INFORMATION HANDOUT

For Contract No. 04-4A8304
At 04-Ala-13-5.3/5.6

Identified by
Project ID 0400020930

MATERIALS INFORMATION

Site Investigation Report, Aerially Deposited Lead Investigation

Shaw™ Shaw Environmental, Inc.

SITE INVESTIGATION REPORT
AERIALLY DEPOSITED LEAD INVESTIGATION
ROUTES 13, 24, AND 580
ALAMEDA AND CONTRA COSTA COUNTIES, CALIFORNIA

January 12, 2004

Prepared for:

California Department of Transportation
North Region Hazardous Waste Office
District 4
111 Grand Avenue, 14th Floor
Oakland, California 94623

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Task Order No.: 04-270701-CC
Contract No.: 43A0078

Project No.: 846072.01010000

REGISTERED PROFESSIONAL ENGINEER
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TABLE 1

MAINLINE LEAD ANALYTICAL DATA AND GPS COORDINATES
Caltrans - RTE 13, 24, 580
Alameda and Contra Costa Counties, California
Task Order No. 04-270701-CC

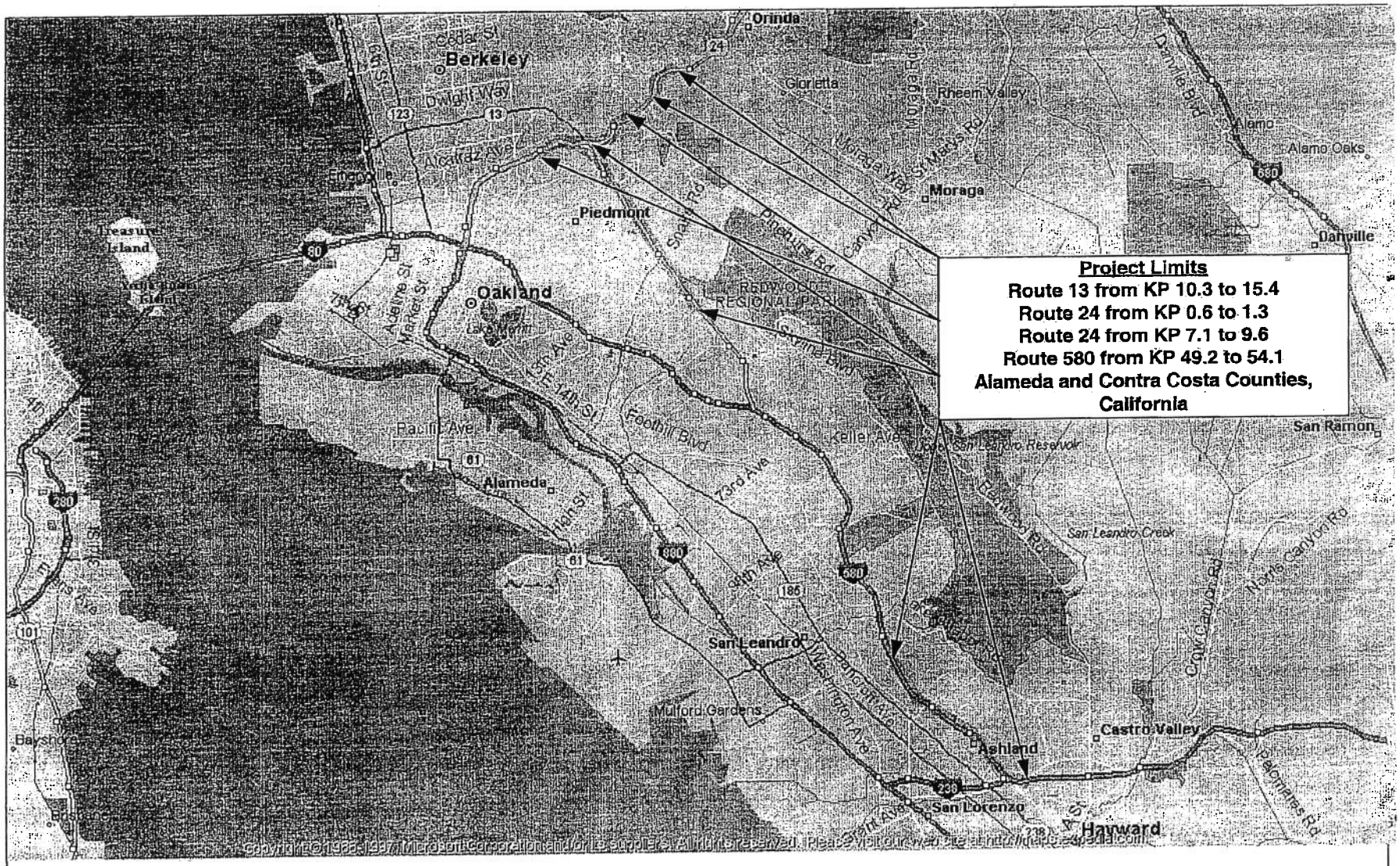
Boring	Sample Designation (site - boring - depth)	Latitude	Longitude	MSL (feet)	Sample Depth (m)	Sample Depth (ft)	Lead Total	Lead WET	Lead DI WET	Lead TCLP	pH
1	SR-24-01-.15	-	-	-	0.15	0.5	6,180	27.9	9.2	40.7	
	SR-24-01-.3				0.3	1.0	203	7.19	0.71		
	SR-24-01-.6				0.6	2.0	121	0.570			8.3
2	SR-24-02-.15	37.86601762	-122.2060678	907.247	0.15	0.5	751	26.2	1.26		7.3
	SR-24-02-.3				0.3	1.0	172	4.62			
	SR-24-02-.6				0.6	2.0	181	4.87			
3	SR-24-03-.15	37.86494174	-122.2075532	950.849	0.15	0.5	4,640	29.9	14.2	41.0	
	SR-24-03-.3				0.3	1.0	284	6.49	0.43		
	SR-24-03-.6				0.6	2.0	230	5.87	0.66		
4	SR-24-04-.15	37.85407711	-122.2196904	718.638	0.15	0.5	1,530	15.0	3.4	20.5	
	SR-24-04-.3				0.3	1.0	325	10.9	1.07		
	SR-24-04-.6				0.6	2.0	67.5	2.95			
5	SR-24-05-.15	37.85275203	-122.2211092	658.526	0.15	0.5	6,110	56.9	20.7	83.9	
	SR-24-05-.3				0.3	1.0	1,400	12.5	5.7	19.1	
	SR-24-05-.6				0.6	2.0	8.09				
6	SR-24-06-.15	37.85117893	-122.2217707	627.454	0.15	0.5	232	9.67	0.57		
	SR-24-06-.3				0.3	1.0	75.5	1.80			
7	SR-24-07-.15	37.8497206	-122.2227272	590.067	0.15	0.5	7,740	47.1	18.8	57.5	
	SR-24-07-.3				0.3	1.0	872	32.3	3.16		
	SR-24-07-.6				0.6	2.0	247	9.94	1.55		
8	SR-24-10-.3	37.84903963	-122.2286463	550.923	0.3	1.0	5,310	39.2	10.9	47.6	
9	SR-24-11-.15	-	-	-	0.15	0.5	53.9	1.15			
	SR-24-11-.3				0.3	1.0	69.0	1.29			
	SR-24-11-.6				0.6	2.0	93.5	2.64			6.6
10	SR-24-12-.15	-	-	-	0.15	0.5	2,540	13.1	5.9	3.88	
	SR-24-12-.3				0.3	1.0	230	9.76	0.86		
	SR-24-12-.6				0.6	2.0	184	6.06	0.61		
11	SR-24-13-.15	-	-	-	0.15	0.5	174	5.46	0.60		
	SR-24-13-.3				0.3	1.0	48.1				
12	SR-24-14-.15	37.84969893	-122.2361508	418.163	0.15	0.5	1,490	8.00	3.6	1.63	
	SR-24-14-.3				0.3	1.0	1,020	6.48	2.4	1.18	
	SR-24-14-.6				0.6	2.0	532	20.3	2.18		
13	SR-24-15-.15	-	-	-	0.15	0.5	177	4.05			
	SR-24-15-.3				0.3	1.0	92.1	1.57			
14	SR-24-16-.15	-	-	-	0.15	0.5	44.5				
	SR-24-16-.3				0.3	1.0	83.3	2.69			
15	SR-13-01-.15	37.8109003	-122.1968469	656.124	0.15	0.5	507	12.3	1.04		
	SR-13-01-.3				0.3	1.0	14.9				
	SR-13-01-.6				0.6	2.0	25.1				
16	SR-13-02-.15	-	-	-	0.15	0.5	449	21.9	2.52		
	SR-13-02-.3				0.3	1.0	31.7				
	SR-13-02-.6				0.6	2.0	56.2	0.720			
17	SR-13-03-.15	37.81483922	-122.2006561	578.123	0.15	0.5	189	11.8	0.43		
	SR-13-03-.3				0.3	1.0	226	0.490			
	SR-13-03-.6				0.6	2.0	12.0				
18	SR-13-04-.15	37.81701907	-122.2023001	553.406	0.15	0.5	94.8	1.77			8.4
	SR-13-04-.3				0.3	1.0	178	4.75			
	SR-13-04-.6				0.6	2.0	35.7				
19	SR-13-05-.15	37.81914578	-122.2040355	527.645	0.15	0.5	174	6.05	0.50		
	SR-13-05-.3				0.3	1.0	146	4.88			
20	SR-13-06-.15	37.82123211	-122.2057521	496.337	0.15	0.5	684	34.0	5.07		
	SR-13-06-.3				0.3	1.0	23.3				
21	SR-13-07-.15	37.82337275	-122.2074741	550.497	0.15	0.5	322	15.7	1.82		
	SR-13-07-.3				0.3	1.0	296	10.5	0.85		
22	SR-13-08-.15	37.82562529	-122.2093218	587.474	0.15	0.5	3,160	29.7	15.3	50.1	
	SR-13-08-.3				0.3	1.0	14.5				8.6
	SR-13-08-.6				0.6	2.0	8.66				
23	SR-13-09-.15	37.82744725	-122.2108073	625.909	0.15	0.5	63.3	1.78			
	SR-13-09-.3				0.3	1.0	10.5				
	SR-13-09-.6				0.6	2.0	10.8				
24	SR-13-10-.15	37.82950788	-122.2126902	631.098	0.15	0.5	85.7	2.32			
	SR-13-10-.3				0.3	1.0	63.4	1.87			
	SR-13-10-.6				0.6	2.0	20.4				
25	SR-13-11-.15	-	-	-	0.15	0.5	131	3.83			
	SR-13-11-.3				0.3	1.0	350	29.7	5.20		
26	SR-13-12-.15	-	-	-	0.15	0.5	292	7.29	0.55		
	SR-13-12-.3				0.3	1.0	6.84				7.8
	SR-13-12-.6				0.6	2.0	19.7				

TABLE 1

MAINLINE LEAD ANALYTICAL DATA AND GPS COORDINATES
Caltrans - RTE 13, 24, 580
Alameda and Contra Costa Counties, California
Task Order No. 04-270701-CC

Boring	Sample Designation (site - boring - depth)	Latitude	Longitude	MSL (feet)	Sample Depth (m)	Sample Depth (ft)	Lead Total	Lead WET	Lead DI WET	Lead TCLP	pH
27	SR-580-01-.15	-	-	-	0.15	0.5	307	13.3	0.30		
	SR-580-01-.3				0.3	1.0	370	11.3	0.19		
	SR-580-01-.6				0.6	2.0	62.6	1.87			
28	SR-580-02-.15	37.71430481	-122.1299424	74.538	0.15	0.5	58.6	2.94			
	SR-580-02-.3				0.3	1.0	54.0	2.47			
	SR-580-02-.6				0.6	2.0	24.8				
29	SR-580-03-.15	-	-	-	0.15	0.5	438	19.2	0.34		
	SR-580-03-.3				0.3	1.0	254	7.75	0.18		
	SR-580-03-.6				0.6	2.0	8.24				
30	SR-580-04-.15	-	-	-	0.15	0.5	91.2	1.68			7.2
	SR-580-04-.3				0.3	1.0	72.6	1.69			
	SR-580-04-.6				0.6	2.0	70.6	1.74			
31	SR-580-05-.15	-	-	-	0.15	0.5	1,330	11.4	1.0	0.720	
	SR-580-05-.3				0.3	1.0	759	41.6	0.91		
	SR-580-05-.6				0.6	2.0	833	32.2	1.03		
32	SR-580-06-.15	-	-	-	0.15	0.5	697	21.1	0.59		
	SR-580-06-.3				0.3	1.0	349	8.46	0.17		
	SR-580-06-.6				0.6	2.0	121	3.95			
32	SR-580-07-.15	37.70043627	-122.1078766	130.104	0.15	0.5	371	11.9	0.31		
	SR-580-07-.3				0.3	1.0	314	13.4	0.72		7.6
	SR-580-07-.6				0.6	2.0	45.3				
33	SR-580-08-.15	37.69849868	-122.1059343	131.613	0.15	0.5	1,820	12.7	0.8	0.680	
	SR-580-08-.3				0.3	1.0	238	8.35	0.18		
	SR-580-08-.6				0.6	2.0	56.0	2.13			
34	SR-580-09-.15	37.69645573	-122.1041064	142.877	0.15	0.5	1,280	6.00	0.3	0.340	
	SR-580-09-.3				0.3	1.0	885	19.5	0.28		
	SR-580-09-.6				0.6	2.0	344	9.44	0.15		
TTLC							1,000				
STLC								5.0			
Reporting Limits							1	0.050	0.010	0.050	0.10

Notes:
1. Analyses conducted in general accordance with EPA Method 6010 for lead and EPA Method 9045 for soil pH.
2. Sample depths reported in approximate meters (m) / feet (ft) below ground surface.
3. TTLC = total threshold limit concentration. STLC = soluble threshold limit concentration. WET = waste extraction test. DI WET = WET with deionized water extraction solution. TCLP = toxicity characteristic leaching procedure.
4. WET conducted in general accordance with California Title 22 procedures.
5. Total lead results reported in milligrams per kilogram. WET, DI WET, and TCLP results reported in milligrams per liter. pH results reported in standard units.
6. Soil samples labeled as follows: route no.-boring no.-depth. Ex.: SR580-01-0.15 = state route 580, boring 01, 0.15-meter depth.
7. For total results, bold results exceed 10 times the STLC.
8. For WET results, bold results exceed the STLC.
9. ND = not detected above reporting limit.
10. Latitude and longitude converted to decimal format.



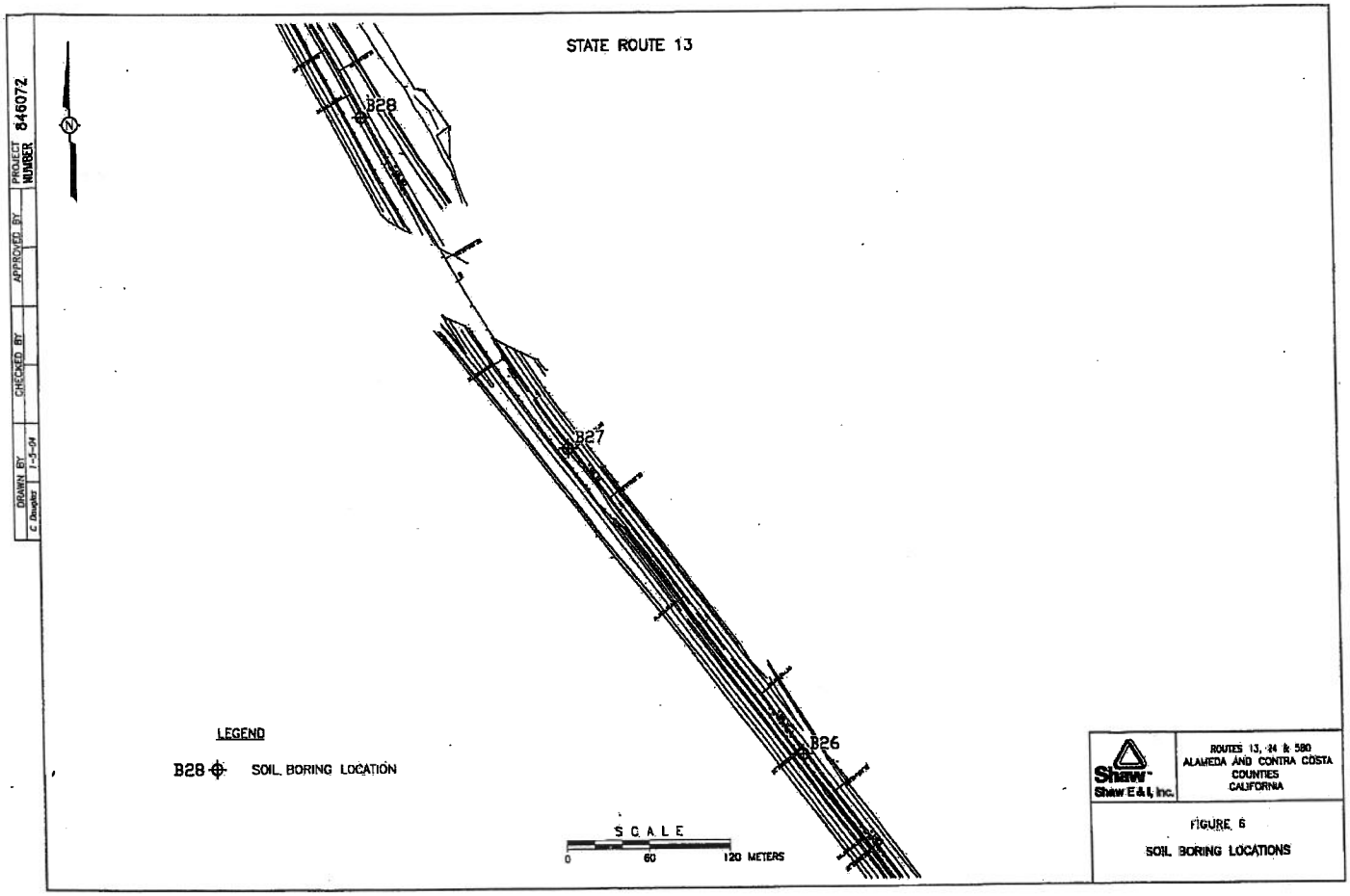
Reference:
Microsoft Expedia, Streets 98

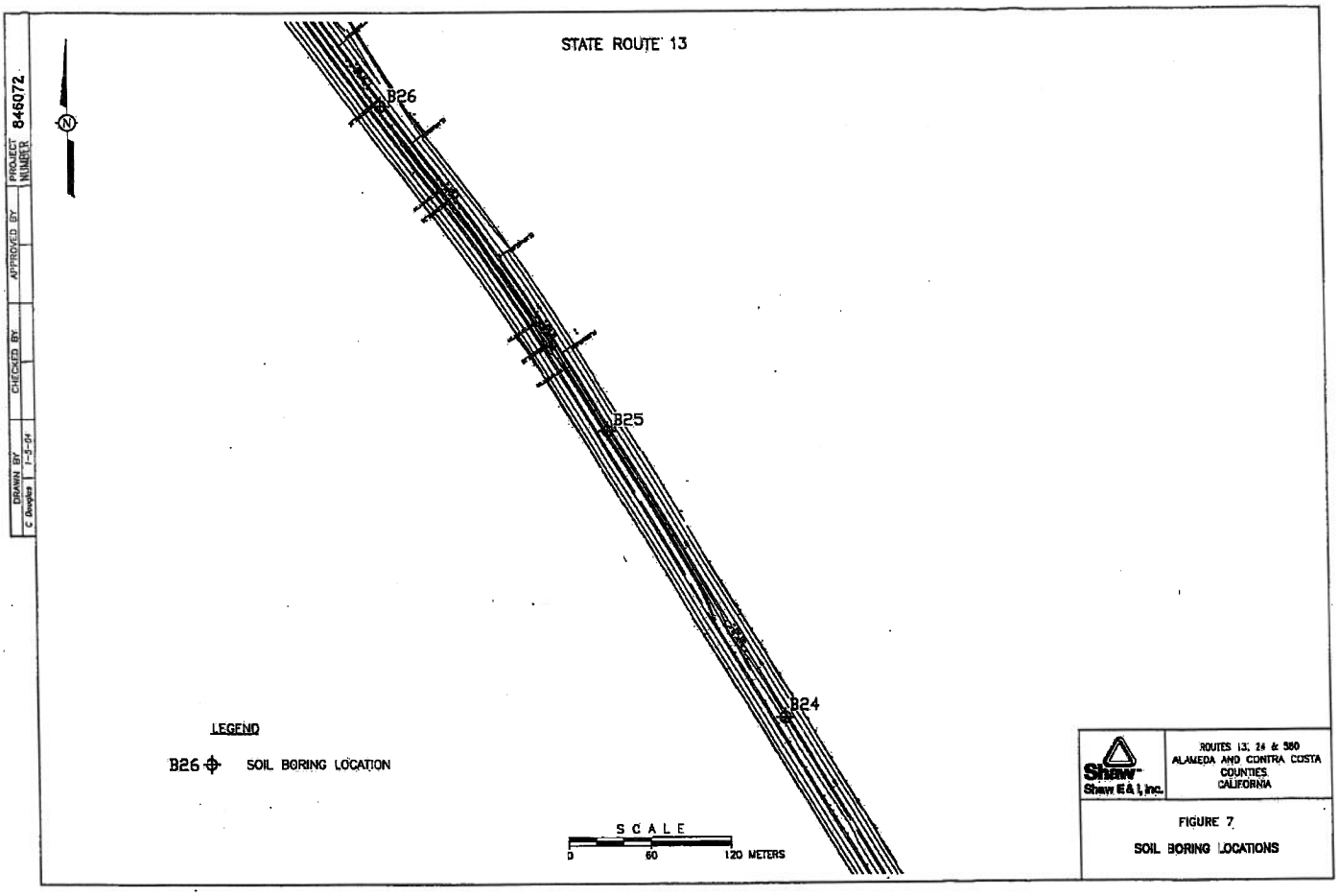
Not to Scale

Figure 1

Site Location Map
Routes 13, 24, 580.
Alameda and Contra Costa Counties, CA

Shaw™ Shaw Environmental, Inc.


STATE ROUTE 13
B28
B27
B26
LEGEND
B28 SOIL BORING LOCATION
SCALE
0
60
120 METERS
PROJECT NUMBER 846072
APPROVED BY
CHECKED BY
DRAWN BY C. Dougher
1-3-04
Shaw Shaw E & I, Inc.
ROUTES 13, 24 & 580
ALAMEDA AND CONTRA COSTA COUNTIES
CALIFORNIA
FIGURE 6
SOIL BORING LOCATIONS


STATE ROUTE 13
B26
B25
B24
N
LEGEND
B26 SOIL BORING LOCATION
SCALE
0
60
120 METERS
DRAWN BY
C. Douglas
7-5-94
CHECKED BY
APPROVED BY
PROJECT NUMBER
848072
Shaw E&I, Inc.
ROUTES 13, 24 & 580
ALAMEDA AND CONTRA COSTA
COUNTIES
CALIFORNIA
FIGURE 7
SOIL BORING LOCATIONS

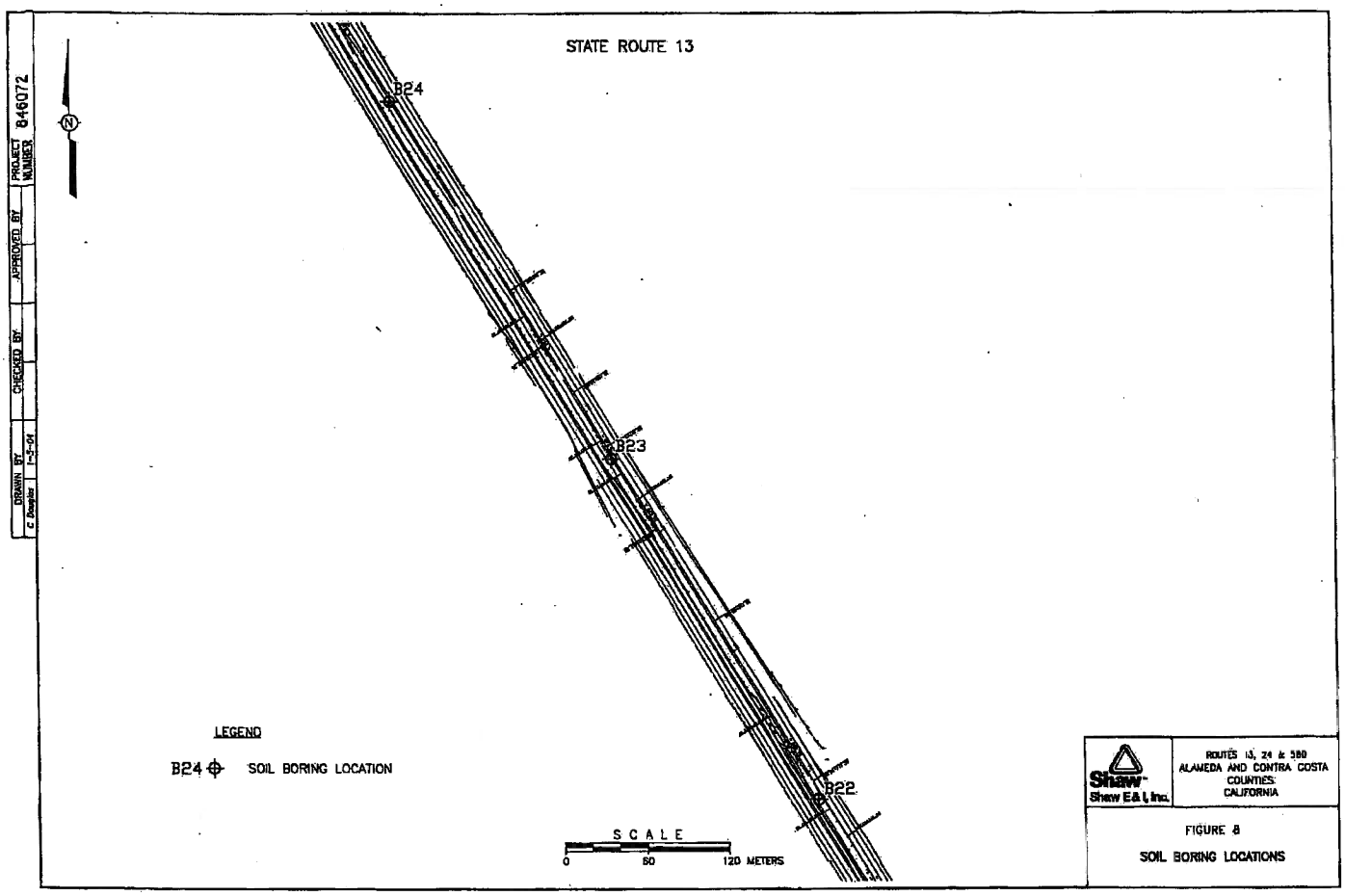
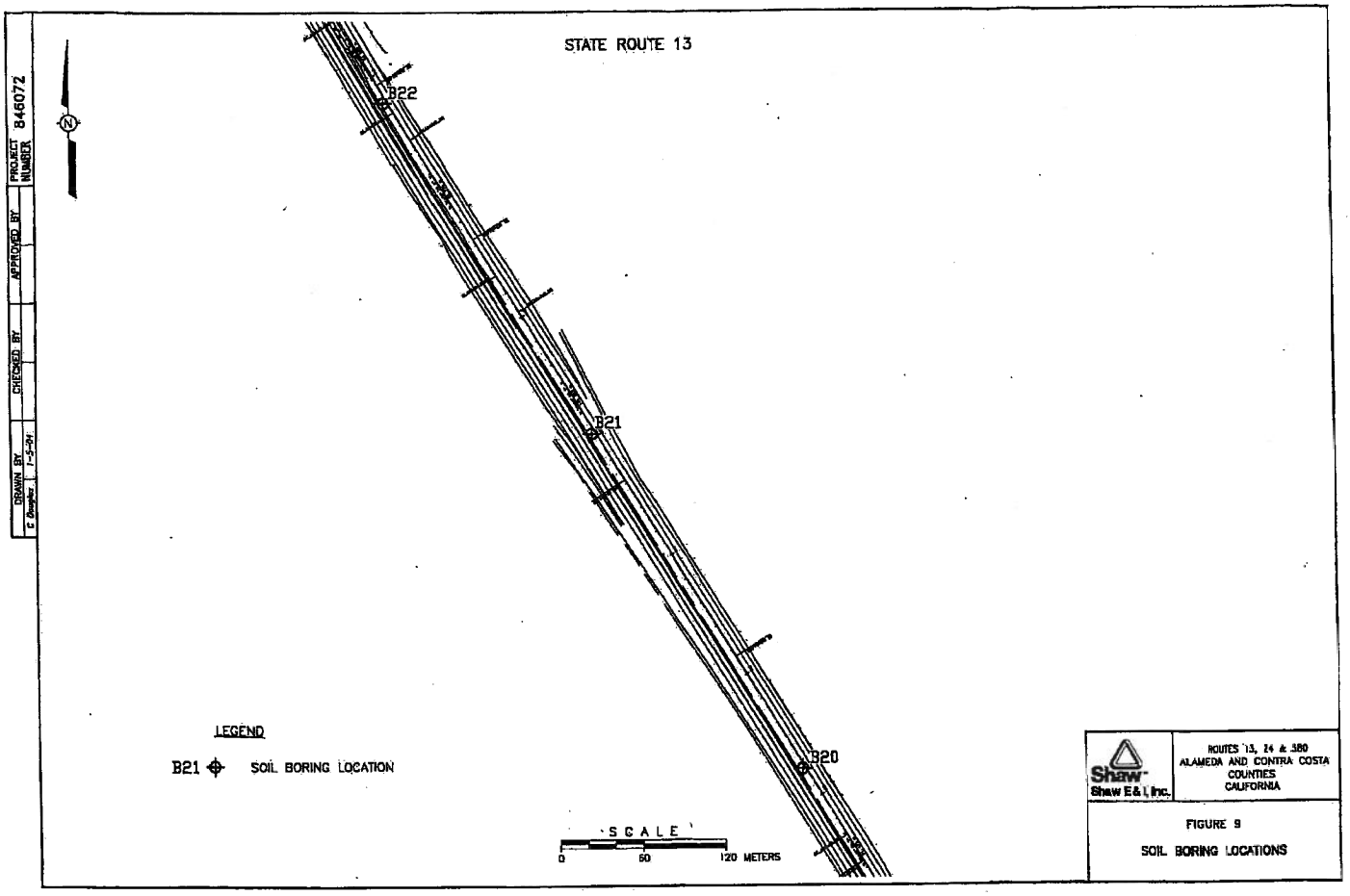


FIGURE 8

SOIL BORING LOCATIONS


STATE ROUTE 13
B22
B21
B20
LEGEND
B21 SOIL BORING LOCATION
SCALE
0
60
120 METERS
N
PROJECT NUMBER 848072
APPROVED BY
CHECKED BY
DRAWN BY
Shaw
Shaw E & I, Inc.
ROUTES 13, 24 & 580
ALAMEDA AND CONTRA COSTA
COUNTIES
CALIFORNIA
FIGURE 9
SOIL BORING LOCATIONS

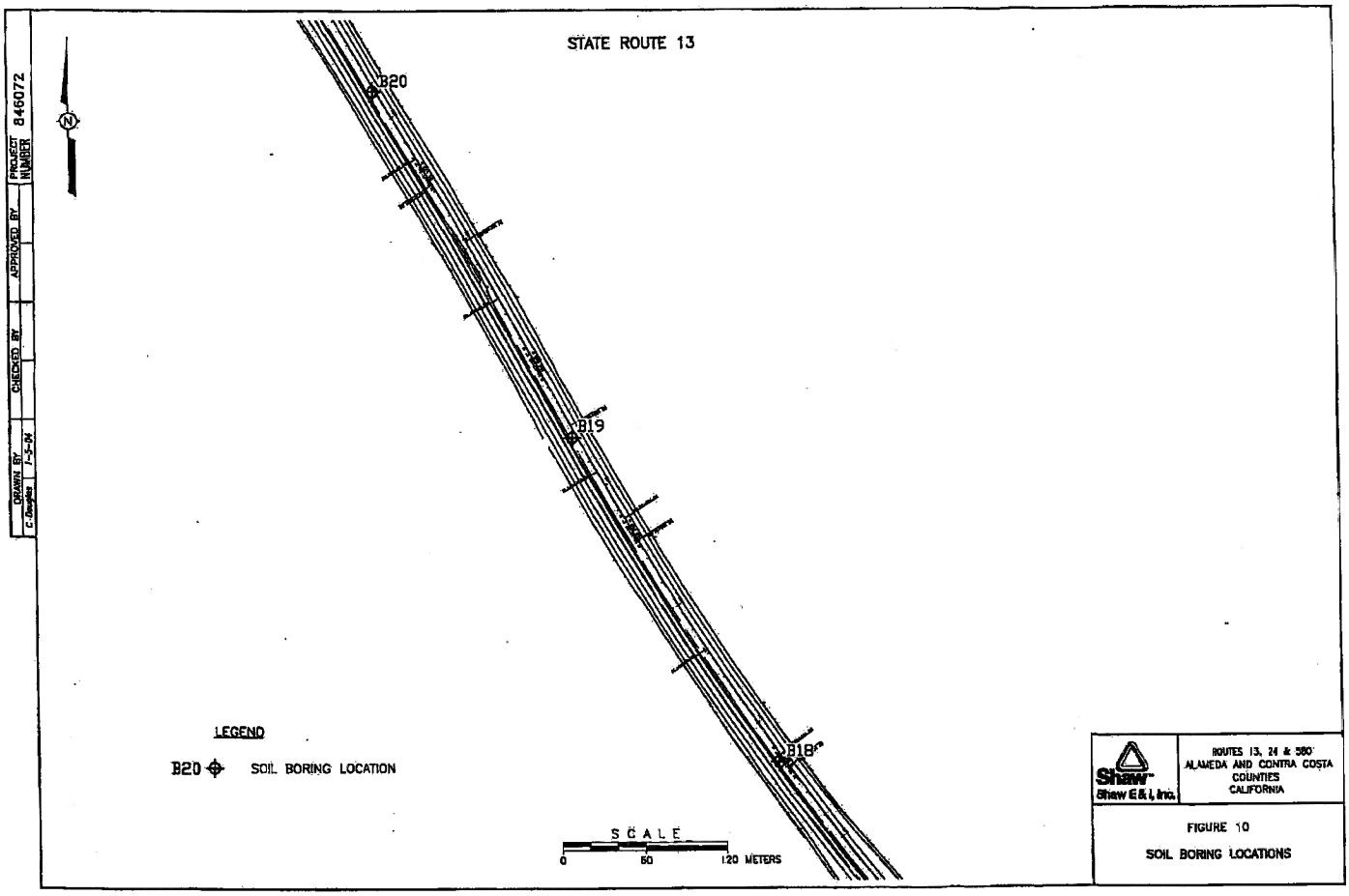


FIGURE 10

SOIL BORING LOCATIONS

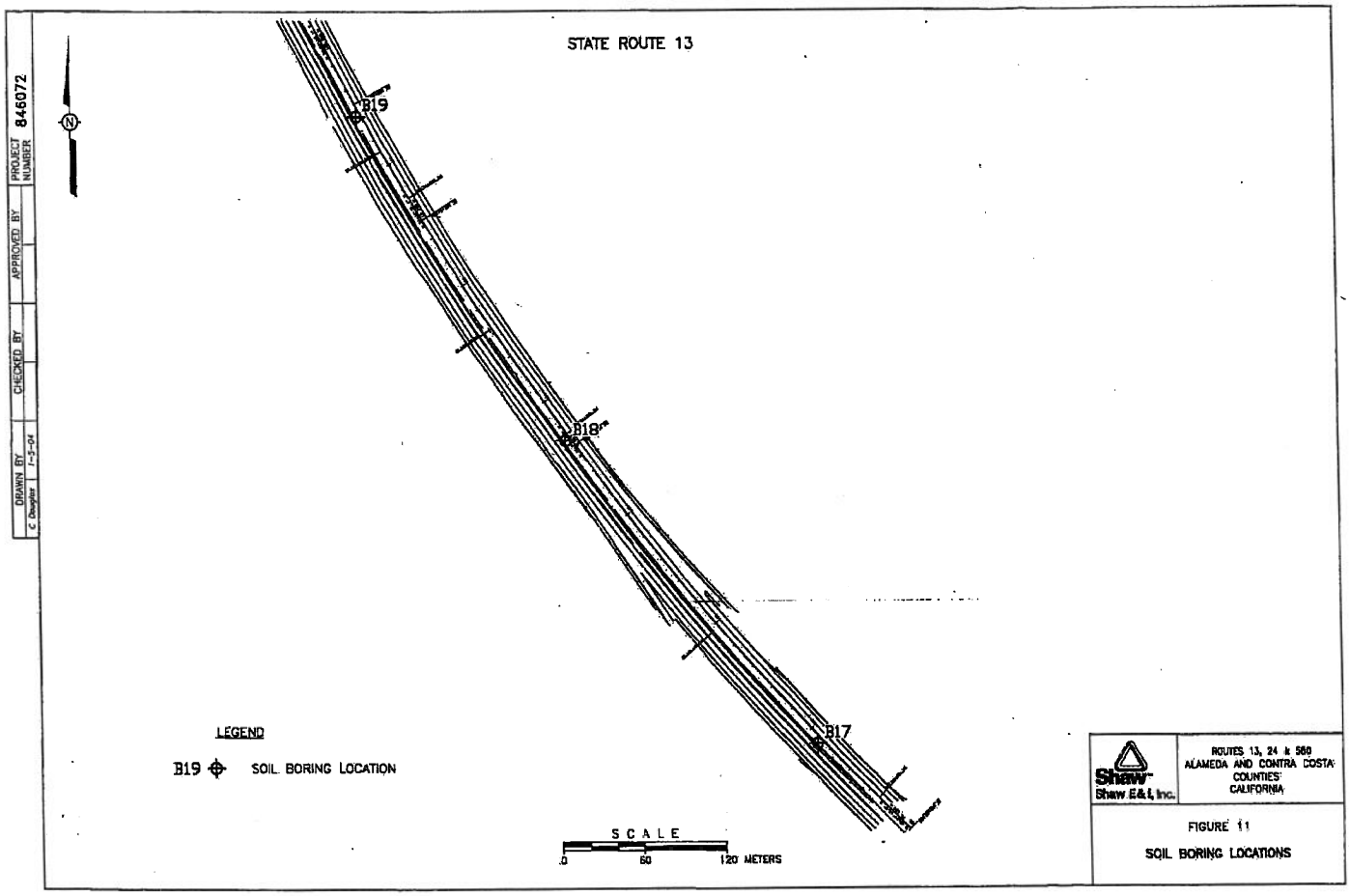


FIGURE 11

SOIL BORING LOCATIONS