

District I
1625 N French Dr, Hobbs, NM 88240
District II
1301 W Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S St Francis Dr, Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Form C-101
May 27, 2004

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

Submit to appropriate District Office

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

Operator Name and Address REEF EXPLORATION, L.P. 508 WEST WALL, SUITE 100 MIDLAND, TEXAS 79701		JUN 18 2007	OGRID Number 246083
Property Code 36538		Property Name STATE 2	Well No 8
Proposed Pool 1 LIVINGSTON RIDGE DELAWARE, SE		Proposed Pool 2	

7 Surface Location

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	2	23S	31 E		1980	South	660	West	EDDY

8 Proposed 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

Additional Well Information

Work Type Code N	Well Type Code 0	Cable/Rotary R	Lease Type Code STATE	Ground Level Elevation 3411
Multiple NO	Proposed Depth 8700	Formation DELAWARE	Contractor TBO	Spud Date 6-15-07
Depth to Groundwater 950		Distance from nearest fresh water well 1000' OR MORE		Distance from nearest surface water 1000' OR MORE
Pit Liner Synthetic X 12_mils thick Clay <input type="checkbox"/> Pit Volume 2000 bbls Drilling Method: Closed-Loop System <input type="checkbox"/> Fresh Water X Brine X Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/>				

21 Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17 1/2	13 3/8	48# H-40	700' 900	835	SURFACE
12 1/4	8 5/8	32# K-55	4500	1270	SURFACE
9 7/8	5 1/2	17 L-80	8700	750	4500 *
* Verify Tie back by Temp Survey or CBL					

- 22 Describe the proposed program If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone Describe the blowout prevention program, if any Use additional sheets if necessary
- 23 Drill Delaware well to +/-8700. Circulate cement to surface on 8 5/8" casing Test all significant shows & evaluate w/adequate logging programs
- 24 Abandonment, if necessary, will be performed in accordance w/prudent practices and regulatory requirements. A double ram series 900 BOP and choke
- 25 Manifold will be used from the 8 5/8" casing point to total depth After logging and evaluation at total depth, the decision will be made as to whether or not
- 26 To run production casing Production casing will be 5 1/2 and will be run at total depth. Completion will be from perforation in the 5 1/2 casing in the Delaware
- 27 Formation

**NOTIFY OCD OF SPUD &
TIME TO WITNESS
CEMENTING OF SURFACE &
INTERMEDIATE CASING**

R-III-P

Operator to set surface casing in Anhydrite section of Kuster

I hereby certify that the information given above is true and complete to the best of my knowledge and belief I further certify that the drilling pit will be constructed according to NMOCD guidelines ☐, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Signature: Colleen Germany

Printed name. COLLEEN GERMANY

Title AGENT

E-mail Address oilreportsinc@oilreportsinc.com

Date 6-15-07

Phone 505-393-2727

OIL CONSERVATION DIVISION

Approved by

BRYAN G. ARANT
DISTRICT II GEOLOGIST

Title

Approval Date. AUG 05 2007

Expiration Date. AUG 05 2008

Conditions of Approval Attached ☐

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-		Pool Code 96149	Pool Name LIVINGSTON RIDGE DELAWARE, SE
Property Code 36538	Property Name STATE "2"		Well Number 8
OGRID No. 246083	Operator Name REEF EXPLORATION, L.P.		Elevation 3411'

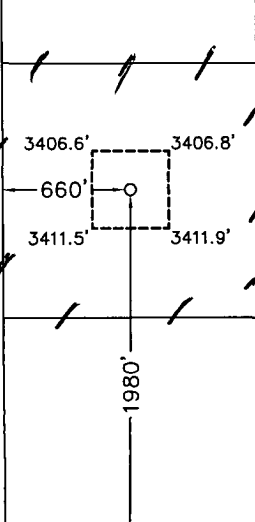
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	2	23 S	31 E		1980	SOUTH	660	WEST	EDDY

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 40	Joint or Infill	Consolidation Code		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

<p><u>Plane Coordinate</u> X = 678,782.8 Y = 484,826.7</p> <p><u>Geodetic Coordinate</u> Lat. 32°19'53.68" N Long. 103°45'16.26" W (NAD '27)</p>		
		
<p>NOTE:</p> <p>1) Plane Coordinates shown hereon are Transverse Mercator Grid and Conform to the "New Mexico Coordinate System", New Mexico East Zone, North American Datum of 1927. Distances shown hereon are mean horizontal surface values.</p>		

OPERATOR CERTIFICATION

I hereby certify 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.

Colleen Germany

Signature

6-15-07

Date

Colleen Germany

Printed Name

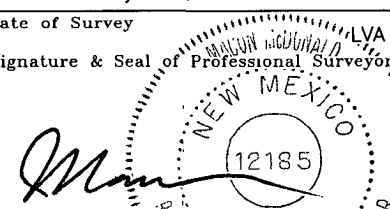
SURVEYOR CERTIFICATION

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

May 18, 2007

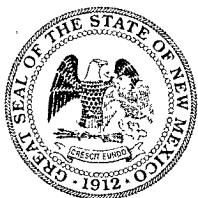
Date of Survey

Signature & Seal of Professional Surveyor



W.O. Num. 2007-0575

Certificate No. MAISON McDONALD 12185



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON

Governor

Joanna Prukop

Cabinet Secretary

Mark E. Fesmire, P.E.

Director

Oil Conservation Division

JUL 13 2007
OCD-ARTESIA

July 9, 2007

New Mexico State Land Office

310 Old Santa Fe Trail

Santa Fe, NM 87504-1148

Attn: Mr. Joe Mraz or To Whom It May Concern

RE: APPLICATION FOR PERMIT TO DRILL IN POTASH AREA

OPERATOR: Reef Exploration, L.P.

LEASE NAME: State "2" # 8

LOCATION: SEC. 2, TOWNSHIP 23 SOUTH, RANGE 31 EAST

1980' FSL & 660' FWL

EDDY COUNTY, NM, NMPM

PROPOSED DEPTH: 8700'

Dear Mr. Mraz or To Whom It May Concern,

The application for permit to drill identified above has been filed with this office of the New Mexico Oil Conservation Division. Pursuit to the provisions of Oil Conservation Division Order R-111-P, please advise this office whether or not this application is within an established Life-of-Mine Reserve area filed with and approved by your office. If not, please advise whether it is within the buffer zone established by this order.

Thank you for your assistance.

Sincerely,

Bryan G. Arrant

District II Geologist, Artesia NMOCD

In LMR Yes _____

No X

In Buffer Zone Yes _____

No X

Jon
7-10-07
9:50am

Comments:

Signature: _____

[Handwritten Signature]

Date: 7/10/07



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON

Governor

Joanna Prukop

Cabinet Secretary

Mark E. Fesmire, P.E.

Director

Oil Conservation Division

S

July 9, 2007

Bureau of Land Management

620 East Greene St.

Carlsbad, NM 88220-6292

Attn: Mr. Craig Cranston or To Whom It May Concern

JUL 10 2007

OCD-ARTESIA

RE: APPLICATION FOR PERMIT TO DRILL IN POTASH AREA

OPERATOR: Reef Exploration, L.P.

LEASE NAME: State "2" # 8

LOCATION: SEC. 2, TOWNSHIP 23 SOUTH, RANGE 31 EAST

1980' FSL & 660' FWL

EDDY COUNTY, NM, NMPM

PROPOSED DEPTH: 8700'

Dear Mr. Cranston or To Whom It May Concern,

The application for permit to drill identified above has been filed with this office of the New Mexico Oil Conservation Division. Pursuit to the provisions of Oil Conservation Division Order R-111-P, please advise this office whether or not this application is within an established Life-of-Mine Reserve area filed with and approved by your office. If not, please advise whether it is within the buffer zone established by this order.

Thank you for your assistance.

Sincerely,

Bryan G. Arrant

District II Geologist, Artesia NMOCD

In LMR Yes _____

No ☒

In Buffer Zone Yes _____

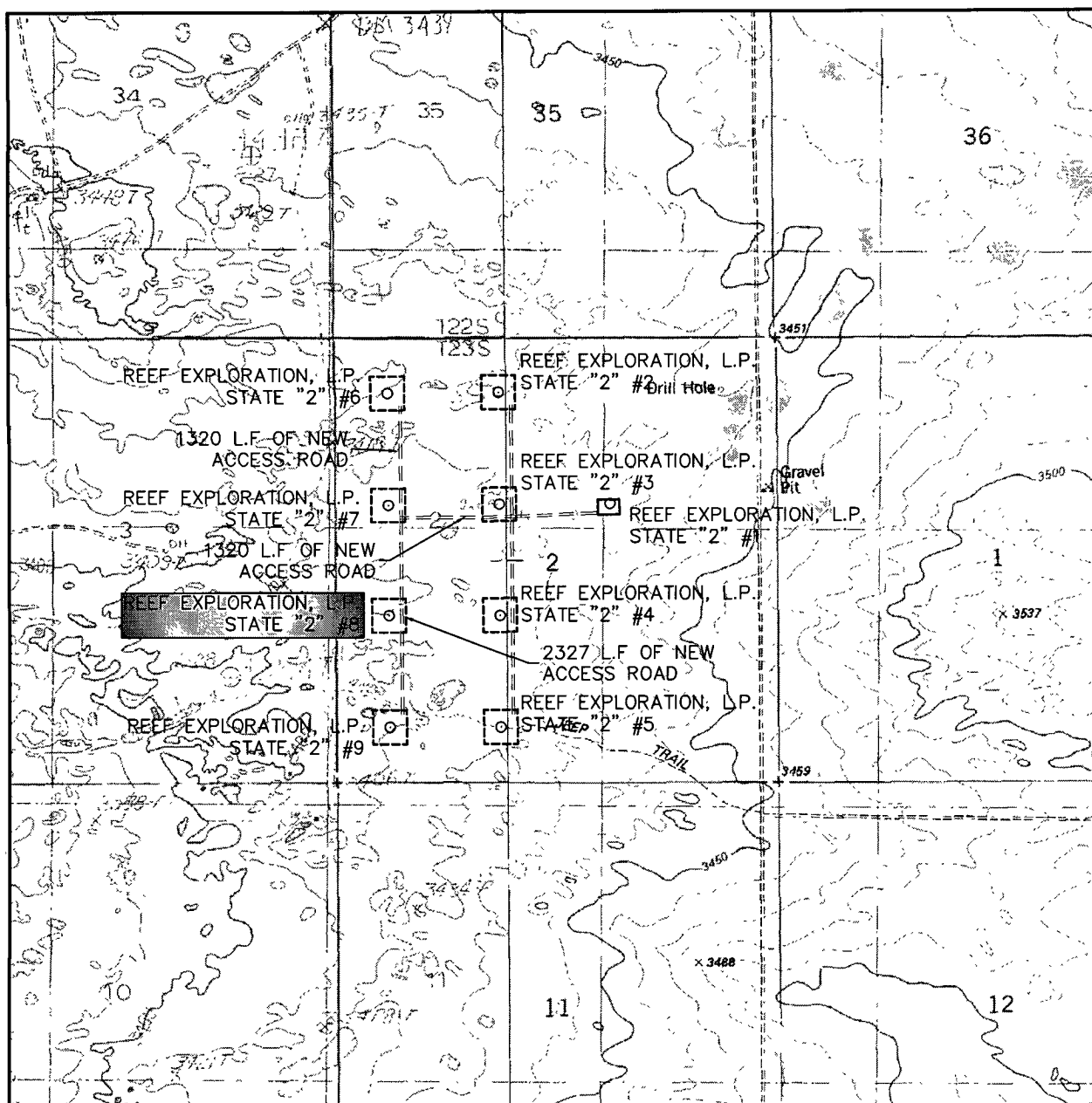
No ☒

Comments:

Signature:

Date: 7-9-07

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
BOOTLEG RIDGE - 10'

SEC. 2 TWP. 23-S RGE. 31-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 1980' FSL & 660' FWL

ELEVATION 3411'

OPERATOR REEF EXPLORATION, L.P.

LEASE STATE "2"

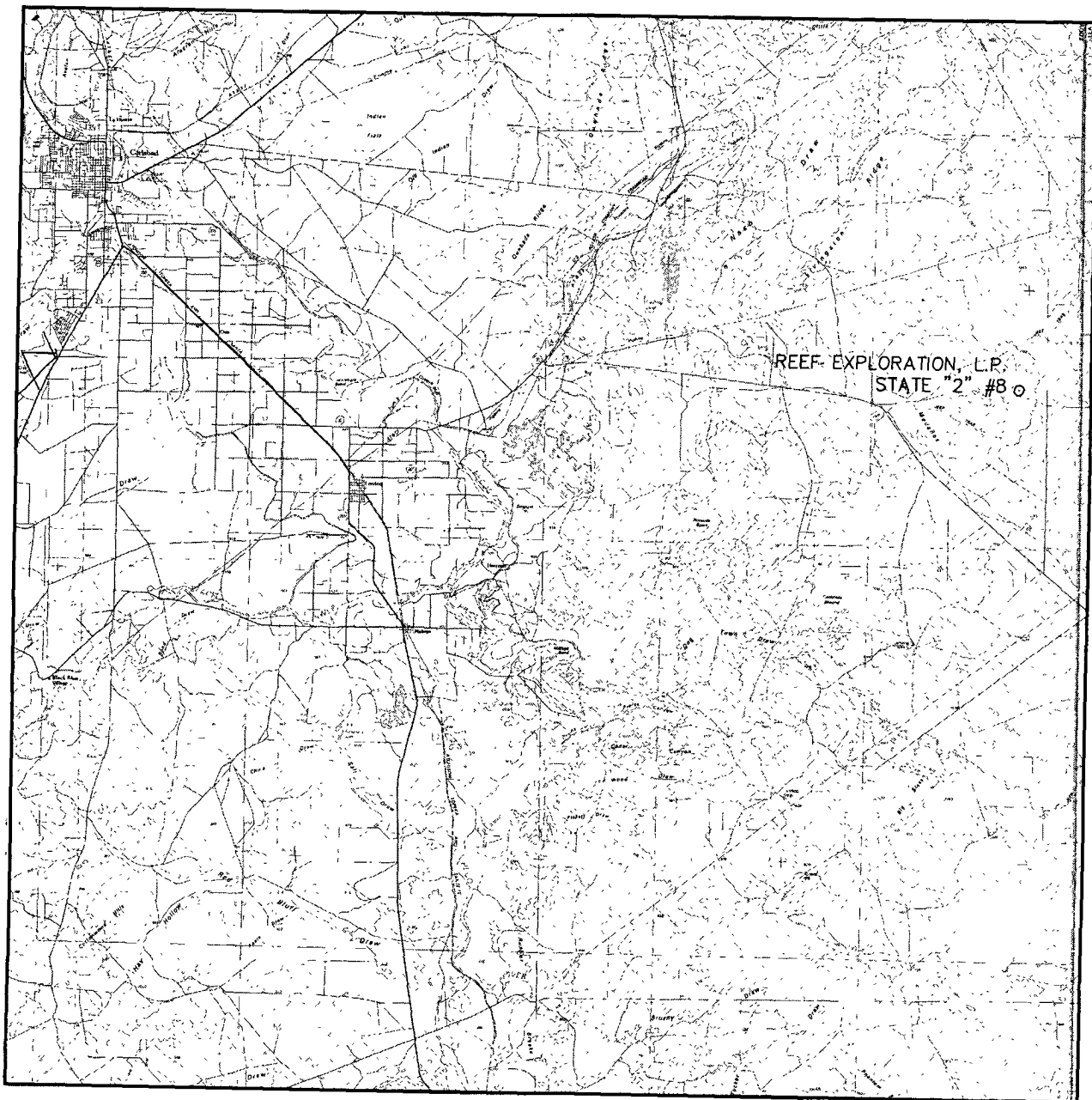
U.S.G.S. TOPOGRAPHIC MAP
BOOTLEG RIDGE



**WEST
COMPANY**
of Midland, Inc.

110 W. LOUISIANA, STE. 110
MIDLAND TEXAS, 79701
(432) 687-0865 - (432) 687-0868 FAX

VICINITY MAP



SCALE: 1" = 5 MILES

SEC. 2 TWP. 23-S RGE. 31-E
SURVEY _____ N.M.P.M.
COUNTY _____ EDDY
DESCRIPTION 1980' FSL & 660' FWL
ELEVATION 3411'
OPERATOR REEF EXPLORATION, L.P.
LEASE STATE "2"



**WEST
COMPANY**
of Midland, Inc.

110 W. LOUISIANA, STE. 110
MIDLAND TEXAS, 79701
(432) 687-0865 - (432) 687-0868 FAX

J. W. MULLOY ASSOCIATES, INC.

Engineering & Consulting

508 West Wall, Suite 700

Midland, Texas 79701

Phone (432) 687-0323

Fax (432) 686-7224

JOHNNY MULLOY
President

JUN 22 2007
OCD-ARTESIA

June 20, 2007

State of New Mexico
Oil Conservation Division
1310 W. Grand Avenue
Artesia, New Mexico 88210

RE: H2S Contingency Plan
Sec 2 & 12, T-23-S, R-31-E
Sec 36 T-22-S, R-31-E
Eddy County, New Mexico

Attention: Mr. Bryan Arrant

As a representative of Reef Exploration, L.P. (Ogrid # 246083) research has been conducted to determine if H2S will be encountered while drilling the following wells:

State "2" Lease

#6	660 FNL & 660 FWL
#7	1980 FNL & 660 FWL
#8	1980 FSL & 660 FWL
#9	660 FSL & 660 FWL

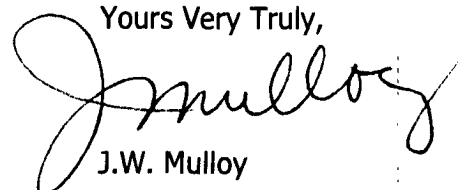
State "36" Lease

#1	660 FNL & 1980 FWL
#2	460 FNL & 660 FWL
#3	1980 FNL & 660 FWL
#4	1780 FSL & 860 FWL
#5	660 FSL & 660 FWL

It was determined that no H2S would be encountered and therefore a contingency plan is not needed. This letter is being sent to you to satisfy the conditions of approval of the above requested permits.

If additional data is required, please contact the undersigned at 432-687-0323.

Yours Very Truly,



J.W. Mulloy

J. W. MULLOY ASSOCIATES, INC.

Engineering & Consulting

508 West Wall, Suite 700

Midland, Texas 79701

Phone: (432) 687-0323

Fax: (432) 686-7224

JUL -9 2007
OCD-ARTESIA

JOHNNY MULLOY
President

June 29, 2007

Mosaic Potash Carlsbad, Inc.
P. O. Box 71
Carlsbad, NM 88220

Re: Waivers

Attention: Dan Morehouse

Dear Sir:

As a representative of Reef Exploration, L.P. it is respectfully requested that waivers that would allow the drilling for hydrocarbons be the designated potash areas be granted for the following:

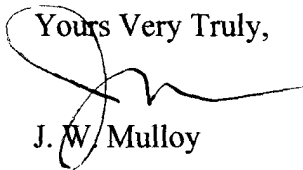
W/2 of W/2 Sec 2, T-23-S, R-31-E

The well designations and the exact locations are as follows:

State "2" Well # 6 located 660 FNL & 660 FWL
#7 located 1980 FNL & 660 FWL
#8 located 1980 FSL & 660 FWL
#9 Located 660 FSL & 660 FWL

Thank you for your corporation relating to the waivers.

Yours Very Truly,


J. W. Mulloy

Cc: NMODC

J. W. MULLOY ASSOCIATES, INC.

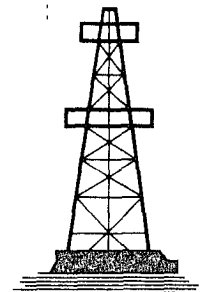
Engineering & Consulting

I, Dan Morehouse as representative for Mosaic Potash Carlsbad, Inc hereby waive any and all objections to the drilling of the wells listed above that will be operated by Reef Exploration, L. P.

By: _____ Date: _____

Signed: _____

Cc: NMOCD



Encl:

CC: New Mexico Energy Minerals and Natural Resources Department, Anne Clark
-Coordinator of the N.M. Radioactive Waste Consultation Task Force.
New Mexico State Land Office & Minerals Division, Joe Mraz-Geologist
Reef Exploration, L.P., Gaye Heard, Agent
Well file



Mosaic Potash Carlsbad Inc.
PO Box 71
1361 Potash Mines Road
Carlsbad, NM 88220
www.mosaicco.com

Tel 505-887-2871
Fax 505-887-0589

July 16, 2007

J. W. Melloy Associates, Inc.
508 West Wall, Suite 700
Midland, TX 79701

Dear Mr. Melloy:

We have received your letters dated May 25, 2007 and June 29, 2007 requesting a total of 9 well locations in Section 2 of T-23-S, R-31-E. In general these location are not detrimental to potash production as they are outside our know reserves. However, Well #6 located 660 FNL & 660 FWL is in a corridor designated for access around WIPP needed to mine reserves to the north. Mosaic has no objection to wells #1, #2, #3, #4, #5, #7, #8, or #9 at their indicated locations but we must currently object to the location of the #6 well.

As more information becomes available, our estimates of the value and extent of potash resources in any given area (as well as the mine plan to access reserves) may change. Therefore, please consider this "objection" to this location and these "no objection" to the remaining locations to be valid for one year only. If you are still considering these well locations at a date later than one year from today, notify us again at that time so we can make the decision on information current at that time. Do not consider a "no objection offered" or an "objection offered" decision to be permanent.

Sincerely,

Dan Morehouse
Mine Engineering Superintendent

cc: Don Purvis Pete Livingstone Bryan Arrant



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON

Governor

Joanna Prukop

Cabinet Secretary

Mark E. Fesmire, P.E.

Director

Oil Conservation Division

July 9, 2007

U.S. Department of Energy

P.O. Box 3090

Carlsbad, NM 88221-3090

Attn: Harold Johnson-NEPA Compliance Manager

Dear Harold or To Whom It May Concern

RE: **Reef Exploration, L.P., application to drill the State "2" # 6 well:**
Surface location to be in Unit M, of Section 2, Township 23 South, Range 31 East,
Legal location being: 660' FNL & 660' FWL
Eddy County, New Mexico, NMPM.

Reef Exploration, L.P., application to drill the State "2" # 7 well:
Surface location to be in Unit E, of Section 2, Township 23 South, Range 31 East,
Legal location being: 1980' FNL & 660' FWL
Eddy County, New Mexico, NMPM.

Reef Exploration, L.P., application to drill the State "2" # 8 well:
Surface location to be in Unit L, of Section 2, Township 23 South, Range 31 East,
Legal location being: 1980' FSL & 660' FWL
Eddy County, New Mexico, NMPM.

Reef Exploration, L.P., application to drill the State "2" # 9 well:
Surface location to be in Unit M, of Section 2, Township 23 South, Range 31 East,
Legal location being: 660' FSL & 660' FWL
Eddy County, New Mexico, NMPM.

The applications to drill (APDs) for the above noted wells is enclosed for your review. The State "2" # 2 lies within 1 mile of the WIPP withdraw area. Per terms of the Joint Powers Agreement between the Energy Mineral and Natural Resources Department, the DOE and other agencies, this application is provided so that you may have the opportunity to develop and submit and comments thereon. The OCD is expected to approve this permit by June 25, 2007 unless an objection is received in writing.

Please call if you have any questions or concerns regarding this matter.

Respectfully yours,

Bryan G. Arrant
NMOCD's District II Geologist
Artesia, New Mexico
505-748-1283 ext. 103