



# **Terra Energy Partners, LLC**

## **LONG STRING POST JOB REPORT**

**FED RG 313-18-297 05-103-12572**  
**S:13 T:2S R:98W Rio Blanco CO**

CallSheet #: 91506  
Proposal #: 76424



**LONG STRING 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,

**Addison Kneale**

Field Engineer I | (904) 228-9560 | addison.kneale@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	9.625	8.921	36	n/a	0	3115	0
Open Hole	Outer	n/a	8.75	n/a	n/a	3115	8216	45
Open Hole	Outer	n/a	8.75	n/a	n/a	8216	10937	45
Casing	Inner	4.5	4	11.6	n/a	0	10930.9	0

### Timing

Event	Date/Time
ERTS	05/21/2024 05:00
Call Out	5/20/2024 21:30
Depart Facility	5/20/2024 23:45
On Location	5/21/2024 02:00
Rig Up Iron	5/21/2024 03:15
Job Started	5/21/2024 10:15
Job Completed	5/21/2024 13:37
Rig Down Iron	5/21/2024 14:00
Depart Location	5/21/2024 15:15

### Equipment / People

Unit Type	Unit	Power Unit	Employee #1
Field Storage Silo	FSS-438		
Field Storage Silo	FSS-470		
Cement Trailer Float	CTF-249	TRC-202	Michael Hutchinson
Light Duty Vehicles	LDV-092		Collin Woronovitch
Cement Pump Float	CPF-012	TRH-855	James Lujan

### General Job Information

Metrics	Value
Well Fluid Density	9.7 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	590 bbls
Rig Circulation Time	1.25 hours
Calculated Displacement	169 bbls
Actual Displacement	169 bbls
Total Spacer to Surface	0 bbls
Total CMT to Surface	0 bbls
Well Topped Out	N/A

### Job Details

Metrics	Value
Well Full Prior to Job	Yes
Well Fluid Density Into Well	9.7 lb/gal
Well Fluid Density Out of Well	9.7 lb/gal

### Job Details (cont.)

Metrics	Value
BHCT	187 °F
BHST	249 °F

### Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	58 °F	50-80 °F
pH Level	7	5.5-8.5
Chlorides	80 mg/L	0-3000 mg/L
Total Alkalinity	80	0-1000
Total Hardness	100 mg/L	0-500 mg/L
Carbonates	N/A mg/L	0-100 mg/L
Sulfates	120 mg/L	0-1500 mg/L
Potassium	100 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		10.00	6928
2	Lead	Lead	12.70	2.13	11.41		762.00	289.05	7054
3	Tail	Tail	13.50	2.01	9.72		601.00	215.14	8216
4	Displacement	DisplacementFinal	8.34			42.00		169.00	0

### Job Fluid Details

Fluid	Type	Fluid	Product	Function	Conc.	Uom
2	Lead	Lead	ASTM TYPE IL	Cement	100.00	%
2	Lead	Lead	A-2	Accelerator	0.10	%BWOB
2	Lead	Lead	FL-66	FluidLoss	0.20	%BWOB
2	Lead	Lead	GW-86	Viscosifier	0.05	%BWOB
2	Lead	Lead	IntegraSeal PHENO	LostCirculation	3.00	lb/sk
2	Lead	Lead	IntegraSeal POLI	LostCirculation	0.25	lb/sk
2	Lead	Lead	R-3	Retarder	0.85	%BWOB
2	Lead	Lead	STATIC FREE	Other	0.01	lb/sk
2	Lead	Lead	XCem-1009	Extender	10.00	lb/sk
2	Lead	Lead	XCem-311	Defoamer	0.30	%BWOB
3	Tail	Tail	CLASS G	Cement	70.00	%
3	Tail	Tail	FLY ASH (POZZOLAN)	Extender	30.00	%
3	Tail	Tail	BENTONITE	Viscosifier	8.00	%BWOB
3	Tail	Tail	FL-24	FluidLoss	0.40	%BWOB
3	Tail	Tail	GW-86	Viscosifier	0.10	%BWOB
3	Tail	Tail	IntegraSeal PHENO	LostCirculation	3.00	lb/sk
3	Tail	Tail	R-3	Retarder	0.30	%BWOB
3	Tail	Tail	S-8	StrengthRetrogression	26.00	%BWOB
3	Tail	Tail	XCem-311	Defoamer	0.30	%BWOB

## Job Logs

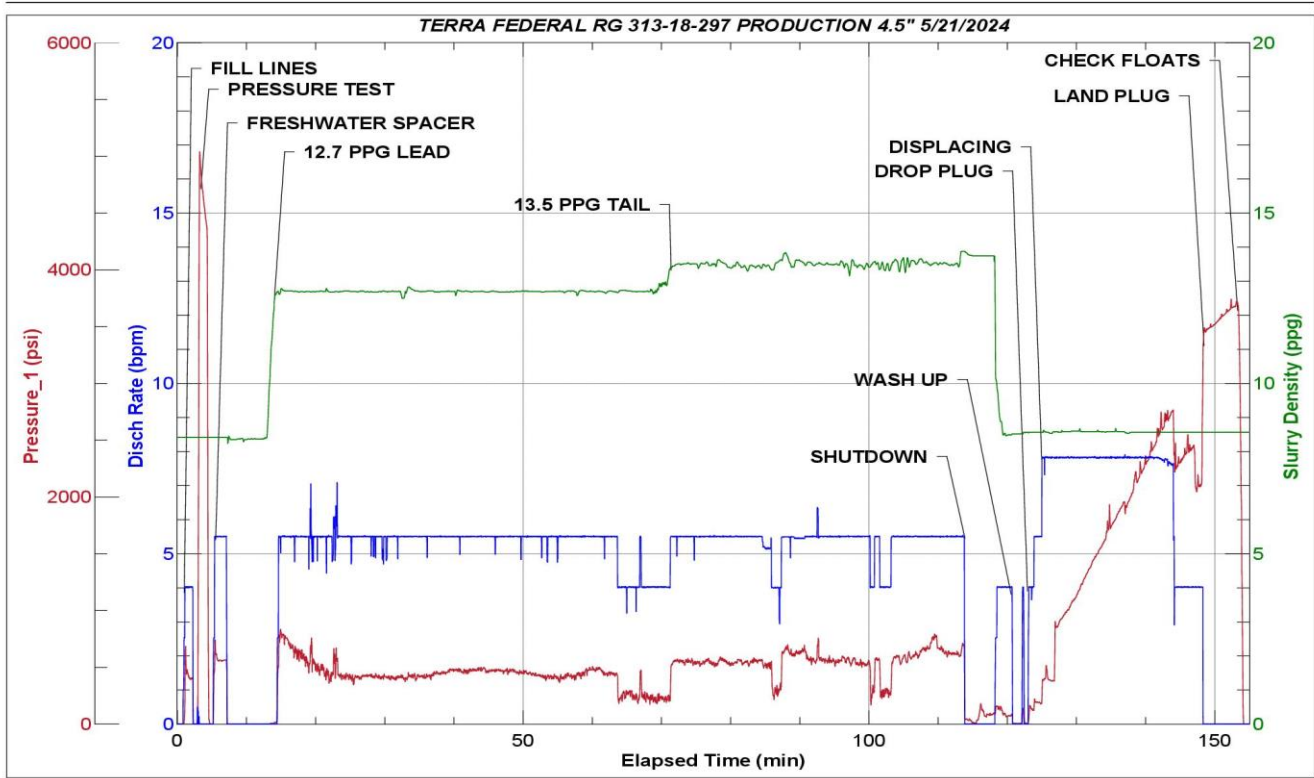
Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
1	Callout	5/20/2024	21:30					CREW CALLED OUT FOR ON LOCATION OF 5:00 ON 5/21/24
2	Depart Location	5/20/2024	23:45					DEPART RCO YARD FOR LOCATION
3	Arrive On Location	5/21/2024	02:00					ARRIVE ON LOCATION. RIG STILL RUNNING CASING.
4	Safety Meeting	5/21/2024	03:00					PRE RIG UP JSA. SPOT EQUIPMENT
5	Rig Up Iron	5/21/2024	03:15					RIG UP ALL IRON, HOSES, AND EQUIPMENT
6	Standby	5/21/2024	05:30					RIG LANDED CASING @ 9:30 . RIG CIRCULATED FOR 1.25 HOURS. TOTAL VOLUME 590 BBLS.
7	Safety Meeting	5/21/2024	10:15					PRE JOB SAFETY MEETING WITH RIG CREW AND COMPANY MAN.
8	Fill Lines	5/21/2024	11:04	8.34	4	5	480	FILL LINES WITH 5 BBLS OF FRESHWATER.
9	Pressure Test Lines	5/21/2024	11:07	8.34	1	1	5000	PRESSURE TEST PUMP AND IRON TO HEAD.
10	Pump Spacer	5/21/2024	11:09	8.45	5.5	10	575	BEGIN PUMPING 10 BBL FRESHWATER SPACER.
11	Pump Lead Cement	5/21/2024	11:17	12.7	5.5	0	783	BATCH UP AND BEGIN PUMPING. (12.7#, 2.13Y, 11.4MW) LEAD CEMENT. WEIGHT VERIFIED BY MUD SCALE
12	Pump Lead Cement	5/21/2024	11:27	12.7	5.5	50	421	50 BBLS LEAD CEMENT PUMPED
13	Pump Lead Cement	5/21/2024	11:37	12.7	5.5	50	408	100 BBLS LEAD CEMENT PUMPED
14	Pump Lead Cement	5/21/2024	11:46	12.7	5.5	50	468	150 BBLS LEAD CEMENT PUMPED
15	Pump Lead Cement	5/21/2024	11:55	12.7	5.5	50	451	200 BBLS LEAD CEMENT PUMPED
16	Pump Lead Cement	5/21/2024	12:04	12.7	5.5	50	481	250 BBLS LEAD CEMENT PUMPED
17	Pump Lead Cement	5/21/2024	12:14	12.7	4	39	239	289 BBLS (762 SKS) TOTAL LEAD CEMENT PUMPED SWAP TO TAIL.
18	Pump Tail Cement	5/21/2024	12:14	13.5	4	0	281	BEGIN PUMPING. (13.5#, 2.01Y, 9.7MW) TAIL CEMENT. WEIGHT VERIFIED BY MUD SCALE
19	Pump Tail Cement	5/21/2024	12:23	13.5	5.5	50	561	50 BBLS TAIL CEMENT PUMPED
20	Pump Tail Cement	5/21/2024	12:33	13.5	5.5	50	635	100 BBLS TAIL CEMENT PUMPED
21	Pump Tail Cement	5/21/2024	12:42	13.5	5.5	50	578	150 BBLS TAIL CEMENT PUMPED
22	Pump Tail Cement	5/21/2024	12:52	13.5	5.5	50	683	200 BBLS TAIL CEMENT PUMPED
23	Pump Tail Cement	5/21/2024	12:57	13.5	5.5	15	636	215 BBLS (601 SKS) TOTAL TAIL CEMENT PUMPED
24	Shutdown	5/21/2024	12:57					
25	Clean Pumps and Lines	5/21/2024	12:58					BLOW RIG AIR TO CLEAR LINES, VALVE MANIFOLD TO WASH UP PUMP AND LINES TO PIT.
26	Drop Top Plug	5/21/2024	13:06	8.34	4	0	179	DROP PLUG, WITNESSED BY DRILLER AND COMPANY MAN BEGIN KCL DISPLACEMENT.
27	Pump Displacement	5/21/2024	13:13	8.34	8	50	1184	50 BBLS DISPLACEMENT PUMPED. CAUGHT PRESSURE @ 24 BBLS DISPLACED.

Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
28	Pump Displacement	5/21/2024	13:20	8.34	8	50	1971	100 BBLS DISPLACEMENT PUMPED.
29	Pump Displacement	5/21/2024	13:26	8.34	8	50	2689	150 BBLS DISPLACEMENT PUMPED. MAX LIFT- 2765 PSI @ 8 BPM BEFORE SLOW DOWN @ 155 BBLS DISPLACED
30	Pump Displacement	5/21/2024	13:32	8.34	4	19	2420	169 BBLS (CALCULATED) DISPLACEMENT PUMPED
31	Land Plug	5/21/2024	13:32				3500	PLUG LANDED FCP-2420 PSI BUMPED TO 3500 PSI
32	Check Floats	5/21/2024	13:37			2		BLEED PRESSURE OFF AND CHECK FLOATS, FLOATS HELD 2 BBLS BACK
33	Rig Down Iron	5/21/2024	14:00					PRE RIG DOWN SAFETY MEETING. RIG DOWN EQUIPMENT, IRON AND HOSES
34	Depart Location	5/21/2024	15:15					CREW DEPARTS LOCATION

## Pump Diagrams



JobMaster Program Version 5.01C1  
Job Number: 91506  
Customer: TERRA  
Well Name: FEDERAL RG 313-18-297



Job Start: Tuesday, May 21, 2024