

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

**RECEIVED**  
 2008 APR 17 PM 2:03

[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.**

<u>Kanicia Carrillo</u> Print or Type Name	 Signature	<u>Regulatory Analyst</u> Title	<u>04/09/08</u> Date
		<u>kcarrillo@conchoresources.com</u> e-mail Address	



April 15, 2008

New Mexico Oil Conservation Division  
Attn: Will Jones  
1220 South St. Francis Drive  
Santa Fe, NM 87505

Re: Request for Down Hole Commingling and Measurement of Hydrocarbon Production for:  
Harvard Federal #5      Harvard Federal #6  
Eddy County, NM      Eddy County, NM  
API # 30-015-34709      API # 30-015-35124  
  
Harvard Federal #7      Harvard Federal #8  
Eddy County, NM      Eddy County, NM  
API # 30-015-35055      API # 30-015-35130

Pools:  
(96718) Loco Hills; Glorieta-Yeso  
(28509) Grayburg Jackson SR; Queen Grayburg SA

Dear Mr. Jones,

COG Operating LLC as operator of the above mentioned wells respectfully requests approval for down hole commingling and measurement of production.

COG proposes to commingle production from the above mentioned pools. Production will be measured at the Harvard Federal battery located in the NE/4 SE/4, Section 11, T17S, R30E. The lease has common interest in both pools. Testing will be conducted and allocation percentages will be sent to OCD after completion of this well. The percentages will be used to allocate production based on increased production from the Grayburg/San Andres formation.

Please contact me at 432-685-4332 or e-mail at [kcarrillo@conchoresources.com](mailto:kcarrillo@conchoresources.com) if you need additional information.

Thank you for your attention in this matter.

Sincerely,

COG Operating LLC

Kanicia Carrillo  
Regulatory Analyst

Attachments:            C-107A's and C-102's for both formations

District I  
1625 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

<sup>1</sup> API Number 30-015-34709		<sup>2</sup> Pool Code 28509		<sup>3</sup> Pool Name Grayburg Jackson SR; Queen Grayburg SA	
<sup>4</sup> Property Code 302440		<sup>5</sup> Property Name Harvard Federal			<sup>6</sup> Well Number 5
<sup>7</sup> OGRID No. 229137		<sup>8</sup> Operator Name COG OPERATING LLC			<sup>9</sup> Elevation 3743

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	11	17S	30E		2310	North	990	East	Eddy

<sup>11</sup> 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

<sup>12</sup> Dedicated Acres 40	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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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><sup>17</sup> OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</i></p> <p><i>Kanicia Carrillo</i> Signature</p> <p>Kanicia Carrillo Printed Name</p> <p>Regulatory Analyst Title and E-mail Address</p> <p>04/09/08 Date</p>
	<p><sup>18</sup> SURVEYOR CERTIFICATION <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>Referred Original Plat</p> <p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor:</p>
	<p>Certificate Number</p>

**District I**  
1625 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  
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AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

<sup>1</sup> API Number <b>30-015-34709</b>		<sup>2</sup> Pool Code <b>96718</b>		<sup>3</sup> Pool Name <b>Loco Hills; Glorieta-Yeso</b>	
<sup>4</sup> Property Code <b>302440</b>		<sup>5</sup> Property Name <b>Harvard Federal</b>			<sup>6</sup> Well Number <b>5</b>
<sup>7</sup> OGRID No. <b>229137</b>		<sup>8</sup> Operator Name <b>COG OPERATING LLC</b>			<sup>9</sup> Elevation <b>3743</b>

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>H</b>	<b>11</b>	<b>17S</b>	<b>30E</b>		<b>2310</b>	<b>North</b>	<b>990</b>	<b>East</b>	<b>Eddy</b>

<sup>11</sup> 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

<sup>12</sup> Dedicated Acres <b>40</b>	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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

	<sup>17</sup> OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</i>  Signature <b>Kanicia Carrillo</b> Printed Name <b>Regulatory Analyst</b> Title and E-mail Address <b>04/09/08</b> Date
	<sup>18</sup> SURVEYOR CERTIFICATION <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> Referred Original Plat Date of Survey Signature and Seal of Professional Surveyor:
	Certificate Number

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

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-107A  
Revised June 10, 2003

District II  
1301 W. Grand Avenue, 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, Artec, NM 87410

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

**APPLICATION FOR DOWNHOLE COMMINGLING**

*DAC-4036*

**COG OPERATING LLC** 550 W. Texas, Suite 550 Midland, TX 79701  
Operator Address

**Harvard Federal** 5 Unit H, Sec 11, T-17S, R-30E Eddy  
Lease Well No. Unit Letter-Section-Township-Range County

OGRID No. 229137 Property Code 302440 API No. 30-015-34709 Lease Type:  Federal  State  Fee

DATA ELEMENT	UPPER ZONE <i>UNDES</i>	INTERMEDIATE ZONE <input checked="" type="checkbox"/>	LOWER ZONE
Pool Name	Grayburg Jackson SR; Queen Grayburg SA (Oil)	Loco Hills; Glorieta-Yeso (Oil)	
Pool Code	28509	96718	
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	2725 - 4200	4607 - 5331	
Method of Production (Flowing or Artificial Lift)		Pump	
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)			
Oil Gravity or Gas BTU (Degree API or Gas BTU)			
Producing, Shut-In or New Zone	New Zone	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: Rates:	Date: 04/02/08 Oil/ Gas /Water Rates: 14/ 42 /18	Date: Rates:
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 Percentages to be determined after completion.	Oil Gas Percentages to be determined after completion.	Oil Gas % %

**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 *K. Carrillo* TITLE Regulatory Analyst DATE 04/11/08

TYPE OR PRINT NAME Kancia Carrillo TELEPHONE NO. ( 432 ) 685-4332

E-MAIL ADDRESS kcarrillo@conchoresources.com

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0137  
Expires: March 31, 2007

**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 reverse side.**

1. Type of Well  
 Oil Well  Gas Well  Other

2. Name of Operator **COG Operating LLC**

3a. Address  
**550 W. Texas Ave., Suite 1300 Midland, TX 79701**

3b. Phone No. (include area code)  
**432-685-4332**

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
**Unit H, 2310 FNL & 990 FEL, Section 11, T17S, R30E**

5. Lease Serial No.  
**LC - 029338B**

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.  
**Harvard Federal #5**

9. API Well No.  
**30-015-34709**

10. Field and Pool, or Exploratory Area  
**Loco Hills;Glorieta-Yeso 96718**

11. County or Parish, State  
**Eddy County, NM**

**12. CHECK 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"/> Fracture Treat	<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 <b>Recomplete to</b>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	<b>GB/SA &amp;</b>
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	<b>commingle w/ Yeso</b>

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 recomplete 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 shall 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 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

**COG Operating LLC proposes to recomplete to the GB/SA as follows:**

**MIRU pulling unit. POOH w/ rods and stand all rods back. NU BOP. POOH w/tbg. Set RBP and RIH on tbg. Set RBP at +/-3800'. POOH w/ tbg. MIRU WLU. RIH and perforate Grayburg and San Andres zones. RDMO WLU. MIRU frac crew. Frac GB/SA perms with 100, 000# of sand in 22# cross link gel. RDMO Frac crew. RIH w/ tbg and circ well clean to top of RBP. Latch onto RBP and POOH. RIH w/ same tbg configuration as previously in well. ND BOP. RIH w/ same rod string and pump configuration as previously in well. Hang well on beam. RDMO pulling unit.**

**COG proposes to down hole commingle the Grayburg Jackson SR Queen Grayburg SA, (28509) with the Loco Hills; Glorieta-Yeso, (96718).**

**Commingling will not reduce the value of the total remaining production.**

**The proposed intervals are as follows:**

**Grayburg Jackson SR Queen Grayburg SA 2725' - 4200'**  
**Loco Hills; Glorieta-Yeso 4607' - 5331'**

**Percentages to be determined after completion.**  
**Ownership in all zones is the same.**

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

**Kancia Carrillo**

Title **Regulatory Analyst**

Signature



Date

**04/11/2008**

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by \_\_\_\_\_

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.

Title

Date

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)