

Hydrogen Sulfide Drilling Operations Plan

1. Company and Contract personnel admitted on location should be trained by a qualified H₂S safety instructor to the following:
 - A. Characteristics of H₂S.
 - B. Physical Effects and Hazards.
 - C. Proper Use of Safety Equipment and Life Support Systems.
 - D. Principle and Operation of H₂S Detectors, Warning System and Briefing.
 - E. Evacuation Procedure, Routes and First Aid.
 - F. Proper Use of 30 minute Pressure Demand Air Pack.
2. H₂S Detection and Alarm Systems
 - A. H₂S 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 H₂S 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 H₂S has on tubular goods and other mechanical equipment.
9. If H₂S Encountered, Mud system will be Altered if Necessary to Maintain Control of Formation. A Mud Gas Separator will be Brought into Service Along with H₂S Scavengers if Necessary.

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

June 28, 2010

Ms. Jacqueta Reeves
District 2 Staff Specialist
New Mexico Oil Conservation Division
1301 W. Grand Avenue
Artesia, NM 88210

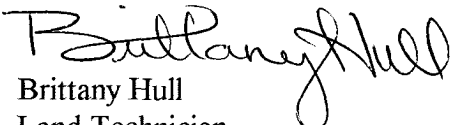
Re: H2S Contingency Letter
Grande State #4-H
660' FSL & 330' FEL
Unit Letter P, Sec. 32-T23S-R29E
Eddy Co., NM

Dear Ms. Reeves,

Nadel and Gussman Permian, L.L.C. has 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 intermediate and will continue monitoring the remainder of the well.

Please contact me if you have any additional questions.

Sincerely,


Brittany Hull
Land Technician

SECTION 32, TOWNSHIP 23 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.

PROPOSED GRANDE #3H

PROPOSED LEASE ROAD 1023.1'

N

150' NORTH
OFF SET
2972.5'

NADEL & GUSSMAN PERMIAN
GRANDE STATE #4H

ELEV. - 2973'

150' WEST
OFF SET ☐
2974.7'

150' EAST
☐ OFF SET
2973.8'

Lat - N 32°15'21.06"
Long - W 103°59'57.13"
NMSPCE- N 456972.257
E 644625.660
(NAD-83)

☐
150' SOUTH
OFF SET
2976.4'

200 0 200 400 FEET

SCALE: 1" = 200'

Directions to Location:

FROM THE JUNCTION OF HARROLIN AND DOG TOWN,
GO NORTH 200' TO LEASE ROAD, ON LEASE ROAD
GO NORTHEASTERLY 1.0 MILES TO LEASE ROAD, ON
LEASE ROAD GO EAST 0.4 MILES THENCE NORTH 0.1
MILES TO LEASE ROAD, ON LEASE ROAD GO
EASTERLY 0.9 MILES TO GRANDE #1 LOCATION AND
PROPOSED LEASE ROAD

NADEL & GUSSMAN PERMIAN

REF: GRANDE STATE #4H / WELL PAD TOPO

THE GRANDE STATE #4H LOCATED 660'

FROM THE SOUTH LINE AND 330' FROM THE EAST LINE OF

SECTION 32, TOWNSHIP 23 SOUTH, RANGE 29 EAST,

N.M.P.M., EDDY COUNTY, NEW MEXICO.

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

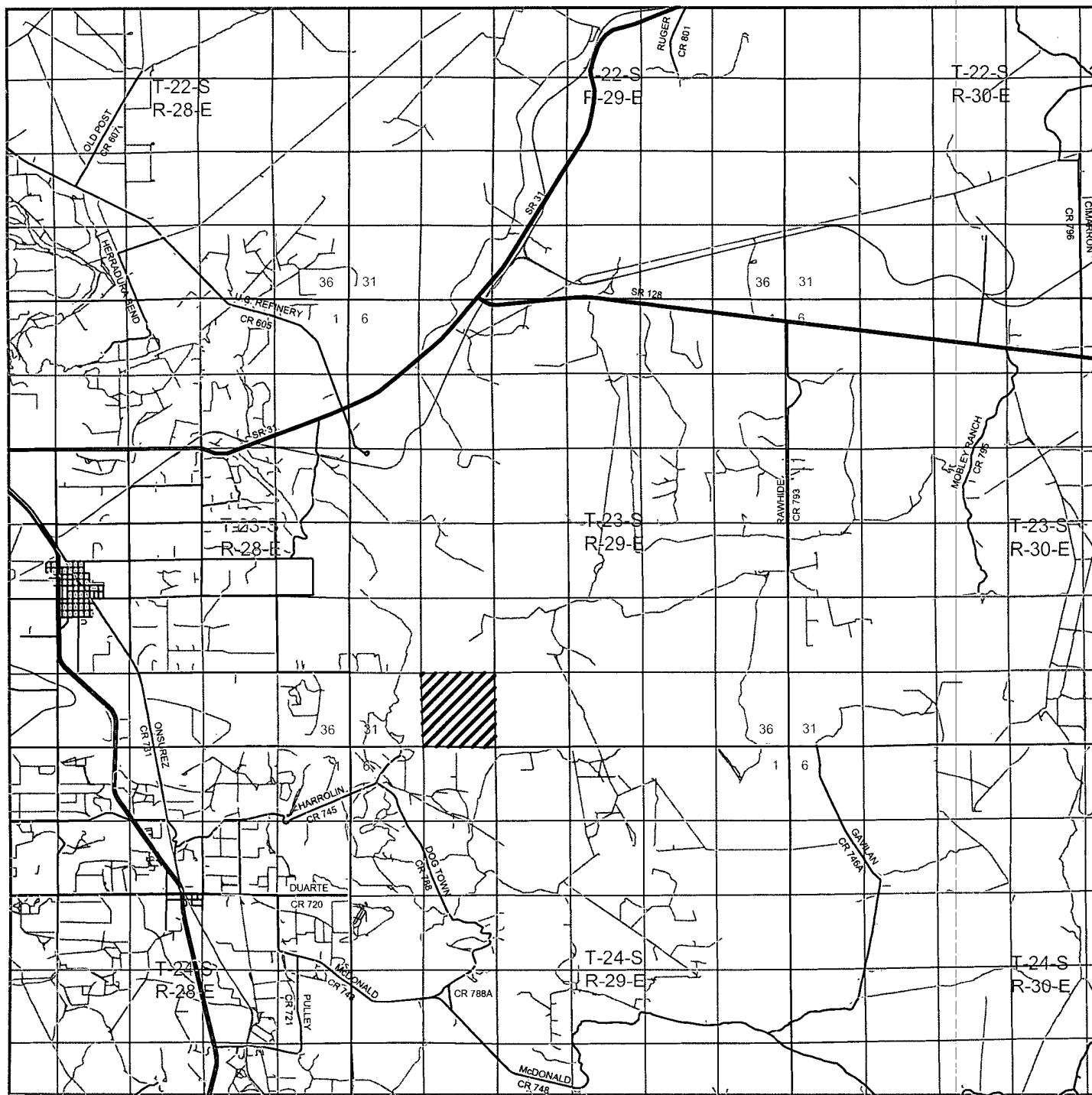
W.O. Number: 22845

Drawn By: J. SMALL

Date: 05-25-2010 Disk: JMS 22845

Survey Date: 05-24-2010

Sheet 1 of 1 Sheets



GRANDE STATE #4H

Located 660' FSL and 330' FEL
Section 32, Township 23 South, Range 29 East,
N.M.P.M., Eddy County, New Mexico.

basin
surveys
focused on excellence
in the oilfield

P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

W.O. Number: JMS 22845

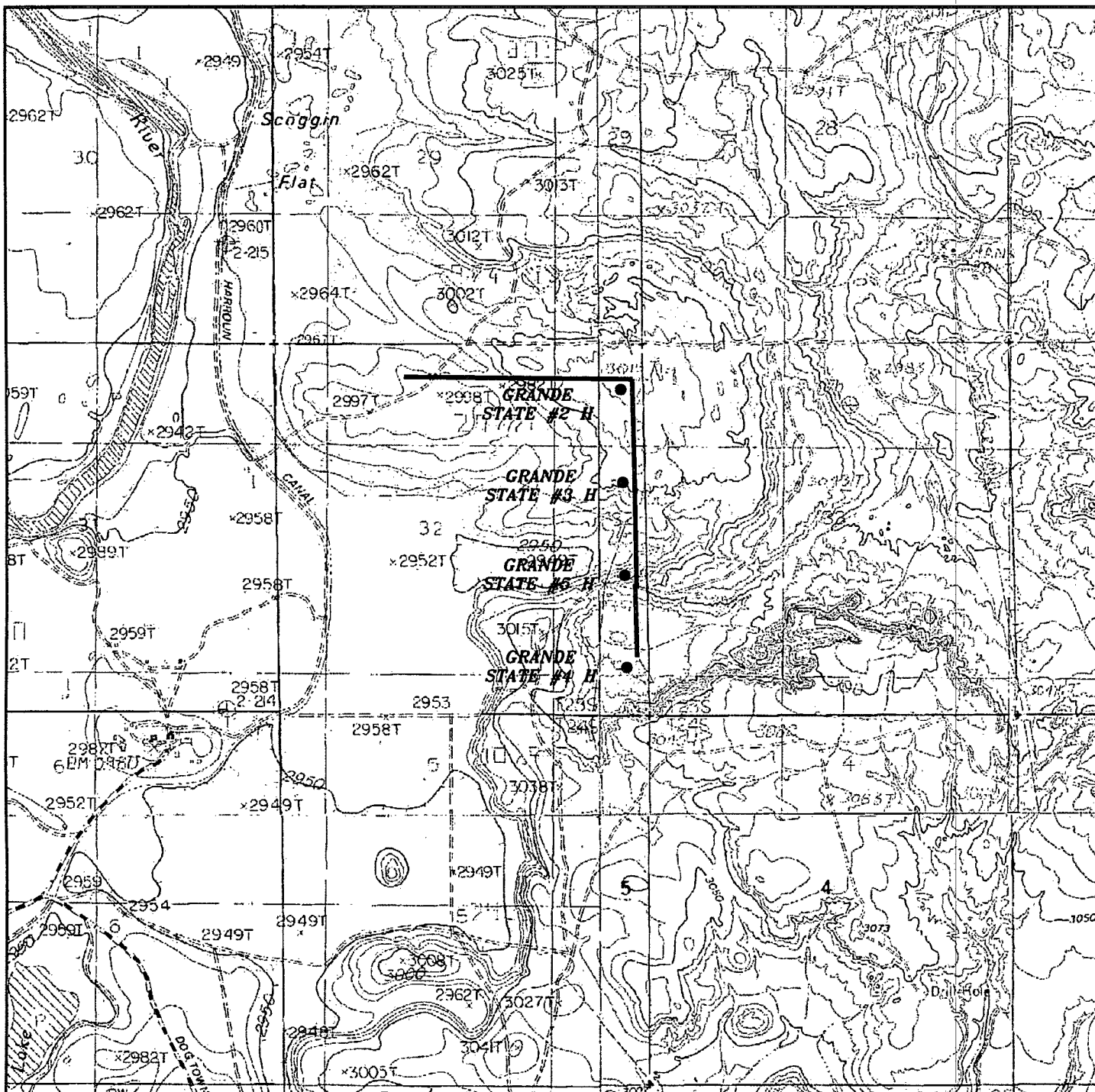
Survey Date: 05-24-2010

Scale: 1" = 2 Miles

Date: 05-25-2010



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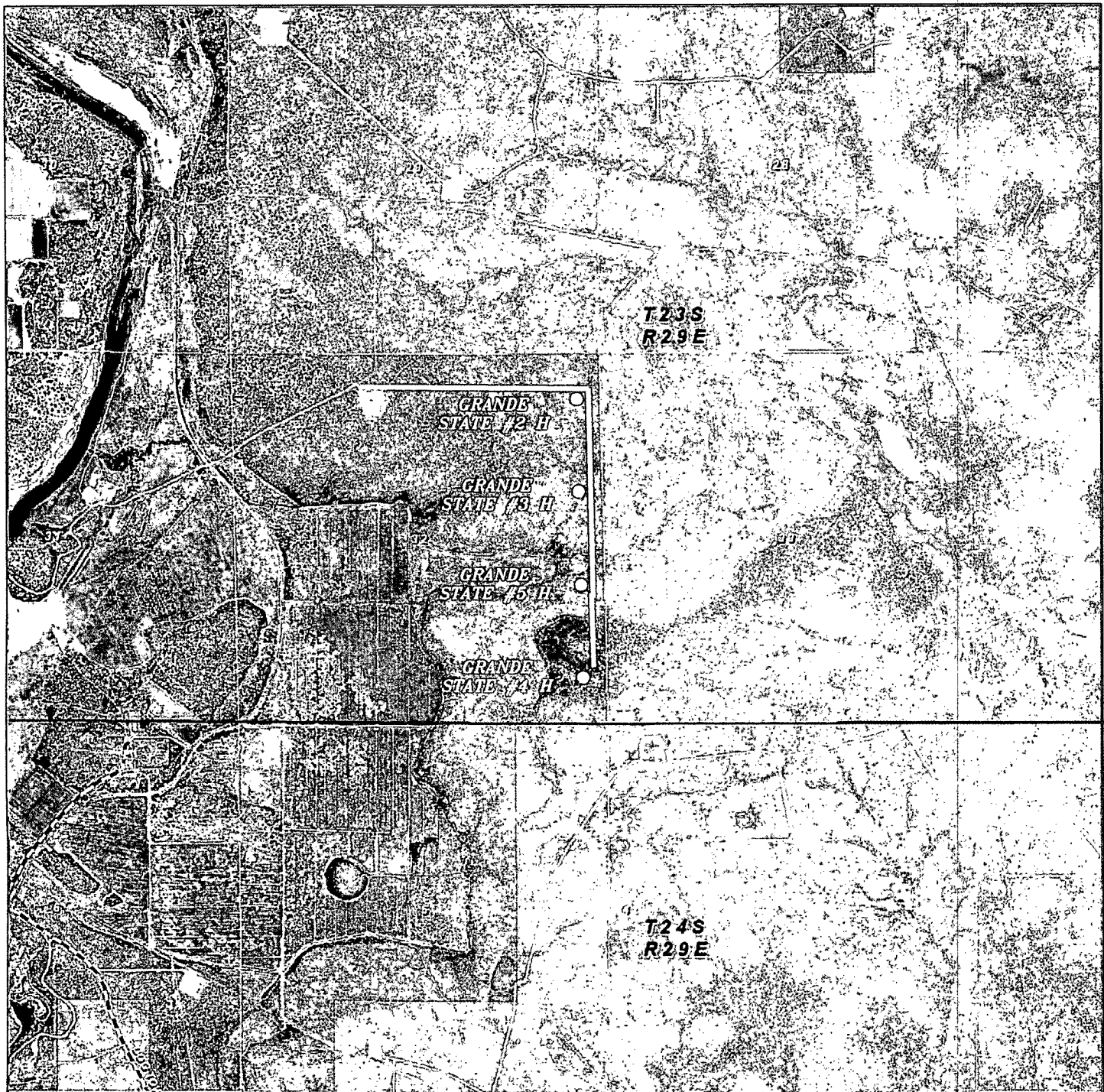
Survey Date: 05-24-2010

Scale: 1" = 2000'

Date: 05-25-2010



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GUSSMAN
PERMIAN**



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Scale: 1" = 2000'

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



NADEL &
GUSSMAN
PERMIAN

Rig Plat

