

Western Operations

1252 Quarry Lane
P.O. Box 9019
Pleasanton, CA 94566
(510) 426-2600
Fax (510) 426-0106

Telexed

957-1113

Clayton
ENVIRONMENTAL
CONSULTANTS

December 7, 1992

Clayton Project No. 45040.00

Ms. Juliet Shin
Hazardous Materials Specialist
ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY
80 Swan Way, Room 200
Oakland, California 94612

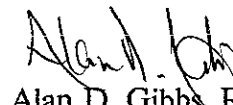
Dear Ms. Shin:

Clayton Environmental Consultants, Inc. is pleased to submit our drilling completion logs for monitoring wells MW-15 through MW-21.

These monitoring wells were installed on February 24 and 25, 1992, under permit number 92083 issued by the Alameda County Flood Control and Water Conservation District-Zone 7 (attached). We have also included a location sketch indicating each monitoring well location.

If you have any questions, please contact me at (510) 426-2676.

Sincerely,



Alan D. Gibbs, R.G.
Supervisor, Geology
Western Operations

ADG/rjs

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P.O. Box 9019
Pleasanton, CA 94566
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Clayton
ENVIRONMENTAL
CONSULTANTS

December 7, 1992

Clayton Project No. 45040.00

Mr. Lester Feldman
Environmental Specialist IV, Supervisor
REGIONAL WATER QUALITY CONTROL BOARD-S.F. BAY REGION
2101 Webster Street, Suite 500
Oakland, California 94612

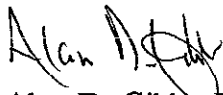
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ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94566 (415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT SOUTH SHORE SHOPPING CENTER
Park Street and Shore Line Drive
Alameda, California

PERMIT NUMBER 92083

LOCATION NUMBER

CLIENT

Name Harsch Investment Corporation
Address 235 MacArthur Blvd Phone
City Oakland Zip 94611

PERMIT CONDITIONS

Circled Permit Requirements Apply

APPLICANT

Name Alan Gibbs
Clayton Environmental Consultants
Address 1252 Quarry Lane Phone 510-426-2676
City Pleasanton Zip 94566

TYPE OF PROJECT

Well Construction Geotechnical Investigation
Cathodic Protection General
Water Supply Contamination
Monitoring Well Destruction

PROPOSED WATER SUPPLY WELL USE

Domestic Industrial Other
Municipal Irrigation

DRILLING METHOD:

Mud Rotary Air Rotary Auger X
Cable Other

DRILLER'S LICENSE NO. 519428

WELL PROJECTS

Drill Hole Diameter 8 in. Maximum
Casing Diameter 2 in. Depth 25 ft.
Surface Seal Depth 6 ft. Number 7

GEOTECHNICAL PROJECTS

Number of Borings Maximum
Hole Diameter in. Depth ft.

ESTIMATED STARTING DATE 2-24-92

ESTIMATED COMPLETION DATE 2-25-92

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE

[Signature] Date 2-19-92

Approved

[Signature] Wyman Hong

Date 20 Feb 92



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94566 (415) 484-2600

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Water Supply Contamination
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[Signature] Date 2-19-92

Approved

[Signature] Wyman Hong

Date 20 Feb 92

LOG OF EXPLORATORY BORING	Project No.: 39744.00 Client: Harsch Investment Corporation Location: Park & Shore Line Drive Logged By: D. Dastmalchi	Date: 2/24/92 Driller: B&F	BORING NO. MW-15 Sheet 1 of 2
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Field Location of Boring: Ground Elevation: _____ Datum: _____	Drilling Method: Hollow stem Hole Diameter: 8" Casing Installation Data: 2" casing, 15' of 0.01 Schedule 40 PVC screen, 5' of blank, 16' sand, 1' bentonite, 3' concrete
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Water Level	3.55'				
Time	0905				
Date	3/12/92				

Blow Count	PID --- OVA (ppm)	D E P T H	S A M P L E	Soil Group Symbol (uscs)	Litho- graphic Symbol	DESCRIPTION
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Blow Count	PID --- OVA (ppm)	D E P T H	S A M P L E	Soil Group Symbol (uscs)	Litho- graphic Symbol	DESCRIPTION
	0	1				Asphalt & packing material
		2				Reddish-yellow sand (5 YR 6/6), little to no silt, well rounded, poorly sorted, moist
		3				
		4				
	0	5			▽	
		6				Shell fragments, wet
		7				
		8		SP		
		9				Grayish sand (2.5 YR 5/0), wet
		10				
		11				
		12				
		13				
		14				
		15				
		16				
		17				
		18				

LOG OF EXPLORATORY BORING	Project No.: 39744.00 Client: Harsch Investment Corporation Location: Park & Shore Line Drive Logged By: D. Dastmalchi	Date: 2/24/92 Driller: B&F	BORING NO. MW-15 Sheet 2 of 2
--------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------	------------------------------------------------

Field Location of Boring: Ground Elevation: _____ Datum: _____	Drilling Method: Hollow stem Hole Diameter: 8" Casing Installation Data: 2" casing, 15' of 0.01 Schedule 40 PVC screen, 5' of blank, 16' sand, 1' bentonite, 3' cement
--------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Water Level	3.55'				
Time	0905				
Date	3/12/92				

Blow Count	PID OVA (ppm)	D E P T H	S A M P L E	Soil Group Symbol (uscs)	Litho- graphic Symbol	DESCRIPTION
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		19				
		20				Gray, clayey sand (2.5 YR 5/0), sulfur smell (bay mud)
		21		SC		
		22				TD = 21.5'
		23				
		24				
		25				
		26				
		27				
		28				
		29				
		30				
		31				
		32				
		33				
		34				
		35				
		36				

LOG OF EXPLORATORY BORING						Project No.: 39744.00 Date: 2/24/92		BORING NO. MW-16	
Field Location of Boring:						Drilling Method: Hollow stem			
						Hole Diameter: 8"			
Ground Elevation: Datum:						Casing Installation Data: 5' of 0.01 Schedule 40 PVC screen, 25' of blank, 6' sand, 1' bentonite, 23' concrete (2" casing)			
Blow Count	PID OVA (ppm)	D E P T H	S A M P L E	Soil Group Symbol (uscs)	Litho- graphic Symbol	DESCRIPTION			
						Water Level	6.30'		
						Time	1135		
						Date	3/12/92		
		1				Asphalt & packing			
						Reddish-yellow (5 YR 6/6), clayey sand			
		2							
						Reddish-yellow (5 YR 6/6) sand with little to no silt or clay			
		3				Sample refusal			
		4							
		5			▽				
		6							
		7							
		8		SP					
		9							
		10				Gray (2.5 YR 5/0) sand with shell fragments			
		11							
		12							
		13		SP					
		14							
		15							
		16							
		17							
		18							

LOG OF EXPLORATORY BORING	Project No.: 39744.00 Date: 2/25/92 Client: Harsch Investment Corporation Location: Park & Shore Line Drive Logged By: D. Dastmalchi Driller: B&F	BORING NO. MW-17 Sheet 1 of 2
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Field Location of Boring: Ground Elevation: Datum:	Drilling Method: Hollow stem Hole Diameter: 8" Casing Installation Data: 5' 0.01 Schedule 40 PVC screen, 20' blank, 6' sand, 1' bentonite, 18' grout (2" casing)
--------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Water Level	3.48'				
Time	0945				
Date	3/06/92				

Blow Count	PID OVA (ppm)	D F P T U	S A M P L E	Soil Group Symbol (uses)	Litho- graphic Symbol	DESCRIPTION		
		1		SP	▽	Reddish yellow (5 YR 6/6) sand, well rounded, poorly sorted, little to no silt, moist		
		2						
		3						
		4						
		5						
		6						Wet
		7						
		8						
		9						
		10						
		11						
		12						
		13						
		14						
		15				SM		Gray (2.5 YR 5/0) silty sand with little clay
		16						
		17						
		18						

LOG OF EXPLORATORY BORING	Project No.: 39744.00 Date: 2/25/92 Client: Harsch Investment Corporation Location: Park & Shore Line Drive Logged By: D. Dastmalchi Driller: B&F	BORING NO. MW-17 Sheet 2 of 2
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Field Location of Boring: Ground Elevation: Datum:	Drilling Method: Hollow stem Hole Diameter: 8" Casing Installation Data: 5' 0.01 Schedule 40 PVC screen, 20' blank, 6' sand, 1' bentonite, 18' grout (2" casing)
--------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Water Level	3.48'				
Time	0945				
Date	3/06/92				

Blow Count	PID OVA (ppm)	D E P T H	S A M P L E	Soil Group Symbol (uscs)	Litho- graphic Symbol	DESCRIPTION
		19				
		20				
		21				
		22		SM		
		23				
		24				
		25				
		26		CL		Gray (2.5 YR 5/0) silty clay with little sand
		27				TD = 26.5'
		28				
		29				
		30				
		31				
		32				
		33				
		34				
		35				
		36				

LOG OF EXPLORATORY BORING	Project No.: 39744.00 Client: Harsch Investment Corporation Location: Park & Shore Line Drive Logged By: D. Dastmalchi	Date: 2/25/92 Driller: B&F	BORING NO. MW-18 Sheet 1 of 2
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Field Location of Boring: Ground Elevation: _____ Datum: _____	Drilling Method: Hollow stem Hole Diameter: 8" Casing Installation Data: 5' screen, 20' blank, 6' sand, 1' bentonite, 18' grout (2" casing)
--------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Water Level	9.76'				
Time	1105				
Date	3/06/92				

Blow Count	FID OVA (ppm)	D F T H	S A M P L E	Soil Group Symbol (uscs)	Litho- graphic Symbol	DESCRIPTION
		1				Reddish-yellow (5 YR 6/6) sand, well rounded, poorly sorted, moist
		2				
		3				
		4				
		5				
		6			▽	
		7		SP		
		8				
		9				
		10				Grayish (2.5 YR 5/0) sand with some silt
		11				
		12				
		13				
		14		SP		
		15				Grayish (2.5 YR 5.0) sand with little silt
		16				
		17				
		18				

LOG OF EXPLORATORY BORING						Project No.: 39744.00	Date: 2/25/92	BORING NO. MW-18		
Field Location of Boring: Ground Elevation: _____ Datum: _____						Drilling Method: Hollow stem Hole Diameter: 8" Casing Installation Data: 5' screen, 20' blank, 6' sand, 1' bentonite, 18' grout				
						Water Level	9.76'			
Time						1105				
Date						3/06/92				
Blow Count	PID CVA (ppm)	D E P T H	S A M P L E	Soil Group Symbol (USCS)	Litho- graphic Symbol	DESCRIPTION				
		19		SP						
		20								
		21								
		22								
		23								
		24								
		25								
		26		CL		Olive gray (5 Y 5/2), silty clay with little sand				
		27				TD = 26.5'				
		28								
		29								
		30								
		31								
		32								
		33								
		34								
		35								
		36								

LOG OF EXPLORATORY BORING	Project No.: 39744.00 Date: 2/25/92 Client: Harsch Investment Corporation Location: Park & Shore Line Drive Logged By: D. Dastmalchi Driller: B&F	BORING NO. MW-19 Sheet 1 of 2
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Field Location of Boring: Ground Elevation: Datum:	Drilling Method: Hollow stem Hole Diameter: 8" Casing Installation Data: 5' 0.01 Schedule 40 PVC screen, 20' blank, 6' sand, 1' bentonite, 18' grout (2" casing)
--------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Water Level	4.86'				
Time	1230				
Date	3/06/92				

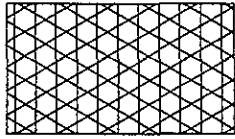
Blow Count	PID OVA (ppm)	D F T H	S A M P L E	Soil Group Symbol (uscs)	Litho-graphic Symbol	DESCRIPTION
		1		SP	▽	Reddish-yellow (5 YR 6/6) sand, well rounded, poorly sorted, moist
	0	2				
		3				
		4				
		5				
	0	6				
		7		SP		
		8				
		9				
		10				
		11				
		12				
		13				
		14				
		15				
		16				
		17				
		18				

LOG OF EXPLORATORY BORING						Project No.: 39744.00 Client: Harsch Investment Corporation Location: Park & Shore Line Drive Logged By: D. Dastmalchi		Date: 2/25/92 Driller: B&F		BORING NO. MW-19 Sheet 2 of 2	
Field Location of Boring:						Drilling Method: Hollow stem Hole Diameter: 8" Casing Installation Data: 5' 0.01 Schedule 40 PVC screen, 20' blank, 6' sand, 1' bentonite, 18' grout (2" casing)					
Ground Elevation:						Datum:					
Blow Count	PID OVA (ppm)	D E P T H	S A M P L E	Soil Group Symbol (USCS)	Litho- graphic Symbol	DESCRIPTION					
						Water Level	4.86'				
						Time	1230				
						Date	3/06/92				
		19		SP							
		20									
		21									
		22									
		23									
		24									
		25									
		26		CL		Gray (2.5 YR 5/0), silty clay with little to no sand					
		27				TD = 26.5'					
		28									
		29									
		30									
		31									
		32									
		33									
		34									
		35									
		36									

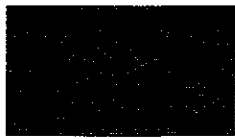
LOG OF EXPLORATORY BORING						Project No.: 39744.00		Date: 2/26/92		BORING NO. MW-20	
Field Location of Boring:						Drilling Method: Hollow stem					
						Hole Diameter: 8"					
Ground Elevation:						Datum:					
						Casing Installation Data: 2" casing, 5' screen (0.01 Schedule 40 PVC), 20' blank, 6' sand, 1' bentonite, 18' grout		Water Level		6.28'	
						Time		1330		Date	
Row Count	PID OVA (ppm)	D E P T H	S A M P L E	Soil Group Symbol (uscs)	Litho- graphic Symbol	DESCRIPTION					
		1		SP	▽	Reddish yellow (5 YR 6/6) sand					
		2									
		3				Asphalt and packing material					
		4				Light brown sand					
		5									
		6									
		7									
		8									
		9									
		10		SM	▽	Olive gray (5 Y 5/2), silty sand with shell fragments					
		11									
		12									
		13									
		14									
		15									
		16									
		17									
		18									

LOG OF EXPLORATORY BORING						Project No.: 39744.00 Client: Harsch Investment Corporation Location: Park & Shore Line Drive Logged By: D. Dastmalchi	Date: 2/26/92 Driller: B&F	BORING NO. MW-20 Sheet 2 of 2	
Field Location of Boring:						Drilling Method: Hollow stem			
Ground Elevation: _____ Datum: _____						Hole Diameter: 8" Casing Installation Data: 2" casing, 5' screen (0.01 Schedule 40 PVC), 20' blank, 6' sand, 1' bentonite, 18' grout			
Blow Count	FID OVA (ppm)	D E P T H	S A M P L E	Soil Group Symbol (uscs)	Litho- graphic Symbol	Water Level			
						6.28'			
						Time			
						Date			
						DESCRIPTION			
		19							
		20							
		21							
		22							
		23							
		24							
		25							
		26		CL		Grayish (2.5 YR 5/0), sandy clay to silty clay			
		27				TD = 26.5'			
		28							
		29							
		30							
		31							
		32							
		33							
		34							
		35							
		36							

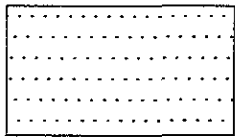
LOG OF EXPLORATORY BORING						Project No.: 39744.00 Date: 2/25/92		BORING NO. MW-21	
Field Location of Boring:						Client: Harsch Investment Corporation		Sheet 1 of 2	
Ground Elevation: Datum:						Location: Park & Shore Line Drive		Driller: B&F	
						Drilling Method: Hollow stem			
						Hole Diameter: 8"			
						Casing Installation Data: 5' screen (0.01 Schedule 40), 20' blank, 6' sand, 1' bentonite, 18' grout (2" casing)			
Blow Count	PID OVA (ppm)	D E P T H	S A M P L E	Soil Group Symbol (uses)	Litho- graphic Symbol	Water Level	6.26'		
						Time	1455		
						Date	3/06/92		
DESCRIPTION									
		1				Reddish-yellow (5 YR 6/6) sand, moist, well rounded, poorly sorted			
		2							
		3							
		4		SP					
		5							
		6			▽				
		7							
		8							
		9							
		10				Grayish (2.5 YR 5/0) sand with some silt			
		11							
		12							
		13							
		14		SP					
		15							
		16							
		17							
		18							



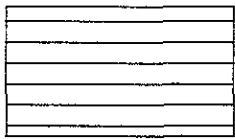
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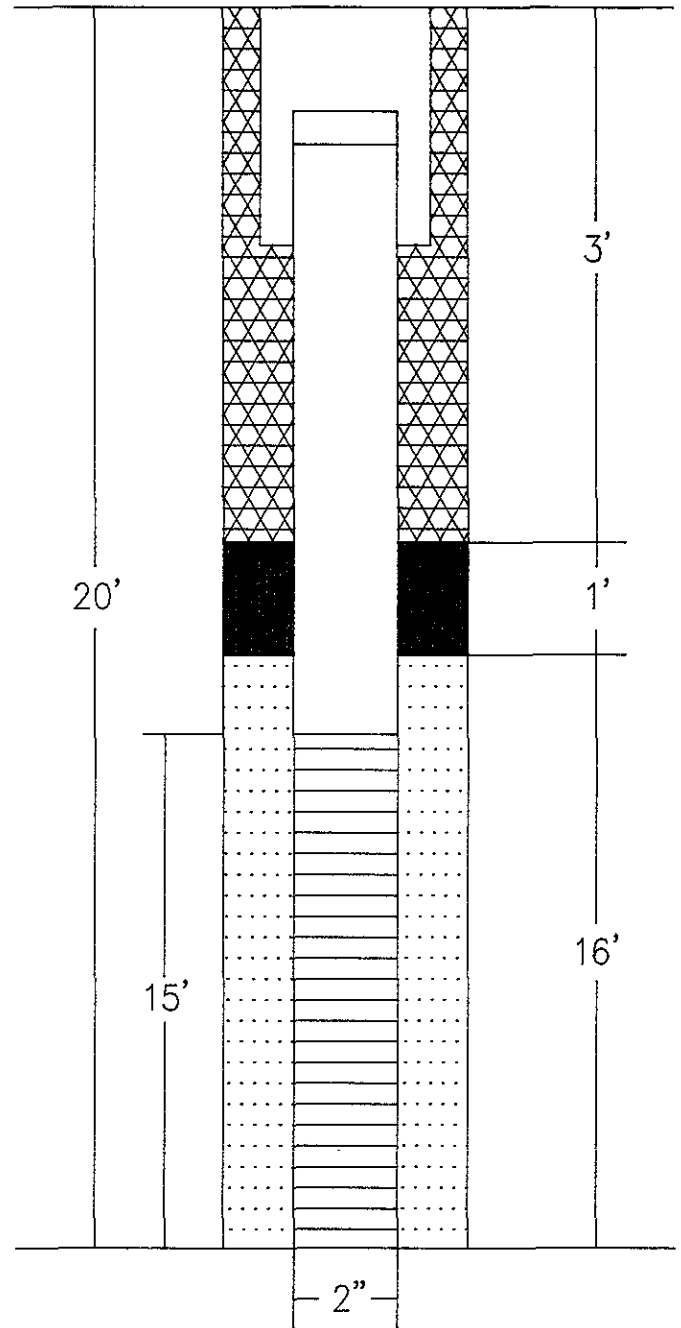
Bentonite



Sand #2/12



0.01" Slotted
Screen



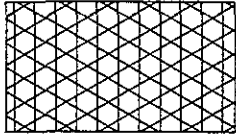
Monitoring Well Diagram (MW-15)
 PARSONS INVESTMENT CORPORATION
 Park Street and Shore Line Drive
 Alameda, California

Clayton
 ENVIRONMENTAL
 CONSULTANTS

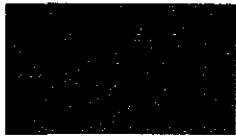
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Clayton Project No. 39 44 00

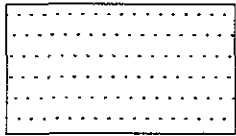
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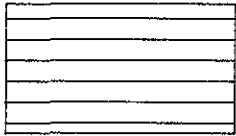
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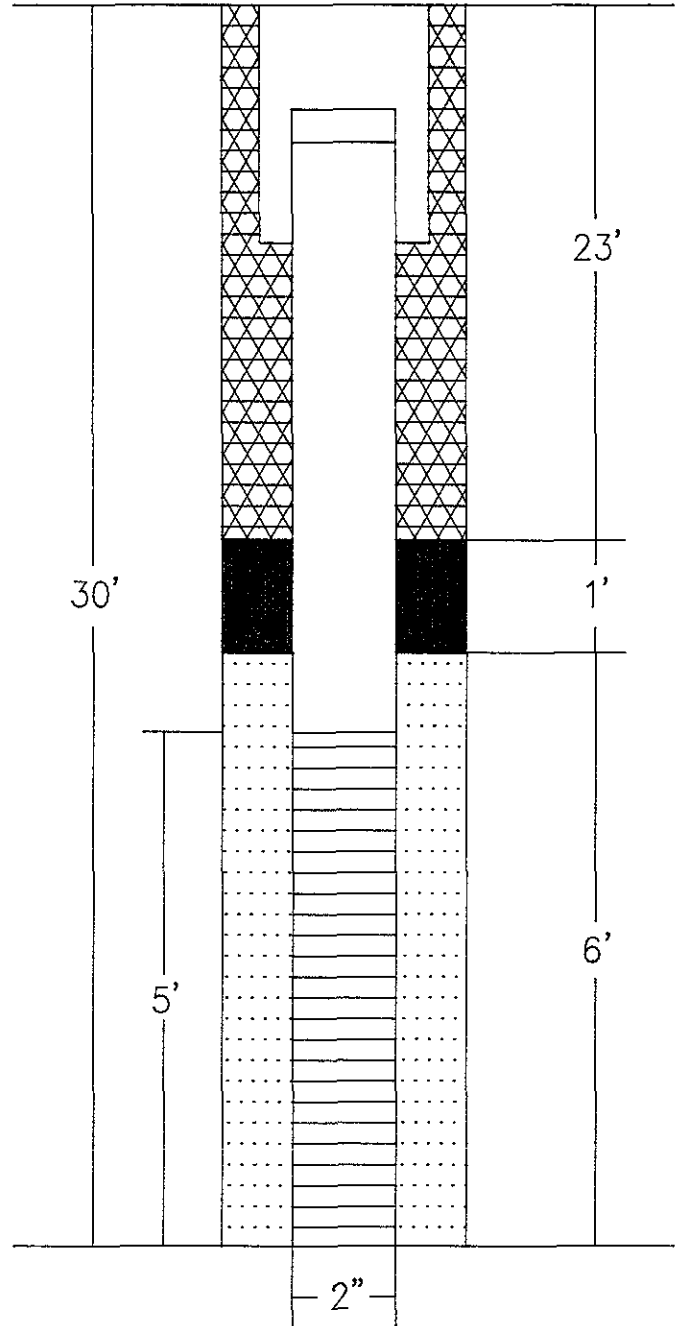
Bentonite



Sand #2/12



0.01" Slotted
Screen



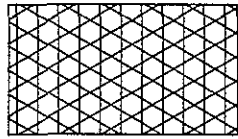
Monitoring Well Diagram (W-16)
 PARSONS WESTWENT CORPORATION
 Park Street and Shore Line Drive
 Alameda, California

Clayton
 ENVIRONMENTAL
 CONSULTANTS

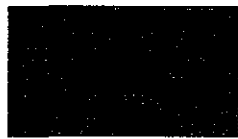
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Clayton Project No. 39744.00

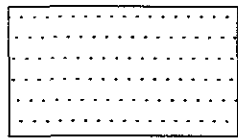
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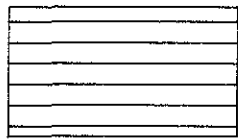
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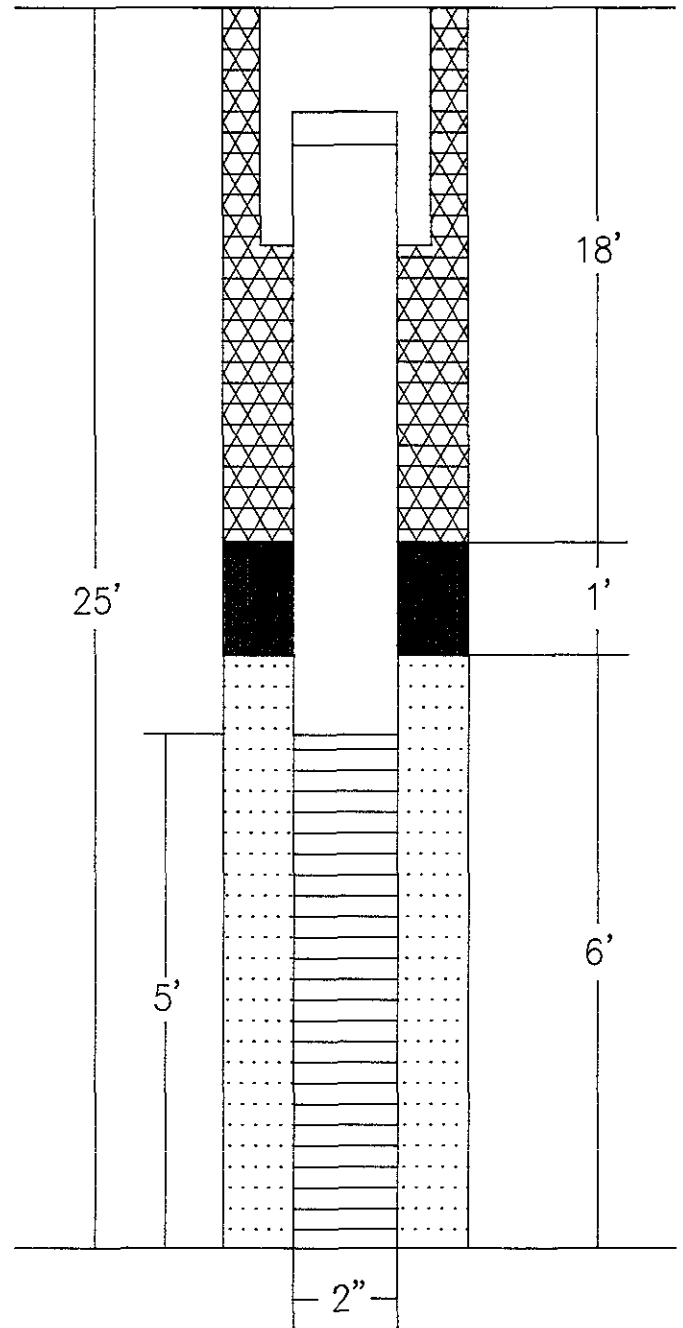
Bentonite



Sand #2/12



0.01" Slotted
Screen



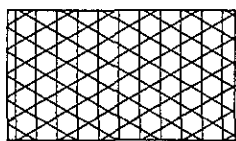
Monitoring Well Diagram (MW-17)
 HARSON INVESTMENT CORPORATION
 Park Street and Shore Line Drive
 Alameda, California

Clayton
 ENVIRONMENTAL
 CONSULTANTS

(not to scale)

Clayton Project No. 39744.00

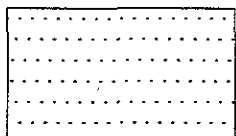
39744-03-18



Concrete



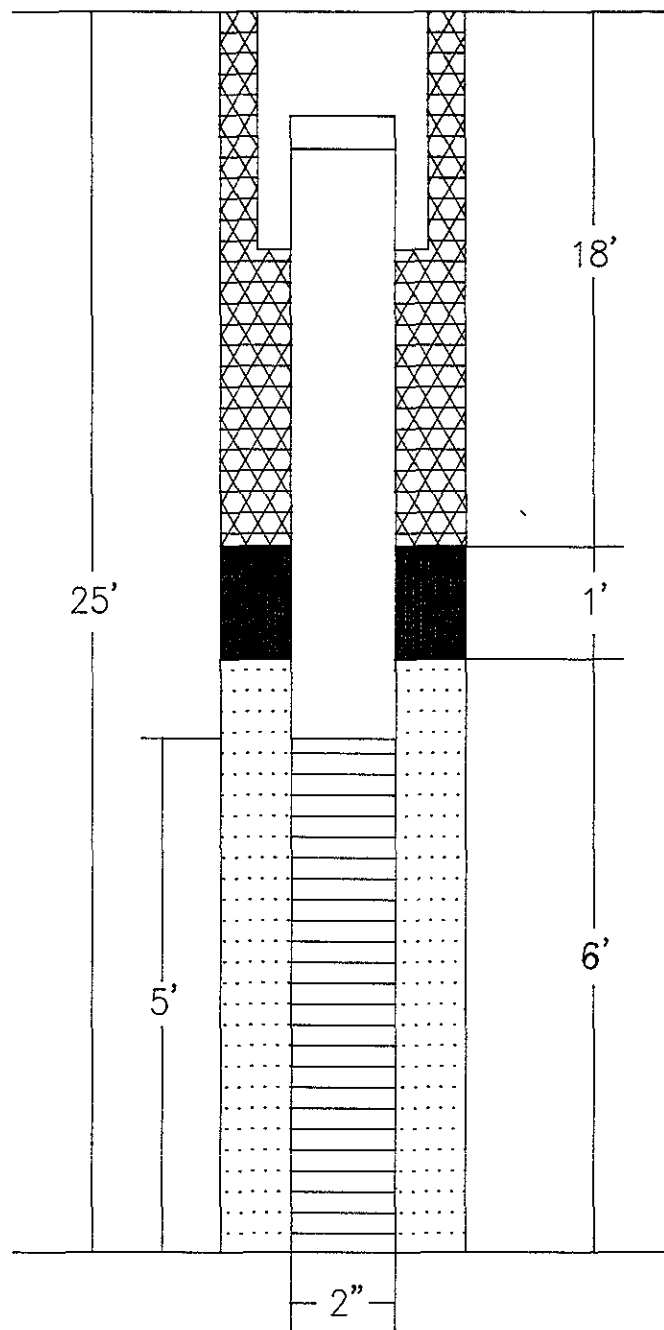
Bentonite



Sand #2/12



0.01" Slotted
Screen



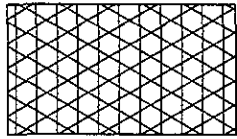
Monitoring Well Diagram MW-18
 HAPSO INVESTMENT CORPORATION
 Park Street and Shore Line Drive
 Alameda, California

Clayton
 ENVIRONMENTAL
 CONSULTANTS

(not to scale)

Clayton Project No. 59F44.00

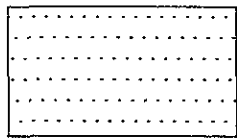
59F44-03-19



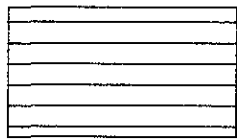
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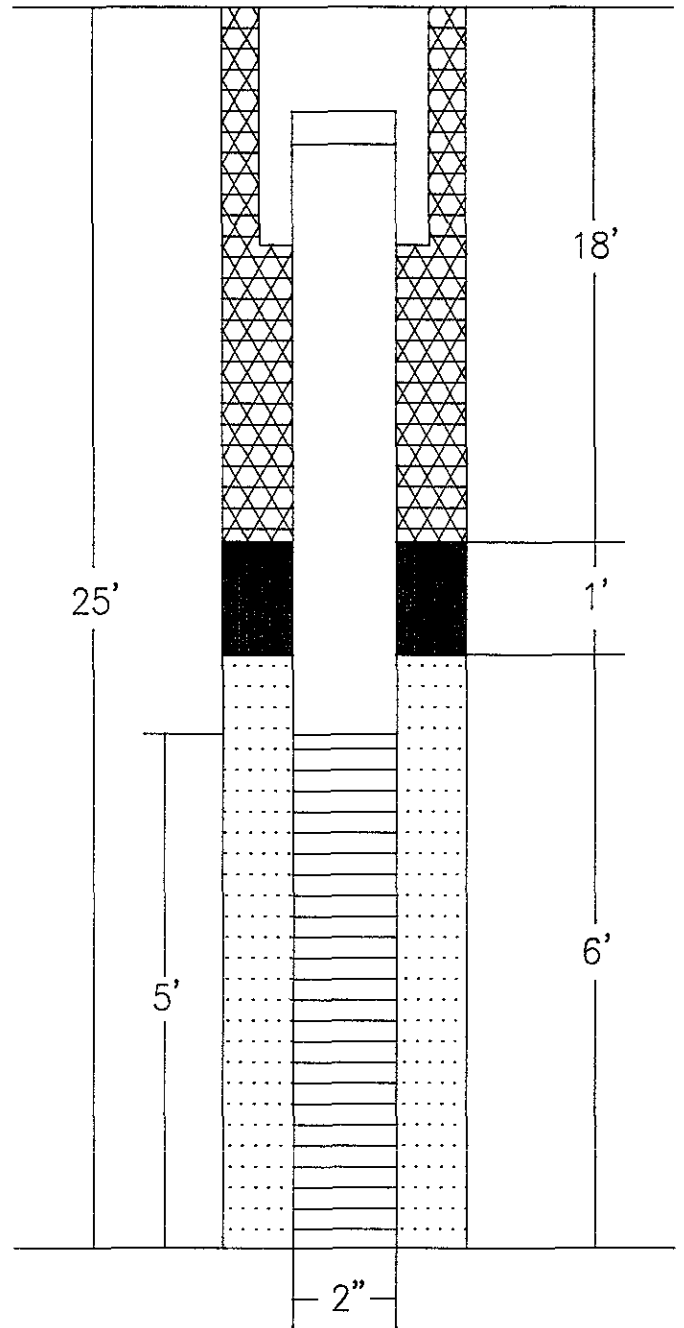
Bentonite



Sand #2/12



0.01" Slotted Screen



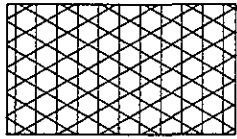
Monitoring Well Diagram (NW-19)
 LEPSON INVESTMENT CORPORATION
 Park Street and Shore Line Drive
 Alameda, California

Clayton
 ENVIRONMENTAL
 CONSULTANTS

(not to scale)

Clayton Project No. 39744.00

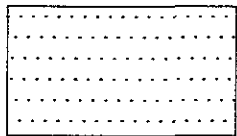
39744-03-20



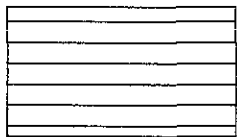
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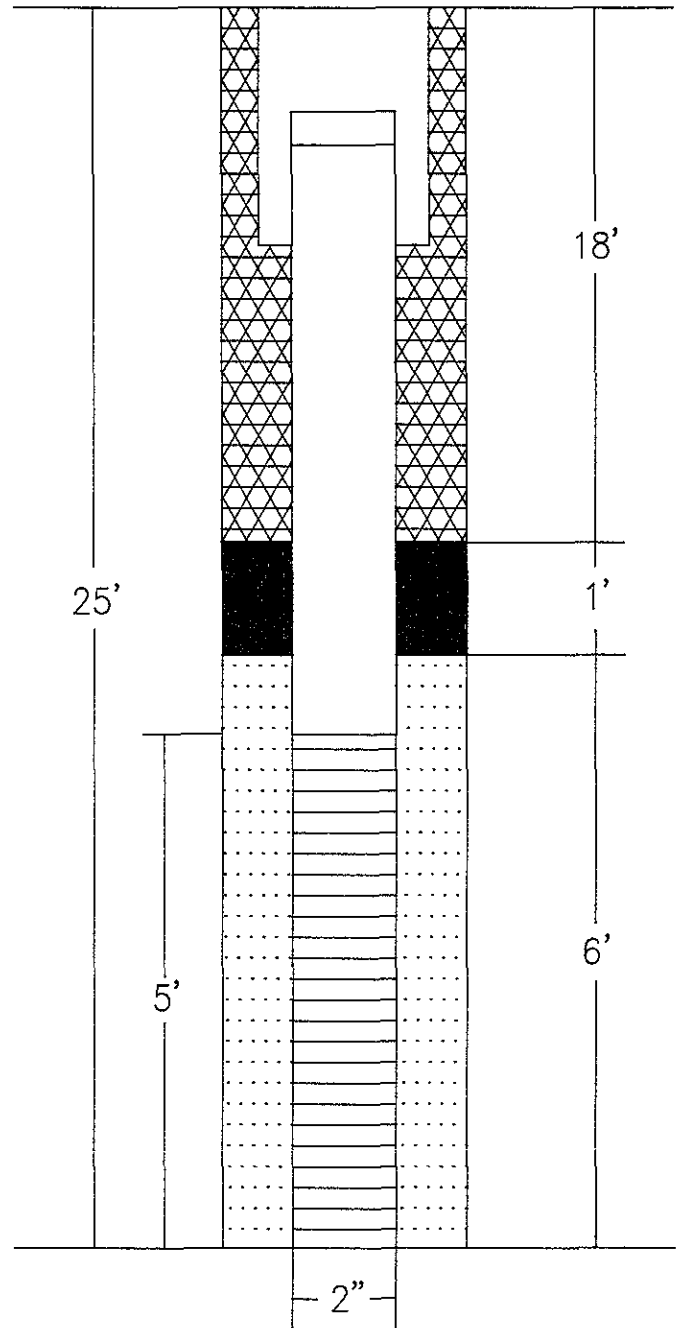
Bentonite



Sand #2/12



0.01" Slotted Screen



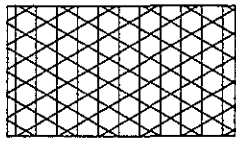
Monitoring Well Diagram (11/1/20)
 PERSONAL INVESTMENT CORPORATION
 Park Street and Shore Line Drive
 Alameda, California

Clayton
 ENVIRONMENTAL
 CONSULTANTS

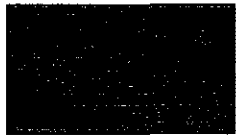
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Clayton Project No. 59-44.00

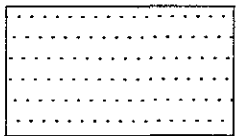
39744-03-21



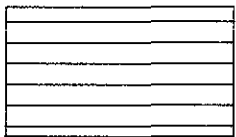
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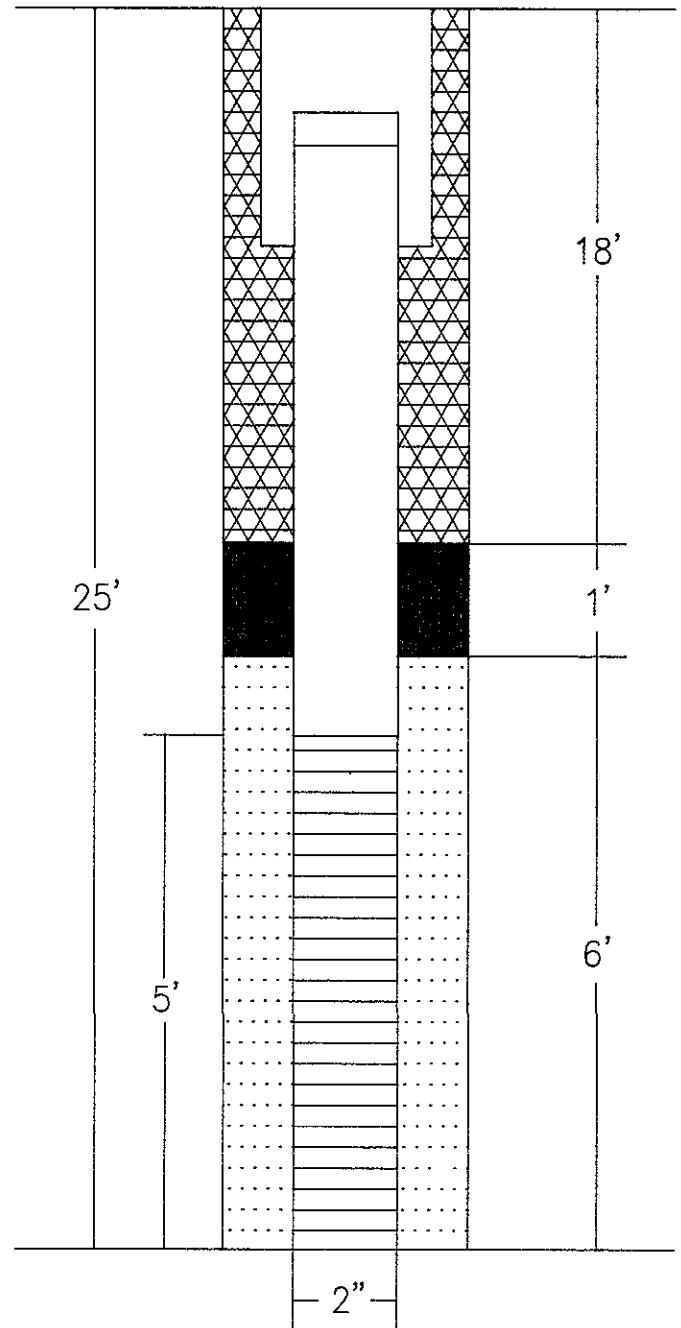
Bentonite



Sand #2/12



0.01" Slotted
Screen



Monitoring Well Diagram (MW-21)
 PARSONS INVESTMENT CORPORATION
 Park Street and Shore Line Drive
 Alameda, California

Clayton
 ENVIRONMENTAL
 CONSULTANTS

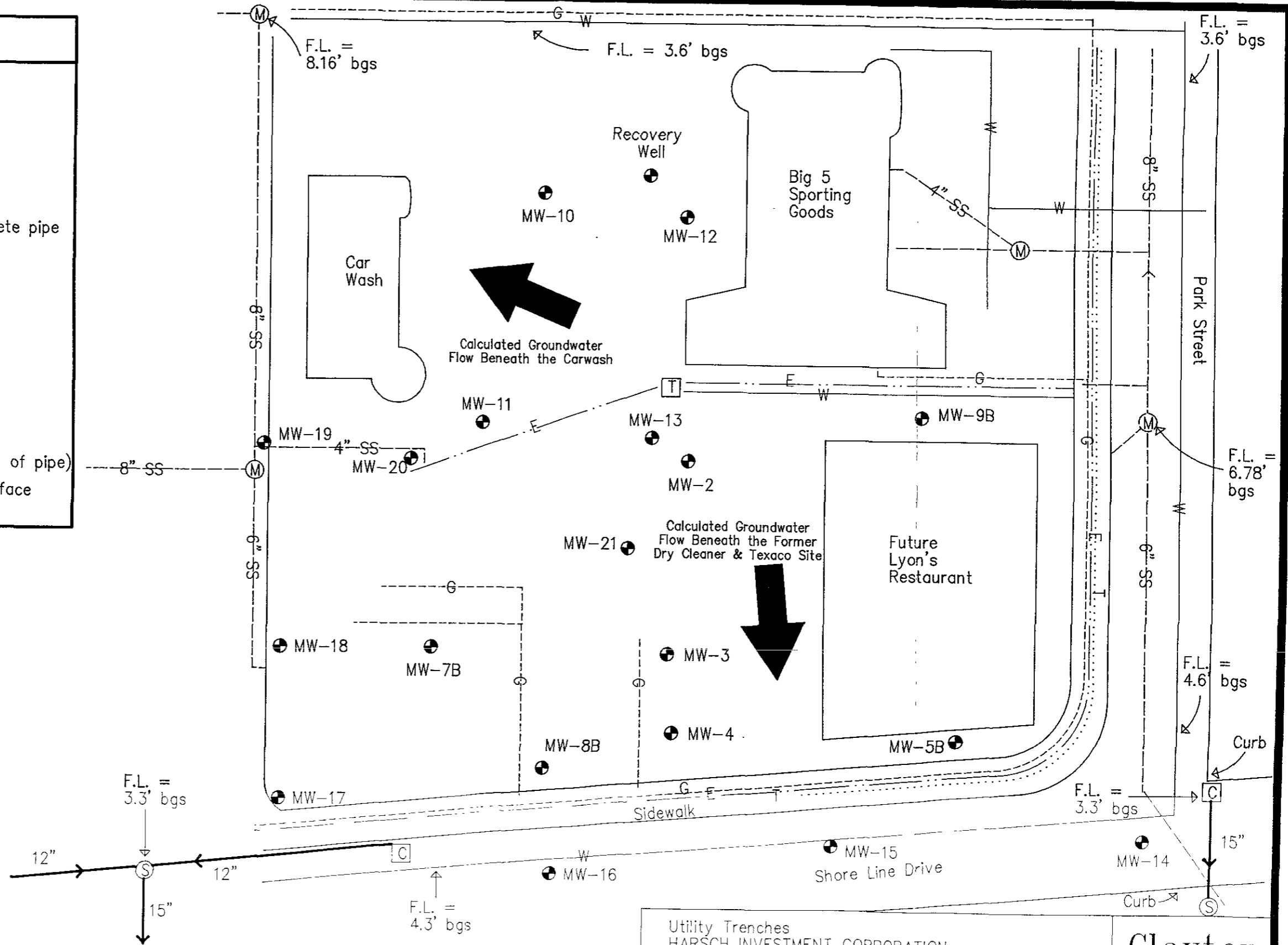
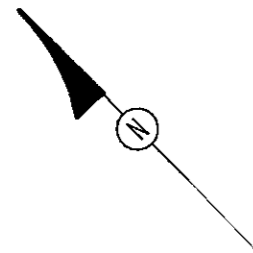
(not to scale)

Clayton Project No. 58744.00

39744-03-22

LEGEND

- G- - - Gas
- T- - - Telephone
- E- - - Electric
- W- - - Water
- Reinforced concrete pipe
- SS- - - Sanitary sewer
- [T] Transformer
- (M) Manhole
- (S) Storm drain
- [C] Catch basin
- ⊕ Monitoring well
- F.L. Flow line (bottom of pipe)
- bgs Below ground surface



Utility Trenches
 HARSCH INVESTMENT CORPORATION
 Shore Line Drive and Park Street
 Alameda, California

Clayton
 ENVIRONMENTAL
 CONSULTANTS

(not to scale)

Clayton Project No. 42864.02

42864-02-16