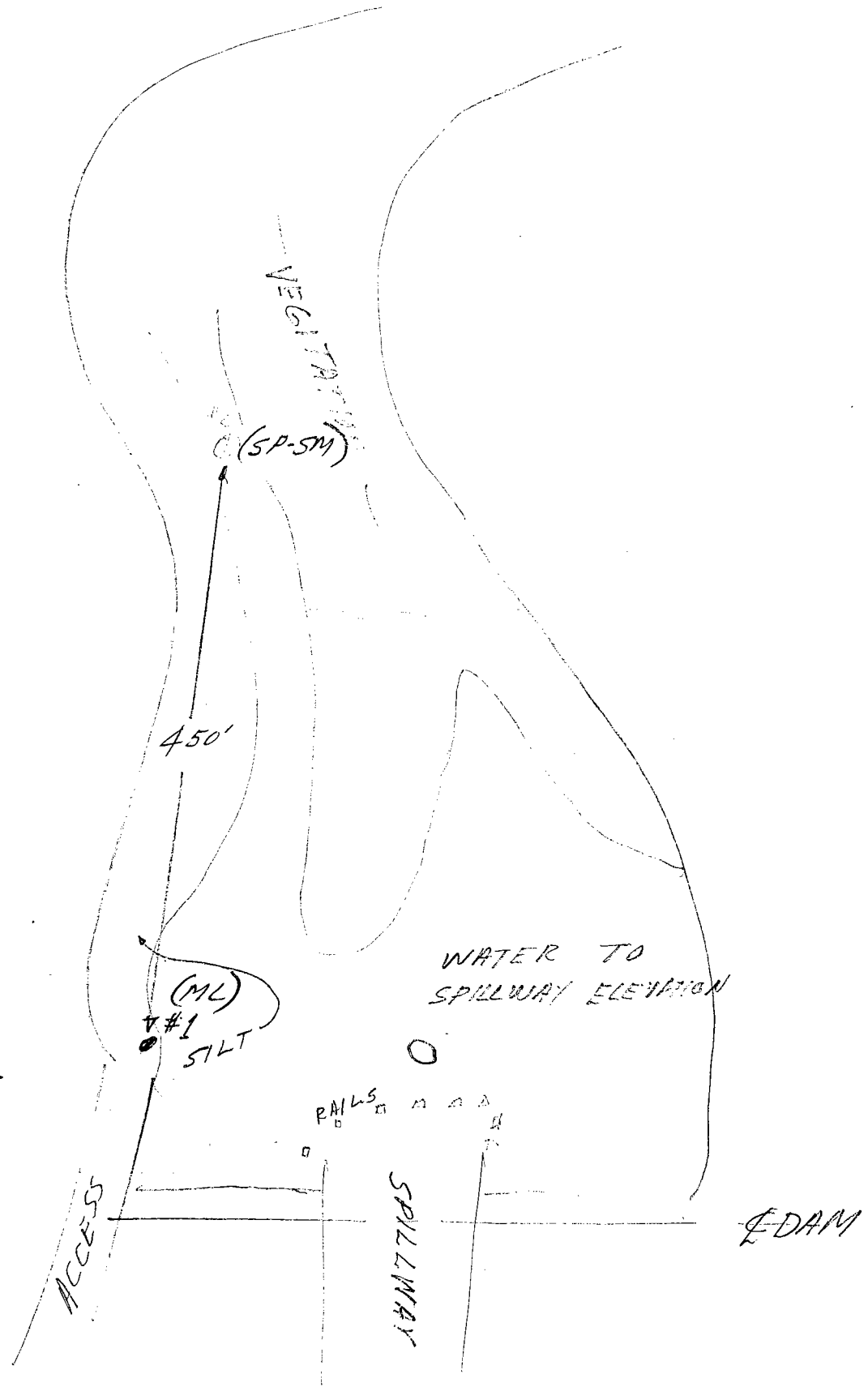


Line kiln

Debris Basin

2/28/69  
JAL-JJB

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**LOS ANGELES COUNTY FLOOD CONTROL DISTRICT**  
Soils and Materials Engineering Division

ML  
33

**SIEVE ANALYSIS WORK SHEET**

LAB SERIAL NO. 22967  
Project W/MEKLN  
Station \_\_\_\_\_  
Location \_\_\_\_\_  
Boring No. \_\_\_\_\_ Sample No. \_\_\_\_\_  
Sampled By \_\_\_\_\_ Lab Tested By AK

Total Weight of Sample \_\_\_\_\_ lbs.  
\_\_\_\_\_ grams.  
Moisture Content of Fines \_\_\_\_\_ %.  
Date Tested 3/12 Plotted By \_\_\_\_\_  
Remarks \_\_\_\_\_  
Intended Use \_\_\_\_\_

**GRAVEL (Plus No. 4)**

ASTM SIEVE NUMBER	SIZE (mm)	RETAINED		% OF TOTAL OVEN-DRY RETAINED	ACCUM. % RETAINED	ACCUM. % PASSING	
		LBS.	GRAMS			ACTUAL	SPEC. REQ.
3"	76.2						
1 1/2"	38.1						
(1")	(25.4)						
3/4"	19.1						
3/8"	9.52						
No. 4	4.76			—	—	100.0	
Pan	0	1.65		xxxxx			
Total Fractions				xxxxx			
Sieve Loss-Gain							
Calc. Oven-Dry Fines		1.03		100.0			
Total Oven-Dry		1.03		100.00			

Moisture Determination of Fines:  
Cup No. 58  
Dry Weight 136.3 grams  
Moisture 60.5 %

100.0  
37.7  
62.3

**FINES (Minus No. 4)**

WEIGHT, GRAMS 100 (CALC.) OVEN-DRY WEIGHT 62.3 grams.  
WEIGHT OF TOTAL SAMPLE REPRESENTED BY FINES, OVEN-DRY 62.3 grams.

ASTM SIEVE NUMBER	SIZE (mm)	RETAINED GRAMS	% OF TOTAL SAMPLE RETAINED	ACCUM. % OF TOTAL RETAINED	ACCUM. % PASSING	
					ACTUAL	SPEC. REQ.
8	2.38					
16	1.19					
30	0.59					
50	.297					
100	.149	0.1	0.2	0.2		
200	.074	0.1	0.2	0.3	99.7	
Pan	0	0.0				
Total Fractions		0.2				
Total Dry Weight After Wet Sieving		120.4				
Sieve Loss-Gain		120.2	0.3			

Calculated by AK Date 3/10/69  
Checked by WB Date 3/25/69

120.2  
120.2  
120.2

Note: Cross out sieve numbers not used.

# 1  
33

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT  
Foundation and Testing Division

HYDROMETER ANALYSIS WORK SHEET  
ASTM Method D422-54T  
(Modified)

LAB. SERIAL NO. 22967  
Project \_\_\_\_\_  
Limits \_\_\_\_\_  
Boring \_\_\_\_\_ Sample \_\_\_\_\_  
Depth \_\_\_\_\_  
Sampled by \_\_\_\_\_ Date \_\_\_\_\_  
Field Description \_\_\_\_\_

Initial Weight of Sample Passing  
No. 4 Sieve \_\_\_\_\_ grams  
Remarks \* ESTIMATED  
Set up by NR Date 3/12/69  
Lab. Tested by NR Date 3/24/69

Moisture Cup No. 58  
Dry Weight, grams 1363  
Moisture Content, % \_\_\_\_\_  
Oven-Dry Weight  
Passing No. 4 grams \_\_\_\_\_  
Percent Passing No. 4 \_\_\_\_\_; No. 10 \_\_\_\_\_ = P<sub>10</sub>  
Oven-Dry Weight of total  
Sample represented, 623 grams  
W = \_\_\_\_\_ grams

Type Calgon  
Dispersing Volume, cc 125  
Agent Strength, % \_\_\_\_\_  
Correction, gm/l = C<sub>d</sub> -8.0  
Soil Specific Gravity = G 2.65  
S. G. Correction factor = a 1  
Meniscus correction, gm/l = C<sub>m</sub> +1.3  
Peroxide Treatment Used (Yes) (No) \_\_\_\_\_  
HYDROMETER NO. \_\_\_\_\_ JAR NO. \_\_\_\_\_

11:29:30 START  
11:30 START  
11:30 START

Time	11:29:30 START 11:30 START	11:31	11:34	11:46	12:34	3:46	8:30
Temperature, °C		20.0	20.0	19.6	20.6	20.6	19.8
Temp. correc. Factor = C <sub>t</sub>		0	0	-1	+1	+1	0
Elapsed Time, Minutes = T		1	4	16	64	256	1260
Hydrometer Reading, gm/l = R		* 63.0	49.5	34.5	25.5	20.0	16.0
Effective Depth, cm = L		2.45	2.865	3.265	3.475	3.61	3.70
Total Correction C = C <sub>d</sub> + C <sub>m</sub> + C <sub>t</sub>		-6.7	-6.7	-6.8	-6.6	-6.6	-6.7
Corrected Reading R <sub>c</sub> = R + C		56.3	42.8	27.7	18.9	13.4	9.3
K		.01365	.01365	.01365	.01348	.01348	.01365
Diameter in mm = D		.0335	.0196	.0112	.00434	.0032	.00142
Percent in Suspension = P		89.5	86.7	44.5	30.3	21.5	14.9
Percent of (-10) = P'							

$$P = \frac{(R_c)(a)(100)}{(W)}$$

$$P' = \frac{(P)(100)}{(P_{10})}$$

$$D = K \sqrt{\frac{L}{T}}$$

Computed by NR Date 3/24/69  
Plotted by \_\_\_\_\_ Date \_\_\_\_\_

Checked by NR  
Date 3/25/69

Los Angeles County Flood Control District  
Soils and Materials Engineering Division

ML  
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LIQUID LIMIT AND PLASTIC LIMIT TESTS

Lab. Serial No. 22967  
Job \_\_\_\_\_  
Boring No. \_\_\_\_\_  
Sample No. \_\_\_\_\_  
Sampled By \_\_\_\_\_ Date \_\_\_\_\_

Remarks \_\_\_\_\_

Lab. Tested By AR Date 3/18/69  
Computed By AR Date 3/19/69  
Plotted By \_\_\_\_\_ Date \_\_\_\_\_

LIQUID LIMIT

ONE POINT TABLE

Container No.	15
No. of Blows	16
Wet Sample Wt. + Tare	8.514
Dry Sample Wt. + Tare	7.701
Wt. of Water (Diff)	.813
Tare	6.052
Wt. of Dry Soil	1.649
Moisture Content	49.3
Liquid Limit	47
One Point Liquid Limit	-

BLOWS	FACTOR
16	.947
17	.954
18	.961
19	.967
20	.973
21	.979
22	.985
23	.990
24	.995
25	1.000
26	1.005
27	1.009
28	1.014
29	1.018
30	1.022
31	1.026
32	1.030
33	1.034
34	1.038
35	1.042

PLASTIC LIMIT

Run No.	1	2	3
Container No.	28	38	25
Wet Sample Wt. + Tare	5.759	5.652	5.501
Dry Sample Wt. + Tare	5.636	5.534	5.431
Wt. of Water (Diff)	.123	.118	.070
Tare	5.320	5.228	5.247
Wt. of Dry Soil	.316	.308	.184
Moisture Content	39	38	38
Plastic Limit (Average Value)	38		

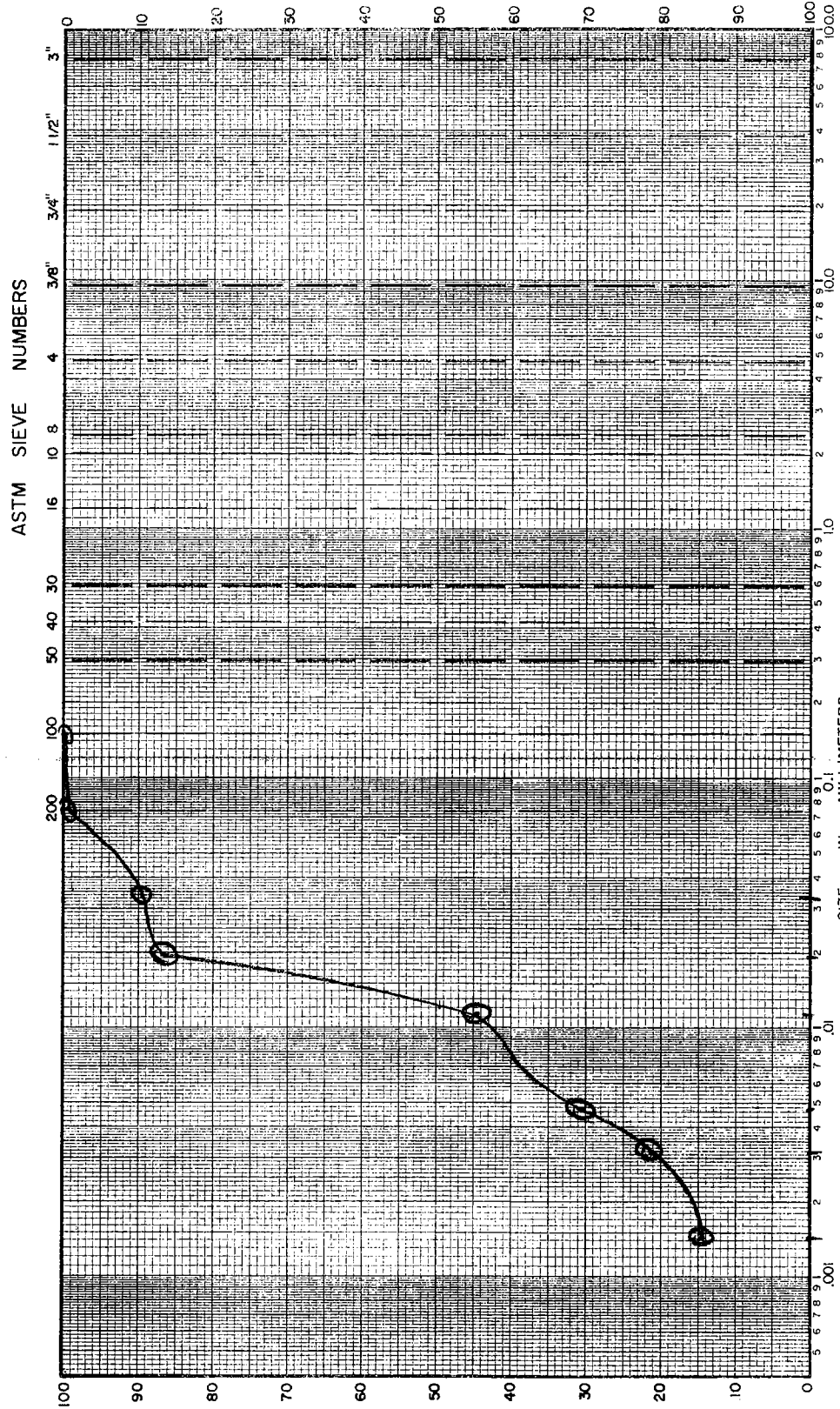
Plasticity Index (LL - PL) = PI = 9

**LOS ANGELES COUNTY FLOOD CONTROL DISTRICT**  
Soils and Materials Engineering Division  
**MECHANICAL ANALYSIS**

LAB. SERIAL NO. 22967  
 JOB \_\_\_\_\_  
 BORING NO. \_\_\_\_\_ SAMPLE NO. \_\_\_\_\_  
 STATION \_\_\_\_\_ DEPTH \_\_\_\_\_ FT.  
 LOCATION \_\_\_\_\_  
 SAMPLED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 FIELD CLASSIFICATION \_\_\_\_\_ BY \_\_\_\_\_  
 PLAS. IND. \_\_\_\_\_ LIQ. LIM. \_\_\_\_\_  
 REMARKS \_\_\_\_\_

**CLASSIFICATION DATA**

PERCENT (+) NO. 200 \_\_\_\_\_ PERCENT (+) NO. 4 \_\_\_\_\_  
 % (+) NO. 4 / % (+) NO. 200 \_\_\_\_\_ D<sub>10</sub> \_\_\_\_\_ mm  
 D<sub>30</sub> \_\_\_\_\_ mm D<sub>60</sub> \_\_\_\_\_ mm  
 C<sub>u</sub> = D<sub>60</sub>/D<sub>10</sub> \_\_\_\_\_ PLOTTED BY AR  
 C<sub>c</sub> = (D<sub>30</sub>)<sup>2</sup> / (D<sub>10</sub> x D<sub>60</sub>) \_\_\_\_\_ CHECKED BY \_\_\_\_\_  
 GROUP SYMBOL \_\_\_\_\_ DATE \_\_\_\_\_  
 NOTE: D<sub>x</sub> = PARTICLE DIA. AT X% PASSING



SILT OR CLAY		SAND		GRAVEL	
FINE	MEDIUM	FINE	COARSE	FINE	COARSE

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**LOS ANGELES COUNTY FLOOD CONTROL DISTRICT**  
Soils and Materials Engineering Division

SM-SP (32)

**SIEVE ANALYSIS WORK SHEET**

LAB SERIAL NO. 22968  
Project LIMEKILN D.B  
Station \_\_\_\_\_  
Location \_\_\_\_\_  
Boring No. \_\_\_\_\_ Sample No. 2  
Sampled By \_\_\_\_\_ Lab Tested By NR-JHE

Total Weight of Sample 1.52 lbs.  
\_\_\_\_\_ grams.  
Moisture Content of Fines \_\_\_\_\_ %.  
Date Tested \_\_\_\_\_ Plotted By \_\_\_\_\_  
Remarks \_\_\_\_\_  
Intended Use \_\_\_\_\_

**GRAVEL (Plus No. 4)**

ASTM SIEVE NUMBER	SIZE (mm)	RETAINED		% OF TOTAL OVEN-DRY RETAINED	ACCUM. % RETAINED	ACCUM. % PASSING	
		LBS.	GRAMS			ACTUAL	SPEC. REQ.
3"	76.2						
1½"	38.1						
(1")	(25.4)						
¾"	19.1						
⅜"	9.52	.08		6.6	6.6		
No. 4	4.76	.12	.20	9.9	16.5	83.5	
Pan	0	1.32		xxxxx			
Total Fractions		1.52		xxxxx			
Sieve Loss-Gain							
Calc. Oven-Dry Fines		1.01		83.5			
Total Oven-Dry		1.21		100.00			

Moisture Determination of Fines:  
Cup No. 53  
Dry Weight 150.8 grams  
Moisture 30.2 %

WEIGHT, GRAMS 100 **FINES (Minus No. 4)** (CALC.) OVEN-DRY WEIGHT 76.8 grams.  
WEIGHT OF TOTAL SAMPLE REPRESENTED BY FINES, OVEN-DRY 92.0 grams.

ASTM SIEVE NUMBER	SIZE (mm)	RETAINED GRAMS	% OF TOTAL SAMPLE RETAINED	ACCUM. % OF TOTAL RETAINED	ACCUM. % PASSING	
					ACTUAL	SPEC. REQ.
8	2.38	3.6	3.9	20.4		
16	1.19	6.5	7.1	27.5		
30	0.59	13.6	14.8	42.3		
50	.297	17.7	19.2	61.5		
100	.149	15.2	16.5	78.0		
200	.074	11.0	12.0	90.7	9.3	
Pan	0	0.5				
Total Fractions		68.1				
Total Dry Weight After Wet Sieving <u>188.5</u>		67.3	74.2			
Sieve Loss-Gain		-.2				

Calculated by AP Date 3/11/69  
Checked by SHF Date 3/12/69

Note: Cross out sieve numbers not used.

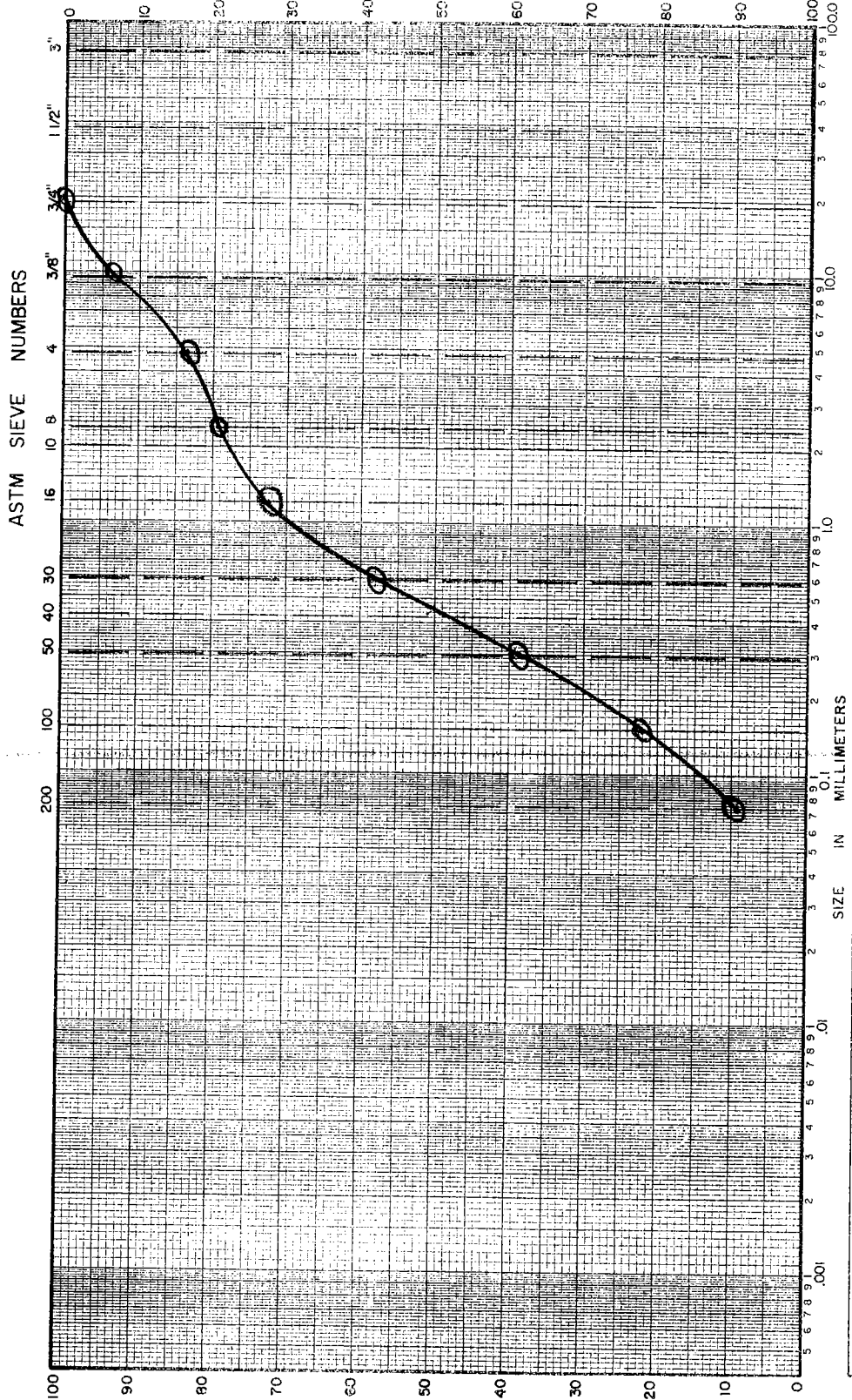
**LOS ANGELES COUNTY FLOOD CONTROL DISTRICT**  
Soils and Materials Engineering Division  
**MECHANICAL ANALYSIS**

LAB. SERIAL NO. 22960  
 JOB \_\_\_\_\_  
 BORING NO. \_\_\_\_\_ SAMPLE NO. \_\_\_\_\_  
 STATION \_\_\_\_\_ DEPTH \_\_\_\_\_ FT.  
 LOCATION \_\_\_\_\_  
 SAMPLED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 FIELD CLASSIFICATION \_\_\_\_\_ BY \_\_\_\_\_  
 PLAS. IND. \_\_\_\_\_ LIQ. LIM. \_\_\_\_\_  
 REMARKS \_\_\_\_\_

**CLASSIFICATION DATA**

PERCENT (+) NO. 200 \_\_\_\_\_ PERCENT (+) NO. 4 \_\_\_\_\_  
 % (+) NO. 4 / % (+) NO. 200 \_\_\_\_\_  $D_{10}$  0.076 mm  
 $D_{30}$  0.22 mm  $D_{60}$  0.51 mm  
 $C_u = D_{60}/D_{10}$  2.6 PLOTTED BY SHF  
 $C_c = (D_{30})^2 / (D_{10} \times D_{60})$  2.9 CHECKED BY SHF  
 GROUP SYMBOL \_\_\_\_\_ DATE 3/16/69

NOTE:  $D_x$  = PARTICLE DIA. AT X% PASSING



SILT OR CLAY	FINE	SAND		FINE		GRAVEL	
		MEDIUM	COARSE	COARSE	COARSE	COARSE	

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