



Great Western Operating Company, LLC

PRODUCTION POST JOB REPORT

Schneider HD 11-382HNX 05-123-44685
S:7 T:4N R:66W Weld CO

CallSheet #: 919
Proposal #: 13396



PRODUCTION Post Job Report

Attention: Mr. Matt Mount | (303) 398-0373 | mmount@gwogco.com
Great Western Operating Company, LLC
1801 Broadway, Suite 500 | Denver, CO 80202

Dear Mr. Mount,

Thank you for the opportunity to provide cementing services on this well. BJ Services strives to achieve complete customer satisfaction. If you have any questions regarding the services or data provided, please contact BJ Services at any time.

Sincerely,

Oscar Medrano

Technical Specialist-II | (307) 996-6222 | Oscar.Medrano@bjservices.com

Field Office 1716 East Allison Rd., Cheyenne WY, 82007
Phone: (307) 638-5585

Sales Office 475 17th St. Suite 460 Denver Co., 80202
Phone: (303) 296-1158



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1 Job Details & Summary

1.1 Geometry

Type	Function	OD (in)	ID (in)	Weight (lb/ft)	Thread	Top (ft)	Bottom (ft)	Excess (%)
Casing	Outer	9.625	8.921	36	n/a	0	1575	0
Open Hole	Outer	n/a	8.5	n/a	n/a	1575	7000	10
Open Hole	Outer	n/a	8.5	n/a	n/a	7000	17145	5
Casing	Inner	5.5	4.892	17	n/a	0	17145	0

1.2 Equipment / People

Unit Type	Unit	Employee #1	Mileage
Silo	19		140
Silo	655		140
Silo	675		140
Bulk Trailer	E466	Philman, Douglas	140
Cement Pump	102	Cook, John	140
Tractor	3Y10	Borst, David	140
Light Duty Pickups	6	Snyder, Albert	140
Plug Container	1312196		140
Swage	150529		140

1.3 Timing

Event	Date/Time
Call Out	6/19/2017 03:30
Depart Facility	6/19/2017 07:30
On Location	6/19/2017 08:45
Rig Up Iron	6/19/2017 09:15
Job Started	6/19/2017 14:08
Job Completed	6/19/2017 18:15
Rig Down Iron	6/19/2017 18:40
Depart Location	6/19/2017 20:00

1.4 General Job Information

Metrics	Value
Well Fluid Density	9.8 lb/gal
Well Fluid Type	OBM
Rig Circulation Vol	1100 bbls
Rig Circulation Time	2 hours
Calculated Displacement	397 bbls
Actual Displacement	397 bbls
Total Spacer to Surface	50 bbls
Total CMT to Surface	47 bbls



1.5 Well Fluid Details

Metrics	Value
Plastic Viscosity	19
Yield Point	6
10 sec. SGS	5
10 min. SGS	6
30 min. SGS	6
Filtrate	10
Flow Line Temp.	105

1.6 Job Details

Metrics	Value
Flare Prior to Job	Yes
Flare During Job	No
Flare at End of Job	No
Well Full Prior to Job	Yes
Well Fluid Density Into Well	9.8 lb/gal
Well Fluid Density Out of Well	9.8 lb/gal

1.7 Job Details (cont.)

Metrics	Value
BHCT	224 °F
BHST	224 °F

1.8 Circulation

Lost Circulation Experienced
No

1.9 Job Execution Information

Job	Fluid	Product	Function	Density (lb/gal)	Yield (ft ³ /sk)	Water Rq. (gal/sk)	Water Rq. (gal/bbl)	Volume (sks)	Volume (bbl)	Top (ft)
1	1	CD Spacer - OBM	Spacer	11.50			31.21		50.00	0
1	2	ALTCem P100-X2	Lead	13.20	1.82	9.89		985.00	320.13	0
1	3	ALTCem P50-X1	Tail	13.50	1.47	7.43		1674.00	439.65	7000
1	4	MMCR Water	Displacement	8.33			41.90		20.00	16288
1	5	3% KCl	Displacement	8.33			42.00		367.00	501
1	6	Water	DisplacementFinal	8.33			42.00		12.00	0



1.10 Job Fluid Details

Job	Fluid	Type	Fluid	Product	Function	Conc.	Uom
1	1	Spacer	CD Spacer - OBM	ASR-20	StrengthRetrogression	213.49	lb/bbl
1	1	Spacer	CD Spacer - OBM	AR-31	Retarder	0.58	lb/bbl
1	1	Spacer	CD Spacer - OBM	ASF-20	Surfactant	0.50	gal/bbl
1	1	Spacer	CD Spacer - OBM	ASF-80	Surfactant	0.50	gal/bbl
1	1	Spacer	CD Spacer - OBM	AVS-10	Viscosifier	0.90	lb/bbl
1	2	Lead	ALTCem P100-X2	AC3-10	Cement	100.00	%
1	2	Lead	ALTCem P100-X2	ABX-20	BondEnhancer	3.00	%BWOB
1	2	Lead	ALTCem P100-X2	ADF-11	Defoamer	0.30	%BWOB
1	2	Lead	ALTCem P100-X2	AFL-50	FluidLoss	0.50	%BWOB
1	2	Lead	ALTCem P100-X2	AR-31	Retarder	0.17	%BWOB
1	2	Lead	ALTCem P100-X2	AVS-20	Viscosifier	0.10	%BWOB
1	3	Tail	ALTCem P50-X1	ACG-10	Cement	50.00	%
1	3	Tail	ALTCem P50-X1	AFA-10	Extender	50.00	%
1	3	Tail	ALTCem P50-X1	ADF-11	Defoamer	0.30	%BWOB
1	3	Tail	ALTCem P50-X1	AFL-50	FluidLoss	0.20	%BWOB
1	3	Tail	ALTCem P50-X1	AR-20	Retarder	0.10	%BWOB
1	3	Tail	ALTCem P50-X1	AVS-10	Viscosifier	0.10	%BWOB
1	3	Tail	ALTCem P50-X1	AVS-50	Viscosifier	2.00	%BWOB
1	4	Displacement	MMCR Water	AR-61	Retarder	0.10	gal/bbl



2 Job Logs

Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
1	Callout	6/19/2017	04:30					
2	Depart Location	6/19/2017	07:30					
3	Arrive On Location	6/19/2017	08:45					arrived 1 hour 15 minutes early
4	STEACS BRIEFING	6/19/2017	09:00					
5	Rig Up Iron	6/19/2017	09:15					
6	SAFETY MEETING	6/19/2017	13:30					
7	Pressure Test Lines	6/19/2017	14:09	8.33	1	1	7000	lines tested good
8	PUMP WATER	6/19/2017	14:13	8.33	2	3	250	Shut down leaking head down 3 minutes
9	Pump Spacer	6/19/2017	14:28	11.5	5	50	400	bj spacer @11.5#/gal
10	Pump Lead Cement	6/19/2017	14:39	13.2	6	319	500	mix and pump 985sks@13.2 altcem p100 x2
11	Pump Tail Cement	6/19/2017	15:30	13.5	6	438	610	mix and pump 1674 sks @13.5#/gal alt altcem p 50 x1
12	drop plug	6/19/2017	16:46					wash to the pit
13	Pump Displacement	6/19/2017	16:58	8.33	8	20	500	fresh water
14	Pump Displacement	6/19/2017	17:06	8.33	8	50	1046	shut down tighten head/swage
15	Pump Displacement	6/19/2017	17:22	8.33	8	100	1800	KCL water
16	Pump Displacement	6/19/2017	17:28	8.33	8	150	2200	KCL water
17	Pump Displacement	6/19/2017	17:34	8.33	8	200	2750	KCL water
18	Pump Displacement	6/19/2017	17:41	8.33	8	250	2770	KCL water
19	Pump Displacement	6/19/2017	17:48	8.33	8	300	2800	spacer to the pit divert to pit
20	Pump Displacement	6/19/2017	17:51	8.33	8	350	2900	cement to the surface 47 bbls to pit
21	Slow Pump Rate	6/19/2017	17:56	8.33	3	380	2450	good circulation
22	Land Plug	6/19/2017	18:03	8.33	3	398	2200/3000	Plug landed
23	Check Floats	6/19/2017	18:10					float is holding
24	steacs briefing	6/19/2017	18:30					
25	Rig Down Iron	6/19/2017	18:45					
26	journey management	6/19/2017	19:30					
27	Depart Location	6/19/2017	20:00					



3 Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	75 °F	50-80 °F
pH Level	7	5.5-8.5
Chlorides	29 mg/L	0-3000 mg/L
Total Alkalinity	0	0-1000
Total Hardness	180 mg/L	0-500 mg/L
Carbonates	0 mg/L	0-100 mg/L
Sulfates	<200 mg/L	0-1500 mg/L
Potassium	1600 mg/L	0-3000 mg/L
Iron	6 mg/L	0-300 mg/L

4 Pump Diagrams

Customer: Great Western
Well Number: 11-382HNX
Lease Info: Schneider



Print Date/Time
6/19/2017 2:08:38 PM

