

DATE IN 8-29-05	SUSPENSE 9-19-05	ENGINEER MS	LOGGED IN ms	TYPE NSL	APP NO. 529839381
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505



Jicarilla 102 #8F

Directional Drilling

3-26 N-4W

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
 X 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] X 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.

Richard Corcoran

Richard Corcoran

Land Manager

8-23-05

Print or Type Name

Signature

Title

Date

Rich.corcoran@cdxgas.com
 e-mail Address



CDX Gas, LLC
2010 Afton Place
Farmington, NM 87401
Main: 505-326-3003
Fax: 505-325-4007

RECEIVED

AUG 29 2005

OIL CONSERVATION
DIVISION

August 23, 2005

New Mexico Oil Conservation Division
Attn: Michael E. Stogner
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

RE: ADMINISTRATIVE APPROVAL OF UNORTHODOX LOCATIONS

JICARILLA C #4F, Section 24, T26N-R5W

JICARILLA A #7F, Section 17, T26N-R5W

JICARILLA 151 #7G, Section 4, T26N-R5W

JICARILLA 102 #14F, Section 9, T26N-R4W

JICARILLA 102 #9F, Section 4, T26N-R4W

~~JICARILLA 102 #8F, Section 3, T26N-R4W~~

RIO ARriba COUNTY, NEW MEXICO

*4-19-06 (11:40 am)
Felicja w/ CDX called to
check from the status of
this application and CDX's
application of 3-13-06 for
the existing Jicarilla
Apache 102
CJ.*

Dear Mr. Stogner:

CDX Rio, LLC hereby requests Administrative Approval for the following Unorthodox Locations all proposed as Blanco Mesaverde/Basin Dakota commingled wells except the Jicarilla 151 #7G which will be completed in the Dakota formation only; under the provisions of New Mexico Oil Conservation Division (NMOCD) Order R-10987-A, Basin Dakota pool and Order R-10987-B, Blanco Mesaverde pool.

Stogner

Well Name & Number	Bottom Hole / (Surface) Location	Sec-Twn-Rng	Formations / Spacing
1) Jicarilla C #4F	660 FSL, 2100 FWL	24-T26N-R5W	MVRD - W/2 DKOT - W/2
2) Jicarilla A #7F	660 FNL, 2055 FWL	17-T26N-R5W	MVRD- W/2 DKOT- W/2
3) Jicarilla 151 #7G	1470 FNL, 2305 FWL	4-T26N-R5W	DKOT - W/2
4) Jicarilla 102 #14F	120 FNL, 660 FWL	9-T26N-R4W	MVRD - N/2 DKOT - W/2
5) Jicarilla 102 #9F	585 FNL, 760 FEL	4-T26N-R4W	MVRD- E/2 DKOT - E/2
6) Jicarilla 102 #8F	660 FSL, 2100 FEL (430 FSL, 965 FEL)	3-T26N-R4W	MVRD- E/2 DKOT - S/2

Each of the proposed locations is a standard 320 acre gas spacing unit and each well is to be located at the spot set out above. The location of each proposed test was selected to optimize recovery from the Dakota formation. Drainage areas are elliptical in shape and have been determined from a study done on Township 26 North Ranges 4 and 5 West and are more specifically set out in the attached Geological/Engineering report. In every case, except the Jicarilla 102 #9F, the proposed location encroaches on CDX Rio, LLC operated wells with the same ownership as the offending well. In addition to reservoir considerations the topography at Honolulu Mesa is very rough and the abundance of Cultural Resources made locating wells where there would not be significant overlap of existing drainage patterns unattainable.

Jicarilla C #4F

The proposed well would be the third Dakota and second Mesaverde well(s) in the W/2 of Section 24-T26N-R5W. The Jicarilla C #4 (API #30-039-08139) located 1,650' FNL and 1,650' FWL of Section 24-T26N-R5W, was drilled to a total depth of 7,680', completed in the Mesaverde and Dakota formations in August of 1966, and has cumulatively produced 2,611,071 MCFG through June of 2005. The Jicarilla C #4E (API #30-039-22298) located 790' FSL and 990' FWL of Section 24-T26N-R5W, was drilled to a total depth of 7,525', completed in the Dakota formation on March 9, 1981 and has produced 1,022,372 MCFG through June of 2005. CDX Rio, LLC is the operator of the E/2 of Section 24-T26N-R5W, being the direction of encroachment; which has the same ownership as the W/2 of said Section 24, consequently no other offsetting operators are affected.

Jicarilla A #7F

The proposed well would be the third Dakota and second Mesaverde well(s) in the W/2 of Section 17-T26N-R5W. The Jicarilla A #7 (API #30-039-08097) located 1,595' FSL and 900' FWL of Section 17-T26N-R5W, was drilled to a total depth of 7,670', completed in the Dakota formation on October 6, 1966, and has cumulatively produced 563,205 MCFG through June of 2005. The Jicarilla A #7E (API #30-039-22896) located 940' FNL and 1,000' FWL of Section 17-T26N-R5W, was drilled to a total depth of 7,650', completed in the Dakota formation on September 13, 1982 and in the Mesaverde on July 8 2002, and has produced 571,490 MCFG through June of 2005.

CDX Rio, LLC is the operator of the E/2 of Section 17-T26N-R5W, being the direction of encroachment; which has the same ownership as the W/2 of said Section 17; consequently no other offsetting operators are affected.

Jicarilla 151 #7G

The proposed well would be the third Dakota well in the W/2 of Section 4 -T26N-R5W. The Jicarilla 151 #7 (API #30-039-21675) located 790' FNL and 790' FWL of Section 4 -T26N-R5W, was drilled to a total depth of 7,610', completed in the Dakota formation on October 25, 1978, and has cumulatively produced 657,208 MCFG through June of 2005. The Jicarilla 151 #7E (API #30-039-23163) located 1,030' FNL and 1,050' FWL of Section 4 -T26N-R5W, was drilled to a total depth of 7,723', completed in the Dakota formation on August 12, 1983, and has produced 710,899 MCFG through June of 2005.

CDX Rio, LLC is the operator of the E/2 of Section 4 -T26N-R5W, being the direction of encroachment; which has the same ownership as the W/2 of said Section 4, consequently no other offsetting operators are affected.

Jicarilla 102 #14F

The proposed well would be the third Dakota and Mesaverde well(s) in its respective proration unit; consisting of the W/2 of Section 9-T26N-R4W for the Basin Dakota formation and the N/2 of Section 9 for the Blanco Mesaverde formation. The Jicarilla 102 #14 (API #30-039-06594) located 1,620' FNL and 1,730' FWL of Section 9 -T26N-R4W, was drilled to a total depth of 8,320', completed in the Dakota formation on October 4, 1963, and has cumulatively produced 1,480,920 MCFG through June of 2005. The Jicarilla 102 #14E (API #30-039-22457) located 1,110' FSL and, 800' FWL of Section 9-T26N-R4W, was drilled to a total depth of 8,254', completed in the Dakota formation on October 9, 1980, and has cumulatively produced 585,547 MCFG through June of 2005. The Jicarilla 102 #29 (API #30-039- 21581) located 1,560' FNL and 1,790' FEL of Section 9 -T26N-R4W, was drilled to a total depth of 6,250', completed in the Mesaverde formation on April 3, 1978, and has cumulatively produced 527,294 MCFG through December of 2003. The Jicarilla 102 #29A (API #30-039-22931) located 910' FNL and 1,740' FWL of Section 9 -T26N-R4W, was drilled to a total depth of 7,649', completed in the Mesaverde formation on August 2, 1982, and has cumulatively produced 692,919 MCFG through June of 2005.

CDX Rio, LLC is the operator of All of Section 4 -T26N-R4W, being the direction of encroachment; which has the same ownership as the W/2 and N/2 of Section 9, T26N-R4W, consequently no other offsetting operators are affected.

Jicarilla 102 #9F

The proposed well would be the third Dakota and Mesaverde well(s) in the E/2 of Section 4-T26N-R4W. The Jicarilla 102 #9 (API #30-039-06715) located 1,600' FNL and 1,800' FEL of Section 4 -T26N-R4W, was drilled to a total depth of 8,416', completed in the Dakota formation on June 30, 1963, and has cumulatively produced 2,221,652 MCFG through June of 2005. The Jicarilla 102 #9E (API #30-039-22456) located 970' FSL and 920' FEL of Section 4 -T26N-R4W, was drilled to a total depth of 8,150', completed in the Dakota formation on October 17, 1980, and has cumulatively produced 1,817,603 MCFG through June of 2005. The Jicarilla 102 #5 (API #30-039-06718) located 1,450' FNL and 1,450' FEL of Section 4 -T26N-R4W, was drilled to a total depth of 6,448', completed in the Mesaverde formation on September 19 1957, and has cumulatively produced 744,680 MCFG through June of 2005. The Jicarilla 102 #5A (API #30-039- 23197) located 1,120' FSL and 790' FEL of Section 4 -T26N-R4W, was drilled to a total depth of 6,088', completed in the Mesaverde formation on October 5, 1983, and has cumulatively produced 444,000 MCFG through June of 2005.

Burlington Resources is the operator of All of Section 33-T27N-R4W, being the direction of encroachment.

Moving this location 75' north of the window was necessary due to Archeological consideration in addition to the reservoir conditions depicted on the attached plats.

Jicarilla 102 #8F

The proposed well would be the third Dakota and fourth Mesaverde well(s) in its respective proration unit; consisting of the S/2 of Section 3-T26N-R4W for the Basin Dakota formation and the E/2 of Section 3 for the Blanco Mesaverde formation. This well is at a standard location for the Dakota formation being the S/2 of section 3 but non-standard for the E/2 of Section 3 Mesaverde spacing unit. The Jicarilla 102 #8 (API #30-039-06679) located 1,790' FSL and 1,480' FWL of Section 3 -T26N-R4W, was drilled to a total depth of 8,120', completed in the Dakota formation on June 12, 1963, and has cumulatively produced 3,934,418 MCFG through June of 2005. The Jicarilla 102 #8E (API #30-039-22454) located 1,700' FSL and 940' FEL of Section 3 -T26N-R4W, was drilled to a total depth of 8,096', completed in the Mesaverde and Dakota formations on October 31, 1980, and has cumulatively produced 2,202,424 MCFG through June of 2005. The Jicarilla 102 #8A (API #30-039- 23195) located 1,120' FNL and 1,080' FEL of Section 3 -T26N-R4W, was drilled to a total depth of 6,089', completed in the

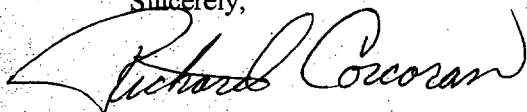
formation on September 19 1983, and has cumulatively produced 278,679 MCFG through June of 2005. The Jicarilla 102 #7 (API #30-039-06709) located 1,850' FNL and 2,390' FEL of Section 3 -T26N-R4W, was drilled to a total depth of 8,192', completed in the Mesaverde formation on December 16, 2002, and has cumulatively produced 163,675 MCFG through June of 2005.

CDX Rio, LLC is the operator of All of Section 10-T26N-R4W, being the direction of encroachment; which has the same ownership as the E/2 and S/2 of Section 3, T26N-R4W; consequently no other offsetting operators are affected.

Attached is a well location plat showing dedicated acreage (C-102), a topographic plat of the area, a map showing all offsetting owners and our Geologic/Engineering explanation of the reservoir considerations establishing the increased recovery that we expect to gain by moving the proposed wells to non-standard locations.

Your favorable consideration of this request would be appreciated.

Sincerely,

A handwritten signature in cursive script, appearing to read "Richard Corcoran".

Richard Corcoran
Land Manager



To: Mike Stogner
From: Rod Seale, Senior Petroleum Engineer and Peter Kondrat, Senior Geologist
Subject: Approval Request of Mesaverde-Dakota Formations Unorthodox Infill Locations due to Reservoir Considerations
Location: CDX Rio, LLC Leasehold, Jicarilla Apache Nation, San Juan Basin
Date: August 22, 2005

Application:

CDX Rio, LLC respectfully requests the approval of the following listed unorthodox Mesaverde-Dakota Formations infill locations due to reservoir considerations.

Well Name & Number	Spot of Bottom Hole Location	Sec-Twn-Rng	Formations
1) Jicarilla C #4F	660 FSL, 2100 FWL	24-T26N-R5W	MVRD-DKOT
2) Jicarilla A #7F	660 FNL, 2055 FWL	17-T26N-R5W	MVRD-DKOT
3) Jicarilla 151 #7G	1470 FNL, 2305 FWL	4-T26N-R5W	DKOT
4) Jicarilla 102 #14F	120 FNL, 660 FWL	9-T26N-R4W	MVRD-DKOT
5) Jicarilla 102 #9F	585 FNL, 760 FEL	4-T26N-R4W	MVRD-DKOT
6) Jicarilla 102 #8F (Directional Well)	660 FSL, 2100 FWL	24-T26N-R5W	MVRD-DKOT

Summary:

CDX Rio, LLC is continuing its Mesaverde-Dakota 80-acre increased density infill development program of its San Juan Basin Tapicito Project located in the Jicarilla Apache Nation, Rio Arriba County, New Mexico. CDX is currently permitting both standard and non-standard locations to fulfill the development program. The proposed unorthodox gas well locations are necessitated by a combination of topographic, engineering and geologic factors.

Utilizing geologic and engineering data, CDX has completed a detailed study identifying the most optimal locations for Mesaverde and Dakota Formation infill wells. These locations are defined as optimal because they ensure maximum recovery of reserves and minimize waste.

CDX has constructed various maps for the Mesaverde and Dakota Formations that depict:

- 1) Bulk volume hydrocarbon feet
- 2) Original GIP (OGIP)
- 3) Estimated Ultimate Recovery (EUR)
- 4) Remaining GIP (RGIP)
- 5) EUR Drainage Volume Ellipses that depict Producing Characteristics
- 6) Optimal Infill Development Locations

Exhibits

Attached are two sets of maps for each proposed unorthodox infill location.

- 1) Land plats that show CDX's leasehold and the proposed new drill bottom-hole locations.
- 2) Dakota Formation EUR drainage volume ellipses that depict the producing characteristics of the existing wells and also the proposed unorthodox infill locations. The volume ellipses acreage was computed using bulk volume hydrocarbon feet and EUR.
 - a. Both Mesaverde and Dakota Formations have fracture-permeability anisotropy resulting in elliptical drainages. Following the area's best practices the elliptical drainages were drawn at a 3.7:1 aspect ratio and with a maximum horizontal permeability direction of N10°.



- b. The location of the Dakota Formation drainage ellipses is the primary reason for permitting non-standard locations. Dakota Formation infill locations were selected to optimize recovery for the rock unit.

References

NMOCD Case Number 12508; Order Number R-11503

NMOCD Case Number 12745; Order Number R-10987-B; 2002; To Amend the Special Rules and Regulations for the Basin-Dakota Pool to Increase Well Density and Amend the Well Location Requirements; Burlington Resources Oil and Gas Company and Conoco Incorporated; 15 pages

SPE Paper #60288; 2000; Producing Characteristics and Drainage Volume of Dakota Reservoirs, San Juan Basin; Arild Sunde, Her-Yuan Chen, Lawrence W. Teufel; 10 pages

SPE Paper #77742; 2002; An Effective Technique of Estimating Drainage Shape, Magnitude and Orientation in a Low-Permeability Gas Sand; Ryan L. Robinson and Thomas W. Engler; 8 pages

SPE Paper #39974; 1998; Drainage Efficiency in Naturally Fracture Tight Gas Sandstone Reservoirs; H. Harstad, L.W. Teufel and J.C. Lorenz; 11 pages

SPE Paper #39911; 1998; Potential for Infill Drilling in a Naturally Fractured Tight Gas Sandstone Reservoir; H. Harstad, L.W. Teufel and J.C. Lorenz; 11 pages

SPE Paper #38580; 1997; Methodology to Optimize Completions in the Mesaverde Formation, San Juan Basin, New Mexico; Brian P. Ault, Earuch F. Broacha and David L. Holcomb; 20 pages

SPE Paper #60295; 2000; Influence of Permeability Anisotropy and Reservoir Heterogeneity on Optimization of Infill Drilling in Naturally Fractured Tight-Gas Mesaverde Sandstone Reservoirs, San Juan Basin; H.K. Al-Hadrami and L.W. Teufel; 12 pages

SPE Paper #68598; 2001; Practical Methods to High-Grade Infill Opportunities Applied to the Mesaverde, Morrow and Cotton Valley Formations; J.W. Hudson, J.E. Jochen, J.P. Spivey; 11 pages

SPE Paper #21484; 1991; The Impact of Improved Technology on Potential Tight Gas Reserves in the San Juan Basin; M.R. Haas and T.E. Crist; 14 pages



CDX Gas, LLC
2010 Afton Place
Farmington, NM 87401
Main: 505-326-3003
Fax: 505-325-4007

August 23, 2005

Ms. Linda Dean
Burlington Resources
3401 E. 30th
Farmington, New Mexico 87402

Re: ADMINISTRATIVE APPROVAL OF UNORTHODOX LOCATION
JICARILLA 102 #9F
585' FNL & 760' FWL
SECTION 4-T26N-T4W
RIO ARriba COUNTY, NEW MEXICO

Dear Ms. Dean:

CDX RIO, LLC has filed with the New Mexico Oil Conservation Division (NMOCD), an application for the Administrative Approval of an unorthodox location for its Jicarilla Apache 102 #9F. A copy of the application has been attached for your review.

If you have no objection to this unorthodox location, please sign three copies of the attached waiver, return one executed copy to the NMOCD at 1220 South Saint Frances Drive in Santa Fe, New Mexico 87505, one copy to our office and retain one copy for your files.

Your cooperation in this matter is appreciated.

Sincerely,

Richard P. Corcoran
Land Manager

WAIVER

Burlington Resources hereby waives objection to the above referenced Application for Unorthodox location for CDX RIO, LLC's Jicarilla 102 #9F well.

Date: _____ By: _____

New Mexico Oil Conversation Division
Attention: Michael E. Stogner
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

DISTRICT I
P.O. Box 1980, Hobbs, N.M. 88241-1980

DISTRICT II
811 South First, Artesia, N.M. 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number	² Pool Code	³ Pool Name
⁴ Property Code 93455	⁵ Property Name JICARILLA 102	⁶ Well Number 8F
⁷ GRID No.	⁸ Operator Name CDX RIO, LLC	⁹ Elevation 6880

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
P	3	26 N	4 W		430	SOUTH	965	EAST	RIO ARriba

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
0	3	26 N	4 W		660'	SOUTH	2100'	EAST	RIO ARriba

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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

¹⁶ WEST (4) 40.91 (3) 40.77 (2) 40.64 (1) 5280' 40.50 Jicarilla Apache 102 48A * MU 30-039-2375 1120' 1080' 1080' 1080'	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief Signature Printed Name Title Date
Dakota SECTION 3 Jicarilla Apache 102 47 (30-039-06707) * MU 1350' 1080' 2370' 1080'	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. 6/30/05 Date of Survey Signature and Seal of Professional Surveyor: ROBERT L. POUND NEW MEXICO 6846 LICENSED PROFESSIONAL SURVEYOR Certificate Number
<p>○ = SURFACE HOLE LOCATION ● = BOTTOM HOLE LOCATION</p> <p>* 128 DK</p> <p>Jicarilla Apache 102 30-039-22454 48E * MU 1700' 940' 1080' 1080' DK</p> <p>2100' 965' 430' 5278.68'</p> <p>NORTH SOUTH EAST WEST</p>	

**Spacing Unit Plat
CDX RIO, LLC**

Jicarilla 102 8F

BHL:660' FSL & 2100' FEL

Surface: 430' FSL & 965' FEL

Sec 3, T26N, R4W, NMPM

Rio Arriba County, New Mexico

Scale: 1" ~ 2000'

**LEGEND
PRODUCING FORMATION**

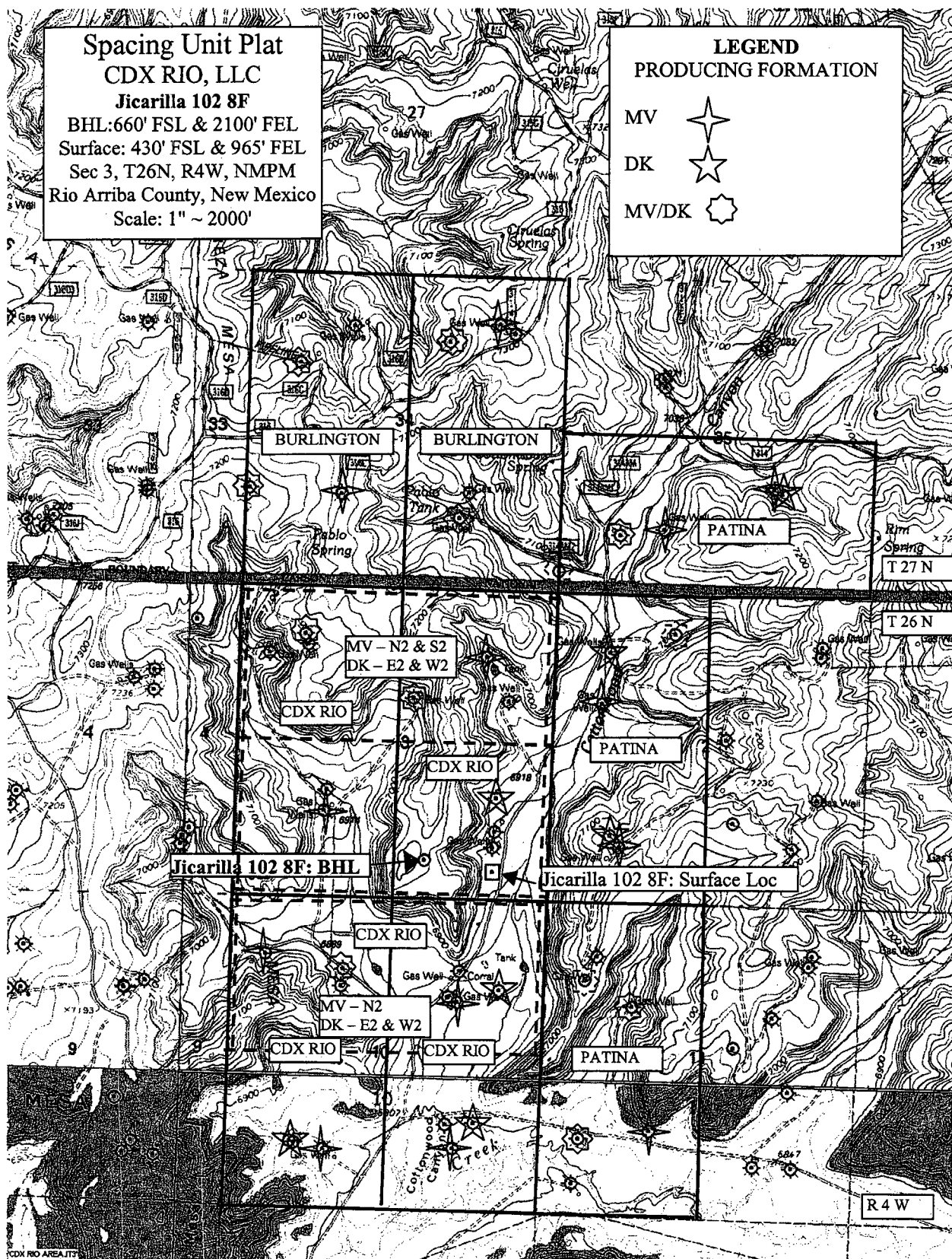
MV



DK

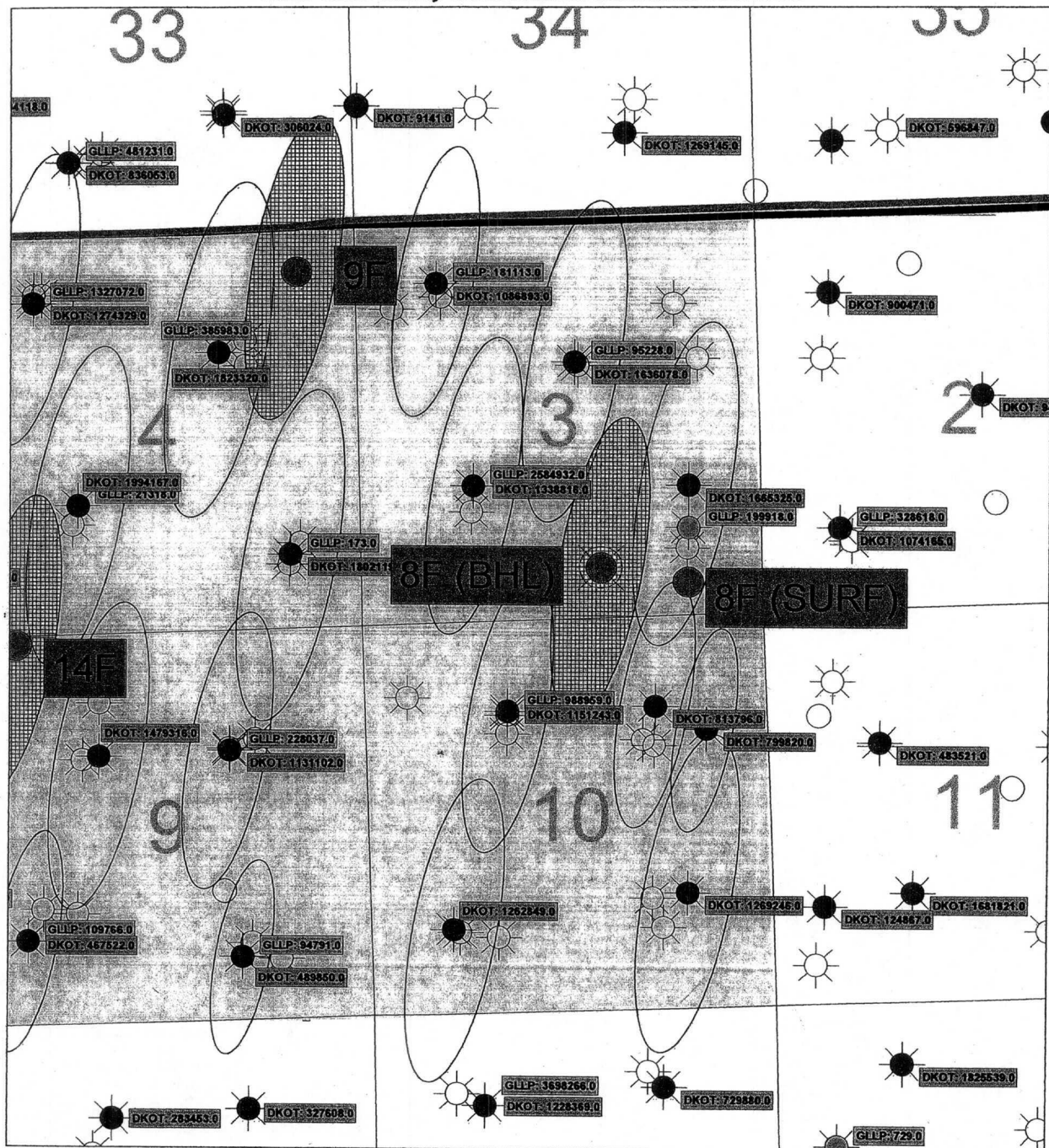


MV/DK



[illegible]

PROPOSED JICARILLA 102 #8F AND 102 #9F DAKOTA FORMATION EUR DRAINAGES
CDX GAS LLC, JICARILLA APACHE NATION



1 inch = 2000 feet



DAKOTA FORMATION
 EXPECTED ULTIMATE
 RECOVERY (EUR)
 DRAINAGE ELLIPSE



PROPOSED DAKOTA
 FORMATION
 EXPECTED ULTIMATE
 RECOVERY (EUR)
 DRAINAGE ELLIPSE
 (80 ACRES)



102 #8F 102
 #9F
 MAIN/DKOT
 COMPLETION



GLUP/DKOT
 CUM GAS
 AS OF 1/2005



DKOT CUM GAS
 AS OF 1/2005



GLUP CUM GAS
 AS OF 1/2005

CDX GAS



CDX RIO, LLC
 DAKOTA FORMATION
 LEASEHOLD

Stogner, Michael, EMNRD

From: Stogner, Michael, EMNRD
To: Richard Corcoran
Cc:
Subject: Jicarilla Apache 102 #8F
Attachments:

Sent: Wed 10/26/2005 1:29 PM

RE: pMES0-529839381

Please submit a copy of the directional drilling plan and proposed schematic drawing for this well. Please include the expected depth and corresponding subsurface location for this wellbore at the: (i) top of the Blanco-Mesaverde Pool; (ii) base of the Blanco-Mesaverde Pool; and (iii) top of the Basin-Dakota Pool.

CDX RIO, LLC

2010 Afton Place
Farmington, New Mexico 87401
(505) 326-3003 - Fax (505) 325-4007

November 1, 2005

Mr. Michael Stogner
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico

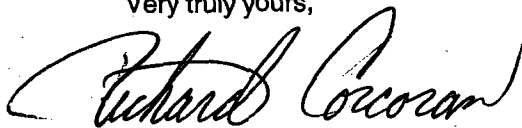
RE: pMESO-529839381
Jicarilla 102 #8F
430'FSL, 965'FEL, Section 3, T-26-N, R-4-W
Rio Arriba County, New Mexico

Dear Mr. Stogner,

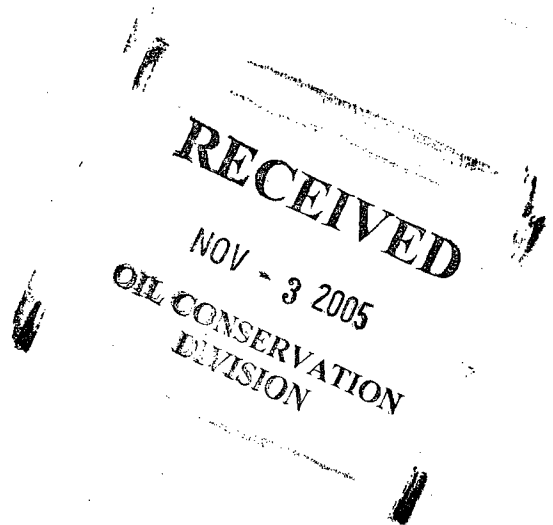
Per your e-mail of Wednesday, October 26, 2005, attached are copies of the direction drilling plan and proposed schematic drawing for the subject well.

If you need more information, please let me know.

Very truly yours,



Richard Corcoran
Land Manager



CDX RIO, LLC
Proposed Jicarilla 102 8F
Schematic Drawing
Rio Arriba County, New Mexico

Surface Location:
430' FSL & 965' FEL
Sec 3, T26N, R4W, NMPM
Rio Arriba County, NM

9 5/8" Csg Cmtd to surface
w/137 sx or 174 cf class B
w/2% CaCl & 1/4#/sk
celloflake

9 5/8" 36# J-55 Csg Set
at 250' in 12 1/4" Hole

7" Csg Cmtd in 2 stages to
surface w/105 sx or 147 cf
class B followed by 410 sx or
787 cf Lite with DV Tool at
3550' MD.

7" 23# N-80 Csg Set at
4200' MD in 8 3/4" hole

7" Csg Point: 4200' MD, 4002' TVD
Location: 660' FNL & 2100' FEL
Sec 3, T26N, R4W, NMPM
Rio Arriba County, NM

4 1/2" Prod Liner w/
Top at 4080' MD Cmtd
to Liner Top w/260 sx
or 554 cf Lite-High
Strength Cmt

Top Blanco-Mesaverde Pool:
5049' MD, 4851' TVD
Subsurface Location:
660' FNL & 2100' FEL
Sec 3, T26N, R4W, NMPM
Rio Arriba County, NM

Base Blanco-Mesaverde Pool:
6473' MD, 6275' TVD
Subsurface Location:
660' FNL & 2100' FEL
Sec 3, T26N, R4W, NMPM
Rio Arriba County, NM

4 1/2" 11.6# N-80 Prod
Liner Set at 8228' MD,
8029' TVD in 6 1/4"
Hole

Top Basin-Dakota Pool:
7967' MD, 7769' TVD
Subsurface Location:
660' FNL & 2100' FEL
Sec 3, T26N, R4W, NMPM
Rio Arriba County, NM

Jicarilla 102 No. 8F
General Drilling Plan
CDX Rio, LLC
Rio Arriba County, New Mexico

1. LOCATION:

Surface: 430' FSL & 965' FEL, Section 3, T26N, R4W
Bottom Hole: 660' FNL & 2100' FEL, Section 3, T26N, R4W
Both in Rio Arriba County, New Mexico
UGL: 6880' Estimated KB: 6892'

Field: Blanco Mesa Verde and Basin Dakota
Surface: Jicarilla Contract #102
Minerals: Jicarilla Contract #102

Directional Plan: Drill a vertical 12 1/4" hole and set 9 5/8" surface casing at 250'.
Drill out of surface casing with 8 3/4" bit, build angle and hold at an average of 19.5 deg in a N 78.544 deg W direction, drop angel to vertical approximately 200' before setting 7" intermediate casing at 4200' MD; total horizontal displacement = 1158'.
See 'Directional Plan Calculations' (Projected Deviation Survey) attached.

2. SURFACE FORMATION – SAN JOSE, ESTIMATED TOPS AND WATER, OIL, GAS OR MINERAL BEARING FORMATIONS (TVD):

Formation Tops	Top MD/TVD (KB)	Top Subsea	Rock Type	Comments
Ojo Alamo Sandstone	3235/3036	3856	Sandstone	Possible Differential Sticking, Gas, Water
Kirtland Formation	3644/3445	3447	Shale	
Fruitland Formation	3728/3529	3367	Coal,Shale,Sandstone	Possible Lost Circulation Zone, Gas, Water
Pictured Cliffs Sandstone	3852/3653	3239	Sandstone	Possible Lost Circulation Zone, Gas, Water
Lewis Shale	3961/3762	3130	Shale	Sloughing Shale
Huerfano Bentonite Bed	4299/4101	2791	Shale	
Chacra Interval	4757/4559	2333	Siltstone	Gas, Water
Top Blanco-Mesaverde Pool	5049/4851	2041	Shale	Subsurface Loc: 660' FNL & 2100' FEL
Cliff House Sandstone (MVRD)	5509/5311	1581	Sandstone	Possible Lost Circulation, Gas, Water
Menefee Member (MVRD)	5617/5419	1473	Coal,Sandstone,Shale	Possible Lost Circulation, Gas, Water
Point Lookout Sandstone(MVRD)	5973/5775	1117	Sandstone	Possible Lost Circulation, Gas, Water
Mancos Shale	6187/5989	903	Shale	Sloughing Shale
Base of Blanco-Mesaverde Pool	6473/6275	617	Shale	Subsurface Loc: 660' FNL & 2100' FEL
Gallup Formation (GLLP)	7169/6971	-79	Limy-Siltstone, Shale	Gas, Oil
Greenhorn Limestone	7911/7713	-821	Limestone	Gas, Oil
Top of Basin-Dakota Pool	7967/7769	-877	Shale	Subsurface Loc: 660' FNL & 2100' FEL
Graneros Shale (DKOT)	7967/7769	-877	Shale	Gas, Oil, Water
Two Wells Sandstone (DKOT)	7989/7791	-899	Sandstone	Gas, Oil, Water
Paguate Sandstone (DKOT)	8104/7906	-1014	Sandstone	Gas, Oil, Water
Upper Cubero Sandstone(DKOT)	8130/7932	-1040	Sandstone	Gas, Oil, Water
Lower Cubero (DKOT)	8167/7969	-1077	Shale, Sandstone	Gas, Oil, Water
Burro Canyon (DKOT)	8237/8039	-1147	Sandstone	Gas, Water (Avoid), Poss Under-pressure
Morrison Formation			Shale, Sandstone	Gas, Water, Possible Under-pressure
Proposed TD	8228/8029	-1137		

CDX RIO, LLC **Directional Plan Calculations (Projected Deviation Survey)** Jicarilla 102 No. 8F

Surface Location: 430' FSL & 965' FEL, Sec 3, T26N, R4W, NMPM

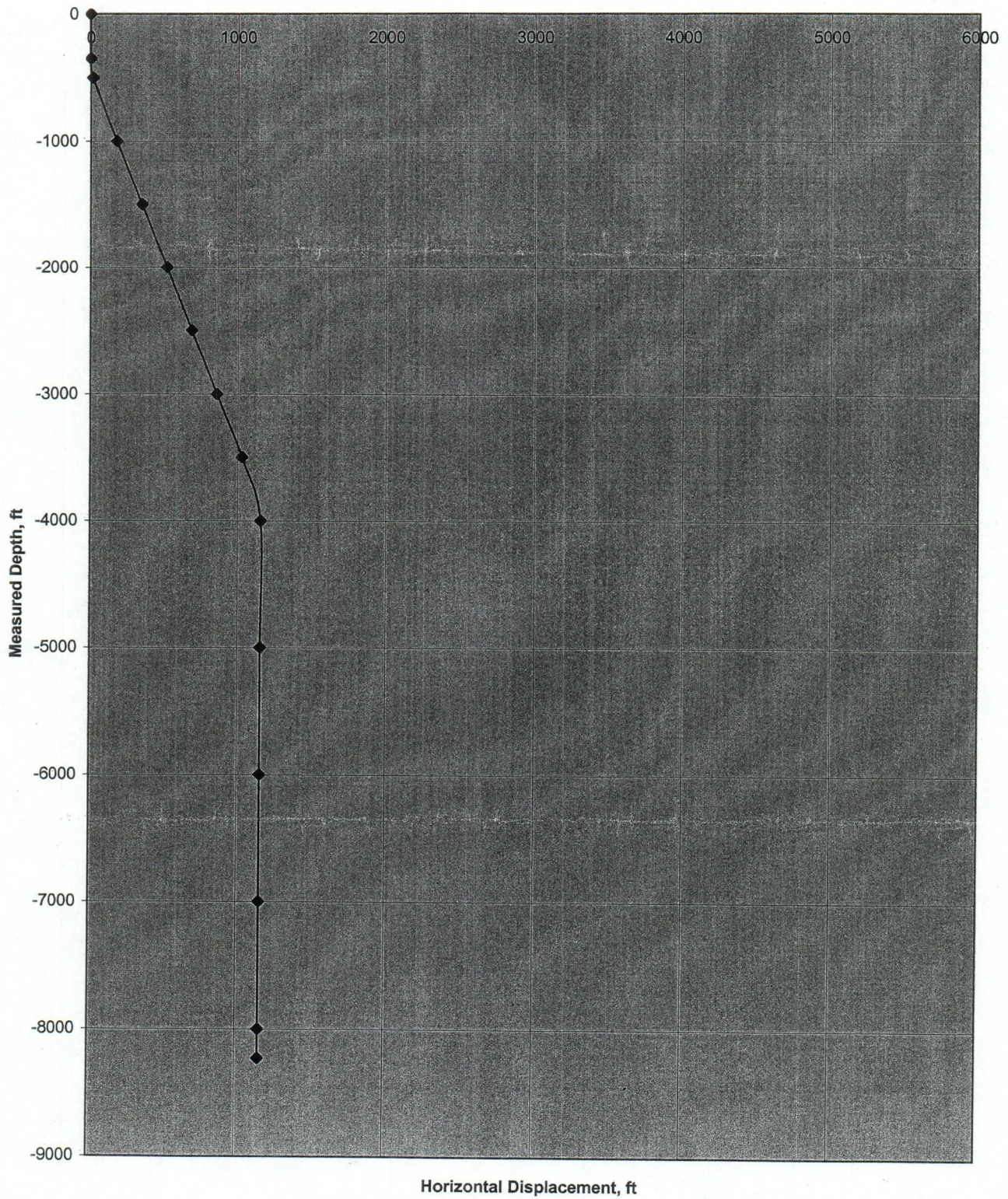
Bottom Hole Location: 660' FSL & 2100' FEL, Sec 3, T26N, R4W, NMPM

Both in Rio Arriba County, New Mexico

UGL: 6880' Estimated KB: 6892'

Interpolation							
8,228.00	0.00	0.00	8,029.98	229.94	-1,134.75	0.00	1,157.82
MD	Incl.	Azi.	TVD	North	East	DLS	Vertical Section
ft	▼ degree	▼ degrees	ft	ft	ft	deg/100 ▼	ft
0.00	0.00	0.00	0.00	0.00	0.00		
350.00	0.00	0.00	350.00	0.00	0.00	0.00	0.00
600.00	19.90	281.46	595.00	8.54	-42.12	7.96	42.98
3,749.00	19.90	281.46	3,555.97	221.40	-1,092.63	0.00	1,114.84
3,999.00	0.00	0.00	3,800.98	229.94	-1,134.75	7.96	1,157.82
4,199.00	0.00	0.00	4,000.98	229.94	-1,134.75	0.00	1,157.82
4,299.00	0.00	0.00	4,100.98	229.94	-1,134.75	0.00	1,157.82
4,758.00	0.00	0.00	4,559.98	229.94	-1,134.75	0.00	1,157.82
5,510.00	0.00	0.00	5,311.98	229.94	-1,134.75	0.00	1,157.82
5,618.00	0.00	0.00	5,419.98	229.94	-1,134.75	0.00	1,157.82
5,974.00	0.00	0.00	5,775.98	229.94	-1,134.75	0.00	1,157.82
6,188.00	0.00	0.00	5,989.98	229.94	-1,134.75	0.00	1,157.82
7,170.00	0.00	0.00	6,971.98	229.94	-1,134.75	0.00	1,157.82
7,912.00	0.00	0.00	7,713.98	229.94	-1,134.75	0.00	1,157.82
7,968.00	0.00	0.00	7,769.98	229.94	-1,134.75	0.00	1,157.82
7,990.00	0.00	0.00	7,791.98	229.94	-1,134.75	0.00	1,157.82
8,105.00	0.00	0.00	7,906.98	229.94	-1,134.75	0.00	1,157.82
8,131.00	0.00	0.00	7,932.98	229.94	-1,134.75	0.00	1,157.82
8,168.00	0.00	0.00	7,969.98	229.94	-1,134.75	0.00	1,157.82
8,238.00	0.00	0.00	8,039.98	229.94	-1,134.75	0.00	1,157.82

CDX RIO, LLC Jicarilla 102 8F



Stogner, Michael, EMNRD

From: Richard P. Corcoran [rich.corcoran@cdxgas.com]
To: Stogner, Michael, EMNRD
Cc: Nancy Oltmanns
Subject: RE: Jicarilla Apache 102 #8F
Attachments:

Sent: Tue 11/22/2005 9:40 AM

Mr.. Stogner: This is to confirm that all working interest in all of Section 3, T26N-R5W, as to the Blanco-Mesaverde Pool are the same; consequently the ownership in the direction of encroachment (toward the W/2 Section 3) is the same as the E/2 of Section 3 spacing unit for our proposed Jicarilla Apache 102 #8F well. Also a non-standard location (1850' FNL & 2390' FEL (Unit G) of Section 3, T26N-R5W) for the Jicarilla Apache 102 #7 well was approved on 2-19-70 by Division order No NSL-457. I hope this information is acceptable.
 Respectfully
 Rich Corcoran

From: Stogner, Michael, EMNRD [mailto:michael.stogner@state.nm.us]
Sent: Wednesday, November 16, 2005 9:04 AM
To: Richard P. Corcoran
Subject: RE: Jicarilla Apache 102 #8F

I received your letter dated Nov. 1st with the directional drilling plan for CDX's proposed Jicarilla Apache "102" Well No. 8-F on Nov. 3rd, which is what I requested and needed to aid in my review of your application; however, your initial application from August for this well states that "**CDX Rio, LLC is the operator of All of Section 10-T26N-R4W, being the direction of encroachment; which has the same ownership as the E/2 and S/2 of Section 3, T26N-R4W.**" The proposed Blanco-Mesaverde completion for this well in the stand-up E/2 of Section 3 gas spacing unit more so encroaches the W/2 of Section 3. I see in the Division's records that CDX operates the Jicarilla Apache "102" Wells No. 6 (30-039-06666) and 7M (30-039-22453) as Mesaverde gas producers in the stand-up W/2 gas spacing unit. Pursuant to the notification rules, are all working interest in the Blanco-Mesaverde Pool between the W/2 and E/2 of Section 3 common? If not please submit varification of notice to all working interest in the W/2 of Section 3.

Also, CDX's Jicarilla Apache "102" Well No. 7 (30-039-06709), being 1850' FNL & 2390' FEL (Unit G) of Section 3, is unorthodox for the Blanco-Mesaverde interval; could you provide me with the Division order number which authorized this location?

Thanks.

From: Stogner, Michael, EMNRD
Sent: Wed 10/26/2005 1:29 PM
To: Richard Corcoran
Subject: Jicarilla Apache 102 #8F

RE: pMES0-529839381

Please submit a copy of the directional drilling plan and proposed schematic drawing for this well. Please include the expected depth and corresponding subsurface location for this wellbore at the: (i) top of the Blanco-Mesaverde Pool; (ii) base of the Blanco-Mesaverde Pool; and (iii) top of the Basin-Dakota Pool.

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Stogner, Michael, EMNRD

From: Stogner, Michael, EMNRD
To: Richard P. Corcoran
Cc:
Subject: RE: Jicarilla Apache 102 #8F
Attachments:

Sent: Fri 1/6/2006 2:59 PM

I have not received a response to my last e-mail (11/25/2005) concerning the Jicarilla Apache "102" Well No. 7 (30-039-06709), located at an "undocumented" unorthodox Blanco-Mesaverde gas well location (1850' FNL & 2390' FEL (Unit G) of Section 3) within the E/2 320-acre stand-up gas spacing and proration unit that is the subject of your application. I suspect this is one of those instances where there is no order for this well, an oversight. I suggest you amend your application to include the #7 well at this time and resubmit the required notice for this well.

From: Stogner, Michael, EMNRD
Sent: Fri 11/25/2005 10:47 AM
To: Richard P. Corcoran
Subject: RE: Jicarilla Apache 102 #8F

Thank you for sufficiently addressing the ownership issue within the Blanco-Mesaverde interval in Section 3-T26N-R4W.

Further, Division Administrative Order NSL-457 approved the Jicarilla Apache 102 Well No. 7 as an unorthodox Gallup well. I need to know the approval for this well as an unorthodox Mesaverde gas well in the E/2 of Section 3.

From: Richard P. Corcoran [mailto:rich.corcoran@cdxgas.com]
Sent: Tue 11/22/2005 9:40 AM
To: Stogner, Michael, EMNRD
Cc: Nancy Oltmanns
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