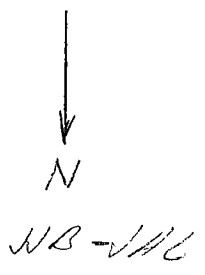
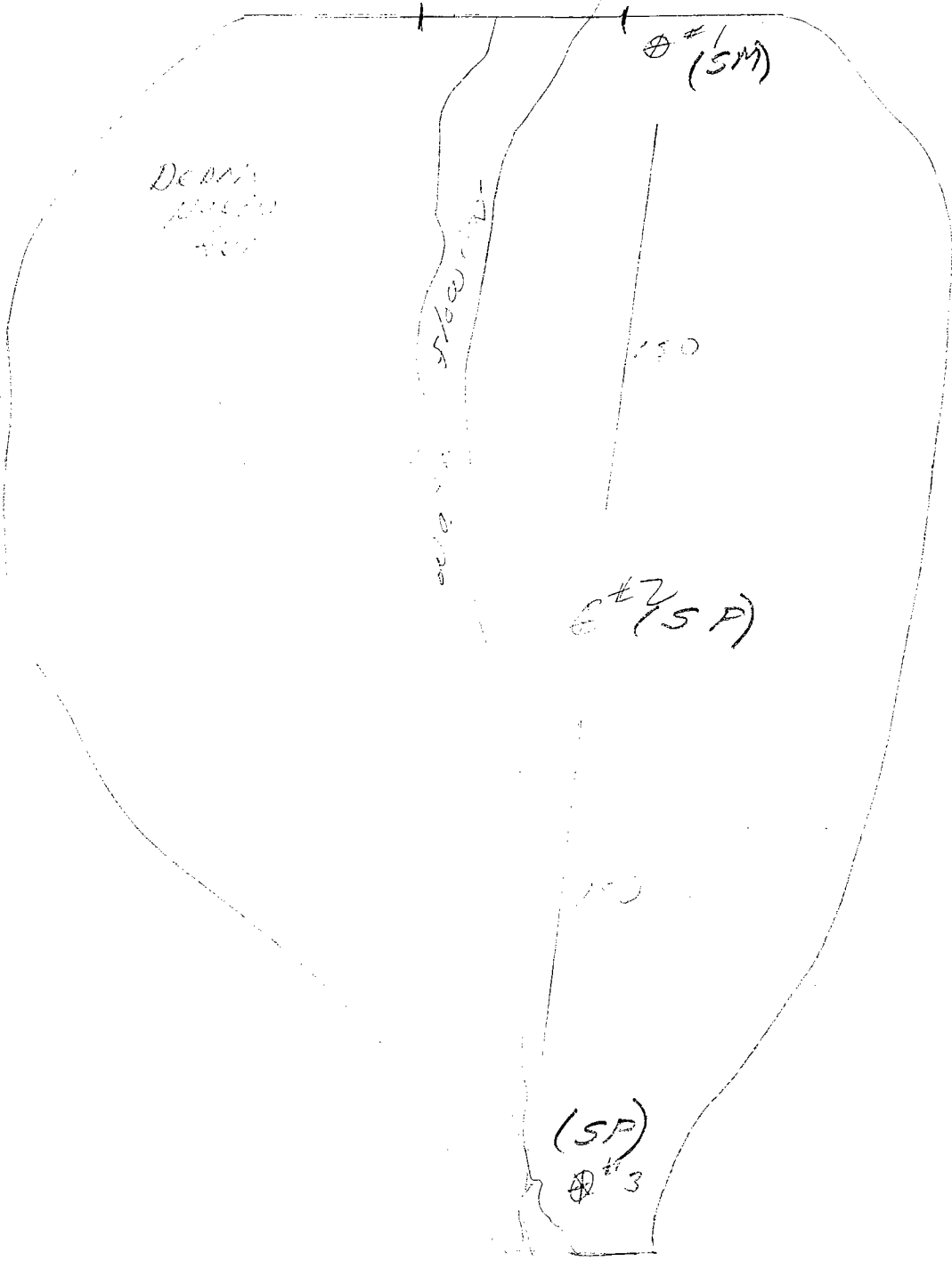


Wilbur DB

(62)



1

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT

Soils and Materials Engineering Division

SM (62)

SIEVE ANALYSIS WORK SHEET

LAB SERIAL NO. 22950 Total Weight of Sample 1.92 lbs.  
 Project WILBUR \_\_\_\_\_ grams.  
 Station \_\_\_\_\_ Moisture Content of Fines \_\_\_\_\_ %.  
 Location \_\_\_\_\_ Date Tested 3/13 Plotted By \_\_\_\_\_  
 Boring No. 1 Sample No. \_\_\_\_\_ Remarks AR  
 Sampled By \_\_\_\_\_ Lab Tested By AR 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 1/2"	38.1						
(1")	(25.4)						
3/4"	19.1						
3/8"	9.52						
No. 4	4.76						100.0
Pan	0	1.92		xxxxx			
Total Fractions		1.92		xxxxx			
Sieve Loss-Gain							
Calc. Oven-Dry Fines		1.52		100.0			
Total Oven-Dry		1.52		100.00			

Moisture Determination of Fines:  
 Cup No. 18  
 Dry Weight 153.2 grams  
 Moisture 26.3 %

FINES (Minus No. 4)

WEIGHT, GRAMS 100 (CALC.) OVEN-DRY WEIGHT 79.2 grams.  
 WEIGHT OF TOTAL SAMPLE REPRESENTED BY FINES, OVEN-DRY 79.2 grams.

ASTM SIEVE NUMBER	SIZE (mm)	RETAINED GRAMS	% OF TOTAL SAMPLE RETAINED	ACCUM. % OF TOTAL RETAINED	ACCUM. % PASSING	
					ACTUAL	SPEC. REQ.
8	2.38	0.2	0.3	0.3		
16	1.19	0.6	0.8	1.1		
30	0.59	1.6	2.0	3.1		
50	.297	5.7	7.2	10.3		
100	.149	27.1	34.3	44.6		
200	.074	24.9	31.4	77.2	77.2	77.2
Pan	0	0.9				
Total Fractions		21.0				
Total Dry Weight After Wet Sieving		181.3	61.1	77.2		
Sieve Loss-Gain		120.2	-11			

Calculated by AR Date 3/19/69  
 Checked by PJT Date 3/20/69

Note: Cross out sieve numbers not used.

61.1

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

SP (62)

**SIEVE ANALYSIS WORK SHEET**

LAB SERIAL NO. 22951 Total Weight of Sample 2.37 lbs.  
 Project WILLOW DB \_\_\_\_\_ grams.  
 Station \_\_\_\_\_ Moisture Content of Fines \_\_\_\_\_ %.  
 Location \_\_\_\_\_ Date Tested 3/10/69 Plotted By \_\_\_\_\_  
 Boring No. 2 Sample No. \_\_\_\_\_ Remarks NP  
 Sampled By \_\_\_\_\_ Lab Tested By NR-VHE 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	.09		4.0	4.0		
No. 4	4.76	.11		4.9	8.9	91.1	
Pan	0	2.17		xxxxx			
Total Fractions		2.37		xxxxx			
Sieve Loss-Gain							
Calc. Oven-Dry Fines		2.03		91.1			
Total Oven-Dry		2.23		100.00			

Moisture Determination of Fines:  
Cup No. 48  
Dry Weight 16.74 grams  
Moisture 7.1 %

FINES (Minus No. 4)  
 WEIGHT, GRAMS 100 (CALC.) OVEN-DRY WEIGHT 93.4 grams.  
 WEIGHT OF TOTAL SAMPLE REPRESENTED BY FINES, OVEN-DRY 102.5 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	3.5	12.4		
16	1.19	6.3	6.2	18.6		
30	0.59	21.0	20.5	39.1		
50	.297	36.6	35.7	74.8		
100	.149	19.6	19.1	93.9		
200	.074	3.6	3.5	97.8	2.2	
Pan	0					
Total Fractions		90.7				
Total Dry Weight After Wet Sieving		211.3	91.1	88.9		
Sieve Loss-Gain		120.2	-.4			

Note: Cross out sieve numbers not used.

Calculated by AR Date 3/18/69  
 Checked by KIT Date 3/20/69

2'3  
120.2  
91.1

91.1

# LOS ANGELES COUNTY FLOOD CONTROL DISTRICT

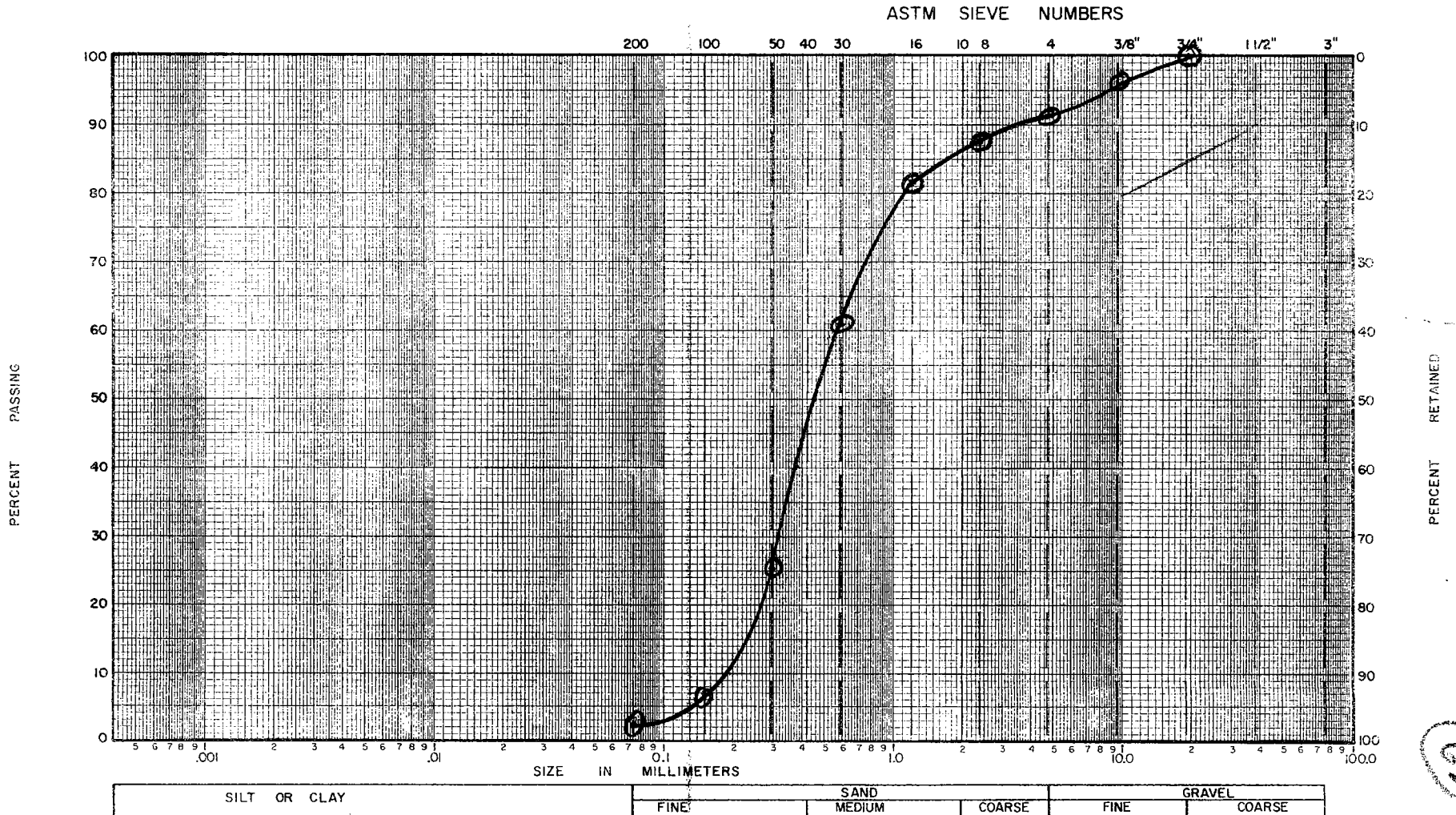
Soils and Materials Engineering Division

## MECHANICAL ANALYSIS

LAB. SERIAL NO. 22951  
 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 \_\_\_\_\_  $D_{10}$  0.19 mm  
 $D_{30}$  \_\_\_\_\_ mm  $D_{60}$  56 mm  
 $C_u = D_{60}/D_{10}$  2.95 PLOTTED BY NR  
 $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$  \_\_\_\_\_ CHECKED BY RJT  
 GROUP SYMBOL \_\_\_\_\_ DATE 3/20/69  
 NOTE:  $D_x$  = PARTICLE DIA. AT X% PASSING



(2)

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

SP (62)

**SIEVE ANALYSIS WORK SHEET**

LAB SERIAL NO. 22952 Total Weight of Sample 1.96 lbs.  
 Project WILBUR DB \_\_\_\_\_ grams.  
 Station \_\_\_\_\_ Moisture Content of Fines \_\_\_\_\_ %.  
 Location \_\_\_\_\_ Date Tested 3/10/69 Plotted By \_\_\_\_\_  
 Boring No. 3 Sample No. \_\_\_\_\_ Remarks NP  
 Sampled By \_\_\_\_\_ Lab Tested By AR-JHE 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	0.16		8.5	8.5		
3/8"	9.52	0.23		12.2	20.7		
No. 4	4.76	0.22	.61	11.7	32.4	67.6	
Pan	0	1.35		xxxxx			
Total Fractions		1.96		xxxxx			
Sieve Loss-Gain							
Calc. Oven-Dry Fines		1.27		67.6			
Total Oven-Dry		1.88		100.00			

Moisture Determination of Fines:  
 Cup No. 49  
 Dry Weight 168.0 grams  
 Moisture 6.4 %

WEIGHT, GRAMS 100 FINES (Minus No. 4) (CALC.) OVEN-DRY WEIGHT 93.9 grams.  
 WEIGHT OF TOTAL SAMPLE REPRESENTED BY FINES, OVEN-DRY 138.9 grams.

ASTM SIEVE NUMBER	SIZE (mm)	RETAINED GRAMS	% OF TOTAL SAMPLE RETAINED	ACCUM. % OF TOTAL RETAINED	ACCUM. % PASSING	
					ACTUAL	SPEC. REQ.
8	2.38	8.7	6.3	38.7		
16	1.19	18.1	13.0	51.7		
30	0.59	25.6	18.4	69.1		
50	.297	24.0	17.3	86.4		
100	.149	11.1	8.0	94.4		
200	.074	2.5	1.8	97.6	2.4	
Pan	0	0.3				
Total Fractions		90.3				
Total Dry Weight After Wet Sieving		210.6	90.4	65.2		
Sieve Loss-Gain		120.2	- .1			

Calculated by R Date 3/17/69  
 Checked by SAF Date 3/17/69

Note: Cross out sieve numbers not used.

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT

Soils and Materials Engineering Division

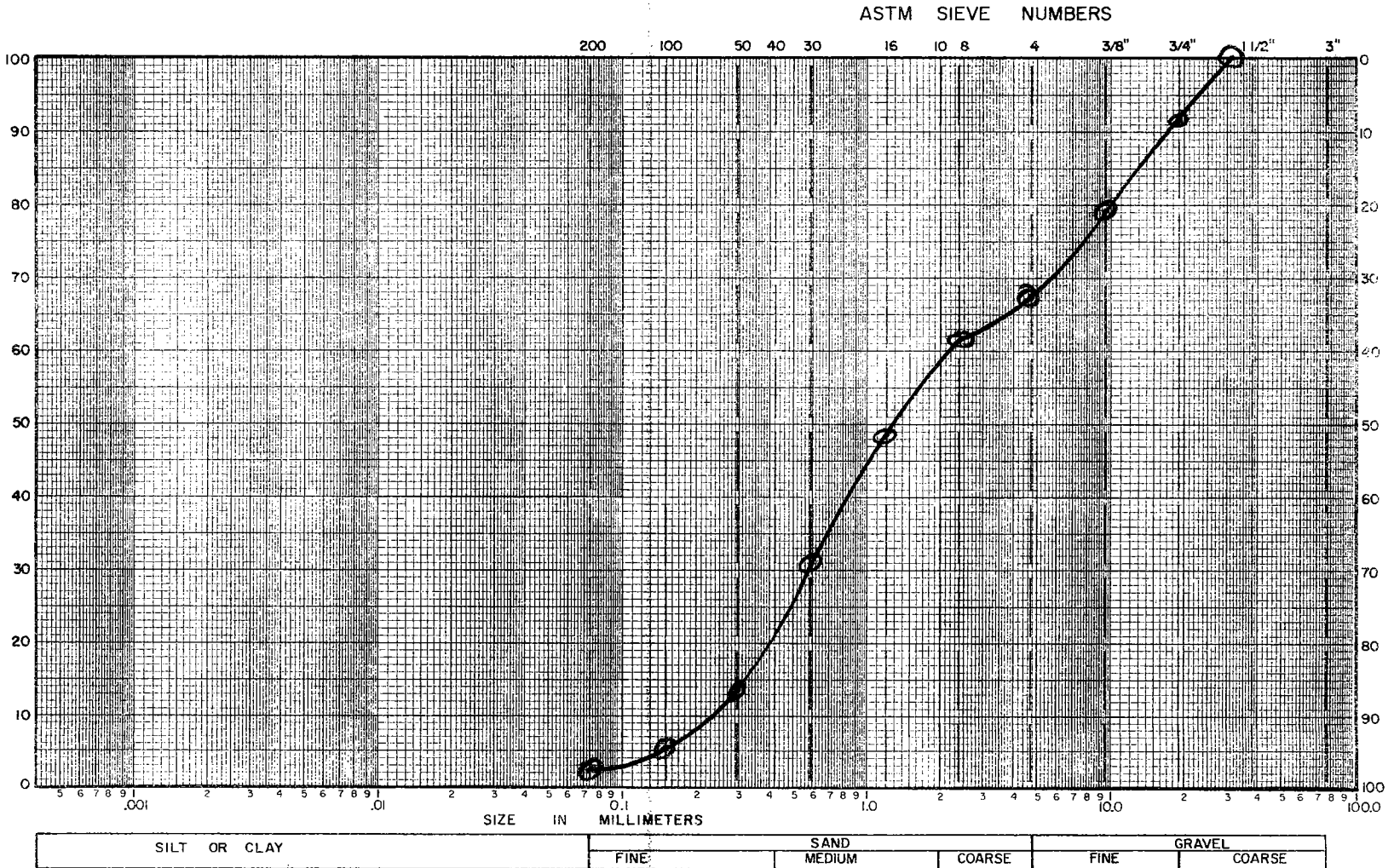
MECHANICAL ANALYSIS

LAB. SERIAL NO. 22952  
 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 \_\_\_\_\_  $D_{10}$  0.23 mm  
 $D_{30}$  0.75 mm  $D_{60}$  2.2 mm  
 $C_u = D_{60} / D_{10}$  9.6 PLOTTED BY JP  
 $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$  2.1 CHECKED BY SHE  
 GROUP SYMBOL SP DATE 9/17/69  
 NOTE:  $D_x$  = PARTICLE DIA. AT X% PASSING

$\frac{.337}{.502}$



69

**LOS ANGELES COUNTY FLOOD CONTROL DISTRICT**

Soils and Materials Engineering Division

SP (62)

**SIEVE ANALYSIS WORK SHEET**

LAB SERIAL NO. 22804

Total Weight of Sample 27.18 lbs.

Project WILBER D.R.

grams.

Station —

Moisture Content of Fines \_\_\_\_\_ %.

Location —

Date Tested 2/11/69 Plotted By \_\_\_\_\_

Boring No. 1 Sample No. 1

Remarks NON PLASTIC

Sampled By JJB-SHF-RJT Lab Tested By FK-NR

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	0.10		0.4	0.4		
(1")	(25.4)	0.36		1.4	1.8		
3/4"	19.1	0.25		0.0	2.8		
3/8"	9.52	1.10		4.3	7.0		
No. 4	4.76	1.37	318	5.3	12.4	87.6	
Pan	0	24.00		xxxxx			
Total Fractions		27.18		xxxxx			
Sieve Loss-Gain							
Calc. Oven-Dry Fines		22.47		87.6			
Total Oven-Dry		25.65		100.00			

Moisture Determination of Fines:  
Cup No. 39  
Dry Weight/67.6 grams  
Moisture 6.8 %

WEIGHT, GRAMS 100 FINES (Minus No. 4) (CALC.) OVEN-DRY WEIGHT 93.6 grams.

WEIGHT OF TOTAL SAMPLE REPRESENTED BY FINES, OVEN-DRY 106.8 grams.

212.4  
121.4

ASTM SIEVE NUMBER	SIZE (mm)	RETAINED GRAMS	% OF TOTAL SAMPLE RETAINED	ACCUM. % OF TOTAL RETAINED	ACCUM. % PASSING	
					ACTUAL	SPEC. REQ.
8	2.38	2.8	2.6	14.9	15.0	
16	1.19	5.6	5.2	20.4	20.2	
30	0.59	14.5	13.6	33.7	33.8	
50	.297	32.5	30.4	64.2		
100	.149	29.3	27.4	91.7	91.6	
200	.074	6.1	5.7	97.6	2.4	
Pan	0	—		< 50		
Total Fractions						
Total Dry Weight After Wet Sieving		91.0	85.2			
Sieve Loss-Gain						

Calculated by NR Date 2/13/69  
Checked by RJT Date 2/13/69

Note: Cross out sieve numbers not used.

62

ANGELES COUNTY FLOOD CONTROL DISTRICT  
Soils and Materials Engineering Division

SAND EQUIVALENT WORK SHEET

Lab. Serial No. 22804 Job WILBIE D.B.  
 Sampled By JJB-RJT Date 2-10-69 Boring No. 1 Sample No. 1  
 Date Received 2-10-69 Station — Depth —  
 Intended Use — Location —  
 Field Classification SP Tested By FK-NR Date 2-11-69  
 Checked By SHF Date 2/13/69

$$\text{Sand Equivalent} = \frac{\text{Sand Reading } (R_2) \times 100}{\text{Clay Reading } (R_1)}$$

- T<sub>1</sub> = Starting Time (Place Material)
- T<sub>2</sub> = Begin Agitation (1/2 minute, 90 strokes) (T<sub>1</sub> + 10 min.)
- T<sub>3</sub> = Settlement Starting Time
- T<sub>4</sub> = Take Clay Reading & Sand Reading (T<sub>3</sub> + 20 min.)

Run No.	T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>	T <sub>4</sub>	R <sub>1</sub>	R <sub>2</sub>	S.E.
1	200	210	211:30	231:30	5.0	3.6	72
2	203	213	214:30	234:30	4.7	3.6	77
3	206	216	217:30	237:30	4.8	3.5	73

Average Sand Equivalent = 74

Required Sand Equivalent = \_\_\_\_\_

Remarks \_\_\_\_\_



# LOS ANGELES COUNTY FLOOD CONTROL DISTRICT

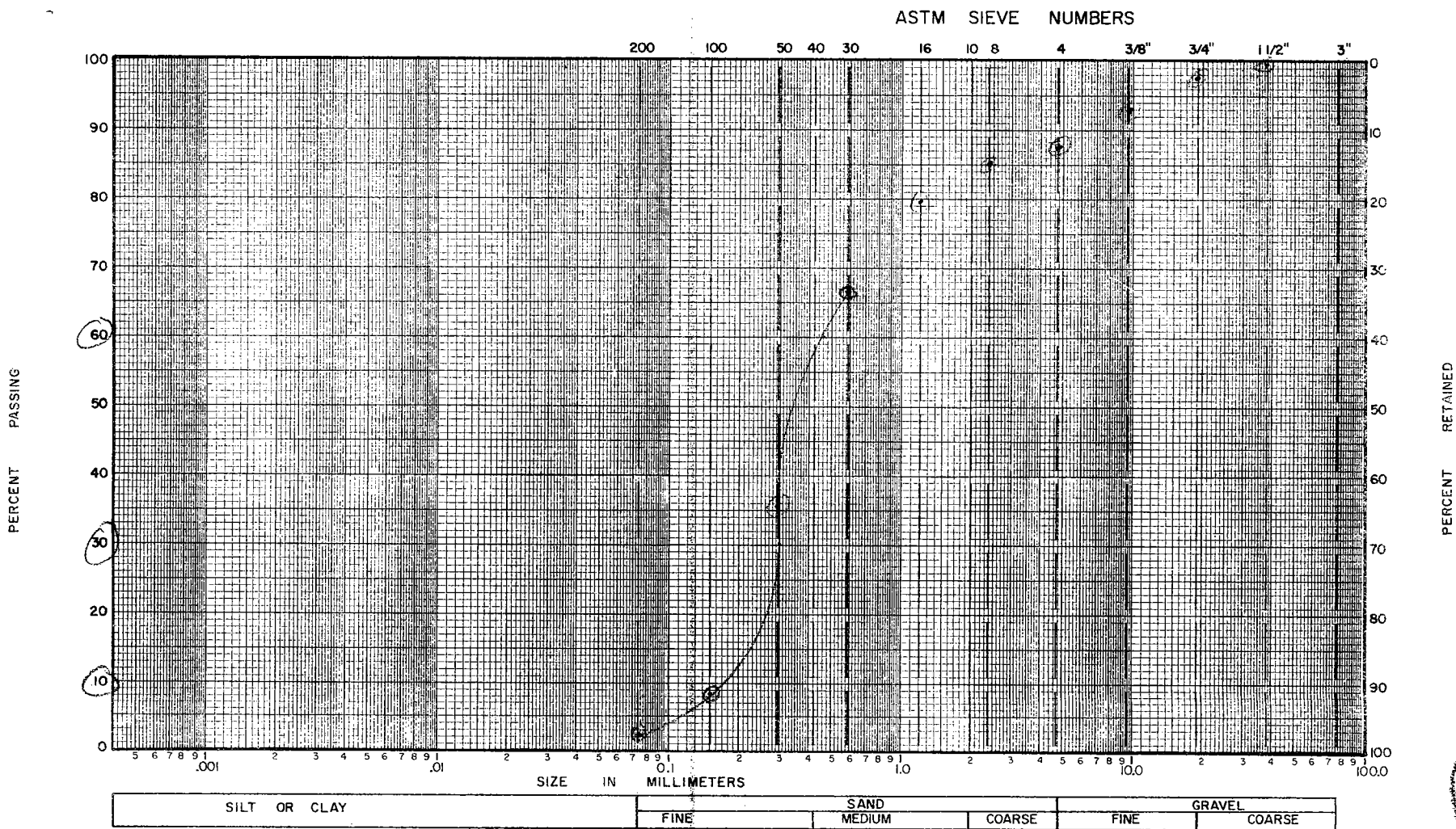
Soils and Materials Engineering Division

## MECHANICAL ANALYSIS

LAB. SERIAL NO. 22804  
 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 \_\_\_\_\_  $D_{10}$  0.17 mm  
 $D_{30}$  0.30 mm  $D_{60}$  0.45 mm  
 $C_u = D_{60}/D_{10}$  2.6 PLOTTED BY \_\_\_\_\_  
 $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$  1.2 CHECKED BY \_\_\_\_\_  
 GROUP SYMBOL \_\_\_\_\_ DATE \_\_\_\_\_  
 NOTE:  $D_x$  = PARTICLE DIA. AT X% PASSING



(62)

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT

Soils and Materials Engineering Division

SM-SP  
62

SIEVE ANALYSIS WORK SHEET

LAB SERIAL NO. 22805 Total Weight of Sample 43.00 lbs.  
 Project WILSON D.B. \_\_\_\_\_ grams.  
 Station \_\_\_\_\_ Moisture Content of Fines \_\_\_\_\_ %.  
 Location \_\_\_\_\_ Date Tested 2/11/69 Plotted By \_\_\_\_\_  
 Boring No. 2 Sample No. 1 Remarks NONPLASTIC  
 Sampled By JJB-SHF-RJT Lab Tested By FK-MR 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	<u>.57</u>		<u>1.5</u>	<u>1.5</u>		
(1")	(25.4)	<u>1.22</u>		<u>3.3</u>	<u>4.8</u>		
3/4"	19.1	<u>1.11</u>		<u>3.0</u>	<u>7.8</u>		
3/8"	9.52	<u>3.80</u>		<u>10.3</u>	<u>18.1</u>		
No. 4	4.76	<u>1.80</u>	<u>8.00</u>	<u>3.5</u>	<u>21.6</u>	<u>78.4</u>	
Pan	0	<u>35.00</u>		xxxxx			
Total Fractions		<u>43.00</u>		xxxxx			
Sieve Loss-Gain							
Calc. Oven-Dry Fines		<u>28.88</u>		<u>78.3</u>			
Total Oven-Dry		<u>36.88</u>		100.00			

Moisture Determination of Fines:  
 Cup No. 26  
 Dry Weight 156.5 grams  
 Moisture 21.2 %

FINES (Minus No. 4)

WEIGHT, GRAMS 100 (CALC.) OVEN-DRY WEIGHT 82.5 grams.  
 WEIGHT OF TOTAL SAMPLE REPRESENTED BY FINES, OVEN-DRY 105.2 grams.

195.7  
121.4

ASTM SIEVE NUMBER	SIZE (mm)	RETAINED GRAMS	% OF TOTAL SAMPLE RETAINED	ACCUM. % OF TOTAL RETAINED	ACCUM. % PASSING	
					ACTUAL	SPEC. REQ.
8	2.38	<u>4.4</u>	<u>4.2</u>	<u>25.8</u>		
16	1.19	<u>3.6</u>	<u>3.4</u>	<u>29.2</u>		
30	0.59	<u>6.4</u>	<u>6.1</u>	<u>35.3</u>		
50	.297	<u>13.5</u>	<u>12.8</u>	<u>48.1</u>		
100	.149	<u>31.0</u>	<u>29.5</u>	<u>77.6</u>		
200	.074	<u>14.7</u>	<u>14.0</u>	<u>92.2</u>	<u>7.8</u>	
Pan	0	<u>0.1</u>				
Total Fractions						
Total Dry Weight After Wet Sieving		<u>74.3</u>	<u>70.6</u>			
Sieve Loss-Gain						

Calculated by AR Date 2/13/69  
 Checked by RJT Date 2/13/69

Note: Cross out sieve numbers not used.

44.0

ANGELES COUNTY FLOOD CONTROL DISTRICT  
Soils and Materials Engineering Division

62

SAND EQUIVALENT WORK SHEET

Lab. Serial No. 22805 Job WILBER D.B.  
 Sampled By JB-RJT Date 2-11-69 Boring No. 2 Sample No. 1  
 Date Received 2-10-69 Station — Depth —  
 Intended Use — Location —  
 Field Classification SP Tested By EK-NR Date 2-11-69  
 Checked By RJT Date 2/13/69

$$\text{Sand Equivalent} = \frac{\text{Sand Reading } (R_2) \times 100}{\text{Clay Reading } (R_1)}$$

T<sub>1</sub> = Starting Time (Place Material)

T<sub>2</sub> = Begin Agitation (1/2 minute, 90 strokes) (T<sub>1</sub> + 10 min.)

T<sub>3</sub> = Settlement Starting Time

T<sub>4</sub> = Take Clay Reading & Sand Reading (T<sub>3</sub> + 20 min.)

Run No.	T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>	T <sub>4</sub>	R <sub>1</sub>	R <sub>2</sub>	S.E.
1	109	119	1:20:30	1:40:30	5.4	3.7	69
2	112	122	1:23:30	1:43:30	4.5	3.3	73
3	115	125	1:26:30	1:46:30	5.7	3.7	65

Average Sand Equivalent = 69

Required Sand Equivalent = \_\_\_\_\_

Remarks \_\_\_\_\_

# LOS ANGELES COUNTY FLOOD CONTROL DISTRICT

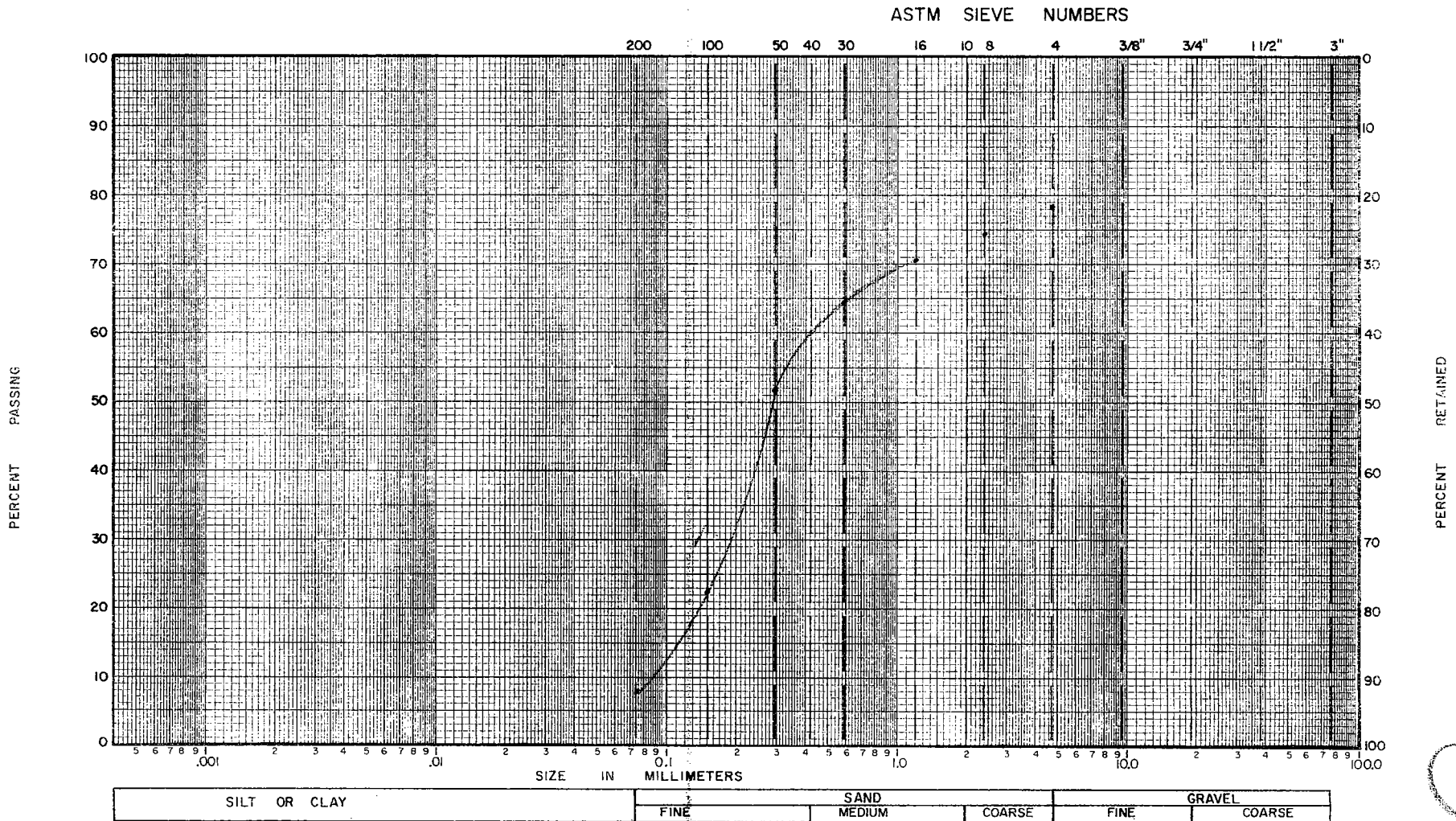
Soils and Materials Engineering Division

## MECHANICAL ANALYSIS

LAB. SERIAL NO. 22805  
 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 \_\_\_\_\_  $D_{10}$  .088 mm  
 $D_{30}$  .19 mm  $D_{60}$  .42 mm  
 $C_u = D_{60}/D_{10}$  4.8 ✓ PLOTTED BY \_\_\_\_\_  
 $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$  0.97 ✓ CHECKED BY RJT  
 GROUP SYMBOL \_\_\_\_\_ DATE 2/13/69  
 NOTE:  $D_x$  = PARTICLE DIA. AT X% PASSING



**LOS ANGELES COUNTY FLOOD CONTROL DISTRICT**

Soils and Materials Engineering Division

1  
SP  
62

**SIEVE ANALYSIS WORK SHEET**

LAB SERIAL NO. 22806 Total Weight of Sample 38.62 lbs.  
 Project X-11-10-12 D.P. \_\_\_\_\_ grams.  
 Station — Moisture Content of Fines \_\_\_\_\_ %.  
 Location — Date Tested 2/11/69 Plotted By \_\_\_\_\_  
 Boring No. 3 Sample No. 1 Remarks NONPLASTIC  
 Sampled By JJB-SHF-RJT Lab Tested By FK-AR 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.
<u>3"</u>	76.2						
<u>1 1/2"</u>	38.1	<u>1.65</u>		<u>4.5</u>	<u>4.5</u>		
<u>(1")</u>	(25.4)	<u>4.21</u>		<u>11.4</u>	<u>15.9</u>		
<u>3/4"</u>	19.1	<u>2.05</u>		<u>5.5</u>	<u>21.4</u>		
<u>3/8"</u>	9.52	<u>5.05</u>		<u>13.6</u>	<u>35.0</u>		
No. 4	4.76	<u>2.06</u>	<u>1502</u>	<u>5.6</u>	<u>40.6</u>	<u>59.4</u>	
Pan	0	<u>23.60</u>		xxxxx			
Total Fractions		<u>38.62</u>		xxxxx			
Sieve Loss-Gain							
Calc. Oven-Dry Fines		<u>21.95</u>		<u>59.4</u>			
Total Oven-Dry		<u>36.97</u>		100.00			

Moisture Determination of Fines:

Cup No. 32  
 Dry Weight 167.0 grams  
 Moisture 7.5 %

FINES (Minus No. 4)

WEIGHT, GRAMS 100 (CALC.) OVEN-DRY WEIGHT 93.0 grams.  
 WEIGHT OF TOTAL SAMPLE REPRESENTED BY FINES, OVEN-DRY 156.6 grams.

ASTM SIEVE NUMBER	SIZE (mm)	RETAINED GRAMS	% OF TOTAL SAMPLE RETAINED	ACCUM. % OF TOTAL RETAINED	ACCUM. % PASSING	
					ACTUAL	SPEC. REQ.
<u>8</u>	<u>212.4</u> 2.38	<u>2.0</u>	<u>1.3</u>	<u>41.9</u>		
<u>16</u>	<u>121.4</u> 1.19	<u>4.4</u>	<u>2.8</u>	<u>44.7</u>		
<u>30</u>	0.59	<u>10.9</u>	<u>7.0</u>	<u>51.7</u>		
<u>50</u>	.297	<u>32.0</u>	<u>20.4</u>	<u>72.1</u>		
<u>100</u>	.149	<u>35.9</u>	<u>22.9</u>	<u>95.0</u>		
<u>200</u>	.074	<u>5.8</u>	<u>3.7</u>	<u>98.7</u>	<u>1.3</u>	
Pan	0	<u>0.1</u>		<u>98.8</u>		
Total Fractions		<u>91.1</u>				
Total Dry Weight After Wet Sieving		<u>91.0</u>	<u>58.1</u>			
Sieve Loss-Gain		<u>+ 0.1</u>				

Calculated by R Date 2/11/69  
 Checked by \_\_\_\_\_ Date \_\_\_\_\_

Note: Cross out sieve numbers not used.

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT  
Soils and Materials Engineering Division

SAND EQUIVALENT WORK SHEET

Lab. Serial No. 22806 Job WILBER D.B.  
Sampled By JJB-RJT Date 2-10-69 Boring No. 3 Sample No. 1  
Date Received 2-10-69 Station — Depth —  
Intended Use — Location —  
Field Classification SP Tested By EK-NR Date 2-11-69  
Checked By RJT Date 2/13/69

Sand Equivalent =  $\frac{\text{Sand Reading } (R_2)}{\text{Clay Reading } (R_1)} \times 100$

T<sub>1</sub> = Starting Time (Place Material)

T<sub>2</sub> = Begin Agitation (1/2 minute, 90 strokes) (T<sub>1</sub> + 10 min.)

T<sub>3</sub> = Settlement Starting Time

T<sub>4</sub> = Take Clay Reading & Sand Reading (T<sub>3</sub> + 20 min.)

Run No.	T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>	T <sub>4</sub>	R <sub>1</sub>	R <sub>2</sub>	S.E.
1	1:00	1:10	1:11:30	1:31:30	5.0	3.8	76
2	1:03	1:13	1:14:30	1:34:30	5.0	3.4	68
3	1:06	1:16	1:17:30	1:37:30	5.6	4.0	71

Average Sand Equivalent = 72

Required Sand Equivalent = \_\_\_\_\_

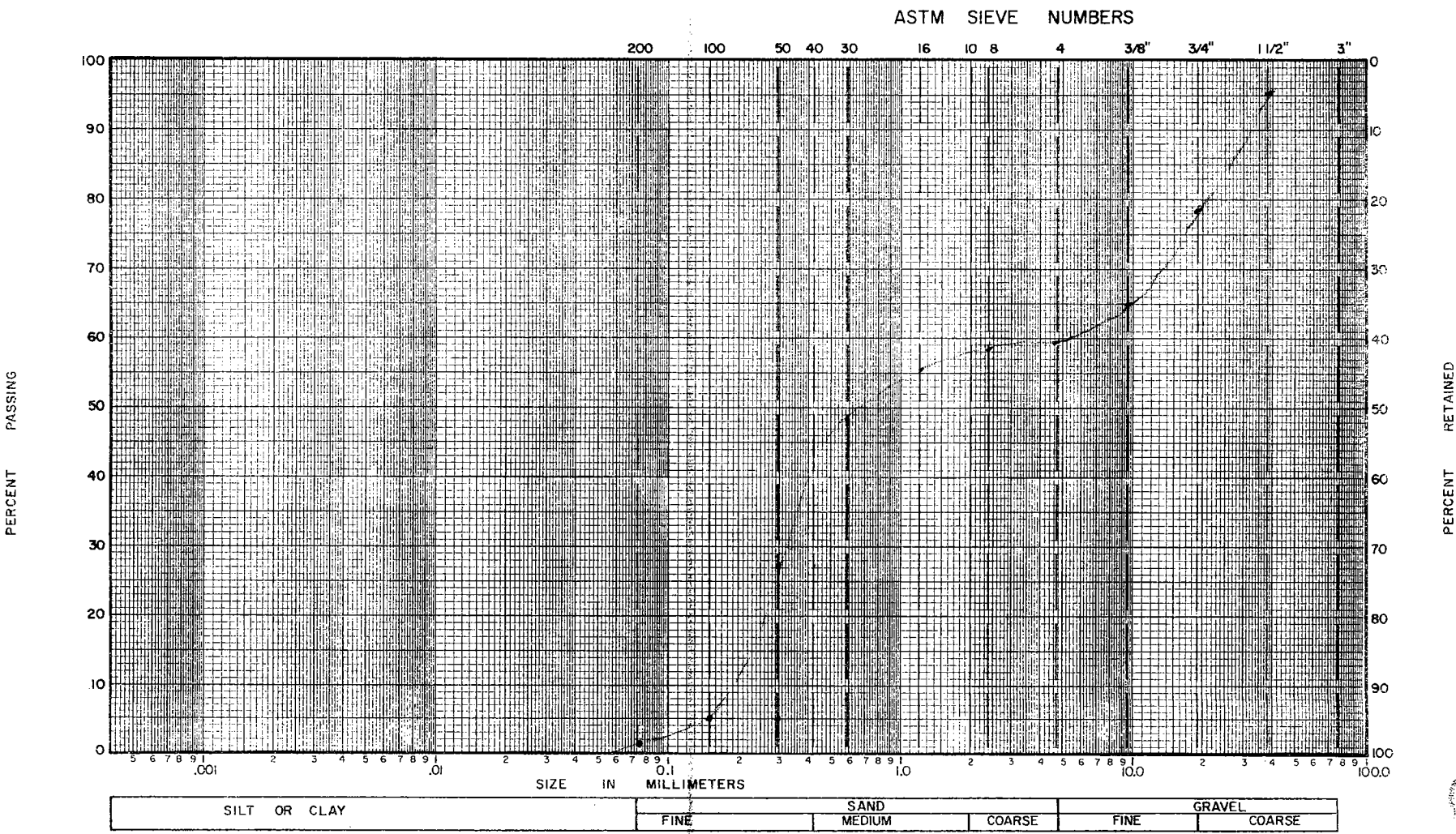
Remarks \_\_\_\_\_

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

LAB. SERIAL NO. \_\_\_\_\_  
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 \_\_\_\_\_  $D_{10}$  0.19 mm  
 $D_{30}$  .33 mm  $D_{60}$  5.4 mm  
 $C_u = D_{60}/D_{10}$  28.4 PLOTTED BY SHF  
 $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$  .11 CHECKED BY \_\_\_\_\_  
GROUP SYMBOL \_\_\_\_\_ DATE \_\_\_\_\_  
NOTE:  $D_x$  = PARTICLE DIA. AT X% PASSING



ANGELES COUNTY FLOOD CONTROL DISTRICT  
Soils and Materials Engineering Division

SAND EQUIVALENT WORK SHEET

Lab. Serial No. 22807 Job WILBER D.B.  
 Sampled By JB-RJT Date 2-10-69 Boring No. 4 Sample No. 1  
 Date Received 2-10-69 Station — Depth —  
 Intended Use — Location —  
 Field Classification SP Tested By EK-NR Date 2-11-69  
 Checked By S.H.F. Date 2/13/69

$$\text{Sand Equivalent} = \frac{\text{Sand Reading } (R_2)}{\text{Clay Reading } (R_1)} \times 100$$

- T<sub>1</sub> = Starting Time (Place Material)
- T<sub>2</sub> = Begin Agitation (1/2 minute, 90 strokes) (T<sub>1</sub> + 10 min.)
- T<sub>3</sub> = Settlement Starting Time
- T<sub>4</sub> = Take Clay Reading & Sand Reading (T<sub>3</sub> + 20 min.)

Run No.	T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>	T <sub>4</sub>	R <sub>1</sub>	R <sub>2</sub>	S.E.
1	209	219	220:30	240:30	5.4	3.8	70 ✓
2	212	222	223:30	243:30	5.9	3.9	66 ✓
3	215	225	226:30	246:30	5.3	3.5	66

Average Sand Equivalent = 67  
 Required Sand Equivalent = \_\_\_\_\_

Remarks \_\_\_\_\_  
 \_\_\_\_\_



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

SM  
SP  
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**SIEVE ANALYSIS WORK SHEET**

LAB SERIAL NO. 22807 Total Weight of Sample 36.24 lbs.  
 Project WILBER D.B. \_\_\_\_\_ grams.  
 Station \_\_\_\_\_ Moisture Content of Fines \_\_\_\_\_ %.  
 Location \_\_\_\_\_ Date Tested 2/11/69 Plotted By \_\_\_\_\_  
 Boring No. 4 Sample No. 1 Remarks NON PLASTIC  
 Sampled By JJB-SHF-RJT Lab Tested By FK-IR 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.
<del>3"</del>	76.2						
<del>1 1/2"</del>	38.1						
(1")	(25.4)	0.22		0.7	0.7		
3/4"	19.1	0.75		2.5	3.2		
3/8"	9.52	2.73		8.7	11.9		
No. 4	4.76	2.50	6.24	8.0	19.9	80.1	
Pan	0	30.00		xxxxx			
Total Fractions		36.24		xxxxx	Moisture Determination of Fines:		
Sieve Loss-Gain					Cup No. <u>49</u>		
Calc. Oven-Dry Fines		25.17		80.1	Dry Weight <u>157.9</u> grams		
Total Oven-Dry		31.41		100.00	Moisture <u>19.2</u> %		

FINES (Minus No. 4)

WEIGHT, GRAMS 100 (CALC.) OVEN-DRY WEIGHT 83.9 grams.  
 WEIGHT OF TOTAL SAMPLE REPRESENTED BY FINES, OVEN-DRY 104.7 grams.

ASTM SIEVE NUMBER	SIZE (mm)	RETAINED GRAMS	% OF TOTAL SAMPLE RETAINED	ACCUM. % OF TOTAL RETAINED	ACCUM. % PASSING	
					ACTUAL	SPEC. REQ.
8	<del>200.5</del> 2.38	3.6	3.4	23.3		
16	<del>121.4</del> 1.19	6.1	5.8	29.1		
30	0.59	16.2	15.5	44.6		
50	.297	20.3	19.4	64.0		
100	.149	19.8	18.9	82.9	12.5	
200	.074	5.9	5.6	87.5	4.6	
Pan	0	0.03		<50		
Total Fractions						
Total Dry Weight After Wet Sieving		79.1	75.5			
Sieve Loss-Gain						

Calculated by FK Date 2/17/69  
 Checked by SHF Date 2/19/69

Note: Cross out sieve numbers not used.