

## ANALYSIS OF ORGANIC MATTER BY ROCK-EVAL PYROLYSIS

CLUVERIN-1



Depth (m)		Tmax	S1	S2	S3	S1+S2	S2/S3	PI	TOC	HI	OI
2940-2950	Ctgs	418	0.34	1.39	1.34	1.73	1.04	0.20	1.55	90	86
3175-3180	Ctgs	429	0.33	3.05	1.01	3.38	3.02	0.10	1.40	218	72
3370-3375	Ctgs	435	0.34	1.50	1.36	1.84	1.10	0.18	1.09	138	125
3465-3470	Ctgs	434	0.60	3.52	1.50	4.12	2.35	0.15	2.12	166	71
3585-3590	Ctgs	431	1.18	6.91	2.21	8.09	3.13	0.15	3.57	194	62
3605-3610	Ctgs	433	1.53	7.17	1.26	8.70	5.69	0.18	3.54	203	36
3750-3755	Ctgs	433	1.24	8.88	2.02	10.12	4.40	0.12	4.09	217	49

A TMAX value is not reported if the S2 is <0.2mg/g

TMAX = Max. temperature S2 (°C)

S1+S2 = Potential yield (mg/g rock)

OI = Oxygen Index

S1 = Volatile hydrocarbons (HC) (mg/g rock)

S3 = Organic carbon dioxide (mg/g rock)

TOC = Total organic carbon (wt % of rock)

nd = no data

S2 = HC generating potential (mg/g rock)

PI = Production index

HI = Hydrogen index

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## SOLVENT EXTRACTION DATA

### CULVERIN-1



DEPTH	Sample Type	Weight of Material Extd. (g)	Total Extract (mg)	Total Extract (ppm)
3605m-3610m	Cuttings	48.3	298.1	6171
3750m-3755m	Cuttings	45.6	269.9	5921

# **LIQUID CHROMATOGRAPHY DATA EXTRACT**

## **CULVERIN-1**

### A. Yields (ppm)



DEPTH	Sample Type	-----Hydrocarbons-----			-----Non-hydrocarbons-----			Loss on column
		Sats	Aros	HC's	NSOs	Asph.	Non HC's	
3605m-3610m	Cuttings	238	238	477	150	nd	150	5544
3750m-3755m	Cuttings	188	240	428	736	nd	736	4758

## **CULVERIN-1**

### B. Yields (%) and Selected Ratios

DEPTH	Sample Type	-----Hydrocarbons-----			-----Non-hydrocarbons-----			Sats	Asph.	HC
		Sats	Aros	HC's	NSOs	Asph.	Non HC's	Aros	NSO	Non HC
3605m-3610m	Cuttings	38.0	38.0	76	23.9	nd	24	1.0	nd	3.2
3750m-3755m	Cuttings	16.2	20.6	37	63.2	nd	63	0.8	nd	0.6

**ANALYSIS OF SATURATED HYDROCARBONS BY GC-MS  
EXTRACT**

**CULVERIN-1**

A. Selected Ratios



DEPTH	Sample Type	Prist./Phyt.	Prist./n-C17	Phyt./n-C18	CPI(1)	CPI(2)	(C21+C22)/(C28+C29)
3605m-3610m	Cuttings	8.93	1.99	0.20	1.50	1.38	0.72
3750m-3755m	Cuttings	9.86	5.77	0.53	1.66	1.54	0.35

**CULVERIN-1**

B. n-Alkane Distributions

DEPTH	nC12	nC13	nC14	nC15	nC16	nC17	Pr	nC18	Ph	nC19	nC20	nC21	nC22	nC23	nC24	nC25	nC26	nC27	nC28	nC29	nC30	nC31
3605m-3610m	0.6	0.8	1.0	1.5	2.0	2.7	5.3	3.0	0.6	3.6	4.1	4.8	5.6	7.0	7.1	9.7	7.4	10.9	6.0	8.6	2.9	4.9
3750m-3755m	0.5	0.7	0.8	1.1	1.3	1.5	8.8	1.7	0.9	2.1	2.4	2.9	3.7	5.2	5.9	9.6	7.7	14.1	7.3	11.6	3.9	6.6

$$\text{CPI(1)} = \frac{(\text{C23} + \text{C25} + \text{C27} + \text{C29}) + (\text{C25} + \text{C27} + \text{C29} + \text{C31})}{2 \times (\text{C24} + \text{C26} + \text{C28} + \text{C30})}$$

$$\text{CPI(2)} = \frac{(\text{C23} + \text{C25} + \text{C27}) + (\text{C25} + \text{C27} + \text{C29})}{2 \times (\text{C24} + \text{C26} + \text{C28})}$$

30/03/06  
nd = no data

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<i>Depth (m)</i>		<i>Tmax</i>	<i>S1</i>	<i>S2</i>	<i>S3</i>	<i>S1+S2</i>	<i>S2/S3</i>	<i>PI</i>	<i>TOC</i>	<i>HI</i>	<i>OI</i>
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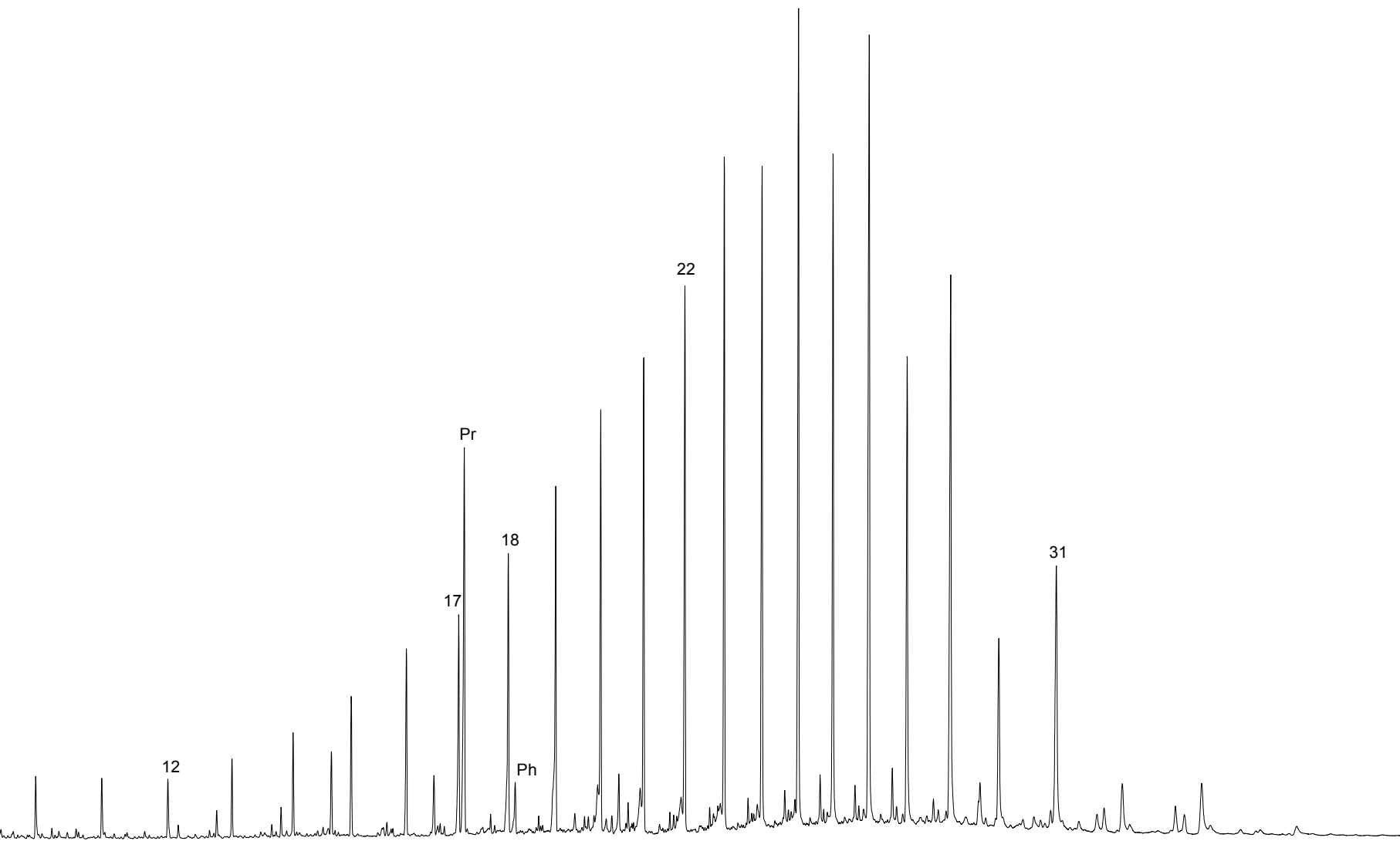
S2 = HC generating potential (mg/g rock)

PI = Production index

HI = Hydrogen index

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Chromatogram obtained from the analysis of saturated hydrocarbons by GC-MS



Chromatogram obtained from analysis of the whole extract by GC-MS

