

# AZTEC OIL & GAS COMPANY

2000 FIRST NATIONAL BANK BUILDING  
DALLAS, TEXAS 75202

November 17, 1967

LAND DEPARTMENT  
KENNETH A. SWANSON, MANAGER

*PMX-26*  
*Nov Dec 10*

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Mr. A. L. Porter  
Secretary-Director  
New Mexico Oil Conservation Commission  
P. O. Box 871  
Santa Fe, New Mexico

Re: Application of Aztec Oil & Gas Company  
for Authorization to Convert Additional  
Producing Wells to Injection Wells and  
Expansion of Project Area Pursuant to  
Order No. R-2190, Tenneco Pressure Main-  
tenance Project, Totah-Gallup Pool,  
San Juan County, New Mexico

Dear Mr. Porter:

Pursuant to Rule 11 of Order R-2190, Aztec Oil & Gas Company hereby submits in triplicate its application for administrative approval for the conversion of additional producing wells to injection wells and the expansion of project area for the subject Pressure Maintenance Project.

In support of this application, Applicant respectfully states and shows the following:

1. Applicant has assumed the duties and obligations of operator of the subject Pressure Maintenance Project.
2. The project area is situated within the boundaries of the Central Totah Unit. Applicant proposes to convert the currently producing Central Totah Unit Wells Nos. 6, 14, 20 and 22 to injection wells. Injection of water in the Central Totah Unit has been into Wells Nos. 1, 3, 5, 9, 18 and 21, all approved by previous orders. Also approved by previous order, but not converted to injection wells, are the Central Totah Unit Wells Nos. 10 and 13 which are currently producing. The proposed conversion of the four additional wells will improve the injection pattern and efficiency as far as is permitted by present wells and

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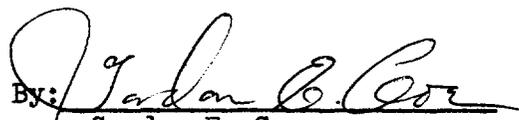
will increase the water injection rate. Unit Wells Nos. 10 and 13 will be converted to injection wells as future operating conditions dictate. Attached hereto as Exhibit "A" is a plat showing the location of the proposed injection wells, all wells within the project area, and all offset operators and wells which offset the project area.

3. Attached hereto as Exhibit "B-1", "B-2", "B-3", and "B-4" are schematic drawings of the proposed injection wells describing the casing, tubing, perforated interval and depth for each well and showing that the proposed injections of water will be confined to the Gallup formation.
4. As shown on Exhibit "A", Applicant proposes an expansion of the project area to include Lots 1, 2, S/2 SE/4 and the SE/4 SW/4 of Section 11, Township 28 North, Range 13 West, San Juan County, New Mexico. These lands are within the boundary of the Central Totah Unit and the well situated thereon is directly affected by the subject Pressure Maintenance Project and is currently recovering unitized substances.
5. Applicant has this day forwarded a copy of this application by certified mail to the following operators offsetting the proposed injection wells: Roy L. Cook, Pan American Petroleum Corporation and Southwest Production Company.

Applicant respectfully requests the Secretary-Director to approve this application for the conversion of additional producing wells to injection wells and for the expansion of the subject project area of the subject Pressure Maintenance Project.

Respectfully submitted,

AZTEC OIL & GAS COMPANY

By:   
Gordon E. Coe

GEC:lg  
Encls.

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cc: Mr. Carl Houy, Trustee in Bankruptcy  
for Aspen Drilling Company, a Bankrupt  
724 Patterson Building  
Denver, Colorado 80202

Pioneer Producing Corporation  
P. O. Box 2542  
Amarillo, Texas

Mr. Warren Shear  
P. O. Box 807  
Duncan, Oklahoma

Pan American Petroleum Corporation  
Security Life Building  
Denver, Colorado 80202  
Certified Mail, Return Receipt Requested

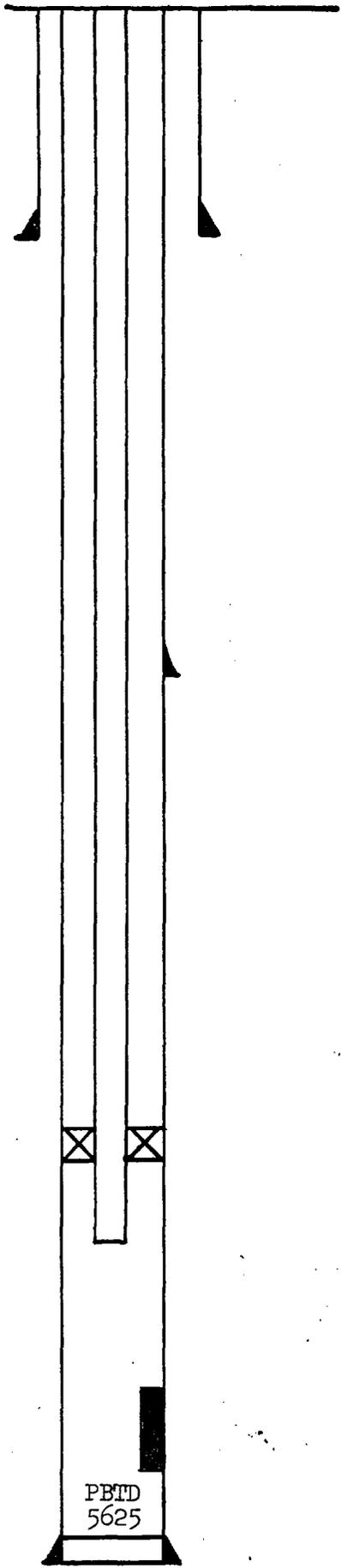
Roy L. Cook  
1116 Bank of New Mexico Building  
Albuquerque, New Mexico 87103  
Certified Mail, Return Receipt Requested

Southwest Production Company  
Southland Center  
Dallas, Texas 75201  
Certified Mail, Return Receipt Requested

LARGE FORMAT  
EXHIBIT HAS  
BEEN REMOVED  
AND IS LOCATED  
IN THE NEXT FILE

EXHIBIT B-1

Aztec Oil & Gas Company  
Central Totah Unit #6  
Diagramatic Sketch of  
Proposed Conversion to  
Water Injection



8-5/8" casing set at 169'  
Cemented w/125 sacks. Cement  
circulated

4-1/2" stage collar at 1810  
Cemented w/50 sacks  
Top cement 1420 (calc.)

Baker Model A packer  
Set at 5565  
2-3/8" OD Tubing landed at 5565

Gallup Perforations  
5592-98

4-1/2" OD casing set at 5652'  
Cemented w/190 sacks. Top Cement 4230 (calc.)

PBTD  
5625

TD 5656



FILE NO. 2.  
 Aztec Oil & Gas Company  
 Central Totah Unit #6  
 Formerly Tenneco #15 Callow 5

Field Print

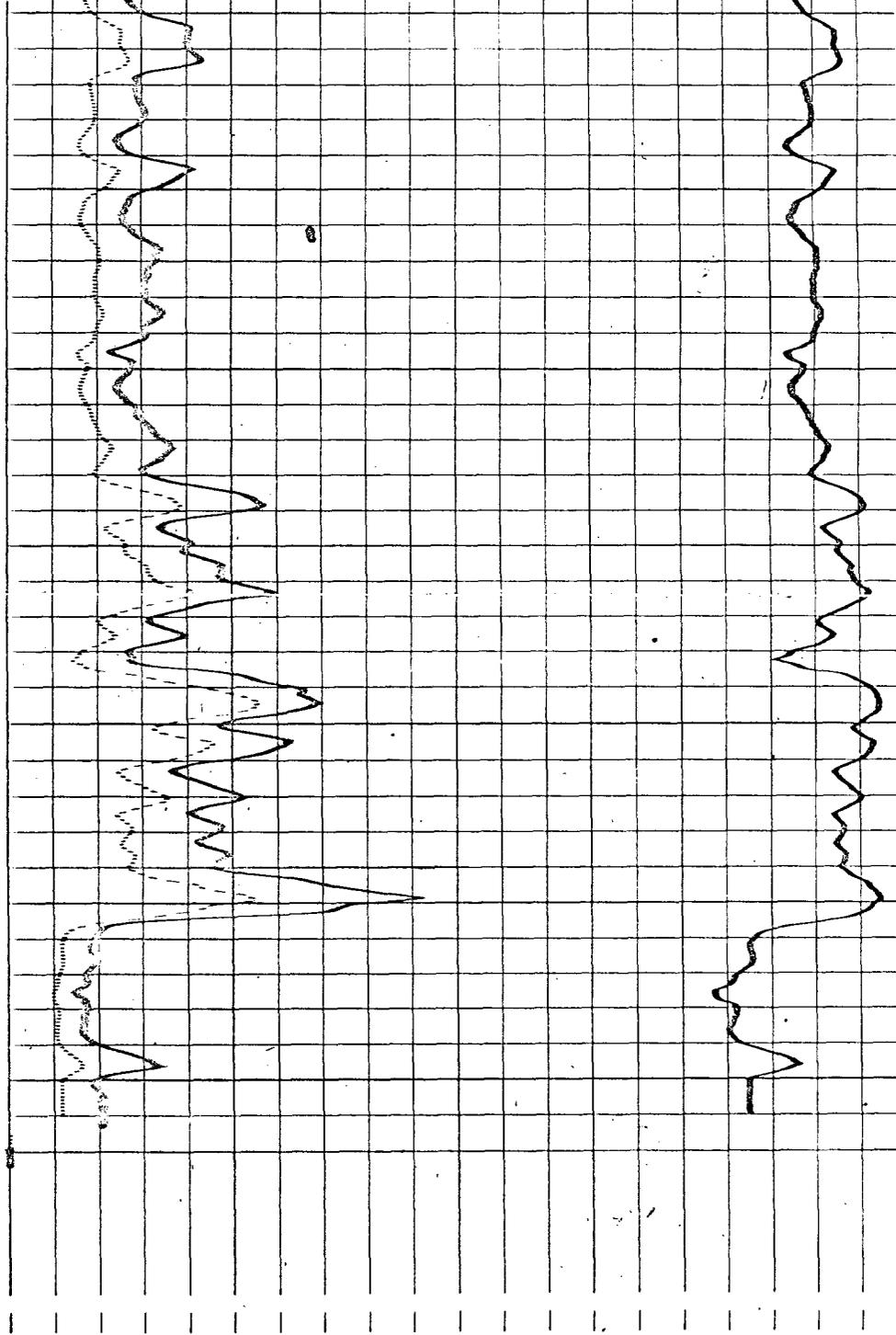
FIELD TOTAH Gallup  
 COUNTY SAN JUAN STATE New Mexi  
 LOCATION: 23 10' FNL 9 560 FEL  
 Other Serv GRA

SEC 28 TWP 29N RGE 13W  
 Elevation: KB 575  
 DF 574  
 GL 574

Permanent Datum Ground Level Elev. 5740  
 Log Measured from KB 11 F. Above Permanent Datum  
 Drilling Measured from KB or 11 Feet Above GL

Date	11-29-60	
Run No.	0VE	
Depth—Driller	5650	
Depth—Logger	5653	
Bottom Logged Interval	1910	
Top Logged Interval	3 5/8 @ 169	
Casing—Driller	7 7/8"	
Casing—logger	Oil Emulsion	
Bit Size	Oil Emulsion	
Type Fluid in Hole	Oil Emulsion	

Density and Viscosity	4.7	55		
pH and Fluid Loss	8.4	8	cc	
Source of Sample	Flow line			
Rm @ Meas. Temp.	3.0	@ 80	of	@
Rmf @ Meas. Temp.	3.2	@ 80	of	@
Rmc @ Meas. Temp.	3.5	@ 80	of	@
Source of Rmf and Rmc	Measured			
Rm @ BHT	1.7	@ 136	of	@
Time Since Circ.	4 1/2			
Max. Rec. Temp. Deg. F.	136	of		
Equip. No. and location	A470 Farm			
Recorded By	Wright			



Perf. 5592-98  
 5400 5500 5600

SCHLUMBER

COUNTY SAN JUAN, N.M.  
 FIELD or LOCATION TOTAH GALLUP  
 WELL USA GLEN H. GALLOW  
#20  
 COMPANY TENNECO OIL COMPANY

RUN No.	
Date	
First Reading	
Last Reading	
Feet Measured	
Csg. Schlum.	
Csg. Driller	
Depth Reached	
Bottom Driller	
Depth Datum	
Mud Nat.	
Dens. Visc.	
Mud Resist.	
Res. BHT	
Rmf	
Rmc	
PH	
" Wtr. Loss	
Bit Size	
Spccs. AM	
AM	
AO	
MUD SOURCE	
Truck No.	
Recorded By	
Witness	

EXHIBIT B-2

Aztec Oil & Gas Company  
 Central Totah Unit #14  
 Proposed Conversion to  
 Water Injection

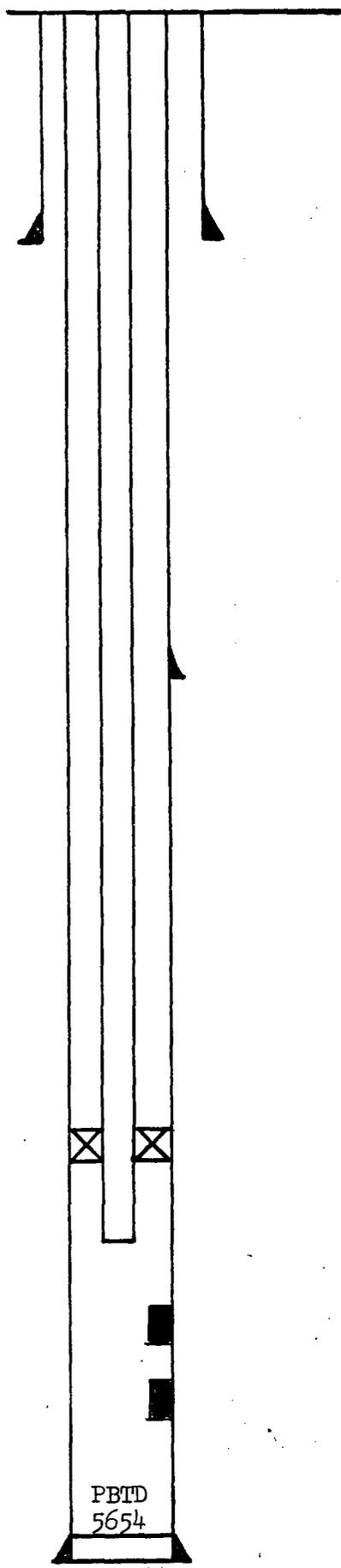
8-5/8" OD casing set at  
 137'. Cemented w/100 sacks  
 Cement circulated.

4-1/2" OD stage collar at 1786'  
 Cemented w/50 sacks. Top cement  
 1130 (Calc.)

Baker Model A packer set at 5570  
 2-3/8" OD Tubing landed at 5570

Gallup Perforations  
 5593-97, 5634-38

4-1/2" OD casing set at 5744  
 Cemented w/80 sacks. Top cement 4890 (Calc.)



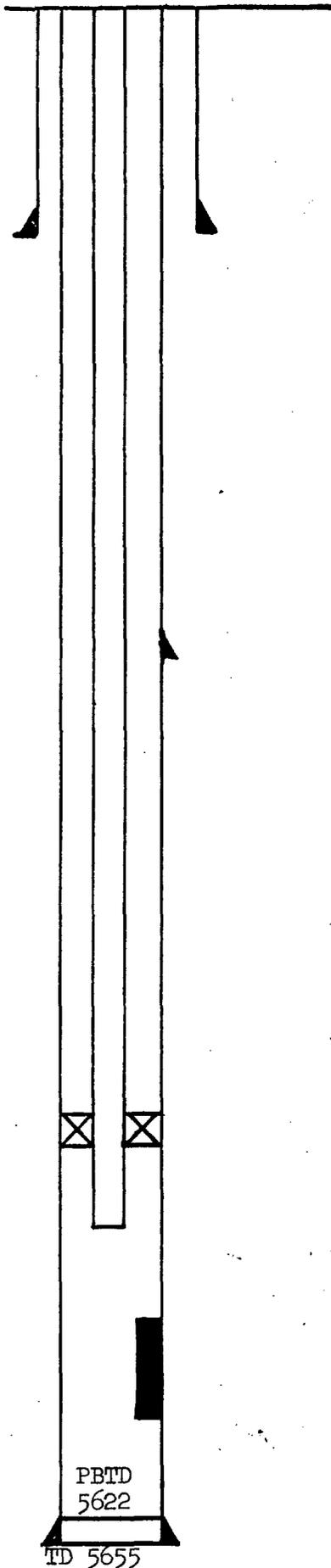
PBTD  
 5654

TD 5744

05700



Aztec Oil & Gas Company  
Central Totah Unit #20  
Diagrammatic Sketch of  
Proposed Conversion to  
Water Injection



8-5/8" OD casing set at 320'  
Cemented w/225 sacks.  
Cement circulated.

4-1/2" OD stage collar at 1789'  
Cemented w/150 sacks  
Top cement 1350 (Temp)

Baker Model A packer set at 5540  
2-3/8" tubing landed at 5540

Gallup perforations:  
5570-96

4-1/2" OD casing set at 5652  
Cemented w/250 sacks. Top cement 4800 (Temp)

PBTD  
5622

TD 5655



*Electrical Log*

COUNTY SAN JUAN, NEW MEXICO  
FIELD or LOCATION TOTAH GALLUP  
WELL HAGOOD #10-G

COMPANY AZTEC OIL & GAS COMPANY

COMPANY AZTEC OIL & GAS  
WELL Central Totah Unit #20  
Formerly Hagood #10  
FIELD TOTAH GALLUP  
LOCATION SEC. 34-29N-13W  
COUNTY SAN JUAN  
STATE NEW MEXICO

Other Surveys  
ML

Location of Well

1580' FR S/L  
1910' FR E/L  
SEC. 34-29N-13W  
**FIELD**

Elevation: D.F.:  
K.B.: 5771'  
or G.L.: 5760'

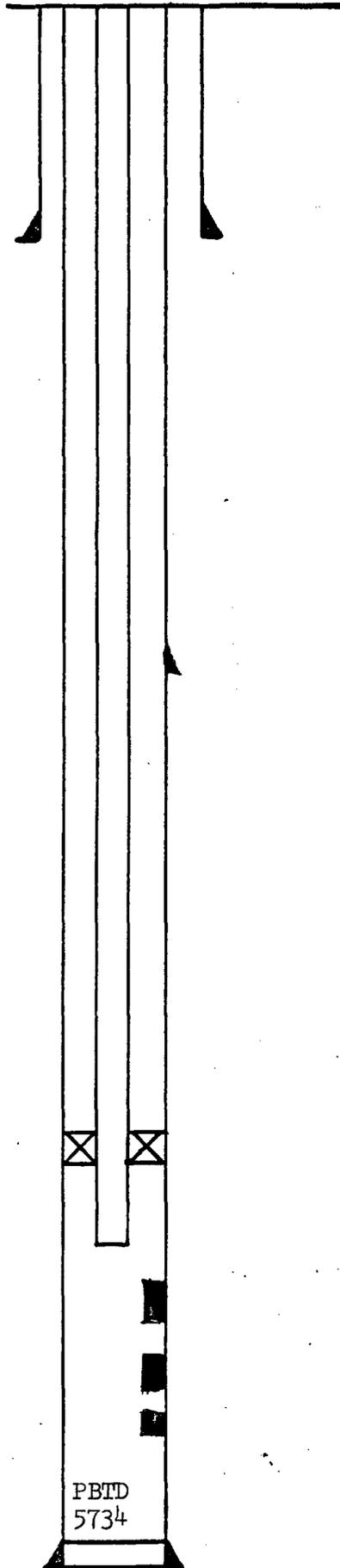
FILING No.

RUN No.	Date	First Reading	Last Reading	Feet Measured	Csg. Schlum.	Csg. Driller	Depth Reached	Bottom Driller	Depth Datum	Mud Nat.	Dens. Visc.	Mud Resist.	Res. BHT	Rmf	Rmc	pH	Wtr. Loss	Bit Size	Specs. AM	AO	Op'r. Rig Time	Truck No.	Recorded By	Witness	
ONE	12-8-60	5654	320	5334	320	320	5655	5650	KB	CHEM GEL	9 4.1 98	2 9@ 68°F	1 6@ 129°F	2.5@ 68°F	3.2@ 68°F	8.5@ °F	1.3@ 30 min.	7 7/8"	16"	A 14	18.8"	1 HR	2515	FEATHER	HR. DOHAI



EXHIBIT B -4

Aztec Oil & Gas Company  
Central Totah Unit #22  
Diagrammatic Sketch of  
Proposed Conversion to  
Water Injection



8-5/8" casing set at 234'  
Cemented w/175 sacks. Cement  
circulated.

4-1/2" stage collar at 1817  
Cemented w/150 sacks  
Top cement 1350 (Temp.)

Baker Model A packer set at 5587  
2-3/8" OD Tubing landed at 5587

Gallup perforations:  
5622-38, 5654-68  
5710-14

4-1/2" OD casing set at 5744'  
Cemented w/400 sxs. Top cement 3990 (Calc.)

PBTD  
5734

TD 5745

COMPANY AZTEC OIL & GAS  
 COMPANY HAGOOD # 15-G  
 WELL TOTAH-GALLUP  
 FIELD SAN JUAN  
 County NEW MEXICO  
 State NEW MEXICO  
 File \_\_\_\_\_

COMPANY AZTEC OIL & GAS COMPANY  
 WELL Central Totah Unit #22  
 Formerly Hagood #15  
 FIELD TOTAH-GALLUP  
 COUNTY SAN JUAN STATE NEW MEXICO  
 Location 510' FSL 2035' FEL  
SEC. 34 TWP. 29-N  
RGE. 13-W  
 Other logs  
 CONTACT-  
 CALLPER

Permanent Datum KELLY BUSHING Elev. 5890  
 Log Measured From KELLY BUSHING  
 Drilling Measured From KELLY BUSHING  
 Sec. \_\_\_\_\_ Twp \_\_\_\_\_ Rge \_\_\_\_\_  
 Elevation  
 KB. 5890  
 DF. 5889  
 G. 5879

Run No. 1  
 Date 1-28-61  
 Total Depth Driller 5740  
 Total Depth Welex 5745  
 Csg. Shoe Driller 237  
 Csg. Shoe Welex 238  
 Survey Begins 5740  
 Survey Ends 238  
 Csg. Size 8-5/8"  
 Bit Size 7-7/8"

Mud Data - Type CHEMICAL  
GEL, CAUSTIC  
 Weight 9.4  
 Viscosity 90  
 Ph. 15 @ \_\_\_\_\_ %F  
 Wtr. Loss cc/ 30 min. @ \_\_\_\_\_ %F  
 Res. @ Surface Temp. 1.95 @ 50 %F  
 Res. @ Max. Hole Temp. 2.1 @ 127 %F  
 Rmf. 1.1 @ 127 %F  
 Rmc. 2.4 @ 127 %F  
 Struce Mud Sample CIRCULATED  
 Recorded By COULTHARD  
 Witnessed By MR. DONALDSON  
 Logging Tool No. 10058

