

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 ☐

MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

Stevens & Tull, Inc.

3. ADDRESS AND TELEPHONE NO.

P. O. Box 11005, Midland, Texas 79702 915/699-1410

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

At surface

2310' FSL & 990' FEL

At proposed prod. zone

2310' FSL & 990' FEL

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

25 miles West of Hobbs

15. DISTANCE FROM PROPOSED*

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

990'

16. NO. OF ACRES IN LEASE

480

17. NO. OF ACRES ASSIGNED
TO THIS WELL

40

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

1650'

19. PROPOSED DEPTH

3500

20. ROTARY OR CABLE TOOLS

Rotary

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

3548 GR

22. APPROX. DATE WORK WILL START*

May 15, 1995

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4	8 5/8 - J55	24#	1300	690 SX - Circulated
7 7/8	5 1/2 - J55	17#	3500	590 SX - Circulated

- 1) Drill 12 1/4" hole to approximately 1300' or to hard formation with fresh water and mud.
- 2) Set 8 5/8" casing w/ 13 centralizers spaced every 100'. Cement csg with 540 SX Class "C" plus 4% gel plus 150 SX Class "C" plus 2% CaCl2 - Circulate cement.
- 3) WOC 12 hours with pressure on casing - drill out after 24 hours, test BOP's to 1000 PSIG for 30 minutes.
- 4) Drill 7 7/8" hole with Brine to +/- 3500'.
- 5) Set 5 1/2" casing w/ 15 centralizers. Cement w/ 300 SX Pacesetter Lite "C" plus 5% Salt plus 1/4# Celloflake plus 290 SX 50/50 POZ "C" plus 5% Salt, .5% CF-2 - circulate cement.

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

Michael H. Johnson

TITLE Engineer

DATE 2/7/95

(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

DATE

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

District I
PO Box 1980, Hobbs, NM 88240-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 10, 1994
Instructions on back
Submit to 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 59110		3 Pool Name West TEAS Y - SR	
4 Property Code 10710		5 Property Name FEDERAL 9			6 Well Number 7
7 OGRID No. 021602		8 Operator Name STEVENS & TULL, INC			9 Elevation 3548.

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	9	20S	33E		2310	SOUTH	990	EAST	LEA

11 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

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 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

16					<p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p>Signature <u>Michael G. Mooney</u></p> <p>Printed Name Michael G. Mooney</p> <p>Title Engineer</p> <p>Date <u>2/6/95</u></p>
					<p>18 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>JANUARY 21, 1995</p> <p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor.</p> <p>REGISTERED LAND SURVEYOR ENGINEER</p> <p>5412</p> <p>Certificate Number</p> <p>NM PEAPS NO 5412</p>

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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number		Pool Code	Pool Name
		59110	West TEAS Y - SR
Property Code	Property Name		Well Number
10710	FEDERAL 9		7
OGRID No.	Operator Name		Elevation
021602	STEVENS & TULL, INC		3548.

¹⁰ Surface Location

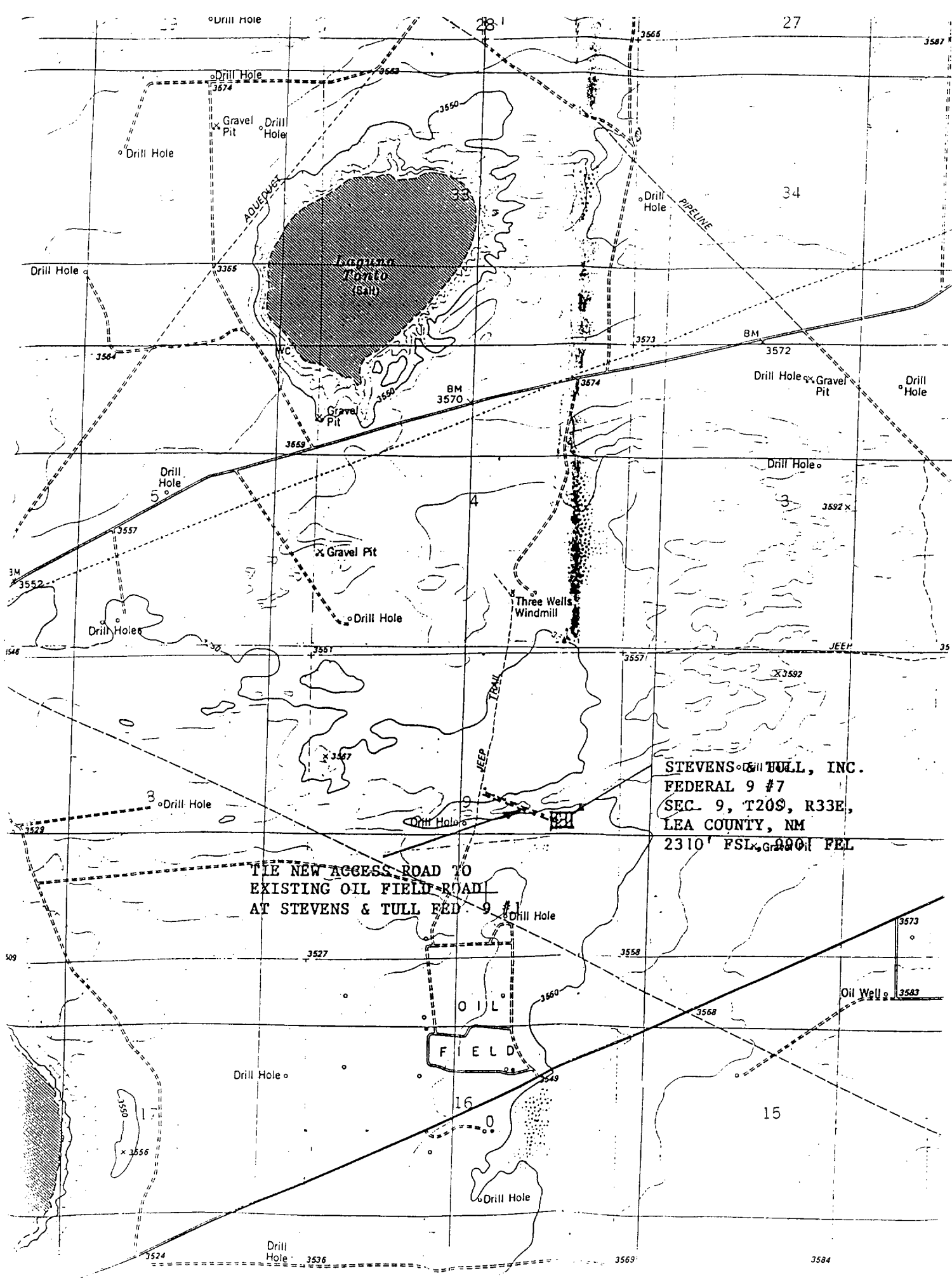
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	9	20S	33E		2310	SOUTH	990	EAST	LEA

¹¹ 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.			

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

¹⁶	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Signature: <i>Michael G. Mooney</i> Printed Name: Michael G. Mooney Title: Engineer Date: 2/6/95
	¹⁸ 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: JANUARY 21, 1995 Signature and Seal of Professional Surveyor:



STEVENS & TULL, INC.
FEDERAL 9 #7
SEC. 9, T20S, R33E,
LEA COUNTY, NM
2310' FSL, 990' FEL

THE NEW ACCESS ROAD TO
EXISTING OIL FIELD ROAD
AT STEVENS & TULL FED. 9 #7

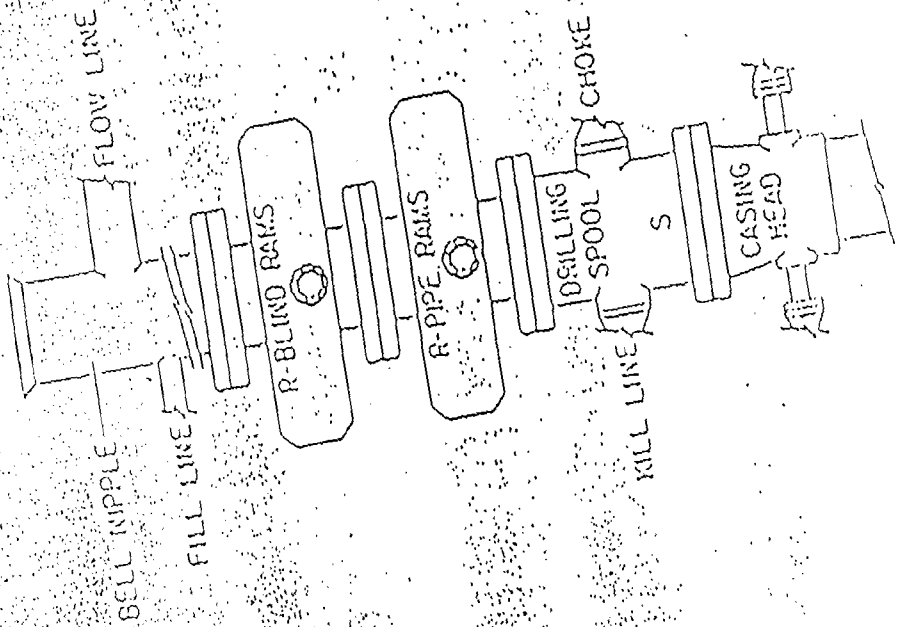
OIL
FIELD

FEBRUARY 2, 1995
APPLICATION FOR PERMIT TO DRILL
STEVENS & TULL, INC.
FEDERAL "9" NO. 7

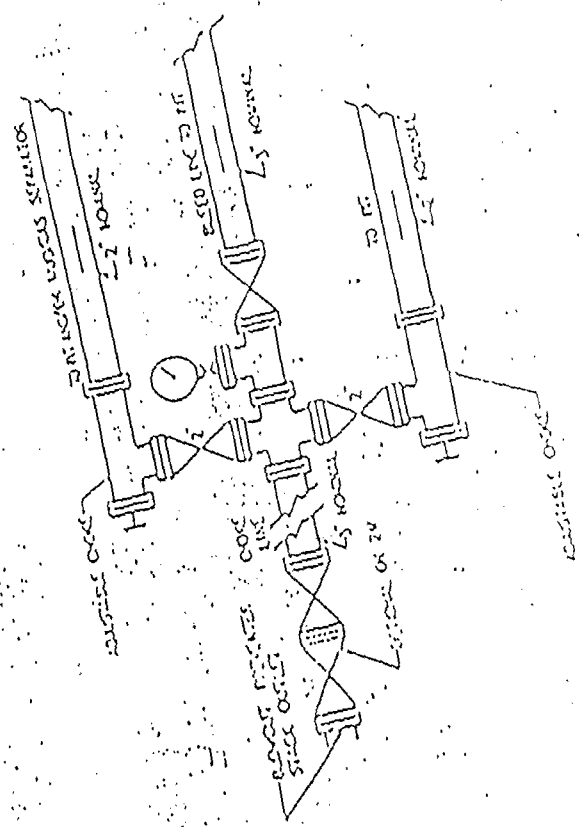
2310' from the south line. 990' from the east line. Section 9,
T-20-S, R-33-E, Lea County, New Mexico.

The following items and attachments compliment Stevens & Tull, Inc.'s
permit to drill the Federal "9" No. 7.

- 1) The geologic surface formation is of Quaternary Age.
- 2) Estimated tops of geologic markers are as follows: The
anhydrite 1325', salt 3050', Yates 3250'.
- 3) The estimated depths at which water is expected are between
150' and 350'. The estimated depths which oil or gas is
expected is between 3200' and 3600' in the Yates Dolomite
and sand formations. Fresh water zones will be protected
with independent casing and cement.
- 4) Red beds and fresh water will be protected with 8 5/8" 24#
and 32# J-55 ST&C casing run to a good shoe setting at
approximately 1300' with 13 centralizers and cement to
surface. Anhydrite, salt and oil sands will be protected
with 5 1/2" 17# J-55 LT&C casing run to a total depth of the
well and cemented back to surface.
- 5) Pressure control, see the attached sketch.
- 6) Mud program, see the Horizon Mud Company recommendation
attached.
- 7) There is no planned auxiliary equipment.
- 8) Open hole logs will be run from total depth to surface.
No cores or DTS's are planned.
- 9) No abnormal temperatures or pressures are expected. No lost
circulation is expected.
- 10) The anticipated starting date is May 15, 1995.



2020



DRILLING, CASING AND CEMENTING PROGRAM

- 1) Drill 12 1/4" hole to approximately 1300' or to firm formation with fresh mud, with a viscosity of 30 seconds per quart and a water loss less than 10 cc per 30 seconds. Maintain pump pressure less than 800 psi to prevent excessive hole enlargement.
- 2) Circulate hole clean with 2 hole volumes of mud.
- 3) Run 8 5/8" casing with a centralizer on the first collar and one on each third collar from the bottom. Use a Texas patterned guide shoe with an aluminum baffle float. Land the casing with the collar eighteen inches below the surface.
- 4) Cement the casing in place with 540 sacks Class "C" + 4% gel + 2% Calcium Chloride and 1/4# per sack cellophane, plus 150 sacks class "C" with 2% Calcium Chloride and 1/4# per sack cellophane. Displace the cement to the float. Shut in.
- 5) Wait on cement 24 hours before drilling out (12 hours with pressure on pipe). Test pressure control equipment to 1000 psi for 30 minutes before drilling through the casing shoe.
- 6) Drill 7 7/8" hole with brine at native conditions to a depth of 2700'.
- 7) At 2700' depth raise the mud viscosity to 37 seconds per quart and reduce water loss to less than 10 cc per 30 seconds.
- 8) Drill to TD of 3500'.
- 9) Circulate hole for 4 hours with mud at designed conditions.
- 10) Pull out of the hole, lay down drill string.
- 11) Run 5 1/2" casing with guide shoe, float collar, latchdown wiper plug baffle and 15 centralizers, one on each collar from the first collar up.
- 12) Cement with 300 sacks Pacesetter Lite "C" cement + 5 % salt, with 1/4# cellophane plus 290 sacks POZ 50/50 class "C" with 5/10% CF-2 and 5% salt plus 1/4# per sack cellophane. Displace plug with fresh water, release pressure and leave shut in.

NOTE: Rotate 5 1/2" casing during cementing.



RECOMMENDED MUD PROGRAM BY CASING INTERVAL

Surface Hole 0-1,300'

Spud with a Horizon Gel/Lime slurry, mixing one Lime per ten Gel for a 32-34 viscosity. After a depth of approximately 300', allow the native solids to maintain a viscosity of 32-34 sec./qt. While drilling the "red bed", it is important that a stable viscosity be maintained with additions of fresh water at the flowline. Lime will cause the red bed clays to thicken more rapidly, causing difficulty in maintaining a stable and consistent native mud. Therefore, we recommend that Lime not be used for pH control while drilling the surface hole.

This native mud should provide good conditions for running casing.

Open Hole 1,300'-3,500'

Drill out from under the surface casing with brine water and circulate through the reserve pit to minimize solids build-up. A flocculant (MF-55) can be used to aid in dropping solids, providing a clear fluid and maximum penetration rates.

We recommend maintaining an 8.5-9.0 pH with Lime.

It is always possible in this general area to encounter lost circulation in the San Andres and Glorieta formations. Utilize Paper on control seepage loss. Should complete loss of returns occur while drilling, we recommend pulling a few stands off bottom and spotting a 100-200 barrel pill containing fibrous-type LCM. Spot the pill from above before returning to bottom to commence drilling.

We recommend running periodic sweeps (every 100-200') with Paper.

Clear water should be sufficient to drill to a depth of approximately 1,000'. At this point, we recommend returning to the working pits and adding up with a Starch system having the following properties:

Mud Weight	10.1-10.2
Viscosity	30-32
Water Loss	30-35

We should provide good samples for proper evaluation.

While using Starch for fluid loss control, it is important that the pH of the fluid remain below 10.0 to avoid burning the Starch.



PROPOSED MUD PROGRAM

CASING DESIGN

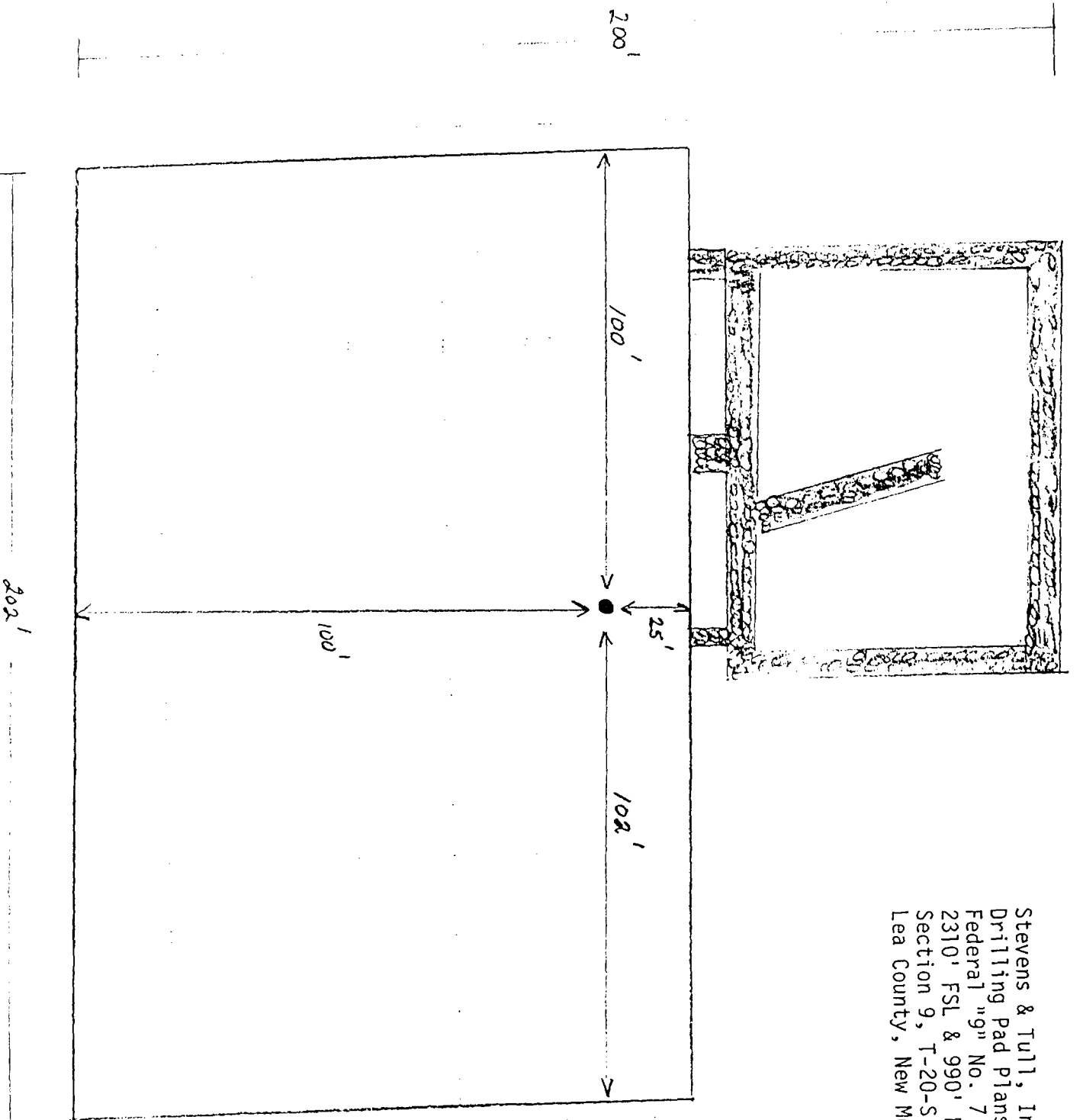
8 5/8" Surface Casing at 1,300'

7 7/8" Open Hole to 3,500'

RECOMMENDED MUD PROPERTIES

<u>DEPTH</u>	<u>MUD WEIGHT</u>	<u>VISCOSITY</u>	<u>FLUID LOSS</u>
Spud	8.4-8.6	32-34	No Control
500'	8.6-8.8	32-34	No Control
1000'	8.8-9.2	32-34	No Control
1300'	9.0-9.4	32-34	No Control
Set 8 5/8" Surface Casing at 1,300'. Drill out with Drilling water.			
1300'	9.6-10.0	28-29	No Control
1900'	10.0-10.1	28-29	No Control
2500'	10.0-10.1	28-29	No Control
2700'	10.1-10.2	30-32	30-35
3000'	10.1-10.3	30-32	30-35
3500'	10.1-10.3	34-40	<30

Stevens & Tull, Inc.
Drilling Pad Plans
Federal "9" No. 7
2310' FSL & 990' FEL
Section 9, T-20-S, R-33-E
Lea County, New Mexico



MULTIPOINT SURFACE USE AND OPERATIONS PLAN
STEVENS & TULL, INC.
FEDERAL "9" NO. 7

2310' from the north line, 990' from the east line. Section 9, T-20-S R-33-E, Lea County, New Mexico.

1) The existing roads.

The existing roads will be used where possible. From Hobbs, use Hwy 62 to mile marker 72, then north on caliche through cattleguard, then west 1/2 mile, then north and northeast 1 mile on existing road to new road and continue north for 1/2 mile, then east 1 mile to location.

2) Plan new road construction.

The location will require 1600' of new road. The surface will be made of caliche with erosion rises provided for as necessary.

3) Location of existing wells.

See the attached plat, which shows the location of existing wells and roads leading to those well locations.

4) Location of existing and/or proposed facilities.

There are existing facilities on this property at this time which currently service the Federal "9" #1, #2, #3, #5 and #6 wells, these lease facilities will be used in the event the Federal "9" #7 is productive. Flow lines to this facility will follow the new road to the Federal "9" storage facility.

5) Location and type of water supply.

It is planned to drill the proposed well with the fresh water supplied from local commercial sources. Brine will also be acquired from these commercial sources. Transportation to the location will be by truck down existing and proposed roads.

6) Source of construction materials.

Caliche will be obtained from a nearby caliche pit in a westerly direction from the proposed drill site. This caliche pit is on federal land and is open and active.

MULTIPOINT SURFACE AND OPERATIONS PLAN
STEVENS & TULL, INC.
FEDERAL "9" NO. 7
PAGE 2

7) Methods of handling waste disposal.

Drill cuttings will be disposed of in the reserve pits and fluids will be left to evaporate. Any produced fluid from the completion operations or from drilling operations will be hauled to the appropriate disposal. Oil produced during drilling operations will be stocked and sold after completion. Debris from activity on or near the location will be disposed of by hauling away to a registered refuse dump.

8) Ancillary facilities.

There are none required.

9) Well site layout.

The attached plat shows the proposed pit location plan. The area of the proposed drill site is on a gradually sloping hill to the northwest with sparse vegetation and a sandy top soil. The reserve pits for this operation will be lined with biodegradable plastic.

10) Plans for restoration of the surface.

After drilling and completion operations are finished the area will be returned to the normal grade. The location of the pit will be cleaned and all trash will be removed and deposited in an approved sanitary landfill. In the event that the well is nonproductive the area will be returned to the grade and existence prior to disturbance and the vegetation will be returned to its natural state.

11) Topography.

The well site and road are located on a gradual hillside with sandy top soil, sparse vegetation and little evidence of wildlife and no apparent human occupation. There are no ponds, lakes or streams in the proximity of the well site. The location is on federal land surface. The area has been searched for any evidence of any archeological, historical and cultural sites. None have been found.

12) Operators representatives.

The field and/or office representative of Stevens & Tull, Inc. is Michael G. Mooney, office 915/699-1410, home 915/697-4256, mobile 915/560-9601.

STEVENS & TULL, INC.
FEDERAL "9" NO. 7
PAGE 3

13) Certification.

I hereby certify that I or the persons under my direct supervision have inspected the proposed drill site and access route, that I am familiar with the conditions which presently exists, 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 Stevens & Tull, Inc. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.


Michael G. Mooney, Engineer

2/7/95
Date

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STEVENS & TULL, INC.

ATTACHMENT 2

Hydrogen Sulfide Drilling Operations Plan

I. 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 this well:

1. The hazards and characteristics of Hydrogen Sulfide (H₂S).
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of H₂S detectors, alarms, warning systems, briefing areas, evacuations procedures and prevailing winds.
4. The proper techniques for first aid and rescue procedures.

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

1. The effects of H₂S 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 preventer and well control procedures.
3. The contents and requirements of the H₂S Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H₂S zone (within 3 days or 500 feet) and weekly H₂S and well control drills for all personnel in each crew. The initial training session will include a review of the site specific H₂S Drilling Operations Plan and the Public Protection 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.

II. H₂S Safety Equipment and Systems

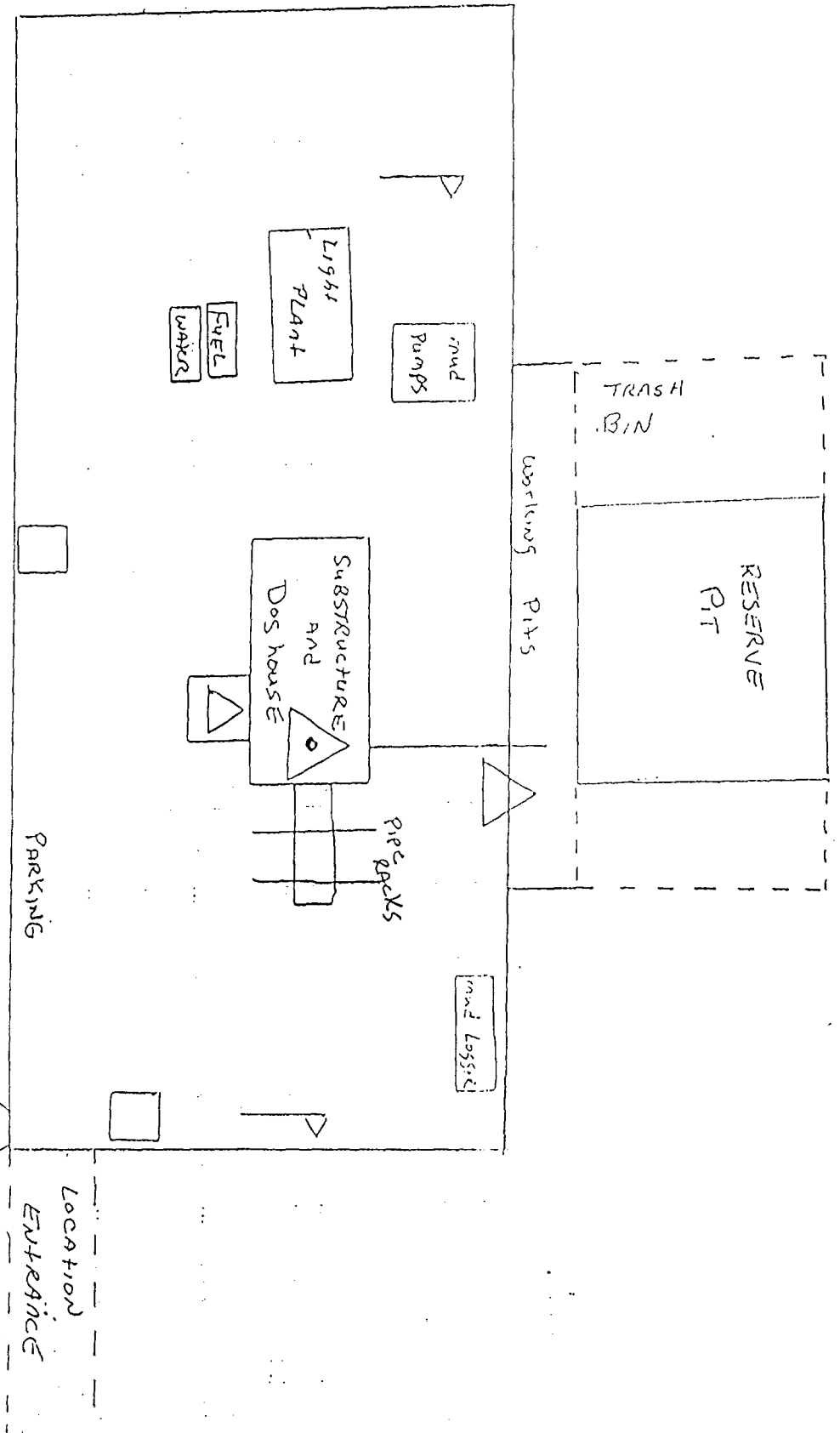
Note: All H₂S safety equipment and systems will be installed, tested and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H₂S.

1. Protective equipment for essential personnel:
 - A. Mark II Surviveair 30-minute unit will be located in the dog house and at briefing areas, as indicated on well site diagram.
2. H2S detection and monitoring equipment:
 - A. 2-portable H2S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H2S levels of 20 PPM are reached.
3. 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 a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location.
4. Mud Program:
 - A. The mud program has been designed to minimize the volume H2S circulated to the surface. Proper mud weight, safe drilling practices and the use of H2S scavengers will be used if H2S is detected. The scavengers will minimize hazards when penetrating H2S bearing zones.
 - B. A mud-gas separator, H2S gas buster, flare line and electronic ignitor will be utilized if H2S is detected in the mud system.
5. Metallurgy:
 - A. All drill strings, casing tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifolds and flowlines shall be suitable for H2S service.
 - B. All elastomers used for packing and seals shall be H2S trim.
6. Communication:
 - A. Radio/Telephone communications will be in company vehicles.
 - B. At a minimum the dog house will have at least a 2-way radio to communicate with field office.

7. Well Testing:

- A. No testing is projected, however, if Drill Stem Testing is to be performed a minimum number of personnel necessary to safely and adequately conduct the test will be present. The drill stem test will be conducted during daylight hours using the chamber method of testing.

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- SAFE BRIEFING AREAS with CAUTION SIGNS
and Protective ASSEMBLING EQUIPMENT



Desert West

RECEIVED FOR

ARCHAEOLOGICAL SERVICES

March 23, 1995

Mr. Mike Mooney
STEVENS AND TULL, INC.
P.O. Box 11005
Midland, Texas 79702

Dear Mr. Mooney:

Enclosed please find Desert West Archaeological Services (DWAS) Clearance Report for STEVENS AND TULL, INC.'S proposed Federal "9" Well No. 7 and access road in Section 9, T20S, R33E in Eddy County, New Mexico.

One isolated occurrence (IO) and one previously recorded site LA 59589 was encountered during STEVENS AND TULL'S proposed Federal "9" Well No. 7 access road survey. Clearance is recommended for the project. No further archaeological work should be required.

The Bureau of Land Management will review this report and make the final decision on archaeological clearance for this project.

If you have any questions, please call our office.

Sincerely,


Arita Slate

cc: Bureau of Land Management, Carlsbad Resource Area, (2)

ARCHAEOLOGICAL SURVEY of the Federal "9" Well No. 7 (2310' FSL, 990' FEL) and access road in
Section 9, T20S, R33E, NMPM, Lea County, NM

LAND STATUS: Federal (BLM)
USGS 7.5 minute series, Laguna Gatuna, NM (1984)

PREPARED FOR: STEVENS AND TULL, INC.
P.O. Box 11005
Midland, Texas 79702

DWAS Report: 95-104

David Wilcox, Principal Investigator/Project Director

DESERT WEST ARCHAEOLOGICAL SERVICES
P.O. Box 645
Carlsbad, New Mexico 88221-0645
(505) 887-7646

PERMIT NO. 123-2920-94-A

DATE: March 23, 1995

Attention: Mr. Mike Mooney

Distribution: STEVENS AND TULL, INC. (1)
Bureau of Land Management, Carlsbad Resource Area, Carlsbad (2)

DESERT WEST ARCHAEOLOGICAL SERVICES
on lands administered by the
Department of the Interior
Bureau of Land Management
Roswell District, New Mexico

CULTURAL RESOURCES EXAMINATION
DWAS PERMIT NO: 123-2920-94-A
DWAS Job No.: 95-104

1. **ABSTRACT:**

An intensive archaeological survey of the STEVENS AND TULL, INC.'S proposed Federal "9" Well No. 7 (2310' FSL, 990' FEL), 450' X 450', 4.64 and access road 150' X 1450', 4.99 acres, was conducted on February 2, 1995 by David Wilcox, Principal Investigator/Project Director and Jon Blackwelder, Field Technician. A total federal land surface of 9.63 acres, was inspected for cultural remains. The proposed location and access road will be situated in Section 9, T20S, R33E, NMPM, Lea County, New Mexico. One previously recorded site (LA 59589) was encountered on the project's access road. Consequently, the access road was moved to the southwest corner of the proposed well, extending west to northeast corner of existing well pad, completely avoiding the dunal ridge which contains LA 59589.

On February 22, 1995, an additional archaeological survey for STEVENS AND TULL's re-routed access road (150' X 1450', 4.99 acres), was conducted by David Wilcox, and Jon Blackwelder. A total land surface of 4.99 acres was inspected for cultural remains. One isolated occurrence (IO) was encountered and recorded during this survey of the access road.

On March 21, 1995, an additional archaeological survey for STEVENS AND TULL's final access road (150' X 1350', 4.64 acres), was conducted by David Wilcox, Jon Blackwelder and Jim Hollen. A total 4.64 acres was inspected for cultural remains. The same isolated occurrence (IO) as found on the first re-route, was encountered on the second access road re-route. *A total federal land surface for this project was 19.26 acres inspected for cultural remains.*

Archaeological clearance for STEVENS AND TULL, INC.'S proposed Federal "9" Well No. 7 and access road is recommended.

2. **LEGAL DESCRIPTION:**

T20S, R33E, Section 9, Lea County, NM Well Pad (2310' FSL; 990' FEL) NE1/4 SE1/4; Access Road [**original location of road**] SW1/4 SW1/4 NE1/4, SE1/4 SW1/4 NE1/4, NE1/4 NW1/4 SE1/4, NW1/4 NE1/4 SE1/4; Access Road [**moved location of road**] NW1/4 NW1/4 SE1/4, NE1/4 NW1/4 SE1/4, NW1/4 NE1/4 SE1/4; [**final location of road**] NW1/4 NW1/4 SE1/4, NE1/4 NW1/4 SE1/4, NW1/4 NE1/4 SE1/4, NMPM, Lea County, NM, Figure 2, for BLM and SHPO records only

Map Reference: USGS 7.5 minute series, Laguna Gatuna, NM (1984) [Figure 1]

Land Status: BLM, Roswell District, Carlsbad Resource Area, NM

3. **PROJECT DESCRIPTION:**

Well Pad (450' X 450', 4.64 acres) Access Road (**original location of road**) 150' X 1450', 4.99 acres; Access Road (**moved location of road**) 150' X 1450', 4.99 acres; Access Road [**final location road**] 150' X 1350', 4.64 acres. A total of federal surface land of 19.26 acres, was inspected for cultural remains.

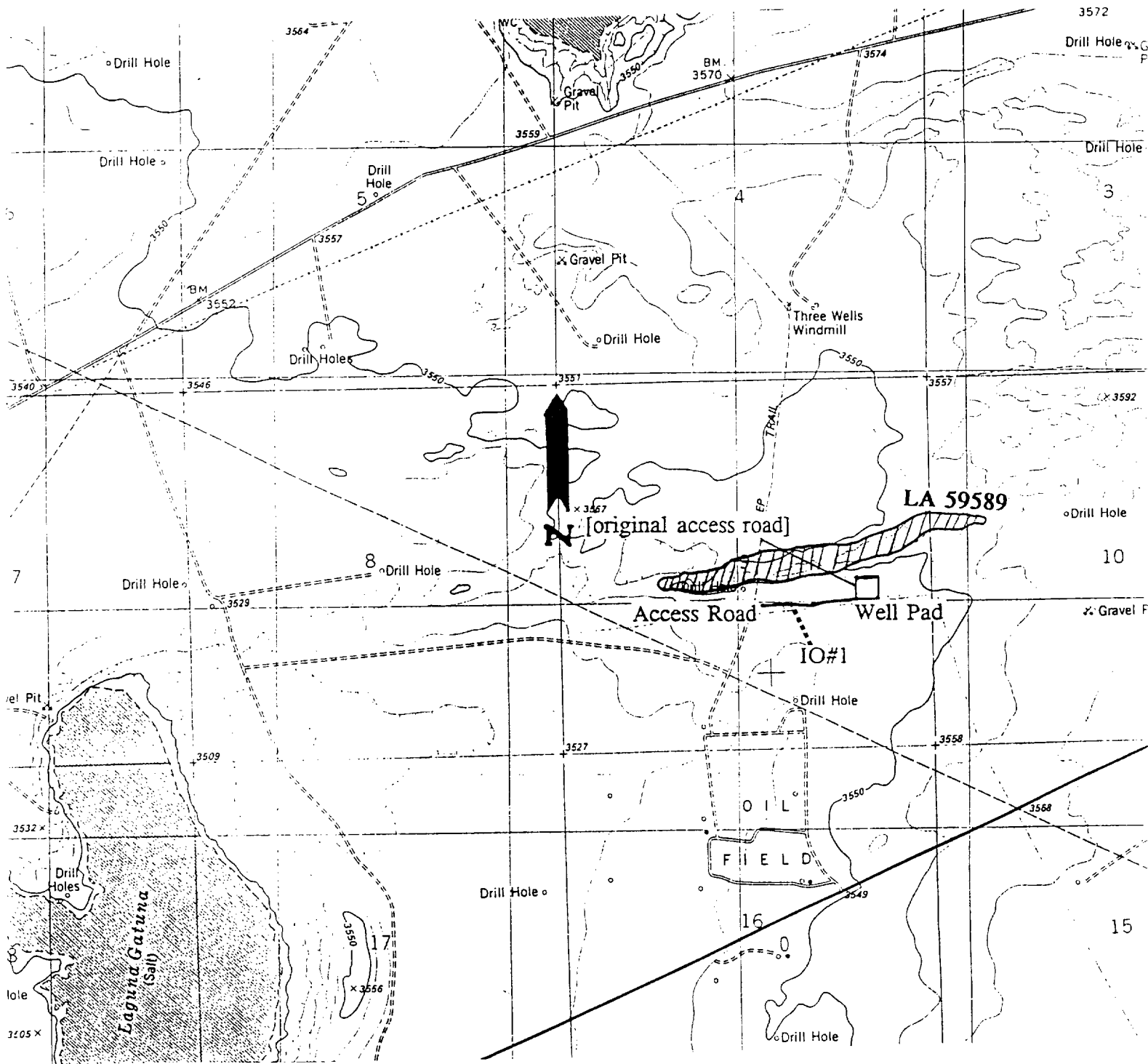


Figure 1. Showing STEVENS AND TULL, INC.'S proposed Federal "9" Well No. 7 (2310' FSL, 990' FEL) and access road [original and final] in Section 9, T20S, R33E, NMPM, Eddy County, New Mexico vis a via LA 59589. Map Reference: USGS 7.5 minute series, Laguna Gatuna, NM (1978)

TOPOGRAPHY:

The project area is situated on a stabilized dune field, with deflation basins of moderate relief and depth, south of Laguna Tonto, northeast of Laguna Gatuna, north of US Route 62/100.

Soils: Pyote-Maljamar-Kermit Association: Gently undulating and rolling, deep, sandy soils

Water Source: Three Wells Windmill, 3/4 mile north

Aspect: southerly, due to dunal ridge running east-west, preventing a 360 degree aspect

Elevation: 3548'

Lithic Resources: Outside of surveyed area

Vegetation: mesquite, yucca, shin oak, sage, snakeweed and assorted grasses

4. EXAMINATION PROCEDURE:

Straight and zigzag transects, spaced not more than 15 meters apart.

Hours worked on ground: 6 hours (3 archaeologist)

Area Delineation: Staked by client

Visibility: 60-80%

Weather: February 2, 22, and March 21, 95, sunny, breezy and warm

5. FINDINGS:

BLM records for the area in question indicate that there are three previously recorded sites within a half mile radius of the project area; however, none of these sites lie within a 250' radius of the impact area. Arita Slate, conducted the records search prior to the field survey.

6. RESULTS OF SURVEY:

Archaeological survey of STEVENS AND TULL'S proposed Federal "9" Well No. 7 and newly staked access road encountered one isolated occurrence (IO), which does not appear significant beyond the level of field recording. During the survey of the original proposed access road, which crosses site (LA 59589), an obsidian flake mid-section was recorded and collected (0.7 X 11 X 0.3 cm) [Figure 3]

Isolated Occurrence (IO)

IO#1, T20S, R33E, Section 9, Eddy County, NM (SE1/4 NW1/4 NW1/4 SE1/4), consists of one quartzite flake with a step termination, no platform and no visible cortex [4.5 X 1.7 X 0.8 cm]. Map Reference: USGS 7.5 minute series, Laguna Gatuna, NM (1984)

7. RECOMMENDATIONS:

Archaeological clearance for STEVENS AND TULL, INC.'S proposed Federal "9" Well No. 7 and access road is recommended.

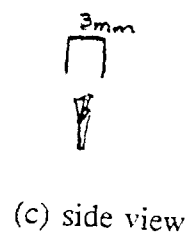
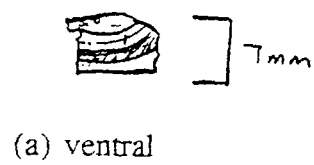
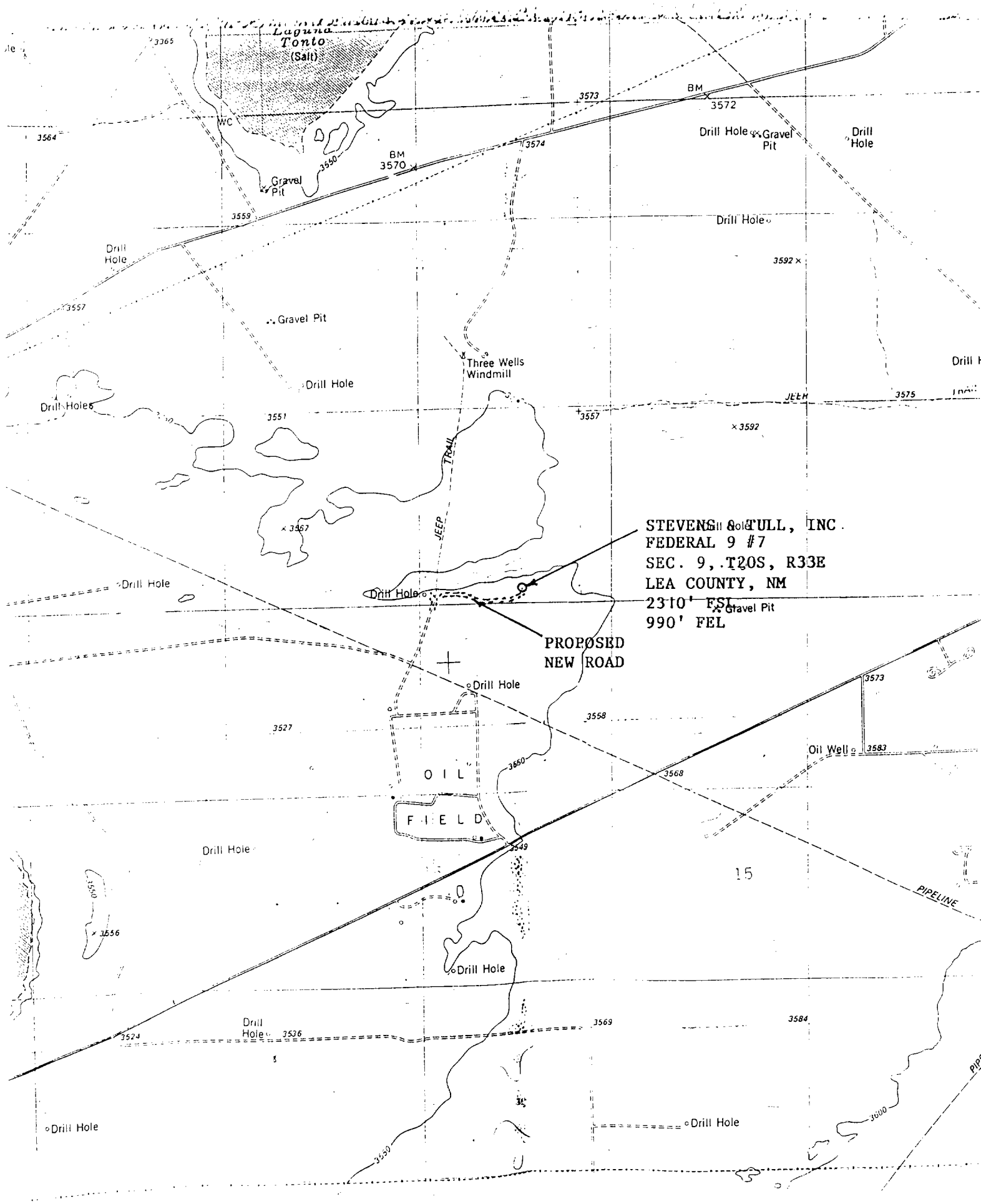


Figure 3. Illustration of an obsidian flake mid-section (a) ventral, (b) dorsal and (c) side view.



STEVENS & FULL, INC.
FEDERAL 9 #7
SEC. 9, T20S, R33E
LEA COUNTY, NM
2310' FSL
990' FEL

PROPOSED
NEW ROAD