

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

Ken McQueen
Cabinet Secretary

Matthias Sayer
Deputy Cabinet Secretary

David R. Catanach, Division Director
Oil Conservation Division



New Mexico Oil Conservation Division approval and conditions listed below are made in accordance with OCD Rule 19.15.7.11 and are in addition to the actions approved by BLM on the following 3160-3 APD form.

Operator Signature Date: 2/21/2018

Well information;

Operator WPX, Well Name and Number Reckon Lind 513H

API# 30-045-35873, Section 25, Township 23 N/S, Range 9 E/W

Conditions of Approval: (See the below checked and handwritten conditions)

- ☒ Notify Aztec OCD 24hrs prior to casing & cement.
- ☒ Hold C-104 for directional survey & "As Drilled" Plat
- ☒ Hold C-104 for NSL, NSP, DHC
- ☐ Spacing rule violation. Operator must follow up with change of status notification on other well to be shut in or abandoned
- ☐ Regarding the use of a pit, closed loop system or below grade tank, the operator must comply with the following as applicable:
 - A pit requires a complete C-144 be submitted and approved prior to the construction or use of the pit, pursuant to 19.15.17.8.A
 - A closed loop system requires notification prior to use, pursuant to 19.15.17.9.A
 - A below grade tank requires a registration be filed prior to the construction or use of the below grade tank, pursuant to 19.15.17.8.C
- ☐ Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
- ☐ Submit Gas Capture Plan form prior to spudding or initiating recompletion operations
- ☒ Regarding Hydraulic Fracturing, review EPA Underground Injection Control Guidance 84
- ☒ Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.
- ☒ Well-bore communication is regulated under 19.15.29 NMAC. This requires well-bore Communication to be reported in accordance with 19.15.29.8.

Charles L. Sayer
NMOCD Approved by Signature

4-17-2018
Date

1220 South St. Francis Drive • Santa Fe, New Mexico 87505
Phone (505) 476-3441 • Fax (505) 476-3462 • www.emnrd.state.nm.us/ocd

4-13-18 Sundry for Operator change dec'd.

19

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. NOG13121859
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☒ Multiple Zone		6. If Indian, Allottee or Tribe Name EASTERN NAVAJO
2. Name of Operator WPX ENERGY LLC		7. If Unit or CA Agreement, Name and No. NMNM136328X
3a. Address 720 S Main Aztec NM 87410	3b. Phone No. (include area code) (505)333-1822	8. Lease Name and Well No. RODEO UNIT 513H
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SESW / 191 FSL / 1325 FWL / LAT 36.191178 / LONG -107.744935 At proposed prod. zone SENW / 2337 FNL / 1821 FWL / LAT 36.169689 / LONG -107.725349		9. API Well No. 30-045-35873
14. Distance in miles and direction from nearest town or post office* 37.8 miles		10. Field and Pool, or Exploratory BASIN MANCOS / MANCOS
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 191 feet	16. No. of acres in lease 160	11. Sec., T. R. M. or Blk. and Survey or Area SEC 25 / T23N / R9W / NMP
17. Spacing Unit dedicated to this well 1121.44	18. Distance from proposed location* to nearest well, drilling, completed, 40 feet applied for, on this lease, ft.	12. County or Parish SAN JUAN
19. Proposed Depth 4606 feet / 15072 feet	20. BLM/BIA Bond No. on file IND: B0001576	13. State NM
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6798 feet	22. Approximate date work will start* 04/30/2018	23. Estimated duration 30 days
24. Attachments		

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

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

25. Signature (Electronic Submission)	Name (Printed/Typed) Lacey Granillo / Ph: (505)333-1816	Date 02/21/2018
Title Permitting Tech III		
Approved by (Signature) <i>[Signature]</i>	Name (Printed/Typed)	Date 3/29/18
Title AFM	Office FARMINGTON	

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

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

(Continued on page 2)

*(Instructions on page 2)

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4
This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

BLM'S APPROVAL OR ACCEPTANCE OF
THIS ACTION DOES NOT RELIEVE THE
LESSEE AND OPERATOR FROM
OBTAINING ANY OTHER AUTHORIZATION
REQUIRED FOR OPERATIONS ON
FEDERAL AND INDIAN LANDS

DRILLING OPERATIONS
AUTHORIZED ARE SUBJECT TO
COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS"

NMOCD

District I
1625 N. French Drive, Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II
811 S. First Street, Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV
1220 S. St. Francis Drive, Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 1, 2011

Submit one copy to
Appropriate District Office

OIL CONSERVATION DIVISION
1220 South St. Francis Drive
Santa Fe, NM 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30.045-35873		*Pool Code 97232	*Pool Name BASIN MANCOS
*Property Code 317527 321253	*Property Name RODEO UNIT		*Well Number 513H
*GRID No. 120782	*Operator Name WPX ENERGY PRODUCTION, LLC		*Elevation 6798'

¹⁰ Surface Location

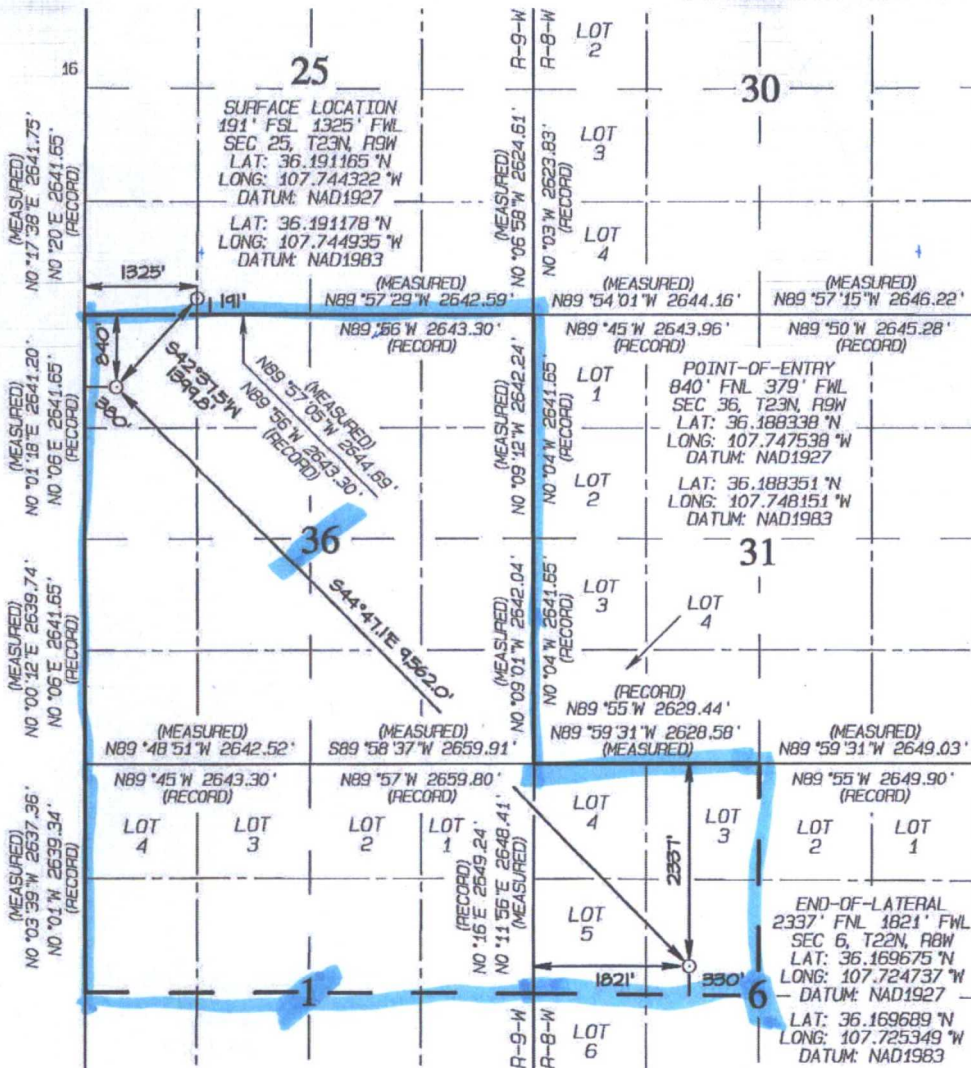
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	25	23N	9W	191	1325	SOUTH	1325	WEST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	6	22N	8W	2337	2337	NORTH	1821	WEST	SAN JUAN

¹² Dedicated Acres 1121.44	Entire Section 36, T23NR9W N/2 - Section 1, T22NR9W NW/4 - Section 6, T22NR8W	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. R-14313
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION
UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A
NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



¹⁷ OPERATOR CERTIFICATION
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement, or a compulsory pooling order heretofore entered by the division.

2/14/18
Signature
Lacey Granillo
Date
Printed Name
lacey.granillo@wpxenergy.com
E-mail Address

¹⁸ SURVEYOR CERTIFICATION
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date Revised: JANUARY 16, 2018
Survey Date: JANUARY 24, 2017

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269



WPX Energy

Operations Plan

(Note: This procedure will be adjusted onsite based upon actual conditions)

Date: February 20, 2018
Well Name: Rodeo Unit #513H
SH Location: SESW SEC 25 23N-09W
BH Location: SENW SEC 06 22N-08W

Field: Basin Mancos
Surface: BLM
Elevation: 6,798'
Minerals: IA

Measured Depth: 15,072'

I. GEOLOGY

Surface formation - NACIMIENTO

A. FORMATION TOPS: (KB)

NAME	MD	TVD	NAME	MD	TVD
Ojo Alamo	424	424	Mancos	3781	3552
Kirtland	532	532	Gallup	4163	3900
Picture Cliffs	1064	1058			
Lewis	1186	1176	KICKOFF POINT	4213	3945
Chacra	1424	1402	LANDING POINT	5359	4671
Cliff House	2493	2379	TOP TARGET	5350	4671
Menefee	2556	2436			
Point Lookout	3630	3414	TD	15072	4606

B. MUD LOGGING PROGRAM:

Mudlogger on location from surface csg to TD.

C. LOGGING PROGRAM:

LWD GR from surface casing to TD.

D. NATURAL GAUGES:

Gauge any noticeable increases in gas flow. Record all gauges in Tour book and on morning reports.

II. DRILLING

A. MUD PROGRAM:

LSND mud (WBM) will be used to drill the 12-1/4" Surface hole, the 8 3/4" Directional Vertical hole, and the curve portion of the wellbore. A LSND (WBM) or (OBM) will be used to drill the lateral portion of well. Treat for lost circulation as necessary. Obtain 100% returns prior to cementing. Notify Engineering of any mud losses.

B. BOP TESTING:

While drill pipe is in use, the pipe rams and the blind rams will be function tested once each trip. The BOPE will be tested to 2,000 psi (High) for 10 minutes and the annular tested to 1,500 psi for 10 minutes. Pressure test surface casing to 1,500 psi for 30 minutes and intermediate casing to 1,500 psi for 30 minutes. Utilize a BOPE Testing Unit with a recording chart and appropriate test plug for testing. All tests and inspections will be recorded in the tour book as to time and results.

III. MATERIALS

A. CASING PROGRAM:

CASING TYPE	OH SIZE (IN)	DEPTH (MD)	CSG SIZE	WEIGHT	GRADE	CONN
SURFACE	12.25"	320'	9.625"	36 LBS	J-55 or equiv	STC
INTERMEDIATE	8.75"	5359'	7"	23 LBS	J-55 or equiv	LTC
PRODUCTION	6.125"	5209' - 15072'	4.5"	11.6 LBS	P-110 or equiv	LTC
TIE BACK	6.125"	Surf. - 5209'	4.5"	11.6 LBS	P-110 or equiv	LTC

B. FLOAT EQUIPMENT:

1. SURFACE CASING:

9-5/8" notched regular pattern guide shoe. Run (1) standard centralizer on each of the bottom (4) joints of Surface Casing.

2. INTERMEDIATE CASING:

7" cement nose guide shoe with a self-fill insert float. Place float collar one joint above the shoe. Install (1) centralizer on each of the bottom (3) joints and one standard centralizer every (3) joints to 2,500 ft. Run (1) centralizer at 2,500 ft., 2,300ft., 2,000ft., 1,500 ft., and 1,000 ft. If losses are encountered during the drilling of the intermediate section a DV tool will be utilized and a 2 stage cement job may be planned to ensure cement circ back to surface. The DV tool will be placed 100' above the top of the Chacra formation. If cement is circulated back to surface on the first stage, a cancelation device will be dropped to shift the dv tool closed and the 2nd stage cement job will be aborted at that time, if no cement is seen at surface on the 1st stage the stage tool will be opened and a 2nd stage cement job will be pumped.

3. PRODUCTION LINER:

Run 4-1/2" Liner with cement nose guide Float Shoe + 2jts. of 4-1/2" casing + Landing Collar + 4-1/2" pup joint + 1 RSI (Sliding Sleeve) positioned inside the 330ft Hard line. Centralizer program will be determined by Wellbore condition and when Lateral is evaluated by Geoscientists and Reservoir Engineers. Set seals on Liner Hanger. Test TOL to 1500 psi for 15 minutes.

C. CEMENT:

(Note: Volumes may be adjusted onsite due to actual conditions)

1. Surface:

5 bbl Fresh Water Spacer, 28.0 bbls, 100 sx (160 cu.ft.) of 14.5 ppg Type I-II (Neat G) + 20% Fly Ash cement w/ 7.41 gal/sack mix water ratio @ 1.61 cu ft/sx yield. Calculated @ volume + 50% excess. WOC 12 hours. Test csg to 600psi. Total Volume: (160 cu-ft/100 sx/ 28.0 Bbls). TOC at Surface.

2. Intermediate:

Spacer #1: 20 bbl (112 cuft) Chemwash. Lead Cement: 114 bbls, 329 sks, (642 cuft), 12.3 ppg @ 1.97 cuft/sk yield. Tail Cement: 114 bbls, 491 sks, (639 cuft), 13.5 ppg @ 1.3 cuft/sk yield. Displacement: Displace w/ +/- 211 bbl Drilling mud or water. Total Cement: 228 bbls, 821 sks, (1281 cuft)

3. Prod Liner:

Spacer #1: 10 bbl (56 cu-ft) Water Spacer. Spacer #2: 40 bbl 9.5 ppg (224.6 cu-ft) Tuned Spacer III. Spacer #3: 10 bbl Water Spacer. Lead Cement: Extencem™ System. Yield 1.36 cuft/sk 13.3 ppg (920 sx /1251 cuft /223 bbls). Tail Spacer: 20 BBL of MMCR. Displacement: Displace w/ +/-188bbl Fr Water. Total Cement: 223 bbls, 920 sks, (1251 cuft)

D. COMPLETION:

Run CCL for perforating

A. PRESSURE TEST:

1. Pressure test 4-1/2" casing to 4500 psi max, hold for 30 minutes. Increase pressure to Open RSI sleeves.

B. STIMULATION:

1. Stimulate with approximately 1,000#/ft 20/40 mesh sand and +/- 200' stage interval for full lateral length of the well with water and N2. Isolate stages with flow through frac plug.

3. Drill out frac plugs and flowback lateral.

C. RUNNING TUBING:

1. Production Tubing: Run 2-7/8", 6.5#, J-55, EUE tubing with a SN on top of bottom joint. Land tubing near Top of Liner.

If this horizontal well is drilled past the applicable setbacks, an unorthodox location application is not required because the completed interval in this well, as defined by 19.15.16.7 B(1) NMAC, will be entirely within the applicable setbacks. This approach complies with all applicable rules, including 19.15.16.14 A(3) NMAC, 19.15.16.14 B(2) NMAC, 19.15.16.15 B(2) NMAC, and 19.15.16.15. B(4) NMAC.

NOTES:

A 4-1/2" 11.6# P-110 Liner will be run to TD and landed +/- 150 ft. into the 7" 23# J-55 Intermediate casing with a Liner Hanger and pack-off assembly then cemented to top of liner hanger.

After cementing and TOL clean up operations are complete, the TOL will be tested to 1500 psi (per BLM).

WPX Energy

San Juan County, NM

Rodeo UT 511 Pad

Rodeo UT 513H

API: ?

Wellbore #1

Plan: Plan #1

Standard Planning Report

30 November, 2017



www.scientificdrilling.com

Rodeo UT 513H
San Juan County, NM
Northing: 1888837.31
Easting: 526265.37
Plan #1



WELL DETAILS Rodeo UT 513H

Ground Level: 6798.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1888837.31	526265.37	36.191165	-107.744322

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00
1619.07	24.38	257.74	1582.61	-54.25	-249.66	2.00	257.74	-137.16
4213.07	24.38	257.74	3945.27	-281.65	-1296.07	0.00	0.00	-712.03
5359.33	90.38	135.27	4671.00	-922.23	-1054.95	9.00	-119.96	-87.26
15072.06	90.38	135.27	4606.00	-7821.99	5780.70	0.00	0.00	9625.25



Azimuths to True North
 Magnetic North: 9.02°

Magnetic Field
 Strength: 49582.6nT
 Dip Angle: 62.82°
 Date: 10/19/2017
 Model: HDGM

SITE DETAILS: Rodeo UT 511 Pad

Site Centre Northing: 1888837.34
 Easting: 526305.21

Positional Uncertainty: 0.00
 Convergence: 0.05
 Local North: True

CASING DETAILS

TVD	MD	Size
4669.99	5509.95	7

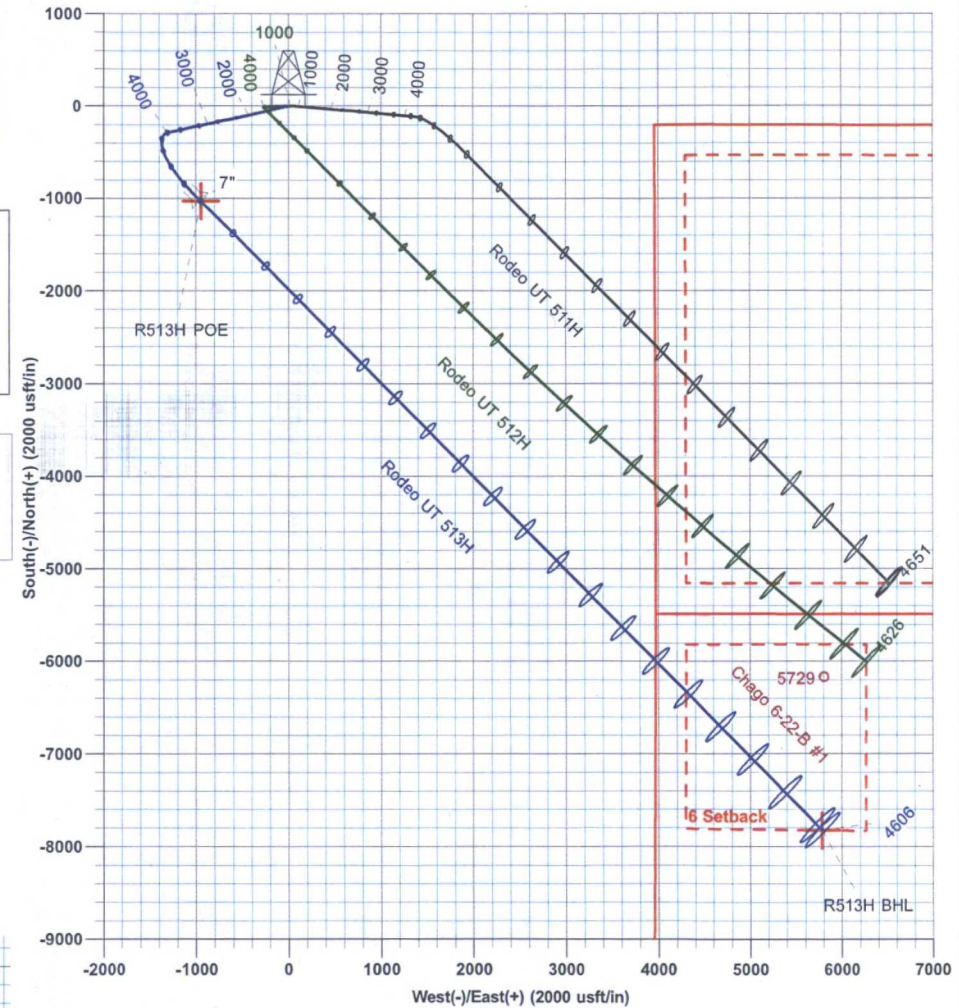
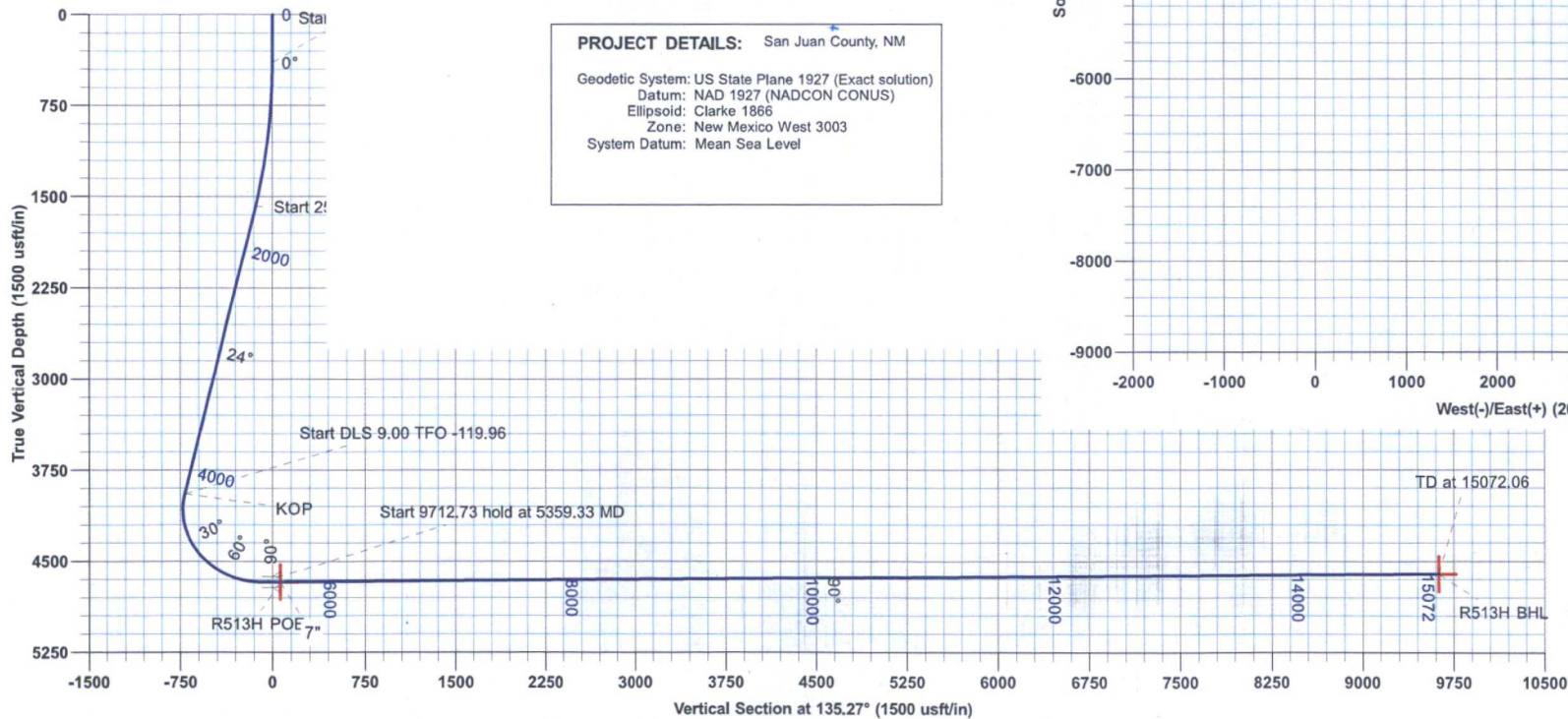
PROJECT DETAILS: San Juan County, NM

Geodetic System: US State Plane 1927 (Exact solution)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: New Mexico West 3003
 System Datum: Mean Sea Level

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	Vsect	Annotation
400.00	400.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00
1582.61	1619.07	24.38	257.74	-54.25	-249.66	-137.16	Start 2594.00 hold at 1619.07 MD
3945.27	4213.07	24.38	257.74	-281.65	-1296.07	-712.03	KOP
3945.27	4213.07	24.38	257.74	-281.65	-1296.07	-712.03	Start DLS 9.00 TFO -119.96
4671.00	5359.33	90.38	135.27	-922.23	-1054.95	-87.26	Start 9712.73 hold at 5359.33 MD
4606.00	15072.06	90.38	135.27	-7821.99	5780.70	9625.25	TD at 15072.06

SL 6798 + KB 21 = @ 6819.00usft (Cyclone 32)



12:27, November 30 2017

Scientific Drilling
 633 Rankin Circle N.
 Houston, TX 77073

Scientific Drilling Int.

Planning Report

Database:	Grand Junction District	Local Co-ordinate Reference:	Well Rodeo UT 513H
Company:	WPX Energy	TVD Reference:	GL 6798 + KB 21 = @ 6819.00usft (Cyclone 32)
Project:	San Juan County, NM	MD Reference:	GL 6798 + KB 21 = @ 6819.00usft (Cyclone 32)
Site:	Rodeo UT 511 Pad	North Reference:	True
Well:	Rodeo UT 513H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Project	San Juan County, NM		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico West 3003		

Site		Rodeo UT 511 Pad			
Site Position:		Northing:	1,888,837.34 usft	Latitude:	36.191165
From:	Lat/Long	Easting:	526,305.21 usft	Longitude:	-107.744187
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.05 °

Well	Rodeo UT 513H					
Well Position	+N/-S	0.00 usft	Northing:	1,888,837.31 usft	Latitude:	36.191165
	+E/-W	-39.84 usft	Easting:	526,265.37 usft	Longitude:	-107.744322
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	6,798.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	10/19/2017	9.02	62.82	49,583

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	135.27

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,619.07	24.38	257.74	1,582.61	-54.25	-249.66	2.00	2.00	0.00	257.74	
4,213.07	24.38	257.74	3,945.27	-281.65	-1,296.07	0.00	0.00	0.00	0.00	
5,359.33	90.38	135.27	4,671.00	-922.23	-1,054.95	9.00	5.76	-10.68	-119.96	
15,072.06	90.38	135.27	4,606.00	-7,821.99	5,780.70	0.00	0.00	0.00	0.00	R513H BHL

Scientific Drilling Int.
Planning Report

Database:	Grand Junction District	Local Co-ordinate Reference:	Well Rodeo UT 513H
Company:	WPX Energy	TVD Reference:	GL 6798 + KB 21 = @ 6819.00usft (Cyclone 32)
Project:	San Juan County, NM	MD Reference:	GL 6798 + KB 21 = @ 6819.00usft (Cyclone 32)
Site:	Rodeo UT 511 Pad	North Reference:	True
Well:	Rodeo UT 513H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
424.00	0.48	257.74	424.00	-0.02	-0.10	-0.05	2.00	2.00	0.00
Ojo Alamo									
500.00	2.00	257.74	499.98	-0.37	-1.71	-0.94	2.00	2.00	0.00
532.05	2.64	257.74	532.00	-0.65	-2.97	-1.63	2.00	2.00	0.00
Kirtland									
600.00	4.00	257.74	599.84	-1.48	-6.82	-3.75	2.00	2.00	0.00
700.00	6.00	257.74	699.45	-3.33	-15.34	-8.43	2.00	2.00	0.00
800.00	8.00	257.74	798.70	-5.92	-27.24	-14.97	2.00	2.00	0.00
900.00	10.00	257.74	897.47	-9.24	-42.53	-23.37	2.00	2.00	0.00
1,000.00	12.00	257.74	995.62	-13.29	-61.17	-33.61	2.00	2.00	0.00
1,063.93	13.28	257.74	1,058.00	-16.26	-74.84	-41.12	2.00	2.00	0.00
Picture Cliffs									
1,100.00	14.00	257.74	1,093.06	-18.07	-83.16	-45.68	2.00	2.00	0.00
1,185.82	15.72	257.74	1,176.00	-22.74	-104.66	-57.50	2.00	2.00	0.00
Lewis									
1,200.00	16.00	257.74	1,189.64	-23.57	-108.45	-59.58	2.00	2.00	0.00
1,300.00	18.00	257.74	1,285.27	-29.78	-137.01	-75.27	2.00	2.00	0.00
1,400.00	20.00	257.74	1,379.82	-36.69	-168.83	-92.75	2.00	2.00	0.00
1,423.64	20.47	257.74	1,402.00	-38.43	-176.82	-97.14	2.00	2.00	0.00
Chacra									
1,500.00	22.00	257.74	1,473.17	-44.30	-203.85	-111.99	2.00	2.00	0.00
1,600.00	24.00	257.74	1,565.21	-52.60	-242.03	-132.96	2.00	2.00	0.00
1,619.07	24.38	257.74	1,582.61	-54.25	-249.66	-137.16	2.00	2.00	0.00
Start 2594.00 hold at 1619.07 MD									
1,700.00	24.38	257.74	1,656.32	-61.35	-282.31	-155.09	0.00	0.00	0.00
1,800.00	24.38	257.74	1,747.40	-70.12	-322.65	-177.26	0.00	0.00	0.00
1,900.00	24.38	257.74	1,838.49	-78.88	-362.99	-199.42	0.00	0.00	0.00
2,000.00	24.38	257.74	1,929.57	-87.65	-403.33	-221.58	0.00	0.00	0.00
2,100.00	24.38	257.74	2,020.65	-96.41	-443.67	-243.74	0.00	0.00	0.00
2,200.00	24.38	257.74	2,111.73	-105.18	-484.00	-265.90	0.00	0.00	0.00
2,300.00	24.38	257.74	2,202.81	-113.95	-524.34	-288.06	0.00	0.00	0.00
2,400.00	24.38	257.74	2,293.89	-122.71	-564.68	-310.23	0.00	0.00	0.00
2,493.44	24.38	257.74	2,379.00	-130.90	-602.38	-330.93	0.00	0.00	0.00
Cliff House									
2,500.00	24.38	257.74	2,384.98	-131.48	-605.02	-332.39	0.00	0.00	0.00
2,556.02	24.38	257.74	2,436.00	-136.39	-627.62	-344.80	0.00	0.00	0.00
Menefee									
2,600.00	24.38	257.74	2,476.06	-140.25	-645.36	-354.55	0.00	0.00	0.00
2,700.00	24.38	257.74	2,567.14	-149.01	-685.70	-376.71	0.00	0.00	0.00
2,800.00	24.38	257.74	2,658.22	-157.78	-726.04	-398.87	0.00	0.00	0.00
2,900.00	24.38	257.74	2,749.30	-166.54	-766.38	-421.03	0.00	0.00	0.00
3,000.00	24.38	257.74	2,840.39	-175.31	-806.72	-443.20	0.00	0.00	0.00
3,100.00	24.38	257.74	2,931.47	-184.08	-847.06	-465.36	0.00	0.00	0.00
3,200.00	24.38	257.74	3,022.55	-192.84	-887.40	-487.52	0.00	0.00	0.00
3,300.00	24.38	257.74	3,113.63	-201.61	-927.74	-509.68	0.00	0.00	0.00

Scientific Drilling Int.

Planning Report

Database:	Grand Junction District	Local Co-ordinate Reference:	Well Rodeo UT 513H
Company:	WPX Energy	TVD Reference:	GL 6798 + KB 21 = @ 6819.00usft (Cyclone 32)
Project:	San Juan County, NM	MD Reference:	GL 6798 + KB 21 = @ 6819.00usft (Cyclone 32)
Site:	Rodeo UT 511 Pad	North Reference:	True
Well:	Rodeo UT 513H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,400.00	24.38	257.74	3,204.71	-210.38	-968.08	-531.84	0.00	0.00	0.00
3,500.00	24.38	257.74	3,295.79	-219.14	-1,008.42	-554.01	0.00	0.00	0.00
3,600.00	24.38	257.74	3,386.88	-227.91	-1,048.76	-576.17	0.00	0.00	0.00
3,629.78	24.38	257.74	3,414.00	-230.52	-1,060.77	-582.77	0.00	0.00	0.00
Point Lookout									
3,700.00	24.38	257.74	3,477.96	-236.67	-1,089.10	-598.33	0.00	0.00	0.00
3,781.29	24.38	257.74	3,552.00	-243.80	-1,121.89	-616.34	0.00	0.00	0.00
Mancos									
3,800.00	24.38	257.74	3,569.04	-245.44	-1,129.44	-620.49	0.00	0.00	0.00
3,900.00	24.38	257.74	3,660.12	-254.21	-1,169.77	-642.65	0.00	0.00	0.00
4,000.00	24.38	257.74	3,751.20	-262.97	-1,210.11	-664.81	0.00	0.00	0.00
4,100.00	24.38	257.74	3,842.28	-271.74	-1,250.45	-686.98	0.00	0.00	0.00
4,163.37	24.38	257.74	3,900.00	-277.29	-1,276.02	-701.02	0.00	0.00	0.00
Gallup									
4,200.00	24.38	257.74	3,933.37	-280.51	-1,290.79	-709.14	0.00	0.00	0.00
4,213.07	24.38	257.74	3,945.27	-281.65	-1,296.07	-712.03	0.00	0.00	0.00
KOP - Start DLS 9.00 TFO -119.96									
4,250.00	22.89	250.32	3,979.11	-285.69	-1,310.28	-719.17	9.00	-4.03	-20.09
4,300.00	21.50	238.97	4,025.42	-293.69	-1,327.30	-725.46	9.00	-2.78	-22.70
4,350.00	20.96	226.61	4,072.05	-304.57	-1,341.66	-727.84	9.00	-1.08	-24.71
4,374.58	21.03	220.44	4,095.00	-310.94	-1,347.71	-727.57	9.00	0.28	-25.12
Gallup Upper									
4,400.00	21.33	214.16	4,118.71	-318.24	-1,353.27	-726.30	9.00	1.19	-24.70
4,450.00	22.57	202.56	4,165.11	-334.63	-1,362.06	-720.84	9.00	2.47	-23.19
4,500.00	24.54	192.42	4,210.96	-353.64	-1,367.98	-711.50	9.00	3.95	-20.28
4,550.00	27.09	183.89	4,255.98	-375.15	-1,370.99	-698.34	9.00	5.10	-17.06
4,600.00	30.07	176.83	4,299.89	-399.03	-1,371.07	-681.43	9.00	5.96	-14.13
4,650.00	33.36	170.98	4,342.43	-425.13	-1,368.22	-660.88	9.00	6.58	-11.69
4,700.00	36.88	166.11	4,383.33	-453.29	-1,362.46	-636.82	9.00	7.04	-9.75
4,746.93	40.34	162.22	4,420.00	-481.44	-1,354.44	-611.18	9.00	7.37	-8.28
Mancos Lwr									
4,750.00	40.57	161.98	4,422.34	-483.33	-1,353.83	-609.40	9.00	7.51	-7.65
4,781.73	42.98	159.68	4,446.00	-503.29	-1,346.88	-590.33	9.00	7.59	-7.26
El Vado									
4,800.00	44.39	158.45	4,459.21	-515.08	-1,342.37	-578.79	9.00	7.70	-6.75
4,850.00	48.30	155.37	4,493.73	-548.33	-1,328.16	-545.16	9.00	7.82	-6.16
4,900.00	52.28	152.64	4,525.67	-582.87	-1,311.28	-508.74	9.00	7.97	-5.45
4,927.38	54.49	151.28	4,542.00	-602.27	-1,300.95	-487.69	9.00	8.06	-5.00
Frac Barrier									
4,950.00	56.32	150.20	4,554.84	-618.51	-1,291.85	-469.75	9.00	8.11	-4.75
5,000.00	60.40	147.98	4,581.07	-655.01	-1,269.97	-428.42	9.00	8.17	-4.45
5,012.20	61.41	147.46	4,587.00	-664.02	-1,264.28	-418.01	9.00	8.21	-4.22
PS 3									
5,050.00	64.52	145.93	4,604.18	-692.16	-1,245.79	-385.01	9.00	8.24	-4.06
5,089.11	67.76	144.42	4,620.00	-721.51	-1,225.36	-349.78	9.00	8.28	-3.85
PS2									
5,100.00	68.66	144.02	4,624.04	-729.71	-1,219.45	-339.80	9.00	8.31	-3.73
5,150.00	72.83	142.21	4,640.53	-767.45	-1,191.12	-293.05	9.00	8.33	-3.61
5,162.11	73.84	141.79	4,644.00	-776.60	-1,183.97	-281.52	9.00	8.35	-3.51
PS1									
5,200.00	77.01	140.48	4,653.53	-805.14	-1,160.96	-245.05	9.00	8.36	-3.44

Scientific Drilling Int.
Planning Report

Database:	Grand Junction District	Local Co-ordinate Reference:	Well Rodeo UT 513H
Company:	WPX Energy	TVD Reference:	GL 6798 + KB 21 = @ 6819.00usft (Cyclone 32)
Project:	San Juan County, NM	MD Reference:	GL 6798 + KB 21 = @ 6819.00usft (Cyclone 32)
Site:	Rodeo UT 511 Pad	North Reference:	True
Well:	Rodeo UT 513H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,226.56	79.23	139.59	4,659.00	-825.06	-1,144.27	-219.15	9.00	8.38	-3.36
PSA									
5,250.00	81.20	138.81	4,662.98	-842.55	-1,129.18	-196.11	9.00	8.39	-3.31
5,300.00	85.40	137.18	4,668.82	-879.44	-1,095.96	-146.52	9.00	8.40	-3.26
5,350.00	89.60	135.57	4,671.00	-915.58	-1,061.50	-96.59	9.00	8.40	-3.23
5,359.33	90.38	135.27	4,671.00	-922.23	-1,054.95	-87.26	9.00	8.40	-3.22
Start 9712.73 hold at 5359.33 MD									
5,400.00	90.38	135.27	4,670.73	-951.12	-1,026.33	-46.59	0.00	0.00	0.00
5,500.00	90.38	135.27	4,670.06	-1,022.16	-955.95	53.41	0.00	0.00	0.00
5,509.95	90.38	135.27	4,669.99	-1,029.23	-948.95	63.36	0.00	0.00	0.00
7"									
5,600.00	90.38	135.27	4,669.39	-1,093.20	-885.57	153.41	0.00	0.00	0.00
5,700.00	90.38	135.27	4,668.72	-1,164.24	-815.19	253.40	0.00	0.00	0.00
5,800.00	90.38	135.27	4,668.05	-1,235.27	-744.81	353.40	0.00	0.00	0.00
5,900.00	90.38	135.27	4,667.38	-1,306.31	-674.44	453.40	0.00	0.00	0.00
6,000.00	90.38	135.27	4,666.71	-1,377.35	-604.06	553.40	0.00	0.00	0.00
6,100.00	90.38	135.27	4,666.04	-1,448.39	-533.68	653.40	0.00	0.00	0.00
6,200.00	90.38	135.27	4,665.37	-1,519.43	-463.30	753.39	0.00	0.00	0.00
6,300.00	90.38	135.27	4,664.70	-1,590.47	-392.92	853.39	0.00	0.00	0.00
6,400.00	90.38	135.27	4,664.04	-1,661.50	-322.54	953.39	0.00	0.00	0.00
6,500.00	90.38	135.27	4,663.37	-1,732.54	-252.17	1,053.39	0.00	0.00	0.00
6,600.00	90.38	135.27	4,662.70	-1,803.58	-181.79	1,153.38	0.00	0.00	0.00
6,700.00	90.38	135.27	4,662.03	-1,874.62	-111.41	1,253.38	0.00	0.00	0.00
6,800.00	90.38	135.27	4,661.36	-1,945.66	-41.03	1,353.38	0.00	0.00	0.00
6,900.00	90.38	135.27	4,660.69	-2,016.70	29.35	1,453.38	0.00	0.00	0.00
7,000.00	90.38	135.27	4,660.02	-2,087.73	99.73	1,553.37	0.00	0.00	0.00
7,100.00	90.38	135.27	4,659.35	-2,158.77	170.10	1,653.37	0.00	0.00	0.00
7,200.00	90.38	135.27	4,658.68	-2,229.81	240.48	1,753.37	0.00	0.00	0.00
7,300.00	90.38	135.27	4,658.01	-2,300.85	310.86	1,853.37	0.00	0.00	0.00
7,400.00	90.38	135.27	4,657.34	-2,371.89	381.24	1,953.37	0.00	0.00	0.00
7,500.00	90.38	135.27	4,656.67	-2,442.93	451.62	2,053.36	0.00	0.00	0.00
7,600.00	90.38	135.27	4,656.00	-2,513.96	522.00	2,153.36	0.00	0.00	0.00
7,700.00	90.38	135.27	4,655.34	-2,585.00	592.37	2,253.36	0.00	0.00	0.00
7,800.00	90.38	135.27	4,654.67	-2,656.04	662.75	2,353.36	0.00	0.00	0.00
7,900.00	90.38	135.27	4,654.00	-2,727.08	733.13	2,453.35	0.00	0.00	0.00
8,000.00	90.38	135.27	4,653.33	-2,798.12	803.51	2,553.35	0.00	0.00	0.00
8,100.00	90.38	135.27	4,652.66	-2,869.16	873.89	2,653.35	0.00	0.00	0.00
8,200.00	90.38	135.27	4,651.99	-2,940.19	944.26	2,753.35	0.00	0.00	0.00
8,300.00	90.38	135.27	4,651.32	-3,011.23	1,014.64	2,853.35	0.00	0.00	0.00
8,400.00	90.38	135.27	4,650.65	-3,082.27	1,085.02	2,953.34	0.00	0.00	0.00
8,500.00	90.38	135.27	4,649.98	-3,153.31	1,155.40	3,053.34	0.00	0.00	0.00
8,600.00	90.38	135.27	4,649.31	-3,224.35	1,225.78	3,153.34	0.00	0.00	0.00
8,700.00	90.38	135.27	4,648.64	-3,295.39	1,296.16	3,253.34	0.00	0.00	0.00
8,800.00	90.38	135.27	4,647.97	-3,366.42	1,366.53	3,353.33	0.00	0.00	0.00
8,900.00	90.38	135.27	4,647.31	-3,437.46	1,436.91	3,453.33	0.00	0.00	0.00
9,000.00	90.38	135.27	4,646.64	-3,508.50	1,507.29	3,553.33	0.00	0.00	0.00
9,100.00	90.38	135.27	4,645.97	-3,579.54	1,577.67	3,653.33	0.00	0.00	0.00
9,200.00	90.38	135.27	4,645.30	-3,650.58	1,648.05	3,753.33	0.00	0.00	0.00
9,300.00	90.38	135.27	4,644.63	-3,721.62	1,718.43	3,853.32	0.00	0.00	0.00
9,400.00	90.38	135.27	4,643.96	-3,792.66	1,788.80	3,953.32	0.00	0.00	0.00
9,500.00	90.38	135.27	4,643.29	-3,863.69	1,859.18	4,053.32	0.00	0.00	0.00

Scientific Drilling Int.

Planning Report

Database:	Grand Junction District	Local Co-ordinate Reference:	Well Rodeo UT 513H
Company:	WPX Energy	TVD Reference:	GL 6798 + KB 21 = @ 6819.00usft (Cyclone 32)
Project:	San Juan County, NM	MD Reference:	GL 6798 + KB 21 = @ 6819.00usft (Cyclone 32)
Site:	Rodeo UT 511 Pad	North Reference:	True
Well:	Rodeo UT 513H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,600.00	90.38	135.27	4,642.62	-3,934.73	1,929.56	4,153.32	0.00	0.00	0.00
9,700.00	90.38	135.27	4,641.95	-4,005.77	1,999.94	4,253.31	0.00	0.00	0.00
9,800.00	90.38	135.27	4,641.28	-4,076.81	2,070.32	4,353.31	0.00	0.00	0.00
9,900.00	90.38	135.27	4,640.61	-4,147.85	2,140.70	4,453.31	0.00	0.00	0.00
10,000.00	90.38	135.27	4,639.94	-4,218.89	2,211.07	4,553.31	0.00	0.00	0.00
10,100.00	90.38	135.27	4,639.27	-4,289.92	2,281.45	4,653.31	0.00	0.00	0.00
10,200.00	90.38	135.27	4,638.61	-4,360.96	2,351.83	4,753.30	0.00	0.00	0.00
10,300.00	90.38	135.27	4,637.94	-4,432.00	2,422.21	4,853.30	0.00	0.00	0.00
10,400.00	90.38	135.27	4,637.27	-4,503.04	2,492.59	4,953.30	0.00	0.00	0.00
10,500.00	90.38	135.27	4,636.60	-4,574.08	2,562.97	5,053.30	0.00	0.00	0.00
10,600.00	90.38	135.27	4,635.93	-4,645.12	2,633.34	5,153.29	0.00	0.00	0.00
10,700.00	90.38	135.27	4,635.26	-4,716.15	2,703.72	5,253.29	0.00	0.00	0.00
10,800.00	90.38	135.27	4,634.59	-4,787.19	2,774.10	5,353.29	0.00	0.00	0.00
10,900.00	90.38	135.27	4,633.92	-4,858.23	2,844.48	5,453.29	0.00	0.00	0.00
11,000.00	90.38	135.27	4,633.25	-4,929.27	2,914.86	5,553.29	0.00	0.00	0.00
11,100.00	90.38	135.27	4,632.58	-5,000.31	2,985.24	5,653.28	0.00	0.00	0.00
11,200.00	90.38	135.27	4,631.91	-5,071.35	3,055.61	5,753.28	0.00	0.00	0.00
11,300.00	90.38	135.27	4,631.24	-5,142.38	3,125.99	5,853.28	0.00	0.00	0.00
11,400.00	90.38	135.27	4,630.57	-5,213.42	3,196.37	5,953.28	0.00	0.00	0.00
11,500.00	90.38	135.27	4,629.91	-5,284.46	3,266.75	6,053.27	0.00	0.00	0.00
11,600.00	90.38	135.27	4,629.24	-5,355.50	3,337.13	6,153.27	0.00	0.00	0.00
11,700.00	90.38	135.27	4,628.57	-5,426.54	3,407.51	6,253.27	0.00	0.00	0.00
11,800.00	90.38	135.27	4,627.90	-5,497.58	3,477.88	6,353.27	0.00	0.00	0.00
11,900.00	90.38	135.27	4,627.23	-5,568.61	3,548.26	6,453.27	0.00	0.00	0.00
12,000.00	90.38	135.27	4,626.56	-5,639.65	3,618.64	6,553.26	0.00	0.00	0.00
12,100.00	90.38	135.27	4,625.89	-5,710.69	3,689.02	6,653.26	0.00	0.00	0.00
12,200.00	90.38	135.27	4,625.22	-5,781.73	3,759.40	6,753.26	0.00	0.00	0.00
12,300.00	90.38	135.27	4,624.55	-5,852.77	3,829.78	6,853.26	0.00	0.00	0.00
12,400.00	90.38	135.27	4,623.88	-5,923.81	3,900.15	6,953.25	0.00	0.00	0.00
12,500.00	90.38	135.27	4,623.21	-5,994.84	3,970.53	7,053.25	0.00	0.00	0.00
12,600.00	90.38	135.27	4,622.54	-6,065.88	4,040.91	7,153.25	0.00	0.00	0.00
12,700.00	90.38	135.27	4,621.87	-6,136.92	4,111.29	7,253.25	0.00	0.00	0.00
12,800.00	90.38	135.27	4,621.21	-6,207.96	4,181.67	7,353.25	0.00	0.00	0.00
12,900.00	90.38	135.27	4,620.54	-6,279.00	4,252.05	7,453.24	0.00	0.00	0.00
13,000.00	90.38	135.27	4,619.87	-6,350.04	4,322.42	7,553.24	0.00	0.00	0.00
13,100.00	90.38	135.27	4,619.20	-6,421.07	4,392.80	7,653.24	0.00	0.00	0.00
13,200.00	90.38	135.27	4,618.53	-6,492.11	4,463.18	7,753.24	0.00	0.00	0.00
13,300.00	90.38	135.27	4,617.86	-6,563.15	4,533.56	7,853.23	0.00	0.00	0.00
13,400.00	90.38	135.27	4,617.19	-6,634.19	4,603.94	7,953.23	0.00	0.00	0.00
13,500.00	90.38	135.27	4,616.52	-6,705.23	4,674.31	8,053.23	0.00	0.00	0.00
13,600.00	90.38	135.27	4,615.85	-6,776.27	4,744.69	8,153.23	0.00	0.00	0.00
13,700.00	90.38	135.27	4,615.18	-6,847.30	4,815.07	8,253.23	0.00	0.00	0.00
13,800.00	90.38	135.27	4,614.51	-6,918.34	4,885.45	8,353.22	0.00	0.00	0.00
13,900.00	90.38	135.27	4,613.84	-6,989.38	4,955.83	8,453.22	0.00	0.00	0.00
14,000.00	90.38	135.27	4,613.17	-7,060.42	5,026.21	8,553.22	0.00	0.00	0.00
14,100.00	90.38	135.27	4,612.51	-7,131.46	5,096.58	8,653.22	0.00	0.00	0.00
14,200.00	90.38	135.27	4,611.84	-7,202.50	5,166.96	8,753.21	0.00	0.00	0.00
14,300.00	90.38	135.27	4,611.17	-7,273.53	5,237.34	8,853.21	0.00	0.00	0.00
14,400.00	90.38	135.27	4,610.50	-7,344.57	5,307.72	8,953.21	0.00	0.00	0.00
14,500.00	90.38	135.27	4,609.83	-7,415.61	5,378.10	9,053.21	0.00	0.00	0.00
14,600.00	90.38	135.27	4,609.16	-7,486.65	5,448.48	9,153.20	0.00	0.00	0.00
14,700.00	90.38	135.27	4,608.49	-7,557.69	5,518.85	9,253.20	0.00	0.00	0.00

Scientific Drilling Int.
Planning Report

Database:	Grand Junction District	Local Co-ordinate Reference:	Well Rodeo UT 513H
Company:	WPX Energy	TVD Reference:	GL 6798 + KB 21 = @ 6819.00usft (Cyclone 32)
Project:	San Juan County, NM	MD Reference:	GL 6798 + KB 21 = @ 6819.00usft (Cyclone 32)
Site:	Rodeo UT 511 Pad	North Reference:	True
Well:	Rodeo UT 513H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,800.00	90.38	135.27	4,607.82	-7,628.73	5,589.23	9,353.20	0.00	0.00	0.00
14,900.00	90.38	135.27	4,607.15	-7,699.76	5,659.61	9,453.20	0.00	0.00	0.00
15,000.00	90.38	135.27	4,606.48	-7,770.80	5,729.99	9,553.20	0.00	0.00	0.00
15,072.06	90.38	135.27	4,606.00	-7,821.99	5,780.70	9,625.25	0.00	0.00	0.00
TD at 15072.06									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
R513H BHL	0.00	0.00	4,606.00	-7,821.99	5,780.70	1,881,020.62	532,053.25	36.169675	-107.724737
- plan hits target center									
- Point									
R513H POE	0.00	0.00	4,671.00	-1,029.04	-947.53	1,887,807.40	525,318.78	36.188338	-107.747533
- plan misses target center by 1.52usft at 5510.81usft MD (4669.99 TVD, -1029.84 N, -948.34 E)									
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
5,509.95	4,669.99	7"	7	8-3/4	

Scientific Drilling Int.
Planning Report

Database:	Grand Junction District	Local Co-ordinate Reference:	Well Rodeo UT 513H
Company:	WPX Energy	TVD Reference:	GL 6798 + KB 21 = @ 6819.00usft (Cyclone 32)
Project:	San Juan County, NM	MD Reference:	GL 6798 + KB 21 = @ 6819.00usft (Cyclone 32)
Site:	Rodeo UT 511 Pad	North Reference:	True
Well:	Rodeo UT 513H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
424.00	424.00	Ojo Alamo				
532.05	532.00	Kirtland				
1,063.93	1,058.00	Picture Cliffs				
1,185.82	1,176.00	Lewis				
1,423.64	1,402.00	Chacra				
2,493.44	2,379.00	Cliff House				
2,556.02	2,436.00	Menefee				
3,629.78	3,414.00	Point Lookout				
3,781.29	3,552.00	Mancos				
4,163.37	3,900.00	Gallup				
4,374.58	4,095.00	Gallup Upper				
4,746.93	4,420.00	Mancos Lwr				
4,781.73	4,446.00	El Vado				
4,927.38	4,542.00	Frac Barrier				
5,012.20	4,587.00	PS 3				
5,089.11	4,620.00	PS2				
5,162.11	4,644.00	PS1				
5,226.56	4,659.00	PSA				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
400.00	400.00	0.00	0.00	Start Build 2.00	
1,619.07	1,582.61	-54.25	-249.66	Start 2594.00 hold at 1619.07 MD	
4,213.07	3,945.27	-281.65	-1,296.07	KOP	
4,213.07	3,945.27	-281.65	-1,296.07	Start DLS 9.00 TFO -119.96	
5,359.33	4,671.00	-922.23	-1,054.95	Start 9712.73 hold at 5359.33 MD	
15,072.06	4,606.00	-7,821.99	5,780.70	TD at 15072.06	

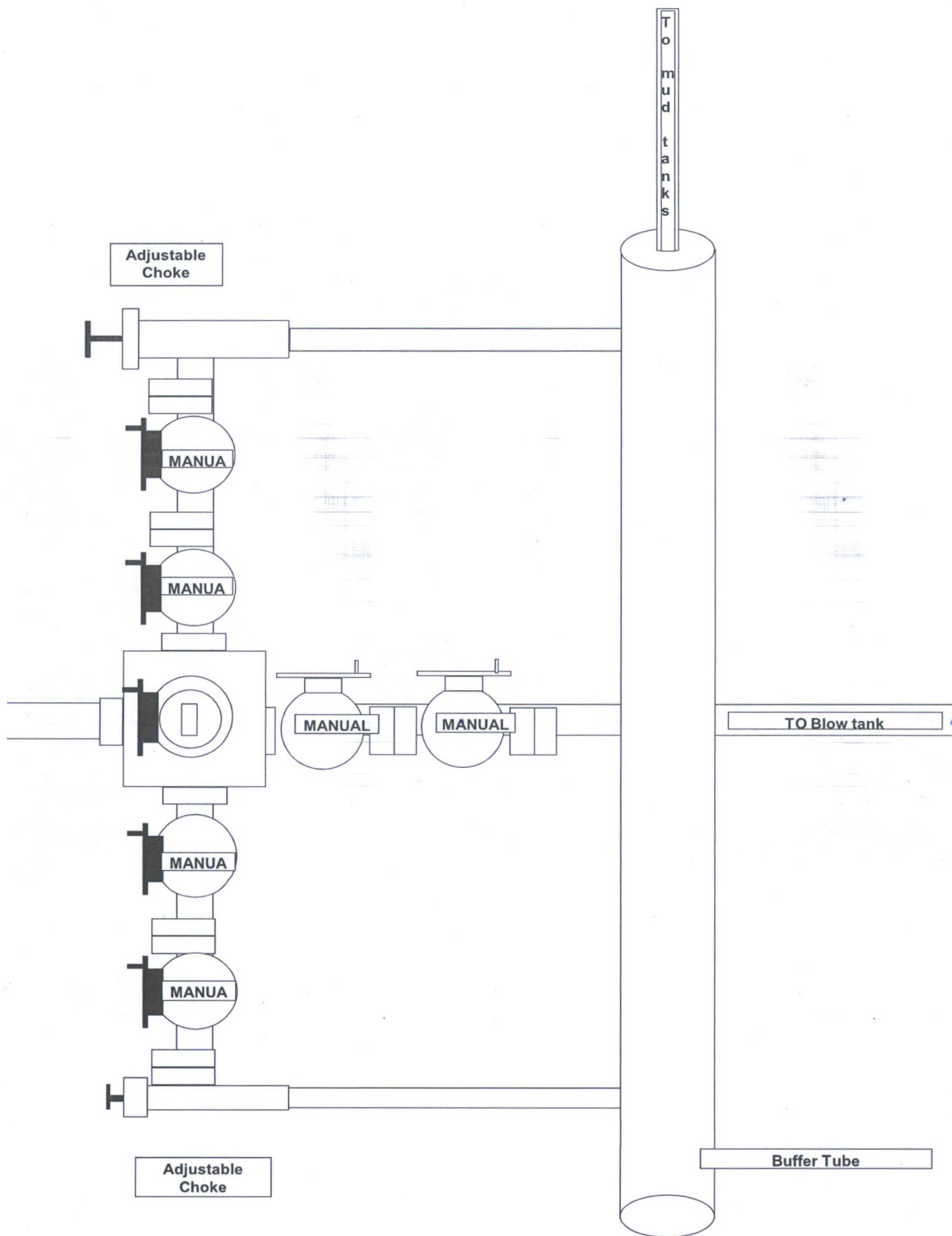
disturbance survey efforts. WPX would conduct onsite inspections with BLM resource staff for proposed well pads after they have been staked and surveyed to verify that sensitive resources have been avoided and to identify changes or mitigation measures required for BLM approval.

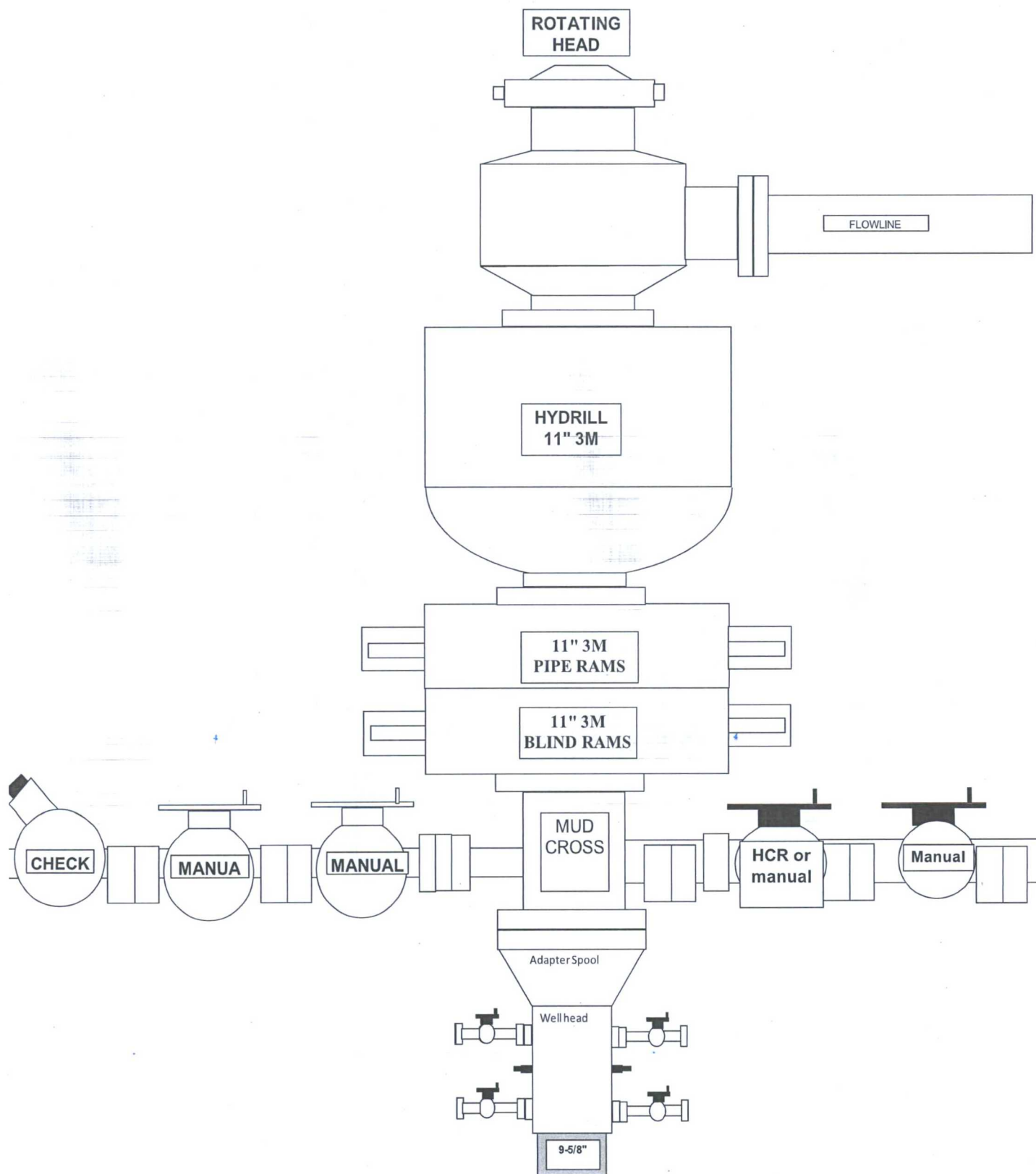
3.12.1 Control of Waste

- Drilling of the horizontal laterals would be accomplished with water-based mud. All cuttings would be placed in roll-off bins and hauled to a commercial disposal facility or land farm. No blow pit would be used.
- ✓ • The closed-loop system storage tanks would be sized to ensure confinement of all fluids and would provide sufficient freeboard to prevent uncontrolled releases.
- Drilling fluids would be stored on-site in aboveground storage tanks. Upon termination of drilling operations, the drilling fluids would be recycled and transferred to other permitted closed-loop systems or returned to the vendor for reuse, as practical. All residual fluids would be hauled to a commercial disposal facility.
- Any spills of non-freshwater fluids would be immediately cleaned up in accordance with State and Federal regulations and disposed of appropriately.
- Any solid waste produced during water recycling would be properly disposed of, following NMOCD rules and regulations.
- Portable toilets would be provided and maintained as needed during construction.
- Garbage, trash, and other waste materials would be collected in a portable, self-contained, and fully enclosed trash container during drilling and completion operations. The accumulated trash would be removed, as needed, and would be disposed of at an authorized sanitary landfill. No trash would be buried or burned on location.
- Immediately after removal of the drilling rig, all debris and other waste materials not contained in the trash container would be cleaned up and removed from the well location.
- No chemicals subject to reporting under the Superfund Amendments and Reauthorization Act Title III in an amount equal to or greater than 10,000 pounds would be used, produced, stored, transported, or disposed annually in association with the drilling, testing, or completing of these wells.
- No extremely hazardous substances (as defined in 40 CFR 355) in threshold planning quantities would be used, produced, stored, transported, or disposed in association with the drilling, testing, or completing of these wells.
- Berms would be constructed around all storage facilities sufficient in size to contain 110% of the capacity of the largest single container within it for 72 hours. Berm walls would be compacted with appropriate equipment to assure containment.

3.12.2 Protection of Paleontological Resources

- A site specific onsite visit would be conducted for each well pad location and associated facilities prior to APD/ROW Grant approval. During this onsite visit a site-specific survey and assessment of paleontological resources would be conducted. Any identified paleontological resources would





Directions from the Intersection of US Hwy 550 & US Hwy 64
in Bloomfield, NM to WPX Energy Production, LLC Rodeo Unit #513H
191' FSL & 1325' FWL, Section 25, T23N, R9W, N.M.P.M., San Juan County, NM

Latitude: 36.191178°N Longitude: 107.744935°W Datum: NAD1983

From the intersection of US Hwy 550 & US Hwy 64 in Bloomfield, NM, travel Southerly on US Hwy 550 for 37.8 miles to Mile Marker 113.4;

Go Right (South-westerly) on County Road #7890 for 0.8 miles to fork in roadway;

Go Left (Southerly) remaining on County Road #7890 for 1.3 miles to four-way intersection;

Go Left (South-easterly) remaining on County Road #7890 for 0.6 miles to fork in roadway;

Go Right (South-westerly) remaining on County Road #7890 for 1.5 miles to begin proposed access on left-hand side which continues for 2662.8' to staked WPX Rodeo Unit #513H location.