,154 | 834,0 | 834,0 | 334,0 |
| 75.0 | 20,200 | 842,0 | 842,0 | 342,0 |
| 85.0 | 17,941 | 847,0 | 847,0 | 347,0 |
| 95.0 | 16,158 | 851,0 | 851,0 | 351,0 |
| 105.0 | 14,714 | 854,0 | 854,0 | 354,0 |
| 115.0 | 13,522 | 857,0 | 857,0 | 357,0 |
| 125.0 | 12,520 | 859,0 | 859,0 | 359,0 |
| 135.0 | 11,667 | 862,0 | 862,0 | 362,0 |
| 195.0 | 8,385 | 871,0 | 871,0 | 371,0 |
| 255.0 | 6,647 | 875,0 | 875,0 | 375,0 |
| 315.0 | 5,571 | 877,0 | 877,0 | 377,0 |
| 375.0 | 4,840 | 882,0 | 882,0 | 382,0 |
| 435.0 | 4,310 | 890,0 | 890,0 | 390,0 |
| 495.0 | 3,909 | 898,0 | 898,0 | 398,0 |
| 555.0 | 3,595 | 906,0 | 906,0 | 406,0 |
| 615.0 | 3,341 | 913,0 | 913,0 | 413,0 |
| 675.0 | 3,133 | 919,0 | 919,0 | 419,0 |
| 735.0 | 2,959 | 926,0 | 926,0 | 426,0 |
| 795.0 | 2,811 | 934,0 | 934,0 | 434,0 |
| 855.0 | 2,684 | 941,0 | 941,0 | 441,0 |
| 915.0 | 2,574 | 944,0 | 944,0 | 444,0 |
| 975.0 | 2,477 | 951,0 | 951,0 | 451,0 |
| 1035.0 | 2,391 | 957,0 | 957,0 | 457,0 |
| 1095.0 | 2,315 | 961,0 | 961,0 | 461,0 |
| 1215.0 | 2,185 | 972,0 | 972,0 | 472,0 |
| 1335.0 | 2,079 | 979,0 | 979,0 | 479,0 |
| 1455.0 | 1,990 | 990,0 | 990,0 | 490,0 |
| 1575.0 | 1,914 | 997,0 | 997,0 | 497,0 |
| 1695.0 | 1,850 | 1004,0 | 1004,0 | 504,0 |
| 1815.0 | 1,793 | 1009,0 | 1009,0 | 509,0 |
| 1935.0 | 1,744 | 1014,0 | 1014,0 | 514,0 |
| 2055.0 | 1,701 | 1020,0 | 1020,0 | 520,0 |
| 2175.0 | 1,662 | 1023,0 | 1023,0 | 523,0 |
| 2295.0 | 1,627 | 1027,0 | 1027,0 | 527,0 |
| 2415.0 | 1,596 | 1034,0 | 1034,0 | 534,0 |
| 2535.0 | 1,568 | 1039,0 | 1039,0 | 539,0 |
| 2655.0 | 1,542 | 1044,0 | 1044,0 | 544,0 |
| 2775.0 | 1,519 | 1046,0 | 1046,0 | 546,0 |
| 2895.0 | 1,497 | 1050,0 | 1050,0 | 550,0 |
| 3015.0 | 1,478 | 1054,0 | 1054,0 | 554,0 |
| 3135.0 | 1,459 | 1058,0 | 1058,0 | 558,0 |
| 3255.0 | 1,442 | 1062,0 | 1062,0 | 562,0 |
| 4305.0 | 1,334 | 1071,0 | 1071,0 | 571,0 |
| 11640.0 | 1,164 | 1089,0 | 1089,0 | 589,0 |
| [illegible] | 1,110 | [illegible] | [illegible] | [illegible] |

AC_CPUC_0118538

ALISO CANYON STORAGE FLD SS-29, U SESNON ZONE PRESSURE BUILD-UP TEST 4-6-73 TO 4-9-73

| DELTA T | T + DT / DT | SURFACE PRESSURE | BOTTOM HOLE PRESSURE | PS - PWF |
|---|---|---|---|---|
| 1.0 | 51841,000 | 1264,0 | 1264,0 | 95,0 |
| 2.0 | 25921,001 | 1315,0 | 1315,0 | 146,0 |
| 3.0 | 17281,000 | 1334,0 | 1334,0 | 165,0 |
| 4.0 | 12961,000 | 1345,0 | 1345,0 | 176,0 |
| 5.0 | 10369,000 | 1348,0 | 1348,0 | 179,0 |
| 6.0 | 8641,000 | 1349,0 | 1349,0 | 180,0 |
| 7.0 | 7406,714 | 1350,0 | 1350,0 | 181,0 |
| 8.0 | 6481,000 | 1350,0 | 1350,0 | 181,0 |
| 9.0 | 5761,000 | 1350,0 | 1350,0 | 181,0 |
| 10.0 | 5185,000 | 1353,0 | 1353,0 | 184,0 |
| 12.0 | 4321,000 | 1353,0 | 1353,0 | 184,0 |
| 14.0 | 3703,857 | 1354,0 | 1354,0 | 185,0 |
| 16.0 | 3241,000 | 1355,0 | 1355,0 | 186,0 |
| 18.0 | 2881,000 | 1355,0 | 1355,0 | 186,0 |
| 20.0 | 2593,000 | 1356,0 | 1356,0 | 187,0 |
| 22.0 | 2357,364 | 1356,0 | 1356,0 | 187,0 |
| 24.0 | 2161,000 | 1356,0 | 1356,0 | 187,0 |
| 26.0 | 1994,846 | 1357,0 | 1357,0 | 188,0 |
| 28.0 | 1852,429 | 1357,0 | 1357,0 | 188,0 |
| 30.0 | 1729,000 | 1360,0 | 1360,0 | 191,0 |
| 42.0 | 1235,286 | 1362,0 | 1362,0 | 193,0 |
| 50.0 | 1037,800 | 1357,0 | 1357,0 | 188,0 |
| 60.0 | 865,000 | 1366,0 | 1366,0 | 197,0 |
| 70.0 | 741,571 | 1363,0 | 1363,0 | 194,0 |
| 80.0 | 649,000 | 1400,0 | 1400,0 | 231,0 |
| 120.0 | 433,000 | 1400,0 | 1400,0 | 231,0 |
| 300.0 | 173,800 | 1400,0 | 1400,0 | 231,0 |
| 600.0 | 87,400 | 1400,0 | 1400,0 | 231,0 |
| 900.0 | 58,600 | 1401,0 | 1401,0 | 232,0 |
| 1200.0 | 44,200 | 1402,0 | 1402,0 | 233,0 |
| 1320.0 | 40,273 | 1402,0 | 1402,0 | 233,0 |
| 1350.0 | 39,400 | 1411,0 | 1411,0 | 242,0 |
| 1380.0 | 38,565 | 1410,0 | 1410,0 | 241,0 |
| 1500.0 | 35,560 | 1410,0 | 1410,0 | 241,0 |
| 1800.0 | 29,800 | 1413,0 | 1413,0 | 244,0 |
| 2100.0 | 25,686 | 1413,0 | 1413,0 | 244,0 |
| 2400.0 | 22,600 | 1415,0 | 1415,0 | 246,0 |
| 2700.0 | 20,200 | 1416,0 | 1416,0 | 247,0 |
| 3000.0 | 18,280 | 1418,0 | 1418,0 | 249,0 |
| 3300.0 | 16,709 | 1419,0 | 1419,0 | 250,0 |
| 3600.0 | 15,400 | 1420,0 | 1420,0 | 251,0 |
| 3900.0 | 14,292 | 1421,0 | 1421,0 | 252,0 |
| 4200.0 | 13,343 | 1418,0 | 1418,0 | 249,0 |
| 4320.0 | 13,000 | 1415,0 | 1415,0 | 246,0 |

AC_CPUC_0118539

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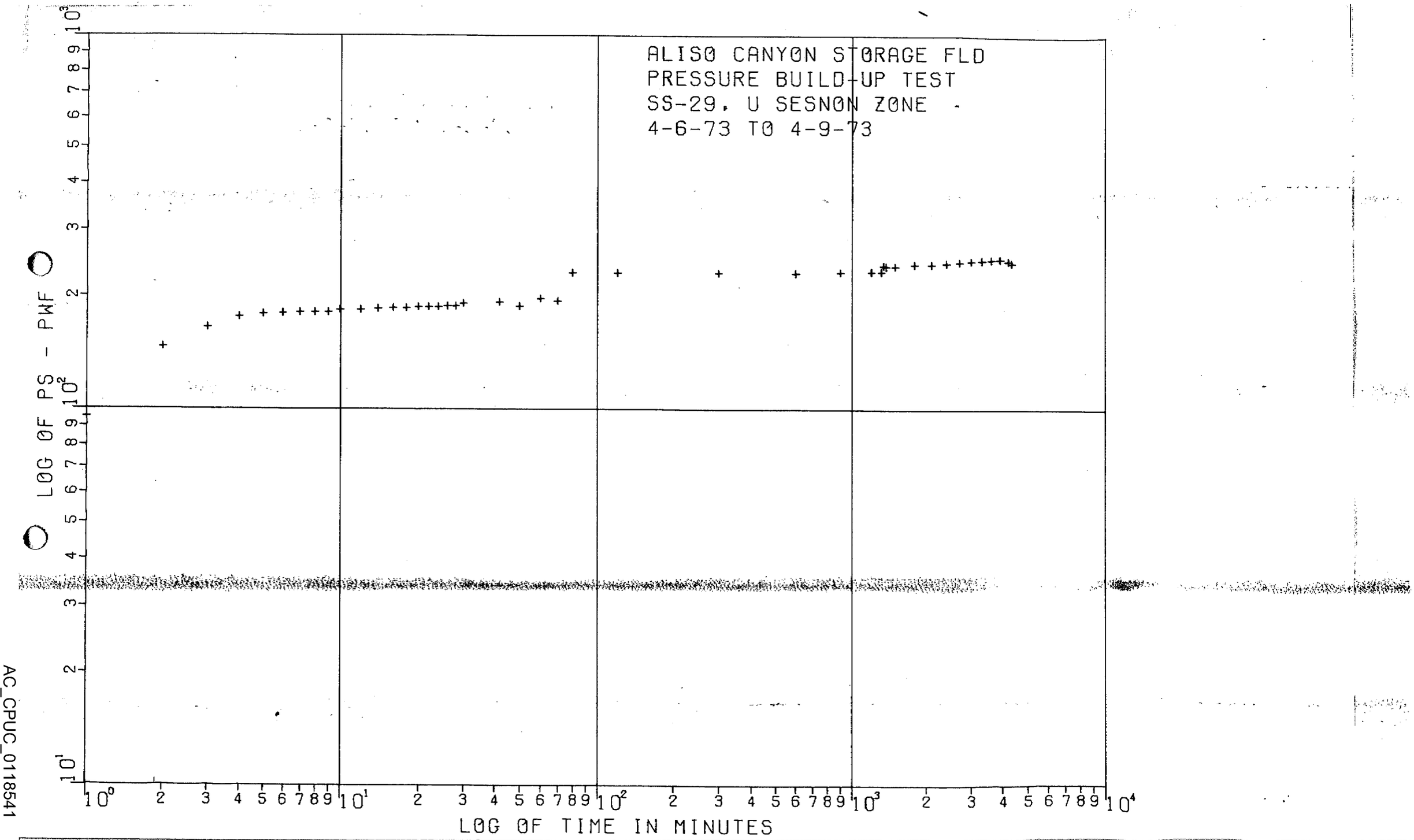
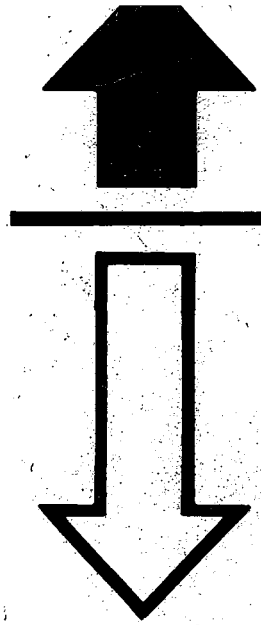



AC_CPUC_0118541

Standard Sesnon 29

AC_CPUC_0118542



# FLO-LOG INC.

**Company** So Calif Gas
**Type of Survey** Noise i Temp
**Date of Survey** 10-25-91
**Lease, Well No.** Sesnon 29
**Field** Aliso

AC_CPUC_0118543

Attachment 4 (2 of 2)

# FLO-LOG

**PRODUCTION LOGGING SURVEY DATA SHEET**

COMPANY So. Cal Gas CO. DATE 10-25-91

WELL NO. Standard Season #29 FIELD Aliso Canyon

COUNTY Los Angeles STATE CA.

REPRESENTATIVE Jim Hemmerly SURVEY CREW Helms, Kiser, Schrader

TYPE OF SURVEY Temp & Noise

PURPOSE OF SURVEY Check Shoe for leaks after Cement Top

## CASING AND TUBING RECORD

| SIZE | WEIGHT | FROM | TO |
|---|---|---|---|
| 11-3/4" | 42# & 47# | 0 | 1042 |
| 7" | 23# & 26# | 0 | 8180 |
| 5" | 18# | 8075 | 9790 |
| | | | |

Effective Depth 9094 PBTD
Perforations 8456-8694 @ Intervl.
8727-9094 slotted

W.S.O. _____ C.P. _____

Tubing Size ~~Drillpipe~~ Depth 7544
Packer(s) 7510
~~Mandrel(s)~~

Measurement Datum 16' K.B.
Reference Point R.F.

## WELL STATUS Shut-In

Meter Rate 0 BWPD Oil Rate / b/d
Flow Loss / BWPD Oil Gravity / °
Obs. Rate 0 BWPD Gas Rate / Mcf/d
Reported Tbg Press. _____ psi Obs. 2800
Reported Csg Press. _____ psi Obs. 0

Pickup D.D.A @ 8800 Fill N/A
Bottom Temp. 111.9° °F Fluid Level 8532

### SPINNER STATS

| Depth | Counts | Rate | Depth | Counts | Rate |
|---|---|---|---|---|---|
| / | / | / | / | / | / |

Reset Depth (from) 8094 (to) 8075
Depth Corrected to Liner Top

Logging Unit 712 Line Size 3/16 Line Length 24,600
Tools Used 2-5' Bars, T.S. Bar, CAP, C.C.L., Temp., Noise
Tool Numbers _____
Tool Diameter 1-7/8"

Time Arrived on Location 6:00 AM Off Location _____ Total Hours _____

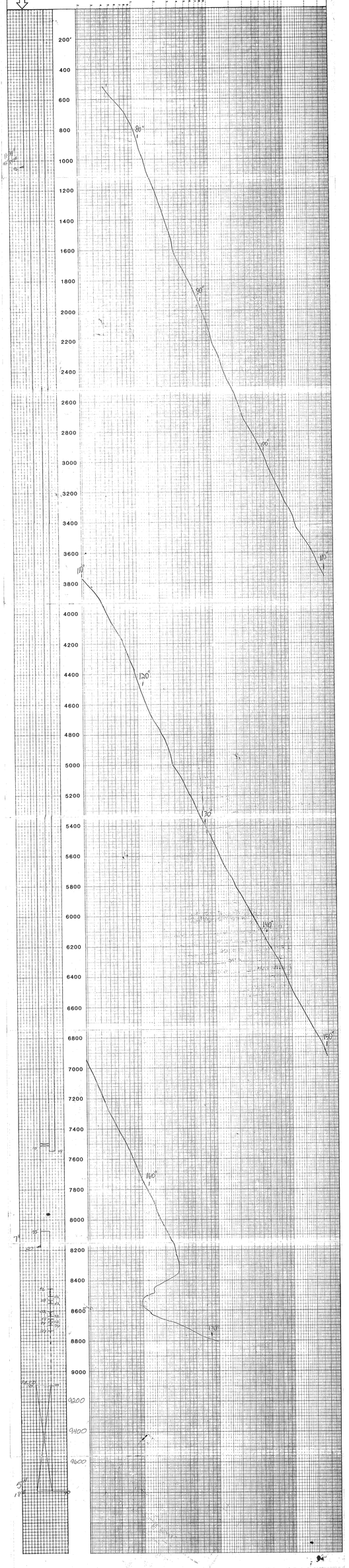
| Time of Run | Run No. | Type of Survey | Survey Calib. | Line Speed | Direction | Logged Interval (from) | (to) |
|---|---|---|---|---|---|---|---|
| 9:45pm | 1 | Temp/C.C.L. | 5°/In | 90 | Down | 500 | 8800 |
| | ~~2~~ | ~~Noise~~ | ~~warm~~ | | ~~up~~ | | |
| 11:20pm | 2 | Cap | 200#/In | 85 | up | 8800 | 7400 |
| | 3 | ~~Cap~~ CCL | — | 85 | up | 8200 | 7900 |
| | 4 | Noise | warm | — | up | 8600 | |
| | | | | | | | |
| | | | | | | | |

REMARKS:

☆ Temp in Black Room 10-25-91, Temp in Green Room 10-27-91 ☆

FLO-LOG INC.

WELL NO. Standard Source #39 DATE 10-25-91




AC_CPUC_0118546

7900

20

40

60

80

0 1 2 3 4 5 6 7 8 9 10

9000

20

40

60

80

0 1 2 3 4 5 6 7 8 9 10

8100

20

40

60

80

8200

0 1 2 3 4 5 6 7 8 9 10

Cal for Depth Control

0 1 2 3 4 5 6 7 8 9 10

FLO-LOG

CO. NAME So Cal Gas Co

WELL NO. SS #29 DATE 10-25-91

RUN NO. _____ TYPE LOG _____

CALIB. _____ LINE SPD. _____ DIRECTION _____

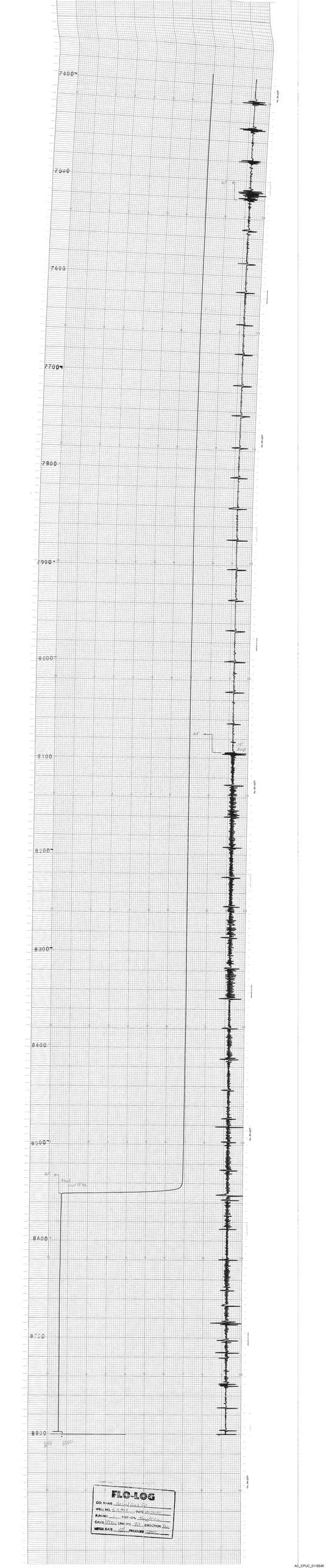
METER RATE _____ PRESSURE _____

PRINTED IN U.S.A.

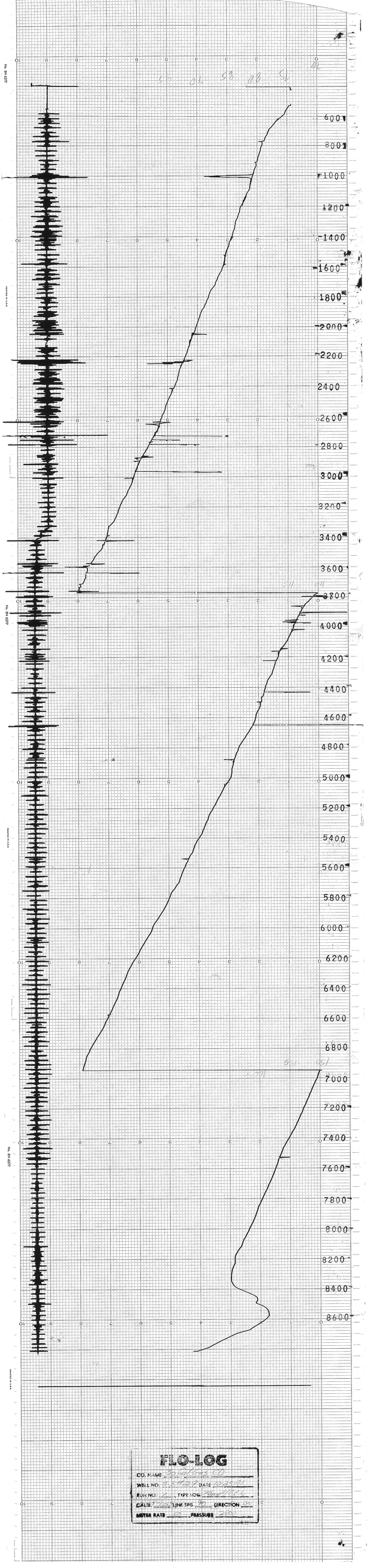
No. BN 6277

PRINTED IN U.S.A.

AC_CPUC_0118547




AC_CPUC_0118548




AC_CPUC_0118549

# FLO-LOG INC.

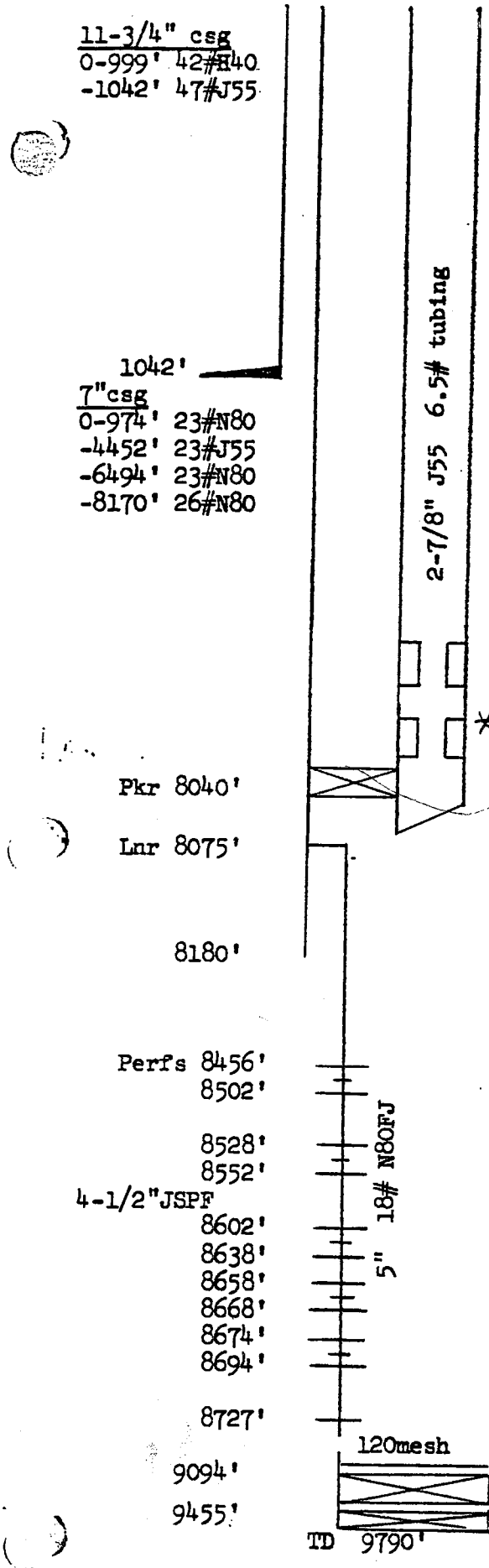
**Company** So Cal. Gas
**Type of Survey** Noise & Temp
**Date of Survey** 10-21-91
**Lease, Well No.** Standard Sesnon #29
**Field** Aliso Canyon

AC_CPUC_0118550

3rd log attempt
(Rig)

DF: 7' MV: 6

Standard Sesnon 29




Surface Choke: _____
Casing flow string

--8002' Otis 2-1/2" SSSV
(8002') 2.313"ID

*--8029' Otis "XN" No-Go Nipple
(8029') 2.205"

--8049'

--(8256') (-5400)

--S4 8428'

--S8 8520' (8520')

--HZ 8682'

--Frew 8727'

9077'

(SS - 6941')

4/26/53 Well spud
9/29/53 Well completed
2/2/73-2/28/73 Pressure tested 7" casing, converted to gas stor by perforating in Sesnon Zone, cleaned out to 9074', ran tubing with SSSV
7/31/73-8/7/73 Installed wirel SSSV, cleaned out to 9077'
8/27/77-9/9/77 Cleaned out to 9072', pressure tested casing, reran tubing with SSSV
3/5/79-3/10/79 Replaced safety system, set packer at 8040'

*Note:
USE 2.290 EQUAL. I.D. PRIOR TO 3-79 PACK 2.25" I.D. NIPPLE

Check for Shoe Leak
1) Temp to TD
2) Capacitance to find Fluid Level
3) Noise Log

| Interval | Stops |
|---|---|
| 8500-7900' | 20' |
| 7800-Surf | 200' |

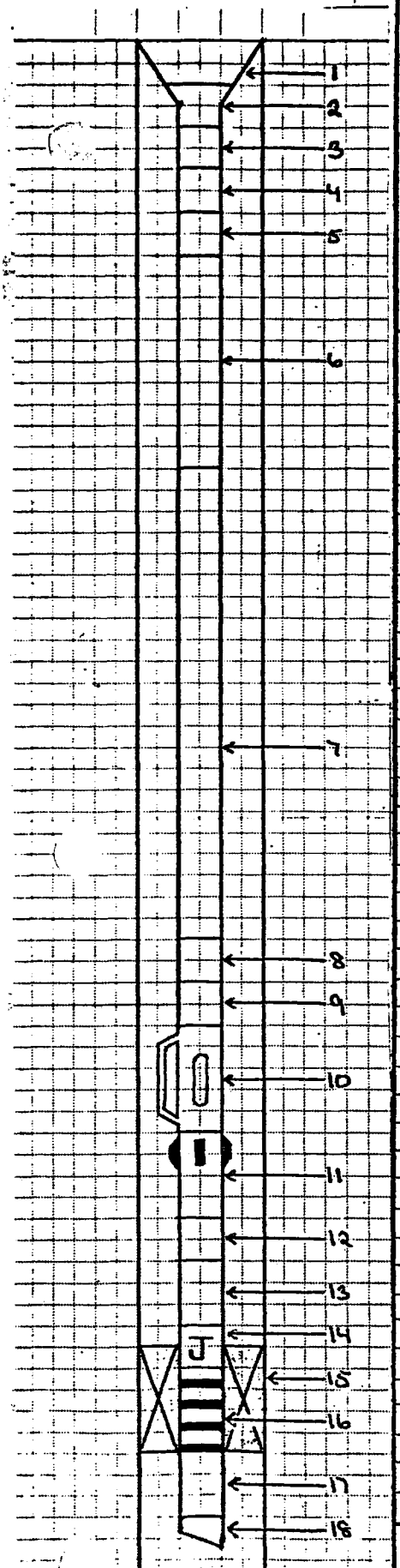
WELL VOLUME

| | Cu.Ft. | Bbl. |
|---|---|---|
| Tubing | 262 | 47 |
| Csg/Lnr. | 105 | 19 |
| Annulus | 1405 | 250 |

9790
9094
696
9021
9790

6-16-86

AC_CPUC_0118552




OPERATOR Southern California Gas Co.

WELL # S.S. #29

FIELD Aliso Canyon

COUNTY Los Angeles

STATE California

DATE March 13, 1979

☐ NEW COMPLETION ☐ WORKOVER

| | CASING | LINER | TUBING 1 | TUBING 2 | TUBING 3 |
|---|---|---|---|---|---|
| SIZE | | | | | |
| WEIGHT | | | | | |
| GRADE | | | | | |
| THREAD | | | | | |
| DEPTH | | | | | |

| ITEM NO. | TUBING DETAILS | LENGTH | DEPTH |
|---|---|---|---|
| 1. | Kelly Bushing | 6.92 | - |
| 2. | Tubing Hanger | .30 | 6.9 |
| 3. | Pup Jt. 2 7/8" 6.5# N-80 8rd EUE | 1.18 | 7.7 |
| 4. | Pup Jt. 2 7/8" 6.5# N-80 8rd EUE | 3.15 | 8.9 |
| 5. | Pup Jt. 2 7/8" 6.5# N-80 8rd EUE | 10.25 | 12.0 |
| 6. | 16 joints 2 7/8" 6.5# N-80 8rd EUE | 500.84 | 22.3 |
| 7. | 243 Joints 2 7/8" 6.5# J-55 8rd EUE | 7473.19 | 523.1 |
| 8. | Pup Jt. 2 7/8" 6.5# N-80 8rd EUE | 4.09 | 7996.3 |
| 9. | Otis "X" nipple 2.350" I.D. | 1.13 | 8000.4 |
| 10. | Otis Annular Flow Safety System 4.88" O.D., 2.313" I.D. | 7.66 | 8001.5 |
| 11. | Otis blast joint with 4 centralizers 5.50" O.D., 2.375" I.D. | 19.82 | 8009.2 |
| 12. | Otis "XN" No-Go Nipple 2.205" I.D. | 1.17 | 8029.0 |
| 13. | Otis Blast Joint 3.668" O.D. 2.375" I.D. | 9.80 | 8030.2 |
| 14. | Otis "J" latch locator | 1.16 | 8040.0 |
| 15. | Otis "Permatrieve" 7" packer (new) (20-26#) 5.87" O.D. 3.25" I.D. | 4.16 | 8040.0 |
| 16. | Otis seal assembly (4) 3.29" O.D., 2.38" I.D. | 4.05 | 8041.1 |
| 17. | Otis Production Tube | 2.96 | 8045.2 |
| 18 | Otis Guide Shoe | .42 | 8048.1 |
| | End of Tubing | | 8048.5 |

NOTES

Side door choke in safety system

Tubing landed with 10,000X compression on packer

Corrected tubing measurments (7,482.13) to meet wireline measurments.

COMMENTS:

AC_CPUC_0118553

FLO-LOG INC.

# NOISE LOG DATA SHEET

Page ONE

Company So. Cal Gas Co. Well No. 55 #29

Date 10-21-91 Noise Tool Number 4056 Rev Calibration N

| Time | DEPTH | 200 Hz | 600 Hz | 1000 Hz | 2000 Hz | REMARKS |
|---|---|---|---|---|---|---|
| 10:00 | Bkd | 55.9 | 12.1 | 10.9 | 3.4 | 20' STOPS 200 mV |
| | 80 | 51.8 | 6.7 | 5.3 | 1.1 | |
| | 60 | 49.9 | 5.3 | 4.4 | .9 | Loud gas Sand |
| | 40 | 58.2 | 6.5 | 5.1 | 1.2 | |
| | 20 | 54.6 | 6.3 | 4.7 | .9 | |
| | Bkd | 58.4 | 6.4 | 4.9 | 1.2 | |
| | 80 | 41.3 | 6.5 | 5.0 | 1.2 | |
| | 60 | 20.7 | 5.2 | 4.5 | 1.1 | |
| | 40 | 20.8 | 5.5 | 4.24 | 1.2 | |
| | 20 | 21.6 | 5.7 | 4.5 | 1.1 | |
| 10:25 | Bkd | 20.2 | 5.4 | 4.3 | 1.1 | |
| | 80 | 18.6 | 5.4 | 4.4 | 1.1 | |
| | 60 | 20.4 | 4.8 | 4.0 | 1.1 | |
| | 40 | 20.1 | 5.3 | 4.2 | 1.1 | |
| | 20 | 20.4 | 5.0 | 3.9 | 1.1 | |
| | Bkd | 20.5 | 5.6 | 3.6 | 1.2 | |
| | 80 | 19.8 | 5.6 | 3.8 | 1.1 | |
| | 60 | 20.6 | 5.2 | 3.9 | 1.1 | |
| | 40 | 20.6 | 5.1 | 3.6 | 1.1 | |
| | 20 | 21.2 | 4.9 | 3.6 | 1.1 | |
| | Bkd | 19.2 | 5.6 | 3.7 | 1.1 | 20' STOPS 200mV |
| 10:46 | 80 | 17.1 | 4.9 | 3.7 | 1.1 | STILL HEAR GAS FLOW JUST |
| | 60 | 17.8 | 5.1 | 3.9 | 1.1 | |
| | 40 | 19.4 | 5.1 | 3.8 | 1.1 | |
| | 20 | 19.7 | 5.0 | 3.9 | 1.1 | |
| | Bkd | 18.8 | 5.0 | 3.7 | 1.1 | |
| | 80 | 17.3 | 5.2 | 3.9 | 1.1 | 20' |
| | 60 | 13.2 | 4.3 | 3.2 | 1.1 | |
| | 40 | 13.29 | 2.56 | 2.10 | .87 | |
| | 20 | 11.16 | 2.26 | 1.94 | .71 | |
| | Bkd | 11.96 | 2.55 | 2.07 | .68 | Tail Bkd' |
| | 80 | 14.97 | 3.54 | 2.59 | .68 | |
| | 60 | 12.03 | 2.69 | 1.95 | .62 | |
| | 40 | 12.15 | 3.17 | 1.97 | .64 | |
| | 20 | 7.81 | 2.15 | 1.67 | .62 | |
| | Bkd | 6.96 | 1.78 | 1.36 | .66 | |

FLO-LOG INC.

# NOISE LOG DATA SHEET

Page Two

Company So Cal Gas Well No. SS#29

Date 10-21-91 Noise Tool Number 4056 Calibration N

| Time | DEPTH | 200 Hz | 600 Hz | 1000 Hz | 2000 Hz | REMARKS |
|---|---|---|---|---|---|---|
| 7[illegible] | 7880 | 7.63 | 1.48 | 1.02 | .63 | 200mV 20' step |
| 11:02 | 7860 | 6.47 | 1.40 | 1.05 | .60 | |
| | 7840 | 6.80 | 1.39 | .98 | .66 | |
| | 7820 | 6.63 | 1.36 | .98 | .64 | |
| | 7800 | 6.63 | 1.35 | .97 | .67 | |
| | 7780 | 6.57 | 1.38 | .97 | .63 | |
| | 7760 | 6.15 | 1.31 | .95 | .57 | |
| | 7740 | 6.12 | 1.25 | .87 | .59 | |
| | 7720 | 5.99 | 1.21 | .84 | .57 | |
| | 7700 | 6.19 | 1.24 | .81 | .55 | |
| | 7680 | 5.99 | 1.23 | .78 | .55 | |
| | 7660 | 5.87 | 1.18 | .81 | .56 | |
| | 7640 | 5.98 | 1.15 | .78 | .54 | |
| | 7620 | 6.11 | 1.14 | .80 | .56 | |
| | 7600 | 5.79 | 1.17 | .84 | .62 | |
| | | REPEAT LOG | | | | |
| 11:25 | 8600 | 63.7 | 15.7 | 13.7 | 7.2 | |
| | 8580 | 42.2 | 6.4 | 4.7 | 1.3 | |
| | 8560 | 53.0 | 6.5 | 4.8 | 1.1 | |
| | 8540 | 60.4 | 6.4 | 4.9 | 1.3 | |
| | 8520 | 58.0 | 6.1 | 4.8 | 1.2 | |
| | 8500 | 58.2 | 5.9 | 4.5 | 1.1 | |
| | 8480 | 46.5 | 5.8 | 4.6 | 1.1 | |
| | 8460 | 18.3 | 4.8 | 4.0 | 1.0 | |
| | 8440 | 19.2 | 4.7 | 4.0 | 1.1 | |
| | 8420 | 19.2 | 4.5 | 3.9 | 1.1 | |
| | 8400 | 17.2 | 4.8 | 4.1 | 1.1 | |
| | 8380 | 18.8 | 4.7 | 4.1 | 1.1 | |
| | 8360 | 19.0 | 4.9 | 4.2 | 1.0 | |
| | 8340 | 19.1 | 4.9 | 4.2 | 1.0 | |
| | 8320 | 18.0 | 4.6 | 4.0 | 1.1 | |
| | 8300 | 16.7 | 4.1 | 3.2 | 1.0 | |
| | 8280 | 18.7 | 4.5 | 3.9 | 1.2 | |
| | 8260 | 18.6 | 4.3 | 3.6 | 1.2 | |
| | 8240 | 18.8 | 4.6 | 3.7 | 1.1 | |
| | | 17.8 | 4.2 | 3.6 | 1.1 | |

FLO-LOG INC.

# NOISE LOG DATA SHEET

Page THREE

Company So Cal Gas Co  Well No. SS #29

Date 10-21-91  Noise Tool Number 4056  Calibration N

| Time | DEPTH | 200 Hz | 600 Hz | 1000 Hz | 2000 Hz | REMARKS |
|---|---|---|---|---|---|---|
| | 8220 | 17.0 | 4.3 | 3.7 | 1.1 | 200mV 20' stops, |
| 12:00 | 8200 | 16.9 | 4.2 | 3.6 | 1.1 | |
| | 8180 | 18.0 | 4.2 | 3.5 | 1.1 | |
| | 8160 | 16.4 | 4.3 | 3.6 | 1.1 | |
| | 8140 | 16.6 | 4.3 | 3.6 | 1.1 | |
| | 8120 | 16.9 | 4.4 | 3.6 | 1.1 | |
| | 8100 | 17.1 | 4.6 | 3.9 | 1.1 | |
| | 8080 | 18.7 | 4.6 | 4.0 | 1.0 | |
| | 8060 | 10.5 | 2.7 | 2.3 | .9 | |
| | 8040 | 11.24 | 2.48 | 2.09 | .9 | 20 mV 20' STOPS |
| | 8020 | 12.19 | 2.61 | 2.22 | .56 | |
| | 8000 | 12.14 | 2.32 | 1.88 | .58 | TBG TAIL @ 8002 |
| | 80 | 13.79 | 3.52 | 2.21 | .60 | |
| | 60 | 12.65 | 2.97 | 1.83 | .57 | |
| | 40 | 13.77 | 3.33 | 1.87 | .55 | |
| | 20 | 7.89 | 2.03 | 1.53 | .62 | |
| | 7900 | 7.86 | 1.86 | 1.05 | .62 | |
| | | | | | | 2' STOPS |
| | 7996 | 12.17 | 3.25 | 2.31 | .52 | 20 mV |
| | 7988 | 12.90 | 3.20 | 2.18 | .53 | |
| | 7986 | 12.75 | 3.11 | 2.04 | .57 | |
| | 7984 | 14.27 | 2.71 | 1.94 | .59 | |
| | 7982 | 12.30 | 2.78 | 1.90 | .58 | |
| | 7980 | 12.71 | 3.11 | 2.16 | .59 | |
| | 7978 | 13.44 | 2.88 | 2.12 | .57 | |
| | 7976 | 12.40 | 2.96 | 2.11 | .61 | |
| | 7974 | 12.93 | 3.07 | 2.05 | .62 | |
| | 7972 | 14.32 | 3.14 | 2.06 | .58 | |
| | 7970 | 13.96 | 3.12 | 2.04 | .62 | |
| | 7968 | 13.15 | 3.05 | 2.12 | .57 | |
| | 7966 | 13.13 | 3.17 | 2.11 | .57 | |
| | 7964 | 13.09 | 2.75 | 1.87 | .58 | |
| | 7962 | 11.47 | 2.35 | 1.77 | .59 | |
| | 7960 | 10.73 | 2.99 | 2.06 | .59 | |
| | 7958 | 11.64 | 2.76 | 1.76 | .61 | |

**FLO-LOG INC.**

# NOISE LOG DATA SHEET

Page FOUR

Company So Cal Gas Well No. SS #29

Date 10-21-91 Noise Tool Number 4056 Calibration N

| Time | DEPTH | 200 Hz | 600 Hz | 1000 Hz | 2000 Hz | REMARKS |
|---|---|---|---|---|---|---|
| | 7956 | 11.82 | 2.56 | 1.67 | .57 | 2' steps 20mV |
| | 7954 | 13.80 | 4.53 | 2.18 | .55 | |
| | 7952 | 12.95 | 3.07 | 2.32 | .56 | |
| | 7950 | 15.56 | 3.62 | 2.17 | .56 | |
| | 7948 | 14.84 | 3.24 | 2.16 | .61 | |
| | 7946 | 15.00 | 3.02 | 2.04 | .57 | |
| | 7944 | 14.89 | 3.25 | 2.09 | .57 | |
| | 7942 | 14.72 | 3.16 | 1.96 | .59 | |
| | 7940 | 13.32 | 3.01 | 2.03 | .64 | |
| | 7938 | 14.10 | 3.03 | 1.96 | .66 | |
| | 7936 | 9.83 | 2.54 | 1.54 | .57 | |
| | 7934 | 6.83 | 1.95 | 1.44 | .57 | |
| | 7932 | 7.29 | 1.93 | 1.39 | .61 | |
| | 7930 | 7.98 | 1.82 | 1.36 | .56 | |
| | 7928 | 7.57 | 1.91 | 1.47 | .64 | |
| | 7926 | 7.56 | 1.89 | 1.41 | .61 | |
| | 7924 | 7.46 | 1.89 | 1.49 | .60 | |
| | 7922 | 7.92 | 1.99 | 1.53 | .65 | |
| | 7920 | 7.42 | 1.92 | 1.47 | .69 | |
| | | REPEAT | LOG | CONTINUED | | |
| | 7850 | 6.58 | 1.39 | .99 | .59 | 250' stops |
| | 7800 | 6.31 | 1.39 | .96 | .63 | |
| 13:33 | 7700 | 6.64 | 1.30 | .91 | .68 | |
| | 7600 | 6.44 | 1.23 | .87 | .65 | |
| | | END | REPEAT | | | |
| | 7400 | 5.46 | 1.03 | .76 | .54 | |
| | ~~7200~~ | ~~2.96~~ | ~~1.44~~ | ~~1.02~~ | .58 | |
| | ~~7000~~ | 2.33 | .94 | .66 | .53 | |
| | 7000 | ~~3.86~~ | 1.17 | .91 | .68 | |
| | 6800 | 3.60 | .74 | .68 | .51 | |
| | * | | | | | |
| | 6500 | 4.81 | .99 | .90 | .53 | 500' stops |
| | 6000 | 3.89 | 2.38 | 1.60 | .58 | Tools Rooling |
| | 5500 | ~~4.79~~ | 2.75 | 1.43 | .68 | IN TBG |
| | 5000 | ~~3.89~~ | ~~2.97~~ | 1.52 | .62 | |
| Test | 5000 | 47.1 | 7.0 | 6.2 | 3.59 | |

FLO-LOG INC.

# NOISE LOG DATA SHEET

Page Four

Company So Cal Gas Co  Well No. SIS #29

Date 10-21-1991  Noise Tool Number 4056  Calibration

| Time | DEPTH | 200 Hz | 600 Hz | 1000 Hz | 2000 Hz | REMARKS |
|---|---|---|---|---|---|---|
| 9:55 | 2450 | 3.00 | 1.24 | 1.05 | .56 | |
| | 2400 | 2.89 | .97 | .82 | .55 | |
| | 3500 | 2.84 | .94 | .82 | .56 | Readings Hard To Catch Tool Rasping Around and Tapping |
| | 3000 | 2.08 | .86 | 75 | .62 | |
| | ~~3500~~ | ~~2.89~~ | 1.~~35~~ | 1.39 | .61 | |
| | 2500 | 2.05 | 1.78 | 1.42 | .65 | |
| | 2000 | 2.76 | 1.19 | .87 | .65 | |
| | 1500 | 2.57 | 1.62 | .92 | .63 | |
| | 1000 | 2.98 | 1.89 | 1.04 | .73 | Wind Blowing Hoses and Ropes Around |
| | 500 | 4.18 | .96 | .81 | .65 | |

# FLO-LOG

SCG_5529

**PRODUCTION LOGGING SURVEY DATA SHEET**

COMPANY So Cal Gas Co. DATE 10-21-91

WELL NO. Standard Sesnon #29 FIELD Aliso Canyon

COUNTY LA STATE CA

REPRESENTATIVE Jim Hemmerly SURVEY CREW Helms, Sturgess, Vazquez

TYPE OF SURVEY Temp + Noise

PURPOSE OF SURVEY Check Shoe for leaks after Cement Job

## CASING AND TUBING RECORD

| SIZE | WEIGHT | FROM | TO |
|---|---|---|---|
| 7" | 23# + 26# | 0 | 8180 |
| 5" | 18# | 8075 | 9796 |
| | | | |
| | | | |

Effective Depth 9094 PBTD

Perforations 8456 - 9094 @ Int

W.S.O. _____ C.P. _____

Tubing Size Drillpipe Depth 8007

Packer(s) 7972

Mandrel(s) Tool Assembly 7946 - 7962

Measurement Datum 16' K-B

Reference Point Rig Floor

## WELL STATUS Shut in 40 hours

Meter Rate _____ BWPD Oil Rate _____ b/d

Flow Loss _____ BWPD Oil Gravity _____ °

Obs. Rate _____ BWPD Gas Rate _____ Mcf/d

Reported Tbg Press. 2500 psi Obs. 2500

Reported Csg Press. 1900 psi Obs. 1900

Pickup DDA 8800 Fill N/A

Bottom Temp. 178.5 °F Fluid Level @ 8582

### SPINNER STATS

| Depth | Counts | Rate | Depth | Counts | Rate |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |

Reset Depth (from) 8086 (to) 8075

Depth Corrected to Liner Top

Logging Unit 712 Line Size 3/16" Line Length 24600

Tools Used 60" Bar, 2-30" Bars, T-Bar, CCL, Temp, Cap, Noise, Centralizer

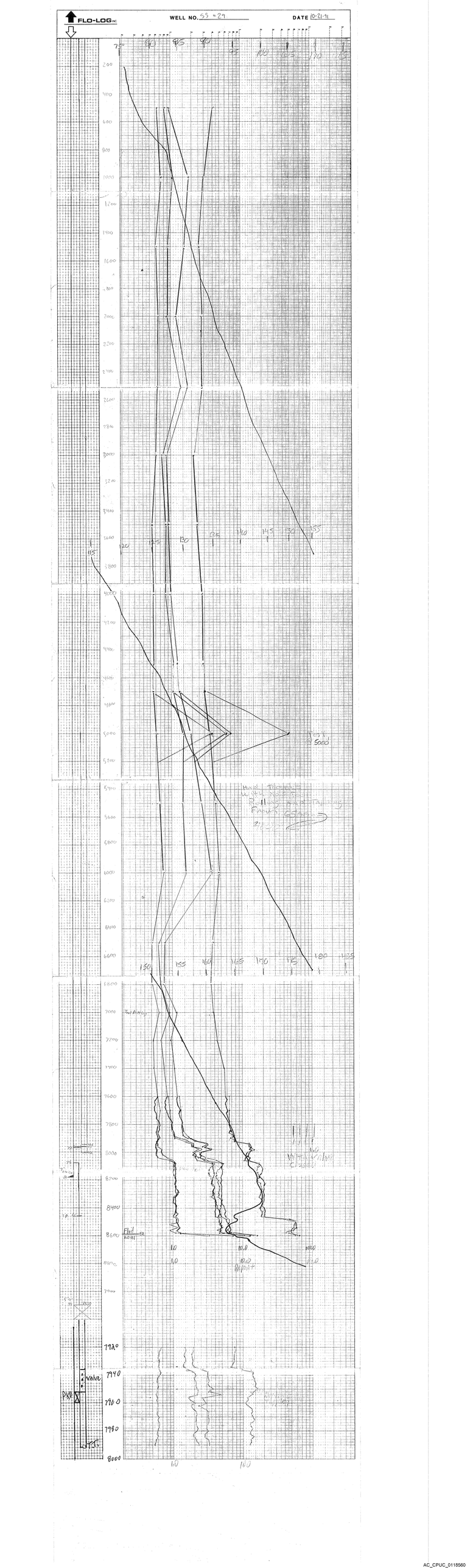
Tool Numbers 1072 4056

Tool Diameter 1 3/8

Time Arrived on Location 0800 Off Location 3/16" Total Hours 24600

| Time of Run | Run No. | Type of Survey | Survey Calib. | Line Speed | Direction | Logged Interval (from) | (to) |
|---|---|---|---|---|---|---|---|
| 8:00 | 1 | Temp/CCL | 5"/in | 80 | DN | 7000 | 8800 |
| 9:35 | 2 | Cap | 200Hz | 80 | UP | 8800 | 7900 |
| 10:10 | 3 | Noise | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

REMARKS: Backside full of fluid

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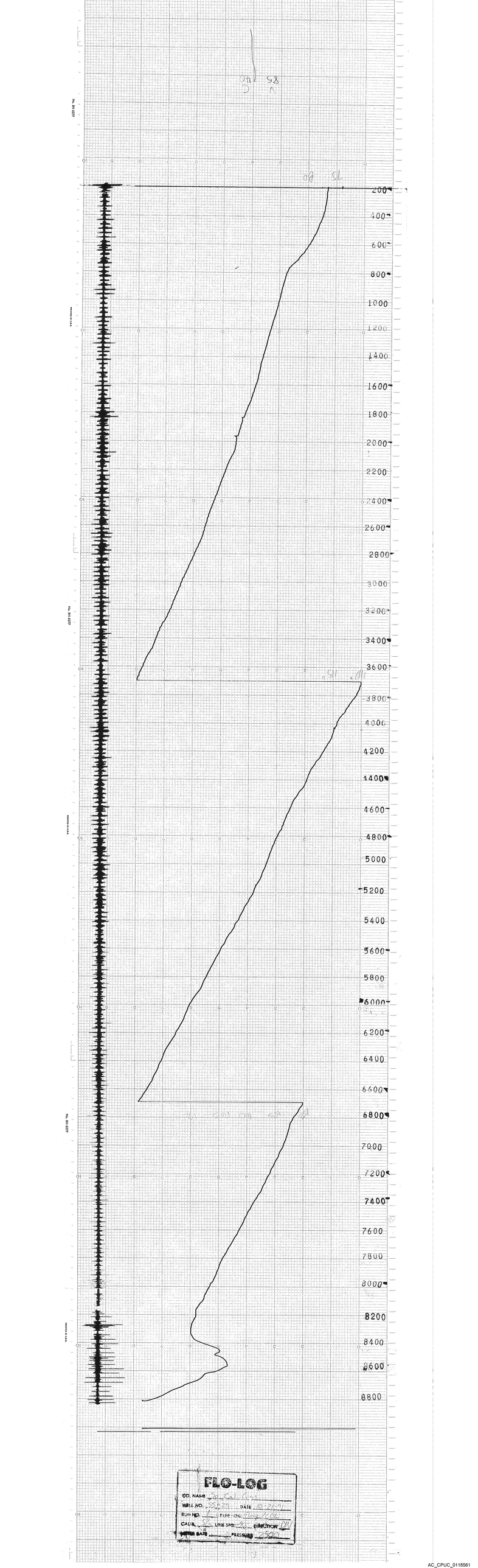


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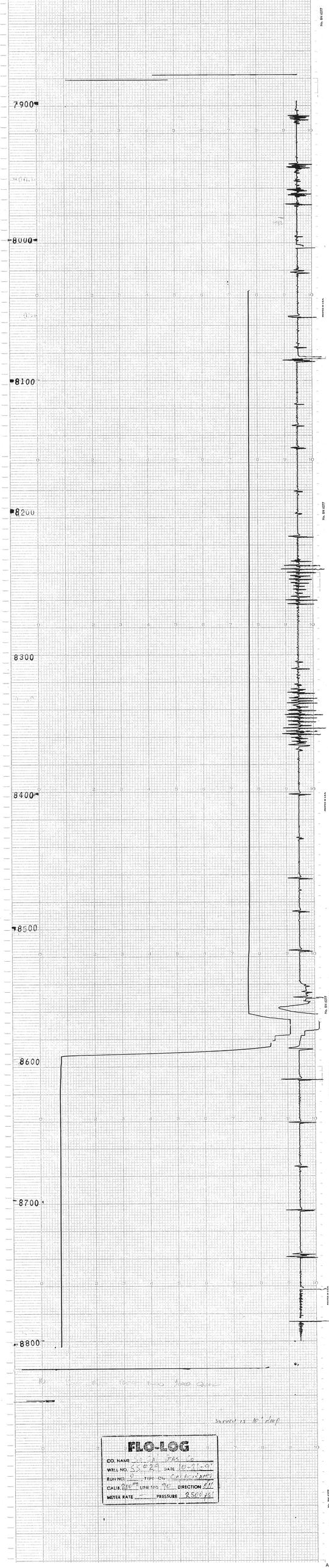



AC_CPUC_0118562

# FLO-LOG INC.

**Company** So. Cal Gas. CO.
**Type of Survey** Temp & Noise & Cap.
**Date of Survey** 10-18-91
**Lease, Well No.** Standard Season #29
**Field** Aliso Canyon

AC_CPUC_0118563

2nd log attempt
(RIG)

# NOISE LOG SUMMARY REPORT

Field: Aliso Canyon Date: 10-18-91

Well Name: Standard Season #29 Logging Contractor: FLO-LOG

## WELL DATA

Number of ~~Days~~ HRS Shut-in 36 HR Field Inventory _____ Bcf.

Date of Last Noise Log 12-5-90 Field Status Withdraw

Purpose of Survey _____

Surface Pressures

Tubing 2500 psig

Casing 1750 psig

Innerstring N/A psig

Surface Csg N/A psig

Fluid Levels

Tubing NONE ft. (method) _____

Casing 8556 ft. (method) Capacitance

Pickup Depth _____ ft.

Pertinent Marker Beds & Depths _____

Operating Valve Condition (leaking,sweating,icing,etc) OK.

## LOGGING RUN DATA

| Run No. 1 | Run No. _____ |
|---|---|
| Starting time: 11:45 am/~~pm~~ | Starting time: _____ am/pm |
| Pressure: | Pressure: |
| Casing: 1750 psig | Casing: _____ psig |
| Tubing: 2500 psig | Tubing: _____ psig |
| Status: Shutin / ~~Flowing~~ | Status: Shutin / Flowing |
| Noise Anomalies: | Noise Anomalies: |
| Storage zone: _____ | Storage zone: _____ |
| WSO: _____ | WSO: _____ |
| Liner: _____ | Liner: _____ |
| Packer: _____ | Packer: _____ |
| Other: _____ | Other: _____ |

Comments/Recommendations: Wind is Stronger today, than yesterday.

Witness: Jim Hemmerly Resident: _____

AC_CPUC_0118565

# FLO-LOG SCG_5529.7

**PRODUCTION LOGGING SURVEY DATA SHEET**

COMPANY So. Cal Gas Co. DATE 10-18-91

WELL NO. Standard Season #29 FIELD Aliso Canyon

COUNTY L.A. STATE CA.

REPRESENTATIVE Jim Hemmerly SURVEY CREW Schrader, Helms, Kiser

TYPE OF SURVEY Temp & Noise

PURPOSE OF SURVEY Check Shoe for Leaks after Cement Job.

## CASING AND TUBING RECORD

| SIZE | WEIGHT | FROM | TO |
|---|---|---|---|
| 7" | 23# & 26# | Ø | 8180 |
| 5" | 18# | 8025 | 9796 |
| | | | |
| | | | |

Effective Depth 9094 P.B.T.D.
Perforations 8456-9094 @ Intv.

W.S.O. _____ C.P. _____

Tubing Size Drillpipe Depth 8002
Packer(s) 7972
Mandrel(s) Tool Assembly 7946-7962

Measurement Datum 16' KB
Reference Point MAT Rig Floor

## WELL STATUS Shut-In

Meter Rate _____ BWPD Oil Rate _____ b/d
Flow Loss _____ BWPD Oil Gravity _____ °
Obs. Rate _____ BWPD Gas Rate _____ Mcf/d
Reported Tbg Press. 2500 psi Obs. 2500
Reported Csg Press. 1700-800 psi Obs. 1750

Pickup D.O.A @ 8620 Fill N/A
Bottom Temp. _____ °F Fluid Level 8556 I

### SPINNER STATS

| Depth | Counts | Rate | Depth | Counts | Rate |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |

Reset Depth (from) 8089 (to) 8075 14' Deep
Depth Corrected to Liner Top By Cap Tool

Logging Unit 712 Line Size 3/16" Line Length 24,600
Tools Used 2-5 Bars, TS-Bar., C.C.L., Temp., Cap., Noise, Stabilizer
Tool Numbers _____
Tool Diameter 1-7/8"

Time Arrived on Location 6:00 Off Location _____ Total Hours _____

| Time of Run | Run No. | Type of Survey | Survey Calib. | Line Speed | Direction | Logged Interval (from) | (to) |
|---|---|---|---|---|---|---|---|
| 10:00 AM | 1 | Temp/C.C.L. | 5°/IN | 95 | DOWN | 200 | 8620 |
| 11:25 AM | 2 | Cap | 2000 PSI | 100 | UP | 8620 | 7960 |
| 11:45 AM | 3 | Noise | 120 KM | — | UP | 8600 | |
| 1:30 PM | 4 | Temp/ccl | 5°/IN | 100 | DN | 7600 | 8600 |
| 1:50 | 5 | Noise | | | | | |
| 3:30 | 6 | TEMP | 5°/IN | 100 | DN | 5500 | 7600 |
| | | | | | | | |

REMARKS: Well shut in 36 HRS prior to Survey

F.C. @ 8510 uncorrected depth.

FLO-LOG INC.

# NOISE LOG DATA SHEET

8540

Page ONE

Company So. Calif. Gas CO. Well No. Standard Sesnon #29

Date 10-18-91 Noise Tool Number #4085 Calibration NORM

| Time | DEPTH | 200 Hz | 600 Hz | 1000 Hz | 2000 Hz | REMARKS |
|---|---|---|---|---|---|---|
| 12 00 NOON | 8600 | 46.4 | 21.7 | 6.6 | 2.5 | 400 MV |
| | 8580 | 56.3 | 27.3 | 7.5 | 2.5 | 20 FT |
| | 8560 | 49.3 | 16.3 | 7.3 | 2.8 | |
| | 8540 | 57.5 | 13.3 | 7.0 | 1.4 | |
| | 8520 | 55.2 | 13.5 | 7.0 | 1.6 | |
| | 8500 | 58.6 | 14.6 | 6.8 | 1.4 | |
| | 6480 | 41.9 | 13.5 | 6.9 | 1.3 | |
| | 8460 | 17.6 | 10.0 | 6.0 | 1.3 | |
| | 8440 | 18.6 | 9.9 | 5.9 | 1.4 | |
| | 8420 | 17.4 | 8.7 | 5.7 | 1.8 | |
| | 8400 | 18.7 | 7.8 | 5.3 | 1.3 | |
| | 8380 | 16.3 | 7.2 | 5.1 | 1.1 | |
| | 60 | 16.4 | 7.3 | 5.7 | 1.0 | |
| | 40 | 16.5 | 7.7 | 5.7 | 1.1 | |
| | 20 | 17.8 | 7.2 | 5.4 | 1.1 | |
| | 8300 | 17.1 | 6.3 | 4.8 | 1.1 | |
| 12:20 | 8280 | 16.4 | 6.1 | 4.6 | .8 | |
| | 60 | 16.3 | 5.7 | 4.4 | .9 | |
| | 40 | 16.7 | 5.6 | 4.3 | .9 | |
| | 20 | 15.3 | 5.6 | 4.2 | .9 | |
| | 8200 | 15.1 | 5.7 | 4.2 | .9 | |
| | 80 | 15.0 | 5.4 | 4.0 | .9 | |
| 12:28 | 60 | 14.8 | 5.5 | 4.0 | .9 | |
| | 40 | 14.7 | 5.0 | 3.6 | .7 | |
| | 20 | 14.7 | 5.1 | 3.7 | .7 | |
| | 8100 | 14.7 | 4.9 | 3.6 | .7 | |
| 12:36 | 80 | 15.0 | 4.9 | 3.6 | .7 | |
| | 60 | 10.1 | 3.53 | 2.54 | .58 | 80 mV |
| | 40 | 9.51 | 3.47 | 2.60 | .63 | |
| | 20 | 9.94 | 3.32 | 2.47 | .59 | |
| 12:43 | 8000 | 9.48 | 3.50 | 2.59 | .77 | |
| | 80 | 14.56 | 5.21 | 2.43 | .65 | |
| | 60 | 12.99 | 3.98 | 2.08 | .57 | |
| | 40 | 17.41 | 4.44 | 2.37 | .57 | |
| | 20 | 11.12 | 3.40 | 1.99 | .58 | |
| 12:51 | 7900 | 9.56 | 2.89 | 1.51 | .59 | |

FLO-LOG INC.

# NOISE LOG DATA SHEET

Page TWO

Company SoCal GAS Co. Well No. SS #29

Date 10-18-91 Noise Tool Number 4085 Calibration Normal

| Time | DEPTH | 200 Hz | 600 Hz | 1000 Hz | 2000 Hz | REMARKS |
|---|---|---|---|---|---|---|
| | | | | | | 20 mV |
| | | CONT | FIRST LOG | | | 20 FT. |
| | 7880 | 10.10 | 3.19 | 1.69 | .61 | |
| | 60 | 9.07 | 3.18 | 1.87 | .66 | |
| | 40 | 8.08 | 3.03 | 1.37 | .64 | |
| | 20 | 10.41 | 6.17 | 4.54 | 1.13 | TOOL WAS RATTLING |
| | 7800 | 8.35 | 2.38 | 1.18 | .55 | |
| | 80 | 7.44 | 2.38 | 1.34 | .56 | |
| 1:13 | 60 | 7.20 | 2.58 | 1.38 | .70 | |
| | 40 | 7.34 | 2.29 | 1.16 | .58 | |
| | 20 | 7.64 | 2.28 | 1.14 | .53 | |
| | 7700 | 7.60 | 2.39 | 1.27 | .59 | |
| | 80 | 7.15 | 2.40 | 1.53 | .66 | |
| | 60 | 7.30 | 2.31 | 1.61 | .77 | |
| | 40 | 7.25 | 2.60 | 1.41 | .63 | |
| 1:23 | 20 | 7.12 | 2.31 | 1.53 | .65 | |
| | 7600 | 7.93 | 2.56 | 1.53 | .64 | |
| | | | | | | |
| | X | REPEAT LOG RUN TWO | | | | |
| | | 20' Int. | | | | |
| 1:50pm | 8600 | 58.8 | 27.3 | 12.4 | 4.4 | 200mV. |
| | 80 | 36.9 | 15.7 | 8.5 | 3.1 | |
| | 60 | 37.4 | 13.6 | 6.9 | 1.7 | |
| | 40 | 36.7 | 10.4 | 4.5 | .9 | |
| | 20 | 53.7 | 7.8 | 4.2 | .8 | |
| | 8500 | 46.8 | 6.2 | 2.6 | .8 | |
| 1:54 | 80 | 31.1 | 5.5 | 2.6 | .8 | |
| | 60 | 13.1 | 4.2 | 2.3 | .6 | |
| | 40 | 12.3 | 4.4 | 2.5 | .6 | |
| | 20 | 10.25 | 3.73 | 2.33 | .51 | 20mV |
| | 8400 | 10.16 | 3.51 | 2.39 | .58 | |
| 2:00 | 80 | 10.98 | 3.68 | 2.19 | .63 | |
| | 60 | 10.20 | 3.15 | 1.86 | .58 | |
| | 40 | 10.18 | 2.97 | 1.72 | .55 | |
| | 20 | 9.29 | 2.94 | 1.85 | .57 | |
| | 8300 | 9.49 | 2.44 | 1.65 | .57 | |

FLO-LOG INC.

# NOISE LOG DATA SHEET

Page THREE

Company SO CAL GAS CO Well No. STANDARD SESNON # 29

Date 10-18-91 Noise Tool Number 4085 Calibration NORMAL

| Time | DEPTH | 200 Hz | 600 Hz | 1000 Hz | 2000 Hz | REMARKS |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | CONT. | REPEAT | LOG | RUN #2 | 20 mV |
| 2:09 | 8280 | 9.81 | 2.92 | 1.70 | .57 | 20 FT |
| | 60 | 9.32 | 2.66 | 1.50 | .47 | |
| | 40 | 8.60 | 2.42 | 1.48 | .51 | |
| | 20 | 8.89 | 2.64 | 1.57 | .52 | |
| 2:15 | 8100 | 9.38 | 2.62 | 1.54 | .51 | |
| | 80 | 8.65 | 2.41 | 1.38 | .55 | |
| | 60 | 8.44 | 2.35 | 1.38 | .46 | |
| | 40 | 8.58 | 2.62 | 1.57 | .52 | |
| | 20 | 8.45 | 2.66 | 1.46 | .57 | |
| | 8100 | 7.31 | 2.31 | 1.34 | .54 | |
| | 80 | 8.66 | 2.50 | 1.42 | .61 | |
| | 60 | 5.35 | 1.88 | 1.24 | .53 | |
| | 40 | 5.63 | 1.80 | 1.08 | .47 | |
| | 20 | 6.72 | 1.93 | 1.07 | .49 | |
| | 8000 | 5.03 | 1.67 | 1.03 | .44 | |
| 2:34 | 80 | 9.08 | 2.47 | 1.21 | .54 | |
| | 60 | 7.76 | 2.54 | 1.34 | .62 | |
| | 40 | 9.23 | 2.12 | 1.08 | .57 | |
| | 20 | 6.08 | 1.88 | 1.03 | .62 | |
| | 7900 | 6.05 | 1.76 | 1.04 | .60 | |
| | 7880 | 5.31 | 1.49 | .90 | .58 | |
| | 60 | 5.12 | 1.58 | .78 | .50 | |
| | 40 | 5.14 | 1.46 | .75 | .49 | |
| | 20 | 4.76 | 1.35 | .75 | .53 | |
| | 7800 | 4.77 | 1.39 | .81 | .55 | |
| | 80 | 4.65 | 1.32 | .78 | .52 | |
| | 60 | 4.70 | 1.46 | .86 | .57 | |
| | 40 | 4.46 | 1.42 | .84 | .62 | |
| | 20 | 4.31 | 1.49 | .89 | .54 | |
| | 7700 | 4.29 | 1.33 | .83 | .60 | |
| | 80 | 4.16 | 1.29 | .77 | .58 | |
| | 60 | 3.99 | 1.23 | .71 | .54 | |
| | 40 | 3.89 | 1.27 | .74 | .60 | |
| | 20 | 3.72 | 1.21 | .71 | .60 | |

FLO-LOG INC.

# NOISE LOG DATA SHEET

Page 4

Company So Cal Gas Co  Well No. 55 #29

Date 10-18-91  Noise Tool Number 408S  Calibration Normal

| Time | DEPTH | 200 Hz | 600 Hz | 1000 Hz | 2000 Hz | REMARKS |
|---|---|---|---|---|---|---|
| 3:00 PM | 7600 | 3.87 | 1.28 | .78 | .63 | |
| | 7550 | 3.81 | 1.35 | .72 | .50 | |
| | 7500 | 3.91 | 1.26 | .71 | .56 | |
| | | 4.01 | | | | |
| | 7400 | 4.01 | 1.37 | .83 | .63 | |
| | 7300 | 3.61 | 1.27 | .88 | .65 | |
| | 7000 | 3.24 | 1.22 | .79 | .61 | |
| | 6500 | 3.01 | 1.06 | .71 | .65 | |
| | 6000 | 3.43 | .89 | .65 | .51 | |
| | 5500 | 2.95 | .86 | .64 | .50 | |
| | 5000 | 3.14 | .92 | .69 | .52 | |
| | Tool Test @5000' | | | | | |
| Tool Test | 5000 | 55.2 | 30.3 | 21.5 | 5.2 | 200 mV |
| | 4500 | 2.59 | .97 | .71 | .58 | |
| | 4000 | 2.86 | 1.15 | .74 | .62 | |
| | 3500 | 3.16 | 1.07 | .78 | .62 | |
| 4:35 | 3000 | 3.79 | 1.41 | .86 | .67 | |
| | 2500 | 3.76 | 1.13 | .89 | .54 | |
| 4:50 | 2000 | 4.68 | 1.29 | 1.11 | .73 | |
| | 1500 | 4.99 | 1.10 | 87 | .67 | |
| | 1000 | 4.64 | 1.20 | .98 | .63 | |
| 5:02 | 500 | 3.69 | 1.07 | .94 | .65 | |
| | 300 | 4.82 | 1.63 | .95 | .72 | |

FLO-LOG INC.

WELL NO. Standard Success #29

DATE 10-18-91

KB 0'
TBG

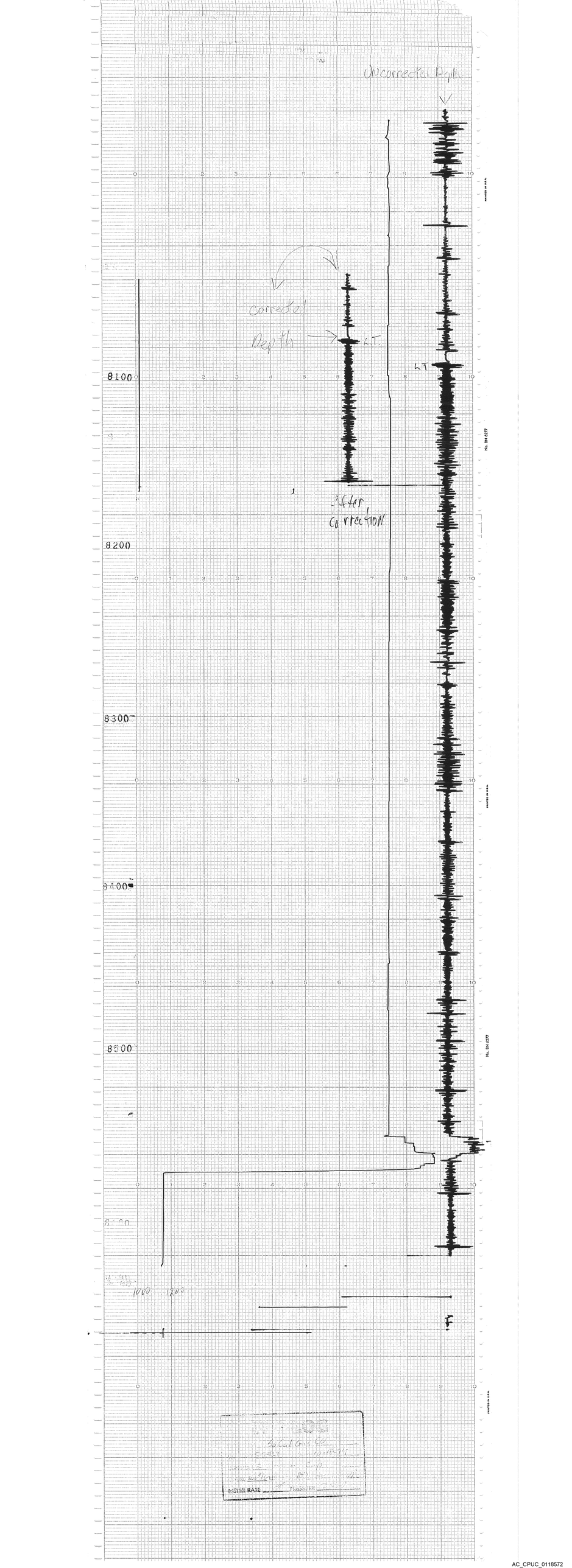
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
3200
3400
3600
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

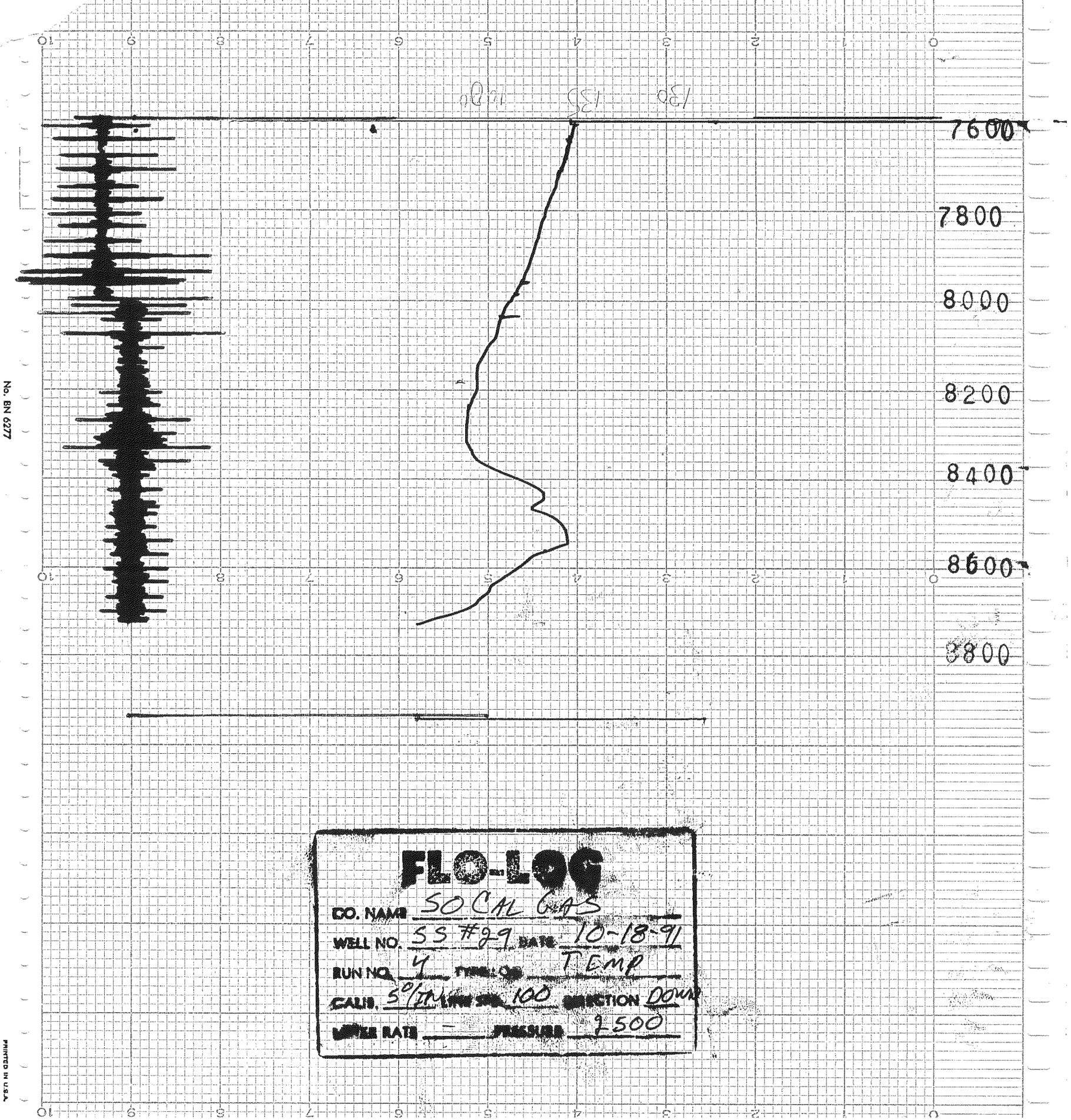
Top of Liner

Top of Liner

Top of Liner

AC_CPUC_0118571

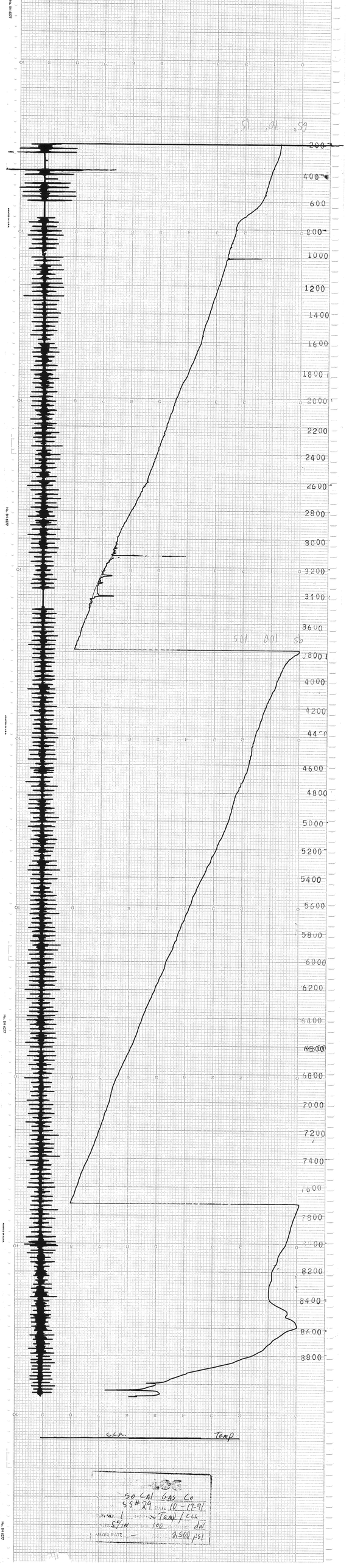

Uncorrected Depth
Corrected Depth
L.T.
L.T.
After Correction
8100
8200
8300
8400
8500
8600
1000
1200




No. BN 6277

PRINTED IN U.S.A.

AC_CPUC_0118573

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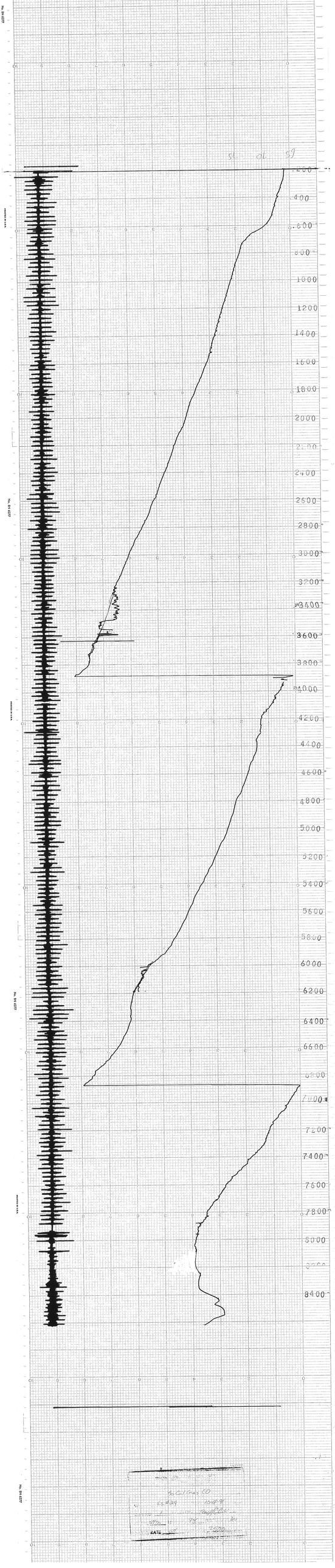


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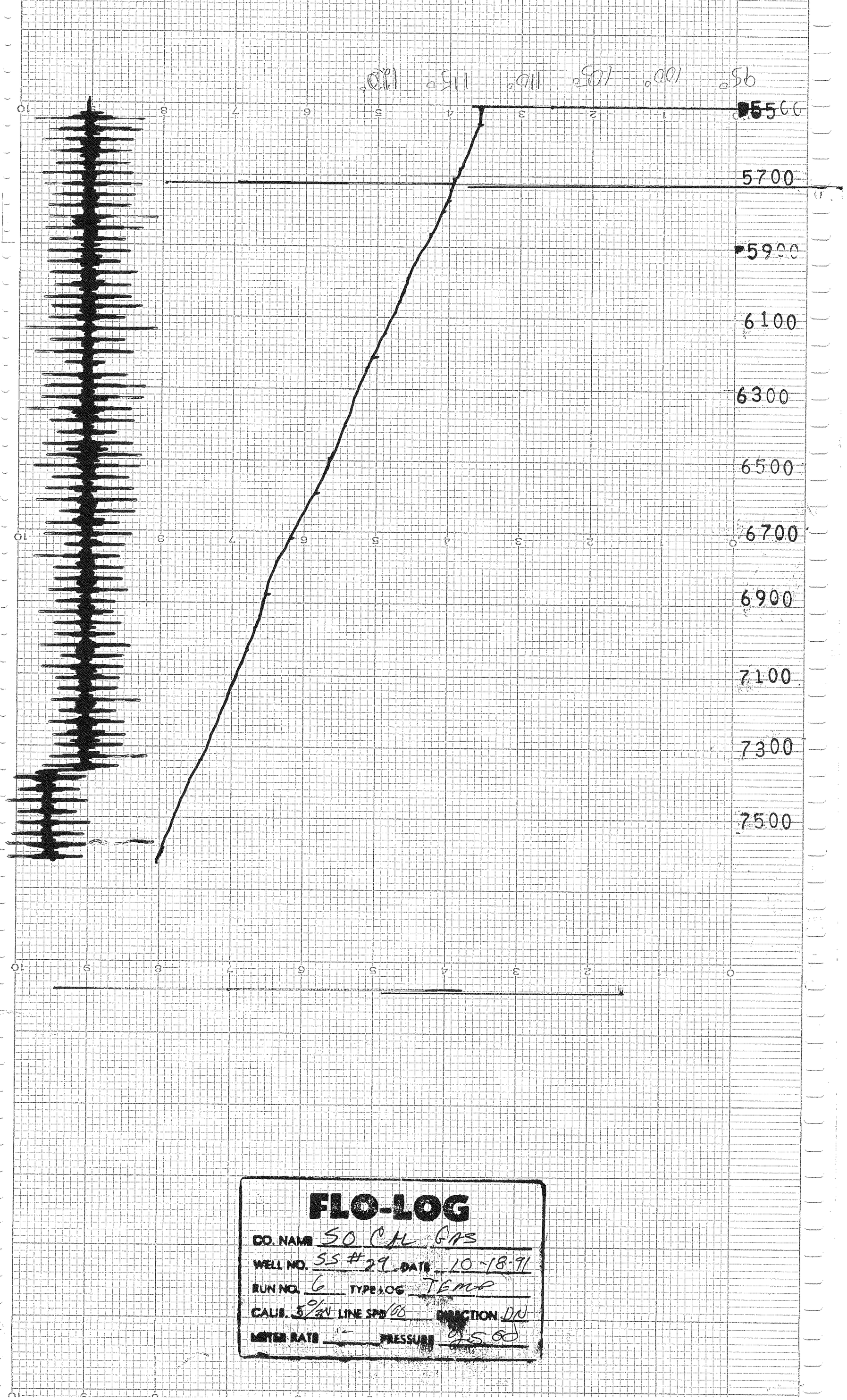



No. BN 6277
PRINTED IN U.S.A.

AC_CPUC_0118576

# FLO-LOG INC.

Company So. Cal. Gas Co.
Type of Survey Temp & Noise
Date of Survey 10-17-91
Lease, Well No. Standard Sesnon #29
Field Aliso Cyn

AC_CPUC_0118578

FLO-LOG INC.

# NOISE LOG DATA SHEET

Page THREE

Company SO CAL Well No. SS #29

Date 10-17-91 Noise Tool Number 4085 Calibration NORMAL

| Time | DEPTH | 200 Hz | 600 Hz | 1000 Hz | 2000 Hz | REMARKS |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | CONT REPEAT LOG #2 | | | | 20 mV |
| 4:54 | 7940 | 12.57 | 9.19 | 5.39 | .75 | 20 FT STOPS |
| | 20 | 6.52 | 5.32 | 3.09 | .75 | |
| | 7900 | 6.90 | 5.71 | 3.47 | .77 | |
| | 80 | 6.57 | 5.55 | 3.32 | .71 | |
| | 60 | 6.25 | 5.04 | 3.04 | .74 | |
| 5:00 | 40 | 5.64 | 4.49 | 2.63 | .75 | |
| | 20 | 5.63 | 4.54 | 2.63 | .72 | |
| 5:03 | 7800 | 5.68 | 4.58 | 2.65 | .73 | |
| | | END REPEAT | | | | |
| | | | | | | |
| | | CONT FIRST LOG #1 | | | | |
| 5:07 | 7750 | 5.68 | 4.69 | 3.01 | .75 | 50 FT STOPS |
| | 7700 | 5.26 | 4.15 | 2.47 | .72 | |
| | 50 | 5.05 | 4.03 | 2.47 | .75 | |
| 5:11 | 7600 | 4.96 | 3.84 | 2.40 | .76 | |
| | | | | | | |
| | 7500 | 4.63 | 3.54 | 2.09 | .75 | 100 FT STOPS |
| 5:15 | 7400 | 4.05 | 3.16 | 1.90 | .74 | |
| | | | | | | |
| 5:19 | 7200 | 3.31 | 2.44 | 1.53 | .72 | 200 FT STOPS |
| | 7000 | 2.37 | 1.91 | 1.13 | .68 | |
| | | | | | | |
| 5:25 | 6500 | 3.11 | 2.12 | 1.33 | .77 | 500 FT STOPS |
| | 6000 | 2.56 | 1.85 | 1.22 | .80 | |
| | 5500 | | | | | |
| | 5000 | | | | | |
| | | | | | | |
| | 5000 | 56.3 | 9.7 | 5.6 | 2.2 | TOOL TEST |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

FLO-LOG INC.

# NOISE LOG DATA SHEET

Page ONE

Company SO CAL GAS Well No. STANDARD SESNON #29

Date 10-17-91 Noise Tool Number 4085 Calibration NORMAL

| Time | DEPTH | 200 Hz | 600 Hz | 1000 Hz | 2000 Hz | REMARKS |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | 200 mV |
| 3:10 | 60 | 41.5 | 12.9 | 5.2 | 1.9 | 20 FT |
| | 8540 | 35.6 | 12.2 | 7.5 | 2.1 | |
| | 20 | 42.0 | 12.1 | 7.3 | 1.7 | |
| | 8500 | 40.6 | 12.0 | 7.0 | 1.6 | |
| | 80 | 32.2 | 11.7 | 7.1 | 1.9 | |
| 3:15 | 8460 | 18.2 | 9.8 | 6.0 | 1.8 | |
| | 40 | 12.55 | 10.15 | 6.59 | 1.01 | 20 mV |
| | 20 | 11.27 | 8.91 | 6.02 | .99 | |
| | 8400 | 11.74 | 9.40 | 6.26 | 1.00 | |
| 3:22 | 80 | 11.78 | 9.59 | 6.19 | .99 | |
| | 60 | 11.39 | 9.19 | 6.57 | .99 | |
| | 40 | 11.78 | 9.20 | 6.08 | .97 | |
| | 20 | 11.77 | 9.68 | 6.63 | .97 | |
| | 8300 | 11.45 | 8.94 | 5.98 | .91 | |
| | 80 | 11.09 | 8.63 | 5.33 | .93 | |
| 3:30 | 60 | 10.97 | 8.93 | 5.44 | .90 | |
| | 40 | 10.82 | 8.26 | 5.35 | .92 | |
| | 20 | 9.98 | 8.11 | 5.27 | .91 | |
| | 8200 | 10.00 | 7.91 | 5.00 | .92 | |
| | 80 | 10.85 | 8.69 | 5.46 | .90 | |
| 3:35 | 60 | 10.23 | 7.92 | 4.97 | .87 | |
| | 40 | 10.25 | 7.89 | 5.11 | .83 | |
| | 20 | 10.25 | 8.28 | 5.35 | .81 | |
| | 8100 | 10.48 | 8.15 | 5.11 | .81 | |
| | 80 | 10.22 | 8.27 | 5.46 | .87 | |
| | 60 | 6.66 | 5.26 | 3.32 | .90 | |
| 3:45 | 40 | 7.17 | 5.79 | 3.59 | .89 | |
| | 20 | 6.93 | 5.64 | 3.68 | .99 | |
| | 8000 | 6.92 | 5.26 | 3.33 | .82 | |
| 3:50 | 80 | 10.92 | 8.41 | 5.10 | .77 | |
| | 60 | 7.67 | 5.83 | 3.26 | .76 | |
| | 40 | 12.44 | 8.83 | 5.23 | .80 | |
| | 20 | 7.01 | 5.73 | 3.65 | .76 | |
| | 7900 | 7.73 | 6.71 | 4.33 | .75 | |

FLO-LOG INC.

# NOISE LOG DATA SHEET

Page TWO

Company SO CAL GAS Well No. SS # 29

Date 10-17-91 Noise Tool Number 4085 Calibration NORMAL

| Time | DEPTH | 200 Hz | 600 Hz | 1000 Hz | 2000 Hz | REMARKS |
|---|---|---|---|---|---|---|
| | | | | | | 20 mV |
| 4:00 | 7880 | 6.16 | 4.94 | 3.06 | .77 | 20 FT |
| | 60 | 5.70 | 4.54 | 2.86 | .72 | |
| | 40 | 5.54 | 4.43 | 2.70 | .72 | |
| | 20 | 5.47 | 4.41 | 2.64 | .72 | |
| 4:05 | 7800 | 5.55 | 4.44 | 2.65 | .73 | |
| | | | | | | |
| | | Repeat Log | Run # | 2 | | 200 mV |
| 4:15 | 8500 | 39.4 | 12.8 | 7.9 | 2.0 | 20 FT |
| | 80 | 32.2 | 11.2 | 6.7 | 1.8 | |
| | 60 | 21.0 | 11.7 | 7.4 | 1.6 | |
| | 40 | 12.1 | 9.6 | 6.0 | 1.4 | |
| | 20 | 12.21 | 9.77 | 6.10 | 1.09 | 20 mV |
| | 8400 | 11.47 | 9.30 | 5.93 | 1.04 | |
| | 80 | 11.83 | 9.45 | 5.73 | 1.04 | |
| | 60 | 11.84 | 9.30 | 5.60 | .97 | |
| | 40 | 11.60 | 9.39 | 5.84 | 1.00 | |
| | 20 | 11.87 | 9.51 | 6.19 | .99 | |
| | 8300 | 11.98 | 9.61 | 6.22 | .94 | |
| | 80 | 11.50 | 8.88 | 5.71 | 1.00 | |
| | 60 | 10.77 | 8.25 | 5.31 | .89 | |
| | 40 | 10.90 | 8.88 | 5.67 | .92 | |
| | 20 | 10.81 | 8.57 | 5.54 | .91 | |
| 4:35 | 8200 | 10.94 | 8.67 | 5.93 | .96 | |
| | 80 | 10.80 | 8.71 | 5.51 | .82 | |
| | 60 | 10.91 | 8.69 | 5.03 | .94 | |
| | 40 | 10.77 | 8.60 | 5.45 | .90 | |
| | 20 | 10.61 | 8.33 | 5.13 | .84 | |
| | 8100 | 10.34 | 8.16 | 5.10 | .90 | |
| | 80 | 10.00 | 7.65 | 4.88 | .88 | |
| 4:45 | 60 | 6.62 | 5.16 | 3.41 | .77 | |
| | 40 | 6.52 | 5.03 | 3.20 | .75 | |
| | 20 | 6.96 | 5.42 | 3.25 | .83 | |
| | 8000 | 7.13 | 5.51 | 3.36 | .81 | |
| | 80 | 11.71 | 9.39 | 6.04 | .90 | |
| | 60 | 10.65 | 8.82 | 5.31 | .87 | |

# FLO-LOG

**PRODUCTION LOGGING SURVEY DATA SHEET**

COMPANY So Cal Gas DATE 10-17-91

WELL NO. Standard Season #29 FIELD Aliso Canyon

COUNTY Los Angeles STATE CA

REPRESENTATIVE Jim Hemmerly SURVEY CREW Helms, Kiser, Schrader

TYPE OF SURVEY Temp Noise

PURPOSE OF SURVEY Check for shoe leak after cmt. job

## CASING AND TUBING RECORD

| SIZE | WEIGHT | FROM | TO |
|---|---|---|---|
| 7" | 23 & 26# | 0 | 8180 |
| 5" | 18# | 8075 | 9790 |

Effective Depth 9094 BPTD
Perforations 8456 - 9094 2 intervals

W.S.O. ~~Drill Pipe~~ C.P.
Tubing Size ~~2 7/8~~ Depth 8002
Packer(s) 7972
Mandrel(s) Tool Ass 7946 - 7962

Measurement Datum 10' KB
Reference Point ~~MAT~~ Drill floor

## WELL STATUS Shut-in

Meter Rate — BWPD Oil Rate — b/d
Flow Loss — BWPD Oil Gravity — °
Obs. Rate — BWPD Gas Rate — Mcf/d
Reported Tbg Press. 2500 psi Obs. —
Reported Csg Press. 1750 psi Obs. —

Pickup 9078 9050 Fill 44'
Bottom Temp. — °F Fluid Level 8555 Cap.

## SPINNER STATS

| Depth | Counts | Rate | Depth | Counts | Rate |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |

Reset Depth (from) 8102 (to) 8075
Depth Corrected to Liner Top

Logging Unit 712 Line Size 3/16 Line Length 24600
Tools Used 2-5 Bars Tung Bar CCL Temp Cap Noise
Tool Numbers 1024 1031 4085
Tool Diameter 1 3/8

Time Arrived on Location — Off Location — Total Hours —

| Time of Run | Run No. | Type of Survey | Survey Calib. | Line Speed | Direction | Logged Interval (from) | (to) |
|---|---|---|---|---|---|---|---|
| 12:45 | 1 | Temp | 6"/in | 100 | Down | 200 | 9078 |
| 9:22 | 2 | Cap | 200 cap | 60 | Up | 8980 | 7900 |
| 3:15 | 3 | Noise | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

REMARKS: 6J Billion Field Inventory
Well on withdrawl 12 hours ~~prior~~ then shut in
13 hours prior to survey
Fluid to surface on the back side

Cap Counts: Gas in lubricator 2964 @ 2500 psi
Water down hole 1154

8605' sow gas

AC_CPUC_0118582

# NOISE LOG SUMMARY REPORT

Field: Aliso Canyon Date: 10-17-91

Well Name: Standard Season #29 Logging Contractor: FLO-LOG

## WELL DATA

Number of ~~Days~~ HRS Shut-in 13 Field Inventory 62 Bcf.

Date of Last Noise Log 12-05-90 Field Status with draw

Purpose of Survey Check Shoe For Leakage after Cement Job.

**Surface Pressures**

Tubing 2500 psig

Casing 1750 psig

Innerstring N/A psig

Surface Csg N/A psig

**Fluid Levels**

Tubing _____ ft. (method) _____

Casing SURF ft. (method) _____

Pickup Depth _____ ft.

Pertinent Marker Beds & Depths _____

Operating Valve Condition (leaking,sweating,icing,etc)

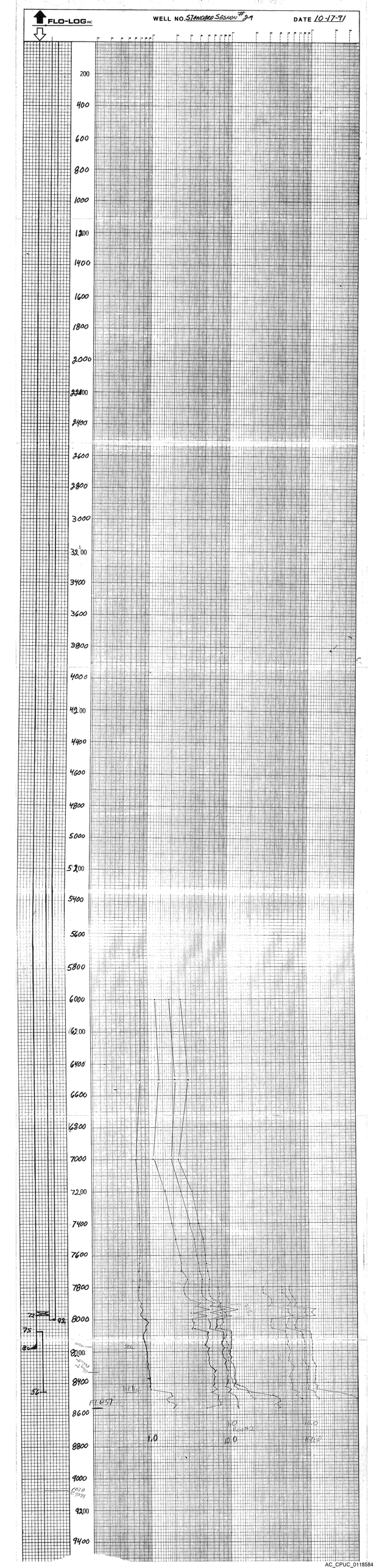
Well was on with draw 12 HRS Prior to Shut-In

## LOGGING RUN DATA

| Run No. 1 | Run No. _____ |
|---|---|
| Starting time: 3:00 ~~am~~/pm | Starting time: _____ am/pm |
| Pressure: | Pressure: |
| Casing: 1750 psig | Casing: _____ psig |
| Tubing: 2500 psig | Tubing: _____ psig |
| Status: Shutin / ~~Flowing~~ | Status: Shutin / Flowing |
| Noise Anomalies: | Noise Anomalies: |
| Storage zone: _____ | Storage zone: _____ |
| WSO: _____ | WSO: _____ |
| Liner: _____ | Liner: _____ |
| Packer: _____ | Packer: _____ |
| Other: _____ | Other: _____ |

Comments/Recommendations: _____

Witness: _____ Resident: _____




AC_CPUC_0118584

So. Cal. Gas Co. Aliso Canyon Standard Sesnon #29

8-30-90
GAS STORAGE
OIL & WATER

| | | | | | | |
|---|---|---|---|---|---|---|
| SHUTIN | 11-3/4" | 42 & 47# | 0' | 1042' | | |
| 9077' PBTD | 7 | 23 & 26 | 0 | 8180 | 2500 PSI | |
| 8992' | 5 | 18 | 8075 | 9790 | | NONE OBS. |
| 85' | 2-7/8" | TUBING | 0 | 8049 | 2500 PSI | |

R. MCDONALD
J. KISER
8040
8456-8694' @ INTERVALS 8727-9077-9077 SLOTTED
CHECK SHOE AND CHECK TEMPERATURE ANOMALIES @ 8000'.

SUBSURFACE SAFETY VALVE IS OPEN.
FIELD VOLUME IS 46.524 BCF.

711 23900' 4030

3-60" SINKER BARS, COLLAR LOCATOR, TEMPERATURE,NOISE

7' K.B.
LINER TOP

TEMPERATURE

70° 75° 80° 85° 90° 95° 100°

MILLIVOLTS

2-7/8"
11-3/4" 42&47#
1042'
7" 23&26
5" 18#
110°
115°
120°
125°
130°
135°
140°
150°
155°
160°
165°
170°
175°
180°
[1.0]
[REPEAT]
HEAR SLIGHT GAS FLOW
1.0
10.0

AC_CPUC_0118585

60

80

3660

20

40

60

80

8100

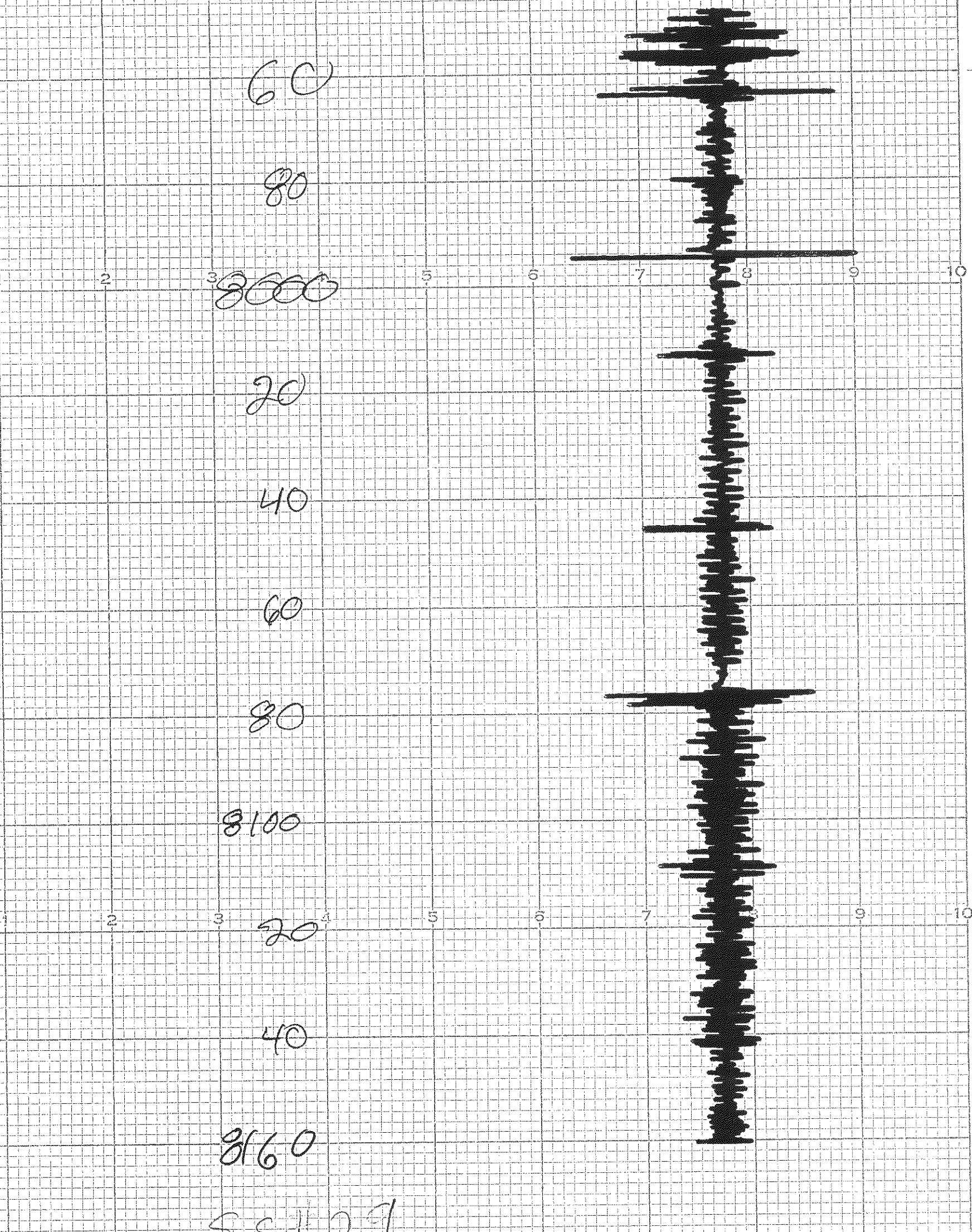
20

40

8160

SS #29

CCC For Path Cont'd




CO. NAME So Cal Gas Co.

WELL NO. SS #29 DATE 10-17-91

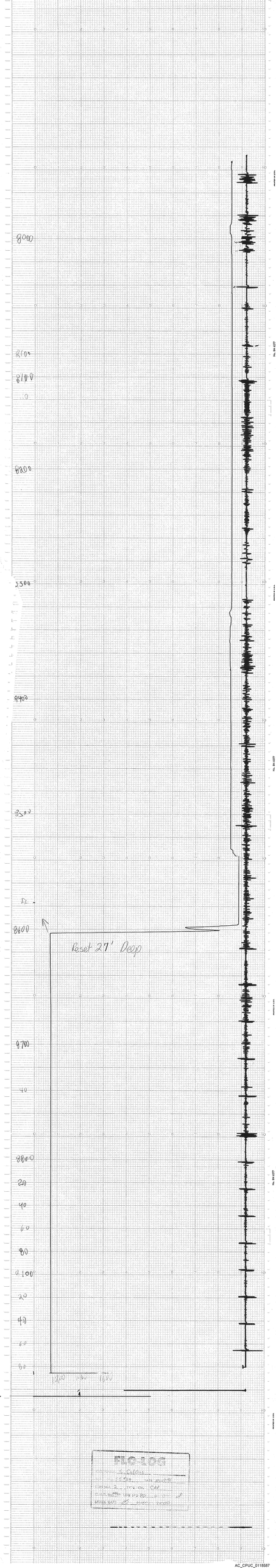
RUN NO. ____ TYPE LOG CCL

CALIB. ____ LINE SPD ____ DIRECTION UP

METER RATE ____ PRESSURE 2520

PRINTED IN U.S.A.

AC_CPUC_0118586




AC_CPUC_0118587

PRODUCTION LOGGING SERVICES, INC.

PLS

DATE 12/5/90

COMPANY So. Ca. Gas Co.

TYPE SURVEY Temp + Sound

WELL NUMBER Sesnon 29

FIELD ~~Simi Valley~~ ALISO CANYON

AC_CPUC_0118588

Copies to SO1

# PLS PRODUCTION LOGGING SERVICES, INC.

1801 WEST WARDLOW LONG BEACH, CALIF. 90810 (213) 834-3034

## PRELIMINARY FIELD REPORT

Date 12/5/90 Start 7:30 Finish 3:00

Customer So. Co. Gas Co.

Attention B. Hazk Crew Lacey

Well Sesnon 29 Field Simi Valley

Type Survey Temp. + Sound

Casing 7" 23#+26# Set ⊖ To 8180'

Liner 5" 18# Set 8075' To 9077 TOC

Tubing 2 7/8" Packer 8040' Tail 8049'

Perforations 8456' - 8694'

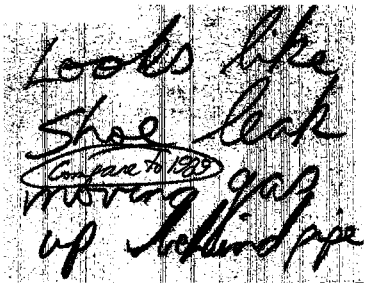
| | PLS | Meter | Pressure |
|---|---|---|---|
| Rate Upper | ____ B/D | ____ B/D | 2730 PSI |
| Rate Lower | ____ B/D | ____ B/D | ____ PSI |

| | O.K. | LEAKING | | O.K. | LEAKING |
|---|---|---|---|---|---|
| W.S.O. | ☐ | ☐ | Packer | ☐ | ☐ |
| Top Eff. Perf. | ☐ | ☐ | Shoe | ☐ | ☐ |

Remarks: P.U. 9000'

F.L. 8760'

AC_CPUC_0118590


Looks like
Shoe leak
Compare to 1989
moving gas
up Soldier pipe

GRAPH PAPER GRAPHIC CONTROLS CORPORATION Buffalo, New York
Printed in U. S. A.

SEMI-LOGARITHMIC 4 CYCLES X 150 DIVISIONS BD-2044 -67

SS-29
12/5/90

6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200

1" 23 H
26 H

5" 18 H

PH 9000
9077

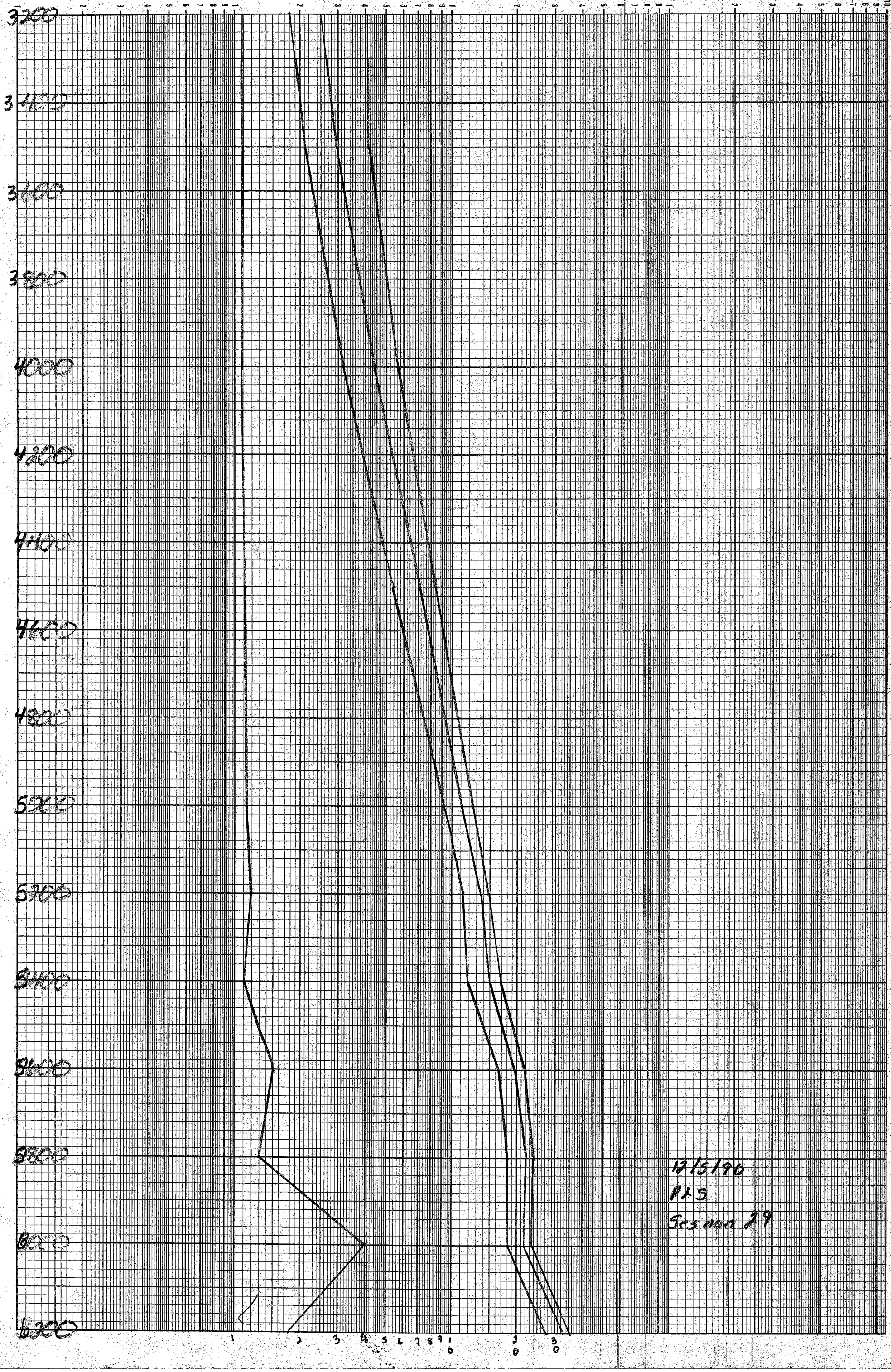
12/5/90
Session #7
P&S

1.0 10.0 100.0 1000

AC_CPUC_0118592

GRAPH PAPER GRAPHIC CONTROLS CORPORATION Buffalo, New York
Printed in U. S. A.

SEMI-LOGARITHMIC 4 CYCLES X 150 DIVISIONS BD-2044 -GT




AC_CPUC_0118593

GRAPH PAPER GRAPHIC CONTROLS CORPORATION Buffalo, New York
Printed in U.S.A.

SEMI-LOGARITHMIC 4 CYCLES X 150 DIVISIONS BD-2044-GT

400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
3200

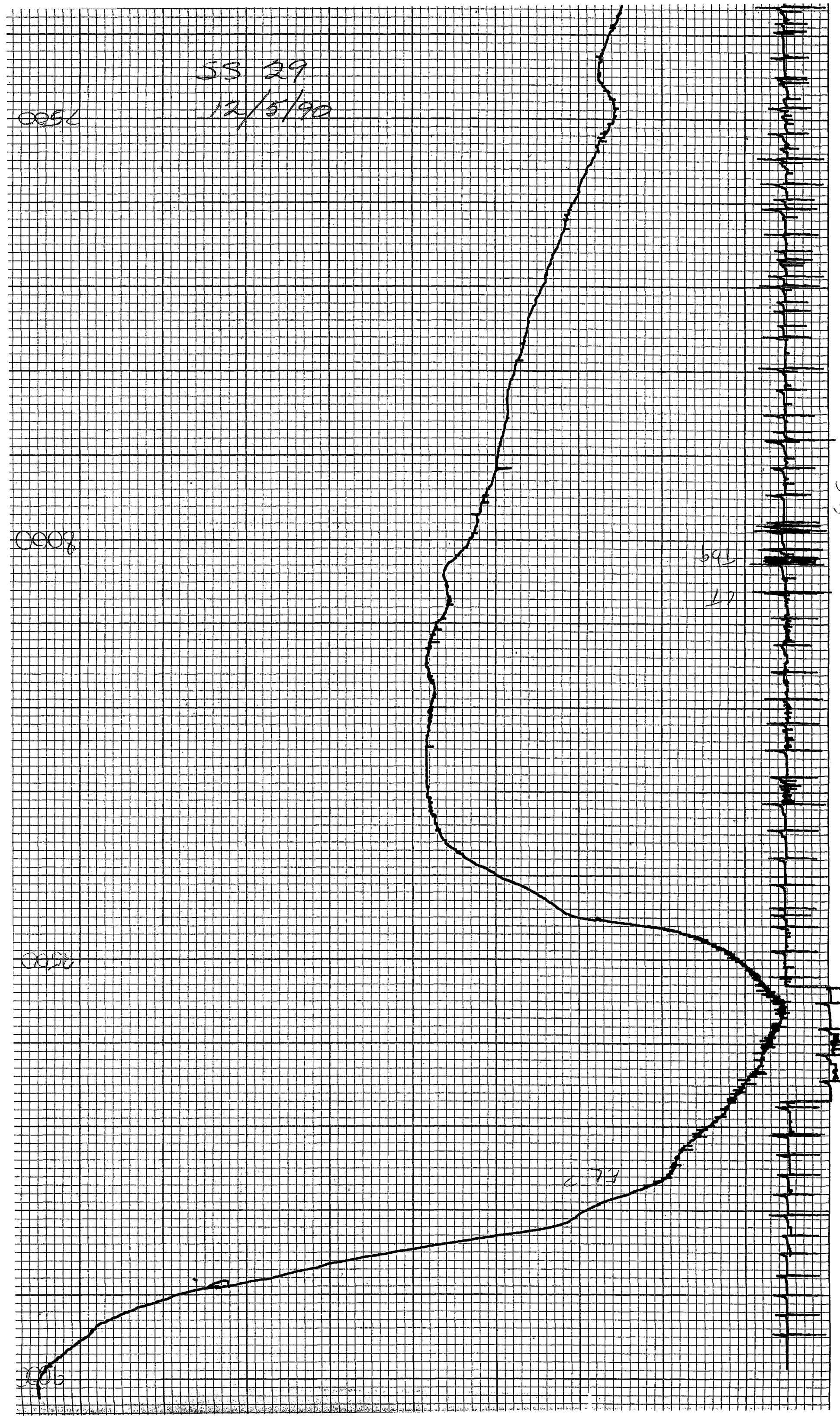
Surface noise

12/5/80
9 x 5
Session 29

AC_CPUC_0118594

AC_CPUC_0118595

SS 29
12/5/90



PLS

Company So Ca Gas Co. Rate

Well # Sesnon 29 Pressure 2730

Date 12/5/90 Run # 1

Hz/in 5° Line Speed 30'

AC_CPUC_0118596

PRODUCTION LOGGING SERVICES, INC.

PLS

Time: Arrive _____

Depart _____

Crew Larry / Arnold

Company So. Ca. Gas Co.

Service Unit 8

Well No. Sesnon 29

Date 12/5/90

API No. _____ Field Simi Valley

**WELL DATA**

Casing Size & Weight: 7" 23# + 26# Set From 0 to 8180'

Liner Size & Weight: 5" 18# Set From 8075' to 9077' T.O.C.

Tubing Size & Weight: 2 7/8" Set From 0 to 8049', 8040 pkr

Perforations: 8456' - 8694' 2 int.

Surface Datum: 7' Last Pickup _____

Type Survey Temp + Sound Tool Description 1 3/8"

Pickup or Greatest Depth Attempted _____

Depth Correlation and/or Adjustment _____

Meter Coefficient _____ Reading _____ Pressure 2730

Meter Rate _____ B/D. Flow Tube Loss _____ B/D. Net Rate _____ B/D.

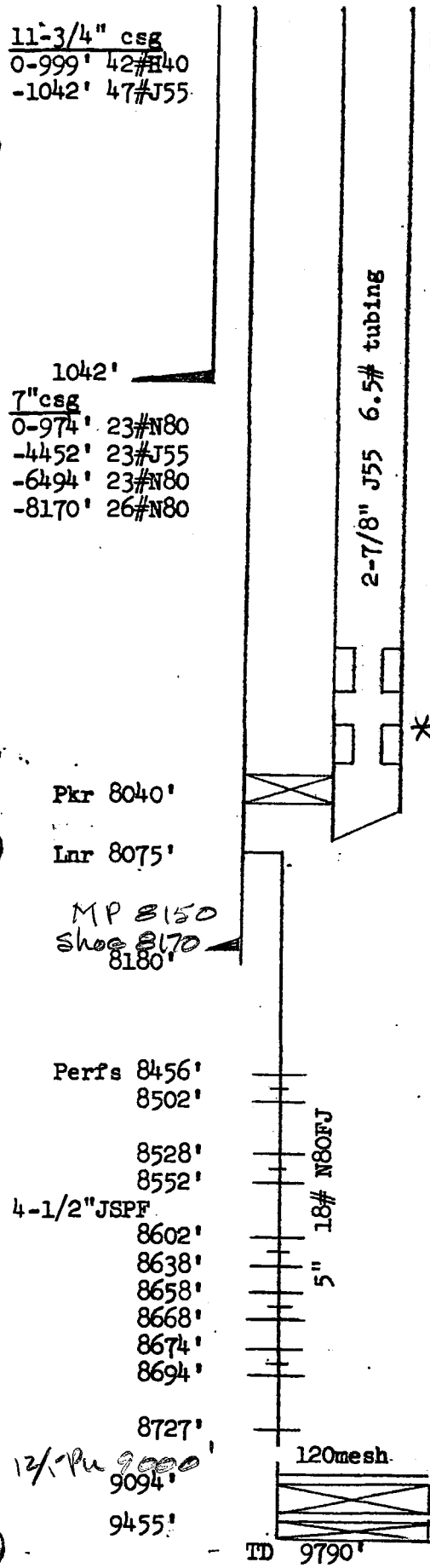
**SURVEY PROGRAM**

| Type | Time | Run No. | Line Vel. | Dir. | RPM/in | Off-Set | Time Const. | Remarks |
|---|---|---|---|---|---|---|---|---|
| T | | 1 | 50' | ↓ | 5"/in | | | 25' ↑ C.C.L. |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

Remarks: Shoe leak

DF: 7' MV: 6

Standard Sesnon 29




Surface Choke: _____

Casing flow string

--8002' Otis 2-1/2" SSSV
(8002') 2.313"ID

*--8029' Otis "XN" No-Go Nipple
(8029') 2.205"

--8049'

--(8256') (-5400)

--S4 8428'

--S8 8520' (8520')

--HZ 8682'

--Frew 8727'

9077'

(SS - 6941')

4/26/53 Well spud
9/29/53 Well completed
2/2/73-2/28/73 Pressure tested 7" casing, converted to gas stor by perforating in Sesnon Zone, cleaned out to 9074', ran tubing with SSSV
7/31/73-8/7/73 Installed wireli SSSV, cleaned out to 9077'
8/27/77-9/9/77 Cleaned out to 9072', pressure tested casing, reran tubing with SSSV
3/5/79-3/10/79 Replaced safety system, set packer at 8040'

12/5/90
SIWHP
Tbg 2730 psig
Csg 2730 psig

*Note:
USE 2.290 EQUAL. SUB. & RINGS to GET PAST SSSV NIPPLE.

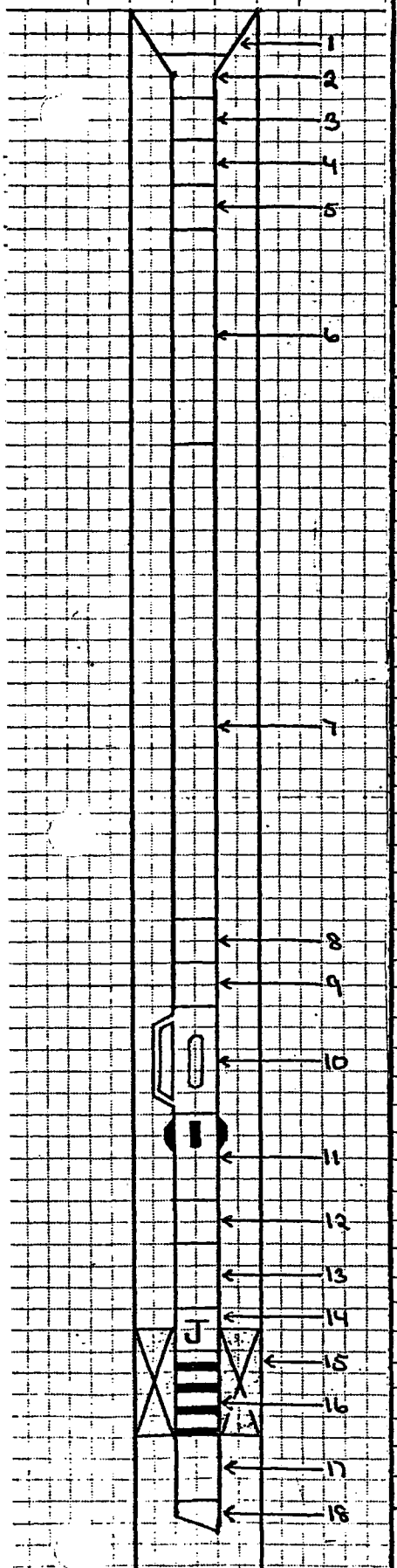
Est FL 8760'

| WELL VOLUME | Cu.Ft. | Bbl. |
|---|---|---|
| Tubing | 262 | 47 |
| Csg/Lnr. | 105 | 19 |
| Annulus | 1405 | 250 |

6-16-86

AC_CPUC_0118598

WELL PROFILE




Southern California Gas Co.
OPERATOR

WELL # S.S. #29

FIELD Aliso Canyon

COUNTY Los Angeles

STATE California

DATE March 13, 1979

☐ NEW COMPLETION ☐ WORKOVER

| | CASING | LINER | TUBING 1 | TUBING 2 | TUBING 3 |
|---|---|---|---|---|---|
| SIZE | | | | | |
| WEIGHT | | | | | |
| GRADE | | | | | |
| THREAD | | | | | |
| DEPTH | | | | | |

| ITEM NO. | TUBING DETAILS | LENGTH | DEPTH |
|---|---|---|---|
| 1. | Kelly Bushing | 6.92 | - |
| 2. | Tubing Hanger | .30 | 6.92 |
| 3. | Pup Jt. 2 7/8" 6.5# N-80 8rd EUE | 1.18 | 7.72 |
| 4. | Pup Jt. 2 7/8" 6.5# N-80 8rd EUE | 3.15 | 8.90 |
| 5. | Pup Jt. 2 7/8" 6.5# N-80 8rd EUE | 10.25 | 12.05 |
| 6. | 16 joints 2 7/8" 6.5# N-80 8rd EUE | 500.84 | 22.30 |
| 7. | 243 Joints 2 7/8" 6.5# J-55 8rd EUE | 7473.19 | 523.14 |
| 8. | Pup Jt. 2 7/8" 6.5# N-80 8rd EUE | 4.09 | 7996.33 |
| 9. | Otis "X" nipple 2.350" I.D. | 1.13 | 8000.42 |
| 10. | Otis Annular Flow Safety System 4.88" O.D., 2.313" I.D. | 7.66 | 8001.55 |
| 11. | Otis blast joint with 4 centralizers 5.50" O.D., 2.375" I.D. | 19.82 | 8009.21 |
| 12. | Otis "XN" No-Go Nipple 2.205" I.D. | 1.17 | 8029.03 |
| 13. | Otis Blast Joint 3.668" O.D. 2.375" I.D. | 9.80 | 8030.20 |
| 14. | Otis "J" latch locator | 1.16 | 8040.00 |
| 15. | Otis "Permatrieve" 7" packer (new) (20-26#) 5.87" O.D. 3.25" I.D. | 4.16 | 8040.00 |
| 16. | Otis seal assembly (4) 3.29" O.D., 2.38" I.D. | 4.05 | 8041.16 |
| 17. | Otis Production Tube | 2.96 | 8045.21 |
| 18 | Otis Guide Shoe | .42 | 8048.17 |
| | End of Tubing | | 8048.59 |

NOTES

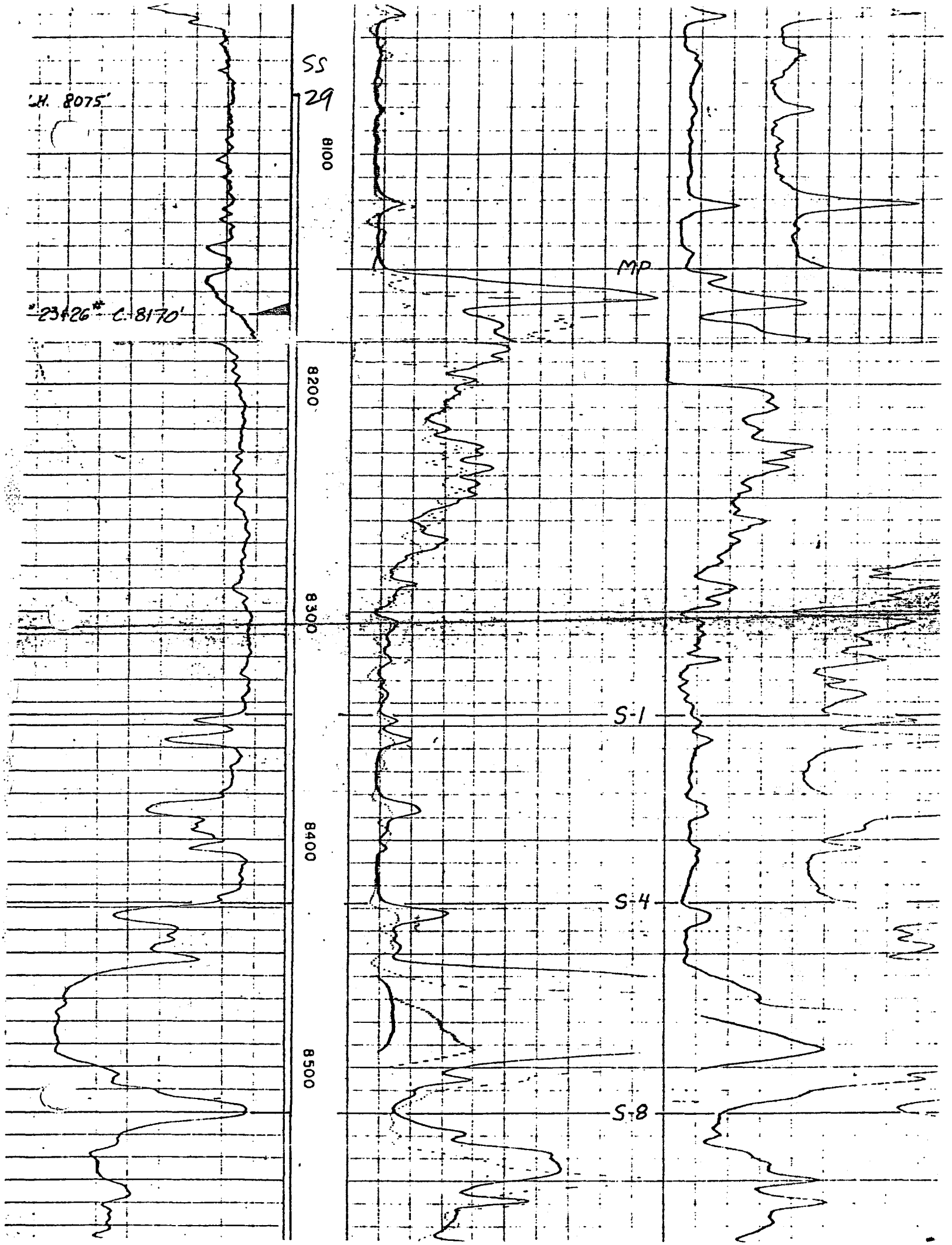
Side door choke in safety system

Tubing landed with 10,000X compression on packer

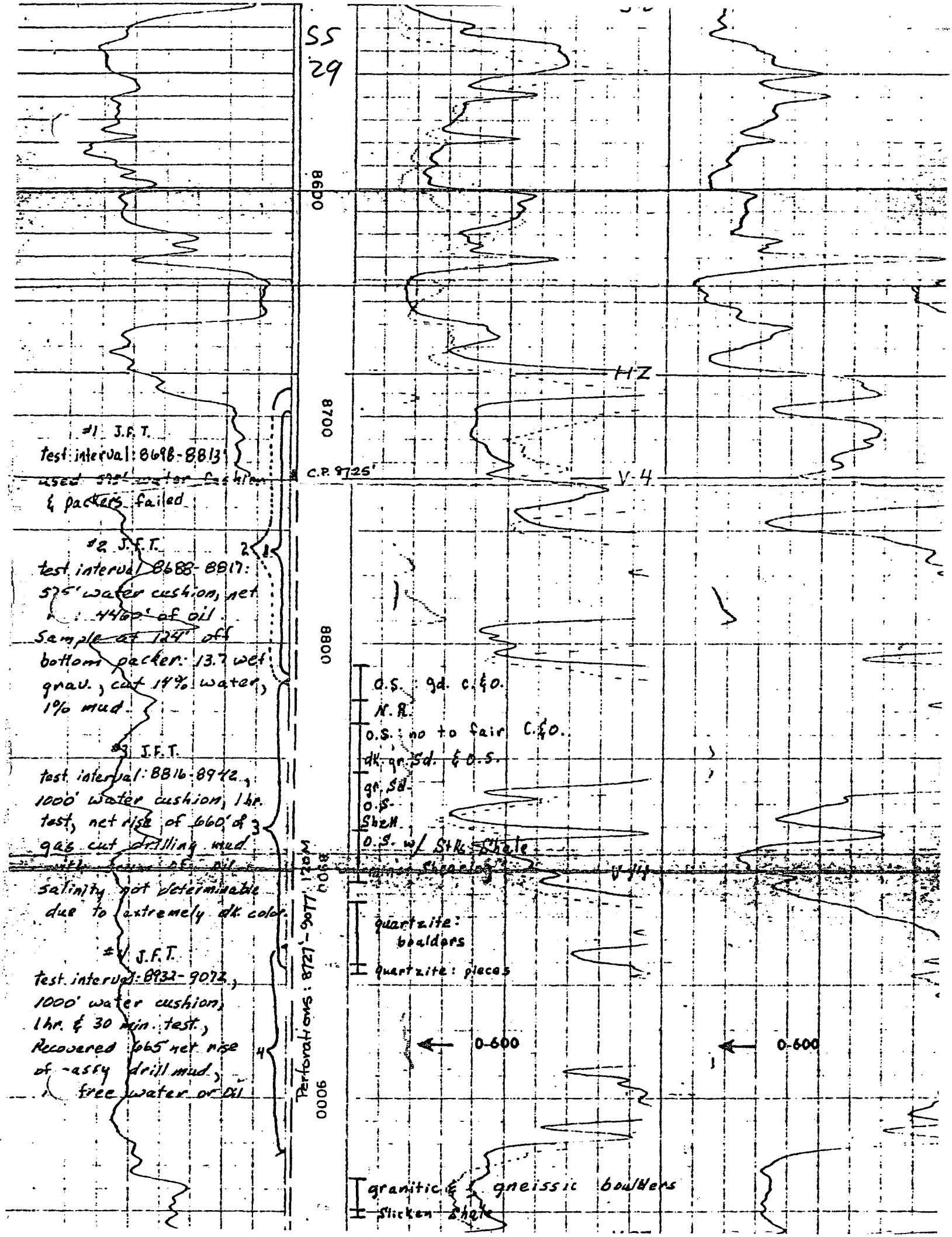
Corrected tubing measurments (7,482.13) to meet wireline measurments.

COMMENTS:

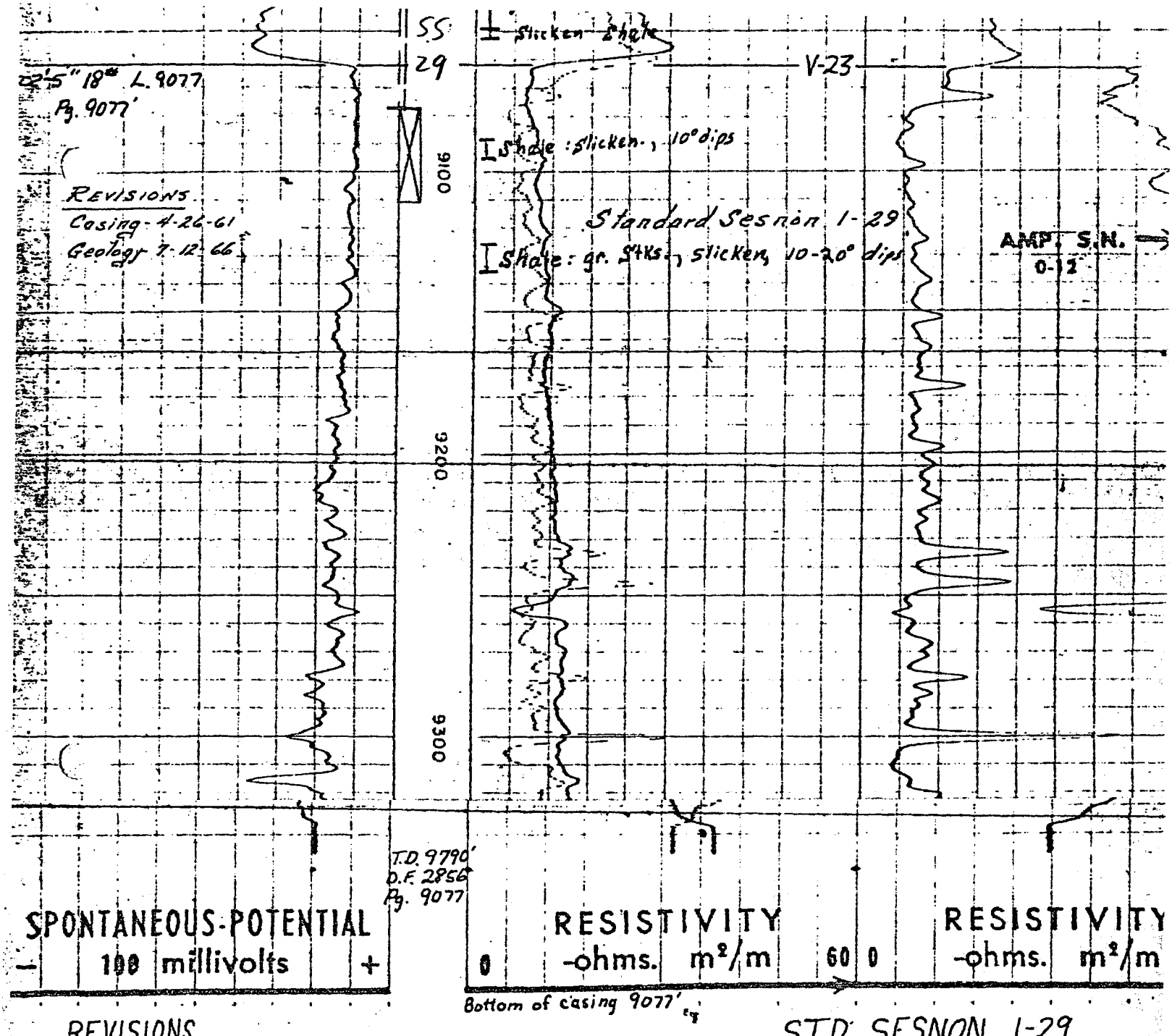
AC_CPUC_0118599




AC_CPUC_0118600




AC_CPUC_0118601



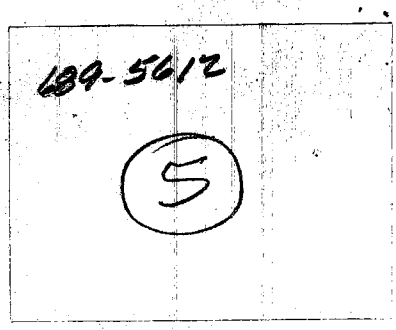

2½" 18# L. 9077
Pg. 9077'

REVISIONS
Casing - 4-26-61
Geology - 7-12-66

REVISIONS
CASING - 4/26/61
GEOLOGY - 7/12/66

STD. SESNON 1-29

AC_CPUC_0118602


689-5612
5

SHUT IN 5 DAYS PRIOR TO SURVEY.
INJ WD 1.75 HOURS PRIOR TO SHUT IN.

SS-29

SS-29 11-28-90

149 153 157 161 165 169

7500 7700 7900 8100 8300 8500 8700 8900 9100

Shoe appears ok
Disregard gradient
7500' - 7840'
Will run Noise Log

PKR 8040
LNR 8075
SHOE 8180'
PERFS 8456

9077

TBG 3880
CSG 2880
P.U. 9024'

RUN — C.V.
AFAB
PLOT → RM

46 1512
10 X 10 TO THE CENTIMETER
KEUFFEL & ESSER CO. MADE IN U.S.A.
18 X 25 CM.

AC_CPUC_0118604

ALISO CANYON

SS 29

SS-29 10-11-90

TEMP

70 80 90 100 110 120 130 140 150 160 170 180

0 1 2 3 4 5 6 7 8 9 10

0 1000 2000 3000 4000 5000 6000 7000 8000 9000

46 1512

10 X 10 TO THE CENTIMETER 10 X 25 CM
KEUFFEL & ESSER CO. MADE IN U.S.A.

Cooling: 4500'-6000'

No Temp. break @ shoe

11/10/89: RA saw movement to MP & ↑

11/11/89: Noise in zone @ shoe.

CONTINUE TO MONITOR.

Will N.L./n Tracer @ '90 Hi-INV. to Verify S.L.

T-2555

C-2560

TD-9025

Run #6

Read, Plot - MD.

100 FT/INCH

SHUT IN 5 days + PRIOR TO SURVEY.

INJ/WD _____ HOURS PRIOR TO SHUT IN.

4-25-84

AC_CPUC_0118605

PRODUCTION LOGGING SERVICES, INC.

# NOISE LOG SURVEY



Company So. Ca. Gas Co.

Well Season 29

Date 12/5/90

| Depth | 200 HZ | 600 HZ | 1K | 2K | Comments |
|---|---|---|---|---|---|
| 8700 | .568 | .546 | .523 | .071 | 2 V scale |
| 8600 | .761 | .698 | .652 | .092 | REPEAT |
| 8500 | .767 | .611 | .551 | .104 | |
| 8700 | 583. .583 | 574. .574 | 539. .539 | 79. .079 | MV SCALE * |
| 8680 | 578. .578 | 569. .569 | 535. .535 | 78. .078 | |
| 8660 | 611. .611 | 598. .598 | 556. .556 | 82. .082 | |
| 8640 | 658. .658 | 642. .642 | 618. .618 | 83. .083 | |
| 8620 | 667. .667 | 643 .643 | 603. .603 | 85. .085 | |
| 8600 | .777 ~~.766~~ 777 | .720 ~~.708~~ 720 | 689 .669 | 94 .094 | |
| 8580 | 796 .796 | 730 .730 | 684 .684 | 97 .097 | |
| 8560 | 772 .772 | 709 .709 | 665 .665 | 108 .108 | |
| 8540 | 924 .924 | 799 .799 | 744 .744 | 120 .120 | |
| 8520 | 789 .789 | 640 .640 | 579 .579 | 117 .117 | |
| 8500 | 768 .768 | 612 .612 | 553 .553 | 108 .108 | |
| 8480 | 693 .693 | 578 .578 | 521 .521 | 103 .103 | |
| 8460 | 561 .561 | 539 .539 | 499 .499 | 86 .086 | |
| 8446 | 548 .548 | 529 .529 | 488 .488 | 84 .084 | |
| 8420 | 581 .581 | 565 .565 | 521 .521 | 86 .086 | |
| 8400 | 573 .573 | 555 .555 | 511 .511 | 88 .088 | |
| 8380 | 578 .578 | 560 .560 | 518 .518 | 85 .085 | |
| 8360 | 567 .567 | 550 .550 | 507 .507 | 84 .084 | |
| 8340 | 570 .570 | 554 .554 | 510 .510 | 85 .085 | |
| 8320 | 565 .565 | 546 .546 | 505 .505 | 82 .082 | |
| 8306 | 574 .574 | 555 .555 | 514 .514 | 83 .083 | |

AC_CPUC_0118606

PRODUCTION LOGGING SERVICES, INC.

# NOISE LOG SURVEY



Company So Ca. Gas Co.

Well Season 29

Date 12/5/90

| Depth | 200 HZ | 600 HZ | 1K | 2 K | Comments |
|---|---|---|---|---|---|
| 8280 | .552 | .535 | .492 | .076 | |
| 8260 | .561 | .543 | .503 | .077 | |
| 8240 | .559 | .544 | .500 | .076 | |
| 8220 | .559 | .542 | .502 | .076 | |
| 8200 | .540 | .523 | .480 | .071 | |
| 8180 | .528 | .510 ~~.468~~ | .468 | .076 | |
| 8160 | .533 | .514 | .476 | .072 | |
| 8140 | .542 | .520 | .484 | .073 | |
| 8120 | .531 | .514 | .473 ~~.473~~ | .069 | |
| 8100 | .514 | .494 | .454 | .067 | |
| 8080 | .525 | .509 | .470 | .072 | |
| 8060 | .389 | .378 | .347 | .046 | |
| 8040 | .423 | .400 | .354 | .052 | |
| 8020 | .427 | .395 | .341 | .048 | |
| 8000 | .157 | .153 | .140 | .030 | |
| 7980 | .194 | .190 | .173 | .029 | |
| 7960 | .208 | .208 | .192 | .029 | ~~200 mV scale~~ |
| 7940 | .198 | .194 | .177 | .029 | |
| 7920 | .195 | .192 | .175 | .027 | |
| 7900 | .193 | .188 | .174 | .029 | |
| 7850 | .204 | .201 | .185 | .021 | |
| 7800 | .197 | .193 | .177 | .017 | |
| 7750 | .194 | .189 | .173 | .015 | |
| 7700 | .186 | .183 | .167 | .012 | |

AC_CPUC_0118607

PRODUCTION LOGGING SERVICES, INC.

# NOISE LOG SURVEY



Company So Ca Gas Co

Well Sesnon 29

Date 12/3/90

| Depth | 200 HZ | 600 HZ | 1K | 2K | Comments |
|---|---|---|---|---|---|
| 7650 | .166 | .162 | .145 | .011 | |
| 7600 | .148 | .145 | .128 | .010 | |
| 7550 | .135 | .132 | .116 | .016 | |
| 7500 | .115 | .111 | .095 | .010 | |
| 7450 | .101 | .097 | .081 | .010 | 200 MV scale |
| 7400 | 90.3 | 86.3 | 70.1 | 10.7 | |
| 7350 | 84.2 | 79.6 | 64.8 | 10.4 | |
| 7300 | 81.7 | 76.6 | 62.6 | 9.4 | |
| 7250 | 78.3 | 74.2 | 60.6 | 7.7 | |
| 7200 | 85.7 | 82.9 | 71.7 | 7.2 | |
| 7150 | 82.9 | 79.6 | 68.8 | 6.3 | |
| 7100 | 83.6 | 80.9 | 71 | 6.6 | |
| 7050 | 84.6 | 82.4 | 73.1 | 6.0 | |
| 7000 | 82.6 | 79.8 | 71.9 | 5.2 | |
| 6950 | 79 | 76.8 | 68.1 | 4.5 | |
| 6900 | 78.1 | 76 | 68.3 | 4.9 | |
| 6800 | 63.3 | 60.7 | 52.9 | 4.1 | |
| 6600 | 54.7 | 52.5 | 45 | 3.2 | |
| 6400 | 42.8 | 41 | 34.7 | 2.3 | |
| 6200 | 35 | 32.7 | 27.5 | 1.8 | |
| 6000 | 125.2 | 99.1 | 31.0 | 8.4 | Sound check |
| 6000 | 23.5 | 21.8 | 18.2 | 4.0 | |
| 5800 | 23.9 | 22.1 | 18 | 1.3 | |
| 5600 | 21.8 | 19.8 | 16.6 | 1.5 | |

PRODUCTION LOGGING SERVICES, INC.

# NOISE LOG SURVEY



Company So. Ca. Gas Co

Well Sesnon 29

Date 12/5/90

| Depth | 200 HZ | 600 HZ | 1K | 2K | Comments |
|---|---|---|---|---|---|
| 5400 | 16.9 | 15.1 | 11.9 | 1.1 | |
| 5200 | 15 | 13.72 | 11.34 | 1.19 | 20 mv scale |
| 5000 | 12.49 | 11.01 | 9.09 | 1.12 | |
| 4500 | 8.44 | 7.05 | 5.34 | 1.11 | |
| 4000 | 5.62 | 4.35 | 3.17 | 1.08 | |
| 3500 | 4.22 | 2.98 | 2.12 | 1.09 | |
| 3000 | 4.2 | 2.3 | 1.66 | 1.08 | |
| 2500 | 4.21 | 2.11 | 1.77 | 1.04 | |
| 2000 | 3.59 ~~3.94~~ | 2.4 | 2.19 | 1.04 | |
| 1500 | 3.83 | 2.88 | 2.63 | 1.04 | |
| 1000 | 2.97 | 4.81 | 4.47 | 1.03 | Surface noise |
| 500 | 11.75 | 9.57 | 8.92 | 1.15 | |

AC_CPUC_0118609

PRODUCTION LOGGING SERVICES, INC.

# TEMPERATURE & NOISE LOG
## STANDARD SESNON 29

COMPANY SOUTHERN CALIFORNIA GAS COMPANY

WELL SS 29 FIELD ALISO CANYON

COUNTY L. A. STATE CA

### WELL DATA

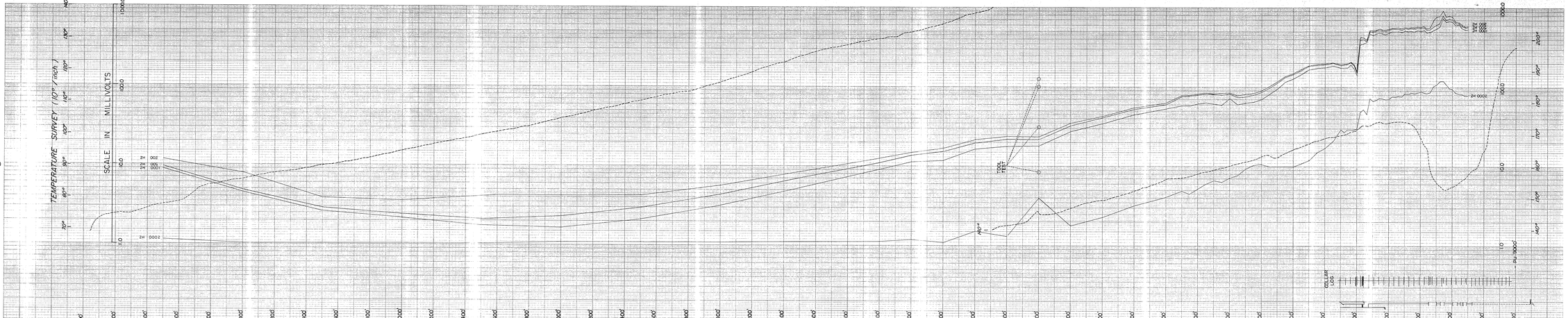
| | | Casing and Tubing Record | | | |
|---|---|---|---|---|---|
| Date | 12-05-90 | Size | Wgt. | From | To |
| Type Log | TEMP.-NOISE | 7" | 23,26 | 0' | 8180' |
| Depth-Drill | 9094' | 5" | 18 | 8075' | 9790' |
| Depth-Log (Pick up) | 9000' | | | | |
| Bottom Logged Interval | 9000' | | | | |
| Top Logged Interval | 50' | | | | |
| Fluid Level | | | | | |
| Recorded By | LARRY CLIFF | Packer @ 8040' | | | |
| Witnessed By | | Tbg. Tail to 8049', 2-7/8" | | | |
| | | Perforations: 8456' - 9094' (intervals) | | | |
| | | Measurement Reference 7" | | | |

### EQUIPMENT and TEST DATA

| | | | |
|---|---|---|---|
| | | Truck No. | 8 |
| Well Status | SHUT-IN | | |
| Production-Oil, b/d | | Tool Size | 1-3/8" |
| Water, b/d | | | |
| Gas, mcf | | | |
| Injection Rate (meter) | | R/A TRACER CHECK RESULTS | |
| Injection Rate (observ) | | | |
| | | Packer | |
| Pressure - TBG. psi | 2730 | Top Perf. | |
| CSG. psi | | Shoe | |
| | | W.S.O. | |
| Temp. Sens. °F/inch | TEN | CSG Valve | |

SURVEY RESULTS : SHOE LEAKING

REMARKS :

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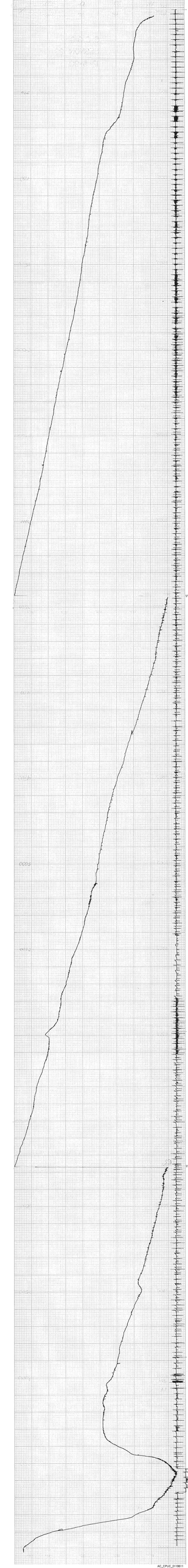

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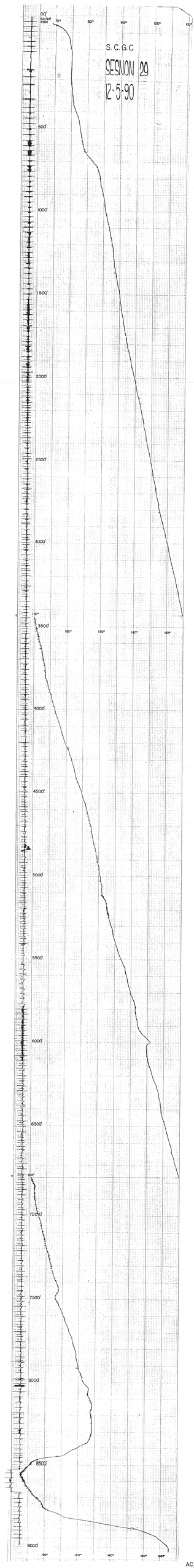



AC_CPUC_0118612

# FLO-LOG INC.

Company So. Calif Gas CO.
Type of Survey Temp & Noise
Date of Survey 8-30-90
Lease, Well No. S.S. #29
Field Aliso Canyon

AC_CPUC_0118613

Copies to | 5.0

# FLO-LOG

**PRODUCTION LOGGING SURVEY DATA SHEET**

COMPANY So. Calif. Gas CO. DATE 8-30-90

WELL NO. Standard Sesson #29 FIELD Aliso Canyon

COUNTY Los Angeles STATE CA.

REPRESENTATIVE Ron McDonald SURVEY CREW Kiser, Schrader, Kergosien

TYPE OF SURVEY Temp. & Noise Log

PURPOSE OF SURVEY Check Shot and Temp. Anomalies @ 8000

## CASING AND TUBING RECORD

| SIZE | WEIGHT | FROM | TO |
|---|---|---|---|
| 7" | 23# & 26# | 0 | 8170 |
| | | ~~8075~~ 8080 | ~~8080~~ |
| 5" | 18# | 8075 | 9077 |
| | | | |

Effective Depth 9077

Perforations 8456-8694 @ Intgl. Perfed 8727 to 9077 Slotted

W.S.O. — 5550 E.P. 8002

Tubing Size 2-7/8" Depth 8049

Packer(s) 8040

~~Mandrel~~(s) NOGO @ 8029

Measurement Datum 7' K.B.

Reference Point D.F.

## WELL STATUS GAS STORAGE

Meter Rate 0 BWPD Oil Rate / b/d

Flow Loss / BWPD Oil Gravity / °

Obs. Rate 0 BWPD Gas Rate / Mcf/d

Reported Tbg Press. 2500 psi Obs. 2500 PSI

Reported Csg Press. 2500 psi Obs. 2500 PSI

Pickup 8992 (40#) Fill 85'

Bottom Temp. 189.8 °F Fluid Level None

### SPINNER STATS

| Depth | Counts | Rate | Depth | Counts | Rate |
|---|---|---|---|---|---|
| / | / | / | / | / | / |
| | | | | | |

Reset Depth (from) _____ (to) _____

Depth Corrected to Liner Top

Logging Unit 711 Line Size 3/16" Line Length 23,900

Tools Used 3-5' Bars, C.C.L., Temp., Noise Panel # 1021

Tool Numbers #4030

Tool Diameter 1-3/8"

Time Arrived on Location 7:00 Off Location 1:30 PM Total Hours _____

| Time of Run | Run No. | Type of Survey | Survey Calib. | Line Speed | Direction | Logged Interval (from) | (to) |
|---|---|---|---|---|---|---|---|
| 8:10 AM | 1 | Temp/C.C.L. | 5 per In | 100- | DOWN | 100 | 8992 |
| 9:45 AM | 2 | NOISE | — | — | UP | 8600 | 500 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

REMARKS: Peak @ 8000 Looks and sounds like gas cycling Through There, S.S.S.V. is OPEN, Survey Shows almost same as Survey Ran Last year. Pressure For TBG 2510 PSI @ End of Survey CSG 2510 PSI

Field Volume = 46.524 BCF

FLO-LOG INC.

# NOISE LOG DATA SHEET

Page # 1

Company So. Cali. Gas. Co. Well No. Standard Session # 29

Date 8-30-90 Noise Tool Number 4030 Calibration

| Time | DEPTH | 200 Hz | 600 Hz | 1000 Hz | 2000 Hz | REMARKS |
|---|---|---|---|---|---|---|
| 10:00 | 8600 | 2.19 | 1.49 | 1.16 | .56 | 20 mv 50' Intv. |
| | 8550 | 2.00 | 1.51 | 1.21 | .60 | 50 F.T. |
| | 8500 | 1.87 | 1.27 | 1.03 | .51 | |
| | 8450 | 1.24 | 1.08 | .92 | .48 | |
| | 8400 | 1.23 | 1.07 | .91 | .49 | |
| | 8350 | 1.23 | 1.08 | .91 | .47 | |
| | 8300 | 1.18 | 1.03 | .86 | .46 | |
| 10:14 | 8250 | 1.15 | 1.01 | .85 | .46 | |
| | 8200 | 1.16 | 1.01 | .86 | .46 | |
| | | | | | | 20 F.T. |
| 10:17 | 8180 | 1.12 | .98 | .82 | .45 | |
| | 8160 | 1.12 | .98 | .83 | .45 | |
| | 8140 | 1.13 | .98 | .82 | .45 | |
| 10:21 | 8120 | 1.13 | .97 | .82 | .45 | |
| | 8100 | 1.14 | .98 | .83 | .46 | |
| | 80 | 1.13 | .99 | .83 | .46 | |
| | 60 | .98 | 83 | 69 | .44 | |
| 10:30 | 40 | .91 | .80 | .67 | .44 | VERY SLIGHT GAS SOUND Same as in Field |
| | 20 | 1.89 | 1.21 | .88 | .48 | SLIGHTLY LOWER GAS FLOW Same as down in zone |
| | 8000 | 1.35 | 1.05 | .86 | .44 | |
| | 80 | 1.35 | .79 | .61 | .41 | |
| | 60 | 1.30 | .72 | .62 | .43 | |
| | 40 | 1.31 | .72 | .60 | .43 | |
| | 20 | 1.22 | .74 | .62 | .42 | |
| | 7900 | 1.0 | .9 | .6 | .2 | 200 MV Chevron took away line vibration |
| 11:00 | 80 | 1.1 | .9 | .7 | .3 | |
| | 60 | 1.0 | .8 | .5 | .2 | |
| | 40 | 1.1 | .8 | .7 | .3 | |
| | 20 | 1.1 | .8 | .7 | .3 | |
| | 7800 | 1.1 | .8 | .6 | .5 | |
| | | | | | | |
| | | REPEAT | | | | |
| 11:13 | 8100 | 1.23 | 1.03 | .93 | .48 | 20 mV |
| | 8080 | 1.10 | .98 | .78 | .48 | |
| | 8060 | 1.08 | .83 | .70 | .46 | |
| | 8040 | .86 | .77 | .64 | .44 | |

FLO-LOG INC.

# NOISE LOG DATA SHEET

Page TWO

Company SO CAL GAS Well No. STANDARD SESSION #29

Date 8-30-90 Noise Tool Number 4030 Calibration

| Time | DEPTH | 200 Hz | 600 Hz | 1000 Hz | 2000 Hz | REMARKS |
|---|---|---|---|---|---|---|
| | | REPEAT CONT | | | | 20 mV |
| 11:19 | 8020 | 1.14 | 1.01 | .81 | .47 | Slight Gas Flow, Appears to be Cycling |
| | 8000 | 1.18 | 1.03 | .89 | .54 | |
| | 7980 | 1.18 | .77 | .61 | .43 | |
| | 60 | .92 | .71 | .61 | .46 | |
| | 40 | .9 | .7 | .5 | .4 | 200 mV |
| 11:34 | 20 | .9 | .7 | .5 | .4 | |
| | 7900 | .9 | .7 | .5 | .4 | |
| | | ~~~ | ~~~ | ~~~ | | 50 FT |
| | 7850 | .9 | .8 | .6 | .4 | |
| 11:38 | 7800 | .9 | .8 | .6 | .4 | |
| | | END REPEAT | | | | |
| | | ~~~ | ~~~ | ~~~ | ~~~ | ~~~ |
| | | CONT RUN ONE | | | | 100 FT |
| | 7700 | .9 | .7 | .5 | .4 | 200 mV |
| 11:41 | 7600 | .9 | .7 | .5 | .4 | |
| | 7500 | .9 | .7 | .5 | .4 | |
| 11:44 | 7400 | 1.25 | .66 | .54 | .43 | 20 mV |
| | | | | | | 200 FT |
| | 7200 | .9 | .7 | .5 | .4 | 200 mV |
| | 7000 | .9 | .7 | .5 | .4 | |
| | | | | | | 50 FT |
| 11:51 | 6950 | .9 | .7 | .5 | .4 | 200 MV |
| | 6900 | .8 | .7 | .5 | .4 | |
| | 6850 | .9 | .7 | .6 | .4 | |
| 11:58 | 6800 | .9 | .8 | .6 | .4 | |
| | | | | | | 200 FT. |
| | 6600 | .8 | .7 | .5 | .4 | 200 MV |
| | 6400 | .9 | .8 | .5 | .4 | |
| | 6200 | .9 | .8 | .5 | .4 | |
| 12:08 | 6000 | .9 | .6 | .5 | .3 | |
| | | | | | | 500 FT |
| | 5500 | 1.0 | .7 | .5 | .3 | 200 M.V. |
| 12:21 | 5000 | 1.0 | .7 | .5 | .2 | |
| | 5000 | 23.5 | 17.3 | 14.9 | 3.3 | ★ TOOL TEST ★ |
| | 4500 | 1.0 | .9 | .6 | .4 | |

FLO-LOG INC.

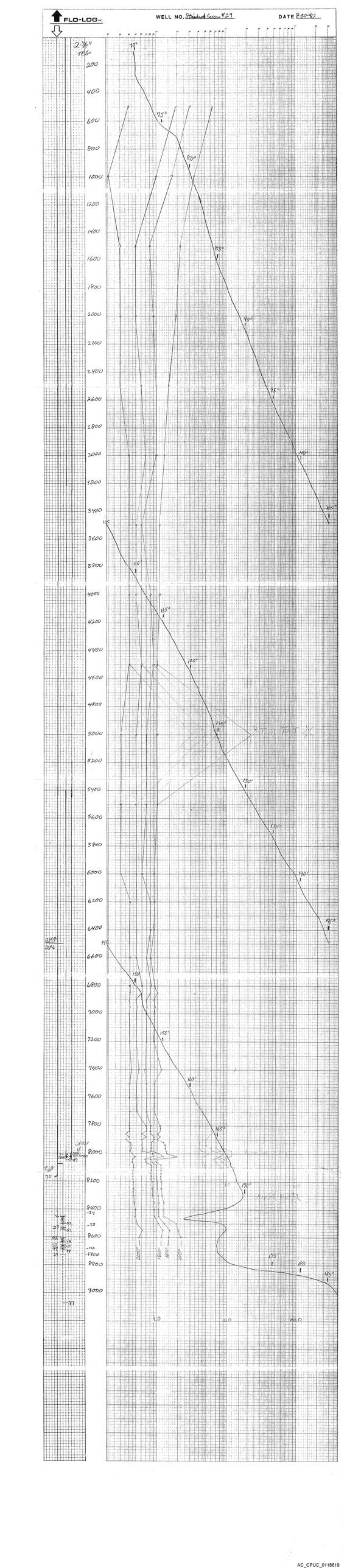
# NOISE LOG DATA SHEET

Page THREE

Company SO CAL GAS CO Well No. STANDARD SESSION #29

Date 8-30-90 Noise Tool Number 4030 Calibration

| Time | DEPTH | 200 Hz | 600 Hz | 1000 Hz | 2000 Hz | REMARKS |
|---|---|---|---|---|---|---|
| | | CONT FROM ONE | | | | 500 FT 900 mV |
| 12:31 | 4000 | 1.1 | .8 | .5 | .4 | |
| | 3500 | 1.1 | .6 | .5 | .4 | |
| 12:42 | 3000 | 1.3 | 1.0 | .7 | .4 | |
| | 2500 | 1.5 | 1.0 | .6 | .3 | |
| 12:53 | 2000 | 1.9 | .9 | .5 | .3 | |
| | 1500 | 2.2 | .9 | .5 | .3 | |
| 1:04 | 1000 | 3.5 | 1.7 | 1.0 | .2 | |
| | 500 | 6.4 | 3.0 | 1.9 | .1 | |


FLO-LOG INC.
WELL NO. Standard Screw #29
DATE 8-30-40
2-7/8" TBG
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
3200
3400
3600
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
6200
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110°
115°
120°
125°
130°
135°
140°
145°
150°
155°
160°
165°
170°
175°
180°
185°
SEAL
PERF
FREW
0
100
200

# FLO-LOG INC.

## NOISE AND TEMPERATURE SURVEY

COMPANY So. Cal. Gas Co. FIELD Aliso Canyon WELL NAME & NO. Standard Sesnon #29

### SURVEY DATA

| | |
|---|---|
| DATE OF SURVEY | 8-30-90 |
| WELL STATUS | GAS STORAGE |
| TYPE OF FLUID | OIL & WATER |
| FLUID RATE (S) | SHUTIN |
| EFFECTIVE DEPTH | 9027' PBTD |
| LOGGER'S DEPTH (PICKUP) | 8992' |
| AMOUNT OF FILL | 35' |
| LOG WITNESSED BY | R. MCDONALD |
| LOG RECORDED BY | J. KISER |
| REASON FOR SURVEY | CHECK SHOE AND CHECK TEMPERATURE ANOMALIES @ 8000'. |

RESULTS AND REMARKS:

SUBSURFACE SAFETY VALVE IS OPEN.
FIELD VOLUME IS 46.524 MCF.

### WELLBORE DATA

CASING AND TUBING RECORD

| | SIZE | WEIGHT | FROM | TO | PRESSURE | FLUID LEVEL |
|---|---|---|---|---|---|---|
| | 11-3/4" | 42 & 47# | 0' | 1042' | | |
| | 7" | 23 & 26 | 0 | 8180 | 2500 PSI | |
| | 5" | 18 | 8075 | 9790 | | NONE OBS. |
| | 2-7/8" | TUBING | 0 | 8049 | 2500 PSI | |
| PACKER (S) | | 8040 | MANDREL (S) | | | |
| PERFORATIONS | | 8456-8696' @ INTERVALS 8727-9077-9077 SLOTTED | | | | |

LOGGING UNIT 711 LINE SIZE 3/16" LINE LENGTH 23900' NOISE TOOL NO. 4030

DIAGRAM OF TOOLS USED

DIAMETER OF TOOLS 1-3/8"

3.60" SINKER BARS, COLLAR LOCATOR, TEMPERATURE,NOISE

MEASUREMENT DATUM 7' K.B.

DEPTH REFERENCE LINER TOP

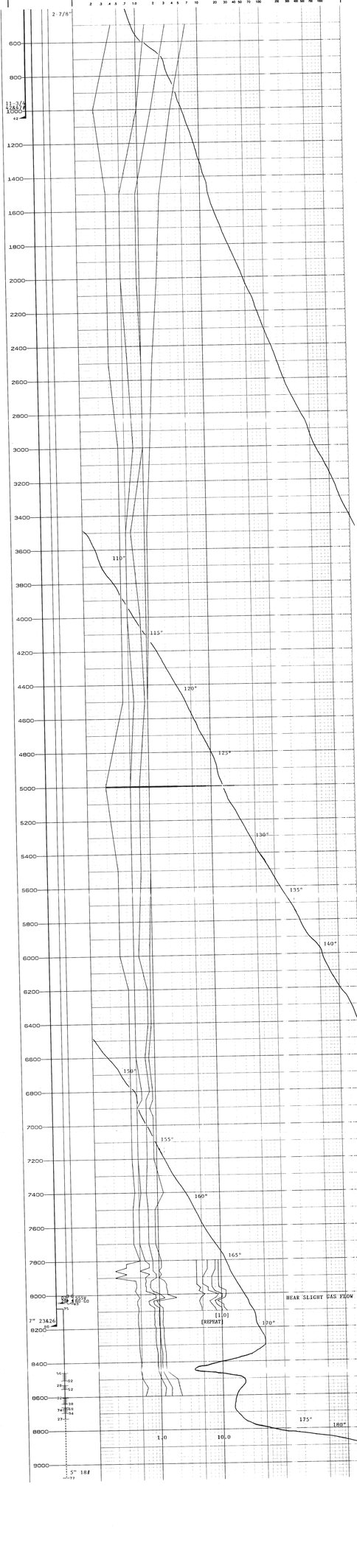
TEMPERATURE

70° 75° 80° 85° 90° 95° 100°

FREQUENCY RESPONCE: (HI FREQUENCY) 2000 HERTZ 1000 HERTZ 600 HERTZ 200 HERTZ (LO FREQUENCY)

MILLIVOLTS

.2 .3 .4 .5 .7 1.0 2 3 4 5 7 10 20 30 40 50 70 100 200 300 400 500 700 1000




AC_CPUC_0118620

# FLO-LOG INC.

## NOISE AND TEMPERATURE SURVEY

COMPANY So. Cal. Gas Co. FIELD Aliso Canyon WELL NAME & NO. Standard Sesnon #29

### SURVEY DATA

| | |
|---|---|
| DATE OF SURVEY | 8-30-90 |
| WELL STATUS | GAS STORAGE |
| TYPE OF FLUID | OIL & WATER |
| FLUID RATE (S) | SHUT-IN |
| EFFECTIVE DEPTH | 9027' PBTD |
| LOGGER'S DEPTH (PICKUP) | 8992' |
| AMOUNT OF FILL | 85' |
| LOG WITNESSED BY | K. MCDONALD |
| LOG RECORDED BY | J. KISER |
| REASON FOR SURVEY | CHECK SHOE AND CHECK TEMPERATURE ANOMALIES @ 8000'. |

### WELLBORE DATA

CASING AND TUBING RECORD

| | SIZE | WEIGHT | FROM | TO | PRESSURE | FLUID LEVEL |
|---|---|---|---|---|---|---|
| CASING | 11-3/4" | 42 & 47# | 0' | 1042' | | |
| | 7 | 23 & 26 | 0 | 8180 | 2500 PSI | |
| | 5 | 18 | 8075 | 9790 | | NONE OBS. |
| TUBING | 2-7/8" | | 0 | 8049 | 2500 PSI | |

PACKER (S): BAKER 80A40 MANDREL (S):

PERFORATIONS 8456-8694' @ INTERVALS 8727-9077 SLOTTED

RESULTS AND REMARKS:

SUBSURFACE SAFETY VALVE IS OPEN.
FIELD VOLUME IS 46.524 BCF.

LOGGING UNIT 711 LINE SIZE 3/16" LINE LENGTH 23900' NOISE TOOL NO. 4030

DIAGRAM OF TOOLS USED:

DIAMETER OF TOOLS 1-3/8"

3-60° SINKER BARS, COLLAR LOCATOR, TEMPERATURE,NOISE

MEASUREMENT DATUM 7' K.B.

DEPTH REFERENCE LINER TOP

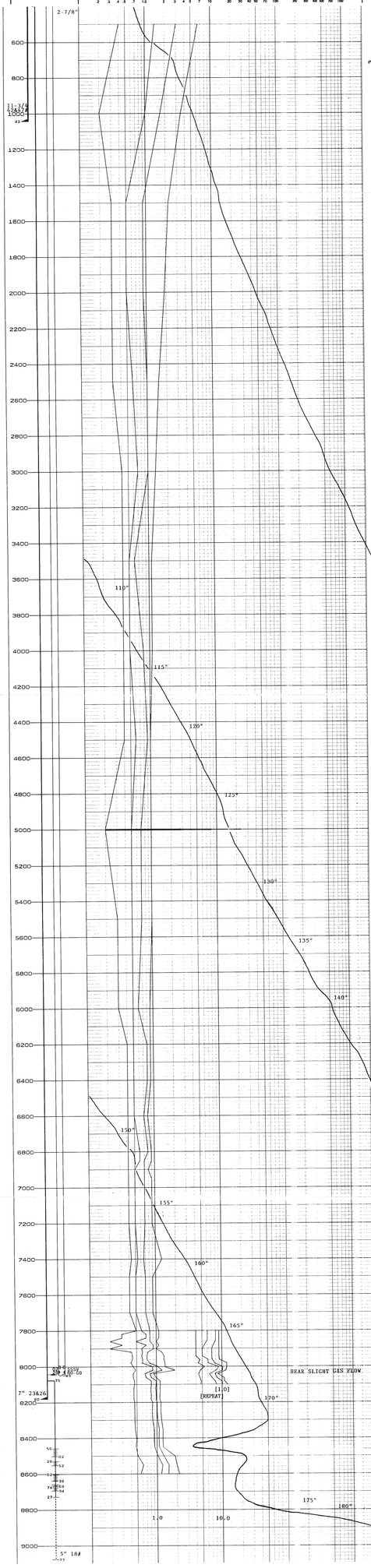
TEMPERATURE

70° 75° 80° 85° 90° 95° 100°

FREQUENCY RESPONCE: (HI FREQUENCY) 2000 HERTZ 1000 HERTZ 600 HERTZ 200 HERTZ (LO FREQUENCY)

MILLIVOLTS

2 3 4 5 7 10 2 3 4 5 7 10 20 30 40 50 70 100 200 300 400 500 700 1000




AC_CPUC_0118621

# FLO-LOG INC.

## NOISE AND TEMPERATURE SURVEY

COMPANY So. Cal. Gas Co. FIELD Aliso Canyon WELL NAME & NO. Standard Sesnon #29

### SURVEY DATA

| | |
|---|---|
| DATE OF SURVEY | 8-30-90 |
| WELL STATUS | GAS STORAGE |
| TYPE OF FLUID | OIL & WATER |
| FLUID RATE (S) | SHUTIN |
| EFFECTIVE DEPTH | 9077' PBTD |
| LOGGER'S DEPTH (PICKUP) | 8992' |
| AMOUNT OF FILL | 85' |
| LOG WITNESSED BY | R. MCDONALD |
| LOG RECORDED BY | J. KISER |
| REASON FOR SURVEY | CHECK SHOE AND CHECK TEMPERATURE ANOMALIES @ 8000'. |

RESULTS AND REMARKS:

SUBSURFACE SAFETY VALVE IS OPEN.
FIELD VOLUME IS 46.524 BCF.

### WELLBORE DATA

CASING AND TUBING RECORD

| | SIZE | WEIGHT | FROM | TO | PRESSURE | FLUID LEVEL |
|---|---|---|---|---|---|---|
| | 11-3/4" | 42 & 47# | 0' | 1042' | | |
| | 7 | 23 & 26 | 0 | 8180 | 2500 PSI | |
| | 5 | 18 | 8075 | 9790 | | NONE OBS. |
| | 2-7/8" | TUBING | 0 | 8049 | 2500 PSI | |
| | PACKER (S) | 8040 | | MANDREL (S) | | |
| | PERFORATIONS | 8456-8695' @ INTERVALS 8727-9077-9077 SLOTTED | | | | |

LOGGING UNIT 711 LINE SIZE 3/16" LINE LENGTH 23900' NOISE TOOL NO. 4030

DIAGRAM OF TOOLS USED:

DIAMETER OF TOOLS 1-3/8"

3-60° SINKER BARS, COLLAR LOCATOR, TEMPERATURE,NOISE

MEASUREMENT DATUM 7' K.B.

DEPTH REFERENCE LINER TOP

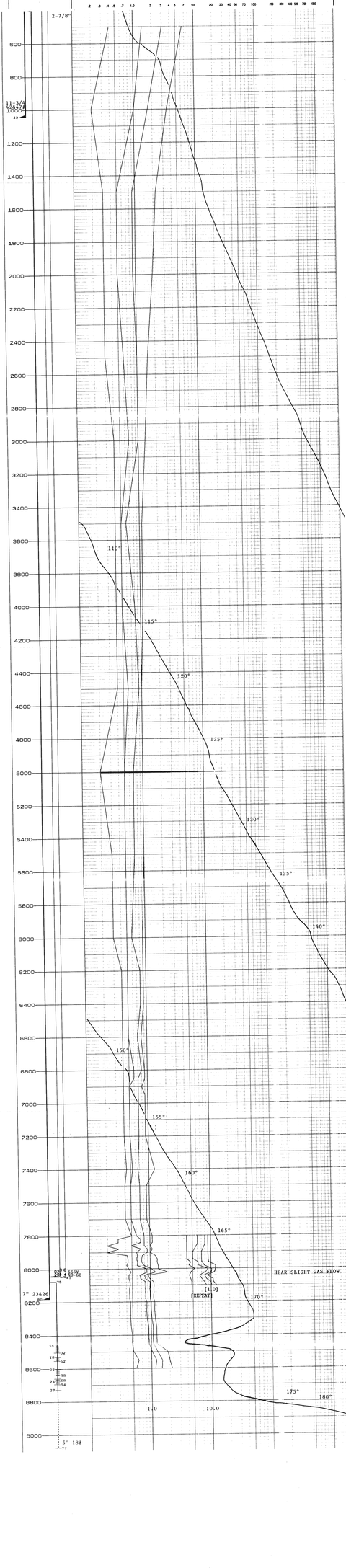
TEMPERATURE

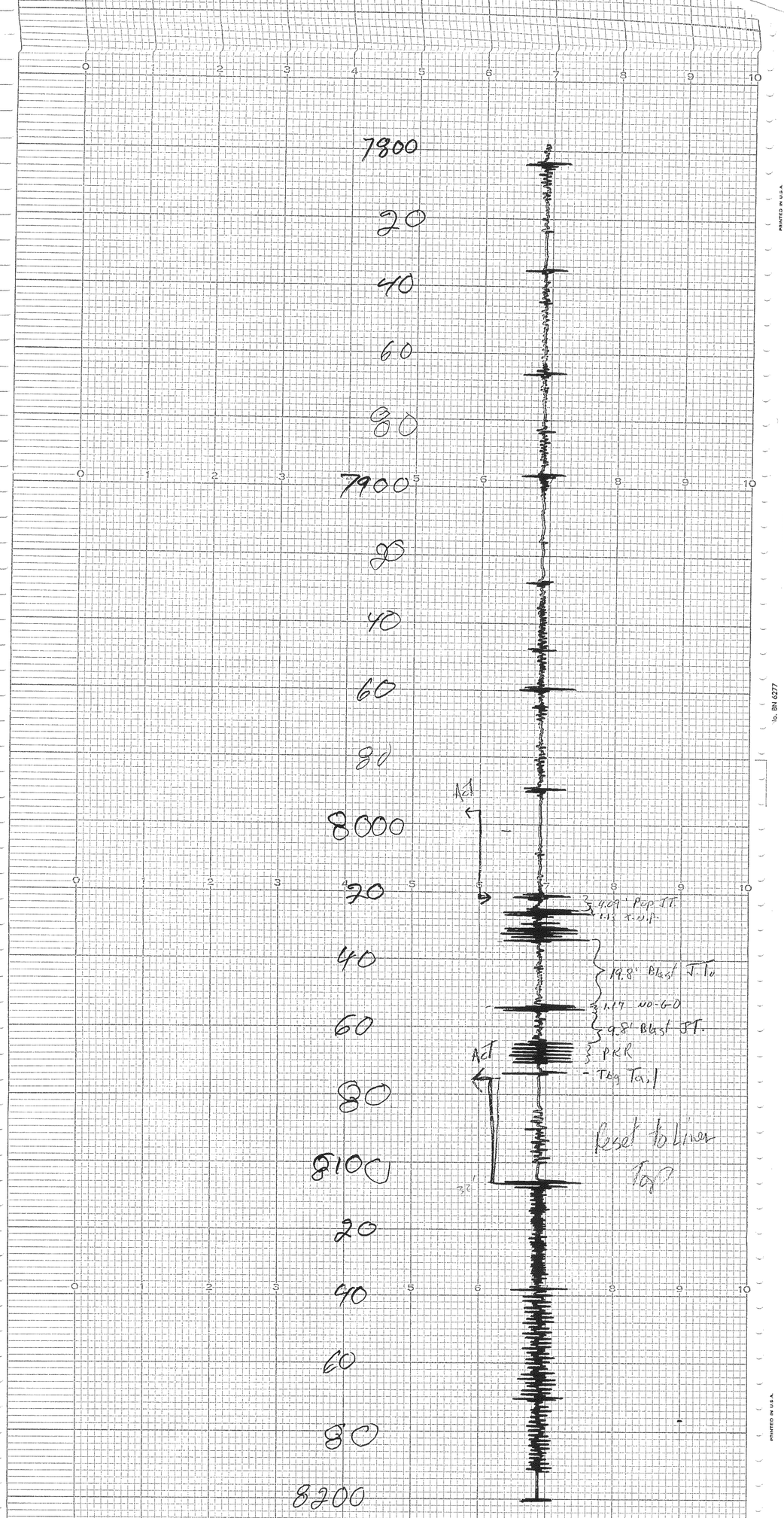
70° 75° 80° 85° 90° 95° 100°

FREQUENCY RESPONCE: (HI FREQUENCY) 2000 HERTZ 1000 HERTZ 600 HERTZ 200 HERTZ (LO FREQUENCY)

MILLIVOLTS

2 3 4 5 7 10 2 3 4 5 7 10 20 30 40 50 70 100 200 300 400 500 700 1000



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BN 6277

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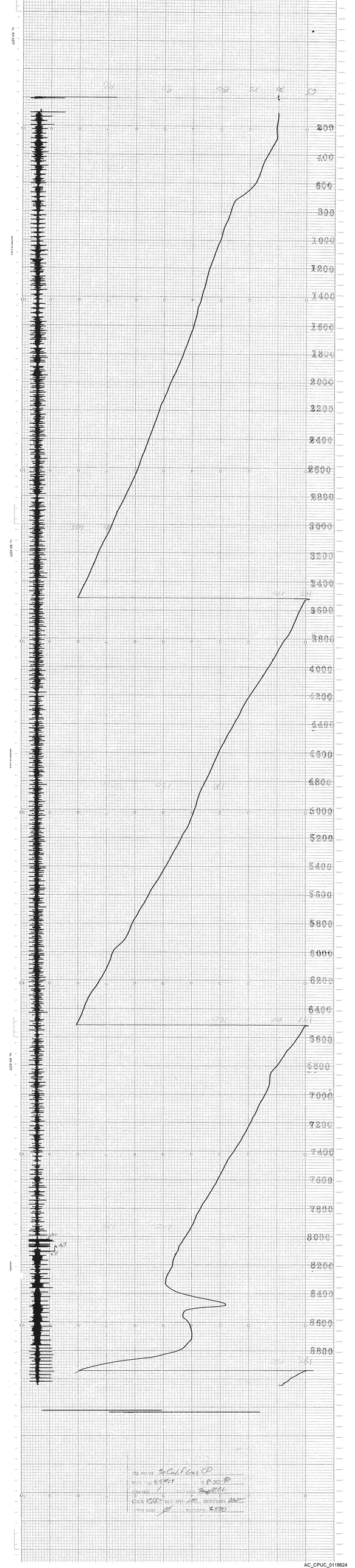



AC_CPUC_0118624

# FLO-LOG INC.

**Company** SoCalif Gas CO.
**Type of Survey** Temp-Noise
**Date of Survey** 8-9-90
**Lease, Well No.** S.S. #29
**Field** Aliso Canyon

AC_CPUC_0118625

Copies to S.O.

# FLO-LOG

**PRODUCTION LOGGING SURVEY DATA SHEET**

COMPANY SO CAL GAS DATE 8-8-90

WELL NO. STANDARD SESNON #29 FIELD ALISO CANYON

COUNTY LA STATE CA

REPRESENTATIVE LARRY SURVEY CREW KISER, SCHRADER, & KARGOSIEN

TYPE OF SURVEY TEMP. NOISE

PURPOSE OF SURVEY CHECK FOR SHOE LEAK

## CASING AND TUBING RECORD

| SIZE | WEIGHT | FROM | TO |
|---|---|---|---|
| 11-3/4 | 42 + 47 # | Ø | 1042 |
| 7 " | 23 + 26 # | Ø | 8180 |
| 5 " | 18 # | 8075 | 9790 |
| | | | |

Effective Depth PBTD 9094

Perforations 8456 - 8684 @ INTERVALS
8727 - 9077 SLOTTED

W.S.O. _____ C.P. SSSV 8002

Tubing Size 2-7/8 Depth 8049

Packer(s) 8040

Mandrel(s) -

Measurement Datum 7' DF

Reference Point MAT

## WELL STATUS GAS STORAGE SHUT-IN

Meter Rate - BWPD Oil Rate - b/d

Flow Loss - BWPD Oil Gravity - °

Obs. Rate - BWPD Gas Rate - Mcf/d

Reported Tbg Press. 2450 psi Obs. 2425 PSI

Reported Csg Press. 24 psi Obs. _____

Pickup 8993 Fill _____

Bottom Temp. 192.7 °F Fluid Level 8990

### SPINNER STATS

| Depth | Counts | Rate | Depth | Counts | Rate |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |

Reset Depth (from) _____ (to) _____

Depth Corrected to _____

Logging Unit 711 Line Size 3/16 Line Length 23,950

Tools Used 3-5' BAR CAP, CCL, TEMP, NOISE

Tool Numbers 7107

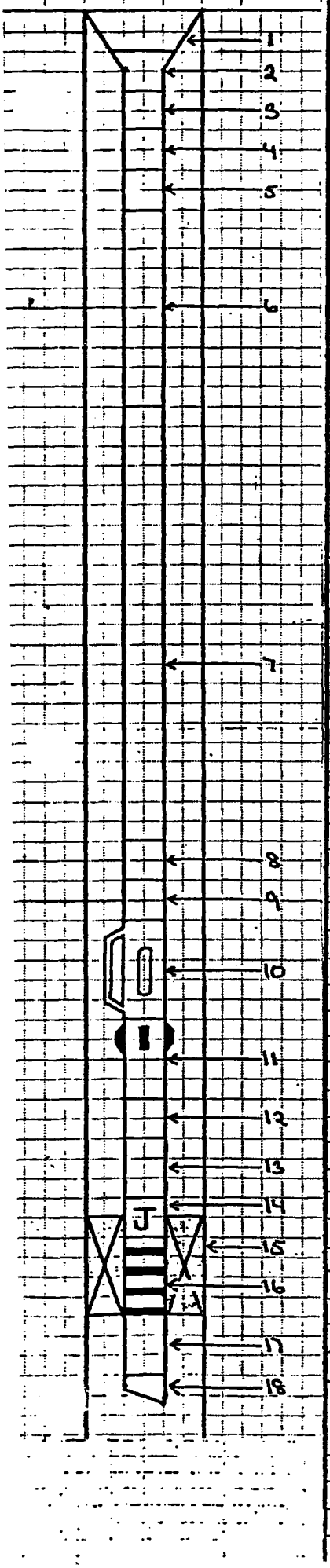
Tool Diameter 1 3/8

Time Arrived on Location 7:30 Off Location _____ Total Hours _____

| Time of Run | Run No. | Type of Survey | Survey Calib. | Line Speed | Direction | Logged Interval (from) | (to) |
|---|---|---|---|---|---|---|---|
| 8:20 | 1 | TEMP | 5°/IN | 100 | DOWN | Ø | 8993 |
| 10:30 | 2 | CAP | 100 CPI | 85 | UP | 9000 | 7950 |
| 11:00 | 3 | NOISE | | | | 9000 | 200 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

REMARKS:

WELL PROFILE




OPERATOR: Southern California Gas Co.

WELL #: S.S. #29

FIELD: Aliso Canyon

COUNTY: Los Angeles

STATE: California

DATE: March 13, 1979

☐ NEW COMPLETION ☐ WORKOVER

| | CASING | LINER | TUBING 1 | TUBING 2 | TUBING 3 |
|---|---|---|---|---|---|
| SIZE | | | | | |
| WEIGHT | | | | | |
| GRADE | | | | | |
| THREAD | | | | | |
| DEPTH | | | | | |

| ITEM NO. | TUBING DETAILS | LENGTH | DEPTH |
|---|---|---|---|
| 1. | Kelly Bushing | 6.92 | - |
| 2. | Tubing Hanger | .30 | 6.92 |
| 3. | Pup Jt. 2 7/8" 6.5# N-80 8rd EUE | 1.18 | 7.72 |
| 4. | Pup Jt. 2 7/8" 6.5# N-80 8rd EUE | 3.15 | 8.90 |
| 5. | Pup Jt. 2 7/8" 6.5# N-80 8rd EUE | 10.25 | 12.05 |
| 6. | 16 joints 2 7/8" 6.5# N-80 8rd EUE | 500.84 | 22.30 |
| 7. | 243 Joints 2 7/8" 6.5# J-55 8rd EUE | 7473.19 | 523.14 |
| 8. | Pup Jt. 2 7/8" 6.5# N-80 8rd EUE | 4.09 | 7996.33 |
| 9. | Otis "X" nipple 2.350" I.D. | 1.13 | 8000.42 |
| 10. | Otis Annular Flow Safety System 4.88" O.D., 2.313" I.D. | 7.66 | 8001.55 |
| 11. | Otis blast joint with 4 centralizers 5.50" O.D., 2.375" I.D. | 19.82 | 8009.21 |
| 12. | Otis "XN" No-Go Nipple 2.205" I.D. | 1.17 | 8029.03 |
| 13. | Otis Blast Joint 3.668" O.D. 2.375" I.D. | 9.80 | 8030.20 |
| 14. | Otis "J" latch locator | 1.16 | 8040.00 |
| 15. | Otis "Permatrieve" 7" packer (new) (20-26#) 5.87" O.D. 3.25" I.D. | 4.16 | 8040.00 |
| 16. | Otis seal assembly (4) 3.29" O.D., 2.38" I.D. | 4.05 | 8041.16 |
| 17. | Otis Production Tube | 2.96 | 8045.21 |
| 18 | Otis Guide Shoe | .42 | 8048.17 |
| | End of Tubing | | 8048.59 |

NOTES

Side door choke in safety system

Tubing landed with 10,000X compression on packer

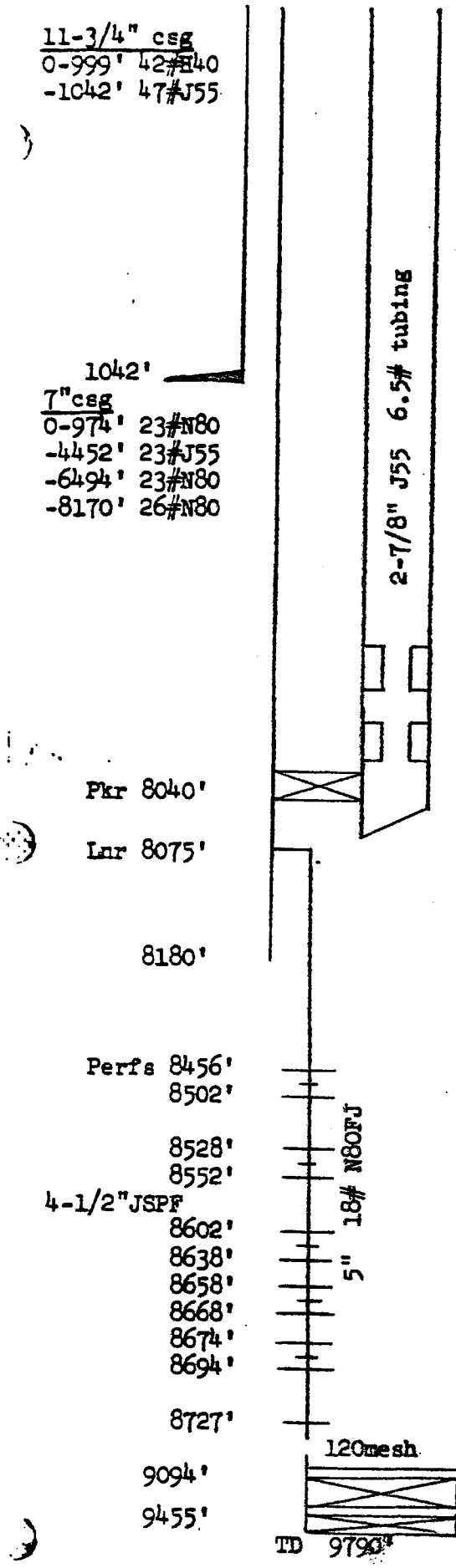
Corrected tubing measurments (7,482.13) to meet wireline measurments.

COMMENTS:

AC_CPUC_0118628

DF: 7' MN: 5½

Standard Sesnon 29




Surface Choke: _____

Casing flow string

--8002' Otis 2-1/2" SSSV
(8002') 2.313"ID

--8029' Otis "XN" No-Go Nipple
(8029') 2.205"

--8049'

--(8256') (-5400)

--S4 8428'

--S8 8520' (8520')

--HZ 8682'

--Frew 8727'

9077'

(SS - 6941')

4/26/53 Well spud
9/29/53 Well completed
2/2/73-2/28/73 Pressure tested 7" casing, converted to gas stor by perforating in Sesnon Zone, cleaned out to 9074', ran tubing with SSSV
7/31/73-8/7/73 Installed wireli SSSV, cleaned out to 9077'
8/27/77-9/9/77 Cleaned out to 9072', pressure tested casing, reran tubing with SSSV
3/5/79-3/10/79 Replaced safety system, set packer at 8040'

WELL VOLUME

| | Cu.Ft. | Bbl. |
|---|---|---|
| Tubing | 262 | 47 |
| Csg/Lnr. | 105 | 19 |
| Annulus | 1405 | 250 |

6-16-86

AC_CPUC_0118629

# N O I S E  L O G

Flo-Log, Inc.

Customer Name _____ Well Number _____

Date _____ Tool Number _____

55 29.3

| DEPTH | TIME | 200Hz | 600Hz | 1kHz | 2kHz | SCALE | TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|
| 6600 | 14:11 | 1.47 | 0.70 | 0.61 | 0.47 | 20mV | 3-sec HP | |
| Interval 200 ft | | | | | | | | |
| 6400 | 14:15 | 3.23 | 0.87 | 0.66 | 0.48 | 20mV | 3-sec HP | |
| 6200 | 14:22 | 1.82 | 0.80 | 0.63 | 0.47 | 20mV | 3-sec HP | |
| 6000 | 14:27 | 2.02 | 0.76 | 0.64 | 0.49 | 20mV | Immed HP | |
| 5800 | 14:29 | 4.57 | 1.24 | 0.74 | 0.47 | 20mV | lo-100 HP | |
| 5600 | 14:35 | 1.77 | 0.80 | 0.65 | 0.48 | 20mV | 3-sec HP | |
| 5400 | 14:39 | 3.03 | 0.83 | 0.64 | 0.47 | 20mV | lo-100 HP | |
| 5200 | 14:44 | 3.39 | 0.88 | 0.64 | 0.47 | 20mV | lo-100 HP | |
| 5010 | 14:49 | 3.90 | 0.95 | 0.66 | 0.45 | 20mV | Immed HP | |
| Interval 10 ft | | | | | | | | |
| 5000 | 14:51 | 11.11 | 7.66 | 3.62 | 1.11 | 20mV | Immed HP | Tool test. |
| 4990 | 14:54 | 3.10 | 0.80 | 0.65 | 0.44 | 20mV | 3-sec HP | |
| Interval 200 ft | | | | | | | | |
| 4800 | 15:00 | 5.76 | 1.18 | 0.66 | 0.40 | 20mV | Immed HP | |
| 4600 | 15:02 | 4.18 | 1.09 | 0.68 | 0.45 | 20mV | Immed HP | |
| 4400 | 15:05 | 2.55 | 0.77 | 0.58 | 0.43 | 20mV | Immed HP | |
| 4200 | 15:09 | 4.36 | 1.07 | 0.77 | 0.46 | 20mV | Immed HP | |
| 4000 | 15:12 | 3.98 | 0.89 | 0.61 | 0.44 | 20mV | Immed HP | |
| 3600 | 15:15 | 3.96 | 0.89 | 0.67 | 0.44 | 20mV | Immed HP | |
| 3200 | 15:20 | 5.79 | 1.13 | 0.72 | 0.46 | 20mV | Immed HP | |
| 2800 | 15:25 | 7.75 | 1.62 | 0.83 | 0.44 | 20mV | Immed HP | |
| 2400 | 15:31 | 8.39 | 1.51 | 0.72 | 0.42 | 20mV | Immed HP | |
| 2000 | 15:33 | 7.55 | 1.85 | 1.05 | 0.54 | 20mV | Immed HP | |
| 1600 | 15:39 | 11.92 | 1.82 | 1.00 | 0.43 | 20mV | Immed HP | |
| 1200 | 15:43 | 12.54 | 2.94 | 1.69 | 0.50 | 20mV | Immed HP | |
| 800 | 15:47 | 13.23 | 3.70 | 2.06 | 0.62 | 20mV | Immed HP | |
| 400 | 15:52 | 14.93 | 3.24 | 1.49 | 0.64 | 20mV | Immed HP | |
| 200 | 15:54 | 13.25 | 3.61 | 2.13 | 0.57 | 20mV | Immed HP | |

# N O I S E  L O G

Flo-Log, Inc.

Customer Name _____ Well Number _____

Date _____ Tool Number _____

5529.2 (REPEAT)

| DEPTH | TIME | 200Hz | 600Hz | 1kHz | 2kHz | SCALE | TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|
| 7600 | 13:40 | 1.28 | 0.75 | 0.65 | 0.50 | 20mV | 3-sec HP | |
| Interval 50 ft | | | | | | | | |
| 7550 | 13:43 | 1.38 | 0.73 | 0.62 | 0.48 | 20mV | 3-sec HP | |
| 7500 | 13:45 | 1.66 | 0.81 | 0.67 | 0.51 | 20mV | 3-sec HP | |
| 7450 | 13:47 | 1.53 | 0.77 | 0.68 | 0.51 | 20mV | 3-sec HP | |
| 7400 | 13:49 | 1.55 | 0.78 | 0.67 | 0.51 | 20mV | 3-sec HP | |
| 7350 | 13:58 | 1.67 | 0.77 | 0.65 | 0.49 | 20mV | 3-sec HP | |
| 7300 | 14:01 | 1.67 | 0.80 | 0.67 | 0.49 | 20mV | 3-sec HP | |
| 7250 | 14:03 | 1.52 | 0.79 | 0.65 | 0.49 | 20mV | 3-sec HP | |
| 7200 | 14:04 | 1.44 | 0.76 | 0.64 | 0.49 | 20mV | 3-sec HP | |

N O I S E  L O G

Flo-Log, Inc.

Customer Name _____ Well Number _____

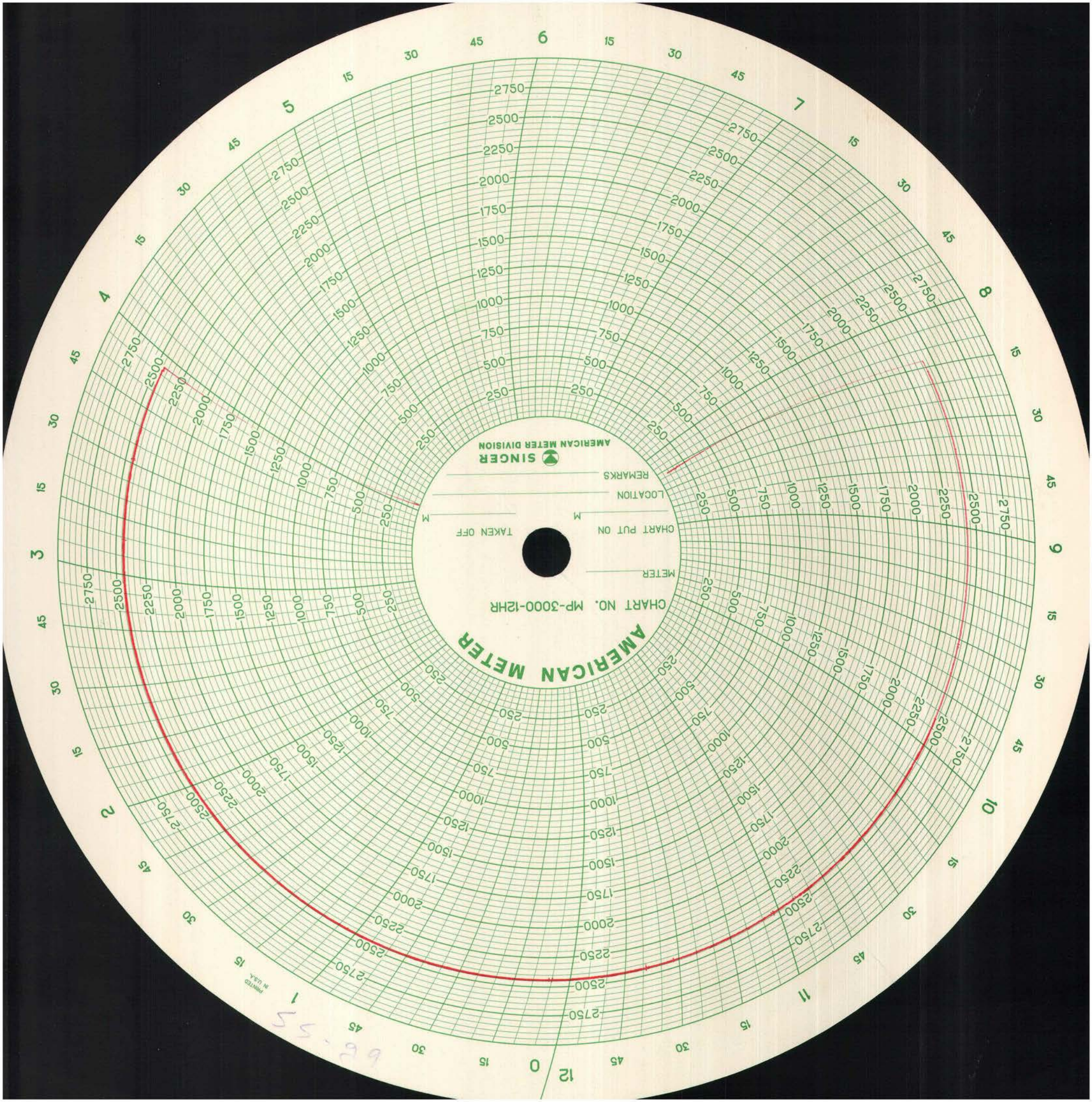
Date _____ Tool Number _____

| DEPTH | TIME | 200Hz | 600Hz | 1kHz | 2kHz | SCALE | TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|
| 8980 | 10:47 | 1.04 | 0.73 | 0.65 | 0.50 | 20mV | 3-sec HP | |
| Interval 20 ft | | | | | | | | |
| 8960 | 10:49 | 0.96 | 0.71 | 0.64 | 0.50 | 20mV | 3-sec HP | |
| 8940 | 10:50 | 0.91 | 0.71 | 0.64 | 0.49 | 20mV | 3-sec HP | |
| 8920 | 10:51 | 0.90 | 0.71 | 0.64 | 0.50 | 20mV | 3-sec HP | |
| 8900 | 10:52 | 0.96 | 0.75 | 0.66 | 0.51 | 20mV | 3-sec HP | |
| 8880 | 10:54 | 1.07 | 0.73 | 0.66 | 0.51 | 20mV | 3-sec HP | |
| 8860 | 10:55 | 0.90 | 0.70 | 0.63 | 0.50 | 20mV | 3-sec HP | |
| 8840 | 10:57 | 0.96 | 0.74 | 0.66 | 0.51 | 20mV | 3-sec HP | |
| 8820 | 10:58 | 0.91 | 0.73 | 0.67 | 0.52 | 20mV | 3-sec HP | |
| 8800 | 11:02 | 1.03 | 0.76 | 0.67 | 0.52 | 20mV | 3-sec HP | |
| 8780 | 11:03 | 0.93 | 0.72 | 0.65 | 0.51 | 20mV | 3-sec HP | |
| 8760 | 11:05 | 1.00 | 0.74 | 0.66 | 0.52 | 20mV | 3-sec HP | |
| 8740 | 11:06 | 1.07 | 0.75 | 0.67 | 0.50 | 20mV | 3-sec HP | |
| 8720 | 11:08 | 2.17 | 1.02 | 0.80 | 0.52 | 20mV | 3-sec HP | |
| 8700 | 11:10 | 2.21 | 1.02 | 0.80 | 0.52 | 20mV | 3-sec HP | |
| 8680 | 11:11 | 2.19 | 1.02 | 0.80 | 0.52 | 20mV | 3-sec HP | |
| 8660 | 11:12 | 2.14 | 1.01 | 0.78 | 0.51 | 20mV | 3-sec HP | |
| 8640 | 11:14 | 2.08 | 1.00 | 0.79 | 0.52 | 20mV | 3-sec HP | |
| 8620 | 11:15 | 1.99 | 1.01 | 0.79 | 0.52 | 20mV | 3-sec HP | |
| 8600 | 11:17 | 1.51 | 0.96 | 0.78 | 0.52 | 20mV | 3-sec HP | |
| 8580 | 11:19 | 1.62 | 0.97 | 0.78 | 0.53 | 20mV | 3-sec HP | |
| 8560 | 11:20 | 1.57 | 0.95 | 0.77 | 0.51 | 20mV | 3-sec HP | slight gas noise |
| 8540 | 11:24 | 1.55 | 0.96 | 0.78 | 0.51 | 20mV | 3-sec HP | |
| 8520 | 11:26 | 2.03 | 0.95 | 0.77 | 0.51 | 20mV | 3-sec HP | |
| 8500 | 11:28 | 1.92 | 0.95 | 0.75 | 0.52 | 20mV | 3-sec HP | |
| 8480 | 11:30 | 1.64 | 0.91 | 0.74 | 0.50 | 20mV | 3-sec HP | |
| 8460 | 11:32 | 1.23 | 0.90 | 0.74 | 0.51 | 20mV | 3-sec HP | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 8420 | 11:35 | 1.15 | 0.89 | 0.74 | 0.51 | 20mV | 3-sec HP | |
| 8400 | 11:37 | 1.18 | 0.89 | 0.74 | 0.51 | 20mV | 3-sec HP | |
| 8380 | 11:39 | 1.13 | 0.86 | 0.74 | 0.51 | 20mV | 3-sec HP | |
| 8360 | 11:41 | 1.13 | 0.87 | 0.74 | 0.51 | 20mV | 3-sec HP | |
| 8340 | 11:44 | 1.14 | 0.85 | 0.73 | 0.51 | 20mV | 3-sec HP | |
| 8320 | 11:46 | 1.12 | 0.89 | 0.74 | 0.51 | 20mV | 3-sec HP | |
| 8300 | 11:50 | 1.16 | 0.88 | 0.74 | 0.51 | 20mV | 3-sec HP | |
| 8280 | 11:51 | 1.12 | 0.83 | 0.71 | 0.50 | 20mV | 3-sec HP | |
| 8260 | 11:54 | 1.10 | 0.86 | 0.73 | 0.52 | 20mV | 3-sec HP | |
| 8240 | 11:55 | 1.13 | 0.86 | 0.73 | 0.51 | 20mV | 3-sec HP | |
| 8220 | 11:57 | 1.10 | 0.84 | 0.72 | 0.51 | 20mV | 3-sec HP | |
| 8200 | 11:59 | 1.10 | 0.86 | 0.72 | 0.51 | 20mV | 3-sec HP | |
| 8180 | 12:01 | 1.05 | 0.82 | 0.70 | 0.50 | 20mV | 3-sec HP | |
| 8160 | 12:02 | 1.07 | 0.83 | 0.71 | 0.51 | 20mV | Immed HP | |
| 8140 | 12:04 | 1.11 | 0.84 | 0.72 | 0.51 | 20mV | 3-sec HP | |
| 8120 | 12:06 | 1.10 | 0.86 | 0.71 | 0.51 | 20mV | 3-sec HP | |
| 8100 | 12:07 | 1.04 | 0.81 | 0.70 | 0.50 | 20mV | 3-sec HP | |
| 8080 | 12:10 | 1.05 | 0.84 | 0.72 | 0.51 | 20mV | 3-sec HP | |
| 8060 | 12:15 | 1.03 | 0.76 | 0.67 | 0.50 | 20mV | 3-sec HP | |
| 8040 | 12:18 | 1.03 | 0.78 | 0.66 | 0.50 | 20mV | 3-sec HP | |
| 8020 | 12:20 | 1.46 | 0.91 | 0.72 | 0.49 | 20mV | 3-sec HP | |
| 8000 | 12:24 | 1.41 | 0.91 | 0.73 | 0.51 | 20mV | 3-sec HP | |
| 7980 | 12:26 | 1.40 | 0.78 | 0.67 | 0.50 | 20mV | 3-sec HP | |
| 7960 | 12:29 | 1.39 | 0.82 | 0.68 | 0.50 | 20mV | 3-sec HP | |
| 7940 | 12:30 | 1.42 | 0.81 | 0.67 | 0.50 | 20mV | 3-sec HP | |
| 7920 | 12:39 | 1.55 | 0.82 | 0.67 | 0.49 | 20mV | 3-sec HP | |
| 7900 | 12:40 | 1.27 | 0.73 | 0.63 | 0.48 | 20mV | 3-sec HP | |
| 7880 | 12:41 | 1.29 | 0.77 | 0.66 | 0.50 | 20mV | 3-sec HP | |
| 7860 | 12:44 | 1.47 | 0.81 | 0.68 | 0.49 | 20mV | 3-sec HP | |
| 7840 | 12:46 | 1.39 | 0.80 | 0.67 | 0.49 | 20mV | 3-sec HP | |
| 7820 | 12:47 | 1.31 | 0.73 | 0.64 | 0.48 | 20mV | 3-sec HP | |
| 7800 | 12:50 | 1.38 | 0.76 | 0.64 | 0.49 | 20mV | 3-sec HP | |

Interval 200 ft

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 7600 | 12:54 | 1.32 | 0.78 | 0.68 | 0.51 | 20mV | 3-sec HP | |
| 7400 | 13:00 | 3.38 | 0.96 | 0.71 | 0.48 | 20mV | 3-sec HP | mechanical noise ,maybe adj. well |
| 7200 | 13:14 | 1.38 | 0.70 | 0.62 | 0.48 | 20mV | 3-sec HP | |
| 7000 | 13:22 | 1.68 | 0.77 | 0.65 | 0.49 | 20mV | 3-sec HP | |
| 6800 | 13:30 | 1.69 | 0.95 | 0.68 | 0.51 | 20mV | 3-sec HP | |




AC_CPUC_0118637

# FLO-LOG INC.

## NOISE AND TEMPERATURE SURVEY

COMPANY Southern Cal. Gas FIELD Aliso Canyon WELL NAME & NO. Standard Sesnon #20

### SURVEY DATA

| | |
|---|---|
| DATE OF SURVEY | 8-8-90 |
| WELL STATUS | GAS STORAGE SHUT-IN |
| TYPE OF FLUID | OIL & WATER & GAS |
| FLUID RATE (S) | NONE |
| EFFECTIVE DEPTH | 9094 PBTD |
| LOGGER'S DEPTH (PICKUP) | 8993' |
| AMOUNT OF FILL | 101' |
| LOG WITNESSED BY | |
| LOG RECORDED BY | J. KISER |
| REASON FOR SURVEY | CHECK FOR CASING SHOE LEAK. |

RESULTS AND REMARKS:

### WELLBORE DATA

CASING AND TUBING RECORD

| | SIZE | WEIGHT | FROM | TO | PRESSURE | FLUID LEVEL |
|---|---|---|---|---|---|---|
| | 11-3/4" | 42 & 47# | 0 | 1062 | 2450# | |
| | 7 | 23 & 26 | 0 | 8180 | | |
| | 5 | 18 | 8075 | 9290 | | |
| | 2-7/8 | TUBING | 0 | 8049 | 2450PSI | |

PACKER (S) 8040 MANDREL (S) NONE

PERFORATIONS 8456-8694 @ INTERVALS 8727-9077 SLOTTED

LOGGING UNIT 711 LINE SIZE 3/16" LINE LENGTH 23,950' NOISE TOOL NO. 7107

DIAGRAM OF TOOLS USED:

DIAMETER OF TOOLS 1-3/8"

3-60" BARS,CAPACITANCE, COLLAR LOCATOR,TEMPERATURE, NOISE

MEASUREMENT DATUM 7' DF

DEPTH REFERENCE TUBING TAIL

TEMPERATURE

75° 80° 85° 90° 95° 100° 105°

FREQUENCY RESPONCE: (HI FREQUENCY) 2000 HERTZ 1000 HERTZ 600 HERTZ 200 HERTZ (LO FREQUENCY)

MILLIVOLTS

.2 .3 .4 .5 .7 1.0 2 3 4 5 7 10 20 30 40 50 70 100 200 300 400 500 700 1000

2-7/8"

200 400 600 800 1000 1200 1400 1600 1800 2000 2200 2400 2600 2800 3000 3200 3400 3600 3800 4000 4200 4400 4600 4800 5000 5200 5400 5600 5800 6000 6200 6400 6600 6800 7000 7200 7400 7600 7800 8000 8200 8400 8600 8800 9000

115°

120°

TOOL TEST

130°

135°

140°

145°

155°

160°

REPEAT

165°

170°

175°

180°

185°

7" 23,26# 8245 8275

5" 18# 9094 PBTD TO 9790'

AC_CPUC_0118638

# FLO-LOG INC.

## NOISE AND TEMPERATURE SURVEY

COMPANY Southern Cal. Gas FIELD Aliso Canyon WELL NAME & NO. Standard Sesnon #29

### SURVEY DATA

| | |
|---|---|
| DATE OF SURVEY | 8-8-90 |
| WELL STATUS | GAS STORAGE SHUT-IN |
| TYPE OF FLUID | OIL & WATER & GAS |
| FLUID RATE (S) | NONE |
| EFFECTIVE DEPTH | 9094 PBTD |
| LOGGER'S DEPTH (PICKUP) | 8993' |
| AMOUNT OF FILL | 101' |
| LOG WITNESSED BY | |
| LOG RECORDED BY | J. KISER |
| REASON FOR SURVEY | CHECK FOR CASING SHOE LEAK. |

### WELLBORE DATA

CASING AND TUBING RECORD

| | SIZE | WEIGHT | FROM | TO | PRESSURE | FLUID LEVEL |
|---|---|---|---|---|---|---|
| | 11-3/4" | 42 & 47# | 0 | 1042 | 26PSI | |
| | 7 | 23 & 26 | 0 | 8180 | | |
| | 5 | 18 | 8075 | 9290 | | |
| | 2-7/8 | TUBING | 0 | 8049 | 2450PSI | |

PACKER (S) 8040 MANDREL (S) NONE

PERFORATIONS 8456-8694 @ INTERVALS 8727-9077 SLOTTED

RESULTS AND REMARKS:

LOGGING UNIT 711 LINE SIZE 3/16" LINE LENGTH 23,950' NOISE TOOL NO. 7107

DIAGRAM OF TOOLS USED:

DIAMETER OF TOOLS 1-3/8"

3-60° BARS, CAPACITANCE, COLLAR LOCATOR, TEMPERATURE, NOISE

MEASUREMENT DATUM
7' DF
DEPTH REFERENCE
TUBING TAIL

TEMPERATURE

75° 80° 85° 90° 95° 100° 105°

FREQUENCY RESPONCE: (HI FREQUENCY) 2000 HERTZ 1000 HERTZ 600 HERTZ 200 HERTZ (LO FREQUENCY)

MILLIVOLTS

.2 .3 .4 .5 .7 1.0 2 3 4 5 7 10 20 30 40 50 70 100 200 300 400 500 700 1000

2-7/8"

200 400 600 800 1000 1200 1400 1600 1800 2000 2200 2400 2600 2800 3000 3200 3400 3600 3800 4000 4200 4400 4600 4800 5000 5200 5400 5600 5800 6000 6200 6400 6600 6800 7000 7200 7400 7600 7800 8000 8200 8400 8600 8800 9000

115

120°

TOOL TEST

130°

135°

140°

145°

155°

160°

REPEAT

165°

170°

175°

180°

185°

7" 23,26# @ 8180

5" 18# @ 9290

PBTD TO 9790'

AC_CPUC_0118639

# FLO-LOG INC.

## NOISE AND TEMPERATURE SURVEY

COMPANY SOUTHERN CAL. GAS FIELD ALISO CANYON WELL NAME & NO. STANDARD SESNON #29

### SURVEY DATA

| | |
|---|---|
| DATE OF SURVEY | 8-8-91 |
| WELL STATUS | GAS STORAGE SHUT-IN |
| TYPE OF FLUID | OIL & WATER & GAS |
| FLUID RATE (S) | NONE |
| EFFECTIVE DEPTH | 9094 PBTD |
| LOGGER'S DEPTH (PICKUP) | 9997' |
| AMOUNT OF FILL | 101' |
| LOG WITNESSED BY | |
| LOG RECORDED BY | J. KISER |
| REASON FOR SURVEY | CHECK FOR CASING SHOE LEAK. |

RESULTS AND REMARKS:

### WELLBORE DATA

CASING AND TUBING RECORD

| SIZE | WEIGHT | FROM | TO | PRESSURE | FLUID LEVEL |
|---|---|---|---|---|---|
| 11-3/4" | 42 & 47# | 0 | 1042 | 24PSI | |
| 7 | 23 & 26 | 0 | 8180 | | |
| 5 | 18 | 8075 | 9790 | | |
| 2-7/8 | TUBING | 0 | 8049 | 2450PSI | |

PACKER (S) 8040 MANDREL (S) NONE

PERFORATIONS 8456-8694 @ INTERVALS 8727-9077 SLOTTED

LOGGING UNIT 711 LINE SIZE 3/16" LINE LENGTH 23,950' NOISE TOOL NO. 7107

DIAGRAM OF TOOLS USED:

DIAMETER OF TOOLS 1-3/8"

3-60" BARS,CAPACITANCE, COLLAR LOCATOR,TEMPERATURE, NOISE

MEASUREMENT DATUM 7' DF

DEPTH INFERENCE TUBING TAIL

TEMPERATURE

75° 80° 85° 90° 95° 100° 105°

FREQUENCY RESPONCE: (HI FREQUENCY) 2000 HERTZ 1000 HERTZ 600 HERTZ 200 HERTZ (LO FREQUENCY)

MILLIVOLTS

2 3 4 5 7 10 2 3 4 5 7 10 20 30 40 50 70 100 200 300 400 500 700 1000

2-7/8"

115°

120°

TOOL TEST

130°

135°

140°

145°

155°

160°

REPEAT

165°

170°

175°

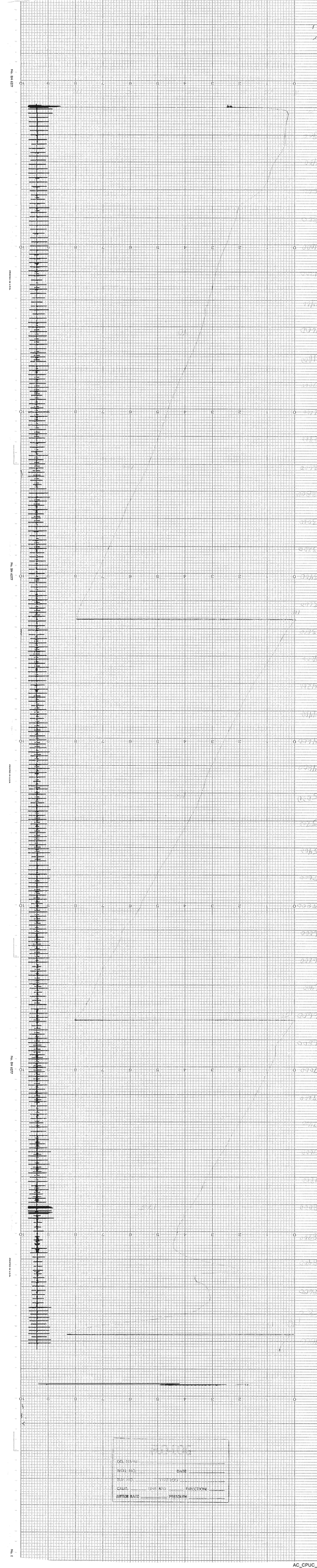
180°

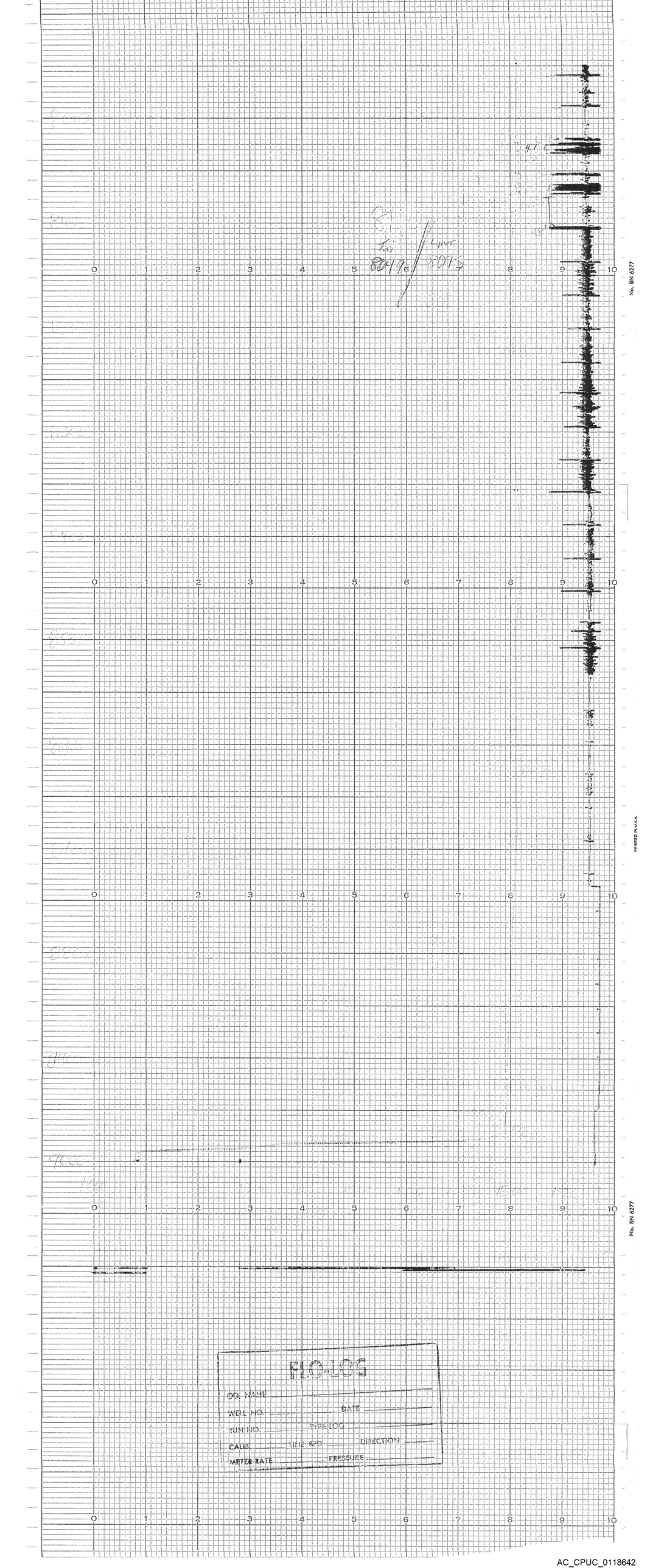
185°

" 23,26#

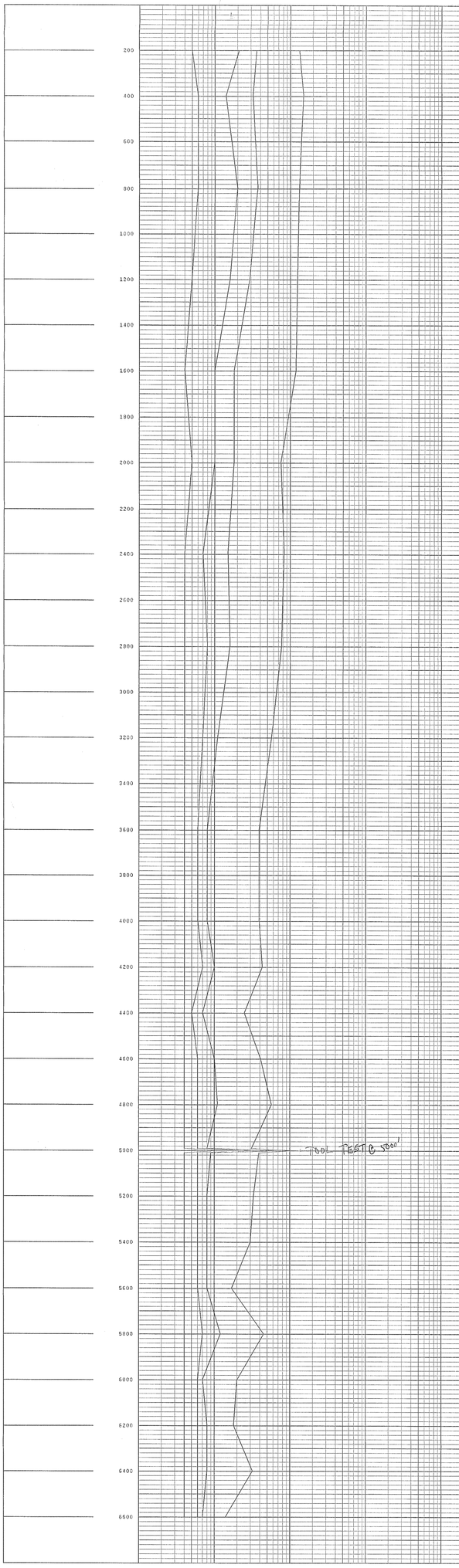
5" 18# PBTD TO 9790'

AC_CPUC_0118640


DATE
DIRECTION
UNIT NO.
PRESSURE




AC_CPUC_0118642

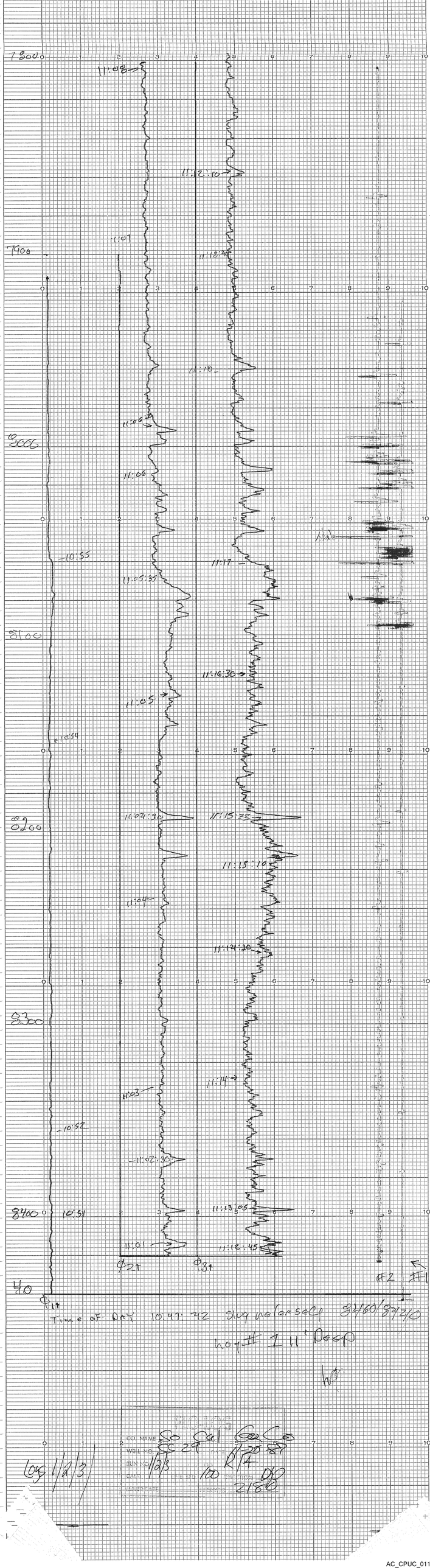



AC_CPUC_0118643

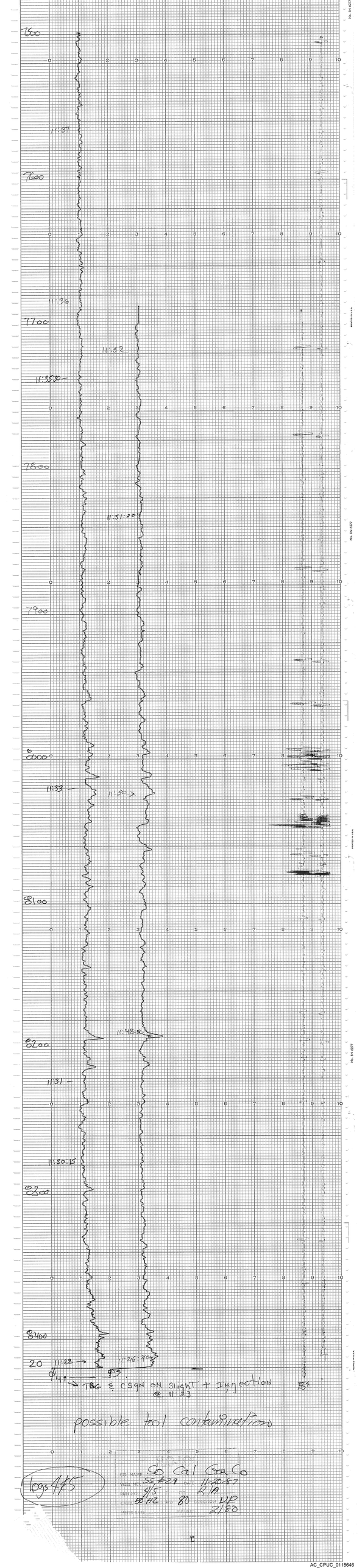
# FLO-LOG INC.

Company So Cal Gas Co
Type of Survey RIA Survey
Date of Survey 11-20-87
Lease, Well No. SS #29
Field ALISO CANYON

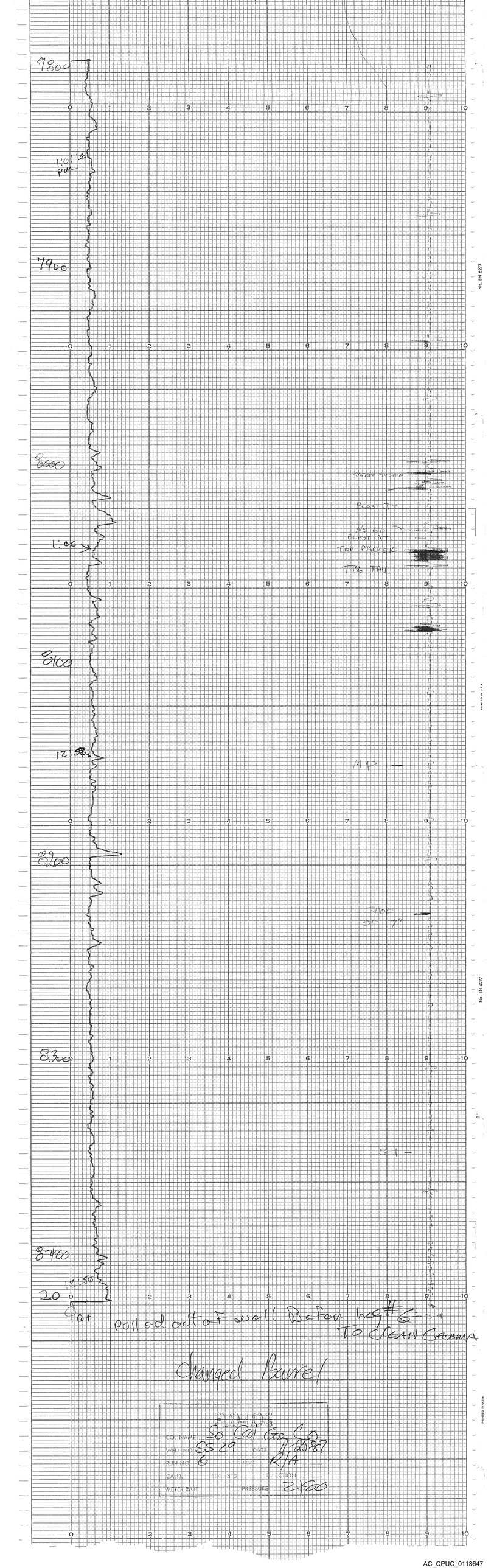
AC_CPUC_0118644



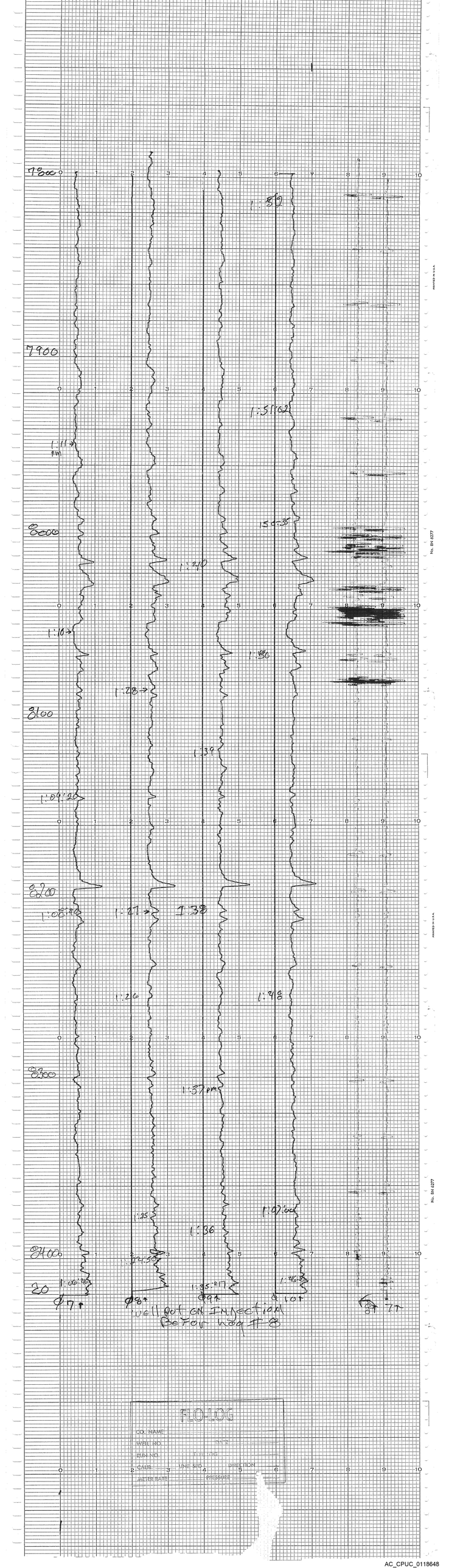

AC_CPUC_0118645

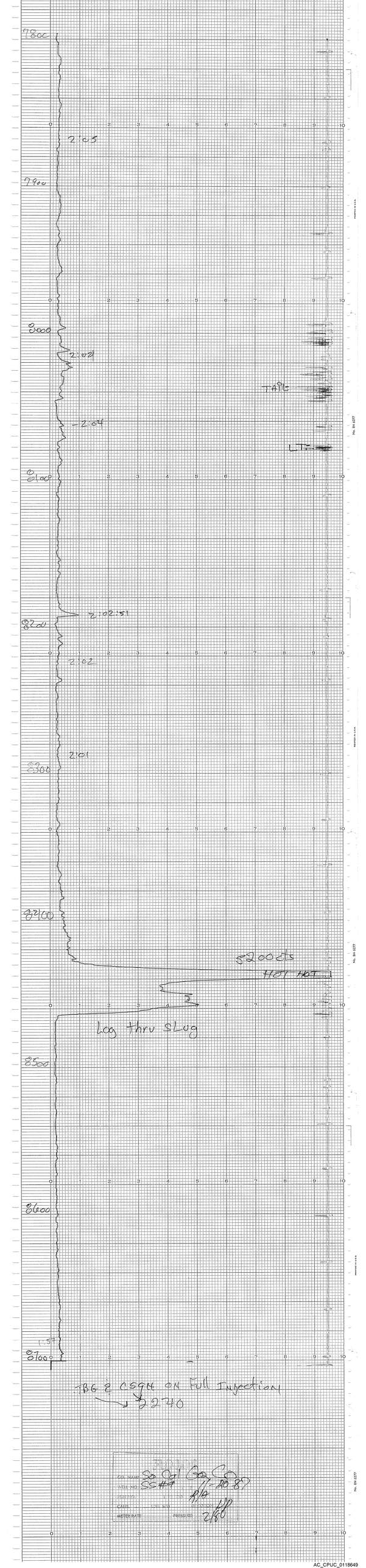



AC_CPUC_0118646

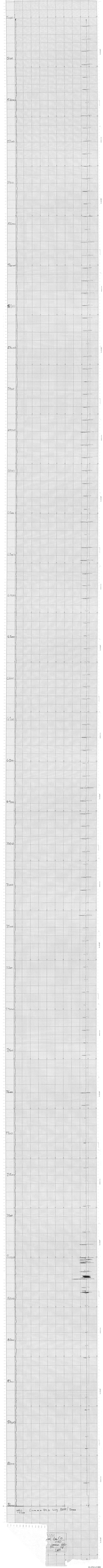


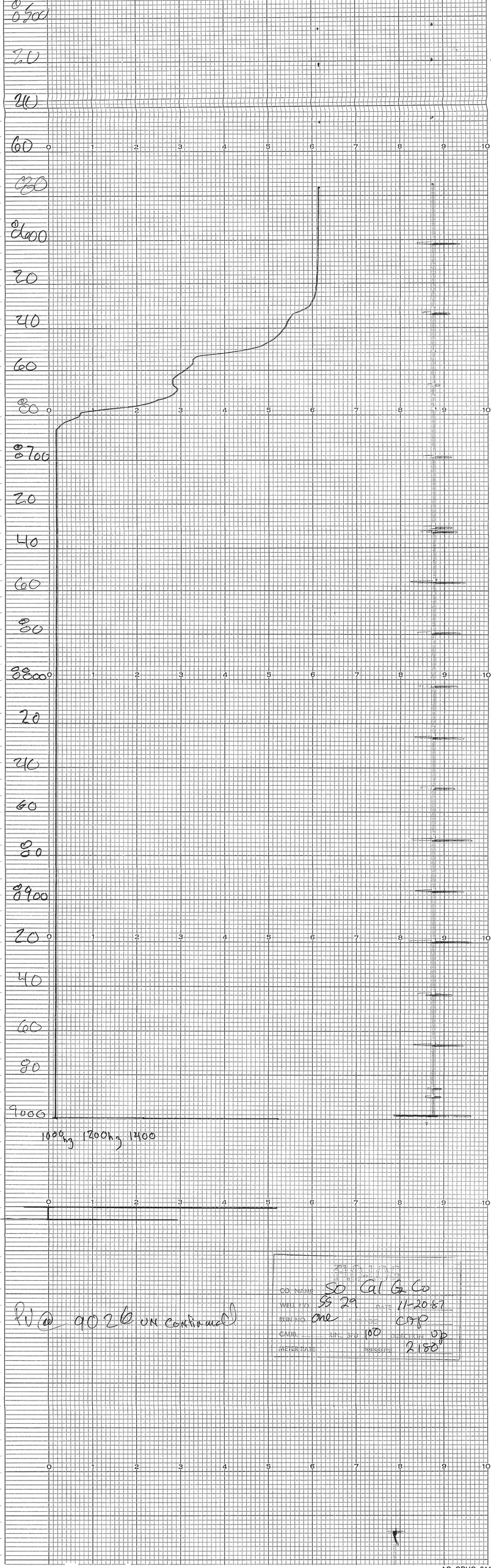

AC_CPUC_0118647


7800
7900
8000
8100
8200
8300
8400
1:59
1:51'62
1:11
1:10
1:27
1:38
1:37 pm
1:36
1:35
1:26
1:39
1:28
1:30
1:25
1:27
1:38
1:26
1:36
1:37
1:35
1:36
1:37
1:35
1:36
1:37
1:35




AC_CPUC_0118649


well Connected by Bell Tone




2V @ 9026 UN CONTINUED

AC_CPUC_0118651

# FLO-LOG INC.

Company So Cal Gas Co
Type of Survey R/A Survey
Date of Survey 11-30-87
Lease, Well No. SS # 29
Field ALISO CANYON

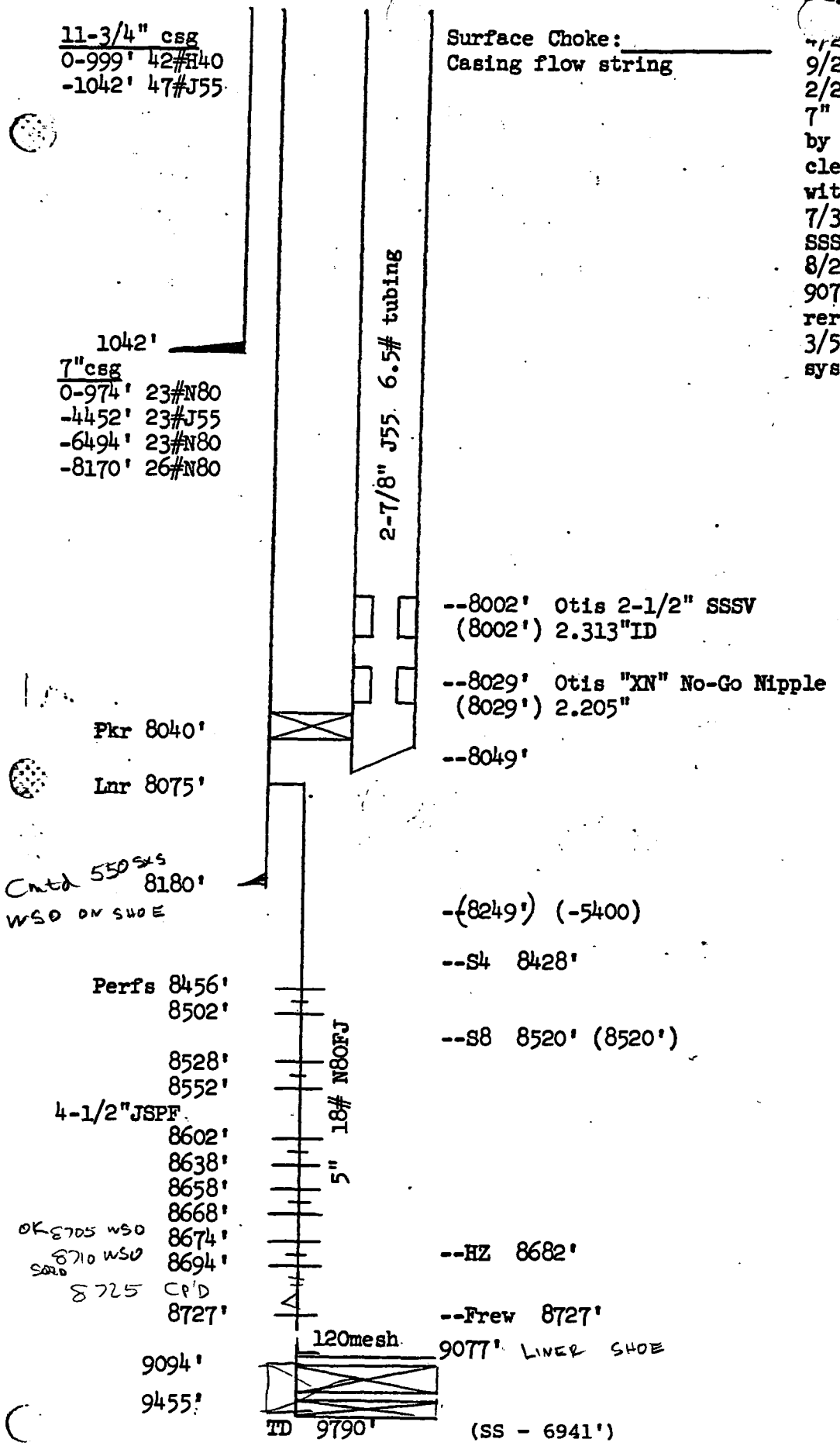
Incomplete

BKG to High

AC_CPUC_0118652

Elevation: 2849' DF: 7'

Standard Sesnon 29




7/26/53 Well spud
9/29/53 Well completed
2/2/73-2/28/73 Pressure tested 7" casing, converted to gas storag by perforating in Sesnon Zone, cleaned out to 9074', ran tubing with SSSV
7/31/73-8/7/73 Installed wireline SSSV, cleaned out to 9077'
8/27/77-9/9/77 Cleaned out to 9072', pressure tested casing, reran tubing with SSSV
3/5/79-3/10/79 Replaced safety system, set packer at 8040'

WELL VOLUME

| | Cu.Ft. | Bbl. |
|---|---|---|
| Tubing | 262 | 47 |
| Csg/Lnr. | 105 | 19 |
| Annulus | 1405 | 250 |

6/12/84

AC_CPUC_0118653

# FLO-LOG

**PRODUCTION LOGGING SURVEY DATA SHEET**

COMPANY So Cal Gas Co DATE 11-30-87

WELL NO. SS #29 FIELD ALISO CANYON

COUNTY L/A STATE Calif.

REPRESENTATIVE Jim MANSDORFER SURVEY CREW Bailey, Tvemello

TYPE OF SURVEY R/A Survey

PURPOSE OF SURVEY Ck Shoe & WSO

## CASING AND TUBING RECORD

| SIZE | WEIGHT | FROM | TO |
|---|---|---|---|
| 7" | 23-26 | Ø | 8180 |
| 5" | 18 | 8025 | 9790 |
| | | | |
| | | | |

Effective Depth 9077 PBTD

Perforations 8456 - 8727 Cmt

W.S.O. 8/80/8705/10 C.P.

Tubing Size 2 7/8 Depth 8049

Packer(s) 8040

Mandrel(s)

Measurement Datum 9' KB

Reference Point MAT

WELL STATUS gas Storage (S/I)

Meter Rate BWPD Oil Rate b/d

Flow Loss BWPD Oil Gravity °

Obs. Rate BWPD Gas Rate Mcf/d

Reported Tbg Press. psi Obs.

Reported Csg Press. psi Obs.

Pickup 8600 DDA Fill

Bottom Temp. °F Fluid Level

### SPINNER STATS

| Depth | Counts | Rate | Depth | Counts | Rate |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |

Reset Depth (from) No Reset

Depth Corrected to

Logging Unit 211 Line Size 3/16 Line Length 10,000

Tools Used Head, SB, SR, SB, Gamma, CCL, CAP, INJ

Tool Numbers

Tool Diameter 1 3/8

Time Arrived on Location 7:00AM Off Location 9:00 Total Hours 2.0

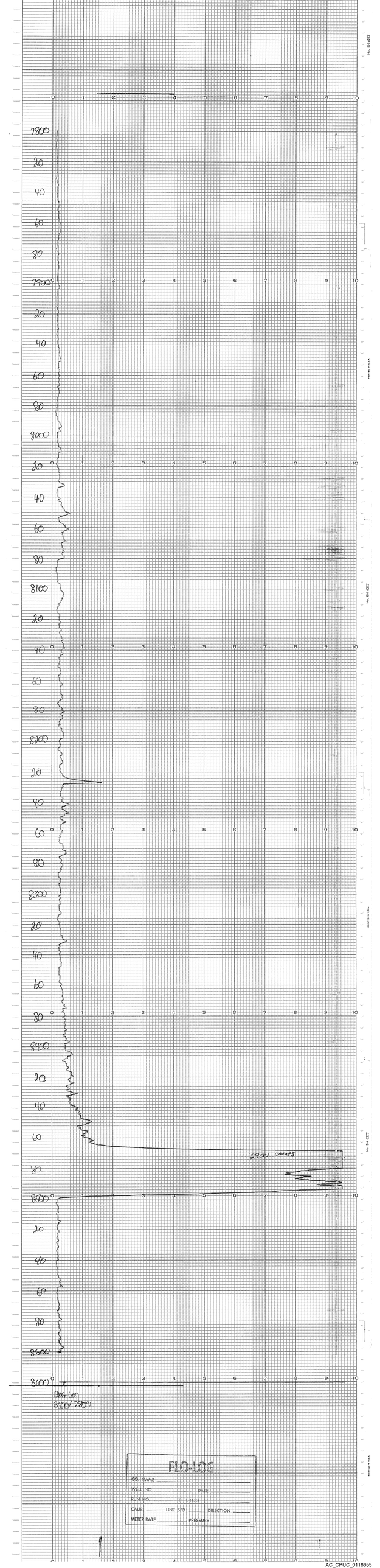
| Time of Run | Run No. | Type of Survey | Survey Calib. | Line Speed | Direction | Logged Interval (from) | (to) |
|---|---|---|---|---|---|---|---|
| 8:05 AM | One | Temp Log | 200 HZ | 100 | up | 9000 | 5 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Unable to Run Survey Due to High BKG from previous try Last week will try again in couple of weeks

REMARKS:

Incomplete log

AC_CPUC_0118654




AC_CPUC_0118655

# FLO-LOG INC.

Company So Cal Gas Co
Type of Survey Temp - Noise
Date of Survey 11-17-87
Lease, Well No. SS #29
Field Aliso Canyon

11-17 complete Noise Log
11-18 modified Noise Log (plug in TBG)

AC_CPUC_0118656

| | |
|---|---|
| PERMANENT DATUM | ELEVATION |
| LOG MEASURED FROM 1' A.G. | COMPLETED TO 11816 TOP |
| TOTAL DEPTH 9290' | DRILLING DEPTH (Final) 8393' |
| TYPE OF FLUID IN HOLE GAS | DRILLING DEPTH (Initial) 8393' |
| TYPE OF FLUID IN HOLE GAS | FLUID LEVEL 8340' TEMPERATURE |
| LOG RECORDED BY D. BAILEY | WITNESSED BY JIM MANDSOFER |

| CASING RECORD | | | |
|---|---|---|---|
| | Bottom | Top | Cement |
| 13-3/8" | 1043' | | 1000 |
| 9-5/8" | 8160' | | 2100 |
| 5" | 9707' | 8008' | |

| | |
|---|---|
| TUBING | 2-7/8" TO 8040' |
| PACKERS | BOWEN |
| ANOMALIES | |
| REMARKS/NOTES | 8456-8472' W INTERVALS |

| | |
|---|---|
| LOGGING UNIT | 331 |
| TOOLS RUN | HEAD,CYSIIRKER BARS,CCL,TEMP,CAPACITANCE,NOISE |
| TOOL MARKING | |

| | |
|---|---|
| RUN NO. | 1 |
| TOP (Driller) | 0 |
| TOP (Logger) | 0 |
| BOTTOM (Driller) | 8393' |
| BOTTOM (Logger) | 8393' |
| CASING (Driller) | 9707' |
| CASING (Logger) | 9707' |
| BIT SIZE | 8-1/2" |
| TYPE FLUID IN HOLE | GAS |
| DENSITY | |
| VISCOSITY | |
| PH | |
| FLUID LOSS | |
| SOURCE OF SAMPLE | |
| RM @ MEAS TEMP | |
| RMF @ MEAS TEMP | |
| RMC @ MEAS TEMP | |
| SOURCE RMF/RMC | |
| RM @ BHT | |
| TIME SINCE CIRC | |
| MAX REC TEMP | 150°F |
| EQUIP LOCATION | 1X/200' |
| RECORDED BY | |
| WITNESSED BY | |

| | |
|---|---|
| | Sec. Twp. Rge. or Blk. & Survey |
| | Other Services |
| | Permanent Datum |
| | Elev.: K.B. |
| | Log Measured From |
| | Drilling Measured From |
| | Elev.: K.B. |
| | D.F. |
| | G.L. |

COMPANY: Flo-Log, Inc.
WELL: Standard #29
FIELD: Acme Gantua Area
COUNTY: Kern
STATE: California
LOCATION: 11-17-87, 11-18-87, 11-19-87

FLO-LOG INC.
TEMPERATURE SURVEY

Permanent Datum
Log Measured From
Drilling Measured From

FLO-LOG INC.

WELL NO. Standard #29
Salmon

DATE 11-17-87
11-18-87

TEMPERATURE

80° 75° 90° 85° 90° 95° 100° 105° 110°

FIRST SURVEY ON 11-17-87 SHOWED MUCH ACTIVITY IN THE STORAGE ZONE.

THE SECOND SURVEY ON 11-18-87 WAS RUN AFTER PUTTING A PLUG IN THE TUBING TAIL. THIS THOUGH TIRED IT STILL SOWS BIRIBRAL NOISE. THE HIGH FREQUENCY ZONE HAS ZEROED NO LOCAL ACTIVITY, HENCE, THE TOOL MUST BE RESPONDING TO DISTANT ZONE ACTIVITY.

LOG #1 (11-17-87)

10.0mv 100.0mv

Log #2 11-17-87 (10.0mv) (100.0mv)

10.0mv 100.0mv

LOG # (11-18-87) 10.0mv 100.0mv

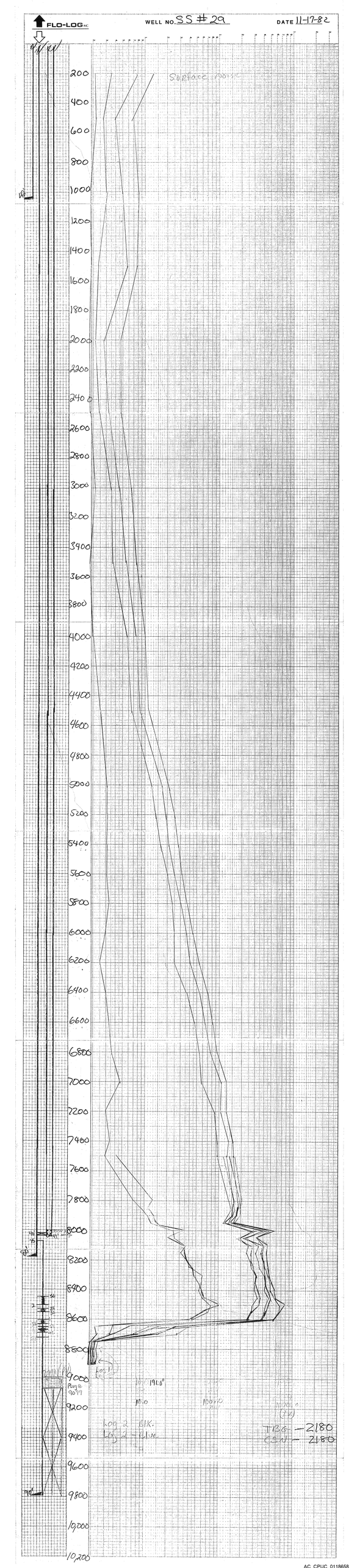
150° 155° 150° 190°

AC_CPUC_31119057

FLO-LOG INC.

WELL NO. SS #29

DATE 11-17-82




AC_CPUC_0118658

Modified Noise Log
SS # 29 11-18-87

6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
9400
9600
9800
10,000

4½ .38 No-go
.75 4½
3½

Clean flo

far away ringing
Howling

Plug in No-go @ 8038'

Heavy ringing flowing

1.0 10.0 100.0
1.0 10.0

Log I = 81K

TBG - 2180
CSN - 2180

Plug @ 9077

N L Mc CULLOUGH
PRODUCTION LOGGING

COMPANY So. Calif Gas
TYPE OF SURVEY Noise Log
DATE OF SURVEY 11-17-81
LEASE, WELL NO. SS-29
FIELD Aliso Canyon

AC_CPUC_0118660

**McCullough**

**PRODUCTION LOGGING**

AUDIO ANALYZER SURVEY

OTHER SERVICES

COMPANY So. Calif. Gas Co.

WELL 38-#23 FIELD Aliso Canyon

COUNTY L.A. STATE CA.

SECTION 23 TWP. 2S RGE. 17W

WELL DATA

| | Size | Wgt. | From | To |
|---|---|---|---|---|
| Date | | | | |
| Run No. | 1 1/16"OD | | | |
| Log Meas. From | 11 3/4 | 54 | 0 | 1182' |
| Depth—Driller | 9760' | | 1182' | 9078' |
| Depth—Log Tech. | 9760' | | 1182' | 9078' |
| Bottom—Log Tech. | 9000' | | 18 | 8075' |
| Last Logged Interval | 8600' | | 2.78 | 8382' |
| Top Logged Interval | 8600' | | | |
| Type Fluid in Hole | Gas | | Packer Fluid @ | 8082' |
| Fluid Level | | | Ops. to | 8082' |
| Max. Rec. Temp. | °F | | Max. Rec. Temp. | 8382' |
| Recorded By | Bill L & Brian | | @ Interval | 8382' |
| Witnessed By | Gupton | | | |

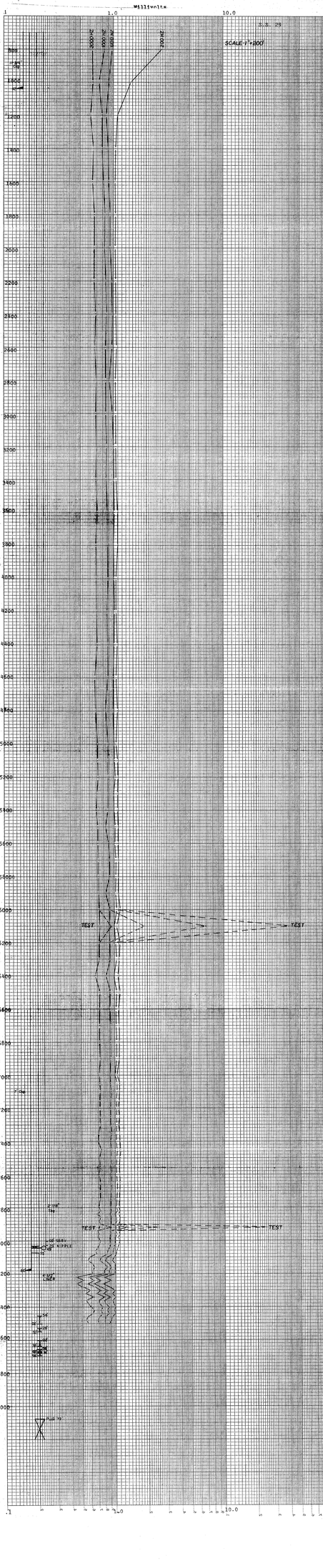
EQUIPMENT and MEASUREMENT DATA

| | | | |
|---|---|---|---|
| Run No. | | Tool No. | |
| Tool Type | | Tool No. | 1650 |
| Production—Oil, b/d | 3800-1H | Gas, Mcf/d | |
| Water, b/d | | Cond. Gas | 1 1/2" |
| Gas/Oil Ratio | | Liner Dia. | 3 1/16" |
| Injection Rate | | | |
| Packer Depth | | | |
| Tbg. Size and Wgt. | | | |
| Tbg. Perforations | | | |
| Tbg. Sand Plug | | | |
| Tbg. Bridge Plug | | | |
| Tbg. Fish | | | |
| Tbg. Packer | | | |
| Tbg. Anchor | | | |
| Tbg. Sand | | F/A Sand | |
| Csg. Perforations | | F/A Sand | |
| F.C. Sand | | F/A Sand | |

SURVEY RESULTS A/A indicates No Gas Movement

REMARKS:

Form 118


Millivolts
1
1.0
10.0
S.S. 29
SCALE-1"=200'
2000PSI
1500PSI
1000PSI
500PSI
TEST
TEST
TEST

**McCullough**

**PRODUCTION LOGGING**

ADDCO ANALYZER SURVEY — OTHER SERVICES:

COMPANY: So. Calif. Gas Co.

WELL: SS-#29 — FIELD: Aliso Canyon — STATE: Ca. — COUNTY: L.A.

| WELL DATA | | Casing and Tubing Record | Size | Wgt. | Depth | Fluid Level |
|---|---|---|---|---|---|---|
| Date | 11-17-51 | Casing | 11 3/4 | 47 | 1812 | |
| Type Log | R/A | Liner | 7" | 23 | 8180 | |
| Depth — Log (Fb.vol) | 9000' | Tubing | 2 7/8 | 8.7 | 8070' | |
| Bottom Logged Interval | 9000' | | 2 1/4 | EU | 8048 | |
| Top Logged Interval | 6000' | | | | | |
| Type Hole Fluid | GAS | Packer/Plug @ | | | 8082' | |
| Max. Rec. Temp. °F | | Perforations | | | 8081 - 8684' | |
| Time Since Circ. | | | | | @ intervals | |
| Max. Rec. Temp. | 181 | Time Well Ready | | | 1300 | |
| Equip. No. & Loc. | | Unit Number | | | | |
| Recorded By | | Witnessed By | | | | |

| EQUIPMENT and TEST DATA | | |
|---|---|---|
| Run No. | | Tool No. 1550 |
| Wat. Shots | 3SHT-IN | Tool Pos. |
| Production — Oil, Sq.of Water, Gas, and | | Tool Size 1 7/8" Hole Dia. 3 7/8" |
| Tension — Max. psi Cable Size | | |
| Pressure — Max. psi Cable Type | | |
| Log Speed — fpm Cable Length | | |
| Gun Sizes — Type — Shots/Ft. | | N/A Sets N/A Spacing |

SURVEY RESULTS: A/A indicates No Gas Movement

REMARKS:

Time in

Millivolts

SCALE 1"=100'

TEST

TEST

TEST

TEST

AC_CPUC_0118662

AC_CPUC_0118663

# TRIANGLE SERVICE, INC.

AUDIO ANALYZER SURVEY

COMPANY SOUTHERN CALIFORNIA GAS COMPANY

WELL STANDERD 29 FIELD ALISO CANYON

COUNTY L.A. STATE CALIFORNIA

OTHER SERVICES:

ELEVATIONS:
KB
DF
GL

**WELL DATA**

| | | Casing and Tubing Record | | | |
|---|---|---|---|---|---|
| Date | 10-3-1980 | Size | Wgt. | From | To |
| Run No. | | 7" | | 0 | 8180' |
| Type Log | A/A | 5" | | 8075' | 8727' |
| Depth — Drill | | | | | |
| Depth — Log (Pick-up) | | | | | |
| Bottom Logged Interval | 8600' | | | | |
| Top Logged Interval | 500' | | | | |
| Type Hole Fluid | Gas | Packer @ | | | |
| Fluid Level | | Tbg. Tail to | | | |
| Max. Rec. Temp. °F. | | Perforations | | | |
| Recorded By | Clark-Olson-Sawyer | | | | |
| Witnessed By | Bob Hazel | Measurement Reference | | | |

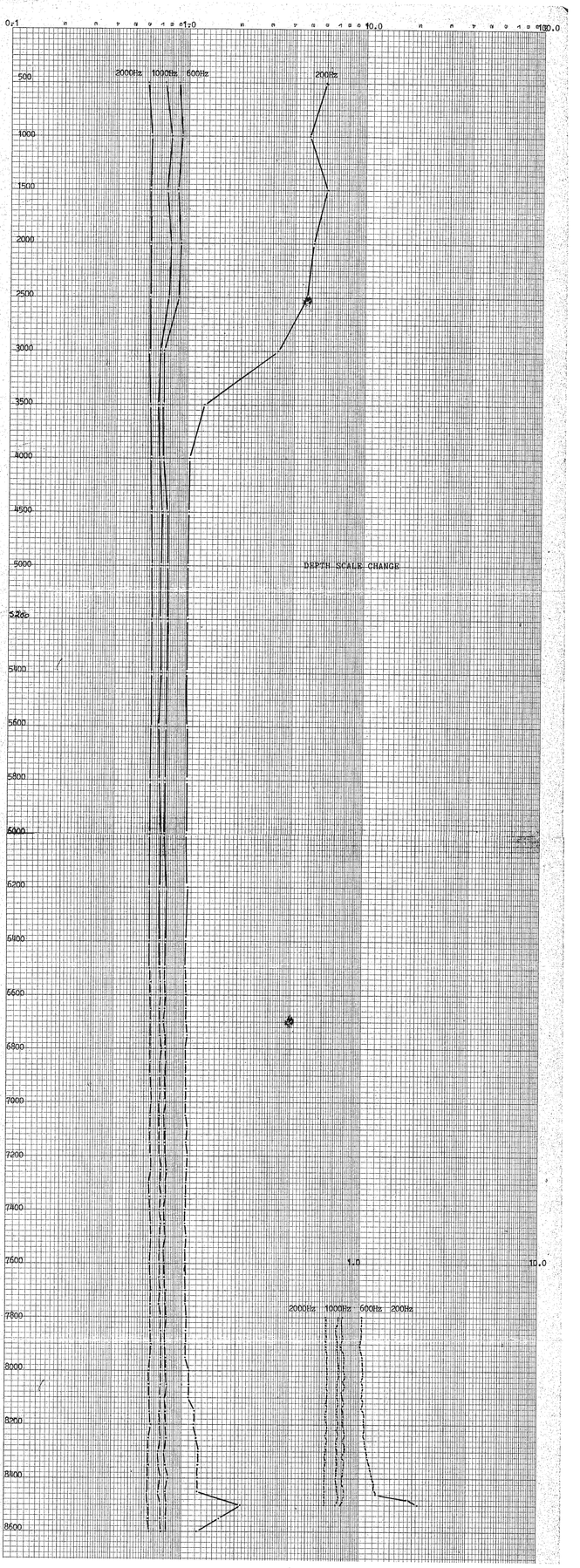
**EQUIPMENT and TEST DATA**

| | | | |
|---|---|---|---|
| Run No. | | Truck No. | 1650 |
| Well Status | Shut in | Tool No. | 114 |
| Production — Oil, b/d | 0 | Tool Size | 3/16" |
| Water, b/d | 0 | | |
| Gas, mcf | 0 | | |
| Injection Rate | 0 | | |
| Pressure — TBG. psi | 2900 PSI | | |
| CSG. psi | 0 | | |
| Log Speed — fpm | | | |
| Temp. Sens. °F./inch | | R/A Sens. | |
| Diff. Sens. | | R/A Spacing | |
| T.C. | | | |

**SURVEY RESULTS:** A/A indicates no gas movement

**REMARKS:**

Form 128




AC_CPUC_0118664

**NL McCullough**

**PRODUCTION LOGGING**

AUDIO ANALYZER SURVEY

Other Services

COMPANY So. Calif. Gas Co.

FIELD Aliso Canyon

WELL SS-#23

COUNTY L.A. STATE Ca.

| Sec. | Twp. | Rge. |
|---|---|---|
| 17 | 2N | 15W |

Elevations: KB 7' | DF | GL

WELL DATA

| Date | Run No. | Casing and Liners Cemented | Size | Wgt. | From | To |
|---|---|---|---|---|---|---|
| 11/12/63 | One | Casing | 7" | 23 | 0 | 8180' |
| | | Liner | 4½" | 11.6 | 8075' | 8804' |
| | | Depth—Driller | 9760' | | | |
| | | Depth—Logger | 9760' | | | |
| | | Bottom Logged Interval | 8900' | | | |
| | | Top Logged Interval | 8000' | | | |
| | | Type Fluid in Hole | Gas | | | |
| | | Fluid Level | | | | |
| | | Max. Rec. Temp. | °F | | | |
| | | Recorded By | Bill & Brian | | | |
| | | Witnessed By | Mr. Gilpin | | | |

Packer/Perfs @ 8091'
Log Tie In 8045'
Perforations 8134 - 8694'
8 intervals
Measure Reference D.F.

EQUIPMENT and TEST DATA

| | | | |
|---|---|---|---|
| Run No. | | Rock No. | 1650 |
| Volume Chart | | Fold Size | 1/2" |
| Production—Oil B/d | | Line Pressure | 1475# |
| Gas M/d | | | |
| Injection Rate | | | |
| Pressure Gauge Depth | | | |
| Log Speed Down | | | |
| Log Speed Up | | | |
| Tank Gauge | | | |
| Oil Tank No. | | | |
| I.C. Gauge | | | |

Perforations: CCL pkt
Tubing: 2½" EUE
Tubing Pressure: 1475#
Casing Pressure: 2½" Inch
Tank Gauge: 2½" Inch
Oil Tank No.: 2½" Inch
I.C. Gauge: 2½" Inch

**McCullough**

**PRODUCTION LOGGING**

4000 ANALYZER SURVEY

Other Services:

COMPANY So. Calif. Gas Co. | Location:

WELL 35s/23 | FIELD Aliso Canyon | KB | Elev.: | DF | GL 774

COUNTY L.A. | STATE CA.

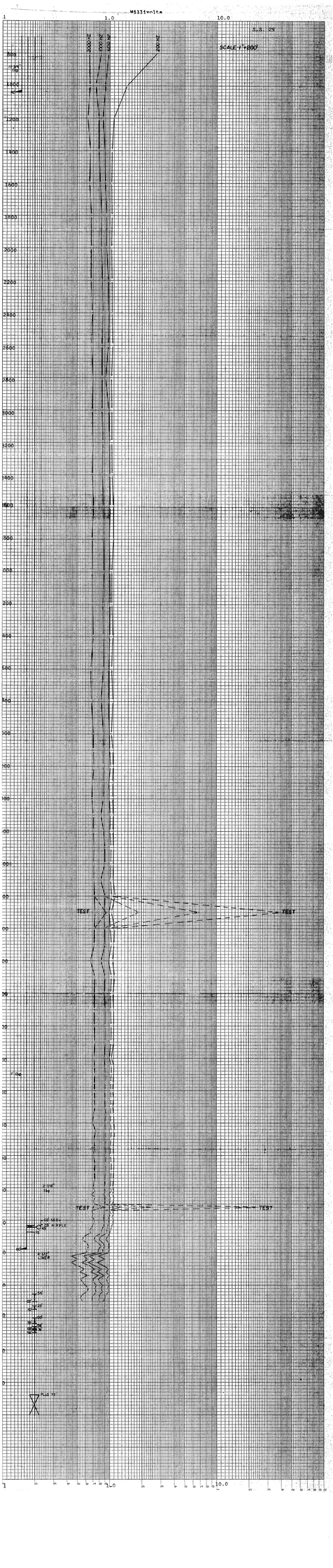
| WELL DATA | | | | Casing and Tubing Record | | | |
|---|---|---|---|---|---|---|---|
| Date | 11-17-81 | | | Size | Wgt. | From | To |
| Run No. | | | | | | | |
| Type Log | Dual Ind | | | 9 5/8" | 32 | 0 | 1232 |
| Depth—Driller | 9700' | | | 11 3/4 | 47 | 0 | 1210 |
| Depth—Log (Pds.op) | 9695' | | | 7" | 23 | 0 | 8027' |
| Depth—Logger (Pds.op) | 9695' | | | 5" | 18 | 8025' | 8827' |
| Top Logged Interval | 8000' | | | 2 7/8 | EU | 0 | 8838' |
| Bottom Logged Interval | 9695' | | | | | | |
| Fluid Level | Full | | | Perforations: 8067' - 8081' | | | |
| Max. Rec. Temp. | 165 | °F | | Hg Sq Ft | 8045' - 8067' | | |
| Equip. No. | | | | Perforations: 8161 - 8681' | | | |
| Recorded By | Bill & Brian | | | Hg Sq Ft | 8161' - 8681' | | |
| Witnessed By | Guppy | | | Measurement Reference | D.F. | | |

| EQUIPMENT and MEASUREMENT DATA | | | |
|---|---|---|---|
| Run No. | | Tool No. | 1650 |
| Prod. Sonde | Dt. S/d | Tool No. | |
| | Wave S/d | Tool No. | 1 1/2" |
| Source Type | | Centr. Dia. | 1 3/4" |
| Source Size | | Lime Dia. | |
| Injector Rate | | | |
| Injection Fluid | | | |
| Tool Speed | | R/A Spec. | |
| Log Interval | | R/A Spacing | |

SURVEY RESULTS A/A indicates No Data Movement

REMARKS:

Tech:


Millivolts
1.0
10.0
SCALE 2"
SCALE 1"=200'
2000'SE
1000'SE
500'SE
SPOOL
TEST
TEST
TEST

**McCullough**

**PRODUCTION LOGGING**

ADDIS ANALYZER SURVEY

OTHER SERVICES

COMPANY: So. Calif. Gas Co.

WELL: 35-23 | FIELD: Aliso Canyon | COUNTY: L.A. | STATE: CA.

ELEVATIONS: KB ___ | DF ___ | GL 971

| WELL DATA | | Casing and Tubing Record | Size | Wt. | From | To |
|---|---|---|---|---|---|---|
| Date | 11-17-83 | | | | | |
| Run No. | 1 | | | | | |
| Type Log | Temp Log | | 11 3/4 | 47 | 0 | 1492 |
| Depth—Driller | 9085' | | 7" | 23 | 0 | 8027' |
| Depth—Log (Prtd) | 9085' | | 4½ | 13 | 8025' | 8093' |
| Btm. Log Interval | 9080' | | 2 1/8 | EU | 0 | 8088' |
| Top Logged Interval | 8800' | | | | | |
| Fluid Used | OAS | | Packer/Plug @ | | | 8018' |
| Fluid Level | | | Packer/Plug @ | | | 8088' |
| Max. Rec. Temp. | °F | | Perforations | | 8838 | 8698' |
| Equipment No. | 8811 & Jan | | Perforations | | | |
| Recorded By | Clapp | | Measured From | | | D.F. |

| EQUIPMENT and TEST DATA | | | |
|---|---|---|---|
| Rec. No. | | Tool No. | 1650 |
| Wnd. Size | 3HUT-TH | Tool No. | |
| Thermometer—Ch. No. | | Tool No. | 1-1/2" |
| Range | Watch 5/d | Line Dia. | 3/16" |
| | Gen. ref | | |
| Injection Key | | | |
| Protocol | DOG gal | | |
| | Gen. ref | | |
| Log Speed — Fpm | | | |
| Time Constant — Sec. / inch | | F/A Sens. | |
| Diff. Sens. | | F/A Spacing | |

SURVEY RESULTS: A/A indicates No Gas Movement

REMARKS:

Time 1Hr

**NL McCullough**
**Production Logging**

**Company** So Cal Gas Co

**Type of Survey** Noise

**Date of Survey** 11-17-81

**Lease, Well No.** SS-29

**Field** Aliso Canyon

Noise Log Copies
FOR Kern Guppy

AC_CPUC_0118668

TO: Kern

FROM: KERN H. GUPPY

DATE:

Ask for test from Bob Hazel

SOUTHERN CALIFORNIA gas COMPANY

AC_CPUC_0118669

K+E SEMI-LOGARITHMIC 3 CYCLES X 150 DIVISIONS
KEUFFEL & ESSER CO. MADE IN U.S.A.

47 5490

1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 10

200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
3200

Surface noise
Can Hear Truck Engine
Reflecting off wall nearby

¼ ⅕ ⅙ ⅐ ⅛ ⅑ 1.0 2.0 3.0 4.0 5.0 10.0

AC_CPUC_0118670

K+E SEMI-LOGARITHMIC 3 CYCLES X 150 DIVISIONS
KEUFFEL & ESSER CO. MADE IN U.S.A.

47 5490

SC-29

11-17-81

3200
3400
3600
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
6200

1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 10

1.0 2.0 3.0 4.0 5.0 10.0

AC_CPUC_0118671

Date of Survey 10-3-80

Type of Survey Noise Log

Company So. Cal. Gas Co.

Lease, Well No. Standard 22

Field Aliso Canyon

AC_CPUC_0118672

# TRIANGLE SERVICE, INC.

AUDIO ANALYZER SURVEY

COMPANY SOUTHERN CALIFORNIA GAS COMPANY

WELL STANDERD 29 FIELD ALISO CANYON

COUNTY L.A. STATE CALIFORNIA

OTHER SERVICES:

ELEVATIONS:
KB.
DF.
GL.

**WELL DATA**

| | |
|---|---|
| Date | 10-3-1980 |
| Run No. | |
| Type Log | A/A |
| Depth — Driller | |
| Depth — Log (Pick-up) | |
| Bottom Logged Interval | 8600' |
| Top Logged Interval | 500' |
| Type Hole Fluid | Gas |
| Fluid level | |
| Max. Rec. Temp. °F. | |
| Recorded By | Clark-Olson-Sawyer |
| Witnessed By | Bob Hazel |

Casing and Tubing Record

| Size | Wgt. | From | To |
|---|---|---|---|
| 7" | | 0 | 8180' |
| 5" | | 8075' | 8727' |
| | | | |
| | | | |

Packer @
Tbg. Tail to
Perforations
Measurement Reference

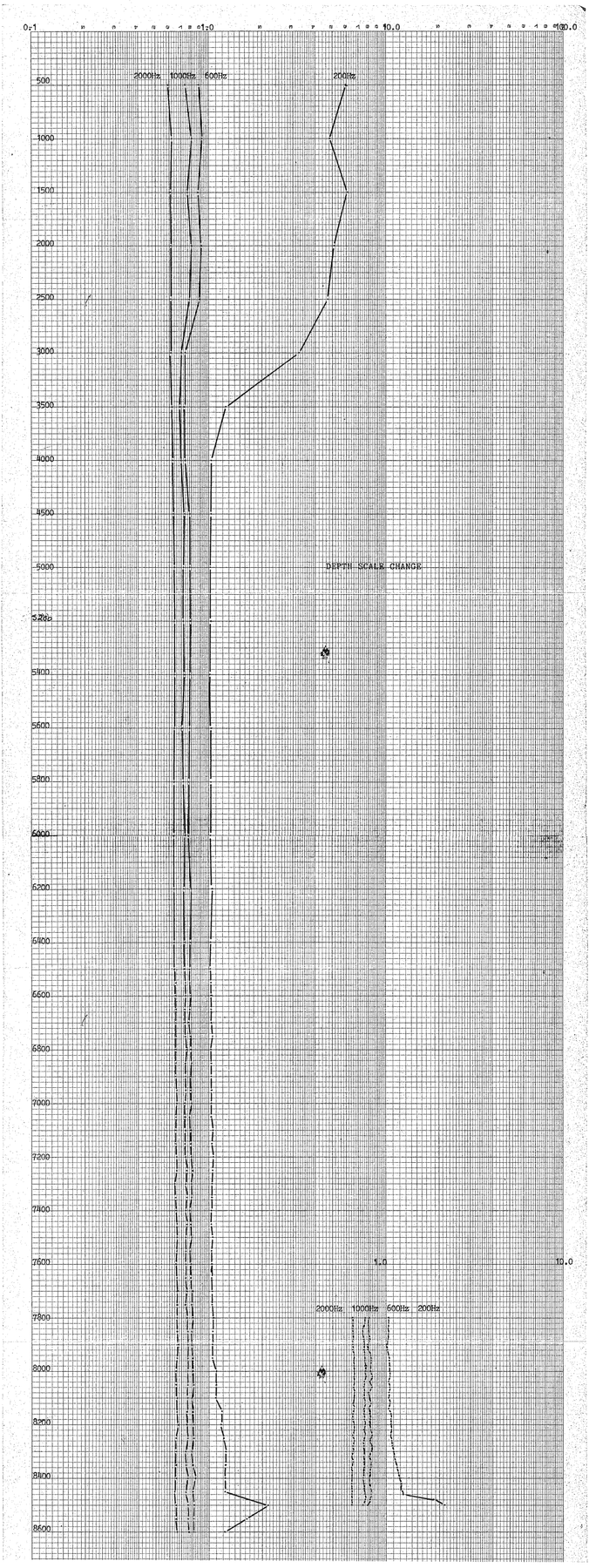
**EQUIPMENT and TEST DATA**

| | | | |
|---|---|---|---|
| Run No. | | Truck No. | 1650 |
| Well Status | Shut in | Tool No. | 114 |
| Production — Oil, b/d | 0 | Tool Size | 3/16" |
| Water, b/d | 0 | | |
| Gas, mcf | 0 | | |
| Injection Rate | 0 | | |
| Pressure — TBG. psi | 2900 PSI | | |
| CSG. psi | 0 | | |
| Log Speed — fpm | | | |
| Temp. Sens. °F./inch | | R/A Sens. | |
| Diff. Sens. | | R/A Spacing | |
| T.C. | | | |

**SURVEY RESULTS:** A/A indicates no gas movement

**REMARKS:**

Form 128




AC_CPUC_0118673

# TRIANGLE SERVICE, INC.

AUDIO ANALYZER SURVEY

COMPANY SOUTHERN CALIFORNIA GAS COMPANY

WELL STANDERD 29 FIELD ALISO CANYON

COUNTY L.A. STATE CALIFORNIA

OTHER SERVICES:

ELEVATIONS:
KB
DF
GL

**WELL DATA**

| | | Casing and Tubing Record | | | |
|---|---|---|---|---|---|
| Date | 10-3-1980 | Size | Wgt. | From | To |
| Run No. | | 7" | | 0 | 8180' |
| Type Log | A/A | 5" | | 8075' | 8727' |
| Depth — Drill | | | | | |
| Depth — Log (Pick up) | | | | | |
| Bottom Logged Interval | 8600' | | | | |
| Top Logged Interval | 500' | | | | |
| Type Hole Fluid | Gas | Packer @ | | | |
| Fluid Level | | Tbg. Tail to | | | |
| Max. Rec. Temp. °F. | | Perforations | | | |
| Recorded By | Clark-Ollson-Sawyer | | | | |
| Witnessed By | Bob Hazel | Measurement Reference | | | |

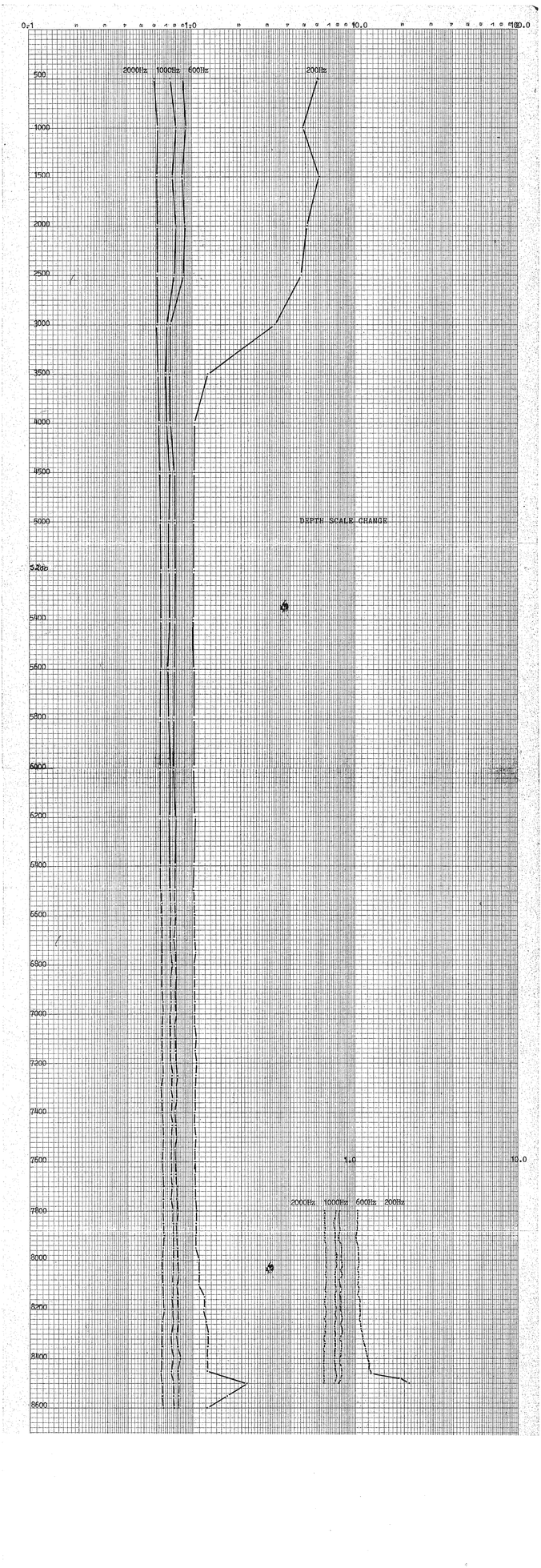
**EQUIPMENT and TEST DATA**

| | | | |
|---|---|---|---|
| Run No. | | Truck No. | 1650 |
| Well Status | Shut in | Tool No. | 114 |
| Production — Oil, b/d | 0 | Tool Size | 3/16" |
| Water, b/d | 0 | | |
| Gas, mcf | 0 | | |
| Injection Rate | 0 | | |
| Pressure — TBG. psi | 2900 PSI | | |
| CSG. psi | 0 | | |
| Log Speed — fpm | | | |
| Temp. Sens. °F./inch | | R/A Sens. | |
| Diff. Sens. | | R/A Spacing | |
| T.C. | | | |

**SURVEY RESULTS:** A/A indicates no gas movement

**REMARKS:**

Form 129



# TRIANGLE SERVICE, INC.

AUDIO ANALYZER SURVEY

COMPANY SOUTHERN CALIFORNIA GAS COMPANY

WELL STANDERD 29 FIELD ALISO CANYON

COUNTY L.A. STATE CALIFORNIA

OTHER SERVICES:

ELEVATIONS:
KB
DF
GL

**WELL DATA**

| | | Casing and Tubing Record | | | |
|---|---|---|---|---|---|
| Date | 10-3-1980 | Size | Wgt. | From | To |
| Run No. | | 7" | | 0 | 8150' |
| Type Log | A/A | 5" | | 8075' | 8727' |
| Depth — Drill | | | | | |
| Depth — Log (Pick-up) | | | | | |
| Bottom Logged Interval | 8600' | | | | |
| Top Logged Interval | 500' | | | | |
| Type Hole Fluid | Gas | Packer @ | | | |
| Fluid Level | | Tbg. Tail to | | | |
| Max. Rec. Temp. °F. | | Perforations | | | |
| Recorded By | Clark-Ellison-Sawyer | | | | |
| Witnessed By | Bob Hazel | Measurement Reference | | | |

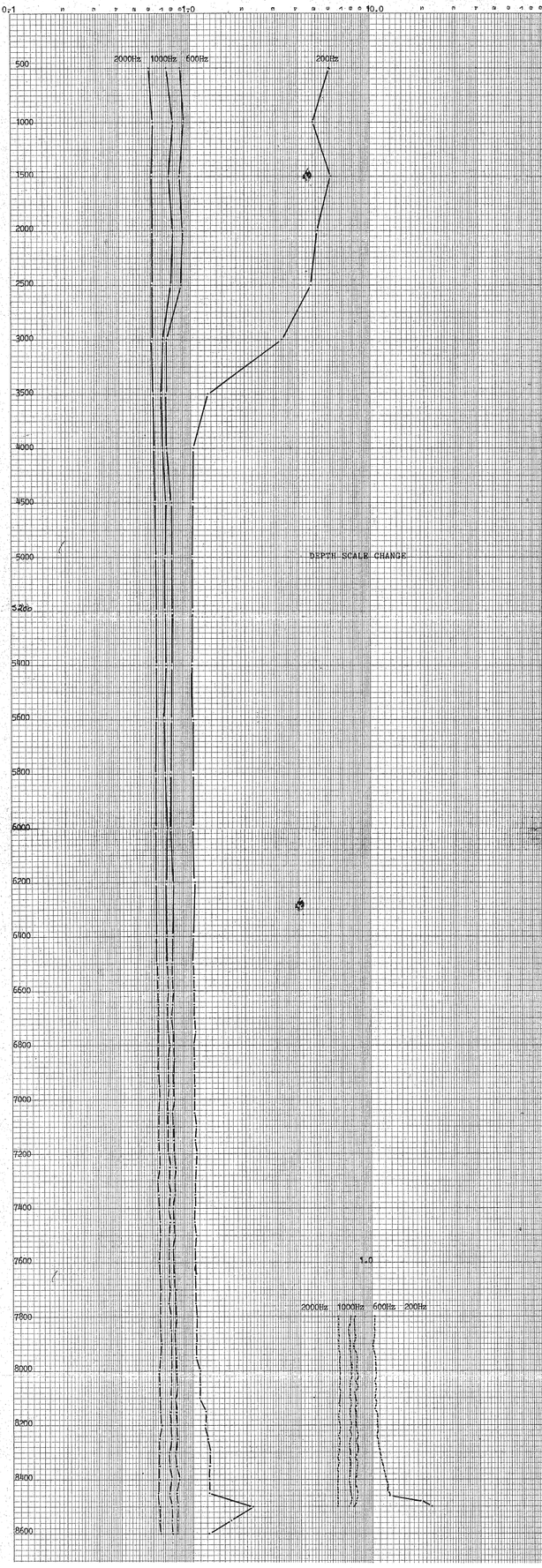
**EQUIPMENT and TEST DATA**

| | | | |
|---|---|---|---|
| Run No. | | Truck No. | 1650 |
| Well Status | Shut in | Tool No. | 114 |
| Production — Oil, b/d | 0 | Tool Size | 3/16" |
| Water, b/d | 0 | | |
| Gas, mcf | 0 | | |
| Injection Rate | 0 | | |
| Pressure — TBG. psi | 2900 PSI | | |
| CSG. psi | 0 | | |
| Log Speed — fpm | | | |
| Temp. Sens. °F./inch | | R/A Sens. | |
| Diff. Sens. | | R/A Spacing | |
| T.C. | | | |

**SURVEY RESULTS:** A/A indicates no gas movement

**REMARKS:**

Form 128




AC_CPUC_0118675

# TRIANGLE SERVICE, INC.

## AUDIO ANALYZER SURVEY

COMPANY SOUTHERN CALIFORNIA GAS COMPANY

WELL STANDERD 29 FIELD ALISO CANYON

COUNTY L.A. STATE CALIFORNIA

OTHER SERVICES:

ELEVATIONS:
KB
DF
GL

### WELL DATA

| | | Casing and Tubing Record | | | |
|---|---|---|---|---|---|
| Date | 10-3-1980 | | | | |
| Run No. | | Size | Wgt. | From | To |
| Type Log | A/A | 7" | | 0 | 8180' |
| Depth — Drill | | 5" | | 8075' | 8727' |
| Depth — Log (Pick-up) | | | | | |
| Bottom Logged Interval | 8600' | | | | |
| Top Logged Interval | 5001' | | | | |
| Type Hole Fluid | Gas | Packer @ | | | |
| Fluid Level | | Tbg. Tail to | | | |
| Max. Rec. Temp. °F. | | Perforations | | | |
| Recorded By | Clark-Gilson-Sawyer | | | | |
| Witnessed By | Bob Hazel | Measurement Reference | | | |

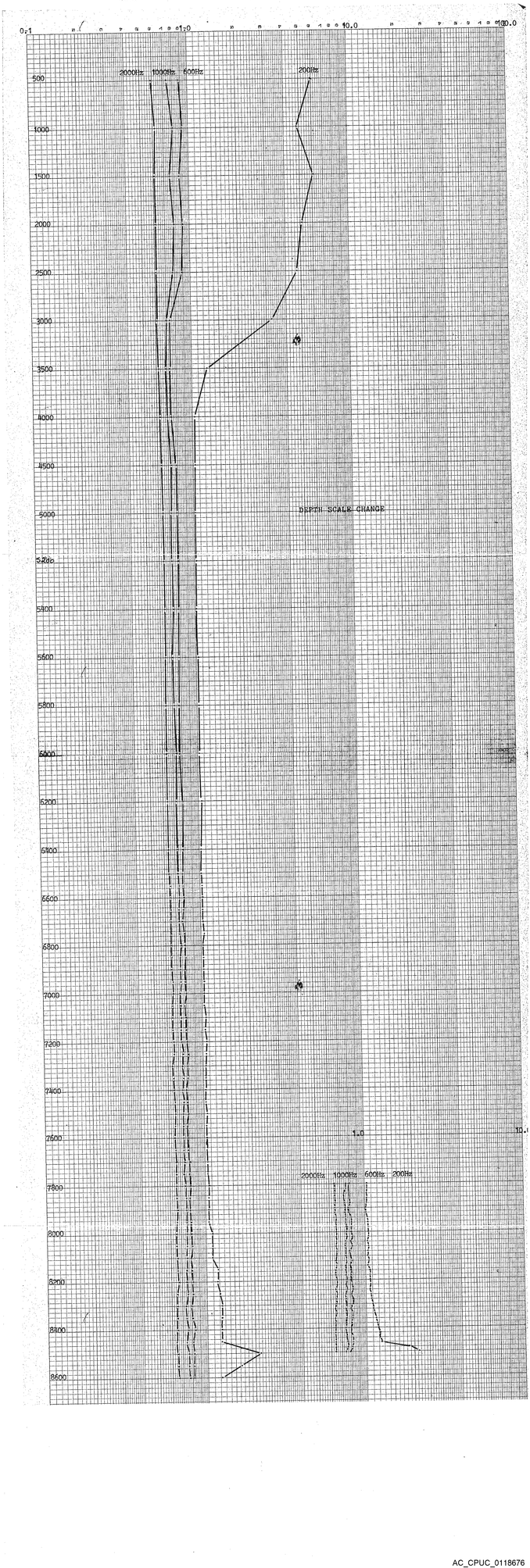
### EQUIPMENT and TEST DATA

| | | | |
|---|---|---|---|
| Run No. | | Truck No. | 1650 |
| Well Status | Shut in | Tool No. | 114 |
| Production — Oil, b/d | 0 | Tool Size | 3/16" |
| Water, b/d | 0 | | |
| Gas, mcf | 0 | | |
| Injection Rate | 0 | | |
| Pressure — TBG. psi | 2900 PSI | | |
| CSG. psi | 0 | | |
| Log Speed — fpm | | | |
| Temp. Sens. °F./inch | | R/A Sens. | |
| Diff. Sens. | | R/A Spacing | |
| T.C. | | | |

**SURVEY RESULTS:** A/A indicates no gas movement

**REMARKS:**

Form 129




AC_CPUC_0118676

# TRIANGLE SERVICE, INC.

AUDIO ANALYZER SURVEY

COMPANY SOUTHERN CALIFORNIA GAS COMPANY

WELL STANDERD 29 FIELD ALISO CANYON

COUNTY L.A. STATE CALIFORNIA

OTHER SERVICES:

ELEVATIONS:
KB.
DF.
GL.

**WELL DATA**

| | | Casing and Tubing Record | | | |
|---|---|---|---|---|---|
| | | Size | Wgt. | From | To |
| Date | 10-3-1980 | | | | |
| Run No. | | | | | |
| Type Log | A/A | 7" | | 0 | 8180' |
| Depth — Drill | | 5" | | 8075' | 8727' |
| Depth — Log (Pick up) | | | | | |
| Bottom Logged Interval | 8600' | | | | |
| Top Logged Interval | 500' | | | | |
| Type Hole Fluid | Gas | Packer @ | | | |
| Fluid Level | | Tbg. Tail to | | | |
| Max. Rec. Temp. °F. | | Perforations | | | |
| Recorded By | Clark-Gilson-Sawyer | | | | |
| Witnessed By | Bob Hazel | Measurement Reference | | | |

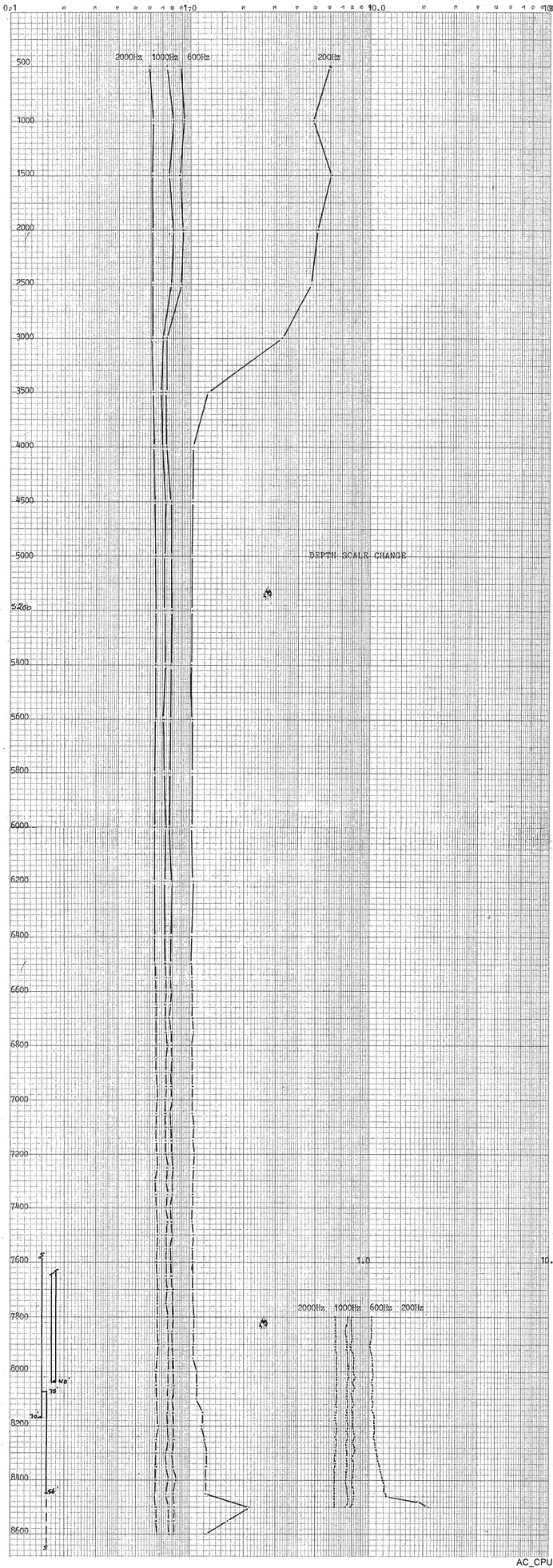
**EQUIPMENT and TEST DATA**

| | | | |
|---|---|---|---|
| Run No. | | Truck No. | 1650 |
| Well Status | Shut in | Tool No. | 114 |
| Production — Oil, b/d | 0 | Tool Size | 3/16" |
| Water, b/d | 0 | | |
| Gas, mcf | 0 | | |
| Injection Rate | 0 | | |
| Pressure — TBG. psi | 2900 PSI | | |
| CSG. psi | 0 | | |
| Log Speed — fpm | | | |
| Temp. Sens. °F./inch | | R/A Sens. | |
| Diff. Sens. | | R/A Spacing | |
| T.C. | | | |

**SURVEY RESULTS:** A/A indicates no gas movement

**REMARKS:**

Form 128




AC_CPUC_0118677

Date of Survey 10-3-80

Type of Survey TEMP & CCL & NOISE

Company So. Cal. Gas

Lease, Well No. SS 29

Field ALISO CANYON

AC_CPUC_0118678

NO. 340D-L310 DIETZGEN GRAPH PAPER
SEMI-LOGARITHMIC
3 CYCLES X 10 DIVISIONS PER INCH

DIETZGEN CORPORATION
MADE IN U.S.A.

SS 29

PAGE 5
10/3/80

5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600

1.0
10.0

NO. 340D-L31D DIETZGEN GRAPH PAPER
SEMI-LOGARITHMIC
3 CYCLES X 10 DIVISIONS PER INCH

DIETZGEN CORPORATION
MADE IN U.S.A.

PAGE 2

10/3/80
SS ZG

3000
3200
3400
3600
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800

1.0
10.0

AC_CPUC_0118680

NO. 340D-L310 DIETZGEN GRAPH PAPER
SEMI-LOGARITHMIC
3 CYCLES X 10 DIVISIONS PER INCH

DIETZGEN CORPORATION
MADE IN U.S.A.

SS 29 PAGE 1

10/3/80

100 Ø

500

1000

1500

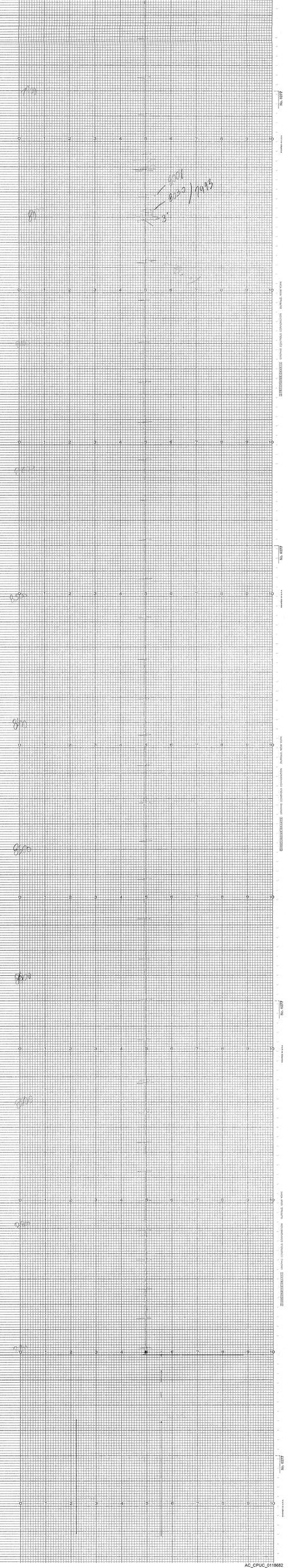
2000

2500

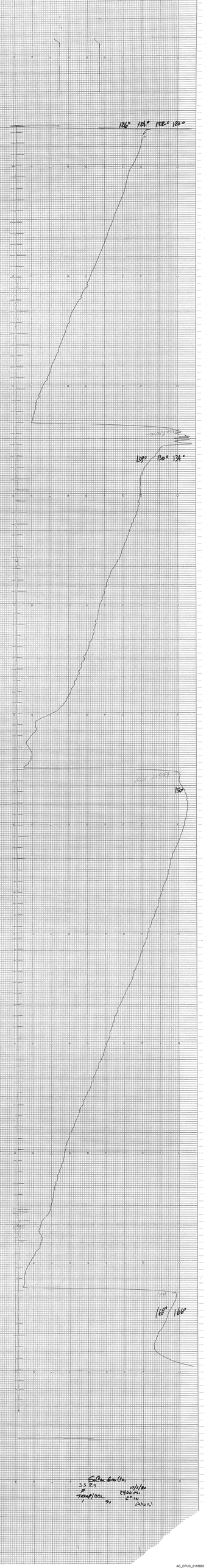
3000

1500 ft/inch

AC_CPUC_0118681



AC_CPUC_0118682




AC_CPUC_0118883

INTEROFFICE CORRESPONDENCE

CALIFORNIA gas COMPANY

TO McCullough Services FROM Kern H. Guppy DATE

SUBJECT Noise Log Program, Well No. SS-29

1. Notify Shift Supervisor that a noise log will be run in the above well. He will inform you if well is ready to be worked on, or he will provide a field operator to take the well out of service.

2. Run a temperature survey:

| from | to | rate |
|---|---|---|
| surface | 8500' | 100'/min. |

3. Run noise log:

| from | to | survey points |
|---|---|---|
| 0 | 5500' | 200' |
| 5500' | 8500' | 20' |

If no noise is found, crack valve to create flow, record and report noise both in zone and inside tubing.

The above program is only a guide. Make more frequent stops as necessary to detail any and all significant changes.

4. Before leaving field, clean up walking/working areas, ladders, grates and upper wing valves. Remaining clean-up to be done as time permits.

5. Before leaving field, notify Shift Supervisor of job completion so that well can be returned to service. Do not return well to service yourself. Do not reconnect or change any part of the safety system.

6. Before doing anything that deviates significantly from program, notify this office.

AC_CPUC_0118684

SOUTHERN CALIFORNIA gas COMPANY

# INTEROFFICE CORRESPONDENCE

TO Triangle Svcs FROM Mahanand Mishra DATE 9/12/80

SUBJECT Noise Log Program, Well No. SS-29

1. Notify Shift Supervisor that a noise log will be run in the above well. He will inform you if well is ready to be worked on, or he will provide a field operator to take the well out of service.

2. Run a temperature survey:

| from | to | rate |
|---|---|---|
| 0' | 8700' | 100'/minute |

3. Run noise log:

| from | to | survey points |
|---|---|---|
| T.D. | 5500' | 50' |
| 5500' | surface at point of noise interference | 100' |

If no noise is found, crack valve to create flow, record and report noise both in zone and inside tubing.

The above program is only a guide. Make more frequent stops as necessary to detail any and all significant changes.

4. Before leaving field, clean up walking/working areas, ladders, grates and upper wing valves. Remaining clean-up to be done as time permits.

5. Before leaving field, notify Shift Supervisor of job completion so that well can be returned to service. Do not return well to service yourself. Do not reconnect or change any part of the safety system.

6. Before doing anything that deviates significantly from program, notify this office.

64-D

AC_CPUC_0118685

SOUTHERN CALIFORNIA gas COMPANY

# INTEROFFICE CORRESPONDENCE

TO Triangle Svcs FROM Mahanand Mishra DATE 9/12/80

SUBJECT Noise Log Program, Well No. SS-29

Done 10-3-80

1. Notify Shift Supervisor that a noise log will be run in the above well. He will inform you if well is ready to be worked on, or he will provide a field operator to take the well out of service.

2. Run a temperature survey:

| from | to | rate |
|---|---|---|
| 0' | 8700' | 100'/minute |

3. Run noise log:

| from | to | survey points |
|---|---|---|
| T.D. | 5500' | 50' |
| 5500' | surface at point of noise interference | 100' |

If no noise is found, crack valve to create flow, record and report noise both in zone and inside tubing.

The above program is only a guide. Make more frequent stops as necessary to detail any and all significant changes.

4. Before leaving field, clean up walking/working areas, ladders, grates and upper wing valves. Remaining clean-up to be done as time permits.

5. Before leaving field, notify Shift Supervisor of job completion so that well can be returned to service. Do not return well to service yourself. Do not reconnect or change any part of the safety system.

6. Before doing anything that deviates significantly from program, notify this office.



AC_CPUC_0118686

# ALISO CANYON SAND TEST

| | | |
|---|---|---|
| WELL: SS-29 | INVENTORY: 48.1 m3 | DATE: 02/18/10 |
| FLOW STRING: Tubing | ESTIMATED RATE: 10 m2 | VERIFIED RATE: 15 m2 |
| TIME ON: 8 10 a | TIME OFF: 2 10 p | TEST HOURS: 6 |

| | | |
|---|---|---|
| SHUT IN PRESSURE (SIWHP) | TUBING: 1644 # | CASING: 1683 # |
| FLOW PRESSURE (FWHP) | UPSTREAM TUBING: 1022 # | DOWNSTREAM TUBING: 478 # |
| FLOW TEMPERATURE (FWHT) | UPSTREAM TUBING: 91° | DOWNSTREAM TUBING: 62° |
| FLOW PRESSURE (FWHP) | UPSTREAM CASING: 1743 # | DOWNSTREAM CASING: N # |
| FLOW TEMPERATURE (FWHT) | UPSTREAM CASING: N | DOWNSTREAM CASING: N |

## TUBING LATERAL

| | | | |
|---|---|---|---|
| CHOKE SIZE: 0.9 " | LATERAL SIZE: 6 " | U.S. TAP: ½ " | D.S. TAP: ½ " |

| PROBE | UPSTREAM #1 | DOWNSTREAM #1 |
|---|---|---|
| NUMBER: | # 3 | # 6 |
| WEIGHT BEFORE: | .7085 | .7566 |
| WEIGHT AFTER: | .7085 | .7566 |
| WEIGHT LOSS: | 0 | 0 |
| EROSION %: | 0 % | 0 % |

## CASING LATERAL

| | | | |
|---|---|---|---|
| CHOKE SIZE: " | LATERAL SIZE: " | U.S. TAP: " | D.S. TAP: " |

| PROBE | UPSTREAM #1 | DOWNSTREAM #1 |
|---|---|---|
| NUMBER: | # | # |
| WEIGHT BEFORE: | | |
| WEIGHT AFTER: | | |
| WEIGHT LOSS: | | |
| EROSION %: | % | % |

NOTES:

MAXIMUM ALLOWED:3"-28%,4"-28%,6"-12%,8"-7%

NAME: J. Cerulle

SAND TEST INFORMATION

| | | |
|---|---|---|
| WELL # 35-29 | INVENTORY: 62.7 $m^3$ | DATE: 2-9-09 |
| FLOW STRING: 1 | ESTIMATED RATE: 15 $m^3$ | VERIFIED RATE: 20 $m^3$ |
| TIME ON: 855 a | TIME OFF: 9-55 p | TEST HOURS: 5 |
| Time on: 1055 a | Time off: 255 p | |
| SHUT-IN PRESS (SIWHP) | TUBING: 2160 | CASING: 2170 |
| FLOW PRESS (FWHP) | U.S. TUBING: 1810 | D.S. TUBING: 510 |
| FLOW TEMP (FWHT) | U.S. TUBING: 84° | D.S. TUBING: 6° |
| FLOW PRESS (FWHP) | U.S. CASING: 2250 | D.S. CASING: |
| FLOW TEMP (FWHT) | U.S. CASING: | D.S. CASING: |

| | | |
|---|---|---|
| | TUBING LATERAL | |
| CHOKE SIZE: .900 | LATERAL SIZE: 6" | U.S.TAP: 1/2" D.S.TAP: 1/2" |

| | UPSTREAM #1 | DOWNSTREAM #1 |
|---|---|---|
| PROBE # | 5 | 8 |
| WEIGHT BEFORE | .7056 | .7913 |
| WEIGHT AFTER | .7061 | .7802 |
| WEIGHT LOSS | .0007 | .0001 |
| EROSION % | 0.7 % | 0.1 % |

| | | |
|---|---|---|
| | CASING LATERAL | |
| CHOKE SIZE: | LATERAL SIZE: | U.S.TAP: D.S.TAP: |

| | UPSTREAM #1 | DOWNSTREAM #1 |
|---|---|---|
| PROBE # | | |
| WEIGHT BEFORE | | |
| WEIGHT AFTER | | |
| WEIGHT LOSS | | |
| EROSION % | | |

NOTES: 5/1 1 hr. due to snow.

MAX. ALLOWED:3"-28%,4"-28%,6"-12%,8"-7% NAME: A. Carrillo

# ALISO CANYON SAND TEST

| | | |
|---|---|---|
| WELL: SS-29 | INVENTORY: 53556.84 m3 | DATE: 2 / 5 / 15 |
| FLOW STRING: T | ESTIMATED RATE: 35 m2 | VERIFIED RATE: 30 m2 |
| TIME ON: 8:35A | TIME OFF: 2:35P | TEST HOURS: 6 |

| | | |
|---|---|---|
| SHUT IN PRESSURE (SIWHP) | TUBING: 1917 # | CASING: 472 # |
| FLOW PRESSURE (FWHP) | UPSTREAM TUBING: 1318 # | DOWNSTREAM TUBING: 500 # |
| FLOW TEMPERATURE (FWHT) | UPSTREAM TUBING: 92° | DOWNSTREAM TUBING: 50° |
| FLOW PRESSURE (FWHP) | UPSTREAM CASING: X # | DOWNSTREAM CASING: X # |
| FLOW TEMPERATURE (FWHT) | UPSTREAM CASING: X | DOWNSTREAM CASING: X |

## TUBING LATERAL

| | | | |
|---|---|---|---|
| CHOKE SIZE: 1.0 " ✓ | LATERAL SIZE: 6 " | U.S. TAP: .75" | D.S. TAP: .75" |

| PROBE | UPSTREAM #1 | DOWNSTREAM #1 |
|---|---|---|
| NUMBER: | # 1 | # 2 |
| WEIGHT BEFORE: | 134.7314 | 134.7074 |
| WEIGHT AFTER: | .7283 | .7057 |
| WEIGHT LOSS: | 31 | 17 |
| EROSION %: | 2.7 % | 1.5 % |

## CASING LATERAL

| | | | |
|---|---|---|---|
| CHOKE SIZE: X " | LATERAL SIZE: X " | U.S. TAP: X " | D.S. TAP: X " |

| PROBE | UPSTREAM #1 | DOWNSTREAM #1 |
|---|---|---|
| NUMBER: | # | # |
| WEIGHT BEFORE: | | |
| WEIGHT AFTER: | | |
| WEIGHT LOSS: | | |
| EROSION %: | % | % |

NOTES: PROBES REMOVED: #1 COATED WITH OIL. #2 COATED WITH OIL

NO VISIBLE SIGNS OF EROSION ON PROBES

CHEMICAL ~~SAND~~ OFF

MAXIMUM ALLOWED:3"-28%,4"-28%,6"-12%,8"-7%

NAME:

SAND TEST INFORMATION

| | | |
|---|---|---|
| WELL # 5529 | INVENTORY: 78.558 | DATE: 9-16-2010 |
| FLOW STRING: T | ESTIMATED RATE: 10 | VERIFIED RATE: 15 |
| TIME ON: 9:00 AM | TIME OFF: 3:00 PM | TEST HOURS: 6 |
| | | |
| SHUT-IN PRESS (SIWHP) | TUBING: 2568 | CASING: 2480 |
| FLOW PRESS (FWHP) | U.S. TUBING: 2026 | D.S. TUBING: 500 |
| FLOW TEMP (FWHT) | U.S. TUBING: 37 | D.S. TUBING: 92 |
| FLOW PRESS (FWHP) | U.S. CASING: 2555 | D.S. CASING: |
| FLOW TEMP (FWHT) | U.S. CASING: | D.S. CASING: |

| | | |
|---|---|---|
| | TUBING LATERAL | |
| CHOKE SIZE: .9 | LATERAL SIZE: 6 | U.S.TAP: .5 D.S.TAP: .5 |

| | UPSTREAM #1 | DOWNSTREAM #1 |
|---|---|---|
| PROBE # | 1 | 2 |
| WEIGHT BEFORE | 7040 | 6471 |
| WEIGHT AFTER | 7040 | 6471 |
| WEIGHT LOSS | 0 | 0 |
| EROSION % | 0 | 0 |

| | | |
|---|---|---|
| | CASING LATERAL | |
| CHOKE SIZE: | LATERAL SIZE: | U.S.TAP: D.S.TAP: |

| | UPSTREAM #1 | DOWNSTREAM #1 |
|---|---|---|
| PROBE # | | |
| WEIGHT BEFORE | | |
| WEIGHT AFTER | | |
| WEIGHT LOSS | | |
| EROSION % | | |

| | |
|---|---|
| NOTES: | |
| | |
| | |
| | |
| MAX. ALLOWED:3"-28%,4"-28%,6"-12%,8"-7% | NAME: Alarcon |