

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 Wollman 2-23C4								
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 NORTH MYTON BENCH								
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') Wade C. E. Wollman						14. SURFACE OWNER PHONE (if box 12 = 'fee')								
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee') 2217 Bitter Creek Trl, ,						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		905 FNL 1046 FWL		NWNW		23		3.0 S		4.0 W		U		
Top of Uppermost Producing Zone		905 FNL 1046 FWL		NWNW		23		3.0 S		4.0 W		U		
At Total Depth		905 FNL 1046 FWL		NWNW		23		3.0 S		4.0 W		U		
21. COUNTY DUCHESNE			22. DISTANCE TO NEAREST LEASE LINE (Feet) 905			23. NUMBER OF ACRES IN DRILLING UNIT 640								
			25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 4600			26. PROPOSED DEPTH MD: 11800 TVD: 11800								
27. ELEVATION - GROUND LEVEL 5907			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	20	13.375	0 - 750	54.5	J-55 ST&C	9.0	Class G	1606	1.15	15.8				
Surf	12.25	9.625	0 - 2500	40.0	N-80 LT&C	9.3	Unknown	303	3.16	11.0				
							Unknown	191	1.33	14.3				
I1	8.75	7	0 - 8900	29.0	HCP-110 LT&C	10.5	Unknown	421	2.31	12.0				
							Unknown	91	1.91	12.5				
L1	6.125	5	8700 - 11800	18.0	HCP-110 LT&C	13.5	Unknown	184	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 07/09/2013				EMAIL maria.gomez@epenergy.com						
API NUMBER ASSIGNED 4301352290000				APPROVAL   Permit Manager										

**Wollman 2-23C4  
Sec. 23, T3S, R4W  
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)	3,797' TVD
Green River (GRTN1)	4,847' TVD
Mahogany Bench	5,787' TVD
L. Green River	7,137' TVD
Wasatch	8,857' TVD
T.D. (Permit)	11,800' TVD

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

<u>Substance</u>	<u>Formation</u>	<u>Depth</u>
	Green River (GRRV)	3,797' MD / TVD
	Green River (GRTN1)	4,847' MD / TVD
	Mahogany Bench	5,787' MD / TVD
Oil	L. Green River	7,137' MD / TVD
Oil	Wasatch	8,857' MD / TVD

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

A 4.5" by 20.0" rotating head on structural pipe from surface to 750' MD/TVD. A 4.5" by 13-3/8" Smith Rotating Head from 750' MD/TVD to 2,500' MD/TVD on Conductor. A 5M BOP stack, 5M kill lines and choke manifold used from 2,500' MD/TVD to 8,900' MD/TVD. A 10M BOE w/ rotating head, 5M annular, blind rams & mud cross from 8,900' MD/TVD to TD (11,800' 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 3-½" pipe rams, blind rams, mud cross and rotating head from intermediate 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 750' - TD
- B) Mud logger with gas monitor – 2,500' to TD (11,800' 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	9.0 – 10.5
Production	WBM	10.5 – 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 (11,800' 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 11,800' TVD equals approximately 8,284 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 5,688 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 8,900' TVD = 7,120 psi

BOPE and casing design will be based on the lesser of the two MASPs which is 5,688 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	750	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	8900	29.00	HCP-110	LTC	11,220	9,750	797
PRODUCTION LINER	5'	8700	11800	18.00	HCP-110	LTC	13,950	14,360	495

CEMENT PROGRAM		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
CONDUCTOR		750	Class G + 3% CACL2	1606	100%	15.8 ppg	1.15
SURFACE	Lead	2,000	EXTENDACEM (TM) SYSTEM: 5 lbm/sk Silicalite Compacted + 0.25 lbm/sk Kwik Seal + 0.125 lbm/sk Poly-E-Flake + 2% Bentonite	303	75%	11.0 ppg	3.16
	Tail	500	HALCEM (TM) SYSTEM: 3 lbm/sk Silicalite Compacted + 1% Salt + 0.3% Econolite + 0.25 lbm/sk Poly-E-Flake + 0.25 lbm/sk Kwik Seal + 0.5% HR-5	191	50%	14.3 ppg	1.33
INTERMEDIATE	Lead	5,900	EXTENDACEM (TM) SYSTEM: 4% Bentonite + 0.4% Econolite + 0.2% Halad(R)-322 + 3 lbm/sk Silicalite Compacted + 1.2% HR-5 + 0.125 lbm/sk Poly-E-Flake	421	10%	12.0 ppg	2.31
	Tail	1,000	EXPANDACEM (TM) SYSTEM: 0.2% Econolite + 0.3% Versaset + 0.9% HR-5 + 0.3% Super CBL + 0.2% Halad(R)-322 + 0.125 lbm/sk Poly-E-Flake	91	10%	12.5 ppg	1.91
PRODUCTION LINER		3,100	EXTENDACEM (TM) SYSTEM: 0.3% Super CBL + 0.1% SA-1015 + 0.3% Halad(R)-413 + 0.5% SCR-100 + 0.125 lbm/sk Poly-E-Flake + 3 lbm/sk Silicalite Compacted + 20% SSA-1	184	25%	14.20	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 8,000'.
LINER	Float shoe, 1 joint, float collar. Thread lock all FE. Maker joints every 1000'.

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

MANAGER: Tommy Gaydos

EP ENERGY E&P COMPANY, L.P.  
WOLLMAN 2-23C4  
SECTION 23, T3S, R4W, 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 3.53 MILES TO AN INTERSECTION;

TURN RIGHT AND TRAVEL EASTERLY 4.24 MILES ON A GRAVEL COUNTY ROAD TO THE BEGINNING OF THE PROPOSED ACCESS ROAD;

TURN RIGHT AND FOLLOW ROAD FLAGS SOUTH 0.24 MILES TO THE PROPOSED WELL LOCATION;

TOTAL DISTANCE FROM DUCHESNE, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 8.01 MILES.

CONFIDENTIAL



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

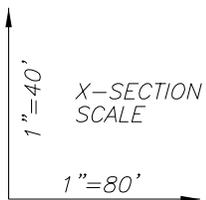
FIGURE #2

## LOCATION LAYOUT FOR

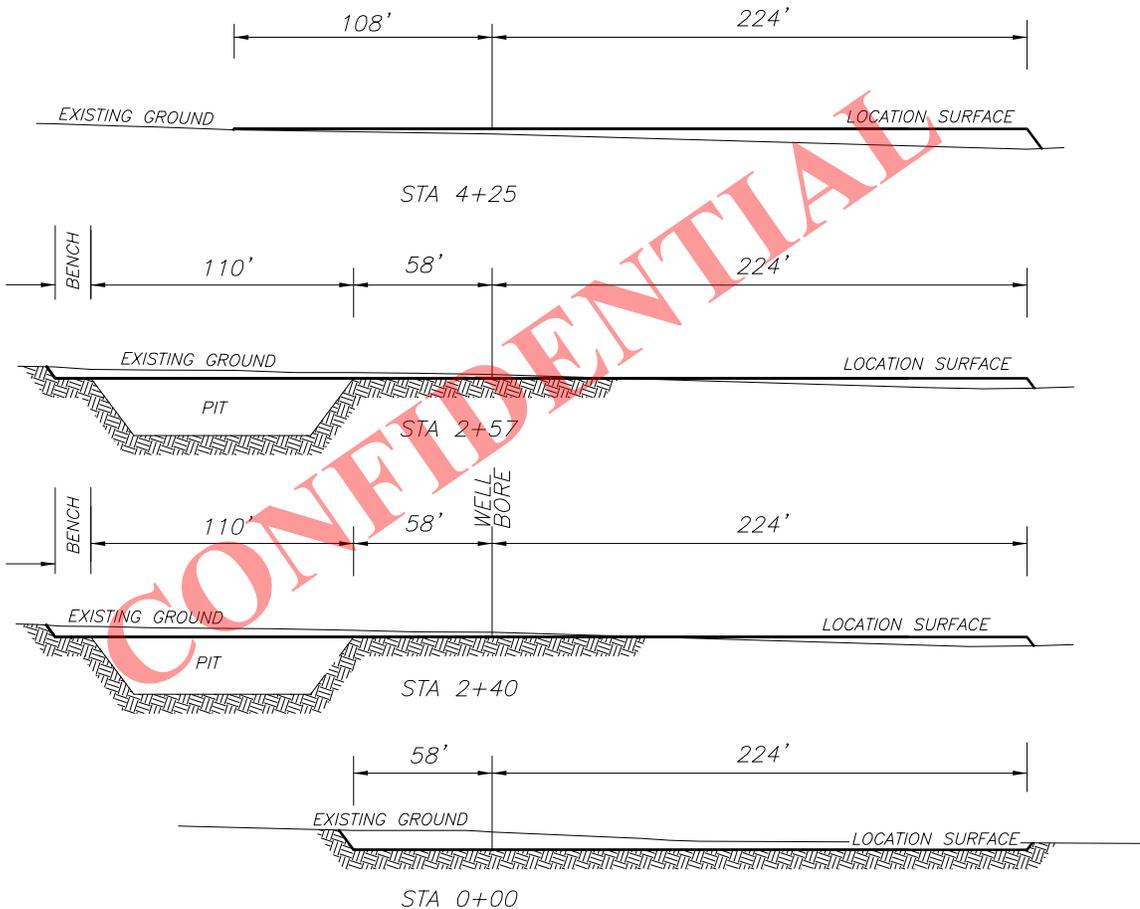
WOLLMAN 2-23C4

SECTION 23, T3S, R4W, U.S.B.&M.

905' FNL, 1046' FWL



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



APPROXIMATE YARDAGES

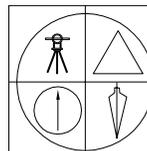
TOTAL CUT (INCLUDING PIT) = 12,040 CU. YDS.

PIT CUT = 4955 CU. YDS.  
TOPSOIL STRIPPING: (6") = 2880 CU. YDS.  
REMAINING LOCATION CUT = 4205 CU. YDS

TOTAL FILL = 4205 CU. YDS.

LOCATION SURFACE GRAVEL=1495 CU. YDS. (4" DEEP)

ACCESS ROAD GRAVEL=500 CU. YDS.



JERRY D. ALLRED & ASSOCIATES  
SURVEYING CONSULTANTS

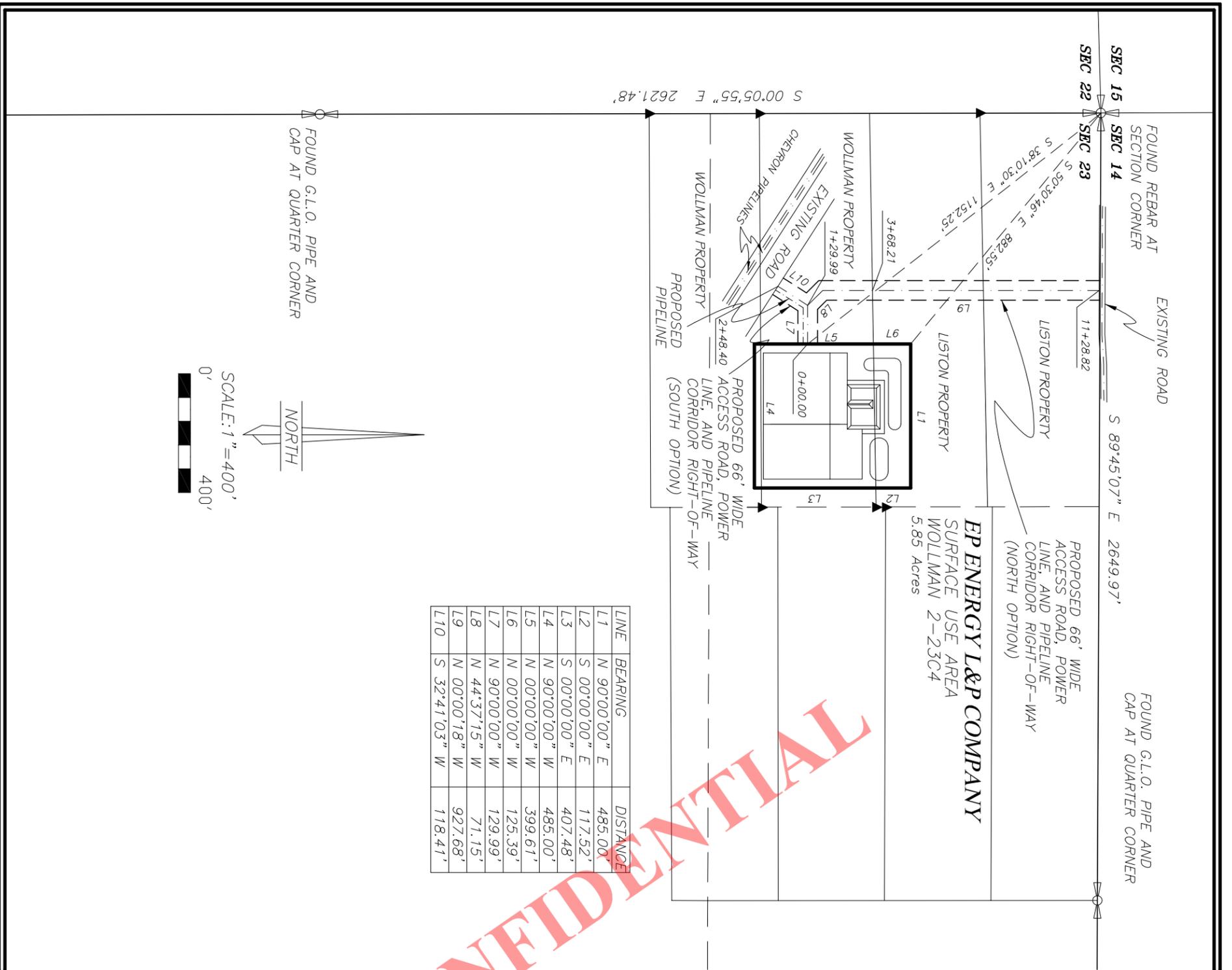
1235 NORTH 700 EAST--P.O. BOX 975  
DUCHESNE, UTAH 84021  
(435) 738-5352

19 JUN 2013

01-128-377

RECEIVED: July 09, 2013





LINE	BEARING	DISTANCE
L1	N 90°00'00" E	485.00'
L2	S 00°00'00" E	117.52'
L3	S 00°00'00" E	407.48'
L4	N 90°00'00" W	485.00'
L5	N 00°00'00" W	399.61'
L6	N 00°00'00" W	125.39'
L7	N 90°00'00" W	129.99'
L8	N 44°37'15" W	71.15'
L9	N 00°00'18" W	927.68'
L10	S 32°41'03" W	118.41'

LOCATION USE AREA AND ACCESS ROAD, POWER LINE, AND PIPELINE  
CORRIDOR RIGHT-OF-WAY SURVEY FOR  
**EP ENERGY L&P COMPANY**  
**WOLLMAN 2-23C4**  
SECTION 23, T3S, R4W, U.S.B.&M.  
DUCHESSNE COUNTY, UTAH

**USE AREA BOUNDARY**

Commencing at the Northwest Corner of Section 23, Township 3 South, Range 4 West of the Uintah Special Base and Meridian;  
Thence South 50°30'46" East 882.55 feet to the TRUE POINT OF BEGINNING;  
Thence North 90°00'00" East 485.00 feet;  
Thence South 00°00'00" East 525.00 feet;  
Thence South 90°00'00" West 485.00 feet;  
Thence North 00°00'00" West 525.00 feet to the TRUE POINT OF BEGINNING, containing 5.85 acres.

**ACCESS ROAD, PIPELINE, AND POWER LINE CORRIDOR RIGHT-OF-WAY DESCRIPTION (NORTH OPTION)**

A 66 feet wide access road, pipeline, and power line corridor right-of-way over a portion of Section 23, Township 3 South, Range 4 West of the Uintah Special Base and Meridian, the centerline of which is further described as follows:  
Commencing at the Northwest Corner of said Section 23;  
Thence South 38°10'30" East 1152.25 feet to the TRUE POINT OF BEGINNING, said point being on the West line of the EP Energy E&P Co. Wollman 2-23C4 use area boundary;  
Thence South 90°00'00" West 129.99 feet;  
Thence North 44°37'15" West 71.15 feet;  
Thence North 00°00'18" West 927.68 feet to an existing road. Said right-of-way being 1128.82 feet in length, with the sidelines being shortened or elongated to intersect said use area boundary and existing road right-of-way lines.

**ACCESS ROAD, PIPELINE, AND POWER LINE CORRIDOR RIGHT-OF-WAY DESCRIPTION (SOUTH OPTION)**

A 66 feet wide access road, pipeline, and power line corridor right-of-way over a portion of Section 23, Township 3 South, Range 4 West of the Uintah Special Base and Meridian, the centerline of which is further described as follows:  
Commencing at the Northwest Corner of said Section 23;  
Thence South 38°10'30" East 1152.25 feet to the TRUE POINT OF BEGINNING, said point being on the West line of the EP Energy E&P Co. Wollman 2-23C4 use area boundary;  
Thence South 90°00'00" West 129.99 feet;  
Thence South 32°41'03" West 118.41 feet to an existing County Road. Said right-of-way being 248.40 feet in length, with the sidelines being shortened or elongated to intersect said use area boundary and existing road right-of-way lines.

**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 and access road, power line, and pipeline corridor right-of-ways 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.

THIS SURVEY WAS PERFORMED USING GLOBAL POSITIONING SYSTEM PROCEDURES AND EQUIPMENT

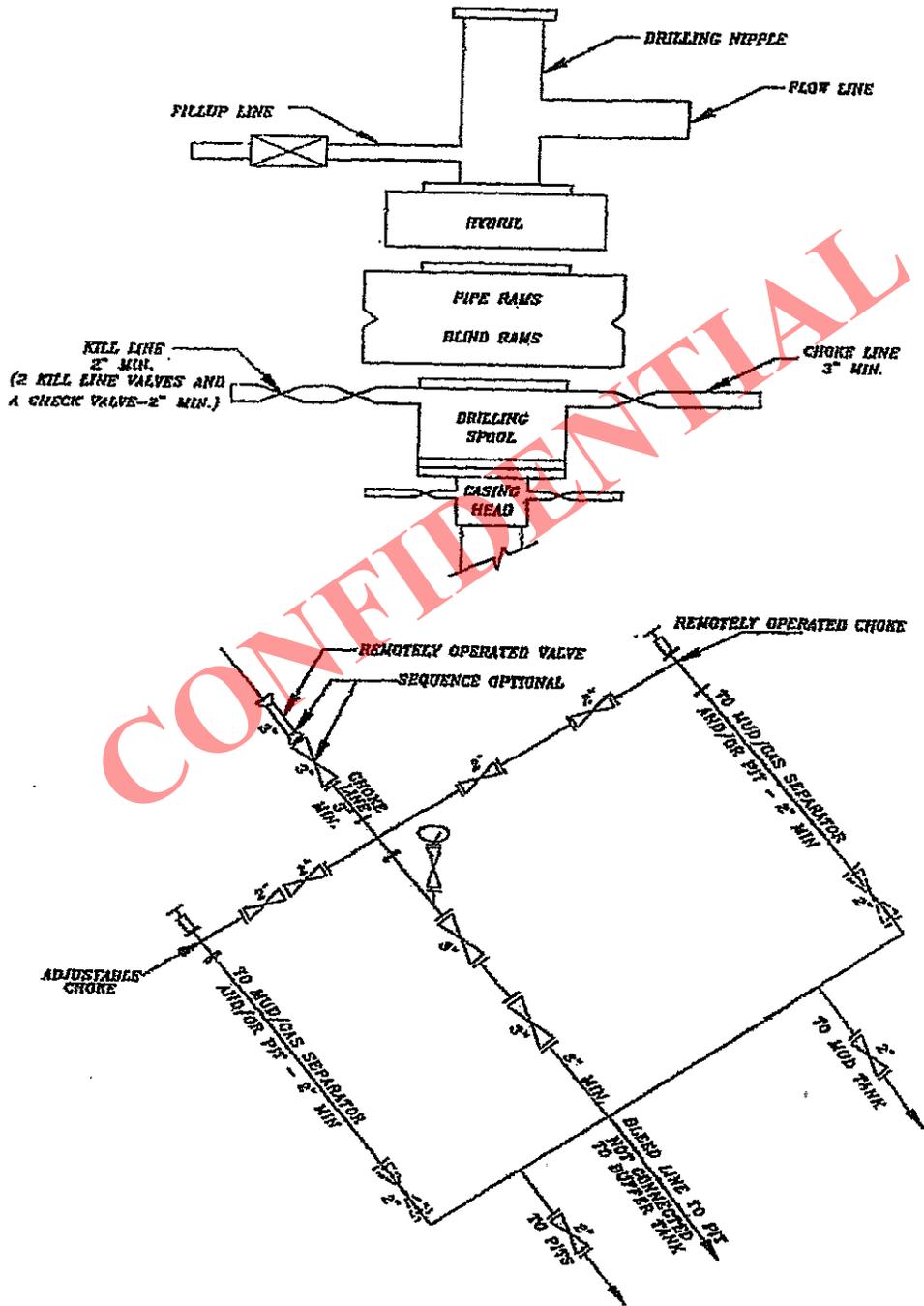
THE BASIS OF BEARINGS IS GEODETIC NORTH DERIVED FROM G.P.S. OBSERVATIONS AT THE SECTION CORNER LOCATED AT LAT. 40°15'22.90258"N AND LONG. 110°23'21.19760"W USING THE UTAH STATE G.P.S. VIRTUAL REFERENCE STATION CONTROL NETWORK MAINTAINED AND OPERATED BY THE AUTOMATED GEOGRAPHIC REFERENCE CENTER

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

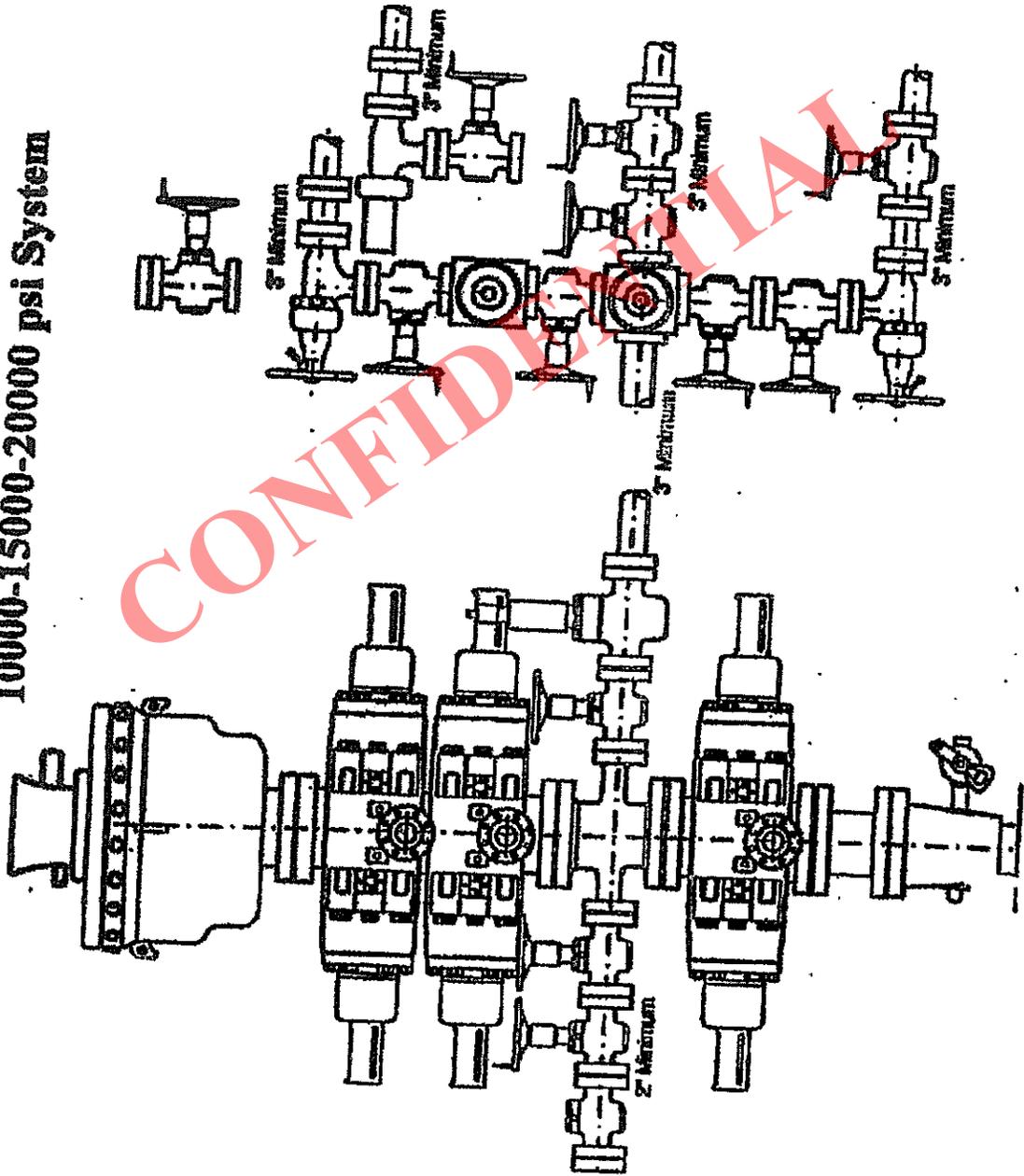


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# 5M BOP STACK and CHOKE MANIFOLD SYSTEM



10000-15000-20000 psi System

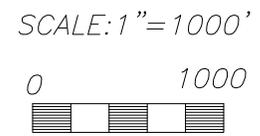
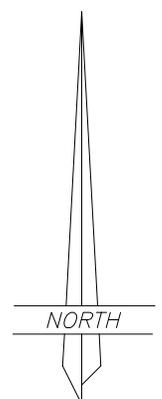
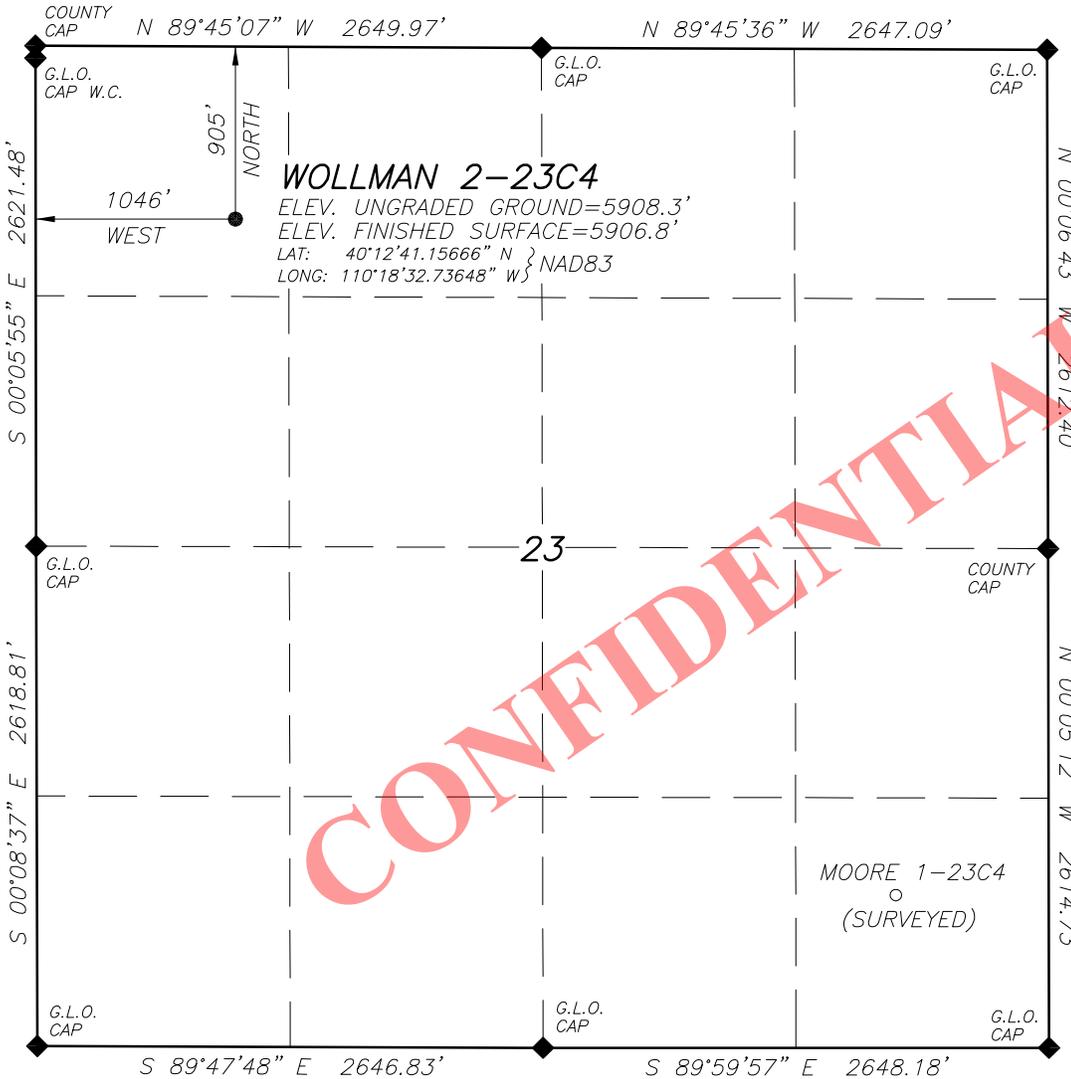


# EP ENERGY E & P COMPANY, L.P.

## WELL LOCATION

### WOLLMAN 2-23C4

LOCATED IN THE NW¼ OF THE NW¼ OF SECTION 23, T3S, R4W, U.S.B.&M. DUCHESNE COUNTY, UTAH



NOTE:  
 NAD27 VALUES FOR WELL POSITION:  
 LAT: 40.211474797° N  
 LONG: 110.308383150° W

#### 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.

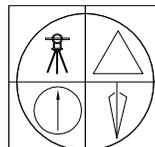


JERRY D. ALLRED, PROFESSIONAL LAND SURVEYOR, CERTIFICATE NO. 148951 (UTAH)

#### LEGEND AND NOTES

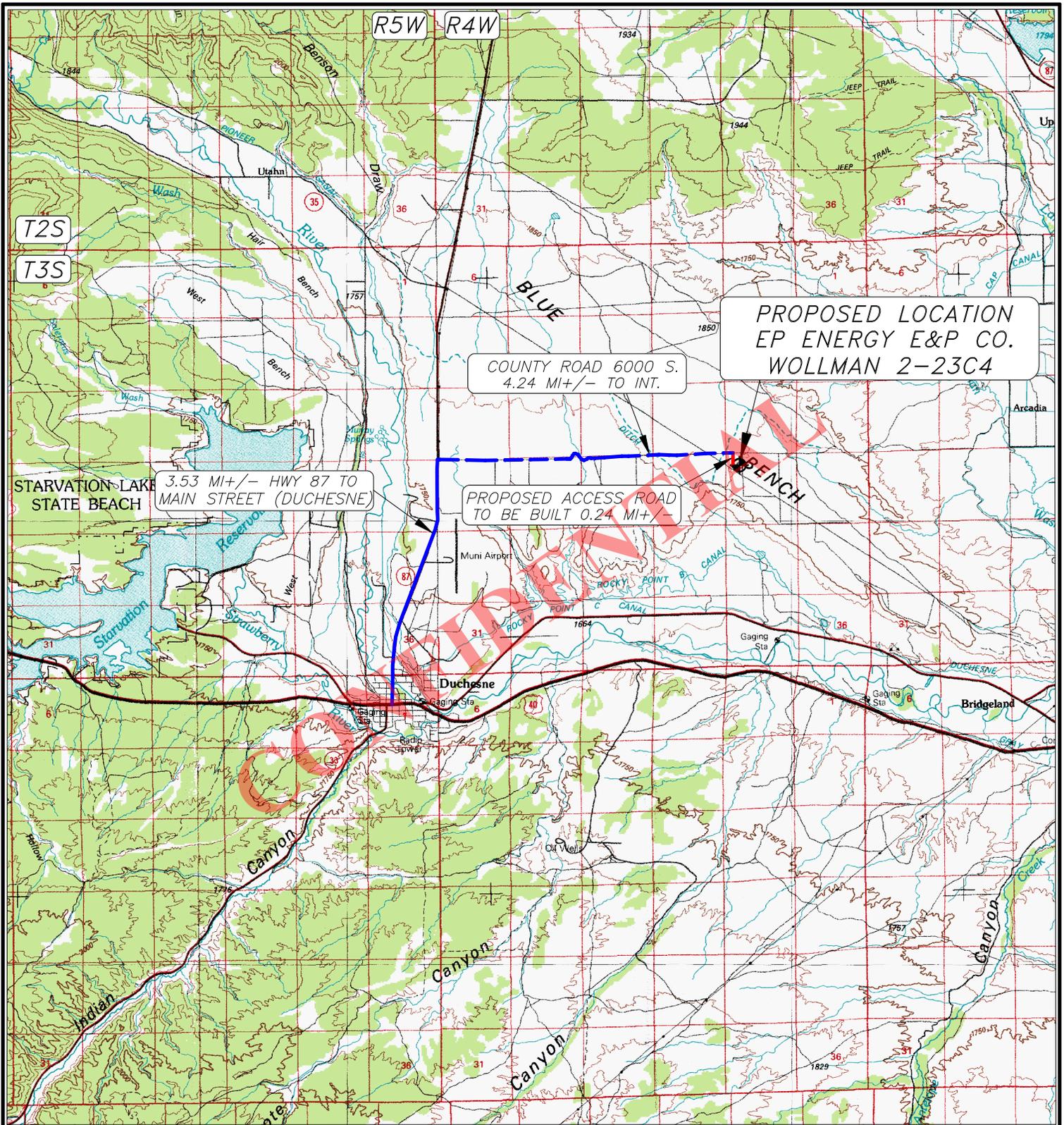
- ◆ CORNER MONUMENTS FOUND AND USED BY THIS SURVEY
- THE GENERAL LAND OFFICE (G.L.O.) PLAT WAS USED FOR REFERENCE AND CALCULATIONS AS WAS THE U.S.G.S. MAP
- THIS SURVEY WAS PERFORMED USING GLOBAL POSITIONING SYSTEM PROCEDURES AND EQUIPMENT
- THE BASIS OF BEARINGS IS GEODETIC NORTH DERIVED FROM G.P.S. 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



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

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



PROPOSED LOCATION  
EP ENERGY E&P CO.  
WOLLMAN 2-23C4

COUNTY ROAD 6000 S.  
4.24 MI+/- TO INT.

STARVATION LAKE STATE BEACH  
3.53 MI+/- HWY 87 TO  
MAIN STREET (DUCHEсне)

PROPOSED ACCESS ROAD  
TO BE BUILT 0.24 MI+/-

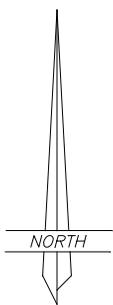
**LEGEND:**

 PROPOSED WELL LOCATION

01-128-377

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

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

WOLLMAN 2-23C4

SECTION 23, T3S, R4W, U.S.B.&M.

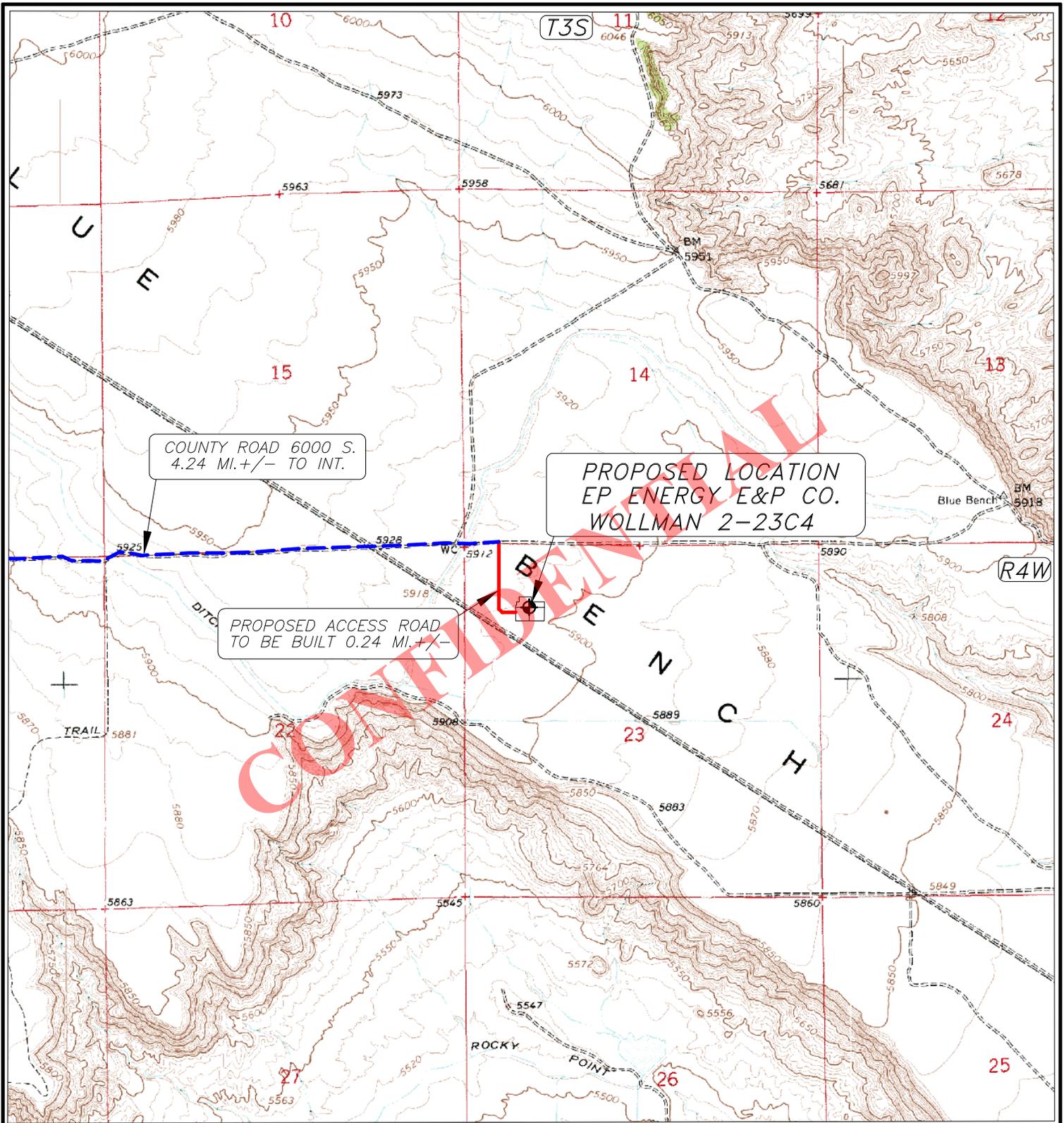
905' FNL 1046' FWL

**TOPOGRAPHIC MAP "A"**

SCALE; 1"=10,000'

22 MAR 2013

RECEIVED: July 09, 2013



COUNTY ROAD 6000 S.  
4.24 MI. +/- TO INT.

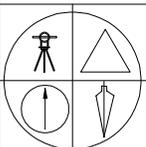
PROPOSED LOCATION  
EP ENERGY E&P CO.  
WOLLMAN 2-23C4

PROPOSED ACCESS ROAD  
TO BE BUILT 0.24 MI. +/-

**LEGEND:**

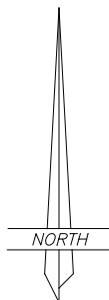
-  PROPOSED WELL LOCATION
-  PROPOSED ACCESS ROAD
-  EXISTING GRAVEL ROAD
-  EXISTING PAVED ROAD

01-128-377



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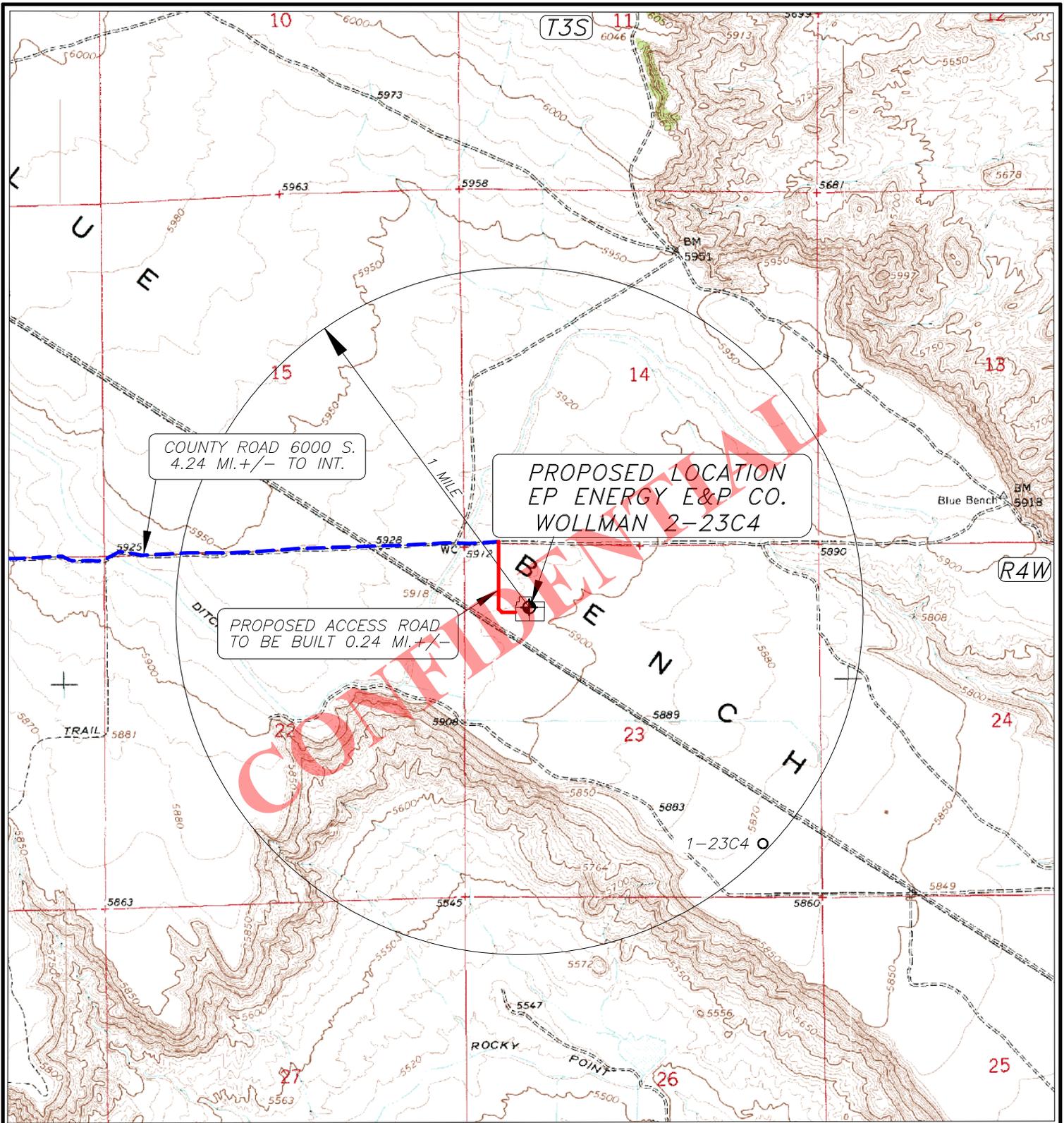
**EP ENERGY E & P COMPANY, L.P.**

WOLLMAN 2-23C4  
SECTION 23, T3S, R4W, U.S.B.&M.

905' FNL 1046' FWL

**TOPOGRAPHIC MAP "B"**

SCALE: 1"=2000'  
22 MAR 2013



COUNTY ROAD 6000 S.  
4.24 MI. +/- TO INT.

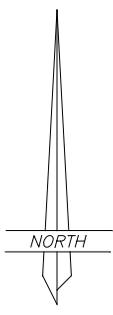
PROPOSED LOCATION  
EP ENERGY E&P CO.  
WOLLMAN 2-23C4

PROPOSED ACCESS ROAD  
TO BE BUILT 0.24 MI. +/-

**LEGEND:**

-  PROPOSED WELL LOCATION
  -  OTHER WELLS AS LOCATED FROM SUPPLIED MAP
- 01-128-377

**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.**

WOLLMAN 2-23C4  
SECTION 23, T3S, R4W, U.S.B.&M.  
905' FNL 1046' FWL

**TOPOGRAPHIC MAP "C"**

SCALE: 1"=2000'  
22 MAR 2013

**AFFIDAVIT OF SURFACE DAMAGE AND RIGHT-OF-WAY AGREEMENTS**

Corie A. Mathews personally appeared before me, and, being duly sworn, deposes and says:

1. My name is Corie A. Mathews. I am a Senior Landman for EP Energy E&P Company, L.P., whose address is 1001 Louisiana Street, Houston, Texas 77002 ("EP Energy").
2. EP Energy is the operator of the proposed Wollman 2-23C4 well (" the Well") to be located in the NW/4 of the NW/4 of Section 23, Township 3 South, Range 4 West, USM, Duchesne County, Utah (the "Drillsite Location"). The surface owners of the Drillsite location are Wade C. E. Wollman, 2217 Bitter Creek Trl, Rock Springs, Wyoming 82901 and Ron Liston, 16648 New York House Rd, Brownsville, CA 95919, whose telephone number is (307) 371-5095 (the "Surface Owner").
3. EP Energy and the Surface Owner have entered into a Damage Settlement and Release Agreement dated May 23, 2013 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 operations associated with the drilling of the Well.
4. EP Energy and the Surface Owner have also entered into a Right-of-Way Agreement dated May 23, 2013 for an access road, pipeline and power line corridor across the NW/4 of the NW/4 of Section 23, Township 3 South, Range 4 West, USM, Duchesne County, Utah.

FURTHER AFFIANT SAYETH NOT.

  
 \_\_\_\_\_  
 Corie A. Mathews, RPL

**ACKNOWLEDGMENT**

STATE OF TEXAS           §  
   §  
 COUNTY OF HARRIS       §

This instrument was acknowledged before me on this the 20 day of June, 2013 by Corie A. Mathews as a Senior Landman for EP ENERGY E&P COMPANY, L.P., a Delaware limited partnership, on behalf of said partnership and acknowledged to me that he executed the same as his own free and voluntary act and deed for the uses and purposes therein set forth.



  
 \_\_\_\_\_  
 Notary Public in and for State of Texas

**EP Energy E&P Company, L.P.**

**Related Surface Information**

**1. Current Surface Use:**

- Livestock Grazing and Oil and Gas Production.

**2. Proposed Surface Disturbance:**

- The road will be crown and ditch. Water wings will be constructed on the access road as needed.
- The topsoil will be windrowed and re-spread in the borrow area.
- New road to be constructed will be approximately .24 miles in length and 66 feet wide.
- All equipment and vehicles will be confined to the access road, pad and area specified in the APD.

**3. Location Of Existing Wells:**

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

**4. Location And Type Of Drilling Water Supply:**

- Drilling water: Duchesne City Water

**5. Existing/Proposed Facilities For Productive Well:**

- There are no existing facilities that will be utilized for this well.
- A pipeline corridor .24 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:**

Wade C. E. Wollman  
2217 Bitter Creek Trl  
Rock Springs, Wyoming 82901

Ron Liston  
16648 New York House Rd  
Brownsville, California 95919  
307-371-5095

**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:**

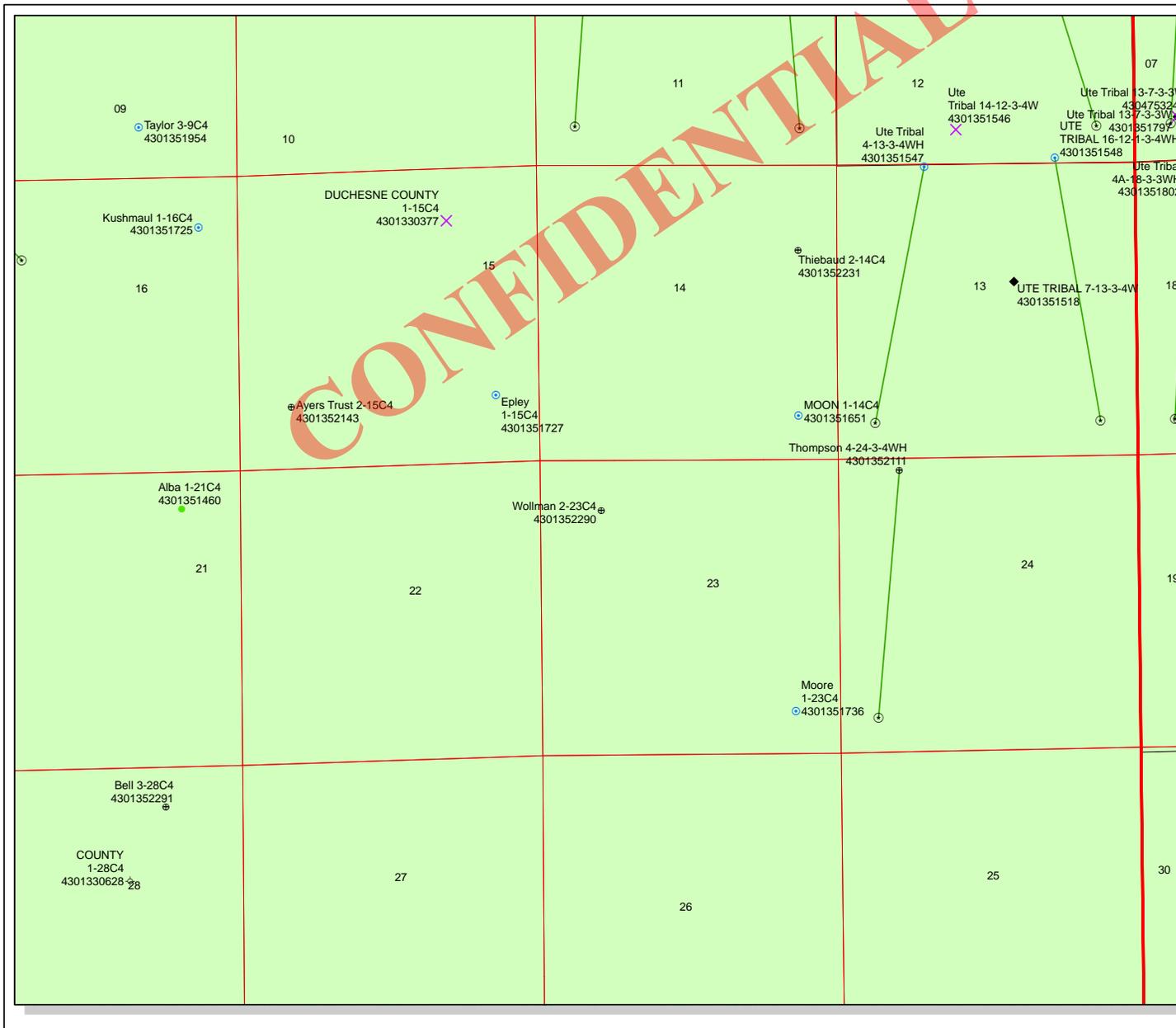
EP Energy E&P Company, L.P.  
Wayne Garner  
PO Box 410  
Altamont, Utah 84001  
435-454-3394 – Office  
435-823-1490 – Cell

**Regarding This APD**

EP Energy E&P Company, L.P.  
Maria S. Gomez  
1001 Louisiana, Rm 2640A  
Houston, Texas 77002  
713-997-5038 – Office

**Drilling**

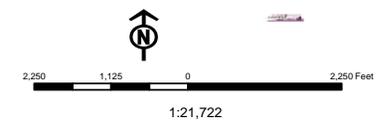
EP Energy E&P Company, L.P.  
Brad MacAfee – Drilling Engineer  
1001 Louisiana, Rm 2660D  
Houston, Texas 77002  
713-997-6383 – office  
281-813-0902 – Cell



**API Number: 4301352290**  
**Well Name: Wollman 2-23C4**  
**Township T03.0S Range R04.0W Section 23**  
**Meridian: UBM**  
**Operator: EP ENERGY E&P COMPANY, L.P.**

Map Prepared:  
 Map Produced by Diana Mason

- Units STATUS**
- ACTIVE
  - EXPLORATORY
  - GAS STORAGE
  - NF PP OIL
  - NF SECONDARY
  - PI OIL
  - PP GAS
  - PP GEOTHERM
  - PP OIL
  - SECONDARY
  - TERMINATED



Well Name	EP ENERGY E&P COMPANY, L.P. Wollman 2-23C4 43013522900000			
String	Cond	Surf	I1	L1
Casing Size(")	13.375	9.625	7.000	5.000
Setting Depth (TVD)	600	2500	8900	11800
Previous Shoe Setting Depth (TVD)	0	600	2500	8900
Max Mud Weight (ppg)	9.0	9.3	10.5	13.5
BOPE Proposed (psi)	1000	1000	5000	10000
Casing Internal Yield (psi)	2730	5750	11220	13940
Operators Max Anticipated Pressure (psi)	8284			13.5

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
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
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=	4859	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	3791	YES 5M BOPE, 5M kill lines & choke manifold
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	2901	YES OK
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	3451	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=	8284	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	6868	YES 10M BOPE w/rotating head, 5M annular,
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	5688	YES blind rams & mud cross
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	7646	YES OK
Required Casing/BOPE Test Pressure=		9758	psi
*Max Pressure Allowed @ Previous Casing Shoe=		8900	psi *Assumes 1psi/ft frac gradient

# 43013522900000 Wollman 2-23C4

## Casing Schematic

Surface

13-3/8"  
MW 9.

9-5/8"  
MW 9.3  
Frac 19.3

7"  
MW 10.5  
Frac 19.3

5"  
MW 13.5

12%

15%

25%

TOC @ *Duchasna River*  
to 0' @ 10% w/o  
tail 19,76' ✓  
\* Proposed to 0' ✓  
Conductor  
750. MD

1347' BMSW (EPEnergy)  
1700' BMSW  
2059' tail \*strip ✓

Surface  
2500. MD

3797' Green River  
to 2044' @ 2% w/o, tail 7860'  
\* Proposed to 2000'  
TOC @ 4432. 4847' Green River (GRTNI)  
\* strip ✓

5787' Mahogany Bench

7137' Lower Green River (TGR3)

8222' tail

12%

TOL @  
8700.

8857' Wasatch

Intermediate  
8900. MD

TOC @  
9552.

to TOL @ 4% w/o

Production Liner  
11800. MD

**CONFIDENTIAL**

✓ Strip cuts.

✓

Well name:	<b>43013522900000 Wollman 2-23C4</b>		
Operator:	<b>EP ENERGY E&amp;P COMPANY, L.P.</b>		
String type:	Conductor	Project ID:	43-013-52290
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: 84 °F  
 Temperature gradient: 1.40 °F/100ft  
 Minimum section length: 1,000 ft

Cement top: Surface

**Burst**

Max anticipated surface pressure: 261 psi  
 Internal gradient: 0.120 psi/ft  
 Calculated BHP 351 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 air weight.  
 Neutral point: 650 ft

**Non-directional string.**

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	750	13.375	54.50	J-55	ST&C	750	750	12.49	9306
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	351	1130	3.223	351	2730	7.79	40.9	514	12.57 J

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

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

Date: August 5, 2013  
 Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 750 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>43013522900000 Wollman 2-23C4</b>	
Operator:	<b>EP ENERGY E&amp;P COMPANY, L.P.</b>	
String type:	Surface	Project ID: 43-013-52290
Location:	DUCHESNE COUNTY	

**Design parameters:**

**Collapse**

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

**Burst**

Max anticipated surface pressure: 1,950 psi  
Internal gradient: 0.220 psi/ft  
Calculated BHP: 2,500 psi

No backup mud specified.

**Minimum design factors:**

**Collapse:**

Design factor: 1.125

**Burst:**

Design factor: 1.00

**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 air weight.  
Neutral point: 2,154 ft

**Environment:**

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

Cement top: 400 ft

**Non-directional string.**

**Re subsequent strings:**

Next setting depth: 8,900 ft  
Next mud weight: 10.500 ppg  
Next setting BHP: 4,855 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	31807
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	100	737	7.37 J

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

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

Date: August 5, 2013  
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:	<b>43013522900000 Wollman 2-23C4</b>		
Operator:	<b>EP ENERGY E&amp;P COMPANY, L.P.</b>		
String type:	Intermediate	Project ID:	43-013-52290
Location:	DUCHESNE COUNTY		

**Design parameters:**

**Collapse**

Mud weight: 10.500 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: 199 °F  
 Temperature gradient: 1.40 °F/100ft  
 Minimum section length: 1,000 ft

Cement top: 4,432 ft

**Burst**

Max anticipated surface pressure: 5,679 psi  
 Internal gradient: 0.220 psi/ft  
 Calculated BHP 7,637 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 air weight.  
 Neutral point: 7,485 ft

**Non-directional string.**

**Re subsequent strings:**

Next setting depth: 11,800 ft  
 Next mud weight: 13.500 ppg  
 Next setting BHP: 8,275 psi  
 Fracture mud wt: 19.250 ppg  
 Fracture depth: 8,900 ft  
 Injection pressure: 8,900 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	8900	7	29.00	HCP-110	LT&C	8900	8900	6.059	100503
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	4854	9200	1.895	7637	11220	1.47	258.1	797	3.09 J

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

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

Date: August 5, 2013  
 Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 8900 ft, a mud weight of 10.5 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>43013522900000 Wollman 2-23C4</b>		
Operator:	<b>EP ENERGY E&amp;P COMPANY, L.P.</b>		
String type:	Production Liner	Project ID:	43-013-52290
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: 239 °F  
 Temperature gradient: 1.40 °F/100ft  
 Minimum section length: 1,000 ft

Cement top: 9,552 ft

Liner top: 8,700 ft

**Non-directional string.**

**Burst**

Max anticipated surface pressure: 5,679 psi  
 Internal gradient: 0.220 psi/ft  
 Calculated BHP 8,275 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 air weight.  
 Neutral point: 11,163 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	3100	5	18.00	HCP-110	LT&C	11800	11800	4.151	22403
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	8275	13470	1.628	8275	13940	1.68	55.8	495	8.87 J

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

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

Date: August 5, 2013  
 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 11800 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.

# ON-SITE PREDRILL EVALUATION

## Utah Division of Oil, Gas and Mining

**Operator** EP ENERGY E&P COMPANY, L.P.  
**Well Name** Wollman 2-23C4  
**API Number** 43013522900000      **APD No** 8259      **Field/Unit** NORTH MYTON BENCH  
**Location: 1/4,1/4 NWNW Sec 23 Tw 3.0S Rng 4.0W 905 FNL 1046 FWL**  
**GPS Coord (UTM) 558792 4451453**      **Surface Owner** Wade C. E. Wollman

### Participants

Jared Thacker & Heather Iive (Land and construction for E&P Energy); Dennis Ingram (Oil, Gas & Mining)

### Regional/Local Setting & Topography

The Wollman 2-23C4 well is proposed approximately 3.53 miles north and 4.24 miles east of the town of Duchense, in northeastern Utah or the Uintah Basin on the eastern portion of Blue Bench. The topography at the proposed wellsite is relatively flat and slopes to the southeast, having 3.7 feet of cut at the northern corners and 4.0 fill at the southeastern corner. The name "Blue Bench" was developed from a time when this area was irrigated and had alfalfa as a crop. The surface is now covered with Wyoming Big Sagebrush, with sparse grasses and prickly pear cactus. The Duchesne River Drainage is found both west and south of Blue Bench. To the east, Blue Bench drops off into river bottom lowlands north of where the Lake Fork and Duchesne Drainages meet.

### Surface Use Plan

#### **Current Surface Use**

Wildlfe Habitat  
Residential

#### **New Road Miles**

0.24

#### **Well Pad**

Width 342 Length 425

#### **Src Const Material**

Onsite

#### **Surface Formation**

UNTA

**Ancillary Facilities** N

**Waste Management Plan Adequate?** Y

### Environmental Parameters

**Affected Floodplains and/or Wetlands** N

#### **Flora / Fauna**

Sagebrush, grass, prickly pear cactus;

#### **Soil Type and Characteristics**

Fine-grained reddish brown sandy loam

**Erosion Issues** N

**Sedimentation Issues** N

**Site Stability Issues** N**Drainage Diversion Required?** N**Berm Required?** Y

Low location

**Erosion Sedimentation Control Required?** N**Paleo Survey Run?** N **Paleo Potential Observed?** N **Cultural Survey Run?** N **Cultural Resources?** N**Reserve Pit****Site-Specific Factors****Site Ranking**

<b>Distance to Groundwater (feet)</b>	>200	0
<b>Distance to Surface Water (feet)</b>	>1000	0
<b>Dist. Nearest Municipal Well (ft)</b>	>5280	0
<b>Distance to Other Wells (feet)</b>	>1320	0
<b>Native Soil Type</b>	High permeability	20
<b>Fluid Type</b>	Fresh Water	5
<b>Drill Cuttings</b>	Normal Rock	0
<b>Annual Precipitation (inches)</b>		0
<b>Affected Populations</b>		
<b>Presence Nearby Utility Conduits</b>	Not Present	0
<b>Final Score</b>		25

1 Sensitivity Level

**Characteristics / Requirements**

Reserve pit located on the north side of location in cut, measuring 110' wide by 150' long by 12 feet deep, with prevailing winds from the west.

**Closed Loop Mud Required?** **Liner Required?** Y **Liner Thickness** 20 **Pit Underlayment Required?****Other Observations / Comments**

Ground nearly flat, no drainages, no issues, landowner agreement and they did not attend.

Dennis Ingram  
Evaluator

7/15/2013  
Date / Time

**Application for Permit to Drill  
Statement of Basis  
Utah Division of Oil, Gas and Mining**

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
8259	43013522900000	LOCKED	OW	P	No
<b>Operator</b>	EP ENERGY E&P COMPANY, L.P.		<b>Surface Owner-APD</b>	Wade C. E. Wollman	
<b>Well Name</b>	Wollman 2-23C4		<b>Unit</b>		
<b>Field</b>	NORTH MYTON BENCH		<b>Type of Work</b>	DRILL	
<b>Location</b>	NWNW 23 3S 4W U 905 FNL (UTM) 558804E 4451456N		1046 FWL	GPS Coord	

**Geologic Statement of Basis**

El Paso proposes to set 750 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 1,700 feet. A search of Division of Water Rights records indicates that there are 4 water wells within a 10,000 foot radius of the center of Section 23. These wells probably produce water from the Duchesne River Formation. Depths of the wells fall in the range of 150-600 feet. The wells are listed as being used for irrigation, stock watering and domestic. The proposed drilling, casing and cement program should adequately protect the highly used Duchesne River aquifer.

Brad Hill  
APD Evaluator

7/31/2013  
Date / Time

**Surface Statement of Basis**

A presite visit was scheduled and made on July 15, 2013 to take input and address issues regarding the drilling and construction of the Wollman 2-23C4 well. This location overlaps two separate landowners, Wade Wollman and Ron Liston, both of which were contacted by telephone and invited to the presite visits. Neither of the landowners attended the meeting, although both have entered into surface damage agreements with E&P Energy.

The surface is relatively flat and void of any drainages or washes, therefore there aren't any diversion issues. E&P energy plans to construct a reserve immediately off the north side of the location, in cut into blow sand type soils. Therefore, the operator needs to install a 20 mil synthetic liner to prevent seepage. The location should be bermed to prevent migration of fluids that might spill over time. No other issues were found.

Dennis Ingram  
Onsite Evaluator

7/15/2013  
Date / Time

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

Category	Condition
Pits	A synthetic liner with a minimum thickness of 20 mils shall be properly installed and maintained in the reserve pit.
Pits	The reserve pit should be located on the north side of the location.
Surface	The well site shall be bermed to prevent fluids from leaving the pad.

## WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 7/9/2013

API NO. ASSIGNED: 43013522900000

WELL NAME: Wollman 2-23C4

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

PHONE NUMBER: 713 997-5038

CONTACT: Maria S. Gomez

PROPOSED LOCATION: NWNW 23 030S 040W

Permit Tech Review: 

SURFACE: 0905 FNL 1046 FWL

Engineering Review: 

BOTTOM: 0905 FNL 1046 FWL

Geology Review: 

COUNTY: DUCHESNE

LATITUDE: 40.21145

LONGITUDE: -110.30897

UTM SURF EASTINGS: 558804.00

NORTHINGS: 4451456.00

FIELD NAME: NORTH MYTON BENCH

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/FEE - 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

Commingling Approved

## LOCATION AND SITING:

- R649-2-3.
- Unit:
- R649-3-2. General
- R649-3-3. Exception
- Drilling Unit
- Board Cause No: Cause 139-90
- Effective Date: 5/9/2012
- Siting: 4 Prod LGRRV-WSTC Wells
- R649-3-11. Directional Drill

Comments: Presite Completed

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



GARY R. HERBERT  
Governor

GREGORY S. BELL  
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:** Wollman 2-23C4  
**API Well Number:** 4301352290000  
**Lease Number:** Fee  
**Surface Owner:** FEE (PRIVATE)  
**Approval Date:** 8/12/2013

### 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 139-90. 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 cement from the pipe setting depth back to 2000' MD as indicated in the submitted drilling plan.

### 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

St of Utah  
Dogm  
801-538-5284.  
[Quoted text hidden]

CONFIDENTIAL

*NWNW 5-23 T03S R04W 43013 52290*

**LANDRIG009 (Precision 406)** <LANDRIG009@epenergy.com>  
To: Carol Daniels <caroldaniels@utah.gov>  
Cc: "Evans, Perry (Contractor)" <Perry.Evans@epenergy.com>

Sun, Nov 3, 2013 at 3:16 PM

Carol,

Sorry for the inconvenience. Reports as follows:

10-18-2013 : BUCKET RIG INSTALLED 80' OF 14" CONDUCTOR IN 85' OF 24" HOLE. SET 14" MOUSE HOLE. GROUTED BOTH.

10-19-13 : LEON ROSS DRILLING DRILLED 17 1/2" HOLE TO 766' GL. RAN AND CEMENTED 18 JOINTS (754.80') OF 13-3/8" 54.5# J-55 STC CASING. SHOE AT 750' GL. PROPETRO CEMENTED WITH 907 SKS CLASS G, 15.8 PPG 1.15 YIELD, 5 GALLONS WATER PER SACK, 1/4# FLOCELLE / SK. WITH 2% CACL. BUMPED PLUG, FLOATS HELD. 30 BBLS OF GOOD CEMENT BACK TO SURFACE. CEMENT DID NOT FALL BACK!.

**From:** Carol Daniels [mailto:caroldaniels@utah.gov]  
**Sent:** Friday, November 01, 2013 8:41 AM  
**To:** LANDRIG009 (Precision 406)  
**Subject:** Re: EP ENERGY / WOLLMAN2-23C4 / PD 406 / NOTIFICATION OF CMT OPERATIONS & BOP CST TEST OPERATIONS

[Quoted text hidden]

RECEIVED

NOV 03 2013

DIV. OF OIL, GAS & MINING



CONFIDENTIAL

NNNW 5-23 T035R04W 430135290000

**EP ENERGY / WOLLMAN2-23C4 / PD 406 / NOTIFICATION OF CMT OPERATIONS & BOP CST TEST OPERATIONS**

Messages

**LANDRIG009 (Precision 406)** <LANDRIG009@epenergy.com> Thu, Oct 31, 2013 at 4:30 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>, "Morales, Lisa" <Lisa.Morales@epenergy.com>, "Gomez, Maria S" <Maria.Gomez@epenergy.com>, "Evans, Perry (Contractor)" <Perry.Evans@epenergy.com>, "Gaydos, Tommy L" <Tommy.Gaydos@epenergy.com>

EP ENERGY

WOLLMAN 2-23C4

API # 43013522900000

ALTAMONT FIELD

DUCHESNE COUNTY, UTAH

PRECISION DRILLING RIG 406

WE ARE RU TO RUN THE 7" 29# INTERMEDIATE CSG TO TD @ 8910' ON THE ABOVE REFERENCED WELL. WE ANTICIPATE CEMENTING OPERATIONS TO BEGIN @ APPROXIMATELY 4:00 PM 11-1-13. THE BOP & CSG TEST OPERATIONS WILL BEGIN @ APPROXIMATELY 8:00 PM 11-1-13. IF YOU HAVE ANY QUESTIONS PLEASE CONTACT US @ THE NUMBERS BELOW.

ROY DERDEN & LLOYD ROWELL

713-997-1220 (RIG)

903-229-2878 (CELL)

**RECEIVED**

**NOV 03 2013**

**DIV. OF OIL, GAS & MINING**

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

**Carol Daniels** <caroldaniels@utah.gov>  
To: "LANDRIG009 (Precision 406)" <LANDRIG009@epenergy.com>

Fri, Nov 1, 2013 at 7:41 AM

Do you happen to have the Dry Hole Spud Date (Conductor). We do not have a record of this well spudding.

Thank you for helping.

Carol Daniels

<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: Wollman 2-23C4
2. NAME OF OPERATOR: EP ENERGY E&P COMPANY, L.P.	9. API NUMBER: 43013522900000
3. ADDRESS OF OPERATOR: 1001 Louisiana , Houston, TX, 77002	PHONE NUMBER: 713 997-5038 Ext
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0905 FNL 1046 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWNW Section: 23 Township: 03.0S Range: 04.0W Meridian: U	9. FIELD and POOL or WILDCAT: NORTH MYTON BENCH
	COUNTY: DUCHESNE
	STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: <b>12/9/2013</b>	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT 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"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT 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.

Please see attached.

**Approved by the Utah Division of Oil, Gas and Mining**  
  
**Date:** December 04, 2013  
  
**By:** *Derek Duff*

NAME (PLEASE PRINT) Maria S. Gomez	PHONE NUMBER 713 997-5038	TITLE Principal Regulatory Analyst
SIGNATURE N/A	DATE 12/4/2013	

**Wollman 2-23C4**  
**Initial Completion**  
**API #: 43-013-522900000**

**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. Wellhead isolation tools will continue to be used to isolate the wellhead during the frac.
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)**

- Stage 1: RU WL unit with 10K lubricator and test to 10,000 psi with water. Perforations from ~11,028' – 11,370' with ~5,000 gallons of 15% HCL acid, ~3,000# of 100 mesh sand and ~150,000# PowerProp 20/40.
- Stage 2: RU 10K lubricator and test to 10,000 psi with water. Set 10K CBP @ ~10,982'. Test CBP and casing to 8500 psi. Perforations from ~**10,692'** – **10,970'** with ~5,000 gallons of 15% HCL acid, ~3,000# of 100 mesh sand and ~140,000# PowerProp 20/40.
- Stage 3: RU WL unit with 10K lubricator and test to 10,000 psi with water. Set 10K CBP @ ~10,638'. Test CBP and casing to 8500 psi. Perforations from ~**10,358'** – **10,629'** with ~5,000 gallons of 15% HCL acid, ~3,000# of 100 mesh sand and ~140,000# TLC 20/40
- Stage 4: RU 10K lubricator and test to 10,000 psi with water. Set 10K CBP @ ~10,353'. Test CBP and casing to 8500 psi. Perforations from ~**10,072'** – **10,343'** with ~5,000 gallons of 15% HCL acid, ~3,000# of 100 mesh sand and ~155,000# TLC 20/40.
- Stage 5: RU 10K lubricator and test to 10,000 psi with water. Set 10K CBP @ ~10,049'. Test CBP and casing to 8500 psi. Perforations from ~**9,776'** – **10,039'** with ~5,000 gallons of 15% HCL acid, ~3,000# of 100 mesh sand and ~160,000# TLC 20/40.
- Stage 6: RU 10K lubricator and test to 10,000 psi with water. Set 10K CBP @ ~9,752'. Test CBP and casing to 8500 psi. Perforations from ~**9,522'** – **9,742'** with ~5,000 gallons of 15% HCL acid, ~3,000# of 100 mesh sand and ~145,000# TLC 20/40.

Stage 7: RU 10K lubricator and test to 10,000 psi with water. Set 10K CBP @ ~9,510'. Test CBP and casing to 8500 psi. Perforations from ~**9,308'** – **9,500'** with ~5,000 gallons of 15% HCL acid, ~3,000# of 100 mesh sand and ~135,000# TLC 20/40.

Stage 8: RU 10K lubricator and test to 10,000 psi with water. Set 10K CBP @ ~9,292'. Test CBP and casing to 8500 psi. Perforations from ~**9,043'** – **9,282'** with ~5,000 gallons of 15% HCL acid, ~3,000# of 100 mesh sand and ~150,000# TLC 20/40.



S-23 T035R04 W NWNW

CONFIDENTIAL

**EP ENERGY / WOLLMAN 2-23C4 / PD 406 / NOTIFICATION OF 5" CSG & CMT OPERATIONS**

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

Sat, Nov 9, 2013 at 12:25 AM

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>, "Morales, Lisa" <Lisa.Morales@epenergy.com>, "Gomez, Maria S" <Maria.Gomez@epenergy.com>, "Evans, Perry (Contractor)" <Perry.Evans@epenergy.com>, "Gaydos, Tommy L" <Tommy.Gaydos@epenergy.com>

EP ENERGY

WOLLMAN 2-23C4

API # 43013522900000

ALTAMONT FIELD

DUCHESNE COUNTY, UTAH

PRECISION DRILLING RIG 406

WE REACHED TD (11510') @ 10:30 PM 11-7-13. WE HAVE CONCLUDED LOGGING OPERATIONS AND CURRENTLY RU TO RUN THE 5" 18# PRODUCTION LINER FROM 8735' T/ TD @ 11510' ON THE ABOVE REFERENCED WELL. WE ANTICIPATE CEMENTING OPERATIONS TO BEGIN @ APPROXIMATELY 4:00 PM 11-9-13. IF YOU HAVE ANY QUESTIONS PLEASE CONTACT ME @ THE NUMBERS BELOW.

Thanks,

Roy Derden

EP Energy / PD 406

713-992-1220 (Rig)

903-229-2878 (Cell)

RECEIVED

NOV 09 2013

DIV. OF OIL, GAS & MINING

CONFIDENTIAL



S-23 T03S R04W NWNW

**WOLLMAN 2-23C4 / PRODUCTION LINER CMT**

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

Mon, Nov 11, 2013 at 9:28 AM

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>, "Morales, Lisa" <Lisa.Morales@epenergy.com>, "Gomez, Maria S" <Maria.Gomez@epenergy.com>, "Evans, Perry (Contractor)" <Perry.Evans@epenergy.com>, "Gaydos, Tommy L" <Tommy.Gaydos@epenergy.com>

EP ENERGY

WOLLMAN 2-23C4

~~API # 43013522900000~~

ALTAMONT FIELD

DUCHESNE COUNTY, UTAH

PRECISION DRILLING RIG 406

WE HAD PREVIOUSLY REPORTED THE PRODUCTION LINER CEMENTING OPERATIONS WERE TO BEGIN @ APPROXIMATELY 4:00 PM 11-9-13. WE HAD MECHANICAL PROBLEMS W/ OUR LINER ASSM & HAD TO LD THE LINER HANGER & CSG. DUE TO THE LENGTH OF TIME WE WERE OUT OF THE HOLE WE FELT IT WOULD BE PRUDENT TO MAKE A CLEANUP RUN W/ THE DP & BIT TO RECONDITION THE MUD/HOLE. WE MADE THE CLEANUP RUN W/ NO PROBLEMS AND ARE CURRENTLY PREPARING TO RU & RUN A NEW LINER ASSM. WE ANTICIPATE TO BEGIN CEMENT OPERATIONS @ APPROXIMATELY 9:00 AM 11-12-13. IF YOU HAVE ANY QUESTIONS PLEASE CONTACT ME @ THE NUMBERS BELOW

Thanks,

Roy Derden

EP Energy / PD 406

713-992-1220 (Rig)

903-229-2878 (Cell)

**RECEIVED**

**NOV 11 2013**

**DIV. OF OIL, GAS & MINING**

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

AMENDED REPORT  FORM 8  
(highlight changes)

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

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

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

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

**25. TUBING RECORD**

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

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

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

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL

29. ENCLOSED ATTACHMENTS: All logs are submitted to UDOGM by vendor.  <input type="checkbox"/> ELECTRICAL/MECHANICAL LOGS <input type="checkbox"/> GEOLOGIC REPORT <input type="checkbox"/> DST REPORT <input type="checkbox"/> DIRECTIONAL SURVEY <input type="checkbox"/> SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION <input type="checkbox"/> CORE ANALYSIS <input type="checkbox"/> OTHER: _____	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
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- 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 Phone: 801-538-5340  
 1594 West North Temple, Suite 1210  
 Box 145801 Fax: 801-359-3940  
 Salt Lake City, Utah 84114-5801

**Attachment to Well Completion Report****Form 8 Dated July 3, 2014****Well Name: Wollman 2-23C4****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>9776'-10039'</b>	<b>.43</b>	<b>69</b>	<b>Open</b>
<b>9522'-9742'</b>	<b>.43</b>	<b>69</b>	<b>Open</b>
<b>9308'-9500'</b>	<b>.43</b>	<b>69</b>	<b>Open</b>
<b>9043'-9282'</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>10072'-10343'</b>	<b>5000 gal acid, 3020# 100 mesh, 154960# 20/40 Tempered LC</b>
<b>9776'-10039'</b>	<b>5000 gal acid, 3010# 100 mesh, 159360# 20/40 Tempered LC</b>
<b>9522'-9742'</b>	<b>5000 gal acid, 3010# 100 mesh, 145820# 20/40 Tempered LC</b>
<b>9308'-9500'</b>	<b>5000 gal acid, 3000# 100 mesh, 136680# 20/40 Tempered LC</b>
<b>9043'-9282'</b>	<b>5000 gal acid, 3000# 100 mesh, 149480# 20/40 Tempered LC</b>



**Company:** EP Energy  
**Well:** Wollman 2-23C4  
**Location:** Duchesne, UT  
**Rig:** Precision 406

**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					
<b>Tie In</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>												
1	100.00	0.87	157.71	100.00	100.00	-0.70	0.70	S	0.29	E	0.75	157.71	0.87	0.87	157.71
2	200.00	1.24	154.06	100.00	199.98	-2.37	2.37	S	1.04	E	2.59	156.19	0.38	0.37	-3.65
3	300.00	1.43	139.67	100.00	299.95	-4.28	4.28	S	2.32	E	4.87	151.55	0.38	0.19	-14.40
4	400.00	1.34	155.84	100.00	399.92	-6.30	6.30	S	3.61	E	7.26	150.21	0.40	-0.09	16.17
5	500.00	1.75	171.99	100.00	499.89	-8.88	8.88	S	4.30	E	9.87	154.18	0.60	0.41	16.15
6	600.00	1.65	164.15	100.00	599.84	-11.78	11.78	S	4.90	E	12.76	157.40	0.25	-0.10	-7.85
7	700.00	1.30	167.91	100.00	699.81	-14.27	14.27	S	5.53	E	15.31	158.80	0.37	-0.35	3.77
8	800.00	1.69	145.44	100.00	799.78	-16.59	16.59	S	6.61	E	17.86	158.28	0.70	0.40	-22.48
9	900.00	1.77	153.78	100.00	899.73	-19.19	19.19	S	8.13	E	20.84	157.04	0.26	0.07	8.34
10	1000.00	1.20	155.54	100.00	999.70	-21.53	21.53	S	9.24	E	23.43	156.76	0.57	-0.57	1.76
11	1100.00	1.63	151.77	100.00	1099.67	-23.73	23.73	S	10.35	E	25.89	156.44	0.44	0.43	-3.76
12	1200.00	1.74	163.70	100.00	1199.62	-26.44	26.44	S	11.44	E	28.81	156.59	0.37	0.11	11.93
13	1300.00	1.39	183.32	100.00	1299.59	-29.10	29.10	S	11.80	E	31.40	157.93	0.64	-0.35	19.62
14	1400.00	1.39	183.48	100.00	1399.56	-31.52	31.52	S	11.66	E	33.61	159.70	0.01	0.01	0.16
15	1500.00	1.70	182.45	100.00	1499.52	-34.22	34.22	S	11.52	E	36.10	161.39	0.31	0.31	-1.03
16	1600.00	1.60	179.90	100.00	1599.48	-37.10	37.10	S	11.46	E	38.83	162.84	0.13	-0.11	-2.55
17	1700.00	1.61	181.43	100.00	1699.44	-39.89	39.89	S	11.43	E	41.50	164.02	0.04	0.01	1.53
18	1800.00	1.75	184.32	100.00	1799.40	-42.82	42.82	S	11.28	E	44.28	165.25	0.17	0.15	2.89
19	1900.00	1.77	192.70	100.00	1899.35	-45.85	45.85	S	10.82	E	47.11	166.72	0.26	0.01	8.38
20	2000.00	1.62	181.37	100.00	1999.31	-48.77	48.77	S	10.45	E	49.87	167.91	0.36	-0.14	-11.33
21	2100.00	1.61	194.74	100.00	2099.27	-51.54	51.54	S	10.06	E	52.51	168.96	0.38	-0.02	13.36
22	2200.00	1.39	178.27	100.00	2199.23	-54.11	54.11	S	9.74	E	54.98	169.80	0.48	-0.21	-16.47
23	2260.00	1.53	183.70	60.00	2259.21	-55.64	55.64	S	9.71	E	56.48	170.10	0.32	0.22	9.06
24	2325.00	1.73	191.12	65.00	2324.19	-57.46	57.46	S	9.46	E	58.24	170.65	0.45	0.32	11.41
25	2420.00	1.89	193.90	95.00	2419.14	-60.39	60.39	S	8.81	E	61.03	171.70	0.19	0.17	2.93
26	2517.00	2.01	192.89	97.00	2516.08	-63.60	63.60	S	8.05	E	64.11	172.79	0.13	0.12	-1.04
27	2613.00	1.19	183.86	96.00	2612.05	-66.24	66.24	S	7.60	E	66.67	173.45	0.89	-0.85	-9.41
28	2710.00	1.40	190.33	97.00	2709.02	-68.41	68.41	S	7.32	E	68.80	173.89	0.26	0.22	6.67
29	2806.00	1.63	185.26	96.00	2804.99	-70.92	70.92	S	6.99	E	71.27	174.37	0.28	0.24	-5.28
30	2903.00	1.79	180.27	97.00	2901.95	-73.81	73.81	S	6.85	E	74.13	174.69	0.23	0.16	-5.14
31	2999.00	1.77	182.88	96.00	2997.90	-76.79	76.79	S	6.77	E	77.09	174.96	0.09	-0.02	2.72
32	3095.00	1.92	178.47	96.00	3093.85	-79.88	79.88	S	6.74	E	80.16	175.18	0.22	0.16	-4.59
33	3192.00	1.95	169.52	97.00	3190.79	-83.13	83.13	S	7.08	E	83.43	175.13	0.31	0.03	-9.23
34	3288.00	2.03	167.15	96.00	3286.74	-86.39	86.39	S	7.76	E	86.74	174.87	0.12	0.08	-2.47
35	3385.00	2.22	167.27	97.00	3383.67	-89.90	89.90	S	8.56	E	90.31	174.56	0.20	0.20	0.12



**Company:** EP Energy  
**Well:** Wollman 2-23C4  
**Location:** Duchesne, UT  
**Rig:** Precision 406

**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	3481.00	2.47	167.79	96.00	3479.59	-93.73	93.73	S	9.40	E	94.20	174.27	0.26	0.26	0.54
37	3578.00	2.41	167.72	97.00	3576.50	-97.77	97.77	S	10.28	E	98.31	174.00	0.06	-0.06	-0.07
38	3674.00	2.55	165.56	96.00	3672.41	-101.81	101.81	S	11.24	E	102.43	173.70	0.18	0.15	-2.25
39	3771.00	2.62	166.24	97.00	3769.31	-106.05	106.05	S	12.31	E	106.77	173.38	0.08	0.07	0.70
40	3867.00	2.55	164.41	96.00	3865.21	-110.24	110.24	S	13.40	E	111.05	173.07	0.11	-0.07	-1.91
41	3964.00	2.76	157.95	97.00	3962.11	-114.48	114.48	S	14.86	E	115.44	172.61	0.38	0.22	-6.66
42	4060.00	2.70	165.14	96.00	4058.00	-118.81	118.81	S	16.31	E	119.93	172.19	0.36	-0.06	7.49
43	4155.00	2.67	168.62	95.00	4152.90	-123.14	123.14	S	17.32	E	124.36	172.00	0.17	-0.03	3.66
44	4251.00	2.32	171.96	96.00	4248.81	-127.26	127.26	S	18.03	E	128.53	171.94	0.39	-0.36	3.48
45	4347.00	2.20	174.22	96.00	4344.73	-131.02	131.02	S	18.49	E	132.32	171.97	0.16	-0.13	2.35
46	4444.00	2.32	173.97	97.00	4441.66	-134.82	134.82	S	18.88	E	136.14	172.03	0.12	0.12	-0.26
47	4540.00	2.56	171.54	96.00	4537.57	-138.88	138.88	S	19.40	E	140.22	172.05	0.27	0.25	-2.53
48	4637.00	2.69	167.80	97.00	4634.47	-143.24	143.24	S	20.20	E	144.66	171.97	0.22	0.13	-3.86
49	4733.00	2.36	180.78	96.00	4730.37	-147.42	147.42	S	20.65	E	148.86	172.03	0.69	-0.34	13.52
50	4829.00	2.38	182.95	96.00	4826.29	-151.39	151.39	S	20.52	E	152.77	172.28	0.10	0.02	2.26
51	4926.00	2.20	185.26	97.00	4923.21	-155.25	155.25	S	20.25	E	156.57	172.57	0.21	-0.19	2.38
52	5022.00	2.19	181.07	96.00	5019.14	-158.92	158.92	S	20.04	E	160.18	172.81	0.17	-0.01	-4.36
53	5119.00	2.45	183.05	97.00	5116.06	-162.85	162.85	S	19.90	E	164.06	173.03	0.28	0.27	2.04
54	5215.00	2.39	171.77	96.00	5211.98	-166.88	166.88	S	20.07	E	168.08	173.14	0.50	-0.06	-11.75
55	5312.00	2.60	173.76	97.00	5308.89	-171.06	171.06	S	20.60	E	172.30	173.13	0.23	0.22	2.05
56	5408.00	2.83	167.38	96.00	5404.78	-175.54	175.54	S	21.36	E	176.84	173.06	0.40	0.24	-6.65
57	5503.00	3.42	166.77	95.00	5499.64	-180.59	180.59	S	22.52	E	181.99	172.89	0.62	0.62	-0.64
58	5599.00	2.63	160.95	96.00	5595.50	-185.46	185.46	S	23.89	E	186.99	172.66	0.88	-0.82	-6.06
59	5695.00	2.04	155.17	96.00	5691.42	-189.09	189.09	S	25.33	E	190.78	172.37	0.66	-0.61	-6.02
60	5791.00	1.96	151.91	96.00	5787.37	-192.09	192.09	S	26.82	E	193.95	172.05	0.14	-0.08	-3.40
61	5887.00	1.86	162.55	96.00	5883.31	-195.02	195.02	S	28.06	E	197.03	171.81	0.38	-0.10	11.08
62	5984.00	1.77	169.55	97.00	5980.26	-198.00	198.00	S	28.80	E	200.08	171.72	0.25	-0.09	7.22
63	6080.00	1.86	179.90	96.00	6076.22	-201.02	201.02	S	29.08	E	203.11	171.77	0.35	0.09	10.78
64	6176.00	2.09	183.07	96.00	6172.16	-204.32	204.32	S	28.98	E	206.37	171.93	0.27	0.24	3.30
65	6273.00	2.09	186.99	97.00	6269.09	-207.84	207.84	S	28.67	E	209.81	172.15	0.15	0.00	4.04
66	6369.00	2.21	187.61	96.00	6365.03	-211.42	211.42	S	28.22	E	213.29	172.40	0.13	0.13	0.65
67	6466.00	2.24	190.75	97.00	6461.95	-215.13	215.13	S	27.61	E	216.90	172.69	0.13	0.03	3.24
68	6562.00	2.53	189.54	96.00	6557.87	-219.06	219.06	S	26.91	E	220.71	173.00	0.31	0.30	-1.26
69	6658.00	2.72	193.47	96.00	6653.77	-223.37	223.37	S	26.03	E	224.88	173.35	0.27	0.20	4.09
70	6755.00	2.80	195.97	97.00	6750.66	-227.88	227.88	S	24.84	E	229.24	173.78	0.15	0.08	2.58
71	6851.00	2.93	193.94	96.00	6846.54	-232.52	232.52	S	23.61	E	233.72	174.20	0.17	0.14	-2.11
72	6948.00	2.48	204.07	97.00	6943.43	-236.84	236.84	S	22.15	E	237.88	174.66	0.68	-0.46	10.44



**Company:** EP Energy  
**Well:** Wollman 2-23C4  
**Location:** Duchesne, UT  
**Rig:** Precision 406

**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	7044.00	2.05	193.98	96.00	7039.35	-240.41	240.41	S	20.89	E	241.31	175.03	0.61	-0.45	-10.51
74	7141.00	2.38	189.70	97.00	7136.28	-244.07	244.07	S	20.13	E	244.90	175.28	0.38	0.34	-4.41
75	7238.00	2.62	191.05	97.00	7233.19	-248.24	248.24	S	19.37	E	248.99	175.54	0.25	0.25	1.39
76	7334.00	2.13	189.41	96.00	7329.11	-252.15	252.15	S	18.66	E	252.84	175.77	0.52	-0.51	-1.71
77	7431.00	1.14	203.17	97.00	7426.07	-254.81	254.81	S	17.98	E	255.45	175.96	1.09	-1.02	14.19
78	7527.00	1.74	198.27	96.00	7522.04	-257.08	257.08	S	17.15	E	257.65	176.18	0.64	0.63	-5.10
79	7623.00	2.24	196.42	96.00	7617.98	-260.26	260.26	S	16.16	E	260.76	176.45	0.53	0.52	-1.93
80	7720.00	2.28	191.81	97.00	7714.90	-263.97	263.97	S	15.23	E	264.41	176.70	0.19	0.04	-4.75
81	7817.00	1.54	187.17	97.00	7811.85	-267.15	267.15	S	14.67	E	267.55	176.86	0.78	-0.76	-4.78
82	7913.00	2.10	185.65	96.00	7907.80	-270.18	270.18	S	14.34	E	270.56	176.96	0.59	0.58	-1.58
83	8009.00	2.41	188.84	96.00	8003.72	-273.92	273.92	S	13.86	E	274.27	177.10	0.35	0.32	3.32
84	8105.00	2.74	197.31	96.00	8099.63	-278.11	278.11	S	12.86	E	278.41	177.35	0.52	0.34	8.82
85	8201.00	2.77	202.75	96.00	8195.52	-282.44	282.44	S	11.28	E	282.66	177.71	0.27	0.03	5.67
86	8298.00	2.58	204.97	97.00	8292.41	-286.58	286.58	S	9.46	E	286.74	178.11	0.22	-0.20	2.29
87	8394.00	2.77	210.42	96.00	8388.31	-290.54	290.54	S	7.37	E	290.63	178.55	0.33	0.20	5.68
88	8491.00	3.00	226.01	97.00	8485.18	-294.32	294.32	S	4.36	E	294.36	179.15	0.84	0.24	16.07
89	8500.00	2.93	228.79	9.00	8494.17	-294.64	294.64	S	4.01	E	294.67	179.22	1.77	-0.76	30.86
90	8600.00	2.31	234.43	100.00	8594.07	-297.49	297.49	S	0.45	E	297.49	179.91	0.67	-0.62	5.64
91	8700.00	2.28	199.77	100.00	8693.99	-300.53	300.53	S	1.86	W	300.54	180.35	1.37	-0.03	-34.66
92	8800.00	2.50	183.21	100.00	8793.91	-304.58	304.58	S	2.65	W	304.59	180.50	0.72	0.22	-16.55
93	8900.00	1.87	181.12	100.00	8893.83	-308.38	308.38	S	2.80	W	308.40	180.52	0.63	-0.62	-2.09
94	9000.00	2.12	163.43	100.00	8993.77	-311.79	311.79	S	2.31	W	311.80	180.42	0.66	0.25	-17.70
95	9100.00	2.29	158.20	100.00	9093.70	-315.42	315.42	S	1.04	W	315.43	180.19	0.26	0.17	-5.23
96	9200.00	2.53	163.87	100.00	9193.61	-319.40	319.40	S	0.32	E	319.40	179.94	0.33	0.24	5.68
97	9300.00	2.61	164.61	100.00	9293.51	-323.70	323.70	S	1.53	E	323.71	179.73	0.09	0.08	0.74
98	9400.00	2.01	177.07	100.00	9393.43	-327.65	327.65	S	2.23	E	327.65	179.61	0.78	-0.60	12.46
99	9450.00	2.41	168.70	50.00	9443.39	-329.55	329.55	S	2.48	E	329.56	179.57	1.04	0.81	-16.72
100	9600.00	2.72	169.95	150.00	9593.24	-336.15	336.15	S	3.72	E	336.17	179.37	0.21	0.20	0.83
101	9800.00	2.58	178.57	200.00	9793.03	-345.32	345.32	S	4.66	E	345.35	179.23	0.21	-0.07	4.31
102	10000.00	3.19	166.11	200.00	9992.78	-355.22	355.22	S	6.10	E	355.27	179.02	0.44	0.31	-6.23
103	10200.00	3.53	170.37	200.00	10192.43	-366.69	366.69	S	8.47	E	366.79	178.68	0.21	0.17	2.13
104	10400.00	3.30	172.61	200.00	10392.08	-378.46	378.46	S	10.24	E	378.60	178.45	0.13	-0.12	1.12
105	10600.00	2.67	178.65	200.00	10591.81	-388.82	388.82	S	11.09	E	388.98	178.37	0.35	-0.31	3.02
106	10800.00	2.54	176.93	200.00	10791.60	-397.90	397.90	S	11.44	E	398.06	178.35	0.08	-0.06	-0.86
107	11000.00	2.79	176.74	200.00	10991.38	-407.19	407.19	S	11.95	E	407.36	178.32	0.13	0.13	-0.10
108	11200.00	3.65	180.68	200.00	11191.07	-418.42	418.42	S	12.15	E	418.60	178.34	0.44	0.43	1.97
109	11410.00	3.98	184.80	210.00	11400.60	-432.38	432.38	S	11.46	E	432.53	178.48	0.20	0.16	1.97



**Company:** EP Energy  
**Well:** Wollman 2-23C4  
**Location:** Duchesne, UT  
**Rig:** Precision 406  
**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	11510.00	3.98	184.80	100.00	11500.36	-439.30	439.30	S	10.88	E	439.44	178.58	0.00	0.00	0.00