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HYDROCARBON SOURCE-ROCK EVALUATION STUDY, MARSHALL R. YOUNG OIL CO. NO. 1 SALTYS WELL GRANT COUNTY, NEW MEXICO

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March, 1986

HYDROCARBON SOURCE EVALUATION

MARSHALL R. YOUNG OIL COMPANY

SALTY'S NO.1

FINAL INTERPRETIVE REPORT

GEOCHEM JOB NO. 3208

prepared for

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SUMMARY

Representative cuttings samples of Mesozoic and Paleozoic age from the Marshall R. Young, Salty's No.1 Well were submitted for geochemical analyses. With the exception of the Mississippian (2504 feet to 3395 feet) and Cretaceous (4509 feet to 8344 feet) sediments, the formations of this well are considered lean organically with a poor hydrocarbon source potential. Clastic and carbonate sediments of the Mississippian and Cretaceous sediments are considered to have a fair hydrocarbon source potential. Kerogen types found in the Cretaceous, Permian, Pennsylvanian, Mississippian, Percha and Bliss formations are predominantly gas-prone; conversely, kerogen types found in the remaining sediments (Fusselman, Montoya and El Paso and considered oil-prone.

Post depositional history of this well is such that organic matter from 1000 feet to 4360 feet has undergone a moderate geothermal history and can be rated moderately mature to mature. At this state of thermal maturity, these sediments have passed beyond the biogenic phase into the catagenic phase of hydrocarbon generation. Thus, any hydrocarbons generated by these sediments is expected to be a mature oil. The remaining sediments below the fault (below 4509') have undergone a moderate to high geothermal history. These sediment range from a moderately mature Maturation Index in the Cretaceous sediments to a very mature Maturation Index in the El Paso and Bliss formation. The sediments from the Cretaceous, Fusselman and Montoya formations are in the catagenic phase of hydrocarbon generation, while sediments of the El Paso and Bliss formations are considered entirely in the metagenic phase of hydrocarbon generation; wherein only thermal methane (C_1; dry gas) gas could be expected to be generated.

Douglas R. Muckelroy
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INTRODUCTION

This report presents results and interpretations of geochemical analyses performed on wet canned cuttings samples from 130 feet to 9760 feet of the Marshall R. Young Salty's No.1 Well, Grant County, New Mexico. All work was performed under GeoChem Job No. 3208.

The principle objective of this geochemical study, and the guide followed while outlining and modifying the analytical program, was to determine the present hydrocarbon source character of the Mesozoic and Paleozoic sediments penetrated by the Salty's No.1 Well.

ANALYTICAL PROGRAM

The samples of GeoChem Job No. 3208 were submitted to the following sequence of examinations and analyses as the cuttings were received.

A. Lithological and Organic Content Screening Analyses

- Brief Lithologic Description (306 samples).....Figures 1,3,5 & 6 Table III
- Total Organic Carbon (TOC) Determination (248 samples)..Figures 3 & 6 Table III

B. Organic Matter Characterization

- Visual Kerogen Classification (31 samples).....Figure 3 Table V
- Visual Kerogen Maturation Indexing (TAI) (31 samples)...Figures 3 & 5 Table V
- Vitrinite Reflectance (%Ro Determination (9 samples)....Figure 5 Table VI

C. Source Rock Hydrocarbon Analysis

- C_1-C_7 Hydrocarbon Gas Chromatographic Analysis, Air Space and Cuttings Gas (306 samples).....Figure 1 Tables I & II
- Rock-Eval Pyrolysis (25 samples).....Figure 6 Table IV

Analytical results from this sequence were submitted for a systematic computerized formation-by-formation and sample-by-sample source type interpretation before a final overall evaluation was made. The systematic computer interpretation presentation is carried as "Computerized Interpretations" of this evaluation report. For users who wish to consider individual results, "Computerized Interpretations" gives a very detailed interpretation of the cuttings data together with plots of this information in down-hole format. It carries its own explanation at the beginning of the section. As observed above, findings from the "Computerized Interpretation" section are incorporated in this interpretive text.

GENERAL INFORMATION

Copies of this report have been sent to Mr. Tom Brace-Marshall R. Young Oil Company, Mr. Bill Elton-Marathon Oil Company, Mr. Earl Ritchie-Williams Exploration Company, Mr. Bill Newell-Amoco Production Company, Mr. Rick Highsmith-Texaco, Inc., Mr. John Collins-Wolf Energy and Mr. Dan Engels-Tenneco Oil. If there are any questions concerning this report, the analytical data presented in it, or their interpretations, please contact Doug Muckelroy at GeoChem Laboratories, Inc. (713) 467-7011.

For general information purposes, brief descriptions of the various analyses performed in well studies such as the Salty's No.1 are presented in the attached Appendix. This information can serve as a ready reference while considering our discussion of results and interpretations.

Formation tops and designations were provided by Marshall R. Young Oil Company. Lithologies determined from cuttings do not take into account mud circulation lag time or the mixing of cuttings near formational boundaries during up-hole travel.

RESULTS AND INTERPRETATIONS

- Brief Lithologic Description (Table III)

The sediments from 100 feet to 700 feet are generally volcanic tuff and quartz fragments.

The Cretaceous sediments from 700 feet to 1020 feet consist of quartz fragments and white to pale orange limestone. Nearing the base of this section a brownish gray dolomite occurs.

Sediments of the Permian (1020 feet to 2154 feet) and Pennsylvanian (2154 feet to 2504 feet) formations are generally mixtures of grayish brown dolomites, gray limestones and grayish red to grayish black shales.

Mississippian sediments (2504 feet to 3395 feet) are predominantly gray limestones with black to dark gray shales.

Sediments from the Percha (3395 feet to 3744 feet), Montoya (3744 feet to 4238 feet), El Paso (4238 feet to 4466 feet) and Bliss (4466 feet to 4509 feet) are predominantly gray dolomites with varying amounts of white limestone and black shales.

A second Cretaceous interval (4509 feet to 8344 feet) consists of gray dolomites at the top of the section, gray shales, sandstones and limestones in the middle of the section (about 6000 feet to 7000 feet). The bottom of the section consists of varying amounts of gray shales, limestones and sandstones with a small igneous intrusion located at the bottom of the Cretaceous and top of the Fusselman formations.

The Fusselman (8344 feet to 8640 feet) and Montoya (8640 feet to 8957 feet) consist entirely of very light gray to brownish gray limestones.

The remaining Ordovician sediments, the El Paso (8757 feet to 9718 feet) and the Bliss (9718 feet to 9781 feet T.D.) consist mainly of brownish gray dolomites with brownish gray limestones at the bottom of the section.

- Total Organic Carbon (TOC) Determination (Table III)
(see also Figure 3)

No sediments from the Volcanic section (100 feet to 700 feet) were analyzed for total organic carbon content.

Cretaceous sediments (700 feet to 1020 feet) contain low amounts of organic carbon. These sediments have an overall average of 0.11% TOC, thus giving these sediments a poor potential for hydrocarbon generation.

The Paleozoic sediments, Permian (1020 feet to 2154 feet), Pennsylvanian 2154 feet to 2504 feet), Mississippian (2504 feet to 3395 feet), Percha (3395 feet to 3744 feet) and El Paso (4238 feet to 4466 feet) contain poor to fair amounts of organic carbon. These sediments contain an average of 0.20% TOC, with a high of 0.63% TOC found in the Mississippian section. As a result of these values, these sediments are considered to have a poor to possibly fair potential to be source rocks.

The remaining formations above the fault, Montoya (3744 feet to 4238 feet) and Bliss (4466 feet to 4509 feet), contain poor amounts of organic carbon (0.8% TOC; avg.) and are considered poor source rocks.

The Cretaceous sediments below the fault (4509 feet to 8344 feet) contain fair to good amounts of organic carbon. These sediments range from a low of 0.13% TOC to a high of 1.29% TOC with an overall average for this formation of 0.51% TOC. This average gives these sediments an overall fair potential for hydrocarbon generation. Individual samples with total organic carbon values above 1.0% are considered to have a good source potential.

The remaining formations, Fusselman (8344 feet to 8640 feet), Montoya (8640 feet to 8957 feet), El Paso (8957 feet to 9718 feet) and Bliss (9718 feet to 9781 feet) contain low amounts of organic carbon and are considered to have a poor potential to be source rocks.

B. Organic Matter Characterization

o Visual Kerogen Characterization (Table V)
(see also Figure 2, [Computerized Interpretations])

Kerogen of the Permian, Pennsylvanian, Mississippian and Percha intervals (1020 feet to 3744 feet) are predominantly woody with secondary to trace amounts of amorphous and herbaceous organic matter. These mixtures of kerogen types give these sediments a dominantly gas-prone character.

Sediment of the Montoya and El Paso formations (3744 feet to 4466 feet) contain amorphous kerogen giving these units an oil-prone character.

Kerogen of the Bliss and second Cretaceous formations (4466 feet to 8344 feet) contain mixtures of wood and herbaceous organic matter. These mixtures give these sediments an overall gas-prone character.

The remaining Fusselman, Montoya, El Paso and Bliss sediments (8344 feet to 9781 feet) contain predominantly amorphous kerogen giving these units an oil-prone character.

There appears to be a thermal unconformity between the Cretaceous and Fusselman as well as a stratigraphic unconformity. No diagnostic kerogen was recovered from the Fusselman, but the Montoya (sample -291 at 8800') had a well-defined amorphous kerogen facies at 2+.

An additional thermal unconformity appears somewhere between the Montoya and El Paso Formations. Below 9520' the kerogen appears to be approaching severely altered. Either a sharp thermal gradient affected these sediments (Bliss to Montoya) early in their depositional history or the El Paso and Bliss sediments were heated very early in their history and subsequently buried beneath immature Montoya-Fusselman sediments (which in their heating history never reached the maturity of the underlying El Paso and Bliss sediments).

o Vitrinite Reflectance (%Ro) Determination (Table VI)
(see Figure 5 and also Figure 2 [Computer Interpretations])

Overall, vitrinite reflectance measurements (%Ro) from the sediments above the fault are somewhat higher than maturities determined from visual kerogen. These sediments range from 0.70 %Ro in the Cretaceous sediments to 2.70 %Ro in the Percha formation, giving these sediments a mature to severely altered rating.

Indigenous vitrinite reflectance measurements (%Ro) determined in the Cretaceous sediments (4717 feet to 8344 feet) fall in the 0.72 %Ro range and confirm the moderately mature ratings given this formation during visual kerogen analyses.

C. Source Rock Hydrocarbon Analysis

o C1-C7 Hydrocarbon Analysis (Air Space and Cuttings Gas) (Tables I & II)
(see also Figure 1)

C_1-C_7 hydrocarbon analyses performed on air space and cuttings from the Volcanic interval at 130 feet to the bottom of the Bliss interval at 4509 feet contain fair to good amounts of methane gas, with poor amounts of C_5-C_7 and % wet gas. Based on this analysis these sediments have a poor oil, possibly fair methane gas source character.

Cretaceous sediments (4509 feet to 8344 feet) contain fair to good amounts of methane (C_1), wet gas (C_2-C_4) and heavy liquid hydrocarbons (C_5-C_7) giving these sediments a fair to good potential for oil and gas.

The remaining sediments, Fusselman, Montoya, El Paso and Bliss formations (8344 feet to 9781 feet T.D.) contain fair amounts of wet gas (C_2-C_4) and light liquid hydrocarbons (C_5-C_7). These hydrocarbons are believed to be, at least in part, migrated out-of-place hydrocarbons. It is doubtful the low organic values detected in these sediments could have generated these hydrocarbons.

o Rock-Eval Pyrolysis (Table IV)
(see also Figure 6)

With the exception of the Cretaceous sediments (4509 feet to 8344 feet) the samples analyzed from this well have a very poor source character. Poor concentrations of free hydrocarbon (S_1) and hydrocarbon generating potential (S_2) are detected from each of the formations analyzed, thus these sediments have an overall poor source character.

Cretaceous sediments (4509 feet to 8344 feet) contain poor amounts of free hydrocarbon (S_1 = 0.22 mg/g avg.) and fair amounts of hydrocarbon generating potential (S_2 = 0.74 mg/g avg.) thus giving these sediments an overall fair source rock character.

CONCLUSIONS

Moderate concentrations of organic matter found in the Mississippian sediments (2504 feet to 3395 feet) and the Cretaceous sediments (9509 feet to 9344 feet) give these unites a fair hydrocarbon source character. These units generally contain gas-prone organic matter (kerogen) types.

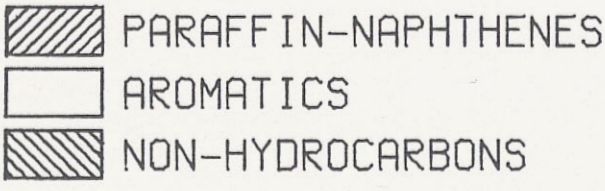
The Mississippian sediments have a geothermal history which has passed out of the biogenic phase into the catagenic phase of hydrocarbon generation. Cretaceous sediments have undergone a somewhat lower geothermal history and are considered in the late biogenic to very early catagenic phase of hydrocarbon generation.

C_1-C_7 hydrocarbon analyses and Rock-Eval pyrolyses show the Cretaceous sediments (4509 feet to 8344 feet) penetrated by this well are prospective for hydrocarbon generation.

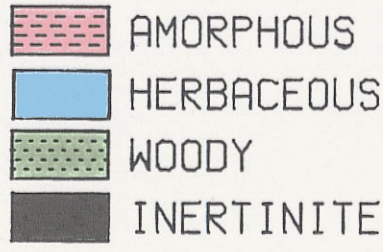
LEGEND

LITHOLOGIES

C15+ EXTRACTION
LIQUID CHROMATOGRAPHY

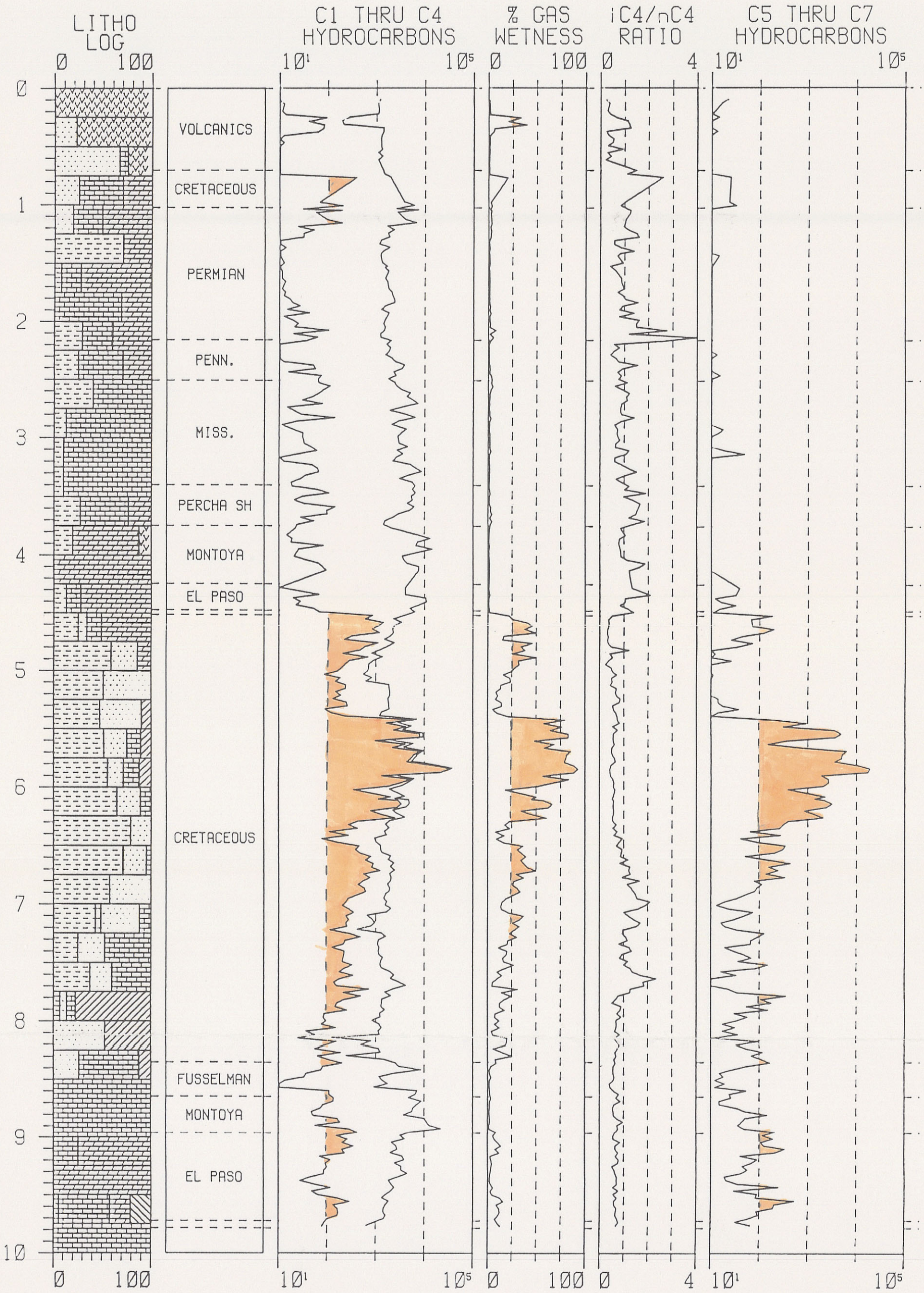


KEROGEN TYPES



M.R. YOUNG SALTY'S #1
JOB NUMBER 3208

FIGURE1
SUMMARY OF GEOCHEMICAL ANALYSES
C1-C7 HYDROCARBONS



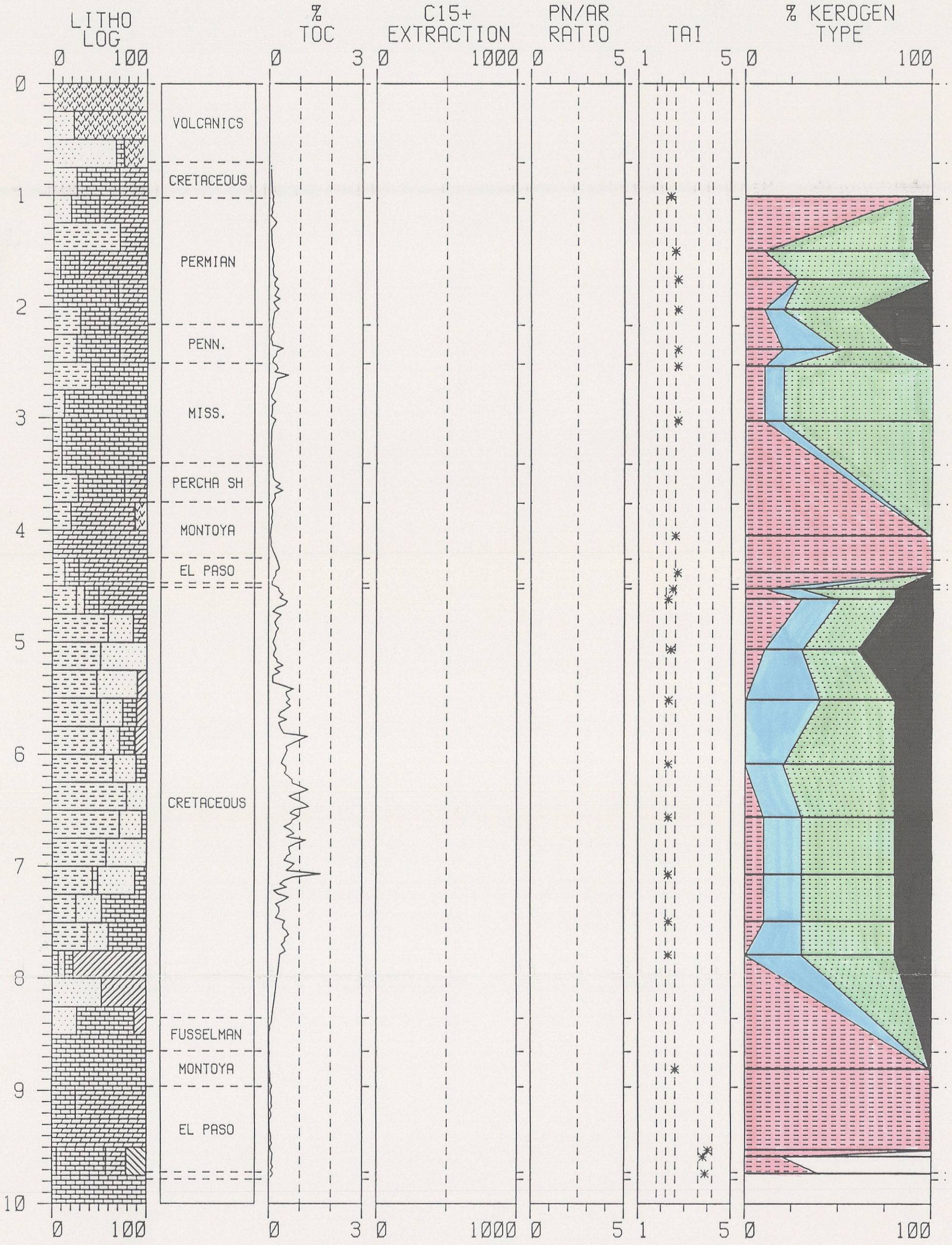
△ PPM C1-C4 HYDROCARBONS
✳ PPM C2-C4 HYDROCARBONS

PPM VALUES EXPRESSED AS VOLUME OF GAS PER MILLION VOLUMES OF SED

PPM VALUES EXPRESSED AS VOLUMES OF GAS PER MILLION VOLUMES OF SED

FIGURE 3
SUMMARY OF GEOCHEMICAL ANALYSES
SOURCE CHARACTER

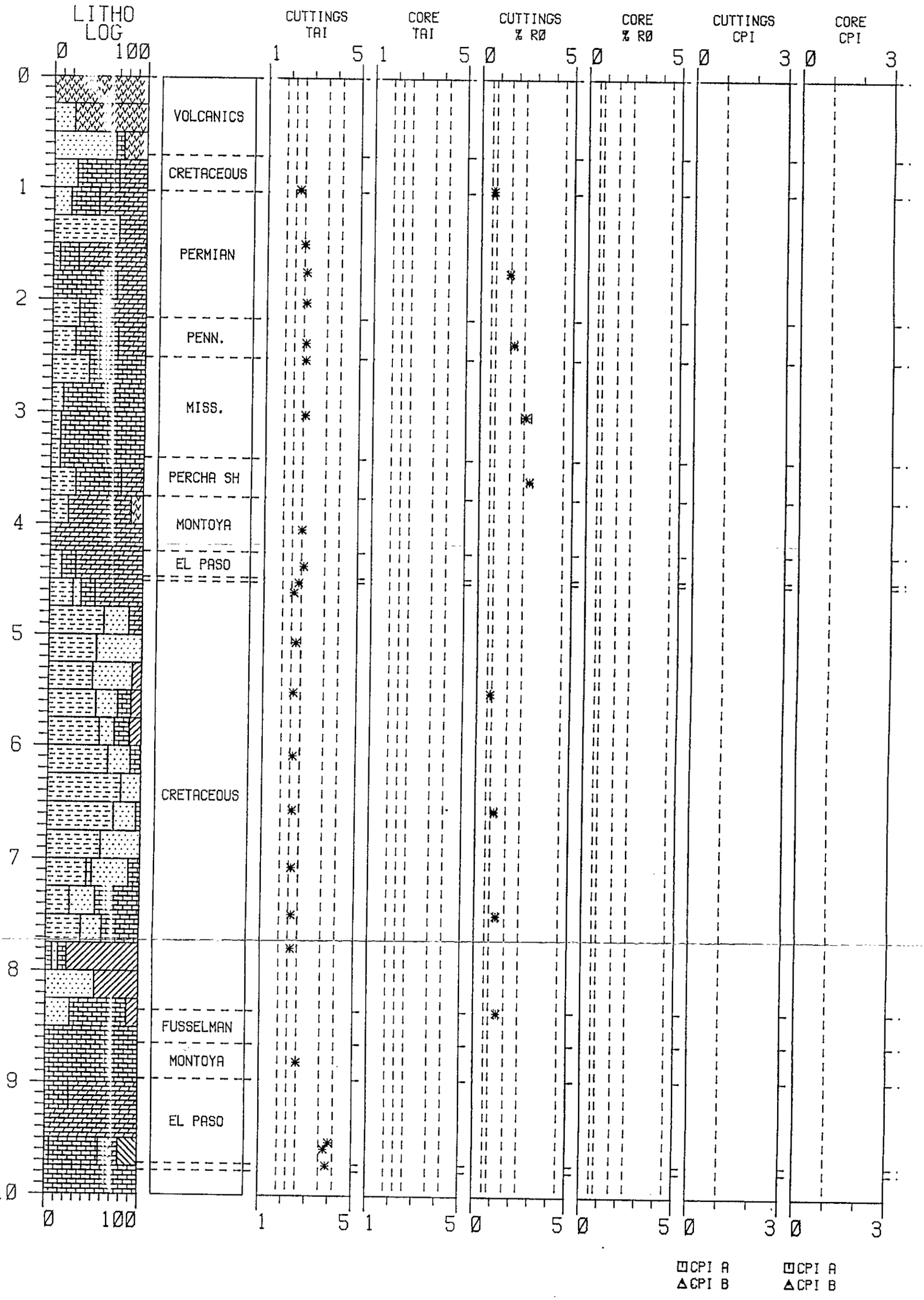
M.R. YOUNG SALTY'S #1
JOB NUMBER 3208



VALUES AS WEIGHT %

M.R. YOUNG SALTY'S #1
JOB NUMBER 3208

FIGURE 5
THERMAL MATURITY PROFILES



12

M.R. YOUNG SALTY'S #1
JOB NUMBER 3208

FIGURE 6
SUMMARY OF PYROLYSIS ANALYSIS

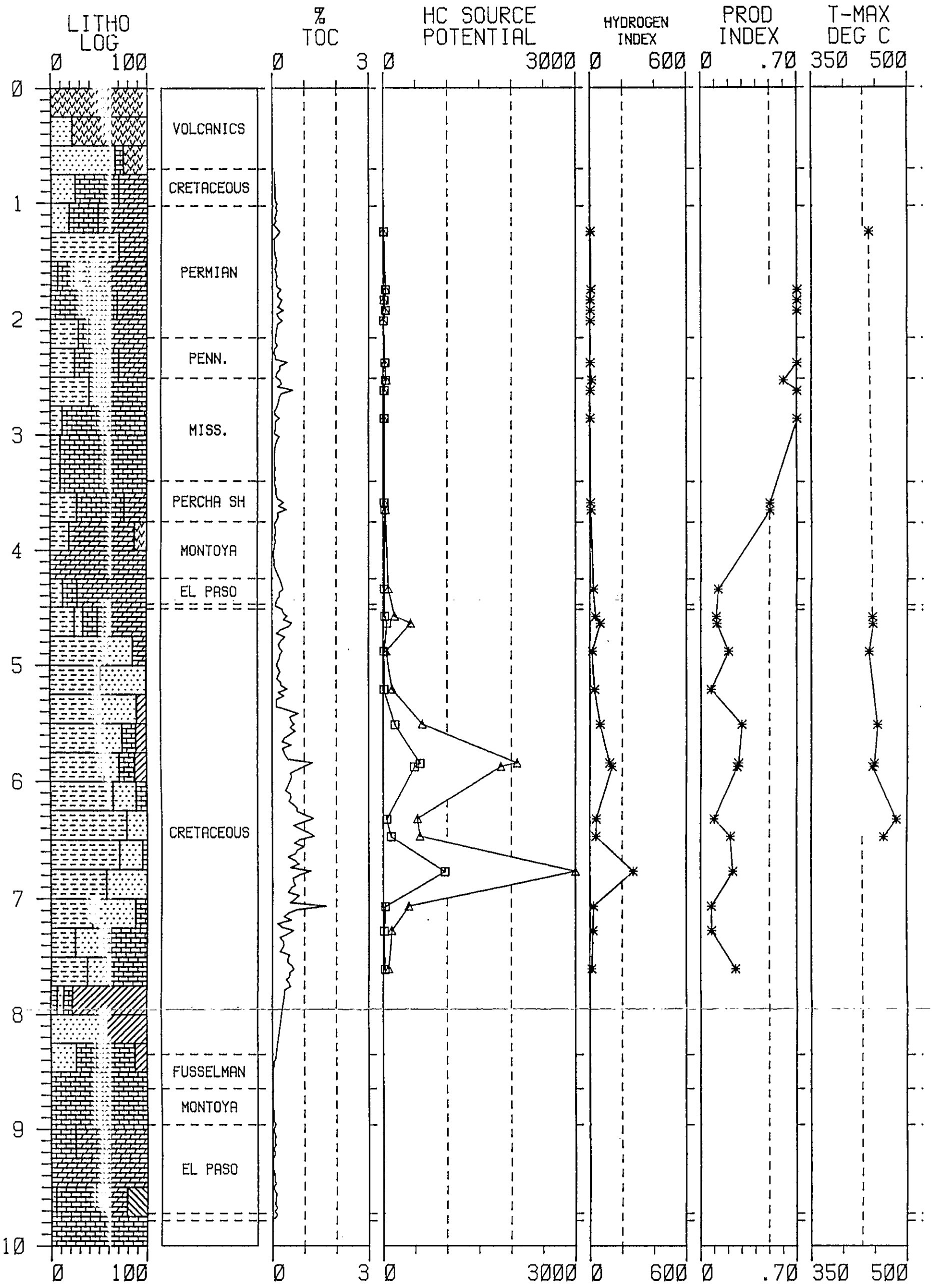


FIGURE 7 OXYGEN INDEX VS HYDROGEN INDEX

(TISSOT DIAGRAM)

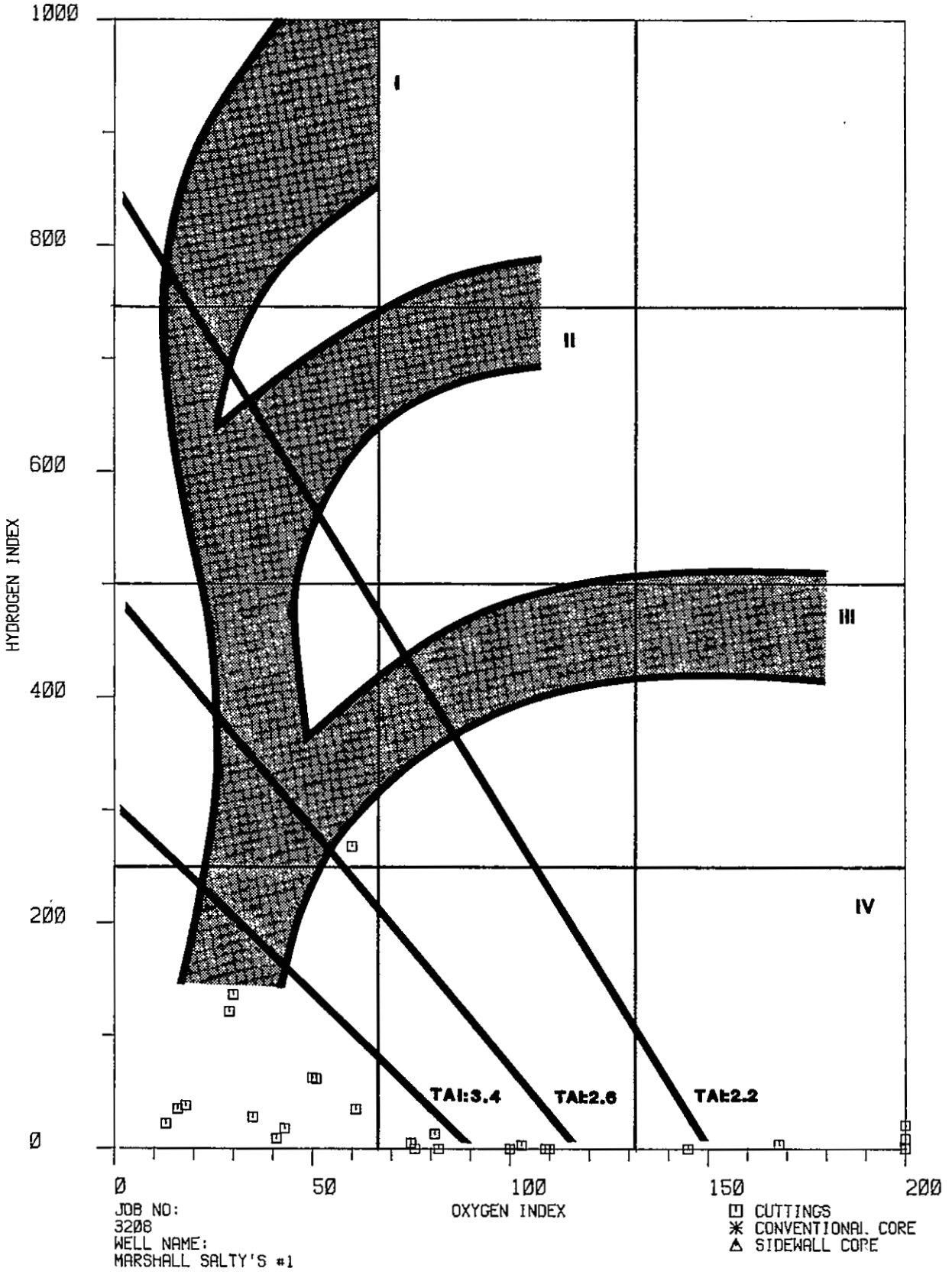


TABLE OF CONTENTS

TABLE OF FORMATION TOPS

Depth (feet)*	Formation Tops
0	Volcanics
700	Cretaceous
1020	Permian
2154	Pennsylvanian
2504	Mississippian
3395	Percha Shale
3744	Montoya
4238	El Paso
4466	Bliss Sandstone
4509	Cretaceous
8344	Fusselman
8640	Montoya
8957	El Paso
9718	Bliss Sandstone
9781	T.D.

* Tops typically are designated as one (1) foot above depth of sample taken at each top; this assures that all data are tabulated in their appropriate stratigraphic unit.

INTRODUCTION

This report on the Marshall R. Young, Salty's No.1 Well is composed of three sections as described below:

Computerized Interpretations

A computerized formation-by-formation interpretation is presented using selected geochemical data that are available on all samples. The geochemical interpretation of each formation uses the following geochemical information from samples within a given formation:

(1) sample lithology
(2) thermal maturity (TAI)
(3) total organic carbon content (TOC)
(4) volatile hydrocarbons (S_1 peak)
(5) kerogen type

The formation interpretations are computed for a shale source, a carbonate source, and a sand/silt nonsource when present. The formation interpretation section is comprised of three tables:

Table I	Formation Interpretation
Table II	Formation Summary Interpretation
Table III	Formation Summary of Geochemical Data

A computerized sample-by-sample interpretation is presented using selected geochemical data that are available on all samples. The geochemical interpretation of each sample uses the same geochemical information as the formation interpretation.

(1) sample lithology
(2) thermal maturity (TAI)
(3) total organic carbon content (TOC)
(4) volatile hydrocarbon (S_1 peak)
(5) kerogen type

The sample interpretation section is composed of three tables and two figures:

Table IV	Sample Interpretation
Table V	Sample Summary Interpretation
Table VI	Sample Summary of Geochemical Data
Figure 1	Thermal Alteration Index (TAI) Maturity Profile
Figure 2	Vitrinite Reflectance (%Ro) Maturity Profile

Analytical Data

The second section consists of a series of data tables which display the original data inserted in proper order. A full set of data tables includes:

Table I	C1-C7 Hydrocarbon Analyses
Table II-A	Air Space
Table II-B	Cuttings Gas
Table II-C	Air Space and Cuttings Gas
Table III	Total Organic Carbon and Brief Lithological Descriptions
Table IV	Rock-Eval Pyrolysis
Table V	Visual Kerogen Assessments
Table VI	Vitrinite Reflectance Summary

Appendix

The third section contains brief descriptions of the various analyses performed in well studies such as the Salty's No.1 well. This information can serve as a ready reference while considering our discussion of results and interpretations.

Simplified Flow Diagram

STEP I/DATA INPUT

1. Sample ID
2. Depth
3. Lithology
   a. % Sandstone (Ss)
   b. % Siltstone (St)
   c. % Shale (Sh)
   d. % Carbonate (Cb)
   e. % Evaporite (E)
   f. % Coal (C)
   g. % Other (Ot)
   h. % Metamorphic (M)
4. Geochemical parameters
   a. Pyrolysis data
      1. Volatile hydrocarbon (S1)
      2. Generated hydrocarbon (S2)
      3. Temperature (°C) of S2 peak (Tmax)
   b. Total organic carbon (TOC)
   c. Kerogen type
      1. % Amorphous (Am)
      2. % Herbaceous (H)
      3. % Woody (W)
      4. % Coaly (C)
   d. Thermal Maturity indicators
      1. Thermal alteration index (TAI)
      2. Vitrinite reflectance (%Ro)

Output

Formations
Table III
Samples:
Table VI
Fig. 1
Fig. 2

▽

STEP II/LITHOLOGY CHECK

If the sample is uninterpretable because it contains coal, mud additives, or metamorphics, a statement is printed to that effect. If a significant portion of the sample is composed of "other" lithologies, the interpretation is referred to a footnote. If the sample is composed of 60% or more of either source rocks (shale and/or carbonate) or nonsource rocks (siltstones and/or sandstones) the sample is interpreted in Step III below.

▽

STEP III/INTERPRETATION PROCEDURES

Interpretations are based on the following parameters:

1. Lithology
2. Thermal maturity using TAI
3. Total organic carbon (TOC)
4. Volatile hydrocarbon (S1)
5. Kerogen type

If a particular sample lacks only a TAI value, a TAI value is taken from a three term moving average curve (Figure 1). The descriptive terminology used relative to the parameter values is given below.

Output

Formations
Table I
Table II
Samples
Table IV
Table V

INTERPRETIVE DESCRIPTIVE TERMINOLOGY

Thermal Alteration Index (TAI)

Value	Descriptive Terminology
1.0 - 1.7	Immature
1.8 - 2.1	Moderately Immature
2.2 - 2.5	Moderately Mature
2.6 - 3.5	Mature
3.6 - 4.1	Very Mature
4.2 - 4.9	Severely Altered
$\geq$ 5.00	Metamorphosed

Value	Associated Hydrocarbon Type
1.3 - 1.5	Biogenic Gas
1.5 - 2.2	Biogenic Gas and Immature Oil
2.2 - 2.5	Immature Heavy Oil
2.5 - 3.2	Mature Oil
3.2 - 3.4	Mature Oil, Condensate, and Wet Gas
3.4 - 3.8	Condensate and Wet Gas
$\geq$ 3.8	Petrogenic Methane Gas

Total Organic Carbon (TOC)

	Descriptive Terminology	
Value in %	Shale	Carbonate
$\leq$ 0.12	Poor	Poor
0.13 - 0.25	Poor	Fair
0.26 - 0.50	Poor	Good
0.51 - 1.00	Fair	Very Good
1.01 - 2.00	Good	Excellent
2.01 - 4.00	Very Good	Excellent
$\geq$ 4.00	Excellent	Excellent

Volatile Hydrocarbon (S1)

Value in ppm	Descriptive Terminology
$\leq$ 200	Very poor
201 - 400	Poor
401 - 800	Fair
801 - 1600	Good
1601 - 3200	Very Good
$\geq$ 3200	Excellent

Kerogen Oil/Gas Factor

$$\% \text{ Oil} = (\% \text{ Am}) + 0.6\ (\% \text{ H}) + 0.3\ (\% \text{ W}) + 0.1\ (\% \text{ C})$$

$$\% \text{ Gas} = 100 - \% \text{ Oil}$$

Vitrinite Reflectance (%Ro)

Value	Descriptive Terminology
0.0 - 0.42	Immature
0.43 - 0.55	Moderately Immature
0.56 - 0.80	Moderately Mature
0.81 - 1.62	Mature
1.63 - 2.37	Very Mature
2.38 - 4.50	Severely Altered
$\geq$ 4.50	Metamorphosed

Value	Associated Hydrocarbon Type
0.30 - 0.35	Biogenic Gas
0.35 - 0.60	Biogenic Gas and Immature Oil
0.60 - 0.80	Immature Heavy Oil
0.80 - 1.20	Mature Oil
1.20 - 1.50	Mature Oil, Condensate and Wet Gas
1.50 - 2.00	Condensate and Wet Gas
$\geq$ 2.00	Petrogenic Methane Gas

TABLE I

FORMATION INTERPRETATION

This table gives a formation by formation interpretation based on the following parameters:

(1) Lithology
(2) Thermal alteration index (TAI)
(3) Total organic carbon (TOC)
(4) Volatile hydrocarbon (S1)
(5) Kerogen type

If a TAI value is lacking for an otherwise interpretable sample, a TAI value is taken from a three term moving average plot of all the TAI data for this well (see Figure 1).

The kerogen type oil/gas factor expressed as a percentage should be used as a modifier to the interpretation; i.e., a high oil factor will enhance the oil quality of the sample whereas correspondingly, a high gas factor will enhance the gas ratio of the sample and diminish the oil prospectiveness.

JOB NUMBER: 3208
WELL NAME: M.R.YOUNG SALTY'S #1

TABLE I
FORMATION INTERPRETATION

GEOCHEM SAMPLE NUMBER	DEPTH	INTERPRETATION
	0	---------- VOLCANICS ----------
	700	---------- CRETACEOUS ----------
	1020	---------- UNCONFORMITY ----------
	1020	---------- PERMIAN ----------
03CB	1020- 2154	TAI CARB : MATURE POOR OIL AND ASSOCIATED GAS SOURCE KEROGEN TYPE OIL/GAS FACTOR: OIL TYPE 39% GAS TYPE 60%
	2154	---------- PENNSYLVANIAN ----------
04CB	2154- 2504	TAI CARB : MATURE POOR OIL AND ASSOCIATED GAS SOURCE KEROGEN TYPE OIL/GAS FACTOR: OIL TYPE 49% GAS TYPE 50%
	2504	---------- MISSISSIPPIAN ----------
05SH	2504- 3395	TAI SHALE: MATURE VERY POOR OIL SOURCE - POOR TO FAIR GAS SOURCE KEROGEN TYPE OIL/GAS FACTOR NOT AVAILABLE
05CB	2504- 3395	TAI CARB : MATURE VERY POOR TO POOR OIL AND ASSOCIATED GAS SOURCE KEROGEN TYPE OIL/GAS FACTOR: OIL TYPE 40% GAS TYPE 59%
	3395	---------- PERCHA SHALE ----------
06CB	3395- 3744	TAI CARB : MATURE POOR OIL AND ASSOCIATED GAS SOURCE KEROGEN TYPE OIL/GAS FACTOR NOT AVAILABLE
	3744	---------- UNCONFORMITY ----------
	3744	---------- MONTOYA ----------
	4238	---------- UNCONFORMITY ----------
	4238	---------- EL PASO ----------
08CB	4238- 4466	TAI CARB : MATURE POOR OIL AND ASSOCIATED GAS SOURCE KEROGEN TYPE OIL/GAS FACTOR: OIL TYPE 100% GAS TYPE -0%

Rating Parameters as Defined in GeoChem's Source Rock Reference Manual
Sample Types: Blank-Cuttings, C-Core, S-Sidewall Core
Maturity Parameters: (V) - Vitrinite Reflectance Used, (T) TAI Used

JOB NUMBER: 3208
WELL NAME: M.R.YOUNG SALTY'S #1

TABLE I
FORMATION INTERPRETATION

GEOCHEM SAMPLE NUMBER	DEPTH		INTERPRETATION
	4466	---------- BLISS SS ----------	
	4509	---------- THRUST FAULT ----------	
	4509	---------- CRETACEOUS ----------	
10SH	4509- 8344	TAI	SHALE: MODERATELY MATURE FAIR BIOGENIC GAS SOURCE - FAIR POTENTIAL FOR OIL AND GAS KEROGEN TYPE OIL/GAS FACTOR: OIL TYPE 36% GAS TYPE 63%
10CB	4509- 8344	TAI	CARB : MODERATELY MATURE POOR TO FAIR IMMATURE OIL AND ASSOCIATED GAS SOURCE KEROGEN TYPE OIL/GAS FACTOR: OIL TYPE 41% GAS TYPE 58%
	8344	---------- FUSSELMAN ----------	
	8640	---------- MONTOY ----------	
	8957	---------- UNCONFORMITY ----------	
	8957	---------- EL PASO ----------	
	9718	---------- BLISS SS ----------	
	9781	---------- TOTAL DEPTH ----------	

Rating Parameters as Defined in GeoChem's Source Rock Reference Manual
Sample Types: Blank-Cuttings, C-Core, S-Sidewall Core
Maturity Parameters: (V) - Vitrinite Reflectance Used, (T) TAI Used

TABLE II

FORMATION SUMMARY INTERPRETATION

This table gives a formation by formation interpretation of each parameter used in Table I. The descriptive terminology used for each parameter is listed in the introduction.

JOB NUMBER: 3208
WELL NAME: M.R.YOUNG SALTY'S #1

TABLE II
FORMATION SUMMARY INTERPRETATION

GEOCHEM SAMPLE NUMBER	DEPTH	LITHOLOGY	THERMAL MATURITY TAI	THERMAL MATURITY %RO	TOC RICHNESS	HC RICHNESS	PRODUCTIVITY INDEX	%OIL FACTOR	%GAS FACTOR
	0	---------- VOLCANICS ----------							
	700	---------- CRETACEOUS ----------							
	1020	---------- UNCONFORMITY ----------							
	1020	---------- PERMIAN ----------							
03CB	1020- 2154	CARB	M	M	FAIR	VERY POOR	0.88	39	60
	2154	---------- PENNSYLVANIAN - - ------							
04CB	2154- 2504	CARB	M	VM	FAIR	VERY POOR	0.00	49	50
	2504	---------- MISSISSIPPIAN ----------							
05SH	2504- 3395	SHALE	M	VM	POOR	VERY POOR	0.00	---	---
05CB	2504- 3395	CARB	M	SA	POOR	VERY POOR	0.67	40	59
	3395	---------- PERCHA SHALE ----------							
06CB	3395- 3744	CARB	M	SA	FAIR	VERY POOR	0.50	---	---
	3744	---------- UNCONFORMITY ----------							
	3744	---------- MONTOYA ----------							
	4238	---------- UNCONFORMITY ----------							
	4238	---------- EL PASO ----------							
08CB	4238- 4466	CARB	M		FAIR	VERY POOR	0.13	100	-0
	4466	---------- BLISS SS ----------							
	4509	---------- THRUST FAULT ----------							

Rating Parameters as Defined in GeoChem's Source Rock Reference Manual
Thermal Maturity Abbreviations: I-Immature, MI-Moderately Immature, M-Mature
MM-Moderately Mature, VM-Very Mature
SA-Severly Altered, MT-Metamorphosed
Sample Types: Blank-Cuttings, C-Core, S-Sidewall Core
** Value Taken from a 3-Term Running Average of this Parameter

JOB NUMBER: 3208
WELL NAME: M.R.YOUNG SALTY'S #1

TABLE II
FORMATION SUMMARY INTERPRETATION

GEOCHEM SAMPLE NUMBER	DEPTH	LITHOLOGY	THERMAL MATURITY TAI	THERMAL MATURITY %R0	TOC RICHNESS	HC RICHNESS	PRODUCTIVITY INDEX	%OIL FACTOR	%GAS FACTOR
	4509	---------- CRETACEOUS ----------							
10SH	4509- 8344	SHALE	MM	M	FAIR	POOR	0.24	36	63
10CB	4509- 8344	CARB	MM	M	GOOD	VERY POOR	0.12	41	58
	8344	---------- FUSSELMAN ----------							
	8640	---------- MONTOYA ----------							
	8957	---------- UNCONFORMITY ----------							
	8957	---------- EL PASO ----------							
	9718	---------- BLISS SS ----------							
	9781	---------- TOTAL DEPTH ----------							

Rating Parameters as Defined in GeoChem's Source Rock Reference Manual
Thermal Maturity Abbreviations: I-Immature, MI-Moderately Immature, M-Mature
MM-Moderately Mature, VM-Very Mature
SA-Severly Altered, MT-Metamorphosed
Sample Types: Blank-Cuttings, C-Core, S-Sidewall Core
** Value Taken from a 3-Term Running Average of this Parameter

TABLE III

FORMATION SUMMARY OF GEOCHEMICAL DATA

This table gives a formation by formation listing of the data used in the computerized interpretations. The information given for each formation is as follows:

(1) Sample number
(2) Depth
(3) Lithology
(4) Volatile hydrocarbon (S1, ppm)
(5) Generated hydrocarbon (S2, ppm)
(6) Maximum temperature of S2 peak
(7) Total organic carbon (TOC %)
(8) Kerogen composition (amorphous (Am), herbaceous (H), woody (W), and coaly (C))
(9) Thermal alteration index (TAI)
(10) Vitrinite reflectance (%Ro)

JOB NUMBER: 3208
WELL NAME: M.R.YOUNG SALTY'S #1

TABLE III
FORMATION SUMMARY OF GEOCHEMICAL DATA

FORMATION NAME: VOLCANICS (0- 700)

SEDIMENT FACIES	(NO/ %)	PYROLYSIS DATA (PPM) S1	S2	S3	TMAX	TOC	MATURITY TAI	%R0	KEROGEN TYPE %AM	%H	%W	%C	%OIL FACTOR	%GAS FACTOR
SHALE SOURCE	NOT PRESENT IN THIS FORMATION													
CARBONATE SOURCE	NOT PRESENT IN THIS FORMATION													
SILICEOUS SOURCE	NOT PRESENT IN THIS FORMATION													
EVAPORITE SOURCE	NOT PRESENT IN THIS FORMATION													
SAND/SILT NON-SOURCE	(10/100)													
AVG		-------	-------	-------	---	-----	---	----	---	---	---	---	---	---
MIN		-------	-------	-------	---	-----	---	----						
MAX		-------	-------	-------	---	-----	---	----						

Maturity Parameters Taken from a 3-Term Running Average for All Values.
Kerogen Type: Am-Amorphous/Sapropel, H-Herbaceous, W-Woody, C-Coaly/Inertinite

JOB NUMBER: 3208
WELL NAME: M.R.YOUNG SALTY'S #1

TABLE III
FORMATION SUMMARY OF GEOCHEMICAL DATA

FORMATION NAME: CRETACEOUS (700- 1020)

SEDIMENT FACIES	(NO/ %)	PYROLYSIS DATA (PPM) S1	S2	S3	TMAX	TOC	MATURITY TAI	%R0	KEROGEN TYPE %AM	%H	%W	%C	%OIL FACTOR	%GAS FACTOR
SHALE SOURCE	NOT PRESENT IN THIS FORMATION													
CARBONATE SOURCE	(2/ 67)													
AVG		-------	-------	-------	---	0.11	2.4	0.70	90	0	0	10	91	9
MIN		-------	-------	-------	---	0.09	2.4	0.70						
MAX		-------	-------	-------	---	0.13	2.4	0.70						
SILICEOUS SOURCE	NOT PRESENT IN THIS FORMATION													
EVAPORITE SOURCE	NOT PRESENT IN THIS FORMATION													
SAND/SILT NON-SOURCE	(1/ 33)													
AVG		-------	-------	-------	---	-----	---	----	---	---	---	---	---	---
MIN		-------	-------	-------	---	-----	---	----						
MAX		-------	-------	-------	---	-----	---	----						

Maturity Parameters Taken from a 3-Term Running Average for All Values.
Kerogen Type: Am-Amorphous/Sapropel, H-Herbaceous, W-Woody, C-Coaly/Inertinite

JOB NUMBER: 3208
WELL NAME: M.R.YOUNG SALTY'S #1

TABLE III
FORMATION SUMMARY OF GEOCHEMICAL DATA

FORMATION NAME: PERMIAN (1020- 2154)

SEDIMENT FACIES	(NO/ %)	PYROLYSIS DATA (PPM) S1	S2	S3	TMAX	TOC	MATURITY TAI	%R0	KEROGEN TYPE %AM	%H	%W	%C	%OIL FACTOR	%GAS FACTOR
SHALE SOURCE	(9/ 25)													
AVG		-------	-------	-------	---	0.09	2.6	1.65	---	---	---	---	---	---
MIN		-------	-------	-------	---	0.06	2.6	1.58						
MAX		-------	-------	-------	---	0.12	2.7	1.83						
CARBONATE SOURCE	(25/ 69)													
AVG		14.	2.	350.	313	0.17	2.7	1.60	16	3	64	16	36	61
MIN		0.	0.	220.	221	0.08	2.6	1.58						
MAX		0.	10.	420.	139	0.33	2.7	1.70						
SILICEOUS SOURCE	NOT PRESENT IN THIS FORMATION													
EVAPORITE SOURCE	NOT PRESENT IN THIS FORMATION													
SAND/SILT NON-SOURCE	(2/ 6)													
AVG		-------	-------	-------	---	0.05	2.6	1.58	---	---	---	---	---	---
MIN		-------	-------	-------	---	0.05	2.6	1.58						
MAX		-------	-------	-------	---	0.05	2.6	1.58						

Maturity Parameters Taken from a 3-Term Running Average for All Values.
Kerogen Type: Am-Amorphous/Sapropel, H-Herbaceous, W-Woody, C-Coaly/Inertinite

JOB NUMBER: 3208
WELL NAME: M.R.YOUNG SALTY'S #1

TABLE III
FORMATION SUMMARY OF GEOCHEMICAL DATA

FORMATION NAME: PENNSYLVANIAN (2154- 2504)

SEDIMENT FACIES	(NO/ %)	PYROLYSIS DATA (PPM) S1	S2	S3	TMAX	TOC	MATURITY TAI	%R0	KEROGEN TYPE %AM	%H	%W	%C	%OIL FACTOR	%GAS FACTOR
SHALE SOURCE	NOT PRESENT IN THIS FORMATION													
CARBONATE SOURCE	(12/100)													
AVG		20.	0.	370.	439	0.15	2.7	1.83	20	30	30	20	49	51
MIN		20.	0.	370.	439	0.05	2.7	1.83						
MAX		20.	0.	370.	439	0.45	2.7	1.83						
SILICEOUS SOURCE	NOT PRESENT IN THIS FORMATION													
EVAPORITE SOURCE	NOT PRESENT IN THIS FORMATION													
SAND/SILT NON-SOURCE	NOT PRESENT IN THIS FORMATION													

Maturity Parameters Taken from a 3-Term Running Average for All Values.
Kerogen Type: Am-Amorphous/Sapropel, H-Herbaceous, W-Woody, C-Coaly/Inertinite

JOB NUMBER: 3208
WELL NAME: M.R.YOUNG SALTY'S

TABLE III
FORMATION SUMMARY OF GEOCHEMICAL DATA

FORMATION NAME: MISSISSIPPIAN (2504- 3395)

SEDIMENT FACIES	(NO/ %)	PYROLYSIS DATA (PPM) S1	S2	S3	TMAX	TOC	MATURITY TAI	%R0	KEROGEN TYPE %AM	%H	%W	%C	%OIL FACTOR	%GAS FACTOR
SHALE SOURCE	(2/ 7)													
AVG		10.	0.	480.	375	0.45	2.7	2.05	---	---	---	---	---	---
MIN		10.	0.	480.	375	0.27	2.7	2.05						
MAX		10.	0.	480.	375	0.63	2.7	2.05						
CARBONATE SOURCE	(27/ 93)													
AVG		20.	10.	450.	310	0.12	2.7	2.39	10	10	80	0	40	60
MIN		10.	0.	430.	220	0.06	2.7	1.83						
MAX		30.	20	470.	401	0.28	2.7	2.70						
SILICEOUS SOURCE	NOT PRESENT IN THIS FORMATION													
EVAPORITE SOURCE	NOT PRESENT IN THIS FORMATION													
SAND/SILT NON-SOURCE	NOT PRESENT IN THIS FORMATION													

Maturity Parameters Taken from a 3-Term Running Average for All Values.
Kerogen Type: Am-Amorphous/Sapropel, H-Herbaceous, W-Woody, C-Coaly/Inertinite

JOB NUMBER: 3208
WELL NAME: M.R.YOUNG SALTY'S #1

TABLE III
FORMATION SUMMARY OF GEOCHEMICAL DATA

FORMATION NAME: PERCHA SHALE (3395- 3744)

SEDIMENT FACIES	(NO/ %)	PYROLYSIS DATA (PPM) S1	S2	S3	TMAX	TOC	MATURITY TAI	%R0	KEROGEN TYPE %AM	%H	%W	%C	%OIL FACTOR	%GAS FACTOR
SHALE SOURCE	NOT PRESENT IN THIS FORMATION													
CARBONATE SOURCE	(12/100)													
AVG		15.	15.	345.	289	0.18	2.7	2.70	---	---	---	---	---	---
MIN		10.	10.	330.	278	0.08	2.7	2.70						
MAX		20.	20.	360.	300	0.44	2.7	2.70						
SILICEOUS SOURCE	NOT PRESENT IN THIS FORMATION													
EVAPORITE SOURCE	NOT PRESENT IN THIS FORMATION													
SAND/SILT NON-SOURCE	NOT PRESENT IN THIS FORMATION													

Maturity Parameters Taken from a 3-Term Running Average for All Values.
Kerogen Type: Am-Amorphous/Sapropel, H-Herbaceous, W-Woody, C-Coaly/Inertinite

JOB NUMBER: 3208
WELL NAME: M.R.YOUNG SALTY'S #1

TABLE III
FORMATION SUMMARY OF GEOCHEMICAL DATA

FORMATION NAME: MONTOYA (3744- 4238)

SEDIMENT FACIES	(NO/ %)	PYROLYSIS DATA (PPM) S1	S2	S3	TMAX	TOC	MATURITY TAI	%R0	KEROGEN TYPE %AM	%H	%W	%C	%OIL FACTOR	%GAS FACTOR
SHALE SOURCE	NOT PRESENT IN THIS FORMATION													
CARBONATE SOURCE	(11/100)													
AVG		-------	-------	-------	---	0.07	2.6	----	99	0	0	0	99	1
MIN		-------	-------	-------	---	0.04	2.6	----						
MAX		-------	-------	-------	---	0.11	2.6	----						
SILICEOUS SOURCE	NOT PRESENT IN THIS FORMATION													
EVAPORITE SOURCE	NOT PRESENT IN THIS FORMATION													
SAND/SILT NON-SOURCE	NOT PRESENT IN THIS FORMATION													

Maturity Parameters Taken from a 3-Term Running Average for All Values.
Kerogen Type: Am-Amorphous/Sapropel, H-Herbaceous, W-Woody, C-Coaly/Inertinite

JOB NUMBER: 3208
WELL NAME: M.R.YOUNG SALTY'S #1

TABLE III
FORMATION SUMMARY OF GEOCHEMICAL DATA

FORMATION NAME: EL PASO (4238- 4466)

SEDIMENT FACIES	(NO/ %)	PYROLYSIS DATA (PPM) S1	S2	S3	TMAX	TOC	MATURITY TAI	%R0	%AM	KEROGEN TYPE %H	%W	%C	%OIL FACTOR	%GAS FACTOR
SHALE SOURCE	NOT PRESENT IN THIS FORMATION													
CARBONATE SOURCE	(6/100)													
AVG		10.	70.	950.	353	0.23	2.7	----	99	0	0	0	99	1
MIN		10.	70.	950.	353	0.12	2.7	----						
MAX		10.	70.	950.	353	0.34	2.7	----						
SILICEOUS SOURCE	NOT PRESENT IN THIS FORMATION													
EVAPORITE SOURCE	NOT PRESENT IN THIS FORMATION													
SAND/SILT NON-SOURCE	NOT PRESENT IN THIS FORMATION													

Maturity Parameters Taken from a 3-Term Running Average for All Values.
Kerogen Type: Am-Amorphous/Sapropel, H-Herbaceous, W-Woody, C-Coaly/Inertinite

JOB NUMBER: 3208
WELL NAME: M.R.YOUNG SALTY'S #1

TABLE III
FORMATION SUMMARY OF GEOCHEMICAL DATA

FORMATION NAME: BLISS SS (4466- 4509)

SEDIMENT FACIES	(NO/ %)	PYROLYSIS DATA (PPM) S1	S2	S3	TMAX	TOC	MATURITY TAI	%R0	KEROGEN TYPE %AM	%H	%W	%C	%OIL FACTOR	%GAS FACTOR
SHALE SOURCE	NOT PRESENT IN THIS FORMATION													
CARBONATE SOURCE	(1/100)													
AVG		-------	-------	-------	---	0.10	---	----	---	---	---	---	---	---
MIN		-------	-------	-------	---	0.10	---	----						
MAX		-------	-------	-------	---	0.10	---	----						
SILICEOUS SOURCE	NOT PRESENT IN THIS FORMATION													
EVAPORITE SOURCE	NOT PRESENT IN THIS FORMATION													
SAND/SILT NON-SOURCE	NOT PRESENT IN THIS FORMATION													

Maturity Parameters Taken from a 3-Term Running Average for All Values.
Kerogen Type: Am-Amorphous/Sapropel, H-Herbaceous, W-Woody, C-Coaly/Inertinite

JOB NUMBER: 3208
WELL NAME: M.R.YOUNG SALTY'S #1

TABLE III
FORMATION SUMMARY OF GEOCHEMICAL DATA

FORMATION NAME: CRETACEOUS (4509- 8344)

SEDIMENT FACIES	(NO/ %)	PYROLYSIS DATA (PPM) S1	S2	S3	TMAX	TOC	MATURITY TAI	%R0	KEROGEN TYPE %AM	%H	%W	%C	%OIL FACTOR	%GAS FACTOR
SHALE SOURCE	(58/ 56)													
AVG		298.	950.	320.	440	0.60	2.3	0.86	3	26	50	20	36	63
MIN		10.	40.	160.	327	0.13	2.3	0.72						
MAX		960.	3190.	710.	483	1.29	2.4	1.08						
CARBONATE SOURCE	(26/ 25)													
AVG		25.	180.	285.	408	0.42	2.3	1.10	12	22	45	20	41	58
MIN		10.	60.	270.	310	0.16	2.3	0.72						
MAX		50.	380.	310.	446	0.66	2.5	1.18						
SILICEOUS SOURCE	NOT PRESENT IN THIS FORMATION													
EVAPORITE SOURCE	NOT PRESENT IN THIS FORMATION													
SAND/SILT NON-SOURCE	(20/ 19)													
AVG		-------	-------	-------	---	0.26	2.4	1.00	---	---	---	---	---	---
MIN		-------	-------	-------	---	0.13	2.3	0.72						
MAX		-------	-------	-------	---	0.71	2.5	1.23						

Maturity Parameters Taken from a 3-Term Running Average for All Values.
Kerogen Type: Am-Amorphous/Sapropel, H-Herbaceous, W-Woody, C-Coaly/Inertinite

JOB NUMBER: 3208
WELL NAME: M.R.YOUNG SALTY'S #1

TABLE III
FORMATION SUMMARY OF GEOCHEMICAL DATA

FORMATION NAME: FUSSELMAN (8344- 8640)

SEDIMENT FACIES	(NO/ %)	PYROLYSIS DATA (PPM) S1	S2	S3	TMAX	TOC	MATURITY TAI	%R0	KEROGEN TYPE %AM	%H	%W	%C	%OIL FACTOR	%GAS FACTOR
SHALE SOURCE	NOT PRESENT IN THIS FORMATION													
CARBONATE SOURCE	(10/100)													
AVG		-------	-------	-------	---	0.04	2.5	1.23	---	---	---	---	---	---
MIN		-------	-------	-------	---	0.02	2.5	1.23						
MAX		-------	-------	-------	---	0.10	2.6	1.23						
SILICEOUS SOURCE	NOT PRESENT IN THIS FORMATION													
EVAPORITE SOURCE	NOT PRESENT IN THIS FORMATION													
SAND/SILT NON-SOURCE	NOT PRESENT IN THIS FORMATION													

Maturity Parameters Taken from a 3-Term Running Average for All Values.
Kerogen Type: Am-Amorphous/Sapropel, H-Herbaceous, W-Woody, C-Coaly/Inertinite

JOB NUMBER: 3208
WELL NAME: M.R.YOUNG SALTY'S #1

TABLE III
FORMATION SUMMARY OF GEOCHEMICAL DATA

FORMATION NAME: MONTOYA (8640- 8957)

SEDIMENT FACIES	(NO/ %)	PYROLYSIS DATA (PPM) S1	S2	S3	TMAX	TOC	MATURITY TAI	%R0	KEROGEN TYPE %AM	%H	%W	%C	%OIL FACTOR	%GAS FACTOR
SHALE SOURCE	NOT PRESENT IN THIS FORMATION													
CARBONATE SOURCE	(11/100)													
AVG		-------	-------	-------	---	0.04	2.6	1.23	99	0	0	0	99	1
MIN		-------	-------	-------	---	0.02	2.6	1.23						
MAX		-------	-------	-------	---	0.10	2.6	1.23						
SILICEOUS SOURCE	NOT PRESENT IN THIS FORMATION													
EVAPORITE SOURCE	NOT PRESENT IN THIS FORMATION													
SAND/SILT NON-SOURCE	NOT PRESENT IN THIS FORMATION													

Maturity Parameters Taken from a 3-Term Running Average for All Values.
Kerogen Type: Am-Amorphous/Sapropel, H-Herbaceous, W-Woody, C-Coaly/Inertinite

JOB NUMBER: 3208
WELL NAME: M.R.YOUNG SALTY'S #1

TABLE III
FORMATION SUMMARY OF GEOCHEMICAL DATA

FORMATION NAME: EL PASO (8957- 9718)

SEDIMENT FACIES	(NO/ %)	PYROLYSIS DATA (PPM) S1	S2	S3	TMAX	TOC	MATURITY TAI	%R0	KEROGEN TYPE %AM	%H	%W	%C	%OIL FACTOR	%GAS FACTOR
SHALE SOURCE	(1/ 4)													
AVG		-------	-------	-------	---	-----	3.8	----	20	0	0	0	20	80
MIN		-------	-------	-------	---	-----	3.8	----						
MAX		-------	-------	-------	---	-----	3.8	----						
CARBONATE SOURCE	(24/ 96)													
AVG		-------	-------	-------	---	0.07	3.9	----	99	0	0	0	99	1
MIN		-------	-------	-------	---	0.02	3.9	----						
MAX		-------	-------	-------	---	0.14	4.0	----						
SILICEOUS SOURCE	NOT PRESENT IN THIS FORMATION													
EVAPORITE SOURCE	NOT PRESENT IN THIS FORMATION													
SAND/SILT NON-SOURCE	NOT PRESENT IN THIS FORMATION													

Maturity Parameters Taken from a 3-Term Running Average for All Values.
Kerogen Type: Am-Amorphous/Sapropel, H-Herbaceous, W-Woody, C-Coaly/Inertinite

JOB NUMBER: 3208
WELL NAME: M.R.YOUNG SALTY'S #1

TABLE III
FORMATION SUMMARY OF GEOCHEMICAL DATA

FORMATION NAME: BLISS SS (9718- 9781)

SEDIMENT FACIES	(NO/ %)	PYROLYSIS DATA (PPM) S1	S2	S3	TMAX	TOC	MATURITY TAI	%R0	KEROGEN TYPE %AM	%H	%W	%C	%OIL FACTOR	%GAS FACTOR
SHALE SOURCE	NOT PRESENT IN THIS FORMATION													
CARBONATE SOURCE	(Z/100)													
AVG		-------	-------	-------	---	0.10	3.9	----	40	0	0	0	40	60
MIN		-------	-------	-------	---	0.06	3.9	----						
MAX		-------	-------	-------	---	0.14	3.9	----						
SILICEOUS SOURCE	NOT PRESENT IN THIS FORMATION													
EVAPORITE SOURCE	NOT PRESENT IN THIS FORMATION													
SAND/SILT NON-SOURCE	NOT PRESENT IN THIS FORMATION													

Maturity Parameters Taken from a 3-Term Running Average for All Values.
Kerogen Type: Am-Amorphous/Sapropel, H-Herbaceous, W-Woody, C-Coaly/Inertinite

TABLE IV

SAMPLE INTERPRETATION

This table gives a sample by sample interpretation based on the following parameters:

(1) Lithology
(2) Thermal alteration index (TAI)
(3) Total organic carbon (TOC)
(4) Volatile hydrocarbon (S1)
(5) Kerogen type

If a TAI value is lacking for an otherwise interpretable sample, a TAI value is taken from a three term moving average plot of all the TAI data for this well (see Figure 1).

The kerogen type oil/gas factor expressed as a percentage should be used as a modifier to the interpretation; i.e., a high oil factor will enhance the oil quality of the sample whereas correspondingly, a high gas factor will enhance the gas ratio of the sample and diminish the oil prospectiveness.

JOB NUMBER: 3208
WELL NAME: M.R.YOUNG SALTY'S #1

TABLE IV
SAMPLE INTERPRETATION

GEOCHEM SAMPLE NUMBER	DEPTH	INTERPRETATION
	0	---------- VOLCANICS ----------
	700	---------- CRETACEOUS ----------
	1020	---------- UNCONFORMITY ----------
	1020	---------- PERMIAN ----------
038	1240	TAI CARB : MATURE POOR OIL AND ASSOCIATED GAS SOURCE KEROGEN TYPE OIL/GAS FACTOR NOT AVAILABLE
056	1740	TAI CARB : MATURE POOR OIL AND ASSOCIATED GAS SOURCE KEROGEN TYPE OIL/GAS FACTOR: OIL TYPE 50% GAS TYPE 49%
059	1830	TAI CARB : MATURE POOR OIL AND ASSOCIATED GAS SOURCE KEROGEN TYPE OIL/GAS FACTOR NOT AVAILABLE
062	1920	TAI CARB : MATURE POOR OIL AND ASSOCIATED GAS SOURCE KEROGEN TYPE OIL/GAS FACTOR NOT AVAILABLE
065	2010	TAI CARB : MATURE POOR OIL AND ASSOCIATED GAS SOURCE KEROGEN TYPE OIL/GAS FACTOR OIL TYPE 32% GAS TYPE 67%
	2154	---------- PENNSYLVANIAN ----------
077	2370	TAI CARB : MATURE POOR OIL AND ASSOCIATED GAS SOURCE KEROGEN TYPE OIL/GAS FACTOR: OIL TYPE 49% GAS TYPE 50%
	2504	---------- MISSISSIPPIAN ----------
082	2520	TAI CARB : MATURE POOR OIL AND ASSOCIATED GAS SOURCE KEROGEN TYPE OIL/GAS FACTOR: OIL TYPE 40% GAS TYPE 59%
085	2610	TAI SHALE: MATURE VERY POOR TO POOR OIL SOURCE - FAIR GAS SOURCE KEROGEN TYPE OIL/GAS FACTOR NOT AVAILABLE
093	2850	TAI CARB : MATURE POOR OIL AND ASSOCIATED GAS SOURCE KEROGEN TYPE OIL/GAS FACTOR NOT AVAILABLE
	3395	---------- PERCHA SHALE ----------

Rating Parameters as Defined in GeoChem's Source Rock Reference Manual
Sample Types: Blank-Cuttings, C-Core, S-Sidewall Core
Maturity Parameters: (V) - Vitrinite Reflectance Used, (T) TAI Used

JOB NUMBER: 3208
WELL NAME: M.R.YOUNG SALTY'S #1

TABLE IV
SAMPLE INTERPRETATION

GEOCHEM SAMPLE NUMBER	DEPTH		INTERPRETATION
117	3580	TAI	CARB : MATURE POOR OIL AND ASSOCIATED GAS SOURCE KEROGEN TYPE OIL/GAS FACTOR NOT AVAILABLE
	3744		---------- UNCONFORMITY ----------
	3744		---------- MONTOYA ----------
	4238		---------- UNCONFORMITY ----------
	4238		---------- EL PASO ----------
	4466		---------- BLISS SS ----------
	4509		---------- THRUST FAULT ----------
	4508		---------- CRETACEOUS ----------
160	4870	TAI	SHALE: MODERATELY MATURE POOR SOURCE FOR OIL/ASSOCIATED GAS OR BIOGENIC GAS KEROGEN TYPE OIL/GAS FACTOR NOT AVAILABLE
171	5200	TAI	SHALE: MODERATELY MATURE POOR SOURCE FOR OIL/ASSOCIATED GAS OR BIOGENIC GAS KEROGEN TYPE OIL/GAS FACTOR NOT AVAILABLE
181	5500	TAI	SHALE: MODERATELY MATURE FAIR BIOGENIC GAS SOURCE - FAIR POTENTIAL FOR OIL AND GAS KEROGEN TYPE OIL/GAS FACTOR: OIL TYPE 38% GAS TYPE 61%
192	5830	TAI	SHALE: MODERATELY MATURE GOOD BIOGENIC GAS SOURCE - GOOD POTENTIAL FOR OIL AND GAS KEROGEN TYPE OIL/GAS FACTOR NOT AVAILABLE
193	5860	TAI	SHALE: MODERATELY MATURE F IR BIOGENIC GAS SOURCE - FAIR POTENTIAL FOR OIL AND GAS - TRACE OF MIGRATED HYDROCARBON KEROGEN TYPE OIL/GAS FACTOR NOT AVAILABLE
208	6310	TAI	SHALE: MODERATELY MATURE GOOD BIOGENIC GAS SOURCE - GOOD POTENTIAL FOR OIL AND GAS KEROGEN TYPE OIL/GAS FACTOR NOT AVAILABLE
213	6489	TAI	SHALE: MODERATELY MATURE GOOD BIOGENIC GAS SOURCE - GOOD POTENTIAL FOR OIL AND GAS KEROGEN TYPE OIL/GAS FACTOR NOT AVAILABLE

Rating Parameters as Defined in GeoChem's Source Rock Reference Manual
Sample Types: Blank-Cuttings, C-Core, S-Sidewall Core
Maturity Parameters: (V) - Vitrinite Reflectance Used, (T) TAI Used

JOB NUMBER: 9208
WELL NAME: M.R.YOUNG SALTY'S #1

TABLE IV
SAMPLE INTERPRETATION

GEOCHEM SAMPLE NUMBER	DEPTH		INTERPRETATION
223	6760	TAI	SHALE: MODERATELY MATURE GOOD BIOGENIC GAS SOURCE - GOOD POTENTIAL FOR OIL AND GAS - FAIR AMOUNT OF MIGRATED HYDROCARBON KEROGEN TYPE OIL/GAS FACTOR NOT AVAILABLE
233	7060		MIXED SOURCE NON-SOURCE LITHOLOGIES
240	7270	TAI	CARB : MODERATELY MATURE POOR TO FAIR IMMATURE OIL AND ASSOCIATED GAS SOURCE - FAIR BIOGENIC GAS SOURCE KEROGEN TYPE OIL/GAS FACTOR NOT AVAILABLE
251	7600	TAI	CARB : MODERATELY MATURE POOR TO FAIR IMMATURE OIL AND ASSOCIATED GAS SOURCE - FAIR BIOGENIC GAS SOURCE KEROGEN TYPE OIL/GAS FACTOR NOT AVAILABLE
	8344		---------- FUSSELMAN ----------
	8640		---------- MONTOYA ----------
	8957		---------- UNCONFORMITY ----------
	8957		---------- EL PASO ----------
	9718		---------- BLISS S ----------
	9781		---------- TOTAL DEPTH -------

Rating Parameters as Defined in GeoChem's Source Rock Reference Manual
Sample Types: Blank-Cuttings, C-Core, S-Sidewall Core
Maturity Parameters: (V) - Vitrinite Reflectance Used, (T) TAI Used

TABLE V

SAMPLE SUMMARY INTERPRETATION

This table gives a sample by sample interpretation of each parameter used in Table IV. This descriptive terminology used for each parameter is listed in the introduction.

JOB NUMBER: 3208
WELL NAME: M.R.YOUNG SALTY'S #1

TABLE V
SAMPLE SUMMARY INTERPRETATION

GEOCHEM SAMPLE NUMBER	DEPTH	LITHOLOGY	THERMAL MATURITY TAI	THERMAL MATURITY %R0	TOC RICHNESS	HC RICHNESS	PRODUCTIVITY INDEX	%OIL FACTOR	%GAS FACTOR
	0	---------- VOLCANICS ----------							
	700	---------- CRETACEOUS ----------							
	1020	---------- UNCONFORMITY ----------							
	1020	---------- PERMIAN ----------							
038	1240	CARB	M **	M **	FAIR	VERY POOR	0.00	---	---
056	1740	CARB	M	M	FAIR	VERY POOR	0.75	50	49
059	1830	CARB	M **	M **	GOOD	VERY POOR	0.00	---	---
062	1920	CARB	M **	**	GOOD	VERY POOR	0.00	---	---
065	2010	CARB	M	M **	GOOD	VERY POOR	0.00	32	67
	2154	---------- PENNSYLVANIAN ----------							
077	2370	CARB	M	VM	GOOD	VERY POOR	0.00	49	50
	2504	---------- MISSISSIPPIAN ----------							
082	2520	CARB	M	VM**	FAIR	VERY POOR	0.60	40	59
085	2610	SHALE	M **	VM**	FAIR	VERY POOR	0.00	---	---
093	2850	CARB	M **	SA**	FAIR	VERY POOR	0.00	---	---
	3385	---------- PERCHA SHALE ----------							
117	3580	CARB	M **	SA	GOOD	VERY POOR	0.50	---	---
119	3640	CARB			GOOD	VERY POOR	0.50	---	---
	3744	---------- UNCONFORMITY ----------							

Rating Parameters as Defined in GeoChem's Source Rock Reference Manual
Thermal Maturity Abbreviations: I-Immature, MI-Moderately Immature, M-Mature
MM-Moderately Mature, VM-Very Mature
SA-Severly Altered, MT-Metamorphosed
Sample Types: Blank-Cuttings, C-Core, S-Sidewall Core
** Value Taken from a 3-Term Running Average of this parameter

JOB NUMBER: 3208
WELL NAME: M.R.YOUNG SALTY'S #1

TABLE V
SAMPLE SUMMARY INTERPRETATION

GEOCHEM SAMPLE NUMBER	DEPTH	LITHOLOGY	THERMAL MATURITY TAI	THERMAL MATURITY %R0	TOC RICHNESS	HC RICHNESS	PRODUCTIVITY INDEX	%OIL FACTOR	%GAS FACTOR
	3744	---------- MONTOYA ----------							
	4238	---------- UNCONFORMITY ----------							
	4238	---------- EL PASO ----------							
142	4330	CARB			GOOD	VERY POOR	0.13	---	---
	4466	---------- BLISS SS ----------							
	4509	---------- THRUST FAULT ----------							
	4509	---------- CRETACEOUS ----------							
150	4570	CARB			GOOD	VERY POOR	0.11	---	---
152	4630	CARB			VERY GOOD	VERY POOR	0.12	---	---
160	4870	SHALE	MM**	MM**	POOR	VERY POOR	0.20	---	---
171	5200	SHALE	MM**	MM**	POOR	VERY POOR	0.07	---	---
181	5500	SHALE	MM	MM	FAIR	VERY POOR	0.30	38	61
192	5830	SHALE	MM**	MM**	GOOD	FAIR	0.27	---	---
193	5860	SHALE	MM**	M **	FAIR	FAIR	0.26	---	---
208	6310	SHALE	MM**	M **	GOOD	VERY POOR	0.09	---	---
213	6460	SHALE	MM**	M **	GOOD	VERY POOR	0.21	---	---
223	6760	SHALE	MM**	M **	GOOD	GOOD	0.23	---	---
233	7060	MIXED SOURCE NON-SOURCE LITHOLOGIES							
240	7270	CARB	MM**	M **	VERY GOOD	VERY POOR	0.08	---	---

Rating Parameters as Defined in GeoChem's Source Rock Reference Manual
Thermal Maturity Abbreviations: I-Immature, MI-Moderately Immature, M-Mature
MM-Moderately Mature, VM-Very Mature
SA-Severly Altered, MT-Metamorphosed
Sample Types: Blank-Cuttings, C-Core, S-Sidewall Core
** Value Taken from a 3-Term Running Average of this Parameter

JOB NUMBER: 3208
WELL NAME: M.R.YOUNG SALTY'S #1

TABLE V
SAMPLE SUMMARY INTERPRETATION

GEOCHEM SAMPLE NUMBER	DEPTH	LITHOLOGY	THERMAL MATURITY TAI	THERMAL MATURITY %R0	TOC RICHNESS	HC RICHNESS	PRODUCTIVITY INDEX	%OIL FACTOR	%GAS FACTOR
251	7600	CARB	MM**	M **	VERY GOOD	VERY POOR	0.25	---	---
	8344	---------- FUSSELMAN ----------							
	8640	---------- MONTOYA ----------							
	8957	---------- UNCONFORMITY ----------							
	8957	---------- EL PASO ----------							
	9718	---------- BLISS SS ----------							
	9781	---------- TOTAL DEPTH ----------							

Rating Parameters as Defined in Geochem's Source Rock Reference Manual
Thermal Maturity Abbreviations: I-Immature, MI-Moderately Immature, M-Mature
MM-Moderately Mature, VM-Very Mature
SA-Severly Altered, MT-Metamorphosed
Sample Types: Blank-Cuttings, C-Core, S-Sidewall Core
** Value Taken from a 3-Term Running Average of this Parameter

TABLE VI

SAMPLE SUMMARY OF GEOCHEMICAL DATA

This table gives a sample by sample listing of the data used in the computerized interpretations. The information given for each formation is as follows:

(1) Sample number
(2) Depth
(3) Lithology
(4) Volatile hydrocarbon (S1, ppm)
(5) Generated hydrocarbon (S2, ppm)
(6) Maximum temperature of S2 peak
(7) Total organic carbon (TOC %)
(8) Kerogen composition (amorphous (Am), herbaceous (H), woody (W), and coaly (C))
(9) Thermal alteration index (TAI)
(10) Vitrinite reflectance (%Ro)

The TAI and %Ro values are plotted on Figures 1 and 2 respectively; values of TAI or %Ro indicated with an asterisk (*) are taken from the three term moving average plot of the respective parameter. Sample types are indicated by "blank" (cuttings), "C" (conventional core) and "S" (sidewall core). Casing points and the tops of all formations penetrated by the well are displayed on all tables with associated depths.

JOB NUMBER: 3208
WELL NAME: M.R.YOUNG SALTY'S #1

TABLE VI: SAMPLE SUMMARY OF GEOCHEMICAL DATA

GEOCHEM SAMPLE NUMBER	DEPTH	LITHOLOGY	PYROLYSIS DATA (PPM) TMAX	S1	S2	S3	TOC	KEROGEN TYPE %Am	%H	%W	%C	THERMAL MATURITY TAI	%R0
	0	---------- VOLCANICS ----------											
	700	---------- CRETACEOUS ----------											
021	730	50Ss 50Lm	---	-------	-------	-------	0.06	--	--	--	--	---	----
029	970	60Do 40Lm	---	-------	-------	-------	0.09	--	--	--	--	---	----
030	1000	90Do 10Lm	---	-------	-------	-------	0.13	90	0	0	10	2.4	0.70
	1020	---------- UNCONFORMITY ----------											
	1020	---------- PERMIAN ----------											
031	1030	80Lm 20Do	---	-------	-------	-------	0.11	--	--	--	--	---	----
033	1060	100Lm	---	-------	-------	-------	0.14	--	--	--	--	---	----
034	1120	50Lm 50Do	---	-------	-------	-------	0.08	--	--	--	--	---	----
035	1150	90Do 10Lm	---	-------	-------	-------	0.10	--	--	--	--	---	----
036	1180	70Ss 30Do	---	-------	-------	-------	0.05	--	--	--	--	---	----
038	1240	70Do 30Ss	439	0	0	220	0.22	--	--	--	--	(2.6)*	(1.58)*
039	1270	80Do 20Ss	---	-------	-------	-------	0.16	--	--	--	--	---	----
040	1300	95Sh 5Do	---	-------	-------	-------	0.06	--	--	--	--	---	----
045	1430	80Sh 20Do	---	-------	-------	-------	0.08	--	--	--	--	---	----

* Value taken from a 3 term smoothing for this parameter.
Lithologies: Sh-Shale, St-Siltstone, Ss-Sandstone, Cg-Conglomerate, Lm-Limestone, Do-Dolomite, Si-Siliceous Rocks
Ev-Evaporite, C-Coal, Ig-Igneous Rocks, Vo-Volcanics, Mt-Metamorphics, Bs-Basement, Ot-Other
Md-Mudstone, Br-Breccia, Mr-Marl
Sample Type: Blank-Cuttings, C-Conventional Core, S-Sidewall Core
Kerogen Type: Am-Amorphous/Sapropel, H-Herbaceous, W-Woody, C-Coaly/Inertinite

JOB NUMBER: 3208
WELL NAME: M.R.YOUNG SALTY'S #1

TABLE VI: SAMPLE SUMMARY OF GEOCHEMICAL DATA

GEOCHEM SAMPLE NUMBER	DEPTH	LITHOLOGY	PYROLYSIS DATA (PPM)					KEROGEN TYPE				THERMAL MATURITY	
			TMAX	S1	S2	S3	TOC	%Am	%H	%W	%C	TAI	%R0
047	1490	90Do 10Sh	---	-------	-------	-------	0.13	10	0	80	10	2.6	----
050	1560	90Do 10Sh	---	-------	-------	-------	0.08	--	--	--	--	---	----
052	1620	100Do	---	-------	-------	-------	0.14	--	--	--	--	---	----
053	1650	100Do	---	-------	-------	-------	0.11	--	--	--	--	---	----
055	1710	70Lm 30Do	---	-------	-------	-------	0.14	--	--	--	--	---	----
056	1740	70Lm 30Do	378	30	10	420	0.25	28	0	72	0	2.7	1.58
057	1770	100Lm	---	-------	-------	-------	0.17	--	--	--	--	---	----
058	1800	100Lm	---	-------	-------	-------	0.17	--	--	--	--	---	----
059	1830	100Lm	221	10	0	420	0.29	--	--	--	--	(2.7)*	(1.58)*
060	1860	80Do 20Lm	---	-------	-------	-------	0.23	--	--	--	--	---	----
061	1890	70Lm 30Do	---	-------	-------	-------	0.16	--	--	--	--	---	----
062	1920	70Lm 30Do	272	30	0	360	0.33	--	--	--	--	(2.7)*	(1.58)*
063	1950	60Lm 40Do	---	-------	-------	-------	0.14	--	--	--	--	---	----
064	1980	70Do 30Lm	---	-------	-------	-------	0.19	--	--	--	--	---	----
065	2010	70Do 30Lm	257	0	0	330	0.30	10	10	40	40	2.7	(1.70)*
066	2040	60Do 30Lm 10Sh	---	-------	-------	-------	0.16	--	--	--	--	---	----

* Value taken from a 3 term smoothing for this parameter.
Lithologies: Sh-Shale, St-Siltstone, Ss-Sandstone, Cg-Conglomerate, Lm-Limestone, Do-Dolomite, Si-Siliceous Rocks
Ev-Evaporite, C-Coal, Ig-Igneous Rocks, Vo-Volcanics, Mt-Metamorphics, Bs-Basement, Ot-Other
Md-Mudstone, Br-Breccia, Mr-Marl
Sample Type: Blank-Cuttings, C-Conventional Core, S-Sidewall Core
Kerogen Type: Am-Amorphous/Sapropel, H-Herbaceous, W-Woody, C-Coaly/Inertinite

JOB NUMBER: 3208
WELL NAME: M.R.YOUNG SALTY'S #1

TABLE VI: SAMPLE SUMMARY OF GEOCHEMICAL DATA

GEOCHEM SAMPLE NUMBER	DEPTH	LITHOLOGY	PYROLYSIS DATA (PPM)					KEROGEN TYPE				THERMAL MATURITY	
			TMAX	S1	S2	S3	TOC	%Am	%H	%W	%C	TAI	%R0
068	2100	60Sh 30Do 10Lm	---	--------	--------	--------	0.12	--	--	--	--	---	----
	2154	---------- PENNSYLVANIAN ----------											
070	2160	50Lm 30Do 20Sh	---	--------	--------	--------	0.09	--	--	--	--	---	----
071	2190	50Lm 30Do 20Sh	---	--------	--------	--------	0.09	--	--	--	--	---	----
072	2220	60Lm 40Do	---	--------	--------	--------	0.15	--	--	--	--	---	----
073	2250	40Do 30Sh 30Lm	---	--------	--------	--------	0.07	--	--	--	--	---	----
074	2280	40Do 30Sh 30Lm	---	--------	--------	--------	0.05	--	--	--	--	---	----
075	2310	40Lm 30Sh 30Do	---	--------	--------	--------	0.09	--	--	--	--	---	----
076	2340	40Lm 30Sh 30Do	---	--------	--------	--------	0.10	--	--	--	--	---	----
077	2370	50Do 30Lm 20Sh	439	20	0	370	0.45	20	30	30	20	2.7	1.83
078	2400	50Do 30Lm 20Sh	---	--------	--------	--------	0.24	--	--	--	--	---	----
079	2430	60Lm 25Do 15Sh	---	--------	--------	--------	0.22	--	--	--	--	---	----
080	2460	70Lm 30Sh	---	--------	--------	--------	0.14	--	--	--	--	---	----
081	2490	80Lm 20Sh	---	--------	--------	--------	0.10	--	--	--	--	---	----
	2504	---------- MISSISSIPPIAN ----------											
082	2520	70Lm 30Sh	401	30	20	470	0.23	10	10	80	0	2.7	(1.83)*

* Value taken from a 3 term smoothing for this parameter.
Lithologies: Sh-Shale, St-Siltstone, Ss-Sandstone, Cg-Conglomerate, Lm-Limestone, Do-Dolomite, Si-Siliceous Rocks
Ev-Evaporite, C-Coal, Ig-Igneous Rocks, Vo-Volcanics, Mt-Metamorphics, Bs-Basement, Ot-Other
Md-Mudstone, Br-Breccia, Mr-Marl
Sample Type: Blank-Cuttings, C-Conventional Core, S-Sidewall Core
Kerogen Type: Am-Amorphous/Sapropel, H-Herbaceous, W-Woody, C-Coaly/Inertinite

JOB NUMBER: 3208
WELL NAME: M.R.YOUNG SALTY'S #1

TABLE VI: SAMPLE SUMMARY OF GEOCHEMICAL DATA

GEOCHEM SAMPLE NUMBER	DEPTH	LITHOLOGY		PYROLYSIS DATA (PPM)					KEROGEN TYPE				THERMAL MATURITY	
				TMAX	S1	S2	S3	TOC	%Am	%H	%W	%C	TAI	%R0
083	2550	70Lm	30Sh	---	-------	-------	-------	0.28	--	--	--	--	---	----
084	2580	60Lm	40Sh	---	-------	-------	-------	0.17	--	--	--	--	---	----
085	2610	80Sh	20Lm	375	10	0	480	0.63	--	--	--	--	(2.7)*	(2.05)*
086	2640	60Sh	40Lm	---	-------	-------	-------	0.27	--	--	--	--	---	----
087	2670	70Lm	30Sh	---	-------	-------	-------	0.21	--	--	--	--	---	----
088	2700	70Lm	30Sh	---	-------	-------	-------	0.19	--	--	--	--	---	----
089	2730	80Lm	20Sh	---	-----	-------	-------	0.17	--	--	--	--	---	----
090	2760	80Lm	20Sh	---	----	-------	-------	0.13	--	--	--	--	---	----
091	2790	90Lm	10Sh	---	----	-------	-------	0.07	--	--	--	--	---	----
092	2820	100Lm		---	-------	-------	-------	0.09	--	--	--	--	---	----
093	2850	90Lm	10Sh	220	10	0	430	0.21	--	--	--	--	(2.7)*	(2.48)*
094	2880	90Lm	10Sh	---	-------	-------	-------	0.10	--	--	--	--	---	----
095	2920	90Lm	10Sh	---	-------	-------	-------	0.10	--	--	--	--	---	----
096	2950	90Lm	10Sh	---	-------	-------	-------	0.09	--	--	--	--	---	----
097	2980	70Lm	30Sh	---	-------	-------	-------	0.06	--	--	--	--	---	----
098	3010	80Lm	20Sh	---	-------	-------	-------	0.21	10	10	80	0	2.7	2.48

* Value taken from a 3 term smoothing for this parameter.
Lithologies: Sh-Shale, St-Siltstone, Ss-Sandstone, Cg-Conglomerate, Lm-Limestone, Do-Dolomite, Si-Siliceous Rocks
Ev-Evaporite, C-Coal, Ig-Igneous Rocks, Vo-Volcanics, Mt-Metamorphics, Bs-Basement, Ot-Other
Md-Mudstone, Br-Breccia, Mr-Marl
Sample Type: Blank-Cuttings, C-Conventional Core, S-Sidewall Core
Kerogen Type: Am-Amorphous/Sapropel, H-Herbaceous, W-Woody, C-Coaly/Inertinite

JOB NUMBER: 3208
WELL NAME: M.R.YOUNG SALTY'S #1

TABLE VI: SAMPLE SUMMARY OF GEOCHEMICAL DATA

GEOCHEM SAMPLE NUMBER	DEPTH	LITHOLOGY	PYROLYSIS DATA (PPM) TMAX	S1	S2	S3	TOC	KEROGEN TYPE %Am	%H	%W	%C	THERMAL MATURITY TAI	%R0
098	3040	90Lm 10Sh	---	-------	-------	-------	0.15	--	--	--	--	---	----
100	3070	90Lm 10Sh	---	-------	-------	-------	0.11	--	--	--	--	---	----
101	3100	90Lm 10Sh	---	------	-------	-------	0.08	--	--	--	--	---	----
102	3130	90Lm 10Sh	---	-------	-------	-------	0.08	--	--	--	--	---	----
103	3160	90Lm 10Sh	---	-------	-------	-------	0.07	--	--	--	--	---	----
104	3190	90Lm 10Sh	---	-------	-------	-------	0.07	--	--	--	--	---	----
105	3220	100Lm	---	-------	-------	-------	0.06	--	--	--	--	---	----
106	3250	90Lm 10Sh	---	-------	-------	-------	0.08	--	--	--	--	---	----
107	3280	90Lm 10Sh	---	-------	-------	-------	0.09	--	--	--	--	---	----
108	3310	90Lm 10Sh	---	-------	-------	-------	0.08	--	--	--	--	---	----
109	3340	90Lm 10Sh	---	-------	-------	-------	0.08	--	--	--	--	---	----
110	3370	90Lm 10Sh	---	-------	-------	-------	0.09	--	--	--	--	---	----
	3395	---------- PERCHA SHALE ----------											
111	3400	90Lm 10Sh	---	-------	-------	-------	0.08	--	--	--	--	---	----
112	3430	90Lm 10Sh	---	-------	-------	-------	0.09	--	--	--	--	---	----
113	3460	90Lm 10Sh	---	-------	-------	-------	0.12	--	--	--	--	---	----

* Value taken from a 3 term smoothing for this parameter.
Lithologies: Sh-Shale, St-Siltstone, Ss-Sandstone, Cg-Conglomerate, Ls-Limestone, Do-Dolomite, Si-Siliceous Rocks
Ev-Evaporite, C-Coal, Ig-Igneous Rocks, Vo-Volcanics, Mt-Metamorphics, Bs-Basement, Ot-Other
Md-Mudstone, Br-Breccia, Mr-Marl
Sample Type: Blank-Cuttings, C-Conventional Core, S-Sidewall Core
Kerogen Type: Am-Amorphous/Sapropel, H-Herbaceous, W-Woody, C-Coaly/Inertinite

JOB NUMBER: 3208
WELL NAME: M.R.YOUNG SALTY'S #1

TABLE VI: SAMPLE SUMMARY OF GEOCHEMICAL DATA

GEOCHEM SAMPLE NUMBER	DEPTH	LITHOLOGY	PYROLYSIS DATA (PPM)					KEROGEN TYPE				THERMAL MATURITY	
			TMAX	S1	S2	S3	TOC	%Am	%H	%W	%C	TAI	%R0
114	3490	90Lm 10Sh	---	-------	-------	-------	0.12	--	--	--	--	---	----
115	3520	90Lm 10Sh	---	-------	-------	-------	0.13	--	--	--	--	---	----
116	3550	90Lm 10Sh	---	-------	-------	-------	0.18	--	--	--	--	---	----
117	3580	70Lm 30Sh	300	10	10	360	0.35	--	--	--	--	(2.7)*	2.70
118	3610	70Lm 30Sh	---	-------	-------	-------	0.20	--	--	--	--	---	----
119	3640	60Lm 40Sh	278	20	20	330	0.44	--	--	--	--	---	----
120	3670	70Do 30Sh	---	---	---	-------	-------	0.17	--	--	--	--	---
121	3700	60Do 40.	---	-------	-------	-------	0.19	--	--	--	--	---	----
122	3730	60Do 30Sh 10Lm	---	-------	-------	-------	0.14	--	--	--	--	---	----
	3744	---------- UNCONFORMITY ----------											
	3744	---------- MONTOYA ----------											
123	3760	75Vo 20Do 5Sh	---	-------	-------	-------	0.07	--	--	--	--	---	----
125	3820	70Do 30Sh	---	-------	-------	-------	0.11	--	--	--	--	---	----
126	3850	80Do 20Sh	---	-------	-------	-------	0.09	--	--	--	--	---	----
127	3880	70Do 20Sh 10Lm	---	-------	-------	-------	0.07	--	--	--	--	---	----
128	3910	80Do 20Sh	---	-------	-------	-------	0.10	--	--	--	--	---	----

* Value taken from a 3 term smoothing for this parameter.
Lithologies: Sh-Shale, St-Siltstone, Ss-Sandstone, Cg-Conglomerate, Lm-Limestone, Do-Dolomite, Si-Siliceous Rocks
Ev-Evaporite, C-Coal, Ig-Igneous Rocks, Vo-Volcanics, Mt-Metamorphics, Bs-Basement, Ot-Other
Md-Mudstone, Br-Breccia, Mr-Marl
Sample Type: Blank-Cuttings, C-Conventional Core, S-Sidewall Core
Kerogen Type: Am-Amorphous/Sapropel, H-Herbaceous, W-Woody, C-Coaly/Inertinite

JOB NUMBER: 3208
WELL NAME: M.R.YOUNG SALTY'S #1

TABLE VI: SAMPLE SUMMARY OF GEOCHEMICAL DATA

GEOCHEM SAMPLE NUMBER	DEPTH	LITHOLOGY	PYROLYSIS DATA (PPM) TMAX	S1	S2	S3	TOC	KEROGEN TYPE %Am	%H	%W	%C	THERMAL MATURITY TAI	%R0
128	3940	80Do 20Sh	---	--------	--------	--------	0.07	--	--	--	--	---	----
131	4000	90Do 10Sh	---	--------	--------	--------	0.05	--	--	--	--	---	----
132	4030	100Do	---	--------	--------	--------	0.04	99	0	0	0	2.6	----
133	4060	100Do	---	-	----	--------	--------	0.06	--	--	--	--	---	----
134	4090	100Do	---	--	----	--------	--------	0.07	--	--	--	--	---	----
135	4120	90Do 10Lm	---	--	----	--------	--------	0.06	--	--	--	--	---	----
	4238	---------- UNCONFORMITY ----------											
	4238	---------- EL PASO ----------											
140	4270	70Do 20Sh 10Lm	---	--------	--------	--------	0.28	--	--	--	--	---	----
142	4330	90Do 5Sh 5Lm	353	10	70	950	0.34	--	--	--	--	---	----
143	4360	90Do 5Sh 5Lm	---	--------	--------	--------	0.23	99	0	0	0	2.7	----
144	4390	75Do 15Sh 10Lm	---	--------	--------	--------	0.23	--	--	--	--	---	----
145	4420	80Do 15Sh 5Lm	---	--------	--------	--------	0.16	--	--	--	--	---	----
146	4450	50Do 35Lm 15Sh	---	--------	--------	--------	0.12	--	--	--	--	---	----
	4466	---------- BLISS SS ----------											
147	4480	50Do 35Lm 15Sh	---	--------	--------	--------	0.10	--	--	--	--	---	----
	4509	---------- THRUST FAULT ----------											

* Value taken from a 3 term smoothing for this parameter.
Lithologies: Sh-Shale, St-Siltstone, Ss-Sandstone, Cg-Conglomerate, Lm-Limestone, Do-Dolomite, Si-Siliceous Rocks
Ev-Evaporite, C-Coal, Ig-Igneous Rocks, Vo-Volcanics, Mt-Metamorphics, Bs-Basement, Ot-Other
Md-Mudstone, Bc-Breccia, Mr-Marl
Sample Type: Blank-Cuttings, C-Conventional Core, S-Sidewall Core
Kerogen Type: Am-Amorphous/Sapropel, H-Herbaceous, W-Woody, C-Coaly/Inertinite

JOB NUMBER: 3208
WELL NAME: M.R.YOUNG SALTY'S #1

TABLE VI: SAMPLE SUMMARY OF GEOCHEMICAL DATA

GEOCHEM SAMPLE NUMBER	DEPTH	LITHOLOGY	PYROLYSIS DATA (PPM) TMAX	S1	S2	S3	TOC	KEROGEN TYPE %Am	%H	%W	%C	THERMAL MATURITY TAI	%RO
	4509	---------- CRETACEOUS ----------											
148	4510	70Do 20Sh 10Lm	---	-------	-------	-------	0.31	10	20	50	20	2.5	----
149	4540	70Do 20Sh 10Lm	---	-------	-------	-------	0.35	--	--	--	--	---	----
150	4570	60Do 30Sh 10Lm	445	20	160	280	0.46	--	--	--	--	---	----
151	4600	60Do 30Sh 10Lm	---	-------	-------	-------	0.36	30	20	30	20	2.3	----
152	4630	70Do 20Sh 10Lm	446	50	380	310	0.61	--	--	--	--	---	----
153	4660	40Do 30Ss 20Sh 10Lm	---	-------	-------	-------	0.51	--	--	--	--	---	----
154	4690	40Lm 30Do 20Sh 10Ss	---	-------	-------	-------	0.25	--	--	--	--	---	----
155	4720	40Sh 30Ss 20Lm 10Do	---	-------	-------	-------	0.14	--	--	--	--	---	----
156	4750	60Sh 20Lm 15Do 5Ss	---	-------	-------	-------	0.40	--	--	--	--	---	----
157	4780	40Sh 40Do 15Lm 5Ss	---	-------	-------	-------	0.28	--	--	--	--	---	----
158	4810	70Sh 20Ss 10Do	---	-------	-------	-------	0.20	--	--	--	--	---	----
159	4840	70Sh 20Ss 10Do	---	-------	-------	-------	0.23	--	--	--	--	---	----
160	4870	70Sh 20Ss 10Do	440	10	40	250	0.31	--	--	--	--	(2.4)*	(0.72)*

* Value taken from a 3 term smoothing for this parameter.

Lithologies: Sh-Shale, St-Siltstone, Ss-Sandstone, Cg-Conglomerate, Lm-Limestone, Do-Dolomite, Si-Siliceous Rocks, Ev-Evaporite, C-Coal, Ig-Igneous Rocks, Vo-Volcanics, Mt-Metamorphics, Bs-Basement, Ot-Other, Md-Mudstone, Br-Breccia, Mr-Marl

Sample Type: Blank-Cuttings, C-Conventional Core, S-Sidewall Core

Kerogen Type: Am-Amorphous/Sapropel, H-Herbaceous, W-Woody, C-Coaly/Inertinite

JOB NUMBER: 3208
WELL NAME: M.R.YOUNG SALTY'S #1

TABLE VI: SAMPLE SUMMARY OF GEOCHEMICAL DATA

GEOCHEM SAMPLE NUMBER	DEPTH	LITHOLOGY	PYROLYSIS DATA (PPM)					KEROGEN TYPE				THERMAL MATURITY	
			TMAX	S1	S2	S3	TOC	%Am	%H	%W	%C	TAI	%R0
161	4900	60Sh 30Ss 10Do	---	--------	--------	--------	0.24	--	--	--	--	---	----
162	4930	50Sh 40Ss 10Do	---	--------	--------	--------	0.22	--	--	--	--	---	----
163	4960	50Sh 40Ss 10Do	---	--------	--------	--------	0.18	--	--	--	--	---	----
164	4990	50Ss 40[illegible] 10Do	---	-	[illegible]	--------	0.14	--	--	--	--	---	----
165	5020	50Ss 40[illegible] 10Do	---	-	[illegible]	--------	0.19	--	--	--	--	---	----
166	5050	50Ss 40Sh 10Do	---	-	[illegible]	--------	0.24	10	20	30	40	2.4	----
167	5080	60Ss 40Sh	---	--------	--------	--------	0.18	--	--	--	--	---	----
168	5110	60Ss 40Sh	---	--------	--------	--------	0.15	--	--	--	--	---	----
169	5140	60Ss 40Sh	---	--------	--------	--------	0.26	--	--	--	--	---	----
170	5170	60Sh 40Ss	---	--------	--------	--------	0.28	--	--	--	--	---	----
171	5200	80Sh 20Ss	462	10	130	160	0.46	--	--	--	--	(2.4)*	(0.72)*
172	5230	60Sh 40Ss	---	--------	--------	--------	0.19	--	--	--	--	---	----
173	5260	70Sh 30Ss	---	--------	--------	--------	0.36	--	--	--	--	---	----
174	5290	70Sh 30Ss	---	--------	--------	--------	0.13	--	--	--	--	---	----
175	5320	100Ss	---	--------	--------	--------	0.13	--	--	--	--	---	----
176	5350	100Ss	---	--------	--------	--------	0.13	--	--	--	--	---	----

* Value taken from a 3 term smoothing for this parameter.
Lithologies: Sh-Shale, St-Siltstone, Ss-Sandstone, Cg-Conglomerate, Ls-Limestone, Do-Dolomite, Si-Siliceous Rocks
Ev-Evaporite, C-Coal, In-Igneous Rocks, V-Volcanics, Mt-Metamorphics, Bs-Basement, Ot-Other
Md-Mudstone, Br-Breccia, Mr-Marl
Sample Type: Blank-Cuttings, C-Conventional Core, S-Sidewall Core
Kerogen Type: Am-Amorphous/Sapropel, H-Herbaceous, W-Woody, C-Coaly/Inertinite

JOB NUMBER: 3208
WELL NAME: M.R.YOUNG SALTY'S #1

TABLE VI: SAMPLE SUMMARY OF GEOCHEMICAL DATA

GEOCHEM SAMPLE NUMBER	DEPTH	LITHOLOGY	PYROLYSIS DATA (PPM)					KEROGEN TYPE				THERMAL MATURITY	
			TMAX	S1	S2	S3	TOC	%Am	%H	%W	%C	TAI	%R0
178	5410	80Sh 20Ss	---	-------	-------	-------	0.80	--	--	--	--	---	----
179	5440	70Sh 30Ss	---	-------	-------	-------	0.55	--	--	--	--	---	----
180	5470	70Sh 30Ss	---	-------	-------	-------	0.59	--	--	--	--	---	----
181	5500	70Sh 30Ss	453	180	430	340	0.68	0	40	40	20	2.3	0.72
182	5530	70Sh 30Ss	---	-------	-------	-------	0.56	--	--	--	--	---	----
183	5560	60Ss 40Sh	---	-------	-------	-------	0.71	--	--	--	--	---	----
185	5620	60Sh 30Lm 10Ss	---	-------	-------	-------	0.38	--	--	--	--	---	----
186	5650	50Sh 20Ss 20Ig 10Lm	---	-------	-------	-------	0.31	--	--	--	--	---	----
187	5680	50Sh 30Lm 20Ss	---	-------	-------	-------	0.58	--	--	--	--	---	----
188	5710	50Sh 30Lm 20Ss	---	-------	-------	-------	0.32	--	--	--	--	---	----
189	5740	50Sh 30Lm 20Ss	---	-------	-------	-------	0.37	--	--	--	--	---	----
190	5770	50Sh 30Lm 20Ss	---	-------	-------	-------	0.42	--	--	--	--	---	----
191	5800	70Sh 20Lm 10Ss	---	-------	-------	-------	0.49	--	--	--	--	---	----
192	5830	70Sh 20Lm 10Ss	448	570	1520	360	1.26	--	--	--	--	(2.3)*	(0.78)*
193	5860	70Sh 20Lm 10Ss	445	480	1360	300	1.00	--	--	--	--	(2.3)*	(0.84)*
195	5920	80Sh 20Lm	---	-------	-------	-------	0.56	--	--	--	--	---	----

* Value taken from a 3 term smoothing for this parameter.
Lithologies: Sh-Shale, St-Siltstone, Ss-Sandstone, Cg-Conglomerate, Lm-Limestone, Do-Dolomite, Si-Siliceous Rocks
Ev-Evaporite, C-Coal, Ig-Igneous Rocks, Vo-Volcanics, Mt-Metamorphics, Bs-Basement, Ot-Other
Md-Mudstone, Br-Breccia, Mr-Marl
Sample Type: Blank-Cuttings, C-Conventional Core, S-Sidewall Core
Kerogen Type: Am-Amorphous/Sapropel, H-Herbaceous, W-Woody, C-Coaly/Inertinite

JOB NUMBER: 3208
WELL NAME: M.R.YOUNG SALTY'S #1

TABLE VI: SAMPLE SUMMARY OF GEOCHEMICAL DATA

GEOCHEM SAMPLE NUMBER	DEPTH	LITHOLOGY	PYROLYSIS DATA (PPM)					KEROGEN TYPE				THERMAL MATURITY	
			TMAX	S1	S2	S3	TOC	%Am	%H	%W	%C	TAI	%R0
196	5950	80Sh 20Lm	---	--------	--------	--------	0.60	--	--	--	--	---	----
200	6070	60Sh 30Lm 10Ig	---	--------	--------	--------	0.41	0	20	60	20	2.3	----
201	6100	70Sh 20Lm 10Ss	---	--------	--------	--------	0.56	--	--	--	--	---	----
202	6130	70Sh 20Lm 10Ss	---	--------	--------	--------	0.57	--	--	--	--	---	----
203	6160	70Sh 20Lm 10Ss	- -	--------	--------	--------	0.51	--	--	--	--	---	----
204	6190	100Sh	---	--------	--------	--------	0.64	--	--	--	--	---	----
205	6220	100Sh	---	--------	--------	--------	0.76	--	--	--	--	---	----
206	6250	100Sh	---	--------	--------	--------	0.77	--	--	--	--	---	----
208	6310	100Sh	483	50	480	230	1.28	--	--	--	--	(2.3)*	(1.01)*
210	6370	100Sh	---	--------	--------	--------	0.65	--	--	--	--	---	----
211	6400	100Sh	---	--------	--------	--------	0.87	--	--	--	--	---	----
212	6430	100Sh	---	--------	--------	--------	1.12	--	--	--	--	---	----
213	6460	100Sh	463	120	450	210	1.29	--	--	--	--	(2.3)*	(1.01)*
214	6490	100Sh	---	--------	--------	--------	0.84	--	--	--	--	---	----
215	6520	100Sh	---	--------	--------	--------	0.68	--	--	--	--	---	----
216	6550	100Sh	---	--------	--------	--------	0.97	10	20	50	20	2.3	1.01

* Value taken from a 3 term smoothing for this parameter.
Lithologics: Sh-Shale, St-Siltstone, Ss-Sandstone, Cg-Conglomerate, Lm-Limestone, Do-Dolomite, Si-Siliceous Rocks
Ev-Evaporite, C-Coal, Ig-Igneous Rocks, Vo-Volcanics, Mt-Metamorphics, Bs-Basement, Ot-Other
Md-Mudstone, Br-Breccia, Mr-Marl
Sample Type: Blank-Cuttings, C-Conventional Core, S-Sidewall Core
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JOB NUMBER: 3208
WELL NAME: M.R.YOUNG SALTY'S #1

TABLE VI: SAMPLE SUMMARY OF GEOCHEMICAL DATA

GEOCHEM SAMPLE NUMBER	DEPTH	LITHOLOGY	PYROLYSIS DATA (PPM)					KEROGEN TYPE				THERMAL MATURITY	
			TMAX	S1	S2	S3	TOC	%Am	%H	%W	%C	TAI	%R0
217	6580	60Sh 30Ss 10Lm	---	-------	-------	-------	0.77	--	--	--	--	---	----
218	6610	70Sh 30Ss	---	-------	-------	-------	0.70	--	--	--	--	---	----
219	6640	60Sh 30Ss 10Lm	---	-------	-------	-------	0.48	--	--	--	--	---	----
220	6670	60Sh 30Ss 10Lm	---	-------	-------	-------	0.70	--	--	--	--	---	----
221	6700	60Sh 30Ss 10Lm	---	-------	-------	-------	0.81	--	--	--	--	---	----
222	6730	60Sh 40Ss	---	-------	-------	-------	0.56	--	--	--	--	---	----
223	6760	60Sh 40Ss	327	960	3190	710	1.19	--	--	--	--	(2.3)*	(1.05)*
224	6790	60Sh 40Ss	---	-------	-------	-------	0.86	--	--	--	--	---	----
225	6820	60Sh 40Ss	---	-------	-------	-------	0.64	--	--	--	--	---	----
226	6850	60Sh 40Ss	---	-------	-------	-------	0.66	--	--	--	--	---	----
227	6880	60Sh 40Ss	---	-------	-------	-------	0.71	--	--	--	--	---	----
228	6900	60Sh 40Ss	---	-------	-------	-------	0.59	--	--	--	--	---	----
229	6940	50Sh 50Ss	---	-------	-------	-------	0.49	--	--	--	--	---	----
230	6970	50Sh 50Ss	---	-------	-------	-------	0.82	--	--	--	--	---	----
231	7000	50Sh 50Ss	---	-------	-------	-------	0.70	--	--	--	--	---	----
232	7030	50Sh 50Ss	---	-------	-------	-------	0.55	--	--	--	--	---	----

* Value taken from a 3 term smoothing for this parameter.
Lithologies: Sh-Shale, St-Siltstone, Ss-Sandstone, Cg-Conglomerate, Lm-Limestone, Do-Dolomite, Si-Siliceous Rocks
Ev-Evaporite, C-Coal, Ig-Igneous Rocks, Vo-Volcanics, Mt-Metamorphics, Bs-Basement, Ot-Other
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JOB NUMBER: 3208
WELL NAME: M.R.YOUNG SALTY'S #1

TABLE VI: SAMPLE SUMMARY OF GEOCHEMICAL DATA

GEOCHEM SAMPLE NUMBER	DEPTH	LITHOLOGY			PYROLYSIS DATA (PPM) TMAX	S1	S2	S3	TOC	KEROGEN TYPE %Am	%H	%W	%C	THERMAL MATURITY TAI	%RØ
233	7060	50Sh	50Ss		489	30	370	210	1.67	10	20	50	20	2.3	(1.12)*
234	7090	50Sh	50Ss		---	--------	--------	--------	0.77	--	--	--	--	---	----
235	7120	50Sh	50Ss		---	--------	--------	--------	0.49	--	--	--	--	---	----
236	7150	40Sh 10Lm	30Ss	20St	---	--------	--------	--------	0.36	--	--	--	--	---	----
237	7180	40Sh 10Lm	30Ss	20St	---	--------	--------	--------	0.58	--	--	--	--	---	----
238	7210	40Lm 10St	30Sh	20Ss	---	--------	--------	--------	0.16	--	--	--	--	---	----
239	7240	50Lm	25Sh	25Ss	---	--------	--------	--------	0.30	--	--	--	--	---	----
240	7270	50Lm	25Sh	25Ss	431	10	120	280	0.65	--	--	--	--	(2.3)*	(1.16)*
241	7300	50Lm	25Sh	25Ss	---	--------	--------	--------	0.46	--	--	--	--	---	----
242	7330	50Lm	25Sh	25Ss	---	--------	--------	--------	0.23	--	--	--	--	---	----
243	7360	50Lm	25Sh	25Ss	---	--------	--------	--------	0.33	--	--	--	--	---	----
244	7390	40Ss	30Sh	30Lm	---	--------	--------	--------	0.35	--	--	--	--	---	----
245	7420	40Ss	30Sh	30Lm	---	--------	--------	--------	0.30	--	--	--	--	---	----
246	7450	60Lm	20Sh	20Ss	---	--------	--------	--------	0.23	--	--	--	--	---	----
247	7480	60Lm	20Sh	20Ss	---	--------	--------	--------	0.53	10	20	50	20	2.3	1.16

* Value taken from a 3 term smoothing for this parameter.
Lithologies: Sh-Shale, St-Siltstone, Ss-Sandstone, Cg-Conglomerate, Lm-Limestone, Do-Dolomite, Si-Siliceous Rocks
Ev-Evaporite, C-Coal, Ig-Igneous Rocks, Vo-Volcanics, Mt-Metamorphics, Bs-Basement, Ot-Other
Md-Mudstone, Br-Breccia, Mr-Marl
Sample Type: Blank-Cuttings, C-Conventional Core, S-Sidewall Core
Kerogen Type: Am-Amorphous/Sapropel, H-Herbaceous, W-Woody, C-Coaly/Inertinite

JOB NUMBER: 3208
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TABLE VI: SAMPLE SUMMARY OF GEOCHEMICAL DATA

GEOCHEM SAMPLE NUMBER	DEPTH	LITHOLOGY	PYROLYSIS DATA (PPM)					KEROGEN TYPE				THERMAL MATURITY	
			TMAX	S1	S2	S3	TOC	%Am	%H	%W	%C	TAI	%R0
248	7510	50Ss 40Sh 10Lm	---	-------	-------	-------	0.47	--	--	--	--	---	----
249	7540	50Ss 40Sh 10Lm	---	-------	-------	-------	0.46	--	--	--	--	---	----
250	7570	50Lm 30Sh 20Ss	---	-------	-------	-------	0.59	--	--	--	--	---	----
251	7600	40Sh 40Lm 20Ss	310	20	60	270	0.66	--	--	--	--	(2.3)*	(1.16)*
252	7630	40Sh 40Lm 20Ss	---	-------	-------	-------	0.53	--	--	--	--	---	----
253	7660	60Lm 40Sh	---	-------	-------	-------	0.53	--	--	--	--	---	----
254	7690	60Lm 40Sh	---	-------	-------	-------	0.42	--	--	--	--	---	----
255	7720	50Lm 30Sh 20Ss	---	-------	-------	-------	0.50	--	--	--	--	---	----
256	7750	40Lm 30Sh 30Ss	---	-------	-------	-------	0.55	--	--	--	--	---	----
257	7780	40Lm 30Sh 30Ss	---	-------	-------	-------	0.37	0	30	50	20	2.3	----
	8344	---------- FUSSELMAN ----------											
276	8350	90Lm 10Ig	---	-------	-------	-------	0.10	--	--	--	--	---	1.23
277	8380	100Lm	---	-------	-------	-------	0.09	--	--	--	--	---	----
278	8410	100Lm	---	-------	-------	-------	0.04	--	--	--	--	---	----
279	8440	100Lm	---	-------	-------	-------	0.05	--	--	--	--	---	----
280	8470	100Lm	---	---- -	-------	-------	0.02	--	--	--	--	---	----

* Value taken from a 3 term smoothing for this parameter.
Lithologies: Sh-Shale, St-Siltstone, Ss-Sandstone, Cg-Conglomerate, Lm-Limestone, Do-Dolomite, Si-Siliceous Rocks
Ev-Evaporite, C-Coal, Ig-Igneous Rocks, Vo-Volcanics, Mt-Metamorphics, Bs-Basement, Ot-Other
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JOB NUMBER: 3208
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GEOCHEM SAMPLE NUMBER	DEPTH	LITHOLOGY	PYROLYSIS DATA (PPM)					KEROGEN TYPE				THERMAL MATURITY	
			TMAX	S1	S2	S3	TOC	%Am	%H	%W	%C	TAI	%RO
281	8500	100Lm	---	-------	-------	-------	0.02	--	--	--	--	---	----
282	8530	100Lm	---	-------	-------	-------	0.02	--	--	--	--	---	----
283	8560	100Lm	---	-------	-------	-------	0.03	--	--	--	--	---	----
284	8590	100Lm	---	-------	-------	-------	0.02	--	--	--	--	---	----
285	8620	100Lm	---	-------	-------	-------	0.02	--	--	--	--	---	----
	8640	---------- MONTOYA ----------											
286	8650	100Lm	---	-------	-------	-------	0.04	--	--	--	--	---	----
287	8680	100Lm	---	-------	-------	-------	0.02	--	--	--	--	---	----
288	8710	100Lm	---	-------	-------	-------	0.02	--	--	--	--	---	----
289	8740	100Lm	---	-------	-------	-------	0.02	--	--	--	--	---	----
290	8770	100Lm	---	-------	-------	-------	0.02	--	--	--	--	---	----
291	8800	100Lm	---	-------	-------	-------	0.02	99	0	0	0	2.6	----
292	8830	100Lm	---	-------	-------	-------	0.05	--	--	--	--	---	----
293	8860	100Lm	---	-------	-------	-------	0.05	--	--	--	--	---	----
294	8890	100Lm	---	-------	-------	-------	0.05	--	--	--	--	---	----
295	8920	100Lm	---	-------	-------	-------	0.05	--	--	--	--	---	----

* Value taken from a 3 term smoothing for this parameter.
Lithologies: Sh-Shale, St-Siltstone, Ss-Sandstone, Cg-Conglomerate, Lm-Limestone, Do-Dolomite, Si-Siliceous Rocks
Ev-Evaporite, C-Coal, Ig-Igneous Rocks, Vo-Volcanics, Mt-Metamorphics, Bs-Basement, Ot-Other
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GEOCHEM SAMPLE NUMBER	DEPTH	LITHOLOGY	PYROLYSIS DATA (PPM)					KEROGEN TYPE				THERMAL MATURITY	
			TMAX	S1	S2	S3	TOC	%Am	%H	%W	%C	TAI	%R0
296	8950	100Lm	---	-------	-------	-------	0.10	--	--	--	--	---	----
	8957	---------- UNCONFORMITY ----------											
	8957	---------- EL PASO ----------											
297	8980	100Lm	---	-------	-------	-------	0.06	--	--	--	--	---	----
298	9010	100Lm	---	-------	-------	-------	0.05	--	--	--	--	---	----
299	9040	100Lm	---	-------	-------	-------	0.09	--	--	--	--	---	----
300	9070	90Do 10Sh	---	-------	-------	-------	0.09	--	--	--	--	---	----
301	9100	100Do	---	-------	-------	-------	0.07	--	--	--	--	---	----
302	9130	95Do 5Sh	---	-------	-------	-------	0.11	--	--	--	--	---	----
303	9160	100Do	---	-------	-------	-------	0.04	--	--	--	--	---	----
304	9190	100Do	---	-------	-------	-------	0.07	--	--	--	--	---	----
305	9220	100Do	---	-------	-------	-------	0.07	--	--	--	--	---	----
306	9250	100Do	---	-------	-------	-------	0.02	--	--	--	--	---	----
307	9280	100Do	---	-------	-------	-------	0.02	--	--	--	--	---	----
308	9310	100Do	---	-------	-------	-------	0.03	--	--	--	--	---	----
309	9340	100Do	---	-------	-------	-------	0.03	--	--	--	--	---	----

% Value taken from a 3 term smoothing for this parameter.
Lithologies: Sh-Shale, St-Siltstone, Ss-Sandstone, Cg-Conglomerate, Lm-Limestone, Do-Dolomite, Si-Siliceous Rocks
Ev-Evaporite, C-Coal, Ig-Igneous Rocks, Vo-Volcanics, Mt-Metamorphics, Bs-Basement, Ot-Other
Md-Mudstone, Br-Breccia, Mr-Marl
Sample Type: Blank-Cuttings, C-Conventional Core, S-Sidewall Core
Kerogen Type: Am-Amorphous/Sapropel, H-Herbaceous, W-Woody, C-Coaly/Inertinite

JOB NUMBER: 3208
WELL NAME: M.R.YOUNG SALTY'S #1

TABLE VI: SAMPLE SUMMARY OF GEOCHEMICAL DATA

GEOCHEM SAMPLE NUMBER	DEPTH	LITHOLOGY	PYROLYSIS DATA (PPM) TMAX	S1	S2	S3	TOC	KEROGEN TYPE %Am	%H	%W	%C	THERMAL MATURITY TAI	%R0
310	9370	100Do	---	-------	-------	-------	0.06	--	--	--	--	---	----
311	9400	100Do	---	-------	-------	-------	0.07	--	--	--	--	---	----
312	9430	100Do	---	-------	-------	-------	0.06	--	--	--	--	---	----
313	9460	100Do	---	-------	-------	-------	0.10	--	--	--	--	---	----
314	9490	100Do	---	-------	-------	-------	0.04	--	--	--	--	---	----
315	9520	100Do	---	-------	-------	-------	0.06	99	0	0	0	4.0	----
316	9550	70Do 20Mt 10Sh	---	-------	-------	-------	0.12	--	--	--	--	---	----
317	9580	90Mt 10Sh	---	-------	-------	-------	-----	20	0	0	0	3.8	----
319	9640	100Lm	---	-------	-------	-------	0.08	--	--	--	--	---	----
320	9670	90Lm 10Sh	---	-------	-------	-------	0.14	--	--	--	--	---	----
321	9700	100Lm	---	-------	-------	-------	0.06	--	--	--	--	---	----
	9718	---------- BLISS SS ----------											
322	9730	100Lm	---	-------	-------	-------	0.14	40	0	0	0	3.9	----
323	9760	100Lm	---	-------	-------	-------	0.06	--	--	--	--	---	----
	9781	---------- TOTAL DEPTH ----------											

* Value taken from a 3 term smoothing for this parameter.
Lithologies: Sh-Shale, St-Siltstone, Ss-Sandstone, Cg-Conglomerate, Lm-Limestone, Do-Dolomite, Si-Siliceous Rocks
Ev-Evaporite, C-Coal, Ig-Igneous Rocks, Vo-Volcanics, Mt-Metamorphics, Bs-Basement, Ot-Other
Md-Mudstone, Br-Breccia, Mr-Marl
Sample Type: Blank-Cuttings, C-Conventional Core, S-Sidewall Core
Kerogen Type: Am-Amorphous/Sapropel, H-Herbaceous, W-Woody, C-Coaly/Inertinite

FIGURE 1

THERMAL MATURITY PROFILE

USING THE THERMAL ALTERATION INDEX (TAI)

This figure displays a thermal maturity profile for the well using the thermal alteration index (TAI). The raw data plot displays the TAI values of individual samples plotted versus depth (150 foot intervals). Within a particular interval an "A" indicates one TAI values and a "B" indicates two TAI determinations of the same value, etc. The "AVG" gives the average TAI value for that interval.

The three term moving average plot displays a TAI profile smoothed by a three term moving average. The "AVG" gives the average for the particular interval. When a sample lacks a TAI value for interpretation, a TAI value is taken from this smoothed curve for that sample depth.

The descriptive terminology used to define thermal maturity, the associated hydrocarbon type, and the numerical values of TAI corresponding to this terminology is given below.

TAI Value	Descriptive Terminology	TAI Value	Associated Hydrocarbon Type
1.0 - 1.7	Immature (I)	1.3 - 1.5	Biogenic Gas
1.8 - 2.1	Moderately Immature (MI)	1.5 - 2.2	Biogenic Gas and Immature Oil
2.2 - 2.5	Moderately Mature (MM)		
2.6 - 3.5	Mature (M)	2.2 - 2.5	Immature Heavy Oil
3.6 - 4.1	Very Mature (VM)	2.5 - 3.2	Mature Oil
4.2 - 4.9	Severely Altered (SA)	3.2 - 3.4	Mature Oil, Condensate and Wet Gas
$\geq$ 5.0	Metamorphosed		
		$\geq$ 3.8	Petrogenic Methane Gas

Tops are shown by a dashed line (---) and the names are indicated along the right hand margin. The exact depth of the tops are given in the Introduction. Total well depth is indicated and labeled with appropriate depth.

FIGURE 1 : TAI MATURITY PROFILE

JOB NUMBER: 3208
WELL NAME: M.R.YOUNG SALTY'S #1

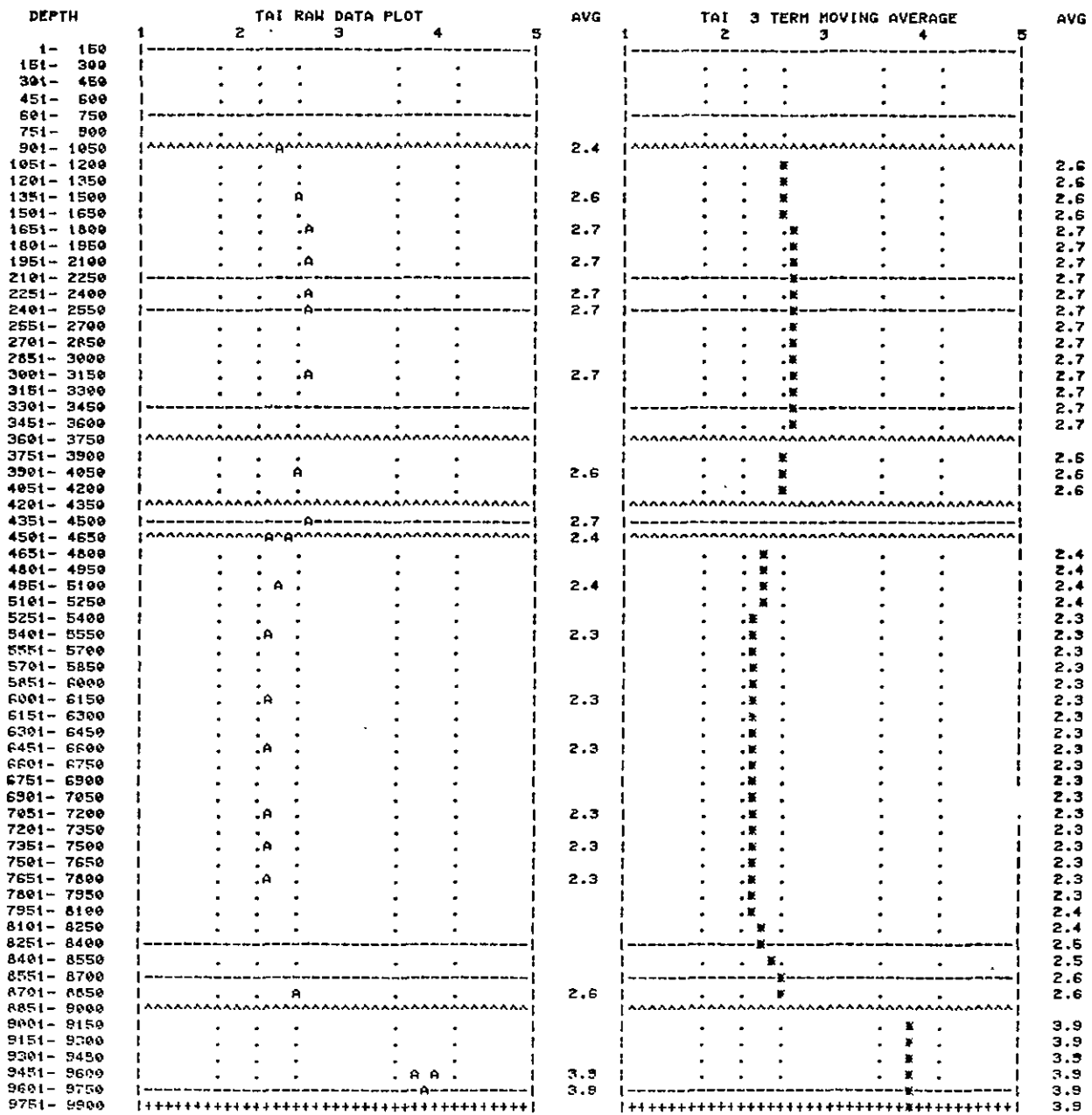


FIGURE 2

THERMAL MATURITY PROFILE

USING VITRINITE REFLECTANCE

This figure displays a thermal maturity profile for the well using vitrinite reflectance (%Ro). The raw data plot displays the %Ro values of individual samples plotted versus depth (150-foot intervals). Within a particular interval an "A" indicates one %Ro value, a "B" indicates two %Ro determinations of the same value, etc. The "AVG" gives the average %Ro value for that interval.

The three term moving average plot displays a %Ro profile smoothed by a three term moving average. The "AVG" gives the average for the particular interval.

The descriptive terminology used to define thermal maturity, the associated hydrocarbon type, and the numerical values of %Ro corresponding to this terminology is given below.

%Ro Value	Descriptive Terminology	%Ro Value	Associated Hydrocarbon Type
0.00 - 0.42	Immature (I)	0.30 - 0.35	Biogenic Gas
0.43 - 0.55	Moderately Immature (MI)	0.35 - 0.60	Biogenic Gas and Immature Oil
0.56 - 0.80	Moderately Mature (MM)		
0.81 - 1.62	Mature (M)	0.60 - 0.80	Immature Heavy Oil
1.63 - 2.37	Very Mature (VM)	0.80 - 1.20	Mature Oil
2.38 - 4.50	Severely Altered (SA)	1.20 - 1.50	Mature Oil, Condensate and Wet Gas
$\geq$ 4.50	Metamorphosed	1.50 - 2.00	Condensate ard Wet Gas
		$\geq$ 2.00	Petrogenic Methane Gas

Moderately immature and moderately mature are plotted together on the profile under MM.

Tops are shown by a dashed line (---) with the names indicated. The exact depth of the tops are given in the Introduction. Total well depth is indicated and labeled with appropriate depth.

FIGURE 2 : %R0 MATURITY PROFILE

JOB NUMBER: 3208
WELL NAME: M.R.YOUNG SALTY'S #1

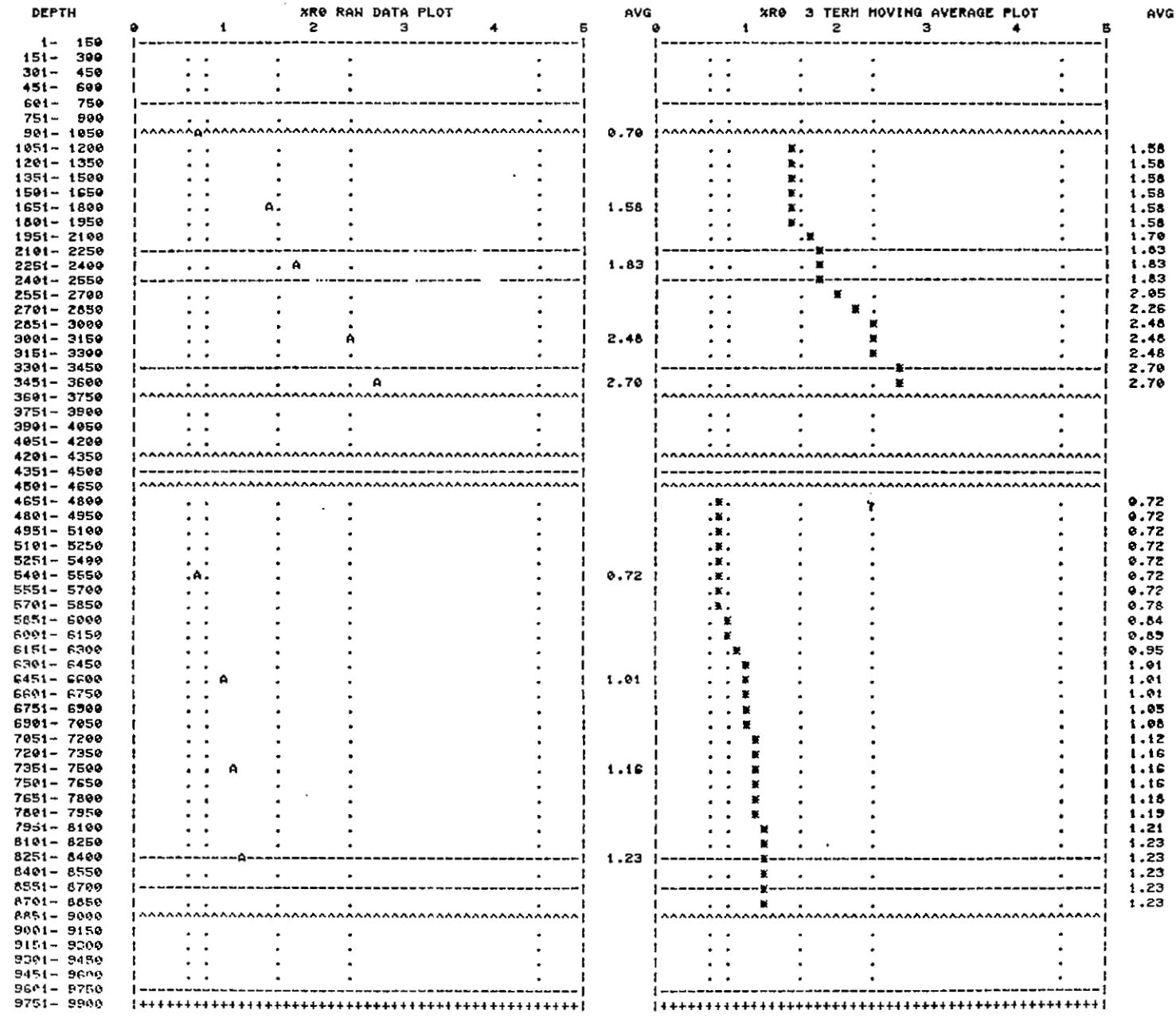


TABLE I-A
AIRSPACE DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-001	130	6.73	0.46	0.73	3.51	0.77	0.04	0.10	8.16
3208-002	160	15.61	2.18	2.16	8.26	2.40	0.14	0.36	7.22
3208-003	190	14.36	4.76	4.23	4.47	2.53	0.24	0.87	6.48
3208-004	220	14.80	4.69	3.68	7.33	1.94	0.26	0.70	3.41
3208-005	250	17.52	6.45	4.04	81.14	2.60	0.45	0.58	9.46
3208-006	280	11.01	2.47	2.08	35.14	1.20	0.36	0.26	5.88
3208-007	310	10.14	3.84	2.08	76.53	0.88	0.46	0.34	4.75
3208-008	340	10.64	3.69	3.06	73.02	1.20	0.23	0.15	5.09
3208-009	370	15.64	15.94	31.27	42.45	3.79	0.32	1.28	8.98
3208-010	400	8.71	2.58	2.78	8.58	0.93	0.12	0.34	1.27
3208-011	430	6.05	1.28	1.20	7.74	0.50	0.07	0.13	1.22
3208-012	460	12.42	2.66	2.26	8.93	1.03	0.15	0.27	3.08
3208-013	490	7.14	1.17	1.19	1.23	0.50	0.05	0.13	2.26
3208-014	520	6.08	0.67	0.83	8.70	0.43	0.10	0.09	2.74
3208-015	550	9.86	1.62	1.89	2.57	1.25	0.08	0.28	2.58
3208-016	580	8.33	0.72	1.20	0.94	0.79	0.06	0.14	4.38
3208-017	610	5.20	0.72	0.85	0.61	0.63	0.03	0.12	1.19
3208-020	700	18.20	0.75	0.82	1.28	0.47	0.32	0.11	4.51
3208-021	730	16.01	0.64	0.63	5.76	0.39	0.24	0.13	2.66
3208-022	760	46.56	3.57	5.62	363.90	3.30	2.12	0.54	21.90
3208-029	970	65.63	1.36	0.25	0.39	0.09	0.11	0.09	15.43
3208-030	1000	68.49	2.16	1.29	3.27	0.63	0.15	0.20	18.65
3208-031	1030	83.11	1.60	0.53	0.42	0.25	0.14	0.14	4.53

TABLE I-A
AIRSPACE DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-032	1040	104.50	3.11	0.46	3.42	0.19	0.69	0.48	3.43
3208-033	1060	50.78	2.32	0.60	4.95	0.29	0.47	0.23	1.12
3208-034	1120	49.08	2.00	0.64	4.46	0.46	0.35	0.29	1.17
3208-035	1150	50.90	2.46	0.75	9.02	0.51	0.45	0.49	0.56
3208-036	1180	8.88	0.78	0.62	3.11	0.42	0.07	0.08	0.85
3208-037	1210	17.54	1.62	0.59	6.22	0.36	0.16	0.14	0.64
3208-038	1240	7.38	1.27	0.74	4.37	0.27	0.06	0.05	0.11
3208-039	1270	8.48	1.34	0.44	4.30	0.15	0.07	0.05	1.02
3208-040	1300	6.59	0.68	0.72	1.48	0.46	0.05	0.09	0.09
3208-041	1330	7.44	0.90	0.96	0.96	0.55	0.05	0.10	0.12
3208-042	1360	7.62	0.62	0.41	8.74	0.27	0.13	0.13	2.36
3208-043	1390	4.82	0.16	0.14	0.33	0.20	0.08	0.03	0.86
3208-044	1410	10.61	0.42	0.64	1.91	0.56	0.04	0.06	0.44
3208-045	1430	13.19	0.50	0.91	2.76	0.65	0.09	0.13	9.62
3208-046	1460	26.90	7.44	1.84	72.88	0.91	0.92	0.68	1.02
3208-047	1490	5.86	0.86	0.57	8.64	0.30	0.10	0.06	0.03
3208-048	1520	6.94	0.67	0.52	0.38	0.31	0.04	0.08	0.16
3208-049	1530	8.09	0.82	0.78	1.00	0.47	0.04	0.09	1.77
3208-050	1560	19.42	2.20	2.29	6.03	1.60	0.14	0.28	0.88
3208-052	1620	11.03	1.20	0.96	7.53	0.49	0.10	0.10	0.10
3208-053	1650	16.37	1.44	1.12	8.86	0.65	0.13	0.14	3.49
3208-055	1710	61.18	1.76	0.81	6.10	0.34	0.17	0.13	0.60
3208-056	1740	112.39	2.35	0.47	4.22	0.17	0.50	0.59	3.70

TABLE I-A
AIRSPACE DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-057	1770	124.11	5.82	0.65	2.15	0.17	0.38	0.45	2.78
3208-058	1800	52.40	2.90	0.77	7.59	0.25	0.25	0.22	0.91
3208-059	1830	83.57	2.39	0.45	1.98	0.15	0.24	0.22	2.26
3208-060	1860	52.99	6.69	11.00	2.78	0.59	0.52	0.57	4.91
3208-061	1890	35.20	1.33	0.68	3.52	0.21	0.54	0.55	1.04
3208-062	1920	107.65	4.98	0.69	17.35	0.14	2.32	1.75	2.85
3208-063	1950	34.99	1.61	0.71	5.84	0.30	0.47	0.43	0.88
3208-064	1980	17.13	0.79	0.33	13.68	0.10	0.30	0.08	0.34
3208-065	2010	24.86	1.98	1.82	18.89	0.67	0.59	0.29	3.77
3208-066	2040	16.22	0.82	0.86	15.93	0.55	0.48	0.16	4.13
3208-067	2070	12.68	1.14	1.15	92.14	0.68	3.08	0.90	3.31
3208-068	2100	13.14	1.02	0.96	14.84	0.54	0.57	0.29	1.84
3208-069	2130	9.11	0.52	0.49	53.50	0.45	1.98	0.33	1.97
3208-070	2160	58.61	1.30	0.99	28.49	0.58	1.28	0.28	2.84
3208-071	2190	44.78	1.11	0.95	0.58	0.49	0.06	0.13	1.72
3208-072	2220	93.01	1.76	1.17	2.85	0.53	0.09	0.13	1.04
3208-073	2250	56.62	2.13	2.10	0.81	0.96	0.15	0.38	7.07
3208-074	2280	80.84	3.47	3.82	1.51	2.34	0.20	0.64	12.43
3208-075	2310	65.42	3.44	3.15	1.12	1.59	0.15	0.26	3.31
3208-076	2340	125.19	5.33	3.35	1.65	1.38	0.17	0.30	2.46
3208-077	2370	221.46	5.65	2.18	1.39	0.67	0.15	0.20	2.57
3208-078	2400	159.48	5.43	0.90	9.28	0.18	0.59	0.58	2.80
3208-079	2430	55.07	2.63	1.91	5.97	0.60	0.86	0.94	6.81

TABLE I-A
AIRSPACE DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-080	2460	104.55	6.70	3.75	44.33	1.33	1.32	1.10	8.08
3208-081	2490	38.16	5.28	3.21	50.50	1.42	1.12	1.07	6.02
3208-082	2520	83.64	5.96	3.72	28.33	1.46	0.49	0.45	5.40
3208-083	2550	130.18	11.30	8.86	61.26	4.27	2.91	5.40	2.55
3208-084	2580	154.07	8.60	7.32	37.89	1.16	0.71	0.69	1.58
3208-085	2610	363.85	5.28	0.97	7.52	0.11	0.86	1.04	0.96
3208-086	2640	283.04	3.98	1.05	12.17	0.28	4.67	5.56	2.87
3208-087	2670	427.26	3.23	0.99	4.31	0.22	1.41	1.94	3.32
3208-088	2700	760.37	7.49	2.74	45.96	0.85	3.37	4.06	7.30
3208-089	2730	275.66	2.22	0.88	2.54	0.17	0.65	0.71	1.03
3208-090	2760	74.81	2.21	1.11	8.92	0.34	1.07	1.06	1.30
3208-091	2790	298.32	5.60	2.85	10.56	0.96	0.68	0.79	2.40
3208-092	2820	568.87	12.50	3.15	30.47	0.87	0.97	0.57	1.52
3208-093	2850	124.55	2.85	1.43	7.78	0.57	1.05	1.37	1.46
3208-094	2880	85.15	1.87	1.08	2.47	0.42	0.51	0.77	1.19
3208-095	2920	251.18	2.98	1.07	7.12	0.31	0.56	0.56	14.69
3208-096	2950	109.58	2.03	0.75	19.66	0.35	0.56	0.50	10.85
3208-097	2980	148.44	8.20	5.50	15.08	1.89	0.63	0.76	2.02
3208-098	3010	139.69	5.97	4.24	12.71	1.21	1.28	1.28	2.18
3208-099	3040	192.42	10.50	8.34	12.73	2.60	0.96	1.34	4.72
3208-100	3070	426.06	18.54	12.76	17.00	4.71	1.11	1.80	6.95
3208-101	3100	123.61	3.46	1.77	46.88	1.08	0.98	0.38	14.99
3208-102	3130	168.52	2.08	1.23	15.93	0.48	0.46	0.21	41.63

TABLE I-A
AIRSPACE DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-103	3160	100.26	3.53	3.08	2.06	1.40	0.53	0.84	4.10
3208-104	3190	91.62	3.33	2.46	5.50	1.01	0.26	0.36	3.40
3208-105	3220	314.68	4.78	3.03	35.91	1.24	0.51	0.51	5.39
3208-106	3250	623.48	7.14	2.59	36.11	0.77	1.37	1.16	5.44
3208-107	3280	948.96	7.12	2.84	45.67	0.83	1.01	0.44	3.80
3208-108	3310	353.51	5.06	3.90	22.56	1.77	0.52	0.43	3.14
3208-109	3340	135.85	5.65	4.98	14.85	2.45	0.52	0.69	3.43
3208-110	3370	397.01	3.80	2.21	6.40	0.75	0.27	0.27	2.03
3208-111	3400	351.40	3.64	1.16	4.22	0.26	0.22	0.17	1.40
3208-112	3430	349.38	6.29	2.35	40.78	0.80	1.26	1.05	2.99
3208-113	3460	415.35	7.78	1.76	82.77	0.63	1.34	0.47	1.42
3208-114	3490	391.82	7.93	1.19	9.03	0.32	1.06	1.03	1.22
3208-115	3520	252.61	7.77	0.98	3.79	0.27	0.28	0.21	1.09
3208-116	3550	128.18	12.66	0.00	9.34	0.17	0.42	0.29	0.75
3208-117	3580	177.48	13.47	0.00	21.05	0.17	1.49	1.18	0.83
3208-118	3610	150.28	7.33	0.89	18.97	0.18	1.31	0.93	0.78
3208-119	3640	79.94	15.13	1.27	23.21	0.42	1.46	1.22	1.06
3208-120	3670	28.43	4.70	1.63	9.57	0.61	0.56	0.54	0.20
3208-121	3700	25.78	2.45	1.12	37.53	0.51	0.62	0.23	0.48
3208-122	3730	28.97	2.64	2.30	16.08	0.95	0.33	0.21	0.14
3208-123	3760	33.64	2.17	1.91	15.65	1.19	0.31	0.27	0.74
3208-125	3820	112.05	2.22	0.89	2.65	0.30	0.56	0.33	1.08

TABLE I-A
AIRSPACE DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-126	3850	147.61	2.64	1.90	3.14	0.76	0.28	0.30	1.05
3208-127	3880	118.63	2.32	1.62	6.40	0.69	0.38	0.35	0.79
3208-128	3910	72.18	5.17	4.68	14.77	1.04	0.56	0.56	0.59
3208-129	3940	179.83	3.01	1.65	3.96	0.61	0.27	0.31	0.19
3208-131	4000	94.15	6.39	10.57	8.76	1.35	0.54	0.46	1.89
3208-132	4030	123.96	3.60	6.59	25.14	1.31	0.64	0.38	2.27
3208-133	4060	148.81	3.02	7.04	54.87	1.82	0.96	0.30	1.71
3208-134	4090	140.44	2.12	4.34	66.78	1.47	0.97	0.27	1.40
3208-135	4120	359.79	3.98	11.16	80.59	2.52	0.84	0.45	1.02
3208-140	4270	63.04	1.71	3.03	2.98	0.94	0.25	0.11	32.24
3208-142	4330	43.99	1.58	3.03	57.15	1.78	0.89	0.17	28.49
3208-143	4360	98.92	1.39	0.87	2.33	0.28	0.22	0.20	10.45
3208-144	4390	342.59	5.57	0.00	4.39	0.41	0.46	0.30	13.35
3208-145	4420	266.19	6.13	0.00	3.17	0.57	0.55	0.43	28.00
3208-146	4450	135.84	3.13	0.00	36.63	0.51	0.74	0.26	11.81
3208-147	4480	150.79	2.57	0.36	52.56	0.69	1.17	0.32	8.18
3208-148	4510	1010.25	91.28	57.55	597.73	13.63	39.43	74.73	148.87
3208-149	4540	130.50	55.85	5.33	367.80	7.82	33.46	86.34	49.87
3208-150	4570	26.63	96.57	0.00	905.20	3.03	59.31	134.19	38.81
3208-151	4600	20.64	104.44	0.00	571.08	1.49	54.76	128.72	39.03
3208-152	4630	27.78	58.50	0.00	362.10	1.10	54.36	142.87	112.99
3208-153	4660	34.08	120.16	0.00	632.15	2.26	63.04	193.53	85.58
3208-154	4690	32.16	35.37	0.00	136.36	0.86	15.02	40.87	29.50

TABLE I-A
AIRSPACE DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-155	4720	29.20	20.66	0.00	95.31	1.04	9.60	27.43	13.28
3208-156	4750	51.64	197.93	0.00	529.24	1.87	43.45	123.08	50.63
3208-157	4780	39.22	137.47	0.00	315.96	1.23	14.72	26.26	22.87
3208-158	4810	42.33	80.11	0.00	320.36	1.58	8.62	5.37	6.67
3208-159	4840	22.47	62.98	0.00	92.96	0.88	3.50	7.89	9.05
3208-160	4870	67.38	288.16	0.00	200.36	0.77	10.77	18.49	2.06
3208-161	4900	46.60	113.25	0.00	106.05	0.93	4.87	13.03	21.77
3208-162	4930	42.92	93.16	0.00	58.41	0.38	3.13	17.16	5.54
3208-163	4960	34.19	79.15	0.00	53.56	0.45	3.09	6.19	4.32
3208-164	4990	63.31	75.88	0.00	42.08	0.59	3.35	5.90	5.00
3208-165	5020	61.02	39.08	0.00	9.12	0.51	2.59	3.10	4.40
3208-166	5050	66.14	65.40	0.00	43.65	0.42	4.40	8.54	4.18
3208-167	5080	80.96	48.59	0.00	43.37	0.56	3.20	4.90	3.26
3208-168	5110	122.14	65.37	0.00	83.19	0.83	4.90	10.94	4.40
3208-169	5140	239.59	59.38	0.00	118.41	0.72	5.26	6.97	3.19
3208-170	5170	256.44	40.51	0.00	76.09	0.99	3.37	4.68	3.92
3208-171	5200	250.52	65.31	0.00	59.09	0.63	4.76	6.30	6.01
3208-172	5230	56.25	48.93	0.00	49.82	0.69	3.38	4.52	1.33
3208-173	5260	96.62	100.95	0.00	94.92	0.24	9.29	12.66	5.61
3208-174	5290	104.94	105.58	0.00	63.71	0.66	11.72	22.80	8.32
3208-175	5320	35.07	44.24	0.00	20.97	0.53	5.06	8.52	16.65
3208-176	5350	56.81	66.58	0.00	21.52	0.42	2.96	3.88	5.03
3208-177	5380	100.30	124.24	0.00	38.94	0.35	1.45	1.73	2.13

TABLE I-A
AIRSPACE DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-178	5410	443.72	1763.69	0.00	2322.14	0.33	261.84	341.63	129.76
3208-179	5440	70.43	211.38	0.00	669.97	0.40	209.02	215.05	510.42
3208-180	5470	229.32	616.68	0.00	1871.26	0.89	253.92	404.84	177.79
3208-181	5500	169.01	38.53	0.00	256.04	0.17	244.46	147.08	1002.80
3208-182	5530	305.18	848.48	0.00	3224.59	2.85	926.57	1546.30	2873.48
3208-183	5560	313.80	986.23	0.00	3246.59	2.07	819.18	1395.15	1770.06
3208-184	5590	43.44	148.06	0.00	428.56	0.45	71.58	115.40	105.01
3208-185	5620	405.26	1172.44	0.00	1683.16	0.58	112.33	174.14	92.75
3208-186	5650	132.21	337.70	0.00	731.96	2.49	166.32	244.45	334.48
3208-187	5680	66.80	368.30	0.00	2894.74	2.91	1269.53	2491.40	3511.72
3208-188	5710	70.12	270.73	0.00	2073.59	2.37	921.39	1665.28	2613.23
3208-189	5740	150.04	534.80	0.00	1988.03	1.83	756.68	1169.49	3726.10
3208-190	5770	117.65	420.40	0.00	1679.04	2.25	634.97	893.55	2064.28
3208-191	5800	139.16	969.27	0.00	5881.17	3.68	1855.42	3730.81	5208.51
3208-192	5830	377.59	2344.20	0.00	13497.53	7.68	4170.48	9531.85	11203.64
3208-193	5860	239.95	1010.75	0.00	5899.97	1.73	2081.12	4556.00	6370.60
3208-194	5890	59.29	72.07	0.00	370.44	0.26	150.15	301.15	592.81
3208-195	5920	134.40	561.58	0.00	2113.44	1.51	508.37	856.82	1433.37
3208-196	5950	99.81	298.54	0.00	1120.84	1.06	421.19	618.06	1305.88
3208-197	5980	133.48	146.06	0.00	574.76	1.78	290.73	479.13	1418.62
3208-198	6010	96.22	46.29	0.00	89.21	0.81	36.58	49.51	189.12
3208-199	6040	43.15	60.87	0.00	396.85	1.06	171.95	320.32	873.18
3208-200	6070	134.44	121.23	0.00	634.81	1.01	260.30	433.88	1072.84

TABLE I-A
AIRSPACE DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-201	6100	125.18	212.58	0.00	934.56	2.31	361.95	577.46	1010.70
3208-202	6130	98.09	260.54	0.00	1134.59	0.80	421.51	689.48	1454.48
3208-203	6160	93.04	222.40	0.00	893.40	1.36	337.67	555.03	1133.41
3208-204	6190	77.19	80.24	0.00	246.60	2.12	90.51	137.77	401.33
3208-205	6220	51.05	124.98	0.00	390.11	0.60	128.12	193.99	456.74
3208-206	6250	58.58	182.27	0.00	695.79	0.91	205.63	318.32	540.81
3208-207	6280	48.14	57.93	0.00	162.04	1.50	45.42	76.16	174.31
3208-208	6310	51.73	46.39	0.00	86.32	1.60	30.07	38.93	166.45
3208-209	6340	51.96	59.33	0.00	159.00	2.93	36.84	62.92	135.74
3208-210	6370	50.01	28.20	0.00	37.80	0.84	8.58	11.97	33.93
3208-211	6400	79.59	48.19	0.00	92.41	3.18	23.58	35.73	111.41
3208-212	6430	44.96	31.80	0.00	25.85	1.51	4.30	4.55	19.38
3208-213	6460	53.42	39.95	0.00	45.41	0.35	15.51	19.98	61.79
3208-214	6490	51.16	58.53	0.00	102.50	0.27	36.33	42.09	121.26
3208-215	6520	83.15	71.93	0.00	99.91	0.31	39.72	36.67	119.03
3208-216	6550	85.07	86.10	0.00	164.44	5.96	45.28	48.21	107.67
3208-217	6580	95.20	233.25	0.00	273.57	1.57	28.88	16.15	19.38
3208-218	6610	97.87	163.13	0.00	205.85	1.84	54.83	44.08	89.43
3208-219	6640	73.10	123.28	0.00	210.18	0.81	58.52	51.00	97.58
3208-220	6670	62.24	248.17	0.00	153.75	1.17	54.21	34.49	48.75
3208-221	6700	63.38	268.17	0.00	398.14	1.82	72.91	50.80	94.80
3208-222	6730	80.45	128.23	0.00	184.15	2.00	38.14	22.59	42.53
3208-223	6760	80.59	128.20	0.00	219.18	4.07	47.71	34.84	62.58

TABLE I-A
AIRSPACE DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-224	6790	174.60	121.62	0.00	160.87	2.33	29.24	18.50	28.82
3208-225	6820	104.82	101.18	0.00	118.23	1.96	21.21	16.36	23.20
3208-226	6850	121.36	161.62	0.00	166.25	1.16	26.18	18.45	20.20
3208-227	6880	105.91	166.14	0.00	175.41	1.15	29.26	18.79	24.82
3208-228	6910	66.70	115.54	0.00	121.08	0.82	21.79	13.28	16.29
3208-229	6940	129.00	63.46	0.00	64.15	0.66	12.70	7.99	10.77
3208-230	6970	213.05	62.42	0.00	28.98	0.22	6.55	4.06	5.51
3208-231	7000	189.23	46.01	0.00	32.86	0.10	4.79	2.79	3.24
3208-232	7030	182.83	58.14	0.00	50.44	0.15	10.53	6.74	7.76
3208-233	7060	358.52	112.23	0.00	68.83	0.69	12.73	11.67	19.03
3208-234	7090	130.66	61.75	0.00	62.69	0.57	13.57	11.33	21.43
3208-235	7120	119.68	65.07	0.00	83.00	0.74	15.53	13.60	22.69
3208-236	7150	111.65	60.15	0.00	56.70	0.20	9.43	7.88	9.82
3208-237	7180	139.82	74.00	0.00	76.60	0.29	11.53	9.52	15.21
3208-238	7210	56.68	22.97	0.00	46.07	0.19	9.53	9.00	19.54
3208-239	7240	76.23	57.14	0.00	98.81	0.59	22.17	20.29	41.17
3208-240	7270	191.51	120.34	0.00	171.73	1.72	34.46	35.30	68.70
3208-241	7300	89.46	50.00	0.00	63.08	0.89	13.86	12.92	27.83
3208-242	7330	65.38	42.73	0.00	78.05	0.81	18.16	21.32	39.72
3208-243	7360	73.42	30.56	0.00	28.12	0.40	5.13	4.13	7.60
3208-244	7390	105.79	64.87	0.00	60.79	1.01	11.99	7.69	12.94
3208-245	7420	47.05	44.55	0.00	91.61	0.67	10.66	11.07	25.61
3208-246	7450	38.32	39.96	0.00	84.32	0.38	16.56	17.50	33.55

TABLE I-A
AIRSPACE DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-247	7480	101.47	49.96	0.00	68.26	0.23	11.24	9.28	20.69
3208-248	7510	52.61	59.14	0.00	89.86	0.26	21.04	15.05	39.26
3208-249	7540	102.17	48.76	0.00	46.80	0.12	12.38	7.77	20.87
3208-250	7570	191.02	39.11	0.00	47.10	0.13	5.38	4.96	8.58
3208-251	7600	262.91	99.45	0.00	113.00	0.19	5.92	4.64	9.77
3208-252	7630	211.86	42.00	0.00	19.62	0.09	2.29	1.43	2.95
3208-253	7660	376.86	44.04	0.00	22.77	0.44	1.49	1.40	2.20
3208-254	7690	358.03	40.90	0.00	26.28	0.23	2.45	2.22	2.87
3208-255	7720	88.48	45.49	0.00	59.75	0.40	5.88	5.08	12.58
3208-256	7750	78.37	53.25	0.00	63.43	0.49	10.18	8.35	20.42
3208-257	7780	64.43	53.33	0.00	74.32	0.30	13.22	11.02	28.42
3208-258	7810	38.60	34.93	0.00	104.16	0.78	14.51	19.60	45.29
3208-259	7840	28.90	17.53	0.00	42.45	0.36	7.85	11.20	24.54
3208-260	7870	43.66	29.48	0.00	53.44	0.41	12.84	13.50	33.66
3208-261	7900	69.21	35.56	0.00	144.04	2.24	16.44	16.96	88.08
3208-262	7930	27.61	12.74	0.00	46.98	0.56	5.86	7.74	19.92
3208-263	7960	23.06	11.90	0.00	36.40	0.37	6.08	8.03	19.55
3208-264	7990	24.52	12.73	0.00	55.69	0.92	5.61	7.06	18.11
3208-265	8020	22.49	9.91	0.00	36.29	0.60	3.18	4.44	10.65
3208-266	8050	73.24	15.57	0.00	77.38	2.09	5.31	10.11	25.73
3208-267	8080	41.06	9.16	0.00	18.05	1.10	2.23	3.79	12.83
3208-268	8110	24.58	11.35	0.00	24.68	0.50	4.57	5.55	27.55
3208-269	8140	12.28	5.65	0.75	13.28	0.77	1.45	2.41	6.77

TABLE I-A
AIRSPACE DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-270	8170	27.62	25.10	0.00	56.40	1.39	12.65	16.45	48.32
3208-271	8200	40.48	19.40	0.00	43.74	1.16	6.64	8.27	30.90
3208-272	8230	29.56	9.66	0.00	27.04	0.87	5.75	7.72	37.46
3208-273	8260	55.72	19.86	0.00	97.94	1.35	19.04	29.35	85.44
3208-274	8290	22.54	6.14	1.88	31.63	0.86	6.30	8.55	42.61
3208-275	8320	37.51	10.27	1.29	38.92	1.18	6.99	11.17	55.08
3208-276	8350	47.96	20.95	0.00	83.06	1.15	17.24	25.39	82.49
3208-277	8380	34.52	5.85	0.00	29.96	0.50	4.50	7.80	31.28
3208-278	8410	31.59	3.17	1.87	44.42	0.70	1.55	2.78	18.33
3208-279	8440	29.57	1.44	0.72	6.29	0.40	0.75	1.34	10.50
3208-280	8470	26.25	2.02	1.12	17.87	0.58	0.43	0.73	13.73
3208-281	8500	24.23	1.15	1.35	10.30	0.73	0.31	0.55	11.38
3208-282	8530	34.42	1.16	1.21	5.82	0.62	0.22	0.54	17.84
3208-283	8560	24.91	0.88	0.88	7.92	0.48	0.21	0.40	10.06
3208-284	8590	154.03	2.65	1.47	7.19	0.67	1.20	2.47	52.83
3208-285	8620	124.86	4.75	0.00	16.16	0.47	0.67	0.90	18.94
3208-286	8650	159.27	7.56	0.00	88.56	0.52	2.05	3.16	24.39
3208-287	8680	209.81	5.39	0.00	20.83	0.30	0.44	0.63	14.59
3208-288	8710	177.38	2.24	1.68	25.50	0.67	0.66	1.18	4.41
3208-289	8740	160.69	6.69	0.00	30.57	0.42	5.24	9.62	27.29
3208-290	8770	172.17	5.01	0.00	18.60	0.39	2.55	4.48	17.28
3208-291	8800	112.26	2.88	1.07	21.15	0.59	2.49	3.84	26.03
3208-292	8830	279.71	9.09	0.00	14.82	0.65	3.72	4.72	25.52

TABLE I-A
AIRSPACE DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-293	8860	379.82	13.69	0.00	21.09	0.74	4.99	4.75	37.40
3208-294	8890	263.73	7.41	0.00	33.85	0.63	2.16	3.03	26.44
3208-295	8920	643.85	14.75	0.00	20.27	0.69	4.39	6.08	32.29
3208-296	8950	394.24	45.31	0.00	119.03	1.05	26.44	40.77	129.45
3208-297	8980	94.67	11.97	1.31	55.50	1.04	9.75	15.51	64.46
3208-298	9010	121.43	19.70	0.00	101.37	0.66	24.43	41.44	118.79
3208-299	9040	101.30	22.63	0.00	111.34	2.40	13.91	13.90	31.32
3208-300	9070	75.11	28.63	0.00	188.63	0.46	19.45	28.47	82.84
3208-301	9100	51.01	13.08	0.00	47.10	0.55	7.98	7.11	35.51
3208-302	9130	40.65	16.04	0.00	101.14	0.74	26.36	30.14	95.27
3208-303	9160	78.54	3.96	1.64	32.11	0.84	4.13	6.00	28.60
3208-304	9190	52.77	12.36	0.00	53.18	0.41	14.49	18.85	58.00
3208-305	9220	61.54	13.06	0.00	34.86	0.33	9.06	11.34	46.72
3208-306	9250	66.34	13.25	0.00	47.14	0.89	5.87	11.25	38.68
3208-307	9280	117.74	9.64	0.00	33.34	0.78	5.84	9.45	33.31
3208-308	9310	102.06	10.88	0.00	34.34	0.61	3.75	5.57	19.28
3208-309	9340	92.57	4.64	0.99	10.98	0.58	2.25	3.22	16.14
3208-310	9370	100.33	5.26	1.24	12.62	0.55	2.08	2.55	11.99
3208-311	9400	136.40	6.95	2.29	24.42	0.91	3.23	4.32	19.21
3208-312	9430	212.57	10.99	0.00	32.52	0.80	6.13	8.24	28.98
3208-313	9460	121.49	7.59	0.73	18.32	0.57	2.70	3.23	11.49
3208-314	9490	73.55	8.42	1.79	34.35	0.82	2.88	4.09	20.34
3208-315	9520	33.99	19.94	5.36	106.50	1.67	11.12	15.13	52.40

TABLE I-A
AIRSPACE DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-316	9550	44.26	32.39	0.00	127.84	0.78	21.14	27.32	88.29
3208-317	9580	51.35	18.87	0.00	47.84	1.08	9.17	14.06	59.48
3208-318	9610	24.80	26.98	0.00	70.18	0.68	14.63	20.36	77.18
3208-319	9640	29.12	28.63	0.00	74.04	0.62	15.55	22.24	59.99
3208-320	9670	38.07	25.58	0.00	73.24	0.57	14.11	21.38	49.35
3208-321	9700	47.71	15.87	0.00	56.70	0.83	7.13	10.20	45.14
3208-322	9730	45.12	16.34	0.00	41.08	1.13	3.95	4.85	21.85
3208-323	9760	21.10	12.86	0.00	34.27	0.87	8.77	13.03	49.05

TABLE II-A
AIRSPACE DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-001	130	10.86	4.13	0.63	4.53	0.42	1.69	38.03
3208-002	160	26.58	10.97	1.01	3.43	0.40	1.49	41.27
3208-003	190	24.71	10.35	1.12	1.76	0.27	1.55	41.89
3208-004	220	27.80	12.99	1.27	3.78	0.37	1.23	46.74
3208-005	250	106.17	88.64	1.59	31.19	0.77	0.20	83.49
3208-006	280	49.26	38.25	1.18	29.21	1.37	0.29	77.64
3208-007	310	91.33	81.18	1.84	86.56	1.34	0.12	88.88
3208-008	340	87.75	77.10	1.20	60.35	1.50	0.13	87.87
3208-009	370	75.65	60.00	0.50	11.18	0.25	0.26	79.31
3208-010	400	20.35	11.64	0.92	9.16	0.36	0.78	57.19
3208-011	430	15.29	9.23	1.06	15.47	0.56	0.67	60.41
3208-012	460	24.45	12.03	1.17	8.67	0.57	1.07	49.20
3208-013	490	9.74	2.60	0.98	2.44	0.44	2.96	26.71
3208-014	520	15.65	9.56	0.80	19.77	1.14	0.64	61.12
3208-015	550	14.44	4.57	0.85	2.05	0.31	2.34	31.68
3208-016	580	10.20	1.87	0.59	1.18	0.43	5.01	18.34
3208-017	610	6.70	1.49	0.83	0.98	0.30	3.88	22.38
3208-020	700	20.68	2.47	0.90	2.72	2.90	8.93	11.97
3208-021	730	22.80	6.79	1.00	14.48	1.75	2.49	29.77
3208-022	760	416.72	370.16	0.63	110.03	3.91	0.12	88.82
3208-029	970	67.60	1.97	5.27	4.21	1.11	37.26	2.91
3208-030	1000	74.29	5.79	1.66	5.12	0.74	12.59	7.80
3208-031	1030	85.43	2.32	3.02	1.66	1.00	40.84	2.71

TABLE II-A
AIRSPACE DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-032	1040	112.22	7.71	6.63	17.24	1.41	15.98	6.87
3208-033	1060	58.77	7.98	3.85	17.04	2.06	6.98	13.58
3208-034	1120	56.19	7.11	3.09	9.50	1.23	7.59	12.65
3208-035	1150	63.35	12.44	3.26	17.38	0.90	4.42	19.65
3208-036	1180	12.94	4.06	1.24	7.39	0.93	2.27	31.36
3208-037	1210	25.70	8.16	2.71	17.29	1.16	2.23	31.75
3208-038	1240	13.15	5.77	1.70	16.15	1.07	1.30	43.87
3208-039	1270	14.27	5.79	3.02	28.67	1.34	1.50	40.56
3208-040	1300	8.92	2.32	0.93	3.21	0.58	3.04	26.05
3208-041	1330	9.46	2.02	0.94	1.73	0.49	3.98	21.40
3208-042	1360	17.26	9.64	1.50	32.02	0.94	0.81	55.84
3208-043	1390	5.44	0.61	1.17	1.62	2.77	9.67	11.26
3208-044	1410	13.06	2.45	0.65	3.37	0.72	4.53	18.75
3208-045	1430	16.70	3.50	0.55	4.25	0.72	4.02	21.01
3208-046	1460	108.84	81.94	4.02	79.86	1.35	0.33	75.28
3208-047	1490	15.53	9.67	1.50	28.77	1.69	0.61	62.26
3208-048	1520	8.13	1.18	1.29	1.23	0.50	6.54	14.59
3208-049	1530	10.06	1.96	1.04	2.10	0.47	4.43	19.53
3208-050	1560	28.10	8.67	0.96	3.76	0.48	2.35	30.85
3208-052	1620	19.97	8.94	1.24	15.34	1.01	1.26	44.78
3208-053	1650	26.96	10.59	1.27	13.58	0.89	1.58	39.27
3208-055	1710	69.35	8.17	2.15	17.68	1.28	7.77	11.78
3208-056	1740	120.07	7.68	4.98	24.22	0.85	17.08	6.40

TABLE II-A
AIRSPACE DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-080	2460	158.01	53.46	1.78	33.13	1.19	2.04	33.83
3208-081	2490	96.14	57.98	1.64	35.49	1.04	0.68	60.30
3208-082	2520	118.88	35.24	1.59	19.40	1.07	2.43	29.64
3208-083	2550	211.07	80.88	1.27	14.33	0.53	1.79	38.32
3208-084	2580	201.98	47.91	1.17	32.54	1.03	3.31	23.72
3208-085	2610	378.56	14.70	5.41	66.83	0.82	28.41	3.88
3208-086	2640	309.44	26.39	3.79	43.21	0.84	17.51	8.52
3208-087	2670	438.18	10.91	3.24	19.45	0.72	56.57	2.49
3208-088	2700	821.28	60.91	2.73	53.46	0.83	14.22	7.41
3208-089	2730	281.80	6.14	2.51	14.14	0.92	57.78	2.17
3208-090	2760	88.09	13.27	1.98	25.66	1.00	6.71	15.07
3208-091	2790	315.96	17.64	1.96	10.97	0.86	18.45	5.58
3208-092	2820	613.39	44.52	3.96	34.69	1.70	13.23	7.25
3208-093	2850	137.62	13.07	1.99	13.55	0.76	11.70	9.49
3208-094	2880	90.80	5.64	1.74	5.80	0.66	19.55	6.22
3208-095	2920	262.42	11.23	2.77	22.27	1.01	24.86	4.28
3208-096	2950	132.35	22.77	2.70	55.01	1.10	5.04	17.20
3208-097	2980	173.12	24.68	1.48	7.95	0.82	6.37	14.25
3208-098	3010	160.94	21.24	1.40	10.42	1.00	7.47	13.20
3208-099	3040	217.97	25.54	1.25	4.88	0.71	8.28	11.72
3208-100	3070	464.53	38.47	1.45	3.60	0.61	11.98	8.28
3208-101	3100	175.33	51.71	1.95	43.29	2.59	2.45	29.49
3208-102	3130	187.23	18.70	1.68	32.95	2.14	9.35	9.99

TABLE II-A
AIRSPACE DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-057	1770	132.93	8.82	8.84	12.29	0.84	15.54	6.63
3208-058	1800	63.37	10.96	3.74	30.02	1.15	4.99	17.30
3208-059	1830	88.43	4.85	5.27	13.17	1.06	19.04	5.49
3208-060	1860	63.58	10.59	0.60	4.72	0.91	5.58	16.65
3208-061	1890	41.16	5.96	1.96	16.58	0.99	7.23	14.49
3208-062	1920	134.07	26.42	7.14	121.61	1.31	4.81	19.70
3208-063	1950	43.36	8.37	2.27	19.24	1.10	4.68	19.31
3208-064	1980	31.99	14.86	2.34	128.85	3.62	1.18	46.46
3208-065	2010	46.63	21.77	1.08	27.82	2.01	1.19	46.67
3208-066	2040	33.63	17.40	0.95	28.61	2.92	0.96	51.74
3208-067	2070	109.96	97.27	0.99	134.25	3.39	0.13	88.46
3208-068	2100	29.88	16.73	1.06	27.22	1.93	0.82	56.01
3208-069	2130	65.46	56.35	1.05	116.41	5.84	0.16	86.08
3208-070	2160	89.98	31.37	1.30	48.82	4.50	1.96	34.86
3208-071	2190	46.68	1.90	1.16	1.18	0.50	26.32	4.07
3208-072	2220	97.85	4.84	1.50	5.31	0.69	20.13	4.95
3208-073	2250	60.11	3.48	1.01	0.84	0.39	19.22	5.79
3208-074	2280	86.67	5.82	0.90	0.64	0.31	16.21	6.72
3208-075	2310	70.40	4.98	1.09	0.70	0.57	14.30	7.08
3208-076	2340	132.65	7.46	1.59	1.19	0.57	17.90	5.62
3208-077	2370	228.88	7.41	2.59	2.06	0.75	31.41	3.23
3208-078	2400	175.39	15.91	6.03	49.96	1.02	10.82	9.07
3208-079	2430	65.48	10.41	1.37	9.79	0.90	6.39	15.90

TABLE II-A
AIRSPACE DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-103	3160	107.25	6.98	1.14	1.46	0.63	17.89	6.51
3208-104	3190	101.08	9.46	1.35	5.44	0.72	10.36	9.36
3208-105	3220	356.40	41.72	1.57	28.82	0.99	7.73	11.70
3208-106	3250	669.29	45.80	2.75	46.76	1.18	14.40	6.84
3208-107	3280	1003.23	54.26	2.50	54.60	2.28	17.97	5.40
3208-108	3310	382.11	28.59	1.29	12.68	1.20	12.79	7.48
3208-109	3340	157.59	21.74	1.13	6.04	0.75	6.62	13.79
3208-110	3370	407.76	10.75	1.71	8.50	1.01	38.90	2.63
3208-111	3400	359.67	8.27	3.13	16.08	1.23	44.65	2.29
3208-112	3430	398.78	49.39	2.67	50.65	1.19	7.42	12.38
3208-113	3460	507.73	92.37	4.41	129.57	2.82	4.58	18.19
3208-114	3490	410.89	19.06	6.64	28.13	1.03	23.09	4.63
3208-115	3520	264.69	12.07	7.85	13.58	1.33	21.82	4.56
3208-116	3550	150.90	22.72	-	53.70	1.43	5.82	15.05
3208-117	3580	214.68	37.20	-	120.78	1.26	5.14	17.33
3208-118	3610	178.84	28.55	8.15	101.54	1.40	5.71	15.96
3208-119	3640	120.98	41.03	11.85	54.19	1.20	2.08	33.91
3208-120	3670	43.81	15.38	2.87	15.67	1.04	1.99	35.10
3208-121	3700	66.64	40.85	2.17	72.24	2.64	0.64	61.30
3208-122	3730	48.25	19.27	1.14	16.77	1.56	1.54	39.95
3208-123	3760	52.06	18.41	1.13	13.13	1.15	1.88	35.37
3208-125	3820	117.84	5.78	2.50	8.85	1.65	22.93	4.90

TABLE II-A
AIRSPACE DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-126	3850	153.99	6.38	1.38	4.12	0.93	25.52	4.14
3208-127	3880	128.09	9.46	1.43	9.20	1.08	13.58	7.38
3208-128	3910	93.26	21.07	1.10	14.13	1.00	3.61	22.60
3208-129	3940	187.41	7.58	1.82	6.46	0.87	25.73	4.04
3208-131	4000	110.31	16.16	0.60	6.45	1.17	6.21	14.65
3208-132	4030	153.74	29.77	0.54	19.14	1.70	4.31	19.36
3208-133	4060	207.98	59.17	0.42	30.06	3.12	2.57	28.44
3208-134	4090	210.59	70.15	0.48	45.13	3.48	2.03	33.31
3208-135	4120	445.66	85.87	0.35	31.92	1.84	4.25	19.26
3208-140	4270	68.11	5.06	0.56	3.14	2.31	13.42	7.43
3208-142	4330	103.80	59.81	0.52	32.03	4.98	0.74	57.61
3208-143	4360	103.07	4.15	1.59	8.10	1.12	26.54	4.03
3208-144	4390	353.34	10.74	-	10.59	1.50	34.33	3.04
3208-145	4420	276.49	10.29	-	5.50	1.28	28.60	3.72
3208-146	4450	176.62	40.77	-	70.78	2.83	3.41	23.08
3208-147	4480	207.43	56.64	7.04	75.50	3.60	2.73	27.30
3208-148	4510	1813.45	803.19	1.58	43.84	0.52	1.46	44.29
3208-149	4540	673.96	543.46	10.46	46.99	0.38	0.30	80.63
3208-150	4570	1221.91	1195.28	-	298.48	0.44	0.02	97.82
3208-151	4600	879.66	859.01	-	382.10	0.42	0.03	97.65
3208-152	4630	645.62	617.83	-	326.43	0.38	0.06	95.69
3208-153	4660	1042.99	1008.90	-	279.45	0.32	0.04	96.73
3208-154	4690	259.80	227.63	-	158.34	0.36	0.18	87.61

TABLE II-A
AIRSPACE DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-155	4720	182.23	153.02	-	90.89	0.35	0.25	83.97
3208-156	4750	945.36	893.72	-	281.79	0.35	0.07	94.53
3208-157	4780	533.66	494.44	-	255.10	0.56	0.08	92.65
3208-158	4810	456.80	414.47	-	202.40	1.60	0.10	90.73
3208-159	4840	189.82	167.34	-	104.78	0.44	0.14	88.15
3208-160	4870	585.19	517.80	-	259.30	0.58	0.13	88.48
3208-161	4900	283.82	237.22	-	113.40	0.37	0.21	83.58
3208-162	4930	214.80	171.88	-	152.04	0.18	0.28	80.01
3208-163	4960	176.20	142.01	-	118.25	0.50	0.25	80.59
3208-164	4990	190.54	127.22	-	70.85	0.56	0.53	66.77
3208-165	5020	114.95	53.92	-	17.72	0.83	1.26	46.90
3208-166	5050	188.15	122.01	-	103.43	0.51	0.60	64.84
3208-167	5080	181.04	100.08	-	76.55	0.65	0.88	55.27
3208-168	5110	286.56	164.41	-	99.98	0.44	0.82	57.37
3208-169	5140	429.63	190.04	-	162.24	0.75	1.34	44.23
3208-170	5170	381.11	124.67	-	76.33	0.72	2.19	32.71
3208-171	5200	386.00	135.48	-	93.35	0.75	2.01	35.09
3208-172	5230	162.92	106.67	-	72.00	0.74	0.56	65.47
3208-173	5260	314.46	217.83	-	392.10	0.73	0.49	69.27
3208-174	5290	308.77	203.83	-	96.06	0.51	0.61	66.01
3208-175	5320	113.90	78.82	-	39.44	0.59	0.53	69.20
3208-176	5350	151.77	94.95	-	50.17	0.76	0.64	62.56
3208-177	5380	266.66	166.36	-	109.85	0.83	0.61	62.38

TABLE II-A
AIRSPACE DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-178	5410	5133.04	4689.31	-	6931.54	0.76	0.10	91.35
3208-179	5440	1375.87	1305.43	-	1652.45	0.97	0.07	94.88
3208-180	5470	3376.04	3146.71	-	2097.45	0.62	0.09	93.20
3208-181	5500	855.13	686.12	-	1504.34	1.66	0.57	80.23
3208-182	5530	6851.14	6545.95	-	1130.69	0.59	0.07	95.54
3208-183	5560	6760.97	6447.17	-	1568.25	0.58	0.07	95.35
3208-184	5590	807.06	763.61	-	938.12	0.62	0.07	94.61
3208-185	5620	3547.36	3142.09	-	2891.13	0.64	0.14	88.57
3208-186	5650	1612.66	1480.45	-	293.75	0.68	0.12	91.80
3208-187	5680	7090.78	7023.98	-	993.46	0.50	0.02	99.05
3208-188	5710	5001.14	4931.02	-	874.56	0.55	0.02	98.59
3208-189	5740	4599.06	4449.01	-	1083.48	0.64	0.05	96.73
3208-190	5770	3745.63	3627.98	-	744.35	0.71	0.05	96.85
3208-191	5800	12575.84	12436.68	-	1595.90	0.49	0.02	98.89
3208-192	5830	29921.68	29544.08	-	1756.88	0.43	0.02	98.73
3208-193	5860	13787.81	13547.85	-	3396.17	0.45	0.03	98.25
3208-194	5890	953.13	893.83	-	1379.52	0.49	0.13	93.77
3208-195	5920	4174.63	4040.23	-	1392.45	0.59	0.05	96.78
3208-196	5950	2558.46	2458.65	-	1052.57	0.68	0.07	96.09
3208-197	5980	1624.19	1490.70	-	321.47	0.60	0.18	91.78
3208-198	6010	317.85	221.62	-	109.60	0.73	0.71	69.72
3208-199	6040	993.16	950.00	-	372.67	0.53	0.09	95.65
3208-200	6070	1584.68	1450.24	-	625.43	0.59	0.17	91.51

TABLE II-A
AIRSPACE DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-201	6100	2211.76	2086.57	-	404.15	0.62	0.10	94.33
3208-202	6130	2604.23	2506.13	-	1409.79	0.61	0.07	96.23
3208-203	6160	2101.56	2008.52	-	652.23	0.60	0.08	95.57
3208-204	6190	632.33	555.14	-	116.31	0.65	0.23	87.79
3208-205	6220	888.27	837.22	-	644.04	0.66	0.09	94.25
3208-206	6250	1460.62	1402.03	-	759.15	0.64	0.06	95.98
3208-207	6280	389.71	341.57	-	107.88	0.59	0.21	87.64
3208-208	6310	253.47	201.73	-	53.88	0.77	0.38	79.58
3208-209	6340	370.08	318.11	-	54.19	0.58	0.23	85.95
3208-210	6370	136.59	86.57	-	44.65	0.71	0.75	63.38
3208-211	6400	279.51	199.92	-	28.97	0.65	0.56	71.52
3208-212	6430	111.49	66.52	-	17.10	0.94	0.77	59.67
3208-213	6460	174.30	120.87	-	128.80	0.77	0.62	69.34
3208-214	6490	290.64	239.47	-	367.28	0.86	0.31	82.39
3208-215	6520	331.40	248.24	-	321.70	1.08	0.48	74.90
3208-216	6550	429.11	344.04	-	27.54	0.93	0.33	80.17
3208-217	6580	647.07	551.86	-	173.53	1.78	0.18	85.28
3208-218	6610	565.78	467.90	-	111.71	1.24	0.26	82.70
3208-219	6640	516.10	443.00	-	257.17	1.14	0.21	85.83
3208-220	6670	552.88	490.64	-	130.50	1.57	0.15	88.74
3208-221	6700	853.42	790.04	-	217.79	1.43	0.09	92.57
3208-222	6730	453.58	373.13	-	91.77	1.68	0.25	82.26
3208-223	6760	510.54	429.94	-	53.85	1.36	0.23	84.21

TABLE II-A
AIRSPACE DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-224	6790	504.87	330.26	-	68.93	1.58	0.61	65.41
3208-225	6820	361.81	256.99	-	60.12	1.29	0.47	71.02
3208-226	6850	493.88	372.51	-	142.52	1.41	0.37	75.42
3208-227	6880	495.53	389.62	-	151.81	1.55	0.31	78.62
3208-228	6910	338.42	271.71	-	147.44	1.64	0.28	80.28
3208-229	6940	277.33	148.32	-	96.31	1.59	1.01	53.48
3208-230	6970	315.08	102.03	-	127.64	1.61	2.33	32.38
3208-231	7000	275.69	86.45	-	328.17	1.71	2.39	31.36
3208-232	7030	308.70	125.86	-	318.58	1.56	1.68	40.77
3208-233	7060	564.00	205.47	-	99.13	1.09	1.98	36.43
3208-234	7090	280.01	149.35	-	109.85	1.19	1.04	53.33
3208-235	7120	296.91	177.23	-	111.26	1.14	0.80	59.69
3208-236	7150	245.84	134.19	-	270.61	1.19	0.95	54.58
3208-237	7180	311.48	171.66	-	261.03	1.21	0.92	55.11
3208-238	7210	144.26	87.58	-	238.46	1.05	0.82	60.70
3208-239	7240	274.66	198.42	-	165.78	1.09	0.48	72.24
3208-240	7270	553.36	361.85	-	99.69	0.97	0.65	65.39
3208-241	7300	229.34	139.87	-	70.86	1.07	0.79	60.99
3208-242	7330	225.66	160.27	-	95.53	0.85	0.54	71.02
3208-243	7360	141.37	67.95	-	70.27	1.24	1.25	48.06
3208-244	7390	251.13	145.34	-	59.63	1.55	0.84	57.87
3208-245	7420	204.96	157.90	-	136.21	0.96	0.34	77.04
3208-246	7450	196.68	158.36	-	218.98	0.94	0.30	80.51

TABLE II-A
AIRSPACE DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-247	7480	240.23	138.75	-	292.28	1.21	0.85	57.75
3208-248	7510	237.71	185.10	-	336.17	1.39	0.35	77.86
3208-249	7540	217.90	115.72	-	375.42	1.59	1.06	53.11
3208-250	7570	287.60	96.57	-	353.94	1.08	2.21	33.57
3208-251	7600	485.94	223.02	-	585.10	1.27	1.23	45.89
3208-252	7630	277.22	65.35	-	200.67	1.60	3.43	23.57
3208-253	7660	446.59	69.72	-	50.65	1.06	5.64	15.61
3208-254	7690	429.90	71.87	-	113.35	1.10	5.32	16.71
3208-255	7720	204.71	116.22	-	146.47	1.15	0.84	56.77
3208-256	7750	213.60	135.23	-	127.55	1.21	0.67	63.31
3208-257	7780	216.34	151.90	-	247.45	1.19	0.50	70.21
3208-258	7810	211.82	173.21	-	132.79	0.74	0.27	81.77
3208-259	7840	107.95	79.05	-	114.76	0.70	0.48	73.22
3208-260	7870	152.94	109.28	-	129.41	0.95	0.52	71.45
3208-261	7900	282.23	213.02	-	64.08	0.96	0.38	75.47
3208-262	7930	100.95	73.34	-	83.82	0.75	0.46	72.64
3208-263	7960	85.48	62.42	-	96.31	0.75	0.47	73.01
3208-264	7990	105.63	81.11	-	60.37	0.79	0.35	76.78
3208-265	8020	76.33	53.83	-	60.44	0.71	0.48	70.52
3208-266	8050	182.73	109.48	-	36.86	0.52	0.77	59.91
3208-267	8080	74.31	33.24	-	16.36	0.58	1.50	44.74
3208-268	8110	70.74	46.16	-	48.50	0.82	0.68	65.24
3208-269	8140	35.09	22.81	7.52	17.16	0.60	0.64	64.99

TA[redacted]I-A
AIRSPACE DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-270	8170	138.24	110.62	-	40.47	0.76	0.33	80.01
3208-271	8200	118.55	78.07	-	37.41	0.80	0.64	65.85
3208-272	8230	79.75	50.19	-	30.85	0.74	0.80	62.93
3208-273	8260	221.93	166.20	-	72.24	0.64	0.47	74.89
3208-274	8290	75.18	52.63	3.25	36.59	0.73	0.59	70.01
3208-275	8320	104.88	67.37	7.90	32.98	0.62	0.76	64.23
3208-276	8350	194.62	146.65	-	72.20	0.67	0.46	75.35
3208-277	8380	82.65	48.12	-	59.19	0.57	0.96	58.22
3208-278	8410	83.53	51.93	1.69	63.44	0.55	0.66	62.17
3208-279	8440	39.41	9.83	1.97	15.55	0.56	3.82	24.96
3208-280	8470	47.32	21.07	1.80	30.81	0.58	1.31	44.52
3208-281	8500	36.57	12.33	0.85	13.95	0.56	2.11	33.72
3208-282	8530	42.19	7.76	0.95	9.36	0.41	4.92	18.41
3208-283	8560	34.35	9.43	1.00	16.35	0.52	2.82	27.46
3208-284	8590	167.56	13.53	1.79	10.63	0.48	15.63	8.07
3208-285	8620	147.37	22.50	-	34.28	0.73	5.96	15.27
3208-286	8650	260.61	101.34	-	167.82	0.64	1.65	38.88
3208-287	8680	237.13	27.31	-	68.03	0.69	7.99	11.51
3208-288	8710	206.98	29.59	1.32	37.98	0.56	6.39	14.29
3208-289	8740	212.84	52.14	-	72.03	0.54	4.31	24.50
3208-290	8770	202.83	30.66	-	47.38	0.56	7.29	15.11
3208-291	8800	142.63	30.37	2.68	35.28	0.64	4.67	21.29
3208-292	8830	312.07	32.36	-	22.46	0.78	11.69	10.37

TABLE II-A
AIRSPACE DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-293	8860	424.34	44.52	-	28.50	1.05	10.92	10.49
3208-294	8890	310.18	46.45	-	53.73	0.71	6.39	14.97
3208-295	8920	689.34	45.49	-	29.37	0.72	18.38	6.59
3208-296	8950	625.81	231.56	-	112.69	0.64	2.39	37.00
3208-297	8980	187.42	92.74	9.12	53.08	0.62	1.40	49.48
3208-298	9010	308.39	186.95	-	151.47	0.58	1.00	60.62
3208-299	9040	263.10	161.79	-	46.37	1.00	0.75	61.49
3208-300	9070	340.32	265.20	-	405.65	0.68	0.34	77.92
3208-301	9100	126.30	75.29	-	84.22	1.12	0.84	59.61
3208-302	9130	214.35	173.70	-	136.29	0.87	0.34	81.03
3208-303	9160	124.76	46.22	2.41	37.93	0.68	2.17	37.04
3208-304	9190	151.67	98.90	-	129.51	0.76	0.80	65.20
3208-305	9220	129.89	68.34	-	103.84	0.79	1.28	52.61
3208-306	9250	143.87	77.52	-	52.45	0.52	1.09	53.88
3208-307	9280	176.02	58.28	-	42.74	0.61	2.73	33.11
3208-308	9310	156.63	54.56	-	56.14	0.67	2.25	34.83
3208-309	9340	113.68	21.11	4.68	18.65	0.69	5.92	18.56
3208-310	9370	122.86	22.52	4.21	22.74	0.81	5.60	18.33
3208-311	9400	175.34	38.94	3.03	26.65	0.74	4.34	22.20
3208-312	9430	270.47	57.90	-	40.39	0.74	4.88	21.40
3208-313	9460	153.36	31.86	10.37	31.64	0.83	4.68	20.77
3208-314	9490	123.32	49.76	4.68	41.82	0.70	1.71	40.35
3208-315	9520	186.70	152.70	3.71	63.41	0.73	0.26	81.79

TABLE II-A
AIRSPACE DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-316	9550	252.97	208.71	-	162.89	0.77	0.27	82.50
3208-317	9580	141.31	89.95	-	44.20	0.65	0.76	63.65
3208-318	9610	156.98	132.17	-	102.06	0.71	0.25	84.19
3208-319	9640	169.61	140.48	-	119.04	0.69	0.28	82.82
3208-320	9670	172.40	134.33	-	126.83	0.66	0.38	77.91
3208-321	9700	137.63	89.91	-	67.99	0.69	0.65	65.32
3208-322	9730	111.35	66.23	-	36.22	0.81	0.78	59.47
3208-323	9760	90.05	68.94	-	39.00	0.67	0.44	76.55

TABLE I-B
CUTTINGS DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-001	130	1140.60	0.00	0.00	0.86	0.19	0.08	0.43	13.18
3208-002	160	1058.34	0.00	0.00	0.61	0.23	0.08	0.24	8.91
3208-003	190	1091.31	0.00	0.00	0.41	0.14	0.06	0.16	5.86
3208-004	220	1046.77	0.00	0.00	0.33	0.05	0.06	0.12	4.82
3208-005	250	170.18	0.00	0.54	0.87	0.13	0.03	0.17	4.52
3208-006	280	146.03	0.00	0.39	0.31	0.04	0.02	0.08	3.37
3208-007	310	119.18	0.00	0.28	0.34	0.01	0.02	0.06	3.15
3208-008	340	1305.03	0.00	0.00	0.87	0.00	0.01	0.04	2.84
3208-009	370	1317.42	0.00	0.00	0.13	0.03	0.01	0.05	4.46
3208-010	400	1265.02	0.00	0.00	0.14	0.04	0.01	0.05	3.26
3208-011	430	1223.15	0.00	0.00	0.09	0.01	0.01	0.02	2.84
3208-012	460	1238.84	0.00	0.00	0.13	0.02	0.01	0.04	2.64
3208-013	490	1241.33	0.00	0.00	0.06	0.02	0.00	0.03	2.80
3208-014	520	1292.90	0.00	0.00	0.10	0.00	0.01	0.03	2.80
3208-015	550	1076.38	0.00	0.00	0.06	0.01	0.01	0.03	2.42
3208-016	580	1307.43	0.00	0.00	0.05	0.01	0.01	0.02	2.84
3208-017	610	1077.04	0.00	0.00	0.04	0.01	0.00	0.02	2.33
3208-020	700	1341.83	0.00	0.00	1.34	0.11	0.20	0.24	3.34
3208-021	730	1423.80	0.00	0.00	2.07	0.14	0.38	0.43	3.87
3208-022	760	1523.72	0.00	0.00	2.20	0.12	0.37	0.42	3.18
3208-029	970	3573.91	53.19	0.00	7.56	0.00	1.33	1.32	7.37
3208-030	1000	5699.10	150.01	0.00	29.45	0.00	4.90	5.92	13.41
3208-031	1030	2412.53	23.52	0.00	2.29	0.00	0.26	0.22	2.36

TABLE I-B
CUTTINGS DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-032	1040	6959.03	150.02	0.00	22.68	0.00	3.56	2.93	2.87
3208-033	1060	2568.20	37.03	0.00	6.89	0.00	1.50	1.36	2.15
3208-034	1120	3707.51	69.82	0.00	11.90	0.00	2.20	2.17	2.81
3208-035	1150	6373.93	141.51	0.00	25.71	0.00	4.03	3.97	3.46
3208-036	1180	1592.61	15.22	0.00	2.42	0.02	0.46	0.48	0.69
3208-037	1210	2233.07	33.07	0.00	5.73	0.00	1.01	0.87	0.72
3208-038	1240	1658.77	19.62	0.00	4.02	0.19	0.57	0.37	0.38
3208-039	1270	1799.93	18.54	0.00	4.76	0.15	0.55	0.34	0.25
3208-040	1300	1217.07	0.00	0.00	0.32	0.01	0.07	0.12	0.98
3208-041	1330	1107.66	0.00	0.00	0.29	0.01	0.06	0.10	0.74
3208-042	1360	1808.06	0.00	0.00	2.66	0.10	0.41	0.51	2.98
3208-043	1390	1365.65	0.00	0.00	0.48	0.01	0.14	0.13	2.04
3208-044	1410	1198.12	0.00	0.00	1.30	0.00	0.24	0.28	2.41
3208-045	1430	1181.91	0.00	0.00	1.28	0.10	0.24	0.34	4.81
3208-046	1460	2035.11	43.03	0.00	9.96	0.16	1.34	0.93	0.95
3208-047	1490	1286.60	0.00	0.00	1.94	0.11	0.16	0.22	0.19
3208-048	1520	1616.91	0.00	0.00	0.55	0.08	0.06	0.17	1.14
3208-049	1530	1458.52	0.00	0.00	0.33	0.02	0.05	0.10	1.24
3208-050	1560	1704.18	0.00	0.00	1.99	0.19	0.23	0.30	1.22
3208-052	1620	1496.26	0.00	0.00	1.96	0.18	0.15	0.19	0.24
3208-053	1650	1627.16	0.00	0.00	2.00	0.18	0.14	0.17	0.31
3208-055	1710	1694.57	0.00	0.00	2.46	0.18	0.22	0.27	1.26
3208-056	1740	1930.46	0.00	0.00	2.62	0.15	0.97	1.47	0.80

TABLE I-B
CUTTINGS DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-057	1770	2024.47	0.00	0.00	2.51	0.14	0.57	0.56	1.17
3208-058	1800	2270.86	0.00	0.00	3.86	0.20	0.48	0.49	1.92
3208-059	1830	2248.37	8.64	0.00	3.10	0.18	0.61	0.33	0.77
3208-060	1860	1420.04	12.43	0.00	2.16	0.16	0.48	0.53	1.24
3208-061	1890	1221.51	4.48	0.00	2.20	0.13	0.53	0.81	1.57
3208-062	1920	1634.98	6.92	0.00	4.28	0.13	1.52	1.02	1.44
3208-063	1950	1588.17	0.00	0.00	2.60	0.19	0.49	0.79	1.68
3208-064	1980	1460.54	0.00	0.00	2.70	0.16	0.20	0.23	0.71
3208-065	2010	1347.52	0.00	0.00	1.98	0.08	0.17	0.22	0.76
3208-066	2040	1471.48	0.00	0.00	1.77	0.15	0.18	0.28	0.70
3208-067	2070	1332.71	0.00	0.00	4.03	0.20	0.19	0.29	0.72
3208-068	2100	1180.72	0.00	0.00	1.50	0.16	0.18	0.34	0.88
3208-069	2130	1169.89	0.00	0.00	3.10	0.13	0.15	0.16	0.36
3208-070	2160	1897.05	0.00	0.00	2.63	0.23	0.25	0.30	5.62
3208-071	2190	1584.67	0.00	0.00	1.24	0.19	0.12	0.18	0.91
3208-072	2220	1841.31	0.00	0.00	1.96	0.24	0.21	0.25	0.73
3208-073	2250	1759.46	0.00	0.00	1.71	0.19	0.20	0.24	0.90
3208-074	2280	1459.88	0.00	0.00	1.59	0.17	0.19	0.26	1.06
3208-075	2310	2021.84	0.00	0.00	2.49	0.42	0.25	0.36	0.71
3208-076	2340	2322.91	0.00	0.00	3.38	0.45	0.41	0.44	0.97
3208-077	2370	3536.52	34.89	0.00	5.68	0.48	0.81	0.42	0.43
3208-078	2400	3172.00	28.93	0.00	7.38	0.32	1.23	1.37	3.66
3208-079	2430	2226.82	0.00	0.00	3.23	0.33	0.65	1.12	3.75

TABLE I-B
CUTTINGS DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-080	2460	2359.80	10.48	0.00	5.98	0.48	0.88	1.43	6.51
3208-081	2490	1670.68	0.00	0.00	3.13	0.35	0.42	0.93	3.67
3208-082	2520	2226.87	21.25	0.00	6.57	0.42	0.77	0.68	1.11
3208-083	2550	2385.73	21.63	0.00	6.31	0.37	0.79	0.58	0.83
3208-084	2580	2986.05	23.56	0.00	7.22	0.42	0.85	1.00	2.25
3208-085	2610	4564.59	36.83	0.00	8.66	0.26	2.02	1.33	0.39
3208-086	2640	3914.57	0.00	0.00	12.00	0.33	5.59	3.85	1.19
3208-087	2670	5190.34	0.00	0.00	9.18	0.43	5.17	3.88	2.67
3208-088	2700	6344.84	0.00	0.00	9.17	0.51	2.74	2.76	2.59
3208-089	2730	3144.17	0.00	0.00	4.70	0.24	1.23	1.51	1.39
3208-090	2760	1796.34	0.00	0.00	3.57	0.23	1.16	1.62	1.25
3208-091	2790	3505.81	0.00	0.00	6.37	0.31	1.40	1.52	2.11
3208-092	2820	5598.19	73.38	0.00	14.52	0.54	2.65	1.98	2.87
3208-093	2850	2753.86	0.00	0.00	5.83	0.29	2.08	2.21	1.70
3208-094	2880	1980.28	0.00	0.00	3.11	0.26	0.96	1.67	1.63
3208-095	2920	3853.02	0.00	0.00	5.16	0.38	1.01	1.61	2.09
3208-096	2950	3128.77	0.00	0.00	4.52	0.36	0.99	1.75	2.72
3208-097	2980	2573.50	0.00	0.00	3.34	0.41	0.53	0.81	1.92
3208-098	3010	2656.95	0.00	0.00	6.04	1.31	1.59	2.26	1.64
3208-099	3040	2695.91	0.00	0.00	3.86	0.69	0.98	1.67	2.85
3208-100	3070	3919.29	0.00	0.00	4.69	0.65	0.63	1.00	2.26
3208-101	3100	2455.56	0.00	0.00	4.39	0.31	0.57	0.92	4.22
3208-102	3130	3267.01	0.00	0.00	3.00	0.25	0.41	0.61	5.78

TABLE I-B
CUTTINGS DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-103	3160	2454.75	0.00	0.00	2.46	0.36	0.35	0.60	1.93
3208-104	3190	2074.15	0.00	0.00	2.26	0.40	0.25	0.50	2.42
3208-105	3220	4615.98	0.00	0.00	3.80	0.36	0.40	0.50	2.10
3208-106	3250	5747.67	0.00	0.00	9.71	0.40	2.31	1.97	3.65
3208-107	3280	7558.75	0.00	0.00	8.25	0.59	0.70	0.69	1.44
3208-108	3310	4308.02	0.00	0.00	4.91	0.49	0.45	0.51	0.83
3208-109	3340	2842.24	0.00	0.00	2.98	0.51	0.34	0.64	1.73
3208-110	3370	5073.05	0.00	0.00	5.30	0.52	0.54	0.62	1.73
3208-111	3400	5914.63	0.00	0.00	8.01	0.37	1.10	0.93	1.63
3208-112	3430	5139.94	0.00	0.00	6.93	0.48	1.11	1.30	1.36
3208-113	3460	5924.32	0.00	0.00	10.01	0.50	0.98	0.75	0.27
3208-114	3490	4848.81	0.00	0.00	7.00	0.42	1.67	1.75	0.98
3208-115	3520	5337.96	0.00	0.00	6.00	0.43	0.91	0.66	0.66
3208-116	3550	4218.56	0.00	0.00	7.49	0.28	0.85	0.48	0.18
3208-117	3580	5722.35	62.18	0.00	32.54	0.46	4.63	2.66	0.30
3208-118	3610	4651.78	42.70	0.00	15.47	0.52	4.32	2.76	0.74
3208-119	3640	2706.22	26.33	0.00	23.13	0.28	3.13	1.91	0.23
3208-120	3670	2161.44	0.00	0.00	8.56	0.30	1.68	1.34	0.28
3208-121	3700	1439.52	5.47	0.00	3.71	0.18	0.58	0.42	0.33
3208-122	3730	1354.15	0.00	0.00	2.81	0.29	0.32	0.29	0.22
3208-123	3760	1962.81	0.00	0.00	2.19	0.25	0.20	0.32	0.46
3208-125	3820	7157.36	0.00	0.00	6.82	0.61	0.63	0.80	1.28

TABLE I-B
CUTTINGS DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-126	3850	12728.27	0.00	0.00	9.98	1.19	0.68	0.88	1.02
3208-127	3880	7050.90	0.00	0.00	6.26	0.80	0.49	0.76	0.71
3208-128	3910	6469.20	50.97	0.00	7.22	0.54	0.68	0.98	0.53
3208-129	3940	14105.40	0.00	0.00	14.94	0.84	1.30	1.53	0.74
3208-131	4000	3315.04	0.00	0.00	2.86	0.52	0.24	0.43	0.78
3208-132	4030	3528.27	0.00	0.00	3.57	0.45	0.22	0.39	0.70
3208-133	4060	4118.18	0.00	0.00	4.22	0.59	0.18	0.31	0.58
3208-134	4090	7362.10	0.00	0.00	5.97	0.70	0.36	0.54	0.70
3208-135	4120	7129.07	0.00	0.00	4.99	0.60	0.31	0.49	0.62
3208-140	4270	3930.53	0.00	0.00	4.24	0.64	0.50	0.45	6.22
3208-142	4330	3905.50	0.00	0.00	4.93	0.57	0.68	0.58	3.11
3208-143	4360	10457.86	0.00	0.00	12.13	1.12	1.54	1.48	1.98
3208-144	4390	10835.94	0.00	0.00	12.78	1.20	1.52	1.58	2.39
3208-145	4420	7443.41	0.00	0.00	9.48	0.90	1.02	1.43	4.32
3208-146	4450	4807.71	0.00	0.00	7.89	0.55	0.99	1.21	2.87
3208-147	4480	6141.21	0.00	0.00	8.21	0.73	0.86	1.12	2.58
3208-148	4510	2024.48	0.00	0.00	16.28	0.48	3.67	7.53	33.82
3208-149	4540	1595.63	0.00	0.00	20.98	0.58	4.20	12.51	16.71
3208-150	4570	1984.65	0.00	0.00	99.59	0.55	14.98	54.60	31.09
3208-151	4600	1294.73	19.90	0.00	113.86	0.43	19.48	71.18	33.23
3208-152	4630	1354.79	20.15	0.00	81.19	0.43	19.88	81.22	84.23
3208-153	4660	1159.26	5.03	0.00	52.98	0.29	10.68	47.38	35.05
3208-154	4690	1656.06	21.72	0.00	39.07	0.40	6.17	19.63	14.34

TABLE I-B
CUTTINGS DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-155	4720	1265.35	19.34	0.00	21.37	0.22	4.89	17.60	12.97
3208-156	4750	1258.34	27.07	0.00	99.10	0.40	14.10	43.04	20.19
3208-157	4780	1115.60	21.74	0.00	44.35	0.26	4.61	13.99	12.07
3208-158	4810	714.72	16.11	0.00	22.74	0.21	1.02	2.55	2.66
3208-159	4840	591.87	12.71	0.00	19.92	0.11	0.92	2.70	3.43
3208-160	4870	621.43	39.68	0.00	85.99	0.19	8.27	16.50	4.00
3208-161	4900	583.65	10.13	0.00	22.15	0.10	1.89	5.67	4.71
3208-162	4930	448.23	21.53	0.00	27.26	0.13	1.97	5.10	4.46
3208-163	4960	479.80	20.91	0.00	23.27	0.08	2.03	4.68	4.04
3208-164	4990	448.62	11.87	0.00	12.85	0.11	2.13	4.40	5.35
3208-165	5020	411.19	11.90	0.00	12.80	0.05	2.38	4.12	6.86
3208-166	5050	569.71	18.25	0.00	25.77	0.10	4.59	9.86	6.16
3208-167	5080	393.39	13.14	0.00	21.02	0.10	2.49	6.01	3.94
3208-168	5110	1481.52	33.41	0.00	29.39	0.10	2.50	6.21	3.08
3208-169	5140	1403.58	12.72	0.00	20.25	0.10	3.16	5.16	1.94
3208-170	5170	1514.30	0.00	0.00	13.78	0.16	2.28	4.05	3.44
3208-171	5200	1479.53	19.92	0.00	18.60	0.02	4.08	6.50	3.49
3208-172	5230	1574.86	0.00	0.00	14.00	0.07	3.26	3.36	12.91
3208-173	5260	1478.39	0.00	0.00	15.69	0.04	5.23	5.29	8.10
3208-174	5290	1469.06	16.60	0.00	19.29	0.04	6.47	11.10	8.26
3208-175	5320	1765.99	0.00	0.00	4.06	0.09	1.57	3.07	20.76
3208-176	5350	1135.28	11.24	0.00	5.83	0.09	1.42	2.78	9.08
3208-177	5380	835.60	44.32	0.00	22.34	0.05	1.20	1.98	7.24

TABLE I-B
CUTTINGS DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-178	5410	1018.21	127.52	0.00	509.28	0.04	88.21	134.12	61.83
3208-179	5440	1136.78	25.69	0.00	119.95	0.15	48.75	100.32	392.80
3208-180	5470	1077.92	50.58	0.00	508.25	0.09	103.74	255.18	130.69
3208-181	5500	1124.99	76.09	0.00	483.55	0.32	351.23	668.54	2534.91
3208-182	5530	1368.28	135.12	0.00	451.91	0.23	207.01	443.95	1896.96
3208-183	5560	1385.86	144.62	0.00	562.82	0.16	244.42	540.87	1849.87
3208-184	5590	988.75	19.21	0.00	64.36	0.11	26.98	60.55	244.72
3208-185	5620	1495.61	208.94	0.00	497.97	0.04	53.82	93.49	55.74
3208-186	5650	1442.25	93.92	0.00	256.38	0.21	75.63	234.18	362.62
3208-187	5680	1406.37	135.93	0.00	299.12	0.84	207.67	504.50	2789.18
3208-188	5710	1378.09	176.45	0.00	294.92	0.38	156.92	374.61	2396.72
3208-189	5740	1172.43	122.98	0.00	223.33	0.12	93.83	213.22	1207.68
3208-190	5770	1066.10	111.08	0.00	223.06	0.22	88.82	197.74	1469.76
3208-191	5800	1840.83	237.23	0.00	594.41	0.33	423.02	1037.01	5232.78
3208-192	5830	2553.60	429.78	0.00	1260.86	0.50	1021.47	2534.51	7594.59
3208-193	5860	2548.48	572.82	0.00	1710.10	0.46	1344.70	3272.72	10749.20
3208-194	5890	935.99	62.67	0.00	105.44	0.56	62.31	157.65	1318.52
3208-195	5920	919.52	102.71	0.00	453.43	0.28	168.80	373.43	1229.44
3208-196	5950	1535.67	108.82	0.00	228.07	0.63	89.80	227.55	1383.23
3208-197	5980	1582.04	56.53	0.00	71.75	0.21	32.42	73.67	672.18
3208-198	6010	1478.40	39.83	0.00	36.61	0.11	13.02	27.67	193.25
3208-199	6040	1328.77	29.13	0.00	45.66	0.06	19.63	53.24	511.41
3208-200	6070	1846.04	116.96	0.00	166.74	0.61	72.36	146.19	1205.24

TABLE I-B
CUTTINGS DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-201	6100	1904.17	151.98	0.00	185.72	0.14	98.36	220.56	1161.80
3208-202	6130	1574.05	124.88	0.00	224.00	0.20	120.09	267.94	1690.44
3208-203	6160	1508.94	104.57	0.00	185.06	0.59	100.96	230.19	1294.30
3208-204	6190	1400.60	39.30	0.00	67.15	0.39	29.53	67.17	455.41
3208-205	6220	1468.61	73.48	0.00	128.86	0.17	65.83	147.59	896.79
3208-206	6250	1533.05	116.52	0.00	319.45	0.26	168.06	386.91	1537.36
3208-207	6280	1441.12	0.00	0.00	24.09	0.07	14.37	33.54	220.80
3208-208	6310	1248.86	17.38	0.00	18.60	0.15	8.72	18.26	139.58
3208-209	6340	1390.72	32.32	0.00	32.50	0.04	8.75	20.04	124.43
3208-210	6370	1339.54	6.93	0.00	6.93	0.00	2.52	3.71	30.53
3208-211	6400	1298.35	17.44	0.00	20.93	0.13	9.66	20.84	161.95
3208-212	6430	804.97	0.00	0.00	3.95	0.00	2.31	2.50	20.80
3208-213	6460	790.49	17.34	0.00	12.51	0.00	5.06	5.82	31.84
3208-214	6490	743.69	23.14	0.00	66.82	0.15	42.56	72.37	217.69
3208-215	6520	796.25	28.29	0.00	39.62	0.00	23.58	32.41	181.10
3208-216	6550	786.77	26.08	0.00	39.23	0.00	22.16	26.65	99.61
3208-217	6580	1129.10	52.81	0.00	147.67	0.20	2.85	21.28	30.87
3208-218	6610	1084.65	32.94	0.00	51.13	0.07	21.25	21.14	58.23
3208-219	6640	1406.67	91.05	0.00	161.10	0.14	66.45	99.88	330.45
3208-220	6670	1104.38	67.55	0.00	144.72	0.07	40.78	40.97	105.09
3208-221	6700	1171.18	64.09	0.00	222.50	0.24	57.88	58.06	148.07
3208-222	6730	1288.78	42.59	0.00	73.84	0.16	24.86	26.70	93.91
3208-223	6760	1208.63	44.40	0.00	140.13	0.61	52.06	71.19	272.33

TABLE I-B
CUTTINGS DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-224	6790	1276.98	51.30	0.00	96.99	0.40	29.73	17.34	47.94
3208-225	6820	1187.18	39.88	0.00	76.76	0.29	24.63	23.99	88.79
3208-226	6850	1201.22	51.49	0.00	84.59	0.08	28.37	23.38	67.49
3208-227	6880	1139.25	57.32	0.00	111.30	0.12	29.12	22.85	54.05
3208-228	6910	1081.57	44.68	0.00	92.75	0.09	27.72	20.35	41.51
3208-229	6940	1050.60	34.21	0.00	48.59	0.06	18.87	12.33	23.07
3208-230	6970	1191.80	67.25	0.00	43.87	0.09	16.82	7.12	13.32
3208-231	7000	1157.92	51.25	0.00	39.57	0.07	15.04	7.68	9.86
3208-232	7030	1558.43	61.41	0.00	53.31	0.00	18.34	11.46	15.21
3208-233	7060	965.55	41.58	0.00	58.03	0.28	17.63	18.74	53.84
3208-234	7090	283.13	26.30	0.00	37.92	0.17	13.33	11.26	27.03
3208-235	7120	437.61	35.53	0.00	37.79	0.12	11.39	5.48	6.93
3208-236	7150	597.89	44.00	0.00	41.09	0.07	12.50	5.09	6.49
3208-237	7180	402.09	27.51	0.00	37.03	0.03	11.01	5.27	4.12
3208-238	7210	246.77	6.22	0.00	9.56	0.02	3.13	4.07	15.15
3208-239	7240	923.43	18.80	0.00	30.78	0.15	14.41	18.61	83.86
3208-240	7270	918.97	30.68	0.00	46.35	0.08	17.10	12.35	20.86
3208-241	7300	813.14	24.24	0.00	33.03	0.17	15.77	12.83	38.32
3208-242	7330	795.75	11.11	0.00	23.26	0.11	6.71	9.70	25.71
3208-243	7360	959.69	16.19	0.00	25.35	0.09	6.48	5.29	11.47
3208-244	7390	794.39	23.87	0.00	30.95	0.03	9.41	8.51	15.82
3208-245	7420	890.71	16.68	0.00	23.26	0.11	7.54	8.30	21.23
3208-246	7450	1121.48	8.68	0.00	21.31	0.04	6.47	10.50	33.51

TABLE I-B
CUTTINGS DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-247	7480	943.65	18.74	0.00	25.61	0.05	7.44	6.82	15.05
3208-248	7510	838.01	22.51	0.00	57.37	0.01	24.21	30.37	110.52
3208-249	7540	995.58	27.82	0.00	42.29	0.04	16.60	14.99	60.75
3208-250	7570	1545.61	33.60	0.00	31.64	0.03	6.55	3.82	7.70
3208-251	7600	1752.25	46.31	0.00	41.63	0.04	14.45	7.32	23.17
3208-252	7630	1598.19	52.46	0.00	42.06	0.04	11.50	4.43	5.94
3208-253	7660	2402.22	36.82	0.00	20.98	0.04	4.18	1.77	2.09
3208-254	7690	3609.42	55.49	0.00	20.15	0.03	4.06	1.29	1.38
3208-255	7720	1521.89	558.43	0.00	19.49	0.04	5.23	3.66	10.90
3208-256	7750	1238.54	19.52	0.00	35.67	0.05	9.79	7.48	12.33
3208-257	7780	1446.50	41.01	0.00	130.54	0.08	63.54	89.71	324.29
3208-258	7810	1072.09	8.77	0.00	14.28	0.02	6.06	11.48	61.14
3208-259	7840	1117.99	9.18	0.00	22.21	0.05	12.24	28.11	148.42
3208-260	7870	1072.57	8.30	0.00	13.27	0.01	3.90	5.36	20.80
3208-261	7900	1180.14	9.76	0.00	13.31	0.21	4.56	7.87	61.21
3208-262	7930	1080.06	2.90	0.00	4.26	0.00	1.29	2.34	10.55
3208-263	7960	1137.22	5.36	0.00	5.21	0.02	3.87	3.24	36.84
3208-264	7990	710.63	0.00	0.00	2.73	0.02	2.54	5.12	15.85
3208-265	8020	1040.74	5.11	0.00	10.42	0.01	1.61	2.47	6.36
3208-266	8050	1062.06	12.10	0.00	16.29	0.01	3.21	2.61	5.41
3208-267	8080	1032.96	0.00	0.00	0.93	0.01	0.41	0.49	4.45
3208-268	8110	1098.11	0.00	0.00	5.37	0.02	1.31	1.53	8.13
3208-269	8140	87.59	0.00	0.00	0.67	0.01	0.15	0.24	1.57

TABLE I-B
CUTTINGS DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-270	8170	610.55	4.28	0.00	10.80	0.01	8.74	13.99	48.72
3208-271	8200	364.94	2.78	0.00	2.89	0.02	0.73	0.77	1.83
3208-272	8230	1036.99	0.00	0.00	1.67	0.02	0.67	1.11	15.35
3208-273	8260	1004.44	0.00	0.00	5.72	0.09	2.64	4.99	30.38
3208-274	8290	164.17	2.03	0.00	2.88	0.06	0.86	2.02	25.27
3208-275	8320	1308.92	17.80	0.00	10.82	0.39	2.33	4.59	55.39
3208-276	8350	2258.55	16.68	0.00	19.57	0.21	4.18	7.79	81.24
3208-277	8380	2837.10	18.40	0.00	8.50	0.18	0.97	1.91	22.92
3208-278	8410	8400.02	12.88	0.00	4.45	0.03	0.44	0.85	8.84
3208-279	8440	2324.40	18.50	0.00	5.28	0.09	0.40	0.73	4.92
3208-280	8470	1101.03	8.84	0.00	1.68	0.22	0.24	0.36	3.81
3208-281	8500	1301.64	0.00	0.00	0.71	0.02	0.08	0.16	0.85
3208-282	8530	1676.69	0.00	0.00	0.97	0.04	0.11	0.26	1.40
3208-283	8560	873.44	0.00	0.00	0.64	0.02	0.08	0.25	2.23
3208-284	8590	6780.52	73.98	0.00	17.23	0.00	0.67	0.74	0.79
3208-285	8620	6303.84	64.50	0.00	16.70	0.00	0.92	1.12	4.72
3208-286	8650	4422.19	20.79	0.00	7.86	0.00	0.48	0.63	1.45
3208-287	8680	8278.16	77.08	0.00	21.88	0.00	0.91	0.94	0.85
3208-288	8710	6733.96	25.92	0.00	23.74	0.00	0.35	0.50	10.84
3208-289	8740	5595.16	14.44	0.00	2.03	0.00	0.34	0.66	7.16
3208-290	8770	5344.04	12.21	0.00	2.10	0.00	0.51	0.78	33.85
3208-291	8800	3560.85	0.00	0.00	5.36	0.03	4.60	8.49	116.53
3208-292	8830	9584.08	100.05	0.00	22.84	0.00	1.42	2.48	24.51

TABLE I-B
CUTTINGS DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-293	8860	10688.67	92.91	0.00	37.37	0.00	1.15	1.58	5.97
3208-294	8890	12317.10	0.00	0.00	7.09	0.00	0.84	1.07	9.83
3208-295	8920	20875.64	178.51	0.00	46.96	0.00	2.03	2.31	15.89
3208-296	8950	4338.91	133.36	0.00	30.65	0.00	4.04	6.57	79.10
3208-297	8980	2903.70	32.81	0.00	15.44	0.07	3.05	7.00	50.73
3208-298	9010	3577.78	42.93	0.00	14.52	0.03	3.85	8.29	72.24
3208-299	9040	1797.03	15.72	0.00	13.20	0.06	3.30	6.32	75.72
3208-300	9070	2200.16	30.15	0.00	28.98	0.07	6.10	10.62	40.79
3208-301	9100	2545.10	48.44	0.00	27.72	0.06	15.72	29.19	298.28
3208-302	9130	1735.76	20.55	0.00	14.94	0.04	4.84	10.28	116.46
3208-303	9160	3317.70	14.63	0.00	5.65	0.04	0.48	1.00	11.34
3208-304	9190	3744.69	0.00	0.00	10.24	0.05	2.62	2.72	32.78
3208-305	9220	2285.59	11.81	0.00	7.44	0.02	0.96	1.79	21.88
3208-306	9250	3187.35	13.69	0.00	4.61	0.00	0.61	1.00	5.98
3208-307	9280	3089.77	14.22	0.00	7.51	0.05	1.52	2.40	23.75
3208-308	9310	4299.66	20.56	0.00	6.92	0.04	0.53	0.88	22.76
3208-309	9340	2774.70	13.31	0.00	6.76	0.02	0.64	0.84	3.36
3208-310	9370	1718.08	0.00	0.00	2.39	0.02	0.60	1.27	9.15
3208-311	9400	1885.73	8.74	0.00	5.45	0.04	0.84	1.31	15.41
3208-312	9430	2081.39	13.26	0.00	14.76	0.13	9.60	19.82	220.10
3208-313	9460	1883.92	9.02	0.00	4.64	0.05	0.57	0.95	18.70
3208-314	9490	1489.13	5.64	0.00	3.26	0.07	1.18	3.09	69.97
3208-315	9520	1142.09	2.96	0.00	4.14	0.06	0.59	1.48	30.61

TABLE I-B
CUTTINGS DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-316	9550	1487.61	12.63	0.00	17.56	0.07	12.16	29.11	441.55
3208-317	9580	1405.64	5.01	0.00	13.68	0.03	7.20	13.19	144.54
3208-318	9610	1263.52	0.00	0.00	12.78	0.07	5.51	8.68	114.19
3208-319	9640	1231.75	4.33	0.00	11.95	0.03	2.35	4.85	27.45
3208-320	9670	1397.88	0.00	0.00	11.65	0.05	3.61	6.34	45.21
3208-321	9700	1310.71	0.00	0.00	4.92	0.03	1.06	1.13	17.05
3208-322	9730	822.43	7.40	0.00	7.49	0.03	1.45	2.11	10.47
3208-323	9760	547.51	0.00	0.00	4.96	0.07	1.09	1.68	17.16

TABLE II-B
CUTTINGS DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-001	130	1141.99	1.38	-	4.40	0.20	1316.68	0.12
3208-002	160	1059.28	0.93	-	2.63	0.33	1713.17	0.08
3208-003	190	1091.97	0.65	-	2.85	0.41	2609.77	0.05
3208-004	220	1047.29	0.52	-	5.87	0.53	3097.02	0.04
3208-005	250	171.27	1.08	-	6.51	0.21	195.40	0.63
3208-006	280	146.45	0.42	-	6.74	0.31	468.48	0.28
3208-007	310	119.61	0.43	-	18.29	0.45	343.49	0.36
3208-008	340	1305.97	0.93	-	138.21	0.35	1493.87	0.07
3208-009	370	1317.62	0.19	-	3.55	0.29	10025.73	0.01
3208-010	400	1265.24	0.21	-	3.26	0.30	8622.82	0.01
3208-011	430	1223.29	0.14	-	5.03	0.46	12379.77	0.01
3208-012	460	1239.03	0.19	-	4.62	0.33	9263.57	0.01
3208-013	490	1241.44	0.10	-	2.61	0.26	19037.99	0.00
3208-014	520	1293.05	0.15	-	10.44	0.47	12826.61	0.01
3208-015	550	1076.49	0.11	-	4.60	0.40	16341.39	0.01
3208-016	580	1307.53	0.09	-	5.08	0.70	22079.45	0.00
3208-017	610	1077.12	0.07	-	3.89	0.38	22483.26	0.00
3208-020	700	1343.62	1.79	-	11.88	0.85	994.95	0.13
3208-021	730	1426.68	2.88	-	14.62	0.87	686.76	0.20
3208-022	760	1526.74	3.01	-	17.57	0.88	689.49	0.19
3208-029	970	3637.32	63.41	-	-	1.00	58.81	1.74
3208-030	1000	5889.39	190.29	-	-	0.82	31.75	3.23
3208-031	1030	2438.85	26.31	-	-	1.17	93.43	1.07

TABLE II-B
CUTTINGS DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-032	1040	7138.23	179.20	-	-	1.21	40.29	2.51
3208-033	1060	2614.99	46.78	-	-	1.10	58.46	1.78
3208-034	1120	3793.62	86.11	-	-	1.01	45.35	2.26
3208-035	1150	6549.16	175.23	-	-	1.01	38.11	2.67
3208-036	1180	1611.21	18.60	-	107.14	0.95	90.25	1.15
3208-037	1210	2273.77	40.69	-	-	1.16	57.54	1.78
3208-038	1240	1683.35	24.58	-	20.60	1.53	70.16	1.46
3208-039	1270	1824.14	24.21	-	31.06	1.62	77.19	1.32
3208-040	1300	1217.59	0.51	-	23.55	0.61	3749.78	0.04
3208-041	1330	1108.13	0.47	-	16.13	0.55	3693.44	0.04
3208-042	1360	1811.65	3.58	-	24.89	0.79	678.74	0.19
3208-043	1390	1366.42	0.76	-	29.39	1.07	2843.39	0.05
3208-044	1410	1199.96	1.83	-	-	0.84	916.97	0.15
3208-045	1430	1183.78	1.87	-	12.33	0.72	922.66	0.15
3208-046	1460	2090.39	55.28	-	59.37	1.43	38.39	2.64
3208-047	1490	1288.93	2.33	-	16.87	0.73	662.73	0.18
3208-048	1520	1617.70	0.79	-	6.42	0.39	2928.87	0.04
3208-049	1530	1459.01	0.49	-	13.48	0.52	4327.10	0.03
3208-050	1560	1706.72	2.53	-	10.21	0.77	853.47	0.14
3208-052	1620	1498.57	2.31	-	10.69	0.83	761.93	0.15
3208-053	1650	1629.49	2.33	-	10.92	0.81	810.08	0.14
3208-055	1710	1697.54	2.97	-	13.22	0.80	687.30	0.17
3208-056	1740	1935.53	5.07	-	17.41	0.65	736.10	0.26

TABLE II-B
CUTTINGS DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-057	1770	2028.13	3.65	-	17.01	1.02	805.61	0.18
3208-058	1800	2275.71	4.84	-	19.18	0.97	587.34	0.21
3208-059	1830	2261.07	12.69	-	16.77	1.83	191.34	0.56
3208-060	1860	1435.65	15.61	-	12.89	0.92	97.28	1.08
3208-061	1890	1229.55	8.04	-	15.90	0.66	182.61	0.65
3208-062	1920	1648.74	13.75	-	32.35	1.47	145.89	0.83
3208-063	1950	1592.07	3.89	-	13.41	0.61	608.78	0.24
3208-064	1980	1463.68	3.14	-	16.25	0.86	540.28	0.21
3208-065	2010	1349.91	2.38	-	22.15	0.80	678.00	0.17
3208-066	2040	1473.72	2.24	-	11.12	0.65	827.03	0.15
3208-067	2070	1337.24	4.53	-	19.51	0.63	329.93	0.33
3208-068	2100	1182.76	2.03	-	9.14	0.53	784.22	0.17
3208-069	2130	1173.31	3.42	-	22.44	0.92	376.57	0.29
3208-070	2160	1900.24	3.19	-	11.31	0.82	719.58	0.16
3208-071	2190	1586.23	1.55	-	6.32	0.68	1276.01	0.09
3208-072	2220	1843.75	2.44	-	8.08	0.85	935.05	0.13
3208-073	2250	1761.63	2.16	-	8.80	0.81	1027.19	0.12
3208-074	2280	1461.94	2.05	-	8.89	0.71	912.73	0.14
3208-075	2310	2024.95	3.11	-	5.86	0.70	811.71	0.15
3208-076	2340	2327.16	4.24	-	7.51	0.94	686.54	0.18
3208-077	2370	3578.34	41.82	-	11.79	1.92	87.13	1.16
3208-078	2400	3210.93	38.92	-	22.68	0.90	87.34	1.21
3208-079	2430	2231.83	5.00	-	9.71	0.58	688.59	0.22

TABLE II-B
CUTTINGS DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-080	2460	2378.58	18.78	-	12.45	0.61	143.28	0.78
3208-081	2490	1675.18	4.49	-	8.92	0.45	532.77	0.26
3208-082	2520	2256.16	29.29	-	15.59	1.14	80.01	1.29
3208-083	2550	2415.06	29.33	-	16.78	1.35	85.36	1.21
3208-084	2580	3018.71	32.65	-	16.87	0.85	96.96	1.08
3208-085	2610	4613.45	48.85	-	32.54	1.52	100.32	1.05
3208-086	2640	3936.02	21.45	-	36.36	1.44	326.15	0.54
3208-087	2670	5208.58	18.24	-	20.96	1.33	565.21	0.35
3208-088	2700	6359.53	14.68	-	17.68	0.99	691.51	0.23
3208-089	2730	3151.63	7.45	-	18.87	0.81	668.53	0.23
3208-090	2760	1802.70	6.36	-	15.40	0.71	502.92	0.35
3208-091	2790	3515.11	9.30	-	19.94	0.92	549.79	0.26
3208-092	2820	5690.74	92.55	-	26.85	1.33	63.68	1.62
3208-093	2850	2763.99	10.12	-	19.80	0.94	472.35	0.36
3208-094	2880	1986.04	5.75	-	11.66	0.57	635.29	0.28
3208-095	2920	3860.82	7.80	-	13.57	0.63	745.51	0.20
3208-096	2950	3136.05	7.28	-	12.45	0.57	690.95	0.23
3208-097	2980	2578.19	4.68	-	8.00	0.65	770.08	0.18
3208-098	3010	2666.86	9.90	-	4.59	0.70	439.76	0.37
3208-099	3040	2702.44	6.53	-	5.52	0.58	697.25	0.24
3208-100	3070	3925.62	6.33	-	7.19	0.63	834.16	0.16
3208-101	3100	2461.45	5.89	-	13.80	0.61	558.34	0.23
3208-102	3130	3271.05	4.03	-	11.95	0.68	1087.05	0.12

TABLE II-B
CUTTINGS DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-103	3160	2458.19	3.43	-	6.72	0.59	994.35	0.13
3208-104	3190	2077.18	3.02	-	5.57	0.51	916.48	0.14
3208-105	3220	4620.70	4.71	-	10.28	0.79	1214.16	0.10
3208-106	3250	5761.68	14.01	-	23.79	1.17	591.34	0.24
3208-107	3280	7568.41	9.65	-	13.90	1.01	915.68	0.12
3208-108	3310	4313.90	5.88	-	9.86	0.87	876.76	0.13
3208-109	3340	2846.20	3.96	-	5.81	0.53	953.76	0.13
3208-110	3370	5079.52	6.47	-	10.05	0.88	956.70	0.12
3208-111	3400	5924.69	10.05	-	21.23	1.17	738.18	0.16
3208-112	3430	5149.29	9.34	-	14.37	0.85	741.16	0.18
3208-113	3460	5936.08	11.76	-	19.73	1.29	591.34	0.19
3208-114	3490	4859.24	10.42	-	16.38	0.95	692.65	0.21
3208-115	3520	5345.54	7.58	-	13.81	1.37	888.61	0.14
3208-116	3550	4227.40	8.84	-	26.62	1.77	562.55	0.20
3208-117	3580	5824.38	102.03	-	70.57	1.73	60.40	1.75
3208-118	3610	4717.06	65.27	-	29.34	1.56	79.95	1.38
3208-119	3640	2760.74	54.51	-	81.69	1.64	54.70	1.97
3208-120	3670	2173.04	11.60	-	28.05	1.24	252.23	0.53
3208-121	3700	1449.72	10.20	-	19.93	1.37	156.75	0.70
3208-122	3730	1357.58	3.43	-	9.38	1.10	481.60	0.25
3208-123	3760	1965.54	2.72	-	8.75	0.64	895.17	0.13
3208-125	3820	7165.62	8.25	-	11.06	0.78	1049.00	0.11

TABLE II-B
CUTTINGS DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-126	3850	12739.82	11.55	-	8.34	0.77	1274.30	0.09
3208-127	3880	7058.42	7.52	-	7.77	0.65	1125.89	0.10
3208-128	3910	6529.07	59.86	-	13.19	0.69	111.15	0.91
3208-129	3940	14123.18	17.77	-	17.76	0.85	944.09	0.12
3208-131	4000	3318.59	3.54	-	5.47	0.56	1156.03	0.10
3208-132	4030	3532.47	4.19	-	7.88	0.58	986.45	0.11
3208-133	4060	4122.90	4.72	-	7.12	0.59	974.54	0.11
3208-134	4090	7368.98	6.87	-	8.42	0.66	1232.58	0.09
3208-135	4120	7134.87	5.79	-	8.19	0.64	1428.30	0.08
3208-140	4270	3935.74	5.20	-	6.62	1.10	925.90	0.13
3208-142	4330	3911.70	6.19	-	8.54	1.17	791.26	0.15
3208-143	4360	10473.02	15.16	-	10.80	1.04	861.58	0.14
3208-144	4390	10851.83	15.89	-	10.65	0.96	847.84	0.14
3208-145	4420	7455.34	11.93	-	10.48	0.71	785.12	0.16
3208-146	4450	4817.81	10.10	-	14.26	0.81	608.62	0.20
3208-147	4480	6151.41	10.20	-	11.19	0.77	747.71	0.16
3208-148	4510	2051.98	27.49	-	33.59	0.48	124.32	1.33
3208-149	4540	1633.33	37.70	-	35.67	0.33	76.05	2.30
3208-150	4570	2153.84	169.18	-	177.85	0.27	19.92	7.85
3208-151	4600	1519.16	224.42	-	260.93	0.27	9.67	14.77
3208-152	4630	1557.27	202.47	-	187.35	0.24	13.36	13.00
3208-153	4660	1275.36	116.09	-	179.27	0.22	19.97	9.10
3208-154	4690	1742.67	86.61	-	96.28	0.31	27.23	4.97

TABLE II-B
CUTTINGS DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-155	4720	1328.58	63.22	-	96.13	0.27	31.07	4.75
3208-156	4750	1441.67	183.32	-	245.98	0.32	9.97	12.71
3208-157	4780	1200.32	84.71	-	167.35	0.32	16.87	7.05
3208-158	4810	757.16	42.44	-	108.21	0.39	18.39	5.60
3208-159	4840	628.13	36.26	-	174.37	0.34	18.13	5.77
3208-160	4870	771.89	150.46	-	452.17	0.50	4.94	19.49
3208-161	4900	623.51	39.86	-	221.55	0.33	18.07	6.39
3208-162	4930	504.11	55.88	-	207.30	0.38	9.18	11.08
3208-163	4960	530.72	50.91	-	259.10	0.43	10.85	9.59
3208-164	4990	479.88	31.26	-	110.57	0.48	18.13	6.51
3208-165	5020	442.41	31.21	-	237.56	0.57	16.64	7.05
3208-166	5050	628.20	58.49	-	248.48	0.46	12.93	9.31
3208-167	5080	436.07	42.68	-	193.16	0.41	11.51	9.78
3208-168	5110	1553.05	71.52	-	280.63	0.40	23.58	4.60
3208-169	5140	1444.90	41.32	-	187.90	0.61	42.55	2.85
3208-170	5170	1534.43	20.12	-	81.97	0.56	109.85	1.31
3208-171	5200	1528.64	49.11	-	899.50	0.62	38.40	3.21
3208-172	5230	1595.49	20.63	-	186.71	0.97	112.45	1.29
3208-173	5260	1504.61	26.22	-	365.31	0.99	94.21	1.74
3208-174	5290	1522.54	53.48	-	397.34	0.58	40.91	3.51
3208-175	5320	1774.70	8.71	-	41.67	0.51	434.74	0.49
3208-176	5350	1156.57	21.29	-	64.16	0.51	66.47	1.84
3208-177	5380	905.47	69.86	-	430.81	0.60	12.53	7.71

TABLE II-B
CUTTINGS DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-178	5410	1877.36	859.14	-	10485.31	0.65	1.59	45.76
3208-179	5440	1431.51	294.73	-	750.10	0.48	7.80	20.58
3208-180	5470	1995.69	917.76	-	5493.62	0.40	1.92	45.98
3208-181	5500	2704.41	1579.42	-	1504.07	0.52	2.01	58.40
3208-182	5530	2606.28	1238.00	-	1894.32	0.46	2.33	47.50
3208-183	5560	2878.61	1492.74	-	3393.20	0.45	1.95	51.85
3208-184	5590	1159.87	171.11	-	578.05	0.44	11.83	14.75
3208-185	5620	2349.86	854.24	-	11000.91	0.57	2.11	36.35
3208-186	5650	2102.37	660.12	-	1186.45	0.32	4.11	31.39
3208-187	5680	2553.60	1147.23	-	355.57	0.41	3.23	44.92
3208-188	5710	2381.01	1002.92	-	774.81	0.41	2.92	42.12
3208-189	5740	1825.81	653.38	-	1836.75	0.44	3.38	35.78
3208-190	5770	1686.82	620.72	-	975.58	0.44	3.19	36.79
3208-191	5800	4132.52	2291.69	-	1761.09	0.40	2.21	55.45
3208-192	5830	7800.24	5246.63	-	2514.80	0.40	1.51	67.26
3208-193	5860	9448.83	6900.35	-	3701.10	0.41	1.11	73.02
3208-194	5890	1324.08	388.08	-	188.17	0.39	5.56	29.30
3208-195	5920	2017.90	1098.38	-	1572.39	0.45	1.65	54.43
3208-196	5950	2189.92	654.24	-	356.91	0.39	4.55	29.87
3208-197	5980	1816.42	234.38	-	336.86	0.44	12.33	12.90
3208-198	6010	1595.55	117.15	-	310.33	0.47	19.33	7.34
3208-199	6040	1476.45	147.67	-	733.36	0.36	17.76	10.00
3208-200	6070	2348.31	502.26	-	269.22	0.49	6.50	21.38

TABLE II-B
CUTTINGS DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-201	6100	2560.80	656.63	-	1288.09	0.44	5.63	25.64
3208-202	6130	2310.98	736.93	-	1068.09	0.44	4.51	31.88
3208-203	6160	2129.75	620.80	-	308.60	0.43	5.20	29.14
3208-204	6190	1603.77	203.16	-	170.78	0.43	13.15	12.66
3208-205	6220	1884.38	415.76	-	756.21	0.44	7.25	22.06
3208-206	6250	2524.01	990.96	-	1218.57	0.43	3.51	39.26
3208-207	6280	1513.14	72.01	-	334.27	0.42	59.80	4.75
3208-208	6310	1311.83	62.97	-	120.76	0.47	34.70	4.80
3208-209	6340	1484.35	93.63	-	708.57	0.43	21.45	6.30
3208-210	6370	1359.65	20.10	-	-	0.68	96.61	1.47
3208-211	6400	1367.24	68.89	-	152.11	0.46	33.82	5.03
3208-212	6430	813.75	8.77	-	-	0.92	203.72	1.07
3208-213	6460	831.25	40.75	-	-	0.86	26.47	4.90
3208-214	6490	948.60	204.90	-	425.89	0.58	8.26	21.60
3208-215	6520	920.17	123.92	-	-	0.72	11.72	13.46
3208-216	6550	900.91	114.13	-	-	0.83	12.04	12.66
3208-217	6580	1353.72	224.62	-	732.46	0.13	5.63	16.59
3208-218	6610	1211.13	126.47	-	664.54	1.00	12.90	10.44
3208-219	6640	1825.17	418.49	-	1081.10	0.66	5.57	22.92
3208-220	6670	1398.42	294.04	-	2035.52	0.99	5.20	21.02
3208-221	6700	1573.72	402.54	-	913.78	0.99	4.08	25.57
3208-222	6730	1456.80	168.01	-	455.83	0.93	11.06	11.53
3208-223	6760	1516.43	307.79	-	228.86	0.73	6.54	20.29

TABLE II-B
CUTTINGS DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-224	6790	1472.36	195.37	-	237.68	1.71	8.61	13.26
3208-225	6820	1352.46	165.28	-	261.57	1.02	10.17	12.22
3208-226	6850	1389.07	187.85	-	1033.96	1.21	8.82	13.52
3208-227	6880	1359.86	220.60	-	916.65	1.27	6.75	16.22
3208-228	6910	1267.08	185.50	-	939.74	1.36	7.86	14.64
3208-229	6940	1164.62	114.02	-	716.22	1.53	12.68	9.79
3208-230	6970	1326.87	135.07	-	467.59	2.36	10.72	10.17
3208-231	7000	1271.47	113.55	-	525.43	1.95	12.74	8.93
3208-232	7030	1702.97	144.53	-	8643.42	1.60	13.58	8.48
3208-233	7060	1101.54	135.98	-	207.12	0.94	9.69	12.34
3208-234	7090	371.95	88.82	-	216.73	1.18	4.40	23.88
3208-235	7120	527.82	90.21	-	295.47	2.07	5.96	17.09
3208-236	7150	700.58	102.69	-	523.08	2.45	7.02	14.65
3208-237	7180	482.93	80.84	-	983.34	2.08	6.22	16.73
3208-238	7210	269.76	22.98	-	350.67	0.76	15.63	8.52
3208-239	7240	1006.05	82.61	-	203.05	0.77	18.62	8.21
3208-240	7270	1025.47	106.50	-	524.88	1.38	11.92	10.38
3208-241	7300	899.03	85.89	-	184.34	1.22	14.19	9.55
3208-242	7330	846.55	50.80	-	200.73	0.69	23.14	6.00
3208-243	7360	1013.02	53.33	-	255.22	1.22	23.09	5.26
3208-244	7390	857.15	72.75	-	925.63	1.10	14.48	8.39
3208-245	7420	946.51	55.80	-	205.89	0.90	22.29	5.89
3208-246	7450	1168.46	46.97	-	503.07	0.61	37.37	4.02

TABLE II-B
CUTTINGS DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-247	7480	1002.28	58.63	-	493.05	1.09	21.27	5.84
3208-248	7510	972.49	134.48	-	5049.57	0.79	10.48	13.82
3208-249	7540	1097.30	101.72	-	898.42	1.10	14.19	9.27
3208-250	7570	1621.24	75.62	-	902.37	1.71	23.68	4.66
3208-251	7600	1861.98	109.72	-	909.43	1.97	19.92	5.89
3208-252	7630	1708.67	110.48	-	989.09	2.59	16.90	6.46
3208-253	7660	2466.00	63.77	-	452.00	2.35	41.55	2.58
3208-254	7690	3690.42	81.00	-	667.62	3.14	47.71	2.19
3208-255	7720	2108.72	586.82	-	391.31	1.42	2.63	27.82
3208-256	7750	1311.02	72.47	-	619.65	1.30	22.43	5.52
3208-257	7780	1771.33	324.82	-	1494.68	0.70	8.43	18.33
3208-258	7810	1112.69	40.60	-	480.05	0.52	46.49	3.64
3208-259	7840	1189.74	71.75	-	429.18	0.43	35.60	6.03
3208-260	7870	1103.42	30.84	-	707.55	0.72	49.71	2.79
3208-261	7900	1215.67	35.52	-	60.55	0.57	51.11	2.92
3208-262	7930	1090.87	10.81	-	573.91	0.55	150.54	0.99
3208-263	7960	1154.93	17.70	-	183.28	1.19	107.43	1.53
3208-264	7990	721.03	10.39	-	92.86	0.49	260.13	1.44
3208-265	8020	1060.37	19.63	-	540.19	0.65	66.98	1.85
3208-266	8050	1096.28	34.22	-	858.63	1.22	37.39	3.12
3208-267	8080	1034.81	1.85	-	51.12	0.84	1101.35	0.17
3208-268	8110	1106.33	8.21	-	180.74	0.85	204.32	0.74
3208-269	8140	88.68	1.08	-	37.05	0.62	128.86	1.22

TABLE II-B
CUTTINGS DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-270	8170	648.37	37.82	-	1067.31	0.62	40.47	5.83
3208-271	8200	372.13	7.18	-	114.47	0.95	64.28	1.93
3208-272	8230	1040.45	3.45	-	58.31	0.60	618.62	0.33
3208-273	8260	1017.82	13.37	-	61.43	0.52	175.29	1.31
3208-274	8290	171.98	7.80	-	42.13	0.42	33.40	4.53
3208-275	8320	1344.47	35.54	-	27.50	0.50	45.72	2.64
3208-276	8350	2306.79	48.23	-	92.15	0.53	62.28	2.09
3208-277	8380	2866.89	29.79	-	46.96	0.51	105.43	1.03
3208-278	8410	8418.67	18.64	-	141.90	0.52	484.38	0.22
3208-279	8440	2349.33	24.93	-	55.40	0.54	97.69	1.06
3208-280	8470	1112.17	11.14	-	7.49	0.67	104.53	1.00
3208-281	8500	1302.61	0.96	-	25.63	0.55	1830.68	0.07
3208-282	8530	1678.06	1.36	-	21.49	0.43	1711.78	0.08
3208-283	8560	874.43	0.98	-	21.95	0.35	1353.55	0.11
3208-284	8590	6873.16	92.64	-	-	0.90	74.32	1.34
3208-285	8620	6387.10	83.26	-	-	0.82	77.62	1.30
3208-286	8650	4451.97	29.78	-	-	0.75	154.28	0.66
3208-287	8680	8378.99	100.83	-	-	0.96	83.64	1.20
3208-288	8710	6784.49	50.52	-	-	0.69	135.56	0.74
3208-289	8740	5612.65	17.49	-	-	0.51	339.46	0.31
3208-290	8770	5359.65	15.60	-	-	0.65	373.33	0.29
3208-291	8800	3579.31	18.45	-	139.92	0.54	664.31	0.51
3208-292	8830	9710.89	126.80	-	-	0.57	77.98	1.30

TABLE II-B
CUTTINGS DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-293	8860	10821.68	133.01	-	-	0.72	82.04	1.22
3208-294	8890	12326.10	9.00	-	-	0.78	1737.24	0.07
3208-295	8920	21105.45	229.81	-	-	0.87	92.58	1.08
3208-296	8950	4513.55	174.63	-	-	0.61	26.45	3.86
3208-297	8980	2962.01	58.31	-	218.39	0.43	60.16	1.96
3208-298	9010	3647.39	69.60	-	467.63	0.46	62.27	1.90
3208-299	9040	1835.59	38.55	-	195.31	0.52	62.11	2.10
3208-300	9070	2276.02	75.86	-	388.94	0.57	37.19	3.33
3208-301	9100	2666.18	121.08	-	456.46	0.53	33.41	4.54
3208-302	9130	1786.39	50.62	-	302.79	0.47	48.89	2.83
3208-303	9160	3339.48	21.77	-	132.06	0.47	163.56	0.65
3208-304	9190	3760.29	15.59	-	175.76	0.96	365.35	0.41
3208-305	9220	2307.61	22.01	-	253.90	0.53	118.64	0.95
3208-306	9250	3207.29	19.93	-	-	0.61	174.03	0.62
3208-307	9280	3115.45	25.68	-	132.76	0.63	142.11	0.82
3208-308	9310	4328.57	28.91	-	164.61	0.60	156.35	0.66
3208-309	9340	2796.27	21.57	-	316.00	0.76	138.18	0.77
3208-310	9370	1722.35	4.27	-	112.08	0.47	716.54	0.24
3208-311	9400	1902.09	16.35	-	110.63	0.64	132.79	0.86
3208-312	9430	2138.84	57.45	-	112.58	0.48	74.26	2.68
3208-313	9460	1899.12	15.20	-	81.64	0.60	137.82	0.80
3208-314	9490	1502.32	13.18	-	42.65	0.38	167.14	0.87
3208-315	9520	1151.28	9.18	-	63.87	0.40	160.75	0.79

TABLE II-B
CUTTINGS DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-316	9550	1559.09	71.47	-	220.39	0.41	49.25	4.58
3208-317	9580	1444.73	39.09	-	350.86	0.54	75.18	2.70
3208-318	9610	1290.51	26.99	-	179.04	0.63	98.80	2.09
3208-319	9640	1255.25	23.49	-	380.71	0.48	75.61	1.87
3208-320	9670	1419.50	21.61	-	196.34	0.56	119.96	1.52
3208-321	9700	1317.85	7.13	-	156.94	0.93	265.97	0.54
3208-322	9730	840.89	18.45	-	219.30	0.68	55.22	2.19
3208-323	9760	555.25	7.74	-	69.53	0.65	110.24	1.39

TABLE I-C
COMBINED DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-001	130	1147.34	0.46	0.73	4.37	0.97	0.13	0.54	21.35
3208-002	160	1073.95	2.18	2.16	8.88	2.64	0.22	0.60	16.14
3208-003	190	1105.67	4.76	4.23	4.89	2.68	0.30	1.04	12.35
3208-004	220	1061.57	4.69	3.68	7.67	1.99	0.32	0.82	8.24
3208-005	250	187.70	6.45	4.59	82.01	2.73	0.49	0.76	13.99
3208-006	280	157.04	2.47	2.47	35.45	1.24	0.39	0.35	9.25
3208-007	310	129.33	3.84	2.37	76.88	0.90	0.48	0.40	7.90
3208-008	340	1315.67	3.69	3.06	73.89	1.21	0.25	0.20	7.93
3208-009	370	1333.07	15.94	31.27	42.58	3.83	0.33	1.33	13.44
3208-010	400	1273.74	2.58	2.78	8.72	0.98	0.14	0.39	4.54
3208-011	430	1229.20	1.28	1.20	7.84	0.52	0.08	0.16	4.06
3208-012	460	1251.26	2.66	2.26	9.07	1.05	0.17	0.31	5.72
3208-013	490	1248.47	1.17	1.19	1.29	0.52	0.06	0.16	5.07
3208-014	520	1298.99	0.67	0.83	8.80	0.44	0.12	0.12	5.55
3208-015	550	1086.25	1.62	1.89	2.64	1.26	0.10	0.32	5.00
3208-016	580	1315.77	0.72	1.20	0.99	0.80	0.07	0.16	7.23
3208-017	610	1082.24	0.72	0.85	0.66	0.64	0.04	0.14	3.52
3208-020	700	1360.04	0.75	0.82	2.63	0.58	0.53	0.35	7.86
3208-021	730	1439.81	0.64	0.63	7.84	0.54	0.62	0.57	6.53
3208-022	760	1570.29	3.57	5.62	366.11	3.43	2.50	0.97	25.08
3208-029	970	3639.54	54.56	0.25	7.95	0.09	1.44	1.42	22.81
3208-030	1000	5767.59	152.17	1.29	32.72	0.63	5.05	6.13	32.06
3208-031	1030	2495.65	25.13	0.53	2.72	0.25	0.41	0.37	6.90

TABLE I-C
COMBINED DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-032	1040	7063.53	153.13	0.46	26.10	0.19	4.25	3.42	6.31
3208-033	1060	2618.99	39.35	0.60	11.84	0.29	1.97	1.59	3.28
3208-034	1120	3756.59	71.83	0.64	16.37	0.46	2.56	2.46	3.99
3208-035	1150	6424.83	143.97	0.75	34.74	0.51	4.48	4.46	4.03
3208-036	1180	1601.50	16.00	0.62	5.53	0.44	0.54	0.57	1.55
3208-037	1210	2250.62	34.70	0.59	11.95	0.36	1.18	1.01	1.36
3208-038	1240	1666.15	20.89	0.74	8.40	0.46	0.63	0.42	0.49
3208-039	1270	1808.41	19.89	0.44	9.07	0.30	0.63	0.40	1.27
3208-040	1300	1223.66	0.68	0.72	1.81	0.47	0.13	0.22	1.07
3208-041	1330	1115.10	0.90	0.96	1.26	0.57	0.11	0.21	0.86
3208-042	1360	1815.69	0.62	0.41	11.40	0.38	0.54	0.65	5.34
3208-043	1390	1370.48	0.16	0.14	0.81	0.22	0.23	0.16	2.90
3208-044	1410	1208.74	0.42	0.64	3.22	0.56	0.29	0.35	2.85
3208-045	1430	1195.10	0.50	0.91	4.04	0.75	0.34	0.48	14.44
3208-046	1460	2062.01	50.48	1.84	82.84	1.08	2.27	1.62	1.97
3208-047	1490	1292.46	0.86	0.57	10.58	0.41	0.26	0.28	0.23
3208-048	1520	1623.86	0.67	0.52	0.93	0.39	0.11	0.25	1.31
3208-049	1530	1466.61	0.82	0.78	1.34	0.50	0.09	0.19	3.02
3208-050	1560	1723.61	2.20	2.29	8.03	1.79	0.37	0.59	2.10
3208-052	1620	1507.29	1.20	0.96	9.50	0.67	0.26	0.29	0.34
3208-053	1650	1643.54	1.44	1.12	10.87	0.83	0.28	0.32	3.81
3208-055	1710	1755.75	1.76	0.81	8.56	0.53	0.39	0.41	1.87
3208-056	1740	2042.85	2.35	0.47	6.84	0.32	1.47	2.07	4.50

TABLE I-C
COMBINED DATA

OCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
08-057	1770	2148.59	5.82	0.65	4.67	0.32	0.96	1.02	3.96
08-058	1800	2323.27	2.90	0.77	11.45	0.45	0.73	0.71	2.84
08-059	1830	2331.95	11.04	0.45	5.08	0.33	0.85	0.55	3.03
08-060	1860	1473.03	19.13	11.00	4.94	0.75	1.01	1.10	6.15
08-061	1890	1256.71	5.82	0.68	5.73	0.35	1.08	1.36	2.62
08-062	1920	1742.63	11.91	0.69	21.63	0.27	3.84	2.78	4.30
08-063	1950	1623.16	1.61	0.71	8.45	0.49	0.96	1.23	2.57
08-064	1980	1477.67	0.79	0.33	16.38	0.27	0.51	0.32	1.05
08-065	2010	1372.39	1.98	1.82	20.87	0.76	0.77	0.51	4.54
08-066	2040	1487.70	0.82	0.86	17.71	0.71	0.66	0.44	4.84
08-067	2070	1345.40	1.14	1.15	96.18	0.89	3.27	1.20	4.04
08-068	2100	1193.86	1.02	0.96	16.34	0.70	0.76	0.64	2.73
08-069	2130	1179.00	0.52	0.49	56.61	0.59	2.13	0.50	2.33
08-070	2160	1955.66	1.30	0.99	31.13	0.81	1.53	0.59	8.47
08-071	2190	1629.45	1.11	0.95	1.83	0.69	0.19	0.32	2.64
08-072	2220	1934.32	1.76	1.17	4.82	0.78	0.31	0.38	1.77
08-073	2250	1816.09	2.13	2.10	2.52	1.15	0.35	0.63	7.98
08-074	2280	1540.73	3.47	3.82	3.11	2.52	0.39	0.90	13.49
08-075	2310	2087.26	3.44	3.15	3.61	2.02	0.41	0.62	4.03
08-076	2340	2448.11	5.33	3.35	5.03	1.83	0.58	0.74	3.43
08-077	2370	3757.98	40.55	2.18	7.07	1.15	0.97	0.63	3.01
08-078	2400	3331.49	34.37	0.90	16.67	0.51	1.83	1.95	6.47
08-079	2430	2281.89	2.63	1.91	9.20	0.94	1.51	2.06	10.57

TABLE I-C
COMBINED DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-080	2460	2464.35	17.18	3.75	50.31	1.81	2.20	2.54	14.60
3208-081	2490	1708.84	5.28	3.21	53.63	1.77	1.55	2.00	9.70
3208-082	2520	2310.52	27.21	3.72	34.90	1.88	1.27	1.13	6.52
3208-083	2550	2515.91	32.94	8.86	67.57	4.65	3.71	5.99	3.38
3208-084	2580	3140.13	32.17	7.32	45.12	1.59	1.57	1.69	3.83
3208-085	2610	4928.45	42.12	0.97	16.18	0.37	2.88	2.37	1.35
3208-086	2640	4197.62	3.98	1.05	24.17	0.61	10.26	9.41	4.07
3208-087	2670	5617.60	3.23	0.99	13.49	0.65	6.59	5.83	6.00
3208-088	2700	7105.22	7.49	2.74	55.14	1.37	6.12	6.82	9.89
3208-089	2730	3419.83	2.22	0.88	7.24	0.42	1.89	2.22	2.43
3208-090	2760	1871.16	2.21	1.11	12.49	0.57	2.23	2.69	2.55
3208-091	2790	3804.13	5.60	2.85	16.93	1.28	2.09	2.31	4.52
3208-092	2820	6167.07	85.89	3.15	44.99	1.41	3.62	2.55	4.40
3208-093	2850	2878.42	2.85	1.43	13.61	0.86	3.13	3.58	3.17
3208-094	2880	2065.44	1.87	1.08	5.59	0.69	1.48	2.45	2.82
3208-095	2920	4104.21	2.98	1.07	12.29	0.70	1.58	2.17	16.79
3208-096	2950	3238.36	2.03	0.75	24.19	0.72	1.56	2.26	13.58
3208-097	2980	2721.95	8.20	5.50	18.42	2.31	1.16	1.57	3.94
3208-098	3010	2796.65	5.97	4.24	18.75	2.53	2.88	3.54	3.82
3208-099	3040	2888.33	10.50	8.34	16.60	3.30	1.95	3.02	7.58
3208-100	3070	4345.35	18.54	12.76	21.70	5.37	1.74	2.81	9.21
3208-101	3100	2579.18	3.46	1.77	51.28	1.40	1.56	1.30	19.22
3208-102	3130	3435.54	2.08	1.23	18.94	0.73	0.88	0.82	47.41

TABLE I-C
COMBINED DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-103	3160	2555.02	3.53	3.08	4.53	1.77	0.89	1.45	6.03
3208-104	3190	2165.77	3.33	2.46	7.76	1.41	0.52	0.86	5.82
3208-105	3220	4930.67	4.78	3.03	39.71	1.61	0.91	1.02	7.49
3208-106	3250	6371.15	7.14	2.59	45.83	1.18	3.69	3.14	9.10
3208-107	3280	8507.72	7.12	2.84	53.93	1.43	1.72	1.14	5.25
3208-108	3310	4661.53	5.06	3.90	27.47	2.27	0.97	0.95	3.97
3208-109	3340	2978.09	5.65	4.98	17.83	2.96	0.87	1.33	5.17
3208-110	3370	5470.06	3.80	2.21	11.70	1.28	0.82	0.89	3.76
3208-111	3400	6266.04	3.64	1.16	12.23	0.63	1.33	1.11	3.03
3208-112	3430	5489.33	6.29	2.35	47.71	1.28	2.37	2.35	4.35
3208-113	3460	6339.67	7.78	1.76	92.79	1.14	2.32	1.23	1.70
3208-114	3490	5240.63	7.93	1.19	16.03	0.74	2.73	2.78	2.20
3208-115	3520	5590.58	7.77	0.98	9.80	0.71	1.19	0.88	1.75
3208-116	3550	4346.74	12.66	0.00	16.84	0.45	1.28	0.77	0.94
3208-117	3580	5899.83	75.65	0.00	53.60	0.63	6.13	3.84	1.14
3208-118	3610	4802.07	50.03	0.89	34.45	0.71	5.64	3.69	1.53
3208-119	3640	2786.17	41.46	1.27	46.34	0.71	4.60	3.13	1.29
3208-120	3670	2189.88	4.70	1.63	18.14	0.91	2.25	1.88	0.49
3208-121	3700	1465.31	7.92	1.12	41.24	0.70	1.21	0.66	0.81
3208-122	3730	1383.12	2.64	2.30	18.89	1.25	0.66	0.50	0.36
3208-123	3760	1996.46	2.17	1.91	17.84	1.44	0.52	0.59	1.20
3208-125	3820	7269.42	2.22	0.89	9.48	0.91	1.19	1.14	2.36

TABLE I-C
COMBINED DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-126	3850	12875.89	2.64	1.90	13.12	1.95	0.97	1.18	2.07
3208-127	3880	7169.53	2.32	1.62	12.66	1.50	0.88	1.11	1.51
3208-128	3910	6541.38	56.14	4.68	21.99	1.59	1.25	1.54	1.13
3208-129	3940	14285.23	3.01	1.65	18.90	1.45	1.58	1.85	0.94
3208-131	4000	3409.19	6.39	10.57	11.62	1.88	0.79	0.89	2.68
3208-132	4030	3652.24	3.60	6.59	28.71	1.76	0.87	0.77	2.97
3208-133	4060	4266.99	3.02	7.04	59.09	2.41	1.14	0.61	2.30
3208-134	4090	7502.55	2.12	4.34	72.75	2.18	1.33	0.82	2.11
3208-135	4120	7488.87	3.98	11.16	85.58	3.13	1.15	0.94	1.65
3208-140	4270	3993.58	1.71	3.03	7.22	1.58	0.76	0.56	38.46
3208-142	4330	3949.50	1.58	3.03	62.09	2.36	1.57	0.75	31.61
3208-143	4360	10556.78	1.39	0.87	14.47	1.41	1.77	1.68	12.43
3208-144	4390	11178.54	5.57	0.00	17.17	1.61	1.99	1.89	15.74
3208-145	4420	7709.60	6.13	0.00	12.65	1.48	1.58	1.86	32.33
3208-146	4450	4943.55	3.13	0.00	44.52	1.07	1.74	1.47	14.68
3208-147	4480	6292.00	2.57	0.36	60.78	1.42	2.04	1.45	10.77
3208-148	4510	3034.74	91.28	57.55	614.02	14.11	43.11	82.26	182.69
3208-149	4540	1726.13	55.85	5.33	388.78	8.41	37.67	98.86	66.58
3208-150	4570	2011.28	96.57	0.00	1004.79	3.59	74.29	188.79	69.90
3208-151	4600	1315.38	124.34	0.00	684.94	1.93	74.24	199.90	72.27
3208-152	4630	1382.58	78.65	0.00	443.30	1.54	74.25	224.10	197.23
3208-153	4660	1193.35	125.20	0.00	685.14	2.55	73.72	240.92	120.64
3208-154	4690	1688.23	57.10	0.00	175.43	1.26	21.19	60.51	43.84

TABLE I-C
COMBINED DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-155	4720	1294.56	40.01	0.00	116.69	1.27	14.50	45.04	26.26
3208-156	4750	1309.98	225.00	0.00	628.34	2.28	57.56	166.12	70.82
3208-157	4780	1154.83	159.22	0.00	360.32	1.50	19.33	40.26	34.95
3208-158	4810	757.05	96.22	0.00	343.10	1.79	9.64	7.93	9.34
3208-159	4840	614.35	75.69	0.00	112.88	1.00	4.42	10.60	12.49
3208-160	4870	688.81	327.85	0.00	286.36	0.96	19.04	35.00	6.07
3208-161	4900	630.25	123.38	0.00	128.21	1.03	6.77	18.71	26.49
3208-162	4930	491.16	114.69	0.00	85.68	0.51	5.11	22.26	10.01
3208-163	4960	514.00	100.07	0.00	76.84	0.54	5.13	10.88	8.36
3208-164	4990	511.93	87.75	0.00	54.94	0.71	5.48	10.30	10.35
3208-165	5020	472.22	50.99	0.00	21.92	0.56	4.97	7.23	11.27
3208-166	5050	635.85	83.66	0.00	69.43	0.52	9.00	18.40	10.34
3208-167	5080	474.35	61.74	0.00	64.39	0.67	5.70	10.91	7.21
3208-168	5110	1603.67	98.79	0.00	112.59	0.93	7.40	17.15	7.49
3208-169	5140	1643.18	72.11	0.00	138.67	0.83	8.43	12.14	5.14
3208-170	5170	1770.75	40.51	0.00	89.88	1.16	5.65	8.74	7.36
3208-171	5200	1730.05	85.24	0.00	77.69	0.65	8.85	12.81	9.50
3208-172	5230	1631.11	48.93	0.00	63.83	0.76	6.65	7.89	14.24
3208-173	5260	1575.01	100.95	0.00	110.61	0.28	14.53	17.95	13.72
3208-174	5290	1574.00	122.19	0.00	83.01	0.71	18.19	33.91	16.58
3208-175	5320	1801.06	44.24	0.00	25.03	0.62	6.64	11.60	37.41
3208-176	5350	1192.10	77.83	0.00	27.35	0.51	4.38	6.67	14.12
3208-177	5380	935.91	168.56	0.00	61.29	0.40	2.65	3.71	9.38

TABLE I-C
COMBINED DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-178	5410	1461.93	1891.21	0.00	2831.43	0.38	350.06	475.75	191.60
3208-179	5440	1207.22	237.07	0.00	789.93	0.56	257.78	315.37	903.22
3208-180	5470	1307.25	667.26	0.00	2379.51	0.98	357.67	660.03	308.48
3208-181	5500	1294.00	114.62	0.00	739.60	0.49	595.69	815.62	3537.71
3208-182	5530	1673.46	983.61	0.00	3676.50	3.09	1133.58	1990.26	4770.45
3208-183	5560	1699.67	1130.85	0.00	3809.41	2.23	1063.61	1936.03	3619.94
3208-184	5590	1032.20	167.27	0.00	492.92	0.56	98.56	175.96	349.74
3208-185	5620	1900.88	1381.39	0.00	2181.14	0.62	166.16	267.64	148.49
3208-186	5650	1574.46	431.62	0.00	988.35	2.70	241.96	478.63	697.11
3208-187	5680	1473.18	504.23	0.00	3193.86	3.75	1477.21	2995.91	6300.90
3208-188	5710	1448.22	447.19	0.00	2368.52	2.75	1078.31	2039.90	5009.95
3208-189	5740	1322.48	657.79	0.00	2211.36	1.95	850.51	1382.72	4933.79
3208-190	5770	1183.75	531.48	0.00	1902.11	2.48	723.79	1091.30	3534.04
3208-191	5800	1979.99	1206.50	0.00	6475.59	4.02	2278.44	4767.83	10441.30
3208-192	5830	2931.20	2773.99	0.00	14758.40	8.18	5191.96	12066.36	18798.24
3208-193	5860	2788.43	1583.58	0.00	7610.08	2.19	3425.82	7828.72	17119.80
3208-194	5890	995.29	134.75	0.00	475.89	0.82	212.46	458.80	1911.34
3208-195	5920	1053.92	664.29	0.00	2566.88	1.80	677.17	1230.25	2662.81
3208-196	5950	1635.48	407.36	0.00	1348.92	1.70	510.99	845.61	2689.12
3208-197	5980	1715.53	202.59	0.00	646.52	2.00	323.15	552.81	2090.80
3208-198	6010	1574.63	86.13	0.00	125.82	0.93	49.61	77.19	382.37
3208-199	6040	1371.93	90.00	0.00	442.51	1.12	191.59	373.56	1384.60
3208-200	6070	1980.49	238.19	0.00	801.55	1.63	332.66	580.08	2278.08

TABLE I-C
COMBINED DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-201	6100	2029.36	364.57	0.00	1120.28	2.45	460.32	798.03	2172.51
3208-202	6130	1672.15	385.43	0.00	1358.60	1.01	541.60	957.42	3144.93
3208-203	6160	1601.98	326.97	0.00	1078.46	1.96	438.64	785.23	2427.72
3208-204	6190	1477.79	119.54	0.00	313.75	2.51	120.04	204.95	856.74
3208-205	6220	1519.67	198.46	0.00	518.97	0.77	193.95	341.59	1353.53
3208-206	6250	1591.63	298.79	0.00	1015.25	1.17	373.70	705.24	2078.17
3208-207	6280	1489.26	57.93	0.00	186.14	1.57	59.79	109.71	395.12
3208-208	6310	1300.60	63.78	0.00	104.92	1.75	38.79	57.19	306.03
3208-209	6340	1442.69	91.66	0.00	191.51	2.98	45.60	82.96	260.18
3208-210	6370	1389.56	35.13	0.00	44.73	0.84	11.11	15.68	64.46
3208-211	6400	1377.94	65.64	0.00	113.35	3.32	33.24	56.57	273.37
3208-212	6430	849.94	31.80	0.00	29.81	1.51	6.62	7.06	40.19
3208-213	6460	843.92	57.30	0.00	57.92	0.35	20.58	25.81	93.64
3208-214	6490	794.86	81.68	0.00	169.32	0.43	78.89	114.47	338.95
3208-215	6520	879.40	100.23	0.00	139.54	0.31	63.30	69.08	300.14
3208-216	6550	871.84	112.18	0.00	203.68	5.96	67.44	74.87	207.28
3208-217	6580	1224.30	286.06	0.00	421.25	1.77	31.74	37.44	50.26
3208-218	6610	1182.53	196.07	0.00	256.99	1.91	76.08	65.22	147.66
3208-219	6640	1479.78	214.33	0.00	371.29	0.96	124.97	150.89	428.03
3208-220	6670	1166.62	315.73	0.00	298.47	1.24	95.00	75.46	153.84
3208-221	6700	1234.56	332.26	0.00	620.64	2.07	130.79	108.87	242.87
3208-222	6730	1369.24	170.83	0.00	258.00	2.16	63.01	49.30	136.44
3208-223	6760	1289.22	172.61	0.00	359.32	4.68	99.77	106.03	334.92

TABLE I-C
COMBINED DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-224	6790	1451.59	172.93	0.00	257.87	2.74	58.98	35.85	76.76
3208-225	6820	1292.01	141.07	0.00	195.00	2.25	45.84	40.35	112.00
3208-226	6850	1322.58	213.12	0.00	250.84	1.24	54.55	41.84	87.70
3208-227	6880	1245.17	223.46	0.00	286.71	1.27	58.39	41.64	78.88
3208-228	6910	1148.28	160.22	0.00	213.83	0.91	49.51	33.64	57.81
3208-229	6940	1179.60	97.68	0.00	112.75	0.73	31.57	20.32	33.84
3208-230	6970	1404.85	129.67	0.00	72.85	0.32	23.38	11.18	18.84
3208-231	7000	1347.15	97.26	0.00	72.43	0.17	19.83	10.47	13.10
3208-232	7030	1741.26	119.56	0.00	103.75	0.16	28.87	18.20	22.97
3208-233	7060	1324.08	153.81	0.00	126.86	0.97	30.36	30.41	72.88
3208-234	7090	413.79	88.05	0.00	100.62	0.74	26.90	22.59	48.47
3208-235	7120	557.29	100.60	0.00	120.80	0.87	26.93	19.09	29.62
3208-236	7150	709.54	104.15	0.00	97.80	0.28	21.94	12.98	16.31
3208-237	7180	541.92	101.51	0.00	113.63	0.33	22.54	14.80	19.33
3208-238	7210	303.45	29.19	0.00	55.64	0.22	12.66	13.07	34.69
3208-239	7240	999.67	75.94	0.00	129.59	0.74	36.59	38.90	125.04
3208-240	7270	1110.48	151.03	0.00	218.08	1.81	51.57	47.66	89.57
3208-241	7300	902.60	74.24	0.00	96.12	1.06	29.64	25.75	66.16
3208-242	7330	861.13	53.85	0.00	101.31	0.93	24.88	31.02	65.44
3208-243	7360	1033.11	46.76	0.00	53.47	0.49	11.62	9.42	19.07
3208-244	7390	900.18	88.75	0.00	91.74	1.05	21.40	16.20	28.76
3208-245	7420	937.76	61.24	0.00	114.87	0.78	18.20	19.38	46.84
3208-246	7450	1159.80	48.65	0.00	105.63	0.42	23.04	28.00	67.06

TABLE I-C
COMBINED DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-247	7480	1045.13	68.70	0.00	93.87	0.28	18.69	16.10	35.75
3208-248	7510	890.62	81.66	0.00	147.24	0.27	45.25	45.42	149.78
3208-249	7540	1097.75	76.59	0.00	89.09	0.17	28.98	22.76	81.62
3208-250	7570	1736.64	72.72	0.00	78.75	0.16	11.93	8.78	16.28
3208-251	7600	2015.16	145.77	0.00	154.63	0.23	20.38	11.97	32.95
3208-252	7630	1810.05	94.47	0.00	61.69	0.14	13.80	5.86	8.89
3208-253	7660	2779.09	80.87	0.00	43.75	0.49	5.68	3.18	4.29
3208-254	7690	3967.45	96.40	0.00	46.44	0.26	6.51	3.51	4.25
3208-255	7720	1610.37	603.93	0.00	79.24	0.45	11.12	8.75	23.48
3208-256	7750	1316.91	72.77	0.00	99.11	0.55	19.97	15.84	32.75
3208-257	7780	1510.93	94.35	0.00	204.86	0.38	76.77	100.74	352.71
3208-258	7810	1110.70	43.70	0.00	118.44	0.81	20.57	31.08	106.44
3208-259	7840	1146.89	26.72	0.00	64.66	0.42	20.09	39.31	172.97
3208-260	7870	1116.23	37.78	0.00	66.71	0.43	16.74	18.87	54.47
3208-261	7900	1249.35	45.33	0.00	157.36	2.46	21.01	24.84	149.29
3208-262	7930	1107.67	15.65	0.00	51.25	0.56	7.15	10.09	30.48
3208-263	7960	1160.29	17.26	0.00	41.61	0.40	9.96	11.28	56.40
3208-264	7990	735.15	12.73	0.00	58.42	0.95	8.15	12.18	33.96
3208-265	8020	1063.24	15.02	0.00	46.71	0.61	4.80	6.92	17.02
3208-266	8050	1135.31	28.77	0.00	93.67	2.11	8.52	12.72	31.14
3208-267	8080	1074.02	9.16	0.00	18.99	1.12	2.65	4.28	17.29
3208-268	8110	1122.70	11.35	0.00	30.05	0.53	5.88	7.08	35.69
3208-269	8140	99.88	5.65	0.75	13.96	0.79	1.61	2.66	8.34

TABLE I-C
COMBINED DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-270	8170	638.17	29.38	0.00	67.20	1.40	21.39	30.45	97.05
3208-271	8200	405.42	22.18	0.00	46.64	1.19	7.38	9.05	32.73
3208-272	8230	1066.55	9.66	0.00	28.72	0.90	6.42	8.83	52.82
3208-273	8260	1060.17	19.86	0.00	103.67	1.44	21.69	34.35	115.82
3208-274	8290	186.71	8.17	1.88	34.51	0.93	7.17	10.58	67.88
3208-275	8320	1346.44	28.07	1.29	49.75	1.57	9.32	15.77	110.47
3208-276	8350	2306.52	37.63	0.00	102.63	1.36	21.42	33.18	163.73
3208-277	8380	2871.62	24.25	0.00	38.46	0.68	5.48	9.71	54.20
3208-278	8410	8431.62	16.06	1.87	48.87	0.73	2.00	3.64	27.17
3208-279	8440	2353.98	19.94	0.72	11.58	0.50	1.15	2.08	15.43
3208-280	8470	1127.29	10.87	1.12	19.56	0.80	0.67	1.10	17.54
3208-281	8500	1325.88	1.15	1.35	11.01	0.76	0.40	0.71	12.23
3208-282	8530	1711.12	1.16	1.21	6.80	0.66	0.34	0.81	19.25
3208-283	8560	898.36	0.88	0.88	8.57	0.51	0.30	0.66	12.30
3208-284	8590	6934.55	76.64	1.47	24.43	0.67	1.87	3.21	53.62
3208-285	8620	6428.71	69.26	0.00	32.86	0.47	1.59	2.03	23.67
3208-286	8650	4581.46	28.36	0.00	96.42	0.52	2.53	3.80	25.85
3208-287	8680	8487.98	82.48	0.00	42.72	0.30	1.35	1.58	15.45
3208-288	8710	6911.35	28.17	1.68	49.24	0.67	1.01	1.68	15.25
3208-289	8740	5755.85	21.14	0.00	32.61	0.42	5.58	10.29	34.45
3208-290	8770	5516.22	17.22	0.00	20.70	0.39	3.06	5.26	51.13
3208-291	8800	3673.11	2.88	1.07	26.51	0.63	7.09	12.34	142.57
3208-292	8830	9863.80	109.14	0.00	37.66	0.65	5.14	7.21	50.04

TABLE I-C
COMBINED DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-293	8860	11068.49	106.60	0.00	58.46	0.74	6.14	6.33	43.37
3208-294	8890	12580.83	7.41	0.00	40.94	0.63	3.00	4.10	36.27
3208-295	8920	21519.49	193.26	0.00	67.23	0.69	6.42	8.39	48.18
3208-296	8950	4733.16	178.68	0.00	149.68	1.05	30.48	47.34	208.56
3208-297	8980	2998.38	44.78	1.31	70.95	1.11	12.80	22.51	115.20
3208-298	9010	3699.22	62.63	0.00	115.89	0.70	28.29	49.73	191.04
3208-299	9040	1898.34	38.35	0.00	124.55	2.46	17.21	20.22	107.05
3208-300	9070	2275.27	58.79	0.00	217.62	0.53	25.55	39.09	123.64
3208-301	9100	2596.11	61.52	0.00	74.82	0.61	23.71	36.31	333.80
3208-302	9130	1776.42	36.60	0.00	116.08	0.79	31.21	40.43	211.73
3208-303	9160	3396.25	18.60	1.64	37.76	0.88	4.61	7.01	39.94
3208-304	9190	3797.46	12.36	0.00	63.43	0.46	17.11	21.57	90.78
3208-305	9220	2347.14	24.88	0.00	42.31	0.36	10.02	13.14	68.60
3208-306	9250	3253.70	26.95	0.00	51.75	0.89	6.49	12.25	44.67
3208-307	9280	3207.52	23.87	0.00	40.86	0.83	7.37	11.86	57.07
3208-308	9310	4401.73	31.45	0.00	41.27	0.65	4.29	6.45	42.05
3208-309	9340	2867.27	17.96	0.99	17.74	0.61	2.89	4.07	19.50
3208-310	9370	1818.41	5.26	1.24	15.02	0.57	2.68	3.83	21.15
3208-311	9400	2022.14	15.69	2.29	29.87	0.96	4.08	5.64	34.62
3208-312	9430	2293.96	24.26	0.00	47.28	0.93	15.74	28.06	249.08
3208-313	9460	2005.41	16.62	0.73	22.97	0.63	3.28	4.18	30.19
3208-314	9490	1562.69	14.06	1.79	37.62	0.89	4.06	7.19	90.31
3208-315	9520	1176.09	22.90	5.36	110.64	1.74	11.72	16.61	83.02

TABLE I-C
COMBINED DATA

GEOCHEM ID	DEPTHS	METHANE	ETHANE	ETHYLENE	PROPANE	PROPYLENE	ISOBUTANE	N BUTANE	C5-C7
3208-316	9550	1531.87	45.03	0.00	145.41	0.86	33.31	56.43	529.85
3208-317	9580	1457.00	23.88	0.00	61.52	1.12	16.37	27.26	204.03
3208-318	9610	1288.32	26.98	0.00	82.97	0.75	20.15	29.05	191.37
3208-319	9640	1260.88	32.96	0.00	85.99	0.65	17.91	27.09	87.45
3208-320	9670	1435.96	25.58	0.00	84.89	0.63	17.73	27.73	94.57
3208-321	9700	1358.43	15.87	0.00	61.63	0.86	8.19	11.34	62.19
3208-322	9730	867.56	23.74	0.00	48.57	1.16	5.40	6.96	32.32
3208-323	9760	568.62	12.86	0.00	39.23	0.95	9.87	14.71	66.22

TABLE II-C
COMBINED DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-001	130	1152.86	5.52	0.63	4.50	0.25	236.91	0.47
3208-002	160	1085.86	11.91	1.01	3.36	0.37	96.96	1.09
3208-003	190	1116.68	11.00	1.12	1.82	0.29	114.52	0.98
3208-004	220	1075.09	13.51	1.27	3.84	0.39	85.84	1.25
3208-005	250	277.44	89.73	1.40	29.98	0.63	2.12	32.34
3208-006	280	195.71	38.67	0.99	28.38	1.12	4.14	19.76
3208-007	310	210.95	81.62	1.62	85.12	1.20	1.60	38.69
3208-008	340	1393.72	78.04	1.20	60.76	1.23	16.95	5.59
3208-009	370	1393.27	60.20	0.50	11.11	0.25	22.77	4.32
3208-010	400	1285.59	11.85	0.92	8.89	0.35	112.55	0.92
3208-011	430	1238.59	9.38	1.06	15.08	0.54	134.65	0.75
3208-012	460	1263.49	12.22	1.17	8.55	0.54	106.62	0.96
3208-013	490	1251.18	2.70	0.98	2.45	0.41	504.10	0.21
3208-014	520	1308.71	9.71	0.80	19.57	0.97	137.14	0.74
3208-015	550	1090.94	4.69	0.85	2.08	0.32	254.58	0.43
3208-016	580	1317.74	1.96	0.59	1.23	0.47	764.55	0.14
3208-017	610	1083.82	1.57	0.83	1.03	0.31	780.06	0.14
3208-020	700	1364.31	4.27	0.90	4.50	1.50	401.75	0.31
3208-021	730	1449.49	9.67	1.00	14.51	1.08	169.72	0.66
3208-022	760	1943.46	373.17	0.63	106.64	2.58	4.24	19.20
3208-029	970	3704.92	65.38	210.31	85.76	1.01	58.21	1.76
3208-030	1000	5963.68	196.08	117.27	51.19	0.82	31.19	3.28
3208-031	1030	2524.29	28.64	47.29	10.57	1.10	89.59	1.13

TABLE II-C
COMBINED DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-032	1040	7250.45	186.92	326.47	131.49	1.24	39.40	2.57
3208-033	1060	2673.77	54.77	65.38	40.78	1.24	51.15	2.04
3208-034	1120	3849.82	93.22	110.81	34.89	1.04	42.59	2.42
3208-035	1150	6612.51	187.68	190.75	66.91	1.00	35.94	2.83
3208-036	1180	1624.16	22.66	25.41	12.48	0.94	74.33	1.39
3208-037	1210	2299.48	48.86	57.98	33.20	1.16	48.23	2.12
3208-038	1240	1696.50	30.35	28.02	18.01	1.47	56.88	1.78
3208-039	1270	1838.42	30.00	44.73	29.88	1.58	62.42	1.63
3208-040	1300	1226.51	2.84	0.93	3.80	0.60	491.06	0.23
3208-041	1330	1117.59	2.49	0.94	2.20	0.52	514.25	0.22
3208-042	1360	1828.92	13.23	1.50	30.01	0.82	150.88	0.72
3208-043	1390	1371.86	1.38	1.17	3.67	1.37	1399.47	0.10
3208-044	1410	1213.03	4.28	0.65	5.67	0.82	331.56	0.35
3208-045	1430	1200.48	5.38	0.55	5.36	0.72	262.36	0.44
3208-046	1460	2199.24	137.22	27.30	76.68	1.40	15.46	6.23
3208-047	1490	1304.46	12.00	1.50	25.48	0.94	112.90	0.92
3208-048	1520	1625.84	1.97	1.29	2.35	0.43	1006.36	0.12
3208-049	1530	1469.07	2.45	1.04	2.67	0.50	677.65	0.16
3208-050	1560	1734.82	11.20	0.96	4.47	0.63	168.36	0.64
3208-052	1620	1518.55	11.26	1.24	14.07	0.89	140.80	0.74
3208-053	1650	1656.46	12.92	1.27	12.99	0.85	133.44	0.78
3208-055	1710	1766.89	11.14	2.15	16.12	0.95	169.91	0.63
3208-056	1740	2055.60	12.75	4.98	21.06	0.71	222.03	0.62

TABLE II-C
COMBINED DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-057	1770	2161.06	12.47	8.84	14.45	0.94	204.70	0.57
3208-058	1800	2339.08	15.81	3.74	25.21	1.02	161.79	0.67
3208-059	1830	2349.50	17.54	24.30	15.15	1.52	144.49	0.74
3208-060	1860	1499.23	26.20	1.73	6.52	0.91	61.16	1.74
3208-061	1890	1270.72	14.00	8.55	16.31	0.79	108.73	1.10
3208-062	1920	1782.81	40.17	17.07	78.67	1.37	51.94	2.25
3208-063	1950	1635.44	12.27	2.27	16.96	0.78	161.10	0.75
3208-064	1980	1495.68	18.01	2.34	60.13	1.58	86.02	1.20
3208-065	2010	1396.55	24.15	1.08	27.16	1.50	60.02	1.72
3208-066	2040	1507.35	19.64	0.95	24.71	1.49	80.25	1.30
3208-067	2070	1447.21	101.80	0.99	107.67	2.71	13.82	7.03
3208-068	2100	1212.64	18.77	1.06	23.03	1.18	68.72	1.54
3208-069	2130	1238.77	59.77	1.05	94.66	4.24	20.63	4.82
3208-070	2160	1990.23	34.56	1.30	38.12	2.59	60.29	1.73
3208-071	2190	1632.91	3.45	1.16	2.63	0.60	553.63	0.21
3208-072	2220	1941.61	7.28	1.50	6.17	0.79	293.54	0.37
3208-073	2250	1821.74	5.64	1.01	2.18	0.55	389.88	0.30
3208-074	2280	1548.62	7.88	0.90	1.23	0.43	233.97	0.50
3208-075	2310	2095.36	8.10	1.09	1.79	0.65	295.50	0.38
3208-076	2340	2459.82	11.70	1.59	2.75	0.79	235.98	0.47
3208-077	2370	3807.22	49.24	18.56	6.11	1.54	78.89	1.29
3208-078	2400	3386.33	54.83	38.15	32.60	0.93	65.26	1.61
3208-079	2430	2297.31	15.42	1.37	9.76	0.73	192.69	0.67

TABLE II-C
COMBINED DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-080	2460	2536.60	72.24	4.57	27.67	0.86	36.50	2.84
3208-081	2490	1771.32	62.47	1.64	30.23	0.77	29.00	3.52
3208-082	2520	2375.05	64.53	7.29	18.54	1.11	37.19	2.71
3208-083	2550	2626.14	110.22	3.71	14.52	0.61	25.02	4.19
3208-084	2580	3220.70	80.56	4.39	28.32	0.92	40.62	2.50
3208-085	2610	4992.02	63.56	43.15	42.74	1.21	84.52	1.27
3208-086	2640	4245.46	47.84	3.79	39.51	1.08	149.03	1.12
3208-087	2670	5646.77	29.16	3.24	20.45	1.13	335.66	0.51
3208-088	2700	7180.81	75.59	2.73	40.00	0.89	113.42	1.05
3208-089	2730	3433.43	13.59	2.51	16.89	0.85	360.98	0.39
3208-090	2760	1890.80	19.64	1.98	21.56	0.83	127.23	1.03
3208-091	2790	3831.08	26.94	1.96	13.20	0.90	168.76	0.70
3208-092	2820	6304.14	137.07	27.21	31.70	1.41	47.11	2.17
3208-093	2850	2901.62	23.19	1.99	15.67	0.87	174.72	0.79
3208-094	2880	2076.85	11.40	1.74	8.06	0.60	276.41	0.54
3208-095	2920	4123.25	19.03	2.77	17.54	0.73	268.73	0.46
3208-096	2950	3268.41	30.05	2.70	33.55	0.69	123.46	0.91
3208-097	2980	2751.32	29.36	1.48	7.96	0.73	102.22	1.06
3208-098	3010	2827.80	31.15	1.40	7.39	0.81	113.12	1.10
3208-099	3040	2920.41	32.08	1.25	5.02	0.64	106.57	1.09
3208-100	3070	4390.16	44.81	1.45	4.04	0.62	107.95	1.02
3208-101	3100	2535.79	57.50	1.95	35.59	1.19	47.11	2.13
3208-102	3130	3458.28	22.74	1.68	25.77	1.06	163.37	0.65

TABLE II-C
COMBINED DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-126	3850	12893.82	17.93	1.38	6.70	0.81	816.38	0.13
3208-127	3880	7186.52	16.98	1.43	8.43	0.79	478.14	0.23
3208-128	3910	6622.33	80.94	11.97	13.81	0.80	83.70	1.22
3208-129	3940	14310.60	25.36	1.82	12.99	0.85	651.45	0.17
3208-131	4000	3428.90	19.71	0.60	6.18	0.88	189.18	0.57
3208-132	4030	3686.21	33.97	0.54	16.25	1.13	113.00	0.92
3208-133	4060	4330.89	63.89	0.42	24.43	1.85	68.68	1.47
3208-134	4090	7579.58	77.03	0.48	33.24	1.62	100.19	1.01
3208-135	4120	7580.53	91.66	0.35	27.31	1.22	83.61	1.20
3208-140	4270	4003.86	10.27	0.56	4.55	1.34	446.57	0.25
3208-142	4330	4015.51	66.00	0.52	26.29	2.06	62.02	1.64
3208-143	4360	10576.10	19.32	1.59	10.25	1.05	665.41	0.18
3208-144	4390	11205.18	26.63	-	10.63	1.05	491.18	0.23
3208-145	4420	7731.83	22.23	-	8.54	0.84	410.41	0.28
3208-146	4450	4994.43	50.88	-	41.56	1.17	103.71	1.01
3208-147	4480	6358.85	66.85	7.04	42.51	1.40	99.31	1.05
3208-148	4510	3865.43	830.69	1.58	43.48	0.52	4.30	21.49
3208-149	4540	2307.30	581.17	10.46	46.20	0.38	3.88	25.18
3208-150	4570	3375.75	1364.46	-	279.68	0.39	1.82	40.41
3208-151	4600	2398.83	1083.44	-	354.71	0.37	1.62	45.16
3208-152	4630	2202.99	920.31	-	287.35	0.33	2.54	37.23
3208-153	4660	2318.35	1125.00	-	267.88	0.30	1.47	48.52
3208-154	4690	2002.47	314.24	-	138.46	0.35	7.25	15.69

TABLE II-C
COMBINED DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-103	3160	2565.44	10.41	1.14	2.55	0.61	316.58	0.40
3208-104	3190	2178.26	12.49	1.35	5.48	0.60	195.12	0.57
3208-105	3220	4977.10	46.43	1.57	24.58	0.89	110.81	0.93
3208-106	3250	6430.97	59.82	2.75	38.81	1.17	120.23	0.93
3208-107	3280	8571.64	63.92	2.50	37.71	1.50	139.33	0.74
3208-108	3310	4696.02	34.48	1.29	12.06	1.02	143.22	0.73
3208-109	3340	3003.79	25.70	1.13	6.00	0.65	126.74	0.85
3208-110	3370	5487.29	17.23	1.71	9.14	0.92	352.74	0.31
3208-111	3400	6284.37	18.33	3.13	19.12	1.18	394.55	0.29
3208-112	3430	5548.07	58.74	2.67	37.05	1.00	101.62	1.05
3208-113	3460	6443.82	104.14	4.41	80.94	1.88	63.03	1.61
3208-114	3490	5270.13	29.49	6.64	21.43	0.98	218.65	0.55
3208-115	3520	5610.24	19.65	7.85	13.72	1.36	318.01	0.35
3208-116	3550	4378.31	31.56	-	36.96	1.64	147.32	0.72
3208-117	3580	6039.07	139.24	-	84.34	1.59	45.64	2.30
3208-118	3610	4895.90	93.83	55.67	48.23	1.52	56.83	1.91
3208-119	3640	2881.72	95.55	32.49	65.13	1.47	31.72	3.31
3208-120	3670	2216.86	26.98	2.87	19.80	1.19	95.85	1.21
3208-121	3700	1516.37	51.05	7.02	58.44	1.82	29.79	3.36
3208-122	3730	1405.83	22.70	1.14	15.01	1.30	64.21	1.61
3208-123	3760	2017.60	21.14	1.13	12.37	0.87	99.72	1.04
3208-125	3820	7283.47	14.04	2.50	10.34	1.04	620.86	0.19

TABLE II-C
COMBINED DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-155	4720	1510.82	216.25	-	91.81	0.32	8.26	14.31
3208-156	4750	2387.03	1077.04	-	275.47	0.34	1.53	45.12
3208-157	4780	1733.98	579.15	-	239.64	0.48	2.22	33.40
3208-158	4810	1213.97	456.91	-	191.36	1.21	1.72	37.63
3208-159	4840	817.96	203.61	-	112.72	0.41	3.25	24.89
3208-160	4870	1357.09	668.27	-	297.40	0.54	1.12	49.24
3208-161	4900	907.33	277.08	-	123.85	0.36	2.50	30.53
3208-162	4930	718.92	227.76	-	166.13	0.22	2.45	31.68
3208-163	4960	706.92	192.92	-	141.56	0.47	2.90	27.29
3208-164	4990	670.43	158.49	-	77.35	0.53	3.58	23.64
3208-165	5020	557.36	85.13	-	38.56	0.68	6.47	15.27
3208-166	5050	816.36	180.51	-	132.04	0.48	4.15	22.11
3208-167	5080	617.12	142.76	-	95.34	0.52	3.76	23.13
3208-168	5110	1839.61	235.94	-	120.18	0.43	7.58	12.82
3208-169	5140	1874.54	231.36	-	165.54	0.69	7.79	12.34
3208-170	5170	1915.54	144.79	-	77.14	0.64	13.57	7.55
3208-171	5200	1914.65	184.59	-	118.85	0.69	10.61	9.64
3208-172	5230	1758.42	127.30	-	83.22	0.84	14.46	7.23
3208-173	5260	1819.07	244.06	-	388.07	0.80	7.44	13.41
3208-174	5290	1831.32	257.31	-	116.62	0.53	7.67	14.05
3208-175	5320	1888.60	87.53	-	39.78	0.57	25.99	4.63
3208-176	5350	1308.35	116.25	-	52.62	0.65	11.33	8.88
3208-177	5380	1172.14	236.23	-	150.82	0.71	4.07	20.15

TABLE II-C
COMBINED DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-178	5410	7010.40	5548.46	-	7381.53	0.73	0.30	79.14
3208-179	5440	2807.38	1600.16	-	1397.20	0.81	1.17	56.99
3208-180	5470	5371.74	4064.48	-	2416.54	0.54	0.42	75.66
3208-181	5500	3559.55	2265.54	-	1504.16	0.73	1.51	63.64
3208-182	5530	9457.43	7783.96	-	1189.64	0.56	0.35	82.30
3208-183	5560	9639.59	7939.91	-	1703.62	0.54	0.34	82.36
3208-184	5590	1966.93	934.73	-	867.55	0.56	1.56	47.52
3208-185	5620	5897.22	3996.33	-	3476.21	0.62	0.53	67.76
3208-186	5650	3715.04	2140.58	-	364.99	0.50	1.10	57.61
3208-187	5680	9644.39	8171.21	-	850.55	0.49	0.39	84.72
3208-188	5710	7382.16	5933.94	-	860.76	0.52	0.51	80.38
3208-189	5740	6424.88	5102.39	-	1130.29	0.61	0.46	79.41
3208-190	5770	5432.45	4248.70	-	765.64	0.66	0.48	78.20
3208-191	5800	16708.36	14728.37	-	1609.76	0.47	0.25	88.14
3208-192	5830	37721.92	34790.72	-	1803.31	0.43	0.16	92.22
3208-193	5860	23236.65	20448.21	-	3460.23	0.43	0.30	87.99
3208-194	5890	2277.21	1281.91	-	574.12	0.46	1.62	56.29
3208-195	5920	6192.54	5138.61	-	1421.18	0.55	0.32	82.98
3208-196	5950	4748.38	3112.90	-	791.68	0.60	0.93	65.55
3208-197	5980	3440.61	1725.08	-	323.10	0.58	2.02	50.13
3208-198	6010	1913.41	338.77	-	135.01	0.64	7.42	17.70
3208-199	6040	2469.62	1097.68	-	392.60	0.51	2.57	44.44
3208-200	6070	3933.00	1952.51	-	490.44	0.57	1.90	49.64

TABLE II-C
COMBINED DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-201	6100	4772.57	2743.21	-	456.04	0.57	1.36	57.47
3208-202	6130	4915.21	3243.06	-	1339.15	0.56	0.95	65.98
3208-203	6160	4231.31	2629.32	-	547.59	0.55	1.13	62.13
3208-204	6190	2236.10	758.30	-	124.83	0.58	3.41	33.91
3208-205	6220	2772.66	1252.99	-	668.66	0.56	2.11	45.19
3208-206	6250	3984.64	2393.00	-	861.33	0.52	1.21	60.05
3208-207	6280	1902.85	413.58	-	118.25	0.54	6.10	21.73
3208-208	6310	1565.30	264.70	-	59.74	0.67	7.70	16.91
3208-209	6340	1854.43	411.74	-	64.26	0.54	5.09	22.20
3208-210	6370	1496.24	106.68	-	52.83	0.70	17.39	7.12
3208-211	6400	1646.76	268.82	-	34.06	0.58	7.69	16.32
3208-212	6430	925.25	75.30	-	19.71	0.93	13.79	8.13
3208-213	6460	1005.55	161.63	-	164.29	0.79	7.32	16.07
3208-214	6490	1239.24	444.37	-	388.37	0.68	3.16	35.85
3208-215	6520	1251.57	372.16	-	449.30	0.91	3.66	29.73
3208-216	6550	1330.03	458.18	-	34.12	0.90	2.76	34.44
3208-217	6580	2000.80	776.49	-	236.90	0.84	1.73	38.80
3208-218	6610	1776.91	594.37	-	133.87	1.16	2.61	33.45
3208-219	6640	2341.27	861.49	-	384.23	0.82	2.52	36.79
3208-220	6670	1951.30	784.68	-	238.92	1.25	1.89	40.21
3208-221	6700	2427.15	1192.58	-	299.60	1.20	1.29	49.13
3208-222	6730	1910.39	541.14	-	118.97	1.27	3.19	28.32
3208-223	6760	2026.97	737.74	-	76.73	0.94	2.42	36.39

TABLE II-C
COMBINED DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-224	6790	1977.23	525.64	-	94.05	1.64	3.36	26.58
3208-225	6820	1714.28	422.27	-	86.29	1.13	3.84	24.63
3208-226	6850	1882.96	560.37	-	200.95	1.30	2.85	29.76
3208-227	6880	1855.39	610.22	-	224.54	1.40	2.44	32.88
3208-228	6910	1605.51	457.22	-	232.44	1.47	3.06	28.47
3208-229	6940	1441.95	262.34	-	153.61	1.55	5.60	18.19
3208-230	6970	1641.96	237.10	-	227.04	2.08	6.93	14.44
3208-231	7000	1547.17	200.01	-	412.85	1.89	7.93	12.92
3208-232	7030	2011.67	270.40	-	630.76	1.58	7.79	13.44
3208-233	7060	1665.54	341.46	-	130.18	0.99	4.71	20.50
3208-234	7090	651.97	238.17	-	134.93	1.19	2.19	36.53
3208-235	7120	824.74	267.44	-	138.22	1.41	2.51	32.42
3208-236	7150	946.43	236.88	-	339.46	1.69	3.51	25.02
3208-237	7180	794.42	252.50	-	343.18	1.52	2.51	31.78
3208-238	7210	414.02	110.57	-	252.34	0.96	3.57	26.70
3208-239	7240	1280.71	281.03	-	173.34	0.94	4.86	21.94
3208-240	7270	1578.84	468.35	-	120.42	1.08	3.00	29.66
3208-241	7300	1128.37	225.76	-	89.87	1.15	5.29	20.00
3208-242	7330	1072.21	211.08	-	108.60	0.80	5.54	19.68
3208-243	7360	1154.40	121.29	-	107.06	1.23	10.30	10.50
3208-244	7390	1118.29	218.10	-	87.14	1.32	4.98	19.50
3208-245	7420	1151.48	213.71	-	146.23	0.93	5.32	18.56
3208-246	7450	1365.15	205.34	-	247.15	0.82	7.51	15.04

TABLE II-C
COMBINED DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-247	7480	1242.51	197.38	-	328.81	1.16	6.42	15.88
3208-248	7510	1210.21	319.58	-	528.36	0.99	3.89	26.40
3208-249	7540	1315.20	217.45	-	518.78	1.27	6.62	16.53
3208-250	7570	1908.84	172.19	-	468.29	1.35	11.46	9.02
3208-251	7600	2347.92	332.75	-	647.24	1.70	6.70	14.17
3208-252	7630	1985.89	175.84	-	439.59	2.35	11.59	8.85
3208-253	7660	2912.59	133.49	-	88.22	1.78	22.29	4.58
3208-254	7690	4120.33	152.88	-	177.21	1.85	27.77	3.71
3208-255	7720	2313.43	703.05	-	173.11	1.27	2.35	30.39
3208-256	7750	1524.63	207.71	-	178.61	1.26	7.66	13.62
3208-257	7780	1987.67	476.73	-	528.41	0.76	5.04	23.98
3208-258	7810	1324.52	213.81	-	145.48	0.66	6.84	16.14
3208-259	7840	1297.70	150.80	-	153.35	0.51	12.54	11.62
3208-260	7870	1256.37	140.13	-	154.53	0.88	10.68	11.15
3208-261	7900	1497.90	248.55	-	63.77	0.84	6.16	16.59
3208-262	7930	1191.83	84.15	-	90.24	0.70	16.55	7.06
3208-263	7960	1240.42	80.12	-	102.41	0.88	19.70	6.45
3208-264	7990	826.66	91.50	-	61.37	0.66	10.33	11.06
3208-265	8020	1136.71	73.46	-	75.38	0.69	17.22	6.46
3208-266	8050	1279.02	143.71	-	44.23	0.66	9.27	11.23
3208-267	8080	1109.12	35.09	-	16.92	0.61	38.14	3.16
3208-268	8110	1177.08	54.37	-	55.79	0.83	27.11	4.61
3208-269	8140	123.77	23.89	7.52	17.63	0.60	5.09	19.30

TABLE II-C
COMBINED DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-270	8170	786.62	148.44	-	47.87	0.70	6.60	18.87
3208-271	8200	490.68	85.25	-	39.05	0.81	5.89	17.37
3208-272	8230	1120.21	53.65	-	31.73	0.72	27.78	4.78
3208-273	8260	1239.75	179.58	-	71.55	0.63	8.58	14.48
3208-274	8290	247.16	60.44	4.33	37.00	0.67	4.37	24.45
3208-275	8320	1449.36	102.92	21.60	31.61	0.59	17.30	7.10
3208-276	8350	2501.41	194.89	-	75.31	0.64	16.44	7.79
3208-277	8380	2949.55	77.92	-	55.97	0.56	45.77	2.64
3208-278	8410	8502.20	70.58	8.58	66.81	0.55	129.84	0.83
3208-279	8440	2388.75	34.77	27.38	23.15	0.55	74.66	1.45
3208-280	8470	1159.50	32.21	9.69	24.29	0.61	37.03	2.77
3208-281	8500	1339.18	13.29	0.85	14.38	0.56	108.88	0.99
3208-282	8530	1720.26	9.13	0.95	10.19	0.41	214.52	0.53
3208-283	8560	908.78	10.42	1.00	16.67	0.45	94.97	1.14
3208-284	8590	7040.72	106.17	51.86	36.08	0.58	68.60	1.50
3208-285	8620	6534.48	105.76	-	69.69	0.78	62.94	1.61
3208-286	8650	4712.59	131.12	-	182.72	0.66	36.71	2.78
3208-287	8680	8616.12	128.14	-	139.51	0.85	67.79	1.48
3208-288	8710	6991.48	80.12	16.70	73.36	0.60	89.27	1.14
3208-289	8740	5825.49	69.63	-	76.83	0.54	107.06	1.19
3208-290	8770	5562.49	46.26	-	52.74	0.58	145.43	0.83
3208-291	8800	3721.94	48.83	2.68	41.56	0.57	124.95	1.31
3208-292	8830	10022.96	159.16	-	57.08	0.71	67.18	1.58

TABLE II-C
COMBINED DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-293	8860	11246.02	177.53	-	79.00	0.96	67.05	1.57
3208-294	8890	12636.28	55.45	-	64.98	0.73	260.20	0.43
3208-295	8920	21794.79	275.30	-	97.43	0.76	82.61	1.26
3208-296	8950	5139.36	406.20	-	141.71	0.64	14.41	7.90
3208-297	8980	3149.43	151.05	34.13	63.56	0.56	25.90	4.79
3208-298	9010	3955.79	256.56	-	165.49	0.56	20.72	6.48
3208-299	9040	2098.69	200.34	-	50.45	0.85	11.65	9.54
3208-300	9070	2616.35	341.07	-	403.35	0.65	8.23	13.03
3208-301	9100	2792.49	196.37	-	120.68	0.65	19.03	7.03
3208-302	9130	2000.75	224.33	-	146.67	0.77	11.63	11.21
3208-303	9160	3464.25	68.00	11.31	42.45	0.65	60.25	1.96
3208-304	9190	3911.96	114.49	-	135.26	0.79	50.09	2.92
3208-305	9220	2437.50	90.36	-	115.90	0.76	34.92	3.70
3208-306	9250	3351.16	97.46	-	57.59	0.53	41.33	2.90
3208-307	9280	3291.48	83.96	-	48.82	0.62	49.55	2.55
3208-308	9310	4485.21	83.48	-	63.12	0.66	60.52	1.86
3208-309	9340	2909.96	42.68	18.10	29.07	0.71	80.28	1.46
3208-310	9370	1845.21	26.80	4.21	26.05	0.69	89.62	1.45
3208-311	9400	2077.44	55.29	6.84	30.94	0.72	44.37	2.66
3208-312	9430	2409.32	115.35	-	50.50	0.56	32.06	4.78
3208-313	9460	2052.48	47.06	22.69	36.11	0.78	50.64	2.29
3208-314	9490	1625.64	62.95	7.81	41.89	0.56	30.23	3.87
3208-315	9520	1337.98	161.89	4.26	63.42	0.70	8.80	12.09

TABLE II-C
COMBINED DATA

GEOCHEM ID	DEPTHS	C1-C4	C2-C4	C2/C2=	C3/C3=	IC4/NC4	C1/(C2+C3)	%WETNESS
3208-316	9550	1812.06	280.19	-	168.19	0.59	8.04	15.46
3208-317	9580	1586.05	129.05	-	54.86	0.60	17.05	8.13
3208-318	9610	1447.49	159.16	-	109.30	0.69	11.71	10.99
3208-319	9640	1424.86	163.98	-	131.61	0.66	10.59	11.50
3208-320	9670	1591.90	155.94	-	133.31	0.63	12.99	9.79
3208-321	9700	1455.48	97.05	-	71.21	0.72	17.52	6.66
3208-322	9730	952.25	84.69	-	41.58	0.77	11.99	8.89
3208-323	9760	645.31	76.69	-	41.29	0.67	10.91	11.88

TABLE III

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)	LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-001	100-130			
-A		100% Volcanic, lapilli, ash tuff Trace fibrous drilling additive		
3208-002	130-160			
-A		100% Volcanic, lapilli ash tuff		
3208-003	190			
-A		100% Volcanic, lapilli ash tuff		
3208-004	220			
-A		100% Volcanic, lapilli ash tuff		
3208-005	250			
-A		100% Volcanic, lapilli ash tuff		
3208-006	280			
-A		100% Volcanic, lapilli ash tuff		
3208-007	310			
-A		100% Volcanic, lapilli ash tuff		
3208-008	340			
-A		90% Volcanic ash		
-B		10% Quartz fragments		
3208-009	370			
-A		70% Volcanic ash		
-B		30% Quartz fragments		
3208-010	400			
-A		70% Volcanic ash		
-B		30% Quartz fragments		

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)	LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-011	430			
-A		70% Volcanic ash		
-B		30% Quartz fragments		
3208-012	460			
-A		70% Volcanic ash		
-B		30% Quartz fragments		
3208-013	490			
-A		70% Quartz fragments		
-B		30% Volcanic ash		
3208-014	520			
-A		70% Quartz fragments		
-B		30% Volcanic ash		
3208-015	550			
-A		70% Quartz fragments		
-B		30% Volcanic ash		
3208-016	580			
-A		70% Quartz fragments		
-B		30% Volcanic ash		
3208-017	610			
-A		70% Quartz fragments		
-B		30% Volcanic ash		
3208-018	640	NO SAMPLE		
3208-019	670	NO SAMPLE		
3208-020	700			
-A		70% Quartz fragments		
-B		30% Volcanic ash		

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)	LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-021	730			0.06
-A		50% Quartz fragments		
-B		50% Limestone, white to very pale orange		
3208-022	760			
-A		50% Quartz fragments		
-B		50% Limestone, white to very pale orange		
3208-023--024		NO SAMPLE		
3208-029	970			0.09
-A		60% Dolomite, brownish gray		
-B		40% Limestone, white to very pale orange Trace calcite crystals		
3208-030	1000			0.13
-A		90% Dolomite, brownish gray		
-B		10% Limestone, white to very pale orange Trace calcite crystals		
3208-031	1030			0.11
-A		80% Limestone, white to clear		
-B		20% Dolomite, brownish gray Trace calcite crystals		
3208-032	1040			
-A		80% Dolomite, brownish gray		
-B		20% Limestone, white to very pale orange		

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)	LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-033	1060			
-A		100% Limestone, varied color		0.14
3208-034	1120			0.08
-A		50% Dolomite, brownish gray		
-B		50% Limestone, varied color		
3208-035	1150			0.10
-A		90% Dolomite, brownish gray		
-B		10% Limestone, varied color		
3208-036	1180			0.05/0.07
-A		70% Sandstone, grayish red		
-B		30% Dolomite, brownish gray		
3208-037	1210			
-A		70% Sandstone, grayish red		
-B		30% Dolomite, brownish gray		
3208-038	1240			0.22
-A		70% Dolomite, dark gray		
-B		30% Sandstone, grayish orange to grayish red.		
3208-039	1270			0.16
-A		80% Dolomite, dark gray		
-B		20% Sandstone, grayish orange to grayish red		
3208-040	1300			0.06
-A		95% Shale, grayish red		
-B		5% Dolomite, light olive-gray		
3208-041	1330			
-A		100% Shale, grayish red		

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)	LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-042	1360			
-A		90% Shale, grayish red		
-B		10% Dolomite, light olive-gray		
3208-043	1390			
-A		95% Shale, grayish red		
-B		5% Dolomite, light olive-gray		
3208-044	1410			
-A		80% Shale, grayish red		
-B		20% Dolomite, light olive-gray to grayish red		
3208-045	1430			0.08
-A		80% Shale, grayish red		
-B		20% Dolomite, light olive-gray to grayish red		
3208-046	1460	NO SAMPLE		
3208-047	1490			0.13
-A		90% Dolomite, light olive-gray to light brownish gray		
-B		10% Shale, grayish red		
3208-048	1520			
-A		80% Dolomite, light olive-gray to grayish red		
-B		20% Shale, grayish red		
3208-049	1530			
-A		80% Dolomite, light olive-gray to grayish red		
-B		20% Shale, grayish red		

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)	LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-050	1560			0.08
-A		90% Dolomite, light olive-gray to grayish red		
-B		10% Shale, grayish red		
3208-051	1590	NO SAMPLE		
3208-052	1620			0.14
-A		100% Dolomite, medium light gray		
3208-053	1650			0.11/0.13
-A		100% Dolomite, medium light gray		
3208-054	1680	NO SAMPLE		
3208-055	1710			0.14
-A		70% Limestone, medium light gray to very light gray		
-B		30% Dolomite, medium gray		
3208-056	1740			0.25
-A		70% Limestone, medium light gray to very light gray		
-B		30% Dolomite, medium gray		
3208-057	1770			0.17
-A		100% Limestone, very light gray to medium dark gray		
3208-058	1800			0.17
-A		100% Limestone, very light gray to medium dark gray		
3208-059	1830			0.29
-A		100% Limestone, very light gray to medium dark gray		

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)	LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-060	1860			0.23
-A		80% Dolomite, medium gray to dark gray		
-B		20% Limestone, very light gray to medium gray		
3208-061	1890			0.16
-A		70% Limestone, very light gray to medium gray		
-B		30% Dolomite, medium gray to dark gray		
3208-062	1920			0.33/0.34
-A		70% Limestone, very light gray to medium gray		
-B		30% Dolomite, medium gray to dark gray		
3208-063	1950			0.14
-A		60% Limestone, very light gray to medium gray		
-B		40% Dolomite, medium gray to dark gray		
3208-064	1980			0.19
-A		70% Dolomite, medium gray to brownish gray		
-B		30% Limestone, very light gray to medium gray		
3208-065	2010			0.30
-A		70% Dolomite, medium gray to brownish gray		
-B		30% Limestone, very light gray to medium gray		

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)	LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-066	2040			0.16
-A		60% Dolomite, medium gray to brownish gray		
-B		30% Limestone, very light gray to medium gray		
-C		10% Shale, grayish red		
3208-067	2070			
-A		60% Shale, grayish red		
-B		30% Dolomite, medium gray to brownish gray		
-C		10% Limestone, very light gray to medium gray		
3208-068	2100			0.12
-A		60% Shale, grayish red.		
-B		30% Dolomite, medium gray to brownish gray		
-C		10% Limestone, very light gray to medium gray		
3208-069	2130			
-A		60% Shale, grayish red		
-B		30% Dolomite, medium gray to brownish gray		
-C		10% Limestone, very light gray to medium gray		
3208-070	2160			0.09
-A		50% Limestone, very light gray to white		
-B		30% Dolomite, medium gray to brownish gray		
-C		20% Shale, grayish red		

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)	LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-071	2190			0.09
-A		50% Limestone, very light gray to white		
-B		30% Dolomite, medium gray to brownish gray		
-C		20% Shale, grayish red		
3208-072	2220			C.15/0.13
-A		60% Limestone, very light gray to white		
-B		40% Dolomite, medium gray to brownish gray		
3208-073	2250			0.07
-A		40% Dolomite, medium gray to brownish gray		
-B		30% Limestone, very light gray to white		
-C		30% Shale, grayish red		
3208-074	2280			0.05
-A		40% Dolomite, medium gray to brownish gray		
-B		30% Limestone, very light gray to white		
-C		30% Shale, grayish red		
3208-075	2310			0.09
-A		40% Limestone, very light gray to light brownish gray		
-B		30% Dolomite, medium gray to brownish gray		
-C		30% Shale, grayish black		

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)	LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-076	2340			0.10
-A		40% Limestone, very light gray to light brownish gray		
-B		30% Dolomite, medium gray to brownish gray		
-C		30% Shale, grayish black		
3208-077	2370			0.45
-A		50% Dolomite, brownish gray to grayish black		
-B		30% Limestone, very light gray to light brownish gray		
-C		20% Shale, grayish black		
3208-078	2400			0.24
-A		50% Dolomite, brownish gray to grayish black		
-B		30% Limestone, very light gray to light brownish gray		
-C		20% Shale, grayish black		
3208-079	2430			0.22
-A		60% Limestone, very light gray to light brownish gray		
-B		25% Dolomite, brownish gray to grayish black		
-C		15% Shale, grayish black		
3208-080	2460			0.14/0.13
-A		70% Limestone, very light gray to light brownish gray		
-B		30% Shale, black to grayish red		
3208-081	2490			0.10
-A		80% Limestone, varied color		
-B		20% Shale, grayish black.		

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)	LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-082	2520			0.23
-A		70% Limestone, very light gray to light brownish gray		
-B		30% Shale, black to grayish red		
3208-083	2550			0.28/0.26
-A		70% Limestone, very light gray to light brownish gray		
-B		30% Shale, black to grayish red		
3208-084	2580			0.17
-A		60% Limestone, very light gray to light brownish gray		
-B		40% Shale, black to grayish red		
3208-085	2610			0.63
-A		80% Shale, black to grayish red		
-B		20% Limestone, very light gray to light brownish gray		
3208-086	2640			0.27
-A		60% Shale, black to grayish red		
-B		40% Limestone, very light gray to light brownish gray		
3208-087	2670			0.21
-A		70% Limestone, varied color.		
-B		30% Shale, black to grayish red		
3208-088	2700			0.19
-A		70% Limestone, varied color		
-B		30% Shale, black to grayish red		
3208-089	2730			0.17
-A		80% Limestone, varied color		
-B		20% Shale, black to grayish red		

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)	LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-090	2760			0.13/0.14
-A		80% Limestone, very light gray to very pale orange		
-B		20% Shale, black to grayish red		
3208-091	2790			0.07
-A		90% Limestone, varied color		
-B		10% Shale, black to grayish red		
3208-092	2820			0.09
-A		100% Limestone, varied color		
3208-093	2850			0.21
-A		90% Limestone, varied color		
-B		10% Shale, black to grayish red		
3208-094	2880			0.10
-A		90% Limestone, varied color		
-B		10% Shale, black to grayish red		
3208-095	2920			0.10
-A		90% Limestone, varied color		
-B		10% Shale, black to grayish red		
3208-096	2950			0.09
-A		90% Limestone, varied color		
-B		10% Shale, black to grayish red		
3208-097	2980			0.06
-A		70% Limestone, varied color		
-B		30% Shale, black to grayish red		
3208-098	3010			0.21/0.20
-A		80% Limestone, varied color		
-B		20% Shale, black to grayish red		

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)	LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-099	3040			0.15
-A		90% Limestone, varied color		
-B		10% Shale, black to grayish red		
3208-100	3070			0.11
-A		90% Limestone, varied color		
-B		10% Shale, black to grayish red		
3208-101	3100			0.08
-A		90% Limestone, varied color		
-B		10% Shale, black to grayish red		
3208-102	3130			0.08
-A		90% Limestone, varied color		
-B		10% Shale, black to grayish red		
3208-103	3160			0.07
-A		90% Limestone, varied color		
-B		10% Shale, black to grayish red		
3208-104	3190			0.07
-A		90% Limestone, varied color		
-B		10% Shale, black to grayish red		
3208-105	3220			0.06
-A		100% Limestone, very light gray to light gray		
3208-106	3250			0.08/0.08
-A		90% Limestone, very light gray to light gray		
-B		10% Shale, black to dark gray		
3208-107	3280			0.09
-A		90% Limestone, very light gray to light brownish gray		
-B		10% Shale, black to dark gray		

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)	LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-108	3310			0.08
-A		90% Limestone, very light gray to light brownish gray		
-B		10% Shale, black to dark gray		
3208-109	3340			0.08
-A		90% Limestone, very light gray to light brownish gray		
-B		10% Shale, black to dark gray		
3208-110	3370			0.09
-A		90% Limestone, very light gray to light brownish gray		
-B		10% Shale, black to dark gray		
3208-111	3400			0.08
-A		90% Limestone, very light gray to light brownish gray		
-B		10% Shale, black to dark gray		
3208-112	3430			0.09
-A		90% Limestone, very light gray to light brownish gray		
-B		10% Shale, black to dark gray		
3208-113	3460			0.12
-A		90% Limestone, very light gray to dark gray		
-B		10% Shale, black to dark gray		
3208-114	3490			0.12/0.12
-A		90% Limestone, very light gray to dark gray		
-B		10% Shale, black to dark gray		

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)	LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-115	3520			0.13
-A		90% Limestone, very light gray to dark gray		
-B		10% Shale, black to dark gray		
3208-116	3550			0.18
-A		90% Limestone, dark gray		
-B		10% Shale, black		
3208-117	3580			0.35
-A		70% Limestone, dark gray		
-B		30% Shale, black		
3208-118	3610			0.20
-A		70% Limestone, dark gray		
-B		30% Shale, black		
3208-119	3640			0.44
-A		60% Limestone, white to dark gray		
-B		40% Shale, black		
3208-120	3670			0.17
-A		70% Dolomite, very light gray to light gray		
-B		30% Shale, brownish gray to black		
3208-121	3700			0.19
-A		60% Dolomite, varied color		
-B		40% Shale, brownish gray to black		

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)		LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-122	3730				0.14
-A		60%	Dolomite, varied color		
-B		30%	Shale, brownish black		
-C		10%	Limestone, white		
3208-123	3760				0.07
-A		75%	Volcanic ash tuff, varied color		
-B		20%	Dolomite, white to brownish gray		
-C		5%	Shale, brownish black		
3208-124	3790		Empty can		
3208-125	3820				0.11
-A		70%	Dolomite, varied color		
-B		30%	Shale, brownish black		
3208-126	3850				0.09
-A		80%	Dolomite, varied color		
-B		20%	Shale, brownish black		
3208-127	3880				0.07
-A		70%	Dolomite, light brownish gray		
-B		20%	Shale, brownish black		
-C		10%	Limestone, very light black		
3208-128	3910				0.10
-A		80%	Dolomite, white to brownish gray to pale reddish brown		
-B		20%	Shale, black		
3208-129	3940				0.07/0.06
-A		80%	Dolomite, white to brownish gray to pale reddish brown		
-B		20%	Shale, black		

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)		LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-130	3970		NO SAMPLE		
3208-131	4000				0.05
-A		90%	Dolomite, white to brownish gray to pale reddish brown		
-B		10%	Shale, black		
3208-132	4030	100%	Dolomite, white to light brownish gray to pale reddish brown		0.04
3208-133	4060	100%	Dolomite, white to light brownish gray to pale reddish brown		0.06
3208-134	4090	100%	Dolomite, white to light brownish gray to pale reddish brown		0.07
3208-135	4120				0.06
-A		90%	Dolomite, white to light brownish gray to pale reddish brown		
-B		10%	Limestone, white		
3208-140	4270				0.28
-A		70%	Dolomite, white to light brownish gray to pale reddish brown		
-B		10%	Limestone, white		
-C		10%	Casing cement, white		
-D		10%	Shale, black		
3208-142	4330				0.34
-A		90%	Dolomite, white to light brownish gray to pale reddish brown		
-B		5%	Limestone, white		
-C		5%	Casing cement, white		

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)		LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-143	4360				0.23
-A		90%	Dolomite, white to light brownish gray to pale reddish brown		
-B		5%	Limestone, white		
-C		5%	Casing cement, white		
3208-144	4390				0.23/0.24
-A		75%	Dolomite, white to light brownish gray to pale reddish brown		
-B		15%	Shale, black		
-C		10%	Limestone, white Trace casing cement, white		
3208-145	4420				0.16
-A		80%	Dolomite, white to light brownish gray to pale reddish brown		
-B		15%	Shale, black		
-C		5%	Limestone, white		
3208-146	4450				0.12
-A		50%	Dolomite, white to light brownish gray to pale reddish brown		
-B		35%	Limestone, white to very light gray		
-C		15%	Shale, black		
3208-147	4480				0.10
-A		50%	Dolomite, white to light brownish gray to pale reddish brown		
-B		35%	Limestone, white to very light gray		
-C		15%	Shale, black		
3208-148	4510				0.31
-A		70%	Dolomite, white to light brownish gray to pale reddish brown		
-B		20%	Shale, black		
-C		10%	Limestone, very light gray		

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)		LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-149	4540				0.35
-A		70%	Dolomite, white to light brownish gray to pale reddish brown		
-B		20%	Shale, black		
-C		10%	Limestone, very light gray		
3208-150	4570				0.46
-A		60%	Dolomite, white to light brownish gray to pale reddish brown		
-B		30%	Shale, black		
-C		10%	Limestone, very light gray		
3208-151	4600				0.36
-A		60%	Dolomite, white to light brownish gray to pale reddish brown		
-B		30%	Shale, black		
-C		10%	Limestone, very light gray		
3208-152	4630				0.61/0.64
-A		70%	Dolomite, white to light brownish gray to pale reddish brown		
-B		20%	Shale, black		
-C		10%	Limestone, very light gray		
3208-153	4660				0.51
-A		40%	Dolomite, white to light brownish gray to pale reddish brown		
-B		30%	Quartz fragments, white to clear		
-C		20%	Shale, black		
-D		10%	Limestone, very light gray		
3208-154	4690				0.25
-A		40%	Limestone, very light gray		
-B		30%	dolomite, white to light brownish gray to pale reddish brown		
-C		20%	Shale, black to pale reddish brown		
-D		10%	Quartz fragments, white to clear		

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)		LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-155	4720				0.14
-A		40%	Shale, pale reddish brown to black		
-B		30%	Quartz fragments, white to clear		
-C		20%	Limestone, white to very light gray		
-D		10%	Dolomite, white to very light gray to pale reddish brown		
3208-156	4750				0.40
-A		60%	Shale, dark gray to pale reddish brown		
-B		20%	Limestone, white to very light gray		
-C		15%	Dolomite, white to very light gray to pale reddish brown		
-D		5%	Quartz fragments, white to clear		
3208-157	4780				0.28
-A		40%	Shale, pale reddish brown to black		
-B		40%	Dolomite, white to very light gray to pale reddish brown		
-C		15%	Limestone, white to very light gray		
-D		5%	Quartz fragments, white to clear		
3208-158	4810				0.20
-A		70%	Shale, pale reddish brown to greenish gray		
-B		20%	Sandstone, light gray		
-C		10%	Dolomite, white to very light gray to pale reddish brown Trace quartz fragments		

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)		LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-159	4840				0.23
-A		70%	Shale, pale reddish brown to greenish gray		
-B		20%	Sandstone, light gray		
-C		10%	Dolomite, white to very light gray to pale reddish brown Trace quartz fragments		
3208-160	4870				0.31
-A		70%	Shale, pale reddish brown to greenish gray		
-B		20%	Sandstone, light gray		
-C		10%	Dolomite, white to very light gray to pale reddish brown Trace quartz fragments		
3208-161	4900				0.24/0.24
-A		60%	Shale, pale reddish brown to greenish gray		
-B		30%	Sandstone, light gray		
-C		10%	Dolomite, white to very light gray to pale reddish brown		
3208-162	4930				0.22
-A		50%	Shale, pale reddish brown to greenish gray		
-B		40%	Sandstone, light gray		
-C		10%	Dolomite, white to very light gray to pale reddish brown		
3208-163	4960				0.18
-A		50%	Shale, pale reddish brown to greenish gray		
-B		40%	Sandstone, light gray		
-C		10%	Dolomite, white to very light gray to pale reddish brown		

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)		LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-164	4990				0.14
-A		50%	Sandstone, light gray		
-B		40%	Shale, pale reddish brown to medium gray		
-C		10%	Dolomite, white to very light gray to pale reddish brown		
3208-165	5020				0.19
-A		50%	Sandstone, light gray		
-B		40%	Shale, pale reddish brown to medium gray		
-C		10%	Dolomite, white to very light gray to pale reddish brown		
3208-166	5050				0.24
-A		50%	Sandstone, light gray		
-B		40%	Shale, pale reddish brown to medium gray		
-C		10%	Dolomite, white to very light gray to pale reddish brown		
3208-167	5080				0.18
-A		60%	Sandstone, light gray		
-B		40%	Shale, pale reddish brown to medium gray		
3208-168	5110				0.15/0.16
-A		60%	Sandstone, light gray		
-B		40%	Shale, pale reddish brown to medium gray		
3208-169	5140				0.26
-A		60%	Sandstone, light gray		
-B		40%	Shale, pale reddish brown to medium gray		

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)		LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-170	5170				0.28
-A		60%	Shale, pale reddish brown to medium gray		
-B		40%	Sandstone, light gray		
3208-171	5200				0.46
-A		80%	Shale, pale reddish brown to medium gray		
-B		20%	Sandstone, light gray		
3208-172	5230				0.19
-A		50%	Shale, greenish gray		
-B		40%	Sandstone, light gray		
-C		10%	Shale, grayish red		
3208-173	5260				0.36
-A		60%	Shale, greenish gray		
-B		30%	Sandstone, light gray		
-C		10%	Shale, grayish red		
3208-174	5290				0.13
-A		60%	Shale, greenish gray		
-B		30%	Sandstone, light gray		
-C		10%	Shale, grayish red		
3208-175	5320		Sandstone, light gray		0.13/0.13
3208-176	5350		Sandstone, light gray		0.13
3208-177	5380				
-A		80%	Igneous rock, greenish gray		no sample
-B		20%	Shale, dark gray		picked
3208-178	5410				0.80
-A		80%	Shale, dark gray		
-B		20%	Sandstone, light gray		

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)		LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-179	5440				0.55
-A		70%	Shale, medium dark gray		
-B		30%	Sandstone, light gray		
3208-180	5470				0.59
-A		70%	Shale, medium dark gray		
-B		30%	Sandstone, light gray		
3208-181	5500				0.68
-A		70%	Shale, medium dark gray		
-B		30%	Sandstone, light gray		
3208-182	5530				0.56
-A		70%	Shale, medium dark gray		
-B		30%	Sandstone, light gray		
3208-183	5560				0.71/0.72
-A		60%	Sandstone, light gray		
-B		40%	Shale, dark gray		
3208-184	5590				no sample
-A		80%	Igneous rock		picked
-B		20%	Shale, dark gray		
3208-185	5620				0.38
-A		60%	Shale, dark gray		
-B		30%	Limestone, brownish gray		
-C		10%	Sandstone, light gray		
3208-186	5650				0.31
-A		50%	Shale, dark gray		
-B		20%	Sandstone, light gray		
-C		20%	Igneous rock, greenish gray		
-D		10%	Limestone, brownish gray		

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)		LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-187	5680				0.59
-A		50%	Shale, dark gray		
-B		30%	Limestone, brownish gray		
-C		20%	Sandstone, light gray		
3208-188	5710				0.32
-A		50%	Shale, dark gray		
-B		30%	Limestone, brownish gray		
-C		20%	Sandstone, light gray		
3208-189	5740				0.37
-A		50%	Shale, dark gray		
-B		30%	Limestone, brownish gray		
-C		20%	Sandstone, light gray		
3208-190	5770				0.42
-A		50%	Shale, dark gray		
-B		30%	Limestone, brownish gray		
-C		20%	Sandstone, light gray		
3208-191	5800				0.49
-A		70%	Shale, dark gray		
-B		20%	Limestone, brownish gray		
-C		10%	Sandstone, light gray		
3208-192	5830				1.26/1.27
-A		70%	Shale, dark gray		
-B		20%	Limestone, brownish gray		
-C		10%	Sandstone, light gray		
3208-193	5860				1.00
-A		70%	Shale, dark gray		
-B		20%	Limestone, brownish gray		
-C		10%	Sandstone, light gray		
3208-194	5890		Igneous rock		no sample picked

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)		LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-195	5920				0.56
-A		80%	Shale, dark gray		
-B		20%	Limestone, brownish gray		
3208-196	5950				0.60
-A		80%	Shale, dark gray		
-B		20%	Limestone, brownish gray		
3208-197	5980				no sample
-A		80%	Unconsolidated quartz fragments, clear		picked
-B		20%	Shale, dark gray		
3208-198	6010				no sample
-A		80%	Unconsolidated quartz fragments, clear		picked
-B		20%	Shale, dark gray		
3208-199	6090				no sample
-A		80%	Unconsolidated quartz fragments, clear		picked
-B		20%	Shale, dark gray		
3208-200	6070				0.41
-A		60%	Shale, dark gray		
-B		30%	Limestone, brownish gray		
-C		10%	Igneous rock, greenish gray		
3208-201	6100				0.56
-A		70%	Shale, dark gray		
-B		20%	Limestone, brownish gray		
-C		10%	Sandstone, light gray		
3208-202	6130				0.57
-A		70%	Shale, dark gray		
-B		20%	Limestone, brownish gray		
-C		10%	Sandstone, light gray		

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)		LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-203	6160				0.51/0.51
-A		70%	Shale, dark gray		
-B		20%	Limestone, brownish gray		
-C		10%	Sandstone, light gray		
3208-204	6190		Shale, dark gray		0.64
3208-205	6220		Shale, dark gray		0.76
3208-206	6250		Shale, dark gray		0.77
3208-207	6280		Quartz sandstone, clear		no sample picked
3208-208	6310		Shale, dark gray		1.28/1.30
3208-209	6340				no sample
-A		90%	Quartz sandstone, clear		picked
-B		10%	Shale, dark gray		
3208-210	6370				0.65
-A			Shale, dark gray		
3208-211	6400		Shale, dark gray		0.87
3208-212	6430		Shale, dark gray		1.12
3208-213	6460		Shale, dark gray		1.29/1.30
3208-214	6490		Shale, grayish black		0.84
3208-215	6520		Shale, grayish black		0.68
3208-216	6550		Shale, grayish black		0.97

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)		LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-217	6580				0.77/0.77
-A		60%	Shale, dark gray		
-B		30%	Sandstone, very light gray		
-C		10%	Limestone, very light gray to clear		
3208-218	6610				0.70
-A		70%	Shale, dark gray		
-B		30%	Sandstone, very light gray		
3208-219	6640				0.48
-A		60%	Shale, dark gray		
-B		30%	Sandstone, very light gray		
-C		10%	Limestone, light gray		
3208-220	6670				0.70
-A		60%	Shale, dark gray		
-B		30%	Sandstone, very light gray		
-C		10%	Limestone, light gray		
3208-221	6700				0.81
-A		60%	Shale, dark gray		
-B		30%	Sandstone, very light gray		
-C		10%	Limestone, light gray		
3208-222	6730				0.56
-A		60%	Shale, dark gray		
-B		40%	Sandstone, very light gray		
3208-223	6760				1.19
-A		60%	Shale, dark gray		
-B		40%	Sandstone, very light gray		
3208-224	6790				0.86/0.86
-A		60%	Shale, dark gray		
-B		40%	Sandstone, very light gray		

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)		LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-225	6820				0.64
-A		60%	Shale, dark gray		
-B		40%	Sandstone, very light gray		
3208-226	6850				0.66
-A		60%	Shale, dark gray		
-B		40%	Sandstone, very light gray		
3208-227	6880				0.71
-A		60%	Shale, dark gray		
-B		40%	Sandstone, very light gray		
3208-228	6900				0.59
-A		60%	Shale, dark gray		
-B		40%	Sandstone, very light gray		
3208-229	6940				0.49
-A		50%	Shale, dark gray		
-B		30%	Sandstone, very light gray		
-C		20%	Quartz fragments, light gray to clear		
3208-230	6970				0.82
-A		50%	Shale, dark gray		
-B		30%	Sandstone, very light		
-C		20%	Quartz fragments, light gray to clear		
3208-231	7000				0.70
-A		50%	Shale, dark gray		
-B		40%	Sandstone, light gray		
-C		10%	Quartz fragments, light gray to clear		

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)	LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-232	7030			0.55/0.56
-A		50% Shale, dark gray		
-B		40% Sandstone, light gray		
-C		10% Quartz fragments, light gray to clear		
3208-233	7060			1.67
-A		50% Shale, dark gray		
-B		40% Sandstone, light gray		
-C		10% Quartz fragments, light gray to clear		
3208-234	7090			0.77
-A		50% Shale, dark gray		
-B		40% Sandstone, light gray		
-C		10% Quartz fragments, light gray to clear		
3208-235	7120			0.49
-A		50% Shale, dark gray		
-B		40% Sandstone, light gray		
-C		10% Quartz fragments, light gray to clear		
3208-236	7150			0.36
-A		40% Shale, dark gray		
-B		30% Sandstone, light gray		
-C		20% Siltstone, grayish red		
-D		10% Limestone, light gray		
3208-237	7180			0.58
-A		40% Shale, dark gray		
-B		30% Sandstone, light gray		
-C		20% Siltstone, grayish red		
-D		10% Limestone, light gray		

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)		LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-238	7210				0.16
-A		40%	Limestone, grayish red		
-B		30%	Shale, dark gray		
-C		20%	Sandstone, light gray		
-D		10%	Siltstone, grayish red		
3208-239	7240				0.30/0.31
-A		50%	Limestone, light gray to grayish red		
-B		25%	Shale, dark gray		
-C		25%	Sandstone, light gray		
3208-240	7270				0.65
-A		50%	Limestone, light gray to grayish red		
-B		25%	Shale, dark gray		
-C		25%	Sandstone, light gray		
3208-241	7300				0.46
-A		50%	Limestone, light gray to grayish red		
-B		25%	Shale, dark gray		
-C		25%	Sandstone, light gray		
3208-242	7330				0.23
-A		50%	Limestone, light gray to grayish red		
-B		25%	Shale, dark gray		
-C		25%	Sandstone, light gray		
3208-243	7360				0.33
-A		50%	Limestone, light gray to grayish red		
-B		25%	Shale, dark gray		
-C		25%	Sandstone, light gray		

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)		LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-244	7390				0.35
-A		40%	Sandstone, light gray to very light gray		
-B		30%	Shale, dark gray		
-C		30%	Limestone, light gray to grayish red		
3208-245	7420				0.30
-A		40%	Sandstone, light gray to very light gray		
-B		30%	Shale, dark gray		
-C		30%	Limestone, light gray to grayish red		
3208-246	7450				0.23
-A		60%	Limestone, light gray to very light gray		
-B		20%	Sandstone, very light gray		
-C		20%	Shale, grayish red to dark gray		
3208-247	7480				0.53/0.53
-A		60%	Limestone, light gray to very light gray		
-B		20%	Sandstone, very light gray		
-C		20%	Shale, grayish red to dark gray		
3208-248	7510				0.47
-A		40%	Shale, dark gray		
-B		30%	Quartz fragments, white to clear		
-C		20%	Sandstone, light gray to very light gray		
-D		10%	Limestone, light gray		

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)		LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-249	7540				0.46
-A		40%	Shale, dark gray		
-B		30%	Quartz fragments, white to clear		
-C		20%	Sandstone, light gray to very light gray		
-D		10%	Limestone, light gray		
3208-250	7570				0.59
-A		50%	Limestone, light gray		
-B		30%	Shale, dark gray		
-C		20%	Sandstone, very light gray		
3208-251	7600				0.66
-A		40%	Limestone, light gray to medium gray		
-B		40%	Shale, dark gray		
-C		20%	Sandstone, light gray to very light gray		
3208-252	7630				0.53
-A		40%	Limestone, light gray to medium gray		
-B		40%	Shale, dark gray		
-C		20%	Sandstone, light gray to very light gray		
3208-253	7660				0.53
-A		60%	Limestone, white to medium gray		
-B		40%	Shale, dark gray		

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)		LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-254	7690				0.42
-A		60%	Limestone, white to medium gray		
-B		40%	Shale, dark gray		
3208-255	7720				0.50/0.51
-A		50%	Limestone, white to medium gray		
-B		30%	Shale, dark gray		
-C		20%	Quartz fragments, white to clear		
3208-256	7750				0.55
-A		40%	Limestone, white to medium gray		
-B		30%	Shale, dark gray		
-C		30%	Quartz fragments, white to clear		
3208-257	7780				0.37
-A		40%	Limestone, white to medium gray		
-B		30%	Shale, dark gray		
-C		30%	Quartz fragments, white to clear		
3208-258	7810		Igneous rock		no sample picked
3208-259	7840		Igneous rock		no sample picked
3208-260	7870		Igneous rock		no sample picked
3208-261	7900		Igneous rock		no sample picked

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)		LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-261	7900		Igneous rock		no sample picked
3208-262	7930		Igneous rock		no sample picked
3208-263	7960		Igneous rock		no sample picked
3208-264	7990		Igneous rock		no sample picked
3208-265	8020		Igneous rock		no smaple picked
3208-266	8050		Igneous rock		no sample picked
3208-267	8080				no sample
-A		40%	Quartz fragments, white to clear		picked
-B		30%	Igneous rock		
-C		30%	Sandstone, white to clear		
3208-268	8110				no sample
-A		40%	Quartz fragments, white to clear		picked
-B		30%	Igneous rock		
-C		30%	Sandstone, white to clear		
3208-269	8140				no sample
-A		40%	Quartz fragments, white to clear		picked
-B		30%	Igneous rock		
-C		30%	Sandstone, white to clear		

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)		LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-270	8170				no sample
-A		40%	Quartz fragments, white to clear		picked
-B		30%	Igneous rock		
-C		30%	Sandstone, white to clear		
3208-271	8200				no sample
-A		40%	Quartz fragments, white to clear		picked
-B		30%	Igneous rock		
-C		30%	Sandstone, white to clear		
3208-272	8230				no sample
-A		40%	Quartz fragments, white to clear		picked
-B		30%	Igneous rock		
-C		30%	Sandstone, white to clear		
3208-273	8260				no sample
-A		40%	Quartz fragments, white to clear		picked
-B		30%	Igneous rock		
-C		30%	Sandstone, white to clear		
3208-274	8290				no sample
-A		40%	Quartz fragments, white to clear		picked
-B		30%	Igneous rock		
-C		30%	Sandstone, white to clear		
3208-275	8320				no sample
-A		40%	Quartz fragments, white to clear		picked
-B		30%	Igneous rock		
-C		30%	Sandstone, white to clear		

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)	LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-276	8350			0.10
-A		90% Limestone, very light gray to white		
-B		10% Igneous rock		
3208-277	8380	Limestone, very light gray to white		0.09
3208-278	8410	Limestone, very light gray to white		0.04
3208-279	8440	Limestone, very light gray to white		0.05
3208-280	8470	Limestone, very light gray to white		0.02/0.02
3208-281	8500	Limestone, very light gray to white		0.02
3208-282	8530	Limestone, very light gray to white		0.02
3208-283	8560	Limestone, very light gray to white		0.03
3208-284	8590	Limestone, very light gray to light brownish gray		0.02
3208-285	8620	Limestone, very light gray to light brownish gray		0.02
3208-286	8650	Limestone, very light gray to light brownish gray		0.04
3208-287	8680	Limestone, very light gray to light brownish gray		0.02

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)	LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-288	8710	Limestone, very light gray to light brownish gray		0.02/0.03
3208-289	8740	Limestone, very light gray to light brownish gray		0.02
3208-290	8770	Limestone, very light gray to light brownish gray		0.02
3208-291	8800	Limestone, very light gray to light brownish gray		0.02
3208-292	8830	Limestone, very light gray to light brownish gray		0.05
3208-293	8860	Limestone, very light gray to light brownish gray		0.05
3208-294	8890	Limestone, very light gray to light brownish gray		0.05
3208-295	8920	Limestone, very light gray to light brownish gray		0.05/0.05
3208-296	8950	Limestone, very light gray to light brownish gray		0.10
3208-297	8980	Limestone, very light gray to light brownish gray		0.06
3208-298	9010	Limestone, very light gray to light brownish gray Trace shale		0.05
3208-299	9040	Limestone, very light gray to light brownish gray Trace shale		0.09/0.08

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)		LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-300	9070				0.09
-A		90%	Dolomite, very light gray to brownish gray		
-B		10%	Shale, dark gray		
3208-301	9100		Dolomite, brownish gray Trace shale		0.07
3208-302	9130				0.11
-A		95%	Dolomite, very light gray to brownish gray		
-B		5%	Shale, dark gray		
3208-303	9160		Dolomite, brownish gray		0.04
3208-304	9190		Dolomite, brownish gray Trace shale		0.07
3208-305	9220		Dolomite, brownish gray Trace shale		0.07
3208-306	9250		Dolomite, brownish gray Trace shale		0.02
3208-307	9280		Dolomite, brownish gray to dark brownish gray Trace shale		0.02/0.02
3208-308	9310		Dolomite, brownish gray to dark brownish gray		0.03
3208-309	9340		Dolomite, brownish gray to dark brownish gray		0.03
3208-310	9370		Dolomite, dark brownish gray		0.06

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)		LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-311	9400		Dolomite, dark brownish gray		0.07
3208-312	9430		Dolomite, dark brownish gray Trace shale		0.06
3208-313	9460		Dolomite, dark brownish gray		0.10
3208-314	9490		Dolomite, very light gray to brownish gray		0.04
3208-315	9520		Dolomite, very light gray to brownish gray Trace shale		0.06/0.06
3208-316	9550				0.12
-A		70%	Dolomite, calcareous, dark browniwh gray		
-B		20%	Metamorphic rock? brownish gray		
-C		10%	Shale, dark gray		
3208-317	9580				no sample
-A		90%	Metamorphic rock? brownish gray		picked
-B		10%	Shale, dark gray		
3208-318	9610				no sample
-A		60%	Metamorphic rock? brownish gray		picked
-B		30%	Limestone, very light gray		
-C		10%	Shale, dark gray		
3208-319	9640		Limestone, light brownish gray Trace shale		0.08
3208-320	9670				0.14
-A		90%	Limestone, light brownish gray		
-B		10%	Shale, dark gray		

TABLE III (continued)

LITHOLOGICAL DESCRIPTIONS AND ORGANIC CARBON ANALYSES

Marshall R. Young Salty's #1

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)	LITHO DESCRIPTION	GSA NO.	ORGANIC CARBON (wt.%)
3208-321	9700	Limestone, light brownish gray Trace shale		0.06
3208-322	9730	Limestone, light brownish gray Trace shale		0.14
3208-323	9760	Limestone, light brownish gray Trace shale		0.06

TABLE IV

RESULTS OF ROCK-EVAL PYROLYSIS ANALYSIS

GEOCHEM SAMPLE NUMBER	DEPTH INTERVAL (feet)	TMAX (c)	S1 (mg/g)	S2 (mg/g)	S3 (mg/g)	PI	PC*	T.O.C. (wt.%)	HYDROGEN INDEX	OXYGEN INDEX
3208-038	1240	439*	0.00	0.00	0.22	0.00	0.00	0.22	0	100
3208-056	1740	378*	0.03	0.01	0.42	0.75	0.00	0.25	4	168
3208-059	1830	221*	0.01	0.00	0.42	0.01	0.00	0.29	0	144
3208-062	1920	272*	0.03	0.00	0.36	1.00	0.00	0.34	0	105
3208-065	2010	257*	0.00	0.00	0.33	0.00	0.00	0.30	0	110
3208-077	2370	439*	0.02	0.00	0.37	1.00	0.00	0.45	0	82
3208-082	2520	401*	0.03	0.02	0.47	0.75	0.00	0.23	8	204
3208-085	2610	375*	0.01	0.00	0.48	0.01	0.00	0.63	0	76
3208-093	2850	220*	0.01	0.00	0.43	0.01	0.00	0.21	0	204
3208-117	3580	300*	0.01	0.01	0.36	0.50	0.00	0.35	2	102
3208-119	3640	278*	0.02	0.02	0.33	0.50	0.00	0.44	4	75
3208-142	4330	353*	0.01	0.07	0.95	0.12	0.00	0.34	20	279
3208-150	4570	445	0.02	0.16	0.28	0.11	0.01	0.46	34	60
3208-152	4630	446	0.05	0.38	0.31	0.12	0.03	0.63	60	49
3208-160	4870	440*	0.01	0.04	0.25	0.25	0.00	0.31	12	80
3208-171	5200	462*	0.01	0.13	0.16	0.07	0.01	0.46	28	34
3208-181	5500	453	0.18	0.43	0.34	0.30	0.05	0.68	63	50
3208-192	5830	448	0.57	1.52	0.36	0.27	0.17	1.26	120	28
3208-193	5860	445	0.48	1.36	0.30	0.26	0.15	1.00	136	30
3208-208	6310	483	0.05	0.48	0.23	0.10	0.04	1.29	37	17
3208-213	6460	463	0.12	0.45	0.21	0.1	0.04	1.30	34	16
3208-223	6760	327	0.96	3.19	0.71	0.23	0.34	1.19	268	59
3208-233	7060	489	0.03	0.37	0.21	0.07	0.03	1.67	22	12
3208-240	7270	431*	0.01	0.12	0.28	0.08	0.01	0.65	18	43
3208-251	7600	310*	0.02	0.06	0.27	0.25	0.00	0.66	9	40

*The S2 value, or quantity of kerogen pyrolyzed to bitumen, is insufficient to produce a valid Tmax.

T.O.C. = Total organic carbon, wt.%
S1 = Free hydrocarbons, mg Hc/g of rock
S2 = Residual hydrocarbon potential (mg HC/g or rock)
S3 = CO2 produced from kerogen pyrolysis mg CO2/g of rock)
PC* = 0.083 (S1 + S2)
Hydrogen Index = mg HC/g organic carbon
Oxygen Index = mg CO2/g organic carbon
PI = S1/S1 + S2
TMAX = Temperature Index, degrees C.

TABLE V-A

VISUAL KEROGEN ASSESSMENT WORKSHEET

MARSHALL R. YOUNG
SALTY"S #1

GEOCHEM No.	DEPTH	INDIGENOUS POPULATION (INTERPRETED) TYPE OF ORGANIC MATTER / MATURATION INDEX REMARKS	GENERAL CHARACTERISTICS COLOR OF ORGANIC MATTER / STATE OF ORGANIC MATTER / %	CAVED AND/OR REWORKED POPULATION(S) TYPE OF ORGANIC MATTER / MATURATION INDEX REMARKS	SUMMARY ORGANIC MATTER TYPE
3208-030	1000	Am;-;I			Am;-;I
3208-047	1490	W;-;Am-I			W;-;Am-I
3208-056	1740	W;Am;-			W;Am;-
3208-065	2010	W-I;-;Am-I			W-I;-;Am-I
3208-077	2370	H*-W;Am-I;-			H*-W;Am-I;-
3208-082	2520	W;-;Am-H			W;-;Am-H
3208-098	3010	W;-;Am-H			W;-;Am-H
3208-117	3580	W;-;Am-H			W;-;Am-H
3208-148	4510	W;H;Am		I;-;-	W;H-I;Am
3208-166	5050	W;H;-			W;H;-
3208-181	5500	H-W;-;-		I;-;-	H-W;I;-
3208-200	6070	W;H;-		I;-;-	W;H-I;Am
3208-216	6550	W;H;Am		I;-;-	W;H-I;Am
3208-233	7060	W;H;Am		I;-;-	W;H-I;Am
3208-247	7480	W;H;Am		I;-;-	W;H-I;Am
3208-257	7780	W;H;-		I;W;-	W;H-I;-
3208-276	8350	W;-;Am-H		I;W;-	W;I;Am-H
3208-302	9130	W;H;Am		I;H-W;-	W;H-I;Am
3208-316	9550	W;H;-		I;-;-	W;H-I;-
3208-322	9730	W;H;Am		I;-;-	W;H-I;Am

Walnut Contaminants

-056 includes a nearly opaque coal (approx. 20% of the sample)

TABLE V-B

3208 Carbonate Fractions unless noted otherwise

	SAMPLE NO.	DEPTH	% INDIGENOUS KEROGEN						NUMER. SCALE	THERMAL ALTERATION INDEX (T.A.I.)										% OTHER ORG. MAT.		REMARKS
			Am	Am*	H	W	(H-W)*	I		1	1+	2-	2	2+	3-	3	3+	4-	4	5	RW	CAVED / CONTAM	
	-123	3760	?						--				?									v.sparse
P	-132	4030	100						2.6					■								sparse Am
	-143	4360	50	50					2.7					■	■							abundant Am
	-151	4600	20		20	30			2.3				■	■				RWRW		20		Cretaceous
	-166	5050	10		20	30			2.4				■	■			RW	RWRW		40		
P	-285	8620							pyrite only													sparse
	-291	8800	90	10					2.6					■								abundant Am
	-315A	9520	*		*	*			caved				C									caved
P	-315B	9520	100						4.0					■	■			■				
	-317	9580	20						3.8				C	C			■	■			80%/	100% caved
	-322	9730	40						3.9				C	C			■	■			60%/	

EXPLANATION:

%Am - AMORPHOUS SAPROPEL

%Am*- RELIC (SEVERELY ALTERED) AMORPHOUS SAPROPEL

% H - HERBACEOUS MATERIAL (SPORES AND CUTICULAR MATERIAL)

% W - WOODY MATERIAL

% (H-W)* - SEVERELY ALTERED HERBACEOUS AND WOODY KEROGEN

% I - INERTINITE

%RW - REWORKED KEROGEN; KEROGEN WHICH WAS ALTERED BEFORE DEPOSITION AND DEPOSITED WITH THE INDIGENOUS KEROGEN

%CAVED - KEROGEN INTERPRETED TO BE CAVED FROM HIGHER IN THE HOLE

%CONTAM. - ORGANIC MATERIAL FROM THE DRILLING MUD OR RECENT SURFACE CONTAMINATION

NUMERICAL SCALE - A NUMBER ASSIGNED FOR CONVENIENCE IN MAPPING. SEE SOURCE ROCK REFERENCE MANUAL PAGE D-5.

THERMAL ALTERATION INDEX (AS ON DIAGENETIC CRITERIA CHART)

1 IMMATURE
1+ IMMATURE
2- MODERATELY IMMATURE
2 MODERATELY MATURE
2+ MATURE
3- MATURE
3 MATURE
3+ VERY MATURE
4- SEVERELY ALTERED
4 SEVERELY ALTERED
5 METAMORPHOSED

P = abundant pyrite

315A = clastic fraction
315B = carbonate fraction
*315A = is caved(Am:10%; H:30%; W:60%)
315B = is open to two interpretations, both based on small quantities of kerogen
a) 2+/3- Am kerogen (60%)
b) severely altered relict Am kerogen (40%)

322 = 3+ T.A.I. based on Cambrian acritarchs (2)

TABLE VI

VITRINITE REFLECTANCE SUMMARY

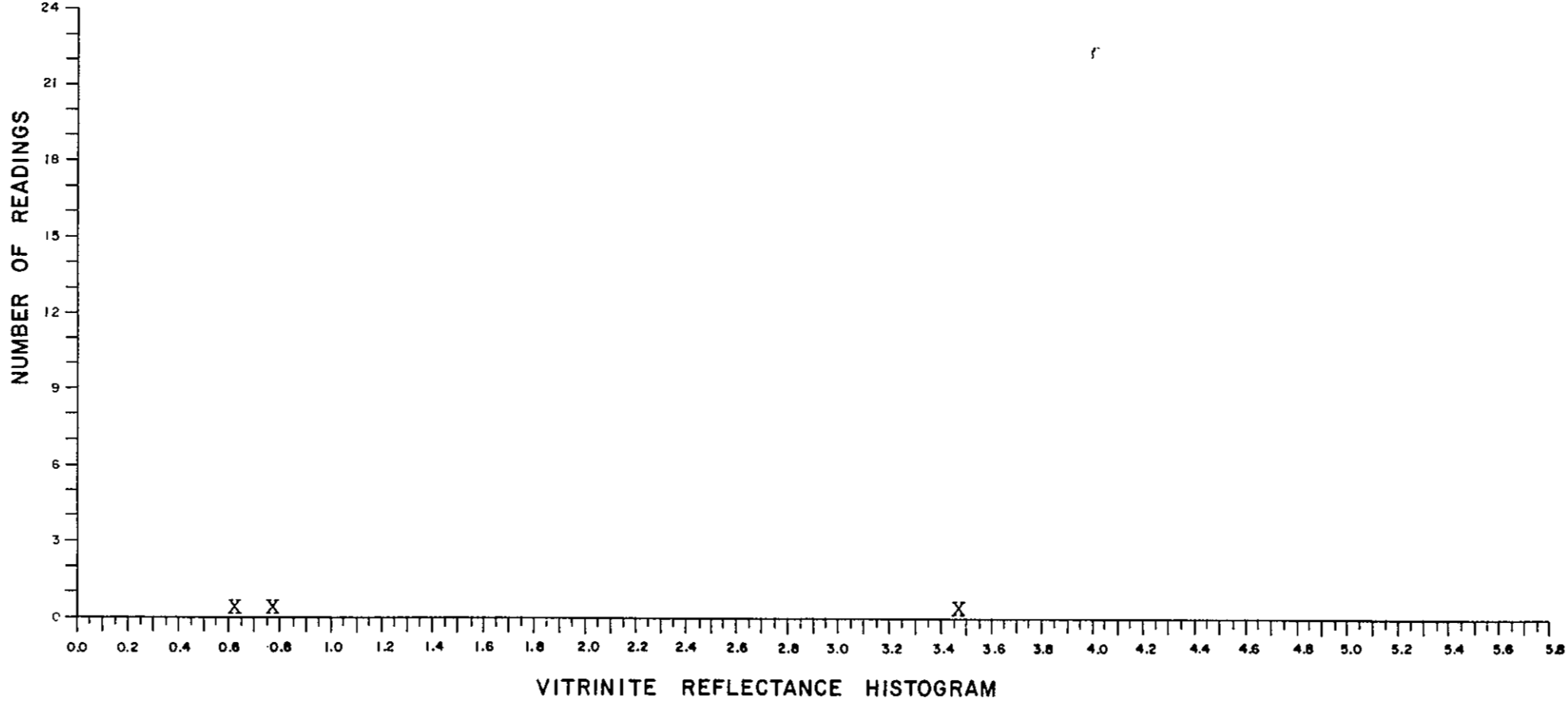
GEOCHEM SAMPLE NUMBER	DEPTH (feet)	TYPE OF SAMPLE	POPULATION	NUMBER OF READINGS	MINIMUM REFLECTANCE (% Ro)	MAXIMUM REFLECTANCE (% Ro)	MEAN REFLECTANCE (% Ro)	STD. DEV. (% Ro)	REMARKS
3208-030	1000	CTGS	(1)	2	0.64	0.76	0.70	-	INDIGENOUS
			(2)	1	3.46	3.46	3.46	-	REWORKED
3208-056	1740	CTGS	(1)	3	1.46	1.71	1.58	0.125	INDIGENOUS
			(2)	2	2.21	2.28	2.25	-	REWORKED
3208-077	2370	CTGS	(1)	1	1.30	1.30	1.30	-	CAVED
			(2)	19	1.60	1.98	1.83	0.108	INDIGENOUS
			(3)	21	2.00	2.29	2.13	0.077	REWORKED
			(4)	8	2.33	2.57	2.39	0.077	REWORKED
3208-098	3010	CTGS	(1)	2	1.64	1.67	1.66	-	CAVED
			(2)	7	1.82	2.08	1.97	0.100	CAVED
			(3)	23	2.23	2.78	2.48	0.173	INDIGENOUS
			(4)	8	2.93	3.55	3.15	0.228	REWORKED
3208-117	3580	CTGS	(1)	1	1.99	1.99	1.99	-	CAVED
			(2)	8	2.56	2.86	2.70	0.132	INDIGENOUS
			(3)	3	3.16	3.75	3.52	0.316	REWORKED
			(4)	1	4.33	4.33	4.33	-	REWORKED
3208-181	5500	CTGS	(1)	4	0.69	0.74	0.72	0.024	INDIGENOUS
			(2)	34	0.98	1.69	1.30	0.202	REWORKED
			(3)	2	1.95	2.13	2.04	-	REWORKED
3208-216	6650	CTGS	(1)	12	0.84	1.14	1.01	0.107	INDIGENOUS
			(2)	23	1.20	1.60	1.40	0.109	REWORKED
			(3)	5	1.70	1.96	1.79	0.099	REWORKED
3208-247	7480	CTGS	(1)	17	1.04	1.28	1.16	0.071	INDIGENOUS
			(2)	16	1.30	1.53	1.39	0.074	REWORKED
			(3)	7	1.55	1.76	1.65	0.084	REWORKED
3208-276	8350	CTGS	(1)	2	0.83	0.85	0.84	-	CAVED
			(2)	7	1.12	1.36	1.23	0.086	INDIGENOUS
			(3)	5	1.45	1.72	1.58	0.112	REWORKED
			(4)	1	2.57	2.57	2.57	-	REWORKED

GEOCHEM NO. 3208-030 TYPE OF SAMPLE: CTGS DEPTH/SAMPLE NO. 1000

CLIENT'S NAME MARSHALL YOUNG WELL NAME SALTY'S #1

(NO. OF READINGS = 3) 0.64 0.76 3.46

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	2	0.64	0.76	0.70	-	INDIGENOUS
(2)	1	3.46	3.46	3.46	-	REWORKED

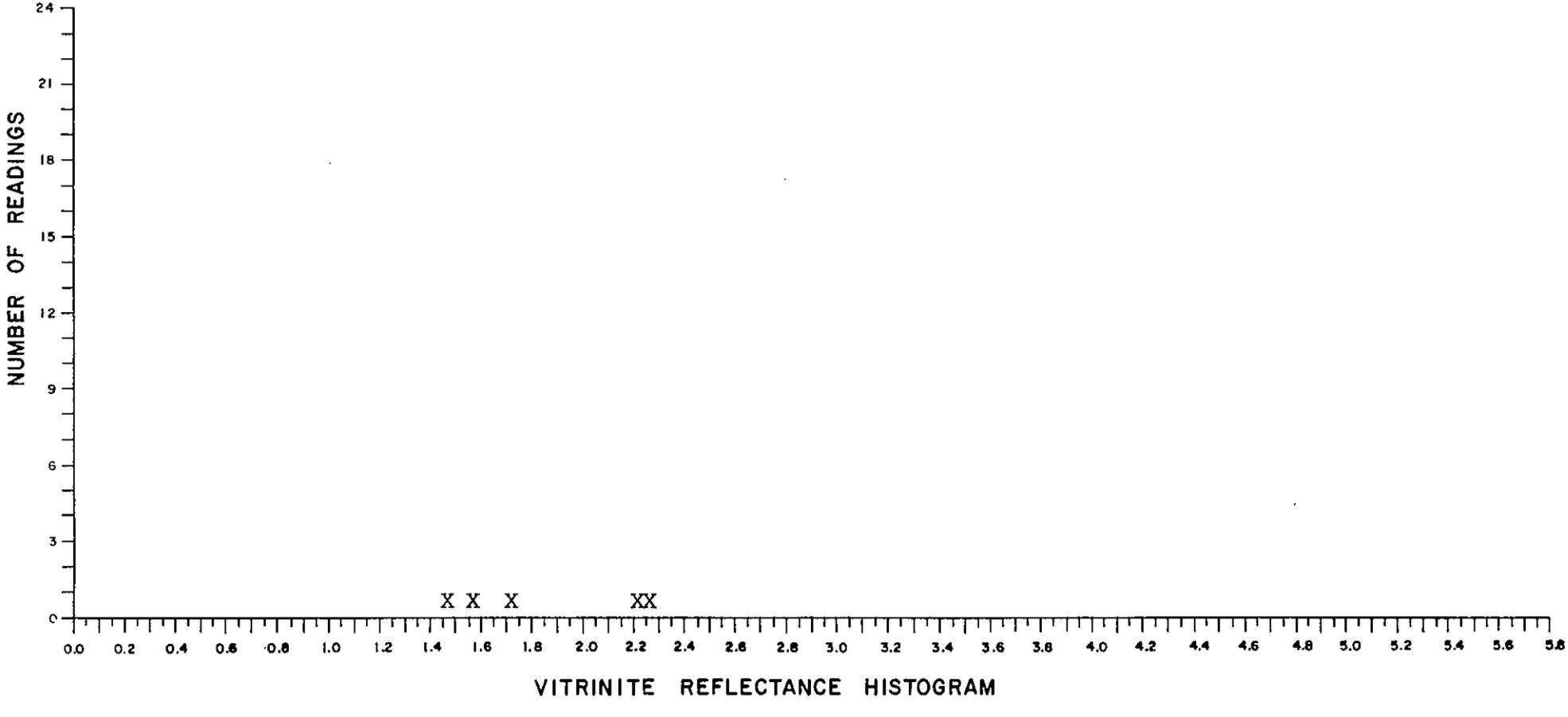


GEOCHEM NO. 3208-056 TYPE OF SAMPLE: CTGS DEPTH/SAMPLE NO. 1740

CLIENT'S NAME MARSHALL YOUNG WELL NAME SALTY'S #1

(NO. OF READINGS = 5) 1.46 1.58 1.71 2.21 2.28

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	3	1.46	1.71	1.58	0.125	INDIGENOUS
(2)	2	2.21	2.28	2.25	-	REWORKED

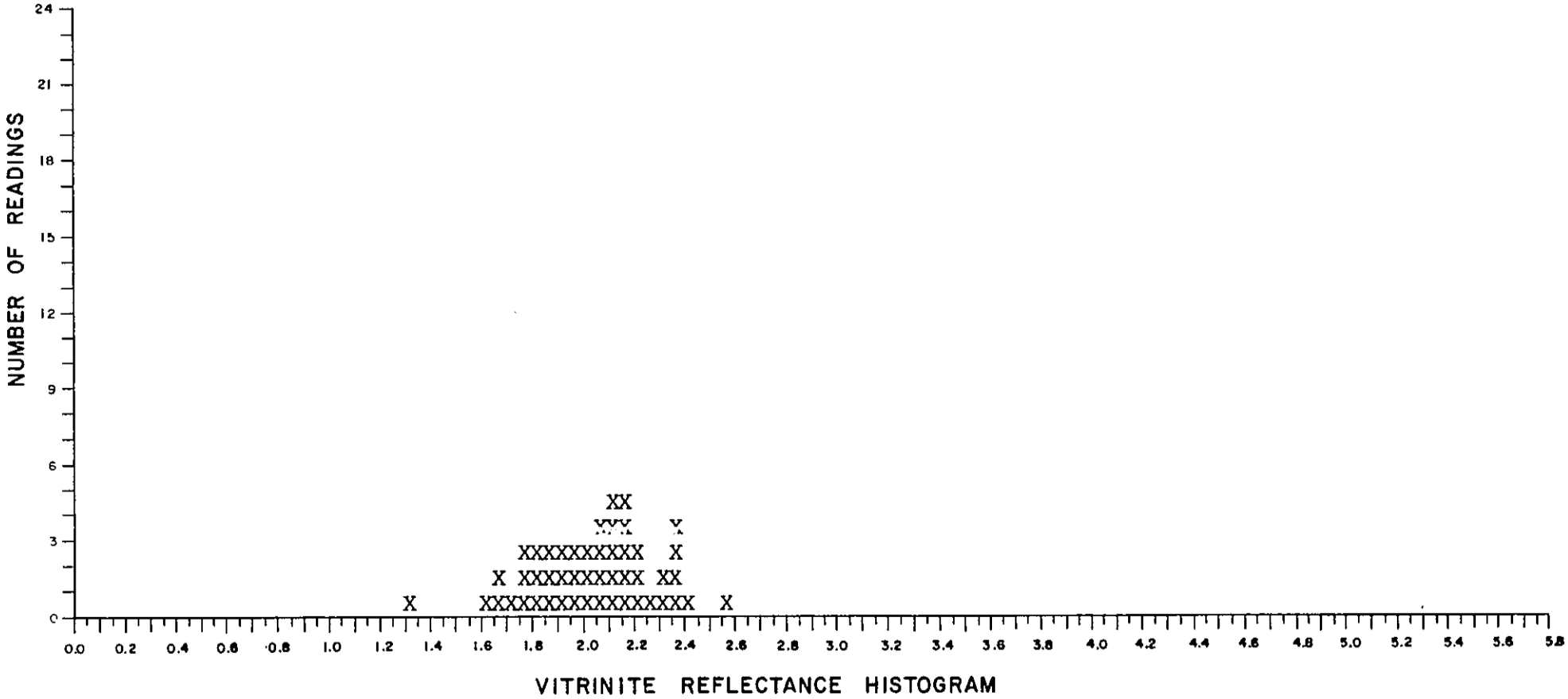


GEOCHEM NO. 3208-077 TYPE OF SAMPLE: CTGS DEPTH/SAMPLE NO. 2370

CLIENT'S NAME MARSHALL YOUNG WELL NAME SALTY'S #1

(NO. OF READINGS = 49) 1.30 1.60 1.67 1.67 1.73 1.76 1.77 1.78 1.82 1.82 1.82 1.85 1.87 1.88
1.90 1.91 1.94 1.95 1.97 1.98 2.00 2.00 2.00 2.05 2.07 2.09 2.09 2.12 2.13 2.13 2.14 2.14
2.15 2.16 2.17 2.17 2.18 2.20 2.21 2.23 2.29 2.33 2.34 2.35 2.36 2.36 2.38 2.40 2.57

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	1	1.30	1.30	1.30	-	CAVED
(2)	19	1.60	1.98	1.83	0.108	INDIGENOUS
(3)	21	2.00	2.29	2.13	0.077	REWORKED
(4)	8	2.33	2.57	2.39	0.077	REWORKED

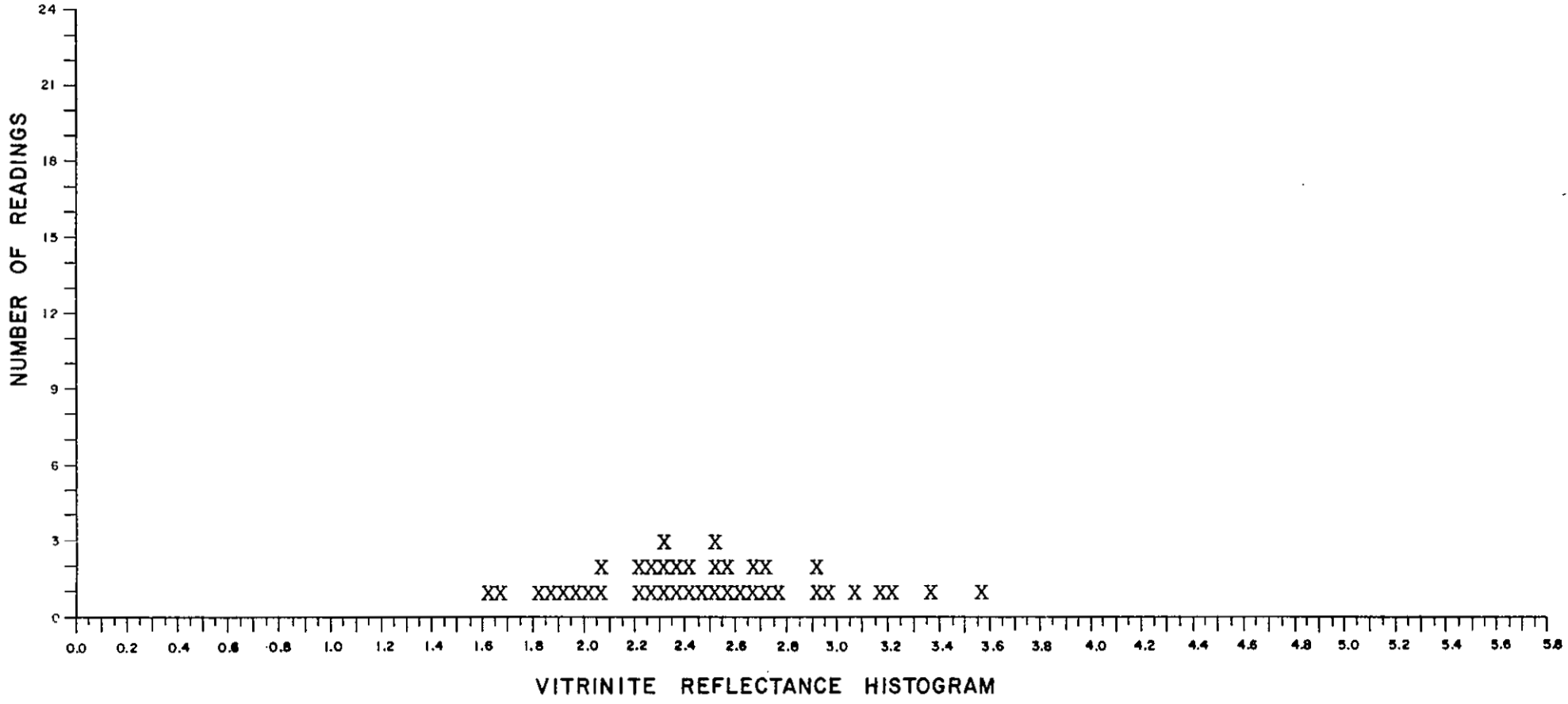


GEOCHEM NO. 3208-098 TYPE OF SAMPLE: CTGS DEPTH/SAMPLE NO. 3010

CLIENT'S NAME MARSHALL YOUNG WELL NAME SALTY'S #1

(NO. OF READINGS = 40) 1.64 1.67 1.82 1.87 1.93 1.99 2.03 2.07 2.08 2.23 2.23 2.26 2.28 2.30
2.31 2.32 2.37 2.38 2.42 2.44 2.49 2.52 2.52 2.52 2.56 2.59 2.62 2.67 2.69 2.71 2.73 2.78
2.93 2.93 2.95 3.06 3.19 3.22 3.38 3.55

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	2	1.64	1.67	1.66	-	CAVED
(2)	7	1.82	2.08	1.97	0.100	CAVED
(3)	23	2.23	2.78	2.48	0.173	INDIGENOUS
(4)	8	2.93	3.55	3.15	0.228	REWORKED

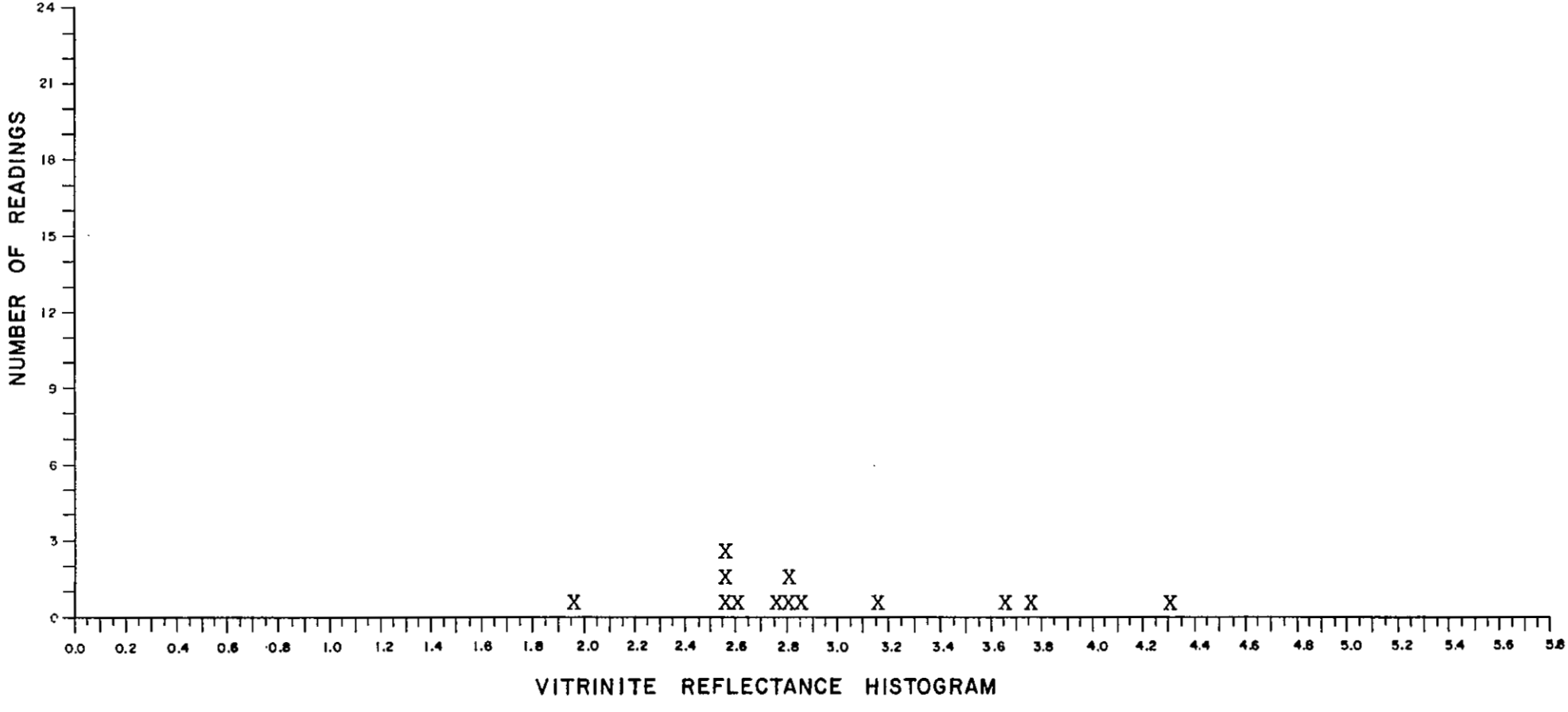


GEOCHEM NO. 3208-117 TYPE OF SAMPLE: CTGS DEPTH/SAMPLE NO. 3580

CLIENT'S NAME MARSHALL YOUNG WELL NAME SALTY'S #1

(NO. OF READINGS = 13) 1.99 2.56 2.57 2.57 2.61 2.77 2.80 2.84 2.86 3.16 3.65 3.75 4.33

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	1	1.99	1.99	1.99	-	CAVED
(2)	8	2.56	2.86	2.70	0.132	INDIGENOUS
(3)	3	3.16	3.75	3.52	0.316	REWORKED
(4)	1	4.33	4.33	4.33	-	REWORKED

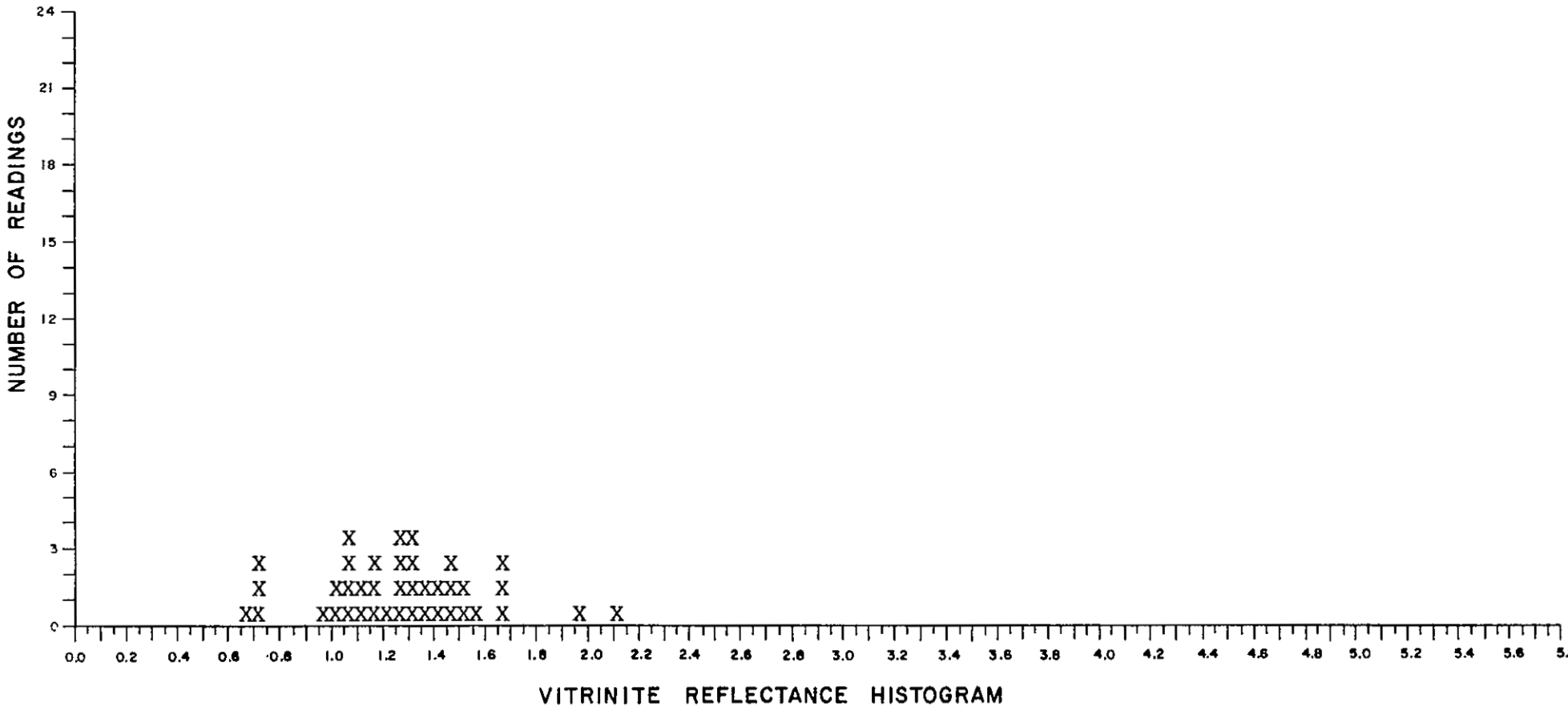


GEOCHEM NO. 3208-181 TYPE OF SAMPLE: CTGS DEPTH/SAMPLE NO. 5500

CLIENT'S NAME MARSHALL YOUNG WELL NAME SALTY'S #1

(NO. OF READINGS = 40) 0.69 0.70 0.73 0.74 0.98 1.01 1.02 1.06 1.06 1.06 1.07 1.10 1.12 1.15
1.15 1.17 1.21 1.25 1.26 1.27 1.28 1.30 1.31 1.31 1.33 1.38 1.38 1.40 1.40 1.45 1.46 1.49
1.51 1.52 1.59 1.65 1.68 1.69 1.95 2.13

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	4	0.69	0.74	0.72	0.024	INDIGENOUS
(2)	34	0.98	1.69	1.30	0.202	REWORKED
(3)	2	1.95	2.13	2.04	-	REWORKED

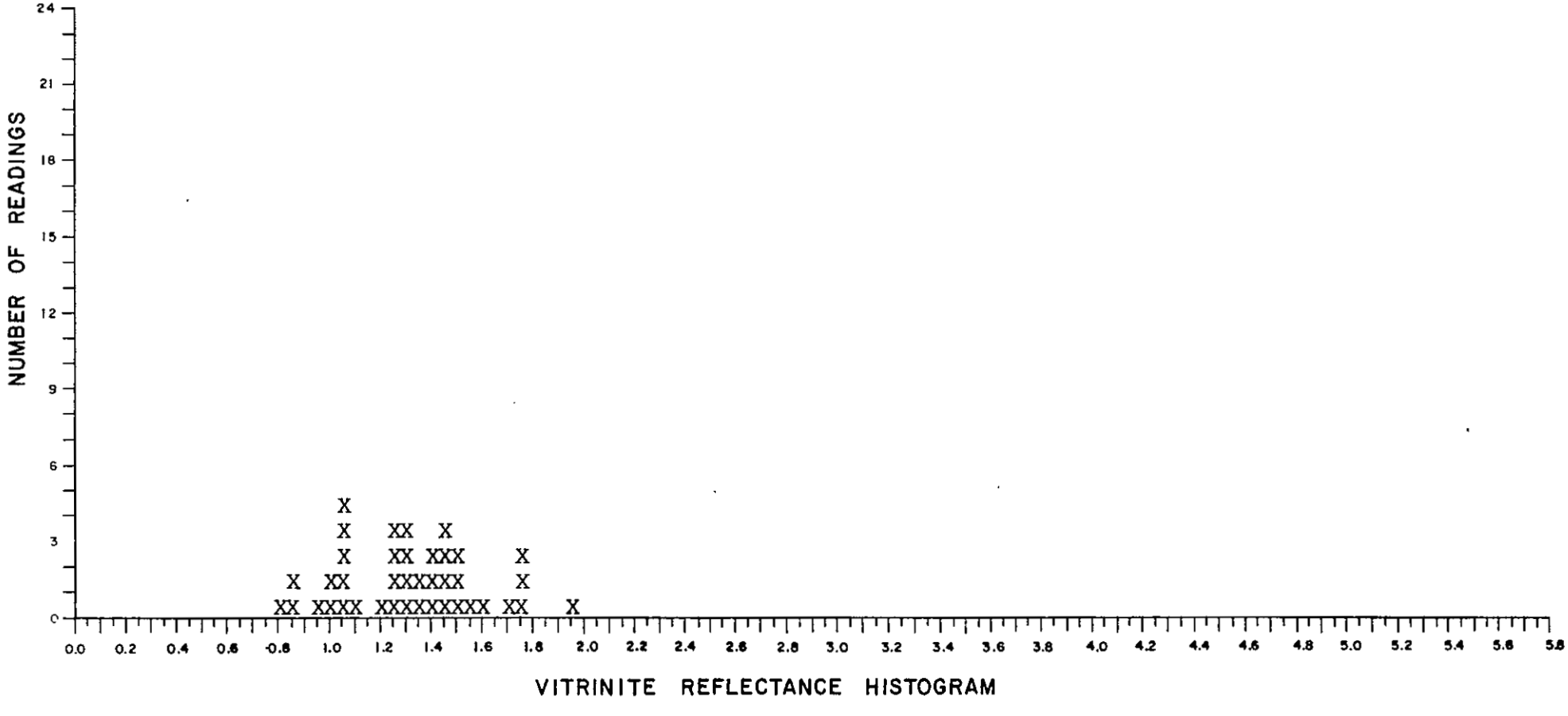


GEOCHEM NO. 3208-216 TYPE OF SAMPLE: CTGS DEPTH/SAMPLE NO. 6650

CLIENT'S NAME MARSHALL YOUNG WELL NAME SALTY'S #1

(NO. OF READINGS = 40) 0.84 0.85 0.86 0.97 1.03 1.04 1.07 1.09 1.09 1.09 1.09 1.14 1.20 1.26
1.27 1.27 1.28 1.31 1.31 1.34 1.34 1.35 1.36 1.41 1.41 1.43 1.45 1.46 1.48 1.49 1.50 1.52
1.53 1.55 1.60 1.70 1.76 1.76 1.77 1.96

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	12	0.84	1.14	1.01	0.107	INDIGENOUS
(2)	23	1.20	1.60	1.40	0.109	REWORKED
(3)	5	1.70	1.96	1.79	0.099	REWORKED

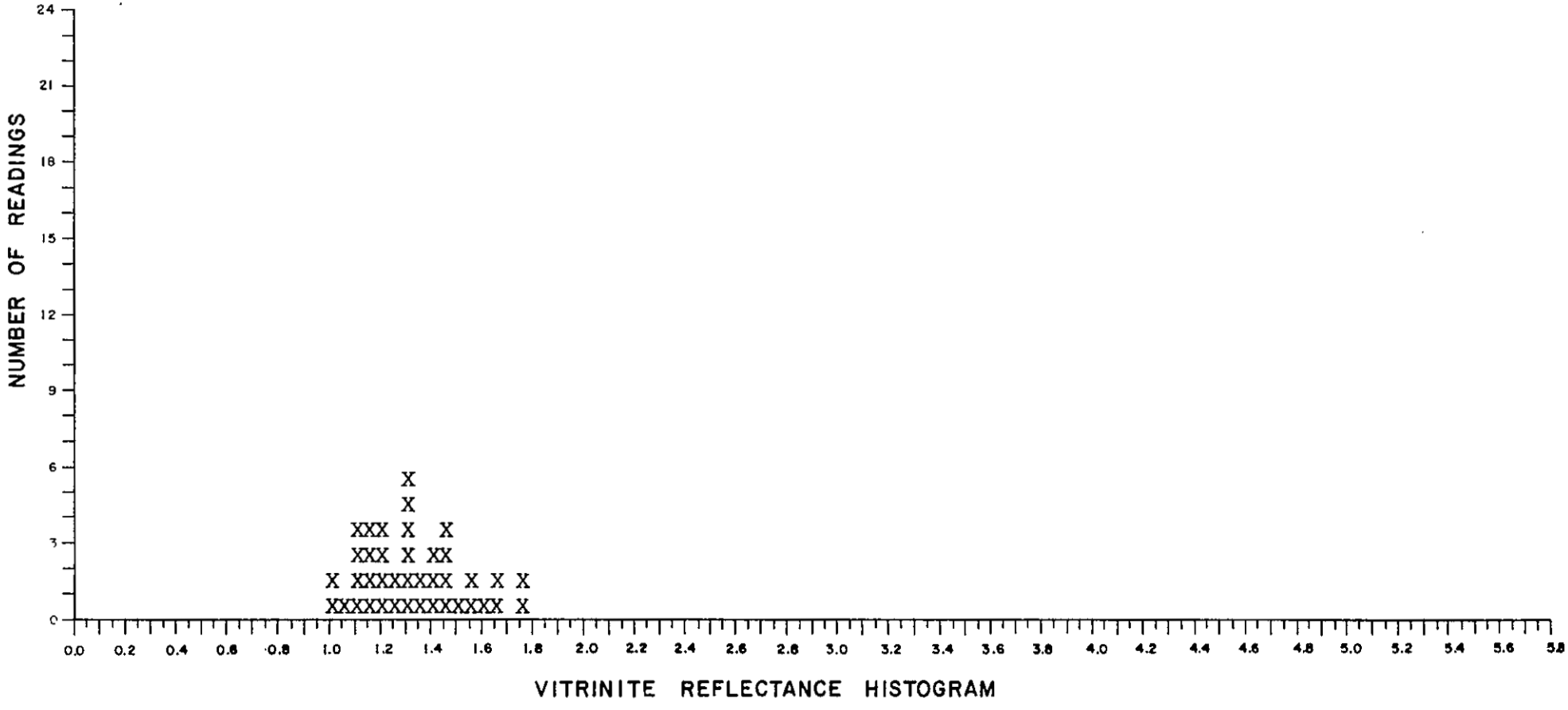


GEOCHEM NO. 3208-247 TYPE OF SAMPLE: CTGS DEPTH/SAMPLE NO. 7480

CLIENT'S NAME MARSHALL YOUNG WELL NAME SALTY'S #1

(NO. OF READINGS = 40) 1.04 1.04 1.08 1.10 1.12 1.12 1.14 1.15 1.15 1.18 1.19 1.21 1.22 1.22
1.23 1.25 1.28 1.30 1.30 1.30 1.32 1.34 1.34 1.35 1.37 1.42 1.42 1.44 1.45 1.45 1.47 1.48
1.53 1.55 1.56 1.61 1.67 1.67 1.75 1.76

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	17	1.04	1.28	1.16	0.071	INDIGENOUS
(2)	16	1.30	1.53	1.39	0.074	REWORKED
(3)	7	1.55	1.76	1.65	0.084	REWORKED

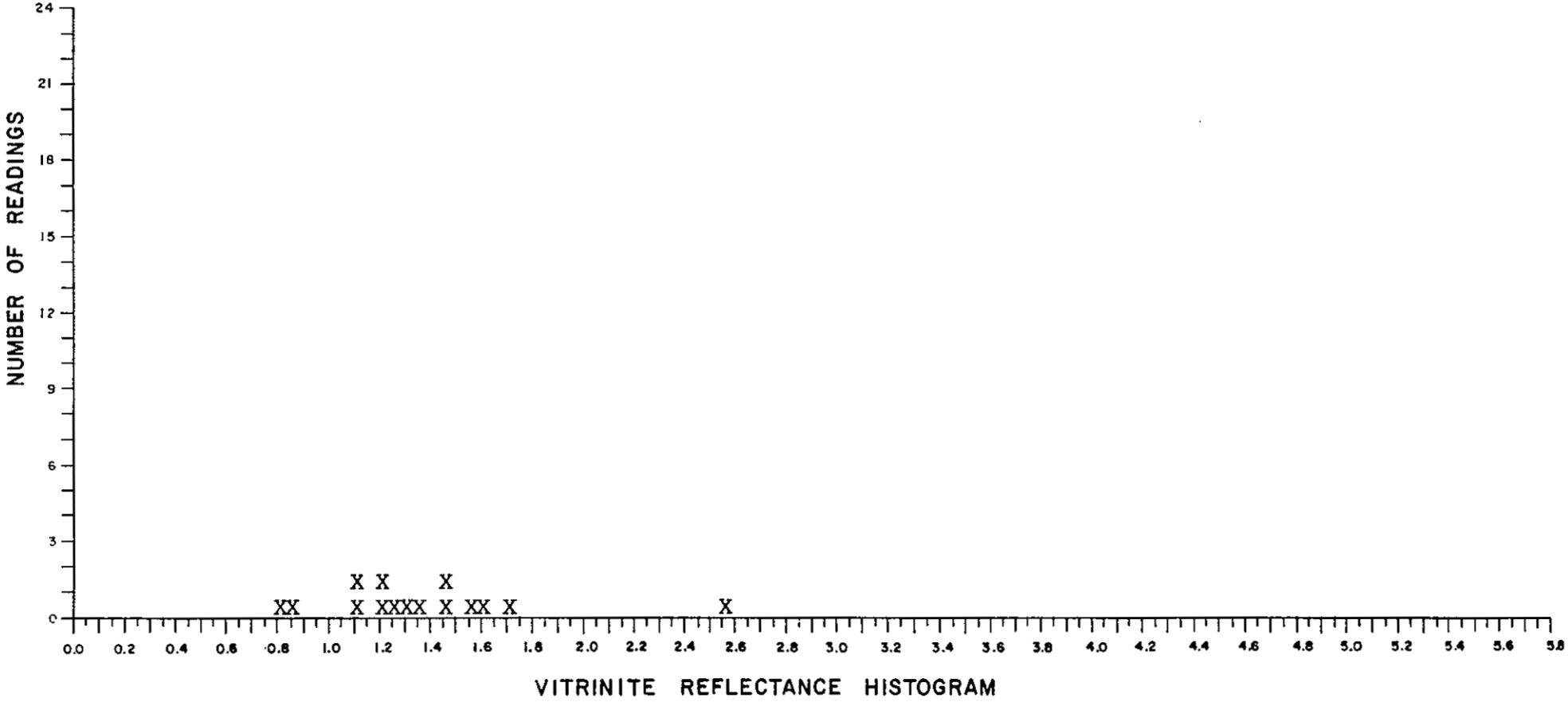


GEOCHEM NO. 3208-276 TYPE OF SAMPLE: CTGS DEPTH/SAMPLE NO. 8350

CLIENT'S NAME MARSHALL YOUNG WELL NAME SALTY'S #1

(NO. OF READINGS = 15) 0.83 0.85 1.12 1.13 1.23 1.24 1.26 1.30 1.36 1.45 1.48 1.59 1.64 1.72 2.57

POPULATION	NO. OF READINGS	MIN. Ro (%)	MAX. Ro (%)	MEAN Ro (%)	STD. DEV. (%)	REMARKS
(1)	2	0.83	0.85	0.84	-	CAVED
(2)	7	1.12	1.36	1.23	0.086	INDIGENOUS
(3)	5	1.45	1.72	1.58	0.112	REWORKED
(4)	1	2.57	2.57	2.57	-	REWORKED



APPENDIX A

Brief Description of Organic Geochemical analyses Carried Out by GeoChem

C_1-C_7 Hydrocarbon

The C_1-C_7 hydrocarbon content and composition of sediments reflects source type, source quality and thermal maturity.

The C_1-C_7 hydrocarbon content of well cuttings is determined by analyzing both a sample of the cuttings and the air space at the top of the can. The results of the two analyses are summed to give an inventory of the C_1-C_7 hydrocarbon content of the well cuttings prior to any losses from the cuttings during the lapsed time period between collection at the wellsite and laboratory analysis.

The air space C_1-C_7 hydrocarbon analysis involves taking a measured volume of the air space gas out of the can with a syringe and injecting same into a gas chromatograph. GeoChem uses a Varian Aerograph Model 1400 instrument equipped with a Porapec Q column. The gas sample is taken through the column by a carrier gas and before reaching the detector is separated into its various C_1 (methane), C_2 (ethane), C_3 (propane), iC_4 (isobutane), nC_4 (normal butane), and C_5, C_6, C_7 hydrocarbon components.

This particular analysis gives a complete separation of the C_1-C_4 gas-range hydrocarbons and a partial separation of the C_5-C_7 gasoline-range hydrocarbons. (A detailed C_4-C_7 analysis, to be discussed later, involving a capillary column, effects a complete separation of this molecular range into its several individual molecular species.)

The electrical response of the various hydrocarbons as they reach the detector is recorded on a paper strip chart as a peak. This response is simultaneously fed to an integrator which computes the area of each peak. The concentration of C_1-C_7 hydrocarbons in the air space, expressed as volumes of gas per million volumes of cuttings, is determined by a calculation involving the volume of cuttings, volume of air space in the can, volume of sample injected, volume of standard gas sample used in the calibration, calibration factor for C_1, C_2, C_3, etc. determined by gc analysis of a standard gas sample, and the gc peak response.

The C_1-C_7 hydrocarbon content of the cuttings is determined by degasification of a measured volume of cuttings (in a medium of a measured volume of water) in a closed blender, sampling of the air space at the top of the blender, and injection of a measured volume of gas into the gas chromatograph.

The C_1-C_7 hydrocarbon data from the air space and cuttings gas analyses are summed to give a "restored" C_1-C_7 hydrocarbon content of the cuttings.

Sample Washing and Hand-Picking of Uncaved Lithology Samples

The cuttings samples are washed to remove all drilling mud from the cuttings. Care is taken in the washing procedure not to remove any soft clays, claystones, etc. and any loose fine sand and silt. The washed cuttings are usually kept under water cover until picked, to prevent loss of any gasoline-range hydrocarbons. Using the C_1-C_7 hydrocarbon data profile and the electrical well log supplied to us and our visual examination of the cuttings material under the binocular microscope, we carefully hand-pick and describe a suite of uncaved lithologies representative of the various stratigraphic zones penetrated by the well. The lithological data is used to compile a gross litho percentage log which is shown on all Figures. The 2-4 gram picked lithology samples are stored under water in small glass vials in those instances where we wish to run detailed C_4-C_7 hydrocarbon analyses. This sample set is used not only for the C_4-C_7 hydrocarbon analysis, but also for the visual kerogen and total organic carbon analyses. All remaining cuttings material is dried and packaged in labelled plastic bags for possible C_{15+} soxhlet extraction and/or eventual return to the client. Sample material from this study will be retained at GeoChem until advised of disposition.

Detailed C_4-C_7 Hydrocarbon

The C_4-C_7 gasoline-range hydrocarbon content of sediments reflects source quality, thermal maturation and organic facies. Compositional data can be used in crude oil-parent rock correlation work.

The C_4-C_7 hydrocarbon content and detailed molecular composition of hydrocarbon, in hand-picked lithologies, is determined by a gc analysis of the light hydrocarbon extracted from 1-2 gram cuttings samples macerated in a microblender. A measured volume of sample is placed in a sealed microblender along with a measured volume of hot water. The rock sample is pulverized by the blades of the blender. A sample of the liberated light hydrocarbons which collect in the air space at the top of the blender is injected into our Varian Aerograph 1400 gc unit which is equipped with a capillary column. Data recording, computations, etc. are comparable to those used for the C_1-C_7 analysis discussed previously in this report. Hydrocarbon concentration is expressed as volume gas per million volumes of cuttings.

Organic Carbon

The total organic carbon content of a rock is a measure of its total organic richness. This data is used, in conjunction with visual kerogen and C_1-C_4, C_4-C_7 and C_{15+} hydrocarbon content of a rock, to indicate the hydrocarbon source quality of rocks.

The procedure for determining the total organic carbon content of a rock involves drying the sample, grinding to a powder, weighing out 0.2729 gram sample into a crucible, acidizing with hot and cold hydrochloric acid to remove calcium and magnesium carbonate, and carbon analysis by combustion in a Leco carbon analyzer.

We run several blank crucibles, standards (iron rings of known carbon content) and duplicate rock samples in this analysis at no additional charge to the client for purposes of data quality control.

C_{15+} Soxhlet Extraction, Deasphaltening and Chromatographic Separation

The amount and composition of the organic matter which can be solvent-extracted from a rock reflects source quality and source type. C^{13}/C^{12} carbon isotopic, high mass spectrometric and gc analyses of the paraffin-naphthene and aromatic hydrocarbon fractions of the soluble extract gives data which is used in crude oil-parent rock correlations.
This analysis involves grinding of a dry rock sample to a powder and removal of the soluble organic matter by soxhlet extraction using a co-distilled toluene-methanol azeotrope solvent. Where the amount of available sample material permits, we like to use at least 100 grams of rock for this analysis.

The extracted bitumen is separated into an asphaltene (ASPH) and a pentane soluble fraction by normal pentane precipitation. The pentane soluble components are separated into a C_{15+} paraffin-naphthene (P-N) hydrocarbon, C_{15+} aromatic hydrocarbon (AROM) and C_{15+} nitrogen-sulfur-oxygen containing fraction (NSO) by adsorption chromatography on a silica gel-alumina column using pentane, toluene and toluene-methanol azeotrope eluants.

GC Analysis of C_{15+} Paraffin-Naphthene (P-N) Hydrocarbons

The content and molecular composition of the heavy C_{15+} paraffin-naphthene (P-N) hydrocarbons of rocks, as determined by gc analysis, reflects source quality, source type and degree of thermal maturation.

In this analysis, we subject a very small fraction of the total amount of the P-N fraction extracted from a rock sample to gc analysis. The gas chromatograph is a Varian Aerograph Model 1400 equipped with a solid rod injection system and a eutectic column.

The calculated C.P.I. (carbon preference index) values for the normal paraffin data is defined as the mean of two ratios which are determined by dividing the sum of concentrations of odd-carbon numbered n-paraffins by the sum of even-carbon numbered n-paraffins. The C.P. Indices A and B were obtained by the formulas:

$$\text{C.P. Index A} = \frac{\dfrac{C_{21}+C_{23}+C_{25}+C_{27}}{C_{22}+C_{24}+C_{26}+C_{28}} + \dfrac{C_{21}+C_{23}+C_{25}+C_{27}}{C_{20}+C_{22}+C_{24}+C_{26}}}{2}$$

$$\text{C.P. Index B} = \frac{\dfrac{C_{25}+C_{27}+C_{29}+C_{31}}{C_{26}+C_{28}+C_{30}+C_{32}} + \dfrac{C_{25}+C_{27}+C_{29}+C_{31}}{C_{24}+C_{26}+C_{28}+C_{30}}}{2}$$

Visual Kerogen

A visual study of kerogen, the insoluble organic matter in rocks, can indicate the relative abundance, size, and state of preservation of the various recognizable kerogen types and thereby indicate the hydrocarbon source character of a rock. The color of the kerogen can be used to indicate the state of thermal maturity of the sediments (i.e. their time-temperature history). Thermal maturation plays an important role in the generation of hydrocarbons from organic matter, and also affects the composition of reservoired hydrocarbons.

Our procedure for visual kerogen slide preparation involves isolation of the organic matter of a rock by removal of the rock material with hydrochloric and hydrofluoric acid treatment and heavy liquid separation. This procedure is comparable to that used by the palynologist except it does not include an oxidation stage. (The oxidation treatment is deleted from our procedure because it removes a great deal of kerogen and blanches any remaining kerogen to an extent whereby it is useless for our kerogen color observations.) The kerogen residue is mounted on a glass slide and is examined visually under a high power microscope.

Vitrinite Reflectance

Measurement of the reflectivity of vitrinite particles ($\%R_o$) present in the kerogen isolated from sedimentary rocks provides a method of determining the state of maturation, and the diagenetic (time-temperature) history of the organic matter present in the sediments.

The kerogen, obtained from a 25 gram aliquot of crushed rock by the acid procedure previously discussed, is dried and embedded in a Bioplastic plug. The surface of the plug is polished using 0.05 micron alumina and the reflectivity determined under oil using a Zeiss high resolution microscope. A minimum of 40 values are required to adequately determine the Maturation Rank.

Fluorescence Spectrophotometric Analysis

Fluorescence spectrophotometry can be used to characterize and fingerprint crude oils, establish crude oil-source rock relationships, and to measure the hydrocarbon source potential of fine-grained sediments.

A one (1) microliter aliquot of either (i) a crude oil or (ii) the solvent extractable rock bitumen, is passed through an alumina/silica gel micro column and the C_{10+} aromatic hydrocarbons isolated. The aromatic hydrocarbon is diluted and the emission and excitation spectra determined at 240 nm and 420 nm using a Perkin-Elmer Model 512 Double Beam Fluorescence Spectrophotometer.

GEOTHERMAL DIAGENETIC CRITERIA

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