



Terra Energy Partners, LLC

SURFACE POST JOB REPORT

FEDERAL NR 431-3 05-045-24473
S:3 T:6S R:94W Garfield CO

CallSheet #: 81648
Proposal #: 60106



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 | holly.mbugua@americacementing.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	19.124	78.67	n/a	0	83	0
Open Hole	Outer	n/a	13.5	n/a	n/a	120	500	16
Open Hole	Outer	n/a	13.5	n/a	n/a	500	1119	16
Casing	Inner	9.625	8.921	36	n/a	0	1119	0

Equipment / People

Unit Type	Unit	Power Unit	Employee #1
Cement Trailer Float	CTF-254	TRC(TRB)-424	Carrasco, Joel
Cement Pump Float	CPF-058	TRH-959	Hale, Jason
Light Duty Vehicles	LDV-082		Kelsey, John

Timing

Event	Date/Time
Call Out	5/24/2022 09:00
Depart Facility	5/24/2022 11:30
On Location	5/24/2022 12:15
Rig Up Iron	5/24/2022 12:40
Job Started	5/24/2022 17:17
Job Completed	5/24/2022 18:14
Rig Down Iron	5/24/2022 18:20
Depart Location	5/24/2022 19:10

General Job Information

Metrics	Value
Well Fluid Density	9 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	300 bbls
Rig Circulation Time	0.5 hours
Calculated Displacement	86.5 bbls
Actual Displacement	86.5 bbls
Total Spacer to Surface	20 bbls
Total CMT to Surface	30 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 lb/gal
Well Fluid Density Out of Well	9 lb/gal

Job Details (cont.)

Metrics	Value
BHCT	80 °F
BHST	97 °F

Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	48 °F	50-80 °F
pH Level	6	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 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		179.00	70.56	0
3	Tail	Tail	12.80	1.97	10.87		183.00	64.05	500
4	Water	DisplacementFinal	8.34			42.00		82.00	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	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
2	Lead	Lead	XCem-1101	Thixotropic	1.00	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	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
3	Tail	Tail	XCem-1101	Thixotropic	1.00	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	5/24/2022	09:00					crew called to prepare for a surface cement job. RTS is 15:00
2	safety meeting	5/24/2022	11:15					journey management meeting
3	depart yard	5/24/2022	11:30					crew leaves Rifle, CO yard for location
4	arrive on location	5/24/2022	12:15					arrive on location, verify all proper equipment products and job procedures with customer
5	safety meeting	5/24/2022	12:20					rig up meeting
6	spot units	5/24/2022	12:30					spot units for rig up
7	rig up	5/24/2022	12:40					rig up all equipment
8	standby	5/24/2022	13:30					crew on standby while rig runs casing
9	safety meeting	5/24/2022	17:10					pre job meeting with all crews involved
10	Load lines	5/24/2022	17:17	8.34	4	2	150	load lines for psi test
11	pressure test	5/24/2022	17:18	8.34	1	1	3600	psi test pump and lines to cement head
12	flush	5/24/2022	17:19	8.34	5	20	240	20 bbls fresh flush
13	Lead cement	5/24/2022	17:24	12.4	5	10	360	70 BBLS Lead CMT – 12.3 # 2.21 Y 12.7 MW 179 sks 10 bbls away
14	Lead cement	5/24/2022	17:30	12.4	5	20	346	30 bbls away
15	Lead cement	5/24/2022	17:36	12.4	5	40	358	70 bbls away swap to tail cement
16	Tail cement	5/24/2022	17:40	12.8	5	10	370	64 BBLS Tail CMT – 12.8 # 1.97 Y 10.9 MW 183 sks 10 bbls away
17	Tail cement	5/24/2022	17:46	12.8	5	20	390	30 bbls away
18	Tail cement	5/24/2022	17:53	12.8	5	34	399	64 bbls away
19	washup	5/24/2022	17:54					Washup pump and drop plug
20	Displacement	5/24/2022	17:56	8.34	6	10	270	send plug and begin displacement 10 bbls away
21	Displacement	5/24/2022	18:00	8.34	6	10	280	20 bbls away
22	Displacement	5/24/2022	18:04	8.34	5.6	20	400	40 bbls away
23	Displacement	5/24/2022	18:08	8.34	5.6	20	450	60 bbls away
24	Land Plug	5/24/2022	18:13	8.34	2.8	26.5	300	86.5 bbls away land plug
25	Check Floats	5/24/2022	18:14					Check floats floats held with .5 bbl back
26	safety meeting	5/24/2022	18:16					rig down meeting
27	Rig Down	5/24/2022	18:20					rig down all equipment
28	safety meeting	5/24/2022	19:00					journey management meeting
29	Depart Location	5/24/2022	19:10					crew departs location Estimated 30 bbls cement to surface

Pump Diagrams



JobMaster Program Version 5.01C1

Job Number: 81648

Customer: Terra

Well Name: Fed NR 431-3

