

The Road to Excellence Starts with Safety

Sold To #: 345242	Ship To #: 3624286	Quote #:	Sales Order #: 0902826554
Customer: NOBLE ENERGY INC E-BUSINESS		Customer Rep: GARY STAPLETON	
Well Name: MOSER		Well #: H34-750	API/UWI #: 05-123-40618-00
Field: WATTENBERG	City (SAP): HUDSON	County/Parish: WELD	State: COLORADO
Legal Description: SE SW-22-3N-65W-400FSL-2221FWL			
Contractor: H & P DRLG		Rig/Platform Name/Num: H & P 321	
Job BOM: 7523			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HB45834		Srvc Supervisor: Christopher Pickell	

Job

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type	BHST		
Job depth MD	16800ft	Job Depth TVD	6967
Water Depth		Wk Ht Above Floor	4ft
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	8 RD	J-55	0	1879	0	1879
Casing		5.5	4.778	20	TXP-BTC	P-110	0	16798	0	6967
Open Hole Section			8.5				1879	16800	1879	6967

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	5.5				Top Plug	5.5	1	HES
Float Shoe	5.5	1	HES	16798	Bottom Plug	5.5	1	HES
Float Collar	5.5	2	HES	16737	SSR plug set	5.5		HES
Insert Float	5.5				Plug Container	5.5	0	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 ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
1	12.0 lb/gal Tuned Spacer III	Tuned Spacer III	40	bbl	12	3.2	19.8	6	

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	12.0 lb/gal Tuned Spacer III	Tuned Spacer III	40	bbl	12	3.2	19.8	5		
3	ElastiCem Lead	ELASTICEM (TM) SYSTEM	536	sack	13.2	1.6	7.7	8		
4	ElastiCem	ELASTICEM (TM) SYSTEM	1525	sack	13.6	1.9	8.68	8		
5	ElastiCem Lead	ELASTICEM (TM) SYSTEM	38	sack	13.6	1.48	6.79	8		
6	Water	Displacement	370	bbl	8.33			9-3		
Cement Left In Pipe		Amount	61 ft		Reason			Shoe Joint		
Comment All cement mixed within range. Returned 60 bbl of spacer back to surface. Calculated top of cement is 417 ft										

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	10/18/2015	07:30:00	USER	Crew called out at 07:30 to be on location at 12:00. Crew was Chris Pickell, Vaughn Oteri, Justin Wheeler, Frank Adams, Jamar Horton, Devin Cook, Mitchell Camper, Lauren Roberts
Event	2	Safety Meeting - Service Center or other Site	Safety Meeting - Service Center or other Site	10/18/2015	10:00:00	USER	Safety meeting held for journey. Equipment double checked. Left the yard for H&P 321.
Event	3	Arrive At Loc	Arrive At Location	10/18/2015	11:00:00	USER	Arrive on location 1 hour early. Rig had 2600 ft of casing left to run. Hazard hunt performed. Water test completed.
Event	4	Safety Meeting - Pre Rig-Up	Safety Meeting - Pre Rig-Up	10/18/2015	11:20:00	USER	Safety meeting held for rig up. Trucks spotted in. Rig up planned and executed.
Event	5	Casing on Bottom	Casing on Bottom	10/18/2015	14:45:00	USER	Casing on bottom at 14:45. Rig began circulating 2 bottoms up at 17:15.
Event	6	Other	Mix Up Spacer	10/18/2015	15:50:00	USER	Mix up 2 40 bbl

							batches of Tuned Spacer. Each scaled at 12.1 ppg
Event	7	Start Job	Start Job	10/18/2015	20:21:01	COM6	
Event	8	Drop Bottom Plug	Drop Bottom Plug	10/18/2015	20:21:36	COM6	Plug preloaded in casing. Witnessed by company man
Event	9	Test Lines	Test Lines	10/18/2015	20:26:47	COM6	Pressure test lines to 4500 psi. Check for visible leaks and pressure loss
Event	10	Pump Spacer 1	Pump Spacer 1	10/18/2015	20:33:58	COM6	Pump 40 bbl of Tuned Spacer 12 ppg 3.2 yield 19.8 gal/sk. 12 gal of Musal A, 12 gal of Dual Surfactant B added in
Event	11	Pump Spacer 2	Pump Spacer 2	10/18/2015	20:41:48	COM6	Pump 40 bbl of Tuned Spacer 12 ppg 3.2 yield 19.8 gal/sk
Event	12	Shutdown	Shutdown	10/18/2015	20:51:28	COM6	Shutdown to mix up and scale first tub of lead cement. Cement scaled at 13.15. Brought it up to weight and began pumping
Event	13	Pump Lead Cement	Pump Lead Cement	10/18/2015	20:51:35	COM6	Pump 536 sks 153 bbl of Elasticem cement 13.2 ppg 1.6 yield 7.7 gal/sk
Event	14	Check Weight	Check weight	10/18/2015	20:56:14	COM6	Cement scaled at 13.2 ppg
Event	15	Check Weight	Check weight	10/18/2015	20:59:42	COM6	Cement scaled at

							13.35 ppg
Event	16	Check Weight	Check weight	10/18/2015	21:14:11	COM6	Cement scaled at 13.3 ppg
Event	17	Shutdown	Shutdown	10/18/2015	21:23:52	COM6	Shutdown to mix up and scaled first tub of tail cement
Event	18	Pump Tail Cement	Pump Tail Cement	10/18/2015	21:23:57	COM6	Pump 1587 sks 537 bbl of Elasticem cement 13.6 ppg 1.9 yield 8.68 gal/sk
Event	19	Check Weight	Check weight	10/18/2015	21:29:53	COM6	Cement scaled at 13.75 ppg
Event	20	Check Weight	Check weight	10/18/2015	21:44:42	COM6	Cement scaled at 13.6 ppg
Event	21	Check Weight	Check weight	10/18/2015	21:58:32	COM6	Cement scaled at 13.6 ppg
Event	22	Check Weight	Check weight	10/18/2015	22:14:37	COM6	Cement scaled at 13.5 ppg
Event	23	Check Weight	Check weight	10/18/2015	22:31:53	COM6	Cement scaled at 13.8 ppg
Event	24	Check Weight	Check weight	10/18/2015	22:45:27	COM6	Cement scaled at 13.6 ppg
Even	25	Pump Cement	Pump Lead Cement	10/18/2015	22:45:28	COM 6	Used the lead cement pumped at a 13.6 ppg density for the last 10 bbls of cement.
Event	25	Shutdown	Shutdown	10/18/2015	23:05:38	COM6	Pump 1 was leaking oil off the deck motor. Decided to swap to pump 2 for displacement as a precaution.

Event	26	Clean Lines	Clean Lines	10/18/2015	23:20:31	USER	First the rig blew down their top drive to the wash up tank. Then we washed pumps and lines
Event	27	Drop Top Plug	Drop Top Plug	10/18/2015	23:24:39	USER	Plug loaded into casing while shutdown
Event	28	Pump Displacement	Pump Displacement	10/18/2015	23:27:44	COM6	Pump displacement using water. First 20 bbl added mmcr
Event	29	Displ Reached Cmnt	Displ Reached Cmnt	10/18/2015	23:27:58	COM6	Displacement reached cement with 25 bbl away
Event	30	Bump Plug	Bump Plug	10/19/2015	00:22:05	COM6	Plug landed at calculated displacement with 2200 psi shutting down with 2800 psi
Event	31	Other	Casing Test	10/19/2015	00:23:53	COM6	Pressure was held at 3000 for a 15 minute casing test
Event	32	Other	Check Floats	10/19/2015	00:37:32	COM6	Pressure was held for 15 minutes then released. Floats held. 5 bbl back to tubs
Event	33	End Job	End Job	10/19/2015	00:42:05	COM6	60 bbl of Tuned Spacer back to surface. Calculated top of cement is 417 ft.
Event	34	Safety Meeting - Pre Rig-Down	Safety Meeting - Pre Rig-Down	10/19/2015	00:42:27	USER	Safety meeting held for rig down. Finished washing up all equipment and

							then rigged down all equipment
Event	35	Safety Meeting - Departing Location	Safety Meeting - Departing Location	10/19/2015	02:00:00	USER	Safety meeting held for journey. Left location for the yard
