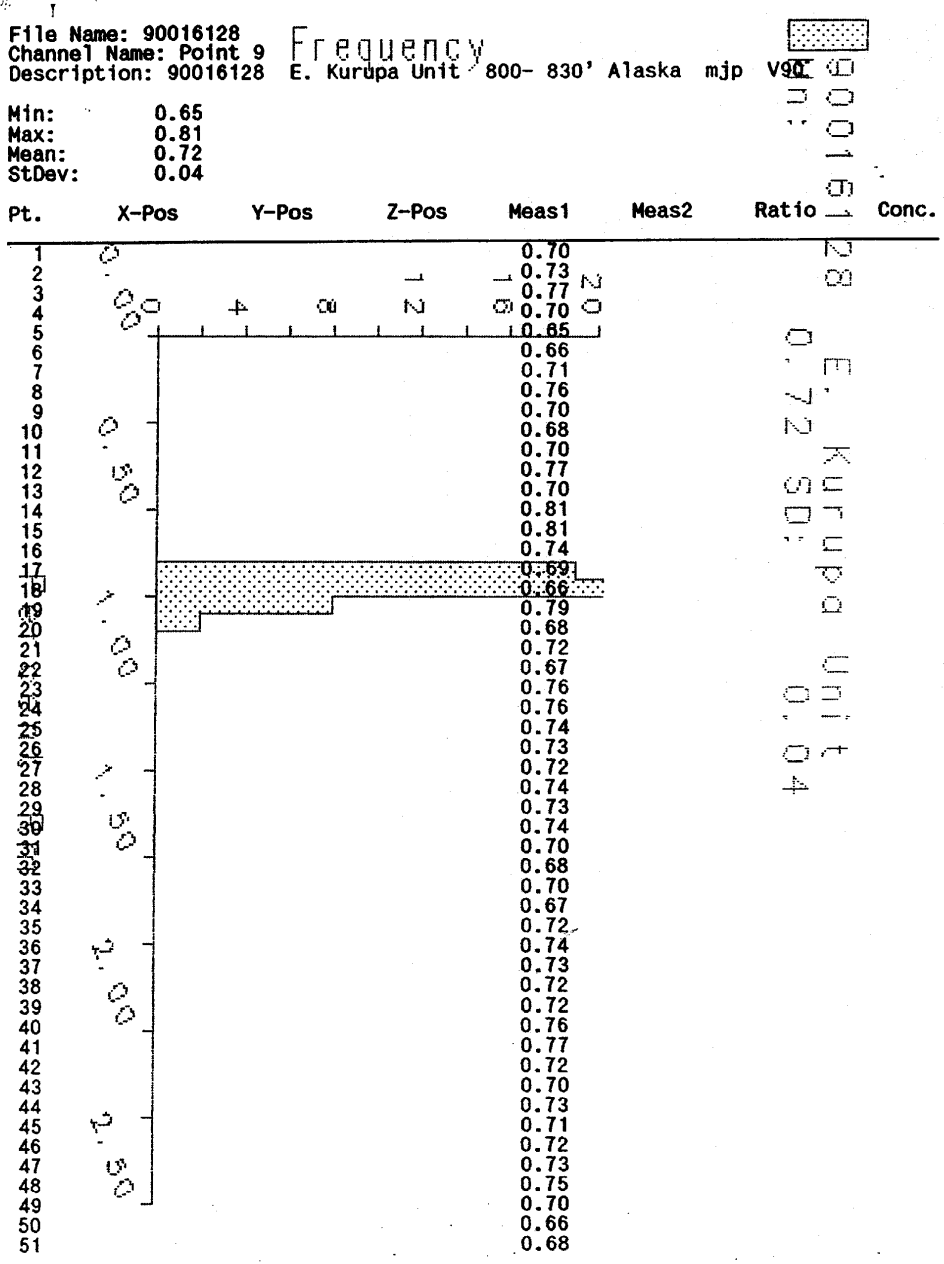
Vitrinite reflectance data of cuttings (800' - 12610') from the Texaco Inc. East Kurupa Unit No. 1 well. See GMC Data Report No. 122.

Received 27 September 1990 Total of 14 pages in report

File Name: 90016128
Channel Name: Point 9
Description: 90016128 E. Kurupa Unit 800- 830' Alaska mjp VSC

Frequency

Min: 0.65
Max: 0.81
Mean: 0.72
StDev: 0.04



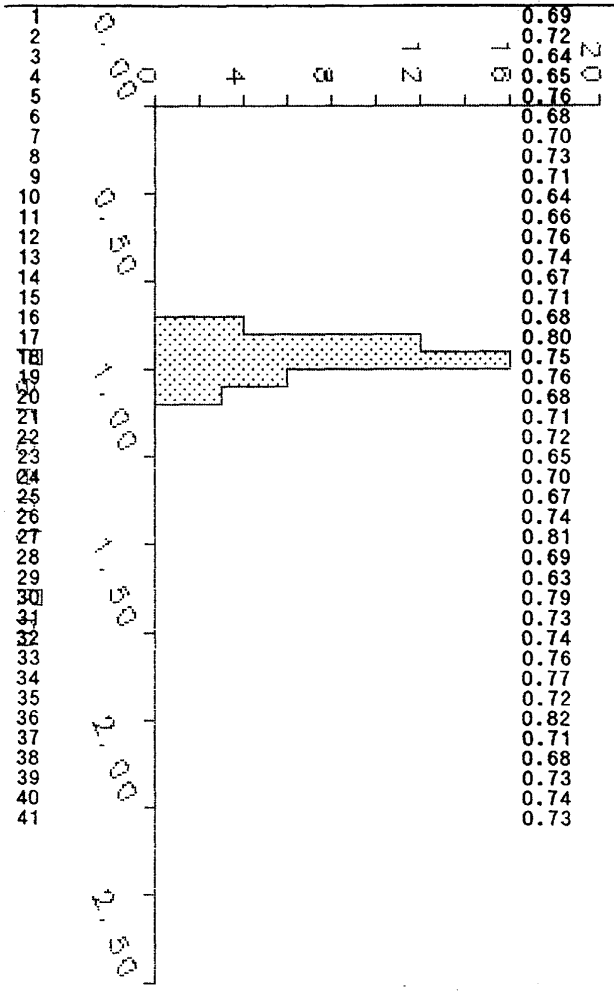
Pt.	X-Pos	Y-Pos	Z-Pos	Meas1	Meas2	Ratio	Conc.
1				0.70			
2				0.73			
3				0.77			
4				0.70			
5				0.65			
6				0.66			
7				0.71			
8				0.76			
9				0.70			
10				0.68			
11				0.70			
12				0.77			
13				0.70			
14				0.81			
15				0.81			
16				0.74			
17				0.69			
18				0.66			
19				0.79			
20				0.68			
21				0.72			
22				0.67			
23				0.76			
24				0.76			
25				0.74			
26				0.73			
27				0.72			
28				0.74			
29				0.73			
30				0.74			
31				0.70			
32				0.68			
33				0.70			
34				0.67			
35				0.72			
36				0.74			
37				0.73			
38				0.72			
39				0.72			
40				0.76			
41				0.77			
42				0.72			
43				0.70			
44				0.73			
45				0.71			
46				0.72			
47				0.73			
48				0.75			
49				0.70			
50				0.66			
51				0.68			

File Name: 90016129
Channel Name: Point 9
Description: 90016129 E. Kurupa Unit 1,220- 250' Alaska mjp 3/90

Frequency

Min: 0.63
Max: 0.82
Mean: 0.72
StDev: 0.05

Pt.	X-Pos	Y-Pos	Z-Pos	Meas1	Meas2	Ratio	Conc.
1				0.69			
2				0.72			
3				0.64			
4				0.65			
5				0.76			
6				0.68			
7				0.70			
8				0.73			
9				0.71			
10				0.64			
11				0.66			
12				0.76			
13				0.74			
14				0.67			
15				0.71			
16				0.68			
17				0.80			
18				0.75			
19				0.76			
20				0.68			
21				0.71			
22				0.72			
23				0.65			
24				0.70			
25				0.67			
26				0.74			
27				0.81			
28				0.69			
29				0.63			
30				0.79			
31				0.73			
32				0.74			
33				0.76			
34				0.77			
35				0.72			
36				0.82			
37				0.71			
38				0.68			
39				0.73			
40				0.74			
41				0.73			



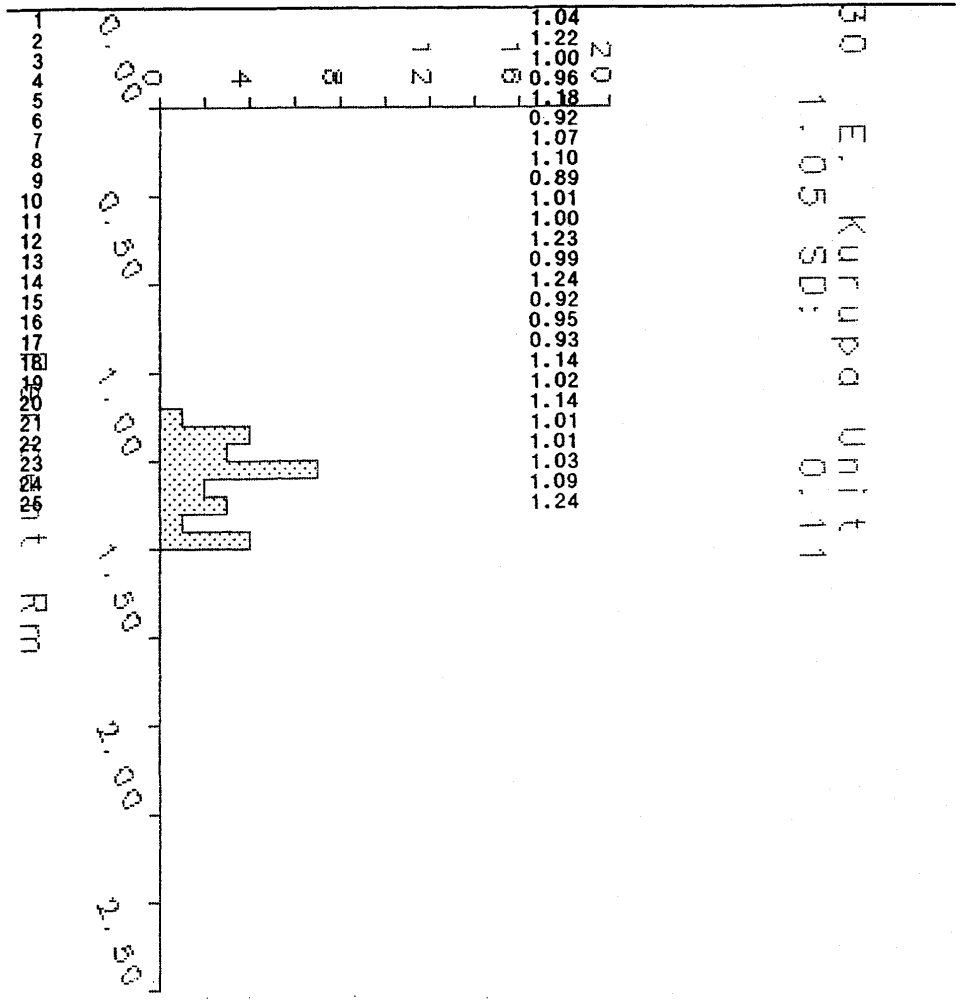
File Name: 90016129
Channel Name: Point 9
Description: 90016129 E. Kurupa Unit 1,220- 250' Alaska mjp 3/90
Min: 0.63
Max: 0.82
Mean: 0.72
StDev: 0.05

File Name: 90016130
Channel Name: Point 9
Description: 90016130 E. Kurupa Unit 2,210- 240' Alaska mjp 3900

Frequency

Min: 0.89
Max: 1.24
Mean: 1.05
StDev: 0.11

Pt.	X-Pos	Y-Pos	Z-Pos	Meas1	Meas2	Ratio	Conc.
1				1.04			
2				1.22			
3				1.00			
4				0.96			
5				1.18			
6				0.92			
7				1.07			
8				1.10			
9				0.89			
10				1.01			
11				1.00			
12				1.23			
13				0.99			
14				1.24			
15				0.92			
16				0.95			
17				0.93			
18				1.14			
19				1.02			
20				1.14			
21				1.01			
22				1.01			
23				1.03			
24				1.09			
25				1.24			

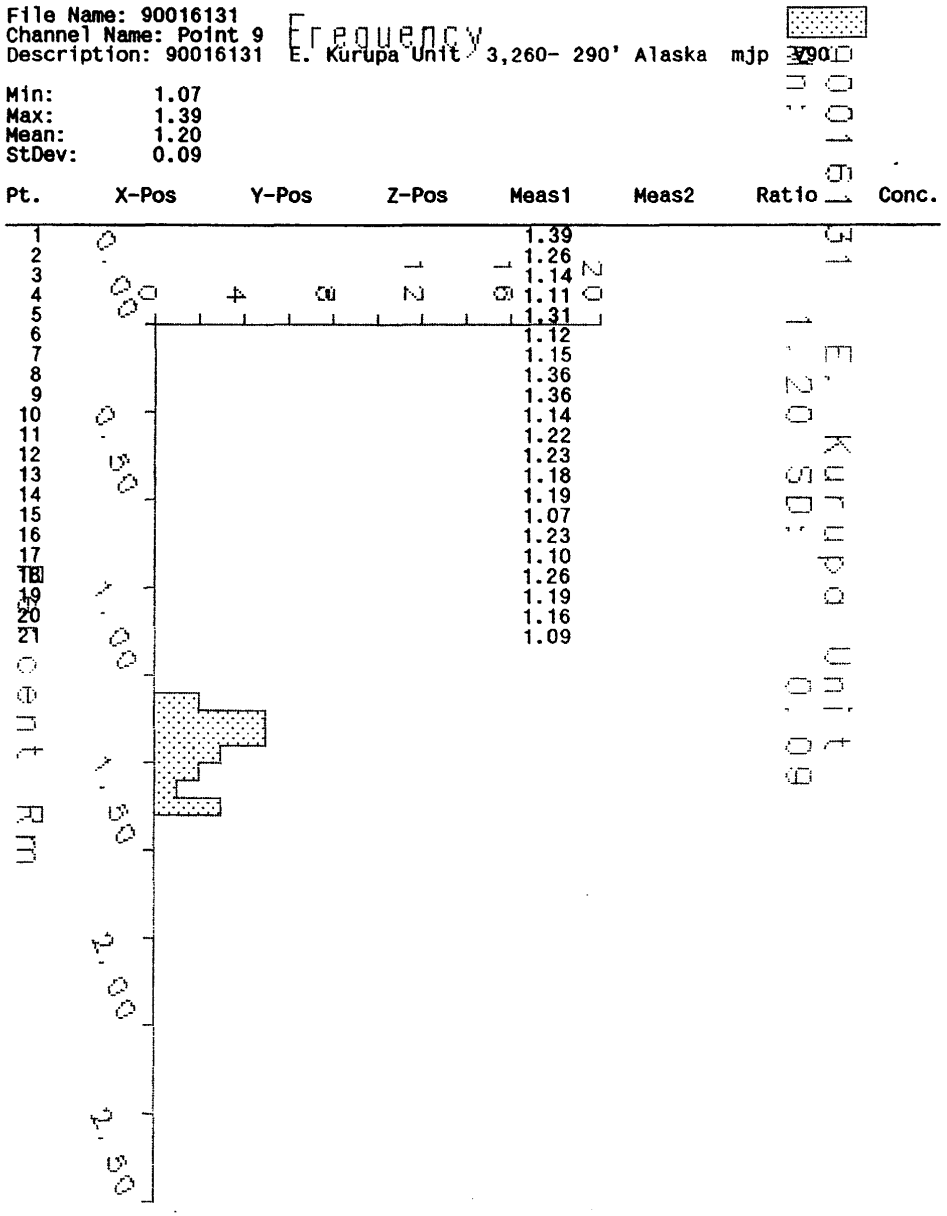


File Name: 90016131
Channel Name: Point 9
Description: 90016131 E. Kurupa Unit 3,260- 290' Alaska mjp 3/90

Frequency

Min: 1.07
Max: 1.39
Mean: 1.20
StDev: 0.09

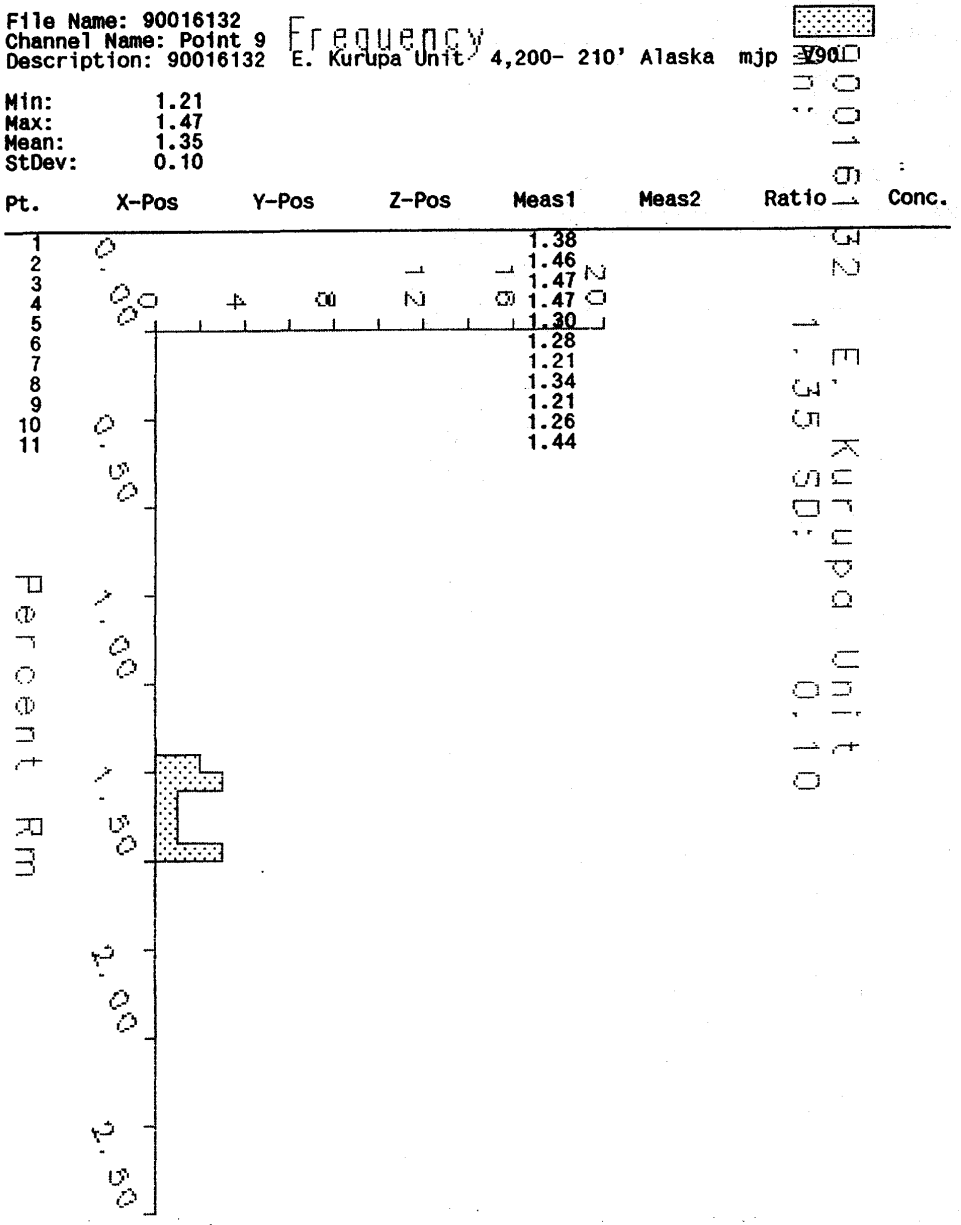
Pt.	X-Pos	Y-Pos	Z-Pos	Meas1	Meas2	Ratio	Conc.
1				1.39			
2				1.26			
3				1.14			
4				1.11			
5				1.31			
6				1.12			
7				1.15			
8				1.36			
9				1.36			
10				1.14			
11				1.22			
12				1.23			
13				1.18			
14				1.19			
15				1.07			
16				1.23			
17				1.10			
18				1.26			
19				1.19			
20				1.16			
21				1.09			



File Name: 90016132
Channel Name: Point 9
Description: 90016132 E. Kurupa Unit 4,200- 210' Alaska mjp 7900

Min: 1.21
Max: 1.47
Mean: 1.35
StDev: 0.10

Pt.	X-Pos	Y-Pos	Z-Pos	Meas1	Meas2	Ratio	Conc.
1				1.38			
2				1.46			
3				1.47			
4				1.47			
5				1.30			
6				1.28			
7				1.21			
8				1.34			
9				1.21			
10				1.26			
11				1.44			



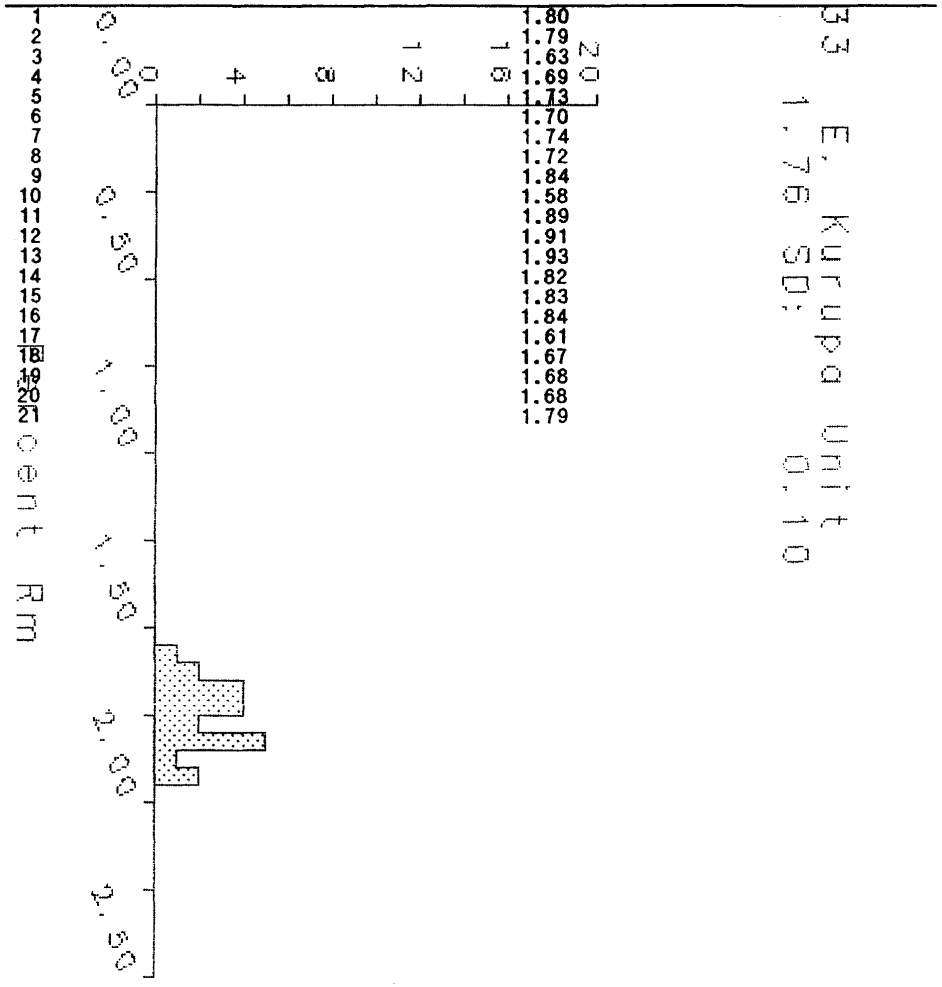
File Name: 90016133
Channel Name: Point 9
Description: 90016133

Frequency

E. Kurupa Unit 6,600- 610' Alaska mjp 3/90

Min: 1.58
Max: 1.93
Mean: 1.76
StDev: 0.10

Pt.	X-Pos	Y-Pos	Z-Pos	Meas1	Meas2	Ratio	Conc.
1				1.80			
2				1.79			
3				1.63			
4				1.69			
5				1.73			
6				1.70			
7				1.74			
8				1.72			
9				1.84			
10				1.58			
11				1.89			
12				1.91			
13				1.93			
14				1.82			
15				1.83			
16				1.84			
17				1.61			
18				1.67			
19				1.68			
20				1.68			
21				1.79			

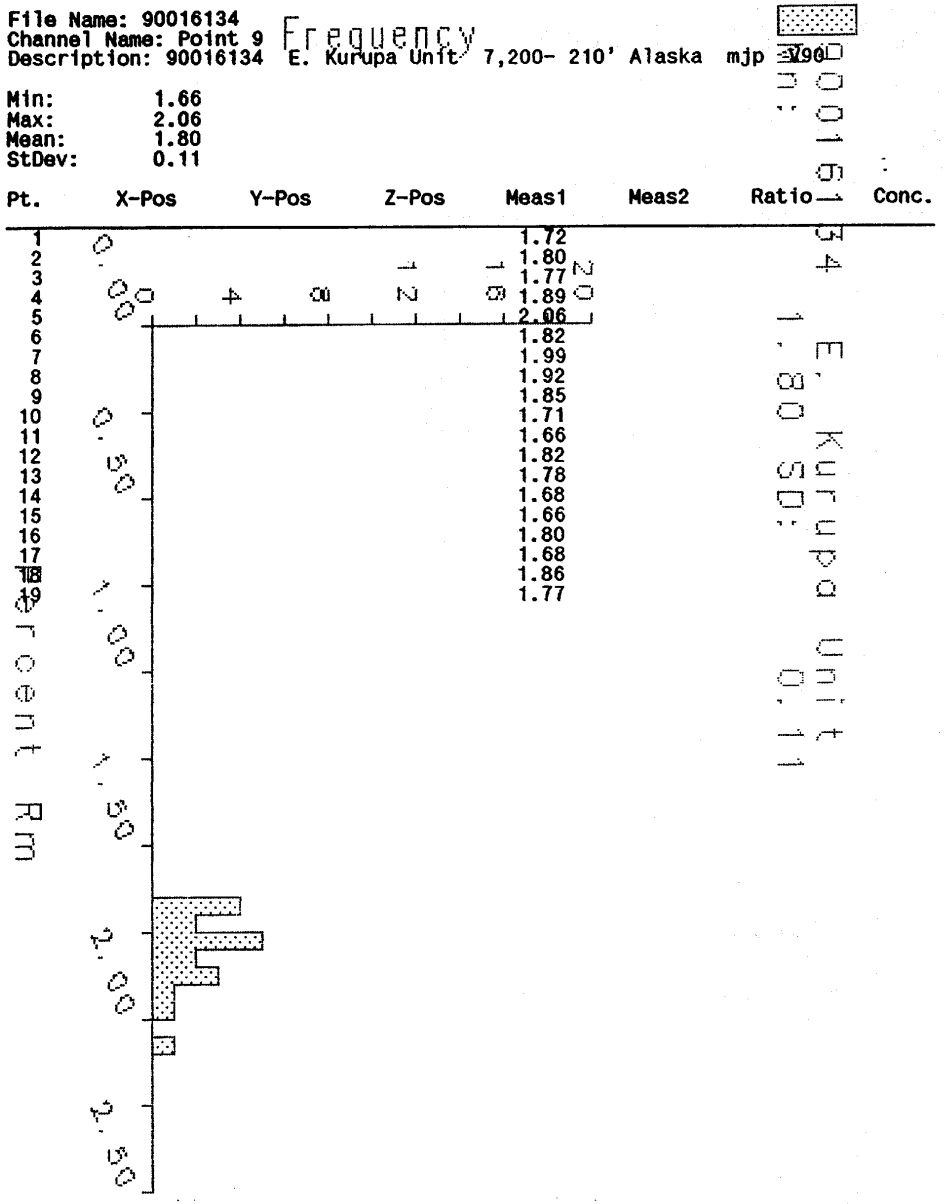


File Name: 90016134
Channel Name: Point 9
Description: 90016134 E. Kurupa Unit 7,200- 210' Alaska mjp 3/90

Frequency

Min: 1.66
Max: 2.06
Mean: 1.80
StDev: 0.11

Pt.	X-Pos	Y-Pos	Z-Pos	Meas1	Meas2	Ratio	Conc.
1				1.72			
2				1.80			
3				1.77			
4				1.89			
5				2.06			
6				1.82			
7				1.99			
8				1.92			
9				1.85			
10				1.71			
11				1.66			
12				1.82			
13				1.78			
14				1.68			
15				1.66			
16				1.80			
17				1.68			
18				1.86			
19				1.77			

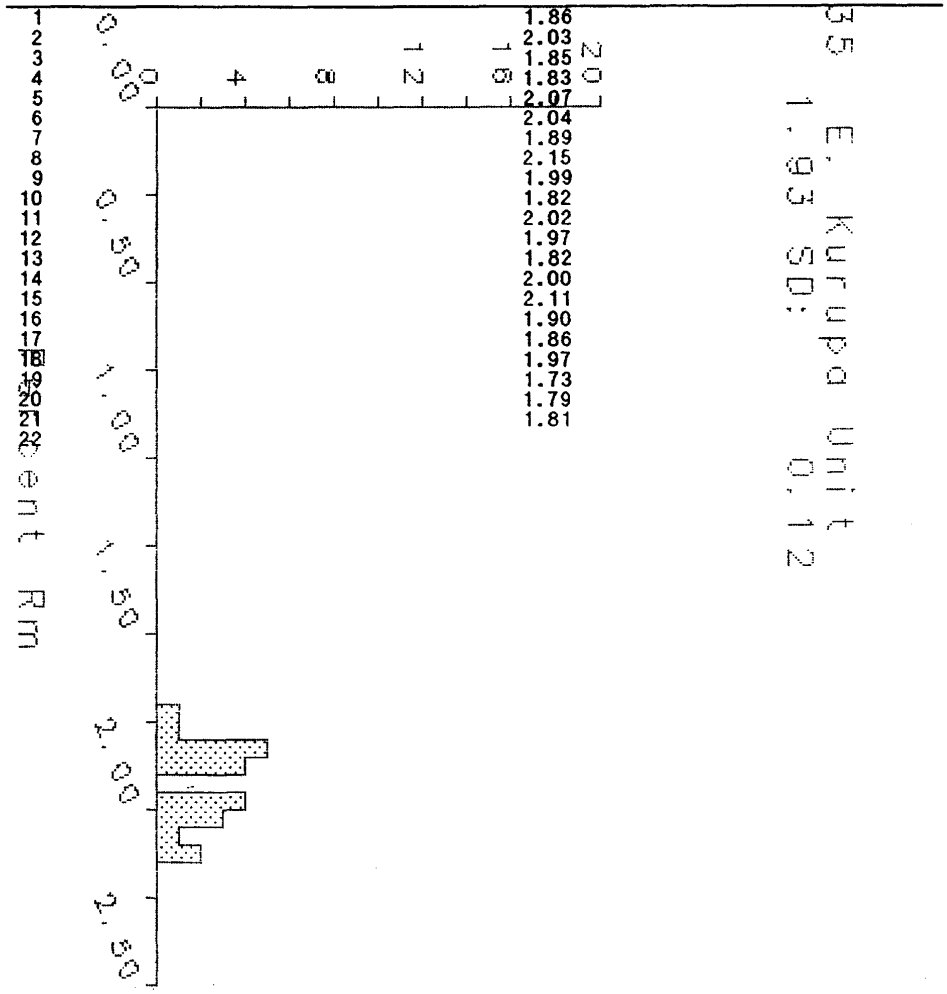


File Name: 90016135
Channel Name: Point 9
Description: 90016135 E. Kurupa Unit 8,230- 240' Alaska mjp 3/90

Frequency

Min: 1.73
Max: 2.15
Mean: 1.93
StDev: 0.12

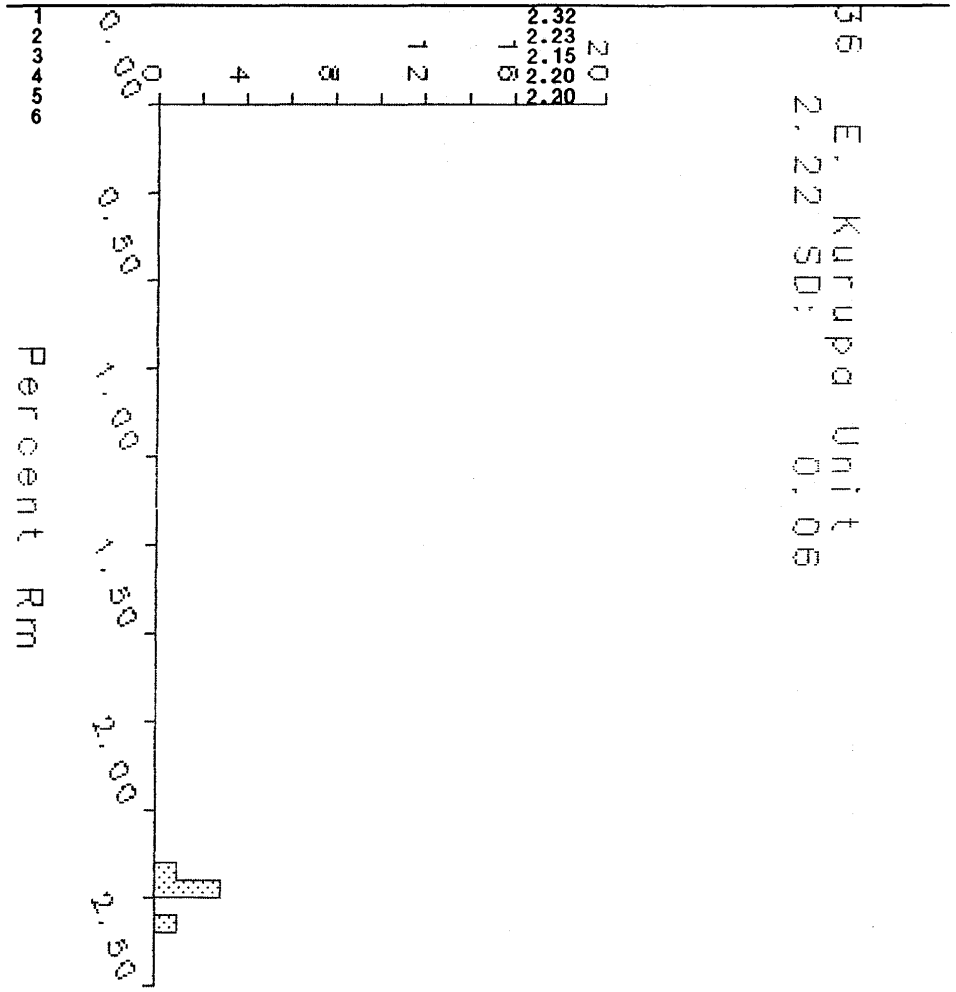
Pt.	X-Pos	Y-Pos	Z-Pos	Meas1	Meas2	Ratio	Conc.
1				1.86			
2				2.03			
3				1.85			
4				1.83			
5				2.07			
6				2.04			
7				1.89			
8				2.15			
9				1.99			
10				1.82			
11				2.02			
12				1.97			
13				1.82			
14				2.00			
15				2.11			
16				1.90			
17				1.86			
18				1.97			
19				1.73			
20				1.79			
21				1.81			
22							



File Name: 90016136
Channel Name: Point 9
Description: 90016136 E. Kurupa Unit 9,600- 610' Alaska mjp 7/90

Min: 2.15
Max: 2.32
Mean: 2.22
StDev: 0.06

Pt.	X-Pos	Y-Pos	Z-Pos	Meas1	Meas2	Ratio	Conc.
1				2.32			
2				2.23			
3				2.15			
4				2.20			
5				2.20			
6							

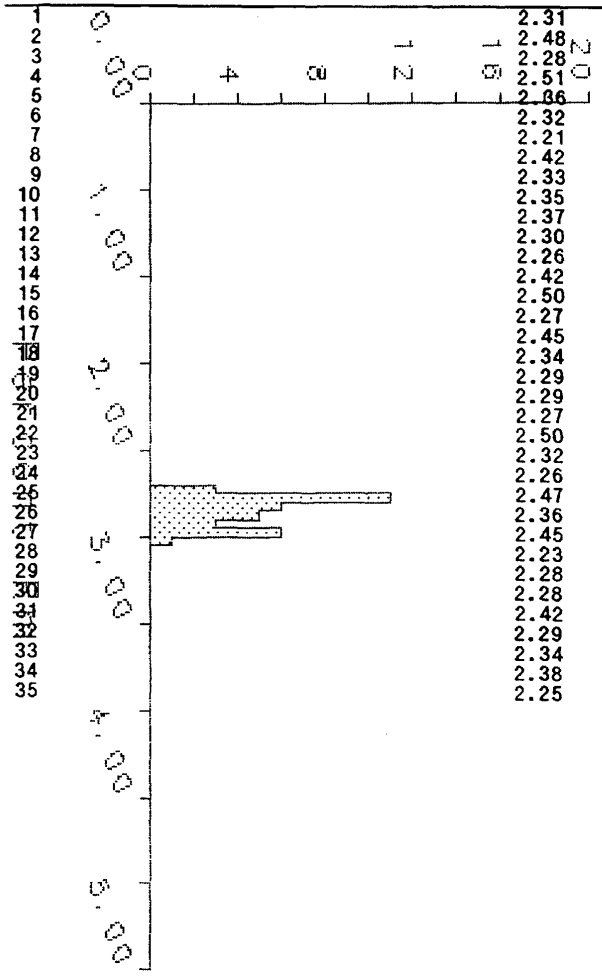


File Name: 90016137
Channel Name: Point 9
Description: 90016137 E. Kurupa Unit 10,600- 610' Alaska mjp-V90

Frequency

Min: 2.21
Max: 2.51
Mean: 2.35
StDev: 0.08

Pt.	X-Pos	Y-Pos	Z-Pos	Meas1	Meas2	Ratio	Conc.
1				2.31			
2				2.48			
3				2.28			
4				2.51			
5				2.86			
6				2.32			
7				2.21			
8				2.42			
9				2.33			
10				2.35			
11				2.37			
12				2.30			
13				2.26			
14				2.42			
15				2.50			
16				2.27			
17				2.45			
18				2.34			
19				2.29			
20				2.29			
21				2.27			
22				2.50			
23				2.32			
24				2.26			
25				2.47			
26				2.36			
27				2.45			
28				2.23			
29				2.28			
30				2.28			
31				2.42			
32				2.29			
33				2.34			
34				2.38			
35				2.25			

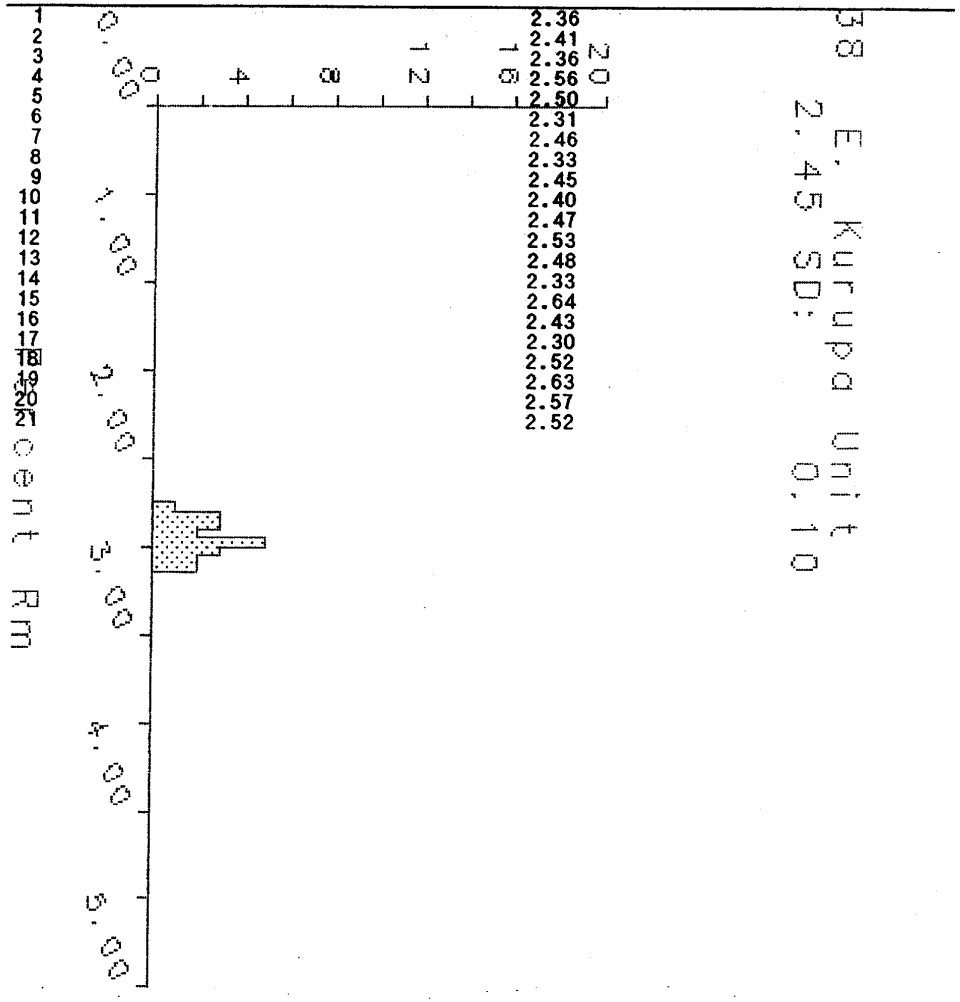


File Name: 90016138
Channel Name: Point 9
Description: 90016138 E. Kurupa Unit 11,200- 210' Alaska mjp 7/90

Frequency

Min: 2.30
Max: 2.64
Mean: 2.45
StDev: 0.10

Pt.	X-Pos	Y-Pos	Z-Pos	Meas1	Meas2	Ratio	Conc.
1				2.36			
2				2.41			
3				2.36			
4				2.56			
5				2.50			
6				2.31			
7				2.46			
8				2.33			
9				2.45			
10				2.40			
11				2.47			
12				2.53			
13				2.48			
14				2.33			
15				2.64			
16				2.43			
17				2.30			
18				2.52			
19				2.63			
20				2.57			
21				2.52			

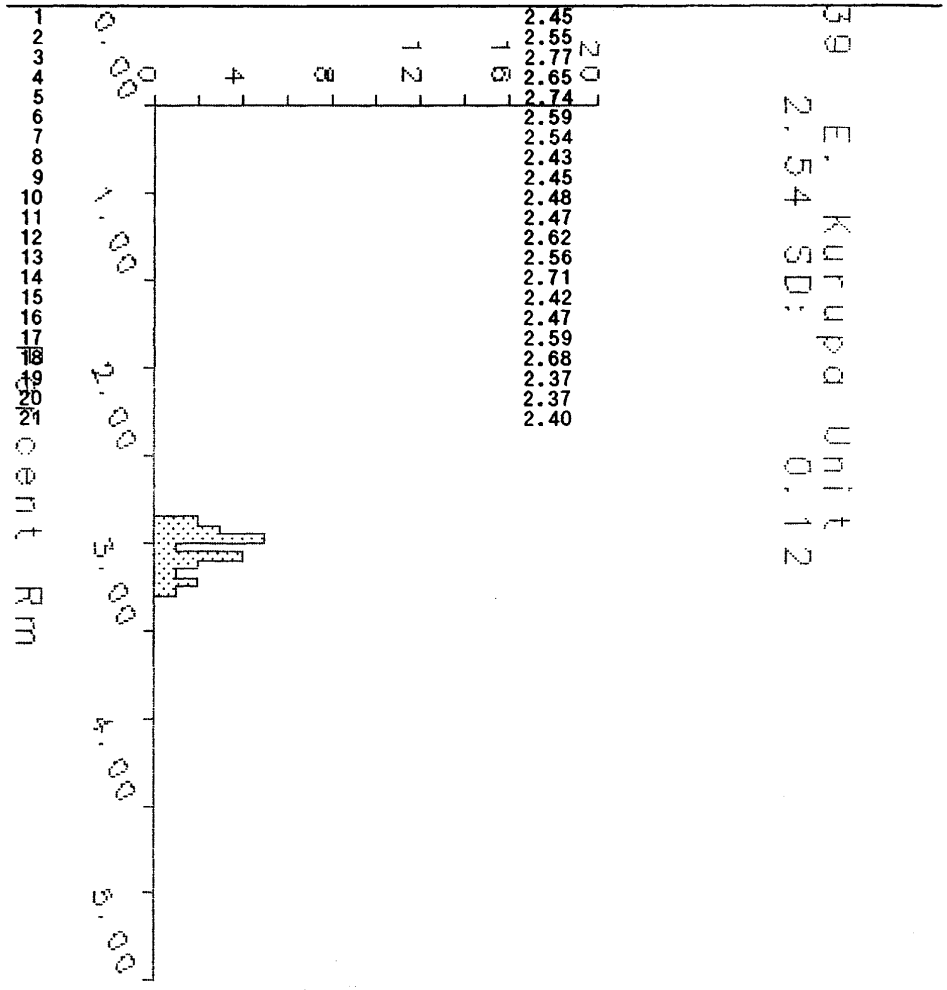


File Name: 90016139
Channel Name: Point 9
Description: 90016139 E. Kurupa Unit 12,200- 210' Alaska mjp V90

Frequency

Min: 2.37
Max: 2.77
Mean: 2.54
StDev: 0.12

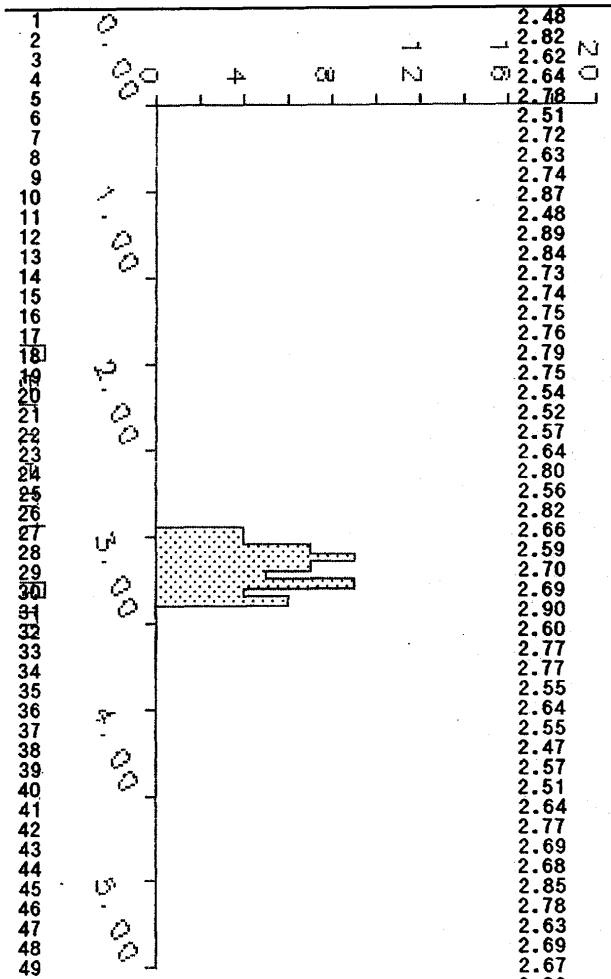
Pt.	X-Pos	Y-Pos	Z-Pos	Meas1	Meas2	Ratio	Conc.
1				2.45			
2				2.55			
3				2.77			
4				2.65			
5				2.74			
6				2.59			
7				2.54			
8				2.43			
9				2.45			
10				2.48			
11				2.47			
12				2.62			
13				2.56			
14				2.71			
15				2.42			
16				2.47			
17				2.59			
18				2.68			
19				2.37			
20				2.37			
21				2.40			



File Name: 90016140
Channel Name: Point 9
Description: 90016140 E. Kurupa Unit 12,600- 610' Alaska mjp 4/90

Frequency

Min: 2.47
Max: 2.90
Mean: 2.68
StDev: 0.12



Pt.	X-Pos	Y-Pos	Z-Pos	Meas1	Meas2	Ratio	Conc.
1				2.48			
2				2.82			
3				2.62			
4				2.64			
5				2.78			
6				2.51			
7				2.72			
8				2.63			
9				2.74			
10				2.87			
11				2.48			
12				2.89			
13				2.84			
14				2.73			
15				2.74			
16				2.75			
17				2.76			
18				2.79			
19				2.75			
20				2.54			
21				2.52			
22				2.57			
23				2.64			
24				2.80			
25				2.56			
26				2.82			
27				2.66			
28				2.59			
29				2.70			
30				2.69			
31				2.90			
32				2.60			
33				2.77			
34				2.77			
35				2.55			
36				2.64			
37				2.55			
38				2.47			
39				2.57			
40				2.51			
41				2.64			
42				2.77			
43				2.69			
44				2.68			
45				2.85			
46				2.78			
47				2.63			
48				2.69			
49				2.67			
50				2.86			
51				2.63			
52				2.89			
53				2.71			
54				2.48			
55				2.58			

90016140 E. Kurupa Unit 2,698 SD: 0.12

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