

HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 345242		Ship To #: 3633285		Quote #:		Sales Order #: 0902968959				
Customer: NOBLE ENERGY INC E-BUSINESS				Customer Rep: SETH MULLEN						
Well Name: MOSER			Well #: H22-745			API/UWI #: 05-123-40882-00				
Field: WATTENBERG		City (SAP): HUDSON		County/Parish: WELD		State: COLORADO				
Legal Description: NW NE-27-3N-65W-345FNL-1936FEL										
Contractor: H & P DRLG			Rig/Platform Name/Num: H & P 321							
Job BOM: 7521										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HB45834				Srvc Supervisor: Joseph Fantasia						
Job										
Formation Name										
Formation Depth (MD)		Top			Bottom					
Form Type		BHST			128 degF					
Job depth MD		1865ft			Job Depth TVD			1865		
Water Depth		Wk Ht Above Floor								
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	3	16	15.376	55			0	130	0	130
Casing	0	9.625	8.921	36	LTC	J-55	0	1865	0	1865
Open Hole Section			13.5				130	1875	0	1875
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	Water	Water W/ Dye	50	bbl	8.34			8		
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	
2	SwiftCem B1	SWIFTCEM (TM) SYSTEM	550	sack	13.5	1.74	9.2	8	9.2	
9.20 Gal		FRESH WATER								
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	
3	SwiftCem B1	SWIFTCEM (TM) SYSTEM	75	sack	14.2	1.53	7.65	5	7.65	
7.65 Gal		FRESH WATER								

HALLIBURTON

Cementing Job Summary

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
4	Mud- 8.5 #/gal	Displacement	140	bbl	9.3			5	
Cement Left In Pipe		Amount	40 ft		Reason			Shoe Joint	
Mix Water:		7	Mix Water Chloride:		0		Mix Water Temperature:		48
Comment APPROX 20 BBLs CEMENT TO SURFACE									

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Comments
Event	1	Arrive at Location from Service Center	Arrive at Location from Service Center	12/5/2015	13:00:00	USER	ARRIVE AT LOCATION @ 1300. RIG ABOUT TO TRIP DRILL PIPE. HELD SITE ASSESSMENT AND PRE RIG UP SAFETY MEETING WITH CREW PRIOR TO RIGGING UP EQUIPMENT.
Event	2	Casing on Bottom	Casing on Bottom	12/5/2015	19:00:00	USER	CASING ON BOTTOM. RIG CIRCULATES 1 HOUR. MUD WEIGHT 9.3 PPG
Event	3	Start Job	Start Job	12/5/2015	19:59:24	COM5	HELD PRE JOB SAFETY MEETING WITH ALL PRESENT PERSONNEL PRIOR TO STARTING JOB.
Event	4	Prime Pumps	Prime Pumps	12/5/2015	19:59:32	COM5	PRIME PUMP TRUCK
Event	5	Test Lines	Test Lines	12/5/2015	20:32:46	COM5	PRESSURE TEST LINES TO 2200 PSI
Event	6	Pump Spacer 1	Pump Spacer 1	12/5/2015	20:34:55	COM5	PUMP 50 BBLS WATER WITH 4 LBS RED DYE ADDED.
Event	7	Pump Lead Cement	Pump Lead Cement	12/5/2015	20:46:14	COM5	PUMP 170 BBLS (550 SKS) SWIFCEM MIXED AT 13.5 PPG USING SUPPLIED WATER. DENSITY VERIFIED BY SCALE.
Event	8	Pump Tail Cement	Pump Tail Cement	12/5/2015	21:08:48	COM5	PUMP 20BBLS (75 SKS) SWIFCEM MIXED AT 14.2 PPG USING SUPPLIED WATER. DENSITY VERIFIED BY SCALE.

Event	9	Shutdown	Shutdown	12/5/2015	21:15:00	COM5	
Event	10	Drop Plug	Drop Plug	12/5/2015	21:16:10	COM5	TOP PLUG PRELOADED AND DROPPED DURING SHUTDOWN. CUSTOMER WITNESSED.
Event	11	Pump Displacement	Pump Displacement	12/5/2015	21:18:01	COM5	DISPLACE USING 140 BBLS MUD. GOOD RETURNS THROUGHOUT. APPROX 20 BBLS CEMENT TO SURFACE.
Event	12	Bump Plug	Bump Plug	12/5/2015	21:49:55	COM5	PLUG LANDED AT 544 PSI. PRESSURE BROUGHT TO 850 PSI FOR 1 MIN.
Event	13	Pressure Up Well	Pressure Up Well	12/5/2015	21:51:11	COM5	PRESSURE TEST CASING TO 1000 PSI FOR 15 MIN.
Event	14	End Job	End Job	12/5/2015	22:00:00	USER	HELD PRE RIG DOWN SAFETY MEETING WITH CREW PRIOR TO RIGGING DOWN EQUIPMENT.
Event	15	Depart Location	Depart Location	12/5/2015	22:00:01	USER	JOURNEY MGMNT PRIOR TO LEAVING.
Event	16	Check Floats	Check Floats	12/5/2015	23:00:00	USER	FLOATS HELD. 1.5 BBLS BACK TO TRUCK.