

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

Form C-101
May 27, 2004

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

RECEIVED
Permit to appropriate District Office
JUN 03 2005
☐ AMENDED REPORT

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

¹ Operator Name and Address Echo Production, Inc. PO Box 1210, Graham, TX 76450		² OGRID Number 06742
³ Property Code 34361	³ Property Name Stiletto '16' State	⁴ API Number 30- 015- 34150
⁵ Proposed Pool 1 Cemetery - Morrow 74640		⁶ Well No. 2
⁷ Proposed Pool 2		

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
M	16	20S	25E		990	south	725	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 N	¹² Well Type Code Gas	¹³ Cable/Rotary rotary	¹⁴ Lease Type Code State	¹⁵ Ground Level Elevation 3496
¹⁶ Multiple no	¹⁷ Proposed Depth 9850	¹⁸ Formation Morrow	¹⁹ Contractor J&W	²⁰ Spud Date 7/1/05
Depth to Groundwater 100±		Distance from nearest fresh water well 1000±		Distance from nearest surface water 1000±
Pit: <input checked="" type="checkbox"/> Liner: Synthetic <input checked="" type="checkbox"/> 12 mils thick Clay <input type="checkbox"/> Pit Volume: 12800bbls Drilling Method: Closed-Loop System <input type="checkbox"/> Fresh Water <input checked="" type="checkbox"/> Brine <input checked="" type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/>				

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	360	±425	surface
11"	8 5/8"	32	1400	±875	surface
7 7/8"	4 1/2"	11.6	9850	±1700	surface

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.

Echo Production, Inc. proposes to drill to a depth sufficient to test the Morrow formation. If productive 4 1/2" casing will be set. If non-productive, the well will be plugged and abandoned in a manner consistent with State Regulations.

A mud program and H₂O contingency plan are 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 ☐.

Printed name: Ken Seligman *Ken Seligman*
Title: Engineer

E-mail Address: ken.s@echoproduction.com

Date: 5/31/05 Phone: 940-549-3292

OIL CONSERVATION DIVISION

Approved by:

Title:

Approval Date:

Expiration Date: JUN 13 2006

Conditions of Approval Attached ☐

NOTIFY OCD TO WITNESS
ALL CASING STRINGS

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State of New Mexico
Energy Minerals and Natural Resources

Form C-144
June 1, 2004

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

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: <u>Echo Production, Inc.</u> Telephone: <u>940-549-3292</u> e-mail address: <u>ken.s@echoproduction.com</u>		
Address: <u>PO Box 1210, Graham, TX 76450</u>		
Facility or well name: <u>Stiletto '16' State #2</u> API #: <u>30-015-34150</u> U/L or Qtr/Qtr <u>M</u> Sec <u>16</u> T <u>20S</u> R <u>25E</u>		
County: <u>Eddy</u> Latitude <u>N32° 34'</u> Longitude <u>W104° 29'</u> NAD: 1927 <input type="checkbox"/> 1983 <input type="checkbox"/> Surface Owner Federal <input type="checkbox"/> State <input checked="" type="checkbox"/> Private <input type="checkbox"/> Indian <input type="checkbox"/>		
Pit Volume <u>12800</u> bbl		
Pit 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 <u>12</u> mil Clay <input type="checkbox"/> Pit Volume <u>12800</u> bbl		
Below-grade tank 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)
	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)
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)
	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: (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: 5/31/05

Printed Name/Title Ken Seligman / Engineer

Signature Ken Seligman

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:

JUN 09 2005

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DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised March 17, 1999

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

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, New Mexico 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code 74640	Pool Name Cemetery - Morrow
Property Code	Property Name STILETTO "16" STATE	Well Number 2
OGRID No. 06742	Operator Name ECHO PRODUCTION COMPANY	Elevation 3496'

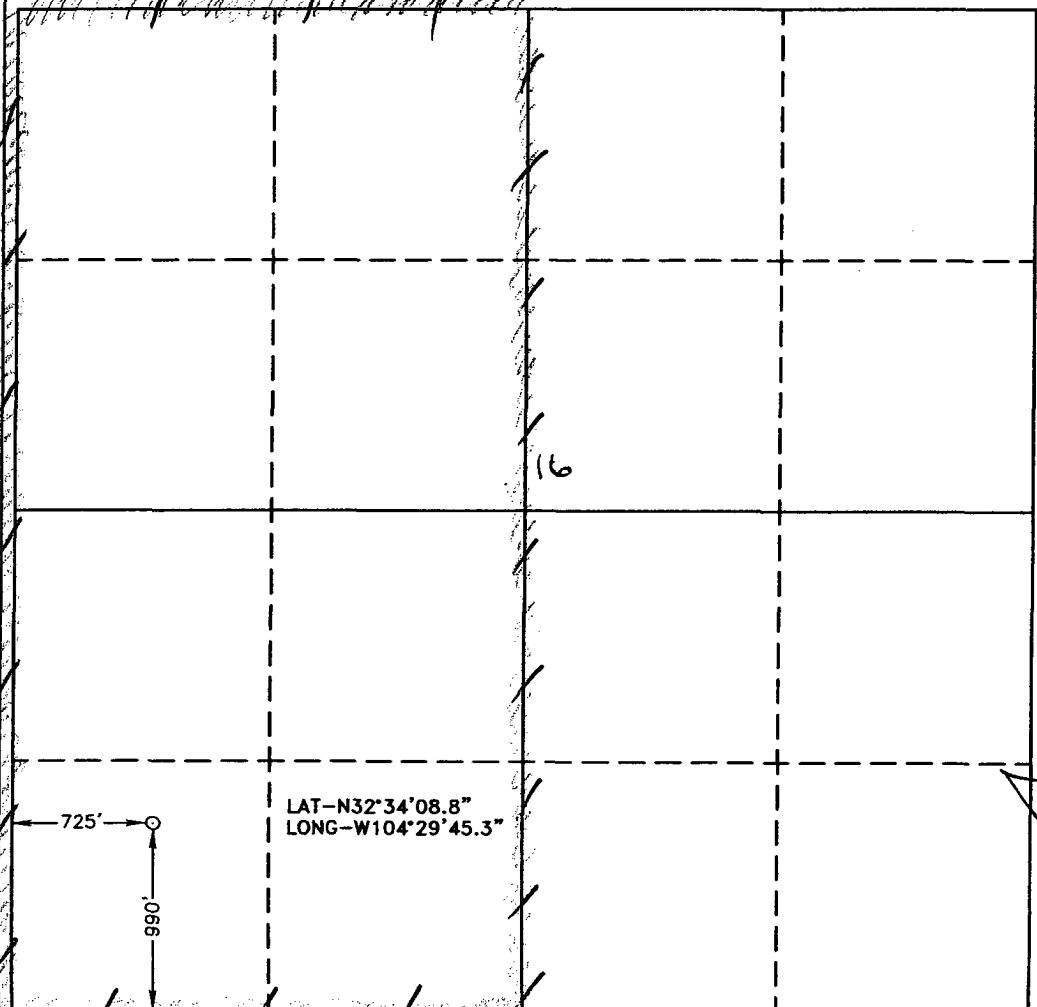
Surface Location

UL or lot No. M	Section 16	Township 20 S	Range 25 E	Lot Idn	Feet from the 990	North/South line SOUTH	Feet from the 725	East/West line WEST	County EDDY
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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>LAT-N32°34'08.8" LONG-W104°29'45.3"</p>	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><u>Ken Seligman</u> Signature Ken Seligman Printed Name Engineer Title 5/31/05 Date</p> <p>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>MAY 17 2005 Date Surveyed Signature & Seal of Professional Surveyor 7977 W.O. No. 5446 Certificate No. 7977 BASIN SURVEYS</p>
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SECTION 16, TOWNSHIP 20 SOUTH, RANGE 25 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.

CO. RD. 27 (PICKETT ROAD)

Prop. Lease Rd. 743'

150' NORTH
OFF SET
3494.6'

ECHO PRODUCTION CO.
STILETTO "16" STATE #2
ELEV. - 3496'

150' WEST
OFF SET
3496.3'

LAT-N32°34'08.8"
LONG-W104°29'45.3"

150' EAST
OFF SET
3498.2'

150' SOUTH
OFF SET
3495.8'



SCALE: 1" = 100'

DIRECTIONS TO LOCATION:

FROM THE JUNCTION OF CO. RD. 27 AND WHITE PINE ROAD,
GO NORTH ON PICKETT ROAD FOR 0.4 MILE AND WEST FOR
0.6 MILE TO PROPOSED LEASE ROAD.

ECHO PRODUCTION CO.

REF: STILETTO "16" STATE No. 2 / Well Pad Topo

THE STILETTO "16" STATE No. 2 LOCATED 990' FROM
THE SOUTH LINE AND 725' FROM THE WEST LINE OF
SECTION 16, TOWNSHIP 20 SOUTH, RANGE 25 EAST,
N.M.P.M., EDDY COUNTY, NEW MEXICO.

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

W.O. Number: 5416

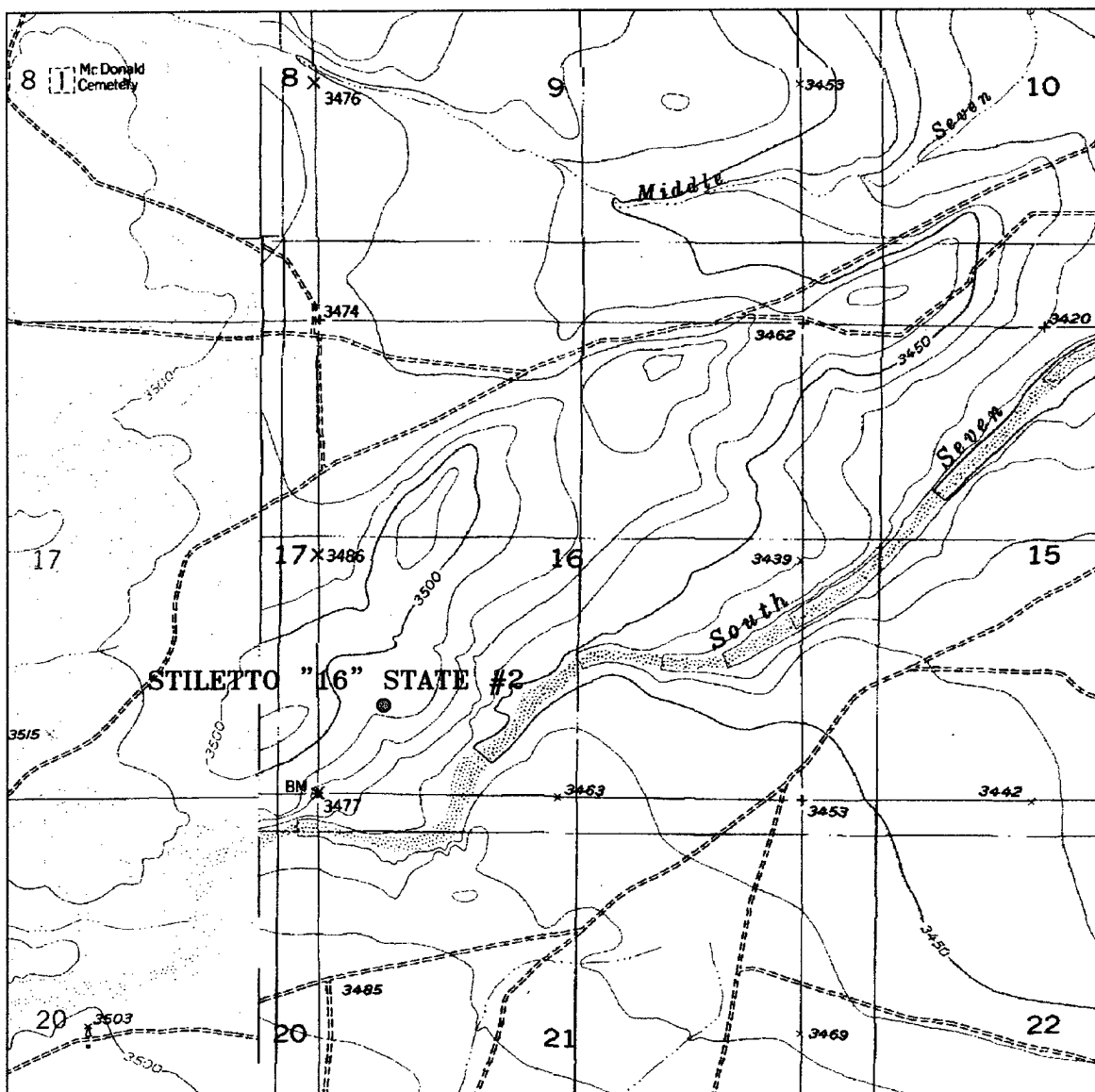
Drawn By: K. GOAD

Date: 05-23-2005

Disk: KJG CD#4 - 5416A.DWG

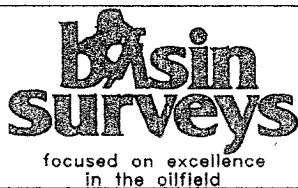
Survey Date: 05-17-2005

Sheet 1 of 1 Sheets



STILETTO "16" STATE #2

Located at 990' FSL and 725' FWL
 Section 16, Township 20 South, Range 25 East,
 N.M.P.M., Eddy 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

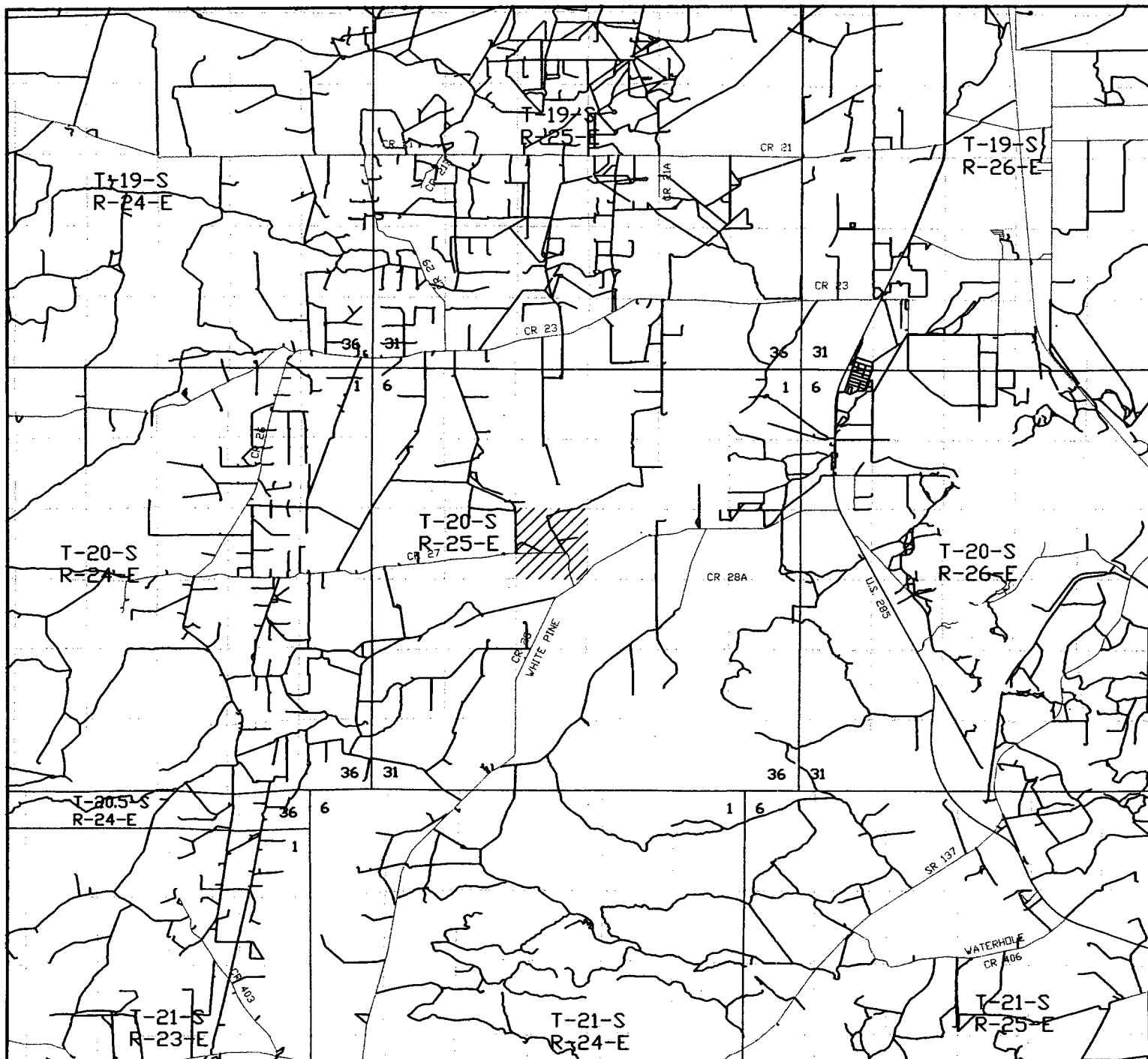
W.O. Number: 5416AA - KJG CD#5

Survey Date: 05-17-2005

Scale: 1" = 2000'

Date: 05-23-2005

**ECHO
 PRODUCTION
 COMPANY**



STILETTO "16" STATE #2
 Located at 990' FSL and 725' FWL
 Section 16, Township 20 South, Range 25 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: 5416AA - KJG CD#5
 Survey Date: 05-17-2005
 Scale: 1" = 2 MILES
 Date: 05-23-2005

ECHO
PRODUCTION
COMPANY

Echo Production, Inc.

PO Box 1210 Graham, Texas 76450 (940) 549-3292 Fax: (940) 549-5162

**Stiletto '16' State #2
990' FSL & 725' FWL
Section 16 T20S R25E
Eddy County, New Mexico**

Attached is a drilling fluids summary for the subject well. A fresh water system will be utilized for the surface to approximately 6000' and cut brine for the remainder.

Echo has drilled three offset wells which did not show any abnormally pressured zones. Sufficient mud weights will be utilized to eliminate any flow from the well. A double ram type blowout preventor will be utilized during all drilling operations and will be tested after setting both the surface and intermediate casing.

H₂S detection and safety equipment will be utilized and all rig personnel will receive safety training by a qualified H₂S safety instructor as 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
- E. Evacuation procedure, routes and first aid
- F. Proper use of air pack

Echo Production, Inc.
Stiletto '16' State #2

Projected Mud Properties

Depth	Mud Wt. - ppg	Viscosity	Filtrate	pH	Solids - % by vol.
0' - 360'	8.4-9.4	32-34	N/C	10.0	3-8

General Geological Data

Tops/Bases	Formation	Lithology	Notes/Challenges
0' - 200'	Quaternary	Sand, limestone, gypsum, conglomerates	Seepage
200' - 360'	Tansill	Limestone, sand stringers, surface conglomerates	Vugular, fractured, heavy seepage, lost circulation

Interval Notes for 0 - 360

Spud with a conventional Fresh Water and Bentonite slurry. Maintain the viscosity as needed to clean the large diameter hole. Small amounts of Lime may be added to flocculate the gel for added carrying capacity. Use Fresh Water additions for dilution to keep solids to a minimum. Ground Paper should be used periodically to sweep the hole to control seepage and enhance hole cleaning. Total losses may be expected. We suggest dry drilling to total depth sweeping the hole as necessary with viscous (40-50) Bentonite pills containing 10-20 ppb of various LCM's to keep hole clean and to regain returns.

Projected Mud Properties

Depth	Mud Wt. - ppg	Viscosity	Filtrate	pH	Chlorides - ppm
360' - 1,400'	8.4-8.5	28	N/C	10.0	5-15K

General Geological Data

Tops/Bases	Formation	Lithology	Notes/Challenges
360' - 400'	Tansill	Limestone, sand stringers, surface conglomerates	Vugular, fractured, heavy seepage, lost circulation
400' - 725'	Yates	Sand w/red shale & anhydrite stringers	
725' - 1,400'	San Andres	Limestone	Vugular, fractured, heavy seepage, lost circulation

Interval Notes for 360 - 1,400

Drill out with Fresh Water circulating the reserve. Adjust the pH to 10.0 with Lime. Continue to use Ground Paper additions to control seepage and aid in hole cleaning. Severe losses may occur in the interval. Should total losses occur, dry drill sweeping the hole with viscous (40-50) Bentonite pills containing 10-20 ppb of various LCM's to aid in hole cleaning and possibly regaining returns. Sweep and spot a viscous pill at total depth to ensure a stable well bore for casing operations.

NOTE: lost circulation can be expected below 700'. We suggest dry drilling or using an air package to regain returns.

Projected Mud Properties

Depth	Mud Wt. - ppg	Viscosity	Filtrate	pH	Chlorides - ppm
1,400' - 6,000'	8.4-8.7	28	N/C	10.0	5-35K
6,000' - 8,000'	9.0-9.3	28	N/C	10.0	70-90K

General Geological Data

Tops/Bases	Formation	Lithology	Notes/Challenges
1,400' - 2,300'	San Andres	Limestone, w/salt stringers	Hole erosion, deviation
2,300' - 4,000'	Glorietta	Limestone	
4,000' - 6,350'	Bone Spring	Limestone, sand stringers	Seepage
6,350' - 6,700'	3rd Bone Spring Sand	Sand	
6,700' - 7,650'	Wolfcamp	Shaly limestone	Sloughing
7,650' - 8,000'	Cisco		

Interval Notes for 1,400 - 8,000

Drill out from intermediate casing with Fresh Water. Continue to circulate the reserve. Adjust the pH to 10.0 with Caustic Soda. Continue to use Ground Paper to control seepage and aid in hole cleaning. Small amounts of MF-55 may be added to flocculate fine drill solids and sweep the hole. Begin Brine additions at approximately 6,000' to raise the mud weight to 9.0-9.3 ppg. Sweep the hole only as necessary with viscous (40-50) Bentonite pills to aid in hole cleaning.

NOTE: some salt stringers may be present below 1,400'. We suggest allowing the chloride increase to occur, maintaining the weight as necessary.

Projected Mud Properties

Depth	Mud Wt. - ppg	Viscosity	Filtrate	pH	Chlorides - ppm
8,000' - 9,850'	9.3-10.2	32-40	10-6cc	10.0	70-140K

General Geological Data

Tops/Bases	Formation	Lithology	Notes/Challenges
8,000' - 8,200'	Cisco	Limestone	Mud up
8,200' - 9,000'	Strawn	Shaly limestone	Poss gas kick
9,000' - 9,200'	Atoka	Sandy shale	Poss gas kick
9,200' - 9,550'	Morrow	Shaly calcareous sand	Pay Zone
9,550' - 9,600'	Lower Morrow	Shaly calcareous sand	Pay Zone
9,600' - 9,850'	Barnett	Shale	TD

Interval Notes for 8,000 - 9,850

Return to the working pits with a Cut Brine weighing 9.0-9.3 ppg. Discontinue the use of MF-55. Adjust the pH to 10.0 with Caustic Soda. Pre-treat the system with STC (biocide). Add White Starch to lower the filtrate to 10cc or less. Small amounts of defoamer may be needed while adding Starch to prevent the aeration of the pumps. Increase the weight as necessary with Brine and/or Salt additions. Use Barite only if weights above 10.0 ppg are necessary. Use XCD Polymer for any added viscosity. Use Mica and MIX-II for seepage and/or loss control. The existing properties should be adequate for any logging and casing operations. We would suggest sweeping the hole at total depth with a viscous (40-45) XCD Polymer pill to ensure a stable environment for logging and casing.