

APPENDIX IIIORGANIC EXTRACT DATA

Fifty grams of each sample is pulverized and soxhlet extracted for 18 hours with dichloromethane to obtain the total amount of extractable material. The extract is first deasphalted by precipitation with hexane. The soluble fraction is then separated into saturates, aromatics, and NSO compounds on a silica-alumina chromatographic column by successive elutions with hexane, benzene, and benzene-methanol solvents respectively. The total extract is expressed in parts per million of total sample extracted and the functional groups are expressed as weight percent of total extract.

Gas chromatograms of the C₁₅+ saturate fraction were produced with a Perkin-Elmer, Sigma 3 gas chromatograph fitted with a 12 foot, NaNO₃/LiNO₃/KNO₃ eutectic column. The chromatograph was programmed from 40°C to 360°C at 12°C/min. using helium carrier gas at the rate of 25 ml/min.

Straight chain paraffins (n-alkanes) are normalized between C₁₅ and C₄₀ to a sum of 100% and the percent of individual components plotted on bargraphs. Several ratios involving pristane (Pr) and phytane (Ph) are also calculated and plotted. Carbon preference index (CPI) values are calculated with the original Bray and Evans formula.