



Terra Energy Partners, LLC

SURFACE POST JOB REPORT

FEDERAL #WMC 531-20 05-045-24498
S:17 T:7S R:93W Garfield CO

CallSheet #: 84587
Proposal #: 65050



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

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,

Holly Mbugua

Field Engineer II | (720) 505-1300 | holly.mbugua@americancementing.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	19.5	53	n/a	0	85	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	1143	16
Casing	Inner	9.625	8.921	36	n/a	0	1133	0

Equipment / People

Unit Type	Unit	Power Unit	Employee #1
Cement Trailer Float	CTF-280	TRC-059	Burton, Devin
Light Duty Vehicles	LDV-061		Billman, Robert
Cement Pump Float	CPF-058	TRH-959	Hale, Jason

Timing

Event	Date/Time
Call Out	11/24/2022 23:00
Depart Facility	11/25/2022 03:00
On Location	11/25/2022 05:00
Rig Up Iron	11/25/2022 05:30
Job Started	11/25/2022 09:15
Job Completed	11/25/2022 10:01
Rig Down Iron	11/25/2022 10:30
Depart Location	11/25/2022 12:00

General Job Information

Metrics	Value
Well Fluid Density	9 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	473 bbls
Rig Circulation Time	0.75 hours
Calculated Displacement	84 bbls
Actual Displacement	84 bbls
Total Spacer to Surface	20 bbls
Total CMT to Surface	34 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	98 °F

Water Analysis

Metrics	Value	Recommended
Water Source	None	
Temperature	48 °F	50-80 °F
pH Level	8	5.5-8.5
Chlorides	1500 mg/L	0-3000 mg/L
Total Alkalinity	0	0-1000
Total Hardness	0 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 ³ /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		188.00	65.80	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

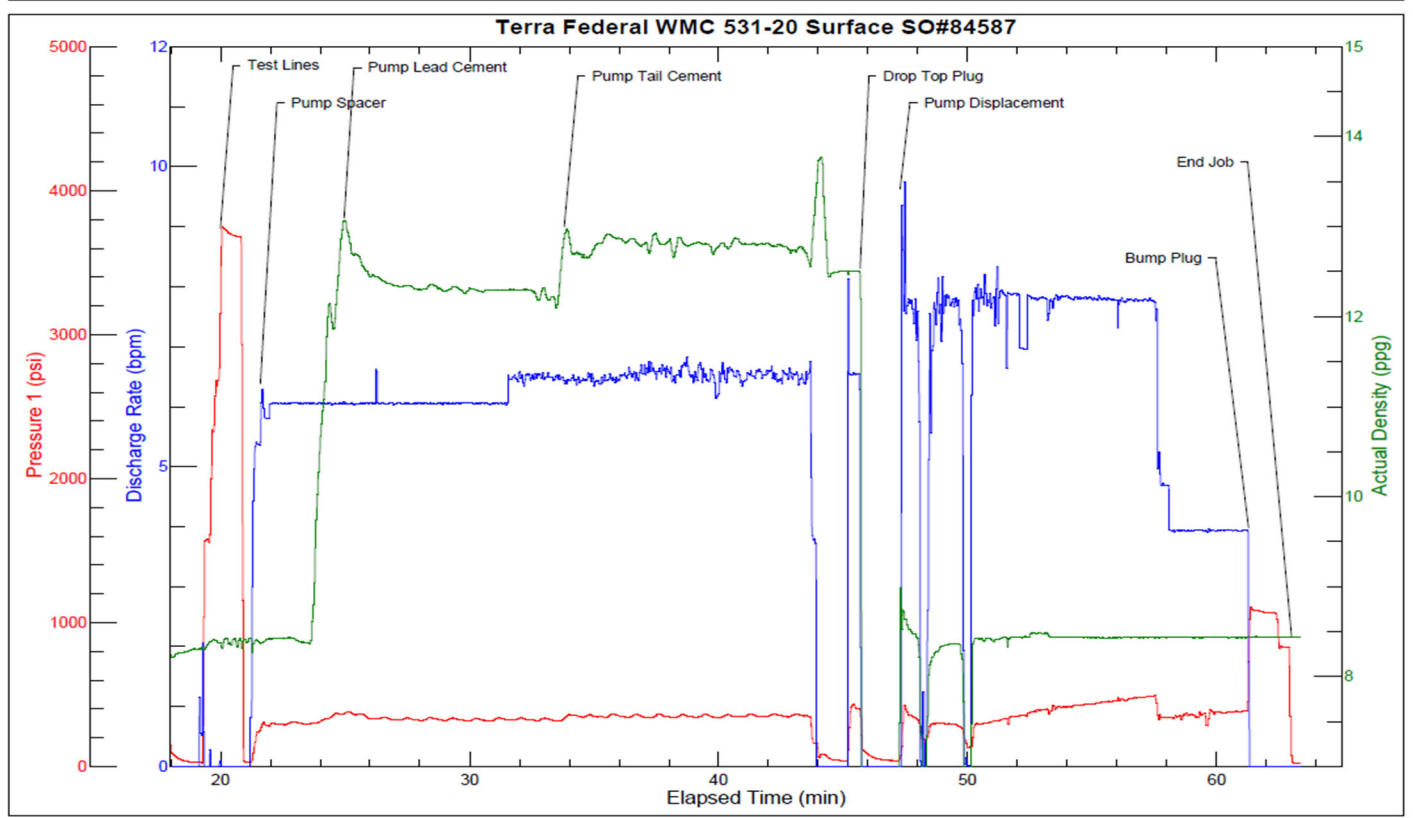
Job Logs

Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
1	Call Out	11/24/2022	23:00					
2	Safety Meeting	11/25/2022	02:30					Pre-Convoy Safety Meeting
3	Depart Service Center	11/25/2022	03:00					
4	Arrive At Location	11/25/2022	05:00					Requested on location @ 05:00
5	Safety Meeting	11/25/2022	05:15					Pre-Rig- Up Safety Meeting
6	Rig- Up Equipment	11/25/2022	05:30					
7	Standby	11/25/2022	06:00					Wait for rig to finish running 1136.72' of 9 5/8 36# casing with a 44.18' shoe trac
8	Other	11/25/2022	08:00					Casing on bottom, start circulating through CRT with 9# WBM 10.5bbl/min @ 140psi. Pumped 473bbls
9	Safety Meeting	11/25/2022	08:45					Pre Job-Safety Meeting
10	Start Job	11/25/2022	09:15					
11	Test Lines	11/25/2022	09:17					3000psi
12	Pump Spacer	11/25/2022	09:19	8.33	6	20	280	Pump 20bbls Fresh Water 6bbl/min @ 280psi
13	Pump Lead Cement	11/25/2022	09:23	12.3	6	65	370	Pump 65bbls Type I/II Cement 12.3# 6bbl/min @ 370psi, 12.2# Verified on mud scale
14	Pump Tail Cement	11/25/2022	09:32	12.8	6.5	66	350	Pump 66bbls Type I/II Cement 12.8# 6.5bbl/min @ 350psi. 12.8# Verified on mud scale
15	Drop Top Plug	11/25/2022	09:44					Weatherford Top Plug
16	Pump Displacement	11/25/2022	09:45	8.33		84		Pump 84bbls Fresh Water. Got 34bbls, 86sks of cement back to surface
17	Other	11/25/2022	09:50	8.33	8	20	340	20bbls gone 8bbl/min @ 340psi
18	Other	11/25/2022	09:53	8.33	8	40	430	40bbls gone 8bbl/min @ 430psi
19	Other	11/25/2022	09:56	8.33	7.5	60	480	60bbls gone 7.5bbl/min @ 480psi
20	Bump Plug	11/25/2022	10:00	8.33	4	84	1070	380-1070psi
21	End Job	11/25/2022	10:01					Bled back .5bbl, floats holding
22	Safety Meeting	11/25/2022	10:15					Pre-Rig- Down Safety Meeting
23	Rig- Down Equipment	11/25/2022	10:30					
24	Safety Meeting	11/25/2022	11:30					Pre-Convoy Safety Meeting
25	Depart Location	11/25/2022	12:00					

Pump Diagrams



JobMaster Program Version 5.01C1
Job Number: Surface
Customer: Terra
Well Name: Federal WMC 531-20



Job Start: Friday, November 25, 2022