Submit 3 Copies: To Appropriate District Office District I 1625 N. French Dr., Hobbs, NM 88240	State of New Mexico Thergy, Minerals and Natural Resources		Form C-103 Revised March 25, 1999 WELL APLNO.		
District II 1301 W. Grand Avel, Artesia, NM 88210 District III 1000 Rio Brazos Rd., Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505	OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, NM 87505		30-025-29620   5. Indicate Type of Lease   STATE   FEE X   6. State Oil & Gas Lease No.		
SUNDRY NOTIC (DO NOT USE THIS FORM FOR PROPOS) DIFFERENT RESERVOIR - USE "APPLIC/ PROPOSALS.) 1. Type of Well: Oil Well Gas Well - Other	ATION FOR PERMIT" (FO	EPEN OR PLU		EUNICE MONU:	r Unit Agreement Name: MENT SOUTH UNIT
2 Name of Operator	DN U.S.A., INC.			8. Well No. 460	1
3. Address of Operator	1150, MIDLAND, IN	<u> 79702</u>		9. Pool name or M MONUMENT,GR	Wildcat EUNICE AYBURG, SAN ANDRES
Unit Letter C	1220 feet from the	NOR TH	line and 11	520 feet from	m the WEST line
Section 8	Fownship Elevation (Show whe		nge36E B. RT. ( <i>R. etc.</i> )-	NMPM	County LEA
NOTICE OF IN	ppropriate Box to I FENTION TO: PLUG AND ABANDC			BSEQUENT RE	
	CHANGE PLANS		COMMENCE D		PLUG AND
PULL OR ALTER CASING	MULTIPLE COMPLETION		CASING TEST	AND	ABANDONMENT
OTHER: 12. Describe proposed or completed starting any proposed work). SE recompilation. This well is part of the New Mexico abandonment process using highly	E RULE 1103. For M	lultiple Comp	bletions: Attach y by Benterra Col	wellbore diagram of p	proposed completion or
Tagged bottom @ 4305'					
Bottom Plug @ 4200' - 4305' B/Salt 11 ¼" Shoe Plug @ 2581' T/Salt-Rustler Plug @ 1110' - 124	– 2750' 58 cu	u ft ZONITE u ft ZONITE u ft ZONITE		Tagged Tagged Tagged	
FW/Shoe Plug @ 458' - 246'	150 s	sx Class C d	:mt	11 ¼" x 8 5/8" ann	ulus circ to surface
Top Plug @ 33' – Surface Cut 11 ¾" x 16" csg @ 6' below C		u ft ZONITE ZONITE insi	de 16' x 11 34" a	annulus.	
Set Marker Chevron to clean loc Plugging operations began 11/6/0		ed on 5/1/02	2. Wellbore dia	gram attached	- <u>1</u>
I hereby certify that the information .	11			-	
signature Salal A	slym	TITLE	HES Special	ist DATE <b>5/3</b>	1/2002
Type or print name Garland Bledso			Felepho	one No. (915) 687-715	53
(This space for State use) APPPROVED BY Conditions of approval, if any GININ	ngelin	TITLE ,	Fid Rey	) #	DATE 88-02
$(\neg V V)$					



έC.

OPERATOR Chevron U.S.A. Production Company LEASE & WELL NUMBER Eunice Monument South Unit #460				DATE See Below COUNTY & STATE Lea, New Mexico							
						FIELD				FORMATION	
						Eunice Monument South			Grayburg		
						TD	PBD	RKB	PERFS		
5000'	4310'	17.6'	OH 4350 – 5000'								
SURFACE	INTERMEDIATE	PRODUCTION	CIBP DEPTH								
16" @ 415'	11¾" @ 2700'	85/8" @ 4350'	4310'								
OPERATOR CHARGE CODE			BENTERRA CHARGE CODE								
			NWNMR-00102-023								

This well is part of the New Mexico "P&A Pilot Project" conducted by Benterra Corporation to demonstrate the plugging and abandonment process using highly compressed sodium bentonite nodules as the plugging medium.

## 11/8/01

MIRU Key Unit #99, removed WH & LD 1 jt of 4½" tbg. MIRU Benterra Unit #4. WIH w/ 3½" FLT to 300' and retrieved sample of wellbore fluid. Cap well and RD Benterra. Took sample to Baker Petrolite lab, chlorides = 890 PPM, acceptable for ZONITE hydration.

## 11/8/01

MIRU Benterra. SIP = static. Made trip w/  $3\frac{1}{2}$ " SB & tag btm at 4305'. OK. Poured 36 cu ft ZONITE, wait and tag at 4200'. Bottom plug set 4200' – 4305' (105') with 36 cu ft ZONITE as of 11:45 AM 11/8/01. Pushed 85/8" rubber to 350' in 2 hours 45 minutes, progress too slow. RD Benterra. Will build heavier weight bar for large plugs.

## 11/19/01

MIRU Benterra. SIP = static. Cut wireline and re-head. WIH with new 6" OD sinker bar and pushed 85/8" wiper rubber from 350' – 2750' in 45 minutes. Poured 32 cu ft ZONITE, wait and tag at 2656', FL @ surface. Poured 26 cu ft ZONITE, wait and tag at 2581'. B/Salt – 11%" shoe plug set 2581' – 2750' (169') with 58 cu ft ZONITE as of 11.30 AM 11/19/01. Pushed 85/8" wiper rubber to 1242' (40 min). Poured 45 cu ft ZONITE, wait & tag at 1110'. T/Salt - Rustler plug set 1110 - 1242' (132') with 45 cu ft ZONITE as of 1.30 PM 11/19/01. Pushed 85/8" wiper rubber to 450'. Poured 8 cu ft ZONITE, wait and tag at 340', too high for cavity shot at 16" csg shoe at 415'. Either ZONITE bridged or wiper rubber was set too high. Install WH & SWI. RD Benterra.

## 11/21/01

MIRU Key Energy Unit #99. Removed WH, install Chevron's special flange for this WSW & pick up 77/8" bit. Install stripper rubber and finished in hole w/ bit on 23/8" tog to tag @ 350'. RU Key pump & vac trucks. Washed out ZONITE to 400' and tagged 85/8" wiper rubber (was set too high, should have been @ 450'). Continued in hole and pushed wiper rubber to 442', circulated hole clean & POH - LD tog & bit. Install WH equip and SWI. RD&RPU.

# EMSU #460

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## 11/28/01

RU Benterra Unit #4 Made trip w/ 3<sup>1</sup>/<sub>2</sub>" SB & tag @ 378', made trip w/ 2" SB & tag @ 378'. Suspect ZONITE bridge. RD Benterra. MIRU Key Energy Unit #142. WIH w/ 77/8" MT bit on 23/8" tbg to 310'. SDON.

## 11/27/01

Cont'd in hole w/ bit to tag @ 398' (RKB). RU Key pump & vac trucks. Washed down to 464'. Pump 40 bbls fresh water down tbg and then reverse circulated w/ 40 bbls fresh water. RD trucks. POH w/ bit, LD tbg. RD&RPU. MIRU Benterra #4. Made trip w/ SB and tag @ 430', depth is adequate for cavity shot. RD Benterra.

## 12/10/01

Check location - SIP = static, FL @ 10' from surface.

## 12/19/01

Check location - SIP = static, FL remains @ 10' from surface.

#### 1/4/02

MIRU Benterra #4. Made trip w/ SB and tag plug @ 436', OK. FL visible, loaded to surface.

### 1/14/02

Fluid at surface, no bubbling.

## 1/21/02

Chevron determined that it does not want to perform cavity shot as this wellbore may have future utility in the waterflood. RU Key pump truck to pressure test casing prior to shooting holes to circulate cement into 11¼" x 85/8" annulus. Press 85/8" csg from surface to 436' (cavity shot plug) w/ 200 psi, held OK. RD Key. Checked annuli risers, one was static and the other had a pressure that was too low to be recordable on a gauge but provided a strong blow that died in approximately 15 seconds. Assume this blow is coming from the 11¼" x 85/8" annulus (risers not marked).

#### 1/23/02

Met with Gary Wink with the NMOCD to discuss procedural revisions (cementing 11¾" x 85/8" annulus from below surface casing shoe and setting top plug w/ bentonite) and he approved changes....

#### 1/24/02

SIP: 85/8" csg = static; 11¾" x 85/8" annulus blew down in 15 seconds. MIRU Key WL truck & mast. RU Key pump & vac trucks. RU WL BOP. WIH w/ 4" OD gun to bottom @ 458" (17.5' RKB correction) Position gun & perf 85/8" csg @ 452' w/ 4 - .42" JS @ 120° phasing. Well was stable after shooting. RD Key WL & mast. Key circulated via 85/8" and out 11¼" x 85/8" annulus with total of 50 bbls fresh water, no gas while circulating. RD Key trucks. SWI.

#### 1/29/02

MIRU Schlumberger Services and Key water truck. Pump 10 bbls fresh water down 85/8" and had good returns out 11%" x 85/8" annulus through perfs @ 452' Mix & pump 150 sx Class C neat cement and had good cement returns to surface. Stop mixing and pumped 15 bbls fresh water displacement, TOC inside 85/8" estimated to be at 246'. SWI and WOC. Fresh water – 11%" shoe plug in place as of 3:15 PM 1/29/02. RD Schlumberger & Key

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# 1/31/02

MIRU Benterra Unit #4. 85/8" csg and 11<sup>3</sup>/4" x 85/8" annulus were both static. Made trip w/ 3<sup>1</sup>/<sub>2</sub>" SB & tag top of cement @ 220' Pushed 85/8" wiper rubber to 33', poured 11 cu ft ZONITE and filled casing to surface. Top plug in place as of 3:30 PM 1/31/02. Left wellbore open to atmosphere. RD Benterra.

## 2/4/02

Check location - no problems.

## 2/5/02

Check location - no problems.

# 2/20/02

Check location - no problems.

# 3/14/02

Check location - no problems.

# 3/18/02

Check location - water on top of plug, no bubbling. Surface & intermediate casing risers open and static.

## 4/24/02

Key Energy Services dug out cellar to 7' below GL. Obtained confined entry permit from ChevronTexaco and check 16" x 11¼" annulus, LEL was over 10% and could not cut casings. RD KEY backhoe. RU Key pump truck and loaded this annulus with 8 bbls fresh water. RD pump truck. ChevronTexaco checked LEL of this annulus on 4/25/02 and found it to be 0% LEL. Now OK to cut.

# 4/25/02

ChevronTexaco checked LEL, O. OK.

# 5/1/02

Cbtained confined entry permit from ChevronTexaco. Check LEL of 16" x 11¾" annulus, LEL = 0. RU Key winch truck and tied onto wellhead to support during cutting operations. Cut windows in 16" and 11¾" casing and then severed 85/8" casing. Finished cutting 11¼" and 16" casings at approximately 6' below GL and removed entire wellhead assembly RD Key winch truck. The 11¾" x 85/8" annulus had a good cement sheath around the entire circumference and the ZONITE<sup>TM</sup> plug inside the 85/8" casing was well hydrated and homogenous. Poured 20 gals ZONITE<sup>TM</sup> into 16" x 11¾" annulus, well on cap and installed dry hole marker with well identification. Dug out and cut off guywire anchors to 3' below GL. Back filled all excavations. Turned over to ChevronTexaco for location cleanup and NMOCD inspection. Final Report.

# **BENTERNA** Corporation

Mid-Continent Region

P&A

