DATE IN	SUSPENSE	ENGINEER	LOGGED IN	TYPE	APP NO.
		WVJ	4/19/04	DHC	pMNJ0412256884

ABOVE THIS LINE FOR DIVISION USE ONLY

RECEIVED
APR 19 2004
OIL CONSERVATION DIVISION

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

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

RECEIVED
APR 19 2004
OIL CONSERVATION DIVISION

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

[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.

Mary Corley	Mary Corley	Sr. Regulatory Analyst	04/15/2004
Print or Type Name	Signature	Title	Date

corleyml@bp.com
e-mail Address

District I
1625 N. French Drive, Hobbs, NM 88240
2000
District II
811 South First Street, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
Pools
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, New Mexico 87505

APPLICATION FOR DOWNHOLE COMMINGLING

Form C-107A
Revised May 15,

APPLICATION TYPE
_X_ Single Well
___ Establish Pre-Approved

EXISTING WELLBORE
_X_ Yes ___ No

BP America Production Company Operator — **P. O. Box 3092 Houston, TX 77253** Address

Schwerdtfeger A LS Lease — **9** Well No. — **Unit A Section 31 T28N, R08W** Unit Letter-Section-Township-Range — **San Juan** County

OGRID No. **000778** Property Code **001033** API No. **30-045-07037** Lease Type: **X** Federal ___ State ___ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	**Blanco Pictured Cliffs S.**	**Otero Chacra** (UNDES)	**Blanco Mesaverde**
Pool Code	**72439**	**82329**	**72319**
Top & Bottom of Pay Section (Perforated or Open-Hole Interval)	**2967' – 3010'**	**3938' - 4085**	**4875' – 5068'**
Method of Production (Flowing or Artificial Lift)	**Artificial Lift**	**Artificial Lift**	**Artificial Lift**
Bottomhole Pressure	**280**	**430**	**490**
Oil Gravity or Gas BTU (Degree API or Gas BTU)	**1416**	**1210**	**1416**
Producing, Shut-In or New Zone	**Producing**	**New Zone**	**Producing**
Date and Oil/Gas/Water Rates of Last Production.	Date: Rates:	Date: Rates:	Date: Rates:
Fixed Allocation Percentage	Oil % Gas %	Oil % Gas %	Oil % Gas %

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_____

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_____

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 Mary Corley TITLE **Sr. Regulatory Analyst** DATE **04/15/2004**

TYPE OR PRINT NAME **Mary Corley** TELEPHONE NO. **(281) 366-4491**

Schwerdtfeger A LS 9
Complete the Chacra & Downhole tri-mingle Pictured Cliffs, Chacra, & Mesaverde

---

Procedure:

1. Check anchors. MIRU workover rig.

2. Check and record tubing, casing, and bradenhead pressures.

3. Blow down well. Kill with 2% KCL water ONLY if necessary.

4. Nipple down WH. NU BOPs and diversion spool with 3" outlets and 3" pipe to the blow tank. Pressure test BOPs to 500 psi. Monitor flowing casing pressure with gauge (with casing flowing to blow tank) throughout workover.

5. RU slickline unit or wireline unit. RIH and set plug (CIBP, tbg collar stop, or plug set in nipple) for isolation.

6. TOH with 2-3/8" production tubing currently set at 5315'.

   Contingency: If the tubing is in poor condition, replace entire tubing string.

7. TIH w/ bit and scraper for 7-5/8" casing to liner top at 5068'. Work casing scraper across PC perforations at 2967 – 3010, Mesaverde perforations from 4875' - 5068' and proposed Chacra interval from 3930 - 4090'.

8. RU WL unit. RIH with 7-5/8" CIBP. Set CIBP at 4800'.

9. RIH with 3-1/8" casing guns. Perforate Chacra formation (correlate to GR log).

   Chacra perforations, 2 **spf** (15 shots/ 30 holes):
   3938, 3939, 3940, 3941, 3964, 3965, 3966, 3967, 4048, 4049, 4065, 4072, 4073, 4074, 4085'.

10. TIH w/ packer and frac string. Set packer at 3100'.

11. Spearhead 500 gal 15% HCL, establish injection rate, and proceed with fracture stimulation according to Schlumberger schedule. Maintain surface pressures ≤ 5500 psi during frac job. Flush frac with foam. Fill out GWSI scorecard.

12. Flowback frac immediately.

13. TIH with tubing and bit for 7-5/8" casing. Cleanout fill and drill bridge plug set at 4800'. Cleanout fill to liner top at 5068'.

14. TIH with tubing and bit for 4-1/2" casing. Cleanout to PBTD at 5379'. Blow well dry.

15. Rabbit tubing and RIH with 2-3/8" production tubing (with a muleshoe and X-nipple with blanking plug). Fill tubing with KCL water while RIH.

16. Land 2-3/8" production tubing at 5315'.

17. Pressure test tubing to 500 psi with rig pumps.

18. Swab down tubing with sandline.

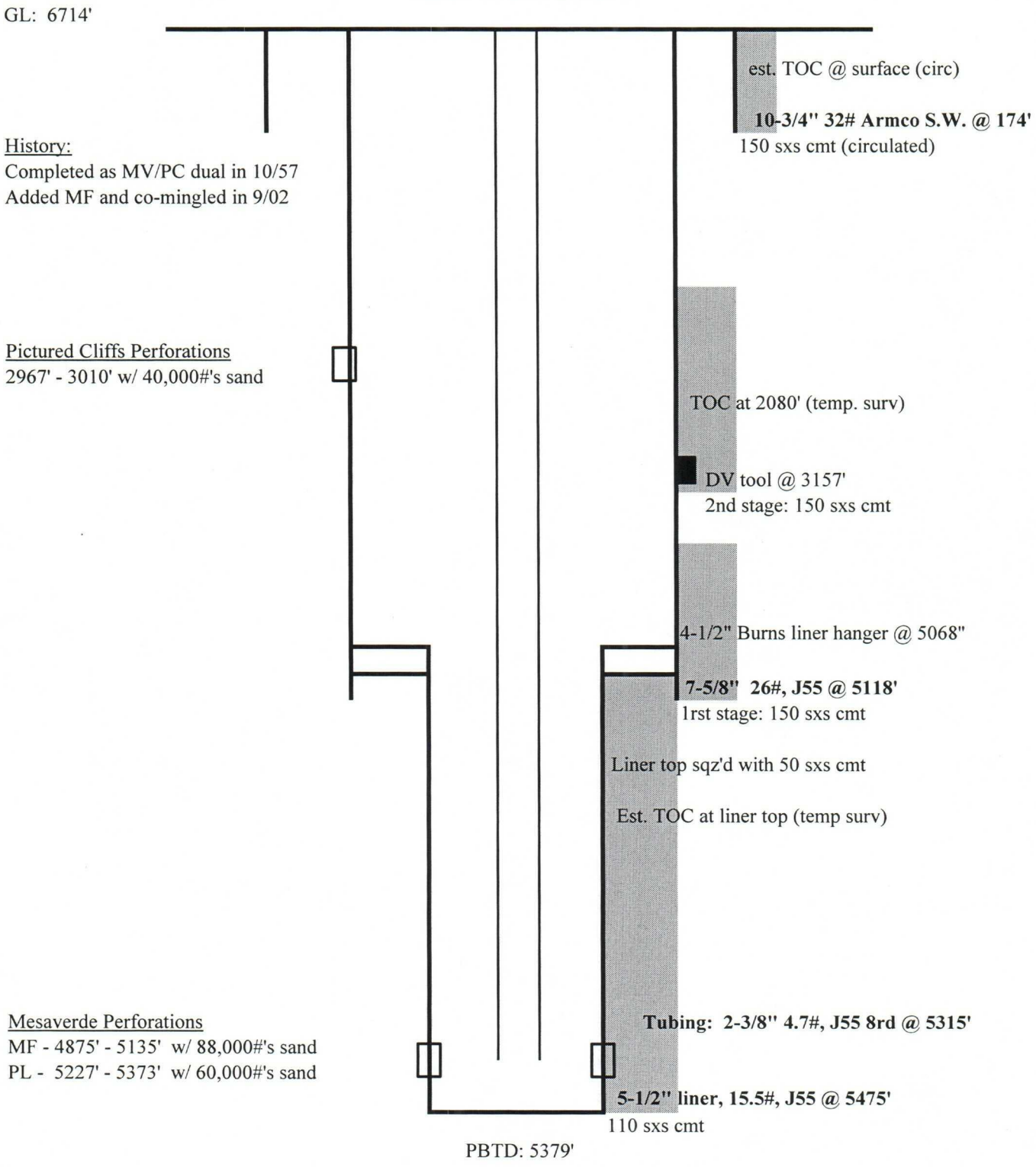
19. RU SL unit. Run gauge ring for 2-3/8" tubing. Pull plug and set tubing stop for plunger. RD slickline unit.

20. ND BOP's. NU WH. Test well for air. Return well to production and downhole tri-mingle PC, Chacra, and Mesaverde.

Schwerdtfeger A LS #9

Sec 31, T28N, R8W

API # 30-045-07037



updated: 4/6/04 CFR

Schwerdtfeger A LS 9

Future Production Decline Estimate

Mesaverde Daily Rates

Month	Gas Volume	
Jan-2003	**163**	
Feb-2003	**131**	
Mar-2003	**150**	
Apr-2003	**138**	
May-2003	**127**	
Jun-2003	**126**	
Jul-2003	**119**	
Aug-2003	**125**	
Sep-2003	**128**	
Oct-2003	**126**	
Nov-2003	**128**	
Dec-2003	**127**	
Jan-2004	**124**	**
Feb-2004	124	
Mar-2004	124	
Apr-2004	123	
May-2004	123	
Jun-2004	123	
Jul-2004	123	
Aug-2004	122	
Sep-2004	122	
Oct-2004	122	
Nov-2004	122	
Dec-2004	121	
Jan-2005	121	
Feb-2005	121	
Mar-2005	121	
Apr-2005	120	
May-2005	120	
Jun-2005	120	
Jul-2005	120	
Aug-2005	119	
Sep-2005	119	
Oct-2005	119	
Nov-2005	119	
Dec-2005	118	

ln(Qf/Qi) = -dt		
Qf=	124	
Qi=	126	
rate=	124	
time=	8	
** dt=	-0.016000341	
decline=	-0.248005291	

Month	Gas Volume
Jan-2006	118
Feb-2006	118
Mar-2006	118
Apr-2006	117
May-2006	117
Jun-2006	117
Jul-2006	117
Aug-2006	116
Sep-2006	116
Oct-2006	116
Nov-2006	116
Dec-2006	115
Jan-2007	115
Feb-2007	115
Mar-2007	115
Apr-2007	114
May-2007	114
Jun-2007	114
Jul-2007	114
Aug-2007	113
Sep-2007	113
Oct-2007	113
Nov-2007	113
Dec-2007	112
Jan-2008	112
Feb-2008	112
Mar-2008	112
Apr-2008	111
May-2008	111
Jul-2008	111
Aug-2008	111
Sep-2008	110
Oct-2008	110
Nov-2008	110
Dec-2008	110
Jan-2009	109

Month	Gas Volume
Feb-2009	109
Mar-2009	109
Apr-2009	109
May-2009	108
Jun-2009	108
Jul-2009	108
Aug-2009	108
Sep-2009	107
Oct-2009	107
Nov-2009	107
Dec-2009	107
Jan-2010	106
Feb-2010	106
Mar-2010	106
Apr-2010	106
May-2010	105
Jun-2010	105
Jul-2010	105
Aug-2010	105
Sep-2010	104
Oct-2010	104
Nov-2010	104
Dec-2010	104
Jan-2011	103
Feb-2011	103
Mar-2011	103
Apr-2011	103
May-2011	102
Jun-2011	102
Jul-2011	102
Aug-2011	102
Sep-2011	101
Oct-2011	101
Nov-2011	101
Dec-2011	101
Jan-2012	100

Schwerdtfeger A LS 9

Future Production Decline Estimate

Mesaverde Daily Rates

Month	Gas Volume
Feb-2012	100
Mar-2012	100
Apr-2012	100
May-2012	100
Jun-2012	100
Jul-2012	100
Aug-2012	99
Sep-2012	99
Oct-2012	99
Nov-2012	99
Dec-2012	99
Jan-2013	99
Feb-2013	99
Mar-2013	98
Apr-2013	98
May-2013	98
Jun-2013	98
Jul-2013	98
Aug-2013	98
Sep-2013	98
Oct-2013	97
Nov-2013	97
Dec-2013	97
Jan-2014	97
Feb-2014	97
Mar-2014	97
Apr-2014	97
May-2014	96
Jun-2014	96
Jul-2014	96
Aug-2014	96
Sep-2014	96
Oct-2014	96
Nov-2014	96
Dec-2014	95
Jan-2015	95

Month	Gas Volume
Feb-2015	95
Mar-2015	95
Apr-2015	95
May-2015	95
Jun-2015	95
Jul-2015	94
Aug-2015	94
Sep-2015	94
Oct-2015	94
Nov-2015	94
Dec-2015	94
Jan-2016	94
Feb-2016	93
Mar-2016	93
Apr-2016	93
May-2016	93
Jun-2016	93
Jul-2016	93
Aug-2016	93
Sep-2016	92
Oct-2016	92
Nov-2016	92
Dec-2016	92
Jan-2017	92
Feb-2017	92
Mar-2017	92
Apr-2017	91
May-2017	91
Jun-2017	91
Jul-2017	91
Aug-2017	91
Sep-2017	91
Oct-2017	91
Nov-2017	91
Dec-2017	90
Jan-2018	90

Schwerdtfeger A LS 9

Future Production Decline Estimate

Pictured Cliffs Daily Rates

Month	Gas Volume	
Jan-2003	**163**	
Feb-2003	**131**	
Mar-2003	**150**	
Apr-2003	**143**	
May-2003	**127**	
Jun-2003	**139**	
Jul-2003	**119**	
Aug-2003	**125**	**
Sep-2003	**133**	
Oct-2003	**126**	
Nov-2003	**128**	
Dec-2003	**127**	
Jan-2004	**124**	**
Feb-2004	124	
Mar-2004	124	
Apr-2004	123	
May-2004	123	
Jun-2004	123	
Jul-2004	123	
Aug-2004	122	
Sep-2004	122	
Oct-2004	122	
Nov-2004	122	
Dec-2004	121	
Jan-2005	121	
Feb-2005	121	
Mar-2005	121	
Apr-2005	120	
May-2005	120	
Jun-2005	120	
Jul-2005	120	
Aug-2005	119	
Sep-2005	119	
Oct-2005	119	
Nov-2005	119	
Dec-2005	118	

ln(Qf/Qi) = -dt
Qf= 124
Qi= 125
rate= 124
time= 6
dt= -0.008032172
decline= -0.165998215

Month	Gas Volume
Jan-2006	118
Feb-2006	118
Mar-2006	118
Apr-2006	117
May-2006	117
Jun-2006	117
Jul-2006	117
Aug-2006	116
Sep-2006	116
Oct-2006	116
Nov-2006	116
Dec-2006	115
Jan-2007	115
Feb-2007	115
Mar-2007	115
Apr-2007	114
May-2007	114
Jun-2007	114
Jul-2007	114
Aug-2007	113
Sep-2007	113
Oct-2007	113
Nov-2007	113
Dec-2007	113
Jan-2008	112
Feb-2008	112
Mar-2008	112
Apr-2008	112
May-2008	111
Jul-2008	111
Aug-2008	111
Sep-2008	111
Oct-2008	110
Nov-2008	110
Dec-2008	110
Jan-2009	110

Month	Gas Volume
Feb-2009	109
Mar-2009	109
Apr-2009	109
May-2009	109
Jun-2009	108
Jul-2009	108
Aug-2009	108
Sep-2009	108
Oct-2009	107
Nov-2009	107
Dec-2009	107
Jan-2010	107
Feb-2010	106
Mar-2010	106
Apr-2010	106
May-2010	106
Jun-2010	105
Jul-2010	105
Aug-2010	105
Sep-2010	105
Oct-2010	104
Nov-2010	104
Dec-2010	104
Jan-2011	104
Feb-2011	103
Mar-2011	103
Apr-2011	103
May-2011	103
Jun-2011	102
Jul-2011	102
Aug-2011	102
Sep-2011	102
Oct-2011	101
Nov-2011	101
Dec-2011	101
Jan-2012	101

Schwerdtfeger A LS 9

Future Production Decline Estimate

Pictured Cliffs Daily Rates

Month	Gas Volume
Feb-2012	100
Mar-2012	100
Apr-2012	100
May-2012	100
Jun-2012	100
Jul-2012	100
Aug-2012	99
Sep-2012	99
Oct-2012	99
Nov-2012	99
Dec-2012	99
Jan-2013	99
Feb-2013	98
Mar-2013	98
Apr-2013	98
May-2013	98
Jun-2013	98
Jul-2013	98
Aug-2013	97
Sep-2013	97
Oct-2013	97
Nov-2013	97
Dec-2013	97
Jan-2014	97
Feb-2014	96
Mar-2014	96
Apr-2014	96
May-2014	96
Jun-2014	96
Jul-2014	96
Aug-2014	95
Sep-2014	95
Oct-2014	95
Nov-2014	95
Dec-2014	95
Jan-2015	95

Month	Gas Volume
Feb-2015	94
Mar-2015	94
Apr-2015	94
May-2015	94
Jun-2015	94
Jul-2015	94
Aug-2015	93
Sep-2015	93
Oct-2015	93
Nov-2015	93
Dec-2015	93
Jan-2016	93
Feb-2016	92
Mar-2016	92
Apr-2016	92
May-2016	92
Jun-2016	92
Jul-2016	92
Aug-2016	91
Sep-2016	91
Oct-2016	91
Nov-2016	91
Dec-2016	91
Jan-2017	91
Feb-2017	90
Mar-2017	90
Apr-2017	90
May-2017	90
Jun-2017	90
Jul-2017	90
Aug-2017	89
Sep-2017	89
Oct-2017	89
Nov-2017	89
Dec-2017	89
Jan-2018	89

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 Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-102
Revised August 15, 2000

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
30-045-07342	82329	Otero Chacra

[4] Property Code	[5] Property Name	[6] Well Number
001033	Schwerdtfeger A LS	9

[7] OGRID No.	[8] Operator Name	[9] Elevation
000778	BP America Production Company	5800' GR

[10] Surface Location

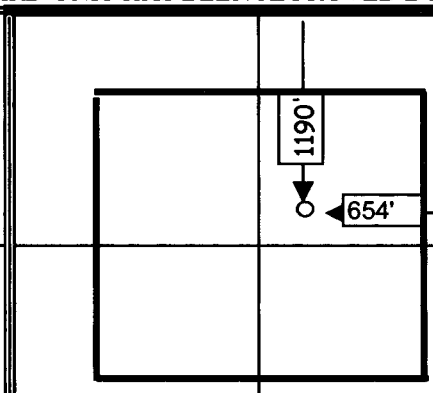
UL or lot no.	Section	Township	Range	Lot Idn	Feet from	North/South	Feet from	East/West	County
Unit A	31	28N	08W		1190'	North	654'	East	San Juan

[11] Bottom Hole Location If Different From Surface

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

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
160			

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



[17] OPERATOR CERTIFICATION

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

Mary Corley

Signature

Mary Corley

Printed Name

Sr. Regulatory Analyst

Title

04/15/2004

Date

[18] 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.

00/00/1957

Date of Survey

Signature and Seal of Professional Surveyor:

On File

Certificate Number