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# Caerus

## SURFACE POST JOB REPORT

Puckett 33E-24 05-045-23204  
S:24 T:6S R:97W Garfield CO

CallSheet #: 1473  
Proposal #: 14062



**SURFACE Post Job Report**

**Attention:** Mr. Steve Schmitz | (720) 880-6412 | [sschmitz@caerusoilandgas.com](mailto:sschmitz@caerusoilandgas.com)  
Caerus  
1001 17th Street, Suite 1600 | 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)

**Field Office**      28730 US-6, Rifle, CO 81650  
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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	14.75	n/a	n/a	100	2000	25
Open Hole	Outer	n/a	14.75	n/a	n/a	2000	2540	0
Casing	Outer	20	19.5	53	n/a	0	100	0
Casing	Inner	9.625	8.921	36	LTC	0	2492	0

### 1.2 Equipment / People

Unit Type	Unit	Employee #1	Mileage
Bulk Trailer	PPC41405	Ham, Robert	105
Light Duty Pickups	2	Linn III, Paul	65
Cement Chemical	401	Salas, Eddie	65
Cement Pump	PPC11250	Turek, Chad	65
Field Storage Silo	23		
Field Storage Silo	21		

### 1.3 Timing

Event	Date/Time
Call Out	10/5/2017 22:30
Depart Facility	10/5/2017 19:00
On Location	10/5/2017 22:30
Rig Up Iron	10/5/2017 23:00
Job Started	10/6/2017 12:15
Job Completed	10/6/2017 20:25
Rig Down Iron	10/6/2017 21:00
Depart Location	10/6/2017 22:00

### 1.4 General Job Information

Metrics	Value
Well Fluid Density	8.33 lb/gal
Well Fluid Type	Water
Rig Circulation Vol	350 bbls
Rig Circulation Time	1 hours
Calculated Displacement	189.36 bbls
Actual Displacement	207 bbls
Total Spacer to Surface	0 bbls
Total CMT to Surface	0 bbls
Well Topped Out	Yes
Top Out Volume	138.42 bbls

### 1.5 Job Details

Metrics	Value
Flare Prior to Job	No
Flare During Job	No
Flare at End of Job	No
Well Full Prior to Job	No
Well Fluid Density Into Well	8.33 lb/gal
Well Fluid Density Out of Well	N/A lb/gal

### 1.6 Job Details (cont.)

Metrics	Value
BHCT	94 °F
BHST	128 °F



## 1.7 Circulation

Lost Circulation Experienced
Yes

### Circulation Details:

NO RETURNS AT THE START OF CEMENT JOB.

## 1.8 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	Sodium Silicate	Flush	10.00			21.00		20.00	0
1	3	Water	Flush	8.33			42.00		20.00	0
1	4	S100-12	Lead	12.00	2.53	14.85		703.00	316.33	0
1	5	S100-12	Tail	12.50	2.22	12.58		162.00	64.15	2000
1	6	Water	DisplacementFinal	8.33			42.00		191.00	0
1	7	S100-12	Topout	12.50	2.22	12.58		800.00	316.80	0

## 1.9 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	S100-12	AC3-10	Cement	100.00	%
1	4	Lead	S100-12	ACL-10	Accelerator	2.00	lb/sk
1	4	Lead	S100-12	ACL-20	Accelerator	5.00	%BWOB
1	4	Lead	S100-12	ADF-11	Defoamer	0.30	%BWOB
1	4	Lead	S100-12	ALC-10	LostCirculation	0.13	lb/sk
1	4	Lead	S100-12	AXE-30	Extender	2.00	lb/sk
1	5	Tail	S100-12	AC3-10	Cement	100.00	%
1	5	Tail	S100-12	ACL-10	Accelerator	2.00	lb/sk
1	5	Tail	S100-12	ACL-20	Accelerator	5.00	%BWOB
1	5	Tail	S100-12	ADF-11	Defoamer	0.30	%BWOB
1	5	Tail	S100-12	ALC-10	LostCirculation	0.13	lb/sk
1	5	Tail	S100-12	AXE-30	Extender	2.00	lb/sk
1	7	Topout	S100-12	AC3-10	Cement	100.00	%
1	7	Topout	S100-12	ACL-10	Accelerator	2.00	lb/sk
1	7	Topout	S100-12	ACL-20	Accelerator	5.00	%BWOB
1	7	Topout	S100-12	ADF-11	Defoamer	0.30	%BWOB
1	7	Topout	S100-12	ALC-10	LostCirculation	0.13	lb/sk
1	7	Topout	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	10/5/2017	22:30					CALL OUT ON LOCATION TIME OF 06:00
2	STEACS/ JOURNEY	10/5/2017	18:30					PRE CONVOY SAFETY MEETING
3	DEPART RIFLE YARD	10/5/2017	19:00					DEPART RIFLE YARD FOR H7P 329.
4	ARRIVE ON LOCATION	10/5/2017	22:30					ARRIVED ON LOCATION. RIG WAS PULLING DRILL PIPE
5	STEACS	10/5/2017	22:45					PRE RIG UP SAFETY MEETING
6	RIG UP	10/5/2017	23:00					SPOT IN EQUIPMENT AND RIG UP
7	STEACS	10/6/2017	11:30					PRE JOB SAFETY MEETING WITH RIG CREW AND ALL BJ SERVICES CEMENT CREW.
8	RIG UP	10/6/2017	11:45					LOAD PLUG CONTAINER, STAB PLUG CONTAINER, HOOK UP LINES
9	SPACER	10/6/2017	12:14	8.33	2	5	15	FILL LINE WITH 5 BBLS. OF FRESH WATER
10	PRESSURE TEST	10/6/2017	12:19				4336	PRESSURE TESTED TO 4336 PSI PRESSURE HELD GOOD.
11	SPACER	10/6/2017	12:25	8.33	4	20	67	PUMPED REMAINING 15 BBLS. OF FRESH WATER FOR A TOTAL OF 20 BBLS.
12	SPACER	10/6/2017	12:29	10	4	20	87	20 BBLS. OF SODIUM SILICATE
13	SPACER	10/6/2017	12:34	8.33	4	20	63	20 BBLS. OF FRESH WATER
14	LEAD	10/6/2017	12:39	12	4.5	20	76	LEAD CEMENT 703 SKS. 12.0 PPG. 2.53 FT3/SK. 14.85 GAL/SK. FOR 316.77 BBLS. OF LEAD REQUIRING 248.56 BBLS. OF WATER. WEIGHT VERIFIED BY MUD SCALE
15	LEAD	10/6/2017	12:50	12	5.5	50	123	PUMPED LEAD CEMENT
16	LEAD	10/6/2017	13:00	12	6	110	138	PUMPED LEAD CEMENT
17	LEAD	10/6/2017	13:08	12	6	160	136	PUMPED LEAD CEMENT
18	LEAD	10/6/2017	13:19	12	6	220	123	PUMPED LEAD CEMENT
19	LEAD	10/6/2017	13:32	12	5	320	71	FINISHED PUMPING LEAD CEMENT WITH 320 BBLS. AWAY
20	SHUT DOWN	10/6/2017	13:33					SHUT DOWN DUE TO NOT GETTING WATER
21	TAIL	10/6/2017	13:40	12.5	4.5	20	75	TAIL CEMENT 162 SKS. 12.5 PPG. 2.22 FT3/SK. 12.58 GAL/SK. FOR 64.05 BBLS. OF TAIL REQUIRING 48.52 BBLS. OF WATER. WEIGHT VERIFIED BY MUD SCALE



22	SHUT DOWN	10/6/2017	13:48					SHUT DOWN DUE TO NOT GETTING WATER
23	TAIL	10/6/2017	13:49	12.5	4.5	50	72	PUMPED TAIL CEMENT
24	TAIL	10/6/2017	13:56	12.5	4	80.5	70	FINISHED PUMPING TAIL CEMENT WITH 80.5 BBLS. AWAY.
25	SHUT DOWN	10/6/2017	13:57					SHUT DOWN
26	DROP PLUG	10/6/2017	13:58					DROPPED TOP PLUG
27	PUMP 2 BBLS. OF CEMENT	10/6/2017	13:59	12.5	4	2	28	PUMPED 2 BBLS. OF CEMENT ON TOP OF THE PLUG
28	DISPLACEMENT	10/6/2017	14:02	8.33	4.5	10	32	PUMPED DISPLACEMENT
29	DISPLACEMENT	10/6/2017	14:05	8.33	5.5	30	54	PUMPED DISPLACEMENT
30	DISPLACEMENT	10/6/2017	14:09	8.33	8	40	79	PUMPED DISPLACEMENT
31	DISPLACEMENT	10/6/2017	14:12	8.33	7.5	70	58	PUMPED DISPLACEMENT
32	DISPLACEMENT	10/6/2017	14:13	8.33	7	80	44	PUMPED DISPLACEMENT
33	DISPLACEMENT	10/6/2017	14:23	8.33	7	140	229	PUMPED DISPLACEMENT
34	DISPLACEMENT	10/6/2017	14:30	8.33	5	170	285	PUMPED DISPLACEMENT
35	SLOW RATE	10/6/2017	14:31	8.33	2	179	360	PUMPED DISPLACEMENT
36	DISPLACEMENT	10/6/2017	14:36	8.33	2	189	347	PUMPED DISPLACEMENT
37	SHUT DOWN	10/6/2017	14:37					SHUT DOWN AT CALCULATED DISPLACEMENT
38	PUMP 4 BBLS.	10/6/2017	14:39	8.33				COMPANY MAN WANTED TO PUMP 4 MORE BBLS.
39	SHUT DOWN	10/6/2017	14:40					SHUT DOWN
40	CHECK FLOATS	10/6/2017	14:41					CHECK FLOATS, DID NOT HOLD BLEED 2 BBLS BACK. SHUT IN TRUCK
41	PUMPED 15 BBLS.	10/6/2017	14:45	8.33		207		COMPANY MAN WANTED TO KEEP PUMPING. PUMP A TOTAL OF 18 BBLS PAST CALCULATED. SHUT DOWN
42	CHECK FLOATS	10/6/2017	14:55					CHECK FLOATS, DID NOT HOLD GOT 3.5 BBLS. BACK SHUT IN AND WAITED 2 MINS. CHECKED FLOATS HELD.
43	STEACS	10/6/2017	14:58					PRE RIG UP/ DOWN SAFETY MEETING
44	RIG DOWN/UP	10/6/2017	15:00					RIG DOWN PLUG CONTAINER AND RIG UP
45	PUMP ON PARISITE STRING	10/6/2017	15:05	8.33	2	10	51	PUMP 10 BBLS. OF SUGAR WATER DOWN PARASITE STRING.
46	BREAK CIRCULATION	10/6/2017	15:07			7.5	51	PARISITE STING BROKE OPEN WITH 7.5 BBLS AWAY TOP PRESSURE WAS 51
47	SHUT DOWN	10/6/2017	15:10					SHUT DOWN
48	STEACS	10/6/2017	15:15					PRE RIG DOWN/UP, PUMP TOP OUT SAFETY MEETING
49	RIG DOWN/UP	10/6/2017	12:20					RIG DOWN PARASITE LINE AND RIG UP TO TOP OUT.
50	TOP OUT	10/6/2017	15:31	12.5	2	20	12	PUMPED TOP OUT



51	TOP OUT	10/6/2017	15:50	12.5	2	60	8	PUMPED TOP OUT
52	TOP OUT	10/6/2017	16:09	12.5	2	89	0	PUMPED TOP OUT
53	WAIT 4 HOURS	10/6/2017	16:00					WAIT 4 HOURS TO TOP OUT AGAIN
54	SPACER	10/6/2017	20:04					PUMPED 200 LBS. OF CALCIUM CHLORIDE IN 2 BBLs. OF WATER
55	SPACER	10/6/2017	20:07					PUMPED 175 GALS. OF SODIUM SILICATE
56	TOP OUT	10/6/2017	20:12	12.5	2.5	49.4	92	TOP OUT CEMENT 125 SKS. 12.5 PPG. 2.22 FT3/SK. 12.58 GAL/SK. FOR 49.42 BBLs. OF TOP OUT REQUIRING 37.44 BBLs. OF WATER. WEIGHT VERIFIED BY MUD SCALE
57	CEMENT TO SURFACE	10/6/2017	20:25					CEMENT TO SURFACE PUMP THE REST OF THE TUB AWAY WITH 100 LBS OF SUGAR IN IT
58	STEACS	10/6/2017	20:30					PRE RIG DOWN SAFETY MEETING
59	WASH PUMPS AND LINES	10/6/2017	20:34					WASH PUMPS AND LINES TO 3 SIDED TANK
60	RIG DOWN	10/6/2017	21:00					RIG DOWN ALL EQUIPMENT
61	BLOW DOWN SILO	10/6/2017	21:00					BLEW DOWN SILO 23
62	AAR	10/6/2017	21:30					POST JOB AFTER ACTION REVIEW
63	STEACS/ JOURNEY	10/6/2017	21:45					PRE CONVOY SAFETY MEETING
64	LEAVE LOCATION	10/6/2017	22:00					DEPART LOCATION FOR H&P 330. THANK YOU FOR USING BJ SERVICES, ANDREW LINN AND CREW.



### 3 Water Analysis

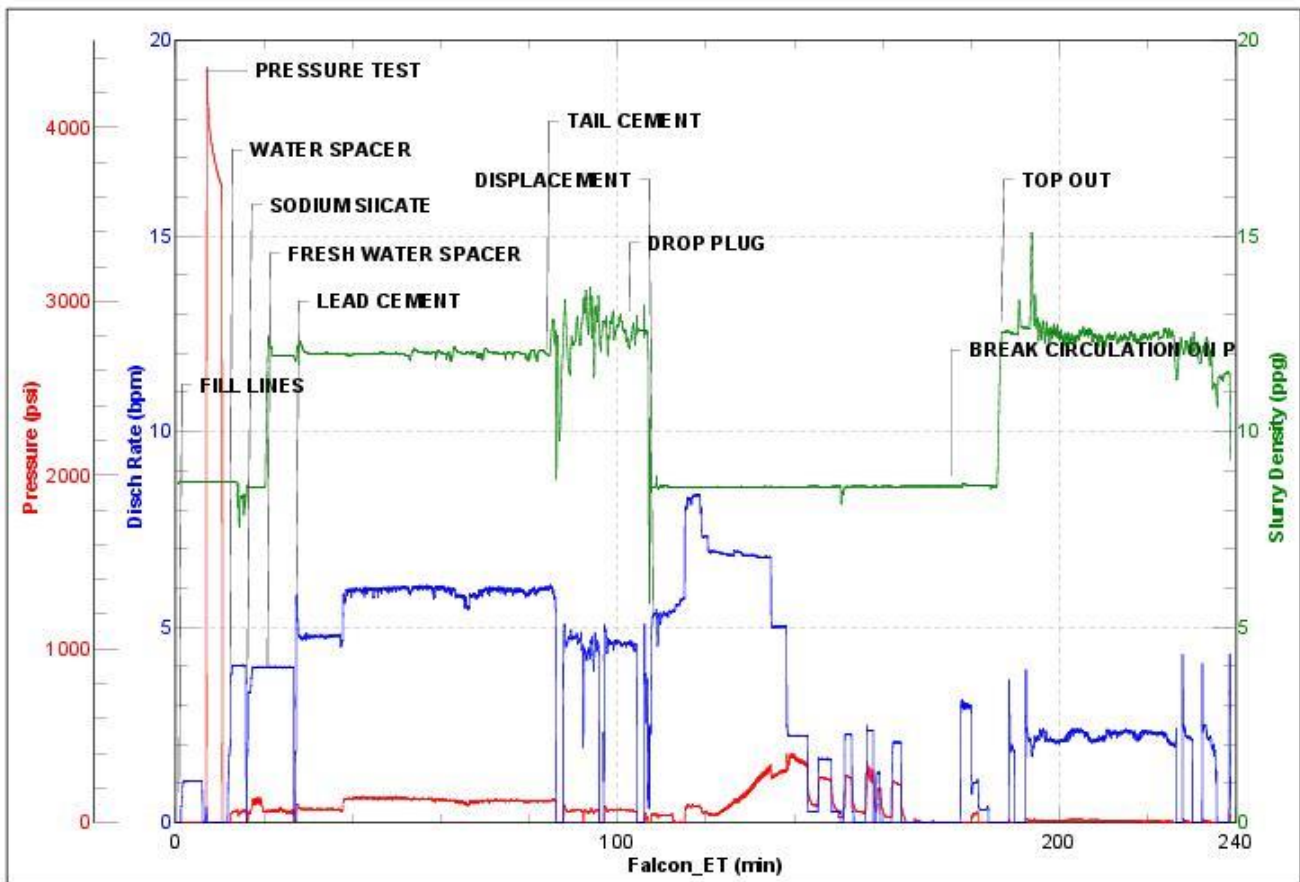
Metrics	Value	Recommended
Water Source		
Temperature	57.2	50-80 °F
pH Level	8	5.5-8.5
Chlorides	1.8	0-3000 mg/L
Total Alkalinity	N/A	0-1000
Total Hardness	>250	0-500 mg/L
Carbonates	1.8	0-100 mg/L
Sulfates	>200	0-1500 mg/L
Potassium	1500	0-3000 mg/L
Iron	0.02	0-300 mg/L

## 4 Pump Diagrams

Job Chart



**JobMaster Program Version 4.02C1**  
Job Number: 1473  
Customer: CAERUS  
Well Name: PUCKETT 33E-24



BJ Services

Job Start: Friday, October 06, 2017



Top Out

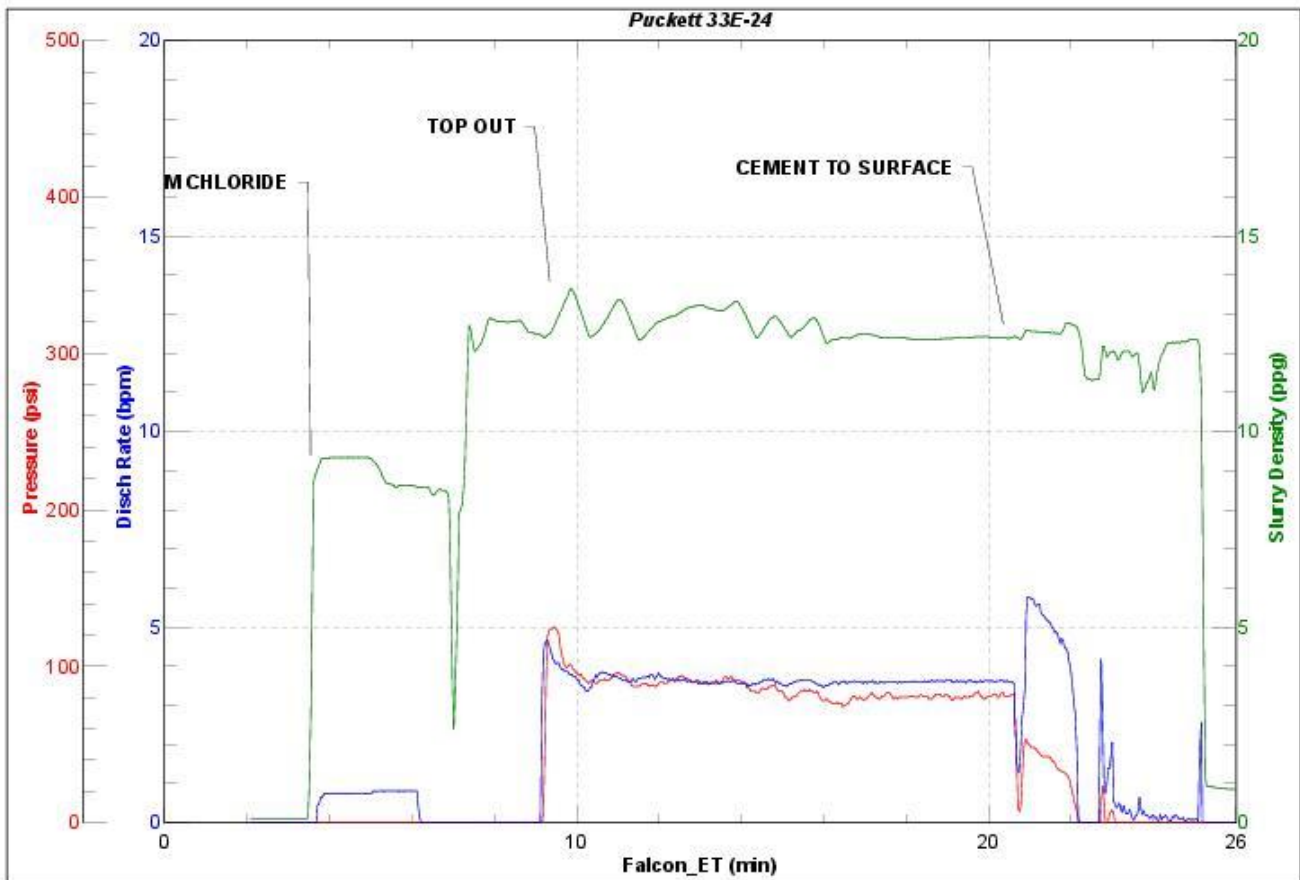


JobMaster Program Version 4.02C1

Job Number: 1473

Customer: CAERUS

Well Name: PUCKETT 33E-24 TOP OUT



BJ Services

Job Start: Friday, October 06, 2017