

The Road to Excellence Starts with Safety

Sold To #: 345242	Ship To #: 3744853	Quote #:	Sales Order #: 0903607352
Customer: NOBLE ENERGY INC - EBUS		Customer Rep: GARY STAPLETON	
Well Name: ANNI	Well #: LD29-763	API/UWI #: 05-123-43288-00	
Field: WILDCAT	City (SAP): RAYMER	County/Parish: WELD	State: COLORADO
Legal Description: SE SW-20-9N-58W-380FSL-1365FWL			
Contractor: H & P DRLG		Rig/Platform Name/Num: H & P 517	
Job BOM: 7523			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HB61755		Srvc Supervisor: Jesse Slaughter	

Job

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type			BHST 230 degF
Job depth MD	10965ft		Job Depth TVD 5840 ft
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			0	1927	0	0
Casing		5.5	4.778	20			0	10965	0	0
Open Hole Section			8.5				1922	10974	0	5840

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			10965	Bottom Plug	5.5	1	HES
Float Collar	5.5				SSR plug set	5.5		HES
Insert Float	5.5				Plug Container	5.5		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	11.5 lb/gal Tuned Spacer III	Tuned Spacer III	40	bbl	11.5	3.78		5		
35.10 gal/bbl		FRESH WATER								
0.40 gal/bbl		DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665)								

147.42 lbm/bbl		BARITE, BULK (100003681)							
0.40 gal/bbl		MUSOL A, 330 GAL TOTE - (790828)							
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	11.5 lb/gal Tuned Spacer III	Tuned Spacer III	40	bbl	11.5	3.79		5	
35.90 gal/bbl		FRESH WATER							
147.42 lbm/bbl		BARITE, BULK (100003681)							
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
3	Elasticem Lead w/o CBL	ELASTICEM (TM) SYSTEM	150	sack	13.2	1.57		6	7.53
7.52 Gal		FRESH WATER							
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
4	ElastiCem Lead W/ CBL	ELASTICEM (TM) SYSTEM	469	sack	13.2	1.6		6	7.68
7.68 Gal		FRESH WATER							
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
5	EconoCem Tail	ECONOCHEM (TM) SYSTEM	703	sack	13.5	1.68		7	7.99
8 Gal		FRESH WATER							
0.30 %		HR-5, 50 LB SK (100005050)							
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
6	Displacement	Displacement	241.4	bbl	8.33			10	
Cement Left In Pipe	Amount	45 ft		Reason				Shoe Joint	
Comment									

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	10/21/2016	20:00:00	USER	
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	10/21/2016	21:50:00	USER	WITH ALL HES PERSONNEL
Event	3	Crew Leave Yard	Crew Leave Yard	10/21/2016	22:00:00	USER	
Event	4	Arrive At Loc	Arrive At Loc	10/21/2016	00:30:00	USER	RIG WAS RUNNING CASING UPON HES ARRIVAL
Event	5	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	10/21/2016	00:45:00	USER	WITH ALL HES PERSONNEL
Event	6	Other	Spot Equipment	10/21/2016	01:30:00	USER	
Event	7	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	10/21/2016	01:40:00	USER	WITH ALL HES PERSONNEL
Event	8	Rig-Up Equipment	Rig-Up Equipment	10/21/2016	01:50:00	USER	1 ELITE, 2 SILOS, 1 660
Event	9	Pre-Job Safety Meeting	Pre-Job Safety Meeting	10/21/2016	03:50:00	USER	WITH ALL PERSONNEL
Event	10	Start Job	Start Job	10/21/2016	04:23:00	USER	TD 10974 FT, TP 10965 FT, SHOE 43.54 FT, CSG 5 1/2 IN 20 LB/FT, HOLE 8 1/2 IN, MUD WT 9.4 PPG, TVD 5840 FT, PREVIOUS CSG 9 5/8 IN 36 LB/FT SET AT 1927 FT
Event	11	Prime Pumps	Prime Pumps	10/21/2016	04:24:45	USER	FRESH WATER
Event	12	Drop Bottom Plug	Drop Bottom Plug	10/21/2016	04:26:12	USER	PLUG LAUNCHED
Event	13	Test Lines	Test Lines	10/21/2016	04:27:57	USER	TESTED RIG KELLY HOSE TO IBOP TO 3000 PSI PRESSURE HOLDING
Event	14	Test Lines	Test Lines	10/21/2016	04:32:40	USER	TESTED IRON PRESSURE NOT HOLDING CHANGED OUT LOTORC
Event	15	Prime Pumps	Prime Pumps	10/21/2016	04:45:46	USER	FRESH WATER
Event	16	Test Lines	Test Lines	10/21/2016	04:47:17	USER	TESTED LINES TO 4493 PSI PRESSURE HOLDING
Event	17	Pump Spacer	Pump Tuned Spacer	10/21/2016	04:56:54	USER	WITH 16 GAL MUSOL A, 16 GAL DUAL SPACER B, AND 20 GAL D-AIR IN FIRST 40 BBLs. CALCULATED TOP OF TUNED SPACER TO SURFACE.
Event	18	Pump Lead Cement	Pump Lead Cement	10/21/2016	05:12:59	USER	150 SKS AT 13.2 PPG, 1.57 FT ³ /SK, 7.53 GAL/SK WITHOUT SUPER CBL. CALCULATED TOP OF LEAD

AT 1591 FT.

Event	19	Pump Lead Cement	Pump Lead Cement	10/21/2016	05:19:58	USER	469 SKS AT 13.2 PPG, 1.6 FT3/SK, 7.68 GAL/SK. WITH SUPER CBL. CALCULATED TOP OF LEAD AT 2560 FT.
Event	20	Pump Tail Cement	Pump Tail Cement	10/21/2016	05:41:37	USER	703 SKS AT 13.5 PPG, 1.68 FT3/SK, 7.99 GAL/SK. CALCULATED TOP OF TAIL AT 5835 FT.
Event	21	Shutdown	Shutdown	10/21/2016	06:12:57	USER	
Event	22	Clean Lines	Clean Lines	10/21/2016	06:21:57	USER	CLEANED PUMPS AND LINES TO RIG TANK
Event	23	Drop Top Plug	Drop Top Plug	10/21/2016	06:27:05	USER	PLUG LAUNCHED
Event	24	Pump Displacement	Pump Displacement	10/21/2016	06:28:08	USER	FRESH WATER WITH 10 GAL MMCR AND 15 GAL ALDACIDE G SUPPLIED BY RIG.
Event	25	Slow Rate	Slow Rate	10/21/2016	06:51:09	USER	SLOWED RATE 20 BBLs PRIOR TO CALCULATED DISPLACEMENT.
Event	26	Bump Plug	Bump Plug	10/21/2016	06:55:58	COM4	
Event	27	Check Floats	Check Floats	10/21/2016	07:02:10	USER	FLOATS HOLDING. HES RETURNED 3 BBLs H2O TO PUMP.
Event	28	End Job	End Job	10/21/2016	07:04:30	COM4	PIPE WAS ROTATED DURING JOB, GOOD CIRCULATION THROUGHOUT JOB. HES RETURNED 4 BBLs TUNED SPACER TO SURFACE.
Event	29	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	10/21/2016	07:15:00	USER	WITH ALL HES PERSONNEL
Event	30	Rig-Down Equipment	Rig-Down Equipment	10/21/2016	07:30:00	USER	
Event	31	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	10/21/2016	08:50:00	USER	WITH ALL HES PERSONNEL
Event	32	Crew Leave Location	Crew Leave Location	10/21/2016	09:00:00	USER	
Event	33	Comment	Comment	10/21/2016	09:01:00	USER	THANK YOU FOR USING HALLIBURTON CEMENT DEPARTMENT. JESSE SLAUGHTER AND CREW.