

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS-EBUS

Date: Wednesday, February 20, 2019

Coyote Trails 33S-20-5C Surface

Job Date: Wednesday, February 06, 2019

Sincerely,

Bryce Hinsch

Legal Notice

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Coyote Trails 33S-20-5C** cement **surface** casing job. A pre-job safety meeting was held before the job where details of the job were discussed, potential safety hazards were reviewed, and environmental compliance procedures were outlined.

Approximately 35 bbls of cement were returned to surface.

Halliburton maintains a continuous quality improvement process and appreciates any comments or suggestions that you may have. Halliburton again thanks you for the opportunity to perform service work on this well. We hope to be your solutions provider for future projects.

Respectfully,

Halliburton Fort Lupton

The Road to Excellence Starts with Safety

| | | | |
|--|--------------------|-----------------------------------|----------------------------|
| Sold To #: 369404 | Ship To #: 3843097 | Quote #: | Sales Order #: 0905467997 |
| Customer: EXTRACTION OIL & GAS - | | Customer Rep: Todd/Hans | |
| Well Name: COYOTE TRAILS | | Well #: 33S-20-5C | API/UWI #: 05-123-45995-00 |
| Field: WATTENBERG | City (SAP): ERIE | County/Parish: WELD | State: COLORADO |
| Legal Description: SW SE-28-1N-68W-1148FSL-2229FEL | | | |
| Contractor: ENSIGN DRLG | | Rig/Platform Name/Num: ENSIGN 147 | |
| Job BOM: 7521 7521 | | | |
| Well Type: HORIZONTAL OIL | | | |
| Sales Person: HALAMERICA\HX38199 | | Srvc Supervisor: Thomas Haas | |

Job

| | | | |
|------------------------|--------|-------------------|--------|
| Formation Name | | | |
| Formation Depth (MD) | Top | | Bottom |
| Form Type | BHST | | |
| Job depth MD | 1577ft | Job Depth TVD | 1605 |
| Water Depth | | Wk Ht Above Floor | 5 |
| Perforation Depth (MD) | From | | To |

Well Data

| Description | New / Used | Size in | ID in | Weight lbm/ft | Thread | Grade | Top MD ft | Bottom MD ft | Top TVD ft | Bottom TVD ft |
|-------------------|------------|---------|-------|---------------|--------|-------|-----------|--------------|------------|---------------|
| Casing | 0 | 9.625 | 8.921 | 36 | 8 RD | J-55 | 0 | 1605 | 0 | 0 |
| Open Hole Section | | | 13.5 | | | | 0 | 1614 | 0 | 0 |

Tools and Accessories

| Type | Size in | Qty | Make | Depth ft | Type | Size in | Qty | Make |
|--------------|---------|-----|------|----------|----------------|---------|-----|------|
| Guide Shoe | | | | | Top Plug | 9.625 | 1 | HES |
| Float Shoe | 9.625 | 1 | | 1605 | Bottom Plug | | | |
| Float Collar | 9.625 | 1 | | 1564 | SSR plug set | | | |
| Insert Float | | | | | Plug Container | 9.625 | 1 | HES |
| Stage Tool | | | | | Centralizers | | | |

Fluid Data

| Stage/Plug #: 1 | | | | | | | | | | |
|-----------------|----------------|----------------|-----|---------|------------------------|----------------|---------------|--------------|---------------------|--|
| Fluid # | Stage Type | Fluid Name | Qty | Qty UoM | Mixing Density lbm/gal | Yield ft3/sack | Mix Fluid Gal | Rate bbl/min | Total Mix Fluid Gal | |
| 1 | Red Dye Spacer | Red Dye Spacer | 20 | bbl | 8.33 | | | | | |

| Fluid # | Stage Type | Fluid Name | Qty | Qty UoM | Mixing Density lbm/gal | Yield ft ³ /sack | Mix Fluid Gal | Rate bbl/min | Total Mix Fluid Gal |
|--|-------------|------------------------------------|-----|---------|------------------------------|--------------------------------|------------------|-------------------|---------------------------|
| 2 | SwiftCem | SWIFTCEM (TM) SYSTEM | 575 | sack | 13.5 | 1.74 | 9.2 | 7 | 5270 |
| 9.20 Gal | | FRESH WATER | | | | | | | |
| Fluid # | Stage Type | Fluid Name | Qty | Qty UoM | Mixing Density lbm/gal | Yield ft ³ /sack | Mix Fluid Gal | Rate bbl/min | Total Mix Fluid Gal |
| 3 | Fresh Water | Fresh Water | 121 | bbl | 8.33 | | | | |
| Cement Left In Pipe | | | | | | | | | |
| Amount | | 41 ft | | | Reason | | | Shoe Joint | |
| Mix Water: pH 7 | | Mix Water Chloride: <300 ppm | | | Mix Water Temperature: 56 °F | | | | |
| Cement Temperature: N/A | | Plug Displaced by: 8.33 lb/gal F.W | | | Disp. Temperature: 51 °F | | | | |
| Plug Bumped? Yes | | Bump Pressure: 460 psi | | | Floats Held? Yes | | | | |
| Cement Returns: 35 bbl | | Returns Density: N/A | | | Returns Temperature: N/A | | | | |
| Comment Plug bumped at calculated displacement, final circulation of 460 psi, released pressure back to the truck, floats held, 1 bbl back, 35 bbl cement to surface. | | | | | | | | | |

2.0 Real-Time Job Summary

2.1 Job Event Log

| Type | Seq. No. | Activity | Graph Label | Date | Time | Source | DH Density <i>(ppg)</i> | Comb Pump Rate <i>(bbl/min)</i> | DS Pump Press <i>(psi)</i> | Pump Stg Tot <i>(bbl)</i> | Comments |
|-------|----------|---------------------------|---------------------------|----------|----------|--------|----------------------------|------------------------------------|-------------------------------|------------------------------|--|
| Event | 1 | Call Out | Call Out | 2/5/2019 | 11:00:00 | USER | | | | | CREW CALLED OUT AT 11:00 2/5/2019 REQUESTED ON LOCATION 15:00 2/5/2019. CREW PICKED UP CEMENT, 100 LBS SUGAR, AND PLUG CONTAINER FROM FORT LUPTON, CO. BULK 660: 11019273/11566182 Bulk 660: 11338213/11633846 PUMP ELITE: 11897034/11645460 |
| Event | 2 | Pre-Convoy Safety Meeting | Pre-Convoy Safety Meeting | 2/5/2019 | 11:15:00 | USER | | | | | DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW |
| Event | 3 | Crew Leave Yard | Crew Leave Yard | 2/5/2019 | 11:30:00 | USER | | | | | STARTED JOURNEY MANAGEMENT. |
| Event | 4 | Arrive At Loc | Arrive At Loc | 2/5/2019 | 12:00:00 | USER | | | | | END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING: 36# 9.625" J-55 @ 1605', 41' SHOE JOINT, 13.5" OPEN HOLE, 8.4 PPG WELL FLUID, FRESH WATER DISPLACEMENT. |
| Event | 5 | Pre-Rig Up Safety Meeting | Pre-Rig Up Safety Meeting | 2/5/2019 | 16:00:00 | USER | | | | | HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP AND |

| | | | | | | | | | | | WEATHER. |
|-------|----|------------------------|------------------------|----------|----------|------|-------|------|--------|--------|--|
| Event | 6 | Rig-Up Equipment | Rig-Up Equipment | 2/5/2019 | 16:10:00 | USER | | | | | CREW STAGED EQUIPMENT AND RIGGED UP BULK, IRON, AND WATER HOSES TO PERFORM JOB. |
| Event | 7 | Pre-Job Safety Meeting | Pre-Job Safety Meeting | 2/5/2019 | 18:30:00 | USER | 0.00 | 0.00 | -50.00 | 0.00 | MEETING WITH HALLIBURTON AND RIG PERSONNEL. COMMUNICATED POTENTIAL SAFETY HAZARDS AND JOB DETAILS. |
| Event | 8 | Start Job | Start Job | 2/5/2019 | 18:59:36 | COM4 | 0.69 | 0.00 | -13.00 | 0.00 | START JOB DATA RECORDING. |
| Event | 9 | Test Lines | Test Lines | 2/5/2019 | 19:01:31 | COM4 | 8.56 | 0.00 | 9.00 | 1.40 | PRESSURE TESTED IRON TO 3200 PSI. KICKOUTS SET @ 500 PSI, KICKED OUT @ 830 PSI, 5TH GEAR STALL OUT @ 2240 PSI. |
| Event | 10 | Pump Spacer 1 | Fresh Water | 2/5/2019 | 19:04:06 | COM4 | 8.53 | 0.00 | -8.00 | 1.50 | PUMP 10 BBL FRESH WATER. |
| Event | 11 | Pump Spacer 2 | Red Dye | 2/5/2019 | 19:08:41 | COM4 | 8.55 | 3.10 | 48.00 | 9.50 | PUMP 10 BBL FRESH WATER WITH RED DYE. |
| Event | 12 | Pump Cement | Pump Cement | 2/5/2019 | 19:16:07 | COM4 | 8.51 | 0.00 | -10.00 | 10.20 | PUMP 575 SKS OF SWIFTCEM @ 13.5 LB/GAL, 1.74 YIELD, 9.2 GAL/SK, 178.2 BBLS, TOL @ SURFACE, DENSITY VERIFIED BY PRESSURIZED MUD SCALES. |
| Event | 13 | Shutdown | Shutdown | 2/5/2019 | 19:44:15 | COM4 | 15.60 | 0.00 | 78.00 | 178.80 | SHUTDOWN TO DROP TOP PLUG. |
| Event | 14 | Drop Top Plug | Drop Top Plug | 2/5/2019 | 19:46:26 | COM4 | 15.43 | 0.00 | -13.00 | 178.80 | TOP PLUG LEFT PLUG CONTAINER, VERIFIED BY COMPANYMAN. |
| Event | 15 | Pump Displacement | Pump Displacement | 2/5/2019 | 19:46:31 | COM4 | 15.43 | 0.00 | -13.00 | 178.80 | BEGIN CALCULATED |

| | | | | | | | | | | | |
|-------|----|-----------------------------|-----------------------------|----------|----------|------|-------|-------|--------|--------|---|
| | | | | | | | | | | | DISPLACEMENT OF 121 BBLS WITH FRESH WATER. |
| Event | 16 | Cement Returns to Surface | Cement Returns to Surface | 2/5/2019 | 20:02:03 | USER | 7.83 | 5.00 | 494.00 | 101.20 | CEMENT RETURNED TO SURFACE 86 BBL INTO DISPLACEMENT, 35 BBL CEMENT TO SURFACE. |
| Event | 17 | Bump Plug | Bump Plug | 2/5/2019 | 20:08:55 | COM4 | 7.86 | 0.00 | 818.00 | 122.60 | PLUG BUMPED AT CALCULATED DISPLACEMENT, FINAL CIRCULATING PRESSURE OF 460 PSI. |
| Event | 18 | Check Floats | Check Floats | 2/5/2019 | 20:09:13 | USER | 7.86 | 0.00 | 895.00 | 122.60 | RELEASED PRESSURE BACK TO THE TRUCK, FLOATS HELD, RECIEVED 1 BBL BACK. |
| Event | 19 | End Job | End Job | 2/5/2019 | 20:10:17 | COM4 | 7.82 | 0.00 | -12.00 | 0.00 | END JOB DATA RECORDING. |
| Event | 20 | Pre-Rig Down Safety Meeting | Pre-Rig Down Safety Meeting | 2/5/2019 | 20:20:00 | USER | 7.84 | 10.00 | 272.00 | 12.20 | DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES. |
| Event | 21 | Rig-Down Completed | Rig-Down Completed | 2/5/2019 | 20:40:00 | USER | -0.65 | 0.00 | -22.00 | 36.10 | ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL. |
| Event | 22 | Pre-Convoy Safety Meeting | Pre-Convoy Safety Meeting | 2/5/2019 | 20:45:00 | USER | | | | | DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW. |
| Event | 23 | Crew Leave Location | Crew Leave Location | 2/5/2019 | 21:00:00 | USER | | | | | THANK YOU FOR USING HALLIBURTON - THOMAS HAAS AND CREW. |

3.0 Attachments

3.1 Extraction Coyote Trails 33S-20-5C Surface Job Chart

