

HALLIBURTON

iCem® Service

BONANZA CREEK ENERGY-EBUS

State Antelope 44-14-3HN Production

Job Date: Friday, October 21, 2022

Sincerely,

Meghan Van Zyl

Legal Notice

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Table of Contents

Cementing Job Summary4

 Executive Summary..... 4

Real-Time Job Summary.....7

 Job Event Log 7

Attachments..... 11

 Real Time iCem Job Chart..... 11

1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **State Antelope 44-14-3HN** cement **Production** 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 50 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

| | | | | | | | | | | | |
|--|-------------------|-------------------------------|--------------------------|---|---------------|-----------------------------------|-------------------------------|----------------------------------|----------------------|----------------------|----------------------------|
| Sold To #: 324725 | | Ship To #: 9127072 | | Quote #: | | Sales Order #: 0908184892 | | | | | |
| Customer: BONANZA CREEK ENERGY-EBUS | | | | Customer Rep: Josh Klisen | | | | | | | |
| Well Name: STATE ANTELOPE | | | Well #: 44-14-3HN | | | API/UWI #: 05-123-51730-00 | | | | | |
| Field: | | City (SAP): GILL | | County/Parish: WELD | | | State: COLORADO | | | | |
| Legal Description: 02-5N-62W | | | | | | | | | | | |
| Contractor: PATTERSON-UTI ENERGY | | | | Rig/Platform Name/Num: PATTERSON 345 | | | | | | | |
| Job BOM: 7523 7523 | | | | | | | | | | | |
| Well Type: HORIZONTAL OIL | | | | | | | | | | | |
| Sales Person: HALAMERICA\HX41066 | | | | Srvc Supervisor: Brandon Parker | | | | | | | |
| Job | | | | | | | | | | | |
| Formation Name | | | | | | | | | | | |
| Formation Depth (MD) | | Top | | | | Bottom | | | | | |
| Form Type | | | | | | BHST | | | | | |
| Job depth MD | | 11718ft | | | | Job Depth TVD | | 6308 | | | |
| Water Depth | | | | | | Wk Ht Above Floor | | 4 | | | |
| 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 | | 9.625 | 8.921 | 36 | | | 0 | 1614 | 0 | | |
| Casing | 0 | 5.5 | 4.778 | 20 | | | 0 | 11708 | 0 | | |
| Open Hole Section | | | 8.5 | | | | 1614 | 11718 | 1614 | 6308 | |
| Tools and Accessories | | | | | | | | | | | |
| Type | Size in | Qty | Make | Depth ft | | Type | Size in | Qty | Make | | |
| Guide Shoe | 5.5 | | | | | Top Plug | 5.5 | 1 | citadel | | |
| Float Shoe | 5.5 | 1 | citadel | 11708 | | Bottom Plug | 5.5 | 1 | citadel | | |
| Float Collar | 5.5 | 1 | citadel | 11703 | | SSR plug set | 5.5 | | HES | | |
| Insert Float | 5.5 | | | | | Plug Container | 5.5 | 1 | HES | | |
| Stage Tool | 5.5 | | | | | Centralizers | 5.5 | 213 | scepter | | |
| 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 | Tuned Prime | TUNED PRIME CEMENT SPACER SYS | | | 50 | bbl | 11.5 | 3.74 | 23.65 | 6 | 1775 |

| 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 | SBM CEM ELASTICEM™ SYS | 415 | sack | 13 | 1.66 | 8.3 | 9 | 3445 |
| 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 | IsoBond Lead Cement | SBM CEM FDP-C1371 SYS | 820 | sack | 13 | 1.55 | 7.14 | 9 | 5855 |
| 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 |
| 4 | ElastiCem | SBM CEM ELASTICEM™ SYS | 665 | sack | 13.2 | 1.59 | 7.78 | 9 | 5174 |
| 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 |
| 5 | Displacement | Displacement | 260 | bbl | 8.33 | | | 10 | 10912 |
| | | | | | | | | | |
| | | | | | | | | | |
| Comment 647bbbls mix water total used. | | | | | | | | | |

2.0 Real-Time Job Summary

2.1 Job Event Log

| Seq No. | Activity | Date | Time | Dwnhole Density (ppg) | Cmb Pump Rate (bbl/min) | Pump A Pressure (psi) | Cmb Stg Total (bbl) | Comments |
|------------|--|------------|----------|-----------------------------|----------------------------------|-----------------------------|---------------------------|--|
| 1 | Call Out | 10/21/2022 | 10:30:00 | | | | | crew called out to 5.5" production casing with an on location time 17:30 for Civitas Resources |
| 2 | Pre-Convoy Safety Meeting | 10/21/2022 | 13:55:00 | | | | | meeting with crew to discuss safety/hazards associated with traveling |
| 3 | Depart from Service Center or Other Site | 10/21/2022 | 14:00:00 | | | | | convoy to location |
| 4 | Arrive at Location from Service Center | 10/21/2022 | 15:45:00 | | | | | met with Mr. Frank with Civitas and went over job numbers, water sources, cmt volumes and iron placement |
| 5 | Assessment Of Location Safety Meeting | 10/21/2022 | 15:46:00 | | | | | hazard hunt, check location, bulk and water volumes,. td 11718, tp 11708, sj 5', fc 11703, sp 1614, surface casing 9.625 36#, production casing 5.5" 20#, wf 9ppg, tvd 6308, eob6487, kop 6390, 213 cnt, Citadel top/bottom plugs and fe |
| 6 | Safety Meeting - Pre Rig-Up | 10/21/2022 | 16:10:00 | | | | | meeting with hes personnel to discuss safety/hazards associated with rigging up |
| 7 | Rig-Up Equipment | 10/21/2022 | 16:15:00 | | | | | rig up iron to red zone, water and bulk |
| 8 | Casing on Bottom | 10/21/2022 | 16:50:00 | | | | | rig landed casing . TRK casing company |
| 9 | Rig-Up Equipment | 10/21/2022 | 17:02:00 | | | | | stab hes plug container so rig could begin circulating |

| | | | | | | | | |
|----|------------------------|------------|----------|-------|------|--------|--------|--|
| 10 | Circulate Well | 10/21/2022 | 17:07:00 | | | | | start circulation, pumped at 10bpm, psi 915 and pumped 7000 strokes |
| 11 | Pre-Job Safety Meeting | 10/21/2022 | 17:50:00 | 8.30 | 0.00 | 3.99 | 0.00 | meeting with all personnel on location to discuss safety/hazards associated with job, also covered job procedures. all personnel signed jsa |
| 12 | Break Circulation | 10/21/2022 | 17:57:00 | 8.31 | 0.00 | 4.37 | 0.00 | ko rig pumps, rig hes iron |
| 13 | Drop Bottom Plug | 10/21/2022 | 18:03:39 | 7.58 | 0.00 | 9.67 | 0.00 | bottom plug pre loaded prior to starting cmt job. plug loaded by Sam Mares with Civitas |
| 14 | Pump Water | 10/21/2022 | 18:04:10 | 8.26 | 0.74 | 10.47 | 0.01 | pumped 3bbls at 3bpm top psi was 220 |
| 15 | Test Lines | 10/21/2022 | 18:06:09 | 8.21 | 0.19 | 49.17 | 0.00 | test eko, 5th gear stall and high psi test 5647. psi held solid |
| 16 | Pump Spacer 1 | 10/21/2022 | 18:17:40 | 8.29 | 0.00 | 21.95 | 0.00 | pumped 50bbls of tuned prime, 11.5ppg, 3.74 yield, 23.65 gal/sk pumped at 7bpm and average psi was 200. weight confirmed using pressurized mud scales. calculated all 50bbls of spacer to surface |
| 17 | Check Weight | 10/21/2022 | 18:22:05 | 11.61 | 6.87 | 274.24 | 19.68 | |
| 18 | Pump Cement | 10/21/2022 | 18:25:44 | 11.62 | 5.42 | 105.16 | 44.23 | pumped 122.7bbls of cap cement, 415sks, 13ppg, 1.66 yield, 8.3 gal/sk pumped at 9bpm and average psi was 500. weight confirmed using pressurized mud scales. set time at 70bc 6:30hrs. calculated 48bbls of cap cmt to surface, 74.6bbls left inside surface casing. MW 3445 |
| 19 | Check Weight | 10/21/2022 | 18:31:28 | 12.88 | 9.01 | 433.71 | 46.06 | |
| 20 | Check Weight | 10/21/2022 | 18:33:57 | 13.00 | 9.05 | 494.77 | 68.78 | |
| 21 | Other | 10/21/2022 | 18:39:26 | 12.97 | 9.28 | 466.38 | 125.06 | slow rate to assure cap silo was mt |
| 22 | Pump Lead Cement | 10/21/2022 | 18:40:29 | 12.99 | 7.62 | 350.53 | 132.93 | pumped 226.4bbls of latex cmt, 820sks, 13ppg, 1.55 yield, 7.14gal/sk pumped at 9bpm and average psi was 730. weight |

confirmed using pressurized mud scales. set time at 70bc
5:02hrs. calculated top of lead cmt at 1557.63ft. MW 5855

| | | | | | | | | |
|----|-------------------|------------|----------|-------|-------|---------|--------|--|
| 23 | Check Weight | 10/21/2022 | 18:42:28 | 13.03 | 9.33 | 699.88 | 17.57 | |
| 24 | Slow Rate | 10/21/2022 | 19:05:14 | 13.04 | 9.36 | 703.60 | 231.08 | slow rate to assure lead silo was mt |
| 25 | Pump Tail Cement | 10/21/2022 | 19:05:54 | 12.89 | 6.82 | 376.03 | 0.57 | pumped 188.3bbls of tail cmt, 665sks, 13.2ppg, 1.59 yield, 7.78 gal/sk pumped at 9bpm and average psi was 540. weight confirmed using pressurized mud scales. set time at 70bc is 4:25hrs. calculated top of tail cmt at 7095.5ft. MW 5174 |
| 26 | Check Weight | 10/21/2022 | 19:08:05 | 13.24 | 9.39 | 551.17 | 20.69 | |
| 27 | Slow Rate | 10/21/2022 | 19:25:22 | 13.25 | 7.92 | 577.17 | 182.92 | slow rate to assure tail silo was mt and also to maintain density |
| 28 | Shutdown | 10/21/2022 | 19:28:24 | 13.25 | 3.87 | 176.52 | 198.24 | done pumping cmt. |
| 29 | Clean Lines | 10/21/2022 | 19:31:18 | 13.52 | 1.69 | 18.67 | 0.03 | closed three valves on hes manifold to well. cleaned lines and pump to 4sided tank below rig stairs. pumped 19bbls to clean lines and pump |
| 30 | Shutdown | 10/21/2022 | 19:37:46 | 7.86 | 0.83 | 37.68 | 0.05 | offline |
| 31 | Drop Top Plug | 10/21/2022 | 19:38:59 | 8.34 | 0.00 | 10.53 | 0.00 | top plug pre loaded while hes was washing lines and pumps. loaded by Civitas company rep Sam Mares and witnessed by HES supervisor |
| 32 | Pump Displacement | 10/21/2022 | 19:39:10 | 8.30 | 1.80 | 31.39 | 0.03 | calculated disp. fc st at 11703ft x .0222 =259.8bbls. 10 gallons mmcr in the first 20bbls of displacement |
| 33 | Other | 10/21/2022 | 19:40:50 | 8.45 | 11.22 | 1256.22 | 15.73 | caught cmt |
| 34 | Slow Rate | 10/21/2022 | 20:02:42 | 8.60 | 5.38 | 2652.30 | 246.97 | slow rate at 240bbls, 10bpm 2800psi to 4bpm, 2130psi |

| | | | | | | | | |
|----|--|------------|----------|------|------|---------|--------|---|
| 35 | Bump Plug | 10/21/2022 | 20:06:47 | 8.56 | 0.39 | 2691.88 | 263.11 | plug bumped at calculated volumes of 259.8bbls, psi 2150 and ko pumps at 2650, psi climbed to 3062 and held solid |
| 36 | Check Floats | 10/21/2022 | 20:08:25 | 8.62 | 0.00 | 3037.47 | 0.00 | citadel floats held 3bbls back to the pump truck |
| 37 | End Job | 10/21/2022 | 20:09:51 | 8.00 | 0.00 | 2.93 | 0.00 | cmt job complete |
| 38 | Resume | 10/21/2022 | 20:22:37 | 8.39 | 0.00 | 47.72 | 0.00 | clean hes hts |
| 39 | Pump Water | 10/21/2022 | 20:28:00 | 8.45 | 1.70 | 11.88 | 0.03 | pumped 50bbls to flush stack/used 100lbs sugar |
| 40 | End Job | 10/21/2022 | 20:37:06 | 0.38 | 0.00 | 11.60 | 0.00 | |
| 41 | Spacer Returns to Surface | 10/21/2022 | 20:38:00 | 0.02 | 0.00 | 8.95 | 0.00 | rig took back 50bbls of tuned prime spacer |
| 42 | Cement Returns to Surface | 10/21/2022 | 20:39:00 | | | | | rig took back 50bbls of cap cmt |
| 43 | Pre-Rig Down Safety Meeting | 10/21/2022 | 20:41:00 | | | | | meeting to discuss safety/hazards associated with rigging down |
| 44 | Rig-Down Equipment | 10/21/2022 | 20:45:00 | | | | | |
| 45 | Depart Location for Service Center or Other Site | 10/21/2022 | 21:30:00 | | | | | |
| 46 | Other | 10/21/2022 | 21:31:00 | | | | | Thank You for Choosing Halliburton Cement. Parker and Crew. (970)397-4969 |

3.0 Attachments

3.1 Real Time iCem Job Chart

