

Total organic carbon and Rock Eval pyrolysis data and analysis for the
Colorado Oil Malaspina Unit No. 1-A well

Received 9 February 1989

Total of 4 pages in report

Geologic Materials Center Data Report No. 114

Malaspina #1 Well (2400' to 13823', samples 6438-073
to -087)

All samples have TOC of 0.50 wt.% or less, indicating poor potential source rocks based on quantity. The three T_{max} values obtained are meaningless, based on flat S₂ curves. No samples provided data sufficient to qualify them as petroleum source rocks.

TABLE I
Results of Total Organic Carbon Analysis and Rock-Eval Pyrolysis

Sample Number	Depth (ft)	TOC (Wt.%)	S1 (mg/g)	S2 (mg/g)	S3 (mg/g)	Tmax (°C)	Production Index	Hydrogen Index	Oxygen Index
6438-071	6950-6970	0.31	---	---	---	---	---	---	---
6438-072	6990-7000	0.36	---	---	---	---	---	---	---
<u>Well: Malaspina #1A</u>									
6438-073	2400-2460	0.18	---	---	---	---	---	---	---
6438-074	3030-3090	0.18	---	---	---	---	---	---	---
6438-075	4410-4470	0.16	---	---	---	---	---	---	---
6438-076	5430-5490	0.20	---	---	---	---	---	---	---
6438-077	6540-6600	0.15	---	---	---	---	---	---	---
6438-078	7560-7620	0.16	---	---	---	---	---	---	---
6438-079	8730-8790	0.37	---	---	---	---	---	---	---
6438-080	9090-9270	0.26	---	---	---	---	---	---	---
6438-081	9810-9990	0.27	---	---	---	---	---	---	---
6438-082	10560-10740	0.50	0.15	0.14	1.03	446	0.52	28	207
6438-083	11160-11370	0.39	---	---	---	---	---	---	---
6438-084	11880-12060	0.26	---	---	---	---	---	---	---
6438-085	12510-12750	0.20	---	---	---	---	---	---	---
6438-086	13550-13560	0.49	0.14	0.21	0.21	429	0.41	42	43
6438-087	13740-13823	0.40	0.13	0.20	0.19	430	0.40	50	47



BROWN & RUTH LABORATORIES, INC.
GEOCHEMICAL LOG

WELL NAME: MALASPINA #1

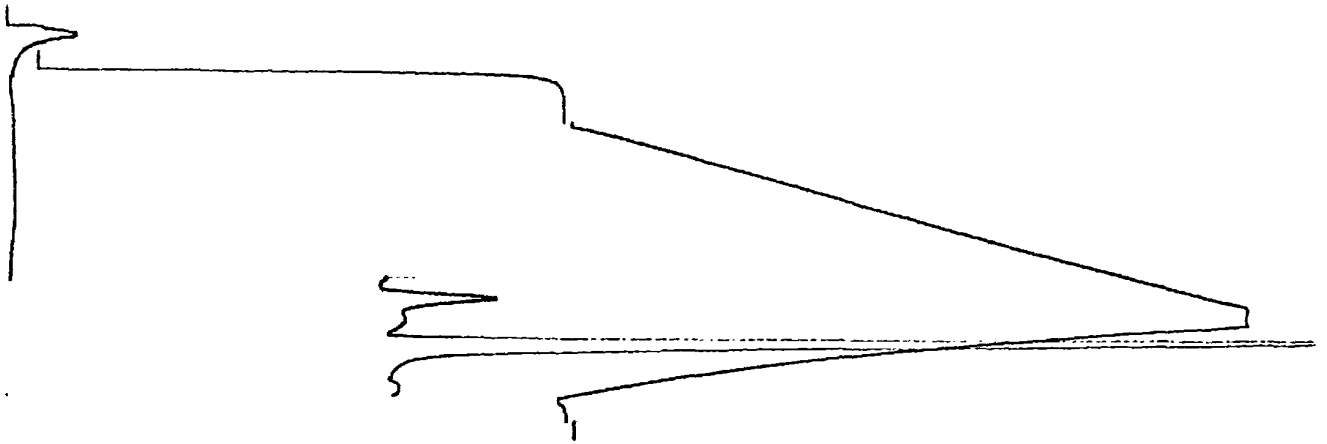
DEPTH (FT.)	AGE	FORMATION	LITHOLOGY	SOURCE BED POTENTIAL				MATURITY			HYDROCARBON INDICATIONS	
				T.O.C. (wt. %)	S2 (mg/g)	S2 / S3	HYDROGEN INDEX	S1 (mg/g)			S1 + S2	
				LOW AVG HIGH VERY HIGH	POOR FAIR GOOD-VERY GOOD	GAS MID OIL PRONE	GAS PRONE MID OIL PRONE	IMMATURE OIL GAS	1.0 2.0	1.3 5.7 9		
1000												
2000												
3000												
4000												
5000												
6000												
7000												
8000												
9000												
10000												
11000												
12000												
13000												
14000												
15000												
16000												

<ul style="list-style-type: none"> ▣ CONGLOMERATE ▣ SANDSTONE ▣ COAL ▣ CASING CEMENT 	<ul style="list-style-type: none"> ▣ SHALE • SILTSTONE ▣ LIMESTONE ▣ DOLOMITE ▣ CHERT 	<ul style="list-style-type: none"> ⊗ HALITE ⊗ ANHYDRITE ⊗ IGNEOUS ⊗ VOLCANICS 	<ul style="list-style-type: none"> S1 = Free Hydrocarbons Present in Rock S2 = Hydrocarbons from Kerogen Pyrolysis 	<ul style="list-style-type: none"> S3 = CO₂ from Kerogen Pyrolysis Hydrogen Index = S2/T.O.C.
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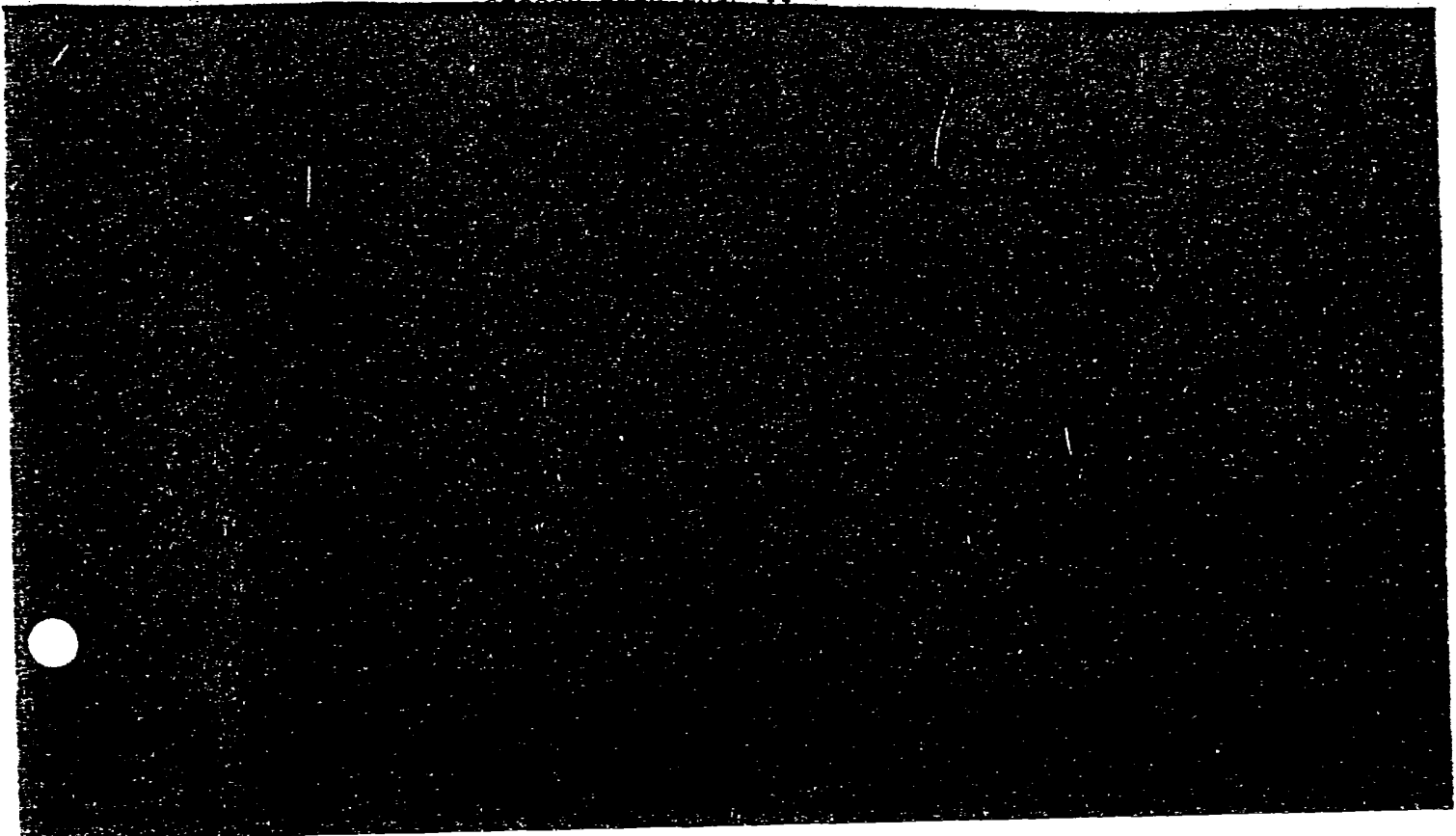
GEOCOM ROCK EVAL II

MAY 25, 1988
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ID= 082
FID ATTENUATION= 32
TCD ATTENUATION= 32

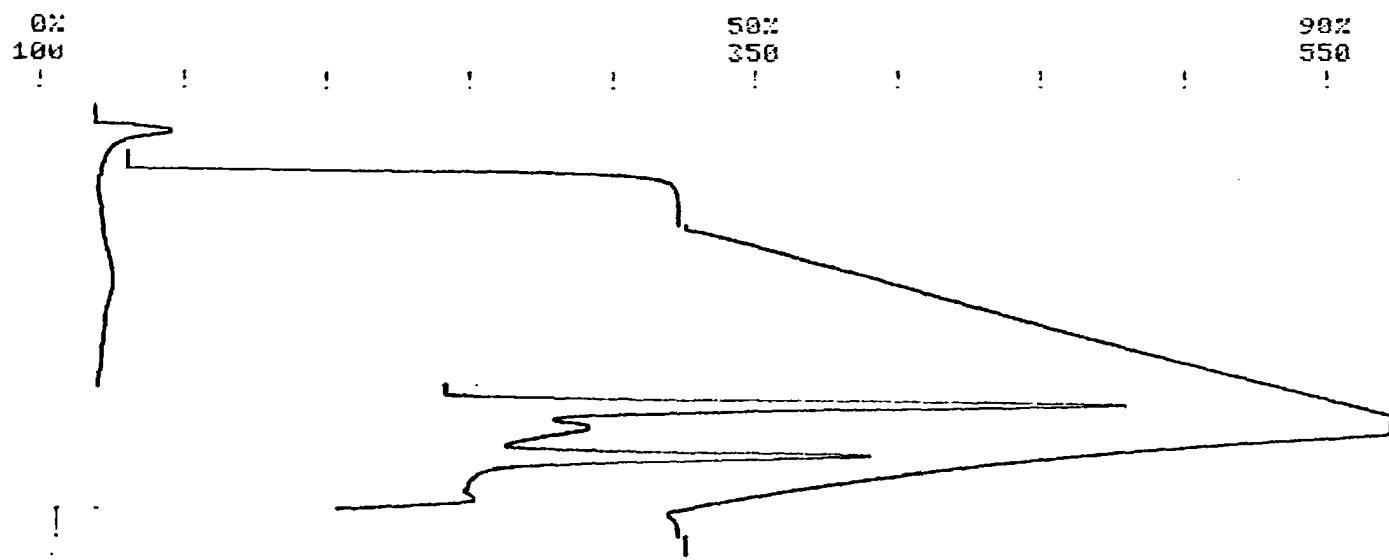
0% 50% 90%
100 350 550
! ! ! ! ! ! ! !



TOC = 0.50
WT = 123.9
TMAX = 441 DEGREES C
S1= +1.504E-01 SUM= +1.232E+03
S2= +1.386E-01 SUM= +1.135E+03
S3= +1.033E+00 SUM= +1.269E+04
UNKNOWN



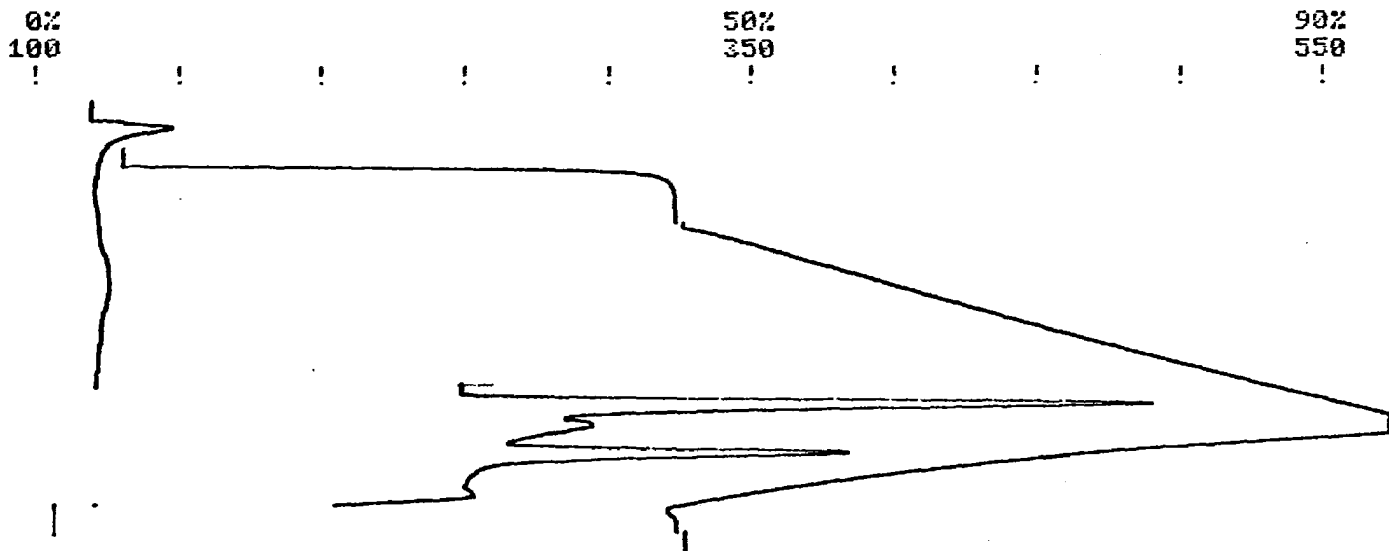
MAY 27, 1988
TIME= 0909
ID= 38086
FID ATTENUATION= 32
TCD ATTENUATION= 32



TOC = 0.49
WT = 119.5
TMAX = 425 DEGREES C
S1= +1.449E-01 SUM= +1.156E+03
S2= +2.059E-01 SUM= +1.643E+03
S3= +2.120E-01 SUM= +2.810E+03
UNKNOWN

GEOCOM ROCK EVAL II

MAY 27, 1988
TIME= 0935
ID= 087
FID ATTENUATION= 32
TCD ATTENUATION= 32



TOC = 0.40
WT = 119.6
TMAX = 426 DEGREES C
S1= +1.329E-01 SUM= +1.061E+03
S2= +1.999E-01 SUM= +1.596E+03
S3= +1.864E-01 SUM= +2.516E+03
UNKNOWN