



# **Terra Energy Partners, LLC**

## **SURFACE POST JOB REPORT**

**WMC 11-19-793 05-045-24550**  
**S:19 T:7S R:93W Garfield CO**

CallSheet #: 86316  
Proposal #: 67841



**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	80	500	16
Open Hole	Outer	n/a	13.5	n/a	n/a	500	1134	16
Casing	Inner	9.625	8.921	36	n/a	0	1134	0

### Equipment / People

Unit Type	Unit	Power Unit	Employee #1	Employee #2
Cement Trailer Float	CTF-161	TRC-054	Hutchinson, Michael	Jackson, Duewayne
Light Duty Vehicles	LDV-082		Kelsey, John	
Cement Pump Float	CPF-053	TRH-964	Carrasco, Joel	

### Timing

Event	Date/Time
ERTS	00/24/2023 00:00
Call Out	3/24/2023 00:00
Depart Facility	3/24/2023 03:00
On Location	3/24/2023 04:00
Rig Up Iron	3/24/2023 04:30
Job Started	3/24/2023 08:30
Job Completed	3/24/2023 09:15
Rig Down Iron	3/24/2023 10:20
Depart Location	3/24/2023 11:00

### General Job Information

Metrics	Value
Well Fluid Density	9.2 lb/gal
Well Fluid Type	wbm
Rig Circulation Vol	100 bbls
Rig Circulation Time	0.5 hours
Calculated Displacement	84 bbls
Actual Displacement	84 bbls
Total Spacer to Surface	20 bbls
Total CMT to Surface	25 bbls
Well Topped Out	n/a

### Job Details

Metrics	Value
Flare Prior to Job	No
Flare Prior to Job	- units
Flare During Job	No
Flare During Job	- units
Flare at End of Job	No
Flare at End of Job	- 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	65 °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	450 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		165.00	65.04	0
3	Tail	Tail	12.80	1.97	10.87		191.00	66.85	500
4	Water	DisplacementFinal	8.34			42.00		84.00	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	ATHX-1102	Thixotropic	1.00	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 I/II	Cement	100.00	%
3	Tail	Tail	A-7P	Accelerator	2.00	lb/sk
3	Tail	Tail	ATHX-1102	Thixotropic	1.00	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

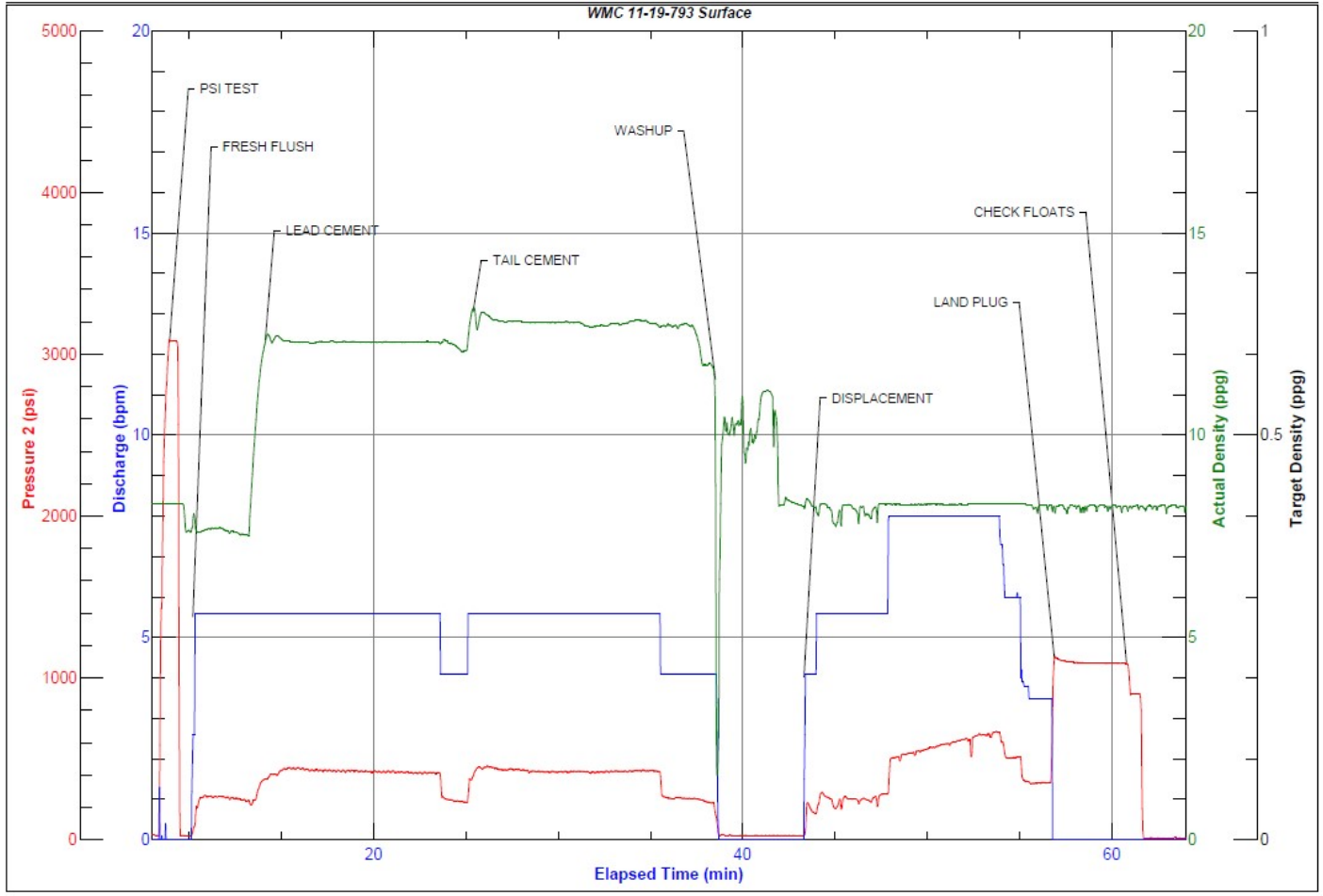
## Job Logs

Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
1	CALLOUT	3/24/2023	00:00					CREW CALLED TO PREPARE FOR A SURFACE CEMENT JOB. RTS IS 5:00
2	SAFETY MEETING	3/24/2023	02:45					JOURNEY MANAGEMENT MEETING
3	DEPART YARD	3/24/2023	03:00					CREW DEPARTS RIFLE, CO YARD FOR LOCATION
4	ARRIVE ON LOCATION	3/24/2023	04:00					ARRIVE ON LOCATION, VERIFY JOB PROCEDURES WITH CUSTOMER
5	SAFETY MEETING	3/24/2023	04:10					RIG UP MEETING
6	SPOT UNITS	3/24/2023	04:20					SPOT ALL EQUIPMENT FOR RIG UP
7	RIG UP	3/24/2023	04:30					RIG UP ALL EQUIPMENT
8	STANDBY	3/24/2023	05:00					CREW ON STANDBY WHILE RIG RUNS CASING
9	SAFETY MEETING	3/24/2023	08:00					PRE JOB MEETING WITH ALL CREWS INVOLVED
10	LOAD LINES	3/24/2023	08:30	8.34	2.5	3	106	LOAD LINES FOR PSI TEST
11	PRESSURE TEST	3/24/2023	08:32	8.34	1	1	3098	PSI TEST PUMP AND LINES TO CEMENT HEAD
12	FRESH FLUSH	3/24/2023	08:33	8.34	5.5	20	299	20 BBLS FRESH FLUSH
13	LEAD CEMENT	3/24/2023	08:37	12.3	5.5	10	400	65 BBLS Lead CMT – 12.3 # 2.21 Y 12.7 MW 165 sks 10 BBLS AWAY
14	LEAD CEMENT	3/24/2023	08:41	12.3	5.5	10	403	20 BBLS AWAY
15	LEAD CEMENT	3/24/2023	08:45	12.3	5.5	20	405	40 BBLS AWAY
16	LEAD CEMENT	3/24/2023	08:48	12.3	4	25	200	65 BBLS AWAY SWAP TO TAIL CEMENT
17	TAIL CEMENT	3/24/2023	08:49	12.8	5.5	10	400	67 BBLS Tail CMT – 12.8 # 1.97 Y 10.9 MW 191 sks 10 BBLS AWAY
18	TAIL CEMENT	3/24/2023	08:53	12.8	5.5	10	421	20 BBLS AWAY
19	TAIL CEMENT	3/24/2023	08:58	12.8	5.5	20	420	40 BBLS AWAY
20	TAIL CEMENT	3/24/2023	09:02	12.8	4	27	256	67 BBLS AWAY SHUTDOWN FOR WASHUP
21	WASHUP	3/24/2023	09:07					WASHUP THEN DROP PLUG
22	DISPLACEMENT	3/24/2023	09:10	8.34	5.5	10	266	SEND PLUG AND BEGIN DISPLACEMENT 10 BBLS AWAY
23	DISPLACEMENT	3/24/2023	09:11	8.34	8	10	504	20 BBLS AWAY
24	DISPLACEMENT	3/24/2023	09:12	8.34	8	20	550	40 BBLS AWAY
25	DISPLACEMENT	3/24/2023	09:15	8.34	8	20	548	60 BBLS AWAY
26	LAND PLUG	3/24/2023	09:20	8.34	3.5	25	380	85 BBLS AWAY LAND PLUG UP TO 1140 PSI ESTIMATED 25 BBLS CEMENT TO SURFACE
27	CHECK FLOATS	3/24/2023	09:24					CHECK FLOATS, FLOATS HELD WITH .5 BBLS BACK
28	CASING TEST	3/24/2023	09:30	8.34	1	1	1184	INITIAL PRESSURE UP TO 1247 AND WAIT FOR IT TO SETTLE FOR 8 MINS, BEGIN CASING TEST AT 9:38 AND 1184 PSI AND HOLD FOR 30 MINS
29	CHECK FLOATS	3/24/2023	10:08				1069	END CASING TEST AT 10:08 AND 1069 PSI
30	SAFETY MEETING	3/24/2023	10:10					RIG DOWN MEETING
31	RIG DOWN	3/24/2023	10:20					RIG DOWN ALL EQUIPMENT
32	SAFETY MEETING	3/24/2023	10:50					JOURNEY MANAGEMENT MEETING
33	DEPART LOCATION	3/24/2023	11:00					CREW DEPARTS LOCATION

# Pump Diagrams



JobMaster Program Version 5.01C1  
Job Number: 86316  
Customer: Terra  
Well Name: WMC 11-19-793



Job Start: Friday, March 24, 2023