



Terra Energy Partners, LLC

SURFACE POST JOB REPORT

CHEVRON GM 332-19 05-045-24362
S:20 T:6S R:96W Garfield CO

CallSheet #: 75703
Proposal #: 50967



SURFACE Post Job Report

Attention: Mr. Lynn Cass | (970) 263-2716 | lcass@terraep.com
Terra Energy Partners, LLC
4828 Loop Central Dr., Suite 900 | Houston, TX 77081

Dear Mr. Lynn Cass,

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

Field Engineer | (307) 757-7178 | zen.keith@americacementing.com

Field Office 28730 US-6, Rifle, CO 81650
Phone: (970) 657-1187

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1 Job Details & Summary

Geometry

Type	Function	OD (in)	ID (in)	Weight (lb/ft)	Thread	Top (ft)	Bottom (ft)	Excess (%)
Open Hole	Outer	n/a	13.5	n/a	n/a	0	500	16
Open Hole	Outer	n/a	13.5	n/a	n/a	500	1039	16
Casing	Inner	9.625	8.921	36	n/a	0	1029	0

Equipment / People

Unit Type	Unit	Power Unit	Employee #1	Mileage
Bulk Trailer	CTF-407	TRB-425	Rivas, Saul	56
Cement Pump	CPF-012	TRH-1140	Brennecke, Dirk	
Light Duty Trailers	LDV-3106		Diaz, Douglas	56

Timing

Event	Date/Time
Call Out	12/18/2020 07:00
Depart Facility	12/18/2020 07:50
On Location	12/18/2020 08:56
Rig Up Iron	12/18/2020 09:05
Job Started	12/18/2020 12:19
Job Completed	12/18/2020 13:06
Rig Down Iron	12/18/2020 13:06
Depart Location	12/18/2020 13:50

General Job Information

Metrics	Value
Well Fluid Density	9.4 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	330 bbls
Rig Circulation Time	0.5 hours
Calculated Displacement	74 bbls
Actual Displacement	74 bbls
Total Spacer to Surface	20 bbls
Total CMT to Surface	16 bbls
Well Topped Out	No

Job Details

Metrics	Value
Flare Prior to Job	No
Flare During Job	No
Flare at End of Job	No
Well Full Prior to Job	Yes
Well Fluid Density Into Well	9.4 lb/gal
Well Fluid Density Out of Well	9.4 lb/gal

Job Details (cont.)

Metrics	Value
BHCT	80 °F
BHST	97 °F

Circulation

Lost Circulation Experienced
No

Job Execution Information

Job	Fluid	Product	Function	Density (lb/gal)	Yield (ft ³ /sk)	Water Rq. (gal/sk)	Water Rq. (gal/bbl)	Volume (sk)	Volume (bbl)	Top (ft)
1	1	Water	Flush	8.34			42.00		20.00	0
1	2	Lead Cement	Lead	12.30	2.34	13.42		122.00	50.82	0
1	3	Tail Cement	Tail	12.80	2.08	11.46		146.00	53.99	448
1	4	Water	DisplacementFinal	8.34			42.00		74.00	0

Job Fluid Details

Job	Fluid	Type	Fluid	Product	Function	Conc.	Uom
1	2	Lead	Lead Cement	ASTM TYPE III	Cement	100.00	%
1	2	Lead	Lead Cement	A-10	Accelerator	5.00	%BWOB
1	2	Lead	Lead Cement	A-2	Accelerator	2.00	lb/sk
1	2	Lead	Lead Cement	A-7P	Accelerator	2.00	lb/sk
1	2	Lead	Lead Cement	FP-24	Defoamer	0.30	%BWOB
1	2	Lead	Lead Cement	IntegraSeal POLI	LostCirculation	0.25	lb/sk
1	3	Tail	Tail Cement	ASTM TYPE III	Cement	100.00	%
1	3	Tail	Tail Cement	A-10	Accelerator	5.00	%BWOB
1	3	Tail	Tail Cement	A-2	Accelerator	2.00	lb/sk
1	3	Tail	Tail Cement	A-7P	Accelerator	2.00	lb/sk
1	3	Tail	Tail Cement	FP-24	Defoamer	0.30	%BWOB
1	3	Tail	Tail Cement	IntegraSeal POLI	LostCirculation	0.25	lb/sk

2 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	12/18/2020	07:00					Yard call 0700 on location 0900. Crew Temps D. Diaz 97.1, D. Brennecke 95.7, S.Rivas 96.5
2	Depart For Location	12/18/2020	07:50					Leave Rifle yard for location
3	Arrive On Location	12/18/2020	08:56					Arrive on location, rig pulling drill pipe
4	Spot Equipment	12/18/2020	08:56					Spot in all equipment
5	Rig Up Iron	12/18/2020	09:05					Pre rig up safety meeting, rig in all equipment and lines to the cellar
6	Waiting	12/18/2020	09:13					Waiting on rig to run casing and circulate
7	Safety Meeting	12/18/2020	11:50					Pre job safety meeting with company man
8	End Circulation	12/18/2020	11:58					Rig ended circulation, circulated 30 mins @ 11 BBLS/min total of 330 BBLs
9	Waiting	12/18/2020	11:58					Waiting on rig to lay down landing joint
10	Rig Up Iron	12/18/2020	12:05					Rig up lines in the cellar
11	Pump Spacer	12/18/2020	12:19	8.34	6	15	5	Pumping fresh water spacer, returns
12	Pressure Test Lines	12/18/2020	12:24				3000	Pressure test
13	Pump Spacer	12/18/2020	12:32	8.34	5	5	100	Pumping fresh water spacer, returns
14	Pump Lead Cement	12/18/2020	12:35	12.3	5	0	183	Pumping lead cement
15	Pump Lead Cement	12/18/2020	12:42	12.3	7	51	374	Pumping lead cement
16	Pump Tail Cement	12/18/2020	12:42	12.8	7	0	374	Pumping tail cement
17	Pump Tail Cement	12/18/2020	12:52	12.8	5	54	190	Pumping tail cement
18	Drop Top Plug	12/18/2020	12:52					Dropped top plug verified by company man
19	Pump Displacement	12/18/2020	12:54	8.34	6.5	0	190	Pumping fresh water displacement
20	Pump Displacement	12/18/2020	12:59	8.34	9	50	520	Pumping fresh water displacement
21	Cement Back to Surface	12/18/2020	13:00			58		Cement to surface @ 58 BBLs pumped, 16 BBLs cement to surface
22	Pump Displacement	12/18/2020	13:04	8.34	2.5	74	352	Pumping fresh water displacement
23	Land Plug	12/18/2020	13:04				1030	Land plug, FCP 352 PSI bumped to 1030 PSI
24	Check Floats	12/18/2020	13:06					Bled pressure, floats held .5 BBL bled back
25	Rig Down Iron	12/18/2020	13:06					Pre rig down safety meeting, rig down lines in the cellar
26	Clean Pumps and Lines	12/18/2020	13:09					Wash and winterize pump and lines to cellar
27	Rig Down Iron	12/18/2020	13:20					Rig down all lines and equipment
28	Depart Location	12/18/2020	13:50					Leave location for Rifle shop

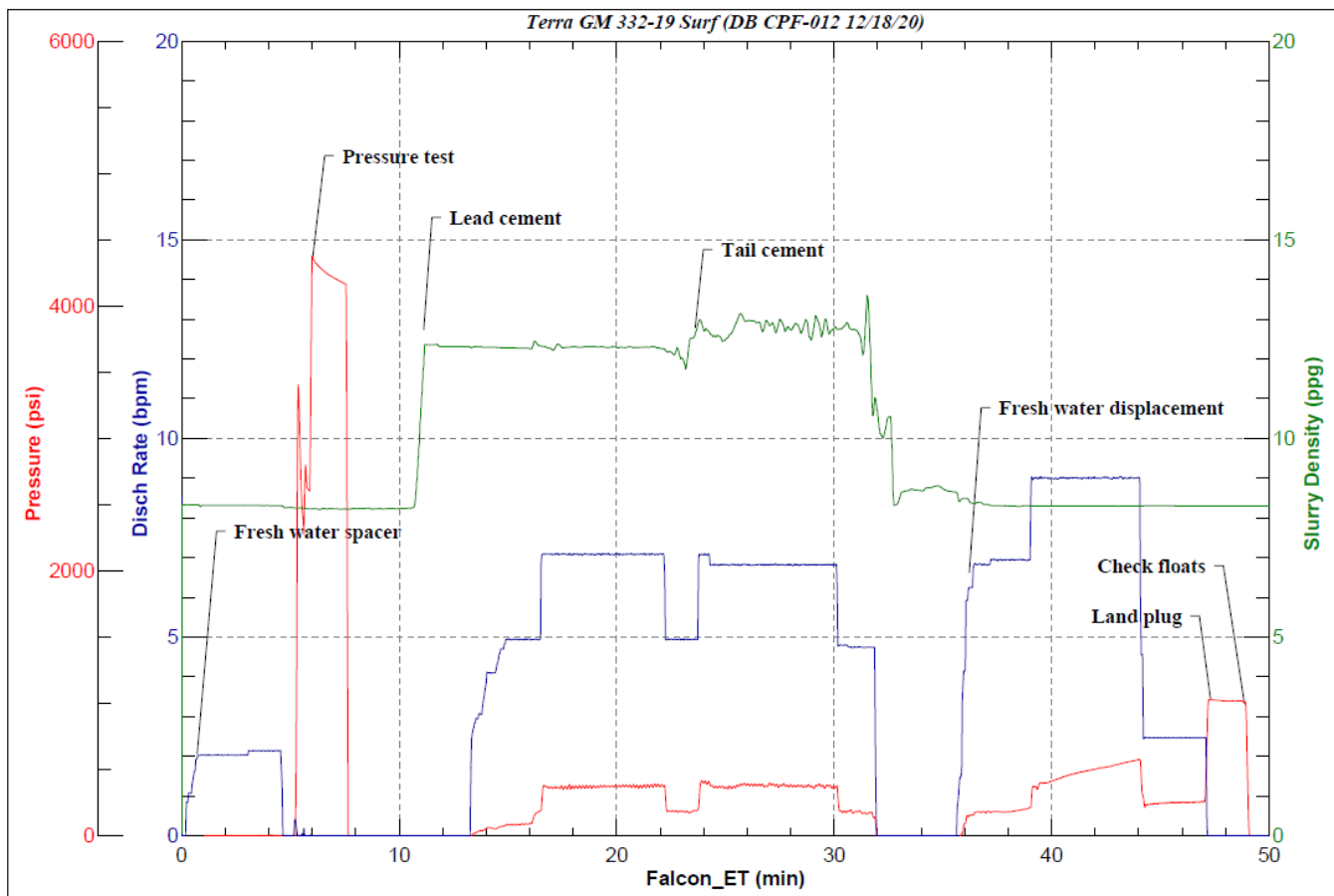
3 Water Analysis

Metrics	Value	Recommended
Water Source	Frac Tank	
Temperature	78 °F	50-80 °F
pH Level	7	5.5-8.5
Chlorides	0 mg/L	0-3000 mg/L
Total Alkalinity	240	0-1000
Total Hardness	425 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

4 Pump Diagrams



JobMaster Program Version 5.01C1
 Job Number: 75703
 Customer: Terra
 Well Name: GM 332-19



BJ Services

Job Start: Friday, December 18, 2020