



# **Terra Energy Partners, LLC**

## **LONG STRING POST JOB REPORT**

**FEDERAL RG 313-7-297 05-103-12479**  
**S:7 T:2S R:97W Rio Blanco CO**

CallSheet #: 89033  
Proposal #: 72285



**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,

**Lyndon Chandarjit**

Field Engineer II | (281) 690-3840 | lyndon.chandarjit@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	3319	0
Open Hole	Outer	n/a	8.75	n/a	n/a	3319	7852	45
Open Hole	Outer	n/a	8.75	n/a	n/a	7852	11673	45
Casing	Inner	4.5	4	11.6	n/a	0	11673	0

### Equipment / People

Unit Type	Unit	Power Unit	Employee #1
Field Storage Silo	FSS-438		
Field Storage Silo	FSS-470		
Cement Trailer Float	CTF-385	TRC-425	Duewayne Jackson
Cement Trailer Float	CTF-263	TRC-053	Daniel Balint
Cement Pump Float	CPF-052	TRH-957	Steven Richey
Light Duty Vehicles	LDV-092		Collin Woronovitch

### Timing

Event	Date/Time
ERTS	10/30/2023 06:00
Call Out	10/29/2023 23:15
Depart Facility	10/29/2023 23:30
On Location	10/30/2023 03:00
Rig Up Iron	10/30/2023 06:30
Job Started	10/30/2023 11:30
Job Completed	10/30/2023 15:09
Rig Down Iron	10/30/2023 15:30
Depart Location	10/30/2023 17:45

### General Job Information

Metrics	Value
Well Fluid Density	9.9 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	857 bbls
Rig Circulation Time	1.5 hours
Calculated Displacement	182.6 bbls
Actual Displacement	182.6 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	9.9 lb/gal
Well Fluid Density Out of Well	9.9 lb/gal

### Job Details (cont.)

Metrics	Value
BHCT	202 °F
BHST	267 °F

### Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	65 °F	50-80 °F
pH Level	7	5.5-8.5
Chlorides	100 mg/L	0-3000 mg/L
Total Alkalinity	120	0-1000
Total Hardness	120 mg/L	0-500 mg/L
Carbonates	N/A mg/L	0-100 mg/L
Sulfates	200 mg/L	0-1500 mg/L
Potassium	200 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 (sk)	Volume (bbl)	Designed Top (ft)
1	Water	Flush	8.34			42.00		10.00	2414
2	Mud Flush	Flush	8.45			40.86		20.00	2587
3	Water	Flush	8.34			42.00		10.00	2934
4	Scavenger	Scavenger	11.00	3.13	19.19		488.00	272.20	3107
5	Lead	Lead	12.70	2.13	11.42		264.00	100.07	6591
6	Tail	Tail	13.50	2.01	9.72		858.00	307.02	7852
7	Displacement	DisplacementFinal	8.34			42.00		182.00	0

### Job Fluid Details

Fluid	Type	Fluid	Product	Function	Conc.	Uom
2	Flush	Mud Flush	SAPP	Surfactant	10.00	lb/bbl
2	Flush	Mud Flush	SS-201	Surfactant	0.50	gal/bbl
4	Scavenger	Scavenger	CLASS G	Cement	65.00	%
4	Scavenger	Scavenger	FLY ASH (POZZOLAN)	Extender	35.00	%
4	Scavenger	Scavenger	BENTONITE	Viscosifier	8.00	%BWOB
4	Scavenger	Scavenger	GW-86	Viscosifier	0.20	%BWOB
4	Scavenger	Scavenger	IntegraSeal PHENO	LostCirculation	3.00	lb/sk
4	Scavenger	Scavenger	R-7C	Retarder	0.25	%BWOB
4	Scavenger	Scavenger	XCem-308	Defoamer	0.30	%BWOB
5	Lead	Lead	ASTM TYPE IL	Cement	100.00	%
5	Lead	Lead	A-2	Accelerator	0.10	%BWOB
5	Lead	Lead	FL-66	FluidLoss	0.20	%BWOB
5	Lead	Lead	GW-86	Viscosifier	0.10	%BWOB
5	Lead	Lead	IntegraSeal PHENO	LostCirculation	3.00	lb/sk
5	Lead	Lead	IntegraSeal POLI	LostCirculation	0.25	lb/sk
5	Lead	Lead	R-3	Retarder	0.60	%BWOB
5	Lead	Lead	STATIC FREE	Other	0.01	lb/sk
5	Lead	Lead	XCem-1009	Extender	10.00	lb/sk
5	Lead	Lead	XCem-308	Defoamer	0.30	%BWOB
6	Tail	Tail	CLASS G	Cement	70.00	%



Fluid	Type	Fluid	Product	Function	Conc.	Uom
6	Tail	Tail	FLY ASH (POZZOLAN)	Extender	30.00	%
6	Tail	Tail	BENTONITE	Viscosifier	8.00	%BWOB
6	Tail	Tail	FL-24	FluidLoss	0.40	%BWOB
6	Tail	Tail	IntegraSeal PHENO	LostCirculation	3.00	lb/sk
6	Tail	Tail	S-8	StrengthRetrogression	26.00	%BWOB
6	Tail	Tail	XCem-308	Defoamer	0.30	%BWOB
6	Tail	Tail	XCem-916	Retarder	0.30	%BWOB

## Job Logs

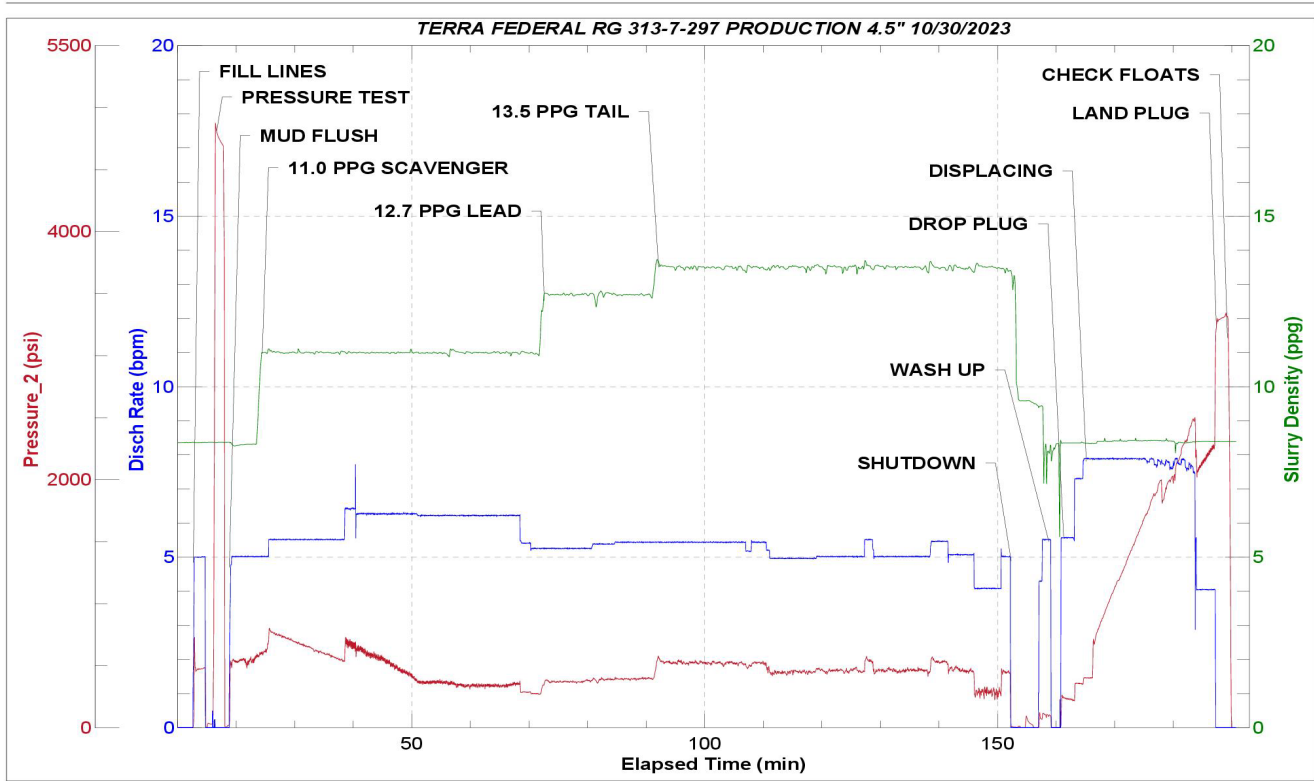
Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
1	Callout	10/29/2023	23:15					CREW CALLED OUT FOR ON LOCATION OF 6:00 10/30
2	Depart Location	10/29/2023	23:30					DEPART RCO YARD FOR LOCATION
3	Arrive On Location	10/30/2023	03:00					ARRIVE ON LOCATION. RIG RUNNING CASING
4	Safety Meeting	10/30/2023	06:00					PRE RIG UP JSA. SPOT EQUIPMENT
5	Rig Up Iron	10/30/2023	06:30					RIG UP ALL IRON, HOSES, AND EQUIPMENT
6	Standby	10/30/2023	09:00					WAITING ON RIG TO FINISH RUNNING CASING AND CIRCULATE. RIG LANDED CASING @ 10:00. RIG CIRCULATED FOR 1.5 HOURS. TOTAL VOLUME 857 BBLs. FINISH RIGGING UP HEAD AND FLOOR.
7	Safety Meeting	10/30/2023	11:30					PRE JOB SAFETY MEETING WITH RIG CREW AND COMPANY MAN.
8	Fill Lines	10/30/2023	12:13	8.34	5	10	775	FILL LINES WITH 10 BBLs OF FRESHWATER. FULL RETURNS
9	Pressure Test Lines	10/30/2023	12:16	8.34	1	1	4915	PRESSURE TEST PUMP AND IRON.
10	Pump Spacer	10/30/2023	12:19	8.45	5	0	501	BEGIN PUMPING MUD FLUSH + SURFACTANT.
11	Pump Spacer	10/30/2023	12:23	8.45	5	20	554	PUMP 20 BBLs MUD FLUSH + SURFACTANT PUMPED. FULL RETURNS
12	Pump Spacer	10/30/2023	12:23	8.34	5	0	525	PUMP 10 BBLs FRESHWATER FLUSH
13	Pump Cement	10/30/2023	12:25	11	5	0	628	BEGIN PUMPING 11.0 PPG, 3.13YLD 19.2MW SCAVENGER CEMENT. WEIGHT VERIFIED BY MUD SCALE.
14	Pump Cement	10/30/2023	12:34	11	5.5	50	622	50 BBLs SCAVENGER PUMPED
15	Pump Cement	10/30/2023	12:43	11	6.3	50	578	100 BBLs SCAVENGER PUMPED
16	Pump Cement	10/30/2023	12:51	11	6.3	50	401	150 BBLs SCAVENGER PUMPED
17	Pump Cement	10/30/2023	12:59	11	6.3	50	353	200 BBLs SCAVENGER PUMPED
18	Pump Cement	10/30/2023	13:07	11	6.3	50	353	250 BBL SCAVENGER PUMPED
19	Pump Cement	10/30/2023	13:10	11	5.5	22	298	272 BBLs (488 SKS) TOTAL SCAVENGER PUMPED.
20	Pump Lead Cement	10/30/2023	13:11	12.7	5.3	0	401	BEGIN PUMPING 12.7 PPG, 2.13YLD, 11.4MW LEAD CEMENT. WEIGHT VERIFIED BY MUD SCALE.
21	Pump Lead Cement	10/30/2023	13:21	12.7	5.3	50	389	50 BBLs LEAD PUMPED.
22	Pump Lead Cement	10/30/2023	13:31	12.7	5.5	50	420	100 BBLs (264 SKS) TOTAL LEAD PUMPED.
23	Pump Tail Cement	10/30/2023	13:31	13.5	5.5	0	454	BEGIN PUMPING 13.5 PPG, 2.01YLD 9.7MW TAIL CEMENT. WEIGHT VERIFIED BY MUD SCALE.
24	Pump Tail Cement	10/30/2023	13:40	13.5	5.5	50	548	50 BBLs TAIL PUMPED
25	Pump Tail Cement	10/30/2023	13:49	13.5	5.5	50	544	100 BBLs TAIL PUMPED
26	Pump Tail Cement	10/30/2023	13:59	13.5	5	50	498	150 BBLs TAIL PUMPED
27	Pump Tail Cement	10/30/2023	14:09	13.5	5	50	463	200 BBLs TAIL PUMPED



28	Pump Tail Cement	10/30/2023	14:19	13.5	5.5	50	565	250 BBLS TAIL PUMPED
29	Pump Tail Cement	10/30/2023	14:31	13.5	5	57	470	307 BBLS (858 SKS) TOTAL TAIL PUMPED
30	Shutdown	10/30/2023	14:31	13.5				SHUTDOWN. VALVE HEAD AND MANIFOLD TO CLEAR LINE AND WASH UP.
31	Drop Top Plug	10/30/2023	14:39					DROP PLUG, WITNESSED BY COMPANY MAN AND DRILLER.
32	Pump Displacement	10/30/2023	14:39	8.34	5.5	0	263	BEGIN FRESHWATER KCL DISPLACEMENT.
33	Pump Displacement	10/30/2023	14:47	8.34	8	50	905	50 BBLS DISPLACEMENT PUMPED. CAUGHT PLUG @ 35 BBLS.
34	Pump Displacement	10/30/2023	14:54	8.34	8	50	1660	100 BBLS DISPLACEMENT PUMPED.
35	Pump Displacement	10/30/2023	15:00	8.34	8	50	2252	150 BBLS DISPLACEMENT PUMPED. MAX LIFT BEFORE SLOWDOWN 2516 PSI @ 8 BPM
36	Pump Displacement	10/30/2023	15:06	8.34	4	32.6	2303	182.6 (CALCULATED) DISPLACEMENT PUMPED.
37	Land Plug	10/30/2023	15:06				3320	PLUG LANDED FCP-2190 PSI BUMPED TO 3080 PSI
38	Check Floats	10/30/2023	15:09					BLEED PRESSURE OFF AND CHECK FLOATS, FLOATS HELD 2 BBLS BACK
39	Rig Down Iron	10/30/2023	15:30					PRE RIG DOWN SAFETY MEETING. RIG DOWN EQUIPMENT, IRON AND HOSES
40	Depart Location	10/30/2023	17:45					CREW DEPARTS LOCATION

# Pump Diagrams

JobMaster Program Version 5.01C1  
Job Number: 89033  
Customer: TERRA  
Well Name: FEDERAL RG 313-7-297



Job Start: Monday, October 30, 2023