

HALLIBURTON

iCem® Service

EXTRACTION OIL & GAS-EBUS

United States of America, COLORADO

For: Larry Siegel

Date: Tuesday, February 12, 2019

WELD

Extraction Coyote Trails 33S-20-6N

Job Date: Tuesday, February 12, 2019

so# 0905478536

Sincerely,

Prince A. Perez

Legal Notice

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The Road to Excellence Starts with Safety

| | | | |
|---|---------------------------|--|-----------------------------------|
| Sold To #: 369404 | Ship To #: 3843208 | Quote #: | Sales Order #: 0905478536 |
| Customer: EXTRACTION OIL & GAS-EBUS | | Customer Rep: Haans | |
| Well Name: COYOTE TRAILS | | Well #: 33S-20-6N | API/UWI #: 05-123-45996-00 |
| Field: WATTENBERG | City (SAP): ERIE | County/Parish: WELD | State: COLORADO |
| Legal Description: SW SE-28-1N-68W-1147FSL-2211FEL | | | |
| Contractor: ENSIGN DRLG | | Rig/Platform Name/Num: ENSIGN 147 | |
| Job BOM: 7523 7523 | | | |
| Well Type: HORIZONTAL OIL | | | |
| Sales Person: HALAMERICA\HX38199 | | Srvc Supervisor: Prince Perez | |

| Job | | | | |
|-----------------------------|------------|----|--------------------------|---------|
| Formation Depth (MD) | Top | 0' | Bottom | 17,961' |
| Job depth MD | 17,950' | | Job Depth TVD | 7,920' |
| | | | Wk Ht Above Floor | 5' |

| 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 | | | 0 | 1601 | 0 | 1601 |
| Casing | 0 | 5.5 | 4.892 | 17 | | | 0 | 17950 | 0 | 7920 |
| Open Hole Section | | | 8.5 | | | | 1601 | 17961 | 1601 | 7920 |

| Tools and Accessories | | | | | | | | | |
|-----------------------|---------|-----|------|----------|--|----------------|---------|-----|------|
| Type | Size in | Qty | Make | Depth ft | | Type | Size in | Qty | Make |
| Guide Shoe | 5.5 | | | 17,950 | | Top Plug | 5.5 | 1 | |
| Float Shoe | 5.5 | | | | | Bottom Plug | 5.5 | 1 | |
| Float Collar | 5.5 | | | 17,945 | | | | | |
| Insert Float | 5.5 | | | | | Plug Container | 5.5 | 1 | HES |
| Stage Tool | 5.5 | | | | | Centralizers | 5.5 | 220 | |

| Fluid Data | | | | | | | | | |
|-----------------|------------|-----------------------|-----|---------|------------------------|-----------------------------|---------------|--------------|---------------------|
| Stage/Plug #: 1 | | | | | | | | | |
| 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 |
| 1 | SPACER | ECOSPACER | 50 | bbl | 12.5 | 2.73 | 16.6 | 6 | 1,707 |
| 0 gal/bbl | | 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 |
| 2 | Cap | ELASTICEM (TM) SYSTEM | 584 | sack | 13.2 | 1.57 | 7.66 | 8 | 4,473 |

| 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 | |
|--|--------------|-----------------------|---------------------|---------|---------------------------|-------------------|------------------------|-----------------|---------------------------|--|
| 3 | Lead | ELASTICEM (TM) SYSTEM | 615 | sack | 13.2 | 1.56 | 7.61 | 8 | 4,680 | |
| 4 | Tail | ELASTICEM (TM) SYSTEM | 1,701 | sack | 13.2 | 1.57 | 7.66 | 8 | 13,030 | |
| 5 | Displacement | MMCR Displacement | 20 | bbl | 8.33 | | | 8 | | |
| 6 | Displacement | Displacement | 396 | bbl | 8.33 | | | 8 | | |
| Cement Left In Pipe | | Amount | 0 ft | | Reason | | | Wet Shoe | | |
| Mix Water: | | pH 7 | Mix Water Chloride: | | 1,075 ppm | | Mix Water Temperature: | | 74 °F | |
| Cement Temperature: | | ## °F | Plug Displaced by: | | 8.34 lb/gal | | Disp. Temperature: | | 74 °F | |
| Plug Bumped? | | Yes | Bump Pressure: | | 1,618 psi | | Floats Held? | | Yes | |
| Cement Returns: | | 0 bbl | Returns Density: | | 10.3 lb/gal | | Returns Temperature: | | ## °F °C | |
| Comment | | | | | | | | | | |
| Pumped 50 bbls of Ecospacer with 10 gallons of D Air. | | | | | | | | | | |
| Pumped 163.3 bbls of Cap Elasticem. | | | | | | | | | | |
| Pumped 170.87 bbls of Lead Elasticem with 1,538 gallons of Latex. | | | | | | | | | | |
| Pumped 475.63 bbls of Tail Elasticem. | | | | | | | | | | |
| Pumped 416 bbls of freshwater displacement with MMCR in the first 20 bbls. | | | | | | | | | | |
| Pumped a 5 bbl wet shoe. | | | | | | | | | | |
| No spacer to surface. | | | | | | | | | | |
| 2 bbls back on the floats. | | | | | | | | | | |

1.0 Real-Time Job Summary

1.1 Job Event Log

| Type | Seq. No. | Activity | Graph Label | Date | Time | Source | DH Density <i>(ppg)</i> | Comb Pump Rate <i>(bbl/min)</i> | PS Pump Press <i>(psi)</i> | Pump Stg Tot <i>(bbl)</i> | Comments |
|-------|----------|--|--|-----------|----------|--------|----------------------------|------------------------------------|-------------------------------|------------------------------|---|
| Event | 1 | Call Out | Call Out | 2/11/2019 | 20:00:00 | USER | | | | | CREW CALLED OUT AT 20:00, REQUESTED ON LOCATION 01:00. CREW PICKED UP CEMENT, CHEMICALS, AND PLUG CONTAINER FROM FT. LUPTON, CO. BULK 660, 11566182, AND PUMP 11826999. |
| Event | 2 | Pre-Convoy Safety Meeting | Pre-Convoy Safety Meeting | 2/11/2019 | 22:50:00 | USER | | | | | CREW DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW. |
| Event | 3 | Crew Leave Shop | Crew Leave Shop | 2/11/2019 | 23:00:00 | USER | | | | | STARTED JOURNEY MANAGEMENT. |
| Event | 4 | Arrive at Location from Service Center | Arrive at Location from Service Center | 2/12/2019 | 00:00:00 | USER | | | | | END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING- 9/58" 36 LB/FT @ 1,601', 5.5" CASING: 17 LB/FT TOTAL 17,950', 8 1/2" HOLE, TD 17,961', 5' SHOE TRAC, TVD- 7,920'. PUMP FRESH WATER DISPLACEMENT. CASING LANDED @ 06:00 2/12/2019. |

| | | | | | | | | | | | |
|-------|----|---|---|-----------|----------|------|------|---|---------|----|---|
| Event | 5 | Safety Meeting - Assessment of Location | Safety Meeting - Assessment of Location | 2/12/2019 | 00:10:00 | USER | | | | | HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP AND WEATHER. |
| Event | 6 | Rig-Up Equipment | Rig-Up Equipment | 2/12/2019 | 00:20:00 | USER | | | | | RIG UP BULK AND MIXING EQUIPMENT. |
| Event | 7 | Rig-Up Completed | Rig-Up Completed | 2/12/2019 | 03:00:00 | USER | | | | | |
| Event | 8 | Pre-Job Safety Meeting | Pre-Job Safety Meeting | 2/12/2019 | 08:00:00 | USER | | | | | MEETING WITH HALLIBURTON AND RIG PERSONNEL. COMMUNICATED POTENTIAL SAFETY HAZARDS AND JOB DETAILS. |
| Event | 9 | Start Job | Start Job | 2/12/2019 | 11:40:12 | COM4 | | | | | BEGIN RECORDING JOB DATA. |
| Event | 10 | Drop Bottom Plug | Drop Bottom Plug | 2/12/2019 | 11:41:12 | USER | | | | | PLUG LEFT CONTAINER, VERIFIED BY CO. MAN. |
| Event | 11 | Test Lines | Test Lines | 2/12/2019 | 11:46:26 | COM4 | | | 4690.00 | | PRESSURE TESTED IRON TO 4,700 PSI. KICKOUTS SET @ 500 PSI, KICKED OUT @ 500 PSI, 5TH GEAR STALL OUT @ 1,350 PSI. 4,700 PRESSURE TEST KICKED OUT @ 4,600 PSI |
| Event | 12 | Pump Spacer | Pump Spacer | 2/12/2019 | 11:50:26 | USER | 12.5 | 5 | 650 | 50 | PUMP 50 BBLS OF ECOSPACER @ 12.5 LB/GAL, 2.73 CUFT/SK, 16.6 GALL/SK. 10 GALS D-AIR. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 5 BBLS/MIN @ 650 PSI. |

| | | | | | | | | | | | |
|-------|----|------------------|------------------|-----------|----------|------|-------|------|--------|--------|--|
| Event | 13 | Pump Cap Cement | Pump Cap Cement | 2/12/2019 | 12:01:38 | COM4 | 13.2 | 8 | 1000 | 163.3 | <p>PUMPED 584 SKS OF ELASTICEM @ 13.2 LB/GAL, 1.57 FT3/SK, 7.66 GAL/SK. 163.3 BBLS. HOC CALCULATED @ 2,104.4'. 66 BBLS OF CEMENT CALCULATED TO RETURN TO SURFACE. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 8 BBLS/MIN @ 1,000 PSI</p> |
| Event | 14 | Pump Lead Cement | Pump Lead Cement | 2/12/2019 | 12:23:36 | COM4 | 13.14 | 8.00 | 426.00 | 170.87 | <p>PUMPED 615 SKS OF GASSTOP @ 13.2 LB/GAL, 1.57 FT3/SK, 7.61 GAL/SK. 170.87 BBLS, WITH 1,538 GALLONS OF FDP LATEX. HOL CALCULATED @ 4,188', TOL CALCULATED @ 2,104.4'. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 8 BBLS/MIN @ 500 PSI</p> |
| Event | 15 | Pump Tail Cement | Pump Tail Cement | 2/12/2019 | 12:52:06 | COM4 | 13.2 | 8.00 | 172.00 | 475.63 | <p>PUMP 1,701 SKS OF ELASTICEM @ 13.2 LB/GAL, 1.57 FT3/SK, 7.66 GAL/SK, 475.63 BBLS. HOT CALCULATED @ 11,657.6', TOT CALCULATED @ 6,292.4'. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 8 BBLS/MIN @ 500 PSI.</p> |
| Event | 16 | Shutdown | Shutdown | 2/12/2019 | 13:55:43 | USER | | | | | <p>SHUTDOWN TO WASH LINES.</p> |
| Event | 17 | Drop Top Plug | Drop Top Plug | 2/12/2019 | 14:08:31 | COM4 | | | | | <p>PLUG LEFT CONTAINER, VERIFIED BY CO. MAN.</p> |

| | | | | | | | | | | | |
|-------|----|--|--|-----------|----------|------|------|---|------|---------|--|
| Event | 18 | Pump Displacement | Pump Displacement | 2/12/2019 | 14:08:34 | COM4 | 8.34 | 8 | 2580 | 416.32 | BEGIN CALCULATED DISPLACEMENT OF 416.32 BBLS WITH FRESH WATER. MMCR IN THE FIRST 20. PUMP RATE 8 BPM @ 2,580 PSI. CAUGHT CEMENT @ 40 BBLS INTO DISPLACEMENT. STARTED LOSING RETRUNS @ 150 BBLS INTO DISPLACEMENT. NO SPACER TO SURFACE. SLOW RATE TO 5 BPM @ 350 BBLS INTO DISPLACEMENT. |
| Event | 19 | Bump Plug | Bump Plug | 2/12/2019 | 15:05:22 | COM4 | | | | 2118.00 | PLUG BUMPED AT CALCULATED DISPLACEMENT. 1,618 PSI PRESSURED 500 PSI OVER BUMP. |
| Event | 20 | Shift Tool - Lower | Shift Tool - Lower | 2/12/2019 | 15:07:35 | USER | | | | 2968.00 | SHEARED @ 2,968 PSI FOLLOWED BY A 5 BBL WET SHOE. |
| Event | 21 | Check Floats | Check Floats | 2/12/2019 | 15:09:21 | USER | | | | | RELEASED PRESSURE, FLOATS HELD, 2 BBLS BACK. |
| Event | 22 | End Job | End Job | 2/12/2019 | 15:10:51 | COM4 | | | | | STOP RECORDING JOB DATA. |
| Event | 23 | Post-Job Safety Meeting (Pre Rig-Down) | Post-Job Safety Meeting (Pre Rig-Down) | 2/12/2019 | 15:20:00 | USER | | | | | DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES. |
| Event | 24 | Rig-Down Equipment | Rig-Down Equipment | 2/12/2019 | 15:30:00 | USER | | | | | RIG DOWN BULK AND MIXING EQUIPMENT. |
| Event | 25 | Rig-Down Completed | Rig-Down Completed | 2/12/2019 | 17:40:00 | USER | | | | | |

| | | | | | | | |
|-------|----|---------------------------|---------------------------|-----------|----------|------|--|
| Event | 26 | Pre-Convoy Safety Meeting | Pre-Convoy Safety Meeting | 2/12/2019 | 17:50:00 | USER | CREW DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW. |
| Event | 27 | Crew Leave Location | Crew Leave Location | 2/12/2019 | 18:00:00 | USER | THANK YOU FOR USING HALLIBURTON – PRINCE PEREZ AND CREW. |

2.0 Attachments

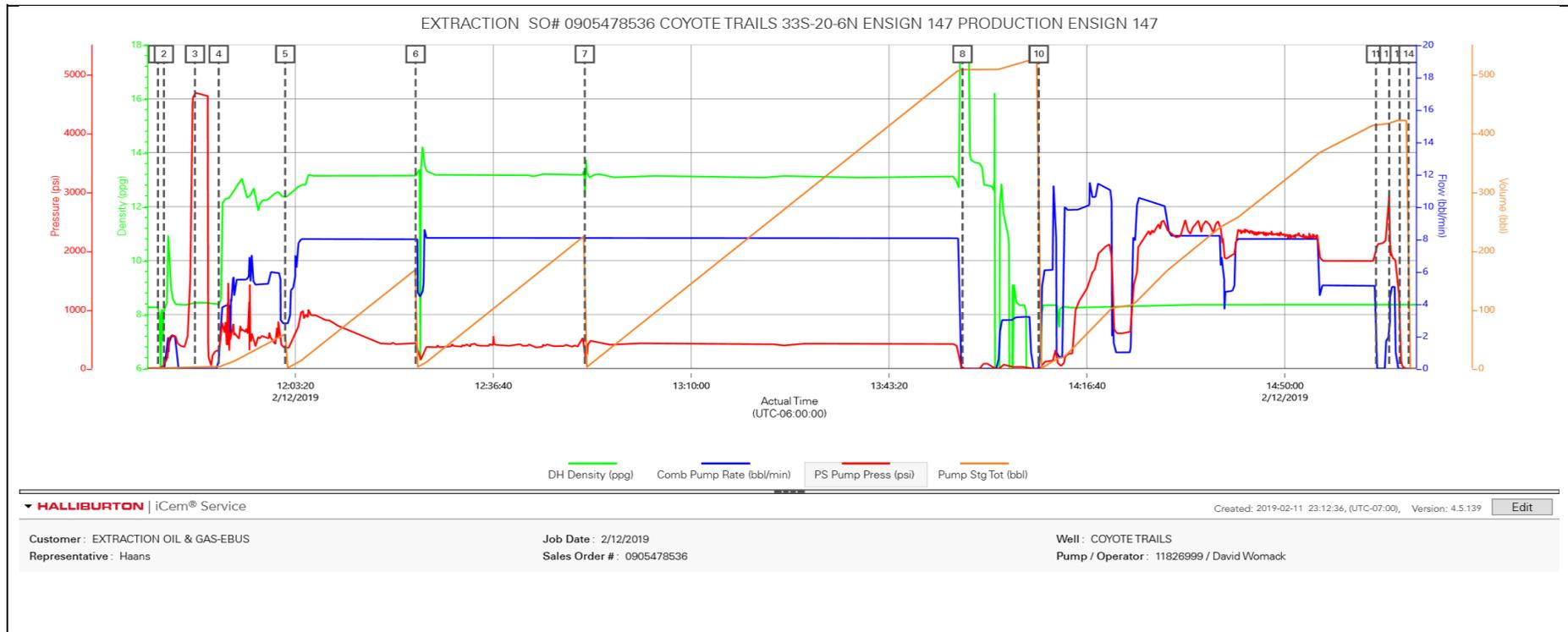
2.1 Extraction Coyote Trails 33S-20-6N-Custom Results.png

| Description | Actual Time (UTC-06:00:00) | DH Density (ppg) | Comb Pump Rate (bbl/min) | PS Pump Press (psi) | Pump Stg Tot (bbl) |
|-----------------------|----------------------------|------------------|--------------------------|---------------------|--------------------|
| 1 Start Job | 11:40:12 | 8.27 | 0.00 | 13.00 | 0.00 |
| 2 Drop Bottom Plug | 11:41:12 | 8.16 | 0.00 | 87.00 | 0.00 |
| 3 Test Lines | 11:46:26 | 8.44 | 0.00 | 4690.00 | 3.00 |
| 4 Pump Cap Cement | 12:01:38 | 12.37 | 2.80 | 353.00 | 58.50 |
| 5 Pump Lead Cement | 12:23:36 | 13.14 | 8.00 | 426.00 | 168.10 |
| 6 Pump Tail Cement | 12:52:06 | 12.23 | 8.00 | 172.00 | 225.90 |
| 7 Drop Top Plug | 14:08:31 | 0.06 | 0.00 | -16.00 | 524.50 |
| 8 Pump Displacement | 14:08:34 | 0.06 | 0.00 | -16.00 | 0.00 |
| 9 Bump Plug | 15:05:22 | 8.37 | 0.00 | 2118.00 | 415.30 |
| 10 Shift Tool - Lower | 15:07:35 | 8.39 | 1.90 | 2968.00 | 416.50 |
| 11 Check Floats | 15:09:21 | 8.36 | 0.00 | 368.00 | 421.50 |
| 12 End Job | 15:10:51 | 8.35 | 0.00 | -6.00 | 0.00 |

HALLIBURTON | iCem® Service
Created: 2019-02-11 23:12:36, (UTC-07:00), Version: 4.5.139 [Edit](#)

Customer: EXTRACTION OIL & GAS-EBUS Job Date: 2/12/2019 Well: COYOTE TRAILS

2.2 Extraction Coyote Trails 33S-20-6N-Custom Results (3).png



2.3 Extraction Coyote Trails 33S-20-6N-Custom Results (2).png

