

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: NATIONAL COOPERATIVE REFINING CORPORATION

Operator Contact Person: J. L. ASHTON

Phone (316) 624-6253

Contractor: Name: NORSEMAN DRILLING

License: 3779

Wellsite Geologist: _____

Designate Type of Completion

New Well Re-Entry Workover

Oil SWD SLOW 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 PBD

Commingled Docket No. _____

Dual Completion Docket No. _____

Other (SWD or Inj?) Docket No. _____

11-26-96 12-9-96 1-23-97

Spud Date 11-26-96 Date Reached TD 12-21-96 Completion Date 1-23-97

API NO. 15- 081-21053-0000

County HASKELL

 - - SW - NW Sec. 16 Twp. 29 Rge. 34 X W E

1980 Feet from X (N) (circle one) Line of Section

1980 Feet from X (N) (circle one) Line of Section

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

Lease Name OWENS "A" Well # 6

Field Name EUBANK

Producing Formation KANSAS CITY "A"

Elevation: Ground 2986.0 KB _____

Total Depth 5700 PBD 4600

Amount of Surface Pipe Set and Cemented at 1812 Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set 3231 Feet

If Alternate II completion, cement circulated from _____

feet depth to _____ w/ _____ sx cmt.

Drilling Fluid Management Plan ALT 2 PER DIST 1 97
(Data must be collected from the Reserve Pit) 6-16-97

Chloride content 900 ppm Fluid volume 7005 bbls

Dewatering method used DRY, BACKFILL & RESTORE LOCATION.

Location of fluid disposal if hauled offsite: 41-97

Operator Name _____

Lease Name _____ License No. _____

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

County _____ Docket No. _____

RECEIVED
KANSAS COMPTON
APR - 1
A 1: 59
9

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 David W. Kapple
DAVID W. KAPPLE

Title DIVISION DRILLING ENGINEER Date 3/31/97

Subscribed and sworn to before me this 31st day of March 19 97.

Notary Public L. Marc Harvey

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)

ORIGINAL

SIDE TWO

Operator Name ANADARKO PETROLEUM CORPORATION Lease Name OWENS "A" Well # 6

Sec. 16 Twp. 29 Rge. 34 East West County HASKELL

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: DIL, ML, CNL-LDT, SONIC, CBL-GR.

Log Formation (Top), Depth and Datums Sample

Name	Top	Datum
B/STONE CORRAL	1810	
CHASE	2501	
COUNCIL GROVE	2828	
HEEBNER	3972	
LANSING A	4065	
KANSAS CITY A	4486	
MARMATON A	4683	
MORROW	5164	
CHESTER	5303	
ST. LOUIS	5410	

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	1812	P+ MIDCON/P+	360/100	3%CC, 1/4#SK FLC/2%CC, 1/4#SK FLC.
PRODUCTION	7-7/8"	5-1/2"	15.5	5483	50/50 POZ.	270	10% SALT, .75% HALAD 322, 12.5#SK GILSONITE.
			F.O. TOOL @	3231	P+ MIDCON.	60	3%CC, 1/4#SK FLC.

ADDITIONAL CEMENTING/SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	#Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate				
<input type="checkbox"/> Protect Casing				
<input type="checkbox"/> Plug Back TD				
<input type="checkbox"/> Plug Off Zone				

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
2	5356-62, 5266-76, CIBP @ 5320.	ACID: 1600 GAL 7-1/2% FeHCL.	5356-76 (OA)
2	5254-5264, CIBP @ 5250.	ACID: 800 GAL 7-1/2% FeHCL.	5254-5264
2	5224-5240, CIBP @ 5200.	ACID: 1000 GAL 7-1/2% FeHCL.	5224-5240
2	5131-5138, CIBP @ 4600.	ACID: 700 GAL 7-1/2% FeHCL.	5131-5138.
2	4486-4490,	ACID: 500 GAL 15% FeHCL.	4486-4490.

TUBING RECORD	Size 2 3/8	Set At 4501	Packer At	Liner Run <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Date of First, Resumed Production, SWD or Inj. 3-12-97 Producing Method Flowing Pumping Gas Lift Other (Explain)

Estimated Production Per 24 Hours	Oil Bbls. 14	Gas Mcf 0	Water Bbls. 60	Gas-Oil Ratio	Gravity
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Disposition of Gas: Vented Sold Used on Lease (If vented, submit ACO-18.) METHOD OF COMPLETION Open Hole Perf. Dually Comp. Commingled Other (Specify) _____ Production Interval 4486-4490.

af
ORIGINAL

NORSEMAN DRILLING, INC.
WICHITA, KANSAS
DRILLERS' WELL LOG

WELL NAME: OWENS A-6
SECTION 16-29S-34W
HASKELL COUNTY, KANSAS

COMMENCED: November 23, 1996

COMPLETED: December 10, 1996

OPERATOR: ANADARKO PETROLEUM CORPORATION

Depth From	To	Formation	Remarks
0	1244	Sand & Redbed	Ran 41 jts of 23# of
1245	1450	Glorietta Sand	8 5/8" csg set @ 1810';
1451	3160	Redbed	Cementing details are
3161	5700	Lime & Shale	unknown. Plug down at 5:15 p.m. on 11/28/96.

Ran 5 1/2" 15.5#, w/270 SX . 50/50 Pozmix; Plug down 9:00 a.m. on 12/10/96;
Rig Rel at 11:00 a.m. on 12/10/96.

STATE OF KANSAS)
)
COUNTY OF SEDGWICK)

I the undersigned, being duly sworn on oath, state that the
above Drillers' Well Log is true and correct to the best of my
knowledge and belief and according to the records of this office.

NORSEMAN DRILLING, INC.

James P. Reilly

JAMES P. REILLY, PRESIDENT

RECEIVED
KANSAS CORP COMM
1997 APR -1 A 11:50

Subscribed & sworn to before me this December 20, 1996

My Appointment Expires:

July 21, 1999

Phyllis E. Brewer

Phyllis^E. Brewer, Notary Public
11817 Jamesburg
Wichita, KS 67212 *(37)*



HALLIBURTON JOB SUMMARY

HALLIBURTON DIVISION
HALLIBURTON LOCATION

Midcont
Lizell, Ks

BILLED ON TICKET NO. **KCC 107292**

WELL DATA

FIELD _____ SEC. **16** TWP. **29S** RNG. **34W** COUNTY **Has Kell** STATE **Ks**

FORMATION NAME _____ TYPE _____
 FORMATION THICKNESS _____ FROM _____ TO _____
 INITIAL PROD: OIL _____ BPD: WATER _____ BPD: GAS _____ MCFD
 PRESENT PROD: OIL _____ BPD: WATER _____ BPD: GAS _____ MCFD
 COMPLETION DATE _____ MUD TYPE _____ MUD WT. _____
 PACKER TYPE _____ SET AT _____
 BOTTOM HOLE TEMP. _____ PRESSURE _____
 MISC. DATA _____ TOTAL DEPTH _____

	NEW USED	WEIGHT	SIZE	FROM	TO	MAXIMUM PSI ALLOWABLE
CASING		2.4	8 5/8	KTS	1813	
LINER						
TUBING						
OPEN HOLE			12 1/4	GL	1810	SHOTS/FT.
PERFORATIONS						
PERFORATIONS						
PERFORATIONS						

ORIGINAL

JOB DATA

TOOLS AND ACCESSORIES

TYPE AND SIZE	QTY.	MAKE
Float cover 8 5/8 Lined Float	1	Hanna
Float shoe Fillup	1	
GUIDE SHOE P.S.S.	1	
CENTRALIZERS	5	
BOTTOM PLUG		
TOP PLUG	1	
HEAD	1	
PACKER Basket	1	
OTHER Hanna well	1 WS	

CALLER OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
DATE 11-28	DATE 11-28	DATE 11-28	DATE 11-28
TIME 0540	TIME 0900	TIME 1620	TIME 1715

PERSONNEL AND SERVICE UNITS

NAME	UNIT NO. & TYPE	LOCATION
Osair	420041	L. NEWL Ks
Clay	52938 / 75051	" "
S. Leonard	50737 / 75817	Hugoton Ks
S. Grant	50404 / 76010	" "

RECEIVED
KANSAS CORP.
CONIM

MATERIALS

TREAT. FLUID _____ DENSITY _____ LB/GAL. API
 DISPL. FLUID _____ DENSITY _____ LB/GAL. API
 PROP. TYPE _____ SIZE _____ LB.
 ACID TYPE _____ GAL. _____ %
 SURFACTANT TYPE _____ GAL. _____ IN.
 NE AGENT TYPE _____ GAL. _____ IN.
 FLUID LOSS ADD. TYPE _____ GAL.-LB. _____ IN.
 GELLING AGENT TYPE _____ GAL.-LB. _____ IN.
 FRIC. RED. AGENT TYPE _____ GAL.-LB. _____ IN.
 BREAKER TYPE _____ GAL.-LB. _____ IN.
 BLOCKING AGENT TYPE _____ GAL.-LB. _____
 PERFPAC BALLS TYPE _____ QTY. _____
 OTHER _____
 OTHER _____

DEPARTMENT **Concrete**
 DESCRIPTION OF JOB **8 5/8 Surface**
 JOB DONE THRU: TUBING CASING ANNULUS TBG./ANN.
 CUSTOMER REPRESENTATIVE **John Paulson**
 HALLIBURTON OPERATOR **Debbie Sims** COPIES REQUESTED _____

CEMENT DATA

STAGE	NUMBER OF SACKS	CEMENT	BRAND	BULK SACKED	ADDITIVES	YIELD CU.FT./SK.	MIXED LBS./GAL.
	350	Mid Cont	Beam Plus		3% CC 1/4# Floccle	3.22	11.1
	100	Mid Cont	Beam Plus		2% CC 1/4# Floccle	1.32	14.8

PRESSURES IN PSI

CIRCULATING _____ DISPLACEMENT _____
 BREAKDOWN _____ MAXIMUM _____
 AVERAGE _____ FRACTURE GRADIENT _____
 SHUT-IN: INSTANT _____ 5-MIN. _____ 15-MIN. _____
 HYDRAULIC HORSEPOWER _____
 ORDERED _____ AVAILABLE _____ USED _____
 AVERAGE RATES IN BPM _____
 TREATING _____ DISPL. _____ OVERALL _____
 CEMENT LEFT IN PIPE _____
 FEET **415** REASON **Shoe clean**

SUMMARY

PRESLUSH: BBL.-GAL. _____ TYPE _____
 LOAD & BKDN: BBL.-GAL. _____ PAD: BBL.-GAL. _____
 TREATMENT: BBL.-GAL. _____ DISPL: BBL.-GAL. **113.32**
 CEMENT SLURRY: BBL.-GAL. **2,79.95**
 TOTAL VOLUME: BBL.-GAL. _____

REMARKS

CUSTOMER

CUSTOMER: **Amstar 15120 - Camp Lease**
 WELL NO: **11-16-715**
 JOB TYPE: **CONCRETE**



JOB LOG HAL-2013-C

CUSTOMER Anschutz Petro.	WELL NO. A 6	LEASE Owens	JOB TYPE 8 7/8 SURFACE	TICKET NO. 107292
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CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	0540							Time Colled
	1000							Time Ready
	0900							Time on Job. Pig Dtg SURFACE Hld.
								ORIGINAL
								Start Pumping Casing
	1550 1550							Casing in Hld.
	1550 1550							Hookup To Circulate Casing
	1600							Circulate Casing w/ Pig Pump
	1602							Circulate Mud To Gradient Level
	1610							Hookup To Pump Truck
	1613	6.6				150		Start Mixing Cement
	1643		206 ⁴⁵			175		Start Tail Cement
	1648		23.50			175		Finish Mixing Cement
	1649		29.95			10		Shut Down
	1650	6				75		START Displacement
		4.5	113.32					wash Pumps + Lines
	1715					350/1000		Pig Down
								Float Hld
								Circulate Cement To P.T.
						3 BPM	5 SE	
								Thanks For Calling
								Halliburton
								Evening
								Dennis Corp
								+ Crew

RECEIVED
 ANSAS CORP COME
 997 APR - 1 4 11:49

Deep Pig.



HALLIBURTON

JOB
SUMM, Y

HALLIBURTON
DIVISION

MidContinent

HALLIBURTON
LOCATION

Liberal Ks.

CELLED ON
TICKET NO.

102194

WELL DATA

WELL _____ SEC. 16 TWP. 29S RING. 43W COUNTY Haskell STATE KS

FORMATION NAME _____ TYPE _____
FORMATION THICKNESS _____ FROM _____ TO _____
INITIAL PROD. OIL _____ O.P.D. WATER _____ O.P.D. GAS _____ MCFD
PRESENT PROD. OIL _____ O.P.D. WATER _____ O.P.D. GAS _____ MCFD
COMPLETION DATE _____ MUD TYPE _____ MUD WT. _____
PACKER TYPE _____ SET AT _____
BOTTOM HOLE TEMP. _____ PRESSURE _____
MISC. DATA F.O. Tool TOTAL DEPTH 3231

	NEW USED	WEIGHT	SIZE	FROM	TO	MAXIMUM PSI ALLOWABLE
CASING	U	25.5	5.5	62	5430+	
LINEAR						
TUBING	N	4.7	2 1/2	KB		
OPEN HOLE						SHOTS/FT.
PERFORATIONS						
PERFORATIONS						
PERFORATIONS						

JOB DATA

TOOLS AND ACCESSORIES		
TYPE AND SIZE	QTY.	MAKE
FLOAT COLLAR		
FLOAT SHOE		
GUIDE SHOE		
CENTRALIZERS		
BOTTOM PLUG		
TOP PLUG		
HEAD		
PACKER		
OTHER		

CALLED OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
DATE <u>11/7/97</u>	DATE <u>11/7/97</u>	DATE <u>11/7/97</u>	DATE <u>11/7/97</u>
TIME <u>0530</u>	TIME <u>0750</u>	TIME <u>1231</u>	TIME <u>1623</u>

MATERIALS

TREAT. FLUID _____ DENSITY _____ LB/GAL. °API

DISPL. FLUID _____ DENSITY _____ LB/GAL. °API

PROP. TYPE _____ SIZE _____ LB.

PROP. TYPE _____ SIZE _____ LB.

ACID TYPE 7.5% FE GAL. 250 %

ACID TYPE _____ GAL. %

ACID TYPE _____ GAL. %

SURFACTANT TYPE _____ GAL. IN

NE AGENT TYPE _____ GAL. IN

FLUID LOSS ADD. TYPE _____ GAL.-LB. IN

GELLING AGENT TYPE _____ GAL.-LB. IN

FRIC. RED. AGENT TYPE _____ GAL.-LB. IN

BREAKER TYPE _____ GAL.-LB. IN

BLOCKING AGENT TYPE _____ GAL.-LB.

PERFPAC BALLS TYPE _____ QTY.

OTHER _____

OTHER _____

PERSONNEL AND SERVICE UNITS		
NAME	UNIT NO. & TYPE	LOCATION
<u>T. Mullins</u>		
<u>T. Poyer</u>		
<u>L. Patterson</u>		

DEPARTMENT Tool Cement

DESCRIPTION OF JOB Reinment thru F.O. Tool

JOB DONE THRU: TUBING CASING ANNULUS TBC/ANN.

CUSTOMER REPRESENTATIVE X O. J. A. Luck

HALLIBURTON OPERATOR Thomas J. Mullin COPIES REQUESTED _____

CEMENT DATA

STAGE	NUMBER OF BAGS	CEMENT	BRAND	BULK SACKED	ADDITIVES	YIELD CU.FT./BK.	MIXED LBS./GAL.
	<u>60</u>	<u>Prt Midcon</u>		<u>B</u>	<u>3% CC, 1/4% Flocle</u>	<u>3.22</u>	<u>11.1</u>

PRESSURES IN PSI

CIRCULATING _____ DISPLACEMENT _____

BREAKDOWN _____ MAXIMUM _____

AVERAGE _____ FRACTURE GRADIENT _____

SHUT-IN: INSTANT _____ 5-MIN _____ 15-MIN _____

HYDRAULIC HORSEPOWER _____

ORDERED _____ AVAILABLE _____ USED _____

AVERAGE RATES IN BPM _____

TREATING _____ DISPL. _____ OVERALL _____

CEMENT LEFT IN PIPE _____

FEET _____ REASON _____

SUMMARY

VOLUMES

PRESLUSH 20 GAL. TYPE H2O

LOAD & BKON: BBL. GAL. _____ PAD: BBL. GAL. _____

TREATMENT: BBL. GAL. _____ DISP. 12.5 GAL.

CEMENT SLURRY 34.4 GAL.

TOTAL VOLUME 34.4 GAL.

REMARKS

CUSTOMER ANADARKO PETROLEUM CORP. LEASE OWNERS WELL NO. 103 DATE 11/11/97



DATE: 1-7-97
 PAGE NO.:
 TICKET NO.: 107194

JOB LOG MAL-2013-C

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	0530							Called out - Requested "0930"
	0850							On Loc. - setting-up Rig
	1030							T. I. H.
	1225							Hook-up to cmt - 10 ft connection
	1231	0-1/2		✓		0/1100		Press. Test - well head leak
	1309	0-1/2		✓		0/1500		Press. test - good
	1320	0-1/2		✓		0/300		Open tool ORIGINAL
	1322	1/2-3		✓		300/600		Tool open
	1322	3	20	✓		600/400		Pump H ₂ O
	1328	3-3 1/2	34 1/2	✓		400/100		Pump Cmt @ 60 sts.
	1338	3 1/2-3	12	✓		100/300		Pump Disp. - H ₂ O
	1342	3-0				300		Shut down - Closed tool
	1345	0-1/2		✓		300/1500		Press. Test - good
								T. I. H. @ 2 Jts
	1354	0-3	17	✓		7/400		REVERSE out
	1400	3-0		✓		400/0		Shut Down - T. I. H.
	1526	0-1 1/2	6	✓		0/100		Pump 7 1/2% Fe
	1530	1 1/2	15	✓		100/50		Pump 2% KCL
	1539	1 1/2-0				50/0		Shut Down - Hook-up P.S.
	1543	0-	124	✓		0/100		REVERSE out
	1623	-0		✓		1000/0		Shut down
								Release from Loc.
								Thank you!
								Tom & Mullins & crew



JOB SUMMARY

HALLIBURTON DIVISION

Mid East

HALLIBURTON LOCATION

Luzon, Pa

BILLED ON TICKET NO.

1070300

WELL DATA
 FIELD _____ SEC 16 TWP. 29^S RNG. 34W COUNTY Washell STATE Pa

FORMATION NAME _____ TYPE _____
 FORMATION THICKNESS _____ FROM _____ TO _____
 INITIAL PROD: OIL _____ BPD. WATER _____ BPD. GAS _____ MCFD
 PRESENT PROD: OIL _____ BPD. WATER _____ BPD. GAS _____ MCFD
 COMPLETION DATE _____ MUD TYPE _____ MUD WT. _____
 PACKER TYPE _____ SET AT _____
 BOTTOM HOLE TEMP. _____ PRESSURE _____
 MISC. DATA _____ TOTAL DEPTH _____

	NEW USED	WEIGHT	SIZE	FROM	TO	MAXIMUM P. ALLOWABL
CASING		15 ^S	5 1/2	413	5480	
LINER						
TUBING						
OPEN HOLE			7 1/2		5700	SHOTS/FT
PERFORATIONS						
PERFORATIONS						
PERFORATIONS						

ORIGINAL

JOB DATA

CALLLED OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
DATE <u>12-9</u>	DATE <u>12-9</u>	DATE <u>12-10</u>	DATE <u>12-10</u>
TIME <u>2030</u>	TIME <u>2315</u>	TIME <u>0645</u>	TIME <u>0850</u>

TOOLS AND ACCESSORIES			
TYPE AND SIZE	QTY.	MAKE	
FLOAT COLLAR <u>5 1/2</u>	<u>1</u>	<u>Hercos</u>	
FEEDER SHOE <u>1 1/2</u>	<u>1</u>		
GUIDE SHOE <u>1 1/2</u>	<u>1</u>		
CENTRALIZERS	<u>21</u>		
BOTTOM PLUG			
TOP PLUG	<u>1</u>		
HEAD	<u>1</u>		
PACKER			
OTHER <u>Pack Collar</u>	<u>1</u>		

PERSONNEL AND SERVICE UNITS		
NAME	UNIT NO. & TYPE	LOCATION
<u>L. D. R. 2</u>	<u>476041</u>	<u>Luzon</u>
<u>Clay</u>	<u>52934</u>	<u>H</u>
<u>D. G. R. 2</u>	<u>4087</u>	<u>Houston</u>
	<u>1997</u>	<u>RECEIVED</u>
	<u>1/11</u>	<u>RECEIVED</u>
	<u>1/11</u>	<u>RECEIVED</u>

MATERIALS
 TREAT. FLUID _____ DENSITY _____ LB/GAL. API
 DISPL. FLUID _____ DENSITY _____ LB/GAL. API
 PROP. TYPE _____ SIZE _____ LB.
 PROP. TYPE _____ SIZE _____ LB.
 ACID TYPE _____ GAL. _____ %
 ACID TYPE _____ GAL. _____ %
 ACID TYPE _____ GAL. _____ %
 SURFACTANT TYPE _____ GAL. _____ IN
 NE AGENT TYPE _____ GAL. _____ IN
 FLUID LOSS ADD. TYPE _____ GAL.-LB. _____ IN
 GELLING AGENT TYPE _____ GAL.-LB. _____ IN
 FRIC. RED. AGENT TYPE _____ GAL.-LB. _____ IN
 BREAKER TYPE _____ GAL.-LB. _____ IN
 BLOCKING AGENT TYPE _____ GAL.-LB. _____
 PERFPAC BALLS TYPE _____ QTY. _____
 OTHER _____
 OTHER _____

DEPARTMENT Cement
 DESCRIPTION OF JOB 5/8 Wood String
 JOE - ONE THRU: TUBING CASING ANNULUS TBG./ANN
 CUSTOMER REPRESENTATIVE X
 HALLIBURTON OPERATOR D. G. R. 2 COPIES REQUESTED _____

CEMENT DATA

STAGE	NUMBER OF SACKS	CEMENT	BRAND	BULK SACKED	ADDITIVES	YIELD CU.FT./SK.	MIXED LBS./GAL.
<u>298</u>	<u>56/50</u>	<u>P37</u>	<u>P37</u>		<u>10% S. 17 75% H. 322 #2 1/2 #6. 10% S. 17 75% H. 322 #2 1/2 #6. 10% S. 17 75% H. 322 #2 1/2 #6.</u>	<u>1.54</u>	<u>13.4</u>
<u>30</u>	<u>56/50</u>	<u>P37</u>	<u>P37</u>		<u>10% S. 17 75% H. 322 #2 1/2 #6. 10% S. 17 75% H. 322 #2 1/2 #6.</u>	<u>1.54</u>	<u>13.4</u>

PRESSURES IN PSI

CIRCULATING _____ DISPLACEMENT _____
 BREAKDOWN _____ MAXIMUM _____
 AVERAGE _____ FRACTURE GRADIENT _____
 SHUT-IN: INSTANT _____ 5-MIN _____ 15-MIN. _____
 HYDRAULIC HORSEPOWER _____
 ORDERED _____ AVAILABLE _____ USED _____
 AVERAGE RATES IN BPM _____
 TREATING _____ DISPL. _____ OVERALL _____
 CEMENT LEFT IN PIPE _____
 FEET 42 REASON Stop

SUMMARY

VOLUMES
 PRESUSH: BBL.-GAL. 8.138 TYPE KBH/430
 LOAD & BKDN: BBL.-GAL. _____ PAD: BBL.-GAL. _____
 TREATMENT: BBL.-GAL. _____ DISPL: BBL.-GAL. 129.78
 CEMENT SLURRY: BBL.-GAL. 74.03
 TOTAL VOLUME: BBL.-GAL. _____

REMARKS



JOB LOG HAL-2013-C

CUSTOMER Anadarko Petro. WELL NO. A 6 LEASE Owens JOB TYPE 5 1/2 Prod. Str. TICKET NO. 107300

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	2030							Time Called
	0030							Time Ready ORIGINAL
	2315							Time out.
	0230							Start Running Casing
	0645							Casing - in Hole
	0645							Hook up to Circulate Casing
	0655							Circulate Casing w/ Pig Pumps
	0658							Circulate 11 hrs to Ground Level
	0745							Plug Bittles w/ 15" Mouse Hole w/ 10"
	0800							Hookup to Pump Truck
	0803	5	8			300		Start Water Ahead
	0805	/	10			300		Start Spore Flush
	0807	/	8			300		Start Water Behind
	0809	6						Start Mixing Cement
	0820	/	74.03			250		Finish Mixing Cement
	0821	/				250		Shut Down
								Draw Plug wash Pumps + Lines
	0825	6				150		Start Displacement
		5.1	129.18					
	0850					10/1200		Plug Down
								Float Held Circulate Fluid Thru out the slot.
								Thanks For Calling Halliburton Energy Dennis Coyle Coyle

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