Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

API - 30-031-20486

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: NM 5980

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Federal 21

9. WELL NO.: 1

10. FIELD AND POOL, OR WILDCAT: Wildcat Entrada

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: K- Sec. 21, T20N, R5W

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] OTHER — SINGLE ZONE [X] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR: Filon Exploration Corporation

3. ADDRESS OF OPERATOR: c/o Minerals Management Inc. 501 Airport Drive, Suite 105, Farmington, N.M. 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 2310 FSL, 2310 FWL, Sec 21, T20N, R5W
At proposed prod. zone:

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 23 miles South-Southwest Counslers Trading Post, N.M.

12. COUNTY OR PARISH: McKinley

13. STATE: N. Mex.

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 2310 FSL

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.:

19. PROPOSED DEPTH: 6200'

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 6775 GR

22. APPROX. DATE WORK WILL START*: 7-1-76

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
15"	10 3/4"	40.50#	200	200 sx
8 3/4"	7"	23-26#	6200	300-500 sx (2 stage)

Filon Exploration Corporation (Operator) proposes to drill a Jurrasic test to 6200'. Completion will be determined from logs. A Series 900 (3000 psi) WP. Blowout perventer will be used.

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OIL CON. COM.
DIST. 3

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, 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 T. Arnold Snell TITLE Area Manager Minerals Management Inc DATE June 18, 1976

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

Okay

*See Instructions On Reverse Side

NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

Operator	Lease	Well No.
Filon Exploration	Filon-Federal 21	1

Unit Letter	Section	Township	Range	County
K	21	20N	5W	McKinley

Actual Footage Location of Well:
2310 feet from the South line and 2310 feet from the West line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
6775	Entrada	Wildcat	40 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

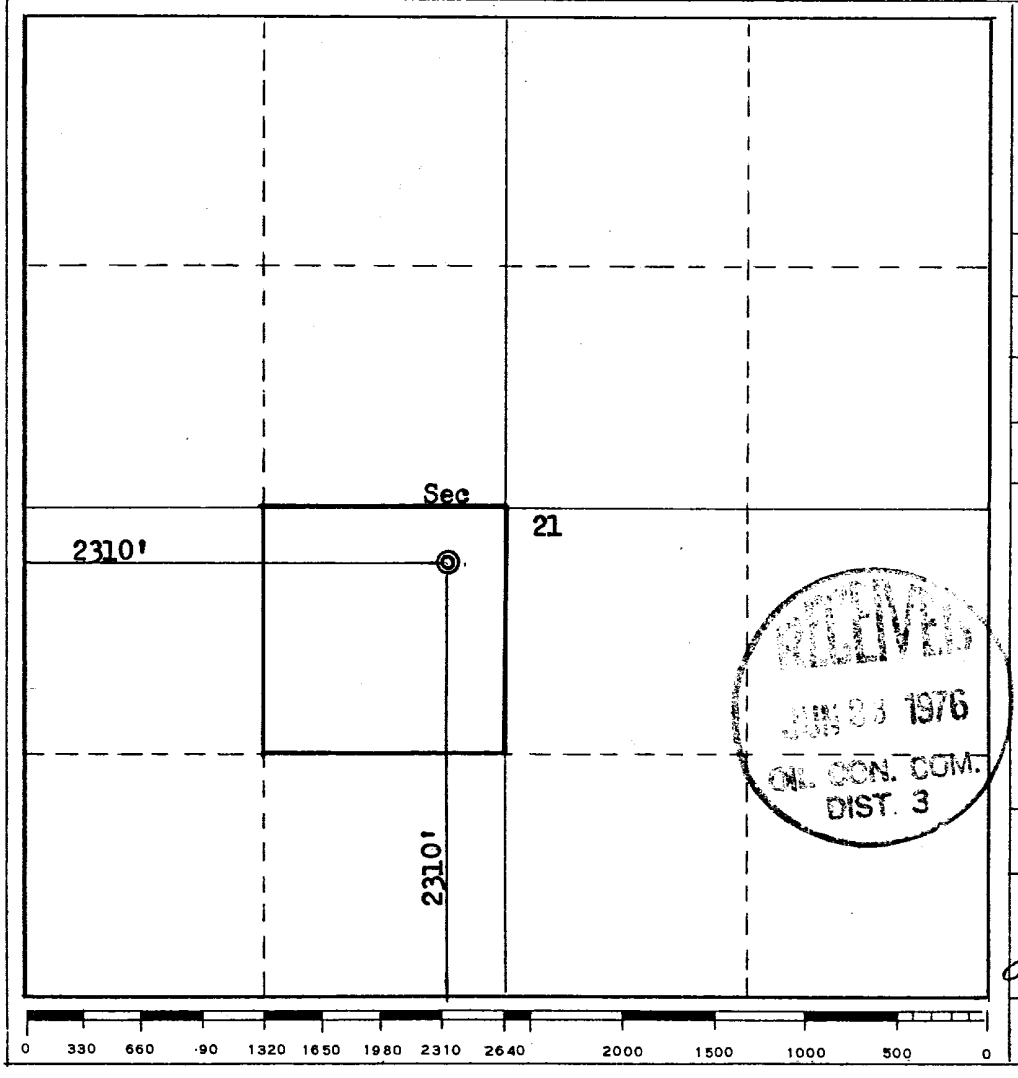
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling. etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

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

Name: J. Arnold Snell

Position: Area Manager

Company: Minerals Management Inc.

Date: June 18, 1976

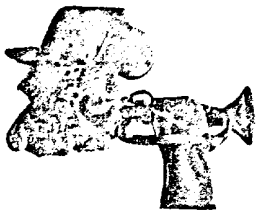
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed: March 9, 1976

Registered Professional Engineer and/or Land Surveyor

Fred B. Kerr Jr.

Certificate No. 3950



MINERALS MANAGEMENT INCORPORATED
A Division of SCIENTIFIC SOFTWARE CORPORATION

June 18, 1976

DEVELOPMENT PLAN FOR SURFACE USE

FILON EXPLORATION CORPORATION

FEDERAL 21 WELL NO. 1

2310' FSL, 2310' FWL, SEC. 21, T20N, R5W

McKINLEY COUNTY, NEW MEXICO

1. Existing Roads

   The existing road from Counslers Trading Post to Ojo Encino School, from the school to Star Lake Compressor Station will be used.

2. Planned Access Road

   As per topographic map, approximately 100' of new road will be built.

3. Location of Existing Wells

   None

4. Location of Tank Batteries and Flowlines

   Will be initially located on location pad approximately 150' from well if production is encountered.

5. Water Supply

   Water will be hauled to location from BLM Encino water well.

6. Source of Construction Materials

   Not applicable

7. Method of Handling Waste Disposal

Waste will be buried in the reserve pit on completion of the well. The reserve pit will be backfilled. Toliet facilities will be provided.

8. Ancillary Facilities

No camps or airstrips will be used

9. Diagram of Well Location

See attachment

10. Plans for Restoration to Surface

The surface will be restored and reseeded as directed by the Bureau of Land Management.

11. Other Information

Impact on the environment will be minimal. The access road and well location is sparsely vegetated and minimal trees and sage will be disturbed.

12. Operators Representative

Minerals Management, Inc. 501 Airport Dr., Suite 105, Farmington, New Mexico 87401.

13. Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; 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 Filon Exploration Corporation and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

6-18-76
Date

T. Arnold Snell
Name and Title
Area Manager
Minerals Management Inc.
Company

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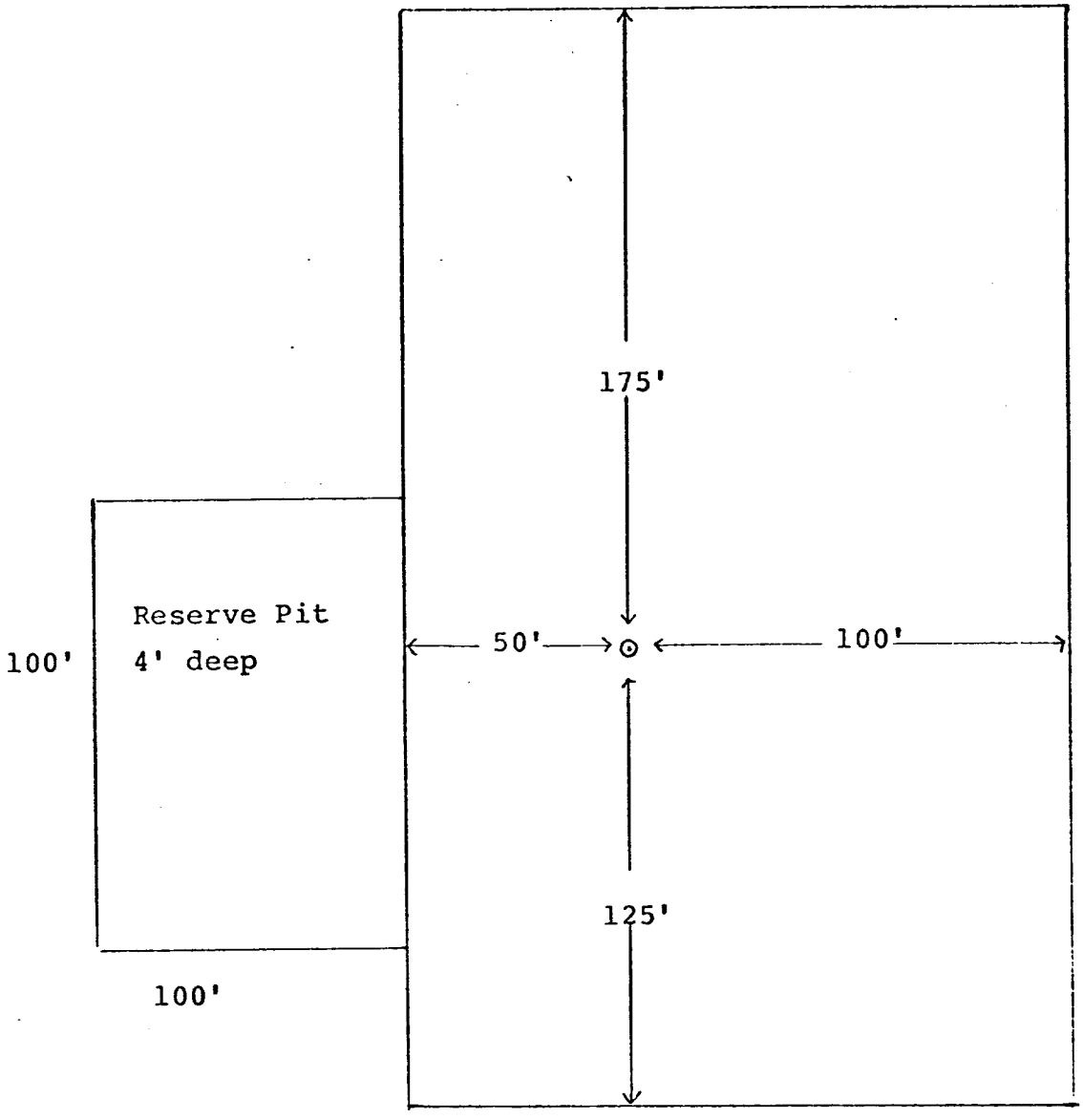
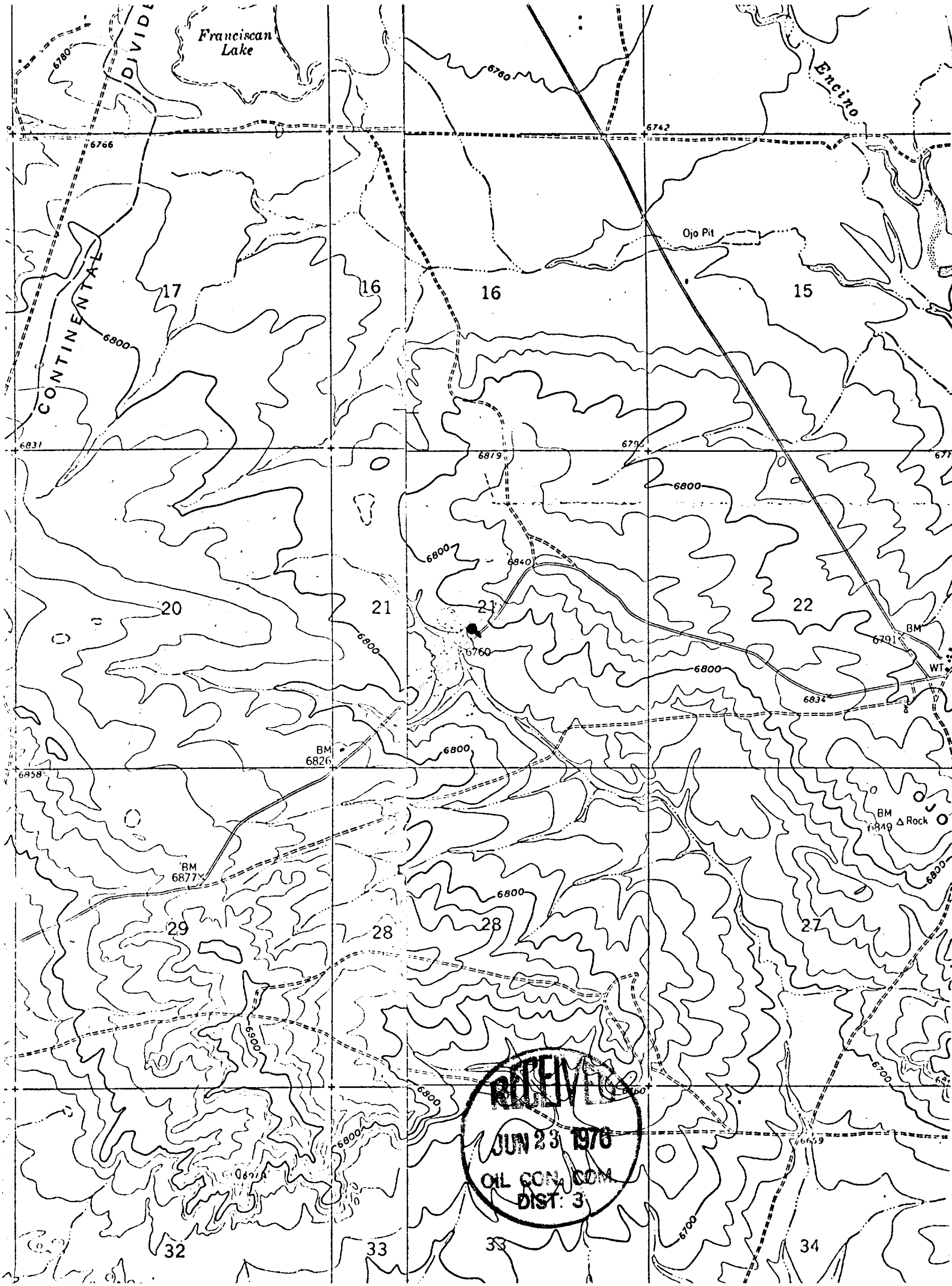


DIAGRAM OF WELL LOCATION



Franciscan Lake
CONTINENTAL DIVIDE
Encino
Ojo Pit
17
16
16
15
6780
6766
6760
6742
6800
6831
6819
6796
6840
20
21
21
22
6760
BM 6791
WT
6834
BM 6826
6858
OJO
BM 6849 Δ Rock
BM 6877
29
28
28
27
6900
6700
6659
32
33
33
34
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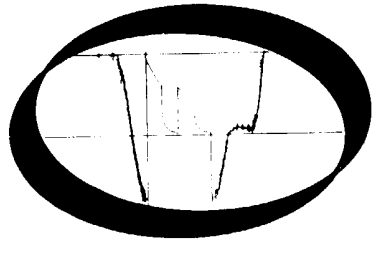
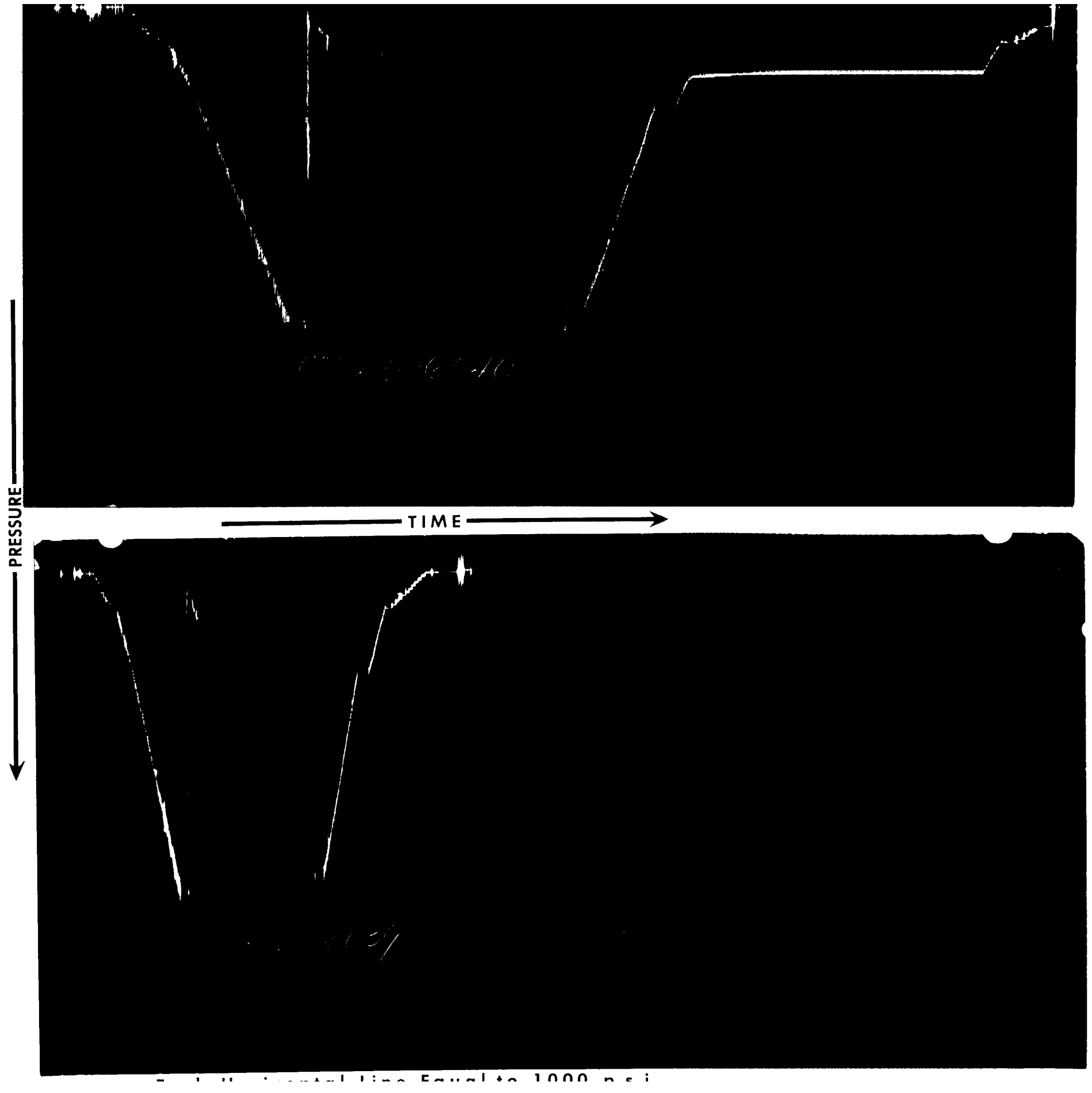
Formation Testing Service Report



HALLIBURTON SERVICES
DUNCAN, OKLAHOMA



Each Horizontal Line Equal to 1000 p.s.i.

NOMENCLATURE

b	=	Approximate Radius of Investigation	Feet
b_1	=	Approximate Radius of Investigation (Net Pay Zone h_1)	Feet
D.R.	=	Damage Ratio	——
El	=	Elevation	Feet
GD	=	B.T. Gauge Depth (From Surface Reference)	Feet
h	=	Interval Tested	Feet
h_1	=	Net Pay Thickness	Feet
K	=	Permeability	md
K_1	=	Permeability (From Net Pay Zone h_1)	md
m	=	Slope Extrapolated Pressure Plot (Psi^2/cycle Gas)	psi/cycle
OF_1	=	Maximum Indicated Flow Rate	MCF/D
OF_2	=	Minimum Indicated Flow Rate	MCF/D
OF_3	=	Theoretical Open Flow Potential with/Damage Removed Max.	MCF/D
OF_4	=	Theoretical Open Flow Potential with/Damage Removed Min.	MCF/D
P_s	=	Extrapolated Static Pressure	Psig.
P_f	=	Final Flow Pressure	Psig.
P_{ot}	=	Potentiometric Surface (Fresh Water*)	Feet
Q	=	Average Adjusted Production Rate During Test	bbls/day
Q_1	=	Theoretical Production w/Damage Removed	bbls/day
Q_g	=	Measured Gas Production Rate	MCF/D
R	=	Corrected Recovery	bbls
r_w	=	Radius of Well Bore	Feet
t	=	Flow Time	Minutes
t_o	=	Total Flow Time	Minutes
T	=	Temperature Rankine	°R
Z	=	Compressibility Factor	——
μ	=	Viscosity Gas or Liquid	CP
Log	=	Common Log	

* Potentiometric Surface Reference to Rotary Table When Elevation Not Given, Fresh Water Corrected to 100° F.

FLUID SAMPLE DATA

Sampler Pressure 0 P.S.I.G. at Surface
Recovery: Cu. Ft. Gas 0
cc. Oil 2250
cc. Water 0
cc. Mud 0
Tot. Liquid cc. 2250
Gravity ____ ° API @ ____ °F.
Gas/Oil Ratio ____ cu. ft./bbl.

		RESISTIVITY			CHLORIDE CONTENT
Recovery Water	____	@ ____	°F.	____	ppm
Recovery Mud	1.48	@ 80	°F.	____	ppm
Recovery Mud Filtrate	____	@ ____	°F.	____	ppm
Mud Pit Sample	1.12	@ 85	°F.	____	ppm
Mud Pit Sample Filtrate	____	@ ____	°F.	____	ppm

Mud Weight 9.0 vis 82 sec ~~SR~~

Date 8-7-76 Ticket Number 000216
Kind of Job OPEN HOLE Halliburton District FARMINGTON
Tester MR. HOEFER Witness MR. MOORE
Drilling Contractor LOFFLAND BROTHERS BJ S

EQUIPMENT & HOLE DATA

Formation Tested Entrada
Elevation 6788' Ft.
Net Productive Interval 8' Ft.
All Depths Measured From Kelly Bushing
Total Depth 5890' Ft.
Main Hole/Casing Size 8 3/4"
Drill Collar Length 659' I.D. 2.25"
Drill Pipe Length 5179' I.D. 3.340"
Packer Depth(s) 5870' 5875' Ft.
Depth Tester Valve 5848' Ft.

Cushion TYPE AMOUNT Ft. Depth Back Pres. Valve Surface Choke 3/4" Adj. Bottom Choke 3/4"

Recovered 1570' Feet of oil.
Recovered 328' Feet of mud cut water.
Recovered Feet of
Recovered Feet of
Recovered Feet of

Meas. From Tester Valve

Remarks SEE PRODUCTION TEST DATA SHEET....

CHARTS INDICATE PARTIAL PLUGGING OF ANCHOR PERFORATIONS DURING INITIAL FLOW PERIOD....

TEMPERATURE	Gauge No. 6040 Depth: 5853' Ft.	Gauge No. 6039 Depth: 5887' Ft.	Gauge No. Depth: Ft.	TIME
	12 Hour Clock	24 Hour Clock	Hour Clock	Tool Opened 4:05 A.M. P.M.
Est. °F.	Blanked Off NO	Blanked Off YES	Blanked Off	Opened A.M. P.M.
Actual 170 °F.	Pressures	Pressures	Pressures	Bypass 8:20

		Field	Office	Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic		2811	2803	2839	2821				
First Period	Flow Initial	79	81-Q	119	126-Q			———	———
	Flow Final	315	322-Q	369	371-Q			30	30
	Closed in	2337	2337	2338	2351			45	46
Second Period	Flow Initial	420	425	460	467			———	———
	Flow Final	827	844	893	894			60	60
	Closed in	2337	2351	2365	2367			120	120
Third Period	Flow Initial							———	———
	Flow Final								
	Closed in								
Final Hydrostatic		2811	2778	2813	2797			———	———

Q = Questionable

Legal Location Sec. - Twp. - Rng. 21 20 5
Lease Name 21-20-5 FEDERAL 21
Well No. 1
Test No. 3
Tested Interval 5875' to 5890'
Field Area WILDCAT
County MC KINLEY
State NEW MEXICO
Lease Owner/Company Name FILON EXPLORATION CORPORATION

FORM 181-R1—PRINTED IN U.S.A.

FORMATION TEST DATA

LITTLE'S 96671 10M 8/74

000216

Casing perfs.____ Bottom choke____ Surf. temp____ °F Ticket No.____

Gas gravity____ Oil gravity____ GOR____

Spec. gravity____ Chlorides____ ppm Res.____ @____ °F

INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED____

Date 8-6-76 Time a.m. p.m.	Choke Size	Surface Pressure psi	Gas Rate MCF	Liquid Rate BPD	Remarks
1030					On location.
1200					Picked up and made up tools.
1230					Started in the hole.
4:02					On bottom.
4:05					Opened tool with a fair blow.
4:35					Closed tool.
5:20					Reopened tool with a weak to a good blow, continuing to the end of period.
6:20					Closed tool.
8:20					Opened bypass.
8:30					Came off bottom.
9:50					Hit fluid-1898' fluid.
1:30					Out of the hole.
2:30					Left location.

FORM 182-R1—PRINTED IN U.S.A.

PRODUCTION TEST DATA

LITTLE'S 96672 5M 8/74

Gauge No.	6040		Depth	5853'		Clock No.	10444		12 hour	Ticket No.	000216			
	First Flow Period		First Closed In Pressure			Second Flow Period		Second Closed In Pressure			Third Flow Period		Third Closed In Pressure		
	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.
0	.0000	81-Q	.0000		322	.0000	425	.0000		844					
1	.0337	110	.0261*		2166	.0668	462	.0537		2224					
2	.0673	168	.0456		2225	.1337	517	.1073		2271					
3	.1010	228	.0652		2254	.2005	594	.1610		2295					
4	.1346	257	.0848		2274	.2673	665	.2146		2309					
5	.1683	291	.1043		2287	.3342	752	.2683		2320					
6	.2020	322-Q	.1239		2297	.4010	844	.3220		2328					
7			.1434		2305			.3756		2333					
8			.1630		2312			.4293		2337					
9			.1826		2317			.4829		2341					
10			.2021		2322			.5366		2343					
11			.2217		2326			.5903		2346					
12			.2412		2329			.6439		2347					
13			.2608		2332			.6976		2350					
14			.2804		2334			.7512		2351					
15			.3000		2337			.8050		2351					
Gauge No.	6039		Depth	5887'		Clock No.	7276'		24 hour						
0	.0000	126-Q	.0000		371	.0000	467	.0000		894					
1	.0167	147	.0134*		2151	.0335	509	.0269		2238					
2	.0333	209	.0234		2229	.0670	560	.0539		2286					
3	.0500	321	.0335		2266	.1005	643	.0808		2311					
4	.0666	301	.0435		2286	.1340	709	.1077		2325					
5	.0833	421	.0536		2300	.1675	802	.1347		2336					
6	.1000	371-Q	.0636		2311	.2010	894	.1616		2343					
7			.0736		2318			.1885		2349					
8			.0837		2325			.2154		2353					
9			.0937		2330			.2424		2357					
10			.1038		2336			.2693		2359					
11			.1138		2339			.2962		2361					
12			.1238		2343			.3232		2363					
13			.1339		2346			.3501		2364					
14			.1439		2350			.3770		2366					
15			.1540		2351			.4040		2367					
Reading Interval	5		3			10		8							Minutes

REMARKS: * INTERVAL = 4 MINUTES

Q = Questionable

SPECIAL PRESSURE DATA

LITTLE'S 96673 75C 8/74

TICKET NO. 000216

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	6"	2.50"	1'	
Water Cushion Valve				
Drill Pipe	4"	3.340"	5179'	
Drill Collars	6.25"	2.25"	659'	
Handling Sub & Choke Assembly				
Dual CIP Valve				
Dual CIP Sampler	5"	.87"	8'	5840'
Hydro-Spring Tester	5"	.75"	5'	5848'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.50"	4'	5853'
Hydraulic Jar	5"	1.75"	5'	
VR Safety Joint	5"	1"	3'	
Pressure Equalizing Crossover				
Packer Assembly	7.50"	1.53"	6'	5870'
Distributor				
Packer Assembly	7.50"	1.53"	6;	5875'
Flush Joint Anchor				
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case				
Drill Collars				
Anchor Pipe Safety Joint				
Packer Assembly				
Distributor				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
Flush Joint Anchor	5.75"	2.50"	10'	
Blanked-Off B.T. Running Case	5.75"	3.50"	4'	5887'
Total Depth				5890'