DATE IN 5-12-04 SUSPENSE 6/1/04

Stogner

5/304

NSL

ABOVE THIS LINE FOR DIVISION USE ONLY

PSEM 0413440243

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

Application Acronyms:

[NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]
[DD-Directional Drilling] [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 Directional Drilling

X NSL

NSP

DD

⊠ SD

Check One Only for [B] and [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

- [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] INFORMATION / DATA SUBMITTED IS COMPLETE Statement of Understanding

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with supervisory capacity.

A. M. Howell	am Howell	Advisor Petro. Engineer	4/12/2004
Print or Type Name	Signature	Title	Date

Permian Business Unit North America Upstream

15 Smith Road Midland, Texas 79705 Tel (432) 687 7516 MAHO@chevrontexaco.com

May 5, 2004

Request For Administrative Approval Of Unorthodox Oil Well Location And Simultaneous Dedication

Mr. Michael E. Stogner
New Mexico Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Dear Mr. Stogner:

PECLIED

MAY 12 ZUU4

Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87505

ChevronTexaco

ChevronTexaco respectfully requests administrative approval of an unorthodox oil well location for the following well:

Eunice King # 27
1250' FNL & 1420' FWL, NE/4 NW/4 of
Section 28, T21S, R37E, Unit Letter C
Lea County, New Mexico

The proposed well will be as an infill producer in the Penrose Skelly; Grayburg Pool, which is an oil pool spaced on 40 acres. This well is a follow-up to recent similar infill drilling by Apache Corporation in the same Pool. ChevronTexaco is a working interest partner in several of their recent infill wells and supports their contention that typical Grayburg wells cannot drain 40 acres. ChevronTexaco's technical analysis of the reservoir revealed similar results to Apache's.

The NE/4 NW/4 of Section 28 will be simultaneously dedicated in the Penrose Skelly; Grayburg Pool to the proposed well and to the existing Eunice King # 19. ChevronTexaco also requests approval of the simultaneous dedication.

This application is based on geological and engineering analysis. That analysis and justification for this request is attached as Exhibit 1, along with other supporting documentation. There are five wells that have produced or are producing the Grayburg Formation in the NW/4 of Section 28. The proposed well will be located in the approximate center of those wells. Based on drainage calculations, ChevronTexaco believes that drilling the infill well will recover reserves that would not be recovered by the existing Grayburg wells.

A land plat highlighting the proposed well's location is attached as Exhibit 2. The N/2 of Section 28 is covered by a single fee lease and has **common royalty and working interest ownership**. For that reason and the proposed location of the infill well, there are no adversely affected interest owners and no one has been notified of this application.

If you have any questions concerning this application or need additional information, please contact me by telephone at (432) 687-7516 or by e-mail at MAHO@chevrontexaco.com. Thank you for your consideration of this matter.

Sincerely,

Mike Howell

Advisor Petroleum Engineer

Attachments

cc: NMOCD District 1 - Hobbs, NM

Mike Howell Well File

NOTIFICATION LIST

Application Of Chevron U.S.A. Inc. For Administrative Approval Of An Unorthodox Oil Well Location And Simultaneous Dedication:

Eunice King # 27 1250' FNL & 1420' FWL Section 28, T21S, R37E, Unit Letter C Lea County, New Mexico

Offset Operators, Working Interest Owners, N/2 Section 28:

Chevron U.S.A. Inc.
 Smith Road
 Midland, TX 79705

Operator/100% WI

EXHIBIT 1

ENGINEERING AND GEOLOGICAL JUSTIFICATION

Application Of Chevron U.S.A. Inc. For Administrative Approval Of An Unorthodox Oil Well Location And Simultaneous Dedication:

Eunice King # 27 1250' FNL & 1420' FWL Section 28, T21S, R37E, Unit Letter C Lea County, New Mexico

PRIMARY OBJECTIVE: GRAYBURG

SUPPORTING DATA:

- 1. Chevron U.S.A. Inc. (Chevron) is the operator of the proposed Eunice King # 27 well (Exhibit 3). The proposed total depth is 4000' in the top of the San Andres formation.
- 2. The completion will be in the Penrose Skelly; Grayburg Oil Pool and the proposed location encroaches toward the following wells (Exhibit 4).

				Cun	Prod	Curre	nt Prod	
Operator	Well	Location	Formation	мво	MMCF	BOPD	MCFPD	Status
Chevron	Eunice King # 1	28-E	Grayburg	185	869	12	349	Producing
Chevron	Eunice King # 2	28-D	Grayburg	50	28			P&A - will reenter
Chevron	Eunice King #3	28-F	Grayburg	118	844	5	139	Producing
Chevron	Eunice King # 6	28-D	Grayburg	32	284			Recompleted To Drinkard
Chevron	Eunice King # 19	28-C	Grayburg	4	48	22	213	Producing

- 3. The proposed Eunice King # 27 unorthodox Grayburg location is based primarily on drainage considerations:
 - a. Grayburg Reservoir

The Grayburg is a series of alternating subtidal and supratidal dolomites, with the subtidal rock having porosity and hydrocarbons and the supratidal rock being tight. The Grayburg depositional environments varied rapidly so that many porous and tights intervals are not continuous from well-to-well on 40-acre spacing. Tight dolomite and/or anhydrite intervals within the Grayburg create vertical and horizontal flow barriers between different zones of porosity. Additionally, average porosity of the Grayburg is less than 10%, and average permeability is less than 1 millidarcy. For all of these reasons, Grayburg wells are not usually capable of draining a 40-acre proration unit.

The reservoir was analyzed by mapping Hydrocarbon Pore Volume (HCPV) (Exhibit 5). HCPV is the product of feet of net pay (h) times average porosity (phi) times oil saturation (So). The map is the arithmetic product of grids interpreted from those values. The values were obtained as follows:

- 1. Net pay was read from either modern neutron-density logs or estimated from a map developed from gross pay times net-to-gross ratio (Exhibit 4).
- 2. Average porosity was calculated from modern well logs using a minimum of 6% crossplot porosity and a maximum of 20%.
- 3. Oil saturation was calculated from a fractional flow curve using representative water cut values.

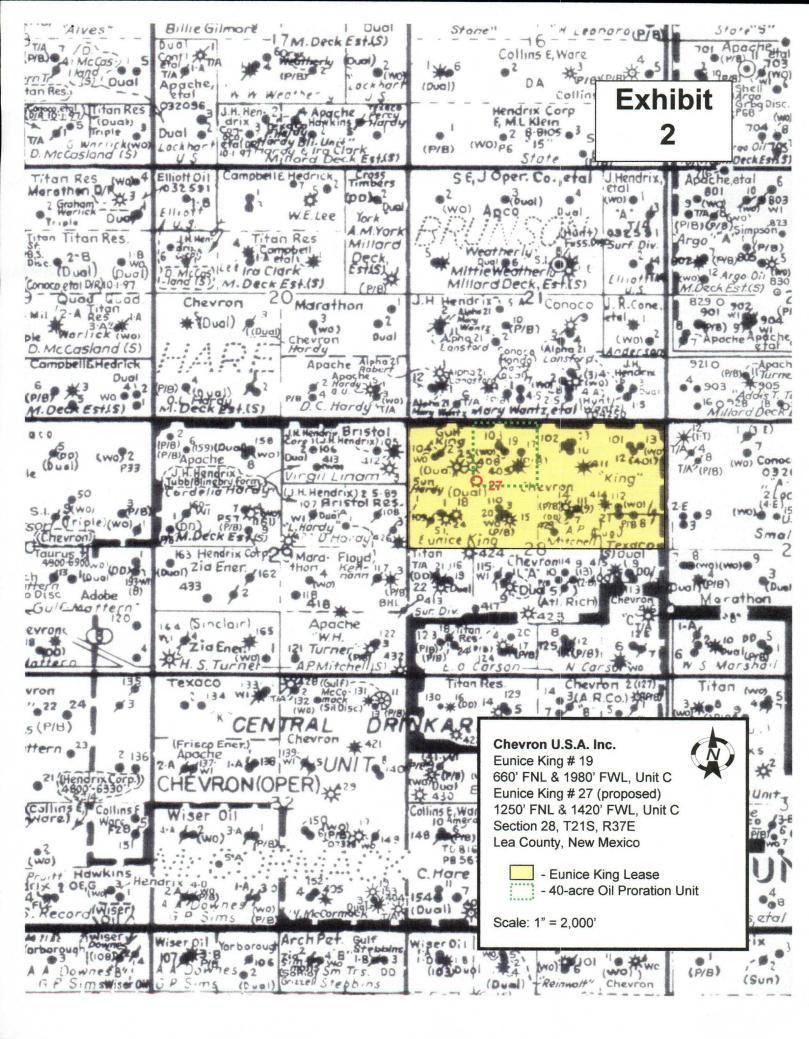
The following table provides drainage areas calculated from the HCPV map and reserves of the offsetting wells.

				Drainage	E	JR _
Operator	Well	Location	Formation	Acres	МВО	MMCF
Chevron	Eunice King # 1	28-E	Grayburg	42	190	1,189
Chevron	Eunice King # 2	28-D	Grayburg	11	50	28
Chevron	Eunice King #3	28-F	Grayburg	30	127	961
Chevron	Eunice King # 6	28-D	Grayburg	7	32	284
Chevron	Eunice King # 19	28-C	Grayburg	9	10	446

As can be seen above, the average drainage area of the offsetting wells is only 20 acres, and additional reserves can be recovered by drilling the proposed well, Eunice King # 27, at an infill location approximately equidistant from the offsetting Grayburg producers. Reserves for the proposed location were calculated using the HCPV map, a 20 acre drainage area, and a 15% recovery factor. The results are as follows:

				Drainage	El	JR
Operator	Well	Location	HCPV	Acres	МВО	MMCF
Chevron	Eunice King # 27	28-C	5.11	20	87	448

- 4. The N/2 of Section 28 is covered by a single fee lease which has common royalty and working interest ownership. Chevron is the operator and 100% working interest owner of the Grayburg wells toward which the proposed well will encroach. Therefore, there are no offset interest owners or adversely affected parties to notify of this application.
- 5. The proposed Eunice King # 27 will share a 40-acre proration unit and be simultaneously dedicated with the Eunice King # 19, a current Penrose Skelly; Grayburg producer in Section 28, Unit Letter C.
- 6. Approval of this application will allow for the recovery of oil and gas reserves which would not otherwise be recovered.



DISTRICT 1
P. C. Box 1980, Hobbs, NM 88240

DISTRICT II P. O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brozos Rd., Aztec, NM 87410
DISTRICT IV
P. 0. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION PO Box 2088 Santa Fe, NM 87504-2088

EXHIBIT 3

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	
		Penrose Skelly (Grayburg)	
Property Code		⁵ Property Name	⁶ Well Number
		Eunice King	27
OGRID No.		⁸ Operator Name	⁹ Elevation
22351	С	HEVRON USA, Inc.	3460'

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	7County
С	28	21-S	37-E		1250'	North	1420'	West	Lea
			11 B	ottom Hol	e Location If	Different From	Surface		
UL or lot no.	Section	Township	Range	Lot idn	Feet from the	North/South line	Feet from the	East/West line	⁷ County
1-Dedicated Acres	13,10	int ar Infill	14 Consolid	ation Code	¹⁵ Order No.	Troiting Godan mile	Total Month and		
40			Constilla	ation Cade	-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.

0			
© ₁₆	 		DPERATOR CERTIFICATION
.00 19 17	23	13	I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.
25 25	411		Signature
	l		Printed Name
1420'		<u></u>	Ted Tipton
1 18 3 20	1	414	Position Manager of Drilling Department
,0,	14_	1	Campany
1 18 3 20		21 8 6	Chevron USA, Inc.
24	1		Date
			May 1, 2004
		l	18SURVEYOR CERTIFICATION
	28		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 knowledge and belief.
			Date Surveyed
	 	<u> </u>	April 22, 24, 26, & 27, 2004
			Signature & Seal of Professional Surveyor
CA 1	1/1/2	\	Certifidate No. 7254 John S. Piper
Land	rel640-acre	Jection	_
0 330 660 990 1320 1650 1980 2310 26	40 2000 1500	1000 500	Sheet 1 of 1
<u> </u>			

O = Staked Location ● = Producing Well	= Injection Well	⋄ = Water Supply Well	+ = Plugged & Abandon	Well
--	------------------	-----------------------	-----------------------	------

(iii) = Found Section Corner, 2 or 3" Iron Pipe & GLO B.C. (iii) = Found /4 Section Corner, 1" Iron Pipe & GLO B.C.

ADDITIONAL INFORMATION ON THE LOCATION

State Plane Coord	inates		
Northing 530735.74	(1927= 530676.41)	Easting 899582.04 (1927	'= 858397.70)
Latitude 32°27'	3.322" (1927= 32°27'12.890")	Longitude 103'10'18.983	" (1927= 103'10'17.291")
Zone	North American Datum	Combined Grid Factor	Coordinate File
East	1983	0.9998891	Weathrly.cr5
Drawing File		Field Book	
Chevron-Eunice	e.Dwg	Lea #23, Pg.41	

District I 1625 N. French Dr., Hobbs, NM 88240

State of New Mexico Energy, Minerals & Natural Resources Department

Form C-102 Revised March 17, 1999

EXHIBIT

District II 811 South First, Artesia, NM 88210

OIL CONSERVATION DIVISION Submit to

3.1

District III 1000 Rio Brazos Rd., Aztec, NM 87410

2040 South Pacheco Santa Fe, NM 87505

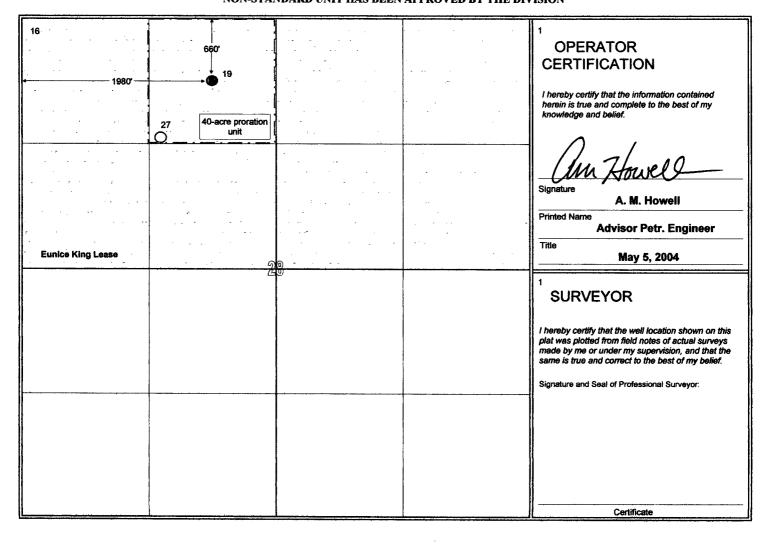
□ AMENDED REPORT

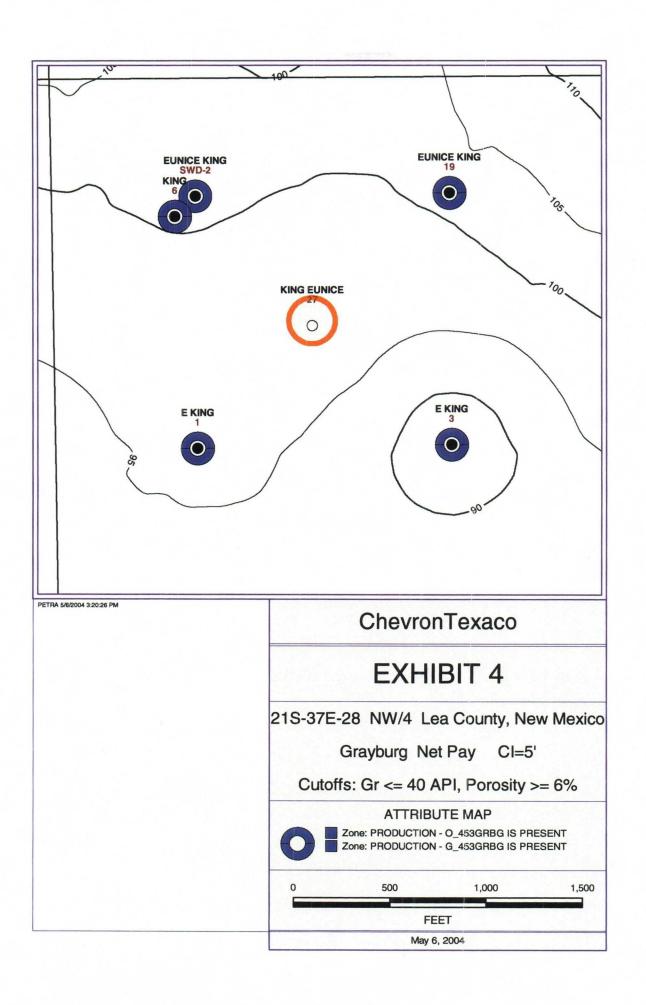
District IV 2040 South Pacheco, Santa Fe, NM 87505

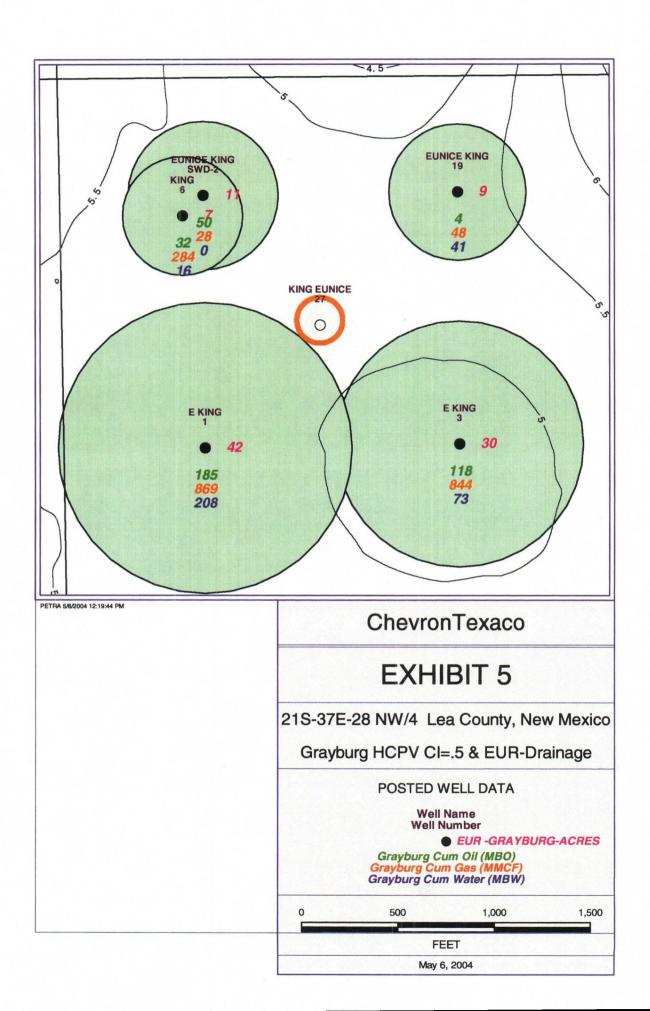
WELL LOCATION AND ACREAGE DEDICATION PLAT

	API Number 0-025-0685			² Pool Code 50350			³ Pool Name Penrose Skelly ; Gr		
⁴ Property 2615					⁵ Property Na Eunice Kin				⁶ Well Number 19
⁷ OGRID 432 3					⁶ Operator Na Chevron U.S.A				⁹ Elevation 3466' GL
				· · · · · · · · · · · · · · · · · · ·	¹⁰ Surface Lo	ocation			
UL or Lot No.	Section	Township	Range	Lot idn	Feet from the	North/South line	Feet from the	East/West	line County
c	28	215	37E		660	North	1980	West	Lea
			¹¹ Bott	om Hole	Location If D	ifferent From S	urface		
UL or Lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West	line County
12 Dedicated Acr	es ¹³ Joir	nt or Infili	onsolidation	Code 15 On	der No.		***************************************	<u></u>	

NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION









NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

ILL RICHARDSON Governor Joanna Prukop	Fla bu		Lori Wrotenbery Director Oil Conservation Division
Cabinet Secretary	5/12/04		on conservation physical
Oil Conservation Division 1220 S. Francis Drive Santa Fe, NM 87505		ECEIV MAY 17 2004	ED
RE: Proposed: MC DHC NSL A	51D	1220 c	-
NSP SWD WFX PMX		. 4 0 3	
Gentlemen:			
I have examined the application Chevron	tion for the: Eunice Ling	#27.C.	28.215.376
Operator Operator	Lease & Well No. Unit	S-T-R	
and my recommendations are	as follows:		
			•
UK Kg-			
Yours very truly,			
Chris Williams	94		·
Chris Williams Supervisor, District 1			•

CMD:

OG6IWCM

INQUIRE WELL COMPLETIONS

ONGARD

05/20/04 14:14:09 OGOMES -TPZK

API Well No : 6856 Eff Date: 06-10-2003 WC Status : A

Pool Idn 50350 PENROSE SKELLY; GRAYBURG

OGRID Idn 4323 CHEVRON U S A INC

Prop Idn 2615 EUNICE KING

Well No 019

GL Elevation: 3466

U/L Sec Township Range North/South East/West Prop/Act(P/A)

Lot Identifier: B.H. Locn 28 21S 37E FTG 660 F N FTG 1980 F W \triangleright

Dedicated Acre: 40.00

Lease Type

Type of consolidation (Comm, Unit, Forced Pooling - C/U/F/O) :

PF07 PF01 HELP PF08 PF02

PF09 PF03 EXIT

PF04 GoTo

PF05

PF10 NEXT-WC PF11 HISTORY PF12 NXTREC PF06

Date: 5/20/2004 Time: 02:14:33 PM

CMD : OG6IPRD INQUIRE PRODUCTION BY POOL/WELL ONGARD 05/20/04 14:14:25 OGOMES -TPZK Page No: 1

OGRID Identifier : 4323 CHEVRON U S A INC

Pool Identifier : 50350 PENROSE SKELLY; GRAYBURG

API Well No 30 25 6856 Report Period - From : 01 2003 To : 04 2004

API	API Well No	No	Prope	Property Name	 Prodn.	Days	Production	ion Volumes	1 1 1 1	 Well
					AA/WW	Prod	Gas	0il	ater	ta
30	25	6856	EUNICE	KING	07 03	31	! ! ! ! ! !	449	5219	ו ה ו ה
30	25	6856	EUNICE		08 03	31	8924	1171	9031	ъ
30	25	6856	EUNICE		09 03	30	10192	1009	8024	Ъ
30	25	6856	EUNICE			29	10546	555 5	6400	Ъ
30	25	6856	EUNICE			30	10116	591	6316	ъ
30	25	6856	EUNICE	KING		30	8750	467	5747	Ъ
30	25	6856	EUNICE			31	9105	325	5084	Ъ
			-	- - 		, ! !	1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1	
		J)	· · · · · · · · · · · · · · · · · · ·	ひいいいきょう こうしょうふ ヨウナップ くのりゅうこう	L.O. 7.1	,				

Reporting Period Total (Gas, Oil) :

M0025: Enter PF keys to scroll

ΡF	PH	
707	701	
PF07 BKWD	HELP	1.100
PF08 FWD	PF02) · E117() + + +
PF09	LP PF02 PF03 EXIT	TACKE CO SCHOLL
PF10		
NXTPOOL	PF04 GoTo	
PF10 NXTPOOL PF11 NXTOGD	PF05	
PF12	PF06 CONFIRM	
	[RM	

Date: 5/20/2004 Time: 02:14:49 PM

OG6IPRD CMD :: INQUIRE PRODUCTION BY POOL/WELL ONGARD 05/20/04 14:14:28 OGOMES -TPZK Page No: 2

API Well No OGRID Identifier : Pool Identifier 30 25 6856 Report Period - From: 01 2003 To: 04 2004 50350 PENROSE SKELLY; GRAYBURG 4323 CHEVRON U S A INC

30 25 6856 EUNICE KING 30 25 6856 EUNICE KING	PI Well No Property Name
02 04 25	Prodn. MM/YY
3 D I	
6758 8548	Product Gas
179	 Volu Oil
2953 3475	s Water
הה	lel ta

Reporting Period Total (Gas, Oil) : 72939 5038 52249

E0049: User may continue scrolling.

PF07 BKWD PF01 HELP PF02 PF08 FWD PF09 PF03 EXIT PF04 GoTo PF10 NXTPOOL PF11 NXTOGD PF05 PF12 PF06 CONFIRM

Date: 5/20/2004 Time: 02:14:50 PM