

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

FORM 3

AMENDED REPORT

<b>APPLICATION FOR PERMIT TO DRILL</b>						1. WELL NAME and NUMBER LDS 2-1C5				
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) Fee			11. MINERAL OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input checked="" 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') Church of Jesus Christ of Latter-Day Saints						14. SURFACE OWNER PHONE (if box 12 = 'fee') 801-240-5288				
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee') 50 E. North Temple Street, 12th Fl, Salt Lake City, UT 84150						16. SURFACE OWNER E-MAIL (if box 12 = 'fee')				
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')			18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS YES <input type="checkbox"/> (Submit Commingling Application) NO <input checked="" type="checkbox"/>			19. SLANT VERTICAL <input checked="" type="checkbox"/> DIRECTIONAL <input type="checkbox"/> HORIZONTAL <input type="checkbox"/>				
20. LOCATION OF WELL		FOOTAGES		QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN		
LOCATION AT SURFACE		875 FNL 738 FWL		NWNW	1	3.0 S	5.0 W	U		
Top of Uppermost Producing Zone		875 FNL 738 FWL		NWNW	1	3.0 S	5.0 W	U		
At Total Depth		875 FNL 738 FWL		NWNW	1	3.0 S	5.0 W	U		
21. COUNTY DUCHESNE			22. DISTANCE TO NEAREST LEASE LINE (Feet) 738			23. NUMBER OF ACRES IN DRILLING UNIT 640				
27. ELEVATION - GROUND LEVEL 5867			25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 2500			26. PROPOSED DEPTH MD: 12300 TVD: 12300				
28. BOND NUMBER 400JU0708			29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE Duchesne City							
<b>Hole, Casing, and Cement Information</b>										
String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight
COND	17.5	13.375	0 - 600	54.5	J-55 ST&C	9.0	Class G	758	1.15	15.8
SURF	12.25	9.625	0 - 2500	40.0	N-80 LT&C	9.3	Type V	310	3.18	11.0
							Class G	195	1.3	14.3
I1	8.75	7	0 - 9550	29.0	HCP-110 LT&C	10.6	Class G	479	1.91	12.5
							Class G	207	1.64	13.0
L1	6.125	5	9350 - 12900	18.0	HCP-110 LT&C	13.5	Class G	210	1.47	14.2
<b>ATTACHMENTS</b>										
<b>VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES</b>										
<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 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 04/09/2014			EMAIL maria.gomez@epenergy.com				
API NUMBER ASSIGNED 43013529050000			APPROVAL   Permit Manager							

**LDS 2-1C5  
Sec. 1, T3S, R5W  
DUCHESE 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)	4,474' TVD
Green River (GRTN1)	5,334' TVD
Mahogany Bench	6,334' TVD
L. Green River	7,644' TVD
Wasatch	9,414' TVD
T.D. (Permit)	12,900' TVD

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

<u>Substance</u>	<u>Formation</u>	<u>Depth</u>
	Green River (GRRV)	4,474' MD / TVD
	Green River (GRTN1)	5,334' MD / TVD
	Mahogany Bench	6,334' MD / TVD
Oil	L. Green River	7,644' MD / TVD
Oil	Wasatch	9,414' MD / TVD

**3. Pressure Control Equipment: (Schematic Attached)**

A 4.5" by 20.0" rotating head on structural pipe from surface to 600' MD/TVD. A 4.5" by 13-3/8" Diverter Stack w/ Smith Rotating Head from 600' MD/TVD to 2,500' MD/TVD on Conductor. A 10M BOP stack w/ rotating head, spacer spool, 5M annular, flex rams, blind rams & single w/ flex rams from 2,500' MD/TVD to 9,550' MD/TVD. A 10M BOP stack w/ rotating head, spacer spool, 5M annular, flex rams, blind rams & single w/ flex rams from 9,550' MD/TVD to TD (12,900' MD/TVD).

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

**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, spacer spool, 5M annular, flex rams, blind rams & single w/ flex rams 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:**

Precision Rig # 404 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 600' - TD
- B) Mud logger with gas monitor – 2,500' to TD (12,900' MD/TVD)
- 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	WBM	9.0 – 9.3
Intermediate	WBM	9.4 – 10.6
Production	WBM	11.6 – 13.5

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: 2,500' MD/TVD – TD (12,900' MD/TVD)

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

7. **Abnormal Conditions:**

Maximum anticipated bottomhole pressure calculated at 12,900' TVD equals approximately 9,056 psi. This is calculated based on a 0.702 psi/ft gradient (13.5 ppg mud density at TD).

Maximum anticipated surface pressure equals approximately 6,218 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/ft).

Maximum anticipated surface pressure based on frac gradient at 7" casing shoe is 0.8 psi/ft at 9,550' TVD = 7,640 psi

BOPE and casing design will be based on the lesser of the two MASPs which is 6,218 psi.

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



**DRILLING PROGRAM**

CASING PROGRAM	SIZE	INTERVAL		WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION
CONDUCTOR	13 3/8"	0	600	54.5	J-55	STC	2,740	1,130	514
SURFACE	9-5/8"	0	2500	40.00	N-80	LTC	5,750	3,090	737
INTERMEDIATE	7"	0	9550	29.00	HCP-110	LTC	11,220	9,750	797
PRODUCTION LINER	5'	9350	12900	18.00	HCP-110	STL	13,940	15,450	495

CEMENT PROGRAM		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
CONDUCTOR		600	Class G + 3% CACL2	758	100%	15.8 ppg	1.15
SURFACE	Lead	2,000	EXTENDACEM SYSTEM: Type V Cement + 5 lbm/sk Silicalite Compacted + 0.25 lbm/sk Kwik Seal + 0.125 lbm/sk Poly-E-Flake + 8% Bentonite + 0.3% D-AIR 5000	310	75%	11.0 ppg	3.18
	Tail	500	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	5,550	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	479	10%	12.5 ppg	1.91
	Tail	2,000	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	207	10%	13.0 ppg	1.64
PRODUCTION LINER		3,550	EXTENDACEM SYSTEM: Class G Cement + 0.2% Super CBL + 0.55% SCR-100 + 0.3% Halad-413 + 0.125 lbm/sk Poly-E-Flake + 3 lbm/sk Silicalite Compacted + 20% SS-200 + 0.10% SA-1015	210	25%	14.2 ppg	1.47

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 & Stage collar. Thread lock all float equipment. Install bow spring centralizers on the bottom 3 joints of casing & every 3rd joint thereafter.
INTERMEDIATE	PDC drillable 10M, P-110 float shoe, 1 joint, PDC drillable 10M, P-110 float collar. Thread lock all float equipment. Maker joint at 7,600'.
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

EP ENERGY E&P COMPANY, L.P.  
LDS 2-1C5  
SECTION 1, T3S, R5W, U.S.B.&M.

PROCEED NORTH ON PAVED STATE HIGHWAY 87 FROM THE INTERSECTION OF HIGHWAY 87 WITH U.S. HIGHWAY 40 IN DUCHESNE, UTAH APPROXIMATELY 5.96 MILES TO AN INTERSECTION;

TURN LEFT AND TRAVEL NORTHWESTERLY 0.80 MILES ON STATE ROAD 35 TO AN INTERSECTION;

TURN LEFT AND TRAVEL WESTERLY 0.24 MILES ON A GRAVEL ROAD TO THE PROPOSED WELL LOCATION;

TOTAL DISTANCE FROM DUCHESNE, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 7.00 MILES.

CONFIDENTIAL

# EP ENERGY E & P COMPANY, L.P.

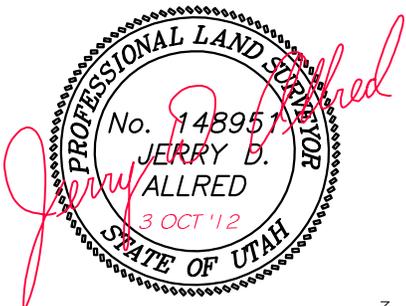
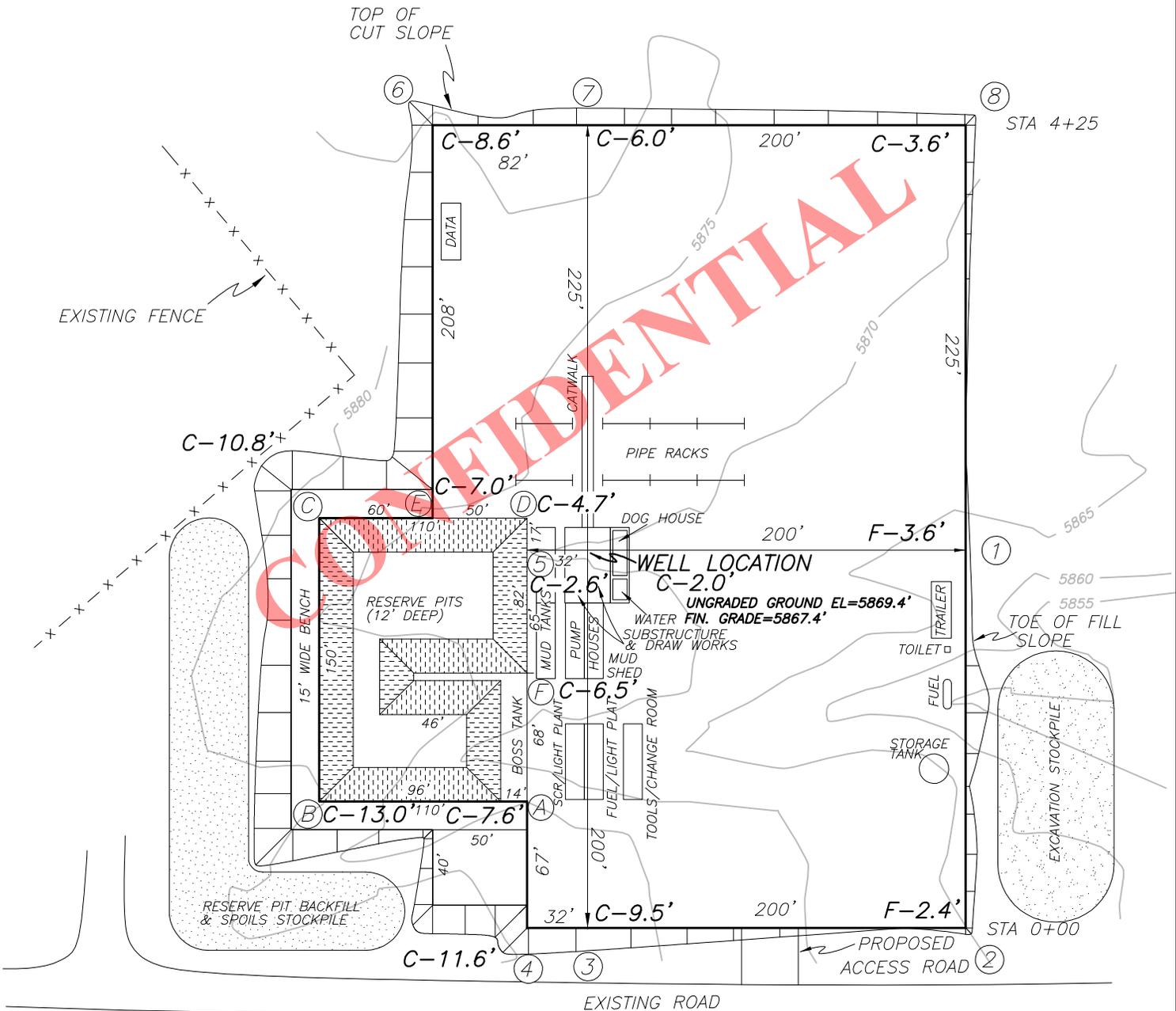
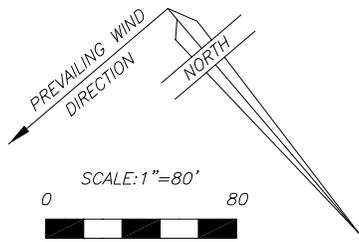
FIGURE #1

LOCATION LAYOUT FOR

LDS 2-1C5

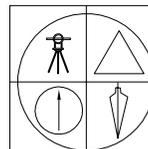
SECTION 1, T3S, R5W, U.S.B.&M.

875' FNL, 738' FWL



3 OCT 2012

01-128-325



JERRY D. ALLRED & ASSOCIATES  
SURVEYING CONSULTANTS

1235 NORTH 700 EAST--P.O. BOX 975  
DUCHESNE, UTAH 84021  
(435) 738-5352

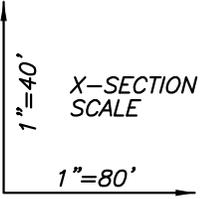
RECEIVED: June 04, 2014

# EP ENERGY E & P COMPANY, L.P.

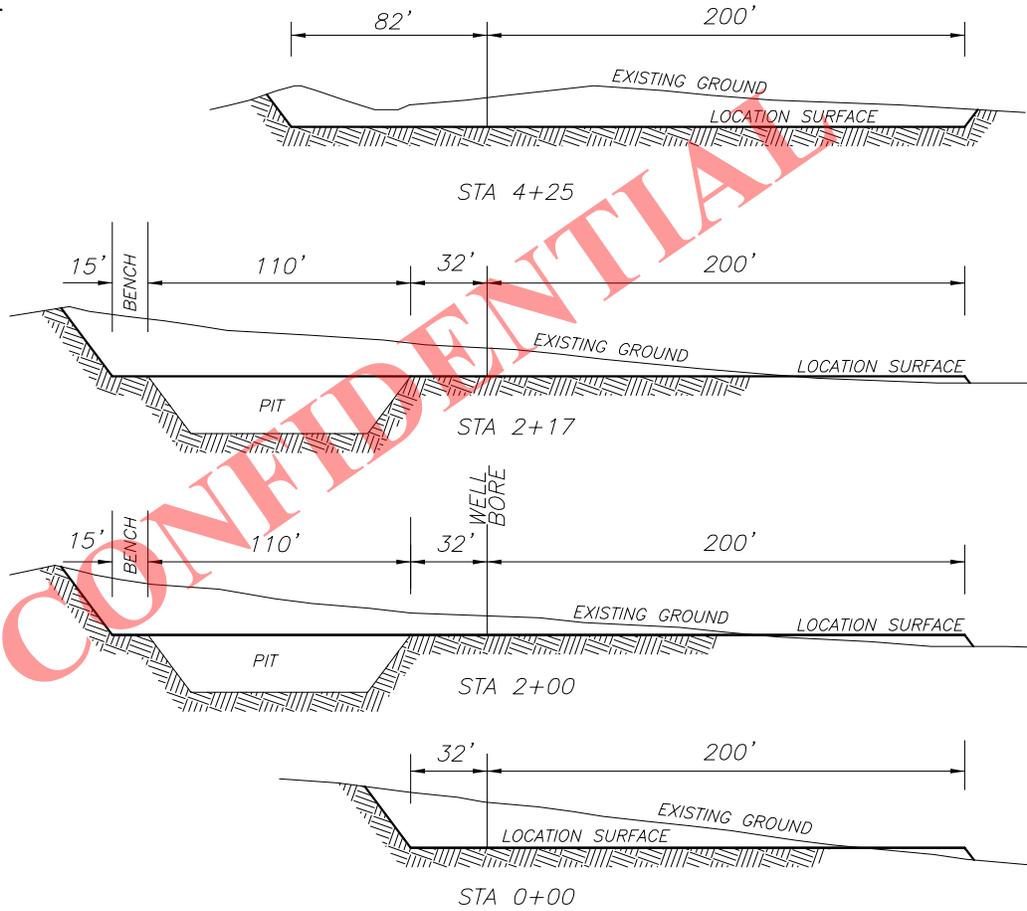
FIGURE #2

## LOCATION LAYOUT FOR LDS 2-1C5

SECTION 1, T3S, R5W, U.S.B.&M.  
875' FNL, 738' FWL



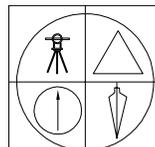
NOTE: ALL CUT/FILL  
SLOPES ARE 1½:1  
UNLESS OTHERWISE  
NOTED



APPROXIMATE QUANTITIES

TOTAL CUT (INCLUDING PIT) = 9,920 CU. YDS.  
 PIT CUT = 4572 CU. YDS.  
 TOPSOIL STRIPPING: (6") = 2737 CU. YDS.  
 REMAINING LOCATION CUT = 2611 CU. YDS.  
 TOTAL FILL = 1715 CU. YDS.  
 LOCATION SURFACE GRAVEL=1374 CU. YDS. (4" DEEP)  
 ACCESS ROAD GRAVEL= 0 CU. YDS.

*Jerry D. Allred*  
 PROFESSIONAL LAND SURVEYOR  
 No. 14895  
 JERRY D. ALLRED  
 3 OCT '12  
 STATE OF UTAH



JERRY D. ALLRED & ASSOCIATES  
 SURVEYING CONSULTANTS  
 1235 NORTH 700 EAST--P.O. BOX 975  
 DUCHESNE, UTAH 84021  
 (435) 738-5352

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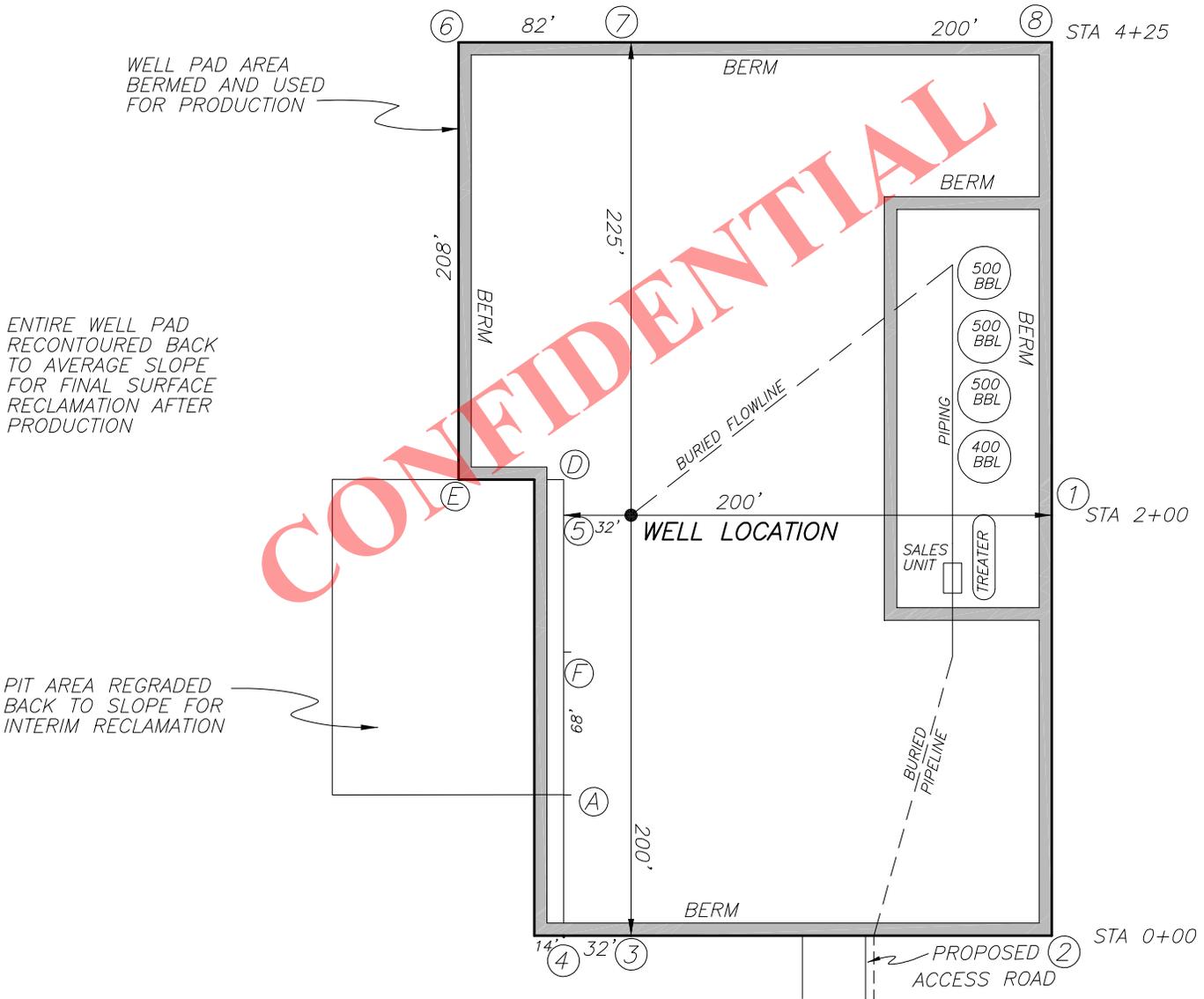
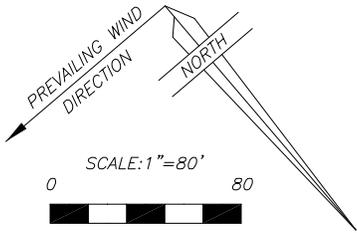
FIGURE #3

## LOCATION LAYOUT FOR

### LDS 2-1C5

### SECTION 1, T3S, R5W, U.S.B.&M.

### 875' FNL, 738' FWL



WELL PAD AREA BERMED AND USED FOR PRODUCTION

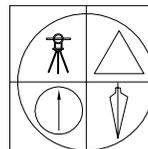
ENTIRE WELL PAD RECONTOURED BACK TO AVERAGE SLOPE FOR FINAL SURFACE RECLAMATION AFTER PRODUCTION

PIT AREA REGRADED BACK TO SLOPE FOR INTERIM RECLAMATION



3 OCT 2012

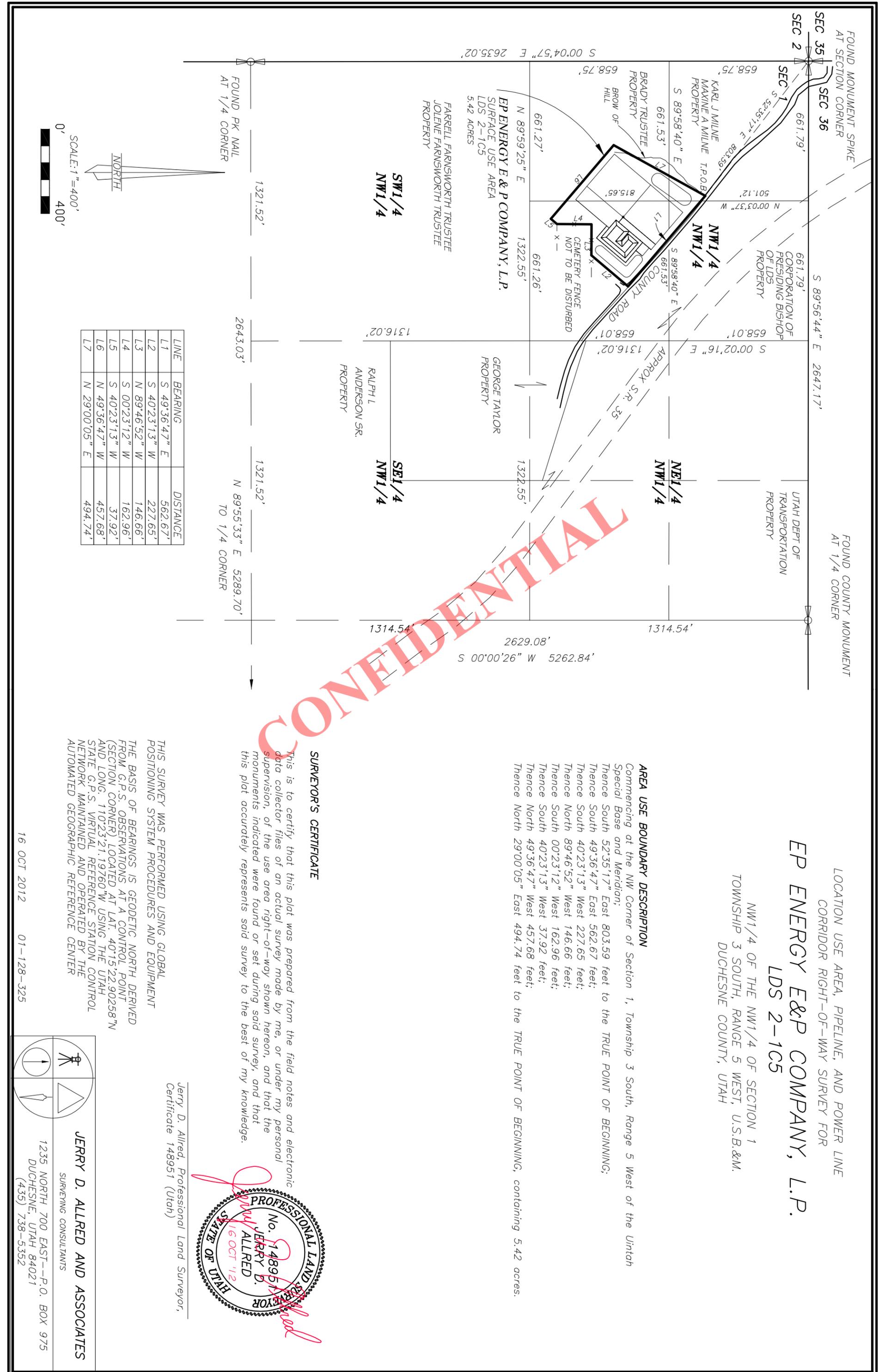
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**JERRY D. ALLRED & ASSOCIATES**  
SURVEYING CONSULTANTS

1235 NORTH 700 EAST--P.O. BOX 975  
DUCHESNE, UTAH 84021  
(435) 738-5352

RECEIVED: June 04, 2014



LINE	BEARING	DISTANCE
L1	S 49°36'47" E	562.67'
L2	S 40°23'13" W	227.65'
L3	N 89°46'52" W	146.66'
L4	S 00°23'12" W	162.96'
L5	S 40°23'13" W	37.92'
L6	N 49°36'47" W	457.68'
L7	N 29°00'05" E	494.74'

CONFIDENTIAL

LOCATION USE AREA, PIPELINE, AND POWER LINE  
 CORRIDOR RIGHT-OF-WAY SURVEY FOR  
**EP ENERGY E&P COMPANY, L.P.**  
 LDS 2-1C5

NW1/4 OF THE NW1/4 OF SECTION 1  
 TOWNSHIP 3 SOUTH, RANGE 5 WEST, U.S.B.&M.  
 DUCHESNE COUNTY, UTAH

**AREA USE BOUNDARY DESCRIPTION**  
 Commencing at the NW Corner of Section 1, Township 3 South, Range 5 West of the Uintah Special Base and Meridian;  
 Thence South 52°35'17" East 803.59 feet to the TRUE POINT OF BEGINNING;  
 Thence South 49°36'47" East 562.67 feet;  
 Thence South 40°23'13" West 227.65 feet;  
 Thence North 89°46'52" West 146.66 feet;  
 Thence South 00°23'12" West 162.96 feet;  
 Thence South 40°23'13" West 37.92 feet;  
 Thence North 49°36'47" West 457.68 feet;  
 Thence North 29°00'05" East 494.74 feet to the TRUE POINT OF BEGINNING, containing 5.42 acres.

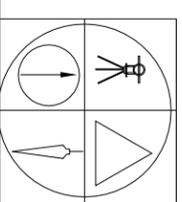
**SURVEYOR'S CERTIFICATE**

This is to certify that this plat was prepared from the field notes and electronic data collector files of an actual survey made by me, or under my personal supervision, of the use area right-of-way shown hereon, and that the monuments indicated were found or set during said survey, and that this plat accurately represents said survey to the best of my knowledge.



Jerry D. Allred, Professional Land Surveyor,  
 Certificate 148951 (Utah)

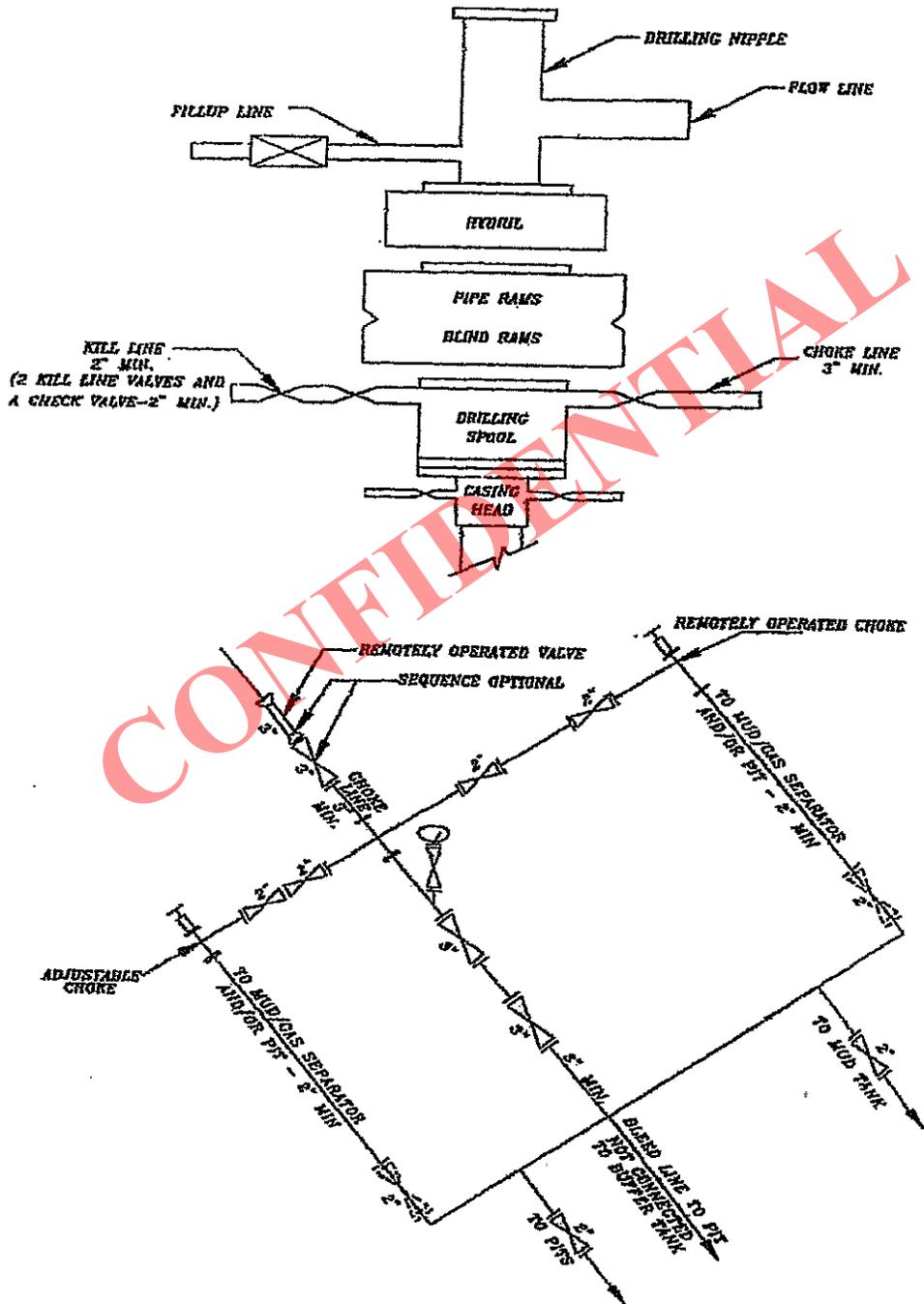
THIS SURVEY WAS PERFORMED USING GLOBAL POSITIONING SYSTEM PROCEDURES AND EQUIPMENT  
 THE BASIS OF BEARINGS IS GEODETIC NORTH DERIVED FROM G.P.S. OBSERVATIONS AT A CONTROL POINT (SECTION CORNER) LOCATED AT LAT. 40°15'22.90258"N AND LONG. 110°23'21.19760"W USING THE UTAH STATE G.P.S. VIRTUAL REFERENCE STATION CONTROL NETWORK MAINTAINED AND OPERATED BY THE AUTOMATED GEOGRAPHIC REFERENCE CENTER



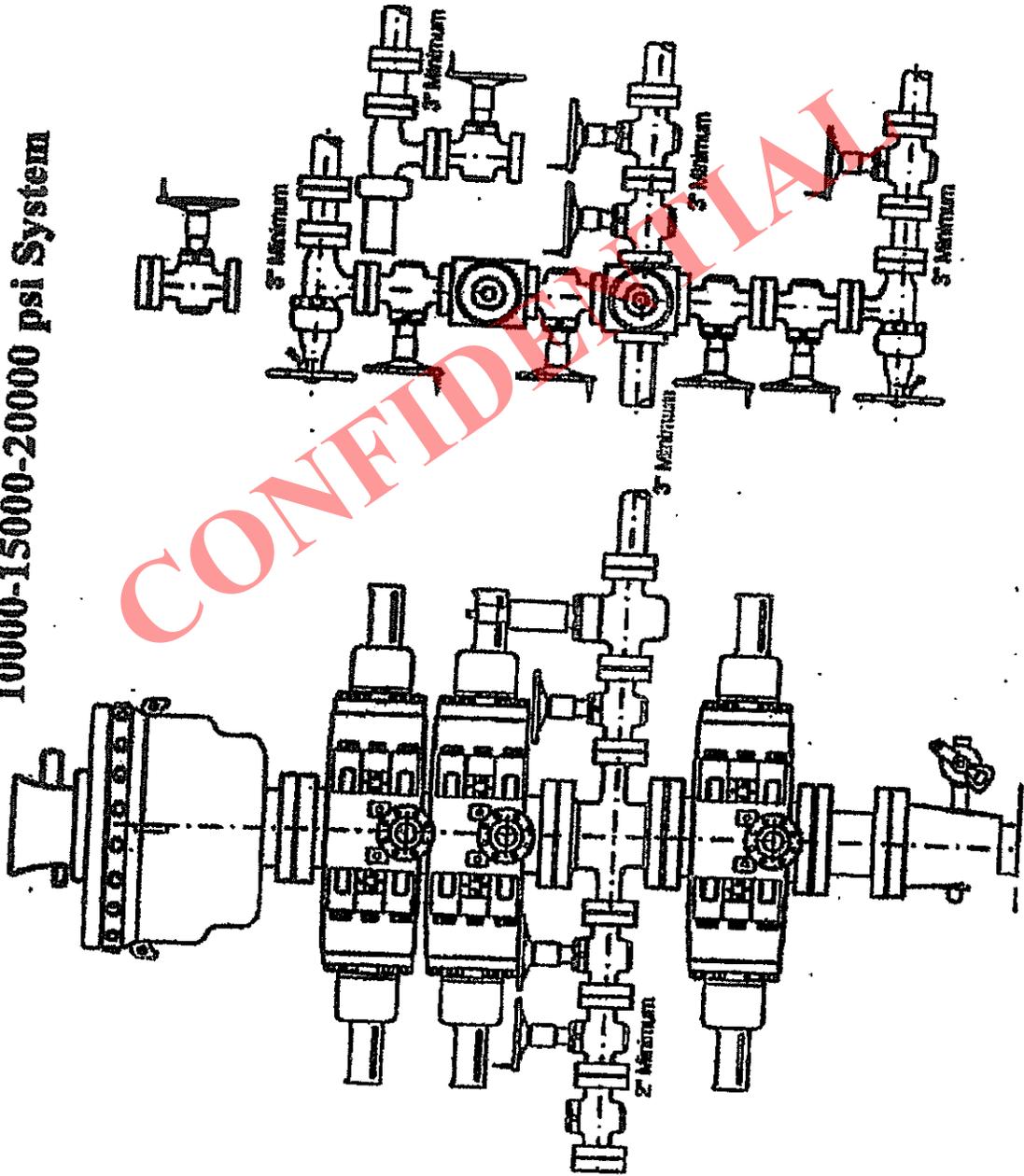
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16 OCT 2012 01-128-325

# 5M BOP STACK and CHOKE MANIFOLD SYSTEM



10000-15000-20000 psi System

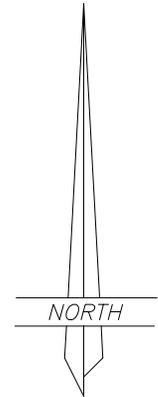
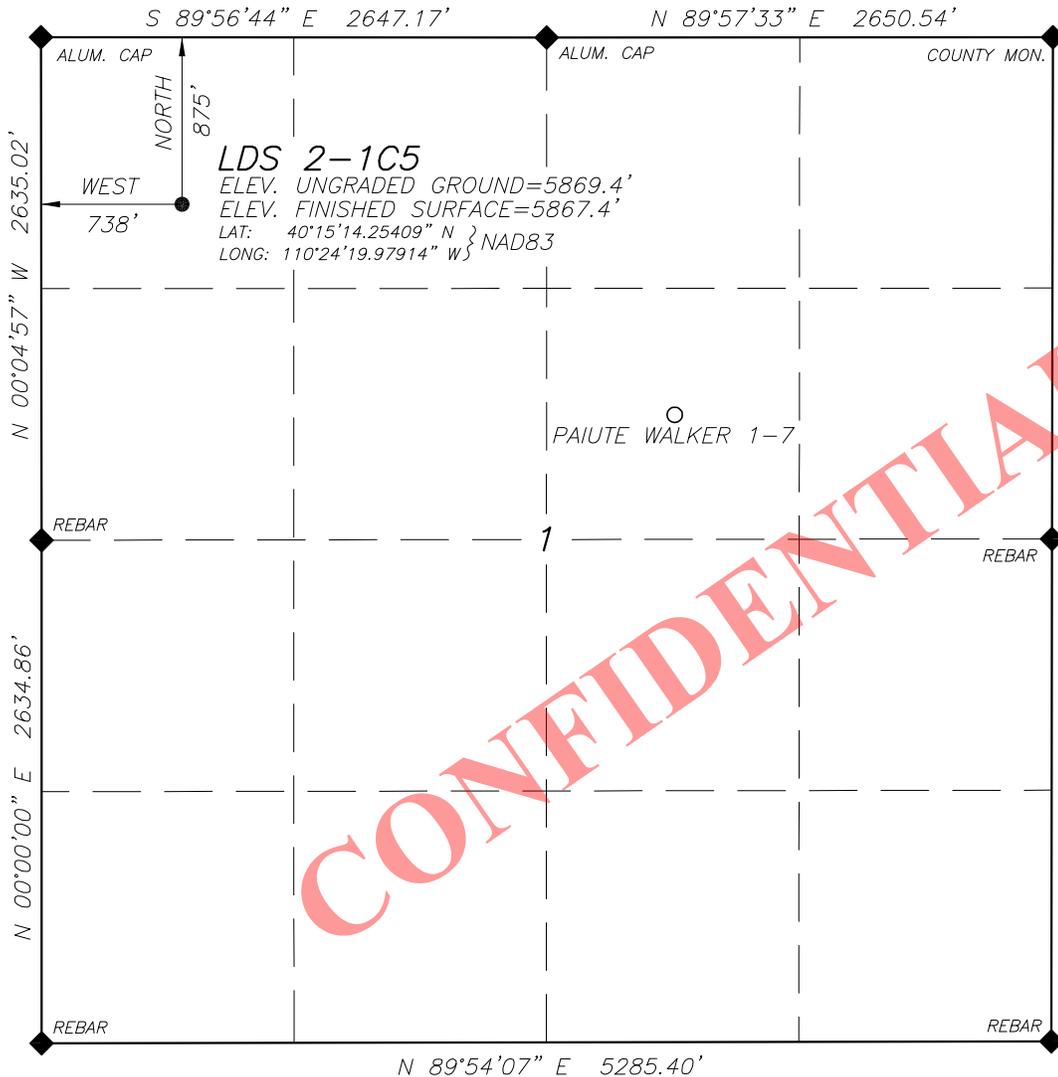


# EL PASO E & P COMPANY, L.P.

LOCATED IN THE NW¼ OF THE NW¼ OF SECTION 1, T3S, R5W, U.S.B.&M. DUCHESNE COUNTY, UTAH

## WELL LOCATION

LDS 2-1C5



SCALE: 1" = 1000'



NOTE:  
 NAD27 VALUES FOR WELL POSITION:  
 LAT:  $40.25400372^{\circ} N$   
 LONG:  $110.40483815^{\circ} W$

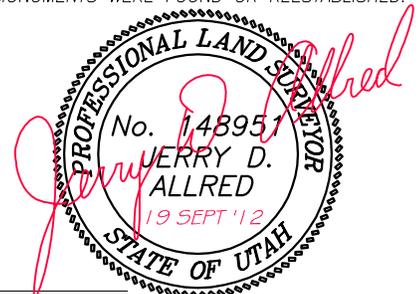
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### LEGEND AND NOTES

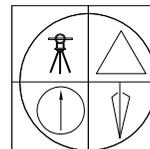
- ◆ CORNER MONUMENTS FOUND AND USED BY THIS SURVEY
- THE GENERAL LAND OFFICE (G.L.O.) PLAT WAS USED FOR REFERENCE AND CALCULATIONS AS WAS THE U.S.G.S. MAP
- THIS SURVEY WAS PERFORMED USING GLOBAL POSITIONING SYSTEM PROCEDURES AND EQUIPMENT
- THE BASIS OF BEARINGS IS GEODETIC NORTH DERIVED FROM G.P.S. OBSERVATIONS AT THE SECTION CORNER LOCATED AT LAT.  $40^{\circ}15'22.90258'' N$  AND LONG.  $110^{\circ}23'21.19760'' W$  USING THE UTAH STATE G.P.S. VIRTUAL REFERENCE STATION CONTROL NETWORK MAINTAINED AND OPERATED BY THE AUTOMATED GEOGRAPHIC REFERENCE CENTER
- BASIS OF ELEVATIONS: NAVD 88 DATUM USING THE UTAH REFERENCE NETWORK CONTROL SYSTEM

### SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THIS PLAT WAS PREPARED FROM THE FIELD NOTES AND ELECTRONIC DATA COLLECTOR FILES OF AN ACTUAL SURVEY PERFORMED BY ME, OR UNDER MY PERSONAL SUPERVISION, DURING WHICH THE SHOWN MONUMENTS WERE FOUND OR REESTABLISHED.

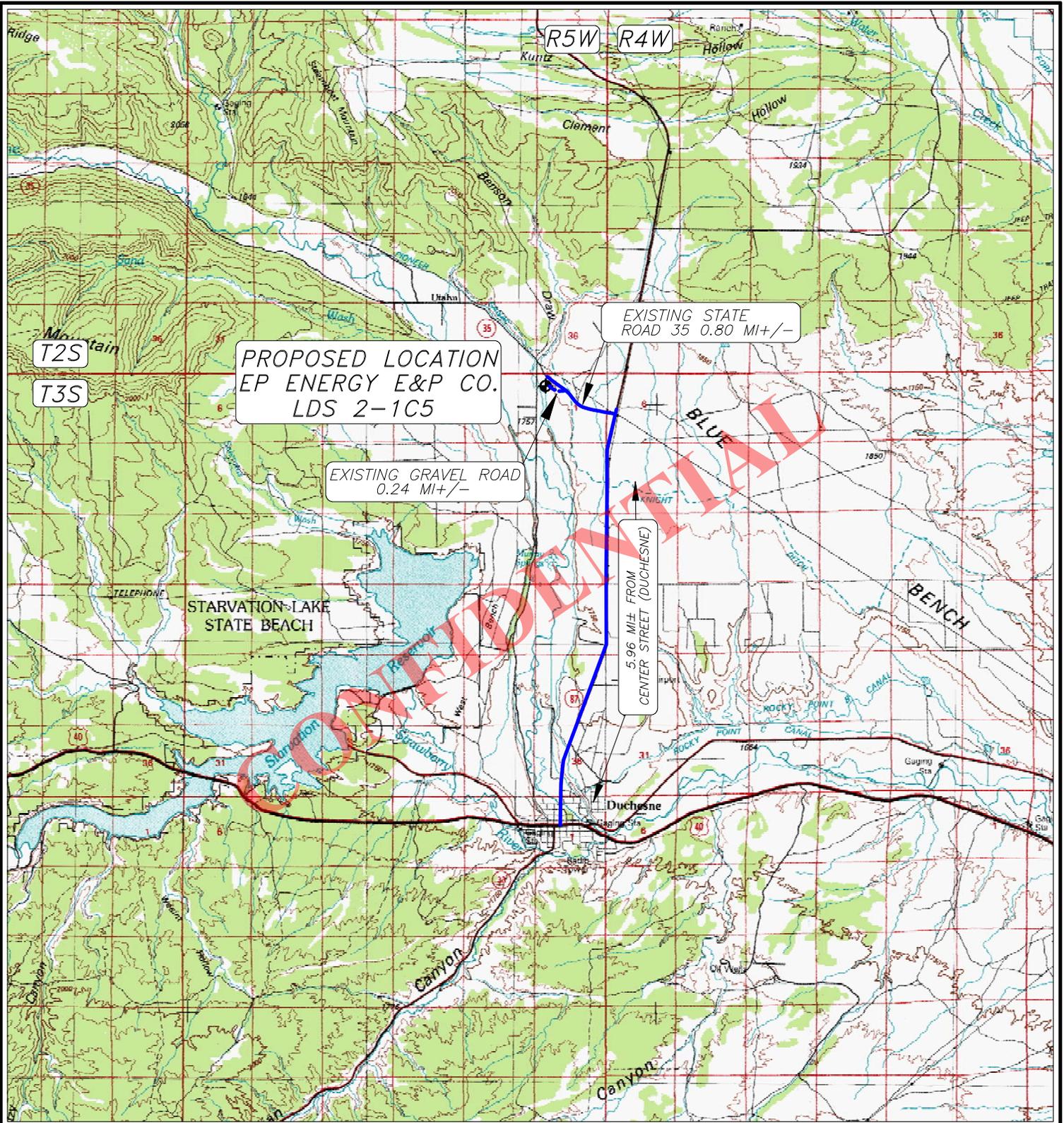


JERRY D. ALLRED, PROFESSIONAL LAND SURVEYOR, CERTIFICATE NO. 148951 (UTAH)



**JERRY D. ALLRED & ASSOCIATES**  
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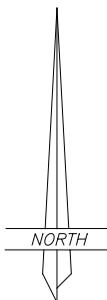
**LEGEND:**

◆ PROPOSED WELL LOCATION

01-128-325

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**EP ENERGY E & P COMPANY, L.P.**

LDS 2-1C5

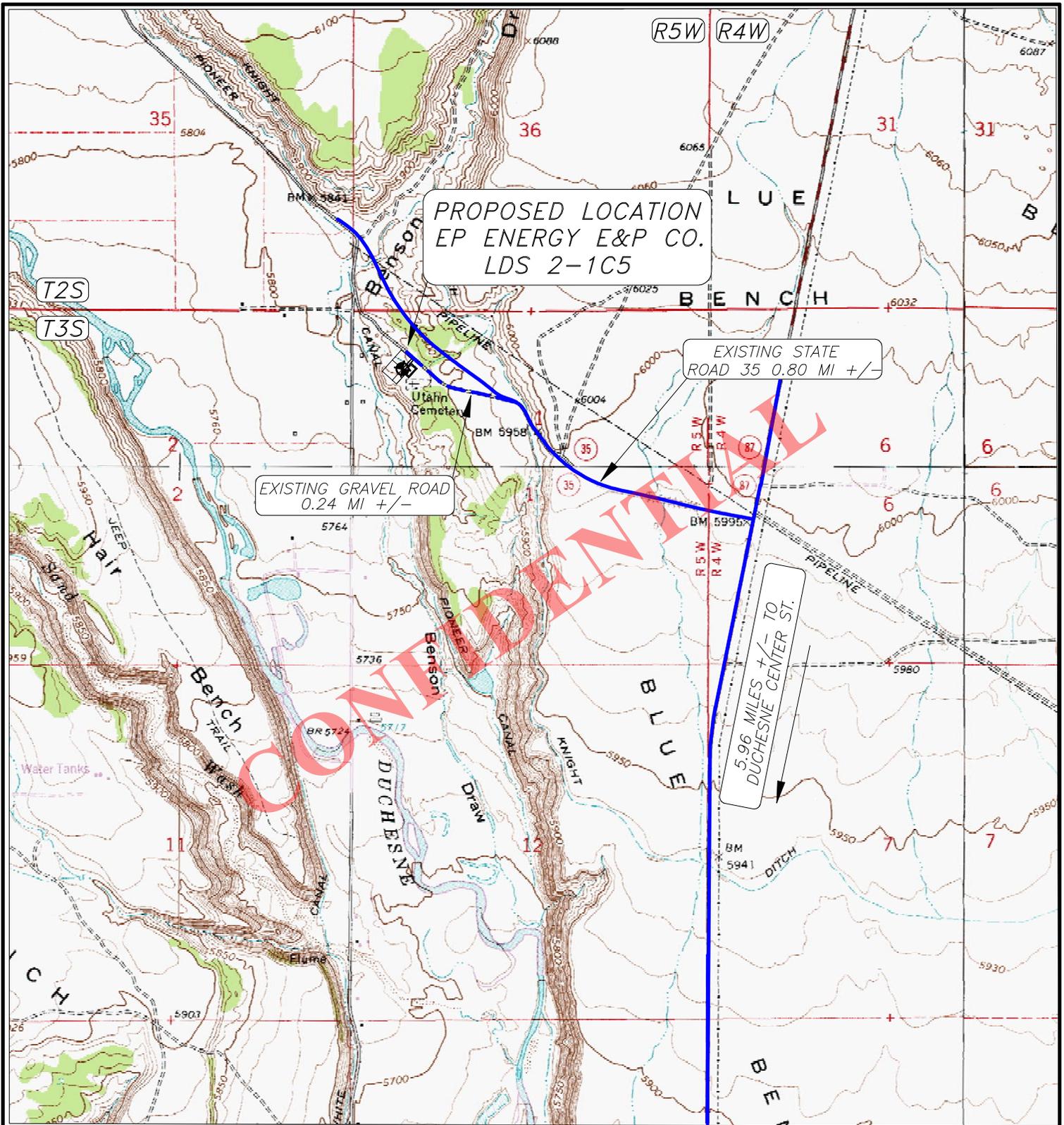
SECTION 1, T3S, R5W, U.S.B.&M.

875' FNL 738' FWL

**TOPOGRAPHIC MAP "A"**

SCALE; 1"=10,000'

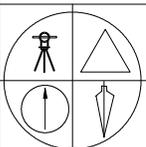
15 OCT 2012



**LEGEND:**

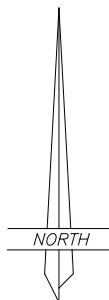
-  PROPOSED WELL LOCATION
-  PROPOSED ACCESS ROAD
-  EXISTING GRAVEL ROAD
-  EXISTING PAVED ROAD

01-128-325



**JERRY D. ALLRED & ASSOCIATES**  
SURVEYING CONSULTANTS

1235 NORTH 700 EAST--P.O. BOX 975  
DUCHESNE, UTAH 84021  
(435) 738-5352



**EP ENERGY E & P COMPANY, L.P.**

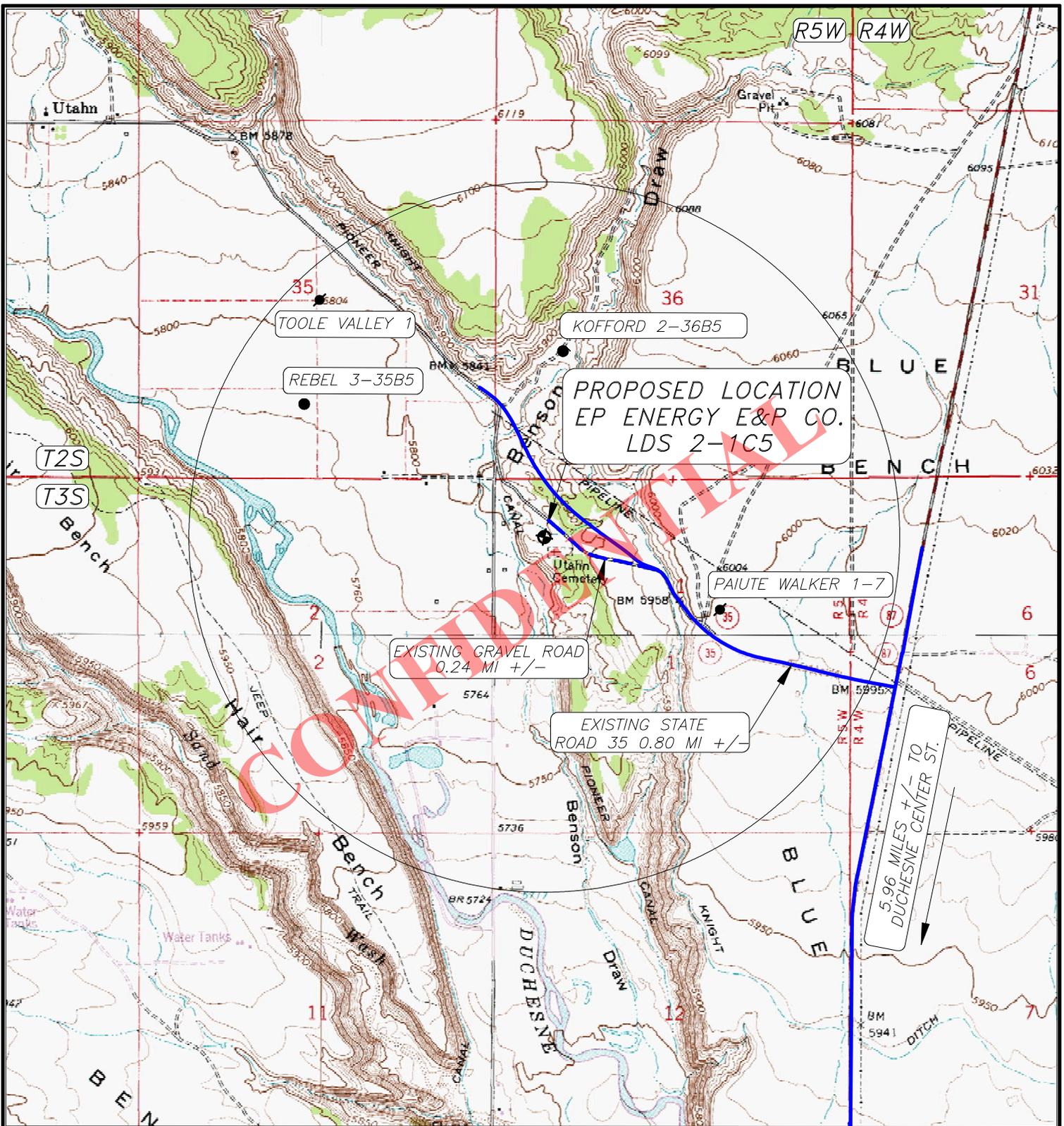
LDS 2-1C5

SECTION 1, T3S, R5W, U.S.B.&M.

875' FNL 738' FWL

**TOPOGRAPHIC MAP "B"**

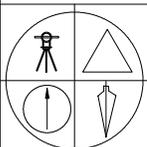
SCALE: 1"=2000'  
15 OCT 2012



**LEGEND:**

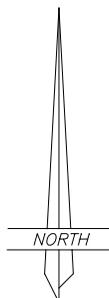
-  PROPOSED WELL LOCATION
-  OTHER WELLS AS LOCATED FROM SUPPLIED MAP

01-128-325



**JERRY D. ALLRED & ASSOCIATES**  
SURVEYING CONSULTANTS

1235 NORTH 700 EAST--P.O. BOX 975  
DUCHESTER, UTAH 84021  
(435) 738-5352



**EP ENERGY E & P COMPANY, L.P.**

LDS 2-1C5  
SECTION 1, T3S, R5W, U.S.B.&M.  
875' FNL 738' FWL

**TOPOGRAPHIC MAP "C"**

SCALE: 1"=2000'  
15 OCT 2012

**AFFIDAVIT OF SURFACE USE AGREEMENT AND  
DAMAGE SETTLEMENT AND RELEASES**

This **Affidavit of Surface Use Agreement and Damage Settlement and Releases** ("Affidavit"), dated effective this 1<sup>st</sup> day of April, 2014, 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 Senior Landman.

2. EP Energy is the operator of the proposed LDS 2-1C5 (the "Well") which is to be located in the Northwest Quarter of the Northwest Quarter (NW/4 of NW/4) of Section 1, Township 3 South, Range 5 West, U.S.M., Duchesne County, Utah (the "Drillsite Location"). The three (3) separate owners of the surface of the Drillsite Location are as follows (collectively, the "Surface Owner"):

Corporation of the Presiding Bishop of The Church of Jesus Christ of Latter-day Saints, a Utah corporation sole, whose mailing address is 50 E. North Temple Street, 12th Floor, Salt Lake City, Utah 84150, and represented herein by David H. Powers, Energy Group Manager, and whose telephone number is (801)-240-5288; and,

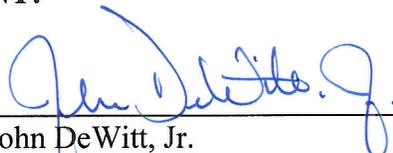
Karl J. Milne and Maxine A. Milne, as Joint Tenants, whose mailing address is 368 W. 300 N. #46, Mount Pleasant, Utah 84647; and,

Darren R. Brady and Melody Brady, whose mailing address is P.O. Box 623, Duchesne, Utah 84021, and whose telephone number is (435)-722-7979.

3. EP Energy and the Surface Owner have entered into and executed that certain (1) *Surface Use Agreement*, dated effective March 1, 2014, by and between EP Energy and the Corporation of the Presiding Bishop of The Church of Jesus Christ of Latter-day Saints; (2) *Damage Settlement and Release*, dated effective September 6, 2013, by and between EP Energy and Darren R. Brady and Melody Brady; and (3) *Damage Settlement and Release*, dated effective January 22, 2013, by and between EP Energy and Karl J. Milne and Maxine A. Milne, as Joint Tenants, 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 and drilling the Well.

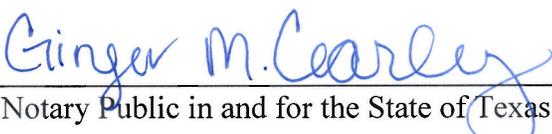
FURTHER AFFIANT SAYETH NOT.

**AFFIANT:**

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

STATE OF TEXAS           §  
  §  
COUNTY OF HARRIS     §

Sworn to and subscribed before me on this 1<sup>st</sup> day of April, 2014, by **John DeWitt, Jr.** as Sr. Landman for **EP Energy E&P Company, L.P.**, a Delaware limited partnership, on behalf of said limited partnership.

  
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.
- No new road to be constructed.
- 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 .0 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 15<sup>th</sup>, and prior to ground frost, or seed will be planted after the frost has left and before May 15<sup>th</sup>. 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:**

Corporation of the Presiding Bishop of The Church of Jesus Christ of Latter-day Saints  
50 E. North Temple Street, 12<sup>th</sup> Floor  
Salt Lake City, Utah 801-240-5288  
801-240-5288

Karl J. and Maxine A. Milne, Joint Tenants  
368 W. 300 N. #46  
Mount Pleasant, Utah 84647

Darren R. and Melody Brady  
P.O. Box 623  
Duchesne, Utah 84021  
435-722-7979

**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:**

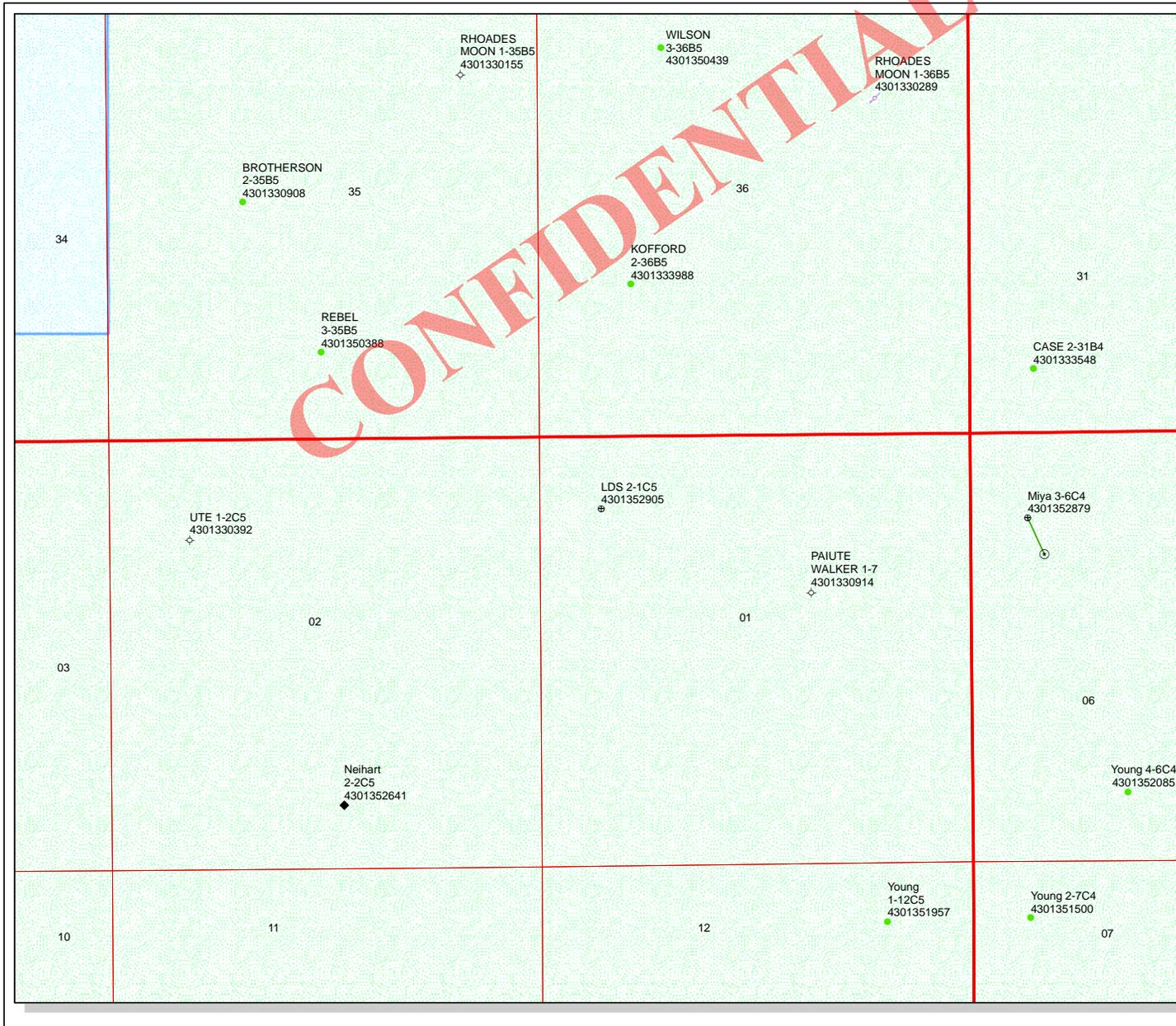
EP Energy E&P Company, L.P.  
Wayne Garner  
PO Box 410  
Altamont, Utah 84001  
435-454-3394 – Office  
435-823-1490 – Cell

**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



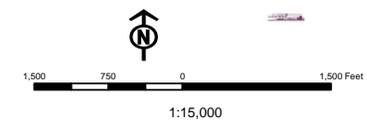
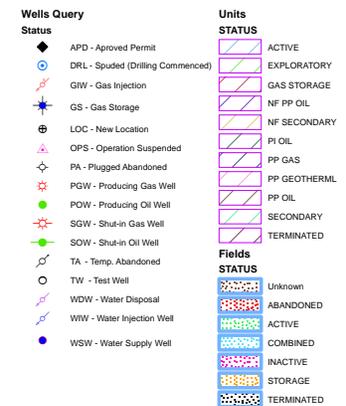
API Number: 4301352905

Well Name: LDS 2-1C5

Township: T03.0S Range: R05.0W Section: 01 Meridian: U

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

Map Prepared: 4/9/2014  
Map Produced by Diana Mason



Well Name	EP ENERGY E&P COMPANY, L.P. LDS 2-1C5 43013529050000			
String	COND	SURF	I1	L1
Casing Size(")	13.375	9.625	7.000	5.000
Setting Depth (TVD)	600	2500	9550	12900
Previous Shoe Setting Depth (TVD)	0	600	2500	9550
Max Mud Weight (ppg)	9.0	9.3	10.6	13.5
BOPE Proposed (psi)	1000	1000	10000	10000
Casing Internal Yield (psi)	2730	5750	11220	13940
Operators Max Anticipated Pressure (psi)	8635			12.9

Calculations	COND String	13.375	"	
Max BHP (psi)	.052*Setting Depth*MW=	281		
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	209	YES	4.5 x 20 rotating head
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	149	YES	OK
			*Can Full Expected Pressure Be Held At Previous Shoe?	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	149	NO	OK
Required Casing/BOPE Test Pressure=		600	psi	
*Max Pressure Allowed @ Previous Casing Shoe=		0	psi *Assumes 1psi/ft frac gradient	

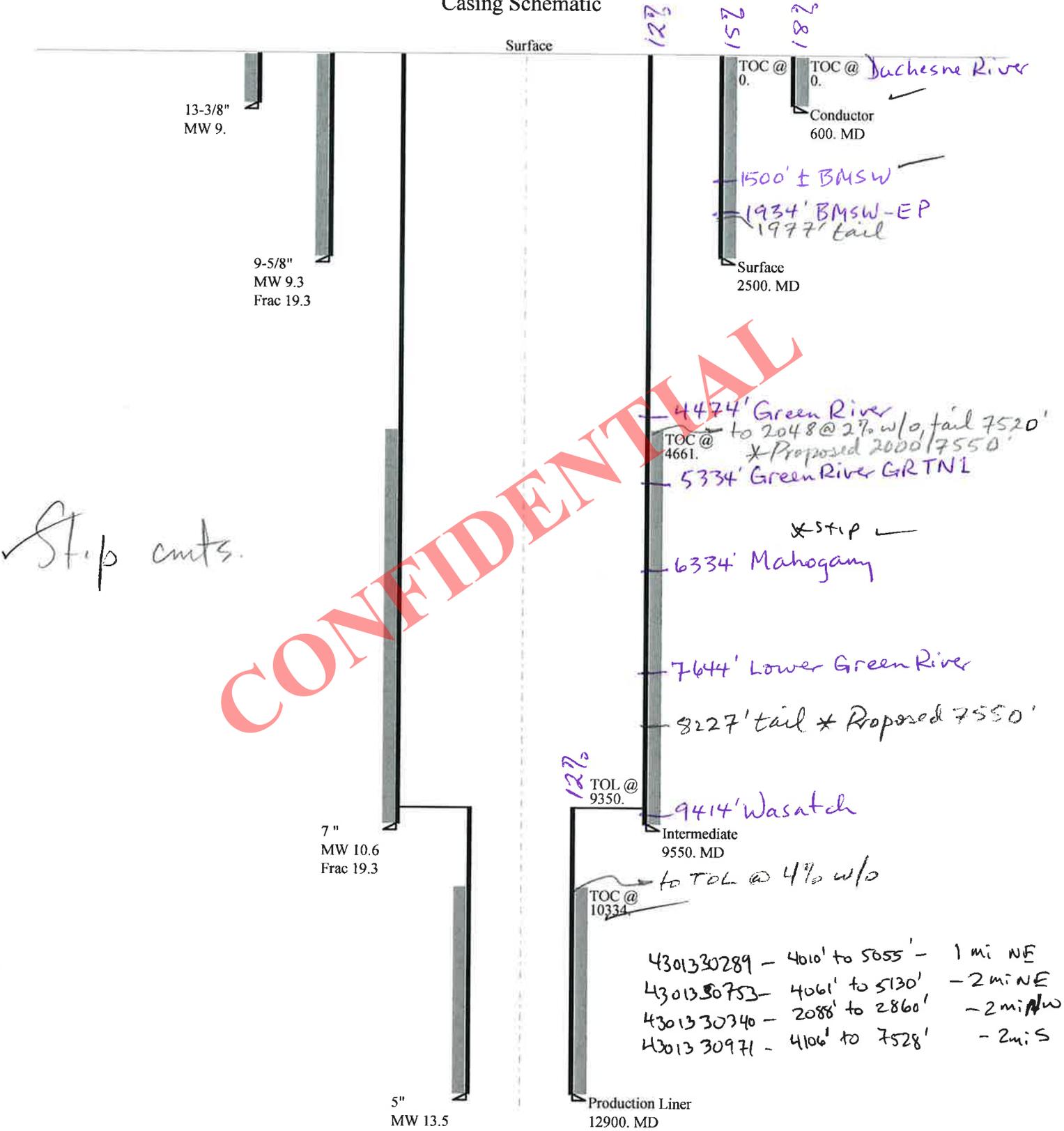
Calculations	SURF String	9.625	"	
Max BHP (psi)	.052*Setting Depth*MW=	1209		
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	909	YES	4.5 x 13 3/8 diverter stack with rotating head
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	659	YES	OK
			*Can Full Expected Pressure Be Held At Previous Shoe?	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	791	NO	OK
Required Casing/BOPE Test Pressure=		2500	psi	
*Max Pressure Allowed @ Previous Casing Shoe=		600	psi *Assumes 1psi/ft frac gradient	

Calculations	I1 String	7.000	"	
Max BHP (psi)	.052*Setting Depth*MW=	5264		
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	4118	YES	10M BOPE w/rotating head, 5M annular, blind rams, flex
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	3163	YES	rams, mud cross, single w/flex rams
			*Can Full Expected Pressure Be Held At Previous Shoe?	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	3713	NO	OK
Required Casing/BOPE Test Pressure=		7854	psi	
*Max Pressure Allowed @ Previous Casing Shoe=		2500	psi *Assumes 1psi/ft frac gradient	

Calculations	L1 String	5.000	"	
Max BHP (psi)	.052*Setting Depth*MW=	9056		
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	7508	YES	10M BOPE w/rotating head, 5M annular, blind rams, flex
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	6218	YES	rams, mud cross, single w/flex rams
			*Can Full Expected Pressure Be Held At Previous Shoe?	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	8319	YES	OK
Required Casing/BOPE Test Pressure=		9758	psi	
*Max Pressure Allowed @ Previous Casing Shoe=		9550	psi *Assumes 1psi/ft frac gradient	

# 43013529050000 LDS 2-1C5rev

## Casing Schematic



Well name:	<b>43013529050000 LDS 2-1C5rev</b>	
Operator:	<b>EP ENERGY E&amp;P COMPANY, LP.</b>	
String type:	Conductor	Project ID: 43-013-52905
Location:	DUCHESNE COUNTY	

**Design parameters:**

**Collapse**

Mud weight: 9.000 ppg  
Design is based on evacuated pipe.

**Minimum design factors:**

**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
Surface temperature: 74 °F  
Bottom hole temperature: 82 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 1,000 ft

Cement top: Surface

**Burst**

Max anticipated surface pressure: 209 psi  
Internal gradient: 0.120 psi/ft  
Calculated BHP 281 psi

No backup mud specified.

**Tension:**

8 Round STC: 1.80 (J)  
8 Round LTC: 1.80 (J)  
Buttress: 1.60 (J)  
Premium: 1.50 (J)  
Body yield: 1.60 (B)

**Non-directional string.**

Tension is based on buoyed weight.  
Neutral point: 520 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	600	13.375	54.50	J-55	ST&C	600	600	12.49	7445
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	281	1130	4.028	281	2730	9.73	28.3	514	18.13 J

Prepared by: Helen Sadik-Macdonald  
Div of Oil, Gas & Mining

Phone: 801 538-5357  
FAX: 801-359-3940

Date: June 10, 2014  
Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 600 ft, a mud weight of 9 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name:	<b>43013529050000 LDS 2-1C5rev</b>	
Operator:	<b>EP ENERGY E&amp;P COMPANY, LP.</b>	
String type:	Surface	Project ID: 43-013-52905
Location:	DUCHESNE COUNTY	

**Design parameters:**

**Collapse**

Mud weight: 9.300 ppg  
Design is based on evacuated pipe.

**Minimum design factors:**

**Collapse:**

Design factor 1.125

**Environment:**

H2S considered? No  
Surface temperature: 74 °F  
Bottom hole temperature: 109 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 100 ft

**Burst:**

Design factor 1.00

Cement top: Surface

**Burst**

Max anticipated surface pressure: 2,200 psi  
Internal gradient: 0.120 psi/ft  
Calculated BHP 2,500 psi

No backup mud specified.

**Tension:**

8 Round STC: 1.80 (J)  
8 Round LTC: 1.70 (J)  
Buttress: 1.60 (J)  
Premium: 1.50 (J)  
Body yield: 1.50 (B)

Tension is based on buoyed weight.  
Neutral point: 2,154 ft

**Non-directional string.**

**Re subsequent strings:**

Next setting depth: 9,550 ft  
Next mud weight: 10.600 ppg  
Next setting BHP: 5,259 psi  
Fracture mud wt: 19.250 ppg  
Fracture depth: 2,500 ft  
Injection pressure: 2,500 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	2500	9.625	40.00	N-80	LT&C	2500	2500	8.75	31809
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	1208	3090	2.559	2500	5750	2.30	86.2	737	8.55 J

Prepared by: Helen Sadik-Macdonald  
Div of Oil, Gas & Mining

Phone: 801-538-5357  
FAX: 801-359-3940

Date: June 10, 2014  
Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 2500 ft, a mud weight of 9.3 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name:	43013529050000 LDS 2-1C5rev	
Operator:	EP ENERGY E&P COMPANY, LP.	Project ID:
String type:	Intermediate	43-013-52905
Location:	DUCHESNE COUNTY	

**Design parameters:**

**Collapse**

Mud weight: 10.600 ppg  
 Design is based on evacuated pipe.

**Minimum design factors:**

**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
 Surface temperature: 74 °F  
 Bottom hole temperature: 208 °F  
 Temperature gradient: 1.40 °F/100ft  
 Minimum section length: 1,000 ft

Cement top: 4,661 ft

**Burst**

Max anticipated surface pressure: 6,209 psi  
 Internal gradient: 0.220 psi/ft  
 Calculated BHP 8,310 psi

No backup mud specified.

**Tension:**

8 Round STC: 1.80 (J)  
 8 Round LTC: 1.80 (J)  
 Buttress: 1.60 (J)  
 Premium: 1.50 (J)  
 Body yield: 1.60 (B)

Tension is based on buoyed weight.  
 Neutral point: 8,018 ft

**Non-directional string.**

**Re subsequent strings:**

Next setting depth: 12,900 ft  
 Next mud weight: 13.500 ppg  
 Next setting BHP: 9,047 psi  
 Fracture mud wt: 19.250 ppg  
 Fracture depth: 9,550 ft  
 Injection pressure: 9,550 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	9550	7	29.00	HCP-110	LT&C	9550	9550	6.059	107844
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	5259	9200	1.749	8310	11220	1.35	232.5	797	3.43 J

Prepared by: Helen Sadik-Macdonald  
 Div of Oil, Gas & Mining

Phone: 801 538-5357  
 FAX: 801-359-3940

Date: June 10, 2014  
 Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 9550 ft, a mud weight of 10.6 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name:	<b>43013529050000 LDS 2-1C5rev</b>	
Operator:	<b>EP ENERGY E&amp;P COMPANY, LP.</b>	
String type:	Production Liner	Project ID: 43-013-52905
Location:	DUCHESNE COUNTY	

**Design parameters:**

**Collapse**

Mud weight: 13.500 ppg  
Design is based on evacuated pipe.

**Minimum design factors:**

**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
Surface temperature: 74 °F  
Bottom hole temperature: 255 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 1,000 ft

Cement top: 10,334 ft

Liner top: 9,350 ft

**Non-directional string.**

**Burst**

Max anticipated surface pressure: 6,209 psi  
Internal gradient: 0.220 psi/ft  
Calculated BHP: 9,047 psi

No backup mud specified.

**Tension:**

8 Round STC: 1.80 (J)  
8 Round LTC: 1.80 (J)  
Buttress: 1.60 (J)  
Premium: 1.50 (J)  
Body yield: 1.60 (B)

Tension is based on buoyed weight.  
Neutral point: 12,181 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	3500	5	18.00	HCP-110	ST-L	12900	12900	4.151	277200
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	9047	15360	1.698	9047	13940	1.54	50.1	341	6.81 J

Prepared by: Helen Sadik-Macdonald  
Div of Oil, Gas & Mining

Phone: 801 538-5357  
FAX: 801-359-3940

Date: June 10, 2014  
Salt Lake City, Utah

**Remarks:**

For this liner string, the top is rounded to the nearest 100 ft. Collapse is based on a vertical depth of 12900 ft, a mud weight of 13.5 ppg. The Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

*Engineering responsibility for use of this design will be that of the purchaser.*

# ON-SITE PREDRILL EVALUATION

## Utah Division of Oil, Gas and Mining

**Operator** EP ENERGY E&P COMPANY, L.P.  
**Well Name** LDS 2-1C5  
**API Number** 43013529050000      **APD No** 9563      **Field/Unit** ALTAMONT  
**Location:**  
 1/4, 1/4      NWNW      **Sec** 1      **Tw** 3.0S      **Rng** 5.0W      875 FNL 738 FWL  
**GPS Coord (UTM)** 550552 4456119      **Surface Owner** Church of Jesus Christ of Latter-Day Saints

### Participants

Wayne Garner (EP Energy); Heather Ivie, Valery & Meagan (land people); Dennis Ingram (DOGM); Jason Young (LDS Church, surface owner)

### Regional/Local Setting & Topography

The LDS 2-1C5 is proposed 5.96 miles north of Duchesne along Highway 87, then west at the Utahn junction down highway 35 for another 0.80, then turn west for another 0.24 miles along a newly paved road into the Utahn Cemetery. The topography at the well pad slopes northwesterly, having a proposed eight to twelve foot cut along the eastern corners and 2.4 feet of fill at the northwest or corner 2. This well pad is immediately west of the fencing around the Utahn Cemetery on westerly sloping topography that leads into the Duchesne River corridor. The surface immediately west of this pad drops off a rocky shelf-like sandstone ledge into a neighboring farm house, then the river road highway beyond that. The Duchesne River is found approximately 0.58 miles to the west and runs south at the nearest point. To the north, Benson Draw cuts through the western portion of Blue Bench and drains into the Duchesne River Valley less than a quarter mile to the northwest of the proposed well site. The topography south of this location is river bottom lands that drain into the town of Duchesne.

### Surface Use Plan

#### **Current Surface Use**

Residential  
Industrial

#### **New Road Miles**

0.24

#### **Well Pad**

**Width** 282      **Length** 425

#### **Src Const Material**

Onsite

#### **Surface Formation**

UNTA

#### **Ancillary Facilities** N

Access road to cemetery has been paved and so access road is only feet; however, heavy truck traffic might well destroy this new asphalt

### Waste Management Plan Adequate?

### Environmental Parameters

**Affected Floodplains and/or Wetlands** N

**Flora / Fauna**

Cedar trees, sagebrush, prickly pear cactus, rabbit brush, bunch grass;

mule deer, coyote, fox, raccoon, jack and cottontail rabbits, small mammals and bird life associated with the Duchesne River bottom.

**Soil Type and Characteristics**

Fine-grained reddish, sandy loam with some clays

**Erosion Issues** N

**Sedimentation Issues** N

**Site Stability Issues** Y

Round corner number 8 so fill doesn't slide off slope toward house.

**Drainage Diversion Required?** Y

Divert drainage north of location and south of access road.

**Berm Required?** Y

Adequate berming to prevent any and all fluids from leaving location to the west or south

**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)**

**Distance to Surface Water (feet)**

**Dist. Nearest Municipal Well (ft)**

**Distance to Other Wells (feet)**

**Native Soil Type**

**Fluid Type**

**Drill Cuttings**

**Annual Precipitation (inches)**

**Affected Populations**

**Presence Nearby Utility Conduits**

**Final Score**

**Sensitivity Level**

**Characteristics / Requirements**

Closed loop system because of drainage and Utahn Cemetery

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

**Other Observations / Comments**

Concerns from LDS Church over adjacent Utahn Cemetery immediately southeast of location, fill material from pit would cause removal of trees that might obstruct some of the well disturbance, decide on closed loop mud system minus reserve pit because of drainage and cemetery. Also has an 18 inch culvert under the rod that dumps into rocky wash that crosses proposed reserve pit. Rocky ledges south and west of pad, slopes into horse pasture with irrigation water, also has adjacent farm house west of corner number 1 & 8. Will have to round corner number 8 or slide location east now that there won't be a reserve pit--only 8 to 10 feet from corner edge to rocky slope, shows 3.6 feet of fill. Existing black top road to the north of this pad along corners 2, 3, &4, only 20 to 30 feet which will be utilized for the drainage just south that now crosses the well pad. Two trips made to location because the stakes had been pulled by the public.

Dennis Ingram  
**Evaluator**

5/2/2014  
**Date / Time**

**CONFIDENTIAL**

# 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
9563	43013529050000	LOCKED	OW	P	No
<b>Operator</b>	EP ENERGY E&P COMPANY, L.P.		<b>Surface Owner-APD</b>	Church of Jesus Christ of Latter-Day Saints	
<b>Well Name</b>	LDS 2-1C5		<b>Unit</b>		
<b>Field</b>	ALTAMONT		<b>Type of Work</b>	DRILL	
<b>Location</b>	NWNW 1 3S 5W U 875 FNL 738 FWL GPS Coord (UTM) 550560E 4456112N				

### Geologic Statement of Basis

EP proposes to set 600 feet of conductor and 2,500 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 1,500 feet. A search of Division of Water Rights records indicates that there are 25 water wells within a 10,000 foot radius of the center of Section 1. These wells probably produce water from the Duchesne River Formation and associated alluvium. The wells are listed as being used for irrigation, stock watering, municipal, oil exploration and domestic. The proposed drilling, casing and cement program should adequately protect the highly used Duchesne River aquifer.

Brad Hill  
APD Evaluator

5/19/2014  
Date / Time

### Surface Statement of Basis

A closed loop mud system is mandated for this well because of the drainage and adjacent cemetery, along with the limited available land at the well site. The operator spoke about moving the well center east to limit issues along the west side of the location if a reserve pit is not permitted.

An 18" culvert drains the highway crossing just northeast of corner number 4 which cuts across the proposed reserve pit and drains westerly from pit corner A to just north of location corner number 1.

That drainage will need to be re-routed down the north/northeast side of the location between corners 2, 3, and 4 and the asphalt road found twenty to thirty feet away. Corner number 4 may well also need rounding because of the 11.6 feet of cut and the slope needed will limit the room for re-routing the drainage--if needed this drainage might need to be piped around this corner. The bend in this drainage from the culvert is sharp and the operator will maintain corner number 4 and prevent erosion as needed. This drainage should be tied back into the original channel below corners 1 and 2.

A rocky, sandstone slope drops off south and west of location bench into farmland where a house, horse pasture, and a irrigation ditch flows with fresh water. Corner number 8 should be rounded to prevent sluffing from 3.6 feet of estimated fill, as the corner stake is only eight feet from the rocky slope. The surface of this location shall also be fenced with chain link fencing to prevent children visiting the cemetery from accessing equipment.

A presite was scheduled and performed on May 2, 2014 to take input and address issues regarding the construction and drilling of the LDS 2-1C5 well. Three landowners were shown as surface owners and each were invited to the presite. Jason Young did attend the presite meeting to address issues for the cemetery and the LDS Church. Young requested new fencing around the cemetery and the land agency agreed to work them on that. He also requested that as many trees be saved as possible along the eastern portion of this pad to limit the visual impact for people visiting and burying their loved ones. The production tanks for this well shall be placed on the western portion of the pad, and adequate berming shall be installed to prevent any spills from leaving the location to the west into adjacent farmlands or the irrigation ditch with fresh water. If necessary double berming or permanent type culvert shall be utilized to protect adjacent lands. This well pad is problematic at best, and may well cause tons of public complaints. However, all three landowners have signed off on a land damage agreement with EP Energy.

Dennis Ingram  
Onsite Evaluator

5/2/2014  
Date / Time

**Conditions of Approval / Application for Permit to Drill**

<b>Category</b>	<b>Condition</b>
Pits	A closed loop mud circulation system is required for this location.
Surface	Drainages adjacent to the proposed pad shall be diverted around the location.
Surface	The well site shall be bermed to prevent fluids from entering or leaving the pad.

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## WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 4/9/2014

API NO. ASSIGNED: 43013529050000

WELL NAME: LDS 2-1C5

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

PHONE NUMBER: 713 997-5038

CONTACT: Maria S. Gomez

PROPOSED LOCATION: NWNW 01 030S 050W

Permit Tech Review: 

SURFACE: 0875 FNL 0738 FWL

Engineering Review: 

BOTTOM: 0875 FNL 0738 FWL

Geology Review: 

COUNTY: DUCHESNE

LATITUDE: 40.25394

LONGITUDE: -110.40548

UTM SURF EASTINGS: 550560.00

NORTHINGS: 4456112.00

FIELD NAME: ALTAMONT

LEASE TYPE: 4 - Fee

LEASE NUMBER: Fee

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

SURFACE OWNER: 4 - Fee

COALBED METHANE: NO

## RECEIVED AND/OR REVIEWED:

- PLAT
- Bond: STATE - 400JU0708
- 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

Commingle Approved

## LOCATION AND SITING:

- R649-2-3.
- Unit:
- R649-3-2. General
- R649-3-3. Exception
- Drilling Unit
- Board Cause No: Cause 139-84
- Effective Date: 12/31/2008
- Siting: 4 Wells Per 640 Acres
- R649-3-11. Directional Drill

Comments: Presite Completed

Stipulations: 5 - Statement of Basis - BHILL  
8 - Cement to Surface -- 2 strings - hmacdonald  
12 - Cement Volume (3) - hmacdonald



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:** LDS 2-1C5

**API Well Number:** 43013529050000

**Lease Number:** Fee

**Surface Owner:** FEE (PRIVATE)

**Approval Date:** 6/17/2014

### 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 139-84. 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:

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

Cement volumes for the 13 3/8" and 9 5/8" casing strings shall be determined from actual hole diameters in order to place cement from the pipe setting depths back to the surface.

Cement volume for the 7" intermediate string shall be determined from actual hole diameter in order to place lead cement from the pipe setting depth back to 2000' MD as indicated in the submitted drilling plan and tail cement to Mahogany Bench.

### Additional Approvals:

The operator is required to obtain approval from the Division of Oil, Gas and mining before performing any of the following actions during the drilling of this well:

- Any changes to the approved drilling plan - contact Dustin Doucet
- Significant plug back of the well - contact Dustin Doucet
- Plug and abandonment of the well - contact Dustin Doucet

**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  
OR  
submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website  
at <http://oilgas.ogm.utah.gov>
- 24 hours prior to testing blowout prevention equipment - contact Dan Jarvis
- 24 hours prior to cementing or testing casing - contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program  
- contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well - contact Dan Jarvis

**Contact Information:**

The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):

- Carol Daniels 801-538-5284 - office
- Dustin Doucet 801-538-5281 - office  
801-733-0983 - after office hours
- Dan Jarvis 801-538-5338 - office  
801-231-8956 - after office hours

**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:

**Approved by:**

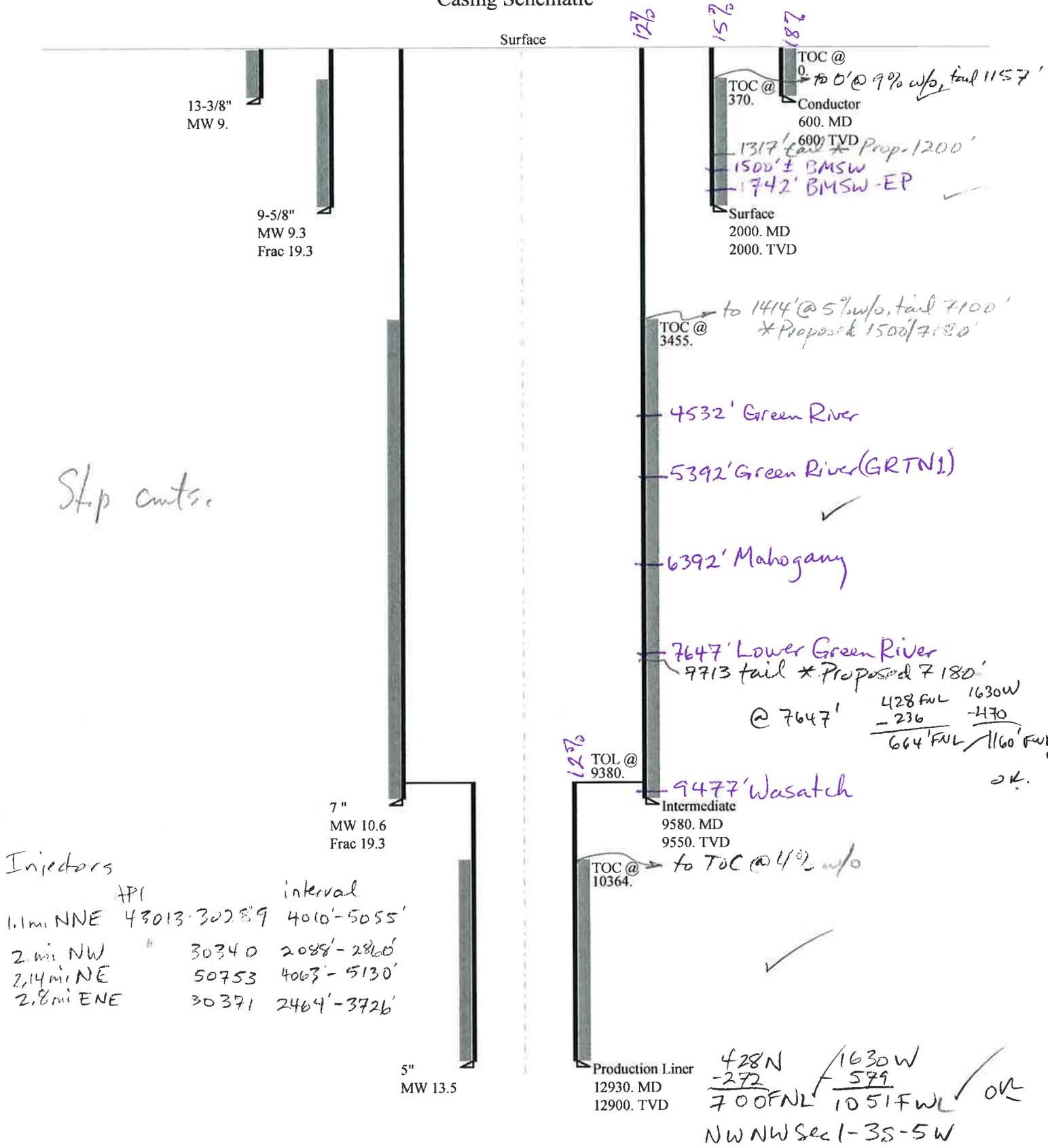
A handwritten signature in black ink, appearing to read "J. Rogers", written in a cursive style.

For John Rogers  
Associate Director, Oil & Gas



# 43013529050000 UDOT 2-1C5 rev

## Casing Schematic



Slip center

Injectors

	API	interval
1.1 mi NNE	43013-30289	4010'-5055'
2 mi NW	30340	2088'-2860'
2.14 mi NE	50753	4063'-5130'
2.8 mi ENE	30371	2464'-3726'

Well name:	<b>4301352905000 UDOT 2-1C5 rev</b>		
Operator:	<b>EP ENERGY E&amp;P COMPANY, LP.</b>		
String type:	Conductor	Project ID:	43-013-52905
Location:	DUCHESNE COUNTY		

**Design parameters:****Collapse**

Mud weight: 9.000 ppg  
Design is based on evacuated pipe.

**Minimum design factors:****Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
Surface temperature: 74 °F  
Bottom hole temperature: 82 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 1,000 ft

Cement top: Surface

**Burst**

Max anticipated surface pressure: 208 psi  
Internal gradient: 0.120 psi/ft  
Calculated BHP 280 psi

No backup mud specified.

**Tension:**

8 Round STC: 1.80 (J)  
8 Round LTC: 1.80 (J)  
Buttress: 1.60 (J)  
Premium: 1.50 (J)  
Body yield: 1.60 (B)

**Non-directional string.**

Tension is based on buoyed weight.

Neutral point: 520 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	600	13.375	54.50	J-55	ST&C	600	600	12.49	7444
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	280	1130	4.029	280	2730	9.73	28.3	514	18.13 J

Prepared by: Helen Sadik-Macdonald  
Div of Oil, Gas & Mining

Phone: 801 538-5357  
FAX: 801-359-3940

Date: July 21, 2014  
Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 600 ft, a mud weight of 9 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name:	<b>43013529050000 UDOT 2-1C5 rev</b>		
Operator:	<b>EP ENERGY E&amp;P COMPANY, LP.</b>		
String type:	Surface	Project ID:	43-013-52905
Location:	DUCHESNE COUNTY		

**Design parameters:****Collapse**

Mud weight: 9.300 ppg  
Design is based on evacuated pipe.

**Minimum design factors:****Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
Surface temperature: 74 °F  
Bottom hole temperature: 102 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 100 ft

Cement top: 370 ft

**Burst**

Max anticipated surface pressure: 1,760 psi  
Internal gradient: 0.120 psi/ft  
Calculated BHP 2,000 psi

No backup mud specified.

**Tension:**

8 Round STC: 1.80 (J)  
8 Round LTC: 1.70 (J)  
Buttress: 1.60 (J)  
Premium: 1.50 (J)  
Body yield: 1.50 (B)

Tension is based on buoyed weight.

Neutral point: 1,723 ft

**Non-directional string.****Re subsequent strings:**

Next setting depth: 9,550 ft  
Next mud weight: 10.600 ppg  
Next setting BHP: 5,259 psi  
Fracture mud wt: 19.250 ppg  
Fracture depth: 2,000 ft  
Injection pressure: 2,000 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	2000	9.625	40.00	N-80	LT&C	2000	2000	8.75	25450
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	966	3090	3.198	2000	5750	2.87	68.9	737	10.69 J

Prepared by: Helen Sadik-Macdonald  
Div of Oil, Gas & Mining

Phone: 801 538-5357  
FAX: 801-359-3940

Date: July 21, 2014  
Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 2000 ft, a mud weight of 9.3 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

*Engineering responsibility for use of this design will be that of the purchaser.*

Well name:	<b>4301352905000 UDOT 2-1C5 rev</b>	
Operator:	<b>EP ENERGY E&amp;P COMPANY, LP.</b>	
String type:	Intermediate	Project ID: 43-013-52905
Location:	DUCHESNE COUNTY	

**Design parameters:****Collapse**

Mud weight: 10.600 ppg  
Design is based on evacuated pipe.

**Minimum design factors:****Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
Surface temperature: 74 °F  
Bottom hole temperature: 208 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 1,000 ft

Cement top: 3,455 ft

**Burst**

Max anticipated surface pressure: 6,209 psi  
Internal gradient: 0.220 psi/ft  
Calculated BHP 8,310 psi

No backup mud specified.

**Tension:**

8 Round STC: 1.80 (J)  
8 Round LTC: 1.80 (J)  
Buttress: 1.60 (J)  
Premium: 1.50 (J)  
Body yield: 1.60 (B)

Tension is based on buoyed weight.

Neutral point: 8,046 ft

**Directional Info - Build & Drop**

Kick-off point 2050 ft  
Departure at shoe: 640 ft  
Maximum dogleg: 1.5 °/100ft  
Inclination at shoe: 0 °

**Re subsequent strings:**

Next setting depth: 12,900 ft  
Next mud weight: 13.500 ppg  
Next setting BHP: 9,047 psi  
Fracture mud wt: 19.250 ppg  
Fracture depth: 9,550 ft  
Injection pressure: 9,550 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	9580	7	29.00	HCP-110	LT&C	9550	9580	6.059	108183
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	5259	9200	1.749	8310	11220	1.35	232.5	797	3.43 J

Prepared by: Helen Sadik-Macdonald  
Div of Oil, Gas & Mining

Phone: 801 538-5357  
FAX: 801-359-3940

Date: July 21, 2014  
Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 9550 ft, a mud weight of 10.6 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Well name:	<b>4301352905000 UDOT 2-1C5 rev</b>		
Operator:	<b>EP ENERGY E&amp;P COMPANY, LP.</b>		
String type:	Production Liner	Project ID:	43-013-52905
Location:	DUCHESNE COUNTY		

**Design parameters:****Collapse**

Mud weight: 13.500 ppg  
Design is based on evacuated pipe.

**Minimum design factors:****Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
Surface temperature: 74 °F  
Bottom hole temperature: 255 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 1,000 ft

Cement top: 10,364 ft

**Burst**

Max anticipated surface pressure: 6,209 psi  
Internal gradient: 0.220 psi/ft  
Calculated BHP 9,047 psi

No backup mud specified.

**Tension:**

8 Round STC: 1.80 (J)  
8 Round LTC: 1.80 (J)  
Buttress: 1.60 (J)  
Premium: 1.50 (J)  
Body yield: 1.60 (B)

Tension is based on buoyed weight.

Neutral point: 12,205 ft

Liner top: 9,380 ft

**Directional Info - Build & Drop**

Kick-off point 2050 ft  
Departure at shoe: 640 ft  
Maximum dogleg: .35 °/100ft  
Inclination at shoe: 0 °

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	3530	5	18.00	HCP-110	ST-L	12900	12930	4.151	279576
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	9047	15360	1.698	9047	13940	1.54	50.5	341	6.76 J

Prepared by: Helen Sadik-Macdonald  
Div of Oil, Gas & Mining

Phone: 801 538-5357  
FAX: 801-359-3940

Date: July 21, 2014  
Salt Lake City, Utah

**Remarks:**

For this liner string, the top is rounded to the nearest 100 ft. Collapse is based on a vertical depth of 12900 ft, a mud weight of 13.5 ppg. The Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

**BOPE REVIEW**

**EP EnergyUDOT 2-1C5rev2 API 43-013-52905-0000**

Well Name EP EnergyUDOT 2-1C5rev2 API 43-013-52905-0000				
Casing Size (")	String 1	String 2	String 3	String 4
Setting Depth (TVD)	13 3/8	9 5/8	7	5
Previous Shoe Setting Depth (TVD)	600	2000	9580	12900
Max Mud Weight (ppg)	0	600	2000	9580
BOPE Proposed (psi)	90	9.4	10.6	13.5
Casing Internal Yield (psi)	500	500	10000	10000
Operators Max Anticipated Pressure (psi)	2730	5750	11220	13940
	9056			13.5 ppg

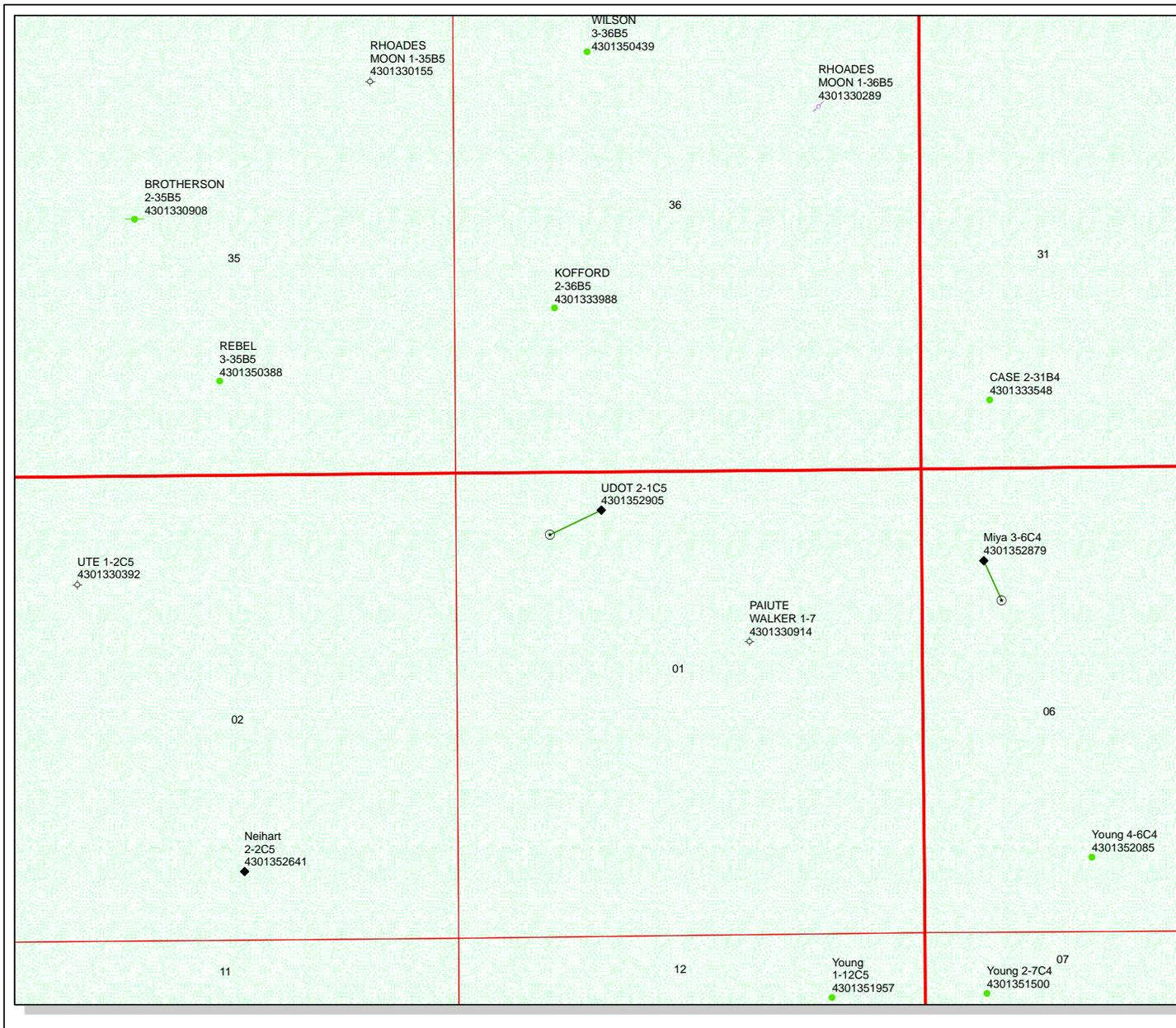
<b>Calculations</b>	<b>String 1</b>	<b>String 2</b>	<b>String 3</b>	<b>String 4</b>
Max BHP [psi]	13 3/8 "	9 5/8 "	7 "	5 "
	.052*Setting Depth*MW = 2808	.052*Setting Depth*MW = 978	.052*Setting Depth*MW = 5280	.052*Setting Depth*MW = 9056
MASP (Gas) [psi]	Max BHP-(0.12*Setting Depth) = 2736	Max BHP-(0.12*Setting Depth) = 738	Max BHP-(0.12*Setting Depth) = 4131	Max BHP-(0.12*Setting Depth) = 7508
MASP (Gas/Mud) [psi]	Max BHP-(0.22*Setting Depth) = 2676	Max BHP-(0.22*Setting Depth) = 538	Max BHP-(0.22*Setting Depth) = 3173	Max BHP-(0.22*Setting Depth) = 6218
Pressure At Previous Shoe	HP-.22*(Setting Depth - Previous Shoe Depth) = 2676	HP-.22*(Setting Depth - Previous Shoe Depth) = 670	HP-.22*(Setting Depth - Previous Shoe Depth) = 3613	HP-.22*(Setting Depth - Previous Shoe Depth) = 8325
Required Casing/BOPE Test Pressure	500 psi	2000 psi	7854 psi	9758 psi
*Max Pressure Allowed @ Previous Casing Shoe =	0 psi	600 psi	2000 psi	9580 psi
		*Assumes 1psi/ft frac gradient	*Assumes 1psi/ft frac gradient	*Assumes 1psi/ft frac gradient

<b>Calculations</b>	<b>String 1</b>	<b>String 2</b>	<b>String 3</b>	<b>String 4</b>
Max BHP [psi]	13 3/8 "	9 5/8 "	7 "	5 "
	.052*Setting Depth*MW = 2808	.052*Setting Depth*MW = 978	.052*Setting Depth*MW = 5280	.052*Setting Depth*MW = 9056
MASP (Gas) [psi]	Max BHP-(0.12*Setting Depth) = 2736	Max BHP-(0.12*Setting Depth) = 738	Max BHP-(0.12*Setting Depth) = 4131	Max BHP-(0.12*Setting Depth) = 7508
MASP (Gas/Mud) [psi]	Max BHP-(0.22*Setting Depth) = 2676	Max BHP-(0.22*Setting Depth) = 538	Max BHP-(0.22*Setting Depth) = 3173	Max BHP-(0.22*Setting Depth) = 6218
Pressure At Previous Shoe	HP-.22*(Setting Depth - Previous Shoe Depth) = 2676	HP-.22*(Setting Depth - Previous Shoe Depth) = 670	HP-.22*(Setting Depth - Previous Shoe Depth) = 3613	HP-.22*(Setting Depth - Previous Shoe Depth) = 8325
Required Casing/BOPE Test Pressure	500 psi	2000 psi	7854 psi	9758 psi
*Max Pressure Allowed @ Previous Casing Shoe =	0 psi	600 psi	2000 psi	9580 psi
		*Assumes 1psi/ft frac gradient	*Assumes 1psi/ft frac gradient	*Assumes 1psi/ft frac gradient

<b>Calculations</b>	<b>String 1</b>	<b>String 2</b>	<b>String 3</b>	<b>String 4</b>
Max BHP [psi]	13 3/8 "	9 5/8 "	7 "	5 "
	.052*Setting Depth*MW = 2808	.052*Setting Depth*MW = 978	.052*Setting Depth*MW = 5280	.052*Setting Depth*MW = 9056
MASP (Gas) [psi]	Max BHP-(0.12*Setting Depth) = 2736	Max BHP-(0.12*Setting Depth) = 738	Max BHP-(0.12*Setting Depth) = 4131	Max BHP-(0.12*Setting Depth) = 7508
MASP (Gas/Mud) [psi]	Max BHP-(0.22*Setting Depth) = 2676	Max BHP-(0.22*Setting Depth) = 538	Max BHP-(0.22*Setting Depth) = 3173	Max BHP-(0.22*Setting Depth) = 6218
Pressure At Previous Shoe	HP-.22*(Setting Depth - Previous Shoe Depth) = 2676	HP-.22*(Setting Depth - Previous Shoe Depth) = 670	HP-.22*(Setting Depth - Previous Shoe Depth) = 3613	HP-.22*(Setting Depth - Previous Shoe Depth) = 8325
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*Max Pressure Allowed @ Previous Casing Shoe =	0 psi	600 psi	2000 psi	9580 psi
		*Assumes 1psi/ft frac gradient	*Assumes 1psi/ft frac gradient	*Assumes 1psi/ft frac gradient

**BOPE Adequate For Drilling And Setting Casing at Depth?**  
 YES 10M BOP stack w/rotating head, 5M annular, dbl rams, mud cross,  
 & single w/flex ram, spacer spool  
**\*Can Full Expected Pressure Be Held At Previous Shoe?**  
 YES  
 OK



**API Number: 4301352905**

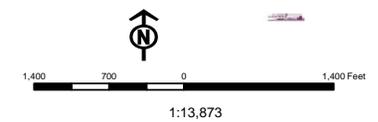
**Well Name: UDOT 2-1C5**

Township: T03.0S Range: R05.0W Section: 01 Meridian: U

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

Map Prepared: 8/6/2014  
Map Produced by Diana Mason

Wells Query		Units	
Status		STATUS	
◆	APD - Approved Permit	▨	ACTIVE
○	DRL - Spudded (Drilling Commenced)	▨	EXPLORATORY
↗	GIW - 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
⊜	SGW - Shut-in Oil Well	▨	TERMINATED
⊝	TA - Temp. Abandoned		
○	TW - Test Well	Fields	
○	WDW - Water Disposal	STATUS	
○	WW - Water Injection Well	▨	Unknown
○	WSW - Water Supply Well	▨	ABANDONED
		▨	ACTIVE
		▨	COMBINED
		▨	INACTIVE
		▨	STORAGE
		▨	TERMINATED



**UDOT 2-1C5  
Sec. 1, 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)	4,532' TVD
Green River (GRTN1)	5,392' TVD
Mahogany Bench	6,392' TVD
L. Green River	7,647' TVD
Wasatch	9,477' TVD
T.D. (Permit)	12,900' TVD

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

<u>Substance</u>	<u>Formation</u>	<u>Depth</u>
	Green River (GRRV)	4,532' TVD / 4,543' MD
	Green River (GRTN1)	5,392' TVD / 5,407' MD
	Mahogany Bench	6,392' TVD / 6,412' MD
Oil	L. Green River	7,647' TVD / 7,673' MD
Oil	Wasatch	9,477' TVD / 9,507' MD

**3. Pressure Control Equipment: (Schematic Attached)**

A Diverter Stack on structural pipe from surface to 600' MD/TVD. A Diverter Stack from 600' MD/TVD to 2,000' MD/TVD on Conductor. A 10M BOP stack w/ rotating head, spacer spool, 5M annular, flex rams, blind rams & single w/ flex rams from 2,000' MD/TVD to 9,580' MD/ 9,550' TVD. A 10M BOP stack w/ rotating head, spacer spool, 5M annular, flex rams, blind rams & single w/ flex rams from 9,580' MD/ 9,550' TVD to TD (12,930' MD/ 12,900' TVD).

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

**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, spacer spool, 5M annular, flex rams, blind rams & single w/ flex rams 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:**

Precision Rig # 404 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	9.0 – 10.6
Production	WBM	11.0 – 13.5

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 12,900' TVD equals approximately 9,056 psi. This is calculated based on a 0.702 psi/ft gradient (13.5 ppg mud density at TD).

Maximum anticipated surface pressure equals approximately 6,218 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/ft).

Maximum anticipated surface pressure based on frac gradient at 7" casing shoe is 0.8 psi/ft at 9,550' TVD = 7,640 psi

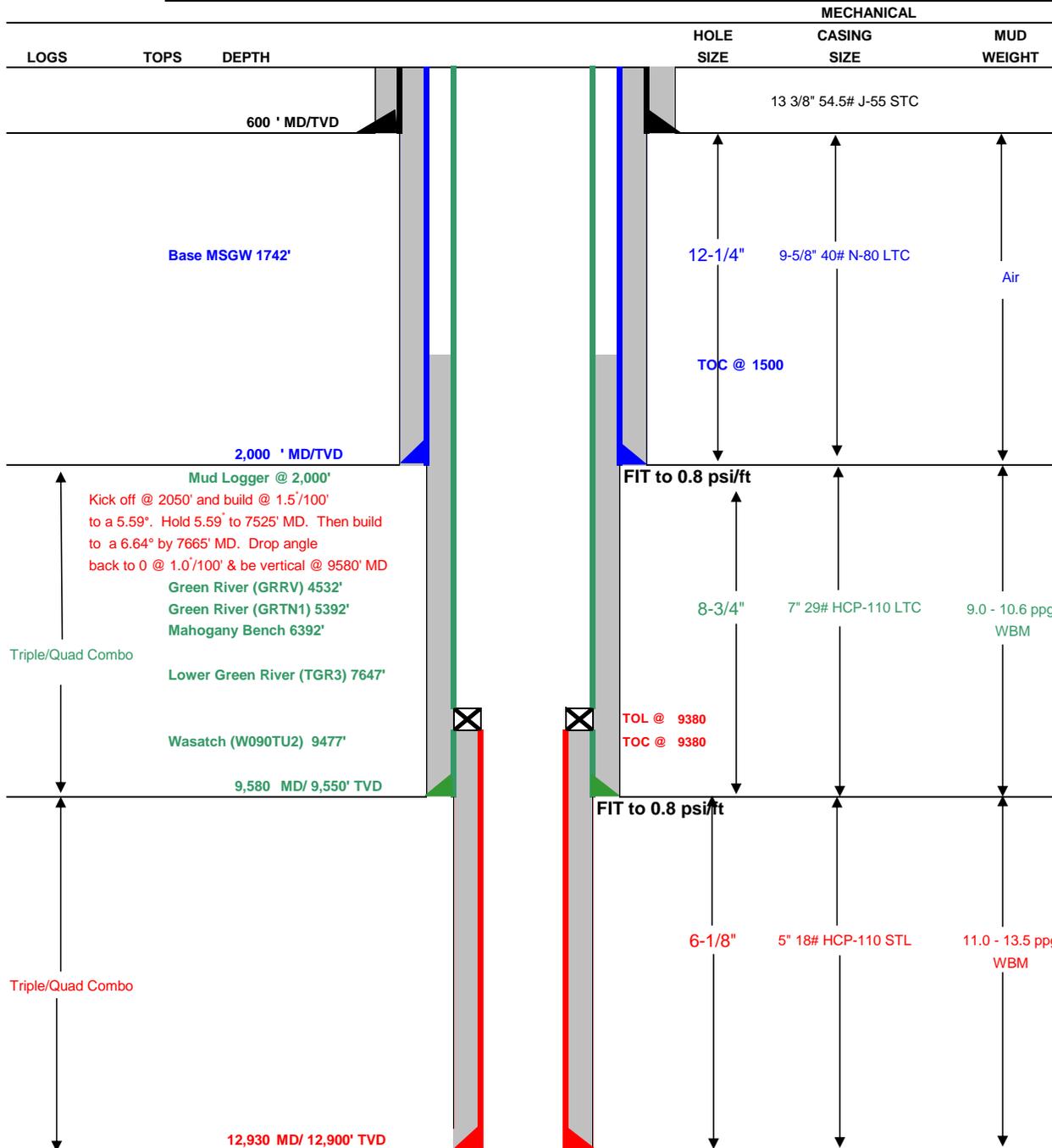
BOPE and casing design will be based on the lesser of the two MASPs which is 6,218 psi.

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



Drilling Schematic

<b>Company Name:</b> EP ENERGY	<b>Date:</b> July 14, 2014
<b>Well Name:</b> UDOT 2-1C5	<b>TD:</b> 12,930
<b>Field, County, State:</b> Altamont, Duchesne, Utah	<b>AFE #:</b> TBD
<b>Surface Location:</b> Sec 1 T3S R5W 428' FNL 1630' FWL	<b>BHL:</b> Sec 1 T3S R5W 700' FNL 1050' FWL
<b>Objective Zone(s):</b> Green River, Wasatch	<b>Elevation:</b> 5925
<b>Rig:</b> Precision 404	<b>Spud (est.):</b> TBD
<b>BOPE Info:</b> Diverter System from 600' to 2,000' . 11 10M BOPE w/ rotating head & 5M annular from 2,000' to 9,580' 11 10M BOPE w/ rotating head, spacer spool, 5M annular, flex rams, blind rams, single w/ flex rams from 9,580' to TD	



**DRILLING PROGRAM**

CASING PROGRAM	SIZE	INTERVAL		WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION
CONDUCTOR	13 3/8"	0	600	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	9580	29.00	HCP-110	LTC	11,220	9,750	797
PRODUCTION LINER	5'	9380	12930	18.00	HCP-110	STL	13,940	15,450	495

CEMENT PROGRAM		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
CONDUCTOR		600	Class G + 3% CACL2	758	100%	15.8 ppg	1.15
SURFACE	Lead	1,200	EXTENDACEM SYSTEM: Type V Cement + 5 lbm/sk Silicalite Compacted + 0.25 lbm/sk Kwik Seal + 0.125 lbm/sk Poly-E-Flake + 8% Bentonite + 0.3% D-AIR 5000	172	75%	11.0 ppg	3.18
	Tail	800	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	303	50%	14.3 ppg	1.30
INTERMEDIATE	Lead	5,680	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	572	30%	12.5 ppg	1.91
	Tail	2,400	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		3,550	EXTENDACEM SYSTEM: Class G Cement + 0.2% Super CBL + 0.55% SCR-100 + 0.3% Halad-413 + 0.125 lbm/sk Poly-E-Flake + 3 lbm/sk Silicalite Compacted + 20% SS-200 + 0.10% SA-1015	210	25%	14.2 ppg	1.47

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	PDC drillable 10M,P-110 float shoe, 1 joint, PDC drillable 10M, P-110 float collar. Thread lock all float equipment. Maker joint at 7,600'.
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

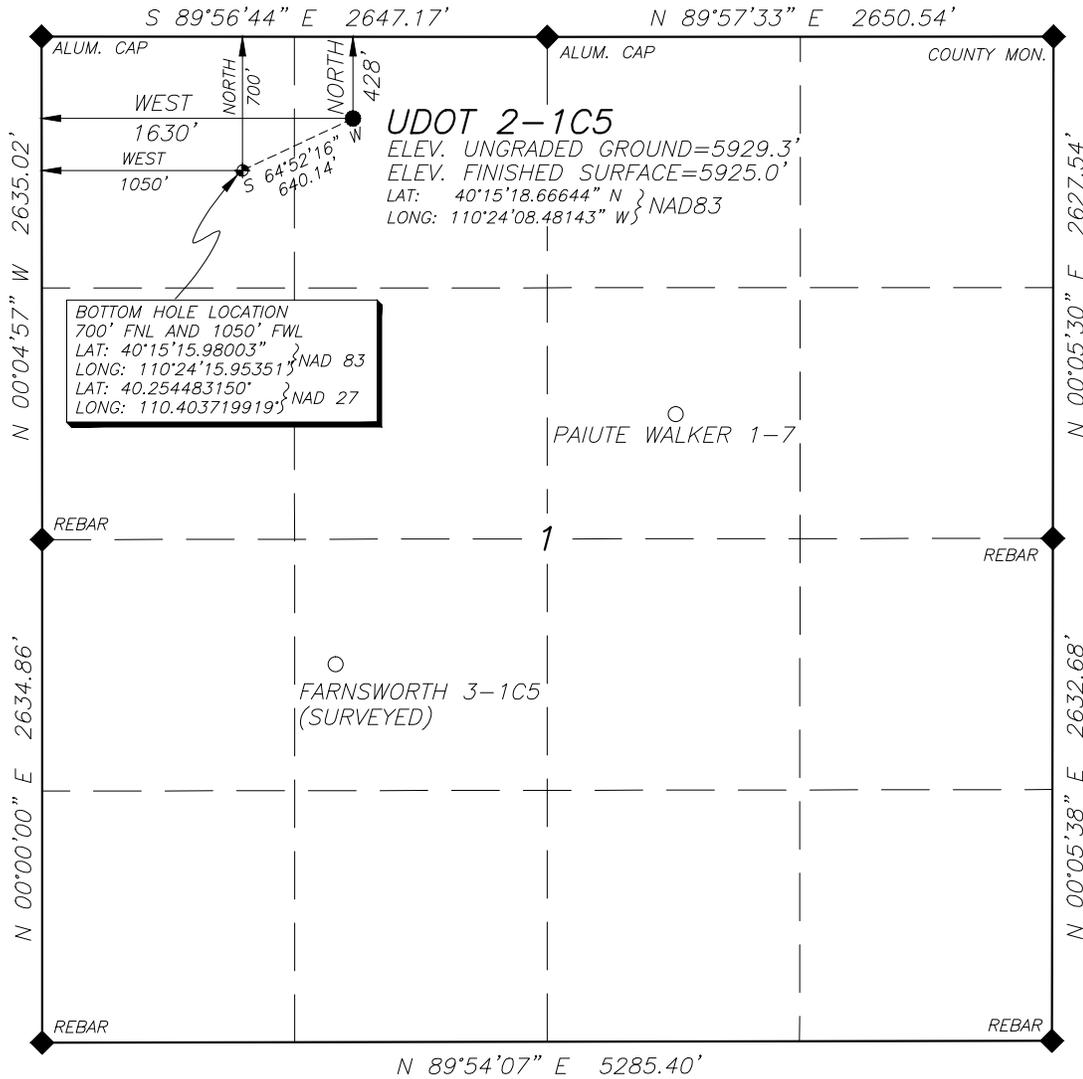
MANAGER: Bob Dodd

# EP ENERGY E&P COMPANY, L.P.

## WELL LOCATION

### UDOT 2-1C5

LOCATED IN THE NE¼ OF THE NW¼ OF SECTION 1, T3S, R5W, U.S.B.&M. DUCHESNE COUNTY, UTAH



NOTE:  
 NAD27 VALUES FOR WELL POSITION:  
 LAT: 40.255185122° N  
 LONG: 110.402355953° W

**LEGEND AND NOTES**

◆ CORNER MONUMENTS FOUND AND USED BY THIS SURVEY

THE GENERAL LAND OFFICE (G.L.O.) PLAT WAS USED FOR REFERENCE AND CALCULATIONS AS WAS THE U.S.G.S. MAP

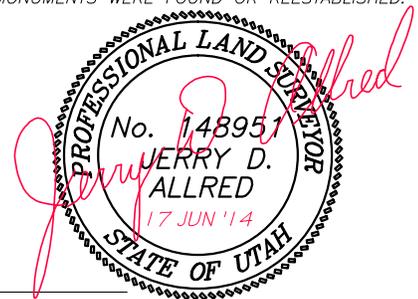
THIS SURVEY WAS PERFORMED USING GLOBAL POSITIONING SYSTEM PROCEDURES AND EQUIPMENT

THE BASIS OF BEARINGS IS GEODETIC NORTH DERIVED FROM G.P.S. OBSERVATIONS AT THE SECTION CORNER LOCATED AT LAT. 40°15'22.90258"N AND LONG. 110°23'21.19760"W USING THE UTAH STATE G.P.S. VIRTUAL REFERENCE STATION CONTROL NETWORK MAINTAINED AND OPERATED BY THE AUTOMATED GEOGRAPHIC REFERENCE CENTER

BASIS OF ELEVATIONS: NAVD 88 DATUM USING THE UTAH REFERENCE NETWORK CONTROL SYSTEM

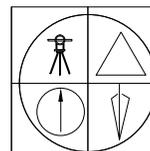
**SURVEYOR'S CERTIFICATE**

I HEREBY CERTIFY THAT THIS PLAT WAS PREPARED FROM THE FIELD NOTES AND ELECTRONIC DATA COLLECTOR FILES OF AN ACTUAL SURVEY PERFORMED BY ME, OR UNDER MY PERSONAL SUPERVISION, DURING WHICH THE SHOWN MONUMENTS WERE FOUND OR REESTABLISHED.



JERRY D. ALLRED, PROFESSIONAL LAND SURVEYOR, CERTIFICATE NO. 148951 (UTAH)

REV 3 JUL 2014  
 17 JUN 2014 01-128-527



**JERRY D. ALLRED & ASSOCIATES**  
 SURVEYING CONSULTANTS

1235 NORTH 700 EAST--P.O. BOX 975  
 DUCHESNE, UTAH 84021  
 (435) 738-5352

5D Plan Report

**5D Plan Report**

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**EP ENERGY E&P COMPANY , L.P.**

**Field Name:** *UTAH\_ CENTRAL ZONE\_ NAD83*  
**Site Name:** *U DOT 2-1C5*  
**Well Name:** *U DOT2-1C5*  
**Plan:** *PLAN 2*

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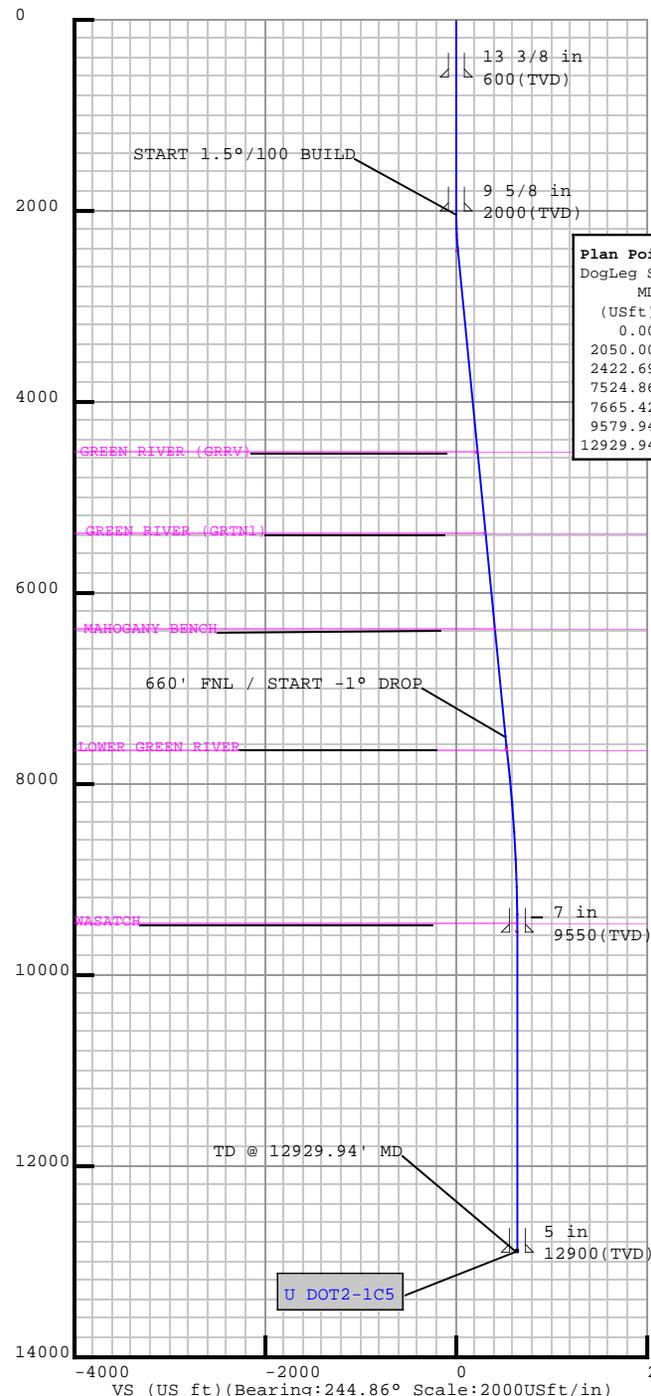


**Field:** UTAH\_CENTRAL\_ZONE\_NAD83  
 Map Unit: USFt Vertical Reference Datum (VRD):  
 Projected Coordinate System: NAD83 / Utah Central (ftUS)

**Site:** U DOT 2-1C5  
 Unit: USFeet TVD Reference:  
 Company Name: EP ENERGY E&P COMPANY, L.P.  
 Position: Northing: 7263557.73USft Latitude: 40.255185°  
 Easting: 1946757.68USft Longitude: -110.402356°  
 North Reference: True Grid Convergence: 0.70°  
 Elevation Above VRD: 5925.00USft  
 Comment: "S" Well Shape

**Slot:** UDOT 2-1C5  
 Position:  
 Offset is from Site centre  
 +N/-S: 0.00USft Northing: 7263557.73USft Latitude: 40.255185°  
 +E/-W: 0.00USft Easting: 1946757.68USft Longitude: -110.402356°  
 Elevation Above VRD: 5925.00USft

**Well:** U DOT2-1C5  
 Type: Main-Well  
 File Number:  
 Vertical Section: Position offset of origin from Slot centre:  
 +N/-S: 0.00USft Azimuth: 132.97°  
 +E/-W: 0.00USft  
 Magnetic Parameters:  
 Model: Field Strength: Declination: Dip: Date:  
 BGGM 51972(nT) 11.19° 65.80° 2014-07-11  
 Comment: RIG: Precision 404



**Plan Point Information:**  
 DogLeg Severity Unit: °/100.00ft Position offsets from Slot centre

MD (USft)	Inc (°)	Az (°)	TVD (USft)	+N/-S (USft)	+E/-W (USft)	VSec (USft)	DLS (DLSU)	Toolface (°)	Build (DLSU)	Turn (DLSU)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.00
2050.00	0.00	0.00	2050.00	0.00	0.00	0.00	0.00	0.0	0.00	0.00
2422.69	5.59	243.24	2422.10	-8.18	-16.22	-6.29	1.50	243.2	1.50	0.00
7524.86	5.59	243.24	7500.00	-232.00	-460.00	-178.45	0.00	0.0	0.00	0.00
7665.42	6.64	252.01	7639.77	-237.59	-473.85	-184.77	1.00	46.0	0.75	6.24
9579.94	0.00	0.00	9550.00	-271.83	-579.30	-238.60	0.35	180.0	-0.35	0.00
12929.94	0.00	0.00	12900.00	-271.83	-579.30	-238.60	0.00	0.0	0.00	0.00

**Formation Point Information:**

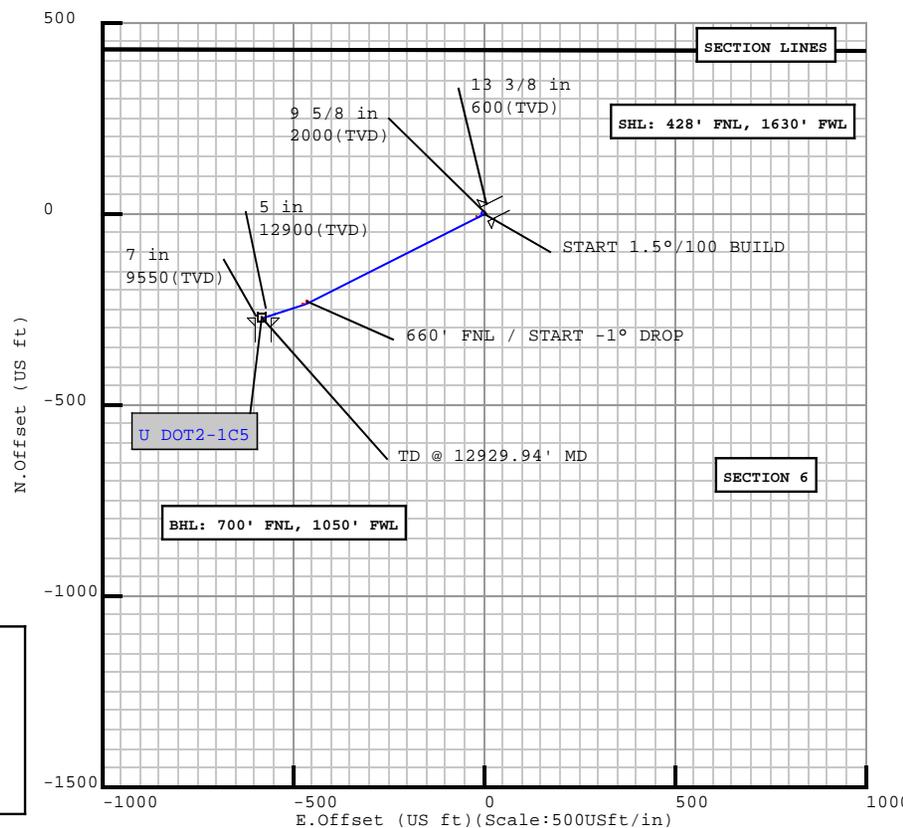
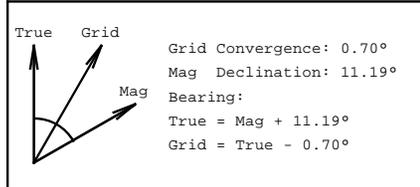
Name	TVD (USft)	Elevation (USft)	MD (USft)
GREEN RIVER (GRRV)	4532.00	1410.00	4542.67
GREEN RIVER (GRTN1)	5392.00	550.00	5406.78
MAHOGANY BENCH	6392.00	-450.00	6411.56
LOWER GREEN RIVER	7647.00	-1705.00	7672.71
WASATCH	9477.00	-3535.00	9506.94

**Casing Point Information:**

Name	MD (USft)	TVD (USft)
13 3/8 in	600.00	600.00
9 5/8 in	2000.00	2000.00
7 in	9579.94	9550.00
5 in	12929.94	12900.00

**Target Set Information:**

Name	TVD (USft)	Lat (°)	Long (°)
UDOT 2-1C5 TARGET			
PBHL	12900.00	40.254439	-110.404432



5D Plan Report

## Plan Surveys for the U DOT2-1C5

<b>Site Name</b> U DOT 2-1C5	<b>Units :</b> US ft	<b>North Reference :</b> True	<b>Convergence Angle :</b> 0.70		
	<b>Position</b>	<b>Northing :</b> 7263557.73 US ft	<b>Latitude :</b> 40.255185		
		<b>Easting :</b> 1946757.68 US ft	<b>Longitude :</b> -110.402356		
	<b>Elevation above:</b> 5925.00 US ft				
	<b>Comment :</b> "S" Well Shape				
<b>Slot Name</b> UDOT 2-1C5	<b>Position (Offsets relative to Site Centre)</b>				
	<b>+N / -S :</b> 0.00 US ft	<b>Northing :</b> 7263557.73 US ft	<b>Latitude :</b> 40.255185		
	<b>+E / -W :</b> 0.00 US ft	<b>Easting :</b> 1946757.68 US ft	<b>Longitude :</b> -110.402356		
	<b>Slot TVD Reference :</b> Ground Elevation				
	<b>Elevation above :</b> 5925.00 US ft				
	<b>Comment :</b>				
<b>Well Name</b> U DOT2-1C5	<b>Type :</b> Main well	<b>UWI :</b> U DOT2-1C5	<b>Plan :</b> PLAN 2		
	<b>Rig Height Well TVD Reference :</b> 17.00 US ft	<b>Comment :</b> RIG: Precision 404			
	<b>Relative to :</b> 5942.00 US ft	<b>Closure Azimuth :</b> 244.862°			
	<b>Closure Distance :</b> 639.906 US ft				
	<b>Vertical Section (Position of Origin Relative to Slot )</b>		<b>+E / -W :</b> 0.00 US ft	<b>Az :</b> 244.86°	
		<b>+N / -S :</b> 0.00 US ft			
	<b>Magnetic Parameters</b>		<b>Dec :</b> 11.19°	<b>Dip :</b> 65.80°	<b>Date :</b> 11/Jul/2014
<b>Model :</b> BGGM	<b>Field Strength :</b> 51972.6nT				

## 5D Plan Report

**Target Set****Name :** UDOT 2-1C5 TARGET**Number of Targets :** 1**Comment :**

<b>TargetName:</b>	<b>Position (Relative to centre)</b>		
PBHL	<b>+N / -S :</b> -271.83US ft	<b>Northing :</b> 7263278.81 US ft	<b>Latitude :</b> 40°15'15.980030"
<b>Shape:</b>	<b>+E / -W :</b> -579.30 US ft	<b>Easting :</b> 1946181.76US ft	<b>Longitude :</b> -110°24'15.953510"
Cuboid	<b>TVD (Well TVD Reference) :</b> 12900.00 US ft		
<b>Orientation</b>	<b>Azimuth :</b> 0.00°	<b>Inclination :</b> 0.00°	
<b>Dimensions</b>	<b>Length :</b> 20.00 US ft	<b>Breadth :</b> 20.00 US ft	<b>Height :</b> 20.00 US ft

**Casing Points (Relative to centre, TVD relative to Well TVD Reference )**

Name	MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	Latitude (°)	Longitude (°)
13 3/8 in	600.00	0.00	0.00	600.00	0.00	0.00	40.255185	-110.402356
9 5/8 in	2000.00	0.00	0.00	2000.00	0.00	0.00	40.255185	-110.402356
7 in	9579.94	0.00	0.00	9550.00	-271.83	-579.30	40.254439	-110.404432
5 in	12929.94	0.00	0.00	12900.00	-271.83	-579.30	40.254439	-110.404432

**Well path created using minimum curvature****Salient Points (Relative to centre, TVD relative to Well TVD Reference )**

MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	Latitude (°)	Longitude (°)	DLS (°/100 US ft)	T.Face (°)	VS (US ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	40.255185	-110.402356	0.00	0.00	-0.00	
600.00	0.00	0.00	600.00	0.00	0.00	40.255185	-110.402356	0.00	0.00	-0.00	13 3/8 in
2000.00	0.00	0.00	2000.00	0.00	0.00	40.255185	-110.402356	0.00	0.00	-0.00	9 5/8 in
2050.00	0.00	0.00	2050.00	0.00	0.00	40.255185	-110.402356	0.00	0.00	-0.00	START 1.5°/100 BUILD
2422.69	5.59	243.24	2422.10	-8.18	-16.22	40.255163	-110.402414	1.50	243.24	18.16	
4542.67	5.59	243.24	4532.00	-101.18	-200.61	40.254907	-110.403075	0.00	0.00	224.59	GREEN RIVER (GRRV) :
5406.78	5.59	243.24	5392.00	-139.09	-275.77	40.254803	-110.403344	0.00	0.00	308.74	GREEN RIVER (GRTN1) :
6411.56	5.59	243.24	6392.00	-183.16	-363.17	40.254682	-110.403657	0.00	0.00	406.58	MAHOGANY BENCH :
7524.86	5.59	243.24	7500.00	-232.00	-460.00	40.254548	-110.404004	0.00	0.00	514.99	660' FNL / START -1° DROP
7665.42	6.64	252.01	7639.77	-237.59	-473.85	40.254533	-110.404054	1.00	46.03	529.90	

## 5D Plan Report

Salient Points (Relative to centre, TVD relative to Well TVD Reference )											
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	Latitude (°)	Longitude (°)	DLS (°/100 US ft)	T.Face (°)	VS (US ft)	Comment
7672.71	6.62	252.01	7647.00	-237.85	-474.65	40.254532	-110.404057	0.35	180.00	530.73	LOWER GREEN RIVER :
9506.94	0.25	252.01	9477.00	-271.78	-579.15	40.254439	-110.404431	0.35	180.00	639.75	WASATCH :
9579.94	0.00	0.00	9550.00	-271.83	-579.30	40.254439	-110.404432	0.35	180.00	639.91	7 in
12929.94	0.00	0.00	12900.00	-271.83	-579.30	40.254439	-110.404432	0.00	0.00	639.91	TD @ 12929.94' MD; 5 in

Interpolated Points (Relative to centre, TVD relative to Well TVD Reference )											
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	DLS (°/100 US ft)	T.Face (°)	VS (US ft)	Comment		
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			
200.00	0.00	0.00	200.00	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			
400.00	0.00	0.00	400.00	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			
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	-0.00	13 3/8 in		
700.00	0.00	0.00	700.00	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			
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	-0.00			
1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	-0.00			
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	-0.00			
1200.00	0.00	0.00	1200.00	0.00	0.00	0.00	0.00	-0.00			
1300.00	0.00	0.00	1300.00	0.00	0.00	0.00	0.00	-0.00			
1400.00	0.00	0.00	1400.00	0.00	0.00	0.00	0.00	-0.00			
1500.00	0.00	0.00	1500.00	0.00	0.00	0.00	0.00	-0.00			
1600.00	0.00	0.00	1600.00	0.00	0.00	0.00	0.00	-0.00			
1700.00	0.00	0.00	1700.00	0.00	0.00	0.00	0.00	-0.00			
1800.00	0.00	0.00	1800.00	0.00	0.00	0.00	0.00	-0.00			
1900.00	0.00	0.00	1900.00	0.00	0.00	0.00	0.00	-0.00			
2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	-0.00	9 5/8 in		
2050.00	0.00	0.00	2050.00	0.00	0.00	0.00	0.00	-0.00	START 1.5°/100 BUILD		
2100.00	0.75	243.24	2100.00	-0.15	-0.29	1.50	243.24	0.33			
2200.00	2.25	243.24	2199.96	-1.33	-2.63	1.50	0.00	2.94			
2300.00	3.75	243.24	2299.82	-3.68	-7.30	1.50	0.00	8.18			
2400.00	5.25	243.24	2399.51	-7.22	-14.31	1.50	0.00	16.02			
2422.69	5.59	243.24	2422.10	-8.18	-16.22	1.50	0.00	18.16			
2500.00	5.59	243.24	2499.04	-11.57	-22.95	0.00	0.00	25.69			
2600.00	5.59	243.24	2598.57	-15.96	-31.64	0.00	0.00	35.43			
2700.00	5.59	243.24	2698.09	-20.35	-40.34	0.00	0.00	45.16			
2800.00	5.59	243.24	2797.61	-24.73	-49.04	0.00	0.00	54.90			
2900.00	5.59	243.24	2897.14	-29.12	-57.74	0.00	0.00	64.64			

## 5D Plan Report

Interpolated Points (Relative to centre, TVD relative to Well TVD Reference )										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	DLS (°/100 US ft)	T.Face (°)	VS (US ft)	Comment	
3000.00	5.59	243.24	2996.66	-33.51	-66.43	0.00	0.00	74.38		
3100.00	5.59	243.24	3096.19	-37.89	-75.13	0.00	0.00	84.11		
3200.00	5.59	243.24	3195.71	-42.28	-83.83	0.00	0.00	93.85		
3300.00	5.59	243.24	3295.24	-46.67	-92.53	0.00	0.00	103.59		
3400.00	5.59	243.24	3394.76	-51.05	-101.23	0.00	0.00	113.33		
3500.00	5.59	243.24	3494.29	-55.44	-109.92	0.00	0.00	123.06		
3600.00	5.59	243.24	3593.81	-59.83	-118.62	0.00	0.00	132.80		
3700.00	5.59	243.24	3693.33	-64.21	-127.32	0.00	0.00	142.54		
3800.00	5.59	243.24	3792.86	-68.60	-136.02	0.00	0.00	152.28		
3900.00	5.59	243.24	3892.38	-72.99	-144.72	0.00	0.00	162.01		
4000.00	5.59	243.24	3991.91	-77.37	-153.41	0.00	0.00	171.75		
4100.00	5.59	243.24	4091.43	-81.76	-162.11	0.00	0.00	181.49		
4200.00	5.59	243.24	4190.96	-86.15	-170.81	0.00	0.00	191.23		
4300.00	5.59	243.24	4290.48	-90.53	-179.51	0.00	0.00	200.96		
4400.00	5.59	243.24	4390.00	-94.92	-188.20	0.00	0.00	210.70		
4500.00	5.59	243.24	4489.53	-99.31	-196.90	0.00	0.00	220.44		
4542.67	5.59	243.24	4532.00	-101.18	-200.61	0.00	0.00	224.59	GREEN RIVER (GRRV) :	
4600.00	5.59	243.24	4589.05	-103.69	-205.60	0.00	0.00	230.18		
4700.00	5.59	243.24	4688.58	-108.08	-214.30	0.00	0.00	239.91		
4800.00	5.59	243.24	4788.10	-112.47	-223.00	0.00	0.00	249.65		
4900.00	5.59	243.24	4887.63	-116.85	-231.69	0.00	0.00	259.39		
5000.00	5.59	243.24	4987.15	-121.24	-240.39	0.00	0.00	269.13		
5100.00	5.59	243.24	5086.68	-125.63	-249.09	0.00	0.00	278.86		
5200.00	5.59	243.24	5186.20	-130.01	-257.79	0.00	0.00	288.60		
5300.00	5.59	243.24	5285.72	-134.40	-266.49	0.00	0.00	298.34		
5400.00	5.59	243.24	5385.25	-138.79	-275.18	0.00	0.00	308.08		
5406.78	5.59	243.24	5392.00	-139.09	-275.77	0.00	0.00	308.74	GREEN RIVER (GRTN1) :	
5500.00	5.59	243.24	5484.77	-143.17	-283.88	0.00	0.00	317.81		
5600.00	5.59	243.24	5584.30	-147.56	-292.58	0.00	0.00	327.55		
5700.00	5.59	243.24	5683.82	-151.95	-301.28	0.00	0.00	337.29		
5800.00	5.59	243.24	5783.35	-156.33	-309.97	0.00	0.00	347.03		
5900.00	5.59	243.24	5882.87	-160.72	-318.67	0.00	0.00	356.76		
6000.00	5.59	243.24	5982.39	-165.11	-327.37	0.00	0.00	366.50		
6100.00	5.59	243.24	6081.92	-169.50	-336.07	0.00	0.00	376.24		
6200.00	5.59	243.24	6181.44	-173.88	-344.77	0.00	0.00	385.98		
6300.00	5.59	243.24	6280.97	-178.27	-353.46	0.00	0.00	395.72		
6400.00	5.59	243.24	6380.49	-182.66	-362.16	0.00	0.00	405.45		
6411.56	5.59	243.24	6392.00	-183.16	-363.17	0.00	0.00	406.58	MAHOGANY BENCH :	
6500.00	5.59	243.24	6480.02	-187.04	-370.86	0.00	0.00	415.19		
6600.00	5.59	243.24	6579.54	-191.43	-379.56	0.00	0.00	424.93		

## 5D Plan Report

Interpolated Points (Relative to centre, TVD relative to Well TVD Reference )										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N. Offset (US ft)	E. Offset (US ft)	DLS (°/100 US ft)	T.Face (°)	VS (US ft)	Comment	
6700.00	5.59	243.24	6679.07	-195.82	-388.26	0.00	0.00	434.67		
6800.00	5.59	243.24	6778.59	-200.20	-396.95	0.00	0.00	444.40		
6900.00	5.59	243.24	6878.11	-204.59	-405.65	0.00	0.00	454.14		
7000.00	5.59	243.24	6977.64	-208.98	-414.35	0.00	0.00	463.88		
7100.00	5.59	243.24	7077.16	-213.36	-423.05	0.00	0.00	473.62		
7200.00	5.59	243.24	7176.69	-217.75	-431.74	0.00	0.00	483.35		
7300.00	5.59	243.24	7276.21	-222.14	-440.44	0.00	0.00	493.09		
7400.00	5.59	243.24	7375.74	-226.52	-449.14	0.00	0.00	502.83		
7500.00	5.59	243.24	7475.26	-230.91	-457.84	0.00	0.00	512.57		
7524.86	5.59	243.24	7500.00	-232.00	-460.00	0.00	0.00	514.99	660' FNL / START -1° DROP	
7600.00	6.14	248.30	7574.75	-235.13	-467.00	1.00	46.03	522.65		
7665.42	6.64	252.01	7639.77	-237.59	-473.85	1.00	40.99	529.90		
7672.71	6.62	252.01	7647.00	-237.85	-474.65	0.35	180.00	530.73	LOWER GREEN RIVER :	
7700.00	6.52	252.01	7674.12	-238.82	-477.62	0.35	180.00	533.83		
7800.00	6.18	252.01	7773.50	-242.23	-488.14	0.35	180.00	544.81		
7900.00	5.83	252.01	7872.95	-245.46	-498.08	0.35	180.00	555.18		
8000.00	5.48	252.01	7972.47	-248.51	-507.46	0.35	180.00	564.96		
8100.00	5.14	252.01	8072.04	-251.36	-516.26	0.35	180.00	574.14		
8200.00	4.79	252.01	8171.66	-254.03	-524.49	0.35	180.00	582.72		
8300.00	4.44	252.01	8271.34	-256.52	-532.14	0.35	180.00	590.71		
8400.00	4.09	252.01	8371.06	-258.82	-539.22	0.35	180.00	598.09		
8500.00	3.75	252.01	8470.83	-260.93	-545.72	0.35	180.00	604.88		
8600.00	3.40	252.01	8570.63	-262.85	-551.65	0.35	180.00	611.06		
8700.00	3.05	252.01	8670.47	-264.59	-557.00	0.35	180.00	616.65		
8800.00	2.71	252.01	8770.35	-266.14	-561.78	0.35	180.00	621.63		
8900.00	2.36	252.01	8870.25	-267.51	-565.99	0.35	180.00	626.02		
9000.00	2.01	252.01	8970.18	-268.69	-569.61	0.35	180.00	629.80		
9100.00	1.67	252.01	9070.12	-269.68	-572.67	0.35	180.00	632.99		
9200.00	1.32	252.01	9170.09	-270.48	-575.14	0.35	180.00	635.57		
9300.00	0.97	252.01	9270.07	-271.10	-577.04	0.35	180.00	637.55		
9400.00	0.62	252.01	9370.06	-271.53	-578.37	0.35	180.00	638.93		
9500.00	0.28	252.01	9470.06	-271.77	-579.12	0.35	180.00	639.71		
9506.94	0.25	252.01	9477.00	-271.78	-579.15	0.35	180.00	639.75	WASATCH :	
9579.94	0.00	0.00	9550.00	-271.83	-579.30	0.35	180.00	639.91	7 in	
9600.00	0.00	0.00	9570.06	-271.83	-579.30	0.00	0.00	639.91		
9700.00	0.00	0.00	9670.06	-271.83	-579.30	0.00	0.00	639.91		
9800.00	0.00	0.00	9770.06	-271.83	-579.30	0.00	0.00	639.91		
9900.00	0.00	0.00	9870.06	-271.83	-579.30	0.00	0.00	639.91		
10000.00	0.00	0.00	9970.06	-271.83	-579.30	0.00	0.00	639.91		
10100.00	0.00	0.00	10070.06	-271.83	-579.30	0.00	0.00	639.91		

## 5D Plan Report

Interpolated Points (Relative to centre, TVD relative to Well TVD Reference )										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	DLS (°/100 US ft)	T.Face (°)	VS (US ft)	Comment	
10200.00	0.00	0.00	10170.06	-271.83	-579.30	0.00	0.00	639.91		
10300.00	0.00	0.00	10270.06	-271.83	-579.30	0.00	0.00	639.91		
10400.00	0.00	0.00	10370.06	-271.83	-579.30	0.00	0.00	639.91		
10500.00	0.00	0.00	10470.06	-271.83	-579.30	0.00	0.00	639.91		
10600.00	0.00	0.00	10570.06	-271.83	-579.30	0.00	0.00	639.91		
10700.00	0.00	0.00	10670.06	-271.83	-579.30	0.00	0.00	639.91		
10800.00	0.00	0.00	10770.06	-271.83	-579.30	0.00	0.00	639.91		
10900.00	0.00	0.00	10870.06	-271.83	-579.30	0.00	0.00	639.91		
11000.00	0.00	0.00	10970.06	-271.83	-579.30	0.00	0.00	639.91		
11100.00	0.00	0.00	11070.06	-271.83	-579.30	0.00	0.00	639.91		
11200.00	0.00	0.00	11170.06	-271.83	-579.30	0.00	0.00	639.91		
11300.00	0.00	0.00	11270.06	-271.83	-579.30	0.00	0.00	639.91		
11400.00	0.00	0.00	11370.06	-271.83	-579.30	0.00	0.00	639.91		
11500.00	0.00	0.00	11470.06	-271.83	-579.30	0.00	0.00	639.91		
11600.00	0.00	0.00	11570.06	-271.83	-579.30	0.00	0.00	639.91		
11700.00	0.00	0.00	11670.06	-271.83	-579.30	0.00	0.00	639.91		
11800.00	0.00	0.00	11770.06	-271.83	-579.30	0.00	0.00	639.91		
11900.00	0.00	0.00	11870.06	-271.83	-579.30	0.00	0.00	639.91		
12000.00	0.00	0.00	11970.06	-271.83	-579.30	0.00	0.00	639.91		
12100.00	0.00	0.00	12070.06	-271.83	-579.30	0.00	0.00	639.91		
12200.00	0.00	0.00	12170.06	-271.83	-579.30	0.00	0.00	639.91		
12300.00	0.00	0.00	12270.06	-271.83	-579.30	0.00	0.00	639.91		
12400.00	0.00	0.00	12370.06	-271.83	-579.30	0.00	0.00	639.91		
12500.00	0.00	0.00	12470.06	-271.83	-579.30	0.00	0.00	639.91		
12600.00	0.00	0.00	12570.06	-271.83	-579.30	0.00	0.00	639.91		
12700.00	0.00	0.00	12670.06	-271.83	-579.30	0.00	0.00	639.91		
12800.00	0.00	0.00	12770.06	-271.83	-579.30	0.00	0.00	639.91		
12900.00	0.00	0.00	12870.06	-271.83	-579.30	0.00	0.00	639.91		
12929.94	0.00	0.00	12900.00	-271.83	-579.30	0.00	0.00	639.91	TD @ 12929.94' MD; 5 in	

Formation Points (Relative to centre, TVD relative to Well TVD Reference )			
Name	MD (US ft)	TVD (US ft)	
GREEN RIVER (GRRV)	4542.67	4532.00	
GREEN RIVER (GRTN1)	5406.78	5392.00	
MAHOGANY BENCH	6411.56	6392.00	
LOWER GREEN RIVER	7672.71	7647.00	
WASATCH	9506.94	9477.00	



July 17, 2014

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

RE: Application for Permit to Drill  
UDOT 2-1C5 (API # 43-013-529050000)  
SHL: 428' FNL & 1,630' FWL; BHL: 700' FNL & 1,050' FWL  
NW $\frac{1}{4}$ NW $\frac{1}{4}$  of Section 1, 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 UDOT 2-1C5 ("Well") to the Utah Division of Oil, Gas & Mining ("UDOGM"). Concurrently with the filing of the APD for the Well, this *Application for Permit to Drill* letter hereby serves as formal, written notice to UDOGM that EP Energy is actively working to finalize a Surface Use Agreement ("SUA") with the surface owner(s) of the Well, whose name and contact information is as follows (collectively, "Surface Owners"):

Utah Department of Transportation  
4501 South 2700 West  
Salt Lake City, Utah 84119

EP Energy has been diligently negotiating in good-faith with the Surface Owners for several months and is nearing an agreement on the SUA for the proposed Well. Although EP Energy is confident the SUA will be executed soon, we are filing the APD without the executed SUA due to the demands of our drilling schedule. This will allow UDOGM to begin the permitting process as EP Energy finalizes the SUA. The Affidavit of Surface Use Agreement ("Affidavit") will be forwarded directly to your office as soon as the SUA is executed.

UDOGM's effort to begin processing the APD without the executed SUA is greatly appreciated. EP Energy fully understands the APD will not be approved until we submit the Affidavit or otherwise comply with the Surface Owner Protection Act Provision R649-3-38.

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,

A handwritten signature in blue ink that reads "John DeWitt, Jr." The signature is written in a cursive style.

John DeWitt, Jr.

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



July 10, 2014

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

RE: Supplement to Approved Application for Permit to Drill  
Revise to Directional Well  
UDOT 2-1C5 (API # 43-013-529050000)  
SHL: 428' FNL & 1,630' FWL; BHL: 700' FNL & 1,050' FWL  
NW¼NW¼ of Section 1, 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") received the approved Application for Permit to Drill ("APD"), dated June 17, 2014, for the proposed LDS 2-1C5 ("Well") from the Utah Division of Oil, Gas & Mining ("UDOGM"). As a supplement to EP Energy's approved APD for the Well, we hereby submit this *Supplement to Approved Application for Permit to Drill* letter in accordance with Oil & Gas Conservation Rule R649-3-11, which pertains to the Location and Siting of Directional Wells.

- The Well is being drilled in Section 1, Township 3 South, Range 5 West, Duchesne County, Utah, which is subject to that Order, Docket No 2012-013, Cause No. 139-90, dated May 9, 2012 ("Spacing Order") that established 640 acre sectional drilling units for the Green River-Wasatch formations. The Spacing Order further provides drilling up to four (4) producing Lower Green River-Wasatch wells, whether all vertical, all horizontal, or a combination of both in each drilling unit. The locating and siting requirements set forth in Order 139-84 and incorporated into the Spacing Order provide that permitted wells shall be no closer than 1,320 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.
- EP Energy originally permitted the Well to be drilled as a vertical well. Due to circumstances outside of EP Energy's control, EP Energy has moved the Well to a new surface hole location located on a different surface owner and will now be called the UDOT 2-1C5 ("New Well"). The surface hole location of the New Well is closer than 660' from the Northern Section Line of Section 1, Township 3 South, Range 5 West and will require EP Energy to drill the New Well as a directional well. 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 New 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 operating agreement 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,

A handwritten signature in blue ink that reads "John DeWitt, Jr." with a stylized flourish at the end.

John DeWitt, Jr.

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



Alexis Huefner <alexishuefner@utah.gov>

**24hr Spud Notice UDOT 2-1C5 API # 43013529050000**

1 message

LANDRIG009 (Precision 406) <LANDRIG009@epenergy.com>

Mon, Aug 25, 2014 at 1:54 PM

To: "alexishuefner@utah.gov" <alexishuefner@utah.gov>, "MacAfee, Bradley D" <Brad.MacAfee@epenergy.com>, "caroldaniels@utah.gov" <caroldaniels@utah.gov>, "dennisingram@utah.gov" <dennisingram@utah.gov>, "Dodd, Robert W" <Robert.Dodd@epenergy.com>, "Morales, Lisa" <Lisa.Morales@epenergy.com>, "Mangum, Danny R (Contractor)" <danny.mangum@epenergy.com>, "Gomez, Maria S" <Maria.Gomez@epenergy.com>, "Evans, Perry (Contractor)" <Perry.Evans@epenergy.com>

RE: EP ENERGY  
UDOT 2-1C5  
API # 43013529050000  
ALTAMONT FIELD  
DUCHESNE COUNTY

428 FWL 1630 FWL  
NWNW 1 3S 5W

**CONFIDENTIAL**

Leon Ross Drilling spudded the well @ 12:38hrs on 8/25/2014. We plan on running and cementing 20" Conductor Casing to +/- 60' within 24hrs.

Regards,

Tony Wilkerson / Bill Owen  
EP Energy LLC  
PD Rig 406  
Rig: 713-997-1220  
Cell: 435-823-1764

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

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  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.	5. LEASE DESIGNATION AND SERIAL NUMBER: Fee
	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	7. UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Oil Well	8. WELL NAME and NUMBER: UDOT 2-1C5
2. NAME OF OPERATOR: EP ENERGY E&P COMPANY, L.P.	9. API NUMBER: 43013529050000
3. ADDRESS OF OPERATOR: 1001 Louisiana , Houston, TX, 77002	PHONE NUMBER: 713 997-5038 Ext
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0428 FNL 1630 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWNW Section: 01 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"/> <b>NOTICE OF INTENT</b> Approximate date work will start: 10/31/2014	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> <b>DRILLING REPORT</b> Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input checked="" type="checkbox"/> OTHER	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 complete into the Wasatch. Please see attached for details.

**Approved by the**  
**October 30, 2014**  
**Oil, Gas and Mining**

Date: \_\_\_\_\_  
 By: DeKQ

<b>NAME (PLEASE PRINT)</b> Maria S. Gomez	<b>PHONE NUMBER</b> 713 997-5038	<b>TITLE</b> Principal Regulatory Analyst
<b>SIGNATURE</b> N/A	<b>DATE</b> 10/30/2014	

**UDOT 2-1C5****Initial Completion****API # : 4301352905****The following precautions will be taken until the RCA for the Conover is completed:**

1. Review torque turning and running of the 7" and 5" liner of anomalies.
2. Test and chart casing for 30 minutes, noting pressure if any on surface casing.
3. Test all lubricators, valves and BOP's to working pressure.
4. A frac tree with BOP equipment will be utilized during the stimulation treatment.
5. Monitor the surface casing during frac:
  - a. Lay a flowline to the flow back tank and keep the valve open.
  - b. This line will remain in place until a wire line set retrievable packer is in place isolating the 5" casing from the 7" after the frac.
6. 2 7/8" tubing will be run to isolate the 7" casing during the flow back of the well.
7. Well pressure and annulus pressure would be monitored during this time until the well is ready for pump.

**Completion Information (Wasatch Formation)**

- |                 |  |
|-----------------|--|
| <b>Stage #1</b> | RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~12230' – 12510' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~160000 # of Power Prop 30/50. Total clean water volume is 3887 gals. |
| <b>Stage #2</b> | RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~11865' – 12206' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~160000 # of Power Prop 30/50. Total clean water volume is 3880 gals. |
| <b>Stage #3</b> | RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~11560' – 11836' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~160000 # of Power Prop 30/50. Total clean water volume is 3875 gals. |
| <b>Stage #4</b> | RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~11184' – 11515' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~160000 # of Power Prop 30/50. Total clean water volume is 3868 gals. |
| <b>Stage #5</b> | RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~10883' – 11155' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~160000 # of Power Prop 30/50. Total clean water volume is 3863 gals. |

- Stage #6** RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~10556' – 10846' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~160000 # of Power Prop 30/50. Total clean water volume is 3857 gals.
- Stage #7** RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~10284' – 10516' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~160000 # of TLC 30/50. Total clean water volume is 3852 gals.
- Stage #8** RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~9969' – 10252' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~160000 # of TLC 30/50. Total clean water volume is 3847 gals.
- Stage #9** RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~9627' – 9937' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~160000 # of TLC 30/50. Total clean water volume is 3841 gals.

### 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	12,230	12,510	280	NA	23	69	17	Power Prop 30/50	160,000	571	3,000	5,000	3,887	4,431
Stage #2	11,865	12,206	341	12,221	23	69	17	Power Prop 30/50	160,000	469	3,000	5,000	3,880	4,424
Stage #3	11,560	11,836	276	11,851	23	69	17	Power Prop 30/50	160,000	580	3,000	5,000	3,875	4,419
Stage #4	11,184	11,515	331	11,530	23	69	17	Power Prop 30/50	160,000	483	3,000	5,000	3,868	4,412
Stage #5	10,883	11,155	272	11,170	23	69	17	Power Prop 30/50	160,000	588	3,000	5,000	3,863	4,407
Stage #6	10,556	10,846	290	10,861	23	69	17	Power Prop 30/50	160,000	552	3,000	5,000	3,857	4,401
Stage #7	10,284	10,516	232	10,531	23	69	17	TLC 30/50	160,000	690	3,000	5,000	3,852	4,390
Stage #8	9,969	10,252	283	10,267	23	69	17	TLC 30/50	160,000	565	3,000	5,000	3,847	4,385
Stage #9	9,627	9,937	310	9,952	23	69	17	TLC 30/50	160,000	516	3,000	5,000	3,841	4,379
<b>Average per Stage</b>			<b>291</b>		<b>23</b>	<b>69</b>	<b>17</b>		<b>160,000</b>	<b>557</b>	<b>3,000</b>	<b>5,000</b>	<b>3,863</b>	<b>4,405</b>
<b>Totals per Well</b>			<b>2,615</b>		<b>207</b>	<b>621</b>	<b>153</b>		<b>1,440,000</b>		<b>27,000</b>	<b>45,000</b>	<b>34,770</b>	<b>39,649</b>



**Pre-Completion Wellbore Schematic**

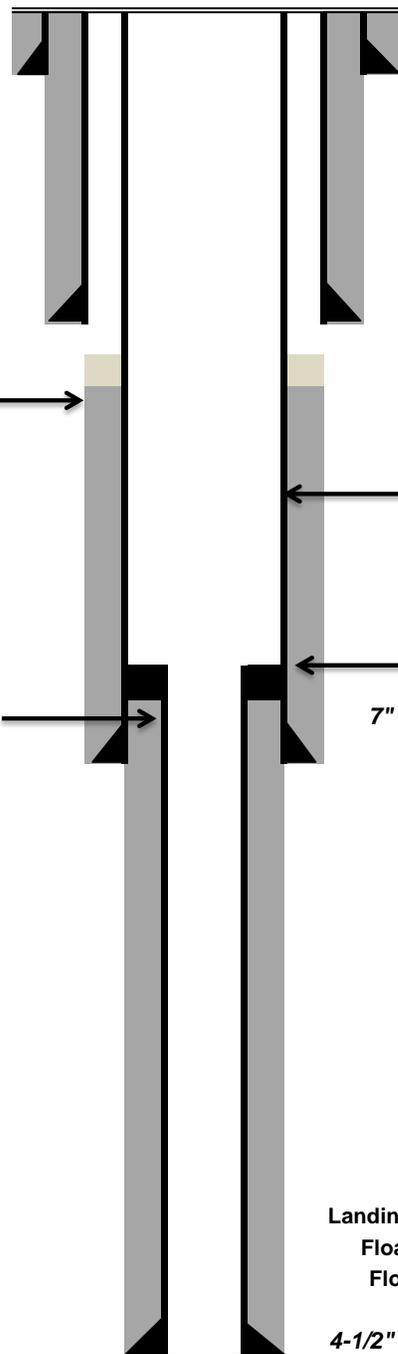
Well Name: **UDOT 2-1C5**  
 Company Name: **EP Energy**  
 Field, County, State: **Altamont, Duchesne, UT**  
 Surface Location: **Lat: 40°15'14.254" N Long: 110°24'19.979" W**  
 Producing Zone(s): **Wasatch**

Last Updated: **10/30/2014**  
 By: **Jarrold Kent**  
 TD: **12,651**  
 API: **4301352905**  
 AFE: **159945**

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

Ratty Cement to: 2350 ft MD  
 Estimated 7" TOC: 3820 ft MD

Liner TOC at: 9367 ft MD



**13-3/8" 54.5# J-55 STC @ 635 ft. MD**

**9-5/8" 40# N-80 LTC @ 2014 ft. MD**

**7" Marker Joint at: 7,473 ft MD**

**Top of Liner at: 9,367 ft MD**

**7" 29# HCP-110 LTC @ 9581 ft. MD**  
 Drift ID = 6.059"

**No Marker Joints**

**Landing Collar @ 12,606 ft MD**  
**Float Collar @ 12,608 ft MD**  
**Float Shoe @ 12,651 ft MD**

**4-1/2" 15.1# HCP-110 USF @ 9367 - 12652 ft. MD**  
 Drift ID = 3.701"

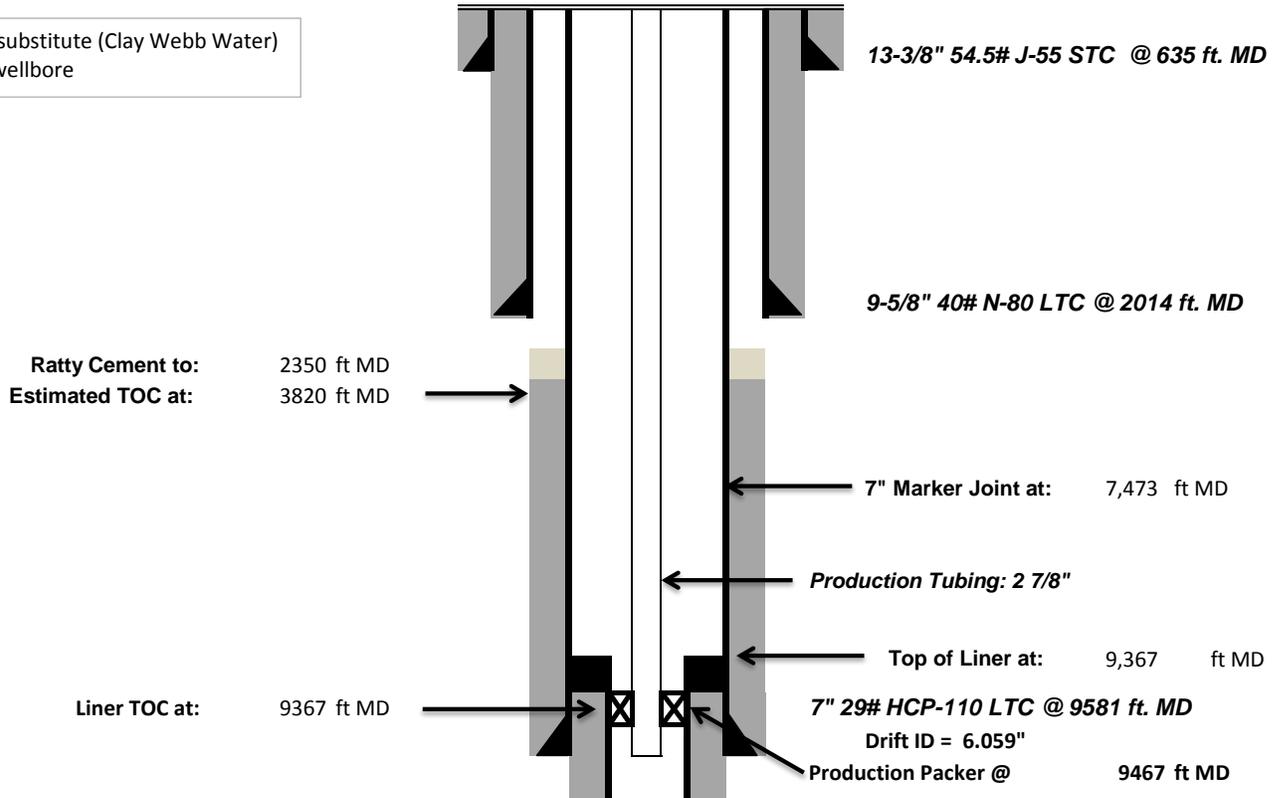


**Post-Completion Wellbore Schematic**

Well Name: **UDOT 2-1C5**  
 Company Name: **EP Energy**  
 Field, County, State: **Altamont, Duchesne, UT**  
 Surface Location: **Lat: 40°15'14.254" N Long: 110°24'19.979" W**  
 Producing Zone(s): **Wasatch**

Last Updated: **10/30/2014**  
 By: **Jarrod Kent**  
 TD: **12,651**  
 API: **4301352905**  
 AFE: **159945**

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



**Initial Completion Perf Information**

- Stage #9** 9627 - 9937 23' /69 shots  
5000 gal HCL & 160000 lbs TLC 30/50
- Stage #8** 9969 - 10252 23' /69 shots  
5000 gal HCL & 160000 lbs TLC 30/50
- Stage #7** 10284 - 10516 23' /69 shots  
5000 gal HCL & 160000 lbs TLC 30/50
- Stage #6** 10556 - 10846 23' /69 shots  
5000 gal HCL & 160000 lbs Power Prop 30/50
- Stage #5** 10883 - 11155 23' /69 shots  
5000 gal HCL & 160000 lbs Power Prop 30/50
- Stage #4** 11184 - 11515 23' /69 shots  
5000 gal HCL & 160000 lbs Power Prop 30/50
- Stage #3** 11560 - 11836 23' /69 shots  
5000 gal HCL & 160000 lbs Power Prop 30/50
- Stage #2** 11865 - 12206 23' /69 shots  
5000 gal HCL & 160000 lbs Power Prop 30/50
- Stage #1** 12230 - 12510 23' /69 shots  
5000 gal HCL & 160000 lbs Power Prop 30/50

No Marker Joints  
 Landing Collar @ 12,606 ft MD  
 Float Collar @ 12,608 ft MD  
 Float Shoe @ 12,651 ft MD  
 4-1/2" 15.1# HCP-110 USF @ 9367 - 12652 ft. MD  
 Drift ID = 3.701"

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

AMENDED REPORT  FORM 8  
(highlight changes)

5. LEASE DESIGNATION AND SERIAL NUMBER:

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT or CA AGREEMENT NAME

8. WELL NAME and NUMBER:

9. API NUMBER:

10 FIELD AND POOL, OR WILDCAT

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:

12. COUNTY

13. STATE

UTAH

**WELL COMPLETION OR RECOMPLETION REPORT AND LOG**

1a. TYPE OF WELL: OIL WELL  GAS WELL  DRY  OTHER \_\_\_\_\_

b. TYPE OF WORK: NEW WELL  HORIZ. LATS.  DEEP-EN  RE-ENTRY  DIFF. RESVR.  OTHER \_\_\_\_\_

2. NAME OF OPERATOR:

3. ADDRESS OF OPERATOR: CITY STATE ZIP PHONE NUMBER:

4. LOCATION OF WELL (FOOTAGES)  
AT SURFACE:  
  
AT TOP PRODUCING INTERVAL REPORTED BELOW:  
  
AT TOTAL DEPTH:

14. DATE SPUDDED: 15. DATE T.D. REACHED: 16. DATE COMPLETED: ABANDONED  READY TO PRODUCE  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 PLUG SET: MD TVD

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each) 23. WAS WELL CORED? NO  YES  (Submit analysis)  
WAS DST RUN? NO  YES  (Submit report)  
DIRECTIONAL SURVEY? NO  YES  (Submit copy)

24. CASING AND LINER RECORD (Report all strings set in well) \* Ratty Cement from 2350'-3820'

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.

ELECTRICAL/MECHANICAL LOGS  GEOLOGIC REPORT  DST REPORT  DIRECTIONAL SURVEY

SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION  CORE ANALYSIS  OTHER: \_\_\_\_\_

30. WELL STATUS:

**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 December 3, 2014****Well Name: UDOT 2-1C5****Items #27 and #28 Continued****27. Perforation Record**

<b>Interval (Top/Bottom – MD)</b>	<b>Size</b>	<b>No. of Holes</b>	<b>Perf. Status</b>
<b>10885'-11157'</b>	<b>.43</b>	<b>69</b>	<b>Open</b>
<b>10558'-10846'</b>	<b>.43</b>	<b>69</b>	<b>Open</b>
<b>10281'-10517'</b>	<b>.43</b>	<b>69</b>	<b>Open</b>
<b>9966'-10253'</b>	<b>.43</b>	<b>69</b>	<b>Open</b>
<b>9625'-9938'</b>	<b>.43</b>	<b>69</b>	<b>Open</b>

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

<b>Depth Interval</b>	<b>Amount and Type of Material</b>
<b>11184'-11157'</b>	<b>5000 gal 15% HCL acid, 3000# 100 mesh, 160060# 30/50 PowerProp</b>
<b>10885'-11157'</b>	<b>5000 gal 15% HCL acid, 3000# 100 mesh, 160260# 30/50 PowerProp</b>
<b>10558'-10846'</b>	<b>5000 gal 15% HCL acid, 3000# 100 mesh, 161040# 30/50 PowerProp</b>
<b>10281'-10517'</b>	<b>5000 gal 15% HCL acid, 3000# 100 mesh, 160100# 30/50 THS</b>
<b>9966'-10253'</b>	<b>5000 gal 15% HCL acid, 3000# 100 mesh, 160600# 30/50 THS</b>
<b>9625'-9938'</b>	<b>5000 gal 15% HCL acid, 3000# 100 mesh, 159480# 30/50 THS</b>



Company: EP Energy Job Number: \_\_\_\_\_  
 Well: UDOT 2-1C5 Mag Decl.: \_\_\_\_\_  
 Location: Duchesne, UT Dir Driller: \_\_\_\_\_  
 Rig: Precision 404 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					
<b>Tie In</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>												
1	117.00	0.27	62.62	117.00	117.00	0.13	0.13	N	0.24	E	0.28	62.62	0.23	0.23	53.52
2	217.00	0.22	286.89	100.00	217.00	0.29	0.29	N	0.27	E	0.40	42.90	0.45	-0.05	224.27
3	317.00	0.19	9.59	100.00	317.00	0.51	0.51	N	0.11	E	0.52	12.62	0.27	-0.03	-277.30
4	417.00	0.25	102.47	100.00	417.00	0.63	0.63	N	0.35	E	0.72	29.53	0.32	0.06	92.88
5	517.00	0.25	79.45	100.00	517.00	0.62	0.62	N	0.78	E	1.00	51.63	0.10	0.00	-23.02
6	617.00	0.19	188.54	100.00	617.00	0.50	0.50	N	0.97	E	1.09	63.00	0.36	-0.06	109.09
7	717.00	0.23	269.72	100.00	717.00	0.33	0.33	N	0.75	E	0.82	66.13	0.27	0.04	81.18
8	817.00	0.74	5.01	100.00	816.99	0.97	0.97	N	0.60	E	1.14	31.78	0.79	0.51	-264.71
9	917.00	0.28	330.17	100.00	916.99	1.83	1.83	N	0.54	E	1.91	16.38	0.53	-0.46	325.16
10	1017.00	0.46	18.42	100.00	1016.99	2.42	2.42	N	0.54	E	2.48	12.64	0.34	0.18	-311.75
11	1117.00	0.81	345.52	100.00	1116.98	3.49	3.49	N	0.49	E	3.52	8.05	0.49	0.35	327.10
12	1217.00	0.41	6.71	100.00	1216.98	4.53	4.53	N	0.36	E	4.54	4.52	0.45	-0.40	-338.81
13	1317.00	0.54	328.12	100.00	1316.97	5.28	5.28	N	0.15	E	5.28	1.64	0.34	0.13	321.41
14	1417.00	0.48	15.33	100.00	1416.97	6.09	6.09	N	0.01	E	6.09	0.12	0.41	-0.06	-312.79
15	1517.00	0.75	18.53	100.00	1516.96	7.11	7.11	N	0.33	E	7.12	2.67	0.27	0.27	3.20
16	1617.00	0.70	353.86	100.00	1616.96	8.34	8.34	N	0.47	E	8.35	3.25	0.31	-0.05	335.33
17	1717.00	1.35	340.55	100.00	1716.94	10.06	10.06	N	0.02	E	10.06	0.09	0.69	0.65	-13.31
18	1817.00	1.27	349.33	100.00	1816.91	12.26	12.26	N	0.58	W	12.27	357.29	0.22	-0.08	8.78
19	1917.00	1.12	349.28	100.00	1916.89	14.31	14.31	N	0.97	W	14.34	356.13	0.15	-0.15	-0.05
20	1965.00	1.30	357.28	48.00	1964.88	15.31	15.31	N	1.08	W	15.35	355.96	0.51	0.38	16.67
21	2107.00	0.52	1.36	142.00	2106.86	17.56	17.56	N	1.14	W	17.60	356.28	0.55	-0.55	-250.65
22	2200.00	1.03	214.73	93.00	2199.86	17.30	17.30	N	1.61	W	17.37	354.69	1.60	0.55	229.43
23	2292.00	2.58	221.75	92.00	2291.81	15.07	15.07	N	3.46	W	15.47	347.08	1.70	1.68	7.63
24	2386.00	4.61	239.08	94.00	2385.62	11.55	11.55	N	8.11	W	14.11	324.94	2.43	2.16	18.44
25	2479.00	5.85	250.23	93.00	2478.23	8.03	8.03	N	15.78	W	17.70	296.98	1.72	1.33	11.99
26	2572.00	5.95	248.16	93.00	2570.74	4.63	4.63	N	24.71	W	25.14	280.62	0.25	0.11	-2.23
27	2665.00	5.87	248.48	93.00	2663.25	1.10	1.10	N	33.61	W	33.63	271.87	0.09	-0.09	0.34
28	2758.00	5.73	248.88	93.00	2755.77	-2.32	2.32	S	42.36	W	42.43	266.86	0.16	-0.15	0.43
29	2851.00	5.69	249.02	93.00	2848.31	-5.65	5.65	S	51.00	W	51.31	263.68	0.05	-0.04	0.15
30	2944.00	6.68	246.37	93.00	2940.77	-9.46	9.46	S	60.26	W	61.00	261.07	1.11	1.06	-2.85
31	3037.00	6.95	245.44	93.00	3033.11	-13.97	13.97	S	70.33	W	71.71	258.77	0.31	0.29	-1.00
32	3131.00	6.99	244.81	94.00	3126.42	-18.77	18.77	S	80.68	W	82.83	256.90	0.09	0.04	-0.67
33	3224.00	7.29	247.73	93.00	3218.70	-23.41	23.41	S	91.26	W	94.22	255.61	0.51	0.32	3.14
34	3316.00	6.71	246.83	92.00	3310.01	-27.74	27.74	S	101.60	W	105.32	254.73	0.64	-0.63	-0.98
35	3409.00	6.14	246.15	93.00	3402.42	-31.89	31.89	S	111.15	W	115.63	253.99	0.62	-0.61	-0.73



**Company:** EP Energy  
**Well:** UDOT 2-1C5  
**Location:** Duchesne, UT  
**Rig:** Precision 404

**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	3502.00	5.55	244.46	93.00	3494.94	-35.84	35.84	S	119.76	W	125.00	253.34	0.66	-0.63	-1.82
37	3595.00	4.84	241.46	93.00	3587.56	-39.65	39.65	S	127.26	W	133.29	252.69	0.82	-0.76	-3.23
38	3688.00	5.30	239.39	93.00	3680.19	-43.71	43.71	S	134.40	W	141.33	251.98	0.53	0.49	-2.23
39	3781.00	5.65	233.47	93.00	3772.77	-48.63	48.63	S	141.78	W	149.89	251.07	0.71	0.38	-6.37
40	3874.00	6.19	241.25	93.00	3865.28	-53.76	53.76	S	149.85	W	159.21	250.26	1.04	0.58	8.37
41	3967.00	5.93	241.08	93.00	3957.76	-58.50	58.50	S	158.45	W	168.91	249.74	0.28	-0.28	-0.18
42	4060.00	5.58	236.44	93.00	4050.29	-63.32	63.32	S	166.43	W	178.07	249.17	0.63	-0.38	-4.99
43	4153.00	5.94	233.99	93.00	4142.82	-68.65	68.65	S	174.09	W	187.13	248.48	0.47	0.39	-2.63
44	4246.00	7.03	237.38	93.00	4235.22	-74.55	74.55	S	182.77	W	197.39	247.81	1.24	1.17	3.65
45	4339.00	6.69	233.52	93.00	4327.56	-80.84	80.84	S	191.92	W	208.25	247.16	0.62	-0.37	-4.15
46	4432.00	6.61	231.00	93.00	4419.93	-87.42	87.42	S	200.44	W	218.67	246.43	0.33	-0.09	-2.71
47	4525.00	5.19	223.88	93.00	4512.44	-93.83	93.83	S	207.51	W	227.74	245.67	1.71	-1.53	-7.66
48	4618.00	6.14	221.27	93.00	4604.98	-100.60	100.60	S	213.71	W	236.20	244.79	1.06	1.02	-2.81
49	4711.00	5.92	219.42	93.00	4697.47	-108.04	108.04	S	220.04	W	245.13	243.85	0.32	-0.24	-1.99
50	4804.00	7.15	227.70	93.00	4789.86	-115.64	115.64	S	227.36	W	255.08	243.04	1.66	1.32	8.90
51	4898.00	6.78	236.53	94.00	4883.17	-122.64	122.64	S	236.32	W	266.25	242.57	1.20	-0.39	9.39
52	4991.00	6.80	244.18	93.00	4975.52	-128.06	128.06	S	245.85	W	277.21	242.49	0.97	0.02	8.23
53	5084.00	6.64	236.19	93.00	5067.89	-133.45	133.45	S	255.28	W	288.06	242.40	1.02	-0.17	-8.59
54	5177.00	6.51	242.23	93.00	5160.27	-138.90	138.90	S	264.41	W	298.67	242.29	0.76	-0.14	6.49
55	5270.00	6.16	250.56	93.00	5252.71	-143.02	143.02	S	273.78	W	308.89	242.42	1.06	-0.38	8.96
56	5363.00	5.63	252.99	93.00	5345.22	-146.01	146.01	S	282.85	W	318.31	242.70	0.63	-0.57	2.61
57	5457.00	6.09	251.65	94.00	5438.72	-148.93	148.93	S	291.99	W	327.78	242.98	0.51	0.49	-1.43
58	5550.00	5.46	245.64	93.00	5531.25	-152.31	152.31	S	300.70	W	337.08	243.14	0.94	-0.68	-6.46
59	5643.00	5.77	254.60	93.00	5623.81	-155.38	155.38	S	309.24	W	346.08	243.32	1.00	0.33	9.63
60	5737.00	7.52	260.84	94.00	5717.17	-157.61	157.61	S	319.87	W	356.59	243.77	2.01	1.86	6.64
61	5830.00	6.62	257.81	93.00	5809.47	-159.71	159.71	S	331.12	W	367.62	244.25	1.05	-0.97	-3.26
62	5923.00	5.65	252.70	93.00	5901.93	-162.21	162.21	S	340.73	W	377.37	244.54	1.20	-1.04	-5.49
63	6016.00	5.35	245.95	93.00	5994.51	-165.33	165.33	S	349.06	W	386.24	244.66	0.77	-0.32	-7.26
64	6109.00	5.31	241.27	93.00	6087.11	-169.17	169.17	S	356.79	W	394.87	244.63	0.47	-0.04	-5.03
65	6202.00	7.07	240.99	93.00	6179.56	-174.01	174.01	S	365.57	W	404.87	244.55	1.89	1.89	-0.30
66	6295.00	6.24	236.23	93.00	6271.93	-179.60	179.60	S	374.78	W	415.59	244.40	1.07	-0.89	-5.12
67	6388.00	6.58	244.60	93.00	6364.35	-184.69	184.69	S	383.79	W	425.92	244.30	1.07	0.37	9.00
68	6482.00	6.52	259.63	94.00	6457.75	-187.96	187.96	S	393.91	W	436.46	244.49	1.82	-0.06	15.99
69	6575.00	8.28	257.56	93.00	6549.97	-190.36	190.36	S	405.64	W	448.09	244.86	1.91	1.89	-2.23
70	6668.00	8.04	253.09	93.00	6642.03	-193.69	193.69	S	418.41	W	461.06	245.16	0.73	-0.26	-4.81
71	6761.00	6.82	247.34	93.00	6734.25	-197.71	197.71	S	429.72	W	473.03	245.29	1.53	-1.31	-6.18
72	6854.00	5.90	238.90	93.00	6826.68	-202.31	202.31	S	438.91	W	483.29	245.25	1.41	-0.99	-9.08



**Company:** EP Energy  
**Well:** UDOT 2-1C5  
**Location:** Duchesne, UT  
**Rig:** Precision 404

**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	6947.00	5.74	236.84	93.00	6919.20	-207.32	207.32	S	446.90	W	492.65	245.11	0.28	-0.17	-2.22
74	7040.00	6.89	239.66	93.00	7011.63	-212.68	212.68	S	455.61	W	502.80	244.98	1.28	1.24	3.03
75	7133.00	7.39	239.66	93.00	7103.91	-218.52	218.52	S	465.58	W	514.31	244.86	0.54	0.54	0.00
76	7227.00	6.86	235.12	94.00	7197.18	-224.79	224.79	S	475.41	W	525.87	244.69	0.82	-0.56	-4.83
77	7320.00	6.18	231.31	93.00	7289.58	-231.09	231.09	S	483.87	W	536.22	244.47	0.87	-0.73	-4.10
78	7413.00	5.53	221.33	93.00	7382.10	-237.59	237.59	S	490.74	W	545.22	244.17	1.30	-0.70	-10.73
79	7507.00	5.72	218.84	94.00	7475.65	-244.64	244.64	S	496.67	W	553.65	243.78	0.33	0.20	-2.65
80	7600.00	5.53	220.77	93.00	7568.20	-251.64	251.64	S	502.50	W	561.98	243.40	0.29	-0.20	2.08
81	7693.00	5.13	227.40	93.00	7660.80	-257.85	257.85	S	508.49	W	570.12	243.11	0.79	-0.43	7.13
82	7786.00	4.48	229.28	93.00	7753.47	-263.03	263.03	S	514.30	W	577.66	242.91	0.72	-0.70	2.02
83	7880.00	3.88	224.94	94.00	7847.22	-267.68	267.68	S	519.33	W	584.25	242.73	0.72	-0.64	-4.62
84	7973.00	3.63	217.69	93.00	7940.02	-272.23	272.23	S	523.35	W	589.92	242.52	0.58	-0.27	-7.80
85	8066.00	3.83	212.62	93.00	8032.82	-277.18	277.18	S	526.82	W	595.29	242.25	0.41	0.22	-5.45
86	8159.00	3.50	206.81	93.00	8125.63	-282.33	282.33	S	529.78	W	600.31	241.95	0.53	-0.35	-6.25
87	8253.00	3.13	202.19	94.00	8219.48	-287.27	287.27	S	532.04	W	604.64	241.63	0.49	-0.39	-4.91
88	8346.00	3.19	208.21	93.00	8312.33	-291.90	291.90	S	534.23	W	608.77	241.35	0.36	0.06	6.47
89	8439.00	2.85	200.32	93.00	8405.21	-296.35	296.35	S	536.25	W	612.69	241.07	0.58	-0.37	-8.48
90	8532.00	2.40	195.63	93.00	8498.11	-300.39	300.39	S	537.58	W	615.81	240.80	0.54	-0.48	-5.04
91	8625.00	2.51	194.67	93.00	8591.02	-304.23	304.23	S	538.62	W	618.60	240.54	0.13	0.12	-1.03
92	8718.00	2.45	198.52	93.00	8683.94	-308.09	308.09	S	539.77	W	621.50	240.28	0.19	-0.06	4.14
93	8812.00	2.48	202.36	94.00	8777.85	-311.88	311.88	S	541.18	W	624.61	240.05	0.18	0.03	4.09
94	8905.00	2.40	197.38	93.00	8870.76	-315.59	315.59	S	542.53	W	627.64	239.81	0.24	-0.09	-5.35
95	8998.00	2.04	195.31	93.00	8963.69	-319.05	319.05	S	543.54	W	630.26	239.59	0.40	-0.39	-2.23
96	9091.00	1.55	200.57	93.00	9056.65	-321.82	321.82	S	544.42	W	632.43	239.41	0.56	-0.53	5.66
97	9184.00	1.56	176.86	93.00	9149.62	-324.27	324.27	S	544.80	W	634.00	239.24	0.69	0.01	-25.49
98	9277.00	0.88	92.10	93.00	9242.60	-325.56	325.56	S	544.01	W	633.98	239.10	1.85	-0.73	-91.14
99	9371.00	1.90	80.66	94.00	9336.57	-325.33	325.33	S	541.75	W	631.93	239.01	1.12	1.09	-12.17
100	9474.00	2.52	154.89	103.00	9439.51	-327.10	327.10	S	539.11	W	630.58	238.75	2.63	0.60	72.07
101	9521.00	3.06	176.95	47.00	9486.46	-329.29	329.29	S	538.60	W	631.29	238.56	2.54	1.15	46.94
102	9585.00	3.80	204.63	64.00	9550.35	-332.93	332.93	S	539.39	W	633.87	238.32	2.80	1.16	43.25
103	9700.00	4.16	204.29	115.00	9665.07	-340.19	340.19	S	542.70	W	640.51	237.92	0.31	0.31	-0.29
104	9800.00	3.60	195.12	100.00	9764.84	-346.52	346.52	S	545.01	W	645.84	237.55	0.84	-0.56	-9.18
105	9900.00	3.73	203.51	100.00	9864.64	-352.53	352.53	S	547.12	W	650.86	237.20	0.55	0.14	8.39
106	10000.00	3.86	196.01	100.00	9964.42	-358.75	358.75	S	549.35	W	656.11	236.85	0.51	0.13	-7.49
107	10100.00	3.49	201.87	100.00	10064.21	-364.80	364.80	S	551.41	W	661.16	236.51	0.53	-0.37	5.86
108	10200.00	3.42	197.40	100.00	10164.03	-370.47	370.47	S	553.43	W	665.99	236.20	0.28	-0.07	-4.47
109	10300.00	3.21	195.29	100.00	10263.86	-376.02	376.02	S	555.06	W	670.44	235.89	0.24	-0.21	-2.11



**Company:** EP Energy  
**Well:** UDOT 2-1C5  
**Location:** Duchesne, UT  
**Rig:** Precision 404

**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			
110	10400.00	3.50	193.42	100.00	10363.69	-381.68	381.68 S	556.51 W	674.82	235.56	0.30	0.28	-1.87
111	10500.00	3.17	192.46	100.00	10463.52	-387.35	387.35 S	557.82 W	679.12	235.22	0.33	-0.32	-0.95
112	10600.00	3.10	191.10	100.00	10563.37	-392.71	392.71 S	558.93 W	683.10	234.91	0.10	-0.07	-1.36
113	10700.00	3.10	187.88	100.00	10663.23	-398.04	398.04 S	559.82 W	686.90	234.59	0.17	0.00	-3.22
114	10800.00	3.05	192.32	100.00	10763.08	-403.31	403.31 S	560.76 W	690.73	234.28	0.24	-0.05	4.44
115	10900.00	3.28	188.84	100.00	10862.93	-408.73	408.73 S	561.77 W	694.73	233.96	0.30	0.23	-3.49
116	11000.00	3.16	184.00	100.00	10962.77	-414.31	414.31 S	562.40 W	698.53	233.62	0.30	-0.12	-4.84
117	11100.00	2.91	187.56	100.00	11062.63	-419.58	419.58 S	562.93 W	702.09	233.30	0.31	-0.25	3.56
118	11200.00	3.02	185.88	100.00	11162.50	-424.72	424.72 S	563.53 W	705.66	233.00	0.14	0.11	-1.68
119	11300.00	3.43	180.08	100.00	11262.34	-430.33	430.33 S	563.80 W	709.27	232.65	0.52	0.40	-5.80
120	11400.00	3.29	187.39	100.00	11362.17	-436.16	436.16 S	564.18 W	713.12	232.29	0.45	-0.14	7.31
121	11500.00	3.43	181.65	100.00	11462.00	-442.00	442.00 S	564.63 W	717.06	231.95	0.37	0.15	-5.74
122	11600.00	3.77	183.49	100.00	11561.80	-448.27	448.27 S	564.92 W	721.17	231.57	0.35	0.33	1.84
123	11700.00	3.66	180.55	100.00	11661.59	-454.74	454.74 S	565.15 W	725.38	231.18	0.22	-0.11	-2.94
124	11800.00	3.72	183.90	100.00	11761.38	-461.17	461.17 S	565.40 W	729.62	230.80	0.23	0.07	3.35
125	11900.00	3.45	185.44	100.00	11861.19	-467.40	467.40 S	565.91 W	733.97	230.45	0.29	-0.28	1.54
126	12000.00	3.57	183.95	100.00	11961.00	-473.50	473.50 S	566.41 W	738.25	230.11	0.15	0.12	-1.50
127	12100.00	3.84	191.01	100.00	12060.79	-479.88	479.88 S	567.26 W	743.02	229.77	0.53	0.27	7.07
128	12200.00	4.11	190.40	100.00	12160.55	-486.69	486.69 S	568.55 W	748.41	229.44	0.27	0.27	-0.61
129	12300.00	4.31	183.53	100.00	12260.28	-493.97	493.97 S	569.42 W	753.82	229.06	0.54	0.20	-6.88
130	12400.00	4.18	181.01	100.00	12360.01	-501.36	501.36 S	569.72 W	758.91	228.65	0.23	-0.13	-2.52
131	12446.00	4.56	181.93	46.00	12405.87	-504.87	504.87 S	569.81 W	761.30	228.46	0.83	0.82	1.99
132	12650.00	4.56	181.93	204.00	12609.23	-521.08	521.08 S	570.36 W	772.55	227.59	0.00	0.00	0.00
133													
134													
135													
136													
137													



## UDOT 2-1C5 Recom Summary Procedure

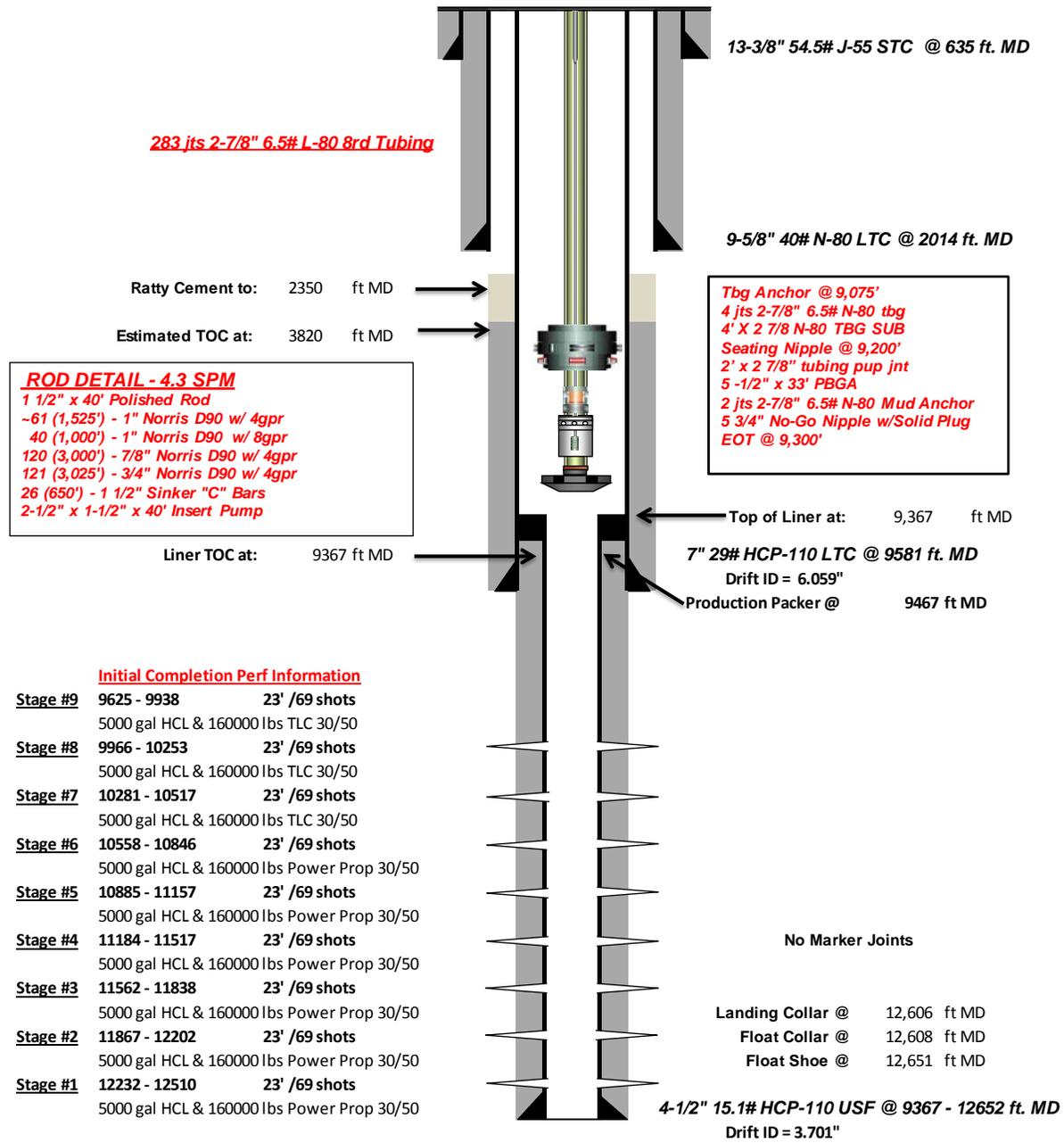
- POOH with rods & tubing. Inspect/Repair/Re-furbish as needed. Replace any bad tubing.
- Set 15M CBP for 4-1/2" 15.1# casing @ 11,610' and dump bail 15' cmt on top of plug.
- Stage 1:
  - Perforate new LGR interval from **9,396' - 9,548**.
  - Prop Frac Perforations with **85,000** lbs 30/50 prop (w/ **6,000** lbs 100 mesh & **6,000** gals 15% HCl acid) (Stage 1 Recom).
- Stage 2:
  - RIH with 7" CBP & set @ 9,209'.
  - Perforate new LGR interval from **9,078' - 9,194'**.
  - Acid Frac Perforations with **13,500** gals 15% HCl acid (Stage 2 Recom).
- Stage 3:
  - RIH with 7" CBP & set @ 9,033'.
  - Perforate new LGR interval from **8,890 - 9,018'**.
  - Acid Frac Perforations with **15,000** gals 15% HCl acid (Stage 3 Recom).
- Stage 4:
  - RIH with 7" CBP & set @ 8,806'.
  - Perforate new LGR interval from **8,680' - 8,791'**.
  - Acid Frac Perforations with **13,000** gals 15% HCl acid (Stage 4 Recom).
- Stage 5:
  - RIH with 7" CBP & set @ 8,646'.
  - Perforate new LGR interval from **8,582' - 8,631'**.
  - Acid Frac Perforations with **7,000** gals 15% HCl acid (Stage 5 Recom).
- Clean out well drilling up (4) 7" CBPs leaving one 4-1/2" 15M CBP @ 9,610'. (PBSD @ 11,595').  
Top perf BELOW plugs @ 9,625'.
- RIH w/ production tubing, pump, and rods.
- Clean location and resume production.



**Current Wellbore Schematic**

Well Name: **UDOT 2-1C5**  
 Company Name: **EP Energy**  
 Field, County, State: **Altamont, Duchesne, UT**  
 Surface Location: **Lat: 40°15'14.254" N Long: 110°24'19.979" W**  
 Producing Zone(s): **Wasatch**

Last Updated: **11/21/2016**  
 By: **Tomova**  
 TD: **12,651**  
 API: **4301352905**  
 AFE:





**Proposed Recom Wellbore Schematic**

Well Name: **UDOT 2-1C5**  
 Company Name: **EP Energy**  
 Field, County, State: **Altamont, Duchesne, UT**  
 Surface Location: **Lat: 40°15'14.254" N Long: 110°24'19.979" W**  
 Producing Zone(s): **Wasatch**

Last Updated: **1/3/2017**  
 By: **R Fondren**  
 TD: **12,651**  
 API: **4301352905**  
 AFE:

2017 Recompletion	
STG 5: 8,582' - 8,631' (12'/69 holes)	7,000 gals HCl
STG 4: 8,680' - 8,791' (17'/69 holes)	13,000 gals HCl
STG 3: 8,890' - 9,018' (21'/69 holes)	15,000 gals HCl
STG 2: 9,078' - 9,194' (14'/51 holes)	13,500 gals HCl
STG 1: 9,396' - 9,548' (19'/69 holes)	6,000 gals HCl + 6,000# 100M + 85,000# 30/50

Initial Completion Perf Information		
<b>Stage #9</b>	<b>9625 - 9938</b>	<b>23' /69 shots</b>
	5000 gal HCL & 160000 lbs TLC 30/50	
<b>Stage #8</b>	<b>9966 - 10253</b>	<b>23' /69 shots</b>
	5000 gal HCL & 160000 lbs TLC 30/50	
<b>Stage #7</b>	<b>10281 - 10517</b>	<b>23' /69 shots</b>
	5000 gal HCL & 160000 lbs TLC 30/50	
<b>Stage #6</b>	<b>10558 - 10846</b>	<b>23' /69 shots</b>
	5000 gal HCL & 160000 lbs Power Prop 30/50	
<b>Stage #5</b>	<b>10885 - 11157</b>	<b>23' /69 shots</b>
	5000 gal HCL & 160000 lbs Power Prop 30/50	
<b>Stage #4</b>	<b>11184 - 11517</b>	<b>23' /69 shots</b>
	5000 gal HCL & 160000 lbs Power Prop 30/50	
<b>Stage #3</b>	<b>11562 - 11838</b>	<b>23' /69 shots</b>
	5000 gal HCL & 160000 lbs Power Prop 30/50	
<b>Stage #2</b>	<b>11867 - 12202</b>	<b>23' /69 shots</b>
	5000 gal HCL & 160000 lbs Power Prop 30/50	
<b>Stage #1</b>	<b>12232 - 12510</b>	<b>23' /69 shots</b>
	5000 gal HCL & 160000 lbs Power Prop 30/50	

