



Caerus

SURFACE POST JOB REPORT

Chevron 12A-17 05-045-23243
S:17 T:6S R:96W Garfield CO

CallSheet #: 855
Proposal #: 13322



SURFACE Post Job Report

Attention: Mr. Steve Schmitz | (720) 880-6412 | sschmitz@caerusoilandgas.com
Caerus
600 17th Street Suite 1600N | 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,

Oscar Medrano

Technical Specialist-II | (307) 996-6222 | Oscar.Medrano@bjservices.com

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

Sales Office 475 17th St. Suite 460 Denver Co., 80202
Phone: (303) 296-1158



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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	700	5
Open Hole	Outer	n/a	13.5	n/a	n/a	700	1200	0
Open Hole	Outer	n/a	15.5	n/a	n/a	0	100	0
Casing	Inner	9.625	8.921	36	LTC	0	1214	0

1.2 Equipment / People

Unit Type	Unit	Employee #1	Mileage
Bulk Trailer	501	Scott, Matthew	800
Bulk Trailer	512	Seghetti, Joshua	800
Cement Pump	104	Cook, John	800
Light Duty Pickups	5	Dent, Jerod	800
Cement Chemical	401	Philman, Douglas	800

1.3 Timing

Event	Date/Time
Call Out	5/28/2017 21:00
Depart Facility	5/28/2017 22:00
On Location	5/28/2017 23:00
Rig Up Iron	5/28/2017 23:30
Job Started	5/29/2017 04:01
Job Completed	5/29/2017 15:16
Rig Down Iron	5/29/2017 15:30
Depart Location	5/29/2017 16:30

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	0.5 hours
Calculated Displacement	90.24 bbls
Actual Displacement	90.2 bbls
Total Spacer to Surface	16 bbls
Total CMT to Surface	4 bbls
Well Topped Out	Yes
Top Out Volume	4 bbls



1.5 Well Fluid Details

Metrics	Value
Plastic Viscosity	16
Yield Point	13
10 sec. SGS	4
10 min. SGS	9
30 min. SGS	26
Filtrate	7
Flow Line Temp.	94

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	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 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	ALTCem S100-12	Lead	12.00	2.53	14.85		154.00	69.30	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		10.00	4.00	0

1.10 Job Fluid Details

Job	Fluid	Type	Fluid	Product	Function	Conc.	Uom	Start (gal)	End (gal)	Used (gal)
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			
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		1	0	1



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	5/28/2017	21:00					BJ crew called to Caerus Chevron 12A-17 surface cement job.
2	Pre-convoy meeting	5/28/2017	21:45					BJ crew conduct journey management steacs briefing to discuss route and hazards associated with driving to location.
3	Depart facility	5/28/2017	22:00					BJ crew depart for location.
4	Arrive at location	5/28/2017	23:00					BJ crew arrive on Caerus Chevron 12A-17 surface location.
5	Assess location	5/28/2017	23:05					BJ crew assess location to identify hazards of spotting in and rigging up for cement job.
6	Safety meeting	5/28/2017	23:20					BJ crew conduct steacs briefing to discuss hazards and basic plan of spotting of equipment and rigging up for cement job.
7	Rig up	5/28/2017	23:30					BJ crew spot in and rig up all equipment and fittings.
8	Other	5/29/2017	03:30					9.625", 36 lb, J-55 casing set at 1213.5' on bottom at 23:00 hrs, circulating at 12 bbls/min, with 250 psi for a total volume of 360 bbls.
9	Safety meeting	5/29/2017	03:45					BJ crew, customer representative and rig crew conduct steacs briefing to discuss job procedure and hazards associated with job such as first aid, fire ext, muster area, emergency contact, trapped pressure, overhead loads, pinch points, PPE, SSE's etc;
10	Start job	5/29/2017	04:01					BJ crew begins surface cement job.
11	Fill lines	5/29/2017	04:02	8.33	2	2	96	Fill lines with 2 bbls water ahead.
12	Shutdown	5/29/2017	04:03					Shutdown to pressure test.
13	Pressure test	5/29/2017	04:05					Pressure test lines to 3,000 psi.
14	Pump spacer	5/29/2017	04:08	8.33	3	20	160	Pump 20 bbls dyed water spacer ahead.
15	Shutdown	5/29/2017	04:14					Shutdown to line out pump to mix off inside water for calculated volume of lead cement per customer request.
16	Pump lead	5/29/2017	04:21	12	4	65.8	198	Mix and pump 146 sks of S100-12 lead cement at 12 ppg, 2.53 yld, 14.85 gal/sk for a total of 65.8 bbls of slurry.



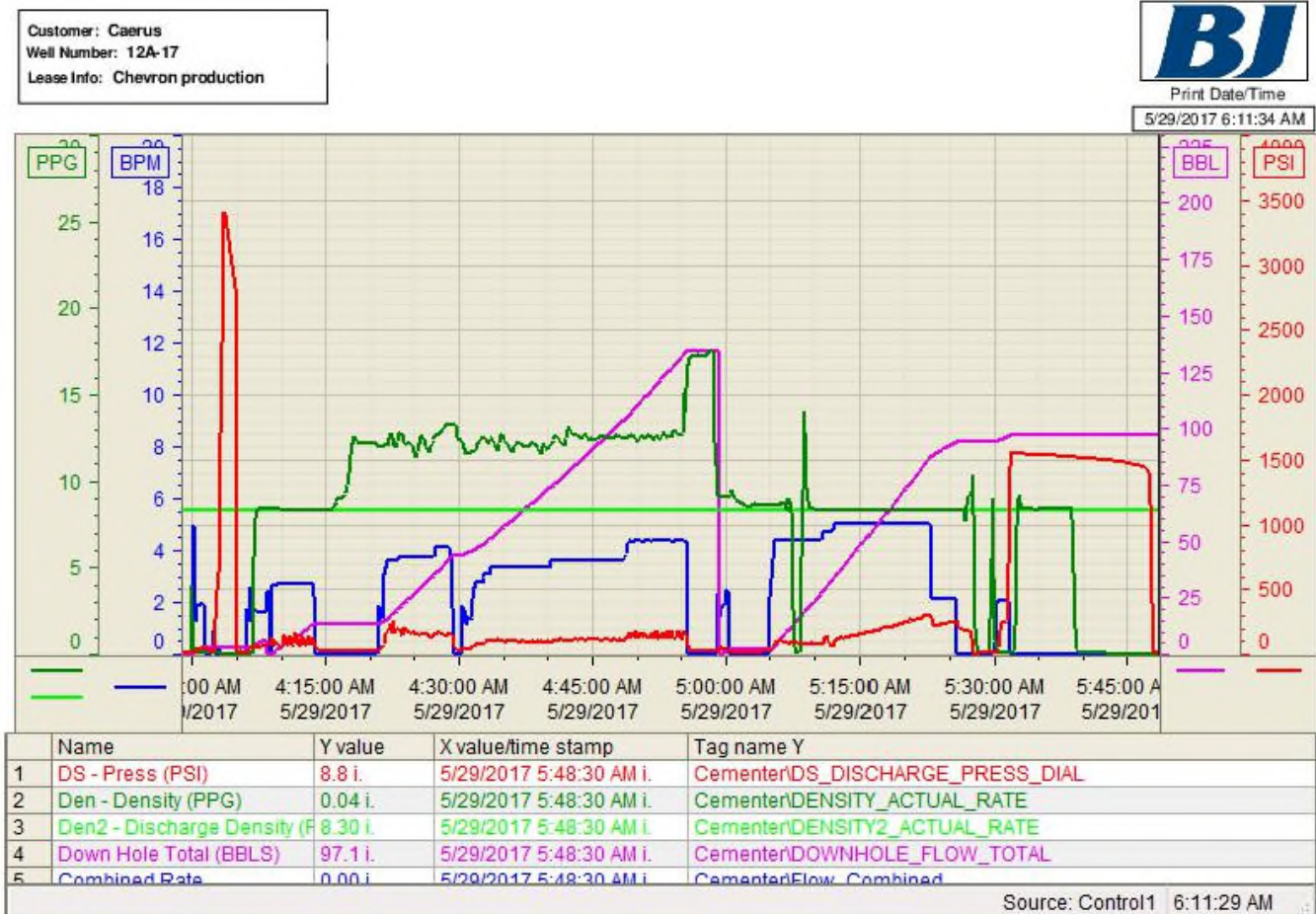
17	Pump tail	5/29/2017	04:40	12.5	4	46.7	173	Mix and pump 118 sks of S100-12 tail cement at 12.5 ppg, 2.22 yld, 12.58 gal/sk for a total of 46.7 bbls of slurry.
18	Shutdown	5/29/2017	04:58					Shutdown to drop plug.
19	Pump displacement	5/29/2017	04:59	8.33	5	2	180	Pump 2 bbls of water displacement.
20	Shutdown	5/29/2017	05:00					Shutdown to pull off the top cap on plug container to verify that the top plug is away.
21	Pump displacement	5/29/2017	05:05	8.33	5	80.2	360	Pump 80.2 bbls of water displacement
22	Slow rate	5/29/2017	05:23	8.33	2	86.2	224	Slow rate to 2 bbl/min for last 10 bbls.
23	Shutdown	5/29/2017	05:26					Shutdown due to plug container leaking. Take off top cap and replace o-ring gasket.
24	Pump displacement	5/29/2017	05:29	8.33	2	90.2	240	Pump remaining 4 bbls of displacement.
25	Land plug	5/29/2017	05:31				255	Land plug with 90.2 bbls displacement away, final circulating pressure was 255 psi and bump plug to 1,555 psi for 15 minutes casing test.
26	Casing test	5/29/2017	05:32					Hold 1,500 psi for 15 minutes casing test.
27	Check floats	5/29/2017	05:48					Bleed pressure back to truck and check floats. Floats held with 1 bbl back to truck.
28	Rig up	5/29/2017	05:50					BJ crew rig down floor and ground fittings to top-out the well.
29	Waiting	5/29/2017	06:00					Wait for 4 hours to top-out well.
30	Top out	5/29/2017	15:15	12.5	1	4	56	Mix and pump 10 sks of S100-12 top out cement at 12.5 ppg, 2.22 yld, 12.58 gal/sk for a total volume of 4 bbls.
31	End job	5/29/2017	15:16					SBJ crew ends cement job, shutdown and line out to wash pump to pit.
32	Safety meeting	5/29/2017	15:20					BJ crew discuss rig down of equipment and fittings.
33	Rig down	5/29/2017	15:30					BJ crew rig down all equipment and fittings.
34	Pre-convoy meeting	5/29/2017	16:15					BJ crew conduct steacs briefing to discuss route and hazards associated with driving to facility.
35	Depart location	5/29/2017	16:30					BJ crew depart location for facility.

3 Water Analysis

Metrics	Value	Recommended
Water Source	Flat Tank	
Temperature	60 °F	50-80 °F
pH Level	7	5.5-8.5
Chlorides	0 mg/L	0-3000 mg/L
Total Alkalinity	180	0-1000
Total Hardness	>375 mg/L	0-500 mg/L
Carbonates	0 mg/L	0-100 mg/L
Sulfates	<200 mg/L	0-1500 mg/L
Potassium	0 mg/L	0-3000 mg/L
Iron	5 mg/L	0-300 mg/L

4 Pump Diagrams

Job Chart

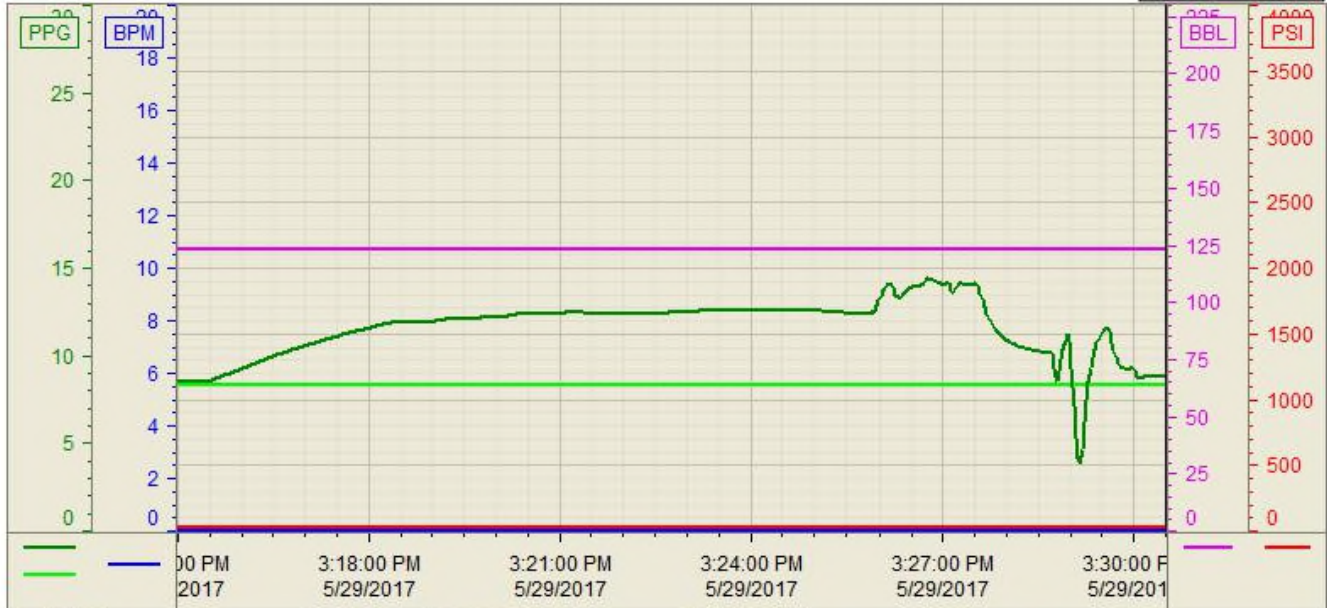


Top-Out Chart

Customer: Caerus
Well Number: 12A-17
Lease Info: Chevron production



Print Date/Time
5/29/2017 3:43:34 PM



	Name	Y value	X value/time stamp	Tag name Y
1	DS - Press (PSI)	21.7 i.	5/29/2017 3:30:30 PM i.	CementerDS_DISCHARGE_PRESS_DIAL
2	Den - Density (PPG)	8.81 i.	5/29/2017 3:30:30 PM i.	CementerDENSITY_ACTUAL_RATE
3	Den2 - Discharge Density (F 8.32 i.	5/29/2017 3:30:30 PM i.	CementerDENSITY2_ACTUAL_RATE	
4	Down Hole Total (BBLs)	122.9 i.	5/29/2017 3:30:30 PM i.	CementerDOWNHOLE_FLOW_TOTAL
5	Combined Rate	0.00 i.	5/29/2017 3:30:30 PM i.	CementerFlow_Combined

Source: Control1 3:43:28 PM