

N. M. Oil Cons. Division

811 S. 1ST ST.

ARTESIA, NM 87003  
 (other side)

FORM APPROVED  
 OMB NO. 1004-0136  
 Expires: February 28, 1995

01 Form 3160-3  
 (July 1992)

UNITED STATES  
 DEPARTMENT OF THE INTERIOR  
 BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK  
 DRILL  DEEPEN

b. TYPE OF WELL  
 OIL WELL  GAS WELL  OTHER  SINGLE ZONE  MULTIPLE ZONE

2. NAME OF OPERATOR  
 Chi Operating, Inc. 4378 915/685-5001

3. ADDRESS AND TELEPHONE NO.  
 P. O. Box 1799 Midland, Texas 79702

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)  
 At surface 990' FSL & 990' FWL  
 At proposed prod. zone Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 17 road miles E. of Artesia, NM

15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any)  
 330'

16. NO. OF ACRES IN LEASE  
 200

17. NO. OF ACRES ASSIGNED TO THIS WELL  
 320

18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.  
 300' P&A

19. PROPOSED DEPTH  
 10,400'

20. ROTARY OR CABLE TOOL  
 Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 3530' GL

5. LEASE DESIGNATION AND SERIAL NO.  
 NM-012896

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
 24889

8. FARM OR LEASE NAME, WELL NO. #/  
 Coal Train Federal Com

9. API WELL NO.  
 30-015-30764

10. FIELD AND POOL, OR WILDCAT  
 WC Crow Flat; Morrow SE gas  
 96840

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
 Sec. 10-T17S-R28E

12. COUNTY OR PARISH  
 Eddy

13. STATE  
 New Mexico

22. APPROX. DATE WORK WILL START\*  
 August 30, 1999

**NOSWELL CONTROLLED WATER BASIN**

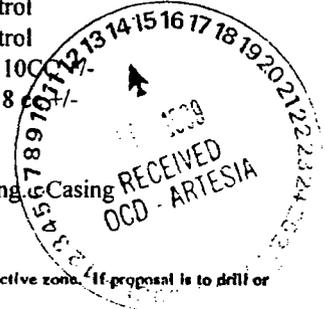
PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8" H-40	48.0# STC	425'	Circ. 350 sx "C"
12 1/4"	8 5/8" J-55	32.0# STC	2,000'	Circ. 650 sx "C"
7 7/8"	5 1/2" N-80	17.0# LTC	10,400'	475 sx "H" to 8,000'

APPROVAL SUBJECT TO  
 GENERAL REQUIREMENTS AND  
 SPECIAL STIPULATIONS

<b>Mud Program:</b>	<b>Mud Wt.</b>	<b>- Vis.</b>	<b>- W/L control</b>
0' - 425': Fresh water Gel/Lime:	8.4 - 8.7 ppg	32 - 34	No W/L control
425' - 2,000': Brine mud:	10.0 - 10.2 ppg	28 - 29	No W/L control
2,000' - 6,600': Fresh water mud:	8.3 - 8.4 ppg	28 - 29	No W/L control
6,600' - 9,100': Cut Brine mud:	9.6 - 10.0 ppg	28 - 29	No W/L control
9,100' - 9,500': Cut Brine mud:	9.6 - 10.0 ppg	32 - 36	W/L control 100%
9,500' - 10,400': Cut Brine mud:	9.6 - 10.0 ppg	42 - 48	W/L control 80%

**BOP Program:**  
 A 12" 5000 psi wp Shaffer Type LWS Double Gate BOP will be installed on the 13 3/8" casing and BOP will be tested before drilling out with 12 1/4" and will be tested daily.



IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. George L. Smith Agent for: Chi Operating, Inc. DATE August 16, 1999

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

CONDITIONS OF APPROVAL, IF ANY:  
 Acting Assistant Field Office Manager,  
 Lands and Minerals  
 APPROVED BY /S/LARRY D. BRAY DATE 9-13-99

\*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes 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 statement or representation as to any matter within its jurisdiction.



DIAMOND MOUND

10

35

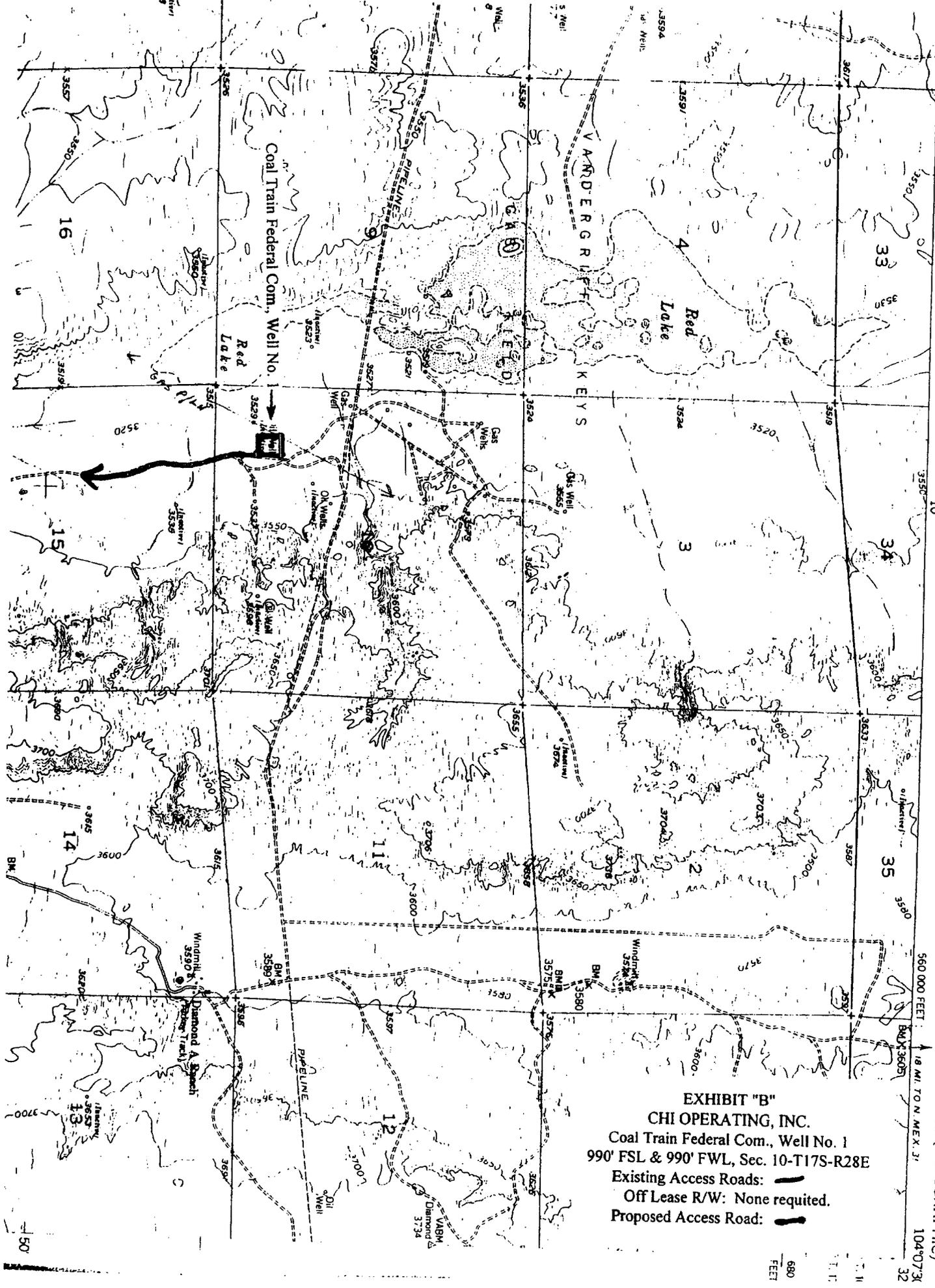
560 000 FEET 1/8 MI. TON. MEX. 31

104°07'30" 32

NEW MEXICO-EDDY CO.  
7.5 MINUTE SERIES (TOPOGRAPHIC)

**EXHIBIT "B"**  
**CHI OPERATING, INC.**  
Coal Train Federal Com., Well No. 1  
990' FSL & 990' FWL, Sec. 10-T17S-R28E  
Existing Access Roads:   
Off Lease R/W: None required.  
Proposed Access Road: 

680  
FEET



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0135  
Expires November 30, 2000

OCD Artesia

0145

**SUNDRY NOTICES AND REPORTS ON WELLS**  
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

**SUBMIT IN TRIPLICATE - Other instructions on reverse side**

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. NM-012896
2. Name of Operator Chi Operating, Inc.		6. If Indian, Allottee or Tribe Name
3a. Address P.O. Box 1799	3b. Phone No. (include area code) (915) 685-5001	7. If Unit or CA/Agreement, Name and/or No.
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 660' FSL & 990' FWL (New) Sec. 10-T17S-R28E 990' FSL & 990' FWL (Old) " "		8. Well Name and No. Coal Train Federal Com.
		9. API Well No. 1
		10. Field and Pool, or Exploratory Area WC Crow Flat; Morrow SE gas
		11. County or Parish, State Eddy, NM

**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other _____
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Chi Operating, Inc. is proposing to move the approved location 330' south to 660' FSL to avoid a buried oil pipeline belonging to Amoco (BPA) which was found to be 10' west of the location. This is a 40-50 year old line that does not show up on the topo map and was not visible from the location. This line is active, and is a main line to Chicago. Everyone, including "eagle Eye" Jim Sciscenti, the archaeologist missed it. The move south will clear the line enough to put in a drill pad with some restrictions.

RECEIVED

DEC 27 1999

BLM  
WELL, NM

14. I hereby certify that the foregoing is true and correct

Name (Printed/Typed) George R. Smith	Title Agent for: Chi Operating, Inc.
Signature <i>George R. Smith</i>	Date December 27, 1999

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by _____	Title _____	Date 1/6/2000
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		Office CFC

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.

\* OPERATOR TO 2 STAGE POWER RED LAKE GN-65-SA COMING 4500 TO INTERMEDIATE

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK  
 DRILL  DEEPEN

b. TYPE OF WELL  
 OIL WELL  GAS WELL  OTHER  SINGLE ZONE  MULTIPLE ZONE

2. NAME OF OPERATOR  
 Chi Operating, Inc. 915/685-5001

3. ADDRESS AND TELEPHONE NO.  
 P. O. Box 1799 Midland, Texas 79702

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)  
 At surface  
 660' FSL & 990' FWL  
 At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 Same  
 17 road miles E. of Artesia, NM

16. NO. OF ACRES IN LEASE  
 200

17. NO. OF ACRES ASSIGNED TO THIS WELL  
 320

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.  
 300' P&A

19. PROPOSED DEPTH  
 10,400'

20. ROTARY OR CABLE TOOLS  
 Rotary

22. APPROX. DATE WORK WILL START\*  
 August 30, 1999

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 3530' GL

5. LEASE DESIGNATION AND SERIAL NO.  
 NM-012896

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME, WELL NO.  
 Coal Train Federal Com

9. AN WELL NO.  
 1

10. FIELD AND POOL, OR WILDCAT  
 WC Crow Flat; Morrow SE gas

11. SEC., T., S., N., OR BLK. AND SURVEY OR AREA  
 Sec. 10-T17S-R28E

12. COUNTY OR PARISH  
 Eddy

13. STATE  
 New Mexico

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8" H-40	48.0# STC	425'	Circ. 350 sx "C"
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Mud Program:

	Mud Wt.	- Vis.	- W/L Control
0' - 425': Fresh water Gel/Lime:	8.4 - 8.7 ppg	32 - 34	No W/L control
425' - 2,000': Brine mud:	10.0-10.2 ppg	28 - 29	No W/L control
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9,100' - 9,500': Cut Brine mud:	9.6-10.0 ppg	32 - 36	W/L control 10CC +/-
9,500' - 10,400': Cut Brine mud:	9.6-10.0 ppg	42 - 48	W/L control 8 cc +/-

BOP Program:

A 12" 5000 psi wp Shaffer Type LWS Double Gate BOP will be installed on the 13 3/8" casing. Casing and BOP will be tested before drilling out with 12 1/4" and will be tested daily.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. George P. Smith Agent for: Chi Operating, Inc. DATE December 27, 1999

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
 CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

\*See Instructions On Reverse Side

District I  
1025 N. French Dr., Hobbs, NM 88240

District II  
811 South First, Artesia, NM 88210

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

District IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources

OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, NM 87505

Form C-102  
Revised March 17, 1999

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 WC Crow Flat; Morrow SE Gas	
4 Property Code		5 Property Name COAL TRAIN FEDERAL COM			6 Well Number 1
7 OGRID No.		8 Operator Name CHI OPERATING, INC.			9 Elevation 3528.

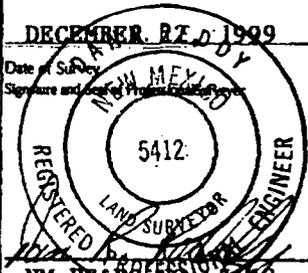
10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	10	17-S	28-E		660	SOUTH	990	WEST	EDDY

11 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
12 Dedicated Acres 320	13 Joint or Infill	14 Consolidation Code C	15 Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16				17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
				Signature <i>George R. Smith</i> George R. Smith, agent or: Printed Name Chi Operating, Inc. Title December 27, 1999 Date	
NM-012896 Burlington Res. & Earon Oil & Gas				18 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.	
	990' 660'			DECEMBER 27, 1999 Date of Survey Signature and Seal of Professional Engineer 	

DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED

(July 1992)

(See other instructions on reverse side)

OMB NO. 1004-0137

Expires: February 28, 1995

WELL COMPLETION OR RECOMPLETION REPORT AND LOG\*

1a. TYPE OF WELL: OIL WELL  GAS WELL   DRY  Other

b. TYPE OF COMPLETION: NEW WELL  WORK OVER WELL  DEEP-EN  PLUG BACK  DIFF. RESVR.  Other

2. NAME OF OPERATOR: Chi Operating, Inc.

3. ADDRESS AND TELEPHONE NO.: P.O. Box 1799 Midland, Texas 79702

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*  
At surface: 660 FSL, 990 FWL, Sec 10, T17S, R28E EDDY COUNTY, NEW MEXICO  
At top prod. interval reported below

5. LEASE DESIGNATION AND SERIAL NO.: NM - 012896

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME, WELL NO.: Coal Train Federal Com. #1

9. API WELL NO.: 30-015-30764

10. FIELD AND POOL, OR WILDCAT: W&B Crow Flat; Morrow, SE Gas Pool

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: SEC. 10, T17S, R28E

14. PERMIT NO. DATE ISSUED: 9/13/99

12. COUNTY OR PARISH: Eddy

13. STATE: NM

15. DATE SPUNDED: 1/14/00

16. DATE T.D. REACHED: 2/9/00

17. DATE COMPL. (Ready to prod.): 2/28/00

18. ELEVATIONS (OF, RKB, RT, GE, ETC.): 3630'

19. ELEV. CASING HEAD

20. TOTAL DEPTH, MD, & TVD: 10,200'

21. PLUG BACK TD, MD&TVD: 10,200'

22. IF MULTIPLE COMPL., HOW MANY\*: one

23. INTERVAL DRILLED BY: ROTARY TOOLS yes

24. PRODUCING INTERVAL(S), OF THIS COMPLETION - TOP, BOTTOM, NAME (AND AN TVD)\*: 9870-76, 9895-99 - 4SPF Morrow Sands

25. WAS DIRECTIONAL SURVEY MADE: Yes

26. TYPE ELECTRIC AND OTHER LOGS RUN: GR-CAL-CNL, LDT, DDL, MSFL

27. WAS WELL CORED: NO

28. CASING RECORD (Report all strings set in well)

CASING SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
13 3/8 H-40	48	428'	17 1/2"	0', CIRC. 100 SKS.	
8 5/8 J-55	24	2078'	11"	0', CIRC. 56 SKS.	
5 1/2 N-80	17	10,200'	7 7/8"	5450' 1st stage - CBL. 1660' 2nd stage - CBL.	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 3/8"	9853'	9853'

31. PERFORATION RECORD (Interval, size and number): 9870-76 - 4SPF, 9895-99 - 4 SPF

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.  
DEPTH INTERVAL (MD): 9870-76 - 4SPF, 9895-99 - 4 SPF  
AMOUNT AND KIND OF MATERIAL USED: Acidized together w/ 1000 gals. 7.5% & CO2. Fractured together w/ 34500 gals. & 38600 lbs.

33. PRODUCTION

DATE FIRST PRODUCTION: 2/29/00

PRODUCTION METHOD (Flowing, gas lift, pumping - size and type of pump): Flowing

WELL STATUS (Producing or shut-in): Producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N FOR TEST PERIOD	OIL - BBL.	GAS - MCF	WATER - BBL.	GAS-OIL RATIO
3/04/00	24	15/64		38	1364	6	

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL - BBL.	GAS - MCF	WATER - BBL.	OIL GRAVITY - API (CORR.)
1000	0#					

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.): Sold

TEST WITNESSED BY: Sonny Mann

35. LIST OF ATTACHMENTS: Dev. Survey

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED: [Signature] TITLE: Engineer DATE: 3/8/00

\*(See Instructions and Spaces for Additional Data on Reverse Side)

Title 18 U.S.C. Section 1001, makes 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.

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**GARY E. JOHNSON**  
Governor  
**Jennifer A. Salisbury**  
Cabinet Secretary

**Lori Wrotenbery**  
Director  
Oil Conservation Division

June 5, 2000

Chi Operating, Inc.  
P.O. Box 1799  
Midland, TX 79702

**RE: WELL PLACED IN POOL**

Gentlemen/Madams:

As the result of Division Order No. R-11384, the following described gas well has been placed in the pool shown below. This change in nomenclature has been made in our files. Please change your records to reflect the proper pool name. All subsequent reports must show this nomenclature until further notice.

**Crow Flat; Morrow, Southeast Gas Pool  
Coal Train Federal Com. Federal Well No. 1  
Unit M, Section 10, Township 17 South, Range 28 East, NMPM  
Poolcode: 96840**

Transporters are advised by copy of this letter to change their records to reflect the pool name as established by this order effective February 1, 2000.

Sincerely,

Bryan Afrant  
District Geologist

cc: Navajo Refining  
Conoco, Inc.  
Santa Fe  
Well File  
Mae  
BLM