



Terra Energy Partners, LLC

LONG STRING POST JOB REPORT

Leverich SR 24-13 05-045-24563
S:13 T:7S R:94W Garfield CO

CallSheet #: 87461
Proposal #: 69699



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,

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	9.625	8.921	36	n/a	0	1175	0
Open Hole	Outer	n/a	8.75	n/a	n/a	1175	7360	85
Open Hole	Outer	n/a	8.75	n/a	n/a	7360	10476.58	50
Casing	Inner	4.5	3.92	13.5	n/a	0	10487	0

Equipment / People

Unit Type	Unit	Power Unit	Employee #1	Employee #2
Field Storage Silo	FSS-470			
Field Storage Silo	FSS-438			
Cement Trailer Float	CTF-273	TRC-180	Jackson, Duesdayne	Ridgeway, Danny
Cement Pump Float	CPF-052	TRH-964	Carrasco, Joel	Schiro, Aaron
Light Duty Vehicles	LDV-083		Lancaster, Stephen	
Cement Utility Float	CUF-285			
Light Duty Vehicles	LDV-061		Woronovitch, Collin	
Cement Pump Float	CPF-053	TRH-959	Bradbrook, Jeremy	

Timing

Event	Date/Time
ERTS	00/22/2023 00:00
Call Out	6/23/2023 09:20
Depart Facility	6/23/2023 14:10
On Location	6/23/2023 14:50
Rig Up Iron	6/23/2023 15:20
Job Started	6/23/2023 18:20
Job Completed	6/23/2023 21:37
Rig Down Iron	6/23/2023 21:50
Depart Location	6/24/2023 00:00

General Job Information

Metrics	Value
Well Fluid Density	8.9 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	1059 bbls
Rig Circulation Time	1.5 hours
Calculated Displacement	155.4 bbls
Actual Displacement	155.4 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	8.9 lb/gal
Well Fluid Density Out of Well	8.9 lb/gal

Job Details (cont.)

Metrics	Value
BHCT	172 °F
BHST	229 °F

Water Analysis

Metrics	Value	Recommended
Water Source	Upright Rig Tank	
Temperature	69 °F	50-80 °F
pH Level	7	5.5-8.5
Chlorides	240 mg/L	0-3000 mg/L
Total Alkalinity	160	0-1000
Total Hardness	120 mg/L	0-500 mg/L
Carbonates	NA mg/L	0-100 mg/L
Sulfates	200 mg/L	0-1500 mg/L
Potassium	300 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		10.00	5580
2	Mud Flush	Flush	8.45			40.86		20.00	5679
3	Water	Flush	8.34			42.00		10.00	5877
4	Lead	Lead	12.50	2.21	12.30		357.00	140.39	5976
5	Tail	Tail	13.00	2.05	10.26		772.00	281.58	7360
6	Displacement	DisplacementFinal	8.34			42.00		155.40	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	Lead	ASTM TYPE IL	Cement	100.00	%
4	Lead	Lead	A-2	Accelerator	0.20	%BWOB
4	Lead	Lead	FL-66	FluidLoss	0.30	%BWOB
4	Lead	Lead	FP-24	Defoamer	0.30	%BWOB
4	Lead	Lead	GW-86	Viscosifier	0.10	%BWOB
4	Lead	Lead	R-3	Retarder	0.50	%BWOB
4	Lead	Lead	R-7C	Retarder	0.10	%BWOB
4	Lead	Lead	STATIC FREE	Other	0.01	lb/sk
4	Lead	Lead	XCem-1009	Extender	10.00	lb/sk
5	Tail	Tail	CLASS G	Cement	50.00	%
5	Tail	Tail	FLY ASH (POZZOLAN)	Extender	50.00	%
5	Tail	Tail	BENTONITE	Viscosifier	6.00	%BWOB
5	Tail	Tail	FL-66	FluidLoss	0.40	%BWOB
5	Tail	Tail	FP-24	Defoamer	0.30	%BWOB
5	Tail	Tail	GW-86	Viscosifier	0.10	%BWOB
5	Tail	Tail	IntegraSeal PHENO	LostCirculation	0.50	lb/sk
5	Tail	Tail	IntegraSeal POLI	LostCirculation	0.25	lb/sk
5	Tail	Tail	S-8	StrengthRetgression	20.00	%BWOB
5	Tail	Tail	XCem-1009	Extender	6.00	lb/sk
5	Tail	Tail	XCem-916	Retarder	0.40	%BWOB

Job Logs

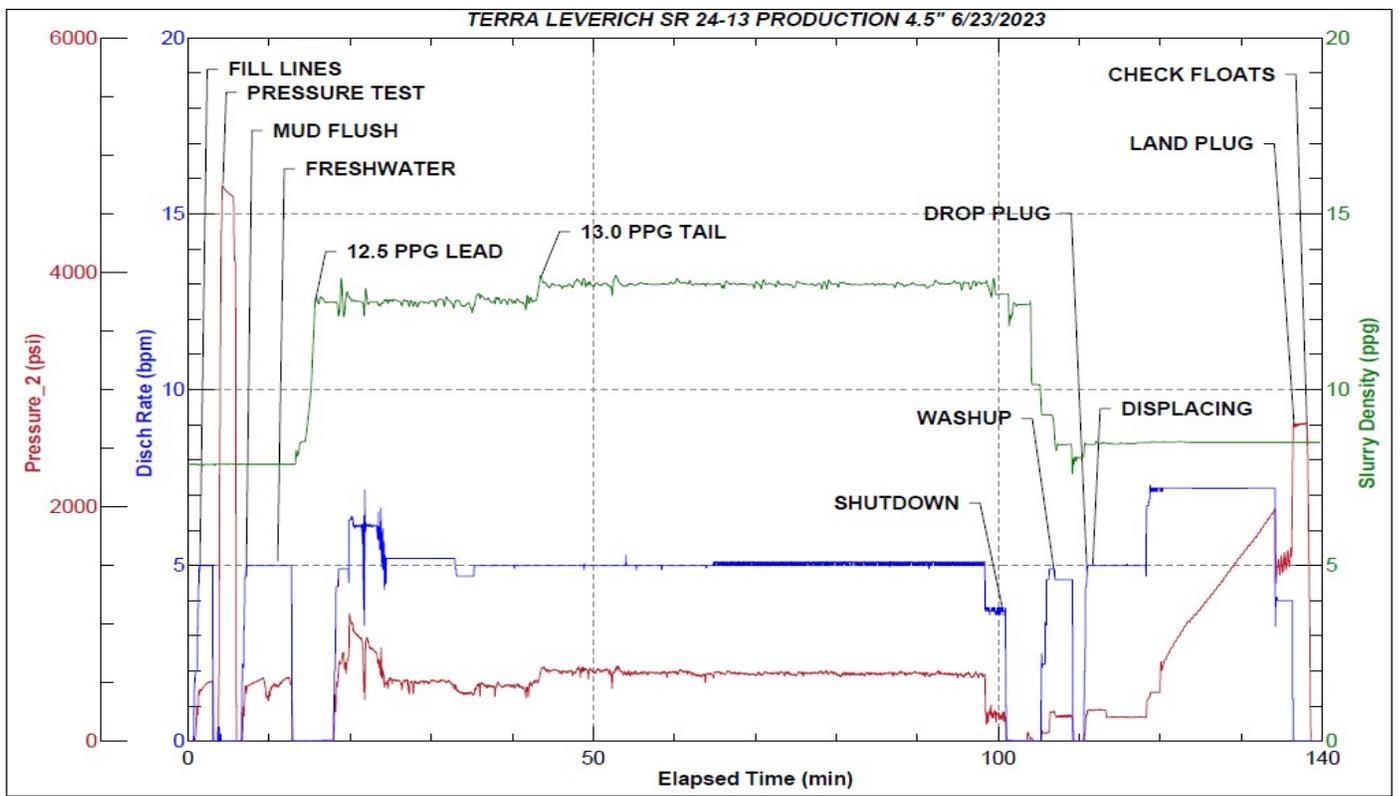
Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
1	Callout	6/18/2023	13:00					CREW CALLED OUT FOR ON LOCATION TIME OF 6/18/23 18:00
2	Depart Location	6/18/2023	15:44					DEPART RCO YARD FOR LOCATION
3	Arrive On Location	6/18/2023	16:28					ARRIVE ON LOCATION. RIG IS STUCK IN THE HOLE WITH CASING, COULDN'T SPOT IN BECAUSE THEY NEEDED OUR SPACE TO BRING TRANSPORTS IN AND OUT. STAND BY UNTIL CASING IS MOVING.
4	Released From Rig	6/19/2023	00:38					CO MAN RELEASED US, THEY HAVE TO LAY DOWN CASING.
5	Callout	6/20/2023	23:30					CREW CALLED OUT FOR ON LOCATION TIME OF 6/21/23 9:00
6	Depart Location	6/21/2023	06:15					DEPART RCO YARD FOR LOCATION
7	Arrive On Location	6/21/2023	07:00					ARRIVE ON LOCATION. RIG IS STUCK IN THE HOLE WITH CASING. ON STAND BY WAITING TO SEE WHAT HAPPENS.
8	Released From Rig	6/21/2023	12:00					CO MAN RELEASED US, THEY HAVE TO LAY DOWN CASING. WILL BE MAKING A BIT TRIP AND GETTING A DIFFERENT STRENGTH CASING AND SHOE WITH REAMER.
9	Depart Location	6/21/2023	12:30					DEPART LOCATION FOR RCO YARD.
10	Callout	6/23/2023	09:20					CREW CALLED OUT FOR RTS OF 17:00
11	Depart Location	6/23/2023	14:10					DEPART RCO YARD FOR LOCATION
12	Arrive On Location	6/23/2023	14:50					ARRIVE ON LOCATION. RIG IS STILL RUNNING CASING.
13	Safety Meeting	6/23/2023	15:00					PRE-RIG UP JSA. SPOT EQUIPMENT
14	Rig Up Iron	6/23/2023	15:20					RIG UP ALL IRON, HOSES, AND EQUIPMENT
15	Other	6/23/2023	16:30					WAITING ON RIG TO FINISH RUNNING CASING. RIG LANDED CASING @ 17:00. RIG CIRCULATED FOR 1.5 HOURS. TOTAL VOLUME 1059 BBLs. FINISH RIGGING UP HEAD AND FLOOR.
16	Safety Meeting	6/23/2023	18:20					PRE JOB-SAFETY MEETING WITH RIG CREW AND COMPANY MAN.
17	Fill Lines	6/23/2023	19:20	8.34	5	10	485	FILL LINES WITH 10 BBLs OF FRESHWATER. FULL RETURNS
18	Pressure Test Lines	6/23/2023	19:23	8.34	1	1	4655	PRESSURE TEST PUMP AND IRON TO 4500 PSI
19	Pump Spacer	6/23/2023	19:26	8.45	5	0	475	BEGIN PUMPING MUD FLUSH + SURFACTANT.
20	Pump Spacer	6/23/2023	19:30	8.45	5	20	499	PUMP 20 BBLs MUD FLUSH + SURFACTANT PUMPED. FULL RETURNS
21	Pump Spacer	6/23/2023	19:30	8.34	5	0	524	PUMP 10 BBLs FRESHWATER FLUSH
22	Pump Spacer	6/23/2023	19:32	8.34	5	10	545	10 BBLs FRESHWATER AWAY SWAP TO LEAD
23	Pump Lead Cement	6/23/2023	19:38	12.5	5	0	615	BEGIN PUMPING 12.5 PPG LEAD CEMENT, WEIGHT VERIFIED BY MUD SCALE
24	Pump Lead Cement	6/23/2023	19:47	12.5	5	50	435	50 BBLs LEAD CEMENT PUMPED

Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
25	Pump Lead Cement	6/23/2023	19:57	12.5	5	50	467	100 BBLS LEAD CEMENT PUMPED. FULL RETURNS
26	Pump Lead Cement	6/23/2023	20:03	12.5	5	40	486	140 BBLS (357 SKS) TOTAL LEAD CEMENT PUMPED.
27	Pump Tail Cement	6/23/2023	20:03	13	5	0	512	BEGIN PUMPING 13 PPG TAIL CEMENT. WEIGHT VERIFIED BY MUD SCALE.
28	Pump Tail Cement	6/23/2023	20:13	13	5	50	610	50 BBLS TAIL CEMENT PUMPED
29	Pump Tail Cement	6/23/2023	20:23	13	5	50	560	100 BBLS TAIL CEMENT PUMPED
30	Pump Tail Cement	6/23/2023	20:33	13	5	50	580	150 BBLS TAIL CEMENT PUMPED. FULL RETURNS
31	Pump Tail Cement	6/23/2023	20:42	13	5	50	570	200 BBLS TAIL CEMENT PUMPED
32	Pump Tail Cement	6/23/2023	20:52	13	5	50	576	250 BBLS TAIL CEMENT PUMPED
33	Pump Tail Cement	6/23/2023	20:59	13	3.5	32	169	282 BBLS (772 SKS) TOTAL TAIL CEMENT PUMPED.
34	Clean Pumps and Lines	6/23/2023	21:00					BLOW RIG AIR TO CLEAR LINES, VALVE MANIFOLD TO WASH UP PUMP AND LINES TO PIT
35	Drop Top Plug	6/23/2023	21:09	8.34	5	2	267	DROP PLUG, WITNESSED BY DRILLER BEGIN KCL DISPLACEMENT.
36	Pump Displacement	6/23/2023	21:19	8.34	7.2	50	609	50 BBLS DISPLACEMENT PUMPED. CAUGHT PRESSURE @ 50 BBLS DISPLACED. FULL RETURNS.
37	Pump Displacement	6/23/2023	21:26	8.34	7.2	50	1371	100 BBLS DISPLACEMENT PUMPED
38	Pump Displacement	6/23/2023	21:32	8.34	7.2	40	1955	140 BBLS DISPLACEMENT PUMPED. MAX LIFT-1955 PSI @ 7.2 BPM BEFORE SLOW DOWN @ 145 BBLS DISPLACED
39	Pump Displacement	6/23/2023	21:35	8.34	4	15.4	1610	155.4 BBLS (CALCULATED) DISPLACEMENT PUMPED
40	Land Plug	6/23/2023	21:35				2700	PLUG LANDED FCP-1610 PSI BUMPED TO 2700 PSI
41	Check Floats	6/23/2023	21:37					BLEED PRESSURE OFF AND CHECK FLOATS, FLOATS HELD 1.5 BBLS BACK
42	Rig Down Iron	6/23/2023	21:50					PRE-RIG DOWN SAFETY MEETING. RIG DOWN EQUIPMENT, IRON AND HOSES
43	Depart Location	6/24/2023	00:00					CREW DEPARTS LOCATION

Pump Diagrams



JobMaster Program Version 5.01C1
Job Number: 87461
Customer: TERRA
Well Name: LEVERICH SR 24-13



Job Start: Friday, June 23, 2023