4/11/08 DATE IN	SUSPENSE	W Jones ENGINEER	4/11/08 LOGGED IN	DHC TYPE	PKVR0810254038 APP NO.

ABOVE THIS LINE FOR DIVISION USE ONLY

12-A

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -
1220 South St. Francis Drive, Santa Fe, NM 87505

ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☒ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify _____

[2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or ☒ Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☐ Offset Operators, Leaseholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice

[D] ☐ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

LORRI D. BINGHAM	[signature]	REG. COMPLIANCE TECH	4/7/08
Print or Type Name	Signature	Title	Date

Lorri_bingham@xtoenergy.com
e-mail Address

RECEIVED
2008 APR 11 PM 2 57

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
DISTRICT II
1301 W. Grand Avenue, 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 and Natural Resources

Oil Conservation Division

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-107A
Revised June 10, 2003

APPLICATION TYPE
____ Single Well
____ Establish Pre-Approved Pools
EXISTING WELLBORE
X Yes __ No

APPLICATION FOR DOWNHOLE COMMINGLING

DHC-4025
1112-A

XTO Energy Inc.	382 CR 3100 Aztec, NM 87410	
Operator	Address	

JICARILLA APACHE	#16E	SEC 34A T26N R5W	RIO ARRIBA
Lease	Well No.	Unit Letter-Section-Township-Range	County

OGRID No. 5380 Property Code 30320 API No. 30-039-22434 Lease Type: X Federal __ State __ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
	1 WIDES		? JICARILLA GALLUP ASSOC
Pool Name	OTERO CHACRA	BLANCO MESAVERDE	~~BASIN MANCOS~~ (GAS)
Pool Code	82329	72319	97232 OK
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	3922' - 4021'	PT LOOKOUT 5148' - 5278' ADD MENEFEE 4958'-5119'	
Method of Production (Flowing or Artificial Life)		PLUNGER	See Next Page
Bottomhole Pressure (Note: Pressure data will not be required if the bottom perforation in the lower zone is within 150% of the depth of the top perforation in the upper zone)			4 POOLS
Oil Gravity or Gas BTU (Degree API or Gas BTU)		1.250 BUT/MSCF	
Producing, Shut-In or New Zone	NEW ZONE	PRODUCING	NEW ZONE
Date and Oil/Gas/Water Rates of Last Production (Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.)	Date: Rates:	Date: 11/07 Rates: 0.1 BOPD/28 MCFD/2 BWPD	Date: Rates:
	Date: Rates:	Date: Rates:	Date: Rates:
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil: 0 % Gas: 10.17 %	Oil: 20 % Gas: 50.85 %	Oil: 40 % Gas: 10.17 %

Are all working, overriding, and royalty interests identical in all commingled zones? Yes X No ____
If not, have all working, overriding, and royalty interests been notified by certified mail? Yes ____ No ____

Are all produced fluids from all commingled zones compatible with each other? Yes X No ____

Will commingling decrease the value of production? Yes ____ No X

If this well is on, or communitized with, state or federal lands, has either the Commissioner of Public Lands or the United States Bureau of Land Management been notified in writing of this application? Yes X No ____

NMOCD Reference Case No. applicable to this well: _____

ATTACHMENTS:
- C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- Production curve for each zone for at least one year. (If not available, attach explanation.)
- For zones with no production history, estimated production rates and supporting data.
- Data to support allocation method or formula.
- Notification list of all offset operators.
- Notification list of working, overriding, and royalty interests for uncommon interest cases.
- Any additional statements, data, or documents required to support commingling.

If application is to establish Pre-Approved Pools, the following additional information will be required:

List of other orders approving downhole commingling within the proposed Pre-Approved Pools
List of all operators within the proposed Pre-Approved Pools
Proof that all operators within the proposed Pre-Approved Pools were provided notice of this application.
Bottomhole presssure data.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE [signature] TITLE REG COMPLIANCE TECH DATE 4/10/08

TYPE OR PRINT NAME LORRI D. BINGHAM TELEPHONE NO. (505) 333-3204

E-MAIL Lorri_bingham@xtoenergy.com

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
DISTRICT II
1301 W. Grand Avenue, 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 and Natural Resources

Oil Conservation Division

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-107A
Revised June 10, 2003

APPLICATION TYPE
_____ Single Well
_____ Establish Pre-Approved Pools
EXISTING WELLBORE
X Yes ___ No

APPLICATION FOR DOWNHOLE COMMINGLING

XTO Energy Inc. (Operator) | 382 CR 3100 Aztec, NM 87410 (Address)

JICARILLA APACHE (Lease) | #16E (Well No.) | SEC 34A T26N R5W (Unit Letter-Section-Township-Range) | RIO ARRIBA (County)

OGRID No. 5380 | Property Code 30320 | API No. 30-039-22434 | Lease Type: X Federal ___ State ___ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name			BASIIN DAKOTA
Pool Code			71599
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)			7200' - 7430'
Method of Production (Flowing or Artificial Life)			PLUNGER
Bottomhole Pressure (Note: Pressure data will not be required if the bottom perforation in the lower zone is within 150% of the depth of the top perforation in the upper zone)			
Oil Gravity or Gas BTU (Degree API or Gas BTU)			1.250 BTU/MSCF
Producing, Shut-In or New Zone			PRODUCING
Date and Oil/Gas/Water Rates of Last Production (Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.)	Date: Rates:	Date: Rates:	Date: 11/07 Rates: 0.3 BOPD/85 MCFD/5 BWPD
	Date: Rates:	Date: Rates:	Date: Rates:
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil: % Gas: %	Oil: % Gas: %	Oil: 40 % Gas: 28.81 %

Are all working, overriding, and royalty interests identical in all commingled zones? Yes X No ___
If not, have all working, overriding, and royalty interests been notified by certified mail? Yes ___ No ___

Are all produced fluids from all commingled zones compatible with each other? Yes X No ___

Will commingling decrease the value of production? Yes ___ No X

If this well is on, or communitized with, state or federal lands, has either the Commissioner of Public Lands or the United States Bureau of Land Management been notified in writing of this application? Yes X No ___

NMOCD Reference Case No. applicable to this well: _____

ATTACHMENTS:
- C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- *Production curve for each zone for at least one year. (If not available, attach explanation.)*
- For zones with no production history, estimated production rates and supporting data.
- Data to support allocation method or formula.
- Notification list of all offset operators.
- Notification list of working, overriding, and royalty interests for uncommon interest cases.
- Any additional statements, data, or documents required to support commingling.

If application is to establish Pre-Approved Pools, the following additional information will be required:

List of other orders approving downhole commingling within the proposed Pre-Approved Pools
List of all operators within the proposed Pre-Approved Pools
Proof that all operators within the proposed Pre-Approved Pools were provided notice of this application.
Bottomhole presssure data.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE [signature] TITLE REG COMPLIANCE TECH DATE 4/10/08

TYPE OR PRINT NAME LORRI D. BINGHAM TELEPHONE NO. (505) 333-3204

E-MAIL Lorri_bingham@xtoenergy.com

Jicarilla Apache Gas Allocations

Reservoir	Daily Gas Rate	Methodology
Dakota	85	Current average daily rate
Mancos	30	Calculated average daily rate for all currently producing Gallup/Mancos wells in the surrounding area.
Mesaverde	150	Mesaverde is on 80 acre spacing now. Used average daily rate for first 80 acre mesaverde well drilled, Jicarilla Apache #16G to take depletion into consideration.
Chacra	30	Calculated average daily rate for all currently producing Chacra wells in the surrounding area.

Allocation	Gas
Dakota	28.81%
Mancos	10.17%
Mesaverde	50.85%
Chacra	10.17%

Form 3160-5
(August 2007)

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.

SUBMIT IN TRIPLICATE - Other instructions on page 2

RECEIVED
APR 11 2008
Bureau of Land Management
Farmington Field Office

5. Lease Serial No.
JIC-154

6. If Indian, Allottee or Tribe Name
JICARILLA APACHE TRIBE

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

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No.
JICARILLA APACHE # 16E

2. Name of Operator
XTO Energy Inc.

9. API Well No.
30-039-22434

3a. Address
382 CR 3100 Aztec, NM 87410

3b. Phone No. *(include area code)*
505-333-3100

10 Field and Pool, or Exploratory Area
BASIN DAKOTA/
BLANCO MESAVERDE

4. Location of Well *(Footage, Sec., T, R., M, or Survey Description)*
825' FNL & 995' FEL SEC 34A-T26N-R5W

11. County or Parish, State
RIO ARRIBA NM

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

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☒ Recomplete	☒ Other AMEND DHC
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

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 recomplete 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 recompletion 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. intends to recomplete this well to the Wildcat Basin Mancos & the Otero Chacra & add pay to the Blanco Mesaverde per the attached procedure & plats. XTO would also like to downhole commingle the two new zones with the Basin Dakota & the Blanco Mesaverde upon completion. Please see the attached supporting documents for the allocation calculations listed as follows:

Basin Dakota	Gas:	28.81%	Oil:	40%	Water:	46%
Basin Mancos	Gas:	10.17%	Oil:	40%	Water:	22%
Mesaverde	Gas:	50.85%	Oil:	20%	Water:	22%
Chacra	Gas:	10.17%	Oil:	0%	Water:	10%

RCVD APR 15 '08
OIL CONS. DIV.
DIST. 3

Pools are not included in the NMOCD pre-approved pool combinations for DHC in the San Juan Basin; therefore, a C-107A has been submitted on 4/10/08. Ownership is common & notification to owners was not necessary. Downhole commingling will offer an economical method of production while protecting against reservoir damage, waste of reserves & violation of correlative rights.

DHC pending

SEE ATTACHED FOR CONDITIONS OF APPROVAL

14. I hereby certify that the foregoing is true and correct
Name *(Printed/Typed)* LORRI D. BINGHAM Title REGULATORY COMPLIANCE TECH

Signature Date 4/10/08

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by Joe Hewitt Title Geo Date 4-14-08

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 Office FFO

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

NMOCD

Approved_____

Jicarilla Apache #16E
Unit A, Sec 34, T 26 N, R 05 W
Rio Arriba County, New Mexico

OAP (Mancos/Menefee/Chacra), DHC, & PWOP

Surf csg: 9-5/8", 36#, K-55, ST&C csg @ 492'. Circ cmt to surf.
Prod csg: 7", 23#, K-55, ST&C csg fr/5,600-3,495'. **Capacity: 1.6535 gpf**
7", 20#, K-55, ST&C csg fr/3,495'-surf. **Capacity: 1.7005 gpf**
DV tool @ 4,069'. 1st stage did not circ cmt to surf. TOC @ 4,250' by calculation.
2nd cmt stage did not circ cmt to surf. TOC @ 2,700' by calculation.
Prod linr: 4-1/2", 10.5#, K-55 csg from 5,413' to 7,524'. PBTD @ 7,523'. Cmt'd w/200 sx 50/50 POZ w/6% D-20, .8% D-60 followed by 50 sx class "B" w/.8% D-60. Circ 10 bbls cmt to surf. TOC @ 5,690' by CBL
Tbg: NC, SN, & 230 jts 2-3/8" tbg. EOT @ 7,312', SN @ 7,311'.
Perforations: DK: 7,200-7,430' (1 JSPF, 15 holes). Pt Lkt: 5,148'-5,278' (1 JSPF, 19 holes).

Completion Procedure

1) MI & set 3 - 400 bbl frac tanks and fill with 2% KCl water. Set flowback tank. **NOTE:** Have frac co. test wtr for compatibility prior to frac & add biocide. Heat wtr in the frac tnks so that wtr temperature @ frac time is ±70° F. Hot oil trk must be clean to avoid contaminating the frac wtr.

2) MIRU PU. MI 5 jts 2-3/8", 4.7#, J-55, EUE, 8rd tbg.

3) Blow well down and kill well with 2% KCl water.

4) ND WH. NU and pressure test BOP.

5) TIH with 2-3/8" tbg. Tag fill. Report any fill to Ryan Lavergne. TOH with 2-3/8" tbg.

6) TIH with 6-1/4" bit and scraper, SN and 2-3/8" tbg. CO csg to top of liner (5,413'). TOH with bit.

7) TIH with 3-7/8" bit and string mill, SN and 2-3/8" tbg. CO fill to Model 'S' plug (7,463'). **Top of Liner @ 5,413'.** Report any tight spots in the casing to Ryan Lavergne. TOH with 2-3/8" tbg and string mill.

8) TIH and set a 4-1/2" CBP at ±6,900' (Collars @ 6,914' & 6,872'). TOH w/2-3/8" tbg and setting tool.

9) TIH w/4-1/2" Model 'R' retrievamatic packer. Set packer at ±5,750' (Collars @ 5,724' & 5,766'). Probable TOC @ 5690'. Test CBP to 3,500 psig. TOH w/2-3/8" tbg and packer. LD 2-3/8" tbg.

10) MIRU wireline truck. RU full lubricator. Correlate GR/CBL/CCL with the Jicarilla Apache #16E Dresser Atlas Densilog/Neutron Log dated 10/19/80. Run GR/CBL/CCL from 6,000' to surface (492').

11) Perf Mancos with 3-1/8" select fire csg gun with 1 JSPF (Owen HSC-3125-302, 10 gm charges, 0.34" dia., 21.42" penetration, 21 holes). POH with csg guns. RDMO WL truck.

Mancos Perfs

Perf	CCL	Perf	CCL	Perf	CCL	Perf	CCL	Perf	CCL
6,684'		6,614'		6,540'		6,450'		6,365'	
6,678'		6,610'		6,520'		6,448'			
6,667'		6,602'		6,508'		6,434'			
6,661'		6,582'		6,482'		6,409'			
6,627'		6,558'		6,454'		6,395'			

12) TIH w/packer, 350' of 2-3/8", 4.7#, frac string tbg, and 3-1/2", 9.3#, frac string tbg to surface. Set packer at ±5,750'. ND BOP. NU frac vlv. RDMO PU.

13) MIRU acid and pump truck. BD Gallup perfs from 6,365'-6,684' and EIR with 2% KCl water. Acidize with 1,250 gals of 15% NEFE HCl and 40 Bio BS at 12 BPM down frac string. **Max TP 5,500 psig**. Flush with 2,782 gals 2% KCl water (3 bbls over flush). Record ISIP, 5", 10" and 15" SIP's. RDMO acid and pump truck.

14) MIRU Stinger WH isolation tool. MIRU Halliburton and CO2 frac equip. Frac Mancos perfs from 6,365'-6,684' down 3-1/2" tbg at 30 BPM with 70,000 gals 60Q, CO2 foamed, 25# XL gelled (Pure Gel III) carrying 96,000# 20/40 BASF sand and 24,000# 20/40 Super LC RC sand. Max Pressure 5,500 psig. Estimated TP 4,300 psig. Flush with 2,316 gals linear gel (3 bbl under flush). Record ISIP, 5", 10" and 15" SIP's.

MANCOS SCHEDULE

Stage	BPM	Fluid	Total Vol Gal	Prop Conc	Prop
Pad	30	25# 60Q XL foam	12,000		
2	30	25# 60Q XL foam	19,000	1	19,000# 20/40 BASF
3	30	25# 60Q XL foam	16,000	2	32,000# 20/40 BASF
4	30	25# 60Q XL foam	15,000	3	45,000# 20/40 BASF
6	30	25# 60Q XL foam	8,000	3	24,000# 20/40 Super LC
Flush	30	25# 60Q XL foam	1,816		
Flush	20	25# linear gel	500		
Total	**96,000# 20/40 BASF**			**20,000# 20/40 Super LC**	

15) SWI 4 hrs. RDMO Halliburton and CO2 frac equip. Flowback well thru a choke manifold to flowback tank. Start with 8/64" ck. Increase choke size as appropriate.

16) MIRU PU. ND WH. NU BOP. TOH with 3-1/2" tbg, 2-3/8" tbg, and 4-1/2" packer. LD 3-1/2" frac string. ND BOP. NU frac vlv. RDMO PU.

17) Refill frac tanks with 2% KCl water. Set flowback tank. **NOTE:** Have frac co. test wtr for compatibility prior to frac & add biocide. Heat wtr in the frac tnks so that wtr temperature @ frac time is ±70° F. Hot oil trk must be clean to avoid contaminating the frac wtr.

18) Blow down well and kill with 2% KCl water.

19) MIRU wireline truck. RU full lubricator. RIH and set a 7" CBP at ±5,135'. (Check to ensure that CBP is not set in casing collar or Pt Lkt perfs). Blow down well. Load casing with 2% KCl water. Pressure test CBP to 3,000 psig. Release pressure.

20) Perf Menefee with 3-1/8" select fire csg gun with 1 JSPF (Owen HSC-3125-302, 10 gm charges, 0.34" dia., 21.42" penetration, 18 holes). POH with csg gun.

Menefee Perfs

PERF	CCL	PERF	CCL	PERF	CCL
5,119'		5,056'		4,964'	
5,116'		5,054'		4,961'	
5,110'		5,031'		4,958'	
5,106'		5,028'			
5,059'		4,967'			

21) MIRU acid & frac equipment to do a 2 stage frac (Menefec/Chacra).

22) BD Menefee perfs from 4,958'-5,119' and EIR with 2% KCl water. Acidize with 1000 gals of 15% NEFE HCl and 40 Bio BS at 12 BPM down 7" csg. **Max CP 3,000 psig**. Flush with 8,754 gals 2% KCl water (3 bbls over flush) or until ball off. Record ISIP, 5", 10" and 15" SIP's. RDMO acid and pump truck. RDMO WL truck.

23) Frac Menefee perfs from 4,958'-5,119' down 7" csg at 35 BPM with 59,000 gals 70Q, N2 foamed, Borate XL, 12# guar gel, 2% KCl water carrying 75,000# 20/40 BASF sand and 21,000# 20/40 Super LC RC sand. Do not exceed 3,000 psig. Flush with 8,170 gals linear gel (3 bbl under flush). Record ISIP, 5", 10" and 15" SIP's.

MENEFEE SCHEDULE

Stage	BPM	Fluid	Vol Gals	Prop Conc	Prop
Pad	35	25# 70Q foam	11,000		
2	35	25# 70Q foam	17,000	1	17,000# 20/40 BASF
3	35	25# 70Q foam	14,000	2	28,000# 20/40 BASF
4	35	25# 70Q foam	10,000	3	30,000# 20/40 BASF
5	35	25# 70Q foam	7,000	3	21,000# 20/40 Super LC
Flush	35	25# linear gel	8,170		
Total	**75,000# 20/40 BASF**		**21,000# 20/40 SLC**		

24) Refill frac tanks with 2% KCl water as needed for Chacra stg. Set flowback tank. **NOTE:** Have frac co. test wtr for compatibility prior to frac & add biocide. Heat wtr in the frac tnks so that wtr temperature @ frac time is ±70° F. Hot oil trk must be clean to avoid contaminating the frac wtr.

25) Blow down well and kill with 2% KCl water.

26) RU full lubricator. RIH and set a 7" CBP at ±4,150'. (Check to ensure that CBP is not set in casing collar). Blow down well. Load casing with 2% KCl water. Pressure test CBP to 3,000 psig. Release pressure.

27) Perf Chacra with 3-1/8" select fire csg gun with 1 JSPF (Owen HSC-3125-302, 10 gm charges, 0.34" dia., 21.42" penetration, 20 holes). POH with csg gun. RDMO WL truck.

Chacra Perfs

PERF	CCL	PERF	CCL	PERF	CCL	PERF	CCL
4,021		3,991		3,969'		3,934'	
4,020'		3,987'		3,946'		3,931'	
4,019'		3,985'		3,943'		3,928'	
4,018'		3,975'		3,940'		3,925'	
4,017'		3,971'		3,937'		3,922'	

28) BD Chacra perfs from 3,922'-4,021' and EIR with 2% KCl water. Acidize with 1,000 gals of 15% NEFE HCl and 40 BS at 12 BPM down 7" csg. **Max CP 3,000 psig**. Flush with 6,939 gals 2% KCl water (3 bbls over flush). Record ISIP, 5", 10" and 15" SIP's.

29) Frac Chacra perfs from 3,922'-4,021' down 7" csg at 40 BPM with 57,000 gals 70Q, N2 foamed, Borate XL, 12# guar gel, 2% KCl water carrying 71,000# 20/40 BASF sand and 21,000# 20/40 Super LC RC sand. Do not exceed 3,000 psig. Flush with 6,523 gals 70Q, N2 foamed linear gel (3 bbls under flush). Record ISIP, 5", 10" and 15" SIP's.

CHACRA SCHEDULE

Stage	BPM	Fluid	Vol Gals	Prop Conc	Prop
Pad	40	25# 70Q foam	11,000		
2	40	25# 70Q foam	17,000	1	17,000# 20/40 BASF
3	40	25# 70Q foam	12,000	2	24,000# 20/40 BASF
4	40	25# 70Q foam	10,000	3	30,000# 20/40 BASF
5	40	25# 70Q foam	7,000	3	21,000# 20/40 Super LC
Flush	40	25# 70Q foam	6,523		
Total	**71,000# 20/40 BASF**		**21,000# 20/40 SLC**		

30) SWI 4 hrs. RDMO frac & acid equip. Install flowback manifold. Flowback well thru a choke manifold to flowback tank. Start with 8/64" ck. Increase choke size as appropriate.

31) Flow test min 3hrs on fixed choke for IP tst. Record liq vols, FTP, SICP , & choke size. SWI. Report rates and pressure to Ryan Lavergne.

Make sure DHC orders have been approved before drilling out any plugs

32) MIRU PU. ND WH & NU BOP. MIRU air/foam unit. TIH with 6" bit, SN and 2-3/8" tubing. CO to CBP at 4,150'. DO CBP @ 4,150'. CO to CBP at 5,135'. DO CBP @ 5,135'. CO to 5,413' (Top of liner). TOH with 6" bit.

33) TIH with 3-7/8" bit, SN, and 2-3/8" tubing. CO to CBP @ 6,900'. DO CBP @ 6,900'.

34) CO to 7,463' (Model 'S' plug). **DO NOT DRILL THIS PLUG OUT.** Circulate wellbore clean. RDMO air/foam unit.

35) TOH with tubing and bit. Lay down bit. TIH with NC, SN, and 2-3/8" tubing to surface. Land tubing at ±7,311'. SN at ±7,310'. ND BOP. NU WH.

36) RU swab. Swab well until clean fluid is obtained and well kicks off.

37) RDMO PU.

38) Report rates and pressures to Ryan Lavergne.

39) After RWTP evaluate PWOP.

Regulatory:

1. Obtain approval to DHC the Dakota, Mancos, Mesa Verde, and Chacra formations.
2. Obtain approval to Recomplete to the Mancos and Chacra formations.
3. Submit subsequent sundry for OAP in the Mesa Verde (Menefee) formation.

Equipment:

1. 5 jts 2-3/8", 4.7#, J-55, EUE, 8rd tbg
2. New SN and NC
3. 5,400' of 3-1/2", 9.3#, J-55 frac string
4. 4-1/2" pkr
5. 4-1/2" CBP
6. 2 – 7" CBP's

Jic Ap #16E

RC to MC & CH
Menefee NV

Jicarilla Apache Oil & Water Allocations

Well Name	No.	Operator	Location	Reservoir	EUR Oil (mbo)	Cum Wtr (mbbl)
JICARILLA A	9	CDX RIO LIMITED LIABILITY CORPORATION	20D 26N 5W SE NW NW	CHACRA	0	0
JICARILLA APACHE	3	XTO ENERGY INCORPORATED	34D 26N 5W SE NW NW	CHACRA	0	0
JICARILLA APACHE	11	XTO ENERGY INCORPORATED	28M 26N 5W NE SW SW	CHACRA	0	1
JICARILLA APACHE	12	XTO ENERGY INCORPORATED	33A 26N 5W SW NE NE	CHACRA	0	2
JICARILLA APACHE	13	XTO ENERGY INCORPORATED	33M 26N 5W NE SW SW	CHACRA	0	0
JICARILLA APACHE	14	XTO ENERGY INCORPORATED	34M 26N 5W NE SW SW	CHACRA	0	0
JICARILLA APACHE	16	XTO ENERGY INCORPORATED	34I 26N 5W SW NE SE	CHACRA	0	1
JICARILLA APACHE	19	XTO ENERGY INCORPORATED	28B 26N 5W SE NW NE	CHACRA	0	3
JICARILLA APACHE	20	MARATHON OIL COMPANY	27M 26N 5W NE SW SW	CHACRA	0	0
JICARILLA APACHE	13E	XTO ENERGY INCORPORATED	33E 26N 5W NE SW NW	CHACRA	0	1
JICARILLA CONTRACT 155A	23	CDX RIO LIMITED LIABILITY CORPORATION	32N 26N 5W NW SE SW	CHACRA	0	0
JICARILLA CONTRACT 155	25	CDX RIO LIMITED LIABILITY CORPORATION	29L 26N 5W SE NW SW	CHACRA	0	0
JICARILLA CONTRACT 155	27	CDX RIO LIMITED LIABILITY CORPORATION	32J 26N 5W SE NW SE	CHACRA	0	0
JICARILLA CONTRACT 155	29	CDX RIO LIMITED LIABILITY CORPORATION	32F 26N 5W NW SE NW	CHACRA	0	3
JICARILLA CONTRACT 155	31	CDX RIO LIMITED LIABILITY CORPORATION	29H 26N 5W NW SE NE	CHACRA	0	2
JICARILLA CONTRACT 155	18E	CDX RIO LIMITED LIABILITY CORPORATION	29J 26N 5W SE NW SE	CHACRA	0	1
JICARILLA CONTRACT 155	20E	CDX RIO LIMITED LIABILITY CORPORATION	29C 26N 5W SW NE NW	CHACRA	0	0
JICARILLA GAS COM 155 A	1	CDX RIO LIMITED LIABILITY CORPORATION	32H 26N 5W NW SE NE	CHACRA	2	1
[illegible]					1	1
JICARILLA A	5	CDX RIO LIMITED LIABILITY CORPORATION	20G 26N 5W SW NE	DAKOTA	14	1
JICARILLA A	6	CDX RIO LIMITED LIABILITY CORPORATION	20M 26N 5W SW SW	DAKOTA	35	2
JICARILLA A	5E	CDX RIO LIMITED LIABILITY CORPORATION	20J 26N 5W SE NW SE	DAKOTA	12	1
JICARILLA A	6E	CDX RIO LIMITED LIABILITY CORPORATION	20F 26N 5W NE SW NW	DAKOTA	11	1
JICARILLA APACHE	8	XTO ENERGY INCORPORATED	27P 26N 5W NW SE SE	DAKOTA	11	2
JICARILLA APACHE	9	XTO ENERGY INCORPORATED	28A 26N 5W NE NE	DAKOTA	54	5
JICARILLA APACHE	10	XTO ENERGY INCORPORATED	27B 26N 5W SE NW NE	DAKOTA	13	
JICARILLA APACHE	11	XTO ENERGY INCORPORATED	28M 26N 5W NE SW SW	DAKOTA	10	2
JICARILLA APACHE	12	XTO ENERGY INCORPORATED	33A 26N 5W SW NE NE	DAKOTA	10	3
JICARILLA APACHE	13	XTO ENERGY INCORPORATED	33M 26N 5W NE SW SW	DAKOTA	15	1
JICARILLA APACHE	14	XTO ENERGY INCORPORATED	34M 26N 5W NE SW SW	DAKOTA	27	2
JICARILLA APACHE	16	XTO ENERGY INCORPORATED	34I 26N 5W SW NE SE	DAKOTA	11	4
JICARILLA APACHE	18E	XTO ENERGY INCORPORATED	27C 26N 5W SW NE NW	DAKOTA	8	3
JICARILLA APACHE	17E	XTO ENERGY INCORPORATED	28C 26N 5W SW NE NW	DAKOTA	11	2
JICARILLA APACHE	19E	XTO ENERGY INCORPORATED	33J 26N 5W SE NW SE	DAKOTA	12	1
JICARILLA APACHE	12E	XTO ENERGY INCORPORATED	33E 26N 5W NE SW NW	DAKOTA	7	1
JICARILLA APACHE	14E	XTO ENERGY INCORPORATED	34F 26N 5W NW SE NW	DAKOTA	12	2
JICARILLA APACHE	14I	XTO ENERGY INCORPORATED	34D 26N 5W SE NW NW	DAKOTA	9	1
JICARILLA APACHE	14G	XTO ENERGY INCORPORATED	34K 26N 5W NW NE SW	DAKOTA	9	1
JICARILLA APACHE	15E	XTO ENERGY INCORPORATED	34A 26N 5W SW NE NE	DAKOTA	7	1
JICARILLA APACHE	18E	XTO ENERGY INCORPORATED	34O 26N 5W NW SW SE	DAKOTA	3	3
JICARILLA APACHE	16G	XTO ENERGY INCORPORATED	34H 26N 5W SW SE NE	DAKOTA	1	1
JICARILLA APACHE	2E	XTO ENERGY INCORPORATED	27K 26N 5W SW NE SW	DAKOTA	6	
JICARILLA APACHE	8G	XTO ENERGY INCORPORATED	27N 26N 5W NE SE SW	DAKOTA	2	
JICARILLA APACHE	9E	XTO ENERGY INCORPORATED	28C 26N 5W NE SW SE	DAKOTA	4	1
JICARILLA B	1	CDX RIO LIMITED LIABILITY CORPORATION	22O 26N 5W SW NE	DAKOTA	50	1
JICARILLA B	4	CDX RIO LIMITED LIABILITY CORPORATION	21P 26N 5W SE NE	DAKOTA	40	1
JICARILLA B	8	CDX RIO LIMITED LIABILITY CORPORATION	21K 26N 5W NE SW	DAKOTA	23	
JICARILLA B	6	CDX RIO LIMITED LIABILITY CORPORATION	22K 26N 5W SW NE SW	DAKOTA	20	1
JICARILLA B	15	CDX RIO LIMITED LIABILITY CORPORATION	22I 26N 5W SW NE SE	DAKOTA	3	1
JICARILLA B	16	CDX RIO LIMITED LIABILITY CORPORATION	21P 26N 5W NW SE SE	DAKOTA	2	1
JICARILLA B	5E	CDX RIO LIMITED LIABILITY CORPORATION	21E 26N 5W NE NW NW	DAKOTA	2	1
JICARILLA B	7E	CDX RIO LIMITED LIABILITY CORPORATION	22C 26N 5W SW NE NW	DAKOTA	6	
JICARILLA CONTRACT 146	17	CDX RIO LIMITED LIABILITY CORPORATION	4K 25N 5W SW NE SW	DAKOTA	16	
JICARILLA CONTRACT 146	17	CDX RIO LIMITED LIABILITY CORPORATION	3G 25N 5W NE SW NE	DAKOTA	11	
JICARILLA CONTRACT 146	19	CDX RIO LIMITED LIABILITY CORPORATION	4 25N 5W SW NE NE	DAKOTA	31	1
JICARILLA CONTRACT 146	21	BEAVER CA PRODUCTION COMPANY	3K 25N 5W SW NE SW	DAKOTA	3	
JICARILLA CONTRACT 146	1E	CDX RIO LIMITED LIABILITY CORPORATION	4O 25N 5W NE SW SE	DAKOTA	11	

JICARILLA CONTRACT 146	17E	CDX RIO LIMITED LIABILITY CORPORATION	3J 25N 5W SE NW SE	DAKOTA	4	0
JICARILLA CONTRACT 146	19E	CDX RIO LIMITED LIABILITY CORPORATION	4 25N 5W SW NE NW	DAKOTA	2	4
JICARILLA CONTRACT 146	21E	CDX RIO LIMITED LIABILITY CORPORATION	3F 25N 5W NW SE NW	DAKOTA	8	4
JICARILLA CONTRACT 146	23R	CDX RIO LIMITED LIABILITY CORPORATION	3N 25N 5W NW SE SW	DAKOTA	1	2
JICARILLA CONTRACT 155	12	CDX RIO LIMITED LIABILITY CORPORATION	32K 26N 5W SW NE SW	DAKOTA	28	4
JICARILLA CONTRACT 155	19	BP AMERICA PRODUCTION COMPANY	29A 26N 5W NE NE	DAKOTA	20	2
JICARILLA CONTRACT 155	20	CDX RIO LIMITED LIABILITY CORPORATION	29N 26N 5W NW SE SW	DAKOTA	19	4
JICARILLA CONTRACT 155	12E	CDX RIO LIMITED LIABILITY CORPORATION	32J 26N 5W SE NW SE	DAKOTA	2	0
JICARILLA CONTRACT 155	19E	CDX RIO LIMITED LIABILITY CORPORATION	29J 26N 5W SE NW SE	DAKOTA	12	4
JICARILLA CONTRACT 155	20E	CDX RIO LIMITED LIABILITY CORPORATION	29C 26N 5W SW NE NW	DAKOTA	8	3
JICARILLA GAS COM C	1	CDX RIO LIMITED LIABILITY CORPORATION	32A 26N 5W SW NE NE	DAKOTA	12	4
JICARILLA GAS COM C	1E	CDX RIO LIMITED LIABILITY CORPORATION	32F 26N 5W NW SE NW	DAKOTA	6	14
JICARILLA K	11	CONOCOPHILLIPS COMPANY	2C 25N 5W NE SW NW	DAKOTA	14	1
JICARILLA K	12	CONOCOPHILLIPS COMPANY	2O 25N 5W NW SW SE	DAKOTA	15	
JICARILLA K	11E	CONOCOPHILLIPS COMPANY	2 25N 5W NW NE	DAKOTA	3	1
JICARILLA K	12E	CONOCOPHILLIPS COMPANY	2M 25N 5W NE SW SW	DAKOTA	9	4
AVERAGE					12	4
JICARILLA 153	10	BURLINGTON RESOURCES O&G CO LP	26I 26N 5W NE SE	GALLUP	2	2
JICARILLA 153	12E	BURLINGTON RESOURCES O&G CO LP	35M 26N 5W NE SW SW	GALLUP	17	1
JICARILLA 153	14E	BURLINGTON RESOURCES O&G CO LP	35G 26N 5W NE SW NE	GALLUP	2	2
JICARILLA 153	9E	BURLINGTON RESOURCES O&G CO LP	26D 26N 5W SE NW NW	GALLUP	1	-
JICARILLA A	5	CDX RIO LIMITED LIABILITY CORPORATION	20G 26N 5W SW NE	GALLUP	44	-
JICARILLA APACHE	10	XTO ENERGY INCORPORATED	27B 26N 5W SE NW NE	GALLUP	2	0
JICARILLA B	4	CDX RIO LIMITED LIABILITY CORPORATION	21H 26N 5W SE NE	GALLUP	29	5
JICARILLA C	5E	CDX RIO LIMITED LIABILITY CORPORATION	21E 26N 5W NE SW NW	GALLUP	14	4
JICARILLA E	3	CDX RIO LIMITED LIABILITY CORPORATION	23I 26N 5W NE SE	GALLUP	12	1
AVERAGE					14	3
JICARILLA 148	20	CONOCOPHILLIPS COMPANY	5 25N 5W SW NE NW	MESAVERDE	7	2
JICARILLA 148	21	CONOCOPHILLIPS COMPANY	5I 25N 5W SW NE SE	MESAVERDE	6	2
JICARILLA 148 E	20A	CONOCOPHILLIPS COMPANY	5 25N 5W SW NE NE	MESAVERDE	11	4
JICARILLA APACHE E	21A	CONOCOPHILLIPS COMPANY	5N 25N 5W NW SE SW	MESAVERDE	8	2
JICARILLA B 153	10	BURLINGTON RESOURCES O&G CO LP	26I 26N 5W NE SE	MESAVERDE	1	
JICARILLA B 153	10E	BURLINGTON RESOURCES O&G CO LP	26N 26N 5W NW SE SW	MESAVERDE	1	1
JICARILLA B 153	12E	BURLINGTON RESOURCES O&G CO LP	35M 26N 5W NE SW SW	MESAVERDE	2	2
JICARILLA B 153	9E	BURLINGTON RESOURCES O&G CO LP	26D 26N 5W SE NW NW	MESAVERDE	1	0
JICARILLA B	9	CDX RIO LIMITED LIABILITY CORPORATION	22O 26N 5W SE NW NW	MESAVERDE	1	
JICARILLA B APACHE	9	XTO ENERGY INCORPORATED	28A 26N 5W NE NE	MESAVERDE		
JICARILLA B APACHE	11	XTO ENERGY INCORPORATED	28M 26N 5W NE SW SW	MESAVERDE	1	1
JICARILLA B APACHE	12	XTO ENERGY INCORPORATED	33A 26N 5W SW NE NE	MESAVERDE	1	1
JICARILLA B APACHE	13	XTO ENERGY INCORPORATED	33M 26N 5W NE SW SW	MESAVERDE	6	5
JICARILLA B APACHE	14	XTO ENERGY INCORPORATED	34M 26N 5W NE SW SW	MESAVERDE		
JICARILLA B APACHE	16	XTO ENERGY INCORPORATED	34I 26N 5W SW NE SE	MESAVERDE	1	
JICARILLA B APACHE	11E	XTO ENERGY INCORPORATED	28C 26N 5W SW NE NW	MESAVERDE	1	1
JICARILLA B APACHE	13E	XTO ENERGY INCORPORATED	33E 26N 5W NE SW NW	MESAVERDE	12	2
JICARILLA B APACHE	14E	XTO ENERGY INCORPORATED	34F 26N 5W NW SE NW	MESAVERDE	2	4
JICARILLA B APACHE	15E	XTO ENERGY INCORPORATED	34A 26N 5W SW NE NE	MESAVERDE	1	
JICARILLA B APACHE	8E	XTO ENERGY INCORPORATED	27K 26N 5W SW NE SW	MESAVERDE	1	1
JICARILLA B APACHE	9E	XTO ENERGY INCORPORATED	28O 26N 5W NE SW SE	MESAVERDE	1	1
JICARILLA C	3	CDX RIO LIMITED LIABILITY CORPORATION	21K 25N 5W NE SW	MESAVERDE	1	2
JICARILLA C	1E	CDX RIO LIMITED LIABILITY CORPORATION	23G 25N 5W NE SW NE	MESAVERDE	5	1
JICARILLA CONTRACT 148	11	CDX RIO LIMITED LIABILITY CORPORATION	4K 25N 5W SW NE SW	MESAVERDE	4	
JICARILLA CONTRACT 148	37	CDX RIO LIMITED LIABILITY CORPORATION	4 25N 5W SE NE NW	MESAVERDE	1	1
JICARILLA CONTRACT 148	11E	CDX RIO LIMITED LIABILITY CORPORATION	4O 25N 5W NE SW SE	MESAVERDE	1	1
JICARILLA CONTRACT 155	20	CDX RIO LIMITED LIABILITY CORPORATION	29N 26N 5W NW SE SW	MESAVERDE	19	1
JICARILLA CONTRACT 155	23	CDX RIO LIMITED LIABILITY CORPORATION	32N 26N 5W NW SE SW	MESAVERDE	2	
JICARILLA CONTRACT 155	27	CDX RIO LIMITED LIABILITY CORPORATION	32J 26N 5W SE NW SE	MESAVERDE	14	4
JICARILLA CONTRACT 155	28	CDX RIO LIMITED LIABILITY CORPORATION	32F 26N 5W NW SE NW	MESAVERDE	1	
JICARILLA CONTRACT 155	32	CDX RIO LIMITED LIABILITY CORPORATION	29O 26N 5W NW SE SE	MESAVERDE	5	
JICARILLA CONTRACT 155	33	CDX RIO LIMITED LIABILITY CORPORATION	29A 26N 5W SW NE NE	MESAVERDE	1	
JICARILLA CONTRACT 155	33A	CDX RIO LIMITED LIABILITY CORPORATION	29C 26N 5W SW NE NW	MESAVERDE	1	1

JICARILLA GAS COM 155 A	1 CDX RIO LIMITED LIABILITY CORPORATION	32H 26N 5W NW SE NE	MESAVERDE	34	1
JICARILLA K	11 CONOCOPHILLIPS COMPANY	2E 25N 5W NE SW NW	MESAVERDE	2	1
JICARILLA K	22 CONOCOPHILLIPS COMPANY	2M 25N 5W NE SW SW	MESAVERDE	32	3
Average				2	2

Allocation	Oil	Water	
Chacra	0%	10.%	
Dakota	40%	46%	46%
Mancos	40%	12%	
Mesaverde	20%	11%	OK

OK

BLM CONDITIONS OF APPROVAL

WORKOVER AND RECOMPLETION OPERATIONS:

1. **A properly functioning BOP and related equipment must be installed prior to commencing workover and/or recompletion operations.**

2. **If this well is in a Seasonal Closure Area, adhere to the closure requirements and timeframes.**

3. **If casing repair operations are needed, obtain prior approval from this office before commencing repairs**

SURFACE USE OPERATIONS:

The following Stipulations will apply to this well unless a particular Surface Managing Agency or private surface owner has supplied to BLM and operator a contradictory environmental stipulation. The failure of operator to comply with these requirements may result in assessments or penalties pursuant to 43 CFR 3163.1 or 3163.2. A copy of these conditions of approval shall be present on location during construction, drilling and reclamation activity.

An agreement between operator and fee landowner will take precedence over BLM surface stipulations unless (in reference to 43 CFR Part 3160) 1) BLM determines that operator's actions will affect adjacent Federal or Indian surface, or 2) operator does not maintain well area and lease premises in a workmanlike manner with due regard for safety, conservation and appearance, or 3) no such agreement exists, or 4) in the event of well abandonment, minimal Federal restoration requirements will be required.

STANDARD STIPULATIONS: All surface areas disturbed during work-over activities and not in use for production activities will be reseeded. This should occur in the first 90 days after completion of workover activities.

SPECIAL STIPULATIONS:

1. **Pits will be fenced during workover operation.**

2. **All disturbance will be kept on existing pad.**

3. **All pits will be pulled and closed immediately upon completion of the workover activities.**

4. **Pits will be lined with an impervious material at least 12 mils thick.**