APPENDIX A

Soil Boring Logs, CPT Boring Logs, and Monitor Well Boring Logs

Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring SB-18

Sheet 1 of 1

Date(s) Drilled	5/6/03		Logged By	G. Low	Checked By	Don Gruber
Drilling Method	Direct Push		Drill Bit Size/Type	NA	Total Depth Drilled (feet)	10.0
Drill Rig Type			Drilling Contractor	Gregg Drilling and Testing	Hammer Weight/ Drop (lbs/in.)	
Groundwater Level (feet)			Date Measured		Approx. Surface Elevation (feet)	
Diameter of Hole (inches)	2-inch	Diameter of Well (inches) NA	Type of Well Casing	NA	Screen Perforation	NA
Type of Sand Pack	NA		Type/Thickness of Seal(s)	Bentonite Chips		
Comments	Direct push with 1x6-inch sleeves.					

Elevation feet	Depth, feet	SAMPLES Type	Description	Blows/foot	Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	0						Asphalt.			Borehole backfilled with bentonite chips then hydrated.
							No recovery.			
			Y0WA3				Silt (ML). Gray to dark brown, trace very fine grained sand, trace clay, damp.	1338		
							No recovery.			
			Y0WA4 Y0WA5				Silt (ML). Dark gray to almost black, minor clay, trace fine grained sand, damp.	1340		
	5						No recovery.			
			Y0WA6				Silt (ML). Brown to grayish brown, minor fine grained sand, trace clay, damp to moist.	1343		
	10									

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URS Group, Inc.

Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring SB-19

Sheet 1 of 1

Date(s) Drilled	5/6/03	Logged By	G. Low	Checked By	Don Gruber
Drilling Method	Direct Push	Drill Bit Size/Type	NA	Total Depth Drilled (feet)	10.0
Drill Rig Type		Drilling Contractor	Gregg Drilling and Testing	Hammer Weight/ Drop (lbs/in.)	
Groundwater Level (feet)		Date Measured		Approx. Surface Elevation (feet)	
Diameter of Hole (inches)	2-inch / Diameter of Well (inches) NA	Type of Well Casing	NA	Screen Perforation	NA
Type of Sand Pack	NA	Type/Thickness of Seal(s)	Bentonite Chips		
Comments	Direct push with 1x6-inch sleeves.				

Elevation feet	Depth, feet	SAMPLES Type	Description	Blows/foot	Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	0						Asphalt.			Borehole backfilled with bentonite chips then hydrated.
							Silt (ML). Dark brown, minor sand and gravels up to 0.25" diameter.			
			Y0WA7				Silt (ML). Dark brown, minor very fine grained sand and gravels to 0.5" diameter.	1305		
							No recovery.			
			Y0WA8				Silt (ML). Brown, minor very fine grained sand, micaceous, damp to moist.	1307		
	5						No recovery.			
			Y0WA9				Silt (ML). Dark brown, trace very fine grained sand, micaceous, damp to moist.	1310		
	10									

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URS Group, Inc.

Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring SB-20

Date(s) Drilled	5/6/03		Logged By	G. Low	Checked By	Don Gruber
Drilling Method	Direct Push		Drill Bit Size/Type	NA	Total Depth Drilled (feet)	10.0
Drill Rig Type			Drilling Contractor	Gregg Drilling and Testing	Hammer Weight/ Drop (lbs/in.)	
Groundwater Level (feet)			Date Measured		Approx. Surface Elevation (feet)	
Diameter of Hole (inches)	2-inch	Diameter of Well (inches) NA	Type of Well Casing	NA	Screen Perforation	NA
Type of Sand Pack	NA		Type/Thickness of Seal(s)	Bentonite Chips		
Comments	Direct push with 1x6-inch sleeves.					

Elevation feet	Depth, feet	SAMPLES Type	Description	Blows/foot	Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	0						Asphalt.			Borehole backfilled with bentonite chips then hydrated.
							Silt (ML). Dark brown, minor sand and gravel to 0.25" diameter.			
			Y0WB0				Silty Sand (SM). Brown, very fine grained sand, damp.	1235		
							No recovery.			
							Silt (ML). Dark brown to gray, trace very fine grained sand, micaceous.			
	5		Y0WB1					1238		
							No recovery.			
							Silt (ML). Dark brown, trace very fine grained sand, trace clay.			
	10		Y0WB2					1242		

URS Group, Inc.

Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring SB-21

Sheet 1 of 1

Date(s) Drilled	5/6/03		Logged By	G. Low	Checked By	Don Gruber
Drilling Method	Direct Push		Drill Bit Size/Type	NA	Total Depth Drilled (feet)	10.5
Drill Rig Type			Drilling Contractor	Gregg Drilling and Testing	Hammer Weight/ Drop (lbs/in.)	
Groundwater Level (feet)			Date Measured		Approx. Surface Elevation (feet)	
Diameter of Hole (inches)	2-inch	Diameter of Well (inches) NA	Type of Well Casing	NA	Screen Perforation	NA
Type of Sand Pack	NA		Type/Thickness of Seal(s)	Bentonite Chips		
Comments	Direct push with 1x6-inch sleeves.					

Elevation feet	Depth, feet	SAMPLES Type	Description	Blows/foot	Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	0						Asphalt.			Borehole backfilled with bentonite chips then hydrated.
							Silt (ML). Dark brown, minor sand, trace gravels up to 0.25" diameter, damp.			
			Y0WB3				Silt (ML). Dark brown, trace to minor clay, fine grained sand , damp to moist.	1140		
							No recovery.			
							Silt (ML). Dark brown, minor very fine grained sand, damp to moist.			
			Y0WB4					1145		
	5						No recovery.			
							Silty Sand (SM). Brown to yellowish brown, damp to moist.			
	10		Y0WB5 Y0WB6					1150		

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Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring SB-22

Date(s) Drilled	5/5/03	Logged By	G. Low	Checked By	Don Gruber
Drilling Method	Direct Push	Drill Bit Size/Type	NA	Total Depth Drilled (feet)	10.0
Drill Rig Type		Drilling Contractor	Gregg Drilling and Testing	Hammer Weight/ Drop (lbs/in.)	
Groundwater Level (feet)		Date Measured		Approx. Surface Elevation (feet)	
Diameter of Hole (inches)	2-inch	Diameter of Well (inches)	NA	Type of Well Casing	NA	Screen Perforation	NA
Type of Sand Pack	NA	Type/Thickness of Seal(s)	Bentonite Chips		
Comments	Direct push with 1x6-inch sleeves.				

Elevation feet	Depth, feet	SAMPLES Type	Description	Blows/foot	Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	0						Asphalt.			Borehole backfilled with bentonite chips then hydrated.
							No recovery.			
			Y0WB7				Silt (ML). Dark brownish gray, minor clay, trace sand, damp to moist.	1515		
							No recovery.			
	5		Y0WB8					1520		
							No recovery.			
							Silty Clay (CL). Dark brown to grayish brown, trace very fine grained sand, damp to moist.			
	10		Y0WB9					1525		

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Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring SB-23

Sheet 1 of 1

Date(s) Drilled	5/7/03	Logged By	G. Low	Checked By	Don Gruber
Drilling Method	Direct Push	Drill Bit Size/Type	NA	Total Depth Drilled (feet)	10.0
Drill Rig Type	Ram Set	Drilling Contractor	Gregg Drilling and Testing	Hammer Weight/ Drop (lbs/in.)	
Groundwater Level (feet)		Date Measured		Approx. Surface Elevation (feet)	
Diameter of Hole (inches)	2-inch / Diameter of Well (inches) NA	Type of Well Casing	NA	Screen Perforation	NA
Type of Sand Pack	NA	Type/Thickness of Seal(s)	Bentonite Chips		
Comments	Ram set with 1x6-inch sleeves				

Elevation feet	Depth, feet	SAMPLES Type	SAMPLES Description	Blows/foot	Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	0						Concrete surface.	1020		Borehole backfilled with bentonite chips then hydrated.
							No recovery.			
			Y0WC0				Silty Sand (SM). Dark brown to grayish brown, very fine grained sand, damp to moist.	1040		
							No recovery.			
			Y0WC1				Silt (ML). Dark brown, minor very fine grained sand, moist.	1046		
	5						No recovery.			
			Y0WC2				Silt (ML). Dark brownish gray, minor to trace very fine grained sand and clay, damp to moist.	1055		
	10									

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URS Group, Inc.

Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring SB-24

Date(s) Drilled	5/5/03 - 5/6/03		Logged By	G. Low	Checked By	Don Gruber
Drilling Method	Direct Push		Drill Bit Size/Type	NA	Total Depth Drilled (feet)	10.0
Drill Rig Type			Drilling Contractor	Gregg Drilling and Testing	Hammer Weight/ Drop (lbs/in.)	
Groundwater Level (feet)			Date Measured		Approx. Surface Elevation (feet)	
Diameter of Hole (inches)	2-inch	Diameter of Well (inches) NA	Type of Well Casing	NA	Screen Perforation	NA
Type of Sand Pack	NA		Type/Thickness of Seal(s)	Bentonite Chips		
Comments	Loading dock area. Direct push with 1x6-inch sleeves.					

Elevation feet	Depth, feet	SAMPLES Type	Description	Blows/foot	Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	0						Asphalt.			Borehole backfilled with bentonite chips then hydrated.
							Silt (ML). Dark brown, minor very fine grained sand.			
			Y0WC3 5/5/03					0948		
							No recovery.			
							5/5/03 - Drilled with no recovery from 1.5-5.0', unable to collect 5' soil sample due to insufficient recovery from 5-5.25'. Continued to drill in this boring and collected 10' sample.			
							5/6/03 - Moved over and redrilled to collect 5' sample only - recovery from 4.25-5' - no lithologic description.			
	5		Y0WC4 5/6/03					1105		
							Silty Sand (SM). Brown, very fine grained sand.			
							No recovery.			
					21		Downwind of generator heat and exhaust.			
							Silty Sand (SM). Dark brown, trace gravel to 0.25" diameter.			
			Y0WC5 5/5/03					1015		
	10									

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Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring SB-25

Sheet 1 of 1

Date(s) Drilled	5/5/03	Logged By	G. Low	Checked By	Don Gruber
Drilling Method	Direct Push	Drill Bit Size/Type	NA	Total Depth Drilled (feet)	12.0
Drill Rig Type		Drilling Contractor	Gregg Drilling and Testing	Hammer Weight/ Drop (lbs/in.)	
Groundwater Level (feet)		Date Measured		Approx. Surface Elevation (feet)	
Diameter of Hole (inches)	2-inch	Diameter of Well (inches)	NA	Type of Well Casing	NA	Screen Perforation	NA
Type of Sand Pack	NA	Type/Thickness of Seal(s)	Bentonite Chips		
Comments	Direct push with 1x6-inch sleeves.				

Elevation feet	Depth, feet	SAMPLES Type	Description	Blows/foot	Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	0						Asphalt.			Borehole backfilled with bentonite chips then hydrated.
							No recovery.			
							Encountered gravels up to 0.25" diameter and a gray to black obsidian-like material.			
			Y0WC6 Y0WC7				Silt (ML). Dark brown, minor very fine grained sand, trace gravels.	1040		
							No recovery.			
							Silt (ML). Brown to reddish brown, minor very fine grained sand.			
	5		Y0WC8		25.3		No recovery.	1055		
	10				32.7			1115		

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URS Group, Inc.

Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring SB-26

Sheet 1 of 1

Date(s) Drilled	5/5/03	Logged By	G. Low	Checked By	Don Gruber
Drilling Method	Direct Push	Drill Bit Size/Type	NA	Total Depth Drilled (feet)	10.0
Drill Rig Type		Drilling Contractor	Gregg Drilling and Testing	Hammer Weight/ Drop (lbs/in.)	
Groundwater Level (feet)		Date Measured		Approx. Surface Elevation (feet)	
Diameter of Hole (inches)	2-inch / Diameter of Well (inches): NA	Type of Well Casing	NA	Screen Perforation	NA
Type of Sand Pack	NA	Type/Thickness of Seal(s)	Bentonite Chips		
Comments	Direct push with 1x6-inch sleeves.				

Elevation feet	Depth, feet	SAMPLES Type	Description	Blows/foot	Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	0						Asphalt.			Borehole backfilled with bentonite chips then hydrated.
					10.7		Silt (ML). Dark brown, minor very fine grained sand, trace fine gravels, moist.			
			Y0WD0				Silt (ML). Dark brown, minor very fine grained sand, moist.	1150		
							No recovery.			
							Silty Sand (SM). Dark brown, very fine grained sand, moist.			
	5		Y0WD1					1200		
							No recovery.			
							No description.			
	10		Y0WD2		5.3			1210		

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URS Group, Inc.

Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring SB-27

Sheet 1 of 1

Date(s) Drilled	5/6/03			Logged By	G. Low	Checked By	Don Gruber
Drilling Method	Direct Push			Drill Bit Size/Type	NA	Total Depth Drilled (feet)	15.0
Drill Rig Type				Drilling Contractor	Gregg Drilling and Testing	Hammer Weight/ Drop (lbs/in.)	
Groundwater Level (feet)				Date Measured		Approx. Surface Elevation (feet)	
Diameter of Hole (inches)	2-inch	Diameter of Well (inches)	NA	Type of Well Casing	NA	Screen Perforation	NA
Type of Sand Pack	NA			Type/Thickness of Seal(s)	Bentonite Chips		
Comments	Direct push with 1x6-inch sleeves.						

Elevation feet	Depth, feet	SAMPLES Type	Description	Blows/foot	Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	0						Asphalt.			Borehole backfilled with bentonite chips then hydrated.
							Silt (ML). Dark brown, minor very fine grained sand, trace gravels to 0.25" diameter.			
							Silt (ML). Dark brown, minor very fine grained sand.			
			Y0WD3					0745		
							No recovery.			
							Silt (ML). Dark brown to grayish brown, minor very fine grained sand, trace clay.			
	5		Y0WD4					0748		
							No recovery.			
							Silt (ML). Light to medium brown to light grayish brown, minor to trace sand and clay.			
	10		Y0WD5					0755		
							No recovery.			
			Y0WD6 Y0WD7					0800		
	15									

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URS Group, Inc.

Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring SB-28

Sheet 1 of 1

Date(s) Drilled	5/5/03		Logged By	G. Low	Checked By	Don Gruber
Drilling Method	Direct Push		Drill Bit Size/Type	NA	Total Depth Drilled (feet)	15.0
Drill Rig Type			Drilling Contractor	Gregg Drilling and Testing	Hammer Weight/ Drop (lbs/in.)	
Groundwater Level (feet)			Date Measured		Approx. Surface Elevation (feet)	
Diameter of Hole (inches)	2-inch	Diameter of Well (inches) NA	Type of Well Casing	NA	Screen Perforation	NA
Type of Sand Pack	NA		Type/Thickness of Seal(s)	Bentonite Chips		
Comments	Loading dock area. Direct push with 1x6-inch sleeves.					

Elevation feet	Depth, feet	SAMPLES Type	Description	Blows/foot	Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	0						Asphalt.			Borehole backfilled with bentonite chips then hydrated.
					1.2		No recovery.			
			Y0WD8				Silt (ML). Minor very fine grained sand, damp to moist. Sandy gravel lense at 1.5'.	1240		
							No recovery.			
			Y0WD9				Silt (ML). Dark brown, minor to trace sand, damp to moist.	1250		
	5						No recovery.			
	10									
			Y0WE0				Silt (ML). Minor sand, damp to moist.	1300		
							No recovery.			
			Y0WE1				Silt (ML). Dark brown, minor sand, trace gravel to 0.25" diameter.	1310		
	15									

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URS Group, Inc.

Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring SB-29

Sheet 1 of 1

Date(s) Drilled	5/5/03	Logged By	G. Low	Checked By	Don Gruber
Drilling Method	Direct Push	Drill Bit Size/Type	NA	Total Depth Drilled (feet)	17.0
Drill Rig Type		Drilling Contractor	Gregg Drilling and Testing	Hammer Weight/ Drop (lbs/in.)	
Groundwater Level (feet)		Date Measured		Approx. Surface Elevation (feet)	
Diameter of Hole (inches)	2-inch / Diameter of Well (inches) NA	Type of Well Casing	NA	Screen Perforation	NA
Type of Sand Pack	NA	Type/Thickness of Seal(s)	Bentonite Chips		
Comments	Parking Lot/loading dock area. Direct push with 1x6-inch sleeves.				

Elevation feet	Depth, feet	SAMPLES Type	Description	Blows/foot	Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	0						Asphalt.			Borehole backfilled with bentonite chips then hydrated.
							Sandy Silt (ML). Light to medium brown, trace fine gravels, damp.			
			Y0WE2		3.1			1400		
							No recovery.			
							Silt (ML). Dark brown, minor sand, trace clay, damp to moist.			
	5		Y0WE3					1405		
							No recovery.			
							Silt (ML). Brown, minor to trace clay, trace sand, damp to moist.			
	10		Y0WE4					1410		
							No recovery.			
	15						Silt (ML). Brown, minor clay, damp.			
			Y0WE5		5.8			1425		

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URS Group, Inc.

Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring SB-30

Sheet 1 of 1

Date(s) Drilled	5/6/03	Logged By	G. Low	Checked By	Don Gruber
Drilling Method	Direct Push	Drill Bit Size/Type	NA	Total Depth Drilled (feet)	15.0
Drill Rig Type		Drilling Contractor	Gregg Drilling and Testing	Hammer Weight/ Drop (lbs/in.)	
Groundwater Level (feet)		Date Measured		Approx. Surface Elevation (feet)	
Diameter of Hole (inches)	2-inch / Diameter of Well (inches): NA	Type of Well Casing	NA	Screen Perforation	NA
Type of Sand Pack	NA	Type/Thickness of Seal(s)	Bentonite Chips		
Comments	Direct push with 1x6-inch sleeves.				

Elevation feet	Depth, feet	SAMPLES Type	Description	Blows/foot	Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	0						Asphalt.			Borehole backfilled with bentonite chips then hydrated.
					12.6		Silt (ML). Dark brown, trace very fine grained sand, damp.			
			Y0WE6					0825		
							No recovery.			
							Silt (ML). Dark brown, minor to trace sand, damp to moist.			
	5		Y0WE7					0840		
							No recovery. Encountered a hard, 2-3" thick obsidian-like material at 5.5'.			
			Y0WE8					0850		
							Silt (ML). Dark brown, trace very fine grained sand and clay, damp to moist.			
	10		Y0WE9					0858		
							No recovery.			
							Silt (ML). Dark gray to brownish gray, minor clay, damp to moist.			
	15		Y0WF0		67.3			0908		

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URS Group, Inc.

Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring SB-31

Sheet 1 of 1

Date(s) Drilled	5/6/03	Logged By	G. Low	Checked By	Don Gruber
Drilling Method	Direct Push	Drill Bit Size/Type	NA	Total Depth Drilled (feet)	15.0
Drill Rig Type		Drilling Contractor	Gregg Drilling and Testing	Hammer Weight/ Drop (lbs/in.)	
Groundwater Level (feet)		Date Measured		Approx. Surface Elevation (feet)	
Diameter of Hole (inches)	2-inch	Diameter of Well (inches)	NA	Type of Well Casing	NA	Screen Perforation	NA
Type of Sand Pack	NA	Type/Thickness of Seal(s)	Bentonite Chips		
Comments	Direct push with 1x6-inch sleeves.				

Elevation feet	Depth, feet	SAMPLES Type	SAMPLES Description	Blows/foot	Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	0						Asphalt.			Borehole backfilled with bentonite chips then hydrated.
			Y0WF1				Silt (ML). Dark gray to brown, minor sand, trace gravel to 0.25" diameter, damp.	0944		
							No recovery.			
	5		Y0WF2				Silt (ML). Dark brown, minor very fine grained sand.	0950		
							No recovery.			
	10		Y0WF3				Silt (ML). Grayish brown, minor to trace clay, damp to moist.	0955		
							No recovery.			
	15		Y0WF4				Silt (ML). Dark brown, minor very fine grained sand, damp to moist.	1000		

Report: ENV_1A; Project File: J:\COOPER~1\COOPERMW.GPJ; Data Template:WC_CORP1.GDT Printed: 3/22/04

URS Group, Inc.

Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring SB-32

Sheet 1 of 1

Date(s) Drilled	5/7/03		Logged By	G. Low	Checked By	Don Gruber
Drilling Method	Direct Push		Drill Bit Size/Type	NA	Total Depth Drilled (feet)	15.0
Drill Rig Type	Ram Set		Drilling Contractor	Gregg Drilling and Testing	Hammer Weight/ Drop (lbs/in.)	
Groundwater Level (feet)			Date Measured		Approx. Surface Elevation (feet)	
Diameter of Hole (inches)	2-inch	Diameter of Well (inches) NA	Type of Well Casing	NA	Screen Perforation	NA
Type of Sand Pack	NA		Type/Thickness of Seal(s)	Bentonite Chips		
Comments	Direct push with 1x6-inch sleeves.					

Elevation feet	Depth, feet	SAMPLES Type	Description	Blows/foot	Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	0						Concrete surface.			Borehole backfilled with bentonite chips then hydrated.
							No recovery.			
	5									
	10		Y0WA1				Sand (SP). Grayish brown, very fine to fine grained, minor silt, strong chemical or solvent-like odor, damp.	0925		
							No recovery.			
	15		Y0WA2				Silt (ML). Dark gray to brown, minor very fine grained sand and clay, damp to moist.	0930		

Report: ENV_1A; Project File: J:\COOPER~1\COOPERMW.GPJ; Data Template:WC_CORP1.GDT Printed: 3/23/04

URS Group, Inc.

Project: Cooper Drum

Location: 9316 S. Atlantic Ave., South Gate, CA **Project Number: 18600047.03020**

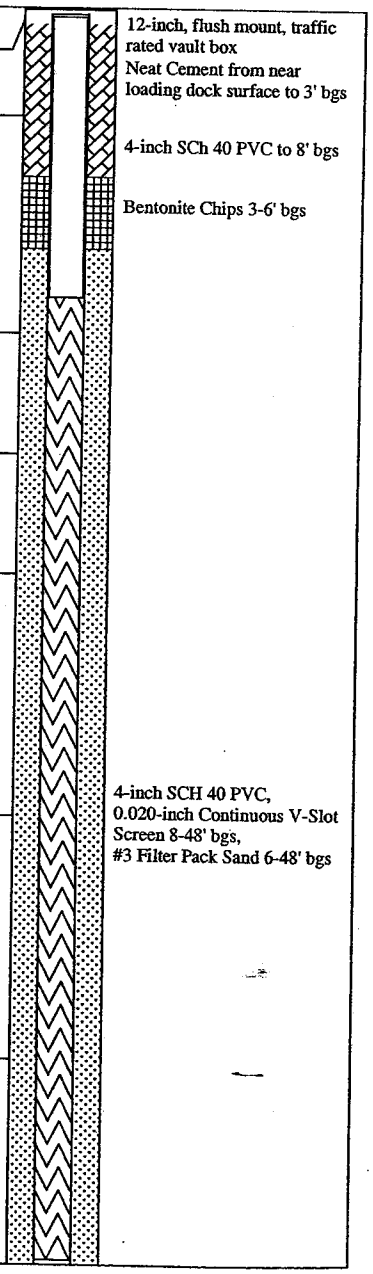
Log of Monitoring Well: SVE-2

Dates Drilled: 2/27/04	Total Depth: 48 feet bgs		Borehole Name:
Dr... Contractor: Gregg Drilling and Testing	Well Construction Date: 2/27/04		Logged By: R. Morley
...e Diameter: 10-inch	Casing Diameter: 4-inch	Casing Type: SCH 40 PVC	Checked By: Don Gruber
Drilling Method: Hollow Stem Auger	Screen Interval: 8-48 feet	Slot Size: 0.020-inch	Sampling Method:

Comments: Soil logged from cuttings. Well constucted on loading dock, 4 ft above ground surface.

Depth (Vertical Feet)	Sample Interval	PID (ppm)	BH/BZ	Time	Graphic Log	LITHOLOGY DESCRIPTION
						Loading Dock.
0		423	0.4	0750		Silty Sand (SM). Greenish black (Gley 2.5/10Y), fine grained sand, minor rock fragments from 0.5" to 1" diameter, angular, black staining, strong odor, moist.
5		800	2.1	0753		No rock fragments.
10		1500	5.6	0758		Sandy Silt (ML). Very dark greenish gray (Gley 3/10Y), 20% very fine grained sand, staining, strong odor, moist.
		493	3.0	0805		Silty Sand (SM). Dark olive gray (5Y 3/2), 80% fine grained sand, 20% silt, minor silty clay chunks, strong odor, dry.
20		228	0.4	0810		Sandy Silt (ML). Dark olive gray (5Y 3/2), 20% very fine grained sand, strong odor, dry.
25		235	0.3	0815		
30		250	--	0818		Clayey Silt (ML). Black (5Y 2.5/2), 30% clay, slightly plastic, strong odor, moist.
35		55	0.0	0823		Damp.
40		7.5	0.0	0830		Silty Sand (SM). Olive (5Y 4/3), 80% fine grained sand, 20% silt, slight odor, wet.
45		16.9	--	0835		70% fine grained sand, 30% silt, saturated.

WELL CONSTRUCTION



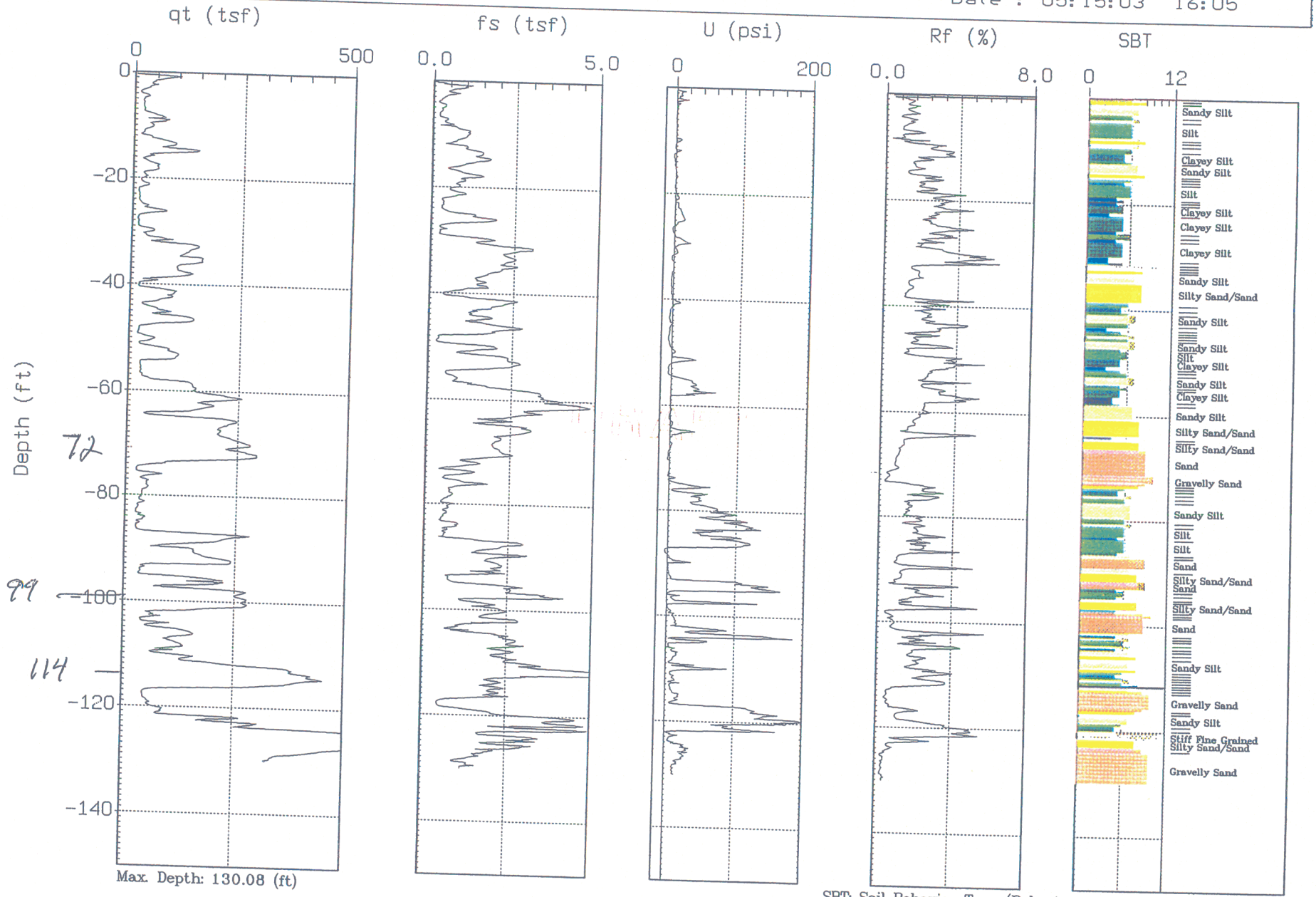
URS 2870 Gateway Oaks Dr., Ste 300
Sacramento, CA 95833
916-679-2000

GREGG

URS

Site : COOPER DRUM
Location : CPT-25

Geologist : DON GRUBER
Date : 05:15:03 16:05



Max. Depth: 130.08 (ft)

Depth Inc.: 0.164 (ft)

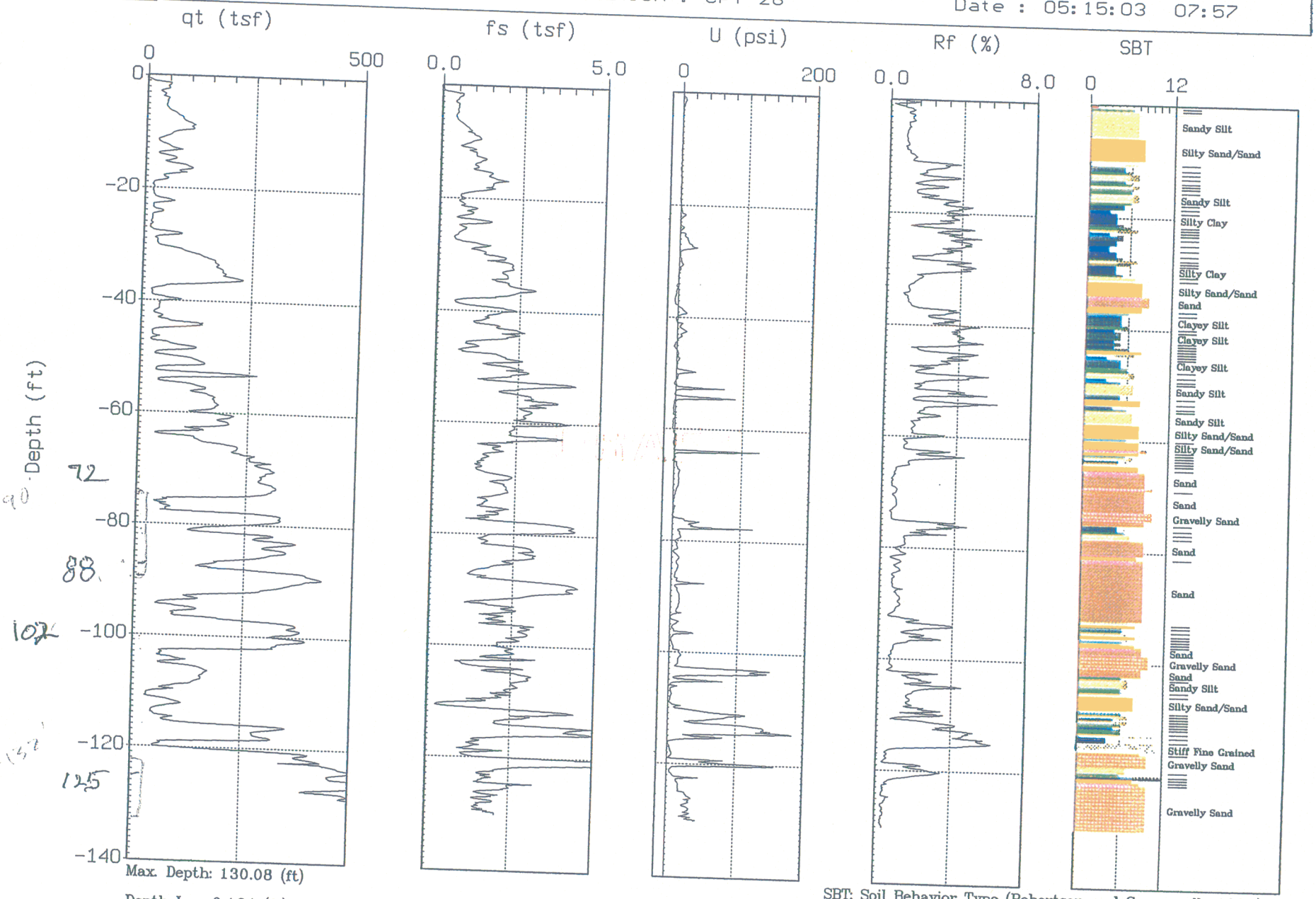
SBT: Soil Behavior Type (Robertson and Campanella 1988)

GREGG

URS

Site : COOPER DRUM
Location : CPT-26

Geologist : DON GRUBER
Date : 05:15:03 07:57



Max. Depth: 130.08 (ft)

Depth Inc.: 0.164 (ft)

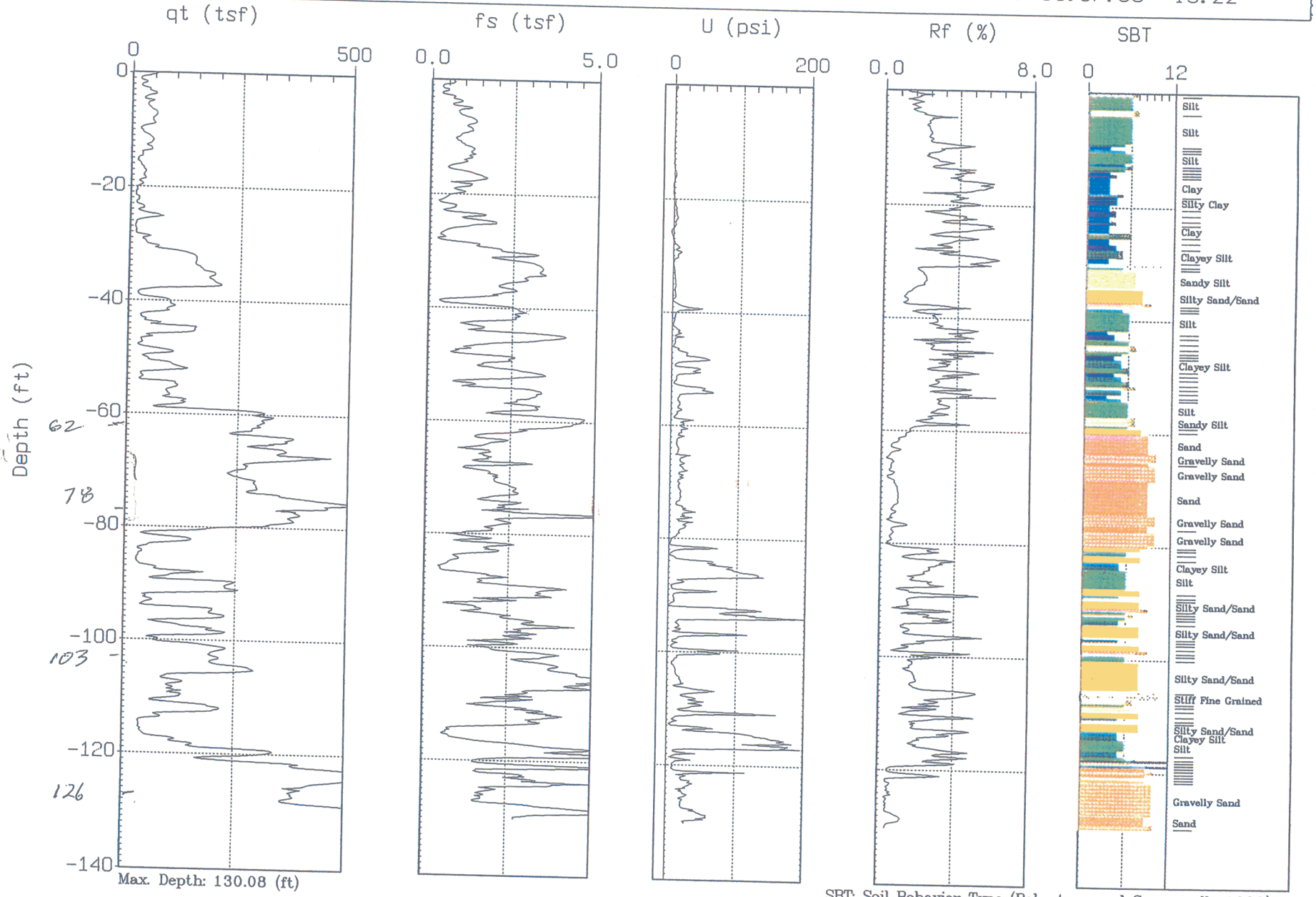
SBT: Soil Behavior Type (Robertson and Campanella 1988)

GREGG

URS

Site : COOPER DRUM
Location : CPT-27

Geologist : DON GRUBER
Date : 05:07:03 13:22



Max. Depth: 130.08 (ft)

Depth Inc.: 0.164 (ft)

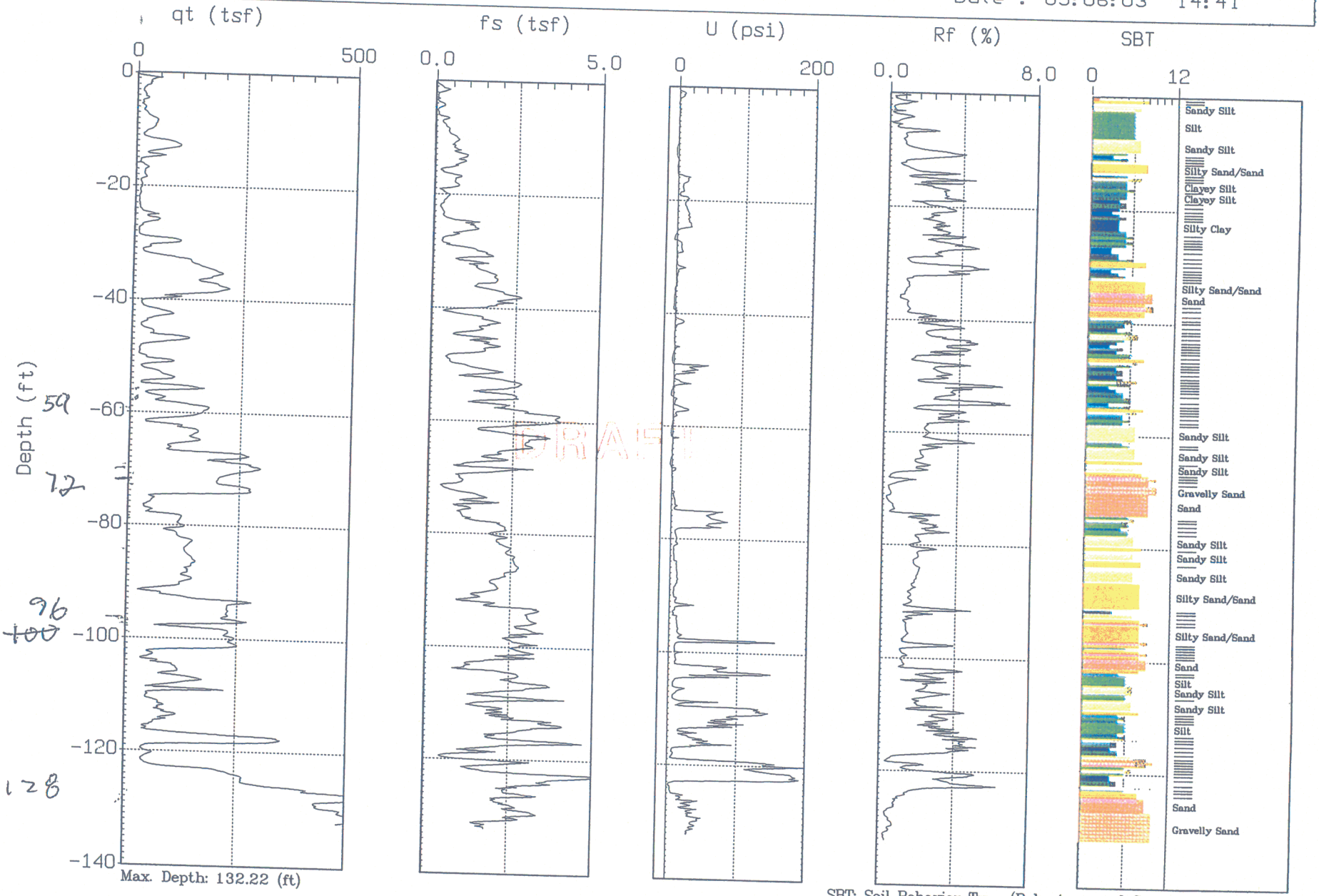
SBT: Soil Behavior Type (Robertson and Campanella 1988)

GREGG

URS

Site : COOPER DRUM
Location : CPT-28

Geologist : DON GRUBER
Date : 05:06:03 14:41



Max. Depth: 132.22 (ft)

Depth Inc.: 0.164 (ft)

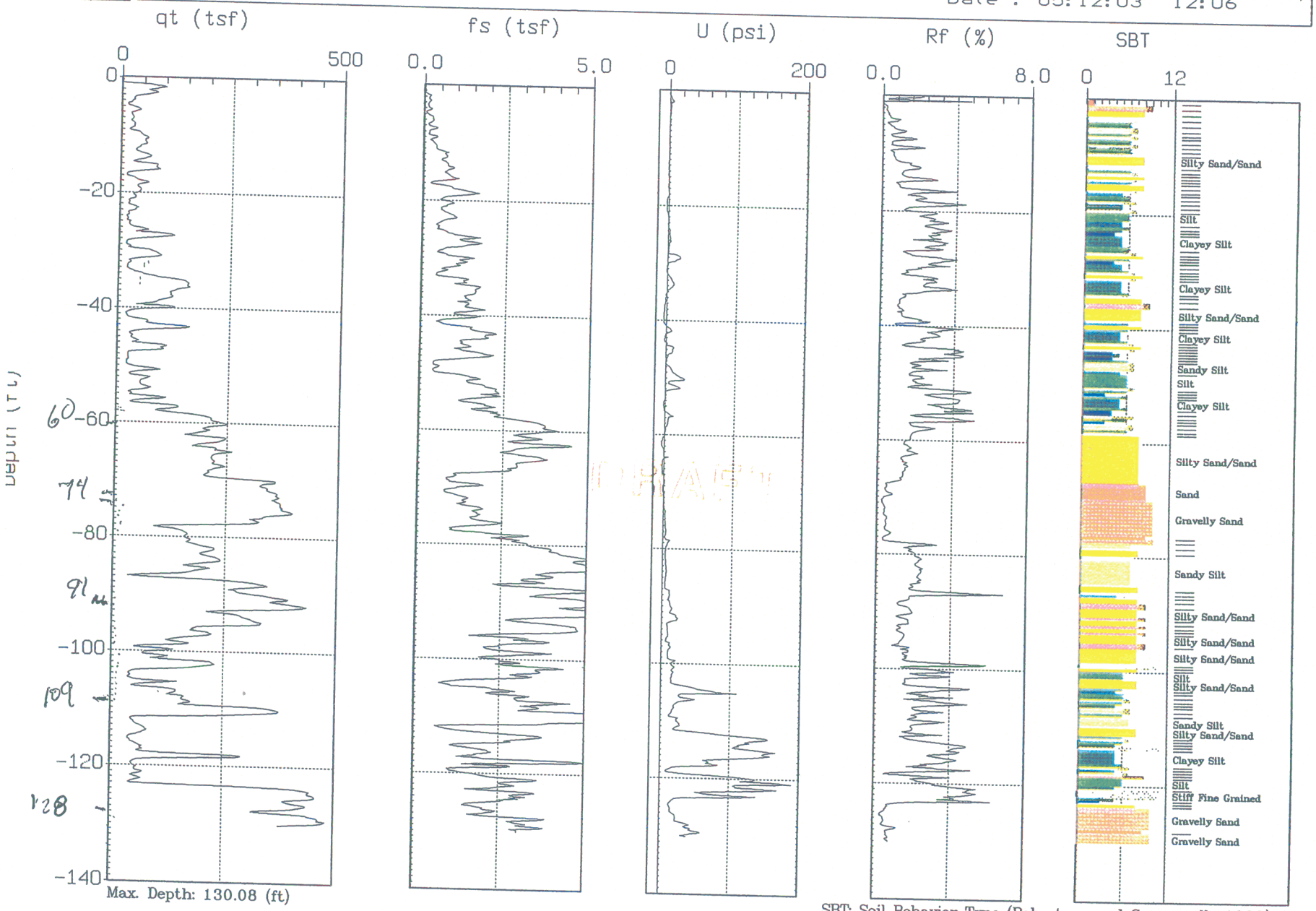
SBT: Soil Behavior Type (Robertson and Campanella 1988)

GREGG

URS

Site : COOPER DRUM
Location : CPT-29

Geologist : DON GRUBER
Date : 05:12:03 12:06



Max. Depth: 130.08 (ft)

Depth Inc.: 0.164 (ft)

SBT: Soil Behavior Type (Robertson and Campanella 1988)

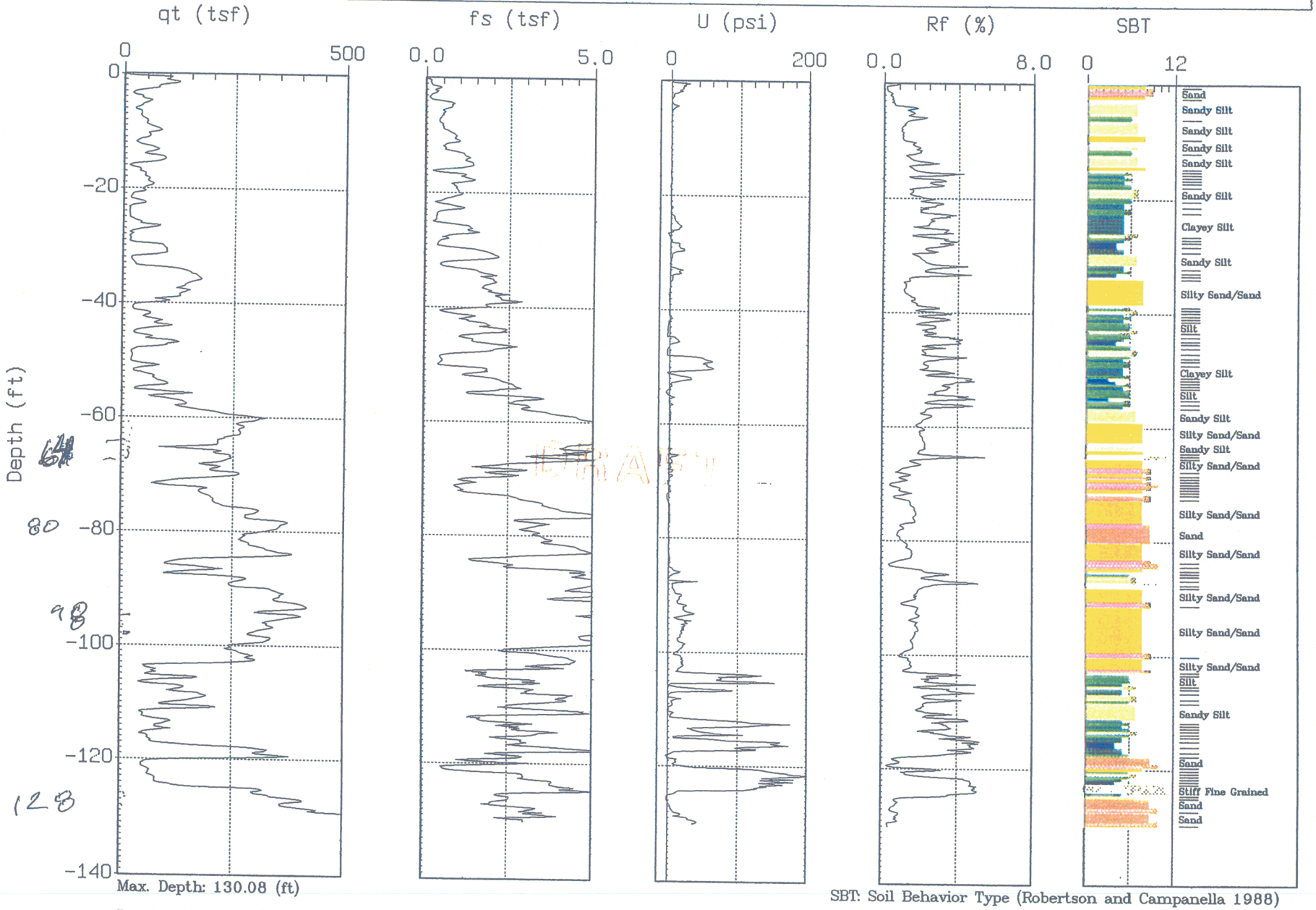
DRAFT

GREGG

URS

Site : COOPER DRUM
Location : CPT-30

Geologist : DON GRUBER
Date : 05:13:03 08:36



Max. Depth: 130.08 (ft)

Depth Inc.: 0.164 (ft)

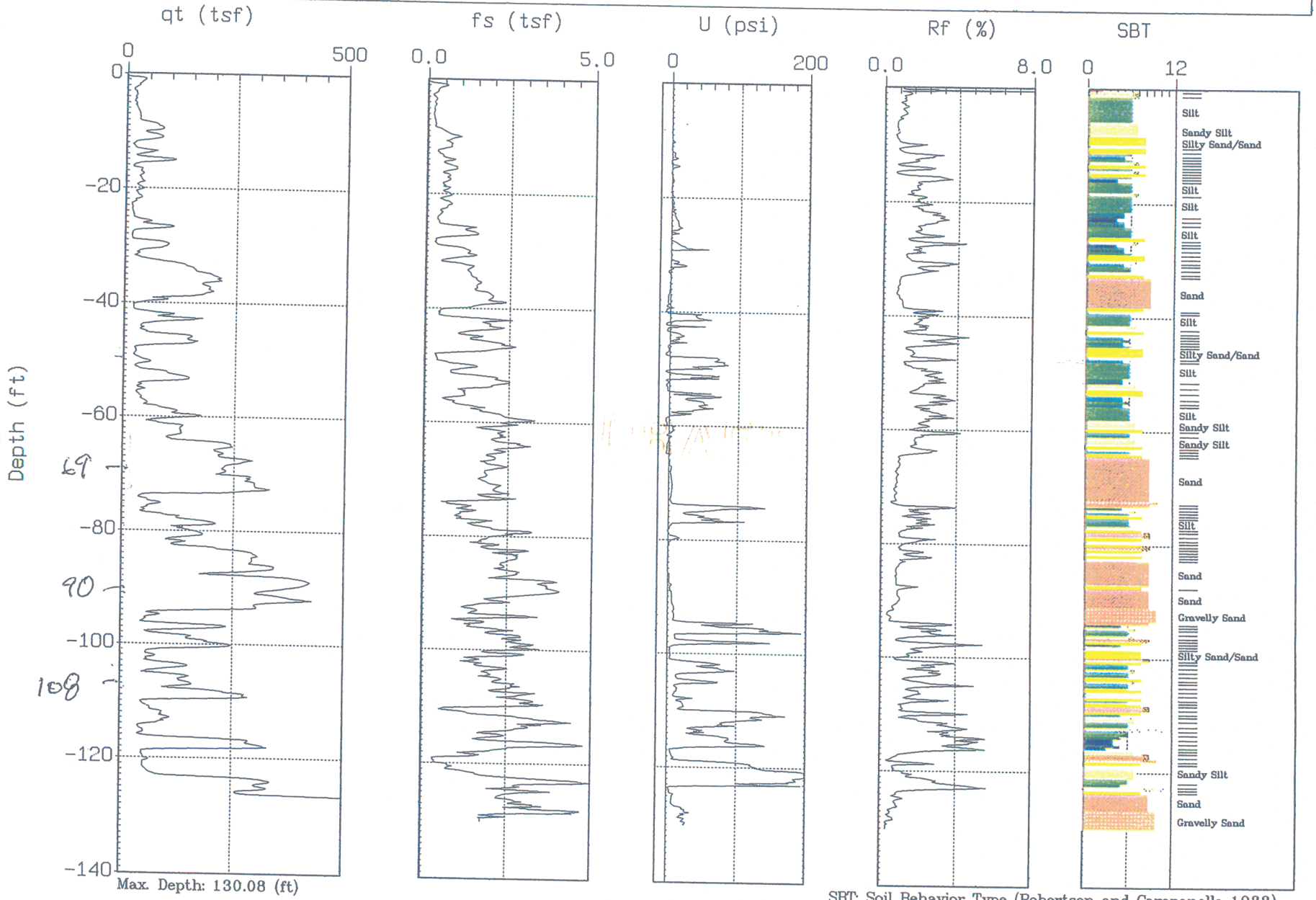
SBT: Soil Behavior Type (Robertson and Campanella 1988)

GREGG

URS

Site : COOPER DRUM
Location : CPT-31

Geologist : DON GRUBER
Date : 05:14:03 08:04



Max. Depth: 130.08 (ft)

Depth Inc.: 0.164 (ft)

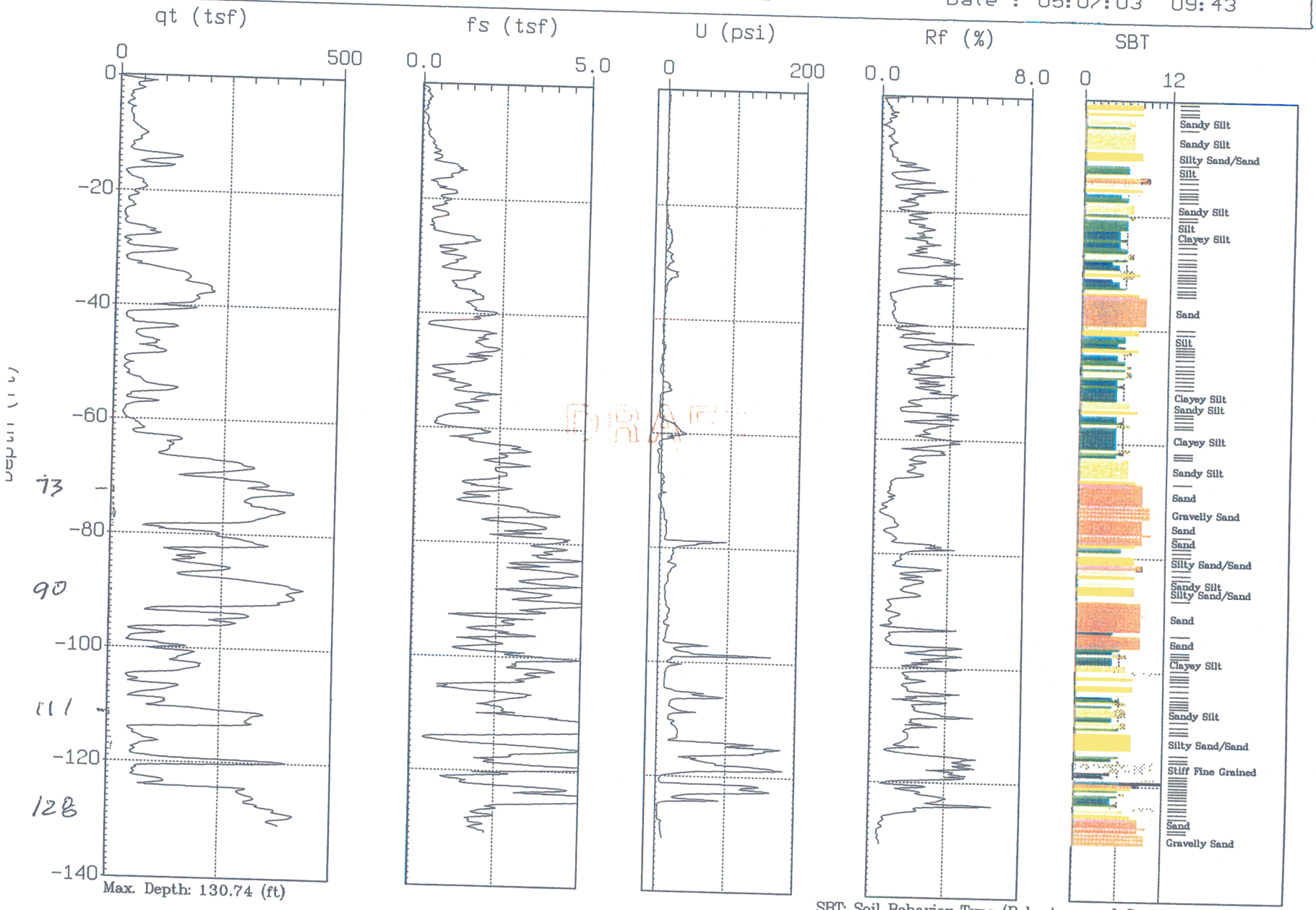
SBT: Soil Behavior Type (Robertson and Campanella 1988)

GREGG

URS

Site : COOPER DRUM
Location : CPT-32

Geologist : DON GRUBER
Date : 05:07:03 09:43



Max. Depth: 130.74 (ft)
Depth Inc.: 0.164 (ft)

SBT: Soil Behavior Type (Robertson and Campanella 1988)

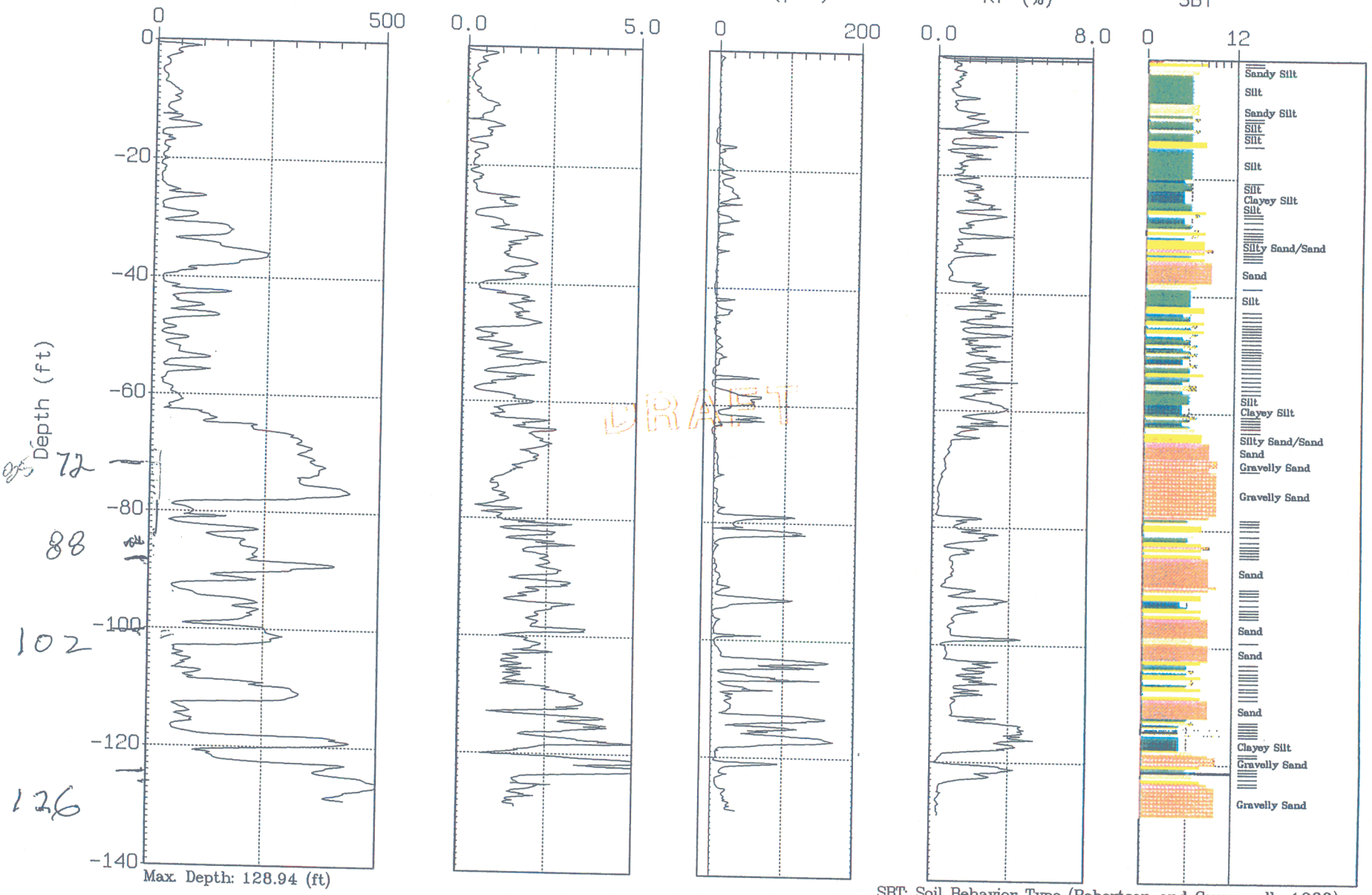
DRAFT

GREGG

URS

Site : COOPER DRUM
Location : CPT-33

Geologist : DON GRUBER
Date : 05:05:03 09:56



Max. Depth: 128.94 (ft)

Depth Inc.: 0.164 (ft)

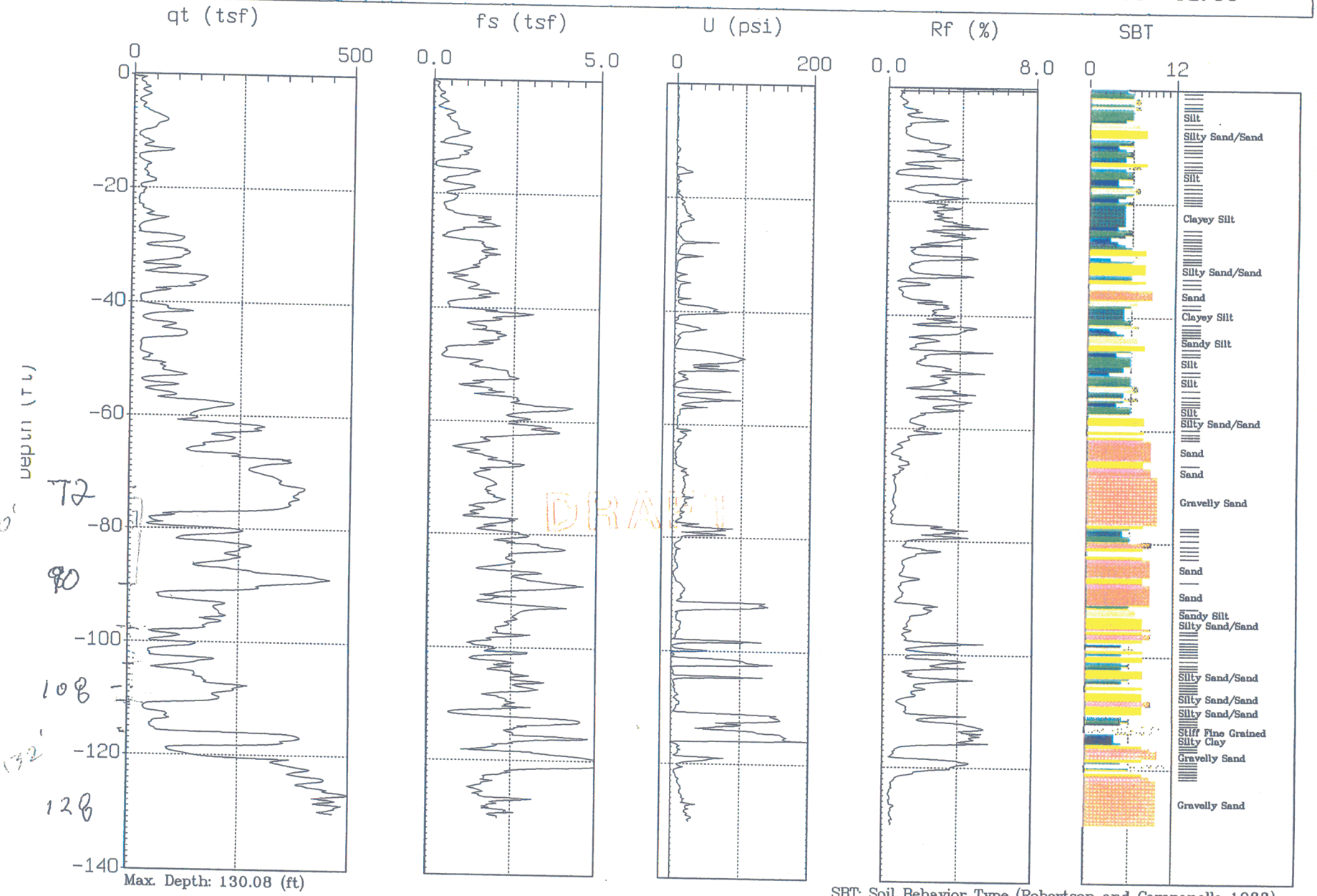
SBT: Soil Behavior Type (Robertson and Campanella 1988)

GREGG

URS

Site : COOPER DRUM
Location : CPT-34

Geologist : DON GRUBER
Date : 05:05:03 12:55



Max. Depth: 130.08 (ft)

Depth Inc.: 0.164 (ft)

SBT: Soil Behavior Type (Robertson and Campanella 1988)

DRAFT

T2

75-90'

80

108

122-132'

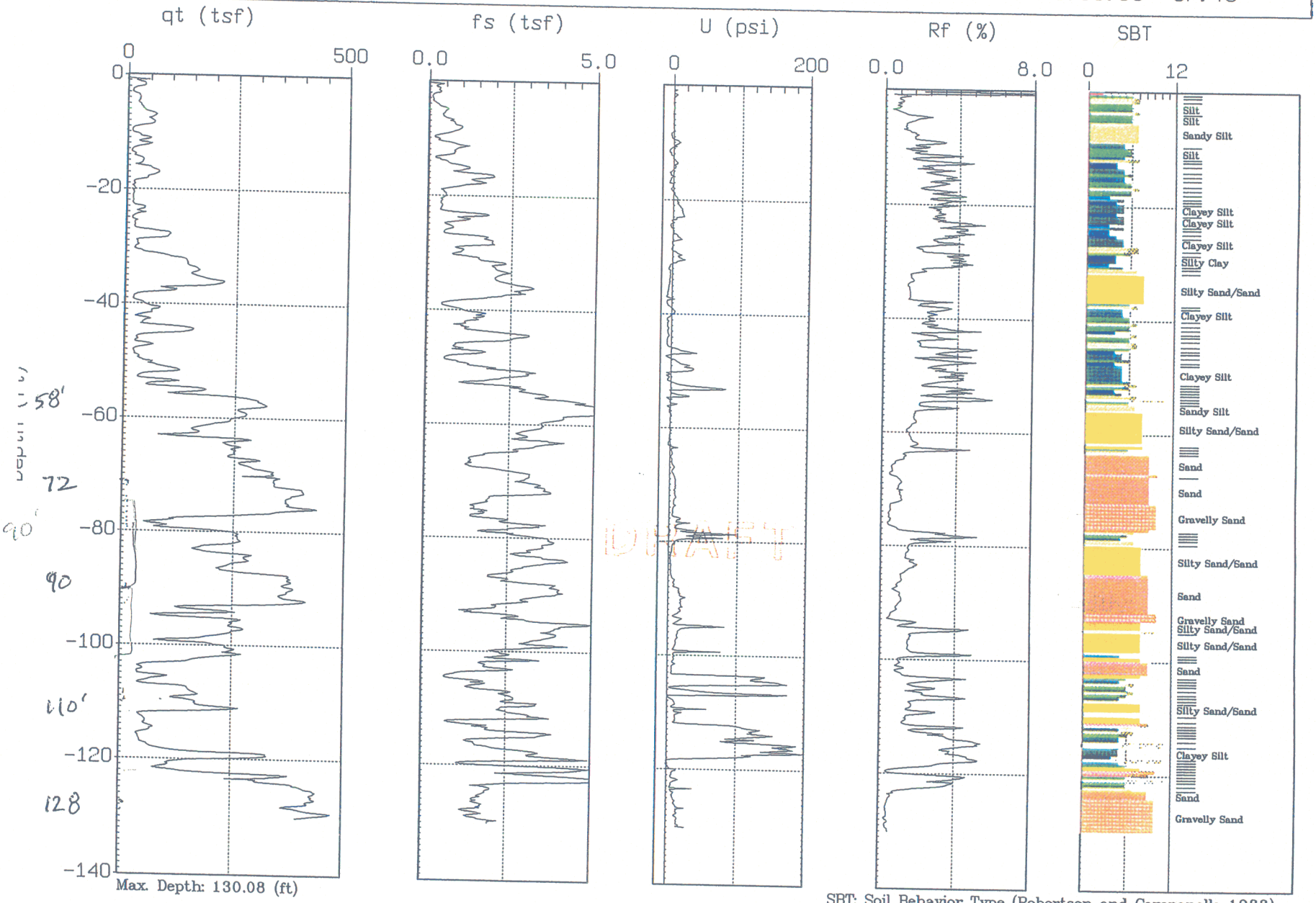
128

GREGG

URS

Site : COOPER DRUM
Location : CPT-35

Geologist : DON GRUBER
Date : 05:06:03 07:40



Max. Depth: 130.08 (ft)

Depth Inc.: 0.164 (ft)

SBT: Soil Behavior Type (Robertson and Campanella 1988)

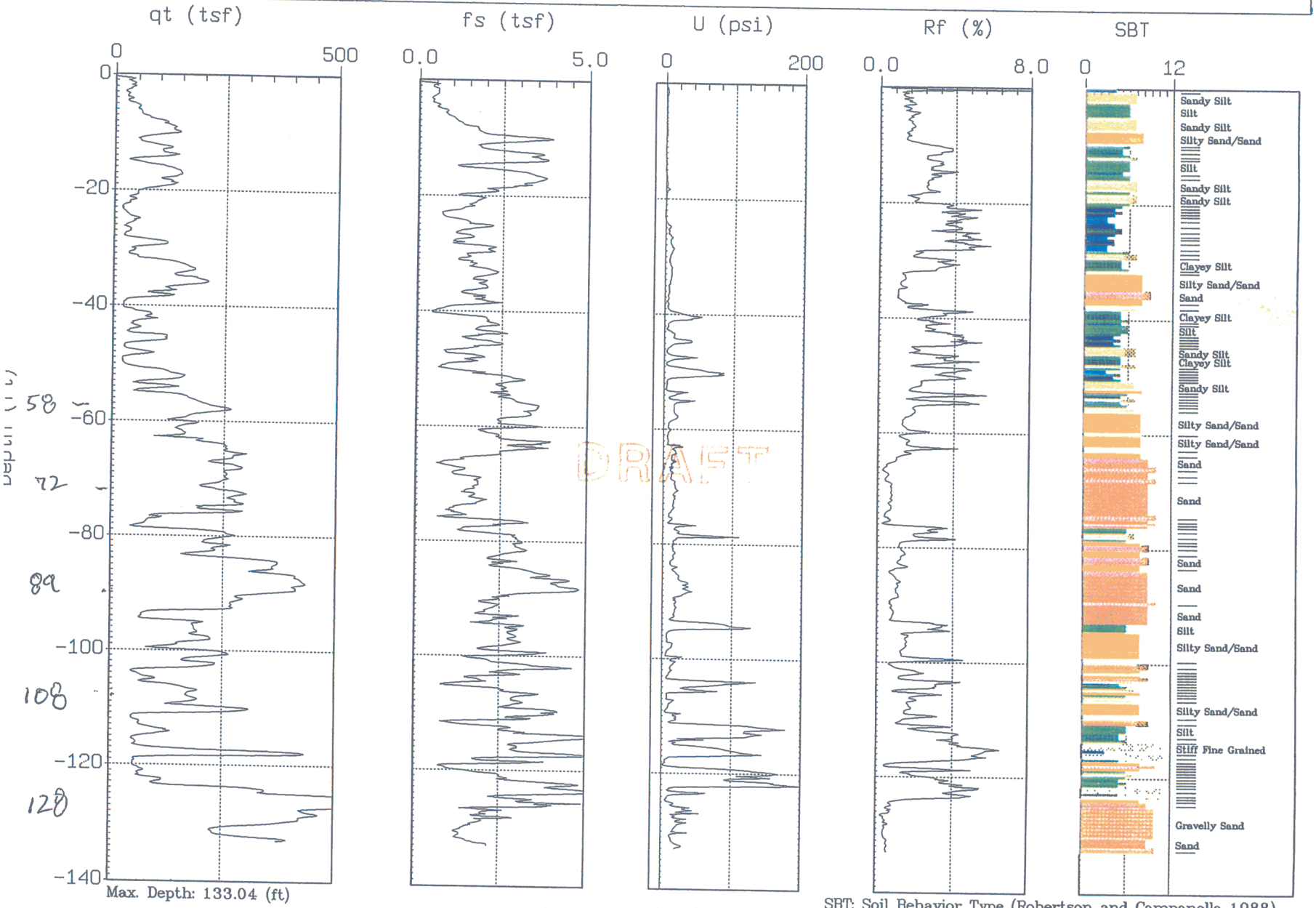
DRAFT

GREGG

URS

Site : COOPER DRUM
Location : CPT-36

Geologist : DON GRUBER
Date : 05:06:03 11:11



DRAFT

Max. Depth: 133.04 (ft)

Depth Inc.: 0.164 (ft)

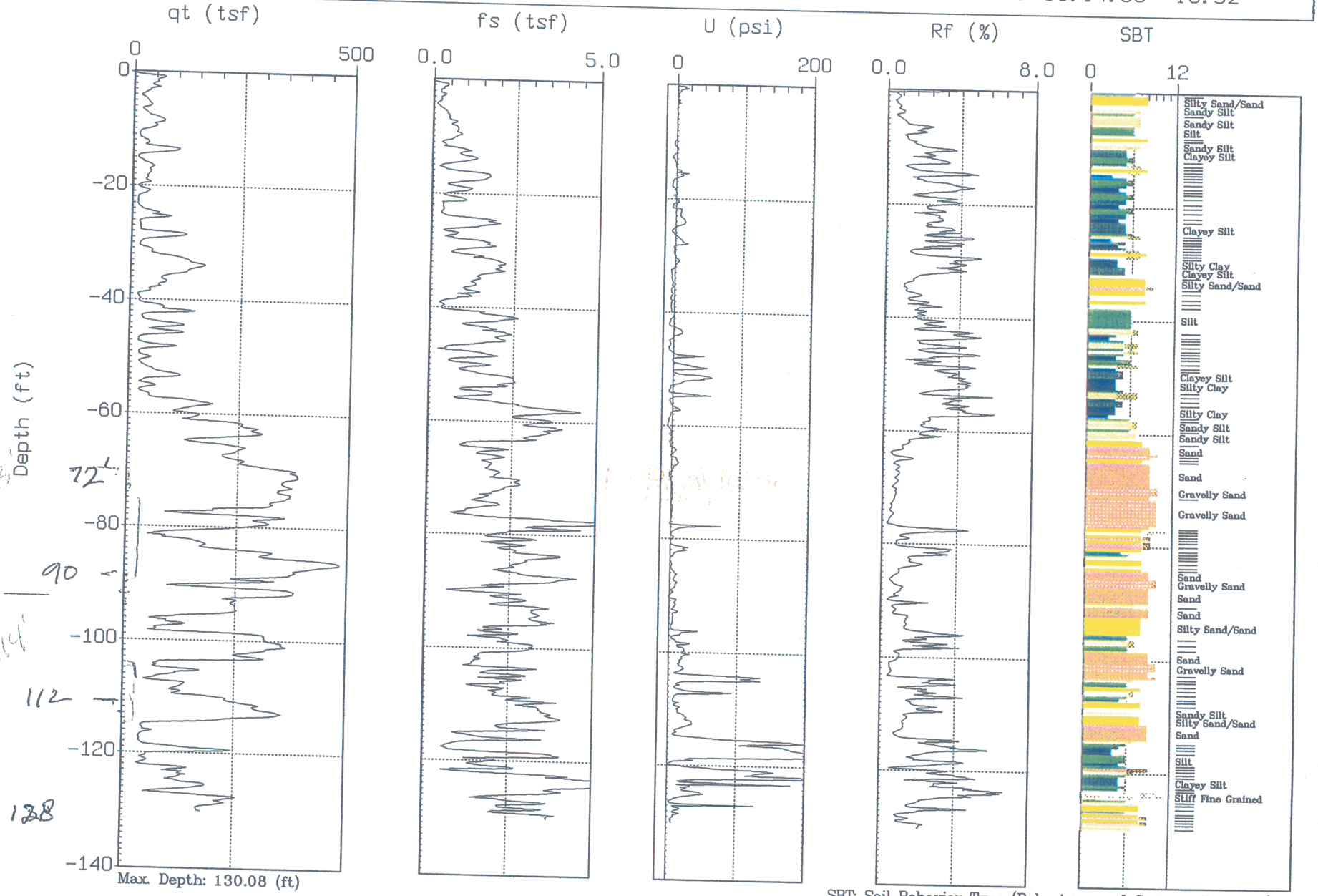
SBT: Soil Behavior Type (Robertson and Campanella 1988)

GREGG

URS

Site : COOPER DRUM
Location : CPT-37

Geologist : DON GRUBER
Date : 05:14:03 10:52



Max. Depth: 130.08 (ft)

Depth Inc.: 0.164 (ft)

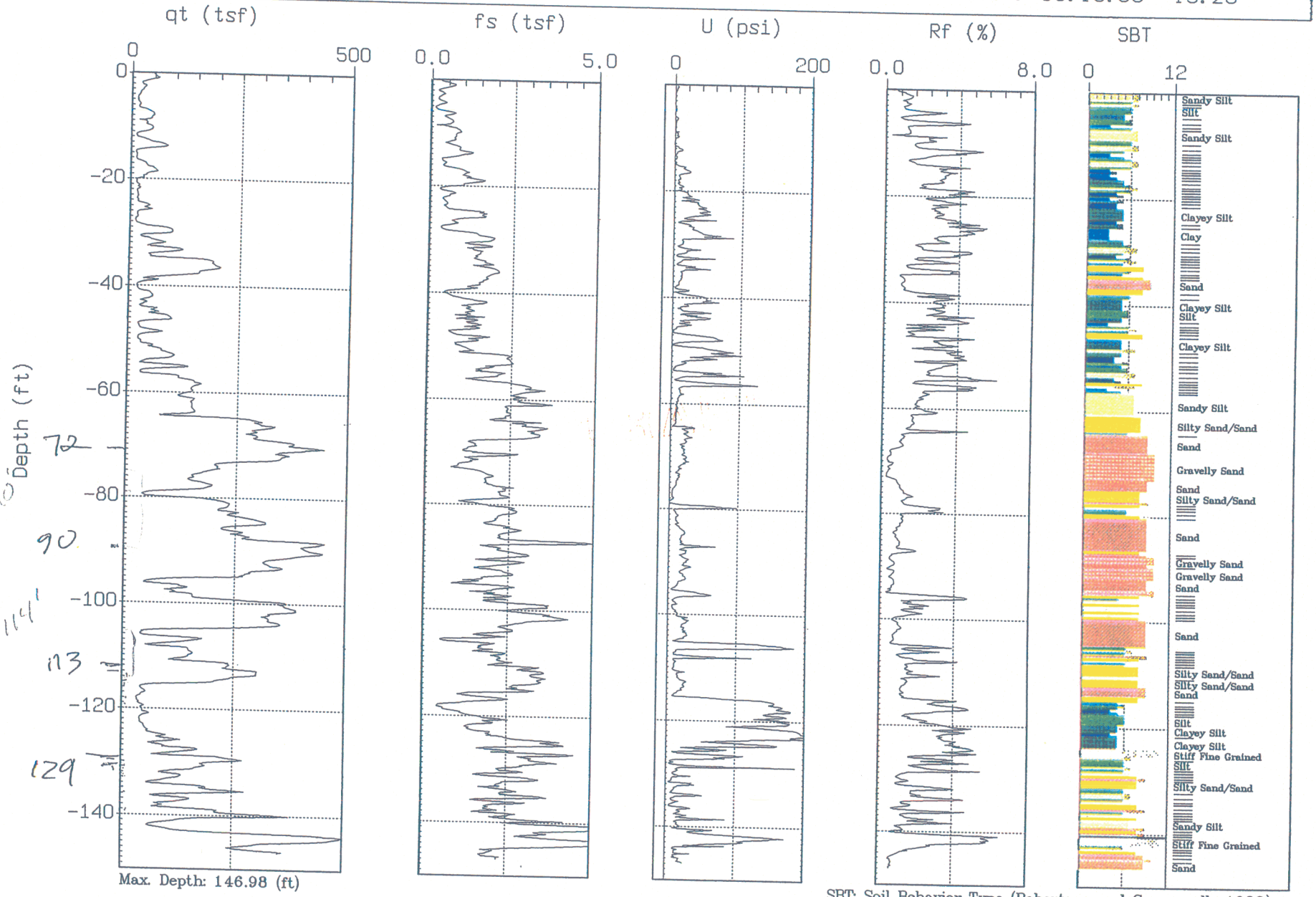
SBT: Soil Behavior Type (Robertson and Campanella 1988)

GREGG

URS

Site : COOPER DRUM
Location : CPT-38

Geologist : DON GRUBER
Date : 05:15:03 13:20



Max. Depth: 146.98 (ft)

Depth Inc.: 0.164 (ft)

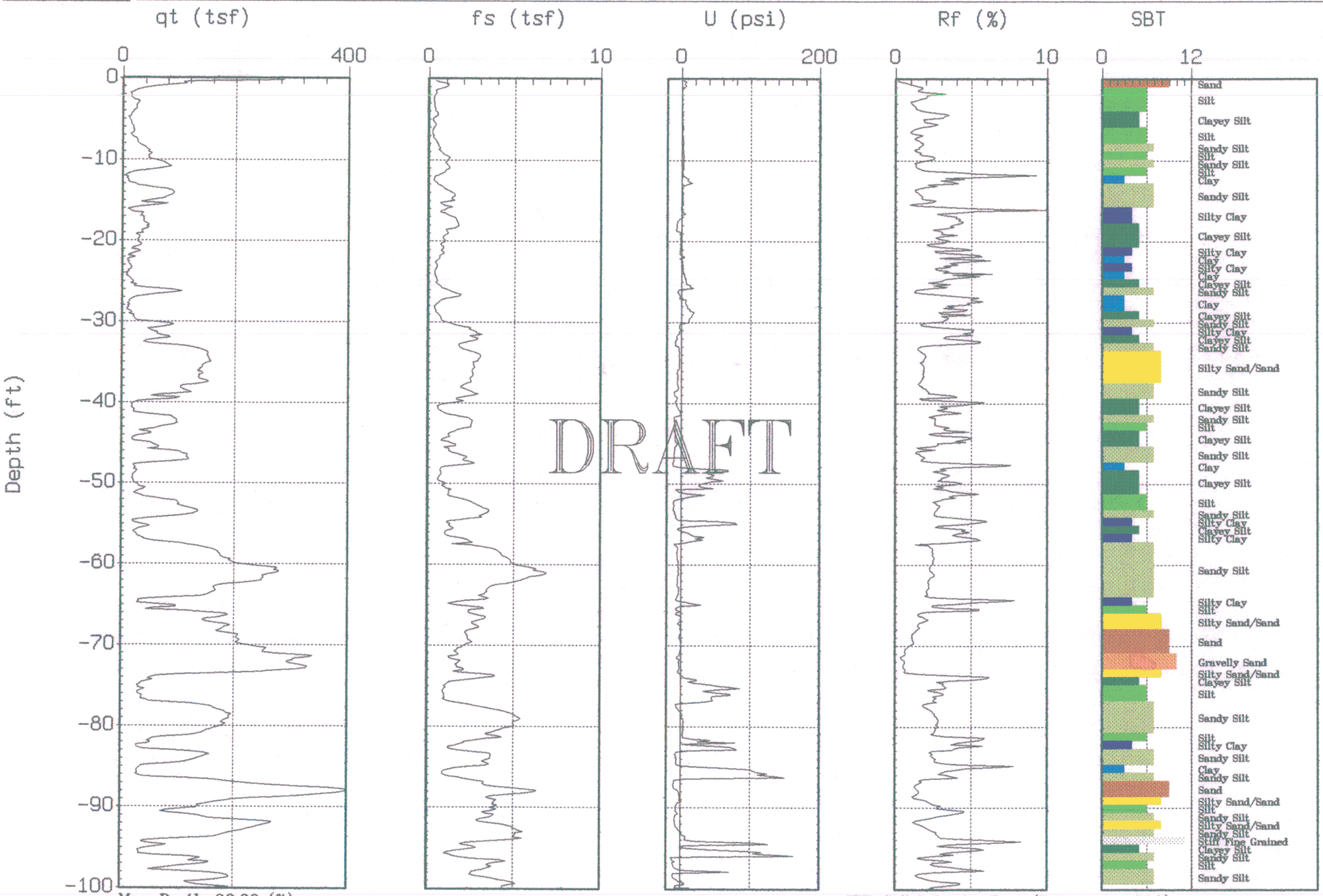
SBT: Soil Behavior Type (Robertson and Campanella 1988)

GREGG

URS

Site : COOPER DRUM
Location : CPT-39

Geologist : DON GRUBER
Date : 12:15:03 10:46



Max. Depth: 99.90 (ft)

Depth Inc.: 0.164 (ft)

SBT: Soil Behavior Type (Robertson 1990)

Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring MW-20

Date(s) Drilled	2/26/03 - 2/27/03	Logged By	D. Gruber	Checked By	Don Gruber
Drilling Method	Hollow Stem Auger	Drill Bit Size/Type	10-inch	Total Depth Drilled (feet)	75.0
Drill Rig Type	CME-95	Drilling Contractor	Water Development Corp.	Hammer Weight/ Drop (lbs/in.)	
Groundwater Level (feet)		Date Measured		Approx. Surface Elevation (feet)	
Diameter of Hole (inches)	10-inch / Diameter of Well (inches) 4-inch	Type of Well Casing	SCH 40 PVC	Screen Perforation	0.020-inch
Type of Sand Pack	#3 Sand	Type/Thickness of Seal(s)	Neat Cement Grout with 5% Bentonite		
Comments	CME Continuous Core - 5' barrel				

Elevation feet	Depth, feet	SAMPLES Type	Description	Blows/foot	Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	0						Sand (SP). Gray, medium grained, poorly graded, dry.			Flush-mount well seal (no lock); 12-inch flush mount traffic rated vault box
	5						Sandy Silt (ML). Dark brown, very fine grained, non plastic, slightly moist.			4-inch SCH 40 PVC to 55'
	10						Silty Sand (SM). Brown, very fine grained, slightly moist.			
	15						Sandy Silt (ML). Grayish brown, low plasticity, very fine grained sand, moist.			Neat Cement from near surface to 48'
	20						Silty Clay (CL). Grayish brown, low plasticity, minor very fine grained sand, moist.			
	25						Clayey Silt (ML). Grayish brown, low plasticity, minor fine grained sand, moist.			
	30						Sand (SP). Brown, poorly graded, minor silt, moist.			
	35						Silty Sand (SM). Gray, very fine grained sand, saturated.			
	40						Silty Clay (CL). Gray, low plasticity, minor fine grained sand, moist.			
	45									

Report: ENV_1A; Project File: J:\COOPER~1\COOPERMW.GPJ; Data Template:WC_CORP1.GDT Printed: 4/19/04

Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring MW-20

Elevation feet	Depth, feet	SAMPLES: Type	SAMPLES: Description	SAMPLES: Blows/foot	SAMPLES: Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	45						No recovery.			
							Sand (SP). Gray, very fine grained, minor silt, saturated.			First Water 47'
	50									Bentonite Chips 48-51'
	55						Sandy Silt (ML). Gray, moist.			
							No recovery.			
							Sand (SP). Gray, very fine grained, minor silt, saturated.			
	60						Grayish brown, very fine grained sand, moist.			
							No recovery.			4-inch SCH 40 PVC, 0.020-inch Slot Screen 55-70', #3 Filter Pack Sand 51-75'
	65									
	70									
	75									
	80									
	85									
	90									
	95									
	100									
	105									

Report: ENV_1A; Project File: J:\COOPER~1\COOPERMW.GPJ; Data Template:WC_CORP1.GDT Printed: 4/19/04

Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring MW-21

Date(s) Drilled	10/22/03	Logged By	M.Annis/D.Gruber	Checked By	Don Gruber
Drilling Method	Hollow Stem Auger	Drill Bit Size/Type	10-inch	Total Depth Drilled (feet)	77.0
Drill Rig Type	CME-95	Drilling Contractor	Gregg Drilling and Testing	Hammer Weight/ Drop (lbs/in.)	
Groundwater Level (feet)		Date Measured		Approx. Surface Elevation (feet)	
Diameter of Hole (inches)	10-inch / Diameter of Well (inches) 4-inch	Type of Well Casing	SCH 40 PVC	Screen Perforation	0.020-inch
Type of Sand Pack	#3 Sand	Type/Thickness of Seal(s)	Neat Cement Grout/Bentonite Chips with #30 Sand		
Comments	Split Spoon sampler				

Elevation feet	Depth, feet	SAMPLES Type	Description	Blows/foot	Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	0				0.0		Asphalt. Silty Sand (SM). Dark brown, fine grained sand, moist.			Flush-mount well seal (no lock); 12-inch flush mount traffic rated vault box
	5	☒			0.0		Silty Sand (SM). Dark brown to black, fine grained sand, moist.			4-inch SCH 40 PVC to 55'
	10	☒			0.0		Silty Sand (SM). Dark brown, fine grained sand, moist.			
	15	☒			0.0					Neat Cement from near surface to 43'
	20	☒			0.0		Silty Clay (CL). Dark brown to black, moist.			
	25	☒			0.0					
	30	☒			0.0		Silty Sand (SM). Dark brown, fine grained, moist.			
	35	☒			0.0		Silty Clay (CL). Olive gray, moist.			
	40	☒			0.0					
	45									

Report: ENV_1A; Project File: J:\COOPER~1\COOPERMW.GPJ; Data Template:WC_CORP1.GDT Printed: 4/19/04

Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring MW-21

Elevation feet	Depth, feet	SAMPLES Type	Description	Blows/foot	Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	45				0.0		Silty Sand (SM). Olive gray, fine grained sand, moist.			#30 Sand and Bentonite Chips 43-52'
	50		MW-21-50	37	0.0			1000		
	55									
	60		MW-21-60	26	0.0		Sand (SP). Dark brown, fine grained, saturated.	1010		First Water 60' 4-inch SCH 40 PVC, 0.020-inch V-Slot Screen 55-75', #3 Filter Pack Sand 52-77'
	65									
	70		MW-21-70		0.0		Fine to medium grained.	1020		
	75									
	80									
	85									
	90									
	95									
	100									
	105									

Report: ENV_1A; Project File: J:\COOPER~1\COOPERMW.GPJ; Data Template:WC_CORP1.GDT Printed: 4/19/04

Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring MW-22

Date(s) Drilled	12/4/03	Logged By	R.M	Checked By	Don Gruber
Drilling Method	Hollow-Stem-Auger	Drill Bit Size/Type	10 inch	Total Depth Drilled (feet)	75.0
Drill Rig Type	CME-95	Drilling Contractor	Gregg Drilling and Testing	Hammer Weight/ Drop (lbs/in.)	
Groundwater Level (feet)		Date Measured		Approx. Surface Elevation (feet)	
Diameter of Hole (inches)	10-inch / Diameter of Well (inches) 4-inch	Type of Well Casing	SCH 40 PVC	Screen Perforation	0.020-inch
Type of Sand Pack	#3 Sand	Type/Thickness of Seal(s)	Neat Cement Grout/Bentonite Chips with #30 Sand		
Comments	Asphalt Surface, No sampling, soil description based on drill cuttings, well design based on CPT-31.				

Elevation feet	Depth, feet	SAMPLES Type	Description	Blows/foot	Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	0						Asphalt.			Flush-mount well seal (no lock)
				N/A	0.0		Silty SAND: (5Y 4/2) olive gray; 30% silt, 70% very fine grain sand; moist.			12-inch flush mount traffic rated vault box
	5				0.0		Silty SAND: (5Y 3/2) dark olive gray; same as above.			4-inch SCH 40 PVC to 63'
	10				0.0		Same as above.			
	15				0.0		Silty SAND with clay: (5Y 3/2) dark olive gray; 40% very fine grain sand, 30% silt, 30% clay; slightly plastic clayey chunks, moist.			
	20				5.0		Silty CLAY: (5Y 4/2) olive gray; 40% silt, 60% clay; plastic; moist.			Neat Cement from near surface to 56'
	25				7.3		Silty CLAY: (5Y 4/2) olive gray; 30% silt, 70% clay; plastic; damp.			
	30				10.3		Same as above.			
	35				4.0		SAND with silt and clay: (5Y 5/3) olive; 20% silt, 30% clay, 50% fine grain, uniform sand; plastic silty clay clumps; wet.			
	40				2.4		SAND: (5Y 5/3) olive; fine grain; uniform; saturated.			First Water at 40'
	45									

Report: ENV_1A; Project File: J:\COOPER~1\COOPERMW.GPJ; Data Template:WC_CORP1.GDT Printed: 4/19/04

URS Group, Inc.

Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring MW-22

Elevation feet	Depth, feet	SAMPLES Type	SAMPLES Description	SAMPLES Blows/foot	Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	45				4.0		Silty SAND (5Y 5/3) olive; fine grain; saturated.			
	50				1.6		Same as above.			
	55				1.2		Same as above.			
	60				0.0		Same as above.			#30 Sand and Bentonite Chips 56-60'
	65				0.0		Silty SAND: (5Y 5/3) olive; angular; fine grain sand; quartz rich; saturated.			
	70						Boring terminated at 75 feet below ground surface. Groundwater encountered at approximately 40 feet below ground surface. Geologic descriptions taken from auger cuttings and are depth approximate.			4-inch SCH 40 PVC, 0.020-inch Slot Screen 63-73', #3 Filter Pack Sand 60-75'
	75									
	80									
	85									
	90									
	95									
	100									
	105									

Report: ENV_1A; Project File: J:\COOPER~1\COOPERMW.GPJ; Data Template:WC_CORP1.GDT Printed: 4/19/04

Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring MW-23

Date(s) Drilled	12/5/03	Logged By	R.M.	Checked By	Don Gruber
Drilling Method	Hollow-Stem-Auger	Drill Bit Size/Type	10 inch	Total Depth Drilled (feet)	81.0
Drill Rig Type	CME-95	Drilling Contractor	Gregg Drilling and Testing	Hammer Weight/ Drop (lbs/in.)	
Groundwater Level (feet)		Date Measured		Approx. Surface Elevation (feet)	
Diameter of Hole (inches)	10-inch / Diameter of Well (inches) 4-inch	Type of Well Casing	SCH 40 PVC	Screen Perforation	0.020-inch
Type of Sand Pack	#3 Sand	Type/Thickness of Seal(s)	Neat Cement Grout/Bentonite Chips with #30 Sand		
Comments	Asphalt Surface, No sampling, soil description based on drill cuttings, well design based on CPT-27.				

Elevation feet	Depth, feet	SAMPLES Type	Description	Blows/foot	Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	0			N/A	16.5		Asphalt. SAND: (2.5 4/4) olive brown; very fine grain sand; few angular pebbles, dry.			Flush-mount well seal (no lock); 12-inch flush mount traffic rated vault box
	5				7.1		Sandy SILT: (2.5Y 3.2) very dark grayish brown; 20% fine grain sand; 80% silt; clumpy; few organic roots.			4-inch SCH 40 PVC to 69'
	10				8.5		Silty SAND: (2.5Y 3/3) dark olive brown; 20% silt, 80% very fine grain sand; moist.			
	15				12.2		SAND: (2.5Y 4/4) olive brown, very fine grain; dry.			
	20				11.4		Sandy SILT: (2.5Y 3/3) dark olive brown; 20% fine grain sand; clumpy; moist.			Neat Cement from near surface to 62'
	25				7.9		Same as above.			
	30				19.5		Sandy, clayey SILT: (2.5Y 4/2) dark grayish brown; 20% fine grain sand, 30% clay, 50% silt; clumpy; plastic; moist.			
	35				18.6		Silty CLAY: (2.5Y 4/2) dark grayish brown; 40% silt, 60% clay; plastic; moist.			
	40				7.1		SAND: (5Y 4/4) olive; fine grain; uniform; damp to wet.			First Water at 40'
	45									

Report: ENV_1A; Project File: J:\COOPER~1\COOPERMW.GPJ; Data Template:WC_CORP1.GDT Printed: 4/19/04

Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring MW-23

Elevation feet	Depth, feet	SAMPLES Type	SAMPLES Description	SAMPLES Blows/foot	SAMPLES Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	45				4.2		Sandy Clayey SILT: (5Y 3/2) dark olive gray; 20% fine grain sand, 30% clay, 50% silt; slightly plastic; wet to saturated.			
	50									
	55				0.0		Sandy SILT: (5Y 3/2) dark olive gray; 20% fine grain sand, 80% silt; saturated.			
	60				0.0		Same as above.			
	65				2.5		Same as above.			#30 Sand and Bentonite Chips 62-66'
	70				2.1		Same as above.			
	75						Boring terminated at 81 feet below ground surface. Groundwater encountered at approximately 40 feet below ground surface. Geologic descriptions taken from auger cuttings and are depth approximate.			4-inch SCH 40 PVC, 0.020-inch Slot Screen 69-79', #3 Filter Pack Sand 66-81'
	80									
	85									
	90									
	95									
	100									
	105									

URS Group, Inc.

Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring MW-24

Date(s) Drilled	12/1/03	Logged By	R.M.	Checked By	Don Gruber
Drilling Method	Hollow-Stem-Auger	Drill Bit Size/Type	10 inch	Total Depth Drilled (feet)	87.0
Drill Rig Type	CME-95	Drilling Contractor	Gregg Drilling and Testing	Hammer Weight/ Drop (lbs/in.)	
Groundwater Level (feet)		Date Measured		Approx. Surface Elevation (feet)	
Diameter of Hole (inches)	10-inch / Diameter of Well (inches) 4-inch	Type of Well Casing	SCH 40 PVC	Screen Perforation	0.020-inch
Type of Sand Pack	#3 Sand	Type/Thickness of Seal(s)	Neat Cement Grout/Bentonite Chips with #30 Sand		
Comments	Asphalt Surface, No sampling, soil description based on drill cuttings, well design based on CPT-33.				

Elevation feet	Depth, feet	SAMPLES Type	Description	Blows/foot	Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	0						Asphalt.			Flush-mount well seal (no lock); 12-inch flush mount traffic rated vault box
	5			N/A	0.0		Silty SAND: (2.5Y 4/3) olive brown; very fine grain sand; moist.			4-inch SCH 40 PVC to 70'
							No recovery.			
	10				0.0		Silty SAND: (2.5Y 3/2) very dark grayish brown; 20% silt, 80% very fine grain sand; moist.			
	15				0.2		Same as above.			
	20				0.0		SAND with silt: (5Y 4/3) olive; very fine grain sand; wet to saturated.			Neat Cement from near surface to 63'; First Water at 20'
	25				0.0		Silty CLAY: (5Y 3/2) dark olive gray; soft; very plastic; wet to saturated.			
	30				0.0		Same as above.			
	35				0.0		Color change to (5Y 3/2) dark olive gray; same as above.			
	40				0.3		SAND: (5Y 4/2) olive gray; fine grain; wet.			
	45									

Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring MW-24

Elevation feet	Depth, feet	SAMPLES Type	SAMPLES Description	SAMPLES Blows/foot	SAMPLES Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	45				1.1		Sandy SILT (5Y 2.5/2) black; very fine grain sand; saturated.			
	50				0.0		Same as above.			
	55				0.0		Same as above.			
	60				0.0		Same as above.			
	65				0.0		Same as above.			#30 Sand and Bentonite Chips 63-67'
	70						Boring terminated at 87 feet below ground surface. Groundwater encountered at approximately 20 feet below ground surface. Geologic descriptions taken from auger cuttings and are depth approximate.			
	75									4-inch SCH 40 PVC, 0.020-inch Slot Screen 70-85', #3 Filter Pack Sand 67-87'
	80									
	85									
	90									
	95									
	100									
	105									

Project: Cooper Drum **Project Location: 9316 S. Atlantic Ave., South Gate, CA** **Project Number: 18600047.03020**	**Log of Boring MW-25** Sheet 1 of 2

Date(s) Drilled	12/3/03			Logged By	R.M.	Checked By	Don Gruber
Drilling Method	Hollow-Stem-Auger			Drill Bit Size/Type	10 inch	Total Depth Drilled (feet)	92.0
Drill Rig Type	CME-95			Drilling Contractor	Gregg Drilling and Testing	Hammer Weight/ Drop (lbs/in.)	
Groundwater Level (feet)				Date Measured		Approx. Surface Elevation (feet)	
Diameter of Hole (inches)	10-inch	Diameter of Well (inches)	4-inch	Type of Well Casing	SCH 40 PVC	Screen Perforation	0.020-inch
Type of Sand Pack	#3 Sand			Type/Thickness of Seal(s)	Neat Cement Grout/Bentonite Chips with #30 Sand		
Comments	Asphalt Surface, No sampling, soil description based on drill cuttings, well design based on CPT-34 and CPT-35.						

Elevation feet	Depth, feet	SAMPLES Type	Description	Blows/foot	Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	0						Asphalt.			Flush-mount well seal (no lock)
				N/A	0.0		Clayey SAND: (2.5Y 4/3) olive; fine grain sand; uniform; few clay chunks; plastic; moist.			12-inch flush mount traffic rated vault box
	5				6.5		Sandy SILT: (2.5Y 3/1) very dark gray; fine grain; chunky; moist.			4-inch SCH 40 PVC to 75'
	10				6.4		Sandy SILT: (5Y 4/2) olive gray; fine grain; crumbly; moist.			
	15				8.0		Silty SAND: (5Y 3/2) dark olive gray; reduced silt content; very fine grain; moist.			
	20				7.9		Sandy SILT: (5Y 3/2) dark olive gray; trace clay; very fine grain sand; very slight plasticity; moist.			Neat Cement from near surface to 68'
	25				8.3		Silty CLAY: (5Y 4/2) olive gray; plastic; moist.			
	30				5.2		Same as above.			
	35				5.8		Sandy SILT: (5Y 3/2) dark olive gray; very fine grain; no plasticity; moist.			
	40				7.2		Sandy SILT: (5Y 3/2) dark olive gray; increase in sand content and grain size; fine grain; wet.			First Water at 40'
	45									

Report: ENV_1A; Project File: J:\COOPER~1\COOPERMW.GPJ; Data Template:WC_CORP1.GDT Printed: 4/19/04

URS Group, Inc.

Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring MW-25

Elevation feet	Depth, feet	SAMPLES Type	SAMPLES Description	SAMPLES Blows/foot	Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	45				7.9		SILT with sand: (5Y 2.5/2) black; saturated.			
	50				5.6		Same as above.			
	55				0.0		Same as above.			
	60				0.0		Boring terminated at 92 feet below ground surface. Groundwater encountered at approximately 40 feet below ground surface. Geologic descriptions taken from auger cuttings and are depth approximate.			
	65									
	70									#30 Sand and Bentonite Chips 68-72'
	75									
	80									4-inch SCH 40 PVC, 0.020-inch Slot Screen 75-90', #3 Filter Pack Sand 72-92'
	85									
	90									
	95									
	100									
	105									

Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring MW-26

Date(s) Drilled	12/10/03	Logged By	R.M.	Checked By	Don Gruber
Drilling Method	Mud Rotary	Drill Bit Size/Type	8 inch	Total Depth Drilled (feet)	134.0
Drill Rig Type	Versa Drill V-100	Drilling Contractor	Gregg Drilling and Testing	Hammer Weight/ Drop (lbs/in.)	
Groundwater Level (feet)		Date Measured		Approx. Surface Elevation (feet)	
Diameter of Hole (inches)	8 inch	Diameter of Well (inches)	2-inch	Type of Well Casing	SCH 40 PVC	Screen Perforation	0.020-inch
Type of Sand Pack	#3 Sand	Type/Thickness of Seal(s)	Neat Cement Grout/Bentonite Chips with #30 Sand		
Comments	Asphalt Surface, No sampling, soil description based on drill cuttings, well design based on CPT-34 and CPT-35.				

Elevation feet	Depth, feet	SAMPLES Type	Description	Blows/foot	Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	0									Flush-mount well seal (no lock)
										12-inch flush mount traffic rated vault box
	5									
	10			N/A			Some fine and few medium grain sands; mostly sandstone; angular and subangular granules			
	15									2-inch SCH 40 PVC to 122'
	20						Some fine grain sands; mostly sandstone; some platy fragments; mostly subangular granules; grayish in color.			
	25									
	30						Few fine grain sands; subangular; mostly sandstone and limestone granules with some quartz; overall grayish coloration.			
	35									
	40						Same as above.			Neat Cement from near surface to 115'
	45									
	50						Same as above.			
	55									
	60									

Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring MW-26

Elevation feet	Depth, feet	SAMPLES Type	SAMPLES Description	SAMPLES Blows/foot	SAMPLES Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	60						Same as above; slight increase in overall grain size.			
	65									
	70						Same as above; increase in very fine quartz granules; some wood chips present.			
	75									
	80						Increase in overall amount of sand recovered; fine grain sand; black, gray and white evenly distributed; very few pink feldspar granules and very few greenish serpentine granules recovered.			
	85									
	90						Same as above.			
	95									
	100						Same as above; increase in overall grain size.			
	105									
	110						Same as above.			
	115									#30 Sand and Bentonite Chips 115-119'
	120						Same as above.			
	125									2-inch SCH 40 PVC, 0.020-inch Slot Screen 122-132', #3 Filter Pack Sand 119-134'
	130						Same as above; reduced granule size but still in the fine grain range.			
	135						Boring terminated at 134 feet below ground surface. Geologic descriptions taken from Mud Rotary cuttings and are not descriptive for fine sediments encountered. Descriptions are for fine grain and larger sands only and are depth approximate.			
	140									

Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring MW-27

Date(s) Drilled	12/3/03	Logged By	R.M.	Checked By	Don Gruber
Drilling Method	Hollow-Stem-Auger	Drill Bit Size/Type	10 inch	Total Depth Drilled (feet)	92.0
Drill Rig Type	CME-95	Drilling Contractor	Gregg Drilling and Testing	Hammer Weight/ Drop (lbs/in.)	
Groundwater Level (feet)		Date Measured		Approx. Surface Elevation (feet)	
Diameter of Hole (inches)	10 inch / Diameter of Well (inches) 4-inch	Type of Well Casing	SCH 40 PVC	Screen Perforation	0.020-inch
Type of Sand Pack	#3 Sand	Type/Thickness of Seal(s)	Neat Cement Grout/Bentonite Chips with #30 Sand		
Comments	Asphalt Surface, No sampling, soil description based on drill cuttings, well design based on CPT-37.				

Elevation feet	Depth, feet	SAMPLES Type	SAMPLES Description	Blows/foot	Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	0						Asphalt.			Flush-mount well seal (no lock)
				N/A	3.6		Silty SAND (2.5Y 5/3) light olive brown; very fine grain; moist.			12-inch flush mount traffic rated vault box
	5				1.2		SAND: (2.5Y 4/2) dark grayish brown; very fine grain; uniform; moist.			4-inch SCH 40 PVC to 75'
	10				0.6		Silty SAND: (2.5Y 4/2) dark grayish brown; trace clay; very fine grain sand; very slight plasticity.			
	15				0.2		SAND: (2.5Y 4/2) dark grayish brown; very fine grain; uniform; moist.			
	20				0.1		Clayey SILT: (5Y 4/2) olive gray; very plastic; wet to saturated.			Neat Cement from near surface to 68'
	25				0.7		Silty SAND: (5Y 3/2) dark olive gray; crumbly; damp.			
	30				0.5		Silty CLAY: (5Y 3/2) dark olive gray; very plastic; moist to damp.			
	35				0.5		Same as above; trace fine grain sand.			
	40				1.5		Same as above; increase silt content; wet.			First Water at 40'
	45									

Report: ENV_1A; Project File: J:\COOPER~1\COOPERMW.GPJ; Data Template:WC_CORP1.GDT Printed: 4/19/04

URS Group, Inc.

Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring MW-27

Elevation feet	Depth, feet	SAMPLES Type	SAMPLES Description	SAMPLES Blows/foot	SAMPLES Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	45				1.0		Silty SAND: (5Y 2.5/1) black; fine grain sand; saturated.			
	50				1.0		Boring terminated at 92 feet below ground surface. Groundwater encountered at approximately 40 feet below ground surface. Geologic descriptions taken from auger cuttings and are depth approximate.			
	55									
	60									
	65									
	70									#30 Sand and Bentonite Chips 68-72'
	75									
	80									4-inch SCH 40 PVC, 0.020-inch Slot Screen 75-90', #3 Filter Pack Sand 72-92'
	85									
	90									
	95									
	100									
	105									

Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring MW-28

Date(s) Drilled	12/11/03	Logged By	R.M.	Checked By	Don Gruber
Drilling Method	Mud Rotary	Drill Bit Size/Type	8 inch	Total Depth Drilled (feet)	115.0
Drill Rig Type	Versa Drill V-100	Drilling Contractor	Gregg Drilling and Testing	Hammer Weight/ Drop (lbs/in.)	
Groundwater Level (feet)		Date Measured		Approx. Surface Elevation (feet)	
Diameter of Hole (inches)	8 inch; Diameter of Well (inches): 2-inch	Type of Well Casing	SCH 40 PVC	Screen Perforation	0.020-inch
Type of Sand Pack	#3 Sand	Type/Thickness of Seal(s)	Neat Cement Grout/Bentonite Chips with #30 Sand		
Comments	Asphalt Surface, No sampling, soil description based on drill cuttings, well design based on CPT-37.				

Elevation feet	Depth, feet	SAMPLES Type	SAMPLES Description	SAMPLES Blows/foot	SAMPLES Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	0									Flush-mount well seal (no lock); 12-inch flush mount traffic rated vault box
	5									
	10			N/A			Few fine grain sands; angular to subangular; few quartz; mostly gray sandstone; some rubbery tar like substance.			
	15									2-inch SCH 40 PVC to 104'
	20						Same as above; very few fine grains.			
	25									
	30						Same as above.			
	35									
	40						Slight increase in grain size; mostly sandstone; little or no quartz.			Neat Cement from near surface to 95'
	45									
	50						Mostly fine grain sand; some few medium grains; predominantly sandstone grains.			
	55									
	60									

Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring MW-28

Elevation feet	Depth, feet	SAMPLES Type	SAMPLES Description	SAMPLES Blows/foot	SAMPLES Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	60						Same as above.			
	65									
	70						Fine grain SAND; large increase in quartz fraction (25%), 35% sandstone, 30% biotite; few serpentine and feldspar.			
	75									
	80						Same as above.			
	85									
	90						Same as above.			
	95									
	100						Same as above.			#30 Sand and Bentonite Chips 95-101'
	105						Boring terminated at 115 feet below ground surface. Geologic descriptions taken from Mud Rotary cuttings and are not descriptive for fine sediments encountered. Descriptions are for fine grain and larger sands only and are depth approximate.			
	110									2-inch SCH 40 PVC, 0.020-inch Slot Screen 104-114', #3 Filter Pack Sand 101-115'
	115									
	120									
	125									
	130									
	135									
	140									

Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring MW-29

Date(s) Drilled	12/2/03	Logged By	R.M.	Checked By	Don Gruber
Drilling Method	Hollow-Stem-Auger	Drill Bit Size/Type	10 inch	Total Depth Drilled (feet)	92.0
Drill Rig Type	CME-95	Drilling Contractor	Gregg Drilling and Testing	Hammer Weight/ Drop (lbs/in.)	
Groundwater Level (feet)		Date Measured		Approx. Surface Elevation (feet)	
Diameter of Hole (inches)	10 inch / Diameter of Well (inches) 4-inch	Type of Well Casing	SCH 40 PVC	Screen Perforation	0.020-inch
Type of Sand Pack	#3 Sand	Type/Thickness of Seal(s)	Neat Cement Grout/Bentonite Chips with #30 Sand		
Comments	Asphalt Surface, No sampling, soil description based on drill cuttings, well design based on CPT-38.				

Elevation feet	Depth, feet	SAMPLES Type	Description	Blows/foot	Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	0						Asphalt.			Flush-mount well seal (no lock)
				N/A	6.2		SAND: (2.5Y 4/3) olive brown; fine grain sand with few asphalt chunks; moist.			12-inch flush mount traffic rated vault box
	5				3.0		SAND: (2.5Y 5/3) light olive brown; fine grain; uniform; moist.			4-inch SCH 40 PVC to 75'
	10				4.8		Silty SAND: (2.5Y 4/2) dark grayish brown; fine grain; moist.			
	15				3.5		Sandy SILT: (2.5Y 3/2) dark olive brown; fine grain sand; moist.			
	20				2.3		Clayey SILT: (2.5Y 4/2) dark grayish brown; plastic; moist.			Neat Cement from near surface to 68'
	25				1.2		Same as above.			
	30				1.0		Same as above.			
	35				0.0		Silty CLAY: (2.5Y 4/2) dark grayish brown; plastic; moist.			
	40				0.0		SAND: (5Y 3/2) dark olive gray; fine grain; uniform; moist.			
	45									First Water at 45'

Report: ENV_1A; Project File: J:\COOPER~1\COOPERMW.GPJ; Data Template:WC_CORP1.GDT Printed: 4/19/04

URS Group, Inc.

Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring MW-29

Elevation feet	Depth, feet	SAMPLES Type	SAMPLES Description	SAMPLES Blows/foot	SAMPLES Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	45				0.0		Silty SAND: (5Y 3/2) dark olive gray; fine grain; saturated.			
	50				0.0		Sandy SILT (5Y 3/2) fine grain; saturated.			
	55				0.0		Same as above.			
	60				0.0		Same as above.			
	65						Boring terminated at 92 feet below ground surface. Groundwater encountered at approximately 45 feet below ground surface. Geologic descriptions taken from auger cuttings and are depth approximate.			
	70									#30 Sand and Bentonite Chips 68-72'
	75									
	80									4-inch SCH 40 PVC, 0.020-inch Slot Screen 75-90', #3 Filter Pack Sand 72-92'
	85									
	90									
	95									
	100									
	105									

URS Group, Inc.

Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring MW-30

Date(s) Drilled	12/9/03	Logged By	R.M.	Checked By	Don Gruber
Drilling Method	Mud Rotary	Drill Bit Size/Type	8 inch	Total Depth Drilled (feet)	115.0
Drill Rig Type	Versa Drill V-100	Drilling Contractor	Gregg Drilling and Testing	Hammer Weight/ Drop (lbs/in.)	
Groundwater Level (feet)		Date Measured		Approx. Surface Elevation (feet)	
Diameter of Hole (inches)	8 inch / Diameter of Well (inches) 2-inch	Type of Well Casing	SCH 40 PVC	Screen Perforation	0.020-inch
Type of Sand Pack	#3 Sand	Type/Thickness of Seal(s)	Neat Cement Grout/Bentonite Chips with #30 Sand		
Comments	Asphalt Surface, No sampling, soil description based on drill cuttings, well design based on CPT-38.				

Elevation feet	Depth, feet	SAMPLES Type	SAMPLES Description	Blows/foot	Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	0									Flush-mount well seal (no lock)
	5									12-inch flush mount traffic rated vault box
	10			N/A			Many very fine grains and some fine grain sands.			
	15									2-inch SCH 40 PVC to 104'
	20						Fine grain sand.			
	25									
	30						Fine and medium grain sands.			
	35									
	40						Little or no fine or larger grains.			Neat Cement from near surface to 97'
	45									
	50						Same as above.			
	55									
	60									

Report: ENV_1A; Project File: J:\COOPER~1\COOPERMW.GPJ; Data Template:WC_CORP1.GDT Printed: 3/22/04

Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring MW-30

Elevation feet	Depth, feet	SAMPLES Type	SAMPLES Description	SAMPLES Blows/foot	SAMPLES Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	60						Some fine and very fine sands.			
	65									
	70						Fine medium and coarse grain sands; 10% fine, 40% medium, 50% coarse grain.			
	75									
	80						Fine, medium and coarse grain sands; 25% medium, 25% coarse, 50% fine.			
	85									
	90						Same as above.			
	95									
	100						Fine, medium and coarse grain sands; 10% coarse, 40% medium, 50% fine.			#30 Sand and Bentonite Chips 97-101'
	105									
	110						Fine, medium and coarse grain sands; 5% coarse, 35% medium, 60% fine grain.			2-inch SCH 40 PVC, 0.020-inch Slot Screen 104-114', #3 Filter Pack Sand 101-115'
	115						Boring terminated at 115 feet below ground surface. Geologic descriptions taken from Mud Rotary cuttings and are not descriptive for fine sediments encountered. Descriptions are for fine grain and larger sands only and are depth approximate.			
	120									
	125									
	130									
	135									
	140									

Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring MW-31

Date(s) Drilled	12/2/03	Logged By	R.M.	Checked By	Don Gruber
Drilling Method	Hollow-Stem-Auger	Drill Bit Size/Type	10 inch	Total Depth Drilled (feet)	92.0
Drill Rig Type	CME-95	Drilling Contractor	Gregg Drilling and Testing	Hammer Weight/ Drop (lbs/in.)	
Groundwater Level (feet)		Date Measured		Approx. Surface Elevation (feet)	
Diameter of Hole (inches)	10 inch / Diameter of Well (inches) 4-inch	Type of Well Casing	SCH 40 PVC	Screen Perforation	0.020-inch
Type of Sand Pack	#3 Sand	Type/Thickness of Seal(s)	Neat Cement Grout/Bentonite Chips with #30 Sand		
Comments	Asphalt Surface, No sampling, soil description based on drill cuttings, well design based on CPT-26.				

Elevation feet	Depth, feet	SAMPLES Type	Description	Blows/foot	Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	0			N/A	0.0		Asphalt. SAND: (2.5Y 5/4) light olive brown; fine grain; uniform; dry.			Flush-mount well seal (no lock); 12-inch flush mount traffic rated vault box
	5				0.0		Silty SAND: (2.5Y 4/2) olive gray; very fine grain sand; moist.			4-inch SCH 40 PVC to 75'
	10				0.0		SAND: (2.5Y 5/4) light olive gray; fine grain; uniform; dry.			
	15				0.0		Silty SAND: (2.5Y 3/2) very dark grayish brown; very fine grain sand; moist.			
	20				0.0		Sandy SILT: (2.5Y 4/3) olive brown; fine grain sand, few round pebbles; moist.			Neat Cement from near surface to 68'
	25				0.0		Clayey SILT: (2.5Y 4/2) dark grayish brown; slightly plastic; crumbly; moist.			
	30				0.2		Silty CLAY: (2.5Y 4/2) dark grayish brown; plastic; moist.			
	35				16.2		Same as above.			
	40				15.1		SAND: (5Y 5/2) olive gray; fine grain; uniform; damp.			
	45									First Water at 45'

Report: ENV_1A; Project File: J:\COOPER~1\COOPERMW.GPJ; Data Template:WC_CORP1.GDT Printed: 4/19/04

Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring MW-31

Elevation feet	Depth, feet	SAMPLES Type	SAMPLES Description	SAMPLES Blows/foot	SAMPLES Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	45				15.3		SAND: (5Y 3/1) very dark gray; fine grain; uniform; wet to saturated.			
	50				15		Clayey SILT: (5Y 2.5/2) black; plastic; saturated.			
	55				1.4		Silty SAND: (5Y 2.5/2) black; fine grain; saturated.			
	60				0.0		Same as above; increased silt content.			
	65				0.0		Same as above; reduced silt content.			
	70				0.0		Same as above.			#30 Sand and Bentonite Chips 68-72'
	75						Boring terminated at 92 feet below ground surface. Groundwater encountered at approximately 45 feet below ground surface. Geologic descriptions taken from auger cuttings and are depth approximate.			
	80									4-inch SCH 40 PVC, 0.020-inch Slot Screen 75-90', #3 Filter Pack Sand 72-92'
	85									
	90									
	95									
	100									
	105									

Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring MW-32

Date(s) Drilled	12/8/03	Logged By	R.M.	Checked By	Don Gruber
Drilling Method	Mud Rotary	Drill Bit Size/Type	8 inch	Total Depth Drilled (feet)	134.0
Drill Rig Type	Versa Drill V-100	Drilling Contractor	Gregg Drilling and Testing	Hammer Weight/ Drop (lbs/in.)	
Groundwater Level (feet)		Date Measured		Approx. Surface Elevation (feet)	
Diameter of Hole (inches)	8 inch	Diameter of Well (inches)	2-inch	Type of Well Casing	SCH 40 PVC	Screen Perforation	0.020-inch
Type of Sand Pack	#3 Sand	Type/Thickness of Seal(s)	Neat Cement Grout/Bentonite Chips with #30 Sand		
Comments	Asphalt Surface, No sampling, soil description based on drill cuttings, well design based on CPT-26.				

Elevation feet	Depth, feet	SAMPLES Type	Description	Blows/foot	Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	0									Flush-mount well seal (no lock)
										12-inch flush mount traffic rated vault box
	5			N/A			SAND: (2.5Y 4/3) olive brown; very fine grain; uniform; dry to moist.			
	10									
	15						Fine grain sands.			2-inch SCH 40 PVC to 122'
	20						Fine grain sands; increase in grain size.			
	25									
	30									
	35									
	40						Very fine and fine grain sands.			Neat Cement from near surface to 115'
	45									
	50						Same as above.			
	55									
	60									

Report: ENV_1A; Project File: J:\COOPER~1\COOPERMW.GPJ; Data Template:WC_CORP1.GDT Printed: 3/22/04

Project: Cooper Drum
Project Location: 9316 S. Atlantic Ave., South Gate, CA
Project Number: 18600047.03020

Log of Boring MW-32

Elevation feet	Depth, feet	SAMPLES Type	SAMPLES Description	SAMPLES Blows/foot	SAMPLES Headspace (ppm)	Graphic Log	MATERIAL DESCRIPTION	Drilling Progress (24-hour clock)	Well Completion Log	REMARKS AND WELL DETAIL
	60						Same as above; greater proportion of fine grains			
	65									
	70						Same as above.			
	75									
	80						Very fine grain sands.			
	85									
	90						Fine grain sand; some dark brown wood chips.			
	95									
	100						Same as above.			
	105									
	110						Same as above.			
	115									#30 Sand and Bentonite Chips 115-119'
	120						Same as above.			
	125						Boring terminated at 134 feet below ground surface. Geologic descriptions taken from Mud Rotary cuttings and are not descriptive for fine sediments encountered. Descriptions are for fine grain and larger sands only and are depth approximate.			2-inch SCH 40 PVC, 0.020-inch Slot Screen 122-132', #3 Filter Pack Sand 119-134'
	130									
	135									
	140									

APPENDIX B

Soil Gas Contour Maps

LEGEND

SG-40 (32) — Soil-gas sample location with concentration in parts per billion by volume.
(SG-1 through SG-6 March 1999).
(SG-7 through SG-17 October 2000).
(SG-18 through SG-29 May 2003).
(SG-30 through SG-41 January 2004).
(SG-42 February 2004).

SVE-1 — Soil vapor extraction well location.

VP-1 — Vapor probe location.

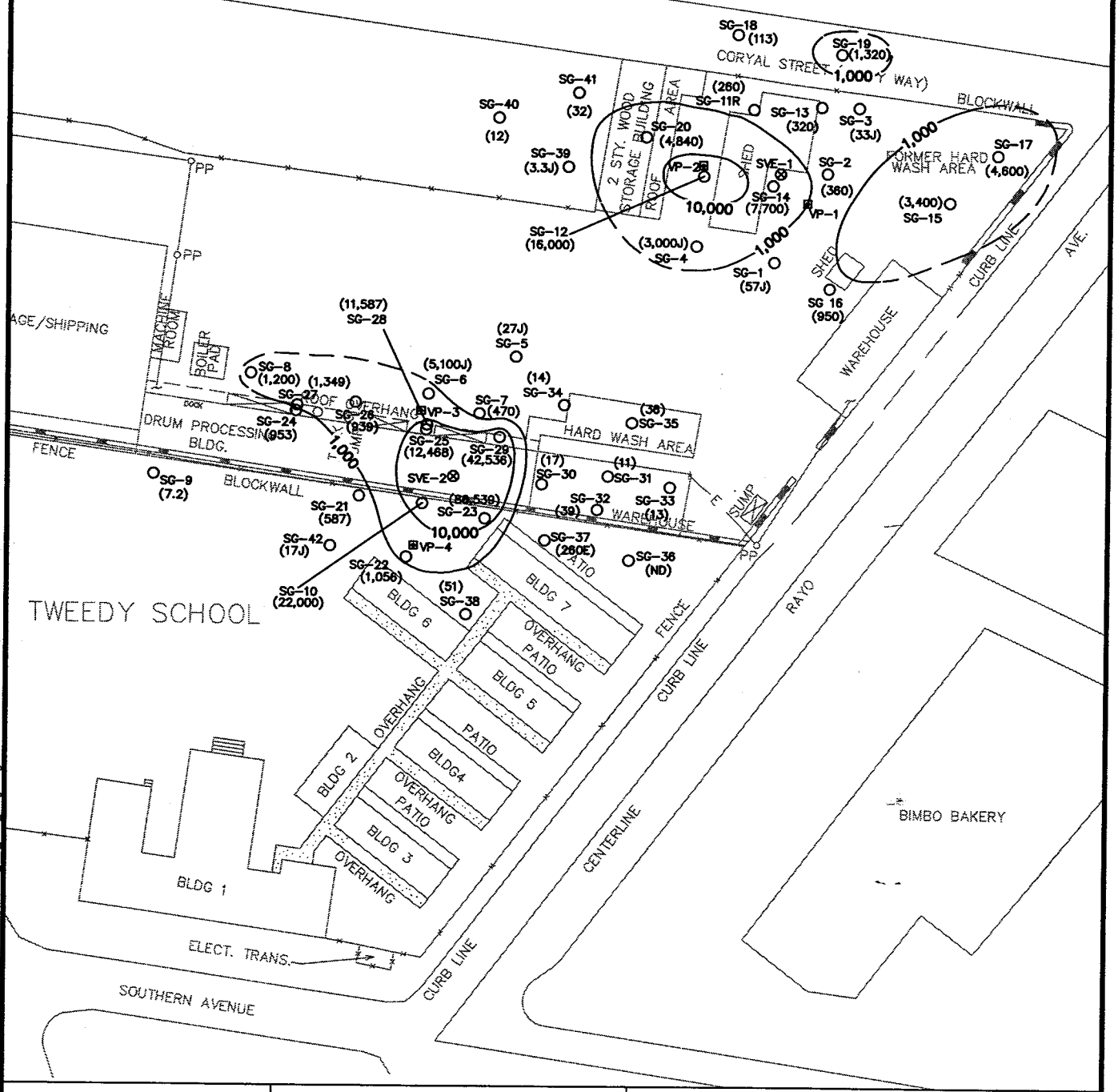
—1,000— PCE soil gas contour; dashed where inferred.

ND — Not detected at or above lab detection limits.

NA — Not analyzed.

J — Estimated value.

E — Estimated value.



URS 2870 GATEWAY OAKS DRIVE, SUITE 300 SACRAMENTO, CA 95833	Cooper Drum Company South Gate, California	FIGURE B-1 PCE Soil Gas Contours at 10 Feet BGS

Cooper MRA Apr 19, 2004 FIG_B-1_PCE_10bgs.dwg

LEGEND

SG-40 (32) ○ Soil-gas sample location with concentration in parts per billion by volume.
(SG-1 through SG-6 March 1999).
(SG-7 through SG-17 October 2000).
(SG-18 through SG-29 May 2003).
(SG-30 through SG-41 January 2004).
(SG-42 February 2004).

SVE-1 ⊗ Soil vapor extraction well location.

VP-1 Vapor probe location.

—1,000— PCE soil gas contour; dashed where inferred.

ND Not detected at or above lab detection limits.

NA Not analyzed.

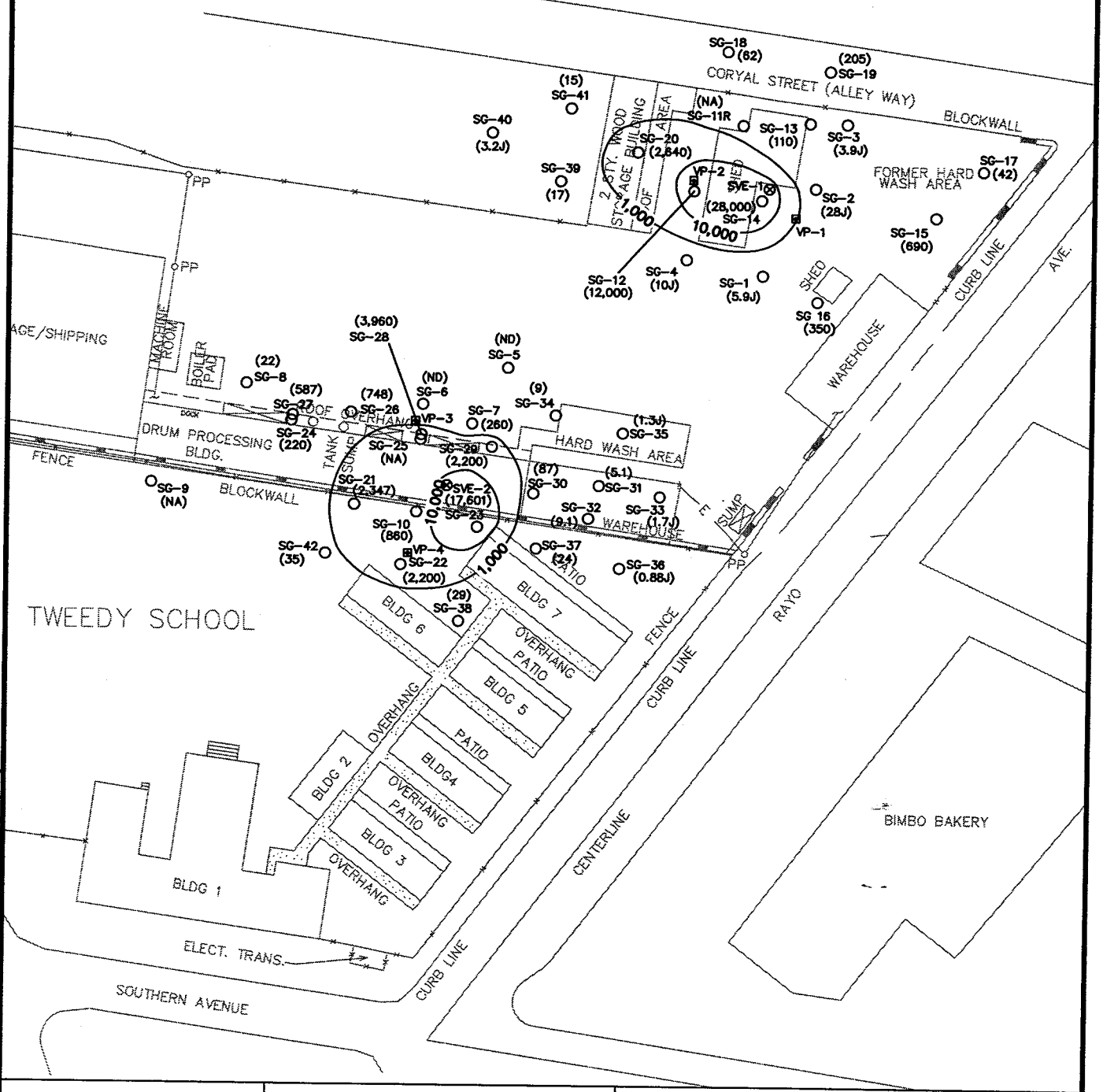
J Estimated value.

E Estimated value.

N W E S

0 100

Scale in Feet



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Cooper Drum Company
South Gate, California

FIGURE B-2
PCE Soil Gas Contours
at 20 Feet BGS

Cooper MRA Apr 19, 2004 FIG B-2 PCE 20bgs.dwg

LEGEND

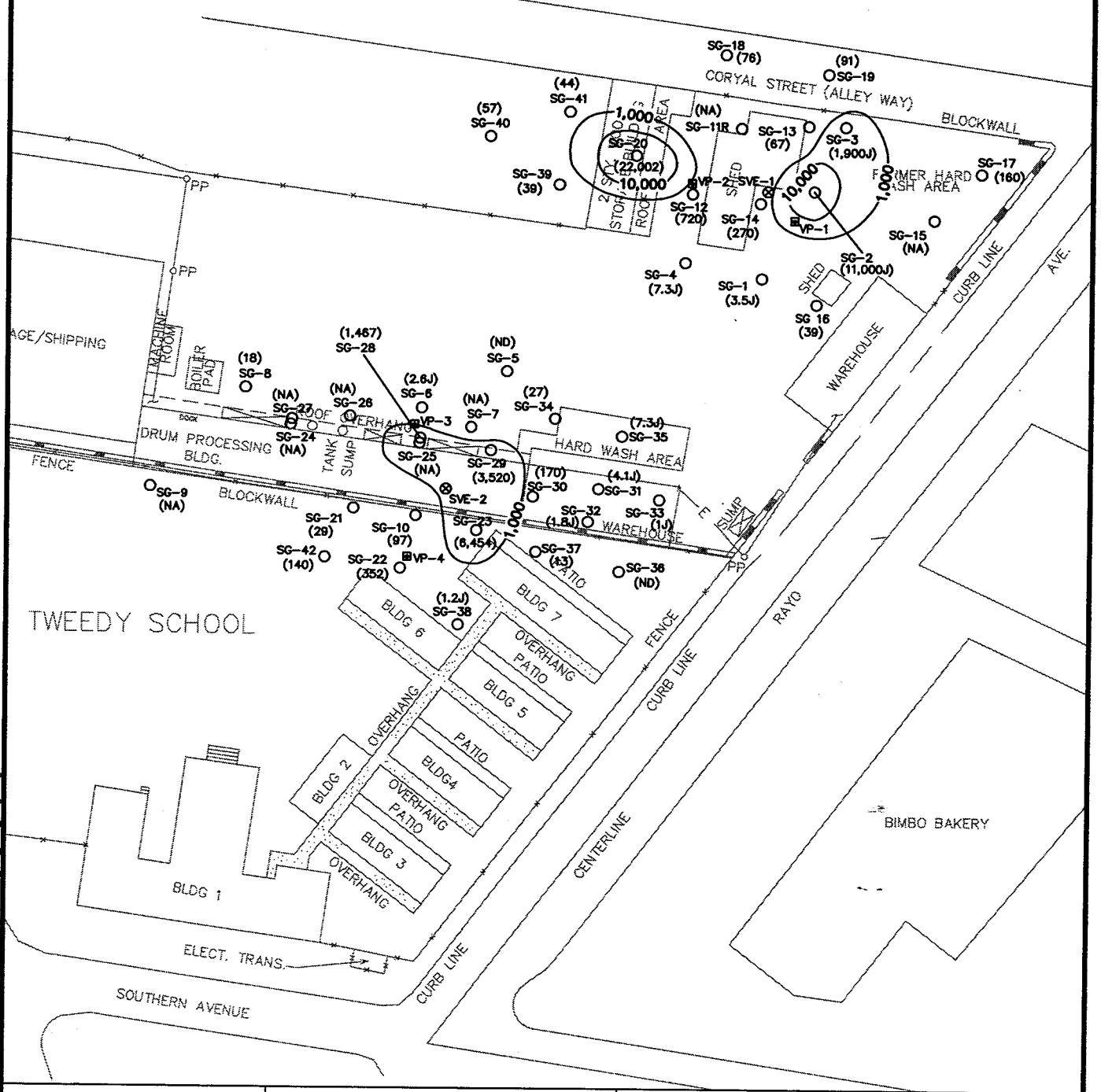
SG-40 (32) ○ Soil-gas sample location with concentration in parts per billion by volume.
(SG-1 through SG-6 March 1999).
(SG-7 through SG-17 October 2000).
(SG-18 through SG-29 May 2003).
(SG-30 through SG-41 January 2004).
(SG-42 February 2004).

SVE-1 ⊗ Soil vapor extraction well location.

⊞ VP-1 Vapor probe location.

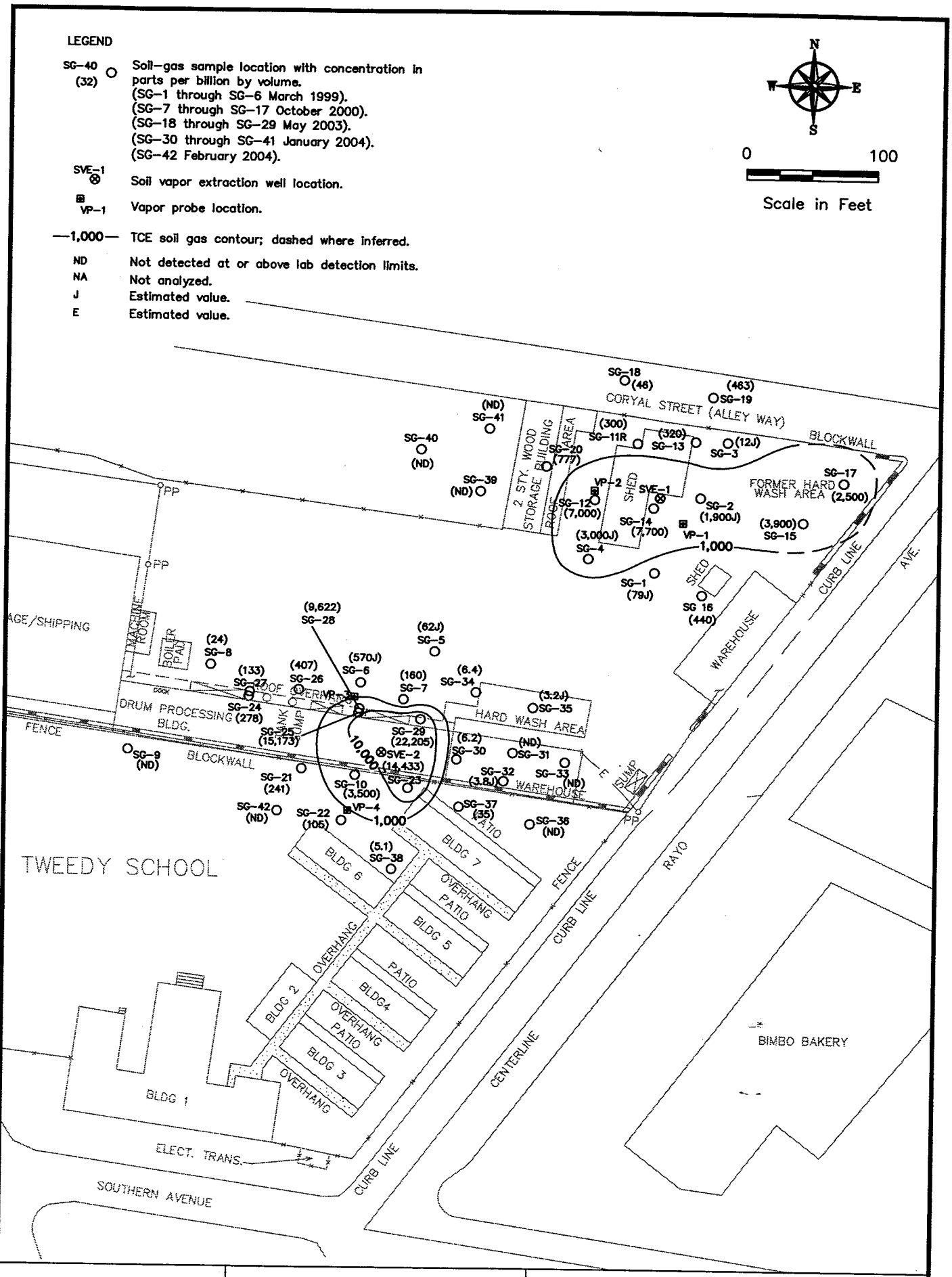
—1,000— PCE soil gas contour; dashed where inferred.

ND Not detected at or above lab detection limits.
NA Not analyzed.
J Estimated value.
E Estimated value.



URS 2870 GATEWAY OAKS DRIVE, SUITE 300 SACRAMENTO, CA 95833	Cooper Drum Company South Gate, California	FIGURE B-3 PCE Soil Gas Contours at 30 Feet BGS

Cooper MRA Apr 07, 2004 FIG_B-3_PCE_30bgs.dwg



MRA Apr 02, 2004 TCE_10bgs.dwg

Cooper

URS 2870 GATEWAY OAKS DRIVE, SUITE 300 SACRAMENTO, CA 95833	Cooper Drum Company South Gate, California	FIGURE B-4 TCE Soil Gas Contours at 10 Feet BGS

LEGEND

SG-40 (32) ○ Soil-gas sample location with concentration in parts per billion by volume.
(SG-1 through SG-6 March 1999).
(SG-7 through SG-17 October 2000).
(SG-18 through SG-29 May 2003).
(SG-30 through SG-41 January 2004).
(SG-42 February 2004).

SVE-1 ⊗ Soil vapor extraction well location.

VP-2 ▣ Vapor probe location.

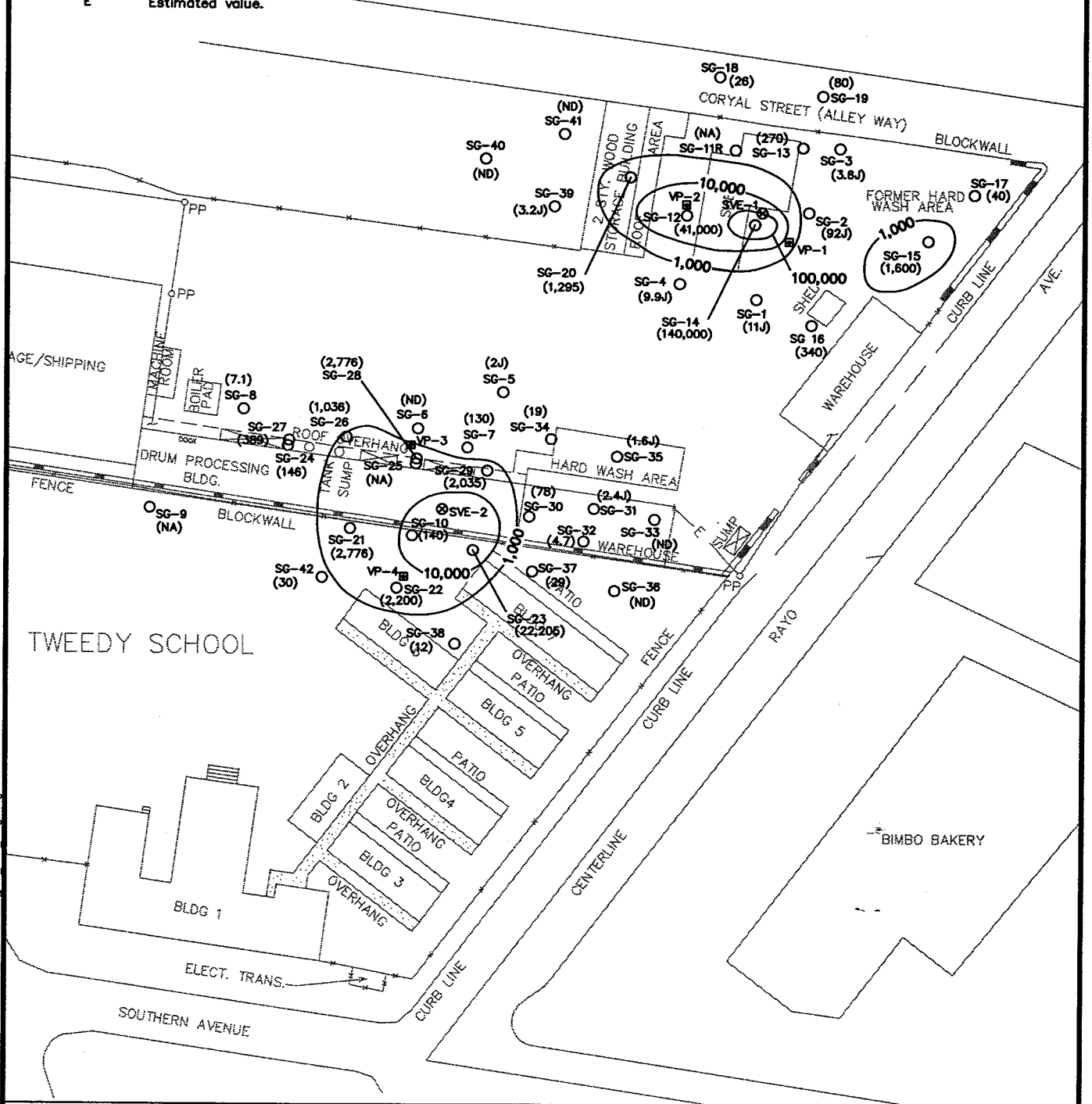
—1,000— TCE soil gas contour; dashed where inferred.

ND Not detected at or above lab detection limits.

NA Not analyzed.

J Estimated value.

E Estimated value.



URS 2870 GATEWAY OAKS DRIVE, SUITE 300 SACRAMENTO, CA 95833	Cooper Drum Company South Gate, California	FIGURE B-5 TCE Soil Gas Contours at 20 Feet BGS

Cooper MRA Apr 07, 2004 FIG_B-5_TCE_20bgs.dwg

LEGEND

SG-40 (32) ○ Soil-gas sample location with concentration in parts per billion by volume.
(SG-1 through SG-6 March 1999).
(SG-7 through SG-17 October 2000).
(SG-18 through SG-29 May 2003).
(SG-30 through SG-41 January 2004).
(SG-42 February 2004).

SVE-1 ⊗ Soil vapor extraction well location.

VP-1 ⊞ Vapor probe location.

—1,000— TCE soil gas contour; dashed where inferred.

ND Not detected at or above lab detection limits.
NA Not analyzed.
J Estimated value.
E Estimated value.

N W E S

0 100

Scale in Feet

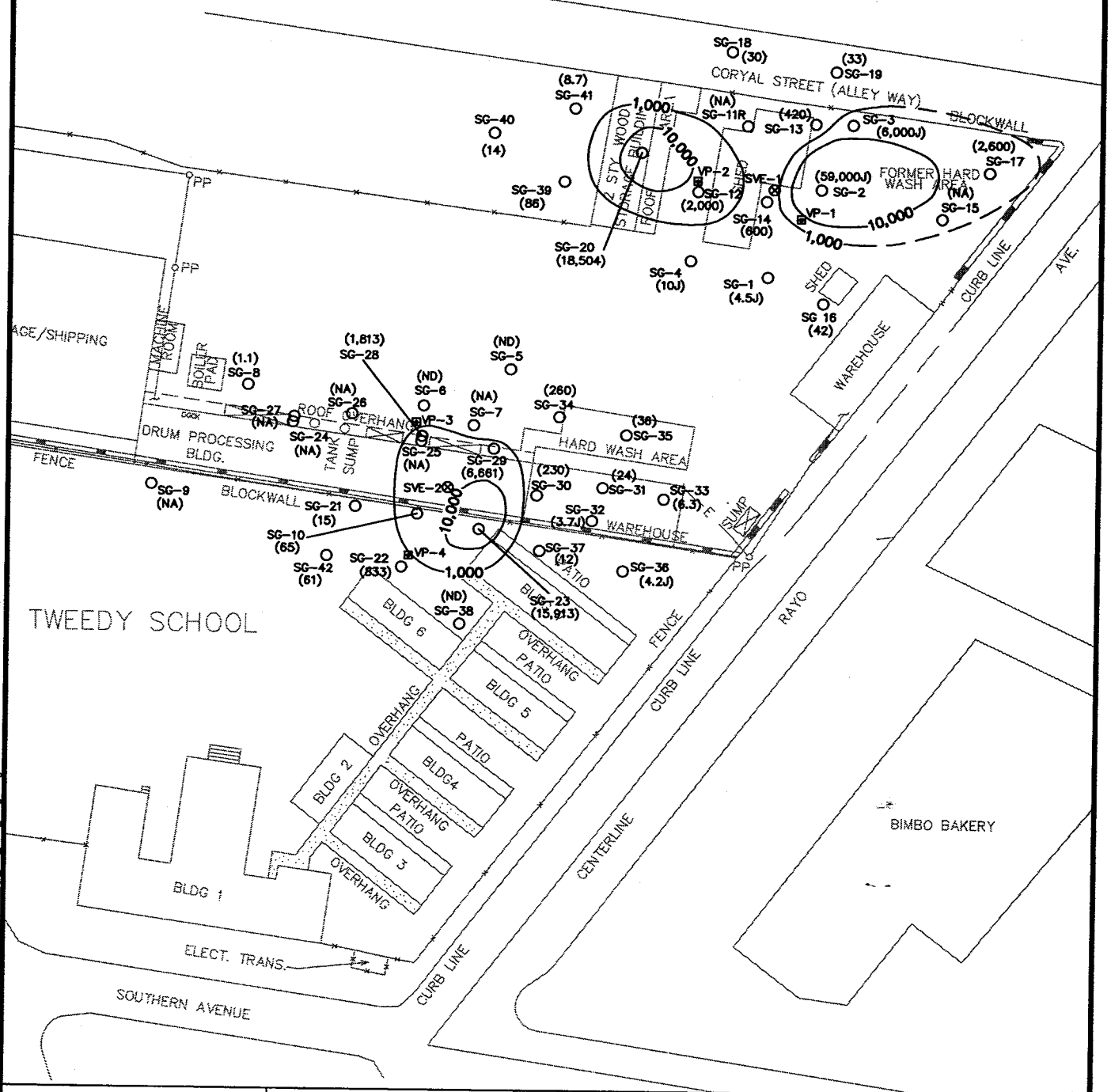


FIG. B-6 TCE 30bgs.dwg

MRA Apr 07, 2004

Cooper

URS 2870 GATEWAY OAKS DRIVE, SUITE 300 SACRAMENTO, CA 95833	Cooper Drum Company South Gate, California	FIGURE B-6 TCE Soil Gas Contours at 30 Feet BGS

LEGEND

SG-40 (32) ○ Soil-gas sample location with concentration in parts per billion by volume.
(SG-1 through SG-6 March 1999).
(SG-7 through SG-17 October 2000).
(SG-18 through SG-29 May 2003).
(SG-30 through SG-41 January 2004).
(SG-42 February 2004).

SVE-1 ⊗ Soil vapor extraction well location.

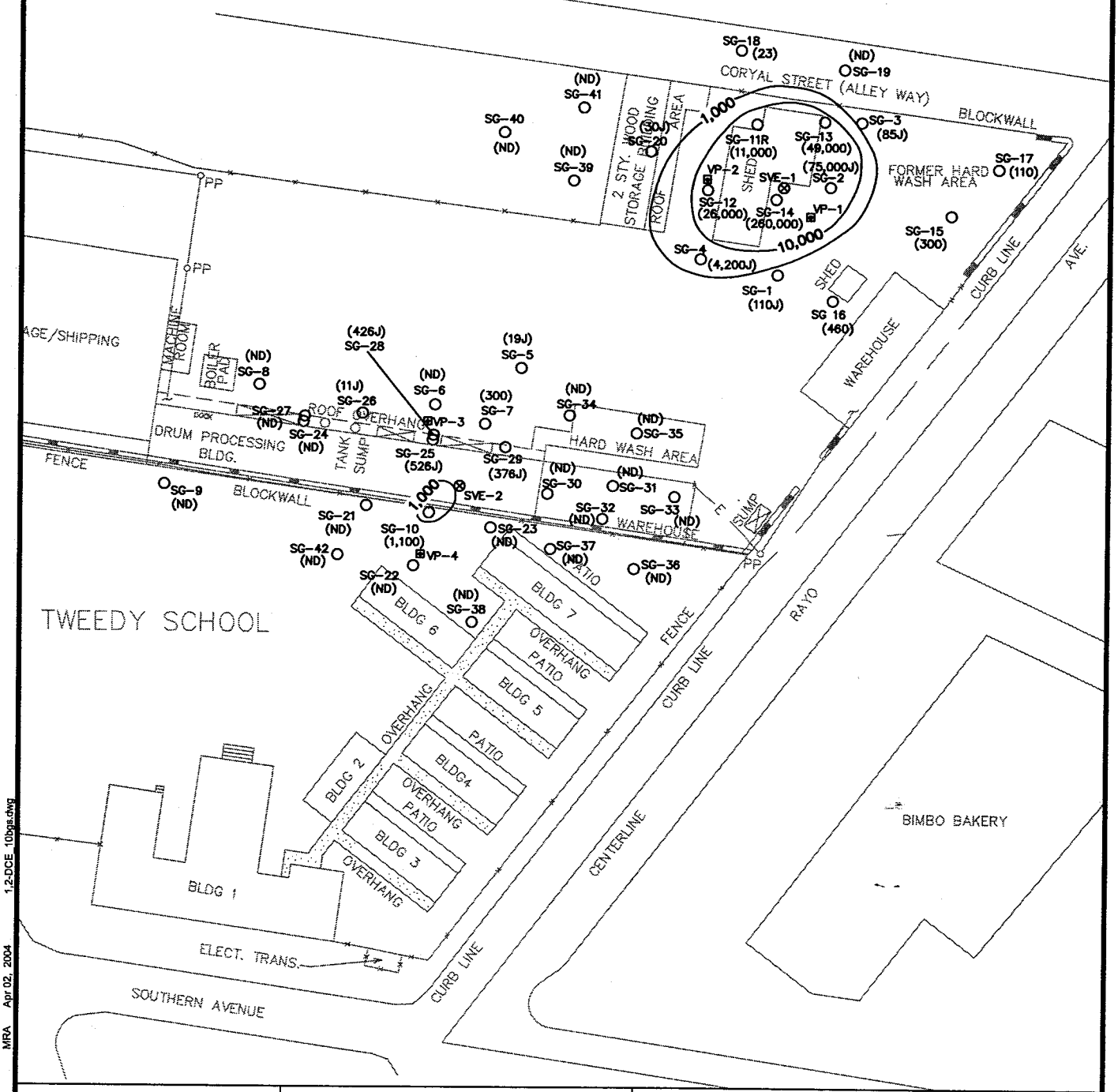
VP-1 ▣ Vapor probe location.

—1,000— 1,2-DCE soil gas contour; dashed where inferred.

ND Not detected at or above lab detection limits.
NA Not analyzed.
J Estimated value.
E Estimated value.

N
W E
S

0 100
Scale in Feet



URS 2870 GATEWAY OAKS DRIVE, SUITE 300 SACRAMENTO, CA 95833	Cooper Drum Company South Gate, California	FIGURE B-7 1,2-DCE Soil Gas Contours at 10 Feet BGS

Cooper MRA Apr 02, 2004 1,2-DCE 10bgs.dwg

LEGEND

SG-40 (32) ○ Soil-gas sample location with concentration in parts per billion by volume.
(SG-1 through SG-6 March 1999).
(SG-7 through SG-17 October 2000).
(SG-18 through SG-29 May 2003).
(SG-30 through SG-41 January 2004).
(SG-42 February 2004).

SVE-1 ⊗ Soil vapor extraction well location.

VP-1 ▣ Vapor probe location.

—1,000— 1,2-DCE soil gas contour; dashed where inferred.

ND Not detected at or above lab detection limits.

NA Not analyzed.

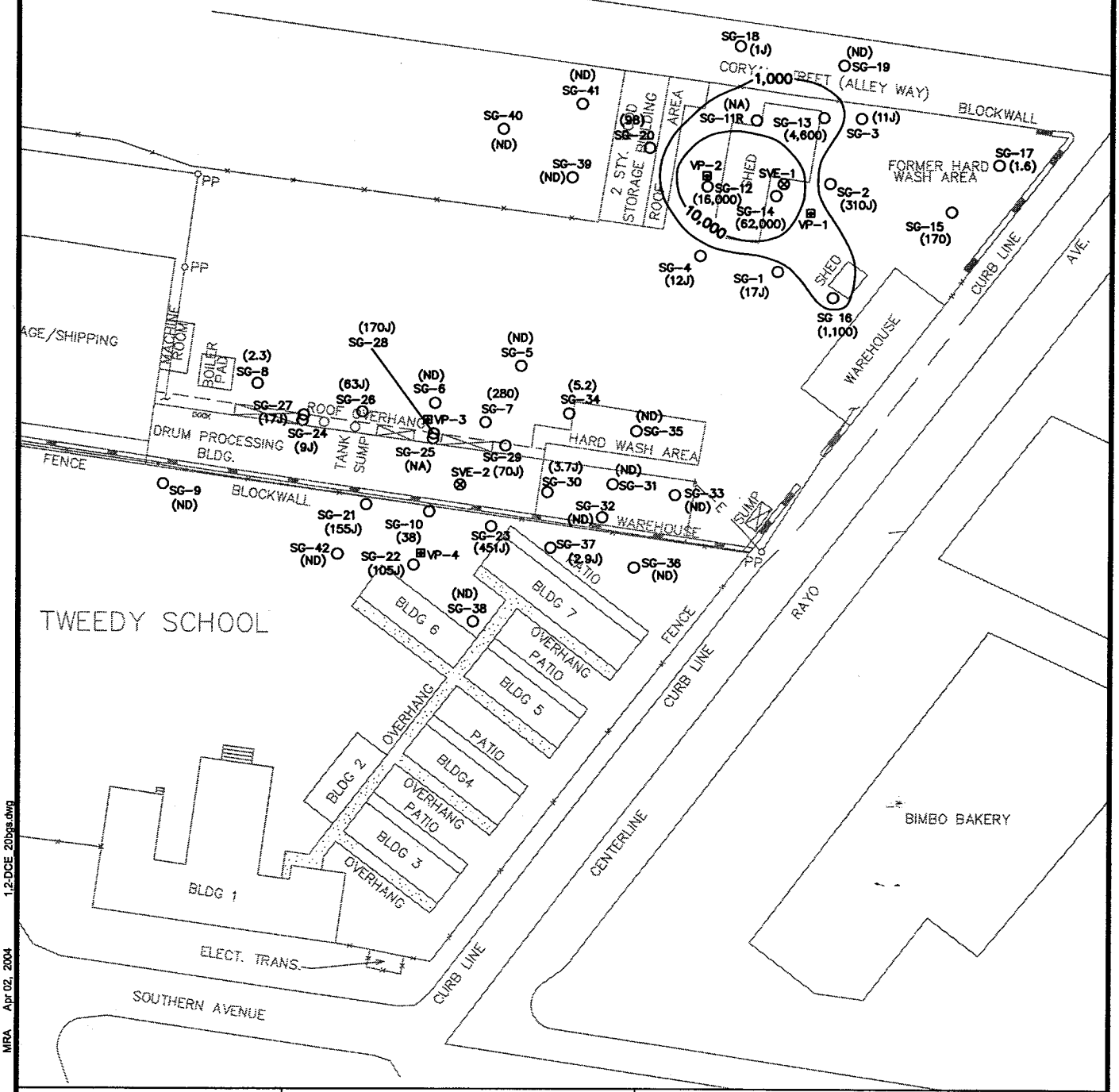
J Estimated value.

E Estimated value.

N W E S

0 100

Scale in Feet



URS 2870 GATEWAY OAKS DRIVE, SUITE 300 SACRAMENTO, CA 95833	Cooper Drum Company South Gate, California	FIGURE B-8 1,2-DCE Soil Gas Contours at 20 Feet BGS

Cooper MRA Apr 02, 2004 1,2-DCE 20bgs.dwg

LEGEND

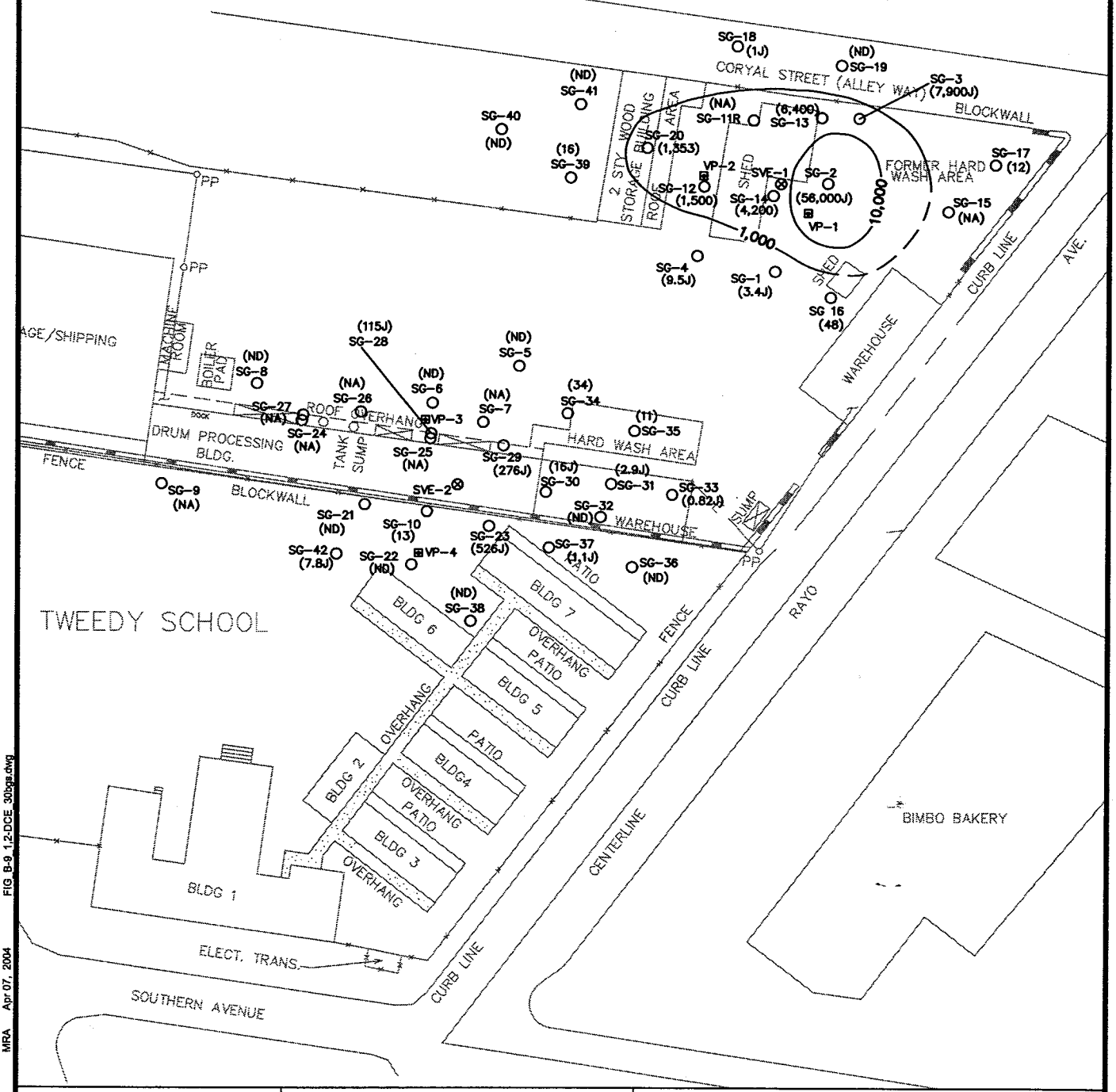
SG-40 (32) — Soil-gas sample location with concentration in parts per billion by volume.
(SG-1 through SG-6 March 1999).
(SG-7 through SG-17 October 2000).
(SG-18 through SG-29 May 2003).
(SG-30 through SG-41 January 2004).
(SG-42 February 2004).

SVE-1 — Soil vapor extraction well location.

VP-1 — Vapor probe location.

—1,000— 1,2-DCE soil gas contour; dashed where inferred.

ND Not detected at or above lab detection limits.
NA Not analyzed.
J Estimated value.
E Estimated value.



URS 2870 GATEWAY OAKS DRIVE, SUITE 300 SACRAMENTO, CA 95833	Cooper Drum Company South Gate, California	FIGURE B-9 1,2-DCE Soil Gas Contours at 30 Feet BGS

Cooper MRA Apr 07, 2004 FIG_B-9_1,2-DCE_30bgs.dwg

LEGEND

SG-40 (32) — Soil-gas sample location with concentration in parts per billion by volume.
(SG-1 through SG-6 March 1999).
(SG-7 through SG-17 October 2000).
(SG-18 through SG-29 May 2003).
(SG-30 through SG-41 January 2004).
(SG-42 February 2004).

SVE-1 — Soil vapor extraction well location.

VP-1 — Vapor probe location.

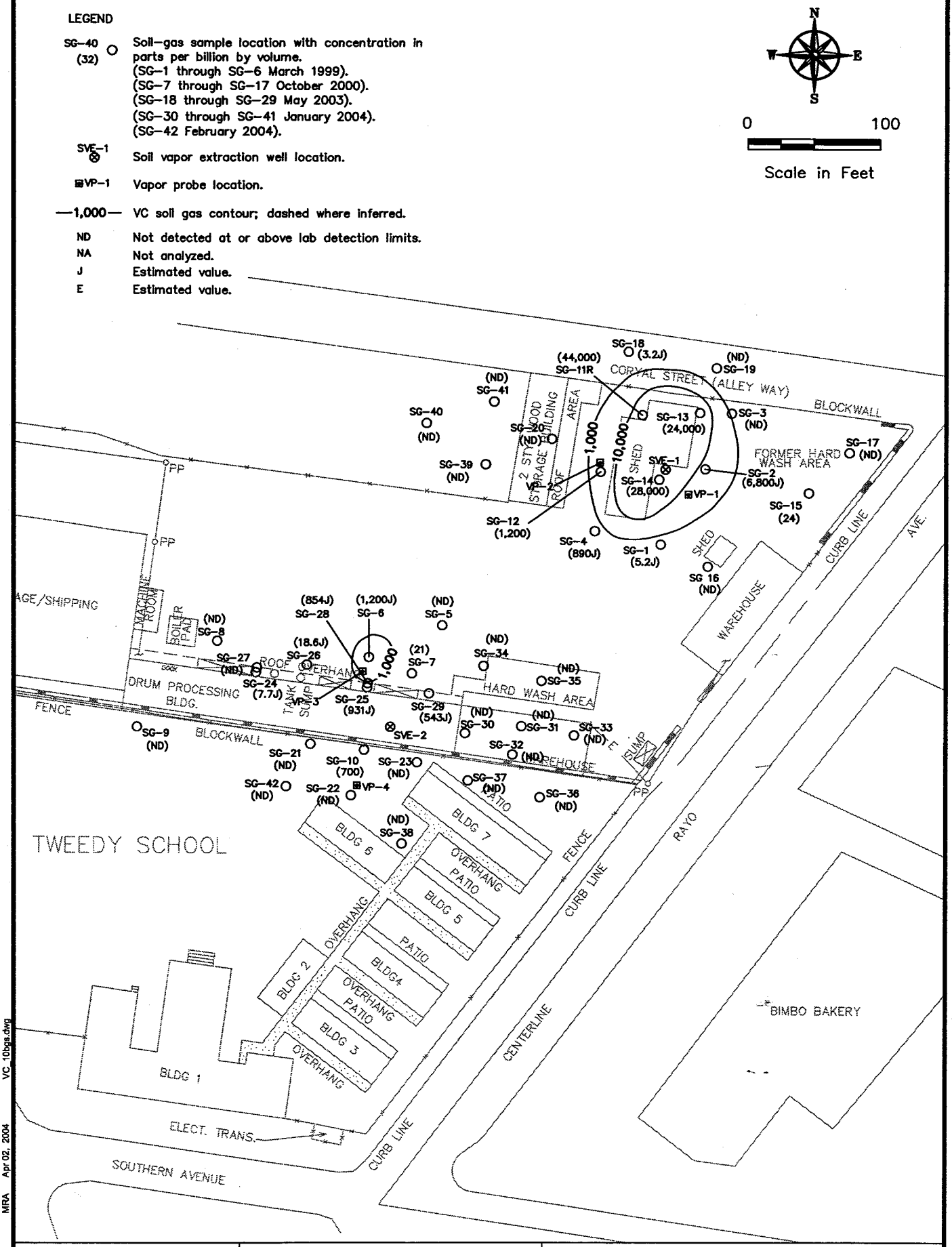
—1,000— VC soil gas contour; dashed where inferred.

ND — Not detected at or above lab detection limits.

NA — Not analyzed.

J — Estimated value.

E — Estimated value.



URS 2870 GATEWAY OAKS DRIVE, SUITE 300 SACRAMENTO, CA 95833	Cooper Drum Company South Gate, California	FIGURE B-10 Vinyl Chloride Soil Gas Contours at 10 Feet BGS

Cooper MRA Apr 02, 2004 VC_10bgs.dwg

LEGEND

SG-40 (32) ○ Soil-gas sample location with concentration in parts per billion by volume.
(SG-1 through SG-6 March 1999).
(SG-7 through SG-17 October 2000).
(SG-18 through SG-29 May 2003).
(SG-30 through SG-41 January 2004).
(SG-42 February 2004).

SVE-1 ⊗ Soil vapor extraction well location.

VP-2 ■ Vapor probe location.

—1,000— VC soil gas contour; dashed where inferred.

ND Not detected at or above lab detection limits.

NA Not analyzed.

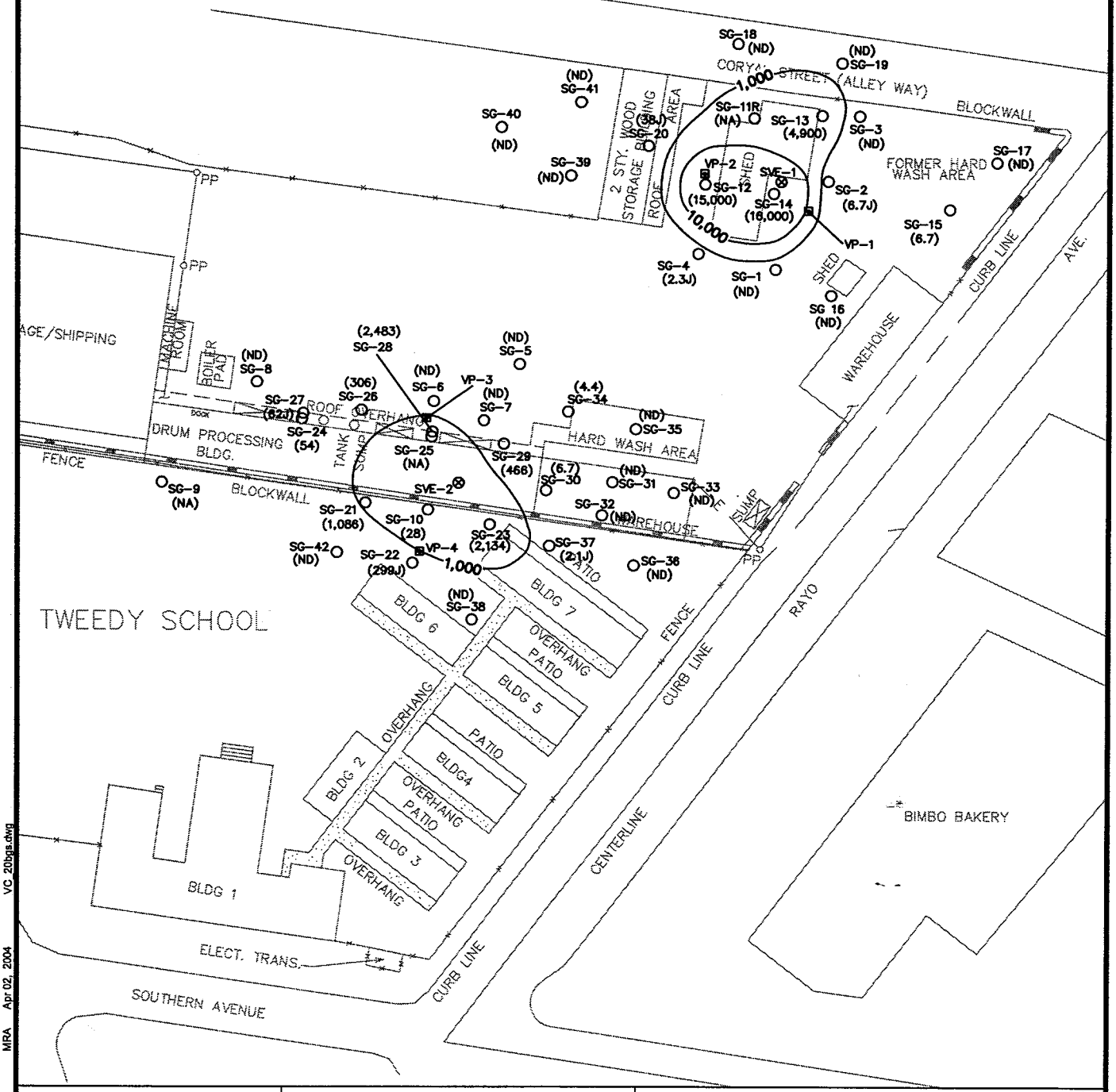
J Estimated value.

E Estimated value.

N W E S

0 100

Scale in Feet



VC 20bgs.dwg

MRA Apr 02, 2004

Cooper

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SACRAMENTO, CA 95833

Cooper Drum Company
South Gate, California

FIGURE B-11
Vinyl Chloride Soil Gas Contours
at 20 Feet BGS

LEGEND

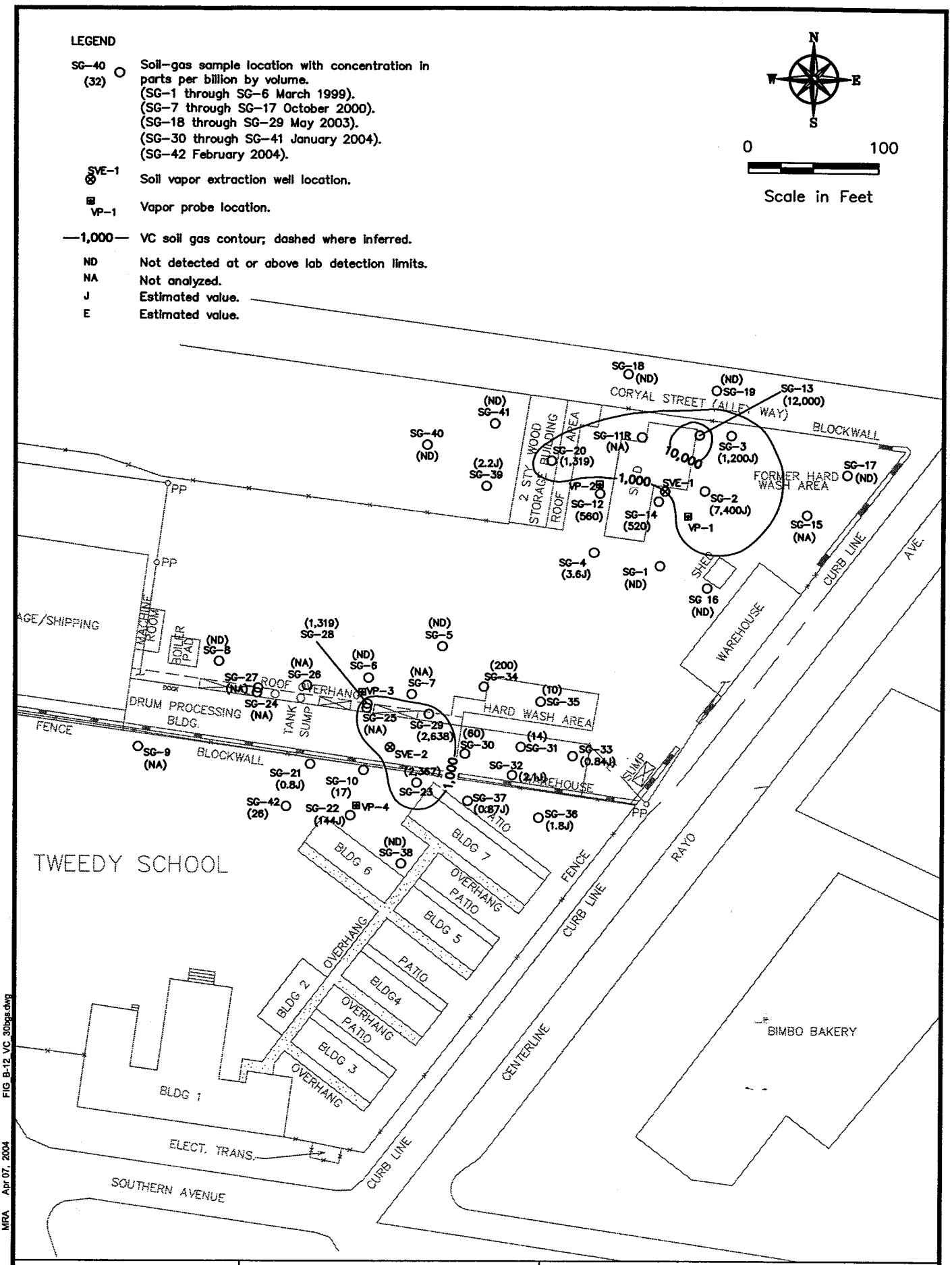
SG-40 (32) — Soil-gas sample location with concentration in parts per billion by volume.
(SG-1 through SG-6 March 1999).
(SG-7 through SG-17 October 2000).
(SG-18 through SG-29 May 2003).
(SG-30 through SG-41 January 2004).
(SG-42 February 2004).

SVE-1 — Soil vapor extraction well location.

VP-1 — Vapor probe location.

—1,000— VC soil gas contour; dashed where inferred.

ND — Not detected at or above lab detection limits.
NA — Not analyzed.
J — Estimated value.
E — Estimated value.



MRA Apr 07, 2004 FIG B-12_VC_30bgs.dwg

Cooper

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2870 GATEWAY OAKS DRIVE, SUITE 300
SACRAMENTO, CA 95833

Cooper Drum Company
South Gate, California

FIGURE B-12
Vinyl Chloride Soil Gas Contours
at 30 Feet BGS

LEGEND

SG-40 (32) — Soil-gas sample location with concentration in parts per billion by volume.
(SG-1 through SG-6 March 1999).
(SG-7 through SG-17 October 2000).
(SG-18 through SG-29 May 2003).
(SG-30 through SG-41 January 2004).
(SG-42 February 2004).

SVE-1 — Soil vapor extraction well location.

VP-2 — Vapor probe location.

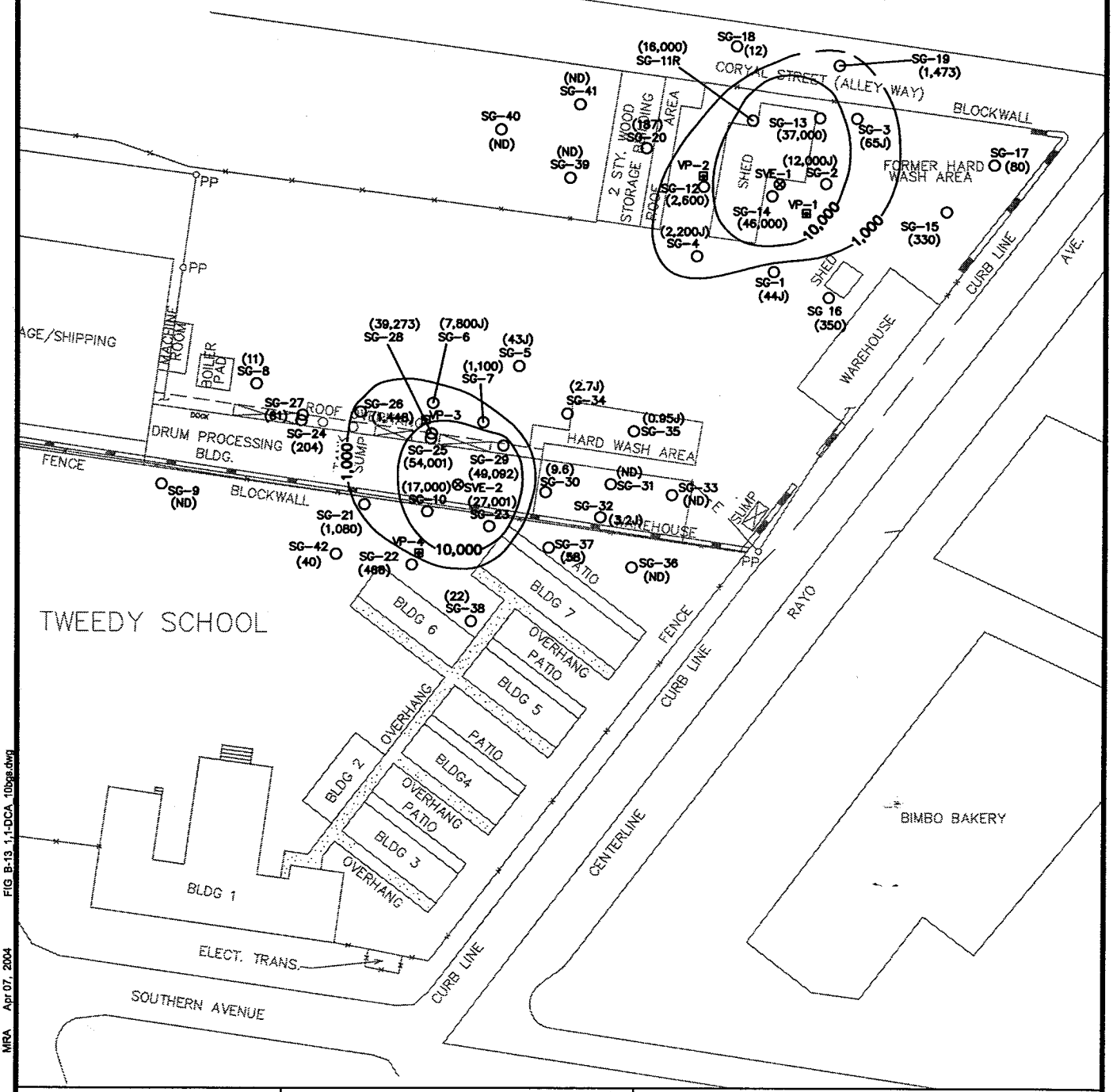
—1,000— 1,1-DCA soil gas contour; dashed where inferred.

ND — Not detected at or above lab detection limits.

NA — Not analyzed.

J — Estimated value.

E — Estimated value.



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South Gate, California

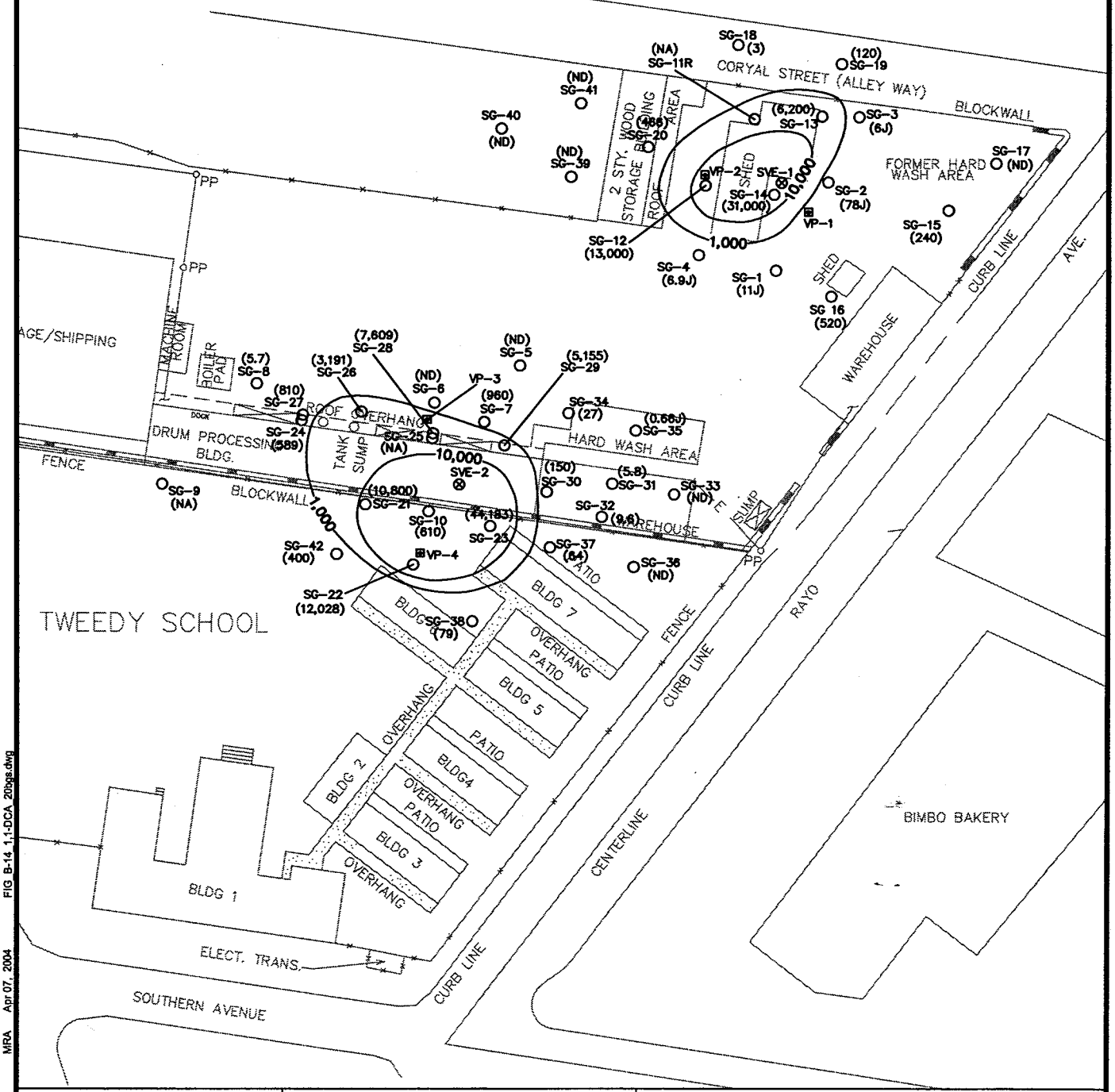
FIGURE B-13
1,1-DCA Soil Gas Contours
at 10 Feet BGS

MRA Apr 07, 2004 FIG B-13 1,1-DCA 10bgs.dwg

Cooper

LEGEND

SG-40 (32)	Soil-gas sample location with concentration in parts per billion by volume. (SG-1 through SG-6 March 1999). (SG-7 through SG-17 October 2000). (SG-18 through SG-29 May 2003). (SG-30 through SG-41 January 2004). (SG-42 February 2004).
SVE-1	Soil vapor extraction well location.
VP-1	Vapor probe location.
—1,000—	1,1-DCA soil gas contour; dashed where inferred.
ND	Not detected at or above lab detection limits.
NA	Not analyzed.
J	Estimated value.
E	Estimated value.



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South Gate, California

FIGURE B-14
1,1-DCA Soil Gas Contours
at 20 Feet BGS

Cooper MRA Apr 07, 2004 FIG B-14_1,1-DCA 20bgs.dwg

LEGEND

SG-40 (32) ○ Soil-gas sample location with concentration in parts per billion by volume.
(SG-1 through SG-6 March 1999).
(SG-7 through SG-17 October 2000).
(SG-18 through SG-29 May 2003).
(SG-30 through SG-41 January 2004).
(SG-42 February 2004).

SVE-1 ⊗ Soil vapor extraction well location.

VP-1 ⊞ Vapor probe location.

—1,000— 1,1-DCA soil gas contour; dashed where inferred.

ND Not detected at or above lab detection limits.
NA Not analyzed.
J Estimated value.
E Estimated value.

N
W E
S

0 100
Scale in Feet

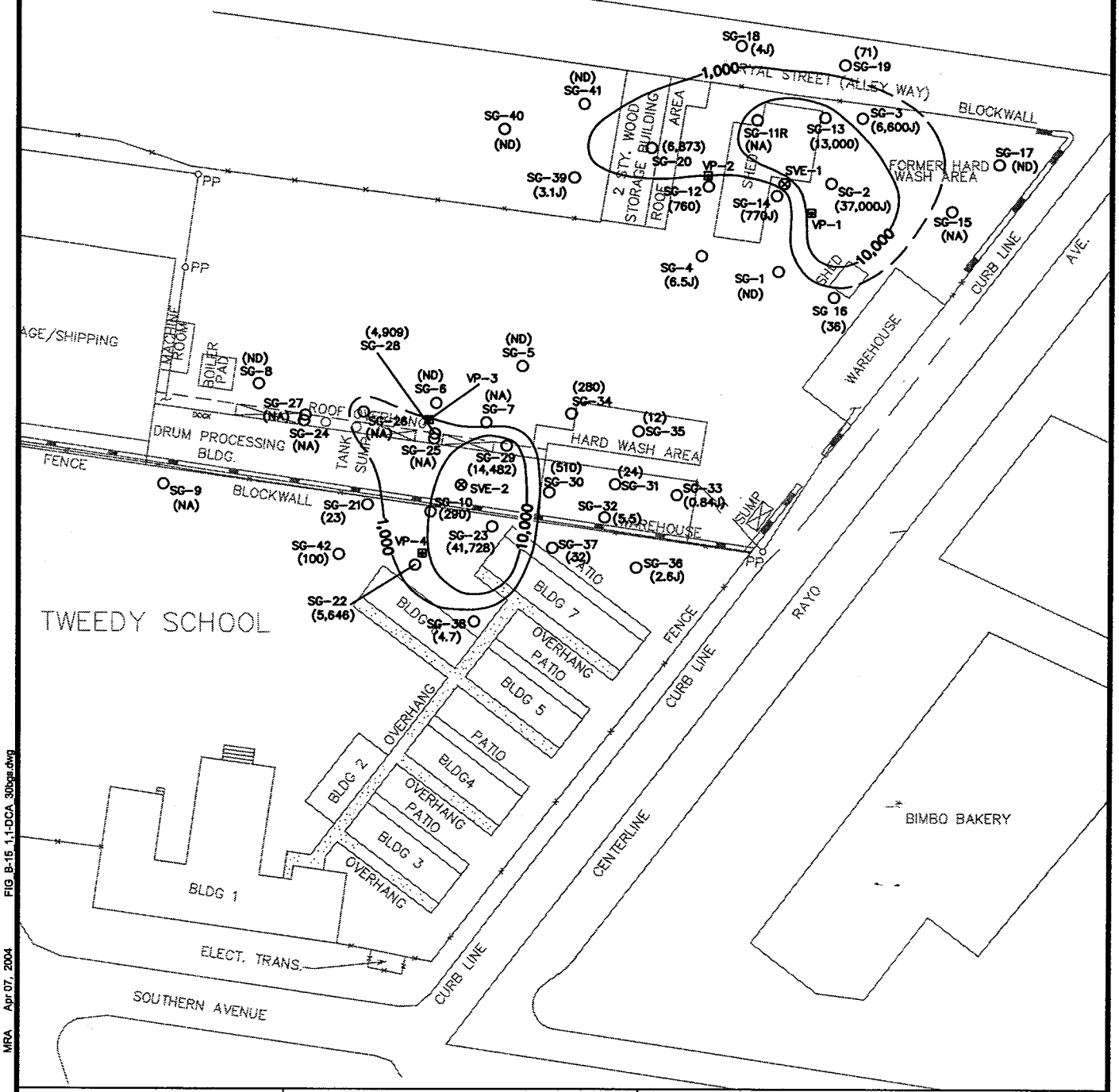

FIG B-15 1,1-DCA 30bgs.dwg
MRA Apr 07, 2004
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SACRAMENTO, CA 95833

Cooper Drum Company
South Gate, California

FIGURE B-15
1,1-DCA Soil Gas Contours
at 30 Feet BGS

APPENDIX C

VLEACH Modeling Input and Output Data

```
==============GENERAL PROJECT INFORMATION============================
project title.........................10/00 Cooper PCE
number of polygons....................1
timestep [years]......................1
total time of simulation [years]......100
gw impact output interval [years].....10
profile output interval [years].......10
===============CONTAMINANT INFORMATION==============================
org.C distrib. coeff., Koc [ml/g].....364
Henry's constant [dimensionless]......0.546
water solubility [mg/l]...............150
free air diffusion coef.[sq.m/d]......0.701
===============Polygon #1============================================
title................................SG-20
surface area [sq.ft]..................1
vertical thickness of a cell [ft].....1.0
net recharge rate [ft/year]...........0.12
dry bulk density [g/cm3]..............1.525
effective porosity [dim.less].........0.4955
volumetric water content [percent]....0.232
organic carbon content [dim.less].....0.0018375
contaminant conc. in recharge [mg/l]....0.0
upper BC for vapor [mg/l]............0.0
lower BC for vapor [mg/l]............0.0
number of cells......................55
plot variable [y/n]..................y
plot time [years]....................10.0
======repeat the following line until all cells are assigned=========
top #, bottom #, init. conc. [ug/kg]....1,5,31.10
top #, bottom #, init. conc. [ug/kg]....6,15,62.20
top #, bottom #, init. conc. [ug/kg]....16,25,11.58
top #, bottom #, init. conc. [ug/kg]....26,55,96.51
```

SG-20
PCE VLEACH Output Data

Depth (feet bgs)	Time (years)										
	0	10	20	30	40	50	60	70	80	90	100
0.5	33.98	5.89	1.25	0.36	0.14	0.07	0.03	0.02	0.01	0.00	0.00
2.5	33.98	12.74	4.47	1.65	0.68	0.31	0.15	0.07	0.04	0.02	0.01
4.5	33.98	15.52	6.83	2.99	1.34	0.63	0.31	0.15	0.08	0.04	0.02
6.5	67.95	25.93	10.35	4.47	2.05	0.98	0.48	0.24	0.12	0.06	0.03
8.5	67.95	29.90	13.17	5.94	2.77	1.33	0.66	0.33	0.17	0.08	0.04
10.5	67.95	31.64	14.89	7.07	3.41	1.67	0.83	0.42	0.21	0.11	0.06
12.5	67.95	32.87	16.09	7.93	3.94	1.97	0.99	0.50	0.26	0.13	0.07
14.5	67.95	33.89	17.07	8.64	4.38	2.22	1.13	0.58	0.30	0.15	0.08
16.5	12.65	20.79	14.93	8.65	4.65	2.43	1.25	0.65	0.33	0.17	0.09
18.5	12.65	17.67	13.37	8.34	4.73	2.56	1.35	0.70	0.36	0.19	0.10
20.5	12.65	17.88	13.31	8.34	4.82	2.65	1.42	0.75	0.39	0.20	0.10
22.5	12.65	18.67	13.83	8.62	4.97	2.75	1.48	0.79	0.41	0.21	0.11
24.5	12.65	19.54	14.47	8.98	5.16	2.85	1.54	0.82	0.43	0.22	0.12
26.5	105.43	43.84	20.11	10.32	5.53	2.98	1.59	0.84	0.44	0.23	0.12
28.5	105.43	51.16	24.52	12.03	6.10	3.16	1.66	0.87	0.45	0.24	0.12
30.5	105.43	52.66	26.18	13.04	6.55	3.34	1.72	0.89	0.46	0.24	0.12
32.5	105.43	52.98	26.63	13.40	6.77	3.44	1.76	0.90	0.47	0.24	0.12
34.5	105.43	52.93	26.62	13.43	6.80	3.45	1.76	0.90	0.46	0.24	0.12
36.5	105.43	52.61	26.35	13.26	6.70	3.40	1.74	0.89	0.46	0.23	0.12
38.5	105.43	52.03	25.86	12.94	6.52	3.30	1.68	0.86	0.44	0.23	0.12
40.5	105.43	51.19	25.16	12.49	6.25	3.15	1.60	0.82	0.42	0.21	0.11
42.5	105.43	50.10	24.24	11.90	5.91	2.97	1.50	0.76	0.39	0.20	0.10
44.5	105.43	48.73	23.10	11.17	5.49	2.73	1.37	0.70	0.35	0.18	0.09
46.5	105.43	47.10	21.75	10.32	5.00	2.47	1.23	0.62	0.31	0.16	0.08
48.5	105.43	45.18	20.17	9.33	4.44	2.16	1.07	0.53	0.27	0.14	0.07
50.5	105.43	42.98	18.38	8.21	3.80	1.81	0.88	0.44	0.22	0.11	0.06
52.5	105.43	40.48	16.37	6.97	3.10	1.44	0.69	0.33	0.17	0.08	0.04
54.5	105.43	37.67	14.14	5.60	2.34	1.03	0.47	0.22	0.11	0.05	0.03

Note: concentrations in micrograms per liter or parts per billion.

```
==============GENERAL PROJECT INFORMATION============================
project title.........................10/00 Cooper TCE
number of polygons....................1
timestep [years]......................1
total time of simulation [years]......100
gw impact output interval [years]....10
profile output interval [years]......10
===============CONTAMINANT INFORMATION==============================
org.C distrib. coeff., Koc [ml/g]....126
Henry's constant [dimensionless].....0.297
water solubility [mg/l]..............1000
free air diffusion coef.[sq.m/d].....0.701
===============Polygon #1===========================================
title................................SG-20
surface area [sq.ft]..................1
vertical thickness of a cell [ft]....1.0
net recharge rate [ft/year]..........0.12
dry bulk density [g/cm3].............1.525
effective porosity [dim.less]........0.4955
volumetric water content [percent]...0.232
organic carbon content [dim.less]....0.0018375
contaminant conc. in recharge [mg/l]....0.0
upper BC for vapor [mg/l]............0.0
lower BC for vapor [mg/l]............0.0
number of cells......................55
plot variable [y/n]..................y
plot time [years]....................10.0
======repeat the following line until all cells are assigned=========
top #, bottom #, init. conc. [ug/kg]....1,5,3.39
top #, bottom #, init. conc. [ug/kg]....6,15,6.77
top #, bottom #, init. conc. [ug/kg]....16,25,4.86
top #, bottom #, init. conc. [ug/kg]....26,55,69.44
```

SG-20
TCE VLEACH Output Data

Depth (feet bgs)	Time (years)										
	0	10	20	30	40	50	60	70	80	90	100
0.50	7.79	0.82	0.25	0.11	0.05	0.02	0.01	0.01	0.00	0.00	0.00
2.50	7.79	3.27	1.23	0.53	0.24	0.11	0.05	0.02	0.01	0.01	0.00
4.50	7.79	5.37	2.53	1.14	0.52	0.24	0.11	0.05	0.02	0.01	0.00
6.50	15.56	8.05	3.94	1.85	0.86	0.39	0.18	0.08	0.04	0.02	0.01
8.50	15.56	10.52	5.41	2.60	1.22	0.56	0.26	0.12	0.05	0.03	0.01
10.50	15.56	12.38	6.82	3.37	1.59	0.74	0.34	0.16	0.07	0.03	0.02
12.50	15.56	13.97	8.10	4.10	1.97	0.92	0.43	0.20	0.09	0.04	0.02
14.50	15.56	15.50	9.29	4.80	2.33	1.10	0.51	0.23	0.11	0.05	0.02
16.50	11.17	16.48	10.37	5.45	2.67	1.27	0.59	0.27	0.13	0.06	0.03
18.50	11.17	17.50	11.35	6.06	2.99	1.42	0.67	0.31	0.14	0.07	0.03
20.50	11.17	18.86	12.31	6.62	3.29	1.57	0.74	0.34	0.16	0.07	0.03
22.50	11.17	20.38	13.30	7.15	3.56	1.71	0.80	0.37	0.17	0.08	0.04
24.50	11.17	21.96	14.30	7.66	3.81	1.82	0.86	0.40	0.18	0.08	0.04
26.50	159.64	41.75	16.69	8.24	4.04	1.93	0.91	0.42	0.19	0.09	0.04
28.50	159.64	59.93	21.54	9.20	4.29	2.02	0.95	0.44	0.20	0.09	0.04
30.50	159.64	66.85	26.06	10.52	4.61	2.12	0.98	0.45	0.21	0.10	0.04
32.50	159.64	68.82	28.61	11.72	4.98	2.21	1.01	0.46	0.21	0.10	0.04
34.50	159.64	69.32	29.64	12.47	5.28	2.30	1.03	0.47	0.21	0.10	0.05
36.50	159.64	69.23	29.85	12.78	5.46	2.37	1.05	0.47	0.21	0.10	0.04
38.50	159.64	68.72	29.61	12.76	5.50	2.39	1.05	0.47	0.21	0.10	0.04
40.50	159.64	67.80	29.04	12.51	5.41	2.36	1.03	0.46	0.21	0.09	0.04
42.50	159.64	66.47	28.17	12.08	5.23	2.28	1.00	0.44	0.20	0.09	0.04
44.50	159.64	64.73	27.01	11.49	4.95	2.15	0.94	0.42	0.19	0.08	0.04
46.50	159.64	62.56	25.56	10.74	4.59	1.99	0.87	0.38	0.17	0.08	0.03
48.50	159.64	59.97	23.82	9.83	4.16	1.79	0.78	0.34	0.15	0.07	0.03
50.50	159.64	56.94	21.78	8.77	3.66	1.56	0.68	0.30	0.13	0.06	0.03
52.50	159.64	53.45	19.46	7.57	3.08	1.30	0.56	0.24	0.11	0.05	0.02
54.50	159.64	49.51	16.84	6.22	2.44	1.00	0.43	0.18	0.08	0.04	0.02

Note: concentrations in micrograms per liter or parts per billion.

```
==============GENERAL PROJECT INFORMATION============================
project title.........................10/00 Cooper 1,2-DCE
number of polygons....................1
timestep [years]......................1
total time of simulation [years]......100
gw impact output interval [years]....10
profile output interval [years]......10
===============CONTAMINANT INFORMATION==============================
org.C distrib. coeff., Koc [ml/g]....49
Henry's constant [dimensionless]....0.123
water solubility [mg/l]..............3500
free air diffusion coef.[sq.m/d]....0.701
===============Polygon #1===========================================
title................................SG-20
surface area [sq.ft]..................1
vertical thickness of a cell [ft]....1.0
net recharge rate [ft/year]..........0.12
dry bulk density [g/cm3]............1.525
effective porosity [dim.less]........0.4955
volumetric water content [percent]...0.232
organic carbon content [dim.less]....0.0018375
contaminant conc. in recharge [mg/l]....0.0
upper BC for vapor [mg/l]............0.0
lower BC for vapor [mg/l]............0.0
number of cells......................55
plot variable [y/n]..................y
plot time [years]....................10.0
======repeat the following line until all cells are assigned=========
top #, bottom #, init. conc. [ug/kg]....1,5,0.14
top #, bottom #, init. conc. [ug/kg]....6,15,0.28
top #, bottom #, init. conc. [ug/kg]....16,25,0.44
top #, bottom #, init. conc. [ug/kg]....26,55,6.06
```

SG-20
1,2-DCE VLEACH Output Data

Depth (feet bgs)	Time (years)										
	0	10	20	30	40	50	60	70	80	90	100
0.5	0.53	0.05	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
2.5	0.53	0.26	0.11	0.06	0.03	0.02	0.01	0.01	0.00	0.00	0.00
4.5	0.53	0.51	0.26	0.14	0.07	0.04	0.02	0.01	0.01	0.00	0.00
6.5	1.06	0.77	0.45	0.24	0.13	0.07	0.04	0.02	0.01	0.01	0.00
8.5	1.06	1.06	0.66	0.36	0.20	0.11	0.06	0.03	0.02	0.01	0.01
10.5	1.06	1.31	0.88	0.50	0.28	0.15	0.08	0.04	0.02	0.01	0.01
12.5	1.06	1.53	1.09	0.65	0.36	0.20	0.11	0.06	0.03	0.02	0.01
14.5	1.06	1.72	1.30	0.80	0.45	0.25	0.14	0.07	0.04	0.02	0.01
16.5	1.67	1.96	1.49	0.94	0.54	0.30	0.16	0.09	0.05	0.03	0.01
18.5	1.67	2.27	1.69	1.08	0.64	0.36	0.20	0.11	0.06	0.03	0.02
20.5	1.67	2.54	1.90	1.22	0.72	0.41	0.23	0.12	0.07	0.04	0.02
22.5	1.67	2.77	2.12	1.36	0.81	0.46	0.26	0.14	0.08	0.04	0.02
24.5	1.67	2.99	2.32	1.50	0.89	0.51	0.29	0.16	0.09	0.05	0.03
26.5	23.00	4.95	2.58	1.63	0.98	0.56	0.31	0.17	0.10	0.05	0.03
28.5	23.00	8.91	3.23	1.79	1.06	0.61	0.34	0.19	0.10	0.06	0.03
30.5	23.00	11.60	4.42	2.04	1.14	0.65	0.37	0.20	0.11	0.06	0.03
32.5	23.00	12.64	5.68	2.44	1.24	0.69	0.39	0.22	0.12	0.06	0.04
34.5	23.00	12.93	6.55	2.93	1.39	0.74	0.41	0.23	0.12	0.07	0.04
36.5	23.00	12.98	6.98	3.37	1.57	0.79	0.43	0.23	0.13	0.07	0.04
38.5	23.00	12.95	7.12	3.66	1.76	0.86	0.45	0.24	0.13	0.07	0.04
40.5	23.00	12.86	7.12	3.80	1.90	0.93	0.47	0.25	0.14	0.07	0.04
42.5	23.00	12.71	7.03	3.82	1.98	0.98	0.49	0.26	0.14	0.07	0.04
44.5	23.00	12.51	6.88	3.76	2.00	1.02	0.51	0.26	0.14	0.07	0.04
46.5	23.00	12.24	6.67	3.64	1.96	1.03	0.52	0.26	0.14	0.07	0.04
48.5	23.00	11.92	6.40	3.48	1.89	1.00	0.52	0.26	0.13	0.07	0.04
50.5	23.00	11.54	6.07	3.27	1.78	0.95	0.50	0.26	0.13	0.07	0.04
52.5	23.00	11.10	5.69	3.03	1.63	0.88	0.47	0.24	0.12	0.06	0.03
54.5	23.00	10.60	5.25	2.74	1.46	0.79	0.42	0.22	0.11	0.06	0.03

Note: concentrations in micrograms per liter or parts per billion.

```
==============GENERAL PROJECT INFORMATION============================
project title.........................10/00 Cooper VC
number of polygons....................1
timestep [years]......................1
total time of simulation [years]......100
gw impact output interval [years]....10
profile output interval [years]......10
===============CONTAMINANT INFORMATION==============================
org.C distrib. coeff., Koc [ml/g]....57
Henry's constant [dimensionless]....0.905
water solubility [mg/l]..............1100
free air diffusion coef.[sq.m/d]....0.701
===============Polygon #1===========================================
title................................SG-20
surface area [sq.ft]..................1
vertical thickness of a cell [ft]....1.0
net recharge rate [ft/year]..........0.12
dry bulk density [g/cm3].............1.525
effective porosity [dim.less]........0.4955
volumetric water content [percent]...0.232
organic carbon content [dim.less]....0.0018375
contaminant conc. in recharge [mg/l]....0.0
upper BC for vapor [mg/l]............0.0
lower BC for vapor [mg/l]............0.0
number of cells......................55
plot variable [y/n]..................y
plot time [years]....................10.0
======repeat the following line until all cells are assigned=========
top #, bottom #, init. conc. [ug/kg]....1,5,0
top #, bottom #, init. conc. [ug/kg]....6,15,0
top #, bottom #, init. conc. [ug/kg]....16,25,0.04
top #, bottom #, init. conc. [ug/kg]....26,55,1.24
```

SG-20
Vinyl Chloride VLEACH Output Data

Depth (feet bgs)	Time (years)										
	0	10	20	30	40	50	60	70	80	90	100
0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.50	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4.50	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6.50	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8.50	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10.50	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12.50	0.00	0.07	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14.50	0.00	0.08	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16.50	0.10	0.09	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18.50	0.10	0.09	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20.50	0.10	0.10	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22.50	0.10	0.11	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24.50	0.10	0.12	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26.50	3.00	0.13	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28.50	3.00	0.15	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30.50	3.00	0.16	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
32.50	3.00	0.16	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
34.50	3.00	0.16	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36.50	3.00	0.16	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
38.50	3.00	0.16	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40.50	3.00	0.15	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
42.50	3.00	0.14	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44.50	3.00	0.13	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
46.50	3.00	0.12	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48.50	3.00	0.10	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50.50	3.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
52.50	3.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
54.50	3.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note: concentrations in micrograms per liter or parts per billion.

```
==============GENERAL PROJECT INFORMATION============================
project title.........................10/00 Cooper 1,1-DCA
number of polygons....................1
timestep [years]......................1
total time of simulation [years]........100
gw impact output interval [years].......10
profile output interval [years].........10
===============CONTAMINANT INFORMATION==============================
org.C distrib. coeff., Koc [ml/g].......30
Henry's constant [dimensionless]........0.178
water solubility [mg/l]................5500
free air diffusion coef.[sq.m/d]........0.701
===============Polygon #1===========================================
title..................................SG-20
surface area [sq.ft]...................1
vertical thickness of a cell [ft].......1.0
net recharge rate [ft/year]............0.12
dry bulk density [g/cm3]...............1.525
effective porosity [dim.less]..........0.4955
volumetric water content [percent]......0.232
organic carbon content [dim.less].......0.0018375
contaminant conc. in recharge [mg/l]....0.0
upper BC for vapor [mg/l]..............0.0
lower BC for vapor [mg/l]..............0.0
number of cells........................55
plot variable [y/n]....................y
plot time [years]......................10.0
======repeat the following line until all cells are assigned=========
top #, bottom #, init. conc. [ug/kg]....1,5,0.31
top #, bottom #, init. conc. [ug/kg]....6,15,0.62
top #, bottom #, init. conc. [ug/kg]....16,25,1.54
top #, bottom #, init. conc. [ug/kg]....26,55,22.72
```

SG-20
1,1-DCA VLEACH Output Data

Depth (feet bgs)	Time (years)										
	0	10	20	30	40	50	60	70	80	90	100
0.5	1.30	0.16	0.06	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00
2.5	1.30	0.81	0.32	0.13	0.05	0.02	0.01	0.00	0.00	0.00	0.00
4.5	1.30	1.68	0.72	0.30	0.12	0.05	0.02	0.01	0.00	0.00	0.00
6.5	2.60	2.61	1.22	0.50	0.20	0.08	0.03	0.01	0.01	0.00	0.00
8.5	2.60	3.59	1.77	0.75	0.30	0.12	0.05	0.02	0.01	0.00	0.00
10.5	2.60	4.55	2.35	1.01	0.41	0.17	0.07	0.03	0.01	0.00	0.00
12.5	2.60	5.44	2.94	1.29	0.53	0.21	0.09	0.03	0.01	0.01	0.00
14.5	2.60	6.31	3.52	1.57	0.65	0.26	0.11	0.04	0.02	0.01	0.00
16.5	6.47	7.31	4.08	1.85	0.77	0.32	0.13	0.05	0.02	0.01	0.00
18.5	6.47	8.54	4.65	2.12	0.90	0.37	0.15	0.06	0.02	0.01	0.00
20.5	6.47	9.74	5.23	2.39	1.01	0.42	0.17	0.07	0.03	0.01	0.00
22.5	6.47	10.78	5.82	2.65	1.13	0.46	0.19	0.08	0.03	0.01	0.00
24.5	6.47	11.73	6.40	2.90	1.23	0.51	0.21	0.08	0.03	0.01	0.01
26.5	95.45	15.38	6.97	3.13	1.33	0.55	0.22	0.09	0.04	0.01	0.01
28.5	95.45	24.38	7.80	3.36	1.42	0.58	0.24	0.10	0.04	0.02	0.01
30.5	95.45	32.29	9.28	3.61	1.50	0.62	0.25	0.10	0.04	0.02	0.01
32.5	95.45	36.03	11.18	3.92	1.58	0.64	0.26	0.11	0.04	0.02	0.01
34.5	95.45	37.26	12.81	4.31	1.65	0.66	0.27	0.11	0.04	0.02	0.01
36.5	95.45	37.53	13.79	4.72	1.73	0.68	0.27	0.11	0.04	0.02	0.01
38.5	95.45	37.39	14.18	5.04	1.81	0.69	0.28	0.11	0.04	0.02	0.01
40.5	95.45	36.99	14.18	5.21	1.87	0.70	0.28	0.11	0.04	0.02	0.01
42.5	95.45	36.34	13.93	5.23	1.91	0.71	0.27	0.11	0.04	0.02	0.01
44.5	95.45	35.44	13.49	5.11	1.90	0.70	0.27	0.11	0.04	0.02	0.01
46.5	95.45	34.29	12.89	4.89	1.84	0.68	0.26	0.10	0.04	0.02	0.01
48.5	95.45	32.89	12.12	4.58	1.73	0.65	0.24	0.09	0.04	0.01	0.01
50.5	95.45	31.22	11.20	4.19	1.59	0.60	0.22	0.09	0.03	0.01	0.01
52.5	95.45	29.29	10.13	3.73	1.40	0.53	0.20	0.08	0.03	0.01	0.00
54.5	95.45	27.10	8.89	3.19	1.19	0.45	0.17	0.06	0.02	0.01	0.00

Note: concentrations in micrograms per liter or parts per billion.

```
==============GENERAL PROJECT INFORMATION============================
project title.........................10/00 Cooper PCE
number of polygons....................1
timestep [years]......................1
total time of simulation [years]......100
gw impact output interval [years].....10
profile output interval [years].......10
===============CONTAMINANT INFORMATION==============================
org.C distrib. coeff., Koc [ml/g].....364
Henry's constant [dimensionless]......0.546
water solubility [mg/l]...............150
free air diffusion coef.[sq.m/d]......0.701
===============Polygon #1============================================
title................................SG-23
surface area [sq.ft]..................1
vertical thickness of a cell [ft].....1.0
net recharge rate [ft/year]...........0.12
dry bulk density [g/cm3]..............1.513
effective porosity [dim.less]........0.4919
volumetric water content [percent]....0.2176
organic carbon content [dim.less].....0.0016275
contaminant conc. in recharge [mg/l]....0.0
upper BC for vapor [mg/l]............0.0
lower BC for vapor [mg/l]............0.0
number of cells......................55
plot variable [y/n]..................y
plot time [years]....................10.0
======repeat the following line until all cells are assigned=========
top #, bottom #, init. conc. [ug/kg]....1,5,556.02
top #, bottom #, init. conc. [ug/kg]....6,15,1112.05
top #, bottom #, init. conc. [ug/kg]....16,25,77.20
top #, bottom #, init. conc. [ug/kg]....26,55,28.31
```

SG-23
PCE VLEACH Output Data

Depth (feet bgs)	Time (years)										
	0	10	20	30	40	50	60	70	80	90	100
0.50	665.70	84.33	12.14	2.28	0.60	0.21	0.08	0.03	0.02	0.01	0.00
2.50	665.70	187.08	46.44	11.57	3.22	1.05	0.39	0.16	0.07	0.03	0.01
4.50	665.70	222.53	70.20	21.53	6.76	2.28	0.84	0.33	0.14	0.06	0.03
6.50	1331.40	373.82	106.32	32.37	10.54	3.66	1.36	0.53	0.22	0.09	0.04
8.50	1331.40	429.66	135.79	43.44	14.48	5.11	1.91	0.75	0.31	0.13	0.06
10.50	1331.40	445.30	150.17	51.15	17.83	6.45	2.44	0.97	0.40	0.17	0.07
12.50	1331.40	450.45	156.45	55.54	20.18	7.54	2.92	1.17	0.48	0.20	0.09
14.50	1331.40	451.18	158.94	57.84	21.65	8.33	3.29	1.34	0.56	0.24	0.10
16.50	92.43	198.54	117.43	52.48	21.59	8.74	3.56	1.48	0.62	0.27	0.12
18.50	92.43	112.00	78.21	41.87	19.57	8.58	3.67	1.57	0.67	0.29	0.13
20.50	92.43	93.16	61.57	34.40	17.26	8.09	3.64	1.61	0.71	0.31	0.14
22.50	92.43	87.35	55.66	30.81	15.75	7.62	3.55	1.61	0.72	0.32	0.14
24.50	92.43	83.34	52.67	29.05	14.90	7.30	3.46	1.60	0.73	0.33	0.15
26.50	33.89	67.69	48.22	27.50	14.29	7.06	3.38	1.58	0.73	0.33	0.15
28.50	33.89	59.99	43.94	25.78	13.65	6.83	3.30	1.56	0.73	0.33	0.15
30.50	33.89	55.56	40.69	24.16	12.97	6.57	3.20	1.53	0.71	0.33	0.15
32.50	33.89	51.81	37.90	22.65	12.27	6.27	3.08	1.48	0.70	0.32	0.15
34.50	33.89	48.20	35.20	21.15	11.53	5.94	2.94	1.42	0.67	0.31	0.15
36.50	33.89	44.64	32.48	19.59	10.75	5.57	2.77	1.35	0.64	0.30	0.14
38.50	33.89	41.11	29.70	17.97	9.91	5.16	2.59	1.26	0.60	0.28	0.13
40.50	33.89	37.58	26.88	16.29	9.02	4.72	2.37	1.16	0.56	0.26	0.12
42.50	33.89	34.06	24.00	14.53	8.07	4.24	2.14	1.05	0.51	0.24	0.11
44.50	33.89	30.53	21.07	12.72	7.08	3.73	1.89	0.93	0.45	0.21	0.10
46.50	33.89	26.98	18.09	10.85	6.04	3.20	1.63	0.81	0.39	0.19	0.09
48.50	33.89	23.40	15.05	8.93	4.97	2.64	1.35	0.67	0.33	0.16	0.07
50.50	33.89	19.77	11.96	6.96	3.86	2.05	1.05	0.53	0.26	0.12	0.06
52.50	33.89	16.08	8.81	4.95	2.72	1.45	0.75	0.37	0.18	0.09	0.04
54.50	33.89	12.31	5.61	2.91	1.56	0.83	0.43	0.22	0.11	0.05	0.03

Note: concentrations in micrograms per liter or parts per billion.

```
==============GENERAL PROJECT INFORMATION============================
project title.........................10/00 Cooper TCE
number of polygons....................1
timestep [years]......................1
total time of simulation [years]......100
gw impact output interval [years].....10
profile output interval [years]......10
===============CONTAMINANT INFORMATION==============================
org.C distrib. coeff., Koc [ml/g].....126
Henry's constant [dimensionless]......0.297
water solubility [mg/l]...............1000
free air diffusion coef.[sq.m/d]......0.701
===============Polygon #1===========================================
title................................SG-23
surface area [sq.ft]..................1
vertical thickness of a cell [ft].....1.0
net recharge rate [ft/year]...........0.12
dry bulk density [g/cm3]..............1.513
effective porosity [dim.less]........0.4919
volumetric water content [percent]....0.2176
organic carbon content [dim.less].....0.0016275
contaminant conc. in recharge [mg/l]....0.0
upper BC for vapor [mg/l]............0.0
lower BC for vapor [mg/l]............0.0
number of cells......................55
plot variable [y/n]..................y
plot time [years]....................10.0
======repeat the following line until all cells are assigned=========
top #, bottom #, init. conc. [ug/kg]....1,5,62.92
top #, bottom #, init. conc. [ug/kg]....6,15,125.84
top #, bottom #, init. conc. [ug/kg]....16,25,83.33
top #, bottom #, init. conc. [ug/kg]....26,55,59.72
```

SG-23
TCE VLEACH Output Data

Depth (feet bgs)	Time (years)										
	0	10	20	30	40	50	60	70	80	90	100
0.50	156.23	6.83	0.79	0.23	0.08	0.03	0.01	0.00	0.00	0.00	0.00
2.50	156.23	29.50	4.72	1.18	0.41	0.15	0.06	0.02	0.01	0.00	0.00
4.50	156.23	45.67	10.69	2.78	0.90	0.33	0.13	0.05	0.02	0.01	0.00
6.50	312.46	68.59	17.13	4.81	1.55	0.56	0.21	0.08	0.03	0.01	0.01
8.50	312.46	89.54	24.09	7.05	2.29	0.81	0.31	0.12	0.05	0.02	0.01
10.50	312.46	100.19	30.35	9.34	3.08	1.09	0.41	0.16	0.06	0.02	0.01
12.50	312.46	105.44	34.91	11.44	3.87	1.38	0.51	0.20	0.08	0.03	0.01
14.50	312.46	108.71	37.98	13.17	4.61	1.66	0.62	0.24	0.09	0.04	0.01
16.50	206.91	101.48	39.60	14.48	5.25	1.93	0.72	0.28	0.11	0.04	0.02
18.50	206.91	92.91	39.45	15.33	5.76	2.16	0.82	0.31	0.12	0.05	0.02
20.50	206.91	89.95	38.70	15.76	6.14	2.35	0.90	0.35	0.14	0.05	0.02
22.50	206.91	89.63	38.32	15.94	6.40	2.51	0.97	0.38	0.15	0.06	0.02
24.50	206.91	89.70	38.30	16.05	6.55	2.61	1.03	0.40	0.16	0.06	0.02
26.50	148.28	84.22	38.04	16.11	6.65	2.69	1.07	0.42	0.17	0.07	0.03
28.50	148.28	78.00	36.95	16.02	6.68	2.73	1.10	0.44	0.17	0.07	0.03
30.50	148.28	74.86	35.52	15.74	6.65	2.74	1.11	0.44	0.18	0.07	0.03
32.50	148.28	73.15	34.26	15.30	6.55	2.72	1.11	0.45	0.18	0.07	0.03
34.50	148.28	71.62	33.14	14.79	6.38	2.67	1.10	0.44	0.18	0.07	0.03
36.50	148.28	69.88	31.99	14.22	6.15	2.59	1.07	0.44	0.18	0.07	0.03
38.50	148.28	67.85	30.69	13.58	5.87	2.48	1.03	0.42	0.17	0.07	0.03
40.50	148.28	65.53	29.19	12.84	5.55	2.35	0.98	0.40	0.16	0.07	0.03
42.50	148.28	62.90	27.47	11.99	5.17	2.19	0.92	0.38	0.15	0.06	0.02
44.50	148.28	59.94	25.54	11.03	4.74	2.01	0.84	0.35	0.14	0.06	0.02
46.50	148.28	56.67	23.40	9.96	4.25	1.80	0.75	0.31	0.13	0.05	0.02
48.50	148.28	53.05	21.05	8.78	3.72	1.57	0.66	0.27	0.11	0.05	0.02
50.50	148.28	49.09	18.48	7.50	3.14	1.32	0.55	0.23	0.09	0.04	0.02
52.50	148.28	44.78	15.71	6.11	2.51	1.05	0.44	0.18	0.08	0.03	0.01
54.50	148.28	40.09	12.74	4.64	1.84	0.76	0.32	0.13	0.05	0.02	0.01

Note: concentrations in micrograms per liter or parts per billion.

```
==============GENERAL PROJECT INFORMATION============================
project title.........................10/00 Cooper 1,2-DCE
number of polygons....................1
timestep [years]......................1
total time of simulation [years]......100
gw impact output interval [years].....10
profile output interval [years]......10
===============CONTAMINANT INFORMATION==============================
org.C distrib. coeff., Koc [ml/g].....49
Henry's constant [dimensionless]......0.123
water solubility [mg/l]...............3500
free air diffusion coef.[sq.m/d]......0.701
===============Polygon #1===========================================
title................................SG-23
surface area [sq.ft]..................1
vertical thickness of a cell [ft].....1.0
net recharge rate [ft/year]...........0.12
dry bulk density [g/cm3]..............1.513
effective porosity [dim.less]........0.4919
volumetric water content [percent]....0.2176
organic carbon content [dim.less].....0.0016275
contaminant conc. in recharge [mg/l]....0.0
upper BC for vapor [mg/l]............0.0
lower BC for vapor [mg/l]............0.0
number of cells......................55
plot variable [y/n]..................y
plot time [years]....................10.0
======repeat the following line until all cells are assigned=========
top #, bottom #, init. conc. [ug/kg]....1,5,0
top #, bottom #, init. conc. [ug/kg]....6,15,0
top #, bottom #, init. conc. [ug/kg]....16,25,2.02
top #, bottom #, init. conc. [ug/kg]....26,55,2.36
```

SG-23
1,2-DCE Output Data

Depth (feet bgs)	Time (years)										
	0	10	20	30	40	50	60	70	80	90	100
0.50	0.00	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.50	0.00	0.10	0.06	0.03	0.01	0.01	0.00	0.00	0.00	0.00	0.00
4.50	0.00	0.21	0.13	0.06	0.03	0.02	0.01	0.00	0.00	0.00	0.00
6.50	0.00	0.32	0.21	0.11	0.06	0.03	0.01	0.01	0.00	0.00	0.00
8.50	0.00	0.44	0.31	0.17	0.08	0.04	0.02	0.01	0.01	0.00	0.00
10.50	0.00	0.56	0.41	0.23	0.12	0.06	0.03	0.01	0.01	0.00	0.00
12.50	0.00	0.68	0.52	0.30	0.15	0.08	0.04	0.02	0.01	0.00	0.00
14.50	0.00	0.81	0.62	0.36	0.19	0.10	0.05	0.02	0.01	0.01	0.00
16.50	8.22	1.43	0.74	0.43	0.23	0.12	0.06	0.03	0.01	0.01	0.00
18.50	8.22	2.77	0.95	0.51	0.27	0.14	0.07	0.03	0.02	0.01	0.00
20.50	8.22	3.83	1.33	0.60	0.31	0.16	0.08	0.04	0.02	0.01	0.00
22.50	8.22	4.33	1.77	0.73	0.36	0.18	0.09	0.05	0.02	0.01	0.01
24.50	8.22	4.52	2.12	0.89	0.41	0.20	0.10	0.05	0.03	0.01	0.01
26.50	9.60	4.70	2.35	1.05	0.47	0.23	0.11	0.06	0.03	0.01	0.01
28.50	9.60	4.96	2.49	1.19	0.54	0.25	0.12	0.06	0.03	0.02	0.01
30.50	9.60	5.15	2.61	1.29	0.60	0.28	0.14	0.07	0.03	0.02	0.01
32.50	9.60	5.23	2.70	1.35	0.65	0.31	0.15	0.07	0.04	0.02	0.01
34.50	9.60	5.24	2.76	1.40	0.69	0.33	0.16	0.08	0.04	0.02	0.01
36.50	9.60	5.22	2.78	1.43	0.71	0.35	0.17	0.08	0.04	0.02	0.01
38.50	9.60	5.17	2.76	1.44	0.73	0.36	0.17	0.08	0.04	0.02	0.01
40.50	9.60	5.11	2.72	1.43	0.73	0.36	0.18	0.09	0.04	0.02	0.01
42.50	9.60	5.02	2.66	1.40	0.72	0.36	0.18	0.09	0.04	0.02	0.01
44.50	9.60	4.91	2.57	1.35	0.70	0.36	0.18	0.09	0.04	0.02	0.01
46.50	9.60	4.78	2.47	1.29	0.67	0.34	0.17	0.09	0.04	0.02	0.01
48.50	9.60	4.62	2.34	1.22	0.63	0.33	0.17	0.08	0.04	0.02	0.01
50.50	9.60	4.45	2.20	1.13	0.59	0.30	0.15	0.08	0.04	0.02	0.01
52.50	9.60	4.24	2.04	1.03	0.53	0.27	0.14	0.07	0.04	0.02	0.01
54.50	9.60	4.02	1.85	0.91	0.46	0.24	0.12	0.06	0.03	0.02	0.01

Note: concentrations in micrograms per liter or parts per billion.

```
==============GENERAL PROJECT INFORMATION============================
project title.........................10/00 Cooper VC
number of polygons....................1
timestep [years]......................1
total time of simulation [years]......100
gw impact output interval [years]....10
profile output interval [years]......10
===============CONTAMINANT INFORMATION==============================
org.C distrib. coeff., Koc [ml/g]....57
Henry's constant [dimensionless]....0.905
water solubility [mg/l]..............1100
free air diffusion coef.[sq.m/d]....0.701
===============Polygon #1===========================================
title................................SG-23
surface area [sq.ft]..................1
vertical thickness of a cell [ft]....1.0
net recharge rate [ft/year]..........0.12
dry bulk density [g/cm3]............1.513
effective porosity [dim.less]........0.4919
volumetric water content [percent]...0.2176
organic carbon content [dim.less]....0.0016275
contaminant conc. in recharge [mg/l]...0.0
upper BC for vapor [mg/l]...........0.0
lower BC for vapor [mg/l]...........0.0
number of cells......................55
plot variable [y/n]..................y
plot time [years]....................10.0
======repeat the following line until all cells are assigned=========
top #, bottom #, init. conc. [ug/kg]...1,5,0
top #, bottom #, init. conc. [ug/kg]...6,15,0
top #, bottom #, init. conc. [ug/kg]...16,25,2.0
top #, bottom #, init. conc. [ug/kg]...26,55,2.22
```

SG-23
Vinyl Chloride VLEACH Output Data

Depth (feet bgs)	Time (years)										
	0	10	20	30	40	50	60	70	80	90	100
0.50	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.50	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4.50	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6.50	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8.50	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10.50	0.00	0.11	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12.50	0.00	0.13	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14.50	0.00	0.15	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16.50	4.99	0.17	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18.50	4.99	0.20	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20.50	4.99	0.22	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22.50	4.99	0.24	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24.50	4.99	0.25	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26.50	5.54	0.26	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28.50	5.54	0.26	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30.50	5.54	0.27	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
32.50	5.54	0.26	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
34.50	5.54	0.26	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36.50	5.54	0.25	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
38.50	5.54	0.24	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40.50	5.54	0.23	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
42.50	5.54	0.21	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44.50	5.54	0.19	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
46.50	5.54	0.17	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48.50	5.54	0.15	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50.50	5.54	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
52.50	5.54	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
54.50	5.54	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note: concentrations in micrograms per liter or parts per billion.

```
==============GENERAL PROJECT INFORMATION============================
project title.........................10/00 Cooper 1,1-DCA
number of polygons....................1
timestep [years]......................1
total time of simulation [years]......100
gw impact output interval [years].....10
profile output interval [years]......10
===============CONTAMINANT INFORMATION==============================
org.C distrib. coeff., Koc [ml/g].....30
Henry's constant [dimensionless]......0.178
water solubility [mg/l]...............5500
free air diffusion coef.[sq.m/d]......0.701
===============Polygon #1===========================================
title................................SG-23
surface area [sq.ft]..................1
vertical thickness of a cell [ft].....1.0
net recharge rate [ft/year]...........0.12
dry bulk density [g/cm3]..............1.513
effective porosity [dim.less]........0.4919
volumetric water content [percent]....0.2176
organic carbon content [dim.less].....0.0016275
contaminant conc. in recharge [mg/l]....0.0
upper BC for vapor [mg/l]............0.0
lower BC for vapor [mg/l]............0.0
number of cells......................55
plot variable [y/n]..................y
plot time [years]....................10.0
======repeat the following line until all cells are assigned=========
top #, bottom #, init. conc. [ug/kg]....1,5,44.62
top #, bottom #, init. conc. [ug/kg]....6,15,89.25
top #, bottom #, init. conc. [ug/kg]....16,25,146.04
top #, bottom #, init. conc. [ug/kg]....26,55,137.93
```

SG-23
1,1-DCA VLEACH Output Data

Depth (feet bgs)	Time (years)										
	0	10	20	30	40	50	60	70	80	90	100
0.50	198.38	3.07	0.74	0.25	0.09	0.03	0.01	0.00	0.00	0.00	0.00
2.50	198.38	20.72	3.82	1.25	0.43	0.15	0.05	0.02	0.01	0.00	0.00
4.50	198.38	47.74	9.14	2.81	0.96	0.33	0.12	0.04	0.01	0.00	0.00
6.50	396.80	74.90	16.70	4.88	1.64	0.57	0.20	0.07	0.02	0.01	0.00
8.50	396.80	105.31	25.78	7.42	2.46	0.85	0.29	0.10	0.04	0.01	0.00
10.50	396.80	132.25	35.62	10.37	3.38	1.16	0.40	0.14	0.05	0.02	0.01
12.50	396.80	150.59	45.48	13.59	4.39	1.49	0.52	0.18	0.06	0.02	0.01
14.50	396.80	163.06	54.47	16.93	5.47	1.85	0.64	0.22	0.08	0.03	0.01
16.50	649.29	178.07	62.07	20.20	6.58	2.22	0.76	0.26	0.09	0.03	0.01
18.50	649.29	204.24	68.75	23.23	7.69	2.59	0.89	0.31	0.11	0.04	0.01
20.50	649.29	229.45	75.54	25.96	8.75	2.96	1.01	0.35	0.12	0.04	0.01
22.50	649.29	244.55	82.66	28.42	9.73	3.31	1.14	0.39	0.14	0.05	0.02
24.50	649.29	252.12	89.09	30.69	10.62	3.64	1.25	0.43	0.15	0.05	0.02
26.50	613.23	255.31	93.88	32.75	11.39	3.94	1.36	0.47	0.16	0.06	0.02
28.50	613.23	254.78	96.84	34.48	12.06	4.19	1.45	0.50	0.17	0.06	0.02
30.50	613.23	252.78	98.20	35.73	12.60	4.40	1.53	0.53	0.18	0.06	0.02
32.50	613.23	250.70	98.27	36.45	13.00	4.57	1.59	0.55	0.19	0.07	0.02
34.50	613.23	248.21	97.41	36.64	13.23	4.68	1.64	0.57	0.20	0.07	0.02
36.50	613.23	244.74	95.82	36.34	13.28	4.73	1.66	0.58	0.20	0.07	0.02
38.50	613.23	240.04	93.54	35.62	13.14	4.72	1.66	0.58	0.20	0.07	0.02
40.50	613.23	234.04	90.52	34.51	12.82	4.64	1.64	0.58	0.20	0.07	0.02
42.50	613.23	226.71	86.73	33.02	12.33	4.49	1.60	0.56	0.20	0.07	0.02
44.50	613.23	218.02	82.15	31.18	11.67	4.27	1.53	0.54	0.19	0.07	0.02
46.50	613.23	207.96	76.76	28.96	10.85	3.99	1.44	0.51	0.18	0.06	0.02
48.50	613.23	196.49	70.57	26.38	9.88	3.65	1.32	0.47	0.17	0.06	0.02
50.50	613.23	183.60	63.59	23.45	8.76	3.24	1.18	0.42	0.15	0.05	0.02
52.50	613.23	169.25	55.83	20.17	7.49	2.78	1.02	0.37	0.13	0.05	0.02
54.50	613.23	153.40	47.29	16.55	6.09	2.26	0.83	0.30	0.11	0.04	0.01

Note: concentrations in micrograms per liter or parts per billion.

```
==============GENERAL PROJECT INFORMATION============================
project title.........................10/00 Cooper PCE
number of polygons....................1
timestep [years]......................1
total time of simulation [years]......100
gw impact output interval [years]....10
profile output interval [years]......10
===============CONTAMINANT INFORMATION==============================
org.C distrib. coeff., Koc [ml/g]....364
Henry's constant [dimensionless]....0.546
water solubility [mg/l]..............150
free air diffusion coef.[sq.m/d]....0.701
===============Polygon #1===========================================
title................................SG-25
surface area [sq.ft]..................1
vertical thickness of a cell [ft]....1.0
net recharge rate [ft/year]..........0.12
dry bulk density [g/cm3]............1.525
effective porosity [dim.less]........0.4955
volumetric water content [percent]...0.232
organic carbon content [dim.less]....0.0018375
contaminant conc. in recharge [mg/l]....0.0
upper BC for vapor [mg/l]............0.0
lower BC for vapor [mg/l]............0.0
number of cells......................55
plot variable [y/n]..................y
plot time [years]....................10.0
======repeat the following line until all cells are assigned=========
top #, bottom #, init. conc. [ug/kg]....1,5,80.11
top #, bottom #, init. conc. [ug/kg]....6,15,160.22
top #, bottom #, init. conc. [ug/kg]....16,25,80.11
top #, bottom #, init. conc. [ug/kg]....26,55,40.05
```

SG-25
PCE VLEACH Output Data

Depth (feet bgs)	Time (years)										
	0	10	20	30	40	50	60	70	80	90	100
0.50	87.52	14.62	2.79	0.69	0.23	0.10	0.04	0.02	0.01	0.01	0.00
2.50	87.52	30.87	9.91	3.23	1.15	0.46	0.21	0.10	0.05	0.02	0.01
4.50	87.52	36.58	14.64	5.75	2.31	0.97	0.44	0.20	0.10	0.05	0.03
6.50	175.04	61.89	22.30	8.60	3.53	1.53	0.69	0.33	0.16	0.08	0.04
8.50	175.04	70.60	28.18	11.41	4.79	2.10	0.96	0.45	0.22	0.11	0.05
10.50	175.04	73.55	31.19	13.38	5.85	2.62	1.21	0.58	0.28	0.14	0.07
12.50	175.04	75.13	32.89	14.64	6.63	3.06	1.44	0.69	0.34	0.17	0.08
14.50	175.04	76.13	33.99	15.50	7.19	3.39	1.63	0.79	0.39	0.19	0.10
16.50	87.52	54.58	29.99	15.18	7.44	3.62	1.77	0.87	0.43	0.22	0.11
18.50	87.52	48.60	26.77	14.26	7.36	3.72	1.87	0.94	0.47	0.24	0.12
20.50	87.52	47.68	25.77	13.77	7.24	3.75	1.93	0.98	0.50	0.25	0.13
22.50	87.52	47.43	25.54	13.63	7.21	3.78	1.96	1.01	0.52	0.27	0.14
24.50	87.52	47.10	25.37	13.57	7.21	3.80	1.99	1.03	0.54	0.28	0.14
26.50	43.75	35.55	22.71	12.99	7.09	3.78	1.99	1.04	0.54	0.28	0.15
28.50	43.75	31.82	20.46	12.12	6.81	3.70	1.98	1.04	0.55	0.28	0.15
30.50	43.75	30.65	19.33	11.46	6.51	3.59	1.93	1.03	0.54	0.28	0.15
32.50	43.75	29.85	18.59	10.96	6.23	3.45	1.88	1.00	0.53	0.28	0.15
34.50	43.75	29.03	17.88	10.50	5.97	3.31	1.80	0.97	0.52	0.27	0.14
36.50	43.75	28.15	17.11	10.00	5.67	3.15	1.72	0.93	0.49	0.26	0.14
38.50	43.75	27.18	16.26	9.43	5.34	2.96	1.62	0.87	0.47	0.25	0.13
40.50	43.75	26.13	15.33	8.81	4.97	2.75	1.51	0.81	0.44	0.23	0.12
42.50	43.75	25.00	14.32	8.13	4.55	2.52	1.38	0.74	0.40	0.21	0.11
44.50	43.75	23.77	13.21	7.38	4.10	2.26	1.23	0.67	0.36	0.19	0.10
46.50	43.75	22.45	12.03	6.57	3.61	1.98	1.08	0.58	0.31	0.17	0.09
48.50	43.75	21.02	10.75	5.71	3.08	1.67	0.91	0.49	0.26	0.14	0.07
50.50	43.75	19.48	9.39	4.79	2.52	1.35	0.72	0.39	0.21	0.11	0.06
52.50	43.75	17.83	7.94	3.81	1.93	1.01	0.53	0.28	0.15	0.08	0.04
54.50	43.75	16.05	6.39	2.78	1.30	0.65	0.33	0.18	0.09	0.05	0.03

Note: concentrations in micrograms per liter or parts per billion.

```
==============GENERAL PROJECT INFORMATION============================
project title.........................10/00 Cooper TCE
number of polygons....................1
timestep [years]......................1
total time of simulation [years]......100
gw impact output interval [years].....10
profile output interval [years].......10
===============CONTAMINANT INFORMATION==============================
org.C distrib. coeff., Koc [ml/g].....126
Henry's constant [dimensionless]......0.297
water solubility [mg/l]...............1000
free air diffusion coef.[sq.m/d]......0.701
===============Polygon #1===========================================
title................................SG-25
surface area [sq.ft]..................1
vertical thickness of a cell [ft].....1.0
net recharge rate [ft/year]...........0.12
dry bulk density [g/cm3]..............1.525
effective porosity [dim.less].........0.4955
volumetric water content [percent]....0.232
organic carbon content [dim.less].....0.0018375
contaminant conc. in recharge [mg/l]....0.0
upper BC for vapor [mg/l]............0.0
lower BC for vapor [mg/l]............0.0
number of cells......................55
plot variable [y/n]..................y
plot time [years]....................10.0
======repeat the following line until all cells are assigned=========
top #, bottom #, init. conc. [ug/kg]....1,5,66.15
top #, bottom #, init. conc. [ug/kg]....6,15,132.30
top #, bottom #, init. conc. [ug/kg]....16,25,66.15
top #, bottom #, init. conc. [ug/kg]....26,55,33.07
```

SG-25
TCE VLEACH Output Data

Depth (feet bgs)	Time (years)										
	0	10	20	30	40	50	60	70	80	90	100
0.50	152.07	8.89	1.04	0.30	0.12	0.05	0.02	0.01	0.00	0.00	0.00
2.50	152.07	35.24	6.47	1.65	0.60	0.25	0.11	0.05	0.02	0.01	0.00
4.50	152.07	51.54	14.12	3.98	1.37	0.55	0.24	0.11	0.05	0.02	0.01
6.50	304.15	78.19	22.08	6.87	2.39	0.94	0.40	0.18	0.08	0.04	0.02
8.50	304.15	100.41	30.79	10.01	3.56	1.39	0.58	0.26	0.11	0.05	0.02
10.50	304.15	110.20	38.08	13.15	4.80	1.88	0.78	0.34	0.15	0.07	0.03
12.50	304.15	114.42	42.82	15.85	6.00	2.38	0.99	0.43	0.19	0.09	0.04
14.50	304.15	116.72	45.67	17.88	7.05	2.85	1.20	0.52	0.23	0.10	0.05
16.50	152.07	99.40	45.99	19.21	7.90	3.28	1.39	0.60	0.27	0.12	0.05
18.50	152.07	82.92	43.07	19.66	8.50	3.63	1.56	0.68	0.30	0.14	0.06
20.50	152.07	77.21	39.89	19.37	8.82	3.90	1.71	0.75	0.34	0.15	0.07
22.50	152.07	75.81	38.15	18.85	8.91	4.07	1.82	0.81	0.36	0.16	0.07
24.50	152.07	75.15	37.40	18.46	8.89	4.16	1.90	0.86	0.39	0.18	0.08
26.50	76.03	65.03	36.20	18.15	8.82	4.19	1.95	0.89	0.41	0.19	0.08
28.50	76.03	55.42	33.62	17.64	8.72	4.19	1.97	0.91	0.42	0.19	0.09
30.50	76.03	51.25	30.97	16.84	8.52	4.14	1.97	0.92	0.43	0.20	0.09
32.50	76.03	49.29	29.05	15.95	8.22	4.05	1.95	0.92	0.43	0.20	0.09
34.50	76.03	47.74	27.63	15.10	7.86	3.92	1.90	0.90	0.42	0.20	0.09
36.50	76.03	46.15	26.34	14.31	7.46	3.75	1.83	0.88	0.41	0.19	0.09
38.50	76.03	44.43	24.99	13.50	7.03	3.55	1.75	0.84	0.40	0.19	0.09
40.50	76.03	42.57	23.53	12.63	6.57	3.33	1.64	0.80	0.38	0.18	0.08
42.50	76.03	40.55	21.93	11.68	6.07	3.07	1.52	0.74	0.35	0.17	0.08
44.50	76.03	38.36	20.20	10.63	5.51	2.79	1.39	0.68	0.32	0.15	0.07
46.50	76.03	36.01	18.32	9.50	4.90	2.48	1.23	0.60	0.29	0.14	0.07
48.50	76.03	33.47	16.31	8.29	4.24	2.14	1.07	0.52	0.25	0.12	0.06
50.50	76.03	30.75	14.16	6.99	3.53	1.78	0.89	0.44	0.21	0.10	0.05
52.50	76.03	27.82	11.87	5.61	2.77	1.39	0.69	0.34	0.17	0.08	0.04
54.50	76.03	24.69	9.44	4.15	1.98	0.98	0.49	0.24	0.12	0.06	0.03

Note: concentrations in micrograms per liter or parts per billion.

```
==============GENERAL PROJECT INFORMATION============================
project title.........................10/00 Cooper 1,2-DCE
number of polygons....................1
timestep [years]......................1
total time of simulation [years]......100
gw impact output interval [years]....10
profile output interval [years]......10
===============CONTAMINANT INFORMATION==============================
org.C distrib. coeff., Koc [ml/g]....49
Henry's constant [dimensionless]....0.123
water solubility [mg/l]..............3500
free air diffusion coef.[sq.m/d]....0.701
===============Polygon #1===========================================
title................................SG-25
surface area [sq.ft]..................1
vertical thickness of a cell [ft]....1.0
net recharge rate [ft/year]..........0.12
dry bulk density [g/cm3]............1.525
effective porosity [dim.less]........0.4955
volumetric water content [percent]...0.232
organic carbon content [dim.less]....0.0018375
contaminant conc. in recharge [mg/l]....0.0
upper BC for vapor [mg/l]............0.0
lower BC for vapor [mg/l]............0.0
number of cells......................55
plot variable [y/n]..................y
plot time [years]....................10.0
======repeat the following line until all cells are assigned=========
top #, bottom #, init. conc. [ug/kg]....1,5,2.46
top #, bottom #, init. conc. [ug/kg]....6,15,4.93
top #, bottom #, init. conc. [ug/kg]....16,25,2.46
top #, bottom #, init. conc. [ug/kg]....26,55,1.23
```

SG-25
1,2-DCE VLEACH Output Data

Depth (feet bgs)	Time (years)										
	0	10	20	30	40	50	60	70	80	90	100
0.50	9.34	0.27	0.04	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00
2.50	9.34	1.87	0.26	0.09	0.04	0.02	0.01	0.01	0.00	0.00	0.00
4.50	9.34	3.65	0.81	0.23	0.10	0.05	0.03	0.02	0.01	0.00	0.00
6.50	18.72	5.42	1.59	0.47	0.19	0.10	0.05	0.03	0.02	0.01	0.00
8.50	18.72	7.54	2.48	0.82	0.32	0.15	0.08	0.04	0.02	0.01	0.01
10.50	18.72	8.92	3.42	1.24	0.48	0.22	0.11	0.06	0.03	0.02	0.01
12.50	18.72	9.51	4.24	1.69	0.68	0.30	0.15	0.08	0.04	0.02	0.01
14.50	18.72	9.75	4.81	2.12	0.90	0.40	0.19	0.10	0.05	0.03	0.02
16.50	9.34	9.08	5.10	2.47	1.11	0.50	0.24	0.12	0.07	0.04	0.02
18.50	9.34	7.48	5.07	2.71	1.31	0.62	0.30	0.15	0.08	0.04	0.02
20.50	9.34	6.39	4.71	2.81	1.47	0.72	0.35	0.18	0.09	0.05	0.03
22.50	9.34	5.99	4.26	2.78	1.57	0.81	0.41	0.21	0.11	0.06	0.03
24.50	9.34	5.87	3.94	2.66	1.60	0.88	0.46	0.23	0.12	0.06	0.03
26.50	4.67	5.42	3.75	2.51	1.59	0.92	0.50	0.26	0.14	0.07	0.04
28.50	4.67	4.54	3.55	2.39	1.55	0.93	0.52	0.28	0.15	0.08	0.04
30.50	4.67	3.92	3.25	2.28	1.49	0.93	0.54	0.30	0.16	0.09	0.05
32.50	4.67	3.65	2.94	2.15	1.43	0.90	0.54	0.31	0.17	0.09	0.05
34.50	4.67	3.52	2.69	2.00	1.36	0.88	0.54	0.31	0.18	0.10	0.05
36.50	4.67	3.42	2.52	1.85	1.28	0.84	0.52	0.31	0.18	0.10	0.05
38.50	4.67	3.32	2.39	1.72	1.20	0.80	0.50	0.31	0.18	0.10	0.06
40.50	4.67	3.22	2.27	1.60	1.11	0.75	0.48	0.29	0.17	0.10	0.06
42.50	4.67	3.11	2.15	1.49	1.03	0.69	0.45	0.28	0.17	0.10	0.06
44.50	4.67	2.99	2.02	1.39	0.95	0.64	0.42	0.26	0.16	0.09	0.05
46.50	4.67	2.86	1.88	1.27	0.86	0.58	0.38	0.24	0.15	0.09	0.05
48.50	4.67	2.72	1.73	1.15	0.78	0.52	0.34	0.22	0.14	0.08	0.05
50.50	4.67	2.57	1.57	1.02	0.68	0.45	0.30	0.19	0.12	0.07	0.04
52.50	4.67	2.40	1.40	0.89	0.58	0.39	0.25	0.17	0.10	0.06	0.04
54.50	4.67	2.23	1.22	0.74	0.48	0.32	0.21	0.14	0.09	0.05	0.03

Note: concentrations in micrograms per liter or parts per billion.

```
==============GENERAL PROJECT INFORMATION============================
project title.........................10/00 Cooper VC
number of polygons....................1
timestep [years]......................1
total time of simulation [years]......100
gw impact output interval [years].....10
profile output interval [years]......10
===============CONTAMINANT INFORMATION==============================
org.C distrib. coeff., Koc [ml/g].....57
Henry's constant [dimensionless]......0.905
water solubility [mg/l]...............1100
free air diffusion coef.[sq.m/d]......0.701
===============Polygon #1===========================================
title................................SG-25
surface area [sq.ft]..................1
vertical thickness of a cell [ft].....1.0
net recharge rate [ft/year]...........0.12
dry bulk density [g/cm3]..............1.525
effective porosity [dim.less].........0.4955
volumetric water content [percent]....0.232
organic carbon content [dim.less].....0.0018375
contaminant conc. in recharge [mg/l]....0.0
upper BC for vapor [mg/l]............0.0
lower BC for vapor [mg/l]............0.0
number of cells......................55
plot variable [y/n]..................y
plot time [years]....................10.0
======repeat the following line until all cells are assigned=========
top #, bottom #, init. conc. [ug/kg]....1,5,0.58
top #, bottom #, init. conc. [ug/kg]....6,15,1.16
top #, bottom #, init. conc. [ug/kg]....16,25,0.58
top #, bottom #, init. conc. [ug/kg]....26,55,0.29
```

SG-25
Vinyl Chloride VLEACH Output Data

Depth (feet bgs)	Time (years)										
	0	10	20	30	40	50	60	70	80	90	100
0.50	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.50	1.40	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4.50	1.40	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6.50	2.81	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8.50	2.81	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10.50	2.81	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12.50	2.81	0.10	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14.50	2.81	0.11	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16.50	1.40	0.11	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18.50	1.40	0.11	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20.50	1.40	0.11	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22.50	1.40	0.11	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24.50	1.40	0.11	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26.50	0.70	0.11	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28.50	0.70	0.11	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30.50	0.70	0.10	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
32.50	0.70	0.10	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
34.50	0.70	0.09	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36.50	0.70	0.09	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
38.50	0.70	0.08	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40.50	0.70	0.08	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
42.50	0.70	0.07	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44.50	0.70	0.06	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
46.50	0.70	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48.50	0.70	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50.50	0.70	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
52.50	0.70	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
54.50	0.70	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note: concentrations in micrograms per liter or parts per billion.

```
==============GENERAL PROJECT INFORMATION============================
project title.........................10/00 Cooper 1,1-DCA
number of polygons....................1
timestep [years]......................1
total time of simulation [years]......100
gw impact output interval [years]....10
profile output interval [years]......10
===============CONTAMINANT INFORMATION==============================
org.C distrib. coeff., Koc [ml/g]....30
Henry's constant [dimensionless]....0.178
water solubility [mg/l]..............5500
free air diffusion coef.[sq.m/d]....0.701
===============Polygon #1===========================================
title................................SG-25
surface area [sq.ft]..................1
vertical thickness of a cell [ft]....1.0
net recharge rate [ft/year]..........0.12
dry bulk density [g/cm3]............1.525
effective porosity [dim.less]........0.4955
volumetric water content [percent]...0.232
organic carbon content [dim.less]....0.0018375
contaminant conc. in recharge [mg/l]....0.0
upper BC for vapor [mg/l]............0.0
lower BC for vapor [mg/l]............0.0
number of cells......................55
plot variable [y/n]..................y
plot time [years]....................10.0
======repeat the following line until all cells are assigned=========
top #, bottom #, init. conc. [ug/kg]....1,5,89.25
top #, bottom #, init. conc. [ug/kg]....6,15,178.49
top #, bottom #, init. conc. [ug/kg]....16,25,89.25
top #, bottom #, init. conc. [ug/kg]....26,55,44.62
```

SG-25
1,1-DCA VLEACH Output Data

Depth (feet bgs)	Time (years)										
	0	10	20	30	40	50	60	70	80	90	100
0.50	374.97	5.00	0.86	0.31	0.12	0.05	0.02	0.01	0.00	0.00	0.00
2.50	374.97	38.58	4.84	1.58	0.60	0.24	0.09	0.04	0.02	0.01	0.00
4.50	374.97	86.40	12.97	3.64	1.36	0.53	0.21	0.08	0.03	0.01	0.01
6.50	749.89	131.93	25.41	6.58	2.35	0.91	0.36	0.14	0.06	0.02	0.01
8.50	749.89	185.32	40.41	10.46	3.55	1.36	0.54	0.22	0.09	0.03	0.01
10.50	749.89	227.48	56.53	15.17	4.97	1.87	0.74	0.29	0.12	0.05	0.02
12.50	749.89	249.58	71.96	20.39	6.59	2.43	0.95	0.38	0.15	0.06	0.02
14.50	749.89	259.84	84.43	25.70	8.37	3.04	1.18	0.47	0.19	0.08	0.03
16.50	374.97	253.55	92.89	30.61	10.21	3.68	1.41	0.56	0.22	0.09	0.04
18.50	374.97	222.13	96.86	34.67	12.00	4.33	1.65	0.65	0.26	0.10	0.04
20.50	374.97	193.29	95.79	37.56	13.62	4.98	1.89	0.74	0.30	0.12	0.05
22.50	374.97	180.11	91.28	39.14	14.96	5.59	2.13	0.83	0.33	0.13	0.05
24.50	374.97	175.61	86.50	39.46	15.94	6.12	2.35	0.92	0.37	0.15	0.06
26.50	187.46	167.54	83.08	38.93	16.53	6.55	2.55	1.00	0.40	0.16	0.06
28.50	187.46	148.04	80.23	38.04	16.75	6.86	2.72	1.07	0.42	0.17	0.07
30.50	187.46	130.13	76.33	37.03	16.69	7.04	2.84	1.13	0.45	0.18	0.07
32.50	187.46	120.19	71.28	35.82	16.44	7.10	2.92	1.17	0.47	0.19	0.07
34.50	187.46	114.69	66.25	34.28	16.03	7.05	2.96	1.20	0.48	0.19	0.08
36.50	187.46	110.37	61.96	32.43	15.46	6.91	2.94	1.21	0.49	0.20	0.08
38.50	187.46	106.04	58.26	30.43	14.75	6.69	2.89	1.20	0.49	0.20	0.08
40.50	187.46	101.39	54.74	28.38	13.89	6.38	2.79	1.18	0.48	0.20	0.08
42.50	187.46	96.38	51.08	26.29	12.92	6.01	2.66	1.13	0.47	0.19	0.08
44.50	187.46	90.96	47.16	24.10	11.86	5.56	2.49	1.07	0.45	0.18	0.07
46.50	187.46	85.13	42.93	21.76	10.70	5.05	2.28	0.99	0.42	0.17	0.07
48.50	187.46	78.87	38.38	19.25	9.46	4.49	2.04	0.90	0.38	0.16	0.06
50.50	187.46	72.14	33.51	16.56	8.13	3.87	1.78	0.79	0.34	0.14	0.06
52.50	187.46	64.94	28.32	13.68	6.69	3.20	1.48	0.66	0.29	0.12	0.05
54.50	187.46	57.22	22.81	10.62	5.17	2.49	1.17	0.53	0.23	0.10	0.04

Note: concentrations in micrograms per liter or parts per billion.

```
==============GENERAL PROJECT INFORMATION============================
project title.........................10/00 Cooper PCE
number of polygons....................1
timestep [years]......................1
total time of simulation [years]......100
gw impact output interval [years].....10
profile output interval [years]......10
===============CONTAMINANT INFORMATION==============================
org.C distrib. coeff., Koc [ml/g].....364
Henry's constant [dimensionless]......0.546
water solubility [mg/l]...............150
free air diffusion coef.[sq.m/d]......0.701
===============Polygon #1===========================================
title................................SG-28
surface area [sq.ft]..................1
vertical thickness of a cell [ft].....1.0
net recharge rate [ft/year]...........0.12
dry bulk density [g/cm3]..............1.525
effective porosity [dim.less].........0.4955
volumetric water content [percent]....0.232
organic carbon content [dim.less].....0.0018375
contaminant conc. in recharge [mg/l]....0.0
upper BC for vapor [mg/l]............0.0
lower BC for vapor [mg/l]............0.0
number of cells......................55
plot variable [y/n]..................y
plot time [years]....................10.0
======repeat the following line until all cells are assigned=========
top #, bottom #, init. conc. [ug/kg]....1,5,74.45
top #, bottom #, init. conc. [ug/kg]....6,15,148.90
top #, bottom #, init. conc. [ug/kg]....16,25,17.37
top #, bottom #, init. conc. [ug/kg]....26,55,6.43
```

SG-28
PCE VLEACH Output Data

Depth (feet bgs)	Time (years)										
	0	10	20	30	40	50	60	70	80	90	100
0.50	81.34	13.32	2.41	0.53	0.16	0.06	0.03	0.01	0.01	0.00	0.00
2.50	81.34	27.73	8.48	2.56	0.83	0.30	0.13	0.06	0.03	0.01	0.01
4.50	81.34	32.31	12.25	4.52	1.68	0.65	0.27	0.12	0.06	0.03	0.01
6.50	162.67	55.09	18.74	6.74	2.57	1.03	0.44	0.20	0.09	0.04	0.02
8.50	162.67	62.43	23.56	8.94	3.50	1.43	0.61	0.27	0.13	0.06	0.03
10.50	162.67	64.40	25.72	10.35	4.24	1.78	0.78	0.35	0.16	0.08	0.04
12.50	162.67	65.09	26.65	11.12	4.73	2.05	0.92	0.42	0.20	0.10	0.05
14.50	162.67	65.22	27.02	11.51	5.02	2.24	1.02	0.48	0.23	0.11	0.05
16.50	18.98	28.63	19.31	10.16	4.91	2.31	1.09	0.52	0.25	0.12	0.06
18.50	18.98	17.94	13.12	7.99	4.34	2.22	1.10	0.54	0.27	0.13	0.07
20.50	18.98	15.84	10.83	6.68	3.82	2.06	1.08	0.55	0.28	0.14	0.07
22.50	18.98	15.16	10.06	6.12	3.52	1.94	1.04	0.55	0.28	0.15	0.07
24.50	18.98	14.63	9.64	5.84	3.36	1.87	1.01	0.54	0.28	0.15	0.08
26.50	7.02	11.09	8.60	5.49	3.23	1.81	0.99	0.53	0.28	0.15	0.08
28.50	7.02	9.71	7.70	5.08	3.06	1.75	0.97	0.52	0.28	0.15	0.08
30.50	7.02	9.06	7.12	4.74	2.89	1.67	0.93	0.51	0.27	0.15	0.08
32.50	7.02	8.53	6.66	4.44	2.72	1.59	0.89	0.49	0.27	0.14	0.08
34.50	7.02	8.03	6.22	4.15	2.56	1.50	0.85	0.47	0.26	0.14	0.07
36.50	7.02	7.53	5.77	3.86	2.39	1.41	0.80	0.45	0.24	0.13	0.07
38.50	7.02	7.03	5.32	3.55	2.20	1.30	0.75	0.42	0.23	0.12	0.07
40.50	7.02	6.52	4.86	3.23	2.01	1.19	0.68	0.38	0.21	0.11	0.06
42.50	7.02	6.02	4.38	2.90	1.80	1.07	0.62	0.35	0.19	0.10	0.06
44.50	7.02	5.51	3.90	2.56	1.59	0.94	0.55	0.31	0.17	0.09	0.05
46.50	7.02	4.98	3.40	2.20	1.36	0.81	0.47	0.26	0.15	0.08	0.04
48.50	7.02	4.45	2.89	1.83	1.13	0.67	0.39	0.22	0.12	0.07	0.04
50.50	7.02	3.91	2.37	1.46	0.88	0.52	0.30	0.17	0.10	0.05	0.03
52.50	7.02	3.35	1.83	1.07	0.63	0.37	0.22	0.12	0.07	0.04	0.02
54.50	7.02	2.78	1.28	0.67	0.38	0.22	0.13	0.07	0.04	0.02	0.01

Note: concentrations in micrograms per liter or parts per billion.

```
==============GENERAL PROJECT INFORMATION============================
project title.........................10/00 Cooper TCE
number of polygons....................1
timestep [years]......................1
total time of simulation [years]......100
gw impact output interval [years]....10
profile output interval [years]......10
===============CONTAMINANT INFORMATION==============================
org.C distrib. coeff., Koc [ml/g]....126
Henry's constant [dimensionless].....0.297
water solubility [mg/l]..............1000
free air diffusion coef.[sq.m/d].....0.701
===============Polygon #1===========================================
title................................SG-28
surface area [sq.ft]..................1
vertical thickness of a cell [ft]....1.0
net recharge rate [ft/year]..........0.12
dry bulk density [g/cm3].............1.525
effective porosity [dim.less]........0.4955
volumetric water content [percent]...0.232
organic carbon content [dim.less]....0.0018375
contaminant conc. in recharge [mg/l]....0.0
upper BC for vapor [mg/l]............0.0
lower BC for vapor [mg/l]............0.0
number of cells......................55
plot variable [y/n]..................y
plot time [years]....................10.0
======repeat the following line until all cells are assigned=========
top #, bottom #, init. conc. [ug/kg]....1,5,41.95
top #, bottom #, init. conc. [ug/kg]....6,15,83.90
top #, bottom #, init. conc. [ug/kg]....16,25,10.42
top #, bottom #, init. conc. [ug/kg]....26,55,6.80
```

SG-28
TCE VLEACH Output Data

Depth (feet bgs)	Time (years)										
	0	10	20	30	40	50	60	70	80	90	100
0.50	96.44	5.42	0.55	0.14	0.05	0.02	0.01	0.00	0.00	0.00	0.00
2.50	96.44	21.47	3.60	0.80	0.27	0.11	0.05	0.02	0.01	0.00	0.00
4.50	96.44	31.03	7.92	2.01	0.63	0.24	0.10	0.04	0.02	0.01	0.00
6.50	192.88	47.13	12.39	3.53	1.13	0.42	0.17	0.07	0.03	0.01	0.01
8.50	192.88	60.40	17.33	5.20	1.71	0.62	0.25	0.11	0.05	0.02	0.01
10.50	192.88	65.79	21.35	6.86	2.32	0.85	0.34	0.14	0.06	0.03	0.01
12.50	192.88	67.62	23.76	8.24	2.92	1.09	0.43	0.18	0.08	0.04	0.02
14.50	192.88	68.22	24.97	9.20	3.42	1.31	0.53	0.22	0.10	0.04	0.02
16.50	23.96	47.49	23.89	9.68	3.80	1.51	0.61	0.26	0.11	0.05	0.02
18.50	23.96	28.07	19.55	9.41	4.00	1.65	0.69	0.29	0.13	0.06	0.03
20.50	23.96	20.96	15.20	8.48	3.98	1.74	0.75	0.32	0.14	0.06	0.03
22.50	23.96	19.01	12.70	7.45	3.80	1.77	0.79	0.35	0.15	0.07	0.03
24.50	23.96	18.24	11.58	6.71	3.56	1.74	0.81	0.36	0.16	0.07	0.03
26.50	15.63	16.62	10.92	6.27	3.35	1.69	0.81	0.37	0.17	0.08	0.03
28.50	15.63	15.10	10.27	5.95	3.20	1.63	0.80	0.38	0.17	0.08	0.04
30.50	15.63	14.17	9.63	5.66	3.06	1.57	0.78	0.37	0.17	0.08	0.04
32.50	15.63	13.49	9.07	5.37	2.93	1.52	0.76	0.37	0.17	0.08	0.04
34.50	15.63	12.85	8.55	5.07	2.79	1.45	0.73	0.36	0.17	0.08	0.04
36.50	15.63	12.21	8.04	4.76	2.63	1.38	0.70	0.34	0.16	0.08	0.04
38.50	15.63	11.55	7.50	4.44	2.46	1.30	0.66	0.33	0.16	0.07	0.04
40.50	15.63	10.87	6.94	4.10	2.28	1.21	0.62	0.31	0.15	0.07	0.03
42.50	15.63	10.17	6.35	3.73	2.08	1.11	0.57	0.28	0.14	0.07	0.03
44.50	15.63	9.44	5.74	3.35	1.86	0.99	0.51	0.26	0.13	0.06	0.03
46.50	15.63	8.69	5.10	2.94	1.63	0.87	0.45	0.23	0.11	0.05	0.03
48.50	15.63	7.90	4.43	2.51	1.39	0.75	0.39	0.20	0.10	0.05	0.02
50.50	15.63	7.07	3.73	2.06	1.14	0.61	0.32	0.16	0.08	0.04	0.02
52.50	15.63	6.21	3.00	1.60	0.87	0.47	0.24	0.13	0.06	0.03	0.01
54.50	15.63	5.30	2.25	1.12	0.59	0.32	0.17	0.09	0.04	0.02	0.01

Note: concentrations in micrograms per liter or parts per billion.

```
==============GENERAL PROJECT INFORMATION============================
project title.........................10/00 Cooper 1,2-DCE
number of polygons....................1
timestep [years]......................1
total time of simulation [years]........100
gw impact output interval [years].......10
profile output interval [years].........10
===============CONTAMINANT INFORMATION===============================
org.C distrib. coeff., Koc [ml/g].......49
Henry's constant [dimensionless]........0.123
water solubility [mg/l]................3500
free air diffusion coef.[sq.m/d]........0.701
===============Polygon #1============================================
title..................................SG-28
surface area [sq.ft]...................1
vertical thickness of a cell [ft].......1.0
net recharge rate [ft/year]............0.12
dry bulk density [g/cm3]...............1.525
effective porosity [dim.less]..........0.4955
volumetric water content [percent]......0.232
organic carbon content [dim.less].......0.0018375
contaminant conc. in recharge [mg/l]....0.0
upper BC for vapor [mg/l]..............0.0
lower BC for vapor [mg/l]..............0.0
number of cells........................55
plot variable [y/n]....................y
plot time [years]......................10.0
======repeat the following line until all cells are assigned=========
top #, bottom #, init. conc. [ug/kg]....1,5,2.0
top #, bottom #, init. conc. [ug/kg]....6,15,3.99
top #, bottom #, init. conc. [ug/kg]....16,25,0.76
top #, bottom #, init. conc. [ug/kg]....26,55,0.52
```

SG-28
1,2-DCE VLEACH Output Data

Depth (feet bgs)	Time (years)										
	0	10	20	30	40	50	60	70	80	90	100
0.50	7.59	0.21	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
2.50	7.59	1.48	0.19	0.06	0.03	0.01	0.01	0.00	0.00	0.00	0.00
4.50	7.59	2.89	0.60	0.16	0.07	0.03	0.02	0.01	0.01	0.00	0.00
6.50	15.15	4.28	1.20	0.33	0.13	0.06	0.03	0.02	0.01	0.01	0.00
8.50	15.15	5.95	1.88	0.58	0.21	0.10	0.05	0.03	0.01	0.01	0.00
10.50	15.15	7.01	2.60	0.89	0.33	0.14	0.07	0.04	0.02	0.01	0.01
12.50	15.15	7.44	3.22	1.23	0.47	0.20	0.10	0.05	0.03	0.01	0.01
14.50	15.15	7.59	3.63	1.55	0.63	0.27	0.13	0.06	0.03	0.02	0.01
16.50	2.89	6.62	3.81	1.80	0.78	0.34	0.16	0.08	0.04	0.02	0.01
18.50	2.89	4.46	3.64	1.96	0.92	0.42	0.20	0.10	0.05	0.03	0.01
20.50	2.89	2.98	3.09	1.98	1.03	0.49	0.23	0.12	0.06	0.03	0.02
22.50	2.89	2.43	2.44	1.86	1.08	0.55	0.27	0.13	0.07	0.04	0.02
24.50	2.89	2.26	1.98	1.64	1.07	0.59	0.30	0.15	0.08	0.04	0.02
26.50	1.97	2.12	1.73	1.42	1.01	0.61	0.33	0.17	0.09	0.05	0.02
28.50	1.97	1.92	1.59	1.26	0.93	0.60	0.34	0.18	0.10	0.05	0.03
30.50	1.97	1.76	1.48	1.14	0.85	0.57	0.35	0.19	0.10	0.06	0.03
32.50	1.97	1.68	1.38	1.06	0.78	0.54	0.34	0.20	0.11	0.06	0.03
34.50	1.97	1.62	1.29	0.99	0.72	0.50	0.33	0.20	0.11	0.06	0.03
36.50	1.97	1.56	1.22	0.93	0.67	0.47	0.31	0.19	0.11	0.06	0.03
38.50	1.97	1.51	1.16	0.87	0.63	0.43	0.29	0.19	0.11	0.06	0.04
40.50	1.97	1.45	1.09	0.81	0.58	0.40	0.27	0.18	0.11	0.06	0.04
42.50	1.97	1.39	1.02	0.75	0.54	0.37	0.25	0.16	0.10	0.06	0.04
44.50	1.97	1.33	0.95	0.69	0.49	0.34	0.23	0.15	0.10	0.06	0.03
46.50	1.97	1.26	0.88	0.63	0.45	0.31	0.21	0.14	0.09	0.05	0.03
48.50	1.97	1.19	0.80	0.56	0.40	0.28	0.19	0.12	0.08	0.05	0.03
50.50	1.97	1.12	0.72	0.49	0.35	0.24	0.16	0.11	0.07	0.04	0.03
52.50	1.97	1.04	0.63	0.42	0.29	0.20	0.14	0.09	0.06	0.04	0.02
54.50	1.97	0.95	0.54	0.34	0.23	0.16	0.11	0.07	0.05	0.03	0.02

Note: concentrations in micrograms per liter or parts per billion.

```
==============GENERAL PROJECT INFORMATION============================
project title.........................10/00 Cooper VC
number of polygons....................1
timestep [years]......................1
total time of simulation [years]........100
gw impact output interval [years].......10
profile output interval [years].........10
===============CONTAMINANT INFORMATION===============================
org.C distrib. coeff., Koc [ml/g].......57
Henry's constant [dimensionless]........0.905
water solubility [mg/l]................1100
free air diffusion coef.[sq.m/d]........0.701
===============Polygon #1============================================
title..................................SG-28
surface area [sq.ft]...................1
vertical thickness of a cell [ft].......1.0
net recharge rate [ft/year]............0.12
dry bulk density [g/cm3]...............1.525
effective porosity [dim.less]..........0.4955
volumetric water content [percent]......0.232
organic carbon content [dim.less].......0.0018375
contaminant conc. in recharge [mg/l]....0.0
upper BC for vapor [mg/l]..............0.0
lower BC for vapor [mg/l]..............0.0
number of cells........................55
plot variable [y/n]....................y
plot time [years]......................10.0
======repeat the following line until all cells are assigned=========
top #, bottom #, init. conc. [ug/kg]....1,5,0.53
top #, bottom #, init. conc. [ug/kg]....6,15,1.06
top #, bottom #, init. conc. [ug/kg]....16,25,2.33
top #, bottom #, init. conc. [ug/kg]....26,55,1.24
```

SG-28
Vinyl Chloride VLEACH Output Data

Depth (feet bgs)	Time (years)										
	0	10	20	30	40	50	60	70	80	90	100
0.50	1.28	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.50	1.28	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4.50	1.28	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6.50	2.57	0.11	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8.50	2.57	0.14	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10.50	2.57	0.17	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12.50	2.57	0.20	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14.50	2.57	0.23	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16.50	5.64	0.25	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18.50	5.64	0.28	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20.50	5.64	0.31	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22.50	5.64	0.32	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24.50	5.64	0.33	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26.50	3.00	0.33	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28.50	3.00	0.32	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30.50	3.00	0.31	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
32.50	3.00	0.30	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
34.50	3.00	0.29	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36.50	3.00	0.28	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
38.50	3.00	0.26	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40.50	3.00	0.25	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
42.50	3.00	0.23	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44.50	3.00	0.20	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
46.50	3.00	0.18	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48.50	3.00	0.15	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50.50	3.00	0.12	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
52.50	3.00	0.09	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
54.50	3.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note: concentrations in micrograms per liter or parts per billion.

```
==============GENERAL PROJECT INFORMATION============================
project title.........................10/00 Cooper 1,1-DCA
number of polygons....................1
timestep [years]......................1
total time of simulation [years]......100
gw impact output interval [years]....10
profile output interval [years]......10
===============CONTAMINANT INFORMATION==============================
org.C distrib. coeff., Koc [ml/g]....30
Henry's constant [dimensionless]....0.178
water solubility [mg/l]..............5500
free air diffusion coef.[sq.m/d]....0.701
===============Polygon #1===========================================
title................................SG-28
surface area [sq.ft]..................1
vertical thickness of a cell [ft]....1.0
net recharge rate [ft/year]..........0.12
dry bulk density [g/cm3]............1.525
effective porosity [dim.less]........0.4955
volumetric water content [percent]...0.232
organic carbon content [dim.less]....0.0018375
contaminant conc. in recharge [mg/l]....0.0
upper BC for vapor [mg/l]............0.0
lower BC for vapor [mg/l]............0.0
number of cells......................55
plot variable [y/n]..................y
plot time [years]....................10.0
======repeat the following line until all cells are assigned=========
top #, bottom #, init. conc. [ug/kg]....1,5,64.91
top #, bottom #, init. conc. [ug/kg]....6,15,129.81
top #, bottom #, init. conc. [ug/kg]....16,25,25.15
top #, bottom #, init. conc. [ug/kg]....26,55,16.23
```

SG-28
1,1-DCA VLEACH Output Data

Depth (feet bgs)	Time (years)										
	0	10	20	30	40	50	60	70	80	90	100
0.50	272.71	3.32	0.50	0.18	0.07	0.03	0.01	0.00	0.00	0.00	0.00
2.50	272.71	26.60	2.89	0.89	0.34	0.13	0.05	0.02	0.01	0.00	0.00
4.50	272.71	59.84	8.04	2.08	0.76	0.29	0.12	0.05	0.02	0.01	0.00
6.50	545.37	91.26	16.14	3.82	1.31	0.51	0.20	0.08	0.03	0.01	0.01
8.50	545.37	128.36	26.00	6.17	2.00	0.76	0.30	0.12	0.05	0.02	0.01
10.50	545.37	157.25	36.62	9.09	2.82	1.04	0.41	0.16	0.06	0.03	0.01
12.50	545.37	171.53	46.73	12.36	3.78	1.36	0.53	0.21	0.08	0.03	0.01
14.50	545.37	177.16	54.68	15.68	4.84	1.70	0.65	0.26	0.10	0.04	0.02
16.50	105.66	165.61	59.66	18.72	5.94	2.07	0.78	0.31	0.12	0.05	0.02
18.50	105.66	125.73	60.80	21.13	7.01	2.45	0.92	0.36	0.14	0.06	0.02
20.50	105.66	89.74	57.03	22.64	7.96	2.83	1.06	0.41	0.16	0.07	0.03
22.50	105.66	72.96	49.94	23.03	8.71	3.18	1.19	0.46	0.18	0.07	0.03
24.50	105.66	67.19	43.11	22.34	9.19	3.48	1.32	0.51	0.20	0.08	0.03
26.50	68.19	63.63	38.51	20.97	9.35	3.71	1.43	0.55	0.22	0.09	0.03
28.50	68.19	58.42	35.74	19.50	9.24	3.85	1.52	0.59	0.23	0.09	0.04
30.50	68.19	53.61	33.65	18.24	8.95	3.90	1.58	0.63	0.25	0.10	0.04
32.50	68.19	50.39	31.66	17.21	8.56	3.87	1.62	0.65	0.26	0.10	0.04
34.50	68.19	48.04	29.73	16.28	8.15	3.78	1.62	0.66	0.27	0.11	0.04
36.50	68.19	45.89	27.92	15.36	7.74	3.64	1.60	0.67	0.27	0.11	0.04
38.50	68.19	43.69	26.18	14.40	7.31	3.47	1.55	0.66	0.27	0.11	0.04
40.50	68.19	41.40	24.43	13.41	6.84	3.28	1.48	0.64	0.27	0.11	0.04
42.50	68.19	38.99	22.59	12.37	6.34	3.06	1.40	0.61	0.26	0.10	0.04
44.50	68.19	36.44	20.65	11.26	5.79	2.81	1.30	0.57	0.24	0.10	0.04
46.50	68.19	33.76	18.59	10.08	5.20	2.54	1.18	0.53	0.23	0.09	0.04
48.50	68.19	30.93	16.41	8.83	4.56	2.24	1.05	0.47	0.20	0.09	0.04
50.50	68.19	27.93	14.12	7.50	3.88	1.92	0.91	0.41	0.18	0.08	0.03
52.50	68.19	24.77	11.71	6.09	3.16	1.58	0.75	0.35	0.15	0.07	0.03
54.50	68.19	21.43	9.18	4.62	2.39	1.21	0.59	0.27	0.12	0.05	0.02

Note: concentrations in micrograms per liter or parts per billion.

```
==============GENERAL PROJECT INFORMATION============================
project title.........................10/00 Cooper PCE
number of polygons....................1
timestep [years]......................1
total time of simulation [years]......100
gw impact output interval [years].....10
profile output interval [years]......10
===============CONTAMINANT INFORMATION==============================
org.C distrib. coeff., Koc [ml/g].....364
Henry's constant [dimensionless]......0.546
water solubility [mg/l]...............150
free air diffusion coef.[sq.m/d]......0.701
===============Polygon #1===========================================
title................................SG-29
surface area [sq.ft]..................1
vertical thickness of a cell [ft].....1.0
net recharge rate [ft/year]...........0.12
dry bulk density [g/cm3]..............1.525
effective porosity [dim.less].........0.4955
volumetric water content [percent]....0.232
organic carbon content [dim.less].....0.0018375
contaminant conc. in recharge [mg/l]....0.0
upper BC for vapor [mg/l]............0.0
lower BC for vapor [mg/l]............0.0
number of cells......................55
plot variable [y/n]..................y
plot time [years]....................10.0
======repeat the following line until all cells are assigned=========
top #, bottom #, init. conc. [ug/kg]....1,5,273.30
top #, bottom #, init. conc. [ug/kg]....6,15,546.60
top #, bottom #, init. conc. [ug/kg]....16,25,9.65
top #, bottom #, init. conc. [ug/kg]....26,55,15.44
```

SG-29
PCE VLEACH Output Data

Depth (feet bgs)	Time (years)										
	0	10	20	30	40	50	60	70	80	90	100
0.50	298.57	48.70	8.73	1.89	0.54	0.20	0.09	0.04	0.02	0.01	0.00
2.50	298.57	101.14	30.65	9.12	2.90	1.04	0.42	0.19	0.09	0.04	0.02
4.50	298.57	117.43	44.06	16.03	5.87	2.24	0.92	0.40	0.19	0.09	0.04
6.50	597.15	200.54	67.45	23.94	8.98	3.55	1.48	0.65	0.30	0.14	0.07
8.50	597.15	226.99	84.70	31.73	12.22	4.91	2.07	0.91	0.42	0.20	0.10
10.50	597.15	233.70	92.20	36.64	14.79	6.13	2.63	1.17	0.54	0.26	0.13
12.50	597.15	235.69	95.17	39.17	16.42	7.04	3.10	1.40	0.65	0.31	0.15
14.50	597.15	235.59	96.11	40.34	17.36	7.65	3.45	1.59	0.75	0.36	0.18
16.50	10.54	85.82	64.18	34.49	16.67	7.81	3.65	1.73	0.83	0.40	0.20
18.50	10.54	41.91	38.63	25.39	14.20	7.33	3.65	1.79	0.88	0.44	0.22
20.50	10.54	33.26	29.12	19.90	11.95	6.62	3.49	1.79	0.91	0.46	0.23
22.50	10.54	30.56	25.96	17.53	10.65	6.07	3.31	1.75	0.91	0.47	0.24
24.50	10.54	28.67	24.32	16.39	9.98	5.74	3.17	1.71	0.90	0.47	0.24
26.50	16.87	28.53	23.30	15.65	9.56	5.52	3.08	1.67	0.89	0.47	0.25
28.50	16.87	27.30	22.24	14.97	9.18	5.34	2.99	1.64	0.88	0.47	0.25
30.50	16.87	25.73	21.00	14.22	8.78	5.14	2.90	1.60	0.86	0.46	0.24
32.50	16.87	24.14	19.67	13.39	8.33	4.90	2.78	1.54	0.84	0.45	0.24
34.50	16.87	22.56	18.30	12.51	7.83	4.64	2.65	1.48	0.81	0.43	0.23
36.50	16.87	21.01	16.91	11.59	7.29	4.34	2.49	1.40	0.77	0.41	0.22
38.50	16.87	19.47	15.50	10.63	6.71	4.02	2.32	1.30	0.72	0.39	0.21
40.50	16.87	17.94	14.07	9.64	6.10	3.67	2.12	1.20	0.66	0.36	0.19
42.50	16.87	16.40	12.62	8.61	5.46	3.29	1.91	1.08	0.60	0.33	0.18
44.50	16.87	14.87	11.14	7.55	4.79	2.89	1.69	0.96	0.53	0.29	0.16
46.50	16.87	13.32	9.64	6.46	4.09	2.47	1.45	0.82	0.46	0.25	0.14
48.50	16.87	11.75	8.11	5.35	3.37	2.04	1.19	0.68	0.38	0.21	0.11
50.50	16.87	10.15	6.55	4.20	2.62	1.58	0.93	0.53	0.30	0.17	0.09
52.50	16.87	8.53	4.96	3.03	1.86	1.12	0.66	0.38	0.21	0.12	0.07
54.50	16.87	6.86	3.33	1.84	1.08	0.64	0.38	0.22	0.13	0.07	0.04

Note: concentrations in micrograms per liter or parts per billion.

```
==============GENERAL PROJECT INFORMATION============================
project title.........................10/00 Cooper TCE
number of polygons....................1
timestep [years]......................1
total time of simulation [years]........100
gw impact output interval [years].......10
profile output interval [years].........10
===============CONTAMINANT INFORMATION===============================
org.C distrib. coeff., Koc [ml/g].......126
Henry's constant [dimensionless]........0.297
water solubility [mg/l]................1000
free air diffusion coef.[sq.m/d]........0.701
===============Polygon #1============================================
title..................................SG-29
surface area [sq.ft]...................1
vertical thickness of a cell [ft].......1.0
net recharge rate [ft/year]............0.12
dry bulk density [g/cm3]...............1.525
effective porosity [dim.less]..........0.4955
volumetric water content [percent]......0.232
organic carbon content [dim.less]......0.0018375
contaminant conc. in recharge [mg/l]....0.0
upper BC for vapor [mg/l]..............0.0
lower BC for vapor [mg/l]..............0.0
number of cells........................55
plot variable [y/n]....................y
plot time [years]......................10.0
======repeat the following line until all cells are assigned=========
top #, bottom #, init. conc. [ug/kg]....1,5,96.80
top #, bottom #, init. conc. [ug/kg]....6,15,193.61
top #, bottom #, init. conc. [ug/kg]....16,25,7.64
top #, bottom #, init. conc. [ug/kg]....26,55,25.0
```

SG-29
TCE VLEACH Output Data

Depth (feet bgs)	Time (years)										
	0	10	20	30	40	50	60	70	80	90	100
0.50	222.53	12.48	1.25	0.32	0.12	0.05	0.02	0.01	0.00	0.00	0.00
2.50	222.53	49.42	8.25	1.84	0.61	0.25	0.11	0.05	0.02	0.01	0.00
4.50	222.53	71.39	18.18	4.61	1.44	0.55	0.23	0.10	0.05	0.02	0.01
6.50	445.09	108.45	28.44	8.09	2.58	0.95	0.39	0.17	0.08	0.03	0.02
8.50	445.09	138.98	39.77	11.91	3.90	1.43	0.58	0.25	0.11	0.05	0.02
10.50	445.09	151.31	49.00	15.71	5.32	1.95	0.78	0.33	0.15	0.06	0.03
12.50	445.09	155.44	54.50	18.87	6.67	2.49	0.99	0.42	0.18	0.08	0.04
14.50	445.09	156.71	57.23	21.06	7.83	3.00	1.21	0.51	0.22	0.10	0.04
16.50	17.56	104.14	54.32	22.12	8.68	3.44	1.40	0.59	0.26	0.11	0.05
18.50	17.56	55.02	43.27	21.34	9.12	3.78	1.58	0.67	0.29	0.13	0.06
20.50	17.56	37.19	32.26	18.93	9.04	3.98	1.71	0.74	0.32	0.14	0.06
22.50	17.56	32.51	26.03	16.34	8.55	4.02	1.80	0.79	0.35	0.16	0.07
24.50	17.56	30.94	23.34	14.51	7.95	3.94	1.84	0.83	0.37	0.17	0.08
26.50	57.47	34.82	22.50	13.50	7.44	3.80	1.83	0.85	0.39	0.18	0.08
28.50	57.47	38.37	22.75	13.02	7.09	3.67	1.80	0.86	0.40	0.18	0.08
30.50	57.47	38.92	22.99	12.80	6.86	3.54	1.76	0.85	0.40	0.18	0.08
32.50	57.47	38.16	22.70	12.57	6.68	3.43	1.71	0.83	0.40	0.18	0.09
34.50	57.47	37.02	21.98	12.21	6.47	3.32	1.66	0.81	0.39	0.18	0.08
36.50	57.47	35.74	21.02	11.69	6.21	3.19	1.60	0.78	0.38	0.18	0.08
38.50	57.47	34.34	19.91	11.06	5.89	3.03	1.52	0.75	0.36	0.17	0.08
40.50	57.47	32.84	18.69	10.33	5.51	2.85	1.43	0.70	0.34	0.16	0.08
42.50	57.47	31.22	17.37	9.52	5.08	2.63	1.33	0.66	0.32	0.15	0.07
44.50	57.47	29.48	15.95	8.64	4.59	2.38	1.21	0.60	0.29	0.14	0.07
46.50	57.47	27.61	14.42	7.69	4.07	2.11	1.07	0.53	0.26	0.13	0.06
48.50	57.47	25.61	12.78	6.68	3.50	1.82	0.92	0.46	0.23	0.11	0.05
50.50	57.47	23.47	11.05	5.60	2.90	1.50	0.76	0.38	0.19	0.09	0.04
52.50	57.47	21.18	9.20	4.46	2.27	1.16	0.59	0.30	0.15	0.07	0.03
54.50	57.47	18.73	7.26	3.26	1.60	0.81	0.41	0.21	0.10	0.05	0.02

Note: concentrations in micrograms per liter or parts per billion.

```
==============GENERAL PROJECT INFORMATION============================
project title.........................10/00 Cooper 1,2-DCE
number of polygons....................1
timestep [years]......................1
total time of simulation [years]......100
gw impact output interval [years].....10
profile output interval [years]......10
===============CONTAMINANT INFORMATION==============================
org.C distrib. coeff., Koc [ml/g].....49
Henry's constant [dimensionless]......0.123
water solubility [mg/l]...............3500
free air diffusion coef.[sq.m/d]......0.701
===============Polygon #1===========================================
title................................SG-29
surface area [sq.ft]..................1
vertical thickness of a cell [ft].....1.0
net recharge rate [ft/year]...........0.12
dry bulk density [g/cm3]..............1.525
effective porosity [dim.less].........0.4955
volumetric water content [percent]....0.232
organic carbon content [dim.less].....0.0018375
contaminant conc. in recharge [mg/l]....0.0
upper BC for vapor [mg/l]............0.0
lower BC for vapor [mg/l]............0.0
number of cells......................55
plot variable [y/n]...................y
plot time [years]....................10.0
======repeat the following line until all cells are assigned=========
top #, bottom #, init. conc. [ug/kg]....1,5,1.76
top #, bottom #, init. conc. [ug/kg]....6,15,3.52
top #, bottom #, init. conc. [ug/kg]....16,25,0.31
top #, bottom #, init. conc. [ug/kg]....26,55,1.24
```

SG-29
1,2-DCE VLEACH Output Data

Depth (feet bgs)	Time (years)										
	0	10	20	30	40	50	60	70	80	90	100
0.50	6.68	0.19	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
2.50	6.68	1.32	0.17	0.06	0.03	0.01	0.01	0.00	0.00	0.00	0.00
4.50	6.68	2.57	0.54	0.15	0.06	0.03	0.02	0.01	0.01	0.00	0.00
6.50	13.36	3.80	1.08	0.31	0.12	0.06	0.03	0.02	0.01	0.01	0.00
8.50	13.36	5.29	1.70	0.54	0.20	0.09	0.05	0.03	0.01	0.01	0.00
10.50	13.36	6.24	2.34	0.82	0.31	0.14	0.07	0.04	0.02	0.01	0.01
12.50	13.36	6.64	2.90	1.13	0.44	0.19	0.09	0.05	0.03	0.01	0.01
14.50	13.36	6.77	3.28	1.41	0.58	0.25	0.12	0.06	0.03	0.02	0.01
16.50	1.18	5.82	3.45	1.65	0.73	0.32	0.15	0.08	0.04	0.02	0.01
18.50	1.18	3.69	3.28	1.79	0.86	0.39	0.19	0.09	0.05	0.03	0.01
20.50	1.18	2.24	2.74	1.81	0.95	0.46	0.22	0.11	0.06	0.03	0.02
22.50	1.18	1.72	2.11	1.70	1.00	0.52	0.26	0.13	0.07	0.03	0.02
24.50	1.18	1.59	1.68	1.49	1.00	0.56	0.29	0.15	0.07	0.04	0.02
26.50	4.71	1.85	1.47	1.29	0.94	0.57	0.31	0.16	0.08	0.04	0.02
28.50	4.71	2.46	1.46	1.14	0.87	0.56	0.33	0.18	0.09	0.05	0.03
30.50	4.71	2.87	1.59	1.07	0.79	0.54	0.33	0.18	0.10	0.05	0.03
32.50	4.71	3.00	1.75	1.07	0.74	0.51	0.32	0.19	0.10	0.06	0.03
34.50	4.71	3.01	1.85	1.11	0.71	0.48	0.31	0.19	0.11	0.06	0.03
36.50	4.71	2.98	1.88	1.14	0.70	0.46	0.30	0.19	0.11	0.06	0.03
38.50	4.71	2.94	1.86	1.15	0.70	0.44	0.28	0.18	0.11	0.06	0.03
40.50	4.71	2.89	1.81	1.13	0.69	0.43	0.27	0.17	0.10	0.06	0.03
42.50	4.71	2.82	1.75	1.10	0.68	0.42	0.26	0.16	0.10	0.06	0.03
44.50	4.71	2.75	1.68	1.04	0.65	0.40	0.24	0.15	0.09	0.06	0.03
46.50	4.71	2.66	1.59	0.98	0.61	0.38	0.23	0.14	0.09	0.05	0.03
48.50	4.71	2.56	1.50	0.91	0.56	0.35	0.21	0.13	0.08	0.05	0.03
50.50	4.71	2.46	1.39	0.83	0.51	0.31	0.19	0.12	0.07	0.04	0.03
52.50	4.71	2.34	1.27	0.74	0.45	0.28	0.17	0.10	0.06	0.04	0.02
54.50	4.71	2.20	1.14	0.64	0.38	0.23	0.14	0.09	0.05	0.03	0.02

Note: concentrations in micrograms per liter or parts per billion.

```
==============GENERAL PROJECT INFORMATION============================
project title.........................10/00 Cooper VC
number of polygons....................1
timestep [years]......................1
total time of simulation [years]......100
gw impact output interval [years]....10
profile output interval [years]......10
===============CONTAMINANT INFORMATION==============================
org.C distrib. coeff., Koc [ml/g]....57
Henry's constant [dimensionless]....0.905
water solubility [mg/l]..............1100
free air diffusion coef.[sq.m/d]....0.701
===============Polygon #1===========================================
title................................SG-29
surface area [sq.ft]..................1
vertical thickness of a cell [ft]....1.0
net recharge rate [ft/year]..........0.12
dry bulk density [g/cm3]............1.525
effective porosity [dim.less]........0.4955
volumetric water content [percent]...0.232
organic carbon content [dim.less]....0.0018375
contaminant conc. in recharge [mg/l]....0.0
upper BC for vapor [mg/l]............0.0
lower BC for vapor [mg/l]............0.0
number of cells......................55
plot variable [y/n]..................y
plot time [years]....................10.0
======repeat the following line until all cells are assigned=========
top #, bottom #, init. conc. [ug/kg]....1,5,0.34
top #, bottom #, init. conc. [ug/kg]....6,15,0.67
top #, bottom #, init. conc. [ug/kg]....16,25,0.44
top #, bottom #, init. conc. [ug/kg]....26,55,2.47
```

SG-29
Vinyl Chloride VLEACH Output Data

Depth (feet bgs)	Time (years)										
	0	10	20	30	40	50	60	70	80	90	100
0.50	0.82	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.50	0.82	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4.50	0.82	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6.50	1.62	0.10	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8.50	1.62	0.13	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10.50	1.62	0.15	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12.50	1.62	0.18	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14.50	1.62	0.20	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16.50	1.06	0.22	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18.50	1.06	0.24	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20.50	1.06	0.26	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22.50	1.06	0.27	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24.50	1.06	0.29	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26.50	5.98	0.31	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28.50	5.98	0.34	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30.50	5.98	0.35	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
32.50	5.98	0.36	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
34.50	5.98	0.36	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36.50	5.98	0.35	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
38.50	5.98	0.34	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40.50	5.98	0.32	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
42.50	5.98	0.30	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44.50	5.98	0.28	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
46.50	5.98	0.25	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48.50	5.98	0.22	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50.50	5.98	0.18	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
52.50	5.98	0.14	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
54.50	5.98	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note: concentrations in micrograms per liter or parts per billion.

```
==============GENERAL PROJECT INFORMATION============================
project title.........................10/00 Cooper 1,1-DCA
number of polygons....................1
timestep [years]......................1
total time of simulation [years]......100
gw impact output interval [years]....10
profile output interval [years]......10
===============CONTAMINANT INFORMATION==============================
org.C distrib. coeff., Koc [ml/g]....30
Henry's constant [dimensionless].....0.178
water solubility [mg/l]..............5500
free air diffusion coef.[sq.m/d].....0.701
===============Polygon #1===========================================
title................................SG-29
surface area [sq.ft]..................1
vertical thickness of a cell [ft]....1.0
net recharge rate [ft/year]..........0.12
dry bulk density [g/cm3].............1.525
effective porosity [dim.less]........0.4955
volumetric water content [percent]...0.232
organic carbon content [dim.less]....0.0018375
contaminant conc. in recharge [mg/l]....0.0
upper BC for vapor [mg/l]............0.0
lower BC for vapor [mg/l]............0.0
number of cells......................55
plot variable [y/n]..................y
plot time [years]....................10.0
======repeat the following line until all cells are assigned=========
top #, bottom #, init. conc. [ug/kg]....1,5,81.13
top #, bottom #, init. conc. [ug/kg]....6,15,162.27
top #, bottom #, init. conc. [ug/kg]....16,25,17.04
top #, bottom #, init. conc. [ug/kg]....26,55,47.87
```

SG-29
1,1-DCA VLEACH Output Data

Depth (feet bgs)	Time (years)										
	0	10	20	30	40	50	60	70	80	90	100
0.50	340.85	4.25	0.67	0.24	0.09	0.04	0.01	0.01	0.00	0.00	0.00
2.50	340.85	33.68	3.82	1.21	0.46	0.18	0.07	0.03	0.01	0.00	0.00
4.50	340.85	75.66	10.51	2.80	1.03	0.40	0.16	0.06	0.03	0.01	0.00
6.50	681.75	115.42	20.94	5.10	1.78	0.69	0.27	0.11	0.04	0.02	0.01
8.50	681.75	162.29	33.59	8.21	2.70	1.03	0.40	0.16	0.06	0.03	0.01
10.50	681.75	198.91	47.22	12.02	3.80	1.41	0.55	0.22	0.09	0.04	0.01
12.50	681.75	217.27	60.20	16.29	5.08	1.84	0.72	0.28	0.11	0.05	0.02
14.50	681.75	224.84	70.49	20.62	6.48	2.30	0.89	0.35	0.14	0.06	0.02
16.50	71.59	209.08	77.04	24.59	7.94	2.80	1.06	0.42	0.17	0.07	0.03
18.50	71.59	154.29	78.60	27.77	9.36	3.31	1.25	0.49	0.20	0.08	0.03
20.50	71.59	105.14	73.54	29.80	10.63	3.81	1.43	0.56	0.22	0.09	0.04
22.50	71.59	82.87	64.04	30.37	11.63	4.28	1.61	0.63	0.25	0.10	0.04
24.50	71.59	76.09	55.04	29.50	12.28	4.69	1.78	0.69	0.27	0.11	0.04
26.50	201.12	78.17	49.30	27.76	12.53	5.00	1.93	0.75	0.30	0.12	0.05
28.50	201.12	89.07	46.83	25.93	12.42	5.20	2.06	0.81	0.32	0.13	0.05
30.50	201.12	98.51	46.80	24.51	12.06	5.28	2.15	0.85	0.34	0.13	0.05
32.50	201.12	101.85	47.89	23.64	11.62	5.25	2.20	0.88	0.35	0.14	0.06
34.50	201.12	101.47	48.68	23.16	11.18	5.14	2.21	0.90	0.36	0.14	0.06
36.50	201.12	99.62	48.47	22.81	10.78	4.98	2.18	0.91	0.37	0.15	0.06
38.50	201.12	97.09	47.30	22.33	10.40	4.79	2.12	0.90	0.37	0.15	0.06
40.50	201.12	94.08	45.45	21.56	9.99	4.57	2.04	0.87	0.36	0.15	0.06
42.50	201.12	90.61	43.13	20.49	9.49	4.32	1.93	0.84	0.35	0.14	0.06
44.50	201.12	86.66	40.43	19.14	8.89	4.04	1.80	0.79	0.33	0.14	0.06
46.50	201.12	82.23	37.39	17.55	8.17	3.72	1.66	0.73	0.31	0.13	0.05
48.50	201.12	77.30	34.00	15.76	7.33	3.35	1.50	0.66	0.28	0.12	0.05
50.50	201.12	71.85	30.27	13.78	6.39	2.92	1.31	0.58	0.25	0.10	0.04
52.50	201.12	65.86	26.21	11.62	5.35	2.45	1.10	0.49	0.21	0.09	0.04
54.50	201.12	59.32	21.81	9.29	4.21	1.93	0.88	0.39	0.17	0.07	0.03

Note: concentrations in micrograms per liter or parts per billion.