



Petro Operating Company SURFACE POST JOB REPORT

**BEF West 6 05-001-10216
S:1 T:1N R:1W Adams CO**

CallSheet #: 75016
Proposal #: 50035



SURFACE Post Job Report

Attention: Johnny Musso | (303) 249-6615 | johnny.musso@iptenergyservices.com
Petro Operating Company
9033 E. Easter Place Suite 112 | Centennial, CO 80112

Dear Johnny Musso,

Thank you for the opportunity to provide cementing services on this well. American Cementing strives to achieve complete customer satisfaction. If you have any questions regarding the services or data provided, please contact American Cementing at any time.

Sincerely,

Jason Creel

Field Engineer | (307) 256-0306 | jason.creel@americacementing.com

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

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1 Job Details & Summary

1.1 Geometry

Type	Function	OD (in)	ID (in)	Weight (lb/ft)	Top (ft)	Bottom (ft)	Excess (%)
Open Hole	Outer	n/a	13.5	n/a	0	1550	30
Casing	Inner	9.625	8.921	36	0	1541	0

1.2 Equipment / People

Unit Type	Unit	Employee #1
Cement Pump	CPF-074	Bryson-Floyd, Maurice
Bulk Trailer	CTF-006	Dewit, Eric
Acid Transport	Unit FIF-163	Boyd, Brian

1.3 Timing

Event	Date/Time
Call Out	9/18/2020 06:00
Depart Facility	9/18/2020 06:00
On Location	9/18/2020 06:00
Rig Up Iron	9/18/2020 06:30
Job Started	9/18/2020 07:58
Job Completed	9/18/2020 09:05
Rig Down Iron	9/18/2020 09:15
Depart Location	9/18/2020 09:45

1.4 Casing Equipment

Type	Description	Qty
CENTRALIZER,9-5/8"NON-WELD	Bow	18

1.5 General Job Information

Metrics	Value
Well Fluid Density	8,5 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	149 bbls
Rig Circulation Time	1 hours
Calculated Displacement	116 bbls
Actual Displacement	116 bbls
Total Spacer to Surface	20 bbls
Total CMT to Surface	35 bbls

1.6 Well Fluid Details

Metrics	Value
Plastic Viscosity	1
Yield Point	1
Flow Line Temp.	76

1.7 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	8.5 lb/gal
Well Fluid Density Out of Well	8.5 lb/gal

1.8 Job Details (cont.)

Metrics	Value
BHCT	86 °F
BHST	110 °F

1.9 Circulation

Lost Circulation Experienced
No

1.10 Job Execution Information

Job	Fluid	Product	Function	Density (lb/gal)	Yield (ft ³ /sk)	Water Rq. (gal/sk)	Water Rq. (gal/bbl)	Volume (sk)	Volume (bbl)
1	1	Fresh Water	Flush	8.34			42.00		20.00
1	2	ACem S100.3.1C	Lead	12.00	2.53	14.86		255.00	114.86
1	3	ACem S100.3.1C	Tail	13.00	1.99	10.80		180.00	63.68
1	4	Fresh Water	DisplacementFinal	8.34			42.00		117.00

1.11 Job Fluid Details

Job	Fluid	Type	Fluid	Product	Function	Conc.	Uom
1	2	Lead	ACem S100.3.1C	ASTM TYPE III	Cement	100.00	%
1	2	Lead	ACem S100.3.1C	A-10	Accelerator	5.00	%BWOB
1	2	Lead	ACem S100.3.1C	A-2	Accelerator	2.00	lb/sk
1	2	Lead	ACem S100.3.1C	A-7P	Accelerator	2.00	lb/sk
1	2	Lead	ACem S100.3.1C	FP-24	Defoamer	0.30	%BWOB
1	2	Lead	ACem S100.3.1C	IntegraSeal POLI	LostCirculation	0.13	lb/sk
1	3	Tail	ACem S100.3.1C	ASTM TYPE III	Cement	100.00	%
1	3	Tail	ACem S100.3.1C	A-10	Accelerator	5.00	%BWOB
1	3	Tail	ACem S100.3.1C	A-2	Accelerator	2.00	lb/sk
1	3	Tail	ACem S100.3.1C	A-7P	Accelerator	2.00	lb/sk
1	3	Tail	ACem S100.3.1C	FP-24	Defoamer	0.30	%BWOB
1	3	Tail	ACem S100.3.1C	IntegraSeal POLI	LostCirculation	0.13	lb/sk

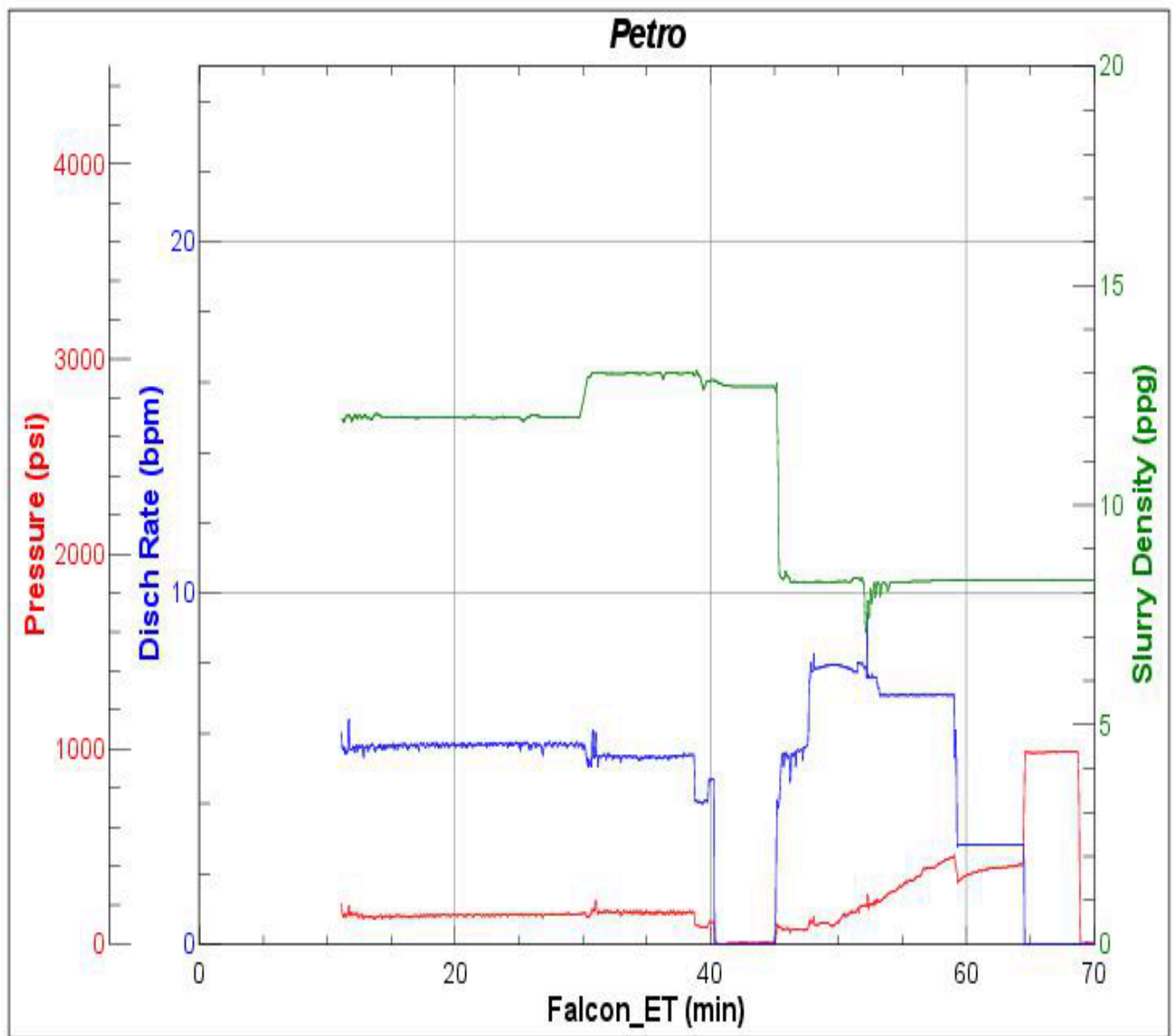
2 Job Logs

Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Annular Pressure (psi)	Comment
1	Callout	9/18/2020	07:00						Customer requested crew on location of 8:00
2	Arrive on Location	9/18/2020	07:00						Crew is already on location
3	Safety Meeting	9/18/2020	07:10						Crew has safety meeting over rigging up iron and hoses
4	Rig Up	9/18/2020	07:15						Crew rigs up iron and hoses
5	Safety Meeting	9/18/2020	07:47						american cementing, rig crew and company man have safety meeting over job and hazards
6	Fill Pumps And Lines	9/18/2020	07:58	8.33	4	5	60		Fill pumps and lines
7	Pressure Test	9/18/2020	08:00	8.33	0.5	0.5	4160		Pressure test iron to 3000 PSI
8	Pump Spacer	9/18/2020	08:02	8.33	5	20	78		Pump 20 bbls of spacer with blue dye
9	Pump Lead Cement	9/18/2020	08:06	12	6	115	169		Pump 115 bbls of 12 PPG Lead (255 Sks, 2.53 Yield, 14.86 Gals/Sks)
10	Pump Tail Cement	9/18/2020	08:28	13	6	64	145		Pump 64 bbls of 13 PPG Tail, (1.99 Yield, 10.80 Gals/Sks)
11	Shutdown	9/18/2020	08:36						Shut down pumpinh
12	Drop Top Plug	9/18/2020	08:41						Drop top plug with company man
13	Pump Displacement	9/18/2020	08:41	8.33	7		189		Pump 116 bbls of fresh water displacement
14	Cement To Surface	9/18/2020	08:55	8.33	7	88	430		88 bbls into displacement got cement to surface for total of 28 bbls to surface
15	Slow Rate	9/18/2020	08:55	8.33	3	97	337		97 bbls into displacement slow rate to 3 bpm
16	Land Plug	9/18/2020	09:02	8.33		116	1003		Bump plug to 1003 PSI, FCP of 420 PSI, total displacement of 116 bbls
17	Check Floats	9/18/2020	09:05						Hold for 3 mins and check floats, got .5 bbl to truck and floats holding
18	Safet Meeting	9/18/2020	09:10						Crew has safety meeting over rigging down iron and hoses
19	Rig Down Iron	9/18/2020	09:15						Crew rigs down iron and hoses
20	Depart Location	9/18/2020	09:45						Crew departs from rig

3 Water Analysis

Metrics	Value	Recommended
Water Source	Rig Tank	
Temperature	73 °F	50-80 °F
pH Level	8	5.5-8.5
Chlorides	0 mg/L	0-3000 mg/L
Total Alkalinity	180	0-1000
Total Hardness	125 mg/L	0-500 mg/L
Carbonates	140 mg/L	0-100 mg/L
Sulfates	<200 mg/L	0-1500 mg/L
Potassium	450 mg/L	0-3000 mg/L
Iron	0.15 mg/L	0-300 mg/L

4 Pump Diagrams



BJ Services

Job Start: Friday, September 18, 2020