



# **Terra Energy Partners, LLC**

## **SURFACE POST JOB REPORT**

**FEDERAL WMC 33-20 05-045-24488**  
**S:17 T:7S R:93W Garfield CO**

CallSheet #: 84194  
Proposal #: 64447



**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

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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,

**Krystal Schell**

Field Engineer I | (719) 992-1830 | krystal.schell@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	19.5	53	n/a	0	90	0
Open Hole	Outer	n/a	13.5	n/a	n/a	120	500	16
Open Hole	Outer	n/a	13.5	n/a	n/a	500	1145	16
Casing	Inner	9.625	8.921	36	n/a	0	1135	0

### Equipment / People

Unit Type	Unit	Power Unit	Employee #1	Employee #2
Cement Trailer Float	CTF-286	TRC-201	Woronovitch, Collin	Bradbrook, Jeremy
Cement Pump Float	CPF-011	TRH-1137	Carrasco, Joel	
Light Duty Vehicles	LDV-062		Lancaster, Stephen	

### Timing

Event	Date/Time
Call Out	10/28/2022 16:07
Depart Facility	10/28/2022 21:30
On Location	10/28/2022 22:30
Rig Up Iron	10/28/2022 22:35
Job Started	10/29/2022 05:30
Job Completed	10/29/2022 06:57
Rig Down Iron	10/29/2022 07:01
Depart Location	10/29/2022 08:30

### General Job Information

Metrics	Value
Well Fluid Density	9.1 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	400 bbls
Rig Circulation Time	1.25 hours
Calculated Displacement	84 bbls
Actual Displacement	84 bbls
Total Spacer to Surface	20 bbls
Total CMT to Surface	34 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	9.1 lb/gal
Well Fluid Density Out of Well	9.1 lb/gal

### Job Details (cont.)

Metrics	Value
BHCT	80 °F
BHST	98 °F

### Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	49 °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 <sup>3</sup> /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		165.00	65.04	0
3	Tail	Tail	12.80	1.97	10.87		189.00	66.15	500
4	Water	DisplacementFinal	8.34			42.00		84.00	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	ATHX-1102	Thixotropic	1.00	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
3	Tail	Tail	ASTM TYPE I/II	Cement	100.00	%
3	Tail	Tail	A-7P	Accelerator	2.00	lb/sk
3	Tail	Tail	ATHX-1102	Thixotropic	1.00	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

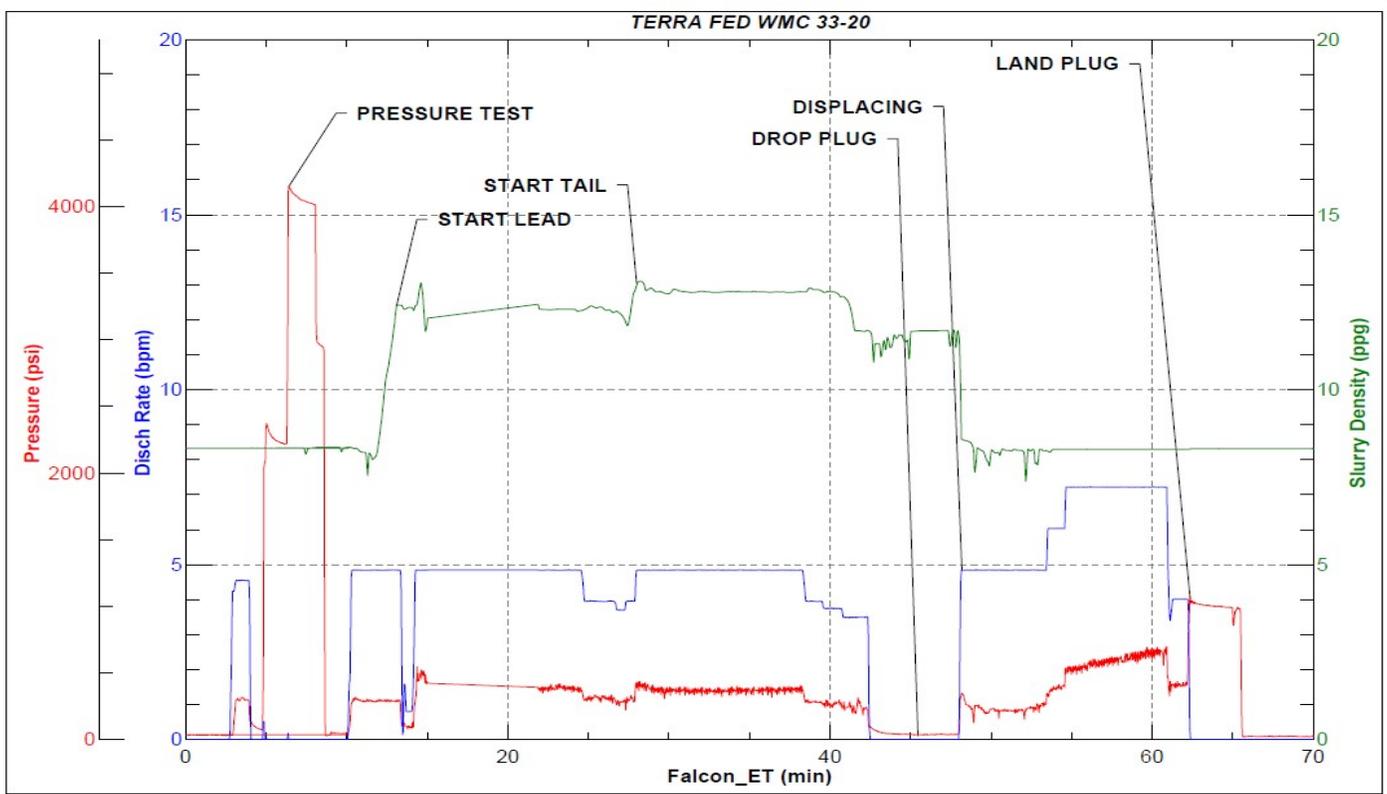
## Job Logs

Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
1	Callout	10/28/2022	16:07					CREW CALLED OUT FOR ON LOCATION TIME OF 23:00 10/28/2022
2	Depart Location	10/28/2022	21:30					CREW DEPARTS FOR RIG LOCATION
3	Arrive On Location	10/28/2022	22:30					CREW ARRIVES ON LOCATION
4	Rig Up Iron	10/28/2022	22:35					RIG UP IRON AND HOSES
5	Safety Meeting	10/29/2022	05:30					JSA SAFETY MEETING WITH AC, RIG CREW, AND CUSTOMER REP
6	Fill Lines	10/29/2022	05:55	8.34	4	5	306	FILL LINES WITH 5 BBLS FRESH WATER
7	Pressure Test Lines	10/29/2022	05:58				4100	PRESSURE TEST PUMP AND LINES TO 3000 PSI
8	Other	10/28/2022	06:02	8.34	5	15	304	PUMP 15 BBLS FRESH WATER FLUSH
9	Pump Lead Cement	10/29/2022	06:07	12.3	5	5	373	BEGIN PUMPING 12.3 PPG LEAD CEMENT, DENSITY VERIFIED BY MUD SCALE.
10	Pump Lead Cement	10/29/2022	06:21	12.3	4	65	389	PUMPED 65 BBLS LEAD CEMENT
11	Pump Tail Cement	10/29/2022	06:22	12.8	5	5	417	BEGIN PUMPING 12.8 PPG TAIL CEMENT, DENSITY VERIFIED BY MUD SCALE
12	Pump Tail Cement	10/29/2022	06:36	12.8	4	66.2	231	PUMPED 66.2 BBLS TAIL CEMENT
13	Clean Pumps and Lines	10/29/2022	06:37					WASH UP PUMP, WASHED UP ON PLUG
14	Drop Top Plug	10/29/2022	06:41	8.34	5	3	430	DROP PLUG, WITNESSED BY CUSTOMER REP. BEGIN DISPLACEMENT
15	Pump Displacement	10/29/2022	06:47	8.34	7	30	493	30 BBLS DISPLACEMENT PUMPED
16	Cement to Surface	10/29/2022	06:50	8.34	7	50	605	CEMENT TO SURFACE @ 50 BBLS PUMPED
17	Land Plug	10/29/2022	06:57	8.34	4	84	1015	PLUG LANDED. FCP - 492PSI, BUMPED TO 1015 PSI (34 BBLS CEMENT TO SURFACE)
18	Check Floats	10/29/2022	07:00					CHECK FLOATS, FLOATS HELD, 0.5 BBLS BACK
19	Rig Down Iron	10/29/2022	07:01					RIG DOWN IRON AND HOSES, PICKLE PUMP, BLOW DOWN IRON
20	Depart Location	10/29/2022	08:30					DEPART LOCATION FOR RCO
21	NOTES	10/29/2022	00:00					34 BBLS CEMENT TO SURFACE

# Pump Diagrams



JobMaster Program Version 5.01C1  
Job Number: 84194  
Customer: Terra  
Well Name: FEDERAL WMC 33-20



Job Start: Saturday, October 29, 2022