

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 Millett 2-14C5								
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') Marshall & Karen Millett						14. SURFACE OWNER PHONE (if box 12 = 'fee')								
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee') 9213 Kensington Parkway, Chevy Chase, MD 20815						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		743 FNL 961 FWL		NWNW		14		3.0 S		5.0 W		U		
Top of Uppermost Producing Zone		743 FNL 961 FWL		NWNW		14		3.0 S		5.0 W		U		
At Total Depth		743 FNL 961 FWL		NWNW		14		3.0 S		5.0 W		U		
21. COUNTY DUCHESNE			22. DISTANCE TO NEAREST LEASE LINE (Feet) 743			23. NUMBER OF ACRES IN DRILLING UNIT 160								
			25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 2800			26. PROPOSED DEPTH MD: 12200 TVD: 12200								
27. ELEVATION - GROUND LEVEL 5875			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	0.0	Class G	758	1.15	15.8				
SURF	12.25	9.625	0 - 2000	40.0	N-80 LT&C	0.0	Type V	331	2.36	12.0				
							Class G	195	1.3	14.3				
I1	8.75	7	0 - 9000	29.0	HCP-110 LT&C	10.3	Class G	643	1.91	12.5				
							Class G	304	1.64	13.0				
L1	6.125	5	8800 - 12200	18.0	HCP-110 LT&C	12.0	Class G	202	1.52	14.2				
<b>ATTACHMENTS</b>														
VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES														
<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER						<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN								
<input checked="" type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)						<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER								
<input 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 12/02/2014			EMAIL maria.gomez@epenergy.com								
API NUMBER ASSIGNED 43013532410000			APPROVAL											
						Permit Manager								

**Millett 2-14C5  
Sec. 14, 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)	3,896' TVD
Green River (GRTN1)	4,876' TVD
Mahogany Bench	5,756' TVD
L. Green River	7,076' TVD
Wasatch	8,886' TVD
T.D. (Permit)	12,200' TVD

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

<u>Substance</u>	<u>Formation</u>	<u>Depth</u>
	Green River (GRRV)	3,896' MD / TVD
	Green River (GRTN1)	4,876' MD / TVD
	Mahogany Bench	5,756' MD / TVD
Oil	L. Green River	7,076' MD / TVD
Oil	Wasatch	8,886' MD / TVD

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

A Diverter System on structural pipe from surface to 600' MD/TVD. A Diverter System 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 used from 2,000' MD/TVD to 9,000' MD/TVD. A 10M BOP stack w/ rotating head, spacer spool, 5M annular, flex rams, blind rams & single w/ flex rams from 9,000' MD/TVD to TD (12,200' MD /TVD).

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

There are 18 water wells within 10,000' of the proposed location. Due the MSGW being so shallow, I will pre-set 13-3/8" at 600' & 9-5/8" at 2,000'.

There is 1 SWD well within 2.0 miles of the proposed location but none of them are within 1 mile. No pressure communication is expected to be seen, however it is important to be aware of them.

**The Blue Bench 1-13C5 SWD is 8,667' or 1.64 miles to the East of the proposed location.** It is owned by Intercept Energy & is an active SWD well. It is injecting into the Upper/Middle Green River & Upper-most Lower Green River. The injection interval is from 4106'-7528'. The injection rate is now ~500 bbls/day @ 500-600 psi (I just got off the phone with Keith who is with Intercept Energy). The pressure dissipates to 300 psi while down on maintenance. Using 300 psi, the EMW @ 4106' is 10.01 ppg. We have drilled as close as 0.98 miles to this SWD well & **on fracture orientation** and have not seen any pressure while drilling. **If any pressure communication is seen, we can easily weight up to 10.1 ppg MW to control the wellbore. Our intermediate cement design will be 12.5 ppg lead & 13 ppg tail. We will also pump at least a 11.0 ppg weight spacer. We will also bring the cement up to surface instead of 500' into the shoe.**

#### **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 406 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 (12,200' 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	Air	Air
Intermediate	WBM	9.2 – 10.3
Production	WBM	11.0 – 12.0

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

Visual mud monitoring equipment will be utilized.

**6. Evaluation Program:**

Logs:

Mud Log: 2,000' MD/TVD – TD (12,200' 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 12,200' TVD equals approximately 7,613 psi. This is calculated based on a 0.624 psi/ft gradient (12.0 ppg mud density at TD).

Maximum anticipated surface pressure equals approximately 4,929 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 9,000' TVD = 7,200 psi

BOPE and casing design will be based on the lesser of the two MASPs which is 4,929 psi.

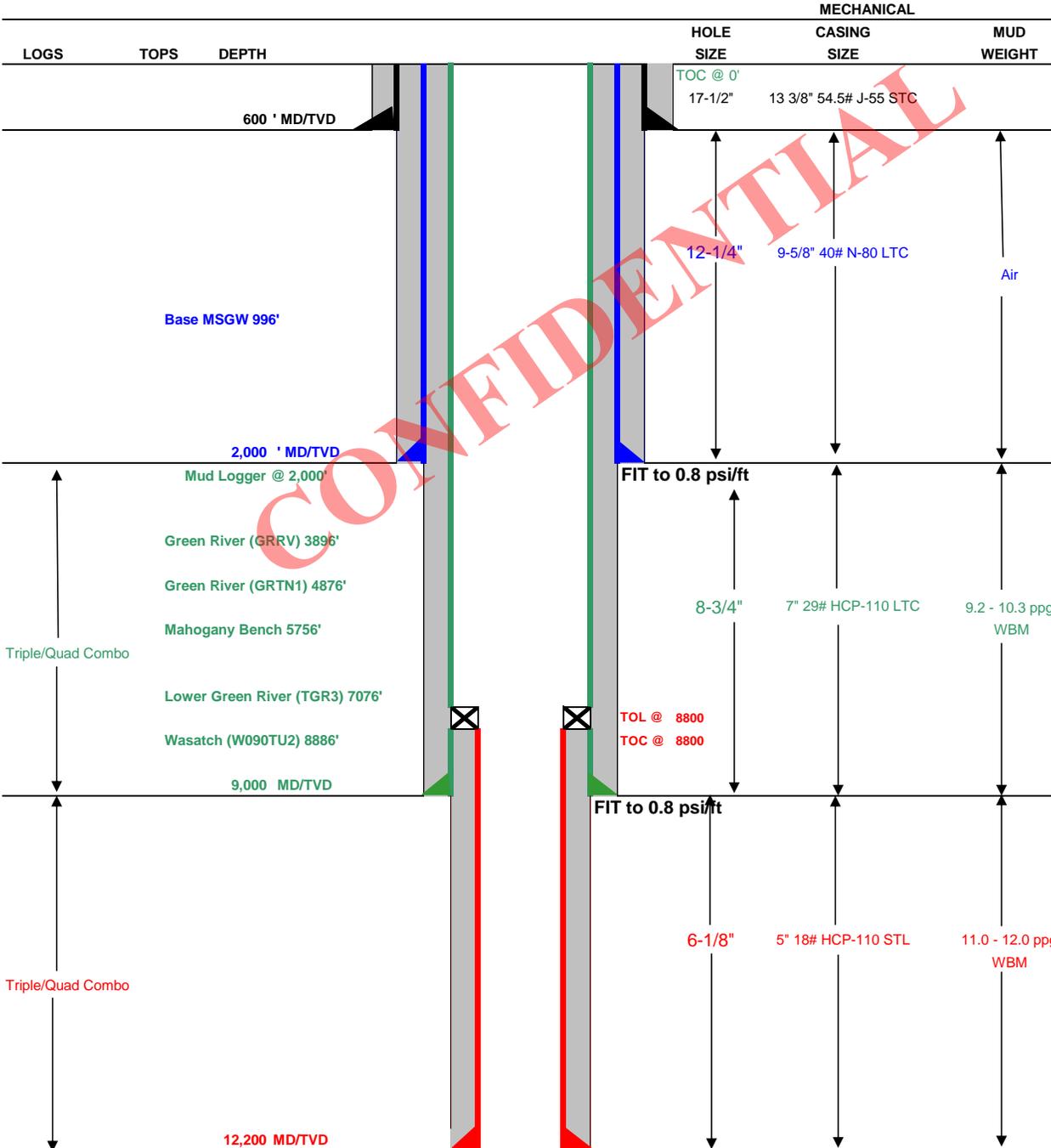
8. **OPERATOR REQUESTS THAT THE PROPOSED WELL BE PLACED ON CONFIDENTIAL STATUS.**

**CONFIDENTIAL**



Drilling Schematic

<b>Company Name:</b> EP ENERGY	<b>Date:</b> February 24, 2015
<b>Well Name:</b> Millett 2-14C5	<b>TD:</b> 12,200
<b>Field, County, State:</b> Altamont, Duchesne, Utah	<b>AFE #:</b> TBD
<b>Surface Location:</b> Sec 14 T3S R5W 743' FNL 961' FWL	<b>BHL:</b> Straight Hole
<b>Objective Zone(s):</b> Green River, Wasatch	<b>Elevation:</b> 5874.4
<b>Rig:</b> Precision 406	<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 9,000' . 11 10M BOPE w/ rotating head, spacer spool, 5M annular, flex rams, blind rams, single w/ flex rams from 9,000' 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	9000	29.00	HCP-110	LTC	11,220	9,750	797
PRODUCTION LINER	5"	8800	12200	18.00	HCP-110	STL	13,940	15,450	341

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	1,500	EXTENDACEM SYSTEM: Type V Cement + 2% Cal-Seal + 0.35% Versaset + 0.3% D-Air 5000 + 6% Salt + 2% Econolite + 0.125 Poly-E-Flake	331	100%	12.0 ppg	2.36
	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	6,500	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	643	35%	12.5 ppg	1.91
	Tail	2,500	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	304	30%	13.0 ppg	1.64
PRODUCTION LINER		3,400	EXTENDACEM SYSTEM: Class G Cement + 0.2% Super CBL + 0.3% Halad 344 + 0.3% Halad 413 + 5 lb/sk Silicalite + 20% SSA-1 + 2% Bentonite + 0.7% HR-5	202	30%	14.2 ppg	1.52

FLOAT EQUIPMENT & CENTRALIZERS	
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. Make joint at +/- 7,050'.
LINER	Float shoe, 1 joint, float collar, 1 joint, landing collar. Thread lock all FE. Make joints every 1000'.

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

MANAGER: Bob Dodd

EP ENERGY E&P COMPANY, L.P.  
MILLET 2-14C5  
SECTION 14, T3S, R5W, U.S.B.&M.

BEGIN AT THE INTERSECTION OF 700 WEST STREET AND US 40 IN DUCHESNE, UTAH AND PROCEED NORTH ON GRAVEL COUNTY B ROAD APPROXIMATELY 3.74 MILES ;

CONTINUE NORTHERLY 1.03 MILES ON DIRT ROAD TO AN INTERSECTION;

TURN LEFT AND TRAVEL WEST 0.40 MILES ON A DIRT ROAD TO THE BEGINNING OF THE PROPOSED ACCESS ROAD;

TURN LEFT AND FOLLOW EXISTING 2-TRACK ROAD SOUTHERLY AND THEN ROAD FLAGS EASTERLY 0.30 MILES TO THE PROPOSED WELL LOCATION;

TOTAL DISTANCE FROM DUCHESNE, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 5.47 MILES.

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

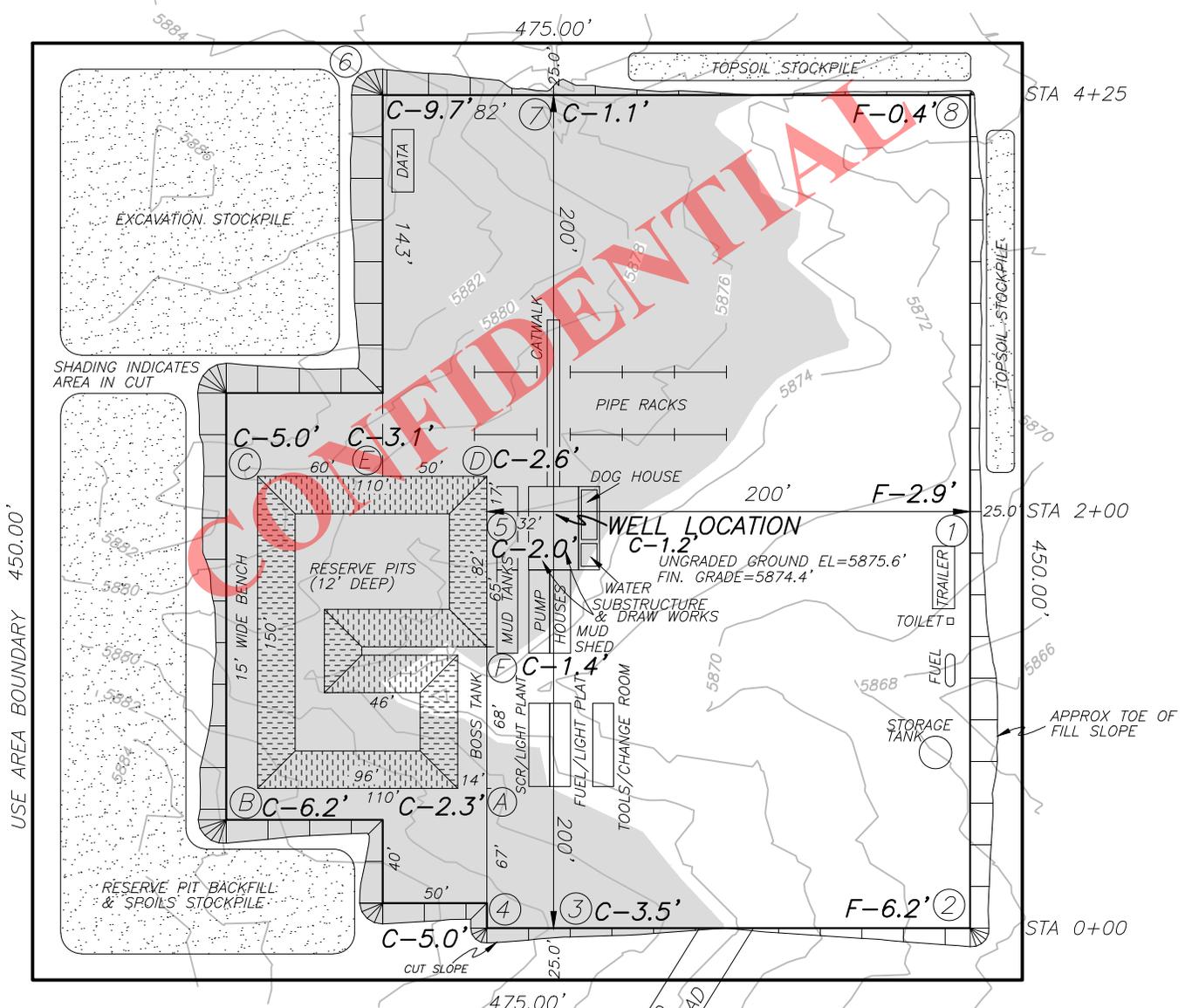
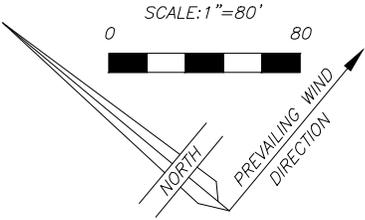
FIGURE #1

## LOCATION LAYOUT FOR

### MILLETT 2-14C5

SECTION 14, T3S, R5W, U.S.B.&M.

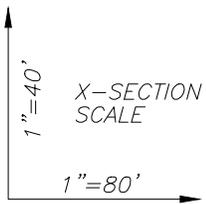
743' FNL, 961' FWL



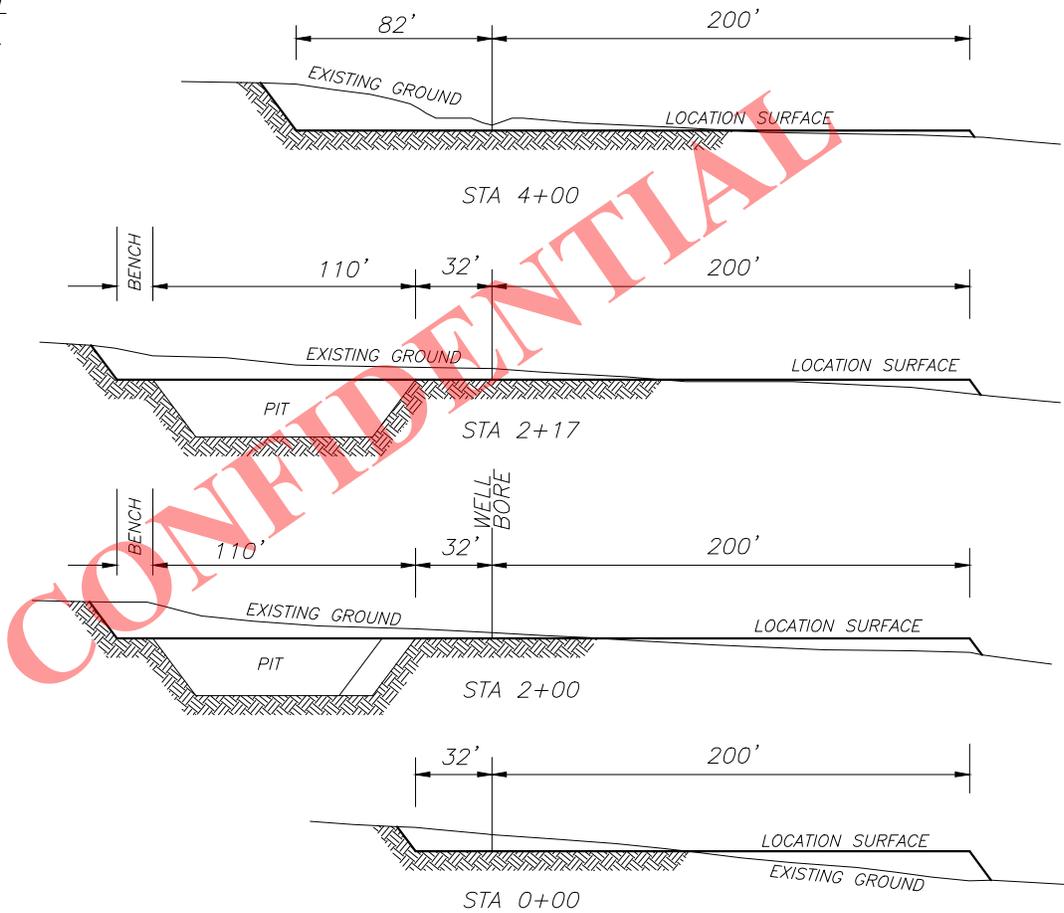
# EP ENERGY E&P COMPANY, L.P.

FIGURE #2

LOCATION LAYOUT FOR  
 MILLETT 2-14C5  
 SECTION 14, T3S, R5W, U.S.B.&M.  
 743' FNL, 961' FWL



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



APPROXIMATE YARDAGES

TOTAL CUT (INCLUDING PIT) = 15,372 CU. YDS.

- PIT CUT = 4572 CU. YDS.
- TOPSOIL STRIPPING: (6") = 2577 CU. YDS.
- REMAINING LOCATION CUT = 8223 CU. YDS

TOTAL FILL = 7002 CU. YDS.

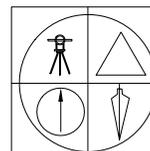
LOCATION SURFACE GRAVEL=1275 CU. YDS. (4" DEEP)

ACCESS ROAD GRAVEL=418 CU. YDS.



REV 29 SEP 2014  
 27 NOV 2012

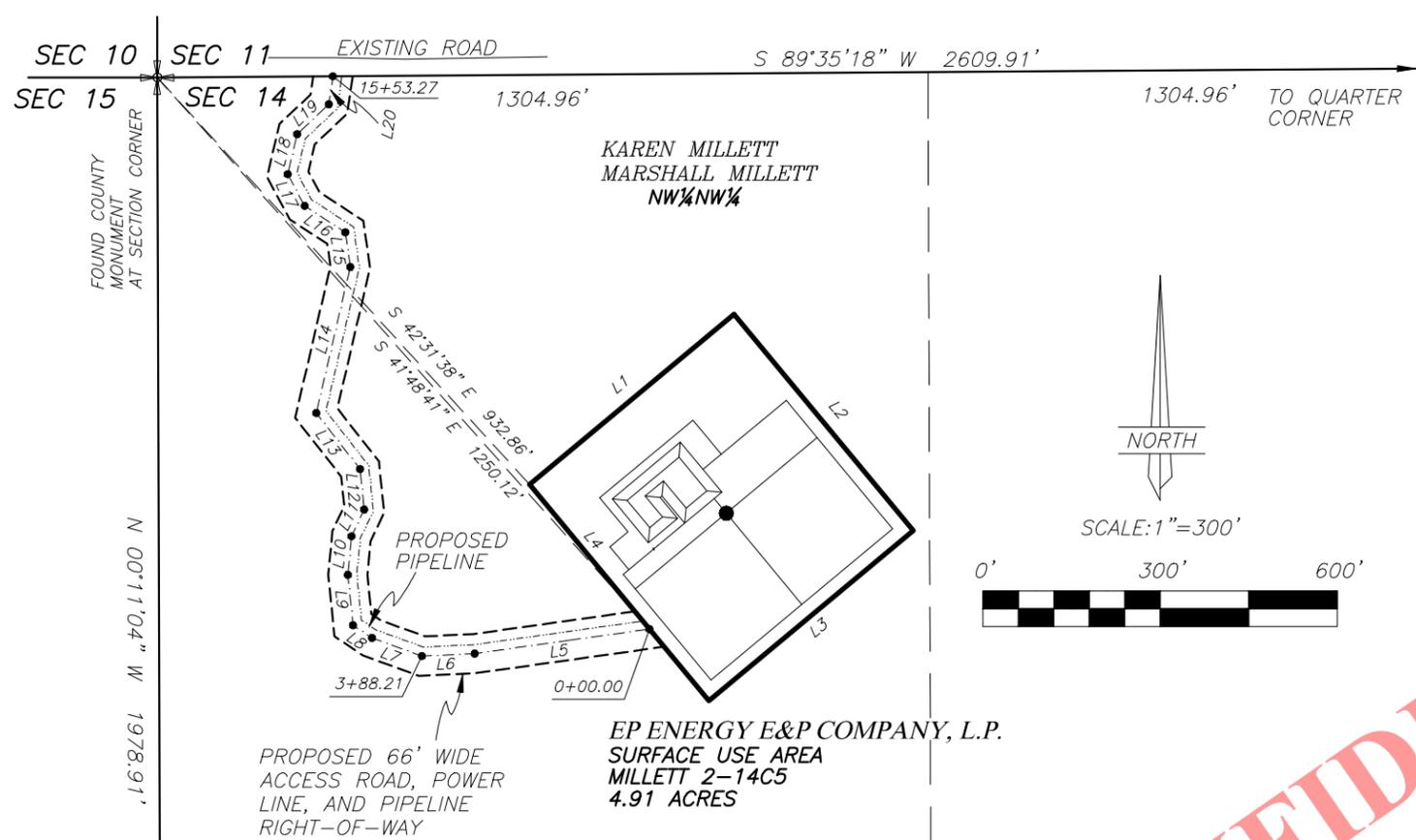
01-128-349



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.  
SURFACE USE AREA  
MILLETT 2-14C5  
4.91 ACRES

LINE	BEARING	DISTANCE
L1	N 50°17'32" E	450.00'
L2	S 39°42'28" E	475.00'
L3	S 50°17'32" W	450.00'
L4	N 39°42'28" W	475.00'
L5	S 82°01'42" W	298.96'
L6	S 87°19'05" W	89.25'
L7	N 70°08'41" W	89.98'
L8	N 56°07'26" W	38.77'
L9	N 05°52'05" W	85.54'
L10	N 05°28'02" E	65.58'
L11	N 25°24'20" E	49.95'
L12	N 05°46'11" W	68.69'
L13	N 38°05'55" W	120.23'
L14	N 13°06'51" E	253.38'
L15	N 08°04'48" W	59.29'
L16	N 57°04'37" W	82.07'
L17	N 28°08'48" W	60.65'
L18	N 13°10'15" E	69.60'
L19	N 46°46'04" E	73.65'
L20	N 08°21'33" E	47.70'

LOCATION USE AREA AND ACCESS ROAD, POWER LINE,  
AND PIPELINE RIGHT-OF-WAY SURVEY FOR  
**EP ENERGY E&P COMPANY, L.P.**  
**MILLETT 2-14C5**  
SECTIONS 14, T3S, R5W, U.S.B.&M.  
DUCHESNE COUNTY, UTAH

USE AREA BOUNDARY DESCRIPTION

Commencing at the Northwest Corner of Section 14, Township 3 South, Range 5 West of the Uintah Special Base and Meridian;  
Thence South 42°31'38" East 932.86 feet to the TRUE POINT OF BEGINNING;  
Thence North 50°17'32" East 450.00 feet;  
Thence South 39°42'28" East 475.00 feet;  
Thence South 50°17'32" West 450.00 feet;  
Thence North 39°42'28" West 475.00 feet to the TRUE POINT OF BEGINNING, containing 4.91 acres.

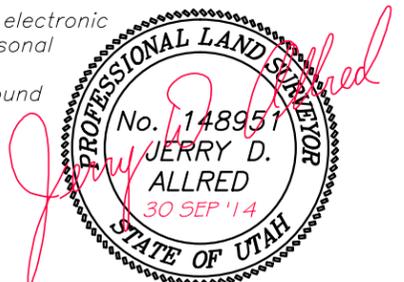
ACCESS ROAD, POWER LINE, AND PIPELINE CORRIDOR RIGHT-OF-WAY DESCRIPTION

A 66 feet wide access road, power line, and pipeline corridor right-of-way over portions of Section 14, Township 3 South, Range 5 West of the Uintah Special Base and Meridian, the centerline of said right-of-way being further described as follows;  
Commencing at the Northwest Corner of said Section 14;  
Thence South 41°48'41" East 1250.12 feet to the TRUE POINT OF BEGINNING, said point being on the west side of the EP Energy E&P Company L.P. Millett 2-14C5 well location use area boundary;  
Thence South 82°01'42" West 298.96 feet; Thence South 87°19'05" West 89.25 feet;  
Thence North 70°08'41" West 89.98 feet; Thence North 56°07'26" West 38.77 feet;  
Thence North 05°52'05" West 85.54 feet; Thence North 05°28'02" East 65.58 feet;  
Thence North 25°24'20" East 49.95 feet; Thence North 05°46'11" West 68.69 feet;  
Thence North 38°05'55" West 120.23 feet; Thence North 13°06'51" East 253.38 feet;  
Thence North 08°04'48" West 59.29 feet; Thence North 57°04'37" West 82.07 feet;  
Thence North 28°08'48" West 60.65 feet; Thence North 13°10'15" East 69.60 feet;  
Thence North 46°46'04" East 73.65 feet; Thence North 08°21'33" East 47.70 feet to the North line of said Section at an existing road. Said right-of-way being 1553.27 feet in length with the side lines being shortened or elongated to intersect said use area boundary and existing road lines.

CONFIDENTIAL

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 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, REGISTERED LAND SURVEYOR,  
CERTIFICATE NO. 148951 (UTAH)

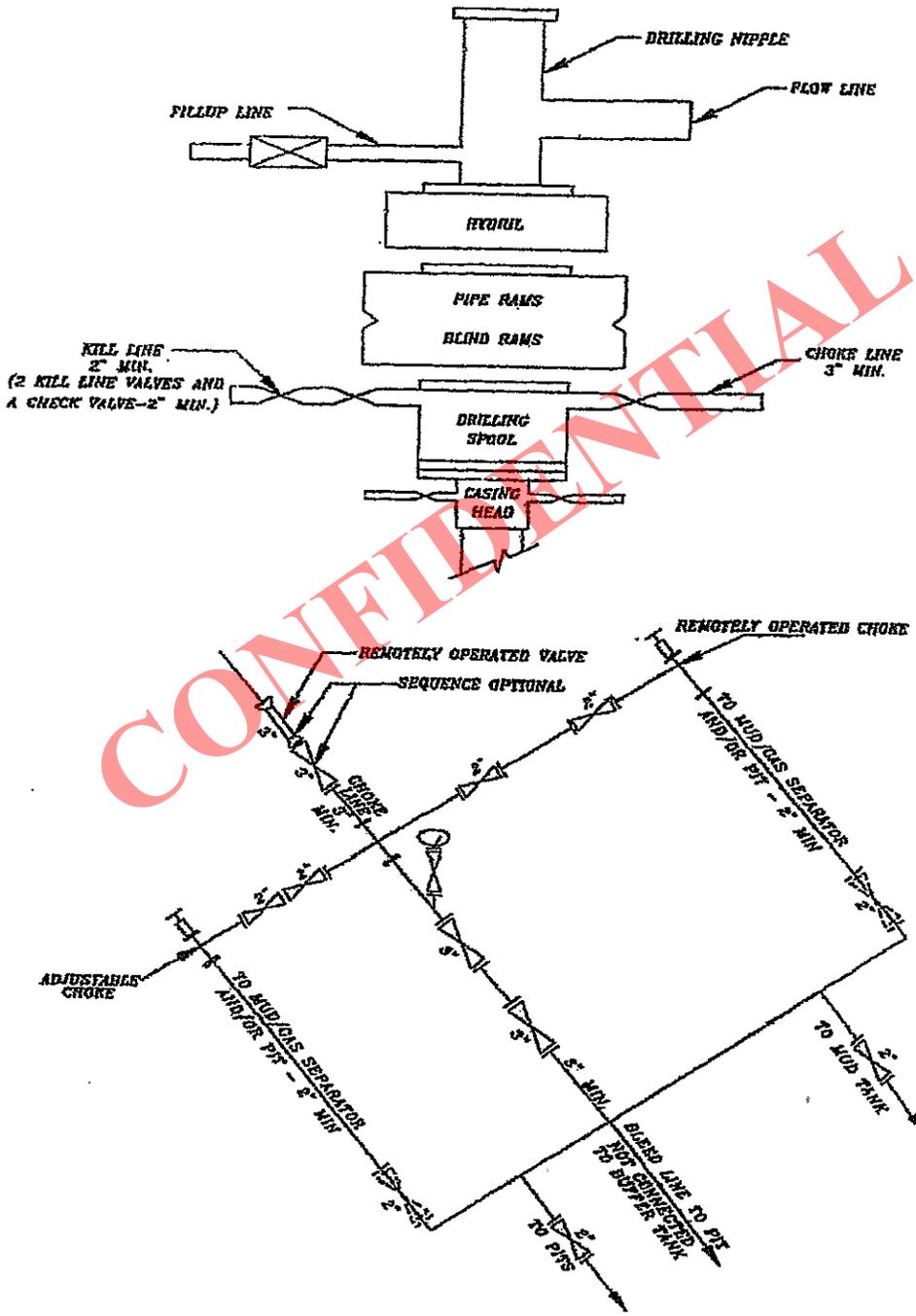
THIS SURVEY WAS PERFORMED USING GLOBAL POSITIONING SYSTEM PROCEDURES AND EQUIPMENT

THE BASIS OF BEARINGS IS GEODETIC NORTH DERIVED FROM G.P.S. OBSERVATIONS AT THE NW CORNER OF SECTION 10, T3S, R5W, U.S.B.&M. LOCATED AT LAT 40°14'30.74528"N AND LONG 110°26'45.07537"W USING THE UTAH STATE VIRTUAL REFERENCE STATION CONTROL NETWORK MAINTAINED AND OPERATED BY THE AUTOMATED GEOGRAPHIC REFERENCE CENTER

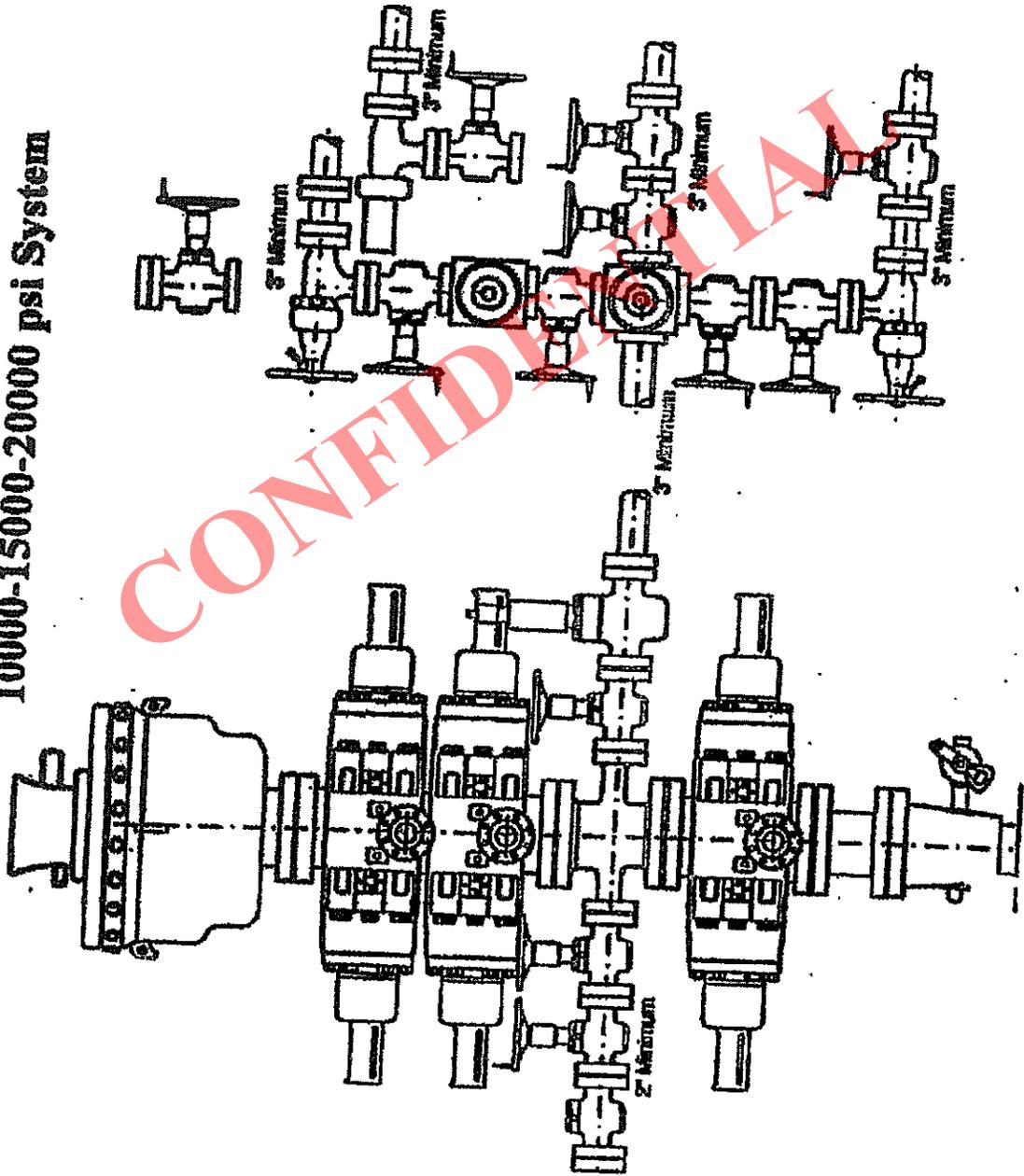
**JERRY D. ALLRED AND ASSOCIATES**  
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DUCHESNE, UTAH 84021  
(435) 738-5352

REV 30 SEP 2014  
27 NOV 2012 01-128-349

# 5M BOP STACK and CHOKE MANIFOLD SYSTEM



10000-15000-20000 psi System

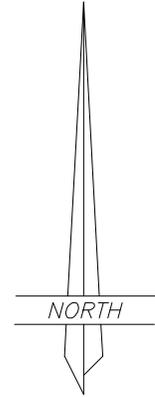
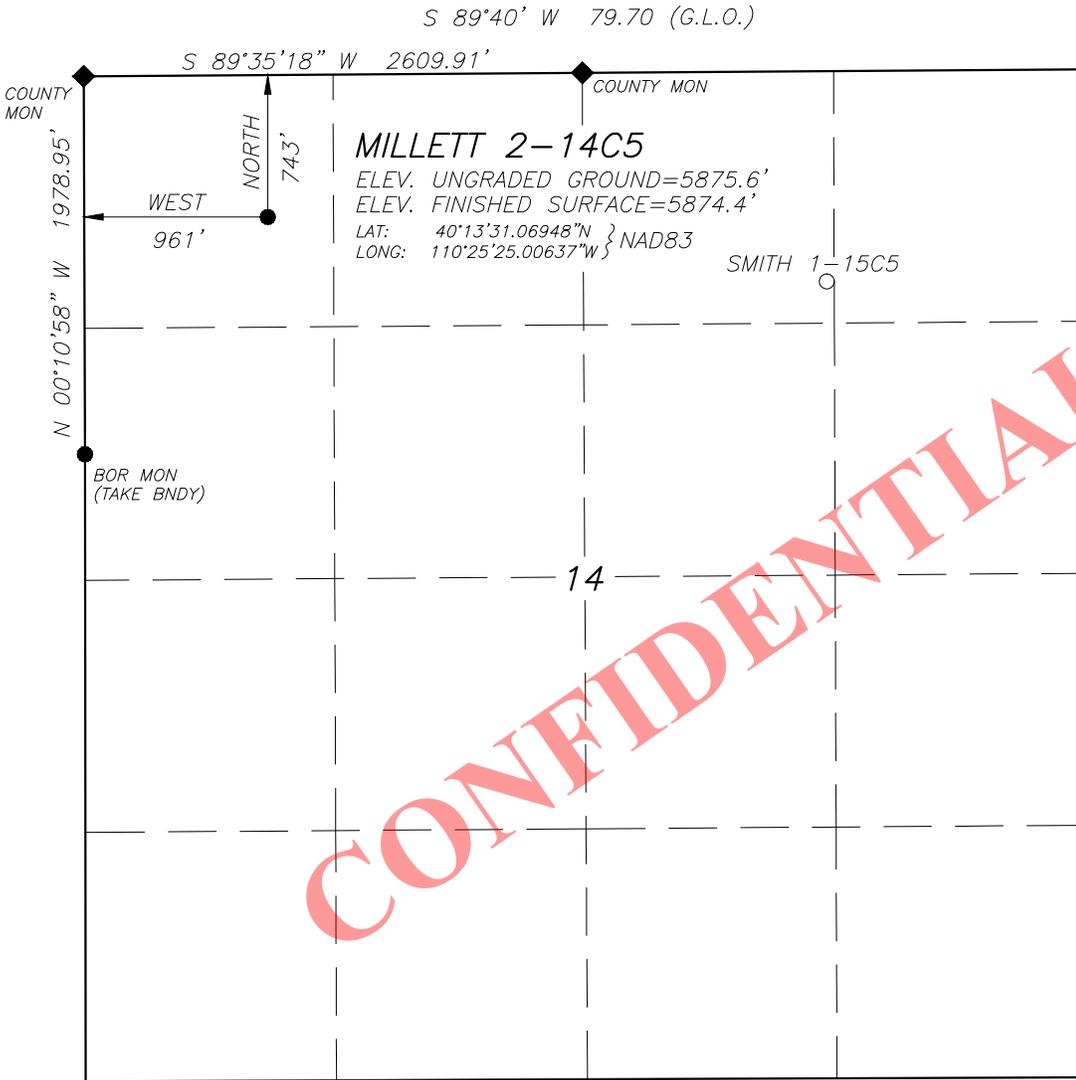


# EP ENERGY E&P COMPANY, L.P.

## WELL LOCATION

### MILLETT 2-14C5

LOCATED IN THE NW¼ OF THE NW¼ OF SECTION 14, T3S, R5W, U.S.B.&M. DUCHESNE COUNTY, UTAH



SCALE: 1" = 1000'



NOTE:  
NAD27 VALUES FOR WELL POSITION:  
LAT: 40.225340747° N  
LONG: 110.422901392° W

CONFIDENTIAL

#### 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.

#### LEGEND AND NOTES

◆ CORNER MONUMENTS FOUND AND USED BY THIS SURVEY

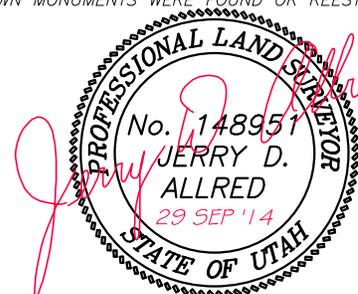
THE GENERAL LAND OFFICE (G.L.O.) PLAT WAS USED FOR REFERENCE AND CALCULATIONS AS WAS THE U.S.G.S. MAP

THIS SURVEY WAS PERFORMED USING GLOBAL POSITIONING SYSTEM PROCEDURES AND EQUIPMENT

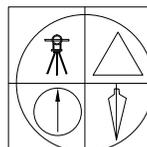
THE BASIS OF BEARINGS IS GEODETIC NORTH DERIVED FROM G.P.S. OBSERVATIONS AT THE NW CORNER OF SECTION 10, T3S, R5W, U.S.B.&M. LOCATED AT LAT 40°14'30.74528"N AND LONG 110°26'45.07537"W USING THE UTAH STATE VIRTUAL REFERENCE STATION CONTROL NETWORK MAINTAINED AND OPERATED BY THE AUTOMATED GEOGRAPHIC REFERENCE CENTER

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

REV 29 SEP 2014  
27 NOV 2012 01-128-349

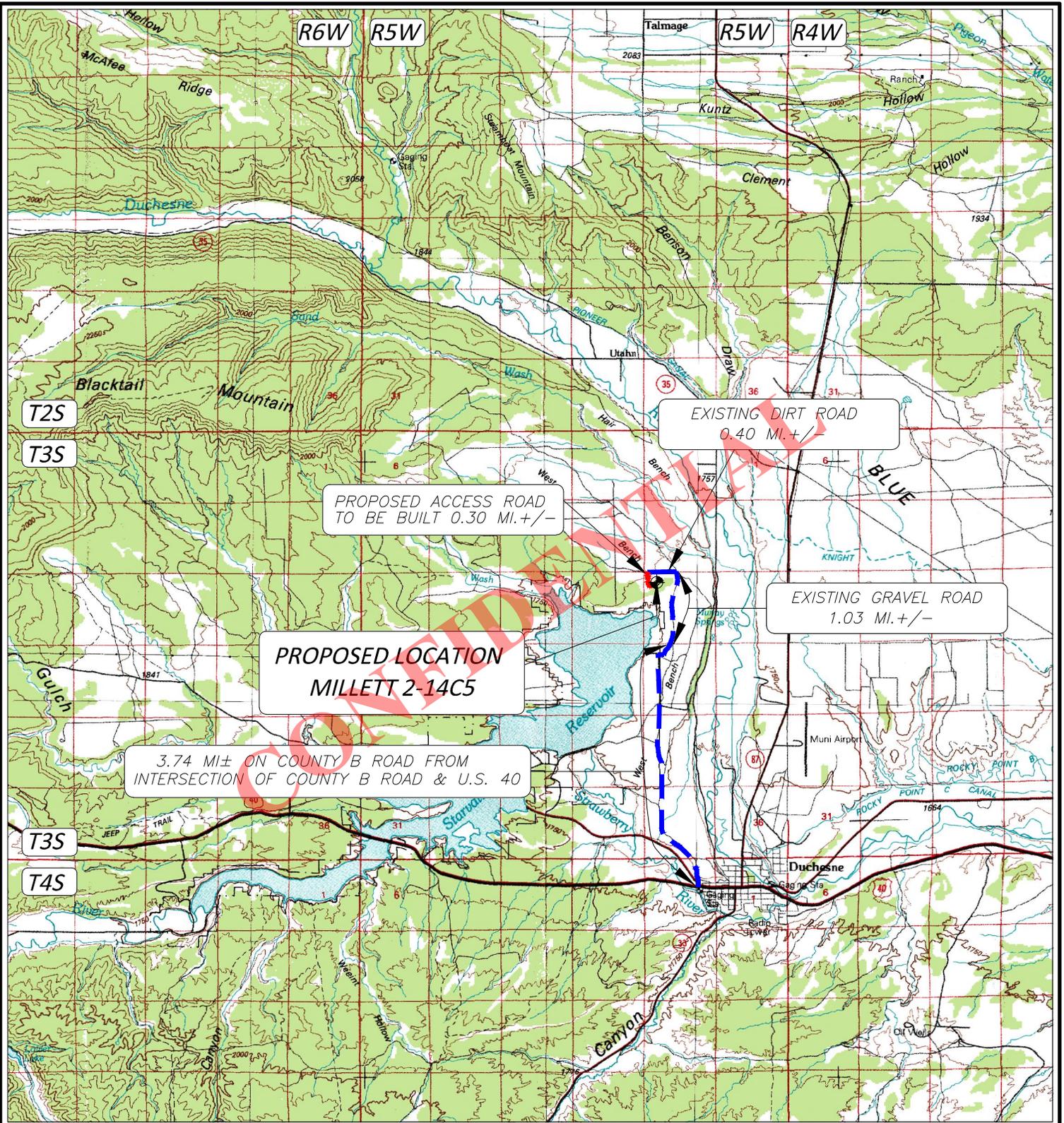


JERRY D. ALLRED, REGISTERED LAND SURVEYOR, CERTIFICATE NO. 148951 (UTAH)



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

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



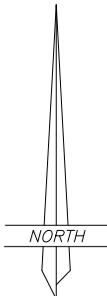
**LEGEND:**

● PROPOSED WELL LOCATION

01-128-349

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

1235 NORTH 700 EAST--P.O. BOX 975  
DUCHEсне, UTAH 84021  
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**EP ENERGY E&P COMPANY, L.P.**

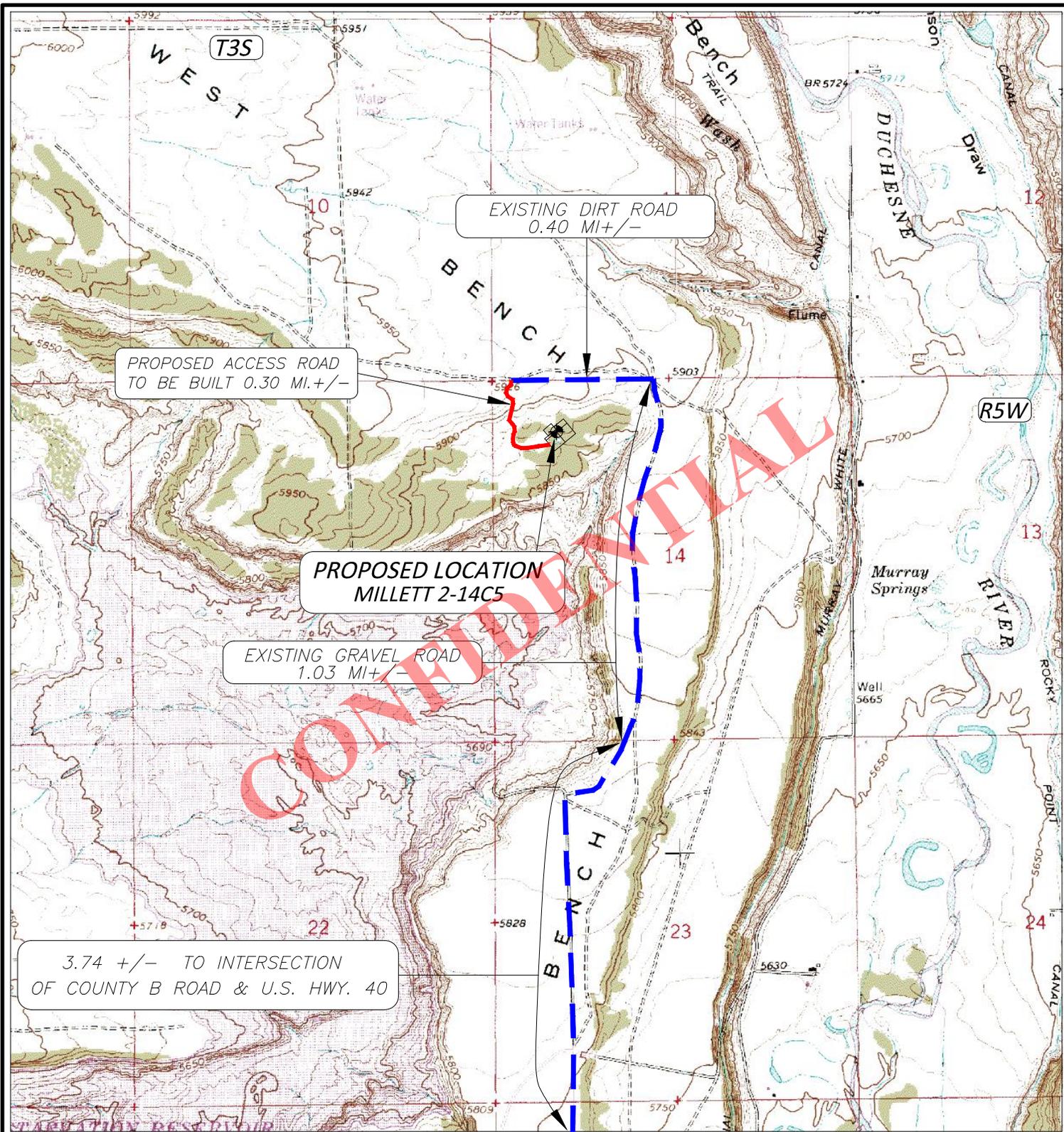
MILLETT 2-14C5

SECTION 14, T3S, R5W, U.S.B.&M.

743' FNL, 961' FWL

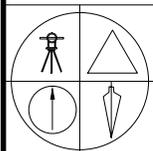
**TOPOGRAPHIC MAP "A"**

SCALE; 1"=10,000'  
REV 30 SEP 2014



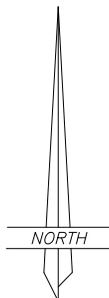
**LEGEND:**

-  PROPOSED WELL LOCATION
  -  PROPOSED ACCESS ROAD
  -  EXISTING GRAVEL ROAD
  -  EXISTING PAVED ROAD
- 01-128-349



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SURVEYING CONSULTANTS

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



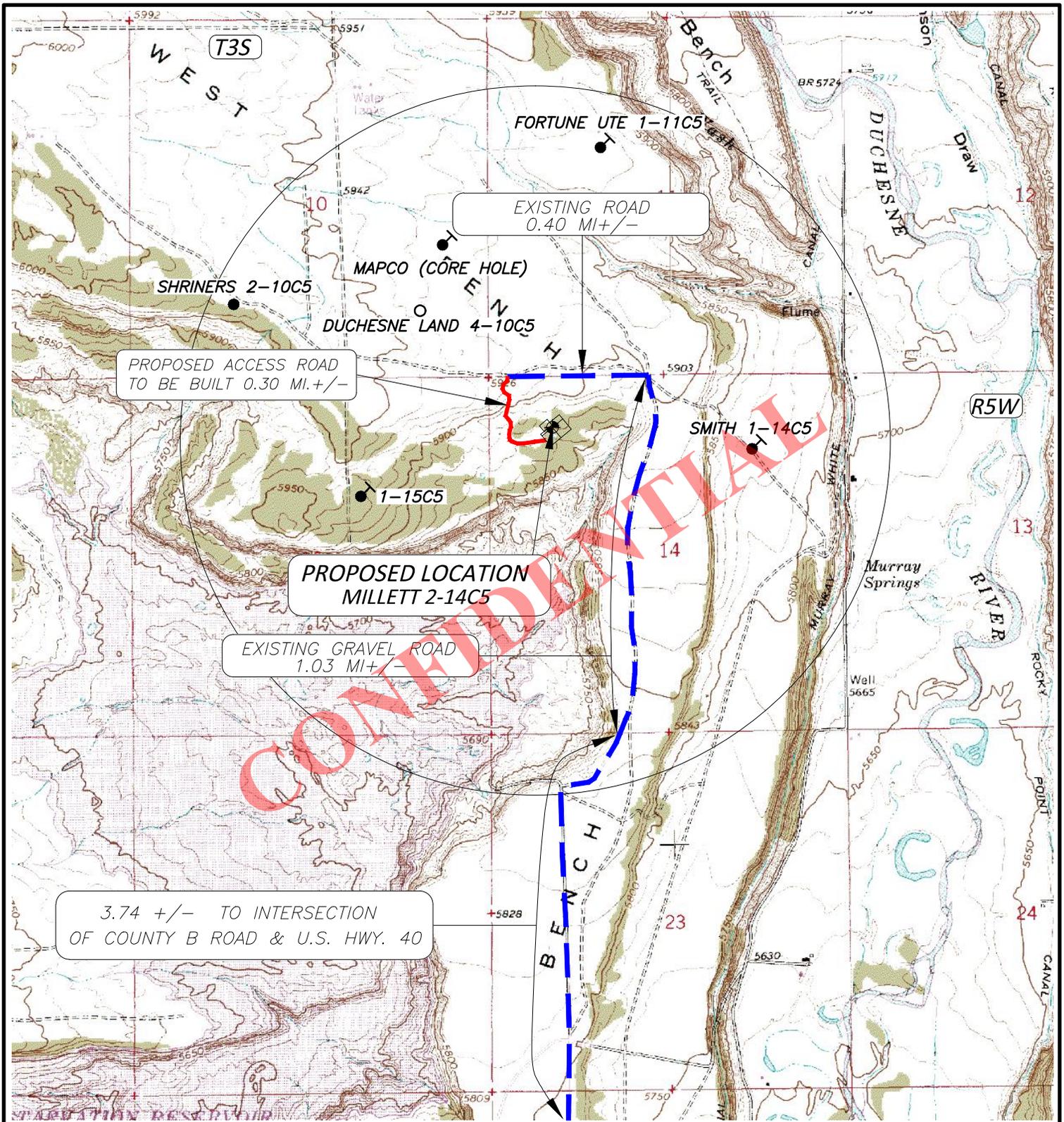
**EP ENERGY E&P COMPANY, L.P.**

MILLETT 2-14C5  
SECTION 14, T3S, R5W, U.S.B.&M.

743' FNL, 961' FWL

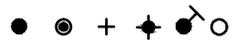
**TOPOGRAPHIC MAP "B"**

SCALE; 1"=2000'  
REV 29 SEP 2014

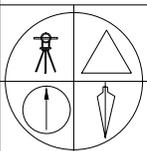


**LEGEND:**

 PROPOSED WELL LOCATION

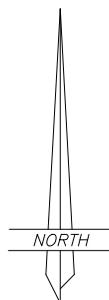


01-128-349



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

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



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

MILLETT 2-14C5  
SECTION 14, T3S, R5W, U.S.B.&M.

743' FNL, 961' FWL

**TOPOGRAPHIC MAP "C"**

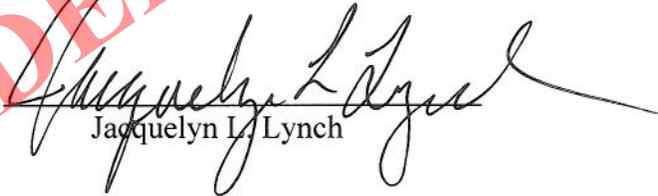
SCALE; 1"=2000'  
REV 29 SEP 2014

**AFFIDAVIT OF DAMAGE SETTLEMENT AND RELEASE**

Jacquelyn L. Lynch personally appeared before me, and, being duly sworn, deposes and says:

1. My name is Jacquelyn L. Lynch. I am a Landman for EP Energy E&P Company, L.P., whose address is 1001 Louisiana St., Houston, Texas 77002 ("EP Energy").
2. EP Energy is the operator of the proposed Millett 2-14C5 well (the "Well") to be located in the NW/4NW/4 of Section 14, Township 3 South, Range 5 West, USM, Duchesne County, Utah (the "Drillsite Location"). The surface owner of the Drillsite Location is Marshall G. Millett & Karen A. Millett, as husband and wife, whose address is 9213 Kensington Parkway, Chevy Chase, Maryland 20815 (the "Surface Owner"). The Surface Owner's telephone number is (240) 480-6610.
3. EP Energy and the Surface Owner have entered into a Damage Settlement and Release Agreement dated October 18<sup>th</sup>, 2014 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.

FURTHER AFFIANT SAYETH NOT.

  
 Jacquelyn L. Lynch

**ACKNOWLEDGMENT**

STATE OF TEXAS                   §  
   §  
 COUNTY OF HARRIS               §

Sworn to and subscribed before me on this 5<sup>th</sup> day of November, 2014, by Jacquelyn L. Lynch, as Landman for EP Energy E&P Company, L.P., a Delaware limited partnership.

  
 NOTARY PUBLIC

My Commission Expires:  
8/2/2018



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 .30 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 .30 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:**

Marshall G. Millet & Karen A. Millet  
9213 Kensington Parkway  
Chevy Chase, Maryland 20815

**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

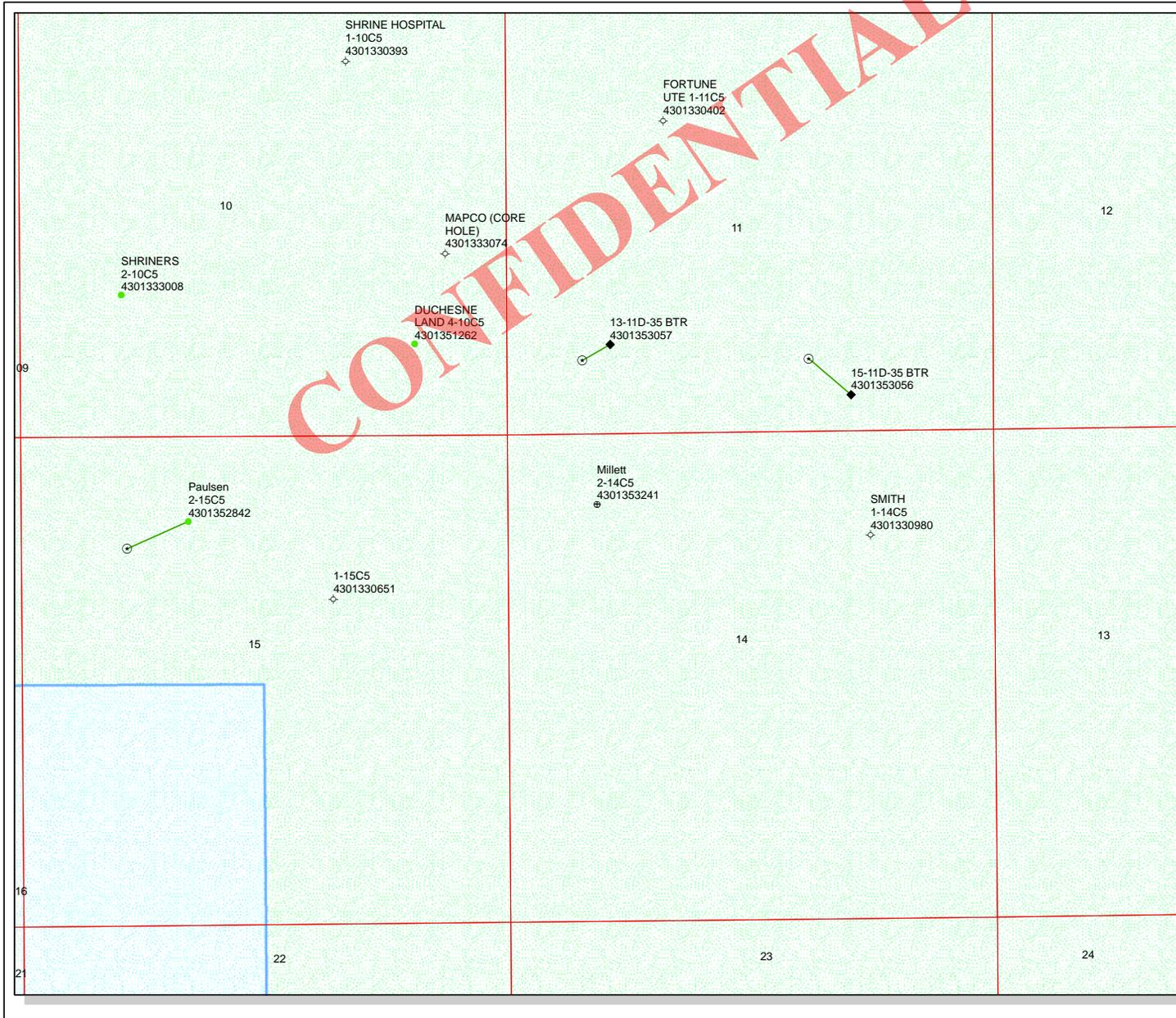
**Regarding This APD**

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

CONFIDENTIAL



**API Number: 4301353241**

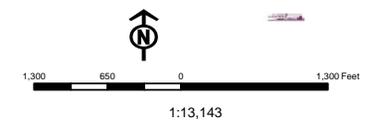
**Well Name: Millett 2-14C5**

Township: T03.0S Range: R05.0W Section: 14 Meridian: U

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

Map Prepared: 12/4/2014  
Map Produced by Diana Mason

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



Well Name	EP ENERGY E&P COMPANY, L.P. Millett 2-14C5 43013532410000			
String	Surf	I1	L1	
Casing Size(")	9.625	7.000	5.000	
Setting Depth (TVD)	2000	9000	12200	
Previous Shoe Setting Depth (TVD)	600	2000	9000	
Max Mud Weight (ppg)	8.3	10.3	12.0	
BOPE Proposed (psi)	500	10000	10000	
Casing Internal Yield (psi)	5750	11220	13940	
Operators Max Anticipated Pressure (psi)	7613		12.0	

Calculations	Surf String	9.625	"
Max BHP (psi)	.052*Setting Depth*MW=	863	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	623	NO <input type="checkbox"/> diverter, air system, Rotating head reqd.
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	423	YES <input type="checkbox"/> OK <input type="checkbox"/>
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	555	YES <input type="checkbox"/> OK <input type="checkbox"/>
Required Casing/BOPE Test Pressure=		2000	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=	4820	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	3740	YES <input type="checkbox"/> 10M BOP stack, 5M annular
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	2840	YES <input type="checkbox"/> OK <input type="checkbox"/>
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	3280	NO <input type="checkbox"/> OK <input type="checkbox"/>
Required Casing/BOPE Test Pressure=		7854	psi
*Max Pressure Allowed @ Previous Casing Shoe=		2000	psi *Assumes 1psi/ft frac gradient

Calculations	L1 String	5.000	"
Max BHP (psi)	.052*Setting Depth*MW=	7613	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	6149	YES <input type="checkbox"/> 10M BOP stack, 5M annular
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	4929	YES <input type="checkbox"/> OK <input type="checkbox"/>
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	6909	YES <input type="checkbox"/>
Required Casing/BOPE Test Pressure=		9758	psi
*Max Pressure Allowed @ Previous Casing Shoe=		9000	psi *Assumes 1psi/ft frac gradient

Calculations	String		"
Max BHP (psi)	.052*Setting Depth*MW=		
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO <input type="checkbox"/>
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO <input type="checkbox"/>
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO <input type="checkbox"/>
Required Casing/BOPE Test Pressure=			psi
*Max Pressure Allowed @ Previous Casing Shoe=			psi *Assumes 1psi/ft frac gradient

**EP ENERGY E&P COMPANY, L.P.**  
**Millett 2-14C5**  
**43013532410000**

Formation Depth (MD)

UINTA 0

BMSW 900 ✓

GRRV 3896

GRTN1 4876

MHGNY 5756

LWR GR 7076

WSTCH 8886

**TOL 8800' MD**

**8800' TVD**

*stip cont*

*TOC @ 1464' w/ 5% w.o.  
 Tail @ 6419'*

*stip cont*

9.625" Casing

**2000' MD**

**2000' TVD**

**Surface' TOC**

**1561' Tail**

15% Washout

12.25" Hole

7" Casing

**9000' MD**

**9000' TVD**

**2885' TOC**

**6905' Tail**

10% Washout

8.75" Hole

5" Liner

**12200' MD**

**12200' TVD**

**9544' TOC**

**12200' Tail**

10% Washout

6.125" Hole

*APD*

*1500'  
6500'*

*APD*

*TDL*



*743 FML 961 FWL 514 TBS R 5W*

*Offset wj. wells  
 4301330971 - 4106' to 7528' - 1 1/2 mi E  
 4301330388 - 2017' to 3286' - 2 1/2 mi W*

**EP ENERGY E&P COMPANY, L.P.**  
**Millett 2-14C5**  
**43013532410000**

1.1.125											1.8												
<b>9.625 " Casing</b>											<b>5 " Liner</b>												
622	MASP	Collapse Strength (psi)	3090	Collapse Load (psi)	862	Collapse DF	3.58	Burst Strength (psi)	5750	Burst Load (psi)	2000	Burst DF	2.88	Tension Strength (kips)	737	Tension DF	9.21	Neutral Point (ft)	1746	Tension Air (kips)	80.0	Tension Buoyed (kips)	70.1
8.3	MW (ppg)	Internal Grad. (psi)	0.12	Backup Mud (ppg)		Internal Mud (ppg)		Max Shoe Pressure (psi)*	3276	CSG Wt (lbs/ft)	40.0	CSG Grade	N-80	CSG Collar	LTC	Cement Lead (sx)	436	Lead Yield	2.23	Cement Tail (sx)	195	Tail Yield	1.30
2836	MASP	Collapse Strength (psi)	9200	Collapse Load (psi)	4816	Collapse DF	1.91	Burst Strength (psi)	11220	Burst Load (psi)	6901	Burst DF	1.63	Tension Strength (kips)	797	Tension DF	3.62	Neutral Point (ft)	7583	Tension Air (kips)	261.0	Tension Buoyed (kips)	220.3
10.3	MW (ppg)	Internal Grad. (psi)	0.22	Backup Mud (ppg)		Internal Mud (ppg)		Max Shoe Pressure (psi)*	6901	CSG Wt (lbs/ft)	29.0	CSG Grade	HCP-110	CSG Collar	LTC	Cement Lead (sx)	501	Lead Yield	1.91	Cement Tail (sx)	304	Tail Yield	1.64
4921	MASP	Collapse Strength (psi)	13418	Collapse Load (psi)	7605	Collapse DF	1.76	Burst Strength (psi)	13940	Burst Load (psi)	7605	Burst DF	1.83	Tension Strength (kips)	495	Tension DF	9.90	Neutral Point (ft)	11576	Tension Air (kips)	61.2	Tension Buoyed (kips)	50.0
12.0	MW (ppg)	Internal Grad. (psi)	0.22	Backup Mud (ppg)		Internal Mud (ppg)		Max Shoe Pressure (psi)*	8800	CSG Wt (lbs/ft)	18.0	CSG Grade	HCP-110	CSG Collar	LTC	Cement Lead (sx)	201	Lead Yield	1.47	Cement Tail (sx)		Tail Yield	

# ON-SITE PREDRILL EVALUATION

## Utah Division of Oil, Gas and Mining

**Operator** EP ENERGY E&P COMPANY, L.P.  
**Well Name** Millett 2-14C5  
**API Number** 43013532410000      **APD No** 10839      **Field/Unit** ALTAMONT  
**Location: 1/4,1/4** NWNW      **Sec** 14      **Tw** 3.0S      **Rng** 5.0W      743 FNL 961 FWL  
**GPS Coord (UTM)** 549036 4452924      **Surface Owner** Marshall & Karen Millett

### Participants

Kelsey Carter & Randy Fredrick (EP Construction & Lands); Dennis Ingram (DOG M)

### Regional/Local Setting & Topography

The proposed Millett 2-14C5 well is located in northeastern Utah, and can be accessed from the intersection of 700 West Street and US 40 in Duchesne, Utah and proceed north on gravel county B road approximately 3.74 miles; continue northerly 1.03 miles on dirt road to an intersection; turn left and travel west 0.40 miles on a dirt road to the beginning of the proposed access road; turn left and follow existing 2-track road southerly and then road flags easterly 0.30 miles to the proposed well location. Regionally this well stakes up approximately .25 miles north of Starvation Reservoir in pinion/juniper habitat with scattered sandstone outcroppings littering the surface. Several dry washes do cross this location and drain southeasterly toward the reservoir. A drainage east of this location does carry any storm waters southwesterly toward the reservoir.

### Surface Use Plan

#### **Current Surface Use**

Recreational  
Residential

#### **New Road Miles**

0.3

#### **Well Pad**

**Width** 357      **Length** 400

#### **Src Const Material**

Onsite

#### **Surface Formation**

UNTA

#### **Ancillary Facilities** N

Future cabin area for landowner

### Waste Management Plan Adequate?

### Environmental Parameters

#### **Affected Floodplains and/or Wetlands** N

#### **Flora / Fauna**

Pinion/juniper, sagebrush, prickly pear cactus, rabbit brush, bunch grass;

Mule deer and elk winter range, mountain lion, coyote, fox, rabbit, raccoon, badger, other smaller mammals and birds native to region.

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

Reddish, fine-grained sandy loam with sandstone outcroppings across the surface.

#### **Erosion Issues** Y

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

Two sandy washes divert to southwest and other around eastern corners

**Berm Required?** Y

Permanent berming along the southwest and southeast of 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>		20
<b>Distance to Surface Water (feet)</b>	>1000	0
<b>Dist. Nearest Municipal Well (ft)</b>	1320 to 5280	5
<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>	> 50	> 50
<b>Presence Nearby Utility Conduits</b>	Present	15
<b>Final Score</b>		75 1 Sensitivity Level

**Characteristics / Requirements**

Reserve pit proposed off the western side of location in cut, measuring 110' wide by 150' long by 12' deep.

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

Drainage issues need diverted around southern and eastern side of location. Special berming regulations along southern location border to prevent berm washout and to prevent spills and leaks from flowing toward Starvation Reservoir.

Dennis Ingram  
Evaluator

12/18/2014  
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
10839	43013532410000	LOCKED	OW	P	No
<b>Operator</b>	EP ENERGY E&P COMPANY, L.P.		<b>Surface Owner-APD</b>	Marshall & Karen Millett	
<b>Well Name</b>	Millett 2-14C5		<b>Unit</b>		
<b>Field</b>	ALTAMONT		<b>Type of Work</b>	DRILL	
<b>Location</b>	NWNW 14 3S 5W U 743 FNL (UTM) 549039E 4452917N		961 FWL	GPS Coord	

### Geologic Statement of Basis

EP proposes to set 40 feet of conductor and 2,000 feet of surface casing both of which will be cemented to surface. The surface hole will be drilled utilizing fresh water mud. The estimated depth to the base of moderately saline ground water is 900 feet. A search of Division of Water Rights records indicates that there are 22 water wells within a 10,000 foot radius of the center of Section 14. These wells range in depth from 35-400 feet. The wells are listed as being used for irrigation, stock watering, municipal, oil exploration and domestic. The wells in this area probably produce water from the Duchesne River Formation and near surface alluvium. The proposed casing and cement should adequately protect ground water in this area. Surface casing should probably be decreased to more closely match the base of the moderately saline ground water.

Brad Hill  
APD Evaluator

1/6/2015  
Date / Time

### Surface Statement of Basis

Two drainages or sandy washes carry water across proposed well site: one enters north of pit corner "B" and leaves north of location corner number 2. This drainage shall be re-routed around corners "B", 4, 3, and 2. Where this new drainage crosses the access road a 24" culvert should be installed because of the access road. A second drainage now enters just east of corner number 6 and exists between corners number 8 and 1. This drainage will also need diverted around the northeast corners from 6, 7, and 8. Both drainages will need tied back into existing drainage, and if necessary rip rap armor will be utilized to prevent both these drainages from cutting back into the location washing out berms.

The preset surface casing for 13 3/8" has been dropped from EP Energy's drilling program, which is a concern drilling upslope of a drainage that takes storm water into the Starvation Reservoir. Without the annular prevention for surface drilling, the operator will have no way to contain an out of control water flow, and those concerns have been forwarded to the Division Engineer.

A reserve pit is planned off the west side of this location in cut, and should be a stable area. However, the surface area consists of blow sand and sandstone rock. Therefore, the operator shall make a smooth pit bottom to prevent puncture and then utilize felt pad under liner with a 20 mil synthetic liner to contain drilling fluids. That pit shall also be fenced to prevent wildlife from entering.

A presite to permit the Millett 2-14C5 well was scheduled and done on December 18, 2014 to take input and address issues regarding the construction and drilling of this well.

Dennis Ingram  
Onsite Evaluator

12/18/2014  
Date / Time

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

<b>Category</b>	<b>Condition</b>
Pits	A synthetic liner with a minimum thickness of 20 mils with a felt sub liner shall be properly installed and maintained in the reserve pit. The reserve pit shall also be fenced to prevent wildlife from entering same.
Pits	The reserve pit should be located on the west side of the 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. Special berming regulations apply to this well because of the Starvation Reservoir, slope of the topography toward that water, and loose, sandy soils that does not make a good berm. A 3' steel berming is required starting at corner number 8, down through 1 and 2, then turning westerly toward corner number 3. A cement footing is also required at the base of this berm to prevent storm water and other fluids like spills from washing out under the berm

**CONFIDENTIAL**

## WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 12/2/2014

API NO. ASSIGNED: 43013532410000

WELL NAME: Millett 2-14C5

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

PHONE NUMBER: 713 997-5038

CONTACT: Maria S. Gomez

PROPOSED LOCATION: NWNW 14 030S 050W

Permit Tech Review: 

SURFACE: 0743 FNL 0961 FWL

Engineering Review: 

BOTTOM: 0743 FNL 0961 FWL

Geology Review: 

COUNTY: DUCHESNE

LATITUDE: 40.22525

LONGITUDE: -110.42360

UTM SURF EASTINGS: 549039.00

NORTHINGS: 4452917.00

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 139-124
- Effective Date: 11/6/2014
- Siting: 8 WELLS PER SECTION
- R649-3-11. Directional Drill

Comments: Presite Completed

Stipulations: 5 - Statement of Basis - bhill  
12 - Cement Volume (3) - daynedoucet  
25 - Surface Casing - daynedoucet  
27 - Other - ddoucet



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:** Millett 2-14C5  
**API Well Number:** 43013532410000  
**Lease Number:** Fee  
**Surface Owner:** FEE (PRIVATE)  
**Approval Date:** 2/26/2015

### Issued to:

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

### Authority:

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

### Duration:

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

### General:

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

### Conditions of Approval:

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

Cement volume for the 7" casing shall be determined from actual hole diameter in order to place the top of the tail cement at or above 6500' MD as indicated in the submitted drilling plan.

Surface casing shall be cemented to the surface.

A properly maintained and lubricated rotating head shall be used during air drilling.

### 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

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Carol Daniels <caroldaniels@utah.gov>

*NWNW SEC 14 T03S R05W LEASE FEE*

**24 HOUR NOTICE OF SPUD**

1 message

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

Fri, Apr 17, 2015 at 6:24 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>, "Dodd, Robert W" <Robert.Dodd@epenergy.com>, "Mangum, Danny R (Contractor)" <danny.mangum@epenergy.com>, "Gomez, Maria S" <Maria.Gomez@epenergy.com>, "Derden, Roy Lynn (Contractor)" <Roy.Derden@epenergy.com>

RE: EP ENERGY

MILLETT 2-14C5

API # 43013532410000

ALTAMONT FIELD

DUCHESNE COUNTY

Leon Ross Drilling spudded the well @ 15:00hrs on 4/16/2015. We plan on running and cementing 20" Conductor Casing to +/- 40' within 24hrs.

Thanks,

Lloyd Rowell / Morgan Harden

EP Energy / PD 406

713-997-1220 (Rig)

435-823-1764 (Cell)

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.

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Carol Daniels <caroldaniels@utah.gov>

*NUUNW SEC 14 T03S R05W FRR Lease*

## 24hr Notice Run & Cement Casing

1 message

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

Sat, May 2, 2015 at 5:44 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>, "Mangum, Danny R (Contractor)" <danny.mangum@epenergy.com>, "Gomez, Maria S" <Maria.Gomez@epenergy.com>, "Derden, Roy Lynn (Contractor)" <Roy.Derden@epenergy.com>

RE: EP ENERGY

MILLETT 2-14C5

API # 43013532410000

ALTAMONT FIELD

DUCHESNE COUNTY

We plan on running and cementing 7" 29# P-110HC LT&C Intermediate Casing to +/- 8,750' 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 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.

CONFIDENTIAL

Carol Daniels <caroldaniels@utah.gov>

*NWNW S-14 T03S R05W FEE LEASE*

**24 hr notice run & cement casing**

1 message

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

Wed, Apr 22, 2015 at 3:24 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>, "Mangum, Danny R (Contractor)" <danny.mangum@epenergy.com>, "Gomez, Maria S" <Maria.Gomez@epenergy.com>, "Derden, Roy Lynn (Contractor)" <Roy.Derden@epenergy.com>

RE: EP ENERGY

MILLETT 2-14C5

API # 43013532410000

ALTAMONT FIELD

DUCHESNE COUNTY

Leon Ross Drilling 26 moved in and commenced drilling the 12¼" surface hole @ 14:00hrs on 4/21/2015. We plan on running and cementing 9-5/8" Surface Casing to +/- 2,000' within 24hrs.

Thanks,

Lloyd Rowell / Morgan Harden

EP Energy / PD 406

713-997-1220 (Rig)

435-823-1764 (Cell)

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

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

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  
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 June 29, 2015****Well Name: Millet 2-14C5****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>10009'-10304'</b>	<b>.40</b>	<b>69</b>	<b>Open</b>
<b>9723'-9977'</b>	<b>.40</b>	<b>66</b>	<b>Open</b>
<b>9463'-9688'</b>	<b>.40</b>	<b>66</b>	<b>Open</b>
<b>9154'-9427'</b>	<b>.40</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>10387'-10665'</b>	<b>5000 gal acid, 3000# 100 mesh, 151900# 30/50 TLC</b>
<b>10009'-10304'</b>	<b>5000 gal acid, 3000# 100 mesh, 70400# 30/50 TLC</b>
<b>9723'-9977'</b>	<b>5000 gal acid, 3000# 100 mesh, 150500# 30/50 TLC</b>
<b>9463'-9688'</b>	<b>5000 gal acid, 3000# 100 mesh, 150400# 30/50 TLC</b>
<b>9154'-9427'</b>	<b>5000 gal acid, 3000# 100 mesh, 149540# 30/50 TLC</b>



**Company:** EP Energy  
**Well:** Millett 2-14C5  
**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	0.42	241.72	100.00	100.00	-0.17	0.17	S	0.32	W	0.36	241.72	0.42	0.42	241.72
2	200.00	0.37	243.72	100.00	200.00	-0.49	0.49	S	0.93	W	1.05	242.33	0.05	-0.05	2.00
3	300.00	0.37	296.73	100.00	299.99	-0.48	0.48	S	1.50	W	1.58	252.10	0.33	0.00	53.00
4	400.00	0.55	322.01	100.00	399.99	0.04	0.04	N	2.08	W	2.08	270.98	0.27	0.18	25.28
5	500.00	0.57	349.30	100.00	499.99	0.90	0.90	N	2.47	W	2.63	290.04	0.26	0.02	27.29
6	600.00	0.27	61.89	100.00	599.99	1.50	1.50	N	2.35	W	2.79	302.46	0.55	-0.30	-287.41
7	700.00	0.25	101.37	100.00	699.98	1.56	1.56	N	1.93	W	2.49	308.94	0.18	-0.02	39.48
8	800.00	0.22	151.77	100.00	799.98	1.35	1.35	N	1.63	W	2.12	309.64	0.20	-0.03	50.40
9	900.00	0.23	235.85	100.00	899.98	1.07	1.07	N	1.70	W	2.01	302.08	0.30	0.01	84.08
10	1000.00	0.26	325.66	100.00	999.98	1.14	1.14	N	2.00	W	2.30	299.75	0.34	0.03	89.81
11	1100.00	0.76	316.04	100.00	1099.98	1.80	1.80	N	2.58	W	3.15	304.91	0.51	0.50	-9.62
12	1200.00	0.80	341.67	100.00	1199.97	2.94	2.94	N	3.26	W	4.39	312.06	0.35	0.05	25.63
13	1300.00	0.68	3.09	100.00	1299.96	4.20	4.20	N	3.45	W	5.43	320.62	0.30	-0.12	-338.58
14	1400.00	0.66	3.92	100.00	1399.95	5.37	5.37	N	3.38	W	6.34	327.85	0.02	-0.02	0.83
15	1500.00	0.57	7.06	100.00	1499.95	6.44	6.44	N	3.28	W	7.22	333.04	0.10	-0.10	3.15
16	1600.00	0.52	18.23	100.00	1599.94	7.36	7.36	N	3.07	W	7.97	337.32	0.12	-0.05	11.17
17	1700.00	0.48	69.92	100.00	1699.94	7.93	7.93	N	2.54	W	8.32	342.23	0.43	-0.04	51.68
18	1800.00	0.44	110.81	100.00	1799.94	7.93	7.93	N	1.79	W	8.13	347.30	0.32	-0.04	40.89
19	1913.00	0.42	139.12	113.00	1912.93	7.47	7.47	N	1.11	W	7.55	351.52	0.19	-0.02	25.06
20	2113.00	0.40	219.10	200.00	2112.93	6.38	6.38	N	1.08	W	6.47	350.39	0.26	-0.01	39.99
21	2208.00	0.50	18.60	95.00	2207.93	6.52	6.52	N	1.16	W	6.62	349.93	0.93	0.11	-211.05
22	2304.00	1.30	17.30	96.00	2303.92	7.95	7.95	N	0.70	W	7.98	354.97	0.83	0.83	-1.35
23	2400.00	0.70	30.30	96.00	2399.90	9.50	9.50	N	0.08	W	9.50	359.52	0.66	-0.63	13.54
24	2497.00	0.90	26.00	97.00	2496.89	10.70	10.70	N	0.55	E	10.71	2.96	0.22	0.21	-4.43
25	2591.00	1.80	12.70	94.00	2590.87	12.80	12.80	N	1.20	E	12.86	5.36	1.01	0.96	-14.15
26	2688.00	1.60	3.70	97.00	2687.82	15.64	15.64	N	1.62	E	15.72	5.93	0.34	-0.21	-9.28
27	2784.00	1.30	353.80	96.00	2783.79	18.06	18.06	N	1.59	E	18.13	5.04	0.41	-0.31	364.69
28	2880.00	1.20	331.70	96.00	2879.77	20.02	20.02	N	1.00	E	20.05	2.85	0.51	-0.10	-23.02
29	2976.00	1.10	307.00	96.00	2975.75	21.46	21.46	N	0.21	W	21.47	359.43	0.52	-0.10	-25.73
30	3072.00	1.30	325.20	96.00	3071.73	22.91	22.91	N	1.57	W	22.97	356.08	0.45	0.21	18.96
31	3168.00	0.80	16.80	96.00	3167.72	24.45	24.45	N	2.00	W	24.53	355.32	1.06	-0.52	-321.25
32	3265.00	1.20	6.80	97.00	3264.70	26.11	26.11	N	1.68	W	26.16	356.31	0.45	0.41	-10.31
33	3361.00	1.40	19.00	96.00	3360.68	28.21	28.21	N	1.18	W	28.24	357.60	0.35	0.21	12.71
34	3456.00	1.90	3.70	95.00	3455.64	30.88	30.88	N	0.70	W	30.89	358.69	0.70	0.53	-16.11
35	3552.00	1.20	351.00	96.00	3551.60	33.46	33.46	N	0.76	W	33.47	358.70	0.81	-0.73	361.77



**Company:** EP Energy  
**Well:** Millett 2-14C5  
**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	3649.00	1.50	14.90	97.00	3648.58	35.69	35.69	N	0.59	W	35.70	359.05	0.65	0.31	-346.49
37	3744.00	0.70	3.40	95.00	3743.56	37.47	37.47	N	0.24	W	37.47	359.64	0.87	-0.84	-12.11
38	3841.00	1.50	332.90	97.00	3840.54	39.20	39.20	N	0.78	W	39.20	358.86	0.99	0.82	339.69
39	3937.00	1.70	343.90	96.00	3936.50	41.68	41.68	N	1.75	W	41.72	357.60	0.38	0.21	11.46
40	4032.00	2.00	351.60	95.00	4031.45	44.68	44.68	N	2.38	W	44.74	356.95	0.41	0.32	8.11
41	4128.00	1.80	355.40	96.00	4127.40	47.84	47.84	N	2.75	W	47.91	356.72	0.25	-0.21	3.96
42	4225.00	1.20	343.90	97.00	4224.37	50.33	50.33	N	3.15	W	50.43	356.42	0.69	-0.62	-11.86
43	4321.00	0.80	311.00	96.00	4320.35	51.74	51.74	N	3.93	W	51.89	355.65	0.71	-0.42	-34.27
44	4418.00	1.40	325.30	97.00	4417.33	53.15	53.15	N	5.12	W	53.40	354.50	0.68	0.62	14.74
45	4514.00	0.70	344.80	96.00	4513.32	54.68	54.68	N	5.94	W	55.01	353.80	0.81	-0.73	20.31
46	4610.00	1.70	342.00	96.00	4609.30	56.60	56.60	N	6.53	W	56.98	353.41	1.04	1.04	-2.92
47	4706.00	1.80	334.80	96.00	4705.25	59.32	59.32	N	7.62	W	59.81	352.68	0.25	0.10	-7.50
48	4802.00	1.30	8.90	96.00	4801.22	61.76	61.76	N	8.09	W	62.29	352.54	1.07	-0.52	-339.48
49	4898.00	1.40	11.70	96.00	4897.19	63.99	63.99	N	7.68	W	64.45	353.15	0.12	0.10	2.92
50	4994.00	0.30	334.10	96.00	4993.18	65.36	65.36	N	7.56	W	65.80	353.41	1.23	-1.15	335.83
51	5090.00	0.90	63.40	96.00	5089.17	65.93	65.93	N	6.99	W	66.30	353.95	0.98	0.63	-281.98
52	5187.00	0.50	124.20	97.00	5186.17	66.03	66.03	N	5.96	W	66.30	354.84	0.81	-0.41	62.68
53	5282.00	1.10	179.40	95.00	5281.16	64.88	64.88	N	5.61	W	65.13	355.06	0.96	0.63	58.11
54	5378.00	0.70	133.60	96.00	5377.15	63.56	63.56	N	5.17	W	63.77	355.35	0.82	-0.42	-47.71
55	5474.00	0.80	173.60	96.00	5473.14	62.49	62.49	N	4.67	W	62.66	355.72	0.54	0.10	41.67
56	5570.00	1.50	186.90	96.00	5569.12	60.57	60.57	N	4.75	W	60.76	355.52	0.78	0.73	13.85
57	5666.00	0.90	213.70	96.00	5665.10	58.70	58.70	N	5.32	W	58.94	354.82	0.84	-0.63	27.92
58	5762.00	1.00	199.60	96.00	5761.09	57.28	57.28	N	6.02	W	57.60	354.00	0.26	0.10	-14.69
59	5857.00	0.60	161.00	95.00	5856.08	56.03	56.03	N	6.14	W	56.37	353.75	0.68	-0.42	-40.63
60	5953.00	0.80	209.30	96.00	5952.07	54.97	54.97	N	6.30	W	55.33	353.46	0.63	0.21	50.31
61	6050.00	0.40	310.10	97.00	6049.07	54.60	54.60	N	6.89	W	55.03	352.81	0.99	-0.41	103.92
62	6145.00	1.00	320.00	95.00	6144.06	55.45	55.45	N	7.68	W	55.98	352.12	0.64	0.63	10.42
63	6241.00	1.00	329.50	96.00	6240.05	56.81	56.81	N	8.64	W	57.47	351.35	0.17	0.00	9.90
64	6337.00	0.70	321.60	96.00	6336.04	57.99	57.99	N	9.43	W	58.76	350.76	0.33	-0.31	-8.23
65	6433.00	0.50	282.80	96.00	6432.03	58.55	58.55	N	10.20	W	59.43	350.11	0.46	-0.21	-40.42
66	6529.00	0.70	238.40	96.00	6528.03	58.33	58.33	N	11.11	W	59.38	349.22	0.51	0.21	-46.25
67	6625.00	1.50	229.80	96.00	6624.01	57.21	57.21	N	12.57	W	58.58	347.61	0.85	0.83	-8.96
68	6721.00	0.90	219.00	96.00	6719.99	55.82	55.82	N	14.00	W	57.55	345.92	0.67	-0.63	-11.25
69	6817.00	1.00	212.80	96.00	6815.97	54.53	54.53	N	14.93	W	56.53	344.69	0.15	0.10	-6.46
70	6913.00	1.40	205.60	96.00	6911.95	52.76	52.76	N	15.89	W	55.11	343.24	0.44	0.42	-7.50
71	7009.00	0.80	162.00	96.00	7007.93	51.07	51.07	N	16.19	W	53.57	342.41	1.03	-0.63	-45.42
72	7106.00	1.10	175.70	97.00	7104.92	49.50	49.50	N	15.91	W	51.99	342.18	0.39	0.31	14.12



**Company:** EP Energy  
**Well:** Millett 2-14C5  
**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	7202.00	1.50	185.00	96.00	7200.90	47.33	47.33	N	15.95	W	49.94	341.37	0.47	0.42	9.69
74	7298.00	2.20	195.00	96.00	7296.85	44.29	44.29	N	16.54	W	47.28	339.52	0.80	0.73	10.42
75	7394.00	1.00	182.50	96.00	7392.81	41.68	41.68	N	17.05	W	45.03	337.75	1.29	-1.25	-13.02
76	7490.00	1.60	190.20	96.00	7488.78	39.52	39.52	N	17.33	W	43.15	336.33	0.65	0.63	8.02
77	7585.00	1.80	199.40	95.00	7583.74	36.81	36.81	N	18.06	W	41.00	333.87	0.36	0.21	9.68
78	7682.00	2.20	196.80	97.00	7680.68	33.59	33.59	N	19.10	W	38.64	330.37	0.42	0.41	-2.68
79	7778.00	2.20	194.00	96.00	7776.61	30.04	30.04	N	20.08	W	36.13	326.24	0.11	0.00	-2.92
80	7874.00	1.90	186.70	96.00	7872.55	26.67	26.67	N	20.71	W	33.77	322.17	0.41	-0.31	-7.60
81	7970.00	2.10	190.80	96.00	7968.49	23.36	23.36	N	21.23	W	31.56	317.74	0.26	0.21	4.27
82	8067.00	1.80	188.60	97.00	8065.43	20.11	20.11	N	21.79	W	29.65	312.71	0.32	-0.31	-2.27
83	8162.00	2.10	195.30	95.00	8160.38	16.95	16.95	N	22.47	W	28.15	307.04	0.40	0.32	7.05
84	8259.00	1.70	203.90	97.00	8257.33	13.93	13.93	N	23.52	W	27.33	300.63	0.51	-0.41	8.87
85	8355.00	1.80	198.50	96.00	8353.28	11.19	11.19	N	24.58	W	27.01	294.49	0.20	0.10	-5.63
86	8451.00	2.20	191.90	96.00	8449.22	7.96	7.96	N	25.44	W	26.65	287.38	0.48	0.42	-6.87
87	8547.00	2.50	182.20	96.00	8545.14	4.07	4.07	N	25.90	W	26.21	278.92	0.52	0.31	-10.10
88	8642.00	1.80	151.80	95.00	8640.08	0.68	0.68	N	25.27	W	25.28	271.54	1.38	-0.74	-32.00
89	8700.00	1.40	122.80	58.00	8698.06	-0.51	0.51	S	24.24	W	24.25	268.80	1.53	-0.69	-50.00
90	8800.00	0.82	120.75	100.00	8798.04	-1.54	1.54	S	22.60	W	22.65	266.11	0.58	-0.58	-2.05
91	8900.00	0.77	198.10	100.00	8898.03	-2.54	2.54	S	22.19	W	22.34	263.46	1.00	-0.05	77.34
92	9000.00	1.43	222.66	100.00	8998.01	-4.10	4.10	S	23.25	W	23.60	260.00	0.79	0.66	24.56
93	9100.00	1.94	227.20	100.00	9097.97	-6.16	6.16	S	25.33	W	26.07	256.32	0.53	0.51	4.55
94	9200.00	2.41	218.38	100.00	9197.90	-8.96	8.96	S	27.88	W	29.29	252.18	0.58	0.47	-8.82
95	9300.00	2.30	218.47	100.00	9297.81	-12.19	12.19	S	30.44	W	32.79	248.18	0.11	-0.11	0.09
96	9400.00	2.12	213.35	100.00	9397.74	-15.31	15.31	S	32.70	W	36.11	244.92	0.27	-0.18	-5.13
97	9500.00	2.08	204.10	100.00	9497.67	-18.51	18.51	S	34.46	W	39.12	241.76	0.34	-0.04	-9.25
98	9600.00	2.09	204.20	100.00	9597.60	-21.83	21.83	S	35.95	W	42.06	238.73	0.00	0.00	0.11
99	9700.00	2.47	198.91	100.00	9697.52	-25.53	25.53	S	37.40	W	45.28	235.68	0.44	0.38	-5.29
100	9800.00	2.66	195.74	100.00	9797.42	-29.80	29.80	S	38.72	W	48.86	232.42	0.23	0.19	-3.18
101	9900.00	2.59	194.71	100.00	9897.32	-34.21	34.21	S	39.92	W	52.58	229.41	0.08	-0.07	-1.03
102	10000.00	2.51	203.33	100.00	9997.22	-38.41	38.41	S	41.37	W	56.45	227.13	0.39	-0.08	8.63
103	10100.00	2.42	209.40	100.00	10097.13	-42.26	42.26	S	43.27	W	60.48	225.68	0.28	-0.09	6.07
104	10200.00	2.25	202.49	100.00	10197.05	-45.92	45.92	S	45.06	W	64.33	224.46	0.33	-0.17	-6.92
105	10300.00	2.19	190.14	100.00	10296.97	-49.61	49.61	S	46.15	W	67.75	222.93	0.48	-0.06	-12.34
106	10400.00	2.46	191.96	100.00	10396.89	-53.58	53.58	S	46.93	W	71.23	221.21	0.29	0.28	1.82
107	10500.00	2.91	196.81	100.00	10496.78	-58.11	58.11	S	48.11	W	75.44	219.62	0.50	0.45	4.85
108	10600.00	2.83	194.71	100.00	10596.65	-62.93	62.93	S	49.47	W	80.04	218.17	0.13	-0.09	-2.09
109	10700.00	2.91	195.50	100.00	10696.53	-67.75	67.75	S	50.77	W	84.67	216.84	0.09	0.08	0.78



**Company:** EP Energy **Job Number:** \_\_\_\_\_  
**Well:** Millett 2-14C5 **Mag Decl.:** \_\_\_\_\_  
**Location:** Duchesne, UT **Dir Driller:** \_\_\_\_\_  
**Rig:** Precision 406 **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	10800.00	2.69	198.01	100.00	10796.41	-72.43	72.43	S	52.17	W	89.27	215.77	0.25	-0.22	2.52
111	10900.00	2.77	191.49	100.00	10896.30	-77.03	77.03	S	53.38	W	93.72	214.72	0.32	0.08	-6.52
112	11000.00	2.56	189.58	100.00	10996.19	-81.61	81.61	S	54.23	W	97.99	213.61	0.23	-0.21	-1.91
113	11100.00	2.61	191.36	100.00	11096.08	-86.05	86.05	S	55.06	W	102.15	212.61	0.09	0.05	1.78
114	11200.00	2.37	187.54	100.00	11195.99	-90.33	90.33	S	55.78	W	106.17	211.69	0.29	-0.24	-3.82
115	11300.00	2.20	200.95	100.00	11295.91	-94.18	94.18	S	56.73	W	109.94	211.07	0.56	-0.18	13.41
116	11400.00	2.48	190.44	100.00	11395.83	-98.10	98.10	S	57.81	W	113.86	210.51	0.51	0.29	-10.51
117	11500.00	2.61	197.99	100.00	11495.73	-102.39	102.39	S	58.91	W	118.13	209.91	0.36	0.13	7.55
118	11600.00	2.75	196.07	100.00	11595.62	-106.86	106.86	S	60.27	W	122.69	209.42	0.17	0.14	-1.92
119	11623.00	2.62	194.23	23.00	11618.60	-107.90	107.90	S	60.56	W	123.73	209.30	0.69	-0.58	-8.03
120	11804.00	2.62	194.23	181.00	11799.41	-115.92	115.92	S	62.59	W	131.73	208.37	0.00	0.00	0.00

## CENTRAL DIVISION

ALTAMONT FIELD  
MILLETT 2-14C5  
MILLETT 2-14C5  
COMPLETION LAND

### **Operation Summary Report**

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

**1 General****1.1 Customer Information**

Company	CENTRAL DIVISION
Representative	
Address	

**1.2 Well Information**

Well	MILLETT 2-14C5		
Project	ALTAMONT FIELD	Site	MILLETT 2-14C5
Rig Name/No.		Event	COMPLETION LAND
Start date	5/16/2015	End date	
Spud Date/Time	4/29/2015	UWI	MILLETT 2-14C5
Active datum	KB @5,891.4ft (above Mean Sea Level)		
Afe No./Description	160003/53616 / MILLETT 2-14C5		

**2 Summary****2.1 Operation Summary**

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
5/16/2015	6:00 6:30	0.50	MIRU	28		P		TGSM & JSA ( MOVING EQUIPMENT )
	6:30 9:30	3.00	MIRU	01		P		MIRU RIG, NU BOPE, SPOT CAT WALK AND PIPE RACKS, OFF LOAD 105 JTS 2 3/8", 275 JTS 2 7/8".
	9:30 11:30	2.00	SL	32		P		MIRU CUTTERS WIRE LINE RIH W/ 4 GR W/ JB, TAG @ 11,640' POOH START RU CBL CREW HAD NOT LOADED TOOL W/ GAMMA RAY.
	11:30 14:00	2.50	POST	18		P		WAIT ON TOOLS
	14:00 19:00	5.00	POST	18		P		RIH W/ CBL/CCL/GAMMA RAY TOOLS, TAG UP AND CORRELATE DEPTH TO HALLIBURTON SPECTRAL DENSITY DUAL SPACED NEUTRON ARRAY COMPENSATED TRUE RESISTIVITY PASS TWO DATED 07-MAY-15 @ 11,636'. LOG TO 9 5/8" SHOE @ 2016'. W/ 4000 PSIG SURFACE PRESSURE. RD WIRE LINE.
	19:00 19:00	0.00	MIRU	01		P		SHUT AND LOCK BLIND RAMS, SHUT CASING VALVES, INSTALL NIGHT CAPS. RU WORK FLOOR AND TBG EQUIPMENT. SHUT DOWN FOR WEEK END. CREW TRAVEL
5/17/2015	6:00 6:00	24.00	WOR	18		P		SHUT DOWN FOR WEEK END
5/18/2015	6:00 6:00	24.00	WOR	18		P		SHUT DOWN FOR WEEK END
5/19/2015	6:00 7:00	1.00	WOR	28		P		CREW TRAVEL TO LOCATION. HSM, WRITE AND REVIEW JSA. TOPIC-TRIPPING, PINCH POINTS
	7:00 11:00	4.00	WOR	39		P		PU AND RIH W/ MILL, BIT SUB, 105 JTS 2 3/8" N-80 TBG, X-OVER, 255 JTS 2 7/8" N-80 TBG. TAG @ 11,663' TBG MEASUREMENT.
	11:00 12:00	1.00	WOR	10		P		RU POWERSWIVEL. CLEAN OUT TO 11,716' TBG MEASUREMENT.
	12:00 13:00	1.00	WOR	06		P		CIRCULATE 372 BBLs KCL WATER.
	13:00 17:00	4.00	WOR	39		P		RD POWERSWIVEL. POOH W/ 192 JTS 2 7/8" N-80 TBG. SDFD
5/20/2015	6:00 7:00	1.00	WOR	28		P		CREW TRAVEL TO LOCATION. HSM, WRITE AND REVIEW JSA. TOPIC-MUDDY/SLICK LOCATION, LOOSE CLOTHING
	7:00 9:30	2.50	WOR	39		P		POOH AND LAYDOWN 64 JTS 2 7/8" TBG, X OVER, 25 JTS 2 3/8" TBG.
	9:30 10:15	0.75	WOR	42		N		HYDRAULIC HOSE TO TONGS CUT. PUSHER TRAVEL TO GET NEW HOSE.
	10:15 12:00	1.75	WOR	39		P		POOH AND LAYDOWN 80 JTS 2 3/8" TBG. FILL HOLE W/ KCL WATER.
	12:00 14:00	2.00	RDMO	02		P		RD WORKOVER RIG. MOVE OFF LOCATION.

## 2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
5/22/2015	6:00 7:30	1.50	STG01	28		P		TRAVEL TO LOCATION. HOLD SAFETY MEETING ON NIPPLING UP FRAC STACK. FILL OUT & REVIEW JSA
	7:30 11:00	3.50	STG01	16		P		NU & TEST FRAC STACK.
	11:00 12:30	1.50	STG01	18		P		PRESSURE TEST CSG TO 9000 PSI FOR 30 MINUTES. TESTED GOOD
	12:30 14:00	1.50	STG01	16		P		PLUMB FLOW LINES & AXELSON VALVE
	14:00 6:00	16.00	STG01	18		P		CONTINUE MOVING IN & FILLING FRAC TANKS
5/23/2015	6:00 8:00	2.00	STG01	28		P		TRAVEL TO LOCATION. HOLD SAFETY MEETING ON WIRELINE SAFETY. FILL OUT & REVIEW JSA.
	8:00 13:00	5.00	STG01	21		P		RU WIRELINE EQUIPMENT. PERFORATE STAGE 1, 11389' TO 111686', USING 2-3/4" TITAN PERFECTA SDPGUNS, 16 GRAM CHARGES, 3 SPF & 120 DEGREE PHASING, WHILE HOLDING 1000 PSI ON CSG. PRESSURE DROPPED FROM 1000 PSI TO 800 PSI WHILE PERFORATING. POOH W/ PERF GUN.
	13:00 19:00	6.00	STG01	18		P		RU BOSQUE UNIT. TRANSFER & TREAT WTR. CONTINUE FILLING FRAC TANKS
5/24/2015	6:00 7:00	1.00	STG01	28		P		TRAVEL TO LOCATION. HOLD SAFETY MEETING ON PUMPING WTR. FILL OUT & REVIEW JSA
	7:00 19:00	12.00	STG01	18		P		TRANSFER & TREAT FRAC WTR. REFILL STAGING AREA
5/25/2015	6:00 7:00	1.00	STG01	28		P		TRAVEL TO LOCATION. HOLD SAFETY MEETING ON HEATING FRAC WTR. FILL OUT & REVIEW JSA
	7:00 19:00	12.00	STG01	18		P		HEAT FRAC WTR. MIRU FRAC EQUIPMENT
5/26/2015	6:00 6:00	24.00	STG01	18		P		NO ACTIVETY TODAY. SHUT DOWN FOR HOLIDAY
5/27/2015	6:00 7:00	1.00	STG01	28		P		TRAVEL TO LOCATION. HOLD SAFETY MEETING ON FRAC SAFETY. FILL OUT & REVIEW JSA
	7:00 8:00	1.00	STG01	18		P		PREP FRAC EQUIPMENT
	8:00 9:30	1.50	STG01	35		P		PRESSURE TEST LINES TO 9800 PSI.OPEN WELL. SICP 82 PSI. BREAK DOWN STAGE 1 PERFORATIONS @ 4331 PSI, PUMPING 9.9 BPM. BRING RATE UPTO 74 BPM.PERFORM STEP RATE SHUT DOWN. ISIP 3667 PSI. FG .75. 5 MIN 3234 PSI. 10 MIN 3181 PSI. TREAT STAGE 1 PERFORATIONS W/ 5000 GALLONS HCL ACID, 3000 LBS 100 MESH SAND IN 1/2 PPG STAGE & 150600 LBS THS 30/50 SAND IN 1/2 PPG, 1 PPG, 2 PPG & 3 PPG STAGES. ISIP 3688 PSI. FG .75. AVG RATE 74.1 BPM. MAX RATE 75.2 BPM. AVG PSI 4428 PSI. MAX PSI 8134 PSI. TURN WELL OVER TO WIRE LINE. 4875 BBLs FLUID TO RECOVER.
	9:30 11:00	1.50	STG02	21		P		RIH & SET CBP @ 11341'. PERFORATE STAGE 2 PERFORATIONS 11047" TO 11326" USING 2-3/4" TITAN PERFECTA SDPGUNS, 16 GRAM CHARGES, 3 SPF & 120 DEGREE PHASING. PRESSURE DROPPED FROM 3900 PSI TO 3700 PSI WHILE PERFORATING. TURN WELL OVER TO FRAC CREW
	11:00 12:30	1.50	STG02	35		P		PRESSURE TEST LINES TO 9800 PSI.OPEN WELL. SICP 2980 PSI. BREAK DOWN STAGE 2 PERFORATIONS @ 3394 PSI, PUMPING 8.5 BPM. BRING RATE UPTO 72 BPM.PERFORM STEP RATE SHUT DOWN. ISIP 3529 PSI. FG .748. 5 MIN 3460 PSI. 10 MIN 3415 PSI. TREAT STAGE 2 PERFORATIONS W/ 5000 GALLONS HCL ACID, 3000 LBS 100 MESH SAND IN 1/2 PPG STAGE & 150200 LBS THS 30/50 SAND IN 1/2 PPG, 1 PPG, 2 PPG & 3 PPG STAGES. ISIP 3812 PSI. FG .774. AVG RATE 75.1 BPM. MAX RATE 75.7 BPM. AVG PSI 4983 PSI. MAX PSI 7241 PSI. TURN WELL OVER TO WIRE LINE. 3986 BBLs FLUID TO RECOVER.

## 2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
	12:30 14:00	1.50	STG03	21		P		RIH & SET CBP @ 11017'. PERFORATE STAGE 3 PERFORATIONS 10702" TO 11002' USING 2-3/4" TITAN PERFECTA SDPGUNS, 16 GRAM CHARGES, 3 SPF & 120 DEGREE PHASING. PRESSURE DROPPED FROM 3900 PSI TO 3800 PSI WHILE PERFORATING. TURN WELL OVER TO FRAC CREW
	14:00 15:30	1.50	STG03	35		P		PRESSURE TEST LINES TO 9800 PSI.OPEN WELL. SICP 3590 PSI. BREAK DOWN STAGE 3 PERFORATIONS @ 4052 PSI, PUMPING 19.7 BPM. BRING RATE UPTO 74 BPM. PUMP 202 TTL BBLs FLUID. PERFORM STEP RATE SHUT DOWN. ISIP 3811 PSI. FG .784. 5 MIN 3705 PSI. 10 MIN 3660 PSI. TREAT STAGE 3 PERFORATIONS W/ 5000 GALLONS HCL ACID, 3000 LBS 100 MESH SAND IN 1/2 PPG STAGE & 149300 LBS THS 30/50 SAND IN 1/2 PPG, 1 PPG, 2 PPG & 3 PPG STAGES. ISIP 3908 PSI. FG .793. AVG RATE 75.3 BPM. MAX RATE 75.7 BPM. AVG PSI 4764 PSI. MAX PSI 7082 PSI. TURN WELL OVER TO WIRE LINE. 3977 BBLs FLUID TO RECOVER.
	15:30 17:00	1.50	STG04	21		P		RIH & SET CBP @ 10670'. PERFORATE STAGE 4 PERFORATIONS 10387" TO 10655' USING 2-3/4" TITAN PERFECTA SDPGUNS, 16 GRAM CHARGES, 3 SPF & 120 DEGREE PHASING. PRESSURE DROPPED FROM 4000 PSI TO 3800 PSI WHILE PERFORATING. TURN WELL OVER TO FRAC CREW
	17:00 18:30	1.50	STG04	35		P		PRESSURE TEST LINES TO 9800 PSI.OPEN WELL. SICP 3582 PSI. BREAK DOWN STAGE 4 PERFORATIONS @ 4066 PSI, PUMPING 9.7 BPM. BRING RATE UPTO 73 BPM. PUMP 193 TTL BBLs FLUID. PERFORM STEP RATE SHUT DOWN. ISIP 3798 PSI. FG .794. 5 MIN 3683 PSI. 10 MIN 3655 PSI. TREAT STAGE 4 PERFORATIONS W/ 5000 GALLONS HCL ACID, 3000 LBS 100 MESH SAND IN 1/2 PPG STAGE & 154900 LBS TLC 30/50 SAND IN 1/2 PPG, 1 PPG, 2 PPG & 3 PPG STAGES. ISIP 4060 PSI. FG .794. AVG RATE 75.6 BPM. MAX RATE 75.9 BPM. AVG PSI 4862 PSI. MAX PSI 6838 PSI. TURN WELL OVER TO WIRE LINE. 4007 BBLs FLUID TO RECOVER.
	18:30 20:30	2.00	STG05	21		P		RIH & SET CBP @ 10319'. PERFORATE STAGE 5 PERFORATIONS 10009' TO 10304' USING 2-3/4" TITAN PERFECTA SDPGUNS, 16 GRAM CHARGES, 3 SPF & 120 DEGREE PHASING. PRESSURE DROPPED FROM 4000 PSI TO 1300 PSI WHILE PERFORATING. SHUT WELL IN W/ FRAC VALVE CLOSED, HSC VALVES CLOSED & LOCKED & CSG VALVES CLOSED & CAPPED
5/28/2015	6:00 7:00	1.00	STG05	35		P		PRESSURE TEST LINES TO 9800 PSI.OPEN WELL. SICP 1160 PSI. BREAK DOWN STAGE 5 PERFORATIONS @ 4120 PSI, PUMPING 15 BPM. BRING RATE UPTO 74 BPM.PERFORM STEP RATE SHUT DOWN. ISIP 3395 PSI. FG .767 5 MIN 2181 PSI. 10 MIN 1524 PSI. TREAT STAGE 5 PERFORATIONS W/ 5000 GALLONS HCL ACID, 3000 LBS 100 MESH SAND IN 1/2 PPG STAGE & 70400 LBS TLC 30/50 SAND IN 1/2 PPG, 1 PPG & 2 PPG STAGES.170 BBLs INTO 2 PPG STAGE PRESSURE STARTED CLIMBING. CALLED FOR FLUSH 463 BBLs INTO 2PPG STAGE. WAS ABLE TO FLUSH TO TOP PERF. ISIP 2254 PSI. FG .655. AVG RATE 70.1 BPM. MAX RATE 75.8 BPM. AVG PSI 5527 PSI. MAX PSI 7988 PSI. TURN WELL OVER TO WIRE LINE. 3248 BBLs FLUID TO RECOVER.
	7:00 11:00	4.00	STG06	21		P		WAIT FOR 1 HR FOR GEL TO BREAK. RIH & SET CBP @ 9992'. PERFORATE STAGE 6 PERFORATIONS 9723' TO 9977' USING 2-3/4" TITAN PERFECTA SDPGUNS, 16 GRAM CHARGES, 3 SPF & 120 DEGREE PHASING. PRESSURE DROPPED FROM 1800 PSI TO 1500 PSI WHILE PERFORATING. TURN WELL OVER TO FRAC CREW

## 2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
	11:00 12:30	1.50	STG06	35		P		PRESSURE TEST LINES TO 9800 PSI.OPEN WELL. SICP 1516 PSI. BREAK DOWN STAGE 6 PERFORATIONS @ 2547 PSI, PUMPING 10.1 BPM. BRING RATE UPTO 74.7 BPM.PERFORM STEP RATE SHUT DOWN. ISIP 2942 PSI. FG .732. 5 MIN 1021 PSI. 10 MIN 804 PSI. DUE TO HIGH LEAK OFF PETER SMELTZE RECOMENDED ADDING 2000# 100 MESH SAND TO 100 MESH STAGE. TREAT STAGE 6 PERFORATIONS W/ 5000 GALLONS HCL ACID, 5000 LBS 100 MESH SAND IN 1/2 PPG STAGE & 150500 LBS TLC 30/50 SAND IN 1/2 PPG, 1 PPG, 2 PPG & 3 PPG STAGES. ISIP 4006 PSI. FG .84. AVG RATE 74.5 BPM. MAX RATE 76.1 BPM. AVG PSI 5216 PSI. MAX PSI 6716 PSI. TURN WELL OVER TO WIRE LINE. 4056 BBLs FLUID TO RECOVER.
	12:30 14:00	1.50	STG07	21		P		RIH & SET CBP @ 9703'. PERFORATE STAGE 7 PERFORATIONS 9463' TO 9688' USING 2-3/4" TITAN PERFECTA SDPGUNS, 16 GRAM CHARGES, 3 SPF & 120 DEGREE PHASING. PRESSURE DROPPED FROM 1800 PSI TO 1000 PSI WHILE PERFORATING. TURN WELL OVER TO FRAC CREW
	14:00 15:30	1.50	STG07	35		P		PRESSURE TEST LINES TO 9800 PSI.OPEN WELL. SICP 1067 PSI. BREAK DOWN STAGE 7 PERFORATIONS @ 4184 PSI, PUMPING 14.8 BPM. BRING RATE UPTO 74 BPM.PERFORM STEP RATE SHUT DOWN. ISIP 3091 PSI. FG .756. 5 MIN 2606 PSI. 10 MIN 2276 PSI. TREAT STAGE 7 PERFORATIONS W/ 5000 GALLONS HCL ACID, 2000 LBS 100 MESH SAND IN 1/2 PPG STAGE & 150400 LBS TLC 30/50 SAND IN 1/2 PPG, 1 PPG, 2 PPG & 3 PPG STAGES. ISIP 4214 PSI. FG .873. AVG RATE 74.2 BPM. MAX RATE 75.8 BPM. AVG PSI 5154 PSI. MAX PSI 6363 PSI. TURN WELL OVER TO WIRE LINE. 3859 BBLs FLUID TO RECOVER.
	15:30 17:00	1.50	STG08	21		P		RIH & SET CBP @ 9442'. PERFORATE STAGE 8 PERFORATIONS 9154' TO 9427' USING 2-3/4" TITAN PERFECTA SDPGUNS, 16 GRAM CHARGES, 3 SPF & 120 DEGREE PHASING. PRESSURE DROPPED FROM 3000 PSI TO 2900 PSI WHILE PERFORATING. TURN WELL OVER TO FRAC CREW
	17:00 18:30	1.50	STG08	35		P		PRESSURE TEST LINES TO 9800 PSI.OPEN WELL. SICP 2623 PSI. BREAK DOWN STAGE 8 PERFORATIONS @ 3389 PSI, PUMPING 10.34 BPM. BRING RATE UPTO 75 BPM.PERFORM STEP RATE SHUT DOWN. ISIP 3001 PSI. FG .756. 5 MIN 2623 PSI. 10 MIN 2462 PSI. TREAT STAGE 8 PERFORATIONS W/ 5000 GALLONS HCL ACID, 2000 LBS 100 MESH SAND IN 1/2 PPG STAGE & 149450 LBS TLC 30/50 SAND IN 1/2 PPG, 1 PPG, 2 PPG & 3 PPG STAGES. ISIP 3595 PSI. FG .82. AVG RATE 74.8 BPM. MAX RATE 75.7 BPM. AVG PSI 5044 PSI. MAX PSI 6841 PSI. 3701 BBLs FLUID TO RECOVER. SHUT WELL IN
	18:30 19:30	1.00	RDMO	02		P		START RIGGING DOWN FRAC EQUIPMENT
5/29/2015	6:00 7:30	1.50	RDMO	28		P		TRAVEL TO LOCATION. HOLD SAFETY MEETING ON RD EQUIPMENT. FILL OUT & REVIEW JSA
	7:30 14:00	6.50	RDMO	02		P		RD FRAC EQUIPMENT & TRANSFER LINES
	14:00 17:00	3.00	MIRU	01		P		MOVE COIL TBG EQUIPMENT TO LOCATION. SPOT EQUIPMENT & PARTIALLY RIG UP. STACK FRAC WTR
5/30/2015	6:00 7:30	1.50	CTU	28		P		TRAVEL TO LOCATION. HOLD SAFETY MEETING ON COIL TBG SAFETY. FILL OUT & REVIEW JSA
	7:30 11:30	4.00	CTU	54		N		REPAIR COIL TBG REEL
	11:30 0:00	12.50	CTU	10		P		INSTALL & TEST COIL CONNECTOR. MU TOOL STRING. FUNTION TEST MOTOR. OPEN WELL. SICP 2000 PSI. RIH & DRILL CBP'S & CLEAN OUT TO PBD. CIRCULATE 1 HR ON BOTTOM. POOH TO LINER TOP. CIRCULATE 1 HR @ LINER TOP. POOH & BREAK DOWN TOOL STRING.

## 2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
	0:00 6:00	6.00	FB	19		P		FLOW WELL TO FLOW BACK TANK. RECOVERED 242 BBLS WTR.
5/31/2015	6:00 6:30	0.50	FB	28		P		HOLD SAFETY MEETING ON FLOW BACK OPERATIONS. FILL OUT & REVIEW JSA
	6:30 6:00	23.50	FB	19		P		FLOW WELL TO FLOW BACK TANK UNTIL 13:30 THEN TURN WELL TO PRODUCTION FACILITY. RECOVERED 100 MCF GAS, 66 BBLS OIL & 647 BBLS WTR, FLOWING @ 1500 PSI ON A 12/64" CHOKE.
6/1/2015	6:00 6:30	0.50	FB	28		P		HOLD SAFETY MEETING ON FLOW BACK OPERATIONS. FILL OUT & REVIEW JSA
	6:30 6:00	23.50	FB	19		P		FLOW WELL TO PRODUCTION FACILITY. RECOVERED 324 MCF GAS, 224 BBLS OIL & 222 BBLS WTR FLOWING @ 1200 PSI ON A 12/64" CHOKE
6/2/2015	6:00 7:00	1.00	WOR	28		P		CREW TRAVEL TO LOCATION. HSM AND WRITE AND REVIEW JSA. TOPIC-HIGH PRESSURE AND TRIPPING PIPE.
	7:00 10:00	3.00	WLWORK	27		P		RIG UP CUTTERS WIRELINE. RIH W 5" ARROWSET PACKER AND PUMP OUT PLUG. SET AT 8,670'. POOH. BLED WELL PRESSURE TO 0 PSI.
	10:00 12:00	2.00	WOR	16		P		RDMOL CUTTERS WIRELINE. ND FRAC STACK. NU RIG BOPS.
	12:00 13:00	1.00	MIRU	73		P		MIRU PEAK 2300.
	13:00 14:00	1.00	WOR	42		N		WAIT ON TONG PIN.
	14:00 17:30	3.50	WOR	39		P		PU AND RIH W STI ON/OFF TOOL, 5 JTS 2 3/8" N-80 TBG AND 175 JTS 2 7/8" N-80 TBG. SDFD
6/3/2015	6:00 7:00	1.00	WOR	28		P		CREW TRAVEL TO LOCATION. HSM, WRITE AND REVIEW JSA. TOPIC-TRIPPING, OVERHEAD LOADS
	7:00 12:00	5.00	WOR	39		P		RIH W 100 JTS 2 7/8" TBG, HUNG UP ON LINER TOP, WORKED TBG INTO LINER, LATCH ONTO PACKER, PULL 20K OVER, SPACE OUT, GET OFF PACKER
	12:00 13:00	1.00	WOR	06		P		CIRCULATE PACKER FLUID. BROKE CIRC WELL UTUBING, PUMP 100 BBLS DWN TBG TO CONFIRM DEAD.
	13:00 14:00	1.00	WOR	13		P		INSTALL LANDING COLLAR, NIPPLE DOWN BOPS AND BTM MASTER VALVE. SPACE OUT TBG AND LAND IN LANDING HEAD WITH 15K TENSION.
	14:00 16:30	2.50	WOR	16		P		NIPPLE UP PRODUCTION TREE AND TEST TO 5K. PUMP OUT PACKER PLUG AT 2,200 PSI. RDMOL.

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## CENTRAL DIVISION

ALTAMONT FIELD  
MILLETT 2-14C5  
MILLETT 2-14C5  
DRILLING LAND

### **Operation Summary Report**

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

**1 General****1.1 Customer Information**

Company	CENTRAL DIVISION
Representative	
Address	

**1.2 Well Information**

Well	MILLETT 2-14C5		
Project	ALTAMONT FIELD	Site	MILLETT 2-14C5
Rig Name/No.	PRECISION DRILLING/406	Event	DRILLING LAND
Start date	5/9/2015	End date	
Spud Date/Time	4/29/2015	UWI	MILLETT 2-14C5
Active datum	KB @5,891.4ft (above Mean Sea Level)		
Afe No./Description	160003/53616 / MILLETT 2-14C5		

**2 Summary****2.1 Operation Summary**

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
4/24/2015	6:00 10:00	4.00	CASCOND	24		P	0.0	SET 57' 20" CONDUCTOR, SET MOUSE HOLE @ 80'. ADDED RKB CORRECTION FOR PD 406.
	10:00 14:00	4.00	CASCOND	24		P	57.0	DRILLED 17 1/2" HOLE TO 647' RAN 16 JTS 13 3/8" 54.5# J-55 STC TO 616'. ADDED RKB CORRECTION FOR PD 406.
	14:00 18:00	4.00	CASCOND	25		P	647.0	M&P PUMPED 80 BBLS H2O, 40 BBLS GEL SPACER, 800 SX (163 BBLS) 15.8 PPG NEAT CEMENT. DROPPED PLUG. DISPLACED WITH 91.5 BBLS H2O. BUMPED PLUG @ 05:05 HRS W/ 1090 PSI. GOOD RETURNS THROUGHOUT JOB W/ 91 BBLS CEMENT SEEN AT SURFACE.
	18:00 22:00	4.00	CASSURF	24		P	647.0	DRILLED 12 1/4" HOLE TO 2,047'. RAN 45 JTS 9-5/8" 40# N-80 LT&C TO 2,016'. FC @ 1,968' SHOE 2,016'. ADDED RKB CORRECTION FOR PD 406.
	22:00 2:00	4.00	CASSURF	25		P	2,047.0	M&P PUMPED 130 BBLS H2O. 370 SXS ( 156 BBLS ) VARICEM LEAD CMT @ 12 PPG, 2.37 YLD TAILED WITH 205 SXS ( 47 BBLS ) OF HALCEM CMT @ 14.3 PPG, 1.30 YIELD. RELEASED TOP PLUG. DISPLACED WITH 149 BBLS OF H2O @ 4 BPM. BUMPED PLUG @ 00:23 HRS 4/23/15 WITH 1,099 PSI. 3/4 BBL BLED BACK, FLOATS HELD. GOOD RETURNS THROUGHOUT JOB. 49 BBLS CEMENT TO SURFACE. RD CMT HEAD & PU 200' 1" PIPE FOR TOP JOB. PUMPED 75 SX (15.7 BBLS) 15.8 PPG NEAT CEMENT. FULL RETURNS W/ 3 BBLS 15.8 PPG NEAT CEMENT TO SURFACE.
	2:00 6:00	4.00	CASSURF	25		P	2,047.0	RIG DOWN & CLEAR LOCATION.
4/27/2015	6:00 6:00	24.00	MIRU	01		P	2,047.0	95% MOVED IN, 75% SPOTTED, 25% RIGGED UP.
4/28/2015	6:00 3:00	21.00	MIRU	01		P	2,047.0	RIG UP. PREP & RAISE DERRICK. PU TDU. 100% RIGGED UP. PERFORMED RIG INSPECTION. RIG ON DAY RATE @ 03:00 HRS 4/28/15
	3:00 6:00	3.00	CASSURF	28		P	2,047.0	PJSM. NU 11" 10M BOPE.
4/29/2015	6:00 10:30	4.50	CASSURF	28		P	2,047.0	NU 11" 10M BOPE & INSTALL FLOW LINE. PJSM. TORQUE BOLTS W/ WEATHERFORD. RU TEST UNIT.
	10:30 17:30	7.00	CASSURF	19		P	2,047.0	TESTED 11" 5M ANNULAR TO 250 / 2,500 PSI AND REMAINING BOPE, FLOOR VALVES, ETC TO 250 / 5,000 PSI. TESTED CHOKE MANIFOLD TO 250 / 10,000 PSI. HELD EACH TEST 10 MINUTES.

## 2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
	17:30 18:30	1.00	CASSURF	31		P	2,047.0	TESTED CASING TO 2,500 PSI FOR 30 MINUTES. TEST GOOD.
	18:30 19:00	0.50	CASSURF	28		P	2,047.0	INSTALLED WEAR BUSHING.
	19:00 23:00	4.00	CASSURF	14		P	2,047.0	PJSM. PU 8 3/4" BIT, DIRECTIONAL TOOLS & SCRIBE. PREFORMED SURFACE TEST. PU BHA & 4 1/2" DP. TIH T/ 1,875'. CHECKED DEGREE OF BEND ON MOTOR W/ PROTRACTOR (1.56).
	23:00 0:30	1.50	CASSURF	17		P	2,047.0	SLIP & CUT DRILL LINE.
	0:30 1:00	0.50	CASSURF	31		P	2,047.0	PREFORMED PRE FIT CASING TEST (700 PSI).
	1:00 1:30	0.50	CASSURF	32		P	2,047.0	DRILL CMT, FE, 10' NH.
	1:30 2:00	0.50	DRLINT1	33		P	2,057.0	CIRC BU. PREFORMED FIT 15.4 PPG EMW. (9.2 PPG W/ 665 PSI). SPUD WELL @ 02:00 4-29-15.
	2:00 6:00	4.00	DRLINT1	07		P	2,057.0	DRILLED 2,057' - 2,450'.
4/30/2015	6:00 14:00	8.00	DRLINT1	07		P	2,450.0	DRILLED 2,450' - 3,602'.
	14:00 14:30	0.50	DRLINT1	12		P	3,602.0	SERVICED RIG & TDU.
	14:30 20:00	5.50	DRLINT1	07		P	3,602.0	DRILLED 3,602' - 4,272'.
	20:00 20:30	0.50	DRLINT1	12		P	4,272.0	SERVICED RIG & TDU.
	20:30 6:00	9.50	DRLINT1	07		P	4,272.0	DRILLED 4,272' - 5,620'.
5/1/2015	6:00 13:30	7.50	DRLINT1	07		P	5,620.0	DRILLED 5,620' - 6,291'.
	13:30 14:00	0.50	DRLINT1	12		P	6,291.0	SERVICED RIG & TDU.
	14:00 21:00	7.00	DRLINT1	07		P	6,291.0	DRILLED 6,291' - 6,862'.
	21:00 21:30	0.50	DRLINT1	12		P	6,862.0	SERVICED RIG & TDU.
	21:30 6:00	8.50	DRLINT1	07		P	6,862.0	DRILLED 6,862' - 7,444'.
5/2/2015	6:00 14:30	8.50	DRLINT1	07		P	7,444.0	DRILLED 7,444' - 7,923'.
	14:30 15:00	0.50	DRLINT1	12		P	7,923.0	SERVICED RIG & TDU.
	15:00 22:30	7.50	DRLINT1	07		P	7,923.0	DRILLED 7,923' - 8,302'.
	22:30 23:00	0.50	DRLINT1	12		P	8,302.0	SERVICED RIG & TDU.
5/3/2015	23:00 6:00	7.00	DRLINT1	07		P	8,302.0	DRILLED 8,302' - 8,597'.
	6:00 10:00	4.00	DRLINT1	07		P	8,597.0	DRILLED 8,597' - 8,750'.
	10:00 11:30	1.50	EVLINT1	15		P	8,750.0	SIM CONN & CBU. FC, WELL STATIC.
	11:30 21:00	9.50	EVLINT1	13		P	8,750.0	POOH & LD DIRECTIONAL. FC @ 5,380' & 2,016', WELL STATIC. REAMED RESISTANCE @ 5,775', 4,171'. HOLE TOOK PROPER FILL. MU BIT. TIH.
	21:00 3:00	6.00	EVLINT1	15		P	8,750.0	CBU. MAX GAS 2,477 UNITS WITH 10-15' FLARE FOR 16 MIN. C&C MUD TO 9.6 PPG @ 224 GPM, PUMPING LCM SWEEPS.
	3:00 3:30	0.50	EVLINT1	42		P	8,750.0	SIM CONN. FLOW CHECK. WELL STATIC.
5/4/2015	3:30 5:30	2.00	EVLINT1	15		P	8,750.0	CBU. FLOW CHECK. WELL FLOWING .44 BPH.
	6:00 15:00	9.00	EVLINT1	15		P	8,750.0	C&C MUD TO 9.8 PPG @ 224 GPM, PUMPING LCM SWEEPS. NO LOSSES. SIMULATE CONNECTION & CBU. MAX GAS 8,230 UNITS WITH OIL, 8/10 MC, NO FLARE. C&C MUD TO 10 PPG @ 175 GPM. FINAL BG GAS 1,180 UNITS PASON. FC FOR 30 MIN, WELL STATIC. LOST 48 BBLS.
	15:00 15:30	0.50	EVLINT1	13		P	8,750.0	POOH RACK BACK 10 STD. HOLE TOOK PROPER FILL. FC, WELL STATIC. PUMPED SLUG.
	15:30 22:30	7.00	EVLINT1	14		P	8,750.0	POOH LD DP. HOLE TOOK PROPER FILL. FC @ 5,300', 2,000' & BHA.
	22:30 23:00	0.50	EVLINT1	14		P	8,750.0	PULL WEAR BUSHING.
	23:00 4:00	5.00	EVLINT1	22		P	8,750.0	PJSM. RU HES WL. RUN STANDARD QUAD COMBO. ENCOUNTERED OBSTRUCTION @ 7,182'. TRY WORKING THRU. NO SUCCESS. LOG F/ 7,182' TO SHOE @ 2,016'. GR TO SURF. RD WL.
	4:00 6:00	2.00	CASINT1	24		P		PJSM. RU CSG CREW. MU & CHECK FLOAT EQUIP. RUN 7" CSG.
5/5/2015	6:00 17:00	11.00	CASINT1	24		P	8,750.0	RAN 210 JTS 7" 29# HCP-110 LT&C CSG TO 8,750'. FLOAT COLLAR @ 8,707', MARKER JT @ 7,037'. BREAK CIRC EVERY 1,000', CBU EVERY 2,000'. NO LOSSES.

## 2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
	17:00 19:30	2.50	CASINT1	15		P	8,750.0	CBU @ 2.5-6 BPM & PUMPED 40 BBLS LCM @ 20 PPB ( 8 PPB BARO-SEAL, 12 PPB CEDAR FIBER ). LOST 90 BBLS. MAX GAS 6,739 UNITS, NO GAIN , NO FLARE.
	19:30 22:30	3.00	CASINT1	25		P	8,750.0	RU HES. MIXED & PUMPED 40 BBLS 9.5 PPG TUNED SPACER . 800 SXS ( 272 BBLS ) EXTENDACHEM LEAD CMT @ 12.5 PPG, 1.91 YLD TAILED WITH 310 SXS ( 90.5 BBLS ) OF EXPANDACHEM CMT @ 13 PPG, 1.64 YIELD. RELEASED TOP PLUG. DISPLACED WITH 323 BBLS OF 9.3 PPG MUD @ 6-3 BPM. BUMPED PLUG @ 22:06 HRS 5/4/15 WITH 1,605 PSI. FINAL CIRC PRESS 1,150 PSI. 2 BBL BLED BACK, FLOATS HELD. RD CEMENTERS. RETURNS SLOWED LAST 117 BBLS DISP, LOST RETURNS LAST 87 BBLS. TOTAL LOST DURING CMT OPS 196 BBLS. EST TOC 3,410'.
	22:30 23:30	1.00	CASINT1	27		P	8,750.0	LD LANDING JT. INSTALL & TEST PACK-OFF TO 5,000 PSI FOR 15MIN.
	23:30 0:30	1.00	CASINT1	31		P	8,750.0	TEST CASING TO 2,500 PSI FOR 30 MINUTES WHILE CO TDU SAVER SUB TO 4" XT-39.
	0:30 5:30	5.00	CASINT1	19		P	8,750.0	RU & TESTED 11" 5M ANNULAR TO 250 / 4,000 PSI, RAMS & REMAINING BOPE, FLOOR VALVES, ETC TO 250 / 10,000 PSI. HOLD EACH TEST 10 MINUTES.
	5:30 6:00	0.50	DRLPRD	13		P	8,750.0	MU 6 - 1/8" BHA. TIH.
5/6/2015	6:00 13:00	7.00	CASINT1	14		P	8,750.0	MU 6-1/8" BHA & TIH PU 4" DP TO 8,606'.
	13:00 14:30	1.50	CASINT1	17		P	8,750.0	S&C DRILL LINE.
	14:30 15:00	0.50	CASINT1	12		P	8,750.0	SERVICED RIG & TDU.
	15:00 17:00	2.00	CASINT1	32		P	8,750.0	INSTALL ROT HEAD RUBBER. TAG FC @ 8,707'. DRILL OUT FE, SHOE TRACK & 10'.
	17:00 17:30	0.50	CASINT1	33		P	8,760.0	CBU & PERFORM FIT TO 13.6 EMW WITH 10.5 PPG MUD @ 1,420 PSI.
	17:30 22:00	4.50	DRLPRD	07		P	8,760.0	DRILLED 8,760' - 9,620'.
	22:00 23:30	1.50	DRLPRD	11		P	9,279.0	CBU. WL SURVEY 2.04° @ 9,248'.
	23:30 2:00	2.50	DRLPRD	07		P	9,279.0	DRILLED 9,279' - 9,620'.
	2:00 2:30	0.50	DRLPRD	47		N	9,620.0	GENERATOR DOWN
	2:30 6:00	3.50	DRLPRD	07		P	9,620.0	DRILLED 9,620' - 9,945'.
5/7/2015	6:00 14:30	8.50	DRLPRD	07		P	4,945.0	DRILLED 4,945' - 10,699'. STARTED LOOSING 60 BPH @ 9,849'. M&P LCM SWEEPS. HEALED LOSSES. LOOSING 30 BPH @ 10,105'. M&P LCM SWEEPS. OCCASIONAL LOSSES.
	14:30 15:00	0.50	DRLPRD	12		P	10,699.0	SERVICED RIG & TDU.
	15:00 23:00	8.00	DRLPRD	07		P	10,699.0	DRILLED 10,699' - 11,646'. OCCASIONAL LOSSES. PUMP LCM SWEEPS AS NEEDED.
	23:00 23:30	0.50	DRLPRD	12		P	11,646.0	SERVICED RIG & TDU.
	23:30 1:30	2.00	DRLPRD	07		P	11,646.0	DRILLED 11,646' - 11,804'. PRODUCTION TD.
	1:30 2:00	0.50	EVLPRD	15		P	11,804.0	CBU. MW IN 11.6. MW OUT 11.5+. BGG 200 U.
	2:00 2:30	0.50	EVLPRD	42		P	11,804.0	SIM CONN. FLOW CHECK. WELL STATIC.
	2:30 6:00	3.50	EVLPRD	15		P	11,804.0	CBU. 5/10 MC W/ 15' FLARE FOR 5 MIN. CONTINUE BURNING 5' - 8' FLARE AFTER BU. CIRC @ 297 GPM. INCREASE MW TO 11.9 PPG. PUMPING LCM SWEEPS WHILE INCREASING MW.
5/8/2015	6:00 11:00	5.00	EVLPRD	15		P	11,804.0	C&C MUD TO 12.2 PPG @ 296 GPM, PUMPING LCM SWEEPS. FINAL BG GAS 525 UNITS. FC, WELL STATIC. LOST 51 BBLS.
	11:00 14:00	3.00	EVLPRD	13		P	11,804.0	WT TO SHOE @ 8,750'. NO TIGHT SPOTS. LOST 38 BBLS ON TRIP.
	14:00 17:30	3.50	EVLPRD	15		P	11,804.0	CBU. MAX GAS 2,246 UNITS WITH 10-15' FLARE FOR 8 MIN, 1PPG MC. C&C MUD TO 12.6 PPG @ 170 GPM, FINAL BG GAS 298 UNITS. FC, WELL STATIC. PUMP SLUG. LOST 60 BBLS CIRC.
	17:30 23:30	6.00	EVLPRD	13		P	11,804.0	POOH. FC @ SHOE, 4,375 & BHA, WELL STATIC.

## 2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
	23:30 6:00	6.50	EVLPRD	22		P	11,804.0	PJSM. RU HES. RUN ULTRA SLIM QUAD COMBO. LOG UP F/ 11,804'. RD WL. LOST 47 BBLS TO FORMATION DURING LOGGING OPS.
5/9/2015	6:00 11:00	5.00	CASPRD1	24		P	11,804.0	PJSM. RU & RAN 76 JTS 5" 18# P-110HC STL LINER. 1 MARKER JT. MADE UP VERSAFLEX LINER HANGER ASSEMBLY & SETTING TOOL.
	11:00 12:00	1.00	CASPRD1	15		P	11,804.0	INSTALLED ROTATING ELEMENT. CIRC LINER VOLUME @ 2.5 BPM. RD CSG CREW.
	12:00 18:00	6.00	CASPRD1	24		P	11,804.0	TIH W/ 5" LINER ON 4" DP @ 95 FPM TO 8,750'. BREAK CIRC EVERY 1,000'. CBU @ 2.5 BPM. MAX GAS 364 UNITS, NO MC, NO FLARE FINAL BG 209 UNITS. LOST PIPE DISP. NO LOSSES CIRC.
	18:00 22:00	4.00	CASPRD1	24		P	11,804.0	TIH @ 60 FPM WITH 5" LINER ON 4" DP. BREAK CIRC EVERY 1,000'. TAG BTM WITH 10K. NO LOSSES. SPACED OUT & RU CMT HEAD.
	22:00 1:00	3.00	CASPRD1	15		P	11,804.0	CIRC 2X BU. 1- 2.5 BPM, MAX GAS 8,063 UNITS, 3/10 MC. NO FLARE, NO GAIN. FINAL CIRC PRESSURE 598 PSI @ 2.5 BPM. 14 BBL LOST DURING CIRCULATION.
	1:00 4:00	3.00	CASPRD1	25		P	11,804.0	RU HES & TESTED LINES TO 9,500 PSI. PUMPED 20 BBLS 12 PPG TUNED SPACER & 320 SKS ( 86.6 BBLS) 14.2 PPG WITH 1.52 YIELD EXPANDACEM CMT @ 52% EXCESS. WASHED LINES. DROPPED DP DART. PUMPED 70 BBLS H2O WITH 2% KCL 0.1 % BIOCID, 73.8 BBLS 11.7 PPG MUD. BUMP PLUG @ 03:46 WITH 2,831 PSI. NO LOSSES.
	4:00 4:30	0.50	CASPRD1	25		P	11,804.0	RELEASED BALL, RUPTURE DISC @ 5,240 PSI. PUMPED 44.4 BBLS, PRESSURED TO 6,520 PSI, EXPANDED HANGER. PULL TESTED LINER WITH 80K OVERPULL. SAT DOWN 70K , RELEASED SETTING TOOL FROM LINER HANGER. LANDED FS @ 11,804', FC @ 11,755", LC @ 11,706'. TOL @ 8,578'. 172' OF LAP. TOTAL LINER 3,225'. MARKER JT TOP @ 10,781'.
	4:30 5:30	1.00	CASPRD1	15		P	11,804.0	PULLED UP TO TOL. OBSERVED 1 OVERPULL OF 4K THROUGH CLAD SECTION. CIRC 1.5 TIMES ANNULAR VOLUME. 20 BBLS SPACER & 6 BBLS WEIGHTED CEMENT TO SURFACE. FC, WELL STATIC. POSITIVE TEST TOL TO 1,000 PSI FOR 10MIN, GOOD TEST.
	5:30 6:00	0.50	CASPRD1	15		P	11,804.0	DISPLACE HOLE WITH WATER.
5/10/2015	6:00 8:30	2.50	CASPRD1	15		P	11,804.0	PUMPED 270 BBLS H2O WITH NO ADDITIVES, 330 BBLS H2O WITH 2% KCL 0.1 % BIOCID TILL CLEAN RETURNS. RD HES. FLOW CHECK, WELL STATIC.
	8:30 17:30	9.00	CASPRD1	14		P	11,804.0	LD DP. FLUSH MUD LINES & CLEAN PITS.
	17:30 21:30	4.00	CASPRD1	29		P	11,804.0	ND BOPE.
	21:30 22:30	1.00	CASPRD1	27		P	11,804.0	INSTALL TBG HEAD & FRAC VALVE. TESTED HEAD TO 5,000 PSI FOR 30 MIN. RIG RELEASED @ 22:30 HRS 05/9/15.
	22:30 6:00	7.50	RDMO	02		P	11,804.0	RIG DOWN.
5/11/2015	6:00 6:00	24.00	RDMO	02		P	11,804.0	RIG DOWN & PREP FOR MOVE TO WHITE TRUST 3-23C5.

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