



# **Terra Energy Partners, LLC**

## **SURFACE POST JOB REPORT**

**FEDERAL NR 441-3 05-045-24479**  
**S:3 T:6S R:94W Garfield CO**

CallSheet #: 81509  
Proposal #: 59405



**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,

**Zen Keith**

SME | (307) 757-7178 | zen.keith@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	81	0
Open Hole	Outer	n/a	13.5	n/a	n/a	111	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

### Timing

Event	Date/Time
Call Out	5/17/2022 04:20
Depart Facility	5/17/2022 06:30
On Location	5/17/2022 07:06
Rig Up Iron	5/17/2022 07:20
Job Started	5/17/2022 11:48
Job Completed	5/17/2022 13:26
Rig Down Iron	5/17/2022 13:27
Depart Location	5/17/2022 14:30

### Equipment / People

Unit Type	Unit	Power Unit	Employee #1	Employee #2
Cement Trailer Float	CTF-286	TRC(TRB)-424	Lopez, Guadalupe	Jackson, Dewayne
Cement Pump Float	CPF-052	TRH-957	Brady, Shawn	
Light Duty Vehicles	LDV-061		Aden, Mark	

### General Job Information

Metrics	Value
Well Fluid Density	9 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	300 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	20 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 lb/gal
Well Fluid Density Out of Well	9 lb/gal

### Job Details (cont.)

Metrics	Value
BHCT	80 °F
BHST	97 °F

### Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	61.1 °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
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

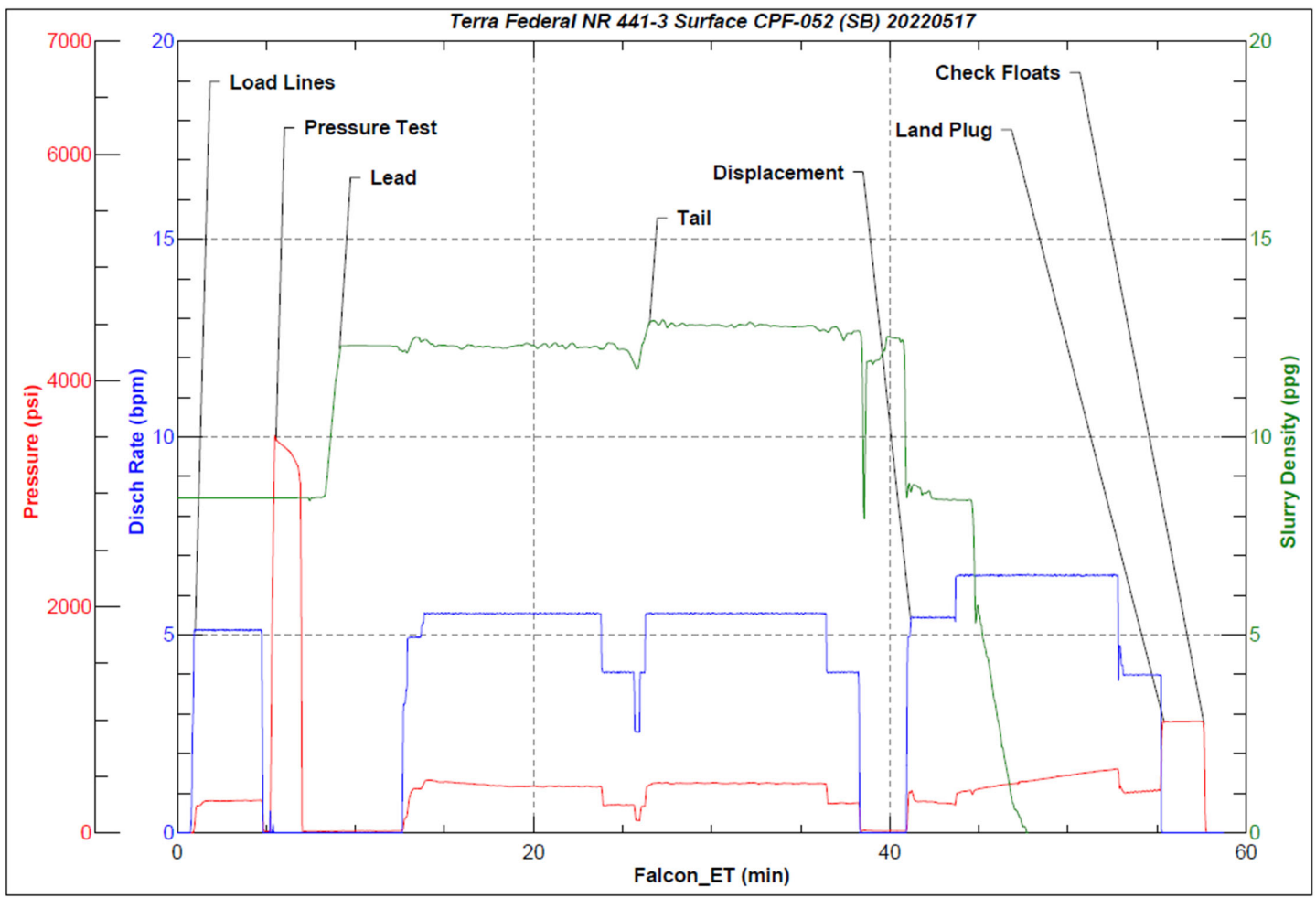
## Job Logs

Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
1	Callout	5/17/2022	04:20					Yard call 0600 on location 0730
2	Depart For Location	5/17/2022	06:30					Leave Rifle yard for location
3	Arrive On Location	5/17/2022	07:06					Arrive on location, rig pulling drill pipe
4	Spot Equipment	5/17/2022	07:10					Spot in all equipment
5	Rig Up Iron	5/17/2022	07:20					Pre rig up safety meeting, rig in all equipment and lines to the cellar
6	End Circulation	5/17/2022	11:15					Rig ended circulation, circulated 30 mins @ 11 BBLs/min total of 330 BBLs
7	Safety Meeting	5/17/2022	11:35					Pre job safety meeting with company man
8	Pump Spacer	5/17/2022	11:48	8.34	5	20	255	Pumping freshwater spacer, returns
9	Pressure Test Lines	5/17/2022	11:52				3000	Pressure test
10	Pump Lead Cement	5/17/2022	12:00	12.3	5	0	380	Pumping lead cement
11	Pump Lead Cement	5/17/2022	12:09	12.3	5.5	50	412	Pumping lead cement
12	Pump Lead Cement	5/17/2022	12:13	12.3	4	72	235	Pumping lead cement
13	Pump Tail Cement	5/17/2022	12:13	12.8	6	0	429	Pumping tail cement
14	Pump Tail Cement	5/17/2022	12:23	12.8	5.5	50	433	Pumping tail cement
15	Pump Tail Cement	5/17/2022	12:25	12.8	4	64	250	Pumping tail cement
16	Drop Top Plug	5/17/2022	12:27					Dropped top plug verified by company man
17	Pump Displacement	5/17/2022	12:28	8.34	5.5	0	276	Pumping freshwater displacement
18	Pump Displacement	5/17/2022	12:36	8.34	6.5	50	495	Pumping freshwater displacement
19	Cement Back to Surface	5/17/2022	12:38			64		Cement to surface @ 64 BBLs pumped. Total of 20 BBLs to surface
20	Pump Displacement	5/17/2022	12:42	8.34	4	84	380	Pumping freshwater displacement
21	Land Plug	5/17/2022	12:42				984	Land plug, FCP 380 PSI bumped to 984 PSI
22	Check Floats	5/17/2022	12:45					Bled pressure, floats held .5 BBL bled back
23	Casing Test	5/17/2022	12:49				1227	Pressured up casing to 1227 psi, held for 30 min. Final pressure was 1238 psi.
24	Rig Down Iron	5/17/2022	13:27					Pre rig down safety meeting, rig down lines in the cellar
25	Depart Location	5/17/2022	14:30					Leave location for Rifle shop

# Pump Diagrams

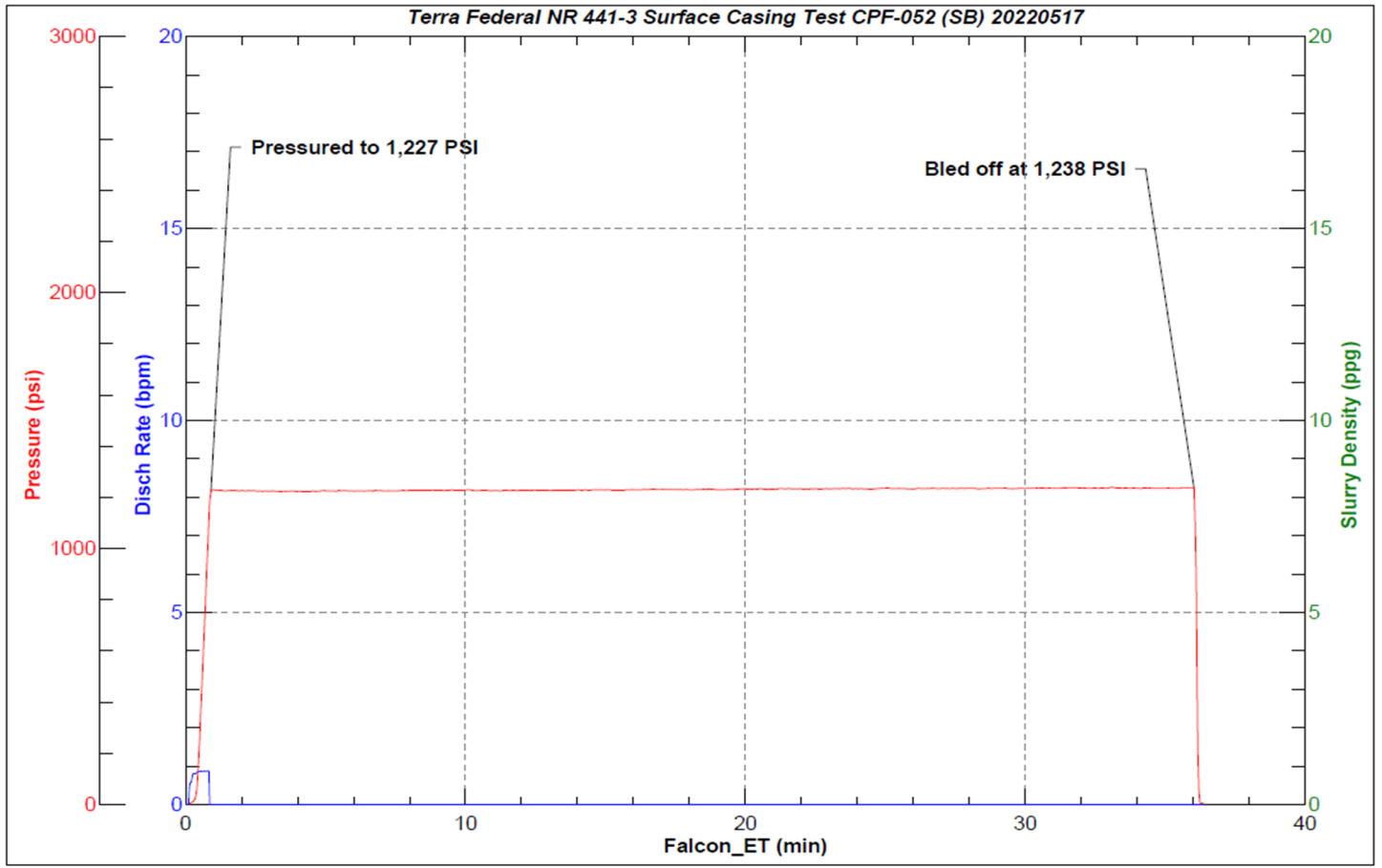


JobMaster Program Version 5.01C1  
Job Number: 81509  
Customer: Terra  
Well Name: Federal NR 441-3



Job Start: Tuesday, May 17, 2022

Job Chart



Job Start: Tuesday, May 17, 2022

Casing Test