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# Caerus

## SURFACE POST JOB REPORT

Chevron 22E-17 05-045-23237  
S:17 T:6S R:96W Garfield CO

CallSheet #: 775  
Proposal #: 12451



**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,

**Oscar Medrano**

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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	675	15
Open Hole	Outer	n/a	13.5	n/a	n/a	675	1006	0
Open Hole	Outer	n/a	15.5	n/a	n/a	0	100	0
Casing	Inner	9.625	8.921	36	LTC	0	963	0

### 1.2 Equipment / People

Unit Type	Unit	Employee #1	Employee #2	Mileage
Bulk Trailer	501	Beal, Scott	Mellon, Zacahria	60
Bulk Trailer	512			60
Cement Pump	105	Kresge, Adam		60
Light Duty Pickups	5	Johnson, Chad		60

### 1.3 Timing

Event	Date/Time
Call Out	5/10/2017 14:00
Depart Facility	5/10/2017 16:30
On Location	5/10/2017 17:00
Rig Up Iron	5/10/2017 17:30
Job Started	5/10/2017 23:50
Job Completed	5/11/2017 02:00
Rig Down Iron	5/11/2017 02:30
Depart Location	5/11/2017 04:30

### 1.4 General Job Information

Metrics	Value
Well Fluid Density	9.3 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	150 bbls
Rig Circulation Time	0.5 hours
Calculated Displacement	71 bbls
Actual Displacement	74 bbls
Total Spacer to Surface	20 bbls
Total CMT to Surface	1 bbls
Well Topped Out	No



### 1.5 Well Fluid Details

Metrics	Value
Plastic Viscosity	7
Yield Point	3
10 sec. SGS	5
10 min. SGS	7
30 min. SGS	11
Filtrate	28
Flow Line Temp.	64

### 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	9.3 lb/gal
Well Fluid Density Out of Well	9.3 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		122.00	53.00	0
1	3	ALTCem S100-12	Tail	12.50	2.22	12.58		118.00	46.73	675
1	4	Water	DisplacementFinal	8.33			42.00		88.00	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	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



## 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	Callout	5/10/2017	14:00					Crew called out for job
2	Safety Meeting	5/10/2017	16:15					Pre convoy safety meeting
3	Depart For Location	5/10/2017	16:30					Crew departed for location
4	Arrive On Location	5/10/2017	17:00					Crew arrived on location
5	Safety Meeting	5/10/2017	17:15					Pre rig up safety meeting
6	Rig Up Iron	5/10/2017	17:30					Crew spotted and rigged up all equipment and iron
7	Waiting	5/10/2017	19:00					Crew waiting on rig to finish running casing. After picking up last joint rig could not get joint down. Rig laid out 1 joint of casing
8	Safety Meeting	5/10/2017	22:45					Pre job safety meeting
9	Fill Lines	5/10/2017	23:50	8.4	2	3	50	Filled lines with 3 bbls fresh water
10	Pressure Test Lines	5/10/2017	23:52					Pressure tested lines to 3000 psi
11	Pump Spacer	5/10/2011	23:54	8.4	2	20	50	Pump 20 bbls water spacer
12	Pump Lead Cement	5/11/2017	00:02	12	5	55	50	Pump 55 bbls lead cement @ 12 ppg (122sk, 2.53 Y, 14.85 gal/sk)
13	Pump Tail Cement	5/11/2017	00:15	12.5	6	47	100	Pump 47 bbls tail cement at 12.5 ppg (118sk, 2.22 Y, 12.58 gal/sk)
14	Shutdown	5/11/2017	00:30					Shutdown
15	Drop Top Plug	5/11/2017	00:31					Drop top plug
16	Pump Displacement	5/11/2017	00:32	8.4	6	50	50	Pump 50 bbls fresh water displacement
17	Slow Pump Rate	5/11/2017	00:50	8.4	2	60	50	Slow pump rate at 60 bbls away to 2 bpm
18	Shutdown	5/11/2017	00:57			71		At 71 bbls away shutdown. Talked to company rep and decided to pump 1 more bbl.
19	Pump Displacement	5/11/2017	01:03	8.4	1.5	72	50	Pump 1 bbls fresh water displacement
20	Shutdown	5/11/2017	01:07					Shutdown plug still did not bump. Customer wanted to pump 2 more bbls
21	Pump Displacement	5/11/2017	01:37	8.4	1.5	74	400	Pump 2 bbls fresh water displacement. Pressure came up as plug was landed and broke over as if the fluid was bypassing the plug. Max pressure was 800 psi and was dropping to 200 psi.



22	Cement Back to Surface	5/11/2017	01:41			73		At 73 bbls in to displacement cement to surface, 1 bbl of cement to surface
23	Shutdown	5/11/2017	01:44					Shutdown at 74 bbls away. Stopped displacement 0.5 bbls short of pumping out shoe track
24	Other	5/11/2017	01:45					Customer decided to stop pumping plug did not pressure up
25	Check Floats	5/11/2017	02:00					Check floats, floats holding. 0.5 bbls back
26	Safety Meeting	5/11/2017	02:15					Pre rig down safety meeting
27	Rig Down Iron	5/11/2017	02:30					Crew rigged down all equipment and iron
28	Depart Location	5/11/2017	04:30					Crew departed from location

### 3 Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	67 °F	50-80 °F
pH Level	6	5.5-8.5
Chlorides	0 mg/L	0-3000 mg/L
Total Alkalinity	0	0-1000
Total Hardness	250 mg/L	0-500 mg/L
Carbonates	50 mg/L	0-100 mg/L
Sulfates	<200 mg/L	0-1500 mg/L
Potassium	0 mg/L	0-3000 mg/L
Iron	0 mg/L	0-300 mg/L

### 4 Pump Diagrams

