Vitrinite reflectance data of cuttings (5390′ - 14850′) from the Home Oil Co. Bush Fed No. 1 well. See GMC Data Report No. 25

Received 27 September 1990 Total of 14 pages in report

Alaska Geologic Materials Center Data Report No. 168

File Name: 90016115
Channel Name: POINT 1 Frequency
Description: Home Oil Bush Fed #1 5,390- 420 20II90 mjp

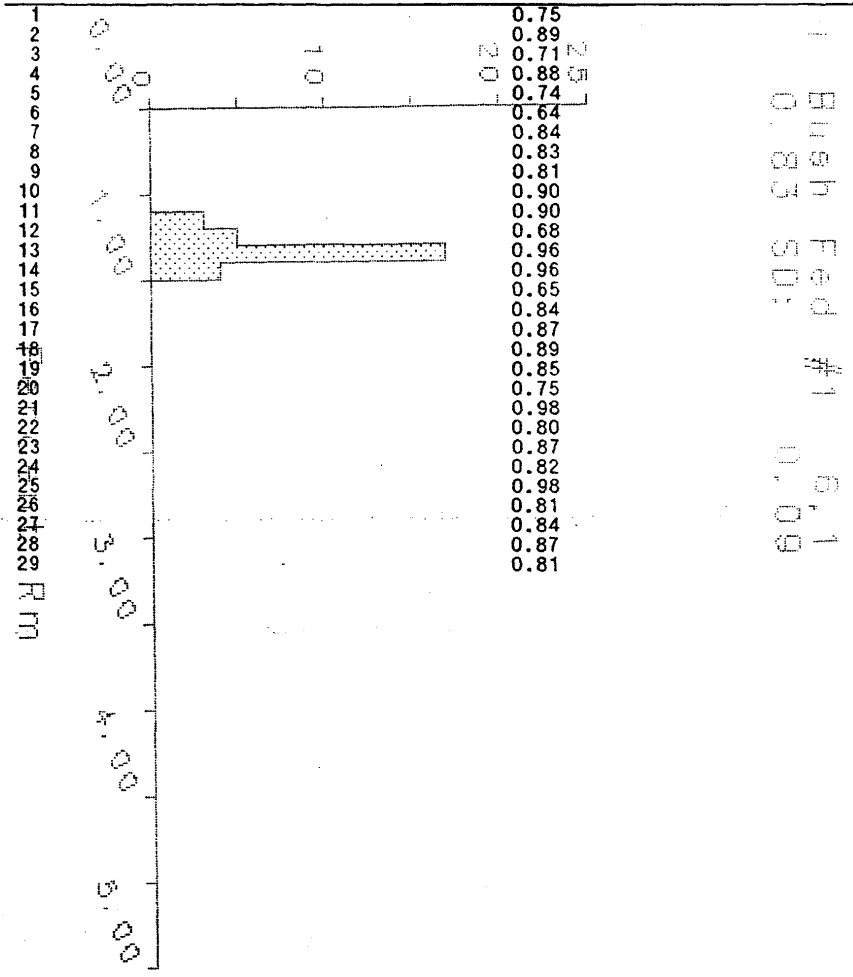
Min: 0.46
Max: 0.73
Mean: 0.56
StDev: 0.06

Pt.	X-Pos	Y-Pos	Z-Pos	Meas1	Meas2	Ratio	Conc.
1				0.60			
2				0.54			
3				0.62			
4				0.50			
5				0.56			
6				0.62			
7				0.64			
8				0.53			
9				0.49			
10				0.57			
11				0.59			
12				0.56			
13				0.58			
14				0.50			
15				0.54			
16				0.57			
17				0.46			
18				0.52			
19				0.52			
20				0.57			
21				0.52			
22				0.73			
23				0.57			
24				0.70			
25				0.59			
26				0.68			
27				0.53			
28				0.56			
29				0.51			
30				0.49			
31				0.56			
32				0.53			
33				0.58			
34				0.52			
35				0.51			

File Name: 90016116
Channel Name: POINT 1
Description: Home Oil Bush Fed #1 6,130- 140 20II90 mjp

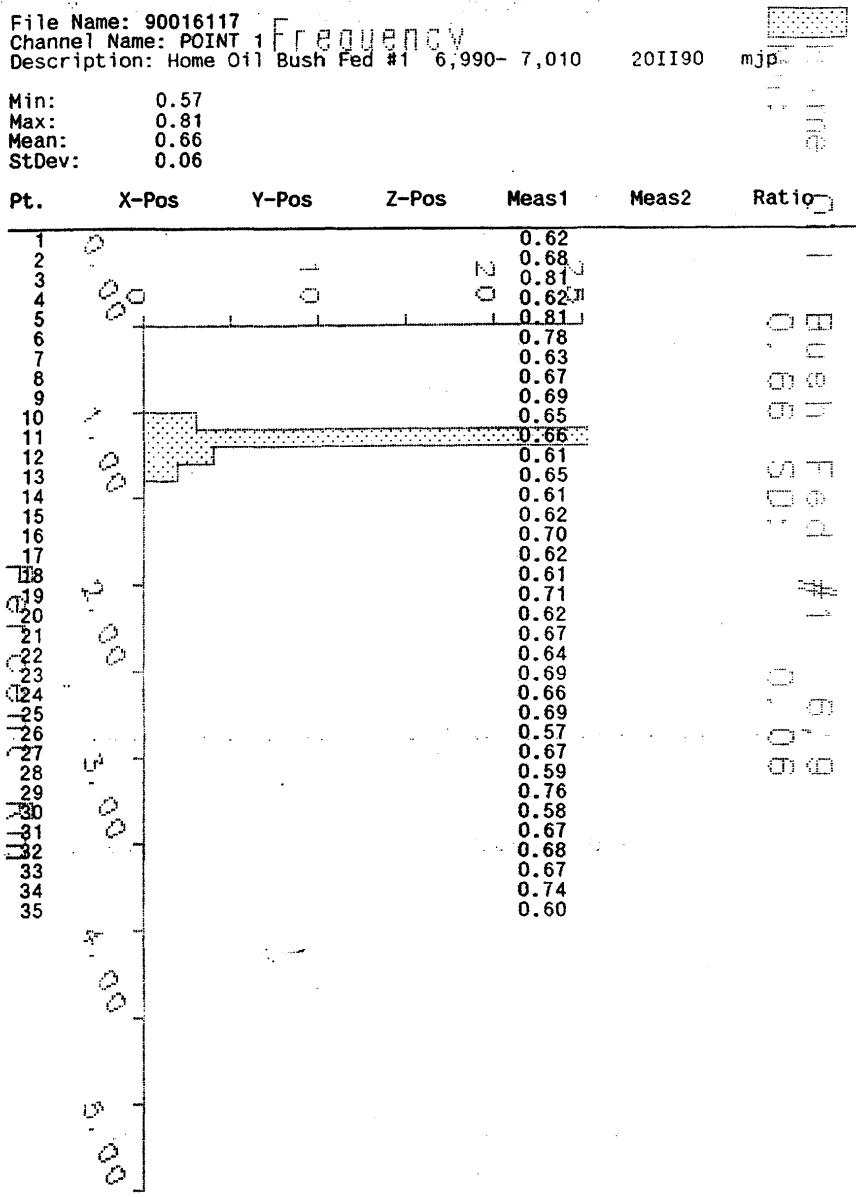
Min: 0.64
Max: 0.98
Mean: 0.83
StDev: 0.09

Pt.	X-Pos	Y-Pos	Z-Pos	Meas1	Meas2	Ratio	Conc.
1				0.75			
2				0.89			
3				0.71			
4				0.88			
5				0.74			
6				0.64			
7				0.84			
8				0.83			
9				0.81			
10				0.90			
11				0.90			
12				0.68			
13				0.96			
14				0.96			
15				0.65			
16				0.84			
17				0.87			
18				0.89			
19				0.85			
20				0.75			
21				0.98			
22				0.80			
23				0.87			
24				0.82			
25				0.98			
26				0.81			
27				0.84			
28				0.87			
29				0.81			



File Name: 90016117
Channel Name: POINT 1
Description: Home Oil Bush Fed #1 6,990- 7,010 20II90 mjp

Min: 0.57
Max: 0.81
Mean: 0.66
StDev: 0.06

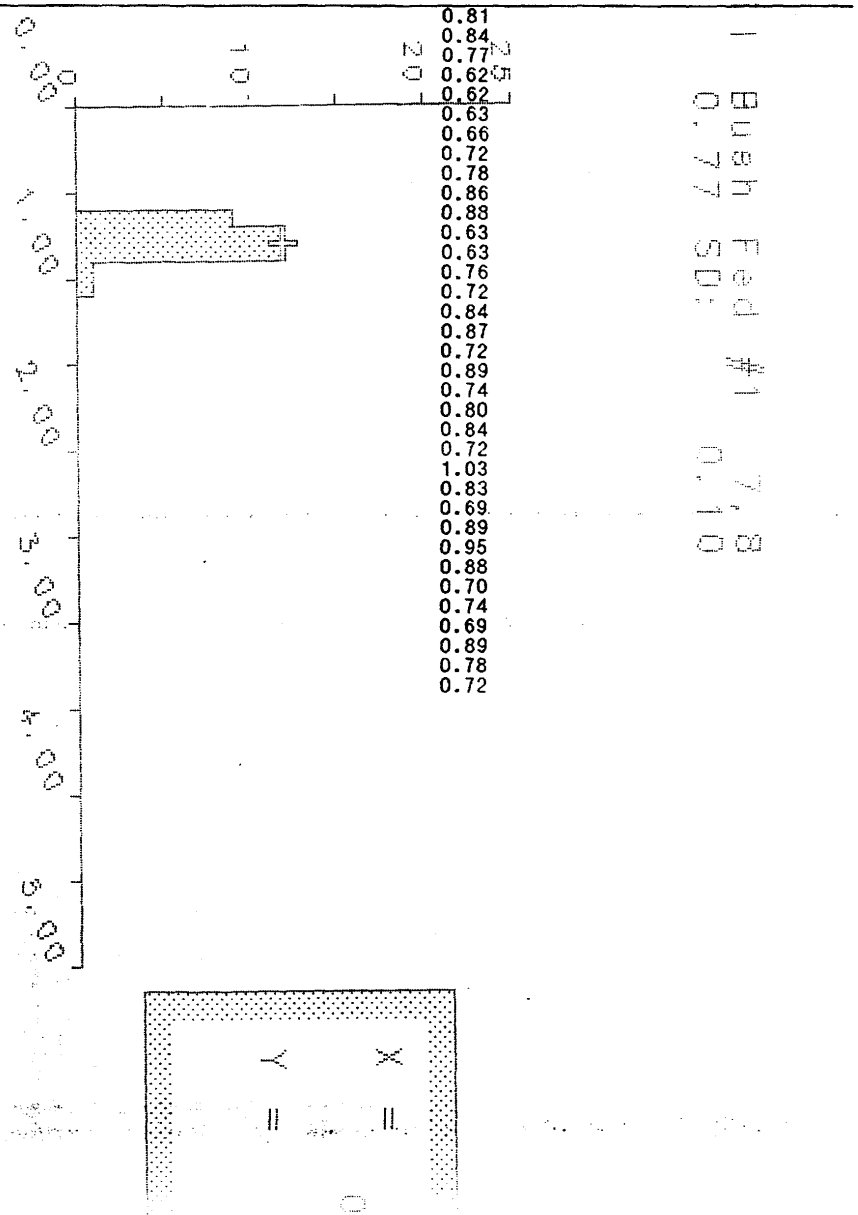


Pt.	X-Pos	Y-Pos	Z-Pos	Meas1	Meas2	Ratio	Conc.
1				0.62			
2				0.68			
3				0.81			
4				0.62			
5				0.81			
6				0.78			
7				0.63			
8				0.67			
9				0.69			
10				0.65			
11				0.66			
12				0.61			
13				0.65			
14				0.61			
15				0.62			
16				0.70			
17				0.62			
18				0.61			
19				0.71			
20				0.62			
21				0.67			
22				0.64			
23				0.69			
24				0.66			
25				0.69			
26				0.57			
27				0.67			
28				0.59			
29				0.76			
30				0.58			
31				0.67			
32				0.68			
33				0.67			
34				0.74			
35				0.60			

File Name: 90016118
Channel Name: POINT 1
Description: Home Oil Bush Fed #1 7,820- 860 20II90 mjp

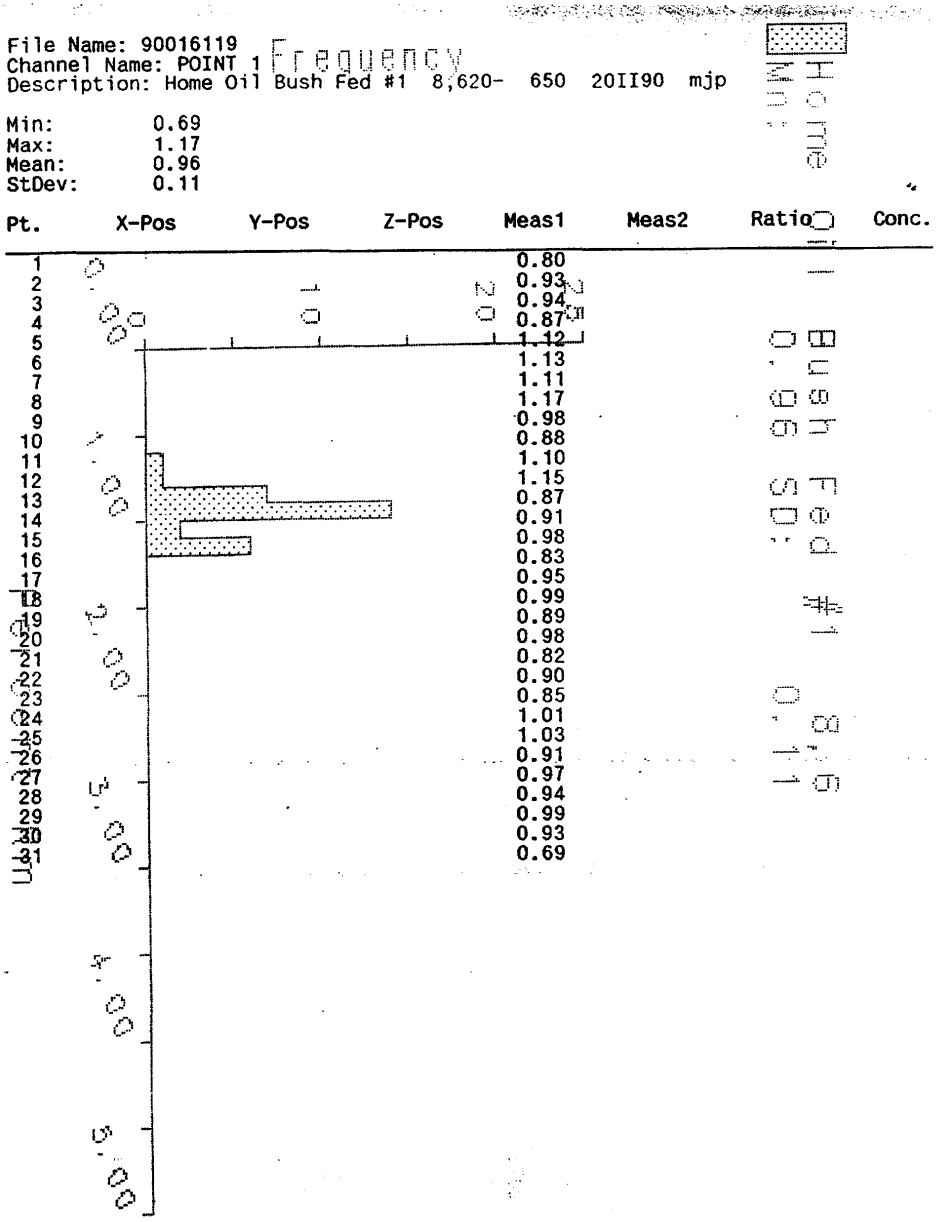
Min: 0.62
Max: 1.03
Mean: 0.77
StDev: 0.10

Pt.	X-Pos	Y-Pos	Z-Pos	Meas1	Meas2	Ratio	Conc.
1				0.81			
2				0.84			
3				0.77			
4				0.62			
5				0.62			
6				0.63			
7				0.66			
8				0.72			
9				0.78			
10				0.86			
11				0.88			
12				0.63			
13				0.63			
14				0.76			
15				0.72			
16				0.84			
17				0.87			
18				0.72			
19				0.89			
20				0.74			
21				0.80			
22				0.84			
23				0.72			
24				1.03			
25				0.83			
26				0.69			
27				0.89			
28				0.95			
29				0.88			
30				0.70			
31				0.74			
32				0.69			
33				0.89			
34				0.78			
35				0.72			



File Name: 90016119
Channel Name: POINT 1
Description: Home Oil Bush Fed #1 8,620- 650 20II90 mjp

Min: 0.69
Max: 1.17
Mean: 0.96
StDev: 0.11

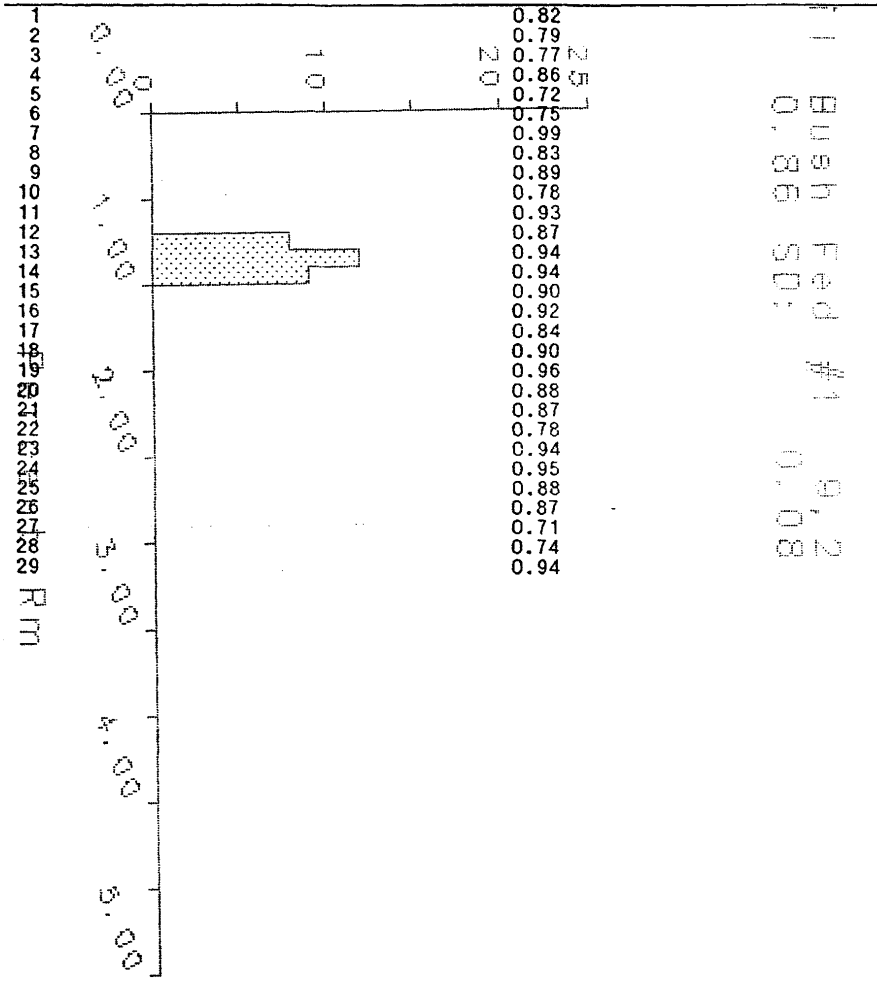


Pt.	X-Pos	Y-Pos	Z-Pos	Meas1	Meas2	Ratio	Conc.
1				0.80			
2				0.93			
3				0.94			
4				0.87			
5				1.12			
6				1.13			
7				1.11			
8				1.17			
9				0.98			
10				0.88			
11				1.10			
12				1.15			
13				0.87			
14				0.91			
15				0.98			
16				0.83			
17				0.95			
18				0.99			
19				0.89			
20				0.98			
21				0.82			
22				0.90			
23				0.85			
24				1.01			
25				1.03			
26				0.91			
27				0.97			
28				0.94			
29				0.99			
30				0.93			
31				0.69			

File Name: 90016120
Channel Name: POINT 1
Description: Home Oil Bush Fed #1 9,270- 300 20II90 mjp

Min: 0.71
Max: 0.99
Mean: 0.86
StDev: 0.08

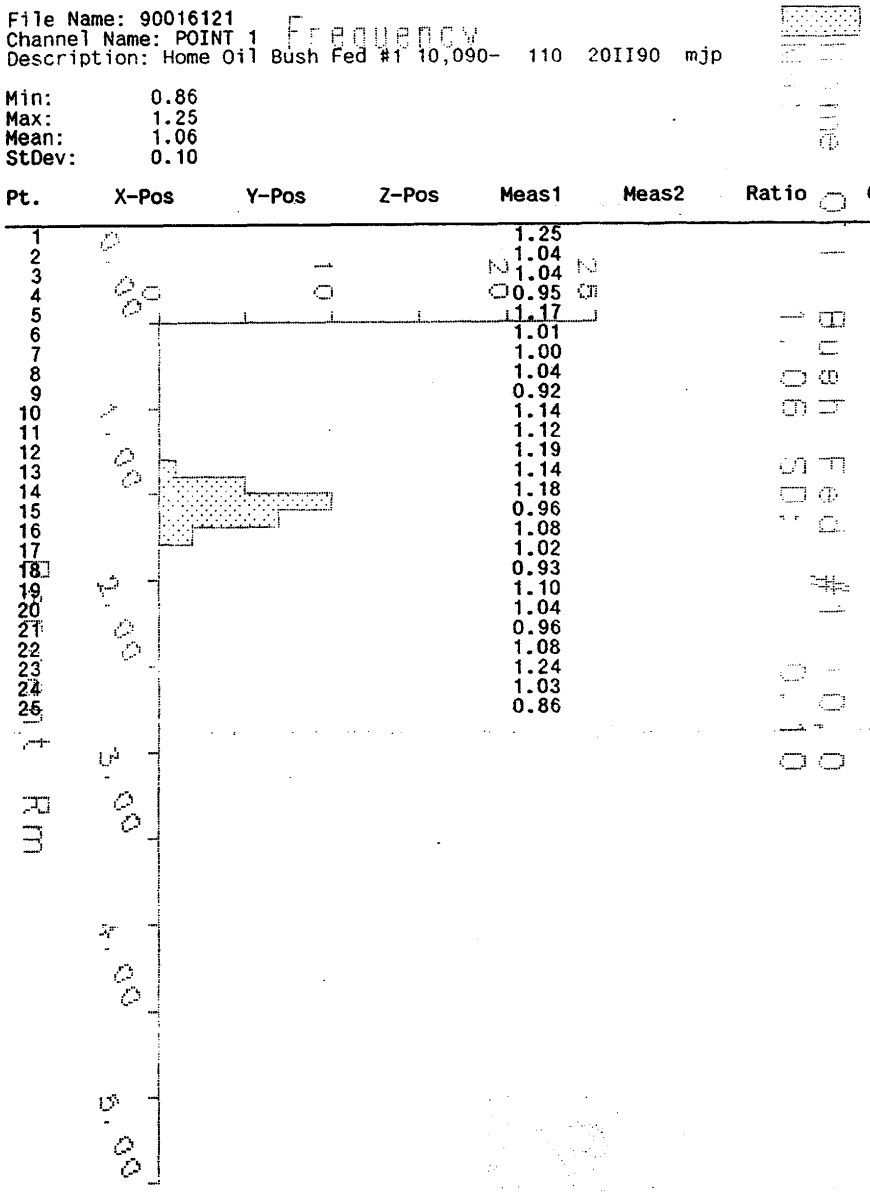
Pt.	X-Pos	Y-Pos	Z-Pos	Meas1	Meas2	Ratio	Conc.
1				0.82			
2				0.79			
3				0.77			
4				0.86			
5				0.72			
6				0.75			
7				0.99			
8				0.83			
9				0.89			
10				0.78			
11				0.93			
12				0.87			
13				0.94			
14				0.94			
15				0.90			
16				0.92			
17				0.84			
18				0.90			
19				0.96			
20				0.88			
21				0.87			
22				0.78			
23				0.94			
24				0.95			
25				0.88			
26				0.87			
27				0.71			
28				0.74			
29				0.94			



File Name: 90016121
Channel Name: POINT 1
Description: Home Oil Bush Fed #1 10,090- 110 20II90 mjp

Min: 0.86
Max: 1.25
Mean: 1.06
StDev: 0.10

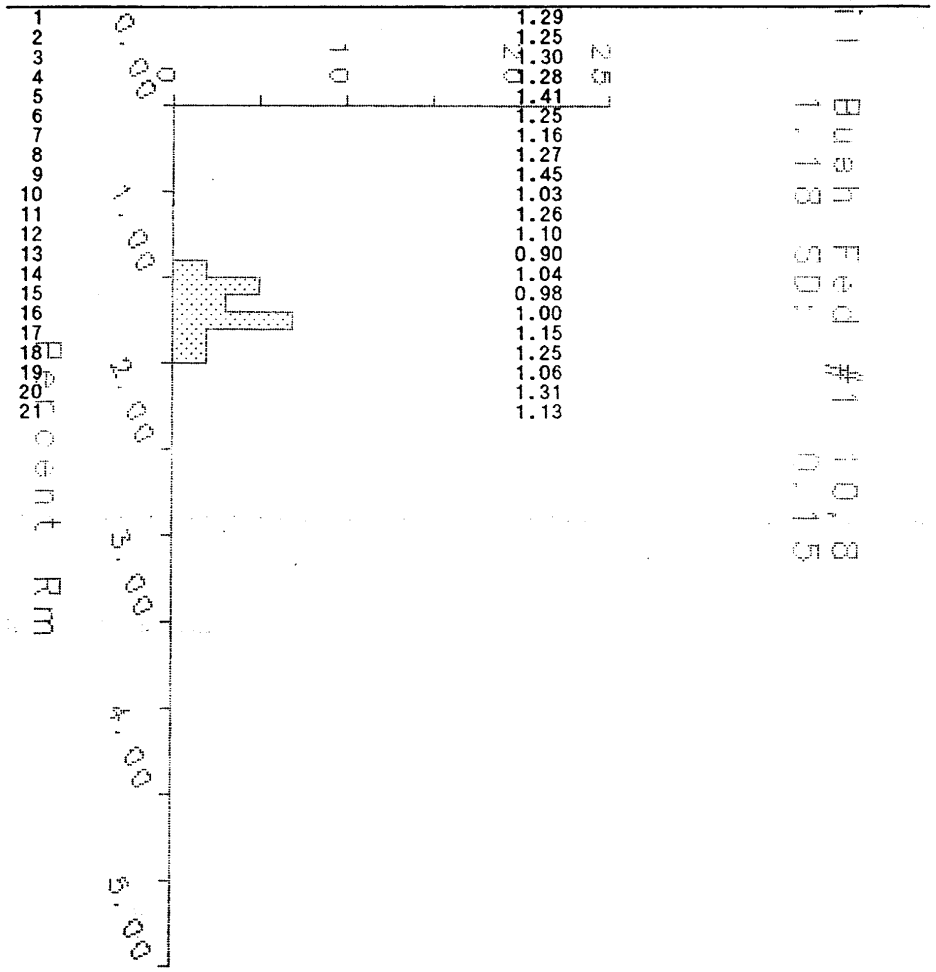
Pt.	X-Pos	Y-Pos	Z-Pos	Meas1	Meas2	Ratio	Conc.
1				1.25			
2				1.04			
3				1.04			
4				0.95			
5				1.17			
6				1.01			
7				1.00			
8				1.04			
9				0.92			
10				1.14			
11				1.12			
12				1.19			
13				1.14			
14				1.18			
15				0.96			
16				1.08			
17				1.02			
18				0.93			
19				1.10			
20				1.04			
21				0.96			
22				1.08			
23				1.24			
24				1.03			
25				0.86			



File Name: 90016122
Channel Name: POINT 1
Description: Home Oil Bush Fed #1 10,890- 910 20II90 mjp

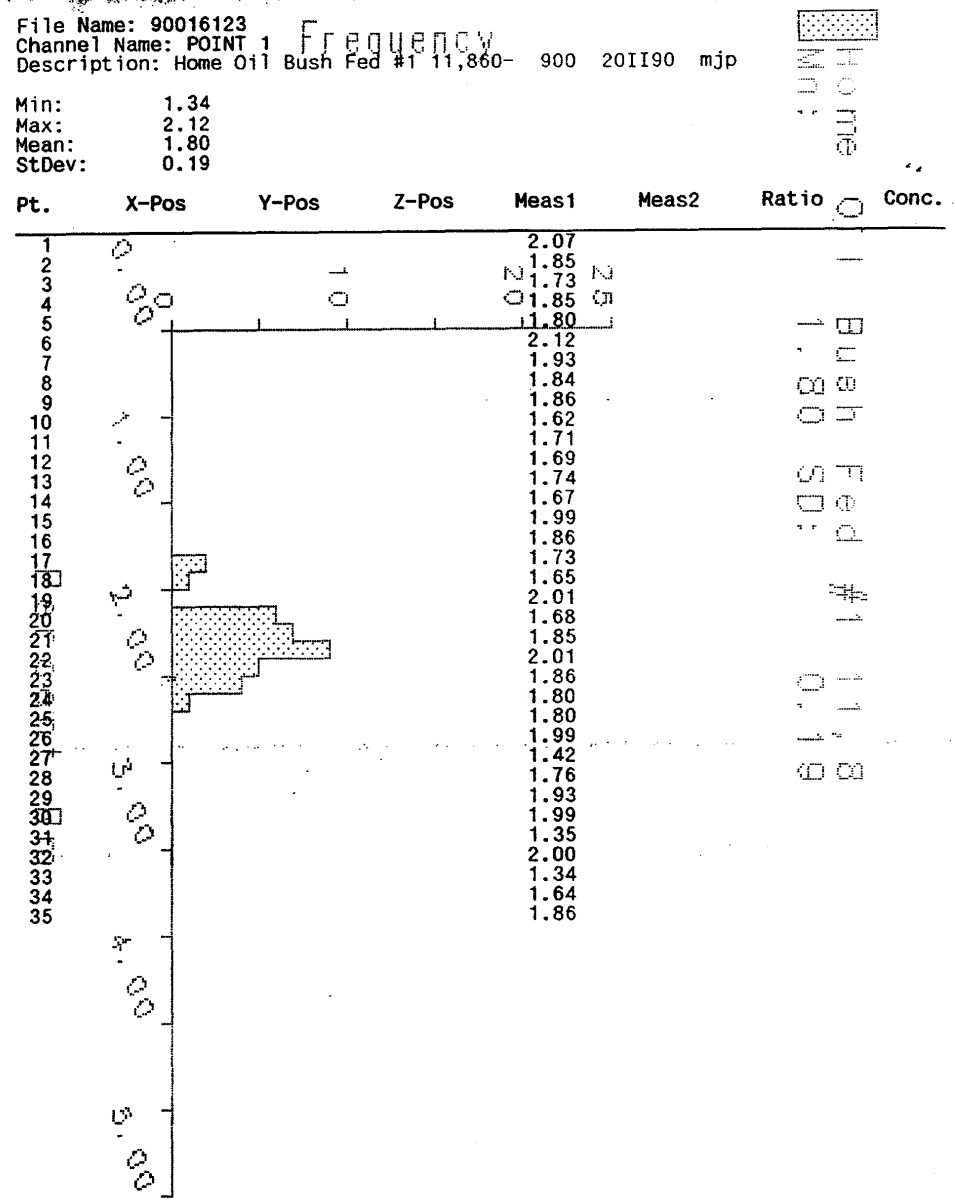
Min: 0.90
Max: 1.45
Mean: 1.18
StDev: 0.15

Pt.	X-Pos	Y-Pos	Z-Pos	Meas1	Meas2	Ratio	Conc.
1				1.29			
2				1.25			
3				1.30			
4				1.28			
5				1.41			
6				1.25			
7				1.16			
8				1.27			
9				1.45			
10				1.03			
11				1.26			
12				1.10			
13				0.90			
14				1.04			
15				0.98			
16				1.00			
17				1.15			
18				1.25			
19				1.06			
20				1.31			
21				1.13			



File Name: 90016123
Channel Name: POINT 1
Description: Home Oil Bush Fed #1 11,860- 900 20II90 mjp

Min: 1.34
Max: 2.12
Mean: 1.80
StDev: 0.19



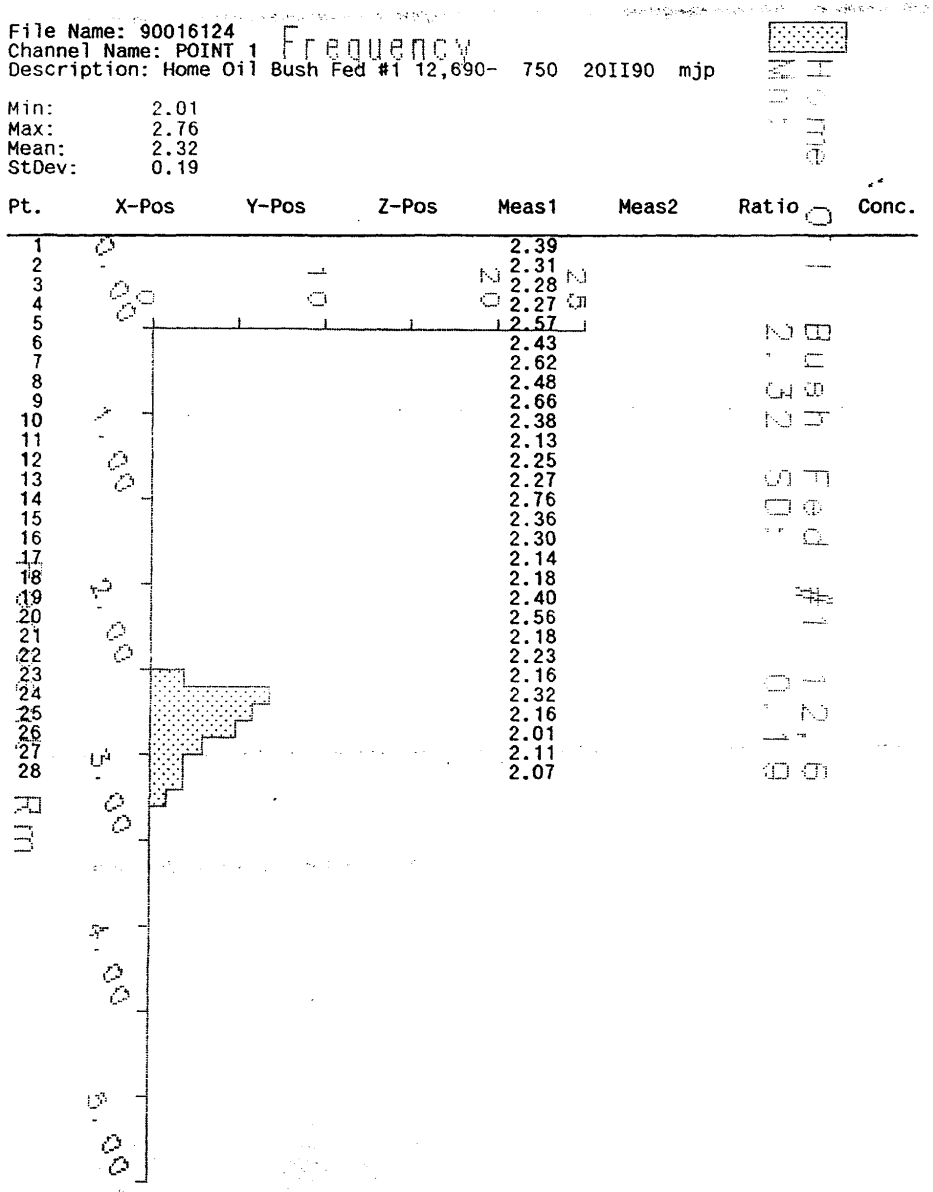
Pt.	X-Pos	Y-Pos	Z-Pos	Meas1	Meas2	Ratio	Conc.
1				2.07			
2				1.85			
3				1.73			
4				1.85			
5				1.80			
6				2.12			
7				1.93			
8				1.84			
9				1.86			
10				1.62			
11				1.71			
12				1.69			
13				1.74			
14				1.67			
15				1.99			
16				1.86			
17				1.73			
18				1.65			
19				2.01			
20				1.68			
21				1.85			
22				2.01			
23				1.86			
24				1.80			
25				1.80			
26				1.99			
27				1.42			
28				1.76			
29				1.93			
30				1.99			
31				1.35			
32				2.00			
33				1.34			
34				1.64			
35				1.86			

File Name: 90016124
Channel Name: POINT 1
Description: Home Oil Bush Fed #1 12,690- 750 20II90 mjp

Frequency

Min: 2.01
Max: 2.76
Mean: 2.32
StDev: 0.19

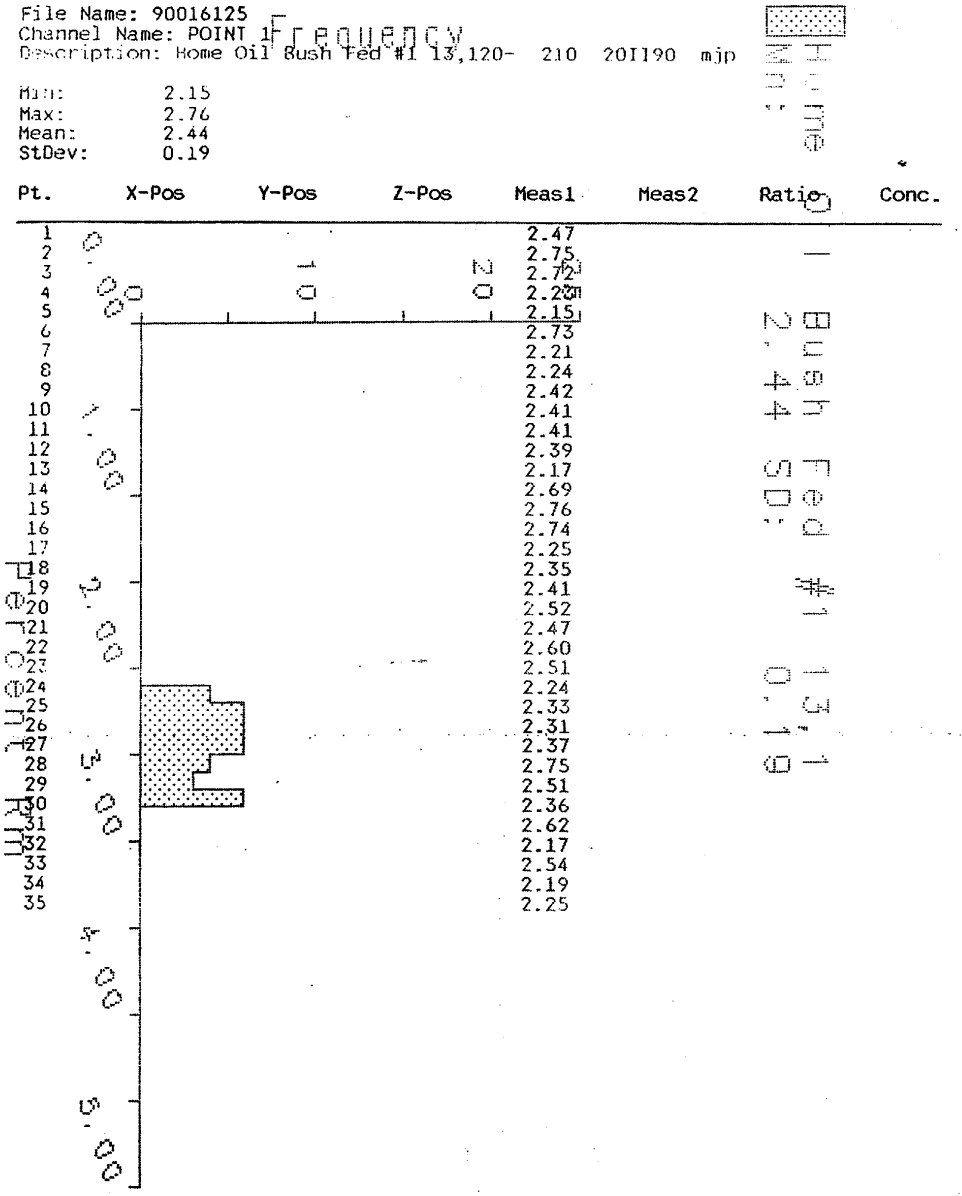
Pt.	X-Pos	Y-Pos	Z-Pos	Meas1	Meas2	Ratio	Conc.
1				2.39			
2				2.31			
3				2.28			
4				2.27			
5				2.57			
6				2.43			
7				2.62			
8				2.48			
9				2.66			
10				2.38			
11				2.13			
12				2.25			
13				2.27			
14				2.76			
15				2.36			
16				2.30			
17				2.14			
18				2.18			
19				2.40			
20				2.56			
21				2.18			
22				2.23			
23				2.16			
24				2.32			
25				2.16			
26				2.01			
27				2.11			
28				2.07			



File Name: 90016125
Channel Name: POINT 1
Description: Home Oil Bush Fed #1 13,120- 210 20I190 mjp

Min: 2.15
Max: 2.76
Mean: 2.44
StDev: 0.19

Pt.	X-Pos	Y-Pos	Z-Pos	Meas1	Meas2	Ratio	Conc.
1				2.47			
2				2.75			
3				2.72			
4				2.23			
5				2.15			
6				2.73			
7				2.21			
8				2.24			
9				2.42			
10				2.41			
11				2.41			
12				2.39			
13				2.17			
14				2.69			
15				2.76			
16				2.74			
17				2.25			
18				2.35			
19				2.41			
20				2.52			
21				2.47			
22				2.60			
23				2.51			
24				2.24			
25				2.33			
26				2.31			
27				2.37			
28				2.75			
29				2.51			
30				2.36			
31				2.62			
32				2.17			
33				2.54			
34				2.19			
35				2.25			



File Name: 90016126
Channel Name: POINT 1
Description: #1 Bush Federal 14,410 - 470 9II90 mjp

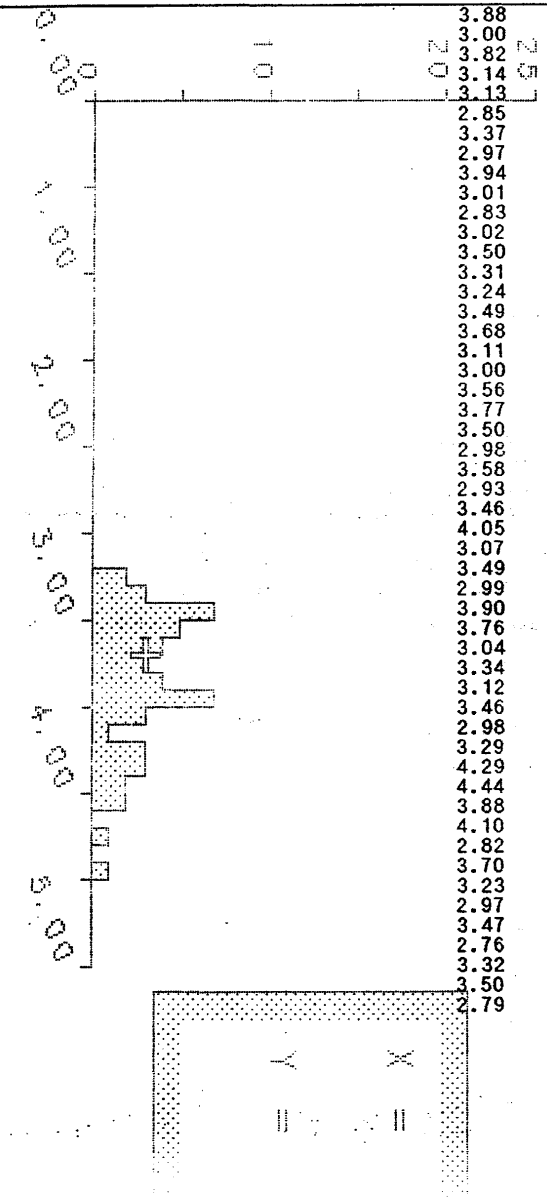
Min: 2.42
Max: 3.33
Mean: 2.78
StDev: 0.20

Pt.	X-Pos	Y-Pos	Z-Pos	Meas1	Meas2	Ratio	Conc.
1				2.93			
2				2.78			
3				2.77			
4				2.52			
5				2.72			
6				2.73			
7				2.72			
8				2.84			
9				2.64			
10				3.12			
11				3.33			
12				2.79			
13				3.24			
14				2.72			
15				2.76			
16				2.88			
17				3.24			
18				2.79			
19				2.78			
20				3.06			
21				2.56			
22				2.73			
23				2.83			
24				2.81			
25				2.66			
26				2.67			
27				2.91			
28				2.66			
29				2.83			
30				2.44			
31				2.72			
32				2.44			
33				2.71			
34				2.59			
35				2.61			
36				2.58			
37				2.65			
38				2.98			
39				3.06			
40				2.47			
41				2.80			
42				2.71			
43				2.62			
44				2.74			
45				2.92			
46				2.68			
47				3.09			
48				2.72			
49				2.97			
50				2.79			
51				2.42			
52				2.82			
53				2.81			
54				2.81			
55				2.65			

File Name: 90016127
Channel Name: POINT 1
Description: #1 Bush Federal 14,790 - 850 9II90 mjp

Min: 2.76
Max: 4.44
Mean: 3.37
StDev: 0.41

Pt.	X-Pos	Y-Pos	Z-Pos	Meas1	Meas2	Ratio	Conc.
1				3.88			
2				3.00			
3				3.82			
4				3.14			
5				3.13			
6				2.85			
7				3.37			
8				2.97			
9				3.94			
10				3.01			
11				2.83			
12				3.02			
13				3.50			
14				3.31			
15				3.24			
16				3.49			
17				3.68			
18				3.11			
19				3.00			
20				3.56			
21				3.77			
22				3.50			
23				2.98			
24				3.58			
25				2.93			
26				3.46			
27				4.05			
28				3.07			
29				3.49			
30				2.99			
31				3.90			
32				3.76			
33				3.04			
34				3.34			
35				3.12			
36				3.46			
37				2.98			
38				3.29			
39				4.29			
40				4.44			
41				3.88			
42				4.10			
43				2.82			
44				3.70			
45				3.23			
46				2.97			
47				3.47			
48				2.76			
49				3.32			
50				3.50			
51				2.79			



United States Department of the Interior

GEOLOGICAL SURVEY
BOX 25046 M.S. 940
DENVER FEDERAL CENTER
DENVER, COLORADO 80225

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:

17 September, 1990

John Reeder
P.O. Box 772116
Eagle River, AK
99577-2116

John:

I am returning the prepared samples I borrowed from the state back in January. Enclosed, also, you will find data and histogram sheets for almost all the samples.

Some samples did have organic material I deemed good enough to measure. For the most part, the samples were good and the results are evident, at least individually. Taken on a well-by-well basis several were difficult to make good sense out of from an organic petrology point of view. The shape of the histograms is a good general indicator of consistency of the organics contained within and in the confidence I had while examining the samples. My technique was to measure at least 50 organic grains, while trying to stay within a narrow range. This becomes difficult with increased vitrinite reflectance, and the histogram spread increases. With adequate material and consistent rank (contamination from uphole cavings can introduce diverse groups of organics) the histogram will have some kind of a bell curve shape. Gaps in the histogram, relating to multiple populations of organics, are a problem and dilute the strength of the mean value as a good measure of the thermal maturity. These gaps are more common at the higher ranks, (> 1.5% reflectance), but occur at lower ranks when insufficient material exists or there is contamination in the sample. I admit to certain biases against samples prepared by people other than myself, and these samples were made by several different companies. I feel I lose too much control over the processing of the cuttings and do not have the confidence in other people's dedication to the work.

I hope these data can be of some use to you. If I can help by providing additional information, please let me know.

Thank you for providing the samples, and for your assisstance while I was visiting.

Mark Pawlewicz

Mark Pawlewicz