District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Month - Year APR 30 2007 OCD - ARTESIA, NM

Form C-101
May 27, 2004

Submit to appropriate District Office

☐ AMENDED REPORT

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

[1] Operator Name and Address	[2] OGRID Number
Nadel and Gussman Permian, LLC 601 N. Marienfeld Suite 508 Midland, TX 79701	155615
	[5] API Number 30 – 015- 35569

[3] Property Code	[4] Property Name	[6] Well No.
36498	Cronos Fee	#1

[9] Proposed Pool 1	[10] Proposed Pool 2
Loving Morrow, North	

[7] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	20	23 S	28 E		1950	North	660	West	Eddy

[8] Proposed Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Additional Well Information

[11] Work Type Code	[12] Well Type Code	[13] Cable/Rotary	[14] Lease Type Code	[15] Ground Level Elevation
N	G	R	P	3,059'
[16] Multiple	**[17] Proposed Depth**	**[18] Formation**	**[19] Contractor**	**[20] Spud Date**
No	12,900'	Morrow	Patterson - UTI	06/01/07

Depth to Groundwater: 100' or more | Distance from nearest fresh water well: 200' or More | Distance from nearest surface water: Less than 200'

Pit: Liner: Synthetic ☒ 20 mils thick Clay ☐ Pit Volume: 15,000 bbls Drilling Method:

Closed-Loop System ☐ Fresh Water ☒ Brine ☒ Diesel/Oil-based ☐ Gas/Air ☐

[21] Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17 ½"	13 3/8"	48# H-40	400'	300sx	Circ. to Surf.
12 ¼"	9 5/8"	40# N-80, HCN-80	6,080'	1200sx	Circ. to Surf.
8 ¾"	5 ½"	17# HCP-110, 20# P-110	12,900'	1500sx	TOC @ ~~+/-8000'~~
Tie back to	9 5/8"	casing			

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

Nadel and Gussman Permian, LLC proposes to drill the Cronos Fee #1. A mud gas separator will be installed and tested prior to drilling the Wolfcamp. A BOP will be installed on the 9 5/8" casing and tested. Cement to cover all water, oil and gas producing zones. NGP will notify NMOCD of spud date and cementing times so the surface and intermediate casing strings can be witnessed. No H_2S is expected, but a contingency is attached.

[23] I hereby certify that the information given above is true and complete to the best of my knowledge and belief. **I further certify that the drilling pit will be constructed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.**

Signature: Terry West

Printed name: Terry West

Title: Drilling Operations Engineer

E-mail Address: TerryW@naguss.com

Date: 4/23/07 | Phone: 432-682-4429

OIL CONSERVATION DIVISION

Approved by: BRYAN G. ARRANT
DISTRICT II GEOLOGIST

Title:

Approval Date: MAY 0 1 2007 | Expiration Date: MAY 0 1 2008

Conditions of Approc: **CEMENT TO COVER ALL OIL, GAS AND WATER BEARING ZONES**

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State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102
Revised October 12, 2005

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
	80695	Loving · Morrow (North)

Property Code	Property Name	Well Number
	CRONOS FEE	1

OGRID No.	Operator Name	Elevation
	NADEL AND GUSSMAN PERMIAN	3059'

Surface Location

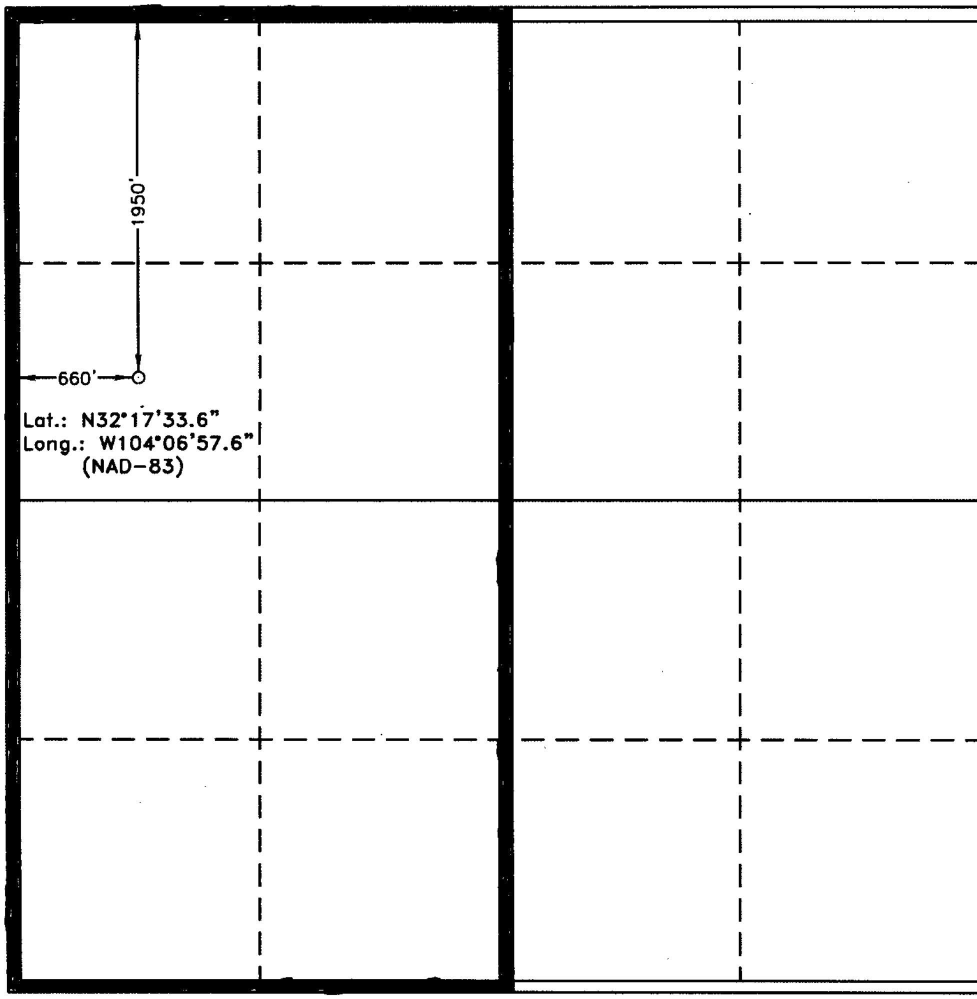
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	20	23 S	28 E		1950	NORTH	660	WEST	EDDY

Bottom Hole Location If Different From Surface

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

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320			

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



OPERATOR CERTIFICATION

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

Terry West 4/25/07
Signature Date

TERRY WEST
Printed Name

SURVEYOR CERTIFICATION

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

APRIL 23, 2007
Date Surveyed
Signature & Seal of Professional Surveyor

GARY L. JONES 7977

W.O. No. [illegible]44

Certificate No. Gary L. Jones 7977

BASIN SURVEYS

District I
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State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-144
June 1, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☒
Type of action: Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

Operator: _Nadel and Gussman Permian, LLC _____ Telephone: __432-682-4429_____ e-mail address: ____TerryW@NaGuss.com_____
Address: __601 N. Marienfeld, Suite 508 Midland, TX 79701_____
Facility or well name: __ Cronos Fee #1 _____ API #: 30-015-35569 U/L or Qtr/Qtr ___E_____ Sec __20___ T _23 S____ R _28E___
County: _____Eddy_____ Latitude _N 32 deg 17' 33.6"___ Longitude ____W104 deg 06' 57.6"_____ NAD: 1927 ☐ 1983 ☒
Surface Owner: Federal ☐ State ☐ Private ☒ Indian ☐

Pit	**Below-grade tank**	
Type: Drilling ☒ Production ☐ Disposal ☐ Workover ☐ Emergency ☐ Lined ☒ Unlined ☐ Liner type: Synthetic ☒ Thickness _20___mil Clay ☐ Pit Volume ___15,000___bbl	Volume: _____bbl Type of fluid: _____ Construction material: _____ Double-walled, with leak detection? Yes ☐ If not, explain why not. _____	
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet 50 feet or more, but less than 100 feet 100 feet or more	(20 points) (10 points) (0 points) X
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes No	(20 points) (0 points) X
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more	(20 points) X (10 points) (0 points)
	Ranking Score (Total Points)	20

If this is a pit closure: (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if your are burying in place) onsite ☐ offsite ☐ If offsite, name of facility_____. (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface_____ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments:

I hereby certify that the information above is true and complete to the best of my knowledge and belief. **I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.**

Date: __4/26/07_____
Printed Name/Title __Terry West, Drilling Operations Engineer _____ Signature Terry West

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:
Printed Name/Title _____ Signature _____ Date: _____

NADEL AND GUSSMAN PERMIAN, L.L.C.
601 N. Marienfeld, Suite 508
Midland, TX 79701
(432) 682-4429 (Office)
(432) 682-4325 (Fax)

4/26/07

Mr. Bryan Arrant
District 2 Geologist
New Mexico Oil and Gas Division
1301 West Grand Avenue
Artesia, NM 88210

Re: Cronos Fee #1
1950' FNL & 660' FWL
Unit Letter E, Sec. 20-T23S-R28E
Eddy, NM
Rule 118 H2S Exposure

Dear Mr. Arrant,

Nadel and Gussman Permian have evaluated this well and we do not expect to encounter hydrogen sulfide. However, we will employ a third party monitoring system. We will begin monitoring prior to drilling out the intermediate casing and will continue monitoring the remainder of the well.

Please contact me if you have any additional questions.

Sincerely,

Terry West
Staff Engineer

Hydrogen Sulfide Drilling Operations Plan

1. Company and Contract personnel admitted on location should be trained by a qualified H_2S safety instructor to the following:
   A. Characteristics of H_2S.
   B. Physical Effects and Hazards.
   C. Proper Use of Safety Equipment and Life Support Systems.
   D. Principle and Operation of H_2S Detectors, Warning System and Briefing.
   E. Evacuation Procedure, Routes and First Aid.
   F. Proper Use of 30 minute Pressure Demand Air Pack.

2. H_2S Detection and Alarm Systems
   A. H_2S Detectors and Audio Alarm System to be Located at Bell Nipple, End of Blooie Line (mud pit) and on Derrick floor or doghouse.

3. Windsock and/or Wind Streamers
   A. Windsock at Mud Pit Area Should be High Enough to be Visible.
   B. Windsock at Briefing Area Should be High Enough to be Visible.
   C. There Should be a Windsock at Entrance to Location.

4. Condition Flags and Signs
   A. Warning Sign on Access Road to Location.
   B. Flags to be Displayed on Sign at Entrance to Location.
      1. Green Flag, Normal Safe Condition.
      2. Yellow Flag, Indicates Potential Pressure and Danger.
      3. Red Flag, Danger H_2S Present in Dangerous Concentration Only Emergency Personnel Admitted to Location.

5. Well Control Equipment
   A. See Attached Diagram.

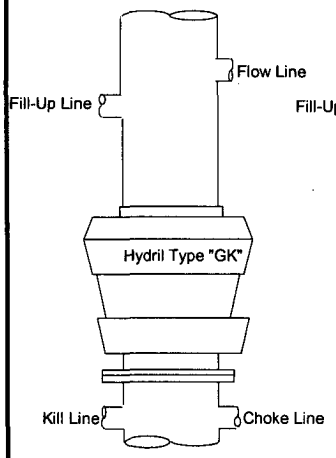
6. Communication
   A. While Working Under Masks Chalkboards Will be Used for Communication.
   B. Hand Signals will be Used Where Chalk Board is Inappropriate.
   C. Two Way Radio or Cell Phone will be Used to Communicate off Location in Case of Available at Most Drilling Foreman's Trailer or Living Quarters.

7. Drillstem Testing
   A. Exhausts will be Watered.
   B. Flare Line will be Equipped with an Electric Igniter or a propane pilot light in case gas reaches the surface.
   C. If Location is near any Dwelling a Closed DST will be Performed.

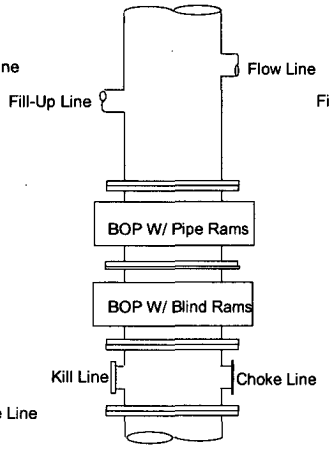
8. Drilling Contractor Supervisor will be Required to be Familiar with the Effects H_2S has on tubular goods and other mechanical equipment.

9. If H_2S Encountered, Mud system will be Altered if Necessary to Maintain Control of Formation. A Mud Gas Separator will be Brought into Service Along with H_2S Scavengers if Necessary.

Nadel and Gussman Permian _____
MINIMUM BLOWOUT PREVENTER REQUIREMENTS



CASE I



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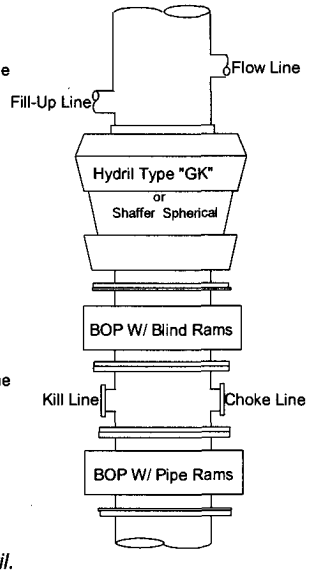
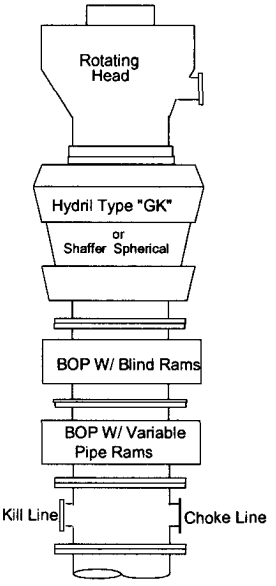


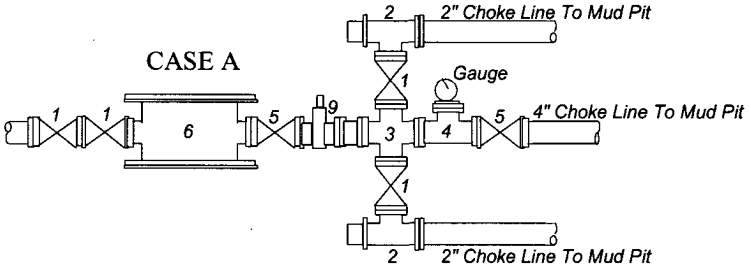
CASE III



CASE IV

A1" valve will be installed on the closing line to the Hydril. This valve will on a short nipple next to the Hydril. The Hydril closing line must be equipped with a 1" - 3000 psi WP plug valve on the nipple into the Hydril.

CASE A

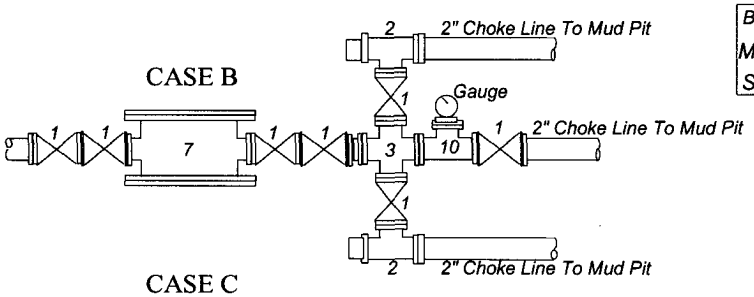


BOP SIZE	BOP CASE	WORKING PRESSURE	CHOKE CASE
13-5/8"	IV	5000 psi	A

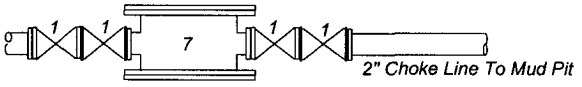
**Rotating head required*

Bradenhead :
Mfr: _____
Size: _____ *Type:* _____

CASE B



CASE C



Legend

1. *2" flanged all steel valve must be either Cameron "F", Halliburton Low Torque or Shaffer Flo-Seal.*
2. *2" flanged adjustable chokes, min. 1" full opening & equiped with hard trim.*
3. *4" x 2" flanged steel cross.*
4. *4" flanged steel tee.*
5. *4" flanged all steel valve (Type as in no. 1).*
6. *Drilling Spool with 2" x 4" flanged outlet.*
7. *Drilling Spool with 2" x 2" flanged outlet.*
8. *2" x 2" flanged steel cross.*
9. *4" pressure operated gate valve.*
10. *2" flanged steel tee.*

Notes

Choke manifold may be located in any convenient position. Use all steel fittings throughout. Make 90° turns with bull plugged tees only. No field welding will be permitted on any of the components of the choke manifold and related equipment upstream of the chokes. The choke spool and all lines and fittings must be at least equivalent to the test pressure of the preventers required. Independent closing control unit with clearly marked controls to be located on derrick floor near driller's position.

(10-31-96) WTXBOPS.PPT

HALLIBURTON
Baroid

Nadel & Gussman Permian
Cronos Fee #1
Sec. 20, T23S-R28E
Eddy Co., New Mexico

RECOMMENDED MUD PROPERTIES

MD(RKB) (ft)	Mud Wt. (ppg)	Funnel Vis.	PV	YP	Fluid Loss	HTHP @ 250	pH	% Solids	Cl⁻
0-400'	8.4-9.0	26-36	1-3	1-3	N/C	N/A	9.5-10.0	<5	<10K
400'-6,100'	9.7-10.2	28-32	1-3	2-5	N/C	N/A	9.5-10.0	<3	>150,000
6,100'-10,400'	8.4-9.0	26-30	1-3	2-5	N/C	N/A	9.5-10.0	<2	>50K
10,400'-12,700'	10.0-12.0	35-45	6-9	9-18	<6	N/A	9.5-10.0	<5	>150K

0 - 400' MD

- A fresh water spud mud is recommended to drill this section of the hole.
- Circulate through the steel pits.
- Use **AQUAGEL®** for the initial viscosity.
- Lime will be used for alkalinity and flocculation.
- **EZ-MUD®** additions may be made at the drill pipe or run in sweeps to aid with hole cleaning.
- **HY-SEAL®** can be used also for sweeps and seepage control.
- If total losses are experienced, a more aggressive mixture of **HY-SEAL®, PLUG-GIT®,** or **BARO-SEAL®** can be used.
- Pump a hi-vis sweep (80-100 sec/qt) at TD to clean the hole.

400' – 6,100' MD

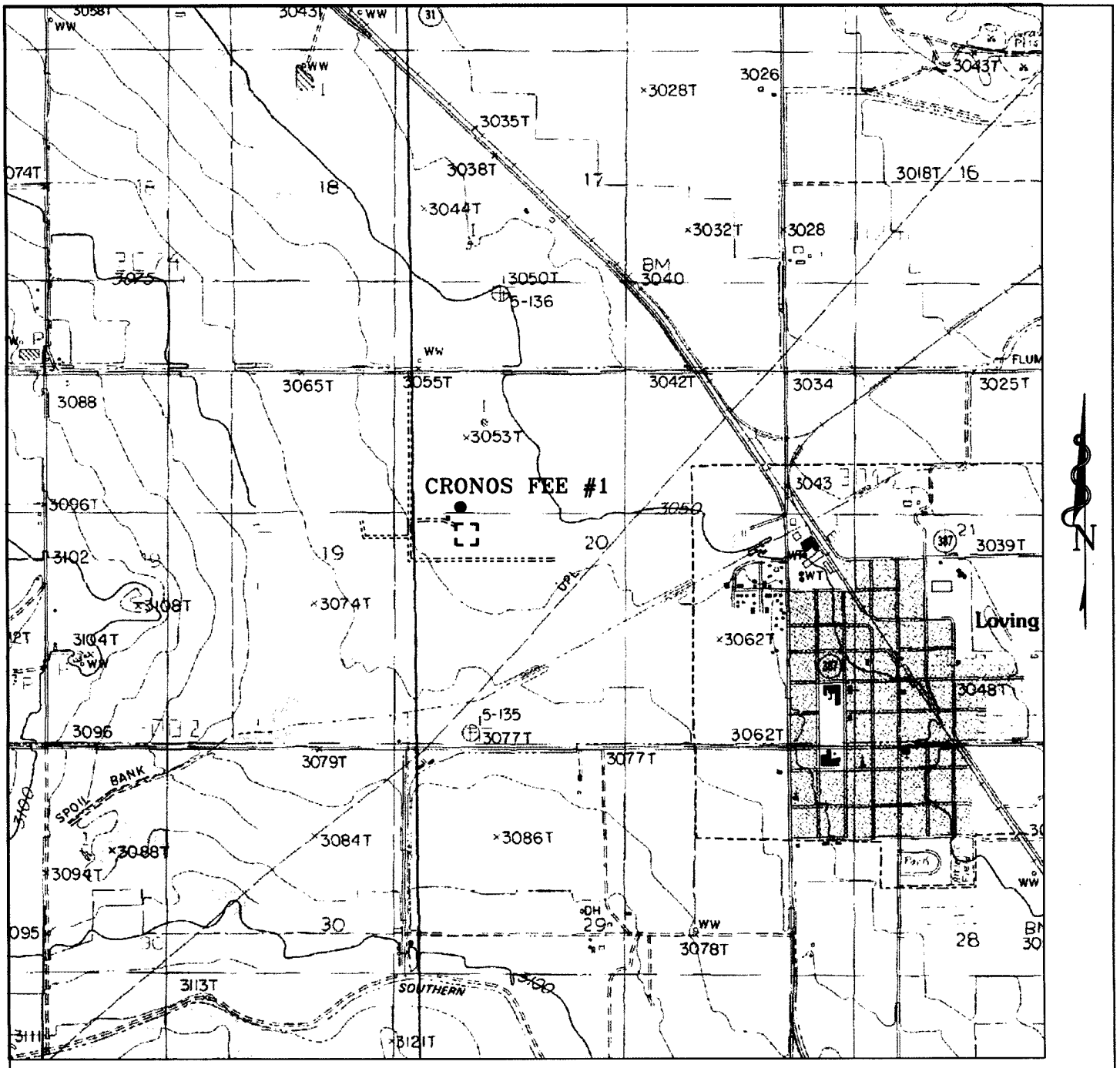
- Drill out with fresh water and displace to brine after drilling cement.
- Additions of lime and caustic soda can be used throughout this interval for ph control.
- Control seepage losses with **HY-SEAL®, PLUG-GIT®,** or **BARO-SEAL®**.
- Sweep the hole with **EZ-MUD®** for hole cleaning.
- Use **ZEOGEL®** as needed for viscosity or in sweeps.

6,100' – 10,400'

- Drill out with fresh water working through the reserve pit and drill to 10,400'
- Lime and caustic soda will be used for ph control.
- Control seepage losses with **HY-SEAL®, PLUG-GIT®,** or **BARO-SEAL®**.
- Sweep the hole with **EZ-MUD®** for hole cleaning.

10,400' – 12,900'

- Prior to drilling the **Canyon** (±10,400'), displace to 10.0 ppg. brine water.
- Mud-up at ±10,500'. Increase the mud weight to 12.0 ppg. prior to drilling the **Atoka** (±11,100').
- Additions of **POLYOL HM** will aid to inhibit and stabilize the water sensitive shales.
- Reduce the total hardness concentration of the mud with soda ash.
- Maintain viscosity/rheology with **BARAZAN® D PLUS.**
- Reduce the fluid loss as recommended with **DEXTRID®** prior to drilling the **Morrow** (±12,200').
- Maintain pH with caustic soda.
- Add **HY-SEAL®, PLUG-GIT®,** or **BARO-SEAL®** for seepage or lost returns.
- Pump **EZ-MUD®** and **HY-SEAL®** sweeps to aid with hole cleaning.
- Pump a hi-vis sweep (80-100 sec/qt) at TD to clean the hole.



CRONOS FEE #1
Located at 1950' FNL & 660' FWL
Section 20, Township 23 South, Range 28 East,
N.M.P.M., Eddy County, New Mexico.

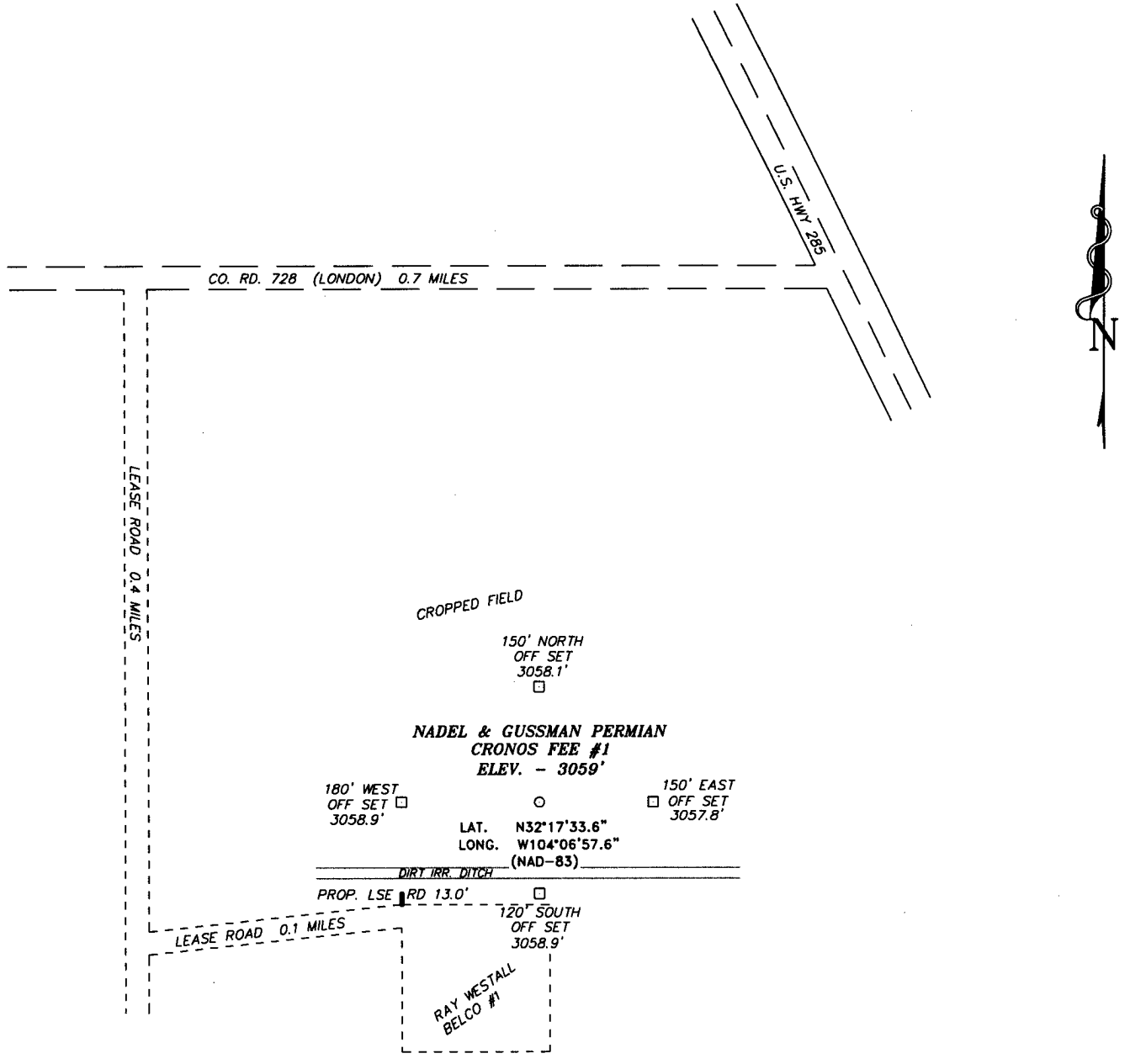
basin surveys
focused on excellence in the oilfield
P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(505) 393-7316 - Office
(505) 392-3074 - Fax
basinsurveys.com

W.O. Number:	18044T
Survey Date:	04-23-2007
Scale:	1" = 2000'
Date:	04-24-2007

NADEL AND GUSSMAN PERMIAN

SECTION 20, TOWNSHIP 23 SOUTH, RANGE 28 EAST, N.M.P.M.,

EDDY COUNTY, **NEW MEXICO.**



Directions to Location:

FROM THE JUNCTION OF U.S. HWY 285 AND CO. RD. 728 (LONDON), GO WEST ON CO. RD. 728 FOR 0.7 MILES TO LEASE ROAD, GO SOUTH ON LEASE ROAD FOR 0.4 MILES, THENCE EAST 0.1 MILES TO PROPOSED LEASE ROAD.

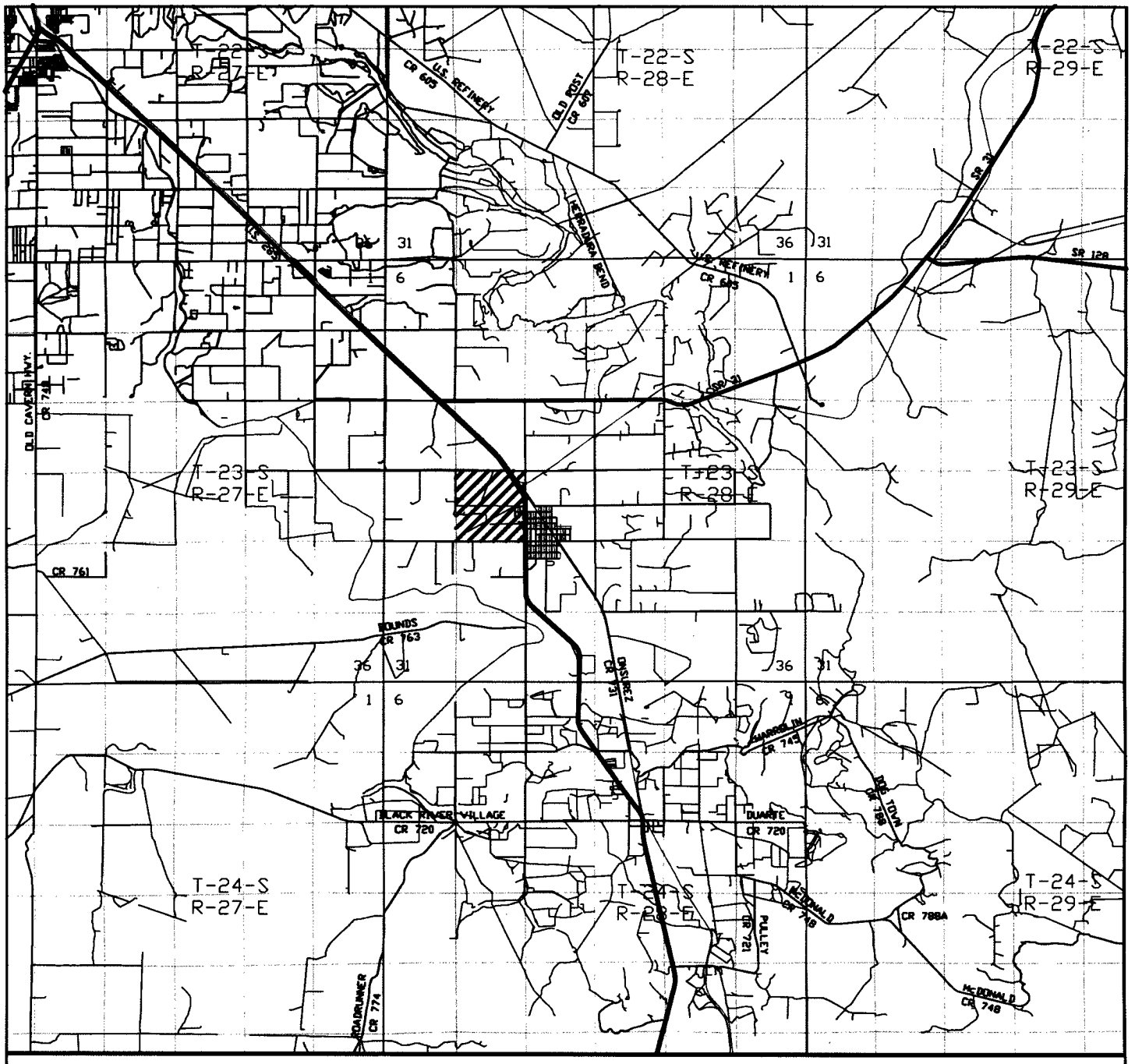
NADEL AND GUSSMAN PERMIAN

REF: CRONOS FEE #1 / Well Pad Topo

CRONOS FEE #1 LOCATED 1950' FROM THE NORTH LINE AND 660' FROM THE WEST LINE OF SECTION 20, TOWNSHIP 23 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.

BASIN SURVEYS P.O. BOX 1786 – HOBBS, NEW MEXICO

W.O. Number: 18044	Drawn By: J. M. SMALL		
Date: 04-24-2007	Disk: JMS 18044W	Survey Date: 04-23-2007	Sheet 1 of 1 Sheets



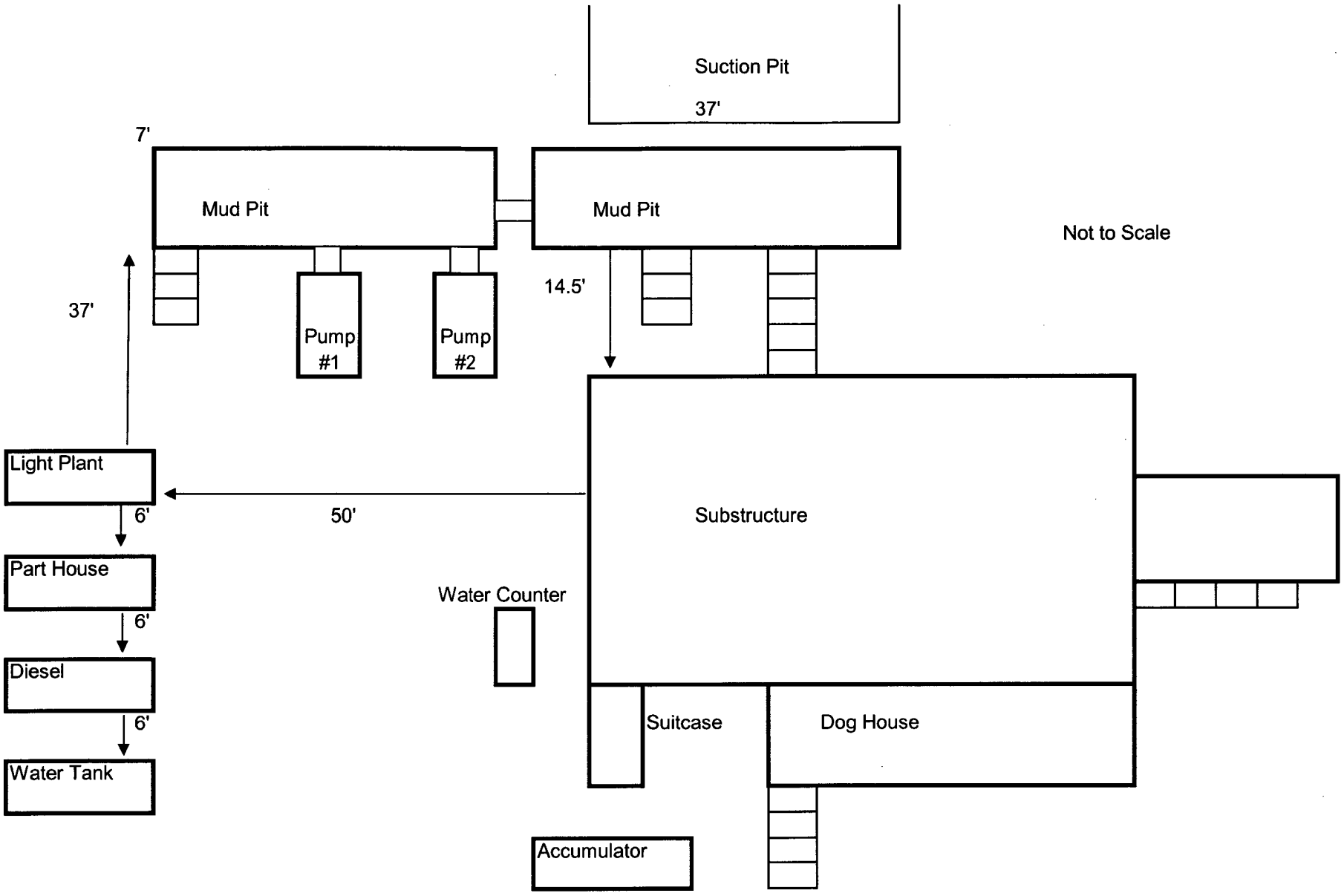
CRONOS FEE #1
Located at 1950' FNL & 660' FWL
Section 20, Township 23 South, Range 28 East,
N.M.P.M., Eddy County, New Mexico.

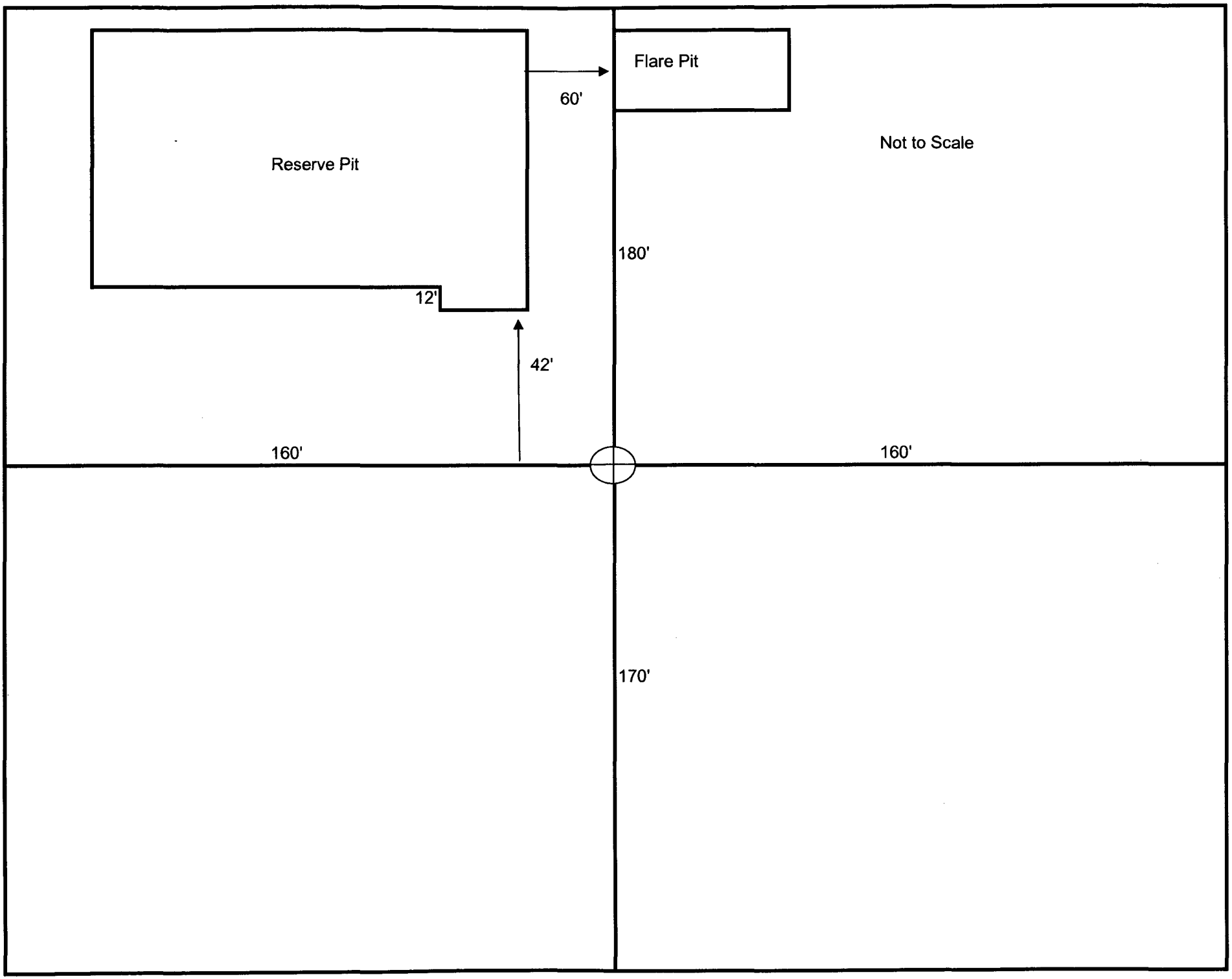
basin surveys
focused on excellence in the oilfield

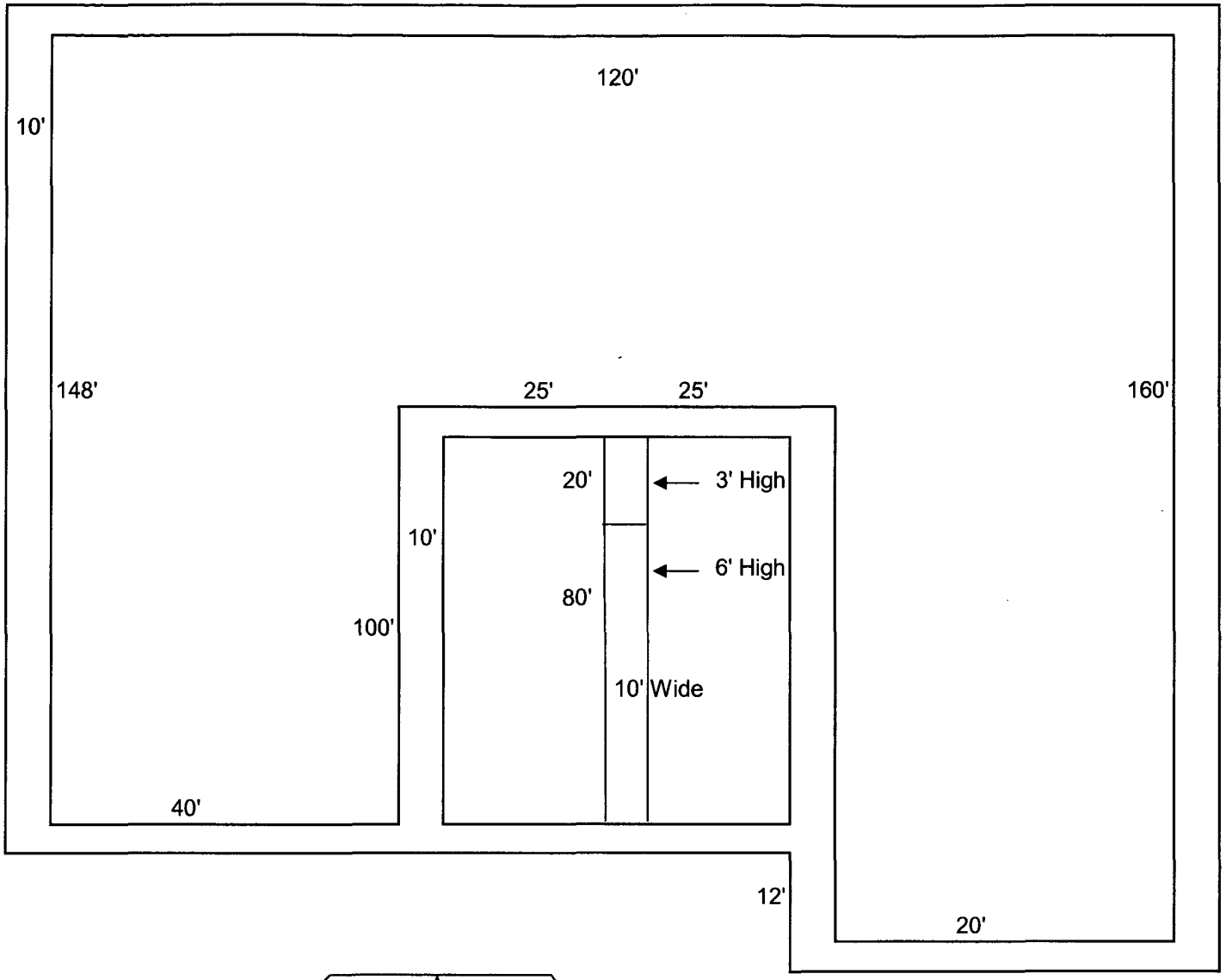
P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(505) 393-7316 - Office
(505) 392-3074 - Fax
basinsurveys.com

W.O. Number:	JMS 18044T
Survey Date:	04-23-2007
Scale:	1" = 2 MILES
Date:	04-24-2007

NADEL AND
GUSSMAN
PERMIAN


Suction Pit
37'
7'
Mud Pit
Mud Pit
Not to Scale
37'
Pump #1
Pump #2
14.5'
Light Plant
6'
50'
Substructure
Part House
6'
Water Counter
Diesel
6'
Suitcase
Dog House
Water Tank
Accumulator


Flare Pit
60'
Reserve Pit
Not to Scale
180'
12'
42'
160'
160'
170'



Not to Scale