

LABORATORY ANALYSIS SHEET

1313017015

ANVIL POINTS OIL SHALE RESEARCH CENTER

Date Sampled 6-10-67

Run No. C1043 START U1

Sample Time: RS 1815; SS 2030

FISCHER ASSAY

RAW SHALE SPENT SHALE

<u>29.9</u>	<u>7.2</u>	Gal/Ton
<u>.912</u>	<u>—</u>	S.G., g/ml
<u>11.4</u>	<u>2.7</u>	Oil, wt %
<u>1.8</u>	<u>0.7</u>	Water, wt %
<u>84.3</u>	<u>96.1</u>	Sp. Shale, wt %
<u>2.5</u>	<u>0.5</u>	Gas & Loss, wt %
<u>None</u>	<u>None</u>	COKING TENDENCY

RETORT SHALE MOISTURE
_____ wt %

RAW SHALE FISCHER ASSAY
MOISTURE

0.84 wt %

MINERAL CO₂

16.8 15.2 wt %

ASH (SHALE)

66.5 79.6 wt %

MOISTURE

0.48 0.12 wt %

CARBON

17.9 9.04
1.85 wt %

HYDROGEN

1.85
9.04 0.57 wt %

BENZENE EXTRACTABLES

_____ _____ wt %

SHALE RICHNESS DISTRIBUTION
(See attached graph)

SCREEN ANALYSIS
(See back of this sheet)

All results are "as received" unless noted. "Moisture" designates the moisture content of the -48 mesh material used for "Ash", "Mineral CO₂", "Carbon", and "Hydrogen". The "FA Moisture" is for the sample used for the Fischer Assay.

COMMENTS _____

DATE COMPLETED

JUN 12 1967

CHECKED BY

REP
OSRC-12A

Revised 6/20/66

LABORATORY ANALYSIS SHEET

ANVIL POINTS OIL SHALE RESEARCH CENTER

Date Sampled 6-10-67

Run No. C1043 STARTUP
(2030 hr)

LIQUID PRODUCTS

	D-3 PUMPOUT				T-3 PUMPOUT	
	1	2	3	4	1	2
WATER, WT %	42.4	 	 	 		
GRAVITY, °API	19.8	 	 	 		
OIL ASH, WT %						

○ DISTILLATION (See attached sheet - OSRC-24)

VENT PURGE PRODUCT

⊗ WT OIL, GM	<u>317.8</u>
VOL WATER, ML	<u>10.0</u>
OIL GRAVITY, °API	<u>35.1</u> <u>15.6</u>

VENT GAS

⊗ MAJOR COMPONENTS	○ C ₁ thru C ₄ , plus n-Pentane
CO ₂ <u>25.4</u> vol %	CH ₄ _____ vol %
O ₂ <u>0.2</u> "	C ₂ H ₄ -C ₂ H ₆ _____ "
N ₂ <u>59.8</u> "	C ₃ H ₈ _____ "
CH ₄ <u>2.2</u> "	C ₃ H ₆ _____ "
CO <u>4.0</u> "	i C ₄ H ₁₀ _____ "
H ₂ <u>5.6</u> "	n C ₄ H ₁₀ _____ "
Ar <u>0.7</u> "	∅C ₃ H ₆ _____ "
Others <u>2.1</u> "	n C ₅ H ₁₂ _____ "
⊗ CARBON, lbs/MSCFDG <u>12.8</u>	HYDROGEN <u>0.93</u>

COMMENTS _____

DATE COMPLETED

JUN 12 1967

CHECKED BY

OSRC-12B

(Initiated 1/22/66)

SCREEN ANALYSIS DATA SHEET (TY-LAB)

RUN NO. C-1643 SAMPLE NO. 1 DATE 6-10-67

UNIT #3 DESCRIPTION PS

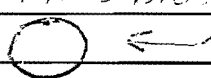
APPROX. SHALE SIZE _____ SHAKING TIME _____ ANALYSIS BY ASST. PROJ. ENG.

TOTAL SAMPLE WT. GROSS 193 - TARE 99.6 = NET 163.4

SCREEN SIZE			WEIGHTS								
SCREENS REQD.	OPENING SIZE	MESH	GROSS LBS.	TARE LBS.	NET WT. RETAINED	SCREEN SIZE	D _i *	1/D _i	% RETAINED	CUM. % RETAINED	% PASSING
	4.25					4.25					
	3.00					3.00	(3.125)	(0.3200)			
	2.50					2.50	(2.625) 2.750	(0.3809) 0.3636			
	2.00					2.00	2.250	0.4444			
	1.50					1.50	1.750	0.5714			
	1.05		49	38.4	10.6	1.05	(1.087) 1.275	(0.9199) 0.7843			
	0.742		105.6	41.0	64.6	0.742	0.896	1.116			
	0.525		77.8	37.1	35.7	0.525	0.634	1.577			
	0.371		52.8	35.4	14.4	0.371	0.448	2.232			
	0.263	3	48.6	34.8	11.8	0.263	0.317	3.154			
	0.185	4	40.0	38.8	3.2	0.185	0.224	4.464			
	0.131	6	39.7	38.8	0.9	0.131	0.158	6.329			
	0.093	8	40.0	40.0	0	0.093	0.112	8.928			
	0.065	10	38.7	38.7	0	0.065					
	PAN		63.4	42.0	21.4	PAN					
TOTAL ON SCREENS AND PAN					161.9	LOSS					
LOSS (BY DIFFERENCE)					-1.5	TOTAL					
TOTAL SAMPLE WEIGHT					163.4						

* NUMBERS IN PARENTHESES SHOULD BE USED WHEN THESE SCREEN SIZES REPRESENT THE TOP OF THE SHALE SIZE RANGE.

REMARKS: DUST PAN HAS A HOLE THIS BIG
THINK WE LOST THE 1.5 LBS OUT OF IT



$\sum_{+8m}^m D_i$		$\sum_{+8m}^m X_i$	
$1/\sum_{+8m}^m D_i$		$\sum_{+8m}^m X_i / D_i$	
D _a		$\sum_{+8m}^m X_i D_i$	
D _v			