Form 3160-3 (April 2004)

If earthen pits are used in association with the drilling of this well, an OCD pit permit must be obtained prior to pit construction.

FORM APPROVED OMB No. 1004-0137 Expires March 31, 2007

UNITED STATES --DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MAN	NAGEMENI		1111 13233	
APPLICATION FOR PERMIT TO			6. If Indian, Allotee	or Tribe Name
la. Type of work: X DRILL REENT	ER		7 If Unit or CA Agree	ement, Name and No.
lb. Type of Well: Oil Well X Gas Well Other	X Single Zone M	ıltiple Zone	8. Lease Name and W CK FEDERAL #	/ell No. 4
2. Name of Operator ENCORE OPERATING, L. P. (BILLY JUROS	SKA 817-339-0788)		9. API Well No.	- 35942
3a. Address 777 MAIN STREET SUITE 1400 FORT WORTH, TEXAS 76102	3b. Phone No. (include area code, 817-877-9955.		10. Field and Pool, or E WHITE CITY PE	•
4. Location of Well (Report location clearly and in accordance with an	ny State requirements.*)		11. Sec., T. R. M. or Bl	k. and Survey or Area
At surface 2540' FNL & 180' FWL SECTION	8 T24S-R26E EDDY (CO. NM	SECTION 8 T24	S-R26E
At proposed prod. zone 850' FWL & 1550' FSL SI	ECTION 8 T24S-R26E			
14. Distance in miles and direction from nearest town or post office* Approximately 5 miles Northeast of Wh:	ite City New Mexico		12. County or Parish EDDY CO.	13. State NM
15. Distance from proposed* location to nearest	16. No. of acres in lease	17. Spaci	ng Unit dedicated to this w	ell
property or lease line, ft. (Also to nearest drig. unit line, if any)	1200		320	
18. Distance from proposed location*	19. Proposed Depth MD-12595	1	/BIA Bond No. on file	
to nearest well, drilling, completed, applied for, on this lease, ft.	TVD-12269'	MTB-0	000020 (NATION	WIDE)
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3724 GL.	22. Approximate date work will 01/15/08	start*	23. Estimated duration 50 Days	
	24. Attachments			
The following, completed in accordance with the requirements of Onsho	re Oil and Gas Order No.1, shall t	e attached to the	his form:	
 Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest System SUPO shall be filed with the appropriate Forest Service Office). 	Lands, the ltem 20 abov	e). ification ite specific in	ons unless covered by an e	
25. Signature	Name (Printed/Typed) Joe T. Jan			Date 10/15/07
Title	Joe 1. Jan	LCa		10/13/0/
Engineer Approved by (Signature)	Name (Printed/Tuned)			Date
/s/ James A. Amos		nes A. A		NOV 2 3 2007
FOR FIELD MANAGER.			IELD OFFICE	
Application approval does not warrant or certify that the applicant hole conduct operations thereon. Conditions of approval, if any, are attached.	ds legal or equitable title to those r	•	bject lease which would en	• •

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

SEE ATTACHED FOR

Carlsbad Controlled Water Basin

GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS **ATTACHED**

*(Instructions on page 2)

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210

State of: New Mexico Energy, Minerals and Natural Resources Department

150

Form C-102 Revised October 12, 2005

Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

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, New Mexico 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name		
	87280	WHITE CITY-PENN		
Property Code 36860	Property Name CK FEDERAL		Well Number 4	
OGRID No. 189951	Operator Name ENCORE OPERATING, L.P.		Elevation 3724'	

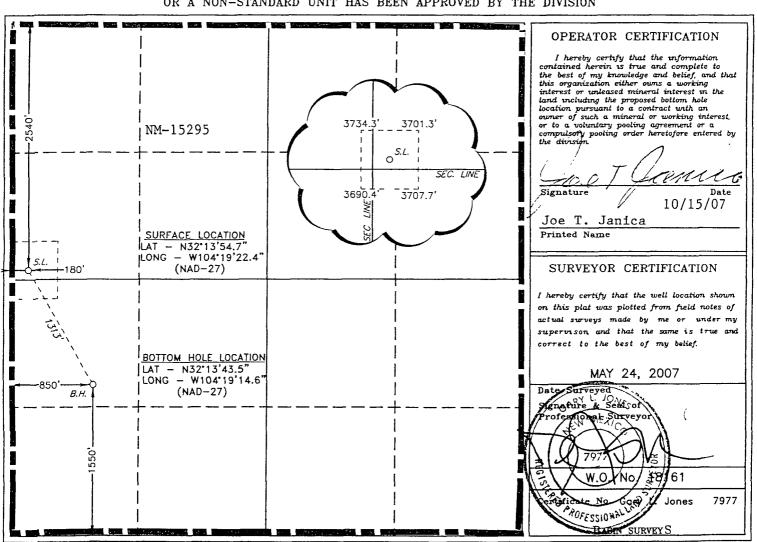
Surface Location

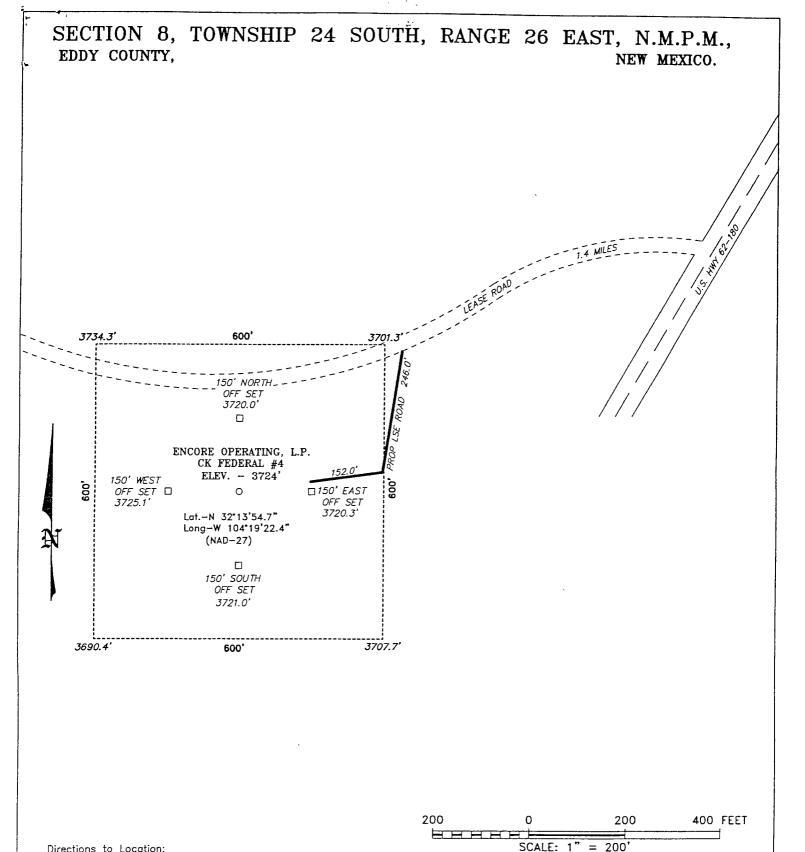
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	8	24 S	26 E		2540	NORTH	180	WEST	EDDY

Bottom Hole 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	County
L	8	24 S	26 E		1550	SOUTH	850	WEST	EDDY
Dedicated Acres Joint or Infill Consolidation Code					ler No.	·			
640		-							

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





Directions to Location:

05-25-2007

FROM MILE MARKER 21.9 OF U.S. HWY 62-180, GO WEST ON LEASE ROAD 1.4 MILES TO PROPOSED LEASE ROAD.

ENCORE OPERATING, L.P.

CK FEDERAL #4 / WELL PAD TOPO

THE CK FEDERAL #4 LOCATED 2540' FROM THE NORTH LINE AND 180' FROM THE WEST LINE OF SECTION 8, TOWNSHIP 24 SOUTH, RANGE 26 EAST,

N.M.P.M., EDDY COUNTY, NEW MEXICO.

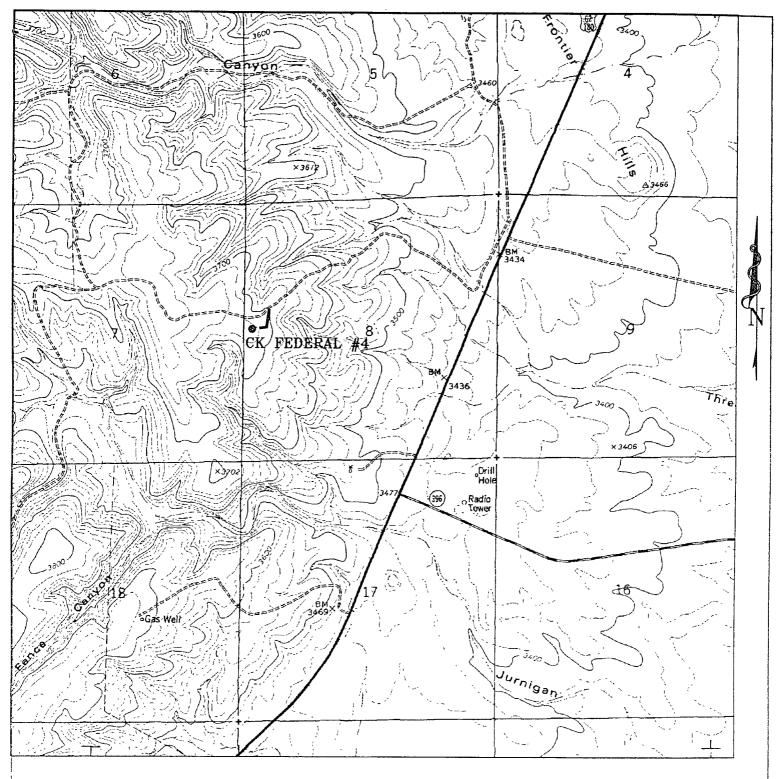
BASIN SURVEYS P.O. BOX 1786 - HOBBS, NEW MEXICO

Disk: JMS

J. M. SMALL

W.O. Number: 18161 Drawn By:

Sheets



CK FEDERAL #4 Located at 2540' FNL and 180' FWL Section 8, Township 24 South, Range 26 East, N.M.P.M., Eddy County, New Mexico.



P.O. Box 1786 1120 N. West County Rd. Hobbs, New Mexico 88241 (505) 393-7316 - Office (505) 392-3074 - Fax basinsurveys.com

STATE SALES	W O. Number:	18161T
OCCUPANTAL O	Survey Date:	05-24-2007
Transport of	Scale. 1" = 20	000'
Constant of	Date: 05-25-	2007

ENCORE OPERATING, L.P.

APPLICATION TO DRILL

ENCORE OPERATING, L.P.
CK FEDERAL # 4
UNIT "E" SECTION 8
T24S-R26E EDDY CO. NM

In response to questions asked under Section II of Bulletin NTL-6, the following information on the above will is provided for your information.

- 1. LOCATION: 2540' FNL & 180' FWL SECTION 8 T24S-R26E EDDY CO. NM
- 2. ELEVATION ABOVE SEA LEVEL: 3724' GL
- 3. GEOLOGIC NAME OF SURFACE FORMATION: Quaternery Apolian Deposits.
- 4. DRILLING TOOLS AND ASSOCIATED EQUIPMENT: Conventional rotary drilling rig using drilling mud as a circulating medium for solids removal from hole.
- 5. PROPOSED DRILLING DEPTH: MD-12,595' TVD-12,269'

. 6. ESTIMATED TOPS OF GELOOGICAL MARKERS:

Delaware	2746 '	Strawn	10,346'
Bone Spring	5721 '	Atoka	11,026'
Wolfcamp	8746 '	Morrow	11,371
Cisco	9771 '	Lower Morrow	11.996'
Canyon	10,021'	TVD	12,296'

7. POSSIBLE MINERAL BEARING FORMATION:

Delaware	Oil .	Atoka	Gas
Strawn	Gas	Morrow	Gas

8. CASING PROGRAM:

Hole Size	Interval	OD of Casing	Weight	Thread	Collar	Grade	_
26"	0-80'	20"	94#	NA	NA	Conductor	New
17½"	0-400	13 3/8"	48#	8-R	ST&C	H-40	New
121"	0-2000	9 5/8"	40 <i>#</i>	BUT	BT&C	J-55	New
8 3/4"	0-12,595'	5½"	20#	8-R	LT&C	P-110	New

ENCORE OPERATING, L.P.

CK FEDERAL # 4

UNIT "E" SECTION 8

T24S-R26E EDDY CO. NM

9. CASING CEMENTING & SETTING DEPTHS:

20" Conductor

Set 80' of 20" conductor pipe and cement to surface with Redi-mix.

13 3/8" Surface

Set 400' of 13 3/8" 48# H-40 ST&C casing. Cement with 160 Sx. of Halco-lighr premium plus Class "C cement + 1/8# Flocele/Sx Yield 1.96 ft³/Sx., tail in with 205 Sx. of of Class "C" premium plus cement + 1% CaCl, Yield 1.34 ft³/Sx., circulate cement to surface

9 5/8" Intermediate

Set 2000' of 9 5/8" 40# J-55 BT&C casing. Cement with 445 Sx. of Class "C" Interfill + additives Yield 2.28 ft³/Sx., tail in with 220 Sx. of Class "C" premium plus cement + additives, Yield 1.33 ft³/Sx. Circulate cement to surface.

5;" Production

Set 12,595' of $5\frac{1}{2}$ " 17# P-110 LT&C casing. Cement in two stages with DV Tool at $200^{\circ}\pm$. Cement 1st stage with 390 Sx. of Class "H" Interfill + additives, Yield 2.79 ft³/Sx., tail in with 640 Sx. of Super Class "H" cement + .4%LAP-1, + .3% CFR-3, + 1# NaCl/Sx., +.25#/Sx D-Air 3000, + .2% HR-7, Yield 1.61 3 /Sx. Cement 2nd stage with 930 Sx. of Class "H" Interfill + additives, Yield 2.48 ft 3 /Sx. tail in with190 Sx. of Premium Cement + additives, Yield 1.19 ft 3 /Sx. circulate cement to surface.

10. PRESSURE CONTROL EQUIPMENT: Exhibit "E" shows a 10,000 PSI working pressure B.O.P. Consting of pipe rams, spool, pipe rams, blind rams, and a 5000PSI annular preventor. The B.O.P. will be nippled up on the 13 3/8" casing and tested to API specifications after each casing string is cemented. The pipe rams will be worked at least once in each 24 hour period and the blind rams will be worked when the drill pipe is out of hole on trips. Full opening Stabbing valve an upper kelly cock will be available on the rig floor at all times. Exhibit "E-1" shows a hydraulically operated closing unit and a 3" 10,000 PSI choke manifoldwith manual choke and remotely controled chokes. No abnormal pressures or abnormal temperatures are expected while drilling this well.

The connection between the wellhead and choke manifold will be a flexible hose with a test pressure of 15,000 PSI and a working pressure of 10,000 PSI with a 3" ID.

APPLICATION TO DRILL

ENCORE OPERATING, L.P.
CK FEDERAL # 4
UNIT "E" SECTION 8
T24S-R26E EDDY CO. NM

11. PROPOSED MUD CIRCULATING SYSTEM:

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE SYSTEM
80-400'	8.8-9.2	29-32	NC	Fresh water Spud mud add paper to control seepage.
400-2000 '	10.0-10.1	28-32 Sel COA	NC	Brine water use paper to control seepage & high visco-ity sweeps to clean hole.
2000-9000'	9.0-9.6	28-34	NC	Cut brine use high viscosity sweeps to clean hole.
9000-10,200'	9.6-9.8	38-44	8-12 cc	Cut brine add Dur Vis, Poly Pac R and My-Lo-Jel.
10,200-12,595'	9.8-10.5	38-44	6-8 cc	Same as above with additives to control water loss.

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, or unexpected kicks. In order to run DST's, open hole logs, and casing water loss may have to be altered and viscosity altered in order to meet these needs.

APPLICATION TO DRILL

ENCORE OPERATING, L.P.

CK FEDERAL # 4

UNIT "E" SECTION 8

T24S-R26E EDDY CO. NM

12. LOGGING, COREING, AND TESTING PROGRAM:

- A. Open hole logs: Dual Laterolog, Density, Neutron , SNP LDT, Fullwave Sonic Gamma Ray and Caliper from TD back to 9 5/8" casing shoe.
- B. Cased hole log: Run Gamma Ray Neutron from 9 5/8" casing shoe back to surface.

C.

13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. There is no known presence of ${\rm H}^2{\rm S}$ in this area. If ${\rm H}^2{\rm S}$ is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 6500 PSI, and Estimated BHT 195°.

14. ANTICIPATED STARTING DATE AND DURATION OF OPERATION:

Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operation and drilling is expected to take 45 days. If production casing is run then an additional 30 days will be needed to complete well and construct surface facilities and/or lay flowlines in order to place well on production.

15. OTHER FACETS OF OPERATIONS:

After running casing, cased hole Gamma Ray, Neutron Collar logs will be run from TD back to all possible productive zones. The Morrow formation will be perforated and stimulated in order to establish production. The well will be swab tested and potentialed as a gas well.

AFE No. 3105 Encore Operating, L. P. **AFE Information** API No. C K Federal No. 4 Dry Hole: Permit No. Completed: **Proposed Wellbore Sketch** Proposed TD: 12,595' MD, 12,296' TVD **Drilling Considerations** Wellbore Information Casing Info / Mud Info / Hole Size / Cement Specs

All geologic depths are TVD

Delaware......2,746

Bone Spring......5,721'

Wolfcamp......8,746

Cisco......9,771'

Canyon......10,021'

Strawn.....10,346'

Atoka..... 11,026'

Morrow11,371'

Morrow Lower.....11,996'

20" conductor pre-set to 80' Spud w/ 17-1/2" bit

Circulate cmt to surf behind 13-3/8" csg.

13-3/8" 48.0 ppf H-40 STC at 400'

Drill a 12-1/4" hole

Circ cement to surface

9-5/8", 40.0 ppf., J-55 BTC @ 2,000'

Drill out w/8-3/4" bit Circulate cement to surface behind 5-1/2" casing DV Tool @ 7,000'

9.0-9.6 ppg cut brine to 9,000'. Mud-up brine water @ 9,000' w/Duo Vis/Poly Pac & My-Lo-Jel system MW 9.6-9.8 ppg @ mud-up point.

MW from top of Strawn to TD 9.8-10.5 ppg

5-1/2", 20.0 ppf., P-110 HC LTC from 0-TD

Proposed TD 12,595 MD (12,296' TVD)

Well Information

Surface Location: 2540' FNL, 180' FWL, Sec. 8, T24S-R26E, Eddy County, New Mexico

Bottom Hole Location: 1550' FSL & 850' FWL, Sec. 8, T24S-R26E

INTEROFFICE MEMO

To:

Joe Janica

From:

Don Wood

Date:

9/27/07

Subject:

Application to Drill Information for C K Federal #4

As you have requested I am providing you with the casing design, cementing program, mud program and directional plan so you can prepare an APD for this well.

1. Casing String Design:

Size	Interval	Weight	Grade	Thread	Burst	Collapse	Jt. Str.
					<u> </u>		ļ
20	0-80	94.0	ļ ———				
13-3/8	0-400	48.0	H-40	STC	1730	740	322000
9-5/8"	0-2,000	40.0	J-55	BTC	3950	2570	843000
5-1/2	0-12,595	20.0	P-110	LTC	12630	11100	548000

Collapse, burst and joint strength are minimum values with no safety factor. The drift through the 20" is 19.125 inches, through the 13-3/8" it is 12.559", the 9-5/8" casing drifts 8.75" and the 5-1/2" liner drifts 4.653 inches.

15

The 20" conductor will be set in a 26" hole, the 13-3/8" casing in a 17-1/2" hole, the 9-5/8" in a 12-1/4" hole and the 5-1/2" set in an 8-3/4" hole.

2. Cementation:

Casing Size	Cement Slurry	Properties	Property Values
20"	Redi-mix		

Casing Size	Cement Slurry	Properties	Property Values
	STAGE 1		
13-3/8"	Spacer: 20 bbls FW		
	Lead with 160 sacks Halliburton Light Premium Plus + 0.125 Ibm/sk Poly-E-Flake	Fluid Weight:	12.50 lb/gal
		Fluid Yield:	1.96 cu ft/sk
		Amount of mix water:	10.90 gal/sk
		Top of Fluid:	0 ft
		Calculated Fill:	230ft
		12 hr Comp. Strength	150 psi
		24 hr Comp. Strength	250 psi
	Tail with 205 sacks Premium Plus Cement with 94 lbm/sk Premium Plus Cement + 1% CaCl ₂	Fluid Weight:	14.80 lb/gal
		Fluid Yield:	1.34 cu ft/sk
		Amount of mix water:	6.36 gal/sk
		Top of Fluid:	230 ft
		Calculated Fill:	170 ft
		12 hr Comp. Strength	1024
		24 hr Comp. Strength	1621
	Tail with 205 sacks Premium Plus Cement with 94 lbm/sk Premium Plus Cement + 2% CaCl ₂	Fluid Weight:	14.80 lb/gal
		Fluid Yield:	1.35 cu ft/sk
		Amount of mix water:	6.39 gal/sk
*************************************		Top of Fluid:	300 ft
		Calculated Fill:	200 ft
		12 hr Comp. Strength	
,		24 hr Comp. Strength	
		48 hr Comp. Strength	

Cement will be circulated back to surface behind 13-3/8" casing.

Casing Size	Cement Slurry	Properties	Property Values
	Stage 1		
9-5/8"	Spacer: 20 bbls of FW		20.0 bbls
	Lead Slurry: 445 sacks Interfill C	Fluid Weight:	11.5 ppg
		Fluid Yield:	2.78cu ft/sk
		Amount of mix water:	16.62 gal/sk
		Top of Fluid:	Surface
		Calculated Fill:	1,600 ft.
		12 hr Comp. Strength	95 psi
		24 hr Comp. Strength	175 psi
		48 hr Comp. Strength	225 psi
	Tail Slurry: 220 sacks Premium Plus Cement w/94 lbm/sk Premium Plus Cement	Fluid Weight:	14.80 ppg
		Fluid Yield:	1.33cu ft/sk
		Amount of mix water:	6.34 gal/sk
		Top of Fluid:	1600 ft.
		Calculated Fill:	400 ft.
		12 hr Comp. Strength	510 psi
		24 hr Comp. Strength	910 psi
		48 hr Comp. Strength	1260 psi

Cement will be circulated back to surface behind 9-5/8" casing.

Casing Size	Cement Slurry	Properties	Property Values
	Stage 1		,
5-1/2"	Spacer: 500 gals Super Flush 102		11.9 bbls
	Stage 1 Lead Slurry: 390 sacks Interfill H	Fluid Weight:	11.5 ppg
		Fluid Yield:	2.79cu ft/sk
		Amount of mix water:	16.74 gal/sk
		Top of Fluid:	7000 ft.
		Calculated Fill:	2846 ft.
		12 hr Comp. Strength	95 psi
		24 hr Comp. Strength	175 psi
		48 hr Comp. Strength	225 psi
	640		
	Stage 1 Tail Slurry: 865 sacks Super H Cement + 0.4% LAP-1, + 0.3 %	Fluid Weight:	13.20 ppg

CFR-3 + 1.0 lbm/sk Salt + 0.25 lbm/sk D-Air 3000 + 0.2% HR-7		
	Fluid Yield:	1.61cu ft/sk
	Amount of mix water:	8.39 gal/sk
	Top of Fluid:	9846 ft.
	Calculated Fill:	2749 ft.
	12 hr Comp. Strength	510 psi
	24 hr Comp. Strength	910 psi
	48 hr Comp. Strength	1260 psi
DV tool @ ±7,000' TVD.		
Stage 2		
Spacer: 20 bbls FW		
Stage 2 Lead Slurry: 930 sacks Interfill H	Fluid Weight:	11.90 ppg
	Fluid Yield:	2.48 cu ft/sk
	Amount of mix water:	14.41 gal/sk
	Top of Fluid:	0 ft.
	Calculated Fill:	6400 ft.
	12 hr Comp. Strength	95 psi
	24 hr Comp. Strength	175 psi
	48 hr Comp. Strength	225 psi
Stage 2 Tail Slurry: 190 sacks Premium Cement w/94 lbm/sk Premium Cement	Fluid Weight:	15.60 ppg
	Fluid Yield:	1.19 cu ft/sk
	Amount of mix water:	5.39 gal/sk
	Top of Fluid:	6,400 ft.
	Calculated Fill:	600 ft.
	12 hr Comp. Strength	1210 psi
	24 hr Comp. Strength	1825 psi
	48 hr Comp. Strength	2380 psi

Cement will be circulated back to surface on 5-1/2" string.

3. Mud Program:

Spud with bentonite/lime type mud having a 38-42 sec/qt viscosity and drill to 13-3/8" casing point at 400 feet. Drill out the 13-3/8" casing with 10.0-10.1 brine water. Set 9-5/8" casing at 2,000 feet. Drill out with 9.0 ppg cut brine. Drill from 2,000' to mud-up at

9,000' with 9.0-9.6 ppg brine water. Mud-up brine water with Duo Vis, Poly Pac R and My-Lo-Jel at 9,000 feet. Maintain a 38-44 sec/qt viscosity, 12.0-8.0 cc fluid loss and 9.6-9.8 ppg mud weight after mud up to 10,200 feet. To drill from the top of the Strawn expected at 10,346' TVD to total depth mud weights of 9.8-10.5 ppg are expected. Mud filtrate will be reduced to 8.0-6.0 cc by 10,200 feet and maintained at these values to TD. Lost circulation material will be added, as needed. A H₂S scavenger chemical will be added to the mud system after drilling out the 9-5/8" shoe and maintain to TD. H₂S training and safety equipment will be operations from the drilling out of the 9-5/8" casing to TD.

Drilling Fluid Properties

Depth (MD)	MW (ppg.)	Viscosity	PV	YP	API FL	pН	Drill Solids
0-400	8.8-9.2	38-42			NC	9.5-10.0	4-5%
400-2,000	10.0-10.1	28	1	1	NC	9.5-10.0	≤1.5%
2,000-9,000	9.0-9.6	28-30	1-2	1-2	NC	9.5-10.0	≤1.5%
9,000-10,200	9.6-9.8	38-44	10-12	10-15	12-8	9.5-10.5	≤5%
10,200-TD	9.8-10.5	38-44	10-12	10-15	8-6	10-10.5	≤5%

3. Directional Program:

This will be a directional well. The well bore will be kicked off at $\pm 4,500^{\circ}$ MD. A build rate of 4.0 degrees/100' and an azimuth of 149° will be maintained to $\pm 7,287^{\circ}$ MD (7,015' TVD). Once the inclination of 28° and azimuth of 149° are achieved at $\pm 7,287^{\circ}$ MD the inclination will be dropped at 4 degrees/100' until the inclination and azimuth are both zero at $\pm 7,987$ MD (7,687' TVD). From 7,987' MD to TD at 12,595' MD (12,296' TVD) the inclination and azimuth will be held at zero. See attached directional plan for further details.



Encore Operating, L.P.

Eddy Co., New Mexico CK Federal #4 CK Federal #4 Slant #1

Plan: Plan #1

Standard Survey Report

28 September, 2007

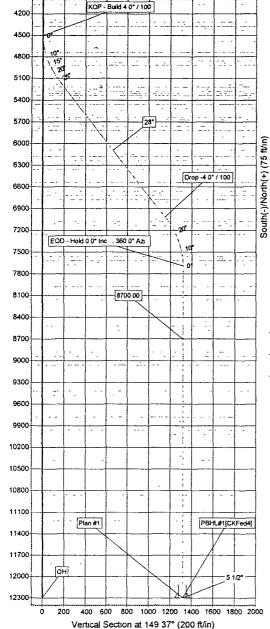




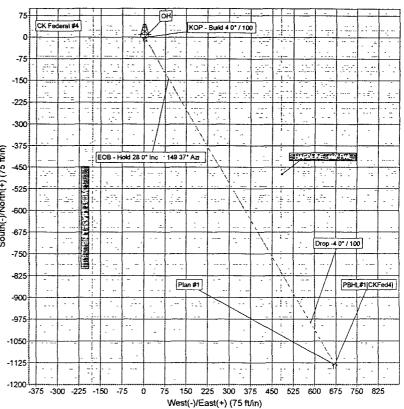
Encore Operating, L.P. A subsidiary of Encore Acquisition Company

Project: Eddy Co., New Mexico Site: CK Federal #4 Well: CK Federal #4 Wellbore: Slant #1 Plan. Plan #1 (CK Federal #4/Slant #1)





True Vertical Depth (300 ft/in)



PROJECT DETAILS Edity Co , New Mexico

Geodetic System US State Plane 1927 (Exact solution) Datum NAD 1927 (NADCON CONUS) Ellipsoid: Clarke 1886 Zone New Mesaco East 3001

System Datum Ground Level

ANINOTATIONS

TVD MD Annotaben 4500 00 4500 00 KCP - Build 4 0" / 100 5172 47 5200 00 EOB - Hold 28 0" Inc 149 37" Az. 7015 52 7287 39 Drop 4 0" / 100 7687 99 7987 39 EOD - Hold 0 0" Inc 360 0" Az



Azimuths to True North Magnetic North 8 35° Magnetic Field Strength 48926-2nT Dip Angle 60 16° Date 9/25/2007 Model IGRF200510

					SECTION	N DETAILS	5			
Sec	MD	Inc	Azı	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	4500 00	0.00	0.00	4500 00	0.00	0.00	0.00	0.00	0 00	•
2	5200 00	28 00	149 37	5172 47	-144.27	85 42	4 00	149 37	167 67	
3	7287 39	28 00	149 37	7015 52	-987 51	584 71	0 00	0.00	1147 64	
4	7987 39	0.00	0.00	7687 99	-1131 78	670 14	4 00	180 00	1315 30	
5	12595 40	0.00	0 00	12296 00	-1131 78	670 14	0.00	0.00	1315 30	PBHL#1/CKFed4)



Survey Report



Company: Project:

Encore Operating, L.P.

Site: Well: Wellbore: Eddy Co , New Mexico CK Federal #4 CK Federal #4 Slant #1

Local Co-ordinate Reference:

Database:

TVD Reference: MD Reference:

North Reference: Survey Calculation Method: Well CK Federal #4

WELL @ 3724.00ft (Original Well Elev)

WELL @ 3724.00ft (Original Well Elev)

Minimum Curvature

EDM 2003.14.1.0 Server DB

Project 📜

Design:

Eddy Co., New Mexico

Map System:

US State Plane 1927 (Exact solution)

System Datum:

Ground Level

Geo Datum:

NAD 1927 (NADCON CONUS)

Map Zone:

New Mexico East 3001

Using geodetic scale factor

Site

From:

Well

Well Position

CK Federal #4

Plan #1

Site Position:

Lat/Long

CK Federal #4

+N/-S

Northing:

448,070.91 ft

Latitude:

32° 13' 54.700 N

Position Uncertainty:

0.00 ft

Easting: Slot Radius: 503,230.55ft

Longitude: Grid Convergence: 104° 19' 22.400 W 0 01 °

+E/-W

Northing: Easting:

448.070.91 ft 503,230.55 ft

8 36

Latitude: Longitude: 32° 13' 54 700 N

Position Uncertainty

0.00 ft

0.00 ft

0.00 ft

Wellhead Elevation:

Ground Level:

60.16

104° 19' 22,400 W

48,926

0 00 ft

Slant #1

Magnetics

Wellbore

Model Name

Sample Date

9/26/2007

Declination (°)

Dip Angle (°)

Field Strength

(nT)

IGRF200510

Audit Notes:

Design

Version:

Phase:

PROTOTYPE

Tie On Depth:

4,500 00

Vertical Section:

Depth From (TVD) (ft)

+N/-S (ft) 0 00

+E/-W (ft) 0.00

Direction

(°)

149 37

0.00

Plan #1

Survey Tool Program From (ft)

To (ft)

Survey (Wellbore)

12,595 00 Plan #1 (Slant #1)

Tool Name

Description

0 00 4,500.00

4,500.00 OH (OH)

Date 9/28/2007

MWD MWD

MWD - Standard MWD - Standard

Planned Survey

ilea Survey										
Measured			Vertical			Vertical	Dogleg	Build	Turn	
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Section	Rate	Rate	Rate	
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)	
0 00	0 00	0.00	0 00	0 00	0 00	0.00	0 00	0 00	0 00	
100 00	0.00	0.00	100.00	0.00	0 00	0.00	0 00	0.00	0.00	
200.00	0 00	0.00	200.00	0.00	0.00	0 00	0 00	0.00	0 00	
300 00	0 00	0.00	300.00	0 00	0 00	0 00	0.00	0.00	0 00	
400 00	0 00	0.00	400.00	0 00	0.00	0 00	0.00	0 00	0.00	
450 00	0 00	0 00	450.00	0 00	0.00	0.00	0.00	0 00	0.00	
13 3/8"										
500.00	0 00	0 00	500.00	0.00	0.00	0.00	0.00	0 00	0 00	
600 00	0.00	0.00	600 00	0 00	0.00	0 00	0.00	0.00	0.00	
700 00	0 00	0.00	700.00	0.00	0 00	0 00	0.00	0.00	0.00	
800.00	0 00	0 00	800 00	0.00	0 00	0 00	0 00	0 00	0.00	
900 00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	



Survey Report



Company: Project:

- :: .: Encore Operating, L.P.

Eddy Co , New Mexico

Site: Well: Wellbore:

Design:

Eddy Co , ... CK Federal #4 CK Federal #4

- Slant #1 . , - Plan #1

Local Co-ordinate Reference: TVD Reference: MD Reference:

Database:

North Reference: Survey Calculation Method: Well CK Federal #4

SWELL @ 3724.00ft (Original Well Elev)

WELL @ 3724.00ft (Original Well Elev)

Aminimum Curvature

EDM 2003.14.1.0 Server DB

Measured	-1 -1		Vertical	Company and a second	transition,	Vertical	Dogleg	Build (***	Turn
	lu alimantau	Audument	Depth			Section	Rate	Rate	Rate
Depth	inclination	Azimuth	-	+N/-S		(ft)	(°/100ft)	(°/100ft)	(*/100ft)
(ft)	(°)	(°)	(ft)	(ft)	(ft)	114	(710011)	. (Moonly	(1100)()
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0 00	1,100.00	0.00	0.00	0.00	0.00	0 00	0.00
1,200.00	0.00	0.00	1,200.00	0 00	0 00	0.00	0.00	0.00	0.00
1,300.00	0 00	0.00	1,300.00	0.00	0.00	0.00	0.00	0 00	0.00
1,400 00	0.00	0.00	1,400 00	0.00	0 00	0.00	0.00	0.00	0 00
1,500 00	0.00	0.00	1,500.00	0.00	0.00	0 00	0.00	0 00	0.00
1,600.00	0.00	0 00	1,600.00	0.00	0.00	0.00	0 00	0.00	0.00
1,700 00	0 00	0.00	1,700.00	0 00	0.00	0 00	0.00	0 00	0.00
1,800.00	0 00	0.00	1,800.00	0.00	0.00	0.00	0 00	0.00	0.00
1,900 00	0 00	0.00	1,900 00	0 00	0 00	0.00	0.00	0 00	0.00
	0.00	0.00	2,000.00	0.00	0 00	0.00	0.00	0 00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0 00	0 00	0 00	0 00	0.00
9 5/8"									
2,100.00	0 00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200 00	0.00	0 00	2,200.00	0.00	0.00	0 00	0.00	0.00	0.00
2,300.00	0.00	0 00	2,300.00	0.00	0.00	0.00	0.00	0 00	0.00
2,400.00	0.00	0.00	2,400.00	0 00	0.00	0 00	0 00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0 00	0 00	0.00	0.00
2,600.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0 00	0.00 0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0 00
2,800 00	0 00	0 00	2,000.00	0.00	0.00	0.00	0.00	0.00	
2,900.00	0 00	0.00	2,900.00	0.00	0 00	0 00	0 00	0.00	0.00
3,000 00	0 00	0 00	3,000.00	0.00	0 00	0 00	0 00	0 00	0.00
3,100.00	0 00	0 00	3,100.00	0 00	0 00	0.00	0.00	0.00	0 00
3,200 00	0 00	0.00	3,200.00	0.00	0 00	0 00	0.00	0.00	0 00
3,300.00	0.00	0 00	3,300.00	0.00	0.00	0.00	0 00	0 00	0.00
							0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0 00	0.00	0.00	0 00
3,500 00	0.00	0.00	3,500.00	0.00	0 00	0 00	0 00	0 00	0 00
3,600.00	0 00	0.00	3,600.00	0 00	0.00	0.00	0.00	0.00	0.00
3,700 00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0 00
3,800 00	. 0 00	0.00	3,800.00	0.00	0 00	0.00	0.00	0.00	0.00
3,900 00	0.00	0.00	3,900.00	0 00	0.00	0.00	0.00	0 00	0.00
4,000 00	0.00	0 00	4,000 00	0.00	0 00	0.00	0 00	0.00	0.00
4,100.00	0 00	0 00	4,100.00	0.00	0.00	0 00	0 00	0.00	0.00
4,174.00	0 00	0.00	4,174.00	0.00	0.00	0 00	0.00	0.00	0.00
4,174.00	0 00	0.00	4,200.00	0.00	0.00	0 00	0.00	0.00	0.00
4,200 00	0 00								
4,300 00	0.00	0 00	4,300 00	0 00	0 00	0.00	0.00	0 00	0 00
4,400 00	0 00	0 00	4,400 00	0.00	0 00	0 00	0 00	0.00	0 00
4,500.00	0.00	0 00	4,500.00	0.00	0 00	0 00	0.00	0 00	0.00
KOP - Build	4.0° / 100								
4,600 00	4.00	149 37	4,599 92	-3 00	1.78	3.49	4 00	4.00	0 00
4,700.00	8 00	149.37	4,699 35	-11 99	7.10	13 94	4 00	4 00	0 00
4,800 00	12 00	149 37	4,797.81	-26.93	15 95	31 30	4 00	4 00	0 00
4,900.00	16 00	149 37	4,894.82	-47.75	28.27	55.49	4 00	4 00	0 00
5,000 00	20.00	149 37	4,989.91	-74.33	44.01	86 38	4.00	4 00	0.00
5,100.00	24 00	149 37	5,082.61	-106 56	63.09	123 84	4 00	4 00	0.00
5,200.00	28.00	149.37	5,172 47	-144.27	85 42	167.67	4.00	4 00	0.00
EOB - Hold	28.0° Inc. :: 149.3	37° Azi.							
C 222 2-	00.00	440.07	E 200 70	101.07	400.04	244.04	0.00	0.00	0.00
5,300.00	28.00	149 37	5,260 76	-184.67	109 34	214 61	0 00	0 00	0 00
5,400.00	28 00	149.37	5,349.06	-225.07	133.26	261.56	0 00	0.00	0 00
5,500.00	28.00	149 37	5,437 35	-265 46	157.18	308.51	0 00	0.00	0.00
5,600.00	28 00	149 37	5,525.65	-305.86	181.10	355.45	0.00	0 00	0 00
5,700 00	28 00	149 37	5,613.94	-346.26	205 02	402 40	0.00	0 00	0.00
5,800 00	28 00	149 37	5,702.24	-386 65	228 94	449 35	0.00	0 00	0 00
2,000 00		149 37	5,790.53	-427.05	252.86	496 30	0.00	0 00	0.00





	Survey Report								EMERGY SERVICE	
								error marina	the second secon	
ompany:	Encore Operati	ng, L.P.	Lo	ocal Co-ordinate	Reference:	Well Ch	Federal #4			
roject:	Eddy Co., New	Mexico		VD Reference:	· · · ·	· WELL (@ 3724.00ft (Or	riginal Well Elev)		
ite:	CK Federal #4		, M	D Reference:		· WELL (@ 3724.00ft (Or	riginal Well Elev)	•	
	CK Federal #4		No	orth Reference:	· · · · · · · · · · · · · · · · · · ·	True				
	Slant #1			urvey Calculation	n Method:		m Curvature			
* * * * * * * * * * * * * * * * * * * *	Plan #1			atabase:		1.1	003.14.1.0 Serv	er DB		
<u>: </u>			<u> </u>		<u> </u>		· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	
lanned Survey						- # t				
Measured			Vertical			Vertical	Dogleg	Build	Tum	
	Inclination	Azimuth	Depth	+N/-S	+E/-W	Section	Rate	Rate	Rate	
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)	
. (14)	' ? ?				(14)					
6,000.00	28.00	149.37	5,878.83	-467.45	276.78	543.24	0.00	0.00	0.00	
6,100.00	28 00	149 37	5,967.12	-507.84	300 70	590.19	0 00	0.00	0 00	
6,200.00	28.00	149.37	6,055.42	-548 24	324 62	637.14	0.00	0.00	0.00	
£ 200 00	28.00	149.37	6,143 71	-588.64	348.54	684.08	0.00	0.00	0.00	
6,300.00		149.37		-500.64 -629.03	340.5 4 372.45	731.03	0.00	0.00	0.00	
6,400.00	28.00		6,232.01							
6,500.00	28.00	149.37	6,320.30	-669.43	396.37	777.98	0.00	0.00	0.00	
6,600.00	28.00	149.37	6,408.60	-709.83	420.29	824.93	0.00	0.00	0 00	
6,700 00	28 00	149.37	6,496.89	-750 22	444.21	871.87	0 00	0.00	0.00	
6,800.00	28.00	149.37	6,585.18	-790.62	468.13	918 82	0.00	0.00	0.00	
• •	28.00	149.37	6,673 48	-831.02	492.05	965.77	0.00	0.00	0.00	
6,900.00							0.00	0.00	0.00	
7,000.00	28.00	149.37	6,761.77	-871.42	515.97	1,012.71				
7,100 00	28 00	149.37	6,850.07	-911.81	539.89	1,059.66	0.00	0 00	0 00	
7,200.00	28 00	149 37	6,938.36	-952 21	563.81	1,106.61	0.00	0.00	0.00	
7,287.39	28.00	149.37	7,015.52	-987.51	584.71	1,147.64	0.00	0.00	0 00	
Drop -4.0° / 10										
7,300.00	27 50	149 37	7,026 68	-992 56	587.70	1,153.51	4.00	-4.00	0.00	
7,400.00	23 50	149.37	7,116.93	-1,029 59	609 63	1,196.54	4 00	-4.00	0 00	
7,500.00	19 50	149.37	7,209.95	-1,061.12	628.29	1,233 18	4.00	-4.00	0 00	
7,600.00	15.50	149 37	7,305.31	-1,086.98	643.61	1,263 23	4.00	-4.00	0 00	
									0.00	
7,700 00	11 50	149.37	7,402.53	-1,107 06	655.50	1,286.57	4.00	-4.00	0.00	
7,800 00	7 50	149.37	7,501.14	-1,121.25	663 90	1,303.06	4.00	-4 00	0.00	
7,900 00	3 50	149 37	7,600.66	-1,129.49	668 78	1,312 64	4.00	-4 00	0 00	
7,987.39	0.00	0 00	7,687 99	-1,131.78	670.14	1,315 30	4 00	-4.00	0.00	
EOD - Hold 0.0	0° Inc. :: 360.0°	Azi.								
8,000.00	0.00	0.00	7,700.60	-1,131 78	670.14	1,315.30	0.00	0.00	0 00	
	0.00	0.00	7 000 60	4 424 70	670.44	1 245 20	0.00	0.00	0.00	
8,100 00	0 00	0.00	7,800 60	-1,131.78	670.14	1,315 30	0 00			
8,200 00	0.00	0.00	7,900.60	-1,131.78	670.14	1,315.30	0.00	0.00	0 00	
8,300.00	0.00	0 00	8,000 60	-1,131.78	670 14	1,315.30	0.00	0 00	0.00	
8,400.00	0 00	0.00	8,100.60	-1,131 78	670.14	1,315.30	0.00	0 00	0 00	
8,500.00	0.00	0.00	8,200.60	-1,131.78	670.14	1,315.30	0.00	0.00	0.00	
		^ 000	0 200 00	1 121 70	670 14	1 315 30	0 00	0.00	0 00	
8,600 00	0 00	0.00	8,300 60	-1,131.78	670 14	1,315.30				
8,700.00	0.00	0.00	8,400.60	-1,131.78	670.14	1,315.30	0 00	0 00	0 00	
8,800 00	0 00	0 00	8,500 60	-1,131.78	670.14	1,315 30	0.00	0.00	0.00	
8,900.00	0 00	0 00	8,600 60	-1,131.78	670 14	1,315 30	0 00	0.00	0.00	
9,000.00	0.00	0.00	8,700.60	-1,131 78	670.1 4	1,315.30	0.00	0.00	0 00	
9,100.00	0 00	0 00	8,800.60	-1,131.78	670.14	1,315.30	0.00	0.00	0 00	
9,100.00	0.00	0 00	8,900.60	-1,131.78	670.14	1,315.30	0.00	0.00	0.00	
,										
9,300 00	0 00	0 00	9,000 60	-1,131.78	670.14	1,315.30	0 00	0.00	0 00	
9,400 00	0 00	0.00	9,100 60	-1,131 78	670.14	1,315.30	0.00	0 00	0 00	
9,500 00	0 00	0.00	9,200 60	-1,131.78	670.14	1,315.30	0.00	0 00	0 00	
9,600.00	0.00	0 00	9,300 60	-1,131 78	670.14	1,315 30	0.00	0.00	0.00	
9,700.00	0.00	0.00	9,400.60	-1,131 78	670.14	1,315.30	0.00	0.00	0.00	
9,800.00	0.00	0.00	9,500 60	-1,131.78	670.14	1,315.30	0 00	0 00	0 00	
9,900 00	0.00	0 00	9,600 60	-1,131.78	670.14	1,315.30	0.00	0.00	0.00	
									0.00	
10,000 00	0.00	0.00	9,700 60	-1,131.78	670.14	1,315 30	0.00	0.00	0.00	
10,100.00	0 00	0 00	9,800 60	-1,131.78	670.14	1,315 30	0.00	0.00	0 00	
10,200 00	0 00	0 00	9,900 60	-1,131.78	670 14	1,315.30	0 00	0.00	0 00	
10,300 00	0.00	0.00	10,000.60	-1,131.78	670.14	1,315.30	0 00	0.00	0 00	
	0.00	0.00	10,000.60	-1,131.78	670.14	1,315.30	0.00	0.00	0.00	
10,400 00										
10,500.00	0 00	0 00	10,200 60	-1,131.78	670 14	1,315 30	0 00	0 00	0 00	
10,600.00	0.00	0.00	10,300.60	-1,131.78	670.14	1,315 30	0.00	0 00	0.00	
	0.00	0.00	10,400 60	-1,131.78	670.14	1,315.30	0.00	0.00	0.00	
10 700 00						.,	0.00	0.00		
10,700.00 10,800 00	0.00	0 00	10,500 60	-1,131.78	670.14	1,315 30	0.00	0.00	0.00	



Survey Report



Company: Encore Operating, L.P.
Project: Eddy Co., New Mexico

5 1/2" - PBHL#1[CKFed4]

Local Co-ordinate Reference: Well CK Federal #4

TVD Reference: WELL @ 3724.00ft (Original Well Elev)
MD Reference: WELL @ 3724.00ft (Original Well Elev)
North Reference: True

Project: Site: Well: Wellbore: Design:	Eddy Co., New CK Federal #4 CK Federal #4 Slant #1 Plan #1	Mexico	. 1 1 3 :	TVD Reference: WELL @ 3724.00ft (Original Well Elev) MD Reference: WELL @ 3724.00ft (Original Well Elev) North Reference: True Survey Calculation Method: Minimum Curvature Database: EDM 2003.14.1.0 Server DB								
Planned Survey								-4 2	ne for stagen in the			
Measured			Vertical			Vertical	Dogleg	Build	Turn			
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Section	Rate	Rate	Rate			
. (ft)	(°)	(°)	(ft)	- (ft) 👊 🤃	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)			
11,000.00	0.00	0.00	10,700.60	-1,131.78	670.14	1,315.30	0.00	0.00	0.00			
11,100.00	0.00	0.00	10,800.60	-1,131.78	670.14	1,315.30	0.00	0.00	0.00			
11,200 00	0.00	0.00	10,900.60	-1,131.78	670.14	1,315.30	0.00	0.00	0.00			
11,300.00	0.00	0.00	11,000 60	-1,131.78	670.14	1,315.30	0.00	0.00	0.00			
11,400.00	- 0.00	0.00	11,100 60	-1,131.78	670.14	1,315.30	0 00	0.00	0.00			
11,500.00	0.00	0.00	11,200.60	-1,131.78	670.14	1,315.30	0.00	0 00	0.00			
11,600 00	0 00	0.00	11,300.60	-1,131.78	670.14	1,315.30	0.00	0.00	0.00			
11,700.00	0.00	0.00	11,400.60	-1,131.78	670.14	1,315.30	0.00	0.00	0 00			
11,800.00	0.00	0.00	11,500.60	-1,131.78	670.14	1,315.30	0.00	0.00	0.00			
11,900.00	0.00	0.00	11,600 60	-1,131 78	670.14	1,315 30	0.00	0.00	0 00			
12,000.00	0.00	0.00	11,700.60	-1,131.78	670.14	1,315.30	0.00	0.00	0.00			
12,100.00	0.00	0.00	11,800.60	-1,131.78	670.14	1,315.30	0.00	0.00	0 00			
12,200 00	0 00	0.00	11,900.60	-1,131.78	670.14	1,315.30	0.00	0 00	0.00			
12,300.00	0 00	0 00	12,000.60	-1,131.78	670.14	1,315.30	0.00	0.00	0.00			
12,400.00	0 00	0.00	12,100.60	-1,131.78	670 14	1,315 30	0 00	0.00	0.00			
12,500.00	0.00	0 00	12,200 60	-1,131.78	670.14	1,315 30	0.00	0.00	0.00			
12,595.40	0 00	0.00	12,296.00	-1,131.78	670 14	1,315.30	0 00	0.00	0.00			



Black Viper Energy

Survey Report



Company: Encore Operating, L.P. Project: Site: CK Federal #4 CK Federal #4 Well:

Local Co-ordinate Reference: Well CK Federal #4

TVD Reference: WELL @ 3724.00ft ((
MD Reference: WELL @ 3724.00ft ((
North Reference: True

Survey Calculation Method: Minimum Curvature Eddy Co., New Mexico Slant #1

Survey Calculation Method: Database:

WELL @ 3724.00ft (Original Well Elev)
WELL @ 3724.00ft (Original Well Elev)

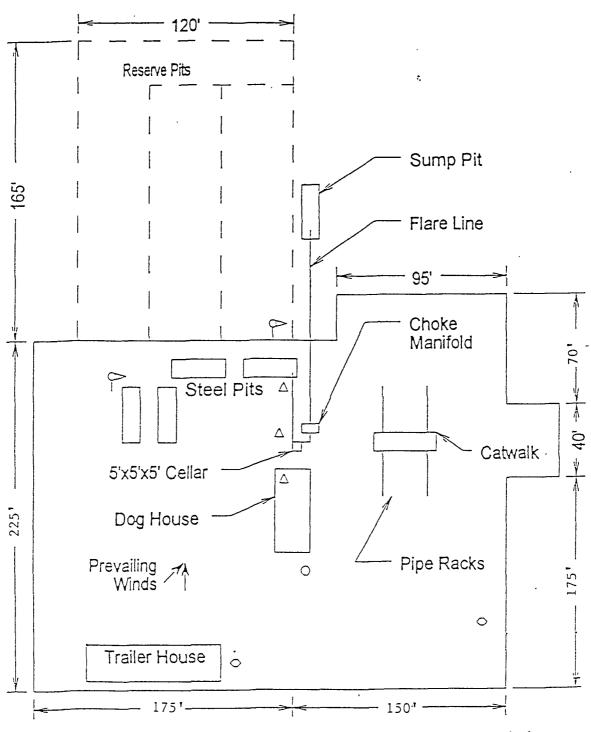
Minimum Curvature EDM 2003.14.1.0 Server DB

Wellbore: Sla	nt #1		Survey C	alculation Me	thod: Mi	nimum Curvature		
Design: Pla	n #1 	*	Database		EC	M 2003.14.1.0 Se	erver DB	
Targets Target Name - hit/miss target - Shape	Dip Angle Dip	Dir. TVD	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
PBHL#1[CKFed4] - plan hits target - Point	0.00	0.00 12,296.00	-1,131.83	670.04	446,939 25	503,900.65	32° 13' 43.500 N	104° 19' 14 600 W
X1 - plan misses by 368 6 - Rectangle (sides W2,		•	-816.00 1131 78 N, 670	480.00 0.14 E)	447,255.03	503,710.59	32° 13' 46.625 N	104° 19' 16.812 W
Interp @ 8700 00 (CK Fi - plan misses by 366.2 - Point	Oft at 8999.40ft N	8,700.00 AD (8700.00 TVD, -	-816.68 1131.78 N, 670	483.56 0.14 E)	447,254.36	503,714.15	32° 13′ 46,619 N	104° 19' 16 771 W
WLL - plan misses by 611.3 - Point	0.00 3ft at 5418.79ft N	0.00 _ 5,222 00 MD (5365.65 TVD, -	-734.77 232.66 N, 137.	-180.00 76 E)	447,336.19	503,050.64	32° 13' 47.429 N	104° 19' 24.495 W

Casing Points							
	Measured Depth (ft)	Vertical Depth (ft)		Name	Casing Diameter (")	Hole Diameter (")	
	450.00	450.00	13 3/8"		13-3/8	17-1/2	
	2,000.00	2,000 00	9 5/8"		9-5/8	12-1/4	
	12,595.40	12,296 00	5 1/2"		5-1/2	6	į ·

Plan Anno	otations					
	Measured	Vertical	Local Coor	dinates		
•	Depth (ft)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment	
	4,500 00	4,500.00	0.00	0.00	KOP - Build 4.0° / 100	
	5,200 00	5,172 47	-144 27	85 42	EOB - Hold 28.0° Inc. 1; 149.37° Azi.	
	7,287.39	7,015 52	-987.51	584 71	Drop -4.0° / 100	
	7,987 39	7,687.99	-1,131.78	670 14	EOD - Hold 0.0° Inc. :: 360 0° Azı.	

Checked By:	Ap	proved By:	Date:	



Wind Direction Indicators (wind sock or streamers)

△ H2S Monitors (alarms at bell nipple and shale shaker)

- Briefing Areas
- O Remote BOP Closing Unit
- □ Sign and Condition Flags

See ClAn V-Daor North No Pik

EXHIBIT "D"
RIG LAY OUT PLAT

ENCORE OPERATING, L.P.

CK FEDERAL #4

UNIT "E" SECTION 8

T24S-R26E EDDY CO. NM

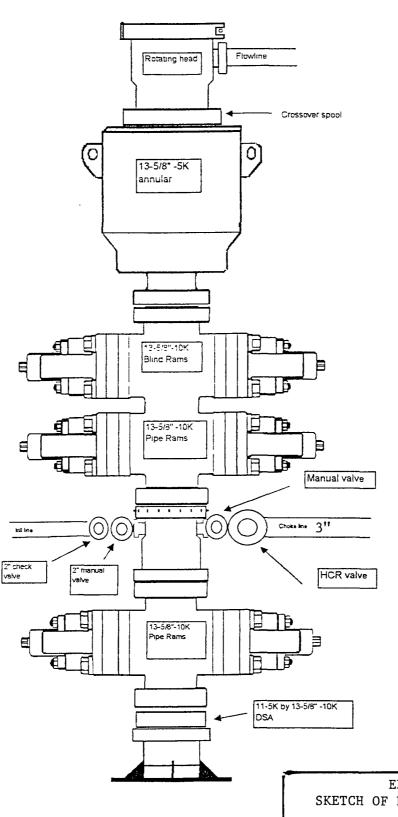


EXHIBIT "E"
SKETCH OF B.O.P. TO BE USED ON

ENCORE OPERATING, L.P.
CK FEDERAL #4
UNIT "E" SECTION 8
T24S-R26E EDDY CO. NM

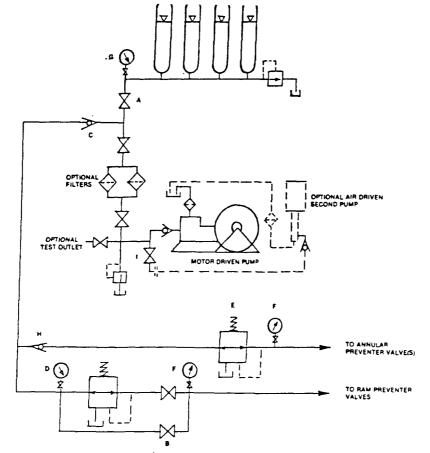
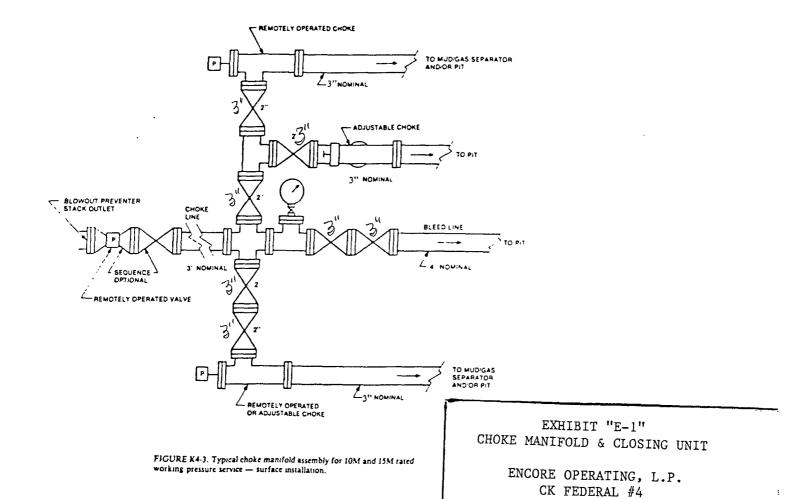


FIGURE K6-1. The schematic sketch of an accumulator system shows required and optional components



UNIT "E"

SECTION 8

T24S-R26E EDDY CO. NM

SURFACE USE PLAN

ENCORE OPERATING, L.P.
CK FEDERAL #4
UNIT "E" SECTION 8
T24S-R26E EDDY CO. NM

1. EXISTING AND PROPOSED ROADS:

- A. Exhibit "B" is a reporduction of a County General Hi-way map showing existing roads. Exhibit "C" is a reproduction of a USGS topographic map showing existing roads and and proposed roads. All existing roads will be maintained in a condition equal to or better than current conditions. All new roads will be constructed to BLM specifications.
- B. Exhibit "A" shows the proposed well site as staked.
- C. Directions to location: From Carlsbad New Mexico take U. S. Hi-way 62-180 Southwest 12± miles turn Right on caliche road, immediately turn Left follow road .3- miles, turn Right go .42 miles, turn Left go .6 miles and location is on the left side of road (South).
- D. Exhibit "C" shows roads leading to location and proposed roads.
- 2. PLANNED ACCESS ROADS: Approximately 250' of new road will be required.
 - A. The access roads will be crowned and sitched to a 14' wide travel surface, within a 30' R-O-W.
 - B. Gradient of all roads will be less than 5%.
 - C. Turn-outs will be constructed where necessary.
 - D. If require new access roads will be surface with a minimum of 4-6" of caliche. this material will be obtained from a local source.
 - E. Center line for new roads will be flagged, road construction will be done as field conditions require.
 - F. Culverts will be placed in the access road as drainage conditions require. Roads will be constructed to use low water crossings for drainage as required by the topographic conditions.

3. LOCATION OF EXISTING WELLS WITHIN A ONE MILE RADIUS: EXHIBIT "A-1"

- A. Water wells One approximately 2500' Southwest of location.
- B. Disposal wells None known
- C. Drilling wells None known
- D. Producing wells As shown on Exhibit "A-1"
- E. Abandoned wells As shown on Exhibit "A-1"

ENCORE OPERATING, L.P.

CK FEDERAL #4

UNIT "E" SECTION 8

T24S-R26E EDDY CO. NM

4. If on completion this well is a producer the operator will lay pipelines and construct powerlines along existing road R-O-W's or other existing R-O-W's. Exhibit "C" shows proposed roads, flowlines and powerlines.

5. LOCATION & TYPE OF WATER SUPPLY:

Water will be purchased locally from a commercial source and trucked over the location access roads or piped to location in flexible lines laid on top of the ground.

6. SOURCE OF CONSTRUCTION MATERIAL:

If possible construction material will be obtained from the excavation of the drill site, if additional material is required it will be obtained from a local source and transported over the location access roads as shown on Exhibit "C".

7. METHODS OF HANDLING WASTE:

- A. All trash, junk and other waste material will be contained in trash cages or trash bins in order to prevent scattering. When the job is completed all contents will be removed and disposed of in an approved sanitary land fill.
- B. Sewage from living quatersw will be drained into holding tanks and will be cleaned out periodically. A Porta-John will be provided for the rig crews. This equipment will be properly maintained during the drilling operations and removed upon completion of well.
- C. Remaining drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry enough to be broken out for further drying. If the drilling fluids do not evaporate in a reasonable time they will be hauled off by transports to a State approved disposal site. Later the pits will be broken out to speed drying. Water produced during completion will be stored in tanks and disposed of in State approved disposal site. Oil and condensate produced during completion will be put in storage tanks and sold.
- D. Drill cuttings will be disposed of in resebev pits or if necessary will be taken to a State approved landfarm and disposed of properly.
- E. Any remaining salts or mud additives will be collected by the supplier and to stock, this includes all broken bags.

8. ANCILLARY FACILITIES:

A. No camps or air strips will be constructed on location.

ENCORE OPERATING, L.P.

CK FEDERAL #4

UNIT "E" SECTION 8

T24S-R26E EDDY CO. NM

9. WELL SITE LAYOUT:

- A. Exhibit "D" shows the proposed well site layout.
- B. This Exhibit shows the location of reserve pit, sump pits, and living facilities.
- C. Mud pits in the active circulating system will be steel pits and the reserve pits will be unlined unless subsurface conditions encontered during pit construction indicate that a plastic liner is required to contain lateral migration.
- D. If needed the reserve pits will be lined with polyethelene. The pit liner will be no less than 12 mils thick and the liner will be extended at least 3 feet over the top of the dikes and secured in place to keep edge of liner in place.
- E. The reserve pit will be fenced on three sides and fenced with four strands of barbed wire during drilling and completionphases. The 4th side will be fenced after drilling operations are complete and the drilling rig has moved out. If the well is a producer the mud pits will remain fenced in until the mud has dried up enough to break out the pits and reclaimed according to BLM requirements.

10. PLANS FOR RESTORATION OF SURFACE:

Rehabilitation of the location and reserve pits will be allowed to dry properly, fluids may be moved and disposed of in accordance with article 7-E as previously noted. The pit area will then be leveled and contoured to conform to the original and surrounding area. Drainage systems, if any will be reshaped to the original configuration with provisions made to alleviate furture erosiqu. In case of the well completed as a producer the drilling pad will be necessary to construct production facilities. After the area has been shaped and contoured top soil from the spoil pile will be placed over the disturbed area to the extent possible so that revegetation procedures can be accomplished to comply with the BLM specifications.

If the well is a dry hole the pad and road area will be contoured to match the existing terrain. Top soil will be spread to the extent possible and revegetation will be carried out according to the BLM specifications.

Should the well be a producer the previously noted procedures will apply to those areas which are not required for production facilities.

SURFACE USE PLAN

ENCORE OPERATING, L.P.

CK FEDERAL #4

UNIT "E" SECTION 8

T24S-R26E EDDY CO. NM

11. OTHER GENERAL INFORMATION:

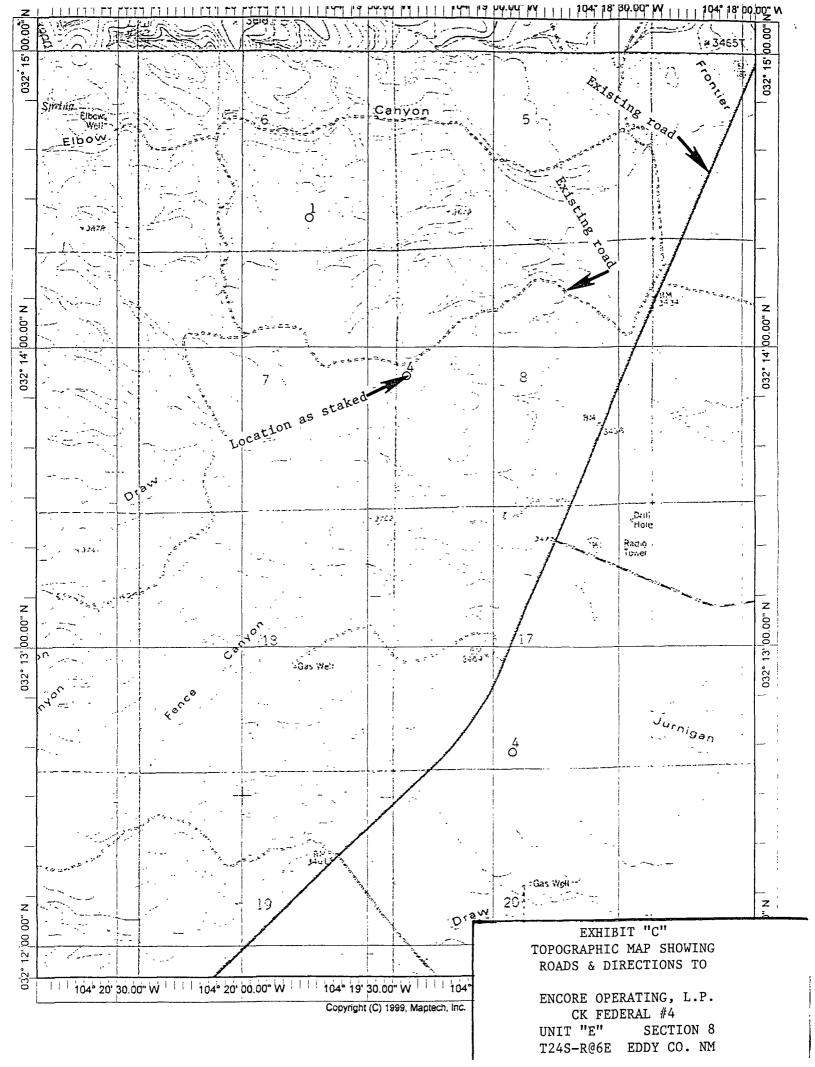
- A. Topography consists of steep canyons with an occasional relatively level area on the sumit of limestone hills. General dip of the surface is to the Southeast. Vegetation consists of Yucca, prickley pear, barrel cactus and various native grasses.
- B. The surface is owned by The U. S. Department of Interior and is administered by The Bureau of Land Management. The Surface is leased to Live stock ranchers for grazing of livestock. Oil & Gas Companies use the surface to drill well for the production of oil and gas.
- C. An archaeological survey will be conducted on the location and roads the results of which will be filed with The BLM in the Carlsbad Field Office.
- D. There are no dwellings located in the near vicinity of the proposed location.

CERTIFICATION

I HEREBY CERTIFY THAT I OR PERSONS UNDER MY SUPERVISION HAVE INSPECTED THE PROPOSED DRILL SITE AND THE ACCESS ROAD ROUTES, THAT I AM FAMILIAR WITH THE CONDITIONS THAT CURRENTLY EXIST, AND THAT THE STATEMENTS MADE IN THIS PLAN ARE TO THE BEST OF MY KNOWLEDGE ARE TRUE AND CORRECT, AND THAT THE WORK ASSOCIATED WITH THE OPERATIONS PROPOSED HEREIN WILL BE PERFORMED BY ENCORE OPERATING, L. P. ITS CONTRACTORS OR ITS SUB-CONTRACTORS IS IN CONFORMANCE WITH THIS PLAN AND THE TERMS AND THE CONDITIONS UNDER WHICH IT IS APPROVED. THIS STATEMENT IS SUBJECT TO THE PROVISIONS OF U.S.C. 1001 FOR THE FILING OF A FALSE STATEMENT.

OPERATORS REPRESENTATIVES

BEFORE CONSTRUCTION	DURING AND AFTER CONSTRUCTION
JOE T. JANICA	BILLY JUROSKA
TIERRA EXPLORATION, INC. P. O. BOX 2188 HOBBS, NEW MEXICO 88241 - PHONE 505-391-8503 CELL 505-390-1598 NAME: JOE T. JANICA	ENCORE OPERATING, L. P 777 MAIN STREET SUITE 1400 PHONE 817-339-0788 CELL 817-915-7010
DATE: 10 /15/07	· · · · · · · · · · · · · · · · · · ·
TITLE: AGENT	



VII. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 2 hours in advance for a representative to witness:

- a. Spudding well
- b. Setting and/or Cementing of all casing strings
- c. BOPE tests

Eddy County

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

- 1. Although Hydrogen Sulfide has not been reported in this section, it is always a potential hazard. If Hydrogen Sulfide is encountered, please report measured amounts to the BLM.
- 2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
- 3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

B. CASING

- 1. The 13-3/8 inch surface casing shall be set at approximately 400 feet and cemented to the surface. Drilling operations below the surface casing should be done with fresh water mud for the Capitan Reef. If the Salado formation is encountered, brine mud should be used.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater. (This is to include the lead

cement).

- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial action will be done prior to drilling out that string.

High cave/karst.

Possible lost circulation in the Capitan Reef, Delaware, and Bone Spring formations. Possible high pressure gas bursts in the Wolfcamp formation and the Pennsylvanian Section may be over pressured.

- 2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is:
 - Cement to surface. If cement does not circulate see B.1.a-d above.

Formation below the 9-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i.

- 3. The minimum required fill of cement behind the 5-1/2 inch production casing is:
 - Cement to surface. If cement does not circulate, contact the appropriate BLM office. Both stages to circulate.
- 4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
- 2. The appropriate BLM office shall be notified a minimum of 2 hours in advance for a representative to witness the tests.
 - a. The tests shall be done by an independent service company.
 - b. The results of the test shall be reported to the appropriate BLM office.
 - c. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be

submitted to the appropriate BLM office.

- d. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.
- e. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.
- f. A variance is approved to use a flexible hose between the wellhead and choke manifold. Hose is to be anchored according to manufacturer's requirements (at each end) and is to be kept as straight as possible. Check condition of flexible line from BOP to BOPE, replace if exterior is damaged or if line fails test.

D. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the **Wolfcamp** formation, and shall be used until production casing is run and cemented.

Engineer on call phone (after hours): Carlsbad: (575) 706-2779

WWI 112007

-DISTRICT I 1825 N. French Dr., Hobbs, NM 88240 DISTRICT II 1201 W. Grand Avenue, Artesia, NM 88210

State of New Mexico Energy, Minerals and Natural Resources Department Form C-102 Revised October 12, 2005

DISTRICT III 1000 Rio Brazos Rd., Aztec. NM 87410 OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, New Mexico 87505 Submit to Appropriate District Office State Lease - 4 Copies Pec Lease - 3 Copies

DISTRICT IV 1220 S. St. Francis Dr., Santa Pe, NM 87505

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name		
	87280	WHITE CITY-PENN		
Property Code	•	erty Name EDERAL	Well Number	
OGRID No. 189951	0per ENCORE OI	Elevation 3724		
	5 . 6	- 7 42		

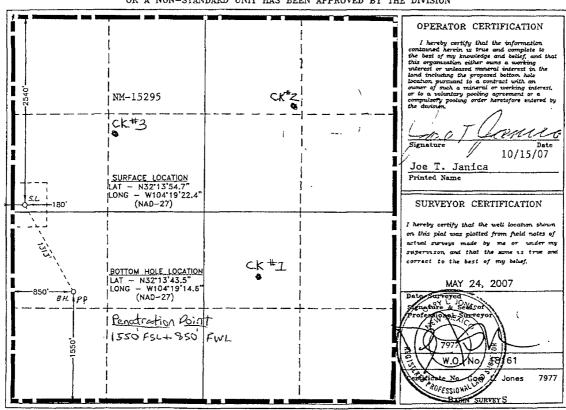
Surface Location

[UL or lot No.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
ı	Ε	8	24 S	26 E		2540	NORTH	180	WEST	EDDY

Bottom Hole 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 hane	County
L	8	24 S	26 E		1550	SOUTH	850	WEST	EDDY
Dedicated Acres	Dedicated Acres Joint or Infill Consolidation Code		ode Or	der No.					
640									

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





777 Main Street Suite 1400 Fort Worth, Texas 76102 (817) 877-9955 fax: (817) 877-1655

DELÍVERY BY CERTIFIED MAIL NO. 7007 1490 0004 0078 1316 – RETURN RECEIPT REQUESTED

September 17, 2007

Wadi Petroleum Inc. 4355 Sylvanfield Drive, Suite 200 Houston, TX 77014 Attn: Mr. Kevin Dice

Re:

C K Federal No. 4 location SHL: 2540' FNL & 180' FWL BHL: 1000' FSL & 1300' FWL Section 8, T24S-R26E Eddy County, New Mexico

Dear Kevin:

As you know, Wadi Petroleum Inc. ("Wadi") is the operator of the existing Morrow wells named CK Federal No. 1, 2 and 3, respectively. All of Section 8 (640 acres) is the proration unit and the spacing for said well will be 160 acres.

Encore Operating, L.P. ("Encore") on behalf of Wadi Petroleum, Inc. proposes to drill the CK Federal No. 4 to a depth of 12,100' to test the Morrow Formation at a bottom bole location being 1000' FSL & 1300' FWL of Section 8, T24S-R26E, Eddy County, New Mexico and dedicating the SW/4 of Section 8 for the drilling and spacing unit for said well

Please execute this WAIVER pursuant to the State of New Mexico Oil Conservation Division Rule 19.15.3.104 (E), Multiple Operators within a Spacing Unit. Should you have any questions please contact me at 817-339-0754.

Sincerely,

Linda Smith, RPL

Senior Landman

Kevil B. Dice, Vice President.

WHITE CITY-PENNSYLVANIAN GAS POOL Eddy County, New Mexico

Order No. R-2429-A, Adopting Temporary Operating Rules for the White City-Pennsylvanian Gas Pool, Eddy County, New Mexico, April 1, 1963, as Amended by Order No. R-2429-C, April 1, 1981, Order No. R-2429-D, April 1, 1981, and Order No. R-2429-E, October 8, 2002.

Order No. R-2429, February 21,1963, continued Case No. 2737 to the last examiner hearing in March, 1963.

Order No. R-2429-B, April 13, 1964, makes permanent the temporary rules adopted in Order No. R-2429-A.

Order No. R-2429-D, April 1, 1981, rescinds Order No. R-2429-C, April 1, 1981, amending Rule 2 and Rule 4.

Application of Gulf Oil Corporation for Special Pool Rules for the White City-Pennsylvanian Gas Pool, Eddy County, New Mexico.

CASE NO. 2737 Order No. R-2429-A

ORDER OF THE COMMISSION

BY THE COMMISSION: This cause came on for hearing at 9 o'clock a.m. on March 20, 1963, at Santa Fe, New Mexico, before Elvis A. Utz, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 27th day of March, 1963, the Commission, a quorum being presently having considered the application, the evidence adduced, and the recommendations of the Examiner, Elvis A. Utz, and being fully advised in the premises,

- FINDS:
 (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter
- (2) That the applicant, Gulf Oil Corporation, seeks the promulgation of temporary special rules and regulations for the White City-Pennsylvanian Gas Pool in Eddy County, New Mexico, including a provision for 640-acre spacing units.
- (3) That temporary special rules and regulations establishing 640-acre spacing units should be promulgated for the subject pool in order to prevent the possibility of economic loss resulting from the drilling of unnecessary wells and in order to allow the operators in the subject pool to gather information concerning the reservoir characteristics of the pool.
- (4) That the temporary special rules and regulations should provide for limited well locations in order to assure orderly development of the pool and protect correlative rights.
- (5) That the temporary special rules and regulations should be established for a one-year period and that during this one-year period all operators in the subject pool should gather all available information relative to drainage and recoverable reserves.
- (6) That this case should be reopened at an examiner hearing in March, 1964, at which time the operators in the subject pool should appear and show cause why the White City-Pennsylvanian Gas Pool should not be developed on 160-acre spacing units.

IT IS THEREFORE ORDERED:

That Special Rules and Regulations for the White City-Pennsylvanian Gas Pool in Eddy County, New Mexico, are hereby promulgated as follows, effective April 1, 1963.

SPECIAL RULES AND REGULATIONS FOR THE WHITE CITY-PENNSYLVANIAN GAS POOL

- RULE 1. Each well completed or recompleted in the White City-Pennsylvanian Gas Pool or in the Pennsylvanian formation within one mile of the White City-Pennsylvanian Gas Pool, and not nearer to or within the limits of another designated Pennsylvanian pool, shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.
- RULE 2. (As Amended by Order No. R-2429-D, April, 1981, and Order No. R-2429-E, October 8, 2002.)
- A. Each well completed or recompleted in the White City-Pennsylvanian Gas Pool shall be located on a standard unit containing 640 acres, more or less, consisting of a single governmental section.
- B. Nothing in this rule shall be construed as prohibiting the drilling of additional wells on a standard proration unit provided that there shall be no more than four (4) wells capable of producing from the White City-Pennsylvanian Gas Pool on any proration unit at one time.
- C. That for good cause shown the Director of the Division may waive the requirements of Rule 2B. above.
- RULE 3. The Secretary-Director may grant an exception to the requirements of Rule 2 without notice and hearing when application has been filed for a non-standard unit and the unorthodox size or shape of the unit is necessitated by a variation in the legal subdivision of the United States Public Lands Survey, or the following facts exist and the following provisions are complied with:
- (a) The non-standard unit consists of quarter-quarter sections or lots that are contiguous by a common bordering side.
- (b) The non-standard unit lies wholly within a single governmental section and contains less acreage than a standard unit.
- (c) The applicant presents written consent in the form of waivers from all offset operators and from all operators owning interests in the section in which the non-standard unit is situated and which acreage is not included in the non-standard unit.
- (d) In lieu of Paragraph (c) of this rule, the applicant may furnish proof of the fact that all of the foresaid operators were notified by registered or certified mail of his intent to form such non-standardunit. The Secretary-Director may approve the application if no such operator has entered an objection to the formation of such non-standard unit within 30 days after the Secretary-Director has received the application
- RULE 4. (As Amended by Order No. R-2429-E, October 8, 2002.) The initial well within a gas spacing and proration unit shall be located no closer than 660 feet to the outer boundary of the quarter section on which the well is located and no closer than 10 feet to any quarter-quarter section line or subdivision inner boundary. Each inful well within an existing gas spacing and proration unit shall be located in a quarter section that does not contain a producing Pennsylvanian gas well and shall be located with respect to the assigned unit boundaries as described above. as described above
- (a) No more than one Pennsylvanian gas well shall be located within a single governmental quarter section. Any deviation from this well density requirement shall be authorized only after hearing.
- (b) The land plat (NMOCD Form C-102) accompanying the "Application for Permit to Drill" (NMOCD Form C-101) or federal equivalent) for subsequent wells on an existing gas spacing and proration unit shall have outlined the boundary of the unit and shall show the location (well name, footage location, API number) of all existing Pennsylvanian gas wells on the unit plus the proposed new mell

(WHITE CITY-PENNSYLVANIAN GAS POOL - Cont'd.)

RULE 5. (As Amended by Order No. R-2429-E, October 8, 2002.) The Division Director may grant an exception to the setback requirements for a Pennsylvanian gas well prescribed by Rule 4 above, without hearing, when an application has been duly filed under the provisions of Division Rule 104.F.

RULE 6. (As Added by Order No. R-2429-D, April 1, 1981.) That these special rules shall apply only within the horizontal limits of the White City-Pennsylvanian Gas Pool as they are defined below and as they may from time to time be amended.

HORIZONTAL LIMITS WHITE CITY-PENNSYL VANIAN GAS POOL EDDY COUNTY, NEW MEXICO

TOWNSHIP 24 SOUTH, RANGE 26 EAST, NMPM

Sections 8 and 9: All Sections 15 through 17: All Sections 19 through 22: All Sections 28 through 30: All Sections 32 through 35: All

TOWNSHIP 25 SOUTH, RANGE 26 EAST, NMPM Sections 1 through 4: All Sections 10 through 12: All

IT IS FURTHER ORDERED:

- IT IS FURTHER ORDERED:

 (1) That any wells presently drilling to or completed in the Pennsylvanian formation within the White City-Pennsylvanian Gas Pool or within one mile of the White City-Pennsylvanian Gas Pool that will not comply with the well location requirements of Rule 4 is hereby granted an exception to the requirements of Rule 4. The operator of any such well shall notify the Artesia District Office in writing of the name and location of the well on or before April 1, 1963.
- (2) That any operator desiring to dedicate 640 acres to a well presently drilling to or completed in the White City-Pennsylvanian Gas Pool shall file a new Form C-128 with the Commission on or before April 1, 1963.
- (3) That this case shall be reopened at an examiner hearing in March, 1964, at which time the operators in the subject pool may appear and show cause why the White City-Pennsylvanian Gas Pool should not be developed on 160-acre spacing units.
- (4) That Order No. R-2429 entered by the Commission on February 21, 1963, is hereby superseded.
- (5) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

SEVEN LAKES-MENEFEE POOL McKinley County, New Mexico

Order No. R-7022, Adopting Operating Rules for the Seven Lakes-Menefee Pool, McKinley County, New Mexico, July 16, 1982.

Application of S & J Oil Company for Special Pool Rules, McKinley County, New Mexico.

CASE NO. 7519 Order No. R-7022

ORDER OF THE DIVISION

BY THE DIVISION: This cause came on for hearing at 9 a.m. on June 9, 1982, at Santa Fe, New Mexico, before Examiner Richard L.

NOW, on this 16th day of July, 1982, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

- (1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, S & J Oil Company, seeks the promulgation of special pool rules for the Seven Lakes-Menefee Oil Pool to provide for wells to be located not nearer than 25 feet to the quarter-quarter section line nor nearer than 165 feet to lands owned by an offset
- (3) That said Seven Lakes-Menefee Oil Pool was discovered in 1911 at a depth of approximately 300 to 350 feet.
- (4) That wells in said pool have extremely low rates of production and expected ultimate recoveries.
- (5) That the proposed special rules and regulations may permit the production of oil from said pool which may be otherwise unrecoverable thereby preventing waste.
- $(\mbox{\bf 6})$ That approval of the application will not result in violation of correlative rights.
 - (7) That the application should be approved.

IT IS THEREFORE ORDERED:

(1) That Special Rules and Regulations for the Seven Lakes-Menefee Oil Pool, McKinley County, New Mexico, are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS FOR THE SEVEN LAKES-MENEFEE OIL POOL