

CHEMICAL & GEOLOGICAL LABORATORIES

Farmington

CORE ANALYSIS REPORT

Company **El Paso Natural Gas Company**
Well No. **Canyon Largo #89**
Field **Wildcat**
County **Rio Arriba**
State **New Mexico**

Date **12-20-59** Lab. No. **10908 1090W Sec. 14-24N-6W**
Location **Gallup & Dakota**
Formation **5314' - 6470'**
Depths **Water base**
Drilling Fluid **Water base**

C--Crack
F--Fracture
H--Horizontal
O--Open

LEGEND
NF--No Fracture
IS--Insufficient Sample

S--Slight
St--Stain
V--Vertical
Vu--Vugs

		H - Horizontal O - Open		1S - Insufficient Sample		SATURATIONS		CONNATE WATER	SOLUBILITY	
SAMPLE NO.	LEGEND	DEPTH, FEET	EFFECTIVE DENSITY PERCENT	PERMEABILITY MILLIDARCS		PORE SPACE RESIDUAL OIL	PORE SPACE TOTAL WATER		MUD ACID	1% ACID
				HORIZONTAL	VERTICAL					
Core No. 1 5314 - 5366 Recovered 52'										
1	NF	5314-15	3.7	0.07		7.6	91.7			
2	NF	5324-25	2.7	0.03		10.0	85.6			
3	NF	5334-35	3.2	0.04		5.9	80.0			
4	VF	5344-45	2.6	0.01		10.3	83.8			
5	NF	5354-55	2.9	0.02		7.2	86.4			
6	NF	5364-65	3.4	0.06		2.9	90.2			
Core No. 2 5366 - 5419 Recovered 53'										
7	NF	5369-70	4.7	0.09		21.1	55.5			
8	NF	5370-71	7.5	0.05		17.3	29.7			
9	NF	5371-72	8.1	0.06		14.4	36.2			
10	NF	5372-73	7.3	0.15		20.0	34.2			
11	NF	5373-74	7.2	0.06		24.7	34.0			
12	NF	5374-75	7.9	0.09		25.7	24.8			
13	NF	5375-76	7.6	0.04		17.9	48.7			
14	NF	5376-77	6.4	0.05		28.1	57.9			
		5377-78	No sample taken							
15	NF	5378-79	3.3	0.04		9.0	89.1			
16	NF	5379-80	4.3	0.01		7.4	87.2			
17	NF	5380-81	4.9	0.35		7.9	65.5			
18	NF	5381-82	4.7	0.03		Trace	66.2			
19	NF	5382-83	5.0	0.01		6.0	73.2			
		5383-84	No sample taken							
20	NF	5384-85	5.6	0.02		24.1	45.7			
21	NF	5385-86	5.8	0.02		20.5	43.8			
22	VF	5386-87	5.6	0.04		20.4	41.3			
23	NF	5387-88	5.1	0.03		22.2	31.2			
		5388-90	No samples taken							

NATURAL GAS COMPANY

CANYON 1-100 409

C—Crack
F—Fracture
H—Horizontal
O—Open

*Fracture caused permeability

LEGEND
SP—Sp. Pressure
IS—Insufficient Sample

S—Sight
Sp—Spoke
V—Vertical
W—Wells

SAMPLE NO.	LOGGING	DEPTH, FEET	EFFECTIVE POROSITY, PORESPACE	PERMEABILITY MILLIDARIES		SATURATION		CORRECTED WATER	MUD ACID	SOLUBILITY
				HORIZONTAL	VERTICAL	% PORE SPACE RESIDUAL OIL	% PORE SPACE TOTAL WATER			
Core No. 4 continued										
60	NF	6307-08	9.3	0.03		Trace	51.1			
61	NF	6308-09	9.0	0.04		0	63.3			
62	VHF	6310-11	8.8	0.04		0	62.5			
63	VHF	6312-13	10.1	0.10		0	58.0			
64	VHF	6314-15	9.9	0.04		Trace	60.6			
65	VHF	6320-21	8.4	0.04		0	67.8			
66	VHF	6322-23	5.1	0.02		0	64.5			
67	VHF	6323-24	6.8	1.37*		0	68.9			
68	VHF	6329-30	8.6	0.05		0	53.4			
69	VHF	6331-32	9.4	0.05		0	55.3			
70	VHF	6333-34	7.7	0.04		Trace	72.7			
71	NF	6340-41	6.9	0.02		Trace	79.7			
72	NF	6342-43	6.5	0.01		Trace	75.3			
Core No. 5 6343 - 6366 Recovered 23'										
73	NF	6343-44	8.1	0.02		0	47.4			
74	NF	6344-45	7.6	0.03		0	44.2			
75	NF	6345-46	8.7	0.03		0	45.4			
76	NF	6346-47	7.1	0.04		0	54.2			
77	NF	6347-48	7.0	0.02		0	55.0			
78	NF	6348-49	5.9	0.01		0	52.5			
79	NF	6349-50	6.1	0.02		Trace	86.1			
80	NF	6350-51	6.8	0.01		Trace	71.8			
81	NF	6351-52	6.4	0.04		Trace	78.1			
82	NF	6352-53	5.7	0.02		0	87.0			
83	NF	6353-54	6.3	0.03		0	78.7			
84	NF	6354-55	5.3	0.01		0	89.7			
85	NF	6355-56	6.5	0.02		Trace	61.8			
86	NF	6356-57	5.4	0.01		Trace	95.8			
Core No. 6 6366 - 6418 Recovered 52'										
87	NF	6369-70	8.8	0.02		0	73.3			
88	HF	6381-82	7.3	0.02		0	64.4			
89	NF	6383-84	6.0	0.02		Trace	73.3			

EL PASO NATURAL GAS COMPANY

CANYON LARGO #89

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F—Fracture
H—Horizontal
O—Open

LEGEND
NF—No Fracture
IS—Insufficient Sample

S—Slight
St—Stain
V—Vertical
Vu—Vugs

SAMPLE NO.	LEGEND	DEPTH, FEET	EFFECTIVE POROSITY PORESPACE	PERMEABILITY MILLIDARCIES		SATURATIONS		CONNATE WATER	SOLUBILITY	
				HORIZONTAL	VERTICAL	PORE SPACE RESIDUAL OIL	PORE SPACE TOTAL WATER		MUD ACID	IS ACID
Core No. 2 continued										
24	NF	5390-91	3.4	0.01		5.1	94.3			
25	NF	5391-92	2.7	0.01		2.4	97.1			
26	NF	5392-93	5.6	0.02		13.4	60.9			
27	NF	5393-94	2.3	0.01		4.3	94.8			
		5394-95	No sample taken							
28	NF	5395-96	2.7	0.01		1.9	95.9			
		5396-5406	No samples taken							
29	NF	5406-07	2.1	0.07		0.8	97.4			
30	NF	5411-12	2.6	0.03		1.2	98.1			
Core No. 3 5458 - 5502 Recovered 44'										
31	NF	5484-85	3.0	0.10		2.2	46.3			
32	NF	5485-86	11.5	8.75		5.9	30.1			
33	NF	5486-87	9.1	5.13		10.3	30.5			
34	NF	5487-88	6.7	0.04		22.6	27.1			
35	NF	5488-89	4.4	0.10		17.3	37.9			
36	NF	5489-90	10.2	0.83		26.4	29.1			
37	NF	5490-91	7.5	0.17		12.6	34.8			
38	NF	5491-92	12.7	40		22.3	25.6			
39	NF	5492-93	13.2	25		9.4	37.9			
40	NF	5493-94	5.8	0.22		17.4	46.2			
41	VF	5494-95	11.2	7.17		14.3	28.5			
42	NF	5495-96	10.5	5.51		8.2	25.2			
43	NF	5496-97	14.5	43		9.7	34.2			
44	NF	5497-98	14.9	74		15.9	28.3			
45	NF	5498-99	12.5	19		12.6	29.7			
46	NF	5499-5500	9.9	1.84		11.0	33.8			
47	NF	5500-01	8.9	0.08		12.7	34.5			
48	NF	5501-02	6.3	0.05		21.8	52.5			
Core No. 4 6290 - 6343 Recovered 53'										
49	NF	6291-92	4.9	0.47		0	49.9			
50	NF	6297-98	6.5	0.02		0	58.4			
51	NF	6298-99	7.5	0.03		0	40.0			
52	NF	6299-6300	8.5	0.03		0	47.0			
53	NF	6300-01	8.3	0.04		0	56.6			
54	NF	6301-02	8.5	0.03		0	51.7			
55	NF	6302-03	7.5	0.02		0	70.1			
56	NF	6303-04	7.4	0.04		0	58.1			
57	NF	6304-05	8.5	0.03		0	58.8			
58	NF	6305-06	9.6	0.05		0	48.9			
59	NF	6306-07	9.0	0.06		Trace	64.4			

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***Fracture caused permeability**

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SAMPLE NO.	LEGEND	DEPTH, FEET	EFFECTIVE POROSITY PORESPACE	PERMEABILITY MILLIDARCIES		SATURATIONS		CONNATE WATER	SOLUBILITY	
				HORIZONTAL	VERTICAL	% PORE SPACE RESIDUAL OIL	% PORE SPACE TOTAL WATER		MUD ACID	IS ACID
Core No. 6 continued										
90	NF	6384-85	3.7	0.05		Trace	34.9			
91	NF	6385-86	4.5	0.03		Trace	79.3			
92	NF	6386-87	3.1	0.01		0	89.6			
93	HF	6390-91	2.2	0.01		0	90.4			
94	VF	6395-96	3.1	0.02		0	94.7			
95	VF	6400-01	2.4	0.01		0	62.1			
Core No. 7 6418 - 6470 Recovered 51.7%										
96	NF	6421-22	11.4	0.03		7.7	36.6			
97	NF	6423-24	14.5	0.05		0.6	29.4			
98	NF	6425-26	14.7	0.06		1.2	31.8			
99	NF	6427-28	14.0	0.05		0.6	30.4			
100	NF	6429-30	10.9	0.04		0.7	40.2			
101	NF	6431-32	6.2	0.03		0	72.7			
102	NF	6433-34	9.4	0.04		0	62.8			
103	NF	6435-36	5.4	0.03		0	96.5			
104	NF	6437-38	6.2	0.02		0	68.4			
105	NF	6439-40	2.3	0.01		Trace	97.4			
106	NF	6446-47	10.8	0.07		0	53.3			
107	NF	6447-48	11.7	0.11		0	46.8			
108	NF	6448-49	12.8	2.63*		0	44.5			
109	NF	6449-50	13.1	0.11		0	59.2			
110	VF	6450-51	15.4	2.18*		Trace	34.6			
111	VF	6451-52	8.4	0.10		0	34.8			
112	VF	6452-53	7.6	0.09		0	43.8			
113	VF	6453-54	8.0	0.10		0	32.8			
114	VF	6454-55	7.8	0.07		0	57.3			
115	VF	6455-56	8.9	0.06		0	41.2			
116	VF	6456-57	7.9	0.05		0	67.3			
117	VF	6457-58	11.2	0.20		0	58.8			
118	VF	6458-59	10.4	0.16		0	45.1			
119	VF	6459-60	9.3	0.09		0	48.1			
120	VF	6460-61	11.8	1.23*		0	25.0			
121	VF	6461-62	10.1	0.14		0	22.3			
122	VF	6462-63	8.3	0.17		Trace	28.9			

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SAMPLE NO.	LEGEND	DEPTH. FEET	EFFECTIVE POROSITY PORESPACE	PERMEABILITY MILLIDARCIES		SATURATIONS		CONNATE WATER	SOLUBILITY	
				HORIZONTAL	VERTICAL	% PORE SPACE RESIDUAL OIL	% PORE SPACE TOTAL WATER		MUD ACID	IS. ACID
		Core No. 7 continued								
123	VF	6463-64	10.0	0.04		0	50.0			
124	NF	6465-66	10.7	0.05		0	28.8			
125	NF	6467-68	10.4	0.04		0	55.7			
126	NF	6469-70	4.6	0.01		0	86.9			