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# Caerus

## SURFACE POST JOB REPORT

Chevron 11D-17 05-045-23239  
S:17 T:6S R:96W Garfield CO

CallSheet #: 867  
Proposal #: 13337



**SURFACE Post Job Report**

**Attention:** Mr. Steve Schmitz | (720) 880-6412 | [sschmitz@caerusoilandgas.com](mailto:sschmitz@caerusoilandgas.com)  
Caerus  
600 17th Street Suite 1600N | Denver, CO 80202

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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,

**Zen Keith**

Technical Specialist-II | (307) 757-7178 | [Zen.Keith@bjservices.com](mailto:Zen.Keith@bjservices.com)

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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 (%)
Open Hole	Outer	n/a	13.5	n/a	n/a	100	545	10
Open Hole	Outer	n/a	13.5	n/a	n/a	545	1071	0
Open Hole	Outer	n/a	15.5	n/a	n/a	0	100	0
Casing	Inner	9.625	8.921	36	LTC	0	1060	0

### 1.2 Equipment / People

Unit Type	Unit	Employee #1	Employee #2	Mileage
Bulk Trailer	501	Hyde, Zack		70
Cement Pump	104			70
Light Duty Pickups	3	Bell, Wesley		70
Cement Chemical	401	Beal, Scott	Roush, James	70

### 1.3 Timing

Event	Date/Time
Call Out	6/4/2017 07:30
Depart Facility	6/4/2017 10:00
On Location	6/4/2017 10:30
Rig Up Iron	6/4/2017 13:00
Job Started	6/4/2017 16:00
Job Completed	6/4/2017 18:00
Rig Down Iron	6/4/2017 18:05
Depart Location	6/4/2017 18:50

### 1.4 General Job Information

Metrics	Value
Well Fluid Density	10.1 lb/gal
Well Fluid Type	WBM
Rig Circulation Time	1 hours
Calculated Displacement	77.5 bbls
Actual Displacement	77.5 bbls
Total Spacer to Surface	0 bbls
Total CMT to Surface	1 bbls
Well Topped Out	Yes
Top Out Volume	3.5 bbls

### 1.5 Well Fluid Details

Metrics	Value
Plastic Viscosity	22
Yield Point	14
10 sec. SGS	9
10 min. SGS	15
30 min. SGS	28
Filtrate	2
Flow Line Temp.	na

### 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	10.1 lb/gal
Well Fluid Density Out of Well	10.1 lb/gal

### 1.7 Job Details (cont.)

Metrics	Value
BHCT	86 °F
BHST	109 °F

### 1.8 Circulation

Lost Circulation Experienced
No

### 1.9 Job Execution Information

Job	Fluid	Product	Function	Density (lb/gal)	Yield (ft <sup>3</sup> /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	ALTCem S100-12	Lead	12.00	2.53	14.85		160.00	72.00	0
1	3	ALTCem S100-12	Tail	12.50	2.22	12.58		118.00	46.73	700
1	4	Water	DisplacementFinal	8.33			42.00		90.00	0
1	5	ALTCem S100-12	Topout	12.50	2.22	12.58		8.00	3.50	0

### 1.10 Job Fluid Details

Job	Fluid	Type	Fluid	Product	Function	Conc.	Uom
1	2	Lead	ALTCem S100-12	AC3-10	Cement	100.00	%
1	2	Lead	ALTCem S100-12	ACL-10	Accelerator	2.00	lb/sk
1	2	Lead	ALTCem S100-12	ACL-20	Accelerator	5.00	%BWOB
1	2	Lead	ALTCem S100-12	ADF-11	Defoamer	0.30	%BWOB
1	2	Lead	ALTCem S100-12	ALC-10	LostCirculation	0.13	lb/sk
1	2	Lead	ALTCem S100-12	AXE-30	Extender	2.00	lb/sk
1	2	Lead	ALTCem S100-12	ADF-20	Defoamer	0.00	
1	3	Tail	ALTCem S100-12	AC3-10	Cement	100.00	%
1	3	Tail	ALTCem S100-12	ACL-10	Accelerator	2.00	lb/sk
1	3	Tail	ALTCem S100-12	ACL-20	Accelerator	5.00	%BWOB
1	3	Tail	ALTCem S100-12	ADF-11	Defoamer	0.30	%BWOB
1	3	Tail	ALTCem S100-12	ALC-10	LostCirculation	0.13	lb/sk
1	3	Tail	ALTCem S100-12	AXE-30	Extender	2.00	lb/sk
1	3	Tail	ALTCem S100-12	ADF-20	Defoamer	0.00	
1	5	Topout	ALTCem S100-12	AC3-10	Cement	100.00	%
1	5	Topout	ALTCem S100-12	ACL-10	Accelerator	2.00	lb/sk
1	5	Topout	ALTCem S100-12	ACL-20	Accelerator	5.00	%BWOB
1	5	Topout	ALTCem S100-12	ADF-11	Defoamer	0.30	%BWOB
1	5	Topout	ALTCem S100-12	ALC-10	LostCirculation	0.13	lb/sk
1	5	Topout	ALTCem S100-12	AXE-30	Extender	2.00	lb/sk
1	5	Topout	ALTCem S100-12	AR-61	Retarder	0.00	

## 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	Arrive on Location	6/4/2017	10:30					Requested time was 13:30
2	Rig In	6/4/2017	11:00					Spot in Bulk unit and pump. Run bulk/water lines and treating lines
3	Waiting	6/4/2017	11:30					Wait for rig to finish running casing
4	Safety Meeting	6/4/2017	15:15					Hold pre job meeting with rig crew and pump crew, review job procedure and job hazards
5	Pump	6/4/2017	16:00	8.34	2	2	50	Fill lines with fresh water
6	Pressure Test	6/4/2017	16:02	8.34			3200	Test lines, no leaks
7	Pump	6/4/2017	16:05	8.34	5	20	100	Pump 20bbls of fresh water ahead
8	Pump Lead Cement	6/4/2017	16:12	12	5	56.7	180	Mix and pump 56.7bbls of lead cement at 12ppg. 126sks, Y: 2.53, WR: 14.85, 44.6bbls mix water. 10% excess over gauge hole
9	Pump Tail Cement	6/4/2017	16:24	12.5	5	46.7	200	Mix and pump 46.7bbls of Tail cement at 12.5ppg. Y: 2.22, WR: 12.58, 118sks. Top of Tail cement @ 545'
10	Shut Down	6/4/2017	16:33					Finish mixing
11	Drop Plug/Displace	6/4/2017	16:35	8.34	5			Drop 9 5/8 top rubber plug, Start displacement
12	Pump	6/4/2017	16:45	8.34	5	50	200	50bbls of displacement away
13	Pump	6/4/2017	16:48	8.34	5	17	300	67bbls of displacement away slow rate to 2bpm
14	Land plug	6/4/2017	16:55	8.34	2	10	300	77bbls of displacement away, land plug, Final circulating pressure was 300psi. 1bbl of cement back to surface.
15	Casing test	6/4/2017	16:57	8.34			1500	1500psi casing test for 15minutes
16	Check Floats	6/4/2017	17:13	8.34				Floats hold, .75bbls back to truck
17	Top off	6/4/2017	17:38	12	0.5	3.5	50	Top off 12A-17 with 3bbls of cement, Top off 11D-17 with .5bbls of cement
18	Job Complete	6/4/2017	18:00					
19	Rig Down	6/4/2017	18:05					
20	Leave location	6/4/2017	18:50					

### 3 Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	60 °F	50-80 °F
pH Level	6.5	5.5-8.5
Chlorides	0 mg/L	0-3000 mg/L
Total Alkalinity	130	0-1000
Total Hardness	300 mg/L	0-500 mg/L
Carbonates	70 mg/L	0-100 mg/L
Sulfates	250 mg/L	0-1500 mg/L
Potassium	200 mg/L	0-3000 mg/L
Iron	0 mg/L	0-300 mg/L

### 4 Pump Diagrams

