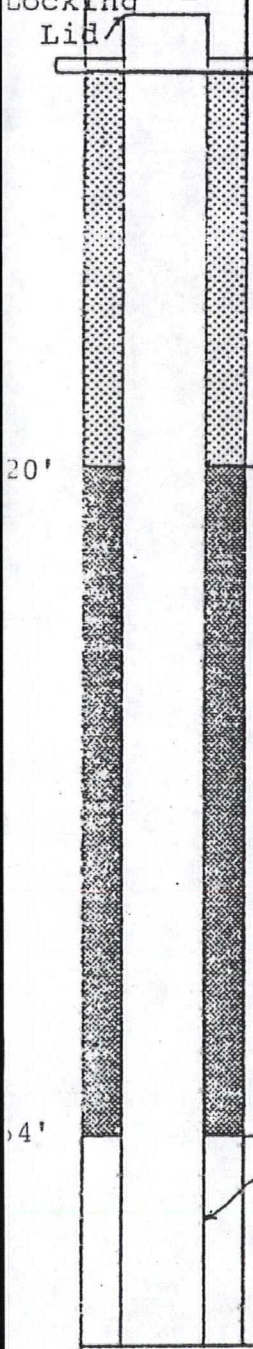
Sweet, Edwards & Associates, Inc.

BORING LOG Well 7

Project Kaiser Trentwood - East Landfill
Client Kaiser Aluminum
Feature Monitoring Well
Location East Edge of Landfill
Depth to Water 81 feet below ground
Date 2/2/81

Sheet 1 of 2
Drilled By American Drilli
Logged By JEE & Terry Murp
Date Logged 1/26-2/2/81
Surf Elev. not known
Total Depth 112 feet



WELL DETAIL	UNIFIED CLASS	DEPTH (ft)	ELEVATION (ft)	SAMPLE RECORD: Sample No	Blows per 6 inches	Recovery w/n 0.1 ft	Sample Type	DESCRIPTION
								8' Landfill Cover, gravelly soil
				1			Bag	Landfill Waste, mixed with sand and gravel, medium grey
		10		2			Bag	
				3			Bag	
				4			Bag	
		20		5			Bag	
				6			Bag	
				7			Bag	28'
				8			Bag	Aluminum casting (furnace bottom?); drillers had to put on 10" bit.
				9			Bag	
		30		10			Bag	33' Refractory brick, orange.
				11			Bag	36' BASE OF FILL in this zone: gravel, fn-medium, w/brick dust.
				12			Bag	39'
		40		13			Bag	43' Gravel, median dia. ½", scattered boulders; fn. sand matrix.
				14			Bag	48' Sediment as above, salty taste in 48' bag sample. Drove 8" casing to 54 feet.
		50		15			Bag	Gravel, median dia ½"-1", well rounded, scattered boulders; fn grained, sand matrix, clean, salty taste.
								58' End of JEE log
		60		16			Bag	Begin Terry Murphy log

REMARKS:

USEPA SF
1504064

Sweet, Edwards & Associates, Inc.

BORING LOG Well 6

Project Kaiser Trentwood - East Landfill
Client Kaiser Aluminum
Feature Monitoring Well
Location East Edge of Landfill
Depth to Water 81 feet below ground
Date 2/2/81

Sheet 2 of 2
Drilled By American Drillin
Logged By JEE & Terry Murph
Date Logged 1/26-2/2/81
Surf Elev. not known
Total Depth 112 feet

WELL DETAIL	UNIFIED CLASS	DEPTH (ft)	ELEVATION (ft)	SAMPLE RECORD: Sample No	Blows per 6 inches	Recovery w/n 0.1 ft	Sample Type	DESCRIPTION
Mills Knife Perforation; 6" Steel Casing; Open Bottom Casing		70, 80, 90, 100, 110, 120	Final Static Level; First Encountered	17			Bag	dry, large gravel, fine sand
				18			Bag	73' granite boulder; 75'
				19			Bag	80' dry, large gravel, fine sand, pea gravel, w/sand damp
				20			Bag	92' as above, partially saturated; 98'
				21			Bag	100' brown clay w/pea gravel; gravel, sand and boulders, saturated
								112' Casing perforations - Mills Knife Developed w/air for 1 hour.

REMARKS: Clay layer at 100' apparently acts as confining layer since final static water level was 19' above first encountered water at 100'

KAISER LAB.

TABLE 1

CHLORIDES (mg/l)

DATE	WELL #1	WELL #2	WELL #3	WELL #4	WELL #5	PROD.
11/01/79	29.9	4.7	3.0	5.1	1.4	-
02/25/80	43.8	2.9	2.5	-	-	-
03/11/80	-	-	-	0.0	4.0	-
03/17/80	35.0	4.0	1.0	-	-	-
03/18/80	-	-	-	7.0	0.0	-
03/24/80	34.0	2.0	0.0	-	-	-
03/25/80	-	-	-	4.0	0.0	-
03/31/80	41.0	0.0	1.0	-	-	-
04/01/80	-	-	-	4.0	0.0	-
04/07/80	41.0	2.0	4.0	-	-	-
04/08/80	-	-	-	4.0	0.0	-
04/14/80	41.0	1.0	1.0	-	-	-
04/15/80	-	-	-	3.0	0.0	-
04/21/80	37.0	12.0	0.0	-	-	-
04/24/80	-	-	-	7.0	2.0	-
04/28/80	42.0	13.0	1.0	-	-	11.0
04/29/80	-	-	-	109.0	1.0	-
05/05/80	39.0	15.0	3.0	161.0	2.0	-
05/01/80	-	-	-	-	-	20.0
05/12/80	36.0	11.0	-	-	-	-
05/13/80	-	-	-	74.0	1.0	61.0
05/22/80	-	-	-	-	-	85.0
05/30/80	-	-	-	33.0	6.0	-
06/02/80	25.0	4.0	1.0	-	-	-
06/06/80	-	-	-	-	-	74
06/09/80	36.0	4.0	1.0	-	-	-
06/10/80	-	-	-	6.0	1.0	
06/16/80	38.0	12.0	1.0	4.0	1.0	
09/26/80	25.0	0	0	1.0	0	
09/30/80	26.0	4.0	-	-	-	
10/01/80	-	-	-	1.0	0	
10/06/80	27.0	3.0	1.0	-	-	
10/07/80	-	-	-	2.0	0	
10/13/80	27.0	1.0	2.0	-	-	

KAISER LAB.

TABLE 1

CHLORIDES (mg/l)- (Cont'd.)

DATE	WELL #1	WELL #2	WELL #3	WELL #4	WELL #5	PROD.
10/14/80	-	-	-	2.0	0	
10/20/80	27.0	6.0	1.0	-	-	
10/21/80	-	-	-	1.0	0	
10/27/80	27.0	3.0	2.0	-	-	
10/28/80	-	-	-	3.0	1.0	
11/03/80	27.0	3.0	2.0	-	-	
11/04/80	-	-	-	2.0	0	
12/01/80	27.0	2.0	3.0	-	-	
12/02/80	-	-	-	2.0	0	
01/05/81	27.0	3.0	1.0	-	-	
01/06/81	-	-	-	487	3.0	
01/08/81	-	-	-	434	-	
01/09/81				371	4.0	(Lab-13) 18
01/10/81	-	-	-	420	4.0	23
01/12/81	28.0	3.0	2.0	252	4.0	34
01/13/81	-	-	-	189	2.0	36
01/14/81	-	-	-	140	1.0	40
01/15/81	-	-	-	112	1.0	47
01/16/81	-	-	-	98	2.0	60

KAISER LAB.

TABLE 2

NITRATES (ppm)

DATE	WELL #1	WELL #2	WELL #3	WELL #4	WELL #5	PROD.
11/01/79	3.4	1.5	1.6	2.6	1.3	
02/25/80	4.0	1.5	1.8	-	-	
02/29/80	-	-	-	4.0	2.0	
03/11/80	-	-	-	4.0	4.0	
03/17/80	7.0	5.0	6.0	-	-	
03/18/80	-	-	-	6.0	6.0	
03/24/80	3.0	3.0	1.0	-	-	
03/25/80	-	-	-	1.0	1.0	
03/31/80	3.0	2.0	3.0	-	-	
04/01/80	-	-	-	2.0	0.0	
04/07/80	0.0	1.0	1.0	-	-	
04/08/80	-	-	-	0.0	2.0	0.0
04/14/80	2.0	2.0	2.0	-	-	
04/15/80	-	-	-	2.0	2.0	
04/21/80	1.0	1.0	1.0	-	-	
04/24/80	-	-	-	1.0	1.0	
04/28/80	0.0	0.0	1.0	-	-	
04/29/80	-	-	-	0.0	0.0	
05/05/80	0.0	0.0	0.0	0.0	0.0	
05/12/80	1.0	1.0	0.0	-	-	
05/13/80	-	-	-	1.0	2.0	
05/30/80	-	-	-	2.0	2.0	
06/02/80	0.0	0.0	0.0	-	-	
06/09/80	0.0	0.0	0.0	-	-	
06/10/80	-	-	-	0.0	0.0	
06/16/80	0.0	0.0	0.0	0.0	0.0	
01/08/81	-	-	-	1.0	-	
01/09/81	-	-	-	0.0	0.0	0.0
01/10/81	-	-	-	0.0	1.0	1.0
01/12/81	0.0	0.0	0.0	0.0	0.0	0.0
01/13/81	-	-	-	0.0	0.0	1.0
01/14/81	-	-	-	0.0	0.0	0.0
01/15/81	-	-	-	1.0	2.0	1.0
01/16/81	-	-	-	0.0	1.0	1.0

DEPTH TO WATER

(From top of casing)

DATE	#1	#2	#3	#4	#5
Ref. Elev.	1981.1	1968.6	1993.3	2016.5	2009.9
10/79	56'0"	43'6"	76'10"	95'6"	86'2"
Well Log					
11/01/79	55'6"	44'0"	72'8"	88'8"	73'2"
(County)					
03/03/80	52'6"	40'8"	71'1"	82'0"	76'6"
03/28/80	52'6"	40'10"	69'11"	81'3"	76'1"
04/28/80	47'1"	35'2"	65'5"		
04/29/80	-	-	-	79'0"	73'3"
05/12/80	47'9"	35'11"	65'9"		
05/13/80	-	-	-	78'1"	72'9"
05/20/80	- ASH	FALL-OUT			
05/30/80	-	-	-	78'3"	72'8"
06/09/80	51'10"	40'3"	69'1"		
06/09/80	-	-	-	79'4"	74'3"
06/16/80	48'8"	37'0"	66'9"		
06/17/80	-	-	-	78'9"	73'1"
01/08/81	-	-	-	78'2"	72'9"
01/10/81	-	-	-	79'9"	74'5"
01/12/81	57'1"	40'0"	68'10"	79'5"	74'7"
01/13/81	-	-	-	79'7"	74'9"
01/14/81	-	-	-	79'8"	74'9"
01/15/81	-	-	-	79'9"	74'9"
01/16/81	-	-	-	79'11"	75'0"

OIL (Mg/L)

DATE	#1	#2	#3	#4	#5	PROD.	SPRI
02/19/80	N.D.	N.D.	N.D.	-	-	-	N.D.
02/20/80	1.6	1.3	1.0	-	-	-	3.2
02/21/80	N.D.	N.D.	N.D.	-	-	-	N.D.
02/22/80	.3	.6	N.D.	-	-	-	N.D.
02/25/80	.4	.4	1.2	-	-	-	N.D.
02/29/80	-	-	-	N.D.	N.D,	-	-
03/03/80	.8	3.1	N.D.	2.1	1.5	-	1.4
03/06/80	2.9	3.3	2.9	-	-	-	-
03/07/80	3.3	4.0	2.8	-	-	-	-
03/10/80	1.8	1.1	.4	-	-	-	-
03/11/80	-	-	-	N.D.	N.D.	-	-
03/17/80	1.1	2.2	2.3	-	-	-	-
03/18/80	-	-	-	.5	.4	.5	-
03/24/80	.1	N.D.	.1	-	-	-	-
03/25/80	-	-	-	.3	.1	.3	-
03/27/80	.8	.4	.3	-	-	-	-
03/28/80	-	-	-	.2	.4	.4	-
03/31/80	.6	.3	.3	-	-	-	-
04/01/80	-	-	-	.4	.4	.3	-
04/03/80	.5	.2	0	-	-	-	-
04/04/80	-	-	-	.2	.2	.2	-
04/07/80	.2	.2	.2	-	-	-	-
04/08/80	-	-	-	0	.2	0	-
04/10/80	.3	0	.1	-	-	-	-
04/11/80	-	-	-	0	0	-	-
04/14/80	.5	.2	.2	-	-	-	-
04/15/80	-	-	-	0	0	-	-
04/21/80	0	0	.1	-	-	-	-
04/24/80	.1	0	0	0	0	0	-
04/28/80	.6	1.0	.4	-	-	-	-
04/29/80	-	-	-	.8	.2	-	-
05/01/80	.8	.6	.6	-	-	-	-
05/05/80	.1	0	0	0	0	.1	-
05/12/80	0	.1	0	-	-	-	-
05/13/80	-	-	-	.3	.1	.3	-

OIL (Mg/L) - Cont'd.

DATE	#1	#2	#3	#4	#5	PROD.	SPRING
09/26/80	.6	1.0	.6	.9	.5	-	-
09/30/80	.5	.4	-	-	-	-	-
10/01/80	-	-	-	0	0	-	-
10/06/80	0	.3	.4	-	-	-	-
10/07/80	-	-	-	.1	0	-	-
10/13/80	.9	.7	1.0	-	-	-	-
10/14/80	-	-	-	.1	.4	-	-
10/20/80	0	.2	.2	-	-	-	-
10/21/80	-	-	-	0	0	-	-
10/27/80	.4	.1	.5	-	-	-	-
10/28/80	-	-	-	0	0	-	-
11/3/80	.1	0	.1	-	-	-	-
12/01/80	.1	0	.1	-	-	-	-
01/05/81	.2	.3	.1	-	-	-	-
01/06/81	-	-	-	.3	.1	-	-