

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

David Martin
Cabinet Secretary

Brett F. Woods, Ph.D.
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: 9/14/15

Well information;

Operator WPX, Well Name and Number W Alamito Unit #463H

API# 30-045-35715, Section 1, Township 22 N/S, Range 8 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
- ☒ 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.


NMOCD Approved by Signature

2-12-16
Date KC

JAN 29 2016

FORM APPROVED
OMB No. 1004-0136
Expires January 31, 2004

RECEIVED
SEP 15 2015

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM 117143
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Name of Tribe W. Alamito Unit R-14002
2. Name of Operator WPX Energy Production, LLC		8. Lease Name and Well No. W Alamito UT #463H
3a. Address P.O. Box 640 Aztec, NM 87410	3b. Phone No. (include area code) (505) 333-1849	9. API Well No. 30-045-35715
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 710' FNL & 1,536' FWL, sec 1, T22N, R8W At proposed prod. zone 2,325' FNL & 1,100' FWL, sec 12, T22N, R8W		10. Field and Pool, or Exploratory West Alamito Unit Mancos HZ Oil
14. Distance in miles and direction from nearest town or post office* approximately 6 miles southwest of Lybrook, New Mexico		11. Sec., T., R., M., or Blk. and Survey or Area SHL: Sec 1, T22N, R8W BHL: Sec 12, T22N, R8W
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 709'	16. No. of Acres in lease 1,122.40 acres	17. Spacing Unit dedicated to this well 641.80 acres W/2 Sections 1 & 12, T22N, R8W
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 40'	19. Proposed Depth 12,683' MD / 4,809' TVD	20. BLM/BIA Bond No. on file UTB000178
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6,909' GR	22. Approximate date work will start* October 31, 2015	23. Estimated duration 1 month

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall 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 shall 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 authorized officer.

25. Signature 	Name (Printed/Typed) Andrea Felix	Date 09/14/2015
Title Regulatory Specialist Sr.		
Approved by (Signature) 	Name (Printed/Typed) AFN	Date 1/27/16
Title AFN	Office FFU	

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.

*(Instructions on reverse)

WPX Energy Production, LLC, proposes to develop the Alamito-Gallup / Basin Mancos formation at the above described location in accordance with the attached drilling and surface use plans.

The well pad surface is under jurisdiction of the BLM and is on lease and will be twinned with the W Alamito #462H.

This location has been archaeologically surveyed by La Plata Archeological Consultants. Copies of their report have been submitted directly to the BLM.

A new 297.6 foot on lease access road will be built to access the location.

A new 2,684.3 foot on lease pipeline will be built.

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

APPROVAL OR ACCEPTANCE OF THIS
ACTION DOES NOT RELIEVE THE LESSEE AND
FOR FROM OBTAINING ANY OTHER
IZATION REQUIRED FOR OPERATIONS
ERAL AND INDIAN LANDS

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

NMOCDA

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

JASON C. EDWARDS
Certificate Number 15269

WPXENERGY

WPX ENERGY

Operations Plan

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

DATE: 8/18/2015

FIELD: Alamito- Gallup / Basin Mancos

WELL NAME: W Alamito UT 463H

SURFACE: FEDERAL

SH Location: NENW Section 1 22N-08W

ELEVATION: 6909

BH Location: SWNW Section 12 22N-08W
San Juan CO., NM

MINERALS: FEDERAL

MEASURED DEPTH:

I. **GEOLOGY:** Surface formation – Nacimiento

A. **FORMATION TOPS:** (KB)

Name	MD	TVD	Name	MD	TVD
Ojo Alamo	722	722	Point Lookout	3825	3681
Kirtland	890	889	Mancos	4026	3872
Picture Cliffs	1297	1287	Gallup	4347	4178
Lewis	1400	1385	Kickoff Point	4250	4085
Chacra	1712	1681	Top Target	5429	4939
Cliff House	2857	2765	Landing Point	4945	5214
Menefee	2916	2821	Base Target	4945	5214
			TD	12683	4809

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 anticipated reservoir is expected to be less than 1300 psi, so the BOPE will be tested to **250 psi (Low) for 5 minutes and 1500 psi (High) for 10 minutes**. Pressure test surface casing to **600 psi for 30 minutes** and intermediate casing to **1500 psi for 30 minutes**. Utilize a BOPE Testing Unit with a recording chart and appropriate test plug for testing. The drum brakes will be inspected and tested each tour. **All tests and inspections will be recorded in the tour book as to time and results.**

III. MATERIALS

A. CASING PROGRAM:

<u>CASING TYPE</u>	<u>OH SIZE (IN)</u>	<u>DEPTH (MD) (FT)</u>	<u>CASING SIZE (IN)</u>	<u>WEIGHT(LB)</u>	<u>GRADE</u>
Surface	12.25"	320'	9.625"	36#	J-55
Intermediate	8.75"	4,945	7"	23#	K-55
Prod. Liner	6.125"	4795' - 12683'	4-1/2"	11.6#	N-80
Tie-Back String	N/A	Surf. - 4795'	4-1/2"	11.6#	N-80

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 2,700 ft., 2,500 ft., 2,300ft., 2,000ft., 1,500 ft., and 1,000 ft.
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.
4. TIE-BACK CASING: None

C. CEMENTING:

(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: 20 bbl (112 cu-ft) Mud Flush III spacer + Lead: +/- 700 sx Foamed 50/50 Poz Cement. 13.0 ppg + 0.1% Halad 766 + 0.2% Versaset + 1.5% Chem-Foamer 760 (Yield :1.43 cu-ft/ sk. / Vol: 1001 cu-ft / 178.3 Bbls.) + TAIL: 100 sx 13.5 #/gal. + 0.2% Versaset + 0.15% HALAD-766 (Yield: 1.28 cu-ft / sk / Vol: 128 cu-ft / 22.8 Bbls.). + Fresh Water Displacement (1,362 cu-ft / +/- 242 Bbls) + 100 sx Top-Out Cement Premium: Yield: (1.17 cu-ft/ sk / (Vol: 117 cu-ft / 20.8 Bbls). WOC 12 hrs. Test Casing to 1500 PSI for 30 minutes. Total Cement Volume: (900 sx / 1246 cu-ft / 222 bbls). Mix with +/- 84,000 SCF Nitrogen. TOC at surface.
3. PRODUCTION 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 1.29 cu ft/sk, 13.5 ppg, (641 sx / 871 cu ft. / 155.15 bbls). **Tail Spacer:** 20 BBL of MMCR. **Displacement:** Displace w/ +/- 140 bbl Fr Water. Total Cement (871 cu ft / 155.15 bbls).

IV. COMPLETION

A. CBL

1. Run CCL for perforating.

B. 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.

C. 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.

D. 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.

- Although this horizontal well will be 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.

NOTE:

Installation of RSI sleeves at Toe of Lateral.

Proposed Operations:

A 4-1/2" 11.6# N-80 Liner will be run to TD and landed +/- 150 ft. into the 7" 23# K-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).

A 4-1/2" 11.6# N-80 tie-back string with seal assembly will be run and stung into the PBR of the liner hanger,

tested to 1500 PSI and hung off at the surface. After Stimulation and Testing operations are complete the 4-1/2" tie-back string will be removed from the well.



WPX Energy

T22N R8W

W Alamito UT 1C

W Alamito #463H - Slot A2

Wellbore #1

Plan: Design #1 11Aug15 sam

Standard Planning Report

13 August, 2015

WPX
Planning Report

JAN 29 2016

Database:	San Juan	Local Co-ordinate Reference:	Well W Alamito #463H (A2) - Slot A2
Company:	WPX Energy	TVD Reference:	KB @ 6923.00usft (Azyec 920)
Project:	T22N R8W	MD Reference:	KB @ 6923.00usft (Azyec 920)
Site:	W Alamito UT 1C	North Reference:	True
Well:	W Alamito #463H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 11Aug15 sam		

Project	T22N R8W		
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	W Alamito UT 1C		
Site Position:		Northing:	1,882,685.24 usft
From:	Lat/Long	Easting:	558,175.73 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in
		Latitude:	36.1741350
		Longitude:	-107.6362230
		Grid Convergence:	0.12 °

Well		W Alamito #463H - Slot A2				
Well Position	+N/-S	0.00 usft	Northing:	1,882,685.16 usft	Latitude:	36.1741350
	+E/-W	-40.14 usft	Easting:	558,135.59 usft	Longitude:	-107.6363590
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	6,909.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	8/11/2015	9.27	62.90	50,013

Design	Design #1 11Aug15 sam			
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	183.97

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	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,438.39	18.77	341.49	1,421.70	144.44	-48.37	2.00	2.00	0.00	341.49	
4,250.74	18.77	341.49	4,084.51	1,002.43	-335.70	0.00	0.00	0.00	0.00	
5,116.09	60.00	180.46	4,828.82	713.87	-391.83	9.00	4.76	-18.61	-163.26	#463H Start 60 tan
5,176.09	60.00	180.46	4,858.82	661.91	-392.25	0.00	0.00	0.00	0.00	#463H End 60 tan
5,345.34	75.23	180.37	4,923.08	505.88	-393.37	9.00	9.00	-0.05	-0.33	
5,521.42	91.08	180.63	4,944.00	331.62	-394.90	9.00	9.00	0.15	0.96	#463H POE
12,682.84	91.08	180.63	4,809.00	-6,828.10	-473.82	0.00	0.00	0.00	0.00	#463H BHL

WPX
Planning Report

Database: San Juan
Company: WPX Energy
Project: T22N R8W
Site: W Alamito UT 1C
Well: W Alamito #463H
Wellbore: Wellbore #1
Design: Design #1 11Aug15 sam

Local Co-ordinate Reference: Well W Alamito #463H (A2) - Slot A2
TVD Reference: KB @ 6923.00usft (Azyec 920)
MD Reference: KB @ 6923.00usft (Azyec 920)
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Bulld 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" Surface									
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
1,000.00	10.00	341.49	997.47	41.27	-13.82	-40.21	2.00	2.00	0.00
1,438.39	18.77	341.49	1,421.70	144.44	-48.37	-140.74	2.00	2.00	0.00
Hold 18.77 Inclination									
1,500.00	18.77	341.49	1,480.03	163.23	-54.66	-159.06	0.00	0.00	0.00
2,000.00	18.77	341.49	1,953.45	315.77	-105.75	-307.69	0.00	0.00	0.00
2,500.00	18.77	341.49	2,426.86	468.31	-156.83	-456.33	0.00	0.00	0.00
3,000.00	18.77	341.49	2,900.28	620.85	-207.91	-604.97	0.00	0.00	0.00
3,500.00	18.77	341.49	3,373.69	773.39	-259.00	-753.61	0.00	0.00	0.00
4,000.00	18.77	341.49	3,847.11	925.93	-310.08	-902.25	0.00	0.00	0.00
4,250.74	18.77	341.49	4,084.51	1,002.43	-335.70	-976.78	0.00	0.00	0.00
Start Build DLS 9.00 TFO -163.26									
4,500.00	6.90	227.62	4,329.38	1,030.72	-359.80	-1,003.34	9.00	-4.76	-45.68
5,000.00	49.62	181.92	4,762.01	808.59	-389.94	-779.66	9.00	8.54	-9.14
5,116.09	60.00	180.46	4,828.82	713.87	-391.83	-685.03	9.00	8.94	-1.26
Hold 60.00 Inclination									
5,176.09	60.00	180.46	4,858.82	661.91	-392.25	-633.17	0.00	0.00	0.00
Start Build DLS 9.00 TFO -0.33									
5,345.34	75.23	180.37	4,923.08	505.88	-393.37	-477.44	9.00	9.00	-0.05
Start DLS 9.00 TFO 0.96									
5,500.00	89.15	180.60	4,944.04	353.03	-394.67	-324.87	9.00	9.00	0.15
5,521.00	91.04	180.63	4,944.01	332.04	-394.89	-303.90	9.00	9.00	0.15
7" Intermediate									
5,521.42	91.08	180.63	4,944.00	331.62	-394.90	-303.48	9.00	9.00	0.15
POE at 91.08 Incl 180.63 deg									
6,000.00	91.08	180.63	4,934.98	-146.85	-400.17	174.20	0.00	0.00	0.00
6,500.00	91.08	180.63	4,925.55	-646.73	-405.68	673.26	0.00	0.00	0.00
7,000.00	91.08	180.63	4,916.13	-1,146.61	-411.19	1,172.33	0.00	0.00	0.00
7,500.00	91.08	180.63	4,906.70	-1,646.49	-416.70	1,671.39	0.00	0.00	0.00
8,000.00	91.08	180.63	4,897.28	-2,146.37	-422.21	2,170.45	0.00	0.00	0.00
8,500.00	91.08	180.63	4,887.85	-2,646.25	-427.72	2,669.52	0.00	0.00	0.00
9,000.00	91.08	180.63	4,878.43	-3,146.13	-433.23	3,168.58	0.00	0.00	0.00
9,500.00	91.08	180.63	4,869.00	-3,646.02	-438.75	3,667.64	0.00	0.00	0.00
10,000.00	91.08	180.63	4,859.57	-4,145.90	-444.26	4,166.70	0.00	0.00	0.00
10,500.00	91.08	180.63	4,850.15	-4,645.78	-449.77	4,665.77	0.00	0.00	0.00
11,000.00	91.08	180.63	4,840.72	-5,145.66	-455.28	5,164.83	0.00	0.00	0.00
11,500.00	91.08	180.63	4,831.30	-5,645.54	-460.79	5,663.89	0.00	0.00	0.00
12,000.00	91.08	180.63	4,821.87	-6,145.42	-466.30	6,162.96	0.00	0.00	0.00
12,500.00	91.08	180.63	4,812.45	-6,645.30	-471.81	6,662.02	0.00	0.00	0.00
12,682.84	91.08	180.63	4,809.00	-6,828.10	-473.82	6,844.52	0.00	0.00	0.00
TD at 12682.84									

WPX
Planning Report

Database:	San Juan	Local Co-ordinate Reference:	Well W Alamito #463H (A2) - Slot A2
Company:	WPX Energy	TVD Reference:	KB @ 6923.00usft (Azyec 920)
Project:	T22N R8W	MD Reference:	KB @ 6923.00usft (Azyec 920)
Site:	W Alamito UT 1C	North Reference:	True
Well:	W Alamito #463H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 11Aug15 sam		

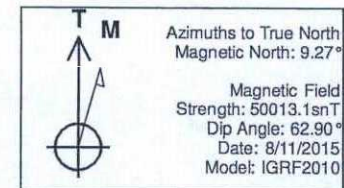
Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
#463H BHL - plan hits target center - Point	0.00	0.00	4,809.00	-6,828.10	-473.82	1,875,856.12	557,675.62	36.1553770	-107.6379640
#463H Start 60 tan - plan hits target center - Point	0.00	0.00	4,828.82	713.87	-391.83	1,883,398.23	557,742.31	36.1760961	-107.6376867
#463H End 60 tan - plan misses target center by 0.99usft at 5176.08usft MD (4858.82 TVD, 661.92 N, -392.25 E) - Point	0.00	0.00	4,858.82	661.91	-391.26	1,883,346.27	557,742.99	36.1759534	-107.6376847
#463H POE - plan hits target center - Point	0.00	0.00	4,944.00	331.62	-394.90	1,883,015.97	557,740.02	36.1750460	-107.6376970

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
320.00	320.00	9 5/8" Surface	9.62	12.25	
5,521.00	4,944.01	7" Intermediate	7.00	8.75	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
500.00	500.00	0.00	0.00	Start Build 2.00	
1,438.39	1,421.70	144.44	-48.37	Hold 18.77 Inclination	
4,250.74	4,084.51	1,002.43	-335.70	Start Build DLS 9.00 TFO -163.26	
5,116.09	4,828.82	713.87	-391.83	Hold 60.00 Inclination	
5,176.09	4,858.82	661.91	-392.25	Start Build DLS 9.00 TFO -0.33	
5,345.34	4,923.08	505.88	-393.37	Start DLS 9.00 TFO 0.96	
5,521.42	4,944.00	331.62	-394.90	POE at 91.08 Incl 180.63 deg	
12,682.84	4,809.00	-6,828.10	-473.82	TD at 12682.84	



Well Name: W Alamito #463H
 Surface Location: W Alamito UT 1C
 NAD 1927 (NADCON CONUS) , US State Plane 1927 (Exact solution) New Mexico West 3003
 Ground Elevation: 6909.00
 +N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.00 0.00 1882685.16 558135.59 36.1741350 -107.6363590 A2
 KB @ 6923.00usft (Azyec 920)



DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
#463H Start 60 tan	4828.82	713.87	-391.83	1883398.23	557742.31	36.1760961	-107.6376866	Point
#463H End 60 tan	4858.82	661.91	-391.26	1883346.27	557742.99	36.1759534	-107.6376847	Point
#463H POE	4944.00	331.62	-394.90	1883015.97	557740.02	36.1750460	-107.6376970	Point
#463H BHL	4809.00	-6828.09	-473.82	1875856.11	557675.62	36.1553770	-107.6379640	Point

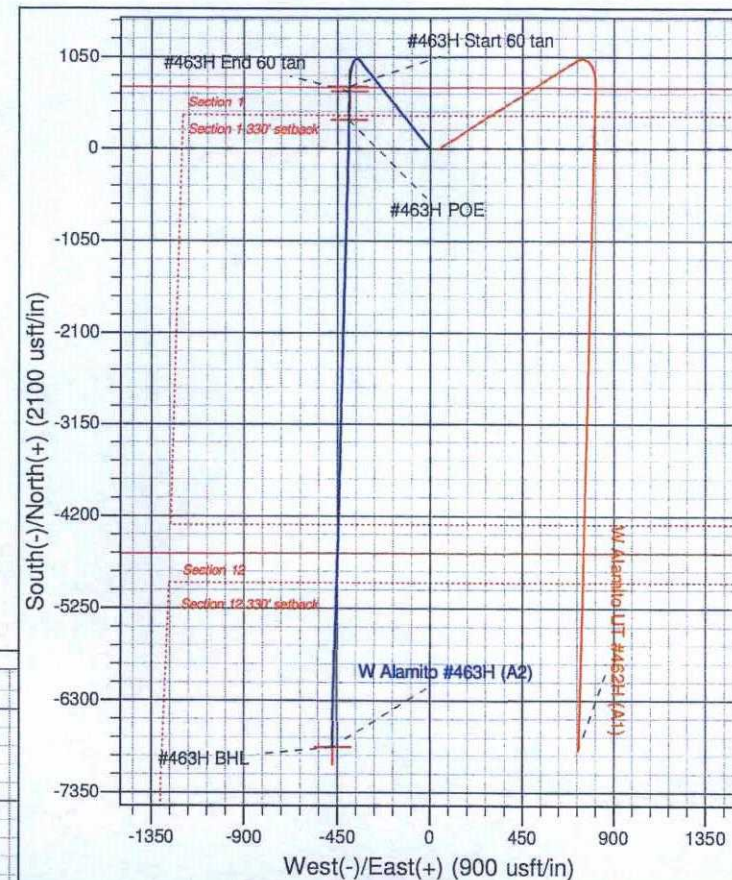
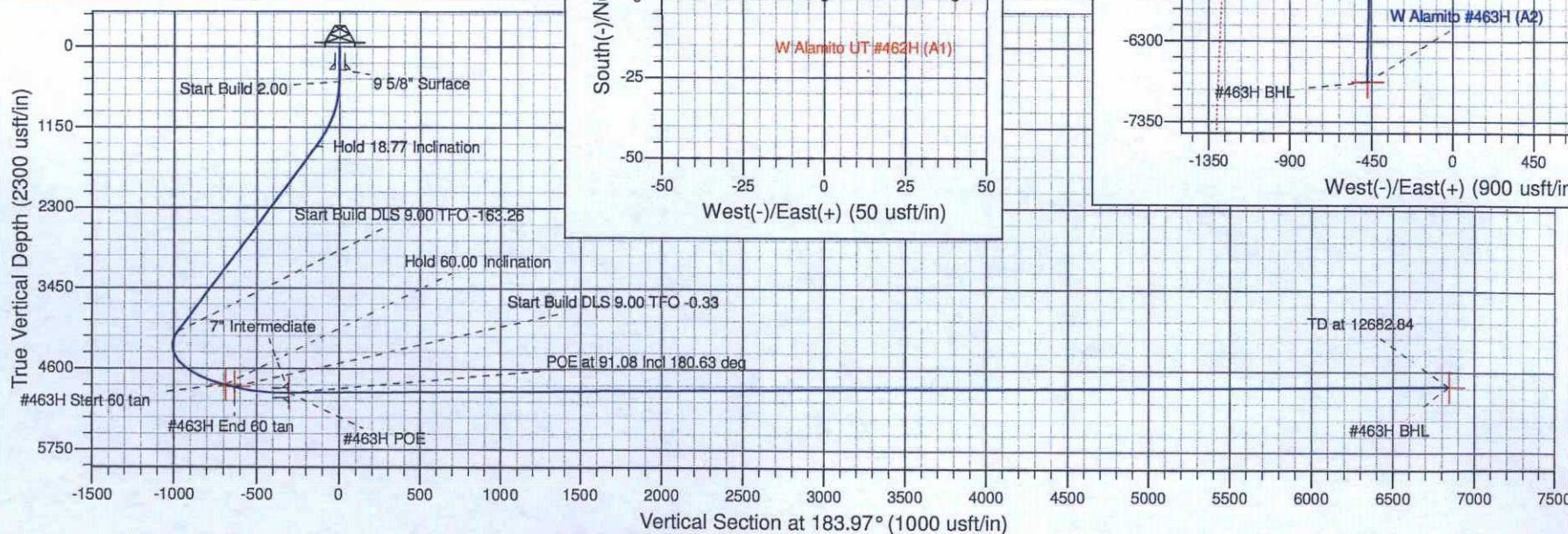
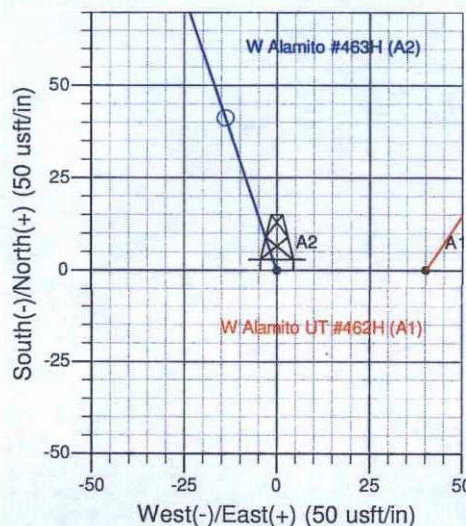
ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	Vsect	Departure	Annotation
500.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00
1421.70	1438.39	18.77	341.49	144.44	-48.37	-140.74	152.32	Hold 18.77 Inclination
4084.51	4250.74	18.77	341.49	1002.43	-335.70	-976.78	1057.14	Start Build DLS 9.00 TFO -163.26
4828.82	5116.09	60.00	180.46	713.87	-391.83	-685.03	1421.30	Hold 60.00 Inclination
4858.82	5176.09	60.00	180.46	661.91	-392.25	-633.17	1473.26	Start Build DLS 9.00 TFO -0.33
4923.08	5345.33	75.23	180.37	505.88	-393.37	-477.44	1629.29	Start DLS 9.00 TFO 0.96
4944.00	5521.42	91.08	180.63	331.62	-394.90	-303.48	1803.56	POE at 91.08 Incl 180.63 deg
4809.00	12682.84	91.08	180.63	-6828.09	-473.82	6844.52	8963.71	TD at 12682.84

Project: T22N R8W
 Site: W Alamito UT 1C
 Well: W Alamito #463H
 Wellbore: Wellbore #1
 Design: Design #1 11Aug15 sam

SLOTS

Slot Name	+N/-S	+E/-W	Northing	Easting
A1	0.00	40.14	1882685.24	558175.73
A2	0.00	0.00	1882685.16	558135.59



OIL CONS. DIV DIST. 3
 JAN 29 2016

driving surface; the tear drop would be used to access the proposed wellheads and other facilities.

2. As practical, access will be a teardrop-shaped road through the production areas so that the center may be revegetated.
3. Within 90 days of installation, production facilities would be painted Juniper Green to blend with the natural color of the landscape and would be located, to the extent practical, to reasonably minimize visual impact.
4. Berms will be constructed around all storage facilities sufficient in size to contain the storage capacity of tanks. Berm walls will be compacted with appropriate equipment to assure containment.

After the completion phases and pipeline installation, portions of the project areas not needed for operation will be reclaimed. When the wells are plugged, final reclamation will occur within the remainder of the project areas. Reclamation is described in detail in the Reclamation Plan (Appendix A).

7.0 Methods for Handling Waste

- ✓ A. Cuttings
 1. Drilling operations will utilize a closed-loop system. Drilling of the horizontal laterals will be accomplished with water-based mud. All cuttings will be placed in roll-off bins and hauled to a commercial disposal facility or land farm. WPX will follow Onshore Oil and Gas Order No. 1 regarding the placement, operation, and removal of closed-loop systems. No blow pit will be used.
 2. Closed-loop tanks will be adequately sized for containment of all fluids.
- B. Drilling Fluids
 1. Drilling fluids will be stored onsite in above-ground storage tanks. Upon termination of drilling operations, the drilling fluids will be recycled and transferred to other permitted closed-loop systems or returned to the vendor for reuse, as practical. All residual fluids will be hauled to a commercial disposal facility.
- C. Spills
 1. Any spills of non-freshwater fluids will be immediately cleaned up and removed to an approved disposal site.
- D. Sewage
 1. Portable toilets will be provided and maintained during construction, as needed (see Figure 4 in Appendix B for the location of toilets).
- E. Garbage and other water material
 1. All garbage and trash will be placed in a metal trash basket. The trash and garbage will be hauled off site and dumped in an approved landfill, as needed.
- F. Hazardous Waste
 1. No chemicals subject to reporting under Superfund Amendments and Reauthorization Act Title III in an amount equal to or greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling, testing, or completing of these wells.
 2. No extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities will be used, produced, stored, transported, or disposed of annually in association with the drilling, testing, or completing of these wells.

Directions from the Intersection of US Hwy 550 & US Hwy 64

in Bloomfield, NM to WPX Energy Production, LLC W Alamito UT #463H

710' FNL & 1536' FWL, Section 1, T22N, R8W, N.M.P.M., San Juan County, NM

Latitude: 36.174149°N Longitude: 107.636968°W Datum: NAD1983

From the intersection of US Hwy 550 & US Hwy 64 in Bloomfield, NM, travel Southerly on US Hwy 550 for 38.7 miles to Mile Marker 112.7;

Go Right (Southerly) on County Road #7900 for 4.9 miles to fork in road;

Go Straight (South-easterly) remaining on County Road #7900 for 0.2 miles to fork in road;

Go Left (Easterly) exiting County Road #7900 for 2.2 miles to new access on right-hand side of existing roadway which continues for 297.6' to staked WPX W Alamito UT #463H location.

