

The Road to Excellence Starts with Safety

Sold To #: 345242		Ship To #: 3919028		Quote #:		Sales Order #: 0905807628	
Customer: NOBLE ENERGY INC-EBUS				Customer Rep: CHRIS EWING			
Well Name: GUTTERSEN STATE			Well #: D23-721		API/UWI #: 05-123-48621-00		
Field: WATTENBERG		City (SAP): KEENESBURG		County/Parish: WELD		State: COLORADO	
Legal Description: SW SE-23-3N-64W-761FSL-1436FEL							
Contractor: H & P DRLG				Rig/Platform Name/Num: H & P 517			
Job BOM: 7523 7523							
Well Type: HORIZONTAL OIL							
Sales Person: HALAMERICA\HB31357				Srv Supervisor: Vitali Neverdasov			

Job

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type		BHST	230 degF
Job depth MD	17530ft	Job Depth TVD	6820
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			0	1955	0	1955
Casing	0	5.5	4.892	17			0	17526	0	6820
Open Hole Section			8.5				1954	17545	1955	6820

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	NA	17530	Bottom Plug	5.5	1	HES
Float Collar	5.5	1	NA	17482	SSR plug set	5.5		
Insert Float	5.5				Plug Container	5.5	1	HES
Stage Tool	5.5				Centralizers	5.5		

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	11.5 lb/gal Tuned Spacer III	Tuned Spacer III	120	bbl	11.5	3.79		5	
36.09 gal/bbl		FRESH WATER							

1 lbm/bbl	FE-2 (100001615)
148.31 lbm/bbl	BARITE, BULK (100003681)
0.60 gal/bbl	DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665)
0.60 gal/bbl	MUSOL(R) A, 5 GAL PAIL (100064220)

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	ElastiCem	ELASTICEM (TM) SYSTEM	140	sack	13.2	1.68		8	8.04
8.04 Gal		FRESH WATER							
0.95 %		SCR-100 (100003749)							

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 w/ SCBL	ELASTICEM (TM) SYSTEM	505	sack	13.2	1.68		7	8.06
0.60 %		SCR-100 (100003749)							
8.06 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	NeoCem NT1	NeoCem TM	1163	sack	13.2	2.04		8	9.75
0.08 %		FE-2 (100001615)							
9.75 Gal		FRESH WATER							
0.08 %		SCR-100 (100003749)							

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	Displacement	Displacement	405	bbl	8.33			8	

Cement Left In Pipe	Amount	48 ft	Reason	Shoe Joint
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Comment : NO SPACER BACK TO SURFAE. ESTIMATED TOP OF CAP @ 2443'. TOP OF LEAD @ 3470' TOP OF TAIL @ 7174'.

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Comb Pump Rate <i>(bbl/min)</i>	DH Density <i>(ppg)</i>	PS Pump Press <i>(psi)</i>	Pump Stg Tot <i>(bbl)</i>	Comments
Event	1	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	7/3/2019	11:55:00	USER					JSA PRIOR SPOTTING EQUIPMENT AND RIGGING UP
Event	2	Call Out	Call Out	7/3/2019	16:00:00	USER					ON LOCATION @ 00:01
Event	3	Depart Yard Safety Meeting	Depart Yard Safety Meeting	7/3/2019	18:45:00	USER					HELD JSA PRIOR LEAVING THE YARD
Event	4	Depart from Service Center or Other Site	Depart from Service Center or Other Site	7/3/2019	19:00:00	USER					
Event	5	Arrive at Location from Service Center	Arrive at Location from Service Center	7/3/2019	23:40:00	USER					31 MILES. DISCUSS NUMBERS AND PROCEDURE WITH CUSTOMER. RIG IS RUNNING CASING.
Event	6	Other	SPOT TRUCKS	7/4/2019	00:05:00	USER					SPOT TRUCKS
Event	7	Other	RIG UP	7/4/2019	00:15:00	USER					RIG UP ALL SURFACE LINES TO THE BUFFER ZONE
Event	8	Casing on Bottom	Casing on Bottom	7/4/2019	01:30:00	USER					CASING LANDED
Event	9	Pre-Job Safety Meeting	Pre-Job Safety Meeting	7/4/2019	02:31:00	USER					DISCUSS HAZARDS AND JOB PROCEDURE WITH ALL PERSONAL INVOLVED
Event	10	Start Job	Start Job	7/4/2019	03:00:05	COM4	0.00	8.51	187.00	30.00	
Event	11	Drop Bottom Plug	Drop 1ST Bottom Plug	7/4/2019	03:10:00	USER	0.00	8.50	188.00	30.00	CUSTOMER DROP 1ST BOTTOM PLUG
Event	12	Pressure Test	Pressure Test	7/4/2019	03:18:00	USER	0.00	8.54	2084.00	3.50	LOAD LINE AND TEST TO 5027 PSI

Event	13	Pump Spacer	Pump Spacer	7/4/2019	03:24:00	USER	0.00	8.52	154.00	4.10	BATCH/ WEIGHT/ PUMP 120 BBLS OF TUNED SPACER III @ 11.5 PPG WITH SURFACTANS
Event	14	Drop Bottom Plug	Drop 2ND Bottom Plug	7/4/2019	03:58:00	USER	0.00	11.91	-1.00	0.00	CUSTOMER DROP 2ND BOTTOM PLUG
Event	15	Pump Cap Cement	Pump Cap Cement	7/4/2019	04:00:00	USER	0.00	11.91	1.00	0.10	BATCH/ WEIGHT/PUMP 140 SKS (41.9 BBLS) OF ELASTICEM NO CBL @ 13.2 PPG.
Event	16	Pump Lead Cement	Pump Lead Cement	7/4/2019	04:08:00	USER	5.00	13.19	130.00	33.50	WEIGHT/ PUMP 505 SKS (151.1 BBLS) OF ELASTICEM @ 13.2 PPG.
Event	17	Pump Tail Cement	Pump Tail Cement	7/4/2019	04:34:00	USER	5.10	13.17	184.00	143.30	WEIGHT/ PUMP 1163 SKS (422.5 BBLS) OF NEOCEM @ 13.2 PPG.
Event	18	Shutdown	Shutdown	7/4/2019	05:35:00	USER	1.70	13.30	-67.00	440.40	FINISHED PUMPING CEMENT
Event	19	Clean Lines	Clean Lines	7/4/2019	05:40:18	USER	0.00	13.28	-132.00	440.60	WASH PUMPS AND LINES.
Event	20	Drop Top Plug	Drop Top Plug	7/4/2019	05:49:00	USER	3.10	8.11	-133.00	455.70	CUSTOMER DROP TOP PLUG.
Event	21	Pump Displacement	Pump Displacement	7/4/2019	05:56:37	USER	2.20	8.16	12.00	0.40	405.6 BBLS OF FRESH WATER DISPLACEMENT. FIRST 20 BBLS WIRH MMCR, REMAINING WITH BIOCIDIE. LAST 50 BBLS FRESH WATER.
Event	22	Bump Plug	Bump Plug	7/4/2019	06:47:00	USER	0.00	8.36	1851.00	414.40	BUMP PLUG @ 2149 PSI 500 OVER FINAL LIFT PRESSURE.
Event	23	Check Floats	Check Floats	7/4/2019	06:54:00	USER	0.00	8.36	1544.00	414.40	FLOATS HELD. 3.5 BBLS BACK
Event	24	End Job	End Job	7/4/2019	06:58:30	COM4	0.00	8.32	-20.00	0.00	
Event	25	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	7/4/2019	07:00:00	USER					HELD JSA PRIOR TO RIG DOWN

3.0 Attachments

3.1 Case 1-Custom Results.png

