



# **Terra Energy Partners, LLC**

## **SURFACE POST JOB REPORT**

Leverich SR 421-24 05-045-24565  
S:13 T:7S R:94W Garfield CO

CallSheet #: 88019  
Proposal #: 70571



**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) 657-1187

## 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	80	0
Open Hole	Outer	n/a	13.5	n/a	n/a	110	500	16
Open Hole	Outer	n/a	13.5	n/a	n/a	500	1177	16
Casing	Inner	9.625	8.921	36	n/a	0	1177	0

### Equipment / People

Unit Type	Unit	Power Unit	Employee #1	Employee #2
Cement Trailer Float	CTF-286	TRC-112	Ridgeway, Danny	Richey, Steven
Cement Pump Float	CPF-136	TRH-855	Carrasco, Joel	
Light Duty Vehicles	LDV-061		Woronovitch, Collin	

### Timing

Event	Date/Time
ERTS	00/31/2023 00:00
Call Out	7/31/2023 03:14
Depart Facility	7/31/2023 03:15
On Location	7/31/2023 04:00
Rig Up Iron	7/31/2023 13:00
Job Started	7/31/2023 18:00
Job Completed	7/31/2023 19:57
Rig Down Iron	7/31/2023 20:00
Depart Location	7/31/2023 20:45

### General Job Information

Metrics	Value
Well Fluid Density	9.2 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	215 bbls
Rig Circulation Time	0.5 hours
Calculated Displacement	88 bbls
Actual Displacement	88 bbls
Total Spacer to Surface	20 bbls
Total CMT to Surface	38 bbls
Well Topped Out	N/A

### 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	81 °F
BHST	99 °F

### Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	73 °F	50-80 °F
pH Level	7	5.5-8.5
Chlorides	300 mg/L	0-3000 mg/L
Total Alkalinity	200	0-1000
Total Hardness	140 mg/L	0-500 mg/L
Carbonates	N/A mg/L	0-100 mg/L
Sulfates	140 mg/L	0-1500 mg/L
Potassium	240 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	2.31	13.15		158.00	64.94	0
3	Tail	Tail	12.80	2.03	11.15		186.00	67.35	500
4	Water	DisplacementFinal	8.34			42.00		88.00	0

## Job Fluid Details

Fluid	Type	Fluid	Product	Function	Conc.	Uom
2	Lead	Lead	ASTM TYPE IL	Cement	100.00	%
2	Lead	Lead	A-10	Accelerator	5.00	%BWOB
2	Lead	Lead	A-2	Accelerator	3.00	lb/sk
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
3	Tail	Tail	ASTM TYPE IL	Cement	100.00	%
3	Tail	Tail	A-10	Accelerator	5.00	%BWOB
3	Tail	Tail	A-2	Accelerator	2.00	lb/sk
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

## Job Logs

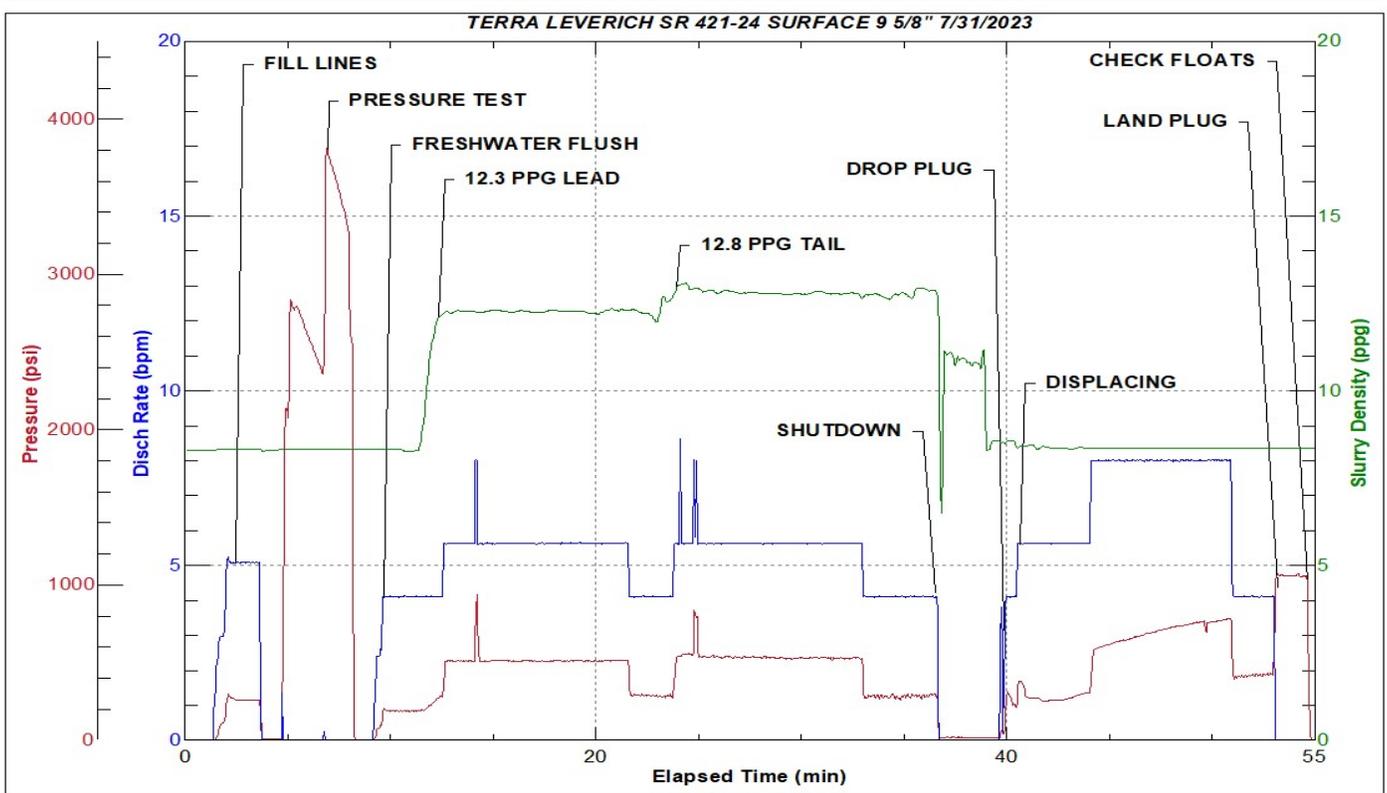
Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
1	Callout	7/31/2023	03:14					CREW CALLED OUT FOR LOCATION TIME OF 13:00 7/31 CREW ALREADY STAGED ON LOCATION
2	Depart Location	7/31/2023	03:15					CREW DEPARTS RCO YARD FOR RIG LOCATION
3	Arrive On Location	7/31/2023	04:00					CREW AND EQUIPMENT ARRIVED ON LOCATION. RIG IS PREPARING TO START DRILLING
4	Rig Up Iron	7/31/2023	13:00					PRE RIG UP MEETING / RIG UP IRON HOSES AND EQUIPMENT. ON STANDBY WAITING FOR CASING TO FINISH BEING RAN. CASING LANDED @ 17:30 RIG CIRCULATED .5 HOUR 215 BBLs
5	Safety Meeting	7/31/2023	18:00					PRE JOB SAFETY MEETING WITH RIG CREW AND COMPANY MAN. FINISH RIGGING UP HEAD AND FLOOR AFTER SAFETY MEETING.
6	Fill Lines	7/31/2023	18:26	8.34	5	10	293	FILL LINES WITH 10 BBLs OF FRESH WATER
7	Pressure Test Lines	7/31/2023	18:29	8.34	1	1	3845	PRESSURE TEST PUMP AND LINES TO 3000 PSI
8	Other	7/31/2023	18:34	8.34	4	10	197	PUMP 10 BBLs FRESH WATER SPACER FULL RETURNS
9	Pump Lead Cement	7/31/2023	18:37	12.3	4	0	260	BEGIN PUMPING 12.3 PPG, 2.31Y, 13.2MW LEAD CEMENT, WEIGHT VERIFIED BY MUD SCALE
10	Pump Lead Cement	7/31/2023	18:42	12.3	5.7	30	508	30 BBLs LEAD CEMENT PUMPED
11	Pump Lead Cement	7/31/2023	18:48	12.3	4	35	285	65 BBLs (158 SKs) LEAD CEMENT PUMPED FULL RETURNS
12	Pump Tail Cement	7/31/2023	18:48	12.8	4	0	288	BEGIN PUMPING 12.8 PPG, 2.03Y, 11.1MW TAIL CEMENT, WEIGHT VERIFIED BY MUD SCALE
13	Pump Tail Cement	7/31/2023	18:53	12.8	5.7	30	533	30 BBLs TAIL CEMENT PUMPED
14	Pump Tail Cement	7/31/2023	19:01	12.8	4	38	296	67 BBLs (186 SKs) TAIL CEMENT PUMPED FULL RETURNS
15	Drop Top Plug	7/31/2023	19:05	8.34	4	0	250	DROP PLUG, WITNESSED BY COMPANY MAN. BEGIN PUMPING FRESH WATER DISPLACEMENT, FULL RETURNS
16	Pump Displacement	7/31/2023	19:09	8.34	5.5	20	301	20 BBLs DISPLACEMENT PUMPED, CAUGHT PLUG @ 20 BBLs DISPLACED. SPACER BACK @ 30 BBLs FULL RETURNS
17	Pump Displacement	7/31/2023	19:13	8.34	8	30	714	50 BBLs DISPLACEMENT PUMPED. CEMENT TO SURFACE @ 50 BBLs PUMPED, 38 BBLs TOTAL CEMENT TO SURFACE. MAX LIFT-810 PSI @ 8 BPM
18	Pump Displacement	7/31/2023	19:18	8.34	4	38	420	88 BBLs (CALCULATED) TOTAL DISPLACEMENT PUMPED
19	Land Plug	7/31/2023	19:18	8.34			1069	PLUG LANDED. FCP-420 PSI BUMP TO-1069 PSI
20	Check Floats	7/31/2023	19:20					BLEED OFF PRESSURE-CHECK FLOATS, FLOATS HELD .5 BBLs BACK
21	Casing Test	7/31/2023	19:27				1181	1200 PSI 30 MIN CASING TEST
22	Check Floats	7/31/2023	19:57					BLEED OFF PRESSURE-CHECK FLOATS, FLOATS HELD 1.5 BBLs BACK
23	Rig Down Iron	7/31/2023	20:00					PRE RIG DOWN SAFETY MEETING, RIG DOWN EQUIPMENT, IRON AND HOSES

Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
24	Depart Location	7/31/2023	20:45					CREW DEPARTS LOCATION FOR RCO YARD

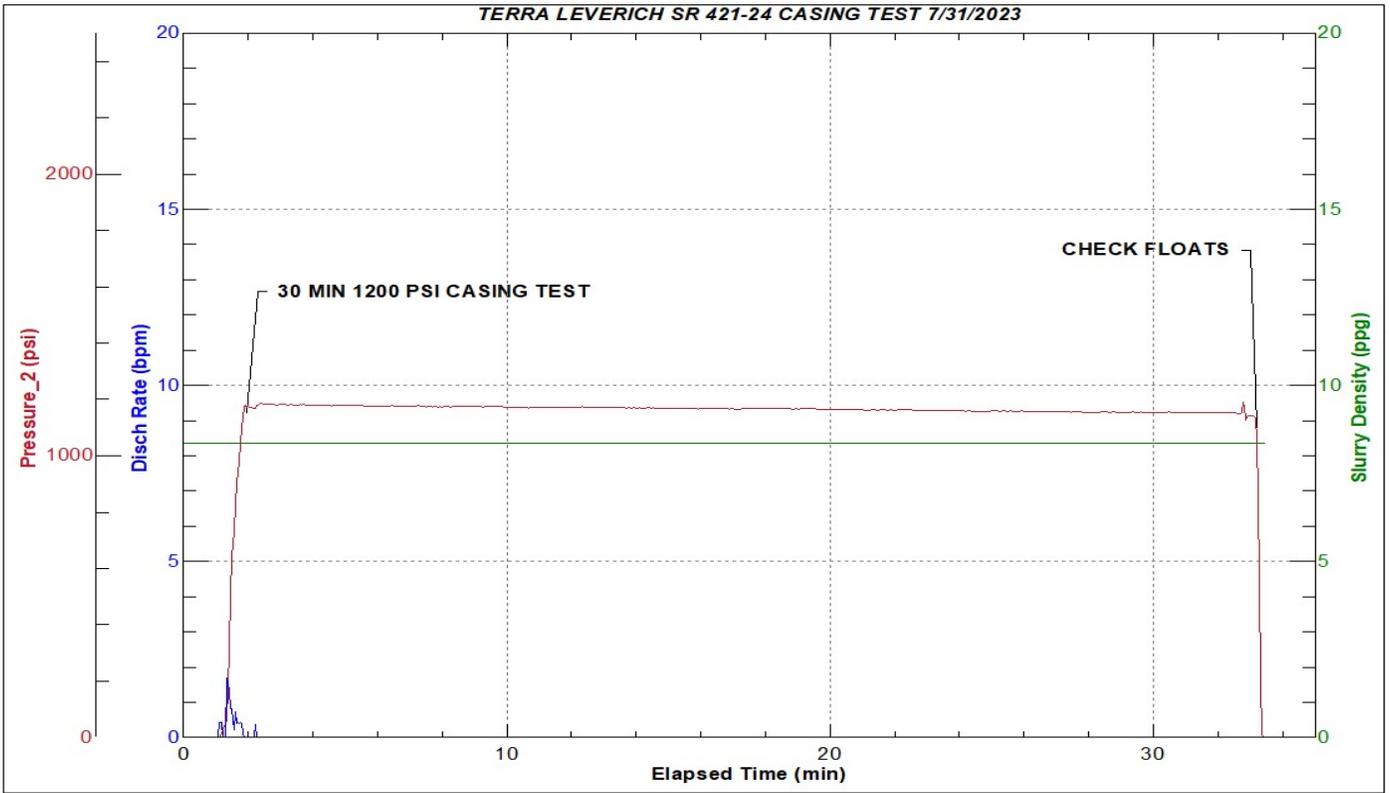
## Pump Diagrams



JobMaster Program Version 5.01C1  
Job Number: 88019  
Customer: TERRA  
Well Name: LEVERICH SR 421-24



Job Start: Monday, July 31, 2023



Job Start: Monday, July 31, 2023