

GRIZZELL DEEP 1 2 7145'-7220' GRACE PETROLEUM CORP.
Lease Name Well No. Test No. Tested Interval Lease Owner/Company Name

186342 HOBBS 10-2-81 7832-7831
Ticket Number Camp Date Gauge Number(s)

(2)



TICKET NO. 186342 DATE 10-2-81 HALLIBURTON CAMP HOBBS
LEASE OWNER GRACE PETROLEUM CORPORATION BJ/dr
LEASE NAME GRIZZELL DEEP WELL NO. 1 TEST NO. 2
LEGAL LOCATION 5 22S 37E FORMATION TESTED FUSSELMAN
FIELD AREA SOUTH WEST EUNICE COUNTY LEA STATE NEW MEXICO
TYPE OF D.S.T. OPEN HOLE
TESTER(S) B. ROBERTS
WITNESS JAMES BOTKIN DRILLING CONTRACTOR WILL BROTHERS DRILLING COMPANY
#6
DEPTHS MEASURED FROM KELLY BUSHING CASING PERFS (FT.)
TYPE AND SIZE OF GAS MEASURING DEVICE

CUSHION DATA

TYPE _____ AMOUNT _____ WEIGHT (lb./gal.) _____
TYPE _____ AMOUNT _____ WEIGHT (lb./gal.) _____

RECOVERY (ft. or bbl.):
1240'-Total fluid
1060'-Heavy oil and gas cut mud
180'-Gas, oil, and sulphur water cut drilling mud

FLUID PROPERTIES

SOURCE	RESISTIVITY	CHLORIDES (PPM)	SOURCE	RESISTIVITY	CHLORIDES (PPM)
	@ °F			@ °F	
	@ °F			@ °F	
	@ °F			@ °F	

REMARKS:

TICKET NO. 186342 DATE 10-2-81 ELEVATION (FT.) 3439 ' KB
 TOP OF TESTED INTERVAL (ft.) 7145' BOTTOM OF TESTED INTERVAL (ft.) 7220'
 NET PAY (ft.) 2' TOTAL DEPTH (ft.) 7220'
 HOLE OR CASING SIZE (in.) 7.875' MUD WEIGHT (lb./gal.) 10 VISCOSITY (sec.) 34
 SURFACE CHOKE (in.) .375" BOTTOM CHOKE (in.) .75"
 OIL GRAVITY 41 @ 60 °F GAS GRAVITY—ESTIMATED _____ ACTUAL _____

SAMPLER DATA

PRESSURE (P.S.I.) 295 CUBIC FT. OF GAS 3
 C.C.'s OF OIL 500 C.C.'s OF WATER _____
 C.C.'s OF MUD Trace TOTAL LIQUID C.C.'s _____

GAS/OIL RATIO (cu. ft. per bbl.)

FROM SAMPLER _____ OTHER _____

TEMPERATURE (°F)

ESTIMATE _____
 ACTUAL 106
 DEPTH (ft.) 7220
 H.T.-500 ☐; THERMOMETER ☐;
 T.E. OR R.T.-7 ☐; OTHER ☐
 SERIAL NO. _____

RECORDER AND PRESSURE DATA

CHARTS READ BY _____ DATA APPROVED BY _____

RECORDERS	GAUGE NUMBER	7832	7831			TIMES (00:00-24:00 HRS.) TOOL OPENED <u>2140</u> DATE <u>10-1-81</u> BYPASS OPENED <u>0125</u> DATE <u>10-2-81</u>	
	GAUGE TYPE	1	2				
	GAUGE DEPTH (ft.)	7125	7217				
	CLOCK NUMBER	20674	2314				
	CLOCK RANGE (HR.)	24	24				
PRESSURES	INITIAL HYDROSTATIC	3759.1	3825.3			PERIOD	MINUTES
	INITIAL FLOW	125.3	167.7			XXX	XXX
	1st. FINAL FLOW	165.3	206.7			1st. FLOW	15.9
	CLOSED-IN	1949.2	1998.6			1st. C.I.P.	29.5
	INITIAL FLOW	142.4	177.2			XXX	XXX
	2nd. FINAL FLOW	316.1	351.4			2nd. FLOW	60.2
	CLOSED-IN	1951.4	1993.9			2nd. C.I.P.	119.4
	INITIAL FLOW					XXX	XXX
	3rd. FINAL FLOW					3rd. FLOW	
	CLOSED-IN					3rd. C.I.P.	
	FINAL HYDROSTATIC	3761.9	3817.2			XXX	XXX

Casing perfs. _____ Bottom choke _____ Surf. temp _____ °F Ticket No. **186342**
 Gas gravity _____ Oil gravity _____ GOR _____
 Spec. gravity _____ Chlorides _____ ppm Res. _____ @ _____ °F
 INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED _____

Date Time	a.m. p.m.	Choke Size	Surface Pressure psi	Gas Rate MCF	Liquid Rate BPD	Remarks
1420	10-1	81				Tester on location
1620						Unloaded tools
1700						Picked up tools
1811						Went in hole
2140		Bubble hose				Opened with weak blow
2145		"	14	97		Increasing
2150		"	21½	122		Increasing - opened choke
2155		3/8"	23½	130		Increasing - closed tool
2157		"	23½			Gas to the surface in 17 minutes
2225		"	0			Opened tool
2230		"	18	110		Increasing
2235		"	22	125		"
2240		"	27	140		"
2245		"	29	149		"
2250		"	30	151		"
2255		"	31	155		"
2300		"	32	160		"
2305		"	33	161		"
2310		"	34	165		"
2315		"	35	169		"
2320		"	35	169		Steady
2325		"	35	169		" Closed tool
0125	10-2	81				Bypass tool - pulled off bottom
0430						Reversed out

GRACE PETROLEUM CORP.
Lease Owner/Company Name

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Ticket Number

B.T. 7832

B.T. 7831

B.T.

Depth 7125

Depth 7217'

Depth

Time (minutes)	Log $\frac{t + \theta}{H}$	PSIG Temp. Corr.	Time (minutes)	Log $\frac{t + \theta}{H}$	PSIG Temp. Corr.	Time (minutes)	Log $\frac{t + \theta}{H}$	PSIG Temp. Corr.
FIRST FLOW			FIRST FLOW					
0		125.3	0		167.7			
3		132.8	3		176.8			
6		125.7	6		169.2			
9		143.3	9		186.0			
12		162.1	12		205.0			
15.9		165.3	15.9		206.7			
FIRST CIP			FIRST CIP					
0	----	165.3	0	---	206.7			
2	.952	349.2	2	.952	562.8			
4	.697	856.2	4	.697	1005.0			
6	.562	1332.5	6	.562	1426.5			
8	.475	1759.5	8	.475	1811.7			
10	.413	1921.2	10	.413	1956.6			
12	.366	1933.8	12	.366	1974.7			
14	.330	1940.4	14	.330	1981.2			
16	.300	1941.8	16	.300	1984.6			
18	.275	1943.4	18	.275	1986.6			
20	.254	1945.3	20	.254	1988.6			
22	.236	1946.4	22	.236	1990.2			
24	.221	1947.8	24	.221	1990.9			
26	.207	1948.0	26	.207	1991.6			
28	.195	1949.3	28	.195	1997.7			
29.5	.187	1949.3	29.5	.187	1998.6			
SECOND FLOW			SECOND FLOW					
0		142.4	0		177.2			
4		148.1	4		179.8			
8		146.6	8		186.0			
12		173.3	12		212.5			
16		199.6	16		233.2			
20		205.4	20		245.5			
24		215.9	24		254.8			
28		228.9	28		266.9			
32		236.6	32		274.8			
36		247.7	36		286.1			
40		252.6	40		290.7			
44		265.7	44		304.4			
48		282.4	48		320.7			
52		295.0	52		329.7			
56		312.4	56		348.4			
60.2		316.1	60.2		351.4			

Remarks:

B.T. 7832

B.T. 7831

B.T. _____

Depth 7125'

Depth 7217'

Depth _____

Time (minutes)	Log $\frac{1 + (t)}{(t)}$	PSIG Temp. Corr.	Time (minutes)	Log $\frac{1 + (t)}{(t)}$	PSIG Temp. Corr.	Time (minutes)	Log $\frac{1 + (t)}{(t)}$	PSIG Temp. Corr.
SECOND	CIP		SECOND	CIP				
0	----	316.1	0	----	351.4			
1	1.887	445.8	1	1.887	529.2			
2	1.592	685.4	2	1.592	663.6			
3	1.421	874.8	3	1.421	874.7			
4	1.302	1103.5	4	1.302	1042.9			
5	1.210	1281.3	5	1.210	1262.9			
6	1.136	1488.9	6	1.136	1459.6			
7	1.075	1695.7	7	1.075	1639.8			
8	1.022	1855.3	8	1.022	1858.1			
9	.976	1890.0	9	.976	1914.8			
10	.935	1904.6	10	.935	1933.9			
12	.866	1917.8	12	.866	1950.7			
14	.809	1922.7	14	.809	1958.8			
16	.760	1930.7	16	.760	1965.6			
18	.718	1938.2	18	.718	1973.7			
20	.682	1941.6	20	.682	1980.2			
22	.649	1943.6	22	.649	1983.9			
24	.620	1945.0	24	.620	1985.1			
26	.594	1945.5	26	.594	1985.9			
28	.570	1946.1	28	.570	1986.6			
30	.549	1946.2	30	.549	1986.7			
35	.502	1947.2	35	.502	1986.4			
40	.463	1947.2	40	.463	1988.8			
45	.430	1947.8	45	.430	1989.7			
50	.402	1947.8	50	.402	1990.9			
55	.377	1948.8	55	.377	1990.7			
60	.356	1948.8	60	.356	1991.3			
65	.337	1948.8	65	.337	1991.2			
70	.320	1948.8	70	.320	1990.8			
75	.304	1948.8	75	.304	1991.9			
80	.290	1948.8	80	.290	1991.9			
85	.278	1950.3	85	.278	1991.9			
90	.266	1950.3	90	.266	1992.5			
95	.256	1950.3	95	.256	1991.9			
100	.246	1950.3	100	.246	1991.9			
105	.237	1950.7	105	.237	1993.1			
110	.228	1950.7	110	.228	1993.9			
115	.221	1950.7	115	.221	1994.2			
119.4	.214	1951.4	119.4	.214	1993.9			

Remarks: _____

HALLIBURTON SERVICES
MIDLAND DIVISION
HOBBS, NEW MEXICO 88240

TICKET NUMBER 186342

LABORATORY WATER ANALYSIS

No. W81-890To Grace Petroleum Corp.Date 10-2-81Drawer 2358Midland, Texas

This report is the property of Halliburton Company and neither it nor any part thereof nor a copy thereof is to be published or disclosed without first securing the express written approval of laboratory management; it may however, be used in the course of regular business operations by any person or concern and employees thereof receiving such report from Halliburton Company.

Submitted by _____ Date Rec. 10-2-81Well No. Griessel #1 Depth 7,220' Formation FusselmanCounty Lea Field S.W. Eunice Source DST #2

	Top of Fluid	Pit Sample	
Resistivity	0.055 @ 74°F.	0.056 @ 74°F.	
Specific Gravity			
pH			
Calcium (Ca)			*MPL
Magnesium (Mg)			
Chlorides (Cl)	162,000	162,000	
Sulfates (SO ₄)			
Bicarbonates (HCO ₃)			
Soluble Iron (Fe)			
Sampler	- 100% Oil - API Gr. @ 60°F. - 41.8		
Tool Top	- 100% Oil - API Gr. @ 60°F. - 40.6		
Fluid Change	- 100% Oil - API Gr. @ 60°F. - 41.1		

Remarks: _____ *Milligrams per liter

Respectfully submitted,

Analyst: Brewer

HALLIBURTON COMPANY

cc:

By W. L. Brewer
CHEMIST

NOTICE

THIS REPORT IS LIMITED TO THE DESCRIBED SAMPLE TESTED. ANY USER OF THIS REPORT AGREES THAT HALLIBURTON SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE, WHETHER IT BE TO ACT OR OMISSION, RESULTING FROM SUCH REPORT OR ITS USE.

(6)

Tool Description	O.D.	I.D.	Length	Depth
DRILL PIPE	4.50"	3.826"	6521'	
DRILL COLLARS	6.50"	2.50"	459'	
REVERSING SUB	6"	3"	1'	6981'
DRILL COLLARS	6 1/2"	2.50 "	123'	
X OVER	5.75"	2.25"	1'	
HYDROSPRING TESTER	5"	.75"	9'	7108'
EXTENSION JOINT	5"	.87"	10'	
RUNNING CASE	5"	3.50 "	4'	7125'
BIG JOHN JAR	5"	1.75"	5'	
VR SAFETY JOINT	5"	1"	3'	
PACKER	7"	1.53 "	5'	7138'
DISTRIBUTOR VALVE	5"		2'	
PACKER	7"	1.53"	5'	7145'
SAFETY JOINT	5.75 "	1.50 "	4'	
X OVER	5.75"	2.50 "	1'	
DRILL COLLAR	6.50"	2.50 "	30'	
X OVER	5.75 "	2.25"	1'	
FLUSH JOINT ANCHOR	5.75"	2.87"	32'	
RUNNING CASE	5.75 "		4'	7217'
TOTAL DEPTH				7220'

↓ PRESSURE

186342-7832

TIME →

186342-7831

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 ($\text{Psi}^2/\text{cycle Gas}$)	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.

GRIZZELL DEEP

1 1

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GRACE PETROLEUM CORPORATION

Lease Owner/Company Name

Lease Name

Well No. Test No.

Tested Interval

163679

HOBBS

9-30-81

NO CHARTS

Ticket Number

Camp

Date

Gauge Number(s)



TICKET NO. 163679 DATE 9-30-81 HALLIBURTON CAMP HOBBS
LEASE OWNER GRACE PETROLEUM CORPORATION bc
LEASE NAME GRIZZELL DEEP WELL NO. 1 TEST NO. 1
LEGAL LOCATION 5 - 22S - 37E FORMATION TESTED FUSSELMAN
FIELD AREA SOUTH OF EUNICE COUNTY LEA STATE NEW MEXICO
TYPE OF D.S.T. OPEN HOLE
TESTER(S) MR. FUQUA
WITNESS MR. BOTKIN DRILLING CONTRACTOR WILL BROTHER DRILLING COMPANY
DEPTHS MEASURED FROM KELLY BUSHING CASING PERFS (FT.) _____
TYPE AND SIZE OF GAS MEASURING DEVICE _____

CUSHION DATA

TYPE _____ AMOUNT _____ WEIGHT (lb./gal.) _____
TYPE _____ AMOUNT _____ WEIGHT (lb./gal.) _____
RECOVERY (ft. or bbl.): _____

FLUID PROPERTIES

SOURCE	RESISTIVITY	CHLORIDES (PPM)	SOURCE	RESISTIVITY	CHLORIDES (PPM)
	@ °F			@ °F	
	@ °F			@ °F	
	@ °F			@ °F	

REMARKS:

MISRUN....Had 40' of fill.

CHARTS NOT SENT FOR PROCESSING....

TICKET NO. 163679 DATE 9-30-81 ELEVATION (FT) 3423' GL

TOP OF TESTED INTERVAL (ft.) BOTTOM OF TESTED INTERVAL (ft.)

NET PAY (ft.) 2' TOTAL DEPTH (ft.) 7238'

HOLE OR CASING SIZE (in.) 7 7/8" MUD WEIGHT (lb./gal.) 10.1 VISCOSITY (sec.) 31

SURFACE CHOKE (in.) MANIFOLD BOTTOM CHOKE (in.) .75"

OIL GRAVITY @ °F GAS GRAVITY—ESTIMATED ACTUAL

SAMPLER DATA

PRESSURE (P.S.I.) CUBIC FT. OF GAS

C.C.'s OF OIL C.C.'s OF WATER

C.C.'s OF MUD TOTAL LIQUID C.C.'s

GAS/OIL RATIO (cu. ft. per bbl.)

FROM SAMPLER OTHER

TEMPERATURE (°F)

ESTIMATE

ACTUAL

DEPTH (ft.)

H.T.-500 ☐ THERMOMETER ☒
T.E. OR R.T.-7 ☐ OTHER ☐

SERIAL NO.

RECORDER AND PRESSURE DATA

CHARTS READ BY DATA APPROVED BY

RECORDERS	GAUGE NUMBER	255	731			TIMES (00:00-24:00 HRS.)	
	GAUGE TYPE	1	2			TOOL OPENED	
	GAUGE DEPTH (ft.)	-	-			DATE	
	CLOCK NUMBER	16511	20674			BYPASS OPENED	
	CLOCK RANGE (HR.)	24	24			DATE	
	INITIAL HYDROSTATIC					PERIOD	MINUTES
PRESSURES	INITIAL FLOW					XXX	XXX
	1st. FINAL FLOW	CHARTS NOT SENT FOR PROCESSING.....				1st. FLOW	
	CLOSED-IN					1st. C.I.P.	
	INITIAL FLOW					XXX	XXX
	2nd. FINAL FLOW					2nd. FLOW	
	CLOSED-IN					2nd. C.I.P.	
	INITIAL FLOW					XXX	XXX
	3rd. FINAL FLOW					3rd. FLOW	
	CLOSED-IN					3rd. C.I.P.	
	FINAL HYDROSTATIC					XXX	XXX

Casing perms. _____ Bottom choke _____ Surf. temp _____ °F Ticket No. _____
Gas gravity _____ Oil gravity _____ GOR _____
Spec. gravity _____ Chlorides _____ ppm Res. _____ @ _____ °F

[illegible]

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Tool Description	O.D.	I.D.	Length	Depth
DRILL PIPE	4½"	3.826"	-	
DRILL COLLARS	6¼"	2.25"	471'	
CIRCULATING SUB	6"	3"	1'	
DRILL COLLARS	6¼"	2.25"	88'	
XO	5.25"	2.5"	1'	
HYDROSPRING	5"	.75"	4'	
SAMPLER	5"	.75"	4'	
EXTENSION JOINT (2)	5"	.87"	10'	
AP CASE	5"	3.25"	5'	
JARS	5"	1.75"	5'	
VR SAFETY JOINT	5"	1"	3'	
PACKER	7"	1.50"	5'	
DISTRIBUTOR	5"	1.65"	2'	
PACKER	7"	1.53"	5'	
ANCHOR SAFETY JOINT	6"	1.5"	4'	
XO	5"	2.675"	1'	
DRILL COLLARS	6¼"	2.25"	60'	
XO	5.125"	2.675"	1'	
PERFORATED TAIL PIPE	5.75"	3.50"	22'	
BLANKED OFF BT CASE	5.75"	-	5'	
TOTAL DEPTH				7238'