

7.5 miles NW of Lindrook



June 2, 1995

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, New Mexico 87504

Attention: Messrs. Michael E. Stogner
David R. Catanach

RE: **Application for the June 29, 1995 examiner hearing concerning a project to drill a horizontal lateral section into the Gallup formation**
Jicarilla "C" No. 35, Surf Loc: 1850' FSL, 1190' FWL, Unit L
Sec. 21-T25N-R5W, West Lindrith Gallup-Dakota Oil Pool
Rio Arriba County, New Mexico

11326

Gentlemen:

Texaco Exploration and Production Inc. seeks approval to drill a short radius horizontal re-entry into the Gallup formation. We are requesting that this project be added to the June 29, 1995 examiner hearing docket. We intend to drain the Gallup portion of the subject pool in two adjacent 160 acre spacing units with the proposed re-entry. Therefore, we are also requesting an assignment of allowable based on a non standard or double proration unit.

We plan to mill out a section of casing, sidetrack, drill and complete a single 2500' short radius horizontal section into the Gallup formation. Attachment IV A and IV B, respectively are wellbore diagrams for the current and proposed completions. The horizontal leg will be in a eastward direction staying at least 790' from the northern boundary of the spacing unit (see attachment III). We expect to recover additional Gallup reserves in the adjacent undeveloped W. Lindrith Gallup Dakota 160 acre spacing unit (SE quarter of section 21, T25N-R5W). These reserves would normally be recovered by an additional vertical well. Both spacing units are included in the Texaco Exploration and Producing Inc. operated Jicarilla "C" lease (ownership is common).

Also attached are copies of signed certified mail return receipt cards (or signed waivers) from the operators of offset spacing units who have received written notification of our application for this horizontal re-entry project.

Your attention to this matter is greatly appreciated. If you have any questions concerning this matter please contact me at 505-325-4397, ext. 15.

Sincerely,

Rached Hindi

Senior Engineer

MRR/s, Attachments, cc: NMOCD-Aztec

LIST OF ATTACHMENTS

- I. DRILLING PROCEDURE
- II. BASE MAP
- III. N.M.O.C.D. WELL LOCATION AND ACREAGE DEDICATION PLAT - FORM C-102
- IV. A. WELLBORE DIAGRAM - EXISTING CONDITION
B. WELLBORE DIAGRAM - PROPOSED CONDITION
- V. OFFSET OPERATOR PLAT
- VI. OFFSET OPERATOR ADDRESS LIST
- VII. GAMMA RAY / LITHO-DENSITY LOG OF HORIZONTAL INTERVAL
- VIII. RETURN REGISTERED RECEIPTS FROM OFFSET OPERATORS

Attachment I

JICARILLA "C" No. 35 HORIZONTAL SINGLE LATERAL REENTRY

The subject well is a producing well. It is to be reentered and a single horizontal lateral is to be drilled in the Gallup formation. The existing perforations will be squeeze cemented and a 40' section is to be milled in the casing. A short radius horizontal lateral will be drilled in the west direction approximately 2500' long. The well will be acidized using coiled tubing, if necessary, and then production tested.

WELL PREPARATION:

- 1) MIRUSU. Nipple up 3M BOPE.
- 2) Kill well with produced water.
- 3) TOH and lay down 2-3/8" production tubing.
- 4) TIH with 4-3/4" bit on 2-7/8" work string and clean out to PBTD. TOH.

SQUEEZE EXISTING PERFORATIONS: (A CIBP may be set instead of squeezing)

- 5) TIH with cement retainer on tubing and set above perfs (7028'-7090') at 7000'.
- 6) Space out tubing in neutral position and test tubing to 3000 psi. Rig up squeeze manifold. Establish rate into perforations (2 BPM), note pump in pressure. Pressure up annulus to 1000 psi, monitor casing during job.
- 7) Cement squeeze with 150 sx Class "G" with 0.2% D156 and 0.2% D65 to obtain a fluid loss of 200-300 cc/30 min. (determine by lab testing) followed by 100 sx Class "G" neat, mixed at 15.8 ppg. Minimum pump time 150 minutes at 175°F.
- 8)
 - a) Spot cement to end of tubing.
 - b) Sting into retainer.
 - c) When cement reaches perforations, slow rate to 1/2 BPM
 - d) Maximum squeeze pressure 3000 psi.
 - e) Displace cement to retainer.
- 9) Pull out of retainer, reverse out cement and check for flow. Pull tubing to 4000' and shut-in for 24 hours.
- 10) Shut in backside and test casing to 500 psi.

Jicarilla "C" No. 35
Horizontal Reentry
Rio Arriba County, New Mexico
Drilling & Completion Procedure

MILL 5 1/2" CASING:

- 11) Circulate hole with mud for milling. TOH with tubing and bit.

MUD: Starch
Volume: (6000' * .0238 bbl/ft = 143 bbls + 200 bbls for pit = 343 bbls)
Weight: 8.5 - 8.7
Funnel Visc.: 75-80
- 12) If casing collar log is not available in Area, Run GR-CCL to determine position of collars. (Window may be moved +/- 10 to avoid milling a casing collar).
- 13) TIH with mill for 5 1/2" casing on 2 7/8" workstring. Mill 40' section of casing from +/- 5960' - 6000'. While milling, run paper sweeps in the mud to ensure the hole is clean. Place ditch magnets in return lines to catch metal cuttings. Any time a trip is made, make sure the hole is clean and the blades are retracted.
- 14) TOH with mill.

SPOT KICK OFF PLUG:

- 15) TIH with diverter tool and +/- 400' 2 3/8" (2 1/16" if available) on 2 7/8" work string to 6010'. Circulate Starch mud out of hole. Pull up hole so diverter tool is across milled section and wash section. TIH to PBTD.
- 16) Spot 50 sx Class "G" mixed at 17.5 PPG from 5760' to +/- 6010' (200' above window). Batch mix cement. Pull out of cement plug slow to approximately 4000'. **Do not reverse circulate**. Shut in for 24 hours minimum. TOH with tubing.
- 17) TIH with 4 3/4" bit and dress off cement to the KOP at 5970'. TOH with 4 3/4" bit. Cement must drill 1.5-2 min/ft with 10 pts and 50 RPM to insure the plug is hard enough for kickoff.
- 18) Circulate hole clean.

Jicarilla "C" No. 35
Horizontal Reentry
Rio Arriba County, New Mexico
Drilling & Completion Procedure

DRILL CURVE SECTION (WEST DIRECTION):

19) Displace hole with starch mud. TOH with bit.

MUD: Starch
Volume: (6000' * .0238 bbl/ft + 200 bbls for pit + 2500' * .0219 bbl/ft)
(143 bbls + 200 bbls + 55 bbls = 398 bbls)
Weight: 8.7
Funel Visc.: 35-40

20) Pick up kick-off motor and test on surface. TIH with kick-off BHA s follows:

4 3/4" bit.
Kick-off motor (with 2.5-3.0° bent sub)
Float/ orientation sub.
1 jt 2 7/8" flexible monel collars.
Enough P-110 tubing to reach from KOP to end of planned horizontal wellbore.
Drill collars
2 7/8", Grade G, AOH DP. to surface.

21) TIH to **KOP (5970')**. Run GYRO and Orient motor to west direction. Break circulation and establish off bottom pressure at operating flow rates. **Planned build rate is 57°/100' with a radius of 100'.**

22) Slowly lower motor to bottom, adjusting toolface as necessary to compensate for reactive torque. Drill approximately 20' of build section with kick-off motor. TOH with kick-off motor and lay down. Pick up build motor (3 restricted articulations to maintain build rates below 70°/100') and TIH. Continue drilling curve while maintaining proper toolface orientation. Drill curve section to **target depth of 6070' TVD** for start of horizontal.

23) Circulate hole clean. TOH with curve motor.

DRILL HORIZONTAL LATERAL (WEST DIRECTION):

24) TIH with lateral motor BHA. (Same as step 22 but motor has lower build rate.)

Jicarilla "C" No. 35
Horizontal Reentry
Rio Arriba County, New Mexico
Drilling & Completion Procedure

- 25) Drill the **horizontal lateral (2500')** adjusting tool face as needed to the target. **The end of the horizontal target depth is 6070' TVD.** There is a window around the target line which the well path is to stay within. (see attached well plan for well path and hardlines). While drilling the lateral section, run sweeps of 5 bbls. water, 3 bbls prehydrated gel (90+ viscosity), and 1 gallon polymer.
- 26) At TD circulate hole clean with mud. TOH. Release directional equipment.

COMPLETION:

- 27) TIH with muleshoe, 6 jts P-110 tbg and 5-1/2" casing on 2 7/8" tubing. Space out so P-110 tubing is across curve section and packer is in the casing. Set the packer.
- 28) Rig up coiled tubing unit. TIH with "PERFCLEAN" jetting sub on 1 1/2" coiled tubing to TD. Circulate mud out of hole
- 29) Wash 1st lateral open hole with 25,000 gallons 15% NEFE. Rate 2 BPM. POH with coiled tubing while acidizing so entire open hole is stimulated.
- 30) Displace acid to the end of the tubing. SI for 15 min.
- 31) Flow well until dead. TOH with coiled tubing.
- 32) TOH with workstring. TIH with production equipment and test well as needed.

Attachment II

-37000. -36000. -35000. -34000. -33000. -31000. -30000. -2900-28588. 36.400

25N 5W

Proposed Directional Target

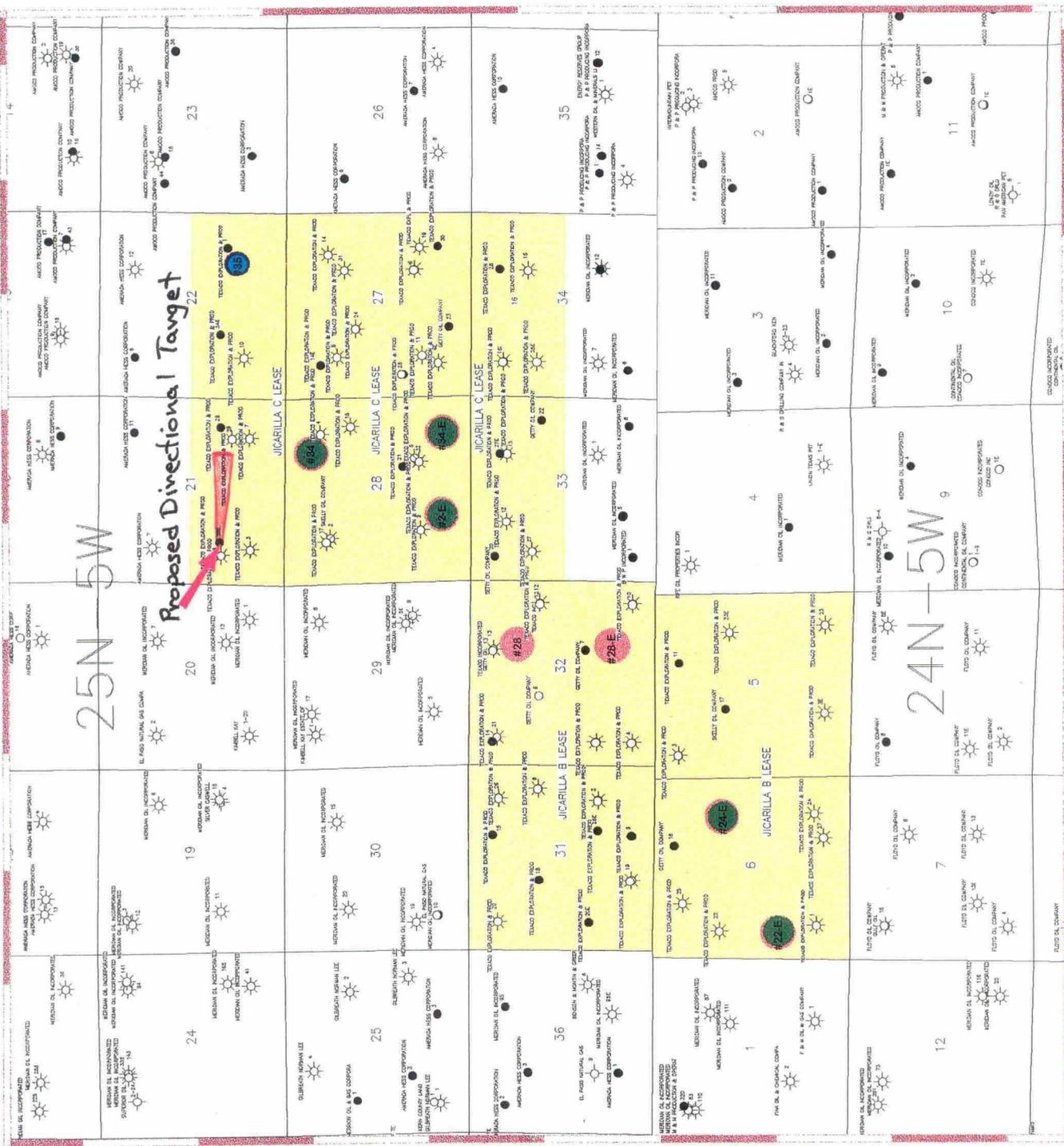


LEGEND

- Gallup/Delata New Well Location
- Delata New Well Location
- Gallup New Well Location
- PC/Chacra New Well Locations

TEXACO U.S.A.	
JICARILLA LEASES B & C	
LOCATIONS FOR 1995 DRILLING PROGRAM	
SAN JUAN BASIN, NEW MEXICO	
J. CARTWELL	G. BEERWASSE
820 P.O. BOX 1320	506 112000
	4-15-94 / 1-16-95
	RLP/PA/CS/A

Jicarilla C 35 (26E)



4285000.

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980
DISTRICT II
P.O. Box Drawer DD, Artesia, NM 88211-0719
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
DISTRICT IV
P.O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department
OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-102
Revised February 10, 1999
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 3003923433	² Pool Code 39189	³ Pool Name LINDRITH GALLUP-DAKOTA, WEST
⁴ Property Code 11170	⁵ Property Name JICARILLA C	
⁷ OGRID Number 022364	⁸ Operator Name TEXACO EXPLORATION & PRODUCTION, INC.	⁶ Well No. 35
⁹ Elevation 6631' KB		

¹⁰ Surface Location

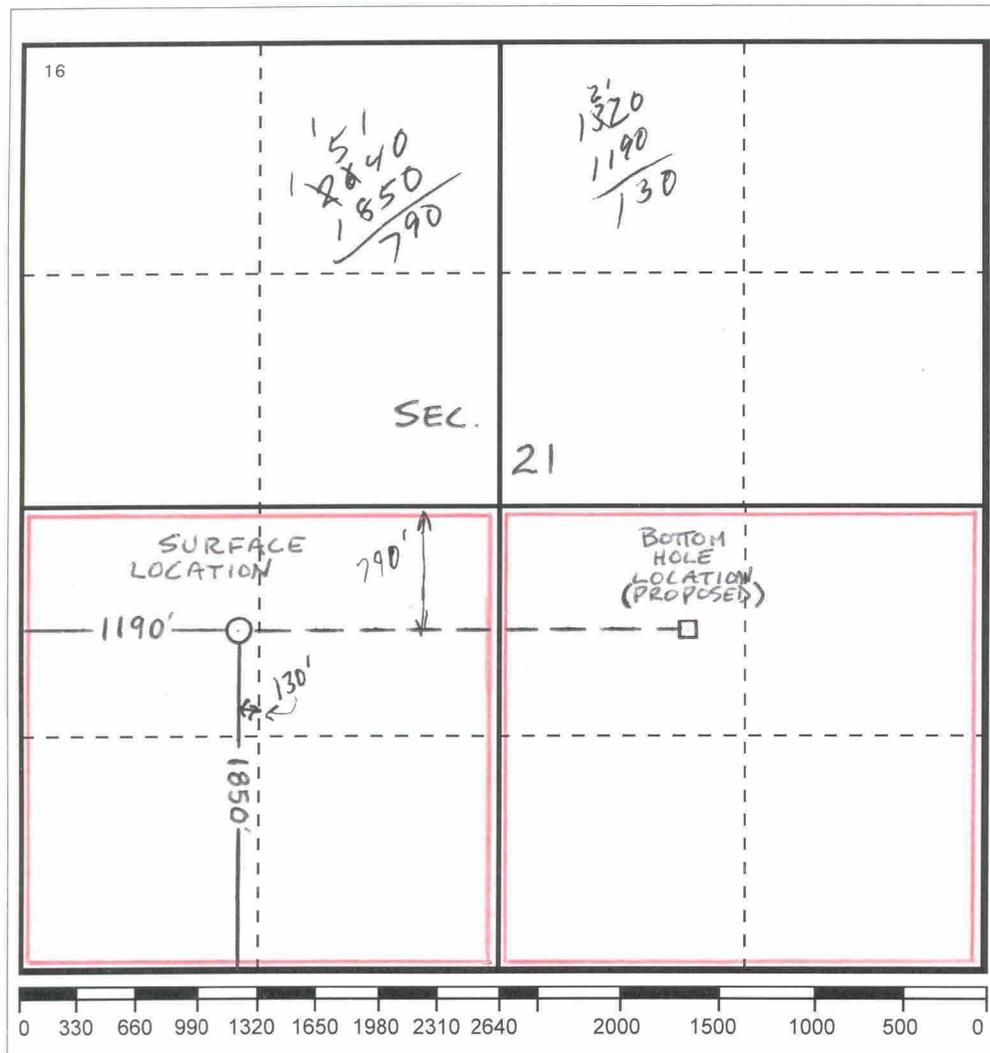
UI or lot no.	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
L	21	25N	5W		1850	SOUTH	1190	WEST	RIO ARRIBA

¹¹ Bottom Hole Location If Different From Surface

UI or lot no.	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
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¹² Dedicated Acre	¹³ Joint or Infill No	¹⁴ Consolidation Code	¹⁵ Order No.
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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



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

Rached Hindi
Signature

Printed Name
RACHED HINDI

Position
Senior Engineer

Date
6/2/95

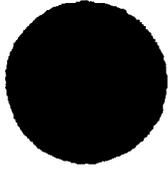
18 SURVEYOR CERTIFICATION

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 knowledge and belief.

Date Surveyed

Signature & Seal of Professional Surveyor

Certificate No.



JICARILLA C No. 35 CURRENT COMPLETION

LOCATION:

1850' FSL & 1190' FWL
Sec. 21, T25N, R5W
Rio Arriba, NM

SPUD DATE: 4/19/84

RECOMPL DATE: 6/12/84

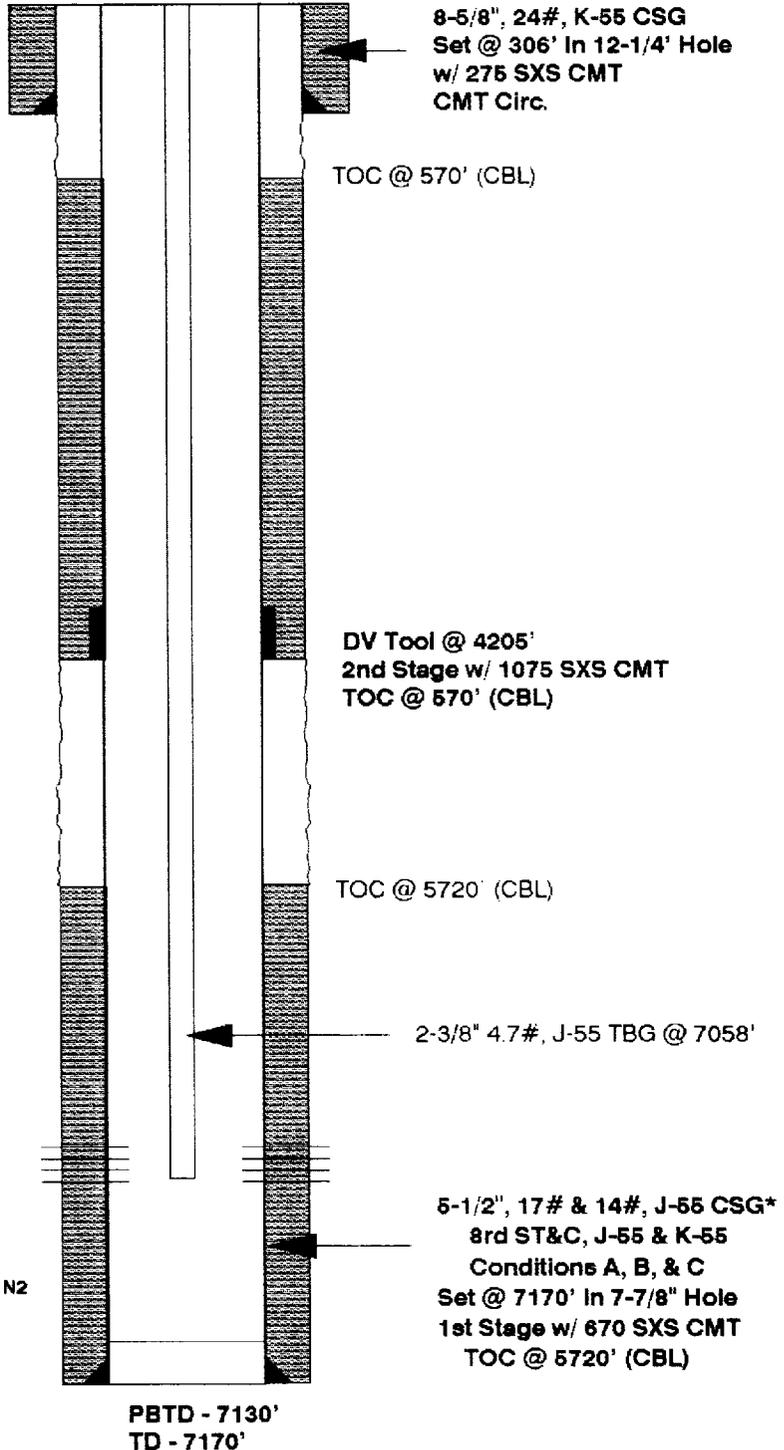
ELEVATION: 6631' KB
6619' GR

FORMATION TOPS:

- Ojo Alamo 2154' (+4477')
- Kirtland 2324' (+4307')
- Fruitland 2462' (+4169')
- Pictured Cliffs 2692' (+3939')
- Chacra 3560' (+3071')
- Mesaverde 4337' (+2294')
- Gallup 6048' (+ 583')
- Greenhorn 6807' (- 176)
- Graneros 6874' (- 243)
- Dakota 6906' (- 275)

DAKOTA PERFS:

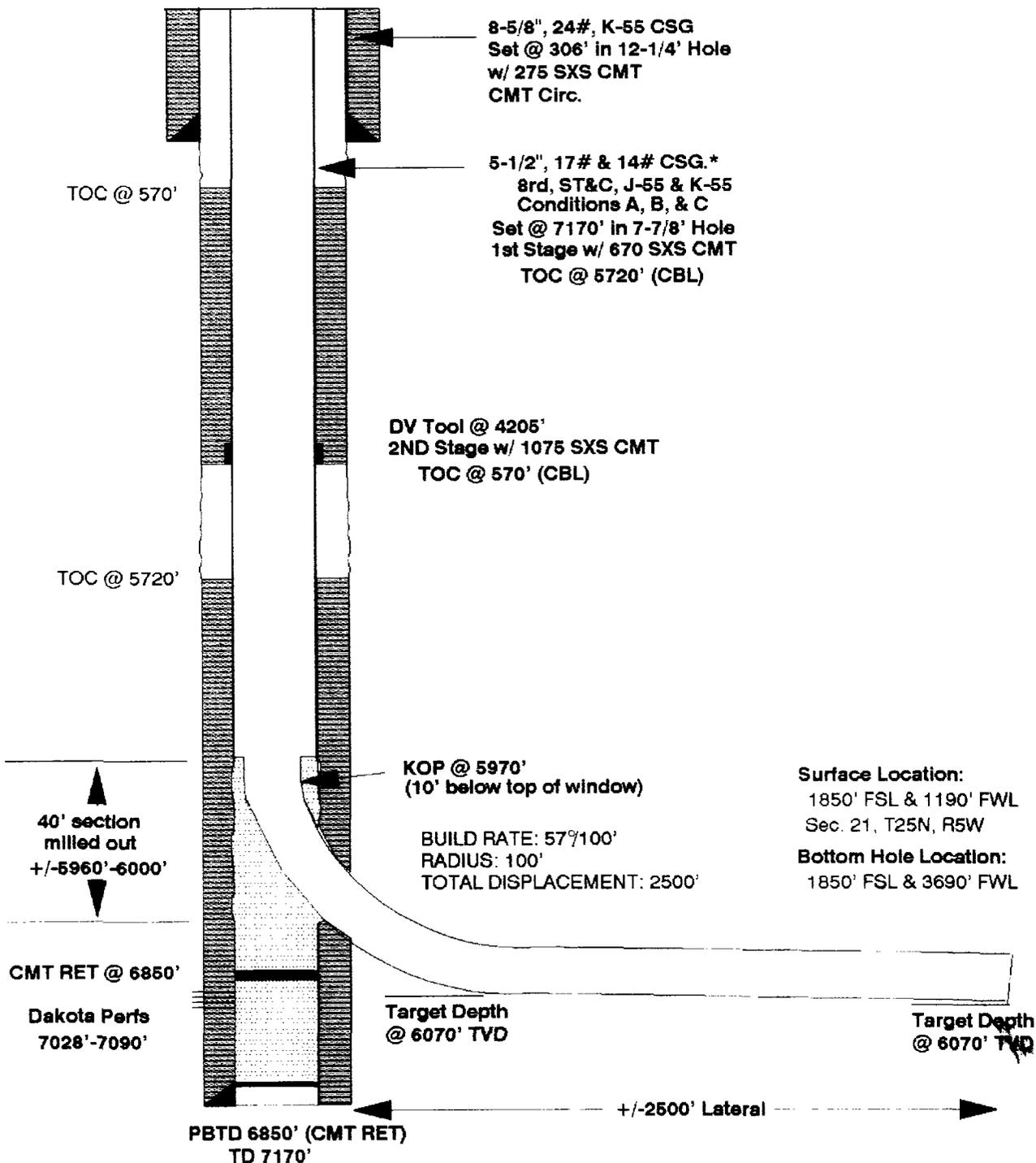
7028'-37', 7042'-46'
 7066'-71', 7080'-90'
 1 SPF, 0.40" dia. Holes
 Frac w/ 56,700 Gal. 70 Q Foam
 & 53,600# 20-40 Brady Sand
 BD w/ 1400 Gal. 15% HCl w/ 500 SCF/BBL N2





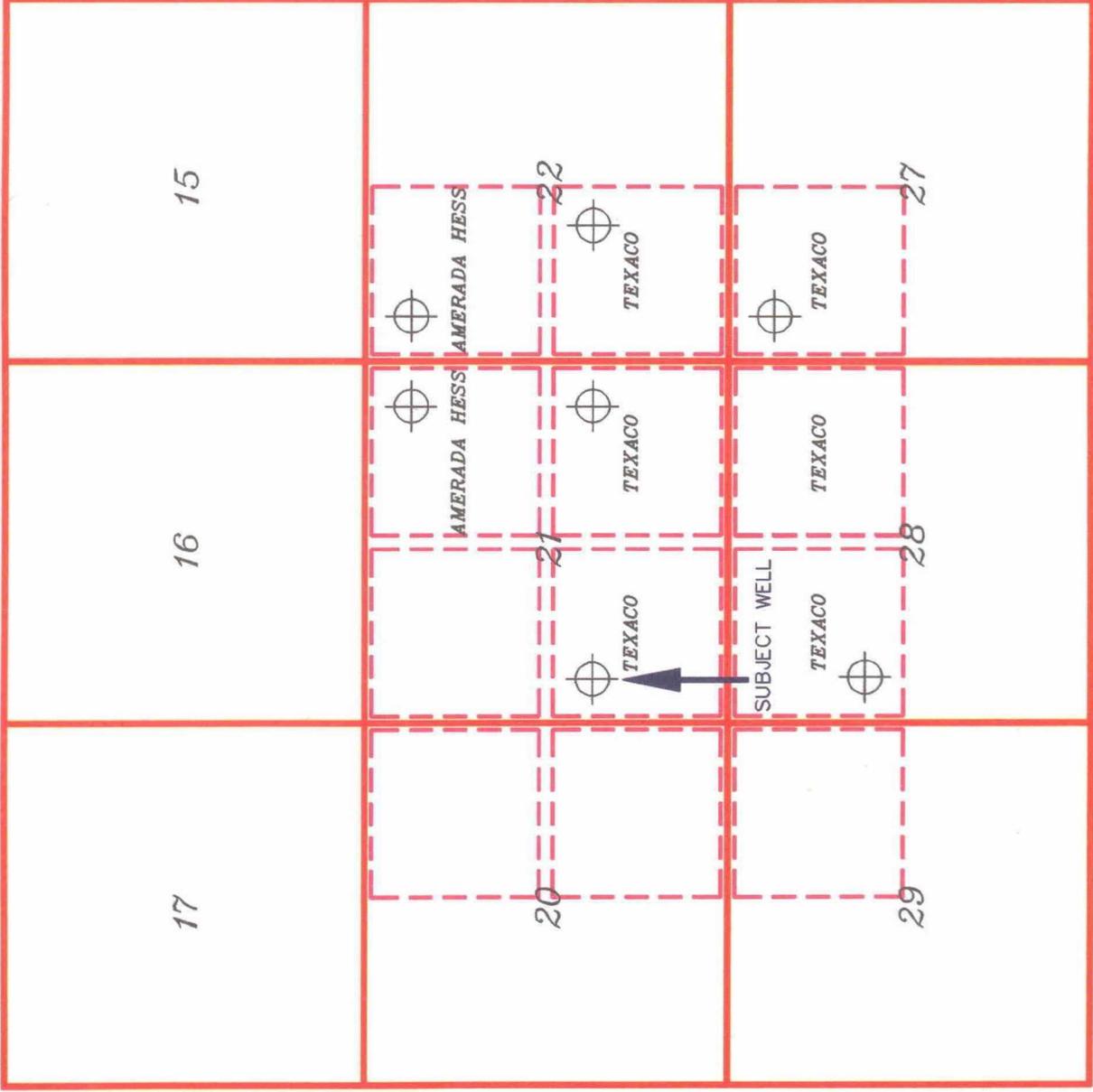
JICARILLA C No. 35

PROPOSED SIDETRACK COMPLETION



T 25 N / R 05 W

Attachment 1



WEST LINDRITH GALLUP/DAKOTA
160 AC. SPACING UNIT



TEXACO FARMINGTON OPERATING UNIT
DENVER DIVISION
DENVER, COLORADO

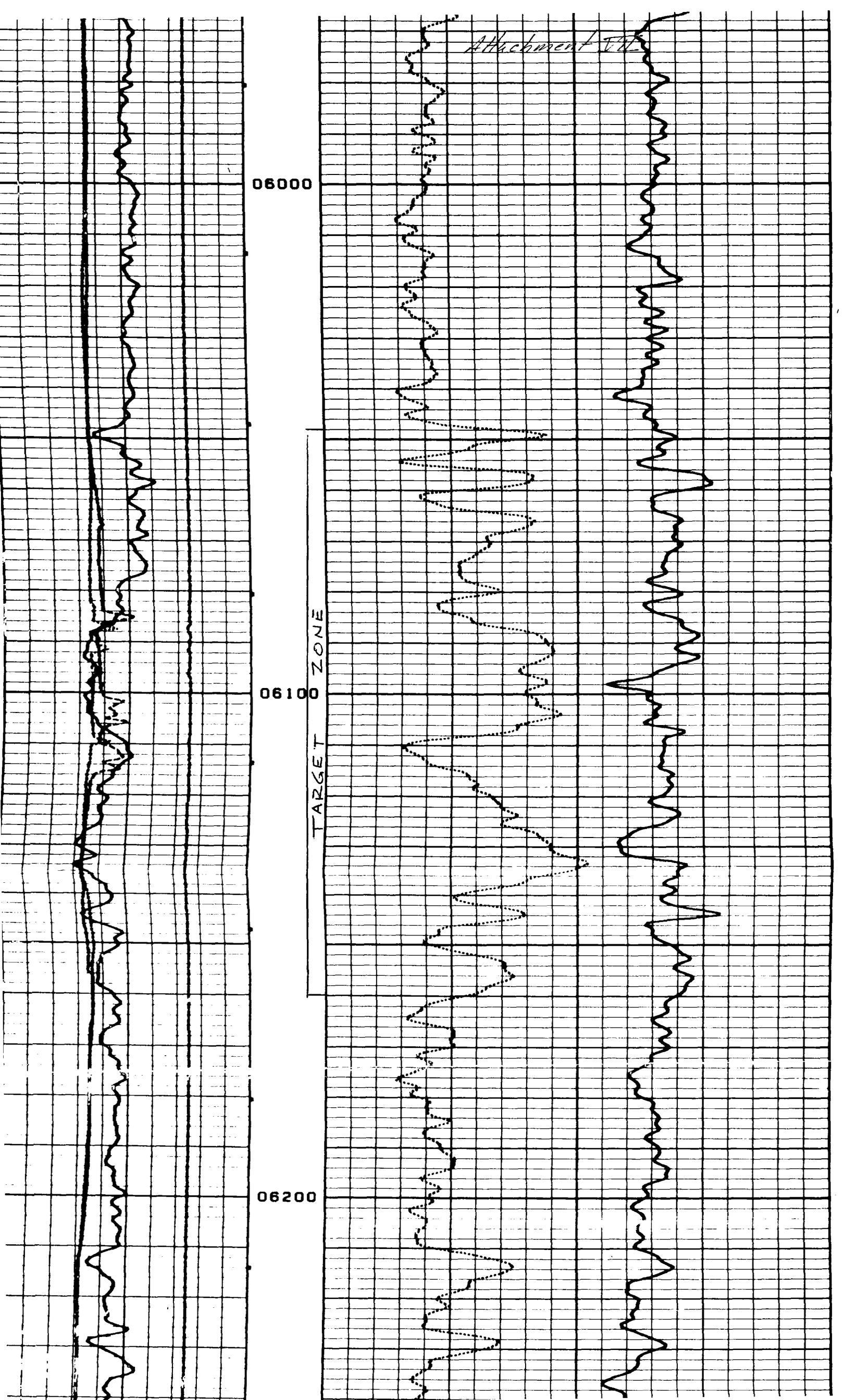
AREA: JICARILLA INDIAN RESERVATION
RIO ARRIBA COUNTY, NEW MEXICO
DESCRIPTION: OFFSET OPERATORS
WEST LINDRITH GALLUP/DAKOTA POOL
TEXACO E. & P. INC. - JICARILLA 'C' #55

DATE: 5/25/95 BY: rmd
REVISION: 1
SCALE: 1" = 100'
SHEET: 1 OF 1
GALLUP/DAKOTA

OFFSET OPERATORS
JICARILLA C #35
WEST LINDRITH GALLUP/DAKOTA

Amerada Hess Corporation
P.O. Box 2040
Tulsa, OK 74102
(918)599-4252

Attachment VII



06000

06100

06200

TARGET ZONE



STATE OF NEW MEXICO

RECEIVED
OIL CONSERVATION DIVISION
JUN 2 1995
52

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, New Mexico 87504

Case 11326

Attention: Messrs. Michael E. Stogner
David R. Catanach

RE: **Application for the June 29, 1995 examiner hearing concerning a project to drill a horizontal lateral section into the Gallup formation**
Jicarilla "C" No. 35, Surf Loc: 1850' FSL, 1190' FWL, Unit L
Sec. 21-T25N-R5W, West Lindrith Gallup-Dakota Oil Pool
Rio Arriba County, New Mexico

Gentlemen:

Please accept the attached copy of the Certified Mail Return receipt card from Amerada Hess, showing written notification of our application for a horizontal re-entry. Amerada Hess is the sole offset operator to the subject well. This should be included as attachment VIII in our application, which you should have already received.

Your attention to this matter is greatly appreciated. If you have any questions concerning this matter please contact me at 505-325-4397, ext. 19.

Sincerely,

Mark R. Reinhold
Production Engineer
MRR/s, Attachments, cc: NMOCD-Aztec

Attachment VIII

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- 1. Addressee's Address
- 2. Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

AMERADA HESS CORPORATION
 P.O. BOX 2040
 TULSA, OK 74102

4a. Article Number
 2 175 054 502

4b. Service Type:

- Registered Insured
- Certified COD
- Express Mail Return Receipt for Merchandise

7. Date of Delivery

5. Signature (Addressee)

8. Addressee's Address (Only if requested and fee is paid)

6. Signature (Agent)
 [Signature] 5-30-95



Thank you for using Return Receipt Service.