El Paso Natural Gas Company

El Paso, Texas
February 17, 1958

DIRECT REPLY TO:
P. O. BOX 997
FARMINGTON, NEW MEXICO

RECEIVED
FEB 21 1958
OIL CON. COM.
DIST. 3

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

Dear Sir:

This is a request for administrative approval for a well dually completed in the Blanco Mesa Verde Pool and in the North Los Pinos Dakota Extension Pool. The El Paso Natural Gas Company Allison Unit No. 12 (MD) is located 1825 feet from the North line and 1550 feet from the East line of Section 14, Township 32 North, Range 7 West, N.M.P.M., San Juan County, New Mexico.

This well has been completed in the Point Lookout section of the Mesa Verde formation, and in the Dakota formation. Completion has been accomplished in the following manner:

1. 13 3/8", 48# Spiral Weld surface casing set at 205 feet with 225 sacks of cement circulated to the surface.
2. 9 5/8", 36# J-55 intermediate casing set at 3696 feet and cemented in two stages. 380 sacks at the base of the casing, and 1000 sacks across the Pictured Cliffs formation.
3. 7 5/8", 26.40# N-80 (bottom) and J-55 (top) Hydril casing set at 6040 feet with 300 sacks of cement.
4. 5", 18.0# N-80 liner set from 5976 feet to 8317 feet with 225 sacks Pozmix "140"; liner was set in hole directionally drilled from 6070 feet to Total Depth.
5. The casing and liner were tested for leaks before perforating.
6. The Dakota formation was perforated in two intervals and fractured with water and sand.
7. The Point Lookout section was perforated in four intervals and fractured with water and sand.
8. All perforations were cleaned out after treatment and completion was accomplished by setting a Baker Model "D" production packer on 2" EUE tubing at 5945 feet. No 1 1/4" siphon string was run. The Point Lookout gas will be produced through the casing and the Dakota gas through the 2" EUE tubing.
9. Initial potential tests have been run and commercial production has been found in both zones. A packer leakage test has been run and witnessed by a member of the Aztec office of the Oil Conservation Commission. This test shows no communication in the well bore between the two producing formations.

COPY

Administrative approval is requested for the dual completion to allow production from both known producing formations, thus eliminating the high initial cost of drilling two separate wells.

Since El Paso Natural Gas Company is the only operator of the Allison Unit, and the acreage dedicated to this well falls entirely within the limits of the unit, the approval to dually complete this well has not been sought from any other operator. Enclosed are:

(a) Two copies of the schematic diagram of the mechanical installations.
(b) Two copies of the affidavit from the packer setting company stating that the packer used was set at the depth shown.
(c) Two copies of the packer leakage test as observed by a member of the Oil Conservation Commission.
(d) Two copies of the initial potential test showing commercial production from the two formations.

It is intended to dedicate all of Section 14, Township 32 North, Range 7 West to the Dakota formation and the E/2 of Section 14, Township 32 North, Range 7 West to the Mesa Verde formation.

Any further information required will be furnished upon your request. Thank you for your consideration in this matter.

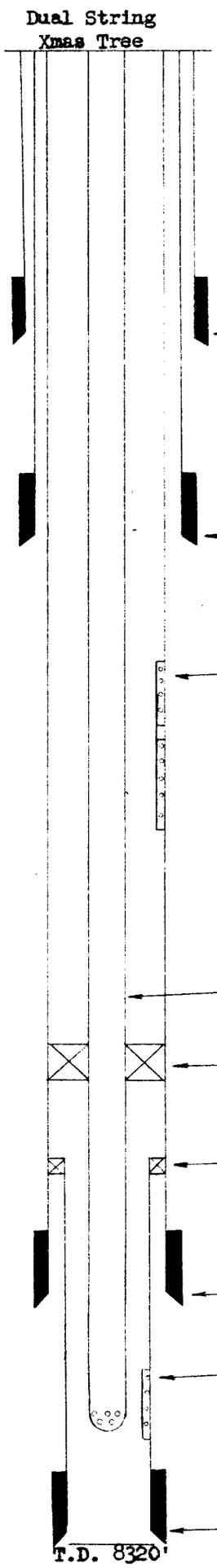
Yours very truly,

ORIGINAL SIGNED E.S.OBERLY

E. S. Oberly
Division Petroleum Engineer

ESO;dgb
Encl.
cc: NMOCC (Emery Arnold)
Sam Smith
USGS (Phil McGrath)

SCHEMATIC DIAGRAM OF DUAL COMPLETION
El Paso Natural Gas Co. Allison Unit No. 12 (MD)
NE/4 Section 14, T-32-N, R-7-W



Zero reference point 10.0 above top flange of tubing hanger.

13 3/8", 48.0# S. W. casing set at 205' with 225 sacks circulated to surface.

9 5/8", 36.0# J-55 casing set at 3696', cemented in two stages: 380 sacks first stage and 1000 sacks second stage.

Point Lookout perforations 5796-5812; 5822-5832; 5842-5850; 5860-5860 (2 SPF); fractured with water and sand.

2" EUE 4.7# J-55 tubing set at 8126', with tubing perforations at 8109'-8112'

Baker Model "D" production packer set at 5945'.

Baash-Ross liner hanger set at 5976'.

7 5/8", 26.40#, N-80 and J-55 Hydril casing set at 6040' with 300 sacks cement.

Dakota perforations 8082-8102; 8134-8166 (2 SPF) - fractured with water and sand.

5", 18.0#, N-80 liner set from 5976' to 8317' with 225 sacks Pozmix "140".

Note: Original 6 3/4" hole and two subsequent directional holes have fish in them and were plugged off. Hole containing liner drilled directionally from 6070' to Total Depth.

STATE OF NEW MEXICO)
)
COUNTY OF SAN JUAN)

I, Mack Maheffey, being first duly sworn upon my oath depose and say as follows;

I am an employee of Baker Oil Tools, Inc., and that on January 15, 1958, I was called to the location of the El Paso Natural Gas Company Allison Unit No. 12 (ND) Well located in the SWNE/4 of Section 14, Township 32 North, Range 7 West, N.M.P.M., for advisory service in connection with installation of a production packer. In my presence, a Baker Model "D" Production Packer was set in this well at 5945 feet in accordance with the usual practices and customs of the industry.

Mack M Maheffey

Subscribed and sworn to before me, a Notary Public in and for San Juan County, New Mexico, the 13 day of FEB, 1958.

Notary Public in and for San Juan County, New Mexico

My commission expires February 24, 1960.

STATE OF NEW MEXICO)
)
COUNTY OF SAN JUAN)

I, Mack McCarley, being first duly sworn upon my oath depose and say as follows:

I am an employee of Baker Oil Tools, Inc., and that on January 13, 1958, I was called to the location of the El Paso Natural Gas Company Allison Unit No. 12 (MD) Well located in the SW¼NE¼ of Section 14, Township 32 North, Range 7 West, N.M.P.M., for advisory service in connection with installation of a production packer. In my presence, a Baker Model "D" Production Packer was set in this well at 5945 feet in accordance with the usual practices and customs of the industry.

Subscribed and sworn to before me, a Notary Public in and for San Juan County, New Mexico, this 24th day of January, 1958.

Notary Public in and for San Juan
County, New Mexico

My commission expires February 24, 1960.

EL PASO NATURAL GAS COMPANY

P. O. Box 997
Farmington, N.M.

February 7, 1958

Mr. E. C. Arnold
Oil Conservation Commission
120 East Chaco
Aztec, New Mexico

Re: Packer Leakage Test on the El Paso Natural Gas Company Well, Allison No. 12 (MD), 1825'N, 1550'E, Sec. 14-32-7, Rio Arriba County, N.M.

Dear Mr. Arnold:

The subject well was dually completed in the Dakota and Mesa Verde zones and a packer was set at 5945 feet. The Dakota zone was tested through a 3/4" choke for three hours January 28, 1958 with the following data obtained:

Mesa Verde SIPC 1454 psig; shut-in 12 days
Dakota SIPT 2645 psig; shut-in 12 days

Time Minutes	Dak. Flowing Pressure Tubing Psig	MV SIPC Psig	Dak. Working Pressure, Psig	Temp ° F
15	765	1469		66
30	734	1469		67
45	728	1469		68
60	726	1469		69
120	704	1471		71
180	701	1471	Calculated 1648	71

The choke volume for the Dakota was 9134 MCF/D with an A.O.F. of 13,235 MCF/D.

The Mesa Verde zone was tested February 4, 1958 with a 3/4" choke for three hours with the following data obtained:

Mesa Verde SIPC 1563 psig; shut-in 19 days
Dakota SIPT 2630 psig; shut-in 7 days

Time Minutes	MV Flowing Pressure Casing Psig	Dak. SIPT Psig	MV Working Pressure, Psig	Temp ° F
15	880	2630		56
30	721	2635		58
45	646	2637		60
60	613	2641		61
120	551	2642		63
180	512	2645	Calculated 515	63

The choke volume for the Mesa Verde test was 6853 MCF/D with an A.O.F. of 7490 MCF/D.

The results of the above tests indicate there is no packer leakage.

Very truly yours,

R. R Davis

R. R. Davis
Gas Engineer

RRD/jla

cc: W. M. Rodgers
E. S. Oberly (6)
File

Form 23-24 (Rev. 5-56)

EL PASO NATURAL GAS COMPANY
GAS WELL TEST

To: **Mr. Ed E. Alsup**

From: Gas Engineering Department

Date: **January 28, 1958**

Place: Farmington, New Mexico

DUAL COMPLETION

Subject: **Test data on the El Paso Natural Gas Company Well, ALLISON NO. 12 (D), Rio Arriba County, New Mexico.**

Tested By: **R. R. Davis**

Location ..... Sec. 14 T. 32 R. 7 1825'N, 1550'E

Shut-In Pressure ..... M.V. SIPC 1454 psig ; (Shut-in 12 days)
Dak. SIPT 2645 psig

0.750" Choke Volume ..... 9134 MCF/D @ 14.7 psia and 60° F. for 0.6 gravity gas. Flow through **tubing** for 3 hours.

Calculated 3 Hour Absolute Open Flow ..... 13,235 MCF/D

Working Pressure On **Calculated** ..... = 1648 Psig

Producing Formation ..... **Dakota**

Stimulation Method ..... **Sand Water Frac.**

Total Depth 8320

Field ..... **North Los Pintos**

H_2S ..... **Sweet** to lead acetate.

Final SIPC (MV) - 1471 psig. Packer at 5945'. 2" at 8116'

Lewis D. Galloway
L. D. Galloway

cc: D. H. Tucker
~~[illegible]~~
~~[illegible]~~
~~[illegible]~~
W. M. Rodgers
Wayne Cheek
Drilling Department
B. D. Adams
~~[illegible]~~
Jack Purvis
~~[illegible]~~
C. C. Kennedy
E. J. Coel, Jr.
A. J. Dudenhoeffer
File

Bill Parrish
Dean Rittmann
E. S. Oberly (6)
Samuel Smith
D. N. Canfield

FORM 23-75 (6-56)

EL PASO NATURAL GAS COMPANY

OPEN FLOW TEST DATA

DUAL COMPLETION

DATE January 28, 1958

Operator		Lease	
El Paso Natural Gas		Allison Unit No. 12 (D)	
Location		County	State
1825'N, 1550'E, Sec. 14-32-7		Rio Arriba	New Mexico
Formation		Pool	
Mesa Verde		Blanco	
Casing: Diameter	Set At: Feet	Tubing: Diameter	Set At: Feet
7-5/8	6030	2"	8116
Pay Zone: From	To	Total Depth:	
8082	8166	8320	
Stimulation Method		Flow Through Casing	Flow Through Tubing
Sand Water Frac.			X

Choke Size, Inches		Choke Constant: C			
.750		12.365			
Shut-In Pressure, Casing, PSIG	+ 12 = PSIA	Days Shut-In	Shut-In Pressure, Tubing PSIG	+ 12 = PSIA	
1454 MV	1466	12	2645 - Dak.	2657	
Flowing Pressure: P PSIG	+ 12 = PSIA		Working Pressure: Pw PSIG	+ 12 = PSIA	
701	713		Calculated	1660	
Temperature: T °F	n =		Fpv (From Tables)	Gravity	
71	.75		1.064	.620	

Final SIPC (MV) - 1471 psig. Packer at 5945. 2" at 8116

CHOKE VOLUME = $Q = C \times P_t \times F_t \times F_g \times F_{pv}$

$Q = 12.365 \times 713 \times .9896 \times .9837 \times 1.064 = 9134$ MCF/D

OPEN FLOW = $Aof = Q \left(\frac{P_c^2}{P_c^2 - P_w^2} \right)^n$

$Aof = \left(\frac{7,059,649}{4,304,049} \right)^n = 1.6402^{.75} \times 9134 = 1.4490 \times 9134$

Aof = 13,235 MCF/D

TESTED BY R. R. Davis

WITNESSED BY

cc: E. S. Oberly (6)

L. D. Galloway

L. D. Galloway

Form 23-24 (Rev. 5-58)

EL PASO NATURAL GAS COMPANY
GAS WELL TEST

To: **Mr. Ed E. Alsup**

From: Gas Engineering Department

Date: **February 4, 1958**

Place: Farmington, New Mexico

DUAL COMPLETION

Subject: **Test data on the El Paso Natural Gas Company Well, ALLISON UNIT NO. 12 (M), Rio Arriba County, N.M.**

Tested By: **R. R. Davis**

Location ..... Sec. 14 T. 32N R. 7W 1825'N, 1550'E

Shut-In Pressure ..... M.V. SIPC 1563 psig ; (Shut-in 19 days)
Dak. SIPT 2630 psig **Shut-in 7 days**

0.750" Choke Volume ..... 6853 MCF/D @ 14.7 psia and 60° F. for 0.6 gravity gas. Flow through casing for 3 hours.

Calculated 3 Hour Absolute Open Flow ..... 7490 MCF/D

Working Pressure On ..... Calculated = 515 Psig

Producing Formation ..... Mesa Verde

Stimulation Method ..... Sand Water Frac.

Total Depth 8320

Field ..... Blanco

H_2S ..... Sweet to lead acetate.

Final SIPT (Dak.) - 2645 psig. Packer at 5945'. 2" at 8116'

Lewis D. Galloway

L. D. Galloway

cc: D. H. Tucker
~~R. W. Hinds~~
~~W. M. Hollis~~
~~C. C. Mohr~~
W. M. Rodgers
Wayne Cheek
Drilling Department
B. D. Adams
~~Roland Hinds~~
Jack Purvis
~~W. M. Hollis~~
C. C. Kennedy
E. J. Coel, Jr.
A. J. Dudenhoeffer
File

Bill Parrish
Dean Rittmann
E. S. Oberly (6)
Samuel Smith
D. N. Canfield

FORM 23-75 16-56

EL PASO NATURAL GAS COMPANY

DUAL COMPLETION

OPEN FLOW TEST DATA

DATE February 4, 1958

Operator: El Paso Natural Gas		Lease: Allison Unit No. 12 (M)	
Location: 1825'N, 1550'E, Sec. 14-32-7		County: Rio Arriba	State: New Mexico
Formation: Mesa Verde		Pool: Blanco	
Casing: Diameter: 7-5/8	Set At: Feet: 6030	Tubing: Diameter: 2"	Set At: Feet: 8116
Pay Zone: From: 5796	To: 5870	Total Depth: 8320	
Stimulation Method: Sand Water Frac.		Flow Through Casing: X	Flow Through Tubing:

Choke Size, Inches: .750		Choke Constant: C: 12.365		5" liner. 5976 - 8317	
Shut-In Pressure, Casing, PSIG: 1563 MV	+ 12 = PSIA: 1575	Days Shut-In: 19 MV	Shut-In Pressure, Tubing PSIG: 2630 Dak.	+ 12 = PSIA: 2642	
Flowing Pressure: P PSIG: 512	+ 12 = PSIA: 524		Working Pressure: P_w PSIG: Calculated	+ 12 = PSIA: 527	
Temperature: T °F: 63	n: .750		Fpv (From Tables): 1.043	Gravity: .580	

Final SIPT (Dak.) - 2645 psig. Packer at 5945.

CHOKE VOLUME = $Q = C \times P_t \times F_t \times F_g \times F_{pv}$

$Q = 12.365 \times 524 \times .9971 \times 1.017 \times 1.043 = 6853$ MCF/D

OPEN FLOW Aof $Q \left(\frac{P_c^2}{P_c^2 - P_w^2} \right)^n$

Aof $\left(\frac{2,480,625}{2,202,896} \right)^n = 1.1260^{.75} \times 6853 = 1.0930 \times 6853$

Aof 7490 MCF/D

TESTED BY R. R. Davis

WITNESSED BY

cc: E. S. Oberly (6)

L. D. Galloway

L. D. Galloway

Form 9-331a
(Feb. 1951)

Budget Bureau No. 42-R358.4.
Form Approved.

Land Office Santa Fe
Lease No. 078459-B
Unit Allison Unit

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

CORRECTED COPY

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	XX
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL		SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

Corr. March 5, 1963
January 7, 19 58

Well No. 12(MD) is located 1825 ft. from {N/S} line and 1550 ft. from {E/W} line of sec. 14

NE Section 14 (¼ Sec. and Sec. No.) | 32-N (Twp.) | 7-W (Range) | N.M.P.M. (Meridian)

Basin Dakota
Blanco Mesa Verde (Field) | San Juan (County or Subdivision) | New Mexico (State or Territory)

The elevation of the derrick floor above sea level is 6657 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

1-1-58 Total Depth 8320'.

Ran 59 joints 5", 18# N-80 Liner (2341') set from 5976' to 8317' with 225 sacks Pozmix "140" and 1/8# Flocele/sk.
Held 1000#/30 minutes.
Top of cement by temperature survey at 7480'.

RECEIVED
MAR 12 1963
OIL CON. COM.
DIST. 3

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company El Paso Natural Gas Company

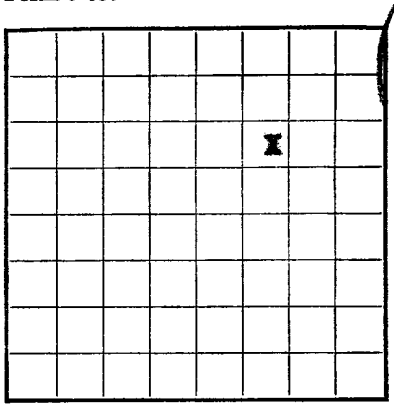
Address Box 990
Farmington, New Mexico

By ORIGINAL SIGNED E. S. OBERLY

Title Petroleum Engineer

GPO 914974

Form 9-330



LOCATE WELL CORRECTLY

Form approved.
Budget Bureau No. 42-R355.4.

U. S. LAND OFFICE Santa Fe
SERIAL NUMBER 078459-B
LEASE OR PERMIT TO PROSPECT

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

CORRECTED COPY

LOG OF OIL OR GAS WELL

Company El Paso Natural Gas Company Address Box 990, Farmington, New Mexico

Lessor or Tract Allison Unit Field Blanco M.V. / Basin Dakota State New Mexico

Well No. 12(NW)(CMWO) Sec. 14 T. 32N R. 7W Meridian N.M.P.M. County San Juan

Location 1825 ft. {N./S.} of N Line and 1550 ft. {E./W.} of E Line of Section 14 Elevation 6657
(Derrick floor relative to sea level)

The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.

February 18, 1958
Date Corrected March 5, 1963

Signed ORIGINAL SIGNED E.S. OBERLY
Title Petroleum Engineer

The summary on this page is for the condition of the well at above date.

Commenced drilling 6-7, 19 57 Finished drilling 12-27, 19 57

OIL OR GAS SANDS OR ZONES

(*Denote gas by G*)

No. 1, from 3288 to 3549 (G) No. 4, from 5796 to 5944 (G)

No. 2, from 5555 to 5578 (G) No. 5, from 8071 to 8320 (G)

No. 3, from 5578 to 5796 (G) No. 6, from to

IMPORTANT WATER SANDS

No. 1, from to No. 3, from to

No. 2, from to No. 4, from to

CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated From—	Perforated To—	Purpose
13 3/8"	48	8 rd	J-55	200	Baker				Surface
9 5/8"	36	8 rd	J-55	3705	Baker				Intermediate
7 5/8"	26.4	8 rd	J-55	7506	Baker				Prod casing.
5"	18	8 rd	N-80	2341	Baker				Prod liner
2"	4.7	8 rd	J-55	8116					Prod tubing

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
13 3/8"	200	225	circulated		
9 5/8"	3705	1380	2 stages (1st 380 sks., 2nd 1000 sks.)		
7 5/8"	6040'	300	single stage		
5"	5976-8317	225	single stage		

FOLD | MARK

PLUGS AND ADAPTERS

Heaving plug—Material Length Depth set

Adapters—Material Size Baker Model "D" Packer @ 5949'

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out
See Well History						

TOOLS USED

Rotary tools were used from 200 feet to 3705 feet, and from 3705 feet to 7506 feet Gas Drilled

Cable tools were used from 0 feet to 200 feet, and from 7506 feet to 8320 feet Mud circulation

DATES

1-15, 19 58 Put to producing , 19

The production for the first 24 hours was barrels of fluid of which % was oil; %
emulsion; % water; and % sediment. Gravity, °Bé.

If gas well, cu. ft. per 24 hours MV.-6,853,000 Dak.-9,134,000 Gallons gasoline per 1,000 cu. ft. of gas

Rock pressure, lbs. per sq. in. 2645 (SIPT) A.O.F. MV 7490
Dak - 13,235

EMPLOYEES

, Driller , Driller

, Driller , Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
Undev.	2650	2650	Ojo Alamo
2650	3090	440	Kirtland
3090	3288	198	Fruitland
3288	3549	261	Pictured Cliff
3549	5555	2006	Lewis
5555	5578	23	Cliff House
5578	5796	218	Menefee
5796	5944	148	Point Lookout
5944	7907	1963	Mancos
7907	7963	56	Greenhorn
7963	8071	108	Graneros
8071	8320	249	Dakota

[OVER]

FORMATION RECORD—Continued

FROM—	TO—	TOTAL FEET	FORMATION

HISTORY OF OIL OR GAS WELL

It is of the greatest importance to have a complete history of the well. Please state in detail the dates of redrilling, together with the reasons for the work and its results. If there were any changes made in the casing, state fully, and if any casing was "sidetracked" or left in the well, give its size and location. If the well has been dynamited, give date, size, position, and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position, and results of pumping or bailing.

1-5-58 **Perf Dakota 2 Torpedo jets/ft. 6062-6082;6134-66; Frac w/60,000 gallons water, 50,000# 40/60 sand. Flush w/14,000 gallons water. Avg. rate 41.2 BPM. BD nope, max pr 3000#, tr pr 2800# both stages. Dropped 1 set of 4 0 balls. Set mag. RP @ 7450'. Frac water contained 2% calcium chloride and 15# WLC per 1000 gallons. Perf Point Lookout w/2 DJ/ft. 5798-5812;5862-5870;5896-5906;5860-70; Frac w/60,000 gal water, 50,000# 20/40 sand. IR 51.5 BPM. BD 4200#, max pr 5000#, tr pr 1200-1400-1400-1600. Dropped 3 sets of 20 balls. Balled off after pumping 5670 gallons of flush. Unable to release balls and complete flush.**

LOG OF OIL OR GAS WELL

GEOLOGICAL SURVEY

DEPARTMENT OF THE INTERIOR

UNITED STATES