



Petroshare Corporation

PRODUCTION POST JOB REPORT

Shook 3-10-4CDH 05-001-09974
S:3 T:1S R:67W Adams CO

CallSheet #: 1184
Proposal #: 13778



PRODUCTION Post Job Report

Attention: Mr. Bill Lloyd | (303) 500-1160 | blloyd@petroshare.com
Petroshare Corporation
9635 Maroon Circle, Ste 400 | Englewood, CO 80112

Dear Mr. Lloyd,

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,

Jason Creel

Field Engineer | (307) 256-0306 | Jason.Creel@BJSERVICES.COM

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

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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	1832	0
Open Hole	Outer	n/a	8.5	n/a	n/a	1832	13990	15
Casing	Inner	5.5	4.778	20	n/a	0	13990	0

1.2 Equipment / People

Unit Type	Unit	Mileage
Bulk Trailer	504	154
Silo	654	154
Silo	664	154

1.3 Timing

Event	Date/Time
Call Out	8/18/2017 09:30
Depart Facility	8/18/2017 12:20
On Location	8/18/2017 14:20
Rig Up Iron	8/18/2017 14:35
Job Started	8/18/2017 18:45
Job Completed	8/18/2017 22:18
Rig Down Iron	8/18/2017 22:45
Depart Location	8/19/2017 00:30

1.4 General Job Information

Metrics	Value
Well Fluid Density	10.7 lb/gal
Well Fluid Type	OBM
Rig Circulation Vol	720 bbls
Rig Circulation Time	2 hours
Calculated Displacement	308 bbls
Actual Displacement	308 bbls
Total Spacer to Surface	40 bbls
Total CMT to Surface	80 bbls

1.5 Well Fluid Details

Metrics	Value
Plastic Viscosity	42
Yield Point	5
10 sec. SGS	3
10 min. SGS	8
30 min. SGS	12
Filtrate	12

1.6 Job Details

Metrics	Value
Flare Prior to Job	No
Flare During Job	No
Flare at End of Job	No
Well Full Prior to Job	Yes
Well Fluid Density Into Well	10.7 lb/gal
Well Fluid Density Out of Well	10.7 lb/gal

1.7 Job Details (cont.)

Metrics	Value
BHCT	228 °F
BHST	228 °F
Initial ISIP	psi
Final ISIP	psi
Skis in Formation	skis
Injection #1	bpm
Injection #1	psi
Injection #2	bpm
Injection #2	psi



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	Spacer	11.00			32.73		40.00	0
1	2	P100-X2	Lead	12.50	2.07	11.81		944.00	348.10	0
1	3	P50-X1	Tail	13.50	1.47	7.43		1190.00	312.54	7373
1	4	Water	Displacement Final	8.33			42.00		309.00	0

1.10 Job Fluid Details

Job	Fluid	Type	Fluid	Product	Function	Conc.	Uom
1	1	Spacer	CD Spacer	ASR-20	Strength Retrogression	179.68	lb/bbl
1	1	Spacer	CD Spacer	AR-31	Retarder	0.79	lb/bbl
1	1	Spacer	CD Spacer	ASF-20	Surfactant	0.50	gal/bbl
1	1	Spacer	CD Spacer	ASF-80	Surfactant	0.50	gal/bbl
1	1	Spacer	CD Spacer	AVS-10	Viscosifier	0.80	lb/bbl
1	2	Lead	P100-X2	AC3-10	Cement	100.00	%
1	2	Lead	P100-X2	ABX-30	Bond Enhancer	0.40	%BWOB
1	2	Lead	P100-X2	ADF-11	Defoamer	0.30	%BWOB
1	2	Lead	P100-X2	AFL-10	Fluid Loss	0.30	%BWOB
1	2	Lead	P100-X2	AR-31	Retarder	0.20	%BWOB
1	2	Lead	P100-X2	AVS-10	Viscosifier	0.10	%BWOB
1	3	Tail	P50-X1	ACG-10	Cement	50.00	%
1	3	Tail	P50-X1	AFA-10	Extender	50.00	%
1	3	Tail	P50-X1	ADF-11	Defoamer	0.30	%BWOB
1	3	Tail	P50-X1	AFL-50	Fluid Loss	0.20	%BWOB
1	3	Tail	P50-X1	AR-20	Retarder	0.10	%BWOB
1	3	Tail	P50-X1	AVS-10	Viscosifier	0.10	%BWOB
1	3	Tail	P50-X1	AVS-50	Viscosifier	2.00	%BWOB



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	Customer call out	8/18/2017	09:30					Customer calls with an RTS of 14:00
2	Leave yard	8/18/2017	12:20					Leave yard
3	Arrive on location	8/18/2017	14:20					Arrive on location (casing crew rigging down)
4	Spot trucks	8/18/2017	14:25					Spot trucks on location
5	Safety meeting	8/18/2017	14:30					Pre-rig up safety meeting
6	Rig up	8/18/2017	14:35					Rig up to one of the uprights and start rolling it with sugar, and biocide for displacement
7	Rig up	8/18/2017	14:45					Start rigging up the rest of the equipment and iron
8	Waiting	8/18/2017	17:30					Waiting on the rig to finish circulating on the well
9	Safety meeting	8/18/2017	18:06					Pre-job safety meeting with company man, and the rest of the rig crew
10	Load lines	8/18/2017	18:45	8.34	2	3	230	Load lines with 3 bbls of fresh water, send bottom plug
11	Load top plug	8/18/2017	18:48					Shut down verify the bottom plug left the head and load the top plug
12	Pressure test	8/18/2017	18:53	8.34	0	0	4220	Pressure test pumps and lines
13	Pump spacer	8/18/2017	19:04	11	4	40	278	Pump 40 bbls of spacer @11.0 ppg
14	Pump lead cement	8/18/2017	19:17	12.5	7	348	360	Pump 944 sacks of lead cement @12.5 ppg (348 bbls) Yield: 2.07 Mix water: 11.81
15	Pump tail cement	8/18/2017	20:11	13.5	7	510	312	Pump 1190 sacks of tail cement @13.5 ppg (312 bbls) Yield: 1.47 Mix water: 7.43
16	Shut down	8/18/2017	21:02					Shut down wash up pumps and lines
17	Drop plug	8/18/2017	21:13					Drop top plug
18	Displacement	8/18/2017	21:14	8.34	8	674	0	Start fresh water + sugar + biocide displacement
19	Displacement	8/18/2017	21:24	8.34	8	958	50	Displacement
20	Displacement	8/18/2017	21:30	8.34	8	1650	100	Displacement
21	Displacement	8/18/2017	21:37	8.34	5	2113	145	Had to drop rate, blew a radiator hose on one of the pump engines. Had to finish displacement with one engine
22	Displacement	8/18/2017	21:47	8.34	5	2147	200	Displacement
23	Cement to surface	8/18/2017	21:53	8.34	5	2143	230	Displacement



24	Displacement	8/18/2017	21:57	8.34	5	2504	250	Displacement
25	Shut down	8/18/2017	21:58	8.34	0	1911	253	Shut down so rig could move hose to a different pit
26	Displacement	8/18/2017	21:59	8.34	5	2663	253	Start pumping again
27	Drop rate	8/18/2017	22:04	8.34	2.8	2306	280	Drop rate to land the plug
28	Displacement	8/18/2017	22:11	8.34	2.8	2368	300	Displacement
29	Displacement	8/18/2017	22:14	8.34	2.8	3064	308	Land plug @2385 psi, Bump up to 3064 psi
30	Check floats	8/18/2017	22:18	8.34	0	0	0	Check floats (floats held) 3 bbls back
31	Safety meeting	8/18/2017	22:40					Pre-rig down safety meeting
32	Rig down	8/18/2017	22:45					Rig down everything

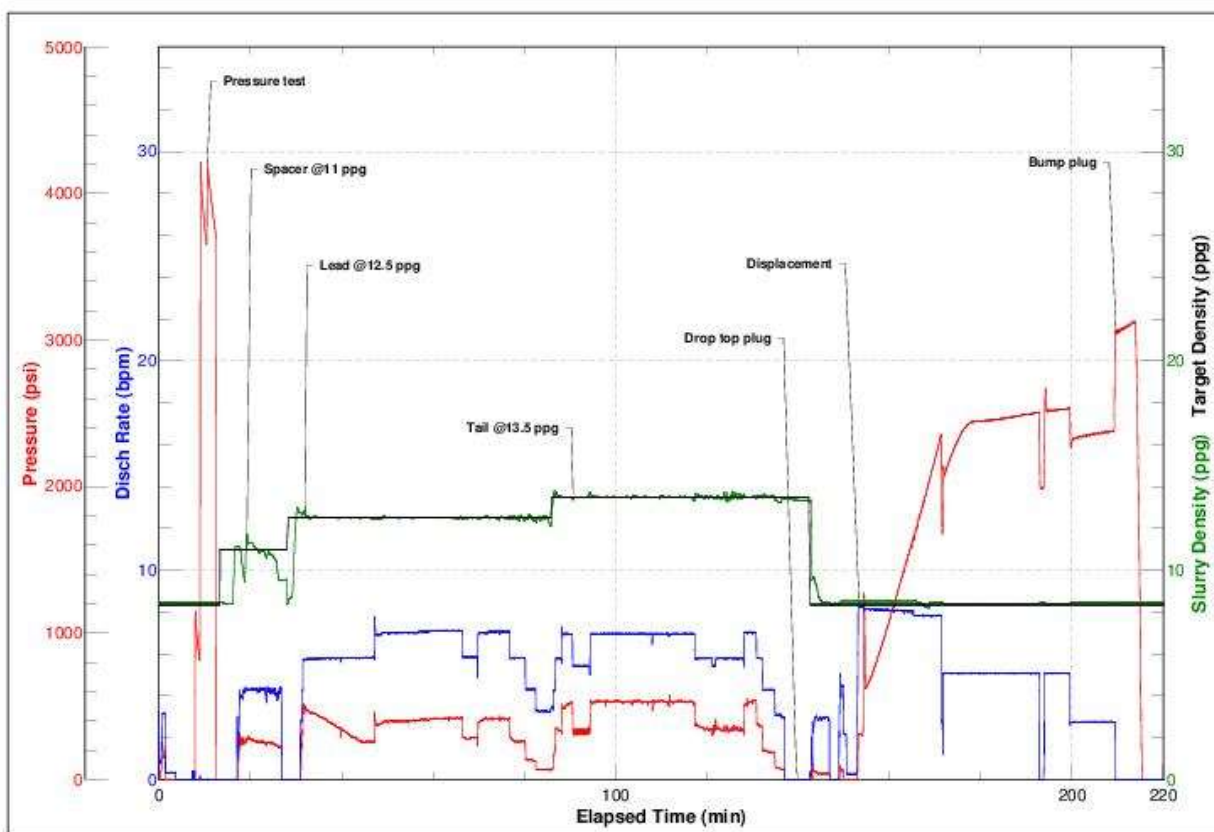
3 Water Analysis

Metrics	Value	Recommended
Water Source	None	
Temperature	63 °F	50-80 °F
pH Level	7	5.5-8.5
Chlorides	6 mg/L	0-3000 mg/L
Total Alkalinity	200	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	450 mg/L	0-3000 mg/L
Iron	0 mg/L	0-300 mg/L

4 Pump Diagrams



JobMaster Program Version 4.02C1
Job Number: 1184
Customer: Petroshare
Well Name: Shook 3-10-4CDH



BJ Services

Job Start: Friday, August 18, 2017



5 Field Ticket

5.1 Service Charges

Part #	Name	Unit Price	Unit	Quantity	Total
5	Additional Hours	\$1,500.00	hour	0	\$0.00
2	Depth Charge (based on MD)	\$0.50	foot	13729	\$6,864.50
6	Drayage Per Additional Unit Roundtrip	\$160.00	hour	18	\$2,880.00
14	Mobilization, Other	\$600.00	hour	3	\$1,800.00
1	Pumping Charge (includes 8 hours of location time)	\$12,000.00	job	1	\$12,000.00
Subtotal:					\$23,544.50
Discount (%):					% 65.00
Discount (\$):					\$15,303.93
Total:					\$8,240.58

5.2 Material Charges

Part #	Name	Unit Price	Unit	Quantity	Unit	Total
2605	ASR-20	\$0.55	lb	7188	lb	\$3,953.40
2213	AR-31	\$17.50	lb	32	lb	\$560.00
2402	ASF-20	\$70.70	gal	20	gal	\$1,414.00
2408	ASF-80	\$103.20	gal	20	gal	\$2,064.00
2901	AVS-10	\$52.05	lb	32	lb	\$1,665.60
2002	AC3-10	\$29.00	sack	944	sack	\$27,376.00
2703	ABX-30	\$22.50	lb	355	lb	\$7,987.50
2504	ADF-11	\$8.60	lb	267	lb	\$2,296.20
2301	AFL-10	\$32.50	lb	267	lb	\$8,677.50
2213	AR-31	\$17.50	lb	178	lb	\$3,115.00
2901	AVS-10	\$52.05	lb	89	lb	\$4,632.45
2001	ACG-10	\$28.00	sack	595	sack	\$16,660.00
2602	AFA-10	\$0.11	lb	44905	lb	\$4,939.55
2504	ADF-11	\$8.60	lb	303	lb	\$2,605.80
2308	AFL-50	\$33.50	lb	202	lb	\$6,767.00
2202	AR-20	\$25.40	lb	101	lb	\$2,565.40
2901	AVS-10	\$52.05	lb	101	lb	\$5,257.05
2905	AVS-50	\$0.40	lb	2017	lb	\$806.80
2411	Biocide	\$180.00	gal	5	gal	\$900.00
2609	Sugar	\$5.00	lb	2000	lb	\$10,000.00
Subtotal:						\$114,243.25
Discount (%):						% 65.00
Discount (\$):						\$74,258.11
Total:						\$39,985.14

5.3 Grand Total

Services	Materials	Grand Total
\$8,240.58	\$39,985.14	\$48,225.71