



Terra Energy Partners, LLC

SURFACE POST JOB REPORT

FEDERAL NR 432-4 05-045-24465
S:3 T:6S R:94W Garfield CO

CallSheet #: 82662
Proposal #: 61867



SURFACE Post Job Report

Attention: Mr. Dustin Childers | (936) 524-8828 | dchilders@terraep.com
Terra Energy Partners, LLC
4828 Loop Central Dr., Suite 900 | Houston, TX 77081

Dear Mr. Dustin Childers,

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,

Holly Mbugua

Field Engineer II | (720) 505-1300 | holly.mbugua@americacementing.com

Field Office 28730 US-6, Rifle, CO 81650
Phone: (970) 657-1157

Job Details & Summary

Geometry

Type	Function	OD (in)	ID (in)	Weight (lb/ft)	Thread	Top (ft)	Bottom (ft)	Excess (%)
Casing	Outer	20	19.124	94	n/a	0	84	0
Open Hole	Outer	n/a	13.5	n/a	n/a	78	500	16
Open Hole	Outer	n/a	13.5	n/a	n/a	500	1134	16
Casing	Inner	9.625	8.921	36	n/a	0	1134	0

Timing

Event	Date/Time
Call Out	7/30/2022 08:00
Depart Facility	7/30/2022 09:30
On Location	7/30/2022 10:00
Rig Up Iron	7/30/2022 10:15
Job Started	7/30/2022 15:38
Job Completed	7/30/2022 16:22
Rig Down Iron	7/30/2022 16:30
Depart Location	7/30/2022 17:00

Equipment / People

Unit Type	Unit	Power Unit	Employee #1	Employee #2
Cement Trailer Float	CTF-108	TRC(TRB)-194	Schweitzer, Casey	
Light Duty Vehicles	LDV-083		Putnam, Gage	Corona, Antonio
Cement Pump Float	CPF-012	TRH-964	Gonzales, Ivan	

General Job Information

Metrics	Value
Well Fluid Density	9.2 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	238 bbls
Rig Circulation Time	0.5 hours
Calculated Displacement	84.3 bbls
Actual Displacement	84.3 bbls
Total Spacer to Surface	20 bbls
Total CMT to Surface	28 bbls
Well Topped Out	No

Job Details

Metrics	Value
Flare Prior to Job	No
Flare Prior to Job	0 units
Flare During Job	No
Flare During Job	0 units
Flare at End of Job	No
Flare at End of Job	0 units
Well Full Prior to Job	Yes
Well Fluid Density Into Well	9.2 lb/gal
Well Fluid Density Out of Well	9.2 lb/gal

Job Details (cont.)

Metrics	Value
BHCT	80 °F
BHST	98 °F

Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	80 °F	50-80 °F
pH Level	7	5.5-8.5
Chlorides	72 mg/L	0-3000 mg/L
Total Alkalinity	120	0-1000
Total Hardness	80 mg/L	0-500 mg/L
Carbonates	NA mg/L	0-100 mg/L
Sulfates	200 mg/L	0-1500 mg/L
Potassium	450 mg/L	0-3000 mg/L
Iron	0 mg/L	0-300 mg/L

Circulation

Lost Circulation Experienced
No

Job Execution Information

Fluid	Product	Function	Density (lb/gal)	Yield (ft ³ /sk)	Water Rq. (gal/sk)	Water Rq. (gal/bbl)	Volume (sks)	Volume (bbl)	Designed Top (ft)
1	Water	Flush	8.34			42.00		20.00	0
2	Lead	Lead	12.30	2.21	12.72		179.00	70.56	0
3	Tail	Tail	12.80	1.97	10.87		183.00	64.05	500
4	Water	DisplacementFinal	8.34			42.00		84.30	0

Job Fluid Details

Fluid	Type	Fluid	Product	Function	Conc.	Uom
2	Lead	Lead	ASTM TYPE I/II	Cement	100.00	%
2	Lead	Lead	A-7P	Accelerator	2.00	lb/sk
2	Lead	Lead	FP-24	Defoamer	0.30	%BWOB
2	Lead	Lead	IntegraSeal POLI	LostCirculation	0.25	lb/sk
2	Lead	Lead	STATIC FREE	Other	0.01	lb/sk
2	Lead	Lead	XCem-1101	Thixotropic	1.00	lb/sk
3	Tail	Tail	ASTM TYPE I/II	Cement	100.00	%
3	Tail	Tail	A-7P	Accelerator	2.00	lb/sk
3	Tail	Tail	FP-24	Defoamer	0.30	%BWOB
3	Tail	Tail	IntegraSeal POLI	LostCirculation	0.25	lb/sk
3	Tail	Tail	STATIC FREE	Other	0.01	lb/sk
3	Tail	Tail	XCem-1101	Thixotropic	1.00	lb/sk

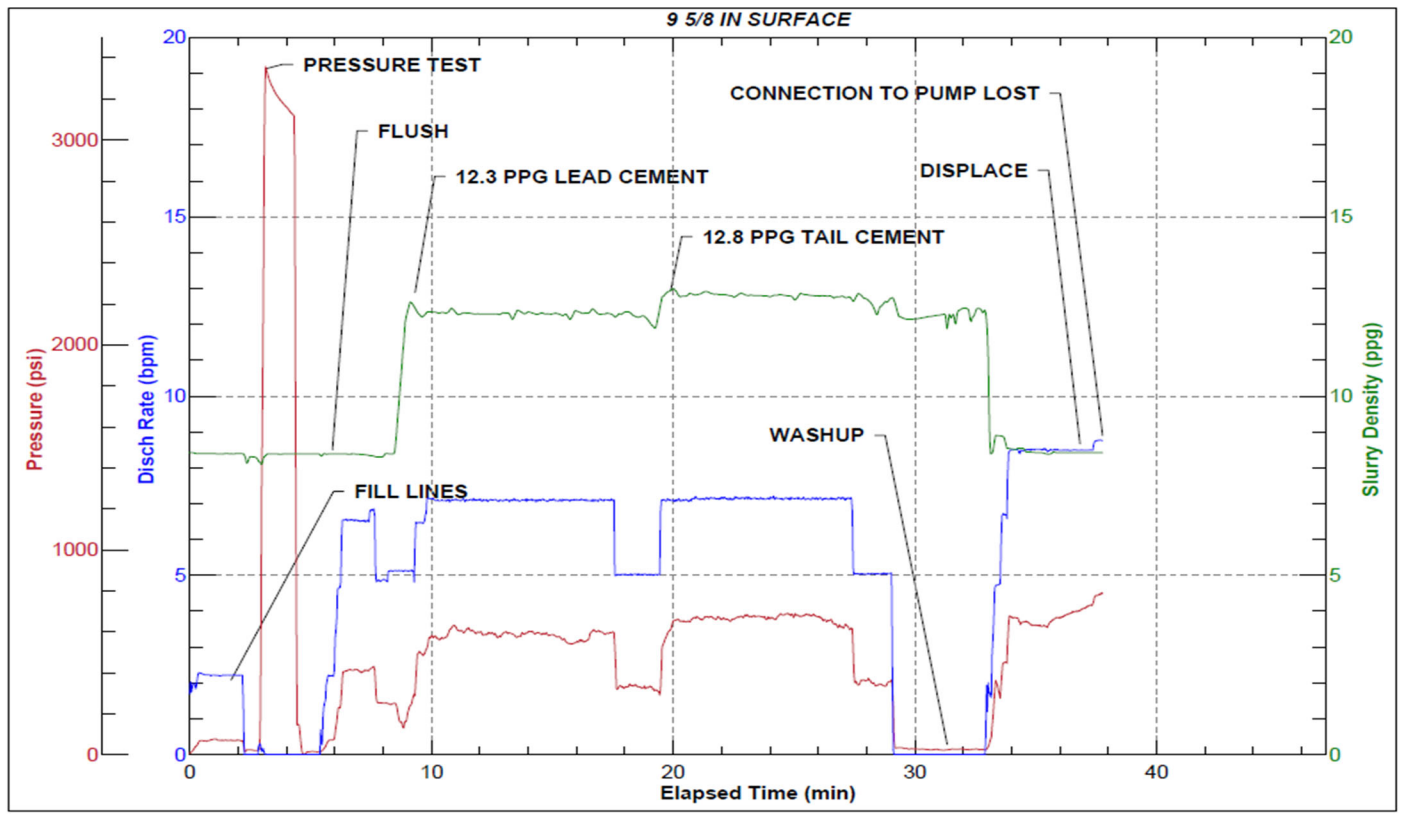
Job Logs

Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
1	Callout	7/30/2022	08:00					CREW CALLED OUT FOR ON LOCATION TIME OF 11:00 7/30/22
2	Depart Location	7/30/2022	09:30					CREW DEPARTS RCO YARD FOR RIG LOCATION
3	Arrive On Location	7/30/2022	10:00					CREW ARRIVES ON LOCATION
4	Rig Up Iron	7/30/2022	10:15					RIG UP IRON AND HOSES
5	Waiting	7/30/2022	11:00					WAITING FOR RIG TO RUN CASING
6	Safety Meeting	7/30/2022	15:26					JSA SAFETY MEETING WITH AC, RIG CREW, AND CUSTOMER REP
7	Fill Lines	7/30/2022	15:38	8.34	2	5	75	FILL LINES WITH 5 BBLS FRESH WATER
8	Pressure Test Lines	7/30/2022	15:41				3180	PRESSURE TEST PUMP AND LINES TO 3000 PSI
9	Other	7/30/2022	15:44	8.34	6.5	15	408	PUMP 15 BBLS FRESH WATER FLUSH
10	Pump Lead Cement	7/30/2022	15:47	12.3	5	0	234	BEGIN PUMPING 12.3 PPG LEAD CEMENT, DENSITY VERIFIED BY MUD SCALE.
11	Pump Lead Cement	7/30/2022	15:57	12.3	7	70.6	412	PUMPED 70.6 BBLS LEAD CEMENT
12	Pump Tail Cement	7/30/2022	15:57	12.8	5	0	370	BEGIN PUMPING 12.8 PPG TAIL CEMENT, DENSITY VERIFIED BY MUD SCALE
13	Pump Tail Cement	7/30/2022	16:07	12.8	7	64.1	749	PUMPED 64.1 BBLS TAIL CEMENT
14	Clean Pumps and Lines	7/30/2022	16:07					WASH UP PUMP, WASHED UP ON PLUG
15	Drop Top Plug	7/30/2022	16:11	8.34	5	0	351	DROP PLUG, WITNESSED BY CUSTOMER REP. BEGIN DISPLACEMENT
16	Pump Displacement	7/30/2022	16:17	8.34	9.3	50	846	50 BBLS FRESH WATER DISPLACEMENT PUMPED
17	Cement Back to Surface	7/30/2022	16:18	8.34	9.3	6	863	CEMENT TO SURFACE AT 56 BBLS FRESH WATER DISPLACEMENT PUMPED. 28 BBLS CEMENT TO SURFACE
18	Pump Displacement	7/30/2022	16:22	8.34	3.7	28	380	84.3 BBLS FRESH WATER DISPLACEMENT PUMPED. SLOWED RATE TO 4 BPM LAST 10 BBLS TO LAND PLUG
19	Land Plug	7/30/2022	16:22				985	PLUG LANDED. FCP - 380 PSI, BUMPED TO 985 PSI
20	Check Floats	7/30/2022	16:23					CHECK FLOATS, FLOATS HELD, 0.5 BBLS BACK
21	Rig Down Iron	7/30/2022	16:30					RIG DOWN IRON AND HOSES
22	Depart Location	7/30/2022	17:00					AC CREW DEPARTS LOCATION

Pump Diagrams



JobMaster Program Version 5.01C1
Job Number: 82662
Customer: Terra
Well Name: Federal NR 432-4



Job Start: Saturday, July 30, 2022