

DATE IN 4/26/10	SUSPENSE	ENGINEER WJ	LOGGED IN 4/26/10	TYPE DHC	APP NO. 1011653132
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ABOVE THIS LINE FOR DIVISION USE ONLY

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



Apache

NM State #57

ADMINISTRATIVE APPLICATION CHECKLIST

30-005-39693

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]

4275

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

[A] Location - Spacing Unit - Simultaneous Dedication
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☒ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify _____

[2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or Does Not Apply

- [A] ☐ Working, Royalty or Overriding Royalty Interest Owners
- [B] ☐ Offset Operators, Leaseholders or Surface Owner
- [C] ☐ Application is One Which Requires Published Legal Notice
- [D] ☒ Notification and/or Concurrent Approval by BLM or SLO
 U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F] ☐ Waivers are Attached

[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Sophie Mackay
 Print or Type Name

S. Mackay
 Signature

Engineering Technician
 Title

04/22/2010
 Date

sophie.mackay@apachecorp.com
 e-mail Address



April 22, 2010

William Jones
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Application for Downhole Commingle
New Mexico State S #57
Unit G, Sec 2, T-22S, R-37E
Penrose Skelly; Grayburg and Eunice; San Andres, South Pools
Lea County, New Mexico

Dear Mr. Jones,

Enclosed please find an administrative application form (C-107A) and attachments for downhole commingling the Grayburg and San Andres in the New Mexico State S #57. Apache intends to produce both zones together with an expected rate of 35 BOPD, 369 BWPD, and 78 MCFPD. The ownership (WI, NRI and ORRI) of these pools are identical in this wellbore. Downhole commingling in this manner will offer an economic method of production while protecting against reservoir damage, waste of reserves and violation of correlative rights. This is a State well. The State of New Mexico Commissioner of Public Lands has been sent a copy of this application.

This well was originally completed to the San Andres in 3/2010. The attached curve is plotted based on all San Andres well tests since this well was placed on production. Apache intends to recomplete to the Grayburg and downhole commingle the San Andres and Grayburg production. Offset data from the NM State S Lease was used in determining the attached allocation.

If you need additional information or have any questions, please give me a call at (918) 491-4864.

Sincerely,

A handwritten signature in cursive script that reads "S. Mackay".

Sophie Mackay
Engineering Technician

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

Form C-107A
Revised June 10, 2003

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

APPLICATION FOR DOWNHOLE COMMINGLING

Apache Corporation 6120 S Yale Ave, Suite 1500, Tulsa, OK 74136-4224
Operator Address
New Mexico State S 057 G 2 22S 37E Lea
Lease Well No. Unit Letter-Section-Township-Range County
OGRID No. 873 Property Code 34816 API No. 30-025-39693 Lease Type: ☐ Federal ☒ State ☐ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Penrose Skelly; Grayburg		Eunice; San Andres, South
Pool Code	50350		24170
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	3677' - 3825' (Est Perf)		3893' - 4046' (Act Perf)
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)	NA		NA
Oil Gravity or Gas BTU (Degree API or Gas BTU)	35.9 API		33.6 API
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: Est Rates: 23 BOPD 214 BWPD 43 MCFPD	Date: Rates:	Date: 4/7/2010 Rates: 12 BOPD 155 BWPD 35 MCFPD
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 66 % 55 %	Oil Gas % %	Oil Gas 34 % 45 %

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 S. Mackay TITLE Engineering Technician DATE 04/22/2010
TYPE OR PRINT NAME Sophie Mackay TELEPHONE NO. (918) 491-4864
E-MAIL ADDRESS sophie.mackay@apachecorp.com

DISTRICT I

1825 N. French Dr., Hobbs, NM 58240

DISTRICT II

1501 W. Grand Avenue, Artesia, NM 58210

DISTRICT III

1000 Rio Brazos Rd., Anton, NM 87410

DISTRICT IV

1820 N. 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

Form C-102

Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-39693	Pool Code 50350	Pool Name Penrose Skelly; Grayburg
Property Code 34816	Property Name NEW MEXICO STATE "S"	Well Number 57
OGRID No. 873	Operator Name APACHE CORPORATION	Elevation 3363'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	2	22 S	37 E		1650	NORTH	2310	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 40	Joint or Infill	Consolidation Code	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

	OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or undivided mineral interest in the land including the proposed bottom hole location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>S. Mackay</i> 4/19/10 Signature Date Sophie Mackay 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. Date Surveyed JANUARY 19, 2010 Signature of Professional Surveyor [Signature] Certificate No. Gary L. Jones 7977 BASIN SURVEYS

SURFACE LOCATION
 Lat - N 32°25'24.98"
 Long - W 103°07'57.76"
 NMSPCE- N 519920.092
 E 911806.509
 (NAD-83)

DISTRICT I

1825 N. French Dr., Hobbs, NM 58240

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DISTRICT III

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DISTRICT IV

1220 S. St. Francis Dr., Santa Fe, NM 57505

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

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

Form C-102

Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-39693	Pool Code 24170	Pool Name Eunice; San Andres, South
Property Code 34816	Property Name NEW MEXICO STATE "S"	Well Number 57
OGRID No. 873	Operator Name APACHE CORPORATION	Elevation 3363'

Surface Location

UL or lot No. G	Section 2	Township 22 S	Range 37 E	Lot Idn	Feet from the 1650	North/South line NORTH	Feet from the 2310	East/West line EAST	County LEA
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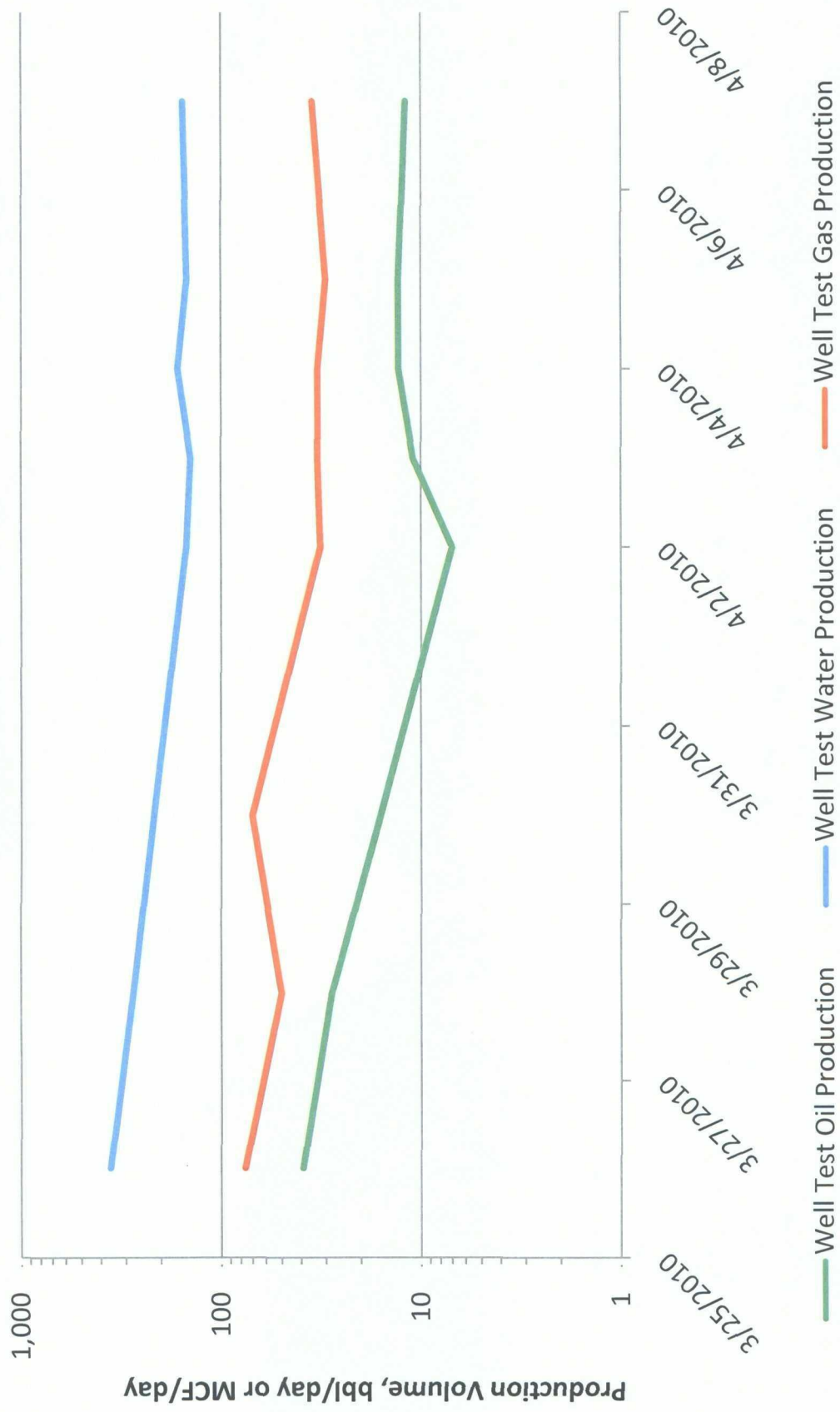
Bottom Hole Location If Different From Surface

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

	OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or undivided mineral interest in the land including the proposed bottom hole location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>S. Mackay</i> 4/19/10 Signature Date Sophie Mackay 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. Date Surveyed Signature of Professional Surveyor
	Certificate No. Gory L. Jones 7977 BASIN SURVEYS

New Mexico State S #57



Well Test History Report

Select By: Well Completion

Display: All well tests between 03/01/2009 - 04/21/2010

Test Date	Effective Date	Measured Hours	Type	24 Hour Volumes				Ratios				Fluid Level	
				Gr Liquid	OIL	GAS	WAT	LIFT	GOR	GLR	IGOR	IGLR	TGLR
NEW MEXICO STATE /S/ #57													
3/26/2010	3/26/2010	24	A	396	39	76	357	0	1,949	192	0	0	192
3/28/2010	3/28/2010	24	A	303	28	50	275	0	1,786	165	0	0	165
3/30/2010	3/30/2010	24	A	232	16	70	216	0	4,375	302	0	0	302
4/2/2010	4/2/2010	24	A	156	7	32	149	0	4,571	205	0	0	205
4/3/2010	4/3/2010	24	A	153	11	33	142	0	3,000	216	0	0	216
4/4/2010	4/4/2010	24	A	178	13	33	165	0	2,538	185	0	0	185
4/5/2010	4/5/2010	24	A	161	13	30	148	0	2,308	186	0	0	186
4/7/2010	4/7/2010	24	A	167	12	35	155	0	2,917	210	0	0	210
Averages by Completion				218	17	45	201	0					

** All values are recorded using imperial units.

New Mexico State S #57 Production Allocation Calculation

Analagous Wells		Grayburg Initial Production		
<u>Name</u>	<u>Producing Formation</u>	<u>BOPD</u>	<u>MCFPD</u>	<u>BWPD</u>
NM State S #43	SA/GB	45	118	267
NM State S #44	SA/GB	16	55	118
NM State S #46	SA/GB	51	138	81
NM State S #51	SA/GB	22	104	72
	average	33.5	103.75	134.5
NM State S #57	Expected Grayburg	23	43	214
	(lower end average)			
	Current San Andres	12	35	155

	Oil	Gas	Water
Grayburg	66%	55%	58%
San Andres	34%	45%	42%

TWO WARREN PLACE / SUITE 1500 / 6120 S. YALE / TULSA, OKLAHOMA 74136-4224



WWW.APACHECORP.COM
Telephone: (918) 491-4900

April 22, 2010

State Land Office
Commissioner of Public Lands
PO Box 1148
Santa Fe, NM 87504-1148

Mr. Pete Martinez,

Attached is a copy of the Administrative Application to downhole commingle two zones in the following well:

New Mexico State S #57 30-025-39693 UL G, Sec 2, T 22S, R 37E

Included also is a \$30.00 check to cover the filing fee for this well.

Please let me know if you require any additional information.

Sincerely,

A handwritten signature in cursive script that reads "Sophie Mackay".

Sophie Mackay
Engineering Technician