



Terra Energy Partners, LLC

LONG STRING POST JOB REPORT

FEDERAL NR 43-4 05-045-24462
S:3 T:6S R:94W Garfield CO

CallSheet #: 81357
Proposal #: 59402



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

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,

Zen Keith

SME | (307) 757-7178 | zen.keith@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	9.625	8.921	36	n/a	0	1128	0
Open Hole	Outer	n/a	8.75	n/a	n/a	1128	8177	45
Open Hole	Outer	n/a	8.75	n/a	n/a	8177	10847	45
Casing	Inner	4.5	4	11.6	n/a	0	10847	0

Timing

Event	Date/Time
Call Out	5/8/2022 13:27
Depart Facility	5/8/2022 20:14
On Location	5/8/2022 20:47
Rig Up Iron	5/8/2022 20:55
Job Started	5/9/2022 04:25
Job Completed	5/9/2022 07:53
Rig Down Iron	5/9/2022 07:57
Depart Location	5/9/2022 08:39

Equipment / People

Unit Type	Unit	Power Unit	Employee #1
Field Storage Silo	FSS(CTS)-438		
Field Storage Silo	FSS(CTS)-470		
Cement Trailer Float	CTF-263	TRC(TRB)-090	Kirchenwitz, Jacob
AS Cement Trailer Float	CTF-9309	TRC(TRB)-201	
AS Cement Trailer Float	CTF-7145	TRB-421	
AS Cement Trailer Float	CTF(FTF)-148	TRC(TRB)-201	
Cement Pump Float	CPF-012	TRH-964	Gonzales, Ivan
Light Duty Vehicles	LDV-062		Lancaster, Stephen

General Job Information

Metrics	Value
Well Fluid Density	10.9 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	241 bbls
Rig Circulation Time	0.8 hours
Calculated Displacement	168 bbls
Actual Displacement	168 bbls
Total Spacer to Surface	0 bbls
Total CMT to Surface	0 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	10.9 lb/gal
Well Fluid Density Out of Well	10.9 lb/gal

Job Details (cont.)

Metrics	Value
BHCT	192 °F
BHST	253 °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	84 mg/L	0-3000 mg/L
Total Alkalinity	130	0-1000
Total Hardness	70 mg/L	0-500 mg/L
Carbonates	n/a mg/L	0-100 mg/L
Sulfates	200 mg/L	0-1500 mg/L
Potassium	450 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 (sk)	Volume (bbl)	Designed Top (ft)
1	Water	Flush	8.34			42.00		10.00	5844
2	Mud Flush	Flush	8.45			40.86		20.00	5970
3	Water	Flush	8.34			42.00		10.00	6222
4	12.7 Lead	Lead	12.70	2.00	10.99		407.00	145.15	6348
5	14.2 Tail	Tail	14.20	1.72	8.09		749.00	229.63	8177
6	Displacement	DisplacementFinal	8.34			42.00		172.00	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	Lead	12.7 Lead	ASTM TYPE I/II	Cement	100.00	%
4	Lead	12.7 Lead	BA-90	BondEnhancer	3.00	lb/sk
4	Lead	12.7 Lead	FL-66	FluidLoss	0.50	%BWOB
4	Lead	12.7 Lead	FP-24	Defoamer	0.30	%BWOB
4	Lead	12.7 Lead	GW-86	Viscosifier	0.10	%BWOB
4	Lead	12.7 Lead	IntegraSeal POLI	LostCirculation	0.25	lb/sk
4	Lead	12.7 Lead	R-3	Retarder	0.45	%BWOB
4	Lead	12.7 Lead	STATIC FREE	Other	0.01	lb/sk
5	Tail	14.2 Tail	CLASS G	Cement	80.00	%
5	Tail	14.2 Tail	FLY ASH (POZZOLAN)	Extender	20.00	%
5	Tail	14.2 Tail	FL-66	FluidLoss	0.40	%BWOB
5	Tail	14.2 Tail	FP-24	Defoamer	0.30	%BWOB
5	Tail	14.2 Tail	GW-86	Viscosifier	0.10	%BWOB
5	Tail	14.2 Tail	IntegraSeal POLI	LostCirculation	0.25	lb/sk
5	Tail	14.2 Tail	R-3	Retarder	0.15	%BWOB
5	Tail	14.2 Tail	S-8	StrengthRetrogression	27.00	%BWOB

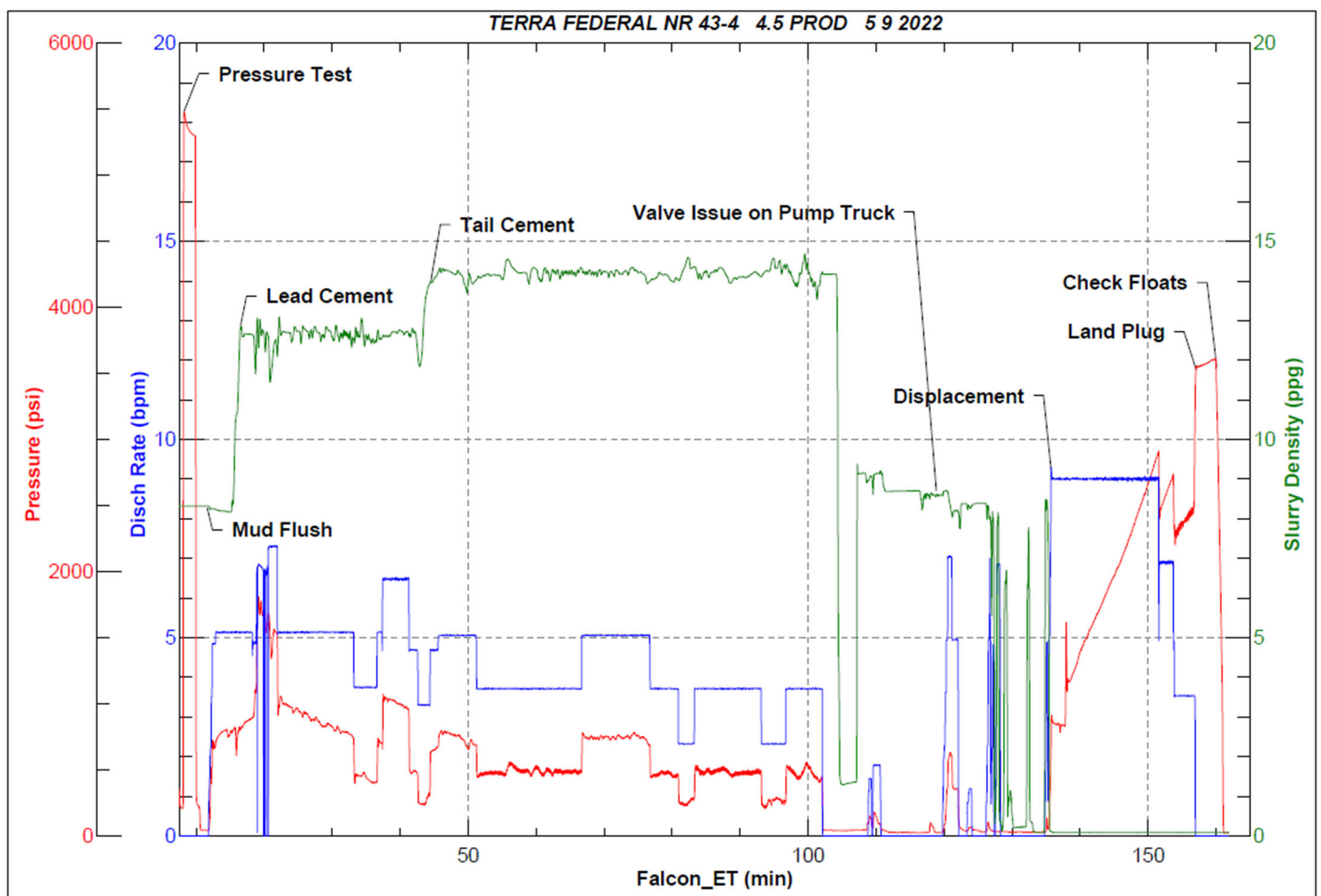
Job Logs

Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
1	Callout	5/8/2022	13:27					CREW CALLED OUT FOR ON LOCATION TIME OF 22:00 5/8/22
2	Depart Location	5/8/2022	20:14					DEPART RCO YARD FOR LOCATION
3	Arrive On Location	5/8/2022	20:47					ARRIVE ON CUSTOMER SITE
4	Rig Up Iron	5/8/2022	20:55					RIG UP IRON AND HOSES
5	Safety Meeting	5/9/2022	04:25					JSA SAFETY MEETING WITH AC CREW, RIG HANDS, AND CUSTOMER REP
6	Fill Lines	5/9/2022	05:15	8.34	5	10		FILL LINES WITH FRESH WATER
7	Pressure Test Lines	5/9/2022	05:20	8.34	2	1	5000	PRESSURE TEST PUMP AND LINES TO 5000 PSI
8	Other	5/9/2022	05:29	8.45	5	20	667	PUMP MUD FLUSH + SURFACTANT
9	Other	5/9/2022	05:35	8.34	3	10	657	PUMP FRESH WATER FLUSH
10	Pump Lead Cement	5/9/2022	05:36	12.7	5.1	10	737	BEGIN PUMPING LEAD CEMENT. DENSITY VERIFIED WITH MUD SCALE
11	Pump Lead Cement	5/9/2022	05:44	12.7	5.1	50	878	50 BBLS LEAD CEMENT PUMPED
12	Pump Lead Cement	5/9/2022	05:55	12.7	6.5	100	1041	100 BBLS LEAD CEMENT PUMPED
13	Pump Lead Cement	5/9/2022	06:01	12.7	4.7	145	477	145 BBLS LEAD CEMENT PUMPED/ SWAP TO TAIL
14	Pump Tail Cement	5/9/2022	06:02	14.2	3.7	10	432	BEGIN PUMPING TAIL CEMENT. DENSITY VERIFIED WITH MUD SCALE
15	Pump Tail Cement	5/9/2022	06:11	14.2	3.7	50	458	50 BBLS TAIL CEMENT PUMPED
16	Pump Tail Cement	5/9/2022	06:25	14.2	5.1	100	731	100 BBLS TAIL CEMENT PUMPED
17	Pump Tail Cement	5/9/2022	06:35	14.2	3.7	150	488	150 BBLS TAIL CEMENT PUMPED
18	Pump Tail Cement	5/9/2022	06:48	14.2	3.7	200	497	200 BBLS TAIL CEMENT PUMPED
19	Pump Tail Cement	5/9/2022	06:58	14.2	3.7	230	360	230 BBLS TAIL CEMENT PUMPED
20	Clean Pumps and Lines	5/9/2022	06:59					SHUT DOWN, WASH UP PUMP AND LINES
21	Drop Top Plug	5/9/2022	07:02	9	4	10	842	DROP PLUG, VERIFIED BY CUSTOMER REP. BEGIN KCL DISPLACEMENT. ISSUE WITH STUCK VALVE ON PUMP TRUCK LED TO DELAY IN STARTING DISPLACEMENT
22	Pump Displacement	5/9/2022	07:38	8.34	9	50	1492	50 BBLS KCL DISPLACEMENT PUMPED
23	Pump Displacement	5/9/2022	07:42	8.34	9	100	2271	100 BBLS KCL DISPLACEMENT PUMPED
24	Pump Displacement	5/9/2022	07:49	8.34	6.9	150	2572	150 BBLS KCL DISPLACEMENT PUMPED,
25	Pump Displacement	5/9/2022	07:53	8.34	3.5	168	2437	168 BBLS KCL DISPLACEMENT PUMPED, SLOWED RATE LAST 10 BBLS TO 3.5 BPM
26	Land Plug	5/9/2022	07:53	8.34	3.5	168	3554	LAND PLUG. FCP - 2554 PSI, BUMPED TO 3554 PSI
27	Check Floats	5/9/2022	07:55					CHECK FLOATS. FLOATS HELD, 2 BBLS BACK
28	Rig Down Iron	5/9/2022	07:57					RIG DOWN IRON AND HOSES
29	Depart Location	5/9/2022	08:39					DEPART LOCATION FOR RCO YARD

Pump Diagrams



JobMaster Program Version 5.01C1
Job Number: 81357
Customer: TERRA
Well Name: FEDERAL NR 43-4



Job Start: Monday, May 09, 2022