

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

## APPLICATION FOR PERMIT TO DRILL OR DEEPEN

## 1A. TYPE OF WORK

DRILL ☒DEEPEN ☐

## B. TYPE OF WELL

OIL  
WELL ☐GAS  
WELL ☒

OTHER

SINGLE  
ZONE ☐MULTI  
ZONE ☐

## 2. NAME OF OPERATOR

Santa Fe Snyder Corp.

## 3. ADDRESS AND TELEPHONE NO.

550 W. Texas, Suite 1330; Midland, Texas 79701 (915)682-6378

## 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)

At surface

(F) 1549' FNL &amp; 1498' FWL

At proposed prod. zone

(H) 1980' FNL &amp; 990' FEL

## 14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*

16 3/4 miles west of Carlsbad, New Mexico

## 15. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.  
(Also to nearest drlg. unit line, if any)

990'

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

1650'

## 16. NO. OF ACRES IN LEASE

640

## 19. PROPOSED DEPTH

8500'

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

320

## 20. ROTARY OR CABLE TOOLS

Rotary

## 21. ELEVATIONS (Show whether DF, RT, GR, etc.)

3996' GR

## 22. APPROX. DATE WORK WILL START\*

March 20, 2000

## PROPOSED CASING AND CEMENTING PROGRAM

## CARLSBAD CONTROLLED WATER BASIN

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 3/4"	K-55 9 5/8"	36#	1600'	775 sx to circulate
8 3/4"	K-55 7"	26#	8500'	400 sx TOC @ 6000'

WITNESS

We propose to drill to a depth sufficient to test the Cisco/Canyon formation for oil. If productive, 7" casing will be run to TD. If non-productive, the well will be plugged and in a manner consistent with Federal Regulations. Specific programs as per Onshore Oil and Gas Order No. 1 are outlined in the following attachments:

## Drilling Program

- Exhibit A - Operations Plan
- Exhibit B - BOP and Choke Schematic
- Exhibit C - Drilling Fluid Program
- Exhibit D - Auxiliary Equipment
- Exhibit E - Topo Map at Location

Notify OCD at SPUD & TIME  
to witness cementing the  
9 5/8" casing.

- Ex
- Exhibit G - Well Site Layout
- Surface Use and Operations Plan
- H2S Drilling Operations Plan

Santa Fe Snyder Corp. accepts all applicable terms, conditions, stipulations and restrictions concerning operations conducted on the leased land or portion thereof, as described at

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS

## Bond Coverage: Blanket Bond

BLM Bond File No. EUT-0853

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

24.

SIGNED

TITLE

Agent for Santa Fe Snyder Corp.

DATE

2-28-00

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

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

APPROVED BY

TITLE

Assistant Field Manager,  
Lands And Minerals

DATE

APR 17 2000

\*See Instructions On Reverse Side

RECEIVED  
MAR 07 2000  
BLM  
ROSWELL, NM

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

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

**DISTRICT IV**  
P. O. Box 2088  
Santa Fe, NM 87507-2088

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

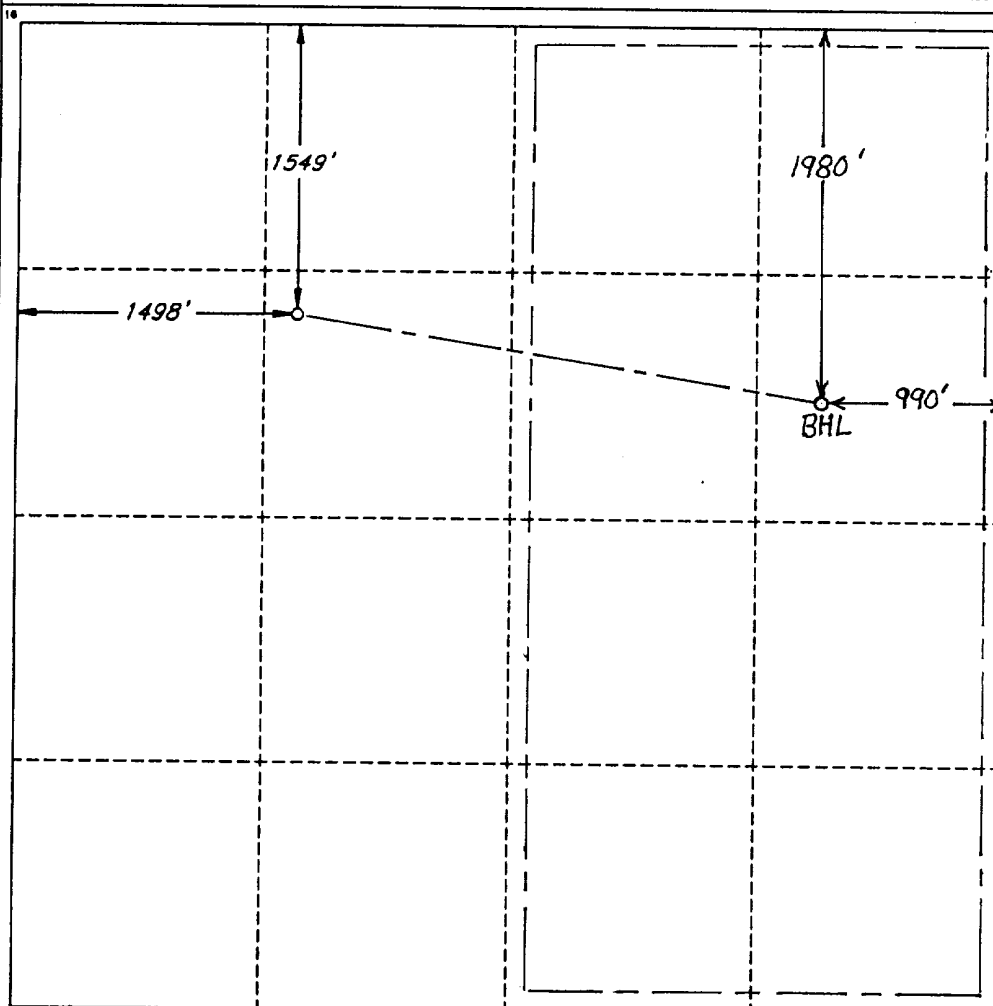
Submit to the Appropriate  
District Office  
State Lease - 4 copies  
Fee Lease - 3 copies

☐ AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

1 API Number		2 Pool Code		3 Pool Name Indian Basin (Upper Penn)					
4 Property Code		5 Property Name OLD RANCH CANYON '7' FEDERAL						6 Well Number 3	
7 OGRID No. 20305		8 Operator Name SANTA FE SNYDER CORPORATION						9 Elevation 3996'	
10 SURFACE LOCATION									
UL or lot no. F	Section 7	Township 22 SOUTH	Range 24 EAST, N.M.P.M.	Lot Ida	Feet from the 1549'	North/South line NORTH	Feet from the 1498'	East/West line WEST	County EDDY
"BOTTOM HOLE LOCATION IF DIFFERENT FROM SURFACE									
UL or lot no. H	Section 7	Township 22 South	Range 24 East, NMPM	Lot Ida	Feet from the 1980	North/South line North	Feet from the 990	East/West line East	County
12 Dedicated Acres		13 Joint or Infill		14 Consolidation Code		15 Order No.			

NO ALLOWABLE WELL 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.

Signature

*James P. "Phil" Stinson*

Printed Name

James P. "Phil" Stinson

Title

Agent for Santa Fe Snyder

Date

2-28-00

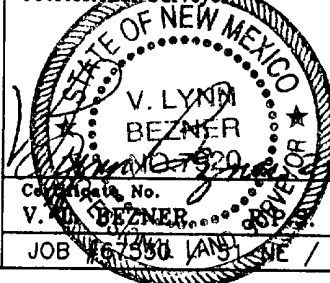
**SURVEYOR CERTIFICATION**

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

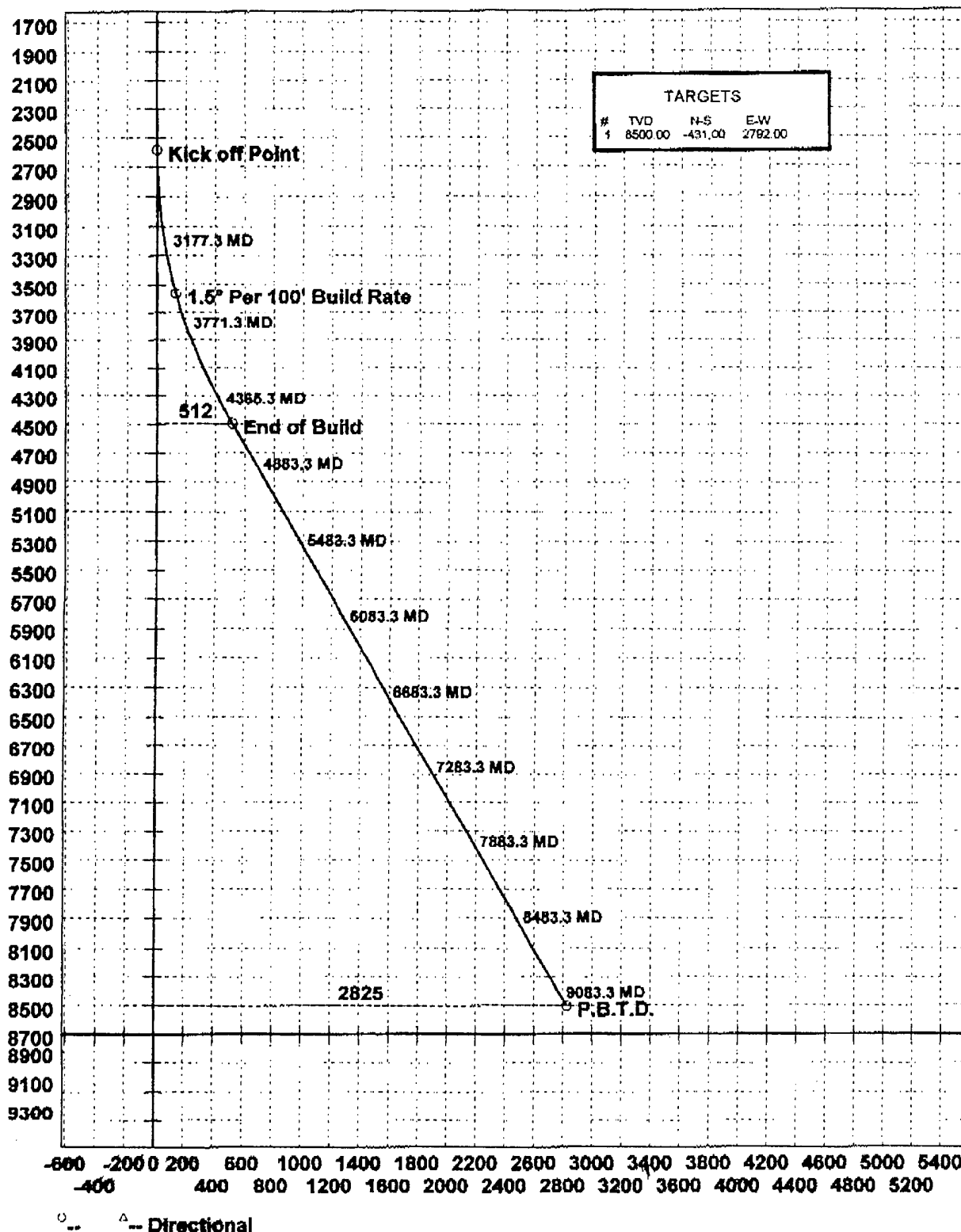
Date of Survey

FEBRUARY 8, 2000

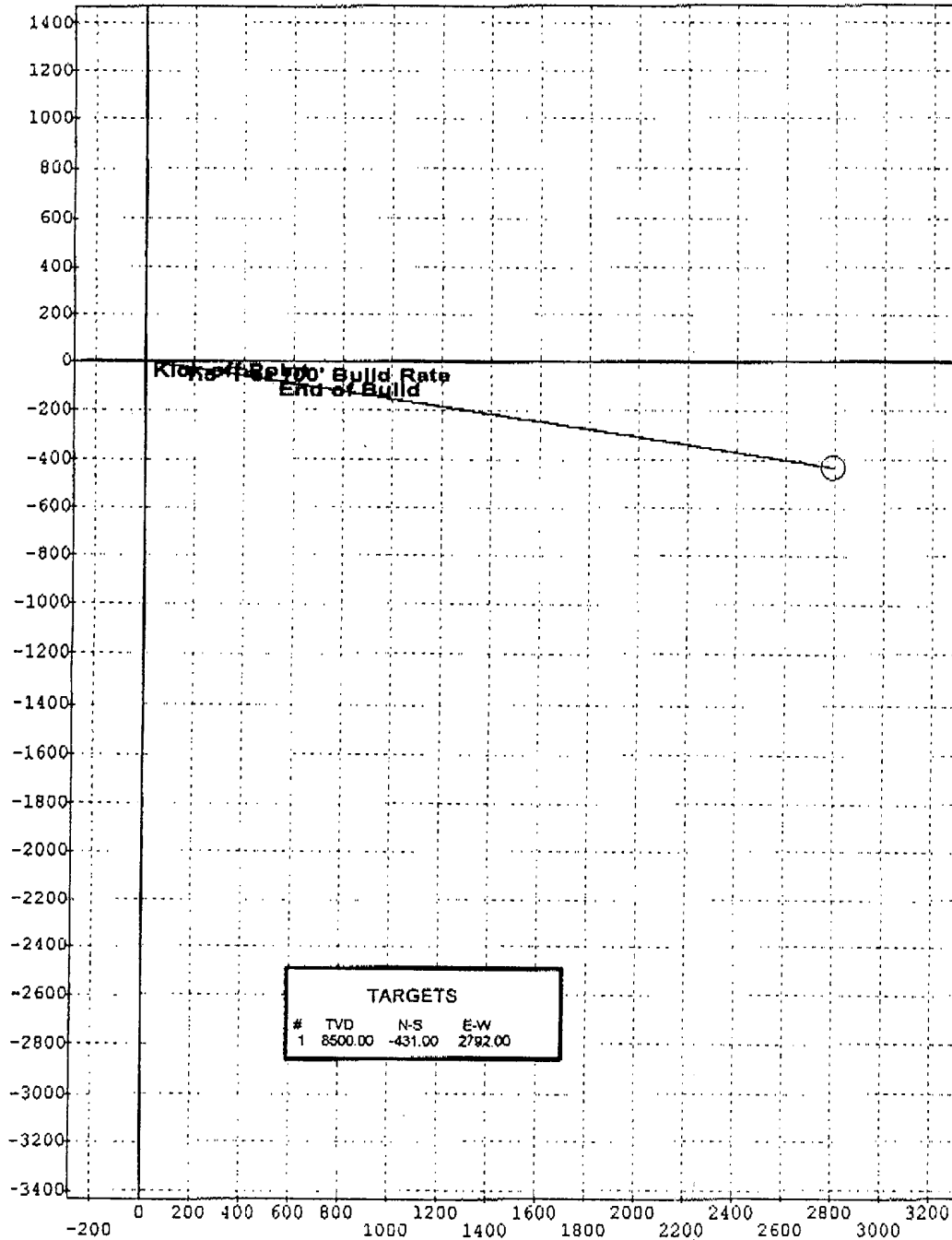
Signature and Seal of Professional Surveyor



Company: Santa Fe / Snyder  
 Lease/Well: Old Ranch Canyon 7 Fed. #3  
 Location: Eddy Co.  
 State/Country: New Mexico  
 Declination: 9.8° East



Company: Santa Fe / Snyder  
Lease/Well: Old Ranch Canyon 7 Fed. #3  
Location: Eddy Co.  
State/Country: New Mexico  
Declination: 9.8° East



-- Directional



Job Number: Sec. 7 T22S R24E  
 Company: Santa Fe / Snyder  
 Lease/Well: Old Ranch Canyon 7 Fed. #3  
 Location: Eddy Co.  
 Rig Name:  
 RKB:  
 G.L. or M.S.L.:

State/Country: New Mexico  
 Declination: 9.8° East  
 Grid: True  
 File name: C:\WINSERVE\SANTAF-1\OLDRANS.SVY  
 Date/Time: 16-Feb-00 / 13:59  
 Curve Name: Directional

Daily International Inc.  
 Midland, Texas

WINSERVE SURVEY CALCULATIONS  
 Minimum Curvature Method  
 Vertical Section Plane 98.78  
 Vertical Section Referenced to Wellhead  
 Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
<b>Kick off Point</b>									
2583.34	.00	98.78	2583.34	.00	.00	.00	.00	.00	.00
2682.34	1.49	98.78	2682.33	-.20	1.27	1.28	1.28	98.77	1.50
2781.34	2.97	98.78	2781.25	-.78	5.07	5.13	5.13	98.78	1.50
2880.34	4.46	98.78	2880.04	-1.76	11.41	11.54	11.54	98.78	1.50
2979.34	5.94	98.78	2978.83	-3.13	20.27	20.51	20.51	98.78	1.50
3078.34	7.43	98.78	3076.96	-4.80	31.66	32.03	32.03	98.78	1.50
3177.34	8.91	98.78	3174.86	-7.03	45.55	46.09	46.09	98.78	1.50
3276.34	10.40	98.78	3272.55	-9.56	61.96	62.69	62.69	98.78	1.50
3375.34	11.88	98.78	3369.68	-12.48	80.88	81.81	81.81	98.78	1.50
3474.34	13.37	98.78	3466.29	-15.78	102.24	103.45	103.45	98.78	1.50
<b>1.5° Per 100' Build Rate</b>									
3573.34	14.86	98.78	3562.30	-19.46	126.08	127.58	127.58	98.78	1.50
3672.34	16.34	98.78	3657.65	-23.52	152.38	154.19	154.19	98.78	1.50
3771.34	17.82	98.78	3752.28	-27.96	181.11	183.26	183.26	98.78	1.50
3870.34	19.31	98.78	3846.13	-32.77	212.26	214.77	214.77	98.78	1.50
3969.34	20.79	98.78	3939.13	-37.94	245.80	248.71	248.71	98.78	1.50
4068.34	22.28	98.78	4031.22	-43.49	281.71	285.05	285.05	98.78	1.50
4167.34	23.76	98.78	4122.33	-49.39	319.97	323.76	323.76	98.78	1.50
4200.34	25.25	90.70	4212.41	-55.88	360.54	364.81	364.81	98.78	1.50

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
4365.34	26.73	98.78	4301.40	-82.27	403.41	408.19	408.19	98.78	1.50
4464.34	25.22	98.78	4309.24	-80.24	448.66	453.86	453.86	98.78	1.50
4563.34	29.70	98.78	4475.88	-76.55	495.92	501.79	501.79	98.78	1.50
<b>End of Build</b>									
4583.34	30.00	98.78	4493.20	-78.07	505.75	511.75	511.75	98.78	1.50
4683.34	30.00	98.78	4579.81	-85.70	555.17	561.75	561.75	98.78	.00
4783.34	30.00	98.78	4666.41	-93.33	604.58	611.75	611.75	98.78	.00
4883.34	30.00	98.78	4753.01	-100.95	654.88	661.75	661.75	98.78	.00
4983.34	30.00	98.78	4839.61	-108.59	703.41	711.75	711.75	98.78	.00
5083.34	30.00	98.78	4926.22	-116.21	752.83	761.75	761.75	98.78	.00
5183.34	30.00	98.78	5012.82	-123.84	802.24	811.75	811.75	98.78	.00
5283.34	30.00	98.78	5099.42	-131.47	851.66	861.75	861.75	98.78	.00
5383.34	30.00	98.78	5186.02	-139.10	901.07	911.75	911.75	98.78	.00
5483.34	30.00	98.78	5272.63	-146.73	950.49	961.75	961.75	98.78	.00
5583.34	30.00	98.78	5359.23	-154.35	999.90	1011.75	1011.75	98.78	.00
5683.34	30.00	98.78	5445.83	-161.98	1049.32	1061.75	1061.75	98.78	.00
5783.34	30.00	98.78	5532.43	-169.61	1098.73	1111.75	1111.75	98.78	.00
5883.34	30.00	98.78	5619.04	-177.24	1148.15	1161.75	1161.75	98.78	.00
5983.34	30.00	98.78	5705.64	-184.87	1197.56	1211.75	1211.75	98.78	.00
6083.34	30.00	98.78	5792.24	-192.50	1246.98	1261.75	1261.75	98.78	.00
6183.34	30.00	98.78	5878.84	-200.12	1296.39	1311.75	1311.75	98.78	.00
6283.34	30.00	98.78	5965.45	-207.76	1345.80	1361.75	1361.75	98.78	.00
6383.34	30.00	98.78	6052.05	-215.38	1395.22	1411.75	1411.75	98.78	.00
6483.34	30.00	98.78	6138.65	-223.01	1444.63	1461.75	1461.75	98.78	.00
6583.34	30.00	98.78	6225.25	-230.64	1494.05	1511.75	1511.75	98.78	.00
6683.34	30.00	98.78	6311.86	-238.28	1543.46	1561.75	1561.75	98.78	.00
6783.34	30.00	98.78	6398.46	-245.89	1592.88	1611.75	1611.75	98.78	.00
6883.34	30.00	98.78	6485.06	-253.52	1642.29	1661.75	1661.75	98.78	.00
6983.34	30.00	98.78	6571.66	-261.15	1691.71	1711.75	1711.75	98.78	.00
7083.34	30.00	98.78	6658.27	-268.78	1741.12	1761.75	1761.75	98.78	.00
7183.34	30.00	98.78	6744.87	-276.40	1790.54	1811.75	1811.75	98.78	.00
7283.34	30.00	98.78	6831.47	-284.03	1839.95	1861.75	1861.75	98.78	.00
7383.34	30.00	98.78	6918.07	-291.66	1889.37	1911.75	1911.75	98.78	.00
7483.34	30.00	98.78	7004.68	-299.29	1938.78	1961.75	1961.75	98.78	.00
7583.34	30.00	98.78	7091.28	-306.92	1988.20	2011.75	2011.75	98.78	.00
7683.34	30.00	98.78	7177.88	-314.55	2037.61	2061.75	2061.75	98.78	.00
7783.34	30.00	98.78	7264.48	-322.17	2087.02	2111.75	2111.75	98.78	.00
7883.34	30.00	98.78	7351.09	-329.80	2136.44	2161.75	2161.75	98.78	.00
7983.34	30.00	98.78	7437.69	-337.43	2185.85	2211.75	2211.75	98.78	.00
8083.34	30.00	98.78	7524.29	-345.06	2235.27	2261.75	2261.75	98.78	.00
8183.34	30.00	98.78	7610.89	-352.69	2284.68	2311.75	2311.75	98.78	.00
8283.34	30.00	98.78	7697.50	-360.31	2334.10	2361.75	2361.75	98.78	.00

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
8383.34	30.00	98.78	7784.10	-367.94	2383.51	2411.75	2411.75	98.78	.00
8483.34	30.00	98.78	7870.70	-375.57	2432.93	2461.75	2461.75	98.78	.00
8583.34	30.00	98.78	7957.30	-383.20	2482.34	2511.75	2511.75	98.78	.00
8683.34	30.00	98.78	8043.91	-390.83	2531.76	2561.75	2561.75	98.78	.00
8783.34	30.00	98.78	8130.51	-398.45	2581.17	2611.75	2611.75	98.78	.00
8883.34	30.00	98.78	8217.11	-406.08	2630.59	2661.75	2661.75	98.78	.00
8983.34	30.00	98.78	8303.71	-413.71	2680.00	2711.75	2711.75	98.78	.00
9083.34	30.00	98.78	8390.32	-421.34	2729.42	2761.75	2761.75	98.78	.00
9183.34	30.00	98.78	8476.92	-428.97	2778.83	2811.75	2811.75	98.78	.00
P.B.T.D.									
9209.99	30.00	98.78	8500.00	-431.00	2792.00	2825.07	2825.07	98.78	.00



**DRILLING PROGRAM**

**SANTA FE SNYDER CORP.**

**OLD RANCH CANYON "7" FED #3**

In conjunction with Form 3160-3, Application to Drill the subject well, Santa Fe Snyder Corp. submits the following ten items of pertinent information in accordance with Onshore Oil & Gas Order No. 1.

1. **Geologic Name of Surface Formation:** Alluvium

2. **Estimated Tops of Significant Geologic Markers:**

San Andres	980'
Glorieta	2520'
Bone Spring	4550'
Wolfcamp	7095'
Cisco	7760'
Canyon	8260'
Total Depth	8500'

3. **The estimated depths at which water, oil or gas formations are expected:**

Water	None expected in area
Oil/Gas/Water	Cisco/Canyon 7800'- 8300'

4. **Proposed Casing Program:** See Form 3160-3 and Exhibit A

5. **Pressure Control Equipment:** See Exhibit B

6. **Drilling Fluid Program:** See Exhibit C

7. **Auxiliary Equipment:** A mud logging unit will be utilized to monitor penetration rate and hydrocarbon shows while drilling below the intermediate casing at 2500'.

8. **Testing, Logging and Coring Program:**

Drill Stem Tests: (all DST's to be justified on the basis of valid show of oil or gas):

No Drill Stem Tests are planned.

Logging:

Dual Laterolog W/MSFL and Gamma Ray	1600'- 8500'
Compensated Neutron/Litho-Density/Gamma Ray	1600'- 8500'
Compensated Neutron/Gamma Ray (thru csg)	Surface-1600'

Coring: No conventional cores are planned.

**DRILLING PROGRAM**

**Old Ranch Canyon "7" Fed #3**

**Page 2**

**9. Abnormal Conditions, Pressures, Temperatures & Potential Hazards:**

No abnormal pressures or temperatures are anticipated. The estimated bottom hole temperature is 130 degrees Fahrenheit and the estimated bottom hole pressure is 2500 psi. A Blow Out Preventer System as outlined in Exhibit B will be utilized should the need arise to shut the well in prior to running and cementing production casing. The Cisco/Canyon zones are our primary objectives. The zones are hydrogen sulfide productive in the area. Our plan is to have everyone on location trained in H<sub>2</sub>S safety procedures and install monitors and Scott Air Packs at strategic locations around the rig by 7000', prior to encountering the Cisco/Canyon. It is our understanding that H<sub>2</sub>S is only detected in the area whenever the reservoir fluids are produced up the wellbore. Our drilling fluid hydrostatic head will prevent fluid entry due to the reservoir being overbalanced. We will have a rotating head installed and monitors operational during the drilling of the Cisco/Canyon zone. Due to the remote location of this drillsite, H<sub>2</sub>S warning signs will be placed prior to entry of the drillsite, a public protection plan is not required for this location.

**10. Anticipated Starting Date and Duration of Operations:**

Road and location work will not begin until approval has been received from the B.L.M. The anticipated spud date is March 20, 2000. Once spudded, the drilling operation should be completed in approximately 20 days. If the well is productive, an additional 30 days will be required for completion and testing before permanent facilities are installed.

OPERATIONS PLAN

SANTA FE SNYDER CORP.

OLD RANCH CANYON "7" FED #3

1. Drill a 12 3/4" hole to approximately 1600'.
2. Run 9 5/8" 36.0 ppf K-55 ST&C casing. Cement with 775 sx Class "C" cement containing 2% CaCl<sub>2</sub>. Run centralizers on every other joint above the shoe. Apply thread lock to bottom two joints and guide shoe.
3. Wait on cement for six hours prior to cutting off.
4. Nipple up and install a 3000 psi. Double Ram and Annular BOP system with choke manifold. WOC 18 hours prior to drilling out.
5. Test BOP system to 1500 psi with the rig pump. Test casing to 1500 psi.
6. Drill 8 3/4" hole to 8500'. Run logs.
7. Either run and cement 8500' of 7" 26.0 PPF LT&C casing or plug and abandon as per BLM requirements.

Exhibit "A"

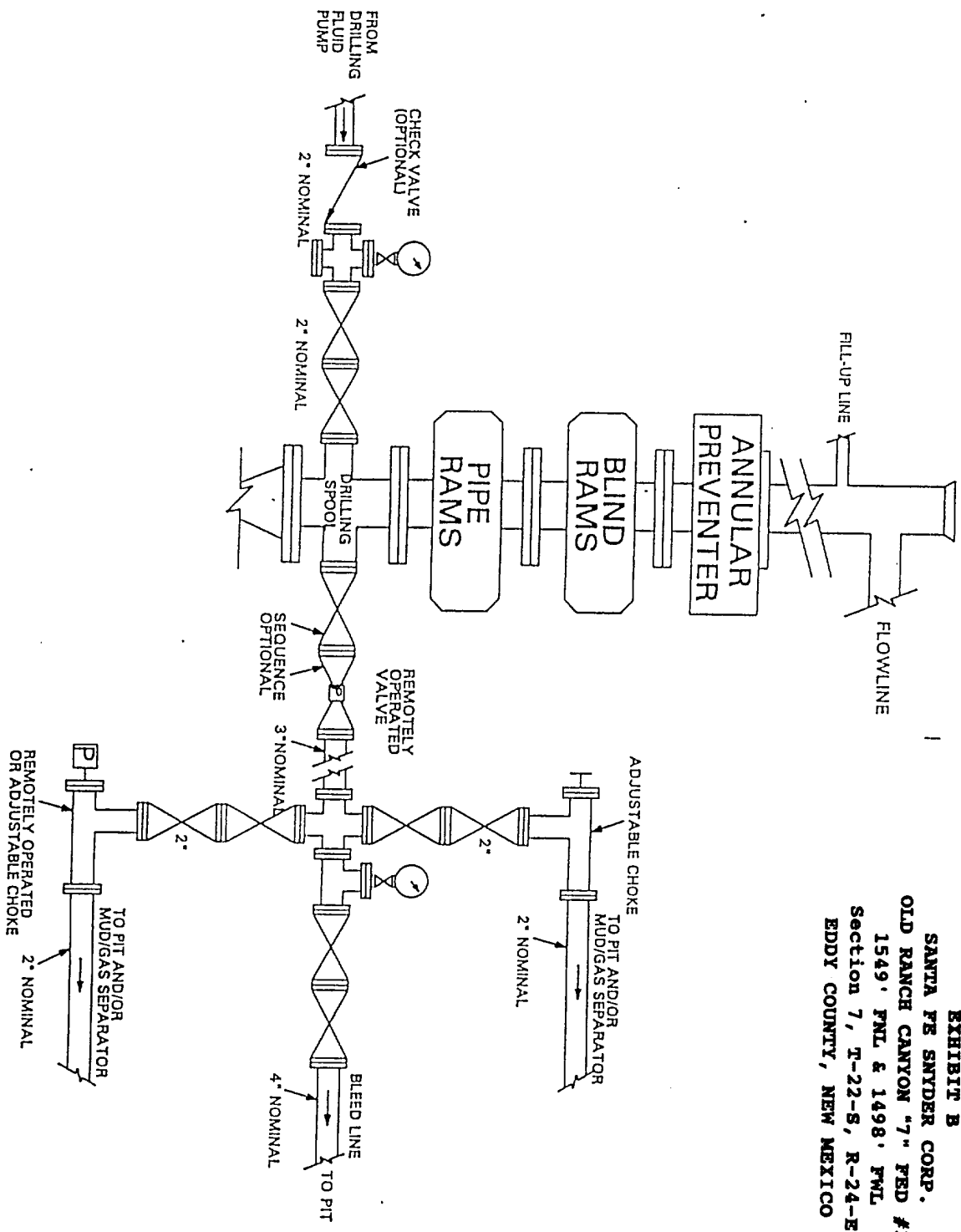
SANTA FE SNYDER CORP.

Old Ranch Canyon "7" Fed #3

Section 7, T-22-S, R-24-E

Eddy County, New Mexico

**EXHIBIT B**  
**SANTA FE SNYDER CORP.**  
**OLD RANCH CANYON "7" FED #3**  
**1549' FNL & 1498' FNL**  
**Section 7, T-22-S, R-24-E**  
**EDDY COUNTY, NEW MEXICO**



PROPOSED DRILLING FLUID PROGRAM

0 - 1600'

Spud with air-air mist to 1600' if possible. If it becomes necessary to mud up due to hole conditions, utilize a fresh water gel system. Use ground paper for seepage control and to sweep the hole. MW-8.5 ppg and vis-40.

1600 - 8500'

Drill out with fresh water circulating the reserve pit. Maintain pH at 8.5-9.5 with caustic and sweep the hole as necessary with ground paper. If it becomes necessary to mud up due to hole conditions, utilize a fresh water/Drispac system for 15-20 WL and a Vis of 30-32. MW-8.3/8.5 ppg.

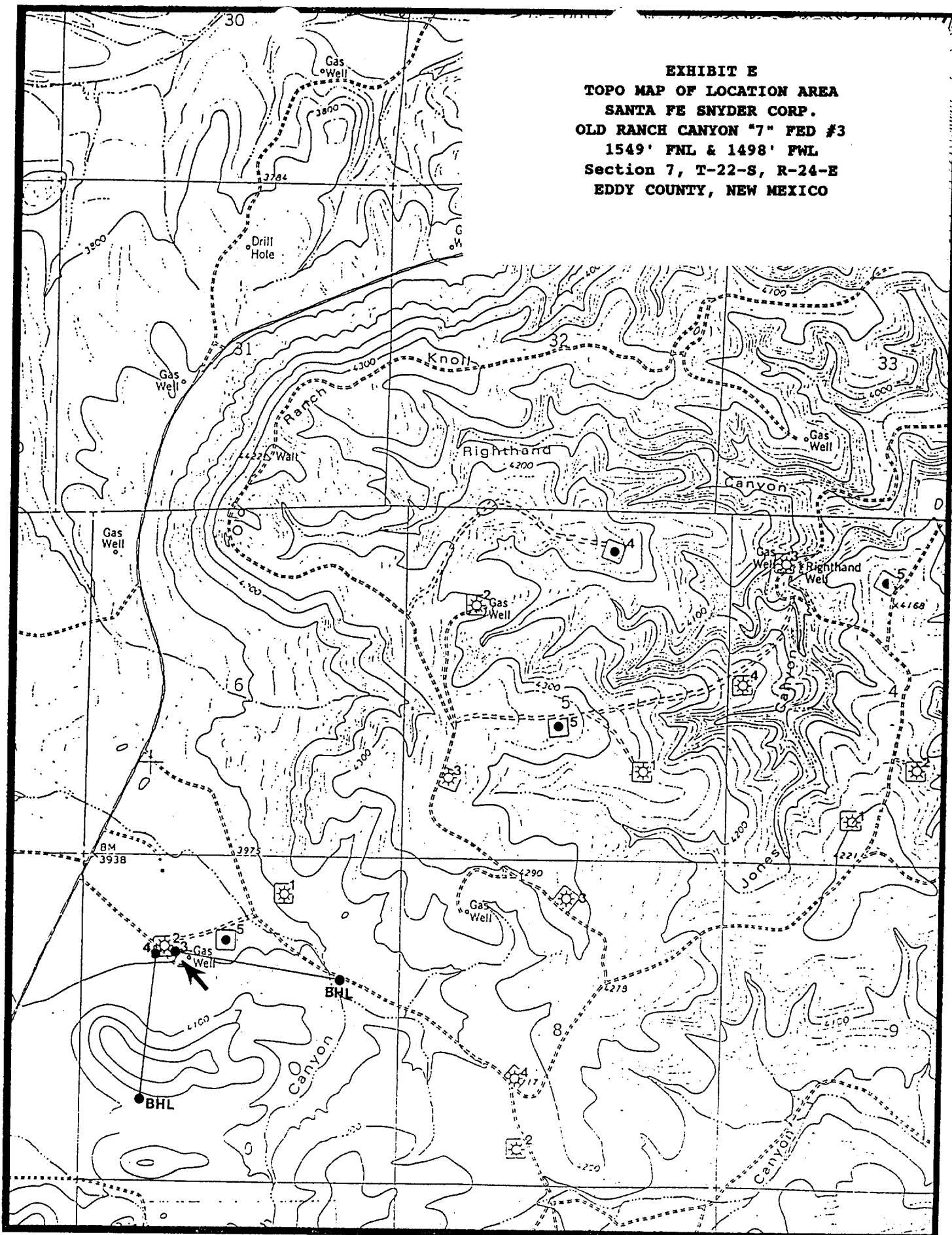
Exhibit "C"  
Santa Fe Snyder Corp.  
Old Ranch Canyon "7" Fed #3  
Section 7, T-22-S, R-24-E  
Eddy County, New Mexico

## AUXILIARY EQUIPMENT

DRAWWORKS	BDW 650 HP, with Parmac Hydromatic brake
ENGINES	Two Caterpillar D-353 diesels rated at 425 HP each
ROTARY	Ideco 23", 300 ton capacity
MAST/SUB	Ideal 132', 550,000 lb. rated static hook load with 10 lines. Wagner 15' high substructure
TRAVELING EQUIPMENT	Gardner-Denver, 300 ton, 5 sheave w/BJ 250 ton hook Brewster Model 7 SX 300 ton swivel
PUMPS	Continental-EMSCO DC-700 and DB-550, 5-1/2 X 16" Duplex, Compound driven.
PIT SYSTEM	1-Shale Pit 6X7X35', 1-Setting Pit 6X7X38', 1-Suction Pit 6X7X34' w/5 mud agitators, Two Centrifugal mud mixing pumps and a Double Screen Shale Shaker.
LIGHT PLANT	Two CAT 3306 diesel electric sets 18 KW prime power
BOP EQUIP.	13-5/8" 5000 psi WP double ram and 13-5/8" 5000 psi WP Shaffer Annular Preventer. Choke manifold rated at 5000 psi. Valvcon 5-station 80 gallon closing unit.

Exhibit "D"  
Santa Fe Snyder Corp.  
Old Ranch Canyon "7" Fed #3  
Section 7, T-22-S, R-24-E  
Eddy County, New Mexico

**EXHIBIT E**  
**TOPO MAP OF LOCATION AREA**  
**SANTA FE SNYDER CORP.**  
**OLD RANCH CANYON "7" FED #3**  
**1549' FNL & 1498' FWL**  
**Section 7, T-22-S, R-24-E**  
**EDDY COUNTY, NEW MEXICO**



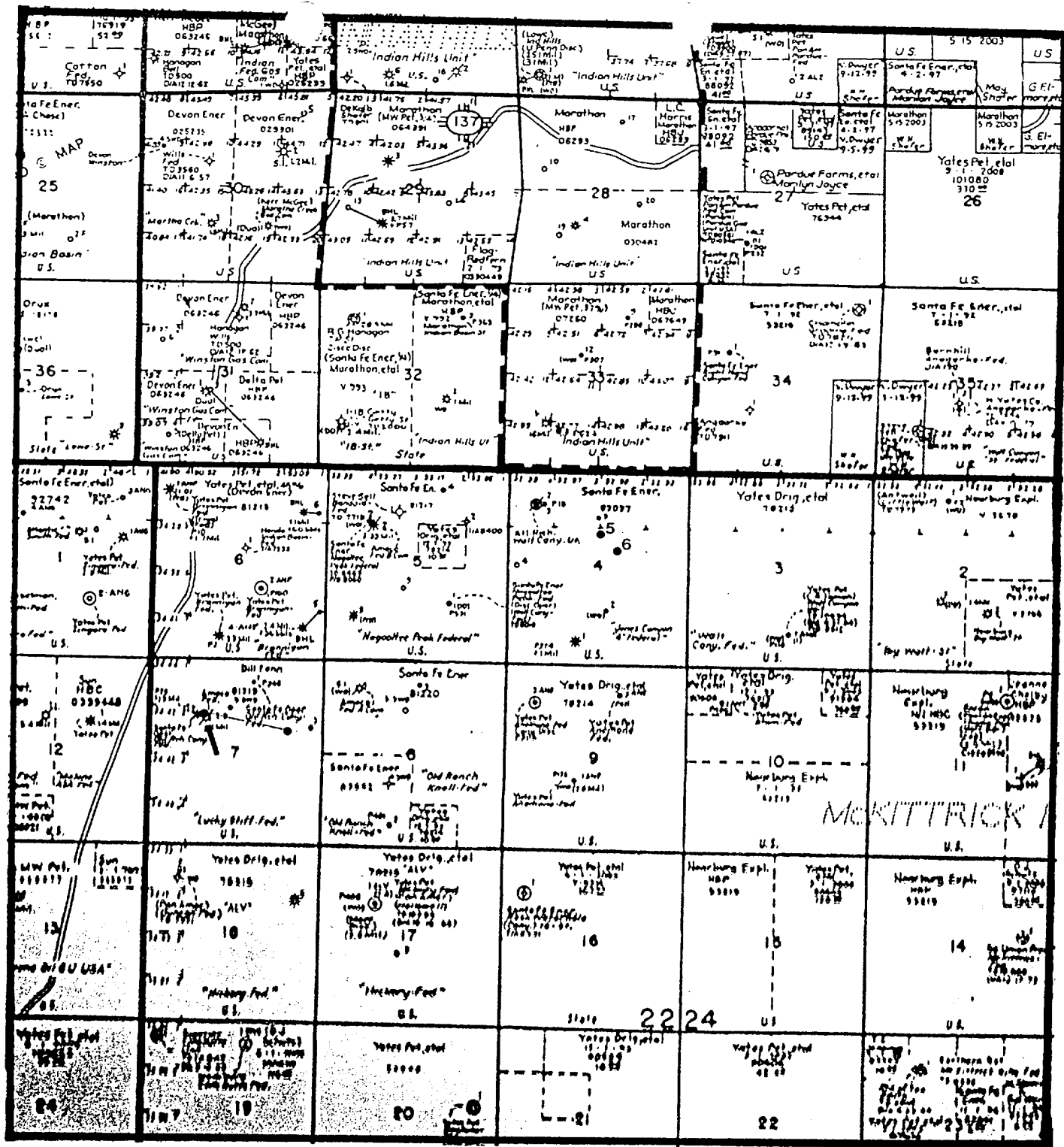
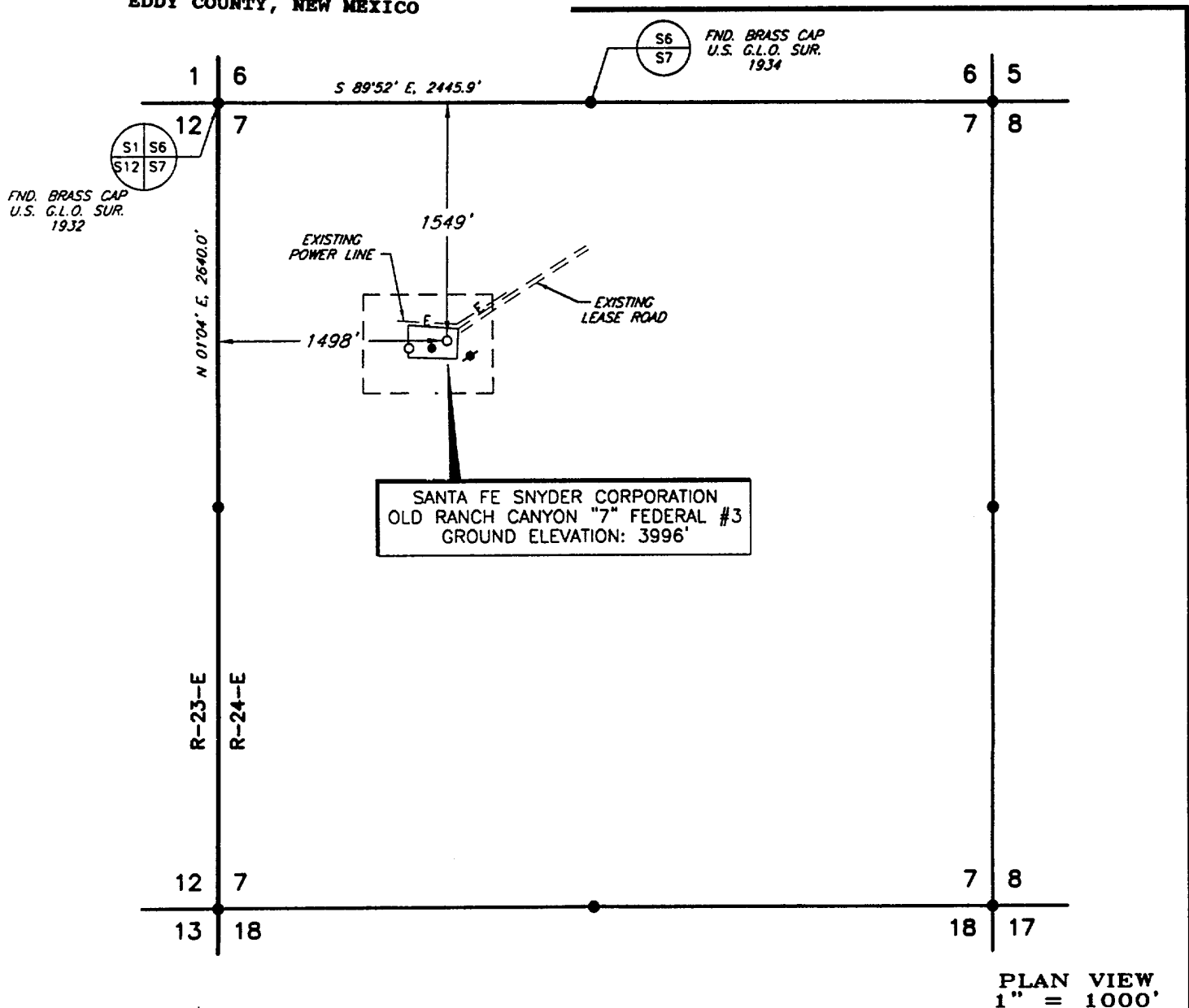


EXHIBIT F  
 EXISTING WELLS  
 SANTA FE SNYDER CORP.  
 OLD RANCH CANYON "7" FED #3  
 1549' FNL & 1498' FWL  
 Section 7, T-22-S, R-24-E  
 EDDY COUNTY, NEW MEXICO



PLAT OF LOCATION  
 SANTA FE SNYDER CO.  
 OLD RANCH CANYON "7" FED #3  
 1549' FNL & 1498' FNL  
 Section 7, T-22-S, R-24-E  
 EDDY COUNTY, NEW MEXICO



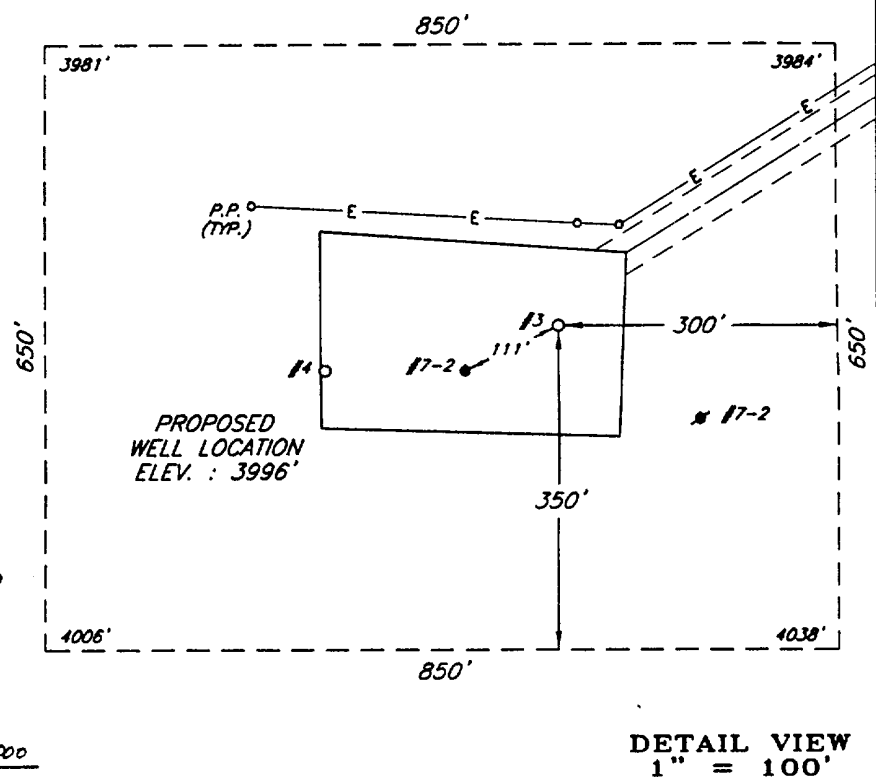
PLAN VIEW  
 1" = 1000'

DATE OF FIELD WORK: FEBRUARY 8, 2000

I, V. L. BEZNER, A PROFESSIONAL SURVEYOR IN THE STATE OF NEW MEXICO AND AUTHORIZED AGENT OF TOPOGRAPHIC LAND SURVEYORS, HEREBY CERTIFY THIS PLAT TO BE A TRUE REPRESENTATION OF A SURVEY PERFORMED IN THE FIELD UNDER MY SUPERVISION, THAT I AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND THAT THIS PLAT AND FIELD SURVEY UPON WHICH IT IS BASED MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO. (RULE 500.6 EASEMENT SURVEYING)

V. L. BEZNER, P.S. NO. 7920

PROFESSIONAL SURVEYOR  
 NO. 7920  
 FEBRUARY 11, 2000



DETAIL VIEW  
 1" = 100'

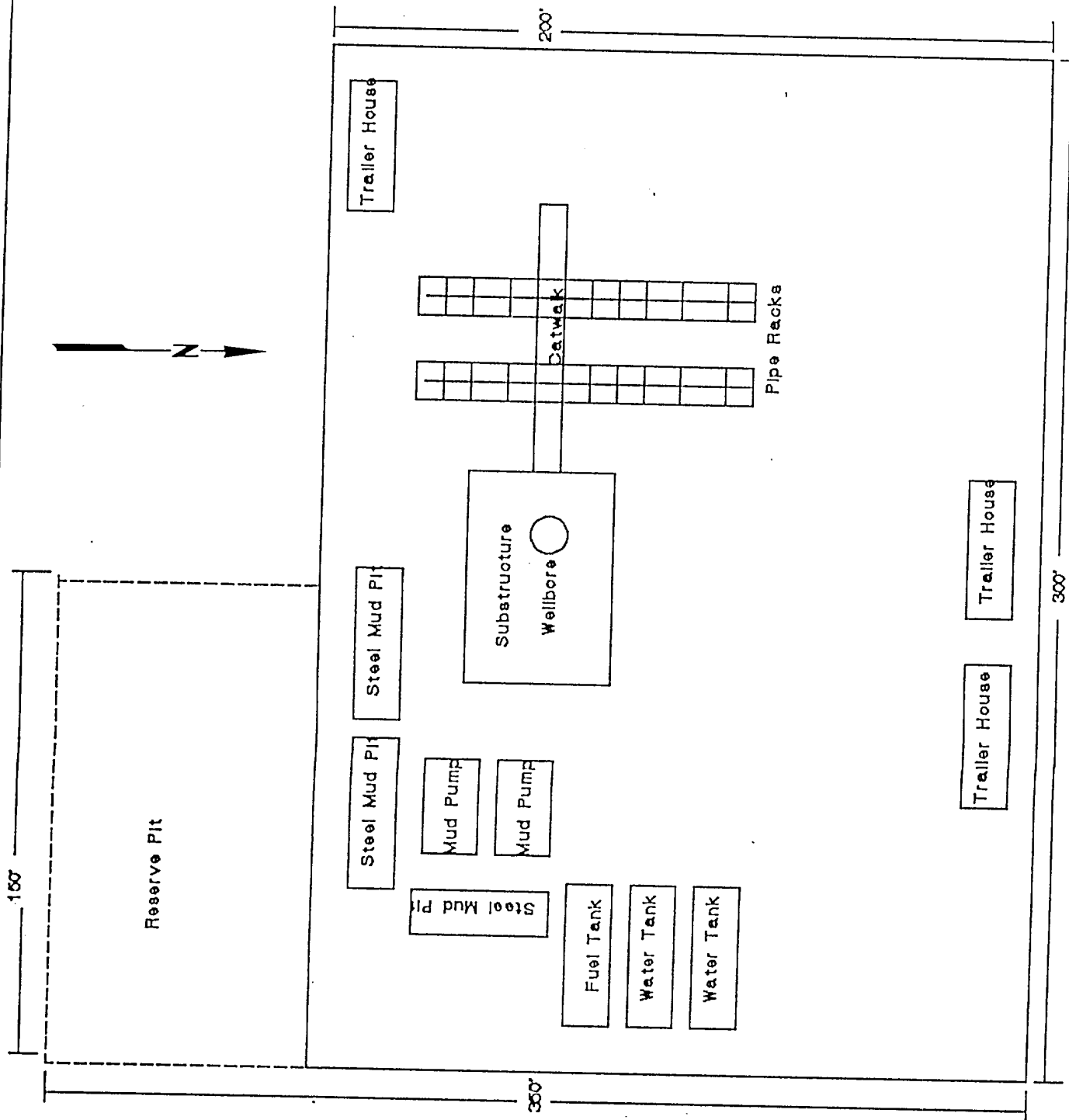
				SANTA FE SNYDER CORPORATION				SCALE: AS SHOWN		
								DATE: FEBRUARY 8, 2000		
NO.	REVISION		DATE	BY	SURVEYING AND MAPPING BY TOPOGRAPHIC LAND SURVEYORS MIDLAND, TEXAS				JOB NO.: 67530-F	
SURVEYED BY: R.J.O.				QUAD NO.: 51 NE						
DRAWN BY: V.H.B.										
APPROVED BY: V.L.B.									SHEET : 1 OF 1	

SANTA FE SNYDER CORPORATION

SURVEYING AND MAPPING BY

TOPOGRAPHIC LAND SURVEYORS

MIDLAND, TEXAS



**EXHIBIT G**  
**WELL SITE LAYOUT**  
**SANTA FE SNYDER CORP.**  
**OLD RANCH CANYON "7" Fed #3**  
**1549' FNL & 1498' FWL**  
**Section 7, T-22-S, R-24-E**  
**Lea County, New Mexico**

Santa Fe Snyder Corp.  
MULTI-POINT SURFACE USE AND OPERATIONS PLAN  
Old Ranch Canyon "7" Fed #3  
Section 7, T-22-S, R-24-E  
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 necessary surface disturbance involved, and the procedures to be followed by rehabilitating the surface after completion of the operations, so that a complete appraisal can be made of the environmental effects associated with the operation.

1. EXISTING ROADS.

- A. Exhibit E is a 15 minute topo map which shows the location of the proposed wellsite and roads in the vicinity. The proposed location is situated approximately 17 miles West of Carlsbad, New Mexico.

DIRECTIONS

1. From Carlsbad, go north 12 miles to intersection of Hwy. 285 and 137. Turn west onto Hwy 137, travel southwest for 13.2 miles and turn left on lease road for 0.6 mile and turn right 0.2 miles to the proposed location on the left.

2. PLANNED ACCESS ROAD.

- A. No new access road will be necessary.

3. LOCATION OF EXISTING WELLS.

- A. The well locations in the vicinity of the proposed well are shown on exhibits E & F.

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

- A. In the event the well is productive, the necessary production equipment will be installed on the drilling pad.

5. LOCATION AND TYPE OF WATER SUPPLY.

- A. It is planned to drill the well with fresh water systems. The water will be hauled to the location by truck over existing roads. It will be obtained from commercial sources. We also plan to utilize produced water from offsetting wells to supplement our drilling water needs.

6. SOURCES OF CONSTRUCTION MATERIALS.

- A. Any caliche required for construction of the drilling pad will be obtained from a pit located off the wellsite.

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 either placed in the reserve pits and allowed to evaporate or collected in tanks until hauled to an approved disposal system or a separate disposal application will be submitted to the BLM for appropriate approval.
- D. Oil produced during operations will be stored in tanks until sold.
- E. Human waste will be disposed of per current standards.
- F. Trash, waste paper, garbage, and junk will be collected in trash trailers and disposed of in an approved waste facility such as a land fill. The trash trailers will contain all of the material to prevent scattering by the wind.
- G. All trash and debris will be removed from the wellsite within 30 days after finishing drilling and/or completion operations.

8. ANCILLARY FACILITIES

- A. None required.

9. WELLSITE LAYOUT

- A. Exhibit G shows the dimensions of the well pad and reserve pits, and the location of major rig components. The location will be turned with the V-door facing west.
- B. The ground surface of the location is situated on a relatively flat area. The location will be constructed by leveling the necessary area and covering the area with at least six inches of compacted caliche.
- C. The reserve pits will be plastic lined.
- D. A 600' X 600' work area which will contain the pad and pit area has been staked and flagged.

10. PLAN FOR RESTORATION OF THE SURFACE

- 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 cleared of all trash and junk, to leave the wellsite in as aesthetically pleasing a condition as possible.
- B. Unguarded pits, if any, containing fluid will be fenced until they have been filled.
- C. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management and the United States Geological Survey will be complied with and will be accomplished as expeditiously as possible. All pits will be filled and leveled within 300 days after abandonment.

11. TOPOGRAPHY

- A. The wellsite is located on a relatively flat area.
- B. The top soil at the wellsite is rocky.
- C. The vegetation cover at the wellsite is moderately sparse, with prairie grasses, some yucca and miscellaneous weeds.
- D. No wildlife was observed but it is likely that deer, rabbits, coyotes, and rodents traverse the area.
- E. There are no ponds, lakes, streams or rivers within one mile of the wellsite.
- F. There is no evidence of any archaeological, historical, or cultural sites in the vicinity of the location.

12. OPERATOR'S REPRESENTATIVES

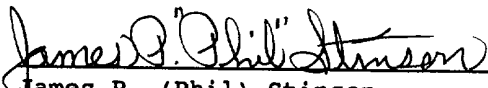
- A. The field representatives responsible for assuring compliance with the approved surface use plan are:

Michael R. Burton  
Division Manager, Drilling  
Santa Fe Snyder Corp.  
550 W. Texas, Suite 1330  
Midland, Texas 79701  
(915) 686-6616 - office  
(915) 556-7063 - cellular

13. 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 Santa Fe Energy Resources, Inc., and its contractors and subcontractors in conformity with this plan and the terms and conditions under which is approved.

SIGNED this 28<sup>th</sup> day of February 2000.

  
James P. (Phil) Stinson  
Agent for Santa Fe Snyder Corp.

Santa Fe Snyder Corp.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

Old Ranch Canyon "7" Fed #3  
Section 7 T-22-S, R-24-E  
Eddy County, New Mexico

In drilling the Cisco/Canyon formation there is very remote possibility that H<sub>2</sub>S will be encountered. The zone is hydrogen sulfide productive in the area. It is our understanding that hydrogen sulfide is only detected in the area whenever the reservoir fluids are produced up the wellbore. Our drilling fluid hydrostatic head will prevent fluid entry due to the reservoir being overbalanced. The following is our plan for drilling the Cisco/Canyon formation.

1. Hydrogen Sulfide Training

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on the well:

1. The hazards and characteristics of hydrogen sulfide (H<sub>2</sub>S).
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of H<sub>2</sub>S detectors, alarms, warning systems, briefing areas, evacuations procedures, and prevailing winds.
4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

1. The effects of H<sub>2</sub>S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
3. The contents and requirements of the Hydrogen Sulfide Drilling Operations Plan.

There will be an initial training session prior to encountering the Cisco/Canyon (training will take place within 3 days or 500 feet) and will have weekly H<sub>2</sub>S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific Hydrogen Sulfide Drilling Operations Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

**2. H<sub>2</sub>S Safety Equipment and Systems**

Note: All H<sub>2</sub>S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the Cisco/Canyon zone at 7700'.

**1. Well Control Equipment:**

- A. An annular preventer capable of accommodating all pipe sizes with properly sized closing unit.

**2. Protective Equipment for Personnel:**

- A. Scott Air-Pack Units located on the rig floor and at briefing areas, as indicated on well site diagram.

**3. H<sub>2</sub>S Detection and Monitoring Equipment:**

- A. 2-portable H<sub>2</sub>S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H<sub>2</sub>S levels of 200 ppm are reached.

**4. Visual Warning Systems:**

- A. Wind direction indicators as shown on well site diagram.
- B. Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. See Example Attached.

**5. Mud Program:**

- A. The mud program is designed to minimize any H<sub>2</sub>S circulated to the surface. Proper mud weight, safe drilling practices, and the use of H<sub>2</sub>S scavengers will be used to minimize hazards when penetrating H<sub>2</sub>S bearing zones (Cisco/Canyon).



6. Metallurgy:

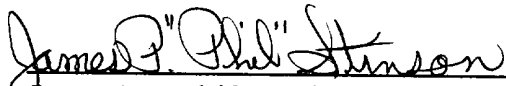
- A. All of the drill string, casing, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H<sub>2</sub>S service.
- B. All elastomers used for packing and seals shall be H<sub>2</sub>S trim.

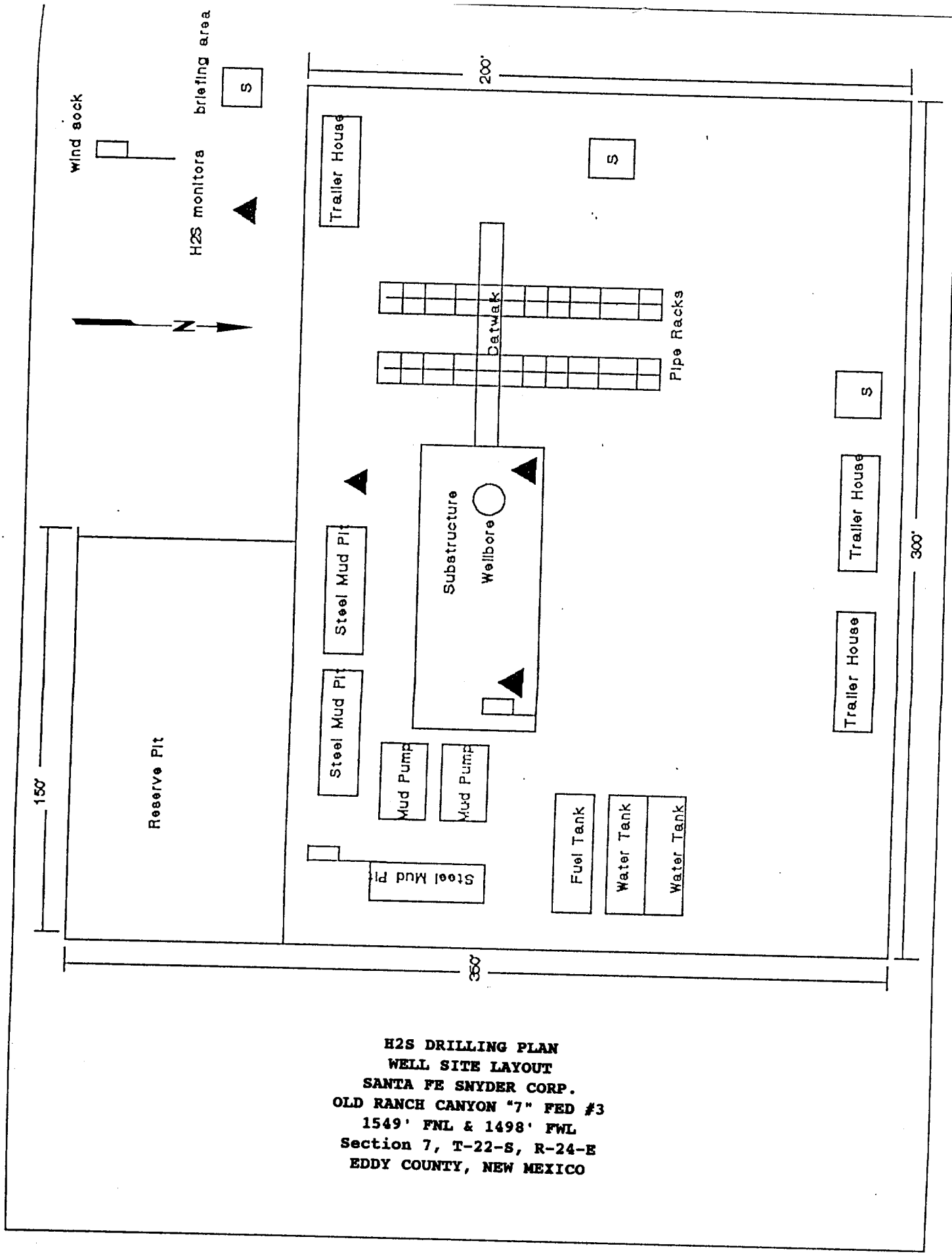
7. Communication:

- A. Cellular phone communications in company vehicles.
- B. Radio communications on the drilling rig.

8. Well Testing:

- A. All tests in the Cisco/Canyon formation will be conducted using the closed chamber method of drill stem testing.

  
James P. (Phil) Stinson  
Agent for Santa Fe Snyder Corp.



H2S DRILLING PLAN  
 WELL SITE LAYOUT  
 SANTA FE SNYDER CORP.  
 OLD RANCH CANYON "7" FED #3  
 1549' FNL & 1498' FWL  
 Section 7, T-22-S, R-24-E  
 EDDY COUNTY, NEW MEXICO

# WARNING

YOU ARE ENTERING AN H2S AREA

TIGHT HOLE LOCATION

DO NOT ENTER UNLESS YOU WERE CALLED !!

**OLD RANCH CANYON "7" FED #3**

SANTA FE SNYDER CORP.

