



ARCO Permian
600 N Marienfeld
Midland TX 79701
Post Office Box 1610
Midland TX 79702
Telephone 915 688 5200

OIL CONSERVATION DIVISION

RECEIVED

DEC 6 1996

12-11

December 5, 1996

State of New Mexico
Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

Attn: Mike Stogner

Re: Dinah 23 Fed Com #1 - Directional Drill Order

Mr. Stogner,

Tim Gum at your Artesia District office contacted Arco and asked if a Directional Drill Order had been done on the Dinah 23 Fed Com #1 well since it had been directionally drilled. I told Mr. Gum that the well had not intended to be directional, but that the well had deviated while being conventionally drilled and at 9801' (see survey attached) it was decided to begin directionally drilling to straighten the hole back towards the surface hole location. Mr. Gum suggested I contact your office about a Directional Drill Order.

I called you and as per our telephone conversation on 12/5/96, I have attached an APD, C-102, C-103, C-105, and a directional survey for the Dinah 23 Fed Com #1. As can be seen from the survey, the well was drilled back towards the surface hole location from the initial directional drill point at 9801'. If a Directional Drill Order is needed, please prepare one and forward to the Artesia District office so that Mr. Gum can finish processing the completion papers on the well.

If you need any additional data, please contact me at (915) 688-5672.

Charles W. Knight, Jr.

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

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

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
		Empire, South, Morrow
Property Code	Property Name	Well Number
	DINAH 23 FED COM	1
OGRID No.	Operator Name	Elevation
000990	ARCO PERMIAN	3590

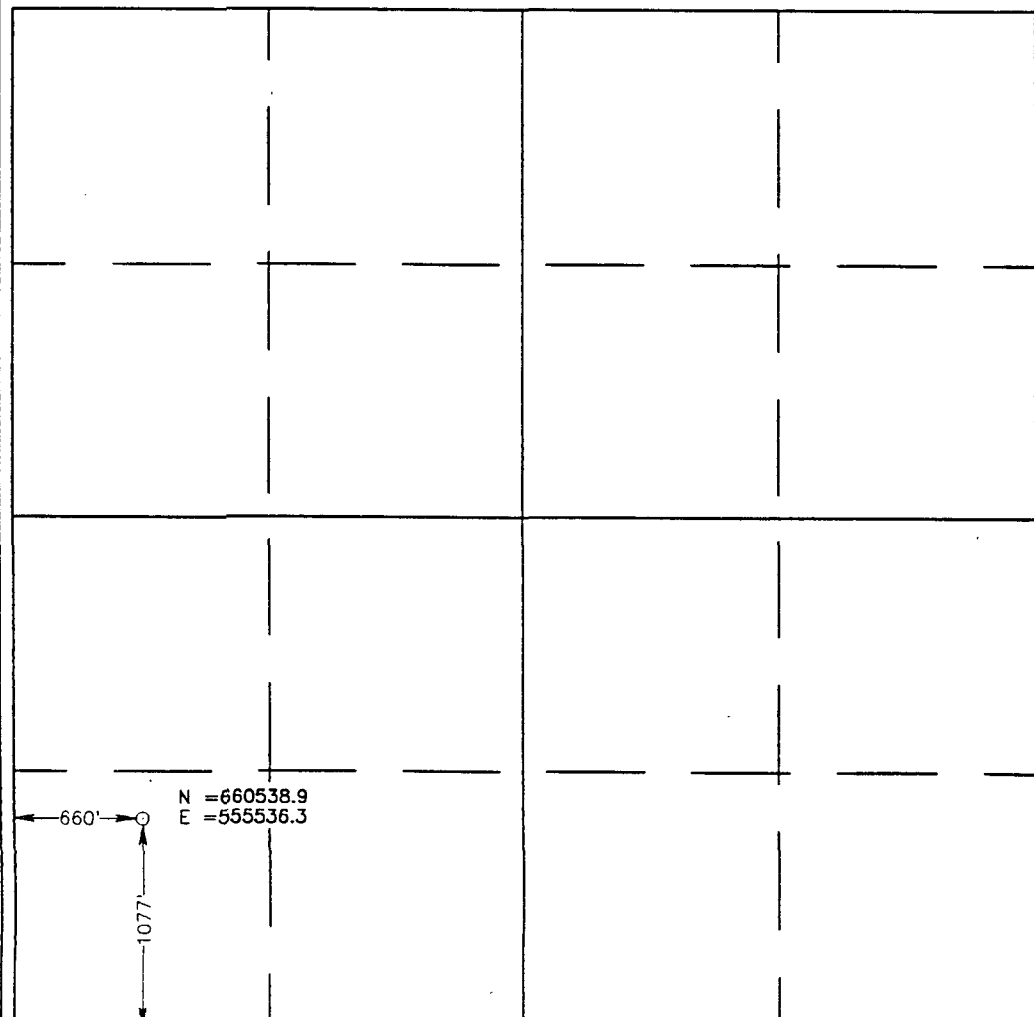
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	23	17 S	28 E		1077	SOUTH	660	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
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.						
320									

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

	OPERATOR CERTIFICATION <i>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</i> <u>Ken W. Gosnell</u> Signature Ken W. Gosnell Printed Name Agent Title March 28, 1996 Date
	SURVEYOR CERTIFICATION <i>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.</i> MARCH 1, 1996 Date Surveyed Signature & Seal of Professional Surveyor <u>Ronald J. Edson</u> 3:05-96 W.Q. Num. 96-11-0304 Certificate No. JOHN W. WES 676 RONALD J. EDSON 3239 GARY EDSON 12641

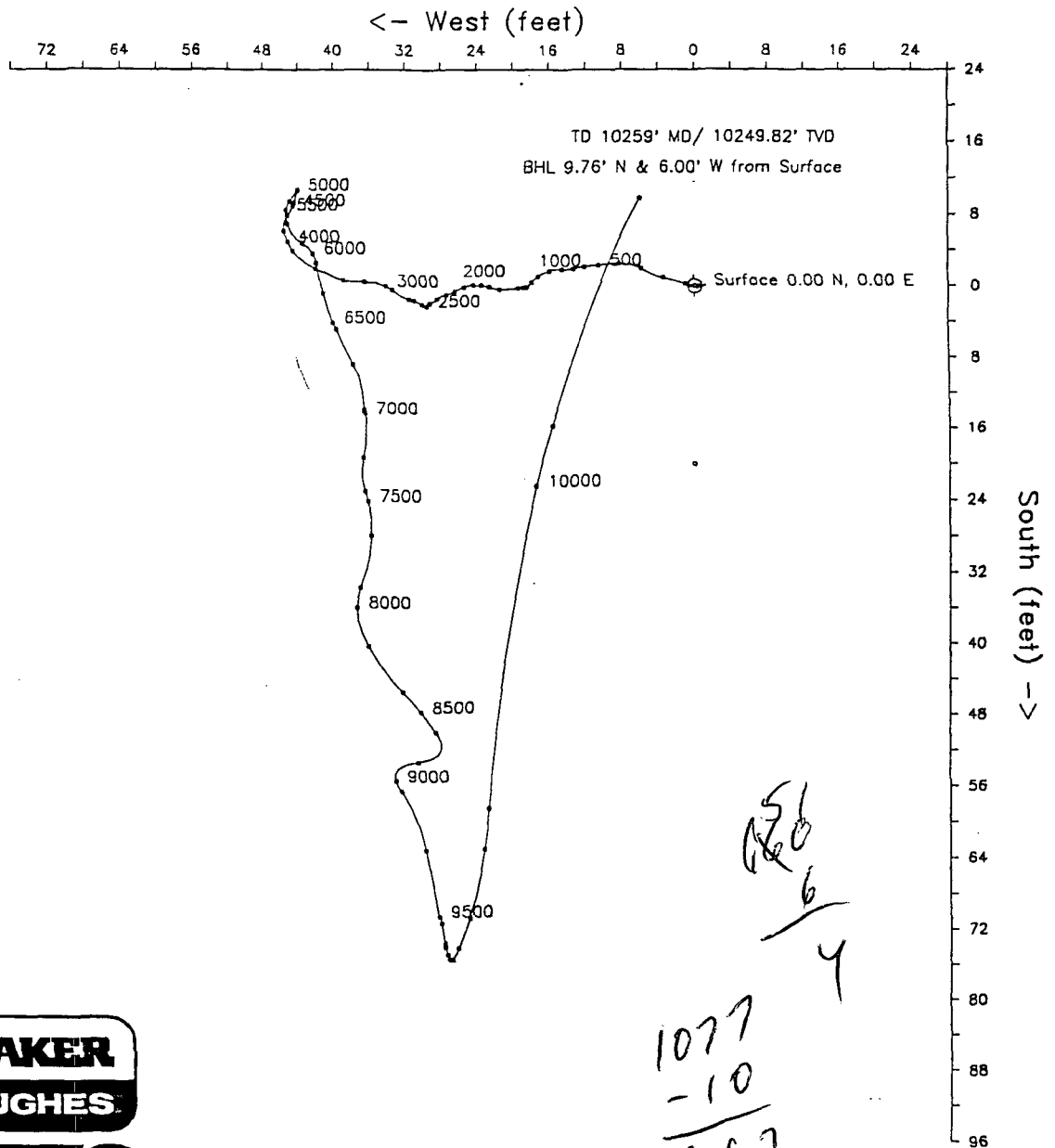
ARCO PERMIAN

Structure : DINAH 23 FED COM NO. 1

Slot : slot #1

Field : UNKNOWN

Location : EDDY CO., NEW MEXICO



BAKER
HUGHES
INTEQ

ARCO PERMIAN
DINAH 23 FED COM NO. 1

slot #1
UNKNOWN
EDDY CO., NEW MEXICO

S U R V E Y L I S T I N G
by
Baker Hughes INTEQ

Your ref : SIDETRACK
Our ref : svy689
License :

Date printed : 3-Sep-96
Date created : 28-Jun-96
Last revised : 1-Jul-96

Slot local coordinates are 0.00 N 0.00 E

Projection type: mercator - New Mexico East (3001), Spheroid: Clarke - 1866
Reference North is True North

ARCO PERMIAN
DINAH 23 FED COM NO. 1, slot #1
UNKNOWN, EDDY CO., NEW MEXICO

1077' F52
860' F62

SURVEY LISTING Page 1
Your ref : SIDETRACK
Last revised : 1-Jul-96

Measured Depth	Inclin. Degrees	Azimuth Degrees	True Vert Depth	R E C T A N G U L A R C O O R D I N A T E S	Dogleg Deg/100ft	Vert Sect
0.00	0.00	0.00	0.00	0.00 N	0.00 E	-15.40
100.00	1.20	283.71	99.99	0.25 N	1.02 W	-15.15
200.00	1.59	285.75	199.96	0.87 N	3.37 W	-14.53
300.00	1.53	300.66	299.93	1.93 N	5.85 W	-13.47
400.00	1.47	265.21	399.89	2.50 N	8.28 W	-12.90
500.00	1.06	264.98	499.87	2.32 N	10.48 W	-13.09
600.00	0.74	260.02	599.86	2.12 N	12.04 W	-13.28
700.00	0.64	257.58	699.85	1.89 N	13.21 W	-13.51
800.00	0.86	274.00	799.84	1.82 N	14.50 W	-13.58
900.00	0.84	249.05	899.83	1.61 N	15.93 W	-13.79
1000.00	0.67	234.27	999.82	1.01 N	17.09 W	-14.39
1100.00	0.56	225.37	1099.82	0.33 N	17.91 W	-15.07
1200.00	0.25	247.04	1199.81	0.10 S	18.46 W	-15.50
1300.00	0.22	275.52	1299.81	0.17 S	18.86 W	-15.57
1400.00	0.44	260.05	1399.81	0.21 S	19.43 W	-15.62
1500.00	0.59	255.51	1499.81	0.41 S	20.30 W	-15.81
1600.00	0.82	279.71	1599.80	0.42 S	21.50 W	-15.82
1700.00	0.53	287.83	1699.79	0.16 S	22.65 W	-15.56
1800.00	0.47	276.70	1799.79	0.03 N	23.50 W	-15.37
1900.00	0.53	271.97	1899.79	0.10 N	24.38 W	-15.31
2000.00	0.82	245.90	1999.78	0.18 S	25.49 W	-15.58
2100.00	0.44	240.75	2099.77	0.66 S	26.48 W	-16.06
2200.00	0.66	256.21	2199.77	0.98 S	27.37 W	-16.39
2300.00	0.68	233.19	2299.76	1.48 S	28.41 W	-16.88
2400.00	0.39	238.11	2399.76	2.01 S	29.17 W	-17.41

All data is in feet unless otherwise stated.
Coordinates from slot #1 and TVD from wellhead.
Bottom hole distance is 11.46 on azimuth 328.42 degrees from wellhead.
Vertical section is from N 15.40 E 4.74 on azimuth 0.00 degrees.
Calculation uses the minimum curvature method.
Presented by Baker Hughes INTEQ

ARCO PERMIAN
DINAH 23 FED COM NO. 1, slot #1
UNKNOWN, EDDY CO., NEW MEXICO

SURVEY LISTING Page 2
Your ref : SIDETRACK
Last revised : 1-Jul-96

Measured Depth	Inclin. Degrees	Azimuth Degrees	True Vert Depth	R E C T A N G U L A R C O O R D I N A T E S	Dogleg Deg/100ft	Vert Sect
2500.00	0.17	224.09	2499.76	2.29 S	0.22	-17.70
2600.00	0.57	309.44	2599.75	2.08 S	0.58	-17.49
2700.00	0.68	280.69	2699.75	1.66 S	0.33	-17.06
2746.00	0.60	286.47	2745.74	1.54 S	0.22	-16.94
2939.00	0.75	309.00	2938.73	0.45 S	0.16	-15.86
3196.00	0.75	264.00	3195.71	0.43 N	0.22	-14.98
3421.00	0.50	290.00	3420.70	0.61 N	0.17	-14.79
3678.00	1.00	294.00	3677.68	1.91 N	0.20	-13.50
3903.00	0.75	326.00	3902.65	3.93 N	0.24	-11.48
4128.00	0.50	348.00	4127.64	6.11 N	0.15	-9.30
4353.00	0.50	40.00	4352.63	7.82 N	0.19	-7.58
4545.00	0.50	15.00	4544.62	9.27 N	0.11	-6.13
4867.00	0.00	15.00	4866.62	10.63 N	0.16	-4.78
5023.00	0.00	15.00	5022.62	10.63 N	0.00	-4.78
5382.00	0.50	217.00	5381.61	9.38 N	0.14	-6.03
5639.00	0.75	163.00	5638.60	6.87 N	0.24	-8.53
5865.00	0.75	120.00	5864.58	4.72 N	0.24	-10.69
6090.00	0.75	169.00	6089.57	2.54 N	0.28	-12.87
6315.00	1.00	167.00	6314.54	0.82 S	0.11	-16.23
6539.00	1.25	155.00	6538.50	4.94 S	0.15	-20.35
6764.00	1.00	151.00	6763.45	8.88 S	0.12	-24.29
6989.00	1.75	175.00	6988.39	14.02 S	0.41	-29.43
7214.00	1.00	194.00	7213.32	19.35 S	0.39	-34.75
7439.00	1.00	159.00	7438.29	23.09 S	0.27	-38.49
7696.00	1.25	183.00	7695.24	27.98 S	0.21	-43.39

51
180
-45
675

All data is in feet unless otherwise stated.
Coordinates from slot #1 and TVD from wellhead.
Bottom hole distance is 11.46 on azimuth 328.42 degrees from wellhead.
Vertical section is from N 15.40 E 4.74 on azimuth 0.00 degrees.
Calculation uses the minimum curvature method.
Presented by Baker Hughes INTEQ

ARCO PERMIAN
 DINAH 23 FED COM NO. 1, slot #1
 UNKNOWN, EDDY CO., NEW MEXICO

SURVEY LISTING Page 3
 Your ref : SIDETRACK
 Last revised : 1-Jul-96

Measured Depth	Inclin. Degrees	Azimuth Degrees	True Vert Depth	R E C T A N G U L A R C O O R D I N A T E S	Dogleg Deg/100ft	Vert Sect
7922.00	1.75	199.00	7921.17	33.71 S	37.01 W	0.29
8147.00	2.00	149.00	8146.06	40.32 S	36.10 W	0.71
8373.00	1.25	135.00	8371.97	45.44 S	32.33 W	0.37
8598.00	1.75	145.00	8596.89	49.99 S	28.62 W	0.25
8825.00	2.00	263.00	8823.83	53.32 S	30.57 W	1.42
9050.00	1.75	145.00	9048.77	56.61 S	32.49 W	1.43
9271.00	2.00	168.00	9269.65	63.15 S	29.76 W	0.36
9525.00	1.75	169.00	9523.51	71.29 S	28.09 W	0.10
9600.00	1.75	170.41	9598.48	73.54 S	27.68 W	0.06
9614.00	1.70	161.00	9612.47	73.95 S	27.58 W	2.05
9642.00	2.00	162.60	9640.46	74.81 S	27.30 W	1.09
9664.00	1.00	160.50	9662.45	75.36 S	27.12 W	4.55
9694.00	1.20	45.90	9692.45	75.38 S	26.81 W	6.18
9725.00	4.50	22.00	9723.41	74.03 S	26.12 W	11.09
9757.00	8.10	18.60	9755.21	70.73 S	24.93 W	11.31
9803.00	11.98	7.78	9800.50	62.92 S	23.25 W	9.35
9823.00	13.75	5.00	9819.99	58.50 S	22.76 W	9.35
10041.00	9.25	16.00	10033.59	15.82 S	15.67 W	2.29
10259.00	5.25	29.00	10249.82	9.76 N	6.00 W	1.97

25

1027
 -63
 1014

510
 23
 637

All data is in feet unless otherwise stated.
 Coordinates from slot #1 and TVD from wellhead.
 Bottom hole distance is 11.46 on azimuth 328.42 degrees from wellhead.
 Vertical section is from N 15.40 E 4.74 on azimuth 0.00 degrees.
 Calculation uses the minimum curvature method.
 Presented by Baker Hughes INTEQ

PROJECTION TO CURRENT TD

ARCO PERMIAN
DINAH 23 FED COM NO. 1, slot #1
UNKNOWN, EDDY CO., NEW MEXICO

SURVEY LISTING Page 4
Your ref : SIDETRACK
Last revised : 1-Jul-96

Comments in wellpath
=====

MD	TVD	Rectangular Coords.	Comment
9803.00	9800.50	62.92 S	23.25 W PROJECTION TO CURRENT TD

Targets associated with this wellpath
=====

Target name	Geographic Location	T.V.D.	Rectangular Coordinates	Revised
		10280.00	20.00S	0.00E 21-Jun-96

District I
PO Box 1908, Hobbs, NM 88241-1908
District II
PO Drawer DD, Aracoma, NM 88211-0719
District III
1000 Rio Branos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, NM 87504-2088

Form C-1
Revised February 10, 19
Instructions on ba
Submit to Appropriate District Off
State Lease - 6 Cop
Fee Lease - 5 Cop

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator name and Address ARCO PERMIAN P.O. BOX 1610 MIDLAND, TX 79702		² OGRID Number 000990
		³ API Number 30-015-28946
⁴ Property Code 18890	⁵ Property Name DINAH 23 FED COM	⁶ Well Number 1

⁷ 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	23	17S	28E		1077	SOUTH	660	West - EAST	EDDY

⁸ Proposed 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

⁹ Proposed Pool 1

¹⁰ Proposed Pool 2

EMPIRE, SOUTH, MORROW	76400
------------------------------	--------------

¹¹ Work Type Code N	¹² Well Type Code G	¹³ Cable/Rotary R	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 3590
¹⁶ Multiple NO	¹⁷ Proposed Depth 10800	¹⁸ Formations MORROW	¹⁹ Contractor	²⁰ Spud Date 04-20-96

²¹ Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17 1/2	13 3/8	54.5	500	525	SURF
12 1/4	8 5/8	24	2600	940	SURF
7 7/8	5 1/2	15.5/17	10800	1200	5000

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary

1
Orig - WF
Loc - Hobbs
- Percy-23
- Shields
- KWG

NSL - 3660

RECEIVED

APR 02 1996

OIL CON. DIV.
DIST. 2

Per ID-1
5-3-96

New Line &
API

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature: *Ken W. Gosnell*

Printed name: **KEN W. GOSNELL**

Title: **AGENT**

Date: **03-28-96**

Phone: **915 688-5672**

OIL CONSERVATION DIVISION

Approved by: **ORIGINAL SIGNED BY TIM W. GUM**
Title: **DISTRICT II SUPERVISOR**

Approval Date: **4-25-96** Expiration Date: **4-25-97**

Conditions of Approval:
Attached ☐

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

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

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

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

WELL API NO.
30-015-28940

5. Indicate Type of Lease
STATE ☒ FEE ☐

6. State Oil & Gas Lease No.

7. Lease Name or Unit Agreement Name

Dinah "23" Fed Com

8. Well No.

1

9. Pool name or Wildcat

Empire, South, Morrow

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT"
(FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well:

OIL WELL ☐ GAS WELL ☒

OTHER

2. Name of Operator

ARCO Permian

3. Address of Operator

P. O. Box 1610, Midland, Texas 79702

4. Well Location

Unit Letter M : 1077 Feet From The South Line and 660 Feet From The West Line

Section 23 Township 17S Range 28E NMPM Eddy County

10. Elevation (Show whether DF, RKB, RT, GR, etc.)

3590' GR

11.

Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐

PLUG AND ABANDON ☐

TEMPORARILY ABANDON ☐

CHANGE PLANS ☐

PULL OR ALTER CASING ☐

OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐

COMMENCE DRILLING OPNS. ☐ PLUG AND ABANDONMENT ☐

CASING TEST AND CEMENT JOB ☒

OTHER: ☐

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

TD'd 12-1/4" hole @ 2650'. RIH with 9-5/8" 36# csg to 2650'. Cmt'd w/400 sx Poz "C" + additives,

(yld 2.60) followed by 500 sx "C"

(yld 1.32). Circ'd cmt to surf. WOC. Press test csg to 1000# for 30 mins. DA with 8-3/4" bit.

6-17-96 - DST #1 9780-9793'. RIH w/directional drilling motor. TD'd 8-3/4" hole @ 10,560' on 7/2/96. Ran OH logs. RIH with 5-1/2" 15.5/17# csg to 10,560'. Cmt'd w/1440 sx "H" + additives (yld 1.2). Did not circ cmt. RR 7/5/96. Ran Temp survey. TOC 5800'.

7-19-96 - RUPU. CO to 10,381' PBD. Ran CBL. TOC 5858'. Perf Morrow from 10,224-252'. Ran BHP. Set CIBP @ 10,200' w/20' cmt. Perf Morrow from 9810-9817'. Acidz w/2200 gals. Flow test. RD PU 8/13/96.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Ken W. Gosnell TITLE Agent DATE 9/16/96

TYPE OR PRINT NAME Ken W. Gosnell 915/688-5672 TELEPHONE NO.

(This space for State Use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

9-2-96 - In 24 hrs flowed 2626 MCF, 35 BO, 0 BW on 18/64" choke & 1460# FTP.

Submit 3 Copies
to Appropriate
District Office

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

DISTRICT I
P.O. Box 1980, Hobbs NM 88240

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

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

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

WELL API NO.

30-015-28940

5. Indicate Type of Lease

STATE ☒

FEE ☐

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT"
(FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well:

OIL
WELL ☐

GAS
WELL ☒

OTHER

2. Name of Operator

ARCO PERMIAN

3. Address of Operator

P.O. BOX 1610, MIDLAND, TX, 79702

8. Well No.

1

9. Pool name or Wildcat

EMPIRE, SOUTH, MORROW

4. Well Location

Unit Letter **M** : **1077** Feet From The **SOUTH** Line and **660** Feet From The **WEST** Line

Section **23**

Township **17S**

Range **28E**

NMPM

EDDY County

10. Elevation (Show whether DF, RKB, RT, GR, etc.)

3590 GR

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐

PLUG AND ABANDON ☐

TEMPORARILY ABANDON ☐

CHANGE PLANS ☐

PULL OR ALTER CASING ☐

OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐

COMMENCE DRILLING OPNS. ☒ PLUG AND ABANDONMENT ☐

CASING TEST AND CEMENT JOB ☐

OTHER: ☐

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

SPUD 17 1/2" HOLE ON 05-27-96. TD'D AT 560. RIH W/13 3/8 48# CSG TO 560. CMT'D W/575 SX C W/2% CC + 1/4# CS(YLD 1.32). CIRC CMT TO SURF. WOC 18 HRS. EST COMPRESS STRENGTH 2000#. PRESS TEST CSG TO 1000# FOR 30 MIN. DA W/12 1/4 BIT.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE

Ken W. Gosnell

TITLE **AGENT**

DATE **06-36-96**

TYPE OR PRINT NAME **KEN W. GOSNELL**

TELEPHONE NO. **915 688-5672**

(This space for State Use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

DISTRICT I

P.O. Box 1980, Hobbs, NM 88240

DISTRICT II

P.O. Drawer DD, Artesia, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

2040 Pacheco St.
Santa Fe, NM 87505

WELL API NO.

30-015-28940

5. Indicate Type Of Lease

STATE ☒

FEE ☐

6. State Oil & Gas Lease No.

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 ☐

DEEPEN ☐

PLUG
BACK ☐

DIFF
RESVR ☐

OTHER _____

2. Name of Operator

ARCO PERMIAN

3. Address of Operator

P.O. BOX 1610, MIDLAND, TX 79702

7. Lease Name or Unit Agreement Name

DINAH 23 FED COM

8. Well No.

1

9. Pool name or Wildcat

EMPIRE, MORROW, SOUTH

4. Well Location

Unit Letter **M** : **1077** Feet From The **SOUTH** Line and **660** Feet From The **WEST** Line

Section **23**

Township **17S**

Range **28E**

NMPM

EDDY

County

10. Date Spudded

05-27-96

11. Date T.D. Reached

07-02-96

12. Date Compl.(Ready to Prod.)

08-13-96

13. Elevations(DF & RKB, RT, GR, etc.)

3590 GR

14. Elev. Casinghead

15. Total Depth

10560

16. Plug Back T.D.

10180

17. If Multiple Compl. How
Many Zones?

18. Intervals
Drilled By

Rotary Tools

X

Cable Tools

19. Producing Interval(s), of this completion - Top, Bottom, Name

9810-9817 MORROW

20. Was Directional Survey Made

YES

21. Type Electric and Other Logs Run

PE-N/D-RG PE-HALS/MCFL DS-SI-GR

22. Was Well Cored

NO

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

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13 3/8	48.5	560	17 1/2	575 SX C CIRC CMT	0
9 5/8	36	2650	12 1/4	950 SX C CIRC CMT	0
5 1/2	15.5/17	10560	8 3/4	1440 SX H 5858 CBL	0

24. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
					2 3/8	9770	9737

25. TUBING RECORD

26. Perforation record (interval, size, and number)

10,224-252
9810-9817

27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.

DEPTH INTERVAL

AMOUNT AND KIND MATERIAL USED

10,224-252

CIBP AT 10,200 W/35' CMT

9810-9817

A W/2200 GALS

28. PRODUCTION

Date First Production

08-13-96

Production Method (Flowing, gas lift, pumping - Size and type pump)

FLOWING

Well Status (Prod. or Shut-in)

PROD

Date of Test

09-01-96

Hours Tested

24

Choke Size

18/64

Prod'n For
Test Period

35

Oil - Bbl.

35

Gas - MCF

2626

Water - Bbl.

0

Gas - Oil Ratio

75.029

Flow Tubing Press.

1460

Casing Pressure

PKR

Calculated 24-
Hour Rate

35

Oil - Bbl.

35

Gas - MCF

2626

Water - Bbl.

0

Oil Gravity - API (Corr.)

29. Disposition of Gas (Sold, used for fuel, vented, etc.)

SOLD

Test Witnessed By

30. List Attachments

LOGS, DST REPORT.

31. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief

Signature

Ken W. Gosnell

Printed Name

KEN W. GOSNELL

Title

AGENT

Date 09-16-96

100

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Northeastern New Mexico

T. Penn. "B" _____
T. Penn. "C" _____
T. Penn. "D" _____
T. Leadville _____
T. Madison _____
T. Elbert _____
T. McCracken _____
T. Ignacio Otzte _____
T. Granite _____
T. _____
T. _____
T. _____
T. _____
T. _____
T. _____
T. _____
T. _____

No. 3, from..... to

No. 4, from..... to

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from.....tofeet

No. 2, from.....tofeet

No. 3, from.....tofeet

From	To	Thickness in Feet	Lithology	From	To	Thickness in Feet	Lithology
0	5594	5594	ANHY & DOLO				
5594	5770	176	SHALE				
5770	6912	1142	DOLO				
6912	9726	2814	LIMESTONE				
9726	9850	124	SD & SH & LIME				
9850	10144	290	LIMESTONE				
10144	10375	231	SD & SH				
10375	10508	133	SHALE				
10508	10560	52	LIMESTONE				

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

Kenb.

April 19, 1996

ARCO Permian
P. O. Box 1610
Midland, Texas 79702
Attention: David B. Percy

Post-it® Fax Note 7671		Date 4-23-96	# of pages 1
To David Percy	From Michael E. Stegner		
Co./Dept. ARCO Permian	Co. UNMOCO		
Phone # 915-688-5355	Phone # (505) 827-8185		
Fax # 915-688-5246	Fax # (505) 827-8177		

Administrative Order NSL-3660

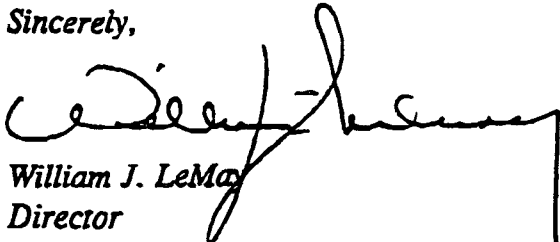
Dear Mr. Percy:

Reference is made to your application dated March 29, 1996 for approval to drill the Dinah "23" Federal Com Well No. 1 at an unorthodox gas well location to test the Morrow formation 1077 feet from the South line and 660 feet from the ^{West} East line (Unit M) of Section 23, Township 17 South, Range 28 East, NMPM, Undesignated South Empire-Morrow Gas Pool or Undesignated Aid-Morrow Gas Pool, Eddy County, New Mexico. The W/2 of said Section 23 shall be dedicated to the well to form a standard 320-acre gas spacing and proration unit.

The application has been duly filed under the provisions of Rule 104.F of the General Rules and Regulations of the New Mexico Oil Conservation Division ("Division"), revised by Division Order No. R-10533, issued by the Oil Conservation Commission in Case 11,351 on January 18, 1996.

By the authority granted me under the provisions of Division General Rule 104.F(2), the above-described unorthodox gas well location is hereby approved.

Sincerely,


William J. LeMay
Director

WJL/MES/kv

cc: Oil Conservation Division - Artesia
U. S. Bureau of Land Management - Carlsbad



ARCO Permian
600 N Marientfeld
Midland TX 79701
Post Office Box 1610
Midland TX 79702
Telephone 915 688 5200

ES

DP

March 29, 1996

Mr. Michael Stogner
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

**Re: Application for Unorthodox Location
DINAH 23 FED COM #1
Empire (Morrow) Gas Pool
West half Sec. 23, T 17 S, R 28 E, Eddy County, NM**

Dear Mr. Stogner:

ARCO Permian respectfully requests administrative approval for an unorthodox Morrow gas well, the ARCO Dinah 23 Fed Com #1. This well is staked on Fee lands, 1077 FSL and 660 FWL of Sec 23, T17S R28E, for geological reasons. All possible standard locations in the west-half 320-acre proration unit were carefully considered but were deemed undrillable due to high potential for economic waste and poorer-quality Morrow sands. We further request this well location be approved for all formations developed on 320-acre spacing in the West half of Section 23.

Notification to the offset operators to the south, southeast, and southwest was made by certified mail on March 29, 1996, including a copy of this application letter with all attachments. We request that this unorthodox location be administratively approved if no objections are received within the cited 20 days, or earlier if waivers are received.

Enclosed are Forms C-101 and C-102, a land plat showing all offset operators, a list of the encroached-upon operators, and a Net Pay Map for the Lower Morrow "C" Sand (showing all wells over 9000'). No structure map is presented.

The Integrated Net Pay Map of the Lower Morrow "C" sand shows a general Northwest-Southeast trend for highly-variable fluvial "C" sands in this area. Our location must be construed as high-risk, since none of the wells in this area have encountered the pay-quality sand we are targeting. Well #25013 one mile south in Sec 26 tested "tight" in the "C interval and was completed in the Atoka for 0.5 BCF. Well #23217 in Section 23 produced 0.3 BCF from the Atoka and is inactive. The three other Morrow-depth dry holes in Sections 22, 23, and 27 were never completed in the Morrow.

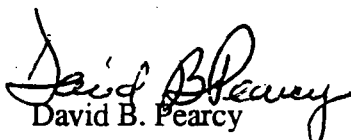
Fairson 3/29
110 312

Our stratigraphic analysis indicates the "C" sand reservoir is best-developed at our unorthodox location. Any standard location such as 1650 FSL places us dangerously close to a northern "zero-edge" where the Lower Morrow sands are known to be absent. ARCO believes that the unorthodox location **alone** offers acceptable risk, and that any other wellsite in the proration unit would present untenable risk. All the nearby Morrow dry holes amply demonstrate the economic hazards of drilling in this area. Even at the optimum location, ARCO and partners are taking substantial risk of finding tight sands or missing gas pays altogether.

ARCO Permian believes approval of the unorthodox Dinah 23 location would be in the best interest of conservation, would protect correlative rights, and would allow for the most complete recovery of gas-in-place.

Thank you for your assistance. Please call me at (915) 688-5355 if you need further information.

Sincerely,


David B. Percy
Senior Geologist

DBP:elt

word/senn/pearcy/dinahood.doc

cc: New Mexico Oil Conservation Division
811 South First Street
Artesia, NM 88210

Enclosures: Landplat
List of affected parties to S, SE, & SW
Geologic map
C-101, C-102
Notification letters