

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0137
Expires July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an
abandoned well. Use Form 3160-3 (APD) for such proposals.

RECEIVED

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

XTO ENERGY INC.

3a. Address

382 CR 3100 AZTEC, NM 87410

3b. Phone No. (include area code)

505-333-3204

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

970' ENL 1000' FWL NWNW SEC. 21 (D) - T28N-R10W N.M.P.M.

MAR 09 2012

Farmington Field Office
Bureau of Land Management

5. Lease Serial No.

NMSE-077383A

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No

NMM-73958 (DAKOTA)

8. Well Name and No.

KUTZ FEDERAL #12E

9. API Well No

30-045-29779

10. Field and Pool, or Exploratory Area

BASIN DAKOTA/BASIN MANCOS/
OTERO CHACRA

11. County or Parish, State

SAN JUAN NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input checked="" type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other OAP DK &
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	RC BASIN MANCOS/
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	OTERO CHACRA

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleation in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

XTO Energy Inc. proposes to open additional pay in the Basin Dakota formation & recompleate to the Basin Mancos and the Otero Chacra formations per the attached procedure. Please also see the attached C102 plats for the Mancos & Chacra, WB Diagram & formation tops.

RCVD MAR 14 '12
OIL CONS. DIV.
DIST. 3

MUST HAVE DHC order # PRIOR to DHC Producing

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

LORRI D. BINGHAM

Title REGULATORY ANALYST

Signature

Date 3/8/2012

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Original Signed: Stephen Mason

Title

Date

MAR 09 2012

Conditions of approval, if any, are attached. Approval of this notice 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.

Title 18 U.S.C. Section 1001, and Title 43 U.S.C. Section 1212, makes 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.

NMCD

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
Fee Lease - 3 Copies
State Lease - 4 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-29779	² Pool Code 97232	³ Pool Name BASIN MANCOS
⁴ Property Code 022756	⁵ Property Name KUTZ FEDERAL	⁶ Well Number 12E
⁷ OGRID No. 5380	⁸ Operator Name XTO Energy, Inc.	⁹ Elevation 5934'

¹⁰Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	21	28-N	10-W		970'	NORTH	1000'	WEST	SAN JUAN

¹¹Bottom 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
SAME									

¹² Dedicated Acres MC: 320 acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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>I hereby certify that the information contained herein is true & complete to the best of my knowledge & 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</i>	
	Signature 	
	Printed Name LORRI D. BINGHAM	
	Title REGULATORY ANALYST	
Date 03/08/2012		¹⁸ SURVEYOR CERTIFICATION <i>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 & correct to the best of my belief</i> 6/23/1984 Date of Survey Original Survey Signed By: John A. Vukonich 14831 Certificate Number

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
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Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
Fee Lease - 3 Copies
State Lease - 4 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-29779	² Pool Code 82329	³ Pool Name OTERO CHACRA
⁴ Property Code 022756	⁵ Property Name KUTZ FEDERAL	⁶ Well Number 12E
⁷ OGRID No. 5380	⁸ Operator Name XTO Energy, Inc.	⁹ Elevation 5934'

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
D	21	28-N	10-W		970'	NORTH	1000'	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
SAME									

¹² Dedicated Acres CH: 160 acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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 & complete to the best of my knowledge & 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.	
	Signature 	
	Printed Name LORRI D. BINGHAM	
	Title REGULATORY ANALYST	
	Date 03/08/2012	
	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 & correct to the best of my belief.	
	Date of Survey 6/23/1984	
	Original Survey Signed By: John A. Vukonich	
	Certificate Number 14831	

XTO - Wellbore Diagram

Well Name: Kutz Federal 12E

API/UWI	E/W Dist (ft)	E/W Ref	N/S Dist (ft)	N/S Ref	Location	Field Name	County	State
30045297790000	1,000.0	FWL	970.0	FNL	T28N-R10W-S21	Basin Dakota	San Juan	New Mexico
Well Configuration Type	XTO ID B	Orig KB Elev (ft)	Gr Elev (ft)	KB-Grd (ft)	Spud Date	PBTD (All) (ftKB)	Total Depth (ftKB)	Method Of Production
Vertical	71718	5,946.00	5,934.00	12.00	7/1/1999	Original Hole - 6747.0	6,800.0	Flowing

Well Config 'Vertical' - Original Hole 3/8/2012 11:37:04 AM

Schematic - Actual		Incl	fKB (TVD)	fKB (MD)	Zones	Zone	Top (fKB)	Btm (fKB)	
					Dakota		6,631.0	6,634.0	
Casing Strings									
Casing Description	OD (in)	Wt (lbs/ft)	String Grade	Top Connection	Set Depth (fTK)				
Surface	8 5/8	24.00	J-55	ST&C	308.0				
Casing Description	OD (in)	Wt (lbs/ft)	String Grade	Top Connection	Set Depth (fTK)				
Production	4 1/2	10.50	J-55	ST&C	6,799.0				
Item Description	OD (in)	Wt (lbs/ft)	Grade	Top (fTKB)	Bottom (fTKB)				
DV Tool	4 1/2			3,103.0	3,105.0				
Cement									
Description	Type		String						
Production Casing Cement	casing		Production, 6,799.0fTKB						
Comment									
Description	Type		String						
Surface Casing Cement	casing		Surface, 308.0fTKB						
Comment									
Perforations									
Date	Top (fTKB)	Btm (fTKB)	Shot Dens (shots/ft)	Hole Diameter (in)	Phasing (°)	Curr Status	Zone		
	6,631.0	6,634.0	4.0				Dakota		
Tubing Strings									
Tubing Description	Run Date		Set Depth (fTKB)						
Tubing - Production	6/23/2009		6,623.9						
Tubing Components									
Item Description	Jts	Model	OD (in)	Wt (lbs/ft)	Gra	Top Thread	Len (ft)	Top (fTKB)	Btm (fTKB)
Tubing	215	T&C Upset	2 3/8	4.70	J-55	8RD EUE	6,610.40	12.0	6,622.4
Seat Nipple	1		2 3/8			8RD EUE	1.10	6,622.4	6,623.5
Notched Collar	1		2 3/8			8RD EUE	0.40	6,623.5	6,623.9
Rods									
Rod Description	Run Date		String Length (ft)			Set Depth (fTKB)			
Rod Components									
Item Description	Jts	Model	OD (in)	Grade	Len (ft)	Top (fTKB)	Btm (fTKB)		
Stimulations & Treatments									
Frac Start Date	Top Perf (ft.)	Bottom Pe .	V (slurry) (Total Prop	AIR (b .	ATP (psi)	MTP (psi)	ISIP (psi)	
Comment									

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

38.

GEOLOGIC MARKERS

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	TOP	
					MEAS. DEPTH	TRUE VERT. DEPTH
Dakota	6,352'	6,654'	Oil & Gas	Fruitland Fm.	1,722'	1,722'
				Pictured Cliffs	1,993'	1,993'
				Chacra SS.	2,965'	2,965'
				Mesaverde	3,540'	3,540'
				Gallup	5,492'	5,492'
				Dakota	6,352'	6,352'

Kutz Federal #12E
Sec 21, T 28 N, R 10 W
San Juan County, New Mexico

Frac the Dakota, Mancos, and Chacra, and PWOP

SURF CSG: 8-5/8", 24#, J-55, STC CSG @ 308'. CIRC CMT TO SURF.

PROD CSG: 4-1/2", 10.5#, J-55, ST&C CSG @ 6,799'. DV TL @ 3,103'. PBTD @ 6,747'.
CAPACITY = 0.0159 BBLS/FT (0.0895 CUFT/FT).
BURST = 4,790 PSI (TREATING @ 80% = 3,832 PSI)

CEMENT: 1ST STAGE W/ 500 SX CL "B", DID NOT CIRC TO SURF. 2ND STAGE W/ 600 SX CL "B". CIRC TO SURF.

PERFS: BURRO CANYON:
FR/6,631'-34' W/4 SPF.

Workover Procedure

- 1) Install and test rig anchors. Comply with all New Mexico OCD, BLM and XTO safety rules and regulations. Conduct safety meeting for all personnel on location. MIRU daylight pulling unit.
- 2) MI 3 - 400 bbl frac tanks and 1 flow back tank. Fill the frac tanks with 2% KCL water.
Note: Have frac company run preliminary fluid quality tests and add biocide.
- 3) ND WH. NU BOP and test the BOP.
- 4) TOH w/tbg and BHA.
- 5) Round trip a 3-7/8" bit and 4-1/2" casing scraper to 6,620'.
- 6) TIH and set a 4-1/2" CICR @ 6,620'. Sting into CICR and pump 12 sxs cmt below CICR. (Class B, mixed at 15.6 ppg with a 1.18 cf/sx yield) Sting out and circulate tbg clean. TOH w/ tbg.
- 7) ND BOP. NU frac valve.
- 8) Perf the Dakota with 3-1/8" csg gun with 2 JSPF (Titan EXP-3323-361T, 22.7 gm, 0.36" dia., 35.63" pene, 34 holes) or equivalent performance charges. POH with csg gun.

Dakota Perfs		
6,523'	6,461'	6,438'
6,482'	6,459'	6,381'
6,480'	6,457'	6,379'
6,477'	6,453'	6,360'
6,473'	6,445'	6,356'
6,468'	6,440'	

- 9) MIRU frac equipment. BD perfs with fresh water and EIR. Acidize Dakota perfs with 1,500 gals of 15% NEFE HCl acid (FE control, surf & CL additives) and 51 - 1.1 SG Bioballs @ 12 BPM. Flush with 4,480 gals 2% KCl water (3 bbls over flush). Record ISIP, 5", and 10" SIPs. Wait 30 minutes for Bioballs to dissolve.
- 10) Frac Dakota perfs fr/6,523'-6,356' down casing at 30 BPM. Pump 70Q N2 XL foam Delta 200 fluid w/98,750# 20/40 BASF proppant followed by 26,250# 20/40 BASF proppant coated with Expedite Lite. Flush with 4,120 gals (2 bbls short of top perf). Est. TP 3,380 psig. Pump frac @ 30 BPM. Max TP @ 3,800 psig. Frac schedule:

Dakota Frac Schedule						
Stage	BPM	Fluid	Foam Vol.	Clean Vol. (gal)	Prop	Cum. Prop
Water	5	2% KCl Water	-	500	-	-
Acid	12	15% HCL Acid	-	1,500	-	-
Flush	12	2% KCl Water	-	4,480	-	-
Pad	30	70Q XL foam	8,100	2,400	-	-
0.5 ppg	30	70Q XL foam	9,600	2,900	4,800# 20/40	4,800# 20/40
1 ppg	30	70Q XL foam	9,600	2,900	9,600# 20/40	14,400# 20/40
2 ppg	30	70Q XL foam	10,800	3,200	21,600# 20/40	36,000# 20/40
3 ppg	30	70Q XL foam	8,400	2,500	25,250# 20/40	61,250# 20/40
4 ppg	30	70Q XL foam	9,375	2,800	37,500# 20/41	98,750# 20/40
4 ppg	30	70Q XL foam	6,500	2,000	26,250# 20/40 w/ Expedite Lite	125,000# 20/40
Flush	30	2% KCl Water	-	4,120	-	-
Total	62,375 gals Delta-R			29,300	125,000# 20/40	

Record ISIP & 5" SIP.

- 11) Install flowback manifold. Flowback well through a choke manifold to flowback tank. Start with an 8/64" choke. Increase choke size as appropriate.
- 12) ND frac valve. NU BOP.
- 13) MIRU AFU. TIH w/3-7/8" bit, bit sub, and 2-3/8" tubing. CO to CICR (6,620'). Circulate wellbore clean. TOH w/tbg & bit.
- 14) Run an IP test for 2 hours.
- 15) TIH with tubing & BHA as follows:
- 1 - 2-3/8" jt w/ 1/2" vent hole located 1' from top (open ended)
 - 2-3/8" (1.78" ID) API SN
 - 8 - 2-3/8" jts
 - 1 - 4-1/2" Baker TAC
 - ±197 jts - 2-3/8" tubing to surface, EOT @ 6,575', SN @ 6,545', TAC @ ±6,300'
- 16) ND BOP. NU WH.

- 17) TIH with rod assembly as follows:
- 2" X 1-1/4" X 16' X 2' RWAC pump
 - 3/4" X 4' Guided rod sub w/ mold-on guides
 - 3/4" – 21,000lb HF shear tool
 - 6 - 1-1/4" API K sinker bars with stabilizer rods
 - 28 - 3/4" API D Molded Guide Rods w/ T-couplings
 - 230- 3/4" API D Rods w/ T-couplings
 - 1-1/4" X 22' Polished Rod w/ 10' liner
- 18) Space out pump with spacer subs. Load tubing and long stroke with rig to ensure pump action. HWO.
- 19) RDMO PU.
- 20) Set a used Lufkin C-160-200-74 pumping unit with an Arrow C-96 engine (or equivalent) & cement base.
- 21) Set unit in long crank hole & sheave motor so it will pump @ 4 x 74" spm.
- 22) Set counter weights (4 - 3CRO) 7.9" from max.
- 23) Gauge tanks. Shoot FL and run dynamometer during pumping unit startup. Start well pumping at 4 SPM and 74" SL for 24 hours. Check fluid level and tank gauges.
- 24) Report pre and post start up data to Derick Lucas
- 25) ****This well be tested for 45 days before moving to the next zone.****
- 26) MI 6 - 400 bbl frac tanks and 1 flow back tank. Fill the frac tanks with 2% KCL water.
Note: Have frac company run preliminary fluid quality tests and add biocide.
- 27) TOH w/ rods and pump. ND WH. NU BOP and test the BOP.
- 28) TOH w/tbg and BHA.
- 29) Round trip a 3-7/8" bit and 4-1/2" casing scraper to 6,000'.
- 30) TIH and set a CBP at 6,000'.
- 31) Perf Mancos with 3-1/8" csg gun at 1 JSPF (Titan EXP-3323-361T, 22.7 gm, 0.36" dia., 35.63" pene, 34 holes) or equivalent performance charges. POH with csg gun

Mancos Perforations					
5,835'	5,804'	5,781'	5,738'	5,678'	5,641'
5,832'	5,800'	5,777'	5,737'	5,676'	5,510'
5,827'	5,796'	5,753'	5,730'	5,674'	5,500'
5,823'	5,795'	5,749'	5,728'	5,647'	5,493'
5,819'	5,789'	5,746'	5,695'	5,645'	
5,815'	5,782'	5,744'	5,690'	5,643'	

32) ND BOP. NU 5K frac valve.

33) MIRU frac equipment. BD perfs with fresh water and EIR. Acidize Mancos perfs with 2,250 gals of 15% NEFE HCl acid (FE control, surf & CL additives) and 51 - 1.1 SG Bioballs at 10 BPM. Flush with 3,980 gals 2% KCl water (2 bbls over flush). Record ISIP, 5", and 10" SIPs. Wait 30 minutes for Bioballs to dissolve.

34) Frac Mancos perfs fr/5,835'-5,493' down casing at 30 BPM. Pump 65Q N2 foam XL Delta 140 fluid w/180,000# 20/40 BASF proppant followed by 45,000# 20/40 BASF coated with Expedite Lite. Flush with 3,580 gals (2 bbls short of top perf). Est. TP 3,000 psig. Pump frac @ 30 BPM. Max TP @ 3,800 psig. Frac schedule:

Mancos Frac Schedule						
Stage	BPM	Fluid	Foam Vol.	Clean Vol. (gal)	Prop	Cum. Prop
Water	5	2% KCl Water	-	500	-	-
Acid	10	15% HCL Acid	-	2,250	-	-
Flush	10	2% KCl Water	-	3,980	-	-
Pad	30	65Q XL foam	27,375	9,580	-	-
0.5 ppg	30	65Q XL foam	45,000	15,750	22,500# 20/40	22,500# 20/40
1 ppg	30	65Q XL foam	22,500	7,875	22,500# 20/40	45,000# 20/40
2 ppg	30	65Q XL foam	28,125	9,845	56,250# 20/40	101,250# 20/40
3 ppg	30	65Q XL foam	26,250	9,190	78,750# 20/40	180,000# 20/40
3 ppg	30	65Q XL foam	15,000	5,250	45,000# 20/40 w/ Expedite Lite	225,000# 20/40
Flush	30	65Q XL foam	-	3,580	-	-
Total	159,375 gals Delta-R			67,800	225,000# 20/40	

Record ISIP & 5" SIP.

35) Install flowback manifold. Flowback well through a choke manifold to flowback tank. Start with an 8/64" choke. Increase choke size as appropriate.

36) ND frac valve. NU BOP.

37) MIRU AFU. TIH w/3-7/8" bit, bit sub, and 2-3/8" tubing. CO to CBP (6,000'). Circulate wellbore clean. TOH w/tbg & bit.

38) Run an IP test for 2 hours.

39) TIH with tubing & BHA as follows:

- 1 - 2-3/8" jt w/ 1/2" vent hole located 1' from top (open ended)
- 2-3/8" (1.78" ID) API SN
- 14 - 2-3/8" jts
- 1- 4-1/2" Baker TAC
- ±170 jts - 2-3/8" tubing to surface, EOT @ 5,905', SN @ 5,875', TAC @ ±5,450'

40) ND BOP. NU WH.

41) TIH with rod assembly as follows:

- 2" X 1-1/4" X 16' X 2' RWAC pump
- 3/4" X 4' Guided rod sub w/ mold-on guides
- 3/4" – 21,000lb HF shear tool
- 6 - 1-1/4" API K sinker bars with stabilizer rods
- 28 - 3/4" API D Molded Guide Rods w/ T-couplings
- 201- 3/4" API D Rods w/ T-couplings
- 1-1/4" X 22' Polished Rod w/ 10' liner

42) Space out pump with spacer subs. Load tubing and long stroke with rig to ensure pump action. HWO.

43) RDMO PU.

44) Sheave motor so it will pump @ 4 x 74" spm.

45) Set counter weights (4 - 3CRO) 16.2" from max.

46) Gauge tanks. Shoot FL and run dynamometer during pumping unit startup. Start well pumping at 4 SPM and 74" SL for 24 hours. Check fluid level and tank gauges.

47) Report pre and post start up data to Derick Lucas.

48) ****This well be tested for 45 days before moving to the next zone.****

49) MI 3 - 400 bbl frac tanks and 1 flow back tank. Fill the frac tanks with 2% KCL water.
Note: Have frac company run preliminary fluid quality tests and add biocide.

50) TOH w/ rods and pump. ND WH. NU BOP and test the BOP.

51) TOH w/tbg and BHA.

52) Round trip a 3-7/8" bit and 4-1/2" casing scraper to 3,300'.

53) TIH with a 4-1/2" CBP and set at 3,300'. TOH with tbg.

54) Perf the Chacra with 3-1/8" csg gun with 3 JSPF (Titan EXP-3323-361T, 22.7 gm, 0.36" dia., 35.63" pene, 62 holes) or equivalent performance charges. POH with csg gun.

Chacra Perfs	
PERF	PERF
3,096'-3,086'	2,994'-2,984'

55) ND BOP. NU frac valve.

56) MIRU frac equipment. BD perfs with fresh water and EIR. Acidize the Chacra perfs with 1,250 gals of 15% NEFE HCl acid (FE control, surf & CL additives) and 93 - 1.1 SG Bioballs @ 12 BPM down casing. Flush with 2,200 gals fresh water (3 bbls over flush). Record ISIP, 5", and 10" SIPs. Wait 30 minutes for Bioballs to dissolve.

57) Frac the Chacra perfs fr/3,096'-2,984' down casing at 30 BPM. Pump 70Q N2 XL foam Delta 140 fluid w/68,000# 20/40 BASF proppant followed by 12,000# 20/40 BASF proppant coated with Expedite Lite. Flush with 1,975 gals (2 bbls short of top perf). Est. TP 2,100 psig. Pump frac @ 30 BPM. Max TP @ 3,800 psig. Frac schedule:

Chacra Frac Schedule						
Stage	BPM	Fluid	Foam Vol.	Clean Vol. (gal)	Prop	Cum. Prop
Water	5	2% KCl Water	-	500	-	-
Acid	12	15% HCL Acid	-	1,250	-	-
Flush	12	2% KCl Water	-	2,200	-	-
Pad	30	70Q XL foam	9,720	2,900	-	-
0.5 ppg	30	70Q XL foam	16,000	4,800	8,000# 20/40	8,000# 20/40
1 ppg	30	70Q XL foam	8,000	2,400	8,000# 20/40	16,000# 20/40
2 ppg	30	70Q XL foam	10,000	3,000	20,000# 20/40	36,000# 20/40
3 ppg	30	70Q XL foam	10,600	3,180	32,000# 20/40	68,000# 20/40
3 ppg	30	70Q XL foam	4,000	1,200	12,000# 20/40 w/ Expedite Lite	80,000# 20/40
Flush	30	2% KCl Water	-	1,975	-	-
Total	58,320 gals Delta-R			23,450	80,000# 20/40	

Record ISIP & 5" SIP.

58) Install flowback manifold. Flowback well through a choke manifold to flowback tank. Start with an 8/64" choke. Increase choke size as appropriate.

59) ND frac valve. NU BOP.

60) MIRU AFU. TIH w/3-7/8" bit, bit sub, and 2-3/8" tubing. CO to CBP (3,300'). Circulate wellbore clean. TOH w/tbg & bit.

61) Run an IP test for 2 hours.

62) TIH with tubing & BHA as follows:

- 1 - 2-3/8" jt w/ 1/2" vent hole located 1' from top (open ended)
- 2-3/8" (1.78" ID) API SN
- 7 - 2-3/8" jts
- 1- 4-1/2" Baker TAC
- ±92 jts - 2-3/8" tubing to surface, EOT @ 3,180', SN @ 3,150', TAC @ ±2,950'.

63) ND BOP. NU WH.

- 64) TIH with rod assembly as follows:
- 2" X 1-1/4" X 16' X 2' RWAC pump
 - 3/4" X 4' Guided rod sub w/ mold-on guides
 - 3/4" – 21,000lb HF shear tool
 - 4 - 1-1/4" API K sinker bars with stabilizer rods
 - 20 - 3/4" API D Molded Guide Rods w/ T-couplings
 - 102- 3/4" API D Rods w/ T-couplings
 - 1-1/4" X 22' Polished Rod w/ 10' liner
- 65) Space out pump with spacer subs. Load tubing and long stroke with rig to ensure pump action. HWO.
- 66) RDMO PU.
- 67) Sheave motor so it will pump @ 4 x 74" spm.
- 68) Set counter weights (2 - 3CRO) 51.1" from max or pull all counter weights off if 51.1" is not possible.
- 69) Gauge tanks. Shoot FL and run dynamometer during pumping unit startup. Start well pumping at 4 SPM and 74" SL for 24 hours. Check fluid level and tank gauges.
- 70) Report pre and post start up data to Derick Lucas.
- 71) ****This well be tested for 45 days and DHC allocations approved before opening all the zones.****
- 72) MIRU AFU. TIH w/3-7/8" bit, bit sub, and 2-3/8" tubing. CO to CBP (3,300'). DO CBP. CO to CBP (6,000'). DO CBP. CO to CIBP (6,620'). Circulate wellbore clean. TOH w/tbg & bit.
- 73) TIH with tubing & BHA as follows:
- a) 1- 4-1/2" TECH TAC
 - b) 1 - 2-3/8" jt w/ 1/2" vent hole located 1' from top (open ended)
 - c) 2-3/8" (1.78" ID) API SN
 - d) ±205 jts - 2-3/8" tubing to surface, EOT @ 6,575', SN @ 6,545', TAC @ 6,575'
- 74) ND BOP. NU WH.
- 75) TIH with rod assembly as follows:
- 2" X 1-1/4" X 16' X 2' RWAC pump
 - 3/4" X 4' Guided rod sub w/ mold-on guides
 - 3/4" – 21,000lb HF shear tool
 - 6 - 1-1/4" API K sinker bars with stabilizer rods
 - 28 - 3/4" API D Molded Guide Rods w/ T-couplings
 - 230- 3/4" API D Rods w/ T-couplings
 - 1-1/4" X 22' Polished Rod w/ 10' liner
- 76) Space out pump with spacer subs. Load tubing and long stroke with rig to ensure pump action. HWO.

77) RDMO PU.

78) Sheave motor so it will pump @ 4 x 74" spm.

79) Set counter weights (4 - 3CRO) 7.8" from max.

80) Gauge tanks. Shoot FL and run dynamometer during pumping unit startup. Start well pumping at 4 SPM and 74" SL for 24 hours. Check fluid level and tank gauges.

81) Report pre and post start up data to Derick Lucas

Regulatory:

- Acquire approval to recompleat to the Mancos and Chacra
- DHC Dakota, Mancos, & Chacra
- Acquire approval of C-144

Equipment:

- 3-7/8" bit & bit sub
- 1 – 4-1/2" CICR
- 2 – 4-1/2" CBP
- 4 – 4-1/2" TAC's (3 Baker TAC and 1 Tech TAC)
- AFU
- Lufkin C-160-200-74 pumping unit with an Arrow C-96 engine (or equivalent) & cement base

Rods:

- 2" X 1-1/4" X 16' X 2' RWAC pump
- 3/4" X 4' Guided rod sub w/ mold-on guides
- 3/4" – 21,000lb HF shear tool
- 6 - 1-1/4" API K sinker bars with stabilizer rods
- 28 - 3/4" API D Molded Guide Rods w/ T-couplings
- 230- 3/4" API D Rods w/ T-couplings
- 1-1/4" X 22' Polished Rod w/ 10' liner