

STATE CORPORATION COMMISSION OF KANSAS
OIL & GAS CONSERVATION DIVISION
WELL COMPLETION FORM
ACO-1 WELL HISTORY
DESCRIPTION OF WELL AND LEASE

Operator: License # 4549

Name: ANADARKO PETROLEUM CORPORATION

Address P. O. BOX 351

City/State/Zip LIBERAL, KANSAS 67905-0351

Purchaser: ANADARKO ENERGY SERVICES

Operator Contact Person: DAVID W. KAPPLE

Phone (316) 624-6253

Contractor: Name: CHEYENNE DRILLING

License: 5382

Wellsite Geologist: _____

Designate Type of Completion

New Well Re-Entry Workover

Oil SWD SIOW Temp. Abd.

Gas ENHR SIGW

Dry Other (Core, WSW, Expl., Cathodic, etc)

If Workover:

Operator: _____

Well Name: _____

Comp. Date _____ Old Total Depth _____

Deepening Re-perf. Conv. to Inj/SWD

Plug Back PBTB

Commingled Docket No. _____

Dual Completion Docket No. _____

Other (SWD or Inj?) Docket No. _____

6-9-97 6-20-97 7-24-97

Spud Date Date Reached TD Completion Date

API NO. 15- 175-21633 - 0000

County SEWARD

NW - SE - NW - NE Sec. 34 Twp. 33 Rge. 34 X E W

800 Feet from N/X (circle one) Line of Section

1700 Feet from E/X (circle one) Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE, SE, NW or SW (circle one)

Lease Name MALIN "A" Well # 4

Field Name SHUCK

Producing Formation L. MORROW

Elevation: Ground 2917.0 KB _____

Total Depth 6500 PBTB 6100

Amount of Surface Pipe Set and Cemented at 1667 Feet

Multiple Stage Cementing Collar Used? _____ Yes X No

If yes, show depth set _____ Feet

If Alternate II completion, cement circulated from _____

feet depth to _____ w/ _____ sx cmt.

Drilling Fluid Management Plan AA-1, 4-9-98 U.C.
(Data must be collected from the Reserve Pit)

Chloride content 1300 ppm Fluid volume 700 bbls

Dewatering method used DRY, BACKFILL & RESTORE LOCATION.

Location of fluid disposal if hauled offsite: _____

Operator Name _____

Lease Name _____ License No. _____

_____ Quarter Sec. _____ Twp. _____ S Rng. _____ E/W

County _____ Docket No. _____

RECEIVED
KANSAS CORP. COMM
1997 OCT - 02 P. 12: 18

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information on side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

All requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Signature L. Marc Harvey

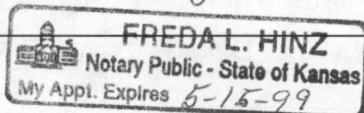
L. MARC HARVEY

Title DRILLING TECHNICAL ASSISTANT Date 10-6-97

Subscribed and sworn to before me this 6th day of October 1997.

Notary Public Freda L. Hinz

Date Commission Expires _____



K.C.C. OFFICE USE ONLY
F Letter of Confidentiality Attached
C Wireline Log Received
C Geologist Report Received
Distribution
 KCC SWD/Rep NGPA
 KGS Plug Other
(Specify)

Operator Name ANADARKO PETROLEUM CORPORATION Lease Name MALIN "A" Well # 4

Sec. 34 Twp. 33 Rge. 34 East County SEWARD
 West

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all drill stem tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface during test. Attach extra sheet if more space is needed. Attach copy of log.

Drill Stem Tests Taken Yes No
 (Attach Additional Sheets.)

Samples Sent to Geological Survey Yes No

Cores Taken Yes No

Electric Log Run Yes No
 (Submit Copy.)

List All E.Logs Run: SBT-CCL-GR, DIL, ML, CNL-LDT, SONIC.

CORE DESCRIPTION ATTACHED.

Log Formation (Top), Depth and Datums Sample

| Name | Top | Datum |
|----------------|------|-------|
| CHASE | 2626 | |
| COUNCIL GROVE | 2944 | |
| HEEBNER | 4258 | |
| TORONTO | 4271 | |
| LANSING | 4382 | |
| MARMATON | 5080 | |
| CHEROKEE | 5316 | |
| MORROW | 5700 | |
| CHESTER | 5988 | |
| STE. GENEVIEVE | 6378 | |
| ST. LOUIS | 6395 | |

CASING RECORD

New Used
 Report all strings set-conductor, surface, intermediate, production, etc.

| Purpose of String | Size Hole Drilled | Size Casing Set (In O.D.) | Weight Lbs./Ft. | Setting Depth | Type of Cement | # Sacks Used | Type and Percent Additives |
|-------------------|-------------------|---------------------------|-----------------|---------------|--------------------|--------------|--|
| SURFACE | 12-1/4" | 8-5/8" | 23.0 | 1667 | P+ MIDCON 2/ P+ | 330/100 | 3%CC, 1/4#SK FLC/ 2%CC, 1/4#SK FLC. |
| PRODUCTION | 7-7/8" | 5-1/2" | 15.5 | 6457 | VERSASET | 50/195 | .6% HALAD 322, 5% KCL, .9% VERSASET, 1/4#SK FLC/SAME |

ADDITIONAL CEMENTING/SQUEEZE RECORD

| Purpose: ___ Perforate ___ Protect Casing ___ Plug Back TD ___ Plug Off Zone | Depth | | Type of Cement | #Sacks Used | Type and Percent Additives |
|--|-------|--------|----------------|-------------|----------------------------|
| | Top | Bottom | | | |
| | | | | | |

| Shots Per Foot | PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated | | Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used) Depth | |
|----------------|---|-------------------------|---|-------|
| | 3 | 6300-6308, CIBP @ 6100. | | NONE. |
| 2 | 5957-5974. | | ACID: 850 GAL 7 1/2% FeHCL. 5957-5974 FRAC: 33000 GAL FMD GEL & 105500# 16/30 SD 5957-5974 | |

| TUBING RECORD | Size | Set At | Packer At | Liner Run <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
|---------------|------|--------|-----------|---|
| | | | | |

Date of First, Resumed Production, SWD or Inj. 8-21-97 Producing Method Flowing Pumping Gas Lift Other (Explain)

| Estimated Production Per 24 Hours | Oil Bbls. | Gas Mcf | Water Bbls. | Gas-Oil Ratio | Gravity |
|-----------------------------------|-----------|---------|-------------|---------------|---------|
| | | 1408 | 2 | | |

Disposition of Gas: Vented Sold Used on Lease (If vented, submit ACO-18.) METHOD OF COMPLETION Open Hole Perf. Dually Comp. Commingled Production Interval 5957-5974
 Other (Specify) _____

ORIGINAL

Table 1

CONVENTIONAL CORE ANALYSIS

Anadarko Petroleum Corporation
 Malin "A" No. 4 Well
 Seward County, Kansas
 SRS 2364/RSR 3680

Core 1.

Depth Interval: 6272.0-6330.0 ft.

| Sample | Depth (ft.) | Porosity (%BV) | Permeability to gas (md) | Grain Density (g/cc) | Saturation (%PV) | | | Lithological Description |
|--------|-------------|-------------------|-----------------------------|----------------------------|------------------|------|------|--|
| | | | | | Water | Oil | Gas | |
| S 296 | 6295.0 | 0.4 | 0.002 | 2.73 | 87.8 | 3.8 | 8.4 | Ls gry vdns Calc incl Sh incl vfoss |
| S 297 | 6295.5 | 7.2 | ** | 2.74 | 90.4 | 0.5 | 9.1 | Ls gry vshly sdy Calc incl vfoss |
| S 298 | 6296.3 | 0.6 | 0.001 | 2.70 | 91.8 | 2.4 | 5.9 | Ls lt gry vdns sdy Calc incl Sh incl vfoss |
| S 299 | 6296.6 | 1.0 | 0.003 | 2.70 | 92.7 | 2.8 | 4.6 | Ls lt gry vdns sli sdy Calc incl lge Sh incl |
| S 300 | 6297.3 | 1.7 | 0.709 | 2.70 | 92.1 | 1.7 | 6.2 | Ls lt gry dns Calc incl lg Sh incl tr pyr |
| S 301 | 6297.6 | 2.1 | 0.386 | 2.70 | 91.7 | 1.5 | 6.8 | Ls lt gry dns Calc incl sdy Sh lams |
| S 302 | 6298.1 | 1.0 | 0.001 | 2.71 | 95.4 | 1.3 | 3.4 | Ls lt gry dns Calc incl vfoss thn Sh lams |
| S 303 | 6298.5 | 2.2 | 0.354 | 2.71 | 94.6 | 1.9 | 3.5 | Ls lt gry dns Calc incl vfoss Sh lams |
| S 304 | 6299.1 | 3.1 | 0.084 | 2.71 | 89.9 | 0.9 | 9.2 | Ls lt gry dns Calc incl vfoss sdy thn Sh lams |
| S 305 | 6299.4 | 2.5 | 0.033 | 2.71 | 90.2 | 2.7 | 7.1 | Ls lt gry dns Calc incl vfoss sdy Sh lams |
| S 306 | 6300.1 | 6.3 | 0.039 | 2.72 | 88.8 | 2.8 | 8.3 | Sst lt gry vf gr f-mgr I.P. wvl consol, Ls I.P. thk Sh incl |
| S 307 | 6300.5 | 13.1 | 0.116 | 2.73 | 88.6 | 1.0 | 10.4 | Sst lt gry vf gr f-mgr I.P. wvl consol, Ls I.P. thk Sh incl |
| S 308 | 6301.1 | 11.4 | 0.469 | 2.73 | 83.1 | 2.0 | 14.9 | Sst lt gry vf gr f-mgr I.P. wvl consol Calc incl thk Sh lams |
| S 309 | 6301.5 | 10.4 | ** | 2.72 | 78.4 | 2.5 | 21.1 | Sst lt gry vf gr f-mgr I.P. wvl consol Calc incl thk Sh lams |
| S 310 | 6302.1 | 12.0 | 66.0 | 2.68 | 54.9 | 6.3 | 38.8 | Sst lt gry f gr wvl consol Calc incl Sh incl |
| S 311 | 6302.5 | 15.1 | 222.0 | 2.67 | 49.2 | 13.2 | 37.6 | Sst lt gry f gr wvl consol sml Calc incl Sh incl |
| S 312 | 6303.1 | 8.1 | 6.40 | 2.72 | 67.0 | 0.7 | 32.3 | Sst lt gry f gr wvl consol sml Calc incl Sh incl |
| S 313 | 6303.5 | 6.3 | 0.415 | 2.74 | 60.0 | 3.3 | 36.6 | Sst lt gry f gr wvl consol sml Calc incl Sh incl |
| S 314 | 6304.1 | 6.5 | 0.481 | 2.74 | 62.2 | 1.5 | 36.3 | Sst lt gry vf-f gr wvl consol sml Calc incl sml Sh incl |
| S 315 | 6304.4 | 6.8 | 0.631 | 2.74 | 63.4 | 1.6 | 35.0 | Sst yel gry vf-f gr wvl consol sml Sh incl tr Glauc |
| S 316 | 6305.1 | 6.8 | 0.839 | 2.74 | 61.5 | 2.3 | 36.2 | Sst yel gry vf-f gr wvl consol sml Sh incl tr Gyp |
| S 317 | 6305.5 | 6.7 | 0.773 | 2.74 | 58.9 | 0.8 | 40.2 | Sst yel gry vf-f gr wvl consol sml Sh incl tr Gyp |
| S 318 | 6306.1 | 9.7 | 18.1 | 2.73 | 65.1 | 7.5 | 27.4 | Sst yel gry vf-f gr wvl consol sml Sh incl tr Gyp |
| S 319 | 6306.5 | 20.3 | 778.0 | 2.65 | 49.5 | 18.8 | 31.7 | Sst yel gry f-m gr wvl consol Sh lam tr Gyp |
| S 320 | 6307.0 | 21.3 | 864.0 | 2.64 | 48.2 | 18.7 | 33.1 | Sst yel gry f-m gr wvl consol thn Sh incl tr Gyp |
| S 321 | 6307.5 | 21.9 | 987.0 | 2.63 | 52.6 | 16.6 | 30.8 | Sst yel gry f-m gr wvl consol thn Sh incl tr Gyp |

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15-195-21633-0000

Table 1 (Continued)

CONVENTIONAL CORE ANALYSIS

Anadarko Petroleum Corporation
 Malin "A" No. 4 Well
 Seward County, Kansas
 SRS 2364/RSR 3680

ORIGINAL

Core 1
 Depth Interval: 6272.0-6330.0 ft.

| Sample | Depth (ft.) | Porosity (%BV) | Permeability to gas (md) | Grain Density (g/cc) | Saturation (%PV) | | | Lithological Description |
|--------|-------------|----------------|--------------------------|----------------------|------------------|------|------|--|
| | | | | | Water | Oil | Gas | |
| S 322 | 6308.0 | 21.6 | 979.0 | 2.64 | 49.1 | 18.3 | 32.7 | Sst yel gry f-m gr wl consol thn Sh incl tr Gyp |
| S 323 | 6308.5 | 17.2 | 343.0 | 2.67 | 58.0 | 14.1 | 27.8 | Sst yel gry f-m gr wl consol thn Sh incl tr Gyp |
| S 324 | 6309.1 | 12.0 | 17.3 | 2.72 | 78.4 | 2.3 | 19.3 | Sst yel gry f-m gr wl consol lge Sh lams tr Gyp |
| S 325 | 6309.5 | 14.6 | 70.4 | 2.72 | 82.5 | 2.9 | 14.6 | Sst yel gry f-m gr wl consol lge Sh lams tr Gyp |
| S 326 | 6310.1 | 16.2 | 274.0 | 2.69 | 77.2 | 5.0 | 17.7 | Sst yel gry vf-f gr wl consol thn Sh lams tr Gyp |
| S 327 | 6310.5 | 18.1 | 437.0 | 2.68 | 78.8 | 6.2 | 15.1 | Sst yel gry vf-f gr wl consol thn Sh lams tr Gyp |
| S 328 | 6311.1 | 18.4 | 520.0 | 2.68 | 83.9 | 3.3 | 12.8 | Sst yel gry vf-f gr wl consol thn Sh lams tr Gyp |
| S 329 | 6311.6 | 17.9 | 459.0 | 2.70 | 82.2 | 3.0 | 14.9 | Sst yel gry f-m gr wl consol thn Sh lams lge qtz incl tr Gyp |
| S 330 | 6312.0 | 18.2 | 267.0 | 2.75 | 84.6 | 1.9 | 13.4 | Sst yel gry f-m gr wl consol thn Sh lams lge qtz incl tr Gyp |
| S 331 | 6312.5 | 18.4 | 784.0 | 2.65 | 87.7 | 2.6 | 9.7 | Sst yel gry f-m gr wl consol Sh lams tr Gyp |
| S 332 | 6313.0 | 16.4 | 76.4 | 2.72 | 85.6 | 2.5 | 12.0 | Sst yel gry f-m gr wl consol Sh incl tr Gyp |
| S 333 | 6313.6 | 17.2 | 260.0 | 2.65 | 87.0 | 0.8 | 12.3 | Sst yel gry f-m gr wl consol tr Gyp |
| S 334 | 6314.0 | 17.0 | 227.0 | 2.65 | 93.9 | 0.2 | 6.0 | Sst yel gry vf-f gr vwl consol sml Sh incl |
| S 335 | 6314.5 | 16.8 | 185.0 | 2.67 | 90.0 | 0.3 | 9.7 | Sst yel gry vf-f gr vwl consol Sh incl tr Gyp vug |
| S 336 | 6315.1 | 9.5 | 2.47 | 2.73 | 92.9 | 1.5 | 5.7 | Sst yel gry vf-f gr vwl consol Sh lams tr Gyp |
| S 337 | 6315.5 | 9.6 | 1.74 | 2.73 | 91.9 | 1.2 | 6.9 | Sst gry vf gr vwl consol Sh lams tr Gyp |
| S 338 | 6316.0 | 9.6 | 1.75 | 2.72 | 90.6 | 2.2 | 7.2 | Sst gry vf gr vwl consol Sh lams Calc tr Gyp |
| S 339 | 6316.5 | 8.5 | 82.5 | 2.66 | 90.0 | 0.7 | 9.4 | Sst lt gry vf gr vwl consol Calc sml Sh incl |
| S 340 | 6317.0 | 8.5 | 0.462 | 2.71 | 89.8 | 0.9 | 9.3 | Sst lt gry vf-f gr vwl consol sli Calc Sh incl |
| S 341 | 6317.5 | 5.3 | 1.71 | 2.71 | 87.2 | 3.2 | 9.6 | Sst lt gry vf-f gr vwl consol sli Calc Sh incl |
| S 342 | 6318.0 | 7.8 | 1.30 | 2.67 | 92.0 | 1.8 | 6.2 | Sst lt gry vf-f gr vwl consol sli Calc Sh incl |
| S 343 | 6318.5 | 7.9 | 1.08 | 2.68 | 92.6 | 1.1 | 6.3 | Sst lt gry vf-f gr vwl consol sli Calc Sh incl |

** Denotes broken and/or non-cylindrical sample. Permeability to gas indeterminable.



JOB SUMMARY 4239-1

TICKET # **184342** TICKET DATE **6/10/97**

| | | | |
|--------------------------------|------------------------------------|---------------------------------|-------------------------|
| REGION North America | NWA/COUNTRY Midcont | BDA / STATE Ks. | COUNTY Sevier |
| MBU ID / EMP # | EMPLOYEE NAME J. Woodrow | PSL DEPARTMENT Cement | |
| LOCATION Malin A-4 | COMPANY 34-T335-R3110 | CUSTOMER REP / PHONE | |
| TICKET AMOUNT | WELL TYPE Perm. Comp | API / UWI # | |
| WELL LOCATION | DEPARTMENT | JOB PURPOSE CODE 010 | ORIGINAL |
| LEASE / WELL # | SEC / TWP / RNG | | |

| HES EMP NAME/EMP#/(EXPOSURE HOURS) | HRS | HES EMP NAME/EMP#/(EXPOSURE HOURS) | HRS | HES EMP NAME/EMP#/(EXPOSURE HOURS) | HRS | HES EMP NAME/EMP#/(EXPOSURE HOURS) | HRS |
|------------------------------------|-----|------------------------------------|-----|------------------------------------|-----|------------------------------------|-----|
| E. Chance H3456 | | | | | | | |
| S. Telford H4817 | | | | | | | |
| L. P. H876 | | | | | | | |

| HES UNIT NUMBERS | R/T MILES | HES UNIT NUMBERS | R/T MILES | HES UNIT NUMBERS | R/T MILES | HES UNIT NUMBERS | R/T MILES |
|------------------|------------|------------------|-----------|------------------|-----------|------------------|-----------|
| 42000 | 110 | 20 | | | | | |
| 53341 | 117 | 20 | | | | | |
| 415173 | 217 | 30 | | | | | |
| 500717507 | 317 | 30 | | | | | |

Form Name _____ Type: _____
 Form Thickness _____ From _____ To _____
 Packer Type _____ Set At _____
 Bottom Hole Temp. _____ Pressure _____
 Misc. Data _____ Total Depth _____

| DATE | CALLED OUT | ON LOCATION | JOB STARTED | JOB COMPLETED |
|------|----------------|----------------|----------------|----------------|
| | 6-10-97 | 6-10-97 | 6-10-97 | 6-10-97 |
| TIME | 630 | 930 | | |

TOOLS AND ACCESSORIES

| TYPE AND SIZE | QTY | MAKE |
|---------------------------------|----------|-----------|
| Float Collar 1 1/2" 85/8 | 1 | HA |
| Float Shoe | | |
| Guide Shoe 85/8 | 1 | A |
| Centralizers 85/8 | 4 | L |
| Bottom Plug | | |
| Top Plug 85/8 50 | 1 | C |
| Head | | |
| Packer | | |
| Other BASKET | 1 | D |

WELL DATA

| | NEW/USED | WEIGHT | SIZE | FROM | TO | MAX ALLOW |
|--------------|------------|------------|--------------|-----------|-------------|-----------|
| Casing | NEW | 235 | 8 5/8 | KB | 1127 | |
| Liner | | | | | | |
| Liner | | | | | | |
| Tbg/D.P. | | | | | | |
| Tbg/D.P. | | | | | | |
| Open Hole | | | | | | SHOTS/FT. |
| Perforations | | | | | | |
| Perforations | | | | | | |
| Perforations | | | | | | |

MATERIALS

| | | |
|----------------------|---------------|--------------|
| Treat Fluid _____ | Density _____ | Lb/Gal _____ |
| Disp. Fluid _____ | Density _____ | Lb/Gal _____ |
| Prop. Type _____ | Size _____ | Lb. _____ |
| Prop. Type _____ | Size _____ | Lb. _____ |
| Acid Type _____ | Gal. _____ | % _____ |
| Acid Type _____ | Gal. _____ | % _____ |
| Surfactant _____ | Gal. _____ | In _____ |
| NE Agent _____ | Gal. _____ | In _____ |
| Fluid Loss _____ | Gal/Lb _____ | In _____ |
| Gelling Agent _____ | Gal/Lb _____ | In _____ |
| Fric. Red. _____ | Gal/Lb _____ | In _____ |
| Breaker _____ | Gal/Lb _____ | In _____ |
| Blocking Agent _____ | Gal/Lb _____ | Qty. _____ |
| Perfpac Balls _____ | Qty. _____ | |
| Other _____ | | |
| Other _____ | | |
| Other _____ | | |
| Other _____ | | |

| HOURS ON LOCATION | | OPERATING HOURS | | DESCRIPTION OF JOB |
|-------------------|-------|-----------------|-------|---|
| DATE | HOURS | DATE | HOURS | |
| | | | | RECEIVED FROM 6-10-97 D. B. B. |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| TOTAL | | TOTAL | | |

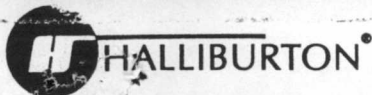
HYDRAULIC HORSEPOWER
 Avail. _____ Used _____
AVERAGE RATES IN BPM
 Disp. _____ Overall _____
CEMENT LEFT IN PIPE
 Reason **SHOT POINT**

CEMENT DATA

| STAGE | SACKS | CEMENT | BULK/SKS | ADDITIVES | YIELD | LBS/GAL |
|----------|------------|-------------------|----------|--------------------------------|-------------|-------------|
| 1 | 230 | PT Midcont | B | 30% CC, 1/4" # 100 mesh | 3.22 | 14.8 |
| 2 | 100 | Phonix | B | 20% CC, 1/4" # 100 mesh | 1.32 | 14.8 |

| | | | |
|------------------------|--------------------------|-----------------------------------|-----------------------|
| Circulating _____ | Displacement _____ | Preflush: Gal - BBI _____ | Type _____ |
| Breakdown _____ | Maximum _____ | Load & Bkdn: Gal - BBI _____ | Pad: BBI - Gal _____ |
| Average _____ | Frac Gradient _____ | Treatment Gal - BBI _____ | Disp: BBI - Gal _____ |
| Shut In: Instant _____ | 5 Min _____ 15 Min _____ | Cement Slurr Gal - BBI 105 | |
| | | Total Volume Gal - BBI 213 | |

Frac Ring #1 _____ Frac Ring #2 _____ Frac Ring #3 _____ Frac Ring #4 _____
THE INFORMATION STATED HEREIN IS CORRECT
 CUSTOMER'S REPRESENTATIVE SIGNATURE **Steve Anderson**



JOB LOG 4239-5

| | |
|----------------------|-------------|
| TICKET # | TICKET DATE |
| BDA / STATE | COUNTY |
| PSL DEPARTMENT | |
| CUSTOMER REP / PHONE | |
| API / UWI # | |
| JOB PURPOSE CODE | |

| | |
|-------------------------|-----------------|
| REGION North America | NWA/COUNTRY |
| MBU ID / EMP # | EMPLOYEE NAME |
| LOCATION | COMPANY |
| TICKET AMOUNT | WELL TYPE |
| WELL LOCATION | DEPARTMENT |
| LEASE / WELL # | SEC / TWP / RNG |

ORIGINAL

| | | | |
|---|---|---|---|
| HES EMP NAME/EMP#/(EXPOSURE HOURS) :HRS | HES EMP NAME/EMP#/(EXPOSURE HOURS) :HRS | HES EMP NAME/EMP#/(EXPOSURE HOURS) :HRS | HES EMP NAME/EMP#/(EXPOSURE HOURS) :HRS |
| | | | |
| | | | |

| CHART NO. | TIME | RATE (BPM) | VOLUME (BBL)(GAL) | PUMPS | | PRESS. (psi) | | JOB DESCRIPTION / REMARKS |
|-----------|------------------|------------|-------------------|-------|---|--------------|-----|--|
| | | | | T | C | Tbg | Csg | |
| | 6:30 | | | | | | | Call out |
| | 9:30 | | | | | | | on loc. Rig up Iron (Rig pull in drill pipe) |
| | 11:00 | | | | | | | out of hole. Drill pipe |
| | 11:18 | | | | | | | START Running 8 5/8 casing; float flow |
| | 12:00 | | | | | | | Casing in bottom 1192' |
| | 12:05 | | | | | | | Hook up 8 5/8 P.C. + Circ. IRON |
| | 12:15 | | | | | | | START Circ - Rig Pump |
| | 12:16 | | | | | | | Hold Safety meeting |
| | 12:25 | | | | | | | THRU CIRC. Hook up P/T |
| | 12:28 | 7.9 | 184 | | | 9200 | | START running 330 @ 11.1# o.c. |
| | 12:52 | 7.0 | 235 | | | 7750 | | " " 100 @ 14.8# " |
| | | | 201 | | | 0 | | THRU MIXING SHUT DOWN |
| | | | | | | | | Release Plug START TEST |
| | | | | | | | | HAVE 30 BALLS OUT HAVE GOOD CMV RETURNS TO SURFACE |
| | | | | | | 340 | | MAY LEFT PRESSURE BEFORE LANDING PLUG |
| | 13:15 | | 105 | | | 57/750 | | PLUG DOWN/ RELEASE PLUG |
| | | | | | | | | PLUG HIGH |
| | | | | | | | | (CIRCUMED 25 BALLS 43 SKS TO PIT) |
| | | | | | | | | THANK YOU! FOR CALLING HALLIBURTON |
| | | | | | | | | Woody + Todd |

[Handwritten signature]

| | | | |
|----------------|---------------|-----------------|------------|
| TICKET # | 235734 | TICKET DATE | 6-21-97 |
| REGION | North America | NWA/COUNTRY | USA |
| MBU ID / EMP # | L10103 F4550 | EMPLOYEE NAME | Tyce Davis |
| LOCATION | Liberia | COMPANY | Amstar |
| TICKET AMOUNT | | WELL TYPE | 02 |
| WELL LOCATION | Land | DEPARTMENT | CMT |
| LEASE / WELL # | Malin A-4 | SEC / TWP / RNG | 34-33-34 |

| HES EMP NAME/EMP#/(EXPOSURE HOURS) | HRS | HES EMP NAME/EMP#/(EXPOSURE HOURS) | HRS | HES EMP NAME/EMP#/(EXPOSURE HOURS) | HRS | HES EMP NAME/EMP#/(EXPOSURE HOURS) | HRS |
|------------------------------------|-------|------------------------------------|-----|------------------------------------|-----|------------------------------------|-----|
| J. Woodrow | 62573 | | | | | | |
| N. Terfe | 69948 | | | | | | |
| T. Arpiano | 70527 | | | | | | |

| HES UNIT NUMBERS | R/T MILES | HES UNIT NUMBERS | R/T MILES | HES UNIT NUMBERS | R/T MILES | HES UNIT NUMBERS | R/T MILES |
|------------------|-----------|------------------|-----------|------------------|-----------|------------------|-----------|
| 53554-76900 | 10 | | | | | | |
| 50404-6010 | 60 | | | | | | |
| 420042 P.V. | 10 | | | | | | |

ORIGINAL

Form Name _____ Type: _____
 Form Thickness _____ From _____ To _____
 Packer Type _____ Set At _____
 Bottom Hole Temp. _____ Pressure _____
 Misc. Data _____ Total Depth _____

| DATE | CALLED OUT | ON LOCATION | JOB STARTED | JOB COMPLETED |
|---------|------------|-------------|-------------|---------------|
| 6-21-97 | 0530 | 0945 | 1419 | 1500 |

TOOLS AND ACCESSORIES

| TYPE AND SIZE | QTY | MAKE |
|-------------------------------------|-----|------|
| Float Gollar INSAL 5 1/2 | 1 | |
| Float Shoe Fill | 1 | |
| Guide Shoe Rcy | 1 | |
| Centralizers 54 | 14 | |
| Bottom Plug | | |
| Top Plug 5w | 1 | |
| Head P.C. | 1 | |
| Packer | | |
| Other | | |

WELL DATA

| | NEW/USED | WEIGHT | SIZE | FROM | TO | MAX ALLOW |
|--------------|----------|--------|-------|------|------|-----------|
| Casing | N | 15.5 | 5 1/2 | KB | 6457 | |
| Liner | | | | | | |
| Liner | | | | | | |
| Tbg/D.P. | | | | | | |
| Tbg/D.P. | | | | | | |
| Open Hole | | | | | | SHOTS/FT. |
| Perforations | | | | | | |
| Perforations | | | | | | |
| Perforations | | | | | | |

MATERIALS

| Treat Fluid | Density | Lb/Gal |
|----------------|---------|--------|
| Disp. Fluid | Density | Lb/Gal |
| Prop. Type | Size | Lb. |
| Prop. Type | Size | Lb. |
| Acid Type | Gal. | % |
| Acid Type | Gal. | % |
| Surfactant | Gal. | In |
| NE Agent | Gal. | In |
| Fluid Loss | Gal/Lb | In |
| Gelling Agent | Gal/Lb | In |
| Fric. Red. | Gal/Lb | In |
| Breaker | Gal/Lb | In |
| Blocking Agent | Gal/Lb | |
| Perfpac Balls | Qty. | |
| Other | | |
| Other | | |
| Other | | |
| Other | | |

| HOURS ON LOCATION | | OPERATING HOURS | | DESCRIPTION OF JOB |
|-------------------|-------|-----------------|-------|--------------------|
| DATE | HOURS | DATE | HOURS | |
| | | | | CMT |
| | | | | 5 1/2 |
| | | | | L.S. |
| TOTAL | | TOTAL | | |

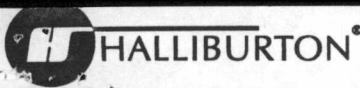
| | | |
|---------|----------------------|------------|
| ORDERED | HYDRAULIC HORSEPOWER | Used |
| | Avail. | |
| TREATED | AVERAGE RATES IN BPM | Overall |
| | Disp. | |
| FEET | CEMENT LEFT IN PIPE | Reason |
| 43 | | Shoe Joint |

CEMENT DATA

| STAGE | SACKS | CEMENT | BULK/SKS | ADDITIVES | YIELD | LBS/GAL |
|-------|-------|--------|----------|--|-------|---------|
| 1 | 50 | PRPM | B. | .9% URS, 5% KCL, 6% H9146 222 1/4" F10 | 2.96 | 11.1 |
| 1 | 195 | | B. | | 1.41 | 14.5 |

| | | | | | |
|------------------|---------------|--------------|-------------|-------|---------------|
| Circulating | Displacement | Preflush: | Gal - BB 26 | Type | H2O SF |
| Breakdown | Maximum | Load & Bkdn: | Gal - BBI | Pad: | BBI - Gal |
| Average | Frac Gradient | Treatment | Gal - BBI | Disp: | BBI Gal 152.5 |
| Shut In: Instant | 5 Min | Cement Slurr | Gal - BB | | 497.1 |
| | 15 Min | Total Volume | Gal - BBI | | |

| | | | |
|--|--------------|-------------------------------------|--------------|
| Frac Ring #1 | Frac Ring #2 | Frac Ring #3 | Frac Ring #4 |
| THE INFORMATION STATED HEREIN IS CORRECT | | CUSTOMER'S REPRESENTATIVE SIGNATURE | |
| | | D. J. A. Turk | |



JOB LOG 4239-5

| | |
|----------------------|-------------|
| TICKET # | TICKET DATE |
| BDA / STATE | COUNTY |
| PSL DEPARTMENT | |
| CUSTOMER REP / PHONE | |
| API / UWI # | |
| JOB PURPOSE CODE | |

| | |
|-------------------------|-----------------|
| REGION North America | NWA/COUNTRY |
| MBU ID / EMP # | EMPLOYEE NAME |
| LOCATION | COMPANY |
| TICKET AMOUNT | WELL TYPE |
| WELL LOCATION | DEPARTMENT |
| LEASE / WELL # | SEC / TWP / RNG |

| | | | |
|--|--|--|--|
| HES EMP NAME/EMP#/(EXPOSURE HOURS) HRS | HES EMP NAME/EMP#/(EXPOSURE HOURS) HRS | HES EMP NAME/EMP#/(EXPOSURE HOURS) HRS | HES EMP NAME/EMP#/(EXPOSURE HOURS) HRS |
| | | | |
| | | | |

ORIGINAL

| CHART NO. | TIME | RATE (BPM) | VOLUME (BL)(GAL) | PUMPS | | PRESS. (psi) | | JOB DESCRIPTION / REMARKS |
|-----------|------|------------|------------------|-------|---|--------------|---------------------|---|
| | | | | T | C | Tbg | Csg | |
| | 0530 | | | | | | | Called out for job. |
| | 0945 | | | | | | | on loc. Rig waiting on HES. |
| | 0950 | | | | | | | Start 5 1/2 CSH & F E. |
| | 1213 | | | | | | | CSH on BAH. Hook up 5 1/2 P.C & circ. Iron. |
| | 1318 | | | | | | | brk circ w/ rig. |
| | 1320 | | | | | | | circ. to Pit |
| | 1406 | | | | | | | Thru. circ. Hook Iron to P.T. |
| | 1407 | 7.0 | 8 | | | ✓ | 230 | PUMP H ₂ O spacer |
| | 1408 | 7.0 | 10 | | | ✓ | 230 | PUMP SF |
| | 1410 | 7.0 | 8 | | | ✓ | 230 | PUMP H ₂ O |
| | 1411 | 6.5 | 26 | | | ✓ | 200 | PUMP. 50JA from vers. at 11.1 #184. |
| | 1415 | 6.0 | 49 | | | ✓ | 100 | PUMP. 195JA from vers at 14.5 #184 |
| | 1425 | 0 | 49 | | | ✓ | 0 | shut down drop plug. |
| | 1428 | 7.0 | 152.5 | | | ✓ | 120 | PUMP D-20 |
| | 1446 | 7.0 | 152.5 | | | ✓ | 250 | 121 bbls in LITE CRT |
| | 1450 | 4.0 | 152.5 | | | ✓ | 500 | 148 bbls in S/A rate. |
| | 1453 | 4.0 | 152.5 | | | ✓ | 500 1400 | Land plug |
| | 1454 | 0 | 152.5 | | | ✓ | 1400 0 | Release plug - |
| | 1500 | | | | | | | Job over |
| | | | | | | | | Thanks for calling |
| | | | | | | | | Tyler Woody & crew |

RECEIVED COMM
 HALLIBURTON CORP
 OCT-8 P.E. 18