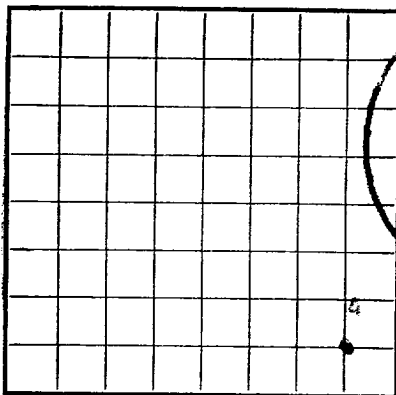


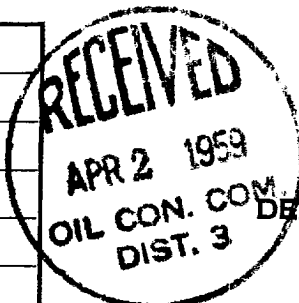
Navajo Agency

U. S. LAND OFFICE Window Rock,

SERIAL NUMBER Arizona

LEASE OR PERMIT TO PROSPECT
14-20-603-63

LOCATE WELL CORRECTLY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

Company Manolima Oil Corporation Address Chambers 1301, Midland, Texas
Lessor or Tract Navajo Field (Gallup Sand) State New Mexico
Well No. 4-5 Sec. 3 T. 31N R. 17W Meridian NM County San Juan
Location 560 ft. N. of S. Line and 660 ft. E. of E. Line of Section 3 Elevation 5245 RUP
(Derriek 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.

Signed

George C. HayDate March 30, 1959Title Development Engineer

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

Commenced drilling February 24, 1959 Finished drilling March 1, 1959

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 1045 to 1128 No. 4, from _____ to _____
No. 2, from _____ to _____ No. 5, from _____ to _____
No. 3, from _____ to _____ No. 6, from _____ to _____

IMPORTANT WATER SANDS

No. 1, from None 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		Purpose
							From—	To—	
<u>8 3/8</u>	<u>24</u>	<u>8-rnd</u>	<u>---</u>	<u>28</u>	<u>None</u>	<u>Not Cut</u>	<u>---</u>	<u>---</u>	<u>Surface</u>
<u>4 1/2</u>	<u>140</u>	<u>8-rnd</u>	<u>---</u>	<u>1036</u>	<u>None</u>	<u>Not Cut</u>	<u>---</u>	<u>---</u>	<u>1036</u>

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
<u>8 3/8</u>	<u>28</u>	<u>10</u>	<u>---</u>	<u>---</u>	<u>None</u>
<u>4 1/2</u>	<u>1234</u>	<u>180</u>	<u>pump & plug</u>	<u>---</u>	<u>Water</u>

PLUGS AND ADAPTERS

Heaving plug—Material None Length _____ Depth set _____
Adapters—Material _____ Size _____

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out
<u>None</u>						

TOOLS USED

Rotary tools were used from 0 feet to 1242 feet, and from _____ feet to _____ feet
Cable tools were used from None feet to _____ feet, and from _____ feet to _____ feet

DATES

_____, 19____ Put to producing March 25, 1959

The production for the first 24 hours was 47 barrels of fluid of which 100 % was oil, 0 %
emulsion; 0 % water; and 0 % sediment. Gravity, °Bé. 38

If gas well, cu. ft. per 24 hours _____ Gallons gasoline per 1,000 cu. ft. of gas _____

Rock pressure, lbs. per sq. in. Not known

EMPLOYEES

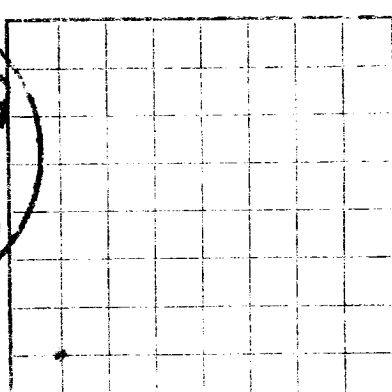
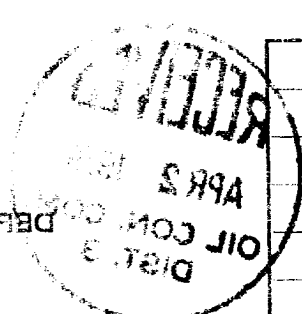
J. G. Phillips, Driller _____, Driller
_____, Driller _____, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
<u>0</u>	<u>20</u>	<u>20</u>	<u>Shale</u>
<u>20</u>	<u>180</u>	<u>160</u>	<u>Sand & Shale</u>
<u>180</u>	<u>670</u>	<u>490</u>	<u>Sandy Shale</u>
<u>670</u>	<u>1000</u>	<u>330</u>	<u>Shale</u>
<u>1000</u>	<u>1080</u>	<u>80</u>	<u>Sandy Shale</u>
<u>1080</u>	<u>1170</u>	<u>90</u>	<u>Sand & Sandy Shale</u>
<u>1170</u>	<u>1242 T.O.</u>	<u>72</u>	<u>Shale</u>

PLEASE DO NOT RETURN TO POSTOFFICE
SERIAL NUMBER
U.S. LAND OFFICE

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



LOG OF OIL OR GAS WELL

LOCATE WELL CORRECTLY

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

Signed _____

Location of the [N.] of [W.] line and [E.] of [W.] line of []

Well No. _____ Twp. _____ R. _____ Meridian _____

Lesser or Tract _____

Field _____ State _____

Address _____ Midland, Texas _____

Completed drilling _____ to _____ finished drilling _____ of _____
The summary on this page is for the condition of the well at above date.

OIL OR GAS SANDS OR ZONES

(U) (S) (C) (D) (E) (F) (G) (H) (I) (J) (K) (L) (M) (N) (O) (P) (Q) (R) (S) (T) (U) (V) (W) (X) (Y) (Z) (AA) (AB) (AC) (AD) (AE) (AF) (AG) (AH) (AI) (AJ) (AK) (AL) (AM) (AN) (AO) (AP) (AQ) (AR) (AS) (AT) (AU) (AV) (AW) (AX) (AY) (AZ) (BA) (BB) (BC) (BD) (BE) (BF) (BG) (BH) (BI) (BJ) (BK) (BL) (BM) (BN) (BO) (BP) (BQ) (BR) (BS) (BT) (BU) (BV) (BW) (BX) (BY) (BZ) (CA) (CB) (CC) (CD) (CE) (CF) (CG) (CH) (CI) (CJ) (CK) (CL) (CM) (CN) (CO) (CP) (CQ) (CR) (CS) (CT) (CU) (CV) (CW) (CX) (CY) (CZ) (DA) (DB) (DC) (DD) (DE) (DF) (DG) (DH) (DI) (DJ) (DK) (DL) (DM) (DN) (DO) (DP) (DQ) (DR) (DS) (DT) (DU) (DV) (DW) (DX) (DY) (DZ) (EA) (EB) (EC) (ED) (EE) (EF) (EG) (EH) (EI) (EJ) (EK) (EL) (EM) (EN) (EO) (EP) (EQ) (ER) (ES) (ET) (EU) (EV) (EW) (EX) (EY) (EZ) (FA) (FB) (FC) (FD) (FE) (FF) (FG) (FH) (FI) (FJ) (FK) (FL) (FM) (FN) (FO) (FP) (FQ) (FR) (FS) (FT) (FU) (FV) (FW) (FX) (FY) (FZ) (GA) (GB) (GC) (GD) (GE) (GF) (GG) (GH) (GI) (GJ) (GK) (GL) (GM) (GN) (GO) (GP) (GQ) (GR) (GS) (GT) (GU) (GV) (GW) (GX) (GY) (GZ) (HA) (HB) (HC) (HD) (HE) (HF) (HG) (HH) (HI) (HJ) (HK) (HL) (HM) (HN) (HO) (HP) (HQ) (HR) (HS) (HT) (HU) (HV) (HW) (HX) (HY) (HZ) (IA) (IB) (IC) (ID) (IE) (IF) (IG) (IH) (II) (IJ) (IK) (IL) (IM) (IN) (IO) (IP) (IQ) (IR) (IS) (IT) (IU) (IV) (IW) (IX) (IY) (IZ) (JA) (JB) (JC) (JD) (JE) (JF) (JG) (JH) (JI) (JJ) (JK) (JL) (JM) (JN) (JO) (JP) (JQ) (JR) (JS) (JT) (JU) (JV) (JW) (JX) (JY) (JZ) (KA) (KB) (KC) (KD) (KE) (KF) (KG) (KH) (KI) (KJ) (KK) (KL) (KM) (KN) (KO) (KP) (KQ) (KR) (KS) (KT) (KU) (KV) (KW) (KX) (KY) (KZ) (LA) (LB) (LC) (LD) (LE) (LF) (LG) (LH) (LI) (LJ) (LK) (LL) (LM) (LN) (LO) (LP) (LQ) (LR) (LS) (LT) (LU) (LV) (LW) (LX) (LY) (LZ) (MA) (MB) (MC) (MD) (ME) (MF) (MG) (MH) (MI) (MJ) (MK) (ML) (MM) (MN) (MO) (MP) (MQ) (MR) (MS) (MT) (MU) (MV) (MW) (MX) (MY) (MZ) (NA) (NB) (NC) (ND) (NE) (NF) (NG) (NH) (NI) (NJ) (NK) (NL) (NM) (NN) (NO) (NP) (NQ) (NR) (NS) (NT) (NU) (NV) (NW) (NX) (NY) (NZ) (OA) (OB) (OC) (OD) (OE) (OF) (OG) (OH) (OI) (OJ) (OK) (OL) (OM) (ON) (OO) (OP) (OQ) (OR) (OS) (OT) (OU) (OV) (OW) (OX) (OY) (OZ) (PA) (PB) (PC) (PD) (PE) (PF) (PG) (PH) (PI) (PJ) (PK) (PL) (PM) (PN) (PO) (PP) (PQ) (PR) (PS) (PT) (PU) (PV) (PW) (PX) (PY) (PZ) (QA) (QB) (QC) (QD) (QE) (QF) (QG) (QH) (QI) (QJ) (QK) (QL) (QM) (QN) (QO) (QP) (QQ) (QR) (QS) (QT) (QU) (QV) (QW) (QX) (QY) (QZ) (RA) (RB) (RC) (RD) (RE) (RF) (RG) (RH) (RI) (RJ) (RK) (RL) (RM) (RN) (RO) (RP) (RQ) (RR) (RS) (RT) (RU) (RV) (RW) (RX) (RY) (RZ) (SA) (SB) (SC) (SD) (SE) (SF) (SG) (SH) (SI) (SJ) (SK) (SL) (SM) (SN) (SO) (SP) (SQ) (SR) (SS) (ST) (SU) (SV) (SW) (SX) (SY) (SZ) (TA) (TB) (TC) (TD) (TE) (TF) (TG) (TH) (TI) (TJ) (TK) (TL) (TM) (TN) (TO) (TP) (TQ) (TR) (TS) (TT) (TU) (TV) (TW) (TX) (TY) (TZ) (UA) (UB) (UC) (UD) (UE) (UF) (UG) (UH) (UI) (UJ) (UK) (UL) (UM) (UN) (UO) (UP) (UQ) (UR) (US) (UT) (UU) (UV) (UW) (UX) (UY) (UZ) (VA) (VB) (VC) (VD) (VE) (VF) (VG) (VH) (VI) (VJ) (VK) (VL) (VM) (VN) (VO) (VP) (VQ) (VR) (VS) (VT) (VU) (VV) (VW) (VX) (VY) (VZ) (WA) (WB) (WC) (WD) (WE) (WF) (WG) (WH) (WI) (WJ) (WK) (WL) (WM) (WN) (WO) (WP) (WQ) (WR) (WS) (WT) (WU) (WV) (WW) (WX) (WY) (WZ) (XA) (XB) (XC) (XD) (XE) (XF) (XG) (XH) (XI) (XJ) (XK) (XL) (XM) (XN) (XO) (XP) (XQ) (XR) (XS) (XT) (XU) (XV) (XW) (XX) (XY) (XZ) (YA) (YB) (YC) (YD) (YE) (YF) (YG) (YH) (YI) (YJ) (YK) (YL) (YM) (YN) (YO) (YP) (YQ) (YR) (YS) (YT) (YU) (YV) (YW) (YX) (YZ) (ZA) (ZB) (ZC) (ZD) (ZE) (ZF) (ZG) (ZH) (ZI) (ZJ) (ZK) (ZL) (ZM) (ZN) (ZO) (ZP) (ZQ) (ZR) (ZS) (ZT) (ZU) (ZV) (ZW) (ZX) (ZY) (ZZ)

..... of from	 of from	 of from	 of from
..... of from	 of from	 of from	 of from
..... of from	 of from	 of from	 of from

IMPORTANT WATER SAVING

before potential test.

in the morning with 180 wax content. Refracted 4-1/2 centing with 66 but whose from 1055 to 1128. Loaded with 200 gallons acid, 1500 gallons lease crude, 4000 pounds sand. Set tubing at 1116. New pump and recovered 1000 oil before potential test.

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 the 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.

HISTORY OF ON-OR GAS WELL

16-43084-2 U. S. GOVERNMENT PRINTING OFFICE

[illegible]

NY 65-15869