



Caerus

SURFACE POST JOB REPORT

Puckett 33A-26-697 05-045-23370
S:26 T:6S R:97W Garfield CO

CallSheet #: 526
Proposal #: 12881



SURFACE Post Job Report

Attention: Mr. Steve Schmitz | (720) 880-6412 | sschmitz@caerusoilandgas.com
Caerus
1001 17th Street, Suite 1600 | Denver, CO 80202

Dear Mr. Schmitz,

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,

Nick Stille

Technical Specialist - I | (307) 267-5572 | nickstille@altcem.com

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

Sales Office 475 17th St. Suite 460 Denver Co., 80202
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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	Inner	9.625	8.835	36	LTC	0	2529.5	0
Open Hole	Outer	n/a	14.75	n/a	n/a	100	2031.5	25
Open Hole	Outer	n/a	14.75	n/a	n/a	2031.5	2545	0
Casing	Outer	20	19.5	53	n/a	0	100	0

1.2 Equipment / People

Unit Type	Unit	Employee #1	Mileage
Cement Chemical	401	Jimenez, Edgar	100
Light Duty Pickups	4	Fuentes, Orlando	100
Cement Pump	106	Chaparro, Hector	100
Plug Container	150521		
Pneumatic Trailer	701		
Pneumatic Trailer	702		
Pneumatic Trailer	705		

1.3 Timing

Event	Date/Time
Call Out	2/7/2017 09:00
Depart Facility	2/7/2017 10:00
On Location	2/7/2017 12:00
Rig Up Iron	2/7/2017 13:00
Job Started	2/7/2017 19:00
Job Completed	2/8/2017 08:00
Rig Down Iron	2/8/2017 09:00
Depart Location	2/8/2017 11:00

1.4 General Job Information

Metrics	Value
Well Fluid Density	8.9 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	360 bbls
Rig Circulation Time	.67 hours
Calculated Displacement	192.2 bbls
Actual Displacement	193 bbls
Total Spacer to Surface	0 bbls
Total CMT to Surface	.5 bbls
Well Topped Out	Yes
Top Out Volume	178 bbls

1.5 Well Fluid Details

Metrics	Value
Plastic Viscosity	9
Yield Point	7
10 sec. SGS	3
10 min. SGS	5
30 min. SGS	11
Filtrate	8
Flow Line Temp.	70

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	8.9 lb/gal
Well Fluid Density Out of Well	8.9 lb/gal

1.7 Job Details (cont.)

Metrics	Value
BHCT	94 °F
BHST	128 °F

1.8 Circulation

Lost Circulation Experienced	Losses into Spacer	Losses into Cement	Losses into Displacement
Yes	Yes	Yes	Yes

Circulation Details:

No returns throughout job

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	Water	Flush	8.33			42.00		20.00	0
1	2	Sodium Silicate	Flush	10.00			21.00		20.00	0
1	3	Water	Flush	8.33			42.00		20.00	0
1	4	ALTCem S100-12	Lead	12.00	2.53	14.85		703.00	316.33	0
1	5	ALTCem S100-12	Tail	12.50	2.22	12.58		161.00	63.76	2032
1	6	Water	DisplacementFinal	8.33			42.00		187.00	0
1	7	ALTCem S100-12	Topout	12.50	2.22	12.58		450.00	178.00	0



1.10 Job Fluid Details

Job	Fluid	Type	Fluid	Product	Function	Conc.	Uom
1	2	Flush	Sodium Silicate	ASF-10	Extender	21.00	gal/bbl
1	4	Lead	ALTCem S100-12	AC3-10	Cement	100.00	%
1	4	Lead	ALTCem S100-12	ACL-10	Accelerator	2.00	lb/sk
1	4	Lead	ALTCem S100-12	ACL-20	Accelerator	5.00	%BWOB
1	4	Lead	ALTCem S100-12	ADF-11	Defoamer	0.30	%BWOB
1	4	Lead	ALTCem S100-12	ALC-10	LostCirculation	0.13	lb/sk
1	4	Lead	ALTCem S100-12	AXE-30	Extender	2.00	lb/sk
1	5	Tail	ALTCem S100-12	AC3-10	Cement	100.00	%
1	5	Tail	ALTCem S100-12	ACL-10	Accelerator	2.00	lb/sk
1	5	Tail	ALTCem S100-12	ACL-20	Accelerator	5.00	%BWOB
1	5	Tail	ALTCem S100-12	ADF-11	Defoamer	0.30	%BWOB
1	5	Tail	ALTCem S100-12	ALC-10	LostCirculation	0.13	lb/sk
1	5	Tail	ALTCem S100-12	AXE-30	Extender	2.00	lb/sk
1	7	Topout	ALTCem S100-12	AC3-10	Cement	100.00	%
1	7	Topout	ALTCem S100-12	ACL-10	Accelerator	2.00	lb/sk
1	7	Topout	ALTCem S100-12	ACL-20	Accelerator	5.00	%BWOB
1	7	Topout	ALTCem S100-12	ADF-11	Defoamer	0.30	%BWOB
1	7	Topout	ALTCem S100-12	ALC-10	LostCirculation	0.13	lb/sk
1	7	Topout	ALTCem S100-12	AXE-30	Extender	2.00	lb/sk



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	Call Out	2/7/2017	09:00					BJ Services Crew Gets Called Out
2	Depart Hotel	2/7/2017	10:00					BJ Services Crew Departs Hotel Parachute Co.
3	Arrive On Location	2/7/2017	12:00					BJ Services Crew Arrives On Location
4	Pre Rig Up Meeting	2/7/2017	12:30					BJ Services Crew Had A Pre Rig Up Meeting
5	Rig Up	2/7/2017	13:00					BJ Services Crew Rigs Up Pump And Iron
6	Waiting	2/7/2017	16:00					Waiting On Rig To Run Casing
7	Casing On Bottom	2/7/2017	18:10					Rin Lands Casing On Bottom
8	Safety Meeting	2/7/2017	19:00					BJ services Crew Had Safety Meeting With Rig Hands And Company Man - Went over Job Procedure
9	Pressure Test	2/7/2017	19:30				2500	Pressure Test Lines To 2500 PSI
10	Pump Water	2/7/2017	19:38	8.33	4	20	152	Pump 20 BBL Of Water At 4 BPM W/152 PSI
11	Pump Sodium Silicate	2/7/2017	19:42	10.00	4	20	204	Pumped 20 BBL Of Sodium Silicate At 4 BPM W/204 PSI
12	Pump Flush	2/7/2017	19:47	8.33	4	20	212	Pumped 20 BBL Of Water At 4 BPM W/212 PSI
13	Pump Lead Cement	2/7/2017	19:51	12	5	317	277	Pumped 317 BBL (703 SKS 12 PPG 2.53 Yld 14.85 G/Sk) Of Lead Cement At 5 BPM W/277 PSI
14	Pump Tail Cement	2/7/2017	21:12	12.5	5	64	108	Pumped 64 BBL (161 Sks 12.5 PPG 2.22 Yld 12.58) Of Tail Cement At 5 BPM W/108 PSI
15	Shut Down	2/7/2017	21:32					Shut Down Pumping Cement
16	Drop Plug	2/7/2017	21:34					BJ Services Crew Drops Plug With Company Man
17	Start Displacement	2/7/2017	21:36	8.9	5		52	Start Mud Displacement At 5 BPM W/52 PSI
18	Slow Down Rate	2/7/2017	22:15	8.9	2	170	234	At 170 BBL Away Into Displacement Slow Down Rate To 2 BPM W/234 PSI
19	Land Plug	2/7/2017	22:26			193	972	Land Plug At 193 BBL Away Final Circ Pressure Was 405 PSI Bumped Plug To 972 PSI
20	Casing Test	2/7/2017	22:29				1540	Pressure Up Well To 1540 PSI Lost 1011 PSI In 37 Min
21	Casing Test	2/7/2017	23:07				1354	2nd Attempt Casing Test Pressure Up Well To 1354 PSI And Hold For 10 Min



22	Check Floats	2/7/2017	23:18					Check Floats Got 1 BBL Back Final Pressure On Casing Test Was 1354 PSI
23	Pump Sugar Water	2/7/2017	23:30					Pumped 7 BBL Of Sugar Water Thru Parasite Line Opened At 426 PSI At 6 BBL Away
24	Clean Up	2/8/2017	00:00					Clean Up Pumps And Lines To Pit
25	Waiting	2/8/2017	01:00					Waiting On Rig To Test BOP
26	Pump Calcium Chloride	2/8/2017	03:00	8.33	2	10	0	Pumped 10 BBL Of Calcium Chloride (6 % BWOW) At 2 BPM W/O PSI For Top Out
1	Shut Down	2/8/2017	04:00					Shut Down Pumping Cement, Did NOT Get Cement To Surface Company Man Decides To wait 3 Hrs For Next Top Out
2	Pump Cement	2/8/2017	07:00	12.5	2	60	0	Pumped 60 BBL (150 Sks 12.5 PPG 2.22 Yld 12.58 G/Sk) Of Top Out Cement At 2 BPM W/O PSI, Got .5 bbl Cement To Surface
3	Other	2/8/2017	08:00					Cement Did Not Fall From Surface
4	Pre Rig Down Meeting	2/8/2017	09:00					BJ Services Crew Had A Pre Rig Down Meeting
5	Rig Down	2/8/2017	09:01					BJ Services Crew Rigs Down Pump And Iron
6	Depart Location	2/8/2017	11:00					BJ Services Crew Departs Location
7	Other	2/8/2017	00:00					Total Top Out Used - 450 Sks



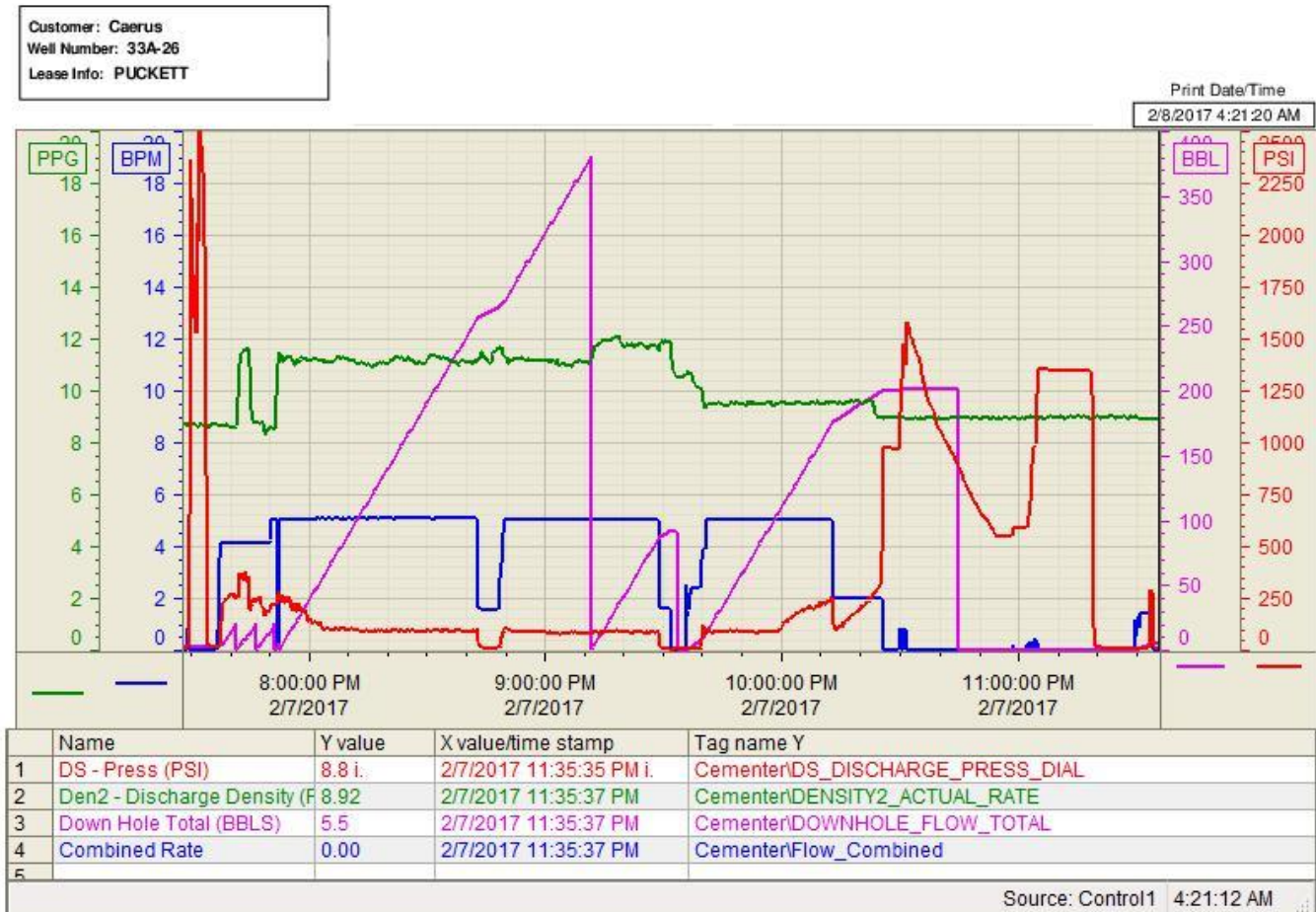
3 Water Analysis

Metrics	Value	Recommended
Water Source	Flat Tank	
Temperature	70 °F	50-80 °F
pH Level	6	5.5-8.5
Chlorides	0 mg/L	0-3000 mg/L
Total Alkalinity	120	0-1000
Total Hardness	250 mg/L	0-500 mg/L
Carbonates	70 mg/L	0-100 mg/L
Sulfates	<200 mg/L	0-1500 mg/L
Potassium	250 mg/L	0-3000 mg/L
Iron	1 mg/L	0-300 mg/L



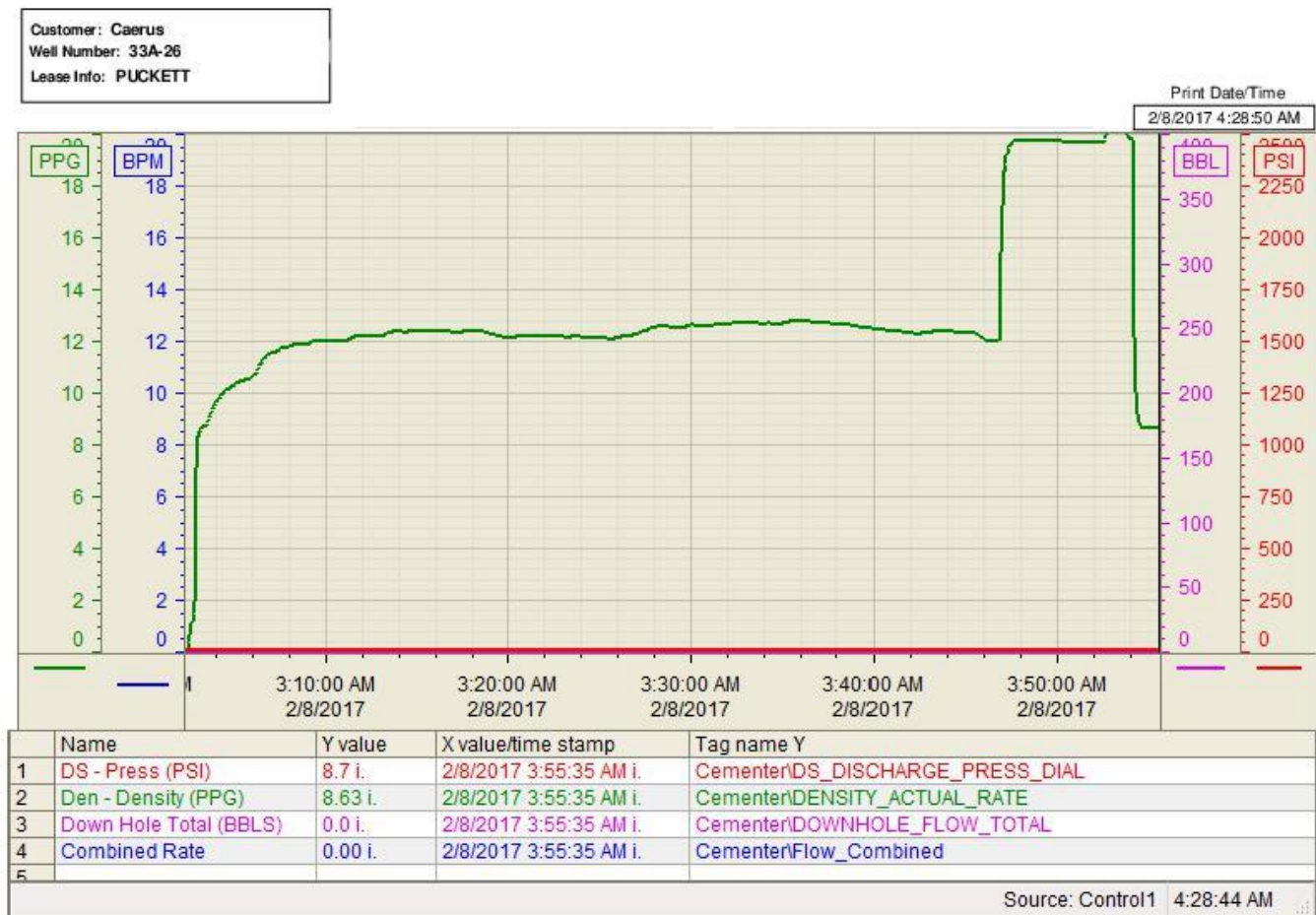
4 Pump Diagrams

Surface Casing





Top Out 1





Top Out 2

