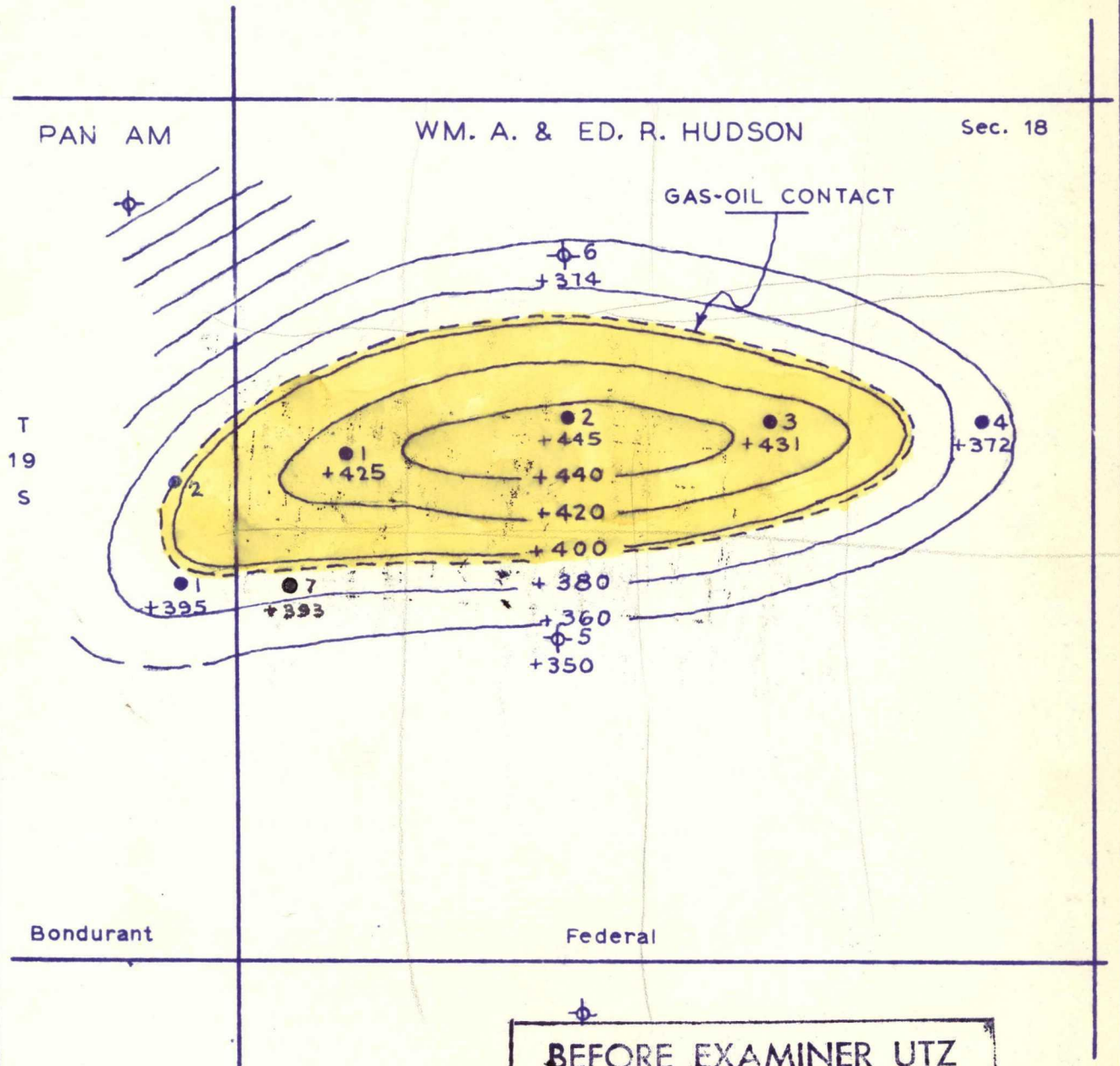


R 33 E



BEFORE EXAMINER UTZ

OIL CONSERVATION COMMISSION

H. A. & E. R. Hudson EXHIBIT NO. 1

CASE NO. 2164

WEST TONTO (Y-SR) POOL

Lea County, New Mexico

CONTOURED ON TOP OF POROUS DOLOMITE

Scale 1" = 1000'

Sept. 15, 1960

RALPH L. GRAY
PETROLEUM ENGINEERING

Exhibit #1

WELL DATA

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. 2
CASE NO. 2164

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

FILE NO WP-3-1196

ENGRS ROOM

ELEV 3646' KB

DRLG FLD WATER BASE WTD CORES DIAMOND 1 3/8"

REMARKS SAMPLED AS DIRECTED BY CLIENT

These analyses, opinions or interpretations are based on observations and material supplied by the client to whom, and for whose exclusive and confidential use this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. All errors and omissions excepted. Core Laboratories, Inc. and its officers and employees assume no responsibility and make no warranty or representation as to the productivity, proper operation or profitability of any oil, gas or other mineral well or land in connection with which this report is used or relied upon.

ANHYDRITE 

SAMPLE CHARACTERISTICS										PERMEABILITY & POROSITY										TOTAL WATER		
SAMPLE NUMBER	DEPTH FEET	PERMEABILITY MD		POROSITY %	RESIDUAL SATURATION % PORE SPACE			PERMEABILITY O-O		POROSITY X-X		OIL SATURATION X-X										
		* = Horizontal Perm Plug			OIL	TOTAL WATER		MILLIDARCY		PERCENT		PERCENT PORE SPACE										
		HORIZONTAL	MAX.					20	10	20	10	75	50	25								
			90																			

WHOLE-CORE ANALYSIS

BEFORE EXAMINER UTZ

GIL CONSERVATION COMMISSION

EXHIBIT NO. 4

CASE NO. 2164

SHOW

1	3233.2-34.5	<0.1	<0.1	4.7	6.0	40.8	FV										
2	34.5-35.8	11	3.2	10.3	3.9	31.9	FV										
2A		6.4	3.2														
3	3235.8-37.2	<0.1	<0.1	7.3	7.2	45.6	FV										
4	37.2-39.0	18	5.7	8.2	7.3	37.7	FV										
4A		*1.0	*0.6														
5	3245.0-46.5	<0.1	<0.1	4.8	6.4	62.5	FV										
6	3247.5-49.0	1.4	0.1	10.9	13.5	38.3	V										
7	49.0-50.5	*30	*25	11.2	11.7	39.5	FV										
8	50.5-52.0	*2.1	*1.4	12.8	11.2	39.1	FV										
8A		*1.7	*1.3														
9	3252.0-53.3	288	26	7.8	14.2	38.5	FV										
10	53.3-54.7	0.4	0.3	4.3	2.3	90.3											
11	54.7-56.0	<0.1	<0.1	5.4	3.1	89.7											
11A		0.5	0.3														
12	3256.0-57.2	*<0.1	*<0.1	7.7	9.7	67.0											
13	57.2-58.6	0.5	0.4	18.5	16.2	46.3											
14	58.6-60.2	0.4	0.2	14.6	14.4	48.4											
14A		1.6	0.5														
15	5260.2-61.8	0.8	0.4	7.8	9.6	65.0											
15A		0.1	<0.1														
16	5261.8-63.0	*<0.1	*<0.1	7.0	10.0	67.1											
17	3264.0-65.6	93	15	9.8	8.6	47.6	V										
17A		1.1	1.0														
18	3265.6-67.0	54	0.3	7.6	14.4	63.1	SF										
SHOW																	
19	3269.0-70.3	54	8.3	7.8	8.8	44.0	FS										
20	70.3-71.5	1710	1710	14.5	8.3	39.7	V										
21	71.5-73.0	1570	1570														
21A		*6300	*6300														
22	3273.0-74.2	1245	1245	10.8	6.6	27.7	V										
23	74.2-75.0	0.1	<0.1	6.2	6.7	72.8											
24	75.0-76.6	1.8	1.1	11.8	10.8	47.5											
24A		32	23														
25	3276.6-78.2	6.0	3.3	10.5	11.3	51.7											
26	78.2-79.0	<0.1	<0.1	6.2	7.8	88.5											
SHOW																	

3220

3225

3230

3235

3240

3245

3250

3255

3260

3265

3270

3275

3280

3283

Exhibit #4

COPY

Gasoline Department
Analysis Results Summary
Location Odessa, Texas

SS No. U-344-1
R n No. 565
Date Run 7-20-60
Date Secured 7-15-60
Time _____
Sampler's Ident _____

A Sample of Engl. Nat'l Gas, Undesignated Field, Yates & Severn Rivers, Wm. & Ed Hudson Company

Secured from Wells # 1-2-3 Federal "18" Lease
Location 1/2 NW & SW NE Sec. 18-19-31 County Lee State New Mexico
Purpose Survey Secured by A. T. O'Neill
Sampling Conditions: Atmos. Temp. 79 °F, Pressure on Bomb 14 lbs./sq. in. Bbls oil/day _____
Volume/day _____ Weather conditions at time of sampling _____
Field Gas Pressure _____ PSIG, Line Pressure _____ PSIG

Chromo. Analysis 14.65 PSI at 60°F

	Mol. %	Liq %		
Carbon Dioxide			Propane	Calc. G.P.M. <u>.839</u>
Oxygen			Iso-Butane	Calc. G.P.M. <u>.166</u>
Nitrogen	<u>37.88</u>		Non-Butane	Calc. G.P.M. <u>.353</u>
Hydrogen Sulfide	<u>.12</u>		Pentane	Calc. G.P.M. <u>.589</u>
			Test Cor. (Date)	<u>.708</u>
			BTU / cu ft W.B.	<u>.789</u>
			Calc. Specific Gravity	<u>.823</u>
			Calc. A.P.I. @ 60°F	
			Observed A.P.I. Av	
Methane	<u>50.67</u>		H ₂ S & CO ₂ by orsat	<u>0.30</u> %
Ethane	<u>5.14</u>		H ₂ S grains/100 cu ft.	<u>267</u>
Propane	<u>3.06</u>		Mercaptans gr/100 cu ft.	
Iso-Butane	<u>.51</u>			
Non-Butane	<u>2.13</u>			
Iso-Pentane	<u>.68</u>		Calc Vap. Press. #/sq in.	
Non-Pentane	<u>.38</u>		Reid Vap. Press. #/sq in.	
Hexanes	<u>.35</u>			
			Cu ft gas/Gal. Liq.	
Heptanes Plus	<u>.34</u>			
			Calc. Gasoline Factors	
Total	<u>100.00</u>	<u>100.00</u>		

Run by Mason Calculated by Mason
Checked by Rogers Approved by _____
26-70 Gasoline _____
Excess Butane _____
Excess Propane _____
Excess Ethane & lighter _____
10000

Additional Data and Remarks
Trap Press. 14.6
Gas Temp. 81°
Commercial Trap
Choke 1/8"
Opening Press. 900'
Fla. Tab. Press. 50'
Oil Gravity 30.0
Wells 243 shut in during test
Baro. 678

Distribution:

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. 5
CASE NO. 2164

ILLEGIBLE

Exhibit #5



Fractional Distillation Analysis Results Summary

Petroleum Analytical Laboratory Service, Inc

1711 East 8th Street

ODESSA, TEXAS

Ph. FE 2-4767

No. _____
Run No. **2188** - -
DATE OF RUN **8-31-60**
Date Secured **8-30-60**

A Sample of **WILLIAMS EDWARDS HUDSON FEDERAL 28 #1**
Secured from **Ralph L. Gray**
At **201 Carper Bldg. Artesia, N. M.** Secured by **L. M. Ward**
Time **9 am** Date **8-30-60**
Sampling conditions **Temp. 75°**
Press. 254

FRACTIONAL DISTILLATION

Percentage Composition

	MOL%	LIQ. %
Carbon Dioxide	1.48	
Air		
Nitrogen	8.55	
Oxygen		
Hydrogen sulf.	1.52 (960 gra.)	
Hydrogen		
Methane	50.16	
Ethane	18.75	
Propane	15.03	
Butanes	6.76	
Iso-Butane	1.07	
N-Butane		
Pentanes	0.92	
Iso-Pentane	0.71	
N-Pentane	1.05	
Hexanes plus		
Heptanes		

Volume Sample **7698 gms.** c.c. at **60** °F.
Vol. distilled, % **100.00**
Vol. of residue, % **0.00**
Recovery, % **100.00**
Calc. Sp. Gr. **.943**
Calc. A.P.I. _____
Calc. Vapor Press. _____ Lb./Sq. In.

Liquid Content

Method	G.P.M.
Based on Analysis (Butanes)	6.508
Based on Analysis (Pentanes & Heavier)	1.079
Based on Analysis (Propanes)	4.187

Heating Value

British Thermal Units Per
Cu. Ft.
at 14.65 p.s.i.
at 60 °F

TOTAL 100.00

BEFORE EXAMINER UTZ

Method
OIL CONSERVATION COMMISSION
Based on % Composition
EXHIBIT NO. _____

CASE NO. _____

Gal.	Dry Basis	Wet Basis
	1410	1385

Run by **T.M. Simpson** Checked by _____ Approved by *T.M. Simpson*

Additional Data and Remarks



Fractional Distillation Analysis Results Summary

Petroleum Analytical Laboratory Service, Inc

1711 East 8th Street

ODESSA, TEXAS

Ph. FE 2-4767

No.

Run No. 2149

DATE OF RUN- 8-31-60

Date Secured 8-30-60

A Sample of WILLIAMS EDWARDS HUDSON FEDERAL #3
 Secured from Ralph L. Gray
 At 291 Carper Bldg. Artesia, N.M. Secured by L. H. Ward
 Time 10:45 am Date 8-30-60
 Sampling conditions Temp. 78°
Press. 25"

FRACTIONAL DISTILLATION

Percentage Composition

	MOLE	LIO. %
Carbon Dioxide	0.61	
Air		
Nitrogen	35.39	
Oxygen		
Hydrogen sulf.	0.39	
Hydrogen		
Methane	30.67	
Ethane	3.23	
Propane	3.68	
Butanes		
Iso-Butane	0.67	
N-Butane	1.21	
Pentanes		
Iso-Pentane	0.46	
N-Pentane	0.41	
Hexanes	1.22	
Heptanes		

TOTAL 100.00

Volume Sample 7334 gms. c.c. at 60 F.
 Vol. distilled, % 100.00
 Vol. of residue, % 0.00
 Recovery, % 100.00
 Calc. Sp. Gr. .849
 Calc. A.P.I. —
 Calc. Vapor Press. — Lb. Sq. In.

Liquid Content

Method	G.P.M.
Based on Analysis (Butanes)	0.036
Based on Analysis (Pentanes & Heavier)	0.031
Based on Analysis (Propanes)	1.025

Heating Value

British Thermal Units Per		
Cu. Ft.		
at 14.65 p.s.i.		
at 60 °F		
Method	Gal.	Dry Basis Wet Basis
Based on % Composition	861	846

Run by T. M. Simpson Checked by — Approved by J. H. Engin

Additional Data and Remarks

BEFORE EXAMINER UTZ
 OIL CONSERVATION COMMISSION
 EXHIBIT NO. —
 CASE NO. —

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

WILLIAM A. & EDWARD R. HUDSON
OF COURTESY, WEST TONTO (YATES-SEVEN RIVERS) POOL
CASE NO. 2164

WILLIAM A. & EDWARD R. HUDSON - WEST TONTO (YATES-SEVEN RIVERS) POOL

WELL TESTS					GAS ANALYSES			
WELL	DATE	BBL.S. OIL	HRS.	GOR	PRODUCING METHOD	DATE	PERCENT NITROGEN	B. T. U.
Federal 18 #1	7/26/60	22	24	5,814	Continuous	7/15/60	37.58	
	8/2/60	84	24	1,270	"			
	8/3/60	49	20	3,240	"			
	9/5/60	52	1.6	225	Intermittter	8/30/60	8.55	1410
Federal 18 #2	7/24/60	102	24	484	Continuous	8/19/60	12.95	1515
	8/28/60	57	2.3	230	Intermittter			
Federal 18 #3	7/25/60	60	24	17,516	Continuous	8/30/60	35.39	861
	9/8/60	23	3.7	4,210	Intermittter			
Federal 18 #4	11/18/60			872	Pump			
Federal 18 #7	11/26/60	50	6	205	Intermittter			

Exhibit #9

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