

The Road to Excellence Starts with Safety

Sold To #: 300466	Ship To #: 3712341	Quote #: 0022290491	Sales Order #: 0903940737
Customer: ANADARKO PETROLEUM CORP - EBUS		Customer Rep: JAMES ADKINS	
Well Name: PUMA FEDERAL		Well #: 30N-14HZ	API/UWI #: 05-123-42562-00
Field: WATTENBERG	City (SAP): IONE	County/Parish: WELD	State: COLORADO
Legal Description: SW SW-23-1N-67W-290FSL-586FWL			
Contractor: NABORS DRLG		Rig/Platform Name/Num: NABORS X22	
Job BOM: 7523			
Well Type: HORIZONTAL GAS			
Sales Person: HALAMERICA/HX41066		Srvc Supervisor: BRADLEY HINKLE	

Job

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type	BHST		
Job depth MD	14089ft	Job Depth TVD	7466ft
Water Depth		Wk Ht Above Floor	
Perforation Depth (MD)	From		To

Well Data

Description	New / Used	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
Casing		9.625	8.921	36		J-55	0	2291	0	2291
Casing		5.5	4.892	17	LTC	HCP110	0	14089	0	7466
Open Hole Section			8.5				2291	14100	0	7466

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	5.5				Top Plug	5.5	1	Weatherford
Float Shoe	5.5	1		14089	Bottom Plug	5.5	1	Weatherford
Float Collar	5.5	1		13997	SSR plug set	5.5		HES
Insert Float	5.5				Plug Container	5.5	1	HES
Stage Tool	5.5				Centralizers	5.5		HES

Fluid Data

Stage/Plug #: 1										
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
1	Spacer	Tuned Spacer III	60	bbl	10.5	6.26	40.1	4		

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
2	1 st Lead	ELASTICEM W/O SUPER-CBL	150	sack	13.2	1.57	7.53	6		
3	2 nd Lead	ELASTICEM W/ SUPER-CBL	540	sack	13.2	1.6	7.69	7.5		
4	Tail	ECONOCEM	1160	sack	13.5	1.68	7.98	8		
5	Displacement	Fresh Water w/ MMCR	20	bbl	8.34			7.5		
6	Displacement	Biocide Water	324	bbl	8.34			8		
Cement Left In Pipe		Amount	92 ft		Reason			Shoe Joint		
<p>Comment 44 bbls Tuned Spacer to surface. Estimated top of first lead cement at 334 feet. Estimated top of second lead cement at 1211 feet. Estimated top of tail cement at 4791 feet.</p>										

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Comments
Event	1	Call Out	Call Out	4/3/2017	21:00:00	USER	Crew called out for an on location of 0200 on 4/4/2017. Crew was Luke Kosakewich, Brad Hinkle, Todd Porter, Grant Amsberry, Thadd Stahly and Osvaldo Garcia.
Event	2	Safety Meeting - Departing Location	Safety Meeting - Departing Location	4/4/2017	00:30:00	USER	Held pre journey safety meeting and JSA.
Event	3	Depart from Service Center or Other Site	Depart from Service Center or Other Site	4/4/2017	00:35:00	USER	Started journy manegment with dispatch and the crew left the yard.
Event	4	Arrive at Location from Service Center	Arrive at Location from Service Center	4/4/2017	01:00:00	USER	Checked in with the customer and signed in. Got numbers needed to calculate the job and disscused rig up. Rig had approximately 3000 feet of casing left to run.
Event	5	Other	Wellbore Information	4/4/2017	01:05:00	USER	TD: 14100. TP: 14089. FC: 13997. TVD: 7466. 5.5" 17# casing inside a 8.5" OH. 9.625" 36# surface casing set at 2291. Mud weight at 9.1 ppg.
Event	6	Safety Meeting - Pre Rig-Up	Safety Meeting - Pre Rig-Up	4/4/2017	01:05:00	USER	Preformed a hazard hunt and site assessment. Held pre rig up safety meeting and JSA.
Event	7	Rig-Up Equipment	Rig-Up Equipment	4/4/2017	01:10:00	USER	Spotted trucks in and rigged up all iron and hoses for the job.
Event	8	Start Job	Start Job	4/4/2017	07:16:01	COM4	Pumped 3 bbl. of fresh water to fill lines.
Event	9	Pressure Test	Pressure Test	4/4/2017	07:17:30	USER	Pressuer tested iron to 4,500 psi. with a 500 psi. electronic kick out test. Test did not chart due to the computer performing an update and restarting. Pressure test was successful. Pressure held at 4,580 psi.
Event	10	Pump Spacer 1	Pump Spacer 1	4/4/2017	07:22:30	COM4	Pumped 60 bbl. of Tuned Spacer III wit surfactants mixed at 10.5 ppg. Density was verified by pressurized scales.

Event	11	Drop Bottom Plug	Drop Bottom Plug	4/4/2017	07:45:00	USER	Loaded bottom then top plug. Customer witnessed bottom plug being dropped.
Event	12	Pump Lead Cement	Pump Lead Cement	4/4/2017	07:47:18	COM4	Pumped 42 bbl. of Elasticem (150 sks) mixed at 13.2 ppg. Density was verified by pressurized scales.
Event	13	Check Weight	Check Weight	4/4/2017	07:50:53	COM4	Cement weight up at 13.2 ppg.
Event	14	Pump Lead Cement	Pump Lead Cement	4/4/2017	07:56:06	COM4	Pumped 154 bbl. of Elasticem with Super CBL (540 sks) mixed at 13.2 ppg. Density was verified by pressurized scales.
Event	15	Check Weight	Check Weight	4/4/2017	07:59:08	COM4	Cement weight up at 13.2 ppg.
Event	16	Check Weight	Check Weight	4/4/2017	08:11:51	COM4	Cement weight up at 13.35 ppg.
Event	17	Pump Tail Cement	Pump Tail Cement	4/4/2017	08:18:51	COM4	Pumped 348 bbl. of EconoCem (1160 sks) mixed at 13.5 ppg. Density was verified by pressurized scales.
Event	18	Check Weight	Check Weight	4/4/2017	08:41:49	COM4	Cement weight up at 13.5 ppg.
Event	19	Shutdown	Shutdown	4/4/2017	09:06:04	COM4	
Event	20	Clean Lines	Clean Lines	4/4/2017	09:08:24	COM4	Rig blew down lines to wash-up tank. Then washed pumps and lines from pump truck to wash-up tank until clean.
Event	21	Drop Top Plug	Drop Top Plug	4/4/2017	09:22:13	COM4	Top plug pre loaded. Customer witnessed plug being dropped.

Event	22	Pump Displacement	Pump Displacement	4/4/2017	09:22:44	COM4	Pump 324 bbls fresh water with Biocide added. First 20 bbls with cement retarder (MMCR). Good returns throughout. 44 bbls Tuned Spacer to surface. Estimated tops of cement are, lead #1 334 ft., lead #2 1,211 ft. and tail 4,791 ft.
Event	23	Bump Plug	Bump Plug	4/4/2017	10:10:05	COM4	Bump plug at 2326 PSI and increased pressure to 3000 PSI. Held for 15 minutes for a casing test.
Event	24	Check Floats	Check Floats	4/4/2017	10:23:06	USER	Floats held. 4 bbls back.
Event	25	End Job	End Job	4/4/2017	10:25:00	USER	Washed pumps and lines.
Event	26	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	4/4/2017	10:30:00	USER	Held pre rig down safety meeting and JSA.
Event	27	Rig-Down Equipment	Rig-Down Equipment	4/4/2017	10:35:00	USER	Rigged down all iron, hoses and equipment.
Event	28	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	4/4/2017	11:30:00	USER	Held pre journey safety meeting and JSA.
Event	29	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	4/4/2017	11:45:00	USER	Crew left location and started journey management with dispatch.

3.0 Attachments

3.1 Job Chart



