



Edge Energy II, LLC

Deporter 28-27-2H

API # 05-123-47488

Surface

November 06, 2019

Quote #: QUO-38444-T3C0X5

Execution #: EXC-22314-D8F0L202



Edge Energy II, LLC

Attention: Trevor Smith | (720) 420-5749 | trevor.smith@iptenergyservices.com

Dear Mr. Trevor Smith,

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 I | (307) 365-9038 | jason.creel@bjservices.com

Field Office 1716 East Allison Rd., Cheyenne WY, 82007
Phone: (307) 459-6487

Sales Office 999 18th St. Suite 1200 Denver, CO 80202
Phone: (281) 408-2361

BJ Cementing Treatment Report

SERVICE SUPERVISOR	Gregory Black	RIG	Ensign 140
CLIENT FIELD REPRESENTATIVE	Josh Kliesen	COUNTY	WELD
DISTRICT	Cheyenne, WY	STATE / PROVINCE	CO
SERVICE	Cementing		

WELL GEOMETRY

TYPE	ID (in)	OD (in)	WEIGHT (lb/ft)	MD (ft)	TVD (ft)	EXCESS (%)
Open Hole	13.50	0.00	0.00	1,547.50	1,558.00	30.00
Casing	8.92	9.63	36.00	1,558.00	1,558.00	

HARDWARE

Bottom Plug Used?	No	Tool Type	Float Collar
Top Plug Used?	Yes	Tool Depth (ft)	1,503.00
Top Plug Provided By	Non BJ	Max Casing Pressure - Rated (psi)	3520.00
Top Plug Size	9.625	Max Casing Pressure - Operated (psi)	1200.00
Centralizers Used	Yes	Pipe Movement	None
Centralizers Quantity	16.00	Job Pumped Through	Manifold
Centralizers Type	Bow	Top Connection Thread	LTC
Landing Collar Depth (ft)	1,503	Top Connection Size	9.625

CIRCULATION PRIOR TO JOB

Well Circulated By	Rig	Mud Density In (ppg)	9.40
Circulation Prior to Job	Yes	Mud Density Out (ppg)	9.40
Circulation Time (min)	30.00	Solids Present at End of Circulation	No
Circulation Rate (bpm)	8.00	Flare Prior to / during the Cement Job	No
Circulation Volume (bbls)	240.00	Gas Present	No
Lost Circulation Prior to Cement Job	No		

TEMPERATURE

Ambient Temperature (°F)	37.00	Slurry Cement Temperature (°F)	60.00
Mix Water Temperature (°F)	55.00		

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	Water	8.3337			0.00				20.0000
Lead Slurry	BJCem S100.03.1C	12.0000	2.5298	14.86	0.00	1,050.00	265	671.0000	119.4000
Tail Slurry	BJCem S100.03.1C	13.0000	2.2255	12.59	1,050.00	450.00	130	290.0000	51.5000
Displacement Final	Water	8.3337			0.00			0.0000	112.7000

FLUID TYPE	FLUID NAME	COMPONENT	CONCENTRATION	UOM
Spacer / Pre Flush / Flush	Water	Fresh Water	100.0000	PCT
Lead Slurry	BJCem S100.03.1C	CEMENT, ASTM TYPE III	100.0000	PCT
Lead Slurry	BJCem S100.03.1C	FOAM PREVENTER, FP-25	0.3000	BWOB
Lead Slurry	BJCem S100.03.1C	ACCELERATOR, SALT, CHLORIDE, CALCIUM, A-7P, PELLETS	2.0000	LBS/SK
Lead Slurry	BJCem S100.03.1C	Cement Additive, Sodium Metasilicate A-2	2.0000	LBS/SK
Lead Slurry	BJCem S100.03.1C	IntegraSeal POLI	0.1300	LBS/SK
Lead Slurry	BJCem S100.03.1C	CEMENT EXTENDER, GYPSUM, A-10	5.0000	BWOB
Tail Slurry	BJCem S100.03.1C	CEMENT EXTENDER, GYPSUM, A-10	5.0000	BWOB
Tail Slurry	BJCem S100.03.1C	FOAM PREVENTER, FP-25	0.3000	BWOB
Tail Slurry	BJCem S100.03.1C	IntegraSeal POLI	0.1300	LBS/SK
Tail Slurry	BJCem S100.03.1C	ACCELERATOR, SALT, CHLORIDE, CALCIUM, A-7P, PELLETS	2.0000	LBS/SK
Tail Slurry	BJCem S100.03.1C	CEMENT, ASTM TYPE III	100.0000	PCT
Tail Slurry	BJCem S100.03.1C	Cement Additive, Sodium Metasilicate A-2	2.0000	LBS/SK
Displacement Final	Water	Fresh Water	100.0000	PCT

DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ	Amt of Cement Returned / Reversed	36.00
Calculated Displacement Vol (bbls)	116.50	Method Used to Verify Returns	Visual
Actual Displacement Vol (bbls)	116.50	Amt of Spacer to Surface	20.00
Did Float Hold?	Yes	Pressure Left on Casing (psi)	0.00
Bump Plug	Yes	Amt Bled Back After Job	1.00
Bump Plug Pressure (psi)	1200.00	Total Volume Pumped (bbls)	309.50
Were Returns Planned at Surface	Yes	Top Out Cement Spotted	No
Cement Returns During Job	Full	Lost Circulation During Cement Job	No

BJ Cementing Event Log

Surface - Cheyenne, WY - Gregory Black

SEQ	START DATE / TIME	EVENT	DENSITY (ppg)	PUMP RATE (bpm)	PUMP VOL (bbls)	PIPE PRESSURE (psi)	COMMENTS
1	11/06/2019 05:00	Callout					Called out with a RTS of 11:00
2	11/06/2019 09:00	Arrive on Location					Arrived on location early.
3	11/06/2019 09:00	STEACS Briefing					Pre rig up and spotting safety meeting.
4	11/06/2019 09:15	Rig Up					Crew rigged up bulk and water, and ground iron.
5	11/06/2019 09:50	Rig					Crew waited on rig to finish running casing and circulating.
6	11/06/2019 12:15	STEACS Briefing					Crew holds a job procedure and pre job safety meeting with rig crew and company man.
7	11/06/2019 12:35	Prime Up	8.3400		2.00		Crew primes lines for pressure test.
8	11/06/2019 12:37	Pressure Test				4700.00	Crew performs pressure test of iron.
9	11/06/2019 12:39	Pump Spacer	834.0000	5.00	20.00	150.00	Crew pumps water spacer.
10	11/06/2019 12:45	Pump Lead Cement	12.0000	5.00	120.00	200.00	Crew pumps lead cement@12.0 ppg (265 sks; yield:2.52; gps:14.86)
11	11/06/2019 13:08	Pump Tail Cement	13.0000	5.00	51.00	200.00	Crew pumps tail cement @ 13.0 ppg (130 sks; yield:2.22; gps:12.59)
12	11/06/2019 13:17	Other (See comment)					Crew shuts down to prep head to drop plug and pumper gets ready to wash and displace.
13	11/06/2019 13:21	Drop Top Plug					Plug launched with company man verification.
14	11/06/2019 13:21	Pump Displacement	8.3400	5.00	20.00	100.00	Pumped displacement.
15	11/06/2019 13:25	Pump Displacement	8.3400	5.00	76.50	250.00	Pumped displacement.
16	11/06/2019 13:37	Pump Displacement	8.3400	3.00	20.00	400.00	Slowed rate to land plug.
17	11/06/2019 13:46	Spacer Back-to-Surface					Spacer back to surface @ 55 away; 20 total back.
18	11/06/2019 13:46	Cement Back-to-Surface					Cement back to surface @ 75 away; 41 total back.
19	11/06/2019 13:46	Other (See comment)					Bumped plug. 450 psi. Final circulation took to 990 psi. Calculated displacement.
20	11/06/2019 13:49	Check Floats					1 bbls back
21	11/06/2019 13:50	STEACS Briefing					Rig down safety meeting.
22	11/06/2019 13:55	Rig Down					Crew rigs down.
23	11/06/2019 14:30	STEACS Briefing					Journey back safety meeting.
24	11/06/2019 14:35	Leave Location					Crew leaves location job complete.

Client: Edge Energy II, LLC

Well Name / API: DEPORTER 28-27-2H / 05-123-47488

Well MD: 1558



Quote #: QUO-38444-T3C0X5

Plan #: ORD-22314-D8F0L2

Execution #: EXC-22314-D8F0L202



JobMaster Program Version 4.02C1

Job Number:

Customer: **EDGE energy**

Well Name: **Deporter 28-27-2H**

