



BP OIL

LOP 3878

BP Oil Company
Environmental Resources Management
Building 13, Suite N
295 SW 41st Street
Renton, Washington 98055-4931
(206) 251-0667

November 22, 1994

Alameda County Health Care Services Agency
Attention Susan Hugo
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502-6577

RE: BP Site No. 11132
3201 35th Avenue
Oakland, CA

54 NOV 29 PM 2:39
11/22/94

Dear Ms. Hugo:

Following-up our meeting on November 16, 1994, I have enclosed copies of the boring logs for RW-1, and MW-1 through MW-7. It is noteworthy that the MW-2 boring log describes a "very faint "old" product odor" which would be consistent with the highly viscous, weathered product which we have been removing from the subsurface. These logs should complete your file.

I visited the site on Thursday, November 17, 1994, for the purpose of identifying tentative drilling locations, and other notable features. You should note that the single-family residences that front toward the site along 35th Avenue appeared to constructed with crawl spaces, suggesting that no basements are present in these structures. As we discussed, we will be submitting a workplan for a more thorough survey of the area, as well as the additional assessment that we discussed, sometime in January. I also noted that the residential block south of the site is quite long; and that the installation of a groundwater monitoring well south of this block may be downgradient of other potential hydrocarbon release sites (I believe that there is a "quick-mart" located to the southwest - closer to the BP site than the former Exxon site).

I suggest that you may want to visit this area to see how difficult it will be to drill an additional well south of the residential area - yet near enough to the site to yield meaningful assessment data. I will forward a map showing this area in the near future so that we can finalize drilling locations for the workplan.

Please give me a call if you would like to discuss this mater in further detail. I can be reached at (206) 251-0689.

Sincerely,



Scott T. Hooton
Environmental Resources Management

attachment

cc: site file



KAPREALIAN ENGINEERING, INC.

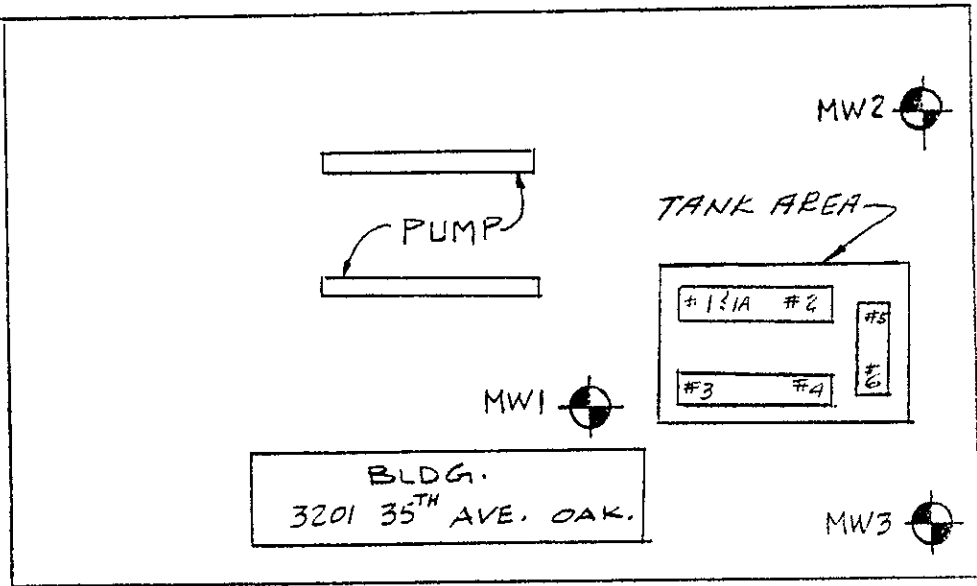
Consulting Engineers

535 Main Street


Martinez, Ca. 94553

(415) 372-5444

35TH AVE.



LOCATION PLAN
N.T.S.

 MW (MONITORING WELL)

DRILL RIG <u>Hollow Stem</u>		SURFACE ELEVATION <u>----</u>		LOGGED BY <u>JCW</u>					
DEPTH TO GROUNDWATER <u>As Noted</u>		BORING DIAMETER <u>8"</u>		DATE DRILLED <u>7/30/86</u>					
DESCRIPTION AND CLASSIFICATION				DEPTH (FEET)	SAMPLER	UNCONFINED COMPRESSIVE STRENGTH (KSF)	WATER CONTENT (%)	DRY DENSITY (PCF)	PENETRATION RESISTANCE (BLOWS/FT)
DESCRIPTION AND REMARKS	COLOR	CONSIST.	SOIL TYPE						
ASPHALT AND BASE ROCK									
SILTY CLAY (FILL)	dark brown	firm	CL						
SILTY SAND (old trench backfill)	gray to tan	loose	SM						
SILTY CLAY with rock fragments	tan to light brown	fine to stiff	CL	5					
Large angular cobbles									
SANDY CLAY, grading to clayey sand and gravel	tan to light brown	very stiff	CL- SC	10					
No product odor									
				15					
				20					
				EXPLORATORY BORING LOG					
				MOBIL OIL CORPORATION 35TH AVENUE, OAKLAND					
PROJECT NO.		DATE		BORING NO.					
H182-20		8/86		NO. MW-1					

DRILL RIG Hollow Stem			SURFACE ELEVATION ----			LOGGED BY JCW			
DEPTH TO GROUNDWATER As Noted			BORING DIAMETER 8"			DATE DRILLED 7/30/86			
DESCRIPTION AND CLASSIFICATION				DEPTH (FEET)	SAMPLER	UNCONFINED COMPRESSIVE STRENGTH (KSF)	WATER CONTENT (%)	DRY DENSITY (PCF)	PENETRATION RESISTANCE (BLOWS/FT.)
DESCRIPTION AND REMARKS	COLOR	CONSIST	SOIL TYPE						
SANDY CLAY, grading to clayey sand and gravel (contd)			CL-SC						
SILTY CLAY, with some occasional sand and fine gravel No product odor			CL	25					
				30			▽		
				35			▽		
				40					

EXPLORATORY BORING LOG

MOBIL OIL CORPORATION
35TH AVENUE, OAKLAND

PROJECT NO.

H182-20

DATE

8/86

BORING NO.

MW-1

DRILL RIG Hollow Stem	SURFACE ELEVATION ----	LOGGED BY JCW
DEPTH TO GROUNDWATER As Noted	BORING DIAMETER 8"	DATE DRILLED 7/30/86

DESCRIPTION AND CLASSIFICATION				DEPTH (FEET)	SAMPLER	UNCONFINED COMPRESSIVE STRENGTH (KSF)	WATER CONTENT (%)	DRY DENSITY (PCF)	PENETRATION RESISTANCE (BLOWS/FT)
DESCRIPTION AND REMARKS	COLOR	CONSIST	SOIL TYPE						
SILTY CLAY, with some occasional sand and fine gravel (Contd)			CL	45					
TOTAL DEPTH = 45.0 feet									

EXPLORATORY BORING LOG		
MOBIL OIL CORPORATION 35TH AVENUE, OAKLAND		
PROJECT NO.	DATE	BORING NO.
H182-20	8/86	MW-1

MOBIL OIL CORPORATION
OAKLAND, CALIFORNIA

MW-1

Well completed to 45.0 feet in depth with 2-inch Class 160 PVC casing, flush-threaded joints. Screen (.020-inch slot) set from 10.0 to 45.0 feet. 6 X 12 Monterey sand placed from 4.5 to 45.0 feet and concrete seal placed from 0 to 4.5 feet.

DRILL RIG Hollow Stem	SURFACE ELEVATION -----	LOGGED BY JCW
DEPTH TO GROUNDWATER As Noted	BORING DIAMETER 8"	DATE DRILLED 7/31/86

DESCRIPTION AND CLASSIFICATION				DEPTH (FEET)	SAMPLER	UNCONFINED COMPRESSIVE STRENGTH (KSF)	WATER CONTENT (%)	DRY DENSITY (pcf)	PENETRATION RESISTANCE (BLOWS/FT)
DESCRIPTION AND REMARKS	COLOR	CONSIST	SOIL TYPE						
ASPHALT AND BASE ROCK									
SILTY CLAY with rock fragments, dry	dark gray	stiff	CL						
Decreasing rock fragments (very faint "old" product odor)	blue-green			5					
				10					
Large angular gravel, damp No product odor			GL-GC						
				15					
SILTY CLAY; damp	tan to light brown	stiff	CL						
				20					

EXPLORATORY BORING LOG		
MOBIL OIL CORPORATION 35TH AVENUE, OAKLAND		
PROJECT NO.	DATE	BORING NO.
H182-20	8/86.	MW-2

DRILL RIG Hollow Stem			SURFACE ELEVATION ----		LOGGED BY JCW				
DEPTH TO GROUNDWATER As Noted			BORING DIAMETER 8"		DATE DRILLED 7/31/86				
DESCRIPTION AND CLASSIFICATION				DEPTH (FEET)	SAMPLER	UNCONFINED COMPRESSIVE STRENGTH (KSF)	WATER CONTENT (%)	DRY DENSITY (PCF)	PENETRATION RESISTANCE (BLOWS/FT.)
DESCRIPTION AND REMARKS	COLOR	CONSIST	SOIL TYPE						
SILTY CLAY (CONTD)	tan to light brown	stiff	CL						
SILTY CLAY with some fine sand and gravel (faint odor in sample above water table)		mod blue-gray to brown	stiff	CL-SC	25			▽	
				30					
				35					
TOTAL DEPTH = 35.0 feet									
				EXPLORATORY BORING LOG					
				MOBIL OIL CORPORATION 35TH AVENUE, OAKLAND					
				PROJECT NO.		DATE		BORING NO.	
				H182-20		8/86		NO. MW-2	

MOBIL OIL CORPORATION
OAKLAND, CALIFORNIA

MW-2

Well completed to 35.0 feet in depth with 2-inch Class 160 PVC casing, flush-threaded joints. Screen (.020-inch slot) set from 10.0 to 35.0 feet. No. 3 Monterey sand placed from 4.5 to 35.0 feet, bentonite pellets placed from 4.0 to 4.5 feet, and concrete seal placed from 0 to 4.5 feet.

DRILL RIG Hollow Stem		SURFACE ELEVATION -----		LOGGED BY JCW				
DEPTH TO GROUNDWATER As Noted		BORING DIAMETER 8"		DATE DRILLED 7/31/86				
DESCRIPTION AND CLASSIFICATION			DEPTH (FEET)	SAMPLER	UNCONFINED COMPRESSIVE STRENGTH (KSF)	WATER CONTENT (%)	DRY DENSITY (PCF)	PENETRATION RESISTANCE (BLOWS/FT)
DESCRIPTION AND REMARKS	COLOR	CONSIST	SOIL TYPE					
ASPHALT AND BASE ROCK								
SILTY CLAY with rock fragments	tan	stiff	CL					
Large angular cobbles		dense	CL GC	5				
SILTY CLAY, damp	tan to light brown	stiff	CL					
Trace of gravel; moisture in fissures (No product odor)				CL GC	15			
				20				



EXPLORATORY BORING LOG		
MOBIL OIL CORPORATION 35TH AVENUE, OAKLAND		
PROJECT NO.	DATE	BORING NO.
H182-20	8/86	MW-3

DRILL RIG Hollow Stem		SURFACE ELEVATION -----			LOGGED BY JCW				
DEPTH TO GROUNDWATER As Noted		BORING DIAMETER 8"			DATE DRILLED 7/31/86				
DESCRIPTION AND CLASSIFICATION				DEPTH (FEET)	SAMPLER	UNCONFINED COMPRESSIVE STRENGTH (KSF)	WATER CONTENT (%)	DRY DENSITY (pcf)	PENETRATION RESISTANCE (BLOWS/FT)
DESCRIPTION AND REMARKS	COLOR	CONSIST	SOIL TYPE						
SILTY CLAY (CONTD) with a trace of gravel	tan to light brown	stiff	CL	25	[SAMPLER]		▽		
No product odor									
Increasing gravel		medium dense	CL GC						
Decreasing gravel		hard	CL						
Gravelly, increasing toward total depth			CL GC	30					
TOTAL DEPTH = 35.0 feet				35					
				EXPLORATORY BORING LOG					
				MOBIL OIL CORPORATION 35TH AVENUE, OAKLAND					
				PROJECT NO.		DATE		BORING NO.	
				H182-20		8/86		NO. MW-3	

MOBIL OIL CORPORATION
OAKLAND, CALIFORNIA

MW-3

Well completed to 35.0 feet in depth with 2-inch Class 160 PVC casing, flush-threaded joints. Screen (.020-inch slot) set from 10.0 to 35.0 feet. No. 3 Monterey sand placed from 5.5 to 35.0 feet, bentonite pellets placed from 5.0 to 5.5 feet, and concrete seal placed from 0 to 5.0 feet.

ALTON GEOSCIENCE, Inc.
LOG OF EXPLORATORY
BORING



PROJECT NO. 30-081 DATE DRILLED 1/29/90
 CLIENT BP OIL COMPANY
 LOCATION 3201 35TH AVENUE, OAKLAND, CA
 LOGGED BY M. TAYLOR APPROVED BY _____

BORING NO.
 WELL NO.
 MW-4

FIELD SKETCH OF BORING LOCATION

DRILLING METHOD HOLLOW-STEM AUGER HOLE DIAM. 8"
 SAMPLER TYPE MODIFIED SPLIT SPOON
 CASING DATA SEE MONITORING WELL CONSTRUCTION DETAIL
 DRILLER WEST HAZMAT

TOP OF CASING ELEVATION 170.34

BLOWS PER FOOT (N)	CGI (PPM)	SAMPLE	DEPTH	WELL CONSTRUCTION OR BORING CLOSURE	USCS	PROFILE	WATER LEVEL
							26.87
							DATE
							July 9, 1990
							TIME
							DESCRIPTION
			0	Christy Box			ASPHALT
			2	Portland Cement			
			4		CL		SILTY CLAY; greenish brown; damp, high plasticity stiff
3,4,6	0		6	Bentonite Pellets			
			8		CL		
10,28,35	0		10	2" sch. 40 PVC Casing			SILTY CLAY; gravelly, greenish brown with rust stain residue, dry to damp, low to medium plasticity, hard
			12		CL		
			14		CL		SILTY CLAY; gravelly, brown, dry to damp, low to medium plasticity hard
10,17,28	0		16		CL		
			18	2" sch. 40 PVC .020 Slot			SILTY CLAY; gravelly, brown rust residue, dry to damp, low plasticity, hard
14,28,35	0		20		CL		
			22		CL		
			24	Sand #3 Lonestar			SILTY CLAY; gravelly, brown, moist medium plasticity, hard
7,15,26	0		26		CL		
			28		CL		
			30		CL		
11,17,25	0		32		CL		SILTY CLAY; very gravelly, brown wet, medium plasticity
			34		CL		

ALTON GEOSCIENCE, Inc.
LOG OF EXPLORATORY
BORING



PROJECT NO. 30-081 DATE DRILLED 1/29/90
 CLIENT BP OIL COMPANY
 LOCATION 3201 35TH AVENUE, OAKLAND, CA
 LOGGED BY M. TAYLOR APPROVED BY _____

BORING NO.

WELL NO.

MW-4

FIELD SKETCH OF BORING LOCATION

TOP OF CASING ELEVATION _____

DRILLING METHOD HOLLOW-STEM AUGER HOLE DIAM. 8"
 SAMPLER TYPE MODIFIED SPLIT SPOON
 CASING DATA SEE MONITORING WELL CONSTRUCTION DETAIL
 DRILLER WEST HAZMAT

BLOWS PER FOOT (M)	CGI (PPM)	SAMPLE	DEPTH	WELL CONSTRUCTION OR BORING CLOSURE	USCS	PROFILE	WATER LEVEL
							DATE
							TIME
							DESCRIPTION
8, 18, 34	0		36	2" sch. 40 PVC .020 Slot	CL		SILTY CLAY; gravelly, brown, dry to damp
15, 28, 38	0		40	End Cap			SILTY CLAY; gravelly, brown, moist, medium plasticity
			42				
			44				
			46				
			48				
			50				

ALTON GEOSCIENCE, Inc.
LOG OF EXPLORATORY
BORING




PROJECT NO. 30-081 DATE DRILLED 2/1/90
 CLIENT BP OIL COMPANY
 LOCATION 3201 35TH AVENUE, OAKLAND, CA
 LOGGED BY M. TAYLOR APPROVED BY _____

BORING NO.
 WELL NO.
 MW-5

FIELD SKETCH OF BORING LOCATION

DRILLING METHOD HOLLOW-STEM AUGER HOLE DIAM. 8"
 SAMPLER TYPE MODIFIED SPLIT SPOON
 CASING DATA SEE MONITORING WELL CONSTRUCTION DETAIL
 DRILLER WEST HAZMAT

TOP OF CASING ELEVATION 165.14

BLOWS PER FOOT (N)	CGI (PPM)	SAMPLE	DEPTH	WELL CONSTRUCTION OR BOREHOLE CLOSURE	USCS	PROFILE	WATER LEVEL
							24.75
							DATE
							July 9, 1990
							TIME
							DESCRIPTION
			0	Christy Box			ASPHALT
			2	Portland Cement			
13,23,35	0		6	Bentonite Pellets	CL		SANDY CLAY; gravelly, brown, damp, low plasticity hard
11,25,39	0		10	2" sch. 40 PVC Casing	CL		SILTY CLAY; gravelly, greenish brown, damp, low plasticity, gas odor present hard
8,11,21	0		16	2" sch. 40 PVC .020 Slot	CL		SILTY CLAY; gravelly, greenish brown, moist medium plasticity, gas odor hard
8,23,33	0		20		CL		SILTY CLAY; sandy and gravel, greenish brown, moist medium plasticity, gas odor hard
4,7,13	0		26	Sand #3 Lonestar	CL		 SILTY CLAY; gravelly, reddish brown, moist to saturated medium plasticity very stiff
4,5,8	0		30		CL		SILTY CLAY; with fine sand, tan, damp to medium high plasticity, stiff
14,17,22	0		34	End Cap	CL		SILTY CLAY; gravelly, reddish brown moist high plasticity, hard

ALTON GEOSCIENCE, Inc.
LOG OF EXPLORATORY
BORING



PROJECT NO. 30-081 DATE DRILLED 2/1/90
CLIENT BP OIL COMPANY
LOCATION 3201 35TH AVENUE, OAKLAND, CA
LOGGED BY M. TAYLOR APPROVED BY _____

BORING NO.
WELL NO.
MW-6

FIELD SKETCH OF BORING LOCATION

DRILLING METHOD HOLLOW-STEM AUGER HOLE DIAM. 8"
SAMPLER TYPE MODIFIED SPLIT SPOON
CASING DATA SEE MONITORING WELL CONSTRUCTION DETAIL
DRILLER WEST HAZMAT

TOP OF CASING ELEVATION 165.38

BLOWS PER FOOT (M)	CGI (PPM)	SAMPLE	DEPTH	WELL CONSTRUCTION OR BORING CLOSURE	USCS	PROFILE	DESCRIPTION
							WATER LEVEL 24.75
							DATE July 9, 1990
							TIME
							DESCRIPTION
			0	Christy Box			ASPHALT
			2	Portland Cement			
10,12, 15	0		6	Bentonite Pellets	CH		SILTY CLAY; gravelly, redish brown, damp, high plasticity , very stiff
8,15, 23	0		10		CH		SILTY CLAY; gravelly, reddish brown moist, high plasticity, hard
			12	2" sch. 40 PVC Casing			
5,12, 18	0		16		CH		SILTY CLAY; gravelly, brown, moist medium high plasticity, very stiff
			18	2" sch. 40 PVC .020 Slot			
11,15, 15	0		20		CH		SILTY CLAY; gravelly, brown, moist to saturated very stiff
			24	Sand #3 Lonestar			
23-30, 50/4"	0		26				NO RECOVERY; large cobble or rock obstruction
6,13,17	0		30				NO RECOVERY; same
21,29, 35	0		34	End Cap	CL		drilled to 35' w/o sample recovery SILTY CLAY; gravelly saturated moist, brown, hard

ALTON GEOSCIENCE, Inc.
LOG OF EXPLORATORY
BORING



PROJECT NO. 30-081 DATE DRILLED 2/1/9
 CLIENT BP OIL COMPANY
 LOCATION 3201 35TH AVENUE, OAKLAND, CA
 LOGGED BY M. TAYLOR APPROVED BY _____

BORING NO. _____
 WELL NO. MW-7

FIELD SKETCH OF BORING LOCATION

DRILLING METHOD HOLLOW-STEM AUGER HOLE DIAM. 8"
 SAMPLER TYPE MODIFIED SPLIT
 CASING DATA SEE MONITORING WELL CONSTRUCTION DETAIL
 DRILLER WEST HAZMAT

TOP OF CASING ELEVATION 167.61

BLOWS PER FOOT (B)	CGI (PPM)	SAMPLE	DEPTH	WELL CONSTRUCTION OR BORING CLOSURE	USCS	PROFILE	DESCRIPTION
							WATER LEVEL <u>27.29</u>
							DATE <u>JULY 9, 1990</u>
							DESCRIPTION
			0	Christy Box			ASPHALT
			2	Portland Cement	CH		
14,14, 15	0		6	Bentonite Pellets	CH		SILTY CLAY; brown, damp, high plasticity, very stiff
11,27, 39	0		10	2" sch. 40 PVC Casing	CL		SILTY CLAY; gravelly, reddish brown damp medium plasticity, hard
15,21, 29	0		16	2" sch. 40 PVC .020 Slot	CL		SILTY CLAY; gravelly, reddish brown, damp, hard
36,15, 50/5"	0		20		CL		SILTY CLAY; gravelly, brown, moist medium plasticity, hard
8,15,21	0		26	Sand #3 Lonestar	CL		SILTY CLAY; gravelly, brown, moist medium plasticity, hard
5,8,12	0		30		CL		SILTY CLAY; gravelly, brown, saturated medium plasticity, very stiff
4,7,10	0		34		CH		SILTY CLAY; tannish brown, moist high plasticity, very stiff

ALTON GEOSCIENCE, Inc.
LOG OF EXPLORATORY
BORING



PROJECT NO. 30-081 DATE DRILLED 1/29/90
 CLIENT BP OIL COMPANY
 LOCATION 3201 35TH AVENUE, OAKLAND, CA
 LOGGED BY M. TAYLOR APPROVED BY _____

BORING NO. _____
 WELL NO. _____
 RW-1

FIELD SKETCH OF BORING LOCATION

TOP OF CASING ELEVATION 168.01

DRILLING METHOD HOLLOW-STEM AUGER HOLE DIAM. 12"
 SAMPLER TYPE _____
 CASING DATA SEE MONITORING WELL CONSTRUCTION DETAIL
 DRILLER WEST HAZMAT

BLOWS PER FOOT (N)	CGI (PPM)	SAMPLE	DEPTH	WELL CONSTRUCTION OR BOREHOLE CLOSURE	USCS	PROFILE	WATER LEVEL
							27.93
							DATE
							July 9, 1990
							TIME
							DESCRIPTION
			0	Christy Box			ASPHALT
			2	Portland Cement			SILTY CLAY; gravels, brown, damp, backfill
9,19, 33	0		6	Bentonite Pellets	CL		SILTY CLAY; gravelly, greenish brown, dry to damp, low plasticity, odor present
			8		CL		SILTY CLAY; gravelly, greenish brown, dry to damp, medium plasticity, odor present
16,33, 40	0		12	6" sch. 40 PVC Casing	CL		SILTY CLAY; gravelly, brown, damp, medium odor present
15,36, 43	0		16		CL		SILTY CLAY; gravelly, brown, damp, medium plasticity, odor present
11,16, 25	0		20	6" sch. 40 PVC .020 Slot	CL		SILTY CLAY; sandy gravelly, greenish brown, medium plasticity
6,7, 16	0		26	Sand #3 Lonestar	CL		SILTY CLAY; gravelly, sandy (fine) brown, saturated very stiff
6,13, 17	0		30		CL		
			32				
			34				

ALTON GEOSCIENCE, Inc.
LOG OF EXPLORATORY
BORING



PROJECT NO. 30-081 DATE DRILLED 1/29/90
 CLIENT BP OIL COMPANY
 LOCATION 3201 35TH AVENUE, OAKLAND, CA
 LOGGED BY M. TAYLOR APPROVED BY _____


BORING NO.

 WELL NO.
 RW-1

FIELD SKETCH OF BORING LOCATION

TOP OF CASING ELEVATION _____

DRILLING METHOD HOLLOW-STEM AUGER HOLE DIAM. 10"
 SAMPLER TYPE MODIFIED SPLIT SPOON
 CASING DATA SEE MONITORING WELL CONSTRUCTION DETAIL
 DRILLER WEST HAZMAT

BLOWS PER FOOT (N)	CGI (PPM)	SAMPLE	DEPTH	WELL CONSTRUCTION OR BIRING CLOSURE	USCS	PROFILE	WATER LEVEL
							DATE
							TIME
							DESCRIPTION
6, 16, 29	0		-36	2" sch. 40 PVC .020 Slot	CL		SILTY CLAY; gravelly, sandy (fine) brown, saturated, medium high plasticity, hard
6, 15, 28			-38				SAME
			-40	End Cap			