KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1146969

Form ACO-1
June 2009
Form Must Be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 33002
Name: Kerr-McGee Oil & Gas Onshore LP
Address 1: PO BOX 1330
Address 2: REGULATORY GROUP
City: HOUSTON State: TX Zip: 77251 + 1330
Contact Person: Kim Vincent
Phone: (832) 636-1456
CONTRACTOR: License # 30606
Name: Murfin Drilling Co., Inc.
Wellsite Geologist: Kevin Hae Hae
Purchaser:

Designate Type of Completion:

- [x] New Well
- [ ] Re-Entry
- [ ] Workover

- [x] Oil
- [ ] WSW
- [ ] SWD
- [ ] SIOW
- [ ] Gas
- [ ] D&A
- [ ] ENHR
- [ ] SIGW
- [ ] OG
- [ ] GSW
- [ ] Temp. Abd.
- [ ] CM *(Coal Bed Methane)*
- [ ] Cathodic
- [ ] Other *(Core, Expl., etc.)*:

If Workover/Re-entry: Old Well Info as follows:

Operator:
Well Name:
Original Comp. Date: Original Total Depth:

- [ ] Deepening
- [ ] Re-perf.
- [ ] Conv. to ENHR
- [ ] Conv. to SWD
- [ ] Conv. to GSW
- [ ] Plug Back: Plug Back Total Depth
- [ ] Commingled Permit #:
- [ ] Dual Completion Permit #:
- [ ] SWD Permit #:
- [ ] ENHR Permit #:
- [ ] GSW Permit #:

02/11/2013	02/18/2013	04/01/2013
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-187-21216-00-00
Spot Description:
_ - _ - SE - SE Sec. 22 Twp. 29 S. R. 41 [ ] East [x] West
660 Feet from [ ] North / [x] South Line of Section
660 Feet from [x] East / [ ] West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- [ ] NE
- [ ] NW
- [x] SE
- [ ] SW

County: Stanton
Lease Name: KENDRICK 22 Well #: 3
Field Name: Arroyo
Producing Formation: Morrow
Elevation: Ground: 3388 Kelly Bushing: 3400
Total Depth: 5706 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 1605 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
(Data must be collected from the Reserve Pit)

Chloride content: 2300 ppm Fluid volume: 300 bbls
Dewatering method used: Evaporated

Location of fluid disposal if hauled offsite:

Operator Name:
Lease Name: License #:
Quarter Sec. Twp. S. R. [ ] East [ ] West
County: Permit #:

AFFIDAVIT

I am the affiant and I hereby certify that 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.

Submitted Electronically

KCC Office Use ONLY

- [ ] Letter of Confidentiality Received
  Date:
- [ ] Confidential Release Date:
- [ ] Wireline Log Received
- [ ] Geologist Report Received
- [ ] UIC Distribution

ALT [x] I [ ] II [ ] III Approved by: Deanna Garrison Date: 06/13/2013

Side Two

[redacted]

1146969

Operator Name: Kerr-McGee Oil & Gas Onshore LP Lease Name: KENDRICK 22 Well #: 3

Sec. 22 Twp. 29 S. R. 41 ☐ East ☑ West County: Stanton

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems 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 test, along with final chart(s). Attach extra sheet if more space is needed. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

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

Electric Log Submitted Electronically ☐ Yes ☐ No
(If no, Submit Copy)

List All E. Logs Run:

☐ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
Lower Morrow A	5410	5420
Lower Morrow A	5436	5438

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	12.25	8.625	24	1605	varicem/halcem	610	
Production	7.875	5.5	15.5	5630	premium 50/50	310	

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
☐ Perforate ☐ Protect Casing ☐ Plug Back TD ☐ 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
6	5410 - 5420	All Perfs; 41,076 gals 25# frac 4% kcl, 58,900# 16/30 brown sand and 12,165 # 16/30 resin coated brown sar	
6	5436 - 5438		

TUBING RECORD: Size: 2.375 Set At: 5466 Packer At:

Liner Run: ☐ Yes ☑ No

Date of First, Resumed Production, SWD or ENHR. 04/11/2013

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.)

METHOD OF COMPLETION:
☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*
☐ Other *(Specify)*

PRODUCTION INTERVAL:
5410
5438

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 300466	**Ship To #:** 2980361	**Quote #:**	**Sales Order #:** 900212135
Customer: ANADARKO PETROLEUM CORP - EBUS		**Customer Rep:** WATKINS, MIKE	
Well Name: Kendrick 22	**Well #:** 3		**API/UWI #:**
Field:	**City (SAP):** JOHNSON	**County/Parish:** Stanton	**State:** Kansas
Contractor: Murfin	**Rig/Platform Name/Num:** 21		
Job Purpose: Cement Surface Casing			
Well Type: Development Well	**Job Type:** Cement Surface Casing		
Sales Person: KRANZ, ZACHARY	**Srvc Supervisor:** VILLANUEVA, EDUARDO	**MBU ID Emp #:** 341956	

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
MARTINEZ, FERNANDO	7	520482	STONESTREET, DANNY	7	511911	TREJO, NOE	7	456243
VILLANUEVA, EDUARDO	7	341956						

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10244148	85 mile	10804587	85 mile	10825440	85 mile	11006598	85 mile
11515118	85 mile	11515198	85 mile	11706682	85 mile		

Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
2-13-2013	5.5	2						
TOTAL			*Total is the sum of each column separately*					

Job

Formation Name			
Formation Depth (MD)	**Top**	**Bottom**	
Form Type		**BHST**	
Job depth MD	1660. m	**Job Depth TVD**	1660. m
Water Depth		**Wk Ht Above Floor**	
Perforation Depth (MD)	**From**	**To**	

Job Times

	Date	Time	Time Zone
Called Out	13 - Feb - 2013	10:30	CST
On Location	13 - Feb - 2013	17:00	CST
Job Started	13 - Feb - 2013	18:30	CST
Job Completed	13 - Feb - 2013	20:00	CST
Departed Loc	13 - Feb - 2013	22:30	CST

Well Data

Description	New / Used	Max pressure MPa	Size mm	ID mm	Weight kg/m	Thread	Grade	Top MD m	Bottom MD m	Top TVD m	Bottom TVD m
12 1/4" Surface Hole				12.25					1605.		
8 5/8" Surface Casing	Unknown		8.625	8.097	24.	8 RD (ST&C)	J-55		1605.		

Sales/Rental/3rd Party (HES)

Description	Qty	Qty uom	Depth	Supplier
PLUG,CMTG,TOP,8 5/8,HWE,7.20 MIN/8.09 MA	1	EA		
SHOE,GID,8-5/8 8RD	1	EA		
VLVASSY,INSR FLOAT,8-5/8 8RD, 24 lbs/ft	1	EA		
FILLUP ASSY - 1.500 ID - 7 IN. - 8-5/8	1	EA		
CENTRALIZER ASSY - API - 8-5/8 CSG X	7	EA		
CLAMP - LIMIT - 8-5/8 - HINGED -	1	EA		
BASKET - CEMENT - 8 5/8 CSG X 12 1/4	1	EA		
KIT,HALL WELD-A	1	EA		

Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug			

HALLIBURTON

Cementing Job Summary

Float Shoe					Bridge Plug					Bottom Plug					
Float Collar					Retainer					SSR plug set					
Insert Float										Plug Container					
Stage Tool										Centralizers					

Miscellaneous Materials

Gelling Agt		Conc		Surfactant		Conc		Acid Type		Qty		Conc	%		
Treatment Fld		Conc		Inhibitor		Conc		Sand Type		Size		Qty			

Fluid Data

Stage/Plug #: 1

Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density kg/m3	Yield m3/sk	Mix Fluid m3/ tonne	Rate m3/min	Total Mix Fluid m3/ tonne
1	Water Pre-Flush		10.00	bbl	8.33	.0	.0	6.0	
2	Lead Slurry	VARICEM (TM) CEMENT (452009)	410.0	sacks	11.4	2.95	18.09	6.0	18.09
	3 %	CALCIUM CHLORIDE, PELLET, 50 LB (101509387)							
	0.1 %	WG-17, 50 LB SK (100003623)							
	0.5 lbm	POLY-E-FLAKE (101216940)							
	18.09 Gal	FRESH WATER							
3	Tail Slurry	HALCEM (TM) SYSTEM (452986)	200.0	sacks	15.6	1.2	5.22	6.0	5.22
	2 %	CALCIUM CHLORIDE, PELLET, 50 LB (101509387)							
	0.25 lbm	POLY-E-FLAKE (101216940)							
	5.218 Gal	FRESH WATER							
4	Displacement		103.00	bbl	8.33	.0	.0	.0	

Calculated Values		Pressures		Volumes					
Displacement	103	Shut In: Instant		Lost Returns	NO	Cement Slurry	258	Pad	
Top Of Cement	SURFACE	5 Min		Cement Returns	90	Actual Displacement	103	Treatment	
Frac Gradient		15 Min		Spacers	10	Load and Breakdown		Total Job	

Rates

Circulating	5	Mixing	5	Displacement	5	Avg. Job	5

Cement Left In Pipe	Amount	42 ft	Reason	Shoe Joint									
Frac Ring # 1 @		ID		Frac ring # 2 @		ID		Frac Ring # 3 @		ID		Frac Ring # 4 @		ID	

The Information Stated Herein Is Correct

Customer Representative Signature

HALLIBURTON

Cementing Job Log

The Road to Excellence Starts with Safety

Sold To #: 300466	**Ship To #:** 2980361	**Quote #:**	**Sales Order #:** 900212135
Customer: ANADARKO PETROLEUM CORP - EBUS		**Customer Rep:** WATKINS, MIKE	
Well Name: Kendrick 22	**Well #:** 3		**API/UWI #:**
Field:	**City (SAP):** JOHNSON	**County/Parish:** Stanton	**State:** Kansas
Legal Description:			
Lat:		**Long:**	
Contractor: Murfin	**Rig/Platform Name/Num:** 21		
Job Purpose: Cement Surface Casing			**Ticket Amount:**
Well Type: Development Well	**Job Type:** Cement Surface Casing		
Sales Person: KRANZ, ZACHARY	**Srvc Supervisor:** VILLANUEVA, EDUARDO		**MBU ID Emp #:** 341956

Activity Description	Date/Time	Cht #	Rate m3/ min	Volume m3		Pressure MPa		Comments
				Stage	Total	Tubing	Casing	
Call Out	02/13/2013 10:30							8--5/8" SURFACE PIPE.
Depart Yard Safety Meeting	02/13/2013 12:20							DISCUSSED SAFE ROUTE.
Crew Leave Yard	02/13/2013 12:45							AS A CONVOY.
Arrive At Loc	02/13/2013 17:00							RIG ON BOTTTOM, GOT W/CO MAN.
Pre-Rig Up Safety Meeting	02/13/2013 17:05							DISCUSSED JOB & HAZARDS.
Rig-Up Equipment	02/13/2013 18:10							SPOT TRUCKS RIG UP MLINES TO RIG.
Pre-Job Safety Meeting	02/13/2013 18:15							W/RIG,CO MAN & HES.
Start Job	02/13/2013 18:30							HAD S/M.
Test Lines	02/13/2013 18:35						2500.0	TEST 2500 PSI.
Pump Spacer	02/13/2013 18:39		4				50.0	PUMP 10, BBLS F/W.
Pump Lead Cement	02/13/2013 18:43		5.5				160.0	PUMP 215, BBLS LEAD @ 11.4#
Pump Tail Cement	02/13/2013 19:21		5.5				140.0	PUMP 43, BBLS TAIL @ 15.6 #
Shutdown	02/13/2013 19:30							WASH ON TOP OF PLUG.
Drop Top Plug	02/13/2013 19:31							8-5/8" HWE T/P.
Pump Displacement	02/13/2013 19:32		6				50.0	DISPLACE = 103, BBLS F/W.
Cement Returns to Surface	02/13/2013 19:35							GOT 90, BBLS CMT. BACK.
Displ Reached Cmnt	02/13/2013 19:44		6				185.0	6, BPM. 60, BBLS AWAY.

HALLIBURTON

Cementing Job Log

Activity Description	Date/Time	Cht #	Rate m3/ min	Volume m3		Pressure MPa		Comments
				Stage	Total	Tubing	Casing	
Slow Rate	02/13/2013 19:46		4				250.0	4, BPM. 70, BBLS AWAY.
Slow Rate	02/13/2013 19:51		2				380.0	2, BPM. 90, BBLS AWAY.
Bump Plug	02/13/2013 19:57		2				850.0	2, BPM. 440 TO 880 PSI.
Check Floats	02/13/2013 19:59						.0	HOLDING, 1, BBL BACK.
End Job	02/13/2013 20:00							GOOD & SAFE JOB.
Pre-Rig Down Safety Meeting	02/13/2013 20:20							DISCUSSED HAZERDS W/CREW.
Rig-Down Equipment	02/13/2013 22:00							SAFELY.
Depart Location Safety Meeting	02/13/2013 22:20							CALL OUT J/M.
Crew Leave Location	02/13/2013 22:30							TRHANKS FOR YOUR WORK,EDDIE V.

HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 300466	**Ship To #:** 2980361	**Quote #:**	**Sales Order #:** 900230224
Customer: ANADARKO PETROLEUM CORP - EBUS		**Customer Rep:** Miller, Andy	
Well Name: Kendrick	**Well #:** 22-3		**API/UWI #:**
Field:	**City (SAP):** THE WOODLANDS	**County/Parish:** Montgomery	**State:** Texas
Contractor: Murfin	**Rig/Platform Name/Num:** 21		
Job Purpose: Cement Production Casing			
Well Type: Development Well	**Job Type:** Cement Production Casing		
Sales Person: KRANZ, ZACHARY	**Srvc Supervisor:** CHRISTENSEN, STUART	**MBU ID Emp #:** 476488	

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
ARELLANO, JOSE L	6.5	480847	CHRISTENSEN, STUART	5.5	476488	DALRYMPLE, BRIAN Kieth	5.5	456242
WILLIAMS, DARREL Lee	6.5	511430						

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way

Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
2/19/2013	5.5	3						
TOTAL			*Total is the sum of each column separately*					

Job

Formation Name			
Formation Depth (MD)	**Top**		**Bottom**
Form Type		**BHST**	
Job depth MD	5706. ft	**Job Depth TVD**	5685. ft
Water Depth		**Wk Ht Above Floor**	3. ft
Perforation Depth (MD)	**From**		**To**

Job Times

	Date	Time	Time Zone
Called Out	19 - Feb - 2013	06:30	CST
On Location	19 - Feb - 2013	13:00	CST
Job Started	19 - Feb - 2013	15:10	CST
Job Completed	19 - Feb - 2013	17:00	CST
Departed Loc	19 - Feb - 2013	18:30	CST

Well Data

Description	New / Used	Max pressure psig	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
7 7/8" Production Hole				7.875				1602.	5630.		
5 1/2" Production Casing	Unknown		5.5	4.95	15.5	8 RD (ST&C)	J-55	.	5630.		
8 5/8" Surface Casing	Unknown		8.625	8.097	24.	8 RD (ST&C)	J-55	.	1602.		

Sales/Rental/3rd Party (HES)

Description	Qty	Qty uom	Depth	Supplier
SHOE,GID,5-1/2 8RD	1	EA		
PLUG ASSY,3 WIPR LTH-DWN,5 1/2 CSG	1	EA		
BAFFLE ASSY - 5-1/2 8RD - LATCH-DOWN	1	EA		
CENTRALIZER ASSY - TURBO - API -	20	EA		
CLAMP - LIMIT - 5-1/2 - HINGED -	1	EA		
KIT,HALL WELD-A	1	EA		

Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug			
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			

HALLIBURTON

Cementing Job Summary

Insert Float										Plug Container				
Stage Tool										Centralizers				

Miscellaneous Materials

Gelling Agt		Conc		Surfactant		Conc		Acid Type		Qty		Conc	%	
Treatment Fld		Conc		Inhibitor		Conc		Sand Type		Size		Qty		

Fluid Data

Stage/Plug #: 1

Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	Water Pre-Flush		10.00	bbl	8.33	.0	.0	6.0	
2	Scavenger Slurry	POZ PREMIUM 50/50 - SBM (12302)	25.0	sacks	10.5	4.32	26.94	6.0	26.94
	5 %	CAL-SEAL 60, 50 LB BAG (101217146)							
	5 %	POTASSIUM CHLORIDE 5% (100001585)							
	8 lbm	KOL-SEAL, 50 LB BAG (100064232)							
	0.5 %	HALAD(R)-322, 50 LB (100003646)							
	26.941 Gal	FRESH WATER							
3	Tail Slurry	POZ PREMIUM 50/50 - SBM (12302)	285.0	sacks	13.9	1.56	6.65	6.0	6.65
	5 %	CAL-SEAL 60, 50 LB BAG (101217146)							
	5 %	POTASSIUM CHLORIDE 5% (100001585)							
	8 lbm	KOL-SEAL, 50 LB BAG (100064232)							
	0.5 %	HALAD(R)-322, 50 LB (100003646)							
	6.647 Gal	FRESH WATER							
4	Displacement		134.00	bbl	8.33	.0	.0	6.0	
	0.8 gal/Mgal	CLA-WEB - TOTE (101985045)							
5	100 sks Neat Cement/Fill Mouse&Rat Hole	CMT - STANDARD CEMENT (100003684)	100.0	sacks	15.6	1.18	5.23		5.23
	94 lbm	CMT - STANDARD - CLASS A REG OR TYPE I, BULK (100003684)							
	5.225 Gal	FRESH WATER							

Calculated Values		Pressures		Volumes					
Displacement	134	Shut In: Instant		Lost Returns	0	Cement Slurry	98	Pad	
Top Of Cement	2532	5 Min		Cement Returns	0	Actual Displacement	134	Treatment	
Frac Gradient		15 Min		Spacers	10	Load and Breakdown		Total Job	

Rates

Circulating	5	Mixing	5	Displacement	6	Avg. Job	5

Cement Left In Pipe	Amount	42 ft	Reason	Shoe Joint

Frac Ring # 1 @		ID		Frac ring # 2 @		ID		Frac Ring # 3 @		ID		Frac Ring # 4 @		ID	

The Information Stated Herein Is Correct	Customer Representative Signature

HALLIBURTON

Cementing Job Log

The Road to Excellence Starts with Safety

Sold To #: 300466	**Ship To #:** 2980361	**Quote #:**	**Sales Order #:** 900230224
Customer: ANADARKO PETROLEUM CORP - EBUS		**Customer Rep:** Miller, Andy	
Well Name: Kendrick	**Well #:** 22-3		**API/UWI #:**
Field:	**City (SAP):** THE WOODLANDS	**County/Parish:** Montgomery	**State:** Texas
Legal Description:			
Lat:		**Long:**	
Contractor: Murfin	**Rig/Platform Name/Num:** 21		
Job Purpose: Cement Production Casing			**Ticket Amount:**
Well Type: Development Well	**Job Type:** Cement Production Casing		
Sales Person: KRANZ, ZACHARY	**Srvc Supervisor:** CHRISTENSEN, STUART		**MBU ID Emp #:** 476488

Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	02/19/2013 06:45							CREW CALLED TO YARD FOR JOB.
Depart Yard Safety Meeting	02/19/2013 08:50							CREW DISCUSSED ROUTE, TRAFFIC, AND SAFETY CONCERNS.
Depart from Service Center or Other Site	02/19/2013 09:00							LEFT YARD FOR LOCATION. CONTACTED JOURNEY MANAGMENT.
Arrive At Loc	02/19/2013 13:00							CREW ARRIVED ON LOCATION
Assessment Of Location Safety Meeting	02/19/2013 13:05							DISCUSSED LOCATION OF RESOURCES, SPOTTING OF VEHICLES AND HAZARDS AROUND LOCATION.
Other	02/19/2013 13:10							TALKED WITH COMPANY MAN ABOUT NUMBERS AND RESOURCES. TD: 5706, TP: 5685, PW: 15.5#, J-55, 5.5", PREVCSG: 1662', 8 5/8, 24#, J-55, OH: 7 7/8, ST: 45', MUD: 8.8 PPG, WATER TEST: GOOD.
Activity Description	**Date/Time**	**Cht #**	**Rate bbl/ min**	**Volume bbl**		**Pressure psig**		**Comments**
				Stage	**Total**	**Tubing**	**Casing**	

HALLIBURTON

Cementing Job Log

Pre-Rig Up Safety Meeting	02/19/2013 13:30							CREW DISCUSSED HAZARDS, PINCHPOINTS, AND LAY OUT OF RIG UP FOR JOB, INCLUDING NEARBY HAZARDS AND RESOURCES.
Rig-Up Equipment	02/19/2013 13:40							CREW BEGAN RIGGING UP.
Rig-Up Completed	02/19/2013 14:55							RIG UP COMPLETED INCLUDING LOADING PLUGS AND RIGGING UP IRON ON FLOOR.
Safety Meeting	02/19/2013 15:00							HELD SAFETY MEETING WITH RIG CREW AND HES. DISCUSSED JOB PROCEEDURE, HAZARD AREAS, EMERGENCY RESPONSE INFORMATION, AND SAFETY CONCERNS.
Test Lines	02/19/2013 15:10		1	1			6000.0	TESTED LINES TO 6000 PSI. RESET KICKOUTS TO 3000 PSI.
Pump Spacer	02/19/2013 15:13		2	10			180.0	PUMPED 10 BBLS OF FRESH WATER SPACER @ 8.33 PPG.
Pump Lead Cement	02/19/2013 15:19		5	19			180.0	PUMPED 19 BBLS OF LEAD CEMENT MIXED @ 10.5 PPG, 25 SKS.
Pump Tail Cement	02/19/2013 15:23		5	79			190.0	PUMPED 79 BBLS OF TAIL CEMENT @ 19.9 PPG, 285 SKS.
Shutdown	02/19/2013 15:47							SHUTDOWN TO DROP TOP PLUG.
Drop Top Plug	02/19/2013 15:52							LOADED AND DROPPED TOP PLUG.
Pump Displacement	02/19/2013 15:53		6	134			130.0	PUMPED 134 BBLS OF FRESH WATER DISPLACEMENT @ 8.33 WITH CLA-WEB ADDITIVE.
Displ Reached Cmnt	02/19/2013 16:08		4		100		240.0	DISPLACEMENT REACHED CEMENT WITH 100 BBLS GONE.
Slow Rate	02/19/2013 16:16		2		120		710.0	SLOWED RATE TO 2 BPM TO BUMP PLUG.
Bump Plug	02/19/2013 16:21		2		134		1500.0	BUMPED PLUG @ 900 PSI + 500 PSI OVER. 1500 PSI.

HALLIBURTON

Cementing Job Log

Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Check Floats	02/19/2013 16:23		0	1			.0	CHECKED FLOATS. 1 BBL BACK.
Rig-Up Equipment	02/19/2013 16:25							RIGGED UP IRON TO PUMP DOWN RAT HOLE.
Pump Cement	02/19/2013 16:51							PUMPED 21 BBLS OF CEMENT DOWN RAT HOLE @ 15.6 PPG, 100 SKS.
End Job	02/19/2013 17:03							ENDED JOB
Pre-Rig Down Safety Meeting	02/19/2013 17:05							DISCUSSED PINCH POINTS, SAFETY HAZARDS, AND JOB ASSIGNMENTS.
Rig-Down Equipment	02/19/2013 17:15							BEGAN RIGGING DOWN.
Rig-Down Completed	02/19/2013 18:00							FINISHED RIGGING DOWN EQUIPMENT.
Depart Location Safety Meeting	02/19/2013 18:20							DISCUSSED ROUTE, TRAFFIC, AND SAFETY CONCERNS.
Depart Location for Service Center or Other Site	02/19/2013 18:30							CONTACTED JOURNEY MANAGMENT.
Other	02/19/2013 18:31							THANK YOU FOR CHOOSING HALLIBURTON.