

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

John Bemis
Cabinet Secretary

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

Jami Bailey
Division Director
Oil Conservation Division



Administrative Order DHC-4605

Order Date: 2/25/2013

Application Reference Number: pPRG1305160233

Logos Operating, LLC
4001 N. Butler, Bldg 7101
Farmington, NM 87401

Attention: John Akers

Logos Well No. 3
API No: 30-043-21135
Unit letter P, Section 5, Township 22 North, Range 6 West, NMPM
Sandoval County, New Mexico

Pool	WC 22N6W5; Dakota	Oil 97997
Names:	Wildcat; Gallup	Oil 96894
	Wildcat; Mesaverde	Oil 96900

Reference is made to your recent application for an exception to 19.15.12.9A NMAC of the Division Rules and Regulations to permit the above-described well to commingle production from the subject pools in the wellbore.

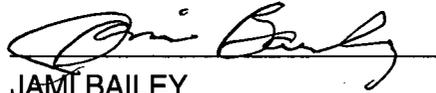
It appearing that the subject well qualifies for approval for such exception pursuant to the provisions of 19.15.12.11A NMAC, and that reservoir damage or waste will not result from such downhole commingling, and correlative rights will not be violated thereby, you are hereby authorized to commingle the production as described above and any Division Order which authorized the dual completion or otherwise required separation of the zones is hereby placed in abeyance.

In accordance with 19.15.12.11A.(6) NMAC, the production attributed to any commingled pool within the well shall not exceed the allowable applicable to that pool.

The production allocation percentages of oil and gas between these pools shall be supplied to the Division's Santa Fe office within 60 days following completion of this well or workover.

REMARKS: The operator shall notify the Division's district office upon implementation of commingling operations.

Pursuant to 19.15.12.11B NMAC, the commingling authority granted herein may be rescinded by the Division Director if conservation is not being best served by such commingling.



JAMI BAILEY
Director

JB/prg

cc: Oil Conservation Division – Aztec District Office
Bureau of Land Management – Farmington Field Office

ABOVE THIS LINE FOR DIVISION USE ONLY

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



Logos Operating
 30-043-21135-
 Logos #3 00-00

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.

John Austin Akers

Print or Type Name

Signature

VP of Land

Title

02/18/2013

Date

aaakers@logosresourcesllc.com
 e-mail Address



4001 N. Butler Blvd. Bldg 7101
Farmington, NM 87401
Phone: (505) 436-2626
Fax: (303) 974-1767

February 18, 2013

NMOCD- Santa Fe Office
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Sent Via US Overnight Mail

**Re: Logos Operating, LLC
Downhole Comingling Application Notice
Logos N. 3 well
API No. – 30-043-21135
1263' FSL and 741' FEL (vertical)
SE/4SE/4 Section 5, T22N, R6W
Sandoval County, New Mexico**

To whom it may concern:

Enclosed please find a C-107A application and associated documents for the Logos No. 3 well. This application requests comingling of the following three pools:

- Mesa Verde (WC)- Oil
- Gallup (WC)- Oil
- Dakota (WC)- Oil

The Federal government owns 100% minerals in all depths in this well and has been notified of this application. All ownership is uniform across all depths. Furthermore, all pools have identical 40 acre spacing.

Should you have any concerns regarding this application please contact me at 303-550-1877 or aakers@logosresourcesllc.com

Very truly yours,

A handwritten signature in black ink, appearing to read 'John Austin Akers', written over a horizontal line.

John Austin Akers
Vice President of Land
Enclosures: C107A application

2013 FEB 22 P 3:14

RECEIVED OCD



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

Date: February 18, 2013

To: NMOCD

Re: Logos # 3 - Downhole Commingle Allocation

Dear NMOCD,

Logos Operating, LLC (OGRID 289408) proposes to downhole commingle the Logos #3 (API 30-043-21135) Dakota, Gallup, and Mesa Verde formations. The Logos #3 commingle proposal is based on the success obtained in the offset Logos #2 (API 30-043-21120) and Logos #1 (API 30-043-21119) which were commingled in the Dakota, Gallup, and Mesa Verde.

The allocation formula will be based on results obtained from the flowback operations after completion. The allocation will be adjusted approximately 6 months after completion which will allow sufficient time for the frac fluid to be recovered.

Logos Operating recommends using the flowback data and future swab data to create the allocations rather than using offset production data. The Mesa Verde productivity is highly discontinuous in the region and there is no close Dakota production in the region to base allocations on. The Logos #1 and Logos #2 offset wells do not have sufficient production data to use as allocation references since they have just recently recovered the majority of the frac fluid. The Logos #1 and Logos #2 allocation formulas have been approved to use flowback results and swab results for the allocation percentages; therefore, Logos Operating recommends using the same allocation methodology for Logos #3.

Regards,

A handwritten signature in black ink, appearing to read 'David Gonzales', with a stylized flourish at the end.

David Gonzales
Vice President of Operations

RECEIVED OGD
2013 FEB 22 P 3:10

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

¹ API Number 30-043-21135	² Pool Code	³ Pool Name Wildcat Mesa Verde
⁴ Property Code 311963	⁵ Property Name Logos	
⁷ OGRID No. 289408	⁸ Operator Name Logos Operating, LLC	⁶ Well Number 3
⁹ Elevation 7181'		

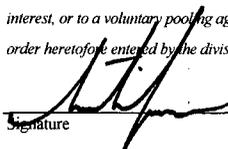
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	5	22N	6W	P	741	South	1263	East	Sandoval

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
¹² Dedicated Acres 40	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				<p>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 unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p style="text-align: right;">12/15/2013</p> <p>Signature:  Date</p> <p>John Austin Akers- VP of Land Printed Name</p> <p>aakers@logosresourcesllc.com E-mail Address</p>	
				<p>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.</p> <p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor:</p> <p>NOTE: THIS C-102 USES THE EXACT FOOTAGES FROM THE C-102 FILED COMPLETED BY DAVID RUSSELL ON OCTOBER 1, 2012. CERTIFICATE NO. 10201</p> <p>Certificate Number</p>	
	<div style="border: 1px solid black; display: inline-block; padding: 5px;">741'</div>			<div style="border: 1px solid black; display: inline-block; padding: 5px;">1263'</div>	

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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

¹ API Number 30-043-21135	² Pool Code 97997	³ Pool Name WC 22N6W5; DAKOTA (O)
⁴ Property Code 311963	⁵ Property Name Logos	
⁷ OGRID No. 289408	⁸ Operator Name Logos Operating, LLC	⁶ Well Number 3
⁹ Elevation 7181'		

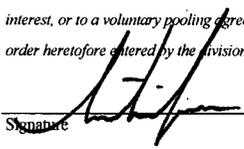
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	5	22N	6W	P	741	South	1263	East	Sandoval

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
¹² Dedicated Acres 40	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				<p>¹⁷ OPERATOR CERTIFICATION</p> <p><i>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 unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i></p> <p style="text-align: right;">12/15/2013</p> <p>Signature:  Date</p> <p>John Austin Akers- VP of Land Printed Name</p> <p>aakers@logosresourcesllc.com E-mail Address</p>
	<p>¹⁸ SURVEYOR CERTIFICATION</p> <p><i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i></p>			<p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor:</p> <p>NOTE: THIS C-102 USES THE EXACT FOOTAGES FROM THE C-102 FILED COMPLETED BY DAVID RUSSELL ON OCTOBER 1, 2012. CERTIFICATE NO. 10201</p> <p>Certificate Number</p>
	<div style="border: 1px solid black; padding: 5px; display: inline-block;">741'</div> <div style="border: 1px solid black; padding: 5px; display: inline-block; margin-left: 20px;">1263'</div>			

District I
1625 N. French Drive, Hobbs, NM 88240

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-107A
Revised August 1, 2011

District II
811 S. First St., Artesia, NM 88210

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

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

District III
1000 Rio Brazos Road, Aztec, NM 87410

District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

APPLICATION FOR DOWNHOLE COMMINGLING

Logos Operating, LLC

4001 N. Butler, Bldg 7101 Farmington, NM 87401

Operator Address
Logos #3 Unit Letter P, Section 5, T22N, R6W ~~Rio Arriba~~ Sandoval

Lease Well No. Unit Letter-Section-Township-Range County
OGRID No. 289408 Property Code 311963 API No. 30-043-21135 Lease Type: Federal State Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	WILDCAT MESA VERDE- OIL POOL NOT YET ASSIGNED	WILDCAT GALLUP - OIL POOL NOT YET ASSIGNED	WC22N6W5- DAKOTA OIL
Pool Code			13379
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	Est. 3727' - 3918'	Est. 5024' - 6223'	Est. 6236' - 6272'
Method of Production (Flowing or Artificial Lift)	Pumping	Pumping	Pumping
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)	Est. 1600 psi	Est. 2000 psi	Est. 2700 psi
Oil Gravity or Gas BTU (Degree API or Gas BTU)	Est. Oil Gravity 42	Est. Oil Gravity 38	Est. Oil Gravity 42
Producing, Shut-In or New Zone	New Zone	New Zone	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.)	Rates: Est. 15 bopd, Est. 5 mcf/d	Rates: Est. 40 bopd, Est. 70 mcf/d	Rates: Est. 20 bopd, Est. 60 mcf/d
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	The allocation of produced volumes will be based on flowback results and offset production data from the Logos 1 and Logos 2.	The allocation of produced volumes will be based on flowback results and offset production data from the Logos 1 and Logos 2.	The allocation of produced volumes will be based on flowback results and offset production data from the Logos 1 and Logos 2.

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes No
 If not, have all working, royalty and overriding royalty interest owners been notified by certified mail? Yes No
 Are all produced fluids from all commingled zones compatible with each other? Yes No
 Will commingling decrease the value of production? Yes No
 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 No

NMOCD Reference Case No. applicable to this well: _____

Attachments:

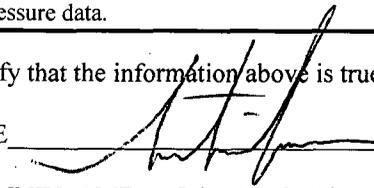
- C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- Production curve for each zone for at least one year. (If not available, attach explanation.)
- For zones with no production history, estimated production rates and supporting data.
- Data to support allocation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

PRE-APPROVED POOLS

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 pressure data.

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

SIGNATURE  TITLE: VP of Land DATE 2/18/2013

TYPE OR PRINT NAME John Austin Akers TELEPHONE NO. (303) 550-1877
E-MAIL ADDRESS aakers@logosresourcesllc.com