

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

Form C-101
March 4, 2004

Submit to appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies

☐ AMENDED REPORT

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

¹ Operator Name and Address NADEL AND GUSSMAN PERMIAN, L.L.C. 601 N. MARIENFELD, SUITE 508 MIDLAND, TEXAS 79701		² OGRID Number 155619
³ Property Code 34080	⁴ Property Name TOMAHAWK STATE	⁵ Well No. 1

⁷ Surface Location									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	19	13-S	32-E		660'	SOUTH	660'	EAST	LEA

⁸ Proposed Bottom Hole Location If Different From Surface									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
⁹ Proposed Pool 1 WILLIAMS PENN ¹⁰ Proposed Pool 2 WILDCAT; MORROW (GAS)									

Drilling Pit Location and Other Information									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	19	13-S	32-E		660'	SOUTH	660'	EAST	LEA
Depth to ground water 100' OR MORE				Distance from nearest fresh water well MORE THAN 1000 FEET			Distance from nearest surface water MORE THAN 1000' FEET		
¹¹ Work Type Code N		¹² Well Type Code G		¹³ Cable/Rotary ROTARY		¹⁴ Lease Type Code P		¹⁵ Ground Level Elevation 4371'	
¹⁶ Multiple NO		¹⁷ Proposed Depth 11,600'		¹⁸ Formation MORROW		¹⁹ Contractor PATTERSON		²⁰ Spud Date +/- 07/08/04	

²¹ Proposed Casing and Cement Program					
Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17-1/2"	13-3/8"	48#	400'	450 SX	CIRC. TO SURFACE
12-1/4"	9-5/8"	40#	4000'	1200 SX	CIRC. TO SURFACE
8-3/4"	5-1/2"	17#	11,600'	1000 SX	TOC +/- 7,000'

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.
DRILL AND COMPLETE WELL IN THE MORROW WITH A PROJECTED TD OF 11,600'.
NO H2S IS EXPECTED, BUT AN H2S CONTINGENCY LETTER 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:

Josh Fernau

Printed name: JOSH FERNAU

Title: STAFF ENGINEER

E-mail Address: joshf@naguss.com

Date: 06/18/04

Phone: (432) 682-4429

Approved by:

Paul J. Routh

Title:

PETROLEUM ENGINEER

Approval Date:

JUN 30 2004

Expiration Date:

Conditions of Approval:

Attached ☐

Permit Expires 1 Year From Approval
Date Unless Drilling Underway

DISTRICT II
811 South First, Artesia, NM 86210

Energy, Minerals and Natural Resources Department

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

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

OIL CONSERVATION DIVISION

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

2040 South Pacheco
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-36746	Pool Code	Pool Name
Property Code 34D80	Property Name TOMAHAWK STATE	Well Number 1
OGRID No. 155615	Operator Name NADEL AND GUSSMAN PERMIAN	Elevation 4371'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	19	13 S	32 E		660'	SOUTH	660'	EAST	LEA

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 320	Joint or Infill	Consolidation Code		Order No.					

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

					<p align="center">OPERATOR CERTIFICATION</p> <p>I hereby certify the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><u>[Signature]</u> Signature</p> <p><u>Josh Fernau</u> Printed Name</p> <p><u>Staff Engineer</u> Title</p> <p><u>06/18/04</u> Date</p> <hr/> <p align="center">SURVEYOR CERTIFICATION</p> <p>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.</p> <p align="right">JUNE 08, 2004</p> <p>Date Surveyed _____</p> <p><u>[Signature]</u> Signature & Seal of Professional Surveyor</p> <div style="text-align: center;"> </div> <p>W.O. No. 4334</p> <p>Certificate No. <u>Gary L. Jones 7977</u></p> <p>JLP BASIN SURVEYS</p>
				<p>Lat.: N33°10'18.3" Long.: W103°45'03.3"</p>	

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

06/18/04

Ms. Donna Mull
District 1 Staff Specialist
New Mexico Oil and Gas Division
1625 N. French Dr.
Hobbs, NM 88240

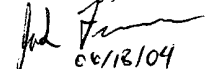
Re: Tomahawk State #1
660' FSL, 660' FEL
Unit Letter P, Sec. 19-T13S-R32E
Lea, NM
Rule 118 H2S Exposure

Dear Ms. Mull,

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,

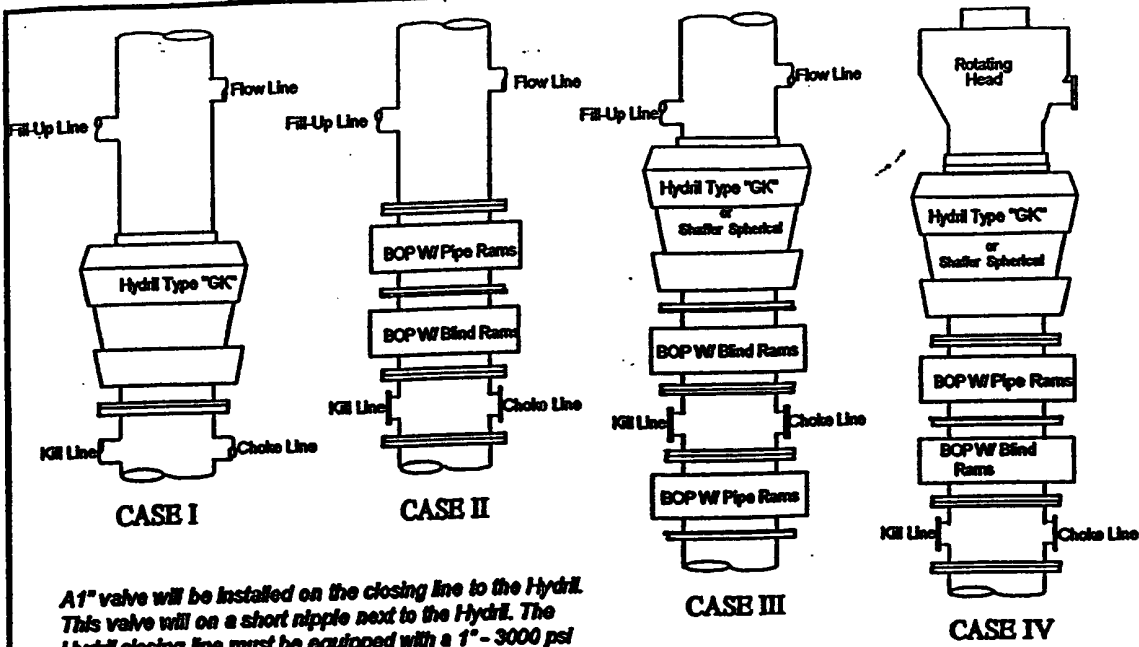


06/18/04

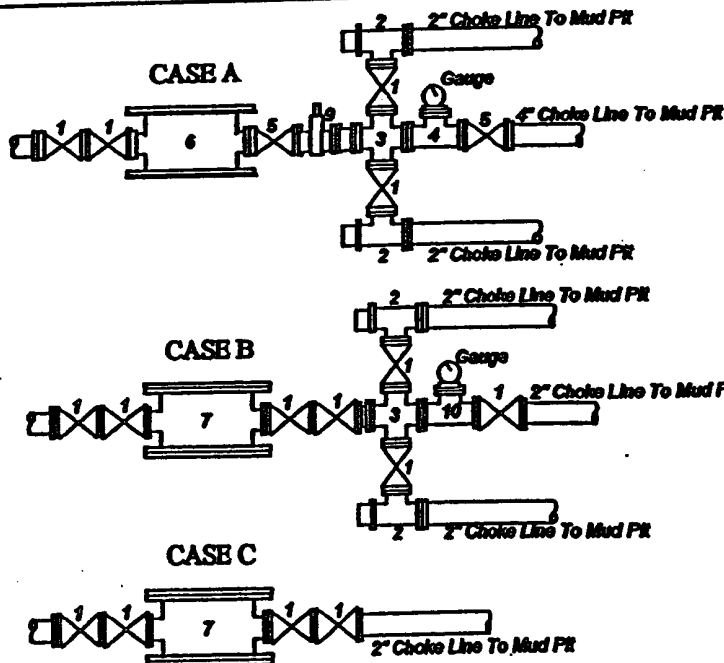
Josh Fernau
Staff Engineer

NADEL AND GUSSMAN PERMIAN
TOMAHAWK STATE #1

MINIMUM BLOWOUT PREVENTER REQUIREMENTS



A 1" valve will be installed on the closing line to the Hydril. This valve will be 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.



BOP SIZE	BOP CASE	WORKING PRESSURE	CHOKE CASE
13 5/8"	III	5,000#	A
11"	IV	10,000#	A

*Rotating head required

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

Legend

1. 2" flanged all steel valve must be either Cameron T", Halliburton Low Torque or Shaffer Flo-Seal.
2. 2" flanged adjustable chokes, mfr. 1" full opening & equipped 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.

(10-31-85) WTXBOPS.PPT



BULLDOG MUD

John Fernald
06/14/04

Jerry Bluff
Post Office Box 263 Artesia, New Mexico 88211
505-365-0080 (voice) 505-748-7588 (fax)

June 14, 2004

Nadel & Gusman Permain, LLC
Attn: Mr Josh Fernau

RE: Tomahawk State #1
Section 19, T-13-S, R- 32-E
Lea County, New Mexico

Casing Program

0 -- 400 ft	17 1/2" hole	13 3/8" casing
400 -- 3900 ft	12 1/4" hole	9 5/8" casing
3900 -- 11,600 ft	8 3/4" hole	5 1/2" casing

Estimated Formation Tops

Rustler	1460'	Atoka Clastics	10,730'
Yates	2310'	Atoka Red	11,075'
Queen	3080'	Upper Morrow	11,115'
San Andres Dolomite	3690'	Mid Morrow Clastics	11,255'
Abo	7370'	Mid Morrow #1	11,315'
B/Abo	7750'	Mid Morrow #2	11,347'
Wolfcamp	8650'	Basal Morrow	11,365'
Cisco	9570'	Chester (Miss)	11,377'
Strawn	10,240'	TD	11,600'



BULLDOG MUD

Nedel & Gussman Permalin, LLC
Tomahawk State #1
Suggested Mud Program
June 14, 2004
page 2

Suggested Mud Program

Surface Interval 0 -- 400'

Spud mud of Fresh Water Gel:Lime (10:1)
Viscosity @ 34--36 sec/1000

Intermediate Interval 400 --3900'

Drill with Native Water circulating in steel pits
Add Caustic Soda for pH @ 10
At 1200' add 80 bbl oil for Red Bed control
Have viscosity @ 34 sec/1000
Add 1 sx Paper every 50 ft

Production Interval 3900' -- TD

3900 -- 7300' Interval
Circulate through outside reserve pit
Drill with cut Brine--weight @ 8.6--9.2 #/gal

7300 -- 10,730' Interval

Return circulation to steel pits for light mud up to drill Abo
Add Starch for filtrate @ 25 -- 30 cc, oil for 5%, Salt Gel for viscosity @ 36+
Mud weight will be controlled @ 10#/gal or less

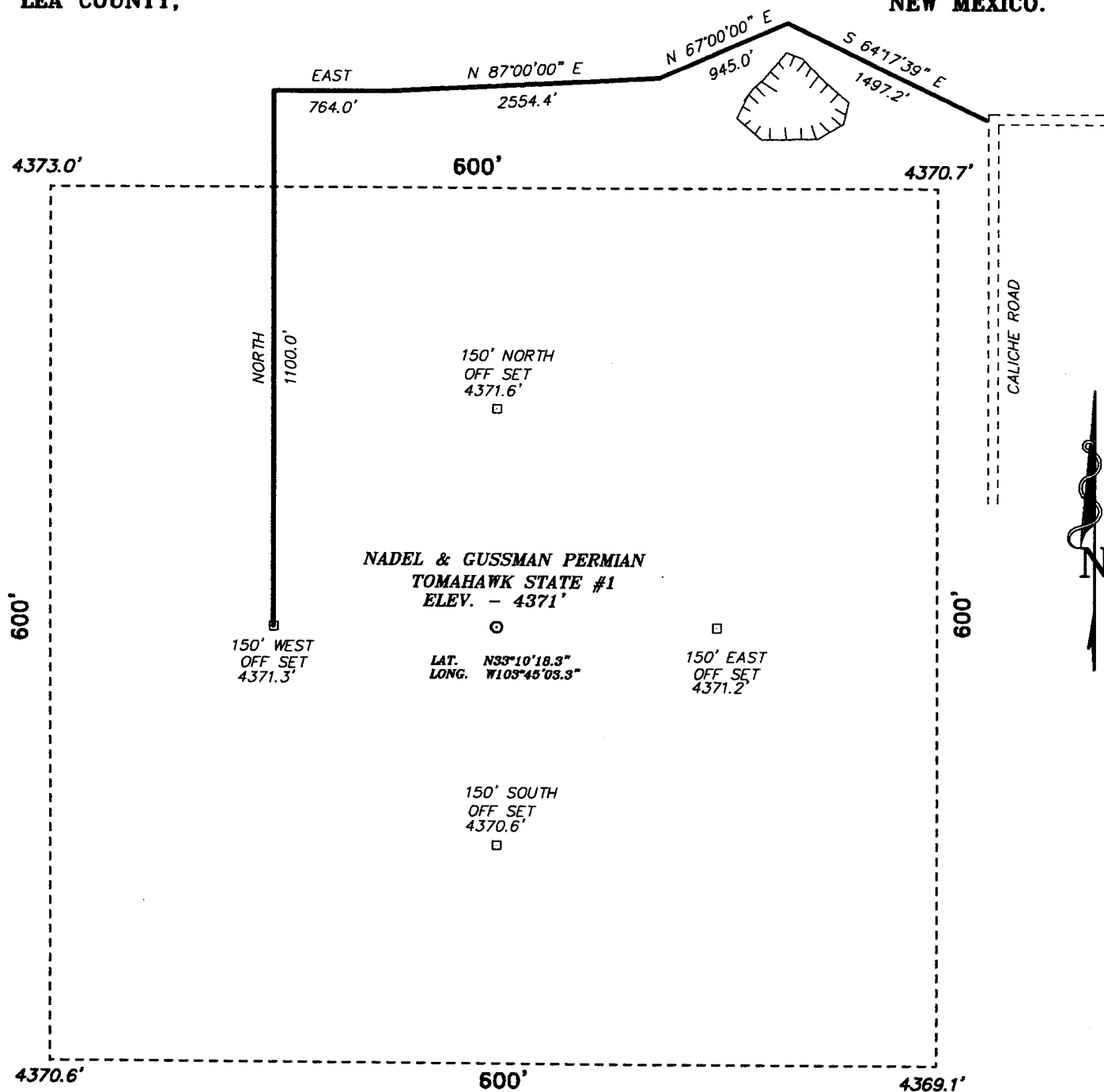
*Note: Reason for mud up in steel pits rather than reserve is that we have found that the majority of rigs in this area have not had transfer pumps capable of moving the mud from the reserve pit to the working pits. The mud becomes aired-up thus creating major problems with mud maintenance. Working through the steel pits does require more attention to solids control, but use of a centrifuge will make this much easier for the rig hands as well as aid penetration rate.

10,730' -- TD Interval

At 10,730' suggest adding 6% KCL and reducing filtrate to <10cc for remaining hole to be drilled
At TD maintain viscosity @ 34--38 sec/1000, control mud weight @ 10#/gal or less
At TD have viscosity @ 42 sec/1000+ and filtrate @ <10cc
Circulate 3 hours+ then POH to log

*Note: For any DST's, suggest having mud in same condition as for logs

**SECTION 19, TOWNSHIP 13 SOUTH, RANGE 32 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO.**



FROM THE INTERSECTION OF STATE HWY 249 AND
STATE HWY 172 IN CHAVES COUNTY, GO NORTH
ON 172 9.7 MILES TO A ROAD EAST, THEN EAST
1.2 MILES TO A ROAD NORTH, THEN NORTH 0.6
MILES TO A LEASE ROAD, THEN EAST 1.5 MILES
TO A LEASE ROAD NORTH THEN NORTH 1.5 MILES
TO A 90° BEND EAST AND THE BEGINNING OF
THE PROPOSED ROAD TO LOCATION.

NADEL AND GUSSMAN PERMIAN

REF: TOMAHAWK STATE No. 1 / Well Pad Topo

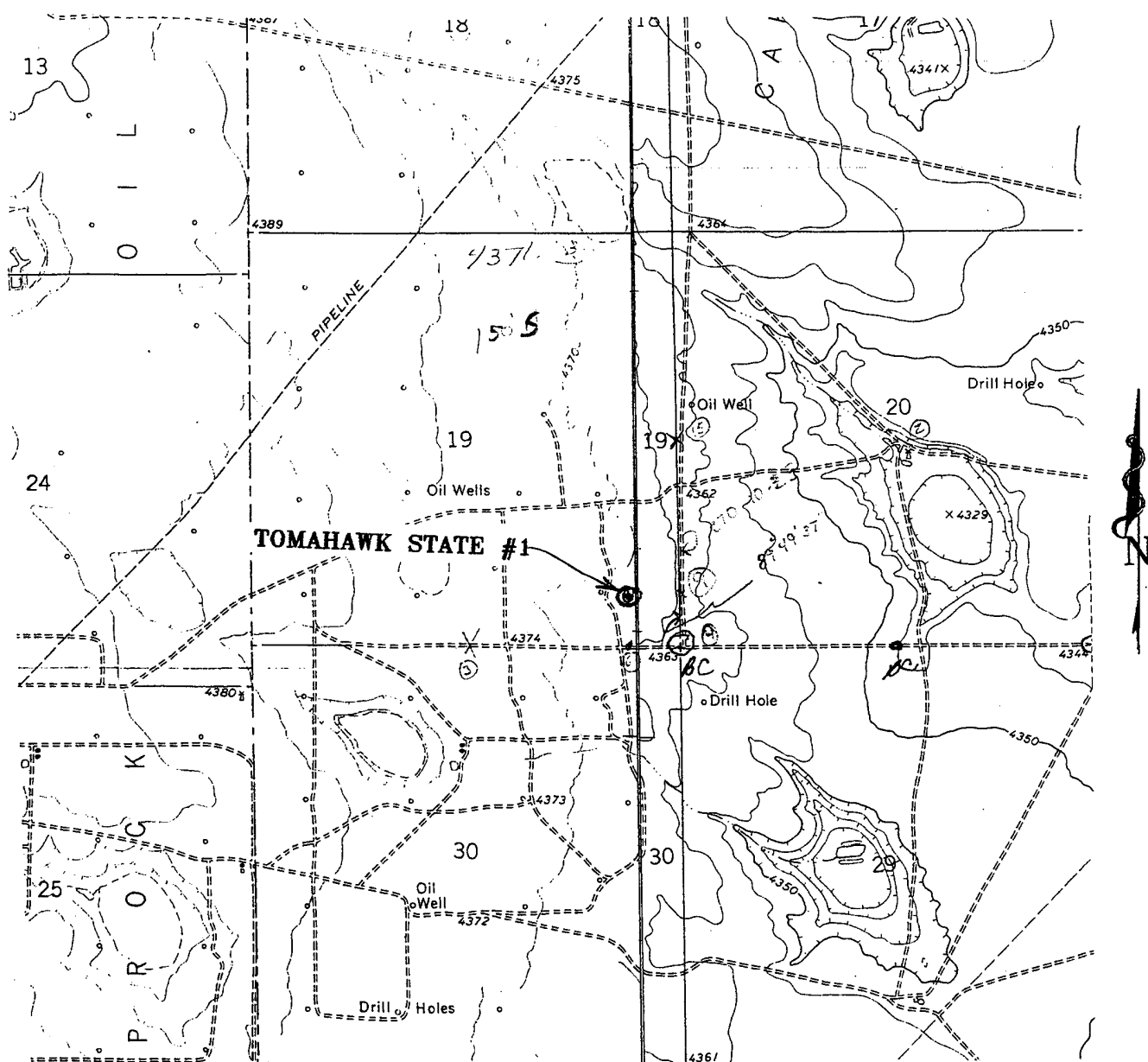
TOMAHAWK STATE No. 1 LOCATED 660' FROM THE
SOUTH LINE AND 660' FROM THE EAST LINE OF
SECTION 19, TOWNSHIP 13 SOUTH, RANGE 32 EAST,
N.M.P.M., LEA COUNTY, NEW MEXICO.

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

W.O. Number: 4334 Drawn By: JAMES PRESLEY

Date: 06/11/04 Disk: JLP #1 - 4334A

Survey Date: 06/08/04 Sheet 1 of 1 Sheets



TOMAHAWK STATE #1
 Located at 660' FSL and 660' FEL
 Section 19, Township 13 South, Range 32 East,
 N.M.P.M., Lea County, New Mexico.



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

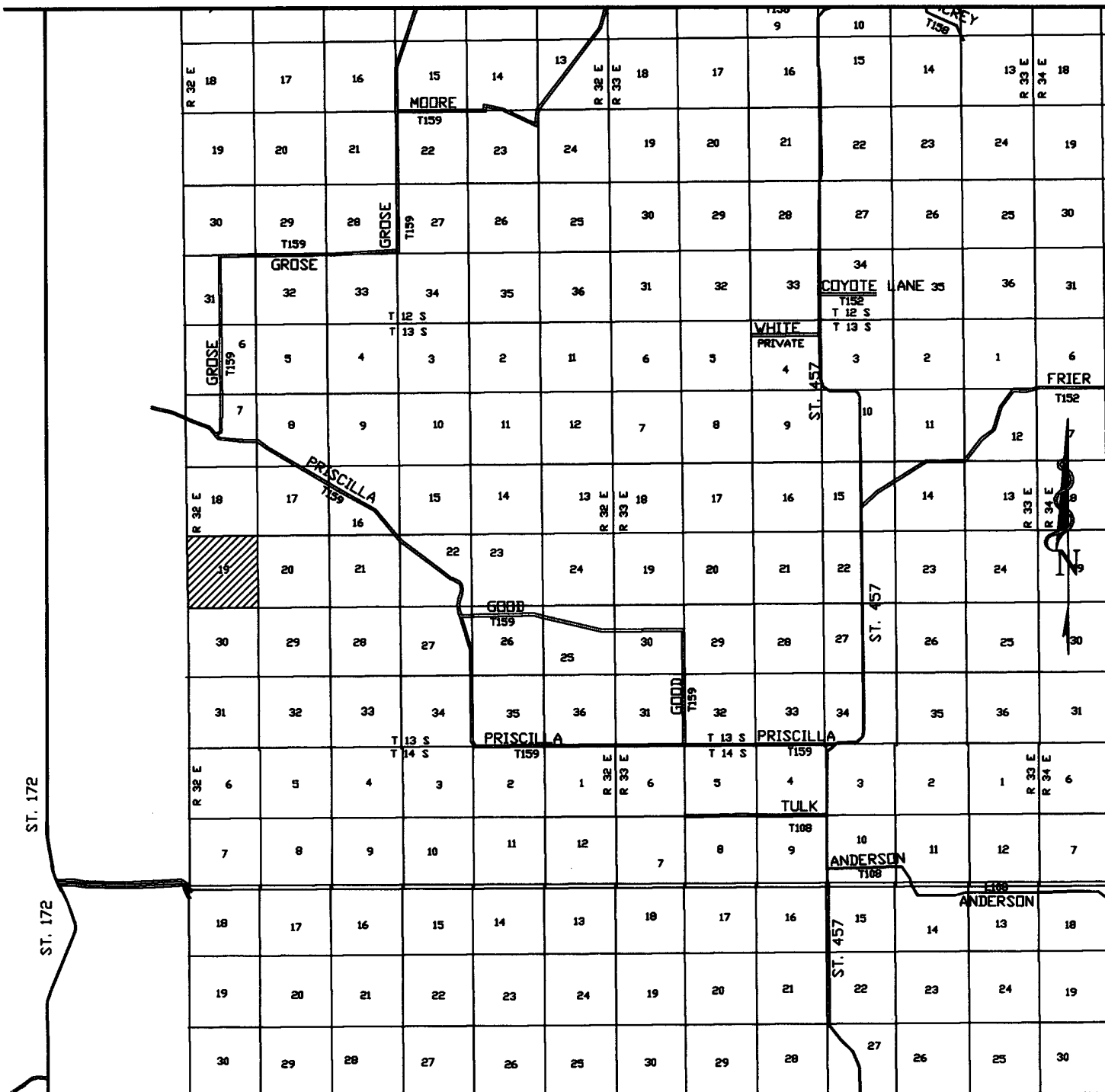
W.O. Number: 4334AA - JLP #1

Survey Date: 06/08/04

Scale: 1" = 2000'

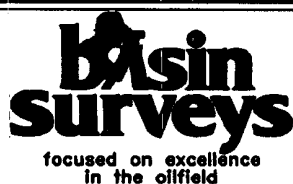
Date: 06/11/04

**NADEL AND
 GUSSMAN PERMIAN,
 L.L.C.**



TOMAHAWK STATE #1

Located at 660' FSL and 660' FEL
 Section 19, Township 13 South, Range 32 East,
 N.M.P.M., Lea County, New Mexico.



P.O. Box 1786
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W.O. Number: 4334AA - JLP #1

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**NADEL AND
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 L.L.C.**

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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
March 12, 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 Telephone: (432) 682-4429 e-mail address: _____
Address: 601 N. Marienfeld, Suite 508 Midland, TX 79701
Facility or well name: Tomahawk State #1 API #: 30-025- 36746 U/L or Qtr/Qtr: P Sec: 19 T: 13 R: 32
County: Eddy Latitude: N33° 10' 18.3" Longitude: W103° 45' 03.3" NAD: 1927 ☐ 1983 ☐ Surface Owner Federal ☐ State ☒ Private ☐ Indian ☐

Pit	Below-grade tank	
Type: Drilling <input checked="" type="checkbox"/> Production <input type="checkbox"/> Disposal <input type="checkbox"/> Workover <input type="checkbox"/> Emergency <input type="checkbox"/> Lined <input checked="" type="checkbox"/> Unlined <input type="checkbox"/> Liner type: Synthetic <input checked="" type="checkbox"/> Thickness 12 mil Clay <input type="checkbox"/> Volume 20,000 bbl	Volume: _____ bbl Type of fluid: _____ Construction material: _____ Double-walled, with leak detection? Yes <input type="checkbox"/> 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	(20 points)
	50 feet or more, but less than 100 feet	(10 points) 0
	100 feet or more	(0 points)
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes	(20 points)
	No	(0 points) 0
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet	(20 points)
	200 feet or more, but less than 1000 feet	(10 points) 0
	1000 feet or more	(0 points)
	Ranking Score (Total Points)	0

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: 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.

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: 06/18/04

Printed Name/Title Josh Fernau, Staff Engineer

Signature

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.

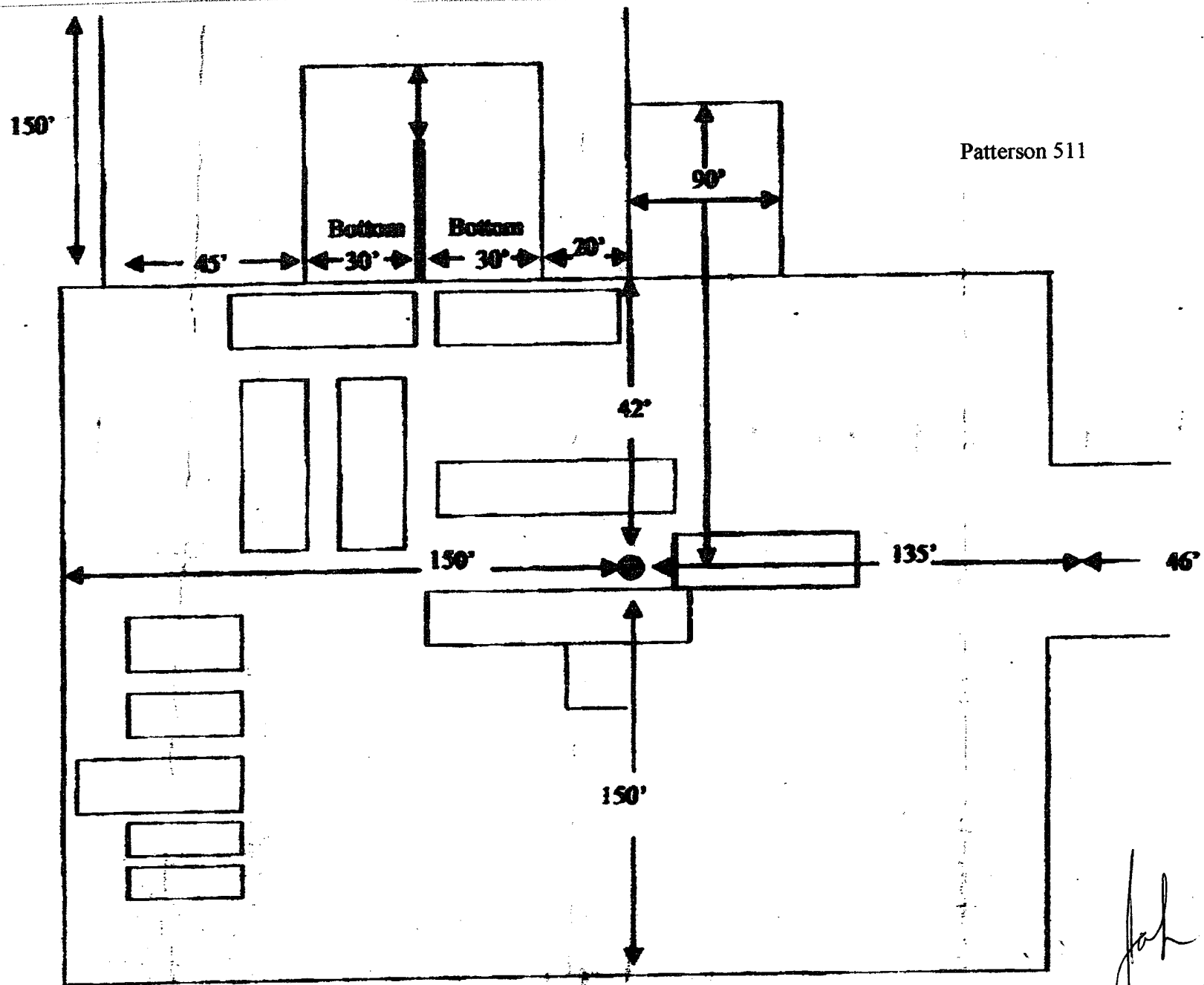
Approval:

Date:

PETROLEUM ENGINEER

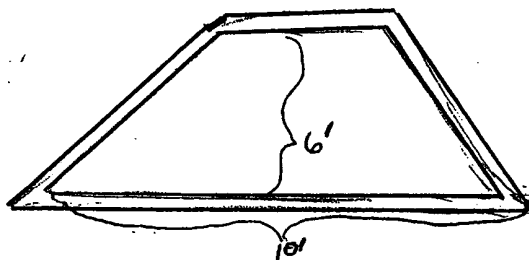
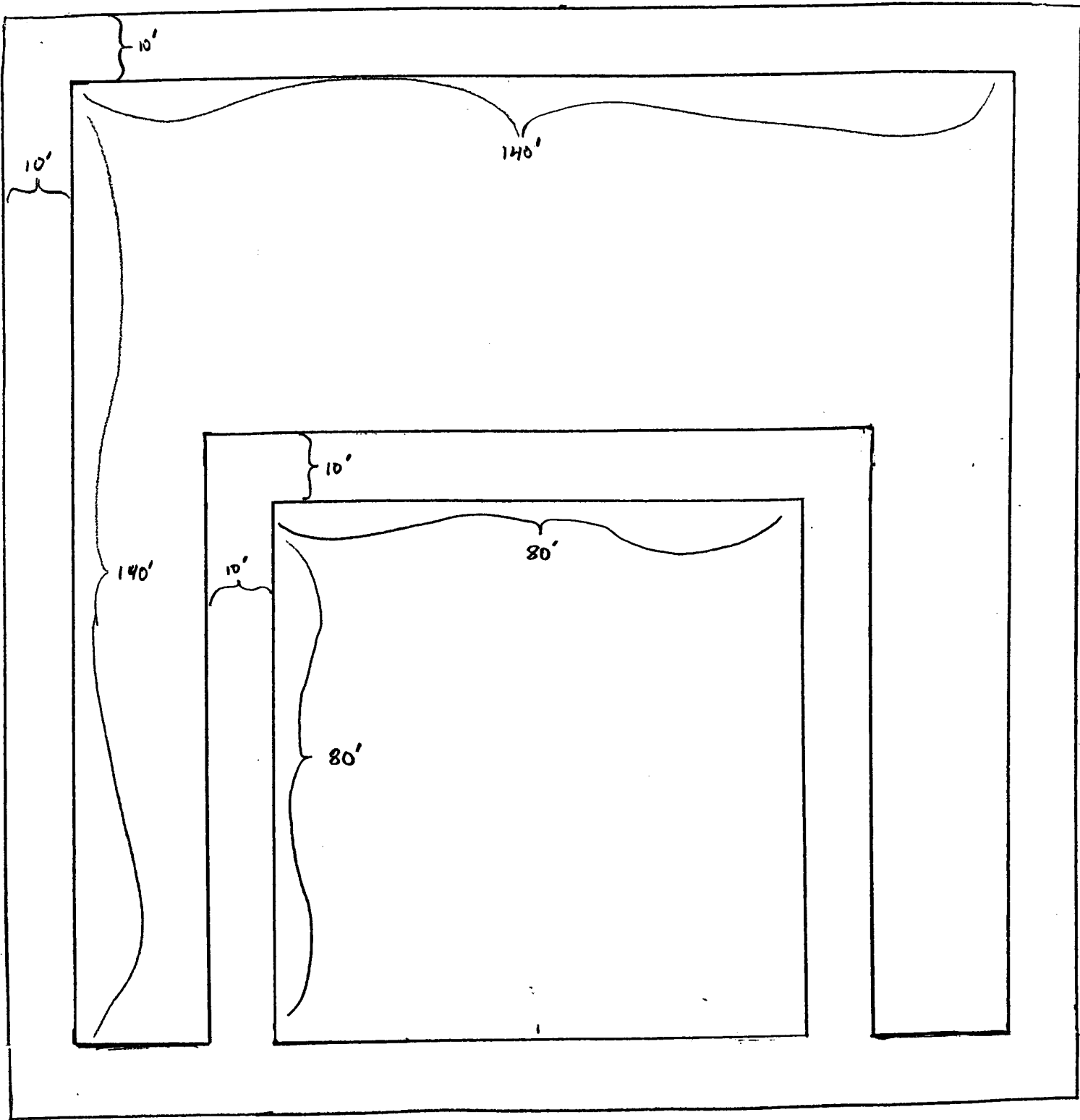
Printed Name/Title

Signature



Patterson 511

John Fenn
06/18/04



John Farnsworth
06/18/04