

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: 1/16/2017

Well information;

Operator WPA, Well Name and Number Kimbeto Wash Unit 7774

API# 30-045-35821, Section 28, 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.

Charlie Ben

NMOCD Approved by Signature

6-9-2017
Date

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. NMNM136267	
6. If Indian, Allottee or Tribe Name	
7. If Unit or CA Agreement, Name and No. KIMBETO WASH UNIT / NMNM135255A	
8. Lease Name and Well No. KWU 777H	
9. API Well No. 30-045-35827	
1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER	10. Field and Pool, or Exploratory BASIN MANCOS / MANCOS
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone	11. Sec., T. R. M. or Blk. and Survey or Area SEC 28 / T23N / R9W / NMP
2. Name of Operator WPX ENERGY LLC	12. County or Parish SAN JUAN
3a. Address 720 S Main Aztec NM 87410	13. State NM
3b. Phone No. (include area code) (505)333-1822	14. Distance in miles and direction from nearest town or post office* 37.8 miles
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface NESW / 1939 FSL / 2285 FWL / LAT 36.196036 / LONG -107.795341 At proposed prod. zone NWNW / 1265 FNL / 667 FWL / LAT 36.216169 / LONG -107.818894	15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 667 feet
16. No. of acres in lease 960	17. Spacing Unit dedicated to this well 20
18. Distance from proposed location* to nearest well, drilling, completed, 1453.8 feet applied for, on this lease, ft.	19. Proposed Depth 5500 feet / 10000 feet
20. BLM/BIA Bond No. on file FED: UTB000178	21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6538 feet
22. Approximate date work will start* 02/20/2017	23. Estimated duration 48 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) Marie Jaramillo / Ph: (505)533-1808	Date 01/16/2017
Title Permitting Tech III		
Approved by (Signature) <i>[Signature]</i>	Name (Printed/Typed)	Date 2/1/17
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

OIL CONS. DIV DIST. 3

JUN 02 2017

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
AV

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 30-045-35827		*Pool Code 97232	*Pool Name BASIN MANCOS
*Property Code 316144	*Property Name KWU		*Well Number 777H
*GRID No. 120782	*Operator Name WPX ENERGY PRODUCTION, LLC		*Elevation 6538

10 Surface Location

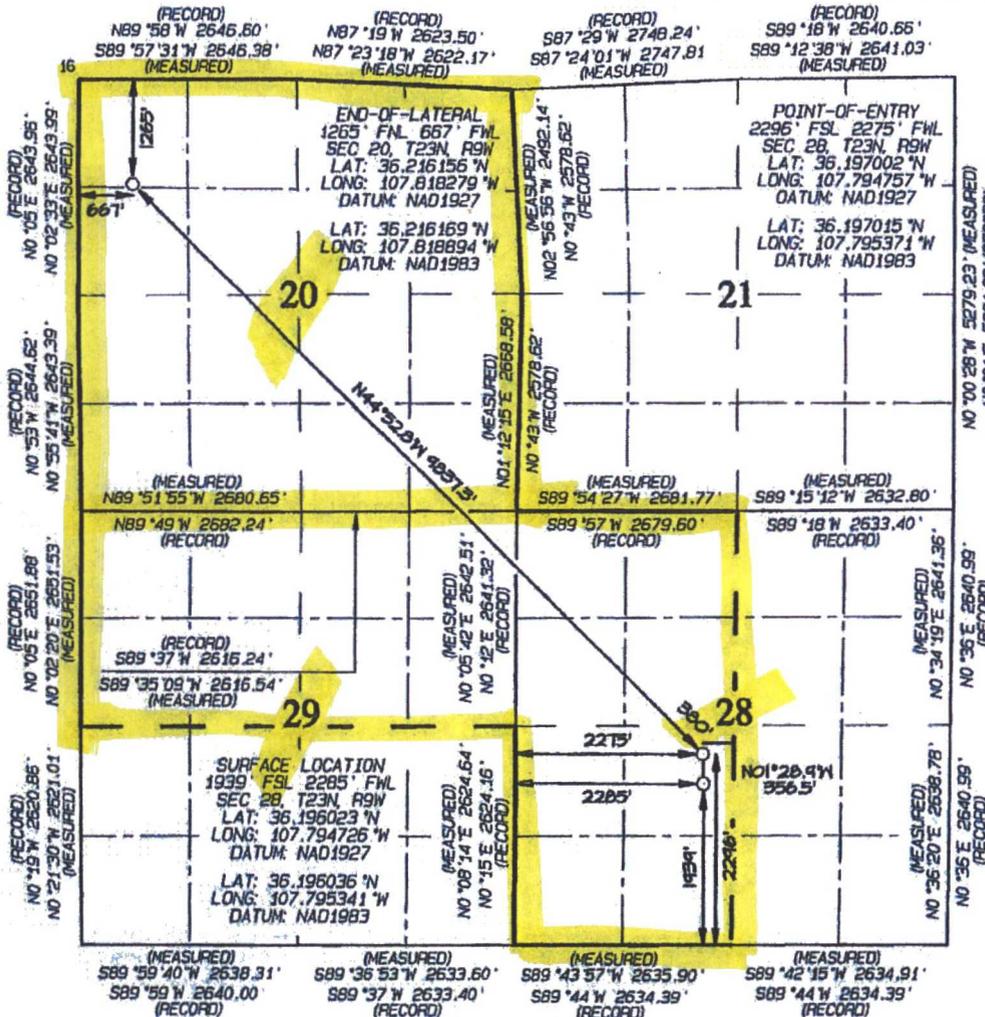
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	28	23N	9W		1939	SOUTH	2285	WEST	SAN JUAN

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
D	20	23N	9W		1265	NORTH	667	WEST	SAN JUAN

*Dedicated Acres 1280.00	Entire Section 20 W/2 - Section 28 N/2 - Section 29	*Joint or Infill	*Consolidation Code	*Order No.
-----------------------------	---	------------------	---------------------	------------

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 hereafter entered by the division.

Signature: *Marie E. Jaramillo* Date: 1/15/17
Printed Name: Marie E. Jaramillo
E-mail Address: mariejaramillo@wpxenergy.com

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 10, 2017
Survey Date: OCTOBER 2, 2015
Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269

Federal Minerals Navajo Surface



WPX Energy

Operations Plan

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

Date: December 29, 2016
Well Name: KWU #777H
SH Location: NESW Sec 28-23N-09W
BH Location: NWNW Sec 20-23N-09W
Field: Basin Mancos
Surface: BLM
Elevation: 6538' GR
Minerals: IA

Measured Depth: 14,667.95'

I. GEOLOGY

Surface formation - OJO ALAMO/ NACIMIENTO

A. FORMATION TOPS: (GR)

NAME	MD	TVD	NAME	MD	TVD
OJO ALAMO	37.00	37.00	POINT LOOKOUT	3,147.00	3,107.00
KIRTLAND	179.00	179.00	MANCOS	3,325.00	3,280.00
PICTURED CLIFFS	646.00	646.00	GALLUP	3,666.00	3,614.00
LEWIS	846.00	846.00	KICKOFF POINT	3,607.48	3,556.32
CHACRA	1,059.00	1,059.00	TOP TARGET	4,727.00	4,358.00
CLIFF HOUSE	2,199.00	2,181.00	LANDING POINT	4,830.58	4,367.00
MENEFEE	2,211.00	2,192.00	BASE TARGET	4,830.58	4,367.00
			TD	14,667.95	4,421.00

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"	320.00'	9.625"	36 LBS	J-55 or equiv	STC
INTERMEDIATE	8.75"	4,830.58'	7"	23 LBS	J-55 or equiv	LTC
PRODUCTION	6.125"	4680.58' - 14,667.95'	4.5"	11.6 LBS	P-110 or equiv	LTC
TIE BACK	6.125"	Surf. - 4680.58'	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, 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/ Bbls).TOC at Surface.

2. Intermediate:

Spacer #1: 20 bbl (112 cuft) Chemwash. Lead Cement: 83 bbls, 238 sks, (468 cuft), 12.3 ppg @ 1.97 cuft/sk yield. Tail Cement: 59 bbls, 254 sks, (331 cuft), 13.5 ppg @ 1.3 cuft/sk yield. Displacement: Displace w/ +/- 190 bbl Drilling mud or water. Total Cement: 142 bbls, 492 sks, (799 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 (979 sx /1331 cuft /237 bbls). Tail Spacer: 20 BBL of MMCR. Displacement: Displace w/ +/-203bbl Fr Water. Total Cement (979 sx /1331bbls).

D. COMPLETION:

Run CCL for perforating

A. PRESSURE TEST:

1. Pressure test 4-1/2" casing to 4500 psi max, hold at 1500 psi for 30 minutes. Increase pressure to Open RSI sleeves.

B. STIMULATION:

1. Stimulate with approximately 2,805,000# 20/40 mesh sand and 340,000# 16/30 mesh sand in 619,113 gallons water with 42,696 mscf N2 for 17 stages.
2. 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

T23N R9W

2309-28K WLU-KWU

Kimбето Wash UT #777H - Slot A2

Wellbore #1

Plan: Design #2 27Sept16 sam

Standard Planning Report

27 September, 2016

WPX
Planning Report

Database:	COMPASS	Local Co-ordinate Reference:	Well Kimbeto Wash UT #777H (A2) - Slot A2
Company:	WPX Energy	TVD Reference:	GL @ 6538.00usft (Original Well Elev)
Project:	T23N R9W	MD Reference:	GL @ 6538.00usft (Original Well Elev)
Site:	2309-28K WLU-KWU	North Reference:	True
Well:	Kimbeto Wash UT #777H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 27Sept16 sam		

Project	T23N R9W		
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	2309-28K WLU-KWU				
Site Position:		Northing:	1,890,595.89 usft	Latitude:	36.196023
From:	Map	Easting:	511,391.51 usft	Longitude:	-107.794726
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.02 °

Well	Kimbeto Wash UT #777H - Slot A2					
Well Position	+N/-S	0.00 usft	Northing:	1,890,595.89 usft	Latitude:	36.196023
	+E/-W	0.00 usft	Easting:	511,391.51 usft	Longitude:	-107.794726
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	6,538.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	IGRF2015	5/25/2016	(°)	(°)	(nT)
			9.32	62.88	49,834

Design	Design #2 27Sept16 sam			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(bearing)
	0.00	0.00	0.00	316.53

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(bearing)	Depth	(usft)	(usft)	Rate	Rate	Rate	(°)	
(usft)			(usft)			(°/100usft)	(°/100usft)	(°/100usft)		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,619.78	12.40	110.69	1,614.95	-23.59	62.48	2.00	2.00	0.00	110.69	
3,607.48	12.40	110.69	3,556.32	-174.31	461.65	0.00	0.00	0.00	0.00	
4,400.70	60.00	315.14	4,231.72	71.79	274.11	9.00	6.00	-19.61	-157.77	Start 60 tan #777H
4,500.70	60.00	315.14	4,281.72	133.18	213.02	0.00	0.00	0.00	0.00	End 60 tan #777H
4,669.00	75.15	315.14	4,345.74	243.14	103.61	9.00	9.00	0.00	0.00	
4,830.58	89.69	315.14	4,367.00	356.36	-9.06	9.00	9.00	0.00	0.00	POE #777H
14,667.95	89.68	315.14	4,421.00	7,329.62	-6,947.69	0.00	0.00	0.00	-179.72	BHL #777H

WPX
Planning Report

Database:	COMPASS	Local Co-ordinate Reference:	Well Kimbeto Wash UT #777H (A2) - Slot A2
Company:	WPX Energy	TVD Reference:	GL @ 6538.00usft (Original Well Elev)
Project:	T23N R9W	MD Reference:	GL @ 6538.00usft (Original Well Elev)
Site:	2309-28K WLU-KWU	North Reference:	True
Well:	Kimbeto Wash UT #777H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 27Sept16 sam		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	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
320.00	0.00	0.00	320.00	0.00	0.00	0.00	0.00	0.00	0.00
9 5/8"									
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
1,500.00	10.00	110.69	1,497.47	-15.37	40.72	-39.17	2.00	2.00	0.00
1,619.78	12.40	110.69	1,614.95	-23.59	62.48	-60.10	2.00	2.00	0.00
Hold 12.40 Inclination									
2,000.00	12.40	110.69	1,986.31	-52.42	138.83	-133.55	0.00	0.00	0.00
2,500.00	12.40	110.69	2,474.66	-90.33	239.24	-230.15	0.00	0.00	0.00
3,000.00	12.40	110.69	2,963.00	-128.24	339.65	-326.74	0.00	0.00	0.00
3,500.00	12.40	110.69	3,451.35	-166.16	440.06	-423.33	0.00	0.00	0.00
3,607.48	12.40	110.69	3,556.32	-174.31	461.65	-444.09	0.00	0.00	0.00
Start Build DLS 9.00 TFO -167.77									
4,000.00	24.25	322.87	3,939.15	-123.29	452.09	-400.50	9.00	3.02	-37.66
4,400.70	60.00	315.14	4,231.72	71.79	274.11	-136.47	9.00	8.92	-1.93
Hold 60.00 Inclination									
4,500.00	60.00	315.14	4,281.37	132.75	213.45	-50.50	0.00	0.00	0.00
4,500.70	60.00	315.14	4,281.72	133.18	213.02	-49.89	0.00	0.00	0.00
Start Build DLS 9.00 TFO 0.00									
4,669.00	75.15	315.14	4,345.74	243.14	103.61	105.18	9.00	9.00	0.00
Start DLS 9.00 TFO 0.00									
4,830.58	89.69	315.14	4,367.00	358.36	-9.06	264.87	9.00	9.00	0.00
POE at 89.69 Inc 315.14 Deg - 7"									
5,000.00	89.69	315.14	4,367.92	476.46	-128.56	434.24	0.00	0.00	0.00
5,500.00	89.69	315.14	4,370.64	630.89	-481.22	934.08	0.00	0.00	0.00
6,000.00	89.69	315.14	4,373.37	1,185.31	-833.89	1,433.93	0.00	0.00	0.00
6,500.00	89.69	315.14	4,376.09	1,539.74	-1,186.56	1,933.77	0.00	0.00	0.00
7,000.00	89.69	315.14	4,378.82	1,894.17	-1,539.23	2,433.62	0.00	0.00	0.00
7,500.00	89.69	315.14	4,381.55	2,248.59	-1,891.89	2,933.46	0.00	0.00	0.00
8,000.00	89.69	315.14	4,384.29	2,603.02	-2,244.56	3,433.31	0.00	0.00	0.00
8,500.00	89.69	315.14	4,387.02	2,957.45	-2,597.23	3,933.16	0.00	0.00	0.00
9,000.00	89.69	315.14	4,389.76	3,311.88	-2,949.89	4,433.00	0.00	0.00	0.00
9,500.00	89.69	315.14	4,392.50	3,666.30	-3,302.56	4,932.85	0.00	0.00	0.00
10,000.00	89.69	315.14	4,395.25	4,020.73	-3,655.23	5,432.69	0.00	0.00	0.00
10,500.00	89.69	315.14	4,398.00	4,375.16	-4,007.89	5,932.54	0.00	0.00	0.00
11,000.00	89.68	315.14	4,400.75	4,729.58	-4,360.56	6,432.38	0.00	0.00	0.00
11,500.00	89.68	315.14	4,403.50	5,084.01	-4,713.23	6,932.23	0.00	0.00	0.00
12,000.00	89.68	315.14	4,406.25	5,438.44	-5,065.90	7,432.07	0.00	0.00	0.00
12,500.00	89.68	315.14	4,409.01	5,792.86	-5,418.56	7,931.92	0.00	0.00	0.00
13,000.00	89.68	315.14	4,411.77	6,147.29	-5,771.23	8,431.76	0.00	0.00	0.00
13,500.00	89.68	315.14	4,414.54	6,501.72	-6,123.90	8,931.61	0.00	0.00	0.00
14,000.00	89.68	315.14	4,417.30	6,856.14	-6,476.56	9,431.45	0.00	0.00	0.00
14,500.00	89.68	315.14	4,420.07	7,210.57	-6,829.23	9,931.30	0.00	0.00	0.00
14,667.95	89.68	315.14	4,421.00	7,329.62	-6,947.69	10,099.19	0.00	0.00	0.00
14667.95 Measured depth									

WPX
Planning Report

Database:	COMPASS	Local Co-ordinate Reference:	Well Kimbeto Wash UT #777H (A2) - Slot A2
Company:	WPX Energy	TVD Reference:	GL @ 6538.00usft (Original Well Elev)
Project:	T23N R9W	MD Reference:	GL @ 6538.00usft (Original Well Elev)
Site:	2309-28K WLU-KWU	North Reference:	True
Well:	Kimbeto Wash UT #777H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #2 27Sept16 sam		

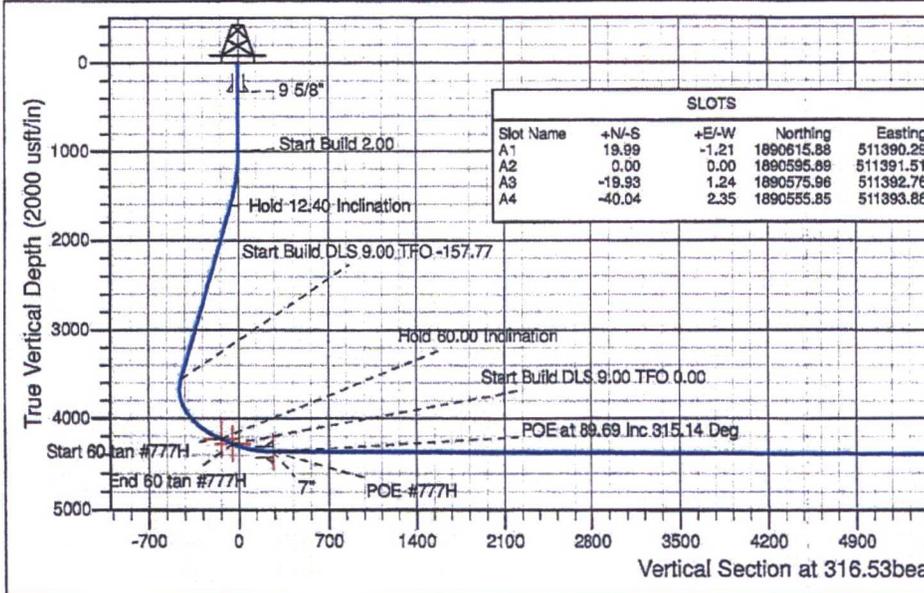
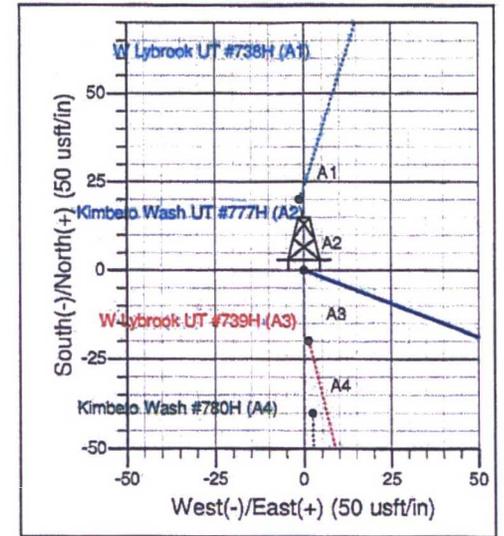
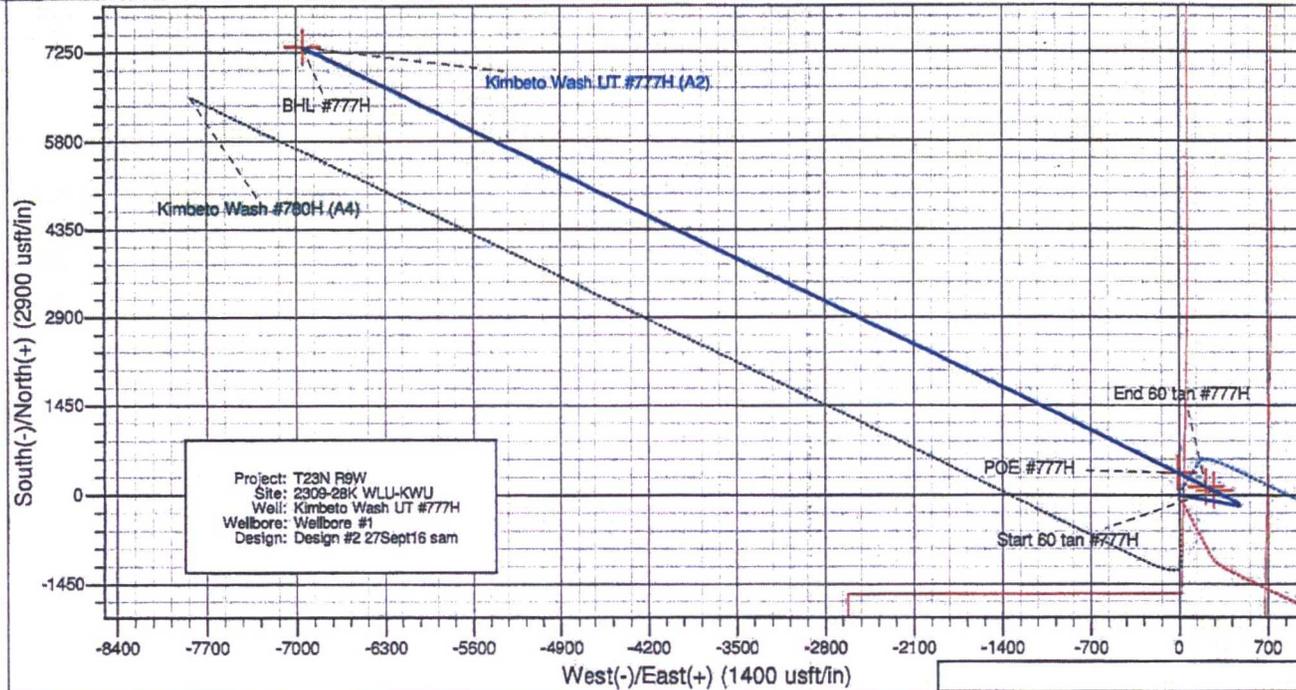
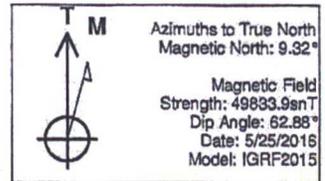
Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (bearing)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Start 60 tan #777H - plan hits target center - Point	0.00	0.00	4,231.72	71.79	274.11	1,890,667.79	511,665.59	36.196220	-107.793797
End 60 tan #777H - plan hits target center - Point	0.00	0.00	4,281.72	133.18	213.02	1,890,729.16	511,604.48	36.196389	-107.794004
POE #777H - plan hits target center - Point	0.00	0.00	4,367.00	356.36	-9.06	1,890,952.25	511,382.31	36.197002	-107.794757
BHL #777H - plan hits target center - Point	0.00	0.00	4,421.00	7,329.62	-6,947.69	1,897,922.75	504,440.90	36.216156	-107.818279

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)		Name	Casing Diameter (in)	Hole Diameter (in)
320.00	320.00	9 5/8"		9.625	12.250
4,830.58	4,367.00	7"		7.000	8.750

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
1,000.00	1,000.00	0.00	0.00	Start Build 2.00	
1,619.78	1,614.95	-23.59	62.48	Hold 12.40 Inclination	
3,607.48	3,556.32	-174.31	461.65	Start Build DLS 9.00 TFO -157.77	
4,400.70	4,231.72	71.79	274.11	Hold 60.00 Inclination	
4,500.70	4,281.72	133.18	213.02	Start Build DLS 9.00 TFO 0.00	
4,669.00	4,345.74	243.14	103.61	Start DLS 9.00 TFO 0.00	
4,830.58	4,367.00	356.36	-9.06	POE at 89.69 Inc 315.14 Deg	
14,667.95	4,421.00	7,329.62	-6,947.69	14667.95 Measured depth	



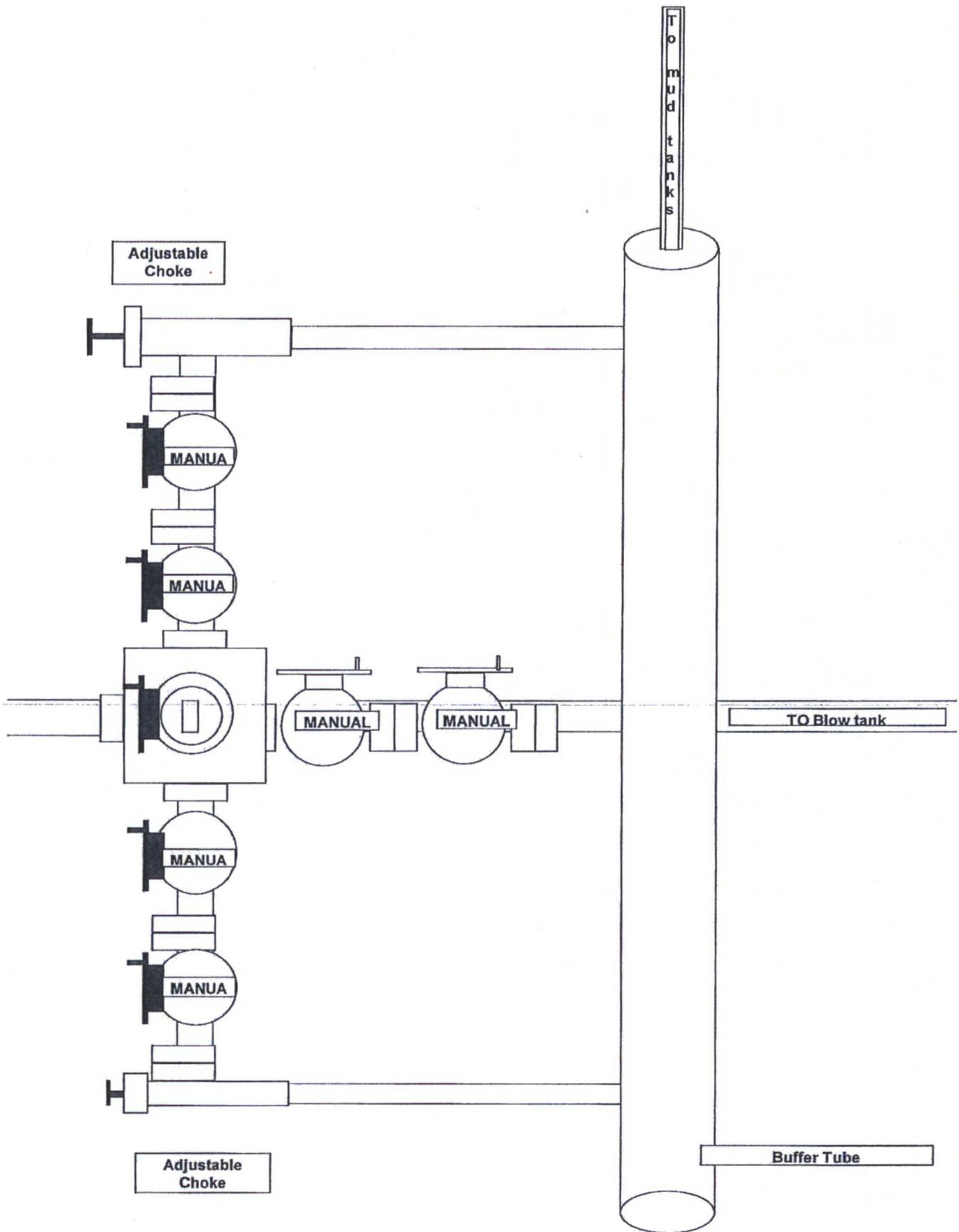
Well Name: Kimbeto Wash UT #777H
 Surface Location: 2309-28K WLU-KWJ
 NAD 1927 (NADCON CONUS), US State Plane 1927 (Exact solution) New Mexico West 3003
 Ground Elevation: 6538.00
 +N/-S 0.00 +E/-W 0.00 Northing 1890595.89 Easting 511391.51 Latitude 36.196023 Longitude -107.794726 Slot A2
 GL @ 6538.00usft (Original Well Elev)

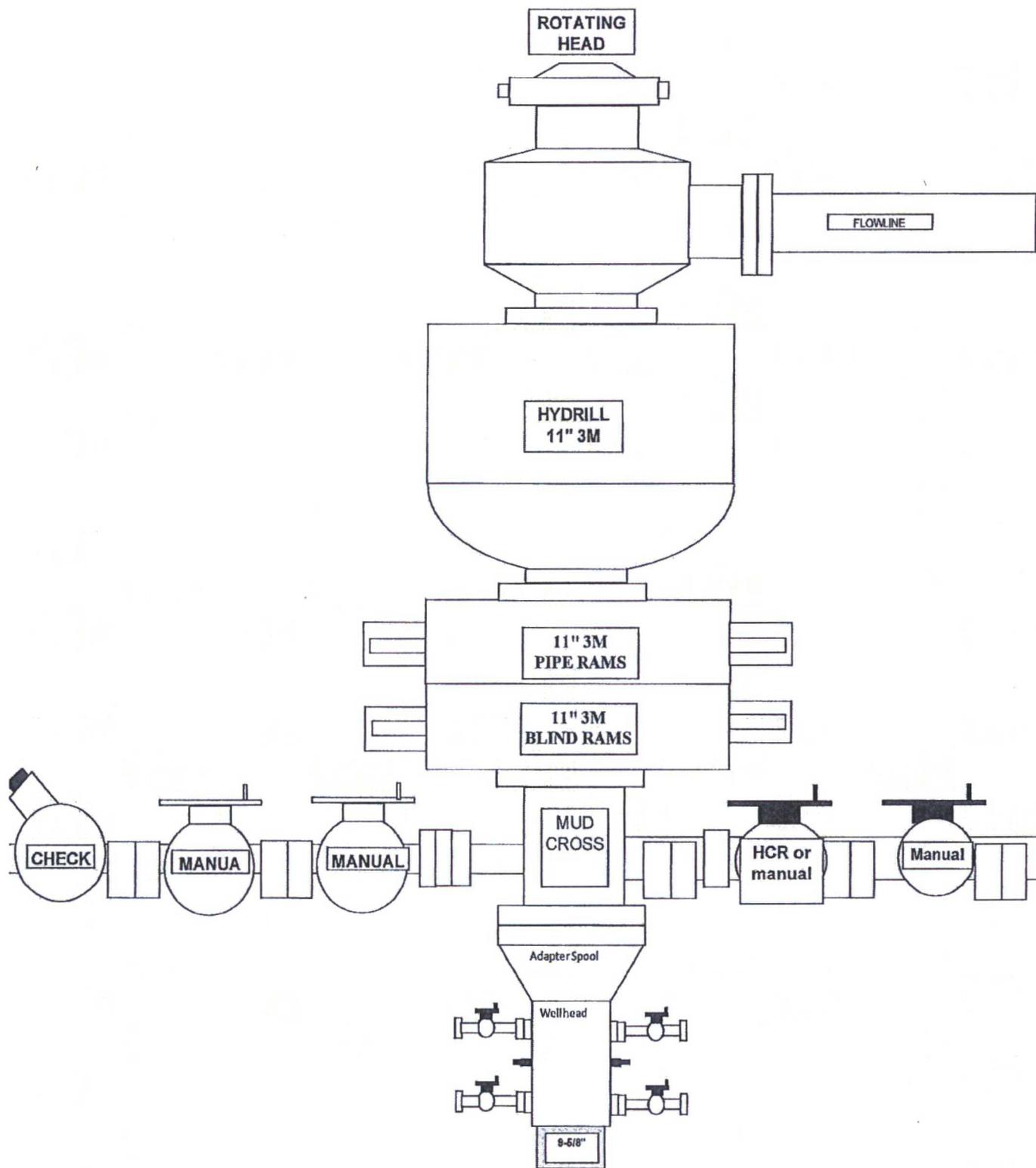


SLOTS				
Slot Name	+N/-S	+E/-W	Northing	Easting
A1	19.89	-1.21	1890615.88	511390.29
A2	0.00	0.00	1890595.89	511391.51
A3	-19.93	1.24	1890575.96	511392.76
A4	-40.04	2.35	1890555.85	511393.88

DESIGN TARGET DETAILS								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Start 60 tan #777H	4231.72	71.79	274.11	1890687.79	511655.59	36.196220	-107.783797	Point
End 60 tan #777H	4281.72	133.18	213.02	1890729.15	511604.48	36.196389	-107.794004	Point
POE #777H	4367.00	356.36	-9.06	1890952.25	511382.31	36.197002	-107.794757	Point
BHL #777H	4421.00	7329.62	-6947.69	1897922.74	504440.90	36.216156	-107.818279	Point

ANNOTATIONS										
TVD	MD	Inc	Azi	+N/-S	+E/-W	V Sect	Departure	Annotation		
1000.00	1000.00	0.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00		
1614.95	1619.78	12.40	110.69	-23.59	62.48	-60.10	66.78	Hold 12.40 Inclination		
3556.32	3607.48	12.40	110.69	-174.31	461.55	-444.09	493.46	Start Build DLS 9.00 TFO -157.77		
4231.72	4400.70	60.00	315.14	71.79	274.11	-136.47	835.57	Hold 60.00 Inclination		
4281.72	4500.70	60.00	315.14	133.18	213.02	-49.89	922.17	Start Build DLS 9.00 TFO 0.00		
4345.74	4669.00	75.15	315.14	243.14	103.61	105.18	1077.29	Start DLS 9.00 TFO 0.00		
4367.00	4830.58	89.69	315.14	356.36	-9.06	264.87	1237.02	POE at 89.69 Inc 315.14 Deg		
4421.00	14667.95	89.68	315.14	7329.62	-6947.69	10099.19	11074.25	14667.95 Measured depth		





roads, soils, or streams. Surfacing material, such as sandstone, would be used if economically viable and would be obtained from a permitted location.

The Natural Resources Conservation Service (NRCS) has mapped the soils in the proposed KWU 777H/780H and W Lybrook Unit 738H/739H Project area. Complete soil information is available in the NRCS's *Soil Survey of San Juan County, New Mexico, Eastern Part* (USDA/NRCS 2015). The soil map units within the proposed project area footprint are described in the sections below.

A. Blancot – Notal association, gently sloping

Within the project area, this soil map unit is found at the northern half of the access road, well-connect pipeline corridor, and TUA.

The Blancot-Notal soil association is composed of 55 percent Blancot and similar soils and 25 percent Notal and similar soils. This soil map unit is considered a well-drained soil, with the depth to water table and depth to restrictive layer being more than 80 inches. This soil association has a moderate to high potential for water erosion and low to moderate potential for wind erosion. The Blancot-Notal association is typically found ranging in elevation from 5,600 to 6,400 feet in elevation, along fan remnant and stream terrace landforms (0- to 5-percent slopes) and within loamy and salt flat ecological sites (USDA/NRCS 2015).

B. Badland

Within the project area, this soil map unit is found across the majority of the well pad at the northern end and the southern half of the access, well-connect pipeline corridor, and TUA. Most of the well pad construction within this soil unit would result in fill.

The parent material of the Badland map unit primarily consists of shale. This soil is considered a somewhat excessively drained soil, with the depth to restrictive layer (paralithic bedrock) being zero to two inches. Available water capacity for the Badland soil unit is very low (zero inches). This soil type has a low to moderate potential for water erosion and moderate potential for wind erosion. Badland soils are typically found along the side slopes of break landforms (5- to 80-percent slopes), and are commonly used for wildlife habitat (USDA/NRCS 2015).

C. Fruitland-Persayo-Sheppard complex (hilly)

Within the project area, this soil map unit is found at the southern end of the well pad and construction buffer zone. This end of the well pad would require a 2-3 feet of cut. The construction buffer zone was expanded to 75 feet along the south end of the well pad in order to accommodate the necessary room for a silt trap and topsoil storage within these soils.

The Fruitland-Persayo-Sheppard complex (hilly) is composed of 40 percent Fruitland and similar soils, 30 percent Persayo and similar soils, and 25 percent Sheppard and similar soils. Fruitland-Persayo-Sheppard complex (hilly) soils are found on alluvial fans, stream terraces, hills, ridges, breaks, and dunes ranging from 4,000 feet to 6,400 feet in elevation. Fruitland soils occur on slopes of 5 to 30 percent, are well drained, and have a high water permeability. Persayo soils occur on slopes of 5 to 30 percent, are well drained, and have low to moderately high water permeability. Sheppard soils occur on slopes of 5 to 30 percent, are excessively drained, and have high to very high water permeability. This soil complex has a low to moderate potential for water erosion and moderate to high potential for wind erosion. The Fruitland-Persayo-Sheppard complex (hilly) is generally found within sandy, shale hills, and deep sand ecological sites (USDA/NRCS 2015).

7. METHODS FOR HANDLING WASTE

A. Cuttings

- 1 Drilling operations would utilize a closed-loop system. 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. WPX would follow Onshore Oil and Gas Order No. 1 regarding the placement, operation, and removal of closed-loop systems. No blow pit would be used.

Directions from the Intersection of US Hwy 550 & US Hwy 64
in Bloomfield, NM to WPX Energy Production, LLC KWU #777H

1939' FSL & 2285' FWL, Section 28, T23N, R9W, N.M.P.M., San Juan County, NM

Latitude: 36.196036°N Longitude: 107.795341°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 0.5 miles to begin WPX W Lybrook Unit #720H proposed access on right-hand side of County Road;

Go Right (Westerly) exiting County Road #7890 following along WPX W Lybrook Unit #720H proposed access for 3123.1' to fork in proposed access;

Go Left (Westerly) which is straight, following along WPX W Lybrook Unit #726H proposed access for 3937.3' to fork in proposed access;

Go Left (Westerly) which is straight, following along WPX W Lybrook Unit #730H proposed access for 10,164.2' to fork in proposed access at begin WPX W Lybrook Unit#736H new access;

Go Left (South-westerly) which is straight continuing for an additional 1453.8' to staked WPX KWU #777H location.