
file. hw. 828044. 1990-5-31. state - mt-hope -
to mel - lab -
analysis. P&P

Monroe County



THOMAS R. FREY
COUNTY EXECUTIVE

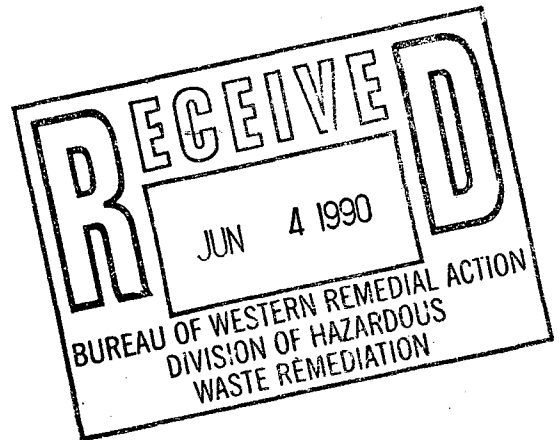
WAYNE
JOHN M. DAVIS, P.E.
DIRECTOR
716 • 274-7630

Department of Engineering
350 East Henrietta Road • Rochester, N.Y. 14620

May 31, 1990

Mr. George Harris
Chief, Remedial Action Section C
Division of Hazardous Waste Remediation
New York State Department of
Environmental Conservation
Room 222
50 Wolf Road
Albany, New York 12233-7010

RE: STATE - MT. HOPE TUNNEL
C-36-745-10
ROCHESTER PURE WATERS DISTRICT



Data from the analysis of air, liquid, soil and muck samples for the period from May 14, 1990 to May 18, 1990 are enclosed for your information and use.

Sincerely,

Philip W. Steinfeldt

Philip W. Steinfeldt
Associate Engineer

/td
Enclosures

cc: Mr. Mike Khalil, DEC, Avon, w/encl.
Mr. Jim Smith, H & A of New York

DAILY FIELD REPORT

PROJECT:	STATE ST. - MT. HOPE TUNNEL Rochester, New York	DATE: 14 May 1990
CLIENT:	STV/Seelye Stevenson Value & Knecht	PAGE: 1 of 2
CONTRACTOR:	GCF Constructors	FILE: 7433-82
WEATHER:	Partly cloudy 75°	

CONTRACTOR ACTIVITIES:

Mined TBM tunnel from Station 76+14 to Station 76+30 (day shift), from 76+30 to 76+88 (swing shift), and from 76+88 to 77+27 (graveyard shift). No tunnel mining was performed from approximately 0700 to 1400 hrs.

Hauled tunnel muck until approximately 1300 hrs. during the day shift. Dumped tunnel muck on the spoil pile adjacent to Control Structure 41 after 1400 hrs. during the day shift, and intermittently during the swing and graveyard shifts.

FIELD REPRESENTATIVE ACTIVITIES:

W. Lanik (H&A) performed routine air monitoring of the tunnel ventilation exhaust from 0821 to 1441 hrs. Conducted six tunnel exhaust air screenings using the Photovac 10s70 gas chromatograph.

Conducted headspace screening on one tunnel seep sample obtained by F. Amos (H&A) and J. Wallace (H&A) at Station 73+94.

No samples were obtained from Sites 15, 27, and 28 as no excavation was performed.

S. Parker (H&A) performed routine air monitoring of the tunnel ventilation exhaust from 1512 to 2241 hrs. Conducted 14 tunnel exhaust air screenings using the Photovac 10s70 gas chromatograph.

Obtained two tunnel muck samples from the spoil pile and performed headspace screening using the same instrument.

Discussed hydrogen sulfide concentrations detected during tunnel air monitoring with K. Peck (GCF) at 1600 hrs. Informed him that 1.9 and 1.8 ppm of hydrogen sulfide were detected in tunnel air samples obtained at 1512 and 1543 hrs. respectively. Peck reported that GCF safety personnel had detected 6 ppm of hydrogen sulfide while mining during the day and swing shifts, and 10 ppm on 11 May 1990.

PROJECT: STATE ST. - MT. HOPE TUNNEL DATE: 14 May 1990
Rochester, New York PAGE: 2 of 2
CLIENT: STV/Seelye Stevenson Value & FILE: 7433-82
Knecht

P. Micciche (H&A) performed routine air monitoring of the tunnel ventilation exhaust from 2311 to 0649 hrs. Conducted 14 tunnel exhaust air screenings using the Photovac 10s70 gas chromatograph.

Obtained two tunnel muck samples from the spoil pile and performed headspace screening using the same instrument.

TEST DATA SUMMARY:

None of the action threshold levels for the targeted compounds referenced in the 1 March 1990 workplan (benzene, toluene, 1,2-DCE, methylene chloride, and vinyl chloride) were exceeded during the monitoring periods.

Headspace screening data are summarized on the attached Shift Data Tables.

FIELD REPRESENTATIVE

W. Lanik

S. Parker

P. Micciche

TIME ON SITE

0700-1515

(8.25 hrs.)

1500-2215

(8.25 hrs.)

2300-0700

(8.0 hrs.)

DISTRIBUTION

STV/Seelye Stevenson: Mr. Richard Richter
Mr. Suki Suresh

MCDOE: Mr. Phil Steinfeldt


H&A OF NEW YORK

SHIFT DATA TABLE

PROJECT: STATE ST. MT. HOPE AVE TUNNEL
 CLIENT: STV/ SEELYE STEVENSON VALUE & KNECHT
 H&A REPRESENTATIVE: W. Lanik
 CHECKED BY: S. Parker

TUNNEL HEADINGS AT
 START: 76 + 14
 END: 76 + 30
 ADVANCE: 16

FILE: 7433-82
 PAGE: 1 OF 2
 DATE: 14 May 1990
 SHIFT: Day
 DFR NO.: 59

TUNNEL AIR SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN ^s	TOTAL DETECTED
0821	—	—	—	—	—	—	**	—	—	—	0.15	0.15
1043	—	—	—	—	0.02	—	**	—	—	0.17	0.09	0.28
1131	—	—	—	—	—	—	**	—	0.02	0.13	0.12	0.27
1231	—	—	—	—	—	—	**	—	—	—	0.24	0.24
1409	—	—	—	0.02	0.10	—	**	—	0.09	0.39	1.20	1.80
1441	—	—	—	0.02	0.08	—	**	—	0.09	0.08	1.26	1.53
1004aa	—	—	—	—	0.06	—	—	—	—	—	0.04	0.10
1025cg	—	—	—	—	—	—	—	—	—	—	—	—
1113aa	—	—	—	—	—	—	—	—	—	—	—	—

TUNNEL MUCK/ SHAFT/ GROUNDWATER SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

SAMPLE TYPE TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN ^s	TOTAL DETECTED
TS/0935	—	—	—	—	—	—	—	—	—	—	1.08***	1.08
TS/0935D	—	—	—	—	—	—	—	—	—	—	2.10	2.10

REMARKS/ VISITORS:

Tunnel muck dumped intermittently after approximately 1400 hrs. during day shift.

Tunnel muck hauled from site intermittently until approximately 1300 hrs.

No mining was conducted from 0700 to 1400 hrs.

F. Amos (H&A) and J. Wallace (H&A) visited trailer at 0850 hrs. to obtain vials for seep sampling

before entering tunnel. Returned at 1230 hrs. to deliver tunnel seep sample TS/0930, collected

at Station 73+94 from seep in the tunnel crown.

No samples were obtained from Sites 15, 27, and 28 as no excavation was performed during the day shift.

ABBREVIATIONS:

SAMPLE TYPE:

TM	TUNNEL MUCK
TS	TUNNEL SEEP
SM#	SHAFT SOIL OR MUCK FROM SITE 15, 27, OR 28

- NOTES:
1. (*) UNIDENTIFIED CHROMATOGRAM PEAKS EXPRESSED IN TOLUENE EQUIVALENTS.
 2. COMPOUNDS LESS THAN 10 PPB NOT REPORTED.
 3. (cg) INDICATES CARRIER GAS BLANK ANALYSIS.
 4. (aa) INDICATES AMBIENT AIR BLANK ANALYSIS.
 5. (**) INDICATES PRESENCE OF COMPOUND IN SAMPLE WHICH ELUTED IN GENERAL RANGE OF HYDROGEN SULFIDE STANDARD, BUT WAS NOT WITHIN TWO PERCENT OF THE ELUTION TIME.
COMPOUND CONCENTRATION REPORTED AS AN UNKNOWN.
 6. (D) INDICATES DUPLICATE ANALYSIS.
 7. (***) INDICATES IMPRECISE RESULT DUE TO OFF-SCALE CHROMATOGRAM PEAKS FOR UNKNOWN COMPOUNDS.
SEE DUPLICATE ANALYSIS FOR MORE PRECISE CONCENTRATION OF UNKNOWNNS.

SHIFT DATA TABLE

PROJECT: STATE ST. MT. HOPE AVE TUNNEL
 CLIENT: STV/ SEELYE STEVENSON VALUE & KNECHT
 H&A REPRESENTATIVE: S. Parker
 CHECKED BY: S. Parker

TUNNEL HEADINGS AT
 START: 76 + 30
 END: 76 + 88
 ADVANCE: 58

FILE: 7433-82
 PAGE: 1 OF 2
 DATE: 14 May 1990
 SHIFT: Swing
 DFR NO.: 59

TUNNEL AIR SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN ^S *	TOTAL DETECTED
1512	—	—	—	—	0.03	—	1.90	—	—	0.12	0.11	2.16
1543	—	—	—	—	—	—	1.80	—	—	0.08	0.05	1.93
1609	—	—	—	0.02	0.06	—	**	—	0.07	0.16	1.18	1.49
1646	—	—	—	0.02	0.07	—	**	—	0.07	0.12	1.24	1.52
1727	—	—	—	0.02	0.08	—	**	—	0.06	0.43	1.29	1.88
1813	—	—	—	0.02	0.08	—	**	—	0.07	0.29	1.40	1.86
1843	—	—	—	0.02	0.08	—	**	—	0.09	0.32	1.38	1.89
1915	—	—	—	0.02	0.08	—	**	—	0.06	0.48	1.48	2.12
1944	—	—	—	0.02	0.08	—	**	—	0.09	0.39	1.41	1.99
2017	—	—	—	—	0.08	—	**	—	0.10	0.28	1.40	1.86
2102	—	—	—	—	—	—	**	—	—	0.11	0.31	0.42
2132	—	—	—	—	—	—	2.20	—	—	—	0.04	2.24
2202	—	—	—	—	—	—	1.34	—	—	0.09	0.03	1.46
2241	—	—	—	0.02	0.08	—	**	—	0.07	0.14	1.42	1.73

TUNNEL MUCK/ SHAFT/ GROUNDWATER SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

SAMPLE TYPE TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN ^S *	TOTAL DETECTED
TM/1520	—	—	—	0.19	0.29	—	—	—	0.14	—	4.45	5.07
TM/2030	—	—	—	0.17	0.26	—	—	—	0.13	0.08	6.11	6.75

REMARKS/ VISITORS:

Tunnel muck dumped intermittently during swing shift.

No tunnel muck hauled from site during swing shift.

S. Parker visited GCF Safety office at 1600 hrs. and informed K. Peck (GCF) that 1.9 and 1.8 ppm of hydrogen sulfide were detected in tunnel air samples obtained at 1512 and 1543 hrs. respectively.

Peck reported that GCF safety personnel had detected 6 ppm of hydrogen sulfide while mining during day and swing shifts, and 10 ppm on 11 May 1990.

ABBREVIATIONS:

SAMPLE TYPE:

TM	TUNNEL MUCK
TS	TUNNEL SEEP
SM#	SHAFT SOIL OR MUCK FROM SITE 15, 27, OR 28

NOTES:

1. () UNIDENTIFIED CHROMATOGRAM PEAKS EXPRESSED IN TOLUENE EQUIVALENTS.
2. COMPOUNDS LESS THAN 10 PPB NOT REPORTED.
3. (**) INDICATES PRESENCE OF COMPOUND IN SAMPLE WHICH ELUTED IN GENERAL RANGE OF HYDROGEN SULFIDE STANDARD, BUT WAS NOT WITHIN TWO PERCENT OF THE ELUTION TIME.
COMPOUND CONCENTRATION REPORTED AS AN UNKNOWN.

SHIFT DATA TABLE

PROJECT: STATE ST. MT. HOPE AVE TUNNEL
 CLIENT: STV/ SEELYE STEVENSON VALUE & KNECHT
 H&A REPRESENTATIVE: P. Micciche
 CHECKED BY: S. Parker

TUNNEL HEADINGS AT
 START: 76 + 88
 END: 77 + 27
 ADVANCE: 39

FILE: 7433-82
 PAGE: 1 OF 2
 DATE: 14-15 May 1990
 SHIFT: Graveyard
 DFR NO.: 59

TUNNEL AIR SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN ^s	TOTAL DETECTED
2311	—	—	—	0.02	0.07	—	**	—	0.07	0.33	1.39	1.88
0032	—	—	—	0.01	0.04	—	**	—	0.07	0.33	1.13	1.58
0050	—	—	—	0.02	0.09	—	**	—	0.10	0.48	2.05	2.74
0108	—	—	—	—	0.02	—	**	—	0.04	0.20	0.70	0.96
0126	—	—	—	—	0.01	—	2.80	—	—	0.15	0.14	3.10
0150	—	—	—	—	—	—	2.39	—	—	0.11	0.19	2.69
0255	—	—	—	—	—	—	1.28	—	—	—	0.02	1.30
0314	—	—	—	0.02	0.08	—	**	—	0.07	0.44	1.46	2.07
0334	—	—	—	0.02	0.09	—	**	—	0.07	0.12	1.43	1.73
0354	—	—	—	0.01	0.04	—	2.97	—	0.03	0.28	0.68	4.01
0444	—	—	—	0.02	0.07	—	3.17	—	0.07	0.32	0.96	4.61
0522	—	—	—	0.03	0.10	—	**	—	0.11	0.46	1.98	2.68
0543	—	—	—	—	0.04	—	2.41	0.50	0.04	0.08	0.51	3.58
0649	—	—	—	—	0.24	—	2.29	0.03	0.05	0.26	0.08	2.95
0015aa	—	—	—	—	0.02	—	—	—	—	—	0.04	0.06

TUNNEL MUCK/ SHAFT/ GROUNDWATER SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

SAMPLE TYPE TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN ^s	TOTAL DETECTED
TM/2350	—	—	—	—	0.35	—	—	—	—	—	9.32	9.67
TM/0530	—	—	—	0.12	0.28	—	—	0.07	0.17	0.33	3.73	4.70

REMARKS/ VISITORS:

Tunnel muck dumped intermittently during graveyard shift.

No tunnel muck hauled from site during graveyard shift.

No visitors to trailer during graveyard shift.

ABBREVIATIONS:

SAMPLE TYPE:

TM	TUNNEL MUCK
TS	TUNNEL SEEP
SM#	SHAFT SOIL OR MUCK FROM SITE 15, 27, OR 28

- NOTES:
1. (*) UNIDENTIFIED CHROMATOGRAM PEAKS EXPRESSED IN TOLUENE EQUIVALENTS.
 2. COMPOUNDS LESS THAN 10 PPB NOT REPORTED.
 3. (aa) INDICATES AMBIENT AIR BLANK ANALYSIS.
 4. (**) INDICATES PRESENCE OF COMPOUND IN SAMPLE WHICH ELUTED IN GENERAL RANGE OF HYDROGEN SULFIDE STANDARD, BUT WAS NOT WITHIN TWO PERCENT OF THE ELUTION TIME.
COMPOUND CONCENTRATION REPORTED AS AN UNKNOWN.

DAILY FIELD REPORT

PROJECT:	STATE ST. - MT. HOPE TUNNEL	DATE:	15 May 1990
	Rochester, New York	PAGE:	1 of 2
CLIENT:	STV/Seelye Stevenson Value & Knecht	FILE:	7433-82
CONTRACTOR:	GCF Constructors		
WEATHER:	Partly cloudy 70°		

CONTRACTOR ACTIVITIES:

Mined TBM tunnel from Station 77+27 to Station 77+55 (day shift), from 77+55 to 77+91 (swing shift), and from 77+91 to 78+45 (graveyard shift).

Hauled tunnel muck intermittently during day shift. Dumped tunnel muck on the spoil pile adjacent to Control Structure 41 after 1100 hrs. during the day shift, and intermittently during the swing and graveyard shifts.

FIELD REPRESENTATIVE ACTIVITIES:

W. Lanik (H&A) performed routine air monitoring of the tunnel ventilation exhaust from 0706 to 1458 hrs. Conducted 14 tunnel exhaust air screenings using the Photovac 10s70 gas chromatograph.

Obtained two tunnel muck samples from the spoil pile and one sample of muck excavated from the 14-ft. diameter drop structure at Site 28, and performed headspace screening using the same instrument.

No samples were obtained from Sites 15 and 27 as no excavation was performed.

S. Parker (H&A) performed routine air monitoring of the tunnel ventilation exhaust from 1532 to 2250 hrs. Conducted 12 tunnel exhaust air screenings using the Photovac 10s70 gas chromatograph.

Obtained two tunnel muck samples from the spoil pile and performed headspace screening using the same instrument.

Discussed presence of hydrogen sulfide in the tunnel air with K. Peck (GCF) at 1530 hrs. Peck reported that a seam at approximately Station 70+90, dripping water near the tunnel air exhaust system, is the apparent source of the hydrogen sulfide. S. Parker suggested that GCF personnel collect an air bag sample for analysis by H&A if concentrations of hydrogen sulfide in the tunnel air exhaust approach the permissible exposure limit of 10 ppm. Peck agreed that this would be appropriate.

PROJECT:	STATE ST. - MT. HOPE TUNNEL	DATE: 15 May 1990
	Rochester, New York	PAGE: 2 of 2
CLIENT:	STV/Seelye Stevenson Value & Knecht	FILE: 7433-82

P. Micciche (H&A) performed routine air monitoring of the tunnel ventilation exhaust from 2320 to 0624 hrs. Conducted 15 tunnel exhaust air screenings using the Photovac 10s70 gas chromatograph.

Obtained two tunnel muck samples from the spoil pile and performed headspace screening using the same instrument.

TEST DATA SUMMARY:

None of the action threshold levels for the targeted compounds referenced in the 1 March 1990 workplan (benzene, toluene, 1,2-DCE, methylene chloride, and vinyl chloride) were exceeded during the monitoring periods.

Headspace screening data are summarized on the attached Shift Data Tables.

FIELD REPRESENTATIVE

TIME ON SITE

W. Lanik	0700-1500 (8.0 hrs.)
S. Parker	1500-2315 (8.25 hrs.)
P. Micciche	2315-0700 (7.75 hrs.)

DISTRIBUTION

STV/Seelye Stevenson: Mr. Richard Richter
Mr. Suki Suresh

MCDOE: Mr. Phil Steinfeldt


H&A OF NEW YORK

SHIFT DATA TABLE

PROJECT: STATE ST. MT. HOPE AVE TUNNEL
 CLIENT: STV/ SEELYE STEVENSON VALUE & KNECHT
 H&A REPRESENTATIVE: W. Lanik
 CHECKED BY: S. Parker

TUNNEL HEADINGS AT
 START: 77 + 27
 END: 77 + 55
 ADVANCE: 28

FILE: 7433-82
 PAGE: 1 OF 2
 DATE: 15 May 1990
 SHIFT: Day
 DFR NO.: 60

TUNNEL AIR SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN ^S *	TOTAL DETECTED
0706	—	—	—	—	0.02	—	1.37	—	0.04	0.18	0.02	1.63
0732	—	—	—	—	—	—	1.98	—	—	0.12	0.01	2.11
0800	—	—	—	—	—	—	2.08	—	—	0.11	0.02	2.21
0830	—	—	—	—	—	—	2.24	—	—	0.05	—	2.29
0936	—	—	—	—	—	—	1.86	0.02	—	0.10	—	1.98
1006	—	—	—	—	—	—	2.03	—	—	0.10	—	2.13
1036	—	—	—	0.02	0.07	—	**	—	0.08	—	1.64	1.81
1106	—	—	—	0.02	0.09	—	**	—	0.08	0.14	1.81	2.14
1136	—	—	—	0.02	0.09	—	**	—	0.08	0.23	1.76	2.18
1206	—	—	—	0.02	0.10	—	**	—	0.08	0.29	1.50	1.99
1236	—	—	—	—	0.02	—	2.33	—	0.03	0.13	0.15	2.66
1312	—	—	—	0.03	0.09	—	**	—	0.07	—	1.75	1.94
1406	—	—	—	—	0.06	—	**	—	0.02	0.17	0.47	0.72
1458	—	—	—	—	—	—	2.28	—	—	0.04	0.06	2.38
0922aa	—	—	—	—	0.03	—	—	—	—	—	0.02	0.05

TUNNEL MUCK/ SHAFT/ GROUNDWATER SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

SAMPLE TYPE TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN ^S *	TOTAL DETECTED
TM/1100	—	—	—	0.28	0.38	—	—	—	0.21	0.28	12.22	13.37
SM28/1220	—	—	—	—	—	—	—	—	—	0.08	2.10	2.18
TM/1315	—	—	—	0.18	0.26	—	—	—	0.16	0.35	5.32	6.27

REMARKS/ VISITORS:

Tunnel muck dumped intermittently after 1100 hrs. during day shift.

Tunnel muck hauled from site intermittently during day shift.

No visitors to trailer during day shift.

Collected sample of muck excavated from the 14-ft. diameter drop structure at Site 28 at 1220 hrs. Sample obtained from stockpile of excavated materials adjacent to the structure. Excavation advanced to approximately 25 ft. below ground surface at time of sampling.

No samples were obtained from Sites 15 and 27 as no excavation was performed.

ABBREVIATIONS:

SAMPLE TYPE:

TM	TUNNEL MUCK
TS	TUNNEL SEEP
SM#	SHAFT SOIL OR MUCK FROM SITE 15, 27, OR 28

NOTES:

1. (*) UNIDENTIFIED CHROMATOGRAM PEAKS EXPRESSED IN TOLUENE EQUIVALENTS.
2. COMPOUNDS LESS THAN 10 PPB NOT REPORTED.
3. (aa) INDICATES AMBIENT AIR BLANK ANALYSIS.
4. (**) INDICATES PRESENCE OF COMPOUND IN SAMPLE WHICH ELUTED IN GENERAL RANGE OF HYDROGEN SULFIDE STANDARD, BUT WAS NOT WITHIN TWO PERCENT OF THE ELUTION TIME. COMPOUND CONCENTRATION REPORTED AS AN UNKNOWN.

SHIFT DATA TABLE

PROJECT: STATE ST. MT. HOPE AVE TUNNEL
 CLIENT: STV/ SEELYE STEVENSON VALUE & KNECHT
 H&A REPRESENTATIVE: S. Parker
 CHECKED BY: S. Parker

TUNNEL HEADINGS AT
 START: 77 + 55
 END: 77 + 91
 ADVANCE: 36

FILE: 7433-82
 PAGE: 1 OF 2
 DATE: 15 May 1990
 SHIFT: Swing
 DFR NO.: 60

TUNNEL AIR SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN*	TOTAL DETECTED
1532	—	—	—	—	—	—	2.24	—	0.02	0.12	0.01	2.39
1600	—	—	—	—	—	—	1.35	—	—	0.08	0.01	1.44
1630	—	—	—	—	—	—	1.44	—	—	0.07	—	1.51
1700	—	—	—	0.02	0.10	—	**	—	0.08	0.25	1.97	2.42
1748	—	—	—	0.02	0.09	—	**	—	0.07	0.45	1.61	2.24
1842	—	—	—	0.03	0.10	—	**	—	0.09	0.37	1.81	2.40
1931	—	—	—	—	0.03	—	2.41	—	0.03	0.12	0.22	2.81
2010	—	—	—	—	0.05	—	2.89	—	—	0.17	0.25	3.36
2037	—	—	—	—	0.10	—	2.75	—	0.04	0.18	0.40	3.47
2107	—	—	—	—	0.02	—	2.25	—	—	0.07	0.06	2.40
2212	—	—	—	—	—	—	1.61	—	—	0.07	—	1.68
2250	—	—	—	—	0.03	—	1.45	—	0.03	0.20	0.06	1.77

TUNNEL MUCK/ SHAFT/ GROUNDWATER SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

SAMPLE TYPE TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN*	TOTAL DETECTED
TM/1700	—	—	—	0.15	0.26	—	—	—	0.16	0.11	5.66	6.34
TM/2020	—	—	—	0.27	0.40	—	—	—	0.21	0.08	11.45	12.41

REMARKS/ VISITORS:

Tunnel muck dumped intermittently after 1650 hrs. during swing shift.

No tunnel muck hauled from site during swing shift.

No visitors to trailer during swing shift.

S. Parker discussed presence of hydrogen sulfide in tunnel air with K. Peck (GCF) at 1530 hrs.

Peck reported that a seam at approximately Station 70+90, dripping water close to the tunnel

air exhaust system, is the apparent source of the hydrogen sulfide. S. Parker suggested that

GCF personnel collect an air bag sample for H&A analysis if concentrations of hydrogen sulfide in

the tunnel approach the permissible exposure limit of 10 ppm. Peck agreed that this would be appropriate.

ABBREVIATIONS:

SAMPLE TYPE:

TM	TUNNEL MUCK
TS	TUNNEL SEEP
SM#	SHAFT SOIL OR MUCK FROM SITE 15, 27, OR 28

NOTES:

1. (*) UNIDENTIFIED CHROMATOGRAM PEAKS EXPRESSED IN TOLUENE EQUIVALENTS.
2. COMPOUNDS LESS THAN 10 PPB NOT REPORTED.
3. (**) INDICATES PRESENCE OF COMPOUND IN SAMPLE WHICH ELUTED IN GENERAL RANGE OF HYDROGEN SULFIDE STANDARD, BUT WAS NOT WITHIN TWO PERCENT OF THE ELUTION TIME. COMPOUND CONCENTRATION REPORTED AS AN UNKNOWN.

SHIFT DATA TABLE

PROJECT: STATE ST. MT. HOPE AVE TUNNEL
 CLIENT: STV/ SEELYE STEVENSON VALUE & KNECHT
 H&A REPRESENTATIVE: P. Micciche
 CHECKED BY: S. Parker

TUNNEL HEADINGS AT
 START: 77 + 91
 END: 78 + 45
 ADVANCE: 54

FILE: 7433-82
 PAGE: 1 OF 2
 DATE: 15-16 May 1990
 SHIFT: Graveyard
 DFR NO.: 60

TUNNEL AIR SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN*	TOTAL DETECTED
2320	—	—	—	—	—	—	2.41	—	—	0.17	0.67	3.25
0031	—	—	—	—	—	—	1.25	0.02	0.03	0.14	0.01	1.45
0119	—	—	—	0.02	0.09	—	**	—	0.07	0.34	1.42	1.94
0135	—	—	—	0.02	0.08	0.04	—	—	0.09	0.35	1.04	1.58
0155	—	—	—	0.02	0.08	—	**	—	0.06	0.30	1.29	1.75
0218	—	—	—	0.02	0.09	—	**	—	0.08	0.20	2.03	2.42
0235	—	—	—	0.02	0.09	—	**	—	0.07	0.17	1.49	1.84
0255	—	—	—	0.03	0.09	—	**	—	0.08	0.36	1.98	2.54
0315	—	—	—	—	0.03	—	2.14	—	0.03	0.21	0.18	2.59
0358	—	—	—	—	0.03	0.03	—	—	0.03	0.18	0.13	0.37
0418	—	—	—	0.05	0.08	—	**	—	0.08	0.36	1.48	2.05
0500	—	—	—	—	0.07	0.03	—	—	0.02	0.17	0.25	0.51
0630	—	—	—	0.06	0.10	—	**	—	0.08	0.33	1.76	2.33
0600	—	—	—	0.06	0.11	—	**	—	0.09	0.34	2.24	2.84
0624	—	—	—	—	0.02	0.03	—	—	0.02	0.09	0.11	0.24
0014aa	—	—	—	—	0.06	—	—	—	—	—	0.06	0.12

TUNNEL MUCK/ SHAFT/ GROUNDWATER SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

SAMPLE TYPE TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	ETHYL BENZENE	M-XYLENE BENZENE	O-XYLENE	STYRENE	UNKNOWN*	TOTAL DETECTED
TM/0145	—	—	—	0.37	0.40	—	0.01	0.24	0.18	—	4.75	5.95
TM/0335	—	—	—	0.16	0.21	—	—	0.16	—	0.06	3.42	4.01

REMARKS/ VISITORS:

Tunnel muck dumped intermittently after 0130 hrs during graveyard shift.

No tunnel muck hauled from site during graveyard shift.

No visitors to trailer during graveyard shift.

ABBREVIATIONS:

SAMPLE TYPE:

TM	TUNNEL MUCK
TS	TUNNEL SEEP
SM#	SHAFT SOIL OR MUCK FROM SITE 15, 27, OR 28

NOTES:

1. (*) UNIDENTIFIED CHROMATOGRAM PEAKS EXPRESSED IN TOLUENE EQUIVALENTS.
2. COMPOUNDS LESS THAN 10 PPB NOT REPORTED.
3. (aa) INDICATES AMBIENT AIR BLANK ANALYSIS.
4. METHANE CONCENTRATIONS EXPRESSED IN PERCENT BY VOLUME. METHANE CONCENTRATION VALUES NOT INCLUDED IN TOTAL DETECTED COLUMN.
5. (**) INDICATES PRESENCE OF COMPOUND IN SAMPLE WHICH ELUTED IN GENERAL RANGE OF HYDROGEN SULFIDE STANDARD, BUT WAS NOT WITHIN TWO PERCENT OF THE ELUTION TIME. COMPOUND CONCENTRATION REPORTED AS AN UNKNOWN.

DAILY FIELD REPORT

PROJECT:	STATE ST. - MT. HOPE TUNNEL Rochester, New York	DATE: 16 May 1990
CLIENT:	STV/Seelye Stevenson Value & Knecht	PAGE: 1 of 2
CONTRACTOR:	GCF Constructors	FILE: 7433-82
WEATHER:	Cloudy, rain 60°	

CONTRACTOR ACTIVITIES:

Mined TBM tunnel from Station 78+45 to Station 78+78 (day shift), from 78+78 to 79+11 (swing shift), and from 79+11 to 79+35 (graveyard shift).

Hauled tunnel muck intermittently during the day shift. Dumped tunnel muck on the spoil pile adjacent to Control Structure 41 intermittently during the day and graveyard shifts, and after approximately 1900 hrs. during the swing shift.

FIELD REPRESENTATIVE ACTIVITIES:

W. Lanik (H&A) performed routine air monitoring of the tunnel ventilation exhaust from 0704 to 1454 hrs. Conducted 13 tunnel exhaust air screenings using the Photovac 10s70 gas chromatograph.

Obtained two tunnel muck samples from the spoil pile and one sample of muck excavated from the 14-ft. diameter drop structure at Site 28, and performed headspace screening using the same instrument.

No samples were obtained from Sites 15 and 27 as no excavation was performed.

S. Parker (H&A) performed routine air monitoring of the tunnel ventilation exhaust from 1544 to 2234 hrs. Conducted 13 tunnel exhaust air screenings using the Photovac 10s70 gas chromatograph.

Obtained two tunnel muck samples from the spoil pile and performed headspace screening using the same instrument.

P. Micciche (H&A) performed routine air monitoring of the tunnel ventilation exhaust from 2304 to 0625 hrs. Conducted 15 tunnel exhaust air screenings using the Photovac 10s70 gas chromatograph.

Obtained two tunnel muck samples from the spoil pile and performed headspace screening using the same instrument.

PROJECT: STATE ST. - MT. HOPE TUNNEL
Rochester, New York
CLIENT: STV/Seelye Stevenson Value &
Knecht

DATE: 16 May 1990
PAGE: 2 of 2
FILE: 7433-82

TEST DATA SUMMARY:

None of the action threshold levels for the targeted compounds referenced in the 1 March 1990 workplan (benzene, toluene, 1,2-DCE, methylene chloride, and vinyl chloride) were exceeded during the monitoring periods.

Headspace screening data are summarized on the attached Shift Data Tables.

FIELD REPRESENTATIVE**TIME ON SITE**

W. Lanik

0700-1500

(8.0 hrs.)

S. Parker

1500-2300

(8.0 hrs.)

P. Micciche

2300-0700

(8.0 hrs.)

DISTRIBUTION

STV/Seelye Stevenson: Mr. Richard Richter
Mr. Suki Suresh

MCDOE: Mr. Phil Steinfeldt


H&A OF NEW YORK

SHIFT DATA TABLE

PROJECT: STATE ST. MT. HOPE AVE TUNNEL
 CLIENT: STV/ SEELYE STEVENSON VALUE & KNECHT
 H&A REPRESENTATIVE: W. Lanik
 CHECKED BY: S. Parker

TUNNEL HEADINGS AT
 START: 78 + 45
 END: 78 + 78
 ADVANCE: 33

FILE: 7433-82
 PAGE: 1 OF 2
 DATE: 16 May 1990
 SHIFT: Day
 DFR NO.: 61

TUNNEL AIR SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN*	TOTAL DETECTED
0704	—	—	—	—	0.03	—	2.67	—	0.02	0.11	0.13	2.96
0857	—	—	—	—	0.09	—	**	0.02	0.05	0.42	1.17	1.75
0920	—	—	—	—	0.03	—	**	0.02	0.04	0.13	0.72	0.94
0950	—	—	—	—	0.04	—	**	—	0.05	0.16	0.67	0.92
1020	—	—	—	0.05	0.10	—	**	—	0.07	0.29	1.51	2.02
1050	—	—	—	0.05	0.08	—	**	—	0.06	0.31	1.33	1.83
1120	—	—	—	—	0.03	—	**	—	0.02	0.16	0.59	0.80
1150	—	—	—	—	0.02	—	2.99	—	0.02	0.11	0.09	3.23
1231	—	—	—	—	0.05	—	**	—	0.03	0.13	0.60	0.81
1307	—	—	—	—	0.02	—	**	—	0.02	0.17	0.74	0.95
1340	—	—	—	0.04	0.08	—	**	—	0.06	0.34	1.88	2.40
1422	—	—	—	—	0.02	—	**	—	—	0.09	0.60	0.71
1454	—	—	—	—	0.01	—	**	—	—	0.15	0.60	0.76
0803aa	—	—	—	—	0.03	—	—	—	—	—	0.03	0.06
0818cg	—	—	—	—	—	—	—	—	—	—	—	—
0835aa	—	—	—	—	0.03	—	—	—	—	—	0.06	0.09

TUNNEL MUCK/ SHAFT/ GROUNDWATER SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

SAMPLE TYPE TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN*	TOTAL DETECTED
TM/1000	—	—	—	0.33	0.50	—	—	—	0.25	—	5.15	6.23
SM28/1140	—	—	—	—	0.02	—	—	—	0.08	—	0.84	0.94
TM/1400	—	—	—	0.14	0.28	—	—	—	0.17	0.03	1.99	2.61

REMARKS/ VISITORS:

Tunnel muck dumped intermittently during day shift.

Tunnel muck hauled from site intermittently during day shift.

No visitors to trailer during day shift.

Collected sample of muck excavated from the 14-ft. diameter drop structure at Site 28 at 1140 hrs.

Sample obtained from stockpile adjacent to the structure. Excavation advanced to approximately 35 ft.

below ground surface at the time of sampling.

No samples were obtained from Sites 15 and 27 as no excavation was performed.

ABBREVIATIONS:

SAMPLE TYPE:

TM	TUNNEL MUCK
TS	TUNNEL SEEP
SM#	SHAFT SOIL OR MUCK FROM SITE 15, 27, OR 28

NOTES:

1. (*) UNIDENTIFIED CHROMATOGRAM PEAKS EXPRESSED IN TOLUENE EQUIVALENTS.
2. COMPOUNDS LESS THAN 10 PPB NOT REPORTED.
3. (cg) INDICATES CARRIER GAS BLANK ANALYSIS.
4. (aa) INDICATES AMBIENT AIR BLANK ANALYSIS.
5. (**) INDICATES PRESENCE OF COMPOUND IN SAMPLE WHICH ELUTED IN GENERAL RANGE OF HYDROGEN SULFIDE STANDARD, BUT WAS NOT WITHIN TWO PERCENT OF THE ELUTION TIME. COMPOUND CONCENTRATION REPORTED AS AN UNKNOWN.

SHIFT DATA TABLE

PROJECT: STATE ST. MT. HOPE AVE TUNNEL
 CLIENT: STV/ SEELYE STEVENSON VALUE & KNECHT
 H&A REPRESENTATIVE: S. Parker
 CHECKED BY: S. Parker

TUNNEL HEADINGS AT
 START: 78 + 78
 END: 79 + 11
 ADVANCE: 33

FILE: 7433-82
 PAGE: 1 OF 2
 DATE: 16 May 1990
 SHIFT: Swing
 DFR NO.: 61

TUNNEL AIR SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN ^s	TOTAL DETECTED
1544	—	—	—	—	0.02	—	**	—	0.03	0.10	0.75	0.90
1614	—	—	—	—	0.02	—	**	0.03	0.03	0.11	0.34	0.53
1844	—	—	—	—	—	—	**	—	—	0.08	0.36	0.44
1723	—	—	—	—	—	—	**	—	—	0.09	0.23	0.32
1752	—	—	—	—	—	—	**	—	—	0.08	0.02	0.10
1837	—	—	—	—	0.07	—	**	—	0.08	0.23	1.17	1.55
1820	—	—	—	0.02	0.09	—	**	—	0.08	0.27	1.52	1.98
1951	—	—	—	—	0.04	—	**	—	0.06	0.19	0.59	0.88
2021	—	—	—	0.05	0.09	—	**	—	0.09	0.29	2.03	2.55
2051	—	—	—	—	0.25	—	**	—	0.02	0.09	1.09	1.45
2134	—	—	—	—	0.03	—	2.73	—	0.03	0.11	0.04	2.94
2204	—	—	—	0.04	0.09	—	**	—	0.09	0.06	1.89	2.17
2234	—	—	—	—	0.02	—	2.63	—	0.03	0.11	0.04	2.83

TUNNEL MUCK/ SHAFT/ GROUNDWATER SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

SAMPLE TYPE TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN ^s	TOTAL DETECTED
TM/1630	—	—	—	0.24	0.37	—	—	—	0.19	—	9.84	10.64
TM/2040	—	—	—	0.25	0.39	—	—	—	0.22	—	8.26	9.12

REMARKS/ VISITORS:

Tunnel muck dumped intermittently after 1900 hrs during swing shift.

No tunnel muck hauled from site during swing shift.

No visitors to trailer during swing shift.

ABBREVIATIONS:

SAMPLE TYPE:

TM	TUNNEL MUCK
TS	TUNNEL SEEP
SM#	SHAFT SOIL OR MUCK FROM SITE 15, 27, OR 28

NOTES:

1. (*) UNIDENTIFIED CHROMATOGRAM PEAKS EXPRESSED IN TOLUENE EQUIVALENTS.
2. COMPOUNDS LESS THAN 10 PPB NOT REPORTED.
3. (**) INDICATES PRESENCE OF COMPOUND IN SAMPLE WHICH ELUTED IN GENERAL RANGE OF HYDROGEN SULFIDE STANDARD, BUT WAS NOT WITHIN TWO PERCENT OF THE ELUTION TIME. COMPOUND CONCENTRATION WAS REPORTED AS AN UNKNOWN.

SHIFT DATA TABLE

PROJECT: STATE ST. MT. HOPE AVE TUNNEL
 CLIENT: STV/ SEELYE STEVENSON VALUE & KNECHT
 H&A REPRESENTATIVE: P. Micciche
 CHECKED BY: S. Parker

TUNNEL HEADINGS AT
 START: 79 + 11
 END: 79 + 35
 ADVANCE: 24

FILE: 7433-82
 PAGE: 1 OF 2
 DATE: 16-17 May 1990
 SHIFT: Graveyard
 DFR NO.: 61

TUNNEL AIR SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN ^S	TOTAL DETECTED
2304	—	—	—	0.03	0.07	—	**	—	0.08	0.21	1.12	1.51
2335	—	—	—	—	0.02	—	1.28	—	0.02	0.07	0.04	1.43
0004	—	—	—	—	0.02	—	1.29	—	0.02	0.08	0.02	1.43
0058	—	—	—	—	0.03	—	2.22	0.04	0.05	0.28	0.01	2.63
0119	—	—	—	—	0.02	—	2.32	—	0.04	0.30	—	2.68
0202	—	—	—	—	0.01	—	2.11	—	—	0.25	0.02	2.39
0230	—	—	—	—	—	—	2.09	—	0.05	0.18	0.03	2.35
0309	—	—	—	—	—	—	1.94	—	0.04	0.18	—	2.16
0332	—	—	—	0.04	0.09	—	**	—	0.11	0.43	1.97	2.64
0402	—	—	—	0.04	0.09	—	**	—	0.09	0.51	1.52	2.25
0430	—	—	—	0.05	0.11	—	**	—	0.11	0.44	1.67	2.38
0500	—	—	—	—	0.02	—	**	—	0.04	0.28	0.64	0.98
0536	—	—	—	0.04	0.10	—	**	—	0.11	0.38	2.05	2.68
0602	—	—	—	—	0.03	—	**	—	0.04	0.25	0.79	1.11
0625	—	—	—	—	0.09	—	**	—	0.12	—	1.75	1.98

TUNNEL MUCK/ SHAFT/ GROUNDWATER SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

SAMPLE TYPE TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN ^S	TOTAL DETECTED
TM/0045	—	—	—	0.20	0.25	—	—	—	0.15	—	3.78	4.38
TM/0430	—	—	—	0.22	0.26	—	—	—	0.16	—	3.81	4.45

REMARKS/ VISITORS:

Tunnel muck dumped intermittently during graveyard shift.

No tunnel muck hauled from site during graveyard shift.

No visitors to trailer during graveyard shift.

ABBREVIATIONS:

SAMPLE TYPE:

TM	TUNNEL MUCK
TS	TUNNEL SEEP
SM#	SHAFT SOIL OR MUCK FROM SITE 15, 27, OR 28

- NOTES:
1. (*) UNIDENTIFIED CHROMATOGRAM PEAKS EXPRESSED IN TOLUENE EQUIVALENTS.
 2. COMPOUNDS LESS THAN 10 PPB NOT REPORTED.
 3. (**) INDICATES PRESENCE OF COMPOUND IN SAMPLE WHICH ELUTED IN GENERAL RANGE OF HYDROGEN SULFIDE STANDARD, BUT WAS NOT WITHIN TWO PERCENT OF THE ELUTION TIME. COMPOUND CONCENTRATION REPORTED AS AN UNKNOWN.

DAILY FIELD REPORT

PROJECT:	STATE ST. - MT. HOPE TUNNEL	DATE:	17 May 1990
	Rochester, New York	PAGE:	1 of 2
CLIENT:	STV/Seelye Stevenson Value & Knecht	FILE:	7433-82
CONTRACTOR:	GCF Constructors		
WEATHER:	Cloudy, rain 70°		

CONTRACTOR ACTIVITIES:

Mined TBM tunnel from Station 79+35 to Station 79+74 (day shift), from 79+74 to 80+13 (swing shift), and from 80+13 to 80+55 (graveyard shift).

Hauled tunnel muck intermittently during the day shift. Dumped tunnel muck on the spoil pile adjacent to Control Structure 41 intermittently during all three shifts.

FIELD REPRESENTATIVE ACTIVITIES:

W. Lanik (H&A) performed routine air monitoring of the tunnel ventilation exhaust from 0700 to 1437 hrs. Conducted 14 tunnel exhaust air screenings using the Photovac 10s70 gas chromatograph.

Obtained two tunnel muck samples from the spoil pile and one sample of muck excavated from the 14-ft. diameter drop structure at Site 28, and performed headspace screening using the same instrument.

No samples were obtained from Sites 15 and 27 as no excavation was performed during the day shift.

S. Parker (H&A) performed routine air monitoring of the tunnel ventilation exhaust from 1538 to 2246 hrs. Conducted 13 tunnel exhaust air screenings using the Photovac 10s70 gas chromatograph.

Obtained two tunnel muck samples from the spoil pile and performed headspace screening using the same instrument.

P. Micciche (H&A) performed routine air monitoring of the tunnel ventilation exhaust from 2304 to 0630 hrs. Conducted 16 tunnel exhaust air screenings using the Photovac 10s70 gas chromatograph.

Obtained two tunnel muck samples from the spoil pile and performed headspace screening using the same instrument.

PROJECT: STATE ST. - MT. HOPE TUNNEL
Rochester, New York
CLIENT: STV/Seelye Stevenson Value &
Knecht

DATE: 17 May 1990
PAGE: 2 of 2
FILE: 7433-82

TEST DATA SUMMARY:

None of the action threshold levels for the targeted compounds referenced in the 1 March 1990 workplan (benzene, toluene, 1,2-DCE, methylene chloride, and vinyl chloride) were exceeded during the monitoring periods.

Headspace screening data are summarized on the attached Shift Data Tables.

FIELD REPRESENTATIVE

W. Lanik
S. Parker
P. Micciche

TIME ON SITE

0700-1500
(8.0 hrs.)
1500-2300
(8.0 hrs.)
2300-0700
(8.0 hrs.)

DISTRIBUTION

STV/Seelye Stevenson: Mr. Richard Richter
Mr. Suki Suresh

MCDOE: Mr. Phil Steinfeldt


H&A OF NEW YORK

SHIFT DATA TABLE

PROJECT: STATE ST. MT. HOPE AVE TUNNEL
 CLIENT: STV/ SEELYE STEVENSON VALUE & KNECHT
 H&A REPRESENTATIVE: W. Lanik
 CHECKED BY: S. Parker

TUNNEL HEADINGS AT
 START: 79 + 35
 END: 79 + 74
 ADVANCE: 39

FILE: 7433-82
 PAGE: 1 OF 2
 DATE: 17 May 1990
 SHIFT: Day
 DFR NO.: 62

TUNNEL AIR SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN ^s	TOTAL DETECTED
0700	—	—	—	—	0.02	—	**	—	—	—	0.69	0.71
0730	—	—	—	0.04	0.09	—	**	—	0.10	0.41	1.83	2.47
0800	—	—	—	—	0.02	—	**	—	0.03	0.15	0.58	0.78
0830	—	—	—	0.05	0.10	—	**	—	0.11	0.38	1.51	2.15
0900	—	—	—	—	0.02	—	**	—	0.04	—	0.45	0.51
1020	—	—	—	—	0.03	—	**	—	0.13	0.50	0.38	1.02
1050	—	—	—	0.05	0.10	—	**	—	0.10	0.37	1.50	2.12
1120	—	—	—	—	0.03	—	**	—	0.04	0.11	0.61	0.79
1150	—	—	—	—	0.02	—	**	—	0.03	0.18	0.46	0.69
1224	—	—	—	—	0.03	—	2.79	—	0.03	0.22	0.10	3.17
1300	—	—	—	—	0.02	—	**	—	0.03	0.15	0.33	0.53
1332	—	—	—	0.04	0.08	—	**	—	0.09	0.38	1.35	1.94
1407	—	—	—	—	0.02	—	**	—	—	0.17	0.31	0.50
1437	—	—	—	—	0.02	—	1.15	—	—	0.12	0.02	1.31
0948aa	—	—	—	—	0.05	—	—	—	—	—	0.04	0.09
1451cg	—	—	—	—	—	—	—	—	—	—	—	—

TUNNEL MUCK/ SHAFT/ GROUNDWATER SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

SAMPLE TYPE TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN ^s	TOTAL DETECTED
TM/1030	—	—	—	0.32	0.45	—	—	—	0.25	0.10	6.22	7.34
SM28/1110	—	—	—	—	0.01	—	—	—	0.06	0.26	1.32	1.65
TM/1320	—	—	—	0.17	0.30	—	—	—	0.21	0.06	3.84	4.58

REMARKS/ VISITORS:

Tunnel muck dumped intermittently during day shift.

Tunnel muck hauled from site Intermittently during day shift.

Collected sample of muck excavated from the 14-ft. diameter drop structure at Site 28 at 1110 hrs.

Sample obtained from stockpile adjacent to the structure. Excavation advanced to approximately 38 ft.

below ground surface at the time of sampling.

No samples were obtained from Sites 15 or 27 as no excavation was performed during the day shift.

ABBREVIATIONS:

SAMPLE TYPE:

TM	TUNNEL MUCK
TS	TUNNEL SEEP
SM#	SHAFT SOIL OR MUCK FROM SITE 15, 27, OR 28

NOTES:

1. (*) UNIDENTIFIED CHROMATOGRAM PEAKS EXPRESSED IN TOLUENE EQUIVALENTS.
2. COMPOUNDS LESS THAN 10 PPB NOT REPORTED.
3. (cg) INDICATES CARRIER GAS BLANK ANALYSIS.
4. (aa) INDICATES AMBIENT AIR BLANK ANALYSIS.
5. (**) INDICATES PRESENCE OF COMPOUND IN SAMPLE WHICH ELUTED IN GENERAL RANGE OF HYDROGEN SULFIDE STANDARD, BUT WAS NOT WITHIN TWO PERCENT OF THE ELUTION TIME. COMPOUND CONCENTRATION REPORTED AS AN UNKNOWN.

SHIFT DATA TABLE

PROJECT: STATE ST. MT. HOPE AVE TUNNEL
 CLIENT: STV/ SEELYE STEVENSON VALUE & KNECHT
 H&A REPRESENTATIVE: S. Parker
 CHECKED BY: S. Parker

TUNNEL HEADINGS AT
 START: 79 + 74
 END: 80 + 13
 ADVANCE: 39

FILE: 7433-82
 PAGE: 1 OF 2
 DATE: 17 May 1990
 SHIFT: Swing
 DFR NO.: 62

TUNNEL AIR SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN ^s	TOTAL DETECTED
1538	—	—	—	0.01	0.06	—	2.60	—	0.06	0.23	0.11	3.07
1605	—	—	—	—	0.03	—	2.30	—	0.03	0.12	0.11	2.59
1649	—	—	—	0.04	0.09	—	**	—	0.09	0.26	1.56	2.04
1740	—	—	—	—	0.04	—	2.60	—	0.05	—	0.19	2.88
1823	—	—	—	0.04	0.07	—	**	—	0.09	0.27	1.53	2.00
1855	—	—	—	—	0.04	—	2.56	—	—	0.22	0.12	2.94
1925	—	—	—	0.05	0.08	—	**	—	—	0.40	1.60	2.13
1955	—	—	—	—	0.02	—	2.25	—	—	0.18	0.11	2.56
2025	—	—	—	0.04	0.08	—	**	—	—	—	1.52	1.64
2055	—	—	—	0.04	0.09	—	**	—	—	0.42	1.91	2.46
2116	—	—	—	—	0.02	—	2.46	—	—	—	0.13	2.61
2156	—	—	—	—	—	—	2.26	—	—	0.15	0.07	2.48
2246	—	—	—	—	0.02	—	2.28	—	—	—	0.12	2.42

TUNNEL MUCK/ SHAFT/ GROUNDWATER SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

SAMPLE TYPE	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN ^s	TOTAL DETECTED
TM/1525	—	—	—	0.18	0.26	—	—	—	0.20	—	3.82	4.46
TM/2135	—	—	—	0.33	0.58	—	—	—	0.36	—	12.13	13.40

REMARKS/ VISITORS:

Tunnel muck dumped intermittently during swing shift.

No tunnel muck hauled from site during swing shift.

ABBREVIATIONS:

SAMPLE TYPE:

TM	TUNNEL MUCK
TS	TUNNEL SEEP
SM#	SHAFT SOIL OR MUCK FROM SITE 15, 27, OR 28

NOTES:

1. (*) UNIDENTIFIED CHROMATOGRAM PEAKS EXPRESSED IN TOLUENE EQUIVALENTS.
2. COMPOUNDS LESS THAN 10 PPB NOT REPORTED.
3. (**) INDICATES PRESENCE OF COMPOUND IN SAMPLE WHICH ELUTED IN GENERAL RANGE OF HYDROGEN SULFIDE STANDARD, BUT WAS NOT WITHIN TWO PERCENT OF THE ELUTION TIME. COMPOUND CONCENTRATION REPORTED AS AN UNKNOWN.

SHIFT DATA TABLE

PROJECT: STATE ST. MT. HOPE AVE TUNNEL
 CLIENT: STV/ SEELYE STEVENSON VALUE & KNECHT
 H&A REPRESENTATIVE: P. Micciche
 CHECKED BY: S. Parker

TUNNEL HEADINGS AT
 START: 80 + 13
 END: 80 + 55
 ADVANCE: 42

FILE: 7433-82
 PAGE: 1 OF 2
 DATE: 17-18 May 1990
 SHIFT: Graveyard
 DFR NO.: 62

TUNNEL AIR SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN ^s	TOTAL DETECTED
2304	—	—	—	—	0.03	—	2.74	—	0.02	0.08	0.07	2.94
2330	—	—	—	—	0.08	—	**	—	—	0.39	1.92	2.39
0000	—	—	—	—	—	—	2.43	—	—	0.14	0.04	2.61
0030	—	—	—	—	—	—	2.63	—	—	0.18	0.04	2.85
0100	—	—	—	0.04	0.06	—	**	—	0.08	0.32	1.32	1.80
0130	—	—	—	0.05	0.09	—	**	—	0.07	0.31	1.61	2.13
0207	—	—	—	—	—	—	1.77	—	—	0.24	—	2.01
0233	—	—	—	0.05	0.09	—	**	—	0.08	0.33	1.52	2.07
0300	—	—	—	0.05	0.08	—	**	—	0.09	0.33	1.90	2.45
0330	—	—	—	—	0.02	—	2.53	—	—	0.17	0.08	2.80
0400	—	—	—	0.05	0.09	—	**	—	0.08	0.44	1.83	2.49
0437	—	—	—	—	—	—	2.65	—	—	0.23	0.05	2.93
0500	—	—	—	0.04	0.09	—	**	—	0.09	0.35	1.87	2.44
0530	—	—	—	0.05	0.08	—	**	—	0.09	0.35	1.99	2.56
0600	—	—	—	—	—	—	2.68	—	—	0.24	0.08	3.00
0630	—	—	—	—	0.03	—	**	—	—	0.28	0.67	0.98

TUNNEL MUCK/ SHAFT/ GROUNDWATER SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

SAMPLE TYPE TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN ^s	TOTAL DETECTED
TM/2345	—	—	—	0.22	0.32	—	—	—	0.19	—	4.28	5.01
TM/0240	—	—	—	0.22	0.28	—	—	—	0.17	0.13	5.82	6.62

REMARKS/ VISITORS:

Tunnel muck dumped intermittently during graveyard shift.

No tunnel muck hauled from site during graveyard shift.

No visitors to trailer during graveyard shift.

ABBREVIATIONS:

SAMPLE TYPE:

TM	TUNNEL MUCK
TS	TUNNEL SEEP
SM#	SHAFT SOIL OR MUCK FROM SITE 15, 27, OR 28

NOTES:

1. (") UNIDENTIFIED CHROMATOGRAM PEAKS EXPRESSED IN TOLUENE EQUIVALENTS.
2. COMPOUNDS LESS THAN 10 PPB NOT REPORTED.
3. (**) INDICATES PRESENCE OF COMPOUND IN SAMPLE WHICH ELUTED IN GENERAL RANGE OF HYDROGEN SULFIDE STANDARD, BUT WAS NOT WITHIN TWO PERCENT OF THE ELUTION TIME. COMPOUND CONCENTRATION WAS REPORTED AS AN UNKNOWN.

DAILY FIELD REPORT

PROJECT:	STATE ST. - MT. HOPE TUNNEL	DATE:	18 May 1990
	Rochester, New York	PAGE:	1 of 2
CLIENT:	STV/Seelye Stevenson Value &	FILE:	7433-82
	Knecht		
CONTRACTOR:	GCF Constructors		
WEATHER:	Rain 60°		

CONTRACTOR ACTIVITIES:

Mined TBM tunnel from Station 80+55 to Station 80+72 (day shift), from 80+72 to 81+23 (swing shift), and from 81+23 to 81+70 (graveyard shift).

Hauled tunnel muck intermittently during the day shift and until approximately 1700 hrs. during the swing shift. Dumped tunnel muck on the spoil pile adjacent to Control Structure 41 intermittently during all three shifts.

FIELD REPRESENTATIVE ACTIVITIES:

W. Lanik (H&A) performed routine air monitoring of the tunnel ventilation exhaust from 0700 to 1431 hrs. Conducted 15 tunnel exhaust air screenings using the Photovac 10s70 gas chromatograph.

Obtained two tunnel muck samples from the spoil pile and one sample of muck excavated from the 14-ft. diameter drop structure at Site 28, and performed headspace screening using the same instrument.

No samples were obtained from Sites 15 and 27 as no excavation was performed during the day shift.

Obtained routine weekly tunnel muck sample TM0930(0518) in accordance with the 1 March 1990 workplan, and delivered to General Testing Co. for analysis.

H. Thurston (H&A) performed routine air monitoring of the tunnel ventilation exhaust from 1504 to 2250 hrs. Conducted 15 tunnel exhaust air screenings using the Photovac 10s70 gas chromatograph.

Obtained two tunnel muck samples from the spoil pile and performed headspace screening using the same instrument.

P. Micciche (H&A) performed routine air monitoring of the tunnel ventilation exhaust from 2330 to 0630 hrs. Conducted 15 tunnel exhaust air screenings using the Photovac 10s70 gas chromatograph.

PROJECT: STATE ST. - MT. HOPE TUNNEL
Rochester, New York
CLIENT: STV/Seelye Stevenson Value &
Knecht

DATE: 18 May 1990
PAGE: 2 of 2
FILE: 7433-82

Obtained two tunnel muck samples from the spoil pile and performed headspace screening using the same instrument.

TEST DATA SUMMARY:

None of the action threshold levels for the targeted compounds referenced in the 1 March 1990 workplan (benzene, toluene, 1,2-DCE, methylene chloride, and vinyl chloride) were exceeded during the monitoring periods.

Headspace screening data are summarized on the attached Shift Data Tables.

FIELD REPRESENTATIVE

W. Lanik
H. Thurston
P. Micciche

TIME ON SITE

0700-1630
(9.5 hrs.)
1500-2315
(8.25 hrs.)
2300-0700
(8.0 hrs.)

DISTRIBUTION

STV/Seelye Stevenson: Mr. Richard Richter
Mr. Suki Suresh

MCDOE: Mr. Phil Steinfeldt


H&A OF NEW YORK

SHIFT DATA TABLE

PROJECT: STATE ST. MT. HOPE AVE TUNNEL
 CLIENT: STV/ SEELYE STEVENSON VALUE & KNECHT
 H&A REPRESENTATIVE: W. Lanik
 CHECKED BY: S. Parker

TUNNEL HEADINGS AT
 START: 80 + 55
 END: 80 + 77
 ADVANCE: 17

FILE: 7433-82
 PAGE: 1 OF 2
 DATE: 18 May 1990
 SHIFT: Day
 DFR NO.: 63

TUNNEL AIR SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN ^s	TOTAL DETECTED
0700	—	—	—	0.05	0.09	**	—	—	0.08	0.35	1.96	2.53
0730	—	—	—	—	—	2.53	—	—	—	0.19	0.07	2.79
0800	—	—	—	—	—	2.28	—	—	—	0.14	0.05	2.47
0830	—	—	—	0.05	0.08	**	—	—	0.07	0.33	1.87	2.40
0900	—	—	—	—	—	2.47	—	—	—	0.21	0.05	2.73
0930	—	—	—	—	—	2.18	—	—	—	0.15	0.04	2.37
1000	—	—	—	0.04	0.07	**	—	—	0.07	—	1.55	1.73
1030	—	—	—	0.04	0.08	**	—	—	0.07	0.29	1.36	1.84
1100	—	—	—	—	0.02	2.27	—	—	—	0.12	0.04	2.45
1140	—	—	—	—	—	1.95	—	—	—	0.13	0.04	2.12
1220	—	—	—	—	0.02	2.21	—	—	—	—	0.04	2.27
1255	—	—	—	—	—	1.86	—	—	—	—	0.03	1.89
1325	—	—	—	—	—	1.14	—	—	—	0.14	—	1.28
1400	—	—	—	—	—	1.41	—	—	—	0.14	—	1.55
1431	—	—	—	—	—	1.10	—	—	—	—	—	1.10

TUNNEL MUCK/ SHAFT/ GROUNDWATER SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

SAMPLE TYPE TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN ^s	TOTAL DETECTED
TM/0930	—	—	—	0.23	0.36	—	—	—	0.21	0.11	5.75	6.66
TM/1230	—	—	—	0.21	0.37	—	—	—	0.24	—	3.26	4.08
SM28/1330	—	—	—	0.02	0.01	—	—	—	0.03	0.15	0.49	0.70

REMARKS/ VISITORS:

Tunnel muck dumped intermittently during day shift.

Tunnel muck hauled from site intermittently during day shift.

No visitors to trailer during day shift.

Collected sample of muck excavated from the 14-ft. diameter drop structure at Site 28 at 1330 hrs.

Sample obtained from stockpile adjacent to the structure. Excavation advanced to approximately 40 ft.

below ground surface at the time of sampling.

No samples were obtained from Sites 15 or 27 as no excavation was performed during the day shift.

Obtained routine weekly tunnel muck sample TM 0930 (0518) and delivered to General Testing Co. for analysis.

ABBREVIATIONS:

SAMPLE TYPE:

TM	TUNNEL MUCK
TS	TUNNEL SEEP
SM#	SHAFT SOIL OR MUCK FROM SITE 15, 27, OR 28

NOTES:

1. (*) UNIDENTIFIED CHROMATOGRAM PEAKS EXPRESSED IN TOLUENE EQUIVALENTS.
2. COMPOUNDS LESS THAN 10 PPB NOT REPORTED.
3. (**) INDICATES PRESENCE OF COMPOUND IN SAMPLE WHICH ELUTED IN GENERAL RANGE OF HYDROGEN SULFIDE STANDARD, BUT WAS NOT WITHIN TWO PERCENT OF THE ELUTION TIME. COMPOUND CONCENTRATION REPORTED AS AN UNKNOWN.

SHIFT DATA TABLE

PROJECT: STATE ST. MT. HOPE AVE TUNNEL
 CLIENT: STV/ SEELYE STEVENSON VALUE & KNECHT
 H&A REPRESENTATIVE: W. Lanik/H. Thurston
 CHECKED BY: S. Parker

TUNNEL HEADINGS AT
 START: 80 + 72
 END: 81 + 23
 ADVANCE: 51

FILE: 7433-82
 PAGE: 1 OF 2
 DATE: 18 May 1990
 SHIFT: Swing
 DFR NO.: 63

TUNNEL AIR SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN ^s	TOTAL DETECTED
1504	—	—	—	—	—	—	1.24	—	—	0.17	—	1.41
1539	—	—	—	—	0.05	—	1.83	—	—	0.22	0.03	2.13
1615	—	—	—	0.04	0.08	—	**	—	0.09	0.38	1.66	2.25
1645	—	—	—	0.05	0.19	—	**	—	0.09	0.37	2.09	2.79
1736	—	—	—	—	0.14	—	**	—	—	0.47	1.73	2.34
1806	—	—	—	—	—	—	2.13	—	—	0.15	0.04	2.32
1842	—	—	—	—	—	—	1.24	—	—	0.15	—	1.39
1912	—	—	—	—	—	—	1.20	—	—	0.14	—	1.34
1932	—	—	—	—	—	—	1.17	—	—	—	—	1.17
2012	—	—	—	0.04	0.07	—	**	—	0.07	0.33	1.35	1.86
2042	—	—	—	0.04	0.07	—	**	—	0.07	0.34	1.44	1.96
2057	—	—	—	0.05	0.08	—	**	—	0.07	0.36	1.55	2.11
2146	—	—	—	0.05	0.08	—	**	—	0.07	0.33	1.96	2.49
2220	—	—	—	0.04	0.07	—	**	—	0.07	0.42	1.44	2.04
2250	—	—	—	0.05	0.07	—	**	—	0.08	0.55	2.01	2.76
1553aa	—	—	—	—	0.02	—	—	—	—	—	—	0.02

TUNNEL MUCK/ SHAFT/ GROUNDWATER SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

SAMPLE TYPE TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN ^s	TOTAL DETECTED
TM/1630	—	—	—	0.06	0.27	—	—	—	0.11	—	1.24	1.68
TM/2055	—	—	—	0.14	0.25	—	—	—	—	—	2.22	2.61

REMARKS/ VISITORS:

Tunnel muck dumped intermittently during swing shift.

Tunnel muck hauled from site intermittently until approximately 1700 hrs.during swing shift.

No visitors to trailer during swing shift.

ABBREVIATIONS:

SAMPLE TYPE:

TM	TUNNEL MUCK
TS	TUNNEL SEEP
SM#	SHAFT SOIL OR MUCK FROM SITE 15, 27, OR 28

- NOTES:
1. (*) UNIDENTIFIED CHROMATOGRAM PEAKS EXPRESSED IN TOLUENE EQUIVALENTS.
 2. COMPOUNDS LESS THAN 10 PPB NOT REPORTED.
 3. (aa) INDICATES AMBIENT AIR BLANK ANALYSIS.
 4. (**) INDICATES PRESENCE OF COMPOUND IN SAMPLE WHICH ELUTED IN GENERAL RANGE OF METHANE AND HYDROGEN SULFIDE STANDARD, BUT WAS NOT WITHIN TWO PERCENT OF THE ELUTION TIME.
COMPOUND CONCENTRATION REPORTED AS AN UNKNOWN.

SHIFT DATA TABLE

PROJECT: STATE ST. MT. HOPE AVE TUNNEL
 CLIENT: STV/ SEELYE STEVENSON VALUE & KNECHT
 H&A REPRESENTATIVE: P. Micciche
 CHECKED BY: S. Parker

TUNNEL HEADINGS AT
 START: 81 + 23
 END: 81 + 70
 ADVANCE: 47

FILE: 7433-82
 PAGE: 1 OF 2
 DATE: 18-19 May 1990
 SHIFT: Graveyard
 DFR NO.: 63

TUNNEL AIR SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN ^S *	TOTAL DETECTED
2330	—	—	—	—	0.04	—	2.90	—	0.06	0.37	0.39	3.76
0000	—	—	—	0.05	0.08	—	**	—	0.07	0.36	1.84	2.40
0030	—	—	—	—	—	—	2.33	—	—	0.17	0.08	2.58
0100	—	—	—	—	0.04	—	3.27	—	—	0.17	0.09	3.57
0130	—	—	—	0.06	0.10	—	**	—	0.10	0.53	2.07	2.86
0200	—	—	—	—	0.03	—	2.88	—	0.04	0.15	0.13	3.23
0230	—	—	—	0.05	0.10	—	**	—	0.08	—	1.90	2.13
0305	—	—	—	0.05	0.10	—	**	—	0.08	—	2.04	2.27
0330	—	—	—	0.05	0.10	—	**	—	0.07	0.41	2.04	2.87
0406	—	—	—	0.05	0.10	—	**	—	0.09	0.43	1.92	2.59
0430	—	—	—	—	—	—	2.16	—	—	0.14	0.08	2.38
0500	—	—	—	0.05	0.09	—	**	—	0.07	0.34	1.89	2.44
0530	—	—	—	—	0.03	—	2.35	—	—	0.17	0.17	2.72
0600	—	—	—	—	—	—	2.18	—	—	0.15	0.04	2.37
0630	—	—	—	—	—	—	2.20	—	—	0.14	0.04	2.38

TUNNEL MUCK/ SHAFT/ GROUNDWATER SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

SAMPLE TYPE TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN ^S *	TOTAL DETECTED
TM/0045	—	—	—	0.16	0.21	—	—	—	0.11	—	4.77	5.25
TM/0250	—	—	—	0.15	0.21	—	—	—	0.12	—	3.88	4.38

REMARKS/ VISITORS:

Tunnel muck dumped intermittently during graveyard shift.

No tunnel muck hauled from site during graveyard shift.

No visitors to trailer during graveyard shift.

ABBREVIATIONS:

SAMPLE TYPE:

TM	TUNNEL MUCK
TS	TUNNEL SEEP
SM#	SHAFT SOIL OR MUCK FROM SITE 15, 27, OR 28

- NOTES:
1. (*) UNIDENTIFIED CHROMATOGRAM PEAKS EXPRESSED IN TOLUENE EQUIVALENTS.
 2. COMPOUNDS LESS THAN 10 PPB NOT REPORTED.
 3. (**) INDICATES PRESENCE OF COMPOUND IN SAMPLE WHICH ELUTED IN GENERAL RANGE OF HYDROGEN SULFIDE STANDARD, BUT WAS NOT WITHIN TWO PERCENT OF THE ELUTION TIME. COMPOUND CONCENTRATION REPORTED AS AN UNKNOWN.