

**FORGE ENERGY OPERATING, LLC.**  
**UNIVERSITY 18-3-14 WA7 1207H**  
**API Number: 42-475-38194**

**04/20/2021**

Rig Name:

Depth = 0.0 Progress = 0.0

07:00 Safety meeting with vendors

07:15 Start pit construction

**04/21/2021**

Rig Name:

Depth = 0.0 Progress = 0.0

07:00 BLADE PAD AND CONTINUE TO WORK ON PITS.

**04/22/2021**

Rig Name:

Depth = 0.0 Progress = 0.0

07:00 15 MIN. SAFETY AND LOCATION CONSTRUCTION

**04/23/2021**

Rig Name: READY DRILL

Depth = 0.0 Progress = 0.0

07:00 PAD COMPLTE, PIT CONSTRUCTION COMPLETE

**04/27/2021**

Rig Name:

Depth = 0.0 Progress = 0.0

07:00 SET CONDUCTOR AND MOUSE HOLE

**05/04/2021**

Rig Name:

Depth = 0.0 Progress = 0.0

06:00 INSTALL POLY PIPE

**05/06/2021**

Rig Name:

Depth = 0.0 Progress = 0.0

06:00 WORK ON MSA's

**05/11/2021**

Rig Name: H&P 462

Depth = 0.0 Progress = 0.0

07:00 LINE PITS AND START WITH WATER

**05/12/2021**

Rig Name: H&P 462

Depth = 0.0 Progress = 0.0

07:00 LOCATION IS READY FOR RIG

**05/13/2021**

Rig Name: H&P 462

Depth = 0.0 Progress = 0.0

07:00 LOAD PITS WIH FRESH AND BRINE WATER

**05/20/2021**

Rig Name: H&P 462

Depth = 0.0 Progress = 0.0

06:00 Waiting on Trucks.

09:00 H&P Trucks hauling in miscellaneous loads of rig #462. All of camp. pipe racks, skid package, assorted miscellaneous loads.

18:00 WO daylight

**05/21/2021**

Rig Name: H&P 462

Depth = 0.0 Progress = 0.0

06:00 WO Daylight

10:00 Trucks hauled 48 loads from yard to location. Set Skids in place to begin rig up operations.

1st truck arrived onsite at 10:00am. Trucks released at 20:00.

20:00 Rig up operations, estimating 70% complete @ 06:00.

**05/22/2021**

Rig Name: H&P 462

Depth = 0.0 Progress = 0.0

06:00 Rigging up rig with H&P hands. Raise doghouse and secure, pin derrick together and string drilling line, all electric and winch lines, raise derrick to floor and pin,

fully inspect derrick for potential falling objects and raise derrick and secure, rigging up mud pits and pumps, run ground wires from all skids to cellar. Test all rig equipment, confirm proper functionality and make repairs where needed. SIMOPS: fill water tank from frac pond, receive casing float equipment and directional tools. Fabrication to cuttings trough. Fill rig water tank and steel pits with water. fix leaks on pits.

### 05/23/2021

Rig Name: H&P 462

Depth = 0.0 Progress = 0.0

- 06:00 Finish rigging up rig and testing equipment; Pressure test all mud lines with rig pump to 1,500 psi (good test)
- 11:30 Conduct pre-spud inspection with driller and toolpusher. Rig is ready.  
Accept rig on day work @ 12:00 5/22/2021
- 12:00 Mixing spud mud in pits; Welding up 20" flange & conductor for diverter; install mud cross, annular, DSA, Riser, HCR, and diverter flange and torque. Install flange on flowline / make up dresser sleeve. Install Koomey fittings and unions. Install diverter lines to reserve. Rig up jet lines on flowline,

### 05/24/2021

Rig Name: H&P 462

Depth = 837.0 Progress = 731.0

- 06:00 Finish rigging up PVC, pump hoses and transfer pumps behind steel pits. Finish rigging fluid jets on flowline. Build and rig up fill up line.
- 15:30 PJSM: Rack 15, 6 1/2" DC's, 30, 4 1/2" HWDP and strap, measure od and id. Pick up DC's to floor, building stands in derrick.
- 19:00 PJSM: PU 8 1/4", 7/8, 7.0, 1.25 deg fixed motor w/ 12" UBHS, MU Ulterra SPLK616 PDC bit, Scribe, and install MWD, pu and MU directional assembly. run in hole.
- 22:30 Tag bottom @ 106' and record. Break circulation and spud well @ 22:30 hrs. TRRC notified by TJ Smith.  
ROT DRLG F/ 106' - T/182': (76' @ 102 FPH), WOB: 15K-20K, TOP DRV RPM: 50, 35-50, SPP: 780, GPM: 500, DIFF PSI: 185, MMRPM: 58, TOP DRV TRQ:2,500-3,500 FT/LBS ON BTM, OFF BTM: 375 FT/LBS, PU: 55K, SO:55K, ROT:53K, PUMPING 10BBL, 65 VIS SWEEPS EVERY OTHER CONNECTION OR AS NEEDED.
- 23:15 TO MAKE CONNECTION, RACK BACK ONE STAND OF HWDP, C/O ELEVATORS, PU NMDC, SHOCK SUB AND CROSS OVER, C/O ELEVATORS, LATCH UP STAND FROM DERRICK.
- 00:00 ROT DRLG F/ 182' - T/521': (339' @ 194 FPH), WOB: 15K-20K, TOP DRV RPM:100, SPP:2,200 PSI, GPM:905, DIFF PSI:275 PSI, MMRPM: 150, TOP DRV TRQ:2,800-4,150 FT/LBS ON BTM, OFF BTM:1,825 FT/LBS, PU:58K, SO:49K, ROT:55K, PUMPING 10BBL, 65 VIS SWEEPS EVERY OTHER CONNECTION OR AS NEEDED.
- 01:45 SLD DRLG F/521' - T/556' (35' @ 140 FPH), TF- 160 M, WOB: 20K, GPM: 905, MMRPM: 150, SPP: 2,350 PSI, DIFF: 250 PSI
- 02:00 ROT DRLG F/556' - T/616', (60' @ 240 FPH), WOB: 15K-20K, TOP DRV RPM:100, SPP:2,200 PSI, GPM:905, DIFF PSI:275 PSI, MMRPM: 150, TOP DRV TRQ:2,800-4,150 FT/LBS ON BTM, OFF BTM:1,825 FT/LBS, PU:58K, SO:49K, ROT:55K, PUMPING 10BBL, 65 VIS SWEEPS EVERY OTHER CONNECTION OR AS NEEDED.
- 02:15 SLD DRLG F/616' - T/653' (37' @ 148 FPH), TF- 145 M, WOB: 20K, GPM: 905, MMRPM: 150, SPP: 2,350 PSI, DIFF: 250 PSI
- 02:30 ROT DRLG F/653' - T/707', (54' @ 216 FPH), WOB: 15K-20K, TOP DRV RPM:100, SPP:2,200 PSI, GPM:905, DIFF PSI:275 PSI, MMRPM: 150, TOP DRV TRQ:2,800-4,150 FT/LBS ON BTM, OFF BTM:1,825 FT/LBS, PU:58K, SO:49K, ROT:55K, PUMPING 10BBL, 65 VIS SWEEPS EVERY OTHER CONNECTION OR AS NEEDED.
- 02:45 SLD DRLG F/707' - T/737' (30' @ 120 FPH), TF- 40L, WOB: 20K, GPM: 905, MMRPM: 150, SPP: 2,435 PSI, DIFF: 250 PSI
- 03:00 ROT DRLG F/737' - T/807', (70' @ 280 FPH), WOB: 20K-30K, TOP DRV RPM:100, SPP:2,675 PSI, GPM:905, DIFF PSI:300 PSI, MMRPM: 150, TOP DRV TRQ:5,500 FT/LBS ON BTM, OFF BTM:2,000 FT/LBS, PU:58K, SO:49K, ROT:55K, PUMPING 10BBL, 65 VIS SWEEPS EVERY OTHER CONNECTION OR AS NEEDED.
- 03:15 SLD DRLG F/807' - T/837' (30' @ 124 FPH), TF- 60L, WOB: 20K, GPM: 905, MMRPM: 150, SPP: 2,435 PSI, DIFF: 250 PSI
- 03:30 TOH, SET BACK HWDP, PU 6 1/2" DC'S AND TIH TO 500'.  
Vis (s/qt): 31, Dens (lb/gal): 8.80, pH: 11.0

### 05/25/2021

Rig Name: H&P 462

Depth = 4,177.0 Progress = 3340.0

06:00 TIH F/494'- T/837', NO ISSUES.

07:15 ROT DRLG F/837'- T/878', - 41' @ 82 FPH

LIMITER: ONE PUMP DOWN

07:45 SLD DRLG F/878' - T/903' - 25' @ 100 FPH

LIMITER: ONE PUMP DOWN

08:00 DUMP SPUD MUD TO OUTER RESERVE PIT, FILL ACTIVE WITH 10# BRINE WATER

08:30 ROT DRLG F/903' - T/968', (65' @ 264 FPH), WOB: 45K, TOP DRV RPM:100, SPP:3,400 PSI, GPM:905, DIFF PSI:500 PSI, MMRPM: 150, TOP DRV TRQ:5,500 FT/LBS ON BTM, OFF BTM:2,000 FT/LBS, PU:98K, SO:79K, ROT:8655K, PUMPING 10BBL, 65 VIS SWEEPS EVERY OTHER CONNECTION OR AS NEEDED.

08:45 SLD DRLG F/968' - T/998" (30' @ 120 FPH), TF- 60L, WOB: 20K, GPM: 905, MMRPM: 150, SPP: 2,435 PSI, DIFF: 250 PSI

09:15 ROT DRLG F/998' - T/1,297', (299' @ 240 FPH), WOB: 45K, TOP DRV RPM:100, SPP:3,400 PSI, GPM:905, DIFF PSI:500 PSI, MMRPM: 150, TOP DRV TRQ:5,500 FT/LBS ON BTM, OFF BTM:2,000 FT/LBS, PU:98K, SO:79K, ROT:8655K, PUMPING 10BBL, 65 VIS SWEEPS EVERY OTHER CONNECTION OR AS NEEDED.

10:30 2 MUD PUMPS DOWN, TOH TO 598'. WO WELDER TO ARRIVE AND REPAIR MUD PUMP 2 HRS. WELD UP AND REPAIR WASH ON GOOSE NECK UNION, REPAIR #2 PUMP.

17:00 TIH F/ 598' - T/ 1,297'

17:30 ROTATE F/ 1,297' TO 1,346' @ 800 FPH

LIMITER:

17:45 SLIDE F/ 1,346' TO 1,378' @ 60R

LIMITER:

17:49 ROTATE F/ 1,378' TO 1,454' @ 800 FPH

LIMITER:

18:00 SLIDE F/ 1,454' TO 1,487' @ 60R

LIMITER:

18:30 ROTATE F/ 1,487' TO 2,210' @ 800 FPH

LIMITER:

20:30 SLIDE F/ 2,210' TO 2,233' @ 120R

LIMITER:

20:45 ROTATE F/ 2,233' TO 2,587' @ 800 FPH

LIMITER:

21:45 SLIDE F/ 2,587' TO 2,617' @ 80R

LIMITER:

22:00 ROTATE F/ 2,617' TO 3,055' @ 550 FPH

LIMITER:

00:00 SLIDE F/ 3,055' TO 3,084' @ 45R

LIMITER:

00:15 ROTATE F/ 3,084' TO 3,809' @ 200-500 FPH

LIMITER: TORQUE

03:30 SLIDE F/ 3,809' TO 3,836' @ 45R

LIMITER: TOOL FACE CONTROL

04:00 ROTATE F/ 3,836' TO 3,900' @ 200-500 FPH

LIMITER: TORQUE

04:15 SLIDE F/ 3,900' TO 3,928' @ 70R

LIMITER:

04:45 ROTATE F/ 3,928' TO 4,177' @ 200-500 FPH

LIMITER: TORQUE

Vis (s/qt): 30, Dens (lb/gal): 9.85, pH: 11.0

MD (ft)	TVD (ft)	Incl (°)	Azi (°)	VS (ft)	DLS (°/100ft)	N/S (ft)	E/W (ft)
163.0	163.00	0.53	233.98	0.71	0.33	-0.44	-0.61
264.0	263.99	0.53	210.77	1.49	0.21	-1.12	-1.23
360.0	359.99	0.62	245.58	2.33	0.37	-1.72	-1.93
455.0	454.98	1.10	284.60	3.62	0.77	-1.70	-3.28
550.0	549.96	1.67	219.47	5.55	1.65	-2.54	-5.04
646.0	645.85	3.78	179.22	7.55	2.84	-6.78	-5.89
741.0	740.49	6.07	167.35	8.71	2.63	-14.82	-4.74
807.0	806.07	6.90	160.67	8.72	1.70	-21.96	-2.67
902.0	900.08	9.71	146.61	6.05	3.63	-34.04	3.63
996.0	992.38	12.13	135.45	-0.96	3.41	-47.70	14.93
1,092.0	1,086.22	12.22	132.46	-11.01	0.66	-61.75	29.50
1,188.0	1,180.16	11.56	133.87	-21.07	0.75	-75.27	43.93

1,283.0	1,273.31	11.08	135.80	-30.08	0.64	-88.41	57.16
1,378.0	1,366.46	11.60	138.61	-38.41	0.80	-102.13	69.84
1,473.0	1,459.42	12.22	148.46	-45.11	2.23	-117.86	81.41
1,567.0	1,551.18	12.84	153.12	-49.65	1.26	-135.66	91.34
1,661.0	1,642.82	12.92	151.89	-53.73	0.31	-154.24	101.01
1,755.0	1,734.45	12.84	152.76	-57.87	0.23	-172.79	110.75
1,850.0	1,827.09	12.79	153.12	-61.80	0.10	-191.56	120.33
1,944.0	1,918.72	13.01	152.15	-65.84	0.33	-210.20	129.98
2,039.0	2,011.25	13.14	151.01	-70.36	0.30	-229.10	140.20
2,133.0	2,102.79	13.14	149.60	-75.32	0.34	-247.66	150.79
2,227.0	2,194.44	12.53	152.76	-79.86	0.99	-265.94	160.86
2,321.0	2,286.28	12.09	153.99	-83.46	0.54	-283.85	169.85
2,415.0	2,378.19	12.13	150.22	-87.43	0.84	-301.27	179.07
2,509.0	2,470.16	11.74	149.07	-92.16	0.49	-318.05	188.89
2,604.0	2,563.18	11.69	153.47	-96.32	0.94	-334.95	198.16
2,698.0	2,655.17	12.09	155.31	-99.45	0.59	-352.41	206.52
2,792.0	2,747.11	11.91	153.12	-102.67	0.52	-370.01	215.02
2,886.0	2,839.15	11.56	150.83	-106.56	0.62	-386.88	224.00
2,980.0	2,931.26	11.47	149.51	-110.95	0.30	-403.16	233.33
3,074.0	3,023.29	12.04	148.46	-115.83	0.65	-419.57	243.20
3,168.0	3,115.15	12.44	151.53	-120.55	0.81	-436.83	253.15
3,263.0	3,208.00	11.96	151.01	-124.87	0.52	-454.43	262.80
3,357.0	3,300.07	11.34	150.74	-129.09	0.66	-471.01	272.04
3,451.0	3,392.28	11.03	151.01	-133.15	0.33	-486.94	280.92
3,545.0	3,484.55	10.99	150.48	-137.18	0.12	-502.61	289.69
3,640.0	3,577.83	10.86	150.83	-141.25	0.15	-518.30	298.51
3,733.0	3,669.17	10.81	148.46	-145.50	0.48	-533.38	307.35
3,828.0	3,762.32	11.82	145.12	-150.95	1.27	-548.96	317.57
3,922.0	3,854.19	12.66	151.18	-156.25	1.63	-565.88	328.04
4,016.0	3,945.92	12.57	153.99	-160.22	0.66	-584.10	337.49
4,111.0	4,038.75	12.00	149.51	-164.39	1.17	-601.90	347.04

# 05/26/2021

Rig Name: H&P 462

Depth = 5,088.0 Progress = 911.0

06:00 CHANGE OUT CUBICLE IN VFD HOUSE FOR MP #2, REPLACE VALVE AND SEAT ON MP#3

06:45 SLIDE F/4,177' T/4,207' (30' @ 30 FPH) TFO: 60R

LIMITER: 1 PUMP DOWN, SLIDING WITH 841 GPM  
07:45 ROTATE F/4,207' - T/4,214' (7' @ 28 FPH)

LIMITER: NONE  
08:00 RIG SERVICE  
08:30 ROTATE F/ 4,214' - 4,412' (198' @ 159 FPH)

LIMITER: TOP DRIVE TORQUE LIMITER REACHED A FEW TIMES  
09:45 4 X ROP DRILLING BREAK INCURED, PICKED UP AND FLOW CHECK, CIRCULATED SAMPLES. ( NO GAS OR FLOW)  
10:15 ROTATE F/ 4,412' - T/4,460' (48' @ 96 FPH)

LIMITER: TOP DRIVE TORQUE LIMIT REACHED  
10:45 SLIDE F/4,460' - T/4,480' (20' @ 40 FPH) TFO: HS

LIMITER: 1 PUMP DOWN, SLIDING WITH 841 GPM  
11:15 ROTATE F/ 4,480' - T/4,651' (171' @ 171 FPH)

LIMITER: TOP DRIVE TORQUE LIMIT REACHED  
12:15 SLIDE F/4,651' - T/4,668' (17' @ 23 FPH) TFO: HS

LIMITER: 1 PUMP DOWN, SLIDING WITH 841 GPM  
13:00 ROTATE F/ 4,668' - T/5,088' (420' @ 187 FPH)

LIMITER: TOP DRIVE TORQUE LIMIT REACHED  
15:15 CIRCULATE AND CONDITION HOLE FOR CASING; PUMPED 2, 40 BBL, 65 VIS SWEEPS.  
LAMAR TOP NOT IDENTIFIED BY MUD LOGGER.  
16:30 TOH (SLM) F/5,088' TO SURFACE, 70% TIGHT CONNECTIONS FROM 1970' TO SURFACE, NO ADJUSTMENTS MADE TO TALLY.  
22:00 LD DIRECTIONAL BHA, BREAK AND GRADE BIT. BIT GRADE 1 INNER, 3 OUTER, CT.  
23:30 PJSM, RU CASING CREW AND EQUIPMENT ON RIG FLOOR  
00:30 PJSM, RUN 124 JTS OF 9.625", J55, LTC, 40# CASING, 2 JT SHOE TRACK, FS @ 5,088', FC @ 5,001', DV TOOL @ 851'. FLOAT EQUIPMENT AND DV TOOL

WERE THREAD LOCKED AND TORQUED TO 5,200 FT/LBS. PUMPED THROUGH FLOATS, FLOATS ARE GOOD, CENTRALIZERS PLACED 10' ABOVE FS AND FC, AND EVERY 3RD JT TO SURFACE. TOTAL CASING FTG RAN = 5,093' W/ 5' OF STICK UP ABOVE RG FLOOR.

Vis (s/qt): 31, Dens (lb/gal): 10.20, pH: 11.0

MD (ft)	TVD (ft)	Incl (°)	Azi (°)	VS (ft)	DLS (°/100ft)	N/S (ft)	E/W (ft)
4,205.0	4,130.70	12.00	154.87	-168.29	1.19	-619.17	356.15
4,299.0	4,222.68	11.82	158.13	-170.73	0.74	-636.95	363.88
4,394.0	4,315.76	11.21	157.60	-172.67	0.65	-654.52	371.02
4,489.0	4,408.90	11.52	154.61	-175.15	0.70	-671.62	378.61
4,583.0	4,501.01	11.52	155.84	-177.93	0.26	-688.67	386.48
4,678.0	4,594.06	11.74	154.87	-180.71	0.31	-706.07	394.46
4,773.0	4,687.08	11.69	152.24	-184.12	0.56	-723.34	403.05
4,867.0	4,779.22	11.12	152.41	-187.79	0.61	-739.80	411.69
4,962.0	4,872.52	10.59	152.32	-191.31	0.56	-755.65	419.98
5,022.0	4,931.55	10.11	152.06	-193.46	0.80	-765.19	425.01

### 05/27/2021

Rig Name: H&P 462

Depth = 5,088.0 Progress = 0.0

06:00 FINISH RUNNING 9 5/8" CASING F/3,408' - T/5,088'

08:30 PJSM: RIG DOWN CASING CREW AND RIG UP CASING SWAGE AND CIRCULATING IRON

09:00 CIRCULATE 2 BOTTOMS UP @ 6 BBLS/MIN, NO LOSSES, FULL RETURNS.

11:00 PJSM: RU HALLIBURTON AND PUMP SURFACE CEMENT JOB PER PLAN. FULL RETURNS THROUGHOUT JOB AND CIRCULATED 159 BBLS (469 SX) OF CEMENT TO SURFACE. PLUG DOWN AT 15:30 5/26/2021; CHECKED FLOATS, BLED OFF PRESSURE AND DROP CANCELATION PLUG, CANCELED OUT DV TOOL, RIGGED DOWN HALLIBURTON.

17:00 FLUSH OUT STACK AND DIVERTER LINE; NIPPLE DOWN DIVERTER AND CUT OFF CASING; LAY OUT DIVERTER, CUT OFF CONDUCTOR AND MAKE FINAL CUT ON CASING; WELD ON WELLHEAD WITH FLANGE 12" BELOW GROUNDLEVEL; TEST TO 2000 PSI, GOOD TEST.

01:00 NIPPLE UP BOP: INSTALL RISER, ROTATING HEAD, ORBIT VALVE, MAKE UP CHOKE LINE EXTENSION TO MANIFOLD AND TORQUE ALL COMPONENTS.

Vis (s/qt): 29, Dens (lb/gal): 10.05, pH: 10.0

### 05/28/2021

Rig Name: H&P 462

Depth = 5,088.0 Progress = 0.0

06:00 FINISH NIPPLING UP ORBIT VALVE, ROTATING HEAD, FLOWLINE AND KILL LINE.

07:00 RU TESTER AND TEST CHOKE MANIFOLD, BOP BODY, ALL BREAKS, UPPER AND LOWER RAMS TO: 250 PSI FOR 5 MINUTES (LOW TEST), 10,000 PSI FOR 5 MINUTES (HIGH TEST), ANNULAR, TO 3,500 PSI FOR 5 MINUTES, MUD LINE TO 7,500 PSI FOR 5 MINUTES, FAILURE'S ON HCR VALVE AND 4" GATE VALVE ON MP #2. HCR VALVE HAS BEEN REPLACED AND GATE VALVE HAS BEEN RE-BUILT. LEAK ON FLANGE AT KILL LINE VALVE, REMOVED VALVE AND REPLACED RING GASKET. COMPLETE ALL TESTS, (GOOD)

19:30 RIG DOWN TESTERS, INSTALL WEAR BUSHING, CALIBRATE BLOCKS, MAKE UP FLOWLINE TO BOP STACK, TIGHTEN TURN BUCKLES

22:30 HPJSM W/ CREW. PICK UP 8 3/4" INTERMEDIATE ASSEMBLY, SURFACE TEST (GOOD).

00:30 TIH TO 851', INSTALL ROTATING HEAD, DRILL OUT DV TOOL

02:00 TIH TO 4,912'

03:30 FILL DP, CIRCULATE BOTTOMS UP, SHUT IN AND PERFORM 30 MINUTE CASING TEST TO 1,500 PSI, FIRST TEST LEAKED OFF TO 900 PSI, PUMPED THROUGH CHOKES UNTILL RETURNS AT PIT, RE-TESTED TO 1,500 PSI. GOOD TEST (LEAK OFF TO 1,464 PSI)

05:45 TAGGED FC @ 5,001', DRILL OUT FLOAT EQUIPMENT

Vis (s/qt): 29, Dens (lb/gal): 9.90, pH: 10.0

### 05/29/2021

Rig Name: H&P 462

Depth = 7,960.0 Progress = 2872.0

06:00 ROT DRLG CEMENT AND SHOE TRACK + 15' OF NEW HOLE FOR F.I.T. 5,088' - 5,101'

06:30 CIRCULATE BTMS UP FOR F.I.T.

07:00 PERFORM F.I.T. TO 10 LB/GAL EMW WITH 9.1 LB/GAL CUT BW. GOOD TEST, NO LEAK OFF.

07:30 ROT DRLG F/5,101' - T/5,121'; ( 21' @ 40 FPH)

08:00 SLD DRLG F/ 5,121' - T/5,146'; (25' @ 50 FPR) TFO= HS

08:30 ROT DRLG F/5,146' - T/5,574'; (428' @ 428 FPR)

09:30 SLD DRLG F/ 5,574' - T/5,602'; (28' @ 56 FPR) TFO= 110R

10:00 ROT DRLG F/5,602' - T/5,763'; (161' @ 322 FPH)

10:30 RIG SERVICE  
11:00 ROT DRLG F/5,763' - T/6,235'; (472' @ 236 FPH)  
13:00 PDS (PIPE DELIVERY SYSTEM) IS DOWN WITH PARTED MAIN 1" HYDRAULIC HOSE, MAKING IT NON OPERATIONAL. ATTEMPTING TO REAIR WHILE WAITING ON NEW HYDRAULIC LINE. MECHANIC ARRIVED AND BUILT NEW HOSES.  
16:30 SLD DRLG F/6,235' - T/6,256'; (21' @ 135 FPH) TFO= 140R  
17:00 ROT DRLG F/6,256' - T/6,345'; (89' @ 350 FPH)  
17:30 SLD DRLG F/6,345' - T/6,370'; (25' @ 80 FPH) TFO= 140R  
18:15 ROT DRLG F/6,370' - T/6,618'; (248' @ 575 FPH)  
19:00 SLD DRLG F/6,618' - T/6,648'; (30' @ 65 FPH) TFO= 150R  
19:30 ROT DRLG F/6,648' - T/6,811'; (163' @ 600 FPH)  
20:00 SLD DRLG F/6,811' - T/6,831'; (20' @ 65 FPH) TFO= 150R  
20:15 ROT DRLG F/6,831' - T/7,001'; (170' @ 450 FPH)  
21:00 SLD DRLG F/7,001' - T/7,025'; (24' @ 85 FPH) TFO= 180  
21:15 ROT DRLG F/7,025' - T/7,190'; (165' @ 400 FPH)  
22:00 SLD DRLG F/7,190' - T/7,210'; (20' @ 60 FPH) TFO= 45L  
22:15 ROT DRLG F/7,210' - T/7,378'; (168' @ 320 FPH)  
23:00 SLD DRLG F/7,378' - T/7,408'; (30' @ 50 FPH) TFO= 45L  
23:30 ROT DRLG F/7,408' - T/7,473'; (65' @ 300 FPH)  
00:00 SLD DRLG F/7,473' - T/7,493'; (20' @ 50 FPH) TFO= HS  
00:30 ROT DRLG F/7,493' - T/7,563'; (70' @ 275 FPH)  
00:45 SLD DRLG F/7,563' - T/7,598'; (35' @ 40 FPH) TFO= HS  
01:30 ROT DRLG F/7,598' - T/7,665'; (67' @ 180 FPH)  
02:00 SLD DRLG F/7,665' - T/7,695'; (30' @ 45 FPH) TFO= HS  
02:45 ROT DRLG F/7,695' - T/7,846'; (151' @ 200 FPH)  
04:15 SLD DRLG F/7,846' - T/7,876'; (30' @ 45 FPH) TFO= 30L  
05:00 ROT DRLG F/7,876' - T/7,940'; (64' @ 270 FPH)  
05:30 SLD DRLG F/7,940' - T/7,960'; (20' @ 30 FPH) TFO= 30L

Vis (s/qt): 27, Dens (lb/gal): 9.30, pH: 11.0

MD (ft)	TVD (ft)	Incl (°)	Azi (°)	VS (ft)	DLS (°/100ft)	N/S (ft)	E/W (ft)
5,126.0	5,033.54	9.93	151.18	-196.47	0.22	-783.38	433.45
5,220.0	5,125.88	11.56	152.06	-200.13	1.74	-798.80	441.78
5,315.0	5,218.85	12.22	150.83	-204.30	0.74	-815.99	451.14
5,409.0	5,310.61	12.84	149.51	-209.08	0.73	-833.67	461.28
5,504.0	5,403.12	13.45	147.40	-214.78	0.82	-852.08	472.59
5,598.0	5,494.59	13.19	154.26	-219.61	1.70	-870.95	483.14
5,693.0	5,587.10	13.14	156.81	-222.69	0.61	-890.64	492.10
5,787.0	5,678.49	13.89	155.58	-225.58	0.85	-910.73	500.97
5,882.0	5,770.71	13.93	153.47	-229.23	0.54	-931.35	510.79
5,976.0	5,861.92	14.07	152.94	-233.38	0.20	-951.65	521.05
6,071.0	5,954.02	14.33	151.36	-238.05	0.49	-972.25	531.93
6,165.0	6,044.93	15.12	149.34	-243.59	1.00	-993.00	543.76
6,259.0	6,135.63	15.34	147.49	-250.11	0.57	-1,014.04	556.70
6,354.0	6,227.30	15.08	151.09	-256.32	1.03	-1,035.45	569.42
6,448.0	6,318.06	15.08	153.12	-261.25	0.56	-1,057.06	580.86
6,542.0	6,408.58	16.22	151.71	-266.23	1.28	-1,079.53	592.62
6,637.0	6,499.92	15.69	153.03	-271.37	0.68	-1,102.66	604.73
6,731.0	6,590.70	14.37	152.94	-275.91	1.40	-1,124.38	615.80
6,825.0	6,681.88	13.76	153.82	-280.01	0.69	-1,144.80	626.04
6,920.0	6,774.35	12.75	154.52	-283.63	1.08	-1,164.40	635.53
7,015.0	6,867.37	10.68	158.21	-286.15	2.32	-1,182.04	643.31
7,109.0	6,959.96	9.14	159.18	-287.58	1.65	-1,197.11	649.20
7,203.0	7,052.72	9.49	157.51	-289.01	0.47	-1,211.25	654.82
7,297.0	7,145.52	8.84	160.59	-290.24	0.87	-1,225.22	660.18
7,392.0	7,239.46	8.35	153.91	-291.82	1.17	-1,238.30	665.64
7,487.0	7,333.42	8.62	154.08	-294.19	0.29	-1,250.90	671.79
7,581.0	7,426.32	8.88	154.79	-296.49	0.30	-1,263.80	677.96
7,675.0	7,518.96	10.68	156.90	-298.65	1.95	-1,278.37	684.47
7,770.0	7,612.33	10.55	156.98	-300.72	0.14	-1,294.48	691.32
7,864.0	7,704.92	9.32	157.16	-302.60	1.31	-1,309.41	697.64
7,959.0	7,798.76	8.62	154.70	-304.59	0.84	-1,322.94	703.67

## 05/30/2021

Rig Name: H&P 462

Depth = 8,969.0 Progress = 1009.0

06:00 SLD DRLG F/7,960' - T/7,970'; (10' @ 10 FPH) TFO= 30L  
07:00 ROT DRLG F/7,970' - T/8,040'; (70' @ 140 FPH)  
07:30 SLD DRLG F/8,040' - T/8,070'; (30' @ 30 FPH) TFO= HS  
08:30 ROT DRLG F/8,070' - T/8,092'; (22' @ 44 FPH)  
09:00 SLD DRLG F/8,092' - T/8,124'; (32' @ 32 FPH) TFO= HS  
10:00 ROT DRLG F/8,124' - T/8,228'; (104' @ 208 FPH)  
10:30 SLD DRLG F/8,228' - T/8,263'; (35' @ 35 FPH) TFO= HS

11:30 ROT DRLG F/8,263' - T/8,281'; (18' @ 36 FPH)  
12:00 SLD DRLG F/8,281' - T/8,312'; (31' @ 31 FPH) TFO= HS  
13:00 ROT DRLG F/8,312' - T/8,417'; (105' @ 105 FPH)  
14:00 SLD DRLG F/8,417' - T/8,447'; (30' @ 15 FPH) TFO= HS  
NOTE: NO FLOW ON CONNECTIONS, CLOSE LOOP FROM 14:15 - 15:15,  
MONITORING G/L. MW= 9.1 LB/GAL CUT BW. 140 BBL LOSS NOTICED. NO  
LOSSES NOTICED BEFORE THIS.  
16:00 ROT DRLG F/8,447' - T/8,500'; (53' @ 106 FPH) LOSSES @ 90 BBLS/HR WHILE  
DRILLING. MW= 9.1  
16:30 SERVICE RIG, FLOW CHECK WELL FOR 20 MIN. NO FLOW, 10 BBLS TO FILL  
BEFORE FLOW RETURNED.  
17:00 ROT DRLG F/8,500' - T/8,510'; (10' @ 40 FPH) LOSSES @ 90 BBLS/HR WHILE  
DRLG.  
17:30 SLD DRLG F/8,510' - T/8,540'; (30' @ 25 FPH) TFO= 20L  
19:30 ROT DRLG F/8,540' - T/8,565'; (25' @ 160 FPH)  
19:45 SLD DRLG F/8,565' - T/8,595'; (30' @ 20 FPH) TFO= HS  
NOTE: NO LOSSES NOTICED AT PIT MARKERS, CLOSE LOOP FOR 1 HOUR, NO  
LOSS OR GAIN SEEN. NO FLOW ON CONNECTION, WELL REMAINED STATIC.  
21:15 ROT DRLG F/8,595' - T/8,697'; (102' @ 80 FPH)  
22:30 SLD DRLG F/8,697' - T/8,727'; (30' @ 25 FPH) TFO= HS  
00:00 ROT DRLG F/8,727' - T/8,789'; (62' @ 80 FPH)  
01:00 SLD DRLG F/8,789' - T/8,819'; (30' @ 20 FPH) TFO= 20R  
02:15 ROT DRLG F/8,819' - T/8,969'; (150' @ 75 FPH)  
04:45 CONDITION MUD FOR TRIP, FLOW CHECK, STATIC  
05:45 POOH F/ 8,969'

Vis (s/qt): 27, Dens (lb/gal): 9.30, pH: 11.0

MD (ft)	TVD (ft)	Incl (°)	Azi (°)	VS (ft)	DLS (°/100ft)	N/S (ft)	E/W (ft)
8,054.0	7,892.54	9.71	153.99	-307.06	1.15	-1,336.57	710.22
8,148.0	7,984.91	11.65	152.15	-310.31	2.10	-1,352.09	718.13
8,242.0	8,076.90	12.09	153.56	-313.95	0.56	-1,369.30	726.95
8,337.0	8,169.57	13.36	150.30	-318.25	1.54	-1,387.74	736.82
8,431.0	8,261.37	11.43	151.45	-322.75	2.07	-1,405.36	746.65
8,525.0	8,353.56	11.08	151.27	-326.68	0.37	-1,421.46	755.45
8,620.0	8,446.71	11.60	150.83	-330.77	0.55	-1,437.80	764.49
8,714.0	8,538.65	12.40	150.30	-335.23	0.86	-1,454.82	774.10
8,808.0	8,630.44	12.53	149.69	-340.04	0.20	-1,472.39	784.24

## 05/31/2021

Rig Name: H&P 462

Depth = 9,761.0 Progress = 792.0

06:00 TOH TO BHA; DRAIN MOTOR AND BREAK BIT; MTR DRAINED GOOD; BIT  
GRADE: 2 INNER, 8 OUTER, (RING OUT), FULL GAUGE. LD MOTOR.  
10:30 PU NEW MOTOR AND MWD TOOLS; SCRIBE; SHALLOW TEST (GOOD), MU  
ULTERRA BIT AND TIH T/8,939'  
16:30 RELOG GAMMA F/8,939' - T/8,969'  
17:00 ROT DRLG F/8,969' - T/8,983'; (14' @ 56 FPH)  
17:30 SLD DRLG F/8,983' - T/9,013'; (30' @ 35 FPH) TFO= 20L  
18:30 ROT DRLG F/9,013' - T/9,075'; (62' @ 200 FPH)  
19:00 SLD DRLG F/9,075' - T/9,100'; (25' @ 20 FPH) TFO= 20L  
20:15 ROT DRLG F/9,100' - T/9,454'; (354' @ 125 FPH)  
00:30 SLD DRLG F/9,454' - T/9,479'; (25' @ 30 FPH) TFO= 45R  
01:45 ROT DRLG F/9,479' - T/9,644'; (165' @ 200 FPH)  
02:45 SLD DRLG F/9,644' - T/9,674'; (30' @ 30 FPH) TFO= HS  
04:15 ROT DRLG F/9,674' - T/9,731'; (56' @ 150 FPH)  
04:45 SLD DRLG F/9,731' - T/9,761'; (30' @ 30 FPH) TFO= 20L

Vis (s/qt): 29, Dens (lb/gal): 9.15, pH: 11.0

MD (ft)	TVD (ft)	Incl (°)	Azi (°)	VS (ft)	DLS (°/100ft)	N/S (ft)	E/W (ft)
8,903.0	8,723.51	10.55	153.47	-344.09	2.23	-1,489.07	793.33
8,997.0	8,815.88	10.81	153.73	-347.15	0.28	-1,504.68	801.07
9,091.0	8,907.67	14.07	151.45	-351.10	3.51	-1,522.62	810.44
9,185.0	8,998.77	14.46	149.95	-356.33	0.57	-1,542.82	821.78
9,280.0	9,090.79	14.33	150.48	-361.84	0.19	-1,563.31	833.51
9,374.0	9,182.16	12.84	145.38	-367.79	2.03	-1,582.03	845.18
9,469.0	9,274.92	12.04	146.35	-374.07	0.87	-1,598.97	856.66
9,563.0	9,367.14	10.33	149.60	-379.06	1.94	-1,614.40	866.36
9,657.0	9,459.86	8.53	155.23	-382.14	2.15	-1,628.00	873.55