MEMORANDUM

TO: *Cindy Snyder* **DATE: June 11, 2009**

FROM: **C. Minch**

SUBJECT: **Keyspan - Patchogue**

Laboratory	Job Number	Sample Identification
Chemtech	A2736	SV-07

One air sample was collected on May 12, 2009 and shipped to Chemtech where the sample was analyzed for volatile organics by method TO-15. A screening data review was performed by a USEPA Region II certified data validator using applicable criteria specified in Standard Operating Procedure HW-31, Rev. 4, October 2006, and best professional judgement. Data qualifier definitions are as follows:

U The analyte was analyzed for, but not detected above the reported sample quantitation limit.

R The sample results are rejected (unusable) due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

Validation consisted of checking and verifying that the criteria listed below were within acceptable QC limits.

- Preservation and Holding Time
- Surrogate Recovery
- Blank Contamination
- Laboratory Control Samples (LCS)
- Instrument Tune
- Calibrations
- Internal Standards

Based upon this review, data are considered acceptable and valid with the following qualifications.

The following observations are noted:

1. Methyl-tert-butyl ether and 1,1-dichloroethane were qualified as estimated (J/UJ) in SV07 and SV07DL because both compounds were below the lower limit established by the laboratory in the associated LCS analysis.

2. Trans-1,2-dichloroethene and 1,2,4-trimethylbenzene were estimated (UJ) in SV07 and SV07DL because the samples were acquired within the same 12-hour analytical sequence as the initial calibration which exceeded %RSD criteria.

3. Sample SV07 was reanalyzed at a dilution to bring acetone within calibration range. Consequently, the value for acetone in the original analysis should be replaced with the result determined in the dilution.

MEMORANDUM

TO: Cindy Snyder **DATE: April 16, 2008**

FROM: C. Minch

SUBJECT: Keyspan Patchogue

The following cases of analytical data generated by Chemtech for the Keyspan Patchogue Project were validated by an EPA Region II certified validator utilizing applicable criteria specified in EPA Region II Standard Operating Procedures (SOP) HW-24, Rev. 1, June, 1999, HW-22, Rev. 2, HW-2, Rev. 13, September 2005, and best professional judgment.

Laboratory	Order ID	Sample Identification Numbers
Chemtech	Z1802	PAGWMW2D, PAGWMW2S, PAGWMW6, PAGWMW5, PAGWMW7, PAGWMW4S, PAGWMW4D, PATB030308, PAFB030308
	Z1846	PA-TB030408, PA-GWMW3, PAGWMW1

The analytical data were reviewed and evaluated based on the following parameters (as applicable):

- Holding Times
- Surrogates
- Blank Contamination
- Calibrations
- Matrix Spike
- Laboratory Control Sample/Blank Spike
- Internal Standards
- Laboratory Duplicate

Based upon this review, all data are considered acceptable and valid with the following qualifications.

1. **With the exception of analytes that were qualified as unusable for other criteria, all analytes in the samples indicated were qualified as estimated (J/UJ) because the analyses were performed out of holding time:**

   Volatiles
   PATB030408RE, PAGWMW3RE, PAGWMW1RE

2. **The following analyte(s) was qualified as indicated in the samples below because at least one surrogate failed recovery criteria.**
   Semivolatiles
   Qualified as unusable (R) due to surrogate %R < 10%:
   All acid compounds: PAGWMW4D

   Volatiles
   Qualified as estimated (J/UJ):
   Trichloroethene: PAGWMW3
   benzene, toluene, ethylbenzene, m/p-xylene, o-xylene, isopropylbenzene: PAGWMW5DL

   One surrogate exceeded recovery criteria in the volatile fraction of sample PAGWMW3RE. All positive results would have been estimated, but were qualified for other criteria. The semivolatile fraction of samples PAGWMW5DL, PAGWMW5DL2, PAGWMW7DL, and PAGWMW7DL2 also exhibited high recovery for one surrogate, but no action was required.

3. **The following analytes were qualified as indicated in the samples because the blank spike/LCS failed recovery criteria:**

   Qualified as unusable (R):
   Volatiles (%R low)
   bromoform, 1,2,4-trichlorobenzene: PATB030408RE, PAGWMW3RE, PAGWMW1RE

   dichlorodifluoromethane: PAGWMW2D, PAGWMW2S, PAGWMW6, PAGWMW5, PAGWMW7, PAGWMW4S, PAGWMW4D, PATB030308, PAFB030308, PAGWMW5DL, PAGWMW7DL

   Qualified as estimated (UJ):
   Semivolatiles:
   benzaldehyde, caprolactam, dimethylphthalate, N-nitrosodiphenylamine: PAGWMW2D, PAGWMW2S, PAGWMW6, PAGWMW5, PAGWMW7, PAGWMW5DL, PAGWMW7DL, PAGWMW5DL2, PAGWMW7DL2, PAGWMW4S, PAGWMW4D, PAFB030308, PA-GWMW3, PAGWMW1

4. **The following analytes were qualified as indicated in the samples below because the associated calibration exceeded criteria:**

Volatiles
Qualified as unusable (R) due to %D > 90%:
carbon tetrachloride: PATB030408, PAGWMW3, PAGWMW1

Qualified as estimated (UJ):
Volatiles
bromodichloromethane, dibromochloromethane, tetrachloroethene, bromoform: PATB030408, PAGWMW3, PAGWMW1

1,2-dichloroethane, tetrachloroethene: PAGWMW5DL, PAGWMW7DL

Semivolatiles
2,2-oxybis(1-chloropropane), 2,4-dinitrophenol, 4-nitrophenol: PAGWMW5DL, PAGWMW7DL, PAGWMW5DL2, PAGWMW7DL2

5. **The following compounds were qualified "U" due to contamination in the field blank:**

Semivolatiles:
acetophenone: PAGWMW6, PAGWMW5, PAGWMW7, PAGWMW5DL, PAGWMW7DL

6. **The following TICs were qualified "R" for the reasons indicated:**

The following TICs were qualified "R" due to similar contamination in the field blank:
Volatiles
RT 14.8: PAGWMW6, PAGWMW5, PAGWMW7, PAGWMW4S, PAGWMW4D

Volatile TIC was a semivolatile target compound:
RT 15.89: PAGWMW6, PAGWMW5, PAGWMW7

The following TICs were qualified "R" because they are common lab contaminants:
Semivolatiles
RT 3.68 – 3.69: PAGWMW2D, PAGWMW2S, PAGWMW6, PAGWMW5, PAGWMW4S, PAGWMW4D, PAGWMW3, PAGWMW1

7. **The following analytes were qualified as estimated in the samples indicated for failing spike recovery criteria.**
Spike analyses were not performed for the volatile fraction of Z1802 and Z1846. No action was taken.

The spike analyses performed on the semivolatile fraction of sample PAGWMW2D failed recovery criteria for 5 compounds. No action was required.

8. **The following analytes were qualified as indicated in the samples below due to low area response of the associated internal standard:**

Volatiles

Qualified as estimated (J/UJ):

Volatiles

IS#1 – dichlorodifluoromethane → 1,1,1-trichloroethane (except carbon tetrachloride – not associated):
PATB030408, PAGWMW3, PAGWMW1

Semivolatiles

IS#6 - benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, dibenz(ah)anthracene, benzo(ghi)perylene: PAGWMW5DL, PAGWMW7DL, PAGWMW5DL2, PAGWMW7DL2

The analytes associated with the following internal standard would have been estimated in the samples indicated due to low area response, but were qualified for other criteria:

Volatiles

IS#1 – dichlorodifluoromethane → 1,1,1-trichloroethane (except carbon tetrachloride – not associated): PATB030408RE, PAGWMW3RE, PAGWMW1RE

IS#2 – carbon tetrachloride, methyl cyclohexane → 1,2-dibromoethane: PAGWMW1RE

MEMORANDUM

TO: Cindy Snyder **DATE: September 10, 2008**

FROM: C. Minch

SUBJECT: Keyspan Patchogue

The following cases of analytical data generated by Chemtech for the Keyspan Patchogue Project were validated by an EPA Region II certified validator utilizing applicable criteria specified in EPA Region II Standard Operating Procedures (SOP) HW-24, Rev. 2, October, 2006, HW-22, Rev. 3, October, 2006, HW-2, Rev. 13, September 2005, and best professional judgment.

Laboratory	Order ID	Sample Identification Numbers
Chemtech	Z3603	PASB43-13-15, PASB43-23-25, PASB42-23-25
	Z3630	PASB41-6-8, PASB41-11-13, PASB44-7-9, PASB45-5-7, PASB39-4-9
	Z3645	PASB40-0-5, PASB40-15-17, PASB40-30-35, PASB42-0-0.2, PASB42-0-0.5, PASB43-0-0.2, PASB43-0-0.5, PASB46-6-8, PASB46-0-0.2, PASB46-0-0.5
	Z3666	PASW6, PASW5, PASW4, PASW3, PASW2, TB071108
	Z3667	PASV6, TB071108
	Z3688	TB071408, PAGWMW1, PAGWMW4S, PAGWMW4D, PASW1, PAGWMW3
	Z3754	PAGWMW2S, PAGWMW2D, PAGWMW5, PAGWMW6, TB071508
	Z3790	TB071808, PAGWMW4S, PAGWMW7S, PAGWMW7D, PAGWMW8S, PAGWMW8D, PAGWMW9S, PAGWMW19S, PAGWMW9D

The analytical data were reviewed and evaluated based on the following parameters (as applicable):

- Holding Times
- Surrogates
- Blank Contamination
- Calibrations
- Matrix Spike
- Laboratory Control Sample/Blank Spike
- Internal Standards
- Laboratory Duplicate

Based upon this review, all data are considered acceptable and valid with the following qualifications.

1. **The following analytes were qualified as indicated in the samples below because the analyses were performed out of holding time:**

   Cyanide
   Qualified as unusable (R): PAGWMW2SRE, PAGWMW2DRE, PAGWMW6RE
   Qualified as estimated (J): PAGWMW5RE

2. **The following analytes were qualified as estimated in the samples indicated because the blank spike/LCS failed recovery criteria:**

   Qualified as estimated (J/UJ):
   Volatiles:
   dichlorodifluoromethane: PAGWMW2S, PAGWMW2D, PAGWMW5, PAGWMW5DL, PAGWMW6, TB071508; TB071808, PAGWMW7S, PAGWMW7D, PAGWMW8S, PAGWMW8D, PAGWMW9S, PAGWMW19S, PAGWMW9D; PASW6, PASW5, PASW4, PASW3, PASW2, TB071108
   1,2,4-trichlorobenzene: TB071408, PAGWMW1, PAGWMW4S, PAGWMW4D, PASW1, PAGWMW3; PAGWMW2S, PAGWMW2D, PAGWMW5, PAGWMW5DL, PAGWMW6, TB071508; TB071808, PAGWMW7S, PAGWMW7D, PAGWMW8D, PAGWMW9S, PAGWMW19S, PAGWMW9D; PASW6, PASW5, PASW4, PASW3, PASW2, TB071108
   isopropylbenzene: PASW6, PASW5, PASW4, PASW3, PASW2, TB071108
   methyl-tert-butyl ether, 2-butanone, cis-1,2-dichloroethene, chloroform, 1,1,1-trichloroethane, 1,2-dichloroethane, bromodichloromethane, 4-methyl-2-pentanone, trans-1,3-dichloropropene, cis-1,3-dichloropropene, 1,1,2-trichloroethane, dibromochloromethane, 1,2-dibromoethane, bromoform: PASB45-5-7DL

   Semivolatiles:
   benzaldehyde, bis(2-chloroethyl)ether, 2,2-oxybis(1-chloropropane), hexachloroethane, N-nitroso-di-n-propylamine, nitrobenzene, isophorone, bis(2-chloroethoxy)methane, naphthalene, caprolactam, 2-chloronaphthalene, acenaphthylene, dimethylphthalate, acenaphthene, fluorene, diethylphthalate, 4-chlorophenyl-phenylether, N-nitrosodiphenylamine, 4-bromophenyl-phenylether, phenanthrene: PAGWMW2S, PAGWMW2D, PAGWMW5, PAGWMW5DL, PAGWMW5DL2, PAGWMW6; PAGWMW4S, PAGWMW7S, PAGWMW7D, PAGWMW8S, PAGWMW8D, PAGWMW9S, PAGWMW19S, PAGWMW9D
   2,4-dichlorophenol, 2-methylnaphthalene, hexachlorocyclopentadiene, 2,4,6-trichlorophenol, 4,6-dinitro-2-methylphenol: PAGWMW4S, PAGWMW7S, PAGWMW7D, PAGWMW8S, PAGWMW8D, PAGWMW9S, PAGWMW19S, PAGWMW9D

   benzaldehyde, 2,2-oxybis(1-chloropropane), N-nitroso-di-n-propylamine, nitrobenzene, caprolactam, 2-chloronaphthalene, acenaphthylene, dimethylphthalate, acenaphthene, fluorene, diethylphthalate, 4-chlorophenyl-phenylether, N-nitrosodiphenylamine, 4-bromophenyl-phenylether, phenanthrene, anthracene, di-n-butylphthalate: PAGWMW1, PAGWMW4D, PASW1, PAGWMW3

   benzaldehyde, caprolactam, acenaphthene, N-nitrosodiphenylamine, phenanthrene: PASW6, PASW5, PASW4, PASW3, PASW2, PASW2RE

   carbazole: PAGWMW5, PAGWMW5DL

3. **The following analytes were qualified as indicated in the samples below because the associated calibration failed criteria:**

Cyanide (%R < 70%):
PAGWMW2S, PAGWMW2D, PAGWMW5, PAGWMW6

Volatiles
Qualified as unusable (R); RRF < 0.050:
acetone: PASB43-13-15, PASB43-23-25, PASB42-23-25; PASB40-0-5, PASB40-15-17, PASB42-0-0.2, PASB42-0-0.5, PASB43-0-0.2, PASB43-0-0.5, PASB46-0-0.2, PASB46-0-0.5

Qualified as estimated (J/UJ):
methyl acetate: PASB43-13-15, PASB43-23-25, PASB42-23-25
acetone: PASB45-5-7; PASB40-30-35, PASB40-30-35RE, PASB46-6-8
dichlorodifluoromethane, carbon disulfide: PASB45-5-7DL, PASB41-6-8
carbon tetrachloride: PASB40-0-5, PASB40-15-17, PASB40-30-35, PASB40-30-35RE, PASB42-0-0.2, PASB42-0-0.5, PASB43-0-0.2, PASB43-0-0.5, PASB46-6-8, PASB46-0-0.2, PASB46-0-0.5

hexachloro-1,3-butadiene, 1,2,4-trichlorobenzene: PASV6, PASV6DL, TB071108

Semivolatiles
Qualified as estimated (J/UJ):
2,4-dinitrophenol: PAGWMW2S, PAGWMW2D, PAGWMW5, PAGWMW5DL, PAGWMW5DL2, PAGWMW6; PASB43-13-15, PASB43-23-25, PASB42-23-25; PASB41-11-13, PASB44-7-9, PASB39-4-9; PASB40-0-5, PASB40-15-17, PASB40-30-35, PASB42-0-0.2, PASB42-0-0.2DL, PASB42-0-0.5, PASB43-0-0.2, \ PASB43-0-0.5, PASB46-6-8, PASB46-0-0.2, PASB46-0-0.5 PASB46-0-0.5DL

4,6-dinitro-2-methylphenol: PAGWMW2S, PAGWMW2D, PAGWMW5, PAGWMW5DL, PAGWMW5DL2, PAGWMW6; PASB43-13-15, PASB43-23-25, PASB42-23-25; PASB40-0-5, PASB40-15-17, PASB40-30-35, PASB42-0-0.2, PASB42-0-0.2DL, PASB42-0-0.5, PASB43-0-0.2, PASB43-0-0.5, PASB46-6-8, PASB46-0-0.2, PASB46-0-0.5 PASB46-0-0.5DL

benzaldehyde: PASB41-11-13, PASB44-7-9, PASB39-4-9; PASB45-5-7; PASB42-0-0.2DL, PASB46-6-8, PASB46-0-0.2, PASB46-0-0.5DL
pentachlorophenol: PASB42-0-0.2DL, PASB46-6-8, PASB46-0-0.2, PASB46-0-0.5DL
hexachlorocyclopentadiene: PASW6

4. **The following TICs were qualified "R" for the reasons indicated:**
Semivolatiles

TIC was a volatile target compound:
RT 3.62: PAGWMW5
TIC was a semivolatile target compound:
RT 6.50: PAGWMW6

TIC was a common lab contaminant:
ACP: PASB43-13-15, PASB43-23-25, PASB42-23-25; PASB41-6-8, PASB41-11-13, PASB44-7-9, PASB39-4-9; PASB40-0-5, PASB40-15-17, PASB40-30-35, PASB42-0-0.2, PASB42-0-0.5, PASB43-0-0.2, PASB43-0-0.5, PASB46-6-8, PASB46-0-0.2, PASB46-0-0.5; PAGWMW2S, PAGWMW2D, PAGWMW6; PAGWMW1, PAGWMW4D, PASW1, PAGWMW3; PAGWMW4S, PAGWMW7S, PAGWMW7D, PAGWMW8S, PAGWMW8D, PAGWMW9S, PAGWMW19S, PAGWMW9D; PASW6, PASW5, PASW4, PASW3

TIC method blank contamination:
RT 11.35 - 11.36: PASB40-30-35, PASB42-0-0.5, PASB46-0-0.5

5. **The following analytes were qualified as indicated in the samples below due to because the area response of the associated internal standard was out of specified limits:**

Volatiles
Low response
Qualified as estimated (J/UJ):
IS#3 – tetrachloroethene → bromoform: PASB40-30-35
IS#4 - isopropylbenzene → 1,2,4-trichlorobenzene: PASB45-5-7; PASB40-30-35, PASB40-30-35RE

High response
Qualified as estimated (J):
tert-butyl alcohol, acetone, methylene chloride, 2-butanone, chloroform, tetrahydrofuran, 4-methyl-2-pentanone, toluene, tetrachloroethene, ethylbenzene, o-xylene, m/p-xylene, 1,3,5-trimethylbenzene, 1,2,4-trimethylbenzene, 4-ethyltoluene, 1,4-dichlorobenzene: PASV6DL

Semivolatiles
Qualified as unusable (R):
benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, dibenz(ah)anthracene, benzo(ghi)perylene: PASW2

Qualified as estimated (J/UJ):
IS#6 - benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, dibenz(ah)anthracene, benzo(ghi)perylene: PASW2RE

6. **Numerous volatile and semivolatile samples were reanalyzed at dilutions to bring target compounds within the linear range of the instrument calibration. As a result, the values flagged with "E" in the original analyses should be replaced with the sample result determined in the subsequent dilution.**

MEMORANDUM

TO: Cindy Snyder **DATE: March 28, 2008**

FROM: C. Minch

SUBJECT: Keyspan Patchogue

The following cases of analytical data generated by Chemtech for the Keyspan Patchogue Project were validated by an EPA Region II certified validator utilizing applicable criteria specified in EPA Region II Standard Operating Procedures (SOP) HW-24, Rev. 1, June, 1999, HW-22, Rev. 2, June 2001, HW-23, Rev. 0, May 1995, HW-23B, Rev. 1.0, May 2002, HW-2, Rev. 13, September 2005, and best professional judgment.

Laboratory	Order ID	Sample Identification Numbers
Chemtech	Z1234	SV1-013108, TB-013108
	Z1341	PASB-32-0-2, PASB-32-2-4, PASB-32-6-10, PASB-31-2-4, PASB-31-10-15, PASB-31-32-34, PASB-32-0-0.2, PASB-32-0-0.5, PASB-31-0-0.2, PASB-31-0-0.5, PASB-33-1-3, PSAB-33-6-10, PASB-33-0-0.2, PASB-33-0-0.5, PASB-19-2-4, PASB-19-6-10, PASB-20-8-10, PASB-20-11-13
	Z1355	PASB25-0-0.2, PASB25-0.0.5, PASB25-1-6, PASB-25-9-14, PASB25-18-20, PASB25-31-36, PASB27-4-6, PASB27-13-15, PASB27-15-20, PASB21-0-0.2, PASB21-0-0.5, PASB21-3-5, PASB21-11-13, PASB22-0-0.2, PASB22-0-0.5, PASB22-3-5, PASB22-11-13, PASB23-0-0.2, PASB23-0-0.5
	Z1356	PASB23-3-5, PASB23-12-15, PASB23-15-20
	Z1370	PASB-26-0-0.2, PASB-26-0-0.5, PASB-26-4-6, PASB-26-11-13, PASB-27-0-0.2, PASB-27-0-0.5, PASB-28-0-0.2, PASB-28-0-0.5, PASB-28-1-3, PASB-28-11-13, PASB-29-0-0.2, PASB-29-0-0.5, PASB-29-3-5, PASB-29-13-15, PASB-30-0-0.2, PASB-30-0-0.5, PASB-30-4-6, PASB-30-21-26, PASB-30-34-36, PASB-34-4-6
	Z1384	PASB24-5-10, PASB24-0-0.2, PASB24-10-15, PASB24-0-0.5, PASB16-5-10, PASB16-35-40
	Z1418	PASB-36-6-8, PASB-36-11-13, PASB-37-5-7, PASB-37-11-13, PASB-38-5-7, PASB-MW4D-5-10, PASB-MW2D-6-10, PASB-35-5-8, PASB-35-11-13
	Z1436	PASED8, PASED7, PASED4, PASED11, PASED3, PASED10
	Z1465	PASED2, PASED1, PASED5, PASED6, PASED9

The analytical data were reviewed and evaluated based on the following parameters (as applicable):

- Holding Times
- Surrogates
- Blank Contamination
- Calibrations
- Matrix Spike
- Laboratory Control Sample/Blank Spike
- Internal Standards
- Laboratory Duplicate
- Serial Dilution
- Identification

Based upon this review, all data are considered acceptable and valid with the following qualifications.

1. **All analytes, with the exception of those qualified as unusable for other criteria, were estimated in all fractions of the samples listed because the percent moisture exceeded 50%:**
   PASB31-0-0.2, PASB-32-0-0.2, PASB-33-0-0.2, PASB19-6-10, PASB23-0-0.2, PASB28-0-0.2, PASB28-0-0.5; PASED10
   Mercury was also qualified as estimated in PASB19-6-10.

2. **All analytes in the samples indicated were qualified as estimated (J/UJ) because the analyses were performed out of holding time:**

   Volatiles
   PASB26-4-6, PASB28-1-3, PASB29-3-5, PASB29-3-5RE, PASB30-4-6, PASB30-34-36, PASB23-3-5DL

3. **The following analytes were qualified as indicated in the samples below because at least one surrogate failed recovery criteria.**
   Volatiles
   Qualified as estimated (J/UJ):
   All analytes except isopropylbenzene -> 1,2,4-trichlorobenzene: PASB37-5-7, PASB38-5-7RE

   One surrogate exceeded recovery criteria in samples PASB29-3-5 and PASB29-3-5RE. All positive results would have been estimated, but were qualified for other criteria.

4. **The following analytes were qualified as indicated in the samples because the blank spike/LCS failed recovery criteria:**

   Qualified as unusable (R):
   Volatiles (%R low)
   1,2-dibromo-3-chloropropane: PASB-32-0-2, PASB-32-2-4, PASB-32-6-10, PASB-31-10-15, PASB-31-32-34, PASB-32-0-0.2, PASB-32-0-0.5, PASB-31-0-0.2, PASB-31-0-0.5, PASB-33-1-3, PASB-33-6-10, PASB-33-0-0.2, PASB-33-0-0.5, PASB-20-8-10, PASB-20-11-13

Semivolatiles (%R < 10%)
benzaldehyde: PASB-32-0-2, PASB-32-2-4, PASB-32-6-10, PASB-31-2-4, PASB-31-2-4DL, PASB-31-10-15, PASB-31-32-34, PASB-31-32-34DL, PASB-32-0-0.2, PASB-32-0-0.5, PASB-31-0-0.2, PASB-31-0-0.5, PASB-33-1-3, PASB-33-1-3DL, PASB-33-6-10, PASB-33-0-0.2, PASB-33-0-0.5, PASB-20-8-10, PASB-20-11-13, PASB23-3-5, PASB23-3-5DL, PASB23-12-15; PASB25-0-0.2, PASB25-0.0.5, PASB25-1-6, PASB25-1-6DL, PASB25-1-6DL2, PASB-25-9-14, PASB-25-9-14DL, PASB-25-9-14DL2, PASB25-18-20, PASB25-31-36, PASB25-31-36DL, PASB25-31-36DL2, PASB27-4-6, PASB27-4-6DL, PASB27-13-15, PASB21-0-0.2, PASB21-0-0.5, PASB21-3-5, PASB21-11-13, PASB22-0-0.2, PASB22-0-0.5, PASB22-3-5, PASB22-3-5DL, PASB22-3-5DL2, PASB22-11-13, PASB23-0-0.2, PASB23-0-0.5, PASB23-0-0.5DL; PASB24-5-10, PASB24-0-0.2, PASB24-0-0.5, PASB16-5-10, PASB16-35-40; PASB-36-6-8, PASB-36-6-8DL, PASB-36-6-8DL2, PASB-36-11-13, PASB-37-5-7, PASB37-5-7DL, PASB-37-11-13, PASB-38-5-7, PASB-MW4D-5-10, PASB-MW2D-6-10, PASB-35-5-8, PASB-35-11-13

Qualified as estimated (J/UJ):
Volatiles:
ethylbenzene: PASB25-1-6, PASB25-1-6DL, PASB25-31-36, PASB27-4-6, PASB25-9-14
m/p-xylenes, o-xylene: PASB25-1-6DL, PASB25-9-14
isopropylbenzene: PASB25-9-14

Semivolatiles:
atrazine, 2,4-dinitrotoluene, 4-chlorophenyl-phenyl ether, 4,6-dinitro-2-methylphenol: PASB23-3-5, PASB23-3-5DL, PASB23-12-15

bis(2-chloroethoxy)methane, 2-nitrophenol, 2,4-dimethylphenol, 4-chloro-3-methylphenol, 2-methylnaphthalene, 2,4,6-trichlorophenol, 2,4-dinitrotoluene, 4-chlorophenyl-phenylether, N-nitrosodiphenylamine, 4-bromophenyl-phenylether, hexachlorobenzene, atrazine, di-n-butylphthalate, benzo(a)anthracene: PASB26-0-0.2, PASB26-0-0.5, PASB26-4-6, PASB26-4-6DL, PASB26-11-13, PASB27-0-0.2, PASB27-0-0.5, PASB28-1-3, PASB28-11-13, PASB29-0-0.2, PASB29-0-0.5, PASB29-3-5, PASB29-13-15, PASB30-0-0.2, PASB30-0-0.5, PASB30-4-6, PASB30-4-6DL, PASB30-4-6DL2, PASB30-21-26, PASB30-34-36, PASB30-34-36DL, PASB30-34-36DL2, PASB34-4-6

5. **The following analytes were qualified as estimated (J/UJ) in the samples indicated because the associated calibration exceeded criteria:**

Volatiles
heptane, 1,4-dioxane, hexachloro-1,3-butadiene: TB-013108

heptane, cyclohexane, 1,4-dioxane, tetrahydrofuran, 2,2,4-trimethylpentane, benzene, 4-methyl-2-pentanone, 1,2-dichloropropane, 1,1,2,2-tetrachloroethane, 1,2,4-trichlorobenzene, hexachloro-1,3-butadiene: SV1-013108

dichlorodifluoromethane, chloroethane, methyl acetate, acetone, methylene chloride, 2-butanone, dibromochloromethane, bromoform, 1,2,4-trichlorobenzene: PASB-20-8-10, PASB-20-11-13

acetone, 2-butanone: PASB-32-0-2, PASB-32-2-4, PASB-32-6-10, PASB-31-10-15, PASB-31-32-34,

PASB-32-0-0.5, PASB-31-0-0.5, PASB-33-1-3, PASB-33-6-10, PASB-33-0-0.5

methyl acetate, acetone, 2-butanone: PASB-31-2-4; PASB26-0-0.2, PASB26-0-0.5, PASB26-11-13, PASB27-0-0.2, PASB27-0-0.5, PASB28-11-13, PASB29-0-0.2, PASB29-0-0.5, PASB30-0-0.2, PASB30-0-0.5, PASB30-21-26, PASB34-4-6; PASB22-0-0.2, PASB22-0-0.5, PASB23-0-0.5; PASB24-5-10, PASB24-0-0.2, PASB24-0-0.5, PASB16-5-10, PASB16-35-40

chloroethane: PASB26-0-0.5, PASB27-0-0.2, PASB27-0-0.5, PASB28-11-13, PASB29-0-0.2, PASB29-0-0.5, PASB30-0-0.2, PASB30-0-0.5, PASB34-4-6; PASB24-5-10, PASB24-0-0.2, PASB24-0-0.5, PASB16-5-10, PASB16-35-40

methylene chloride: PASB23-3-5; PASB21-0-0.2, PASB21-0-0.5; PASB37-5-7RE, PASB35-5-8

methyl acetate, acetone, cis-1,3-dichloropropene, dibromochloromethane, tetrachloroethene, bromoform: PASB23-3-5, PASB23-12-15; PASB25-0-0.2, PASB25-0-0.5, PASB25-18-20, PASB27-13-15, PASB21-0-0.2, PASB21-0-0.5, PASB21-3-5, PASB21-11-13, PASB22-11-13

methyl acetate: PASB25-1-6, PASB25-31-36

acetone, 2-butanone, trichloroethene, tetrachloroethene, bromoform, 1,4-dichlorobenzene: PASB25-1-6DL, PASB25-9-14

dichlorodifluoromethane, methyl-tert-butyl ether, methyl acetate, 2-butanone, trichloroethene, bromoform, 1,2-dichloropropane, cis-1,3-dichloropropene, trans-1,3-dichloropropene, dibromochloromethane: PASB36-6-8

chloroethane, methylene chloride, dibromochloromethane, 1,2,4-trichlorobenzene, acetone: PASB36-11-13, PASB-MW4D-5-10

chloroethane, acetone, methylene chloride, dibromochloromethane: PASB38-5-7

acetone: PASB35-5-8

Semivolatiles

hexachlorocyclopentadiene: PASB31-32-34DL PASB23-3-5DL; PASB26-0-0.2, PASB26-0-0.5, PASB26-4-6, PASB26-4-6DL, PASB26-11-13, PASB27-0-0.2, PASB27-0-0.5, PASB28-1-3, PASB28-11-13, PASB29-0-0.2, PASB29-0-0.5, PASB29-3-5, PASB29-13-15, PASB30-0-0.2, PASB30-0-0.5, PASB30-4-6, PASB30-4-6DL, PASB30-4-6DL2, PASB30-21-26, PASB30-34-36, PASB30-34-36DL, PASB30-34-36DL2, PASB34-4-6; PASB25-0-0.2, PASB25-0.0.5, PASB25-1-6, PASB25-1-6DL, PASB25-1-6DL2, PASB-25-9-14, PASB-25-9-14DL, PASB-25-9-14DL2, PASB25-18-20, PASB25-31-36, PASB25-31-36DL, PASB25-31-36DL2, PASB27-4-6, PASB27-4-6DL, PASB27-13-15, PASB21-0-0.2, PASB21-0-0.5, PASB21-3-5, PASB21-11-13, PASB22-0-0.2, PASB22-0-0.5, PASB22-3-5, PASB22-3-5DL, PASB22-3-5DL2, PASB22-11-13, PASB23-0-0.5, PASB23-0-0.5DL

2,4-dinitrophenol: PASB23-3-5DL; PASB25-31-36, PASB22-3-5; PASB-36-6-8, PASB-36-6-8DL,

PASB-36-6-8DL2, PASB-36-11-13, PASB-37-5-7, PASB37-5-7DL, PASB-37-11-13, PASB-38-5-7, PASB-MW4D-5-10, PASB-MW2D-6-10, PASB-35-5-8, PASB-35-11-13

indeno(1,2,3-cd)pyrene, benzo(ghi)perylene: PASED8, PASED4
indeno(1,2,3-cd)pyrene: PASED3, PASED7

Metals
CRQL standard %R low:
potassium, sodium: PASB16-5-10

6. **The following compounds were qualified "U" due to contamination in an associated blank:**
methylene chloride: SV1-013108

bis(2-ethylhexyl)phthalate: PASB-32-0-2, PASB-32-2-4, PASB-32-6-10, PASB-31-2-4, PASB-31-10-15, PASB-31-32-34, PASB-32-0-0.5, PASB-33-6-10, PASB-33-0-0.2, PASB-33-0-0.5

arsenic, beryllium, sodium: PASB16-5-10

7. **The following TICs were qualified "R" for the reasons indicated:**
Volatiles
TIC was a semivolatile target compound:
RT 11.08 - 11.09: PASB31-2-4, PASB-31-32-34

The following TICs were qualified "R" due to similar contamination in the associated method blank:
Semivolatiles
RT 2.75- 2.90: PASB23-3-5, PASB23-12-15; PASB32-0-2, PASB32-2-4, PASB32-6-10, PASB31-2-4, PASB31-10-15, PASB31-32-34, PASB32-0-0.2, PASB32-0-0.5, PASB31-0-0.5, PASB33-1-3, PASB33-6-10, PASB33-0-0.2, PASB33-0-0.5, PASB20-8-10, PASB20-11-13; PASB26-0-0.2, PASB26-0-0.5, PASB26-11-13, PASB27-0-0.2, PASB27-0-0.5, PASB28-0-0.2, PASB28-0-0.5, PASB28-1-3, PASB28-11-13, PASB29-0-0.2, PASB29-0-0.5, PASB29-3-5, PASB29-13-15, PASB30-0-0.2, PASB30-0-0.5, PASB30-21-26, PASB34-4-6; PASB25-0-0.2, PASB25-0-0.5, PASB25-18-20, PASB27-4-6, PASB27-13-15, PASB21-0-0.2, PASB21-0-0.5, PASB21-3-5, PASB21-11-13, PASB22-0-0.2, PASB22-0-0.5, PASB22-11-13, PASB23-0-0.2, PASB23-0-0.5

RT 2.52: PASB21-3-5

RT 4.22 – 4.23: PASB24-5-10, PASB24-0-0.2, PASB24-0-0.5, PASB16-5-10, PASB16-35-40

RT 20.62 – 20.63: PASB24-5-10, PASB24-0-0.2, PASB16-5-10

RT 22.90: PASB24-5-10, PASB24-0-0.5, PASB16-35-40

RT 3.09: PASB-36-11-13, PASB-37-11-13, PASB-38-5-7, PASB-MW4D-5-10, PASB-MW2D-6-10, PASB-35-5-8, PASB-35-11-13

8. **The following analytes were qualified as estimated in the samples indicated for failing spike recovery criteria.**
Qualified as estimated (J/UJ) due to low recovery:
Volatiles
trichlorofluoromethane, 1,1,2-trichlorotrifluoroethane, 1,1-dichloroethane, 1,2-dichloroethane: PASB30-21-26

chloroethane, trichlorofluoromethane, 1,1,2-trichlorotrifluoroethane, 1,2-dichloroethane: PASB27-4-6

trichlorofluoromethane, 1,1,2-trichlorotrifluoroethane, 1,1-dichloroethane, carbon tetrachloride, 1,2-dichloroethane, 1,2-dichloropropane, isopropylbenzene: PASB24-5-10

trichlorofluoromethane, 1,1,2-trichlorotrifluoroethane, 1,1-dichloroethene, benzene, 1,2-dichloroethane, methylcyclohexane, 1,2-dichloropropane, ethylbenzene: PASB-MW2D-6-10

Qualified as estimated (J) due to high recovery:
TOC: PASB23-3-5, PASB23-12-15

9. **The following analytes were qualified as indicated in the samples below due to low area response of the associated internal standard:**
Volatiles
Qualified as unusable (R):
IS#4 - isopropylbenzene → 1,2,4-trichlorobenzene: PASB37-5-7, PASB38-5-7RE
Qualified as estimated (J/UJ):
Volatiles
IS#3 – tetrachloroethene → bromoform: PASB37-5-7RE
IS#4 - isopropylbenzene → 1,2,4-trichlorobenzene: PASB37-5-7RE, PASB38-5-7

Semivolatiles
IS#6 - benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, dibenz(ah)anthracene, benzo(ghi)perylene: PASED3, PASED7

The analytes associated with the following internal standard would have been estimated in the samples indicated due to low area response, but were qualified for other criteria:
Volatiles
IS#1-3 – dichlorodifluoromethane → bromoform: PASB37-5-7
IS# 1-4 - all analytes: PASB23-0-0.2
IS#4 - isopropylbenzene → 1,2,4-trichlorobenzene: PASB28-0-0.2, PASB28-0-0.2RE, PASB23-0-0.2RE

10. **The following analytes exceeded the limits of laboratory precision between the MS and MSD and were qualified as estimated (J/UJ).**
Volatiles
bromomethane, methyl acetate, tetrachloroethene: PASB27-4-6

11. **The following analytes were estimated because the serial dilution analysis exceeded 10%:**
chromium, vanadium: PASB16-5-10