

8/2/02 8/17/02

DATE	SUBMITTER	ENGINEER	LOGGED IN	TYPE	APP NO
6/14/02	6/29/02	WJ	KW	SWD	216829353

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505



ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
 [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
 [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
 [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
 [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
 [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify _____

[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or Does Not Apply

- [A] ☐ Working, Royalty or Overriding Royalty Interest Owners
- [B] ☐ Offset Operators, Leaseholders or Surface Owner
- [C] ☐ Application is One Which Requires Published Legal Notice
- [D] ☐ Notification and/or Concurrent Approval by BLM or SLO
 U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F] ☐ Waivers are Attached

[3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

[4] CERTIFICATION: I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

SAM BRANDON
 Print or Type Name

Sam Brandon
 Signature

OPERATIONS Engineer
 Title

6-11-02
 Date

 e-mail Address

MARTIN YATES, III
1912 - 1985
FRANK W. YATES
1936 - 1986



105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210-2118
TELEPHONE (505) 748-1471

S. P. YATES
CHAIRMAN OF THE BOARD
JOHN A. YATES
PRESIDENT
PEYTON YATES
EXECUTIVE VICE PRESIDENT
RANDY G. PATTERSON
SECRETARY
DENNIS G. KINSEY
TREASURER

May 17, 2002

David Catanach
State of New Mexico
OIL CONSERVATION DIVISION
2040 S. Pacheco Street
Santa Fe, NM 87505-5472

Dear Mr. Catanach,

(30-015-32367)

Enclosed please find a copy of form C-108 (Application for Authority to Inject) for the proposed Zingaro SWD #6 located in Section 1-T22S-R23E, Eddy County, New Mexico.

Should you have any questions, please feel free to contact me at (505) 748-4281.

Sincerely,

A handwritten signature in cursive script that reads 'Sam Brandon'.

Sam Brandon
Operations Engineer

SB/cm

Enclosure

MARTIN YATES, III
1912 - 1985
FRANK W. YATES
1936 - 1986



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DENNIS G. KINSEY
TREASURER

July 19, 2002

Mr. William V. Jones Jr.
New Mexico Energy, Minerals and Natural
Resources Department
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Dear Mr. Jones:

We have made some corrections to our Administration Application for SWD for the Zingaro SWD Well No. 6 as you requested in your letter of July 11, 2002. We have included a more recent analysis of the water to be injected from a nearby well. The samples we have obtained have varied from under 7000 mg/l TDS to over 40000 mg/l. Most samples are similar to the one now included in the application.

We have also obtained another sample of the "fresh" water from a well (used for household water) which is approximately 0.52 mile southeast of the proposed SWD well location. The sample was obtained from a faucet at the home.

Total injected volume over the life of the project is expected to be approximately 100,000,000 barrels. Net thickness of the Devonian interval to be penetrated is 850 to 1300 feet. Average porosity is approximately 3.5%.

Alternatives to injection of the produced water have been examined and it has been determined that the most practical and economic disposal method is injection into the Devonian formation.

If you have additional questions concerning the application, please contact me.

Sincerely,

Sam Brandon
Operations Engineer



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON

Governor

Betty Rivera

Cabinet Secretary

July 11, 2002

Lori Wrotenbery

Director

Oil Conservation Division

Mr. Sam Brandon
Yates Petroleum Corporation
105 South Fourth Street
Artesia, New Mexico 88210-2118

Re: Administrative Application for SWD: Zingaro SWD Well No. 6
Section 1, T22S, R23E, NMPM, Eddy County, New Mexico.

Dear Mr. Brandon:

The division received your application June 14, 2002 and on July 11th had conversations with Ms. Cherry Matchus concerning additional information as necessary to complete the order. The information needed includes the following:

- 1) Ensure the well bore diagram matches the earlier statements about the injection configuration – will this be perforated casing or open hole?
- 2) Concerning Item XII of the form C-108, please have a geologist sign the affirmation.
- 3) Concerning Item XIII of the form C-108, please provide evidence that notices were sent to the surface owner and the offset leaseholders.
- 4) If available, please provide a copy of the APD.
- 5) Please provide another “fresh” water analysis in the vicinity or provide more explanation of why the windmill water is higher in TDS than the water being disposed of. Provide the approximate location of the windmill.

In addition, since the disposal water is less than 10,000 mg/l TDS and injected volumes will be large, discuss alternatives to disposal of this water including if possible the cents per barrel costs of these alternatives. Also provide some estimate of total volume to be injected into this SWD well and the net thickness and estimated average effective porosity of the injection zone.

Pending receipt of this information and since our 30-day limit for pending applications is approaching, your application is being returned. If I can be of further assistance, please call (505) 476-3448.

Sincerely,

William V Jones Jr. PE

cc: OCD-Artesia

MARTIN YATES, III
VICE PRES
FRANK W. YATES
VICE PRES



105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210-2118
TELEPHONE (505) 748-1471

S. P. YATES
CHAIRMAN OF THE BOARD
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PEYTON YATES
EXECUTIVE VICE PRESIDENT
RANDY G. PATTERSON
SECRETARY
DENNIS G. KINSEY
TREASURER

May 17, 2002

Tim Gum
State of New Mexico
OIL CONSERVATION DIVISION
811 South First Street
Artesia, NM 88210

Dear Mr. Gum,

Enclosed please find a copy of form C-108 (Application for Authority to Inject) for the proposed Zingaro SWD #6 located in Section 1-T22S-R23E, Eddy County, New Mexico.

Should you have any questions, please feel free to contact me at (505) 748-4281.

Sincerely,

A handwritten signature in cursive script that reads 'Sam Brandon'.

Sam Brandon
Operations Engineer

SB/cm

Enclosure

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: _____ Secondary Recovery _____ Pressure Maintenance X Disposal _____ Storage
Application qualifies for administrative approval? X Yes _____ No
- II. OPERATOR: _____ Yates Petroleum Corporation
ADDRESS: _____ 105 South Fourth Street, Artesia, NM 88210
CONTACT PARTY: _____ Sam Brandon _____ PHONE: _____ (505) 748-4281
- III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.
Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? _____ Yes X No
If yes, give the Division order number authorizing the project: _____
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- *VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- *X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
- *XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- NAME: _____ Sam Brandon _____ TITLE: _____ Operations Engineer
SIGNATURE: _____ *Sam Brandon* _____ DATE: _____ 5-17-2002
- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submital: _____

MARTIN YATES, III
1912 - 1985
FRANK W. YATES
1936 - 1986



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SECRETARY
DENNIS G. KINSEY
TREASURER

July 19, 2002

Oil Conservation Division
Mr. Will Jones
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505

Re: Administrative Application for SWD: Zingaro SWD Well No. 6
Section 1, T22S, R23E, NMPM, Eddy County, New Mexico.

Dear Mr. Jones,

As per your request in your letter dated July 11, 2002 please find the following information.

1. This will be a cased hole completion.
2. Please find enclosed concerning item XII a signed affirmation (Attachment 'D') by John Humphrey one of our Yates Petroleum Corporation Geologist.
3. As per item XIII of form C-108, please find enclosed a copy of our letter to the BLM who is the surface owner.
4. Enclosed is a copy of the approved APD.
5. Also please find enclosed another produced water analysis from the Zingaro "ANG" #1, also a "fresh" water analysis from the Ranch House which is supplied by the same windmill. This "fresh" water analysis was obtained from the tap. Please find enclosed a letter from Sam Brandon our Operations Engineer addressing your concerns on the water analysis from the windmill versus the water being disposed.
6. Also find enclosed page two of our C-108 Application with a correction on item IX, being there is one windmill within a one mile radius. Also our attachments have been re-lettered to accommodate our affirmation from the Geologist.

I hope this covers all of your additional questions and concerns. If you should need any further information please feel free to call either Sam Brandon or myself at (505) 748-4162 or (505) 748-4164.

Sincerely,
Cherry Matchus
Cherry Matchus
Engineering Technician

Enclosure

**C-108 Application for Authorization to Inject
Yates Petroleum Corporation
Zingaro SWD #6
Section 1, T22S-R23E
Eddy County, New Mexico**

- I. The purpose of completing this well is to make a disposal well for produced Canyon water into the Devonian.
- II. Operator: Yates Petroleum Corporation
105 South Fourth Street
Artesia, NM 88210
Sam Brandon (505) 748-4281
- III. Well Data: See Attachment A
- IV. This is not an expansion of an existing project.
- V. See attached map, Attachment B.
- VI. There are no wells within the area of review penetrating the proposed injection zone.
- VII.
 - 1. Proposed average daily injection volume approximately 25,000 BWPD.
Maximum daily injection volume approximately 50,000 BWPD.
 - 2. This will be a closed system.
 - 3. Proposed average injection pressure—0 psi.
Proposed maximum injection pressure--2000 psi.
 - 4. Sources of injected water would be produced water from the Canyon.
(Attachment E)
 - 5. See Attachment C.
- VIII. The proposed injection interval is cased hole from 10,300-11,500.

Fresh water zones overlie the proposed injection formation at depths to approximately 1100 feet.
- IX. The proposed disposal interval may be acidized with 15-20% HCL acid.

- X. Logs will be filed at your office when the well is drilled. Any new logs run after completing will also be submitted to your office.
- XI. There is one windmill that exists within a one-mile radius of the subject location. One well produces "fresh" water from a well approximately 0.52 miles southeast (see Map 1) from the proposed SWD well. A chemical analysis of the water from this well is attached (Attachment H).
- XII. Available engineering and geologic data have been examined and no evidence of open faults or hydrologic connection between the disposal zone and any underground sources of drinking water has been found. Attachment D.
- XIII. Proof of notice.
 - A. Certified letters sent to the surface owners and offset operators are attached (Attachment E).
 - B. Copy of notice to Bureau of Land Management (Attachment F).
 - C. Copy of legal advertisement attached (Attachment G).
- XIV. Certification is signed.

**Yates Petroleum Corporation
Zingaro SWD #6
1-22S-23E**

**Attachment A
Page 1**

III. Well Data

- A.**
1. Lease Name/Location:
Zingaro SWD No. 6
Section 1, T22S-R23E
1980' FSL & 660' FEL
 2. Casing Strings:
 - a. Proposed well condition:
13 3/8" 48#, H-40 ST&C at 1500'.
9 5/8" 36&40# at 12,000'
7" Plastic-coated tubing (proposed) set at 10,200'+/-.
 3. Propose to use Guiberson or Baker plastic-coated or nickel-plated packer set at 10,200'+/-..
- B.**
1. Injection Formation: Devonian.
 2. Injection interval will be cased hole from 10,300'to 11,500'
 3. This is a new well to be drilled specifically for SWD purposes.
 4. Next higher (shallower) oil or gas zone within 2 miles—Morrow.
Next lower (deeper) oil or gas zone within 2 miles—None.

Well Name: Zingaro SWD No. 6 Field: _____

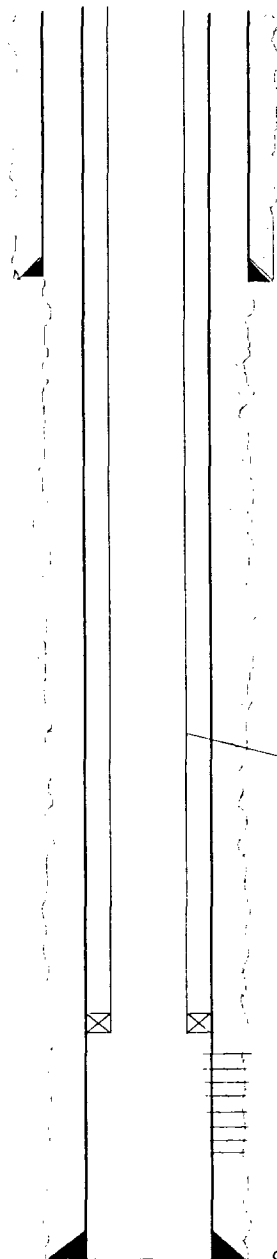
Location: 2090' FSL & 660' FEL Sec 1-22S-23E

GL: _____ Zero: _____ AGL: _____ KB: _____

Spud Date: _____ Completion Date: _____

Comments: _____

Casing Program	
Size/Wt/Grade/Conn	Depth Set
13 3/8" H40	1500'
9 5/8" 40# J55, 47# S95 & N80	12000'



13 3/8" csg @ 1500'. Circulate cement to surface.

Proposed
Well not yet drilled

7" IPC tubing

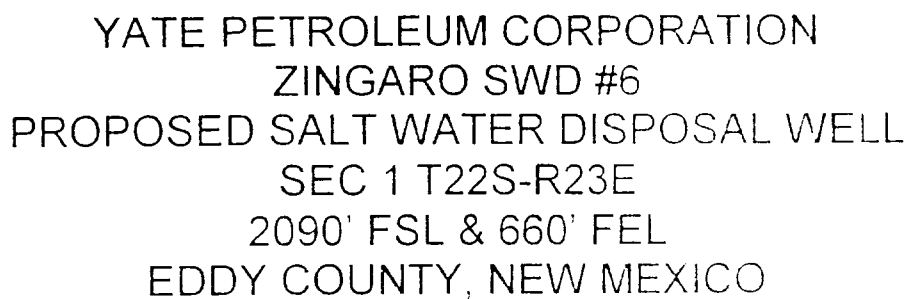
Guiberson or Baker plastic coated or
nickel plated packer @ +/- 10200'

Devonian perforations to be determined
Estimated depth 10300 to 11500'

9 5/8" csg @ 12000'

SKETCH NOT TO SCALE

DATE: 5-17-02



HALLIBURTON DIVISION LABORATORY

HALLIBURTON SERVICES

ARTESIA DISTRICT

LABORATORY REPORT

No. W531-90TO Mr. Harvey AppleDate September 20, 1990Yates Petroleum Corporation105 South Fourth StreetArtesia, NM 88210

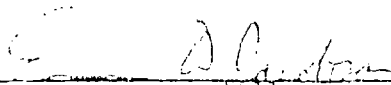
This report is the property of Halliburton Services and neither it nor any part thereof nor a copy thereof is to be published or disclosed without first securing the express written approval of Laboratory Management. It may, however, be used in the course of regular business operations by any person or persons and employees thereof receiving such report from Halliburton Services.

Submitted by Danny PanzerDate Rec. September 20, 1990Well No. State D #1 Depth 10963' - 11052' Formation Bliss Sand

Field _____ County _____ Source _____

Resistivity	0.052		
Specific Gravity ..	1.1706		
pH	6.5		
Calcium	29,025		
Magnesium	392		
Chlorides	157,000		
Sulfates	700		
Bicarbonates	305		
Soluble Iron	500		
FOI5%		

Remarks:


 Respectfully Submitted
Analyst: Eric Jacobson - Field Engineer

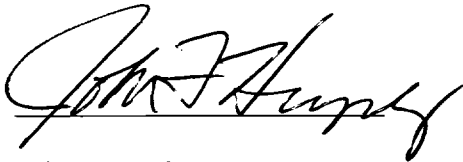
HALLIBURTON SERVICES

Injection zone analysis

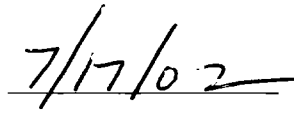
Attachment D

C-108 Application for Authorization to Inject
Yates Petroleum Corporation
Zingaro SWD #6
Section 1, T-22S-R23E
Eddy County, New Mexico

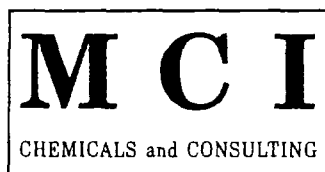
Available engineering and geologic data have been examined and no evidence of open faults or hydrologic connection between the disposal zone and any underground sources of drinking water has been found.

A handwritten signature in black ink, appearing to read "John Humphrey", written over a horizontal line.

John Humphrey
Geologist
Yates Petroleum Corporation

A handwritten date "7/17/02" in black ink, written over a horizontal line.

Date



MILLER CHEMICALS, INC.

Post Office Box 298
 Artesia, N.M. 88211-0298
 (505) 746-1919 Artesia Office
 (505) 393-2893 Hobbs Office
 (505) 746-1918 Fax

WATER ANALYSIS REPORT

Company	: YATES PETROLEUM	Date	: 2/21/01
Address	: ARTESIA, NM	Date Sampled	: 2/21/01
Lease	: ZINGARO "ANG"	Analysis No.	: 00226
Well	: #1		
Sample Pt.	: WELLHEAD		

ANALYSIS		mg/L		* meq/L	
-----		----		-----	
1.	pH	7.1			
2.	H2S	90			
3.	Specific Gravity	1.010			
4.	Total Dissolved Solids	17622.9			
5.	Suspended Solids	NR			
6.	Dissolved Oxygen	NR			
7.	Dissolved CO2	NR			
8.	Oil In Water	NR			
9.	Phenolphthalein Alkalinity (CaCO3)				
10.	Methyl Orange Alkalinity (CaCO3)				
11.	Bicarbonate	HCO3	659.0	HCO3	10.8
12.	Chloride	Cl	8946.0	Cl	252.4
13.	Sulfate	SO4	1750.0	SO4	36.4
14.	Calcium	Ca	680.0	Ca	33.9
15.	Magnesium	Mg	583.4	Mg	48.0
16.	Sodium (calculated)	Na	5004.3	Na	217.7
17.	Iron	Fe	0.3		
18.	Barium	Ba	NR		
19.	Strontium	Sr	NR		
20.	Total Hardness (CaCO3)		4100.0		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter		Compound		Equiv wt X meq/L		=	mg/L
+-----+		+-----+		+-----+			
34	*Ca <----- *HCO3	11	Ca (HCO3)2	81.0	10.8		875
-----	/----->	-----	CaSO4	68.1	23.1		1574
48	*Mg -----> *SO4	36	CaCl2	55.5			
-----	<-----/	-----	Mg (HCO3)2	73.2			
218	*Na -----> *Cl	252	MgSO4	60.2	13.3		801
+-----+		+-----+	MgCl2	47.6	34.7		1651
Saturation Values Dist. Water 20 C		NaHCO3		84.0			
CaCO3 13 mg/L		Na2SO4		71.0			
CaSO4 * 2H2O 2090 mg/L		NaCl		58.4	217.7		12721
BaSO4 2.4 mg/L							

REMARKS:

ATTACHMENT "E"

MARTIN YATES, III
1912 - 1985
FRANK W. YATES
1936 - 1986



105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210-2118
TELEPHONE (505) 748-1471

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EXECUTIVE VICE PRESIDENT
RANDY G. PATTERSON
SECRETARY
DENNIS G. KINSEY
TREASURER

June 12, 2002

Armando Lopez
Bureau of Land Management
2909 2nd Street
Roswell, New Mexico 88201

Dear Mr. Lopez

Yates Petroleum Corporation has made Application for Authority to Inject for the proposed Zingaro SWD #6 located in Section 1-T22S-R23E, Eddy County, New Mexico.

Should you have any questions, or need additional information, please do not hesitate to contact me at (505) 748-4281.

Sincerely,

Sam Brandon
Operations Engineer

JWP/cm

Enclosure

Affidavit of Publication

NO. 17732

STATE OF NEW MEXICO

County of Eddy:

Gary D. Scott being duly

sworn, says: That he is the Publisher of The Artesia Daily Press, a daily newspaper of general circulation, published in English at Artesia, said county and county and state, and that the here to attached

Legal Notice

was published in a regular and entire issue of the said Artesia Daily Press, a daily newspaper duly qualified for that purpose within the meaning of Chapter 167 of the 1937 Session Laws of the state of New Mexico for 1 consecutive weeks/days on the same

day as follows:

First Publication June 2 2002

Second Publication

Third Publication

Fourth Publication

Subscribed and sworn to before me this

11th day of June 2002

Barbara Pen Boans
Notary Public, Eddy County, New Mexico

My Commission expires September 23, 2003

Copy of Publication:

seeking administrative approval for an injection well. The proposed well, the "Zingaro" SWD #6" located 2090' FSL & 660' FEL of Section 1, Township 22 South, Range 23 East of Eddy County, New Mexico, will be used for salt water disposal. Disposal waters from the Canyon will be re-injected into the Devonian at a depth of 10,300'-11,500' with a maximum pressure of 2000 psi and a maximum rate of 50,000 BWPD.

All interested parties opposing the aforementioned must file objections or requests for a hearing with the Oil Conservation Division, 1220 S. St. Francis Drive, Santa Fe, NM 87505-5472, within 15 days. Additional information can be obtained by contacting Sam Brandon at (505) 748-4281. Published in the Artesia Daily Press, Artesia, NM June 2, 2002.

Legal 17732

LEGAL NOTICE

Yates Petroleum Corporation, 105 South Fourth Street, Artesia, NM 88210, has filed form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division

Attachment H

**MILLER CHEMICALS, INC.**

Post Office Box 298
 Artesia, N.M. 88211-0298
 (505) 746-1919 Artesia Office
 (505) 393-2893 Hobbs Office
 (505) 746-1918 Fax

WATER ANALYSIS REPORT

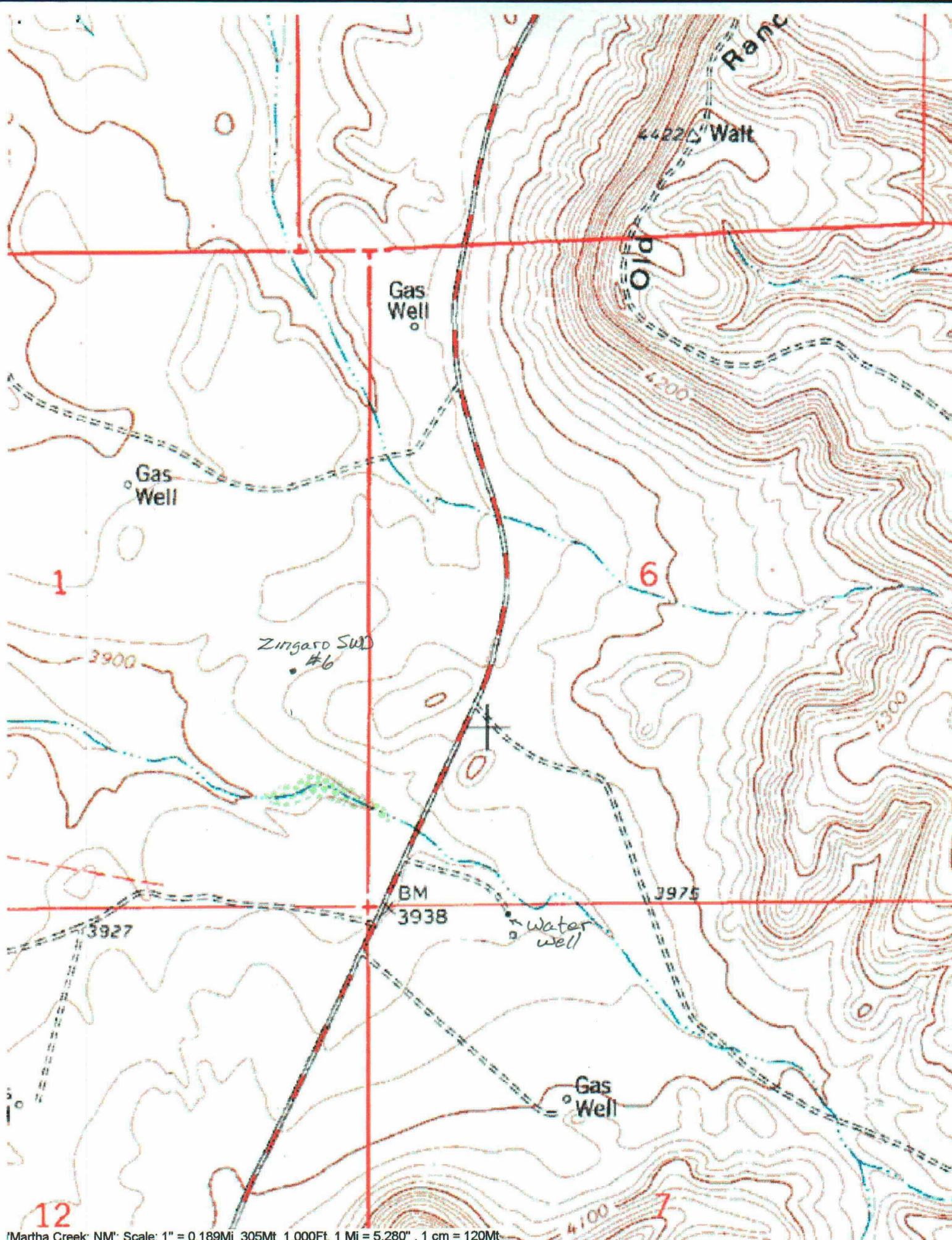
Company	: YATES PETROLEUM	Date	: 7/22/02
Address	: ARTESIA, NM	Date Sampled	: 7/22/02
Lease	: RANCH HOUSE	Analysis No.	: 00430
Well	: WELL NEAR ZINGARO #6		
Sample Pt.	: WELL		

ANALYSIS		mg/L		* meq/L
-----		----		-----
1. pH	7.0			
2. H2S	0			
3. Specific Gravity	1.000			
4. Total Dissolved Solids		9391.4		
5. Suspended Solids		NR		
6. Dissolved Oxygen		NR		
7. Dissolved CO2		NR		
8. Oil In Water		NR		
9. Phenolphthalein Alkalinity (CaCO3)				
10. Methyl Orange Alkalinity (CaCO3)				
11. Bicarbonate	HCO3	293.0	HCO3	4.8
12. Chloride	Cl	4260.0	Cl	120.2
13. Sulfate	SO4	1550.0	SO4	32.3
14. Calcium	Ca	600.0	Ca	29.9
15. Magnesium	Mg	267.6	Mg	22.0
16. Sodium (calculated)	Na	2420.8	Na	105.3
17. Iron	Fe	0.0		
18. Barium	Ba	NR		
19. Strontium	Sr	NR		
20. Total Hardness (CaCO3)		2600.0		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter		Compound	Equiv wt X meq/L	=	mg/L
+-----+					-----
30 *Ca <----- *HCO3	5	Ca (HCO3) 2	81.0	4.8	389
----- /----->	-----	CaSO4	68.1	25.1	1711
22 *Mg -----> *SO4	32	CaCl2	55.5		
----- <-----/	-----	Mg (HCO3) 2	73.2		
105 *Na -----> *Cl	120	MgSO4	60.2	7.1	430
+-----+	+-----+	MgCl2	47.6	14.9	708
Saturation Values Dist. Water 20 C		NaHCO3	84.0		
CaCO3	13 mg/L	Na2SO4	71.0		
CaSO4 * 2H2O	2090 mg/L	NaCl	58.4	105.3	6154
BaSO4	2.4 mg/L				

REMARKS: RANCH HOUSE WELL LOCATED AT 1335 QUEEN HWY



12
Martha Creek, NM; Scale: 1" = 0.189Mi 305Mt 1,000Ft, 1 Mi = 5.280", 1 cm = 120Mt

Map 1

file

OPERATOR'S COPY

Form 3160-3
(August 1999)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

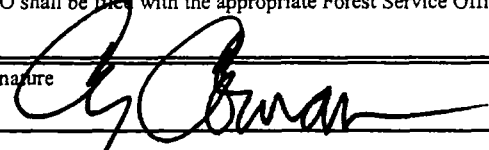
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OMB No. 1004-0136
Expires November 30, 2000

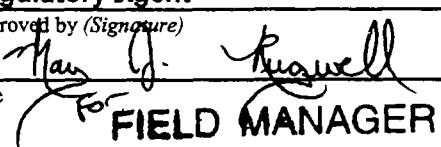
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM-92742
b. Type of Well: <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator Yates Petroleum Corporation		7. If Unit or CA Agreement, Name and No.
3A. Address 105 South Fourth Street Artesia, New Mexico 88210		8. Lease Name and Well No. Zingaro ANG Federal #6 Salt Water Dispo
3b. Phone No. (include area code) (505) 748-1471		9. API Well No.
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 1980' FSL and 660' FEL SUBJECT TO LIKE APPROVAL BY STATE N/A At proposed prod. Zone		10. Field and Pool, or Exploratory Wildcat Devonian
14. Distance in miles and direction from nearest town or post office* Approximately 31 miles northwest of Carlsbad, New Mexico.		11. Sec., T., R., M., or Blk, and Survey or Ar Section 1, T22S-R23E
13. 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 1318.25	12. County or Parish Eddy County
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1300'	19. Proposed Depth 10800'	13. State NM
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3976'	22. Approximate date work will start* ASAP	20. BLM/BIA Bond No. on file 585997
23. Estimated duration 45 days		
24. Attachments Koswell Controlled Water Basin		

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

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

25. Signature 	Name (Printed/Typed) Cy Cowan	Date 6/7/02
---	---	-----------------------

Title: Regulatory Agent		
Approved by (Signature) 	Name (Printed/Typed) Mary J. Rugwell	Date 7/9/02
Title For 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 1 YEAR

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.

*(Instructions on reverse)

**APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED**

District I
1825 N. French Dr. Hobbs, NM 88240

District II
811 South First, Artesia, NM 88210

District III
1000 Rio Brazos Rd., Aztec NM 87410

District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources

OIL CONSERVATION DIVISION

2040 South Pacheco

Santa Fe, N M 87505

Form C-102

Revised March 17, 1999

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name Undesignated Devonian
Property Code	Property Name ZINGARO "ANG" FEDERAL (SWD)	Well Number 6
OGRID No. 025575	Operation Name YATES PETROLEUM CORPORATION	Elevation 3976

Surface Location

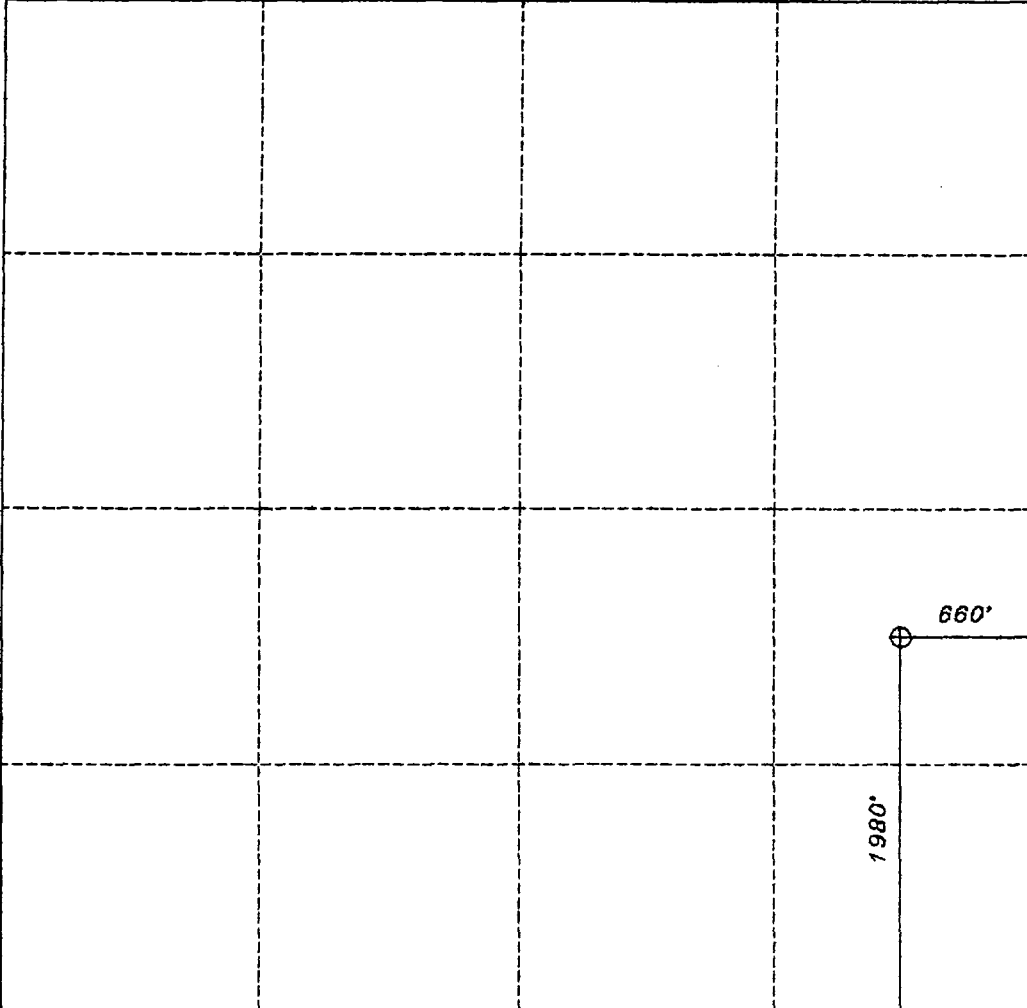
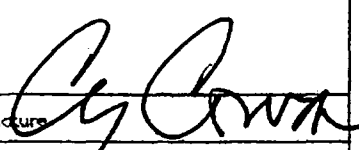
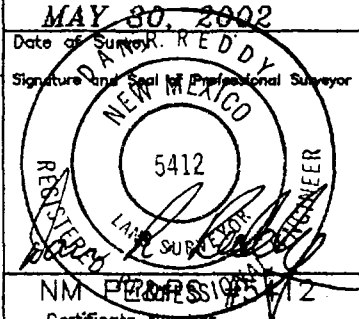
UL or Lot No. I	Section 1	Township 22-S	Range 23-E	Lot km.	Feet from the 1980	North/South line SOUTH	Feet from the 660	East/West line EAST	County EDDY
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Bottom Hole Location If Different From Surface

UL or Lot No.	Section	Township	Range	Lot km.	Feet from the	North/South line	Feet from the	East/West line	County
---------------	---------	----------	-------	---------	---------------	------------------	---------------	----------------	--------

Dedicated Acres N/A	Joint or Infill	Consolidation Code	Order No.
-------------------------------	-----------------	--------------------	-----------

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

	OPERATOR CERTIFICATION I HEREBY CERTIFY THAT THE INFORMATION HEREIN IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.
	Signature 
	Printed Name Cy Cowan
	Title Regulatory Agent
	Date June 7, 2002
	SURVEYOR CERTIFICATION I HEREBY CERTIFY THAT THE WELL LOCATION SHOWN ON THIS PLAT WAS PLOTTED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION, AND THAT THE SAME IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.
	Date of Survey MAY 30, 2002
	Signature and Seal of Professional Surveyor 
	NM PROFESSIONAL SURVEYOR Certificate Number 5412

YATES PETROLEUM CORPORATION
Zingaro "ANG" Federal #6 Salt Water Disposal Well
1980' FSL & 660' FEL
Sec. 1-T22S-R23E
Eddy County, New Mexico

1. The estimated tops of geologic markers are as follows:

San Andres	520'	Strawn	8541'
Glorietta	2128'	Atoka	8932'
Bone Springs	2875'	Morrow	9303'
2 nd Bone Springs	3195'	Base of Morrow	9621'
3 rd Bone Springs	6602'	Mississippian Lime	9913'
Wolfcamp	6674'	Woodford Shale	10253'
Cisco Canyon Dolomite	7460'	Devonian	10307'
Base of Dolomite	7818'	TD	10800'

2. The estimated depths at which anticipated water, oil or gas formations are expected to be encountered:

Water: 250' - 350'
Oil or Gas: All potential zones.

3. Pressure Control Equipment: BOPE will be installed on the 9 5/8" casing and rated for 3000 BOP systems will be consistent with API RP 53. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place. Blowout Preventor controls will be installed prior to drilling the surface plug and will remain in use until the well is completed or abandoned. Preventors will be inspected and operated at least daily to ensure good mechanical working order, and this inspection recorded on the daily drilling report. See Exhibit B.

Auxiliary Equipment:

A. Auxiliary Equipment: Kelly cock, pit level indicators, flow sensor equipment and a sub with full opening valve to fit the drill pipe and collars will be available on the rig floor in the open position at all times for use when kelly is not in use.

4. THE PROPOSED CASING AND CEMENTING PROGRAM:

A. Casing Program: (All New)

<u>Hole Size</u>	<u>Casing Size</u>	<u>Wt./Ft</u>	<u>Grade</u>	<u>Coupling</u>	<u>Interval</u>	<u>Length</u>
17 1/2"	13 3/8"	54.5#	J-55	ST&C	0-1600'	1600'
12 1/4"	9 5/8"	40#	L-80	LT&C	0-4800'	4800'
12 1/4"	9 5/8"	43.5#	L-80	LT&C	4800'-6200'	1400'
12 1/4"	9 5/8"	47#	L-80	LT&C	6200'-8000'	1800'
12 1/4"	9 5/8"	53.5#	L-80	LT&C	8000'-10300'	2300'
8 3/4"	Open Hole				10300'-10800'	500'

Minimum Casing Design Factors: Collapse 1.125, Burst 1.0, Joint Strength 1.8

Zingaro "ANG" Federal #6 Salt Water Disposal Well

Page 2

B. Cementing Program:

Surface casing: 950 sx Lite (YLD 2.0 WT 12.5), tail with 300 sx Class 'C' +2% CaCL₂ (YLD 1.32 WT 14.8)

Production Casing: 2100 sx Lite (YLD 2.0 WT 12.5), Tail with 400 sx Super 'C' (YLD 1.67 WT 13.0).

5. MUD PROGRAM AND AUXILIARY EQUIPMENT:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0-1600'	FW/Air Mist	8.4	28	N/C
1600'-9300'	Cut Brine	8.8-9.4	28	N/C
9300'-10300'	Salt Gel/Starch	9.4-9.8	34-38	<10cc
9300'-10800'	Fresh Water	8.4-8.6	28	N/C

Sufficient mud material(s) to maintain mud properties, control lost circulation and contain a blow out will be available at the well site during drilling operations. Mud will be checked hourly by rig personnel.

6. EVALUATION PROGRAM:

Samples: 10' samples from intermediate casing.

Logging: Platform Express/HALS/NGT.

Coring: None anticipated

DST's: None anticipated.

7. ABNORMAL CONDITIONS, BOTTOM HOLE PRESSURE AND POTENTIAL HAZARDS:

Anticipated BHP:

From: 0	TO: 1600'	Anticipated Max. BHP:	700	PSI
From: 1600'	TO: 10300'	Anticipated Max. BHP:	5100	PSI
From: 10300'	TO: 10800'	Anticipated Max. BHP:	4700	PSI

Abnormal Pressures Anticipated: None

Lost Circulation Zones Anticipated: Possible in surface and intermediate holes.

H₂S Zones Anticipated: Possible Canyon

Maximum Bottom Hole Temperature: 178 F

8. ANTICIPATED STARTING DATE:

Plans are to drill this well as soon as possible after receiving approval. It should take approximately 30 days to drill the well with completion taking another 15 days.

MULTI-POINT SURFACE USE AND OPERATIONS PLAN
Yates Petroleum Corporation
Zingaro "ANG" Federal # 6 Salt Water Disposal Well
1980' FSL & 660' FEL
Sec. 1-T22S-R23E
Eddy County, New Mexico

This plan is submitted with Form 3160-3, Application for Permit to Drill, covering the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of the surface disturbance involved and the procedures to be followed in rehabilitating the surface after completion of the operations, so that a complete appraisal can be made of the environmental effect associated with the operations.

1. EXISTING ROADS:

Exhibit A is a portion of the BLM map showing the well and roads in the vicinity of the proposed location. The proposed well site is located approximately 31 miles northwest of Carlsbad, New Mexico and the access route to the location is indicated in red and green on Exhibit A.

DIRECTIONS:

Go north of Carlsbad on Highway 285 to Highway 137. Turn west on Highway 137 and go approximately 12.8 miles. Turn west on lease road and go approximately .3 of a mile to the Zingaro ANG Federal #1 Compressor Site. From the southwest corner of the Zingaro ANG Federal #1 the new access road will start here going south.

2. PLANNED ACCESS ROAD

The new access will go approximately 0.2 of a mile south then turn east and go approximately 400 feet to the northwest corner of the well location.

3. LOCATION OF EXISTING WELL

- A. There is drilling activity within a one-mile radius of the well site.
- B. Exhibit D shows existing wells within a one-mile radius of the proposed well site.

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

- A. There are production facilities on this lease at the present time.
- B. In the event that the well is productive, the necessary production facilities will be installed on the drilling pad.

5. LOCATION AND TYPE OF WATER SUPPLY:

- A. It is planned to drill the proposed well with a fresh water system. The water will be obtained from commercial sources and will be hauled to the location by truck over the existing and proposed roads shown in Exhibit A.

6. SOURCE OF CONSTRUCTION MATERIALS:

The dirt contractor will locate closest pit and will obtain any permits and materials needed for construction.

Zingaro "ANG" Federal #6 Salt Water Disposal Well
Page 2

7. METHODS OF HANDLING WASTE DISPOSAL:

- A. Drill cuttings will be disposed of in the reserve pits.
- B. Drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry.
- C. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or separate disposal application will be submitted.
- D. Oil produced during operations will be stored in tanks until sold.
- E. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- F. All trash, junk, and other waste materials will be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not approved.

8. ANCILLARY FACILITIES: None.

9. WELLSITE LAYOUT:

- A. Exhibit C shows the relative location and dimensions of the well pad, the reserve pits, the location of the drilling equipment, rig orientation and access road approach.
- B. The reserve pits will be plastic lined.
- C. A 400' x 400' area has been staked and flagged.

10. PLANS FOR RESTORATION

- A. After finishing drilling and/or completion operations, all equipment and other material not needed for further operations will be removed. The location will be cleaned of all trash and junk to leave the well site in as aesthetically pleasing a condition as possible.
- B. Unguarded pits, if any, containing fluids will be fenced until they have dried and been leveled.
- C. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management will be complied with and will be accomplished as expeditiously as possible. All pits will be filled level after they have evaporated and dried.

11. SURFACE OWNERSHIP: Federal Surface, Administered by the Bureau of Land Management, Carlsbad, New Mexico.

12. OTHER INFORMATION:

- A. Topography: Refer to the existing archaeological report for a description of the topography, flora, fauna, soil characteristics, dwellings, historical and cultural sites.
- B. The primary surface use is for grazing.

Zingaro "ANG" Federal #6 Salt Water Disposal Well
Page 3

13. OPERATOR'S REPRESENTATIVE

A. Through A.P.D. Approval:

Cy Cowan, Regulatory Agent
Yates Petroleum Corporation
105 South Fourth Street
Artesia, New Mexico 88210
Phone (505) 748-1471

B. Through Drilling Operations,
Completions and Production:

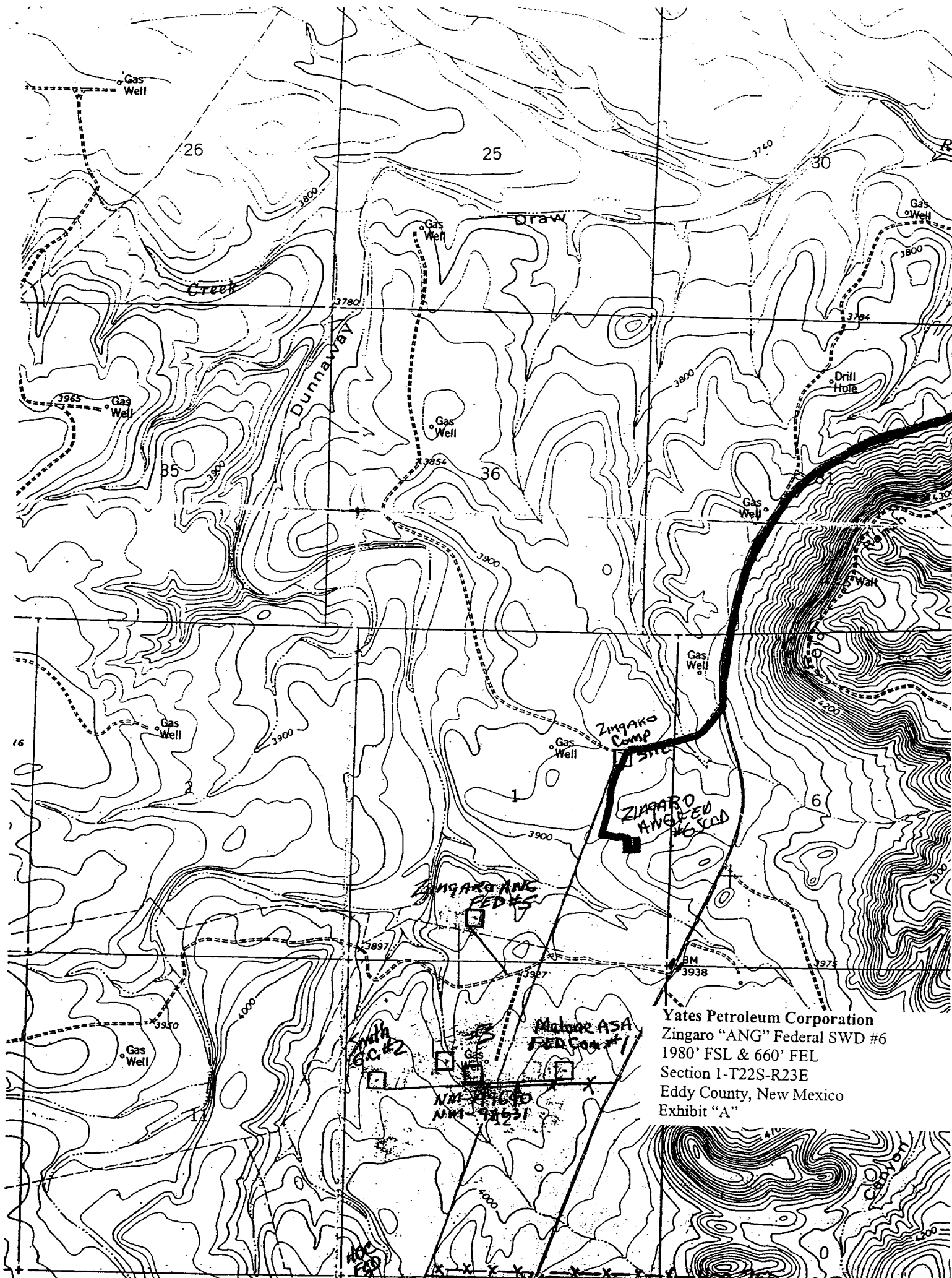
Pinson McWhorter, Operations Manager
Yates Petroleum Corporation
105 South Fourth Street
Artesia, New Mexico 88210
Phone (505) 748-1471

14. CERTIFICATION:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions which presently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Yates Petroleum Corporation and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

6/7/2002

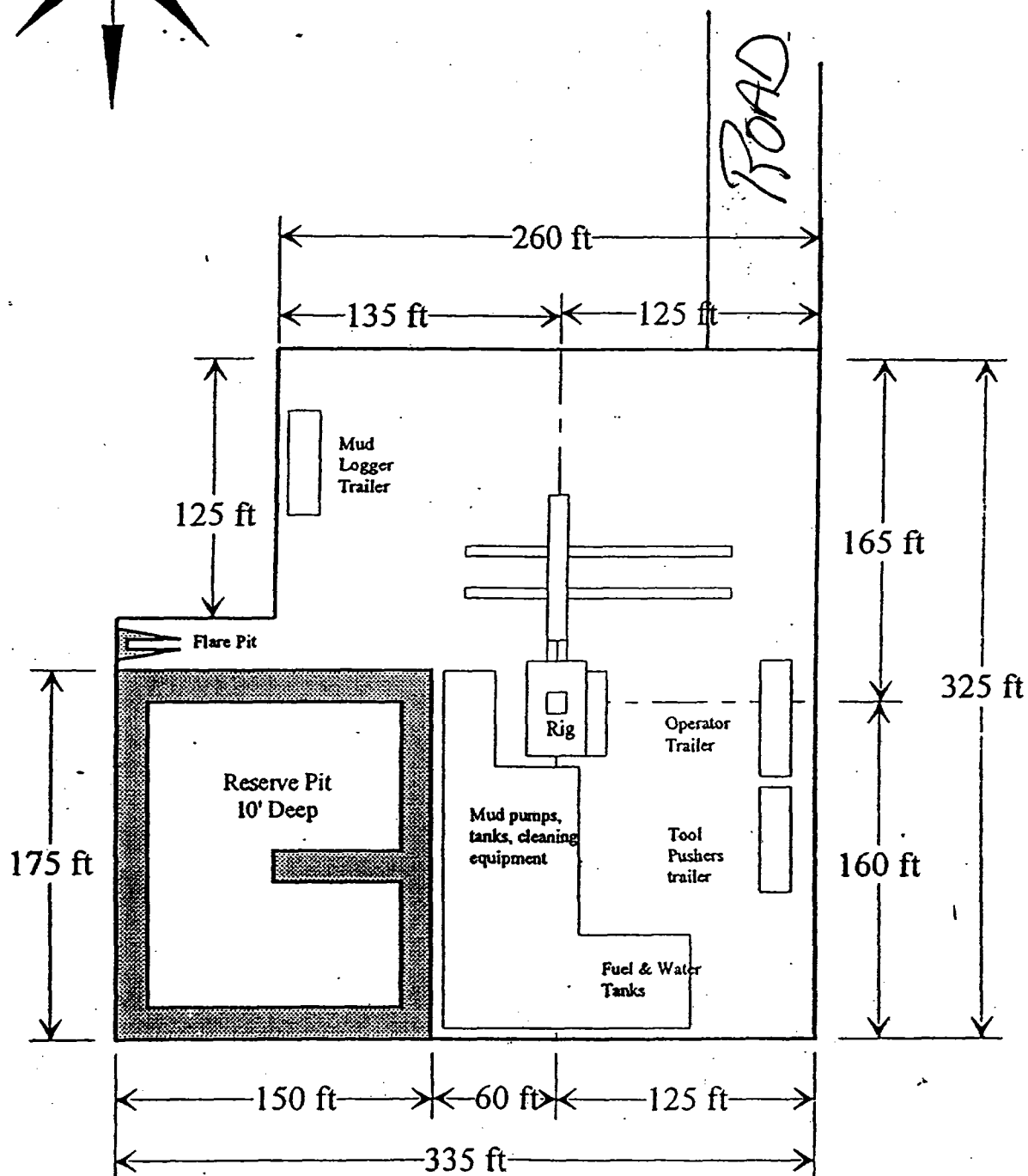
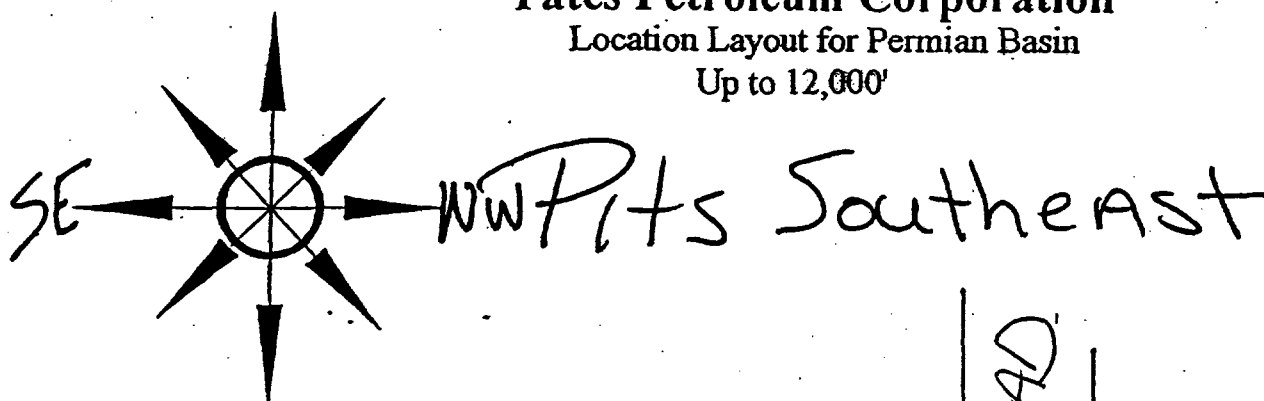

Regulatory Agent



Yates Petroleum Corporation

Location Layout for Permian Basin

Up to 12,000'



Distance from Well
Head to Reserve Pit
will vary between rigs

The above dimension
should be a maximum

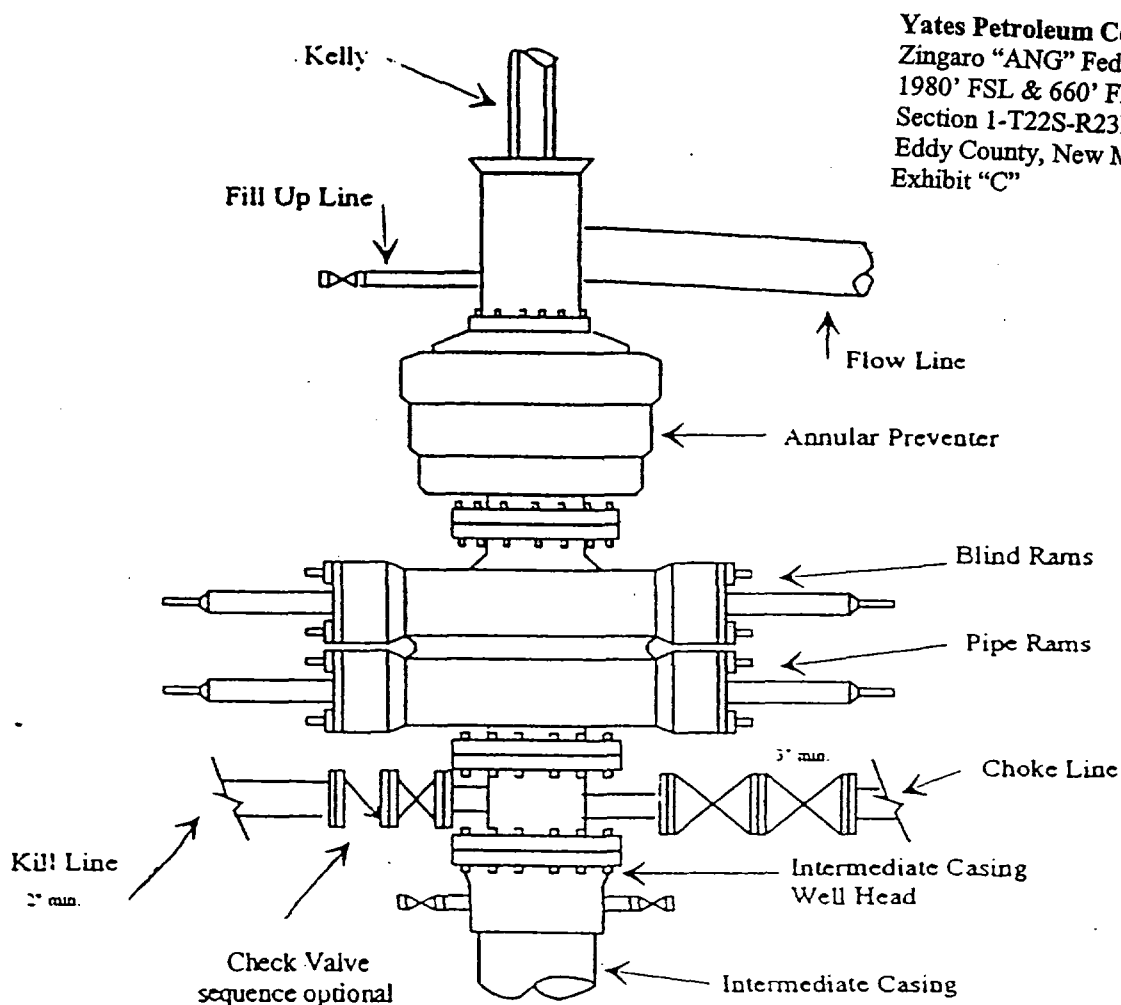
Yates Petroleum Corporation
Zingaro "ANG" Federal SWD #6
1980' FSL & 660' FEL
Section 1-T22S-R23E
Eddy County, New Mexico
Exhibit "B"



Yates Petroleum Corporation

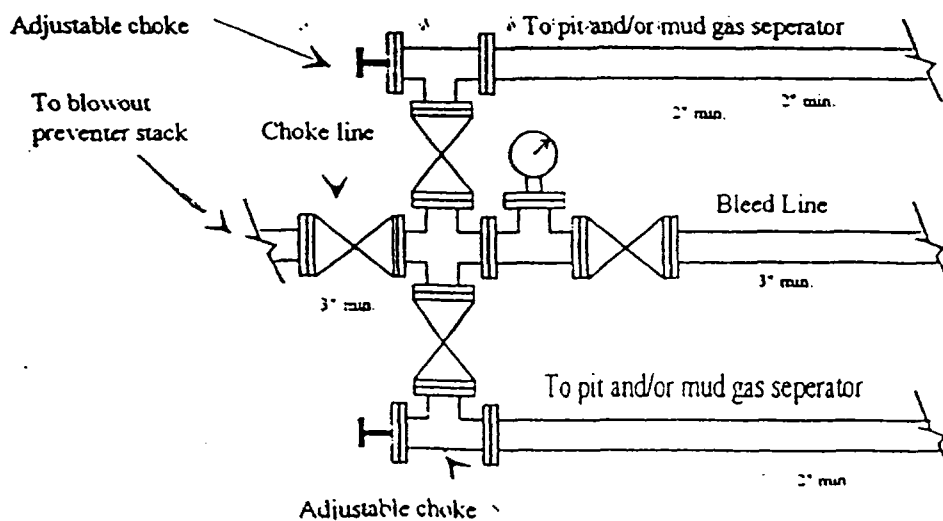
BOP-3

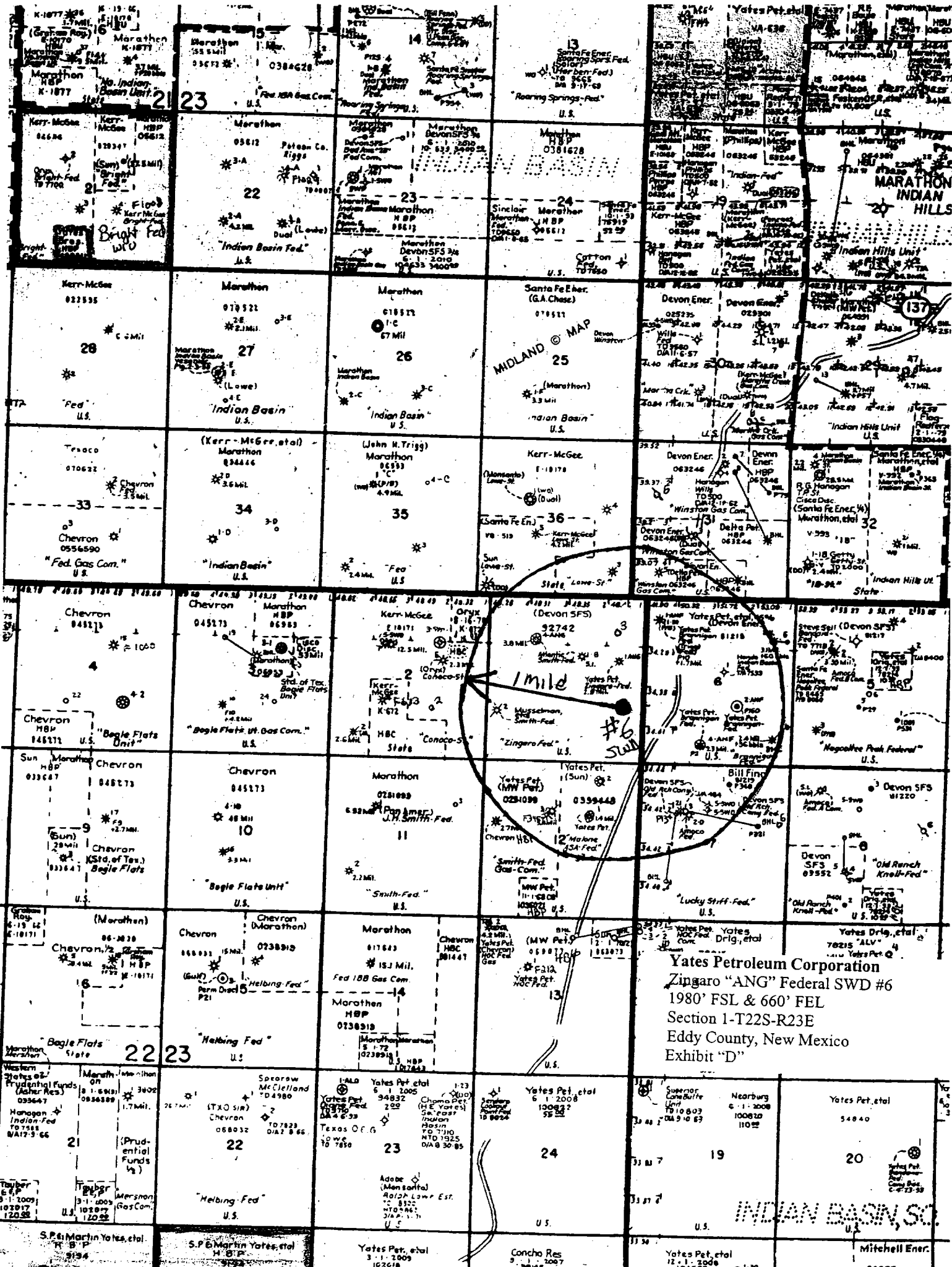
Typical 3,000 psi Pressure System Schematic Annular with Double Ram Preventer Stack



Yates Petroleum Corporation
Zingaro "ANG" Federal SWD #6
1980' FSL & 660' FEL
Section 1-T22S-R23E
Eddy County, New Mexico
Exhibit "C"

Typical 3,000 psi choke manifold assembly with at least these minimum features





Yates Petroleum Corporation
Zingaro "ANG" Federal SWD #6
1980' FSL & 660' FEL
Section 1-T22S-R23E
Eddy County, New Mexico
Exhibit "D"

INDIAN BASIN, SO.

SPECIAL DRILLING STIPULATIONS

THE FOLLOWING DATA IS REQUIRED ON THE WELL SIGN

Operator's Name Yates Petroleum Corp. Well Name & No. 6-Zingaro ANG Federal SWD
Location 1980 F S L & 660 F E L Sec. 1, T. 22S, R. 23E
Lease No. NM-92742 County Eddy State New Mexico

The Special stipulations check marked below are applicable to the above described well and approval of this application to drill is conditioned upon compliance with such stipulations in addition to the General Requirements. The permittee should be familiar with the General Requirements, a copy of which is available from a Bureau of Land Management office. EACH PERMITTEE HAS THE RIGHT OF ADMINISTRATIVE APPEAL TO THESE STIPULATIONS PURSUANT TO TITLE 43 CFR 3165.3 AND 3165.4.

This permit is valid for a period of one year from the date of approval or until lease expiration or termination whichever is shorter.

I. SPECIAL ENVIRONMENT REQUIREMENTS

- () Lesser Prairie Chicken (stips attached) () Floodplain (stips attached)
() San Simon Swale (stips attached) () Other

II. ON LEASE - SURFACE REQUIREMENTS PRIOR TO DRILLING

(☒) The BLM will monitor construction of this drill site. Notify the (☒) Carlsbad Field Office at (505) 234-5972 () Hobbs Office (505) 393-3612, at least 3 working days prior to commencing construction.

(☒) Roads and the drill pad for this well must be surfaced with 6 inches of compacted caliche.

() All topsoil and vegetation encountered during the construction of the drill site area will be stockpiled and made available for resurfacing of the disturbed area after completion of the drilling operation. Topsoil on the subject location is approximately _____ inches in depth. Approximately _____ cubic yards of topsoil material will be stockpiled for reclamation.

() Other.

III. WELL COMPLETION REQUIREMENTS

() A communitization Agreement covering the acreage dedicated to the well must be filed for approval with the BLM. The effective date of the agreement must be prior to any sales.

(☒) Surface Restoration: If the well is a producer, the reserve pit(s) will be backfilled when dry, and cut-and-fill slopes will be reduced to a slope of 3:1 or less. All areas of the pad not necessary for production must be re-contoured to resemble the original contours of the surrounding terrain, and topsoil must be re-distributed and re-seeded with a drill equipped with a depth indicator (set at a depth of 1/2 inch) with the following seed mixture, in pounds of Pure Live Seed (PLS), per acre.

() A. Seed Mixture 1 (Loamy Sites)
Side Oats Grama (*Bouteloua curtipendula*) 5.0
Sand Dropseed (*Sporobolus cryptandrus*) 1.0

() B. Seed Mixture 2 (Sandy Sites)
Sand Dropseed (*Sporobolus cryptandrus*) 1.0
Sand Lovegrass (*Eragrostis trichodes*) 1.0
Plains Bristlegrass (*Setaria magrostachya*) 2.0

(☒) C. Seed Mixture 3 (Shallow Sites)
Sideoats Grama (*Bouteloua curtipendula*) 1.0

() D. Seed Mixture 4 (Gypsum Sites)
Alkali Sacaton (*Sporobolus airoides*) 1.0
Four-Wing Saltbush (*Atriplex canescens*) 5.0

Seeding should be done either late in the fall (September 15 - November 15, before freeze up, or early as possible the following spring to take advantage of available ground moisture.

(☒) Other. Special painting/low-profile stipulations attached.

SPECIAL DRILLING STIPULATIONS (Continued)

Operator/Well Name: Yates Petroleum Corporation Zingaro ANG Federal #6 Salt Water Disposal Well

III. WELL COMPLETION REQUIREMENTS

(☒) Other: Visual Resources

1. **PAINTING REQUIREMENT**- IN ACCORDANCE WITH NOTICE TO LESSEES (NTL) 87-1 NEW MEXICO, "**Painting of Oil Field Facilities to Minimize Visual Impacts**": ALL permanent surface production facilities, including the well-drive control system, treatment, storage, power (except specifically approved electrical transmission lines and poles, or other permanent above-ground facilities not otherwise specifically subject to safety coloring requirements), shall be painted by the holder to blend with the dominant natural color of the surrounding landscape. The paint used shall be one of the "Standard Environmental Colors" designated by the Rocky Mountain Five-State Interagency Committee, and shall be a flat, non-reflective finish. The color specified for this location is:

Standard Environmental Color: SHALE GREEN

Munsell Soil Color Chart Number: 5Y 4/2

Any exception to this Painting Requirement must be approved by the BLM Authorized Officer in writing prior to implementation.

2. **LOW PROFILE FACILITIES** - All permanent surface production facilities, including the well-drive control system, treatment, storage, power (except specifically approved electrical transmission lines and poles), or other permanent above-ground facilities shall be "low profile", not to exceed TEN (10) feet in height. Any exception to on, Low Profile Facilities must be approved in writing by the BLM Authorized Officer prior to implementation.

3. **OTHER** -

RESERVE PIT CONSTRUCTION STANDARDS

The reserve pit shall be constructed entirely in cut material and lined with 6 mil plastic.

Mineral material extracted during construction of the reserve pit may be used for development of the pad and access road as needed. Removal of any additional material on location must be purchased from BLM.

Reclamation: Reclamation of this type of deep pit will consist of pushing the pit walls into the pit when sufficiently dry to support track equipment. The pit liner is NOT TO BE RUPTURED to facilitate drying; a ten month period after completion of the well is allowed for drying of the pit contents.

The pit area must be contoured to the natural terrain with all contaminated drilling mud buried with at least 3 feet of clean soil. The reclaimed area will then be seeded as specified in this permit.

OPTIONAL PIT CONSTRUCTION STANDARDS

The reserve pit may be constructed in predominantly fill material if:

- (1) Lined as specified above and
- (2) A borrow/caliche/gravel pit can be constructed immediately adjacent to the reserve pit and it capable of containing all reserve pit contents. The mineral material removed in the process can be used for pad and access road construction. However, a material sales contract must be purchased from the BLM prior to removal of the material.

Reclamation of the reserve pit consists of bulldozing all reserve pit contents and contaminants into the borrow pit and covering with a minimum of 3 feet of clean soil material. The entire area must be recontoured, all trash removed, and reseeded as specified in this permit.

CULTURAL

Whether or not an archaeological survey has been completed and notwithstanding that operations are being conducted as approved, the lessee/operator/grantee shall notify the BLM immediately if previously unidentified cultural resources are observed during surface disturbing operations. From the time of the observation, the lessee/operator/grantee shall avoid operations that will result in disturbance to these cultural resources until directed to proceed by BLM.

TRASH PIT STIPS

All trash, junk, and other waste material shall be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not permitted.

CONDITIONS OF APPROVAL - DRILLING

Operator's Name: Yates Petroleum Corporation
Well Name & No. Zingaro ANG Federal #6 SWD
Location: 1980' FSL, 660' FEL, Section 1, T. 22 S., R. 23 E., Eddy County, New Mexico
Lease: NM-92742

I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822 for wells in Eddy County in sufficient time for a representative to witness:

A. Spudding

B. Cementing casing 13-3/8 inch 9-5/8 inch

C. BOP tests

2. A Hydrogen Sulfide (H₂S) Drilling Operation Contingency Plan shall be activated prior to drilling into the Canyon formation. A copy of the plan shall be posted at the drilling site.

3. 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.

4. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15 day time frame.

5. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.

II. CASING:

1. The 13-3/8 inch surface casing shall be set at approximately 1600 feet and cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.

2. The minimum required fill of cement behind the 9-5/8 inch production casing is to be sufficient to reach at least 500 feet above the uppermost potential pay.

III. PRESSURE CONTROL:

1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the 13-3/8 inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 3000 psi.

3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.

- The tests shall be done by an independent service company.
- The results of the test shall be reported to the appropriate BLM office.
- Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of

drilling mud for testing not permitted since it can mask small leaks

- Testing must be done in a safe workman-like manner. Hard line connections shall be required.

IV. DRILLING MUD:

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

Monitoring equipment shall consist of the following:

- Recording pit level indicator to indicate volume gains and losses.
- Mud measuring device for accurately determining the mud volumes necessary to fill the hole during trips.
- Flow-sensor on the flow-line to warn of abnormal mud returns from the well.

6/12/2002

acs

EXHIBIT A

BLM Lease Number: NM-92742

Company Reference: 6-Zingaro ANG Fed. SWD
Yates Petroleum Corporation

STANDARD STIPULATIONS FOR PERMANENT RESOURCE ROADS THE CARLSBAD FIELD OFFICE AREA, BLM

The Holder/grantee/permittee shall hereafter be identified as the Holder in these stipulations. The Authorized Officer is the person who approves the Application for Permit to Drill (APD) and/or Right-of-Way (ROW). The Holder shall ensure that a copy of the grant and attachments, including stipulations and map, will be on location during construction. BLM personnel may request to view a copy of your permit during construction to ensure compliance with all stipulations.

GENERAL REQUIREMENTS

- A. The Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
- B. The Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the Holder shall comply with the Toxic Substances Control Act of 1976, as amended (15 U.S.C. 2601, *et. seq.*) with regard to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized by this grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act, Section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved Federal agency or State government.
- C. The Holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, *et. seq.* or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, *et. seq.*) on the right-of-way (unless the release or threatened release is wholly unrelated to the right-of-way Holder's activity on the right-of-way). This agreement applies without regard to whether a release is caused by the Holder, its agent, or unrelated third parties.
- D. If, during any phase of the construction, operation, maintenance, or termination of the road, any oil or other pollutant should be discharged, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of the Holder, regardless of fault. Upon failure of the Holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages to Federal lands resulting therefrom, the Authorized Officer may take such measures as deemed necessary to control and cleanup the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the Holder. Such action by the Authorized Officer shall not relieve the Holder of any liability or responsibility.
- E. The Holder shall minimize disturbance to existing fences and other improvements on public domain surface. The Holder is required to promptly repair improvements to at least their former state. Functional use of these

improvements will be maintained at all times. The Holder will make a documented good-faith effort to contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence.

F. The Holder shall ensure that the entire right-of-way, including the driving surface, ditching and drainage control structures, road verges and any construction sites or zones, will be kept free of the following plant species: Malta starthistle, African rue, Scotch thistle and salt cedar.

Holder agrees to comply with the following stipulations:

1. ROAD WIDTH AND GRADE

The road will have a driving surface of 14 feet (all roads shall have a minimum driving surface of 12 feet, unless local conditions dictate a different width). The maximum grade is 10 percent unless the box below is checked. Maximum width of surface disturbance from construction will be 30 feet.

☐ Those segments of road where grade is in excess of 10% for more than 300 feet shall be designed by a professional engineer.

2. CROWNING AND DITCHING

Crowning with materials on site and ditching on one side of the road on the uphill side will be required. The road cross-section will conform to the cross section diagrams in Figure 1. If conditions dictate, ditching may be required for both sides of the road; if local conditions permit, a flat-bladed road may be considered (if these conditions exist, check the appropriate box below). The crown shall have a grade of approximately 2% (i.e., 1" crown on a 12' wide road).

☒ Ditching will be required on both sides of the roadway as shown on the attached map or as staked in the field.

☐ Flat-blading is authorized on segment(s) delineated on the attached map.

3. DRAINAGE

Drainage control shall be ensured over the entire road through the use of borrow ditches, outslowing, inslowning, natural rolling topography, lead-off (turnout) ditches, culverts, and/or drainage dips.

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

SPACING INTERVAL FOR TURNOUT DITCHES

Percent slope	Spacing interval
0% - 4%	400' - 150'
4% - 6%	250' - 125'
6% - 8%	200' - 100'
8% - 10%	150' - 75'

A typical lead-off ditch has a minimum depth of 1 foot below and a berm 6 inches above natural ground level. The berm will be on the down-slope side of the lead-off ditch. The ditch end will tie into vegetation whenever possible. For this road the spacing interval for lead-off ditches shall be at:

- ☒ 400 foot intervals.
- ☐ _____ foot intervals.
- ☐ locations staked in the field as per spacing intervals above.
- ☐ locations delineated on the attached map.

B. Culvert pipes shall be used for cross drains where drainage dips or low water crossings are not feasible. The minimum culvert diameter must be 18 inches. Any culvert pipe installed shall be of sufficient diameter to pass the anticipated flow of water. Culvert location and required diameter are shown on the attached map (Further details can be obtained from the Roswell District Office or the appropriate Resource Area Office).

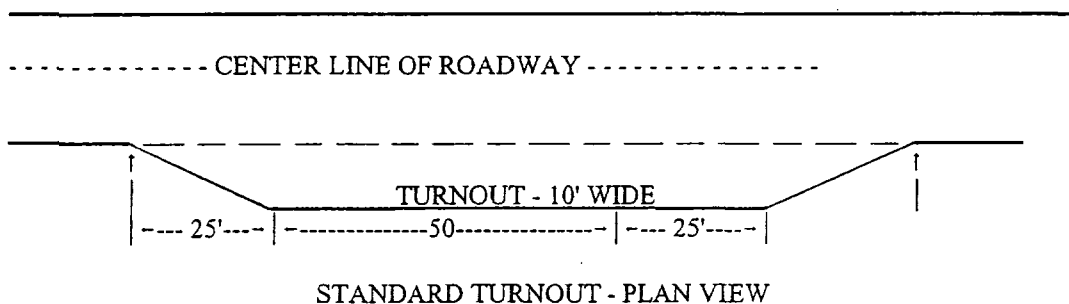
C. On road slopes exceeding 2%, drainage dips shall drain water into an adjacent lead-off ditch. Drainage dip location and spacing shall be determined by the formula:

$$\text{spacing interval} = \frac{400'}{\text{road slope in \%}} + 100'$$

Example: 4% road slope: spacing interval = $\frac{400}{4} + 100 = 200$ feet

4. TURNOUTS

Unless otherwise approved by the Authorized Officer, vehicle turnouts will be required. Turnouts will be located at 2000-foot intervals, or the turnouts will be intervisible, whichever is less. Turnouts will conform to the following diagram:



5. SURFACING

Surfacing of the road or those portions identified on the attached map with caliche or other surfacing material may, at the direction of the Authorized Officer, be required if necessary to maintain traffic within the right-of-way. When surfacing is required, surfacing materials will be compacted to a minimum thickness of six inches with caliche material. The width of surfacing shall be no less than the driving surface.

A sales contract for the removal of mineral materials (caliche, sand, gravel, fill dirt, etc.) from an authorized pit, site, or on location must be obtained from the BLM prior to using any such mineral material from public lands. Contact the BLM solid minerals staff for the various options to purchase mineral material.

6. CATTLEGUARDS

Where used, all cattleguard grids and foundation designs and construction shall meet the American Association of State Highway and Transportation Officials (AASHTO) Load Rating H-20, although AASHTO U-80 rated grids shall be required where heavy loads (exceeding H-20 loading), are anticipated (See BLM standard drawings for cattleguards). Cattleguard grid length shall not be less than 8 feet and width of not less than 14 feet. A wire gate (16-foot minimum width) will be provided on one side of the cattleguard unless requested otherwise by the surface user.

7. MAINTENANCE

The Holder shall maintain the road in a safe, usable condition. A maintenance program shall include, but not be limited to blading, ditching, culvert installation, culvert cleaning, drainage installation, cattleguard maintenance, and surfacing.

8. PUBLIC ACCESS

Public access along this road will not be restricted by the Holder without specific written approval being granted by the Authorized Officer. Gates or cattleguards on public lands will not be locked or closed to public use unless closure is specifically determined to be necessary and is authorized in writing by the Authorized Officer.

9. CULTURAL RESOURCES

Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the Holder, or any person working on the Holder's behalf, on public or Federal land shall be immediately reported to the authorized officer. The Holder 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 will be made by the authorized officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The Holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the authorized officer after consulting with the Holder.

10. SPECIAL STIPULATIONS: *None.*