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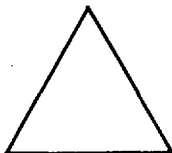
# MOST SIGNIFICANT HYDROCARBON MICROSEEPAGE ANOMALIES

(HORVITZ RESEARCH LABORATORIES ANALYSES, SAMPLES COLLECTED 1983, 1984, n=200)

HIGHLY ANOMALOUS  
( $\geq 2 \times \text{S.D.}$ )

VERY ANOMALOUS  
( $\geq 1 \times \text{S.D.}$ )

ADSORBED  
METHANE  
 $\bar{x} = 104.75 \text{ ppb}$

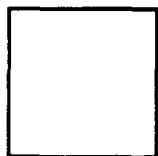


234.75 ppb



117.38 ppb

ADSORBED  
ETHANE+  
 $\bar{x} = 111.86 \text{ ppb}$

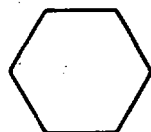


347.58 ppb



173.79 ppb

ADSORBED  
PENTANE  
 $\bar{x} = 16.62 \text{ ppb}$

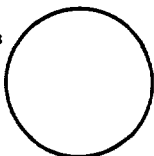


61.25 ppb



30.63 ppb

CARBON DIOXIDE \*  
 $\bar{x} = 2976.6 \text{ ppm}$   
\*(n=105)



6309.6 ppm



3154.8 ppm

SAND PERCENT, n=200  $\bar{x} = 57.12\%$

## RATIO INTENSITIES OF OIL PRONE TO GAS/CONDENSATE PRONE DISCRIMINANTS

RATIO:  $\frac{(1000 \times \text{PENTANE})}{\text{METHANE}}$

(By volume in microliters per kilogram)

C.I. = 10

$\geq 80 = \text{OIL PRONE}$   
(MAX: 294)

$\leq 50 = \text{GAS/CONDENSATE PRONE}$   
(MIN: 23)



Exhibit 4  
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