

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL						1. WELL NAME and NUMBER Shepard 5-2C5							
2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>						3. FIELD OR WILDCAT ALTAMONT							
4. TYPE OF WELL Oil Well Coalbed Methane Well: NO						5. UNIT or COMMUNITIZATION AGREEMENT NAME							
6. NAME OF OPERATOR EP ENERGY E&P COMPANY, L.P.						7. OPERATOR PHONE 713 997-5038							
8. ADDRESS OF OPERATOR 1001 Louisiana, Houston, TX, 77002						9. OPERATOR E-MAIL maria.gomez@epenergy.com							
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) 1420H626566			11. MINERAL OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input checked="" type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>			12. SURFACE OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>							
13. NAME OF SURFACE OWNER (if box 12 = 'fee') PENSCO Trust Co, f/b/o Randall L Shepard IRA						14. SURFACE OWNER PHONE (if box 12 = 'fee') 760-218-9672							
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee') 560 Mission Street, Ste 1300, San Francisco, CA 94105						16. SURFACE OWNER E-MAIL (if box 12 = 'fee')							
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN') UTE			18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS YES <input type="checkbox"/> (Submit Commingling Application) NO <input checked="" type="checkbox"/>			19. SLANT VERTICAL <input type="checkbox"/> DIRECTIONAL <input checked="" type="checkbox"/> HORIZONTAL <input type="checkbox"/>							
20. LOCATION OF WELL		FOOTAGES		QTR-QTR		SECTION		TOWNSHIP		RANGE		MERIDIAN	
LOCATION AT SURFACE		2202 FSL 1071 FWL		NWSW		2		3.0 S		5.0 W		U	
Top of Uppermost Producing Zone		1600 FSL 800 FWL		NWSW		2		3.0 S		5.0 W		U	
At Total Depth		1600 FSL 800 FWL		NWSW		2		3.0 S		5.0 W		U	
21. COUNTY DUCHESNE			22. DISTANCE TO NEAREST LEASE LINE (Feet) 800			23. NUMBER OF ACRES IN DRILLING UNIT 80							
			25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 2000			26. PROPOSED DEPTH MD: 12832 TVD: 12800							
27. ELEVATION - GROUND LEVEL 5970			28. BOND NUMBER RLB0009692			29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE Duchesne City							
Hole, Casing, and Cement Information													
String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight			
COND	17.5	13.375	0 - 800	54.5	J-55 ST&C	0.0	Class G	1000	1.15	15.8			
SURF	12.25	9.625	0 - 2000	40.0	N-80 LT&C	0.0	Type V	309	2.36	12.0			
							Class G	195	1.3	14.3			
I1	8.75	7	0 - 9382	29.0	HCP-110 LT&C	10.5	Class G	570	1.91	12.5			
							Class G	292	1.64	13.0			
L1	6.125	5	9182 - 12832	18.0	HCP-110 LT&C	13.0	Class G	209	1.52	14.2			
ATTACHMENTS													
VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES													
<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER						<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN							
<input checked="" type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)						<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER							
<input checked="" type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)						<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP							
NAME Maria S. Gomez			TITLE Principal Regulatory Analyst			PHONE 713 997-5038							
SIGNATURE			DATE 03/10/2015			EMAIL maria.gomez@epenergy.com							
API NUMBER ASSIGNED 43013532760000			APPROVAL			 Permit Manager							

**Shepard 5-2C5
Sec. 2, T3S, R5W
DUCHESNE COUNTY, UT**

EP ENERGY E&P COMPANY, L.P.

DRILLING PROGRAM

1. Estimated Tops of Important Geologic Markers

<u>Formation</u>	<u>Depth</u>
Green River (GRRV)	4,439' TVD
Green River (GRTN1)	5,245' TVD
Mahogany Bench	6,140' TVD
L. Green River	7,517' TVD
Wasatch	9,257' TVD
T.D. (Permit)	12,800' TVD / +/- 12,832' MD

2. Estimated Depths of Anticipated Water, Oil, Gas or Mineral Formations:

<u>Substance</u>	<u>Formation</u>	<u>Depth</u>
	Green River (GRRV)	4,447' MD / 4,439' TVD
	Green River (GRTN1)	5,257' MD / 5,245' TVD
	Mahogany Bench	6,157' MD / 6,140' TVD
Oil	L. Green River	7,541' MD / 7,517' TVD
Oil	Wasatch	9,289' MD / 9,257' TVD

3. Pressure Control Equipment: (Schematic Attached)

A Diverter System on structural pipe from surface to 800' MD/TVD. A Diverter System from 800' MD/TVD to 2,000' MD/TVD. A 10M BOP stack w/ rotating head, 5M annular, flex rams, blinds rams, mud cross & single w/ flex ram used from 2,000' MD/TVD to 9,382' MD / 9,350' TVD. A 10M BOP stack w/ rotating head, 5M annular, flex rams, blinds rams, mud cross & single w/ flex ram from 9,382' MD / 9,350' TVD to TD (12,832' MD / 12,800' TVD).

The BOPE and related equipment will meet the requirements of the 5M and 10M system.

We are currently using a 10M annular but we are only testing to a 5M system.

We successfully drilled the Neihart 2-2C5, UDOT 2-1C5 and Young 1-12C5 in 2014 with no issues (all of those wells are within 1.5 miles of the proposed location). We TD'd the Neihart 2-2C5 at 12,028' MD w/ 13.0 ppg MW and had a 10M stack with a 5M annular. We TD'd the UDOT 2-1C5 at 12,650' MD w/ 13.3 ppg MW and had a 10M stack with a 5M annular. We TD'd the Young 1-12C5 at 12,200' MD w/ 12.5 MW and had a 10M stack with a 5M annular.

We have pre-set our 9-5/8" casing numerous wells around the proposed location with no issues. We will use an air rig to drill the 17-1/2" hole / set 13-3/8" casing and drill the 12-1/4" hole / set 9-5/8" casing on the proposed location. The surface equipment on this rig is as follows: We are using a diverter (air bowl & 13-3/8" Washington rotating head rubber) and we run a 8" buoy line to the pit and a flute at the end of the buoy line.

There are 4 SWD wells within 3 miles of the proposed location but none of them are within 1.5 miles. No pressure communication is expected to be seen, however it is important to be aware of them. **If any pressure communication is seen, we can easily weight up to control the wellbore. Our intermediate cement design will be 12.5 ppg lead & 13 ppg tail. We will also pump a weight spacer.**

1. **The LDS Church 2-27B5 SWD is 9,619' or 1.82 miles North West of the proposed location.** It is owned by EP Energy & has been injecting since 11/4/74. It has been injecting at an average of 4,100 bbls/day @ 505 psi. The maximum allowable injection pressure is 550 psi. When it goes down for maintenance, the pressure dissipates to 150 psi. The injection interval is from 2,088'-2,860'. The EMW is 9.98 ppg. Since this SWD is North West of the proposed location (which means it is not on fracture orientation) & more than 1.5 miles away, I know we will not see any pressure from this well.
2. **The Rhoades Moon 1-36B5 SWD is 10,983' or 2.08 miles North East of the proposed location.** It is owned by EP Energy & is an active SWD well. It has been injecting since 2001. The injection interval is from 4114'-5055'. The injection rate averages 7200 bbls/day @ 900 psi (maximum allowable injection pressure is 1400 psi). When the well goes down for maintenance, the pressure dissipates to 600 psi. Using 600 psi, the EMW @ 4114' is 11.4 ppg (the weight of the fluid being injected is ~8.6 ppg). Since this SWD is North East of the proposed location (which means it is not on fracture orientation) & more than 2.0 miles away, I do not think we will see any pressure from this well.
3. **The Blue Bench 1-13C5 SWD is 11,922' or 2.26 miles to the South East of the proposed location.** It is owned by Intercept Energy & is an active SWD well. It is injecting into the Upper/Middle Green River & Upper-most Lower Green River. The injection interval is from 4106'-7528'. The injection rate is now ~500 bbls/day @ 500-600 psi (I just got off the phone with Keith who is with Intercept Energy). The pressure dissipates to 300 psi while down on maintenance. Using 300 psi, the EMW @ 4106' is 10.01 ppg. We will not see any pressure from this well since it is 2.26 miles away from the proposed location. We have drilled as close as 0.98 miles to this SWD well & on fracture orientation and have not seen any pressure while drilling.

- 4. The Saleratus 2-17C5 SWD is 15,569' or 2.95 miles to the South West of the proposed location.** It is operated by Linn Operating. It is located 1,374' FNL and 1,174' FEL of the NE corner of Sec 17, T3S, R5W. It has been injecting into the Uinta formation since 1975. The injection interval is from 2017'-3286'. The injection rate is between 1600-1800 bbls/day @ 700-800 psi (maximum allowable injection pressure is 1000 psi). When the well is down, the pressure has dropped off to 200 psi. Using 200 psi, the EMW @ 2017' is 10.51 ppg (the weight of the fluid being injected is ~8.6 ppg). We have drilled as close as 1.5 miles to this SWD well & **on fracture orientation** and have not seen any pressure while drilling.

There are 3 more SWD wells that within 5 miles that we will be aware of:

The IWM 3-30B4 SWD well is 16,435' or 3.11 miles North East of the proposed location. The injection interval is @ 4063'-5130'. It has been injecting ~5,000 bbls/day @ 720 psi. IWM owns this well & it is an active SWD well. The shut in pressure is 321 psi. Using 321 psi, the EMW @ 4063' is 10.12 ppg. Since this SWD is North East of the proposed location (which means it is not on fracture orientation) & more than 3.0 miles away, I know we will not see any pressure from this well.

The Lindsay Russell 2-32B4 SWD well is 19,808' or 3.75 miles North East of the proposed location. The injection interval is @ 2464'-3726'. It has been injecting between 1600-2000 bbls/day @ 900 psi. We own this well & it is an active SWD well. When it goes down on maintenance or goes down, the pressure dissipates to 20 psi and stays at 20 psi. Using 20 psi, the EMW @ 2464' is 8.76 ppg. Since this SWD is North East of the proposed location (which means it is not on fracture orientation) & more than 3.5 miles away, I know we will not see any pressure from this well.

The Belcher 2-33B4 SWD is 21,972' or 4.16 miles North East of the proposed location. It is owned by EP Energy & it is a pretty new SWD well (it was converted to a SWD well in 9/2014). The injection interval is from 4,142'-6,230'. It has been injecting at an average of 4,200 bbls/day @ 626 psi. The shut in pressure is 283 psi. The EMW is 9.91 ppg. Since this SWD is North East of the proposed location (which means it is not on fracture orientation) & more than 4.0 miles away, I know we will not see any pressure from this well.

OPERATORS MINIMUM SPECIFICATIONS FOR BOPE:

The surface casing will be equipped with a flanged casing head of 5M psi working pressure. An 11" 5M x 11" 10M spool, 11" x 10M psi BOP and 5M psi annular will be nipped up on the surface casing and tested to 250 psi low test / 3,000 psi high test for 10 minutes each prior to drilling out. The surface casing will be tested to 1,000 psi. for 30 mins. Intermediate casing will be tested to the greater of 1,500 psi or 0.22 psi/ft. The choke manifold equipment, upper Kelly cock and floor safety valves will be tested to 5M psi. The annular preventer will be tested to 250 psi low test / 4,000 psi high test. The 10M BOP will be installed with rotating head, 5M annular, flex rams, blinds rams, mud cross & single w/ flex ram from surface shoe to TD. The BOPE will be hydraulically operated.

In addition, the BOP equipment will be tested after running intermediate casing, after any repairs to the equipment and at least once every 30 days. Pipe and blind rams will be activated on each trip, annular preventer will be activated weekly and weekly BOP drills will be held with each crew.

Statement on Accumulator System and Location of Hydraulic Controls:

Patterson 307 is expected to be used to drill the proposed well. Operations will commence after approval of this application. Manual and/or hydraulic controls will be in compliance with 5M and 10M psi systems.

Auxiliary Equipment:

- A) Pason Gas Monitoring 2,000' - TD
- B) Mud logger with gas monitor – 2,000' to TD
- C) Choke manifold with one manual and one hydraulic operated choke
- D) Full opening floor valve with drill pipe thread
- E) Upper and lower Kelly cock
- F) Shaker, de-sander and centrifuge

4. **Proposed Casing & Cementing Program:**

Please refer to the attached Wellbore Diagram.

All casing will meet or exceed the following design safety factors:

- Burst = 1.00
- Collapse = 1.125
- Tension = 1.2 (including 100k# overpull)

Cement design calculations for intermediate and production hole will be based on minimum 10% excess over gauge hole volumes. Actual volumes pumped will be a minimum of 10% excess over caliper volume to designed tops of cement for any section logged. A minimum of 50% excess over gauge volume will be pumped on surface casing.

5. **Drilling Fluids Program:**

Proposed Mud Program:

Interval	Type	Mud Weight
Surface	Air	Air
Intermediate	WBM	9.3 – 10.5
Production	WBM	11.0 – 13.0

Anticipated mud weights are based on actual offset well bottom-hole pressure data. Mud weights utilized may be somewhat higher to allow for trip margin and to provide hole stability for running logs and casing.

Visual mud monitoring equipment will be utilized.

6. **Evaluation Program:**

Logs:

Mud Log: 2,000' MD/TVD – TD

Open Hole Logs: Gamma Ray, Neutron-Density, Resistivity, Sonic, from surface casing shoe to TD.

7. **Abnormal Conditions:**

Maximum anticipated bottomhole pressure calculated at 12,800' TVD equals approximately 8,653 psi. This is calculated based on a 0.676 psi/ft gradient (13.0 ppg mud density at TD).

Maximum anticipated surface pressure equals approximately 5,837 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/ft).

- We successfully drilled the Neihart 2-2C5, UDOT 2-1C5 and Young 1-12C5 in 2014 with no issues (all of those wells are within 1.5 miles of the proposed location). We TD'd the Neihart 2-2C5 at 12,028' MD w/ 13.0 ppg MW and had a 10M stack with a 5M annular. We TD'd the UDOT 2-1C5 at 12,650' MD w/ 13.3 ppg MW and had a 10M stack with a 5M annular. We TD'd the Young 1-12C5 at 12,200' MD w/ 12.5 MW and had a 10M stack with a 5M annular.

Maximum anticipated surface pressure based on frac gradient at 7" casing shoe is 0.8 psi/ft at 9,350' TVD = 7,480 psi

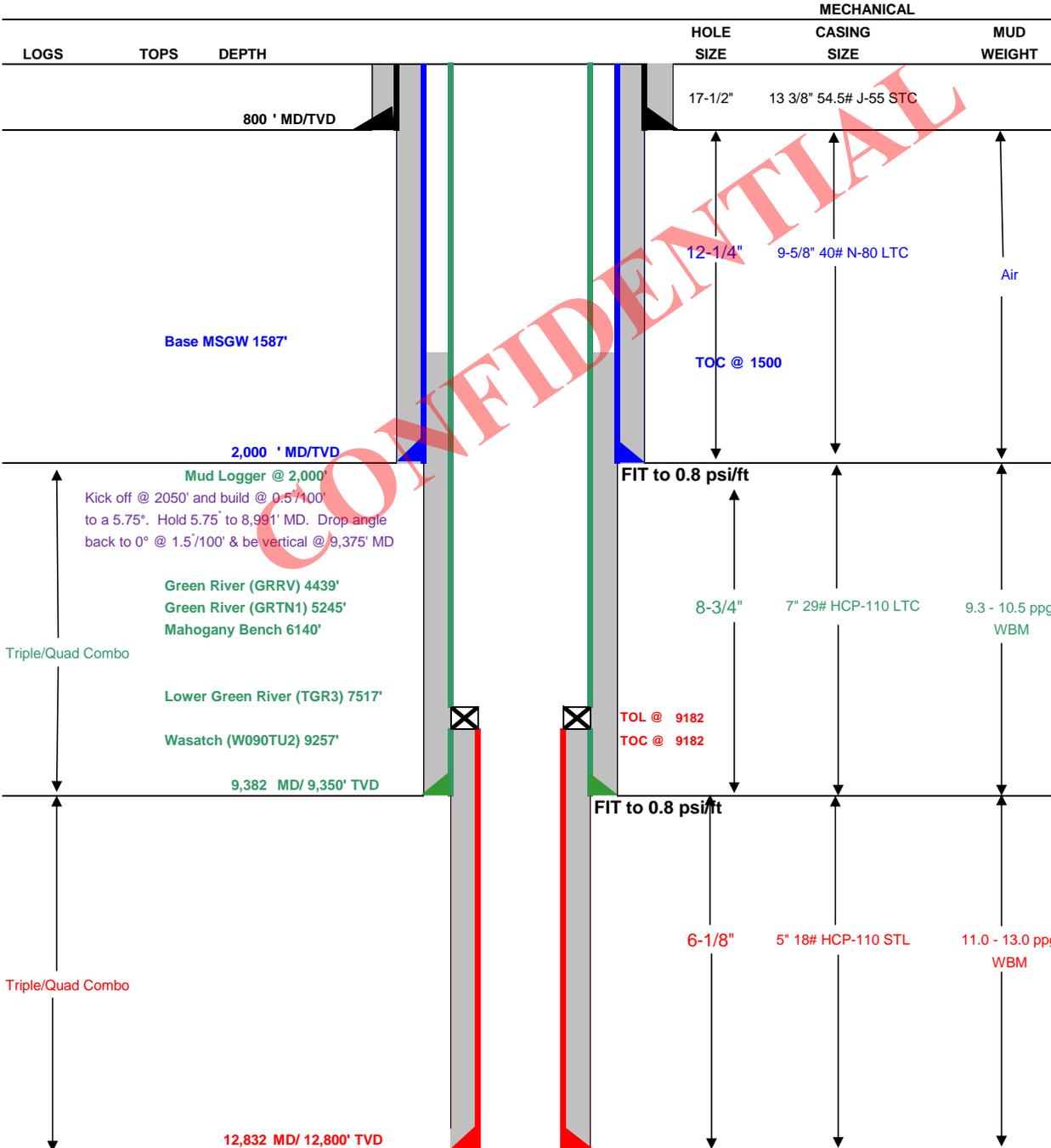
BOPE and casing design will be based on the lesser of the two MASPs which is 5,837 psi.

8. **OPERATOR REQUESTS THAT THE PROPOSED WELL BE PLACED ON CONFIDENTIAL STATUS.**



Drilling Schematic

Company Name: EP ENERGY	Date: February 19, 2015
Well Name: Shepard 5-2C5	TD: 12,832
Field, County, State: Altamont, Duchesne, Utah	AFE #: TBD
Surface Location: Sec 2 T3S R5W 2202' FSL 1071' FWL	BHL: Sec 2 T3S R5W 1600' FSL 800' FWL
Objective Zone(s): Green River, Wasatch	Elevation: 5970
Rig: Patterson 307	Spud (est.): TBD
BOPE Info: Diverter Stack from 800' to 2,000'. 11 10M BOP stack w/ rotating head & 5M annular from 2,000' to 9,382'. 11 10M BOP stack w/ rotating head, 5M annular, flex rams, blind rams, mud cross & single w/ flex ram from 9,382' to TD	



DRILLING PROGRAM

CASING PROGRAM	SIZE	INTERVAL	WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION
CONDUCTOR	13 3/8"	0 800	54.5	J-55	STC	2,740	1,130	514
SURFACE	9-5/8"	0 2000	40.00	N-80	LTC	5,750	3,090	737
INTERMEDIATE	7"	0 9382	29.00	HCP-110	LTC	11,220	9,750	797
PRODUCTION LINER	5"	9182 12832	18.00	HCP-110	STL	13,940	15,450	341

CEMENT PROGRAM	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
CONDUCTOR	800	Class G + 3% CACL2	1000	100%	15.8 ppg	1.15
SURFACE	Lead	EXTENDACEM SYSTEM: Type V Cement + 2% Cal-Seal + 0.35% Versaset + 0.3% D-Air 5000 + 6% Salt + 2% Econolite + 0.125 Poly-E-Flake	309	100%	12.0 ppg	2.36
	Tail	HALCEM SYSTEM: Class G Cement + 3 lbm/sk Silicalite Compacted + 1% Salt + 0.3% Econolite + 0.25 lbm/sk Poly-E-Flake + 0.25 lbm/sk Kwik Seal + 0.3% D-AIR 5000	195	50%	14.3 ppg	1.30
INTERMEDIATE	Lead	EXTENDACEM SYSTEM: Class G Cement + 6% Bentonite + 0.2% Econolite + 0.3% Versaset + 0.75% HR-5 + 0.3% Super CBL + 0.2% Halad-322 + 0.125 lb/sk Poly-E-Flake	570	35%	12.5 ppg	1.91
	Tail	EXPANDACEM SYSTEM: Class G Cement + 4% Bentonite + 0.25 Poly-E-Flake + 0.1% Halad-413 + 5 lb/sk Silicalite Compacted + 0.15% SA-1015 + 0.3% HR-5	292	30%	13.0 ppg	1.64
PRODUCTION LINER	3,650	EXTENDACEM SYSTEM: Class G Cement + 0.2% Super CBL + 0.3% Halad 344 + 0.3% Halad 413 + 5 lb/sk Silicalite + 20% SSA-1 + 2% Bentonite + 0.7% HR-5	209	25%	14.2 ppg	1.52

FLOAT EQUIPMENT & CENTRALIZERS	
CONDUCTOR	PDC drillable guide shoe, 1 joint, PDC drillable float collar. Thread lock all float equipment. Install bow spring centralizers on the bottom 3 joints of casing.
SURFACE	PDC drillable guide shoe, 1 joint casing, PDC drillable float collar. Thread lock all float equipment. Install bow spring centralizers on the bottom 3 joints of casing & every 3rd joint thereafter.
INTERMEDIATE	Halliburton's PDC drillable 10M, P-110 float shoe, 1 joint, PDC drillable 10M, P-110 float collar. Thread lock all float equipment. Maker joint at +/- 7,500'.
LINER	Float shoe, 1 joint, float collar, 1 joint, landing collar. Thread lock all FE. Maker joints every 1000'.

PROJECT ENGINEER(S): Brad MacAfee 713-997-6383

MANAGER: Bob Dodd



SHEPARD 5-2C5
WELL LOCATION: NW/SW SECTION 2, T.3S, R.5W. U.S.B.&M.
DUCHESNE COUNTY, UTAH

PROCEED IN A NORTHERLY DIRECTION FROM DUCHESNE, UTAH ALONG HIGHWAY 87 APPROXIMATELY 5.9 MILES TO THE JUNCTION OF THIS ROAD AND HIGHWAY 35 TO THE WEST; TURN LEFT AND PROCEED IN A NORTHWESTERLY THEN WESTERLY DIRECTION APPROXIMATELY 3.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ACCESS ROAD TO THE SOUTH; TURN LEFT AND PROCEED IN A SOUTHERLY THEN SOUTHEASTERLY THEN WESTERLY DIRECTION APPROXIMATELY 0.6 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ACCESS ROAD TO THE SOUTH; TURN LEFT AND PROCEED IN A SOUTHERLY THEN SOUTHEASTERLY THEN SOUTHERLY THEN EASTERLY THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 1.7 MILES TO THE JUNCTION OF THIS ROAD AND THE PROPOSED ACCESS ROAD TO THE SOUTH; TURN RIGHT AND FOLLOW ROAD FLAGS IN A SOUTHERLY DIRECTION APPROXIMATELY 481 FEET TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM DUCHESNE, UTAH TO THE PROPOSED LOCATION IS APPROXIMATELY 12.0 MILES.





SHEPARD 5-2C5

WELL LOCATION: NW/SW SECTION 2, T.3S, R.5W, U.S.B.&M.
DUCHESNE COUNTY, UTAH



Photo: View of location stake

Camera Angle: Westerly



Photo: View from beginning of proposed access

Camera Angle: Southerly



**OUTLAW
ENGINEERING INC.**
P.O. BOX 1800
ROOSEVELT, UTAH 84066
(435) 232-4321

Location Photos

VERSION:	V1
SURVEYED:	11-11-14



NOV 19, 2014
AUTHOR: BWH

PHOTO

PARCEL INFORMATION SHOWN HAS NOT BEEN SURVEYED BY OUTLAW ENGINEERING, INC. AND MAY NOT REFLECT ACTUAL LOCATION OF PROPERTY LINES.

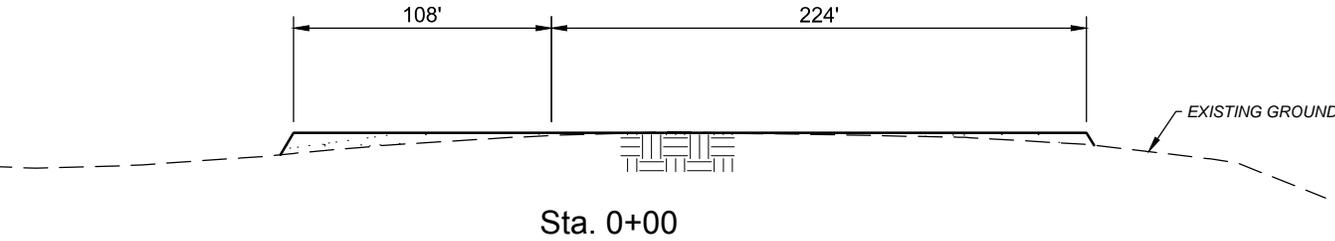
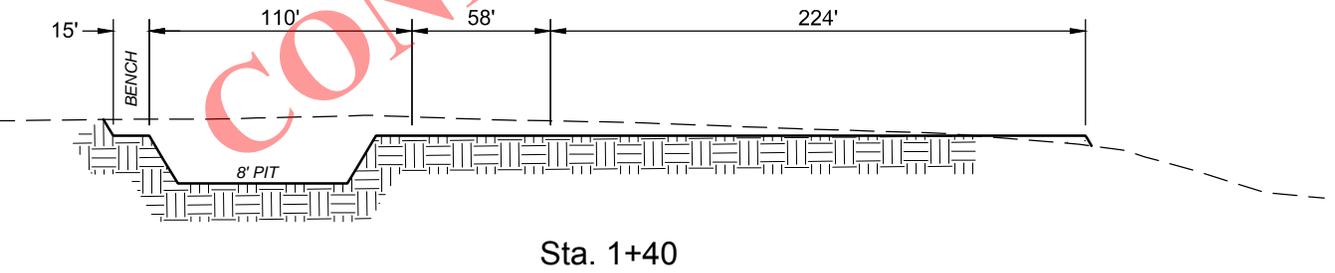
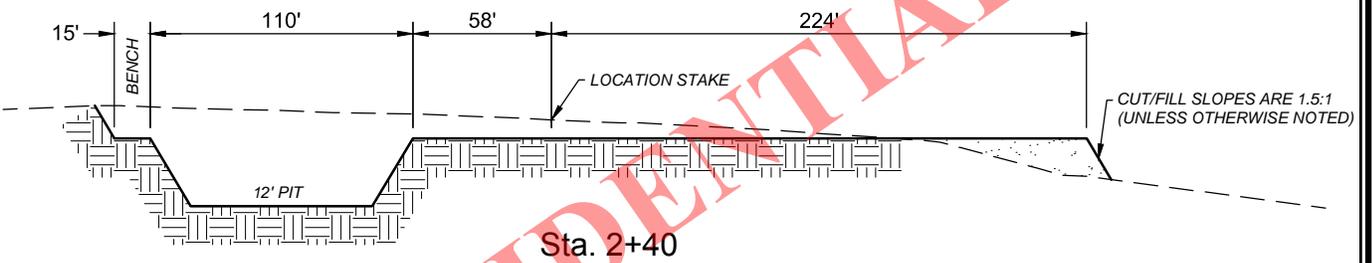
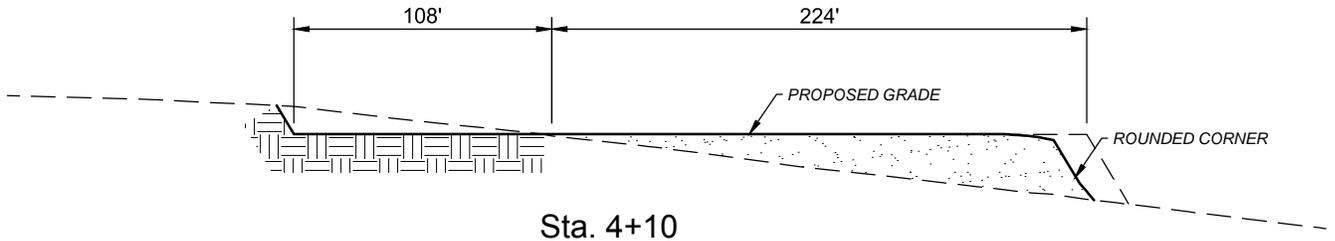


CROSS SECTIONS

SHEPARD 5-2C5

WELL LOCATION: NW/SW SECTION 2, T3S, R5W, U.S.B.&M.

DUCHESNE COUNTY, UTAH



LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS



CUT
FILL

ESTIMATED EARTHWORK QUANTITIES

* NO SHRINK OR SWELL FACTORS HAVE BEEN USED (QUANTITIES EXPRESSED IN CUBIC YARDS)

ITEM	CUT	FILL	EXCESS/IMPORT	6" T.S.*
PAD	7,020	7,020	0	2,930
PIT	3,890	-	0	-

*(T.S.) = TOPSOIL STRIPPING

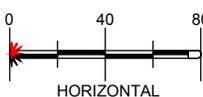
CROSS SECTIONS

SHEPARD 5-2C5

WELL LOCATION: NW/SW SECTION 2, T3S, R5W, U.S.B.&M.
DUCHESNE COUNTY, UTAH



OUTLAW ENGINEERING INC.
P.O. BOX 1800
ROOSEVELT, UTAH 84066
(435) 232-4321



CROSS SECTIONS

NOVEMBER 25, 2014
SCALE: 1" = 80'
DESIGN: MA,RFH DRAWN: JMH

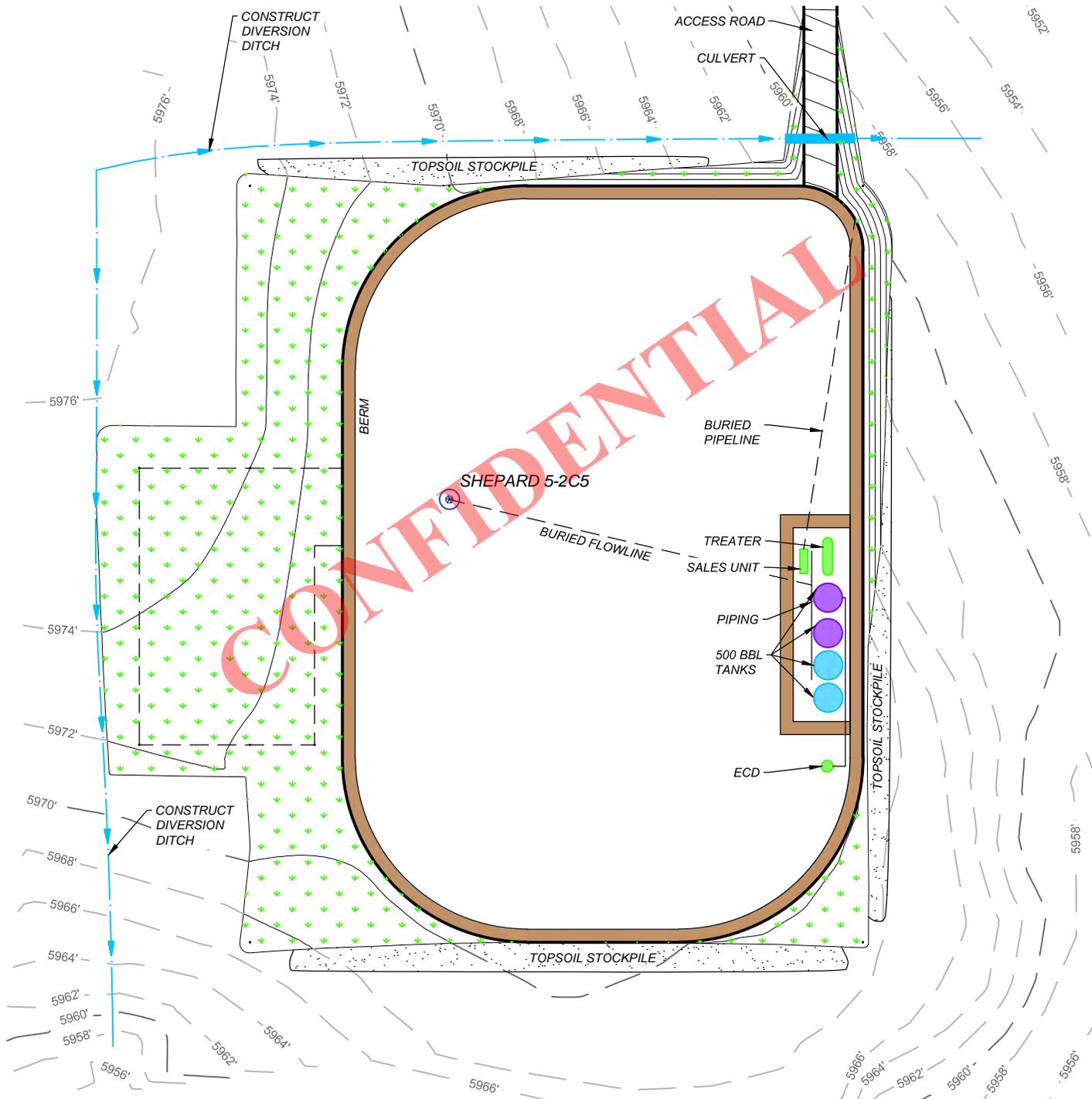
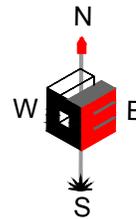
SHEET NO. **3**



PRODUCTION FACILITY LAYOUT

SHEPARD 5-2C5

WELL LOCATION: NW/SW SECTION 2, T3S, R5W, U.S.B.&M.
 DUCHESNE COUNTY, UTAH

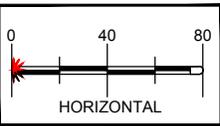


LEGEND	
	EXISTING CONTOURS
	PROPOSED CONTOURS
	LIMITS OF DISTURBANCE
	DIVERSION DITCH
	BERM
	WELL LOCATION
	RECLAIMED AREA

SUMMARY
APPROX UN-RECLAIMED AREA = 2.50 ACRES
APPROX RECLAIMED AREA = 0.89 ACRES

PRODUCTION FACILITY LAYOUT
SHEPARD 5-2C5
WELL LOCATION: NW/SW SECTION 2, T3S, R5W, U.S.B.&M. DUCHESNE COUNTY, UTAH

OUTLAW ENGINEERING INC.
 P.O. BOX 1800
 ROOSEVELT, UTAH 84066
 (435) 232-4321



PRODUCTION LAYOUT	NOVEMBER 25, 2014	SHEET NO. 5
	SCALE: 1" = 80'	
	DESIGN: MA,RFII DRAWN: JMH	

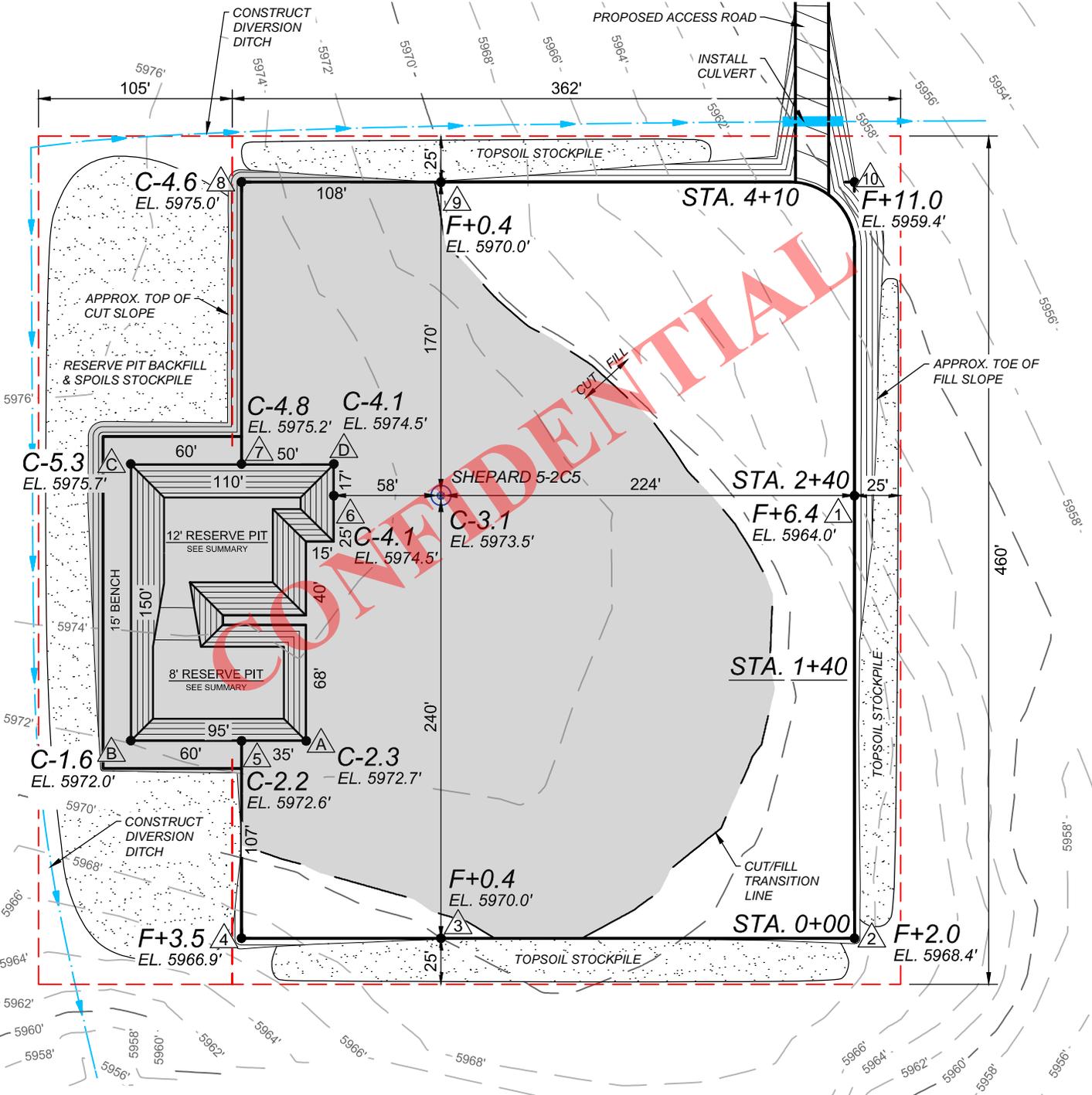


PROPOSED LOCATION LAYOUT

SHEPARD 5-2C5

WELL LOCATION: NW/SW SECTION 2, T3S, R5W, U.S.B.&M.

DUCHESNE COUNTY, UTAH

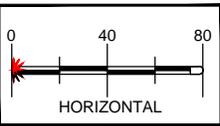


LEGEND	
	EXISTING CONTOURS
	PROPOSED CONTOURS
	LIMITS OF DISTURBANCE
	DIVERSION DITCH
	CORNER NUMBER
	CUT/FILL NUMBER
	EXISTING GRADE
	PROPOSED WELL LOCATION

SUMMARY
EXISTING GRADE @ CENTER OF WELL= 5973.5'
FINISH GRADE ELEVATION = 5970.4'
CUT SLOPES = 1.5 : 1
FILL SLOPES = 1.5 : 1
TOTAL WELL PAD AREA = 3.39 ACRES
TOTAL WELL PAD DISTURBANCE AREA = 4.93 ACRES

PROPOSED LOCATION LAYOUT	
SHEPARD 5-2C5	
WELL LOCATION: NW/SW SECTION 2, T3S, R5W, U.S.B.&M.	
DUCHESNE COUNTY, UTAH	

OUTLAW ENGINEERING INC.
 P.O. BOX 1800
 ROOSEVELT, UTAH 84066
 (435) 232-4321



RESERVE PIT
 8' & 12' DEEP, SEE ABOVE
 SLOPE 1.5:1
 PIT VOL. = 3,890 CY

PAD/PIT GRADING	NOVEMBER 25, 2014	SHEET NO. 2
	SCALE: 1" = 80'	
DESIGN: MA,RFII DRAWN: JMH		

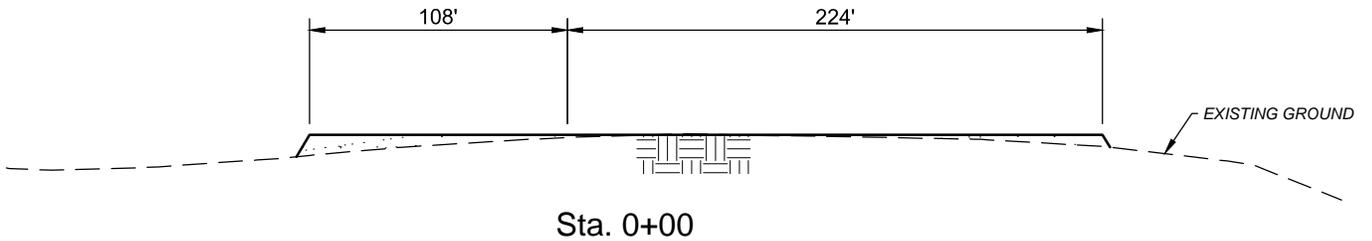
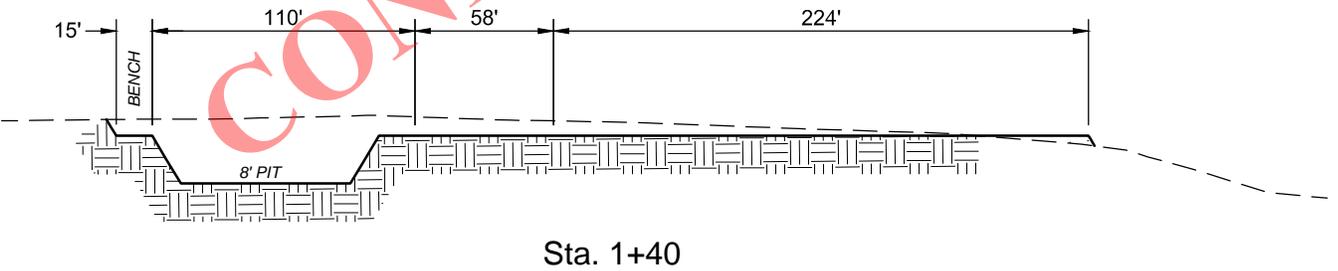
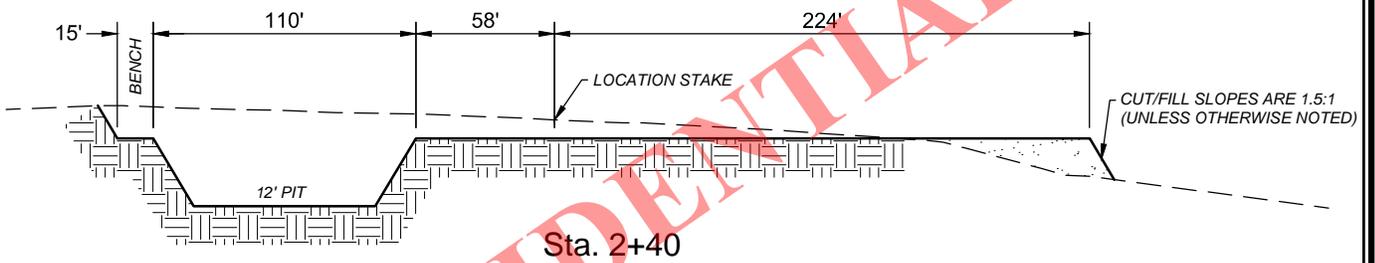
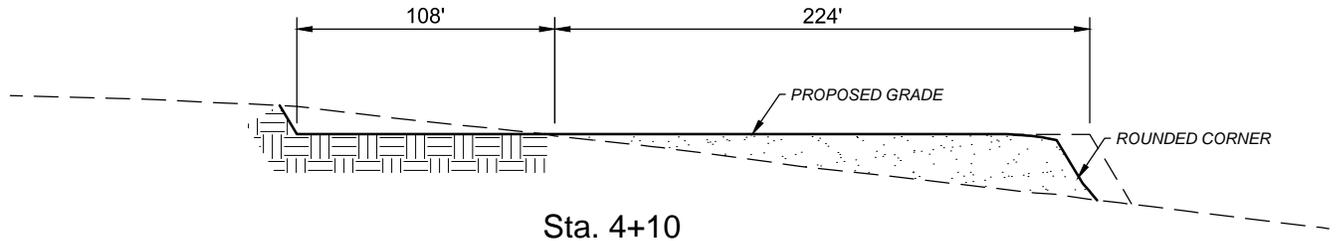


CROSS SECTIONS

SHEPARD 5-2C5

WELL LOCATION: NW/SW SECTION 2, T3S, R5W, U.S.B.&M.

DUCHESNE COUNTY, UTAH



LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS



CUT

FILL

ESTIMATED EARTHWORK QUANTITIES

* NO SHRINK OR SWELL FACTORS HAVE BEEN USED (QUANTITIES EXPRESSED IN CUBIC YARDS)

ITEM	CUT	FILL	EXCESS/IMPORT	6" T.S.*
PAD	7,020	7,020	0	2,930
PIT	3,890	-	0	-

*(T.S.) = TOPSOIL STRIPPING

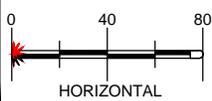
CROSS SECTIONS

SHEPARD 5-2C5

WELL LOCATION: NW/SW SECTION 2, T3S, R5W, U.S.B.&M.
DUCHESNE COUNTY, UTAH



OUTLAW ENGINEERING INC.
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(435) 232-4321



CROSS SECTIONS

NOVEMBER 25, 2014
SCALE: 1" = 80'
DESIGN: MA,RFH DRAWN: JMH

SHEET NO. **3**

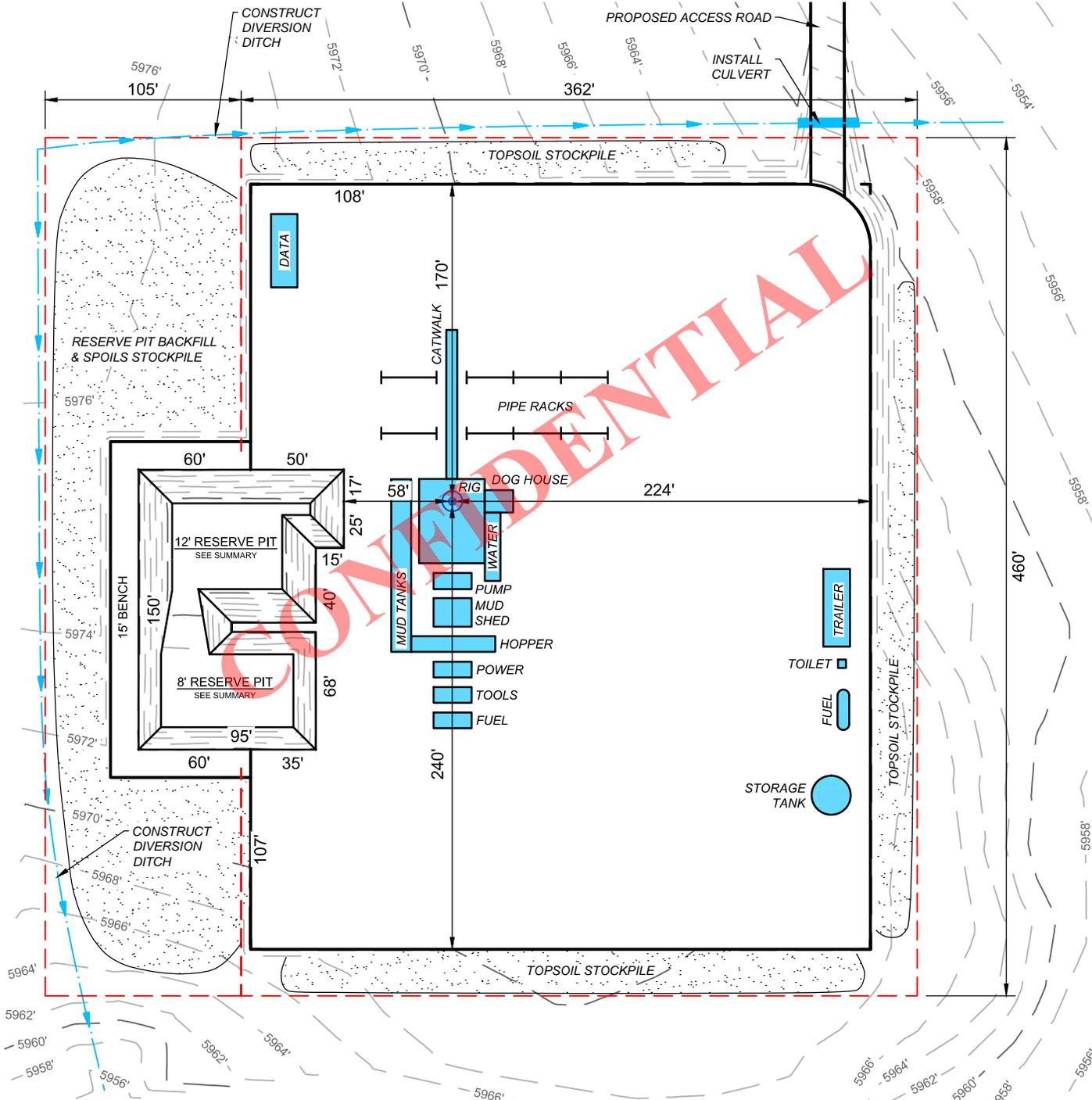


RIG LAYOUT

SHEPARD 5-2C5

WELL LOCATION: NW/SW SECTION 2, T3S, R5W, U.S.B.&M.

DUCHESNE COUNTY, UTAH



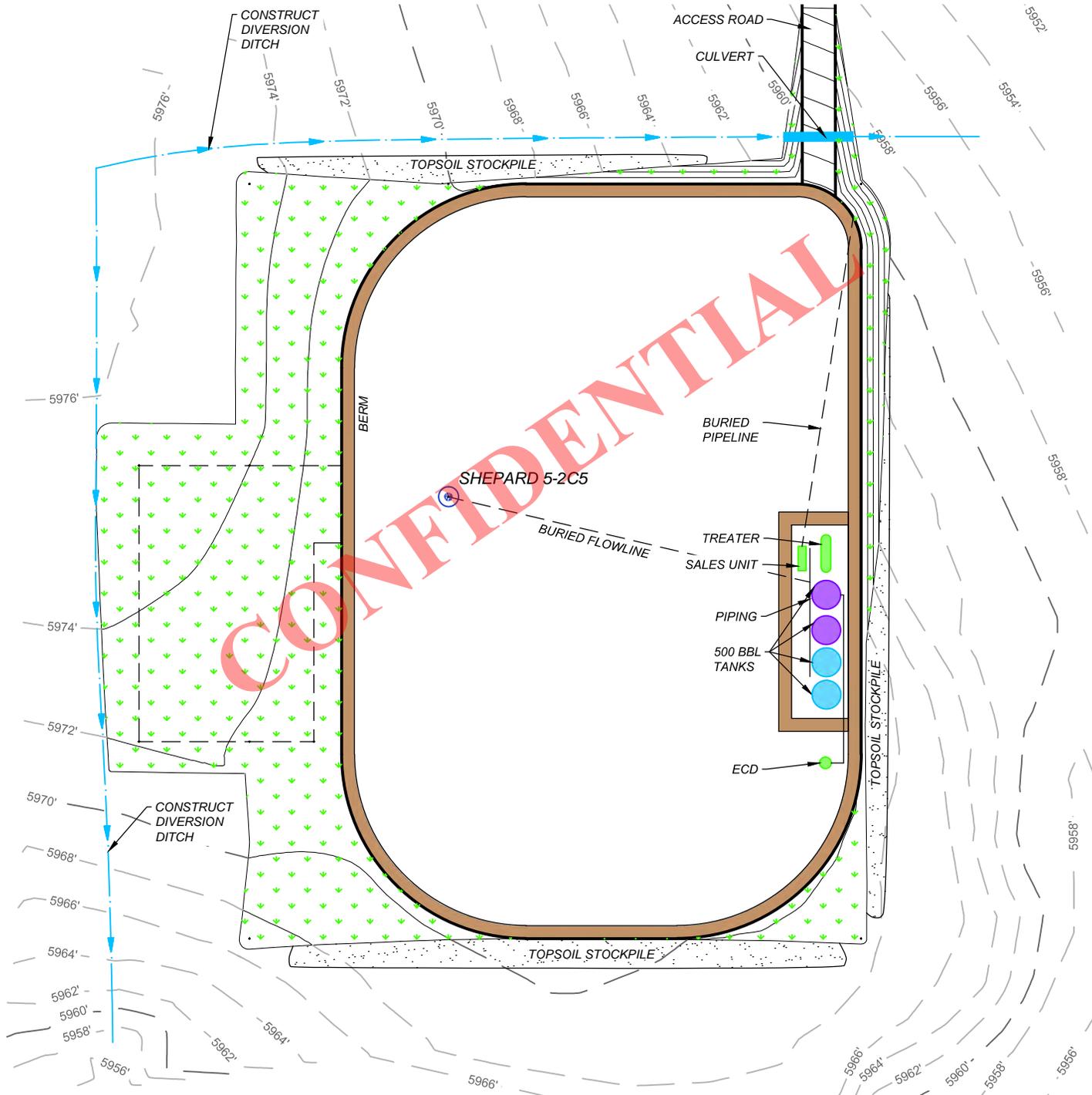


PRODUCTION FACILITY LAYOUT

SHEPARD 5-2C5

WELL LOCATION: NW/SW SECTION 2, T3S, R5W, U.S.B.&M.

DUCHESNE COUNTY, UTAH

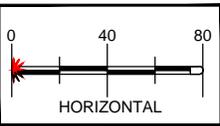


LEGEND	
	EXISTING CONTOURS
	PROPOSED CONTOURS
	LIMITS OF DISTURBANCE
	DIVERSION DITCH
	BERM
	WELL LOCATION
	RECLAIMED AREA

SUMMARY
APPROX UN-RECLAIMED AREA = 2.50 ACRES
APPROX RECLAIMED AREA = 0.89 ACRES

PRODUCTION FACILITY LAYOUT
SHEPARD 5-2C5
WELL LOCATION: NW/SW SECTION 2, T3S, R5W, U.S.B.&M.
DUCHESNE COUNTY, UTAH

OUTLAW ENGINEERING INC.
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PRODUCTION LAYOUT	NOVEMBER 25, 2014	SHEET NO. 5
	SCALE: 1" = 80'	
	DESIGN: MA,RFII DRAWN: JMH	

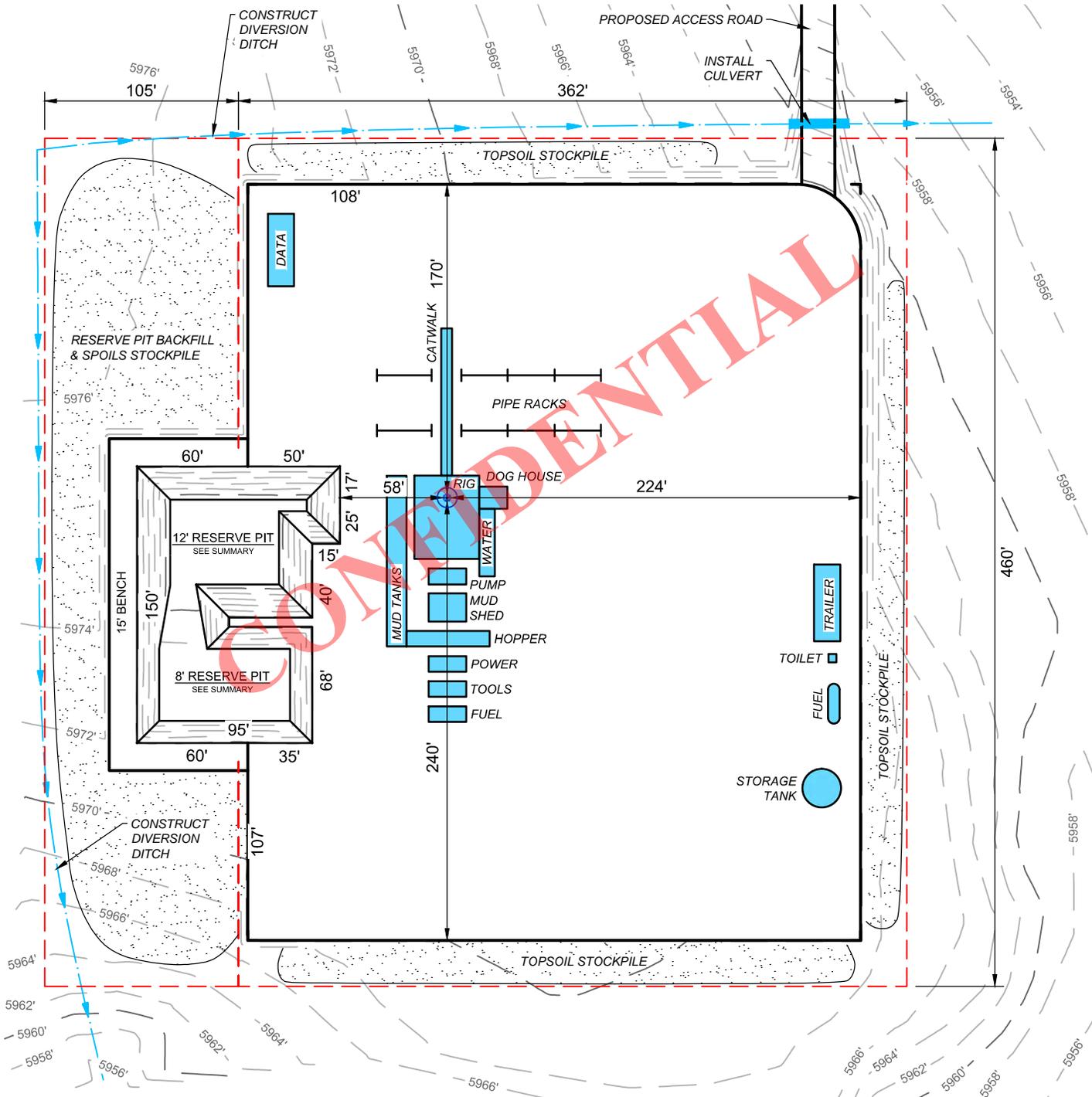


RIG LAYOUT

SHEPARD 5-2C5

WELL LOCATION: NW/SW SECTION 2, T3S, R5W, U.S.B.&M.

DUCHESNE COUNTY, UTAH

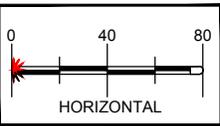


LEGEND	
	EXISTING CONTOURS
	PROPOSED CONTOURS
	LIMITS OF DISTURBANCE
	DIVERSION DITCH
	WELL LOCATION

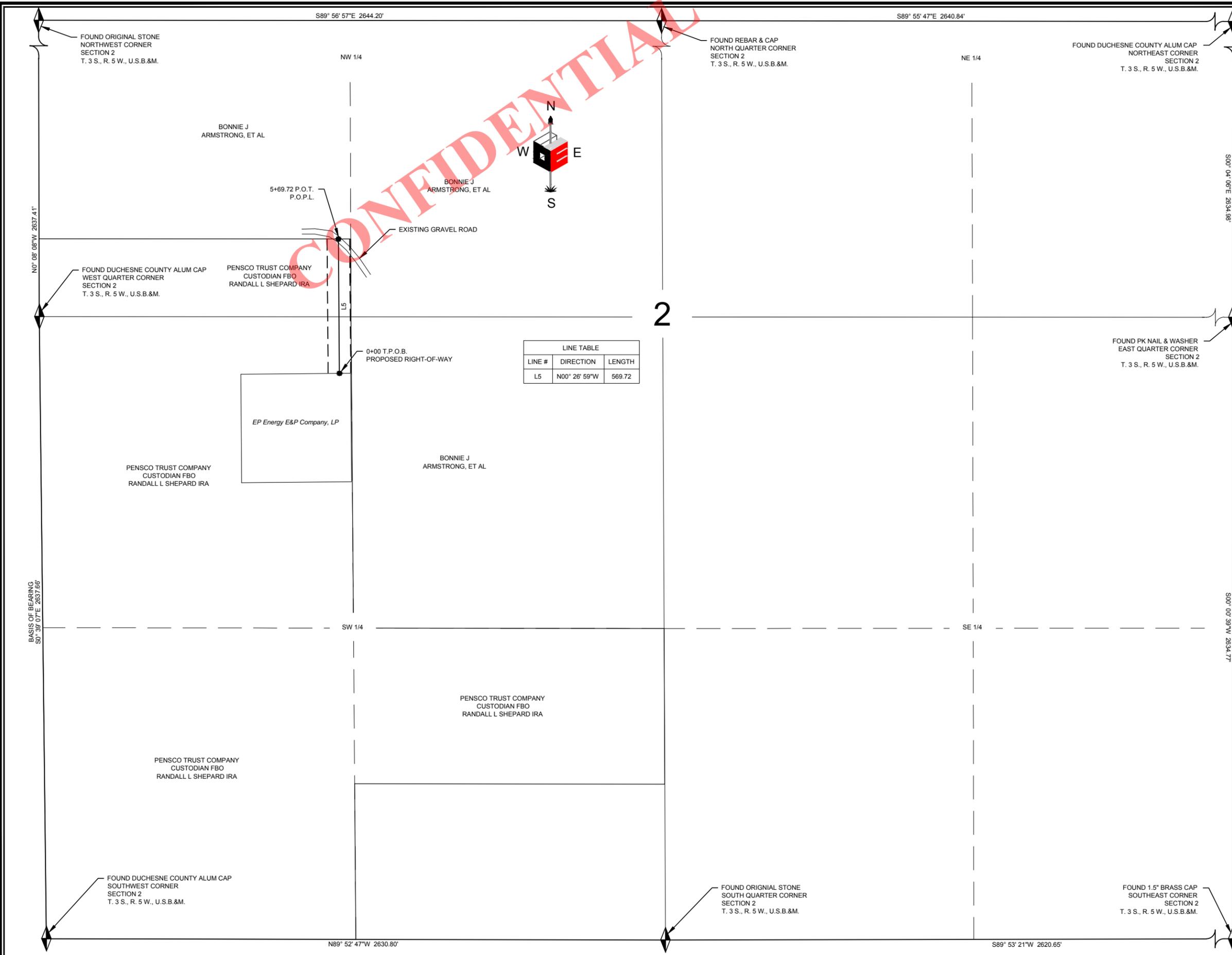
SUMMARY
SEE CROSS SECTION SHEET FOR QUANTITIES

RIG LAYOUT
SHEPARD 5-2C5
WELL LOCATION: NW/SW SECTION 2, T3S, R5W, U.S.B.&M.
DUCHESNE COUNTY, UTAH

OUTLAW ENGINEERING INC.
P.O. BOX 1800
ROOSEVELT, UTAH 84066
(435) 232-4321



RIG LAYOUT	NOVEMBER 25, 2014	SHEET NO. 4
	SCALE: 1" = 80'	
	DESIGN: MA,RFII DRAWN: JMH	



EP ENERGY E&P COMPANY, L.P.
 RIGHT-OF-WAY SURVEY ON FEE LANDS FOR
PENSCO TRUST COMPANY CUSTODIAN FBO RANDALL L SHEPARD IRA
 LOCATED IN SECTION 2, TOWNSHIP 3 S., RANGE 5 W., U.S.B.&M.
 DUCHESNE COUNTY, UTAH

SURVEYOR'S CERTIFICATE
 I, DAN E. KNOWLDEN JR. DO HEREBY CERTIFY THAT I AM A REGISTERED LAND SURVEYOR AND THAT I HOLD CERTIFICATE NO. 7173588 AS PRESCRIBED UNDER THE LAWS OF THE STATE OF UTAH AND THAT A SURVEY OF THE DESCRIBED PROPERTY HEREIN WAS PERFORMED UNDER MY DIRECTION.



ACCESS ROAD, PIPELINE, AND POWER LINE CORRIDOR RIGHT-OF-WAY DESCRIPTION
 LOCATED IN SECTION 2, TOWNSHIP 3 SOUTH, RANGE 5 WEST OF THE UTAH SPECIAL BASE AND MERIDIAN. RIGHT-OF-WAY CORRIDOR IS 96.00 FEET WIDE, 48.00 FEET ON EACH SIDE OF THE CENTERLINE. SAID CENTERLINE IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:
 COMMENCING AT THE WEST QUARTER CORNER OF SECTION 2, TOWNSHIP 3 SOUTH, RANGE 5 WEST OF THE UTAH SPECIAL BASE AND MERIDIAN AND RUNNING THENCE SOUTH 79° 18' 28" EAST 1298.10 FEET, TO THE TRUE POINT OF BEGINNING; THENCE SOUTH 00° 26' 59" WEST 569.72 FEET, TO THE NORTH PROPERTY LINE OF THE PENSCO TRUST COMPANY AND THE POINT OF TERMINUS. SAID RIGHT-OF-WAY BEING 569.72 FEET IN LENGTH, THE SIDE LINES OF WHICH BEING SHORTENED OR ELONGATED TO MEET THE RIGHT-OF-WAY BOUNDARY AND SURFACE USE AREA BOUNDARY. THE BASIS OF BEARING FOR THIS DESCRIPTION IS SOUTH 00° 39' 07" EAST BETWEEN THE WEST QUARTER CORNER AND THE SOUTHWEST CORNER OF SAID SECTION 2 .

RIGHT-OF-WAY LENGTH
 PENSCO TRUST COMPANY CUSTODIAN = 569.72 FEET OR 34.53 RODS, MORE OR LESS
 FBO RANDALL L SHEPARD IRA

- LEGEND**
- = FOUND SECTION CORNER
 - = SECTION LINE
 - = QUARTER SECTION LINE
 - = SIXTEENTH SECTION LINE

SCALE: 1" = 400'
 11X17 SHEET

REVIEWED: DEK | DRAWN: RLH

SHEET
 RIGHT-OF-WAY PLAT

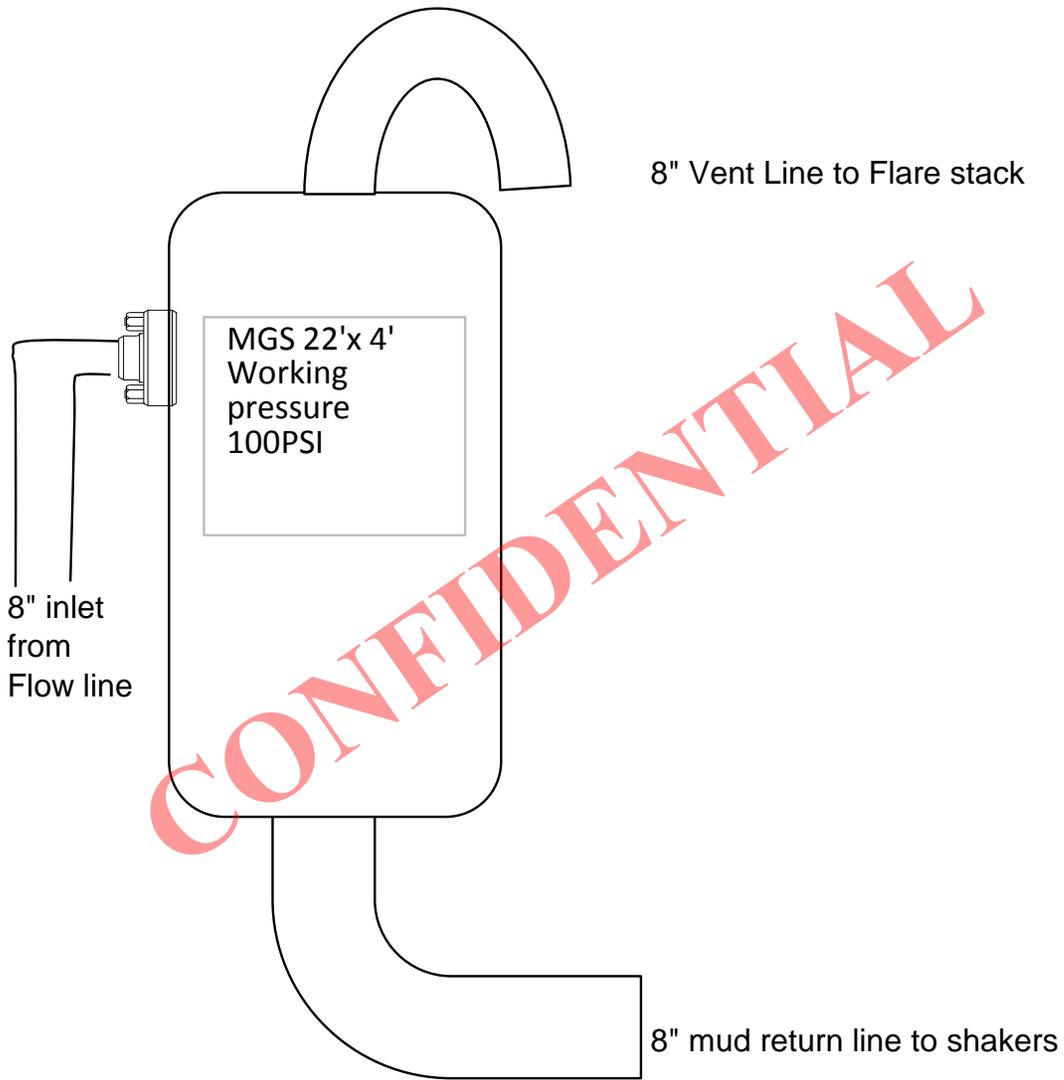


PLAT NO. 257C | DATE DECEMBER 18, 2014 | v 2 | SHEET NO. 1 OF 1

RECEIVED: March 10, 2015



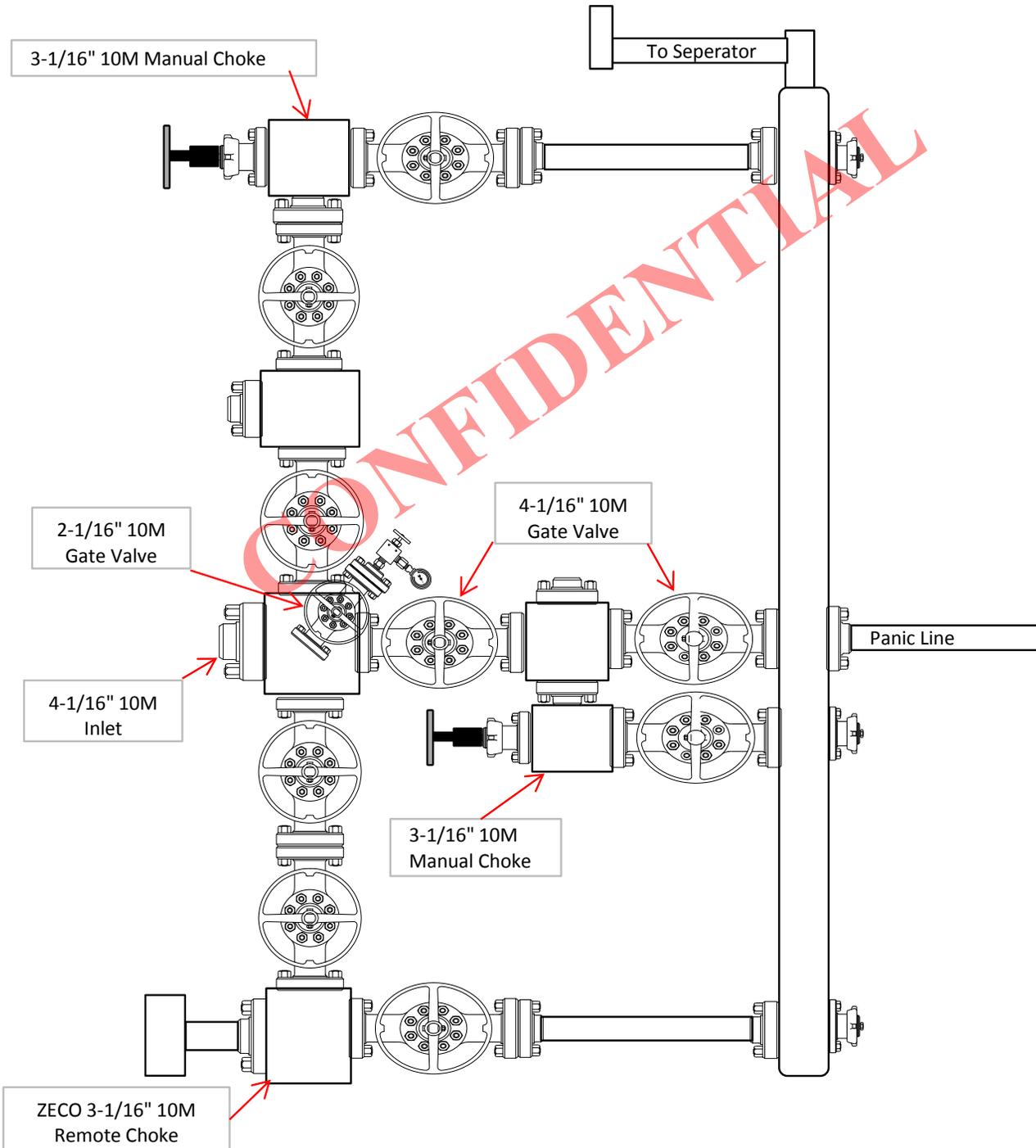
Mud Gas Separator





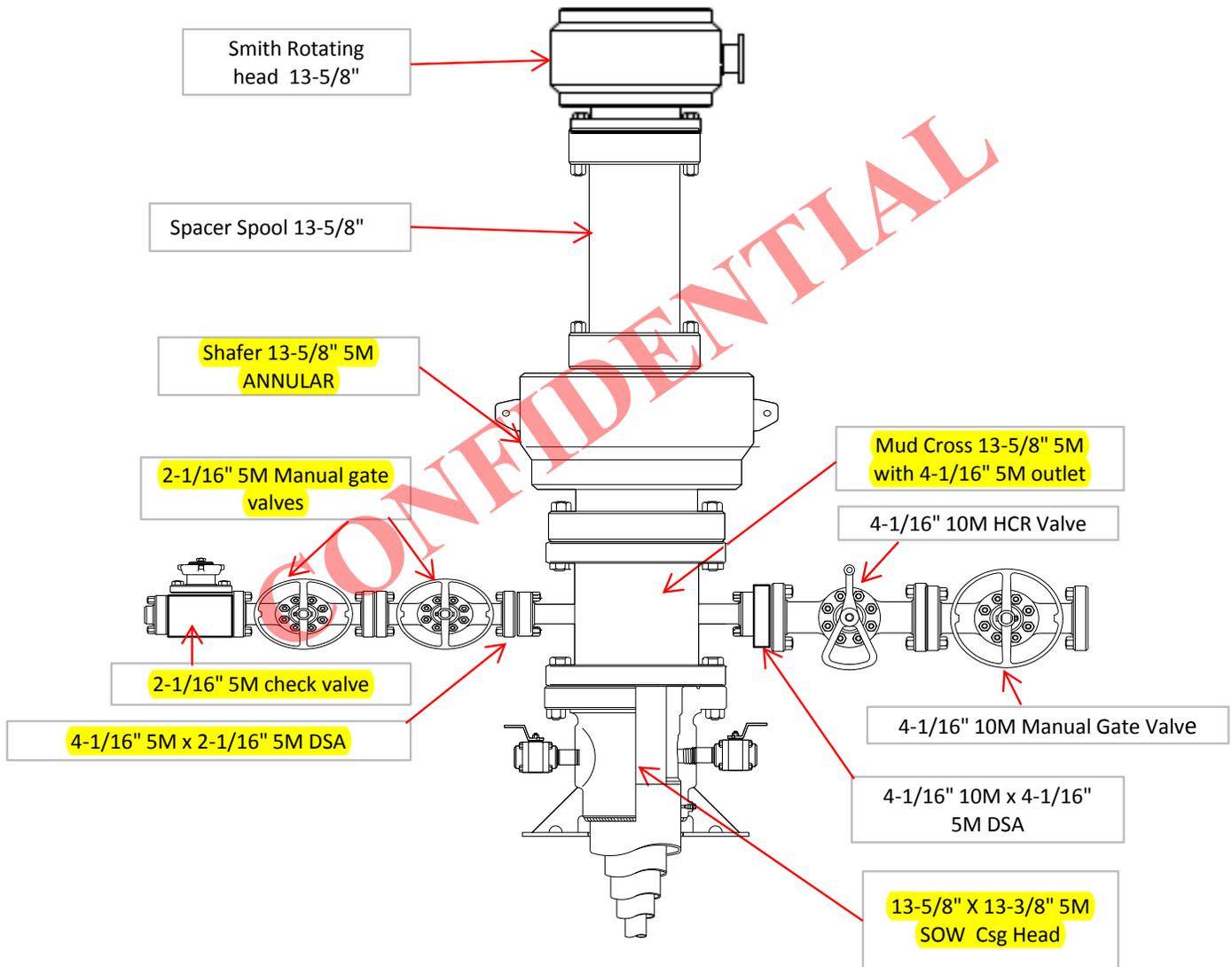
10M Choke Manifold Configuration

All valves on the Choke Manifold are 3-1/16" 10M except for those that are identified below.



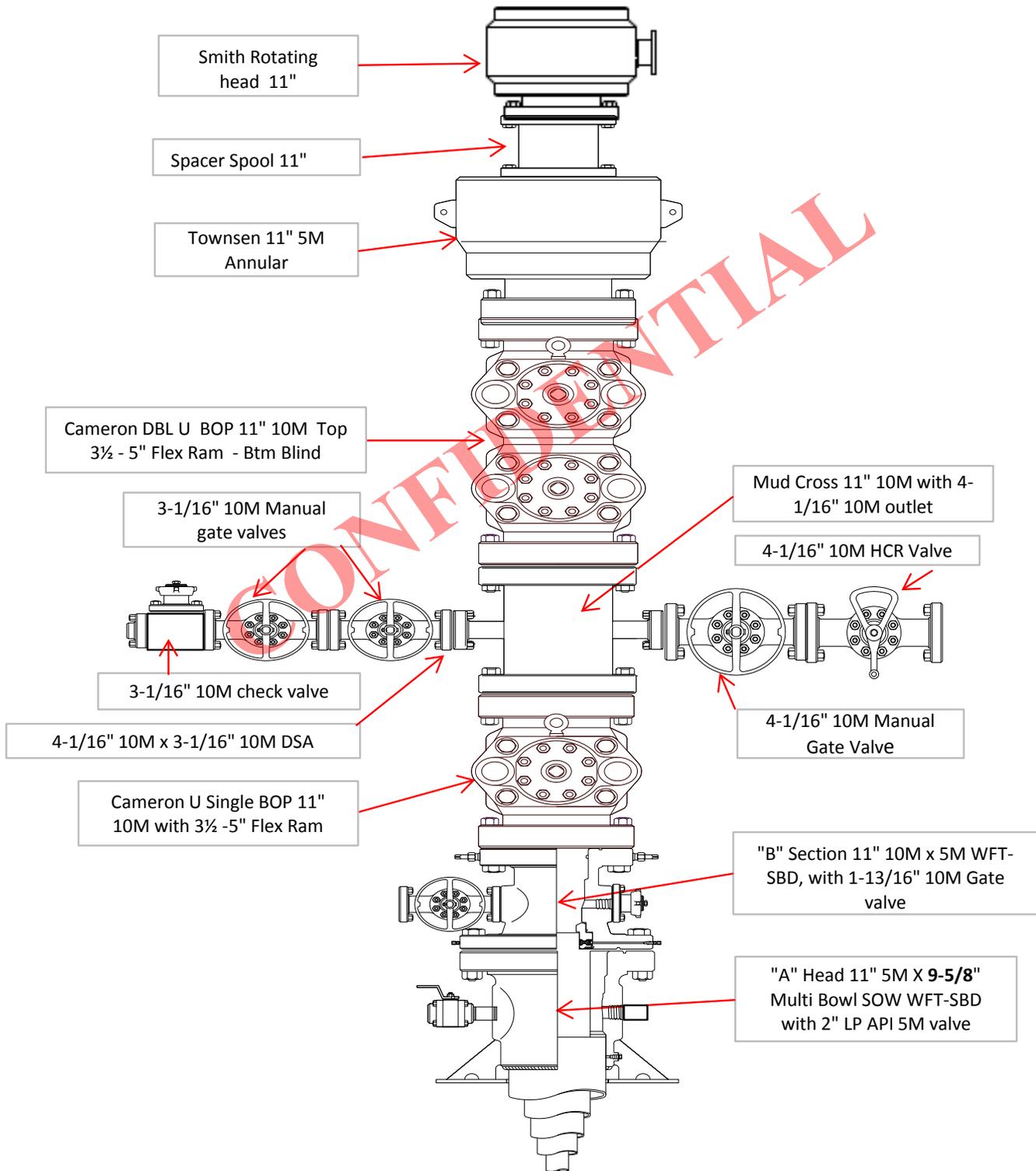


Surface 13-5/8" 3M Diverter Configuration



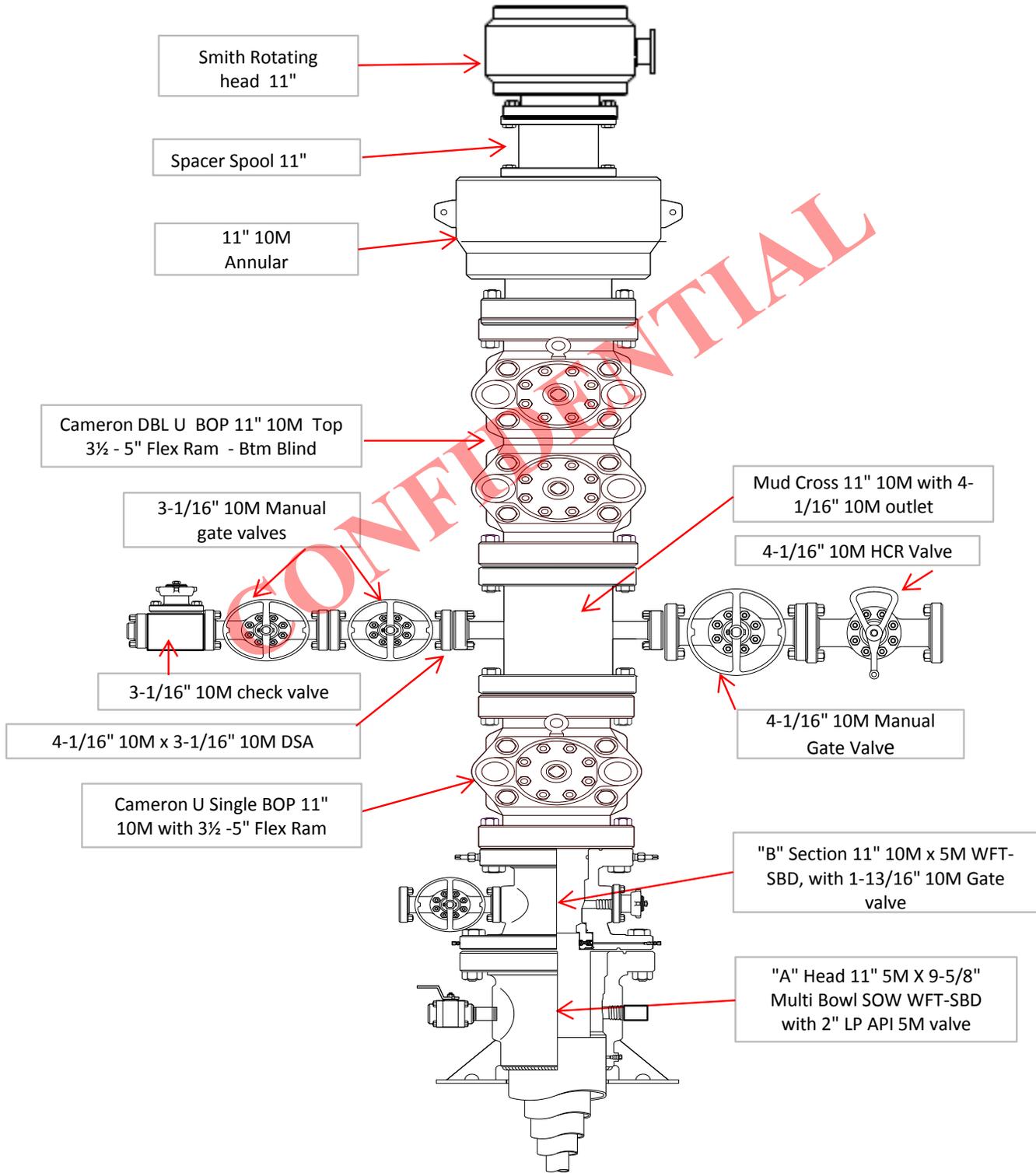


Intermediate 11" 5M BOP Configuration





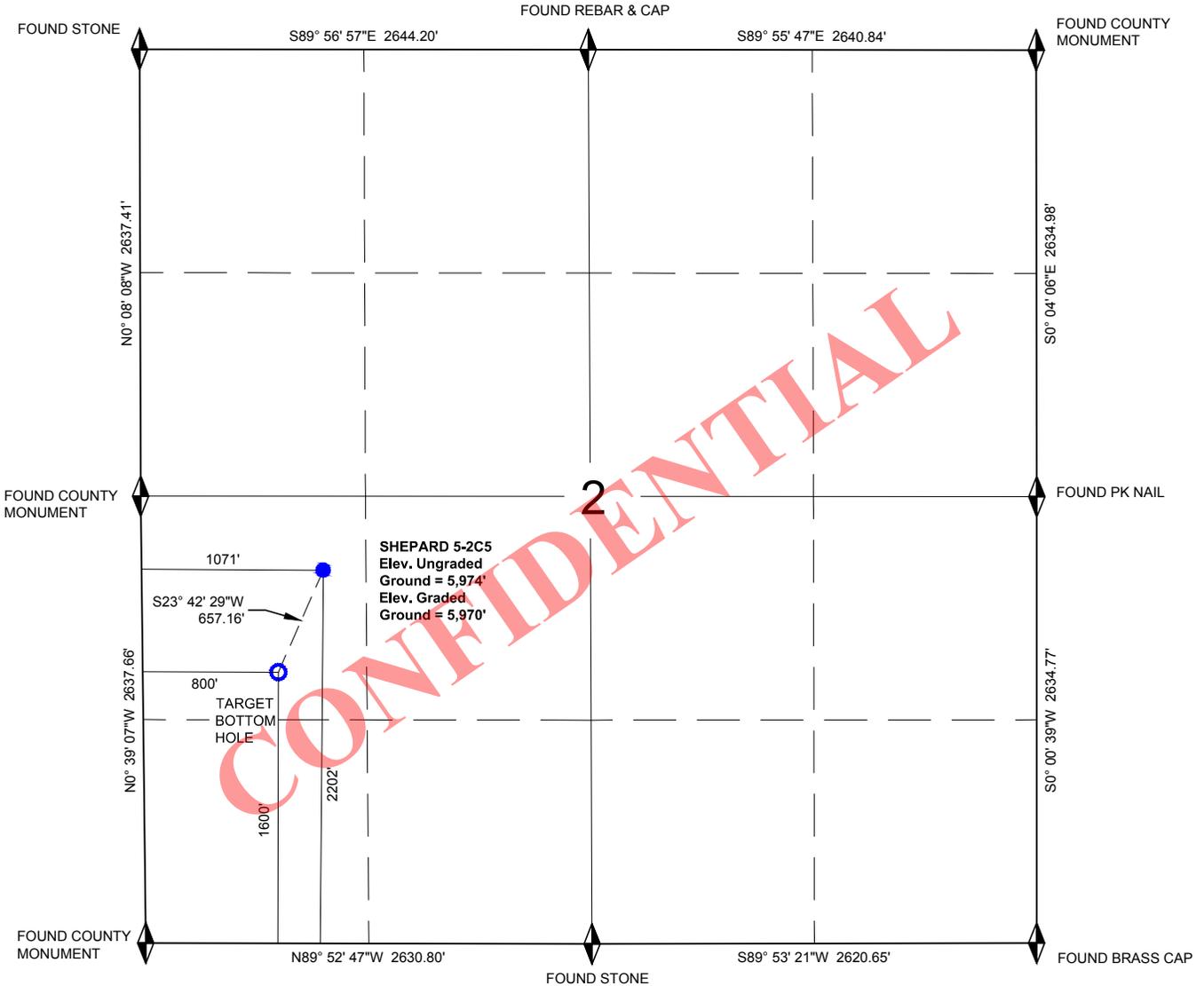
Production 11" 10M BOP Configuration





EP ENERGY
WELL LOCATION PLAT

WELL: SHEPARD 5-2C5
 PAD LOCATION: NW/SW, SECTION 2, T.3S, R.5W, U.S.B.&M.
 DUCHESNE COUNTY, UTAH



CERTIFICATE
 THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM THE FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION, AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

LEGEND

◆ = FOUND SECTION CORNER

● = PROPOSED WELL HEAD

○ = PROPOSED BOTTOM HOLE

NOTES:

1. WELL FOOTAGES ARE MEASURED AT RIGHT ANGLES TO THE SECTION LINE.
2. ALL BEARINGS AND DISTANCES ARE MEASURED UNLESS OTHERWISE NOTED.
3. BEARINGS ARE DERIVED FROM G.P.S. OBSERVATIONS AND EQUIPMENT.
4. THE GENERAL LAND OFFICE G.L.O. PLAT WAS USED FOR REFERENCE

BASIS OF ELEVATION

SPOT ELEVATION AT THE WEST QUARTER CORNER OF SECTION 2, T3S, R5W, U.S.B.&M. NAVD 88 DATUM USING THE UTAH REFERENCE NETWORK SYSTEM. SAID ELEVATION IS 5985.10 FEET.



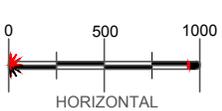
REGISTERED LAND SURVEYOR
 REGISTRATION NO. 7173588
 STATE OF UTAH



WELL LOCATION PLAT
WELL: SHEPARD 5-2C5
 PAD LOCATION: NW/SW, SECTION 2,
 T.3 S., R. 5 W., U.S.B.&M.
 DUCHESNE COUNTY, UTAH

NAD 83 SURFACE LOCATION
LATITUDE = 40°14' 52.56025"N (40.247933)
LONGITUDE = 110°25' 23.67445"W (110.423243)
NAD 27 SURFACE LOCATION
LATITUDE = 40°14' 52.71949"N (40.247978)
LONGITUDE = 110°25' 21.11231"W (110.422531)

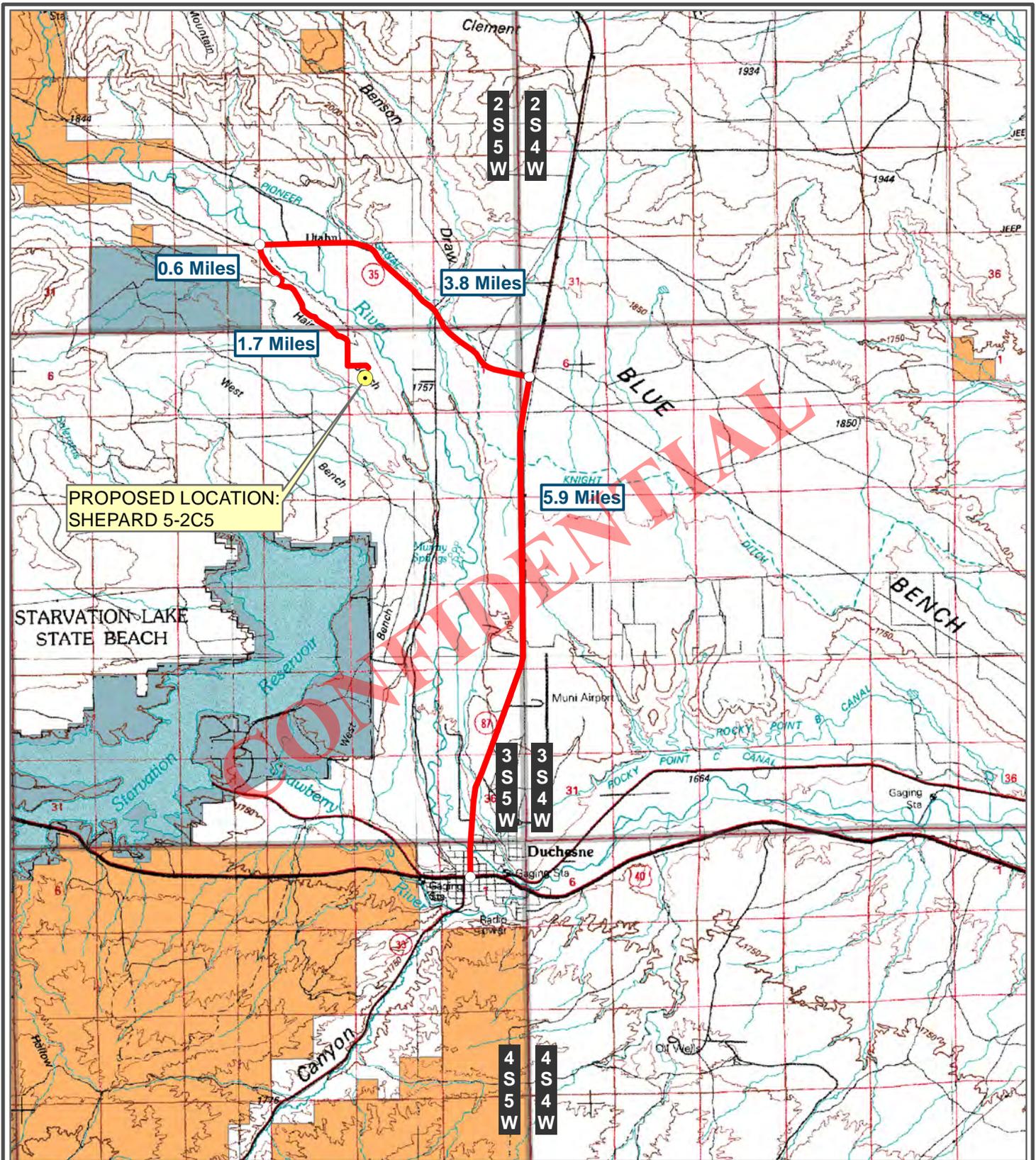
NAD 83 BOTTOM HOLE
LATITUDE = 40°14'46.61435"N (40.246282)
LONGITUDE = 110°25'27.07628"W (110.424188)
NAD 27 BOTTOM HOLE
LATITUDE = 40°14'46.77347"N (40.246326)
LONGITUDE = 110°25'24.51416"W (110.423476)



WELL PLAT

DATE SURVEYED: NOV. 8, 2014
SURVEYED BY: DK/CW
DRAWN: NOV. 12, 2014
DRAWN: CCW
SCALE: 1" = 1000'

SHEET NO.
1



OUTLAW ENGINEERING INC.
 P. O. BOX 1800
 ROOSEVELT, UTAH 84066
 (435) 232-4321



PARCEL INFORMATION SHOWN HAS NOT BEEN SURVEYED BY OUTLAW ENGINEERING, INC. AND MAY NOT REFLECT ACTUAL LOCATION OF PROPERTY LINES

LEGEND

- Shepard 5-2C5 Site Location
- Proposed Access Road
- Existing Access Road

- Federal
- Private
- State
- Tribal

SHEPARD 5-2C5

WELL LOCATION: NW/SW SECTION 2, T.3S, R.5W, U.S.B.&M.
 DUCHESNE COUNTY, UTAH



Site Location

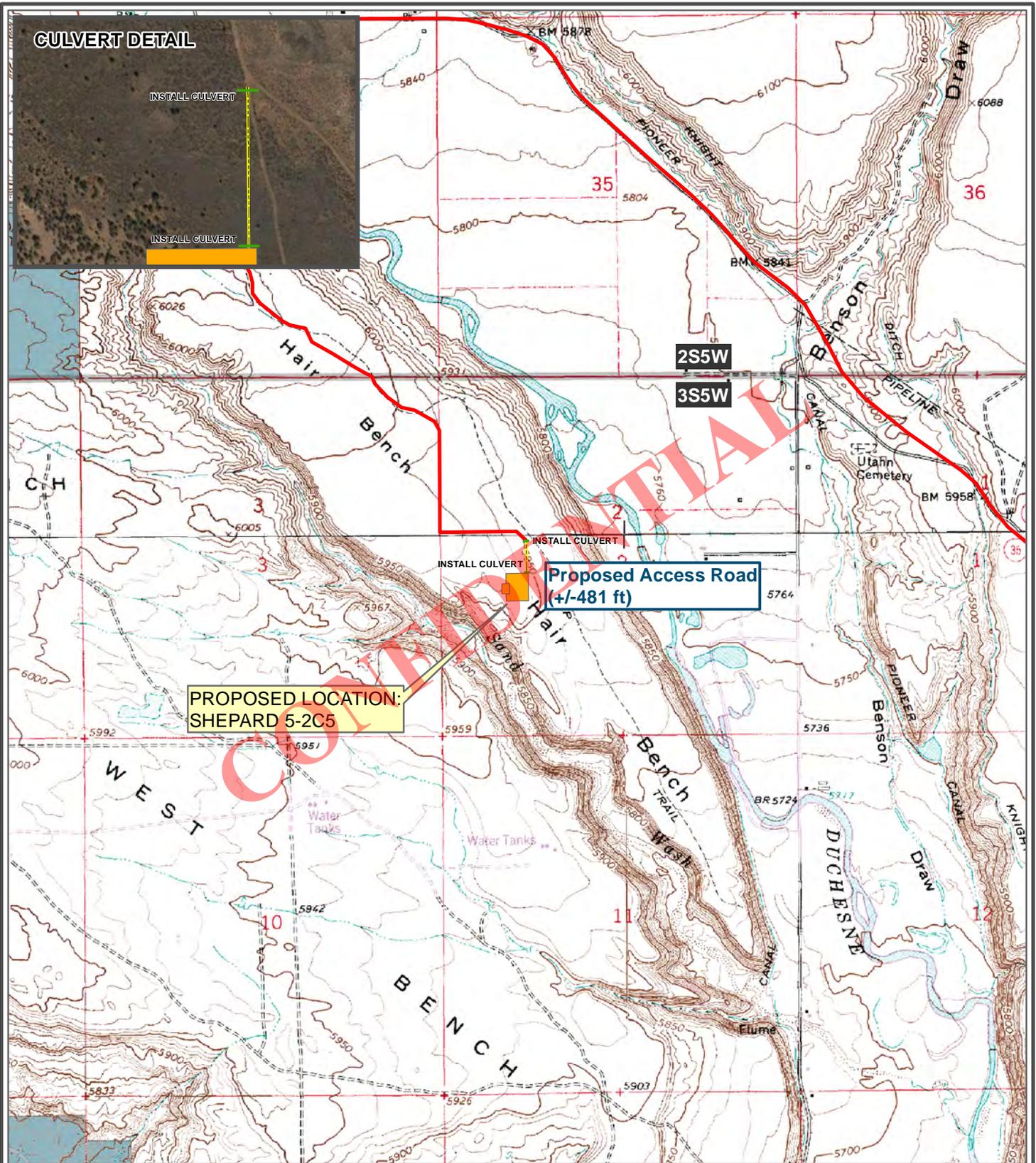


VERSION: V1
 SURVEYED: 11-11-14

USGS 7.5' Duchesne Quadrangle

NOV 19, 2014
 SCALE: 1" = 8,342'
 AUTHOR: BWH

SHEET
A



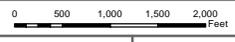


**OUTLAW
ENGINEERING INC.**
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PARCEL INFORMATION SHOWN HAS NOT BEEN SURVEYED BY OUTLAW ENGINEERING, INC. AND MAY NOT REFLECT ACTUAL LOCATION OF PROPERTY LINES

Proposed Access Road



VERSION:	V1
SURVEYED:	11-11-14

LEGEND

- Proposed Access Road
- Culvert Required
- Existing Access Road
- Proposed Pad

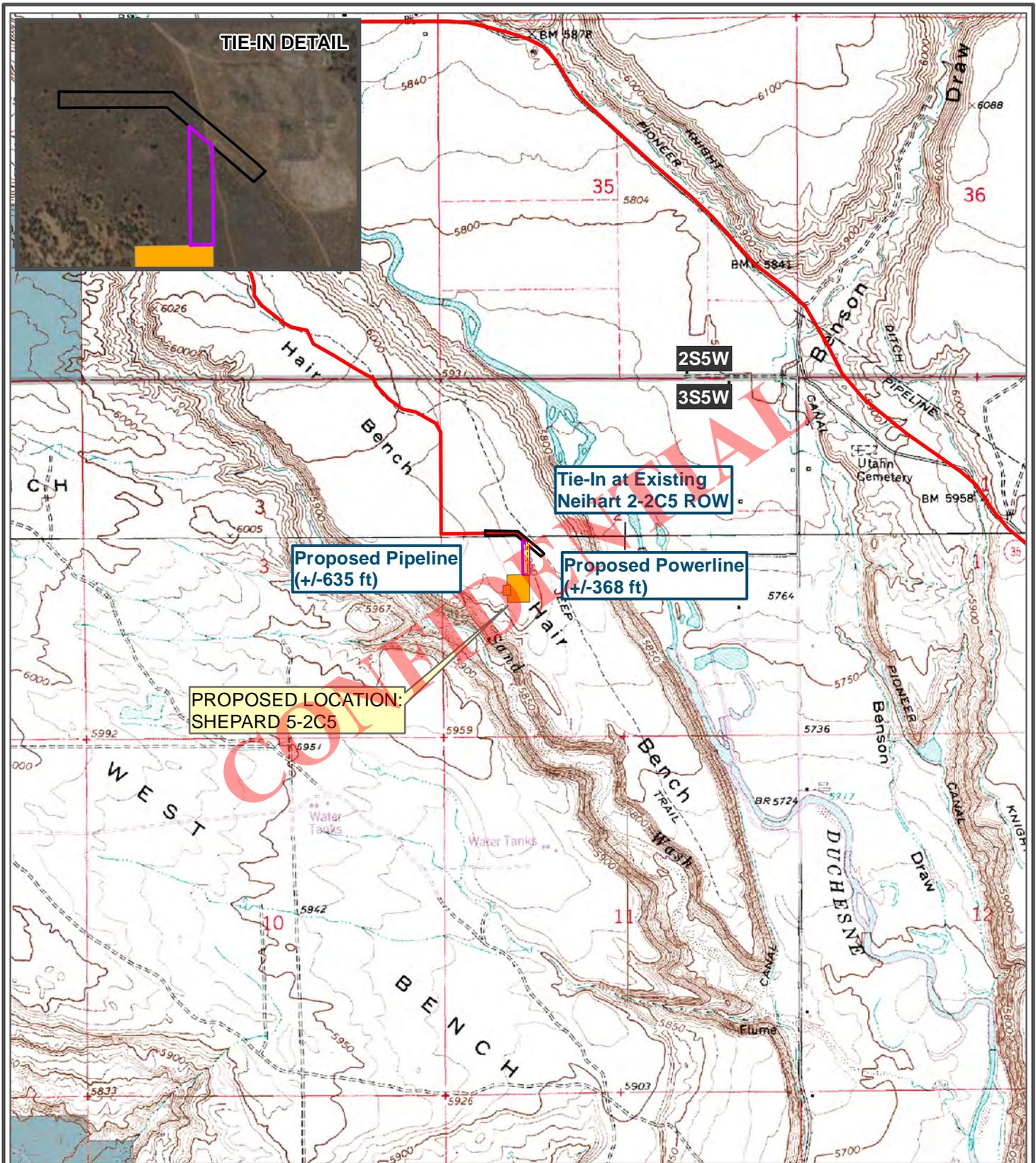
 Federal	 Private	 State	 Tribal
--	---	---	---

SHEPARD 5-2C5

WELL LOCATION: NW/SW SECTION 2, T.3S, R.5W, U.S.B.&M.
DUCHESENE COUNTY, UTAH



USGS 7.5' Duchesne Quadrangle 2014 Google Imagery	NOV 19, 2014 SCALE: 1" = 2,000' AUTHOR: BWH	SHEET B
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OUTLAW ENGINEERING INC.
 P.O. BOX 1800
 ROOSEVELT, UTAH 84066
 (435) 232-4321



PARCEL INFORMATION SHOWN HAS NOT BEEN SURVEYED BY OUTLAW ENGINEERING, INC. AND MAY NOT REFLECT ACTUAL LOCATION OF PROPERTY LINES

LEGEND

- ▬ Proposed 96' ROW
- ▬ Proposed Access Road
- Existing ROW
- Existing Access Road
- Proposed Pad

Federal Private State Tribal

SHEPARD 5-2C5

WELL LOCATION: NW/SW SECTION 2, T.3S, R.5W, U.S.B.&M.
 DUCHESENE COUNTY, UTAH



Proposed Pipeline & Powerline

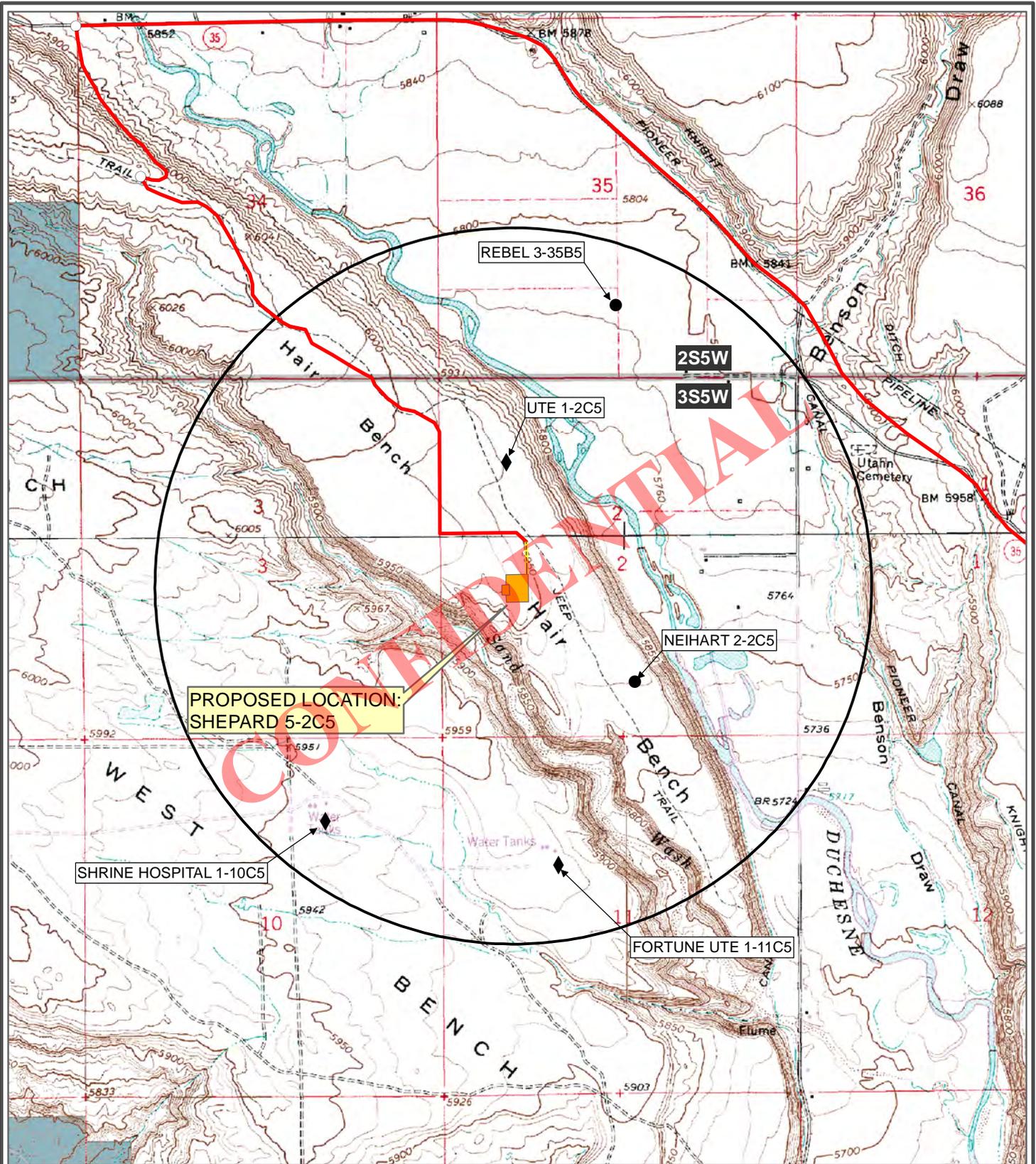


VERSION: **V1**
 SURVEYED: **11-11-14**

USGS 7.5' Duchesne Quadrangle
 2014 Google Imagery

NOV 19, 2014
 SCALE: 1" = 2,000'
 AUTHOR: BWH

SHEET
C



**PROPOSED LOCATION:
SHEPARD 5-2C5**

SHRINE HOSPITAL 1-10C5

REBEL 3-35B5

UTE 1-2C5

2S5W

3S5W

NEIHART 2-2C5

FORTUNE UTE 1-11C5

**OUTLAW
ENGINEERING INC.**
P. O. BOX 1800
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PARCEL INFORMATION SHOWN HAS NOT BEEN SURVEYED BY OUTLAW ENGINEERING, INC. AND MAY NOT REFLECT ACTUAL LOCATION OF PROPERTY LINES

- LEGEND**
- Producing
 - ◆ Plugged & Abandoned
 - One Mile Radius

Federal	Private	State	Tribal
---------	---------	-------	--------

SHEPARD 5-2C5

WELL LOCATION: NW/SW SECTION 2, T.3S, R.5W, U.S.B.&M.
DUCHESE COUNTY, UTAH



**Surrounding
Wells**

0	500	1,000	1,500	2,000
Feet				
VERSION:	V1			
SURVEYED:	11-11-14			

USGS 7.5'
Duchesne
Quadrangle

NOV 19, 2014
SCALE: 1" = 2,000'
AUTHOR: BWH

SHEET
D



EP Energy E&P Company, L.P.

Duchesne Co, UT
Shepard 5-2C5
5-2C5

OH

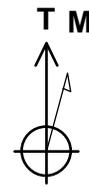
Plan: Design #1

Standard Planning Report

19 February, 2015

CONFIDENTIAL





Azimuths to True North
Magnetic North: 11.15°

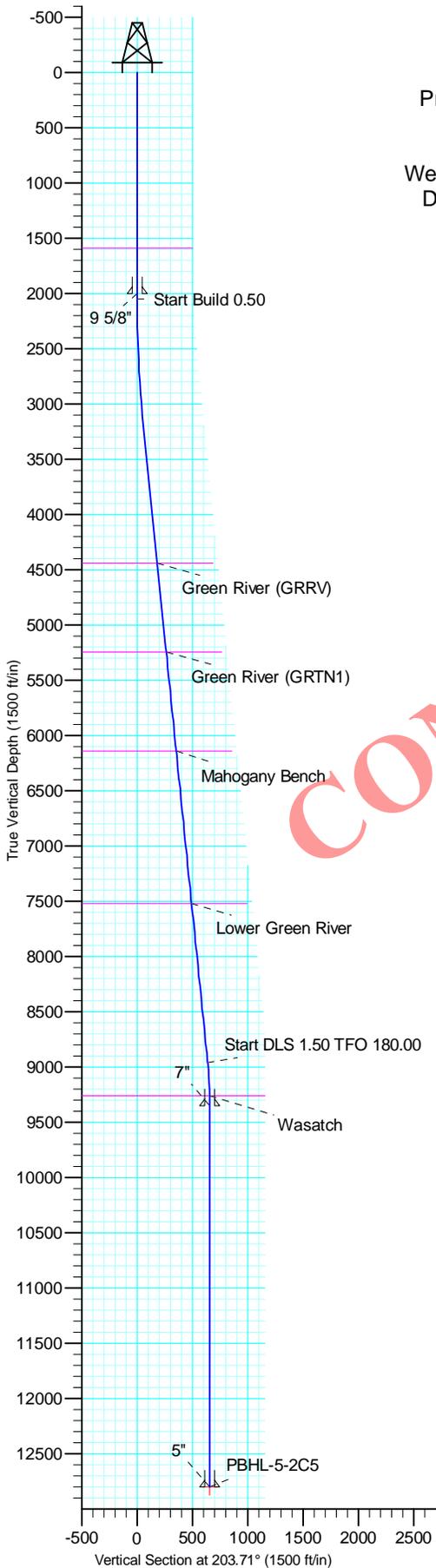
Magnetic Field
Strength: 51829.0snT
Dip Angle: 65.79°
Date: 2/19/2015
Model: BGGM2014

Project: Duchesne Co, UT
Site: Shepard 5-2C5
Well: 5-2C5
Wellbore: OH
Design: Design #1

Duchesne Co, UT
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Utah Central Zone
System Datum: Mean Sea Level

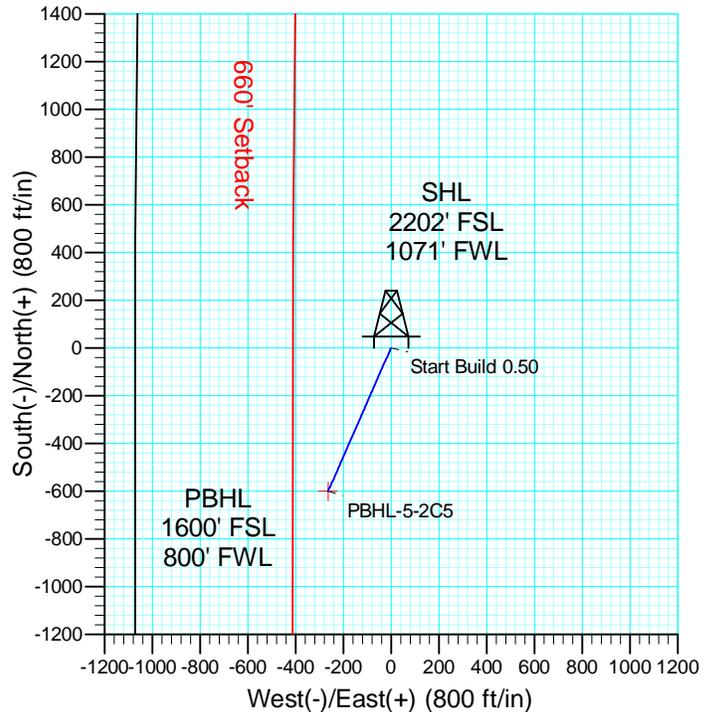
Site Centre Northing: 7260845.28
Easting: 1940960.40

Positional Uncertainty: 0.00
Convergence: 0.69
Local North: True



SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	2050.00	0.00	0.69	2050.00	0.00	0.00	0.00	0.69	0.00	
3	3200.00	5.75	203.71	3198.07	-52.79	-23.19	0.50	203.71	57.66	
4	8991.07	5.75	203.71	8960.00	-584.00	-256.51	0.00	0.00	637.85	
5	9374.58	0.00	23.71	9342.87	-601.60	-264.24	1.50	180.00	657.07	
6	12831.71	0.00	23.71	12800.00	-601.45	-264.17	0.00	0.00	656.91	PBHL-5-2C5

ANNOTATIONS									
TVD	MD	Inc	Azi	+N/-S	+E/-W	VSec	Departure	Annotation	
2050.00	2050.00	0.00	0.00	0.00	0.00	0.00	0.00	Start Build 0.50	
8960.00	8991.07	5.75	203.71	-52.79	-23.19	57.66	57.66	Start DLS 1.50 TFO 180.00	
12800.00	12831.71	5.75	203.71	-584.00	-256.51	637.85	637.85	TD at 12831.71	





Database:	RyanUS R5000	Local Co-ordinate Reference:	Well 5-2C5
Company:	EP Energy E&P Company, L.P.	TVD Reference:	WELL @ 5987.00ft (Original Well Elev)
Project:	Duchesne Co, UT	MD Reference:	WELL @ 5987.00ft (Original Well Elev)
Site:	Shepard 5-2C5	North Reference:	True
Well:	5-2C5	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Design #1		

Project	Duchesne Co, UT		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Utah Central Zone		

Site	Shepard 5-2C5				
Site Position:		Northing:	7,260,845.28 usft	Latitude:	40° 14' 52.56 N
From:	Lat/Long	Easting:	1,940,960.40 usft	Longitude:	110° 25' 23.67 W
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.69 °

Well	5-2C5					
Well Position	+N/-S	0.00 ft	Northing:	7,260,845.28 usft	Latitude:	40° 14' 52.56 N
	+E/-W	0.00 ft	Easting:	1,940,960.40 usft	Longitude:	110° 25' 23.67 W
Position Uncertainty		2.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	5,970.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2014	2/19/2015	11.15	65.79	51,829

Design	Design #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	203.71

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,050.00	0.00	0.69	2,050.00	0.00	0.00	0.00	0.00	0.00	0.69	
3,200.00	5.75	203.71	3,198.07	-52.79	-23.19	0.50	0.50	0.00	203.71	PBHL-5-2C5
8,991.07	5.75	203.71	8,960.00	-584.00	-256.51	0.00	0.00	0.00	0.00	
9,374.58	0.00	23.71	9,342.87	-601.60	-264.24	1.50	-1.50	-46.93	180.00	
12,831.71	0.00	23.71	12,800.00	-601.45	-264.17	0.00	0.00	0.00	0.00	PBHL-5-2C5



Database:	RyanUS R5000	Local Co-ordinate Reference:	Well 5-2C5
Company:	EP Energy E&P Company, L.P.	TVD Reference:	WELL @ 5987.00ft (Original Well Elev)
Project:	Duchesne Co, UT	MD Reference:	WELL @ 5987.00ft (Original Well Elev)
Site:	Shepard 5-2C5	North Reference:	True
Well:	5-2C5	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Design #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,587.00	0.00	0.00	1,587.00	0.00	0.00	0.00	0.00	0.00	0.00
Base MSGW									
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
9 5/8"									
2,050.00	0.00	0.00	2,050.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 0.50									
2,100.00	0.25	203.71	2,100.00	-0.10	-0.04	0.11	0.50	0.50	0.00
2,200.00	0.75	203.71	2,200.00	-0.90	-0.39	0.98	0.50	0.50	0.00
2,300.00	1.25	203.71	2,299.98	-2.50	-1.10	2.73	0.50	0.50	0.00
2,400.00	1.75	203.71	2,399.95	-4.89	-2.15	5.34	0.50	0.50	0.00
2,500.00	2.25	203.71	2,499.88	-8.09	-3.55	8.83	0.50	0.50	0.00
2,600.00	2.75	203.71	2,599.79	-12.08	-5.31	13.20	0.50	0.50	0.00
2,700.00	3.25	203.71	2,699.65	-16.87	-7.41	18.43	0.50	0.50	0.00
2,800.00	3.75	203.71	2,799.46	-22.46	-9.87	24.53	0.50	0.50	0.00
2,900.00	4.25	203.71	2,899.22	-28.85	-12.67	31.51	0.50	0.50	0.00
3,000.00	4.75	203.71	2,998.91	-36.03	-15.83	39.36	0.50	0.50	0.00
3,100.00	5.25	203.71	3,098.53	-44.01	-19.33	48.07	0.50	0.50	0.00
3,200.00	5.75	203.71	3,198.07	-52.79	-23.19	57.66	0.50	0.50	0.00
3,300.00	5.75	203.71	3,297.57	-61.96	-27.22	67.68	0.00	0.00	0.00
3,400.00	5.75	203.71	3,397.06	-71.14	-31.24	77.69	0.00	0.00	0.00
3,500.00	5.75	203.71	3,496.56	-80.31	-35.27	87.71	0.00	0.00	0.00
3,600.00	5.75	203.71	3,596.06	-89.48	-39.30	97.73	0.00	0.00	0.00
3,700.00	5.75	203.71	3,695.55	-98.65	-43.33	107.75	0.00	0.00	0.00
3,800.00	5.75	203.71	3,795.05	-107.83	-47.36	117.77	0.00	0.00	0.00
3,900.00	5.75	203.71	3,894.55	-117.00	-51.39	127.79	0.00	0.00	0.00
4,000.00	5.75	203.71	3,994.05	-126.17	-55.42	137.81	0.00	0.00	0.00
4,100.00	5.75	203.71	4,093.54	-135.35	-59.45	147.83	0.00	0.00	0.00
4,200.00	5.75	203.71	4,193.04	-144.52	-63.48	157.84	0.00	0.00	0.00
4,300.00	5.75	203.71	4,292.54	-153.69	-67.50	167.86	0.00	0.00	0.00
4,400.00	5.75	203.71	4,392.03	-162.86	-71.53	177.88	0.00	0.00	0.00
4,447.20	5.75	203.71	4,439.00	-167.20	-73.44	182.61	0.00	0.00	0.00
Green River (GRRV)									
4,500.00	5.75	203.71	4,491.53	-172.04	-75.56	187.90	0.00	0.00	0.00
4,600.00	5.75	203.71	4,591.03	-181.21	-79.59	197.92	0.00	0.00	0.00



Database:	RyanUS R5000	Local Co-ordinate Reference:	Well 5-2C5
Company:	EP Energy E&P Company, L.P.	TVD Reference:	WELL @ 5987.00ft (Original Well Elev)
Project:	Duchesne Co, UT	MD Reference:	WELL @ 5987.00ft (Original Well Elev)
Site:	Shepard 5-2C5	North Reference:	True
Well:	5-2C5	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Design #1		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
4,700.00	5.75	203.71	4,690.52	-190.38	-83.62	207.94	0.00	0.00	0.00	
4,800.00	5.75	203.71	4,790.02	-199.56	-87.65	217.96	0.00	0.00	0.00	
4,900.00	5.75	203.71	4,889.52	-208.73	-91.68	227.98	0.00	0.00	0.00	
5,000.00	5.75	203.71	4,989.01	-217.90	-95.71	238.00	0.00	0.00	0.00	
5,100.00	5.75	203.71	5,088.51	-227.08	-99.74	248.01	0.00	0.00	0.00	
5,200.00	5.75	203.71	5,188.01	-236.25	-103.77	258.03	0.00	0.00	0.00	
5,257.28	5.75	203.71	5,245.00	-241.50	-106.07	263.77	0.00	0.00	0.00	
Green River (GRTN1)										
5,300.00	5.75	203.71	5,287.50	-245.42	-107.79	268.05	0.00	0.00	0.00	
5,400.00	5.75	203.71	5,387.00	-254.59	-111.82	278.07	0.00	0.00	0.00	
5,500.00	5.75	203.71	5,486.50	-263.77	-115.85	288.09	0.00	0.00	0.00	
5,600.00	5.75	203.71	5,586.00	-272.94	-119.88	298.11	0.00	0.00	0.00	
5,700.00	5.75	203.71	5,685.49	-282.11	-123.91	308.13	0.00	0.00	0.00	
5,800.00	5.75	203.71	5,784.99	-291.29	-127.94	318.15	0.00	0.00	0.00	
5,900.00	5.75	203.71	5,884.49	-300.46	-131.97	328.16	0.00	0.00	0.00	
6,000.00	5.75	203.71	5,983.98	-309.63	-136.00	338.18	0.00	0.00	0.00	
6,100.00	5.75	203.71	6,083.48	-318.81	-140.03	348.20	0.00	0.00	0.00	
6,156.81	5.75	203.71	6,140.00	-324.02	-142.32	353.89	0.00	0.00	0.00	
Mahogany Bench										
6,200.00	5.75	203.71	6,182.98	-327.98	-144.06	358.22	0.00	0.00	0.00	
6,300.00	5.75	203.71	6,282.47	-337.15	-148.08	368.24	0.00	0.00	0.00	
6,400.00	5.75	203.71	6,381.97	-346.32	-152.11	378.26	0.00	0.00	0.00	
6,500.00	5.75	203.71	6,481.47	-355.50	-156.14	388.28	0.00	0.00	0.00	
6,600.00	5.75	203.71	6,580.96	-364.67	-160.17	398.30	0.00	0.00	0.00	
6,700.00	5.75	203.71	6,680.46	-373.84	-164.20	408.31	0.00	0.00	0.00	
6,800.00	5.75	203.71	6,779.96	-383.02	-168.23	418.33	0.00	0.00	0.00	
6,900.00	5.75	203.71	6,879.45	-392.19	-172.26	428.35	0.00	0.00	0.00	
7,000.00	5.75	203.71	6,978.95	-401.36	-176.29	438.37	0.00	0.00	0.00	
7,100.00	5.75	203.71	7,078.45	-410.54	-180.32	448.39	0.00	0.00	0.00	
7,200.00	5.75	203.71	7,177.94	-419.71	-184.35	458.41	0.00	0.00	0.00	
7,300.00	5.75	203.71	7,277.44	-428.88	-188.37	468.43	0.00	0.00	0.00	
7,400.00	5.75	203.71	7,376.94	-438.05	-192.40	478.45	0.00	0.00	0.00	
7,500.00	5.75	203.71	7,476.44	-447.23	-196.43	488.47	0.00	0.00	0.00	
7,540.77	5.75	203.71	7,517.00	-450.97	-198.07	492.55	0.00	0.00	0.00	
Lower Green River										
7,600.00	5.75	203.71	7,575.93	-456.40	-200.46	498.48	0.00	0.00	0.00	
7,700.00	5.75	203.71	7,675.43	-465.57	-204.49	508.50	0.00	0.00	0.00	
7,800.00	5.75	203.71	7,774.93	-474.75	-208.52	518.52	0.00	0.00	0.00	
7,900.00	5.75	203.71	7,874.42	-483.92	-212.55	528.54	0.00	0.00	0.00	
8,000.00	5.75	203.71	7,973.92	-493.09	-216.58	538.56	0.00	0.00	0.00	
8,100.00	5.75	203.71	8,073.42	-502.27	-220.61	548.58	0.00	0.00	0.00	
8,200.00	5.75	203.71	8,172.91	-511.44	-224.64	558.60	0.00	0.00	0.00	
8,300.00	5.75	203.71	8,272.41	-520.61	-228.66	568.62	0.00	0.00	0.00	
8,400.00	5.75	203.71	8,371.91	-529.78	-232.69	578.63	0.00	0.00	0.00	
8,500.00	5.75	203.71	8,471.40	-538.96	-236.72	588.65	0.00	0.00	0.00	
8,600.00	5.75	203.71	8,570.90	-548.13	-240.75	598.67	0.00	0.00	0.00	
8,700.00	5.75	203.71	8,670.40	-557.30	-244.78	608.69	0.00	0.00	0.00	
8,800.00	5.75	203.71	8,769.89	-566.48	-248.81	618.71	0.00	0.00	0.00	
8,900.00	5.75	203.71	8,869.39	-575.65	-252.84	628.73	0.00	0.00	0.00	
8,991.07	5.75	203.71	8,960.00	-584.00	-256.51	637.85	0.00	0.00	0.00	
Start DLS 1.50 TFO 180.00										
9,000.00	5.62	203.71	8,968.89	-584.81	-256.86	638.74	1.50	-1.50	0.00	
9,100.00	4.12	203.71	9,068.53	-592.58	-260.27	647.22	1.50	-1.50	0.00	



Database:	RyanUS R5000	Local Co-ordinate Reference:	Well 5-2C5
Company:	EP Energy E&P Company, L.P.	TVD Reference:	WELL @ 5987.00ft (Original Well Elev)
Project:	Duchesne Co, UT	MD Reference:	WELL @ 5987.00ft (Original Well Elev)
Site:	Shepard 5-2C5	North Reference:	True
Well:	5-2C5	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Design #1		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
9,200.00	2.62	203.71	9,168.35	-597.95	-262.63	653.09	1.50	-1.50	0.00	
9,288.70	1.29	203.71	9,257.00	-600.72	-263.85	656.11	1.50	-1.50	0.00	
Wasatch										
9,300.00	1.12	203.71	9,268.29	-600.94	-263.94	656.35	1.50	-1.50	0.00	
9,374.58	0.00	23.71	9,342.87	-601.60	-264.24	657.07	1.50	-1.49	-241.35	
9,381.71	0.00	23.71	9,350.00	-601.60	-264.24	657.07	0.00	0.00	0.00	
7"										
9,400.00	0.00	23.71	9,368.29	-601.60	-264.24	657.07	0.00	0.00	0.00	
9,500.00	0.00	23.71	9,468.29	-601.59	-264.23	657.07	0.00	0.00	0.00	
9,600.00	0.00	23.71	9,568.29	-601.59	-264.23	657.06	0.00	0.00	0.00	
9,700.00	0.00	23.71	9,668.29	-601.59	-264.23	657.06	0.00	0.00	0.00	
9,800.00	0.00	23.71	9,768.29	-601.58	-264.23	657.05	0.00	0.00	0.00	
9,900.00	0.00	23.71	9,868.29	-601.58	-264.23	657.05	0.00	0.00	0.00	
10,000.00	0.00	23.71	9,968.29	-601.57	-264.22	657.04	0.00	0.00	0.00	
10,100.00	0.00	23.71	10,068.29	-601.57	-264.22	657.04	0.00	0.00	0.00	
10,200.00	0.00	23.71	10,168.29	-601.56	-264.22	657.03	0.00	0.00	0.00	
10,300.00	0.00	23.71	10,268.29	-601.56	-264.22	657.03	0.00	0.00	0.00	
10,400.00	0.00	23.71	10,368.29	-601.56	-264.22	657.02	0.00	0.00	0.00	
10,500.00	0.00	23.71	10,468.29	-601.55	-264.21	657.02	0.00	0.00	0.00	
10,600.00	0.00	23.71	10,568.29	-601.55	-264.21	657.01	0.00	0.00	0.00	
10,700.00	0.00	23.71	10,668.29	-601.54	-264.21	657.01	0.00	0.00	0.00	
10,800.00	0.00	23.71	10,768.29	-601.54	-264.21	657.00	0.00	0.00	0.00	
10,900.00	0.00	23.71	10,868.29	-601.53	-264.21	657.00	0.00	0.00	0.00	
11,000.00	0.00	23.71	10,968.29	-601.53	-264.20	656.99	0.00	0.00	0.00	
11,100.00	0.00	23.71	11,068.29	-601.52	-264.20	656.99	0.00	0.00	0.00	
11,200.00	0.00	23.71	11,168.29	-601.52	-264.20	656.98	0.00	0.00	0.00	
11,300.00	0.00	23.71	11,268.29	-601.52	-264.20	656.98	0.00	0.00	0.00	
11,400.00	0.00	23.71	11,368.29	-601.51	-264.20	656.98	0.00	0.00	0.00	
11,500.00	0.00	23.71	11,468.29	-601.51	-264.20	656.97	0.00	0.00	0.00	
11,600.00	0.00	23.71	11,568.29	-601.50	-264.19	656.97	0.00	0.00	0.00	
11,700.00	0.00	23.71	11,668.29	-601.50	-264.19	656.96	0.00	0.00	0.00	
11,800.00	0.00	23.71	11,768.29	-601.49	-264.19	656.96	0.00	0.00	0.00	
11,900.00	0.00	23.71	11,868.29	-601.49	-264.19	656.95	0.00	0.00	0.00	
12,000.00	0.00	23.71	11,968.29	-601.49	-264.19	656.95	0.00	0.00	0.00	
12,100.00	0.00	23.71	12,068.29	-601.48	-264.18	656.94	0.00	0.00	0.00	
12,200.00	0.00	23.71	12,168.29	-601.48	-264.18	656.94	0.00	0.00	0.00	
12,300.00	0.00	23.71	12,268.29	-601.47	-264.18	656.93	0.00	0.00	0.00	
12,400.00	0.00	23.71	12,368.29	-601.47	-264.18	656.93	0.00	0.00	0.00	
12,500.00	0.00	23.71	12,468.29	-601.46	-264.18	656.92	0.00	0.00	0.00	
12,600.00	0.00	23.71	12,568.29	-601.46	-264.17	656.92	0.00	0.00	0.00	
12,700.00	0.00	23.71	12,668.29	-601.46	-264.17	656.91	0.00	0.00	0.00	
12,800.00	0.00	23.71	12,768.29	-601.45	-264.17	656.91	0.00	0.00	0.00	
12,831.71	0.00	23.71	12,800.00	-601.45	-264.17	656.91	0.00	0.00	0.00	
TD at 12831.71 - PBHL-5-2C5										



Database:	RyanUS R5000	Local Co-ordinate Reference:	Well 5-2C5
Company:	EP Energy E&P Company, L.P.	TVD Reference:	WELL @ 5987.00ft (Original Well Elev)
Project:	Duchesne Co, UT	MD Reference:	WELL @ 5987.00ft (Original Well Elev)
Site:	Shepard 5-2C5	North Reference:	True
Well:	5-2C5	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Design #1		

Design Targets										
Target Name	- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL-5-2C5	- plan hits target center	0.00	0.69	12,800.00	-601.45	-264.17	7,260,240.70	1,940,703.49	40° 14' 46.61 N	110° 25' 27.08 W
	- Point									

Casing Points						
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")		
2,000.00	2,000.00	9 5/8"	9-5/8	12-1/4		
9,381.71	9,350.00	7"	7	7-1/2		
12,831.71	12,800.00	5"	5-1/2	6		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,587.00	1,587.00	Base MSGW		0.00	
4,447.20	4,439.00	Green River (GRRV)		0.00	
5,257.28	5,245.00	Green River (GRTN1)		0.00	
6,156.81	6,140.00	Mahogany Bench		0.00	
7,540.77	7,517.00	Lower Green River		0.00	
9,288.70	9,257.00	Wasatch		0.00	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
2,050.00	2,050.00	0.00	0.00	Start Build 0.50	
8,991.07	8,960.00	-52.79	-23.19	Start DLS 1.50 TFO 180.00	
12,831.71	12,800.00	-584.00	-256.51	TD at 12831.71	

**AFFIDAVIT OF SURFACE USE AGREEMENT
AND RIGHT-OF-WAY AGREEMENT**

This **Affidavit of Surface Use Agreement and Right-of-Way Agreement** ("Affidavit"), dated effective this 13th day of February, 2015 ("Effective Date"), is being made by **EP Energy E&P Company, L.P.** ("EP Energy"), a Delaware limited partnership, whose address is 1001 Louisiana Street, Suite 2400, Houston, Texas 77002, and herein represented by **John DeWitt, Jr.** ("Affiant"), being first duly sworn upon oath, who hereby deposes and states as follows:

1. Affiant is over eighteen (18) years of age and is currently employed by EP Energy as a Staff Landman.

2. EP Energy is the operator of the proposed Shepard 5-2C5 (the "Well") which is located in the Northwest Quarter of the Southwest Quarter (NW¹/₄SW¹/₄) of Section 2, Township 3 South, Range 5 West, U.S.M., Duchesne County, Utah (the "Drillsite Location"). The surface owner(s) of the Drillsite Location is PENSICO TRUST COMPANY, as custodian f/b/o Randall L Shepard IRA (the "Surface Owner"), whose mailing address is 560 Mission Street, Suite 1300, San Francisco, California 94105-2907, and whose telephone number is (760) 218-9672.

3. EP Energy and the Surface Owner have entered into and executed that certain *Surface Use Agreement*, dated effective January 12, 2015, to cover any and all injuries or damages of every character and description sustained by the Surface Owner or Surface Owner's property as a result of EP Energy's operations including, but not limited to, construction of the Drillsite Location as more particularly described therein.

4. EP Energy and the Surface Owner have also entered and executed that certain *Right-of-Way Agreement*, dated effective January 12, 2015, to cover any and all injuries or damages of every character and description sustained by the Surface Owner or Surface Owner's property as a result of EP Energy's operations including, but not limited to, construction and use of an access road, pipeline and/or power line corridor across portions of the Northwest Quarter of the Southwest Quarter (NW¹/₄SW¹/₄) of Section 2, Township 3 South, Range 5 West, U.S.M., Duchesne County, Utah.

FURTHER AFFIANT SAYETH NOT.

AFFIANT:

By: John DeWitt, Jr.
Name: John DeWitt, Jr.
Title: Staff Landman

STATE OF TEXAS §
 §
COUNTY OF HARRIS §

Sworn to and subscribed before me on this 13th day of February, 2015, by **John DeWitt, Jr.** as Staff Landman for **EP Energy E&P Company, L.P.**, a Delaware limited partnership, on behalf of said limited partnership.



Ginger M. Cearley
Notary Public in and for the State of Texas

[SEAL]

EP Energy E&P Company, L.P.

Related Surface Information

1. Current Surface Use:

- Livestock Grazing and Oil and Gas Production.

2. Proposed Surface Disturbance:

- The road will be crown and ditch. Water wings will be constructed on the access road as needed.
- The topsoil will be windrowed and re-spread in the borrow area.
- New road to be constructed will be approximately .09 miles in length and 66 feet wide.
- All equipment and vehicles will be confined to the access road, pad and area specified in the APD.

3. Location Of Existing Wells:

- Existing oil, gas wells within one (1) mile radius of proposed well are provided in EXHIBIT C.

4. Location And Type Of Drilling Water Supply:

- Drilling water: Duchesne City Water

5. Existing/Proposed Facilities For Productive Well:

- There are no existing facilities that will be utilized for this well.
- A pipeline corridor .12 miles will parallel the proposed access road. The corridor will contain one 4 inch gas line and one 2 inch gas line and one 2 inch Salt Water disposal line. Rehabilitation of unneeded, previously disturbed areas will consist of backfilling and contouring the reserve pit area; backsloping and contouring all cut and fill slopes. These areas will be reseeded. Refer to plans for reclamation of surface for details.
- Upgrade and maintain access roads and drainage control structures (e.g., culverts, drainage dips, ditching, etc.) as necessary to prevent soil erosion and accommodate safe, year-round traffic.

6. Construction Materials:

- Native soil from road and location will be used for construction materials along with gravel and/or scoria road base material. In the event that conditions should necessitate graveling of all or part of the access road and location, surfacing materials will be purchased from commercial suppliers in the marketing area.

7. Methods For Handling Waste Disposal:

- The reserve pit will be designed to prevent the collection of surface runoff and will be constructed with a minimum of ½ the total depth below the original ground surface on the lowest point with the pit. The pit will be lined with a 20-mil polyethylene to prevent leakage of fluids. The liner will be rolled into place and secured at the ends, i.e. buried on top of the pit berms. Prior to use, the reserve pit will be fenced on three sides; the fourth side will be fenced at the time the rig is removed. Drilling fluids, cuttings and produced water will be contained in the reserve pit (trash will be placed in the trash cage). Fluids in the reserve pit will be allowed to evaporate prior to pit burial.
- Garbage and other trash will be contained in the portable trash cage and hauled off the location to an authorized disposal site. Any trash on the pad will be cleaned up prior to the rig moving off location and hauled to an authorized disposal site.
- Sewage will be handled in Portable Toilets.
- Produced water will be placed in the reserve pit for a period not to exceed ninety days after initial production. Any hydrocarbons produced during completion work will be contained in test tanks and removed from the location at a later date.
- Water from the reserve pit may be used for drilling of additional wells. The water will be trucked along access roads as approved in pertinent APD's

8. Ancillary Facilities:

- There will be no ancillary facilities associated with this project.

9. Surface Reclamation Plans:

Backfilling of the pits will be done when dry. In the event of a dry hole, the location will be re-contoured, the topsoil will be distributed evenly over the entire location, and the seedbed prepared.

- Seed will be planted after September 15th, and prior to ground frost, or seed will be planted after the frost has left and before May 15th. Slopes to steep for machinery will be hand broadcast and raked with twice the specified amount of seed.
 1. The construction program and design are on the attached cut, fill and cross sectional diagrams.
 2. Prior to construction, all topsoil will be removed from the entire site and stockpiled. Topsoil for this site is the first 6 inches of soil materials.
 3. After the location has been reshaped and after redistributing the topsoil, the operator will rip and scarify the drilling platform and access road on the contour, to a depth of at least 12 inches.
- Rehabilitation will begin upon the completion of the drilling. Complete rehabilitation will depend on weather conditions and the amount of time required to dry the reserve pit.
 1. All rehabilitation work including seeding will be completed as soon as weather and the reserve pit conditions are appropriate.
 2. Landowner will be contacted for rehabilitation requirements.

10. Surface Ownership:

PENSCO Trust Company
f/b/o Randall L Shepard IRA
560 Mission Street, Suite 1300
San Francisco, CA 94105-2907
760-218-9672

Other Information:

- The surface soil consists of clay, and silt.
- Flora – vegetation consists of the following: Sagebrush, Juniper and prairie grasses.
- Fauna – antelope, deer, coyotes, raptors, small mammals, and domestic grazing animals.
- Current surface uses – Livestock grazing and mineral exploration and production.

• **Operator and Contact Persons:**

Construction and Reclamation:

EP Energy E&P Company, L.P.
Wayne Garner
PO Box 410
Altamont, Utah 84001
435-454-3394 – Office
435-823-1490 – Cell

Regarding This APD

EP Energy E&P Company, L.P.
Maria S. Gomez
1001 Louisiana, Rm 2730D
Houston, Texas 77002
713-997-5038 – Office

Drilling

EP Energy E&P Company, L.P.
Brad MacAfee – Drilling Engineer
1001 Louisiana, Rm 2660D
Houston, Texas 77002
713-997-6383 – office
281-813-0902 – Cell



February 9, 2015

State of Utah Division of Oil, Gas and Mining
Attn: Mr. Brad Hill, Oil & Gas Permitting Manager
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84114-5801

RE: Notice of Directional Well
Application for Permit to Drill
Shepard 5-2C5
SHL: 2,202' FSL & 1,071' FWL; BHL: 1,600' FSL & 800' FWL
NW¼SW¼ of Section 2, Township 3 South, Range 5 West
Duchesne County, Utah

Dear Mr. Hill:

In accordance with the rules and regulations of the State of Utah, EP Energy E&P Company, L.P. ("EP Energy") is preparing to submit an Application for Permit to Drill ("APD") for the proposed Shepard 5-2C5 ("Well") to the Utah Division of Oil, Gas & Mining ("UDOGM"). Concurrently with the filing of the APD for the Well, this *Notice of Directional Well* letter hereby serves as formal, written notice to UDOGM as required under Oil & Gas Conservation Rule R649-3-11, which pertains to the Location and Siting of Directional Wells.

- The Well is being drilled in Section 2, Township 3 South, Range 5 West, Duchesne County, Utah, which is subject to that Order, Docket No 2014-035, Cause No. 139-124, dated November 6, 2014 ("Spacing Order") that established 640 acre sectional drilling units for the Lower Green River-Wasatch formations. The Spacing Order further provides drilling up to eight (8) producing Lower Green River-Wasatch wells, whether vertical, horizontal, or a combination of both in each drilling unit. The locating and siting requirements set forth in Order 139-124 and incorporated into the Spacing Order provide that permitted wells shall be no closer than 990 feet from an existing unit well drilled to, completed in, and producing from the Spaced Intervals and no closer than 660 feet from the drilling unit (section) boundary.
- Due to circumstances outside of EP Energy's control, we are required to directionally drill the Well in order to achieve a more reasonable and optimal bottom hole location. However, none of the portions of the wellbore are closer than 660' from the Section Line boundaries of Section 2, Township 3 South, Range 5 West. In addition, EP Energy certifies that, unless first obtaining an exception to the locating and siting requirements of the Spacing Order, it will not perforate any portion of the Well at a point closer than 660' from the drilling unit boundary.

- EP Energy further certifies that there are not any unleased mineral interest owners that have not already executed an oil and gas lease and/or executed operating agreements with EP Energy under all tracts within 460' of the proposed wellbore.

If you have any further questions, please feel free to contact me at your convenience using the phone number and/or email address below.

Very truly yours,



John DeWitt, Jr.

EP Energy E&P Company, L.P.
Staff Landman
1001 Louisiana Street, Suite 2523D
Houston, Texas 77002
Office: (713) 997-2620
John.DeWitt@EPEnergy.com

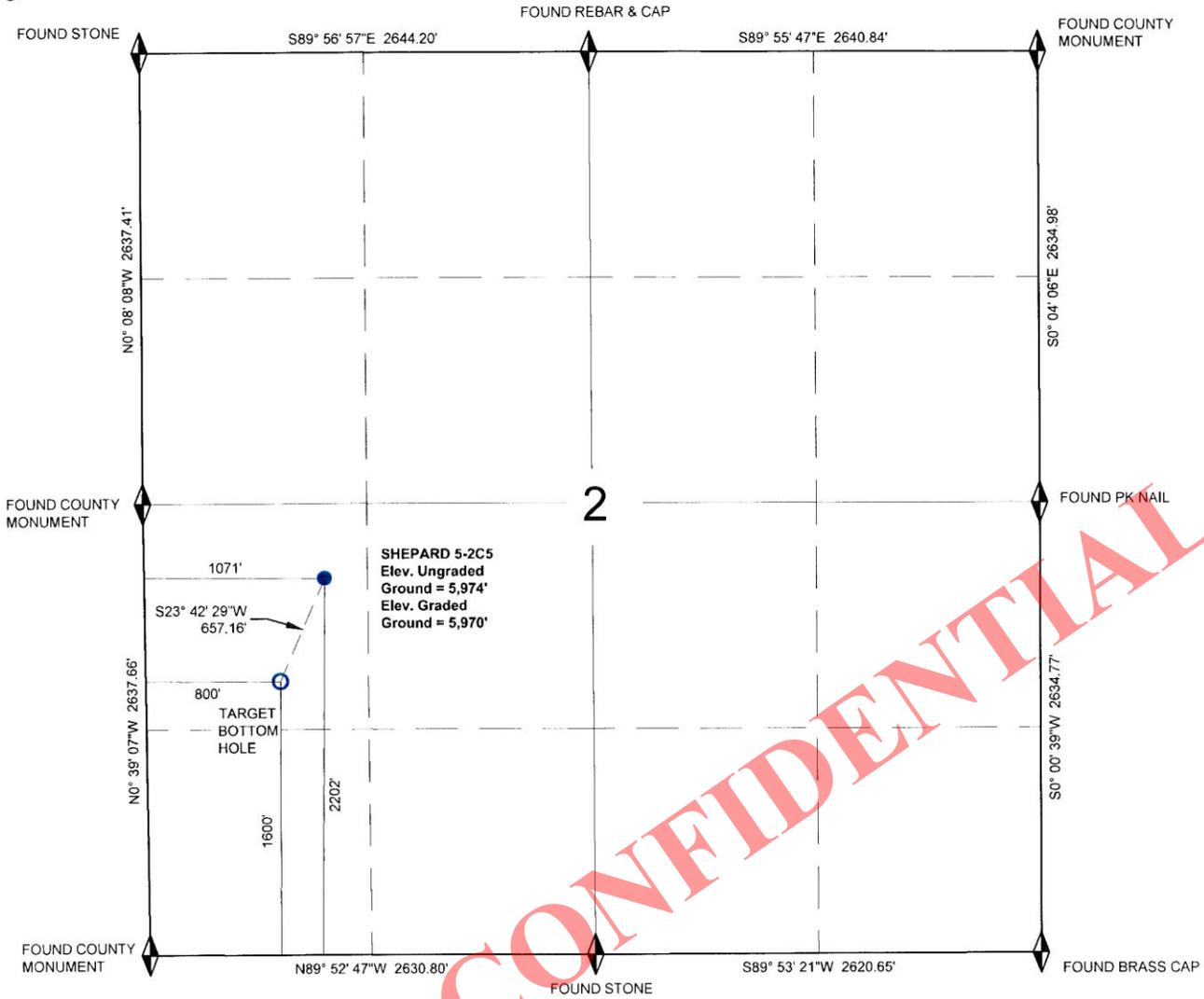
CONFIDENTIAL



EP ENERGY

WELL LOCATION PLAT

WELL: SHEPARD 5-2C5
 PAD LOCATION: NW/SW, SECTION 2, T.3S, R.5W, U.S.B.&M.
 DUCHESNE COUNTY, UTAH



SHEPARD 5-2C5
 Elev. Ungraded Ground = 5,974'
 Elev. Graded Ground = 5,970'

1071'
 S23° 42' 29"W 657.16'
 800'
 TARGET BOTTOM HOLE
 1600'
 2202'

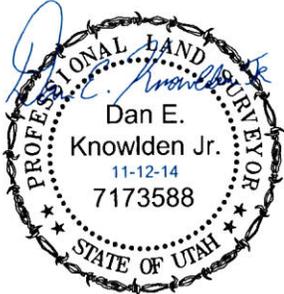
- NOTES:**
1. WELL FOOTAGES ARE MEASURED AT RIGHT ANGLES TO THE SECTION LINE.
 2. ALL BEARINGS AND DISTANCES ARE MEASURED UNLESS OTHERWISE NOTED.
 3. BEARINGS ARE DERIVED FROM G.P.S. OBSERVATIONS AND EQUIPMENT.
 4. THE GENERAL LAND OFFICE G.L.O. PLAT WAS USED FOR REFERENCE

BASIS OF ELEVATION
 SPOT ELEVATION AT THE WEST QUARTER CORNER OF SECTION 2, T.3S, R.5W, U.S.B.&M. NAVD 88 DATUM USING THE UTAH REFERENCE NETWORK SYSTEM. SAID ELEVATION IS 5985.10 FEET.

CERTIFICATE
 THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM THE FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION, AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

LEGEND

- ◆ = FOUND SECTION CORNER
- = PROPOSED WELL HEAD
- = PROPOSED BOTTOM HOLE



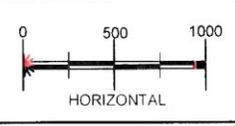
REGISTERED LAND SURVEYOR
 REGISTRATION NO. 7173588
 STATE OF UTAH



WELL LOCATION PLAT
WELL: SHEPARD 5-2C5
 PAD LOCATION: NW/SW, SECTION 2,
 T.3 S., R. 5 W., U.S.B.&M.
 DUCHESNE COUNTY, UTAH

NAD 83 SURFACE LOCATION
LATITUDE = 40°14' 52.56025"N (40.247933)
LONGITUDE = 110°25' 23.67445"W (110.423243)
NAD 27 SURFACE LOCATION
LATITUDE = 40°14' 52.71949"N (40.247978)
LONGITUDE = 110°25' 21.11231"W (110.422531)

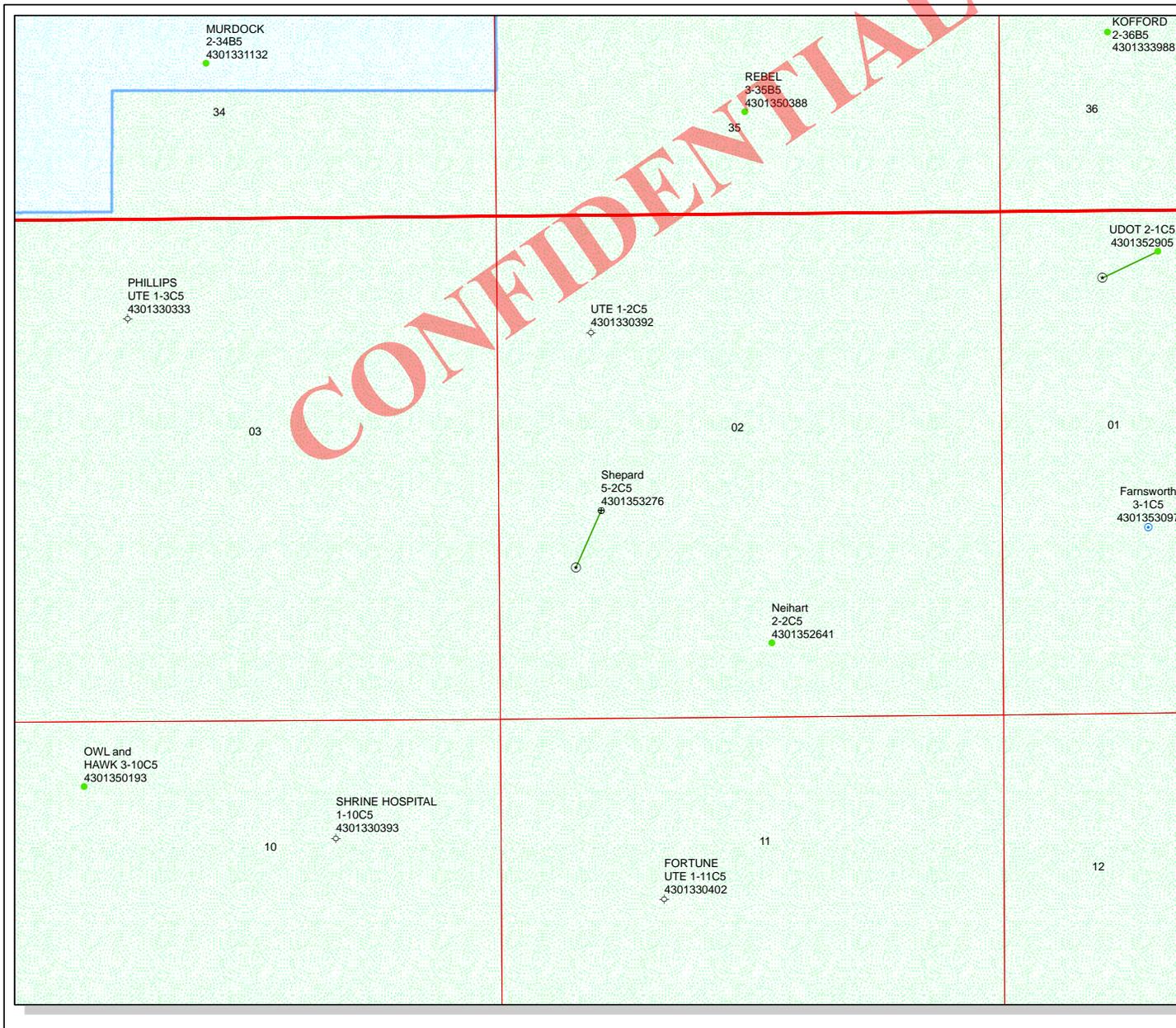
NAD 83 BOTTOM HOLE
LATITUDE = 40°14'46.61435"N (40.246282)
LONGITUDE = 110°25'27.07628"W (110.424188)
NAD 27 BOTTOM HOLE
LATITUDE = 40°14'46.77347"N (40.246326)
LONGITUDE = 110°25'24.51416"W (110.423476)



WELL PLAT

DATE SURVEYED: NOV. 8, 2014
SURVEYED BY: DK/CW
DRAWN NOV. 12, 2014
DRAWN: CCW
SCALE: 1" = 1000'

SHEET NO.
1



API Number: 4301353276

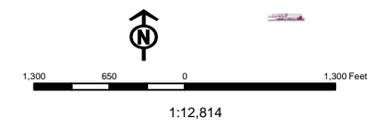
Well Name: Shepard 5-2C5

Township: T03.0S Range: R05.0W Section: 02 Meridian: U

Operator: EP ENERGY E&P COMPANY, L.P.

Map Prepared: 3/12/2015
Map Produced by Diana Mason

Wells Query		Units	
Status		STATUS	
◆ APD - Approved Permit	◆	ACTIVE	■
○ DRL - Spudded (Drilling Commenced)	○	EXPLORATORY	■
↗ GW - Gas Injection	↗	GAS STORAGE	■
★ GS - Gas Storage	★	NF PP OIL	■
⊕ LOC - New Location	⊕	NF SECONDARY	■
⊖ OPS - Operation Suspended	⊖	PI OIL	■
⊘ PA - Plugged Abandoned	⊘	PP GAS	■
⊙ PGW - Producing Gas Well	⊙	PP GEOTHERML	■
⊚ POW - Producing Oil Well	⊚	PP OIL	■
⊛ SGW - Shut-in Gas Well	⊛	SECONDARY	■
⊜ SOW - Shut-in Oil Well	⊜	TERMINATED	■
⊝ TA - Temp. Abandoned	⊝		
○ TW - Test Well	○	Fields	
⊙ WDW - Water Disposal	⊙	Unknown	■
⊙ WW - Water Injection Well	⊙	ABANDONED	■
● WSW - Water Supply Well	●	ACTIVE	■
		COMBINED	■
		INACTIVE	■
		STORAGE	■
		TERMINATED	■



ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

Operator EP ENERGY E&P COMPANY, L.P.
Well Name Shepard 5-2C5
API Number 43013532760000 **APD No** 11110 **Field/Unit** ALTAMONT
Location: NWSW **Sec** 2 **Tw** 3.0S **Rng** 5.0W 2202 FSL 1071 FWL
1/4,1/4
GPS Coord **Surface Owner** PENSICO Trust Co, f/b/o Randall L
(UTM) Shepard IRA

Participants

M. Jones (DOGM), R. Fairbanks, K. Carter, R. Fredrick (EP), D. Baird (BLM).

Regional/Local Setting & Topography

This location is staked north of the Duchesne, Utah approximately 6 miles, approximately 2 miles north of Starvation Reservoir and sits just west of the Duchesne River about a half mile on a bench called Hair Bench. Private surface with Tribal minerals. The area is mostly PJ/sage communities on relatively flat sandy clay benches with ephemeral dry wash drainages running throughout the area from the northwest to the southeast towards the Duchesne River.

Surface Use Plan

Current Surface Use

Grazing
Wildlfe Habitat

New Road Miles

0.091

Well Pad

Width 407 **Length** 410

Src Const Material

Onsite

Surface Formation

Ancillary Facilities N

Waste Management Plan Adequate? Y

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

PJ/sagebreush community.

Soil Type and Characteristics

sandy clay loam

Erosion Issues Y

Erosive upon disturbance.

Sedimentation Issues N

Site Stability Issues N

Drainage Diverson Required? Y

Divert drainages around and away from access road and location.

Berm Required? Y

Berm location to prevent leaks drips and spills from leaving the location.

Erosion Sedimentation Control Required? N

Paleo Survey Run? Y **Paleo Potential Observed? N** **Cultural Survey Run? Y** **Cultural Resources? N**

Reserve Pit**Site-Specific Factors****Site Ranking**

Distance to Groundwater (feet)	>200	0
Distance to Surface Water (feet)	>1000	0
Dist. Nearest Municipal Well (ft)	>5280	0
Distance to Other Wells (feet)	>1320	0
Native Soil Type	Mod permeability	10
Fluid Type	Fresh Water	5
Drill Cuttings	Normal Rock	0
Annual Precipitation (inches)	10 to 20	5
Affected Populations		
Presence Nearby Utility Conduits	Not Present	0
Final Score		20 1 Sensitivity Level

Characteristics / Requirements

Dugout earthen 150'x110'12' reserve pit is planned. The pit will be lined with a minimum 16 mil synthetic liner.

Closed Loop Mud Required? N **Liner Required? Y** **Liner Thickness 16** **Pit Underlayment Required? N**

Other Observations / Comments

Surface owner was invited via phone call but chose not to attend.

Mark Jones
Evaluator

3/30/2015
Date / Time

Application for Permit to Drill Statement of Basis

Utah Division of Oil, Gas and Mining

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
11110	43013532760000	LOCKED	OW	P	No
Operator	EP ENERGY E&P COMPANY, L.P.		Surface Owner-APD	PENSCO Trust Co, f/b/o Randall L Shepard IRA	
Well Name	Shepard 5-2C5		Unit		
Field	ALTAMONT		Type of Work	DRILL	
Location	NWSW 2 3S 5W U 2202 FSL 1071 FWL GPS Coord (UTM) 549056E 4455425N				

Geologic Statement of Basis

E P proposes to set 800 feet of conductor and 2,000 feet of surface casing both of which will be cemented to surface. The surface and intermediate holes will be drilled utilizing fresh water mud. The estimated depth to the base of moderately saline ground water is 1,400 feet. A search of Division of Water Rights records indicates that there are 29 water wells within a 10,000 foot radius of the center of Section 2. Wells range between 52 and 600 feet in depth and are used for irrigation, stock watering, domestic and oilfield purposes. These wells probably produce from the Duchesne River Formation and Duchesne River Valley sediments. The Duchesne River Formation is made up of sandstones with interbedded shales and is the most prominent fresh water aquifer in the area. The proposed casing and cement program should adequately protect ground water in this area.

Brad Hill
APD Evaluator

4/7/2015
Date / Time

Surface Statement of Basis

This location is staked north of the Duchesne, Utah approximately 6 miles, approximately 2 miles north of Starvation Reservoir and sits just west of the Duchesne River about a half mile on a bench called Hair Bench. Private surface with Tribal minerals. The area is mostly PJ/sage communities on relatively flat sandy clay benches with ephemeral dry wash drainages running throughout the area from the northwest to the southeast towards the Duchesne River.

There is an above ground power line the runs along most of the new access road required for this location. I made comment during the pre-site that I would recommend and prefer that the access road remain entirely on the west side of this power line to avoid the necessity of crossing under the line with the access road.

A synthetic liner with a minimum thickness of 16 mils shall be properly installed and maintained in the reserve pit. The well site shall be bermed to prevent fluids from entering or leaving the pad.

Mark Jones
Onsite Evaluator

3/30/2015
Date / Time

Conditions of Approval / Application for Permit to Drill

Category	Condition
----------	-----------

Pits	A synthetic liner with a minimum thickness of 16 mils shall be properly installed and maintained in the reserve pit.
Surface	The well site shall be bermed to prevent fluids from entering or leaving the pad.
Surface	Measures (BMP's) shall be taken to protect steep slopes and topsoil pile from erosion, sedimentation and stability issues.
Surface	Drainages adjacent to the proposed pad shall be diverted around the location.
Surface	The reserve pit shall be fenced upon completion of drilling operations.

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WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 3/10/2015

API NO. ASSIGNED: 43013532760000

WELL NAME: Shepard 5-2C5

OPERATOR: EP ENERGY E&P COMPANY, L.P. (N3850)

PHONE NUMBER: 713 997-5038

CONTACT: Maria S. Gomez

PROPOSED LOCATION: NWSW 02 030S 050W

Permit Tech Review:

SURFACE: 2202 FSL 1071 FWL

Engineering Review:

BOTTOM: 1600 FSL 0800 FWL

Geology Review:

COUNTY: DUCHESNE

LATITUDE: 40.24784

LONGITUDE: -110.42322

UTM SURF EASTINGS: 549056.00

NORTHINGS: 4455425.00

FIELD NAME: ALTAMONT

LEASE TYPE: 2 - Indian

LEASE NUMBER: 1420H626566

PROPOSED PRODUCING FORMATION(S): GREEN RIVER(LWR)-WASATCH

SURFACE OWNER: 4 - Fee

COALBED METHANE: NO

RECEIVED AND/OR REVIEWED:

- PLAT
- Bond: INDIAN - RLB0009692
- Potash
- Oil Shale 190-5
- Oil Shale 190-3
- Oil Shale 190-13
- Water Permit: Duchesne City
- RDCC Review:
- Fee Surface Agreement
- Intent to Commingle

Commingling Approved

LOCATION AND SITING:

- R649-2-3.
- Unit:
- R649-3-2. General
- R649-3-3. Exception
- Drilling Unit
- Board Cause No: Cause 139-124
- Effective Date: 11/6/2014
- Siting: 8 WELLS PER SECTION
- R649-3-11. Directional Drill

Comments: Presite Completed

Stipulations: 4 - Federal Approval - dmason
5 - Statement of Basis - bhll
15 - Directional - dmason



GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: Shepard 5-2C5
API Well Number: 43013532760000
Lease Number: 1420H626566
Surface Owner: FEE (PRIVATE)
Approval Date: 4/27/2015

Issued to:

EP ENERGY E&P COMPANY, L.P., 1001 Louisiana, Houston, TX 77002

Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 139-124. The expected producing formation or pool is the GREEN RIVER(LWR)-WASATCH Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Notification Requirements:

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well - contact Carol Daniels at 801-538-5284

(please leave a voicemail message if not available)

OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website
at <http://oilgas.ogm.utah.gov>

Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) - due within 5 days of spudding the well
- Monthly Status Report (Form 9) - due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) - due prior to implementation
- Written Notice of Emergency Changes (Form 9) - due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) - due prior to implementation
- Report of Water Encountered (Form 7) - due within 30 days after completion
- Well Completion Report (Form 8) - due within 30 days after completion or plugging

Approved By:

A handwritten signature in black ink, appearing to read "John Rogers", written over a horizontal line.

For John Rogers
Associate Director, Oil & Gas

05/12/2015

Subject: 24 Hour Notice of Initial Spud on the following well.

Well Name: Shepard 5-2C5
API Well Number: 43-013-53276-00-x1
Field: Altamont
County: Duchesne
Mineral Owner: Fee

2202 FSL 1071 FWL
NW SW 2 3S SW

CONFIDENTIAL

May 11, 2015

10:00 AM

Leon Ross Drilling

Rig #35 Bucket Rig Spudded in on the above well for EP Energy LLC.

Best Regards

Gary Miller
Rig Site Supervisor
EP Energy LLC
C: 435-823-1725

RECEIVED

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

MAR 12 2015

FORM APPROVED
OMB No. 1004-0136
Expires July 31, 2010

BLM

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. 1420H625608	
6. If Indian, Allottee or Tribe Name UINTAH AND OURAY	
7. If Unit or CA Agreement, Name and No.	
8. Lease Name and Well No. SHEPARD 5-2C5	
9. API Well No. 43-013-53276	
10. Field and Pool, or Exploratory ALTAMONT	
11. Sec., T., R., M., or Blk. and Survey or Area Sec 2 T3S R5W Mer UBM SME: FEE	
12. County or Parish DUCHESNE	13. State UT
17. Spacing Unit dedicated to this well	
20. BLM/BIA Bond No. on file RLB0009692	
23. Estimated duration 60 DAYS	

1a. Type of Work: DRILL REENTER

1b. Type of Well: Oil Well Gas Well Other Single Zone Multiple Zone

2. Name of Operator
EL PASO E&P COMPANY LP
Contact: MARIA GOMEZ
E-Mail: maria.gomez@epenergy.com

3a. Address
ATTN ALTAMONT (UTAH) BUSINESS AREA MGR
HOUSTON, TX 77252-2511

3b. Phone No. (include area code)
Ph: 713.997.5038
Fx: 713.445.8554

4. Location of Well (Report location clearly and in accordance with any State requirements. *)
At surface NWSW 2202FSL 1071FWL 40.247933 N Lat, 110.423243 W Lon
At proposed prod. zone NWSW 1600FSL 800FWL 40.246282 N Lat, 110.424188 W Lon

14. Distance in miles and direction from nearest town or post office*
12.0

15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)
1071

16. No. of Acres in Lease
52428.45

18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.
2000

19. Proposed Depth
12832 MD
12800 TVD

21. Elevations (Show whether DF, KB, RT, GL, etc.)
5970 GL

22. Approximate date work will start
04/12/2015

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24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- | | |
|---|--|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature (Electronic Submission)	Name (Printed/Typed) MARIA GOMEZ Ph: 713.997.5038	Date 03/12/2015
Title AUTHORIZED REPRESENTATIVE		
Approved by (Signature) 	Name (Printed/Typed) Jerry Kenczka	Date MAY 05 2015
Title Assistant Field Manager Lands & Mineral Resources	Office VERNAL FIELD OFFICE	

Application approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

CONDITIONS OF APPROVAL ATTACHED

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Additional Operator Remarks (see next page)

Electronic Submission #294702 verified by the BLM Well Information System
For EL PASO E&P COMPANY LP, sent to the Vernal
Committed to AFMS for processing by STEVE HIRSCHI on 03/13/2015 (15STH0134AE)

RECEIVED

MAY 12 2015

DIV. OF OIL, GAS & MINING

NOTICE OF APPROVAL

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

UDOGM

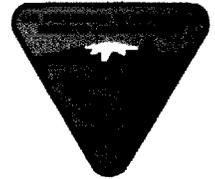


**UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VERNAL FIELD OFFICE**

170 South 500 East

VERNAL, UT 84078

(435) 781-4400



CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company: El Paso E&P Company
Well No: SHEPARD 5-2C5
API No: 43-013-53276

Location: NWSW SEC 02 T03S R05W
Lease No: 1420H626567
Agreement:

OFFICE NUMBER: (435) 781-4400

OFFICE FAX NUMBER: (435) 781-3420

**A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR
FIELD REPRESENTATIVE TO INSURE COMPLIANCE**

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. **This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.**

NOTIFICATION REQUIREMENTS

Construction Activity (Notify Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist)	- The Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist shall be notified at least 48 hours in advance of any construction activity. The Ute Tribal office is open Monday through Thursday.
Construction Completion (Notify Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist)	- Upon completion of the pertinent APD/ROW construction, notify the Ute Tribe Energy & Minerals Dept. for a Tribal Technician to verify the Affidavit of Completion. Notify the BLM Environmental Scientist prior to moving on the drilling rig.
Spud Notice (Notify BLM Petroleum Engineer)	- Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify BLM Supv. Petroleum Tech.)	- Twenty-Four (24) hours prior to running casing and cementing all casing strings to: blm_ut_vn_opreport@blm.gov .
BOP & Related Equipment Tests (Notify BLM Supv. Petroleum Tech.)	- Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify BLM Petroleum Engineer)	- Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

**SURFACE USE PROGRAM
CONDITIONS OF APPROVAL (COAs)**

- Paint all production facilities and equipment, not otherwise regulated (OSHA, etc.), Juniper Green.
- All areas of disturbance (including surface pipelines) must have appropriate surface use agreements or approvals in place with the proper owner and/or agency before such action is started.
- The conditions of approval, as set forth by those owners and/or agencies, shall be adhered to.
- Stationary internal combustion engines would comply with the following emission standards: 2 g/bhp-hr of NO_x for engines less than 300 HP and 1 g/bhp-hr of NO_x for engines over 300 HP.
- Either no or low bleed controllers would be installed on pneumatic pumps, actuators or other pneumatic devices.
- VOC venting controls or flaring would be utilized for oil or gas atmospheric storage tanks.
- VOC venting controls or flaring would be used for glycol dehydration and amine units.
- Where feasible, green completion would be used for well completion, re-completion, venting, or planned blowdown emissions. Alternatively, use controlled VOC emissions methods with 90% efficiency.

**DOWNHOLE PROGRAM
CONDITIONS OF APPROVAL (COAs)**

SITE SPECIFIC DOWNHOLE COAs:

- A CBL shall be run from TD to TOC in the (9 5/8) Casing if the cement does not circulate to the surface.
- The minimum TOC for the 9 5/8 inch and 7 inch casing shall be 200 feet above the previous casing shoe.
- Variances shall be granted as requested in the drilling plan for air drilling the 9 5/8 inch casing.
- All components of the 10M BOPE stack must be rated and tested to the 10M requirements.
- A Gamma-ray log shall be run from TD to Surface.
- An FIT shall be performed at the surface casing (9 5/8) shoe.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and **NOT** by the rig pumps. Test shall be reported in the driller's log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.

- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- **Cement baskets shall not be run on surface casing.**
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- **Please submit an electronic copy of all other logs run on this well in CD (compact disc) format to the Vernal BLM Field Office. This submission will supersede the requirement for submittal of paper logs to the BLM.**
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

OPERATING REQUIREMENT REMINDERS:

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at www.ONRR.gov.

- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:
 - Operator name, address, and telephone number.
 - Well name and number.
 - Well location (¼¼, Sec., Twn, Rng, and P.M.).
 - Date well was placed in a producing status (date of first production for which royalty will be paid).
 - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
 - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
 - Unit agreement and/or participating area name and number, if applicable.
 - Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.
- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.

- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover equipment shall be removed from a well to be placed in a suspended status without prior approval of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior approval of the BLM Vernal Field Office shall be obtained and notification given before resumption of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

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Carol Daniels <caroldaniels@utah.gov>

NWSW 5-02 T035 ROW

WITHIN 24 HOURS POST NOTICE - Spudded 17 1/2" Conductor II hole on Shepard 5-2C5

1 message

LANDRIG007 (Patterson 307) <LANDRIG007@epenergy.com> Fri, May 15, 2015 at 6:41 AM
To: "blm_ut_vn_opreport@blm.gov" <blm_ut_vn_opreport@blm.gov>, "Mangum, Danny R (Contractor)" <danny.mangum@epenergy.com>, "Gomez, Maria S" <Maria.Gomez@epenergy.com>, "m65lee@blm.gov (m65lee@blm.gov)" <m65lee@blm.gov>, "MacAfee, Bradley D" <Brad.MacAfee@epenergy.com>, "Derden, Roy Lynn (Contractor)" <Roy.Derden@epenergy.com>, "ut_vn_opreport@blm.gov" <ut_vn_opreport@blm.gov>, "alexishuefner@utah.gov" <alexishuefner@utah.gov>, "caroldaniels@utah.gov" <caroldaniels@utah.gov>, Dan Jarvis <danjarvis@utah.gov>, "dennisingram@utah.gov" <dennisingram@utah.gov>

RE: EP ENERGY
SHEPARD 5-2C5
API Well Number: 43013532760000
DUCHESNE CO., UTAH

Leon Ross Drilling began drilling 17 1/2" Conductor II hole on the Shepard 5-2C5 well near Noon, 05/14/2015. May cement 13 3/8" casing today.

Regards,
Eugene Parker
Well site Supervisor
Patterson 307
713-997-1255

THIS E-MAIL AND ANY MATERIALS TRANSMITTED WITH IT MAY CONTAIN CONFIDENTIAL OR PROPRIETARY MATERIAL FOR THE SOLE USE OF THE INTENDED RECIPIENT. ANY REVIEW, USE, DISTRIBUTION OR DISCLOSURE BY OTHERS IS STRICTLY PROHIBITED. IF YOU ARE NOT THE INTENDED RECIPIENT, OR AUTHORIZED TO RECEIVE THE INFORMATION FROM THE RECIPIENT, PLEASE NOTIFY THE SENDER BY REPLY E-MAIL AND DELETE ALL COPIES OF THIS MESSAGE.

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: 1420H626566
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE 7. UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Oil Well	8. WELL NAME and NUMBER: Shepard 5-2C5
2. NAME OF OPERATOR: EP ENERGY E&P COMPANY, L.P.	9. API NUMBER: 43013532760000
3. ADDRESS OF OPERATOR: 1001 Louisiana , Houston, TX, 77002	PHONE NUMBER: 713 997-5038 Ext
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2202 FSL 1071 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSW Section: 02 Township: 03.0S Range: 05.0W Meridian: U	9. FIELD and POOL or WILDCAT: ALTAMONT COUNTY: DUCHESNE STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 6/17/2015 <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input checked="" type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input type="text" value="Initial Completion"/>

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

EP plans to perform initial completion into the Wasatch. Please see attached.

Approved by the
June 16, 2015
Oil, Gas and Mining

Date: _____

By: Dark Quif

NAME (PLEASE PRINT) Maria S. Gomez	PHONE NUMBER 713 997-5038	TITLE Principal Regulatory Analyst
SIGNATURE N/A	DATE 6/16/2015	

Stimulation Summary

	Top Perf	Btm. Perf	Gross Interval	Plug Depth	Net Perf Length	Total Shots	Perf Intervals	Type of Prop	Lbs of Prop	Lbs/ft	Lbs of 100 Mesh	Gals of HCL (15%)	BBLs of Clean H2O	BBLs of Slurry
Stage #1	11,867	12,225	358	NA	23	69	3	Power Prop 30/50	150,000	419	3,000	5,000	2,675	3,081
Stage #2	11,558	11,842	283	11,857	23	69	3	Power Prop 30/50	150,000	529	3,000	5,000	2,670	3,076
Stage #3	11,250	11,533	283	11,548	23	69	3	Power Prop 30/50	150,000	529	3,000	5,000	2,664	3,070
Stage #4	10,942	11,225	283	11,240	23	69	3	Power Prop 30/50	150,000	529	3,000	5,000	2,659	3,065
Stage #5	10,633	10,917	283	10,932	23	69	3	Power Prop 30/50	150,000	529	3,000	5,000	2,653	3,059
Stage #6	10,325	10,608	283	10,623	23	69	3	Power Prop 30/50	150,000	529	3,000	5,000	2,648	3,054
Stage #7	10,017	10,300	283	10,315	23	69	3	Power Prop 30/50	150,000	529	3,000	5,000	2,642	3,048
Stage #8	9,708	9,992	283	10,007	23	69	3	Power Prop 30/50	150,000	529	3,000	5,000	2,637	3,043
Stage #9	9,400	9,683	283	9,698	23	69	3	Power Prop 30/50	150,000	529	3,000	5,000	2,631	3,037
Average per Stage			292		23	69	3		150,000	517	3,000	5,000	2,653	3,059
Totals per Well			2,625		207	621	27		1,350,000		27,000	45,000	23,879	27,534

Top Perf: 9,400
 Bottom Perf: 12,225

Number of Stages 9

Tops	Depth
Liner Top:	-
	-
Stage #9 Plug	9,698
Stage #8 Plug	10,007
Stage #7 Plug	10,315
Stage #6 Plug	10,623
Stage #5 Plug	10,932
Stage #4 Plug	11,240
Stage #3 Plug	11,548
Stage #2 Plug	11,857
Stage #1 Plug	NA
Landing Collar	-
Float Collar	-
Float Shoe	-

* Look for Hidden Cells if you need more/less stages

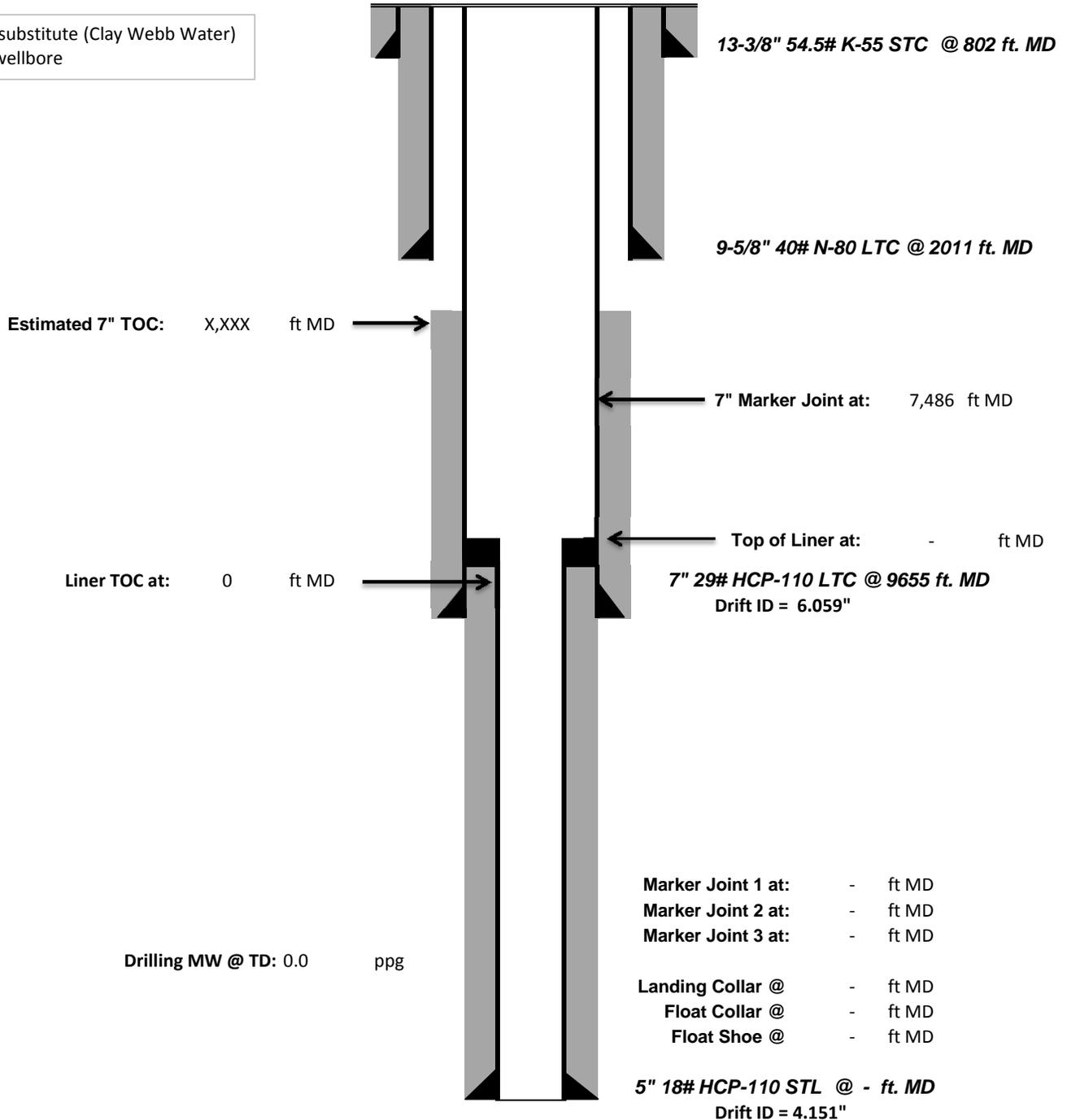


Pre-Completion Wellbore Schematic

Well Name: **Shepard 5-2C5**
 Company Name: **EP Energy**
 Field, County, State: **Altamont, Duchesne, UT**
 Surface Location: **Lat: 40 14' 52.719" N Long: 110 25' 21.112" W**
 Producing Zone(s): **Upper Wasatch**

Last Updated: _____
 By: **Krug**
 TD: **0**
 API: **4301353276**
 AFE: **163958**

8.43 ppg KCL substitute (Clay Webb Water) water in the wellbore



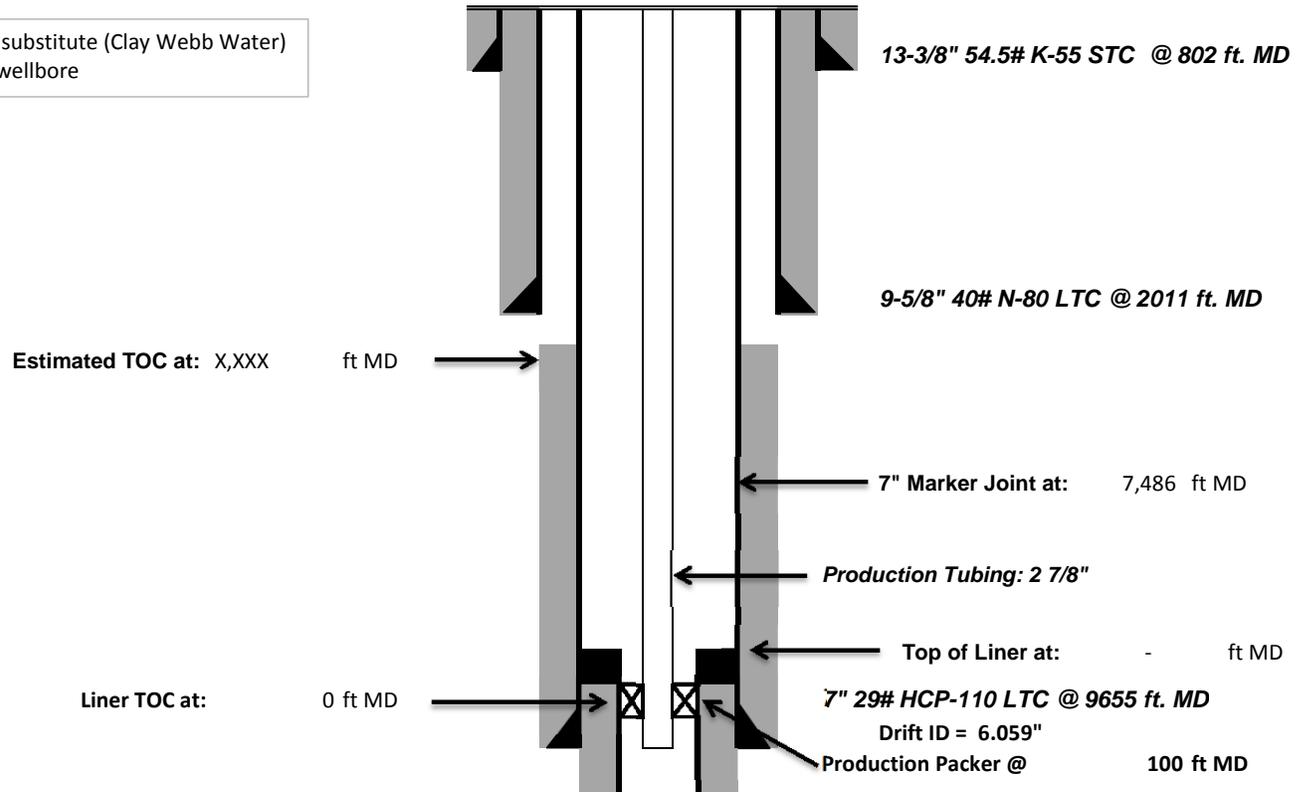


Post-Completion Wellbore Schematic

Well Name: **Shepard 5-2C5**
 Company Name: **EP Energy**
 Field, County, State: **Altamont, Duchesne, UT**
 Surface Location: **Lat: 40 14' 52.719" N Long: 110 25' 21.112" W**
 Producing Zone(s): **Upper Wasatch**

Last Updated: **6/10/2015**
 By: **Krug**
 TD: **0**
 API: **4301353276**
 AFE: **163958**

8.43 ppg KCL substitute (Clay Webb Water) water in the wellbore



Initial Completion Perf Information

Stage #	Interval (ft)	Shots	Fluid
Stage #9	9,400'-9,683'	23' / 69 shots	5000 gal HCL & 150000 lbs Power Prop 30/50
Stage #8	9,708'-9,992'	23' / 69 shots	5000 gal HCL & 150000 lbs Power Prop 30/50
Stage #7	10,017'-10,300'	23' / 69 shots	5000 gal HCL & 150000 lbs Power Prop 30/50
Stage #6	10,325'-10,608'	23' / 69 shots	5000 gal HCL & 150000 lbs Power Prop 30/50
Stage #5	10,633'-10,917'	23' / 69 shots	5000 gal HCL & 150000 lbs Power Prop 30/50
Stage #4	10,942'-11,225'	23' / 69 shots	5000 gal HCL & 150000 lbs Power Prop 30/50
Stage #3	11,250'-11,533'	23' / 69 shots	5000 gal HCL & 150000 lbs Power Prop 30/50
Stage #2	11,558'-11,842'	23' / 69 shots	5000 gal HCL & 150000 lbs Power Prop 30/50
Stage #1	11,867' - 12,225'	23' / 69 shots	5000 gal HCL & 150000 lbs Power Prop 30/50

- Marker Joint 1 @: - ft MD
- Marker Joint 2 @: - ft MD
- Marker Joint 2 @: - ft MD
- Landing Collar @: - ft MD
- Float Collar @: - ft MD
- Float Shoe @: - ft MD

5" 18# HCP-110 STL @ - ft. MD
 Drift ID = 4.151"

CONFIDENTIAL



Carol Daniels <caroldaniels@utah.gov>

NWSW SEC 2 T03S R05W

Intent to run & cement 5" Production Liner on Shepard 5-2C5

1 message

LANDRIG007 (Patterson 307) <LANDRIG007@epenergy.com> Sat, Jun 13, 2015 at 5:03 AM
To: "alexishuefner@utah.gov" <alexishuefner@utah.gov>, "caroldaniels@utah.gov" <caroldaniels@utah.gov>, Dan Jarvis <danjarvis@utah.gov>, "Mangum, Danny R (Contractor)" <danny.mangum@epenergy.com>, "dennisingram@utah.gov" <dennisingram@utah.gov>, "Gomez, Maria S" <Maria.Gomez@epenergy.com>, "MacAfee, Bradley D" <Brad.MacAfee@epenergy.com>, "Derden, Roy Lynn (Contractor)" <Roy.Derden@epenergy.com>, "blm_ut_vn_opreport@blm.gov" <blm_ut_vn_opreport@blm.gov>, "m65lee@blm.gov (m65lee@blm.gov)" <m65lee@blm.gov>, "ut_vn_opreport@blm.gov" <ut_vn_opreport@blm.gov>

RE: EP ENERGY
SHEPARD 5-2C5
API Well Number: 43013532760000
DUCHESNE CO., UTAH

We intend to run and cement 5", 18#, HCP-110, STC Production Liner to approximately 12,332' on Shepard 5-2C5 well within 24 hrs.

Regards,
Eugene Parker
Well site Supervisor
Patterson 307
713-997-1255

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STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

AMENDED REPORT FORM 8
(highlight changes)

WELL COMPLETION OR RECOMPLETION REPORT AND LOG		5. LEASE DESIGNATION AND SERIAL NUMBER:
1a. TYPE OF WELL: OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> DRY <input type="checkbox"/> OTHER _____		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
b. TYPE OF WORK: NEW WELL <input type="checkbox"/> HORIZ. LATS. <input type="checkbox"/> DEEP-EN <input type="checkbox"/> RE-ENTRY <input type="checkbox"/> DIFF. RESVR. <input type="checkbox"/> OTHER _____		7. UNIT or CA AGREEMENT NAME
2. NAME OF OPERATOR:		8. WELL NAME and NUMBER:
3. ADDRESS OF OPERATOR: CITY _____ STATE _____ ZIP _____ PHONE NUMBER: _____		9. API NUMBER:
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: AT TOP PRODUCING INTERVAL REPORTED BELOW: AT TOTAL DEPTH:		10 FIELD AND POOL, OR WILDCAT
		11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
		12. COUNTY _____ 13. STATE UTAH

14. DATE SPUDDED:	15. DATE T.D. REACHED:	16. DATE COMPLETED: _____ ABANDONED <input type="checkbox"/> READY TO PRODUCE <input type="checkbox"/>	17. ELEVATIONS (DF, RKB, RT, GL):
18. TOTAL DEPTH: MD _____ TVD _____	19. PLUG BACK T.D.: MD _____ TVD _____	20. IF MULTIPLE COMPLETIONS, HOW MANY? *	21. DEPTH BRIDGE MD _____ PLUG SET: TVD _____
22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)		23. WAS WELL CORED? NO <input type="checkbox"/> YES <input type="checkbox"/> (Submit analysis) WAS DST RUN? NO <input type="checkbox"/> YES <input type="checkbox"/> (Submit report) DIRECTIONAL SURVEY? NO <input type="checkbox"/> YES <input type="checkbox"/> (Submit copy)	

24. CASING AND LINER RECORD (Report all strings set in well)

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)

26. PRODUCING INTERVALS					27. PERFORATION RECORD				
FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS	
(A)								Open <input type="checkbox"/>	Squeezed <input type="checkbox"/>
(B)								Open <input type="checkbox"/>	Squeezed <input type="checkbox"/>
(C)								Open <input type="checkbox"/>	Squeezed <input type="checkbox"/>
(D)								Open <input type="checkbox"/>	Squeezed <input type="checkbox"/>

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC. See attached for further information on #27 & #28.

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL

29. ENCLOSED ATTACHMENTS: All logs are submitted to UDOGM by vendor.	30. WELL STATUS:
<input type="checkbox"/> ELECTRICAL/MECHANICAL LOGS <input type="checkbox"/> GEOLOGIC REPORT <input type="checkbox"/> DST REPORT <input type="checkbox"/> DIRECTIONAL SURVEY <input type="checkbox"/> SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION <input type="checkbox"/> CORE ANALYSIS <input type="checkbox"/> OTHER: _____	

31. INITIAL PRODUCTION

INTERVAL A (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL B (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL C (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL D (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

33. SUMMARY OF POROUS ZONES (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)

35. ADDITIONAL REMARKS (Include plugging procedure)

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) _____ TITLE _____

SIGNATURE _____ DATE _____

This report must be submitted within 30 days of

- completing or plugging a new well
- reentering a previously plugged and abandoned well
- drilling horizontal laterals from an existing well bore
- significantly deepening an existing well bore below the previous bottom-hole depth
- recompleting to a different producing formation
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

** ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

Attachment to Well Completion Report**Form 8 Dated July 29, 2015****Well Name: Shepard 5-2C5****Items #27 and #28 Continued****27. Perforation Record**

Interval (Top/Bottom – MD)	Size	No. of Holes	Perf. Status
10669'-10928'	.40	66	Open
10396'-10644'	.40	69	Open
10089'-10351'	.40	69	Open
9769'-10054'	.40	66	Open
9470'-9734'	.40	69	Open

28. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
10969'-11221'	5000 gal acid, 3100# 100 mesh, 150400# 30/50 THS
10669'-10928'	5000 gal acid, 3100# 100 mesh, 152960# 30/50 THS
10396'-10644'	5000 gal acid, 3100# 100 mesh, 148400# 30/50 TLC
10089'-10351'	5000 gal acid, 3100# 100 mesh, 150300# 30/50 TLC
9769'-10054'	5000 gal acid, 3100# 100 mesh, 150000# 30/50 TLC
9470'-9734'	5000 gal acid, 3120# 100 mesh, 148300# 30/50 TLC



Company: EP Energy Job Number: _____
 Well: Shepard 5-2C5 Mag Decl.: _____
 Location: Duchesne, UT Dir Driller: _____
 Rig: Patterson 307 MWD Eng: _____

Calculation Method Minimum Curvature
 Proposed Azimuth 0.00
 Depth Reference KB
 Tie Into: Gyro/MWD

Survey Number	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')		
							N/S (ft)	E/W (ft)	Distance (ft)	Direction Azimuth					
Tie In	0.00	0.00	0.00												
1	99.74	0.13	278.39	99.74	99.74	0.02	0.02	N	0.11	W	0.11	278.39	0.13	0.13	279.12
2	198.58	0.11	107.51	98.84	198.58	0.00	0.00	N	0.13	W	0.13	271.87	0.24	-0.02	-172.89
3	299.57	0.46	159.22	100.99	299.57	-0.40	0.40	S	0.10	E	0.42	165.57	0.40	0.35	51.20
4	399.71	0.61	180.53	100.14	399.70	-1.31	1.31	S	0.24	E	1.33	169.57	0.25	0.15	21.28
5	499.88	0.63	193.49	100.17	499.87	-2.38	2.38	S	0.11	E	2.38	177.40	0.14	0.02	12.94
6	599.27	0.64	190.83	99.39	599.25	-3.46	3.46	S	0.12	W	3.46	182.05	0.03	0.01	-2.68
7	699.61	0.51	218.51	100.34	699.59	-4.36	4.36	S	0.51	W	4.39	186.64	0.30	-0.13	27.59
8	797.74	0.33	217.05	98.13	797.71	-4.93	4.93	S	0.95	W	5.02	190.91	0.18	-0.18	-1.49
9	899.68	0.48	223.71	101.94	899.65	-5.47	5.47	S	1.42	W	5.65	194.57	0.15	0.15	6.53
10	997.83	0.47	217.10	98.15	997.80	-6.09	6.09	S	1.95	W	6.39	197.75	0.06	-0.01	-6.73
11	1099.91	0.61	194.03	102.08	1099.87	-6.95	6.95	S	2.33	W	7.33	198.56	0.25	0.14	-22.60
12	1198.80	0.63	195.58	98.89	1198.76	-7.98	7.98	S	2.61	W	8.40	198.08	0.03	0.02	1.57
13	1299.01	0.92	204.40	100.21	1298.96	-9.25	9.25	S	3.09	W	9.75	198.46	0.31	0.29	8.80
14	1399.78	0.81	207.32	100.77	1399.72	-10.61	10.61	S	3.75	W	11.26	199.44	0.12	-0.11	2.90
15	1499.51	0.81	192.25	99.73	1499.44	-11.93	11.93	S	4.22	W	12.65	199.48	0.21	0.00	-15.11
16	1598.80	0.95	193.66	99.29	1598.72	-13.42	13.42	S	4.56	W	14.17	198.79	0.14	0.14	1.42
17	1699.46	1.13	183.44	100.66	1699.36	-15.22	15.22	S	4.82	W	15.96	197.58	0.26	0.18	-10.15
18	1800.00	1.32	171.28	100.54	1799.88	-17.35	17.35	S	4.70	W	17.98	195.17	0.32	0.19	-12.09
19	1899.41	1.56	170.76	99.41	1899.25	-19.82	19.82	S	4.31	W	20.28	192.28	0.24	0.24	-0.52
20	1999.46	1.53	175.28	100.05	1999.27	-22.49	22.49	S	3.98	W	22.84	190.05	0.13	-0.03	4.52
21	2099.66	2.18	200.02	100.20	2099.42	-25.62	25.62	S	4.53	W	26.01	190.02	1.02	0.65	24.69
22	2199.95	4.08	211.04	100.29	2199.55	-30.47	30.47	S	7.02	W	31.27	192.98	1.98	1.89	10.99
23	2298.37	5.14	211.84	98.42	2297.65	-37.21	37.21	S	11.15	W	38.85	196.68	1.08	1.08	0.81
24	2399.31	4.18	208.94	100.94	2398.26	-44.27	44.27	S	15.32	W	46.85	199.08	0.98	-0.95	-2.87
25	2498.74	5.20	205.68	99.43	2497.35	-51.51	51.51	S	19.02	W	54.91	200.27	1.06	1.03	-3.28
26	2599.66	6.45	205.78	100.92	2597.75	-60.73	60.73	S	23.47	W	65.11	201.13	1.24	1.24	0.10
27	2698.15	7.56	201.25	98.49	2695.51	-71.75	71.75	S	28.22	W	77.10	201.47	1.26	1.13	-4.60
28	2798.93	7.47	200.89	100.78	2795.42	-84.05	84.05	S	32.96	W	90.28	201.41	0.10	-0.09	-0.36
29	2899.74	7.34	202.21	100.81	2895.39	-96.14	96.14	S	37.73	W	103.28	201.43	0.21	-0.13	1.31
30	2999.35	7.16	201.54	99.61	2994.20	-107.80	107.80	S	42.42	W	115.85	201.48	0.20	-0.18	-0.67
31	3099.64	7.05	200.82	100.29	3093.72	-119.37	119.37	S	46.90	W	128.25	201.45	0.14	-0.11	-0.72
32	3198.50	6.72	198.81	98.86	3191.87	-130.51	130.51	S	50.92	W	140.10	201.31	0.41	-0.33	-2.03
33	3299.72	6.47	199.14	101.22	3292.42	-141.51	141.51	S	54.70	W	151.71	201.13	0.25	-0.25	0.33
34	3399.99	7.06	202.19	100.27	3391.99	-152.55	152.55	S	58.88	W	163.52	201.11	0.69	0.59	3.04
35	3498.91	6.86	201.64	98.92	3490.18	-163.67	163.67	S	63.36	W	175.50	201.16	0.21	-0.20	-0.56



Company: EP Energy
Well: Shepard 5-2C5
Location: Duchesne, UT
Rig: Patterson 307

Job Number: _____
Mag Decl.: _____
Dir Driller: _____
MWD Eng: _____

Calculation Method Minimum Curvature
Proposed Azimuth 0.00
Depth Reference KB
Tie Into: Gyro/MWD

Survey Number	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')		
							N/S (ft)	E/W (ft)	Distance (ft)	Direction Azimuth					
36	3597.66	7.23	203.55	98.75	3588.19	-174.85	174.85	S	68.01	W	187.61	201.26	0.44	0.37	1.93
37	3699.61	6.71	201.85	101.95	3689.38	-186.26	186.26	S	72.79	W	199.98	201.35	0.55	-0.51	-1.67
38	3799.60	7.14	204.17	99.99	3788.64	-197.35	197.35	S	77.51	W	212.03	201.44	0.51	0.43	2.32
39	3899.27	7.42	204.75	99.67	3887.51	-208.84	208.84	S	82.74	W	224.64	201.61	0.29	0.28	0.58
40	3998.96	6.70	202.19	99.69	3986.44	-220.08	220.08	S	87.63	W	236.88	201.71	0.79	-0.72	-2.57
41	4099.54	7.14	205.66	100.58	4086.29	-231.14	231.14	S	92.56	W	248.99	201.82	0.60	0.44	3.45
42	4199.98	6.88	205.77	100.44	4185.98	-242.19	242.19	S	97.88	W	261.22	202.01	0.26	-0.26	0.11
43	4299.82	7.40	210.05	99.84	4285.05	-253.14	253.14	S	103.69	W	273.55	202.28	0.74	0.52	4.29
44	4399.39	6.94	209.40	99.57	4383.84	-263.93	263.93	S	109.86	W	285.88	202.60	0.47	-0.46	-0.65
45	4498.83	7.98	208.70	99.44	4482.43	-275.22	275.22	S	116.12	W	298.71	202.88	1.05	1.05	-0.70
46	4598.76	7.61	212.76	99.93	4581.44	-286.87	286.87	S	123.03	W	312.14	203.21	0.66	-0.37	4.06
47	4700.00	7.29	216.86	101.24	4681.83	-297.64	297.64	S	130.52	W	325.00	203.68	0.61	-0.32	4.05
48	4799.11	6.72	216.57	99.11	4780.20	-307.33	307.33	S	137.74	W	336.79	204.14	0.58	-0.58	-0.29
49	4899.07	7.61	207.26	99.96	4879.38	-317.91	317.91	S	144.26	W	349.11	204.41	1.46	0.89	-9.31
50	4999.52	7.28	206.16	100.45	4978.98	-329.54	329.54	S	150.11	W	362.12	204.49	0.36	-0.33	-1.10
51	5098.51	6.17	205.53	98.99	5077.29	-339.97	339.97	S	155.17	W	373.70	204.53	1.12	-1.12	-0.64
52	5199.66	7.01	199.48	101.15	5177.77	-350.69	350.69	S	159.57	W	385.29	204.47	1.08	0.83	-5.98
53	5299.32	7.62	199.77	99.66	5276.62	-362.64	362.64	S	163.83	W	397.93	204.31	0.61	0.61	0.29
54	5399.58	6.67	199.05	100.26	5376.10	-374.40	374.40	S	167.98	W	410.36	204.16	0.95	-0.95	-0.72
55	5498.72	6.18	197.77	99.14	5474.62	-384.93	384.93	S	171.49	W	421.40	204.01	0.51	-0.49	-1.29
56	5598.70	6.73	198.62	99.98	5573.96	-395.60	395.60	S	175.00	W	432.58	203.86	0.56	0.55	0.85
57	5699.99	5.97	197.20	101.29	5674.63	-406.26	406.26	S	178.46	W	443.73	203.71	0.77	-0.75	-1.40
58	5799.37	5.36	195.13	99.38	5773.53	-415.68	415.68	S	181.20	W	453.45	203.55	0.65	-0.61	-2.08
59	5899.38	4.98	194.00	100.01	5873.13	-424.40	424.40	S	183.47	W	462.36	203.38	0.39	-0.38	-1.13
60	5998.97	5.19	203.38	99.59	5972.33	-432.73	432.73	S	186.30	W	471.13	203.29	0.86	0.21	9.42
61	6099.10	4.63	203.83	100.13	6072.09	-440.58	440.58	S	189.73	W	479.70	203.30	0.56	-0.56	0.45
62	6199.13	4.09	208.26	100.03	6171.83	-447.42	447.42	S	193.05	W	487.29	203.34	0.64	-0.54	4.43
63	6298.74	3.42	205.69	99.61	6271.23	-453.22	453.22	S	196.02	W	493.80	203.39	0.69	-0.67	-2.58
64	6398.74	2.43	204.35	100.00	6371.10	-457.84	457.84	S	198.19	W	498.90	203.41	0.99	-0.99	-1.34
65	6499.30	1.85	195.73	100.56	6471.58	-461.35	461.35	S	199.50	W	502.64	203.39	0.66	-0.58	-8.57
66	6598.46	2.89	205.14	99.16	6570.66	-465.15	465.15	S	201.00	W	506.72	203.37	1.12	1.05	9.49
67	6698.62	3.52	206.31	100.16	6670.66	-470.19	470.19	S	203.44	W	512.32	203.40	0.63	0.63	1.17
68	6798.87	4.40	210.80	100.25	6770.67	-476.26	476.26	S	206.77	W	519.20	203.47	0.93	0.88	4.48
69	6898.95	3.11	209.46	100.08	6870.53	-481.92	481.92	S	210.07	W	525.71	203.55	1.29	-1.29	-1.34
70	6999.80	2.88	210.74	100.85	6971.25	-486.48	486.48	S	212.71	W	530.95	203.62	0.24	-0.23	1.27
71	7099.15	2.98	205.37	99.35	7070.47	-490.95	490.95	S	215.09	W	536.01	203.66	0.29	0.10	-5.41
72	7199.28	2.95	202.23	100.13	7170.46	-495.69	495.69	S	217.18	W	541.18	203.66	0.16	-0.03	-3.14



Company: EP Energy
Well: Shepard 5-2C5
Location: Duchesne, UT
Rig: Patterson 307

Job Number: _____
Mag Decl.: _____
Dir Driller: _____
MWD Eng: _____

Calculation Method Minimum Curvature
Proposed Azimuth 0.00
Depth Reference KB
Tie Into: Gyro/MWD

Survey Number	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')		
							N/S (ft)	E/W (ft)	Distance (ft)	Direction Azimuth					
73	7299.69	2.92	202.02	100.41	7270.74	-500.45	500.45	S	219.12	W	546.32	203.65	0.03	-0.03	-0.21
74	7399.70	2.96	201.83	100.01	7370.62	-505.21	505.21	S	221.03	W	551.45	203.63	0.04	0.04	-0.19
75	7499.65	2.79	201.89	99.95	7470.44	-509.87	509.87	S	222.90	W	556.46	203.61	0.17	-0.17	0.06
76	7599.82	2.63	199.79	100.17	7570.50	-514.29	514.29	S	224.59	W	561.19	203.59	0.19	-0.16	-2.10
77	7698.82	2.53	199.68	99.00	7669.40	-518.48	518.48	S	226.09	W	565.64	203.56	0.10	-0.10	-0.11
78	7799.09	2.30	191.91	100.27	7769.58	-522.54	522.54	S	227.25	W	569.82	203.50	0.40	-0.23	-7.75
79	7899.08	2.35	189.43	99.99	7869.49	-526.52	526.52	S	228.00	W	573.77	203.41	0.11	0.05	-2.48
80	7998.59	2.69	186.64	99.51	7968.90	-530.85	530.85	S	228.61	W	577.99	203.30	0.36	0.34	-2.80
81	8098.79	2.38	201.83	100.20	8069.01	-535.12	535.12	S	229.65	W	582.32	203.23	0.74	-0.31	15.16
82	8198.82	2.49	206.06	100.03	8168.95	-539.00	539.00	S	231.38	W	586.57	203.23	0.21	0.11	4.23
83	8298.98	2.56	206.04	100.16	8269.01	-542.97	542.97	S	233.32	W	590.97	203.25	0.07	0.07	-0.02
84	8398.85	2.40	206.06	99.87	8368.79	-546.85	546.85	S	235.22	W	595.29	203.27	0.16	-0.16	0.02
85	8499.24	2.31	208.91	100.39	8469.09	-550.51	550.51	S	237.12	W	599.40	203.30	0.15	-0.09	2.84
86	8599.11	2.26	207.65	99.87	8568.88	-554.01	554.01	S	239.00	W	603.37	203.34	0.07	-0.05	-1.26
87	8699.92	2.25	202.98	100.81	8669.61	-557.60	557.60	S	240.70	W	607.33	203.35	0.18	-0.01	-4.63
88	8799.53	1.96	201.78	99.61	8769.16	-560.98	560.98	S	242.09	W	610.99	203.34	0.29	-0.29	-1.20
89	8898.31	1.93	198.13	98.78	8867.88	-564.13	564.13	S	243.24	W	614.33	203.32	0.13	-0.03	-3.70
90	8998.82	2.08	195.22	100.51	8968.33	-567.50	567.50	S	244.24	W	617.83	203.29	0.18	0.15	-2.90
91	9099.07	1.68	176.14	100.25	9068.52	-570.72	570.72	S	244.62	W	620.93	203.20	0.74	-0.40	-19.03
92	9199.11	1.83	217.65	100.04	9168.52	-573.45	573.45	S	245.50	W	623.79	203.18	1.25	0.15	41.49
93	9299.47	2.95	233.47	100.36	9268.79	-576.25	576.25	S	248.55	W	627.57	203.33	1.29	1.12	15.76
94	9399.58	2.50	232.79	100.11	9368.79	-579.11	579.11	S	252.36	W	631.70	203.55	0.45	-0.45	-0.68
95	9499.81	1.98	224.94	100.23	9468.94	-581.65	581.65	S	255.33	W	635.23	203.70	0.60	-0.52	-7.83
96	9599.78	1.93	227.21	99.97	9568.86	-584.02	584.02	S	257.78	W	638.38	203.82	0.09	-0.05	2.27
97	9698.31	2.06	232.34	98.53	9667.33	-586.23	586.23	S	260.40	W	641.46	203.95	0.22	0.13	5.21
98	9798.56	2.04	231.55	100.25	9767.51	-588.44	588.44	S	263.23	W	644.63	204.10	0.03	-0.02	-0.79
99	9898.50	2.33	223.09	99.94	9867.38	-591.03	591.03	S	266.01	W	648.13	204.23	0.43	0.29	-8.47
100	9999.27	2.32	217.18	100.77	9968.07	-594.15	594.15	S	268.64	W	652.06	204.33	0.24	-0.01	-5.86
101	10099.71	2.30	222.85	100.44	10068.42	-597.25	597.25	S	271.24	W	655.95	204.43	0.23	-0.02	5.65
102	10198.92	2.41	223.56	99.21	10167.55	-600.22	600.22	S	274.03	W	659.81	204.54	0.11	0.11	0.72
103	10299.49	2.64	221.15	100.57	10268.02	-603.49	603.49	S	277.01	W	664.03	204.66	0.25	0.23	-2.40
104	10398.75	2.63	219.56	99.26	10367.18	-606.97	606.97	S	279.97	W	668.43	204.76	0.07	-0.01	-1.60
105	10499.45	2.64	215.61	100.70	10467.77	-610.64	610.64	S	282.79	W	672.94	204.85	0.18	0.01	-3.92
106	10599.01	2.64	208.98	99.56	10567.23	-614.51	614.51	S	285.23	W	677.48	204.90	0.31	0.00	-6.66
107	10699.90	2.54	205.41	100.89	10668.01	-618.56	618.56	S	287.32	W	682.03	204.91	0.19	-0.10	-3.54
108	10799.46	2.38	202.52	99.56	10767.48	-622.46	622.46	S	289.06	W	686.30	204.91	0.20	-0.16	-2.90
109	10899.21	2.31	202.73	99.75	10867.15	-626.23	626.23	S	290.63	W	690.38	204.90	0.07	-0.07	0.21



Company: EP Energy **Job Number:** _____
Well: Shepard 5-2C5 **Mag Decl.:** _____
Location: Duchesne, UT **Dir Driller:** _____
Rig: Patterson 307 **MWD Eng:** _____

Calculation Method Minimum Curvature
Proposed Azimuth 0.00
Depth Reference KB
Tie Into: Gyro/MWD

Survey Number	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
							N/S (ft)	E/W (ft)	Distance (ft)	Direction Azimuth			
110	10998.13	2.50	203.48	98.92	10965.98	-630.05	630.05 S	292.26 W	694.53	204.88	0.19	0.19	0.76
111	11098.41	2.42	202.77	100.28	11066.17	-634.01	634.01 S	293.95 W	698.83	204.87	0.09	-0.08	-0.71
112	11199.65	2.51	203.97	101.24	11167.31	-638.00	638.00 S	295.67 W	703.19	204.86	0.10	0.09	1.19
113	11299.81	2.84	204.96	100.16	11267.36	-642.26	642.26 S	297.61 W	707.86	204.86	0.33	0.33	0.99
114	11399.73	2.77	203.45	99.92	11367.16	-646.71	646.71 S	299.62 W	712.75	204.86	0.10	-0.07	-1.51
115	11499.84	2.49	197.45	100.11	11467.17	-651.01	651.01 S	301.23 W	717.32	204.83	0.39	-0.28	-5.99
116	11599.25	2.80	197.56	99.41	11566.47	-655.38	655.38 S	302.61 W	721.87	204.78	0.31	0.31	0.11
117	11699.96	2.67	196.57	100.71	11667.07	-659.98	659.98 S	304.02 W	726.64	204.73	0.14	-0.13	-0.98
118	11798.18	2.70	198.30	98.22	11765.18	-664.37	664.37 S	305.40 W	731.20	204.69	0.09	0.03	1.76
119	11898.44	2.89	196.73	100.26	11865.32	-669.03	669.03 S	306.87 W	736.05	204.64	0.20	0.19	-1.57
120	11998.87	3.07	197.15	100.43	11965.62	-674.02	674.02 S	308.39 W	741.22	204.59	0.18	0.18	0.42
121	12099.12	2.89	200.10	100.25	12065.73	-678.96	678.96 S	310.05 W	746.41	204.54	0.24	-0.18	2.94
122	12170.00	2.95	203.86	70.88	12136.52	-682.31	682.31 S	311.41 W	750.01	204.53	0.28	0.08	5.30
123	12335.00	2.95	203.86	165.00	12301.30	-690.07	690.07 S	314.84 W	758.50	204.52	0.00	0.00	0.00

CENTRAL DIVISION

ALTAMONT FIELD
SHEPARD 5-2C5
SHEPARD 5-2C5
DRILLING LAND

Operation Summary Report

Disclaimer: Although the information contained in this report is based on sound engineering practices, the copyright owner(s) does (do) not accept any responsibility whatsoever, in negligence or otherwise, for any loss or damage arising from the possession or use of the report whether in terms of correctness or otherwise. The application, therefore, by the user of this report or any part thereof, is solely at the user's own risk.

1 General**1.1 Customer Information**

Company	CENTRAL DIVISION
Representative	
Address	

1.2 Well Information

Well	SHEPARD 5-2C5		
Project	ALTAMONT FIELD	Site	SHEPARD 5-2C5
Rig Name/No.	PATTERSON/307	Event	DRILLING LAND
Start date	5/1/2015	End date	5/17/2015
Spud Date/Time	5/30/2015	UWI	SHEPARD 5-2C5
Active datum	KB @5,994.0ft (above Mean Sea Level)		
Afe No./Description	163958/53781 / SHEPARD 5-2C5		

2 Summary**2.1 Operation Summary**

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
5/27/2015	6:00 7:00	1.00	DRLSURF	07		P	2,030.0	PRE-SET RIG DRILLED 24" HOLE TO 40'. SET, CMT 2 JTS OF 20" 53.4# GRADE "B" PE COND 40' - DRILLED 17 1/2" HOLE TO 812'. SET SFC COND CSG 19 JTS OF 13 3/8" 54.5# J-55 STC SHOE AT 802' GL. CMT 13 3/8" SFC CSG LEAD CMT: 1,000 SK'S (210 BBLS) OF 15.8 PPG. BUMPED PLUG 922 PSI. CIP 12:14 HRS 05/15/15. HAD 68 BBLS OF GOOD CMT / SFC. CEMENT JOB WITNESSED BY BLM AGENT MR. JAKE BIRCHELL. NO FALL BACK OF CEMENT! - R/D M/O LEON ROSS RIG #35. DRILLED 12 1/4" HOLE TO 2,030'. SET SFC CSG 44 JTS OF 9 5/8" 40# N-80 LTC SHOE AT 2,016' GL. CMT 9 5/8" SFC CSG LEAD CMT: 400 SK'S (169.0 BBLS) OF 12.0 PPG, TAIL CMT: 205 SK'S (47.5 BBLS) OF 14.3 PPG. BUMPED PLUG. CIP 11:49 HRS 05/17/15. HAD 60 BBLS OF GOOD CMT / SFC. CEMENT JOB WITNESSED BY BLM AGENT MR. JAKE BIRCHELL. 40' FALL BACK ON CEMENT! - R/D M/O LEON ROSS RIG #26. 05/22/2015 TOPPED OUT 40' FALL BACK WITH 6 SK READY MIX CEMENT 13 SK'S 15.8 PPG, WITNESSED BY BLM AGENT: MR. SCOTT MONTGOMERY
	7:00 6:00	23.00	MIRU	01		P	2,030.0	MIRU. 95% MOVED IN. 25% RIGGED UP.
5/28/2015	6:00 6:00	24.00	MIRU	01		P	2,030.0	MOVE IN, RIG UP. 100% MOVED. 90% RIGGED UP.
5/29/2015	6:00 18:00	12.00	MIRU	01		P	2,030.0	RIGGING UP,PICK UP AND RIG UP TOP DRIVE, REMOVE EXCESS DRILL LINE FROM DRUM, RIG ON DAY WORK @ 1800 HRS. 05/28/2015.
	18:00 1:00	7.00	CASSURF	28		P	2,030.0	NU BOPE AND WING VALVES. TORQUE UP STACK.
	1:00 3:00	2.00	CASSURF	30		P	2,030.0	TEST CHOKE MANIFOLD TO 250 LOW & 10,000 HIGH FOR 10 MIN PER TEST. WHILE INSTALLING CONTROL LINES ON BOPE STACK.
	3:00 4:00	1.00	CASSURF	31		P	2,030.0	TESTED CASING 2,500 PSI. HELD >30 MINUTES.
	4:00 6:00	2.00	CASSURF	30		P	2,030.0	TESTED ANNULAR 250 PSI LOW / 4,000 PSI HIGH.TEST BOPE 250 PSI LOW / 5,000 PSI HIGH & HELD >10 MINUTES EACH TEST.

5/30/2015

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
	6:00 12:00	6.00	DRLINT1	19		P	2,030.0	TEST RAMS, AND UPPER AND LOWER KELLY VALVES TO 250/5000 PSI. HELD EACH TEST FOR 10 MINUTES. TEST ANNULAR PREVENTER TO 250/4,000 PSI. HELD EACH TEST FOR 10 MINUTES. ALL TESTS CHARTED. ALL TESTS WITNESSED BY BLADE RICH AND SCOTT MONTGOMERY WITH BLM.
	12:00 18:30	6.50	CASSURF	28		P	2,030.0	NU ROTATING HEAD AND FLOW LINE. INSTALL WEAR BUSHING
	18:30 20:30	2.00	DRLINT1	14		P	2,030.0	PU BHA.
	20:30 21:00	0.50	DRLINT1	15		P	2,030.0	TEST MWD TOOL.
	21:00 22:00	1.00	DRLINT1	57		N	2,030.0	TROUBLE SHOOT MWD TOOL.
	22:00 23:00	1.00	DRLINT1	14		P	2,030.0	PU BHA.
	23:00 1:30	2.50	DRLINT1	14		P	2,030.0	TRIP IN HOLE PICKING UP 5" DRILL PIPE .
	1:30 2:30	1.00	DRLINT1	72		P	2,030.0	DRILL CEMENT & SHOE TRACK .
	2:30 3:30	1.00	DRLINT1	33		P	2,030.0	SPUD WELL @ 03:30 HRS ON 05/30/2015 DRILL 10' OF NEW FORMATION, CIRC & CONDITION MUD. PERFORM F.I.T. TO 15.4 PPG E.M.W. WITH 660 PSI.
	3:30 6:00	2.50	DRLINT1	07		P	2,040.0	DRILL FROM 2040' TO 2295'.
5/31/2015	6:00 17:00	11.00	DRLINT1	07		P	2,295.0	DRILLING FROM 2295' TO 3221'
	17:00 17:30	0.50	DRLINT1	12		P	3,221.0	RIG SERVICE
	17:30 6:00	12.50	DRLINT1	07		P	3,221.0	DRILLING FROM 3221' TO 3888'.
6/1/2015	6:00 16:30	10.50	DRLINT1	07		P	3,888.0	DRILLING FROM 3888' TO 4470'
	16:30 17:00	0.50	DRLINT1	12		P	4,470.0	RIG SERVICE
	17:00 6:00	13.00	DRLINT1	07		P	4,470.0	DRILLING FROM 4470' TO 5632'
6/2/2015	6:00 17:30	11.50	DRLINT1	07		P	5,632.0	DRILLING FROM 5632' TO 6567'.
	17:30 18:00	0.50	DRLINT1	12		P	6,567.0	RIG SERVICE.
	18:00 6:00	12.00	DRLINT1	07		P	6,567.0	DRILLING FROM 6567' TO 7151'
6/3/2015	6:00 16:30	10.50	DRLINT1	07		P	7,151.0	DRILLING FROM 7151' TO 7903'.
	16:30 17:00	0.50	DRLINT1	12		P	7,903.0	RIG SERVICE.
	17:00 6:00	13.00	DRLINT1	07		P	7,903.0	DRILLING FROM 7903' TO 8549'.
6/4/2015	6:00 15:00	9.00	DRLINT1	07		P	8,549.0	DRILLING FROM 8549' TO 9140'.
	15:00 15:30	0.50	DRLINT1	12		P	9,140.0	RIG SERVICE.
	15:30 6:00	14.50	DRLINT1	07		P	9,140.0	DRILLING FROM 9140' TO 9655'.
6/5/2015	6:00 7:00	1.00	DRLINT1	15		P	9,655.0	SIMULATE CONNECTION, CIRCULATE BU.
	7:00 15:00	8.00	DRLINT1	13		P	9,655.0	TOH AND LAY DOWN DIRECTIONAL TOOLS
	15:00 21:30	6.50	DRLINT1	13		P	9,655.0	TIH B/ CIRC PER 3000', WASH & REAM TIGHT HOLE FROM 8390' TO 8403' 8450' TO 8500' - 9454' TO 9469'
	21:30 23:00	1.50	DRLINT1	15		P	9,655.0	CIRC & CONDITION MUD FOR LOGS. MAX TRIP GAS 6489 UNITS GAS CAME UP AND DOWN QUICKLY NO FLARE.
	23:00 6:00	7.00	DRLINT1	14		P	9,655.0	PULL OUT OF HOLE LAYING DOWN 5" DRILL PIPE.
6/6/2015	6:00 8:30	2.50	DRLINT1	14		P	9,655.0	LDDP AND DC'S
	8:30 9:00	0.50	CASINT1	42		P	9,655.0	PULL WEAR BUSHING
	9:00 6:00	21.00	CASINT1	24		P	9,655.0	DECREASED MW TO 9.2 PPG WHILE R/UP FRANK'S WESTATES' CASING TOOLS. PICK UP MAKE UP SHOE, FLOAT JT, & FC. STAGE IN HOLE WITH 7", 29#, HCP-110, LT&C, CASING, B/CIRC PER 500', CIRC B/UP PER 1000'. TOTAL JTS OF 7" CASING RAN 235 ,SHOE@ 9655' FLOAT COLLAR @ 9612'.
6/7/2015	6:00 7:30	1.50	CASINT1	24		P	9,655.0	RUN 7" CASING. PU LANDING JOINT.
	7:30 8:30	1.00	CASINT1	15		P	9,655.0	CIRCULATE AND CONDITION MUD

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
	8:30 12:30	4.00	CASINT1	25		P	9,655.0	RU HALLIBURTON CEMENT HEAD. P. TEST HEAD AND LINES TO 5,000 PSI. PUMPED 40 BBL. TUNED SPACER (9.5 PPG, 18.84 YIELD, 127.7 GAL/SK WATER) PUMPED 303 BBLS OF LEAD CEMENT (890 SKS. , 12.5 PPG, 1.91 YIELD, 10.33 GAL/SK WATER) PUMPED 88 BBL OF TAIL CEMENT (300 SKS., 13.0 PPG, 1.64 YIELD, 8.21 GAL/SK WATER) DISPLACED WITH 357 BBLS. OF 9.0 PPG DRILLING MUD. NO CEMENT OR SPACER TO SURFACE. ESTIMATED TOC 1604'. FINAL CIRCULATING PRESSURE 1950 PSI. BUMPED PLUG PRESSURED 500 PSI OVER. FLOATS HELD. FLOWED BACK 2 BBLS.
	12:30 14:30	2.00	DRLPRD	19		P	9,655.0	BACK OUT LANDING JOINT, INSTALL PACKOFF AND TEST(5000 PSI/10 MINUTES. OK). CHANGE OUT SAVER SUB, PRESSURE TEST CASING 2500 PSI/30 MINUTES. OK.
	14:30 20:00	5.50	DRLPRD	19		P	9,655.0	INSTALL TEST PLUG. PRESSURE TEST BOP RAMS, BOTH INSIDE AND OUTSIDE CHOKE AND KILL LINE VALVES, ALL LINES, VALAVES ON TOP DRIVE, STABBING VALVE AND INSIDE BOP TO 250 LOW AND 10,000 HIGH. ALL TESTS HELD FOR 10 MINUTES AND CHARTED. PRESSURE TEST ANNULAR TO 250 LOW AND 9000 HIGH FOR 10 MINUTES.
	20:00 22:30	2.50	DRLPRD	14		P	9,655.0	PICK UP BHA.
	22:30 6:00	7.50	DRLPRD	14		P	9,655.0	TRIP IN HOLE PICKING UP 4" DRILL PIPE @ 6692'. B/ CIRC PER 1500'.
6/8/2015	6:00 10:00	4.00	DRLPRD	13		P	9,655.0	PU 4" DP FROM 6692'.
	10:00 10:30	0.50	DRLPRD	12		P	9,655.0	RIG SERVICE
	10:30 13:00	2.50	DRLPRD	43		N	9,655.0	WORK ON TOP DRIVE POWER UNIT
	13:00 13:30	0.50	DRLPRD	42		P	9,655.0	INSTALL ROTATING HEAD RUBBER
	13:30 15:30	2.00	DRLPRD	72		P	9,655.0	DRILLING FC, CEMENT, AND FS. TAGGED FC AT 9609'. (DRILL PIPE COUNT 470 JOINTS 4" ON LOCATION. CORRECT)
	15:30 21:30	6.00	DRLPRD	53		N	9,655.0	TOH DUE TO HIGH TORQUE HEAVY DRAG. LD STABILIZERS AND PICK UP BOOT BASKET & TRI CONE BIT.
	21:30 2:00	4.50	DRLPRD	53		N	9,655.0	TRIP IN HOLE WITH BOOT BASKET, TRI-CONE BIT & SLICK BHA.
	2:00 2:30	0.50	DRLPRD	53		P	9,655.0	ATTEMPT TO CATCH JUNK IN BOOT BASKET BY WASHING TO BOTTOM WITH 294 GPM STOP PUMPING WITH BIT ON BOTTOM LET SET FOR 3 MINS TO ALLOW JUNK TO FALL INTO BOOT BASKET REPEAT PROCESS 2 TIMES.
	2:30 3:30	1.00	DRLPRD	07		P	9,655.0	DRILL 10' OF NEW FORMATION.
	3:30 4:00	0.50	DRLPRD	15		P	9,665.0	CIRC & CONDITION MUD FOR FIT.
	4:00 4:30	0.50	DRLPRD	33		P	9,665.0	PERFORM FIT TO 13.3 PPG EMW, SURFACE PRESSURE 890 PSI.
	4:30 6:00	1.50	DRLPRD	53		N	9,665.0	TRIP OUT OF HOLE FOR PACKED ASSEMBLY AND PDC BIT.
6/9/2015	6:00 9:00	3.00	DRLPRD	53		N	9,665.0	TOH WITH TRI CONE BIT.
	9:00 10:00	1.00	DRLPRD	53		N	9,665.0	EMPTY JUNK BASKET (NO JUNK) CHANGE OUT BIT AND NEAR BIT STABILIZER (3-1/2" REG. BOX).
	10:00 15:00	5.00	DRLPRD	53		N	9,665.0	TIH.
	15:00 20:00	5.00	DRLPRD	07		P	9,665.0	DRILLING FROM 9665' TO 9817'.
	20:00 20:30	0.50	DRLPRD	52		N	9,817.0	COMPLETE LOSS OF RETURNS, MIX LCM IN SUCTION PIT TO 30 POUNDS PER BBL.
	20:30 21:00	0.50	DRLPRD	52		N	9,817.0	PUMP 30 POUND PER BBL LCM @ 50 SPM. ESTABLISH FULL RETURNS.
	21:00 2:00	5.00	DRLPRD	07		P	9,817.0	DRILLING FROM 9,817' TO 10,078'.
	2:00 2:30	0.50	DRLPRD	15		P	10,078.0	CIRC & CONDITION MUD FOR WIRE LINE SURVEY.
	2:30 3:30	1.00	DRLPRD	11		P	10,078.0	RUN WIRE LINE SURVEY @ 10,020' 2.02 DEG.
	3:30 6:00	2.50	DRLPRD	07		P	10,078.0	DRILLING FROM 10,078' TO 10,198
6/10/2015	6:00 12:30	6.50	DRLPRD	07		P	10,198.0	DRILLING FROM 10,198' TO 10,457'.
	12:30 13:00	0.50	DRLPRD	12		P	10,457.0	RIG SERVICE.
	13:00 6:00	17.00	DRLPRD	07		P	10,457.0	DRILLING FROM 10,457' TO 11,031'.

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
6/11/2015	6:00 15:30	9.50	DRLPRD	07		P	11,031.0	DRILLED 11,031' - 11,313'.
	15:30 16:00	0.50	DRLPRD	12		P	11,313.0	RIG SERVICED.
	16:00 6:00	14.00	DRLINT5	07		P	11,313.0	DRILLED 11,313' - 11,750'.
6/12/2015	6:00 15:00	9.00	DRLPRD	07		P	11,750.0	DRILLED 11,750' - 11,976'.
	15:00 15:30	0.50	DRLPRD	12		P	11,976.0	RIG SERVICED.
	15:30 6:00	14.50	DRLPRD	07		P	11,976.0	DRILLED 11,976' - 12,315'.
6/13/2015	6:00 6:30	0.50	DRLPRD	07		P	12,315.0	DRILLED 12,315' - 12,335' TD.
	6:30 8:30	2.00	DRLPRD	15		P	12,335.0	SIMULATED CONNECTION. REDUCED PUMP RATE TO 4.5 BPM. CBU; RECORDED 736 UNITS OF CG. GAS CUT MUD 13.2 TO 12.9 PPG.
	8:30 10:00	1.50	DRLPRD	13		P	12,335.0	WIPER TRIPPED INTO 7" SHOE AT 9,655'. HAD SLIGHT RESISTANCE AT 11,276', 11,161', & 9,800'. FLOW CHECKED.
	10:00 11:30	1.50	DRLPRD	13		P	12,335.0	TIH. HOLE SLICK.
	11:30 13:30	2.00	DRLPRD	15		P	12,335.0	C & C MUD AT. 6,821 UNITS OF TRIP GAS, ONE HOUR AT HIGH LEVEL. MUD CUT 13.2 PPG TO 12.5 PPG.
	13:30 15:30	2.00	DRLPRD	15		P	12,335.0	C & C MUD AT 3 BPM. INCREASED MW TO 13.4 PPG. FULL RETURNS THROUGHOUT.
	15:30 21:30	6.00	DRLPRD	13		P	12,335.0	PUMPED SLUG. TOOH TO 2,875'. HOLE SLICK. CHECKED FOR FLOW EVERY 20 STDS.
	21:30 2:00	4.50	DRLPRD	14		P	12,335.0	LAI D DOWN REMAINING 4" DP & BHA.
6/14/2015	2:00 6:00	4.00	EVLPRD	22		P	12,335.0	RU WFT ELU TRUCK. RIH WITH ULTRA-SLIM QUAD-COMBO LOG.
	6:00 13:00	7.00	EVLPRD	22		P	12,335.0	RIH WITH ULTRA-SLIM QUAD-COMBO LOG. TAGGED AT 12,315' WLM. LOGGED QUAD-COMBO TO SHOE. LOGGED GR TO SURFACE. R/D WFT TOOLS.
	13:00 14:30	1.50	CASPRD1	24		P	12,335.0	RIG UP FRANK'S WESTATES' CASING TOOLS & TORQUE-TURN.
	14:30 15:30	1.00	CASPRD1	24		P	12,335.0	MU FLOAT SHOE, 1 JOINT, FLOAT COLLAR, 1 JOINT, LANDING COLLAR. CHECKED FLOATS.
	15:30 18:30	3.00	CASPRD1	24		P	12,335.0	PUMU AN ADDITIONAL 72 FULL JTS (74 TOTAL) PLUS 2 MARKER JTS OF 5", 18#, HCP-110, STL LINER. (3,092' OAL). BROKE CIRC AT 800'. CBU FROM 1,500' DISPLACING 13.4 MUD WITH 12.9 PPG MUD 45 VIS AT 2.5 BPM. FULL RETURNS.
	18:30 19:30	1.00	CASPRD1	24		P	12,335.0	PUMU HES' STANDARD MODEL 5" X 7" VERSAFLEX LINER HANGER. MU 1 STAND DP. INSTALLED RH RUBBER. CBU FROM 3,203' AT 2.5 BPM. FULL RETURNS.
6/15/2015	19:30 6:00	10.50	CASPRD1	24		P	12,335.0	SIH 5" LINER ON 4" DP. CIR BTMS UP EVERY 10 STDS, NEAR FULL RETURNS.
	6:00 11:00	5.00	CASPRD1	24		P	12,335.0	FINISHED SIH LINER TO 12,335' TD. C & C MUD AT 1,000' INTERVALS; NEAR FULL RETURNS.
	11:00 12:00	1.00	CASPRD1	15		P	12,335.0	SPACED OUT. RU HES CMT HEAD, SWIVEL & PLUMBING.
	12:00 15:00	3.00	CASPRD1	15		P	12,335.0	C & C 12.9 PPG MUD AT 2.5 BPM. LOST SOME MUD ESTABLISHING RETURNS. FULL RETURNS THERE AFTER. 4,700 MAX GAS.
	15:00 17:00	2.00	CASPRD1	25		P	12,335.0	SWITCHED LINE TO CEMENTERS. HES TESTED P & L TO 9,000 PSI. M & P 20 BBLs 13.1 PPG TUNED SPACER III. M & P 230 SKS / 62 BBLs EXPANDACEM PREMIUM CEMENT AT 14.2 PPG WITH 1.52 YIELD. WASHED LINES. DROPPED DP DART. PUMPED 60 BBLs CLA-WEB / ALDACIDE PLUS 87 BBLs 12.9 PPG MUD. BUMPED PLUG WITH 2,618 PSI @ 16:46 HRS, 06/14/2015. BLE D BACK 1.25 BBLs, FLOATS HELD. FULL RETURNS.

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
	17:00 18:00	1.00	CASPRD1	24		P	12,335.0	RELEASED BALL. RUPTURED DISC AT 5,350 PSI. PUMPED 60 BBLS. PRESSURED UP TO 5,720 PSI, EXPANDED PACKER HANGER. PULL TESTED LINER WITH 100K OVERPULL. SAT DOWN 60K, RELEASED SETTING TOOL FROM LINER HANGER. LANDED FS AT 12,333', FC AT 12,287', LC AT 12,246', TOL AT 9,240.82' WITH 414' OF LAP. TOTAL LINER LENGTH = 3,092'. MARKER JT TOPS AT 11,292' & 10,333'. DISPLACED CEMENT FROM ABOVE LINER TOP. 20 BBLS OF TUNED SPACER PLUS 10 BBLS OF CEMENT RECOVERED.
	18:00 19:30	1.50	CASPRD1	31		P	12,335.0	POSITIVE TESTED LINER TOP TO 1,000 PSI FOR >10 MINUTES. DISPLACED MUD (6 BPM) FROM DP & ANNULUS WITH 200 BBLS OF FW FOLLOWED BY 300 BBLS TREATED WATER WITH 2% CLA-WEB / ALDACIDE WATER.
	19:30 21:00	1.50	CASPRD1	15		P	12,335.0	MONITORED WELL FOR FLOW >15 MINS, NEGATIVE TEST. WELL STATIC. RD HOWCO CMT LINES & HEAD.
	21:00 23:30	2.50	CASPRD1	14		P	12,335.0	LAI D DOWN 4" DP TO 3,000'.
	23:30 0:00	0.50	CASPRD1	12		P	12,335.0	RIG SERVICED.
	0:00 1:00	1.00	CASPRD1	43		N	12,335.0	REPAIRED HYDRAULICS ON TOP DRIVE UNIT.
	1:00 6:00	5.00	CASPRD1	14		P	12,335.0	LAI D DOWN 4" DP TO 3,000'. RIH 3 STANDS FROM DERRICK. LAI D DOWN REMAINING DP & HES' 5" LINER RUNNING TOOL.
6/16/2015	6:00 14:00	8.00	CASPRD1	29		P	12,335.0	CLEANED MUD TANKS WHILE ND 11" 10M BOPE. ND B-SECTION.
	14:00 16:00	2.00	CASPRD1	27		P	12,335.0	NU 11" 10M X 7-1/16" 10M TBG HEAD & FRAC VALVE. TESTED HEAD TO 5,000 PSI FOR >10 MINUTES. RIG RELEASED @ 1600 HRS, 6/15/2015.
	16:00 6:00	14.00	RDMO	02		P	12,335.0	RIG DOWN. 75% RIGGED DOWN.
6/17/2015	6:00 6:00	24.00	RDMO	02		P	12,335.0	100% RIGGED DOWN. 60% MOVED. MOVED TO CAHAL 4-15C4.

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CENTRAL DIVISION

ALTAMONT FIELD
SHEPARD 5-2C5
SHEPARD 5-2C5
COMPLETION LAND

Operation Summary Report

Disclaimer: Although the information contained in this report is based on sound engineering practices, the copyright owner(s) does (do) not accept any responsibility whatsoever, in negligence or otherwise, for any loss or damage arising from the possession or use of the report whether in terms of correctness or otherwise. The application, therefore, by the user of this report or any part thereof, is solely at the user's own risk.

1 General**1.1 Customer Information**

Company	CENTRAL DIVISION
Representative	
Address	

1.2 Well Information

Well	SHEPARD 5-2C5		
Project	ALTAMONT FIELD	Site	SHEPARD 5-2C5
Rig Name/No.		Event	COMPLETION LAND
Start date	6/16/2015	End date	
Spud Date/Time	5/30/2015	UWI	SHEPARD 5-2C5
Active datum	KB @5,994.0ft (above Mean Sea Level)		
Afe No./Description	163958/53781 / SHEPARD 5-2C5		

2 Summary**2.1 Operation Summary**

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
6/18/2015	11:00 12:00	1.00	WLWORK	28		P		CREW TRAVEL TO LOCATION HSM WRITE AND REVIEW JSA TOPIC; WIRELINE OPERATIONS
	12:00 15:00	3.00	WLWORK	22		P		MIRU WIRELINE R/U WL LUBRICATOR TEST TO 4000 PSI P/U 4" GAUGE RING TIH TAG AT 12174' TOH L/D GAUGE RING
	15:00 20:30	5.50	WLWORK	22		P		P/U LOGGING TOOLS TIH LOG AND TIE INTO GR TAG AT 12179' GRMD START LOGGING WELL TOOLS STOPED WORKING TOH L/D TOOLS P/U NEW TOOLS TIH RUN CCL/CBL/GR LOG FROM 12179' TO TOC AT 3800 w 4000 PSI ON WELL BLEED OFF PRESSURE TOH L/D LOGGING TOOLS
	20:30 1:00	4.50	WLWORK	22		P		RUN GYRO LOG FOR THE DRILL DEPARTMENT TOH L/D GYRO TOOL SECURE WELL 7" MASTER VALVE w NIGHT CAP SDFN
6/19/2015	6:00 7:00	1.00	SITEPRE	28		P		CREW TRAVEL TO LOCATION HSM WRITE AND REVIEW JSA TOPIC; N/U FRAC STACK
	7:00 14:00	7.00	WHDTR	16		P		N/U FRAC STACK TEST CSG TO 9000 PSI AND CHART TEST FRAC STACK TO 10K AND CHART CONTINUE FILLING FRAC TANKS SET FLOW BACK TANKS R/U FLOW BACK LINES AND TEST GOOD START HEATING WATER R/U WATER TRANSFER LINES SET SAND CANS
	14:00 6:00	16.00	WLWORK	21		P		WRITE AND REVIEW JSA TOPIC; WIRELINE OPERATIONS.. MIRU WIRELINE TIH PERFORATE STG 1 MIRU HOT OIL TRUCK PUMP 20 GAL OF XCIDE 105 CHEMICAL PRESSURED TO 2100 PSI SECURE WELL CLOSED AND LOCK 2 HCR VALVES CLOSED 7" MASTER VALVE CLOSED FLOW CROSS VALVES RDMO HOT OIL TRUCK CONTINUE PREPARING LOCATION FOR FRAC HAULING IN WATER HEATING WATER TREATING WATER
6/20/2015	6:00 12:39	6.65	STG01	28		P		CREW TRAVEL TO LOCATION HSM WRITE AND REVIEW JSA TOPIC; FRAC OPERATIONS... MIRU HALLIBURTON FRAC EQUIPMENT

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
	12:39 14:41	2.03	STG01	35		P		STAGE 1; PRESSURE TEST LINES TO 9638 PSI. OPEN WELL. SICP 1889 PSI. BREAK DOWN STAGE 1 PERFORATIONS 12173' TO 11930' AT 5983 PSI, PUMPING 10 BPM. PUMP 7 BBLS OF TREATED WATER STEP DOWN RATE IN 4 STEPS SHUT DOWN FOR 15 MIN ISDP 3920 FG .75 5MIN 3823 10 MIN 3780 15MIN 3780 TREATED STAGE 1... AS PER PROCEDURE TREAT W/ 5000 GAL 15% HCL ACID FR-76 WATER ACID FLUSH 25# HYBOR G PAD FR-76 100 MESH FR-76 WATER SWEEP FR-76 .5# 30/50 THS 1# 30/50 THS 20# HYBOR 2# 30/50 THS 20# HYBOR G 3# 30/50 THS STG FLUSH TO TOP PERF...ISDP 4375 PSI. AVG RATE 75 BPM. AVG PSI 5441 PSI. MAX PSI 8310 PSI. TTL PROP 153300 TURN OVER TO WIRELINE
	14:41 16:25	1.73	STG02	21		P		STAGE 2; SET COMPOSITE FRAC PLUG AT 11895' PRESSURE ON WELL 4100 PSI PERFORATE STAGE 2 PERFORATIONS 11880' TO 11619'; 23 NET FEET 69 TTL SHOTS W/ 2-3/4" 3 JSPF, 120 DEG PHASING GUNS END PRESSURE 3100 PSI ALL PERFS CORRELATED TO THE CUTTERS CBL/GR/CCL LOG RUN #1 6/17/15
	16:25 18:02	1.62	STG03	35		P		STAGE 2; PRESSURE TEST LINES TO 9544PSI. OPEN WELL. SICP 3046 PSI. BREAK DOWN STAGE 2 PERFORATIONS 11880' TO 11619' AT 5309 PSI, PUMPING 10 BPM. PUMP 7 BBLS OF TREATED WATER STEP DOWN RATE IN 4 STEPS SHUT DOWN FOR 15 MIN ISDP 3530 FG .73 5MIN 3024 10 MIN 2857 15MIN 2716 TREATED STAGE 2... AS PER PROCEDURE TREAT W/ 5000 GAL 15% HCL ACID FR-76 WATER ACID FLUSH ADD 1000 GAL TO THE 25# HYBOR G PAD FR-76 100 MESH FR-76 WATER SWEEP FR-76 .5# 30/50 THS 1# 30/50 THS 20# HYBOR 2# 30/50 THS 20# HYBOR G 3# 30/50 THS STG FLUSH TO TOP PERF...ISDP 4044 PSI. AVG RATE 75 BPM. AVG PSI 5684 PSI. MAX PSI 7743 PSI. TTL PROP 153500 TURN OVER TO WIRELINE
	18:02 21:30	3.47	STG03	21		P		STAGE 3; TIH TO 10400' UNABLE TO GET ON DEPTH FLUSH ADDITIONAL 25 BBLS TIH SET COMPOSITE FRAC PLUG AT 11598' PRESSURE ON WELL 3400 PSI PERFORATE STAGE 3 PERFORATIONS 11583' TO 11292', 23 NET FEET 69 TTL SHOTS W/ 2-3/4" 3 JSPF, 120 DEG PHASING GUNS END PRESSURE 2700 PSI ALL PERFS CORRELATED TO THE CUTTERS CBL/GR/CCL LOG RUN #1 6/17/15 SECURE WELL CLOSE 2-HRC VALVE AND LOCK CLOSE 7" MASTER VALVE CLOSE FLOW CROSS VALVES SDFN
6/21/2015	6:00 6:10	0.17	STG03	28		P		CREW TRAVEL TO LOCATION HSM WRITE AND REVIEW JSA TOPIC; FRAC OPERATIONS
	6:10 7:44	1.57	STG03	35		P		STAGE 3; PRESSURE TEST LINES TO 9484 PSI. OPEN WELL. SICP 2108 PSI. BREAK DOWN STAGE 3 PERFORATIONS 11583' TO 11292' AT 4270 PSI, PUMPING 10 BPM. PUMP 7 BBLS OF TREATED WATER STEP DOWN RATE IN 4 STEPS SHUT DOWN FOR 15 MIN ISDP 4022 FG .78 5MIN 3883 10 MIN 3773 15MIN 3654 TREATED STAGE 3... AS PER PROCEDURE TREAT W/ 5000 GAL 15% HCL ACID FR-76 WATER ACID FLUSH 25# HYBOR G PAD FR-76 100 MESH FR-76 WATER SWEEP FR-76 .5# 30/50 THS 1# 30/50 THS 20# HYBOR 2# 30/50 THS 20# HYBOR G 3# 30/50 THS STG FLUSH TO TOP PERF...ISDP 4320 PSI. AVG RATE 76 BPM. AVG PSI 4973 PSI. MAX PSI 7475 PSI. TTL PROP 153400 TURN OVER TO WIRELINE

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
	7:44 9:04	1.33	STG04	21		P		STAGE 4; SET COMPOSITE FRAC PLUG AT 11236' PRESSURE ON WELL 4100 PSI PERFORATE STAGE 3 PERFORATIONS 11221' TO 10969', 23 NET FEET 69 TTL SHOTS W/ 2-3/4" 3 JSPF, 120 DEG PHASING GUNS END PRESSURE 3100 PSI ALL PERFS CORRELATED TO THE CUTTERS CBL/GR/CCL LOG RUN #1 6/17/15
	9:04 10:21	1.28	STG04	35		P		STAGE 4; PRESSURE TEST LINES TO 9465 PSI. OPEN WELL. SICP 2112 PSI. BREAK DOWN STAGE 4 PERFORATIONS 11221' TO 10969' AT 5370 PSI, PUMPING 10 BPM. PUMP 7 BBLs OF TREATED WATER STEP DOWN RATE IN 4 STEPS SHUT DOWN FOR 15 MIN ISDP 4174 FG .81 5MIN 3862 10 MIN 3862 15MIN 3832 TREATED STAGE 4... AS PER PROCEDURE TREAT W/ 5000 GAL 15% HCL ACID FR-76 WATER ACID FLUSH 25# HYBOR G PAD FR-76 100 MESH FR-76 WATER SWEEP FR-76 .5# 30/50 THS 1# 30/50 THS 20# HYBOR 2# 30/50 THS 20# HYBOR G 3# 30/50 THS STG FLUSH TO TOP PERF...ISDP 4403 PSI. AVG RATE 76 BPM. AVG PSI 5131 PSI. MAX PSI 7457 PSI. TTL PROP 153500 TURN OVER TO WIRELINE
	10:21 11:37	1.27	STG05	21		P		STAGE 5; SET COMPOSITE FRAC PLUG AT 10943' PRESSURE ON WELL 4200 PSI PERFORATE STAGE 5 PERFORATIONS 10928' TO 10669', 22 NET FEET 66 TTL SHOTS W/ 2-3/4" 3 JSPF, 120 DEG PHASING GUNS END PRESSURE 3900 PSI ALL PERFS CORRELATED TO THE CUTTERS CBL/GR/CCL LOG RUN #1 6/17/15
	11:37 12:51	1.23	STG05	35		P		STAGE 5; PRESSURE TEST LINES TO 9486 PSI. OPEN WELL. SICP 3213 PSI. BREAK DOWN STAGE 5 PERFORATIONS 10928' TO 10669' AT 5524 PSI, PUMPING 10 BPM. PUMP 7 BBLs OF TREATED WATER STEP DOWN RATE IN 4 STEPS SHUT DOWN FOR 15 MIN ISDP 4209 FG .82 5MIN 4011 10 MIN 4011 15MIN 4011 TREATED STAGE 5... AS PER PROCEDURE TREAT W/ 5000 GAL 15% HCL ACID FR-76 WATER ACID FLUSH 25# HYBOR G PAD FR-76 100 MESH FR-76 WATER SWEEP FR-76 .5# 30/50 THS 1# 30/50 THS 20# HYBOR 2# 30/50 THS 20# HYBOR G 3# 30/50 THS STG FLUSH TO TOP PERF...ISDP 4547 PSI. AVG RATE 76 BPM. AVG PSI 5571 PSI. MAX PSI 7647 PSI. TTL PROP 153250 TURN OVER TO WIRELINE
	12:51 15:27	2.60	STG06	21		P		STAGE 6; ATTEMPT TO SET COMPOSITE FRAC PLUG AT 10659' PRESSURE ON WELL 4000 PSI PARTIALLY SET ATTEMPT TO WORK PLUG FREE FAILED PULLED OUT OF ROPE SOCKET TOH w WIRELINE SECURE WELL CLOSE 7" MASTER 5" HCR 5" HCR
	15:27 16:35	1.13	BL	52		N		WAIT ON BRAIDED LINE TRUCK AND 80 TON CRANE
	16:35 18:20	1.75	BL	52		N		MIRU BRAIDED LINE TRUCK MIRU 80 TON CRANE
	18:20 0:00	5.67	BL	52		N		P/U TIH w FISHING ASSEMBLY ENGAGE FISH AT 10608' JAR FISH FREE TOH L/D FISH RD CRANE AND BRAIDED LINE TRUCK
	0:00 3:30	3.50	STG06	21		P		WELL HEAD PRESSURE 4000 PSI BLEED OFF TO 0 PRESSURE - TEST PLUG GOOD P/U TIH w 2 3/4" GUN PERFORATE STG 6 10644' TO 10396' STARTING PRESSURE 0 PSI ENDING PRESSURE 2900 PSI TOH L/D GUN SECURE WELL CLOSE 7" MASTER VALVE CLOSE 5" HCR AND LOCK CLOSE 5" HCR AND LOCK CLOSE ALL CSG VALVES w NIGHT CAPS SDFN
6/22/2015	6:00 7:00	1.00	STG06	28		P		CREW TRAVEL TO LOCATION HSM WRITE AND REVIEW JSA TOPIC; FRAC OPERATIONS

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
	7:00 8:31	1.52	STG06	35		P		STAGE 6; PRESSURE TEST LINES TO 9572 PSI. OPEN WELL. SICP 3171 PSI. BREAK DOWN STAGE 6 PERFORATIONS 10644' TO 10396' AT 5159 PSI, PUMPING 10 BPM. PUMP 7 BBLs OF TREATED WATER STEP DOWN RATE IN 4 STEPS SHUT DOWN FOR 15 MIN ISDP 3817 FG .79 5MIN 3224 10 MIN 2878 15MIN 2491 TREATED STAGE 6... AS PER PROCEDURE TREAT W/ 5000 GAL 15% HCL ACID FR-76 WATER ACID FLUSH ADD 1000 GAL TO THE 25# HYBOR G PAD FR-76 100 MESH FR-76 WATER SWEEP FR-76 .5# 30/50 TLC 1# 30/50 TLC 20# HYBOR 2# 30/50 TLC 20# HYBOR G 3# 30/50 TLC STG FLUSH TO TOP PERF...ISDP 4259 PSI. AVG RATE 75 BPM. AVG PSI 5270 PSI. MAX PSI 7054 PSI. TTL PROP 151500 TURN OVER TO WIRELINE
	8:31 9:49	1.30	STG07	21		P		STAGE 7; SET COMPOSITE FRAC PLUG AT 10366' PRESSURE ON WELL 3500 PSI PERFORATE STAGE 7 PERFORATIONS 10351' TO 10089', 23 NET FEET 69 TTL SHOTS W/ 2-3/4" 3 JSPF, 120 DEG PHASING GUNS END PRESSURE 2800 PSI ALL PERFS CORRELATED TO THE CUTTERS CBL/GR/CCL LOG RUN #1 6/17/15
	9:49 11:09	1.33	STG07	35		P		STAGE 7; PRESSURE TEST LINES TO 9572 PSI. OPEN WELL. SICP 1615 PSI. BREAK DOWN STAGE 7 PERFORATIONS 10351' TO 10089 AT 4548 PSI, PUMPING 10 BPM. PUMP 7 BBLs OF TREATED WATER STEP DOWN RATE IN 4 STEPS SHUT DOWN FOR 15 MIN ISDP 3368 FG .75 5MIN 2944 10 MIN 2520 15MIN 2096 TREATED STAGE 7... AS PER PROCEDURE TREAT W/ 5000 GAL 15% HCL ACID FR-76 WATER ACID FLUSH ADD 500 GAL TO THE 25# HYBOR G PAD FR-76 100 MESH FR-76 WATER SWEEP FR-76 .5# 30/50 TLC 1# 30/50 TLC 20# HYBOR 2# 30/50 TLC 20# HYBOR G 3# 30/50 TLC STG FLUSH TO TOP PERF...ISDP 3802 PSI. AVG RATE 77 BPM. AVG PSI 4647 PSI. MAX PSI 6269 PSI. TTL PROP 153400 TURN OVER TO WIRELINE
	11:09 12:18	1.15	STG08	21		P		STAGE 8; SET COMPOSITE FRAC PLUG AT 10069' PRESSURE ON WELL 3500 PSI PERFORATE STAGE 8 PERFORATIONS 10054' TO 9769', 22 NET FEET 66 TTL SHOTS W/ 2-3/4" 3 JSPF, 120 DEG PHASING GUNS END PRESSURE 3300 PSI ALL PERFS CORRELATED TO THE CUTTERS CBL/GR/CCL LOG RUN #1 6/17/15
	12:18 13:41	1.38	STG08	35		P		STAGE 8; PRESSURE TEST LINES TO 9131 PSI. OPEN WELL. SICP 3189 PSI. BREAK DOWN STAGE 8 PERFORATIONS 10054' TO 9769 AT 3930 PSI, PUMPING 10 BPM. PUMP 7 BBLs OF TREATED WATER STEP DOWN RATE IN 4 STEPS SHUT DOWN FOR 15 MIN ISDP 3251 FG .76 5MIN 3131 10 MIN 3011 15MIN 2991 TREATED STAGE 8... AS PER PROCEDURE TREAT W/ 5000 GAL 15% HCL ACID FR-76 WATER ACID FLUSH 25# HYBOR G PAD FR-76 100 MESH FR-76 WATER SWEEP FR-76 .5# 30/50 TLC 1# 30/50 TLC 20# HYBOR 2# 30/50 TLC 20# HYBOR G 3# 30/50 TLC STG FLUSH TO TOP PERF...ISDP 3890 PSI. AVG RATE 77 BPM. AVG PSI 4339 PSI. MAX PSI 5443 PSI. TTL PROP 153500 TURN OVER TO WIRELINE
	13:41 14:45	1.07	STG09	21		P		STAGE 9; SET COMPOSITE FRAC PLUG AT 9749' PRESSURE ON WELL 3000 PSI PERFORATE STAGE 9 PERFORATIONS 9734' TO 9470', 23 NET FEET 69 TTL SHOTS W/ 2-3/4" 3 JSPF, 120 DEG PHASING GUNS END PRESSURE 2700 PSI ALL PERFS CORRELATED TO THE CUTTERS CBL/GR/CCL LOG RUN #1 6/17/15

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
	14:45 16:12	1.45	STG09	35		P		STAGE 9; PRESSURE TEST LINES TO 9453 PSI. OPEN WELL. SICP 2650 PSI. BREAK DOWN STAGE 9 PERFORATIONS 9734' TO 9470 AT 3050 PSI, PUMPING 10 BPM. PUMP 7 BBLS OF TREATED WATER STEP DOWN RATE IN 4 STEPS SHUT DOWN FOR 15 MIN ISDP 3110 FG .75 5MIN 2900 10 MIN 2790 15MIN 2680 TREATED STAGE 9... AS PER PROCEDURE TREAT W/ 5000 GAL 15% HCL ACID FR-76 WATER ACID FLUSH 25# HYBOR G PAD FR-76 100 MESH FR-76 WATER SWEEP FR-76 .5# 30/50 TLC 1# 30/50 TLC 20# HYBOR 2# 30/50 TLC 20# HYBOR G 3# 30/50 TLC STG FLUSH TO TOP PERF...ISDP 2518 PSI. AVG RATE 76 BPM. AVG PSI 3476 PSI. MAX PSI 5828 PSI. TTL PROP 151420 SECURE WELL CLOSED 7" MASTER VALVE CLOSED AND LOCK CENTER 5" HCR VALVE CLOSED AND LOCK TOP HCR VALVE 9 5/8" CSG VALVE CSG VALVES ALL w NIGHT CAPS
	16:12 19:30	3.30	RDMO	02		P		RDMO HALLIBURTON FRAC EQUIPMENT
	19:30 23:00	3.50	MIRU	01		P		MOVE IN PARTIALLY RIG UP COIL TBG UNIT
6/23/2015	6:00 6:15	0.25	CTU	28		P		CREW TRAVEL TO LOCATION HSM WRITE AND REVIEW JSA TOPIC; COIL TBG OPERATIONS
	6:15 7:34	1.32	CTU	10		P		FINISH RIGGING UP COI TBG P/U C/O ASSEMBLY TEST LUBRICATOR AND FLOW BACK LINES
	7:34 20:30	12.93	CTU	10		P		OPEN WELL 800 PSI TIH w COIL TBG DRILL 8 CBP PLUG C/O TO PBDT AT 12248' CTMD CIRC WELL CLEAN TOH w COIL TBG SECURE WELL CLOSED 7" MASTER VALVE CLOSED AND LOCK CENTER 5" HCR VALVE BLOW COIL TGB DRY w C02 CLOSED AND LOCK TOP HCR VALVE 9 5/8" CSG VALVE CSG VALVES ALL w NIGHT CAPS
	20:30 23:00	2.50	CTU	16		P		RDMO
6/24/2015	6:00 7:00	1.00	WLWORK	28		P		CREW TRAVEL TO LOCATION HSM WRITE AND REVIEW JSA TOPIC; WIRELINE OPERATIONS
	7:00 8:00	1.00	WLWORK	26		P		MIRU WIRELINE
	8:00 9:34	1.57	WLWORK	26		P		OPEN PRESSURE 1800 PSI P/U 3.95" GAUGE RING AND JUNK BASKET TIH TO 9400' TOH L/D SAME
	9:34 11:30	1.93	WLWORK	27		P		P/U 5" 18# STI AS-1 PKR TIH SET AT 9360' PRESSURE ON WELL WHEN SET 1800 PSI TOH R/D WIRELINE
	11:30 14:00	2.50	FB	17		P		BLEED OFF WELL SECURE WELL CLOSED 7" MASTER VALVE CLOSED AND LOCK CENTER 5" HCR VALVE CLOSED AND LOCK TOP HCR VALVE 9 5/8" CSG VALVE CSG VALVES ALL w NIGHT CAPS
6/27/2015	6:00 7:00	1.00	WHDTRE	28		P		CREW TRAVEL TO LOCATION HSM WRITE AND REVIEW TOPIC; RIGGING UP
	7:00 9:10	2.17	WHDTRE	16		P		N/D FRAC STACK TO 7" MASTER VALVE N/U BOPE TEST AND CHART TO 5000 PSI GOOD RACK AND PREP TBG
	9:10 10:30	1.33	MIRU	09		P		MIRU RIG TALLY TBG SET PUMP AND TANK
	10:30 16:37	6.12	WOR	39		P		P/U 5" STI PKR TIH P/U 5-JTS OF 2 3/8" CHANGE HANDLING TOOLS CONTINUE P/U 281-JTS OF 2 7/8" TBG
	16:37 17:10	0.55	WOR	39		P		SET AND SPACE OUT 5" PKR AT 9341' w 10K TENSTION
	17:10 19:34	2.40	WOR	06		P		R/U PUMP AND LINES CIRC WELL CLEAN w 360 BBLS OF 2% KCL WATER w PKR FLUID TEST 7" ANNULUS TO 1000 PSI FOR 15 MIN GOOD OPEN TIW VALVE CONFIRM NO FLOW UP TBG FOR 15 MIN
	19:34 21:00	1.43	WOR	16		P		N/D BOPE N/D 7" FRAC STACK REMOVE PUP JT BELOW HANGER INSTALL HANGER w 2 WAY VALVE N/D TREE TEST TO 5000 PSI SECURE WELL w 2 WAY VALVE CLOSED ALL VALVES ON TREE w NIGHT CAP CSG CLOSED w NIGHT CAPS SDFW

7/2/2015

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
	12:00 13:00	1.00	MIRU	28		P		CREW TRAVEL TO LOCATION HSM WRITE AND REVIEW JSA TOPIC; PUMPING OUT PLUG
	13:00 16:00	3.00	MIRU	01		P		MIRU PULL 2 WAY PLUG PUMP OUT PLUG AT 3000 PSI OPEN WELL ON A 12/64 CHOKE 26 PSI TURN WELL OVER TO FLOW BACK
7/18/2015	6:00 7:30	1.50	MIRU	28		P		TRAVEL TO LOCATION. HOLD SAFETY MEETING ON ROADING RIG. FILL OUT & REVIEW JSA
	7:30 9:30	2.00	MIRU	01		P		MOVE RIG TO LOCATION & RIG UP
	9:30 13:00	3.50	WOR	15		P		PUMP 30 BBLS TREATED 2% KCL WTR DOWN TBG TO KILL WELL. PRESSURED UP TO 1200 PSI. OPEN WELL TO TREATER & BLEED PRESSURE OFF WELL TO 45 PSI, THEN TURN TO FLAT TANK & CONTINUE BLEEDING PRESSURE OFF WELL. PUMP 43 BBLS 2% KCL WTR DOWN TBG. STARTED SEEING SUDDEN INCREASE IN PRESSURE. BLEED PRESSURE OFF TBG.
	13:00 16:00	3.00	WOR	16		P		ND WELL HEAD. PU ON TBG. BREAK OUT TBG HANGER. INSTALL 6' X 2-7/8"EUE PUP JT & TBG HANGER W/ DOUBLE CHECK INSTALLED. TEMPORARILY LAND TBG. NU & TEST BOP. LUBRICATE 2 WAY CHECK VALVE OUT OF TBG HANGER. TBG PRESSURE HAD BUILT TO 1200 PSI.
	16:00 19:30	3.50	WOR	15		P		OPEN TBG TO TREATER & BLEED PRESSURE OFF TBG. PUMP 35 BBLS TREATED 2% KCL WTR DOWN TBG. RELEASE UPPER PKR. TBG STARTED FLOWING. OPEN WELL TO RIG TANK. FLOWED BACK 60 BBLS FLUID. STARTED HEARING WHAT SOUNDED LIKE PIECES OF IRON FLOWING THROUGH PUMP LINES. REVERSE CIRCULATE WELL W/ 180 BBLS 2% KCL WTR. WELL CONTINUED FLOWING. SHUT WELL IN W/ TIW VALVE CLOSED & CAPPED, PIPE RAMS CLOSED & LOCKED & CSG VALVES CLOSED & CAPPED.
7/19/2015	6:00 7:30	1.50	WOR	28		P		TRAVEL TO LOCATION. HOLD SAFETY MEETING ON OPENING WELL. FILL OUT & REVIEW JSA
	7:30 13:00	5.50	WOR	19		P		SICP 800 PSI. SITP 1800 PSI. FLOW WELL TO PRODUCTION FACILITY
	13:00 17:00	4.00	WOR	16		P		PUMP 50 BBLS 10 PPG BRINE WTR DOWN TBG TO KILL TBG. REMOVE PUP JT FROM HANGER. INSTALL DOUBLE CHECK IN HANGER. ND BOP & SPOOLS. NU & TEST WELL HEAD.
	17:00 20:00	3.00	WOR	06		P		PUMP 180 BBLS 2% KCL WTR DOWN TBG TO CIRCULATE 10 PPG BRINE FROM TBG. WELL STARTED FLOWING. OPEN WELL TO TREATER & TURN WELL OVER TO NIGHT LEASE OPERATOR

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