

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

API NO. 15- 067-21489 0000
County GRANT
 - NW - NW - NW Sec. 24 Twp. 29S Rge. 35 E
 X W

Operator: License # 4549

330 Feet from NX (circle one) Line of Section

Name: ANADARKO PETROLEUM CORPORATION

330 Feet from XW (circle one) Line of Section

Address 701 S. TAYLOR STREET, SUITE 400

Footages Calculated from Nearest Outside Section Corner:
NE, SE, NW or SW (circle one)

City/State/Zip AMARILLO, TEXAS 79101

Lease Name H.I.V KOEHN "A" Well # 1

Purchaser: NONE- TA

Field Name WILDCAT

Operator Contact Person: JOHN VIGIL

Producing Formation NONE - TA

Phone (806) 457-4600

Elevation: Ground 3037 KB

Contractor: Name: MURFIN DRILLING

Total Depth 5700 PBTB 5400

License: 30606

Amount of Surface Pipe Set and Cemented at 1783 Feet

Wellsite Geologist:

Multiple Stage Cementing Collar Used? X Yes No

Designate Type of Completion

X New Well Re-Entry Workover

If yes, show depth set 4892 Feet

 Oil SWD SIOW X Temp. Abd.
 Gas ENHR SIGW
 Dry Other (Core, WSW, Expl., Cathodic, etc)

If Alternate II completion, cement circulated from

feet depth to w/ sx cmt.

If Workover:

Drilling Fluid Management Plan See 10-23-02
(Data must be collected from the Reserve Pit)

Operator:

Chloride content 1000 ppm Fluid volume 700 bbls

Well Name:

Dewatering method used DRY, BACKFILL & RESTORE LOCATION

Comp. Date Old Total Depth

Location of fluid disposal if hauled offsite:

 Deepening Re-perf. Conv. to Inj/SWD
 Plug Back PBTB
 Commingled Docket No.
 Dual Completion Docket No.
 Other (SWD or Inj?) Docket No.

Operator Name

Lease Name License No.

09-05-2002 09-14-2002 10-01-2002
Spud Date Date Reached TD Completion Date

 Quarter Sec. Twp. S Rng. E/W

County Docket No.

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 ENGINEERING TECHNICIAN III Date 10-17-02

Subscribed and sworn to before me this 17 day of October

Notary Public Lori Pearson

Date Commission Expires 2/26/05

K.C.C. OFFICE USE ONLY
F Yes Letter of Confidentiality Attached
C Yes Wireline Log Received
C No Geologist Report Received
Distribution
 KCC SWD/Rep NGPA
 KGS Plug Other
(Specify)



Operator Name ANADARKO PETROLEUM CORPORATION Lease Name HJV KOEHN "A" Well # 1

Sec. 24 Twp. 29 Rge. 35 East County GRANT
 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: CBL, DIL, CNL-LDT, ML. SONIC.

Log Formation (Top), Depth and Datums Sample

| Name | Top | Datum |
|----------------|------|-------|
| B/STONE-CORRAL | 1849 | |
| CHASE | 2530 | |
| COUNCIL GROVE | 2850 | |
| WABAUNSEE | 3270 | |
| B/HEEBNER | 4064 | |
| LANSING | 4064 | |
| KANSAS CITY | 4542 | |
| MARMATON | 4726 | |
| CHEROKEE | 4916 | |
| MORROW | 5304 | |
| CHESTER | 5515 | |
| STE. GENEVIEVE | 5630 | |

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" | 24.0 | 1783' | CLASS C/ CLASS C. | 450/150 | 3%D79, .2%D46, 1/4#/SK D29/2%S1, D29. |
| PRODUCTION | 7-7/8" | 5-1/2" | 15.5 | 5695' | 50/50 POZ/ 50/50 POZ. | 25/115 | 2%D20, 10%SALT, .2%D46 .3%D112, 1/4#/SKD29/ SAME. |
| | | | DV TOOL @ | 4892' | 50/50 POZ/ 50/50 POZ. | 25/160 | SAA/SAA. |

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 | |
|----------------|---|-------------------------|---|--|
| | 6 | 5409-5426, CIBP @ 5400. | | FRAC: 38,400 GAL FOAM & 66,000# 20/40 SD. 5409-5426. |
| 6 | 4541-4548. | | NONE. | |
| | | | | |
| | | | | |

| | | | | |
|---------------|---------------|----------------|-----------|--|
| TUBING RECORD | Size 2-7/8 | Set At 4490 | Packer At | Liner Run <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
|---------------|---------------|----------------|-----------|--|

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

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

Disposition of Gas: Vented Sold Used on Lease (If vented, submit ACO-18.) Open Hole Perf. Dually Comp. Commingled _____
 Other (Specify) _____ NONE-TA

| | | | | | | | | | | |
|---|--|--|---|--------------------------------|---|---------------------------------|---------------------------------------|--------------------------------|------------------------------|---------------------------|
| Customer ANADARKO PETROLEUM CORPORATION | | | | | | Job Number 2205440625 | | | | |
| Well HJVKOEHN A-1 | | Location NOV 04 2003 | | | Schlumberger Location Ulysses, KS | | Job Start 2002-Sep-07 | | | |
| Field | | Formation Name/Type From Deviation | | | Bit Size in | Well MD 1,784 ft | Well TVD 1,784 ft | | | |
| County Grant | | State/Province KS | | BHP psi | BHST °F | BHCT °F | Pore Press. Gradient psi/ft | | | |
| Well Master: 0630443704 | | API / UWI: | | Casing/Liner | | | | | | |
| Rig Name Murphie | Drilled For Oil & Gas | Service Via Land | | Depth, ft 1785 | Size, in 8.63 | Weight, lb/ft 23 | Grade | Thread | | |
| Offshore Zone | Well Class New | Well Type Exploration | | Tubing/Drill Pipe | | | | | | |
| Drilling Fluid Type | | Max. Density lb/gal | Plastic Viscosity cp | | Depth | Size, in | Weight, lb/ft | Grade | Thread | |
| Service Line Cementing | Job Type Cem Surface Casing | | | Perforations/Open Hole | | | | | | |
| Max. Allowed Tubing Pressure psi | Max. Allowed Ann. Pressure psi | Wellhead Connection Single cement head | | Top, ft | Bottom, ft | spf | No. of Shots | Total Interval ft | | |
| Service Instructions Safely Cement Surface Casing per customers request | | | | KCC | OCT 17 2002 | CONFIDENTIAL | Treat Down Casing | Displacement 112 bbl | Packer Type | Packer Depth ft |
| | | Tubing Vol. bbl | Casing Vol. bbl | Annular Vol. 123 bbl | Open Hole Vol. bbl | | | | | |
| Casing/Tubing Secured <input checked="" type="checkbox"/> | | 1 Hole Volume Circulated prior to Cementing <input type="checkbox"/> | | | Casing Tools | | Squeeze Job | | | |
| Lift Pressure: psi | | Shoe Type: Guide | Squeeze Type | | Shoe Depth: 1785 ft | Tool Type: | | | | |
| Pipe Rotated <input type="checkbox"/> | | Pipe Reciprocated <input type="checkbox"/> | | | Stage Tool Type: | Tool Depth: ft | | | | |
| No. Centralizers: 4 | | Top Plugs: 1 | Bottom Plugs: | | Stage Tool Depth: ft | Tail Pipe Size: in | | | | |
| Cement Head Type: Single | | Collar Type: Other | Tail Pipe Depth: ft | | | | | | | |
| Job Scheduled For: 2002-Sep-07 10:00 | | Arrived on Location: 2002-Sep-07 10:00 | Leave Location: 2002-Sep-07 16:00 | | Collar Depth: 1740 ft | Sqz Total Vol. bbl | | | | |
| Date | Time | Treating Pressure psi | CMT RATE bbbl/min | CMT VOL bbbl | CMT DENS. lb/gal | 0 | 0 | 0 | Message | |
| 2002-Sep-07 | 14:03 | 5 | 0.0 | 0.0 | 8.26 | 0 | 0 | 0 | | |
| 2002-Sep-07 | 14:03 | | | | | | | | Start Job | |
| 2002-Sep-07 | 14:03 | 0 | 0.0 | 0.0 | 8.26 | 0 | 0 | 0 | Pressure Test Lines | |
| 2002-Sep-07 | 14:03 | 5 | 0.0 | 0.0 | 8.26 | 0 | 0 | 0 | Reset Total, Vol = 0.00 bbl | |
| 2002-Sep-07 | 14:03 | 5 | 0.0 | 0.0 | 8.57 | 0 | 0 | 0 | | |
| 2002-Sep-07 | 14:04 | 55 | 0.0 | 0.0 | 8.27 | 0 | 0 | 0 | Pressure Test Lines | |
| 2002-Sep-07 | 14:04 | | | | | | | | Reset Total, Vol = 0.00 bbl | |
| 2002-Sep-07 | 14:04 | 60 | 0.0 | 0.0 | 8.27 | 0 | 0 | 0 | Start Pumping Spacer | |
| 2002-Sep-07 | 14:04 | 60 | 0.0 | 0.0 | 8.25 | 0 | 0 | 0 | | |
| 2002-Sep-07 | 14:08 | 220 | 7.0 | 14.1 | 11.74 | 0 | 0 | 0 | | |
| 2002-Sep-07 | 14:08 | 229 | 7.1 | 16.9 | 11.63 | 0 | 0 | 0 | | |
| 2002-Sep-07 | 14:08 | | | | | | | | Start Mixing Lead Slurry | |
| 2002-Sep-07 | 14:08 | | | | | | | | Reset Total, Vol = 17.27 bbl | |
| 2002-Sep-07 | 14:08 | 224 | 7.1 | 17.3 | 11.68 | 0 | 0 | 0 | | |
| 2002-Sep-07 | 14:13 | 220 | 7.2 | 32.4 | 11.83 | 0 | 0 | 0 | | |
| 2002-Sep-07 | 14:18 | 211 | 7.3 | 68.7 | 11.71 | 0 | 0 | 0 | | |
| 2002-Sep-07 | 14:23 | 110 | 5.7 | 99.8 | 11.32 | 0 | 0 | 0 | | |
| 2002-Sep-07 | 14:23 | | | | | | | | good returns | |

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| Well # | | Flow | | Service Date | | Customer | | | Job Number | |
|---------------|-------------|-------------------|----------|--------------|----------|--------------------------------------|---|---|-------------------------------|--|
| HJVKOEHN #A-1 | | | | 02250-Sep-07 | | Release MVA OIL & GAS CORPORATION | | | 2205440625 | |
| Date | Time | Treating Pressure | CMT RATE | CMT VOL | CMT DENS | 0 | 0 | 0 | Message | |
| | 24 hr clock | psi | bbl/min | bbl | lb/gal | | | | KCC | |
| 2002-Sep-07 | 14:23 | 105 | 5.7 | 100.5 | 11.33 | 0 | 0 | 0 | NOV 04 2003 | |
| 2002-Sep-07 | 14:28 | 146 | 5.7 | 128.3 | 11.60 | 0 | 0 | 0 | From Confidential | |
| 2002-Sep-07 | 14:33 | 105 | 5.5 | 159.0 | 11.01 | 0 | 0 | 0 | OCT 17 2002 | |
| 2002-Sep-07 | 14:38 | 124 | 6.1 | 187.9 | 11.27 | 0 | 0 | 0 | CONFIDENTIAL | |
| 2002-Sep-07 | 14:43 | 169 | 5.5 | 217.0 | 11.44 | 0 | 0 | 0 | End Lead Slurry | |
| 2002-Sep-07 | 14:46 | 78 | 3.6 | 233.1 | 11.86 | 0 | 0 | 0 | | |
| 2002-Sep-07 | 14:46 | 73 | 3.6 | 233.1 | 11.89 | 0 | 0 | 0 | | |
| 2002-Sep-07 | 14:46 | | | | | | | | Reset Total, Vol = 233.12 bbl | |
| 2002-Sep-07 | 14:46 | 78 | 3.6 | 233.2 | 11.92 | 0 | 0 | 0 | | |
| 2002-Sep-07 | 14:46 | | | | | | | | Reset Total, Vol = 0.06 bbl | |
| 2002-Sep-07 | 14:46 | | | | | | | | Start Mixing Tail Slurry | |
| 2002-Sep-07 | 14:46 | 69 | 3.6 | 0.2 | 12.01 | 0 | 0 | 0 | | |
| 2002-Sep-07 | 14:48 | 165 | 4.8 | 6.3 | 14.64 | 0 | 0 | 0 | | |
| 2002-Sep-07 | 14:53 | 151 | 4.7 | 30.3 | 14.78 | 0 | 0 | 0 | | |
| 2002-Sep-07 | 14:58 | 0 | 0.0 | 36.7 | 9.38 | 0 | 0 | 0 | | |
| 2002-Sep-07 | 15:03 | 0 | 0.0 | 36.7 | 9.07 | 0 | 0 | 0 | | |
| 2002-Sep-07 | 15:05 | 0 | 0.0 | 36.7 | 9.03 | 0 | 0 | 0 | | |
| 2002-Sep-07 | 15:05 | | | | | | | | Drop Top Plug | |
| 2002-Sep-07 | 15:05 | | | | | | | | Start Displacement | |
| 2002-Sep-07 | 15:05 | 0 | 0.0 | 36.7 | 9.03 | 0 | 0 | 0 | | |
| 2002-Sep-07 | 15:05 | 0 | 0.0 | 36.7 | 9.03 | 0 | 0 | 0 | | |
| 2002-Sep-07 | 15:05 | | | | | | | | Reset Total, Vol = 36.72 bbl | |
| 2002-Sep-07 | 15:08 | 64 | 5.5 | 14.4 | 8.35 | 0 | 0 | 0 | | |
| 2002-Sep-07 | 15:13 | 96 | 5.5 | 41.7 | 8.28 | 0 | 0 | 0 | | |
| 2002-Sep-07 | 15:18 | 169 | 5.5 | 69.1 | 8.28 | 0 | 0 | 0 | | |
| 2002-Sep-07 | 15:19 | 220 | 5.5 | 78.1 | 8.28 | 0 | 0 | 0 | | |
| 2002-Sep-07 | 15:19 | | | | | | | | Cement to surface | |
| 2002-Sep-07 | 15:23 | 357 | 5.5 | 96.4 | 8.28 | 0 | 0 | 0 | | |
| 2002-Sep-07 | 15:27 | 966 | 0.0 | 110.5 | 8.28 | 0 | 0 | 0 | | |
| 2002-Sep-07 | 15:27 | | | | | | | | Bump Top Plug | |
| 2002-Sep-07 | 15:27 | 966 | 0.0 | 110.5 | 8.27 | 0 | 0 | 0 | | |
| 2002-Sep-07 | 15:27 | | | | | | | | Bleed Off Pressure | |
| 2002-Sep-07 | 15:28 | 957 | 0.0 | 110.5 | 8.28 | 0 | 0 | 0 | | |
| 2002-Sep-07 | 15:29 | | | | | | | | End Displacement | |
| 2002-Sep-07 | 15:29 | 0 | 0.0 | 110.5 | 8.28 | 0 | 0 | 0 | | |
| 2002-Sep-07 | 15:29 | | | | | | | | End Job | |
| 2002-Sep-07 | 15:29 | 0 | 0.0 | 110.5 | 8.28 | 0 | 0 | 0 | | |

Post Job Summary

| | | | | | | | |
|---------------------------------------|-------|------------------------|-------------------------|-------------------------------|---|---------|----|
| Average Pump Rates, bpm | | | | Volume of Fluid Injected, bbl | | | |
| Slurry | N2 | Mud | Maximum Rate | Total Slurry | Mud | Spacer | N2 |
| 5 | | | 7.4 | 266 | | 10 | |
| Treating Pressure Summary, psi | | | | Breakdown Fluid | | | |
| Maximum | Final | Average | Bump Plug to | Breakdown | Volume | Density | |
| 940 | 0 | 100 | | | | | |
| Avg. N2 Percent | | Designed Slurry Volume | Displacement | Mix Water Temp | Cement Circulated to Surface? Volume | | |
| % | | 266 bbl | 110.5 bbl | 66 °F | 68 bbl | | |
| Customer or Authorized Representative | | | Schlumberger Supervisor | | Washed Thru Perfs To ft | | |
| Steve, Bartel | | | Camargo, Jose | | <input type="checkbox"/> Circulation Lost <input checked="" type="checkbox"/> Job Completed | | |

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Comments: KCC

OCT 17 2002

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Release
NOV 04 2003
From
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Fluid Systems:

| Lead | | | |
|---|--------------------------|------------------|-----------|
| 450 sks Class 'C' Cement + 3 % BWOB D079 + 0.2 % BWOB D046 + 0.25 lbs/sk D029 + | | | |
| Density: | 11.4 lb/gal | Thickening Time: | +7 hrs |
| Yield: | 2.87 ft ³ /sk | | |
| H2O Mix: | 17.7 gal/sk | | |
| H2O: | 7965 gal | Eq. Sack Weight: | 94 lb |
| | | Total Blend: | 450 sacks |
| Dowell Code | Conc/ Amount | Total Quantity | |
| D029 | 0.25 lbs/sk | 112.5 | |
| D046 | 0.2 % BWOB | 84.6 | |
| D079 | 3 % BWOB | 1269 | |
| D903 | 94 lbs/sk | 42300 | |

| Tail | | | |
|---|--------------------------|------------------|-----------|
| 150 sks Class 'C' Cement + 2 % BWOB S001 + 0.25 lbs/sk D029 + | | | |
| Density: | 14.8 lb/gal | Thickening Time: | +4 hrs |
| Yield: | 1.34 ft ³ /sk | | |
| H2O Mix: | 6.33 gal/sk | | |
| H2O: | 949.5 gal | Eq. Sack Weight: | 94 lb |
| | | Total Blend: | 150 sacks |
| Dowell Code | Conc/ Amount | Total Quantity | |
| D029 | 0.25 lbs/sk | 37.5 | |
| S001 | 2 % BWOB | 282 | |
| D903 | 94 lbs/sk | 14100 | |

Cement Job Report

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| | | | |
|-----------------|---------------|-----------------|--------------------------|
| Well | HJV Koehn A-1 | Client | ANADARKO PETROLEUM CORP. |
| Field | | SIR No. | 2205440625 |
| Engineer | Jose Camargo | Job Type | Surface |
| Country | United States | Job Date | 09-07-2002 |

| Time | Pressure | Rate | Density | Messages |
|---------------------|----------------------------|------------------------------|--------------------|----------|
| 11/07/2002 14:03:00 | | | | |
| 14:03:00 | | | | |
| 14:12:36 | | | | |
| 14:22:12 | | | | |
| 14:31:48 | | | | |
| 14:41:24 | | | | |
| 14:51:00 | | | | |
| 15:00:36 | | | | |
| 15:10:12 | | | | |
| 15:19:48 | | | | |
| 15:29:26 | | | | |
| hh:mm:ss | 0 167 333 500 667 833 1000 | 0.0 1.7 3.3 5.0 6.7 8.3 10.0 | 5 6 12 15 18 22 25 | |
| | PSI | B/M | LB/G | |

Release
NOV 04 2003
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Start Job
Pressure Test Lines
Reset Total, Vol = 0.00 bbl
Pressure Test Lines
Reset Total, Vol = 0.00 bbl
Start Pumping Spacer
Start Mixing Lead Slurry
Reset Total, Vol = 17.27 bbl

good returns

End Lead Slurry
Reset Total, Vol = 233.12 bbl
Reset Total, Vol = 0.06 bbl
Start Mixing Tail Slurry

Drop Top Plug
Start Displacement
Reset Total, Vol = 36.72 bbl

cement to surface

Bump Top Plug
Bleed Off Pressure
End Displacement
End Job

| | | | | | | | | | | |
|---|-------|---|---------------------------------|--------------------------------------|---|--------------------------------------|------------------------|--------------------------------|--------------------------|------------------------------|
| Customer ANADARKO PETROLEUM CORPORATION | | | | | Job Number 2205440663 | | | | | |
| Well HUVKOEHN A-1 | | | Location (legal) Ulysses, KS | | | Schlumberger Location Ulysses, KS | | | Job Start 2002-Sep-15 | |
| Field | | Formation Name/Type | | | Deviation | | BII Size in | Well MD 5,705 ft | Well TVD 5,705 ft | |
| County Grant | | State/Province KS | | | BHP psi | BHST °F | BHCT °F | Pore Press. Gradient psi/ft | | |
| Well Master: 0630443704 | | API / UWI: | | | Casing/Liner | | | | | |
| Rlg Name Murphim | | Drilled For Oil & Gas | | Service Via Land | | Depth, ft 5705 | Size, In 5.5 | Weight, lb/ft 15.5 | Grade K55 | Thread 8RD |
| Offshore Zone | | Well Class New | | Well Type Exploration | | Tubing/Drill Pipe | | | | |
| Drilling Fluid Type Lime | | Max. Density 9.2 lb/gal | | Plastic Vt cp 32 | | Depth, | Size, In | Weight, lb/ft | Grade | Thread |
| Service Line Cementing | | Job Type Cem Prod Casing | | | Perforations/Open Hole | | | | | |
| Max. Allowed Tubing Pressure 3500 psi | | Max. Allowed Ann. Pressure psi | | WellHead Connction | | Top, ft | Bottom, ft | spf | No. of Shots | Total Interval ft |
| Service Instructions Safely Cement Production Casing per customers request. KCC OCT 17 2002 | | | | | Treat Down Casing | Displacement 111.5 bbl | Packer Type | Packer Depth ft | | |
| Casing/Tubing Secured <input checked="" type="checkbox"/> | | | | | 1 Hole Volume Circulated prior to Cementing <input checked="" type="checkbox"/> | Casing Tools | | Squeeze Job | | |
| Lift Pressure: 560 psi | | | | | Shoe Type: Other | | Squeeze Type | | | |
| Pipe Rotated <input type="checkbox"/> | | | | | Pipe Reciprocated <input type="checkbox"/> | | Shoe Depth: 5700 ft | | Tool Type: | |
| No. Centralizers: 14 | | Top Plugs: 1 | | Bottom Plugs: | | Stage Tool Type: 2 stage | | Tool Depth: ft | | |
| Cement Head Type: Single | | | | | Stage Tool Depth: 4889 ft | | Tall Pipe Size: in | | | |
| Job Scheduled For: | | Arrived on Location: 2002-Sep-15 11:40 | | Leave Location: 2002-Sep-15 22:45 | | Collar Type: Auto-Fill | | Tall Pipe Depth: ft | | |
| | | | | | | Collar Depth: 5656 ft | | Sqz Total Vol: bbl | | |
| Date | Time | Treating Pressure 24 hr clock psi | CMT RATE bbl/min | CMT VOL bbl | 0 | 0 | 0 | 0 | Message | |
| 2002-Sep-15 | 15:24 | -5 | 0.0 | 0.0 | 0 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 15:24 | -9 | 0.0 | 0.0 | 0 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 15:24 | | | | | | | | | Start Job |
| 2002-Sep-15 | 15:24 | -5 | 0.0 | 0.0 | 0 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 15:24 | | | | | | | | | Pressure Test Lines |
| 2002-Sep-15 | 15:29 | 4051 | 0.0 | 0.3 | 0 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 15:29 | 2632 | 0.0 | 0.3 | 0 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 15:29 | | | | | | | | | Bleed Off Pressure |
| 2002-Sep-15 | 15:30 | 1767 | 0.0 | 0.3 | 0 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 15:30 | | | | | | | | | Start Pumping Spacer |
| 2002-Sep-15 | 15:30 | 906 | 0.0 | 0.3 | 0 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 15:30 | | | | | | | | | Reset Total, Vol = 0.34 bbl |
| 2002-Sep-15 | 15:34 | 133 | 3.6 | 4.9 | 0 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 15:36 | 206 | 5.4 | 14.4 | 0 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 15:36 | | | | | | | | | Start Mixing Scav Slurry |
| 2002-Sep-15 | 15:36 | 206 | 5.4 | 15.0 | 0 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 15:36 | | | | | | | | | Reset Total, Vol = 15.04 bbl |
| 2002-Sep-15 | 15:39 | 183 | 5.4 | 16.9 | 0 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 15:41 | 197 | 5.4 | 24.3 | 0 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 15:41 | | | | | | | | | End Scavenger Slurry |
| 2002-Sep-15 | 15:41 | | | | | | | | | Start Mixing Tail Slurry |
| 2002-Sep-15 | 15:41 | 192 | 5.4 | 24.4 | 0 | 0 | 0 | 0 | 0 | |

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| Well | | Field | Service Date | | Customer | | | Job Number |
|---------------|-------------|-------------------|--------------|---------|--------------------------------|---|---|-------------------------------|
| HJVKOEHN #A-1 | | | 02258-Sep-15 | | ANADARKO PETROLEUM CORPORATION | | | 2205440663 |
| Date | Time | Treating Pressure | CMT RATE | CMT VOL | 0 | 0 | 0 | Message |
| | 24 hr clock | psi | bbl/min | bbl | 0 | 0 | 0 | |
| 2002-Sep-15 | 15:41 | 224 | 5.4 | 26.2 | 0 | 0 | 0 | |
| 2002-Sep-15 | 15:41 | | | | | | | Reset Total, Vol = 26.16 bbl |
| 2002-Sep-15 | 15:44 | 192 | 5.4 | 17.9 | 0 | 0 | 0 | |
| 2002-Sep-15 | 15:46 | | | | | | | Drop Bottom Plug |
| 2002-Sep-15 | 15:46 | 55 | 0.0 | 22.9 | 0 | 0 | 0 | |
| 2002-Sep-15 | 15:46 | | | | | | | Reset Total, Vol = 22.86 bbl |
| 2002-Sep-15 | 15:46 | 55 | 0.0 | 22.9 | 0 | 0 | 0 | |
| 2002-Sep-15 | 15:46 | 50 | 0.0 | 0.0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 15:46 | | | | | | | Start Pumping Mud |
| 2002-Sep-15 | 15:49 | -5 | 0.0 | 0.0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 15:54 | 0 | 0.0 | 0.0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 16:00 | | | | | | | Resumed Recording |
| 2002-Sep-15 | 16:07 | 179 | 7.9 | 0.1 | 0 | 0 | 0 | |
| 2002-Sep-15 | 16:11 | 183 | 7.9 | 24.8 | 0 | 0 | 0 | |
| 2002-Sep-15 | 16:16 | 179 | 7.9 | 64.3 | 0 | 0 | 0 | |
| 2002-Sep-15 | 16:21 | 169 | 3.0 | 90.9 | 0 | 0 | 0 | |
| 2002-Sep-15 | 16:26 | 1955 | 0.5 | 105.5 | 0 | 0 | 0 | |
| 2002-Sep-15 | 16:26 | | | | | | | End Mud |
| 2002-Sep-15 | 16:26 | 2074 | 0.0 | 105.5 | 0 | 0 | 0 | |
| 2002-Sep-15 | 16:27 | 2074 | 0.0 | 105.5 | 0 | 0 | 0 | |
| 2002-Sep-15 | 16:27 | | | | | | | Drop Dart |
| 2002-Sep-15 | 16:31 | 5 | 0.0 | 105.5 | 0 | 0 | 0 | |
| 2002-Sep-15 | 16:36 | 0 | 0.0 | 105.5 | 0 | 0 | 0 | |
| 2002-Sep-15 | 16:41 | 0 | 0.0 | 105.5 | 0 | 0 | 0 | |
| 2002-Sep-15 | 16:46 | 0 | 0.0 | 105.5 | 0 | 0 | 0 | |
| 2002-Sep-15 | 16:51 | 3813 | 0.0 | 109.4 | 0 | 0 | 0 | |
| 2002-Sep-15 | 16:56 | 5 | 0.0 | 109.4 | 0 | 0 | 0 | |
| 2002-Sep-15 | 17:01 | 0 | 0.0 | 109.4 | 0 | 0 | 0 | |
| 2002-Sep-15 | 17:06 | 0 | 0.0 | 109.4 | 0 | 0 | 0 | |
| 2002-Sep-15 | 17:10 | | | | | | | Bump Dart |
| 2002-Sep-15 | 17:10 | 14 | 0.0 | 122.5 | 0 | 0 | 0 | |
| 2002-Sep-15 | 17:11 | | | | | | | Rig Pumps To Displace |
| 2002-Sep-15 | 17:11 | 14 | 0.0 | 122.5 | 0 | 0 | 0 | |
| 2002-Sep-15 | 17:11 | 14 | 0.0 | 122.5 | 0 | 0 | 0 | |
| 2002-Sep-15 | 20:51 | | | | | | | Reset Total, Vol = 122.48 bbl |
| 2002-Sep-15 | 21:07 | -14 | 0.0 | 0.0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 21:07 | -14 | 0.0 | 0.0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 21:07 | | | | | | | mouse and rat hole |
| 2002-Sep-15 | 21:12 | 41 | 1.9 | 1.2 | 0 | 0 | 0 | |
| 2002-Sep-15 | 21:17 | 78 | 2.1 | 3.9 | 0 | 0 | 0 | |
| 2002-Sep-15 | 21:21 | 0 | 0.0 | 10.2 | 0 | 0 | 0 | |
| 2002-Sep-15 | 21:21 | | | | | | | Start Second Stage |
| 2002-Sep-15 | 21:21 | | | | | | | Start Pumping Spacer |
| 2002-Sep-15 | 21:21 | 0 | 0.0 | 10.2 | 0 | 0 | 0 | |
| 2002-Sep-15 | 21:21 | | | | | | | End Spacer |
| 2002-Sep-15 | 21:22 | 0 | 0.0 | 10.2 | 0 | 0 | 0 | |
| 2002-Sep-15 | 21:27 | 307 | 5.4 | 18.2 | 0 | 0 | 0 | |
| 2002-Sep-15 | 21:31 | | | | | | | End Tail Slurry |
| 2002-Sep-15 | 21:31 | | | | | | | Start Mixing Tail Slurry |
| 2002-Sep-15 | 21:31 | 238 | 5.4 | 42.7 | 0 | 0 | 0 | |
| 2002-Sep-15 | 21:31 | 229 | 5.4 | 43.5 | 0 | 0 | 0 | |
| 2002-Sep-15 | 21:31 | | | | | | | Reset Total, Vol = 43.45 bbl |
| 2002-Sep-15 | 21:32 | 275 | 5.4 | 2.0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 21:37 | 229 | 5.4 | 29.1 | 0 | 0 | 0 | |

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| Well | | Service Date | | | Customer | | | | Job Number |
|---------------|-------------|-------------------|----------|---------|--------------------------------|---|---|---|------------------------------|
| HJVKOEHN #A-1 | | 02258-Sep-15 | | | ANADARKO PETROLEUM CORPORATION | | | | 2205440663 |
| Date | Time | Treating Pressure | CMT RATE | CMT VOL | 0 | 0 | 0 | 0 | Message |
| | 24 hr clock | psi | bbl/min | bbl | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 21:38 | | | | | | | | End Tail Slurry |
| 2002-Sep-15 | 21:38 | -9 | 0.0 | 35.5 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 21:38 | -9 | 0.0 | 35.5 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 21:38 | | | | | | | | Drop Top Plug |
| 2002-Sep-15 | 21:38 | | | | | | | | Start Displacement |
| 2002-Sep-15 | 21:38 | -5 | 0.0 | 35.5 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 21:38 | | | | | | | | Reset Total, Vol = 35.45 bbl |
| 2002-Sep-15 | 21:38 | -9 | 0.0 | 35.5 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 21:42 | 82 | 4.8 | 1.0 | 0 | 0 | 0 | 0 | KCC |
| 2002-Sep-15 | 21:47 | 151 | 7.8 | 37.9 | 0 | 0 | 0 | 0 | OCT 17 2002 |
| 2002-Sep-15 | 21:52 | 165 | 7.8 | 77.2 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 21:57 | 430 | 3.1 | 107.1 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 22:02 | 517 | 0.0 | 119.6 | 0 | 0 | 0 | 0 | CONFIDENTIAL |
| 2002-Sep-15 | 22:03 | 1625 | 0.0 | 120.9 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 22:03 | | | | | | | | Bump Top Plug |
| 2002-Sep-15 | 22:05 | -5 | 0.0 | 120.9 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 22:05 | | | | | | | | End Displacement |
| 2002-Sep-15 | 22:05 | -5 | 0.0 | 120.9 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 22:05 | | | | | | | | End Job |
| 2002-Sep-15 | 22:07 | 0 | 0.0 | 120.9 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 22:12 | -5 | 0.0 | 120.9 | 0 | 0 | 0 | 0 | |

Post Job Summary

| | | | | | | | |
|---------------------------------------|------------------------|--------------|-------------------------|--|---|---------|----|
| Average Pump Rates, bpm | | | | Volume of Fluid Injected, bbl | | | |
| Slurry | N2 | Mud | Maximum Rate | Total Slurry | Mud | Spacer | N2 |
| 6 | | | 7.8 | 115 | 135 | 20 | |
| Treating Pressure Summary, psi | | | | Breakdown Fluid | | | |
| Maximum | Final | Average | Bump Plug to | Breakdown | Volume | Density | |
| 2000 | 0 | 230 | 2000 | | bbl | lb/gal | |
| Avg. N2 Percent | Designed Slurry Volume | Displacement | Mix Water Temp | <input type="checkbox"/> Cement Circulated to Surface? Volume 70 bbl <input type="checkbox"/> Washed Thru Perfs To ft | | | |
| % | 118 bbl | 111 bbl | 66 °F | | | | |
| Customer or Authorized Representative | | | Schlumberger Supervisor | | <input type="checkbox"/> Circulation Lost <input checked="" type="checkbox"/> Job Completed | | |
| Parks, Kenny | | | Camargo, Jose | | | | |

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|-----------------|---------------|---------------------|-----------------|--------------------------|
| Well | HJV Koehn A-1 | CONFIDENTIAL | Client | ANADARKO PETROLEUM CORP. |
| Field | | | SIR No. | 2205440663 |
| Engineer | Jose Camargo | | Job Type | 2 Stage |
| Country | United States | | Job Date | 09-15-2002 |

| Time | Pressure | Rate | Density | Messages |
|----------|-------------------------------|------------------------------|---|---|
| 15:24:43 | | | KCC OCT 17 2002 CONFIDENTIAL | Start Job Pressure Test Lines Bleed Off Pressure Start Pumping Spacer Reset Total, Vol = 0.34 bbl Start Mixing Scav Slurry Reset Total, Vol = 15.04 bbl End Scavenger Slurry Start Mixing Tail Slurry Reset Total, Vol = 26.16 bbl Drop Bottom Plug Reset Total, Vol = 22.86 bbl Start Pumping Mud Resumed Recording End Mud Drop Dart |
| 16:09:58 | | | | Bump Dart Rig Pumps To Displace |
| 16:55:13 | | | KCC OCT 17 2002 CONFIDENTIAL | Bump Dart Rig Pumps To Displace |
| 17:40:28 | | | | |
| 18:25:43 | | | KCC OCT 17 2002 CONFIDENTIAL | Bump Dart Rig Pumps To Displace |
| 19:10:58 | | | | |
| 19:56:13 | | | KCC OCT 17 2002 CONFIDENTIAL | Bump Dart Rig Pumps To Displace |
| 20:41:28 | | | | |
| 21:26:43 | | | KCC OCT 17 2002 CONFIDENTIAL | Bump Dart Rig Pumps To Displace |
| 22:12:02 | | | | |
| hh:mm:ss | 0 333 667 1000 1333 1667 2000 | 0.0 1.7 3.3 5.0 6.7 8.3 10.0 | 5 8 12 15 18 22 25 | |
| | PSI | B/M | LB/G | |

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Reset Total, Vol = 122.48 bbl

 mouse and rat hole

 Start Second Stage
 End Spacer
 Start Pumping Spacer
 End Tail Slurry
 Start Mixing Tail Slurry
 Reset Total, Vol = 43.45 bbl
 End Tail Slurry
 Drop Top Plug
 Start Displacement
 Reset Total, Vol = 35.45 bbl
 Bump Top Plug
 End Displacement
 End Job

| | | | | | | | |
|---|--|--|--|---|--|---|--|
| Well HJVKOEHN A-1 | | Location (legal) Ulysses, KS | | Customer ANADARKO PETROLEUM CORPORATION | | Job Number 2205440625 | |
| Field | | Formation Name/Type | | Deviation | | Bit Size in | |
| County Grant | | State/Province KS | | BHP psi | | BHST °F | |
| Well Master: 0630443704 | | API / UWI: | | Well MD 1,784 ft | | Well TVD 1,784 ft | |
| Rig Name Murphin | | Drilled For Oil & Gas | | Service Via Land | | Casing/Liner | |
| Offshore Zone | | Well Class New | | Well Type Exploration | | Depth; ft 1785 | |
| Drilling Fluid Type | | Max. Density lb/gal | | Plastic Viscosity cp | | Size, in 8.63 | |
| Service Line Cementing | | Job Type Cem Surface Casing | | Weight, lb/ft 23 | | Grade, Thread | |
| Max. Allowed Tubing Pressure psi | | Max. Allowed Ann. Pressure psi | | Wellhead Connection Single cement head | | Perforations/Open Hole | |
| Service Instructions Safely Cement Surface Casing per customers request | | KCC OCT 17 2002 | | Top, ft | | Bottom, ft | |
| Casing/Tubing Secured <input checked="" type="checkbox"/> | | 1 Hole Volume | | Top, ft | | Bottom, ft | |
| Lift Pressure: psi | | Pipe Rotated <input type="checkbox"/> | | Pipe Reciprocated <input type="checkbox"/> | | Casing Tools | |
| No. Centralizers: 4 | | Top Plugs: 1 | | Bottom Plugs: | | Shoe Type: Guide | |
| Cement Head Type: Single | | Job Scheduled For: 2002-Sep-07 10:00 | | Arrived on Location: 2002-Sep-07 10:00 | | Leave Location: 2002-Sep-07 16:00 | |
| Stage Tool Type: | | Stage Tool Depth: | | Collar Type: Other | | Collar Depth: 1740 ft | |
| Date | | Time | | Treating Pressure psi | | CMT RATE bbl/min | |
| 2002-Sep-07 | | 14:03 | | 5 | | 0.0 | |
| 2002-Sep-07 | | 14:03 | | 0 | | 0.0 | |
| 2002-Sep-07 | | 14:03 | | 5 | | 0.0 | |
| 2002-Sep-07 | | 14:03 | | 5 | | 0.0 | |
| 2002-Sep-07 | | 14:03 | | 5 | | 0.0 | |
| 2002-Sep-07 | | 14:04 | | 55 | | 0.0 | |
| 2002-Sep-07 | | 14:04 | | 60 | | 0.0 | |
| 2002-Sep-07 | | 14:04 | | 60 | | 0.0 | |
| 2002-Sep-07 | | 14:08 | | 220 | | 7.0 | |
| 2002-Sep-07 | | 14:08 | | 229 | | 7.1 | |
| 2002-Sep-07 | | 14:08 | | 224 | | 7.1 | |
| 2002-Sep-07 | | 14:13 | | 220 | | 7.2 | |
| 2002-Sep-07 | | 14:18 | | 211 | | 7.3 | |
| 2002-Sep-07 | | 14:23 | | 110 | | 5.7 | |
| 2002-Sep-07 | | 14:23 | | | | | |
| Message | | Start Job | | Pressure Test Lines | | Reset Total, Vol = 0.00 bbl | |
| Message | | Pressure Test Lines | | Reset Total, Vol = 0.00 bbl | | Start Pumping Spacer | |
| Message | | Start Mixing Lead Slurry | | Reset Total, Vol = 17.27 bbl | | good returns | |

| Well | | Service Date | | | | Customer | | | Job Number |
|--------------|-------|-------------------|----------|---------|----------|--------------------------------|---|---|-------------------------------|
| HVVKORH04A-1 | | 02250-Sep-07 | | | | ANADARKO PETROLEUM CORPORATION | | | 223440625 |
| Date | Time | Treating Pressure | CMT RATE | CMT VOL | CMT DENS | 0 | 0 | 0 | Message |
| | | 24 hr clock | psi | bbf/min | bbf | lb/gal | 0 | 0 | |
| 2002-Sep-07 | 14:23 | 105 | 5.7 | 100.5 | 11.33 | 0 | 0 | 0 | KCC |
| 2002-Sep-07 | 14:28 | 146 | 5.7 | 128.3 | 11.60 | 0 | 0 | 0 | |
| 2002-Sep-07 | 14:33 | 105 | 5.5 | 159.0 | 11.01 | 0 | 0 | 0 | OCT 17 2002 |
| 2002-Sep-07 | 14:38 | 124 | 6.1 | 187.9 | 11.27 | 0 | 0 | 0 | |
| 2002-Sep-07 | 14:43 | 169 | 5.5 | 217.0 | 11.44 | 0 | 0 | 0 | CONFIDENTIAL |
| 2002-Sep-07 | 14:46 | | | | | 0 | 0 | 0 | |
| 2002-Sep-07 | 14:46 | 78 | 3.6 | 233.1 | 11.86 | 0 | 0 | 0 | End Lead Slurry |
| 2002-Sep-07 | 14:46 | 73 | 3.6 | 233.1 | 11.89 | 0 | 0 | 0 | |
| 2002-Sep-07 | 14:46 | | | | | 0 | 0 | 0 | Reset Total, Vol = 233.12 bbl |
| 2002-Sep-07 | 14:46 | | | | | 0 | 0 | 0 | Reset Total, Vol = 0.06 bbl |
| 2002-Sep-07 | 14:46 | | | | | 0 | 0 | 0 | Start Mixing Tail Slurry |
| 2002-Sep-07 | 14:46 | 69 | 3.6 | 0.2 | 12.01 | 0 | 0 | 0 | |
| 2002-Sep-07 | 14:48 | 165 | 4.8 | 6.3 | 14.64 | 0 | 0 | 0 | |
| 2002-Sep-07 | 14:53 | 151 | 4.7 | 30.3 | 14.78 | 0 | 0 | 0 | |
| 2002-Sep-07 | 14:58 | 0 | 0.0 | 36.7 | 9.38 | 0 | 0 | 0 | |
| 2002-Sep-07 | 15:03 | 0 | 0.0 | 36.7 | 9.07 | 0 | 0 | 0 | |
| 2002-Sep-07 | 15:05 | 0 | 0.0 | 36.7 | 9.03 | 0 | 0 | 0 | |
| 2002-Sep-07 | 15:05 | | | | | 0 | 0 | 0 | Drop Top Plug |
| 2002-Sep-07 | 15:05 | | | | | 0 | 0 | 0 | Start Displacement |
| 2002-Sep-07 | 15:05 | 0 | 0.0 | 36.7 | 9.03 | 0 | 0 | 0 | |
| 2002-Sep-07 | 15:05 | 0 | 0.0 | 36.7 | 9.03 | 0 | 0 | 0 | |
| 2002-Sep-07 | 15:05 | | | | | 0 | 0 | 0 | Reset Total, Vol = 36.72 bbl |
| 2002-Sep-07 | 15:08 | 64 | 5.5 | 14.4 | 8.35 | 0 | 0 | 0 | |
| 2002-Sep-07 | 15:13 | 96 | 5.5 | 41.7 | 8.28 | 0 | 0 | 0 | |
| 2002-Sep-07 | 15:18 | 169 | 5.5 | 69.1 | 8.28 | 0 | 0 | 0 | |
| 2002-Sep-07 | 15:19 | 220 | 5.5 | 78.1 | 8.28 | 0 | 0 | 0 | |
| 2002-Sep-07 | 15:19 | | | | | 0 | 0 | 0 | cement to surface |
| 2002-Sep-07 | 15:23 | 357 | 5.5 | 96.4 | 8.28 | 0 | 0 | 0 | |
| 2002-Sep-07 | 15:27 | 966 | 0.0 | 110.5 | 8.28 | 0 | 0 | 0 | |
| 2002-Sep-07 | 15:27 | | | | | 0 | 0 | 0 | Bump Top Plug |
| 2002-Sep-07 | 15:27 | 966 | 0.0 | 110.5 | 8.27 | 0 | 0 | 0 | |
| 2002-Sep-07 | 15:27 | | | | | 0 | 0 | 0 | Bleed Off Pressure |
| 2002-Sep-07 | 15:28 | 957 | 0.0 | 110.5 | 8.28 | 0 | 0 | 0 | |
| 2002-Sep-07 | 15:29 | | | | | 0 | 0 | 0 | End Displacement |
| 2002-Sep-07 | 15:29 | 0 | 0.0 | 110.5 | 8.28 | 0 | 0 | 0 | |
| 2002-Sep-07 | 15:29 | | | | | 0 | 0 | 0 | End Job |
| 2002-Sep-07 | 15:29 | 0 | 0.0 | 110.5 | 8.28 | 0 | 0 | 0 | |

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Post Job Summary

| | | | | | | | |
|---------------------------------------|------------------------|--------------|----------------------------------|---|---|---------|-----|
| Average Pump Rates, bpm | | | | Volume of Fluid Injected, bbl | | | |
| Slurry | N2 | Mud | Maximum Rate | Total Slurry | Mud | Spacer | N2 |
| 5 | | | 7.4 | 266 | | 10 | |
| Treating Pressure Summary, psi | | | | Breakdown Fluid | | | |
| Maximum | Final | Average | Bump Plug to | Breakdown | Volume | Density | |
| 940 | 0 | 100 | | | bbf | lb/gal | |
| Avg. N2 Percent | Designed Slurry Volume | Displacement | Mix Water Temp | <input checked="" type="checkbox"/> Cement Circulated to Surface? | Volume | 68 | bbf |
| % | 266 bbf | 110.5 bbf | 66 °F | <input type="checkbox"/> Washed Thru Perfs | To | ft | |
| Customer or Authorized Representative | | | Schlumberger Supervisor | | <input type="checkbox"/> Circulation Lost | | |
| Steve, Bartel | | | <i>[Signature]</i> Camargo, Jose | | <input checked="" type="checkbox"/> Job Completed | | |

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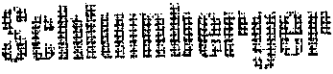
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Fluid Systems:

| Lead | | | |
|---|--------------|---------------------|-------------------------|
| 450 sks Class 'C' Cement + 3 % BWOB D079 + 0.2 % BWOB D046 + 0.25 lbs/sk D029 + | | | |
| Density: | 11.4 | lb/gal | Thickening Time: +7 hrs |
| Yield: | 2.87 | ft ³ /sk | |
| H2O Mix: | 17.7 | gal/sk | |
| H2O: | 7965 | gal | Eq. Sack Weight: 94 lb |
| | | | Total Blend: 450 sacks |
| Dowell Code | Conc/ Amount | | Total Quantity |
| D029 | 0.25 lbs/sk | | 112.5 |
| D046 | 0.2 % BWOB | | 84.6 |
| D079 | 3 % BWOB | | 1269 |
| D903 | 94 lbs/sk | | 42300 |

| Tail | | | |
|---|--------------|---------------------|-------------------------|
| 150 sks Class 'C' Cement + 2 % BWOB S001 + 0.25 lbs/sk D029 + | | | |
| Density: | 14.8 | lb/gal | Thickening Time: +4 hrs |
| Yield: | 1.34 | ft ³ /sk | |
| H2O Mix: | 6.33 | gal/sk | |
| H2O: | 949.5 | gal | Eq. Sack Weight: 94 lb |
| | | | Total Blend: 150 sacks |
| Dowell Code | Conc/ Amount | | Total Quantity |
| D029 | 0.25 lbs/sk | | 37.5 |
| S001 | 2 % BWOB | | 282 |
| D903 | 94 lbs/sk | | 14100 |



Cement Job Report

CemCAT v1.0

| | | | |
|-----------------|---------------|-----------------|--------------------------|
| Well | HJV Koehn A-1 | Client | ANADARKO PETROLEUM CORP. |
| Field | | SIR No. | 2205440625 |
| Engineer | Jose Camargo | Job Type | Surface |
| Country | United States | Job Date | 09-07-2002 |

| Time | Pressure | Rate | Density | Messages |
|---------------------|----------|------|---------|---|
| 09/07/2002 14:03:00 | | | | Start Job Pressure Test Lines Reset Total, Vol = 0.00 bbl Pressure Test Lines Reset Total, Vol = 0.00 bbl Start Pumping Spacer Start Mixing Lead Slurry Reset Total, Vol = 17.27 bbl |
| 14:12:36 | | | | |
| 14:22:12 | | | | good returns |
| 14:31:48 | | | | |
| 14:41:24 | | | | |
| 14:51:00 | | | | End Lead Slurry Reset Total, Vol = 233.12 bbl Reset Total, Vol = 0.06 bbl Start Mixing Tail Slurry |
| 15:00:36 | | | | |
| 15:10:12 | | | | Drop Top Plug Start Displacement Reset Total, Vol = 36.72 bbl |
| 15:19:48 | | | | cement to surface |
| 15:29:26 | | | | Bump Top Plug Bleed Off Pressure End Displacement End Job |
| hh:mm:ss | PSI | B/M | LB/G | |

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Schlumberger

Cementing Service Report

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Customer: ANADARKO PETROLEUM CORPORATION, Job Number: 2205440663, NOV 04 2003

Well: HJVKOEHN A-1, Location: Ulysses, KS, Schlumberger Location: Ulysses, KS, Job Start: 2002-Sep-15, Field: HJVKOEHN A-1, Formation Name/Type: From Confidential, Bit Size: 5.705 in, Well MD: 5,705 ft, Well TVD: 5,705 ft, County: Grant, State/Province: KS, BHP: psi, BHST: °F, BHCT: °F, Pore Press. Gradient: psi/ft, Well Master: 0630443704, API / UWI: , Casing/Liner: Depth, 5705, Size, 5.5, Weight, 15.5, Grade, K55, Thread, 8RD, Rig Name: Murphin, Drilled For: Oil & Gas, Service Via: Land, Tubing/Drill Pipe: Depth, Size, Weight, Grade, Thread, Drilling Fluid Type: Lime, Max. Density: 9.2 lb/gal, Plastic Viscosity: 32, Service Line: Cementing, Job Type: Cem Prod Casing, Perforations/Open Hole: Top, Bottom, spf, No. of Shots, Total Interval, Diameter, Treat Down Casing, Displacement: 111.5 bbl, Packer Type, Packer Depth, Tubing Vol., Casing Vol., Annular Vol., Open Hole Vol., Casing Tools: Shoe Type: Other, Shoe Depth: 5700 ft, Squeeze Job: Squeeze Type, Tool Type, Stage Tool Type: 2 stage, Tool Depth, Stage Tool Depth: 4889 ft, Tail Pipe Size, Collar Type: Auto-Fill, Tail Pipe Depth, Collar Depth: 5656 ft, Sqz Total Vol., Lift Pressure: 560 psi, Pipe Rotated, Pipe Reciprocated, No. Centralizers: 14, Top Plugs: 1, Bottom Plugs, Cement Head Type: Single, Job Scheduled For: 2002-Sep-15 11:40, Arrived on Location: 2002-Sep-15 11:40, Leave Location: 2002-Sep-15 22:45, Table with columns: Date, Time, Treating Pressure, CMT RATE, CMT VOL, Message

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| | | | | | | | |
|------|---------------|--------------|--------------|----------|--------------------------------|------------|------------|
| Well | HJVK02HN #A-1 | Service Date | 02258-Sep-15 | Customer | ANADARKO PETROLEUM CORPORATION | Job Number | 2205440683 |
|------|---------------|--------------|--------------|----------|--------------------------------|------------|------------|

| Date | Time | Treating Pressure | CMT RATE | CMT VOL | 0 | 0 | 0 | 0 | Message |
|-------------|-------------|-------------------|----------|---------|---|---|---|---|-------------------------------|
| | 24 hr clock | psi | bbl/min | bbl | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 15:41 | 224 | 5.4 | 26.2 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 15:41 | | | | | | | | Reset Total, Vol = 26.16 bbl |
| 2002-Sep-15 | 15:44 | 192 | 5.4 | 17.9 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 15:46 | | | | | | | | Drop Bottom Plug |
| 2002-Sep-15 | 15:46 | 55 | 0.0 | 22.9 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 15:46 | | | | | | | | Reset Total, Vol = 22.86 bbl |
| 2002-Sep-15 | 15:46 | 55 | 0.0 | 22.9 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 15:46 | 50 | 0.0 | 0.0 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 15:46 | | | | | | | | Start Pumping Mud |
| 2002-Sep-15 | 15:49 | -5 | 0.0 | 0.0 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 15:54 | 0 | 0.0 | 0.0 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 16:00 | | | | | | | | Resumed Recording |
| 2002-Sep-15 | 16:07 | 179 | 7.9 | 0.1 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 16:11 | 183 | 7.9 | 24.8 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 16:16 | 179 | 7.9 | 64.3 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 16:21 | 169 | 3.0 | 90.9 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 16:26 | 1955 | 0.5 | 105.5 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 16:26 | | | | | | | | End of |
| 2002-Sep-15 | 16:26 | 2074 | 0.0 | 105.5 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 16:27 | 2074 | 0.0 | 105.5 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 16:27 | | | | | | | | Drop Dart |
| 2002-Sep-15 | 16:31 | 5 | 0.0 | 105.5 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 16:36 | 0 | 0.0 | 105.5 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 16:41 | 0 | 0.0 | 105.5 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 16:46 | 0 | 0.0 | 105.5 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 16:51 | 3813 | 0.0 | 109.4 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 16:56 | 5 | 0.0 | 109.4 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 17:01 | 0 | 0.0 | 109.4 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 17:06 | 0 | 0.0 | 109.4 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 17:10 | | | | | | | | Bump Dart |
| 2002-Sep-15 | 17:10 | 14 | 0.0 | 122.5 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 17:11 | | | | | | | | Rig Pumps To Displace |
| 2002-Sep-15 | 17:11 | 14 | 0.0 | 122.5 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 17:11 | 14 | 0.0 | 122.5 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 20:51 | | | | | | | | Reset Total, Vol = 122.48 bbl |
| 2002-Sep-15 | 21:07 | -14 | 0.0 | 0.0 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 21:07 | -14 | 0.0 | 0.0 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 21:07 | | | | | | | | mouse and rat hole |
| 2002-Sep-15 | 21:12 | 41 | 1.9 | 1.2 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 21:17 | 78 | 2.1 | 3.9 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 21:21 | 0 | 0.0 | 10.2 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 21:21 | | | | | | | | Start Second Stage |
| 2002-Sep-15 | 21:21 | | | | | | | | Start Pumping Spacer |
| 2002-Sep-15 | 21:21 | 0 | 0.0 | 10.2 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 21:21 | | | | | | | | End Spacer |
| 2002-Sep-15 | 21:22 | 0 | 0.0 | 10.2 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 21:27 | 307 | 5.4 | 18.2 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 21:31 | | | | | | | | End Tail Slurry |
| 2002-Sep-15 | 21:31 | | | | | | | | Start Mixing Tail Slurry |
| 2002-Sep-15 | 21:31 | 238 | 5.4 | 42.7 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 21:31 | 229 | 5.4 | 43.5 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 21:31 | | | | | | | | Reset Total, Vol = 43.45 lbl |
| 2002-Sep-15 | 21:32 | 275 | 5.4 | 2.0 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 21:37 | 229 | 5.4 | 29.1 | 0 | 0 | 0 | 0 | |

Release
NOV 04 2003
From
Confidential

KCC

OCT 17 2002

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COPY

| Well | | Field | | | Service Date | Customer | | | Job Number |
|---------------------------------------|------------------------|-------------------|-------------------------|--|-------------------------------|---|----|---|------------------------------|
| HJVKOEHN #A-1 | | | | | 02258-Sep-15 | AIIADARKO PETROLEUM CORPORATION | | | 2205440663 |
| Date | Time | Treating Pressure | CMT RATE | CMT VOL | 0 | 0 | 0 | 0 | Message |
| | 24 hr clock | psi | bbl/min | bbl | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 21:38 | | | | 0 | 0 | 0 | 0 | End Tail Slurry |
| 2002-Sep-15 | 21:38 | -9 | 0.0 | 35.5 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 21:38 | -9 | 0.0 | 35.5 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 21:38 | | | | | | | | Drop Top Plug |
| 2002-Sep-15 | 21:38 | | | | | | | | Start Displacement |
| 2002-Sep-15 | 21:38 | -5 | 0.0 | 35.5 | 0 | 0 | 0 | 0 | Reset Total, Vol = 35.45 bbl |
| 2002-Sep-15 | 21:38 | | | | | | | | |
| 2002-Sep-15 | 21:38 | -9 | 0.0 | 35.5 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 21:42 | 82 | 4.8 | 1.0 | 0 | 0 | 0 | 0 | KCC |
| 2002-Sep-15 | 21:47 | 151 | 7.8 | 37.9 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 21:52 | 165 | 7.8 | 77.2 | 0 | 0 | 0 | 0 | OCT 17 2002 |
| 2002-Sep-15 | 21:57 | 430 | 3.1 | 107.1 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 22:02 | 517 | 0.0 | 119.6 | 0 | 0 | 0 | 0 | CONFIDENTIAL |
| 2002-Sep-15 | 22:03 | 1625 | 0.0 | 120.9 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 22:03 | | | | | | | | Bump Top Plug |
| 2002-Sep-15 | 22:05 | -5 | 0.0 | 120.9 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 22:05 | | | | | | | | End Displacement |
| 2002-Sep-15 | 22:05 | -5 | 0.0 | 120.9 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 22:05 | | | | | | | | End Job |
| 2002-Sep-15 | 22:07 | 0 | 0.0 | 120.9 | 0 | 0 | 0 | 0 | |
| 2002-Sep-15 | 22:12 | -5 | 0.0 | 120.9 | 0 | 0 | 0 | 0 | |
| Post Job Summary | | | | | | | | | |
| Average Pump Rates, bpm | | | | | Volume of Fluid Injected, bbl | | | | |
| Slurry | N2 | Mud | Maximum Rate | Total Slurry | Mud | Spacer | N2 | | |
| 6 | | | 7.8 | 115 | 135 | 20 | | | |
| Treating Pressure Summary, psi | | | | | Breakdown Fluid | | | | |
| Maximum | Final | Average | Bump Plug to | Breakdown | Volume | Density | | | |
| 2000 | 0 | 230 | 2000 | | bbl | lb/gal | | | |
| Avg. N2 Percent | Designed Slurry Volume | Displacement | Mix Water Temp | <input type="checkbox"/> Cement Circulated to Surface? Volume 70 bbl <input type="checkbox"/> Washed Thru Perfs To ft | | | | | |
| % | 118 bbl | 111 bbl | 66 °F | | | | | | |
| Customer or Authorized Representative | | | Schlumberger Supervisor | | | <input type="checkbox"/> Circulation Lost | | <input checked="" type="checkbox"/> Job Completed | |
| Parks, Kenny | | | Camargo, Jose | | | | | | |

CONFIDENTIAL

| | | | |
|-----------------|---------------|-----------------|--------------------------|
| Well | HJV Koehn A-1 | Client | ANADARKO PETROLEUM CORP. |
| Field | | SIR No. | 2205440663 |
| Engineer | Jose Camargo | Job Type | 2 Stage |
| Country | United States | Job Date | 09-15-2002 |

| Time | Pressure | Rate | Density | Messages | |
|----------|-------------------------------|------------------------------|---|--|--|
| 15:24:43 | | | <p style="text-align: center;">KCC OCT 17 2002 CONFIDENTIAL</p> <p style="text-align: center;">Release NOV 04 2003 From Confidential</p> | <ul style="list-style-type: none"> Start Job Pressure Test Lines Bleed Off Pressure Start Pumping Spacer Reset Total, Vol = 0.34 bbl Start Mixing Scav Slurry Reset Total, Vol = 15.04 bbl End Scavenger Slurry Start Mixing Tail Slurry Reset Total, Vol = 26.16 bbl Drop Bottom Plug Reset Total, Vol = 22.86 bbl Start Pumping Mud Resume Recording End Mud Drop Dart | |
| 16:09:58 | | | | | |
| 16:55:13 | | | | | <ul style="list-style-type: none"> Bump Dart Rig Pumps To Displace |
| 17:40:28 | | | | | |
| 18:25:43 | | | | | |
| 19:10:58 | | | | | |
| 19:56:13 | | | | | |
| 20:41:28 | | | | | <ul style="list-style-type: none"> Reset Total, Vol = 122.48 bbl |
| 21:26:43 | | | | | <ul style="list-style-type: none"> <i>mouse and rat hole</i> Start Second Stage End Spacer Start Pumping Spacer End Tail Slurry Start Mixing Tail Slurry Reset Total, Vol = 43.45 bbl End Tail Slurry Drop Top Plug Start Displacement Reset Total, Vol = 35.45 bbl Bump Top Plug End Displacement End Job |
| 22:12:02 | | | | | |
| hh:mm:ss | 0 333 667 1000 1333 1667 2000 | 0.0 1.7 3.3 5.0 6.7 8.3 10.0 | 5 8 12 15 18 22 25 | | |
| | PSI | B/M | LB/G | | |