Form C-103 Submit 3 Copies To Appropriate District State of New Mexico Office Energy, Minerals and Natural Resources May 27, 2004 District I WELL API NO. 1625 N. French Dr., Hobbs, NM 87240 30-025-37382 District II OIL CONSERVATION DIVISION 1301 W Grand Ave, Artesia, NM 88210 5. Indicate Type of Lease 1220 South St. Francis Dr. District III STATE 🗖 FEE 🗆 1000 Rio Brazos Rd., Aztec, NM 87410 Santa Fe, NM 87505 District IV 6. State Oil & Gas Lease No. 1220 S St Francis Dr., Santa Fe, NM 87505 B-1431 SUNDRY NOTICES AND REPORTS ON WEL Lease Name or Unit Agreement Name: (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEED TO DIFFERENT RESERVOIR USE "APPLICATION FOR PERMIT" (FORM C-10) SUNFLOWER 28 STATE PROPOSALS.) 8. Well Number 1. Type of Well: FEB 2 6 2008 Oil Well Gas Well Other @n@GRID Number 2. Name of Operator BP AMERICA PRODUCTION COMPANY 10. Pool name or Wildcat 3. Address of Operator 501 WESTLAKE PARK BLVD, RM 6.121; HOUSTON, TX 77079 VACUUM MORROW 4. Well Location 690 1160 feet from the\_ South line and \_\_\_\_ Unit Letter \_\_\_\_\_M feet from the line Township 178 Range **NMPM** 34E LEA 11. Elevation (Show whether DR, RKB, RT, GR, etc.) 4064 Pit or Below-grade Tank Application Or Closure Pit type \_\_\_NA\_\_ Depth to Groundwater \_\_\_\_\_ Distance from nearest fresh water well \_\_\_\_ \_\_\_\_\_ Distance from nearest surface water \_\_\_\_ Below-Grade Tank: Volume\_\_\_\_\_bbls; Construction Material \_ Pit Liner Thickness: \_\_\_\_ 12. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data NOTICE OF INTENTION TO: SUBSEQUENT REPORT OF: PERFORM REMEDIAL WORK X PLUG AND ABANDON . REMEDIAL WORK ALTERING CASING **TEMPORARILY ABANDON CHANGE PLANS** COMMENCE DRILLING OPNS. PLUG AND **ABANDONMENT** CASING TEST AND PULL OR ALTER CASING **MULTIPLE** COMPLETION **CEMENT JOB** 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 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion. TD: 13480, PBTD: 13434, Perf. Interval: 13124-126 (3 holes), 13150-155 (21 holes), 13272-274 (3 holes) The Sunflower 28 State #2 was given an NOV for "failing MIT" due to pressure being on the tubing-casing annulus. Attached are procedures to 1) abandon the Morrow formation, 2) eliminate communication (i.e. source of pressure on the tubing-casing annulus) and 3) recomplete to the Canyon formation.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or belowgrade tank has been/will be constructed or closed according to NMOCD guidelines \_\_\_\_\_\_, a general permit \_\_\_\_\_or an (attached) alternative OCD-approved plan \_\_\_\_\_ \_\_ TITLE \_\_ REGULATORY STAFF ASSISTANT \_\_ DATE \_\_ SIGNATURE \_\_\_\_ E-mail address:

Type or print name DEANN SMYERS

CHERYL.SMYERS@BP.COM

Telephone No. 281-366-4395

For State Use Only

APPROVED BY\_

OC DISTRICT SUPERVISOR/GENERAL MANAGEP DATE AR 1 0 2008

Conditions of Approval, if any:

# API No. 30 - 025 - 37382 690' FSL & 1160' FWL Section 28 - T17S - R34E Lea County, New Mexico Drilled by OXY Permian Completed & Operated by BP America

# Current Status GL = 4064'

RKB = 17.5'**Event Date** Spud i 10/27/05 RR 12/16/05 13 3/8" 48# H-40 STC @ 515' 10/28/05 Cmt'd w/ 400 sx, circ to surface Rustler 1560' 399 jts 2 3/8" 4.7# EUE 8R L-80 tbg w/ 8' 8' 6' 4' 2' & 2' subs below top jt Annulus loaded w/ 7% KCL w/ corrosion inhibitor 95/8" 40# K-55 & J-55 LTC @ 5016' 11/9/05 Cmt'd w/ 1090 sx Interfill "C" (11 5 ppg, 2 78 yield) Glorieta 6166' & 200 sx Premium Plus (14 8 ppg, 1 32 yield) Circ'd 155 sx Tubb 7627' Drinkard 7794' Abo 8229 DV @ 8537' (note drilled @ 8526' SLM) 1675 sx Interfill "H" (11 5 ppg, 2 76 yield) 1500 sx "H" (15 6 ppg, 1 18 yield) Circ 80 sx fto surface Fraced all Morrow perfs down 31/2" Wolfcamp 10,159' tbg w/ 31,372 lbs of 30/50 sintered bauxite in 2075 bbls slick 7% KCL wtr + 63 tons CO<sub>2</sub> Cisco 11,050' MP = 13,513 psi ATP = 12,660 psi Canyon 11,487' ATR = 20.9 BPM. ISIP = 10,226 psi Strawn 12,128' Arrow AS - 1X PKR WL set @ 13000' Atoka 12,597' O/O tool w/ 178" "R" profile - WLEG below pkr Morrow 12,850' 10K compression on pkr Middle Morrow 13,058' Morrow 13,124' - 13,126' 4 JSPF thru tbg gun 1/26/06 Morrow 13,150' - 13,155' 4 JSPF = 21 holes 1/23/06 Morrow 13,272' - 13,274' 1 JSPF = 3 holes 1/23/06 Lower Morrow 13,328' Mississippi Shale 13,360' 51/2" 17# L-80 LTC 0' - 10,266' 5 1/2" 17# P-110 LTC 10,266' - 12,354' 5 1/2" 17# HCP-110 LTC 12,354' - 13,477' 12/16/05 1<sup>st</sup> Stage 13,434' PBD 650 sx Interfill "H" (11 5 ppg, 2 76 yield) 410 sx Super "H" (13 0 ppg, 1 67 yield) 13,480' TD DCD 4/16/07 Circ 40 sx from DV tool

#### Well Information (API No. 30-025-37382)

Lease & Well No.	Field	Paykey No.	AFE No.
Sunflower 28 State #2	Vacuum (Morrow)		
Drilled	TD	PBD	Datum
2006	13,480'	13,434'	GR EL = 4064'
Legal	S – T – R	County	State
690' FSL & 1160' FWL	SEC 28, T17S, R34E	Lea	New Mexico
Prepared By	Date	Approved By	Date
W. C. Heard	January 30, 2008		

#### **Wellbore Data**

Casing	Size	Weight	Grade	Depth	Cmt	тос
Surface	13 3/8"	48#	H-40	515'	400 sx	Surf - circ
Intermediate	95/8"	40#	J-55	5016'	1290 sx	Surf - circ
Production	5 ½"	17#	L-80/P-110/ HCP-110	13,477' DVT @ 8537'	1 <sup>st</sup> : 1060 sx 2 <sup>nd</sup> : 3175 sx	DVT – circ Surf - circ
Production Remedial Cementing	NA					

**Tubing:** 

2 3/8" 4.7# L-80 EUE 8R

Perfs:

Orig

Jan 2006

13,124-126' (3 holes), 13,150-155' (21 holes), 13,272-74' (3 holes) Morrow

**History:** Drilled in 2005 by Oxy Permian and completed in 2006 by BP America Production Company as a Morrow gas well. In October, 2007, "jetted" fluid to 12,572' using coiled-tubing unit. BP received NOV for this well for "failing MIT" – apparently pressure builds up in tubing-casing annulus and returns after being bled off.

**Scope of Work**: Abandon Morrow and eliminate communication (source of pressure build up in tubing-casing annulus). Per JOA, recompletion to Canyon must be on separate AFE – tickets/invoicing need to be kept separate.

# **PROCEDURE**

- 1. Check location for anchors and assure that testing has been conducted within an acceptable timeframe. Notify New Mexico Oil Conservaiton Division, Hobbs District (505 / 393-6161) of upcoming abandonment/eliminate communication operations 24 hours prior to commencement. NOTE: BP received NOV from NM for "failing MIT"; inform NMOCD that workover will be addressing situation.
- 2. MIRU PU. Check casing / wellhead for pressures bleed off into containment. RU slickline unit. Set blanking plug in 1.78" R nipple of on-off tool. Load tubing and test to 500 psi. RD SLU.

Hazard	Effect	Mitigation
Pulling Unit Equipment Failure Objects falling from derrick	Possible injury or death to personnel, damage to equipment or wellbore	<ul> <li>Inspection of derrick</li> <li>Pre job inspection of rig after RU</li> </ul>
Loss of well control	Possible injury or death to personnel, damage to equipment, damage to environment	<ul> <li>Ensure well is dead before wellhead removal</li> <li>Dispensation in place for less than two mechanical barriers</li> <li>Assure that BOP has been shop tested and documentation delivered with equipment</li> </ul>
H <sub>2</sub> S	Possible injury or death to personnel	<ul> <li>Monitor H<sub>2</sub>S levels continuously</li> <li>Pre job inspection of H<sub>2</sub>S equipment and breathing equipment</li> <li>Available phone contacts in case gas escapes into environment</li> <li>All employees H<sub>2</sub>S trained.</li> </ul>
Lifting – Suspended Load	Possible injury or death to personnel, damage to equipment	<ul> <li>Review JSA, check slings, use proper PPE</li> </ul>

- 3. Monitor well and assure it's stable. ND tree, NU BOP (with variable bore rams, if possible). Test BOP to 500 psi.
- 4. RU slickline unit. Equalize blanking plug and retrieve same. RD SLU.
- 5. Release packer and TOH.

Hazard	Effect	Mitigation
Dropped pipe in hole	Possible damage to well or equipment	Pipe handling practices – slips, clamps, tongs, complete MU/BO before lifting as appropriate
Drop pipe in derrick	Possible injury or death to personnel, damage to equipment	<ul> <li>Line of fire practices</li> <li>Inspection of lifting equipment</li> </ul>
Loss of well control	Possible injury to personnel, damage to wellbore, damage to environment	<ul> <li>Have TIW valve on floor – full opening &amp; capable of stabbing into 2 3/8" tbg</li> <li>Frequent BOP drills</li> </ul>
Falling from height	Possible injury or death to personnel	<ul><li>Use work platform</li><li>100% tie-off</li></ul>

- 6. RU wireline unit. Set CIBP at 13,050'. Dump 20' cement on top. Load casing and test to 1000 psi (BP has received NOV from NM for "failing MIT"); check wellhead equipment for communication: from production casing to intermediate casing and from intermediate casing to surface casing. Repair casing/wellhead as necessary. Notify State of NM for MIT.
- 7. Separate recompletion procedure to follow.
- 8. Ensure costs are accurately recorded and that work description is transmitted via DIMS (morning report) or faxed to the Midland office, Eunice production office, and the Houston office (DIMS satisfies transmittal to Houston).

Sunflower "28" State #2 Vacuum; Morrow (Gas) API No. 30 - 025 - 37382

> 690' FSL & 1160' FWL Section 28 - T17S - R34E Lea County, New Mexico

Drilled by OXY Permian Completed & Operated by BP America

# Abandon Morrow

GL = 4064'

		GL = 4064' RKB = 17.5'	
			Event Date
		Spud RR	10/27/05 12/16/05
		13 3/8" 48# H-40 STC @ 515'	10/00/05
		Cmt'd w/ 400 sx, circ to surface	10/28/05
Rustler	1560'		
		11 11	
,			
		95/8" 40# K-55 & J-55 LTC @ 5016' Cmt'd w/ 1090 sx Interfill "C" (11 5 ppg. 2 78 yield)	11/9/05
Glorieta	6166'	& 200 sx Premium Plus (14 8 ppg, 1 32 yield) Circ'd 155 sx	
Tubb	7627'		
Drinkard	7794'		
Abo	8229'	DV @ 8537' (note drilled @ 8526' SLM)	
		2 <sup>nd</sup> Stage 1675 sx Interfill "H" (11 5 ppg, 2 76 yield) 1500 sx "H" (15 6 ppg, 1 18 yield) Circ 80 sx fto surface	
Wolfcamp	10,159'		
Cisco	11,050'		
Canyon	11,487'		
Strawn	12,128'	<u> </u>	
Atoka	12,597'		
Morrow	12,850'		
Middle Morrow	12 050	CIBP @ 13,050', dump 20' cmt on top	
Middle Morrow	13,056	Morrow 13,124' - 13,126' 4 JSPF thru tbg gun	1/26/06
		Morrow 13,150' - 13,155' 4 JSPF = 21 holes	1/23/06
Lower Morrow	13 328'	Morrow 13,272' - 13,274' 1 JSPF = 3 holes	1/23/06
Mississippi Shale		5 1/2" 17# L-80 LTC 0' - 10,266' 5 1/2" 17# P-110 LTC 10,266' - 12,354' 5 1/2" 17# HCP-110 LTC 12,354' - 13,477' 1 <sup>st</sup> Stage	12/16/05
WCH 1/30/2008		13,030' PBD 650 sx Interfill "H" (11 5 ppg, 2 76 yield) 13,480' TD 410 sx Super "H" (13 0 ppg, 1 67 yield) Circ 40 sx from DV tool	



# Recomplete to Canyon Revised 2/18/2008

### Well Information (API No. 30-025-37382)

Lease & Well No.	Field	Paykey No.	AFE No.
Sunflower 28 State #2	Vacuum (Morrow)		
Drilled	TD	PBD	Datum
2006	13,480'	13,434'	GR EL = 4064'
Legal	S – T – R	County	State
690' FSL & 1160' FWL	SEC 28, T17S, R34E	Lea	New Mexico
Prepared By	Date	Approved By	Date
W. C. Heard	February 18, 2008		

#### **Wellbore Data**

Casing	Size	Weight	Grade	Depth	Cmt	тос
Surface	13 3/8"	48#	H-40	515'	400 sx	Surf - circ
Intermediate	95/8"	40#	J-55	5016'	1290 sx	Surf - circ
Production	5 ½"	17#	L-80/P-110/ HCP-110	13,477' DVT @ 8537'	1 <sup>st</sup> : 1060 sx 2 <sup>nd</sup> : 3175 sx	DVT – circ Surf - circ
Production Remedial Cementing	NA					

Tubing:

2 3/8" 4.7# L-80 EUE 8R

Perfs:

Orig Jan 2006

13,124-126' (3 holes), 13,150-155' (21 holes), 13,272-74' (3 holes) Morrow

**History:** Drilled in 2005 by Oxy Permian and completed in 2006 by BP America Production Company as a Morrow gas well. In October, 2007, "jetted" fluid to 12,572' using coiled-tubing unit. BP received NOV for this well for "failing MIT" – apparently pressure builds up in tubing-casing annulus and returns after being bled off. Morrow abandoned and source of pressure identified/eliminated (this work prior to recompletion).

**Scope of Work**: Recomplete to Canyon; Per JOA, Morrow to be abandoned and source of pressure eliminated on separate AFE – tickets/invoicing need to be kept separate.

## **PROCEDURE**

- 1. Notify New Mexico Oil Conservaiton Division, Hobbs District (505 / 393-6161) of upcoming recompletion operations 24 hours prior to commencement.
- 2. Perforate Canyon 11,564-570' and 11,579-582' with 2 JSPF, 120-degree phasing using 4" casing gun. Correlate to Apollo GR-CBL-CCL dated 1/20/2006. RD WL.

Hazard	Effect	Mitigation
Dropped objects from derrick	Possible injury or death to personnel, damage to well or equipment	<ul> <li>Inspection of equipment</li> <li>Secondary retention</li> </ul>
Wireline operations, perforating	Possible injury or death to personnel, damage to equipment	<ul> <li>Line-of-Fire practices</li> <li>Inspection of lifting equipment</li> <li>Proper arming and handling practices</li> <li>Overhead lift practices</li> </ul>
Loss of well control	Possible injury to personnel, damage to wellbore, damage to environment	<ul> <li>Install pressure control for perforating</li> <li>BOP drill</li> </ul>

3. TIH with packer on 2 7/8" work string. Spot acid across perfs. PU and set packer at 11,400' +/-. Load annulus and test to 500 psi. Acidize Canyon with 1000 gallons 15% NEFE HCL. Pump at 4-6 BPM, max press 5000 psi.

Hazard	Effect	Mitigation
Dropped pipe in hole	Possible damage to well or equipment	<ul> <li>Pipe handling practices – slips, clamps, tongs, complete MU/BO before lifting as appropriate</li> </ul>
Drop pipe in derrick	Possible injury or death to personnel, damage to equipment	<ul> <li>Line of fire practices</li> <li>Inspection of lifting equipment</li> </ul>
Loss of well control	Possible injury to personnel, damage to wellbore, damage to environment	<ul> <li>Have TIW valve on floor – full opening &amp; capable of stabbing into 2 3/8" tbg</li> <li>Frequent BOP drills</li> </ul>
Falling from height	Possible injury or death to personnel	<ul><li>Use work platform</li><li>100% tie-off</li></ul>

- 4. Flow / swab back load and evaluate for frac. Frac per Engineering recommendation if testing indicates.
- 5. Release packer and TOH LD WS.
- 6. TIH with 2 3/8" completion assembly per Production recommendation. ND BOP, NU THF.
- 7. Run pump and rods per Production recommendation. Hang well on.
- 8. RD PU.
- 9. Ensure costs are accurately recorded and that work description is transmitted via DIMS (morning report) or faxed to the Midland office, Eunice production office, and the Houston office (DIMS satisfies transmittal to Houston).

10.	Complete well handover form with a Production representative – include of abandonment and any casing/wellhead repair (eliminate pressure communa copy for Production, fax to Midland office and send in original for well filted the required regulatory filings has been forwarded to responsible person.	nication) operations. Provide e. Assure that information fo	
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690' FSL & 1160' FWL Section 28 - T17S - R34E Lea County, New Mexico

Drilled by OXY Permian
Completed & Operated by BP America

### Recomplete Canyon

GL = 4064'

		RKB = 17.5'		
				Event Date
			Spud RR	10/27/05 12/16/05
			13 3/8" 48# H-40 STC @ 515'	
		<b>4</b>	Cmttd w/ 400 ev, eve to eurface	10/28/05
			Cmt'd w/ 400 sx, circ to surface	
Rustler	1560'			
			95/8" 40# K-55 & J-55 LTC @ 5016'	11/9/05
Clariata	6166	<b>-</b>         -	Cmt'd w/ 1090 sx Interfill "C" (11 5 ppg, 2 78 yield)	11/3/00
Glorieta			& 200 sx Premium Plus (14.8 ppg, 1.32 yield) Circ'd 155 sx	
Tubb	7627'			
Drinkard	7794'			
Abo	8229'			
		4   P	<b>DV @ 8537'</b> (note drilled @ 8526' SLM) 2 <sup>nd</sup> Stage	
			1675 sx Interfill "H" (11 5 ppg, 2 76 yield)	
			1500 sx "H" (15 6 ppg, 1 18 yield) Circ 80 sx fto surface	
Wolfcamp	10,159'			
Cisco	11,050'			
Canyon	11 //87'	$\bowtie$	Canyon 11,564-11,570' 2 SPF NEW	
Ganyon	71,407	†		
Strawn	12,128'		Completion Assembly 2 3/8" 4.7# L-80 EUE 8rd production tubing	
Atoka	12,597'		2 3/8" x 5 1/2" TAC 2 3/8" SN	
			2 3/8" Perf Nipple	
Morrow	12,000		2 3/8" Mud Anchor	
Middle Morrow	13 058'		CIBP @ 13,050', dump 20' cmt on top	
madic money	,0,000	<b>† †</b>	Morrow 13,124' - 13,126' 4 JSPF thru tbg gun	1/26/06
		\$ \$	Morrow 13,150' - 13,155' 4 JSPF = 21 holes	1/23/06
		å å	Morrow 13,272' - 13,274' 1 JSPF = 3 holes	1/23/06
Lower Morrow	13,328'			
Mississippi Shale	13,360'		5 1/2" 17# L-80 LTC 0' - 10,266'	
			5 1/2" 17# P-110 LTC 10,266' - 12,354' 5 1/2" 17# HCP-110 LTC 12,354' - 13,477'	12/16/05
		42.0201 000	1 <sup>st</sup> Stage	1 1
		13,030' PBD 13,480' TD	650 sx Interfill "H" (11 5 ppg, 2 76 yield) 410 sx Super "H" (13 0 ppg, 1 67 yield)	
WCH 1/31/2008	3		Circ 40 sx from DV tool	!