



Caerus

SURFACE POST JOB REPORT

Puckett 34B-24 05-045-23205
S:24 T:6S R:97W Garfield CO

CallSheet #: 1512
Proposal #: 14122



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,

Zen Keith

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

Field Office 28730 US-6, Rifle, CO 81650
Phone: (307) 360-3062

Sales Office 999 18th St. Suite 1200 Denver, CO 80202
Phone: (281) 408-2361



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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	2554	0
Casing	Outer	20	19.5	53	n/a	0	100	0
Casing	Inner	9.625	8.921	36	LTC	0	2491.52	0

1.2 Equipment / People

Unit Type	Unit	Employee #1	Mileage
Bulk Trailer	E466	Salas, Eddie	110
Field Storage Silo	21		
Field Storage Silo	23		
Cement Chemical	401	Ham, Robert	65
Light Duty Pickups	2	Linn III, Paul	65
Cement Pump	C992	Turek, Chad	65

1.3 Timing

Event	Date/Time
Call Out	10/13/2017 19:30
Depart Facility	10/13/2017 20:30
On Location	10/13/2017 22:00
Rig Up Iron	10/14/2017 07:00
Job Started	10/14/2017 08:35
Job Completed	10/14/2017 17:00
Rig Down Iron	10/14/2017 17:25
Depart Location	10/14/2017 18:00

1.4 General Job Information

Metrics	Value
Well Fluid Density	8.6 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	191 bbls
Rig Circulation Time	1 hours
Calculated Displacement	189.34 bbls
Actual Displacement	189 bbls
Total Spacer to Surface	0 bbls
Total CMT to Surface	0 bbls
Well Topped Out	Yes
Top Out Volume	108.73 bbls

1.5 Well Fluid Details

Metrics	Value
Plastic Viscosity	15
Yield Point	13
10 sec. SGS	4
10 min. SGS	9
30 min. SGS	37
Filtrate	6
Flow Line Temp.	N/A

1.6 Job Details

Metrics	Value
Flare Prior to Job	No
Flare During Job	Yes
Flare at End of Job	No
Well Full Prior to Job	No
Well Fluid Density Into Well	8.6 lb/gal
Well Fluid Density Out of Well	N/A lb/gal

1.7 Job Details (cont.)

Metrics	Value
BHCT	94 °F
BHST	128 °F



1.8 Circulation

Lost Circulation Experienced
Yes

Circulation Details:

HOLE WASN'T FULL NO RETURNS DURING RIG CIRCULATION. NO RETURNS THREW OUT THE CEMENT 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	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		850.00	336.60	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	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	10/13/2017	19:30					CALL OUT ON LOCATION TIME OF 03:00
2	STEACS	10/13/2017	20:15					PRE CONVOY SAFETY MEETING
3	DEPART YARD	10/13/2017	20:30					DEPART YARD FOR H&P 329
4	ARRIVE ON LOCATION	10/13/2017	22:00					ARRIVE ON LOCATION. RIG JUST STARTED RUNNING CASING. COULD NOT SPOT EQUIPMENT DUE TO PARASITE LINE.
5	STEACS	10/14/2017	06:30					PRE RIG UP SAFETY MEETING
6	RIG UP	10/14/2017	07:00					SPOT TRUCKS AND RIG UP
7	STEACS	10/14/2017	07:45					PRE JOB SAFETY MEETING WITH RIG CREW, COMPANY MAN, AND BJ CEMENT CREW.
8	RIG UP	10/14/2017	08:00					STAB AND LOAD PLUG CONTAINER, AND RIG UP LINES.
9	FILL LINES	10/14/2017	08:35	8.33	2	5	121	FILLED LINES WITH 5 BBLS. OF FRESH WATER.
10	PRESSURE TEST	10/14/2017	08:38				3878	PRESSURE TEST TO 3878 PSI. PRESSURE HELD.
11	SPACER	10/14/2017	08:43	8.33	4	20	127	FINISHED PUMPING 20 BBLS. OF FRESH WATER SPACER
12	SPACER	10/14/2017	08:49	10	4	20	112	SODIUM SILICATE SPACER
13	SPACER	10/14/2017	08:52	8.33	4	20	119	FRESH WATER SPACER
14	LEAD	10/14/2017	09:07	12	6	20	196	LEAD CEMENT 12 PPG. 703 SKS. 2.53 FT3/SK. 14.85 GAL./SK, WEIGHT VERIFIED WITH MUD SCALES
15	LEAD	10/14/2017	09:14	12	6	60	191	PUMPED LEAD CEMENT
16	LEAD	10/14/2017	09:24	12	6	120	200	PUMPED LEAD CEMENT
17	LEAD	10/14/2017	09:30	12	6	160	203	PUMPED LEAD CEMENT
18	LEAD	10/14/2017	09:35	12	7	195	272	PUMPED LEAD CEMENT
19	LEAD	10/14/2017	09:45	12	7	260	271	PUMPED LEAD CEMENT
20	LEAD	10/14/2017	09:52	12	4.5	309	134	FINISHED PUMPING LEAD CEMENT WITH 309 BBLS. AWAY.
21	TAIL	10/14/2017	09:58	12.5	5	20	120	TAIL CEMENT 12.5 PPG. 162 SKS. 2.22 FT3/SK. 12.58 GAL./SK, WEIGHT VERIFIED WITH MUD SCALES
22	TAIL	10/14/2017	10:00	12.5	5	42.5	116	FINISHED PUMPING TAIL CEMENT WITH 42.5 BBLS. AWAY
23	SHUT DOWN	10/14/2017	10:01					SHUT DOWN
24	DROP PLUG	10/14/2017	10:03					DROPPED TOP PLUG, VERIFIED BY TATTLE TAIL.

25	DISPLACEMENT	10/14/2017	10:06	8.33	6	10	100	START DISPLACEMENT FIRST 2 BBLS. OF DISPLACEMENT WERE TAIL CEMENT
26	DISPLACEMENT	10/14/2017	10:12	8.33	6	50	140	PUMPED DISPLACEMENT
27	DISPLACEMENT	10/14/2017	10:21	8.33	6	100	142	PUMPED DISPLACEMENT
28	DISPLACEMENT	10/14/2017	10:29	8.33	6	150	201	PUMPED DISPLACEMENT
29	DISPLACEMENT	10/14/2017	10:34	8.33	2.5	176	87	DISPLACEMENT PRESSURE BEFORE SLOWING WAS 367 PSI.
30	DISPLACEMENT	10/14/2017	10:38	8.33	2.5	189	125	PUMPED DISPLACEMENT
31	LAND PLUG	10/14/2017	10:28				665	LANDED THE PLUG TOOK TO 665 PSI.
32	CHECK FLOATS	10/14/2017	10:40					CHECKED FLOATS 1/2 BBL. BACK
33	PUMP ON PARASITE	10/14/2017	10:46					PUMP ON PARASITE STING
34	BREAK CIRCULATION ON PARASITE	10/14/2017	10:49					BROKE CIRCULATION ON PARASITE STING WITH 6 BBLS. AWAY AND 286 PSI.
35	TOP OUT	10/14/2017	11:00	12.5		79		TOP OUT CEMENT 12.5 PPG. 200 SKS. 2.22 FT3/SK. 12.58 GAL./SK. WEIGHT VERIFIED WITH MUD SCALES
36	FINISH TOP OUT	10/14/2017	11:26					FINISHED PUMPING TOP OUT, NO CEMENT TO SURFACE.
37	STEACS	10/14/2017	15:30					PRE TOP OUT SAFETY MEETING
38	SPACER	10/14/2017	16:08					CALCIUM CHLORIDE SPACER
39	SPACER	10/14/2017	16:13					SODIUM SILICATE SPACER
40	TOP OUT	10/14/2017	16:18					TOP OUT CEMENT 12.5 PPG. 75 SKS. 2.22 FT3/SK. 12.58 GAL./SK. FOR A TOTAL OF 29.65 BBLS OF TOP OUT CEMENT. WEIGHT VERIFIED WITH MUD SCALES
41	CEMENT TO SURFACE	10/14/2017	16:30					CEMENT TO SURFACE
42	TOP OUT	10/14/2017	16:40					WAITED 10 MINS PUMP 1/2 BBL OF CEMENT CAME TO SURFACE
43	TOP OUT	10/14/2017	16:50					WAITED 10 MINS PUMP 1/2 BBL OF CEMENT CAME TO SURFACE
44	WASH PUMPS AND LINES	10/14/2017	17:00					WASH PUMPS AND LINES TO 3 SIDED TANK
45	STEACS	10/14/2017	17:20					PRE RIG DOWN SAFETY MEETING
46	RIG DOWN	10/14/2017	17:25					RIG DOWN ALL EQUIPMENT
48	AAR	10/14/2017	17:45					AFTER ACTION REVIEW
49	STEACS	10/14/2017	17:50					PRE CONVOY SAFETY MEETING
50	DEPART FROM LOCATION	10/14/2017	18:00					DEPART FROM H&P 329. THANK YOU FOR USING BJ SERVICES, ANDREW LINN AND CREW.



3 Water Analysis

Metrics	Value	Recommended
Water Source		
Temperature	50-80oF °F	50-80 °F
pH Level	5.5-8.5	5.5-8.5
Chlorides	0-3000 mg/L mg/L	0-3000 mg/L
Total Alkalinity	0-1000	0-1000
Total Hardness	0-500 mg/L mg/L	0-500 mg/L
Carbonates	0-100 mg/L mg/L	0-100 mg/L
Sulfates	0-1500 mg/L mg/L	0-1500 mg/L
Potassium	0-3000 mg/L mg/L	0-3000 mg/L
Iron	0-300 mg/L mg/L	0-300 mg/L

4 Pump Diagrams

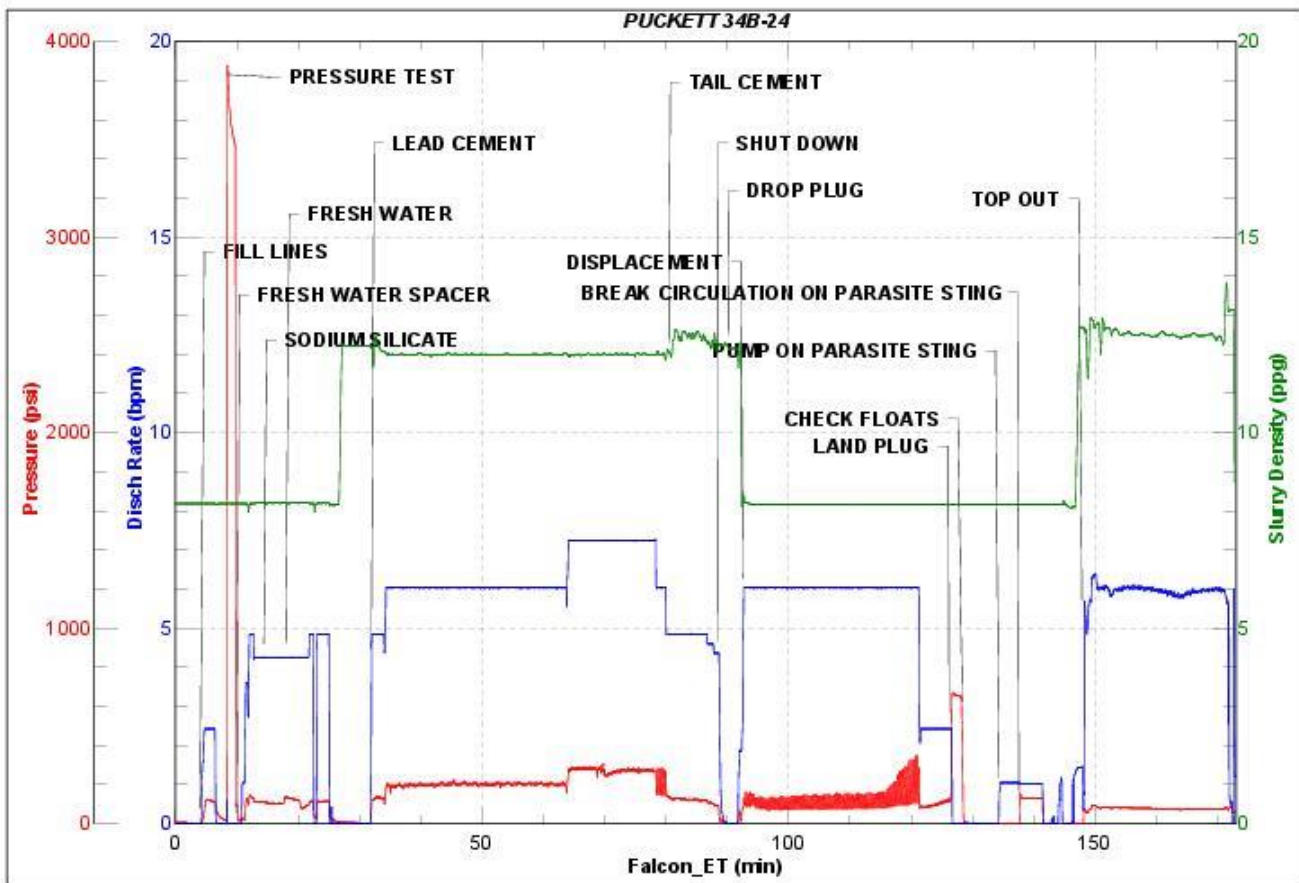


JobMaster Program Version 4.02C1

Job Number: 1512

Customer: CAERUS

Well Name: PUCKET 34B-24



BJ Services

Job Start: Saturday, October 14, 2017