DATE IN 5.31.11	SUSPENSE	ENGINEER WVJ	LOGGED IN 5,31,11	TYPE DHC	APP NO. 1115150524

PTGW 386401

ABOVE THIS LINE FOR DIVISION USE ONLY

NMR Energy

Barnhill #1

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505

ADMINISTRATIVE APPLICATION CHECKLIST 30-025-28198

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]

Lea Fee

[1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication

☐ NSL ☐ NSP ☐ SD

L-1-14S-37E

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

CTB-796

[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.

Hollie Lamb		Consulting Eng	May 13, 11
Print or Type Name	Signature	Title	Date

hlamb@helmsoil.com
e-mail Address

Hollie Lamb

From: Jones, William V., EMNRD [William.V.Jones@state.nm.us]
Sent: Monday, May 09, 2011 9:10 AM
To: Hollie Lamb
Subject: RE: Downhole Commingle

Thanks Hollie:

When you send in the package (the C-107B plus any support you need such as letter of explanation), attach to the front an "Administrative Order Checklist" form from the "Forms" section of the OCD web site – it should be the first unnumbered form. Send the application to the Engineering Bureau of the OCD in Santa Fe.

Terry Warnell, another engineer here, logs in the applications and they are assigned out to someone to complete. Probably David Brooks will do this.

Hope you have a fun week,

Will Jones
New Mexico
Oil Conservation Division
Images Contacts

From: Hollie Lamb [mailto:hlamb@helmsoil.com]
Sent: Monday, May 09, 2011 6:49 AM
To: Jones, William V., EMNRD
Cc: Mike Stewart
Subject: RE: Downhole Commingle

Will,

I have made the correction and signed the document for Submittal.

Please let me know if you have any questions or concerns.

Regards,

Hollie C Lamb
Engineer

HELMS Oil & Gas, LLC
P.O. Box 52808, Midland, Texas, 79710
Cell (432) 634-5446
Fax (432) 682-1166
Office (432) 682-1122
Email : hlamb@helmsoil.com

From: Jones, William V., EMNRD [mailto:William.V.Jones@state.nm.us]
Sent: Friday, May 06, 2011 5:22 PM
To: Hollie Lamb
Subject: RE: Downhole Commingle

Looks fine to me.

You can put N/A in the spot for Pressures – since the 150% rule does not require pressures to be reported.

Will Jones
New Mexico
Oil Conservation Division
Images Contacts

From: Hollie Lamb [mailto:hlamb@helmsoil.com]
Sent: Friday, May 06, 2011 12:34 PM
To: Jones, William V., EMNRD
Cc: Mike Stewart
Subject: Downhole Commingle

Will,

Here is the Downhole Commingle form I mentioned on the phone yesterday.
I complete the fixed allocation based IP and similar declines.
I have not finalized it because I wanted to get your input.

Please let know if you need additional data,

Regards,

Hollie C Lamb
Engineer

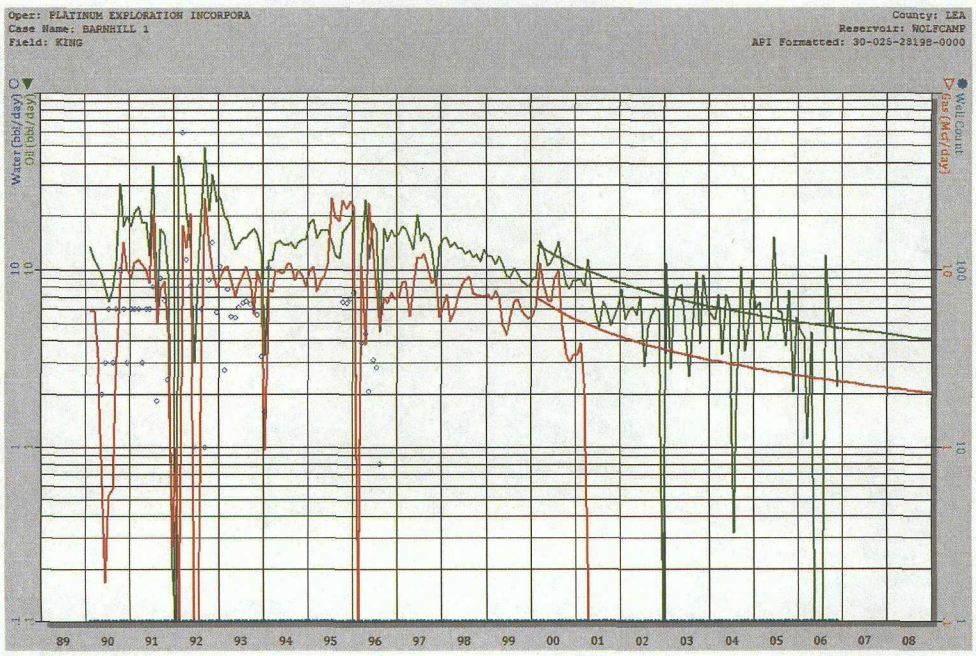
HELMS Oil & Gas, LLC
P.O. Box 52808, Midland, Texas, 79710
Cell (432) 634-5446
Fax (432) 682-1166
Office (432) 682-1122
Email : hlamb@helmsoil.com

To whom it may concern,

Helms Oil and Gas is an engineering consulting limited liability corporation that was founded in 2010. We provide engineering and geological support for various operators in Texas and New Mexico. We are on retainer to provide localized knowledge in the Permian Basin for NMR Energy LLC, which is based in Houston.

NMR currently has acquired 2 leases in Lea County, New Mexico, that have been in violation for several years under prior operators. These wells were scheduled to be plugged by their state due to the inactive status and non responsiveness of the prior operator.

Once the transfer of ownership occurred, we have been able to review the complete well history and the previous operator's notes. In reviewing the well files for NMR Energy, it has come to light that a previous operator downhole commingled two pools, and failed to file the appropriate paperwork. This well work was done over 11 years ago. The notes on this completion are included in this package along with the only invoice we can find to confirm that the work was completed as per the notes. NMR has prepared a C-103 Subsequent report of remedial work in order to document the work. I consulted with the geologist in the Hobbs district (Paul Kantz) to determine some of the information on the King Penn, which in Lea County has not produced since the NMOCD has taken the steps to go electronic. I have included the C-107A, prepared by myself and correspondence with Will Jones. I based the allocation on the decline curve analysis, and in discussing with Will Jones was an acceptable method. Below is the curve utilized for the decline analysis.



Please find at additional paperwork for the downhole commingle in this package, and don't hesitate to call myself or Mike Stewart, if you have additional questions.

Hollie Lamb
Engineer
Office (432) 682-1122
Cell (432) 634-5446
Email : hlamb@helmsoil.com

Michael Stewart
President
Office (432) 682-1122
Cell (432) 638-9009
Email : mstewart@helmsoil.com

District I
1625 N. French Drive, 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 Department

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

APPLICATION FOR DOWNHOLE COMMINGLING

Form C-107A
Revised June 10, 2003

APPLICATION TYPE
X Single Well
___Establish Pre-Approved Pools
EXISTING WELLBORE
X Yes ___No

DHC-4407

NMR Energy LLC	800 Bering, Ste 250, Houston, Texas 77057	
Operator	Address	
Barnhill	1	UL - L Section 1 T-14S R-37E	Lea
Lease	Well No.	Unit Letter-Section-Township-Range	County

OGRID No. 280401 Property Code 601649 API No. 30-025-28198 Lease Type: ___Federal ___State X Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	King Wolfcamp		King Penn
Pool Code	36100		36020
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	9406'-08', 9414'-18', 9425'-27, 9432'-36', 9440'-44', 9448'-52', 10018'-26'		11130'-11136'
Method of Production (Flowing or 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)	N/A		N/A
Oil Gravity or Gas BTU (Degree API or Gas BTU)	38 (Reference Roswell Geological Society)		37 (Reference Roswell Geological Society)
Producing, Shut-In or New Zone	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: 2/26/1990 Rates: IP - 28 BOPD 35 MCFPD (based on C-105 filled by American Exploration)	Date: Rates:	Date: 7/18/2000 Rates: IP - 5 BOPD 4 MCFPD (based on historical curve analysis incremental production)
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil 85 % Gas 87.5 %	Oil % Gas %	Oil 15 % Gas 12.5 %

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes__X___No_____

If not, have all working, royalty and overriding royalty interest owners been notified by certified mail? Yes_____ No_X___

Are all produced fluids from all commingled zones compatible with each other? Yes___X__No_____

Will commingling decrease the value of production? Yes_____ No__X__

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__X___

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__ Consulting Engineer _____DATE____ May 9, 2011

TYPE OR PRINT NAME___ Hollie C Lamb ___TELEPHONE NO. (_432__)___682-1122

E-MAIL ADDRESS__ hlamb@helmsoil.com

Submit 1 Copy To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., 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 and Natural Resources

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

Form C-103
October 13, 2009

WELL API NO.	30-025-28198
5. Indicate Type of Lease	STATE ☐ FEE ☒
6. State Oil & Gas Lease No.	601649

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	7. Lease Name or Unit Agreement Name: Barnhill
	8. Well Number: 1
2. Name of Operator: NMR Energy LLC	9. OGRID Number: 280401
3. Address of Operator: 800 Bering, Ste 250, Houston Texas 77057	10. Pool name or Wildcat: King Wolfcamp

4. Well Location
Unit Letter L : 1650 feet from the South line and 990 feet from the West line
Section 1 Township 14 S Range 37 E NMPM Lea County

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)*
3831

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☒	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
DOWNHOLE COMMINGLE ☐			
OTHER: ☐		OTHER: ☐	

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.

After reviewing the files it has come to our attention that additional work preformed to this wellbore was not filed by the previous operator.
Attached the Wellbore Diagram, Reports and any invoices that could be located, also I have attached C-101, which was filed on 7/2/2000.

Spud Date: Rig Release Date:

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

SIGNATURE TITLE DATE

Type or print name E-mail address: PHONE:

For State Use Only

APPROVED BY: TITLE DATE

Conditions of Approval (if any):

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-101
Revised March 12, 1999

Submit to Appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies

☐ AMENDED REPORT

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

[1] Operator Name and Address.	[2] OGRID Number
Lindenmuth & Associates, Inc. 510 Hearn Street Austin, Texas 78703	013343
	[3] API Number 30 - 025-28198

[4] Property Code	[5] Property Name	[6] Well No.
013912	Barnhill	1

[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	1	145	37E		1650	South	990	West	Lea

[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

[9] Proposed Pool 1	[10] Proposed Pool 2
King Wolfcamp	

[11] Work Type Code	[12] Well Type Code	[13] Cable/Rotary	[14] Lease Type Code	[15] Ground Level Elevation
D	M		P	3831 GR
[16] Multiple	**[17] Proposed Depth**	**[18] Formation**	**[19] Contractor**	**[20] Spud Date**
		Strawn / Wolfcamp		

[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		405	500	
12 1/4	8 5/8		4668	2200	
7 7/8	5 ½		12744	2975	

[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.**

Lindenmuth & Associates, Inc. proposes to test the Strawn & Middle Wolfcamp in the following manner (current interval 9403'-9453'--Upper Wolfcamp):

1). Perforate and acidize the Strawn from 11,134-11,140 w/ 4 SPF & 1000 gal. HCL. Swab to test.

2). If the Strawn is commercial, return to production from Strawn. If uncommercial, set CIBP @ 11,000' +/- & dump 15 sx cement on top.

3). Perforate and acidize the Middle Wolfcamp from 10,084'-88', and 10,018'-26' w/ 4 SPF and 1500 gal. HCL. Swab to test.

4). If the Middle Wolfcamp is commercial, return to production from Middle and Upper Wolfcamp. If uncommercial, set CIBP @ 10,000' +/- & dump 15 sx cement on top. Return to production from Upper Wolfcamp.

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

Signature:

Printed name: Gordon H. Deen

Title: Operations Manager

Date: 7/2/00 Phone: 512-322-9779

OIL CONSERVATION DIVISION

Approved by:

Title:

Approval Date: Expiration Date:

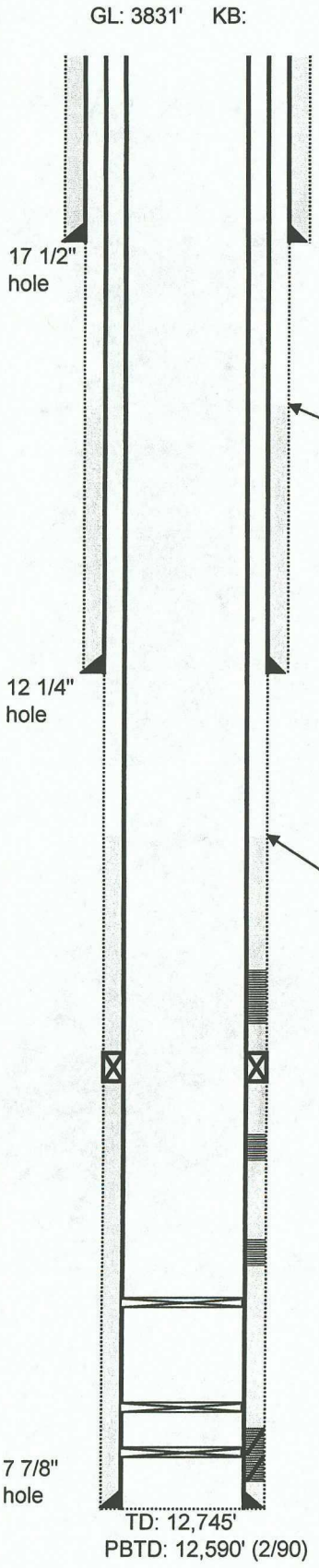
Conditions of Approval:
Attached ☐

Permit Expires 1 Year From Approval Date Unless ~~Drilling~~ Underway
Deepening

Barnhill No. 1

1650' FSL & 990' FWL
L, Sec 1, T-14-S, R-37-E
Lea County, NM
API# 30-025-28198

Well Type: Active (Wolfcamp)
Spud Date: (5/17/83)
Wolf Rec (2/90)



13 3/8" 48#, 54# & 72# @ 405' w/ 500 sx
TOC: Circulated to Surface

Current Eqpt

Tbg	299 jts 2-3/8", TAC, 4 jts, SN, PS, BPMA
Rods	3/4"x6' sub, 362 - 3/4", 16 - 7/8"
Pump	2-1/2x1-1/2"x22' RHBC
BPU	Cabot 320D, SN D320 40B, 84" SL (84"-43", 5 holes)

TOC: 2760' by temp survey (5/83)

8 5/8" 32# @ 4668' w/ 2200 sx

Formation Tops	
T/Yates	3168
T/SA	4600
T/Wolf	9402
T/Atoka	11,424
T/Mssp	11,607
T/Dev	12,644

TOC: 6400' by temp survey (7/83)

Wolfcamp Perfs 9,406'-08, 9,414-18', 9,425-27', 9,432-36', 9,440-44' & 9,448-52' (1/90)
Acid w/ 100 g spot + 1900 g 15% w/ 104 BS. ReAcid w/ 5000 g 20% w/ 50 BS

DV tool @ 9985'

M/Wfmp Perfs 10,018'- 10,026' (7/00)
RBP @ 10119'. Acid w/ 250 spot. Swbd wtr. ReAcid w/ 750 gals. Pkr failed. Swbd wtr w/ ssg
Recover RBP & DH commingle Strawn, M/Wfmp & Wfmp. POP.

Strawn Perfs 11,130'- 11,136' (7/00)
Acid w/ 250 spot + 500 gal + 750 gals w/ BS. Swbd dry
CIBP @ 11,300' (7/00)

Plug Back to 12,590' w/ CIBP (1/90)
Perfs 12,657'- 70' (2 JSPF) Acid w/ 100 gal 15% POP
CICR @ 12,690'
Perfs 12,706-18' (1 SPF) Acid w/ 100 gal 15%. Swbd 26 BW in 10 hrs
5 1/2" 17# & 20# @ 12,744' w/ 2975 sx in two stages

2/12/2011

Total Cost of Work Over 7/18/00 - 8/4/2000

Eunice Well Service -	25,542.54
T & C Tank Rental	291.50
Rea Co. Packer	4896.90
Rotary Wireline	5643.00
Hydrostatic	1865.39
Bulldog Services	1375.35
Eunice Pump & Supply	1334.56
Dandy Corp	559.35
Maclaskey Services	10227.96
Rogers	4611.25

08
01 SIP @ 20# FFL @ 3000'
FFL @ 8600' Rec 85 BBLs wtr
Slight gas blow after each run
SDFN

08
02 SIP @ Vac FFL @ 4500'
FFL @ 9400' Rec 61 BBLs wtr
SI for 30 min. Fluid level increase
of 600'. SDFN

08
03 SIP @ VAC FFL @ 5700' Made 2 runs
Rec 6 BBLs wtr. Release pkr and RIH
to RBP Release plug & POH RIH & POH
w/2 jts and laid down RIH w/MA, PS,
SN, 4 jts, 5½ TAC & 299 jts. Remove B.O.P.
Set TAC w/10 pts tension. Flanged up and
SDFN

08
04 RIH w/Pump (2 x 1¼ x 24) Rods (13-⅞, 365-¾)
Pony Rods (1-8', 6', 4' & 2-2') Hung well
Rec w/12 BBLs RU Down Put well in Prod.

Cont. 07/27 RIH and retrieved SV. RU to swab. Rec. 20 BBLs wtr. SDFN

07/28 RU to Swab. No SI Pres. IF@ 1400' FF@ 4400' Rec 20 BBLs. Release packer and POH. Changed out packer and RIH to 9936'. RU to Swab. IF@ 1200' FF@ 8000 Rec 54 BBLs wtr No gas or oil. Slight gas. SDFN.

07/31 RU to Swab No SI Pres. IF@ 2800' FF@ 5000' Rec. 10 BBLs wtr. RU to Acid well. Pumped 750 gals w/36 BBLs 2% KCL Flush. Pumped 27 BBLs before pres. increase to 4100# Decreased rate to 1 BPM. Acid on formation @ .81 BPM. 4800# pres. With 49 BBLs pumped packer gave way. Pumped 4 BBLs to clear acid from Tbg. SD ISIP @ 2280# 5 min - 1250# 10 min @ 640# 15 min - 220#. Max Pres @ 4900' Aver Pres @ 4820' Aver Rate @ .81 BPM. Total load 56 BBLs. RU to Swab IF@ 50 Swab well down to 7200' Rec 70 BBLs Next run FR @ 6500' Rec total 90 BBLs w/ light gas Blow. SDFN.

Cont. 07/25 5 mos - 0 - Pres Total Load 56 BBLs
RU To Swab FL @ 100' FFL @ 10,700'
Rec. 43 BBLs Swab will dry.
SDFN.

07/26 FL @ 0 RU to swab. FL @ 9500'
Release packer RIH to 11140 to clear perfs.
POH to 11072 & reset packer. RU to swab.
FL @ 3600' Rec. 36 BBLs wtr. Swab Dry to
10800'. Release Packer & POH. W/Tbg & packer.
SDFN.

07/27 RU Rotary Wireline ran 2000' correlation
log. Adjusted 20' uphole to open hole log.
Perf. 10018-10026 @ 4SPF. POH w/Wireline
PU RBP & PKR RIH to 10119 & set RBP.
Set PKR & test Plug to 500#. Release PKR
POH to 10026 and spotted 250 gal acid.
POH to 9700' & Set Packer. Starting Pumping
acid. Pres drop from 1360# to 1050# @ 2.75
BPM. Started flush. With 20 BBLs pumped
started circulating fluid out Csg. Shut Csg
and monitored Pres. Pumped remaining flush
away @ Avg. 3.2 BPM @ 2400#. Flowed Csg down
No fluid return from Tbg. Release PKR POH to
9281 and reset. Loaded Backside w/6 BBLs and
tested to 550#. Dropped SV Test Tbg to 1000#
Cont.

07/21 500 gals 15% NEFE Pumped 10 BBls of 2% KCl.
Cont. Shut By-Pass and put acid away. Flushed
to BTM Perf. Max Pres: 1010# Ave Pres: 400
Ave: Rate 2BPM Isip - 560# 5 min: 360
10 min: 220 15 min: 90 Total Load: 112 BBls.
Rig up to Swab IFL @ 800' FL @ 4600'
Rec 45 BBls KTR - 67 BBls

7/22 SITP @ 120# Ru To Swab IFL @ 6400' FL @ 8000'
Rec. 20 BBls KTR 47 BBls No Oil SD

07/24 SITP @ 50# IFL @ 8000' Just sample indicated
20% oil Cut. Ru & RIH w/ 5 Jts to 11201 and
set Pkr would not load and pres. Release Pkr
RIH to 11232 Set Pkr would not load. Dropped
SV. Loaded w/ 21 BBls Test tbg to 500#. POH
w/ 359 Jts & Packer. Ru Rotary Wireline RIH
and set CIBP @ 11300'. Ru & RIH w/ 5½ packer
w/ 353 Jts SDFN.

07/25 RIH w/ extra 6 Jts to 11232' Set Packer
Test plug to 600# POH to 11030' and set
Packer. Open By-Pass Pumped Acid to spot.
Shut By-Pass Pumped 750 gals 15% w/ 48 BBls 2%.
w/ Ball sealers. No Ball out But good Ball action
seen. Max Pres - 3060# Ave 850 Isip 360#
Cont.

Kenderdine & Associates
Barnhill
Well #1

7/18/2000

07/18 - Move in Service Well Service

07/19 RU Unit Pok w/rods (2-2', 1-4', 1-6' & 1-8' x 7/8 Poly Rods, 365-3/4 & 13-7/8) Pump (2 x 1 1/4 x 24) Release TAC, & Flange up BOP. RIH w/paraffin Knife and cut paraffin for 3 1/2 Hrs. POH w/Tbg string (299-2 3/8, 5 1/2 TAC, 4-2 3/8, SN, PS & MA.) SDFN.

07/20 RU & RIH w/4 3/4 Bit & Scrapper. Tested Tbg in hole @ 7000#. RU swivel 56 Jts and RIH to 11,300'. Total Jts RIH @ 359 Pok and laid down 2 Jts. POH w/rest of Tbg. Laid down Bit & scrapper. SDFN.

07/21 RU Rotary Wireline RIH w/4" csg guns Correlated w/ Gearhart and perf 11130 - 11136 w/4 SPF. POH w/guns RU and RIH w/5 1/2 Baker packer & 356 Jts to 11130'. RU Maclaskey - Pumped 250 gals of 15% Flushed to Perfs w/43 BBL 2% KC. Pulled Packer to 11030'. Pumped 5 BBL 2% KCl down Csg. to clear Packer Set Packer. Open By-Pass Pumped

Cont.

Rotary Wire Line SERVICE, INC.

"Specializing in Pipe Recovery"

P.O. Box 2735 • Phone (505) 397-6302
HOBBS, NEW MEXICO 88241

INVOICE 10188

CUSTOMER LINDENMUTH & ASSOCIATES

DATE AUGUST 11, 2000

ADDRESS 510 HEARN STREET, SUITE 200

P. O. NO.

AUSTIN, TEXAS 78703

RONNIE ROGERS

Statement of Charges for Furnishing Personnel and Equipment to Perform the Following Itemized Services on Your Lease.

ITEM NO.	DESCRIPTION OF SERVICES	CHARGES
	WORK ORDER # 11727 BARNHILL # 1 LEA COUNTY, NEW MEXICO	
	07-21-00	
	PERFORATE 5½" CASING FROM 11130'-36' 4 SHOTS PER FOOT TOTAL 24 HOLES	
	07-24-00	
	SET 5½" CAST IRON BRIDGE PLUG @ 11,300'	
	07-27-00	
	RUN GAMMA RAY CORRELATION LOG FROM 10200' TO 8300'	
	PERFORATE 5½" CASING 4 SHOT PER FOOT FROM 10118' - 10126' TOTAL 32 HOLES	
	PRICE QUOTE	5,643.00
	6.0% TAX	338.58
	TOTAL DUE	$5,981.58

THANK YOU!

7/17/00 505-394-2901 (1)

Bornhill #1 Workover

Ronnie,

Attached is my procedure for the Bornhill recompletion. A couple of general points.

1.) I have shown shooting the 11,130' zone w/ a casing gun. If we cannot load the hole (if the current perfs drink all the fluid) this may not be a good idea, we will probably want to perf through tbg with a spiral strip sho-gun.

2.) I spec a lok-set packer. Talk to your packer man about this. The only problem is we may have trouble unsetting it if the tbg/csg are out of balance because it doesn't have an equalizing valve.

3.) I will overnight you the correlation log from 11,000' down, & the open log if we do the upper zone for correlating a new log to.

4) I would like to get at least 2 bids on the items on the "bid list" page.

5.) The Tubing is at Crozier pipe in Monahans. Ken Crozier is expecting your call about having it over there. 915-943-6797.

6.) If we put any of the deeper zones on pump, I will run a new rod design and forward it for the additional rods needed. This will be tricky & depend on the fluid rates.

Read this over and give me a call. I am open to suggestion.

Gordon
Cell (512)-940-9879

Barnhill #1

Current Downhole

Tbg: 2 3/8" N-80 8rd EUE – 299 jts, TAC, 4 jts, SN, Mud Anchor

Rods: 7/8" - 2x2' sub, 2x4' sub 1x6' sub, 16 rods. 3/4" - 362

Csg: 5 1/2" 17 & 20 lb @ 12,744'

PBTD: CIBP @ 12,590'

Perfs- Upper Wolfcamp: 9406-08, 9414-18, 9425-27, 9432-36
9440-44, 9448-52

Procedure

1.) POH w/ Rods & Pump. Send pump in for redress.

2.) ND W.H., NU BOPS. Unset TAC & POH w/ tbg. (Stap tbg) Send TAC in for redress. * Load Hole w/ Fild Salt Water *

3.) Run 4 3/4" bit & scraper to 11,300' +/-. Use 2 3/8" tbg from Crozier pipe to make up rest of string. Put new pipe on top.

4.) RU Wireline. Load 3 3/8" csg gun 4SPF x 6'. RIH & correlate to Geohart GR/CCL dated 7-29-83. Perf. 11,130-36. (Note: Short jt from 11,131'-68').

5.) PU 5 1/2" lok-set PKr, SN, & TIH on tbg. Hydrotest tbg to 7000 psi above the slips.

6.) Spot 250 gal 15% HCL w/ iron sequestering agent and corrosion inhibitor across perfs. Pull 6 jts tbg & flush backside w/ 266bls. FSW.

Barnhill

(#6 Continued) Set pkr @ 10,956'+/-. Monitor backside & displace spot acid. Pump additional 500 gal 15% @ maximum rate 2 BPM & maximum pressure of 3000 psi.

7.) RU swab. Swab tbg to test. If well begins to flow, flow @ max rate of 10 BPH. Monitor csg. Test until oil cut & pressure / or fluid level consistent.

8.) If abandon 11,130' zone, RIH w/ W.L. set CIBP set @ 11,000'+/-.

9.) RU Wireline. Run GR/CCL correlation strip from 10,300' to 9300' (or their minimum interval).

10.) Load 3 3/8" csg gun 4 SPF x 8'. RIH & correlate to new log. Perf from 10,018'-10,026'.

12.) RIH w/ Lok-set pkr & SN. Spot 250 gal 15% HCl w/ iron sequestering agent & corrosion inhibitor across perfs. Pull 6 jts tbg & flush backside w/ 2 bbls FSW. Set pkr @ 9846'+/-. Monitor backside & displace spot acid. Pump additional 500 gal 15% (w/ additives) @ maximum rate 2 BPM & maximum pressure of 3000 psi.

13.) RU swab. Swab tbg to test. If well flows, flow @ max rate of 10 BPH. Test until oil cut & pressure or fluid level consistent.

14.) If 10,018-26 zone wet, set CIBP @ 9900'+/- and return to prod. as before.

Barnhill

Bid Items

Wireline

(1.) Perf 4SPF x 6' w/ 3 3/8" csg gun ; premium charges from 11,130'-36' w/ pack-off on BOP.

(2.) Set CIBP @ 11,000' +/-

(3.) Run GR/CCL strip from 10,300' to 9300'

(4.) Perf as #1 but 8'

Acid

(1.) Pump 750 gal 15% HCL w/ iron sequestering agent ; corrosion inhibitor 24 hrs @ 200°F

Tools

(1.) 5 1/2" Lok-set pkr (17-20#)

(2.) 5 1/2" scraper, used bit, crossover sub.

Tubing Testing

(1.) Test 11,150' 2 3/8 N-80 EUE to 7000# above slips

Barnhill #1 - Downhole

Tbg	Rods
302 jts 2 3/8 N-80	4' 8' x 7/8 ponies
5 1/2" TAC (12pts TSN)	362 x 3/4"
6 jts 2 3/8	16 x 7/8"
SN	2" x 1 1/16" x 20' 12HBM (pump @ 9450')
PS	
MA	

Submit 1 Copy To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

HOBBS OCD
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State of New Mexico
Energy, Minerals and Natural Resources

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

Form C-103
October 13, 2009

WELL API NO. 30-025-28198	
5. Indicate Type of Lease STATE ☐ FEE ☒	
6. State Oil & Gas Lease No. 601649	
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.)	7. Lease Name or Unit Agreement Name Barnhill
1. Type of Well: Oil Well ☒ Gas Well ☐ Other	8. Well Number 1
2. Name of Operator NMR Energy LLC	9. OGRID Number 280401
3. Address of Operator 800 Bering, Ste 250, Houston Texas 77057	10. Pool name or Wildcat King Wolfcamp
4. Well Location Unit Letter L : 1650 feet from the South line and 990 feet from the West line; Section 1 Township 14 S Range 37 E NMPM Lea County	
11. Elevation *(Show whether DR, RKB, RT, GR, etc.)* 3831	

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☒	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
DOWNHOLE COMMINGLE ☐			
OTHER: ☐		OTHER: ☐	

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.

Mechanical Clean out wellbore, tagged and confirm CIBP Set at 11,300 (7/200). Hydrostatic test tubing in order to ensure there is no holes in the existing Tubing String. Replace Rod String . Clean flow lines and Return well to Pumping Completion from interval 9406' to 11, 136'. Based on Service company scheduling, plan to Acidized & Frac Wolfcamp interval 9406' – 9452' at later date, will file addition C-105 once we have timing.

* CONDITIONS OF APPROVAL: TOP PENN @ 10710' PERF 9406 - 11136 WILL REQUIRE ADMINISTRATIVE APPROVAL FOR DOWNHOLE COMINGLING THE KING;WOLFCAMP (POOLID 36100) WITH THE KING;PENN (POOLID 36020) BEFORE WELL CAN PRODUCE. PAUL KAUTZ HOBBS DISTRICT GEOLOGIST

Spud Date: 4/29/2011 Rig Release Date:

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

SIGNATURE Hollie Lamb TITLE Consulting Engineer DATE April 29, 2011

Type or print name Hollie Lamb E-mail address: hlamb@helmsoil.com PHONE: (432) 682-1122

For State Use Only

APPROVED BY: TITLE DISTRICT 1 SUPERVISOR DATE MAY 02 2011

Conditions of Approval (if any):

HOBBS OCD

APR 29 2011

HOBBS OCD

APR 29 2011

RECEIVED

District I
1625 N. French Dr., Hobbs, NM 88240
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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
Department
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-144 CLEZ
July 21, 2008

For closed-loop systems *that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure*, submit to the appropriate NMOCD District Office.

Closed-Loop System Permit or Closure Plan Application

(that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)

Type of action: ☒ Permit ☐ Closure

Instructions: Please submit one application (Form C-144 CLEZ) per individual closed-loop system request. For any application request other than for a closed-loop system that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure, please submit a Form C-144.

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1.

Operator: NMR Energy LLC OGRID #: 280401

Address: 800 Bering, Ste 250, Houston, Texas, 77057

Facility or well name: Barnhill

API Number: 30-025-28198 OCD Permit Number: ~~I30779~~ P1-03171

U/L or Qtr/Qtr L Section 1 Township 14S Range 37E County: Lea

Center of Proposed Design: Latitude Longitude NAD: ☐1927 ☐ 1983

Surface Owner: ☐ Federal ☐ State ☒ Private ☐ Tribal Trust or Indian Allotment

2.

☒ **Closed-loop System:** Subsection H of 19.15.17.11 NMAC

Operation: ☐ Drilling a new well ☐ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent) ☐ P&A

☒ Above Ground Steel Tanks or ☐ Haul-off Bins

3.

Signs: Subsection C of 19.15.17.11 NMAC

☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers

☒ Signed in compliance with 19.15.3.103 NMAC

4.

Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC

Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

☒ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC

☒ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC

☒ Closure Plan (Please complete Box 5) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API Number:

☐ Previously Approved Operating and Maintenance Plan API Number:

5.

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17.13.D NMAC)

Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.

Disposal Facility Name: Gandy Marley Disposal Facility Permit Number: NM 01-0019

Disposal Facility Name: Sundance Disposal Facility Permit Number: NM 01-0003

Will any of the proposed closed-loop system operations and associated activities occur on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please provide the information below) ☒ No

Required for impacted areas which will not be used for future service and operations:

☐ Soil Backfill and Cover Design Specifications - - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC

☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

6.

Operator Application Certification:

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name (Print): Hollie Lamb Title: Engineer

Signature: Date: April 29, 2011

e-mail address: hlamb@helmsoil.com Telephone: (432) 682-1122

7.
OCD Approval: ☐ Permit Application (including closure plan) ☐ Closure Plan (only)

OCD Representative Signature: _____ **Approval Date:** MAY 02 2011

Title: DISTRICT 1 SUPERVISOR **OCD Permit Number:** P1-03171

8.
Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC

Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.

☐ **Closure Completion Date:** _____

9.
Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:

Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Were the closed-loop system operations and associated activities performed on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please demonstrate compliance to the items below) ☐ No

Required for impacted areas which will not be used for future service and operations:

☐ Site Reclamation (Photo Documentation)
☐ Soil Backfilling and Cover Installation
☐ Re-vegetation Application Rates and Seeding Technique

10.
Operator Closure Certification:

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): _____ Title: _____

Signature: _____ Date: _____

e-mail address: _____ Telephone: _____