

El Paso Natural Gas Company  
**CHROMATOGRAPH CALCULATIONS**  
 Form 15-171 (Rev. 12-62)

Analysis No. **43999**

Sample From: **Van Diver Federal Com #1**

Owner: **Gulf Oil Corporation** RECEIVED

Location of Field: **Lusk** Formation: **Morrison** Date: **SEP 20 1979**

Date Secured: **9-17** Secured By: **Smart OIL CONSERVATION DIV.**

Date Run: **9-18** Run By: **Vinalis** Checked By:

Source Press.: Bomb Press. Source Temp. Atmos. Temp.

SULPHUR - GRS. PER 100 cu. Ft.	Hydrogen Sulphide	Mercury	Total	Sweet
	<b>0.05</b>	<b>0.04</b>	<b>0.09</b>	

COMPONENT	AREA	FACTOR	CORRECTED AREA	MOLE %	GPM	BTU	Sp. Gr.
Helium HE <sub>2</sub>							
Hydrogen Sulphide H <sub>2</sub> S							
Carbon Dioxide CO <sub>2</sub>	<b>440309</b>	<b>1474</b>	<b>0.59</b>	<b>0.56</b>			<b>0.009</b>
Nitrogen N <sub>2</sub>	<b>3.1539</b>	<b>1016</b>	<b>0.32</b>	<b>0.30</b>			<b>0.003</b>
Methane C <sub>1</sub>	<b>4789573</b>	<b>1916</b>	<b>91.77</b>	<b>77.43</b>		<b>884.79</b>	<b>0.484</b>
Ethane C <sub>2</sub>	<b>59.3268</b>	<b>1283</b>	<b>7.61</b>	<b>7.25</b>		<b>128.54</b>	<b>0.075</b>
Propane C <sub>3</sub>	<b>28.5688</b>	<b>1035</b>	<b>2.91</b>	<b>2.77</b>	<b>0.762</b>	<b>69.89</b>	<b>0.042</b>
Iso Butane IC <sub>4</sub>	<b>4.5465</b>	<b>0941</b>	<b>0.43</b>	<b>0.41</b>	<b>0.134</b>	<b>13.37</b>	<b>0.008</b>
Normal Butane C <sub>4</sub>	<b>7.9038</b>	<b>0931</b>	<b>0.74</b>	<b>0.71</b>	<b>0.224</b>	<b>23.22</b>	<b>0.014</b>
Iso Pentane IC <sub>5</sub>	<b>2.6313</b>	<b>0944</b>	<b>0.25</b>	<b>0.24</b>	<b>0.088</b>	<b>9.62</b>	<b>0.006</b>
Normal Pentane C <sub>5</sub>	<b>2.0784</b>	<b>0958</b>	<b>0.20</b>	<b>0.19</b>	<b>0.069</b>	<b>7.64</b>	<b>0.005</b>
Hexane C <sub>6</sub>	<b>1.3982</b>		<b>0.11</b>	<b>0.10</b>	<b>0.041</b>	<b>4.77</b>	<b>0.003</b>
Heptane C <sub>7</sub>	<b>0.5091</b>		<b>0.04</b>	<b>0.04</b>	<b>0.019</b>	<b>2.35</b>	<b>0.001</b>
<b>TOTAL</b>			<b>104.97</b>	<b>100.00</b>	<b>1.337</b>	<b>1144.19</b>	<b>0.650</b>

Meter No. \_\_\_\_\_

Remarks:  
 HIT  
 RES  
 SS  
 Res Eng Test Sec  
 JWC  
 LB  
 AJD  
 CLW  
 How  
 RTW

Sec 33  
 Twp 18  
 Rye 32  
 Storage - Unit Letter K

SEP 19 1977

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SEP 20 1977

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**LTR**



**Job separation sheet**

WORK SHEET FOR STEP WISE CALCULATION

(SUBSURFACE) PRESSURE (P<sub>f</sub> & P<sub>s</sub>)  
(SURFACE) PRESSURE (P<sub>g</sub> & P<sub>w</sub>)

Form C-122-E  
Adopted 9-1-65

1 ST.

COMPANY GULF OIL CORP. LEASE VANDIVER FED. COM. WELL NO. # 1 DATE 9-17-79

LOCATION: Unit K Section 33 Township 18 S Range 32 E  
L 12820 H 12820 L/H 1.000 G mix .964 % CO<sub>2</sub> .56 % N<sub>2</sub> .30 % H<sub>2</sub>S .09

d 1.995 F<sub>i</sub> 0.182 Q<sub>th</sub> .656 M<sup>2</sup>ctd (L/H) (F<sub>i</sub>Q<sub>m</sub>)<sup>2</sup> P<sub>ci</sub> 670 T<sub>cr</sub> 375

TABLE IX & X

LINE	ITEM	SOURCE	1	2	3	4	5	6	7	8	9	10
1	H		0	6410		12820						
2	OH		0	6179.24		12358.48						
3	RES		0	231,722		463,443						
4	P <sub>1</sub>		3473.2	4452.6	4429.7	5383.3	5350.8			Ps = 5344.1		
5	P <sub>2</sub>		5.18	6.65	6.61	8.03	7.99					
6	P <sub>3</sub>		534	598	598	662	662					
7	P <sub>4</sub>		1.42	1.59	1.59	1.77	1.77					
8	P <sub>5</sub>		.771	.925	.923	1.034	1.033					
9	P <sub>1</sub> P <sub>2</sub> P <sub>3</sub> P <sub>4</sub> P <sub>5</sub>	7-8	4504.8	4813.6	4799.2	5206.3	5179.9					
10	P <sub>6</sub> P <sub>7</sub>	9-6	8.4360	8.0495	8.0255	7.8645	7.8246					
11	(P <sub>1</sub> P <sub>2</sub> P <sub>3</sub> P <sub>4</sub> P <sub>5</sub> P <sub>6</sub> P <sub>7</sub> ) <sup>2</sup> / (1000) (10) (2) (1000)		.071165	.064793	.064408	.061849	.061223					
12	L/H (F <sub>i</sub> Q <sub>m</sub> ) <sup>2</sup>		.000143	.000143	.000143	.000143	.000143					
13		11+12	.071308	.064936	.064551	.061992	.061366					
14		10+13	118.303	123.958	124.327	126.861	127.503					
15	M = P <sub>n</sub> - P <sub>n-1</sub>			979	956	953	921					
16	N = I <sub>n</sub> + I <sub>n-1</sub>			242,261	242,630	251,188	251,832					
17	M x N	15x16			232,075		231,961					
18	Σ (M x N)	Σ 17			231,368							

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SEP 20 1979

OIL CONSERVATION DIV.

O.C.D. HOBBS, OFFICE

SEP 20 1950

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ALL INFORMATION CONTAINED

HEREIN IS UNCLASSIFIED

DATE 08-10-2001 BY 60322