

DATE IN 8/14/07	SUSPENSE	W. Jones ENGINEER	LOGGED IN 8/15/07	TYPE DHC 3935	APP NO. TDS0722736998
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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



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.

Toya Colvin		Regulatory Analyst	8/8/07
Print or Type Name	Signature	Title	Date
		Toya.Colvin@bp.com	
		e-mail Address	

RECEIVED
 2007 AUG 14 AM 11 45

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
X Single Well
____ Establish Pre-Approved Pools
EXISTING WELLBORE
X Yes ____ No

APPLICATION FOR DOWNHOLE COMMINGLING

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

Storey LS 4A Unit F Section 34 T28N R08W San Juan
Lease Well No. Unit Letter-Section-Township-Range County

OGRID No. 000778 Property Code 000578 API No. 30-045-29050 Lease Type: X Federal State Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Otero Chacra	Blanco Mesaverde	Basin Dakota
Pool Code	82329	72319	71599
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	To Be Determined	3870' - 4785'	6570' - 6710'
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)	435	550	560
Oil Gravity or Gas BTU (Degree API or Gas BTU)	1283	1283	1283
Producing, Shut-In or New Zone	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: Rates:	Date: Rates:	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 % %	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 X 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 Joey Hlava TITLE Regulatory Analyst DATE 08/08/2007
TYPE OR PRINT NAME Cherry Hlava TELEPHONE NO. (281) 366-4081
E-MAIL ADDRESS hlavacl@bp.com

SJ Basin Well Work Procedure

Well Name: Storey LS #4A

Date: June 18, 2007

Repair Type: Recompletion

Objective: Perforate and frac Chacra, flow test, and at future time downhole co-mingle Chacra, Mesa Verde, and Dakota

1. TOH with completion.
2. Set Bridge Plug over the MV and Dakota completion
3. Perforate and fracture Chacra.
4. Land tbg and return well to production.
5. **Evaluate the Chacra by long term sales test**
6. Move rig back in and drill bridge plug
7. Downhole co-mingle Chacra, and Mesaverde.

Location:	T28N-R8W-Sec34	API #:	30-045-29050
County:	San Juan		
State:	New Mexico	Engr:	Richard Pomrenke
Horizon:	Mesaverde/Dakota/Chacra	ph (281) 366-5023	
		Cell 281 455 8449	

Procedure:

1. Perform pre-rig site inspection. Check for: size of location, Gas Taps, other wells, other operators, running equipment, wetlands, wash (dikes req.), H2S, barriers needed for equipment, Landowner issues, location of pits (buried lines in pits), Raptor nesting, critical location, check anchors. Check ID wellhead, if earth pit is required have One Call made 48 hours prior to digging.
2. Perform second site visit after lines are marked to ensure all lines clear marked pit locations. Planning and Scheduling to ready location for rig.
3. RU slickline unit or wireline unit. Pressure test lubricator and equipment. RIH and set **two** barriers (CIBP, tbg collar stop w/plug, or plug set in nipple) for isolation in tubing string.
4. Check and record tubing, casing, and bradenhead pressures. Ensure production casing has double casing valves installed. Double valve all casing strings.
5. If bradenhead pressure is observed and does not blow down, we will perform a bradenhead repair after identifying TOC in the 5 1/2" casing.
6. MIRU workover rig. LO/TO all necessary equipment including but not limited to: meter run, Automation, Separators and water lines.

7. Blow down well. Kill with 2% KCL water ONLY if necessary.
8. Check all casing strings to ensure no pressure exist on any annulus. **The operations of removal of wellhead and installation of BOP's will be performed under a dispensation for one (1) barrier on the backside.**
9. Nipple down Wellhead. NU 2 3/8" BOPs and diversion spool with 3" outlets and 3" pipe to the blow tank. Pressure test BOPs to 200 psi above BHP. Monitor flowing casing pressure with gauge (with casing flowing to blow tank) throughout workover.
10. Install stripping rubber, pull tubing hanger up above pipe rams, and shut pipe rams. Remove stripping rubber. Strip tubing hanger out of hole. Re-install stripping rubber.
11. TOH with 2 3/8" production tubing currently set at 6646'. Using approved "Under Balance Well Control Tripping Procedure".
12. TIH w/ 5 1/2" scrapers. Check the distance between the top of the blind rams and the length of the bottom hole assembly that is being run. If the BHA is too long then the well has to be top killed and monitored prior to opening blind rams. RIH to PBTD at 3700'. POOH.
13. Set composite bridge plug at 3700'. Fill casing w/ 2%KCl.
14. RU E-line equipment. Pressure test lubricator and equipment. Log well with CBL from 3700' to surface. Run RST from 3700' to 2400'. Note: Upload CBL into Schlumberger system as soon as possible.
15. Replace Wellhead if needed.
16. TIH with 5 1/2" test packer on 3 1/2" 9.3 N80 frac string. Set Packer at +/-2500'
17. Pressure test 5 1/2" casing down tubing to 2000 psi surface pressure. Note with 2% KCl fluid in the hole, the 5 1/2" casing will be tested to approximately 3600 psi.
Fracture treatment bottom hole treating pressure is 2800 psi at 50 BPM
18. Prior to coming out of hole with packer and tubing, spot 600 (14.2 bbls) gallons of 15% HCL from 3300' to 2700'. TOH w/ tubing and packer. Note: Attempt to schedule perforating the same day as acid spotting.
19. TOH w/ tubing and packer.
20. Prepare for explosive operations. Follow Schlumberger Explosive SOP including radio silence, suspension of welding operations, and isolation of electrical devices from the work area. Perform Pre-job Safety Meeting to review JSA and procedures. Meeting should address the VDR (vehicle data recorder) System that Bp people have installed on their vehicles. They must be shut off at the 300 foot sign by hitting 00 and then the enter button, and then wait for about 5 minutes for the unit to turn off.

When the green light goes out, call the control center at 326-9475. This number is on a pickup list in the Optimizer room and should be your first point of contact followed by the front desk then the weekend pager. Verify the unit is not transmitting. You then can drive to location and park, but do not to exceed 10 Miles/hr. Note: 20 MPH will turn unit back on. If someone has On Star on their vehicle they cannot enter closer than 300 foot. On Star cannot be turned off. PLEASE take special caution. This is in conjunction with all cell phones, pagers, radios and any electronic devise that transmits a signal.

- 21. RIH with 3-1/2" High Shot Density casing gun loaded with Power Jet charges at 4 SPF 60 Degree Phasing Exact depths for Storey LS 4A will be determined from RST Log.**
22. TIH w/ 3-1/2" N-80 frac string with 5 1/2" x 2 7/8" packer. Configure packer assembly as 2 7/8" x 5 1/2 (full bore); 2 7/8 down hole shutoff valve. This assembly will be made up and pressure tested in the packer service shop.
23. RU 10,000 psi Stinger Isolation Tool (use full bore tool to reduce turbulence and chance for washout). Space out and land frac string at +/- 2500' and set packer.
24. Prior to closing the Shut-off valve, establish injection into well and pump minimum of 30 bbls 2%KCl after tubing fill-up. This will displace acid to formation and insure that perforations are open. Close shutoff valve. Load tubing and pressure test to approximately 1500 psi with rig pumps. RU test pump and pressure test tubing to 8000 psi for 10-15 minutes.
25. RU Schlumberger frac equipment. Purge pumps and pressure test iron to frac valve at 8000 psi. Set pump trips at 7200 psi. Treat well at a maximum of 7200 psi at 55 BPM.
26. Install and monitor production casing and treating pressure during entire job in frac van via pressure transducers on production casing and treating line.
27. Maintain surface pressures less than 7200 psi during frac job. Flush frac with foam. Fill out GWSI scorecard.
28. Flowback frac immediately. Flow well through choke manifold on 1/4", 1/2" and 3/4" chokes slowly increasing drawdown until well dies or stabilizes. This is to aid in reducing sand flowback. Recommend 8 hours of flow for each choke size.
29. Release packer. TOH w/ 3 1/2" frac string and packer.
30. Rig up air package/unit, pressure test all lines (Testing procedure to be supplied from air company), TIH with 2 3/8" tubing and notched collar. Cleanout fill to BP set at +/-3700'.

31. Depending on flow test well may be produced for period of time to sales before drilling out the bridge plug over the Mesaverde Perforations and Dakota perforations
32. RIH with 2-3/8" production tubing (with muleshoe, F-nipple with plug, 4 ft pup, X-nipple with plug).
33. Land 2-3/8" production tubing at +/- _____'. Lock down 2 3/8" tubing hanger and bonnet.
34. Pressure test tubing to 500 psi with air unit, make sure tubing spool valves are open. Care should be taken during pressure testing of the tubing due to potential problem caused if tubing parts close to surface or above the hanger. Check all casing string for pressure. **The operations of removal of wellhead and installation of BOP's will be performed under a dispensation for one (1) barrier on the backside.**
35. ND BOP's. NU Wellhead. During Master valve placement ensure the top of hanger has spacer nipple in place to bottom of bonnet flange so plunger equipment will not hang up through tree. Pressure test Wellhead.
36. RU WL unit. Run gauge ring for 2-3/8" tubing. Pull plugs.
37. RD slickline unit.
38. Test well for air. Return well to production.

Note: It is imperative that advance communications be made with planning and scheduling well ahead of rig move off to hookup this well to gas sales.

Richard W. Pomrenke

Production Engineer-Consultant

Storey LS #4A

Sec 34, T28N, R8W

API # 30-045-29050

GL: 5859'

History:

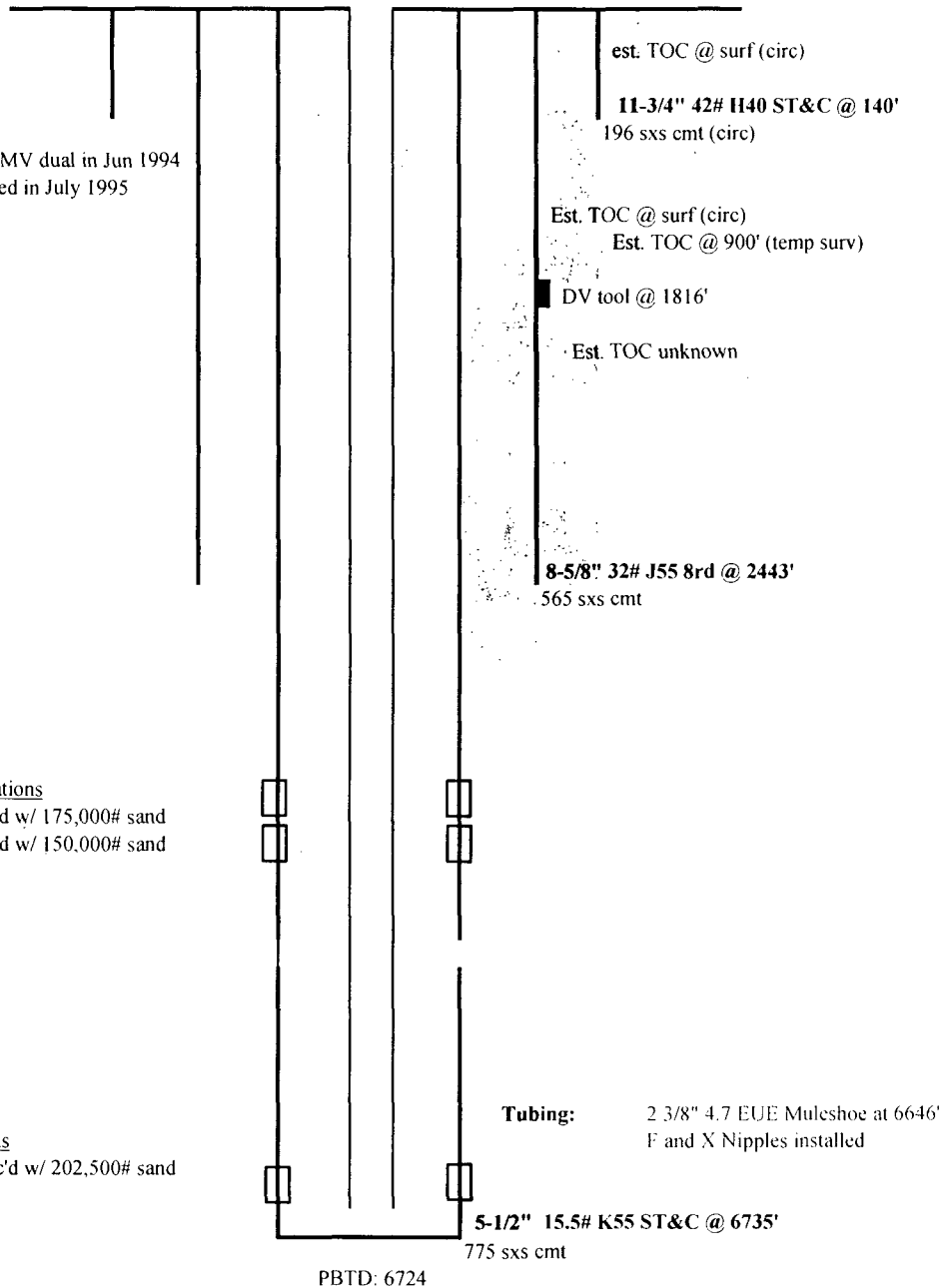
Completed as DK/MV dual in Jun 1994
Surface commingled in July 1995

Mesaverde Perforations

3870' - 4370' frac'd w/ 175,000# sand
4456' - 4785' frac'd w/ 150,000# sand

Dakota Perforations

6570' - 6710' frac'd w/ 202,500# sand



NOTES:

- 1) Well was surface commingled in July 1995.
- 2) From 2004 well was DHC

updated: 6-14-2007

Storey LS 4A											
MesaVerde Formation											
API #	3004529050										
Starting 7/96 thru 10/08											
Exponential Decline											
Qi =	87.3	mcf/d	1-Jan-2007								
Qf =	75.0	mcf/d									
D =	8.05%	per year									
Starting 11/08 thru 12/36											
Exponential Decline											
Qi =	75.0	mcf/d									
Qf =	5.3	mcf/d									
D =	9.00%	per year									
	Gas	Gas	Gas		Gas	Gas	Gas		Gas	Gas	Gas
Date	Number of Wells	Rate mcf/d	Volume MMSCF	Date	Number of Wells	Rate mcf/d	Volume MMSCF	Date	Number of Wells	Rate mcf/d	Volume MMSCF
Jan-07	1	87.03	2.70	Feb-10	1	66.28	1.86	Mar-13	1	49.57	1.54
Feb-07	1	86.44	2.42	Mar-10	1	65.78	2.04	Apr-13	1	49.18	1.48
Mar-07	1	85.86	2.66	Apr-10	1	65.26	1.96	May-13	1	48.79	1.51
Apr-07	1	85.26	2.56	May-10	1	64.75	2.01	Jun-13	1	48.41	1.45
May-07	1	84.66	2.62	Jun-10	1	64.24	1.93	Jul-13	1	48.03	1.49
Jun-07	1	84.07	2.52	Jul-10	1	63.74	1.98	Aug-13	1	47.65	1.48
Jul-07	1	83.48	2.59	Aug-10	1	63.23	1.96	Sep-13	1	47.27	1.42
Aug-07	1	82.89	2.57	Sep-10	1	62.73	1.88	Oct-13	1	46.90	1.45
Sep-07	1	82.31	2.47	Oct-10	1	62.24	1.93	Nov-13	1	46.53	1.40
Oct-07	1	81.73	2.53	Nov-10	1	61.75	1.85	Dec-13	1	46.17	1.43
Nov-07	1	81.16	2.43	Dec-10	1	61.27	1.90	Jan-14	1	45.80	1.42
Dec-07	1	80.59	2.50	Jan-11	1	60.78	1.88	Feb-14	1	45.45	1.27
Jan-08	1	79.80	2.47	Feb-11	1	60.32	1.69	Mar-14	1	45.11	1.40
Feb-08	1	79.25	2.30	Mar-11	1	59.86	1.86	Apr-14	1	44.75	1.34
Mar-08	1	78.71	2.44	Apr-11	1	59.39	1.78	May-14	1	44.40	1.38
Apr-08	1	78.16	2.34	May-11	1	58.92	1.83	Jun-14	1	44.05	1.32
May-08	1	77.62	2.41	Jun-11	1	58.46	1.75	Jul-14	1	43.71	1.35
Jun-08	1	77.08	2.31	Jul-11	1	58.00	1.80	Aug-14	1	43.36	1.34
Jul-08	1	76.54	2.37	Aug-11	1	57.54	1.78	Sep-14	1	43.02	1.29
Aug-08	1	76.00	2.36	Sep-11	1	57.09	1.71	Oct-14	1	42.68	1.32
Sep-08	1	75.47	2.26	Oct-11	1	56.64	1.76	Nov-14	1	42.35	1.27
Oct-08	1	74.94	2.32	Nov-11	1	56.19	1.69	Dec-14	1	42.01	1.30
Nov-08	1	74.36	2.23	Dec-11	1	55.75	1.73	Jan-15	1	41.68	1.29
Dec-08	1	73.78	2.29	Jan-12	1	55.16	1.71	Feb-15	1	41.36	1.16
Jan-09	1	73.40	2.28	Feb-12	1	54.73	1.59	Mar-15	1	41.05	1.27
Feb-09	1	72.84	2.04	Mar-12	1	54.31	1.68	Apr-15	1	40.73	1.22
Mar-09	1	72.28	2.24	Apr-12	1	53.89	1.62	May-15	1	40.41	1.25
Apr-09	1	71.72	2.15	May-12	1	53.46	1.66	Jun-15	1	40.09	1.20
May-09	1	71.15	2.21	Jun-12	1	53.05	1.59	Jul-15	1	39.77	1.23
Jun-09	1	70.60	2.12	Jul-12	1	52.63	1.63	Aug-15	1	39.46	1.22
Jul-09	1	70.04	2.17	Aug-12	1	52.21	1.62	Sep-15	1	39.15	1.17
Aug-09	1	69.48	2.15	Sep-12	1	51.80	1.55	Oct-15	1	38.84	1.20
Sep-09	1	68.94	2.07	Oct-12	1	51.40	1.59	Nov-15	1	38.54	1.16
Oct-09	1	68.40	2.12	Nov-12	1	51.00	1.53	Dec-15	1	38.23	1.19
Nov-09	1	67.86	2.04	Dec-12	1	50.60	1.57	Jan-16	1	37.82	1.17
Dec-09	1	67.33	2.09	Jan-13	1	50.33	1.56	Feb-16	1	37.53	1.09
Jan-10	1	66.79	2.07	Feb-13	1	49.95	1.40	Mar-16	1	37.24	1.15

Storey LS 4A											
Dakota Formation											
API #	3004529050										
Starting 1/02 thru 3/10											
Exponential Decline											
Qi =	85.5	mcf/d	1-Jan-2007								
Qf =	75.0	mcf/d									
D =	4.01%	per year									
Starting 4/09 thru 12/36											
Exponential Decline											
Qi =	75.0	mcf/d									
Qf =	6.0	mcf/d									
D =	9.00%	per year									

District I

1625 N. French Dr., Hobbs, NM 88240
Phone:(505) 393-6161 Fax:(505) 393-0720

District II

1301 W. Grand Ave., Artesia, NM 88210
Phone:(505) 748-1283 Fax:(505) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form C-102
Permit 24484

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number 30-045-29050	2. Pool Code 82329	3. Pool Name OTERO CHACRA (GAS)
4. Property Code 1133	5. Property Name STOREY LS	6. Well No. 004A
7. OGRID No 778	8. Operator Name BP AMERICA PRODUCTION COMPANY	9. Elevation

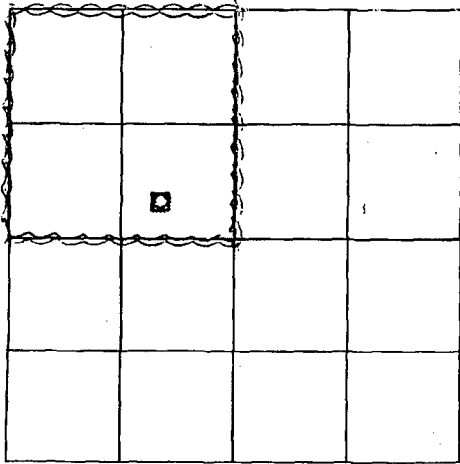
10. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
F	34	28N	08W		1790	N	1570	W	SAN JUAN

11. Bottom Hole Location If Different From Surface

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
12. Dedicated Acres 160.00		13. Joint or Infill		14. Consolidation Code		15. 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>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</i> E-Signed By: <i>Cherry Hlava</i> Title: <i>Regulatory Analyst</i> Date: <i>6-19-07</i>
	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> Surveyed By: Gary Vann Date of Survey: 8/25/2005 Certificate Number: 7016