

BJ Cementing Treatment Report

Antelope Federal T34-20-17XRLNB
API: 05-123-49094

SERVICE SUPERVISOR		FORMATION	NIOBRARA
CLIENT FIELD REPRESENTATIVE		RIG	Akita 519
DISTRICT	Cheyenne, WY	COUNTY	WELD
SERVICE	Cementing	STATE / PROVINCE	CO

WELL GEOMETRY

TYPE	ID (in)	OD (in)	WEIGHT (lbs/ft)	MD (ft)	TVD (ft)	EXCESS (%)	GRADE	THREAD
Previous Casing	8.92	9.63	36.00	1,625.00	1,625.00			
Open Hole	8.50			17,040.00	6,394.00	7.00		
Casing	4.78	5.50	20.00	17,030.00	6,394.00			

HARDWARE

Bottom Plug Used?	Yes	Tool Type	
Bottom Plug Provided By	Non BJ	Tool Depth (ft)	
Bottom Plug Size	5.500	Max Tubing Pressure - Rated (psi)	
Top Plug Used?	Yes	Max Tubing Pressure - Operated (psi)	
Top Plug Provided By	Non BJ	Max Casing Pressure - Rated (psi)	
Top Plug Size	5.500	Max Casing Pressure - Operated (psi)	
Centralizers Used	Yes	Pipe Movement	None
Centralizers Quantity	151.00	Job Pumped Through	Manifold
Centralizers Type	Rigid	Top Connection Thread	BTC
Landing Collar Depth (ft)	17,005	Top Connection Size	5.5

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End Date: 5/21/2019

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DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ	Amt of Cement Returned / Reversed	5.00
Calculated Displacement Vol (bbls)	378.00	Method Used to Verify Returns	Visual
Actual Displacement Vol (bbls)	365.00	Amt of Spacer to Surface	80.00
Did Float Hold?	Yes	Pressure Left on Casing (psi)	0.00
Bump Plug	No	Amt Bled Back After Job	6.00
Bump Plug Pressure (psi)		Total Volume Pumped (bbls)	1,199.00
Were Returns Planned at Surface	Yes	Top Out Cement Spotted	No
Cement Returns During Job	Partial	Lost Circulation During Cement Job	No

CEMENT PLUG

Bottom of Cement Plug?	No	Wiper Balls Used?	No
Wiper Ball Quantity		Plug Catcher	No
Number of Plugs			

SQUEEZE

Injection Rate (bpm)		Fluid Density (ppg)	
Injection Pressure (psi)		ISIP (psi)	
Type of Squeeze		FSIP (psi)	
Operators Max SQ Pressure (psi)			

Comments

TREATMENT REPORT

JOB SUMMARY

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CIRCULATION PRIOR TO JOB

Well Circulated By	Rig	YP Mud In	9
Circulation Prior to Job	No	YP Mud Out	9
Circulation Time (min)	180.00	Solids Present at End of Circulation	No
Circulation Rate (bpm)	8.00	10 sec SGS	2.00
Circulation Volume (bbls)	1,440.00	10 min SGS	3.00
Lost Circulation Prior to Cement Job	No	30 min SGS	4.00
Mud Density In (ppg)	9.60	Flare Prior to / during the Cement Job	No
Mud Density Out (ppg)	9.60	Gas Present	No
PV Mud In	12	Gas Units	
PV Mud Out	12		

TEMPERATURE

Ambient Temperature (°F)	33.00	Slurry Cement Temperature (°F)	
Mix Water Temperature (°F)	60.00	Flow Line Temperature (°F)	

FLUID DETAILS

FLUID TYPE	FLUID NAME	DENSITY (ppg)	YIELD (Cu Ft/sk)	H ₂ O REQ. (gals/sk)	PLN TOP FLD (ft)	LENGTH (ft)	VOL (sk)	VOL (Cu Ft)	VOL (bbls)
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	11.0000			0.00				26.0000
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	12.0000			0.00				80.0000
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	11.0000			0.00				26.0000
Lead Slurry	BJCem P100.3.01C	12.5000	2.1529	12.23	0.00	5,000.00	590	1,263.0000	224.9000
Tail Slurry	BJCem P50.6.02C	13.5000	1.4770	7.45	5,000.00	11,981.00	1,990	2,942.0000	523.9000
Displacement 2	Retarded Water	8.3337			13,244.00	0.00	0	0.0000	20.0000
Displacement Final	Displacement Final (Water)	8.3308			0.00			0.0000	355.7000

FLUID TYPE	FLUID NAME	COMPONENT	CONCENTRATION	UOM
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	WEIGHTING ADDITIVE, W-11	243.3100	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	IntegraGuard GW-86	1.2000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	RETARDER, R-31	0.5000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	SPACER SURFACTANT, SS-267	1.0000	GPB

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Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	RETARDER, R-7C	2.0000	PPB
Lead Slurry	BJCem P100.3.01C	FOAM PREVENTER, FP-25	0.3000	BWOB
Lead Slurry	BJCem P100.3.01C	EXTENDER, BENTONITE	4.0000	BWOB
Lead Slurry	BJCem P100.3.01C	RETARDER, SR-20	0.3000	BWOB
Lead Slurry	BJCem P100.3.01C	IntegraGuard GW-86	0.2000	BWOB
Lead Slurry	BJCem P100.3.01C	CEMENT, ASTM TYPE III	100.0000	PCT
Lead Slurry	BJCem P100.3.01C	FLUID LOSS, FL-24	0.3000	BWOB
Lead Slurry	BJCem P100.3.01C	BONDING AGENT, BA-60	0.4000	BWOB
Lead Slurry	BJCem P100.3.01C	IntegraSeal POLI	0.1300	LBS/SK
Tail Slurry	BJCem P50.6.02C	EXTENDER, BENTONITE	2.0000	BWOB
Tail Slurry	BJCem P50.6.02C	FOAM PREVENTER, FP-25	0.3000	BWOB
Tail Slurry	BJCem P50.6.02C	CEMENT, CLASS G	50.0000	PCT
Tail Slurry	BJCem P50.6.02C	RETARDER, SR-20	0.0500	BWOB
Tail Slurry	BJCem P50.6.02C	FLUID LOSS, FL-66	0.2000	BWOB
Tail Slurry	BJCem P50.6.02C	Flyash (Rockies)	50.0000	PCT
Tail Slurry	BJCem P50.6.02C	IntegraGuard GW-86	0.1000	BWOB
Displacement 2	Retarded Water	BIOCIDE, BIOC11139W	0.0100	GPB
Displacement 2	Retarded Water	RETARDER, SR-61L	0.1000	GPB
Displacement Final	Displacement Final (Water)	BIOCIDE, BIOC11139W	0.0100	GPB

TREATMENT SUMMARY

TIME	FLUID	RATE (bpm)	FLUID VOL. (bbls)	PIPE PRESSURE (psi)	ANNULUS PRESSURE (psi)	COMMENTS
5/21/2019 7:46 AM	IntegraGuard EZ Spacer II	4.00	26.00	400.00		
	IntegraGuard EZ Spacer II	4.00	28.00			
	IntegraGuard EZ Spacer II	4.00	26.00			
5/21/2019 8:14 AM	BJCem P100.3.01C	6.00	224.90	400.00		
5/21/2019 8:55 AM	BJCem P50.6.02C	6.00	523.90	300.00		
5/21/2019 10:50 AM	Retarded Water	5.00	20.00	500.00		
5/21/2019 10:54 AM	Displacement Final (Water)	8.00	355.70	2,000.00		

MIN / MAX / AVG PRESSURE AND RATES

	MIN	MAX	AVG
Pressure (psi)	200.00	5,500.00	1,000.00

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Rate (bpm)

0.40

8.00

6.00

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API:

Start 5/20/2019
Date:

End 5/21/2019
Date:

Field Ticket
#:





Customer Name Bonanza Creek

Well Name Antelope Federal #T34-20-17XRLNB

Job Type Long String

District Cheyenne

Supervisor C. Johnson

Engineer

Seq No.	Start Date/Time	Category	Event	Equipment	Event ID	Density (lb/gal)	Pump Rate (bpm)	Pump Vol (bbls)	Pipe Pressure (psi)	Comments
1	5/20/19 1900	Mobilization	Callout		1					Crew called out requested on location
2	5/21/19 0030	Mobilization	Arrive on Location		48					Crew arrived on location
3	5/21/19 0045	Operational	Safety Meeting		53					Safety meeting
4	5/21/19 0100	Operational	Spot Units		49					Spotted all units
5	5/21/19 0115	Operational	Rig Up		50					Rigged up all equipment
6	5/21/19 0300	Standby	Customer		85					Waiting on rig to finish running casing and circulate the well
7	5/21/19 0700	Operational	Safety Meeting		53					Safety meeting
8	5/21/19 0730	Operational	Prime Up		52	8.34	3	5	300	Fill lines
9	5/21/19 0733	Operational	Pressure Test		54					Pressure test lines to 6000 psi
10	5/21/19 0746	Operational	Pump Spacer		56	11	4	80	400	Pump spacer, 26 bbls at 11 ppg, 28 bbls at 12 ppg, 26 bbls at 11 ppg
11	5/21/19 0814	Operational	Pump Lead Cement		58	12.5	6	226	400	Pump lead cement, (590 sks, 2.15 Y, 12.23 gal/sk)
12	5/21/19 0855	Operational	Pump Tail Cement		60	13.5	6	525	300	Pump tail cement, (1990 sks, 1.48 Y, 7.45 gal/sk)
13	5/21/19 1034	Operational	Other (See comments)		76					Shutdown
14	5/21/19 1040	Operational	Clean Pumps and Lines		62					Wash pumps and lines to pit
15	5/21/19 1045	Operational	Drop Top Plug		63	8.34	3	5	300	Pump 2 bbls water, drop bottom plug, pump 3 bbls water, drop top plug
16	5/21/19 1050	Operational	Pump Displacement		64	8.34	8	360	2000	Pump displacement
17	5/21/19 1110	Operational	Other (See comments)		76					Slow rate to 4 bpm at 150 bbls away
18	5/21/19 1113	Operational	Spacer Back to Surface		65					Spacer to surface, 80 bbls spacer to surface
19	5/21/19 1133	Operational	Other (See comments)		76					slow pump rate to 3 bpm at 250 bbls away
20	5/21/19 1200	Operational	Other (See comments)		76					Kicked out at 2500 psi 320 bbls away, started to see cement to surface
21	5/21/19 1204	Operational	Pump Displacement		64					Lost returns, resumed pumping at 1 bpm
22	5/21/19 1207	Operational	Other (See comments)		76					kicked out at 2800 psi, customer called engineer, 326 bbls away
23	5/21/19 1211	Operational	Pump Displacement		64					resume pumping at 1 bpm
24	5/21/19 1223	Operational	Other (See comments)		76					pressure broke over from 4100 psi to 2800 psi
25	5/21/19 1244	Operational	Other (See comments)		76					kicked out at 4400 psi, 363 away
26	5/21/19 1244	Operational	Pump Displacement		64					resume pumping at 0.6 bpm and 4200 psi
27	5/21/19 1246	Operational	Other (See comments)		76					Kicked out at 4500 psi
28	5/21/19 1246	Operational	Pump Displacement		64					resume pumping at 0.6 bpm at 4500 psi
29	5/21/19 1248	Operational	Other (See comments)		76					kicked out at 4700 psi
30	5/21/19 1248	Operational	Pump Displacement		64					resume pumping at 4700 psi
31	5/21/19 1249	Operational	Other (See comments)		76					kicked out at 5000 psi, 365 bbls away
32	5/21/19 1249	Operational	Pump Displacement		64					resume pumping at 0.4 bpm and 5000psi
33	5/21/19 1250	Operational	Other (See comments)		76					kicked out at 5200 psi
34	5/21/19 1254	Operational	Pump Displacement		64					resume pumping at 0.4 bpm and 5000 psi
35	5/21/19 1255	Operational	Other (See comments)		76					kicked out at 5500 psi



Customer Name Bonanza Creek

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Job Type Long String

District Cheyenne

Supervisor C. Johnson

Engineer _____

Seq No.	Start Date/Time	Category	Event	Equipment	Event ID	Density (lb/gal)	Pump Rate (bpm)	Pump Vol (bbls)	Pipe Pressure (psi)	Comments
36	5/21/19 1300	Operational	Check Floats		68					check floats, floats holding, 6 bbls back
37	5/21/19 1315	Operational	Safety Meeting		53					safety meeting
38	5/21/19 1330	Operational	Rig Down		73					crew rigged down all equipment
39	5/21/19 1600	Mobilization	Leave Location		74					crew departed location
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JobMaster Program Version 4.02C1
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Well Name:

