

Renegade Oil & Gas Company

McClintock #1

NW NE SECTION 36, T22S, R48W

BETA FIELD

BENT COUNTY, COLORADO

WORKOVER REPORT

Note: Well is suspected of having casing leaks, stuck packer and possible tubing integrity issues. Work was initiated so the well would pass a mechanical integrity test for SI wells.

11/6/13 – MIRU Eastern Colorado Well Service Rig #18. Had to dig deadman holes. SDFN.

11/7/13 – Unload rig pump and drill tank. Blow well down. Disassemble plunger/wellhead equipment. TIH and tag with 95' of 1" tubing. Spot 3 gallons sand down 1". Ran out of water – rig pump wouldn't prime. TOH and lay down 182 joints 1" plus 4 tag joints. SI 2 3/8" tubing. SDFN.

11/8/13 – RU swab. RIH and tag SN – mark line. RIH without swab mandrel and tag 50' below SN. Unscrew tubing head. Pull slips. Work tubing to 65k. Packer not releasing. Calculated free point started at 1043'. Increased to 1564'. Drop additional 8 gallons sand followed by 20 bbls water. Continue working tubing. RIH with sandline again. Tag 30' below SN. When POOH sandline stuck. Unable to pull free at 12k. Leave 10k pulled into for weekend. SDFN.

11/11/13 – Work sandline – still stuck. RU Canary Production Services. Drop cable cutter. POOH. Sandline cut at only 2200'. Work tubing to 67k – started coming free. At approximately 1100' outside of pipe had 1/4" thick scale. After 32 stands found cut sandline. Chain down tubing. Pull sandline to 15k with blocks – still stuck. Kept pulling tubing cutting sandline each stand. At 35 stands scale was 1/8" thick on OD of tubing. At 39 1/2 stands packer hanging up. Approximately 2450' tubing pulled. Packer at +/- 2025'. Left 50k pulled into. SDFN.

11/12/13 – Tubing still pulled to 50k. Attempt to work down – no luck. Pull on sandline with blocks – tubing jumped at 15k. Started dragging tubing out again. Hung up with 47 stands out (2930'). Packer +/- 1550'. Pump 500 gallons 15% HCl acid followed by 5 bbls water down annulus. Work tubing. Pull additional 15'. Displace acid with additional 3 bbls. Work tubing to 50k. Left 50k pulled into. SDFN.

11/13/13 – 50k still in tubing. Work pipe with no luck. Pull on sandline to 26k. Line jumped. Strip off top joint. Pull sandline – recovered all remaining line and BHA. Work tubing again to 65k – no luck. Back tubing off. TOH with 28 joints. SDFN.

11/14/13 – TIH with 27 joints and tubing subs. Torque all connections to 1400 psi. Screw back into tubing fish. Work pipe to 65k. RU and pump 40 bbls down tubing – no circulation. Work pipe – no luck. Able to rotate pipe with 7k pulled into. Dump 50 gallons sand down tubing. Kept tubing loaded with water. Wait 25 minutes for sand to fall. Work tubing – still stuck. SDFN.

11/15/13 – RU Pioneer Wireline Services. RIH and fire string shot in packer. POOH. Work tubing – no luck. RIH and shot squeeze perf just above packer. POOH. RU and pump 40 bbls down tubing with no circulation. RIH and chemical cut tubing at 1481'. SN @ 1484. RD wireline. TOH with 47 joints tubing. Scale so thick that had to be knocked off for slips to bite. TIH with mill shoe and extension. Tag @ 979'. Couldn't work deeper. TIH with 47 joints scaley tubing. SDFN.

11/18/13 – RU Extreme Heat hot oiler. Pump 30 bbls water down tubing. Pump 8 bbls 15% HCl down tubing. Flush with 5 bbls. Pump 4 bbls down casing. Flush with 2 bbls. Let soak for 30 minutes. TOH with tubing. Scale still had to be knocked off with hammers. TIH with 3 7/8" blade bit. Tag @ 1130'. Work up and down and with tongs to TOF @ 1480'. TOH. TIH with mill shoe, extension and tubing. Tag @ 1475'. Attempt to circulate – no luck. Mill 8". Flush with 6 bbls. Work to 1483'. Pull up 80'. SDFN.

11/19/13 – Drop down and mill 2'. Flushing with 6 bbls several times. Stopped making hole. Flush with 24 bbls. TOH. TIH with overshot, bumper sub and tubing. Catch fish. Try to bump down with no luck. Work upward to 65k. After ½ hr tubing jumped. TOH. Recovered cut joint, SN and 23" of packer mandrel. Identified packer as Arrowset. TIH with mill shoe. Tag 2' deeper. Mill with tongs – made no hole. Pick up 1 stand. SDFN.

11/20/13 – Drop down and tag. Confirm no fill. TOH. TIH with spear, bumper sub and tubing. Spear fish. Pull to 40k and something released. TOH. Recovered additional 37 ½" packer mandrel. TIH with long spear, bumper sub and tubing. Fall in fish but bottom out on no-go. No bite. TOH. Grapple never engaged. SDFN.

11/21/13 – Dress spear with 2.398" grapple (outer packer mandrel). TIH with spear, bumper sub and tubing. Spear fish and jar to 50k. Pull 55k – pulled off. Not acting like have fish. TOH. Spear unscrewed. TIH with bumper sub and tubing. Attempt to screw spear back on with no success. TOH. Threads packed with scale. TIH with changeover sub and tubing. RU pump just off fish. Flush with water and screw into. Release spear. TOH. TIH with spear, bumper sub and tubing. Spear fish and work to 70k. Attempt to release with no success. Leave 60k pulled into. SDFN.

11/22/13 – Not free. Cannot release spear. RU and pump water down tubing at 2 BPM and 1600 psi. Got spear to release. TOH. TIH with notched collar and tubing. Set just off fish. Pump 500 gallons 15% HCl. Flush with 5 bbls water. TOH. TIH with spear, bumper sub and tubing. Spear fish. Pull 15k and came free. TOH. Recovered balance of packer except bottom pin sub and tail joint. SDFN.

11/25/13 – TIH with 3 7/8" blade bit, casing scraper and tubing. Tag @ 4413'. Nothing noticed above. TOH. TIH with spear, bumper sub and tubing. Tag fish and push to 4468'. Pulls over and drags coming off bottom. TOH. Recovered 6" packer lug piece and tail joint of tubing. Unscrew casinghead cap. Pull slips. Work casing to 50k. Calculated free pipe @ 1600'. Set casing back in slips. SDFN.

11/26/13 – TIH with packer and tubing. Hole hunted. Found deepest hole between 3547'-3578'. TOH and find top hole between 851'-882'. Continue tripping out. SDFN.

12/2/13 – RU Pioneer Wireline. RIH and run CBL. PBTD @ 4473'. TOC @ 3970'. CCL indicated rough pipe in several areas including conformation of packer hole testing. Possible DV tool @ 1700' with upper cement top @ 1200'. Remove casing slips. Stretch test shows 1440' free. Worked casing to 60k – parted. RD wireline. RU to pull casing. TOH laying down 984' 4 ½" casing. Bottom 3 to 4 joints were badly corroded with multiple holes. SDFN.

12/3/13 – Make up and run 7 7/8" bit on 2 7/8" N-80 workstring tubing. Tag @ 562'. Work through easily and tag again @ 930'. RU pump and swivel. Bit plugged. Pulling 25-30k over. TOH. Prepared to TIH. Backhoe showed up to unload pipe. Organize location. SDFN.

12/4/13 – TIH with mill shoe, 2 joints wash pipe and tubing. With shoe @ 633' pumped mud and circulated. Wash to 665'. Ran to 914'. Wash/rotate hard to 980'. Once over fish washed easy to 1053' – bottom out. Pull BHA into surface pipe. SDFN.

12/5/13 – Pull BHA. Dress overshot for collar. Use 2 joints wash pipe as extension. Add 8 5/8" casing sub to raise working level. TIH. Fall over fish and drop to 1025'. Work casing to 80k. Parted after 1 hr. TOH. Recovered approximately 118' of ate up casing. Body parted. New TOF @ 1101'. Lay down fish. TIH as before. Tag and start washing at 991'. Rotate down to TOF. Continue to work down 1105'. Stopped making hole. TOH to surface pipe. SDFN.

12/6/13 – Pull BHA. No fish but casing mud imprint 4' up. TIH with mill shoe, 2 joints wash pipe and tubing. Rotate over fish and wash over casing fish to 1155'. TOH. Replace mill shoe with overshot with 5" grapple. Tag TOF @ 1101'. Rotate and caught fish at 1109'. Work casing to 130k. Parted after 3 hrs. TOH to wash pipe. Confirm fish. SDFN.

12/9/13 – Lay down fish. Recovered 74' casing. New TOF @ 1175'. 10' to next collar. TIH with mill shoe, 6 joints wash pipe and tubing. Little tight from 1100'-1130'. Swivel up and start milling at 1155'. Wash to 1185' at 2-3 min/ft. TOH to surface pipe. SDFN.

12/10/13 – TIH and start milling/washing at 1185'. Very slow hole to 1237'. Last 3hrs – 10'. TOH to surface pipe. SDFN.

12/11/13 – TIH and tag at 1237'. Mill very slowly. Making 5' every 2 hours. Stalls out easily. Pump problems. Lost 10' hole twice. Suspect wadded up casing. Mill down to 1250'. TOH. Shoe ID shinned up. OD and bottom kutrite looked new. Place stand of wash pipe in surface casing. SDFN.

12/12/13 – TIH with BHA as before. WO trackhoe to enlarge pit. Tag @ 1247'. Work to 1251'. Lost ground. Work down back to 1250'. Circulate clean. TOH to surface pipe. SDFN.

12/13/13 – TOH with BHA. Shoe like last one. Replace with new shoe. TIH with shoe, 4 joints wash pipe and tubing. Tag at 1250'. Mill slowly to 1262'. TOH into surface pipe. SDFN.

12/16/13 – TIH and tag at 1262'. Mill all day steady to 1292'. Some mud issues. TOH to surface pipe. SDFN.

12/17/13 – Add 2 additional joints wash pipe. TIH and tag 1292'. Mill slow and steady to 1320'. TOH to surface. SDFN.

12/18/13 – TIH. Sticky at 600'. Tag and fall over fish at 1175'. Mill down to 1350'. Pulled 13 joints and got stuck. SDFN.

12/19/13 – Lay down joint in the air. RU tubing swivel and hose. Pump and work pipe. Work tubing to 130k. Not free. Mix and pump poly plus mud chemical to bottom of pipe. Shoe @ 937'. Wash pipe top @ 744'. Leave in tension. SDFN.

12/20/13 – Rig repairs. Pull tubing to 140k. Slowly started working uphole. Pull 96' out over 5-6 hours. SDFN.

12/21/13 – Kept slowly pulling tubing to 140k. Had additional 80' pulled when something parted. Jumped top sheave. Too dark to attempt to fix. SDFN.

12/23/13 – Fixed drill line. TOH and found tubing parted 6 joints above wash pipe. Top should be just into the surface casing. Body part just above collar. Perform rig repairs. SDFN.

12/26/13 – TIH with 7 3/8" overshot, bumper sub and tubing. Tag TOF @ 352'. Catch fish and pull to 135k. Eased another 50' out of the hole and freed up. Pulled all out of hole. Very sticky shale caked on wash pipe. Add 1 additional joint wash pipe and TIH to bottom of surface casing. SDFN.

12/27/13 – TIH and tag @ 730'. Ream/swivel/circulate easily through 931'. Trip free to 1335'. Mud messed up by additives used. Thin mud. Wash to 1350' where left off. Mill to 1358' in 2 hours. Pull to surface pipe. SDFN.

12/30/13 – TIH to bottom with no problems. Mill additional 32' down to 1390'(?). Problems with mud pump. TOH and exchange mill shoe with external casing cutter. TIH with cutter and 6 joints wash pipe. Leave in surface. SDFN.

12/31/13 – Add bumper to BHA. TIH and engage cutter at 1341'. Cut pipe. TOH with fish. Recovered 169' casing. Two bad joints and two joints with what appears to be cement remnants on them. New TOF at 1344'. PU new shoe and run 6 joints of wash pipe. SDFD.

1/2/14 – TIH and tag at 1343'. Clean easy to 1358'. Continue milling down to 1396'. Mix mud. TOH to surface pipe. SDFN.

1/3/14 – TIH and drop over TOF @ 1344'. Tag at 1386'. Wash 10' fill and start milling @ 1396'. Mill to 1410'. Mud getting thick again. No issues tripping to surface pipe. SDFN.

1/6/14 – Very cold temps. Fight equipment. TIH and rewash to 1410'. Mill to 1418'. Pull into surface. SDFN.

1/7/14 – TIH and rewash to 1418'. Mix mud. Mill to 1425'. Stalled making hole. Would hang up and loose hole. Could not get 15' back. TOH. Shoe over half worn all over. SDFN.

1/8/14 – TIH with 7 3/8" overshot with 4 1/2" grapple on replacement 4 1/2" casing. Catch fish. Pull 10k over and came free. Set down several times. Made 3' hole. Pull 5k over off bottom. TOH standing back casing. Recovered 81' of zippered casing. Pull out to collar at 1425'. Bottom zippered pipe missing 1/2 circumference. SDFN.

1/9/14 – TIH with mill shoe, wash pipe sub with 6 1/4" insert mill and tubing. Tag @ 1390'. Mud issues. Work down to 1425'. Tag fish. Mill 3'. Acts like zippered pipe. TOH. Mill shoe shows wear on all surfaces. SDFN.

1/10/14 – TIH with tar impression block and tubing. Tag @ 1400'. Work to 1427'. TOH. Appeared to be mangled metal looking up. TIH with 7 7/8" bit. Ream/rotate to tag @ 1427'. TOH. TIH with 3 7/8" tapered mill and tubing in attempt to get into casing. Tag and rotate with tip of mill 1429'. Maximum OD at 1427'. TOH. Only tip worn. Not in casing. SDFN.

1/13/14 – TIH with 7 7/8" FBM. Tag at 1395'. Work to TOF @ 1425 1/2'. Mill to 1429' in 4 1/2 hrs. TOH. Wear on OD and entire face – no discernable pattern. TIH with tar impression block and tubing. TOH. Edge pattern of 4 1/2" casing. Appears FBM followed zipper. SDFN.

1/14/14 – TIH with tapered mill on bent joint of tubing. TIH and tag @ 1429'. Did not get into casing. TOH. Bend tubing higher. Leave tapered mill off. TIH. Enter pipe to 1432'. Swivel and pump down to 1440'. Trouble with the bend at that point. TOH. SDFN.

1/15/14 – TIH with donut (BA) mill with 2 3/8" tubing sub and 3 1/2" OD changeovers off bottom. Tag up mill at 1425'. Slowly mill down to 1429'. TOH. Wear indicates inside pipe and mill doing its job. SDFN.

1/16/14 – Replace 2 3/8" sub with 18' piece. TIH with BA mill. Fall into casing. Mill 1 1/2' with BA. Mix mud. Making very slow hole without collars. TOH. Additional wear on BA mill. SDFN.

1/17/14 – TIH with mill shoe, wash pipe sub, bumper sub and tubing. Very gently work over fish at 1430'. Wash carefully down to 1441'. TOH. Add one full joint of wash pipe. Run in surface casing. SDFN.

1/20/14 – TIH. Work through 1395'-1410' and tag fish @ 1430'. Fall over 3'. Clean pit. Wash to 1440'. Mill to 1446'. Pick up and lost 5'. Remill to 1446'. Acts like may be zippering pipe. TOH to surface pipe. SDFN.

1/21/14 – TOH and inspect wash pipe. Found 11' curled casing 3" wide held by 2' of rock. Straighten pipe estimated to be 18'. Top sub worn inside. TIH with new mill shoe, 1 joint wash pipe and tubing. Tag TOF at 1435'. Mill down to 1451'. Acting as if over pipe correctly. TOH to surface casing. SDFN.

1/22/14 – TOH and inspected BHA – looks good. TIH and swallow TOF. Mill/wash to 1465' – bottom out wash pipe. TOH. Shoe looked good. Add 1 additional joint wash pipe. TIH to base of surface pipe. SDFN.

1/23/14 – Very cold. TIH. Swallow TOF. Wash, mill to 1488'. Pull to surface pipe. SDFN.

1/24/14 – Very cold. TOH and add additional joint wash pipe. Also added 2-4 ¾" drill collars. TIH. Wash/mill to 1505'. TOH to surface pipe. SDFN.

1/27/14 – TIH to 1505'. Replace swivel packing. Mill/wash to 1528' – bottom out. Mix mud. TOH. Add 2 additional joints wash pipe. TIH with BHA in surface. SDFN.

1/28/14 – Very cold. TIH. Swallow TOF. Mill/wash to 1544'. TOH to surface pipe. SDFN.

1/29/14 – Very cold. TIH. Swallow TOF. Mix mud. Mill/wash to 1569'. TOH to surface pipe. SDFN.

1/30/14 – TIH. Mill/wash to 1582'. Got very hard but didn't act like metal. TOH and stand back collars. SDFN.

1/31/14 – Pull wash pipe. Exchange mill shoe for external cutter. TIH. Got over fish. Stack at 1450'. Hook up tubing swivel and pump. Not going down. Pull up. Took 70k to free. Able to go down now to 1560'. Attempt to cut at 1551'. Can't rotate. PU – took 70k to free. TOH. Recovered 70' 4 ½" casing. First 21' badly zippered. Twisted casing pin inside coupling. Coupling looking up at TOF. New TOF @ 1510'. SDFN.

2/3/14 – TIH with new shoe, 3 joints wash pipe, 2 drill collars and tubing. Mill/wash to bottom out @ 1610'. TOH. Add 2 more joints wash pipe. TIH to bottom of surface. SDFN.

2/4/14 – Snowstorm. SDF weather.

2/5/14 – Very cold. Attempt to work but SDF weather.

2/10/14 – TIH and swallow fish at 1510'. Mill/wash to 1664'. Start snowing hard. Pull to surface. SDFN.

2/11/14 – Very cold. TOH and add 2 jts wash pipe. TIH and swallow fish. Mill very slow hole 1669. Pull to surface. SDFN.

2/12/14 – TIH and swallow fish. Mill very slow to 1671'. TOH. Shoe worn all over. Found 1 joint error. All depths 30' shallower than thought. Dress OS with 5" grapple. TIH with OS, bumper, collars and tubing. Fall over fish. Not sure if caught. Never pulled over. TOH. Recovered 129' of casing. Twisted off pin on bottom side of collar. New TOF @ 1639'. SDFN.

2/13/14 – TIH with new mill shoe, 4 joints wash pipe, 2 collars and tubing. Swallow TOF. Fall to 1664'. Wash quickly to 1673'. Then very slow to 1675'. TOH. Shoe wear on leading edge. OD smoothed up. Leave stand of wash pipe in surface casing. SDFN.

2/14/14 – Stand back wash pipe. TIH with 7 3/8" OS dressed with 4 ½" grapple and casing. Latch onto fish at 1639'. Work to 120k – no luck. Try to release. No luck. Spins with no torque in both directions. SDFN.

2/17/14 – Work pipe. Casing popped. Must have been all but unscrewed from 2/14/14. Pull 3 joints. Trip in with 2 joints casing and subs for working height. Screw back in. trip in casing with 3 7/8" tapered mill and 2 3/8" tubing. Tag inside casing at 1635'. Made 3' slowly with tongs and tubing swivel. PU power swivel. Fight thru OS. Then made 1810'. SDFN.

2/18/14 – Drill additional tubing down. Started falling. Drop to 2508'. TOH. Mill looks good. Pump on casing with no returns. Charged up. Flow back. RU Pioneer Wireline. RIH with freepoint tool. Didn't act right. Needed 80k before movement observed. Tried second tool with same results. RIH with casing chemical cutter. Cut at 1695'. Tool seemed to cut but didn't release. Stuck in hole with wireline. SDFN.

2/19/14 – Work wireline. Move uphole 200' and stopped. Pull out of rope socket. TIH with small OS dressed with 1 7/16" grapple. Fish cutter and TOH. RIH with second cutter and cut at 1697'. Work casing. Not able to free. RIH with third cutter and cut at 1659'. Work pipe. RD wireline. Free point calculations indicate 1504' free. Leave 80k pulled into. SDFN.

2/20/14 – Still stuck overnight. Pump on casing. Finally circulate after 1 ½ hrs. Work pipe. Freed up. Partial TOH but SDF wind.

2/21/14 – Finish pulling casing. Recovered 20' casing. New TOF @ 1659'. Indications that casing was wall stuck. TIH with OS dressed with 4 ½" grapple, bumper sub, 2 collars and tubing. Caught fish. Pump with no circulation. Work to 90k – came free. TOH. No fish. PU new shoe and 2 joints wash pipe. Park in surface pipe. SDFN.

2/24/14 – TIH and swallow fish @ 1659'. Wash to 1675' easy. Very slow to 1681'. TOH to surface pipe. SDFN.

2/25/14 – TIH and start milling at 1681'. Mill through port collar. Mill to 1704'. TOH into surface pipe. SDFN.

2/26/14 – TOH. Shoe very worn. TIH with OS dressed with 4 ½" grapple and tubing. Fish casing at 1659'. TOH laying down casing and trimmed port collar. TIH with mill shoe, 2 joints wash pipe, 2 collars, bumper sub and tubing. Tag @ 1697'. Mill/wash to 1712'. TOH to surface pipe. SDFN.

2/27/14 – TIH and swallow fish to 1716'. Wash to 1720' and fell free to 1758'. TOH. Add 4 joints wash pipe. TIH and wash to 1888'. Circulate clean and TOH. TIH with OS dressed with 4 ½" grapple, bumper sub, collars and tubing. Catch fish. Work pipe to 100k. Free point calculation indicated free toward top of cement. Work to 110k and parted. TOH to OS and casing fish. SDFN.

2/28/14 – Lay down 286' 4 ½" casing fish. Very scaly on the OD. Parted right below a collar at 1995' log depth. TIH with mill shoe and 6 joints wash pipe. Wash easy to 2173'. Pull into surface casing. SDFN.

3/4/14 – TOH. TIH with OS dressed with 5" grapple on 4 ½" casing. Caught fish at 1985' tally depth. Pull 40k and land in slips. TIH with 3 7/8" bit on 2 3/8" tubing. Clean out to 2740'. Bit plugged at 2300' but fell free to 2740' without circulation. Start TOH pulling wet. SDFN.

3/5/14 – Finish TOH. Unplugged bit. TIH and clean out to 4100'. RU Pioneer Wireline. RIH with perf gun. Stack out just below OS. POOH. TIH with 3 7/8" tapered mill on tubing. Dress out OS area. TOH. RIH with perf gun and shot 3 perfs at 3960'. POOH. RIH with 4 ½" casing chemical cutter. Could not get through OS area. POOH. RIH with gauge ring and got through. POOH. Attempt to run cutter with weight bars – didn't go through OS area. POOH. RD wireline. SDFN.

3/6/14 – Work casing to 120k. Part something. TOH with casing. Recovered 5' piece of ate up casing. TIH with external casing cutter and wash pipe to 2177'. Cut easy. Pulled to surface. SDFN.

3/7/14 – Pulled balance of pipe. Recovered 189' 4 ½" casing. Dog leg 3' down. Explained wireline problems. TIH with 6 joints wash pipe and tubing. Wash over TOF and bottom out easily to 2371'. TOH to surface pipe. SDF wind.

3/10/14 – Pull wash pipe. TIH with external casing cutter on wash pipe. Drop over fish easy until last 30'. Possible bad casing area. RU pump and swivel and got cutter down. Attempt cut – doesn't act right. Pull 15k over to free up. TOH and found knives broken off. Recovered nothing. TIH with OS dressed with 4 ½" grapple on casing. Parked in surface. SDFN.

3/11/14 – Finish TIH and caught fish. Would pull off at 15k over. Circulate. Pull to 80k prior to pulling off. Couldn't get another bite. Too windy to pull pipe. SDF weather.

3/12/14 – Pull 60k to free pipe. Mix mud and pump 70 bbls down hole. TOH. Redress OS with new grapple and add additional extension bowl. TIH and catch fish. Work pipe to 80k. Calculated free pipe at 3291'. Leave 70k in slips. TIH with 3 7/8" tapered mill on tubing. Tag at 2542'. Clean to 2573'. Working through debris. Pull 12 stands. SDFN.

3/13/14 – Drill mill down to 2700'. Fell free to 4100'. TOH. RU Pioneer Wireline. RIH with chemical cutter and cut 4 ½" casing at 3930'. POOH. Work pipe to 120k but didn't come free. RIH and perform free point. POOH. RIH with second cutter and cut at 3015'. Work pipe free. RD wireline. Pull 56 joints casing. SDFN.

3/14/14 – Finish TOH. Recovered 888' of old well casing. Area of 2350' was ate up. New TOF clean. TIH with 7 7/8" bit and tubing. Tag @ 2400'. Clean to 2573'. Getting sticky because of poor mud. TOH to surface pipe. SDFN.

3/17/14 – Secure mud. Mix mud. TIH and drill down to 2995'. Circulate. Pull over off bottom when TOH. SDFN.

3/19/14 – TIH with new mill shoe, 2 joints wash pipe, 2 drill collars and tubing. Start washing at 2900'. Over TOF easily. Wash to 3056'. Pull back into surface pipe. SDFN.

3/20/14 – TOH and check shoe – ok. Add 2 joints wash pipe. TIH and wash over fish to 3127' easily. TOH. TIH with OS dressed with new 4 ½" grapple and tubing. Had to drill last 15' prior to fish. Couldn't get bite. TOH. Control beat up. Grapple wouldn't slide to set position due to packer mud. SDFN.

3/21/14 – TIH with mill shoe, 18' wash pipe with insert FBM, 2 collars and tubing. Tag @ 3000'. Couldn't swallow fish. TOH. TIH with 7 7/8" FBM on drill collars and tubing. Tag @ 2985'. Wash to 3000' for TOF tag. Mill off 2 ½'. Milled normally. Pulled 80k off bottom. TOH with tubing. SDFN.

3/25/14 – Finish pulling BHA. TIH with OS with new 4 ½" grapple. Caught fish. Work to 120k. Not coming free. Stretch calculation indicates stuck at 3400'ish. Set casing in slips. TIH with 3 7/8" bit and 40 joints tubing. SDFN.

3/26/14 – Trip tubing and clean out casing. Work through OS and down to 3900'ish. Circulation during clean out also coming up surface pipe. TOH. Work casing to 120k – not free. RU Pioneer Wireline. RIH with free point tool. Showed stuck at 3410'. POOH. RIH with 4 ½" casing chemical cutter and cut pipe at 3400'. POOH. Pull to 120k to move pipe. Came free in 1 joint. RD wireline. SDFN.

3/27/14 – Pull 4 ½" casing. Recovered 385' casing fish. Rig over for wash pipe. SDF wind.

3/28/14 – TIH with mill shoe, 2 joints wash pipe, bumper sub, 2 collars and tubing. Tag at 3190'. Wash to 3385' (tally). Work over TOF. Wash to 3445'. Started slow but picking up. TOH to surface pipe. SDFN.

4/1/14 – Finish TOH. Inspect shoe – ok. Added 4 additional joints wash pipe. TIH and swallow TOF at 3385'. Mill/wash slowly to 3478'. TOH into surface pipe. SDFN.

4/2/14 – Mix mud. TIH and swallow fish. Mill/wash slow to 3503' then easy to 3576'. TOH. Added 4 additional wash pipe. Now can swallow 330'. Trip in surface pipe. SDFN.

4/3/14 – TIH and swallow fish. Drop to 3556'. Start washing. At 3634' lost circulation. Weather getting bad. TOH and lay down some wash pipe. SDFN.

4/4/14 – Stand back remaining wash pipe. Shoe very damaged. Exchange shoe for external casing cutter. TIH to 3595'. Mix mud and pump. Couldn't regain circulation. Had to pull 30k to free cutter. Drop to 3620'. Couldn't get cutter to act right. TOH. No fish. Found cutter full of formation. Some knives broke. SDFN.

4/8/14 – TIH with OS dressed with 4 ½" grapple and casing. Catch fish. Mix mud. Attempt to circulate – pressured up. Work to 120k – nothing free. TIH with 3 7/8" bit and tubing. Stacked out at OS area. Bounced when trying to work through. TOH. SDFN.

4/9/14 – TIH with new 3 7/8" FBM and tubing. Tag in OS area. Mill down 4'. Cutting metal the whole time. TOH. Exchange FBM for tapered mill. TIH and stack where FBM got to. Mill down another 1' and fell through. Ran to 4000'. Circulate and TOH. SDFN.

4/10/14 – Attempt to pump down casing to establish circulation. Work pipe to 120k. Kept increasing pressure to 800psi. Finally broke. Pump 4 BPM with no returns. Work pipe. RU J-W Wireline. RIH and run free point. POOH. RIH with 4 ½" casing chemical cutter and stacked at OS. POOH. TIH with tapered mill on tubing. Work thru OS area in 45 min. TOH. RIH and cut casing at 3579'. RD wireline. Work casing – free up. Pulled 14 joints casing. SDFN.

4/11/14 – Attempt to circulate well prior to TOH – no luck. Pull all casing. Recovered 195' old 4 ½" casing. TOF recovered was windowed. OS top sub damaged. Mix mud. SDF LCM and tool repair.

4/14/14 – TIH with 7 7/8" bit and tubing to 3348'. Pump mud with LCM. Caught circulation after 15 bbls. Drop to 3537'. Circulate again. TOH. Wind very bad. Make up mill shoe on stand of wash pipe. SD for wind.

4/15/14 – TIH with mill shoe, 3 joints wash pipe, bumper sub, 2 collars and tubing. Tag TOF at 3579'. Wash/mill down to 3649'. Lost some circulation at first but then held. Pull to surface pipe. SDFN.

4/16/14 – Pull up and add 2 additional joints wash pipe. Attempt to TIH. Too windy. Pull to surface pipe. Mix mud. SDF wind.

4/17/14 – TIH and swallow fish. Rewash easy to 3649'. Wash/mill to top out at 3732'. TOH to surface pipe. Mix mud. SDFN.

4/18/14 – Pull up and add 2 additional wash pipe. Change to new shoe. TIH and swallow fish. Work back to 3732'. Wash/mill easy/hard to 3794'. Top out. TOH to surface pipe. SDFN.

4/21/14 – Pull up and add 2 additional wash pipe (9 total). TIH and swallow fish. Swivel issues. Lost circulation. Pull 10 stands. Mix mud and pump. Regain circulation. Wash/clean to 3802'. More swivel problems. Made sure TOF wash clean. Pull to surface pipe. SDFN.

4/22/14 – TIH with wash pipe to TOF. Circulate down to 3785'. TOH. Exchange mill shoe for external cutter. TIH to 3800'. Can't get cutter to act correctly. Pulling over. Sticky. Troubles turning pipe. Try new place with no luck. Pull up to surface pipe. SDFN.

4/23/14 – SDF wind.

4/24/14 – Pull cutter – no fish but knives broken. Return tool to shop. TIH with mill shoe, 9 joints wash pipe, 2 collars, bumper and tubing. Rewash down to 3802' utilizing different swivel. Made new hole to 3825'. Lost 50 bbls mud over entire day. Pulled into surface pipe. SDFN.

4/25/14 – Pull up and add 2 additional wash pipe. Mix mud. TIH and drop over fish. Wash to 3825'. Mill/wash to 3865'. Minor circulation issues. Pulled into surface pipe. SDFN.

4/28/14 – SDF wind. Clean out pit.

4/29/14 – SDF wind.

4/30/14 – Pull up and add 8' wash pipe. Mix mud. Run BHA back into surface pipe. Winds came up. SDF wind.

5/1/14 – TIH and swallow TOF. Swivel up at 3845'. Wash easy to 3904'. Lost circulation issues. Finish washing to 3917'. Previous chemical cut at 3930' – wireline. Circulate clean and TOH. Laid down wash pipe. Make up OS dressed with 4 ½" grapple and casing. Park in surface pipe. SDFN.

5/2/14 – TIH with casing. Fall over TOF at 3579. Gained 4 points weight. Never pulled over. TOH. Recovered 341' of old existing casing. Nickel size hole on 6th of the 9 joints laid down. SDFN.

5/5/14 – Mix mud. TIH with used mill shoe, 1 joint wash pipe with insert mill, 2 collars, bumper sub and tubing. Tag TOF @ 3920'. Wash easy to 3926'. Mill very slow to 3939'. TOH and check shoe – appropriate wear. SDFN.

5/6/14 – Replace mill shoe with new one. TIH and wash/mill to 3952. Engaged insert for 5'. TOH. All mill wear as expected. SDFN.

5/7/14 – TIH with tar block on tubing. Tag fish. TOH laying down 2 7/8" work string. Tar pulled out of block – no picture. Change over to casing equipment. SDFN.

5/8/14 – TIH with 7 3/8" OS dressed with 4 ½" grapple with packoff on casing. Installed latch insert into first casing connection. Ran 3 centralizers on even joints above overshot. Install DV tool at 2727'. Centralizers placed every other connection from 4 below DV to 60 connections above. Circulate prior to engaging TOF with no pressure. Latch onto fish. Circulate again with 200 psi (perf holes @ 3960'). Pull 50k into casing and land in slips. SDFN.

5/12/14 – Circulate well. RU Consolidated Oil Well Services. Mix and pump 175 sacks 60/40 poz with 8% gel and ¼# Floseal followed by 50 sacks class A common cement. Launch plug. Displace cement with 20 bbls water and 42 bbls mud. No loss of circulation. 700 psi prior to plug. Land plug and pressure to 1450 psi. Release pressure and float held. Drop DV tool bomb. Open DV and circulate 2 ½ hrs. No obvious cement to surface. Mix and pump 525 sacks 60/40 poz with 8% gel and ¼# Floseal. Launch plug. Displace cement with 42.2 bbls water. 900 psi prior to plug. Land plug and pressure to 2200 psi. Release pressure and float held. Circulated approximately 10 bbls cement to pit. No loss of circulation. RD cementers. Land casing in surface head. Load up all casing equipment. Changeover for tubing. SDFN.

5/13/14 – TIH with new 3 7/8" bit, 4-3 1/8" collars and tubing. Tag DV at 2727'. RU JU head. Drill out DV tool in approximately 3 hrs. Work up and down several times to clean up. Finish TIH and tag shoe at 3898'. Lay down singles for drilling. Prep to drill out. SDFN.

5/14/14 – Drill on wiper plug. Made 2' and seems to spin with insert. Rotate and drill to 3928' (overshot). Acts like drilling on casing. Making no hole. TOH. Replace bit with 3 7/8" FBM. TIH. Mill 2'. Went faster after first 6 inches. Start TOH. SDFN.

5/15/14 – Finish TOH. Replace FBM with bit and TIH. Tag @ 3930'. Attempt to drill. Still acts like metal. TOH and change back to FBM. TIH and continue milling. Made 3' in 2 hours to 3935'. Seems to be picking up. SDFN.

5/16/14 – Finish drilling out shoe joint with mill. Fell out at 3955'. Tag again at 4050'. Seems to be pushing metal down to 4490'. Circulate clean. SDFN.

5/19/14 – Attempt to circulate and continue running to bottom. Couldn't circulate – mill plugged. TOH pulling wet. Bottom drill collars plugged. FBM shows significant wear on OD. Refill casing. RU Pioneer Wireline. RIH and ran Radial CBL from 4500' to surface. First stage cement top @ 2845'. Upper stage cement top @ 320' (base surface shoe @ 383'). RU to perform a State MIT test. Pressured up casing – leaked off. Failed MIT. SDFN.

5/20/14 – TIH with packer and tubing. Set packer. Casing tested good below 4022'. Move and reset packer at 3896'. Pressure leaked off slowly. Backside tested good. Continue pumping into down tubing at 600 psi. After ½ hr started taking 1 BPM @ 500 psi and then 2 BPM @ 400 psi. Release packer and pull up. Reset packer at 3019'. Tested backside to 500 psi – held good. SDFN.

5/21/14 – RU Consolidated Oil Well Services. Repressure test backside to 500 psi – ok. Establish injection rate at 1 ½ BPM and 750 psi. Mix and pump 75 sacks class A common cement down tubing. Displace with 24 ½ bbls. Squeeze well off to 1500 psi. RD cementers. Bled off pressure – no flowback. Release packer. TOH. Start TIH with bit, collars and tubing. SDFN.

5/22/14 – Finish TIH. Tag @ 3769'. Drill out to 3955'. Last 30' hard. Fell out. Test casing to 500 psi – good. Continue down to 4490'. SDF weather.

5/27/14 – Start drilling @ 4490'. Drill down to 4497'. Acts like on metal – very touchy. Circulate clean. RU to perform State MIT test. Test casing/tubing in well to 370 psi. No loss of pressure in 15 min. Passed MIT. Attempt to drill again. No new hole. Some metal and rubber in returns. TOH. Bit damaged. One cone locked. RU magnet on sandline. Made magnet run – stacked at 3928' (overshot). TIH with 3 ¾" mill shoe, 7' wash pipe sub and tubing. Tag @ 3928'. Drill 3' in 1 hour. SDFN.

5/28/14 – Continue drilling. Mill to 3935' in 2 hours. TOH. Shoe very shiny on OD. Found 3' piece of old zippered 4 ½" casing in shoe. TIH with tapered mill, string mill, 2 collars and tubing. Tag @ 3935'. Mill down 2' in 2 ½ hrs. Very slow. Pulled 45k coming up. Lost 2' when retagging. SDFN.

5/29/14 – Attempt to mill. Making no footage. TOH. All wear on tapered mill. TIH with 3 7/8" FBM, 2 collars and tubing. Tag at 3935'. Mill 4'in 45 minutes – fell through. Work bad area. Trip to bottom at 4497'. Role hole with produced water. Continue down to 4560'. Lost circulation. Regain partial returns but not making new hole. SDFN.

5/30/14 – TOH. FBM had major scarring as if metal got wedged beside it. TIH with tapered mill/string mill combo to bottom tag at 4560'. Touched nothing. RU swab. RIH and check FL @ 3700'. Had oil and gas show. RD swab. TOH. SDFN.

6/2/14 – TIH with 3 3/4" mill shoe, 7' wash pipe sub, bulldog bailer and tubing. Tag at 4560'. Bail down to 4595' with ease. Turn with tongs and bail to 4600'. TOH. No recovery in shoe. TIH with 3 3/4" shoe, 3 joints wash pipe, 7' wash pipe sub, bulldog bailer and tubing. Turn over 1" fish top at 4612'. Work pipe to 4680'. Grind on bottom to try and lock 1" fish in. Start TOH. SDFN.

6/3/14 – Blow well down. Finish TOH. No fish recovered. RIH with lead impression block on sandline. Tag bottom. POOH. Shows 1" tubing collar looking up. TIH with 3 3/4" OS dressed for 1" collar. Tag fish at 4612'. Work to 4613'. Slight pop. TOH. No large fish. Appears that fish has been folded over. One small piece 8"x2". Appears went in grapple and bent over sideways. SDFN.

6/4/14 – TIH with double spring shoe OS, 3 joints wash pipe, bulldog and tubing. Used swivel to get over TOF. Drop over to 4680'. TOH. Recovered no fish or had indications of fish. TIH with second spring shoe OS. Spud down and made additional hole to 4630'. Start TOH. SDFN.

6/5/14 – Finish TOH. Recovered nothing. Lay down collars and wash pipe. TIH with 2 3/8" notched collar and 145 joints tubing. Pipe tally = 4539'. With 6' KB landed at 4544'. Pack off. Install orbit. RU swab. IFL @ 3950'. Swab well dry in 7 runs. SDFN.

6/6/14 – Tear down location. Rack equipment. Made 3 swab runs. Very minimal entry. CP – 7 psi. SDFD.

6/9/14 – Check pressures. RU swab. IFL @ 4300'. Made several swab runs until dry. RD swab. SDFD.

6/10/14 – Pulled 2 swab runs. Minimal recovery. RD service rig.