Form 3160-3
(March 2012)

NM OIL CONSERVATION
ARTESIA DISTRICT
OCD Artesia
NOV 17 2014

RECEIVED

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

TCS 11-18-2014

HIGH CAVEKARST

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NM-27919

6. If Indian, Allotee or Tribe Name: ----------

1a. Type of work: [X] DRILL [ ] REENTER — ATS-14-664

7. If Unit or CA Agreement, Name and No.: ----------

1b. Type of Well: [XX] Oil Well [ ] Gas Well [ ] Other [XX] Single Zone [ ] Multiple Zone

8. Lease Name and Well No.: DEWEY "24" FEDERAL #4 <38580>

2. Name of Operator: DINERO OPERATING, INC. <6224>

9. API Well No.: 30-015- 42799

3a. Address: P. O. DRAWER 10505, MIDLAND, TESAS 79702

3b. Phone No. (include area code): 432-684-5544

10. Field and Pool, or Exploratory: MALAGA-DELAWARE <42940>

4. Location of Well (Report location clearly and in accordance with any State requirements.*)

At surface: 1980' FNL & 1980' FWL SECTION 24

At proposed prod. zone: SAME

11. Sec., T. R. M. or Blk. and Survey or Area: SECTION 24 T24S-R28E

14. Distance in miles and direction from nearest town or post office*: Approximately 2.5 miles Southeast of Malaga New Mexico

12. County or Parish: EDDY

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 660'

16. No. of acres in lease: 200

17. Spacing Unit dedicated to this well: 40 Acres

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 1330'

19. Proposed Depth: 2675'

20. BLM/BIA Bond No. on file: NM-2866

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 2961' GL

22. Approximate date work will start*: WHEN APPROVED

23. Estimated duration: 10 Days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature: Joe T. Janica — Name (Printed/Typed): Joe T. Janica — Date: 06/25/14

Title: Permit Eng.

Approved by (Signature): Steve Caffey — Name (Printed/Typed): — Date: NOV 13 2014

Title: FIELD MANAGER — Office: CARLSBAD FIELD OFFICE

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, are attached.

APPROVAL FOR TWO YEARS

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.

(Continued on page 2)

*(Instructions on page 2)

Carlsbad Controlled Water Basin

Approval Subject to General Requirements & Special Stipulations Attached

SEE ATTACHED FOR CONDITIONS OF APPROVAL

OPERATOR CERTIFICATION

I HERBY CERTIFY THAT I OR SOMEONE UNDER MY DIRECT SUPERVISION HAVE INSPECTED THE DRILL SITE AND ACCESS ROUTE PROPOSED HEREIN; THAT I AM FAMILIAR WITH THE CONDITIONS WHICH CURRENTLY EXIST; THAT I HAVE FULL KNOWLEDGE OF STATE AND FEDERAL LAWS APPLICABLE TO THIS OPERATION, THAT THE STATEMENTS MADE IN THIS APD PACKAGE ARE TO THE BEST OF MY KNOWLEDGE ARE TRUE AND CORRECT AND THAT THE WORK ASSOCIATED WITH THE OPERATIONS PROPOSED HEREIN WILL BE PERFORMED IN CONFIRIMITY WITH THIS APD PACKAGE AND THE TERMS AND CONDITIONS UNDER WHICH IT IS APPROVED. I ALSO CERTIFY THAT I OR THE COMPANY THAT I REPRESENT , AM RESPONSIBLE FOR THE OPERATIONS CONDUCTED UNDER THIS APPLICATION. THESE STATEMENTS ARE SUBJECT TO THE PROVISIONS OF 18 USC 1001 FOR THE FILING OF A FALSE REPORT.

OPERATORS REPRESENTATIVES:

Before Construction

TIERRA EXPLORATION, INC.

P. O. BOX 2188

JOE JANICA

HOBBS, NEW MEXICO 88241

PHONE: OFFICE 575-391-8503

CELL 575-390-1598

During & After Construction

DINERO OPERATING COMPANY

P. O. DRAWER 10505

D. J. HOLSTER

MIDLAND, TEXAS

PHONE: OFFICE 432-634-8246

CELL

NAME Joe T. Janica Joe T Janica

TITLE Permit Eng. DATE 06/25/14

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone (575) 393-6161 Fax: (575) 393-0720
DISTRICT II
811 S. First St., Artesia, NM 88210
Phone (575) 748-1283 Fax: (575) 748-9720
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone (505) 334-6178 Fax: (505) 334-6170
DISTRICT IV
1224 S. St. Francis Dr., Santa Fe, NM 87505
Phone (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

1224 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102
Revised August 1, 2011

Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015- 42799	42940	MALAGA-DELAWARE

Property Code	Property Name	Well Number
313890	DEWEY 24 FEDERAL	4

OGRID No.	Operator Name	Elevation
6224	DINERO OPERATING, INC	2961

Surface Location

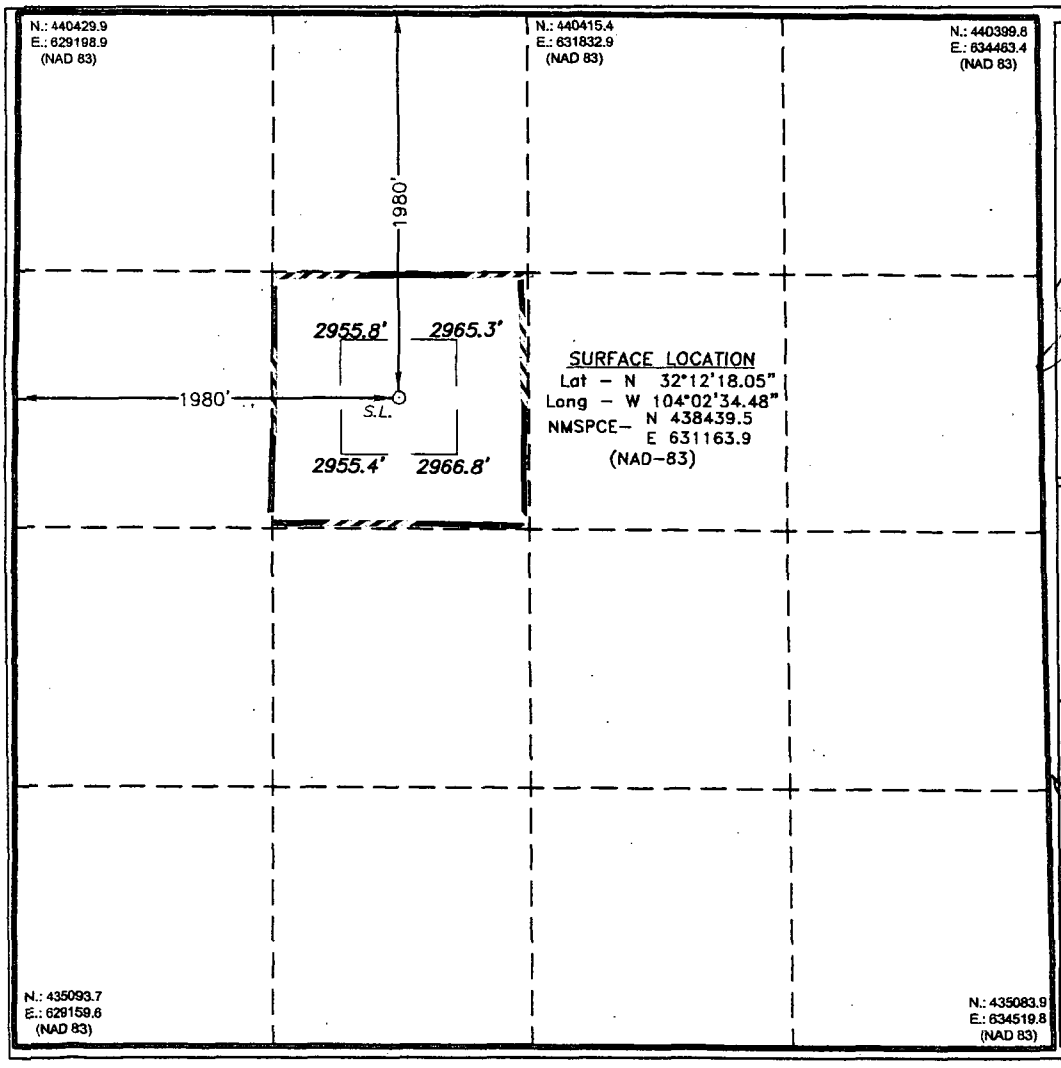
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	24	24 S	28 E		1980	NORTH	1980	WEST	EDDY

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.
40			

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 hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unLEAsed mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature Date

Joe T. Janica 06/25/14

Printed Name

joejanica@valornet.com

Email Address

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 supervison, and that the same is true and correct to the best of my belief.

APRIL 04, 2014

Date Surveyed

Signature & Seal of Professional Surveyor

NEW MEXICO 7977 PROFESSIONAL LAND SURVEYOR

Certificate Number 7977

Gary L. Jones
BASIN SURVEYS

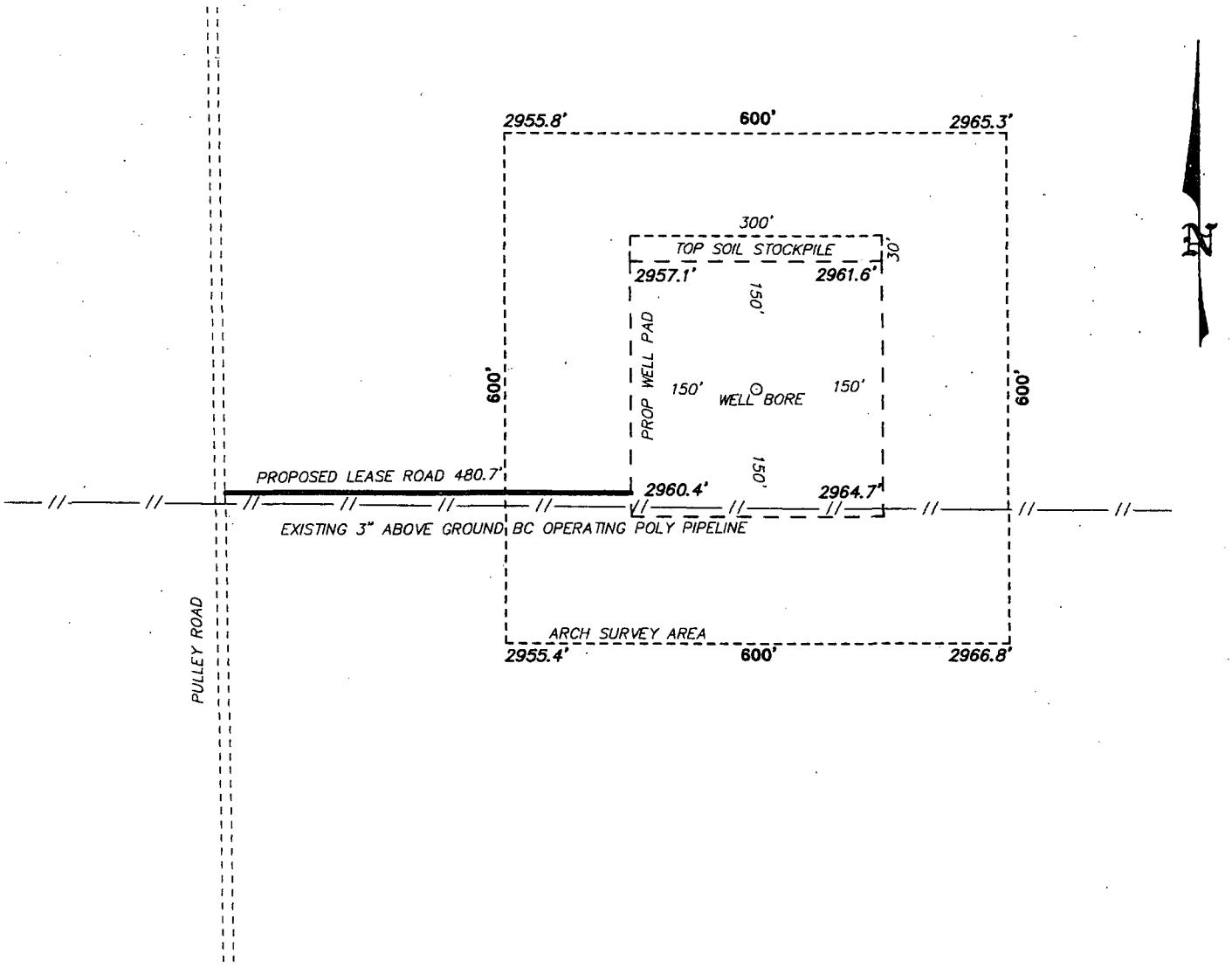
0' 500' 1000' 1500' 2000'

SCALE: 1" = 1000'

WO Num.: 30285

EXHIBIT "A"

SECTION 24, TOWNSHIP 24 SOUTH, RANGE 28 EAST. N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



DINERO OPERATING, INC
DEWEY 24 FEDERAL #4
ELEV. - 2961'
Lat - N 32°12'18.05"
Long - W 104°02'34.48"
NMSPCE- N 438439.5
E 631163.9
(NAD-83)

MALAGA, NM IS ±2 MILES TO THE NORTHWEST OF LOCATION.

200 0 200 400 FEET
SCALE: 1" = 200'

Directions to Location:

FROM MALAGA, GO 1.3 MILES EAST ON (CO RD 720)
DUARTE RD, 1.0 MILES SOUTH ON (CO RD 746)
McDONALD, 0.7 MILES SOUTH ON (CO RD 721)
PULLEY ROAD TO PROPOSED LEASE ROAD ON LEFT.

DINERO OPERATING, INC

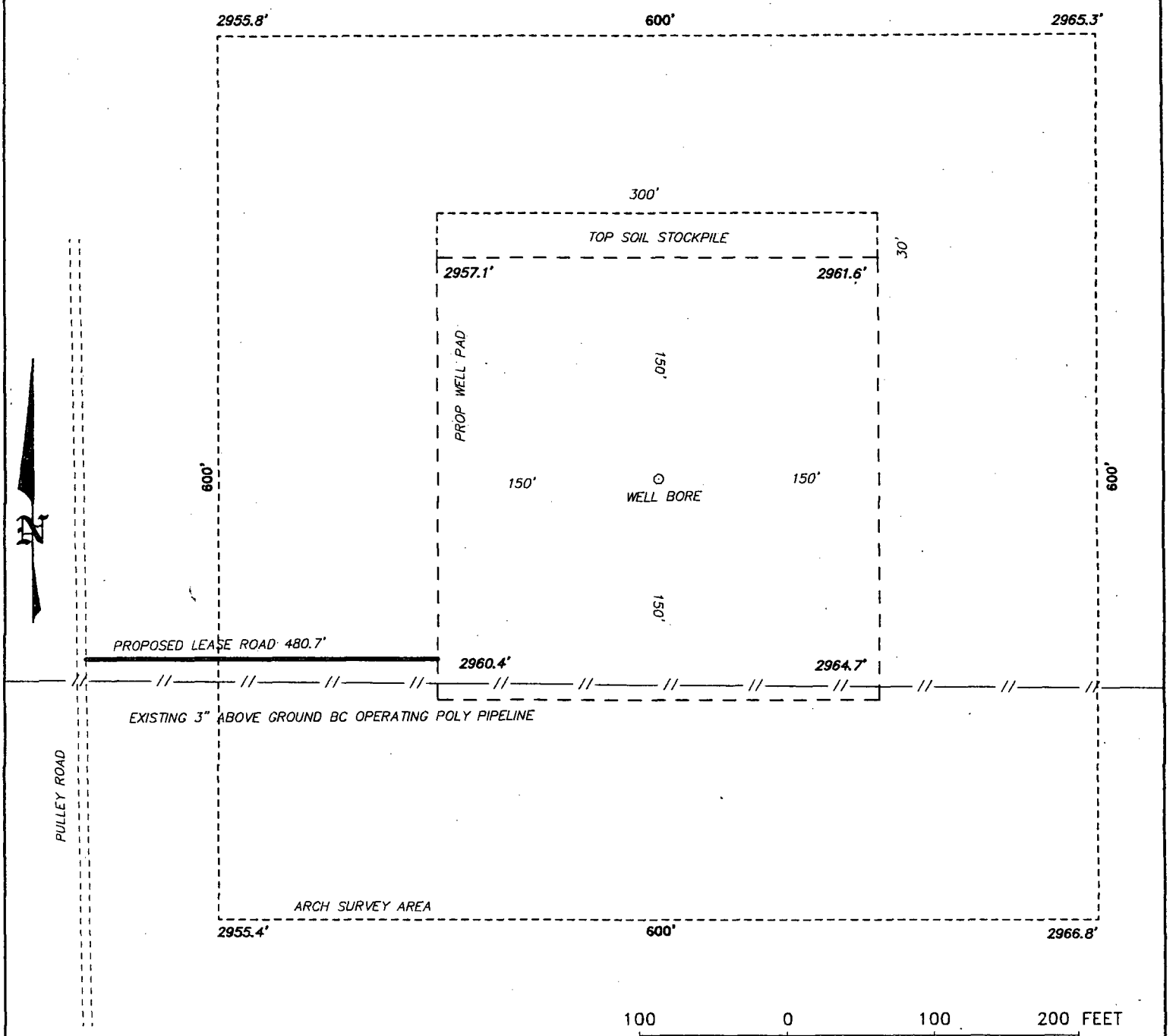
REF: DEWEY 24 FEDERAL #4 / WELL PAD TOPO

THE DEWEY 24 FEDERAL #4 LOCATED 1980' FROM THE NORTH LINE AND 1980' FROM THE WEST LINE OF SECTION 24, TOWNSHIP 24 SOUTH, RANGE 28 EAST. N.M.P.M., EDDY COUNTY, NEW MEXICO.

Basin Surveys
focused on excellence in the oilfield
P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

W.O. Number: 30285	Drawn By: K. NORRIS	Date: 04-08-2014	Survey Date: 04-04-2014	Sheet 1 of 1 Sheets

SECTION 24, TOWNSHIP 24 SOUTH, RANGE 28 EAST. N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



100 0 100 200 FEET

SCALE: 1" = 100'

DINERO OPERATING, INC

REF: DEWEY 24 FEDERAL #4 / WELL PAD TOPO

THE DEWEY 24 FEDERAL #4 LOCATED 1980' FROM THE NORTH LINE AND 1980' FROM THE WEST LINE OF SECTION 24, TOWNSHIP 24 SOUTH, RANGE 28 EAST. N.M.P.M., EDDY COUNTY, NEW MEXICO.

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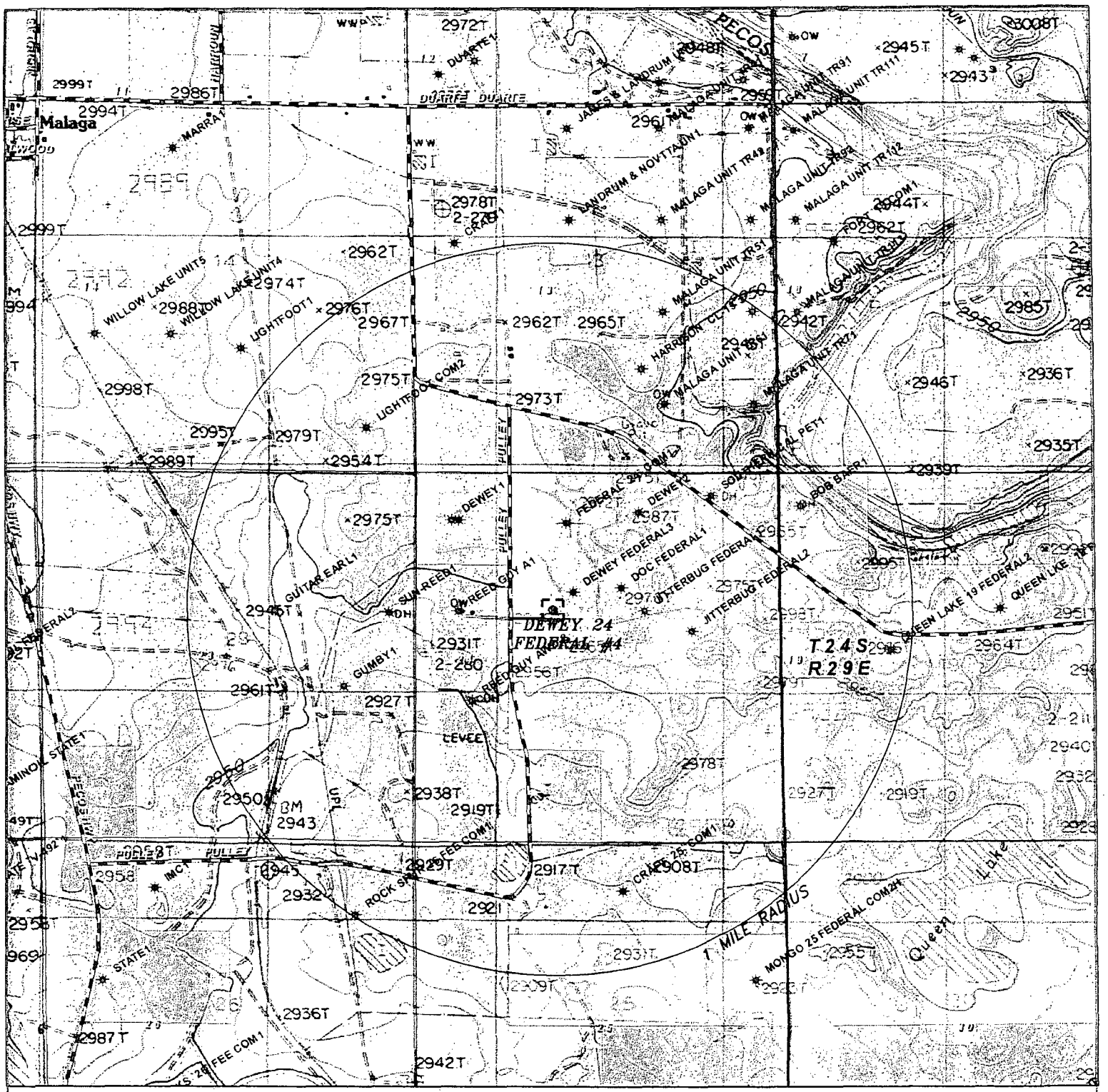

DEWEY 24 FEDERAL #4

Located 1980' FNL and 1980' FWL
Section 24, Township 24 South, Range 28 East,
N.M.P.M., Eddy County, New Mexico.

basin surveys
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Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

0' 1000' 2000' 3000' 4000'

SCALE: 1" = 2000'

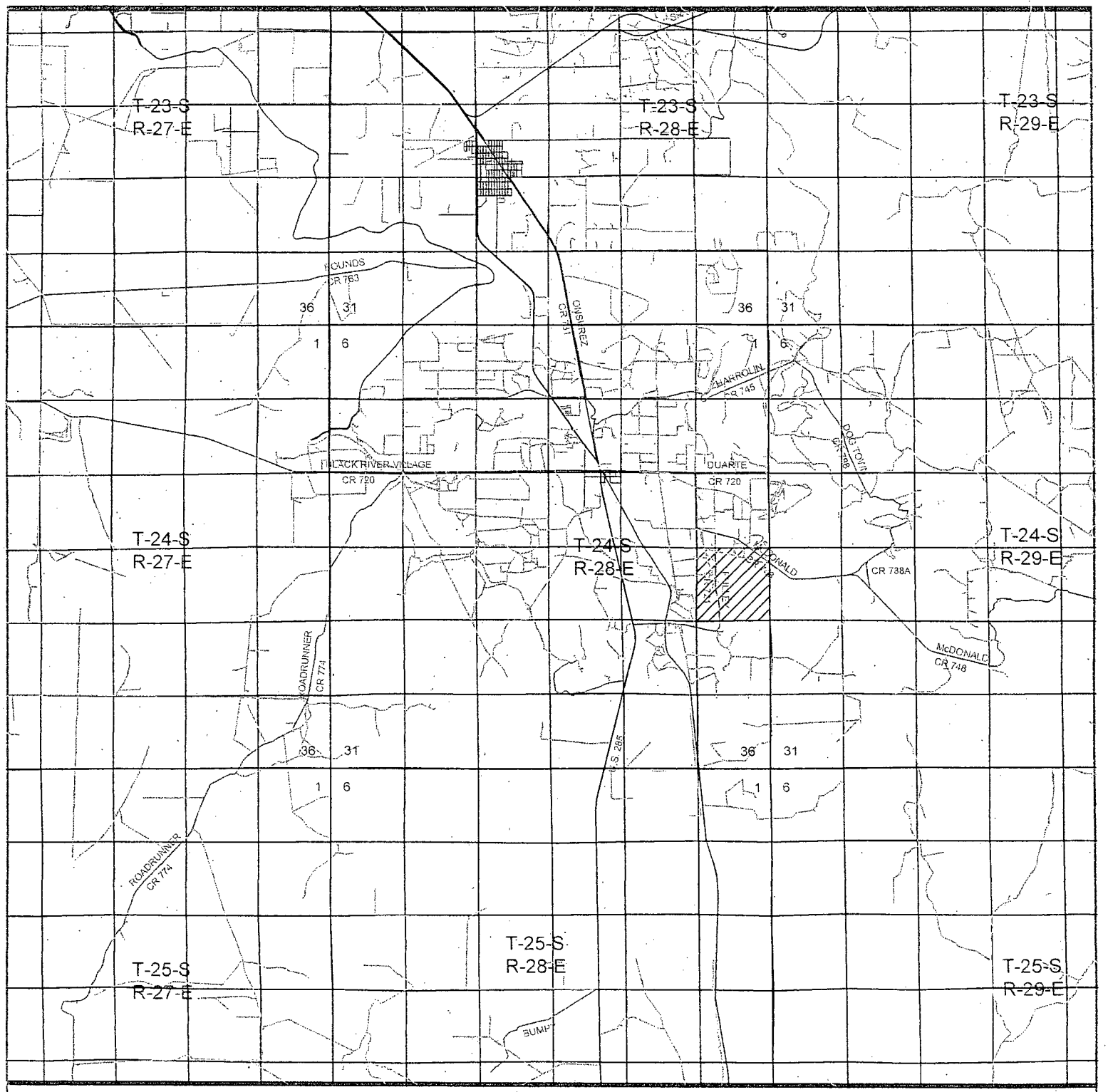
W.O. Number: KAN 30285

Survey Date: 04-04-2014

YELLOW TINT - USA LAND
BLUE TINT - STATE LAND
NATURAL COLOR - FEE LAND

N

DINERO OPERATING, INC



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(575) 393-7316 – Office
(575) 392-2206 – Fax
basinsurveys.com

0 1 MI 2 MI 3 MI 4 MI
SCALE: 1" = 2 MILES

W.O. Number: KAN 30285

Survey Date: 04-04-2014

YELLOW TINT – USA LAND
BLUE TINT – STATE LAND
NATURAL COLOR – FEE LAND

N

DINERO OPERATING, INC

DEWEY 24 FEDERAL #4

Located 1980' FNL and 1980' FWL
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basin surveys
focused on excellence
in the oilfield

P.O. Box 1786

0' 1000' 2000' 3000' 4000'
SCALE: 1" = 2000'

N

DINERO OPERATING, INC

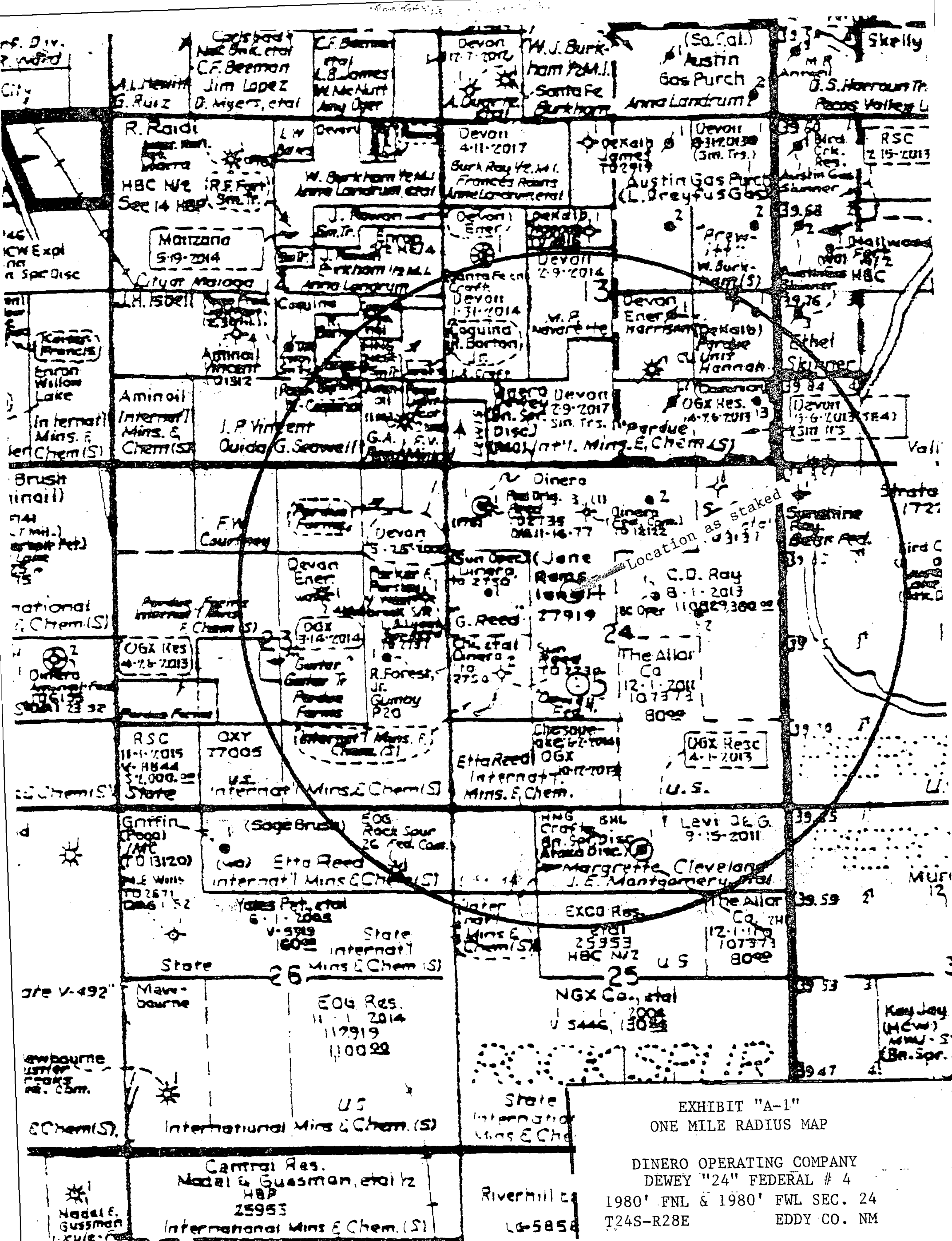


EXHIBIT "A-1"
ONE MILE RADIUS MAP

DINERO OPERATING COMPANY
DEWEY "24" FEDERAL # 4
1980' FNL & 1980' FWL SEC. 24
T24S-R28E EDDY CO. NM

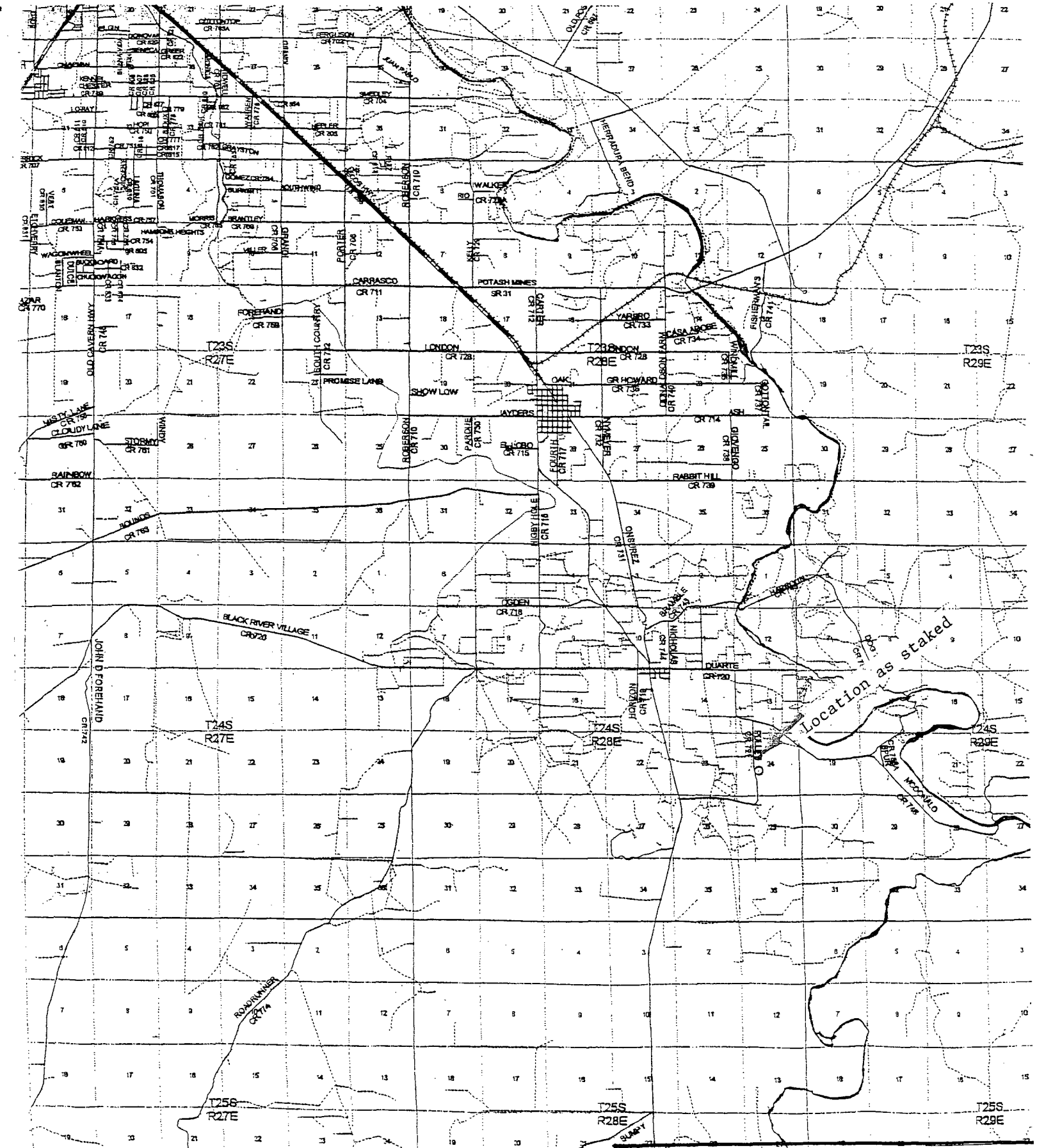
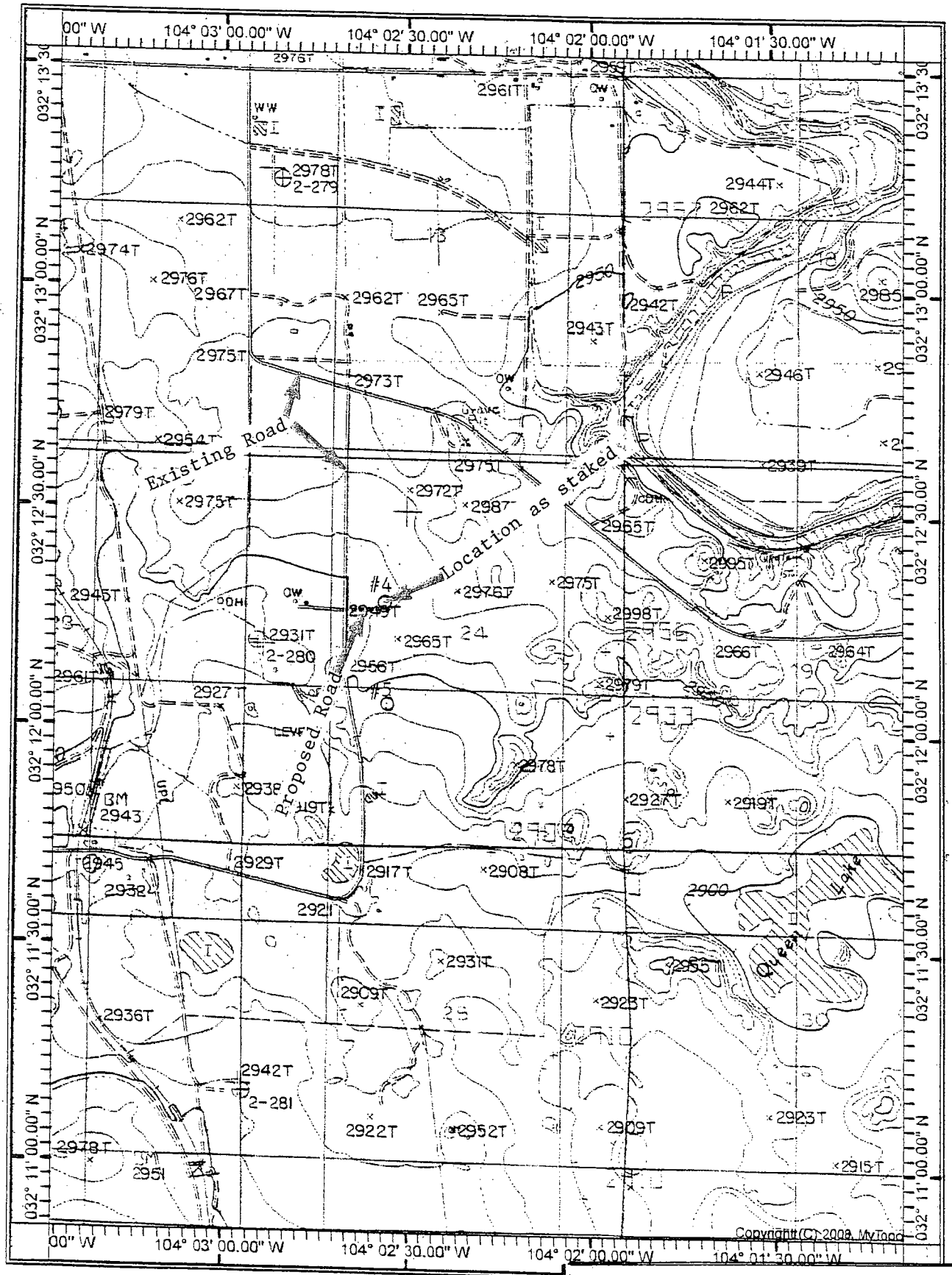


EXHIBIT "B"
LOCATION &ACCESS ROAD MAP

DINERO OPERATING COMPANY
DEWEY "24" FEDERAL # 4
1980' FNL & 1980' FWL SEC. 24
T24S-R28E EDDY CO. NM



SCALE 1:24000

0 1000 2000 3000 4000

FEET

EXHIBIT "C"
TOPOGRAPHIC MAP SHOWING
ROADS & DIRECTIONS TO

DINERO OPERATING COMPANY
DEWEY "24" FEDERAL # 4
1980' FNL & 1980' FWL SEC. 24
T24S-R28E EDDY CO. NM

APPLICATION TO DRILL

DINERO OPERATING COMPANY
DEWEY "24" FEDERAL # 4
UNIT "F" SECTION 24
T24S-R28E EDDY CO. NM

In responce to questions asked under Section II of Bulletin NTL-6, the following information on the above well will be provider.

1. LOCATION: 1980' FNL & 1980' FWL SECTION 24 T24S-R28E EDDY CO. NM.

2. ELEVATION ABOVE SEA LEVEL: 2961' GL

3. GEOLOGICAL NAME OF SURFACE FORMATION: Quaternery Aeolian Deposits;

4. DRILLING TOOLS AND ASSOCIATED EQUIPMENT: Conventional rotary drilling rig using drilling mud as a circulating medium for the removal of solids.

5. PROPOSED DRILLING DEPTH: 2675'

6. ESTIMATED TOPS OF GEOLOGICAL FORMATIONS:

Top of Rustler anhydrite	417'	Top of Lamar Lime	2660'
Top of Castile salt #1	1500'	Top of Ramsey Sand	2680'
Top of Castile Salt #2	1926'	Top of Olds Sand	2717'
Top of Castile Salt #3	2213		

7. POSSIBLE MINERAL BEARING FORMATIONS:

Water	25-50'	Ramsey Sand	Oil/Water
Lamar Lime	Oil/Water	Olds Sand	Oil/Water

8. CASING PROGRAM:

HOLE SIZE	INTERVAL	CASING OD	WEIGHT	THREAD	COLLAR	GRADE	CONDITION
12¼"	0-~~450'~~ 300'	8 5/8"	32#	8-R	ST&C	J-55	New
7 7/8"	0-2675'	5½"	17#	8-R	ST&C	J-55	New

See COA

CASING SAFETY FACTORS: Collapse 1.125 Burst 1.00 Body Yield 1.5
Joint Strength 8-Round 1.8
Buttress 1.6

APPLICATION TO DRILL

DINERO OPERATING COMPANY
DEWEY "24" FEDERAL # 4
UNIT "F" SECTION 24
T24S-R28E EDDY CO. NM

9. CASING SETTING DEPTHS & CEMENTING:

8 5/8"	Surface	Drill 12¼" hole to 450'. Run and set 450' of 8 5/8" 32# J-55 ST&C casing. Cement with 250 Sx. of Class "C" cement + 2% Bentonite, + 2% CaCl, + 0.25% Defoamer, 7.06 Gal/Sx, Yield 1.51 100% excess, circulate cement to surface.
5½"	Production	Drill 7 7/8" hole to 2675' Run and set 2675' of 5½" 17# J-55 ST&C casing. Cement with 700 Sx. or 50/50 Class "A" cement + 2% Bentonite, + 0.25% Defoamer, + 5% Salt, Yield 1.26 100% Excess, 5.75 Gal water/Sx. circulate cement to surface.

10. PRESSURE CONTROL EQUIPMENT:

Exhibit "E" shows a 11" 3000 PSI working pressure B.O.P. consisting of an annular bag type preventor, middle blind rams, and bottom pipe rams. The B.O.P. will be nippled up on the 8 5/8" casing and will be tested to API specifications. The B.O.P. will be operated at least once in each 24 hour period and the blind rams will be operated when the drill pipe is out of the hole . Full opening stabbing valve and upper kelly cock will be available at all times on the derrick floor. Exhibit E"-1" shows a 3000 PSI working pressure choke manifold with dual adjustable chokes. No abnormal pressures or abnormal temperatures are expected while drilling this well.

11. PROPOSED MUD CIRCULATING SYSTEM:

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE MUD SYSTEM
See COA 300' 0-450'	8.4-9.0	28-32	NC	Fresh water spud mud use paper if required to control seepage.
450-2675'	9-11.5	32-38	NC	Cut brine, with gel and lime. use high viscosity sweeps to clean hole.

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

12. LOGGING, CORING, AND TESTING PROGRAM:

A. Open hole logs:Gamma Ray, Neutron, Density, and resistivity.

B. Cased hole log: Radial cement bond log.

C. Collect samples every 10', mud logger on hole from 2500' to TD.

D. No cores of DST'S unless Well Site Geologist makes the recommendation.

13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected during the drilling of this well. There is no known presence of H_2S in this area. If H_2S is encountered the operator will comply with the provisions of Onshore Oil & Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of the equipment being used to drill this well. Estimated BHP 1000 PSI, and Estimated BHT 145° .

14. ANTICIPATED STARTING DATE AND DURATION OF OPERATION:

Road and location construction will begin after the BLMhas approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a drilling rig is available. Move in operations and drilling is expected to take 8 days. In order to complete this well for injection it will take approximately 20 days and additional 20 days to construct surface facilities and lay injection lines.

15. OTHER FACETS OF THE OPERATION:

After casing is run and cemented cased hole logs Gamma Ray, Neutron, collar logs will be run over the injection intervals in order to determine where the casing will be perforated.

Dinero Operating Company

Dewey Federal #4

1980' FNL & 1980' FWL

Lease Serial # NM- 27919

Section 24, T-24-S, R-28-E, N.M.P.M.

Federal Bond # NM2866

Eddy County, New Mexico

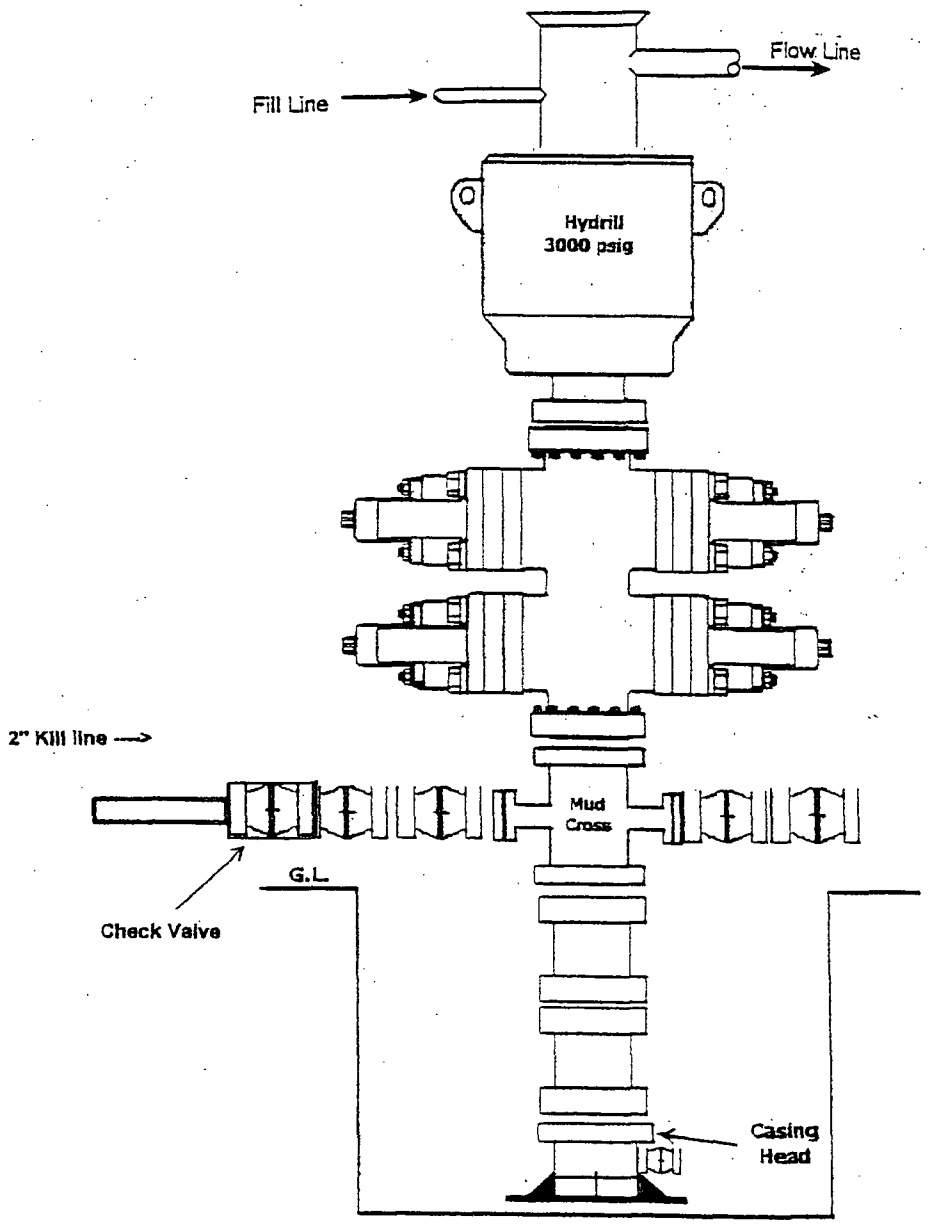


EXHIBIT "E"
SKETCH OF B.O.P. TO BE USED ON

DINERO OPERATING COMPANY
DEWEY "24" FEDERAL # 4
1980' FNL & 1980' FWL SEC. 24
T24S-R28E EDDY CO. NM

3M Choke Manifold Equipment

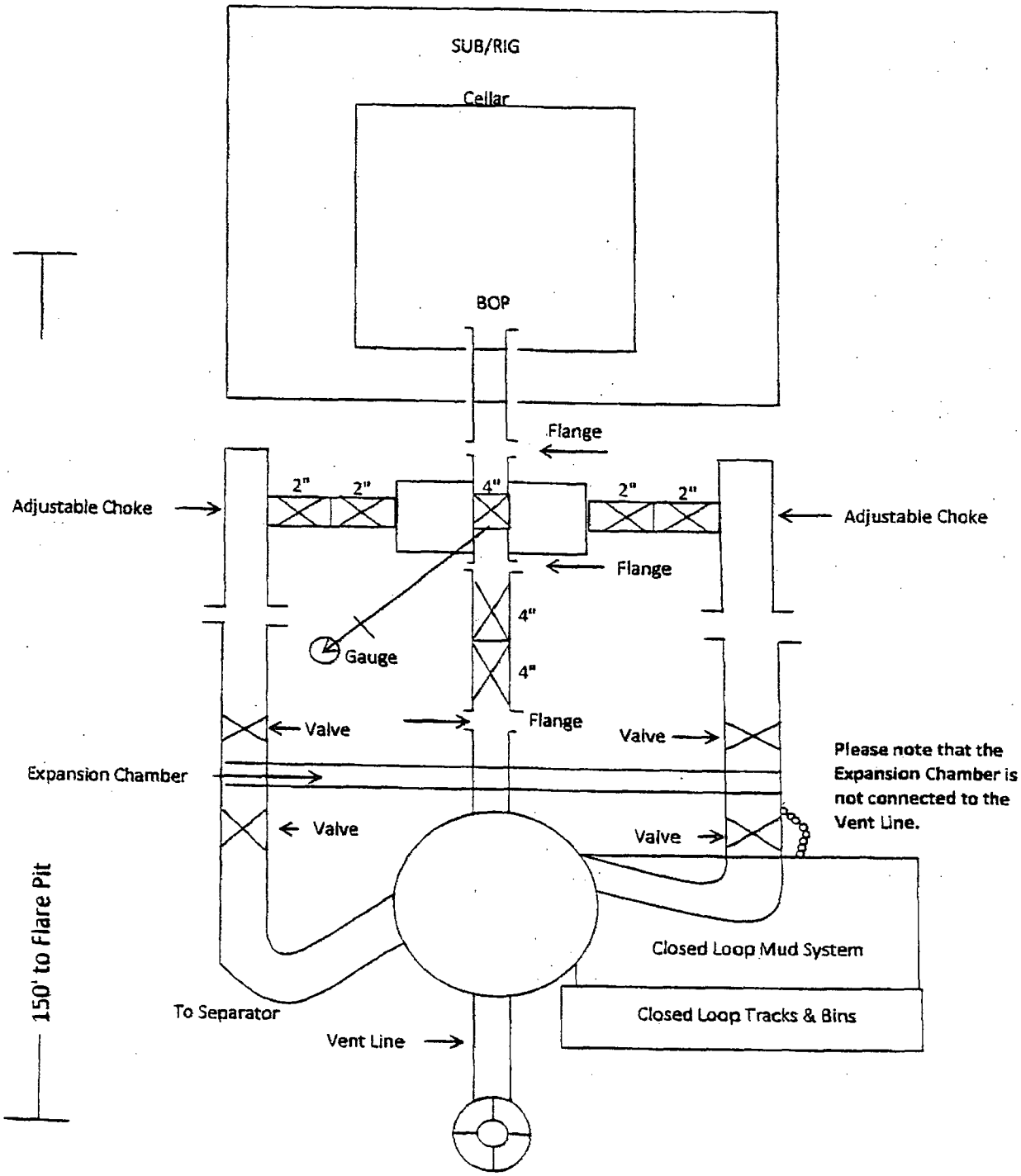
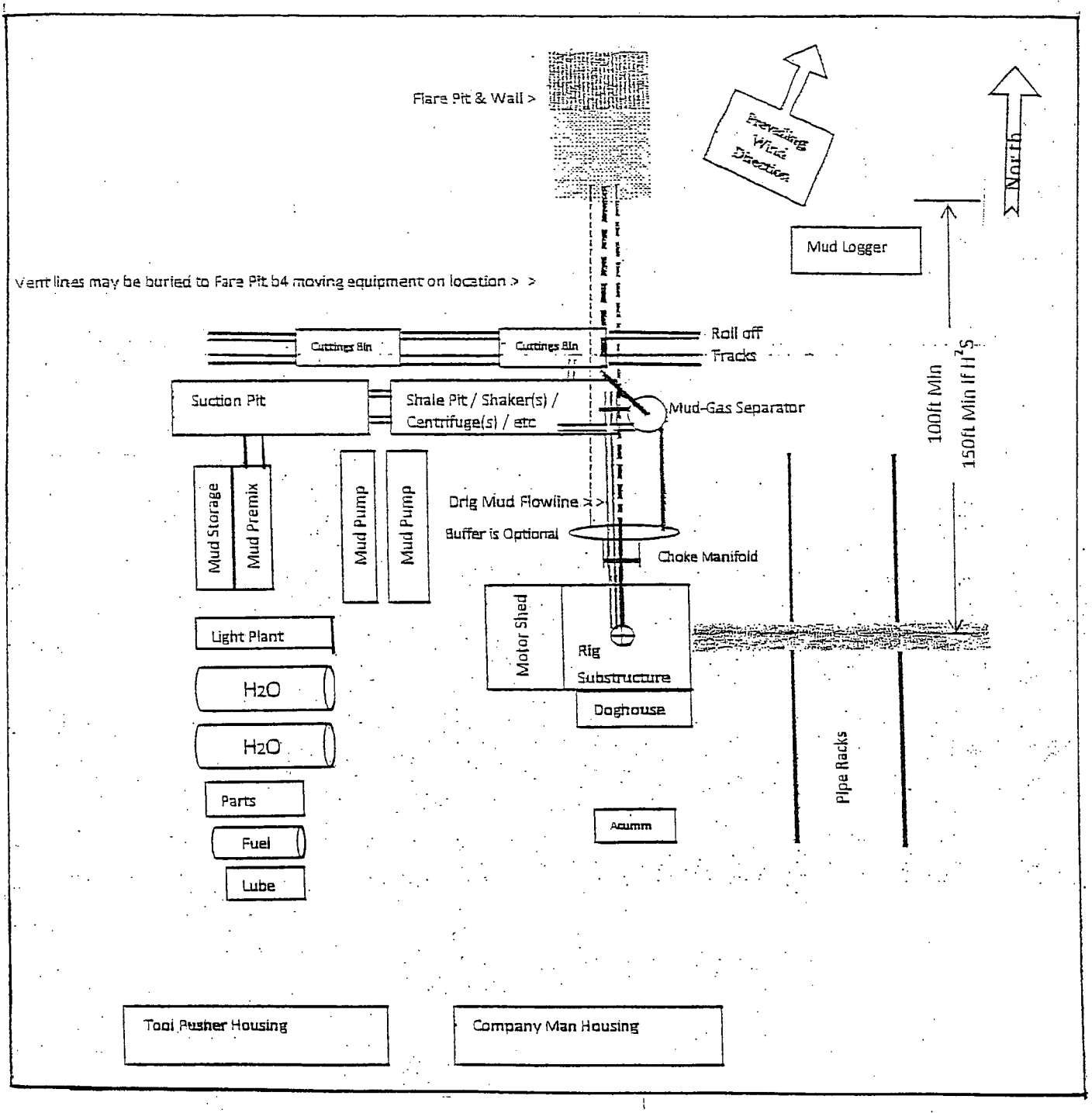


EXHIBIT "E-1"
SCHEMATIC OF CHOKE MANIFOLD

DINERO OPERATING COMPANY
DEWEY "24" FEDERAL # 4
1980' FNL & 1980' FWL SEC. 24
T24S-R28E EDDY CO. NM

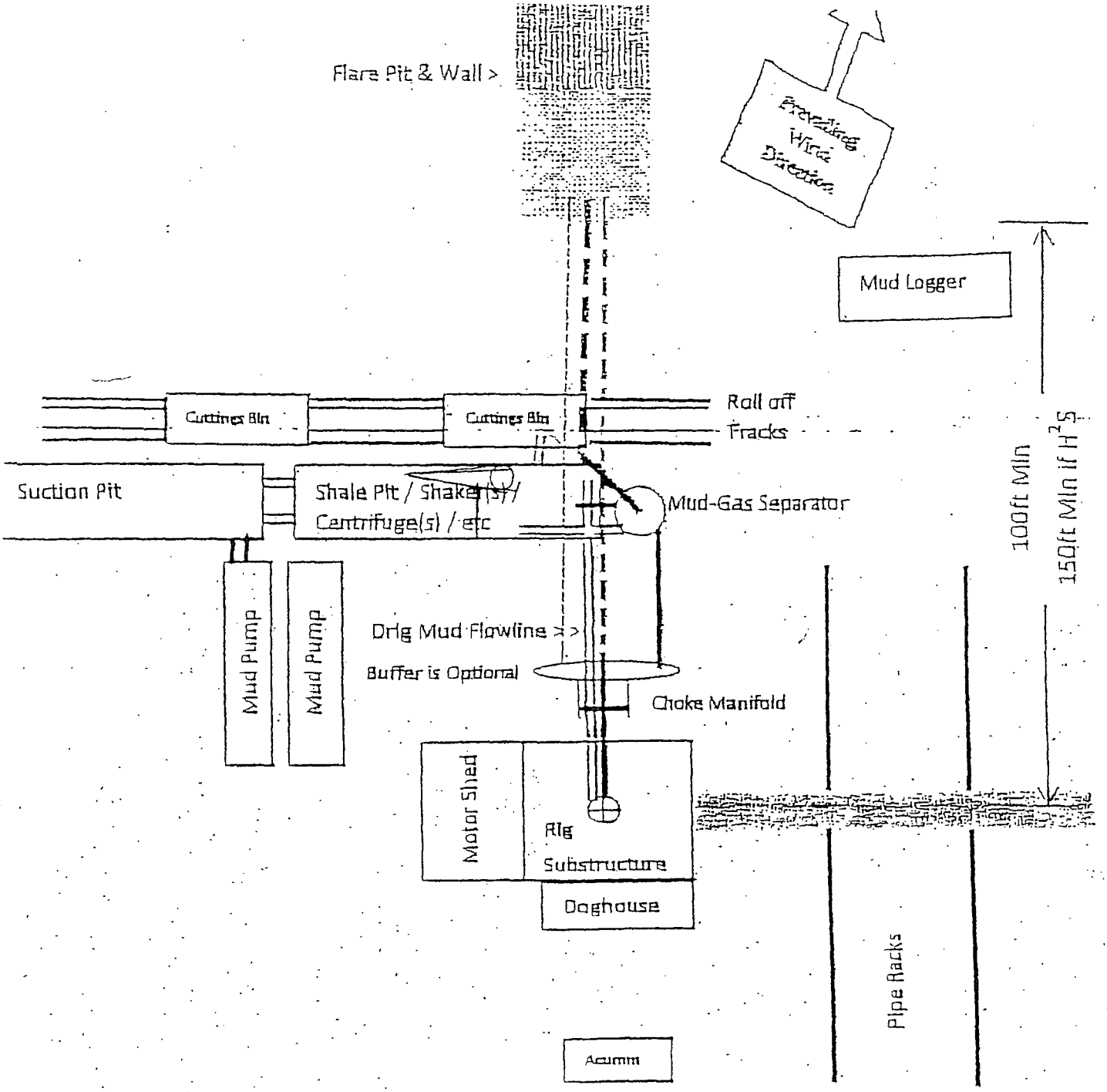


Generic Drill Site Layout

Preplanning reasonable spacing accommodations for a useable "Closed Loop" drillsite layout is challenging. Particular site specific conflicts need to be resolved. This generic APD plat was prepared to demonstrate several necessary elements. The plat should include: a north arrow, prevailing wind direction, spacing access for truck removal of cutting bins, flare pit location, and piping provision to vent all combustible gas to the flare pit. Include the choke manifold and mud-g[illegible] and their connection routing.

EXHIBIT "D"
RIG LAYOUT PLAT

DINERO OPERATING COMPANY
DEWEY "24" FEDERAL # 4
1980' FNL & 1980' FWL SEC. 24
T24S-R28E EDDY CO. NM


Flare Pit & Wall >
Prevailing Wind Direction
Mud Logger
Cuttings Bin
Cuttings Bin
Roll off
Tracks
Suction Pit
Shale Pit / Shaker(s) / Centrifuge(s) / etc
Mud-Gas Separator
100ft Min
150ft Min if H^2S
Mud Pump
Mud Pump
Drlg Mud Flowline >>
Buffer is Optional
Choke Manifold
Motor Shed
Rig Substructure
Doghouse
Pipe Racks
Acumm

Hydrogen Sulfide Drilling Plan Summary

For DrillinglWorkoverlFacility

A. All personnel shall receive proper H2S training in accordance with Onshore Order III.C.3.a.

B. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.

C. Required Emergency Equipment:

- Well control equipment
  a. Flare line 150' from wellhead to be ignited by flare gun.
  b. Choke manifold with a remotely operated choke.
  c. Mud/gas separator

- Protective equipment for essential personnel.

  Breathing apparatus:
  a. Rescue Packs (SCBA) — 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.
  b. Work/Escape packs —4 packs shall be stored on the rig floor th sufficient air hose not to restrict work activity.
  c. Emergency Escape Packs —4 packs shall be stored in the doghouse for emergency evacuation.

  Auxiliary Rescue Equipment:
  a. Stretcher
  b. Two OSHA full body harness
  c. 100 ft 5/8 inch OSHA approved rope
  d. 1-20# class ABC fire extinguisher

- H2S detection and monitoring equipment:
  The stationary detector with three sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible @ 14 ppm. Calibrate a minimum of every 30 days or as needed. The sensors will be placed in the following places: Rig floor / Bell nipple / End of flow line or where well bore fluid is being discharged.
  (Gas sample tubes will be stored in the safety trailer)

- Visual warning systems.
  a. One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site.
  b. A colored condition flag will be on display, reflecting the current condition at the site at the time.
  c. Two wind socks will be placed in strategic locations, visible from all angles.

- Mud program:
  The mud program has been designed to minimize the volume of H2S circulated to surface. The operator will have the necessary mud products to minimize hazards while drilling in H2S bearing zones.

- Metallurgy:
  a. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.
  b. All elastomers used for packing and seals shall be H2S trim.

- Communication:
  Communication will be via two way radio in emergency and company vehicles. Cell phones and land lines where available.

HYDROGEN SULFIDE CONTINGENCY PLAN
FOR DRILLING/WORKOVER/FACILITY

TABLE OF CONTENTS

HYDROGEN SULFIDE CONTINGENCY PLAN
FOR DRILLING/WORKOVER/FACILITY

General H2S Emergency Actions:

1. All personnel will immediately evacuate to an up-wind and if possible up-hill "safe area".
2. If for any reason a person must enter the hazardous area, they must wear a SCBA (Self Contained Breathing Apparatus).
3. Always use the "buddy system"
4. Isolate the well/problem if possible
5. Account for all personnel
6. Display the proper colors warning all unsuspecting personnel of the danger at hand.
7. Contact the Company personnel as soon as possible if not at the location (use the enclosed call list as instructed)

At this point the company representative will evaluate the situation and coordinate the necessary duties to bring the situation under control, and if necessary, the notification of the emergency response agencies and nearby residents.

EMERGENCY PROCEDURES FOR AN UNCONTROLLABLE RELEASE OF H2S

1. All personnel will don the self contained breathing apparatus
2. Remove all personnel to the "safe area" (always use the buddy system)
3. Contact company personnel if not on location]
4. Set in motion the steps to protect and or remove the general public to and upwind "safe area" Maintain strict security & safety procedures while dealing with the source.
5. No entry to any unauthorized personnel
6. Notify the appropriate agencies: City Police – City Street(s)
   State Police – State Rd.
   County Sheriff – County Rd.
7. Call the NMOCD

HYDROGEN SULFIDE CONTINGENCY PLAN
FOR DRILLING/WORKOVER/FACILITY

If at this time the supervising person determines the release of H2S cannot be contained to the site location and the general public is in harms way he will take the necessary steps to protect the workers and the public.
EMERGENCY CALL LIST: (Start and continue until ONE of these people has been contacted)

	OFFICE	MOBILE	HOME
Jim Dewey	432-684-5544	432-631-2330	
Charlie Williams	432-684-5544	432-556-6809	

State Police	Eddy County		575 -748-9718
State Police	Lea County		575-392-5588
Sheriff	Eddy County		575-746-2701
Sheriff	Lea County		
Emergency Medical Service (Ambulance)	Eddy County		911 or 575-746-2701
	Lea County	Eunice	911 or 575-394-3258
Emergency Response	Eddy County SERC		575-476-9620
	Lea County		
Artesia Police Dept			575-746-5001
Artesia Fire Dept			575-746-5001
Carlsbad Police Dept			575-885-2111
Carlsbad Fire Dept			575-885-3125

HYDROGEN SULFIDE CONTINGENCY PLAN
FOR DRILLING/WORKOVER/FACILITY

EMERGENCY CALL LIST (CONT.)

Loco Hills Police Dept		575- 677-2349
Jal Police Dept		575--395-2501
Jal Fire Dept		575--395-2221
Jal Ambulance		575--395-2221
Eunice Police Dept		575- 394-0112
Eunice Fire Dept		575--394-3258
Eunice Ambulance		575--394-3258
Hobbs Police Dept		575--397-3365
Hobbs Fire Dept		575--397-9308
NMOCD	District 1 (Lea, Roosevelt, Curry)	575--393-6161
	District 2 (Eddy, Chavez)	575--748-1283
Lea County Information		575—393-8203
Callaway Safety	Eddy/Lea Counties	575--392-2973
BJ Services	Artesia	575—746-3140
	Hobbs	575—392-5556
Halliburton	Artesia	1-800-523-2482
	Hobbs	1-800-523-2482
Wild Well Control	Midland	432-550-6202
	Mobile	432-553-1166

HYDROGEN SULFIDE CONTINGENCY PLAN
FOR DRILLING/WORKOVER/FACILITY

PROTECTION OF THE GENERAL PUBLIC (ROE)

- 100 ppm at any public area (any place not associated with this site)
- 500 ppm at any public road (any road with the general public may travel)
- 100 ppm radius of ¼ mile in New Mexico will be assumed if there is insufficient data to do the calculations, and there is a reasonable expectation that H2S could be present in concentrations greater than 100 ppm in the gas mixture

CALCULATIONS FOR THE 100 PPM (ROE) "PASQUILL-GIFFORD EQUATION"

X = [(1.589) (mole fraction) (Q-volume in std cu ft)] to the power of (0.6258)

CALCULATION FOR THE 500 PPM ROE:

X = [(.4546) (mole fraction) (Q – volume in std cu ft)] to the power of (0.6258)

Example:

If a well/facility has been determined to have 150 / 500 ppm H2S in the gas mixture and the well/facility is producing at a gas rate of 100 MCFPD then:

150 ppm X = [(1.589) (.00015) (100,000 cfd)] to the power of (.6258)
X = 7 ft.

500 ppm X = [(.4546) (.0005) (100,000 cfd)] to the power of (.6258)
X = 3.3 ft.

(These calculations will be forwarded to the appropriate District NMOCD office when Applicable)

PUBLIC EVACUATION PLAN:

- Notification of the emergency response agencies of the hazardous condition and implement evacuation procedures.
- A trained person in H2S safety shall monitor with detection equipment the H2S concentration, wind and area exposure (ROE). This person will determine the outer perimeter of the hazardous area. The extent of the evacuation area will be determined from the data being collected. Monitoring shall continue until the situation has been resolved. **(All monitoring equipment shall be UL approved, for use in class 1 groups A, B, C & D, Division 1, hazardous locations. All monitor will have a minimum capability of measuring H2S, oxygen and flammable values.)**

HYDROGEN SULFIDE CONTINGENCY PLAN
FOR DRILLING/WORKOVER/FACILITY

- Law enforcement shall be notified to set up necessary barriers and maintain such for the duration of the situation as well as aid in the evacuation procedure.

- The company supervising personnel shall stay in communication with all agencies through out the duration of the situation and inform such agencies when the situation has been contained and the effected area(s) is safe to enter.

PROCEDURE FOR IGNITING AN UNCONTROLABLE CONDITION:

1. Human life and/or property are in danger.

2. There is no hope of bringing the situation under control with the prevailing conditions at the site.

INSTRUCTION FOR IGNITION:

1. Two people are required. They must be equipped with positive pressure, self contained breathing apparatus and a "D" ring style full body, OSHA approved safety harness. Non flammable rope will be attached.

2. One of the people will be qualified safety person who will test the atmosphere for H2S, oxygen and LFL. The other person will be the company supervisor; he is responsible for igniting the well.

3. Ignite up wind from a distance no closer than necessary. Make sure that where you ignite from has the maximum escape avenue available. A 25 mm flare gun shall be used, with a ± 500 ft. range to ignite the gas.

4. Prior to ignition, make a final check with combustible gases.

5. Following ignition, continue with the emergency actions & procedures as before.

HYDROGEN SULFIDE CONTINGENCY PLAN FOR DRILLING/WORKOVER/FACILITY

REQUIRED EMERGENCY EQUIPMENT:

1. **Breathing apparatus:**
   - Rescue packs (SCBA) – 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.
   - Work/Escape packs – 4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity
   - Emergency Escape Packs – 4 packs shall be stored in the doghouse for emergency evacuation.

2. **Signage & Flagging:**
   - One color code condition sign will be placed at the entrance to the site reflection the possible conditions at the site.
   - A colored conditioned flag will be on display, reflecting the condition at the site at the time.

3. **Briefing Area:**
   - Two perpendicular areas will be designated by signs and readily accessible.

4. **Wind Socks:**
   - Two windsocks will be placed in strategic locations, visible from all angles.

5. **H2S Detectors & Alarms:**
   - The stationary detector with three sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible at 14 ppm. Calibrate a minimum of every 30 days or as needed. The sensors will be placed in the following places: (Gas sample tubes will be stored in the safety trailer)
     - Rig Floor
     - Bell Nipple
     - End of flow line or where well bore fluid are being discharged.

6. **Auxiliary Rescue Equipment:**
   - Stretcher
   - Two OSHA full body harness
   - 100 ft. 5/8 inch OSHA approved rope.
   - 1 – 20# class ABC fire extinguisher
   - Communication via cell phones on location and vehicles on location.

HYDROGEN SULFIDE CONTINGENCY PLAN FOR DRILLING/WORKOVER/FACILITY

USING SELF CONTAINED BREATHING AIR EQUIPMENT (SCBA):

- (SCBA) SHOULD BE WORN WHEN ANY OF THE FOLLOWING ARE PERFORMED:
    - Working near the top or on the top of a tank.
    - Disconnecting any line where H2S can reasonably be expected
    - Sampling air in the area to determine if toxic concentration of H2S can exist.
    - Working in areas where over 10 ppm on H2S has been detected.
    - At any time there is a doubt as the level of H2S in the area.
- All personnel shall be trained in the use of SCBA prior to working in a potentially hazardous location.
- Facial hair and standard eyeglasses are not allowed with SCBA.
- Contact lenses are never allowed with SCBA.
- Air quality shall be continuously checked during the entire operation.
- After each use, the SCBA unit shall be cleaned, disinfected, serviced and inspected.
- All SCBA shall be inspected monthly.

RESCUE AND FIRST AID FOR VICTIMS OF HYDROGEN SULFIDE (H2S) POISONING:

- Do not panic
- Remain calm and think
- Get on the breathing apparatus

HYDROGEN SULFIDE CONTINGENCY PLAN FOR DRILLING/WORKOVER/FACILITY

- Remove the victim to the safe breathing area as quickly as possible. Up wind and uphill from source or cross wind to achieve upwind.
- Notify emergency response personnel.
- Provide artificial respiration and or CPR, as necessary.
- Remove all contaminated clothing to avoid further exposure.
- A minimum of two personnel on location shall be trained in CPR and First Aid.

HYDROGEN SULFIDE CONTINGENCY PLAN FOR DRILLING/WORKOVER/FACILITY

H2S is extremely toxic. The acceptable ceiling for eight hours of exposure is 10 ppm, which is .001% by volume. H2S is approximately 20% heavier than air (Sp. Gr = 1.19) (Air = 1) and colorless. It forms an explosive mixture with air between 4.3% and 46%. By volume hydrogen sulfide is almost as toxic as hydrogen cyanide and is 5-6 times more toxic than carbon monoxide.

COMMON NAME	CHEMICAL ABBREV.	SPECIFIC GRVTY.	THRESHOLD LIMITS	HAZARDOUS LIMITS	LETHAL CONCENTRATIONS
Hydrogen Sulfide	H2S	1.19	10 ppm 15 ppm	100 ppm/hr	600ppm
Hydrogen Cyanide	HCN	0.94	10 ppm	150 ppm/hr	300 ppm
Sulfur Dioxide	SO2	2.21	2 ppm	N/A	1000 ppm
Chlorine	CL2	2.45	1 ppm	4 ppm/hr	1000 ppm
Carbon Monoxide	CO	0.97	50 ppm	400 ppm/hr	1000 ppm
Carbon Dioxide	CO2	1.52	5000 ppm	5%	10%
Methane	CH4	0.55	90,000	Combustible @ 5%	N/A

Threshold Limit: Concentrations at which it is believed that all workers may be repeatedly exposed, day after day without adverse effects.

Hazardous Limit: Concentrations that may cause death.

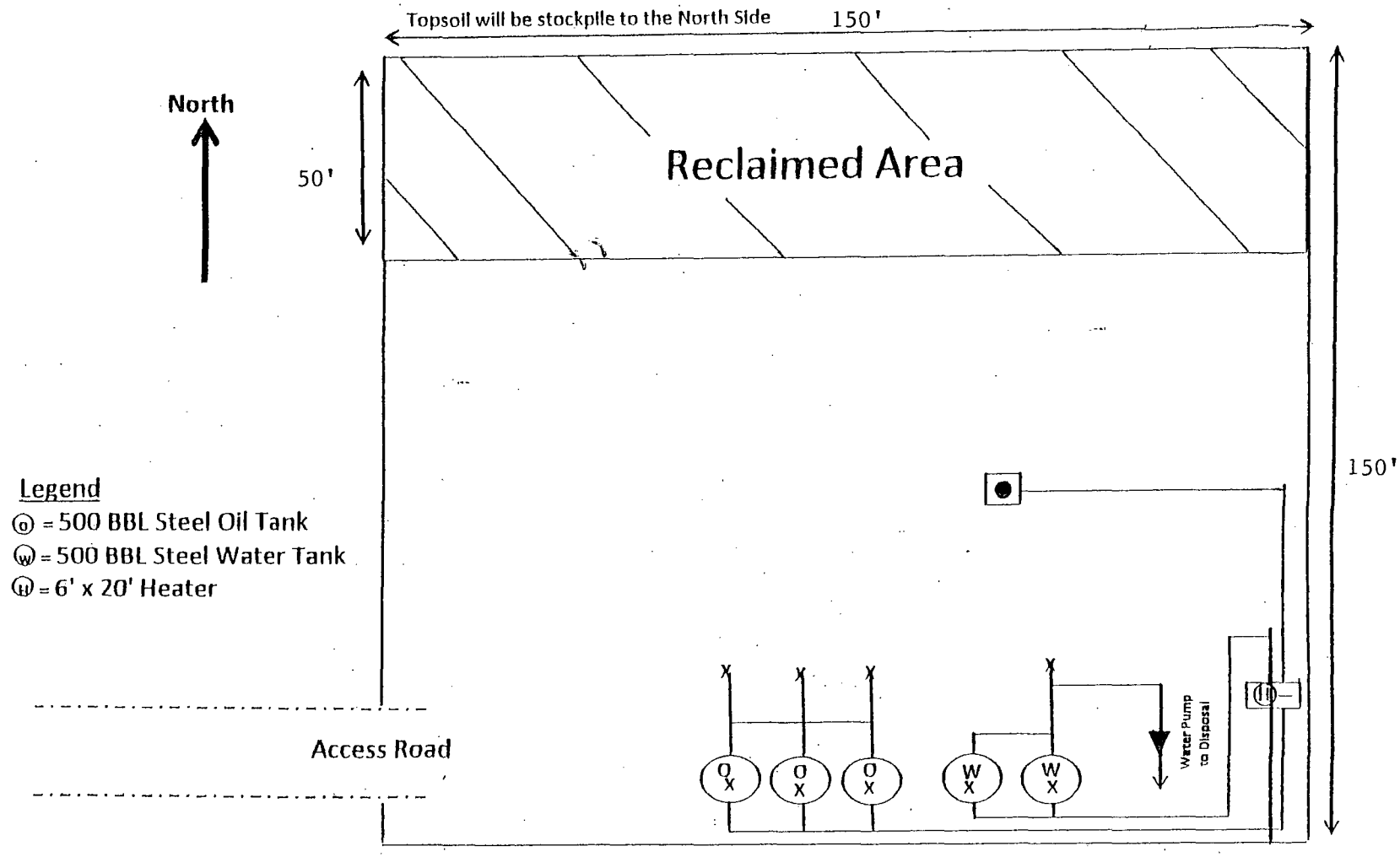
Concentrations: Concentrations that will cause death with short term exposure.

Threshold Limit: NIOSH guide to chemical hazards
(10 ppm)

PHYSICAL EFFECTS OF HYDROGEN SULFIDE:

CONCENTRATION		*PHYSICAL EFFECTS*
.001%	10 ppm	Obvious and unpleasant odor. Safe for 8 hr. exposure
.005%	50 ppm	Can cause some flu like symptoms and can cause pneumonia.
.01%	100 ppm	Kills the sense of smell in 3-15 minutes. May irritate the eyes and throat.
.02%	200 ppm	Kills the sense of smell rapidly. Severely irritates the eyes and throat. Severe flu-like symptoms after 4 or more hours. May cause lung damage and or death.
.06%	600 ppm	Loss of consciousness quickly, death will result if not rescued promptly.

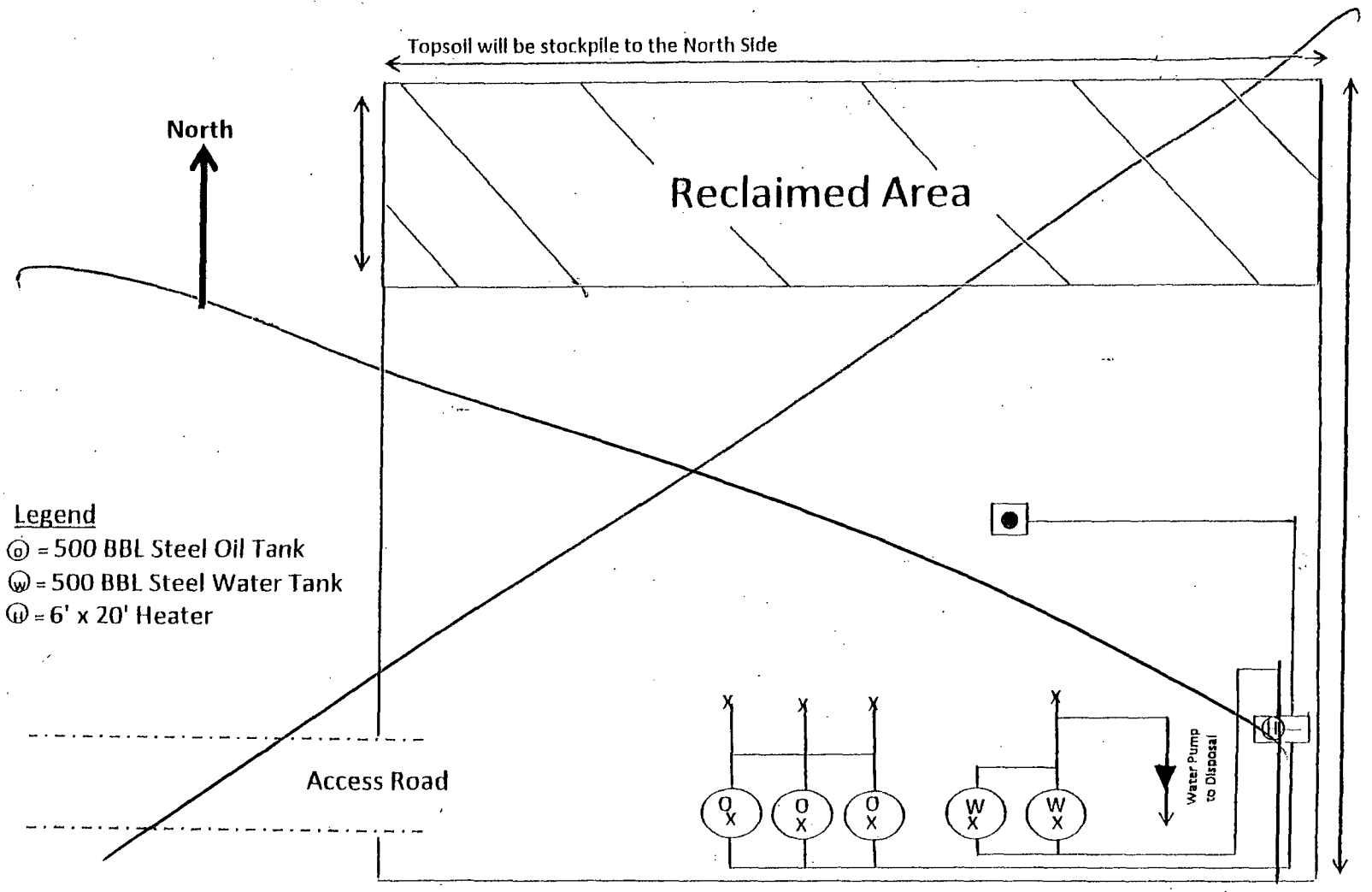
Production Facility Layout



RECLAMATION DIAGRAM
& PRODUCTION FACILITY

DINERO OPERATING COMPANY
DEWEY "24" FEDERAL # 4
1980' FNL & 1980' FWL SEC. 24

Production Facility Layout



SURFACE USE PLAN

DINERO OPEATING COMPANY
DEWEY "24" FEDERAL # 4
UNIT "F" SECTION 24
T24S-R28E EDDY CO. NM

1. EXISTING AND PROPOSED ROADS WITH DIRECTIONS TO LOCATION:

A. Exhibit "B" is a reproduction of a County General Hi-Way map showing existing roads. Exhibit "C" is a reproduction of a USGS topographic map showing existing roads and proposed roads. All existing roads will be maintained in equal 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 Malaga New Mexico take Co. Road 720 East 1.3 miles turn Right (South) on Co Road 746 follow road .7 miles, turn Right (South) on Co. Road 721 go . 6 miles and location is on the East side of road.

2. PLANNED ACCESS ROADS: Approximately 500' of new road will be constructed.

A. The access roads will be crowned and ditched 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. As required all new access roads will be surfaced with a mimimum of 4-6" of Caliche. This material will be obtained from a local source.

E. The center line of roads will be flagged and road construction will be done as field conditions allow.

F. Culverts will be placed in the access roads as drainage conditions require. Roads will be constructed to use low water crossings for drainage as topographic features require to keep errosion to a minimum.

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

A. Water wells	-Several within 1 mile of location Depth to water 20-30'
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"

SURFACE USE PLAN

DINERO OPEATING COMPANY
DEWEY "24" FEDERAL # 4
UNIT "F" SECTION 24
T24S-R28E EDDY CO. NM

4. If on completion this well is a success the operator will complete it as a producer. The operator will construct production facilities and tank battery on location. ~~If power lines will be required to produce this well they may be constructed along existing R=O=W's as shown on Exhibit "C".~~
Joe Jamica withdrew the powerline.

5. LOCATION AND TYPE OF WATER SUPPLY:

Water will be purchased locally from a commercial source and transported by transport or piped to location by flexible flowlines laid on top of the ground.

6. SOURCE OF CONSTRUCTION MATERIAL:

If possible construction material will be obtained from the leveling of the drill site. If additional material will will be require it will be obtained from a local source and transported over access roads shown on Exhibit "C".

7. METHODS OF HANDLING WASTE MATERIAL:

A. In case this well is drilled using a closed mud system the cuttings will be collected in containers and disposed of in a state approved disposal site. Drilling fluids likewise will be contained in tanks and disposed of in state approved disposal sites.

B. All trash, junk and other waste material will be contained in trash cages or trash bins to prevent scattering. When job is complete all contents will be taken from location and disposed of in a state approved disposal site.

C. Salts and other mud material remaining after completion of the well will be collected by the supplier and be removed from the location.

D. Waste water from living quaters will be directed into an onsite sewage treat-ment unit and when well is completed residue will be removed and disposed of in a state approved disposal site. Porto-johns will be on location for rig crews, completion crews and other contract personnel, this equipment will be properly maintained during drilling and completion. When all operations are complete the residue will be removed and disposed of in a state approved disposal site and the equipment removed by supplier.

E. Any fluids produced during the completion phasewill be seperated and the oil sold and water will be disposed of in an apporved disposal site.

8. ANCILLARY FACILITIES:

A. No camps, airstrips, or staging areas will be constructed on location.

SURFACE USE PLAN

DINERO OPEATING COMPANY
DEWEY "24" FEDERAL # 4
UNIT "F" SECTION 24
T24S-R28E EDDY CO. NM

9. WELL SITE LAYOUT:

A. Exhibit "D" shows a genericwell site for a well to be drilled using a closed loop mud system.

10. PLANS FOR RESTORATION OF SURFACE:

All disturbed areas not require for active support of productionwill undergo interim reclamation. the portions of the well site not require for operational and safety purposes will have the surfacing material (caliche) removed and will be recontoured to a final or intermediate contour thatblends with the surrounding topography. The stocked piled topsoil will then be spread evenly overthe re-countored area. The topsoil will then be ripped in order to provide texture to improve the success of revegetation. The reclaimed area will be reseeded with a weed-free mixture suitable for the area.

FINAL RECLAIMATION:

After production operations have ceased or if the well is a dry hole the entire well pad and road will be recalimed. Surfacing material will be removed and the locationwill be recountoured to the original countours. The topsoil will be ripped in order for the reseeding to be more successful. The area will be reseeded with a mixture that is compatible with the existing soil.

Drill cuttings and mud used to drill this well will be removed and disposed of at an approved disposal site. All trash and any other debree will be collected and disposed of as the above.

11. ADDITIONAL INFORMATION:

The surface and minerals are owned by the U. S, Department of Interior and is managed by the Bureau of Land Management. Vegetation consists of snake weed, prickley pear. mesquite, and other native grasses. The dip is in the direction Southeast. The surface is used for the grazing of livestock and the production of oil and gas.

Powerline withdrawel - Joe Janca

DINERO OPERATING COMPANY
DEWEY "24" FEDERAL # 4
SECTION 24 T24S-R28E

10/18/14

DENERO OPERATING COMPANY does not intend to construct a power line at this time. When and if a power line is required at a later date a request will be submitted on a sundry notice.

APD Tracking # :

Well-Site Evaluation Field Form

Operator Name: Dinero Well Name Dewey 24 Fed #4H

SHL: Section 24, T. 24 S. R. 29 E. Footage 1980 FNL & 1980 FWL

Well Type: Horizontal (Vertical) / (Oil) Gas NOS/APD Received? (NOS) APD No

Surface Management Agency (SMA): (BLM) FEE STATE SMA Contacted? (Yes) No

Operator Representative/ Contact Name: Joe Janica Phone 505-390-1598

BLM Onsite Representatives Tamar Nygren Date 4/24/14

Description & Topography: (cut & fill, etc.) Fairly flat / drains west

Soils: Sandy loam Cave Area: low

Vegetation: Creosote mostly, lots of bare ground

Hydrology: (playas, floodplain, drainages, erosive soils, etc.)

Small drainages traveling west

Wildlife: (habitat, LPC, SDL, etc.) Deer, etc.

Range Improvements: (fences, etc.) NA

Well Infrastructure

V-Door Direction: E Topsoil: North

Pad Size: 300' x 300'

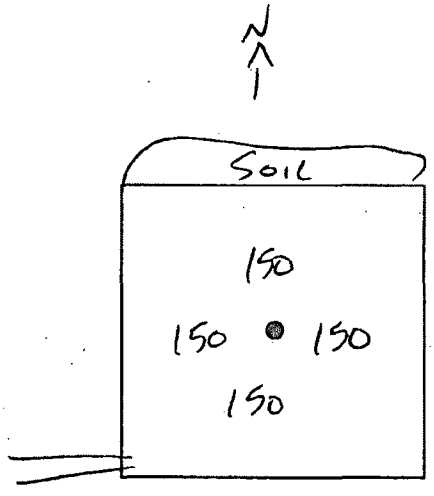
Road Route: SW corner

Prod. Facility Placement: South side

Interim Rec: North + East sides

Other: NA

Evaluation: (Moved?) ok



COA: Need to berm pad

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Dinero Operating Inc
LEASE NO.:	NM27919
WELL NAME & NO.:	4-Dewey 24 Federal
SURFACE HOLE FOOTAGE:	1980'/N & 1980'/W
BOTTOM HOLE FOOTAGE	'/ & '/
LOCATION:	Sec. 24, T. 24 S., R. 28 E.
COUNTY:	Eddy County, New Mexico

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation.The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing
The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

G. ON LEASE ACCESS ROADS

Road Width
The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) feet.

Surfacing
Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Ditching
Ditching shall be required on both sides of the road.

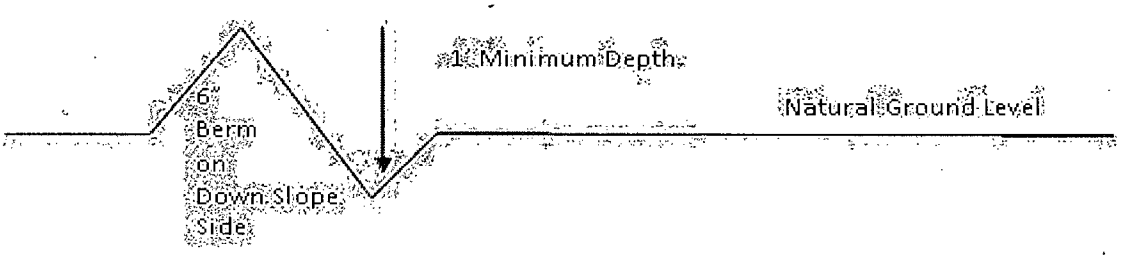
Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

400 foot road with 4% road slope: $\frac{400'}{4\%} + 100' = 200'$ lead-off ditch interval

Cattleguards

An appropriately sized cattleguard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattleguards on the access road route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguards that are in place and are utilized during lease operations.

Fence Requirement

Where entry is granted across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

Public Access

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Construction Steps

1. Salvage topsoil
2. Construct road
3. Redistribute topsoil
4. Revegetate slopes

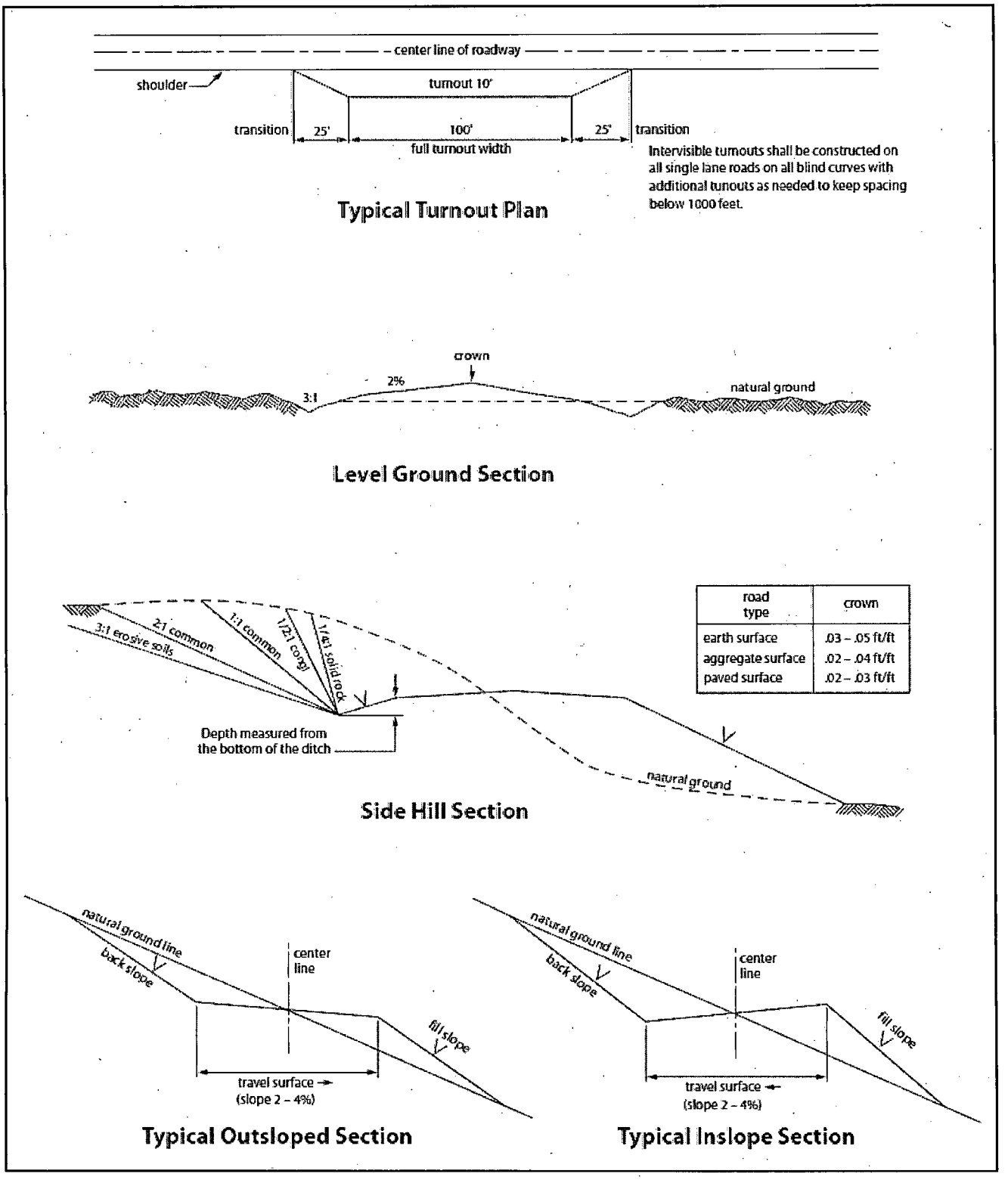


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VII. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

a. Spudding well (minimum of 24 hours)
b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
c. BOPE tests (minimum of 4 hours)

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

1. **Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations 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. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a "Major" violation.**

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 is located, this does not include the dog house or stairway area.

4. **The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

B. CASING

Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#).

Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) time prior to drilling out 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 for all casing strings. DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. IF OPERATOR DOES NOT HAVE THE WELL SPECIFIC CEMENT DETAILS ONSITE PRIOR TO PUMPING THE CEMENT FOR EACH CASING STRING, THE WOC WILL BE 30 HOURS. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Medium Cave/Karst
Possible water flows in the Castile and Salado.
Possible lost circulation in the Rustler and Delaware Formations.

1. The 8-5/8 inch surface casing shall be set above the salt at approximately 300 feet and cemented to the surface.

    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 surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

    b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.

    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 cementing will be done prior to drilling out that string.

2. 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.

3. 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. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 3000 (3M) psi.

3. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

   a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

   b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (18 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

c. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

d. The results of the test shall be reported to the appropriate BLM office.

e. 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.**

f. 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. This test shall be performed prior to the test at full stack pressure.

D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

E. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

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VIII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities

Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Exclosure Netting (Open-top Tanks)

Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

Chemical and Fuel Secondary Containment and Exclosure Screening

The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

Open-Vent Exhaust Stack Exclosures

The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone.*) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

Containment Structures

Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

Painting Requirement
All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, **Shale Green** from the BLM Standard Environmental Color Chart (CC-001: June 2008).

IX. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

X. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Seed Mixture 1, for Loamy Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (small/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	lb/acre
Plains lovegrass (Eragrostis intermedia)	0.5
Sand dropseed (Sporobolus cryptandrus)	1.0
Sideoats grama (Bouteloua curtipendula)	5.0
Plains bristlegrass (Setaria macrostachya)	2.0

*Pounds of pure live seed:

Pounds of seed **x** percent purity **x** percent germination = pounds pure live seed