

III

VOLUME IV

TEST BORING LOGS

RAPID TRANSIT SYSTEM BACKBONE ROUTE

Prepared For

The Los Angeles

Metropolitan Transit Authority

June 1962

By

KAISER **E**NGINEERS

Los Angeles • California

00414

VOLUME IV - BOOK 3

TEST BORING LOGS

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THE LOS ANGELES METROPOLITAN TRANSIT AUTHORITY

By

KAISER ENGINEERS
Los Angeles, California

June 1962

TEST BORING LOGS

The drillhole logs in this book include holes No. WC-61 through WC-124. Logs for drillholes No. SM-1 through WC-60 are in Volume IV - Book 2.

LOG OF DRILLHOLE

HOLE NO. WC-61

DATE 3-21-62

PAGE NO. 1 OF 4 PAGES

LOCATION Wilshire & Gramercy Pl.

JOB NO. 6148-5

COLLAR ELEV. 191.6

INSPECTOR R. Singh

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	0 - 0.4 Concrete
	0.4 - 5.0 (SM) Silty sand, Light brown color, sand is coarse grained to medium, damp, inorganic, dense, slight plasticity
	5.0 - 6.5 (SM) WC-61-1 Silty sand as above III Disturbed II Disturbed I Disturbed
	6.5 - 10.0 (SM) Silty sand, light brown color as above becoming gray silty sand, clayey, dense, inorganic, low plasticity
	10.0 - 11.5 (SM) WC-61-2 Silty sand, clayey III II I
	11.5 - 15.0 (SM) Silty sand, clayey, gray color, dense, inorganic, low plasticity
	15.0 - 16.5 (SM) WC-61-3 Same as above III II I

BORING NOTES					
Drilling Method <u>Auger</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
0	0.4	0.4			Tri-Cone
0.4	53.0	52.8			Auger

CASING NOTES			
FROM	TO	SIZE	REMARKS
			No Casing

SAMPLING NOTES								
TYPE SAMPLER <u>Split Tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SAMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
1	5.0	6.5	1.5		6	15	30	
2	10.0	11.5	1.5		10	20	32	
3	15.0	16.5	1.5		5	11	25	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-62

DATE 3-19-62

PAGE NO. 2 OF 4 PAGES

LOCATION Wilshire & St. Anrews Pl. JOB NO. 6148-5

COLLAR ELEV. _____ INSPECTOR R. Singh

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	16.5 - 20.0 (ML-GM) Clayey silt, gravelly sand - silt mixture, damp, brown color, sand is coarse at 20.0; inorganic
	20.0 - 21.5 (GM-ML) WC-62-4 Gravelly - sand- silt becoming clayey silt at about 20.5' III II I
	21.5 - 25.0 (ML) Clayey silt, brown, some coarse sand and little gravel mixture, damp, inorganic
	25.0 - 26.5 (SM) WC-62-5 Silty sand with coarse gravel mixture, gravel is about 20% III II I
	26.5 - 30.0 (ML) Clayey silt, gray color Micaceous, damp, dense, inorganic, low consistency
	30.0 - 31.5 (ML) WC-62-6 Same as above III II I

BORING NOTES					
Drilling Method _____					
Hole Size _____					
Angle _____ Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER _____								
SIZE _____ WT. OF HAMMER _____ DROP _____								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
4	20.0	21.5	1.5		6	15	24	
5	25.0	26.5	1.5		6	15	26	
6	30.0	31.5	1.5		5	14	24	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-62 DATE 3-19-62 PAGE NO. 3 OF 4 PAGES
 LOCATION Wilshire & St. Andrews Pl. JOB NO. 6148-5
 COLLAR ELEV. _____ INSPECTOR R. Singh

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	31.5 - 35.0 (ML) Clayey silt with small amount of coarse-grained sand, damp, gray color, inorganic, slight consistency.
	35.0 - 36.5 (ML) WC-62-7 Clayey silt, gray color, medium dense, inorganic. III II I
	36.5 - 40.0 (ML) Clayey silt with sand mixture becoming silt-sand-gravel mixture at 40.0', damp, gray color, inorganic, medium dense.
	40.0 - 41.5 (GM) WC-62-8 Gravel-sand-silt mixture, 10% gravel, coarse grained, well graded. III II I
	41.5 - 45.0 (GM) Gravel-sand-silt mixture with gravel about 10%, coarse-grained with medium sand, damp, medium dense, non-plastic
	45.0 - 46.5 (GM) WC-62-9 Same as above III II I

BORING NOTES					
Drilling Method _____					
Hole Size _____					
Angle _____ Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER _____								
SIZE _____ WT. OF HAMMER _____ DROP _____								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
7	35.0	36.5	1.5		3	13	19	
8	40.0	41.5	1.5		5	21	46	
9	45.0	46.5	1.5		10	28	64	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-63

DATE 3/16/62

PAGE NO. 3 OF 3 PAGES

LOCATION Wilshire & Manhattan Pl. JOB NO. 6148-5

COLLAR ELEV. _____ INSPECTOR R. Singh

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	26.5 - 30.0 (ML)
	Silty fine sand, no gravel, gray color, micaceous, inorganic, damp, slight plasticity
	30.0 - 31.5 (ML) WC-63-6
	Same as above
	III NF
	II
	I
	31.5 - 35.0 (ML) Same as above
	35.0 - 36.5 (ML) WC-63-7
	Same as above
	III
	II
	I ML (Formation)
	36.5 - 41.0 (ML) Same as above
	41.0 - 42.5 (ML) WC-63-8
	Same as above
	III
	II
	I

BORING NOTES					
Drilling Method _____					
Hole Size _____					
Angle _____ Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER _____								
SIZE _____ WT. OF HAMMER _____ DROP _____								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
6	30.0	31.5	1.5		9	24	42	
7	35.0	36.5	1.5		24	54	101	
8	41.0	42.5	1.5		12	25	46	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	_____
DEPTH OF WATER	_____
TIME OF OBSERV.	_____

LOG OF DRILLHOLE

HOLE NO. WC-64

DATE 3/20/62

PAGE NO. 1 OF 3 PAGES

LOCATION Wilshire & Oxford Ave.

JOB NO. 6148-5

COLLAR ELEV. 198.4

INSPECTOR R. Singh

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	0.0 - 1.0 Asphalt-Concrete
	1.0 - 5.0 (SC) Clayey sand, small amount of silt, light brown-grayish color, slightly damp, non-plastic, inorganic, loose
	5.0 - 6.5 (SC) WC-64-1 Clayey sand - more silty III Disturbed II Disturbed I Disturbed
	6.5 - 10.0 (SM) Silty sand, clayey, brown-grayish color, inorganic, medium dense, low plasticity
	10.0 - 11.5 (SM) WC-64-2 Silty sand, clayey, as above III Disturbed, loose II Disturbed, loose I Disturbed, loose
	11.5 - 15.0 (SC) Clayey sand with small amount of silt, damp, medium dense, inorganic, light brown-grayish color, low plasticity
	15.0 - 16.5 (SC) WC-64-3 Same as above III Disturbed II Disturbed I Disturbed

BORING NOTES					
Drilling Method <u>Auger</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS
			No casing

SAMPLING NOTES								
TYPE SAMPLER <u>Split-tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
1	5.0	6.5	1.5		1	2	4	
2	10.0	11.5	1.5		6	16	33	
3	15.0	16.5	1.5		10	27	45	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	25.0
DEPTH to WATER	20.0
TIME OF OBSERV.	10:15 PM 3/20/62

LOG OF DRILLHOLE

HOLE NO. WC-64

DATE 3/20/62

PAGE NO. 2 OF 3 PAGES

LOCATION Wilshire & Oxford Ave.

JOB NO. 6148-5

COLLAR ELEV. _____

INSPECTOR R. Singh

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	16.5 - 20.0 (SM)
	Silty sand, dense, light brown color, clayey, inorganic, some coarse gravel mixture, low plasticity
	20.0 - 21.5 (SM) WC-64-4
	Silty sand, dense
	III
	II
	I
	21.5 - 25.0 (SM)
	Silty sand, some medium grained sand about 20%, light brown color, dense, low plasticity
	25.0 - 26.5 (SM) WC-64-5
	III
	II
	I
	26.5 - 30.0 (SM)
	Silty sand, clayey, dense, damp, inorganic, slight plasticity
	30.0 - 31.5 (SM) WC-64-6
	Silty sand becoming coarse gray wet sand at about 31.0
	III
	II
	I

BORING NOTES					
Drilling Method <u>Auger</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER _____								
SIZE _____ WT. OF HAMMER _____ DROP _____								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
4	20.0	21.5	1.5		6	15	31	
5	25.0	26.5	1.5		6	17	32	
6	30.0	31.5	1.5		3	10	24	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	_____
DEPTH OF WATER	_____
TIME OF OBSERV.	_____

LOG OF DRILLHOLE

HOLE NO. WC-64

DATE 3/20/62

PAGE NO. 3 OF 3 PAGES

LOCATION Wilshire & Oxford Ave.

JOB NO. 6148-5

COLLAR ELEV. _____

INSPECTOR R. Singh

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	31.5 - 35.0 (SW) Gravelly sand, sand is coarse grained and about 60% small amount of silt, very damp, gray color, inorganic, non plastic
	35.0 - 36.5 (SW) WC-64-7 Same as above becoming clayey silt (ML), gray color at 36.5' III II I
	36.5 - 40.0 (ML) Clayey silt, damp, dense, gray color, micaceous, inorganic, low plasticity
	40.0 - 41.5 (ML) WC-64-8 III II I
	41.5 - 47.0 (ML) Clayey silt, damp, dense, gray color, micaceous, low-slight plasticity
	47.0 - 48.5 (ML) WC-64-9 Same as above but more damp III II I

BORING NOTES					
Drilling Method <u>Auger</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER _____								
SIZE _____ WT. OF HAMMER _____ DROP _____								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
7	35.0	36.5	1.5		10	23	40	
8	40.0	41.5	1.5		9	23	40	
9	47.0	48.5	1.5		12	25	47	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-65 DATE March 7, 1962 PAGE NO. 2 OF 4 PAGES
 LOCATION Wilshire and Serrano JOB NO. 6148-5
 COLLAR ELEV. _____ INSPECTOR R. J. Scott

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	15.0 - 16.5 (ML) WC-65-3 Inorganic silt, olive-green to yellow-green, damp, no plasticity or dry strength III OK II OK I OK
	16.5 - 20.0 (ML) Same as above
	20.0 - 21.5 (ML) WC-65-4 Inorganic sandy, silt, gray, just slightly sandy (10%); damp, no plasticity, no dry strength III OK II OK I OK
	21.5 - 25.0 (ML) Same as above
	25.0 - 26.5 (ML) WC-65-5 Inorganic silt; dark gray, damp, no plasticity, some light gray spots of silt in the darker gray mass III OK II OK I OK
	26.5 - 30.0 (ML) Same as above
	30.0 - 31.5 (ML) WC-65-6 Inorganic dark gray silt and fine gray sand interbedded, damp, no plasticity, sand is clean III OK II OK I OK

BORING NOTES					
Drilling Method <u>Auger</u>					
Hole Size <u>6"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
					Auger

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER <u>Split tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
3	15.0	16.5	1.5	1.5	5	11	22	
4	20.0	21.5	1.5	1.5	8	19	32	
5	25.0	26.5	1.5	1.5	7	18	30	
6	30.0	31.5	1.5	1.5	5	14	24	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH TO WATER	18'
TIME OF OBSERV.	10:45 PM, 3-7-62

LOG OF DRILLHOLE

HOLE NO. WC-66

DATE 3/21/62

PAGE NO. 3 OF 4 PAGES

LOCATION Wilshire & Hobart Blvd. JOB NO. 6148-5

COLLAR ELEV. _____ INSPECTOR R. Scott

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	36.5 - 40.0 (ML) Sandy silt, brown, damp
	40.0 - 41.5 (ML) WC-66-8 Sandy silt; brown to orange-brown color, clayey, damp, micaceous, medium firm; no consistency
	41.5 - 45.0 (ML) Silt; grayish-green with some brown spots, dense, damp, micaceous
	45.0 - 46.5 (ML) WC-66-9 Sandy silt; dark gray-green color, very dense, micaceous; 10-15% medium grain sand; no consistency
	46.5 - 47.5 (ML) Same as above
	47.5 - 48.5 (SM) Hard sand-silt streak
	48.5 - 50.0 (OL) Silty clay; brown to gray color, damp
	50.0 - 51.2 (SW) WC-66-10 Well graded sand with silt; gray color, damp, well compacted; sand is angular to subangular; micaceous III OK II OK I OK

BORING NOTES					
Drilling Method <u>Rotary</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u>		Bearing _____			
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER <u>Split-Tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
8	40.0	41.5	1.5	1.0	11	29	52	
9	45.0	46.5	1.5	1.0	14	43	93	
10	50.0	51.2	1.2	1.0	22	67	100	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-67

DATE 3-29-62

PAGE NO. 1 OF 5 PAGES

LOCATION Wilshire & Kingsley Dr.

JOB NO. 6148-5

COLLAR ELEV. 221.5

INSPECTOR R. Scott

GEOLOGIC NOTES	
Depth	Classification and Physical Character
0.0 - 5.0	(MI) Sandy silt; dark brown, damp, 20% sand (top soil), organic matter.
5.0 - 6.5	(SM) WC-67-1 Sand-silt mixture, brown, dense, damp, 60-70% silt. III OK II OK I OK
6.5 - 7.5	(SM) Same as above
7.5 - 10.0	(SP) Poorly graded sand; fine grain, damp & silty, becoming less silty with depth, also becoming damp to wet, loose fine sand, light brown color.
10.0 - 12.0	(SW) WC-67-2 Well graded sand, light brown color, wet, loose, III OK II OK I OK
12.0 - 15.0	(SM) Sand-silt mixture, light brown color, wet, coarse to fine sand at 70% with some weathered coarse sand grains, 30% silt.

BORING NOTES					
Drilling Method <u>Auger</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
0.0	67.0	67.0			Fish-tail

CASING NOTES			
FROM	TO	SIZE	REMARKS
			None

SAMPLING NOTES								
TYPE SAMPLER _____								
SIZE _____ WT. OF HAMMER _____ DROP _____								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
1	5.0	6.5	1.5	1.5	6	22	73	
2	10.0	11.5	1.5	1.5	12	31	51	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	<u>11'6"</u>
DEPTH to WATER	<u>11'</u>
TIME OF OBSERV.	<u>3:00 AM 3-29-62</u>

LOG OF DRILLHOLE

HOLE NO. WC-67

DATE 3-29-62

PAGE NO. 5 OF 5 PAGES

LOCATION Wilshire & Kingsley Dr. JOB NO. 6148-5

COLLAR ELEV. _____ INSPECTOR R. Scott

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	58.0 - 61.0 (ML) Inorganic silt, brown, damp, slightly sandy, low plasticity, micaceous.
	61.0 - 62.5 (ML) WC-67-12 Inorganic, sandy silt, orange-brown color with black flecks, damp, dense, micaceous, 30% sand. III NF II NF I OK Tip OK NF
	62.5 - 66.0 (ML) Inorganic silt, sandy, brown color, damp, 30% well graded sand, some orange with flecks of black.
	66.0 - 67.0 (ML) WC-67-13 Sandy silt, orange-brown color with black flecks, dense, damp, 30% sand. III NF II NF I OK
	T.D. 67'
	Note: Water level is 9'8" down from surface upon completion of drilling.

BORING NOTES					
Drilling Method <u>Auger</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES							
TYPE SAMPLER _____							
SIZE _____ WT. OF HAMMER _____ DROP _____							
SAMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS		
					6"	12"	18" 24"
12	61.0	62.5	1.5	0.4	7	16	31
13	66.0	67.0	1.0	0.3	36	110	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	67'
DEPTH to WATER	9'8"
TIME OF OBSERV.	4:00 AM 3-30-62

LOG OF DRILLHOLE

HOLE NO. WC-69 DATE March 2, 5, 1962 PAGE NO. 1 OF 4 PAGES
 LOCATION Wilshire and Normandie JOB NO. 6148-5
 COLLAR ELEV. 215.1 INSPECTOR R. J. Scott and Mercessian

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	0.0 - 0.5 Concrete
	0.5 - 5.0
	5.0 - 6.5 (CL) WC-69-1 Gray, medium plasticity, silty clay III CL II CL I CL
	5.0 - 10.0 (CL) WC-69-2 Clay, medium plasticity, micaceous III Disturbed II Disturbed I NF Disturbed
	10.0 - 15.0 (ML) Inorganic silt, brown, damp, slightly sandy, slight plasticity, earthy odor, dull surface
	15.0 - 16.5 (GW) WC-69-3 Well graded sand, light tan to brown color, some fines, loose, damp, clean, some zones of poorly grad- ed sand (fine); inorganic III OK II OK I OK
	16.5 - 20.0 (ML) Sandy silt, tan, damp, earthy odor

BORING NOTES					
Drilling Method <u>Auger</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
0.0	.5	.5			Tri-cone

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES							
TYPE SAMPLER <u>Split tube</u>							
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>							
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS		
					6"	12"	18"
1	5.0	6.5	1.5		3	8	14
2	10.0	11.5	1.5		3	8	15
3	15.0	16.5	1.5		17	36	60

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-70 DATE 2-27-62 PAGE NO. 1 OF 3 PAGES
 LOCATION Wilshire & Mariposa JOB NO. 6148-5
 COLLAR ELEV. 213.1 INSPECTOR Nercessian

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	0.0 - 1.0 Concrete
	1.0 - 3.0 Gravelly sand, fine gravel, brown colored
	3.0 - 5.0 (GM or SP) WC-70-1 Light brown, loose, silty sand and gravel, non-plastic silt III Disturbed, discarded II OK I OK
	5.0 - 10.0 (ML) WC-70-2 Gray, clayey silt, micaceous, damp III ML II ML I ML
	10.0 - 15.0 (ML) WC-70-3 Gray-yellow, cohesive, clayey silt, slightly plastic, micaceous, as above III NF II OK I OK
	15.0 - 20.0 (ML) WC-70-4 Gray-yellow, micaceous, clayey silt, dense III ML II ML I ML

BORING NOTES					
Drilling Method <u>Auger</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing <u> </u>					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
0.0	1.0	1.0			Tri-cone
1.0	5.4	5.3			Auger

CASING NOTES			
FROM	TO	SIZE	REMARKS
			No casing

SAMPLING NOTES								
TYPE SAMPLER <u>Split-tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
1	5.0	6.5	1.5		8	17	26	
2	10.0	11.5	1.5		4	8	13	
3	15.0	16.5	1.5		5	14	29	
4	20.0	21.5	1.5		10	25	57	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	<u>54.0</u>
DEPTH TO WATER	<u>(54-30) = 24 feet</u>
TIME OF OBSERV.	<u>2:30 A.M., 2-27-62</u>

LOG OF DRILLHOLE

HOLE NO. WC-71 DATE 2-28-62 PAGE NO. 2 OF 2 PAGES
 LOCATION Wilshire & Kenmore JOB NO. 6148-5
 COLLAR ELEV. _____ INSPECTOR Nercessian

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	25.0 - 30.0 (ML) WC-71-6 Yellow-brown clayey silt, more plastic in tube III III ML II ML I ML
	30.0 - 35.0 WC-71-7 Clayey silt, brown micaceous damp and cohesive III ML II ML I ML
	35.0 - 40.0 WC-71-8 Same as above; clayey silt, cohesive, brown & yellow III ML II ML I ML
	40.0 - 45.0 WC-71-9 Same as above III ML II ML I ML
	45.0 - 50.0 (ML) WC-71-10 Same as above, very cohesive clayey silt gray colored ML III ML II ML I ML
	50.0 - 55.0 (ML) WC-71-11 Same as above III NF, discarded II ML I ML

BORING NOTES					
Drilling Method _____					
Hole Size _____					
Angle _____ Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER <u>Split Tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
6	30.0	31.5	1.5		8	26	71	
7	35.0	36.5	1.5		14	32	63	
8	40.0	41.5	1.5		16	35	74	
9	45.0	46.5	1.5		19	60	80	
10	50.0	51' 3"	1' - 3"		21	70	100	15
11	55.0	56.0	1.0		25	70		

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	55.0
DEPTH TO WATER	55 - 12 = 43 ft
TIME OF OBSERV.	9:00 P.M. 3-2-62

LOG OF DRILLHOLE

HOLE NO. WC-72 DATE 2-24 & 26-62 PAGE NO. 1 OF 3 PAGES
 LOCATION Wilshire & Catalina JOB NO. 6148-5
 COLLAR ELEV. 237.5 INSPECTOR Nercessian

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	0.0 - 0.4 Concrete
	0.4 - 5.0 Brown, damp, hard, slightly coarse, sandy silt; low plasticity (ML)
	5.0 - 6.5 (ML) WC-72-1 Brown, damp, homogenous silt, low plasticity III ML II ML I ML
	6.5 - 7.0 (ML) Same as above
	7.0 - 10.0 Brown, damp, moist, slightly sandy, silty clay
	10.0 - 11.5 (SM) WC-72-2 Brown, damp, silty, medium-coarse sand III SM II SM I SM
	11.5 - 15.0 (SM) Same as above
	15.0 - 16.5 (SM) WC-72-3 Brown, damp, silty sand coarse; no plasticity III SM II SM I SM
	16.5 - 18.0 (SM) Same as above
	18.0 - 20.0 Sandy silt, damp-moist

BORING NOTES					
Drilling Method <u>Auger</u>					
Hole Size <u>6"</u>					
Angle <u>Vertical</u> Bearing <u> </u>					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
0.0	.5	.5			Tri-cone
.5	55	54.5			Auger

CASING NOTES			
FROM	TO	SIZE	REMARKS
			No casing

SAMPLING NOTES								
TYPE SAMPLER <u>Split-tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
1	5.0	6.5	1.5		5	12	21	
2	10.0	11.5	1.5		12	28	54	
3	15.0	16.5	1.5		9	28		

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	55 feet
DEPTH TO WATER	55.0 - 33 = 22 feet
TIME OF OBSERV.	11:00 P.M., 2-26-62

LOG OF DRILLHOLE

HOLE NO. WC-73 DATE 2-23, 24, 1962 PAGE NO. 1 OF 4 PAGES
 LOCATION Willshire & Berendo JOB NO. 6148-5
 COLLAR ELEV. 244.5 INSPECTOR Nielson

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	0.0 - 0.4 Concrete
	0.4 - 5.0 Brown, slightly sandy, moist, clayey silt, (or silty clay) high plasticity (MH or CH)
	5.0 - 6.5 WC-73-1 Brown, moist, silty, medium to very coarse sand (SM), slightly gravelly (fine) III OK II OK I OK
	6.5 - 7.0 Brown, moist-damp, silty, medium-very coarse sand, angular-slightly gravelly (fine), no plasticity (SM)
	7.0 - 8.0 Brown, moist, sandy (medium-coarse), slightly clayey silt, high plasticity (MH)
	8.0 - 10.0 Brown, moist, silty, slightly clayey, medium-very coarse sand; medium plasticity (SM-SC)
	10.0 - 11.5 WC-73-2 Brown, moist, silty, gravelly, medium-very coarse sand, no plasticity (SM); quartz pebbles to 2", 30% rounded, some flat III OK II OK I OK

BORING NOTES					
Drilling Method <u>Auger</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER _____								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
1	5.0	6.5	1.5		8	19	28	
2	10.0	11.5	1.5		8	22	42	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-73

DATE 2-23, 24, 1962

PAGE NO. 2 OF 4 PAGES

LOCATION Wilshire & Berendo

JOB NO. 6148-5

COLLAR ELEV. _____

INSPECTOR Nielson

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	11.5 - 15.0 (SM) Same as above, more sandy, less gravelly from 14' - 15'
	15.0 - 16.5 WC-73-3 Brown, damp, silty, very sandy gravel; no plasticity, quartz pebbles to $\frac{1}{4}$ ", some to 2" decomposed (GM) III OK II OK I OK
	16.5 - 17.5 White clean quartz gravel; some silt, pebbles coming over clean and dry, $\frac{1}{8}$ " - 1" rounded
	17.5 - 20.0 Brownish gray slightly damp to dry sandy silt, low plasticity (ML), some medium plasticity, more damp zones
	20.0 - 21.5 WC-73-4 Brown, wet-moist, silty, fine sand; low-no plasticity, (SP-SM) some rounded pebbles 5% III OK II OK I OK
	21.5 - 23.0 (SP-SM) Same as above
	23.0 - 25.0 Brown, moist, slightly sandy, slightly clayey silt, high plasticity (MH)

BORING NOTES					
Drilling Method <u>Auger</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES							
TYPE SAMPLER _____							
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>							
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS		
					6"	12"	18"
3	15.0	16.5	1.5		13	34	59
4	20.0	21.5	1.5		12	28	49

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-73

DATE 2-23-, 24, 1962 PAGE NO. 3 OF 4 PAGES

LOCATION Wilshire & Berendo

JOB NO. 6148-5

COLLAR ELEV. _____

INSPECTOR Nielson

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	25.0 - 26.5 WC-73-5
	Brown, damp, dense, slightly micaceous silt or very fine sand; low plasticity (ML)
	III OK
	II OK
	I OK
	26.5 - 30.0 (ML) Same as above
	30.0 - 31.5 WC-73-6
	Brown, damp to nearly dry fine sandy silt; low - medium plasticity (ML)
	III OK
	II OK
	I OK
	Bedding laminations visible; high angle dip.
	31.5 - 35.0 Cuttings coming over as thick mud - probably some sidewall
	35.0 - 36.5 WC-73-7
	Thin laminations of gray to tan sandy silt and silty very fine sands - overall (ML); low - medium plasticity
	III OK
	II OK
	I OK
	36.5 - 40.0 No cuttings coming out of hole

BORING NOTES					
Drilling Method <u>Auger</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER _____								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SAMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
5	25.0	26.5	1.5		6	-	22	
6	30.0	31.5	1.5		10	23	48	
7	35.0	36.5	1.5		10	24	50	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-73 DATE 2-23, 24, 1962 PAGE NO. 4 OF 4 PAGES
 LOCATION Wilshire & Berendo JOB NO. 6148-5
 COLLAR ELEV. _____ INSPECTOR Nielson

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	40.0 - 41.4 WC-73-8 Brown to tan to gray laminations as above (ML); some micaceous and reddish III OK II OK I OK
2-24, 25	-----
	41.4 - 45.0 No cuttings coming out of hole
	45.0 - 46.4 WC-73-9 Thin laminations of various gray, sandy silts and silty very fine sand; (ML); 25° dip, low plasticity III OK II OK I OK
	46.4 - 50.0 No cuttings coming out of hole
	50.0 - 51.0 WC-73-10 Dark gray, damp, slightly sandy, dense silt; low plasticity (ML); dip of 40° III OK II OK I OK

BORING NOTES					
Drilling Method <u>Auger</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES							
TYPE SAMPLER _____							
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>							
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS		
					6"	12"	18"
8	40.0	41.4	1.4		13	42	110 17"
9	45.0	46.4	1.4		25	60	110 17"
10	50.0	51.0	1.0		22	86	110 13"

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-74 DATE Feb. 21, 1962 PAGE NO. 1 OF 4 PAGES
 LOCATION Wilshire & New Hampshire JOB NO. 6148-5
 COLLAR ELEV. 249.5 INSPECTOR Nielson

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	0.0 - 0.5 Asphalt.
	0.5 - 1.0 Concrete
	1.0 - 5.0 Brown, damp, slightly fine-sandy, slightly clayey silt (ML)
	5.0 - 6.5 WC-74-1 Brown, damp, fine - sandy silt; no plasticity (SM-ML) III OK II OK I OK
	6.5 - 8.0 (SM-ML) Same as above
	8.0 - 10.0 Slightly gravelly, damp, sandy silt; no plasticity (SM)
	10.0 - 11.5 WC-74-2 Brown, fine gravelly, medium - very coarse sandy, damp silt; gravelly, damp medium - very coarse sand; no plasticity (SM-SW) III OK II OK I OK
	11.5 - 13.5 (SM-SW) Same as above
	13.5 - 15.0 Brownish gray, damp to nearly dry, silty, medium to very coarse sand; no plasticity (SP)

BORING NOTES					
Drilling Method <u>Auger</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u>		Bearing <u></u>			
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER <u></u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
1	5.0	6.5	1.5		4	8	14	
2	10.0	11.5	1.5		5	15	28	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-75

DATE Feb. 19, 20, 1962 PAGE NO. 3 OF 4 PAGES

LOCATION 3173 Wilshire

JOB NO. 6148-5

COLLAR ELEV. _____

INSPECTOR Nielson

GEOLOGIC NOTES

Depth	Classification and Physical Character
	31.5 - 35.0 Tan to gray, damp, silty, very fine sand; low plasticity (SM)
	35.0 - 36.5 WC-75-7 Tan silt, damp, and gray, silty, very fine sand, damp, low plasticity friable (SM-ML) III OK II OK I OK
	Pretty clear bedding contacts - high dip. Also, unconformity contact - Quartziferous alluvium above 35'.
	36.5 - 40.0 (SM-ML) Same as above; Some more clayey zones; coming up mostly as thick mud
	40.0 - 41.5 WC-75-8 Interbedded, tan, damp, fine sandy silt and gray and black silty clay; both low - medium plasticity; no odor, ML-CL 20° dip III OK II OK I OK
	41.5 - 45.0 Tan, fine - medium, sandy, thick mud

BORING NOTES

Drilling Method <u>Auger</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES

FROM	TO	SIZE	REMARKS

SAMPLING NOTES

TYPE SAMPLER _____								
SIZE _____ WT. OF HAMMER _____ DROP _____								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
7	35.0	36.5	1.5		9	23	47	
8	40.0	41.5	1.5		9	24	48	

GROUND WATER OBSERVATIONS

DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-76

DATE March 9, 1962

PAGE NO. 1 OF 5 PAGES

LOCATION Wilshire & Westmoreland JOB NO. 6148-5

COLLAR ELEV. 258.1 INSPECTOR R. J. Scott

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	0.0 - 0.7 Pavement & Concrete
	0.7 - 5.0 (SM) Sand-silt mixture, light brown color, clayey, damp, low consistency, 40% sand
	5.0 - 6.5 (SM) WC-76-1 Same as above III Disturbed II Disturbed I Disturbed
	6.5 - 7.0 (SM) Same as above
	7.0 - 10.0 (SP) Poorly graded fine sand, tan color, damp, loose, clean (little fines) angular to subangular grains
	10.0 - 11.5 (SP) WC-76-2 Same as above III Disturbed II Disturbed I Disturbed
	Water at 14.0'
	11.5 - 15.0 (SP) Same as above
	15.0 - 16.5 (SP) WC-76-3 Same as above but wet III OK II OK I OK

BORING NOTES					
Drilling Method		<u>Auger</u>			
Hole Size		<u>5"</u>			
Angle		<u>Vertical</u>		Bearing	
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
0.0	0.7				Tri-cone
0.7	----				Auger
Sample every 5 feet					

CASING NOTES			
FROM	TO	SIZE	REMARKS
			None

SAMPLING NOTES								
TYPE SAMPLER <u>Split tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
1	5.0	6.5	1.5	1.5	8	18	29	
2	10.0	11.5	1.5	1.5	6	15	24	
3	15.0	16.5	1.5	1.5	7	17	29	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH TO WATER	<u>14'</u>
TIME OF OBSERV.	<u>9:30 PM. 3-12-'62</u>

LOG OF DRILLHOLE

HOLE NO. WC-77 DATE 3-13-62 PAGE NO. 1 OF 4 PAGES
 LOCATION Wilshire and Wilshire Pl. JOB NO. 6148-5
 COLLAR ELEV. 259.7 INSPECTOR R. Scott

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	0.0 - 5.0 Pavement and Concrete
	1.0 - 5.0 (ML) Inorganic, sandy silt, light brown, damp, no consistency
	5.0 - 6.5 (ML) WC-77-1 Inorganic silt; brown to yellowish brown color, slightly damp, crumbles III OK disturbed II OK disturbed I OK disturbed
	6.5 - 10.0 (SM) Fine silty sand, red-brown color, dry, loose, fine to very fine grain
	10.0 - 11.5 (SM) WC-77-2 Very fine, silty sand, red-brown turning to dark reddish-brown at 11 ft., loose, dry, no consistency III OK II OK I OK
	11.5 - 15.0 (SM) Very fine silty reddish-brown to black sand, same as above with some fine sand grains, petroliferous odor
	Water at 15.0'
	15.0 - 16.5 (SM) WC-77-3 Same as above III Empty II Empty I Part of Tube (Oily)

BORING NOTES					
Drilling Method <u>Auger</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
0.0	1.0				Tri-cone
1.0	-				Auger

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER <u>Split-tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
1	5.0	6.5	1.5	1.5	9	23	45	
2	10.0	11.5	1.5	1.5	12	25	58	
3	15.0	15.2	0.2	0.2	3 1/2			

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-77 DATE 3-13-62 PAGE NO. 2 OF 4 PAGES
 LOCATION Wilshire & Wilshire Pl. JOB NO. 6148-5
 COLLAR ELEV. 259.7 INSPECTOR R. Scott

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	16.0 - 17.0 Hard layer
	16.5 - 18.0 (SM) Dark red-brown, fine sand-silt mixture, wet, loose, petroliferous odor, slightly sticky
	18.0 - 20.0 (SM) Oil-sand; black with petroliferous odor, drier than above, angular to subangular grains, sticky. (Repetto formation)
	20.0 - 20.5 (SW) WC-77-4 Well graded sand, dark brown color, petroliferous odor, sticky; (oil sand) III Empty II OK I OK
	20.5 - 25.0 (SM) Dark red-brown, silty sand, 60% sand; damp, petroliferous odor, sticky, (oil sand) loose
	25.0 - 26.5 (SP) WC-77-5 Oil Sand - poorly graded sand; dark red-brown, mostly fine grain some coarse grain sand and fine gravel; Petroliferous odor, sticky IV OK III OK II OK I OK
	26.5 - 30.0 (SP) Same as above

BORING NOTES					
Drilling Method <u>Auger</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
					Auger

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER <u>Split-tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
4	20.0	20.5	0.5	0.5	85			
5	25.0	26.5	1.5	1.5	17	45	92	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-78

DATE 3-14-62

PAGE NO. 2 OF 3 PAGES

LOCATION Wilshire & Commonwealth

JOB NO. 6148-5

COLLAR ELEV. 245.2

INSPECTOR R. Singh

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	20.0 - 21.5 WC-78-4 No sample
	20.0 - 25.0 (ML-SW) Clayey silt with coarse sand mixture, sand is about 30% damp, inorganic
	25.0 - 26.5 (ML) WC-78-5 Clayey silt, light brown to grayish color, brown vertical bedding, dense III II NF I
	26.5 - 30.0 (ML) Clayey silt, dark gray color, micaceous, damp, slight plasticity, inorganic
	30.0 - 31.5 WC-78-6 No sample
	31.5 - 33.0 (ML) WC-78-6A Clayey silt, gray color, micaceous, pungent odor, probably minute organic matter, damp III II I
	33.0 - 35.0 (ML) Clayey silt as above with strong pungent odor
	35.0 - 36.5 WC-78-7 No sample
	35.0 - 40.0 (ML) Clayey silt, gray color, micaceous, pungent odor, minute organic matter, slight plasticity, damp

BORING NOTES					
Drilling Method _____					
Hole Size _____					
Angle _____ Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER <u>Split-tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SAMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
4	20.0	21.5	1.5		5	13	23	NS
5	25.0	26.5	1.5		3	8	13	
6	30.0	31.5	1.5		12	30	75	NS
6A	31.5	33.0	1.5		21	64	122	
7	35.0	36.5	1.5		32	54	75	NS

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-79

DATE 3-15-62

PAGE NO. 2 OF 3 PAGES

LOCATION Hoover and Sunset Pl.

JOB NO. 6148-5

COLLAR ELEV. _____

INSPECTOR R. Singh

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	16.5 - 20.0 (SC) Clayey sand, less petroliferous, dry, dark gray color, dense
	20.0 - 21.5 WC-79-4 III II I
	21.5 - 25.0 (ML) Clayey silt, dense, dry, visible vertical beddings in sample at 25.0', dry, petroliferous
	25.0 - 26.5 (ML) WC-79-5 III II I
	26.5 - 30.0 (ML) Same as above
	30.0 - 31.5 (ML) WC-79-6 III II I
	31.5 - 35.0 (ML) Clayey silt, dense, dry, faint petroliferous, beddings visible, hard non-plastic
	35.0 - 36.0 WC-79-7 III II I
	36.0 - 40.0 (ML-SC) Clayey silt-sand mixture, sand is medium grained, dry, non-plastic

BORING NOTES					
Drilling Method <u>Auger</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
0	1.0	1.0			Tri-cone
1.0	54.0	53.0			Auger

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER _____								
SIZE _____ WT. OF HAMMER _____ DROP _____								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
4	20.0	21.5	1.5		11	40	86	
5	25.0	26.5	1.5		25	70	121	
6	30.0	31.5	1.5		34	71	217	
7	35.0	36.0	1.0		20	97		

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-80

DATE 3-13-62

PAGE NO. 1 OF 5 PAGES

LOCATION Rampart & 7th Street

JOB NO. 6148-5

COLLAR ELEV. 269.6

INSPECTOR R. Singh

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	0.0 - 0.4 Concrete
	0.4 - 5.0 (SC) Clayey sand, brown, sand is coarse with little gravel, inorganic, damp
	5.0 - 6.5 (SM) WC-80-1 Silty sand, light brown color, damp, inorganic, low consistency III Discarded II Disturbed I
	6.5 - 10.0 (ML) Silty clay, dark gray color, dense, micaceous, inorganic, little mixture of gravel, slight consistency
	10.0 - 11.5 (ML) WC-80-2 Silty clay, dark gray, dense - as above III II I
	11.5 - 15.0 (ML) Silty sand with small amount of clay, dark gray color with layer of gravel at 12.0' - 13.0', maximum size of gravel is 1"

BORING NOTES					
Drilling Method <u>Rotary</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing <u> </u>					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
0.0	0.4	0.4			Tri-Cone
0.4	66.0	65.3			Fish-Tail

CASING NOTES			
FROM	TO	SIZE	REMARKS
0.0	2.5	5"	Surface Collar

SAMPLING NOTES								
TYPE SAMPLER <u>Split Tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SAMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
1	5.0	6.5	1.5		4	8	14	
2	10.0	11.5	1.5		8	8	36	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-80

DATE 3-13-62

PAGE NO. 2 OF 5 PAGES

LOCATION Rampart & 7th Street

JOB NO. 6148-5

COLLAR ELEV. _____

INSPECTOR R. Singh

GEOLOGIC NOTES	
Depth	Classification and Physical Character
15.0 - 16.5	(ML) WC-80-3 Silty clay, light gray color with yellowish and brown vertical stratifications, inorganic, low consistency III II I
16.5 - 20.0	(ML) Clayey silt, small amount of clay, light gray color with brown streaks, inorganic, dense, micaceous
20.0 - 21.5	(ML) WC-80-4 Clayey silt as above III II I
21.5 - 25.0	(ML) Clayey silt, dark gray color with streaks of brown inorganic, damp, dense, micaceous, low consistency
25.0 - 26.5	(ML) WC-80-5 Same as above III II I
26.5 - 30.0	(ML) Clayey silt, dark gray color, dense, damp, inorganic, micaceous, low consistency

BORING NOTES					
Drilling Method _____					
Hole Size _____					
Angle _____ Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES							
TYPE SAMPLER <u>Split Tube</u>							
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>							
SAMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS		
					6"	12"	18"
3	15.0	16.5	1.5		6	17	35
4	20.0	21.5	1.5		9	25	42
5	25.0	26.5	1.5		6	19	35

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-80

DATE 3-13-62

PAGE NO. 4 OF 5 PAGES

LOCATION Rampart & 7th Street

JOB NO. 6118-5

COLLAR ELEV. _____

INSPECTOR R. Singh

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	50.0 - 51.3 (ML-GM) WC-80-10 Clayey silt with hard layer of gravel at 51.0'
	III
	II
	I
	51.3 - 55.0 (GM) Silty gravel, gravel is approximately 1" in size, angular to rounded & sub- rounded interbedded with silt layers
	55.0 - 56.5 (GM-ML) WC-80-11 Silty gravel - clayey silt, dark gray color, dense
	III
	II
	I
	56.5 - 60.0 (ML) Clayey silt with a very thin layer of sand at 58.0 - 59.0', sand is med- ium grained, damp, inor- ganic, some pebbles sub- rounded 2" in size
	60.0 - 60.5 WC-80-12 III Empty II Discarded I Disturbed
	60.5 - 66.0 (ML) Clayey silt, more clay than above, dense, inor- ganic, damp, micaceous, low to medium consistency

BORING NOTES					
Drilling Method _____					
Hole Size _____					
Angle _____ Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER <u>Split Tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SAMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOW			
					8"	16"	18"	24"
10	50.0	51.3	1.3		19	53	83	15"
11	55.0	56.5	1.5		18	45	76	
12	60.0	60.6	0.5		50	Refusal		

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	_____
DEPTH OF WATER	_____
TIME OF OBSERV.	_____

LOG OF DRILLHOLE

HOLE NO. WC-81

DATE 2-6-62

PAGE NO. 1 OF 5 PAGES

LOCATION 7th & Carondelet Sts.

JOB NO. 6148-5

COLLAR ELEV. 278.4

INSPECTOR R. Singh

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	0.0 - 0.4 Concrete
	0.4 - 2.5 Brown sandy-gravel-clay mixtures
	2.5 - 5.0 (GM) Gravelly sand-silt mixture, brown, low plasticity, damp, some angular gravel
	5.0 - 6.5 (SM) WC-81-1 Silty fine sand, brown, inorganic, moist, medium dense III Discarded II I
	6.5 - 10.0 (SM) Silty fine sand, light brown, inorganic, medium dense, moist, slight plasticity
	10.0 - 11.5 (SM) WC-81-2 Same as above III II I
	11.5 - 15.0 (SM-GM) Silty sand, light brown color, infrequent gravel mixture, damp, slight to low consistency, well graded
	15.0 - 16.5 (SM-GM) WC-81-3 Same as above III II I

BORING NOTES					
Drilling Method <u>Rotary</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
0	0.4				Tri-cone
0.4	66.0				Fish-tail

CASING NOTES			
FROM	TO	SIZE	REMARKS
0	2.5	5"	Surface collar

SAMPLING NOTES								
TYPE SAMPLER <u>Split-tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
1	5.0	6.5	1.5		22	44		
2	10.0	11.5	1.5		40	69		
3	15.0	16.5	1.5		40	64		

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-82

DATE 2-13-62

PAGE NO. 1 OF 5 PAGES

LOCATION 7th Street & Park View

JOB NO. 6148-5

COLLAR ELEV. 272.5

INSPECTOR R. J. Scott

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	0.0 - 0.3 Red brick
	0.3 - 1.0 Concrete
	1.0 - 3.0 Sand; coarse to fine grain, largely quartz, damp, tan color, inorganic, no dry strength or consistency
	3.0 - 5.0 (SM) Silty sand, tan color, medium to fine, little wet, inorganic, no consistency
	5.0 - 6.5 (SM) WC-82-1 Silty sand, light tan with coarse sand grains of metamorphic rocks, very fine to medium grain III ok II ok I ok
	6.5 - 8.0 (SM) Silty sand, fine to medium grain with more coarse grain sand of metamorphic origin; also a few of fine gravel size, wet, inorganic
	8.0 - 10.0 (SM) Same as above, about 10% fine gravel
	10.0 - 10.5 (SM) WC-82-2 Silty sand, fine to medium grain, wet, no odor, inorganic III ok II ok I ok

BORING NOTES					
Drilling Method <u>Auger</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
0.0	2.0				Tri-cone
2.0	5.0				Auger

CASING NOTES			
FROM	TO	SIZE	REMARKS
			No casing

SAMPLING NOTES								
TYPE SAMPLER <u>Split Tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					8"	12"	18"	24"
1	5.0	6.5	1.5	12"	11	27	51	
2	10.0	11.5	1.5	12"	10	16	24	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-82

DATE 2-13-62

PAGE NO. 4 OF 5 PAGES

LOCATION 7th Street & Park View JOB NO. 6148-5

COLLAR ELEV. _____ INSPECTOR R. J. Scott

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	40.0 - 41.5 (ML) WC-82-8 Clayey silt; gray-green to brown strata dipping at 60°, very dense, micaceous, slightly damp, earthy odor, strata 1/2" to 3/4" wide; very micaceous on bedding plane, low consistency, sandy in spots - small III ok II ok I ok
2-14-62	-----
	41.5 - 45.0 (ML) Clayey silt, green-gray, very dense, slightly damp, micaceous (muscovite) low consistency
	45.0 - 46.5 (ML) WC-82-9 Same as above III ok II ok I ok
	46.5 - 50.0 (ML) Same as above
	50.0 - 51.5 (ML) WC-82-10 Same as above
	51.5 - 55.0 (ML) As above
	55.0 - 56.5 (ML) WC-82-11 Same as above III ok II ok I ok

BORING NOTES					
Drilling Method <u>Auger</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
					Drive sample taken every 5'

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER <u>Split Tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
8	40.0	41.5	1.5	12"	16	49	100	
9	45.0	46.5	1.5	12"	15	37	69	
10	50.0	51.5	1.5	12"	15	38	75	
11	55.0	56.5	1.5	16"	17	45	84	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH TO WATER	No water
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-83

DATE 1-30-62

PAGE NO. 3 OF 4 PAGES

LOCATION 2228 7th St., Los Angeles JOB NO. 6148-5

COLLAR ELEV. _____ INSPECTOR Nercessian

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	32.5 - 34.0 (ML) WC-83-9 Silt to fine sand, micaceous dense, bluish gray III OK II OK I OK
	32.5 - 35.0 Same as above
	35.0 - 36.5 (ML) WC-83-10 Silt to fine sand, micaceous dense, bluish gray III OK II OK I OK
	36.5 - 38.0 (ML) WC-83-11 Same as above III OK II OK I OK
	38.0 - 39.5 (ML) WC-83-12 Silt to fine sand, micaceous, dense, gray III OK II OK I OK
	39.5 - 41.0 (ML) WC-83-13 Same as above III II I

BORING NOTES					
Drilling Method _____					
Hole Size _____					
Angle _____ Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER <u>Split-tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
9	32.5	34.0	1.5		13	40	87	
10	35.0	36.5	1.5		12	33	73	
11	36.5	38.0	1.5		12	31	57	
12	38.0	39.5	1.5		14	33	64	
13	39.5	41.0	1.5		13	22	63	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-84 DATE 2-9-62 PAGE NO. 1 OF 4 PAGES
 LOCATION West of Alvarado on 7th Street JOB NO. 6148-5
 COLLAR ELEV. 260.0 INSPECTOR R. J. Scott

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	0.0 - 0.25 Pavement of Street
	0.25- 3.0 (SM) Sandy Silt; grey, damp, little clayey, low dry strength and consistency
	3.0 - 5.0 (CL) Silty clay; brownish grey, little sandy, damp, inorganic, fine sand, earthy odor, medium plasticity
	5.0 - 6.5 (CL) WC-84-1 Silty clay; grey-green with a $\frac{1}{4}$ " vertical yellow-brown streak, damp; low to medium plasticity III Disturbed II Disturbed I Disturbed
	6.5 - 9.5 (CL) Silty clay; grey-green, damp, low consistency
	9.5 - 11.5 (ML) Clayey silt; very fine grain, yellow-brown color, micaceous, with yellower streaks in mass; also brown iron oxide streaks, Low to medium plasticity
	10.0 - 11.5 (ML) WC-84-2 Same as above III OK II OK I OK

BORING NOTES					
Drilling Method <u>Auger</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing <u> </u>					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
0.0	0.5				Tri-cone
0.5					Auger

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER <u>Split tube 12" Sample</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
1	5.0	6.5	1.5	12"	3	6	10	
2	10.0	11.5	1.5	12"	3	8	14	
3	15.0	16.5	1.5	12"	4	10	18	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH TO WATER	No Water
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-84 DATE 2-9-62 PAGE NO. 2 OF 4 PAGES
 LOCATION West of Alvarado on 7th Street JOB NO. 6148-5
 COLLAR ELEV. 260.0 INSPECTOR R. J. Scott

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	11.5 - 15.5 (ML) Same as above
	15.5 - 16.5 (ML) WC-84-3 Silt with some clay, gray-green, H ₂ S odor, micaceous, slightly damp, low consistency III OK II OK I OK
	16.5 - 19.0 (ML) Silt, with little clay, green-gray, slightly damp, micaceous, low consistency, pungent H ₂ S odor, fairly dense, inorganic, slightly dry strength, dull surface
	19.0 - 20.5 (ML) WC-84-4 Same as above III OK II OK I OK
	20.5 - 22.0 (ML) WC-84-5 Same as above III OK II OK I OK
	22.0 - 24.0 (ML) WC-84-6 Same as above III OK II OK I OK

BORING NOTES					
Drilling Method <u>Auger</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing <u> </u>					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
16.5	19.0	2.5			Auger
19.0	25.5	6.5			Cone
25.5	30.0	4.5			Auger
30.0	31.5	1.5			Cone
31.5	35.0	3.5			Auger
35.0	36.5	1.5			Cone
36.5	40.0	3.5			Auger
40.0	41.5	1.5			Cone
41.5	44.0	2.5			Auger
44.0	45.5	1.5			Cone

CASING NOTES			
FROM	TO	SIZE	REMARKS
			None

SAMPLING NOTES								
TYPE SAMPLER <u>Split tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>740 lb</u> DROP <u>30"</u>								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
4	19.0	20.5	1.5	12"	10	28	53	
5	20.5	22.0	1.5	12"	12	36	66	
6	22.5	24.0	1.5	12"	12	35	65	
7	24.0	25.5	1.5	12"	11	35	61	
8	30.0	31.5	1.5	12"	14	41	66	
9	35.0	36.5	1.5	12"	12	35	76	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH to WATER	No water
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-85

DATE 2-5-62

PAGE NO. 1 OF 5 PAGES

LOCATION 7th & Alvarado Streets JOB NO. 6148-5

COLLAR ELEV. 263.0 INSPECTOR R. J. Scott

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	0.0 - 0.3 Concrete
	0.3 - 4.5 (ML) Silt, dark brown inorganic, damp, some clay, earthy odor, slight plasticity, 5% medium to coarse sand
	4.5 - 5.0 (ML) Silt, clayey, dark grey to black, inorganic, some fine to medium sand, slight plasticity
	5.0 - 6.5 (ML) WC-85-1 Silt, clayey, black, little sandy, damp, inorganic, low plasticity III OK II OK I OK
	6.5 - 8.0 (ML) Same as above
	8.0 - 10.0 (CL) Silt clay, dark brown to black, damp, medium consistency
	10.0 - 11.5 (ML) WC-85-2 Diatomite, white with grey streaks, light weight, odorless, some bedding planes
	11.5 - 14.5 (ML) Shale, grey, damp, sandy & clayey, low consistency
	14.5 - 15.0 (ML) Sandy silt, brown, damp, low consistency, earthy odor

BORING NOTES					
Drilling Method <u>Auger</u>					
Hole Size <u>6"</u>					
Angle <u>Vertical</u> Bearing <u> </u>					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
0.0	0.5	0.5			Tri-Cone
0.5					Auger

CASING NOTES			
FROM	TO	SIZE	REMARKS
			No Casing

SAMPLING NOTES							
TYPE SAMPLER <u>Split tube</u>							
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>							
SAMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS		
					6"	12"	18"
1	5.0	6.5	1.5	14"	5	8	
2	10.0	11.5	1.5	14"	3	6	
3	15.0	16.5	1.5	12"	15	28	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-85

DATE 2-6-62

PAGE NO. 3 OF 5 PAGES

LOCATION 7th & Alvarado Streets JOB NO. 6148-5

COLLAR ELEV. _____ INSPECTOR R. J. Scott

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	29.0 - 30.5 (ML) WC-85-7
	Same as above
	III Soft mud - discarded
	II OK
	I OK
	In tip of sampler had one metamorphic rock (1 3/4") high in mica content; crystalline quartz etc. white & gray
	30.5 - 32.0 (ML) WC-85-8
	Silt, brown, dense, micaceous, slightly damp, earthy odor, low consistency
	III OK white flecks
	II OK
	I OK
	32.0 - 33.5 (ML) WC-85-9
	Same as above
	III OK
	II OK
	I OK
	33.5 - 35.0 (ML) WC-85-10
	Same as above
	III OK
	II OK
	I OK
	35.0 - 36.5 (ML) WC-85-11
	Same as above
	III Discarded
	II OK
	I OK

BORING NOTES					
Drilling Method <u>Auger</u>					
Hole Size <u>6"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER <u>Split tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
7	29.0	30.7	1.7	9"	11	12	62	
8	30.5	32.0	1.5	14"	13	36	67	
9	32.0	33.5	1.5	14"	12	36	72	
10	33.5	35.0	1.5	12"	13	32	64	
11	35.0	36.5	1.5	9"	13	37	78	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-86

DATE 2-23-62

PAGE NO. 2 OF 3 PAGES

LOCATION 7th & Bonnie Brae

JOB NO. 6148-5

COLLAR ELEV. 276.9

INSPECTOR Nercessian

GEOLOGIC NOTES

Depth	Classification and Physical Character
	20.0 - 25.0 (CL) WC-86-5 Inorganic, silty clay of medium plasticity, micaceous, gray-brown III CL II CL I CL (Higher plasticity than usual)
	25.0 - 30.0 (ML) WC-86-6 Dark brown, clayey silt of low plasticity, micaceous, more silt in tip III ML II ML I ML
	30.0 - 35.0 (ML) WC-86-7 Same as above, cohesive silt III ML II ML I ML
	35.0 - 40.0 (ML) WC-86-8 Same as above, cohesive silt, becoming dense III ML II ML I ML
	40.0 - 45.0 (ML) WC-86-9 Same as above, cohesive silt, dense III ML II ML I ML

BORING NOTES

Drilling Method <u>Rotary</u>					
Hole Size <u>5 1/2"</u>					
Angle <u>Vertical</u> Bearing <u> </u>					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES

FROM	TO	SIZE	REMARKS

SAMPLING NOTES

TYPE SAMPLER <u>Split-tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SAMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
5	25.0	26.5	1.5		3	7	12	
6	30.0	31.5	1.5		5	15	32	
7	35.0	36.5	1.5		11	27	52	
8	40.0	41.5	1.5		13	35	60	
9	45.0	46.5	1.5		15	35	64	

GROUND WATER OBSERVATIONS

DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

 HOLE NO. WC-87

 DATE 2-24-62

 PAGE NO. 2 OF 3 PAGES

 LOCATION 7th & Burlington

 JOB NO. 6118-5

COLLAR ELEV. _____

 INSPECTOR Nercessian

GEOLOGIC NOTES

Depth		Classification and Physical Character
		20.0 - 25.0 WC-87-5
		Inorganic silty clay with medium plasticity, more plastic in tip, yellow-brown colored and micaceous
		III ML
		II ML
		I ML
		Tip: CL
		25.0 - 30.0 WC-87-6
		Same as above plus some diatomaceous silt in tip of tube I with dry mixture (CL)
		III ML
		II ML
		I ML
		30.0 - 35.0 WC-87-7
		Same as above
		III Empty
		II Empty
		I ML (NF)
		35.0 - 40.0 WC-87-8
		Clayey silt, brown, micaceous, cohesive
		III ML
		II ML
		I ML
		40.0 - 45.0 WC-87-9
		Same as above
		III ML
		II ML
		I ML

BORING NOTES

 Drilling Method _____
 Hole Size _____
 Angle _____ Bearing _____

FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES

FROM	TO	SIZE	REMARKS

SAMPLING NOTES

TYPE SAMPLER <u>Split-tube</u>									
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb.</u> DROP <u>30"</u>									
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS				
					6"	12"	18"	24"	
5	25.0	26.5	1.5		5	12	23		
6	30.0	31.5	1.5		7	18	25		
7	35.0	36.5	1.5		5	13	23		
8	40.0	41.5	1.5		11	29	52		
9	45.0	46.5	1.5		11	24	58		

GROUND WATER OBSERVATIONS

DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-87

DATE 2-24-62

PAGE NO. 3 OF 3 PAGES

LOCATION 7th & Burlington

JOB NO. 6148-5

COLLAR ELEV. _____

INSPECTOR Nercessian

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	45.0 - 50.0 WC-87-10
	Inorganic silt, dark brown, micaceous, cohesive as above
	III ML
	II ML
	I ML
	50.0 - 53.0 Siltstone and gravel
	53.0 - 55.0 WC-87-11
	Inorganic silt, dark brown, micaceous, cohesive
	III ML
	II ML
	I ML
	55.0 - 61.0 WC-87-12
	Same as above
	III ML
	II ML
	I ML
	61.0 - 67.0 WC-87-13
	Same as above
	III ML
	II ML
	I ML

BORING NOTES					
Drilling Method _____					
Hole Size _____					
Angle _____ Bearing _____					
FROM	TO	INTERV.	REGOV.	% REGOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER <u>Split-tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SMPL. NO.	FROM	TO	INTERV.	REGOV.	BLOWS			
					6"	12"	18"	24"
10	50.0	51.5	1.5		9	28	51	
11	55.0	56.5	1.5		11	30	59	
12	61.0	62.5	1.5		11	34	64	
13	67.0	68.5	1.5		13	34	68	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-88

DATE 2-19-62

PAGE NO. 2 OF 4 PAGES

LOCATION 7th & Beacon Ave.

JOB NO. 6148-5

COLLAR ELEV. _____

INSPECTOR Nercessian

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	20.0 - 25.0 (ML) WC-88-5
	Gray-green, micaceous silt
	III NF
	II OK
	I OK
	25.0 - 30.0 (ML) WC-88-6
	Same as above; some orange and some gray-green colored silt
	IV ML
	III ML
	II ML
	I ML
	30.0 - 35.0 (ML) WC-88-7
	Dark gray-brown silt, micaceous, non-cohesive
	IV ML
	III ML
	II ML
	I ML
	35.0 - 40.0 (ML) WC-88-8
	Same as above
	IV ML
	III ML
	II ML
	I ML
	40.0 - 45.0 (ML) WC-88-9
	Same as above
	IV ML
	III ML
	II ML
	I ML

BORING NOTES					
Drilling Method _____					
Hole Size _____					
Angle _____ Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER _____								
SIZE _____ WT. OF HAMMER _____ DROP _____								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
5	25.0	26.5	1.5		7	19	33	
6	30.0	31.5	1.5		10	25	46	
7	35.0	36.5	1.5		12	31	57	
8	40.0	41.5	1.5		12	33	59	
9	45.0	46.5	1.5		11	30	53	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

 HOLE NO. WC-89

 DATE 2-20-62

 PAGE NO. 2 OF 3 PAGES

 LOCATION 7th & Union

 JOB NO. 6148-5

COLLAR ELEV. _____

 INSPECTOR Nercessian

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	30.0 - 35.0 (ML) WC-89-6 Clayey silt, yellowish gray colored, damp, slightly cohesive III ML II ML I ML
	35.0 - 40.0 (ML) WC-89-7 Same as above, light brown, fine sandy clayey silt, damp III ML II ML I ML
	43.0 - 44.0 Concretion
	40.0 - 45.0 (ML) WC-89-8 Dark-greenish gray - non-cohesive, clayey silt, dense, micaceous III NF II ML I ML
	45.0 - 50.0 (ML) WC-89-9 Same as above III NF II ML I ML
	Quartz, concretion, micaceous, fine green, very hard greenish gray colored, 1/2" diameter in the tip.

BORING NOTES					
Drilling Method _____					
Hole Size _____					
Angle _____ Bearing _____					
FROM	TO	INTERV.	REGOV.	% REGOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER _____								
SIZE _____ WT. OF HAMMER _____ DROP _____								
SMPL. NO.	FROM	TO	INTERV.	REGOV.	BLOWS			
					6"	12"	18"	24"
6	35.0	36.5	1.5		9	24	41	
7	40.0	41.5	1.5		11	24	62	
8	45.0	46.9	1.0		15	73		
9	50.0	50.0	1.0		15	66		

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-90 DATE Feb. 15, 1962 PAGE NO. 1 OF 1 PAGES
 LOCATION 7th and Valencia Sts. JOB NO. 6148-5
 COLLAR ELEV. 299.95 INSPECTOR R. J. Scott

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	0.0 - 0.3 Brick red
	0.3 - 2.5 (SC) Clayey sand, tan color, poorly graded sand, medium consistency
	2.5 - 5.0 (ML) Clayey silt, light brown, damp, gritty, no consistency, medium density
	5.0 - 6.5 (ML) WC-90-1 Inorganic silt, light brown, damp, slightly dry strength, no consistency, little gritty, few sand grains III OK II OK I OK
	6.5 - 10.0 (ML) Same as above, seems sandy
	10.0 - 11.5 (ML) WC-90-2 Sandy silt, light brown with some fine gravel ($\frac{1}{2}$ " diameter), damp, low consistency, earthy odor, little gray clay with cuttings III OK II OK I OK
	11.5 - 15.0 (ML) Sandy silt, brown, damp, sand is chiefly quartz grains, low consistency

BORING NOTES					
Drilling Method <u>Auger</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
0.0	1.3	1.3			Tri-cone
1.3					Auger

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER <u>Split tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
1	5.0	6.5	1.5	12"	7	17	36	
2	10.0	11.5	1.5	12"	13	32	57	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-90 DATE Feb. 15, 1962 PAGE NO. 3 OF 4 PAGES
 LOCATION 7th and Valencia Sts. JOB NO. 6148-5
 COLLAR ELEV. _____ INSPECTOR R. J. Scott

GEOLOGIC NOTES

Depth	Classification and Physical Character
	26.5 - 30.0 (ML) Sandy silt, same as above with some gray sandy silt strata, some oxidation stain
	30.0 - 31.5 (ML) WC-90-6 Same as above III OK II OK I OK
	31.5 - 35.0 (ML) Sandy silt, brown, micaceous, damp
	35.0 - 36.5 (ML) WC-90-7 Sandy silt, brown, damp, micaceous, low dry strength and low consistency, inorganic, earthy odor III OK II OK I OK
	36.5 - 38.0 (ML) Same as above
	38.0 - 40.0 (SM) Silty fine sand, gray, wet, micaceous, angular grains, low consistency
	40.0 - 41.5 (SM) WC-90-8 Same as above III OK II OK I OK
	41.5 - 45.0 (ML) Sandy, clayey, silt gray with a few brown streaks, micaceous, damp, low consistency

BORING NOTES

Drilling Method <u>Auger</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
					Auger

CASING NOTES

FROM	TO	SIZE	REMARKS
			None

SAMPLING NOTES

TYPE SAMPLER <u>Split tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SAMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
6	30.0	31.5	1.5	12"	7	17	29	
7	35.0	36.5	1.5	12"	7	22	38	
8	40.0	41.5	1.5	12"	6	21	46	

GROUND WATER OBSERVATIONS

DEPTH OF HOLE	
DEPTH to WATER	38'
TIME OF OBSERV.	3 AM, Feb. 16, 1962

LOG OF DRILLHOLE

HOLE NO. WC-91 DATE 2-21-62 PAGE NO. 1 OF 3 PAGES
 LOCATION 7th & Witmer JOB NO. 6148-5
 COLLAR ELEV. 297.6 INSPECTOR Nercessian

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	0.0 - 1.0 Concrete and subgrade
	1.0 - 5.0 WC-91-1
	Silty clay, brown colored, medium plasticity (CL)
	III CL
	II CL
	I CL - NF Disturbed
	5.0 - 10.0 WC-91-2
	Silty sand, sand and silt yellow colored, hard (SM), damp
	III Empty
	II SM
	I SM
	10.0 - 15.0 WC-91-3
	Same as above
	III Empty
	II SM
	I SM
	15.0 - 20.0 WC-91-4
	Same as above, silty sand
	III SM
	II SM
	I SM
	22.0 - 22.3 Gravel, sandstone
	20.0 - 25.0 WC-91-5
	Gray-orange, fine, silty sand as above
	III SM
	II SM
	I SM Some gravel
	Tip: Clayey silt and sand

BORING NOTES					
Drilling Method <u>Rotary</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing <u> </u>					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
0.0	1.0	1.0			Tri-cone
1.0	53.0	52.0			Fish-tail

CASING NOTES			
FROM	TO	SIZE	REMARKS
0.0	2.0	5.5	

SAMPLING NOTES								
TYPE SAMPLER <u>Split-tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
1	5.0	6.5	1.5		4	12	21	
2	10.0	11.0	1.0		20	82		
3	15.0	16.0	1.0		19	79		
4	20.0	21.3	1.3		23	70	¹⁰⁰ / _{15"}	
5	25.0	26.5	1.5		15	35	57	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-91

DATE 2-21-62

PAGE NO. 2 OF 3 PAGES

LOCATION 7th & Witmer

JOB NO. 6148-5

COLLAR ELEV. _____

INSPECTOR Nercessian

GEOLOGIC NOTES

Depth	Classification and Physical Character
	25.0 - 26.0 Sand and gravel
	26.0 - 30.0 WC-91-6 Clayey silt, micaceous, slightly cohesive, brown, damp III ML II ML I ML
	30.0 - 35.0 WC-91-7 Light brown, clayey silt, cohesive, damp as above III ML II ML I ML
	35.0 - 40.0 WC-91-8 Same as above; clayey silt III ML II ML I ML
	40.0 - 45.0 WC-91-9 Same as above III ML II ML I ML
	45.0 - 50.0 Light brown, clayey silt, cohesive, micaceous as above III ML II ML I ML

BORING NOTES

Drilling Method _____					
Hole Size _____					
Angle _____ Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES

FROM	TO	SIZE	REMARKS

SAMPLING NOTES

TYPE SAMPLER <u>Split-tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>74.0 lb</u> DROP <u>30"</u>								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
6	30.0	31.5	1.5		4	24	43	
7	35.0	36.5	1.5		10	27	49	
8	40.0	41.5	1.5		9	25	47	
9	45.0	46.5	1.5		10	28	57	
10	50.0	51.5	1.5		11	32	59	

GROUND WATER OBSERVATIONS

DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-93 DATE 2-15-62 PAGE NO. 1 OF 3 PAGES
 LOCATION 7th & Lucas Ave. JOB NO. 6148-5
 COLLAR ELEV. 302.97 INSPECTOR R. Singh

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	0.0 - 0.4 Concrete
	0.4 - 2.5 Subgrade, sandy gravel, brown
	2.5 - 5.0 (SW) Brown sand-gravel mixture, coarse
	5.0 - 6.5 (CL) WC-93-1 Silty clay, brown color, medium consistency III Disturbed II I
	6.5 - 10.0 (SM) Silty, fine sand, brown color, dense, inorganic, damp, medium consistency
	10.0 - 11.5 (SM) WC-93-2 Silty, fine sand as above III II I
	11.5 - 15.0 (SM) As above, no change
	15.0 - 16.5 (SM) WC-93-3 Very dense III Discarded II I
	16.0 - 20.0 (SM-SW) Silty, fine sand, becoming well graded, coarse sand-gravel mixture at 19.0; damp, inorganic

BORING NOTES					
Drilling Method <u>Rotary</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing <u> </u>					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
0.0	0.4	0.4			Tri-cone
0.4	25.0	21.0			Auger
25.0	48.0	23.0			Auger

CASING NOTES			
FROM	TO	SIZE	REMARKS
0	0.4	5"	Surface collar - No casing

SAMPLING NOTES								
TYPE SAMPLER <u>Split-tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
1	5.0	6.5	1.5		7	20	35	
2	10.0	11.5	1.5		8	28	62	
3	15.0	16.0	1.0		19	91		

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

 HOLE NO. WC-94

 DATE Dec. 2, 1962

 PAGE NO. 1 OF 4 PAGES

 LOCATION 7th and Bixel Streets

 JOB NO. 6148-5

 COLLAR ELEV. 306.4

 INSPECTOR R. Singh

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	Hole offset 4.0' East due to overhead power line
	0.0 - 0.3 Asphalt-gravel-sand mixture
	0.3 - 2.5 Sub-grade, sand, gravel
	2.5 - 5.0 Brown sand, coarse gravel mixture, damp, loose
	5.0 - 6.5 (SP) WC-98-1 Brown sand, medium grained III NF Discarded II I
	6.5 - 10.0 (SP) Gravelly sand, light brown, medium grain, damp, inorganic, medium dense
	10.0 - 11.5 (SP) WC-94-2 Same as above III NF Discarded II I
	11.5 - 15.0 (SP) Gravelly sand as above with some angular chunks of gravel, damp
	15.0 - 16.5 (SP) WC-94-3 Angular gravel - poor sample III Empty II Empty I

BORING NOTES					
Drilling Method <u>Rotary</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
0.0	0.5				Tri-cone
0.5	61.0				Auger

CASING NOTES			
FROM	TO	SIZE	REMARKS
0	25	5"	Surface collar

SAMPLING NOTES							
TYPE SAMPLER <u>Split-tube</u>							
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>							
SAMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS		
					6"	12"	18"
1	5.0	6.5	1.5		2	5	9
2	10.0	11.5	1.5		2	4	7
3	15.0	16.5	1.5		7	16	26

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

 HOLE NO. WC-95

 DATE 2-14-62

 PAGE NO. 3 OF 5 PAGES

 LOCATION 7th & Francisco Sts.

 JOB NO. 6148-5

COLLAR ELEV. _____

 INSPECTOR R. Singh

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	40.0 - 40.8 (GW) WC-95-8
	Same as above
	III Empty
	II Empty
	I Disturbed
	40.8 - 45.0 (GW-GC-ML) Gravel as above
	becoming gravel-sand-clay
	mixture at 41.5', from 41.5'
	to 45.0', clayey silt, light
	gray, medium dense, low to
	no plasticity, damp
	45.0 - 46.5 (ML) WC-95-9
	Clayey silt, light gray
	III
	II
	I Plus fine sand
	46.5 - 50.0 (ML) Silty, fine sand, very
	dense, inorganic, light gray,
	damp
	50.0 - 51.3 (ML) WC-95-10
	Same as above
	III Disturbed
	II
	I Plus fine sand
	51.3 - 55.0 (ML-GW-ML) Silty, fine sand
	as above resting on hard
	layer of gravel (52.5' -
	53.5') becoming silty, fine
	sand

BORING NOTES					
Drilling Method <u>Rotary</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER <u>Split Tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SAMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
8	40.0	40.8	0.8		57	100	8	
9	45.0	46.5	1.5		9	26	50	
10	50.0	51.3	1.3		9	52	100	15

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-98

DATE Jan. 30, 31, 1962 PAGE NO. 1 OF 6 PAGES

LOCATION 7th and Hope

JOB NO. 6148-5

COLLAR ELEV. 266.4

INSPECTOR Nielson

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	0.0 - 0.5 Asphalt pavement
	0.5 - 1.0 Concrete sub-pavement
	1.0 - 5.0 Brown, clayey silt, some gravel in upper 1 foot (ML)
	5.0 - 6.5 WC-98-1 Brown, sandy, clayey silt; Damp, low plasticity (SM), alluvial sand IV NF III OK Disturbed II OK Disturbed I OK Disturbed
	6.5 - 10.0 (SM) Same as above; few cuttings retained on screen
	10.0 - 11.5 (SM) WC-98-2 Same as above, finer grain sand, less sand IV NF III OK Disturbed II OK Disturbed I OK Disturbed
	11.5 - 12.0 (SM) Same as above
	12.0 - 15.0 Sand and gravel slightly silty and clayey (GM)

BORING NOTES					
Drilling Method <u>Rotary, wet</u>					
Hole Size _____					
Angle _____ Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER <u>Split-tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
1	5.0	6.5	1.5		12	11		
2	10.0	11.5	1.5		9	15		

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-98 DATE Jan. 31, 1962 PAGE NO. 3 OF 6 PAGES
 LOCATION 7th and Hope JOB NO. 6148-5
 COLLAR ELEV. _____ INSPECTOR Nielson

GEOLOGIC NOTES	
Depth	Classification and Physical Character
25.0 - 25.9	WC-98-6 (SP) Same as above, very friable, no plasticity IV NF III NF II OK I OK
26.0 - 26.3	WC-98-7 Medium - coarse sand, silty slightly damp, very friable, no plasticity (SM) IV NF III NF II NF I OK Disturbed
27.0 - 27.5	WC-98-8 (SM) Same as above IV NF III NF II NF I OK Disturbed
28.0 - 28.7	WC-98-9 Medium sand to fine gravel, moist, loose (GM) IV NF III NF II NF I OK Disturbed
29.0 - 29.5	WC-98-10 Gravelly, silty, sand, weathered granite pebbles to 1", subrounded, loose (GM) IV NF III NF II NF I NF

BORING NOTES					
Drilling Method _____					
Hole Size _____					
Angle _____ Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER _____								
SIZE _____ WT. OF HAMMER _____ DROP _____								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
6	25.0	25.9	0.8		46	100	10	
7	26.0	26.3	0.3		30	20	3	
8	27.0	27.8	0.8		58	100	9	
9	28.0	28.7	0.7		58	100	9	
10	29.0	29.5	0.5		100	5		

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-98 DATE Jan. 31, 1962
Feb. 1, 1962 PAGE NO. 5 OF 6 PAGES
 LOCATION 7th and Hope JOB NO. 6148-5
 COLLAR ELEV. _____ INSPECTOR Nielson

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	33.0 - 33.6 WC-98-14
	Gravelly sand, silty, damp, loose, no plasticity; pebbles weathered (GM)
	IV NF
	III NF
	II NF
	I OK
	34.0 - 35.6 WC-98-15
	Light brown, very fine sandy silt, slightly clayey, damp, slight plasticity (SM)
	IV NF
	III OK
	II OK
	I OK
	36.0 - 37.0 WC-98-16
	(SM) Same as above; very fine sand to medium sand; no plasticity
	IV NF
	III NF
	II NF
	I OK
	37.0 - 38.0 WC-98-17
	(SM) Same as above, some plasticity in upper part of tube No. II
	IV NF
	III NF
	II OK
	I OK

BORING NOTES					
Drilling Method _____					
Hole Size _____					
Angle _____ Bearing _____					
FROM	TO	INTERV.	REGOV.	% REGOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER _____								
SIZE _____ WT. OF HAMMER _____ DROP _____								
SAMPL. NO.	FROM	TO	INTERV.	REGOV.	BLOWS			
					6"	12"	18"	24"
14	33.0	33.6	0.6		69	100		
15	34.0	35.6	1.5			38	56	
16	36.0	37.0	1.0		15	86		
17	37.0	38.0	1.0		10	34		

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

 HOLE NO. WC-99

 DATE Feb. 1, 2, 1962

 PAGE NO. 4 OF 5 PAGES

 LOCATION 7th and Grand

 JOB NO. 6148-5

COLLAR ELEV. _____

 INSPECTOR Nielson

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	31.5 - 33.0 WC-99-8 Brown, sandy, silt (ML), same as No. 7, and gray silty clay, moist, dense, med- ium - good plasticity (CL) IV NF III OK II OK I OK
	33.0 - 33.6 WC-99-9 Brown, silty, gravelly (1"), damp, medium - very coarse sand; compact, no plasticity (GM - SP) IV NF III NF II NF I OK
	33.6 - 34.2 (GM - SP) WC-99-10 Same as above, gravelly ($\frac{1}{4}$ " maximum, IV NF III NF II NF I OK
	34.2 - 40.0 Intercalated gravelly sands and sandy gravels; some hard, compact gravels thin-bedded.
	40.0 - X No penetration (sample hard gravel)

BORING NOTES					
Drilling Method _____					
Hole Size _____					
Angle _____ Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER _____								
SIZE _____ WT. OF HAMMER _____ DROP _____								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
8	31.5	33.0	1.5			21	39	
9	33.0	33.6	0.6		59	80		
10	33.6	34.2	0.6		50	80		

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	_____
DEPTH OF WATER	_____
TIME OF OBSERV.	_____

LOG OF DRILLHOLE

HOLE NO. WC-100

DATE 2-2, -3, -62

PAGE NO. 1 OF 4 PAGES

LOCATION 431 W. 7th

JOB NO. 6148-5

COLLAR ELEV. 262.1

INSPECTOR Nielson

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	0.0 - 0.5 Asphalt
	0.5 - 1.0 Concrete
	1.0 - 5.0 Silty, slightly clayey, brown, medium - very coarse sand; moist and wet with mud, slight plasticity, (SM-ML)
	5.0 - 6.5 WC-100-1 Brown, fine gravelly, (3/4" rounded) silty, damp to moist, medium - coarse sand; no plasticity (GM) IV NF III Disturbed II OK I OK
	6.5 - 7.0 (GM) Same as above but mostly sandy
	7.0 - 10.0 (GM) Same as above; very gravelly, coarse to 1 1/2", fairly hard drilling
	10.0 - 10.7 WC-100-2 Brown, silty, very gravelly, (1" medium - coarse sand, moist - no plasticity (GM) IV NF III NF II NF I OK Disturbed

BORING NOTES					
Drilling Method <u>Rotary, wet</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing <u></u>					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
0	50.5				Tri-cone

CASING NOTES			
FROM	TO	SIZE	REMARKS
0	3		Surface seal

SAMPLING NOTES							
TYPE SAMPLER <u>Split-tube</u>							
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>							
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS		
					6"	12"	18"
1	5.0	6.5	1.5		12	42	
2	10.0	10.7	0.7		28	63	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

 HOLE NO. WC-101

 DATE 2-13-62

 PAGE NO. 1 OF 2 PAGES

 LOCATION 7th & St. Vincent

 JOB NO. 6148-5

 COLLAR ELEV. 260.7

 INSPECTOR Singh

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	0.0 - 0.2 Asphalt
	0.2 - 0.5 Red brick
	0.5 - 5.0 (SP) Sand, coarse, light brown to grayish color, dense, inorganic, damp
	5.0 - 6.0 (SP) WC-101-1 Sand as above III NF - Discarded II Disturbed I Disturbed gravel at bottom of tube
	6.0 - 25.0 (GW) Gravel, well graded with gravel-sand mixture, little to no fines, thin lenses of coarse sand, sub-angular to angular
	25.0 - 25.0 WC-101-2 III No Sample II No Sample I No Sample
	25.0 - 35.0 (GW-SC) Gravel as above to 31.0, becoming sand-clay mixture, brown, coarse sand, some weathered (?) matter, dense
	35.0 - 35.9 (SC) WC-101-3 Sand-clay mixture, brown III Discarded II NF I
	35.9 - 40.0 (GW) Gravel-sand mixture; dense, little to no fines

BORING NOTES					
Drilling Method <u>Rotary</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
0	1.0				Tri-cone
1.0	5.0				Fish-tail
5.0	35.0				Tri-cone
35.0	40.0				Fish-tail
40.0	55.0				Tri-cone

CASING NOTES			
FROM	TO	SIZE	REMARKS
0	2.5	5"	Surface collar - No casing

SAMPLING NOTES								
TYPE SAMPLER <u>Split-tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>110 lb</u> DROP <u>30"</u>								
SAMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
1	5.0	6.0	1.0		19	50		
2	25.0	25.0	0		16	0"	Refusal	NS
3	35.0	35.9	0.9		11	56	9"	NP at 0.9
4	40.0	40.9	0.9		33	70	9"	NP at 0.9

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-401

DATE 5/5/62

PAGE NO. 1 OF 4 PAGES

LOCATION St. Vincent Court

JOB NO. 6148-5

COLLAR ELEV. 261.0

INSPECTOR R. Scott

GEOLOGIC NOTES	
Depth	Classification and Physical Character
0.0 - 0.4	Pavement
0.4 - 0.8	Brick layer
0.8 - 3.0	(GP) Gravel-sand mixture; well graded sand and cobbles (cobbles and gravel) 40% cobbles and gravel
3.0 - 10.0	(GM) Gravel sand-silt mixture with 15-20% cobbles; well-graded sand, brown slightly damp, compacted; about 5% silt; cobbles are angular to subrounded and up to 12" in diameter
	(GM) WC-401-1 Same as above, well graded sand and gravel, with 15-20% cobbles
10.0 - 16.0	(GM) 25% cobbles as above; 5% silt; 70% well graded coarse sand, brown, damp, loose (little or no fines)
13.0 - 16.0	Infrequent 4" x 8" cobbles every 2-3 feet
16.0 - 20.0	(GP) Gravel-sand mixture; 4-6" cobbles, 25% poorly graded coarse sand, brown damp, compacted 70% 5% silt
20.0	(GP) WC-401-2

BORING NOTES					
Drilling Method <u>Bucket</u>					
Hole Size <u>24"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
0.0	66.0	66.0			Bucket

CASING NOTES			
FROM	TO	SIZE	REMARKS
			None

SAMPLING NOTES								
TYPE SAMPLER <u>Bulk sample</u>								
SIZE _____ WT. OF HAMMER _____ DROP _____								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
1	10'	11.0	1					
2	20'	21.0	1					

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	66'
DEPTH OF WATER	None
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-401 DATE 5/5/62 PAGE NO. 3 OF 4 PAGES
 LOCATION St. Vincent Court JOB NO. 6148-5
 COLLAR ELEV. _____ INSPECTOR R. Scott

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	37.0 - 44.0 (GP) Poorly graded gravel-sand mixture, brown and damp, little clayey zones, 30% gravel, coarse to fine, angular to sub-rounded;
	60% coarse sand, some fine damp;
	10% 6" cobbles, subrounded, (some sandstone cobbles), infrequent 8-10" cobbles
	44.0 (GP) WC-401-6 Gravel-sand mixture, damp, brown
	44.0 - 45.0 (GP) Poorly graded gravel-sand mixture as above
	45.0 - 49.0 (GP) Poorly graded gravel-sand mixture, 65-70% coarse, damp sand; 20% fine to coarse gravel; 10% cobbles 4"-6"
	49.0 - 50.0 (GP) Same as above, only wetter (moist)
	50.0 WC-401-7
	50.0 - 51.0 (SP) Poorly graded sand, medium to fine grain, damp, light brown color

BORING NOTES					
Drilling Method <u>Bucket</u>					
Hole Size <u>2 1/2"</u>					
Angle _____ Bearing _____					
FROM	TO	INTERV.	REGOV.	% REGOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER <u>Bulk sample</u>								
SIZE _____ WT. OF HAMMER _____ DROP _____								
SAMPL. NO.	FROM	TO	INTERV.	REGOV.	BLOWS			
					6"	12"	18"	24"
5	40.0		1					
6	44.0		1					
7	50.0		1					

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-102

DATE 1-23-62

PAGE NO. 1 OF 3 PAGES

LOCATION 557 Broadway

JOB NO. 6148-5

COLLAR ELEV. 261.35

INSPECTOR Nercessian

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	0.0 - 0.5 Subgrade; concrete
	0.5 - 3.0 Gravel
	3.0 - 5.0 Gravel
	5.0 - 6.0 Gravel
	6.0 - 7.0 Gravel
	7.0 - 8.0 Gravel
	8.0 - 9.0 Gravel
	9.0 - 10.0 Gravel
	10.0 - 17.5 Gravel
	17.5 (GM) WC-102-1 (a) Silty gravel, gravelly sand III Disturbed II Disturbed I Disturbed
	18.5 Hit 3.5" granite pebble
	18.5 - 21.5 Sandy gravel
<u>1-24-62</u>	- - - - -
	21.5 - 23.0 (GM) WC-102-1 (b) Silty gravel and sand, damp, yellowish gray III II I Tip: 1/2" granite pebble

BORING NOTES					
Drilling Method <u>Rotary</u>					
Hole Size <u>6"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
0.0	0.5	0.5			Tri-cone
0.5	30.0	29.5			Auger
30.0	62.0	32.0			Tri-cone

CASING NOTES			
FROM	TO	SIZE	REMARKS
0	7.0	5"	

SAMPLING NOTES								
TYPE SAMPLER <u>Split-tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
1(a)	17.5	18.0	.5		6			
1(b)	21.5	23.0	1.5		24	60	76	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-102

DATE 1-24-62

PAGE NO. 3 OF 3 PAGES

LOCATION 557 Broadway

JOB NO. 6148-5

COLLAR ELEV. _____

INSPECTOR Nercessian

GEOLOGIC NOTES

Depth	Classification and Physical Character
	46.0 - 48.0 WC-102-5
	III NF
	II Disturbed
	I GM (OK)
	Tip: 1/2" granite pebble
	48.0 - 50.0 WC-102-6
	Sandy gravel
	III Empty
	II Empty
	I Empty
	50.0 - 52.0 (GM) WC-102-7
	Sandy gravel
	III Empty
	II NF
	I OK
	Tip: (3) 1/2" granite pebble
	52.0 - 58.0 WC-102-8
	III Empty
	II Empty
	I Empty
	Tip: Empty
	58.0 - 62.0 WC-102-9
	III Empty
	II Empty
	I Empty
	Tip: 1/2" granite pebble
	GM (ML)

BORING NOTES

Drilling Method <u>Rotary</u>					
Hole Size <u>6"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES

FROM	TO	SIZE	REMARKS

SAMPLING NOTES

TYPE SAMPLER <u>Split-tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
5	48.0	48.8	0.8		64	100	84	
6	50.0	50.7	0.7		52	100	74	
7	52.0	53.0	1.0		47	94		
8	58.0	58.5	0.5		73			
9	62.0	62.5	0.5		73			

GROUND WATER OBSERVATIONS

DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-104

DATE Jan. 24, 25, 1962 PAGE NO. 4 OF 5 PAGES

LOCATION 4th and Broadway

JOB NO. 6148-5

COLLAR ELEV. _____

INSPECTOR Nielson

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	61.5 - 63.0 Note drillers depth
	64.5 WC-104-11
	Same as above, more clayey, less crumbly
	IV Discarded
	III OK
	II OK
	I OK
	64.5 - 66.0 WC-104-12
	Dark gray, slightly sandy, pebbly, slightly clayey silt. More crumbly, very low plasticity, abundant pecten shell fragments
	IV OK
	III OK
	II Discarded
	I OK
	66.0 - 67.5 WC-104-13
	Dark gray, clayey silt. Slightly sandy, low plas- ticity, more plastic than No. 12 (ML)
	IV Discarded
	III OK
	II OK
	I OK Disturbed
	67.5 - 69.0 Lost sample

BORING NOTES					
Drilling Method _____					
Hole Size _____					
Angle _____ Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES							
TYPE SAMPLER _____							
SIZE _____ WT. OF HAMMER _____ DROP _____							
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS		
					6"	12"	18" 24"
11	61.5	64.5	1.5		49	119	
12	64.5	66.0	1.5		62	120	
13	66.0	67.5	1.5		47	88	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	_____
DEPTH OF WATER	_____
TIME OF OBSERV.	_____

LOG OF DRILLHOLE

 HOLE NO. WC-106

 DATE 1-17-62

 PAGE NO. 1 OF 4 PAGES

 LOCATION Broadway No. of 3rd St. JOB NO. 6148-5

 COLLAR ELEV. 283.05 INSPECTOR R. Scott

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	0.0 - 0.5 Concrete
	0.5 - 5.0 (ML) Sandy clay, brown, low plasticity, damp, inorganic
	5.0 - 6.5 (SM) WC-106-1 III Disturbed II (SM) Silty sand mixture, damp, brown, low plasticity, no dry strength I (SM) Silty sand
	6.5 - 7.0 (SM)
	7.0 - 10.0 (GP) Poorly graded gravel, fine and coarse size, no or little fines
	10.0 Tried to take sample, no drive, sample WC-106-2 (coarse gravel) (GP) I Sample from shaker
	10.0 - 15.0 (GP) Fine to coarse gravel with layers of coarse gravel
	15.0 - 17.0 (GP) WC-106-3 No sample II Sample from shaker I Sample from shaker
	17.0 - 18.5 (ML) WC-106-4 III (ML & GP) Disturbed II (ML) Silty clay, brown I (ML) Damp, low plasticity, earthy odor, low dry strength
	18.5 - 22.0 (ML) Micaceous, dense

BORING NOTES					
Drilling Method <u>Rotary</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
0	0.5	0.5			Tri-cone
0.5	10.0	9.5			Fish-tail
10.0	15.0	5.0			Tri-cone
15.0	15.0	0			Core
15.0	18.5	3.5			Tri-cone
18.5					Fish-tail

CASING NOTES			
FROM	TO	SIZE	REMARKS
0	2.0	5"	

SAMPLING NOTES								
TYPE SAMPLER <u>Split-tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>740 lb</u> DROP <u>30"</u>								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
1	5.0	6.5	1.5	12"		11	22	
2	10.0	10.0	0	Gravel				
3	15.0	15.0	0					
4	17.0	18.5	1.5	18"		25	51	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

 HOLE NO. WC-106

 DATE 1-17-62

 PAGE NO. 2 OF 4 PAGES

 LOCATION Broadway No. of 3rd St. JOB NO. 6148-5

 COLLAR ELEV. _____ INSPECTOR R. Scott

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	22.0 - 23.5 (ML) WC-106-5
	III (ML) Same as above
	II (ML) Micaceous, dense
	I (ML) Micaceous, dense
	23.5 - 27.0 (ML) Clayey silt, brown, dense, damp, micaceous, low plasticity
	27.0 - 28.5 (ML) WC-106-6
	III (ML) Same as above
	II (ML) Same as above
	I (ML) Same as above
	28.5 - 32.0 (ML)
	32.0 - 33.5 (ML) WC-106-7
	III (ML) Same as above
	II (ML) Same as above
	I (ML) Same as above
	All samples disturbed
	33.5 - 36.0 (ML)
	36.0 - 37.5 (ML) WC-106-8
	III (ML) Disturbed
	II (ML) Disturbed
	I (ML) Disturbed
	All same as above
	37.5 - 39.0 (ML) WC-106-9
	III Same as above
	II Same as above
	I Same as above
1-18-62 -	-----
	39.0 - 40.5 (ML) WC-106-10
	III Same as above
	II Same as above
	I Same as above

BORING NOTES					
Drilling Method <u>Rotary</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
22.0	23.5	1.5			Core
23.5					Fish-tail
27.0	28.5	1.5			Core
32.0	33.5	1.5			Core
36.0	37.5	1.5			Core
37.5	39.0	1.5			Core
39.0	41.5	1.5			Core

CASING NOTES			
FROM	TO	SIZE	REMARKS
0	2'	5"	

SAMPLING NOTES							
TYPE SAMPLER <u>Split-tube</u>							
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>							
SAMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS		
					6"	12"	24"
5	22.0	23.5	1.5	18"	26	47	
6	27.0	28.5	1.5	18"	33	62	
7	32.0	33.5	1.5	18"	28	44	
8	36.0	37.5	1.5	16"	33	64	
9	37.5	39.0	1.5	18"	32	58	
10	39.0	40.5	1.5	18"	32	59	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

 HOLE NO. WC-106

 DATE 1-18-62

 PAGE NO. 3 OF 4 PAGES

 LOCATION Broadway No. of 3rd St. JOB NO. 6118-5

 COLLAR ELEV. _____ INSPECTOR R. Scott

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	41.5 - 43.0 (ML) WC-106-11
	III Disturbed
	II Disturbed
	I Disturbed
	Same as above
	43.0 - 44.5 (ML) WC-106-12
	III (ML) Clayey silt, brown, dense, micaceous earthy odor, low plas- ticity, damp
	44.5 - 46.0 (ML) WC-106-13
	III (ML) Same as above
	II (ML) Same as above
	I (ML) Same as above
	46.0 - 47.5 (ML) WC-106-14
	III Same as above
	II Same as above
	I Same as above
	47.5 - 49.0 (ML) WC-106-15
	III (ML) Same as above
	II (ML) Same as above
	I (ML) Same as above
	49.0 - 50.5 (ML) WC-106-16
	III (ML) Same as above
	II (ML) Same as above
	I (ML) Same as above
	50.5 - 54.0 (ML)
	54.0 - 55.5 (ML) WC-106-17
	III (ML) Same as above
	II (ML) Same as above
	I (ML) Same as above

BORING NOTES					
Drilling Method <u>Rotary</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
					Fish-tail
43.0	44.5	1.5			Core
44.5	46.0	1.5			Core
46.0	47.5	1.5			Core
47.5	49.0	1.5			Core
49.0	50.5	1.5			Core
50.5	54.0	3.5			Fish-tail
54.0	55.5	1.5			Core
55.5	59.5	4.0			Fish-tail
59.5	61.0	1.5			Core

CASING NOTES			
FROM	TO	SIZE	REMARKS
0	2'	5"	

SAMPLING NOTES								
TYPE SAMPLER <u>Split-tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
11	41.5	43.0	1.5		27	48		
12	43.0	44.5	1.5	18"	33	56		
13	44.5	46.0	1.5	18"	28	47		
14	46.0	47.5	1.5	18"	27	50		
15	47.5	49.0	1.5	18"	28	55		
16	49.0	50.5	1.5	18"	30	55		
17	54.0	55.5	1.5	18"	32	62		

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-107

DATE 1-19-62

PAGE NO. 1 OF 3 PAGES

LOCATION Broadway & 2nd St.

JOB NO. 6148-5

COLLAR ELEV. 287.24

INSPECTOR R. Scott

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	Note: Hole had been drilled to 5.5 by another rig.
	5.5 - 18.0 Concrete
1-19-62-	-----
	18.0 - 18.5 Concrete
	18.5 - 20.0 (GC) Clay and fine gravel mixture
	20.0 - 21.5 (ML) WC-107-1 Clayey silt, dark brown, dense, micaceous, damp, low plasticity, earthy odor III ML - Disturbed II ML - Disturbed I ML - Disturbed
	21.5 - 26.0 (ML) Same as above
	26.0 - 27.5 (ML) WC-107-2 III Same as above II Same as above I Same as above
	27.5 - 29.0 (ML) WC-107-3 III Same as above II Same as above I Same as above
	29.0 - 30.5 (ML) WC-107-4 III Same as above II Same as above I Same as above
	30.5 - 32.0 (ML) WC-107-5 III Same as above II Same as above I Same as above

BORING NOTES					
Drilling Method <u>Rotary</u>					
Hole Size <u>5" to 21.5'; 4" hole</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
5.5	18.0	12.5			Tri-cone
18.0	20.0	2.0			Tri-cone
20.0	21.5	1.5			Core
21.5	26.0	4.5			Fish-tail
26.0	41.0	15.0			Core

CASING NOTES			
FROM	TO	SIZE	REMARKS
0	2'	5"	

SAMPLING NOTES								
TYPE SAMPLER <u>Split-tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
1	20.0	21.5	1.5	18"	23	44		
2	26.0	27.5	1.5	18"	28	53		
3	27.5	29.0	1.5	18"	28	55		
4	29.0	30.5	1.5	18"	24	48		
5	30.5	32.0	1.5	18"	25	47		

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-108

DATE 1-18-62

PAGE NO. 2 OF 5 PAGES

LOCATION First St. & Broadway

JOB NO. 6148-5

COLLAR ELEV. _____

INSPECTOR Nercessian

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	0.0 - 4.0 Concrete asphalt
	5.7 Concrete
	5.7 - 10.0 Concrete rubble
	10.0 - 11.5 (ML) WC-108-1 Clayey fine, sandy silt, brown, micaceous III Disturbed II Disturbed I Disturbed
	14.0 Increase in clay
	11.5 - 15.0
	15.0 - 16.5 (SM) WC-108-2 Silty sand - silty tan III (SM) II (SM) I (SM)
	16.5 - 18.0
	18.0 - 19.0 (ML) & (GC) WC-108-3 Very micaceous, sandy clay, clayey gravel, clayey silt III (ML) II (GC) I (GC)
	19.0 - 20.0

BORING NOTES					
Drilling Method <u>Rotary</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
0.0	1.0				Fish-tail
1.0	12.0				Auger

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES									
TYPE SAMPLER <u>Split-tube</u>									
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>									
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS				
					6"	12"	18"	24"	
1	10.0	11.5	1.5			11	20		
2	15.0	16.5	1.5			44	78		
3	18.0	19.0	1.0			104	215	10"	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-109

DATE 1-15-1962

PAGE NO. 1 OF 3 PAGES

LOCATION Broadway & Court Street JOB NO. 6148-5

COLLAR ELEV. 319.6 INSPECTOR R. J. Scott

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	0.0 - 0.3 Concrete
	0.3 - 1.0 Sub-grade and gravel
	1.0 - 5.0 (CH) Clay, high plasticity, dark brown
	5.0 - 6.0 (CL) WC-109-1 III Discarded II (CL) Inorganic clay, little sand, yellow brown, medium-high plasticity, sample disturbed, slight moisture I Discarded
	6.0 - 10.0 (CL)
	10.0 - 11.0 (CL) WC-109-2 III Empty II Discarded I (CL) Sandy clay, yellow brown, medium plasticity, slight moisture, sample disturbed
	11.0 - 15.0 (CL)
	15.0 - 16.0 (CL) WC-109-3 III Discarded II Discarded I (CL) Brown sandy clay as above
	16.0 - 20.0 (CL)

BORING NOTES					
Drilling Method <u>Rotary</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	REGOV.	% REGOV.	REMARKS
0	0.3				Tri-cone
0.3					Fish-tail

CASING NOTES			
FROM	TO	SIZE	REMARKS
0	2.7	5"	Drove from 1" to 2.7"

SAMPLING NOTES								
TYPE SAMPLER <u>Split tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SAMPL. NO.	FROM	TO	INTERV.	REGOV.	BLOWS			
					6"	12"	18"	24"
1	5.0	6.0	1.0			9		
2	10.0	11.0	1.0			9		
3	15.0	16.0	1.0		5	11		

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-109 DATE 1-15-1962 PAGE NO. 2 OF 5 PAGES
 LOCATION Broadway & Court Street JOB NO. 6148-5
 COLLAR ELEV. _____ INSPECTOR R. J. Scott

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	20.0 - 21.0 WC-109-4
	III Discarded
	II Clay, dark brown, very clayey, micaceous, damp, dense, medium consistency, hard
	I Clay, dark brown, very clayey, micaceous, damp, dense, medium consistency, hard
	21.0 - 25.0 (CL)
	25.0 - 26.0 (CL) WC-109-5
	III Discarded
	II (CL) Same as above sample
	I (CL) Same as above sample. Dense, dark brown, micaceous clay
	26.0 - 30.0 (CL) and (ML)
	30.0 - 31.0 (ML) WC-109-6
	III Discarded
	II (ML) Clayey silt, brown, micaceous, slight plasticity
	31.0 - 35.0 (ML)
	35.0 - 36.0 (ML) WC-109-7
	III (ML)
	II (ML)
	I (ML) Clayey silt, brown, hard, micaceous, slightly disturbed, damp
	36.0 - 40.0 (ML)

BORING NOTES					
Drilling Method <u>Rotary</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	REGOV.	% REGOV.	REMARKS
31.0					Fish-tail

CASING NOTES			
FROM	TO	SIZE	REMARKS
0	2.7	5"	

SAMPLING NOTES								
TYPE SAMPLER <u>Split tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SAMPL. NO.	FROM	TO	INTERV.	REGOV.	BLOWS			
					6"	12"	18"	24"
4	20.0	21.0	1.0		7	23		
5	25.0	26.0	1.0		14	42		
6	30.0	31.0	1.0		11	37		
7	35.0	36.0	1.0		13	35		

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-109 DATE 1-15-1962 PAGE NO. 4 OF 5 PAGES
 LOCATION Broadway & Court Street JOB NO. 6148-5
 COLLAR ELEV. _____ INSPECTOR R. J. Scott

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	45.0 - 46.0 (ML) WC-109-13
	III Discarded
	II (ML) Clayey silt, dense dark brown, micaceous, damp, slight plasticity
	I (ML) Clayey silt, dense dark brown, micaceous, damp, slight plasticity
	46.0 - 47.0 (ML) WC-109-14
	III Discarded
	II (ML) Same as above
	I (ML) Same as above
	47.0 - 48.0 (ML) WC-109-15
	III Discarded
	II (ML) Same as above
	I (ML) Same as above
1-16-62	-----
	48.0 - 49.5 (ML) WC-109-16
	III (ML) Clayey silt, dark gray brown, micaceous, dense, damp
	II (ML) Clayey silt, dark gray brown, micaceous, dense, damp
	I (ML) Clayey silt, dark gray brown, micaceous, dense, damp
	49.5 - 51.0 (ML) WC-109-17
	III Same as above
	II Same as above
	I Same as above

BORING NOTES					
Drilling Method <u>Rotary</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
					Fish-tail

CASING NOTES			
FROM	TO	SIZE	REMARKS
0	2.7	5"	

SAMPLING NOTES								
TYPE SAMPLER <u>Split tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
13	45.0	46.0	1.0		16	38		
14	46.0	47.0	1.0		14	45		
15	47.0	48.0	1.0		16	42		
16	48.0	49.5	1.5			47	98	
17	49.5	51.0	1.5			43	80	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-110 DATE Jan. 12, 1962 PAGE NO. 1 OF 7 PAGES
 LOCATION Broadway and Temple JOB NO. 6118-5
 COLLAR ELEV. 336.6 INSPECTOR R. Singh

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	0.0 - 0.3 Concrete
	0.3 - 1.5 Subgrade and sand
	1.5 - 5.0 (CL) Clay with pebbles, inorganic, high plasticity
	5.0 - 6.0 (SC) WC-110-1 Clayey sand, medium to low plasticity III Empty II NF Discarded I Disturbed Tip
	6.0 - 10.0 (CL) Starts sand and gravel turns into clay at 6.5' becoming more clay
	10.0 - 11.5 (CL) WC-110-2 Silty clay medium plasticity III Discarded II I Tip
	11.5 - 15.0 (CL) Silty clay becoming hard at 13.0'. From 13.0' to 15.0' sandy clay with gravel, angular
	15.0 - 16.5 (CL) WC-110-3 Hard clay, dry III Discarded II I (CL) Tip

BORING NOTES					
Drilling Method <u>Rotary</u>					
Hole Size _____					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
0.0	0.4				Tricone
0.4					Auger

CASING NOTES			
FROM	TO	SIZE	REMARKS
0.0	2.5	5"	

SAMPLING NOTES								
TYPE SAMPLER <u>Split tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
1	5.0	6.0	1.0		6	14		
2	10.0	11.5	1.0		4	9		
3	15.0	16.5	1.5			22	47	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-111 DATE 2-26 & 27-62 PAGE NO. 1 OF 5 PAGES
 LOCATION Broadway & Hollywood Frwy JOB NO. 6148-5
 COLLAR ELEV. 328.8 INSPECTOR Nielson

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	0.0 - 1.0 Asphalt
	1.0 - 5.0 Gravel subgrade
	5.0 - 6.5 (ML) WC-111-1 Gray-brown, damp to dry, very fine sandy silt; thin lamination, slightly more sandy in zones. Dip 50° low plasticity. IV OK (Some gravel) III OK II OK I OK
	6.5 - 10.0 (ML) Same as above Low plasticity
	10.0 - 11.5 (ML) WC-111-2 Same as above; about 60° dip IV NF III OK II OK I OK
	11.5 - 15.0 (ML) Same as above
	15.0 - 16.5 (ML) WC-111-3 Same as above, some more gray beds, more sandy, clearer bedding, 60° dip III OK II OK I OK
	16.5 - 20.0 (ML) Same as above

BORING NOTES					
Drilling Method <u>Rotary</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS
0		5"	

SAMPLING NOTES								
TYPE SAMPLER <u>Split-tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SAMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
1	5.0	6.5	1.5		7	21	41	
2	10.0	11.5	1.5		12	35	67	
3	15.0	16.5	1.5		8	23	41	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-111 DATE 2-27 & 28-62 PAGE NO. 5 OF 5 PAGES

LOCATION Broadway & Hollywood Frwy JOB NO. 6118-5

COLLAR ELEV. _____ INSPECTOR Nielson

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	65.9 - 66.2 Dark gray siltstone (drillers est.); hard drilling
	66.2 - 70.0 Dark gray silt (ML) (As 65.0 - 65.9)
	70.0 - 70.9 (ML) WC-111-14 Same as above; homogenous II OK I OK
	70.9 - 75.0 (ML) Same as above
	75.0 - 76.0 (ML) WC-111-15 Dark gray, damp, homogenous silt, low-medium plasticity; no dip visible. III OK II OK I OK
	76.0 - 80.0 (ML) Same as above
	80.0 - 80.8 (ML) WC-111-16 Same as above II OK I OK
	80.8 - 83.0 Interbedded silt and thin siltstone; hard drilling (drillers est.)
	83.0 - 83.6 (ML) WC-111-17 Dark gray, damp silt; low plasticity; no bedding. III NF II NF I OK

BORING NOTES					
Drilling Method <u>Rotary</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER <u>Split-tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
14	70.0	70.9	0.9		40	100	10"	
15	75.0	76.0	1.0		37	100	11"	
16	80.0	80.0	0.8		45	100	9"	
17	83.0	83.6	0.6		70	100	7"	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-112 DATE 3-1-1962
2-28-1962 PAGE NO. 1 OF 6 PAGES
 LOCATION Broadway and Sunset JOB NO. 6148-5
 COLLAR ELEV. 307.1 INSPECTOR Nielson

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	0.0 - 0.5 Concrete
	0.5 - 5.0 Silt, sand and gravel, zoned and together (GM) no plasticity
	5.0 - 6.5 WC-112-1 Brown, damp, gravelly, sandy silt: No plasticity (GM and SM), gravel granite pebbles 1" maximum rounded 30% III NF II OK I OK
	6.5 - 10.0 (GM) Same as above, some pebbles to 2", most 1/2" chips from approximately 1"; lots of silt
	10.0 - 11.5 WC-112-2 Brown to tan, gravelly, silty sand, sand well-graded: No plasticity (GM - SW), some pebbles well decomposed III NF II NF I OK
	11.5 - 15.0 (GM - SW) Same as above, not hard drilling

BORING NOTES					
Drilling Method <u>Rotary</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	REGOV.	% REGOV.	REMARKS
0.5	21.0				Fish-tail
21.0			Gravel		Tricone

CASING NOTES			
FROM	TO	SIZE	REMARKS
0	4	5	

SAMPLING NOTES								
TYPE SAMPLER _____								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SAMPL. NO.	FROM	TO	INTERV.	REGOV.	BLOWS			
					6"	12"	18"	24"
1	5.0	6.5	1.5		4	14	21	
2	10.0	11.5	1.5		12	27	40	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-112 DATE 2-28-1962 PAGE NO. 3 OF 6 PAGES
 LOCATION Broadway and Sunset JOB NO. 6148-5
 COLLAR ELEV. _____ INSPECTOR Nielson

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	32.0 - 35.0 (ML) Same as above
	35.0 - 36.0 WC-112-6 Dark gray, slightly very fine, sandy, damp, silt; low plasticity (ML), no apparent dip III NF II OK I OK
	36.0 - 40.0 (ML) Same as above
	40.0 - 41.0 WC-112-7 (ML) Same as above, some slight color difference, no definite dip III NF II OK I OK
	41.0 - 45.0 (ML) Same as above
	45.0 - 45.4 WC-112-8 Dark gray, damp homogeneous silt, low plasticity, crumbly (ML), no apparent dip III NF II NF I OK
	45.4 - 50.0 (ML) Same as above and some damp zones of very sandy (medium) silt; (SM) no plasticity

BORING NOTES					
Drilling Method _____					
Hole Size _____					
Angle _____ Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER _____								
SIZE _____ WT. OF HAMMER _____ DROP _____								
SAMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
6	35.0	36.0	1.0		28	80		
7	40.0	41.0	1.0		78	60		
8	45.0	45.4	0.4		100			

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	_____
DEPTH OF WATER	_____
TIME OF OBSERV.	_____

LOG OF DRILLHOLE

HOLE NO. WC-112 DATE 3-1, 2, 1962 PAGE NO. 4 OF 6 PAGES
 LOCATION Broadway and Sunset JOB NO. 6148-5
 COLLAR ELEV. _____ INSPECTOR Nielson

GEOLOGIC NOTES	
Depth	Classification and Physical Character
50.0 - 50.8	WC-12-9 Dark gray, compact, damp silt and dark gray, silty, fine - medium sand, (ML) - (SM), no to low plasticity, no bedding visible III NF II OK I OK
50.8 - 55.0	Interbedded dark gray silts and dark gray fine sands (ML - SM)
55.0 - 55.5	WC-112-10 Dark gray, silty, damp to wet, micaceous, fine to medium sand, no plasticity (SM) III NF II NF I OK
55.5 - 60.0	Dark gray, silty, fine - medium sands, no plasticity (SM)
60.0 - 60.9	WC-112-11 Dark gray, damp, compact homogenous appearing silt; (ML) No - low plasticity III NF II OK I OK
60.9 - 65.0	Dark gray, damp, sandy, compact silt, (ML) low plasticity

BORING NOTES					
Drilling Method _____					
Hole Size _____					
Angle _____ Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER _____								
SIZE _____ WT. OF HAMMER _____ DROP _____								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
9	50.0	50.8	0.8		65	100		
10	55.0	55.5	0.5		175			
11	60.0	60.9	0.9		50	30	10	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-112 DATE 3-1, 2, 1962 PAGE NO. 5 OF 6 PAGES
 LOCATION Broadway and Sunset JOB NO. 6148-5
 COLLAR ELEV. _____ INSPECTOR Nielson

GEOLOGIC NOTES	
Depth	Classification and Physical Character
65.0 - 66.0	WC-112-12 Dark gray, damp, slightly crumbly, compact, fine, sandy in zones, silt; low plasticity (ML) III NF II OK I OK
66.0 - 70.0	Dark gray, damp to wet, sandy silt, low - no plasticity (ML); easier drilling
70.0 - 71.0	WC-112-13 Dark gray to light gray, damp to nearly dry, slightly sandy to very sandy, compact silt; low plasticity (ML), no bedding III OK II OK I OK
71.0 - 75.0	Dark gray, damp, sandy silt; (ML) no longer easier drilling
75.0 - 75.8	WC-112-14 Dark gray, some medium gray, damp to nearly dry, some compact crumbly silt, some zones very sandy, low plasticity (ML), no dip III NF II OK I OK

BORING NOTES					
Drilling Method _____					
Hole Size _____					
Angle _____ Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER _____								
SIZE _____ WT. OF HAMMER _____ DROP _____								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
12	65.0	66.0	1.0		28	100		
13	70.0	71.0	1.0		28	83		
14	75.0	75.8	0.8		32	100	9	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-113 DATE March 2, 3, 1962 PAGE NO. 1 OF 5 PAGES
 LOCATION Spring and Macy JOB NO. 6148-5
 COLLAR ELEV. 296.36 INSPECTOR Nielson

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	0.0 - 0.5 Asphalt
	0.5 - 0.8 Red Brick
	0.8 - 1.5 Concrete (Kalph)
	1.5 - 1.8 Gravel subgrade
	1.8 - 5.0 Brown, damp to wet, slightly fine sandy silt, low - medium plasticity (ML)
	5.0 - 6.5 (SM) WC-113-1 Brown, damp to moist, silty, fine - medium sand, medium plasticity, some pebbles; - one 2" rounded III NF II OK I OK
	6.5 - 9.0 (SM) Same as above
	9.0 - 10.0 Brown (muddy), damp, silty, gravelly sand, fine - coarse sand, medium - coarse gravel (GM) - (SM)
	10.0 - 11.0 (GM-SM) WC-113-2 Brown, damp to moist, silty to gravelly, medium coarse sand; no plasticity, granular pebbles, 40%, rounded 1" III NF II OK I OK

BORING NOTES					
Drilling Method <u>Rotary</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing <u> </u>					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
0.0	15.0				Fish tail
15.0	26.0				Tricone
26.0	65.0				Fish tail

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER _____								
SIZE _____ WT. OF HAMMER _____ DROP _____								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
1	5.0	6.5	1.5		6	13	21	
2	10.0	11.1	1.1		6	52	90 13	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-113 DATE March 2, 3, 1962 PAGE NO. 3 OF 5 PAGES
 LOCATION Spring and Macy JOB NO. 6148-5
 COLLAR ELEV. _____ INSPECTOR Nielson

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	30.0 - 31.0 (ML) WC-113-5 Thin laminated, various dark-light grays, damp to nearly dry, slight to very sandy (fine) silt: Compact, dip approximately 45.0° III OK II OK I OK
	31.0 - 35.0 (ML) Same as above
	35.0 - 36.0 (ML) WC-113-6 Same as above, slightly less sandy, low plasticity, crumbly III OK II OK I OK
	36.0 - 40.0 (ML) Same as above
	40.0 - 41.0 (ML) WC-113-7 Dark gray, damp, to nearly dry, compact silt, low plasticity - crumbly Not much dip - homogenous III OK II OK I OK
	41.0 - 45.0 (ML) Same as above One thin siltstone bed at 43.0' (Driller)

BORING NOTES					
Drilling Method _____					
Hole Size _____					
Angle _____ Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER _____								
SIZE _____ WT. OF HAMMER _____ DROP _____								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
5	30.0	31.0	1.0		18	60		
6	35.0	36.0	1.0		16	63		
7	40.0	41.0	1.0		28	92		

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	_____
DEPTH OF WATER	_____
TIME OF OBSERV.	_____

LOG OF DRILLHOLE

HOLE NO. WC-113

DATE March 2, 3, 1963 PAGE NO. 4 OF 5 PAGES

LOCATION Spring and Macy

JOB NO. 6148-5

COLLAR ELEV. _____

INSPECTOR Nielson

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	45.0 - 45.8 (SP) WC-113-8 Dark gray, damp, to moist, silty, fine - medium sand; no plasticity III NF II NF I OK
	45.8 - 50.0 (SP) Same as above (some ML)
	50.0 - 51.0 (ML) WC-113-9 Dark brownish - gray, slightly very fine sandy, damp to dry, compact silt; low plasticity, no dip - homogenous III OK II OK I OK
	51.0 - 55.0 (ML) Same as above, more compact - hard drilling
	55.0 - 55.8 (ML) WC-113-10 Laminated dark gray-light gray, slight to very sandy (fine), damp to dry silt; low plasticity dip approximately 50% III NF II OK I OK
	55.8 - 60.0 (ML) Same as above

BORING NOTES						
Drilling Method _____						
Hole Size _____						
Angle _____ Bearing _____						
FROM	TO	INTERV	RECOV.	% RECOV.	REMARKS	

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER _____								
SIZE _____ WT. OF HAMMER _____ DROP _____								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
8	45.0	45.8	0.8		35	75		
9	50.0	51.0	1.0		20	69		
10	55.0	55.8	0.8		42	100		

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-114

DATE 3-5-62

PAGE NO. 1 OF 3 PAGES

LOCATION Macy & Alameda Sts.

JOB NO. 6148-5

COLLAR ELEV. 278.4

INSPECTOR R. Singh

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	0 - 0.4 Asphalt - Concrete
	0.4 - 2.5 (GW) Gravel-sand mixture
	2.5 - 5.0 (GW) Gravel-sand mixture, well graded, about 50% gravel, subangular, about 15% coarse sand, damp, light brown, inorganic.
	5.0 - 6.5 (GW) WC-114-1 III Empty II Empty I Disturbed
	6.5 - 10.0 (GW) Gravel with little sand mixture, mostly cobbles and boulders, no fines.
	10.0 - 10.0 WC-114-2 No penetration III No sample II No sample I No sample
	10.0 - 14.0 (GW) Gravel as above with no change.
	14.0 - 16.0 (GW-SM) Gravel-sand mixture becoming silty sand with very little clay at about 15.0'
	16.0 - 17.5 WC-114-3, No sample III No sample II No sample I No sample

BORING NOTES					
Drilling Method <u>Rotary</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
0	5.0	5.0			Tri-cone
5.0	10.0	5.0			Fish-tail
10.0	53.0	43.0			Tri-cone

CASING NOTES			
FROM	TO	SIZE	REMARKS
0	2.5	5"	Surface Collar

SAMPLING NOTES								
TYPE SAMPLER <u>Split-Tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lbs</u> DROP <u>30"</u>								
SAMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
1	5.0	6.5	1.5		4	15	28	
2	5.0	10.0	0		0	refusal		
3	16.0	17.0	1.5		6	15	26	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-114

DATE 3-5-62

PAGE NO. 2 OF 3 PAGES

LOCATION Macy & Alameda St.

JOB NO. 6148-5

COLLAR ELEV. _____

INSPECTOR R. Singh

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	16.0 - 18.0 (SM) Silty fine sand, medium dense, inorganic, dark gray color.
	18.0 - 19.5 WC-114-3A No sample III - No sample II No sample I No sample
	18.0 - 20.0 (ML) Silty, fine sand, dark gray color, micaceous, damp, inorganic.
	20.0 - 21.5 (ML) WC-114-4 Silty fine sand III NF II NF I NF
	21.5 - 25.0 (ML) Silty, fine sand, gray color, medium dense, inorganic becoming coarse sand-silt mixture.
	25.0 - 26.5 (ML) WC-114-5 Same as above III Empty II Empty I Empty
	26.5 - 30.0 (GM) Gravel-sand-silt mixture, beds of gravel at 27.0' and 29.0' and coarse sand binder.

BORING NOTES					
Drilling Method _____					
Hole Size _____					
Angle _____ Bearing _____					
FROM	TO	INTERV.	REGOV.	% REGOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER _____								
SIZE _____ WT. OF HAMMER _____ DROP _____								
SMPL. NO.	FROM	TO	INTERV.	REGOV.	BLOWS			
					6"	12"	18"	24"
3A	18.0	19.5	1.5		3	9	17	
4	20.0	21.5	1.5		5	13	24	
5	25.0	26.5	1.5		10	25	38	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	_____
DEPTH OF WATER	_____
TIME OF OBSERV.	_____

LOG OF DRILLHOLE

HOLE NO. WC-116 DATE 3-7-62 PAGE NO. 2 OF 4 PAGES
 LOCATION Macy Street and Avila JOB NO. 6148-5
 COLLAR ELEV. _____ INSPECTOR R. Singh

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	20.0 - 21.5 (SW-SM) WC-116-4 Sand, coarse with vertical stratification of silty sand dark gray, inorganic, micaceous (?) III Disturbed II I
	21.5 - 25.0 (GW) Gravel with little sand mixture, becoming more sand, coarse, damp, gray color
	25.0 - 26.0 (SW) WC-116-5 Sand, coarse with gravel, rounded, mostly river type III Empty II Empty I Disturbed
	26.0 - 31.0 (GW) Gravel with cobbles and boulders
	31.0 - 32.0 (GW) WC-116-6 Same as above III No sample II No sample I No sample
3-8-62	-----
	32.0 - 35.0 (GW) Gravel with coarse sand mixture, gray sand, damp, inorganic, medium grained, no consistency
	35.0 - 36.0 (SW) WC-116-7. Sand, coarse, gray color, inorganic, damp, gravelly III Empty II I

BORING NOTES					
Drilling Method _____					
Hole Size _____					
Angle _____ Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER _____								
SIZE _____ WT. OF HAMMER _____ DROP _____								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
4	20.0	21.5	1.5		5	37	101	
5	25.0	26.0	1.0		15	46		
6	31.0	32.0	1.0		21	90		
7	35.0	36.0	1.0		20	86		

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-117 DATE 3-9-62 PAGE NO. 1 OF 4 PAGES
 LOCATION Macy & Vignes St. JOB NO. 6148-5
 COLLAR ELEV. 281.2 INSPECTOR R. Singh

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	0.0 - 0.4 Asphalt-concrete
	0.4 - 5.0 (GC) Gravel-sand-clay mixtures, brown clay with little silt, becoming more silty at 5.0', inorganic, damp
	5.0 - 6.5 (SM) WC-117-1 Silty sand, gray color, inorganic, damp III Empty II Discarded I
	6.5 - 10.0 (SM) Silty sand, fine, gray, low to no consistency, damp, inorganic
	10.0 - 11.5 (SM) WC-117-2 Silty sand as above III Empty II NF I
	11.5 - 15.0 (SM) Silty sand, gravelly, about 20% gravel, coarse grains are hard, inorganic
	15.0 - 16.5 (SM) WC-117-3 III Empty II Discarded I
	16.5 - 20.0 (SM-GM) Silty sand gray color becoming gravel-sand-silt mixtures at about 17.5', damp, no plasticity, inorganic

BORING NOTES					
Drilling Method <u>Rotary</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
0	1.0	1.0			Tri-cone
1.0	67.0	57.0			Fish-tail

CASING NOTES			
FROM	TO	SIZE	REMARKS
0	2.5	5"	Surface collar

SAMPLING NOTES								
TYPE SAMPLER <u>Split-tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SAMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
1	5.0	6.5	1.5		4	9	16	
2	10.0	11.5	1.5		4	8	12	
3	15.0	16.5	1.5		4	9	15	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-117

DATE 3-9-62

PAGE NO. 2 OF 4 PAGES

LOCATION Macy & Vignes St.

JOB NO. 6148-5

COLLAR ELEV. _____

INSPECTOR R. Singh

GEOLOGIC NOTES	
Depth	Classification and Physical Character
20.0 - 21.0	(GM) WC-117-4 Gravel-sand-silt mixtures III Empty II Empty I
21.0 - 25.0	(SW) Sand with gravel mixture becoming more gravelly at 22.0'; sand is coarse, damp with very little fines, gray
25.0 - 26.1	(SW) WC-117-5 Sand, coarse, damp with little fines, gravelly III Empty II Disturbed I
26.1 - 30.0	(GW) Gravel with thin sand binders, coarse sand, damp, gray color with some rounded to subrounded pebbles, 1-2 inches in size
30.0 - 31.5	(SW) WC-117-6 Sand, coarse grained, damp with pebbles III Empty II I
31.5 - 35.0	(SW) Sand, gravelly, medium grained sand with little amount of fines (20-15%), damp, inorganic

BORING NOTES					
Drilling Method _____					
Hole Size _____					
Angle _____ Bearing _____					
FROM	TO	INTERV.	REGOV.	% REGOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER _____								
SIZE _____ WT. OF HAMMER _____ DROP _____								
SMPL. NO.	FROM	TO	INTERV.	REGOV.	BLOWS			
					6"	12"	18"	24"
4	20.0	21.0	1.0		15	44		
5	25.0	26.1	1.1		6	30	41	13
6	30.0	31.5	1.5		19	55	103	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	_____
DEPTH OF WATER	_____
TIME OF OBSERV.	_____

LOG OF DRILLHOLE

HOLE NO. WC-118

DATE 3-12-62

PAGE NO. 1 OF 4 PAGES

LOCATION Macy & Lyon St.

JOB NO. 6148-5

COLLAR ELEV. 281.9

INSPECTOR R. Singh

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	0.0 - 0.4 Asphalt - concrete
	0.4 - 5.0 (GC) Gravel-sand-clay mixtures, brown clay with little silt, damp, becoming more silty at 5.0'
	5.0 - 6.5 (SM) WC-118-1 Silty sand, grayish-light brown, medium grained III Empty II Disturbed I
	6.5 - 10.0 (SM) Silty sand, medium grained, light brown to grayish, damp, inorganic, low consistency becoming coarse gravelly sand (SW) at 10.0'
	10.0 - 11.5 (SW) WC-118-2 Sand, coarse, gravelly very damp, inorganic III Empty II Disturbed I Disturbed
	11.5 - 15.0 (SW) Sand, coarse grained with gravel mixture, very damp
	15.0 - 16.5 (SW) WC-118-3 Sand as above becoming more gravelly at 16.5' III Empty II Disturbed I

BORING NOTES					
Drilling Method <u>Rotary</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
0	15.0	15.0			Fish-tail
15.0	50.0	35.0			Tri-cone
50.0	67.0	17.0			Fish-tail

CASING NOTES			
FROM	TO	SIZE	REMARKS
0	2.5	5"	Surface collar

SAMPLING NOTES								
TYPE SAMPLER <u>Split-tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
1	5.0	6.5	1.5		1	3	6	
2	10.0	11.5	1.5		7	17	29	
3	15.0	16.5	1.5		17	35	54	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-118

DATE 3-12-62

PAGE NO. 2 OF 4 PAGES

LOCATION Macy & Lyon St.

JOB NO. 6118-5

COLLAR ELEV. _____

INSPECTOR R. Singh

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	16.5 - 20.0 (SW-GW) Sand, coarse grained with gravel, about 50%, 1-inch size gravel, rounded & subrounded, very strong pungent odor
	20.0 - 20.6 (SW) WC-117-4 Sand, coarse grained, light brown color, some organic(?) material, pungent odor III Empty II Empty I Disturbed
	20.6 - 25.0 (GW) Gravel-sand binders, coarse sand; grayish, some organic material (?), very strong pungent odor, damp
	25.0 - 26.0 (GW) WC-118-5 Same as above III Empty II Disturbed I Disturbed
	26.0 - 30.0 (SW) Sand, coarse grained, very damp, strong pungent odor, gray with small amount of silt
	30.0 - 31.5 (SW) WC-118-6 Sand, coarse grained, damp, gray color III Empty II I

BORING NOTES					
Drilling Method _____					
Hole Size _____					
Angle _____ Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER _____								
SIZE _____ WT. OF HAMMER _____ DROP _____								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
4	20.0	20.6	0.5		50			
5	25.0	26.0	1.0		17	57		
6	30.0	31.5	1.5		10	25	46	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-118

DATE 3-12-62

PAGE NO. 3 OF 4 PAGES

LOCATION Macy & Lyon St.

JOB NO. 6148-5

COLLAR ELEV. _____

INSPECTOR R. Singh

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	31.5 - 35.0 (GW-SW) Gravel, coarse with sand, very damp, sand is medium grained, grayish color
	35.0 - 36.4 (SW) WC-118-7 Sand as above III Empty II Disturbed I
	36.4 - 40.0 (SW) Sand-gravel mixture, wet, pungent odor, grayish color
	40.0 - 41.5 (SW) WC-118-8 Sand-gravel mixture III Empty II Disturbed I Disturbed
	41.5 - 45.0 (GW) Gravel with thin sand binders, some cobbles and boulders
	45.0 - 45.0 WC-118-9 No sample
	45.0 - 50.0 (GW-SW-ML) Gravel with sand mixture, coarse grained, becoming clayey silt (ML?), dark gray, micaceous at 50.0', inorganic, stiff, low consistency, damp
	50.0 - 51.5 (ML) WC-118-10 Clayey silt, stiff, damp III II I

BORING NOTES					
Drilling Method _____					
Hole Size _____					
Angle _____ Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER _____								
SIZE _____ WT. OF HAMMER _____ DROP _____								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
7	35.5	36.4	1.4		28	67	89	113"
8	40.0	41.5	1.5		17	36	57	
9	45.0	45.0	0		25	Refusal		
10	50.0	51.5	1.5		7	17	29	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-119

DATE 3-15-62

PAGE NO. 1 OF 5 PAGES

LOCATION 719 Macy Street

JOB NO. 6148-5

~~COLUMBIAN~~ GL ELEV 280.00'

INSPECTOR R. Scott

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	0.0 - 1.0 Pavement
	1.0 - 5.0 (SM) Sand-silt mixture, brown color, damp
	5.0 - 6.5 (SM) WC-119-1 Sand-silt mixture, dark brown color, pyritic, damp II ok I ok
	6.5 - 10.0 (SP) Fine clean sand with infrequent coarse sand, dark brown, clean, pyritic, loose
	10.0 - 11.5 (SM) WC-119-2 Sand-silt mixture with clayey streaks; 65% silt, brown to orange-brown color, damp III Empty II ok I ok
	11.5 - 12.0 (SM) Same as above
	12.0 - 15.0 (GP) Sand-gravel mixture; mostly sand; grading to fine clean sand, loose
	15.0 - 16.5 (SP) WC-119-3 Poorly graded, fine sand; clean, damp, micaceous, py- ritic, 10% coarse sand; angular to subangular, loose grains III ok II ok I ok

BORING NOTES					
Drilling Method <u>Rotary</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
0.0	51.5	51.5			Tri-cone
51.5	71.5	20.0			Fish-tail

CASING NOTES			
FROM	TO	SIZE	REMARKS
0		5"	Surface

SAMPLING NOTES								
TYPE SAMPLER <u>Split Tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SAMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
1	5.0	6.5	1.5	0.7	2	4	8	
2	10.0	11.5	1.5	0.7	3	6	9	
3	15.0	16.5	1.5	1.5	10	27	44	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-119

DATE 3-15-62

PAGE NO. 2 OF 5 PAGES

LOCATION 719 Macy Street

JOB NO. 6148-5

~~COLLAR ELEV.~~ GL ELEV 280.00'

INSPECTOR R. Scott

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	16.5 - 20.0 (SP) Same as above with one fine gravel stringer
	20.0 - 21.5 (SP) (SW) WC-119-4 Poorly-graded, clean sand; orange-brown color, grading to well-graded sand; damp, micaceous, loose; angular to subangular grains III ok II ok I ok
	21.5 - 23.0 (SW) Same as above
	23.0 - 25.0 (SW) Same as above with a 5" coarse gravel stringer; compacted-hard
	25.0 - 26.5 (GW) WC-119-5 Well graded sand and gravel; gray, damp, micaceous, compacted, ≈ 20% fine gravel III ok II ok I ok
	26.5 - 30.0 (GW) Same as above, well compacted
	30.0 - 30.8 (GW) WC-119-6 Well graded gravel-sand mixture, gray color, compacted, petroliferous odor, oil sand loose with oil between grains III Empty II Empty I ok

BORING NOTES					
Drilling Method <u>Rotary</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER <u>Split Tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>110 lb</u> DROP <u>30"</u>								
SAMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
4	20.0	21.5	1.5	1.5	13	34	61	
5	25.0	26.5	1.5	1.5	22	46	75	
6	30.0	30.8	0.8	0.3	39	61	9"	—

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-120

DATE 3-14-62

PAGE NO. 2 OF 5 PAGES

LOCATION West Side L. A. River JOB NO. 6148-5

COLLAR ELEV. _____ INSPECTOR R. Scott

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	17.5 - 20.0 (GW) Interbedded sand & gravel becoming more compacted with depth
	20.0 - 21.3 No recovery, driven to refusal, some gravel 2" diameter
	21.3 - 23.0 (GC) Gravel-sand-silt-clay mixture, very hard becoming medium to fine sand at 25'
	23.0 - 25.0 (GC) Clayey gravel, less dense than above
	25.0 - 26.5 (SM) WC-120-5 Fine sand-silt mixture, micaceous, damp, silt is gray color, 50% sand is orange-brown, 50% sand is pyritic
	26.5 - 30.0 (GP) Sand-gravel mixture, loose
	30.0 - 31.5 (GM) WC-120-6 Gravel-sand-silt mixture grading to gray sand-silt mixture, damp, pyritic III Empty II OK I OK
	31.5 - 35.0 (GM) Same as above but chiefly sand with some gravel

BORING NOTES					
Drilling Method <u>Rotary</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
					Tri-cone

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER <u>Split-tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SAMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
4	20.0	21.3	1.3	0.0	12	33	61	15"
5	25.0	26.5	1.5	1.5	8	18	30	
6	30.0	31.5	1.5	0.2	5	9	15	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-120

DATE 3-14-62

PAGE NO. 4 OF 5 PAGES

LOCATION West Side L.A. River

JOB NO. 6148-5

COLLAR ELEV. _____

INSPECTOR R. Scott

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	50.0 - 51.5 (ML) WC-120-10 Intermixed, inorganic sandy silt; brown and green with black-brown, more sandy micaceous silt layers with an apparent dip of 25°
	51.5 - 55.0 (ML) Same as above
	55.0 - 55.5 (SM & ML) WC-120-11 Thin interbedded green, sandy silt & fine brown sand; damp, with slight dip III Empty II Disturbed I OK
	55.5 - 60.0 (ML & SP) Dark brown to greenish-brown, sandy silt; micaceous, with occasional fine gray sand stringers, damp, no consistency
	60.0 - 61.0 (ML & SP) Same as above III OK II OK I OK
	61.0 - 63.0 Same as above
	63.0 - 65.0 (ML) Dark brownish-green silt, little clayey, micaceous, dense, earthy odor
	65.0 - 66.0 (ML) WC-120-13 Same as above III Disturbed II OK I OK

BORING NOTES					
Drilling Method <u>Rotary</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
0.0	50.0	50.0			Tri-cone
50.0	71.0	21.0			Fish-tail

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES							
TYPE SAMPLER <u>Split-tube</u>							
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>							
SAMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS		
					6"	12"	18"
10	50.0	51.2	1.2	1.0	18	43	58
11	55.0	55.5	0.5	0.6	50		
12	60.0	61.0	1.0	1.0	20	60	
13	65.0	66.0	1.0	1.0	15	58	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-121 DATE 3-16-62 PAGE NO. 1 OF 4 PAGES
 LOCATION East Side of L.A. River JOB NO. 6148-5
 COLLAR ELEV. 227.9 INSPECTOR R. Scott

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	0.0 - 5.0 (GM) Fine gravel-sand-silt mixture; brown color
	5.0 - 6.5 (SW) WC-121-1 Well graded, clean sand; tan color, few gravel grains III NR II NR I OK
	6.5 - 10.0 Cobbles-gravel-sand mixture, subangular grains, igneous origin - slow drilling
	10.0 - 11.5 (GW) WC-121-2 Gravel-sand mixture; 1½" - 2½" coarse gravel with well graded sand III NR II NR I OK (Sand & Gravel)
	11.5 - 15.0 (GW) Sand-gravel mixture, light brown color; mostly fine sand
	15.0 - 16.5 (SP) WC-121-3 Poorly graded fine sand, with 15% coarse sand and gravel; loose, damp III NF II Disturbed I OK
	16.5 - 20.0 (SP) Same as above with thin gravel layers at 17' & 18.5'

BORING NOTES					
Drilling Method <u>Rotary</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing <u> </u>					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
0.0	45.0				Tri-cone
45.0	69.8				Fish-tail

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER <u>Split-tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
1	5.0	6.5	1.5	0.2	3	8	13	
2	10.0	11.5	1.5	0.2	9	16	21	
3	15.0	16.5	1.5	0.6	10	14	17	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-121 DATE 3-16-62 PAGE NO. 3 OF 4 PAGES
 LOCATION East Side of L.A. River JOB NO. 6148-5
 COLLAR ELEV. _____ INSPECTOR R. Scott

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	31.5 - 35.0 (GP) Same as above with some cobbles
	35.0 - 35.2 (GP) WC-121-7 Same as above No recovery
	35.2 - 40.0 Cobbles-gravel-sand mixture; well compacted (hard drilling)
	40.0 - 41.5 (GM) WC-121-8 Gravel-sand-silt mixture; gray, damp; 50% coarse gravel, subangular; 30% sand, 15% dark gray silt; well compacted III NF II OK I OK
	41.5 - 45.0 (ML) Greenish-gray, inorganic silt, with $\frac{1}{2}$ " thick brown-gray, fine, micaceous sand stringers; dipping at 60°, damp, stiff consistency, stringers are 1" to 1 $\frac{1}{2}$ " apart
	45.0 - 46.5 (ML) WC-121-9 Same as above III NF II OK I OK
	46.5 - 50.0 (ML) Grayish-green silt with thin brown sandy silt stringers dipping at approximately 60°, damp, stiff consistency

BORING NOTES					
Drilling Method <u>Rotary</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER <u>Split-tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
7	35.0	35.2	0.2	0	22 3"			
8	40.0	41.0	1.0	0.8	41	80		
9	45.0	46.1	1.1	0.8	13	55	65 13"	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-123

DATE 3-21-62

PAGE NO. 1 OF 4 PAGES

LOCATION 616 Mission Rd.

JOB NO. 6148-5

COLLAR ELEV. 319.4

INSPECTOR R. Scott

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	0.0 - 3.0 (GM) Gravel, sand-silt mixture; mostly sand and silt, brown color
	3.0 - 5.0 (ML) Sandy silt, brown, damp
	5.0 - 6.5 (ML) WC-123-1 Slightly sandy silt, brown color, damp and fairly dense III Disturbed II Disturbed I Disturbed
	6.5 - 8.0 (ML) Same as above
	8.0 - 10.0 (SW) Well graded sand, fine grain, tan color
	10.0 - 11.5 (SW) WC-123-2 Well graded sand; tan to greenish-tan color, well compacted with 15% silt changing to medium and fine sand, well compacted, changing to greenish-brown color at 11 feet
	11.5 - 13.0 (GP) Gravel-sand mixture; hard, subangular rock particles
	15.0 - 16.5 (GP) WC-123-3 Gravel, coarse and fine gravel subangular rock particles; sand is 60-70% fine gravel (no recovery)

BORING NOTES					
Drilling Method <u>Rotary</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS
0.0	10.0	10.0			Fish-tail
10.0	26.0	16.0			Tri-cone
26.0	59.0	33.0			Fish-tail

CASING NOTES			
FROM	TO	SIZE	REMARKS
0.0	3.0	5"	Surface

SAMPLING NOTES								
TYPE SAMPLER <u>Split-tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
1	5.0	6.5	1.5	1.0	7	19	38	
2	10.0	11.5	1.5	1.0	10	25	42	
3	15.0	15.3	0.5	0	12	-	-	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-123

DATE 3-21-62

PAGE NO. 2 OF 4 PAGES

LOCATION 616 Mission Rd.

JOB NO. 6148-5

COLLAR ELEV. _____

INSPECTOR R. Scott

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	16.5 - 20.0 (GW) Gravel-sand mixture; well graded sand with fine and coarse gravel, tan color clean, subangular grains
	20.0 - 20.1 (GW) WC-123-4 Same as above No recovery; just tip
	20.1 - 22.5 (GW) Same as above
	22.5 - 24.0 (GM) Gravel-sand-silt mixture; brown color
	24.0 - 25.0 (SM) Sand-silt mixture; coarse to fine sand and gray and green colored silt, damp
	25.0 - 26.0 (ML) WC-123-5 Grayish-green silt; micaceous, with thin (1/4") fine sand stringers with asphaltic base oil, slightly petroliferous odor, dense, damp, dipping at 60° III NF II OK I OK
	26.0 - 30.0 (ML) Same as above
	30.0 - 31.3 (ML) WC-123-6 Same as above
	31.3 - 35.0 (ML) Same as above

BORING NOTES					
Drilling Method <u>Rotary</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES								
TYPE SAMPLER <u>Split-tube</u>								
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>								
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS			
					6"	12"	18"	24"
4	20.0	20.1	0.1	0	21	2"		
5	25.0	26.0	1.0	0.8	18	60		
6	30.0	31.3	1.3	1.0	20	37	100	15 1/2"

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

HOLE NO. WC-124

DATE 3-20-62

PAGE NO. 1 OF 2 PAGES

LOCATION M.T.A. Yard

JOB NO. 6148-5

COLLAR ELEV. 290.2

INSPECTOR R. Scott

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	0.0 - 0.5 Pavement
	0.5 - 5.0 (GP) Fine, gravel-sand mixture, brown
	5.0 - 6.5 (ML) WC-124-1 Candy silt with small amount of fine gravel; light brown color; damp
	6.5 - 10.0 (SM) Sand-silt mixture, silt and coarse sand, light brown color, damp, loose
	10.0 - 11.5 (SM) WC-124-2 Same as above with angular to subangular grains III NF II OK I OK
	11.5 - 15.0 (SM) Same as above and changing to a fine sand at 14.0'
	15.0 - 16.5 (SP) WC-124-3 Poorly graded sand; fine grain, light brown color, wet with infrequent coarse sand and fine gravel particles III NF II OK I OK
	16.5 - 20.0 (SP) Same as above

BORING NOTES					
Drilling Method		Rotary			
Hole Size		5"			
Angle		Vertical		Bearing	
FROM	TO	INTERV.	REGOV.	% REGOV.	REMARKS
0.0	0.5	0.5			Tri-cone
0.5	31.0	30.5			Fish-tail

CASING NOTES			
FROM	TO	SIZE	REMARKS
0.0	1.5	5"	Surface

SAMPLING NOTES								
TYPE SAMPLER		Split-tube						
SIZE		2" WT. OF HAMMER 140 lb DROP 30"						
SMPL. NO.	FROM	TO	INTERV.	REGOV.	BLOWS			
					6"	12"	18"	24"
1	5.0	6.5	1.5	0.8	3	6	10	
2	10.0	11.5	1.5	0.8	1	3	6	
3	15.0	16.5	1.5	0.8	1	3	5	

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	
DEPTH OF WATER	
TIME OF OBSERV.	

LOG OF DRILLHOLE

 HOLE NO. WC-124

 DATE 3-20-62

 PAGE NO. 2 OF 2 PAGES

 LOCATION M.T.A. Yard

 JOB NO. 6148-5

COLLAR ELEV. _____

 INSPECTOR R. Scott

GEOLOGIC NOTES	
Depth	Classification and Physical Character
	20.0 - 21.5 (SP & ML) WC-124-4 Fill Material - fine, wet sand, brown to black, clayey silt with burrs, black, brown and orange weathered particles (Very soft formation)
	21.5 - 25.0 (SP & ML) Same as above, changing to greenish-gray silt
	25.0 - 26.5 (ML) WC-124-5 Light greenish-gray silt, damp, interbedded with brown to orange-brown, micaceous silt dipping at 35-40°; dense III Disturbed II OK I OK
	26.5 - 27.0 (ML) Same as above
	27.0 - 30.0 (ML) Grayish-green, micaceous silt with 1/2" dark green to black silt and 1/2" dark brown, micaceous, fine sand stringers dipping at 60°; dense to very dense
	30.0 - 31.0 (ML) WC-124-6 Same as above; very dense
	T.D. 31'

BORING NOTES					
Drilling Method <u>Rotary</u>					
Hole Size <u>5"</u>					
Angle <u>Vertical</u> Bearing _____					
FROM	TO	INTERV.	RECOV.	% RECOV.	REMARKS

CASING NOTES			
FROM	TO	SIZE	REMARKS

SAMPLING NOTES							
TYPE SAMPLER <u>Split-tube</u>							
SIZE <u>2"</u> WT. OF HAMMER <u>140 lb</u> DROP <u>30"</u>							
SMPL. NO.	FROM	TO	INTERV.	RECOV.	BLOWS		
					6"	12"	18"
4	20.0	21.5	1.5	0.8	*		2
5	25.0	26.5	1.5	1.0	1	3	8
6	30.0	31.0	1.0	0.8	19	93	
*weight of hammer caused sampler to sink 10"							

GROUND WATER OBSERVATIONS	
DEPTH OF HOLE	31'
DEPTH OF WATER	
TIME OF OBSERV.	