

ABOVE THIS LINE FOR DIVISION USE ONLY

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



ADMINISTRATIVE APPLICATION CHECKLIST

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

Application Acronyms:

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

- [1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]
- [A] Location - Spacing Unit - Simultaneous Dedication
 NSL NSP SD
- Check One Only for [B] or [C]
- [B] Commingling - Storage - Measurement
 DHC CTB PLC PC OLS OLM
- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
 WFX PMX SWD IPI EOR PPR
- [D] Other: Specify _____
- [2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or Does Not Apply
- [A] Working, Royalty or Overriding Royalty Interest Owners
- [B] Offset Operators, Leaseholders or Surface Owner
- [C] Application is One Which Requires Published Legal Notice
- [D] Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E] For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F] Waivers are Attached

- DHC 4705
 - Quantum Resources Management, LLC
 243874
 WCL
 - Encone m State #8
 30-025-40721
 Pool
 - Blinby oil and GAS
 -06660
 - Minkand
 19190
 - wantz, Abo
 62700

[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.

David Catanach
Print or Type Name

David Catanach
Signature

Agent for Quantum Resources Management, LLC
Title

9/29/14
Date

drcatanach@netscape.com
E-Mail Address

September 29, 2014

Hand Delivered

New Mexico Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505

Attention: Ms. Jami Bailey, CPG
Division Director

Re: Form C-107A: Application for Downhole Commingling
Quantum Resources Management, LLC ("Quantum")
Encore M State No. 8
API No. (30-025-40721)
2340' FSL & 1650' FEL (Unit J)
Section 19, T-22 South, R-37 East, NMPM,
Lea County, New Mexico

Dear Ms. Bailey:

Attached is a C-107A Application to downhole commingle the Blinebry Oil & Gas (Oil-06660), Drinkard (19190), and Wantz-Abo (62700) Pools within Quantum's Encore M State Well No. 8.

The Encore M State Well No. 8 was drilled in June, 2013 and was completed in the Drinkard and Abo formations. At the time the well was completed, Quantum obtained approval from the OCD Hobbs District Office to downhole commingle the Drinkard and Wantz-Abo Pools within the well. Pursuant to Order No. DHC-HOB-519, 50% of the oil and gas was to be allocated each to the Drinkard and Wantz-Abo Pools.

Quantum is now proposing to complete the Blinebry Oil and Gas Pool within the subject well through perforations from 5,518 feet to 5,676 feet. Consequently, Quantum seeks approval to downhole commingle all three pools within the well.

The 2014 average producing rate of the Drinkard and Wantz-Abo Pools within the Encore M State No. 8 is 9.5 BOPD, 26 MCFGPD and 15 BWPD.

Based upon the current producing rate of the Drinkard and Wantz-Abo Pools within the Encore M State No. 8, and based upon the 2014 average Blinebry producing rate of several offset wells in this area (**See Attached Table**), Quantum estimates that the Blinebry Oil and Gas Pool within the subject well will produce approximately 9-12 BOPD, 26-61 MCFGPD and 15-48 BWPD.

Consequently, Quantum requests that the production from the Encore M State No. 8 be allocated as follows:

	<u>Oil</u>	<u>Gas</u>	<u>Water</u>
Blinebry Oil & Gas Pool	33 1/3%	33 1/3%	33 1/3%
Drinkard Pool	33 1/3%	33 1/3%	33 1/3%
Wantz-Abo Pool	33 1/3%	33 1/3%	33 1/3%

Please note that the working, royalty and overriding royalty interest ownership in this well is common throughout. Consequently notice of this application is not required to any interest owner.

A copy of this application is being provided to the Commissioner of Public Lands for the State of New Mexico.

Approval of this application will afford Quantum the opportunity to recover additional oil and gas reserves from the Blinebry Oil & Gas, Drinkard and Wantz-Abo Pools within the Encore M State No. 8 that may otherwise not be recovered, thereby preventing waste, and will not violate correlative rights.

If you should have any questions, please call me at (505) 690-9453.

Sincerely,



David Catanach, Agent
Quantum Resources Management, LLC
1401 McKinney Street, Suite 2400
Houston, Texas 77010

Xc: OCD-Hobbs

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 Street, Artesia, NM 88210

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

District III
1000 Rio Brazos Road, Aztec, NM 87410

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

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

APPLICATION FOR DOWNHOLE COMMINGLING

Quantum Resources Management, LLC 1401 McKinney St., Suite 2400 Houston, Texas 77010
Operator Address

Encore M State 8 Unit J, Section 19, T-22 South, R-37 East Lea
Lease Well No. Unit Letter-Section-Township-Range County

OGRID No. 243874 Property Code 307932 API No. 30-025-40721 Lease Type: Federal State Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Blineby Oil & Gas (Oil)	Drinkard	Wantz-Abo
Pool Code	06660	19190	62700
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	5,518'-5,676'	6,462'-6,684'	6,746'-6,832'
Method of Production (Flowing or Artificial Lift)	Artificial Lift	Artificial Lift	Artificial Lift
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)	Not Required	Not Required	Not Required
Oil Gravity or Gas BTU (Degree API or Gas BTU)	38 Deg. API 1342 BTU	38 Deg. API 1342 BTU	38 Deg. API 1342 BTU
Producing, Shut-In or New Zone	Producing	Producing	Producing
Date and Oil/Gas/Water Rates of Last Production. (Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.)	Date: Estimated Range Rates: 9-12 BOPD 26-61 MCFGPD 15-48 BWPD	Date: 2014 Ave. Prod. Rates: 9.5 BOPD 26.0 MCFGPD 15.0 BWPD	Date: 2014 Ave. Prod. Rates: 9.5 BOPD 26.0 MCFGPD 15.0 BWPD
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil Gas Water 33 1/3% 33 1/3% 33 1/3%	Oil Gas Water 33 1/3% 33 1/3% 33 1/3%	Oil Gas Water 33 1/3% 33 1/3% 33 1/3%

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

NMOC 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: David Catanach TITLE: Agent-Quantum Resources Management, LLC DATE: 9/29/14

TYPE OR PRINT NAME: David Catanach TELEPHONE NO.: (505) 690-9453

E-MAIL ADDRESS: drcatanach@netscape.com

Submit 1 Copy To Appropriate District Office
 District I - (575) 393-6161
 1625 N. French Dr., Hobbs, NM 88240
 District II - (575) 748-1283
 811 S. First St., Artesia, NM 88210
 District III - (505) 334-6178
 1000 Rio Brazos Rd., Aztec, NM 87410
 District IV - (505) 476-3460
 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
 Energy, Minerals and Natural Resources

Form C-103
 Revised August 1, 2011

OIL CONSERVATION DIVISION
 1220 South St. Francis Dr.
 Santa Fe, NM 87505

WELL API NO. 30-025-40721 ✓
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name Encore M State ✓
8. Well Number 008 ✓
9. OGRID Number 243874
10. Pool name or Wildcat Drinkard / Wantz; Abo
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3408' GR

SUNDRY NOTICES AND REPORTS ON WELLS
 (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well Gas Well Other

2. Name of Operator
Quantum Resources Management, LLC

3. Address of Operator
1401 McKinney St., Suite #2400, Houston, TX 77010

4. Well Location
 Unit Letter J : 2340 feet from the South line and 1650 feet from the East line
 Section 19 Township 22-S Range 37-E NMPM County Lea

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO: PERFORM REMEDIAL WORK <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> TEMPORARILY ABANDON <input type="checkbox"/> CHANGE PLANS <input type="checkbox"/> PULL OR ALTER CASING <input type="checkbox"/> MULTIPLE COMPL <input type="checkbox"/> DOWNHOLE COMMINGLE <input checked="" type="checkbox"/>		SUBSEQUENT REPORT OF: REMEDIAL WORK <input type="checkbox"/> ALTERING CASING <input type="checkbox"/> COMMENCE DRILLING OPNS. <input type="checkbox"/> P AND A <input type="checkbox"/> CASING/CEMENT JOB <input type="checkbox"/>	
OTHER: <input type="checkbox"/>	OTHER: <input type="checkbox"/>	OTHER: <input type="checkbox"/>	OTHER: <input type="checkbox"/>

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

- Quantum Resources Management, LLC requests authority to Downhole Commingle production pursuant to Rule 303C(4)(b).
- (i) Ref. Division Order No. R-11363
 - (ii) Drinkard (#19190) & Wantz; Abo (#62700)
 - (iii) Drinkard Perfs: 6462' - 6684'; Abo Perfs: 6746' - 6832'
 - (iv) Allocation Method: Identical for each Pool: 50% Oil, 50% Gas, 50% Water
 - (v) Commingling production from each of these pools will not reduce the value of the total remaining production.
 - (vi) All Working, Royalty, and Overriding Royalty Interests are identical between the two commingled zones.
 - (vii) A copy of this Form C-103 has been sent to the Commissioner of Public Lands for the State of New Mexico.

DHC-HOB-519

Spud Date: 06/07/13

Rig Release Date: 06/20/13

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

SIGNATURE *Celeste G. Dale* TITLE Sr. Regulatory Analyst DATE 07/16/13

Type or print name Celeste G. Dale E-mail address: cdale@qracq.com PHONE: 432-683-1500

For State Use Only

APPROVED BY: *[Signature]* TITLE Petroleum Engineer DATE JUL 24 2013

Conditions of Approval (if any):

District I
1825 K. French Dr., Hobbs NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87506

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 June 10, 2003
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

APN Number 6660		Pool Code Blinebry Oil & Gas (Oil)		Pool Name	
Property Code 307932		Property Name Encore M State		Well Number 008	
COORD No. 243874		Operator Name Quantum Resources Management, LLC		Elevation 3408'	

¹⁰Surface Location

UL or lot no.	Section	Township	Range	Lot No.	Feet from the	North/South line	Feet from the	East/West line	County
J	19	22 S	37 E		2340	South	1650	East	Lea

¹¹Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot No.	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Landed	Consolidation Code	Order No.

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNIT. ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<p>ORM M STATE No. 19-8 Elev. 3408' NAD 83 NM East N= 502563 E= 891546 NAD 83 Lat. = 37° 22' 35.44" Long. = 103° 11' 56.26"</p>	<p>¹⁷OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Yolanda Perez</i> Signature</p> <p>Yolanda Perez Printed Name Regulatory Supervisor yperez@qracq.com Title and E-mail Address</p> <p>08/14/12 Date</p>
		<p>¹⁸SURVEYOR CERTIFICATION</p> <p>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>7-28-2012 Date of Survey</p> <p>Signature and Seal of <i>Michael L. Stanford</i></p> <p>10324 Certificate Number</p>

District I
1626 N. French Dr., Hobbs NM 88240
District II
1301 W Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised June 10, 2003
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
		19190	Drinkard
⁴ Property Code	⁵ Property Name		⁶ Well Number
307932	Encore M State		008
⁷ OCRD No	⁸ Operator Name		⁹ Elevation
243874	Quantum Resources Management, LLC		3408'

¹⁰Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	19	22 S	37 E		2340	South	1650	East	Lea

¹¹Bottom 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	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNITL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<p>¹⁶OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Yolanda Perez</i> Signature</p> <p>Yolanda Perez Printed Name</p> <p>Regulatory Supervisor yperez@qraccq.com Title and E-mail Address</p> <p>08/14/12 Date</p>

4.8 Miles SW of Eunice, New Mexico.

File No. A-7087

District I
1825 N. French Dr., Hobbs NM 88240
District II
1301 W. Grand Avenue, Artesa, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised June 10, 2003
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number		62700	Pool Code	Wantz; Abo		Pool Name
Property Code		Encore M State			Well Number	
307932					008	
OCRID No.		Operator Name			Elevation	
243874		Quantum Resources Management, LLC			3408'	

Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	19	22 S	37 E		2340	South	1650	East	Lea

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	Joint or Infill	Consolidation Code	Order No.

NO ALLOWABLE WELL BE ASSIGNED TO THIS COMPLETION UNITL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Volanda Perez</i> Signature</p> <p>Volanda Perez Printed Name</p> <p>Regulatory Supervisor yperez@qracq.com Title and E-mail Address</p> <p>08/14/12 Date</p>
	<p>SURVEYOR CERTIFICATION</p> <p>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>7-28-2012 Date of Survey</p> <p><i>Michael L. Stanford</i> Signature and Seal of Professional Surveyor</p> <p>10324 Certificate Number</p>

Production Summary Report

API: 30-025-40721

ENCORE M STATE #008

Printed On: Friday, September 26 2014

Year	Pool	Month	Production				Injection				
			Oil(BBLS)	Gas(MCF)	Water(BBLS)	Days P/I	Water(BBLS)	Co2(MCF)	Gas(MCF)	Other	Pressure
2013	[19190] DRINKARD	Aug	273	273	1093	24	0	0	0	0	0
2013	[19190] DRINKARD	Sep	388	924	1070	30	0	0	0	0	0
2013	[19190] DRINKARD	Oct	260	871	874	28	0	0	0	0	0
2013	[19190] DRINKARD	Nov	350	1003	1016	30	0	0	0	0	0
2013	[19190] DRINKARD	Dec	290	643	688	22	0	0	0	0	0
2013	[62700] WANTZ;ABO	Aug	273	273	1093	24	0	0	0	0	0
2013	[62700] WANTZ;ABO	Sep	388	924	1070	30	0	0	0	0	0
2013	[62700] WANTZ;ABO	Oct	260	871	874	28	0	0	0	0	0
2013	[62700] WANTZ;ABO	Nov	350	1003	1016	30	0	0	0	0	0
2013	[62700] WANTZ;ABO	Dec	290	633	688	22	0	0	0	0	0
2014	[19190] DRINKARD	Jan	358	835	764	24	0	0	0	0	0
2014	[19190] DRINKARD	Feb	363	841	418	26	0	0	0	0	0
2014	[19190] DRINKARD	Mar	344	999	433	31	0	0	0	0	0
2014	[19190] DRINKARD	Apr	266	556	367	30	0	0	0	0	0
2014	[19190] DRINKARD	May	271	778	463	31	0	0	0	0	0
2014	[19190] DRINKARD	Jun	162	671	386	30	0	0	0	0	0
2014	[19190] DRINKARD	Jul	171	652	301	31	0	0	0	0	0
2014	[62700] WANTZ;ABO	Jan	358	835	764	24	0	0	0	0	0
2014	[62700] WANTZ;ABO	Feb	363	841	405	26	0	0	0	0	0
2014	[62700] WANTZ;ABO	Mar	344	999	433	31	0	0	0	0	0
2014	[62700] WANTZ;ABO	Apr	266	556	367	30	0	0	0	0	0
2014	[62700] WANTZ;ABO	May	271	778	463	31	0	0	0	0	0
2014	[62700] WANTZ;ABO	Jun	162	673	386	30	0	0	0	0	0
2014	[62700] WANTZ;ABO	Jul	171	652	301	31	0	0	0	0	0

Order Number

D4C
HOB-514

API Number

30-025-40701

Operator

Quantum Resources Man

County

Lea

Order Date

7/19/13

Well Name

Encore M State

Number

8

Location

J

UL

19

Sec

225

T (+Dir)

37e

R (+Dir)

Oil %

50%

Gas %

50%

ool 1

19190

Drinkard

ool 2

62700

Wanta Abo

ool 3

ool 4

Comments:

Posted in RBDMS 07-19-2013 dm