

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

FORM 3

AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL						1. WELL NAME and NUMBER Kratzer 1-27C4							
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') Edward Kratzer						14. SURFACE OWNER PHONE (if box 12 = 'fee') 956-454-6849							
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee') 94-1420 Kulewa Lp, Apt 37a, Waipahu, HI 96797						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		700 FNL 999 FEL		NENE		27		3.0 S		4.0 W		U	
Top of Uppermost Producing Zone		700 FNL 999 FEL		NENE		27		3.0 S		4.0 W		U	
At Total Depth		700 FNL 999 FEL		NENE		27		3.0 S		4.0 W		U	
21. COUNTY DUCHESNE			22. DISTANCE TO NEAREST LEASE LINE (Feet) 700			23. NUMBER OF ACRES IN DRILLING UNIT 640							
27. ELEVATION - GROUND LEVEL 5549			25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 5280			26. PROPOSED DEPTH MD: 11400 TVD: 11400							
			28. BOND NUMBER 400JU0708			29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE Duchesne City							
Hole, Casing, and Cement Information													
String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight			
Cond	17.5	13.375	0 - 700	54.5	J-55 ST&C	8.8	Class G	879	1.15	15.8			
Surf	12.25	9.625	0 - 1500	40.0	N-80 LT&C	9.2	Type V	132	3.18	11.0			
							Class G	195	1.3	14.3			
I1	8.75	7	0 - 8350	29.0	HCP-110 LT&C	10.2	Class G	340	2.35	12.0			
							Class G	258	1.64	13.0			
L1	6.125	5	8150 - 11400	18.0	HCP-110 LT&C	11.7	Class G	192	1.47	14.2			
ATTACHMENTS													
VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES													
<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER						<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN							
<input checked="" type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)						<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER							
<input 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 06/08/2014				EMAIL maria.gomez@epenergy.com					
API NUMBER ASSIGNED 43013529910000				APPROVAL  Permit Manager									

**Kratzer 1-27C4
Sec. 27, T3S, R4W
DUCHESNE COUNTY, UT**

EP ENERGY E&P COMPANY, L.P.

DRILLING PROGRAM

1. Estimated Tops of Important Geologic Markers

<u>Formation</u>	<u>Depth</u>
Green River (GRRV)	3,500' TVD
Green River (GRTN1)	4,200' TVD
Mahogany Bench	5,100' TVD
L. Green River	6,386' TVD
Wasatch	8,216' TVD
T.D. (Permit)	11,400' TVD

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

<u>Substance</u>	<u>Formation</u>	<u>Depth</u>
	Green River (GRRV)	3,500' MD/TVD
	Green River (GRTN1)	4,200' MD/TVD
	Mahogany Bench	5,100' MD/TVD
Oil	L. Green River	6,386' MD/TVD
Oil	Wasatch	8,216' MD/TVD

3. Pressure Control Equipment: (Schematic Attached)

A 4.5" by 20.0" rotating head on structural pipe from surface to 700' MD/TVD. A 4.5" by 13-3/8" Diverter System w/ rotating head from 700' MD/TVD to 1,500' 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 1,500' MD/TVD to 8,350' MD/TVD. A 10M BOP stack w/ rotating head, spacer spool, 5M annular, flex rams, blind rams & single w/ flex rams from 8,350' MD/TVD to TD (11,400' MD/TVD).

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

OPERATORS MINIMUM SPECIFICATIONS FOR BOPE:

The surface casing will be equipped with a flanged casing head of 5M psi working pressure. An 11" 5M x 11" 10M spool, 11" x 10M psi BOP and 5M psi annular will be nipped up on the surface casing and tested to 250 psi low test / 3,000 psi high test for 10 minutes each prior to drilling out. The surface casing

will be tested to 1,000 psi. for 30 mins. Intermediate casing will be tested to the greater of 1,500 psi or 0.22 psi/ft. The choke manifold equipment, upper Kelly cock and floor safety valves will be tested to 5M psi. The annular preventer will be tested to 250 psi low test / 4,000 psi high test. The 10M BOP will be installed with rotating head, spacer spool, 5M annular, flex rams, blind rams & single w/ flex rams from surface shoe to TD. The BOPE will be hydraulically operated.

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

Statement on Accumulator System and Location of Hydraulic Controls:

Precision Rig # 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 700' - TD
- B) Mud logger with gas monitor – 1,500' to TD
- C) Choke manifold with one manual and one hydraulic operated choke
- D) Full opening floor valve with drill pipe thread
- E) Upper and lower Kelly cock
- F) Shaker, de-sander and centrifuge

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

Please refer to the attached Wellbore Diagram.

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

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

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

5. **Drilling Fluids Program:**

Proposed Mud Program:

Interval	Type	Mud Weight
Surface	WBM	8.8 – 9.2
Intermediate	WBM	9.3 – 10.2
Production	WBM	10.5 – 11.7

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: 1,500' MD/TVD – TD

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

7. **Abnormal Conditions:**

Maximum anticipated bottomhole pressure calculated at 11,400' TVD equals approximately 6,936 psi. This is calculated based on a 0.6084 psi/ft gradient (11.7 ppg mud density at TD).

Maximum anticipated surface pressure equals approximately 4,428 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/ft).

Maximum anticipated surface pressure based on frac gradient at 7" casing shoe is 0.8 psi/ft at 8,350' TVD = 6,680 psi

BOPE and casing design will be based on the lesser of the two MASPs which is 4,428 psi.

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

DRILLING PROGRAM

CASING PROGRAM	SIZE	INTERVAL		WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION
CONDUCTOR	13 3/8"	0	700	54.5	J-55	STC	2,740	1,130	514
SURFACE	9-5/8"	0	1500	40.00	N-80	LTC	5,750	3,090	737
INTERMEDIATE	7"	0	8350	29.00	HCP-110	LTC	11,220	9,750	797
PRODUCTION LINER	5'	8150	11400	18.00	HCP-110	STL	13,940	15,450	495

CEMENT PROGRAM		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
CONDUCTOR		700	Class G + 3% CACL2	879	100%	15.8 ppg	1.15
SURFACE	Lead	1,000	EXTENDACEM SYSTEM: Type V Cement + 5 lbm/sk Silicalite Compacted + 0.25 lbm/sk Kwik Seal + 0.125 lbm/sk Poly-E-Flake + 8% Bentonite + 0.3% D-Air 5000	132	75%	11.0 ppg	3.18
	Tail	500	HALCEM SYSTEM: Glass 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	4,850	EXTENDACEM SYSTEM: Class G Cement + 10% Bentonite + 0.1% SA-1015 + 0.2% Econolite + 0.2% Halad-322 + 3 lbm/sk Silicalite Compacted + 1 lbm/sk Granulite TR 1/4 + 0.125 lbm/sk Poly-E-Flake + 5 lbm/sk Kol-Seal + 1% HR-5 + 0.1% SA-1015	340	10%	12.0 ppg	2.35
	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	258	10%	13.0 ppg	1.64
PRODUCTION LINER		3,250	EXTENDACEM SYSTEM: Class G Cement + 0.2% Super CBL + 0.55% SCR-100 + 0.3% Halad-413 + 0.125 lbm/sk Poly-E-Flake + 3 lbm/sk Silicalite Compacted + 20% SS-200 + 0.1% SA-1015	192	25%	14.20	1.47

FLOAT EQUIPMENT & CENTRALIZERS	
CONDUCTOR	PDC drillable guide shoe, 1 joint, PDC drillable float collar. Thread lock all float equipment. Install bow spring centralizers on the bottom 3 joints of casing.
SURFACE	PDC drillable guide shoe, 1 joint casing, PDC drillable float collar & Stage collar. Thread lock all float equipment. Install bow spring centralizers on the bottom 3 joints of casing & every 3rd joint thereafter.
INTERMEDIATE	PDC drillable 10M, P-110 float shoe, 1 joint, PDC drillable 10M, P-110 float collar. Thread lock all float equipment. Maker joint at 6,300'.
LINER	Float shoe, 1 joint, float collar, 1 joint, landing collar. Thread lock all FE. Maker joints every 1000'.

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

MANAGER: Bob Dodd

EP ENERGY E&P COMPANY, L.P.
KRATZER 1-27C4
SECTION 27, T3S, R4W, U.S.B.&M.

PROCEED NORTH ON STATE ROAD 87 FROM THE INTERSECTION OF STATE ROAD 87 WITH US HIGHWAY 40 IN DUCHESNE, UTAH APPROXIMATELY 3.54 MILES TO AN INTERSECTION;

TURN RIGHT AND TRAVEL EASTERLY ON A COUNTY B ROAD 2.54 MILES TO AN INTERSECTION;

TURN RIGHT AND TRAVEL SOUTHERLY ON A GRAVEL ROAD 0.74 MILES TO AN INTERSECTION;

TURN LEFT AND TRAVEL EASTERLY 0.22 MILES TO THE BEGINNING OF THE PROPOSED ACCESS ROAD;

TURN RIGHT ON TO PROPOSED ACCESS ROAD AND FOLLOW ROAD FLAGS SOUTHERLY AND EASTERLY 1.76 MILES TO THE PROPOSED LOCATION

TOTAL DISTANCE FROM DUCHESNE, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 8.80 MILES.

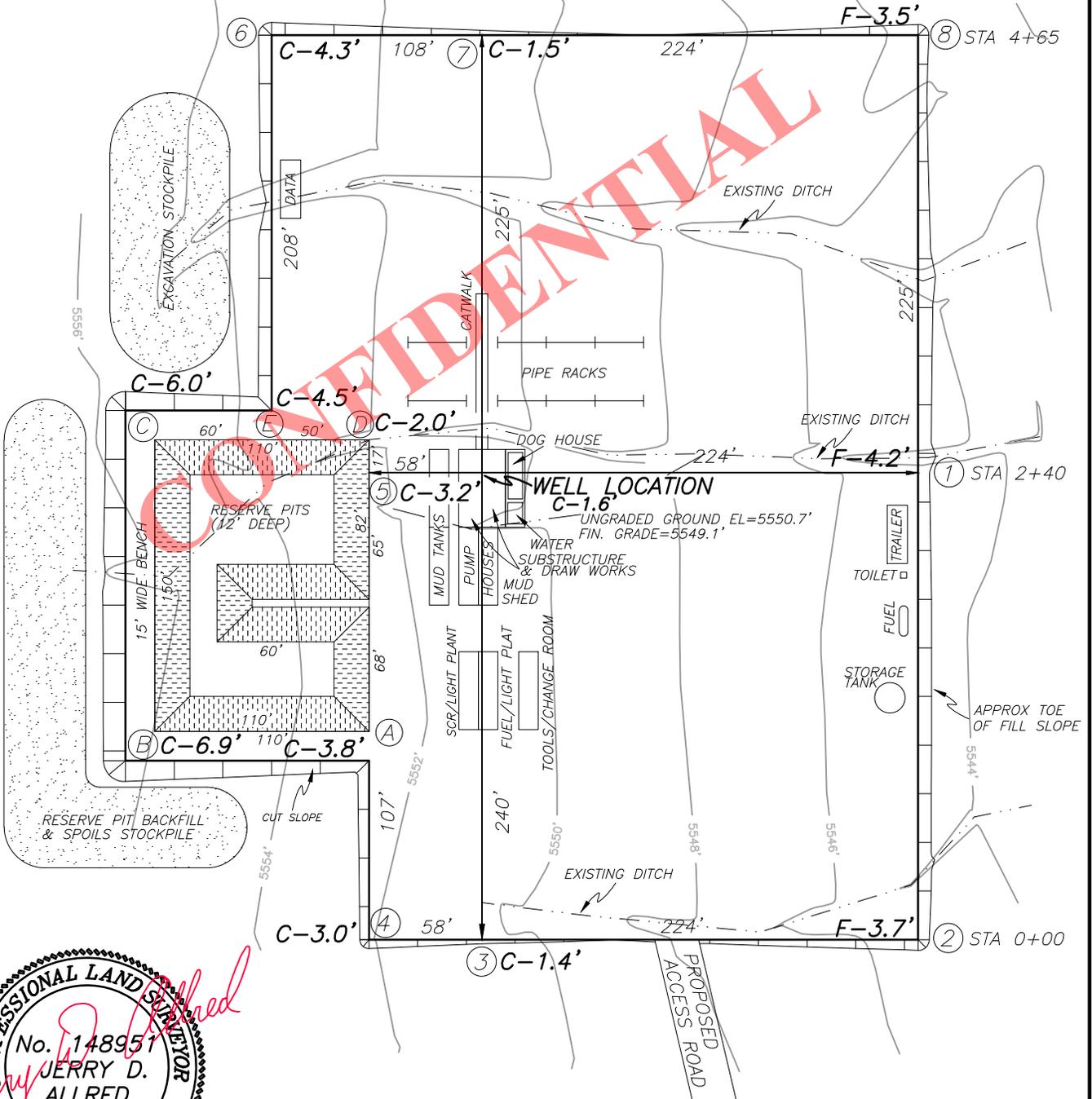
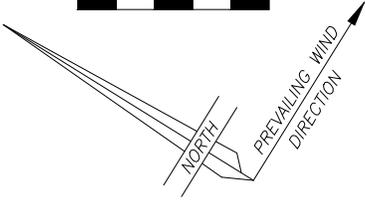
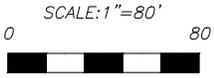
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LOCATION LAYOUT FOR KRATZER 1-27C4

SECTION 27, T3S, R4W, U.S.B.&M.
700' FNL, 999' FEL

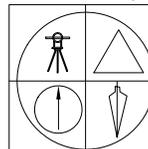
FIGURE #1



Jerry D. Allred
 PROFESSIONAL LAND SURVEYOR
 No. 148951
 JERRY D. ALLRED
 15 APR '14
 STATE OF UTAH

REV 15 APR 2014
3 JAN 2014

01-128-471



JERRY D. ALLRED & ASSOCIATES
SURVEYING CONSULTANTS

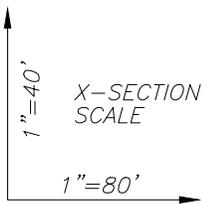
1235 NORTH 700 EAST--P.O. BOX 975
DUCHESNE, UTAH 84021
(435) 738-5352

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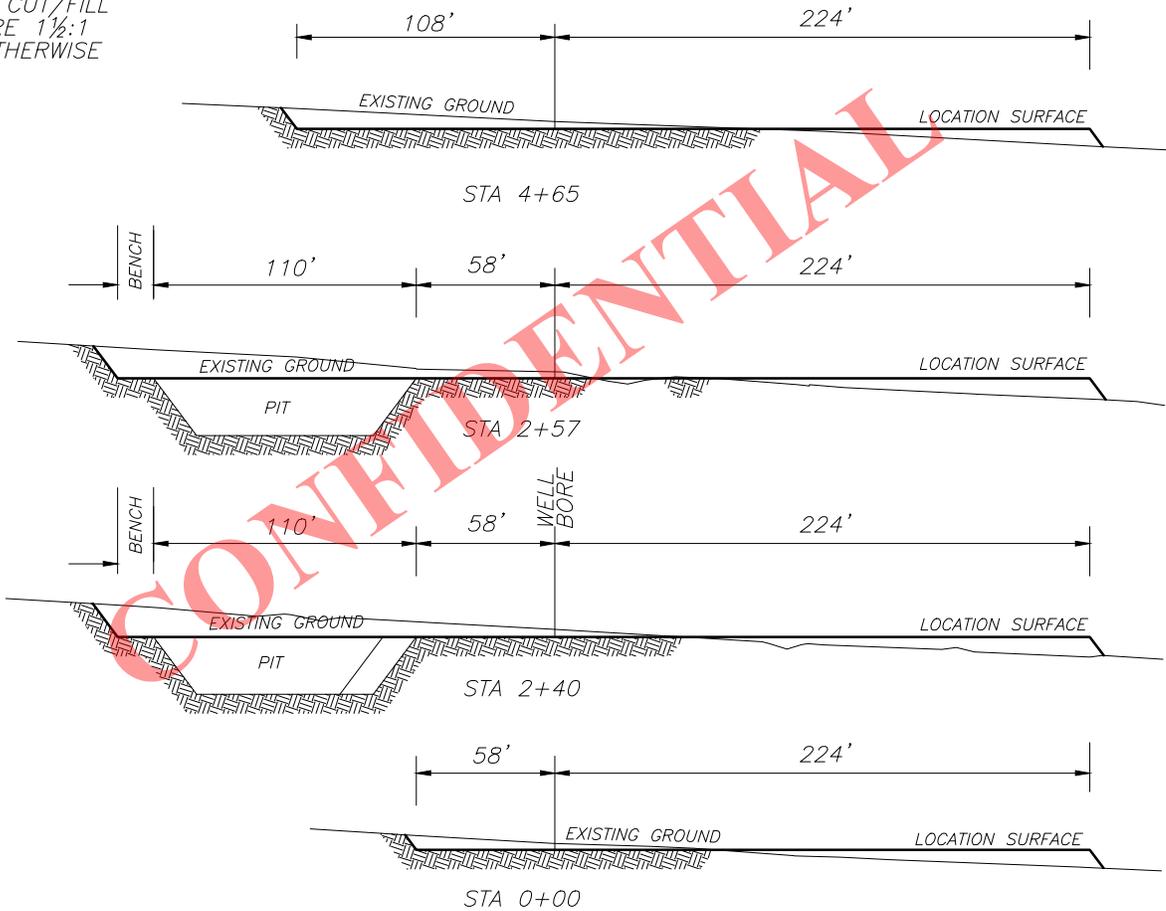
EP ENERGY E&P COMPANY, L.P.

FIGURE #2

LOCATION LAYOUT FOR
 KRATZER 1-27C4
 SECTION 27, T3S, R4W, U.S.B.&M.
 700' FNL, 999' FEL



NOTE: ALL CUT/FILL SLOPES ARE 1 1/2:1 UNLESS OTHERWISE NOTED



APPROXIMATE YARDAGES

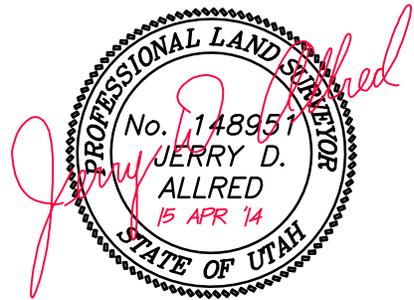
TOTAL CUT (INCLUDING PIT) = 16,077 CU. YDS.

PIT CUT = 4955 CU. YDS.
 TOPSOIL STRIPPING: (6") = 3210 CU. YDS.
 REMAINING LOCATION CUT = 7912 CU. YDS

TOTAL FILL = 7912 CU. YDS.

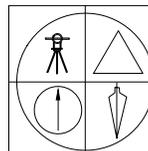
LOCATION SURFACE GRAVEL=1653 CU. YDS. (4" DEEP)

ACCESS ROAD GRAVEL=2528 CU. YDS.



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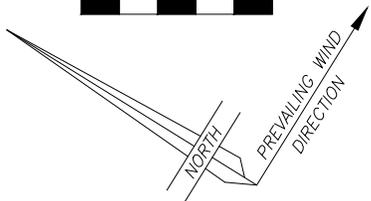
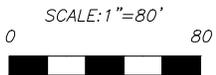
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FIGURE #3

LOCATION LAYOUT FOR
KRATZER 1-27C4
SECTION 27, T3S, R4W, U.S.B.&M.
700' FNL, 999' FEL

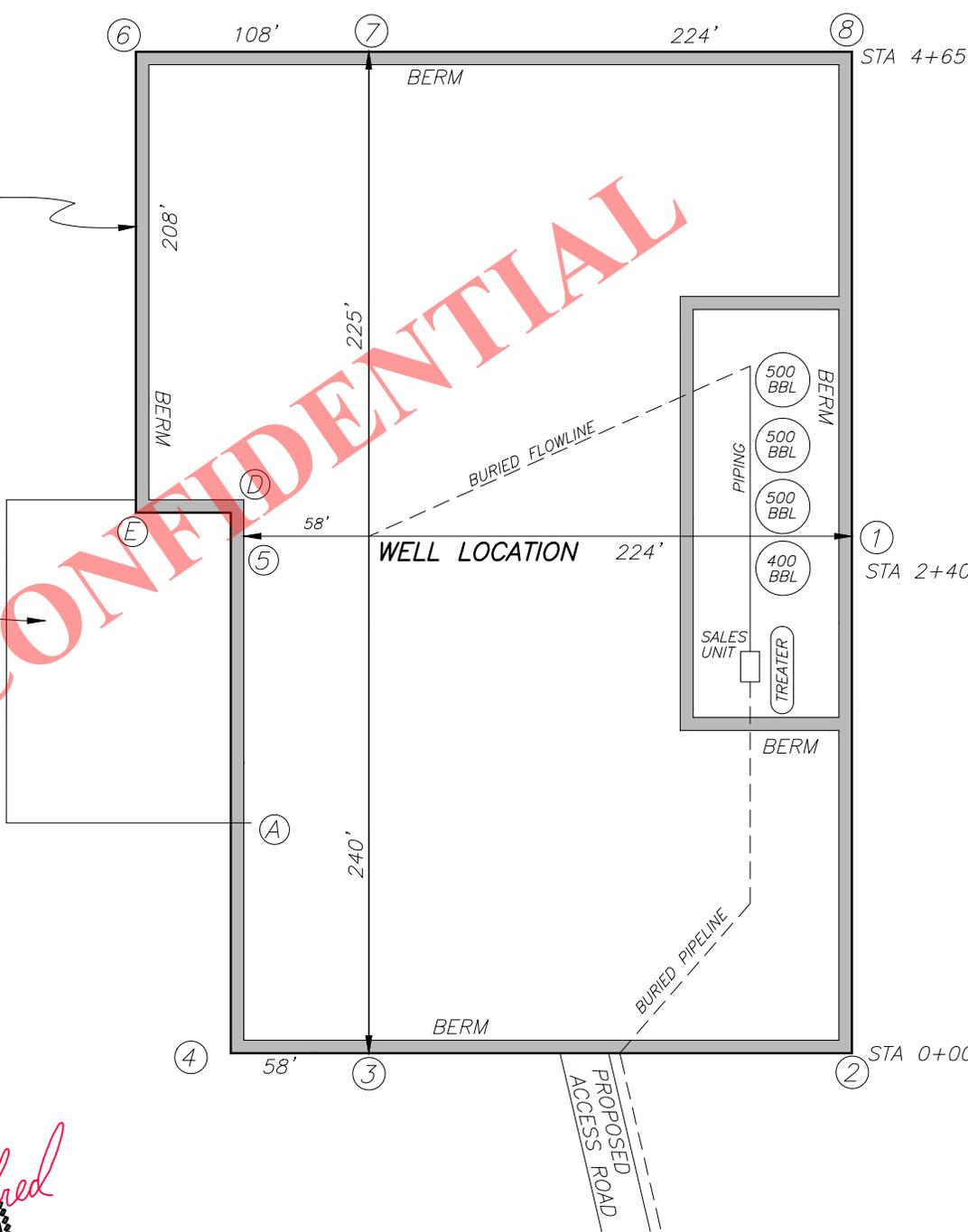


WELL PAD AREA
BERMED AND USED
FOR PRODUCTION

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

PIT AREA REGRADED
BACK TO SLOPE FOR
INTERIM RECLAMATION

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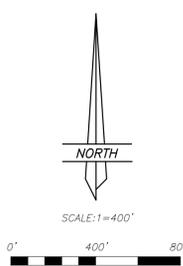


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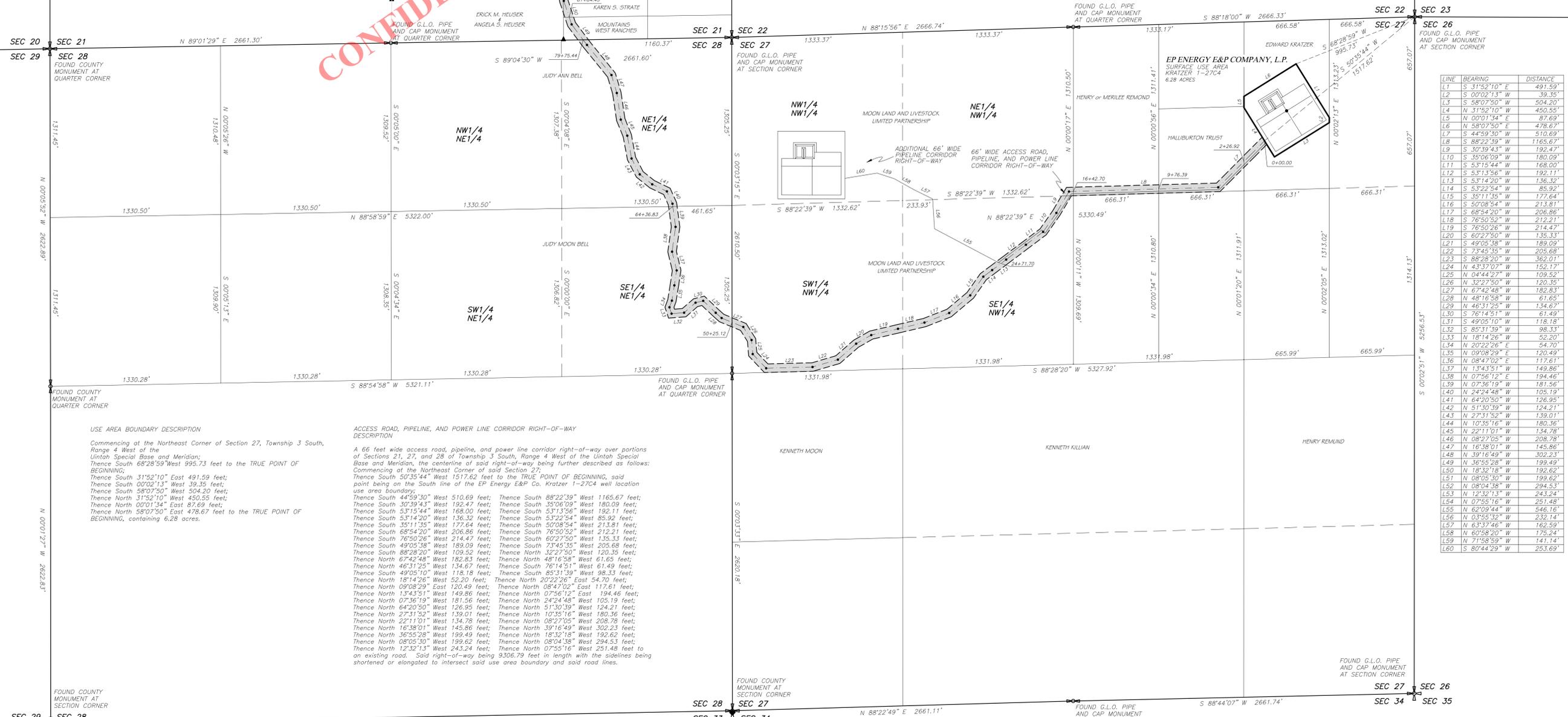
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LEGEND AND NOTES
INDICATES REBAR FOUND AT LOT CORNERS OR POINTS ON LINE
THIS SURVEY WAS PERFORMED USING GLOBAL POSITIONING SYSTEM PROCEDURES AND EQUIPMENT...

LOCATION USE AREA AND ACCESS ROAD, POWER LINE, AND PIPELINE CORRIDOR RIGHT-OF-WAY SURVEY FOR EP ENERGY E&P COMPANY, L.P. KTATZER 1-27C4



USE AREA BOUNDARY DESCRIPTION
Commencing at the Northeast Corner of Section 27, Township 3 South, Range 4 West of the Uintah Special Base and Meridian...

ACCESS ROAD, PIPELINE, AND POWER LINE CORRIDOR RIGHT-OF-WAY DESCRIPTION
A 66 feet wide access road, pipeline, and power line corridor right-of-way over portions of Sections 21, 27, and 28 of Township 3 South, Range 4 West of the Uintah Special Base and Meridian...

Table with columns: LINE, BEARING, DISTANCE. Lists lines L1 through L60 with their respective bearings and distances.

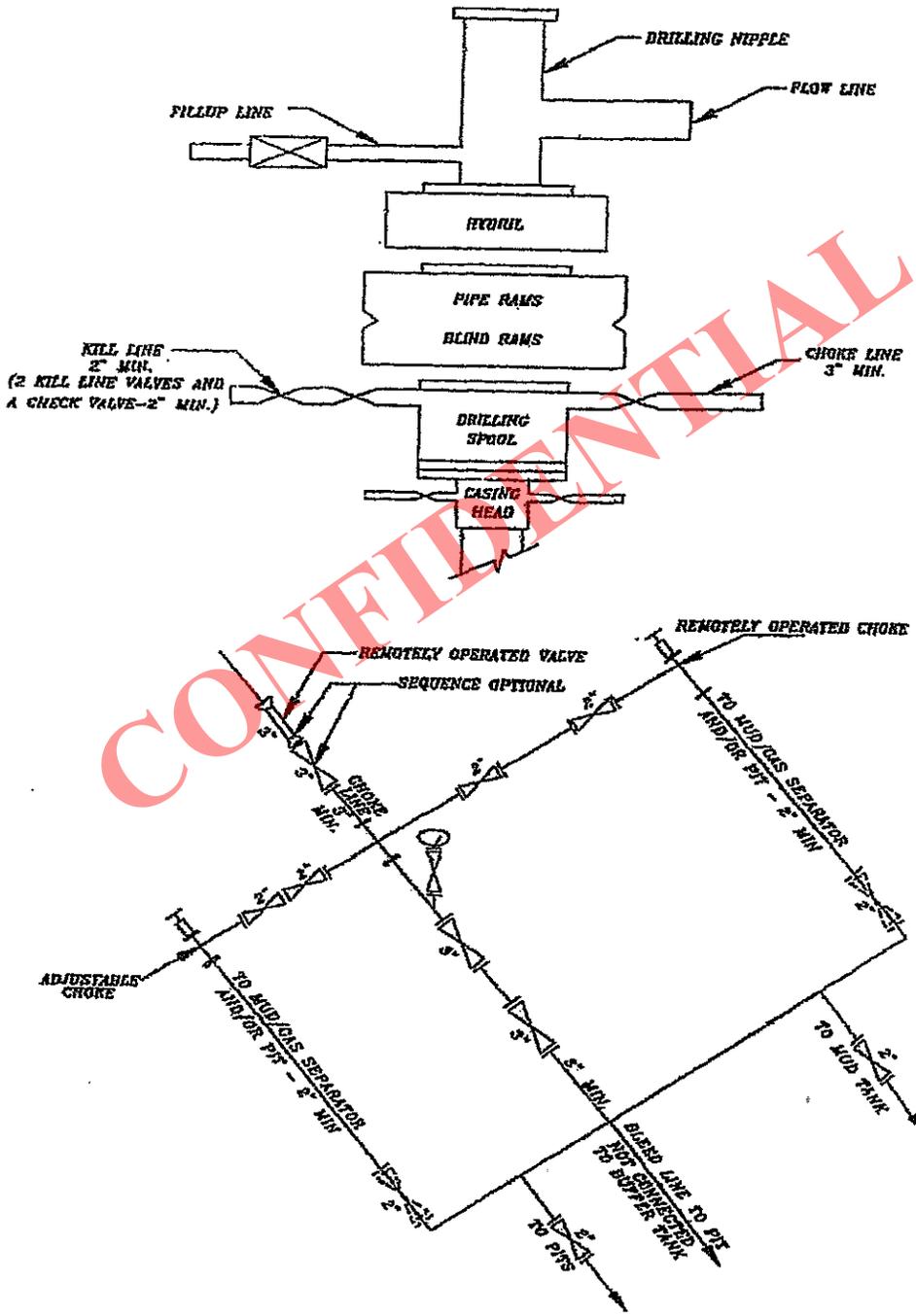
SURVEYOR'S CERTIFICATE
This is to certify that this plat was prepared from the field notes and electronic data collector files of an actual survey made by me, or under my personal supervision...



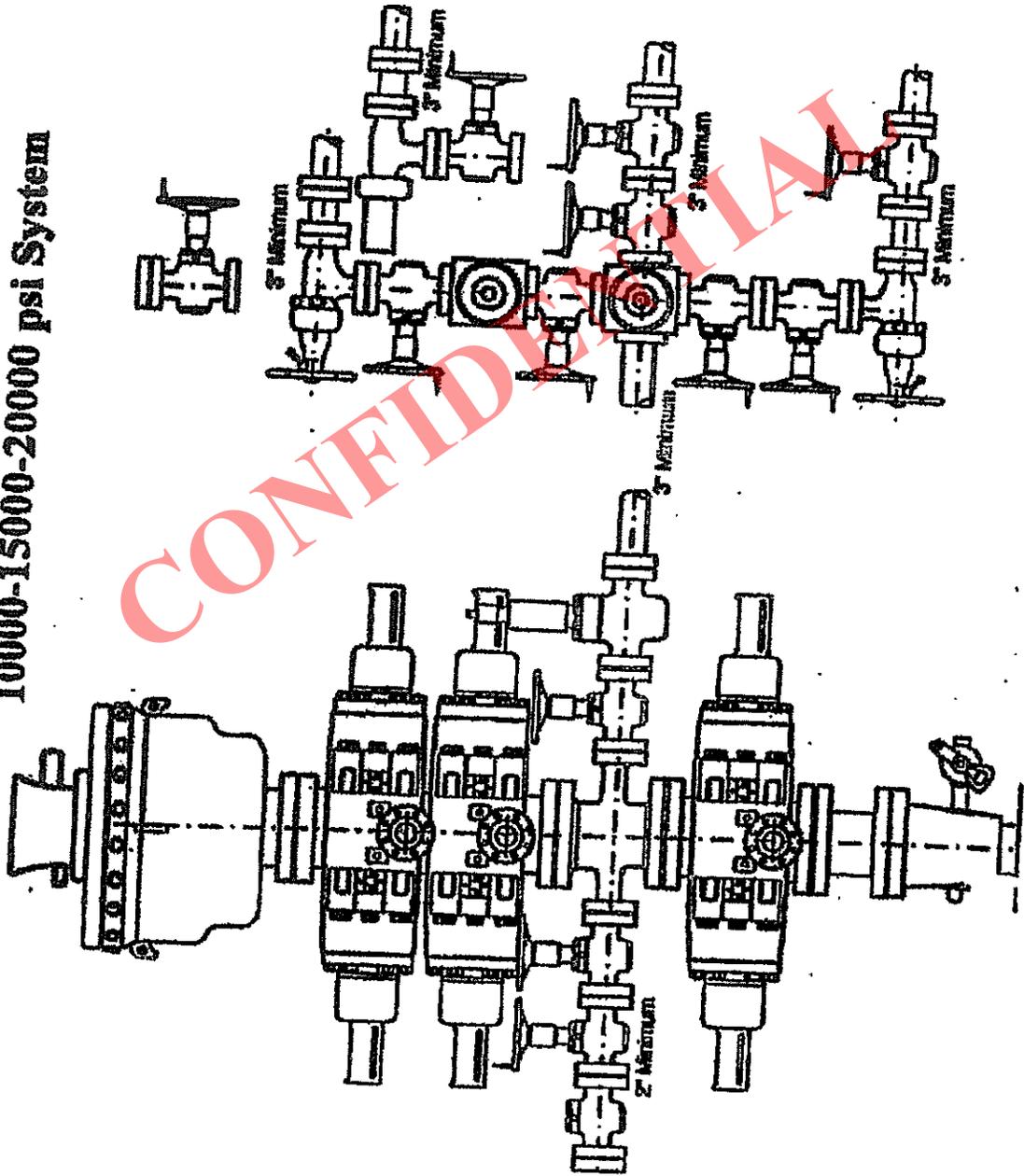
COUNTY SURVEYOR FILE NO.
JERRY D. ALLRED AND ASSOCIATES
SURVEYING CONSULTANTS
1235 NORTH 700 EAST - P.O. BOX 975
DUCHESE, UTAH 84021
(435) 738-5352

REV 17 APR 2014
26 DEC 2013 01-128-471

5M BOP STACK and CHOKE MANIFOLD SYSTEM



10000-15000-20000 psi System



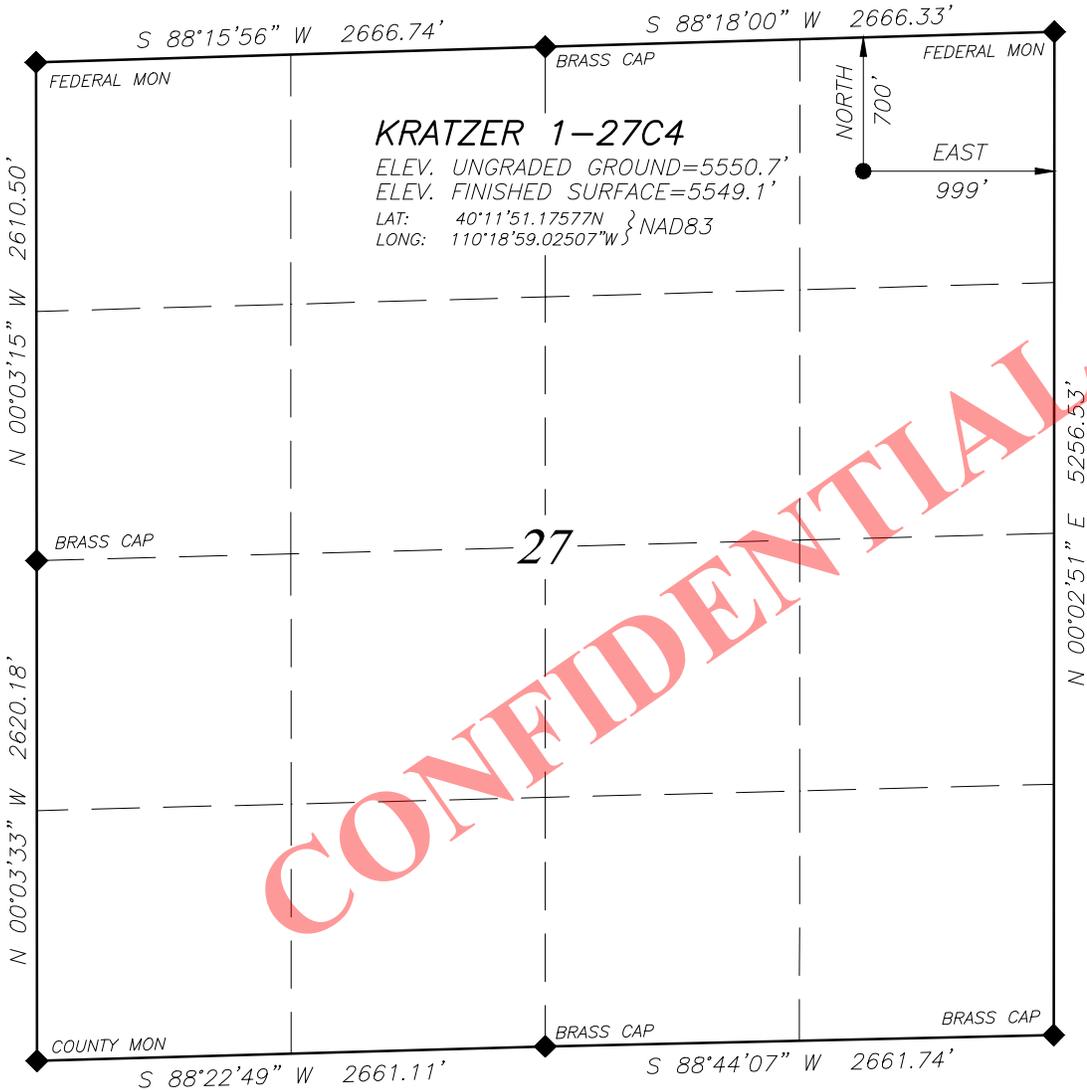
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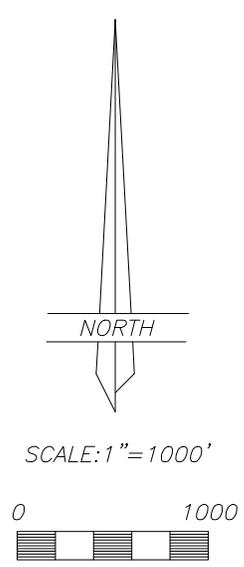
WELL LOCATION

KRATZER 1-27C4

LOCATED IN THE NE¼ OF THE NE¼ OF SECTION 27, T3S, R4W, U.S.B.&M. DUCHESNE COUNTY, UTAH



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NOTE:
 NAD27 VALUES FOR WELL POSITION:
 LAT: 40.19759096° N
 LONG: 110.31568556° W

LEGEND AND NOTES

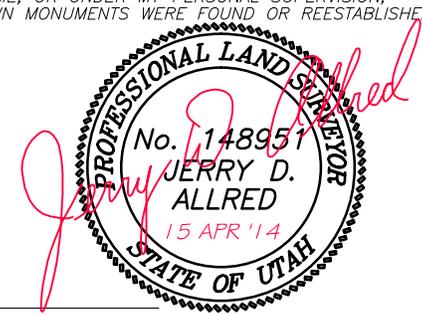
- ◆ CORNER MONUMENTS FOUND AND USED BY THIS SURVEY
- THE GENERAL LAND OFFICE (G.L.O.) PLAT WAS USED FOR REFERENCE AND CALCULATIONS AS WAS THE U.S.G.S. MAP
- THIS SURVEY WAS PERFORMED USING GLOBAL POSITIONING SYSTEM PROCEDURES AND EQUIPMENT
- THE BASIS OF BEARINGS IS GEODETIC NORTH DERIVED FROM G.P.S.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

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

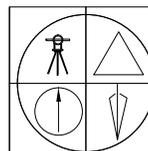
REV 15 APR 2014
 3 JAN 2014

SURVEYOR'S CERTIFICATE

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



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

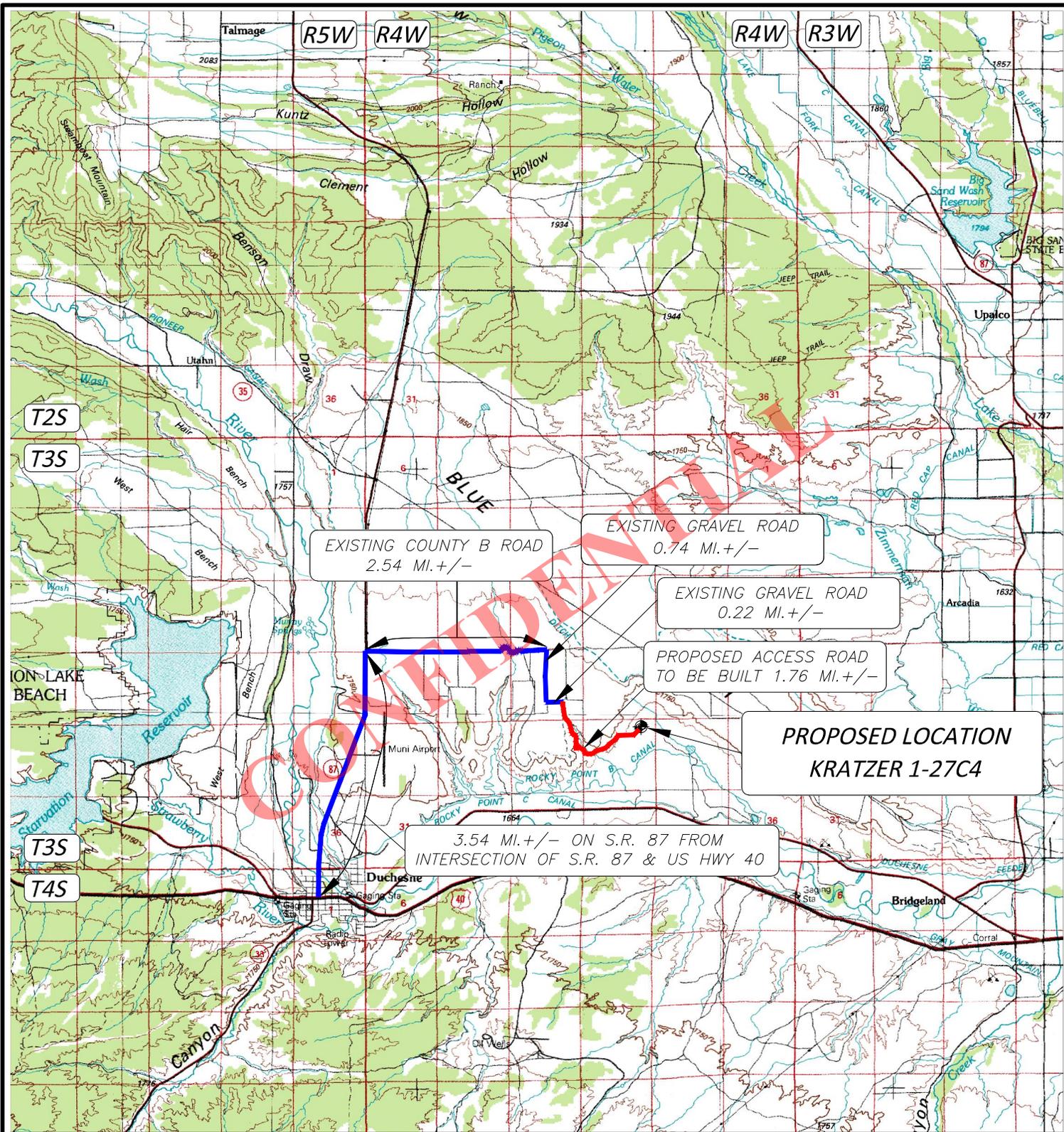


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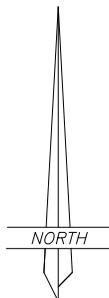
LEGEND:

● PROPOSED WELL LOCATION

01-128-471

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DUCHEсне, UTAH 84021
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KRATZER 1-27C4

SECTION 27, T3S, R4W, U.S.B.&M.

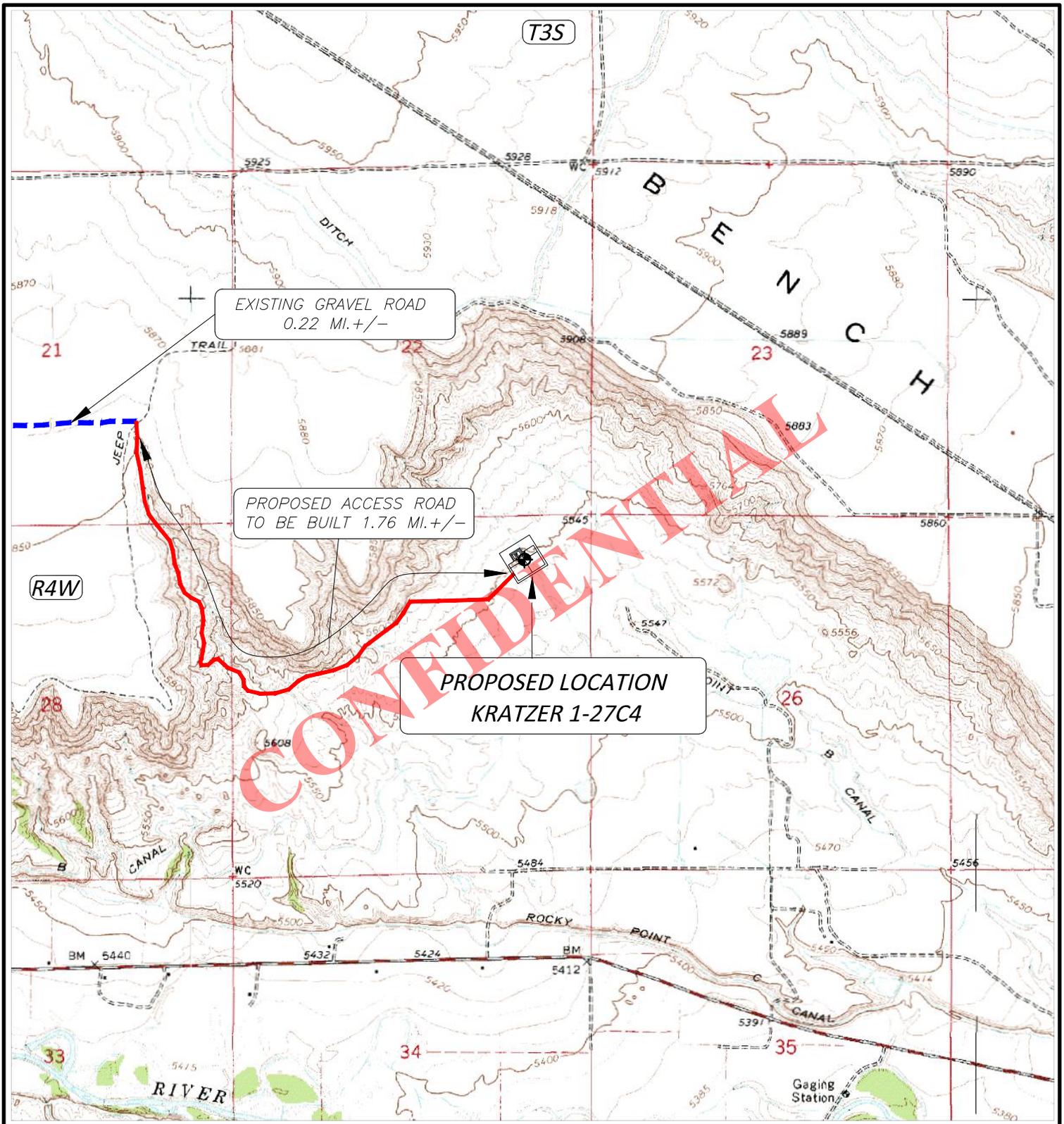
700' FNL 999' FEL

TOPOGRAPHIC MAP "A"

SCALE: 1"=10,000'

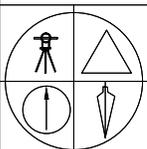
REV 15 APR 2014 22 OCT 2013

RECEIVED: June 08, 2014

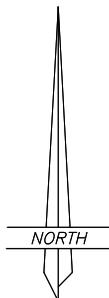


LEGEND:

-  PROPOSED WELL LOCATION
 -  PROPOSED ACCESS ROAD
 -  EXISTING GRAVEL ROAD
 -  EXISTING PAVED ROAD
- 01-128-471



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

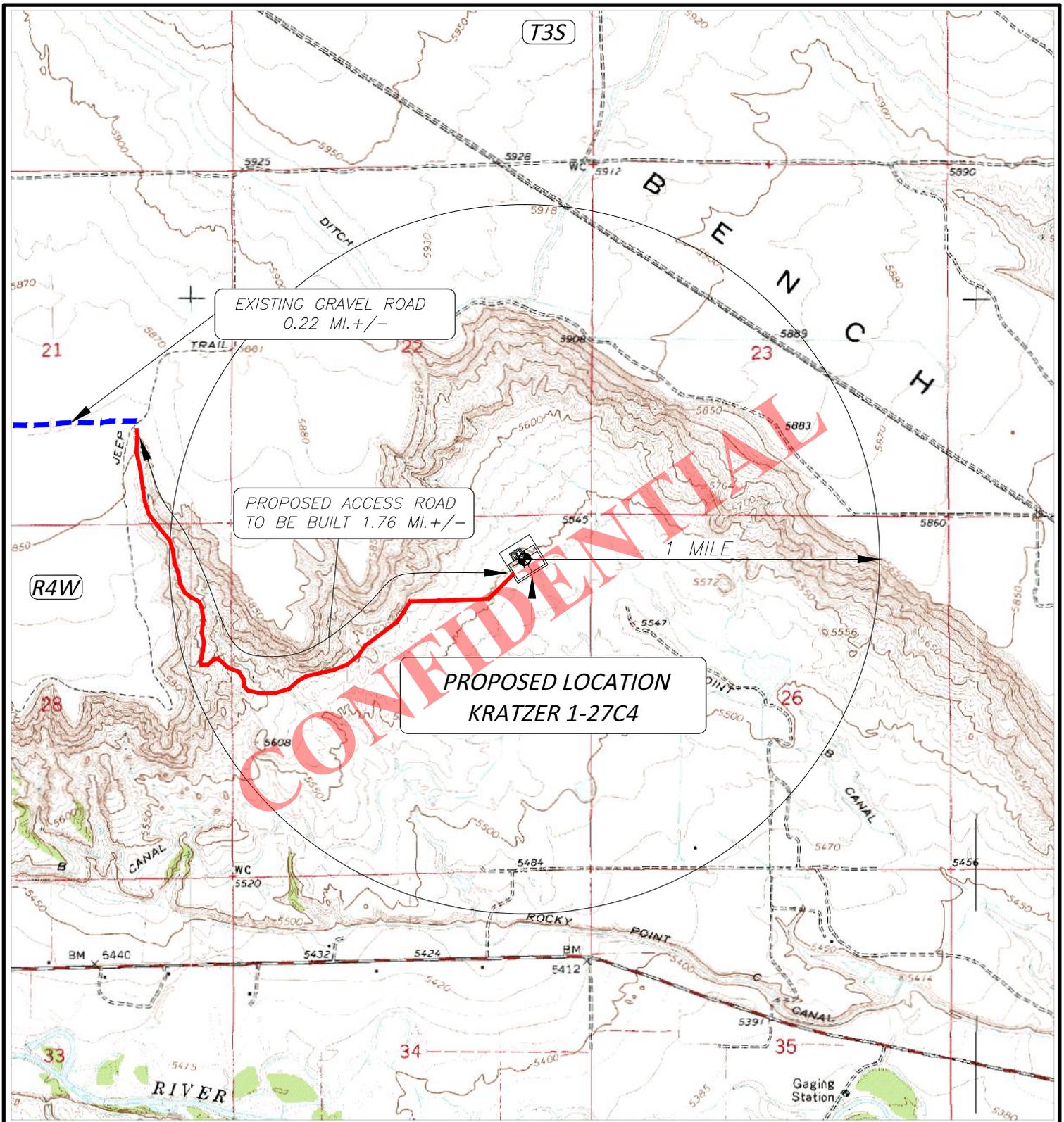


EP ENERGY E&P COMPANY, L.P.

KRATZER 1-27C4
 SECTION 27, T3S, R4W, U.S.B.&M.
 700' FNL 999' FEL

TOPOGRAPHIC MAP "B"

SCALE: 1"=2000'
 REV 15 APR 2014 22 OCT 2013

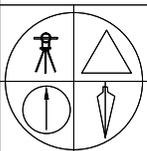


LEGEND:

◆ PROPOSED WELL LOCATION

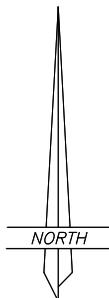
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01-128-471



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EP ENERGY E&P COMPANY, L.P.

KRATZER 1-27C4

SECTION 27, T3S, R4W, U.S.B.&M.

700' FNL 999' FEL

TOPOGRAPHIC MAP "C"

SCALE; 1"=2000'

REV 15 APR 2014 22 OCT 2013

RECEIVED: June 08, 2014

AFFIDAVIT OF SURFACE DAMAGE AGREEMENT
AND RIGHT-OF-WAY AGREEMENT

Michael J. Walcher personally appeared before me, and, being duly sworn, deposes and says:

1. My name is Michael J. Walcher. I am a Land Advisor 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 Kratzer 1-27C4 well (the "Well") to be located in the W/2 NE/4 NE/4 of Section 27, Township 3 South, Range 4 West, USM, Duchesne County, Utah, on a tract of land being described as the W/2 NE/4 NE/4 of Section 27, Township 3 South, Range 4 West, USM, Duchesne County, Utah (the "Drillsite Location"). The surface owner of the Drillsite Location is Edward Kratzer, whose address is 94-1420 Kulewa Lp Apt 37a, Waipahu, Hawaii 96797 (the "Surface Owner"). The Surface Owner's telephone number for contact purposes is (956) 454-6849.
3. EP Energy and the Surface Owner have entered into a Surface Use Agreement and a Right-of-Way Agreement, both dated May 13, 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.



Michael J. Walcher

CONFIDENTIAL

ACKNOWLEDGMENT

STATE OF TEXAS §
 §
COUNTY OF HARRIS §

This instrument was acknowledged before me on this the 22nd day of May, 2014 by Michael J. Walcher as a Land Advisor for EP ENERGY E&P COMPANY, L.P., a Delaware limited partnership, on behalf of said partnership and acknowledged to me that he executed the same as his own free and voluntary act and deed for the uses and purposes therein set forth.





NOTARY PUBLIC

My Commission Expires: 8/2/2014

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 1.76 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 1.76 miles will parallel the proposed access road. The corridor will contain one 4 inch gas line and one 2 inch gas line and one 2 inch Salt Water disposal line. Rehabilitation of unneeded, previously disturbed areas will consist of backfilling and contouring the reserve pit area; backsloping and contouring all cut and fill slopes. These areas will be reseeded. Refer to plans for reclamation of surface for details.
- Upgrade and maintain access roads and drainage control structures (e.g., culverts, drainage dips, ditching, etc.) as necessary to prevent soil erosion and accommodate safe, year-round traffic.

6. **Construction Materials:**

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

7. **Methods For Handling Waste Disposal:**

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

8. **Ancillary Facilities:**

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

9. Surface Reclamation Plans:

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

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

10. Surface Ownership:

Edward Kratzer
94-1420 Kulewa Lp, Apt 37a
Waipahu, Hawaii 96797
956-454-6849

Other Information:

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

• **Operator and Contact Persons:**

Construction and Reclamation:

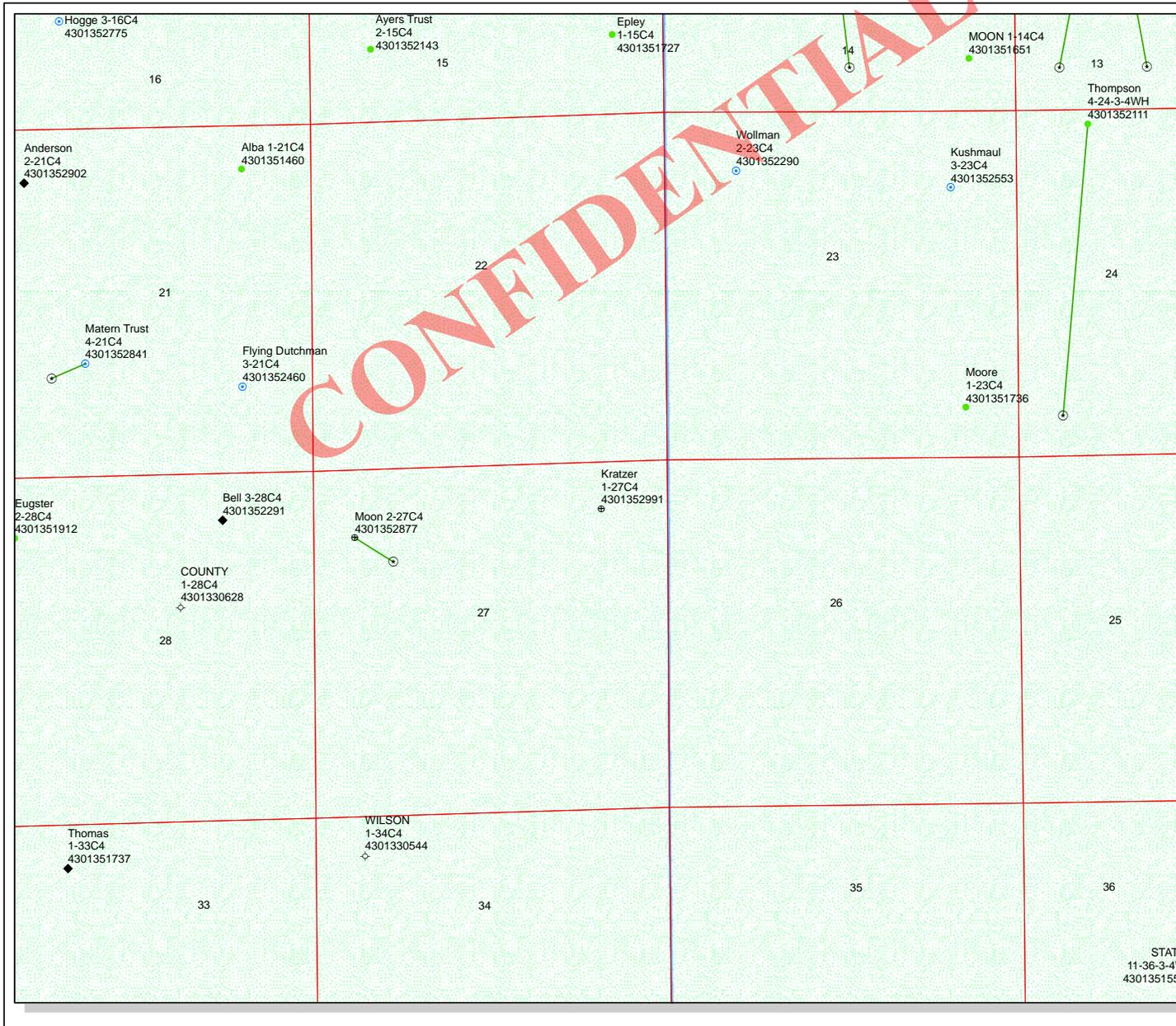
EP Energy E&P Company, L.P.
Wayne Garner
PO Box 410
Altamont, Utah 84001
435-454-3394 – Office
435-823-1490 – Cell

Regarding This APD

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

Drilling

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



API Number: 4301352991

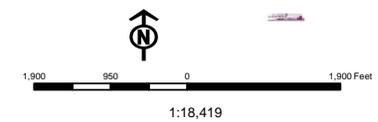
Well Name: Kratzer 1-27C4

Township: T03.0S Range: R04.0W Section: 27 Meridian: U

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

Map Prepared: 6/19/2014
Map Produced by Diana Mason

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



Well Name	EP ENERGY E&P COMPANY, L.P. Kratzer 1-27C4 43013529910000			
String	Cond	Surf	I1	L1
Casing Size(")	13.375	9.625	7.000	5.000
Setting Depth (TVD)	700	1500	8350	11400
Previous Shoe Setting Depth (TVD)	40	700	1500	8350
Max Mud Weight (ppg)	8.8	9.2	10.2	11.7
BOPE Proposed (psi)	1000	1000	10000	10000
Casing Internal Yield (psi)	2730	5750	11220	13940
Operators Max Anticipated Pressure (psi)	6936			11.7

Calculations	Cond String	13.375	"
Max BHP (psi)	.052*Setting Depth*MW=	320	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	236	YES <input type="checkbox"/> rotating head
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	166	YES <input type="checkbox"/> OK
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	175	NO <input type="checkbox"/>
Required Casing/BOPE Test Pressure=		700	psi
*Max Pressure Allowed @ Previous Casing Shoe=		40	psi *Assumes 1psi/ft frac gradient

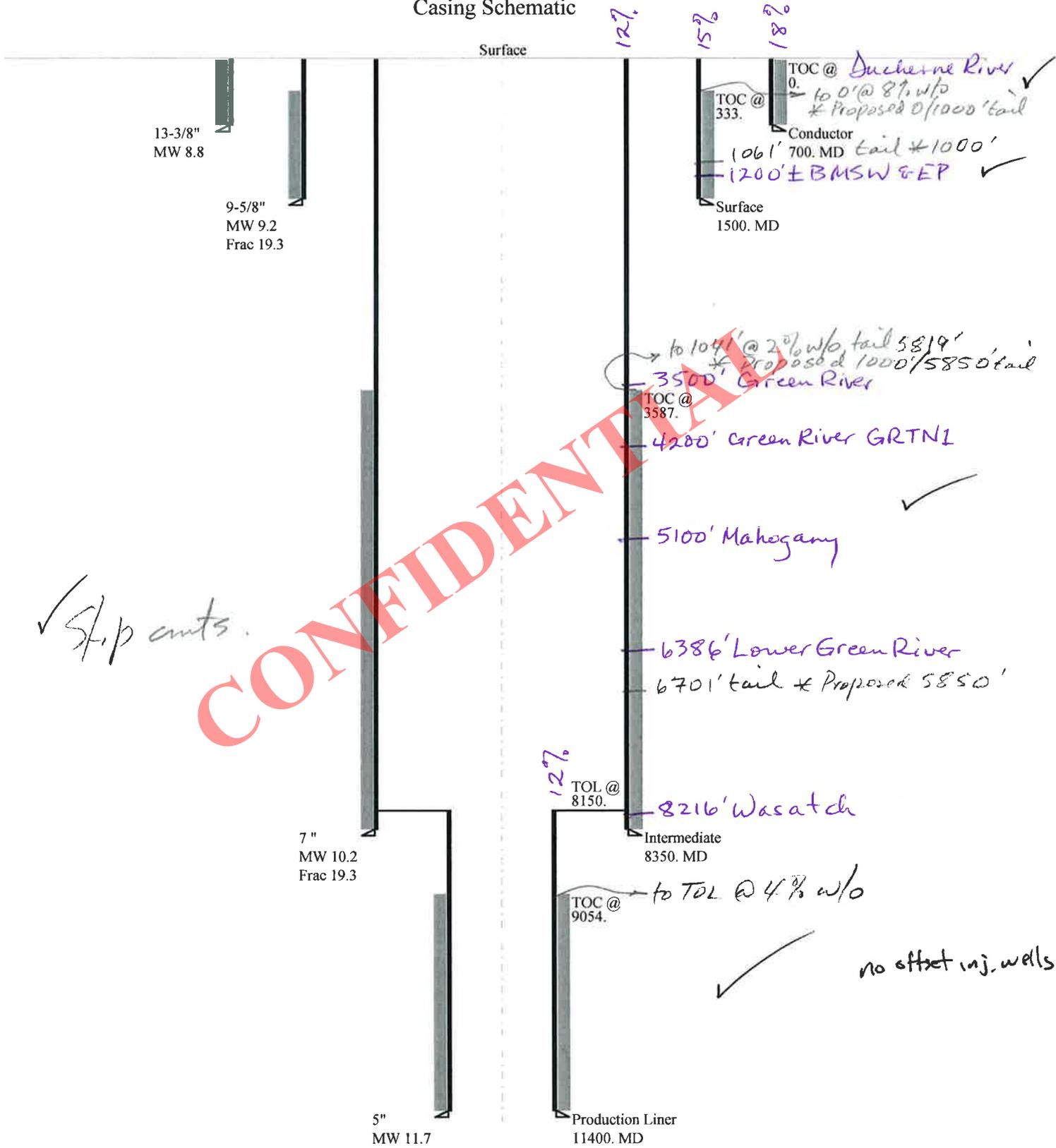
Calculations	Surf String	9.625	"
Max BHP (psi)	.052*Setting Depth*MW=	718	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	538	YES <input type="checkbox"/> diverter stack with rotating head
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	388	YES <input type="checkbox"/> OK
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	542	YES <input type="checkbox"/> OK
Required Casing/BOPE Test Pressure=		1500	psi
*Max Pressure Allowed @ Previous Casing Shoe=		700	psi *Assumes 1psi/ft frac gradient

Calculations	I1 String	7.000	"
Max BHP (psi)	.052*Setting Depth*MW=	4429	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	3427	YES <input type="checkbox"/> 10M BOPE w/rotating head, 5M annular, spacer spool,
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	2592	YES <input type="checkbox"/> dbl rams, single w/flex rams
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	2922	NO <input type="checkbox"/> OK
Required Casing/BOPE Test Pressure=		7854	psi
*Max Pressure Allowed @ Previous Casing Shoe=		1500	psi *Assumes 1psi/ft frac gradient

Calculations	L1 String	5.000	"
Max BHP (psi)	.052*Setting Depth*MW=	6936	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	5568	YES <input type="checkbox"/> 10M BOPE w/rotating head, 5M annular, spacer spool,
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	4428	YES <input type="checkbox"/> dbl rams, single w/flex rams
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	6265	YES <input type="checkbox"/> OK
Required Casing/BOPE Test Pressure=		9758	psi
*Max Pressure Allowed @ Previous Casing Shoe=		8350	psi *Assumes 1psi/ft frac gradient

43013529910000 Kratzer 1-27C4

Casing Schematic



Well name:	43013529910000 Kratzer 1-27C4	
Operator:	EP ENERGY E&P COMPANY, LP.	
String type:	Conductor	Project ID: 43-013-52991
Location:	DUCHESNE COUNTY	

Design parameters:

Collapse

Mud weight: 8.800 ppg
Design is based on evacuated pipe.

Minimum design factors:

Collapse:

Design factor 1.125

Environment:

H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 84 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft

Burst:

Design factor 1.00

Cement top: Surface

Burst

Max anticipated surface pressure: 236 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 320 psi

No backup mud specified.

Tension:

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

Non-directional string.

Tension is based on buoyed weight.
Neutral point: 609 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	700	13.375	54.50	J-55	ST&C	700	700	12.49	8686
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	320	1130	3.531	320	2730	8.53	33.2	514	15.49 J

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

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

Date: August 19, 2014
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 700 ft, a mud weight of 8.8 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name:	43013529910000 Kratzer 1-27C4	
Operator:	EP ENERGY E&P COMPANY, LP.	
String type:	Surface	Project ID: 43-013-52991
Location:	DUCHESNE COUNTY	

Design parameters:

Collapse

Mud weight: 9.200 ppg
Design is based on evacuated pipe.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 95 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft

Cement top: 333 ft

Burst

Max anticipated surface pressure: 1,320 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 1,500 psi

No backup mud specified.

Tension:

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

Tension is based on buoyed weight.
Neutral point: 1,295 ft

Non-directional string.

Re subsequent strings:

Next setting depth: 8,350 ft
Next mud weight: 10.200 ppg
Next setting BHP: 4,424 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 1,500 ft
Injection pressure: 1,500 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	1500	9.625	40.00	N-80	LT&C	1500	1500	8.75	19086
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	717	3090	4.311	1500	5750	3.83	51.8	737	14.23 J

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

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

Date: August 19, 2014
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 1500 ft, a mud weight of 9.2 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name:	43013529910000 Kratzer 1-27C4		
Operator:	EP ENERGY E&P COMPANY, LP.		
String type:	Intermediate	Project ID:	43-013-52991
Location:	DUCHESNE COUNTY		

Design parameters:

Collapse

Mud weight: 10.200 ppg
Design is based on evacuated pipe.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 191 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 1,000 ft

Cement top: 3,587 ft

Burst

Max anticipated surface pressure: 4,421 psi
Internal gradient: 0.220 psi/ft
Calculated BHP 6,258 psi

No backup mud specified.

Tension:

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

Tension is based on buoyed weight.
Neutral point: 7,061 ft

Non-directional string.

Re subsequent strings:

Next setting depth: 11,400 ft
Next mud weight: 11.700 ppg
Next setting BHP: 6,929 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 8,350 ft
Injection pressure: 8,350 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	8350	7	29.00	HCP-110	LT&C	8350	8350	6.059	94293
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	4424	9200	2.079	6258	11220	1.79	204.8	797	3.89 J

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

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

Date: August 19, 2014
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 8350 ft, a mud weight of 10.2 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name:	43013529910000 Kratzer 1-27C4	
Operator:	EP ENERGY E&P COMPANY, LP.	
String type:	Production Liner	Project ID: 43-013-52991
Location:	DUCHESNE COUNTY	

Design parameters:

Collapse

Mud weight: 11.700 ppg
Design is based on evacuated pipe.

Burst

Max anticipated surface pressure: 4,421 psi
Internal gradient: 0.220 psi/ft
Calculated BHP: 6,929 psi

No backup mud specified.

Minimum design factors:

Collapse:

Design factor: 1.125

Burst:

Design factor: 1.00

Tension:

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

Tension is based on buoyed weight.
Neutral point: 10,830 ft

Environment:

H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 234 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 1,000 ft

Cement top: 9,054 ft

Liner top: 8,150 ft

Non-directional string.

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	3200	5	18.00	HCP-110	ST-L	11400	11400	4.151	253432
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	6929	15360	2.217	6929	13940	2.01	47.3	341	7.20 J

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

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

Date: August 19, 2014
Salt Lake City, Utah

Remarks:

For this liner string, the top is rounded to the nearest 100 ft. Collapse is based on a vertical depth of 11400 ft, a mud weight of 11.7 ppg. The Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

Operator EP ENERGY E&P COMPANY, L.P.
Well Name Kratzer 1-27C4
API Number 43013529910000 **APD No** 9822 **Field/Unit** ALTAMONT
Location: 1/4,1/4 NENE **Sec** 27 **Tw** 3.0S **Rng** 4.0W 700 FNL 999 FEL
GPS Coord (UTM) 558184 4449911 **Surface Owner** Edward Kratzer

Participants

Kelsey Carter, Mike Barneck, Heather Ivie (EP Energy Lands); Wayne Garner (EP Energy Construction); Dennis Ingram (DOGM)

Regional/Local Setting & Topography

The Kratzer 1-27C4 is proposed in northeastern Utah approximately 1.2 miles north of the Duchesne River along the northern base of that river's corridor before the topography rises onto Blue Bench. Access to this well site can be gained by driving north of Duchesne on S.R. 87 for 3.54 miles, then east along an existing Class B county road for another 2.54 miles, then south along an existing gravel access road for another 0.22 miles where the planned access road will go east for 1.76 miles. The town of Duchesne is located approximately 4.0 miles west/southwest of this site with much of the habitat in that direction being the northern edges of the Duchesne River corridor and either drainages or slope into that lowlands from Blue Bench. The elevation begins its climb out onto Blue Bench several hundred feet to the north where the surface is mostly rangeland with few if any residential dwellings. East and south of this proposed well pad is either farmland utilized for either grazing or crop production and the Duchesne River after it turns easterly when leaving the town of Duchesne. The immediate surface at the well pad is open rangeland with sparse vegetation and void of trees. There are three small washes that cross this project area draining easterly.

Surface Use Plan

Current Surface Use
Wildlfe Habitat

New Road Miles	Well Pad	Src Const Material	Surface Formation
1.76	Width 407 Length 465	Onsite	UNTA

Ancillary Facilities

Waste Management Plan Adequate?

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

Sparse sagebrush, rabbit brush, prickly pear cactus, bunch grass;

Potential mule deer, elk, coyote, fox, raccoon, skunk and other smaller mammals associated near river bottoms, also has potential eagle, owl or hawk use, also song birds native to region (no perching roosts with a mile).

Soil Type and Characteristics

Tan to brown sandy loam with fine grains sands and some clays present.

Erosion Issues Y

three active, shallow washes cross location surface

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

Three active washes cross the proposed location surface from west to east and will need re-routed around location to the north and south

Berm Required? Y**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**

Distance to Groundwater (feet)	100 to 200	5
Distance to Surface Water (feet)	>1000	0
Dist. Nearest Municipal Well (ft)	>5280	0
Distance to Other Wells (feet)	>1320	0
Native Soil Type	High permeability	20
Fluid Type	Fresh Water	5
Drill Cuttings	Normal Rock	0
Annual Precipitation (inches)		0
Affected Populations		
Presence Nearby Utility Conduits	Unknown	10
Final Score		40

1 Sensitivity Level

Characteristics / Requirements

Proposed reserve pit off the west/northwest side of the 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

Surface owner did not attend, landowner agreement in place, open, rangeland void of trees and having minimal vegetation on the surface with no trees. Three shallow washes cross this proposed well pad from west to east, slope at surface is east/southeast

Dennis Ingram
Evaluator

7/8/2014
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
9822	43013529910000	LOCKED	OW	P	No
Operator	EP ENERGY E&P COMPANY, L.P.		Surface Owner-APD	Edward Kratzer	
Well Name	Kratzer 1-27C4		Unit		
Field	ALTAMONT		Type of Work	DRILL	
Location	NENE 27 3S 4W U 700 FNL (UTM) 558185E 4449905N		999 FEL	GPS Coord	

Geologic Statement of Basis

EP proposes to set 700 feet of conductor and 1,500 feet of surface casing both of which will be cemented to surface. The surface and intermediate holes will be drilled utilizing fresh water mud. The estimated depth to the base of moderately saline ground water is 1,200 feet. A search of Division of Water Rights records indicates that there are 10 water wells within a 10,000 foot radius of the center of Section 27. These wells probably produce water from alluvium associated with the Duchesne River and the Duchesne River Formation. Depths of the wells fall in the range of 30-150 feet. Depth is not listed for 1 well. The wells are listed as being used for irrigation, stock watering and domestic. The proposed drilling, casing and cement program should adequately protect the highly used Duchesne River aquifer.

Brad Hill
APD Evaluator

7/17/2014
Date / Time

Surface Statement of Basis

The surface slopes easterly at the proposed well pad and has three shallow washes that cross from west to east. These drainages shall be re-routed around the location to the north and south as needed. If any of those washes are re-routed to the south around the well pad (rather than north) a culvert will probably need installed because of the proposed road access between corners number 2 and 3.

A reserve pit has been proposed off the west/northwest side of the well pad, which will need lined with a 20 mil synthetic liner like EP Energy has utilized in the past. The operator should also install a temporary fence around that pit to keep wildlife or cattle from entering same.

A presite for the Kratzer 1-27C4 was scheduled and done on July 8, 2014 to take input and address issues regarding the construction and drilling of this well. Phone messages were left for the landowner but not returned to the Division. EP Energy did offer and contact a family member and invite him to the presite meeting, although he did not attend. EP Energy has submitted a signed Affidavit from May 13, 2014 indicating that they have entered into a right-of-way and Surface Use Agreement with the landowner of record.

Dennis Ingram
Onsite Evaluator

7/8/2014
Date / Time

Conditions of Approval / Application for Permit to Drill

Category	Condition
Pits	A synthetic liner with a minimum thickness of 20 mils with a felt subliner shall be properly installed and maintained in the reserve pit.
Pits	The reserve pit should be located on the west side of the location.
Surface	The well site shall be bermed to prevent fluids from entering or leaving the pad.
Surface	Drainages adjacent to the proposed pad shall be diverted around the location.

CONFIDENTIAL

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 6/8/2014

API NO. ASSIGNED: 43013529910000

WELL NAME: Kratzer 1-27C4

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

PHONE NUMBER: 713 997-5038

CONTACT: Maria S. Gomez

PROPOSED LOCATION: NENE 27 030S 040W

Permit Tech Review:

SURFACE: 0700 FNL 0999 FEL

Engineering Review:

BOTTOM: 0700 FNL 0999 FEL

Geology Review:

COUNTY: DUCHESNE

LATITUDE: 40.19753

LONGITUDE: -110.31638

UTM SURF EASTINGS: 558185.00

NORTHINGS: 4449905.00

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/FEE - 400JU0708
- Potash
- Oil Shale 190-5
- Oil Shale 190-3
- Oil Shale 190-13
- Water Permit: Duchesne City
- RDCC Review:
- Fee Surface Agreement
- Intent to Commingle

Commingle Approved

LOCATION AND SITING:

- R649-2-3.
- Unit:
- R649-3-2. General
- R649-3-3. Exception
- Drilling Unit
- Board Cause No: Cause 139-90
- Effective Date: 5/9/2012
- Siting: 4 Wells Per 640 Acres
- R649-3-11. Directional Drill

Comments: Presite Completed

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



GARY R. HERBERT
Governor

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: Kratzer 1-27C4

API Well Number: 43013529910000

Lease Number: Fee

Surface Owner: FEE (PRIVATE)

Approval Date: 8/20/2014

Issued to:

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

Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 139-90. The expected producing formation or pool is the GREEN RIVER(LWR)-WASATCH Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

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

General:

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

Conditions of Approval:

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

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

Cement volume for the 7" intermediate string shall be determined from actual hole diameter in order to place lead cement from the pipe setting depth back to 1000' MD and tail cement to 500' above the Lower Green River as indicated in the submitted drilling plan.

Additional Approvals:

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

well:

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

Notification Requirements:

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

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

Contact Information:

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

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

Reporting Requirements:

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

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

Approved By:

Approved by:

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

For John Rogers
Associate Director, Oil & Gas

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	5. LEASE DESIGNATION AND SERIAL NUMBER: Fee
1. TYPE OF WELL Oil Well	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: EP ENERGY E&P COMPANY, L.P.	7. UNIT or CA AGREEMENT NAME:
3. ADDRESS OF OPERATOR: 1001 Louisiana , Houston, TX, 77002	8. WELL NAME and NUMBER: Kratzer 1-27C4
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0700 FNL 0999 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENE Section: 27 Township: 03.0S Range: 04.0W Meridian: U	9. API NUMBER: 43013529910000
PHONE NUMBER: 713 997-5038 Ext	9. FIELD and POOL or WILDCAT: ALTAMONT
	COUNTY: DUCHESNE
	STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 9/16/2014	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input checked="" type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

The following are the changes made: 1) Drill surface casing with air instead of mud 2) Set surface casing @ 2000' instead of 1500' 3) Intermediate TOC @ 1500' instead of 1000' 4) Liner mud wt changed from 10.5 to 11.7 to 10.2 to 12.0. Thanks,

Approved by the
September 15, 2014
Oil, Gas and Mining

Date: _____

By: *Derek Duff*

NAME (PLEASE PRINT) Maria S. Gomez	PHONE NUMBER 713 997-5038	TITLE Principal Regulatory Analyst
SIGNATURE N/A	DATE 9/15/2014	

**Kratzer 1-27C4
Sec. 27, T3S, R4W
DUCHESNE COUNTY, UT**

EP ENERGY E&P COMPANY, L.P.

DRILLING PROGRAM

1. Estimated Tops of Important Geologic Markers

<u>Formation</u>	<u>Depth</u>
Green River (GRRV)	3,500' TVD
Green River (GRTN1)	4,200' TVD
Mahogany Bench	5,100' TVD
L. Green River	6,386' TVD
Wasatch	8,216' TVD
T.D. (Permit)	11,400' TVD

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

<u>Substance</u>	<u>Formation</u>	<u>Depth</u>
	Green River (GRRV)	3,500' MD/TVD
	Green River (GRTN1)	4,200' MD/TVD
	Mahogany Bench	5,100' MD/TVD
Oil	L. Green River	6,386' MD/TVD
Oil	Wasatch	8,216' MD/TVD

3. Pressure Control Equipment: (Schematic Attached)

A Diverter Stack on structural pipe from 40' MD/TVD to 2,000' MD/TVD. 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 8,350' MD/TVD. A 10M BOP stack w/ rotating head, spacer spool, 5M annular, flex rams, blind rams & single w/ flex rams from 8,350' MD/TVD to TD (11,400' MD/TVD).

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

OPERATORS MINIMUM SPECIFICATIONS FOR BOPE:

The surface casing will be equipped with a flanged casing head of 5M psi working pressure. An 11" 5M x 11" 10M spool, 11" x 10M psi BOP and 5M psi annular will be nipped up on the surface casing and tested to 250 psi low test / 3,000 psi high test for 10 minutes each prior to drilling out. The surface casing will be tested to 1,000 psi. for 30 mins. Intermediate casing will be tested to the greater of 1,500 psi or 0.22 psi/ft. The choke manifold equipment, upper Kelly

cock and floor safety valves will be tested to 5M psi. The annular preventer will be tested to 250 psi low test / 4,000 psi high test. The 10M BOP will be installed with rotating head, spacer spool, 5M annular, flex rams, blind rams & single w/ flex rams from surface shoe to TD. The BOPE will be hydraulically operated.

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

Statement on Accumulator System and Location of Hydraulic Controls:

Precision Rig # 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
- C) Choke manifold with one manual and one hydraulic operated choke
- D) Full opening floor valve with drill pipe thread
- E) Upper and lower Kelly cock
- F) Shaker, de-sander and centrifuge

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

Please refer to the attached Wellbore Diagram.

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

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

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

5. **Drilling Fluids Program:**

Proposed Mud Program:

Interval	Type	Mud Weight
Surface	Air	Air
Intermediate	WBM	9.3 – 10.2
Production	WBM	10.2 – 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

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

7. **Abnormal Conditions:**

Maximum anticipated bottomhole pressure calculated at 11,400' TVD equals approximately 7,114 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 4,606 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/ft).

Maximum anticipated surface pressure based on frac gradient at 7" casing shoe is 0.8 psi/ft at 8,350' TVD = 6,680 psi

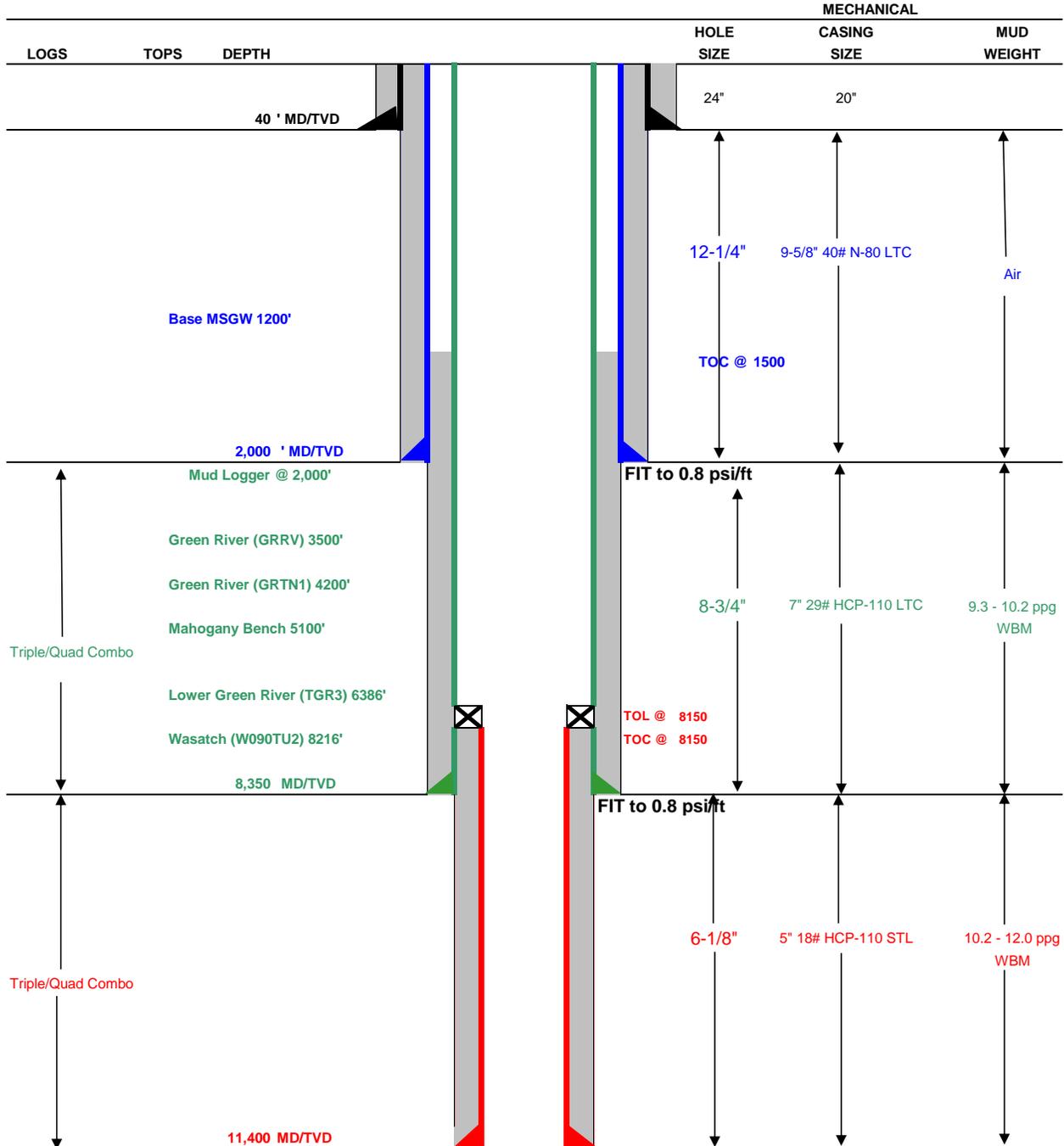
BOPE and casing design will be based on the lesser of the two MASPs which is 4,606 psi.

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



Drilling Schematic

Company Name: EP ENERGY	Date: August 18, 2014
Well Name: Kratzer 1-27C4	TD: 11,400
Field, County, State: Altamont, Duchesne, Utah	AFE #: TBD
Surface Location: Sec 27 T3S R4W 700' FNL 999' FEL	BHL: Straight Hole
Objective Zone(s): Green River, Wasatch	Elevation: 5549.1
Rig: Precision 406	Spud (est.): TBD
BOPE Info: Diverter System on structural pipe from 40' to 2,000' . 11 10M BOPE w/ rotating head & 5M annular from 2,000' to 8,350' . 11 10M BOPE w/ rotating head, spacer spool, 5M annular, flex rams, blind rams, single w/ flex rams from 8,350' to TD	



DRILLING PROGRAM

CASING PROGRAM	SIZE	INTERVAL		WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION
SURFACE	9-5/8"	0	2000	40.00	N-80	LTC	5,750	3,090	737
INTERMEDIATE	7"	0	8350	29.00	HCP-110	LTC	11,220	9,750	797
PRODUCTION LINER	5'	8150	11400	18.00	HCP-110	STL	13,940	15,450	495

CEMENT PROGRAM		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
CONDUCTOR		40	Class G + 3% CACL2	142	100%	15.8 ppg	1.15
SURFACE	Lead	1,200	EXTENDACEM SYSTEM: Type V Cement + 5 lbm/sk Silicalite Compacted + 0.25 lbm/sk Kwik Seal + 0.125 lbm/sk Poly-E-Flake + 8% Bentonite + 0.3% D-AIR 5000	218	75%	11.0 ppg	3.18
	Tail	800	HALCEM SYSTEM: Class G Cement + 3 lbm/sk Silicalite Compacted + 1% Salt + 0.3% Econolite + 0.25 lbm/sk Poly-E-Flake + 0.25 lbm/sk Kwik Seal + 0.3% D-AIR 5000	303	50%	14.3 ppg	1.30
INTERMEDIATE	Lead	4,350	EXTENDACEM SYSTEM: Class G Cement + 10% Bentonite + 0.1% SA-1015 + 0.2% Econolite + 0.2% Halad-322 + 3 lbm/sk Silicalite Compacted + 1 lbm/sk Granulite TR 1/4 + 0.25 lbm/sk Poly-E-Flake + 5 lbm/sk Kol-Seal + 1% HR-5	358	30%	12.0 ppg	2.32
	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		3,250	EXTENDACEM SYSTEM: Class G Cement + 0.2% Super CBL + 0.55% SCR-100 + 0.3% Halad-413 + 0.125 lbm/sk Poly-E-Flake + 3 lbm/sk Silicalite Compacted + 20% SS-200 + 0.10% SA-1015	193	25%	14.20	1.47

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. Maker joint at 6,300'.
LINER	Float shoe, 1 joint, float collar,1 joint, landing collar. Thread lock all FE. Maker joints every 1000'.

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

MANAGER: Bob Dodd

9/17/2014

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

Well Name: Kratzer 1-27C4

API Well Number: 43013529910000

Field: Altamont

County: Duchesne

Mineral Owner: Fee

700 FNL 999 FEL
NENE 27 3S 4W

CONFIDENTIAL

9/17/2014

10:00 AM

Leon Ross Drilling

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

Best Regards

Gary Miller

Rig Site Supervisor

EP Energy LLC

C: 435-823-1725

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5.LEASE DESIGNATION AND SERIAL NUMBER: Fee
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: 7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Oil Well	8. WELL NAME and NUMBER: Kratzer 1-27C4
2. NAME OF OPERATOR: EP ENERGY E&P COMPANY, L.P.	9. API NUMBER: 43013529910000
3. ADDRESS OF OPERATOR: 1001 Louisiana , Houston, TX, 77002	PHONE NUMBER: 713 997-5038 Ext
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0700 FNL 0999 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENE Section: 27 Township: 03.0S Range: 04.0W Meridian: U	9. FIELD and POOL or WILDCAT: ALTAMONT COUNTY: DUCHESNE STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 11/26/2014	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input checked="" type="checkbox"/> OTHER	OTHER: <input type="text" value="Initial Completion"/>

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

EP plans to complete in the Wasatch. Please see attached.

Approved by the
 November 25, 2014
 Oil, Gas and Mining

Date: _____

By: DeKQ

NAME (PLEASE PRINT) Maria S. Gomez	PHONE NUMBER 713 997-5038	TITLE Principal Regulatory Analyst
SIGNATURE N/A	DATE 11/24/2014	

Kratzer 1-27C4

Initial Completion

API # : 4301352299

The following precautions will be taken until the RCA for the Conover is completed:

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

Completion Information (Wasatch Formation)

- | | |
|-----------------|---|
| Stage #1 | RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~10499' – 10820' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~150000 # of TLC 30/50. Total clean water volume is 3642 gals. |
| Stage #2 | RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~10151' – 10460' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~150000 # of TLC 30/50. Total clean water volume is 3635 gals. |
| Stage #3 | RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~9823' – 10102' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~150000 # of TLC 30/50. Total clean water volume is 3630 gals. |
| Stage #4 | RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~9487' – 9786' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~150000 # of TLC 30/50. Total clean water volume is 3624 gals. |
| Stage #5 | RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~9195' – 9442' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~150000 # of TLC 30/50. Total clean water volume is 3618 gals. |

Stage #6 RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~8944' – 9169' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~150000 # of TLC 30/50. Total clean water volume is 3614 gals.

Stage #7 RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~8649' – 8905' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~150000 # of TLC 30/50. Total clean water volume is 3609 gals.

Stage #8 RU WL unit with 10K lubricator and test to 10,000 psi with glycol. Perforations from ~8392' – 8608' with ~5000 gallons of 15% HCL acid, ~3000 # of 100 mesh sand and ~150000 # of TLC 30/50. Total clean water volume is 3604 gals.

Stimulation Summary

	Top Perf	Btm. Perf	Gross Interval	Plug Depth	Net Perf Length	Total Shots	Perf Intervals	Type of Prop	Lbs of Prop	Lbs/ft	Lbs of 100 Mesh	Gals of HCL (15%)	BBLs of Clean H2O	BBLs of Slurry
Stage #1	10,499	10,820	321	NA	23	69	17	TLC 30/50	150,000	467	3,000	5,000	3,642	4,042
Stage #2	10,151	10,460	309	10,475	23	69	17	TLC 30/50	150,000	485	3,000	5,000	3,635	4,036
Stage #3	9,823	10,102	279	10,117	22	66	17	TLC 30/50	150,000	538	3,000	5,000	3,630	4,030
Stage #4	9,487	9,786	299	9,801	23	69	17	TLC 30/50	150,000	502	3,000	5,000	3,624	4,024
Stage #5	9,195	9,442	247	9,457	23	69	17	TLC 30/50	150,000	607	3,000	5,000	3,618	4,019
Stage #6	8,944	9,169	225	9,184	23	69	17	TLC 30/50	150,000	667	3,000	5,000	3,614	4,015
Stage #7	8,649	8,905	256	8,920	23	69	17	TLC 30/50	150,000	586	3,000	5,000	3,609	4,009
Stage #8	8,392	8,608	216	8,623	23	69	17	TLC 30/50	150,000	694	3,000	5,000	3,604	4,005
Average per Stage			269		23	69	17		150,000	568	3,000	5,000	3,622	4,022
Totals per Well			2,152		183	549	136		1,200,000		24,000	40,000	28,976	32,180

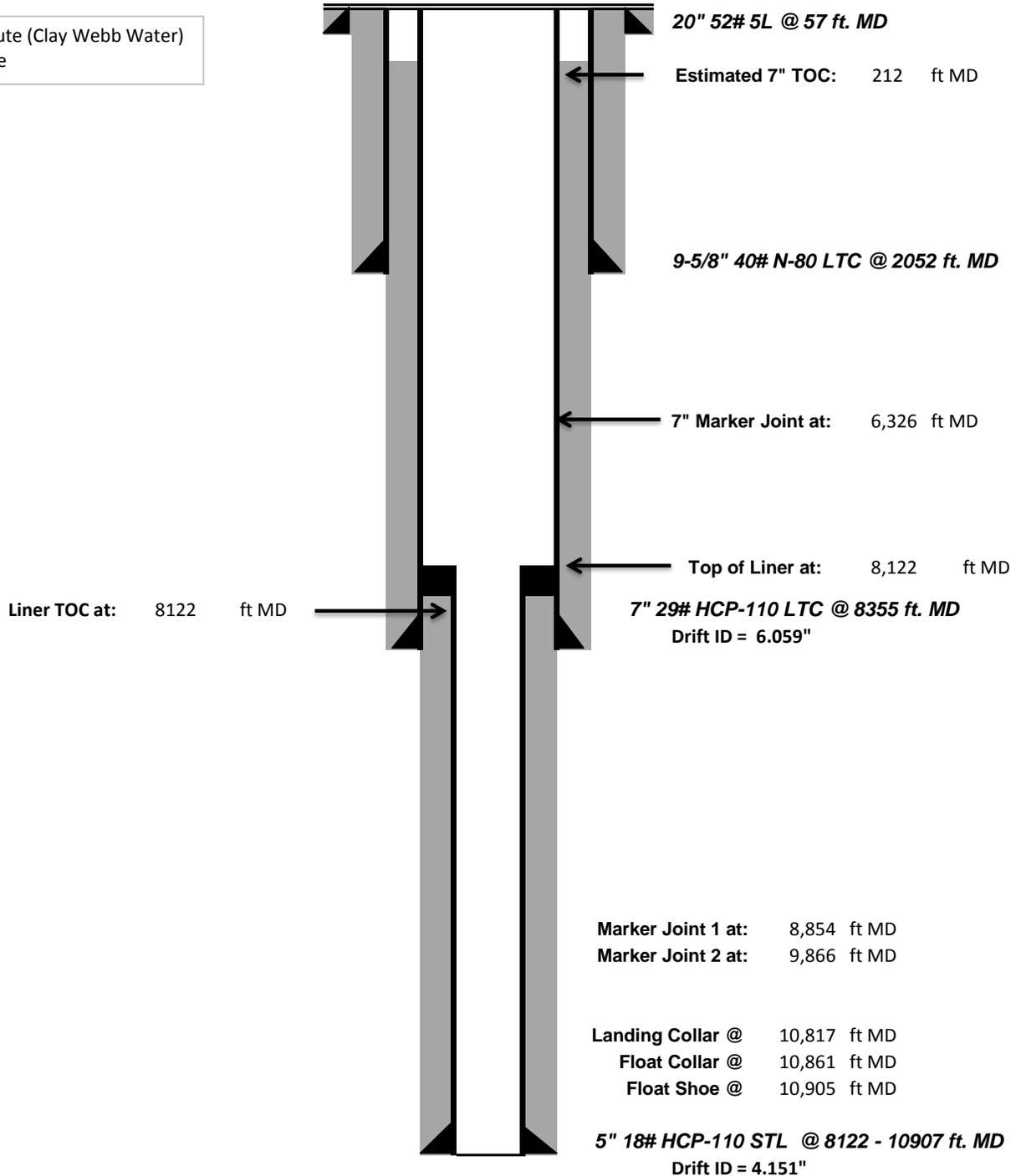


Pre-Completion Wellbore Schematic

Well Name: **Kratzer 1-27C4**
Company Name: **EP Energy**
Field, County, State: **Altamont, Duchesne, Utah**
Surface Location: **Lat: 40°11'51.175" N Long: 110°18'59.025" E**
Producing Zone(s): **Wasatch**

Last Updated: **11/24/2014**
By: **Jarrod Kent**
TD: **10,905**
API: **4301352299**
AFE: **161641**

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



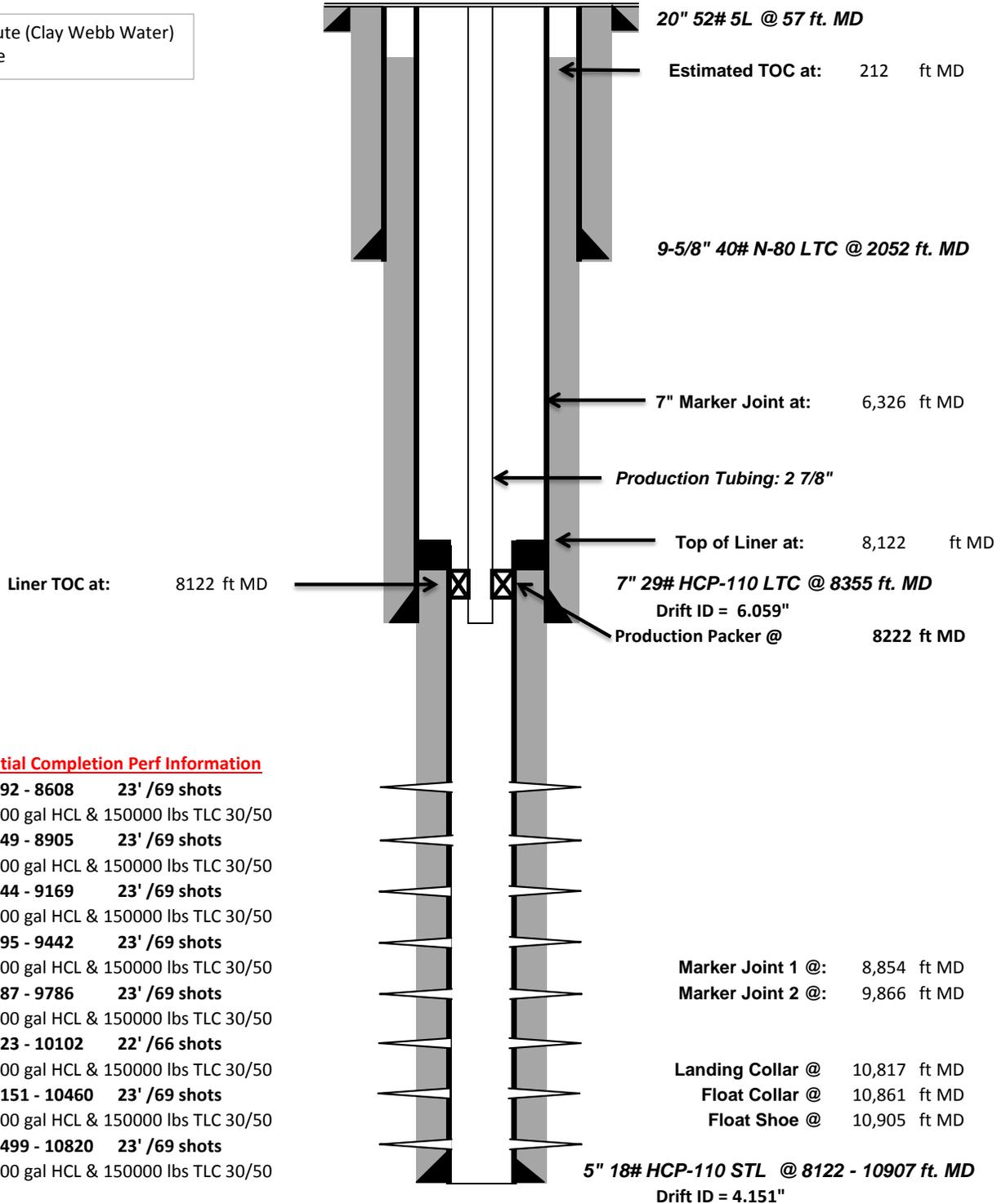


Post-Completion Wellbore Schematic

Well Name: **Kratzer 1-27C4**
 Company Name: **EP Energy**
 Field, County, State: **Altamont, Duchesne, Utah**
 Surface Location: **Lat: 40°11'51.175" N Long: 110°18'59.025" E**
 Producing Zone(s): **Wasatch**

Last Updated: **11/24/2014**
 By: **Jarrod Kent**
 TD: **10,905**
 API: **4301352299**
 AFE: **161641**

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



Initial Completion Perf Information

Stage #	Depth Range	Shots	Fluids
Stage #8	8392 - 8608	23' /69 shots	5000 gal HCL & 150000 lbs TLC 30/50
Stage #7	8649 - 8905	23' /69 shots	5000 gal HCL & 150000 lbs TLC 30/50
Stage #6	8944 - 9169	23' /69 shots	5000 gal HCL & 150000 lbs TLC 30/50
Stage #5	9195 - 9442	23' /69 shots	5000 gal HCL & 150000 lbs TLC 30/50
Stage #4	9487 - 9786	23' /69 shots	5000 gal HCL & 150000 lbs TLC 30/50
Stage #3	9823 - 10102	22' /66 shots	5000 gal HCL & 150000 lbs TLC 30/50
Stage #2	10151 - 10460	23' /69 shots	5000 gal HCL & 150000 lbs TLC 30/50
Stage #1	10499 - 10820	23' /69 shots	5000 gal HCL & 150000 lbs TLC 30/50

CONFIDENTIAL

Carol Daniels <caroldaniels@utah.gov>

NE NE SEC 27 T03S R04W FEE LEASE

24 HR NOTICE TESTING BOP & SURFACE CASING

1 message

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

Sun, Nov 2, 2014 at 8:28 PM

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

RE: EP ENERGY

KRATZER 1-27C4

API # 43013529910000

ALTAMONT FIELD

DUCHESNE COUNTY

We plan on testing the 11" 10M BOPE & 9-5/8" Surface Casing 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.

CONFIDENTIAL

Carol Daniels <caroldaniels@utah.gov>

NE NE Sec 27 T03S R04W FEE LEASE

24hr Notice Run & Cement Liner Kratzer 1-27C4

1 message

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

Wed, Nov 12, 2014 at 9:37 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>, "Morales, Lisa" <Lisa.Morales@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>

EP ENERGY

KRATZER 1-27C4

API # 43013529910000

ALTAMONT FIELD

DUCHESNE COUNTY

We plan on running and cementing 5" 18# P-110HC STL Liner to +/- 10,907' 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.

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: Fee
		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
1. TYPE OF WELL Oil Well		7. UNIT or CA AGREEMENT NAME:
2. NAME OF OPERATOR: EP ENERGY E&P COMPANY, L.P.		8. WELL NAME and NUMBER: Kratzer 1-27C4
3. ADDRESS OF OPERATOR: 1001 Louisiana , Houston, TX, 77002		9. API NUMBER: 43013529910000
PHONE NUMBER: 713 997-5038 Ext		9. FIELD and POOL or WILDCAT: ALTAMONT
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0700 FNL 0999 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENE Section: 27 Township: 03.0S Range: 04.0W Meridian: U		COUNTY: DUCHESNE
		STATE: UTAH

11.

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 9/17/2015	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input checked="" type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

Upgraded tubing. See attached for details.

**Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
November 12, 2015**

NAME (PLEASE PRINT) Maria S. Gomez	PHONE NUMBER 713 997-5038	TITLE Principal Regulatory Analyst
SIGNATURE N/A	DATE 11/10/2015	

CENTRAL DIVISION

ALTAMONT FIELD
KRATZER 1-27C4
KRATZER 1-27C4
WORKOVER 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	KRATZER 1-27C4		
Project	ALTAMONT FIELD	Site	KRATZER 1-27C4
Rig Name/No.	COROD RIG/X	Event	WORKOVER LAND
Start date	9/11/2015	End date	9/18/2015
Spud Date/Time	11/2/2014	UWI	KRATZER 1-27C4
Active datum	KB @5,566.1ft (above Mean Sea Level)		
Afe No./Description	PENDING-9/11/2015 /		

2 Summary

2.1 Operation Summary

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
9/12/2015	6:00 7:00	1.00	PRDHEQ	46		P		CREW TRAVEL HSM WRITE & REVIEW JSA ON RIGGING UP RIG
	7:00 8:00	1.00	PRDHEQ	18		P		SLIDE ROTA FLEX BACK, MIRU COROD RIG & HOT OILER
	8:00 14:00	6.00	PRDHEQ	42		P		BLOW DOWN TBG, L/D POLISH ROD, WORK COROD JARRING ON PUMP, PUMPING HOT 2% KCL DOWN CSG, WHILE JARRING ON PUMP, UNABLE TO UNSEAT PUMP, HANG OFF WELL, P/U POLISH ROD SPACE OUT W/ 2', 4', 6', 8' PONY SUBS
	14:00 14:30	0.50	PMPNG	34		P		FILL TBG W/ 2 BBLS, PT TO 500 PSI, TRY STROKE TEST PUMP JUST ROD ACTION, DON'T BUILD PRESSURE,
	14:30 17:00	2.50	PRDHEQ	42		P		SIT DOWN ON ON/OFF TOOL AND J-OFF OF ON/OFF TOOL, POOH W/ 881' # 8, 1067' # 7, 1027 # 6, 3575' # 5, 1350 # 6, STABILIZER SUB & ON/OFF TOOL,
17:00 18:00	1.00	PRDHEQ	18		P		RDMO COROD RIG, SECURE WELL, SDFD.	
9/13/2015	6:00 6:00	24.00	PRDHEQ	18		P		NO ACTIVITY SHUT DOWN FOR WEEKEND
9/14/2015	6:00 6:00	24.00	PRDHEQ	18		P		NO ACTIVITY SHUT DOWN FOR WEEKEND
9/15/2015	18:00 20:00	2.00	PRDHEQ	18		P		ROAD RIG FROM 6-20C4 TO 1-27C4, MIRU W/O RIG
9/16/2015	6:00 7:00	1.00	PRDHEQ	46		P		CREW TRAVEL HSM WRITE & REVIEW JSA (TOPIC) WIRELINE WORK
	7:00 8:00	1.00	ELINE	21		P		R/U WIRELINE TRUCK, RIH PERFORATE TBG @ 7930'-7931' W/ 4 SHOTS TBG WENT ON VACUUM, POOH, R/D WIRELINERS, HOT OILER PUMPED 275 BBLS DOWN CSG TO PERF TBG.
	8:00 8:35	0.58	PMPNG	24		P		R/U HOT OILER, FLUSH TBG W/ 60 BBLS HOT 2% KCL
	8:35 10:00	1.42	PRDHEQ	18		P		R/D FLOW LINES & 10K B-FLANGE, N/U 10K X 5K SPOOL & 5K BOPS, R/U WORK FLOOR & TONGS, RELEASE 7" TAC
	10:00 17:00	7.00	PRDHEQ	18		P		R/U SCANNERS, POOH SCANNING TBG W/ 241 JTS 2 7/8", 7" TAC, 4 JTS 2 7/8", R/D SCANNERS, L/D 2 JTS 2 7/8", PERFORATED JT , 1 JT, 4' SUB & SN W/ PUMP STUCK IN IT, 2' SUB, 5 1/2" PBGA, 2 JTS 2 7/8" & 5 3/4" NO/GO
	17:00 18:30	1.50	ELINE	45		P		R/U WIRELINE TRUCK, RIH TAG FILL @ 10,780', PBTD @ 10,817', BTM PERF @ 10,777', POOH, R/D WIRELINE TRUCK,
18:30 19:00	0.50	PRDHEQ	18		P		RIH W/ 5 3/4" NO/GO, PSN, 44 JTS 2 7/8", SECURE WELL, SDFD.	
9/17/2015	6:00 7:30	1.50	PRDHEQ	46		P		TRAVEL TO LOCATION, HSM, HYDROTESTING TUBING FCP 200#, BLEED OFF

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
	7:30 16:30	9.00	PRDHEQ	18		P		P/U & RIH W/ 5 3/4" SOLID NO-GO, 2 JTS 2 7/8" L-80 TBG, 5 1/2" PBGA W/ DIP TUBE, 2'-2 7/8" N-80 TBG SUB, NEW 2 7/8" SEAT NIPPLE W/ SV IN PLACE, 4'-2 7/8" N-80 TBG SUB, 2 JTS 2 7/8" L-80 TBG, PSI TEST TO 8500#, RETRIEVE SV, R/U HYDROTESTER, HYDROTEST TO 8500# W/ 2 JTS 2 7/8" L-80 TBG, 7" 1/4 TURN TAC, 88 JTS 2 7/8" L-80 TBG, L/D HYDROTEST TOOLS, P/U & RIH W/ 2'-2 7/8" N-80 TBG SUB, 65 JTS 2 7/8" J-55 BORONIZED TBG, 2 7/8" N-80 TBG SUB, P/U HYDROTEST TOOLS CONT HYDROTESTING W/ 88 JTS 2 7/8" L-80 TBG, R/D HYDROTESTER, NO BLOWN JTS OR LEAKS, P/U 6'-2 7/8" TBG SUB & HANGER SET TAC @ 7847' W/ 16K TENSION, LAND ON HANGER.
	16:30 19:00	2.50	PRDHEQ	18		P		R/D FLOOR & TBG EQUIP, N/D BOPS, UNLAND TBG, REMOVE HANGER & 6' TBG SUB, INSTALL 10K B-FLANGE LAND TBG ON B-FLANGE, N/U, INSTALL 60' CAPSTRING ASSEMBLY.. HOT OILER R/U TO CSG PUMP BIOCIDIC TREATMENT. SHUT TBG IN, CSG TO SALES. RDMO MOVE TO 3-12A1, SDFN 2% KCL PUMPED = 100 BBLS DIESEL USED = 96 GAL PROPANE USED = 25 GAL
9/18/2015	6:30 8:00	1.50	PRDHEQ	18		P		MOVE CO ROD RIG FROM YARD TO LOCATION, HSM, R/U COROD RIG SPOT & RIG UP COROD RIG HOT OILER FLUSH TBG W/ 70 BBLS 2% KCL @ 200 DEG, SPOT 10 GAL CORROSION INHIBITOR
	8:00 15:00	7.00	PRDHEQ	42		P		P/U & RIH W/ HF 2 1/2" X 1 3/4" X 38' RHBC PUMP W/ 2 STANDING VALVES, 3' STABILIZER SUB, ON/OFF TOOL, 1350'-16/16" SE COROD 3540'-15/16" SE COROD (REPLACED 2500' WORN (3300'-5800' W/ 2460'NEW, FROM 3300'-5760') 1027'- 16/16" SE COROD 1067'- 17/16" SE COROD 881'-18/16" SE COROD SPACE W/ 1" EL PONY RODS = 1-2" & 1-1" EL ROD SLK P/U 1 1/2" X 40' POLISH ROD HANG OFF
	15:00 15:30	0.50	PMPNG	24		P		HOT OILER FILL TBG W/ 15 BBLS 2% KCL, PSI TEST TO 500#, STROKE TEST TO 1000#, GOOD TEST, PSI TEST CV TO 1000#, GOOD, PUMP 10 BBLS 2% KCL @ 200 DEG ACROSS FLOWLINE
	15:30 17:00	1.50	PRDHEQ	18		P		RDMO COROD RIG, SLIDE ROTAFLEX IN, CHECK PUMP, TWOTO. 2% KCL PUMPED = 120 BBLS DIESEL USED = 60 GAL PROPANE USED =100 GAL

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

AMENDED REPORT FORM 8
(highlight changes)

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. TYPE OF WELL: OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> DRY <input type="checkbox"/> OTHER _____		5. LEASE DESIGNATION AND SERIAL NUMBER:
b. TYPE OF WORK: NEW WELL <input checked="" type="checkbox"/> HORIZ. LATS. <input type="checkbox"/> DEEP-EN <input type="checkbox"/> RE-ENTRY <input type="checkbox"/> DIFF. RESVR. <input type="checkbox"/> OTHER _____		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
2. NAME OF OPERATOR: EP Energy E&P Company, L.P.		7. UNIT or CA AGREEMENT NAME
3. ADDRESS OF OPERATOR: 1001 Louisiana CITY Houston STATE TX ZIP 77002		8. WELL NAME and NUMBER: Kratzer 1-27C4
PHONE NUMBER: (713) 997-5038		9. API NUMBER: 4301352991
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: 700' FNL & 999' FEL AT TOP PRODUCING INTERVAL REPORTED BELOW: 750' FNL & 1024' FEL AT TOTAL DEPTH: 852' FNL & 1042' FEL		10. FIELD AND POOL, OR WILDCAT Altamont
11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENE 27 3S 4W U		12. COUNTY Duchesne
		13. STATE UTAH

14. DATE SPUNNED: 9/17/2014	15. DATE T.D. REACHED: 11/12/2014	16. DATE COMPLETED: 12/4/2014	ABANDONED <input type="checkbox"/> READY TO PRODUCE <input checked="" type="checkbox"/>	17. ELEVATIONS (DF, RKB, RT, GL): 5280
18. TOTAL DEPTH: MD 10,907 TVD 10,901	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) Sonic, Gamma Ray, Resistivity & Neutron Density			23. WAS WELL CORED? NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> (Submit analysis) WAS DST RUN? NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> (Submit report) DIRECTIONAL SURVEY? NO <input type="checkbox"/> YES <input checked="" 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
12.25	9.625 N80	40	0	2,052		V/G 673	1,266	0	
8.75	7" HCP	29	0	8,355		G 715	1,434	212	
6.125	5" HCP	18	8,122	10,907		G 200	294	8122	

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
2.875	8,263	8,248						

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) Wasatch	8,222	10,907	8,219	10,901	10,458 10,777	.43	69	Open <input checked="" type="checkbox"/>	Squeezed <input type="checkbox"/>
(B)					10,150 10,425	.43	69	Open <input checked="" type="checkbox"/>	Squeezed <input type="checkbox"/>
(C)					9,820 10,099	.43	69	Open <input checked="" type="checkbox"/>	Squeezed <input type="checkbox"/>
(D)					9,484 9,786	.43	69	Open <input checked="" 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
10458-10777	5000 gal 15% HCL acid, 3000# 100 mesh, 150320# 30/50 THS
10150-10425	5000 gal 15% HCL acid, 3040# 100 mesh, 150440# 30/50 THS
9820-10099	5000 gal 15% HCL acid, 3200# 100 mesh, 150020# 30/50 THS

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: **Prod**

31. INITIAL PRODUCTION

INTERVAL A (As shown in Item #26)

DATE FIRST PRODUCED: 12/5/2014		TEST DATE: 12/14/2014		HOURS TESTED: 24		TEST PRODUCTION RATES: →		OIL - BBL: 712		GAS - MCF: 566		WATER - BBL: 493		PROD. METHOD:	
CHOKE SIZE: 16	TBG. PRESS. 1,870	CSG. PRESS. 0	API GRAVITY	BTU - GAS	GAS/OIL RATIO 1	24 HR PRODUCTION RATES: →	OIL - BBL: 712	GAS - MCF: 566	WATER - BBL: 493	INTERVAL STATUS: Prod					

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.)

Sold

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)
				Upper Green River	3,515
				Middle Green River	5,111
				Lower Green River	6,340
				Wasatch	8,222

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) Maria S. Gomez

TITLE Principal Regulatory Analyst

SIGNATURE *Maria S. Gomez*

Digitally signed by Maria Gomez
DN: cn=Maria Gomez, o=EP Energy, ou=Regulatory,
email=maria.gomez@epenergy.com, c=US
Date: 2015.01.02 17:04:08 -0600

DATE 1/2/2014

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 December 29, 2014****Well Name: Kratzer 1-27C4****Items #27 and #28 Continued****27. Perforation Record**

Interval (Top/Bottom – MD)	Size	No. of Holes	Perf. Status
9191'-9438'	.43	69	Open
8934'-9162'	.43	69	Open
8640'-8897'	.43	69	Open
8384'-8600'	.43	69	Open

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

Depth Interval	Amount and Type of Material
9484'-9786'	5000 gal 15% HCL acid, 3000# 100 mesh, 150300# 30/50 THS
9191'-9438'	5000 gal 15% HCL acid, 3000# 100 mesh, 150800# 30/50 THS
8934'-9162'	5000 gal 15% HCL acid, 3000# 100 mesh, 150140# 30/50 THS
8640'-8897'	5000 gal 15% HCL acid, 3000# 100 mesh, 150250# 30/50 THS
8384'-8600'	5000 gal 15% HCL acid, 3000# 100 mesh, 148900# 30/50 THS

CENTRAL DIVISION

ALTAMONT FIELD
KRATZER 1-27C4
KRATZER 1-27C4
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	KRATZER 1-27C4		
Project	ALTAMONT FIELD	Site	KRATZER 1-27C4
Rig Name/No.	PRECISION DRILLING/406	Event	DRILLING LAND
Start date	11/2/2014	End date	11/15/2014
Spud Date/Time	11/2/2014	UWI	KRATZER 1-27C4
Active datum	KB @5,566.1ft (above Mean Sea Level)		
Afe No./Description	161641/52343 / KRATZER 1-27C4		

2 Summary**2.1 Operation Summary**

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
9/24/2014	6:00 18:00	12.00	CASCOND	24		P	0.0	LEON ROSS DRILLING BUCKET RIG #35 SPUDED WELL @ 8:00 AM 9-17-14. SET 57.5' OF 20" CONDUCTOR CSG & 97.5' OF 14" MOUSEHOLE ON 9-18-14. GROUTED BOTH. LRD RIG #26 SPUDED 12 1/4" HOLE @ 8:00 AM 9-22-14. DRILLED 12 1/4" HOLE T/ 2077'. RAN 9 5/8" 40# N80 LTC CASING. LANDED FS AT 2052'. HES CEMENTED W/ 220 SX 11.0 PPG 3.10 YIELD EXTENDACEM SYSTEM LEAD CMT & 305 SX 14.3 PPG 1.3 YIELD HALCEM SYSTEM TAIL CEMENT. HAD 21 BBL OF GOOD CEMENT RETURNED TO SURFACE. THE CEMENT DID NOT FALL BACK. RAN 200' OF 1" PIPE & "TOPPED OUT W/ 148 SX 15.8 PPG 1.15 YIELD FILLCEM SYSTEM CEMENT. RD HES & LRD RIG #26. WELDER INSTALLED 9 5/8" X 11" 5M CSG HEAD & TESTED T/ 1500 PSI. .
10/31/2014	6:00 6:00	24.00	MIRU	01		P	2,770.0	RIG UP CAMPS, 80% MOVED IN. 5% RIGGED UP.
11/1/2014	6:00 6:00	24.00	MIRU	01		P	2,077.0	MIRU. 100% MOVED IN. 80% SPOTTED. 25% RIGGED UP.
11/2/2014	6:00 3:30	22.50	MIRU	01		P	2,077.0	FINISH RIG UP PD 406.
	3:30 4:00	0.50	MIRU	01		P	2,077.0	PRE SPUD RIG INSPECTION. RIG ON DAY RATE @ 4:00 AM 11-02-14.
	4:00 6:00	2.00	CASSURF	28		P	2,077.0	NIPPLE UP BOPE.
11/3/2014	6:00 14:00	8.00	CASSURF	28		P	2,077.0	NU 11" 10M BOPE, ROT HEAD & FLOW LINE. UTILIZED WEATHERFORD TO TORQUE ALL FLANGES.
	14:00 23:00	9.00	CASSURF	19		P	2,077.0	TESTED 11" 5M ANNULAR TO 250 / 2,500 PSI AND REMAINING BOPE, FLOOR VALVES, ETC TO 250 / 5,000 PSI. WHILE TESTING THE BLIND RAMS, CHOKE LINE STARTED LEAKING. TIGHTEN UP CONNECTIONS AND RETEST. TESTED CHOKE MANIFOLD TO 250 / 10,000 PSI. TEST PUMP LINES TO 4,000 PSI. HELD EACH TEST 10 MINUTES. OK.
	23:00 23:30	0.50	CASSURF	31		P	2,077.0	TEST CASING TO 2,500 PSI FOR 30 MINUTES. TEST GOOD.
	23:30 0:00	0.50	CASSURF	42		P	2,077.0	INSTALLED WEAR BUSHING
	0:00 3:30	3.50	DRLINT1	13		P	2,077.0	PJSM. PU WFT 6 3/4" 7/8 LOBE 5.7 STAGE .23 RPG 1.5 DG FBH MTR, 10' NON MAGCDC, NON MAG MWD TOOLCARRIER, MWD EMMITER SUB, NMDC. INSTALLED 8 3/4" SEC MM54D PDC BIT. PU (16) 6 1/2" DC, (9) 4 1/2" HWT.
	3:30 5:00	1.50	CASSURF	13		P	2,077.0	PU 4 1/2" DP. TIH T/ 1928'.

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
11/4/2014	5:00 6:00	1.00	CASSURF	17		P	2,077.0	SLIP & CUT DRILL LINE.
	6:00 6:30	0.50	CASSURF	17		P	2,077.0	CUT DRILL LINE.
	6:30 7:00	0.50	CASSURF	33		P	2,077.0	CASING TEST @ 650 PSI.
	7:00 7:30	0.50	CASSURF	12		P	2,077.0	SERVICE RIG.
	7:30 12:30	5.00	CASSURF	43		N	2,077.0	REPAIR TOP DRIVE UNIT.
	12:30 13:30	1.00	CASSURF	32		P	2,077.0	DRILL OUT CMT, FE & 10'.
	13:30 14:00	0.50	DRLINT1	15		P	2,087.0	C & C MUD.
	14:00 14:30	0.50	CASSURF	33		P	2,087.0	PERFORM FIT TO 15.4 EMW WITH 9.4 PPG MUD @ 650 PSI.
	14:30 15:00	0.50	DRLINT1	07		P	2,087.0	DRILLED 2,087' - 2,214'. SPUD @ 1430 HRS 11/03/14
	15:00 16:00	1.00	DRLINT1	49		N	2,214.0	TROUBLE SHOOT WEATHERFORD MWD.
	16:00 0:00	8.00	DRLINT1	07		P	2,214.0	DRILLED 2,214' - 3,082'.
	0:00 0:30	0.50	DRLINT1	12		P	3,082.0	SERVICED RIG & TD.
0:30 6:00	5.50	DRLINT1	07		P	3,082.0	DRILLED 3,082' - 3522'.	
11/5/2014	6:00 9:00	3.00	DRLINT1	07		P	3,522.0	DRILLED F/ 3,522' T/ 3,947'.
	9:00 9:30	0.50	DRLINT1	12		P	3,947.0	SERVICED RIG & TD.
	9:30 1:30	16.00	DRLINT1	07		P	3,947.0	DRILLED F/ 3947' T/ 5486'.
	1:30 2:00	0.50	DRLINT1	12		P	5,486.0	SERVICED RIG & TD.
	2:00 6:00	4.00	DRLINT1	07		P	5,486.0	DRILLED F/ 5486' T/ 5700'.
11/6/2014	6:00 9:00	3.00	DRLINT1	07		P	5,700.0	DRILLED F/ 5,700' T/ 5,967'.
	9:00 9:30	0.50	DRLINT1	12		P	5,967.0	SERVICED RIG & TD.
	9:30 3:00	17.50	DRLINT1	07		P	5,967.0	DRILLED F/ 5,967' T/ 6,928'.
	3:00 3:30	0.50	DRLINT1	12		P	6,928.0	SERVICED RIG & TD.
	3:30 4:00	0.50	DRLINT1	45		N	6,928.0	CIRC W/ #1 PUMP. CHANGED OUT SEATS IN #2 PUMP.
	4:00 6:00	2.00	DRLINT1	07		P	6,928.0	DRILLED F/ 6,928' T/ 7,024'.
11/7/2014	6:00 11:00	5.00	DRLINT1	07		P	7,024.0	DRILLED F/ 7,024' T/ 7,313'.
	11:00 11:30	0.50	DRLINT1	12		P	7,313.0	SERVICED RIG & TD.
	11:30 14:30	3.00	DRLINT1	07		P	7,313.0	DRILLED F/ 7,313' T/ 7,409'.
	14:30 15:00	0.50	DRLINT1	60		N	7,409.0	WEATHERFORD BAD SURVEY @ 7,153. PULL 2 STANDS DP AND RETAKE. SURVEY 2.65 INC. 182.09 AZ.
	15:00 23:00	8.00	DRLINT1	07		P	7,409.0	DRILLED F/ 7,409' T/ 7,601'.
	23:00 23:30	0.50	DRLINT1	12		P	7,601.0	SERVICED RIG & TD.
	23:30 3:30	4.00	DRLINT1	07		P	7,601.0	DRILLED F/ 7,601' T/ 7,713'.
	3:30 4:30	1.00	DRLINT1	45		N	7,713.0	CIRC W/ #2 PUMP. CHANGED SWAB IN #1 PUMP.
	4:30 6:00	1.50	DRLINT1	07		P	7,713.0	DRILLED F/ 7,713' T/ 7,800'.
11/8/2014	6:00 11:30	5.50	DRLINT1	07		P	7,800.0	DRILLED F/ 7,800' T/ 8,271'.
	11:30 12:00	0.50	DRLINT1	12		P	8,271.0	SERVICE RIG & TOP DRIVE.
	12:00 13:00	1.00	DRLINT1	07		P	8,271.0	DRILLED F/ 8,271' T/ 8,360'. TD @ 1300 HRS 11/07/14.
	13:00 15:30	2.50	DRLINT1	15		P	8,360.0	C & C MUD. RAISE MW TO 10.4 PPG. LOWERED VIS TO 42 - 44.
	15:30 23:00	7.50	DRLINT1	13		P	8,360.0	WIPER TRIP TO L/D DIRECTIONAL TOOLS. TIGHT HOLE F/ 5,244' T/ 5,260'. BACKREAMED F/ 5,244' T/ 4,000', DO TO TIGHT HOLE & SWABBING. CHECKED FLOW 8,360' 5,000' , 2,052'.
	23:00 0:00	1.00	DRLINT1	13		P	8,360.0	L/D DIRECTIONAL TOOLS.
	0:00 5:30	5.50	DRLINT1	13		P	8,360.0	PU BIT SUB. RR BIT #1 IN HOLE F/ WIPER TRIP. BREAK CIRC EVERY 20 STANDS.
	5:30 6:00	0.50	DRLINT1	15		P	8,360.0	C&C MUD.
11/9/2014	6:00 9:00	3.00	DRLINT1	15		P	8,360.0	C & C MUD. MAX TRIP GAS 9256 UNITS (PASON) 2700 UNITS (MUD LOGGER), 4-6' FLARE F/ 30 MIN. RAISED MW F/ 10.4 PPG T/ 10.6 PPG.
	9:00 17:30	8.50	DRLINT1	14		P	8,360.0	L/D DP & BHA. FLOW CK @ 8,360', 5,000' & 2,050.
	17:30 18:00	0.50	DRLINT1	42		P	8,360.0	PULLED WEAR BUSHING.
	18:00 23:30	5.50	EVLINT1	22		P	8,360.0	PJSM. RU & RUN HES STANDARD QUAD COMBO TO 8,341' . LOG UP FROM 8,341'. RD WL. LOWRED MW F/10.6 PPG T/ 10.2 PPG IN PITS..

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	CASINT1	24		P	8,360.0	PJSM. RU FRANKS CSG CREW & TORQUE TURN. MADE UP & TESTED (1) JT SHOE TRACK. BEGIN RUNNING 7" 29# HCP 110 LTC CSG. BREAK CIRC EVERY 1000'. CIRC BU EVERY 2000'. PRESENT DEPTH 3,500' AT REPORT TIME.
11/10/2014	6:00 13:30	7.50	CASINT1	24		P	8,360.0	FINISHED RUNNING 201 JTS 7" 29# HCP-110 LT&C CSG T/ 8,355'. FLOAT COLLAR @ 8,311, MARKER JT @ 6,365'. BREAK CIRC EVERY 1000'. CIRC BU EVERY 2000'.
	13:30 16:00	2.50	CASINT1	15		P	8,360.0	TAG BOTTOM @ 8,360' WITH 15K. LD TAG JT. MU HANGER JT. INSTALL HALLIBURTON CEMENT HEAD. C & C MUD. MAX GAS 4500 UNITS. NO FLARE. NO MUD LOST WHILE RUNNING CSG. RD CASING CREW.
	16:00 20:00	4.00	CASINT1	25		P	8,360.0	PJSM. RU HES. INSTALL CMT HEAD, TEST LINE TO 5,000 PSI. PUMPED 40 BBL 11.0 PPG TUNED SPACER III. 385 SX (159 BBLs) EXTENDACEM LEAD CMT @ 12.0 PPG, 2.32 YLD TAIL CEMENT WITH 330 SX (96 BBLs) OF EXPANDACEM CMT @ 13 PPG, 1.64 YLD. RELEASED TOP PLUG. DISPLACED WITH 309.5 BBLs OF 10.2 PPG MUD @ 6 - 3 BPM. DID NOT BUMP PLUG. 1/2 BBL BLED BACK, FLOATS HELD. FULL RETURNS FOR THE CEMENT JOB. 5 BBLs CEMENT TO SURFACE. RD HES.
	20:00 21:00	1.00	CASINT1	27		P	8,360.0	UNSCREW LANDING JT. INSTALLED & TESTED 7" x 11" PACK-OFF TO 5,000 PSI FOR 10 MIN. OK.
	21:00 22:00	1.00	CASINT1	14		P	8,360.0	RIG UP FLOOR, BELLS & ELEVATORS TO TEST. INSTALLED SAVER SUB FOR XT 39 DP.
	22:00 4:00	6.00	CASINT1	30		P	8,360.0	PJSM. RU TESTER. TESTED BOPE, FLOOR VALVES, PIPE RAMS, CHOKE, LINE, KILL LINE, BLIND RAMS T/ 250 / 10,000 PSI. HELD EACH TEST 10 MIN. ATTEMPT TO TEST ANNULAR, PRESSURE BLEEDING OFF. DRAIN STACK & INSPECT ANNULAR. ANNULAR NO TEST. TEST BACK TO PUMPS 4,000 PSI.
	4:00 4:30	0.50	CASINT1	31		P	8,360.0	TESTED 7" CSG TO 2,500 PSI FOR 30 MIN. OK. RD TESTERS.
	4:30 6:00	1.50	CASINT1	17		P	8,360.0	SLIP & CUT DRILL LINE.
11/11/2014	6:00 12:00	6.00	CASINT1	48		N	8,360.0	CHANGED OUT ANNULAR ELEMENT & TEST. TEST 250 PSI LOW & 4,000 PSI HIGH.
	12:00 12:30	0.50	CASINT1	12		P	8,360.0	SERVICE RIG.
	12:30 22:30	10.00	CASINT1	14		P	8,360.0	PU BIT #2 MM55 & PACKED HOLE ASSEMBLY. PU 4" XT 39 DP. TAG CMT @ 8287'.
	22:30 23:00	0.50	CASINT1	15		P	8,360.0	DISPLACED W/ 10.5 PPG WBM. PREFORMED PRE FIT CSG TEST @ 2100 PSI.
	23:00 0:00	1.00	CASINT1	32		P	8,360.0	DRILLED CEMENT & FLOAT EQUIPMENT. FLOAT COLLAR @ 8311', FLOAT SHOE @ 8355'.
	0:00 0:30	0.50	DRLPRD	07		P	8,360.0	DRILLED F/ 8,360' T/ 8,370'. SPUD @ 00:00 HRS 11/12/14
	0:30 1:00	0.50	DRLPRD	33		P	8,370.0	CIRC BU. PREFORMED FIT EMW 15.38 PPG (2116 PSI W/ 10.5 PPG).
	1:00 2:30	1.50	DRLPRD	07		P	8,370.0	DRILLED F/ 8,370' T/ 8,538'.
	2:30 3:00	0.50	DRLPRD	12		P	8,538.0	SERVICED RIG & TD.
	3:00 6:00	3.00	DRLPRD	07		P	8,538.0	DRILLED F/ 8,538' T/ 8,917'.
11/12/2014	6:00 6:30	0.50	DRLPRD	15		P	8,917.0	C & C MUD.
	6:30 7:30	1.00	DRLPRD	11		P	8,917.0	WIRELINE SURVEY @ 8,886'. 2.38 DEGREE.
	7:30 11:30	4.00	DRLPRD	07		P	8,917.0	DRILLED F/ 8,917' T/ 9,391'.
	11:30 12:00	0.50	DRLPRD	12		P	9,391.0	SERVICE RIG.
	12:00 16:30	4.50	DRLPRD	07		P	9,391.0	DRILLED F/ 9,391' T/ 9,958'.
	16:30 17:00	0.50	DRLPRD	15		P	9,958.0	C & C MUD.
	17:00 18:30	1.50	DRLPRD	11		P	9,958.0	WIRELINE SURVEY @ 9,928'. 2.31 DEGREE.
	18:30 2:30	8.00	DRLPRD	07		P	9,958.0	DRILLED F/ 9,958' T/ 10,907'. TD @ 02:30 HRS 11-12-14.
	2:30 3:00	0.50	DRLPRD	12		P	10,907.0	SERVICED RIG & TD.
	3:00 3:30	0.50	DRLPRD	15		P	10,907.0	CIRC BU.

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
11/13/2014	3:30 6:00	2.50	DRLPRD	13		P	10,907.0	WIPER TRIP.
	6:00 9:00	3.00	EVLPRD	15		P	10,907.0	CBU. MAX GAS 2,608 UNITS, 3/10 MC, NO FLARE, NO GAIN. C&C MUD TO 11.3 PPG.
	9:00 14:00	5.00	EVLPRD	13		P	10,907.0	POOH TO 576'.
	14:00 15:30	1.50	EVLPRD	14		P	10,907.0	LD BHA.
	15:30 16:00	0.50	EVLPRD	12		P	10,907.0	SERVICE RIG & TDU.
	16:00 21:00	5.00	EVLPRD	22		P	10,907.0	PJSM. RU & RAN HES ULTRA SLIM QUAD COMBO, RIH TO 10,907' & LOG. RD WL.
	21:00 4:00	7.00	CASPRD1	24		P	10,907.0	PJSM. RU & RAN 65 JTS 5" 18# P-110HC STL LINER. 2 MARKER JTS. MADE UP VERSAFLEX LINER HANGER ASSEMBLY & SETTING TOOL.
	4:00 4:30	0.50	CASPRD1	15		P	10,907.0	CIRC LINER VOLUME @ 2.5 BPM. RD CSG CREW. INSTALLED RH ELEMENT.
11/14/2014	4:30 6:00	1.50	CASPRD1	13		P	10,907.0	TIH W/ 5" LINER ON 4" DP @ 90 FPM. FILL EVERY 1,000'.
	6:00 10:30	4.50	CASPRD1	24		P	10,907.0	TIH W/ 5" LINER ON 4" DP @ 93 FPM TO 8,350'. BREAK CIRC EVERY 1,000'. CBU @ 2.5 BPM. MAX GAS 7,005 UNITS. 2/10 MC. NO FLARE. FINAL BG 464 UNITS.
	10:30 12:30	2.00	CASPRD1	24		P	10,907.0	TIH @ 45 FPM WITH 5" LINER ON 4" DP. BREAK CIRC EVERY 1,000'. TAG BTM WITH 15K. NO LOSSES. SPACED OUT & RU CMT HEAD.
	12:30 15:30	3.00	CASPRD1	15		P	10,907.0	CIRC 2X BU. INITIAL RATE 1 BPM, INCREASED TO 2.5 BPM, PRESSURE LEVELED OFF AFTER 20 MIN. MAX GAS 7,935 UNITS FOR 30 MINUTES. MUD CUT TO 10.8 PPG. 5' FLARE FOR 10 MIN, NO GAIN. BG GAS 250 UNITS. FINAL CIRC PRESSURE 325 PSI @ 2.5 BPM. NO LOSSES DURING CIRCULATION.
	15:30 18:00	2.50	CASPRD1	25		P	10,907.0	RU HES & TESTED LINES TO 8,000 PSI. PUMPED 20 BBLS 11.2 PPG TUNED SPACER & 200 SKS (52.3 BBLS) 14.2 PPG WITH 1.47 YIELD EXPANDACEM CMT. WASHED LINES. DROPPED DP DART. PUMPED 60 BBLS H2O WITH 2% KCL 0.1 % BIOCIDES, 70 BBLS 11 PPG MUD. BUMPED PLUG WITH 3,369 PSI @ 17:49 HRS 11/13/14. CHECKED FLOATS, FLOATS HELD, 1.5 BBLS BLED BACK. NO LOSSES DURING CMT OPS. EST TOC 8,150'.
	18:00 18:30	0.50	CASPRD1	25		P	10,907.0	RELEASED BALL, RUPTURE DISC @ 5,380 PSI. PUMPED 44 BBLS, PRESSURED TO 7,215 PSI, EXPANDED HANGER. PULL TESTED LINER WITH 60K OVERPULL. SAT DOWN 70K, RELEASED SETTING TOOL FROM LINER HANGER. LANDED FS @ 10,904', FC @ 10,858', LC @ 10,813'. TOL @ 8,145'. 209' OF LAP. TOTAL LINER 2,757'. MARKER JT TOPS @ 9,886' & 8,875'.
	18:30 19:30	1.00	CASPRD1	15		P	10,907.0	PULLED UP TO TOL. OBSERVED 3 OVERPULLS OF 5K THROUGH CLAD SECTION. CIRC 1.5 TIMES ANNULAR VOLUME. 20 BBLS WEIGHTED SPACER & 4 BBLS WEIGHTED CEMENT TO SURFACE. POSITIVE TEST TOL TO 1,000 PSI FOR 10MIN.
	19:30 21:30	2.00	CASPRD1	15		P	10,907.0	PUMPED 259 BBLS H2O WITH NO ADDITIVES, 259 BBLS H2O WITH 2% KCL 0.1 % BIOCIDES TILL CLEAN RETURNS. RD HES.
11/15/2014	21:30 6:00	8.50	CASPRD1	14		P	10,907.0	POOH LAYING DOWN 4" DP.
	6:00 7:30	1.50	CASPRD1	14		P	10,907.0	LD 4" DP.
	7:30 11:30	4.00	CASPRD1	29		P	10,907.0	ND BOPE.
	11:30 14:00	2.50	CASPRD1	27		P	10,907.0	INSTALL TBG HEAD & FRAC VALVE. TESTED HEAD TO 5,000 PSI FOR 10MIN. RIG RELEASED @ 14:00 HRS 11/14/14.
14:00 6:00	16.00	RDMO	02		P	10,907.0	PJSM. RD & PREP RIG FOR MOVE TO THE CARMAN 2-36C5.	

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CENTRAL DIVISION

ALTAMONT FIELD
KRATZER 1-27C4
KRATZER 1-27C4
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	KRATZER 1-27C4		
Project	ALTAMONT FIELD	Site	KRATZER 1-27C4
Rig Name/No.		Event	COMPLETION LAND
Start date	11/20/2014	End date	
Spud Date/Time	11/2/2014	UWI	KRATZER 1-27C4
Active datum	KB @5,566.1ft (above Mean Sea Level)		
Afe No./Description	161641/52343 / KRATZER 1-27C4		

2 Summary**2.1 Operation Summary**

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
11/20/2014	14:00 15:00	1.00	MIRU	01		P		MOVE RIG TO LOCATION
	15:00 16:30	1.50	MIRU	28		P		RIG CREW ATTENDED EP ENERGY SAFETY ORIENTATION MEETING ON LOCATION.
	16:30 17:30	1.00	MIRU	01		P		RU RIG
11/21/2014	6:00 7:30	1.50	WOR	28		P		CREW TRAVEL HELD SAFETY MEETING ON NIPPLING UP BOP. FILLED OUT JSA.
	7:30 9:00	1.50	WOR	16		P		NU AND FUNCTION TEST BOPE.
	9:00 9:00	0.00	WOR	24		P		TALLIED AND PU 4 1/8" BIT, BIT SUAB, 89-JTS 2 3/8 N-80 EUE TBG, X-OVER AND 245 JTS 2 7/8 L-80 EUE TBG. TAGGED FILL @ 10787'. LD 2-JTS 2 7/8 L-80 EUE TBG. EOT @ 10745'. SECURED WELL.
11/22/2014	6:00 7:30	1.50	WBP	28		P		CREW TRAVEL HELD SAFETY MEETING ON POWER SWIVEL. FILLED OUT JSA.
	7:30 9:00	1.50	WBP	18		P		RIH W/ 2-JTS 2 7/8 L-80 EUE TBG. TAGGED FILL @ 10787' RU POWER SWIVEL RAN PUMP LINES.
	9:00 13:30	4.50	WBP	10		P		CLEANED OUT FROM 10787' TO 10817' 12' IN ON JT # 246-2 7/8 (TTL 89-2 3/8 AND 246-2 7/8). CIRCULATE WELL CLEAN W/ 415 BLS 2 % KCL. RD POWER SWIVEL.
	13:30 17:00	3.50	WBP	24		P		LD 2 45-JTS 2 7/8 L-80 EUE TBG. EOT @ 2837'. SECURED WELL SDFN.
11/23/2014	6:00 7:30	1.50	WBP	28		P		CREW TRAVEL. HELD SAFETY MEETING ON LAYING DOWN TUBING. FILLED OUT JSA.
	7:30 9:00	1.50	WBP	24		P		LD 1-JT 2 7/8 L-80 EUE TBG, X-OVER, 89-JTS 2 3/8 N-80 EUE TBG, BIT SUB AND 4 1/8 BIT.
	9:00 10:30	1.50	RDMO	02		P		RD RIG AND MOVE TO THE 3-29B4.
	10:30 10:30	0.00	WLWORK	22		P		RU WIRELINE. RAN CBL GAMMA RAY, CCL LOG FROM 10817' TO 1800' FEET. WHILE HOLDING 4000 PSI ON CSG. CORRELATED GAMMA RAY TO HALLIBURTON ULTRA SLIM SPECTRAL DENSITY DAUL SPACED NEUTRON ARRAY COMPENSATED TRUE RESISTIVITY LOG RUN 2 DATED 12-NOV-14
11/26/2014	6:00 7:30	1.50	SITEPRE	28		P		TRAVEL TO LOC, HOLD SAFETY MTG ON NU FRAC STACK WRITE & REVIEW JSA'S

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
	7:30 13:00	5.50	STG01	16		P		NU 10K FRAC STACK, TEST CSG TO 9000 PSI & STACK TO 10,000 PSI, CHART FOR 30 MIN GOOD TEST, RU FLOW BACK MANIFOLD & SECURE WELL SDFD
11/27/2014	6:00 7:30	1.50	STG01	28		P		TRAVEL TO LOC HOLD SAFETY MTG ON PU LUBRICATOR, WRITE & REVIEW JSA'S
	7:30 13:00	5.50	STG01	21		P		MIRU CUTTERS WIRE LINE, RIH & PERF STG 1 PERFS FROM 10777'-10458', USING OWEN SUPER HERO SDP, 15 GRM CHARGES, 3 SPF @ 120 DEG PHASING, STARTING PRESSURE 1000 PSI ENDING PRESSURE 800 PSI, POOH RD WL, ALL PERFS ARE CORRELATED TO CUTTERS CBL/GR/CCL RUN # 1 ON 11/22/14 SECURE WELL SDFH
11/28/2014	6:00 6:00	24.00	STG01	18		P		NO ACTIVITY SDFH
11/29/2014	6:00 6:00	24.00	STG01	18		P		HAUL IN FRESH WTR
11/30/2014	6:00 6:00	24.00	STG01	18		P		HEAT FRAC WTR
12/1/2014	6:00 6:00	24.00	STG01	18		P		MIRU FRAC EQUIP
12/2/2014	6:00 7:30	1.50	STG01	28		P		TRAVEL TO LOC HOLD SAFETY MTG ON FRACING OPERATIONS, WRITE & REVIEW JSA'S
	7:30 8:30	1.00	STG01	35		P		FINISH R.U. FRAC EQUIP
	8:30 10:30	2.00	STG01	35		P		TEST PUMP LINES TO 9263 PSI, OPEN WELL CSG PSI 308 PSI, BREAK DWN STG 1 PERFS @ 5263 PSI @ 9 BPM, STEP DWN RATE IN 4 STGS, ISIP 4438 PSI, 5 MIN 4395 PSI, 10 MIN 4377 PSI, 15 MIN 4356 PSI, F.G. .85, TREAT PERFS W/ 5000 GALS 15% ACID, 3000 LBS 100 MESH IN 1/2 PPG STG, 31,500 LBS THS 30/50 IN 1/2 LB & 1 LB IN SLICK WATER STGS & 118,500 LBS THS 30/50 IN 2 & 3 LB GELLED STGS, ISIP 4553 PSI, AVG RATE 79.7 BPM, MAX RATE 82.8 BPM, AVG PRESSURE 5718 PSI & MAX PRESSURE 7385 PSI, F.G. .86, 3739 BBLS TO RECOVER, SHUT WELL IN & TURN OVER TO WIRE LINE.
	10:30 12:30	2.00	STG02	21		P		RIH & SET 5" CBP @ 10,440'. PERFORATE STAGE 2 PERFORATIONS FROM 10425' TO 10150', USING 2-3/4" OWEN SUPER HERO SDP GUNS, 15 GRAM CHARGES, 3 SPF, 120 DEGREE PHASING. STARTING PRESSURE 4500 PSI ENDING 4000 PSI, SHUT WELL IN & TURN OVER TO FRAC CREW.
	12:30 14:00	1.50	STG02	35		P		TEST PUMP LINES TO 9127 PSI, OPEN WELL CSG PSI 4352 PSI, BREAK DWN STG 2 PERFS @ 4495 PSI @ 9 BPM, STEP DWN RATE IN 4 STGS, ISIP 4370 PSI, 5 MIN 4352 PSI, 10 MIN 4345 PSI, F.G. .85, TREAT PERFS W/ 5000 GALS 15% ACID, 3000 LBS 100 MESH IN 1/2 PPG STG, 31,500 LBS THS 30/50 IN 1/2 LB & 1 LB IN SLICK WATER STGS & 118,500 LBS THS 30/50 IN 2 & 3 LB GELLED STGS, ISIP 4549 PSI, AVG RATE 80.1 BPM, MAX RATE 82.8 BPM, AVG PRESSURE 5624 PSI & MAX PRESSURE 7363 PSI, F.G. .87, 3753 BBLS TO RECOVER, SHUT WELL IN & TURN OVER TO WIRE LINE.
	14:00 15:30	1.50	STG03	21		P		RIH & SET 5" CBP @ 10,114'. PERFORATE STAGE 3 PERFORATIONS FROM 10099' TO 9820', USING 2-3/4" OWEN SUPER HERO SDP GUNS, 15 GRAM CHARGES, 3 SPF, 120 DEGREE PHASING. STARTING PRESSURE 4500 PSI ENDING 4500 PSI, SHUT WELL IN & TURN OVER TO FRAC CREW.

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
	15:30 16:30	1.00	STG03	35		P		TEST PUMP LINES TO 9291 PSI, OPEN WELL CSG PSI 4377 PSI, BREAK DWN STG 3 PERFS @ 4670 PSI @ 6 BPM, STEP DWN RATE IN 4 STGS, ISIP 4545 PSI, 5 MIN 4413 PSI, 10 MIN 4398 PSI, F.G. .88, TREAT PERFS W/ 5000 GALS 15% ACID, 3000 LBS 100 MESH IN 1/2 PPG STG, 31,500 LBS THS 30/50 IN 1/2 LB & 1 LB IN SLICK WATER STGS & 118,500 LBS THS 30/50 IN 2 & 3 LB GELLED STGS, ISIP 4513 PSI, AVG RATE 76.7 BPM, MAX RATE 78.8 BPM, AVG PRESSURE 5539 PSI & MAX PRESSURE 7206 PSI, F.G. .88, 3741 BBLS TO RECOVER, SHUT WELL IN & TURN OVER TO WIRE LINE.
	16:30 18:30	2.00	STG04	21		P		RIH & SET 5" CBP @ 9801'. PERFORATE STAGE 4 PERFORATIONS FROM 9786' TO 9484', USING 2-3/4" OWEN SUPER HERO SDP GUNS, 15 GRAM CHARGES, 3 SPF, 120 DEGREE PHASING. STARTING PRESSURE 4400 PSI ENDING 4300 PSI, SHUT WELL IN, GREASE FRAC VALVES & SHUT DWN FOR NIGHT.
12/3/2014	6:00 6:30	0.50	STG04	28		P		TRAVEL TO LOC HOLD SAFETY MTG ON ICE PLUGS WRITE & REVIEW JSA'S
	6:30 7:30	1.00	STG04	35		P		TEST PUMP LINES TO 9431 PSI, OPEN WELL CSG PSI 4256 PSI, BREAK DWN STG 4 PERFS @ 4581 PSI @ 2 BPM, STEP DWN RATE IN 4 STGS, ISIP 4403 PSI, 5 MIN 4327 PSI, 10 MIN 4288 PSI, F.G. .88, TREAT PERFS W/ 5000 GALS 15% ACID, 3000 LBS 100 MESH IN 1/2 PPG STG, 31,500 LBS THS 30/50 IN 1/2 LB & 1 LB IN SLICK WATER STGS & 118,500 LBS THS 30/50 IN 2 & 3 LB GELLED STGS, ISIP 4556 PSI, AVG RATE 74.3 BPM, MAX RATE 74.8 BPM, AVG PRESSURE 5421 PSI & MAX PRESSURE 7009 PSI, F.G. .90, 3762 BBLS TO RECOVER, SHUT WELL IN & TURN OVER TO WIRE LINE.
	7:30 8:30	1.00	STG05	21		P		RIH & SET 5" CBP @ 9455'. PERFORATE STAGE 5 PERFORATIONS FROM 9438' TO 9191', USING 2-3/4" OWEN SUPER HERO SDP GUNS, 15 GRAM CHARGES, 3 SPF, 120 DEGREE PHASING. STARTING PRESSURE 4400 PSI ENDING 4000 PSI, SHUT WELL IN & TURN OVER TO FRAC CREW.
	8:30 10:00	1.50	STG05	35		P		TEST PUMP LINES TO 9374 PSI, OPEN WELL CSG PSI 4023 PSI, BREAK DWN STG 5 PERFS @ 4138 PSI @ 2 BPM, STEP DWN RATE IN 4 STGS, ISIP 4106 PSI, 5 MIN 4059 PSI, 10 MIN 4038 PSI, F.G. .87, TREAT PERFS W/ 5000 GALS 15% ACID, 3000 LBS 100 MESH IN 1/2 PPG STG, 31,500 LBS THS 30/50 IN 1/2 LB & 1 LB IN SLICK WATER STGS & 118,500 LBS THS 30/50 IN 2 & 3 LB GELLED STGS, ISIP 4503 PSI, AVG RATE 74.7 BPM, MAX RATE 75.9 BPM, AVG PRESSURE 5108 PSI & MAX PRESSURE 6548 PSI, F.G. .91, 3772 BBLS TO RECOVER, SHUT WELL IN & TURN OVER TO WIRE LINE.
	10:00 11:00	1.00	STG06	21		P		RIH & SET 5" CBP @ 9176'. PERFORATE STAGE 6 PERFORATIONS FROM 9162' TO 8934', USING 2-3/4" OWEN SUPER HERO SDP GUNS, 15 GRAM CHARGES, 3 SPF, 120 DEGREE PHASING. STARTING PRESSURE 4100 PSI ENDING 4000 PSI, SHUT WELL IN & TURN 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		TEST PUMP LINES TO 9356 PSI, OPEN WELL CSG PSI 3913 PSI, BREAK DWN STG 6 PERFS @ 4220 PSI @ 12 BPM, STEP DWN RATE IN 4 STGS, ISIP 3783 PSI, 5 MIN 3783 PSI, 10 MIN 3780 PSI, F.G. .85, TREAT PERFS W/ 5000 GALS 15% ACID, 3000 LBS 100 MESH IN 1/2 PPG STG, 31,500 LBS THS 30/50 IN 1/2 LB & 1 LB IN SLICK WATER STGS & 118,500 LBS THS 30/50 IN 2 & 3 LB GELLED STGS, ISIP 4138 PSI, AVG RATE 78.5 BPM, MAX RATE 80.2 BPM, AVG PRESSURE 4909 PSI & MAX PRESSURE 5890 PSI, F.G. .89, 3764 BBLS TO RECOVER, SHUT WELL IN & TURN OVER TO WIRE LINE.
	12:30 13:30	1.00	STG07	21		P		RIH & SET 5" CBP @ 8914'. PERFORATE STAGE 7 PERFORATIONS FROM 8897' TO 8640', USING 2-3/4" OWEN SUPER HERO SDP GUNS, 15 GRAM CHARGES, 3 SPF, 120 DEGREE PHASING. STARTING PRESSURE 3900 PSI ENDING 3400 PSI, SHUT WELL IN & TURN OVER TO FRAC CREW.
	13:30 15:00	1.50	STG07	35		P		TEST PUMP LINES TO 9238 PSI, OPEN WELL CSG PSI 3233 PSI, BREAK DWN STG 7 PERFS @ 3373 PSI @ 8.4 BPM, STEP DWN RATE IN 4 STGS, ISIP 3433 PSI, 5 MIN 3276 PSI, 10 MIN 3240 PSI, F.G. .82, TREAT PERFS W/ 5000 GALS 15% ACID, 3000 LBS 100 MESH IN 1/2 PPG STG, 31,500 LBS THS 30/50 IN 1/2 LB & 1 LB IN SLICK WATER STGS & 118,500 LBS THS 30/50 IN 2 & 3 LB GELLED STGS, ISIP 3927 PSI, AVG RATE 79.2 BPM, MAX RATE 81.1 BPM, AVG PRESSURE 4516 PSI & MAX PRESSURE 5400 PSI, F.G. .88, 3798 BBLS TO RECOVER, SHUT WELL IN & TURN OVER TO WIRE LINE.
	15:00 16:00	1.00	STG08	21		P		RIH & SET 5" CBP @ 8615'. PERFORATE STAGE 8 PERFORATIONS FROM 8600' TO 8384', USING 2-3/4" OWEN SUPER HERO SDP GUNS, 15 GRAM CHARGES, 3 SPF, 120 DEGREE PHASING. STARTING PRESSURE 3600 PSI ENDING 3400 PSI, SHUT WELL IN & TURN OVER TO FRAC CREW.
	16:00 17:30	1.50	STG08	35		P		TEST PUMP LINES TO 9295 PSI, OPEN WELL CSG PSI 3323 PSI, BREAK DWN STG 8 PERFS @ 3737 PSI @ 10 BPM, STEP DWN RATE IN 4 STGS, ISIP 3448 PSI, 5 MIN 3305 PSI, 10 MIN 3290 PSI, F.G. .83, TREAT PERFS W/ 5000 GALS 15% ACID, 3000 LBS 100 MESH IN 1/2 PPG STG, 31,500 LBS THS 30/50 IN 1/2 LB & 1 LB IN SLICK WATER STGS & 118,500 LBS THS 30/50 IN 2 & 3 LB GELLED STGS, ISIP 3405 PSI, AVG RATE 78 BPM, MAX RATE 80.2 BPM, AVG PRESSURE 4341 PSI & MAX PRESSURE 5393 PSI, F.G. .83, 3746 BBLS TO RECOVER, SECURE WELL & SHUT DWN FOR NIGHT
12/4/2014	6:30 8:00	1.50	RDMO	28		P		TRAVEL TO LOCATION, HOLD SAFETY MTG ON RIGGING DWN FRAC EQUIP, WRITE & REVIEW JSA'S
	8:00 12:00	4.00	RDMO	02		P		RIG DWN & MOVE OFF LOCATION W/ FRAC EQUIP & WATER TRANSFER LINES
	12:00 16:00	4.00	MIRU	01		P		MOVE ONTO LOCATION W/ COIL TBG EQUIP, SPOT IN & PARTIALLY RU EQUIP, SDFN
12/5/2014	6:00 7:00	1.00	CTU	28		P		TRAVEL TO LOC, HOLD SAFETY MTG ON MUMOTOR ASSY, WRITE & REVIEW JSA'S
	7:00 9:00	2.00	CTU	16		P		CONT RU NABORS 2" COIL TBG UNIT, MU COIL CONNECTOR, PULL & PRESSURE TEST, MU MTR ASSY W/ 4-1/8" JZ ROCK BIT, FUNCTION TEST MTR ASSY, NU CT BOP, PRESSURE TEST STACK & FLOW BACK LINES TO 6500 PSI

2.1 Operation Summary (Continued)

Date	Time Start-End	Duration (hr)	Phase	Activity	Sub	OP Code	MD from (ft)	Operation
	9:00 21:00	12.00	CTU	39		P		OPEN WELL 2500 PSI, RIH W/ COIL TBG TO LINER TOP PUMPING 1/2 BPM, RETURNING 1 BPM, AT LINER TOP CHANGE RATES TO 3.5 BPM, RETURNING 4.5 BPM, DRILL OUT CBP'S @ 8615', 8914', 9176', 9455', 9801', 10114', 10440' & CLEAN OUT TO TD @ 10800' CTM, CIRC 1 HR ON BTM, POOH TO LINER TOP & CIRC 1 HR, POOH LD MTR ASSY, BLOW COIL DRY, RIG DWN COIL TBG UNIT
	21:00 6:00	9.00	FB	19		P		TURN WELL OVER TO FLOW BACK TANK @ 3100 PSI ON 12/64 CHOKE, CURRENT PRESSURE 3050 PSI, FLOWED 639 BBLS WATER, 0 OIL & 0 MCF
12/6/2014	6:00 6:00	24.00	FB	19		P		HOLD SAFETY MTG ON TURNING WELL TO PRODUCTION FACILITY, WRITE & REVIEW JSA'S, WELL FLOWING @ ---- PSI, ON 12/64 CHOKE, FLOWED 0 BBLS OIL, 939 BBLS WATER & 0 MCF
12/7/2014	6:00 6:00	24.00	FB	19		P		HOLD SAFETY MTG ON CLIMBING STAIR WAYS, WRITE & REVIEW JSA'S, WELL FLOWING ON 12/64 CHOKE FLOWED 412 BBLS OIL, 980 BBLS WATER & 155 MCF
12/8/2014	6:00 6:00	24.00	FB	19		P		HOLD SAFETY MTG ON CLEANING CHOKES WRITE & REVIEW JSA'S, WELL FLOWING ON 12/64 CHOKE FLOWED 382 BBLS OIL, 730 BBLS WATER & 213 MCF
12/9/2014	6:00 7:30	1.50	WLWORK	28		P		TRAVEL TO LOC HOLD SAFETY MTG ON P.U. LUBRICATOR W/ CRANE, WRITE & REVIEW JSA'S
	7:30 11:00	3.50	WLWORK	20		P		MU & RIH W/ 5" ASIX-1 PKR W/ PUMP OUT PLUG & PLUG CATCHER, SET PKR @ 8215', POOH RIG DWN & MOVE OFF LOC W/ WIRE LINE EQUIP
	11:00 12:00	1.00	FB	19		P		BLOW DWN WELL TO PROD FACILITY RECOVERED 86 BBLS OIL, 156 BBLS WATER & 136 MCF
	12:00 13:30	1.50	PRDHEQ	16		P		NDFRAC STACK, NU 5 K BOP
	13:30 14:30	1.00	MIRU	01		P		SPOT IN & RU PEAK 2100, RU WORK FLOOR & TBG TONGS
	14:30 17:30	3.00	WOR	24		P		TALLY & RIH W/ 5" ON-OFF SKIRT, 5 JTS 2-3/8" EUE L-80 TBG, 2-7/8" X 2-3/8" EUE X OVER & 191 JTS 2-7/8" EUE L-80 TBG, EOT @ 6400', SECURE WELL SDFN
12/10/2014	6:00 7:30	1.50	WOR	28		P		CT HOLD SAFETY MTG ON PU TBG, WRITE & REVIEW JSA'S
	7:30 9:00	1.50	WOR	24		P		100 PSI SIWP, BLOW DWN WELL, PUMP 20 BBLS DWN TBG, CONT PU 57 JTS 2-7/8" EUE L-80 TBG, TAG 5" PKR, LD 2 JTS 2-7/8" EUE L-80 TBG
	9:00 11:00	2.00	WOR	06		P		CIRC WELL BORE W/ 310 BBLS 2% KCL W/ PKR FLUID
	11:00 13:30	2.50	WOR	16		P		PU 8' X 2-7/8" N-80 TBG SUB, 1 JT 2-7/8" EUE L-80 TBG, 6' X 2-7/8" TBG SUB & TBG HANGER, RIH LATCH ONTO PKR, TEMPORARILY LAND TBG ON HANGER, NDBOP & 10K FRAC VALVE, POOH & LD 6' TBG SUB LAND TBG ON HANGER IN 15K TENSION, NUWH, PLUMB FLOW LINES, TEST FLOW LINES TO 4500 PSI, CSG TO 1200 PSI, GOOD TEST, PUMP OUT PLUG IN TBG @ 3800 PSI, SWI, RIG DWN RIG, PU LOC
	13:30 6:00	16.50	FB	19		P		OPEN WELL UP @ 2300 PSI ON 12/64 CHOKE, TURN WELL OVER TO FLOW BACK CREW, WELL FLOWED 402 BBLS OIL, 374 BBLS WATER & 185 MCF, CURRENT PRESSURE 2600 PSI
12/11/2014	6:00 6:00	24.00	FB	19		P	HOLD SAFETY MTG ON 3 POINT CONTACT WHILE CLIMBING STAIR WAYS, WRITE & REVIEW JSA'S, WELL FLOWING @ 2500 PSI, ON 12/64 CHOKE FLOWED 454 BBLS OIL, 395 BBLS WATER & 387 MCF	
12/12/2014	6:00 6:00	24.00	FB	19		P	HOLD SAFETY MTG ON GAUGING PROD TANKS WRITE & REVIEW JSA'S, WELL FLOWING @ 2300 PSI ON 14/64 CHOKE, FLOWED 635 BBLS OIL, 460 BBLS WATER & 462 MCF	

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Company: EP Energy
 Well: Kratzer 1-27C4
 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)	N/S (ft)	Coordinates E/W (ft)	Closure Distance (ft)	Closure Direction Azimuth	Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')		
Tie In	0.00	0.00	0.00												
1	100.00	0.25	135.02	100.00	100.00	-0.15	0.15	S	0.15	E	0.21	135.02	0.25	0.25	135.02
2	200.00	0.63	130.40	100.00	200.00	-0.66	0.66	S	0.72	E	0.98	132.42	0.39	0.39	-4.62
3	300.00	0.48	88.83	100.00	299.99	-1.01	1.01	S	1.56	E	1.86	122.91	0.42	-0.16	-41.57
4	400.00	0.20	29.03	100.00	399.99	-0.85	0.85	S	2.06	E	2.23	112.49	0.42	-0.28	-59.80
5	500.00	0.37	254.53	100.00	499.99	-0.79	0.79	S	1.84	E	2.00	113.34	0.53	0.18	225.51
6	600.00	0.64	211.71	100.00	599.99	-1.35	1.35	S	1.23	E	1.83	137.73	0.45	0.27	-42.83
7	700.00	0.85	196.48	100.00	699.98	-2.54	2.54	S	0.73	E	2.65	164.09	0.29	0.21	-15.23
8	800.00	0.87	191.99	100.00	799.97	-4.00	4.00	S	0.36	E	4.02	174.92	0.07	0.02	-4.50
9	900.00	1.02	179.89	100.00	899.95	-5.64	5.64	S	0.20	E	5.64	177.98	0.25	0.14	-12.10
10	1000.00	0.68	175.13	100.00	999.94	-7.11	7.11	S	0.25	E	7.12	177.98	0.35	-0.34	-4.77
11	1100.00	1.16	180.80	100.00	1099.93	-8.71	8.71	S	0.29	E	8.72	178.11	0.49	0.48	5.68
12	1200.00	1.41	188.67	100.00	1199.90	-10.94	10.94	S	0.09	E	10.94	179.54	0.31	0.25	7.87
13	1300.00	1.56	189.11	100.00	1299.87	-13.50	13.50	S	0.31	W	13.50	181.33	0.15	0.15	0.43
14	1400.00	1.81	194.90	100.00	1399.83	-16.37	16.37	S	0.93	W	16.40	183.27	0.30	0.25	5.79
15	1500.00	1.96	194.33	100.00	1499.77	-19.55	19.55	S	1.76	W	19.63	185.15	0.15	0.15	-0.57
16	1600.00	1.86	199.92	100.00	1599.72	-22.73	22.73	S	2.74	W	22.90	186.87	0.21	-0.09	5.60
17	1700.00	1.86	201.47	100.00	1699.66	-25.77	25.77	S	3.89	W	26.06	188.58	0.05	-0.01	1.54
18	1800.00	1.83	198.28	100.00	1799.61	-28.79	28.79	S	4.98	W	29.22	189.81	0.10	-0.02	-3.18
19	1900.00	1.85	199.31	100.00	1899.56	-31.83	31.83	S	6.02	W	32.40	190.70	0.04	0.01	1.03
20	1960.00	2.01	213.57	60.00	1959.53	-33.62	33.62	S	6.92	W	34.33	191.63	0.84	0.28	23.76
21	2152.00	2.44	202.96	192.00	2151.38	-40.19	40.19	S	10.38	W	41.51	194.47	0.31	0.22	-5.53
22	2249.00	3.28	190.99	97.00	2248.26	-44.82	44.82	S	11.71	W	46.32	194.64	1.06	0.87	-12.34
23	2345.00	2.22	182.04	96.00	2344.15	-49.37	49.37	S	12.30	W	50.88	193.99	1.19	-1.10	-9.32
24	2442.00	0.98	157.40	97.00	2441.11	-52.02	52.02	S	12.05	W	53.39	193.04	1.43	-1.28	-25.40
25	2537.00	1.07	57.21	95.00	2536.10	-52.29	52.29	S	10.99	W	53.43	191.87	1.66	0.09	-105.46
26	2634.00	1.62	31.01	97.00	2633.08	-50.62	50.62	S	9.52	W	51.51	190.65	0.84	0.57	-27.01
27	2730.00	0.46	97.27	96.00	2729.06	-49.51	49.51	S	8.44	W	50.22	189.68	1.56	-1.21	69.02
28	2826.00	0.42	168.21	96.00	2825.06	-49.90	49.90	S	7.99	W	50.54	189.09	0.53	-0.04	73.90
29	2922.00	0.46	309.86	96.00	2921.06	-50.00	50.00	S	8.21	W	50.67	189.33	0.87	0.04	147.55
30	3018.00	1.76	349.59	96.00	3017.04	-48.30	48.30	S	8.77	W	49.09	190.29	1.50	1.35	41.39
31	3114.00	2.51	350.29	96.00	3112.97	-44.78	44.78	S	9.39	W	45.75	191.85	0.78	0.78	0.73
32	3210.00	1.77	344.04	96.00	3208.90	-41.28	41.28	S	10.16	W	42.51	193.82	0.81	-0.77	-6.51
33	3307.00	1.72	34.42	97.00	3305.86	-38.64	38.64	S	9.75	W	39.85	194.15	1.53	-0.05	-319.20
34	3403.00	1.96	39.17	96.00	3401.81	-36.18	36.18	S	7.89	W	37.03	192.31	0.30	0.25	4.95
35	3499.00	2.83	29.39	96.00	3497.73	-32.84	32.84	S	5.69	W	33.33	189.84	1.00	0.91	-10.19



Company: EP Energy
 Well: Kratzer 1-27C4
 Location: Duchesne, UT
 Rigi: Precision 406

Job Number: MWD Eng:
 Mag Decl: Dir Driller:
 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	3595.00	2.43	32.88	96.00	3593.63	-29.07	29.07	S	3.43	W	29.27	186.72	0.45	-0.42	3.64
37	3690.00	1.21	32.25	95.00	3688.58	-26.53	26.53	S	1.80	W	26.59	183.88	1.28	-1.28	-0.66
38	3786.00	1.42	17.21	96.00	3784.55	-24.53	24.53	S	0.90	W	24.55	182.11	0.42	0.22	-15.67
39	3883.00	1.81	10.87	97.00	3881.52	-21.88	21.88	S	0.26	W	21.88	180.68	0.44	0.40	-6.54
40	3979.00	2.98	8.33	96.00	3977.43	-17.92	17.92	S	0.39	E	17.93	178.76	1.22	1.22	-2.65
41	4076.00	1.72	352.94	97.00	4074.35	-13.98	13.98	S	0.57	E	14.00	177.65	1.44	-1.30	355.27
42	4172.00	0.73	310.00	96.00	4170.33	-12.16	12.16	S	0.07	W	12.16	180.34	1.34	-1.03	-44.73
43	4269.00	0.64	359.65	97.00	4267.32	-11.22	11.22	S	0.55	W	11.24	182.80	0.60	-0.09	51.19
44	4365.00	1.31	29.42	96.00	4363.31	-9.73	9.73	S	0.01	W	9.73	180.07	0.85	0.70	-343.99
45	4461.00	0.26	35.35	96.00	4459.30	-8.60	8.60	S	0.65	E	8.62	175.66	1.10	-1.09	6.18
46	4557.00	0.56	189.55	96.00	4555.29	-8.88	8.88	S	0.70	E	8.91	175.49	0.84	0.31	160.63
47	4653.00	1.23	199.84	96.00	4651.28	-10.31	10.31	S	0.27	E	10.32	178.48	0.71	0.70	10.72
48	4749.00	0.61	287.64	96.00	4747.27	-11.13	11.13	S	0.56	W	11.14	182.90	1.41	-0.65	91.46
49	4846.00	1.02	329.35	97.00	4844.26	-10.23	10.23	S	1.50	W	10.34	188.32	0.72	0.42	43.00
50	4942.00	1.44	346.52	96.00	4940.24	-8.32	8.32	S	2.21	W	8.61	194.89	0.58	0.44	17.89
51	5038.00	0.50	316.28	96.00	5036.23	-6.84	6.84	S	2.78	W	7.39	202.13	1.08	-0.98	-31.50
52	5134.00	1.15	204.60	96.00	5132.22	-7.42	7.42	S	3.47	W	8.19	205.10	1.47	0.68	-116.33
53	5230.00	1.50	181.57	96.00	5228.20	-9.55	9.55	S	3.91	W	10.32	202.26	0.66	0.36	-23.99
54	5325.00	1.66	184.99	95.00	5323.16	-12.16	12.16	S	4.06	W	12.82	198.47	0.20	0.17	3.60
55	5422.00	0.59	185.04	97.00	5420.14	-14.06	14.06	S	4.23	W	14.68	196.74	1.10	-1.10	0.05
56	5517.00	1.96	18.74	95.00	5515.12	-13.01	13.01	S	3.75	W	13.54	196.08	2.67	1.44	-175.05
57	5614.00	1.66	18.62	97.00	5612.08	-10.11	10.11	S	2.77	W	10.48	195.32	0.31	-0.31	-0.12
58	5710.00	1.16	18.90	96.00	5708.05	-7.87	7.87	S	2.01	W	8.12	194.33	0.52	-0.52	0.29
59	5807.00	0.83	10.77	97.00	5805.03	-6.25	6.25	S	1.56	W	6.44	194.02	0.37	-0.34	-8.38
60	5903.00	0.04	333.79	96.00	5901.03	-5.54	5.54	S	1.45	W	5.72	194.63	0.83	-0.82	336.48
61	5999.00	0.43	217.83	96.00	5997.03	-5.79	5.79	S	1.68	W	6.03	196.19	0.47	0.41	-120.79
62	6095.00	0.62	173.63	96.00	6093.02	-6.59	6.59	S	1.84	W	6.85	195.63	0.45	0.20	-46.04
63	6192.00	1.06	183.29	97.00	6190.01	-8.01	8.01	S	1.84	W	8.22	192.92	0.47	0.45	9.96
64	6288.00	0.71	148.24	96.00	6286.00	-9.40	9.40	S	1.58	W	9.53	189.51	0.66	-0.36	-36.51
65	6384.00	1.54	50.44	96.00	6381.99	-9.09	9.09	S	0.27	W	9.09	181.69	1.86	0.86	-101.88
66	6480.00	0.92	103.93	96.00	6477.97	-8.45	8.45	S	1.47	E	8.58	170.10	1.29	-0.65	55.72
67	6576.00	1.16	162.75	96.00	6573.96	-9.56	9.56	S	2.51	E	9.89	165.29	1.09	0.25	61.27
68	6672.00	1.67	183.58	96.00	6669.93	-11.89	11.89	S	2.71	E	12.19	167.15	0.75	0.53	21.70
69	6768.00	2.11	183.93	96.00	6765.87	-15.05	15.05	S	2.50	E	15.25	170.55	0.46	0.46	0.36
70	6864.00	2.35	175.07	96.00	6861.80	-18.77	18.77	S	2.55	E	18.94	172.26	0.44	0.25	-9.23
71	6960.00	1.39	164.47	96.00	6957.75	-21.85	21.85	S	3.03	E	22.06	172.10	1.06	-1.00	-11.04
72	7057.00	1.64	172.10	97.00	7054.72	-24.36	24.36	S	3.54	E	24.62	171.74	0.33	0.26	7.87



Company: EP Energy
 Well: Kratzer 1-27C4
 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)	N/S	E/W	Coordinates	Distance (ft)	Closure Direction Azimuth	Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')	
73	7153.00	2.65	182.09	96.00	7150.65	-27.94	27.94	S	3.65	E	28.18	172.57	1.12	1.05	10.41
74	7249.00	2.71	189.27	96.00	7246.54	-32.40	32.40	S	3.20	E	32.56	174.36	0.36	0.06	7.48
75	7345.00	2.41	205.46	96.00	7342.45	-36.46	36.46	S	1.97	E	36.51	176.91	0.81	-0.31	16.86
76	7441.00	3.15	192.97	96.00	7438.34	-40.85	40.85	S	0.51	E	40.86	179.29	0.99	0.77	-13.01
77	7537.00	2.07	213.03	96.00	7534.24	-44.88	44.88	S	1.03	W	44.89	181.32	1.46	-1.13	20.90
78	7633.00	1.47	296.60	96.00	7630.20	-45.78	45.78	S	3.08	W	45.88	183.85	2.50	-0.63	87.05
79	7729.00	2.13	334.26	96.00	7726.16	-43.62	43.62	S	4.95	W	43.90	186.48	1.37	0.69	39.23
80	7825.00	1.58	311.38	96.00	7822.11	-41.14	41.14	S	6.72	W	41.69	189.28	0.95	-0.57	-23.83
81	7919.00	1.29	265.45	94.00	7916.08	-40.37	40.37	S	8.75	W	41.30	192.23	1.22	-0.31	-48.86
82	8013.00	3.03	251.66	94.00	8010.01	-41.23	41.23	S	12.16	W	42.99	196.43	1.92	1.85	-14.67
83	8111.00	2.86	251.66	98.00	8107.88	-42.82	42.82	S	16.94	W	46.05	201.59	0.17	-0.17	0.00
84	8209.00	2.39	230.87	98.00	8205.78	-44.88	44.88	S	20.85	W	49.48	204.92	1.08	-0.48	-21.21
85	8286.00	2.00	224.54	77.00	8282.73	-46.85	46.85	S	23.03	W	52.20	206.18	0.60	-0.51	-8.22
86	8400.00	2.10	216.44	114.00	8396.65	-49.94	49.94	S	25.67	W	56.15	207.20	0.27	0.08	-7.11
87	8500.00	1.74	206.44	100.00	8496.60	-52.77	52.77	S	27.43	W	59.48	207.46	0.49	-0.36	-10.00
88	8600.00	2.02	199.97	100.00	8596.54	-55.79	55.79	S	28.71	W	62.74	207.23	0.35	0.28	-6.47
89	8700.00	2.02	199.97	100.00	8696.48	-59.10	59.10	S	29.91	W	66.24	206.84	0.01	0.01	0.01
90	8800.00	2.15	200.58	100.00	8796.41	-62.51	62.51	S	31.17	W	69.86	206.50	0.12	0.12	0.61
91	8900.00	2.29	199.03	100.00	8896.34	-66.16	66.16	S	32.48	W	73.70	206.15	0.16	0.15	-1.56
92	9000.00	2.34	192.52	100.00	8996.26	-70.04	70.04	S	33.58	W	77.67	205.61	0.27	0.05	-6.51
93	9100.00	2.57	197.13	100.00	9096.17	-74.17	74.17	S	34.68	W	81.88	205.06	0.30	0.23	4.61
94	9200.00	2.68	183.65	100.00	9196.06	-78.65	78.65	S	35.49	W	86.28	204.29	0.63	0.12	-13.48
95	9300.00	2.68	191.79	100.00	9295.95	-83.27	83.27	S	36.12	W	90.77	203.45	0.38	0.00	8.14
96	9400.00	2.62	187.89	100.00	9395.85	-87.83	87.83	S	36.91	W	95.27	202.79	0.19	-0.06	-3.90
97	9500.00	2.56	193.67	100.00	9495.74	-92.27	92.27	S	37.75	W	99.69	202.25	0.27	-0.06	5.78
98	9600.00	2.28	195.55	100.00	9595.65	-96.35	96.35	S	38.81	W	103.88	201.94	0.29	-0.28	1.88
99	9700.00	2.47	194.01	100.00	9695.57	-100.36	100.36	S	39.87	W	107.99	201.66	0.20	0.19	-1.55
100	9800.00	2.66	182.84	100.00	9795.47	-104.77	104.77	S	40.50	W	112.32	201.14	0.53	0.19	-11.17
101	9900.00	2.09	182.28	100.00	9895.38	-108.90	108.90	S	40.69	W	116.26	200.49	0.56	-0.56	-0.56
102	10000.00	2.44	178.13	100.00	9995.30	-112.86	112.86	S	40.69	W	119.97	199.83	0.39	0.35	-4.15
103	10100.00	2.04	187.34	100.00	10095.23	-116.75	116.75	S	40.85	W	123.69	199.28	0.54	-0.41	9.21
104	10200.00	2.17	187.32	100.00	10195.16	-120.39	120.39	S	41.32	W	127.28	198.94	0.14	0.14	-0.01
105	10300.00	2.63	181.50	100.00	10295.07	-124.57	124.57	S	41.62	W	131.34	198.48	0.52	0.46	-5.83
106	10400.00	2.57	185.23	100.00	10394.97	-129.10	129.10	S	41.88	W	135.72	197.98	0.18	-0.06	3.73
107	10500.00	2.20	178.80	100.00	10494.88	-133.25	133.25	S	42.05	W	139.73	197.51	0.45	-0.37	-6.43
108	10600.00	2.46	188.58	100.00	10594.80	-137.29	137.29	S	42.33	W	143.67	197.13	0.47	0.25	9.79
109	10700.00	2.85	181.86	100.00	10694.69	-141.89	141.89	S	42.73	W	148.19	196.76	0.50	0.39	-6.73



Company: EP Energy
Well: Kratzer 1-27C4
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)	N/S (ft)	E/W (ft)	Closure Distance (ft)	Closure Direction Azimuth	Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
110	10907.00	2.85	181.86	207.00	10901.44	-152.18	152.18	S 43.06	158.15	195.80	0.00	0.00	0.00