TYPE DHC

PSEM 0412450841

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

			W			E APPLICATIONS SSING AT THE D				S AND REGULATION	S
Applic	[рн	on-Stan IC-Down [PC-Pool	ndard Loca nhole Comi ol Commin [WFX-Wate [SWD]	mingling] gling] [C erflood Exp -Salt Water	[CTB-L LS - Off ansion] Dispos	ease Commi. Lease Stora: PMX-Pre: ai] [IPI-Inje	ingling age] ssure ection]] [PLC-Po [OLM-Off-Lo Maintenanco Pressure In	nuitaneous [ool/Lease Cor ease Measur e Expansion] crease] Production l	mmingling] ement]	
[1]	TYPE	OF AP	Location		J <mark>nit - S</mark> i	Which Apply multaneous I SD		A] D	HC	3270	
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		[D]	Other: Sp	ecify							
[2]	NOTI	F ICATI [A]				ck Those Wheerriding Roya			oes Not Appl	у	
		[B]	Offs	et Operator	s, Lease	holders or Su	urface	Owner			
		[C]	☐ App	lication is (one Whi	ich Requires	Publis	hed Legal N	otice		
		[D]				acurrent Appa Commissioner of Pu					
		[E]	☐ For	all of the at	ove, Pro	oof of Notific	cation o	or Publicatio	n is Attached	, and/or,	
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	al is acc	urate a	nd comple	te to the bes	st of my		I also	understand t	hat no action	for administrative will be taken on	
			Statement i	nust be comp	oleted by	an individual wi	····		supervisory car		
	Corley Type Nai			Signature	y G	villig	<u>Sr.</u>	Title corleyml	y Analyst abp.com	04/29/2004 Date	-
								e-mail Addre	SS		

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

Form C-107A Revised May 15,

2000

District II

Pools

811 South First Street, Artesia, NM 88210

<u>District III</u> 1000 Rio Brazos Road, Aztec, NM 87410

District IV

State of New Mexico Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION APPLICATION TYPE 2040 South Pacheco

X Single Well
Establish Pre-Approved

Santa Fe, New Mexico 87505

EXISTING WELLBORE

13111	···	W LL	LDUKE
_	X	Yes	No

Operator	Company P. O. Box 3092	ddress	
Storey LS 3	Unit M Section 26 T28	8N, R08W	San Juan
ease DGRID No. <u>000778</u> Property	Well No. Unit Letter / Code 001133 API No. 30-04	-Section-Township-Range 5-07094 Lease Type: X	County Federal State Fee
DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Blanco Pictured Cliffs S.	Otero Chacra	Blanco Mesaverde
ool Code	72439	82329	72319
op & Bottom of Pay Section Perforated or Open-Hole Interval)	2510' – 2565'	3486' - 3691	4206' – 4848'
Method of Production Flowing or Artificial Lift)	Artificial Lift	Artificial Lift	Artificial Lift
Bottomhole Pressure	425	430	590
Dil Gravity or Gas BTU Degree API or Gas BTU)	1164	1210	1226
Producing, Shut-In or			
lew Zone	Producing	New Zone	Producing
Date and Oil/Gas/Water Rates of Last Production.	Date: Rates:	Date: Rates:	Date: Rates:
ixed Allocation Percentage	Oil Gas %	Oil Gas %	Oil Gas %
f not, have all working, royalty and	ling royalty interests identical in all cor l overriding royalty interest owners bee amingled zones compatible with each content of the conte	en notified by certified mail?	YesX No Yes No YesX No
	•		Yes No X
	with, state or federal lands, has either the Management been notified in writing		Yes <u>X</u> No
MOCD Reference Case No. appli	cable to this well:		
Production curve for each zone For zones with no production h Data to support allocation meth Notification list of working, roy	ningled showing its spacing unit and action at least one year. (If not available, istory, estimated production rates and so or formula. Palty and overriding royalty interests for or documents required to support com	attach explanation.) supporting data. or uncommon interest cases.	
	PRE-APPRO	OVED POOLS	
If application	n is to establish Pre-Approved Pools, th	he following additional information w	vill be required:
ist of all operators within the prop	nhole commingling within the proposed osed Pre-Approved Pools roposed Pre-Approved Pools were pro-	• •	
hereby certify that the informa	tion above is true and complete to t	the best of my knowledge and beli	ef.
nercoy certify that the unforma		, .	

Storey LS #3

Recomplete to Chacra, AddPay in Menefee Formation, & Downhole Tri-mingle Pictured Cliffs, Chacra, & Mesaverde Production

Procedure:

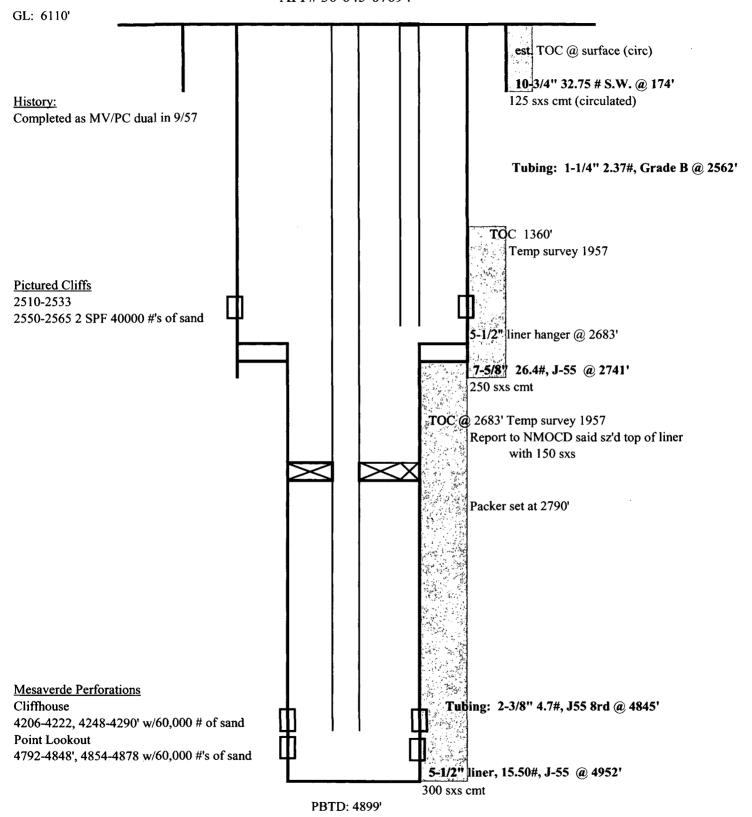
- 1. Check anchors. MIRU workover rig.
- 2. Check and record tubing, casing, and bradenhead pressures.
- 3. Blow down well. Kill with 2% KCL water ONLY if necessary.
- 4. Nipple down WH. NU BOPs and diversion spool with 3" outlets and 3" pipe to the blow tank. Pressure test BOPs to 500 psi. Monitor flowing 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 and plug, or plug set in nipple) for isolation in both tubing strings (1-1/4" and 2-3/8").
- 6. TOH and LD 1-1/4" short-string production tubing currently set at 2562'.
- 7. Release 5-1/2" Baker 'EGJ' packer at 2790' and TOH with 2-3/8" long-string production tubing currently set at 4845' (Garrett cir. sleeve at 2570').
- 8. <u>Contingency:</u> If the tubing is in poor condition, replace entire tubing string.
- 9. TIH with bit and scraper for 7-5/8" to top of liner at 2683'.
- 10. TIH with bit and scraper for 5-1/2" casing to PBTD at 4899'. Work casing scraper across old Mesaverde perforations (4206' 4290'), and (4792' 4848'), then new Menefee perforations (4373'-4746'), and then new Chacra interval (3486' 3691').
- 11. RU WL unit. RIH w/ CBL and log from 4,750' to top of liner. Confirm that top of cement is no deeper than 3,000'. Contact engineer if top of cement is below 3,000' to discuss block squeeze.
- 12. RU WL unit. RIH with 5-1/2" CIBP. Set CIBP (+/-4769') just above Point Lookout perfs at 4792' and just below lowest Menefee perf at 4746'
- 13. RIH with 3-1/8" casing guns. Perforate Menefee formation (correlate to GR log), 373' gross, 20 spots @ 3 spf = 60 holes: 4746', 4735', 4727', 4719', 4667', 4657', 4650', 4643', 4623', 4605', 4582', 4565', 4505', 4499', 4484', 4472', 4460', 4455', 4432', 4373'.
- 14. RIH with 2-7/8" X 3-1/2" tapered frac string and 5-1/2" packer. Set packer at just below the bottom Cliffhouse perforations at 4290'. Top perf of Menefee is 4373'.
- 15. Spearhead 500 gal 15% HCL, establish injection rate, and proceed with fracture stimulation according to Schlumberger schedule. Maintain surface pressures ≤ 6000 psi

during frac job Flush frac with foam. Fill out GWSI scorecard.

- 16. Flowback frac immediately
- 17. Release packer and TOH with frac string and packer. LD frac string.
- 18. RU WL unit. RIH with 5-1/2" CIBP. Set CIBP at 3550'. Bottom perf of the Chacra formation is at 3486'.
- 19. RIH with 3-1/8" casing guns. Perforate Chacra formation (correlate to GR log), 205' gross, 15 spots @ 4 spf = 60 holes: 3691', 3677', 3663', 3649', 3642', 3630', 3623', 3616', 3610', 3558', 3529', 3506', 3498', 3492', 3486'.
- 20. RIH with tapered 3-1/2" X 2-7/8" tapered frac string and 5-1/2" packer. Set packer at +/-3349'.
- 21. 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.
- 22. Flowback frac immediately.
- 23. Release packer and TOH with frac string and packer. LD frac string.
- 24. Clean out fill to top CIBP at 3349' and get flow test on new zone for regulatory.
- 25. TIH with tubing and bit. Cleanout fill and drill bridge plugs set at 3550' and 4769'. Cleanout fill to PBTD at 4899'. Blow well dry at PBTD.
- 26. Rabbit tubing and RIH with 2-3/8" production tubing (muleshoe sub, F-nipple for 2-3/8", 4 ft pup, X-nipple with plug in place for 2-3/8" tubing). Fill tubing with water while RIH and test to 500 psi or test with air unit to 500 psi if on location.
- 27. Land 2-3/8" production tubing at +/-4845'. ND BOP and NU WH. 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.
- 28. Swab down tubing or blow dry with air foam unit.
- 29. RU slickline unit. Run 1.9" OD gauge ring for 2-3/8" tubing. Pull plug. Flow well up tubing long enough to verify it will not log off. Set tubing stop for plunger. Communicate plunger equipment status to IC room personnel.
- 30. Test well for air.
- 31. Return well to production.

Storey LS #3

Sec 26 T28N, R8W API # 30-045-07094



TD 4955'

Allocation Method Storey LS 3

BP America Production Company request permission to complete the subject well into the Otero Chacra and tricommingle production downhole with the existing Blanco South Pictured Cliffs and Blanco Mesaverde Pools as per the attached procedure.

The interest owners are identical between these three Pools, therefore, no additional notification is required prior to downhole commingling approval.

Production is proposed to be allocated based on the subtraction method using the projected future decline for production from the Pictured Cliffs and Mesaverde Pools. This production shall serve as a base for production subtracted from the total production for the commingled well. The balance of the production will be attributed to the Chacra. Attached are the future production decline estimates for the Pictured Cliffs & Mesaverde Pools.

Commingling Production Downhole in the subject well from the proposed pools with not reduce the value of the total remaining production.

Application has also been submitted to BLM on Form 3160-5, Federal Lease No. SF = 03549.

Pre Approved Pools:

Blanco-Mesaverde (72319) & Blanco South Pictured Cliffs (72439) Pools Blanco-Mesaverde (72319) & Otero-Chacra (82329) Pools Blanco South Pictured Cliffs (72439) & Otero-Chacra (82329) Pools

District I

1625 N. French Dr., Hobbs, NM 88240

State of New Mexico Energy, Minerals & Natural Resources Department Form C-102 Revised August 15, 2000

District II

811 South First, Artesia, NM 88210

OIL CONSERVATION DIVISION 2040 South Pacheco Santa Fe, NM 87505 Submit to Appropriate District Office

State Lease - 4 Copies Fee Lease - 3 Copies

District IV

Unit M

District III

2040 South Pacheco, Santa Fe, NM 87505

26

28N

1000 Rio Brazos Rd., Aztec, NM 87410

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

3	0-045-0709		82							
⁴ Propert 0011	-			•	⁵ Property Nam Storey LS				⁶ Well Number 3	
⁷ OGRII 0007				BP Ameri	⁸ Operator Nam ca Productio				⁹ Elevation 6100' GR	
		<u> </u>		<u> </u>	⁰ Surface I	ocation				
JL or lot no.										

08W 1050' South 950' West San Juan

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.

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

NON-STAND	ARD 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 04/29/2004 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. 3/19/1957
1050	Date of Survey Signature and Seal of Professional Surveyor: GOWalker Certificate Number

Storey LS 3

Future Production Decline Estimate

Mesaverde Daily Rates

Gas Volume

Mar-2009
Mar-2009
Apr-2009
May-2009
Jun-2009
Jul-2009
Aug-2009

-dt	116	117	116	6	-0.008583744	-0.110634919
In(Qf/Qi) = -dt	of=	ë E	rate=	** time=	dt=	decline=

118 108

Feb-2003

Jan-2003

Apr-2003

May-2003 Jun-2003 Jul-2003

Mar-2003

Gas Volume

Month

104 104

117

me	113	113	113	113	112	112	112	112	112	112	112	112	112	111	111	111	111	111	111	111	111	111	110	110	110	110	110	110	110	110	110	109	109	109	109	109
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Dec-2003 Jan-2004 Mar-2004 Apr-2004 May-2004 Jun-2004 Jul-2004 Aug-2004 Sep-2004 Oct-2004 Nov-2004 Dec-2004

Feb-2004

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Aug-2003

Sep-2003 Oct-2003 Nov-2003 107

Sep-2009

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Jan-2010

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May-2010

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Jan-2011 Feb-2011 Mar-2011

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Jul-2011

Aug-2011 Sep-2011 Oct-2011

Nov-2011 Dec-2011

Jul-2005 Aug-2005 Sep-2005 Oct-2005 Nov-2005 Dec-2005

Jun-2005

Jan-2012

May-2011 Jun-2011

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Page	

Future Production Decline Estimate Mesaverde Daily Rates

Gas Volume

Month

Apr-2015 May-2015

Mar-2015

Feb-2015

Jun-2015 Jul-2015

Gas Volume	105	105	105	104	104	104	104	104	104	104	103	103	103	103	103	103	103	102	102	102	102	102	102	102	101	101	101	101	101	101	101	101	100	100	100	100
Month	-	Mar-2012	-201	-201	-201	Jul-2012	-201	-201	-201	201	Dec-2012	Jan-2013	-201	Mar-2013	-201	201	Jun-2013	-201	Aug-2013	Sep-2013	Oct-2013	Nov-2013	Dec-2013	Jan-2014		Mar-2014	Apr-2014	May-2014	Jun-2014	Jul-2014	Aug-2014	Sep-2014	Oct-2014	>	0	Jan-2015

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Aug-2015 Sep-2015 Oct-2015 Dec-2015 Jan-2016 Apr-2016 Apr-2016 Jun-2016 Jun-2016 Sep-2016 Oct-2016

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Nov-2016 Dec-2016

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Jan-2017 Feb-2017

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Mar-2017 Apr-2017 May-2017 Jun-2017 Jul-2017

Aug-2017 Sep-2017 Oct-2017 Nov-2017

Future Production Decline Estimate

Pictured Cliffs Daily Rates

Gas Volume		
19	In(Qf/Qi) :	+
13	Of=	18
4	ä. ≓	21
6	rate=	18
21	** time=	6
10	dt=	-0.15415068
7	decline=	-0.3083013

Jan-2003 Feb-2003 Mar-2003

Month

Apr-2003 May-2003

Jun-2003 Jul-2003

Aug-2003 Sep-2003

Oct-2003 Nov-2003 Dec-2003 Jan-2004 Feb-2004 Mar-2004

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Apr-2004 May-2004

Jun-2004

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Gas Volu	
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Jul-2005

Jun-2005

Jan-2005 Feb-2005 Mar-2005

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366	Ŧ	mboe/d	82.600	41.115	\$ 1.36
65			85.278		
85	ğ	mboe/d	82.119	10.275	\$ 1.36
16	20	mboe/d	81.455	10.080	\$ 1.36
91	Φ	p/eoqm	81.533	10.331	\$ 1.39
# of Days	April GFO		Production	DD&A	\$DD&A \$/BOE

DD&A	Ş	Ç	ć	Ş	2	
UOP	æ 	5 \$ 1.12	\$ 1.12	\$ 1.12	\$ 1.12	\$ 1.12 From 2004 rate worksheet
Straight Line	\$ 0.1	9 \$ 0.20	\$ 0.19 \$ 0.20 \$ 0.20 \$ 0.19 \$ 0.20	\$ 0.19	\$ 0.20	\$ 0.20 Estimate of 0.5m per quarter
DRA	\$ 0.0	5 \$ 0.05	\$ 0.05	\$ 0.05	\$ 0.05	Estimate of 0.4m per quarter
Rates for May GFO	\$ 1.3	9 \$ 1.37	\$ 1.37	\$ 1.36	\$ 1.36	

Production 81.533				
uction			đ đ	Ŧ
	33 81.455	82.119	85.278	82.600
777			\$21.45	\$83.14
\$PPP \$/BOE \$ 2.			\$ 2.73	\$ 2.75
9-	20	ğ	4	Ŧ
9РР \$ 0.	75 \$ 0.75	\$ 0.75	\$ 0.75	\$ 0.75
Adj. (Colorado Coal Degas) \$ 2.	\$ 2.03 \$ 2.02 \$ 1.99 \$ 1.91 \$ 1.98	\$ 1.99	\$ 1.91	\$ 1.98
	77 \$ 2.77	\$ 2.73	\$ 2.66	\$ 2.73