



# **Terra Energy Partners, LLC**

## **SURFACE POST JOB REPORT**

**FEDERAL NR 541-3 05-045-24470**  
**S:3 T:6S R:94W Garfield CO**

CallSheet #: 81128  
Proposal #: 59400



**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,

**Michael Harold**

Field Engineer II | (970) 773-3636 | michael.harold@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	83	0
Open Hole	Outer	n/a	13.5	n/a	n/a	83	500	16
Open Hole	Outer	n/a	13.5	n/a	n/a	500	1119	16
Casing	Inner	9.625	8.921	36	n/a	0	1119	0

### Equipment / People

Unit Type	Unit	Power Unit	Employee #1	Employee #2
Cement Trailer	CTF-555	TRC(TRB)-202	Hansen, James	
Light Duty Vehicles	LDV-083		Aden, Mark	Lancaster, Stephen
Cement Pump	CPF-136	TRH-1140	Carrasco, Joel	

### Timing

Event	Date/Time
Call Out	4/24/2022 10:40
Depart Facility	4/24/2022 15:20
On Location	4/24/2022 15:55
Rig Up Iron	4/24/2022 16:50
Job Started	4/24/2022 21:07
Job Completed	4/24/2022 22:41
Rig Down Iron	4/24/2022 23:15
Depart Location	4/24/2022 23:35

### General Job Information

Metrics	Value
Well Fluid Density	9.1 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	321 bbls
Rig Circulation Time	0.5 hours
Calculated Displacement	84 bbls
Actual Displacement	84 bbls
Total Spacer to Surface	0 bbls
Total CMT to Surface	33 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	97 °F

### Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	54.1 °F	50-80 °F
pH Level	7	5.5-8.5
Chlorides	0 mg/L	0-3000 mg/L
Total Alkalinity	180	0-1000
Total Hardness	425 mg/L	0-500 mg/L
Carbonates	0 mg/L	0-100 mg/L
Sulfates	<200 mg/L	0-1500 mg/L
Potassium	0 mg/L	0-3000 mg/L
Iron	0 mg/L	0-300 mg/L

### Circulation

Lost Circulation Experienced	Losses into Spacer	Losses into Cement	Losses into Displacement
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		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		82.00	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	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

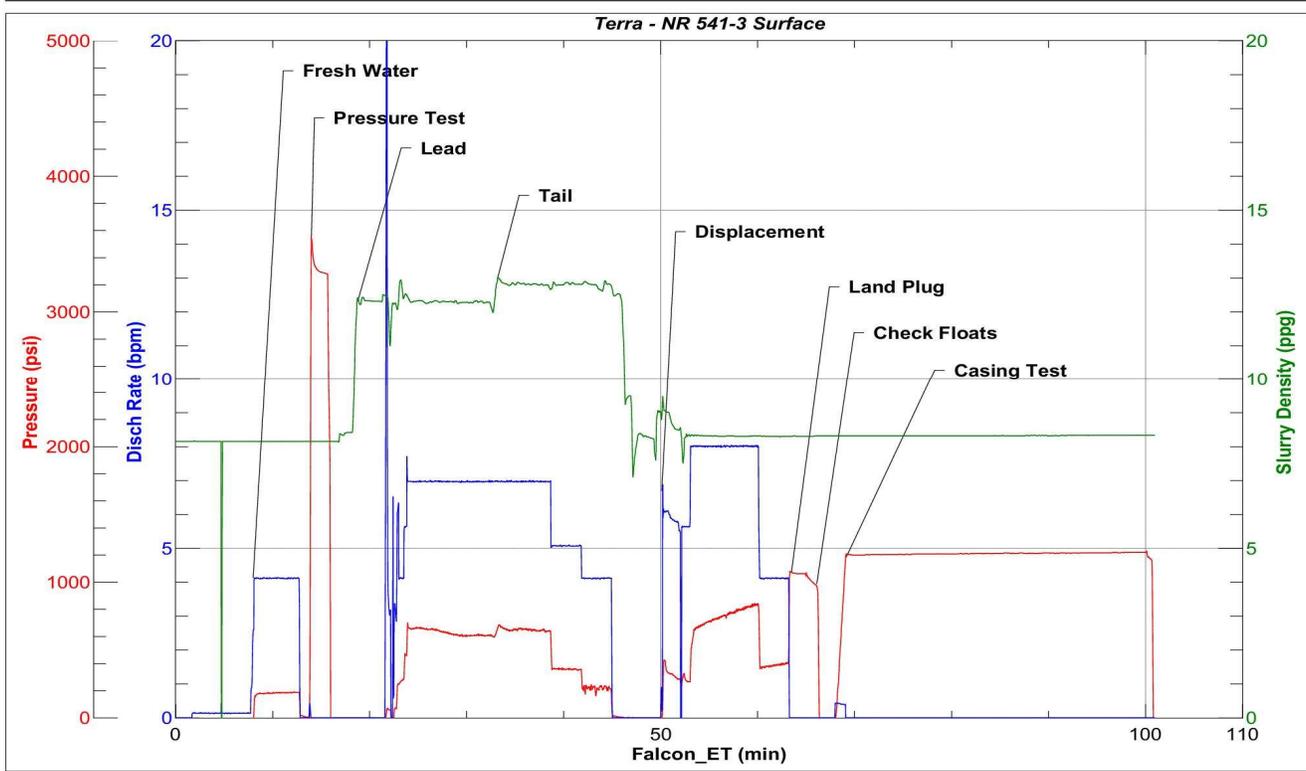
## Job Logs

Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
1	Callout	4/24/2022	10:40					On location 1600
2	Depart For Location	4/24/2022	15:20					Leave Rifle yard for location
3	Arrive On Location	4/24/2022	15:55					Arrive on location
4	Spot Equipment	4/24/2022	16:40					Spot in all equipment
5	Rig Up Iron	4/24/2022	16:50					Pre rig up safety meeting, rig in all equipment and lines to the cellar
6	End Circulation	4/24/2022	20:30					Rig ended circulation, circulated 30 mins @ 450 gpm, total of 321 BBLs
7	Safety Meeting	4/24/2022	20:45					Pre job safety meeting with company man
8	Pump Spacer	4/24/2022	21:07	8.34	4	20	183	Pumping fresh water spacer, returns
9	Pressure Test Lines	4/24/2022	21:13				3000	Pressure test
10	Pump Lead Cement	4/24/2022	21:18	12.3	7	0	662	Pumping lead cement
11	Pump Lead Cement	4/24/2022	21:28	12.3	7	50	608	Pumping lead cement
12	Pump Lead Cement	4/24/2022	21:32	12.3	7	71	632	Pumping lead cement
13	Pump Tail Cement	4/24/2022	21:32	12.8	7	0	684	Pumping tail cement
14	Pump Tail Cement	4/24/2022	21:39	12.8	5	50	365	Pumping tail cement
15	Pump Tail Cement	4/24/2022	21:44	12.8	4	64	216	Pumping tail cement
16	Drop Top Plug	4/24/2022	21:46					Dropped top plug verified by company man
17	Pump Displacement	4/24/2022	21:49	8.34	6	0	340	Pumping fresh water displacement
18	Pump Displacement	4/24/2022	21:56	8.34	8	50	780	Pumping fresh water displacement
19	Cement Back to Surface	4/24/2022	21:56			51		Cement to surface @ 51 BBLs pumped. Total of 33 BBLs to surface
20	Pump Displacement	4/24/2022	22:02	8.34	4	84	420	Pumping fresh water displacement
21	Land Plug	4/24/2022	22:02				1069	Land plug, FCP 420 PSI bumped to 1069 PSI
22	Check Floats	4/24/2022	22:06					Bled pressure, floats held .5 BBL bled back
23	Casing Test	4/24/2022	22:10				1212	Casing test for 30 min @ 1212 psi. Bled off at 22:41
24	Rig Down Iron	4/24/2022	23:15					Pre rig down safety meeting, rig down lines in the cellar
25	Depart Location	4/24/2022	23:35					Leave location for Rifle shop

# Pump Diagrams



JobMaster Program Version 5.01C1  
Job Number: 81128  
Customer: Terra  
Well Name: Federal NR 541-3



BJ Services

Job Start: Sunday, April 24, 2022