

DATE IN <i>W/08/2015</i>	SUSPENSE	ENGINEER <i>MAM</i>	LOCATION <i>W08/2015</i>	TYPE <i>NSL</i>	APP NO <i>Perm 1531746123</i>
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ABOVE THIS LINE FOR DIVISION USE ONLY

*OFFICE ADT
② write order*

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 _____

*- NSL 7347-A
- Logos operating, LLC
289408*

*Logos Jicarilla well
#240 31339
30-039-Pending
Pool
- TAPACIO Gullip
Associated
58090*

[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.

Tamra Sessions
Print or Type Name

Signature

Regulatory Specialist
Title

Date

tsessions@logosresourcesllc.com
e-mail Address

11-9-15



4001 N. Butler Ave
Farmington, NM 87401
Phone: (505) 215-8215
Fax: (303) 974-1767

November 9, 2015

New Mexico Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Re: LOGOS Operating, LLC
Request for Administrative Approval
Unorthodox Well Location
Tapacito-Gallup Associated Pool – 58090
LOGOS Jicarilla #24D
API No. – 30-039-31339
807 FNL & 215 FWL
NW/4NW/4 Section 24, T26N, R5W
Rio Arriba County, New Mexico

To Whom It May Concern:

LOGOS Operating, LLC ("LOGOS"), hereby requests administrative approval for an unorthodox location for the LOGOS Jicarilla #24D pursuant to Division Rules pertaining to the Tapacito-Gallup Associated Pool (58090). LOGOS intends to drill the LOGOS Jicarilla #24D as a vertical well at an unorthodox well location to be located 807' FNL and 215' FWL of Section 24, T26N, R5W, NMPM, Rio Arriba County, New Mexico. LOGOS anticipates that this well will produce a lower gas-oil ratio than the oil and gas well division specified in Rule 5(a) of R-5353 and, accordingly, seeks to permit this well as an oil well. The E/2 NW/4 of Section 24 will be dedicated to the well.

The NW/4 of Section 24 is currently within the Basin-Mancos Gas Pool, but the proposed spacing unit for the LOGOS Jicarilla #24D lies within one mile of the non-frozen Tapacito-Gallup Associated Pool.


The pool rules for the Tapacito-Gallup Associated Pool require a 790' setback from the outer boundary of any quarter section line. Because the LOGOS Jicarilla #24D is to be located 215' FWL of Section 24, T26N, R5W, the proposed location is unorthodox by 575' to the west. LOGOS seeks an exception from the well location rules governing the Tapacito-Gallup Associated Pool because the chosen location will maximize operational efficiencies and will avoid cultural issues identified as part of the BIA and Jicarilla Apache Nation onsite process.

EnerVest Operating, LLC, presently operates all spacing units covering the affected formation surrounding the 80 acre spacing unit proposed in this letter, and all such

surrounding spacing units share common ownership. Please see Exhibit "C" and Exhibit "D." A copy of this application for unorthodox location and non-standard spacing unit has been mailed to EnerVest Operating, LLC, the Farmington Field Office of the United States Bureau of Land Management and to the Jicarilla Oil and Gas Administration.

Thank you for your consideration. If any additional information is required, please do not hesitate to contact me at 505-436-3790 x 102.

Sincerely,

A handwritten signature in black ink, appearing to read "Christopher Jeffus".

Christopher Jeffus
Director - Land/Legal
LOGOS Operating, LLC

cc: Jicarilla Oil and Gas Administration
P.O. Box 146
Dulce, NM 87528

Bureau of Land Management
Farmington Field Office
6251 College Blvd. Suite A
Farmington, NM 87402



4001 N. Butler Ave
Farmington, NM 87401
Phone: (505) 215-8215
Fax: (303) 974-1767

November 9, 2015

EnerVest Operating, LLC
1001 Fannin Street, Suite 800
Houston, TX 77002-6707

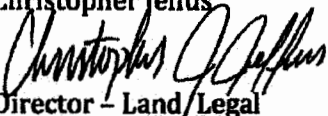
Re: Application for Administrative Approval of an Unorthodox Well Location in the Tapacito-Gallup Associated Pool (58090) for the LOGOS Jicarilla #24D API No. - 30-039-31339, 807' FNL & 215' FWL of Section 24, T26N, R5W, Rio Arriba County, New Mexico

To Whom It May Concern:

Enclosed is a copy of the above referenced application which was filed with the New Mexico Oil Conservation Division. Any objection to this application must be filed in writing within twenty (20) days from the date above with the applicant and the New Mexico Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, NM 87505. If no objection is received within the twenty (20) day period, this application may be approved administratively by the Division.

If you have no objection to the proposed unorthodox location, please so indicate by signing and returning one copy of this letter to the address noted at the bottom of this letter as soon as possible.

If you have any questions or concerns about this application, please contact me at:

Christopher Jeffus

Director - Land/Legal
LOGOS Operating, LLC
4001 N. Butler Ave., Bldg 7101
Farmington, NM 87401
cjeffus@logosresourcesllc.com
505-436-3790 x102

EnerVest Operating, LLC hereby waives notice of hearing and objection to the application by LOGOS Operating, LLC, for the unorthodox location for the LOGOS Jicarilla #24D, as depicted on the enclosed plat.

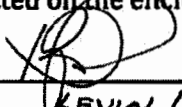
By: 
Printed Name: KEVIN LEONARD
Date: 11/10/2015

Exhibit A

Form 3160-3
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

RECEIVED

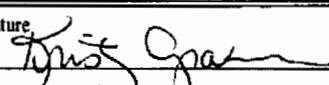
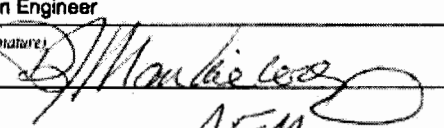
FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. Jicarilla Apache Lease #108
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name Jicarilla Apache Nation
2. Name of Operator: Logos Operating, LLC		7. If Unit or CA Agreement, Name and No.
3a. Address: 4001 North Butler Ave, Building 7101 Farmington, NM 87401		8. Lease Name and Well No. Logos Jicarilla 24D
3b. Phone No. (include area code) 505-330-9333		9. API Well No. 30-039-31339
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 807' FNL 215' FWL, NW/NW At proposed prod. zone same as above		10. Field and Pool, or Exploratory Basin Mancos
14. Distance in miles and direction from nearest town or post office* 20 miles NE of Counselor, NM		11. Sec., T. R. M. or Blk. and Survey or Area Sec 24, T26N R05W, UL D
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of acres in lease 2560.0 acres	17. Spacing Unit dedicated to this well N/2 = 320 Acres
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth -7336'	20. BLM/BIA Bond No. on file BIA 1062402
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6644' GL	22. Approximate date work will start* 10/01/2015	23. Estimated duration 45 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

- | | |
|--|---|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the BLM. |

25. Signature 	Name (Printed Typed) Kristy Graham	Date 07/29/2015
Title Production Engineer		
Approved by (Signature) 	Name (Printed Typed) D. Montie	Date 10/30/15
Title AFM	Office FFU	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

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

ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER ACTION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

*(Instructions on page 2)

CONFIDENTIAL

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

OPERATOR

DISTRICT I
1885 E. French Dr., Hobbs, N.M. 88240
Phone: (505) 528-6161 Fax: (505) 528-0780

DISTRICT II
511 S. First St., Artesia, N.M. 88204
Phone: (505) 748-1888 Fax: (505) 748-0780

DISTRICT III
1800 E. Bremer Rd., Aztec, N.M. 87410
Phone: (505) 834-6176 Fax: (505) 834-6176

DISTRICT IV
1885 E. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 478-6460 Fax: (505) 478-6460

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 August 1, 2011
Submit one copy to appropriate
District Office

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-31339		*Pool Code 58090	*Pool Name TAPACITO GALLUP (ASSOCIATED)
*Property Code 315641	*Property Name LOGOS JICARILLA		*Well Number 24D
*OGEID No. 289408	*Operator Name LOGOS OPERATING, LLC		*Elevation 6644

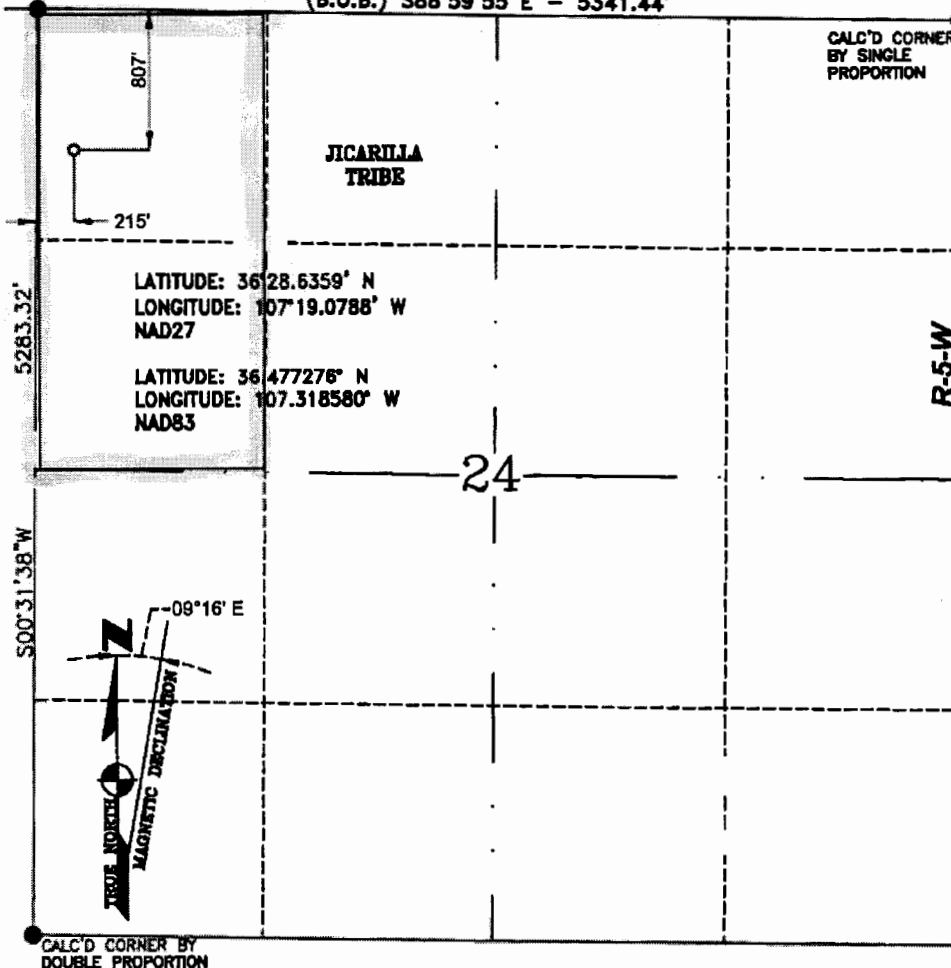
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	24	28-N	5-W		807	NORTH	215	WEST	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
*Dedicated Acres W2/NW1/4 - 80 Acres					*Joint or Infill		*Consolidation Code		*Order No. NSL-7347 (to be amended)

¹⁶ NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
CALC'D CORNER BY DOUBLE PROPORTION OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION
(B.O.B.) S88°59'55"E - 5341.44'



¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or a 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 a working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the Division.

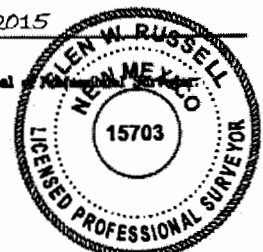
Tamra Sessions 11-6-15
Signature Date
Tamra Sessions
Printed Name
tsessions@logosresourcesllc.com
E-mail Address

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.

APRIL 24, 2015
Date of Survey

Signature and Seal of Surveyor



GLEN W. RUSSELL
Certificate Number

15703

Exhibit B

Pools

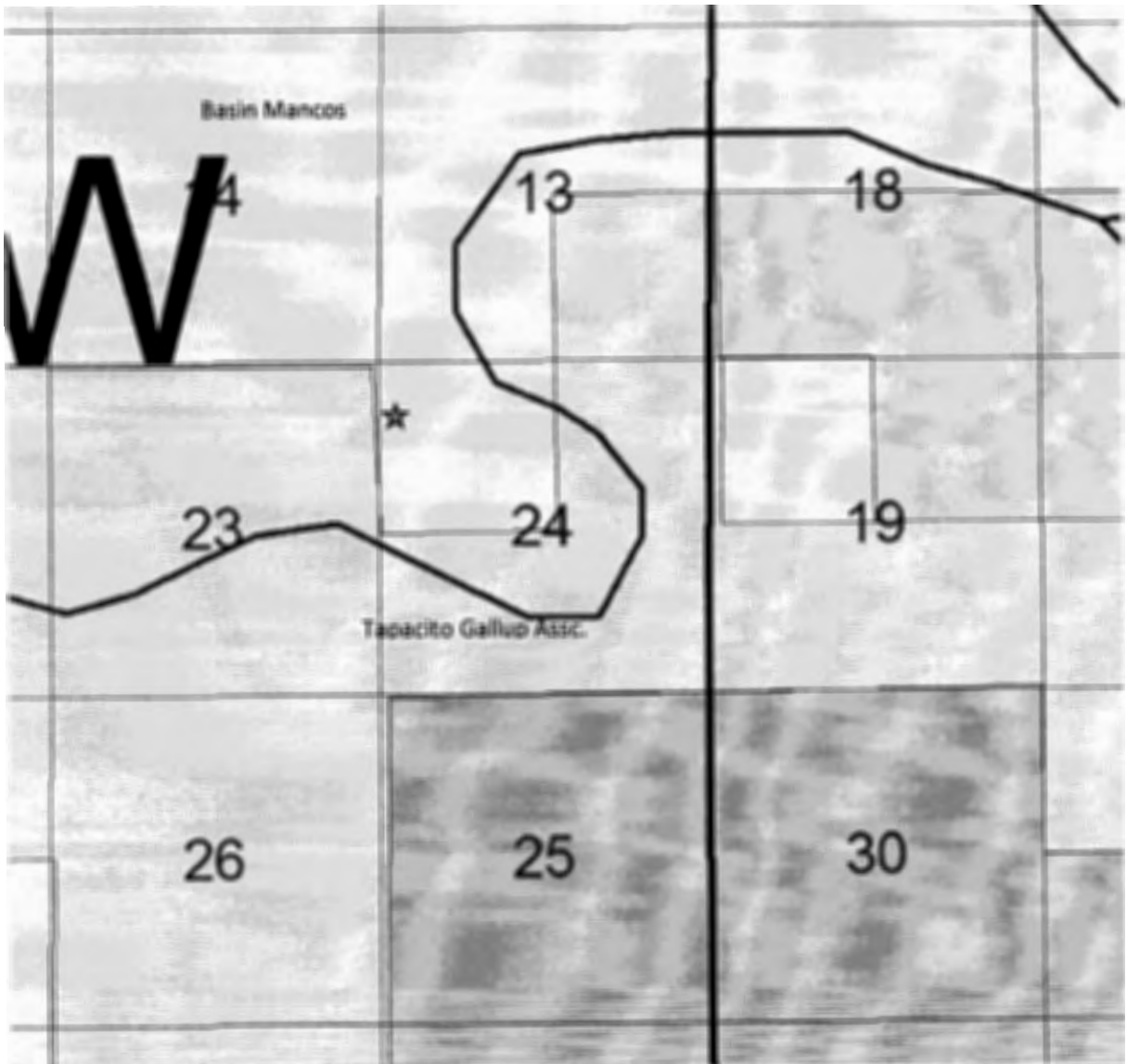


Exhibit C

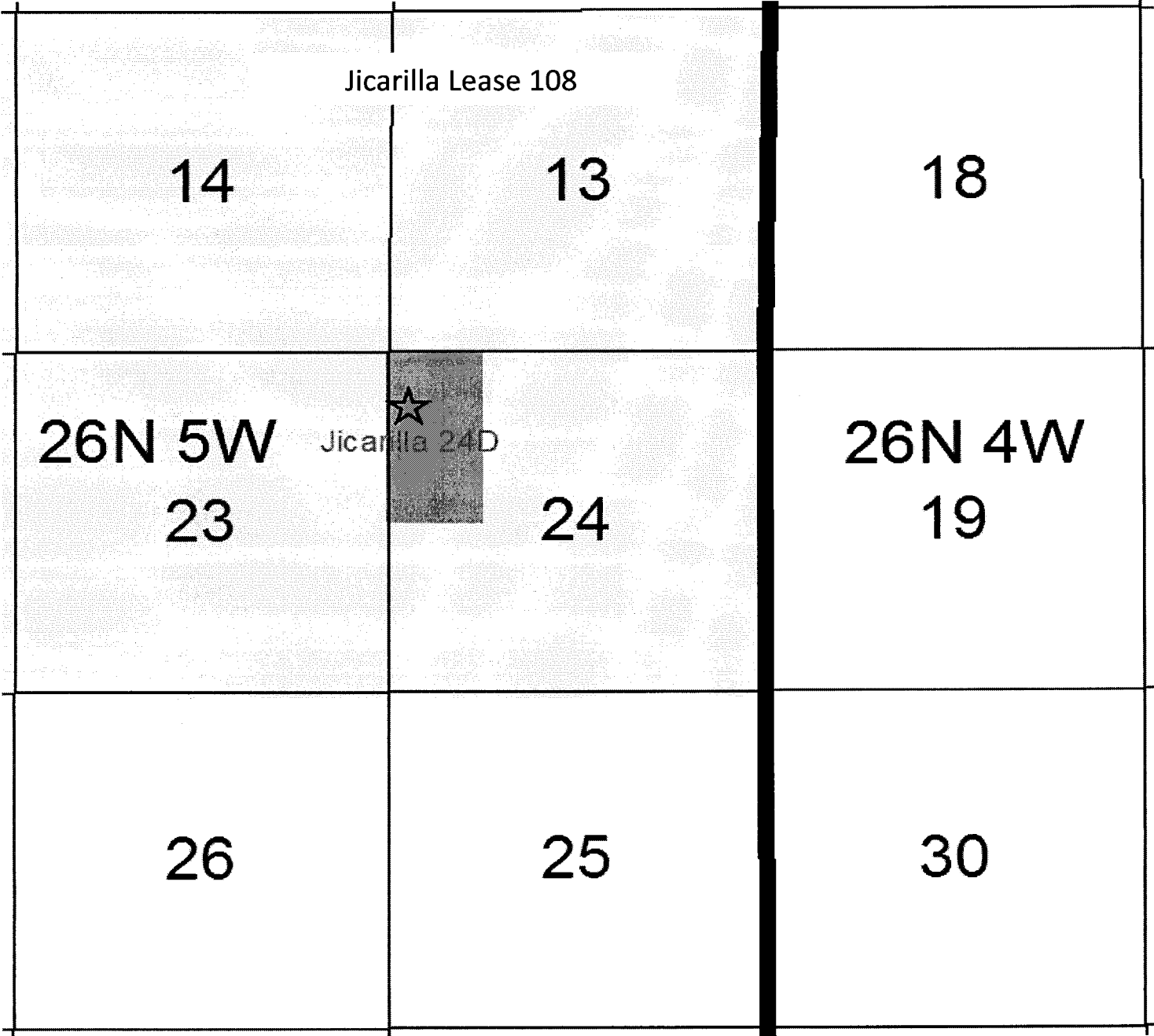


Exhibit D
Affected Operators

EnerVest Operating, LLC
1001 Fannin Street Suite 800
Houston, TX 77002-6707



4001 N. Butler Ave
Farmington, NM 87401
Phone: (505) 215-8215
Fax: (303) 974-1767

November 9, 2015

EnerVest Operating, LLC
1001 Fannin Street, Suite 800
Houston, TX 77002-6707

Re: Application for Administrative Approval of an Unorthodox Well Location in the Tapacito-Gallup Associated Pool (58090) for the LOGOS Jicarilla #24D API No. - 30-039-31339, 807' FNL & 215' FWL of Section 24, T26N, R5W, Rio Arriba County, New Mexico

To Whom It May Concern:

Enclosed is a copy of the above referenced application which was filed with the New Mexico Oil Conservation Division. Any objection to this application must be filed in writing within twenty (20) days from the date above with the applicant and the New Mexico Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, NM 87505. If no objection is received within the twenty (20) day period, this application may be approved administratively by the Division.

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If you have any questions or concerns about this application, please contact me at:

Christopher Jeffus
Director - Land/Legal
LOGOS Operating, LLC
4001 N. Butler Ave., Bldg 7101
Farmington, NM 87401
cjeffus@logosresourcesllc.com
505-436-3790 x102

_____ hereby waives notice of hearing and objection to the application by LOGOS Operating, LLC, for the unorthodox location for the LOGOS Jicarilla #24D, as depicted on the enclosed plat.

By: _____
Printed Name: _____
Date: _____



4001 N. Butler Ave
Farmington, NM 87401
Phone: (505) 215-8215
Fax: (303) 974-1767

November 9, 2015

New Mexico Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Re: LOGOS Operating, LLC
Request for Administrative Approval
Unorthodox Well Location
Tapacito-Gallup Associated Pool – 58090
LOGOS Jicarilla #24D
API No. – 30-039-31339
807 FNL & 215 FWL
NW/4NW/4 Section 24, T26N, R5W
Rio Arriba County, New Mexico

To Whom It May Concern:

LOGOS Operating, LLC ("LOGOS"), hereby requests administrative approval for an unorthodox location for the LOGOS Jicarilla #24D pursuant to Division Rules pertaining to the Tapacito-Gallup Associated Pool (58090). LOGOS intends to drill the LOGOS Jicarilla #24D as a vertical well at an unorthodox well location to be located 807' FNL and 215' FWL of Section 24, T26N, R5W, NMPM, Rio Arriba County, New Mexico. LOGOS anticipates that this well will produce a lower gas-oil ratio than the oil and gas well division specified in Rule 5(a) of R-5353 and, accordingly, seeks to permit this well as an oil well. The E/2 NW/4 of Section 24 will be dedicated to the well.

The NW/4 of Section 24 is currently within the Basin-Mancos Gas Pool, but the proposed spacing unit for the LOGOS Jicarilla #24D lies within one mile of the non-frozen Tapacito-Gallup Associated Pool.

The pool rules for the Tapacito-Gallup Associated Pool require a 790' setback from the outer boundary of any quarter section line. Because the LOGOS Jicarilla #24D is to be located 215' FWL of Section 24, T26N, R5W, the proposed location is unorthodox by 575' to the west. LOGOS seeks an exception from the well location rules governing the Tapacito-Gallup Associated Pool because the chosen location will maximize operational efficiencies and will avoid cultural issues identified as part of the BIA and Jicarilla Apache Nation onsite process.

EnerVest Operating, LLC, presently operates all spacing units covering the affected formation surrounding the 80 acre spacing unit proposed in this letter, and all such

surrounding spacing units share common ownership. Please see Exhibit "C" and Exhibit "D." A copy of this application for unorthodox location and non-standard spacing unit has been mailed to EnerVest Operating, LLC, the Farmington Field Office of the United States Bureau of Land Management and to the Jicarilla Oil and Gas Administration.

Thank you for your consideration. If any additional information is required, please do not hesitate to contact me at 505-436-3790 x 102.

Sincerely,

A handwritten signature in black ink, appearing to read "Christopher Jeffus". The signature is fluid and cursive, with the first name "Christopher" written in a larger, more prominent script than the last name "Jeffus".

Christopher Jeffus
Director – Land/Legal
LOGOS Operating, LLC

cc: Jicarilla Oil and Gas Administration
P.O. Box 146
Dulce, NM 87528

Bureau of Land Management
Farmington Field Office
6251 College Blvd. Suite A
Farmington, NM 87402

Exhibit A

Form 3160-3
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

RECEIVED

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

5. Lease Serial No.
Jicarilla Apache Lease #108

6. If Indian, Allottee or Tribe Name
Jicarilla Apache Nation

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

8. Lease Name and Well No.
Logos Jicarilla 24D

9. API Well No.
30-029-31339

10. Field and Pool, or Exploratory
Basin Mancos

11. Sec., T. R. M. or BLM and Survey or Area
Sec 24, T26N R05W, UL D

12. County or Parish
Rio Arriba

13. State
NM

1a. Type of work: ☒ DRILL ☐ REENTER

1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

2. Name of Operator: Logos Operating, LLC

3a. Address 4001 North Butler Ave, Building 7101
Farmington, NM 87401

3b. Phone No. (include area code)
505-330-9333

4. Location of Well (Report location clearly and in accordance with any State requirements.)

At surface 807' FNL 215' FWL, NW/NW

At proposed prod. zone same as above

14. Distance in miles and direction from nearest town or post office*
20 miles NE of Counselor, NM

15. Distance from proposed* location to nearest property or lease line, ft.
(Also to nearest drig, unit line, if any)
1833' FSL

16. No. of acres in lease
2560.0 acres

17. Spacing Unit dedicated to this well
N/2 = 320 Acres

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
1040' Jicarilla C 2N

19. Proposed Depth
-7338'

20. BLM/BIA Bond No. on file
BIA 1062402

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
6644' GL

22. Approximate date work will start*
10/01/2015

23. Estimated duration
45 days

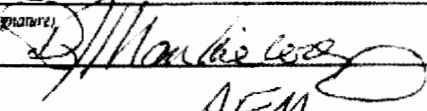
24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature  Name (Printed Typed) Kristy Graham Date 07/29/2015

Title
Production Engineer

Approved by  Name (Printed Typed) AFM Date 10/30/15

Title

Office

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

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

ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER PERMITS OR APPROVALS REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

*(Instructions on page 2)

CONFIDENTIAL

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

OPERATOR

LOGOS OPERATING, LLC.
DRILLING PLAN
LOGOS JICARILLA 24D

Note: This procedure will be adjusted on site based on actual conditions.

- I. **Location:** 807' FNL & 215' FWL **Date:** July 27, 2015
 Sec 24, T26N, R05W
 Rio Arriba County, NM

Field: Mancos **Elev:** GL 6,644'
Surface: Tribal
Minerals: Tribal

- II. **Geology:** Surface formation, San Jose

a. **Note:** tops estimated

Formation Tops	Depths
Ojo Alamo	2556'
Kirtland	2765'
Fruitland	2836'
Pictured Cliffs	3127'
Lewis	3185'
Chacra	4033'
Cliff House	4809'
Menefee	4893'
Point Lookout	5321'
Mancos	5531'
Gallup	6347'
Greenhorn Member-Mancos	7237'
Graneros Shale	7293'
Dakota	7336'
Total Depth Proposed	7336'

Estimated depths of anticipated water, oil, gas, and other mineral bearing formations, which are expected to be encountered:

Water and gas- 3127', 4033', 4809', and 5321'
Water, gas, and oil- 5531', and 6347'

- b. **Logging Program:** Induction/GR and density/neutron logs from TD to the surface casing point. Mud logs will be run from below the surface casing to TD. No DST's or cores are planned for this well. Cased hole GR/CCI and CBL logs will be run from PBTD to surface.
- c. No over pressured zones are expected in this well. No H₂S zones will be penetrated in this well. Max BHP = 3176 psig. Lost circulation zones may be encountered in the Mesa Verde group and Niobrara sections.

**LOGOS OPERATING, LLC.
DRILLING PLAN**

III. Drilling

a. Contractor: To be determined.

b. Mud Program:

The surface hole will be drilled with a fresh water mud.

The production hole will be drilled with a fresh water mud and will use bentonite to increase the viscosity. The weighting material will be drill solids or if conditions dictate, barite. The maximum mud weight expected in 9.2 ppg. The water loss will be controlled to a 6-8 cc/30 min. and loss circulation will be controlled with cedar fiber, paper, etc.

The Mancos, and Gallup formations will all be considered for completion in this well. A completion procedure will be developed after evaluating the wireline and mud logs.

c. Minimum Blowout Control Specifications:

Double ram type 2000 psi working pressure BOP with a rotating head. See the attached Exhibit #1 for details on the BOP equipment. All ram type preventers and related equipment will be hydraulically tested at nipple-up to 250 psi (Low) for 5 minutes and 1,500 psi (High) for 10 minutes. All tests and inspections will be recorded in the daily drilling tour book.

The blind rams will be hydraulically activated and checked for operational readiness each time pipe is pulled out of the hole. All checks of the BOP stack and equipment will be noted on the daily drilling report. The BOP equipment will include a kelly cock, floor safety valve, and choke manifold all rated to 2000 psi.

IV. Materials

a. Casing Program

Hole Size	Depth	Casing Size	Wt. & Grade
12-1/4"	500'	9-5/8"	36# J or K-55
7-7/8"	7336'	5-1/2"	17# P-110

b. Float Equipment:

- i. Surface Casing: Notched collar, aluminum insert float in the first collar, and 3 centralizers on the bottom 3 joints.
- ii. Production Casing: 5-1/2" cement float shoe and self-fill insert float collar. Place float one joint above shoe. **Place DV tool at 5681'**. Place ten centralizers spaced every other joint above the shoe, two turbolizers on the collars below the DV tool and two turbolizers above the DV tool. Place five turbolizers every third joint from the top of the well.

**LOGOS OPERATING, LLC.
DRILLING PLAN**

V. Cementing:

Note: Cement volumes will be adjusted based on actual conditions.

Surface casing: 9-5/8" - use 225 sx (266 cu. ft.) of Type V with 2% CaCl₂ and ¼ #/sk Celloflake (Yield = 1.18 cu. ft./sk; slurry weight = 15.6 PPG). 100% excess to circulate cement to surface. WOC 12 hours. Pressure test surface casing to 1500 psi.

Production casing: 5-1/2" - Before cementing circulate hole with at least 1-1/2 hole volumes of mud. Precede cement with 30 bbls of fresh water. **1st stage:** **Lead** with 260 sx (458 cu. ft.) of Cl "B" 65/35 poz with 6% gel, 1% CaCl₂, 4% Phenoseal, and ¼ #/sx Celloflake (Yield = 1.6 cu. ft./sk; slurry weight = 12.8 PPG) > **Tail** with 100 sx (146 cu. ft.) of Cl "B" 50/50 poz with 0.15% dispersant, 1% CaCl₂ and ¼ #/sk. Celloflake. (Yield 1.46 cu.ft./sk; slurry weight = 13.0 PPG). **2nd stage:** Precede cement with 20 bbls of water. **Lead** with 600 sx (1056 cu. ft.) Cl "B" 65/35 poz with 6% gel, 1% CaCl₂, and ¼ #/sx Celloflake (Yield = 1.76 cu. ft./sk; slurry weight = 12.8 PPG). **Tail** with 100 sx (146 cu. ft.) of Cl "B" 50/50 poz with 0.15% dispersant, 1% CaCl₂, and ¼ #/sk. Celloflake. (Yield = 1.46 cu. ft./sk; slurry weight = 13.0 PPG). Total cement volume is 1806 cu. ft. (50% excess to hole volume to circulate cement to surface).

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED **RECEIVED**
OMB No. 1004-0137
Expires: January 31, 2018

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.

5. Lease Serial No. JAN 108

6. If Indian, Allottee or Tribe Name

Jicarilla Apache Nation Farmington Field Office
Bureau of Land Management

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Logos Operating, LLC

3a. Address 4001 North Butler Ave, Bldg 7101
Farmington, NM 87401

3b. Phone No. (include area code)
(505) 438-2608

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

8. Well Name and No. Logos Jicarilla 24D

9. API Well No. 30-039-31334

10. Field and Pool or Exploratory Area
Basin Mancos

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
807' FNL & 215' FWL (NW/NW) Sec 24, T26N, R05W, UL D

11. Country or Parish, State
Rio Arriba, NM

12. CHECK THE 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"/> Hydraulic Fracturing	<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 type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> 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 recompleat 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 must 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 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

Logos wishes to change the dedicated acres as submitted with the APD (320 acres) to 160 acres in accordance with Basin Mancos Order R-12984 Rule 3 (B) for a stranded unit. This would eliminate the need for a spacing exception for a possible future second vertical well in the spacing unit. Attached is an updated C-102.

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

Tamra Sessions

Regulatory Specialist

Title

Signature

Date

09/02/2015

THE SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

AFM

Date

10/30/15

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

FFC

Title 18 U.S.C Section 1001 and Title 43 U.S.C Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

OPERATOR

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

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

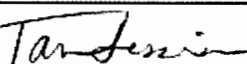
1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. JAN 108
2. Name of Operator Logos Operating, LLC		6. If Indian, Allottee or Tribe Name Jicarilla Apache Nation
3a. Address 4001 North Butler Ave, Bldg 7101 Farmington, NM 87401	3b. Phone No. (include area code) (505) 436-2606	7. If Unit of C/A Agreement, Name and/or No.
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 807' FNL & 215' FWL (NW/NW) Sec 24, T26N, R05W, UL D		8. Well Name and No. Logos Jicarilla 24D
		9. API Well No. 30-039-31339
		10. Field and Pool or Exploratory Area Tapacito Gallup (Associated)
		11. Country or Parish, State Rio Arriba, NM

12. CHECK THE 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"/> Hydraulic Fracturing	<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 type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> 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 recomple 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 must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recomple in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

Logos wishes to change the pool from Basin Mancos to Tapacito Gallup (Associated). After further review by the NMOC (Kate Pickford) it was determined the Tapacito Gallup could expand to this stranded unit (as it was classified in NOI sundry dated 9/2/15). NMOC in Santa Fe will be notified and NSL-7347 amended to conform with the new pool. Attached is the amended C-102.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed) Tamra Sessions		Regulatory Specialist	
Signature 		Date 11/06/2015	

THE SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by	Title	Date
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	

Title 18 U.S.C Section 1001 and Title 43 U.S.C Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

David Martin
Cabinet Secretary

Brett F. Woods, Ph.D.
Deputy Cabinet Secretary

David R. Catanach, Division Director
Oil Conservation Division



September 22, 2015

Logos Operating, LLC
Attn: Ms. Tamara Session

ADMINISTRATIVE NON-STANDARD LOCATION ORDER

Administrative Order NSL-7347
Administrative Application Reference No. pMAM1525156088

Logos Operating, LLC
OGRID 289408
Logos Jicarilla Well No. 24D
API No. 30-039-pending

Proposed Location:

<u>Footages</u>	<u>Unit</u>	<u>Sec.</u>	<u>Twsp</u>	<u>Range</u>	<u>County</u>
807' FNL & 215' FWL	D	24	26N	5W	Rio Arriba

Proposed Unit:

<u>Description</u>	<u>Acres</u>	<u>Pool</u>	<u>Pool Code</u>
NW/4 of Section 24	160	Basin Mancos	97232

Reference is made to your application received on September 8, 2015.

You have requested to drill this well at an unorthodox gas well location described above in the referenced pool or formation. This location is governed by the Special Rules for the Basin Mancos Gas Pool, which provides for 320-acre units with wells to be located at least 660 feet from outer unit boundaries. This location is less than 660 feet from a unit outer boundary. Further, the proposed 160-acre spacing unit is permitted under Rule 3 (B), of the Special Pool Rules for the Basin Mancos Pool, because the remaining quarter sections are dedicated to the Tapacito Gallup (Associated) Pool.

Your application has been duly filed under the provisions of Division Rules 15.13 19.15.15.13 NMAC and 19.15.4.12.A (2) NMAC.

An unorthodox location is required in order to avoid cultural issues identified by the Bureau of Indian Affairs, and Jicarilla Apache Nation.

It is also understood that you have given due notice of this application to all operators or owners who are "affected persons," as defined in Rule 19.15.4.12 (A) 2 NMAC, in all adjoining units towards which the proposed location encroaches. However, the affected party had signed a waiver.

Pursuant to the authority conferred by Division Rule 19.15.15.13 (B) NMAC, the above-described unorthodox location is hereby approved.

This approval is subject to your being in compliance with all other applicable Division rules, including, but not limited to Division Rule 19.15.5.9 NMAC.

Jurisdiction of this case is retained for the entry of such further orders as the Division may deem necessary.

Done at Santa Fe, New Mexico, on September 22, 2015.



DAVID R. CATANACH
Director

DRC/mam

cc: New Mexico Oil Conservation Division – Aztec
Bureau of Land Management - Farmington