Summary Packet

Vertical Profile Boring 135

NWIRP Bethpage

Bethpage, New York

Naval Facilities Engineering Command
Mid-Atlantic

Contract No. N62470-08-D-1001
Contract Task Order WE62

November 2012

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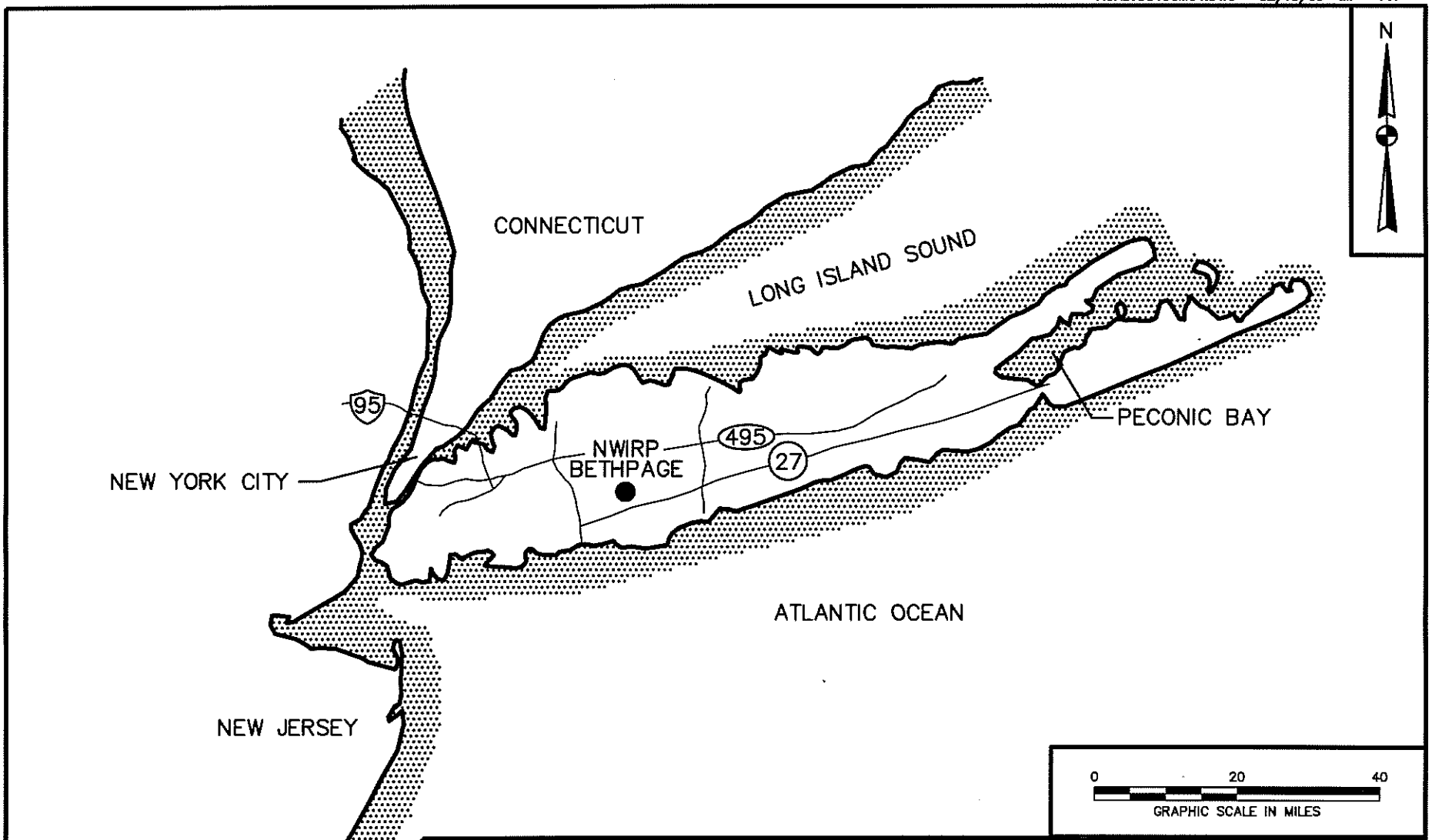
Section 1

Figures

ACAD: 9845CM04.DWG 02/15/06 MF PIT



DRAWN BY MF	DATE 12/9/05	Tetra Tech NUS, Inc.	GENERAL LOCATION MAP ESD NWIRP BETHPAGE BETHPAGE, NEW YORK
CHECKED BY	DATE		
REVISED BY	DATE		
SCALE AS NOTED			

CONTRACT NO. 9845	
OWNER NO. 0002	
APPROVED BY	DATE
DRAWING NO. FIGURE 1	REV. 0

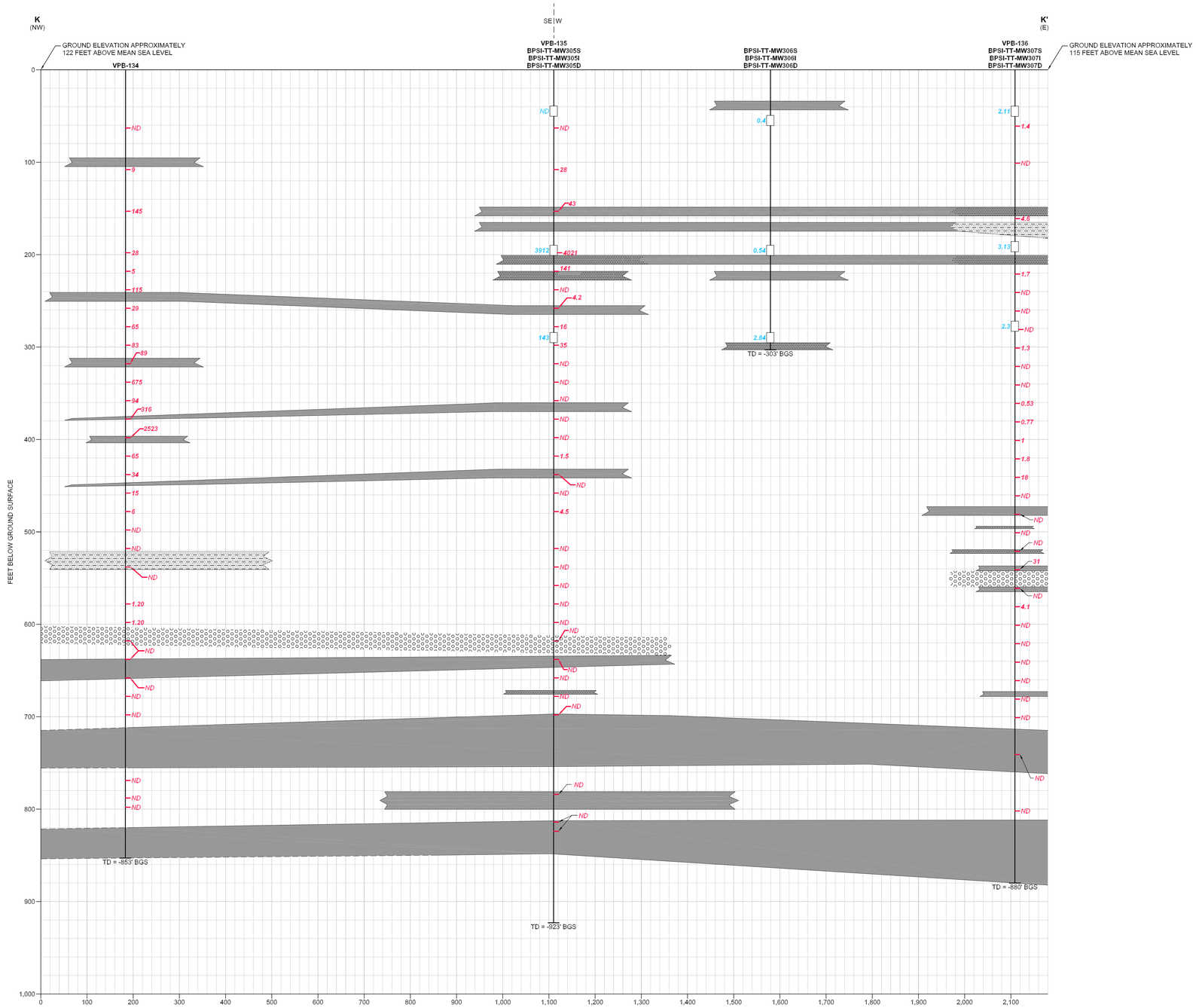
FORM CADD NO. TTNUS-AH.DWG - REV 1 -9/10/98

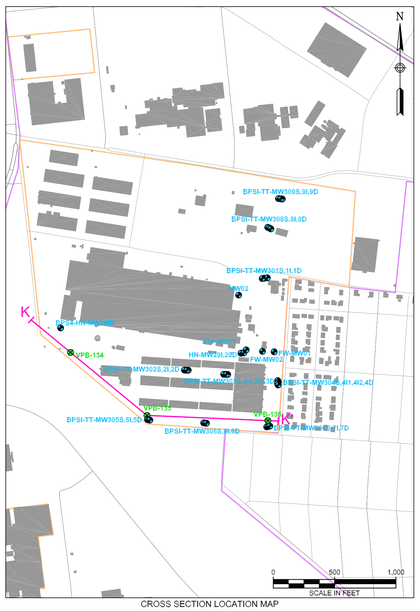
P:\GIS_files\Bethpage\MAP DOCS\MXD\Bethpage_Site1_pcb Bethpage_map_042412.mxd mmc 10022012

TETRA TECH

VPB-135
Cross Section and Location Map
Bethpage Groundwater Plume
NWIRP Bethpage
Bethpage,New York

FILE	SCALE AS NOTED
FIGURE NO. 2	REV / DATE 10/2/12





CROSS SECTION LOCATION MAP

LEGEND

- SAND AND GRAVEL
- F-M SAND WITH VARYING AMOUNTS OF SILT, CLAY, AND C. SAND

CONFINING UNITS

- INTERBEDDED CLAY AND SAND
- SANDY CLAY
- CLAY

µg/L MICROGRAMS PER LITER

ND NOT DETECTED

BPSI-TT-MW305S — MONITORING WELL ID

VPB-135 — VERTICAL PROFILE BORING

16 — GROUND SURFACE

VPB TVOC RESULT IN µg/L

CONFINING UNIT (DASHED WHERE INFERRED)

MONITORING WELL SCREEN

143 — JANUARY 2012 MW TVOC RESULT IN µg/L

TD = -853' BGS — TOTAL DEPTH FEET BELOW GROUND SURFACE (BGS)

NOTE: COMPOUNDS USED TO CALCULATE TOTAL VOCs IN MONITORING WELLS ARE DEFINED IN THE VALIDATED ANALYTICAL RESULTS TABLES FOR VPBs 134, 135, AND 136.

VERTICAL SCALE IN FEET — HORIZONTAL SCALE IN FEET

TETRA TECH

CROSS SECTION K – K'
ONSITE VERTICAL PROFILE BORING
NAVAL WEAPONS INDUSTRIAL
RESERVE PLANT
BETHPAGE, NEW YORK

FILE	SCALE
112G00622GS11	AS NOTED
FIGURE NUMBER	REV / DATE
K – K'	0 / 11/12/12

Section 2

VPB 135 Boring/Gamma Logs

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: BETHPAGE OU-2 OFFSITE GW
PROJECT NUMBER: 112G02751 / 112G02230
DRILLING COMPANY: DELTA WELL & PUMP
DRILLING RIG: MUD ROTARY

BORING No.: VPB-135
DATE: 6-26-12
GEOLOGIST: E. Watt / S. Conti
DRILLER: C. Twigg

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	0												
					Dense	Brn	Sand and gravel	GW, SW	Damp Some 1" sub round gravel				0
	10						Same						
	20						Same						0
	30						Less gravel						
					Dense	Brn	Fine to med. sand, trace ~~clay~~ gravel	SM SP GW	Moist to wet				
	40						Same						0
	50												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: Drive 8" Steel casing to ~56' on 6/26/12

Drilling Area Background (ppm): 0

Converted to Well: Yes _____ No x Well I.D. #: VPB-135

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: **BETHPAGE OU-2 OFFSITE GW**
PROJECT NUMBER: **112G02751 / 112G02230**
DRILLING COMPANY: **DELTA WELL & PUMP**
DRILLING RIG: **MUD ROTARY**

BORING No.: **VPB-135**
DATE: 7-12-12
GEOLOGIST: **E. Watt**
DRILLER: C. Twigg / B. Murphy

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	50												
						Brn	Fine to med. Sand,	SP/SM					
							trace gravel						
	60						SAME						0
S-1 0940	63								BP-VPB135-GW-63				
	70						SAME						
	80						SAME						0
	90						SAME						
	100					Brn	Fine to med. Sand						0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes _____ No x Well I.D. #: **VPB-135**

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: **BETHPAGE OU-2 OFFSITE GW**
PROJECT NUMBER: **112G02751 / 112G02230**
DRILLING COMPANY: **DELTA WELL & PUMP**
DRILLING RIG: **MUD ROTARY**

BORING No.: **VPB-135**
DATE: 7-12-12
GEOLOGIST: **E. Watt**
DRILLER: B. Murphy

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	100												
						Brn	Fine to med. sand						
S-2 1145	108								BP-VPB135-GW-108				
	110						SAME						0
	120						SAME						
	130						SAME						0
	140						SAME						
						Brn	Fine to med. sand,						
							trace clay						
	150												0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes _____ No x Well I.D. #: **VPB-135**

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: BETHPAGE OU-2 OFFSITE GW
PROJECT NUMBER: 112G02751 / 112G02230
DRILLING COMPANY: DELTA WELL & PUMP
DRILLING RIG: MUD ROTARY

BORING No.: VPB-135
DATE: 7-12-12 / 7-13-12
GEOLOGIST: E. Watt
DRILLER: B. Murphy

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		150												
							Brn	Fine to med. sand,						
								trace clay						
	5-3 1350	153								BP-VPB135-				
										GW-153				
		160						SAME						0
EW 7/12		170						SAME						
7-12		180						SAME						0
7-13														
		190						SAME						
	5-24 0925	198								BP-VPB135-				
		200						SAME		GW-198				0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks:

Converted to Well: Yes ____ No x Well I.D. #: VPB-135

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: BETHPAGE OU-2 OFFSITE GW
PROJECT NUMBER: 112G02751 / 112G02230
DRILLING COMPANY: DELTA WELL & PUMP
DRILLING RIG: MUD ROTARY

BORING No.: VPB-135
DATE: 7-13-12 / 7-16-12
GEOLOGIST: E. Watt
DRILLER: B. Murphy

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		200												
							Brn	Fine to med. sand,						
								trace clay						
		210												
	5-5 1110	218								BP-VPB135-				
		220						SAME		GW-218				0
7-13		230						SAME						
7-16														
	5-6 0945	238								BP-VPB 135-				
		240						SAME		GW-238				0
		250					Brn	Fine sand, tr clay						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No x Well I.D. #: VPB-135

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: **BETHPAGE OU-2 OFFSITE GW**
PROJECT NUMBER: **112G02751 / 112G02230**
DRILLING COMPANY: **DELTA WELL & PUMP**
DRILLING RIG: **MUD ROTARY**

BORING No.: **VPB-135**
DATE: 7-16-12, 7-17-12
GEOLOGIST: **E. Watt**
DRILLER: C. Strebel

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		250					Brn	Fine sand, tr clay						
	S-7 1145	258								BP-VPB135-				
		260								GW-258				0
		270						SAME						
	S-8 1405	278								BP-VPB 135-				
7-16		280						SAME		GW-278				0
7-17														
		290					Gray	Fine sand, silt/clay						
	S-9 1165	298								BP-VPB135-				
		300						SAME		GW-298				

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No x Well I.D. #: **VPB-135**

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: **BETHPAGE OU-2 OFFSITE GW**
PROJECT NUMBER: **112G02751 / 112G02230**
DRILLING COMPANY: **DELTA WELL & PUMP**
DRILLING RIG: **MUD ROTARY**

BORING No.: **VPB-135**
DATE: 7-17-12, 7-18-12
GEOLOGIST: **E. Watt**
DRILLER: C. Strebel

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	300					Grey	Fine sand, little						
							silt/clay						
	310						SAME						
5-10 1410	318								BP-VPB 135 -				
	320						SAME		GW - 318				0
	330						SAME						
7-17													
7-18 5-11 0920	338								BP-VPB135 -				
	340						SAME		GW-338				0
	350						SAME						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No x Well I.D. #: **VPB-135**

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: BETHPAGE OU-2 OFFSITE GW
PROJECT NUMBER: 112G02751 / 112G02230
DRILLING COMPANY: DELTA WELL & PUMP
DRILLING RIG: MUD ROTARY

BORING No.: VPB-135
DATE: 7-18-12, 7-19-12
GEOLOGIST: E. Watt
DRILLER: C. Strebel

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		350												
							Grey	Fine sand, little silt/						
								clay						
	5-12 1125	358								BP-VPB135-				
		360						SAME		GW-358				0
		370						SAME						
	5-13 1315	378								BP-VPB135-				
7-18		380						SAME		GW-378				0
7-19														
		390					Brn	SAME						
	5-14 1315									BP-VPB135-				
		400						SAME		GW-398				0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No x Well I.D. #: VPB-135

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: **BETHPAGE OU-2 OFFSITE GW**
PROJECT NUMBER: **112G02751 / 112G02230**
DRILLING COMPANY: **DELTA WELL & PUMP**
DRILLING RIG: **MUD ROTARY**

BORING No.: **VPB-135**
DATE: 7-19-12, 7-20-12, 7-23-12
GEOLOGIST: **E. Watt**
DRILLER: C. Strebel / B. Murphy

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		400												
							Brn	Fine sand, little						
								silt/clay						
		410						SAME						
collected 7-20 →	5-15 0930	418								BP-VPB135-				
7-19		420						SAME		GW-418				0
7-20														
		430						SAME						
										436-CLAY (Gamma Log)				
	5-16 1130	438								BP-VPB135-				
		440						SAME		GW-438				0
7-23														
		450						SAME						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes _____ No x Well I.D. #: **VPB-135**

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: **BETHPAGE OU-2 OFFSITE GW**
PROJECT NUMBER: **112G02751 / 112G02230**
DRILLING COMPANY: **DELTA WELL & PUMP**
DRILLING RIG: **MUD ROTARY**

BORING No.: **VPB-135**
DATE: 7-23-12
GEOLOGIST: **E. Watt**
DRILLER: B. Murphy

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	450					Brn	Fine Sand, trace						
							silt/clay						
5-17 1000	458								BP-VPB 135 -				
	460						SAME		GW-458				0
	470						SAME						
5-18 1150	478								BP-VPB135 -				
	480						SAME		GW-478				0
	490					Brn	Fine to med. sand,						
							trace small gravel						
									No Sample				
	500						SAME		Collected				0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes _____ No x Well I.D. #: **VPB-135**

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: BETHPAGE OU-2 OFFSITE GW
PROJECT NUMBER: 112G02751 / 112G02230
DRILLING COMPANY: DELTA WELL & PUMP
DRILLING RIG: MUD ROTARY

BORING No.: VPB-135
DATE: 7-24-12, 7-25-12
GEOLOGIST: E. Watt
DRILLER: B. Murphy

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		500												
							Brn	Fine to medium sand,						
								trace small gravel						
		510						SAME						
	S-19 100	518								BP-VPB135-				
		520						SAME		GW-518				0
		530						SAME						
	S-20 152a	538								BP-VPB135-				
7-24		540						SAME		GW-538				0
7-25														
		550						SAME						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: Split spoon sample collected 497'-498'. Light brown / light grey silty to fine sand. Some mica present. NO gravel

Converted to Well: Yes _____ No x Well I.D. #: VPB-135

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: **BETHPAGE OU-2 OFFSITE GW**
PROJECT NUMBER: **112G02751 / 112G02230**
DRILLING COMPANY: **DELTA WELL & PUMP**
DRILLING RIG: **MUD ROTARY**

BORING No.: **VPB-135**
DATE: 7-25-12, 7-26-12
GEOLOGIST: **E. Watt**
DRILLER: B. Murphy

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	550					Grey	Fine to medium sand,						
							trace small gravel						
S-21 1005	558								BP-VPB135-				
	560						SAME		GW-558				0
	570						SAME						
S-22 1410	578								BP-VPB135-				
7-25	580						SAME		GW-578				0
7-26													
	590					Grey	Fine sand, tr. clay						
S-23 0925	598								BP-VPB 135-				
	600						SAME		GW-598				0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No x Well I.D. #: **VPB-135**

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: BETHPAGE OU-2 OFFSITE GW
PROJECT NUMBER: 112G02751 / 112G02230
DRILLING COMPANY: DELTA WELL & PUMP
DRILLING RIG: MUD ROTARY

BORING No.: VPB-135
DATE: 7-26-12
GEOLOGIST: E. Watt
DRILLER: B. Murphy

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	600												
						Grey	Fine sand, tr. clay						
	610						Med. to coarse gravel,						
							little sand						
S-24 1445	618								BP-VPB135-				
	620						SAME		GW-618				0
	630						SAME						
S-25 1330	638								BP-VPB135-				
	640						SAME		GW-638				0
				642	Dense	Grey	Clay						
				649	Mod. dense	Grey	Clay, trace to						
							little silt						
	650												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks:

Converted to Well: Yes ____ No x Well I.D. #: VPB-135

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: **BETHPAGE OU-2 OFFSITE GW**
PROJECT NUMBER: **112G02751 / 112G02230**
DRILLING COMPANY: **DELTA WELL & PUMP**
DRILLING RIG: **MUD ROTARY**

BORING No.: **VPB-135**
DATE: 7-26-12, 7-27
GEOLOGIST: **E. Watt**
DRILLER: B. Murphy

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		650												
						Med. dense	Grey	Clay, trace to						
								little silt						
	S26 1535	656								BP-VPB135-				
7-26		660						SAME		GW-658				0
7-27														
		670						SAME						
	S27 1000	678				Dense				BP-VPB135-				
		680						SAME		GW-678				0
					681		Brown	Med. to coarse sand,						
								trace silt						
		690						SAME						
	S28 1218	698								BP-VPB135-				
		700						SAME		GW-698				0

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes _____ No x Well I.D. #: **VPB-135**

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: **BETHPAGE OU-2 OFFSITE GW**
PROJECT NUMBER: **112G02751 / 112G02230**
DRILLING COMPANY: **DELTA WELL & PUMP**
DRILLING RIG: **MUD ROTARY**

BORING No.: **VPB-135**
DATE: 7-30-12, 7-31, 8-1-12
GEOLOGIST: **E. Watt**
DRILLER: B. Murphy

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
		700												
						very dense	Grey	Clay						
		710						SAME						
										Split spoon at 718'				
		720						SAME						0
7-30		730						SAME						
					734			Lignite						
					738	very dense	Grey	Clay						
7-30		740												0
8-1														
		750						SAME						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: Split spoon collected at 718'. less than 3" recovery. Sample was dense, grey clay.

Converted to Well: Yes _____ No x Well I.D. #: **VPB-135**

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: BETHPAGE OU-2 OFFSITE GW
PROJECT NUMBER: 112G02751 / 112G02230
DRILLING COMPANY: DELTA WELL & PUMP
DRILLING RIG: MUD ROTARY

BORING No.: VPB-135
DATE: 8-1-12
GEOLOGIST: E. Watt
DRILLER: B. Murphy

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	750												
					Very Dense	Grey	Clay						
				753			Lignite						
				754	Dense	Grey	Clay						
	760												
				761		Black	Lignite						
				764		Grey	Fine sand, little clay						
	770												0
	780						SAME						
5-29 1135	784								BR-VPB 135 - GW - 784				
	790				mod. dense	Gr/Blk	Clay with lignite						0
				796		Grey	Fine sand, trace clay						
	800												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No x Well I.D. #: VPB-135

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: BETHPAGE OU-2 OFFSITE GW
PROJECT NUMBER: 112G02751 / 112G02230
DRILLING COMPANY: DELTA WELL & PUMP
DRILLING RIG: MUD ROTARY

BORING No.: VPB-135
DATE: 8-1-12, 8-2-12
GEOLOGIST: E. Watt
DRILLER: B. Murphy

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	800												
				801		Black	Lignite						
				804		Grey	Clay, trace fine						
							Sand						
	810												
5-30 1410	814								BR-VPB 135-				0
									GW-814				
	820			820									
5-31 1635	824			823		Blk/ grey	Clay w/ lignite		BR-VPB 135-				0
									GW-824				
				C									
	830			L									
				A									
				Y									
				838		Blk/ grey	Clay w/ lignite,						
	840						some fine sand						
8-1				842		red/ grey	Silt/clay						0
8-2									Split spoon				
									843'-844'				
	850			850			CLAY ENDS ~850		PER GAMMA LOG				

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: Split spoon collected 843'-844'. Dense, dry, red/grey clay with silt

Converted to Well: Yes _____ No x Well I.D. #: VPB-135

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: BETHPAGE OU-2 OFFSITE GW
PROJECT NUMBER: 112G02751 / 112G02230
DRILLING COMPANY: DELTA WELL & PUMP
DRILLING RIG: MUD ROTARY

BORING No.: VPB-135
DATE: ~~8-1-12~~, 8-2-12
GEOLOGIST: E. Watt
DRILLER: B. Murphy

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	850			850									
				MORE	Dense	Grey	Silty clay, with		Split Spoon				
							mica, trace fine		853'-854'				
				SAND			sand						
	860												
8-2				861		Grey/ red	Silt to silty sand,		split spoon*				
8/6	863 864				VERY		trace clay		863'-864'				
					DENSE	GRAY	SILTY SAND - TR	SM	MOIST				
							CLAY		LOGGED IN ON 8/3/12 AFTER				
	870								RETRIEVING THE SPOON FROM				
					VERY		SILTY SAND	SM	BORING.				
					DENSE		(CUTTINGS		CONTINUE W/O				
							& GAMMA) LOG		SAMPLING TO TD @ 923				
									963 → 903				
	880			880									
				SAND			SILTY SAND - TR						
							CLAY @		882±				
				CLAY									
	890												
							SAME - SANDY		892 → 894 CLAYEY				
							CLAY/CLAYEY SAND →		CUTTINGS				
	900												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks: Split spoons collected 853'-854' and 863'-864'
* Hammer & spoon fell off cable during retrieval. Drilling stopped at 863' on 8-2.

Converted to Well: Yes _____ No x _____ Well I.D. #: VPB-135

Tetra Tech, Inc.

BORING LOG

PROJECT NAME: **BETHPAGE OU-2 OFFSITE GW**
PROJECT NUMBER: **112G02751 / 112G02230**
DRILLING COMPANY: **DELTA WELL & PUMP**
DRILLING RIG: **MUD ROTARY**
BORING No.: **VPB-135**
DATE: 8/7/12
GEOLOGIST: **E. Watt** / CONTI
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	900												
					DENSE	GRAY	CLAYEY SAND	SC/SM	MOIST → WET				0
8/7													
	910												
							SAME – TR CLAY		CUTTINGS				
	920												
													0
				923 TD									
	930												

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: BOTM @ 923
BOTM GAMMA ~920.

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No x Well I.D. #: **VPB-135**

Company: DELTA WELL & PUMP CO., INC.

Location: NWNW BETHPAGE

Depth Driller

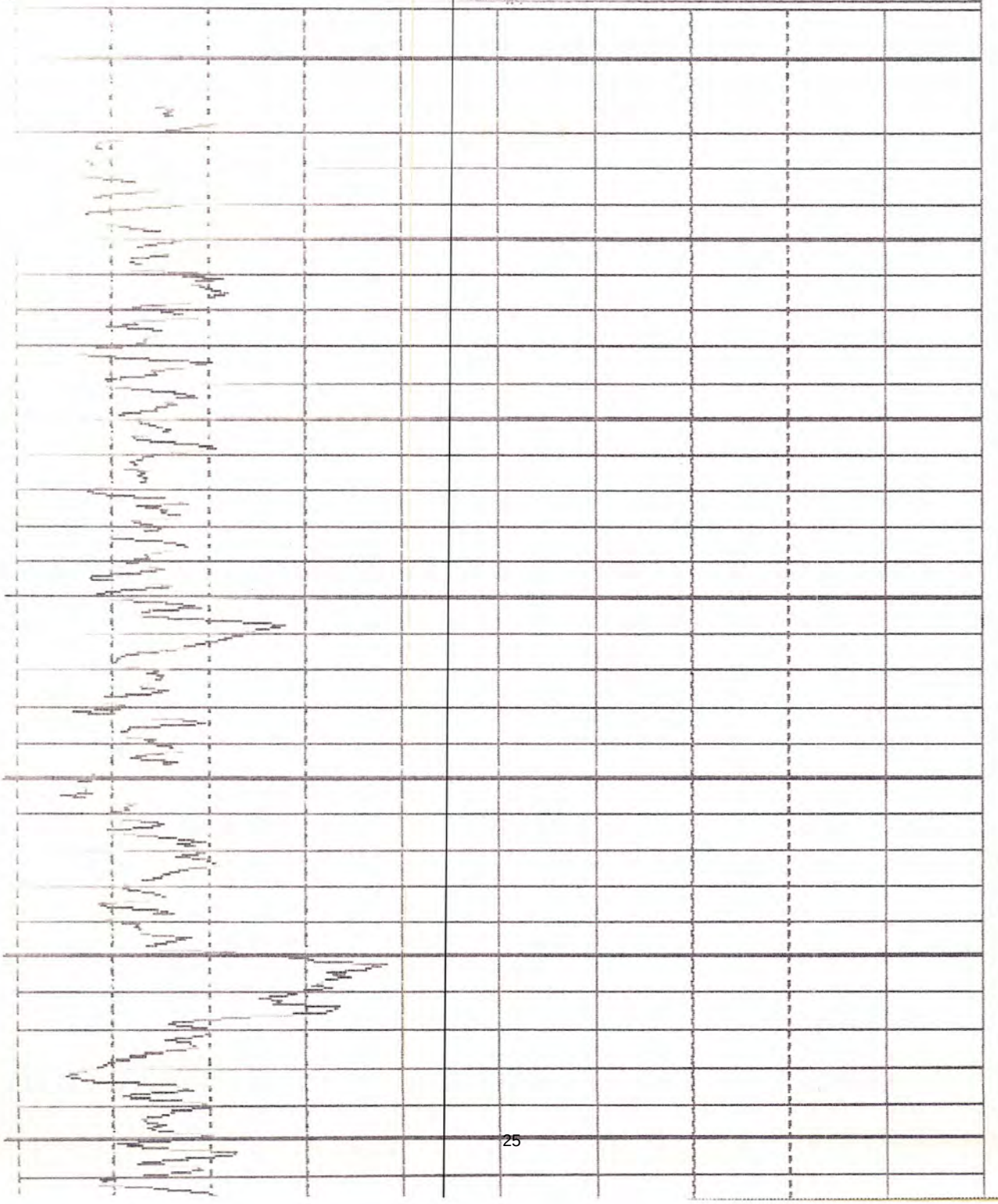
Depth Logger

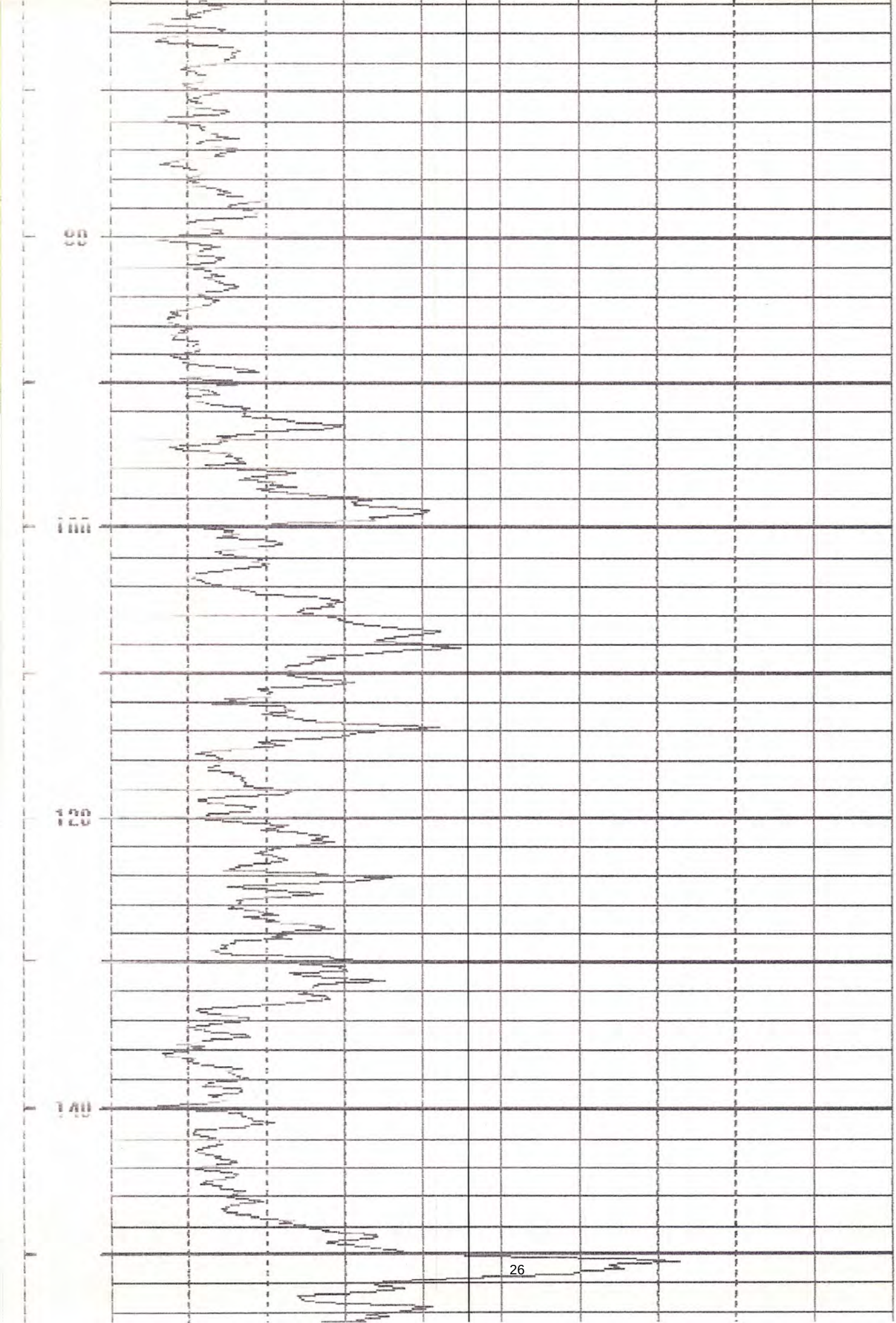
Logged by: CWC

Witness: STAN

Casing

Gamma (cps)

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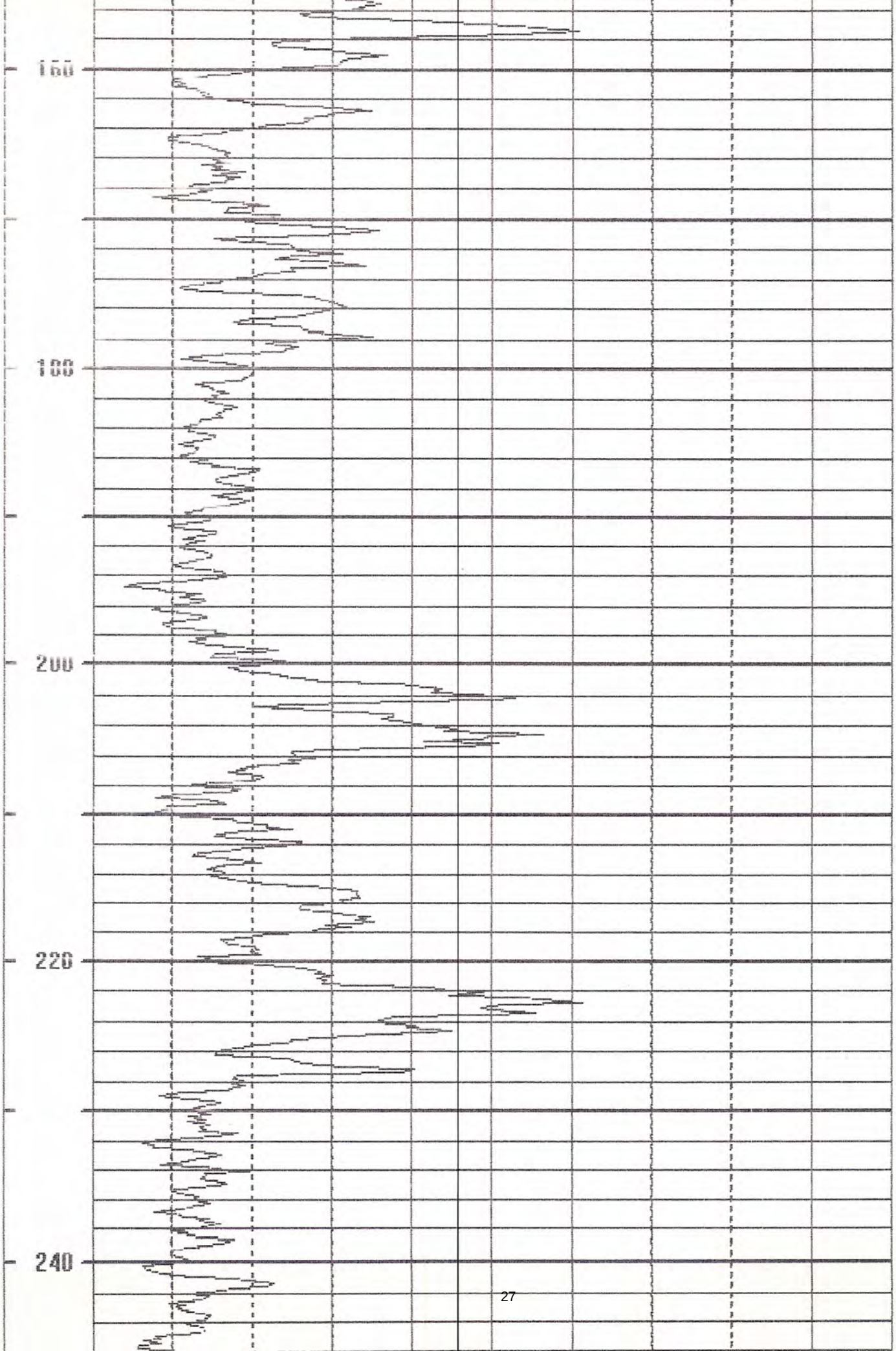
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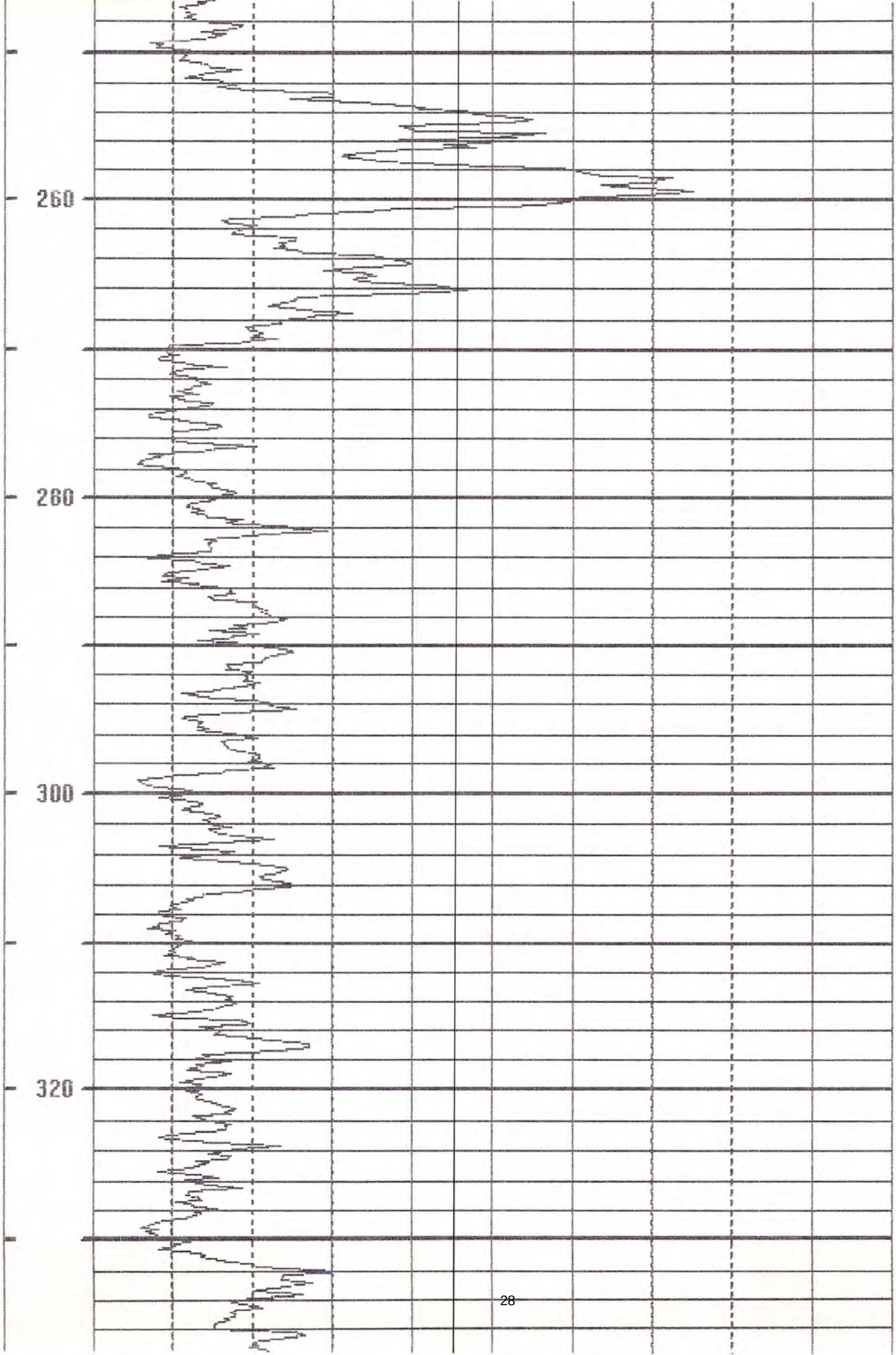
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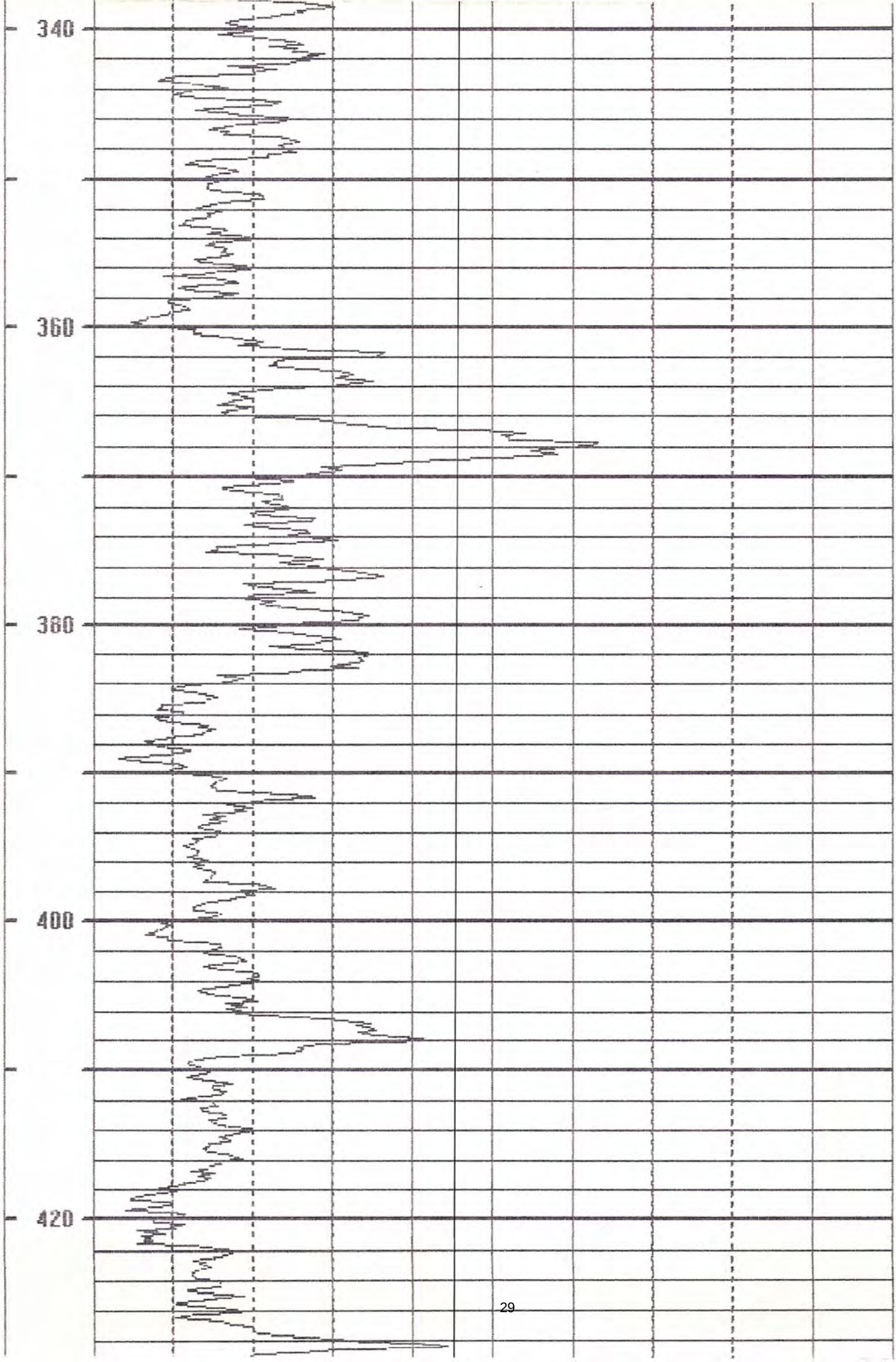
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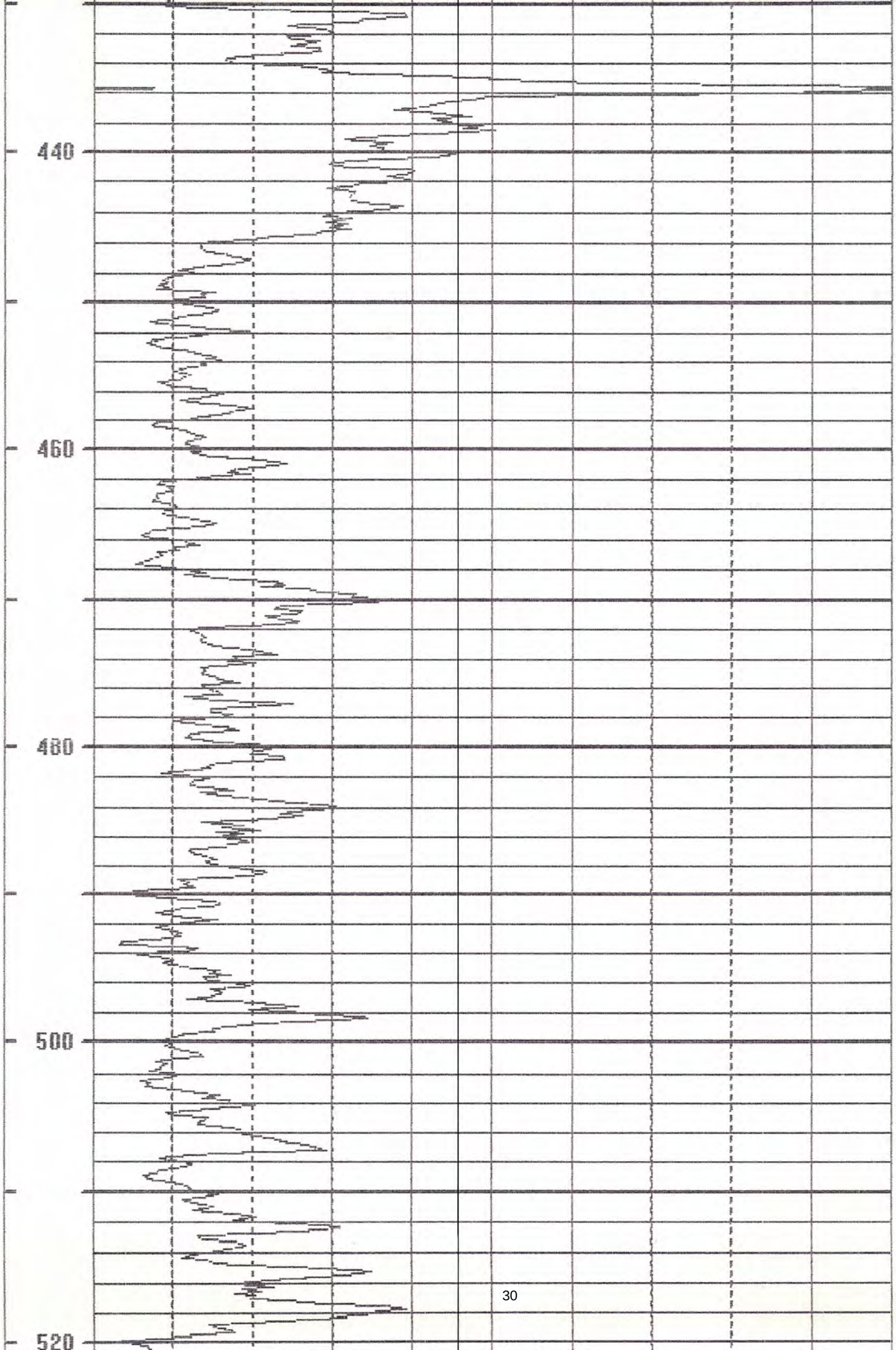
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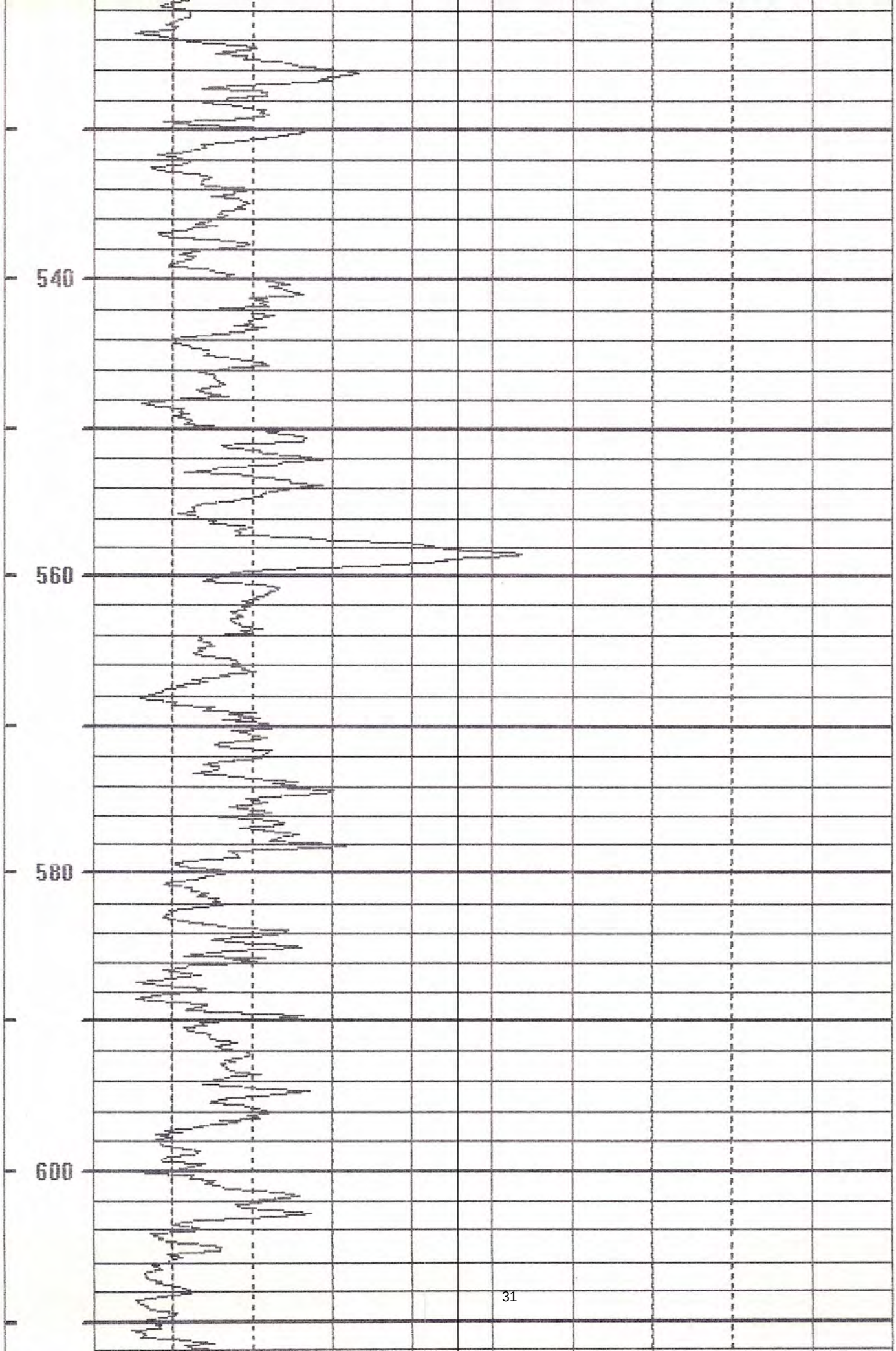
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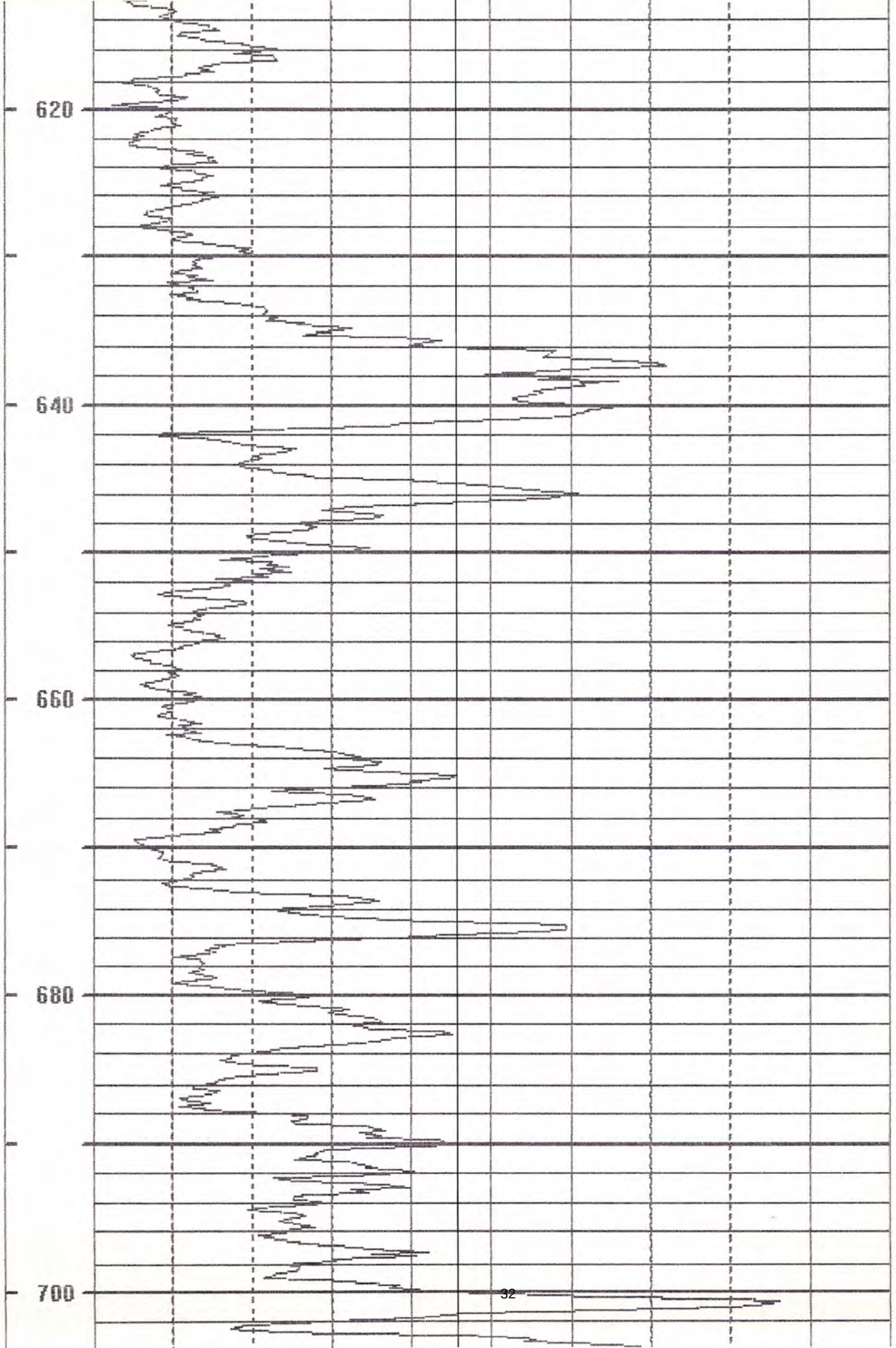
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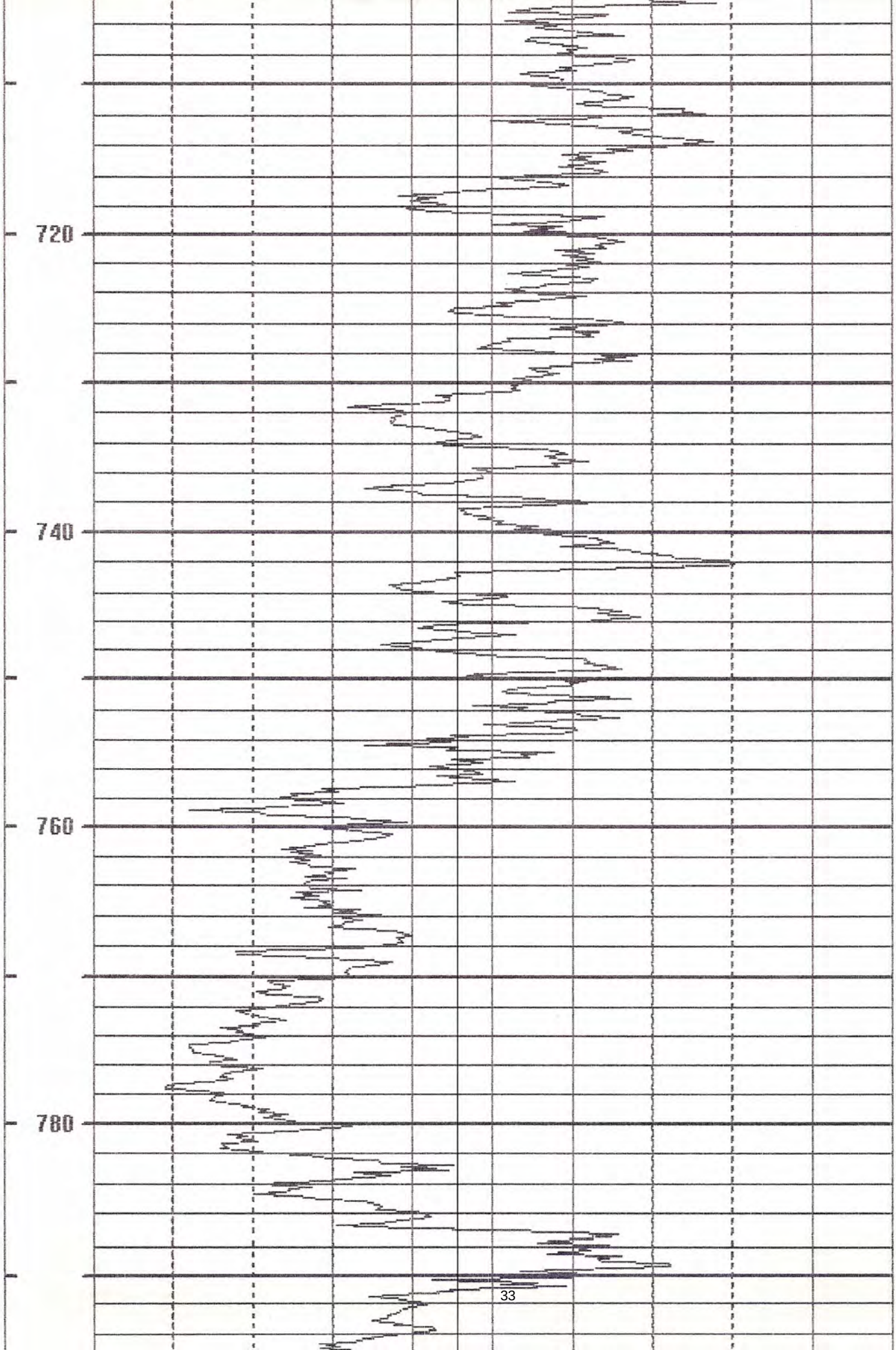
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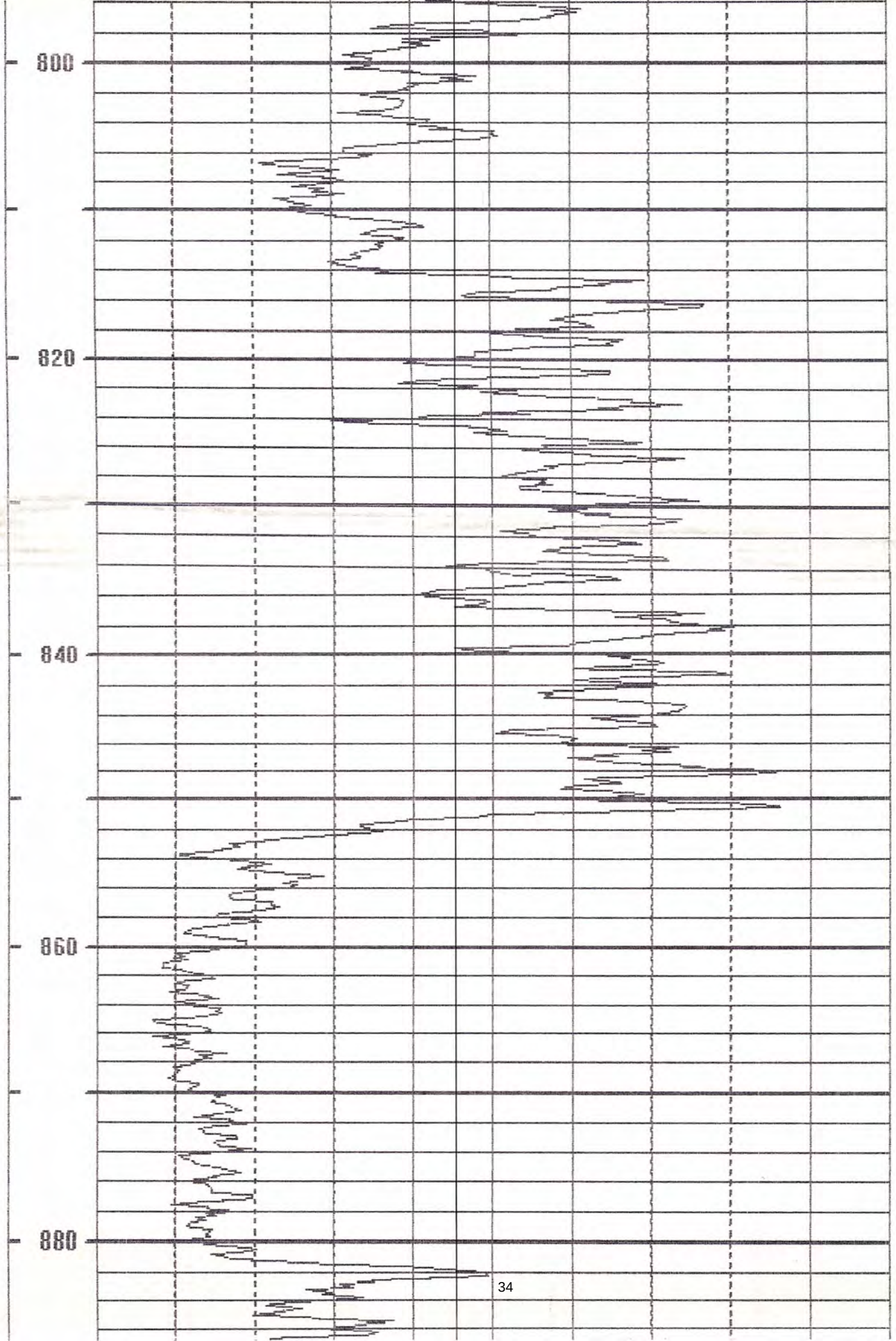
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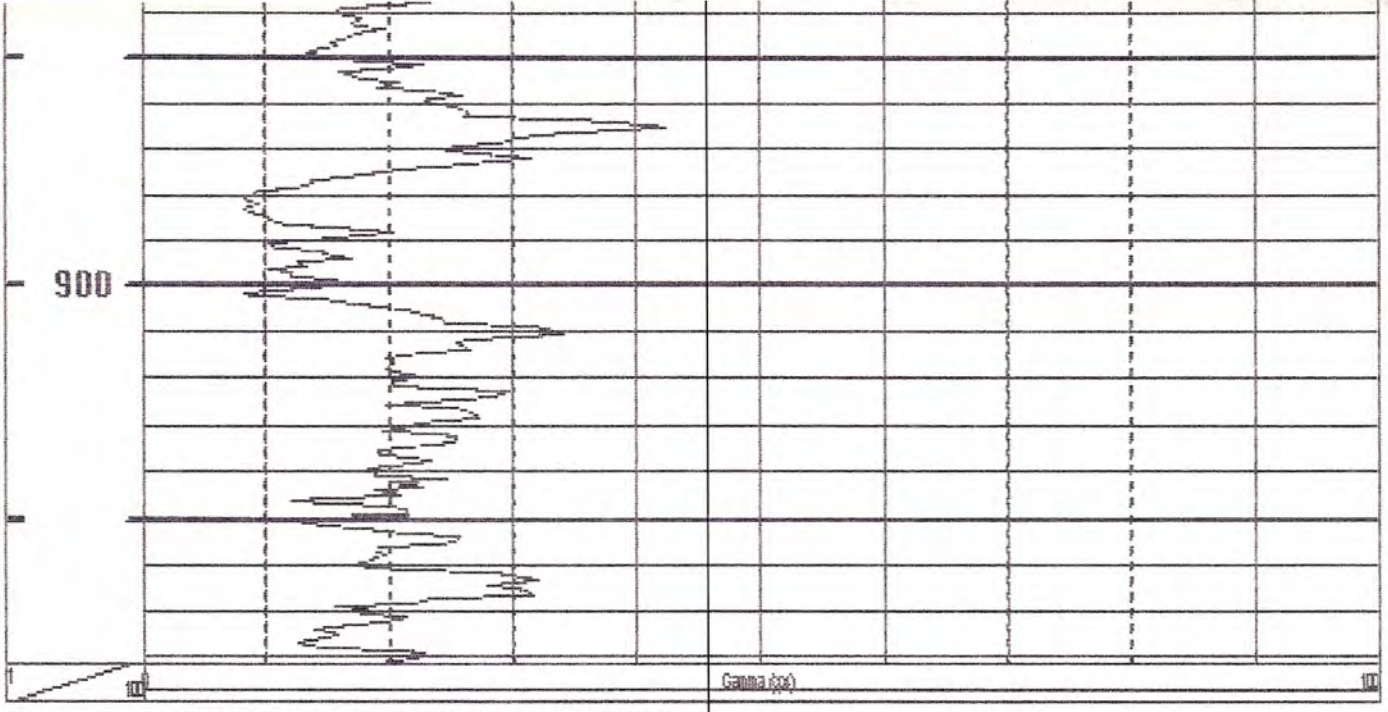

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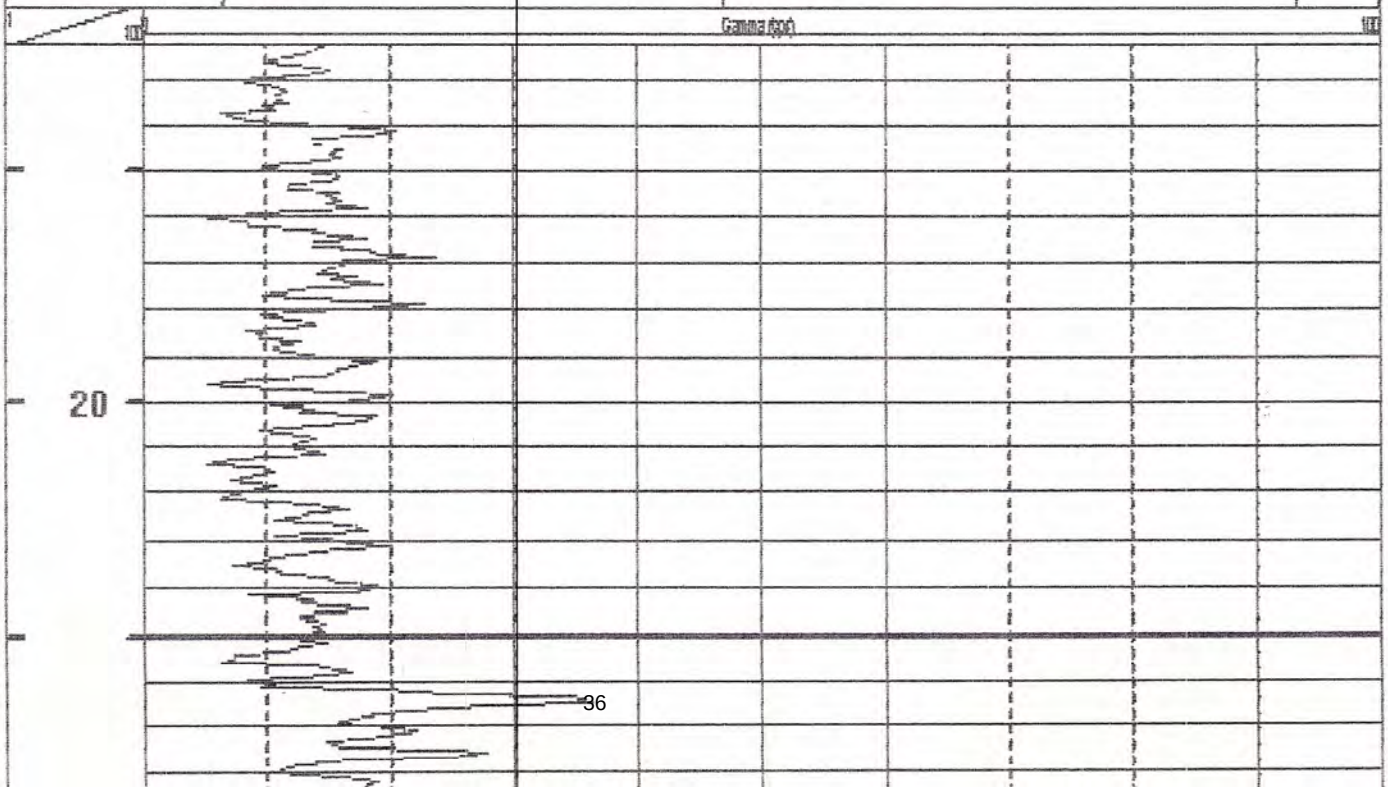
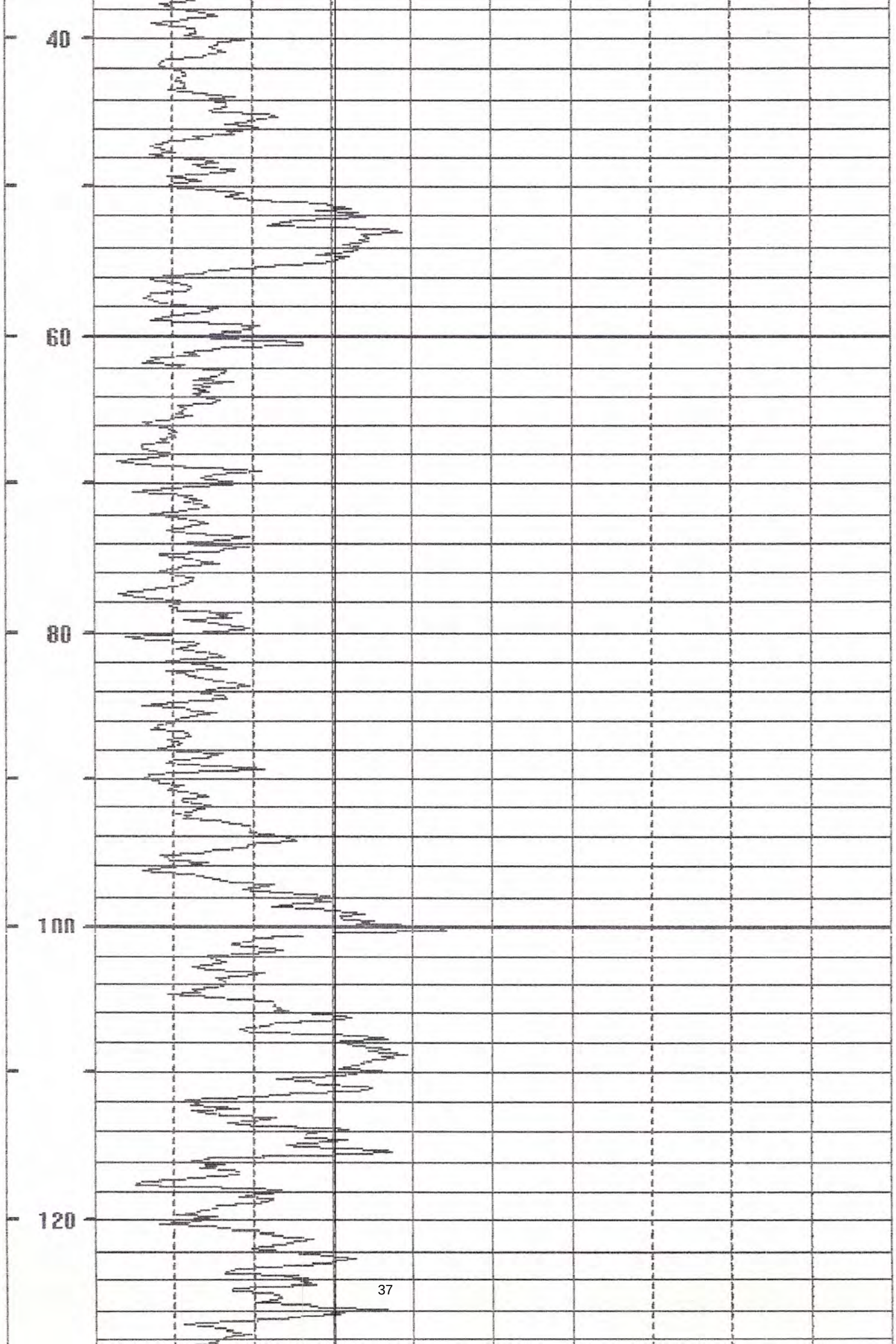
UP

Date: Tuesday, August 07, 2012 Time: 12:00 File: C:\Documents and Settings\Admin\Desktop\My Documents\717\VPB135up.rd

	COMPANY.	DELTA WELL & PUMP CO., INC.	Casing
	Location:	NWIRP BETHPAGE	
Well	VPB-135	Depth Driller / Depth Logger	
Date	08/07/2012	SH Fluid	Logged by: CMO
File Name	717		Witness: STAN

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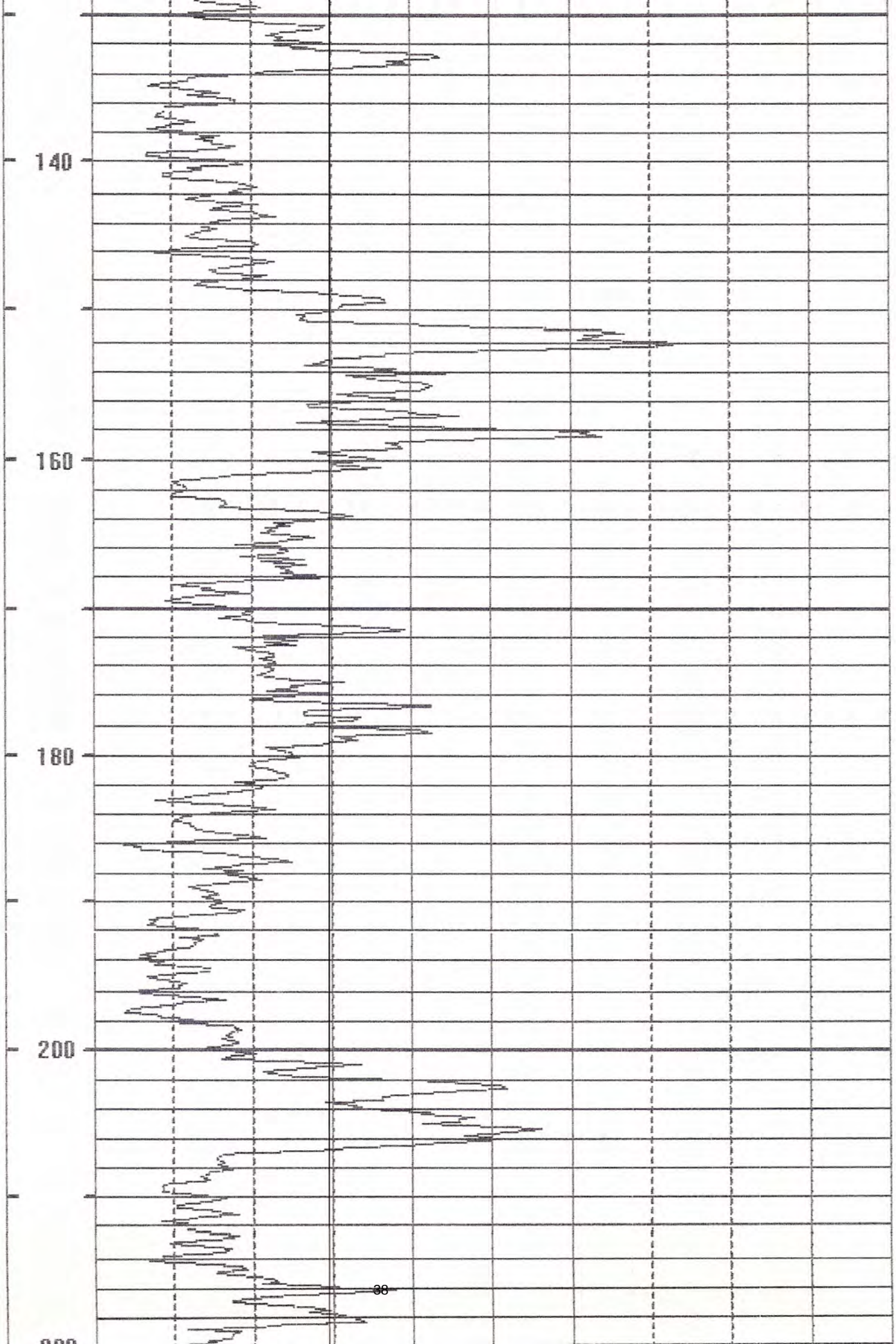
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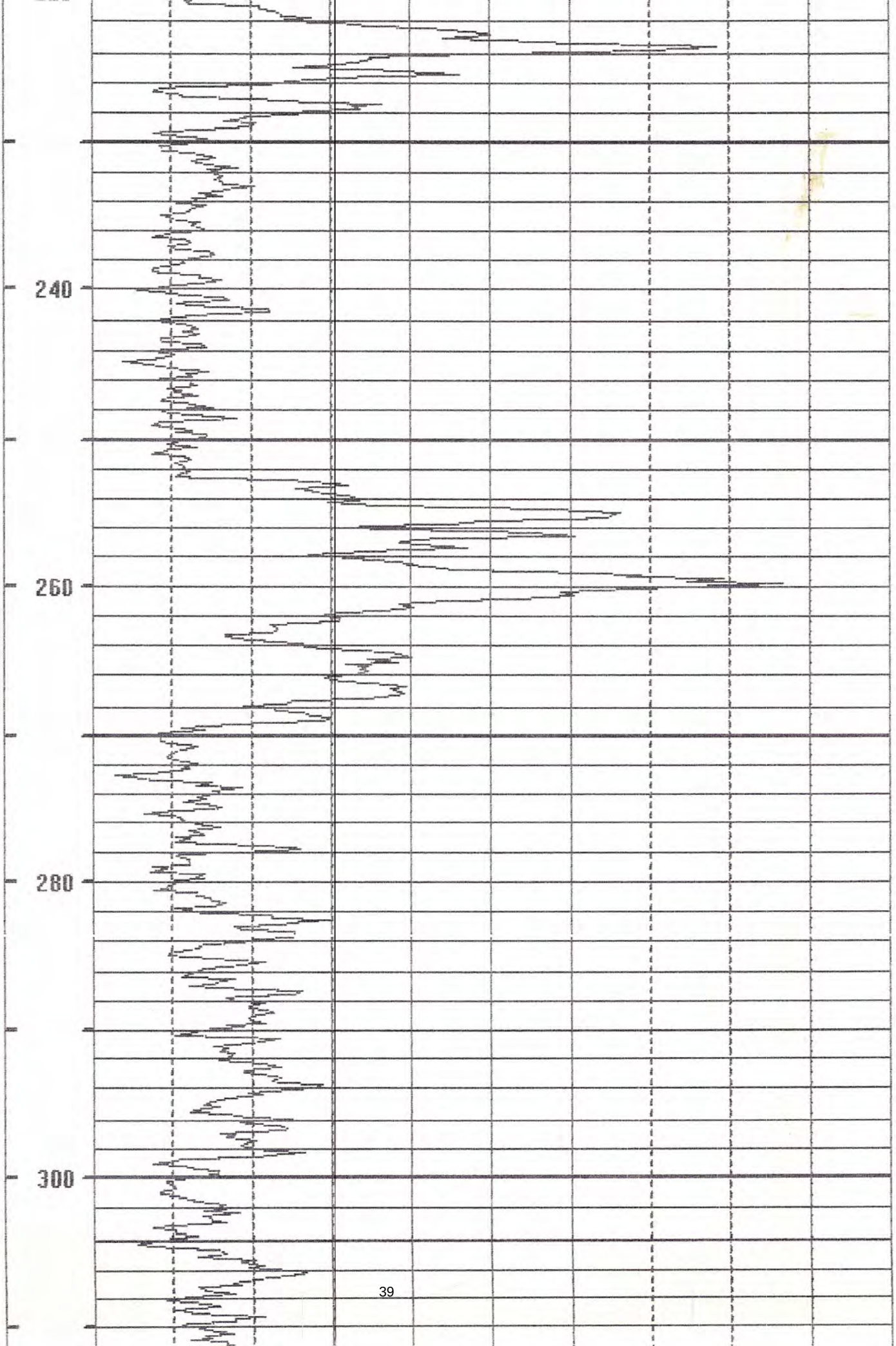
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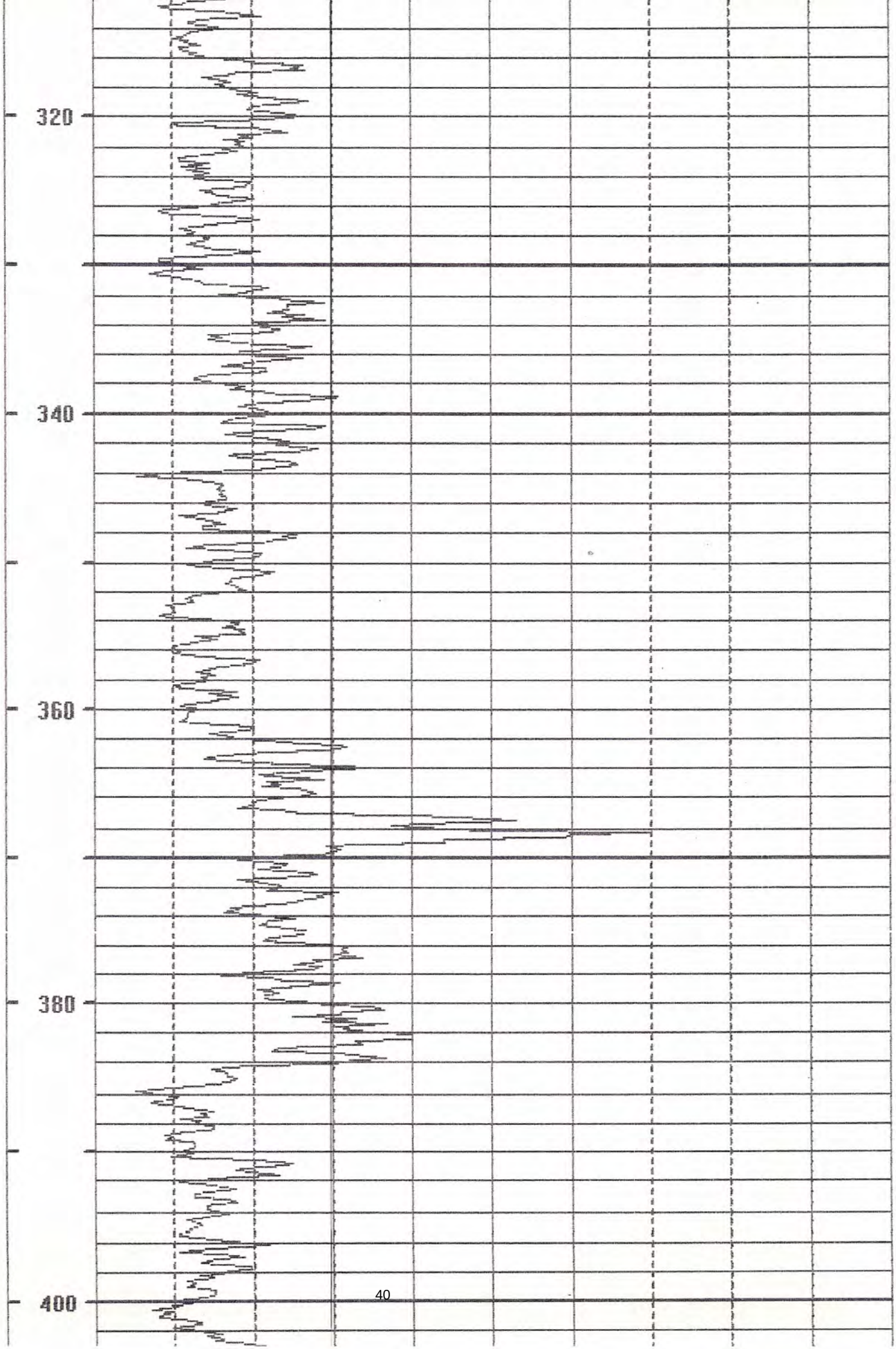
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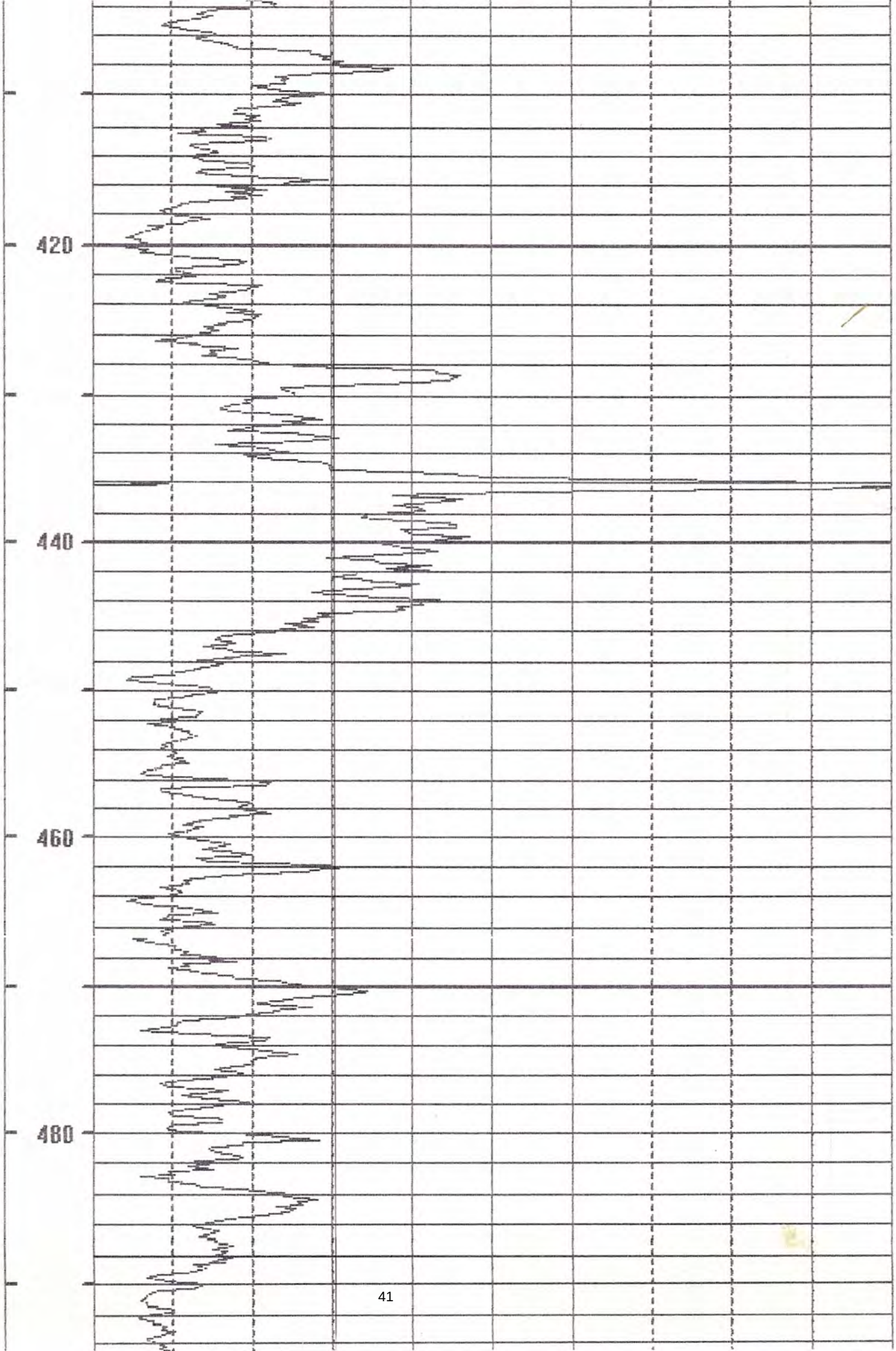
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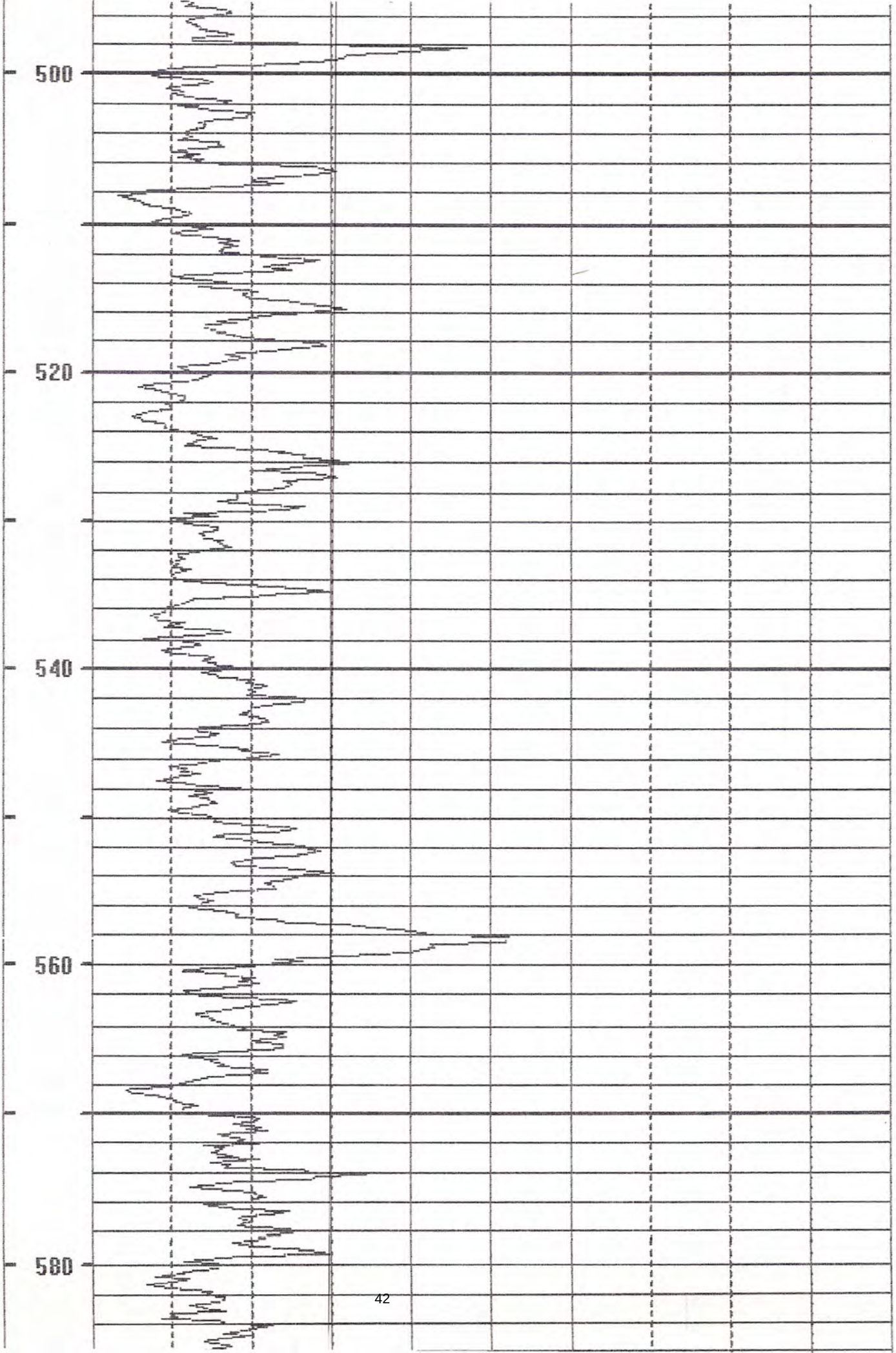
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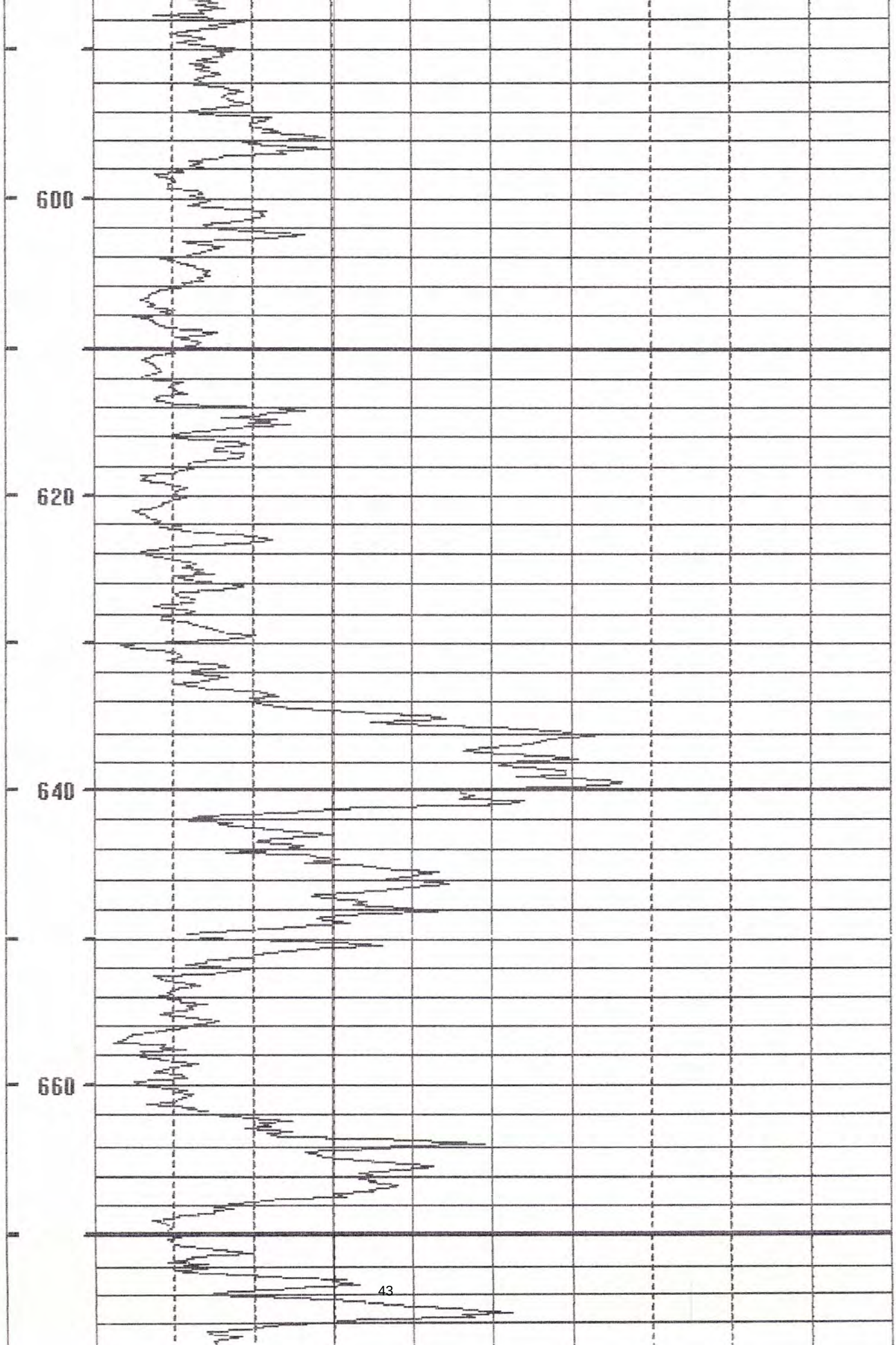
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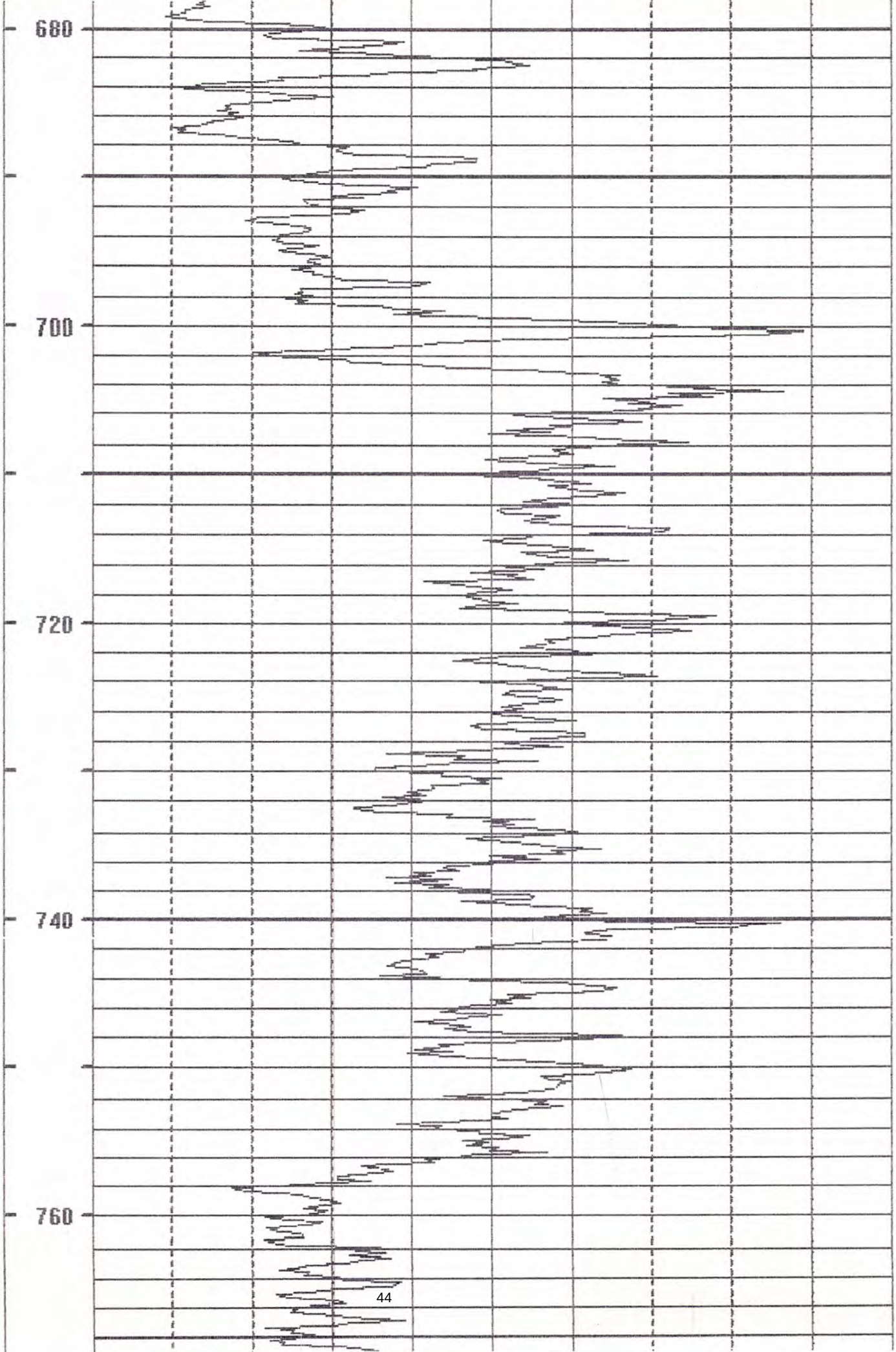
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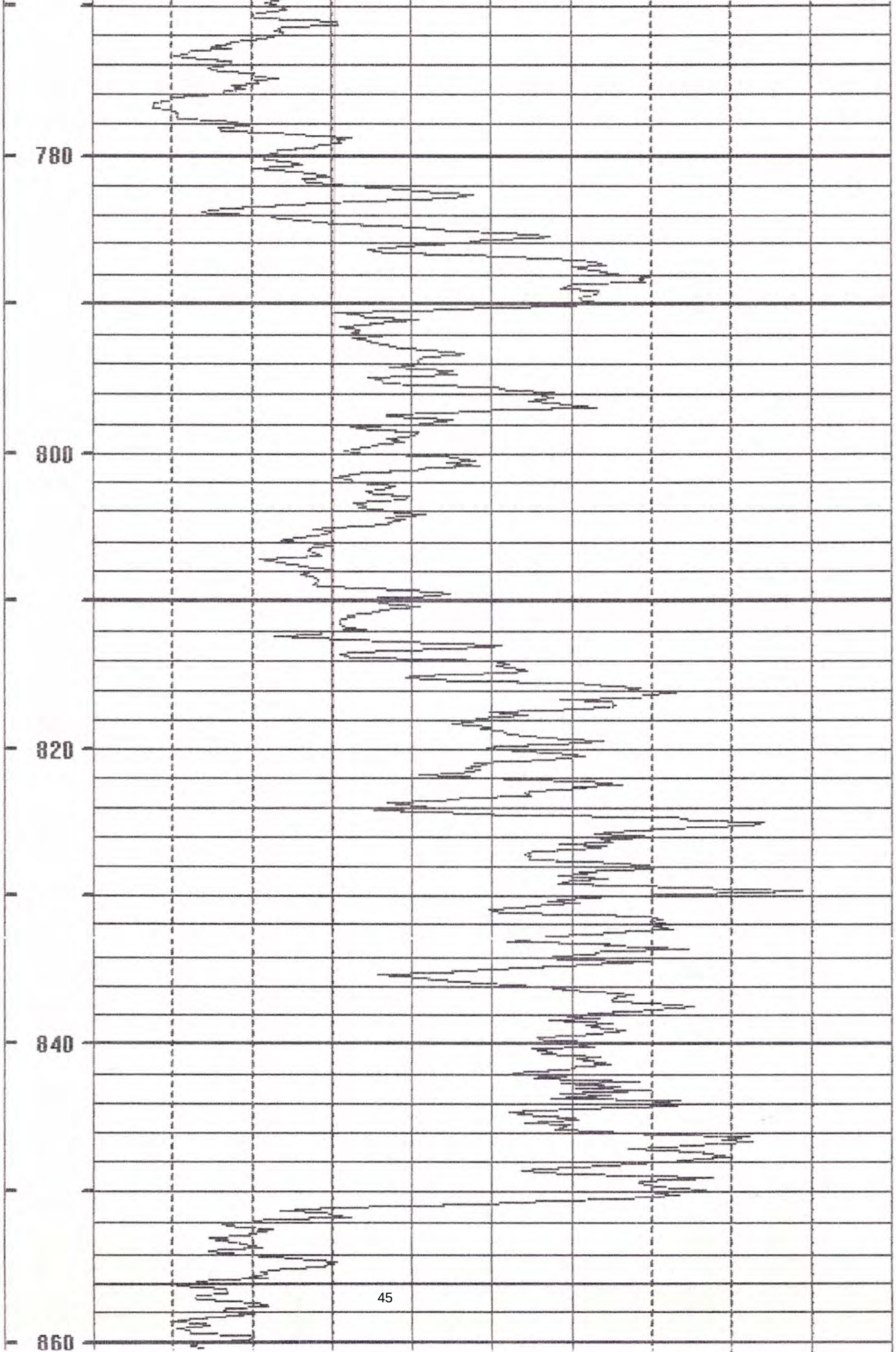
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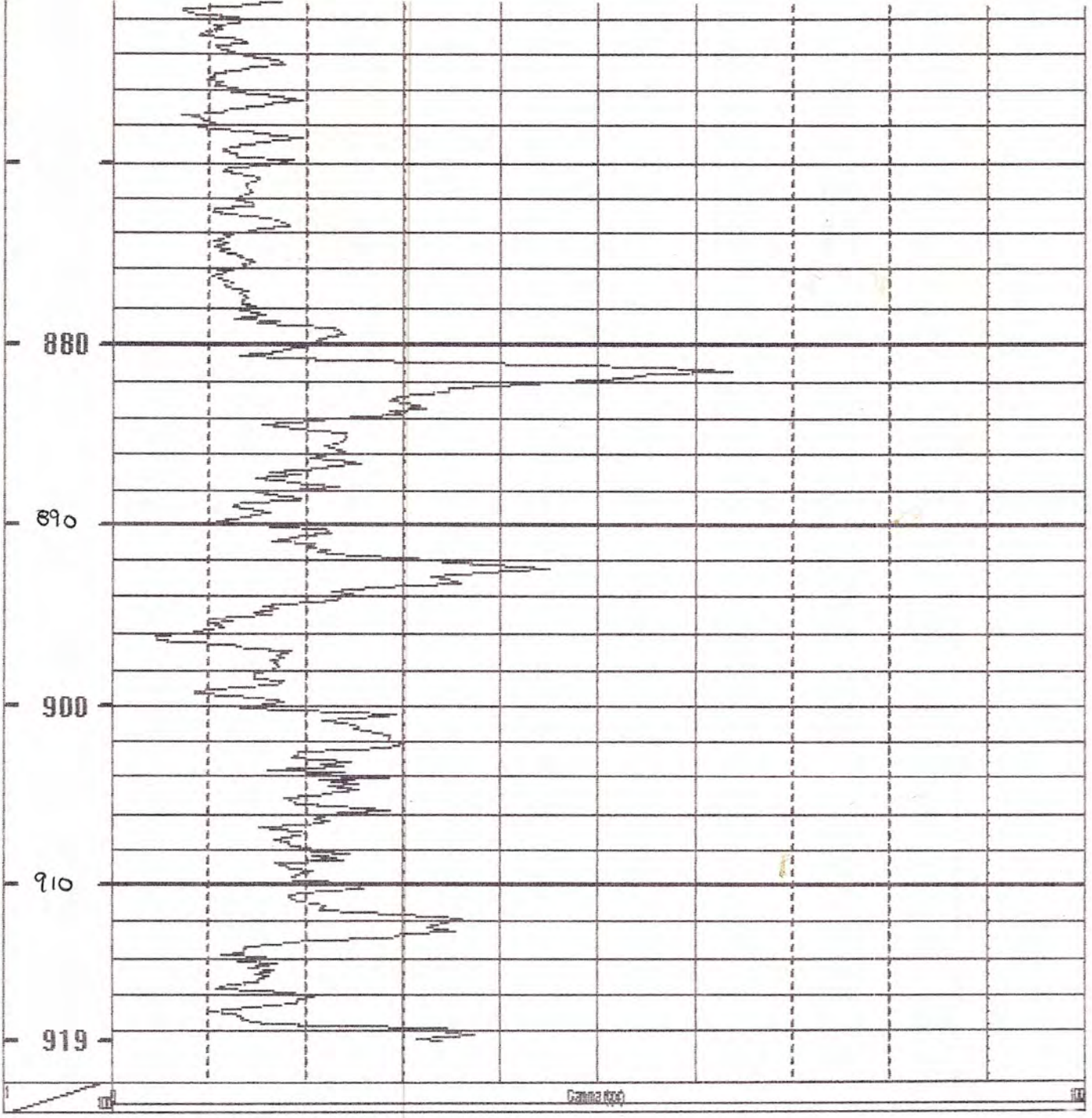

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Section 3

VPB 135 Groundwater Sample Log Sheets

Tetra Tech, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW
Project No.: 112G02751 /112G02230
PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB135-GW- 63
Sample Location: VPB-135
Sampled By: EW

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 1206
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 07 / 12 / 12	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 0940								
Method: Hydropunch	Ltbrn/clear				71,000			

PURGE DATA:

Date: NA								
Method: NA								
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	1 or 2-40ml Glass Vials	✓
TOC	4 DEG C	4 or 8 oz. Glass Jar	
VOCs	4 DEG C	1-40ml Glass Vial	

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [✓]

Used pH paper instead of water quality meter
Check box if used pH paper. [ ]

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW
Project No.: 112G02751 /112G02230
PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB135-GW-108
Sample Location: VPB-135
Sampled By: EW

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 1206
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	~~Other~~ TDS
Date: 7 / 12 / 12	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	g/L ~~NA~~
Time: 1145								
Method: Hydropunch	Lt. brn/cl.	5.14	0.425	28.26	1.172	8.43	149	0.275

PURGE DATA:

Date: NA								
Method: NA								
Monitor Reading (ppm):								
Well Casing Diameter & Material Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	1 or (2) 40ml Glass Vials	✓
TOC	4 DEG C	4 or 8 oz. Glass Jar	
VOCs	4 DEG C	1-40ml Glass Vial	

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [ ]

Used pH paper instead of water quality meter
Check box if used pH paper. [ ]

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW
Project No.: 112G02751 /112G02230
PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB135-GW-153
Sample Location: VPB-135
Sampled By: EW

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 1206
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	~~Other~~ TDS
Date: 9/12/12	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	g/L ~~NA~~
Time: 1350								
Method: Hydropunch	lt-brn/clear	6.22	0.350	30.56	129	8.16	-74	0.227

PURGE DATA:

Date: NA								
Method: NA								
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	1 or (2) 40ml Glass Vials	✓
TOC	4 DEG C	4 or 8 oz. Glass Jar	
VOCs	4 DEG C	1-40ml Glass Vial	

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [ ]

Used pH paper instead of water quality meter
Check box if used pH paper. [ ]

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW
Project No.: 112G02751 /112G02230
PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB135-GW-198
Sample Location: VPB-135
Sampled By: EW

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 1207
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	~~Other~~ TDS
Date: 7/13/12	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	g/L ~~NA~~
Time: 0925								
Method: Hydropunch	H.brn/clear	5.52	0.256	26.47	252	4.20	31	0.166

PURGE DATA:

Date: NA								
Method: NA								
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	1 or 2 40ml Glass Vials	✓
TOC	4 DEG C	4 or 8 oz. Glass Jar	
VOCs	4 DEG C	1-40ml Glass Vial	

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [ ]

Used pH paper instead of water quality meter
Check box if used pH paper. [ ]

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW
Project No.: 112G02751 /112G02230 PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB135-GW- 218
Sample Location: VPB-135
Sampled By: EW

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 1207
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	~~Other~~ TDS
Date: 7 / 13 / 12	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	g/L ~~NA~~
Time: 1110								
Method: Hydropunch	H.brn/clear	6.24	0.401	27.61	472	4.09	-348	0.261

PURGE DATA:

Date: NA								
Method: NA								
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	1 or 2 40ml Glass Vials	✓
TOC	4 DEG C	4 or 8 oz. Glass Jar	
VOCs	4 DEG C	1-40ml Glass Vial	

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [ ]

Used pH paper instead of water quality meter
Check box if used pH paper. [ ]

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW
Project No.: 112G02751 /112G02230
PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB135-GW-238
Sample Location: VPB-135
Sampled By: EW

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 1207
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color Visual	pH Standard	S.C. mS/cm	Temp. Degrees C	Turbidity NTU	DO mg/l	ORP mV	Other NA
Date: 7/16/12								
Time: 0945								
Method: Hydropunch	NOT RECORDED							

PURGE DATA:

Date: NA								
Method: NA								
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	1 or (2) 40ml Glass Vials	✓
TOC	4 DEG C	4 or 8 oz. Glass Jar	
VOCs	4 DEG C	1-40ml Glass Vial	✓

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [ ]

Used pH paper instead of water quality meter
Check box if used pH paper. [ ]

No water quality readings recorded because sample was very turbid. The screen was only exposed an inch or two.

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW
Project No.: 112G02751 /112G02230
PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB135-GW-258
Sample Location: VPB-135
Sampled By: EW

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 1207
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 7/16/12	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 1145								
Method: Hydropunch	NOT RECORDED							

PURGE DATA:

Date: NA								
Method: NA								
Monitor Reading (ppm):								
Well Casing Diameter & Material Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	1 or 2 40ml Glass Vials	✓
TOC	4 DEG C	4 or 8 oz. Glass Jar	
VOCs	4 DEG C	1-40ml Glass Vial	✓

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [ ]

Used pH paper instead of water quality meter
Check box if used pH paper. [ ]

No water quality readings recorded because sample was very turbid. Screen was fully exposed, but >50% covered with silt/clay.

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW
Project No.: 112G02751 /112G02230
PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB135-GW-278
Sample Location: VPB-135
Sampled By: EW

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 1207
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color Visual	pH Standard	S.C. mS/cm	Temp. Degrees C	Turbidity NTU	DO mg/l	ORP mV	~~Other~~ g/L NA TDS
Date: 7/16/12								
Time: 1405								
Method: Hydropunch	brn/cloudy	5.84	0.514	30.48	71,000	4.75	-213	0.327

PURGE DATA:

Date: NA								
Method: NA								
Monitor Reading (ppm):								
Well Casing Diameter & Material Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	1 or 2- 40ml Glass Vials	✓
TOC	4 DEG C	4 or 8 oz. Glass Jar	
VOCs	4 DEG C	1-40ml Glass Vial	✓

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [ ]

Used pH paper instead of water quality meter
Check box if used pH paper. [ ]

Sample was very turbid. Screen was not exposed.

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s): [illegible]

Tetra Tech, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW
Project No.: 112G02751 /112G02230 PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB135-GW-298
Sample Location: VPB-135
Sampled By: EW

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 1208
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color Visual	pH Standard	S.C. mS/cm	Temp. Degrees C	Turbidity NTU	DO mg/l	ORP mV	Other ~~S/C NA~~ TDS
Date: 7/17/12								
Time: 1155								
Method: Hydropunch	brn/cloudy	5.42	0.432	30.06	>1,000	2.89	317	0.281

PURGE DATA:

Date: NA								
Method: NA								
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFOPMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	1 or 2- 40ml Glass Vials	✓
TOC	4 DEG C	4 or 8 oz. Glass Jar	
VOCs	4 DEG C	1-40ml Glass Vial	✓

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. ☐

Used pH paper instead of water quality meter
Check box if used pH paper. ☐

Sample was very turbid, screen was not exposed.

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW
Project No.: 112G02751 /112G02230
PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB135-GW- 318
Sample Location: VPB-135
Sampled By: EW

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 1208
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	~~Other~~ TDS
Date: 7/17/12	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	~~NA~~
Time: 1410								
Method: Hydropunch	brn/cloudy	6.96	0.571	30.88	71,000	1.20	-600	0.365

PURGE DATA:

Date: NA								
Method: NA								
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	6 or 2- 40ml Glass Vials	✓
TOC	4 DEG C	4 or 8 oz. Glass Jar	
VOCs	4 DEG C	1-40ml Glass Vial	✓

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [ ]

Used pH paper instead of water quality meter
Check box if used pH paper. [ ]

Sample was very turbid, screen was not exposed

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s): [signature]

Tetra Tech, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW
Project No.: 112G02751 /112G02230
PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB135-GW- 338
Sample Location: VPB-135
Sampled By: EW

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 1208
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 7 / 18 / 12	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 0920								
Method: Hydropunch	N	O	T	R E	C O R	D E D		

PURGE DATA:

Date: NA								
Method: NA								
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	1 or 2- 40ml Glass Vials	✓
TOC	4 DEG C	4 or 8 oz. Glass Jar	
VOCs	4 DEG C	1-40ml Glass Vial	✓

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [ ]

Used pH paper instead of water quality meter
Check box if used pH paper. [ ]

Sample was very turbid. Screen was not exposed.

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW
Project No.: 112G02751 /112G02230 PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB135-GW- 358
Sample Location: VPB-135
Sampled By: EW

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 1208
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 7 / 18 / 12	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 1125								
Method: Hydropunch								

PURGE DATA:

Date: NA								
Method: NA								
Monitor Reading (ppm):								
Well Casing Diameter & Material Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	1 or 2- 40ml Glass Vials	✓
TOC	4 DEG C	4 or 8 oz. Glass Jar	
VOCs	4 DEG C	1-40ml Glass Vial	

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. ☑

Used pH paper instead of water quality meter
Check box if used pH paper. ☐

Sample was turbid, screen was not exposed. Not enough volume to fill one vial.

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s): Elen

Tetra Tech, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW
Project No.: 112G02751 /112G02230 PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB135-GW- 378
Sample Location: VPB-135
Sampled By: EW

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 1208
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color Visual	pH Standard	S.C. mS/cm	Temp. Degrees C	Turbidity NTU	DO mg/l	ORP mV	Other NA
Date: 7/18/12								
Time: 1315								
Method: Hydropunch	NOT RECORDED							

PURGE DATA:

Date: NA								
Method: NA								
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	1 or 2- 40ml Glass Vials	✓
TOC	4 DEG C	4 or 8 oz. Glass Jar	
VOCs	4 DEG C	1-40ml Glass Vial	✓

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [ ]

Used pH paper instead of water quality meter
Check box if used pH paper. [ ]

Sample was still turbid, even though the screen was fully exposed and that there was no soil stuck on the screen.

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW
Project No.: 112G02751 /112G02230
PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB135-GW- 398
Sample Location: VPB-135
Sampled By: EW

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 1226
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:		Color Visual	pH Standard	S.C. mS/cm	Temp. Degrees C	Turbidity NTU	DO mg/l	ORP mV	Other NA
Date:	7/19/12								
Time:	1315								
Method:	Hydropunch	NOT RECORDED							
PURGE DATA:									
Date:	NA								
Method:	NA								
Monitor Reading (ppm):									
Well Casing Diameter & Material									
Type:									
Total Well Depth (TD):									
Static Water Level (WL):									
One Casing Volume(gal/L):									
Start Purge (hrs):									
End Purge (hrs):									
Total Purge Time (min):									
Total Vol. Purged (gal/L):									

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	1 or 2- 40ml Glass Vials	✓
TOC	4 DEG C	4 or 8 oz. Glass Jar	
VOCs	4 DEG C	1-40ml Glass Vial	✓

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [ ]

Used pH paper instead of water quality meter
Check box if used pH paper. [ ]

Sample was very turbid. Screen was fully exposed.

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	

Tetra Tech, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW
Project No.: 112G02751 /112G02230 PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB135-GW- 418
Sample Location: VPB-135
Sampled By: EW

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 1227
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 7/20/12	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 0930								
Method: Hydropunch	NOT RECORDED							
PURGE DATA:								
Date: NA								
Method: NA								
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	1 or (2) 40ml Glass Vials	✓
TOC	4 DEG C	4 or 8 oz. Glass Jar	
VOCs	4 DEG C	1-40ml Glass Vial	

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [ ]

Used pH paper instead of water quality meter
Check box if used pH paper. [ ]

Sample was very turbid, screen was not exposed.

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW
Project No.: 112G02751 /112G02230
PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB135-GW- 438
Sample Location: VPB-135
Sampled By: EW

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 1227
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 7/20/12	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 1130								
Method: Hydropunch	NOT RECORDED							

PURGE DATA:

Date: NA								
Method: NA								
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	1 or 2- 40ml Glass Vials	✓
TOC	4 DEG C	4 or 8 oz. Glass Jar	
VOCs	4 DEG C	1-40ml Glass Vial	

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [ ]

Used pH paper instead of water quality meter
Check box if used pH paper. [ ]

Sample was very turbid. The screen was exposed and there was no silt/clay on the screen

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s): [illegible]

Tetra Tech, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW
Project No.: 112G02751 /112G02230
PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB135-GW- 458
Sample Location: VPB-135
Sampled By: EW

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 1227
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 7/23/12	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 1000								
Method: Hydropunch	NOT RECORDED							

PURGE DATA:

Date: NA								
Method: NA								
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	1 or 2- 40ml Glass Vials	✓
TOC	4 DEG C	4 or 8 oz. Glass Jar	
VOCs	4 DEG C	1-40ml Glass Vial	✓

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [ ]

Used pH paper instead of water quality meter
Check box if used pH paper. [ ]

Sample was very turbid, screen was not exposed.

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW
Project No.: 112G02751 /112G02230
PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB135-GW- 478
Sample Location: VPB-135
Sampled By: EW

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 1227
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	~~Other~~
Date: 7/23/12	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	g/L ~~NA~~ TDS
Time: 1160								
Method: Hydropunch	H-brn	6.20	0.222	26.16	21,000	5.33	-74	0.177

PURGE DATA:

Date: NA								
Method: NA								
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	1 or (2) 40ml Glass Vials	✓
TOC	4 DEG C	4 or 8 oz. Glass Jar	
VOCs	4 DEG C	1-40ml Glass Vial	

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [ ]

Used pH paper instead of water quality meter
Check box if used pH paper. [ ]

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): [illegible]

Tetra Tech, Inc.

~~GROUNDWATER~~ SAMPLE LOG SHEET
Soil

Page 1 of 1

Project Site Name: BETHPAGE OU-2 OFFSITE GW
Project No.: 112G02751 /112G02230
PRE-DESIGN FIELD INVES

Sample ID No.: ~~BP-VPB135-GW-~~ SB 498
Sample Location: VPB-135
Sampled By: EW

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 1228
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 7/24/12								
Time: 0810	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Method: Hydropunch								

PURGE DATA:

Date: NA								
Method: NA								
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	1 or 2- 40ml Glass Vials	
TOC	4 DEG C	4 or 8 oz. Glass Jar	✓
VOCs	4 DEG C	1-40ml Glass Vial	

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [ ]

Used pH paper instead of water quality meter
Check box if used pH paper. [ ]

No GW sample collected because rods did not open/seperate.

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW
Project No.: 112G02751 /112G02230
PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB135-GW- 518
Sample Location: VPB-135
Sampled By: EW

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 1228
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 7 / 24 / 12	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 1010								
Method: Hydropunch	NOT		RECORDED					

PURGE DATA:

Date: NA								
Method: NA								
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	1 or 2- 40ml Glass Vials	✓
TOC	4 DEG C	4 or 8 oz. Glass Jar	
VOCs	4 DEG C	1-40ml Glass Vial	

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [ ]

Used pH paper instead of water quality meter
Check box if used pH paper. [ ]

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW
Project No.: 112G02751 /112G02230
PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB135-GW-538
Sample Location: VPB-135
Sampled By: EW

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 1228
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 7/24/12	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 1520								
Method: Hydropunch		NOT		RECORDED				

PURGE DATA:

Date: NA								
Method: NA								
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	1 or 2- 40ml Glass Vials	✓
TOC	4 DEG C	4 or 8 oz. Glass Jar	
VOCs	4 DEG C	1-40ml Glass Vial	

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. ☐

Used pH paper instead of water quality meter
Check box if used pH paper. ☐

Sample was very turbid. Screen was fully exposed with some sand/silt filling in the screen slots. Only enough volume for one vial.

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW
Project No.: 112G02751 /112G02230
PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB135-GW- 558
Sample Location: VPB-135
Sampled By: EW

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 1228
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 7 / 25 / 12	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 1005								
Method: Hydropunch		NOT		RECORDED				

PURGE DATA:

Date: NA								
Method: NA								
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	(1) or 2- 40ml Glass Vials	✓
TOC	4 DEG C	4 or 8 oz. Glass Jar	
VOCs	4 DEG C	(1) 40ml Glass Vial	✓

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. ☐

Used pH paper instead of water quality meter
Check box if used pH paper. ☐

Sample was very turbid. Screen was exposed. Some silt/clay on screen.

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): [signature]

Tetra Tech, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW
Project No.: 112G02751 /112G02230
PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB135-GW-578
Sample Location: VPB-135
Sampled By: EW

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 1228
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	~~Other~~
Date: 7/25/12	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	g/L ~~NA~~ TDS
Time: 1410								
Method: Hydropunch	17.5cm	5.14	0.65	26.49	234	7.51	60	0.083

PURGE DATA:

Date: NA								
Method: NA								
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	1 or (2)-40ml Glass Vials	✓
TOC	4 DEG C	4 or 8 oz. Glass Jar	
VOCs	4 DEG C	1-40ml Glass Vial	

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [ ]

Used pH paper instead of water quality meter
Check box if used pH paper. [ ]

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s): Eroll

Tetra Tech, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW
Project No.: 112G02751 /112G02230
PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB135-GW- 598
Sample Location: VPB-135
Sampled By: EW

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 1228
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 7 / 26 / 12	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 0925								
Method: Hydropunch		NOT		RE	COR	DED		

PURGE DATA:

Date: NA								
Method: NA								
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	1 or 2- 40ml Glass Vials	✓
TOC	4 DEG C	4 or 8 oz. Glass Jar	
VOCs	4 DEG C	1-40ml Glass Vial	

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [ ]

Used pH paper instead of water quality meter
Check box if used pH paper. [ ]

Sample was very turbid, screen was exposed.

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW
Project No.: 112G02751 /112G02230
PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB135-GW- 618
Sample Location: VPB-135
Sampled By: EW

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 1228
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 7/26/12	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 1125								
Method: Hydropunch		NOT		RE	COR	DED		

PURGE DATA:

Date: NA								
Method: NA								
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	2- 40ml Glass Vials	✓
TOC	4 DEG C	4 or 8 oz. Glass Jar	
VOCs	4 DEG C	40ml Glass Vial	✓

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [ ]

Used pH paper instead of water quality meter
Check box if used pH paper. [ ]

Sample was very turbid. Screen was exposed.

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW
Project No.: 112G02751 /112G02230
PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB135-GW- 638
Sample Location: VPB-135
Sampled By: EW

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 1228
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 7/26/12	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 1330								
Method: Hydropunch		NOT		RECORDED				

PURGE DATA:

Date: NA								
Method: NA								
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	1 or 2- 40ml Glass Vials	✓
TOC	4 DEG C	4 or 8 oz. Glass Jar	
VOCs	4 DEG C	1-40ml Glass Vial	✓

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [ ]

Used pH paper instead of water quality meter
Check box if used pH paper. [ ]

Sample was very turbid, screen was exposed.

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW
Project No.: 112G02751 /112G02230
PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB135-GW-658
Sample Location: VPB-135
Sampled By: EW

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 1228
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 7/26/12	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 1535								
Method: Hydropunch		NOT		RECORDED				

PURGE DATA:

Date: NA								
Method: NA								
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	1 or 2- 40ml Glass Vials	✓
TOC	4 DEG C	4 or 8 oz. Glass Jar	
VOCs	4 DEG C	1-40ml Glass Vial	✓

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [ ]

Used pH paper instead of water quality meter
Check box if used pH paper. [ ]

Sample was very turbid. Screen was exposed.

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW
Project No.: 112G02751 /112G02230
PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB135-GW- 678
Sample Location: VPB-135
Sampled By: EW

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 1229
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 7/27/12	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 1000								
Method: Hydropunch		NOT	RECORDED					

PURGE DATA:

Date: NA								
Method: NA								
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	1 or 2-40ml Glass Vials	✓
TOC	4 DEG C	4 or 8 oz. Glass Jar	
VOCs	4 DEG C	1-40ml Glass Vial	

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [ ]

Used pH paper instead of water quality meter
Check box if used pH paper. [ ]

Sample was very turbid, screen was exposed, but there was some grey silt/clay stuck on the screen, once the hydropunch was stuck then Delta first attempted to remove it

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW
Project No.: 112G02751 /112G02230
PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB135-GW-[illegible]698
Sample Location: VPB-135
Sampled By: EW

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 1229
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 7/27/12	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 1210								
Method: Hydropunch		NOT		RECORDED				

PURGE DATA:

Date: NA								
Method: NA								
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	1 or (2) 40ml Glass Vials	✓
TOC	4 DEG C	4 or 8 oz. Glass Jar	
VOCs	4 DEG C	1-40ml Glass Vial	

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [ ]

Used pH paper instead of water quality meter
Check box if used pH paper. [ ]

Sample was very turbid, screen was not exposed.

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): [illegible]

Tetra Tech, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW
Project No.: 112G02751 /112G02230
PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB135-GW- 557
Sample Location: VPB-135
Sampled By: EW

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[X] QA Sample Type: Drilling Mud

C.O.C. No.: 1229
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 7/31/12	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 1335								
Method: ~~Hydropunch~~		NOT		RECORDED				

PURGE DATA:

Date: NA								
Method: NA								
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	1 or (2) 40ml Glass Vials	✓
TOC	4 DEG C	4 or 8 oz. Glass Jar	
VOCs	4 DEG C	1-40ml Glass Vial	

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [ ]

Used pH paper instead of water quality meter
Check box if used pH paper. [ ]

Grab sample of drilling mud at 557' while Delta was placing rods back in boring after changing bit.

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW
Project No.: 112G02751 /112G02230
PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB135-GW- 784
Sample Location: VPB-135
Sampled By: EW

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 1230
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:		Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date:	8 / 1 / 12								
Time:	1125	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Method:	Hydropunch		N	O T	R	E C O	R D	E D	
PURGE DATA:									
Date:	NA								
Method:	NA								
Monitor Reading (ppm):									
Well Casing Diameter & Material									
Type:									
Total Well Depth (TD):									
Static Water Level (WL):									
One Casing Volume(gal/L):									
Start Purge (hrs):									
End Purge (hrs):									
Total Purge Time (min):									
Total Vol. Purged (gal/L):									

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	1 or 2 40ml Glass Vials	✓
TOC	4 DEG C	4 or 8 oz. Glass Jar	
VOCs	4 DEG C	1-40ml Glass Vial	

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [ ]

Used pH paper instead of water quality meter
Check box if used pH paper. [ ]

Sample was very turbid.

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	

Tetra Tech, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW
Project No.: 112G02751 /112G02230 PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB135-GW-914
Sample Location: VPB-135
Sampled By: EW

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

C.O.C. No.: 1230
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 8 / 1 / 12	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Time: 1410								
Method: Hydropunch		NOT		RECORDED				

PURGE DATA:

Date: NA								
Method: NA								
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	1 or (2) 40ml Glass Vials	✓
TOC	4 DEG C	4 or 8 oz. Glass Jar	
VOCs	4 DEG C	1-40ml Glass Vial	

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [ ]

Used pH paper instead of water quality meter
Check box if used pH paper. [ ]

Sample was very turbid, screen was exposed, no clay stuck on screen.

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): [illegible]

Tetra Tech, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW
Project No.: 112G02751 /112G02230
PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB135-GW-824
Sample Location: VPB-135
Sampled By: EW
C.O.C. No.: 1230

[ ] Domestic Well Data
[ ] Monitoring Well Data
[X] Other Well Type: Vertical Profile Boring
[ ] QA Sample Type:

Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Date: 8/1/12								
Time: 1620	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Method: Hydropunch		NOT		RECORDED				

PURGE DATA:

Date: NA								
Method: NA								
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION: Strike thru analysis not required

Analysis	Preservative	Container Requirements	Collected
VOCs	HCL/4 DEG C	1 or (2) 40ml Glass Vials	✓
TOC	4 DEG C	4 or 8 oz. Glass Jar	
VOCs	4 DEG C	1-40ml Glass Vial	

OBSERVATIONS / NOTES:

2" MW = 0.163 gal/ft

Sample taken at discreet intervals using a hydropunch sampler unless otherwise noted.

Not enough volume for water quality parameters
Check box if not enough volume. [ ]

Used pH paper instead of water quality meter
Check box if used pH paper. [ ]

Sample was very turbid, screen was exposed, some clay stuck on bottom of screen.

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech, Inc.

QA SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE
Project Number: 112G02751 /112G02230
Sample Location:
QA Sample Type:

Sample ID No.: BP-VPB-TB-071212-EW
Sampled By: EW
C.O.C. Number: 1206

[X] Trip Blank
[] Source Water Blank
[] Rinsate Blank
[] Other Blank

SAMPLING DATA:

Date: 7-12-12
Time: 0800
Method:

WATER SOURCE:

[X] Laboratory Prepared
[] Purchased
[] Other
[] Tap
[] Fire Hydrant

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):

Product Name:
Supplier:
Manufacturer:
Order Number:
Lot Number:
Expiration Date:

RINSATE INFORMATION (If Applicable):

Media Type:
Equipment Used:
Equipment Type:
[] Dedicated
[] Reusable

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	Cool 4°C /HCL	2-40 ml GLASS VIALS	YES / NO

OBSERVATIONS / NOTES:

Signature(s):

Tetra Tech, Inc.

QA SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE
Project Number: 112G02751 /112G02230
Sample Location:
QA Sample Type:

Sample ID No.: BP-VPB- 071312-1
Sampled By: EW
C.O.C. Number: 1207

[X] Trip Blank
[] Source Water Blank
[] Rinsate Blank
[] Other Blank

SAMPLING DATA:

Date: 7-13-12
Time: 0800
Method:

WATER SOURCE:

[X] Laboratory Prepared
[] Purchased
[] Other
[] Tap
[] Fire Hydrant

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):

Product Name:
Supplier:
Manufacturer:
Order Number:
Lot Number:
Expiration Date:

RINSATE INFORMATION (If Applicable):

Media Type:
Equipment Used:
Equipment Type:
[] Dedicated
[] Reusable

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	Cool 4°C /HCL	2-40 ml GLASS VIALS	(YES) NO

OBSERVATIONS / NOTES:

Signature(s):

Tetra Tech, Inc.

QA SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE
Project Number: 112G02751 /112G02230
Sample Location:
QA Sample Type:

Sample ID No.: BP-VPB-TB-071712-1
Sampled By: EW
C.O.C. Number: 1208

[X] Trip Blank
[] Source Water Blank
[] Rinsate Blank
[] Other Blank

SAMPLING DATA:

Date: 7-17-12
Time: 0800
Method:

WATER SOURCE:

[X] Laboratory Prepared
[] Purchased
[] Other
[] Tap
[] Fire Hydrant

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):

Product Name:
Supplier:
Manufacturer:
Order Number:
Lot Number:
Expiration Date:

RINSATE INFORMATION (If Applicable):

Media Type:
Equipment Used:
Equipment Type:
[] Dedicated
[] Reusable

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	Cool 4°C /HCL	2-40 ml GLASS VIALS	YES / NO

OBSERVATIONS / NOTES:

Signature(s):

Tetra Tech, Inc.

QA SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE
Project Number: 112G02751 /112G02230
Sample Location:
QA Sample Type:

Sample ID No.: BP-VPB- TB-071912
Sampled By: EW
C.O.C. Number: 1226

[X] Trip Blank
[] Source Water Blank
[] Rinsate Blank
[] Other Blank

SAMPLING DATA:

Date: 7-19-12
Time: 0800
Method:

WATER SOURCE:

[X] Laboratory Prepared
[] Purchased
[] Other
[] Tap
[] Fire Hydrant

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):

Product Name:
Supplier:
Manufacturer:
Order Number:
Lot Number:
Expiration Date:

RINSATE INFORMATION (If Applicable):

Media Type:
Equipment Used:
Equipment Type:
[] Dedicated
[] Reusable

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	Cool 4°C /HCL	2-40 ml GLASS VIALS	(YES) / NO

OBSERVATIONS / NOTES:

Signature(s):

Tetra Tech, Inc.

QA SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE
Project Number: 112G02751 /112G02230
Sample Location:
QA Sample Type:

Sample ID No.: BP-VPB- TB-072012-1
Sampled By: EW
C.O.C. Number: 1227

[X] Trip Blank
[] Source Water Blank
[] Rinsate Blank
[] Other Blank

SAMPLING DATA:

Date: 7-20-12
Time: 0800
Method:

WATER SOURCE:

[X] Laboratory Prepared
[] Purchased
[] Other
[] Tap
[] Fire Hydrant

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):

Product Name:
Supplier:
Manufacturer:
Order Number:
Lot Number:
Expiration Date:

RINSATE INFORMATION (If Applicable):

Media Type:
Equipment Used:
Equipment Type:
[] Dedicated
[] Reusable

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	Cool 4°C /HCL	2-40 ml GLASS VIALS	YES / NO

OBSERVATIONS / NOTES:

Signature(s):

Tetra Tech, Inc.

QA SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE
Project Number: 112G02751 /112G02230
Sample Location:
QA Sample Type:

Sample ID No.: BP-VPB-TB-072412-1
Sampled By: EW
C.O.C. Number: 1228

[X] Trip Blank
[] Source Water Blank
[] Rinsate Blank
[] Other Blank

SAMPLING DATA:

Date: 7-24-12
Time: 0800
Method:

WATER SOURCE:

[X] Laboratory Prepared
[] Purchased
[] Other
[] Tap
[] Fire Hydrant

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):

Product Name:
Supplier:
Manufacturer:
Order Number:
Lot Number:
Expiration Date:

RINSATE INFORMATION (If Applicable):

Media Type:
Equipment Used:
Equipment Type:
[] Dedicated
[] Reusable

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	Cool 4°C /HCL	2-40 ml GLASS VIALS	YES / NO

OBSERVATIONS / NOTES:

Signature(s):

Tetra Tech, Inc.

QA SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE
Project Number: 112G02751 /112G02230
Sample Location:
QA Sample Type:

Sample ID No.: BP-VPB-TB-072712-1
Sampled By: EW
C.O.C. Number: 1229

[X] Trip Blank
[] Source Water Blank
[] Rinsate Blank
[] Other Blank

SAMPLING DATA:

Date: 7-27-12
Time: 0800
Method:

WATER SOURCE:

[X] Laboratory Prepared
[] Purchased
[] Other
[] Tap
[] Fire Hydrant

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):

Product Name:
Supplier:
Manufacturer:
Order Number:
Lot Number:
Expiration Date:

RINSATE INFORMATION (If Applicable):

Media Type:
Equipment Used:
Equipment Type:
[] Dedicated
[] Reusable

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	Cool 4°C /HCL	2-40 ml GLASS VIALS	YES / NO

OBSERVATIONS / NOTES:

Signature(s):

Tetra Tech, Inc.

QA SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE
Project Number: 112G02751 /112G02230
Sample Location:
QA Sample Type:

Sample ID No.: BP-VPB- TB - 080112
Sampled By: EW
C.O.C. Number: 1230

[X] Trip Blank
[] Source Water Blank
[] Rinsate Blank
[] Other Blank

SAMPLING DATA:

Date: 08-01-12
Time: 0800
Method:

WATER SOURCE:

[X] Laboratory Prepared
[] Purchased
[] Other
[] Tap
[] Fire Hydrant

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):

Product Name:
Supplier:
Manufacturer:
Order Number:
Lot Number:
Expiration Date:

RINSATE INFORMATION (If Applicable):

Media Type:
Equipment Used:
Equipment Type:
[] Dedicated
[] Reusable

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOCs	Cool 4°C /HCL	2-40 ml GLASS VIALS	YES / NO

OBSERVATIONS / NOTES:

Signature(s):

Section 4

VPB 135 Analytical Data Sheets

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/12/12
Project:	Bethpage CTO-066	Date Received:	07/13/12
Client Sample ID:	BP-VPB135-GW-63	SDG No.:	D3367
Lab Sample ID:	D3367-10	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VR006540.D	1		07/17/12	vR071612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	0.5	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	0.5	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	0.5	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	0.5	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	0.5	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.5	U	0.45	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	0.5	1	ug/L
67-64-1	Acetone	96		0.5	2.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	0.5	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	0.5	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	0.5	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	0.5	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	0.5	1	ug/L
78-93-3	2-Butanone	20		1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	0.5	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	0.5	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	0.5	1	ug/L
108-87-2	Methylcyclohexane	0.5	U	0.2	0.5	1	ug/L
71-43-2	Benzene	0.5	U	0.32	0.5	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	0.5	1	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	0.5	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	0.5	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	0.5	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	2.5	5	ug/L
108-88-3	Toluene	0.5	U	0.37	0.5	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	0.5	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/12/12
Project:	Bethpage CTO-066	Date Received:	07/13/12
Client Sample ID:	BP-VPB135-GW-63	SDG No.:	D3367
Lab Sample ID:	D3367-10	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VR006540.D	1		07/17/12	vR071612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	0.5	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	0.5	1	ug/L
591-78-6	2-Hexanone	3.8	J	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.52	0.5	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	0.5	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	0.5	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	0.5	1	ug/L
100-41-4	Ethyl Benzene	0.5	U	0.2	0.5	1	ug/L
179601-23-1	m/p-Xylenes	1	U	0.95	1	2	ug/L
95-47-6	o-Xylene	0.5	U	0.43	0.5	1	ug/L
100-42-5	Styrene	0.5	U	0.36	0.5	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	0.5	1	ug/L
98-82-8	Isopropylbenzene	0.5	U	0.45	0.5	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	0.5	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	0.5	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	0.5	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	0.5	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	0.5	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	0.5	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	0.5	1	ug/L
123-91-1	1,4-Dioxane	10	U	10	10	20	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	60.7	*	70 - 120		121%	SPK: 50
1868-53-7	Dibromofluoromethane	50.2		85 - 115		100%	SPK: 50
2037-26-5	Toluene-d8	53.4		85 - 120		107%	SPK: 50
460-00-4	4-Bromofluorobenzene	52.4		75 - 120		105%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	442738	7.57				
540-36-3	1,4-Difluorobenzene	934539	8.49				
3114-55-4	Chlorobenzene-d5	894338	11.3				
3855-82-1	1,4-Dichlorobenzene-d4	416151	13.24				
TENTATIVE IDENTIFIED COMPOUNDS							

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/12/12
Project:	Bethpage CTO-066	Date Received:	07/13/12
Client Sample ID:	BP-VPB135-GW-63	SDG No.:	D3367
Lab Sample ID:	D3367-10	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VR006540.D	1		07/17/12	vR071612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
75-45-6	Difluorochloromethane	7.4	J			1.909	ug/L
000075-07-0	Acetaldehyde	22	J			2.311	ug/L
000123-38-6	Propanal	11	J			3.655	ug/L
000123-72-8	Butanal	50	J			6.442	ug/L
000110-62-3	Pentanal	32	J			9.064	ug/L
000066-25-1	Hexanal	33	J			10.743	ug/L
000111-71-7	Heptanal	26	J			12.02	ug/L
000124-13-0	Octanal	13	J			13.085	ug/L

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/12/12
Project:	Bethpage CTO-066	Date Received:	07/13/12
Client Sample ID:	BP-VPB135-GW-63RE	SDG No.:	D3367
Lab Sample ID:	D3367-10RE	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VR006566.D	1		07/18/12	VR071812

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	0.5	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	0.5	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	0.5	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	0.5	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	0.5	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.5	U	0.45	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	0.5	1	ug/L
67-64-1	Acetone	93		0.5	2.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	0.5	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	0.5	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	0.5	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	0.5	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	0.5	1	ug/L
78-93-3	2-Butanone	18		1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	0.5	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	0.5	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	0.5	1	ug/L
108-87-2	Methylcyclohexane	0.5	U	0.2	0.5	1	ug/L
71-43-2	Benzene	0.5	U	0.32	0.5	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	0.5	1	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	0.5	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	0.5	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	0.5	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	2.5	5	ug/L
108-88-3	Toluene	0.5	U	0.37	0.5	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	0.5	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/12/12
Project:	Bethpage CTO-066	Date Received:	07/13/12
Client Sample ID:	BP-VPB135-GW-63RE	SDG No.:	D3367
Lab Sample ID:	D3367-10RE	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VR006566.D	1		07/18/12	VR071812

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	0.5	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	0.5	1	ug/L
591-78-6	2-Hexanone	4.4	J	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.52	0.5	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	0.5	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	0.5	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	0.5	1	ug/L
100-41-4	Ethyl Benzene	0.5	U	0.2	0.5	1	ug/L
179601-23-1	m/p-Xylenes	1	U	0.95	1	2	ug/L
95-47-6	o-Xylene	0.5	U	0.43	0.5	1	ug/L
100-42-5	Styrene	0.5	U	0.36	0.5	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	0.5	1	ug/L
98-82-8	Isopropylbenzene	0.5	U	0.45	0.5	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	0.5	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	0.5	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	0.5	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	0.5	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	0.5	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	0.5	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	0.5	1	ug/L
123-91-1	1,4-Dioxane	10	U	10	10	20	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	62	*	70 - 120		124%	SPK: 50
1868-53-7	Dibromofluoromethane	50.7		85 - 115		101%	SPK: 50
2037-26-5	Toluene-d8	52.9		85 - 120		106%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.9		75 - 120		104%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	428250	7.57				
540-36-3	1,4-Difluorobenzene	908353	8.49				
3114-55-4	Chlorobenzene-d5	869781	11.3				
3855-82-1	1,4-Dichlorobenzene-d4	414538	13.24				

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/12/12
Project:	Bethpage CTO-066	Date Received:	07/13/12
Client Sample ID:	BP-VPB135-GW-63RE	SDG No.:	D3367
Lab Sample ID:	D3367-10RE	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VR006566.D	1		07/18/12	VR071812

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/12/12
Project:	Bethpage CTO-066	Date Received:	07/13/12
Client Sample ID:	BP-VPB135-GW-108	SDG No.:	D3367
Lab Sample ID:	D3367-11	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VR006541.D	1		07/17/12	VR071612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	0.5	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	0.5	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	0.5	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	0.5	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	0.5	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.64	J	0.45	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	0.5	1	ug/L
67-64-1	Acetone	21		0.5	2.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	0.5	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	0.5	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	0.5	1	ug/L
75-34-3	1,1-Dichloroethane	4.7		0.36	0.5	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	0.5	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	8		0.35	0.5	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	0.5	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	0.5	1	ug/L
108-87-2	Methylcyclohexane	0.5	U	0.2	0.5	1	ug/L
71-43-2	Benzene	0.5	U	0.32	0.5	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	0.5	1	ug/L
79-01-6	Trichloroethene	9.9		0.28	0.5	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	0.5	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	0.5	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	2.5	5	ug/L
108-88-3	Toluene	0.5	U	0.37	0.5	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	0.5	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/12/12
Project:	Bethpage CTO-066	Date Received:	07/13/12
Client Sample ID:	BP-VPB135-GW-108	SDG No.:	D3367
Lab Sample ID:	D3367-11	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VR006541.D	1		07/17/12	VR071612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	0.5	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	0.5	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.52	0.5	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	0.5	1	ug/L
127-18-4	Tetrachloroethene	5.2		0.27	0.5	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	0.5	1	ug/L
100-41-4	Ethyl Benzene	0.5	U	0.2	0.5	1	ug/L
179601-23-1	m/p-Xylenes	1	U	0.95	1	2	ug/L
95-47-6	o-Xylene	0.5	U	0.43	0.5	1	ug/L
100-42-5	Styrene	0.5	U	0.36	0.5	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	0.5	1	ug/L
98-82-8	Isopropylbenzene	0.5	U	0.45	0.5	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	0.5	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	0.5	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	0.5	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	0.5	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	0.5	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	0.5	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	0.5	1	ug/L
123-91-1	1,4-Dioxane	10	U	10	10	20	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	59.5		70 - 120		119%	SPK: 50
1868-53-7	Dibromofluoromethane	49.5		85 - 115		99%	SPK: 50
2037-26-5	Toluene-d8	53		85 - 120		106%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.1		75 - 120		102%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	444021	7.57				
540-36-3	1,4-Difluorobenzene	933242	8.49				
3114-55-4	Chlorobenzene-d5	889773	11.3				
3855-82-1	1,4-Dichlorobenzene-d4	406495	13.24				
TENTATIVE IDENTIFIED COMPOUNDS							

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/12/12
Project:	Bethpage CTO-066	Date Received:	07/13/12
Client Sample ID:	BP-VPB135-GW-108	SDG No.:	D3367
Lab Sample ID:	D3367-11	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VR006541.D	1		07/17/12	VR071612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
000123-72-8	Butanal	14	J			6.448	ug/L
000110-62-3	Pentanal	13	J			9.064	ug/L
000066-25-1	Hexanal	18	J			10.743	ug/L
000111-71-7	Heptanal	23	J			12.02	ug/L
000124-13-0	Octanal	30	J			13.085	ug/L
000124-19-6	Nonanal	23	J			14.022	ug/L

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/12/12
Project:	Bethpage CTO-066	Date Received:	07/13/12
Client Sample ID:	BP-VPB135-GW-153	SDG No.:	D3367
Lab Sample ID:	D3367-12	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VR006542.D	1		07/17/12	VR071612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	0.5	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	0.5	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	0.5	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	0.5	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	0.5	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.5	U	0.45	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	1.9		0.47	0.5	1	ug/L
67-64-1	Acetone	18		0.5	2.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	0.5	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	0.5	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	0.5	1	ug/L
75-34-3	1,1-Dichloroethane	7.2		0.36	0.5	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	0.5	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	14		0.35	0.5	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	0.5	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	0.5	1	ug/L
108-87-2	Methylcyclohexane	0.5	U	0.2	0.5	1	ug/L
71-43-2	Benzene	0.5	U	0.32	0.5	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	0.5	1	ug/L
79-01-6	Trichloroethene	14		0.28	0.5	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	0.5	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	0.5	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	2.5	5	ug/L
108-88-3	Toluene	0.5	U	0.37	0.5	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	0.5	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/12/12
Project:	Bethpage CTO-066	Date Received:	07/13/12
Client Sample ID:	BP-VPB135-GW-153	SDG No.:	D3367
Lab Sample ID:	D3367-12	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VR006542.D	1		07/17/12	VR071612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	0.5	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	0.5	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.52	0.5	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	0.5	1	ug/L
127-18-4	Tetrachloroethene	6.1		0.27	0.5	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	0.5	1	ug/L
100-41-4	Ethyl Benzene	0.5	U	0.2	0.5	1	ug/L
179601-23-1	m/p-Xylenes	1	U	0.95	1	2	ug/L
95-47-6	o-Xylene	0.5	U	0.43	0.5	1	ug/L
100-42-5	Styrene	0.5	U	0.36	0.5	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	0.5	1	ug/L
98-82-8	Isopropylbenzene	0.5	U	0.45	0.5	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	0.5	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	0.5	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	0.5	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	0.5	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	0.5	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	0.5	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	0.5	1	ug/L
123-91-1	1,4-Dioxane	10	U	10	10	20	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	59.5		70 - 120		119%	SPK: 50
1868-53-7	Dibromofluoromethane	51.5		85 - 115		103%	SPK: 50
2037-26-5	Toluene-d8	53.6		85 - 120		107%	SPK: 50
460-00-4	4-Bromofluorobenzene	52.1		75 - 120		104%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	449090	7.57				
540-36-3	1,4-Difluorobenzene	932514	8.49				
3114-55-4	Chlorobenzene-d5	901615	11.3				
3855-82-1	1,4-Dichlorobenzene-d4	415498	13.24				
TENTATIVE IDENTIFIED COMPOUNDS							

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/12/12
Project:	Bethpage CTO-066	Date Received:	07/13/12
Client Sample ID:	BP-VPB135-GW-153	SDG No.:	D3367
Lab Sample ID:	D3367-12	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VR006542.D	1		07/17/12	VR071612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
1000132-95-8	2-Formylhistamine	5.2	J			2.311	ug/L
000123-72-8	Butanal	21	J			6.442	ug/L
000110-62-3	Pentanal	18	J			9.064	ug/L
000066-25-1	Hexanal	22	J			10.743	ug/L
000111-71-7	Heptanal	28	J			12.02	ug/L
000124-13-0	Octanal	32	J			13.085	ug/L
000124-19-6	Nonanal	22	J			14.022	ug/L

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/13/12
Project:	Bethpage CTO-066	Date Received:	07/17/12
Client Sample ID:	BP-VPB135-GW-198	SDG No.:	D3413
Lab Sample ID:	D3413-02	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VR006636.D	1		07/20/12	VR072012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	0.5	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	0.5	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	0.5	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	0.5	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	0.5	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.5	U	0.45	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	0.5	1	ug/L
67-64-1	Acetone	29		0.5	2.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	0.5	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	0.5	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	0.5	1	ug/L
75-34-3	1,1-Dichloroethane	5.8		0.36	0.5	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	0.5	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	12		0.35	0.5	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	0.5	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	0.5	1	ug/L
108-87-2	Methylcyclohexane	0.5	U	0.2	0.5	1	ug/L
71-43-2	Benzene	0.5	U	0.32	0.5	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	0.5	1	ug/L
79-01-6	Trichloroethene	2500	E	0.28	0.5	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	0.5	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	0.5	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	2.5	5	ug/L
108-88-3	Toluene	0.5	U	0.37	0.5	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	0.5	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/13/12
Project:	Bethpage CTO-066	Date Received:	07/17/12
Client Sample ID:	BP-VPB135-GW-198	SDG No.:	D3413
Lab Sample ID:	D3413-02	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VR006636.D	1		07/20/12	VR072012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	0.5	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	0.5	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.52	0.5	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	0.5	1	ug/L
127-18-4	Tetrachloroethene	3.5		0.27	0.5	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	0.5	1	ug/L
100-41-4	Ethyl Benzene	0.5	U	0.2	0.5	1	ug/L
179601-23-1	m/p-Xylenes	1	U	0.95	1	2	ug/L
95-47-6	o-Xylene	0.5	U	0.43	0.5	1	ug/L
100-42-5	Styrene	0.5	U	0.36	0.5	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	0.5	1	ug/L
98-82-8	Isopropylbenzene	0.5	U	0.45	0.5	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	0.5	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	0.5	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	0.5	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	0.5	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	0.5	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	0.5	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	0.5	1	ug/L
123-91-1	1,4-Dioxane	10	U	10	10	20	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	60.9	*	70 - 120		122%	SPK: 50
1868-53-7	Dibromofluoromethane	50.7		85 - 115		101%	SPK: 50
2037-26-5	Toluene-d8	53		85 - 120		106%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.4		75 - 120		103%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	407252	7.57				
540-36-3	1,4-Difluorobenzene	865520	8.49				
3114-55-4	Chlorobenzene-d5	834159	11.3				
3855-82-1	1,4-Dichlorobenzene-d4	387008	13.24				
TENTATIVE IDENTIFIED COMPOUNDS							

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/13/12
Project:	Bethpage CTO-066	Date Received:	07/17/12
Client Sample ID:	BP-VPB135-GW-198	SDG No.:	D3413
Lab Sample ID:	D3413-02	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VR006636.D	1		07/20/12	VR072012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
000066-25-1	Hexanal	22	J			10.74	ug/L
000111-71-7	Heptanal	22	J			12.02	ug/L
000124-13-0	Octanal	20	J			13.08	ug/L

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/13/12
Project:	Bethpage CTO-066	Date Received:	07/17/12
Client Sample ID:	BP-VPB135-GW-198DL	SDG No.:	D3413
Lab Sample ID:	D3413-02DL	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VR006637.D	50		07/20/12	VR072012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	25	U	10	25	50	ug/L
74-87-3	Chloromethane	25	U	10	25	50	ug/L
75-01-4	Vinyl Chloride	25	U	17	25	50	ug/L
74-83-9	Bromomethane	25	U	10	25	50	ug/L
75-00-3	Chloroethane	25	U	10	25	50	ug/L
75-69-4	Trichlorofluoromethane	25	U	18	25	50	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	25	U	22	25	50	ug/L
75-35-4	1,1-Dichloroethene	25	U	24	25	50	ug/L
67-64-1	Acetone	125	U	25	125	250	ug/L
75-15-0	Carbon Disulfide	25	U	10	25	50	ug/L
1634-04-4	Methyl tert-butyl Ether	25	U	18	25	50	ug/L
79-20-9	Methyl Acetate	25	U	10	25	50	ug/L
75-09-2	Methylene Chloride	25	U	20	25	50	ug/L
156-60-5	trans-1,2-Dichloroethene	25	U	20	25	50	ug/L
75-34-3	1,1-Dichloroethane	25	U	18	25	50	ug/L
110-82-7	Cyclohexane	25	U	10	25	50	ug/L
78-93-3	2-Butanone	125	U	66	125	250	ug/L
56-23-5	Carbon Tetrachloride	25	U	10	25	50	ug/L
156-59-2	cis-1,2-Dichloroethene	25	U	18	25	50	ug/L
74-97-5	Bromochloromethane	25	U	10	25	50	ug/L
67-66-3	Chloroform	25	U	17	25	50	ug/L
71-55-6	1,1,1-Trichloroethane	25	U	20	25	50	ug/L
108-87-2	Methylcyclohexane	25	U	10	25	50	ug/L
71-43-2	Benzene	25	U	16	25	50	ug/L
107-06-2	1,2-Dichloroethane	25	U	24	25	50	ug/L
79-01-6	Trichloroethene	4000	D	14	25	50	ug/L
78-87-5	1,2-Dichloropropane	25	U	23	25	50	ug/L
75-27-4	Bromodichloromethane	25	U	18	25	50	ug/L
108-10-1	4-Methyl-2-Pentanone	125	U	100	125	250	ug/L
108-88-3	Toluene	25	U	18	25	50	ug/L
10061-02-6	t-1,3-Dichloropropene	25	U	14	25	50	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/13/12
Project:	Bethpage CTO-066	Date Received:	07/17/12
Client Sample ID:	BP-VPB135-GW-198DL	SDG No.:	D3413
Lab Sample ID:	D3413-02DL	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VR006637.D	50		07/20/12	VR072012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	25	U	16	25	50	ug/L
79-00-5	1,1,2-Trichloroethane	25	U	19	25	50	ug/L
591-78-6	2-Hexanone	125	U	97	125	250	ug/L
124-48-1	Dibromochloromethane	25	U	26	25	50	ug/L
106-93-4	1,2-Dibromoethane	25	U	20	25	50	ug/L
127-18-4	Tetrachloroethene	25	U	14	25	50	ug/L
108-90-7	Chlorobenzene	25	U	24	25	50	ug/L
100-41-4	Ethyl Benzene	25	U	10	25	50	ug/L
179601-23-1	m/p-Xylenes	50	U	48	50	100	ug/L
95-47-6	o-Xylene	25	U	22	25	50	ug/L
100-42-5	Styrene	25	U	18	25	50	ug/L
75-25-2	Bromoform	25	U	24	25	50	ug/L
98-82-8	Isopropylbenzene	25	U	22	25	50	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	25	U	16	25	50	ug/L
541-73-1	1,3-Dichlorobenzene	25	U	22	25	50	ug/L
106-46-7	1,4-Dichlorobenzene	25	U	16	25	50	ug/L
95-50-1	1,2-Dichlorobenzene	25	U	22	25	50	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	25	U	23	25	50	ug/L
120-82-1	1,2,4-Trichlorobenzene	25	U	10	25	50	ug/L
87-61-6	1,2,3-Trichlorobenzene	25	U	10	25	50	ug/L
123-91-1	1,4-Dioxane	500	U	500	500	1000	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	62.8	*	70 - 120		126%	SPK: 50
1868-53-7	Dibromofluoromethane	52.6		85 - 115		105%	SPK: 50
2037-26-5	Toluene-d8	52.4		85 - 120		105%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.8		75 - 120		98%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	400156	7.57				
540-36-3	1,4-Difluorobenzene	851946	8.49				
3114-55-4	Chlorobenzene-d5	801685	11.3				
3855-82-1	1,4-Dichlorobenzene-d4	353343	13.24				

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/13/12
Project:	Bethpage CTO-066	Date Received:	07/17/12
Client Sample ID:	BP-VPB135-GW-198DL	SDG No.:	D3413
Lab Sample ID:	D3413-02DL	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VR006637.D	50		07/20/12	VR072012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/13/12
Project:	Bethpage CTO-066	Date Received:	07/17/12
Client Sample ID:	BP-VPB135-GW-218	SDG No.:	D3413
Lab Sample ID:	D3413-03	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VR006638.D	1		07/20/12	VR072012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	0.5	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	0.5	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	0.5	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	0.5	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	0.5	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.5	U	0.45	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	0.5	1	ug/L
67-64-1	Acetone	45		0.5	2.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	0.5	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	0.5	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	0.5	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	0.5	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	0.5	1	ug/L
78-93-3	2-Butanone	16		1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	0.5	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	0.5	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	0.5	1	ug/L
108-87-2	Methylcyclohexane	0.5	U	0.2	0.5	1	ug/L
71-43-2	Benzene	0.5	U	0.32	0.5	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	0.5	1	ug/L
79-01-6	Trichloroethene	180		0.28	0.5	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	0.5	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	0.5	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	2.5	5	ug/L
108-88-3	Toluene	0.5	U	0.37	0.5	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	0.5	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/13/12
Project:	Bethpage CTO-066	Date Received:	07/17/12
Client Sample ID:	BP-VPB135-GW-218	SDG No.:	D3413
Lab Sample ID:	D3413-03	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VR006638.D	1		07/20/12	VR072012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	0.5	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	0.5	1	ug/L
591-78-6	2-Hexanone	5	J	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.52	0.5	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	0.5	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	0.5	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	0.5	1	ug/L
100-41-4	Ethyl Benzene	0.5	U	0.2	0.5	1	ug/L
179601-23-1	m/p-Xylenes	1	U	0.95	1	2	ug/L
95-47-6	o-Xylene	0.5	U	0.43	0.5	1	ug/L
100-42-5	Styrene	0.5	U	0.36	0.5	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	0.5	1	ug/L
98-82-8	Isopropylbenzene	0.5	U	0.45	0.5	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	0.5	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	0.5	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	0.5	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	0.5	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	0.5	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	0.5	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	0.5	1	ug/L
123-91-1	1,4-Dioxane	10	U	10	10	20	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	60		70 - 120		120%	SPK: 50
1868-53-7	Dibromofluoromethane	51.4		85 - 115		103%	SPK: 50
2037-26-5	Toluene-d8	53.1		85 - 120		106%	SPK: 50
460-00-4	4-Bromofluorobenzene	53.7		75 - 120		107%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	409273	7.57				
540-36-3	1,4-Difluorobenzene	854813	8.49				
3114-55-4	Chlorobenzene-d5	818663	11.3				
3855-82-1	1,4-Dichlorobenzene-d4	396558	13.24				
TENTATIVE IDENTIFIED COMPOUNDS							

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/13/12
Project:	Bethpage CTO-066	Date Received:	07/17/12
Client Sample ID:	BP-VPB135-GW-218	SDG No.:	D3413
Lab Sample ID:	D3413-03	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VR006638.D	1		07/20/12	VR072012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
000115-07-1	Propene	6.7	J			1.83	ug/L
000075-07-0	Acetaldehyde	12	J			2.31	ug/L
000927-62-8	1-Butanamine, N,N-dimethyl-	14	J			3.66	ug/L
000123-72-8	Butanal	63	J			6.45	ug/L
000110-62-3	Pentanal	47	J			9.06	ug/L
000066-25-1	Hexanal	54	J			10.74	ug/L
000111-71-7	Heptanal	61	J			12.02	ug/L
000124-13-0	Octanal	55	J			13.08	ug/L
000124-19-6	Nonanal	28	J			14.02	ug/L

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/16/12
Project:	Bethpage CTO-066	Date Received:	07/17/12
Client Sample ID:	BP-VPB135-GW-238	SDG No.:	D3413
Lab Sample ID:	D3413-04	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.03 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034200.D	1		07/17/12	VF071712

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	2.5	U	0.65	2.5	5	ug/Kg
74-87-3	Chloromethane	2.5	U	0.85	2.5	5	ug/Kg
75-01-4	Vinyl Chloride	2.5	U	1.2	2.5	5	ug/Kg
74-83-9	Bromomethane	2.5	U	2.4	2.5	5	ug/Kg
75-00-3	Chloroethane	2.5	U	1.4	2.5	5	ug/Kg
75-69-4	Trichlorofluoromethane	2.5	U	1.3	2.5	5	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.5	U	1.3	2.5	5	ug/Kg
75-35-4	1,1-Dichloroethene	2.5	U	1.5	2.5	5	ug/Kg
67-64-1	Acetone	35		3	12.5	25	ug/Kg
75-15-0	Carbon Disulfide	2.5	U	1.1	2.5	5	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.5	U	0.95	2.5	5	ug/Kg
79-20-9	Methyl Acetate	2.5	U	1.5	2.5	5	ug/Kg
75-09-2	Methylene Chloride	2.5	U	1.4	2.5	5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.5	U	0.69	2.5	5	ug/Kg
75-34-3	1,1-Dichloroethane	2.5	U	0.93	2.5	5	ug/Kg
110-82-7	Cyclohexane	2.5	U	1	2.5	5	ug/Kg
78-93-3	2-Butanone	12.5	U	3.1	12.5	25	ug/Kg
56-23-5	Carbon Tetrachloride	2.5	U	0.98	2.5	5	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.5	U	0.88	2.5	5	ug/Kg
74-97-5	Bromochloromethane	2.5	U	0.79	2.5	5	ug/Kg
67-66-3	Chloroform	2.5	U	0.74	2.5	5	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.5	U	0.87	2.5	5	ug/Kg
108-87-2	Methylcyclohexane	2.5	U	1.1	2.5	5	ug/Kg
71-43-2	Benzene	2.5	U	0.38	2.5	5	ug/Kg
107-06-2	1,2-Dichloroethane	2.5	U	0.64	2.5	5	ug/Kg
79-01-6	Trichloroethene	2.5	U	0.85	2.5	5	ug/Kg
78-87-5	1,2-Dichloropropane	2.5	U	0.26	2.5	5	ug/Kg
75-27-4	Bromodichloromethane	2.5	U	0.62	2.5	5	ug/Kg
108-10-1	4-Methyl-2-Pentanone	12.5	U	2.9	12.5	25	ug/Kg
108-88-3	Toluene	2.5	U	0.64	2.5	5	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.5	U	0.79	2.5	5	ug/Kg

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/16/12
Project:	Bethpage CTO-066	Date Received:	07/17/12
Client Sample ID:	BP-VPB135-GW-238	SDG No.:	D3413
Lab Sample ID:	D3413-04	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.03 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034200.D	1		07/17/12	VF071712

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	2.5	U	0.72	2.5	5	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.5	U	0.89	2.5	5	ug/Kg
591-78-6	2-Hexanone	12.5	U	3.9	12.5	25	ug/Kg
124-48-1	Dibromochloromethane	2.5	U	0.54	2.5	5	ug/Kg
106-93-4	1,2-Dibromoethane	2.5	U	0.64	2.5	5	ug/Kg
127-18-4	Tetrachloroethene	2.5	U	1	2.5	5	ug/Kg
108-90-7	Chlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
100-41-4	Ethyl Benzene	2.5	U	0.62	2.5	5	ug/Kg
179601-23-1	m/p-Xylenes	4.95	U	0.72	4.95	9.9	ug/Kg
95-47-6	o-Xylene	2.5	U	0.68	2.5	5	ug/Kg
100-42-5	Styrene	2.5	U	0.45	2.5	5	ug/Kg
75-25-2	Bromoform	2.5	U	0.74	2.5	5	ug/Kg
98-82-8	Isopropylbenzene	2.5	U	0.48	2.5	5	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.5	U	0.46	2.5	5	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.5	U	0.37	2.5	5	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.5	U	0.41	2.5	5	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.5	U	0.62	2.5	5	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.5	U	0.86	2.5	5	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.5	U	0.7	2.5	5	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
123-91-1	1,4-Dioxane	49.5	U	50	49.5	99	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	45.6		55 - 158		91%	SPK: 50
1868-53-7	Dibromofluoromethane	50.6		53 - 156		101%	SPK: 50
2037-26-5	Toluene-d8	51.7		85 - 115		103%	SPK: 50
460-00-4	4-Bromofluorobenzene	51		85 - 120		102%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	429843	4.35				
540-36-3	1,4-Difluorobenzene	752742	5.09				
3114-55-4	Chlorobenzene-d5	670476	9.3				
3855-82-1	1,4-Dichlorobenzene-d4	319364	12.22				
TENTATIVE IDENTIFIED COMPOUNDS							

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/16/12
Project:	Bethpage CTO-066	Date Received:	07/17/12
Client Sample ID:	BP-VPB135-GW-238	SDG No.:	D3413
Lab Sample ID:	D3413-04	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.03 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034200.D	1		07/17/12	VF071712

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
000592-84-7	Formic acid, butyl ester	5.5	J			6.78	ug/Kg
062960-76-3	4-Octene, 2,6-dimethyl-, [S-(E)]-	6.2	J			10.88	ug/Kg
000112-52-7	Dodecane, 1-chloro-	6.3	J			11.33	ug/Kg
91-20-3	Naphthalene	1.3	J			14.13	ug/Kg

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/16/12
Project:	Bethpage CTO-066	Date Received:	07/17/12
Client Sample ID:	BP-VPB135-GW-258	SDG No.:	D3413
Lab Sample ID:	D3413-05	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034201.D	1		07/17/12	VF071712

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	2.5	U	0.65	2.5	5	ug/Kg
74-87-3	Chloromethane	2.5	U	0.86	2.5	5	ug/Kg
75-01-4	Vinyl Chloride	2.5	U	1.2	2.5	5	ug/Kg
74-83-9	Bromomethane	2.5	U	2.4	2.5	5	ug/Kg
75-00-3	Chloroethane	2.5	U	1.4	2.5	5	ug/Kg
75-69-4	Trichlorofluoromethane	2.5	U	1.3	2.5	5	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.5	U	1.3	2.5	5	ug/Kg
75-35-4	1,1-Dichloroethene	2.5	U	1.5	2.5	5	ug/Kg
67-64-1	Acetone	30		3	12.5	25	ug/Kg
75-15-0	Carbon Disulfide	2.5	U	1.1	2.5	5	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.5	U	0.96	2.5	5	ug/Kg
79-20-9	Methyl Acetate	2.5	U	1.5	2.5	5	ug/Kg
75-09-2	Methylene Chloride	2.5	U	1.4	2.5	5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.5	U	0.69	2.5	5	ug/Kg
75-34-3	1,1-Dichloroethane	2.5	U	0.94	2.5	5	ug/Kg
110-82-7	Cyclohexane	2.5	U	1	2.5	5	ug/Kg
78-93-3	2-Butanone	12.5	U	3.1	12.5	25	ug/Kg
56-23-5	Carbon Tetrachloride	2.5	U	0.99	2.5	5	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.5	U	0.89	2.5	5	ug/Kg
74-97-5	Bromochloromethane	2.5	U	0.79	2.5	5	ug/Kg
67-66-3	Chloroform	2.5	U	0.74	2.5	5	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.5	U	0.88	2.5	5	ug/Kg
108-87-2	Methylcyclohexane	2.5	U	1.1	2.5	5	ug/Kg
71-43-2	Benzene	2.5	U	0.38	2.5	5	ug/Kg
107-06-2	1,2-Dichloroethane	2.5	U	0.64	2.5	5	ug/Kg
79-01-6	Trichloroethene	4.2	J	0.86	2.5	5	ug/Kg
78-87-5	1,2-Dichloropropane	2.5	U	0.26	2.5	5	ug/Kg
75-27-4	Bromodichloromethane	2.5	U	0.62	2.5	5	ug/Kg
108-10-1	4-Methyl-2-Pentanone	12.5	U	2.9	12.5	25	ug/Kg
108-88-3	Toluene	2.5	U	0.64	2.5	5	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.5	U	0.79	2.5	5	ug/Kg

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/16/12
Project:	Bethpage CTO-066	Date Received:	07/17/12
Client Sample ID:	BP-VPB135-GW-258	SDG No.:	D3413
Lab Sample ID:	D3413-05	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034201.D	1		07/17/12	VF071712

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	2.5	U	0.72	2.5	5	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.5	U	0.9	2.5	5	ug/Kg
591-78-6	2-Hexanone	12.5	U	3.9	12.5	25	ug/Kg
124-48-1	Dibromochloromethane	2.5	U	0.54	2.5	5	ug/Kg
106-93-4	1,2-Dibromoethane	2.5	U	0.64	2.5	5	ug/Kg
127-18-4	Tetrachloroethene	2.5	U	1	2.5	5	ug/Kg
108-90-7	Chlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
100-41-4	Ethyl Benzene	2.5	U	0.62	2.5	5	ug/Kg
179601-23-1	m/p-Xylenes	5	U	0.72	5	10	ug/Kg
95-47-6	o-Xylene	2.5	U	0.68	2.5	5	ug/Kg
100-42-5	Styrene	2.5	U	0.45	2.5	5	ug/Kg
75-25-2	Bromoform	2.5	U	0.74	2.5	5	ug/Kg
98-82-8	Isopropylbenzene	2.5	U	0.48	2.5	5	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.5	U	0.46	2.5	5	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.5	U	0.37	2.5	5	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.5	U	0.41	2.5	5	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.5	U	0.62	2.5	5	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.5	U	0.87	2.5	5	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.5	U	0.7	2.5	5	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
123-91-1	1,4-Dioxane	50	U	50	50	100	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	41.7		55 - 158		83%	SPK: 50
1868-53-7	Dibromofluoromethane	47.9		53 - 156		96%	SPK: 50
2037-26-5	Toluene-d8	49.1		85 - 115		98%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.5		85 - 120		95%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	441894	4.35				
540-36-3	1,4-Difluorobenzene	770275	5.1				
3114-55-4	Chlorobenzene-d5	660341	9.29				
3855-82-1	1,4-Dichlorobenzene-d4	316080	12.22				

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/16/12
Project:	Bethpage CTO-066	Date Received:	07/17/12
Client Sample ID:	BP-VPB135-GW-258	SDG No.:	D3413
Lab Sample ID:	D3413-05	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034201.D	1		07/17/12	VF071712

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/16/12
Project:	Bethpage CTO-066	Date Received:	07/17/12
Client Sample ID:	BP-VPB135-GW-278	SDG No.:	D3413
Lab Sample ID:	D3413-06	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.04 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034202.D	1		07/17/12	VF071712

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	2.5	U	0.64	2.5	5	ug/Kg
74-87-3	Chloromethane	2.5	U	0.85	2.5	5	ug/Kg
75-01-4	Vinyl Chloride	2.5	U	1.2	2.5	5	ug/Kg
74-83-9	Bromomethane	2.5	U	2.4	2.5	5	ug/Kg
75-00-3	Chloroethane	2.5	U	1.4	2.5	5	ug/Kg
75-69-4	Trichlorofluoromethane	2.5	U	1.3	2.5	5	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.5	U	1.3	2.5	5	ug/Kg
75-35-4	1,1-Dichloroethene	2.5	U	1.5	2.5	5	ug/Kg
67-64-1	Acetone	12.5	U	3	12.5	25	ug/Kg
75-15-0	Carbon Disulfide	2.5	U	1.1	2.5	5	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.5	U	0.95	2.5	5	ug/Kg
79-20-9	Methyl Acetate	2.5	U	1.5	2.5	5	ug/Kg
75-09-2	Methylene Chloride	2.5	U	1.4	2.5	5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.5	U	0.68	2.5	5	ug/Kg
75-34-3	1,1-Dichloroethane	2.5	U	0.93	2.5	5	ug/Kg
110-82-7	Cyclohexane	2.5	U	1	2.5	5	ug/Kg
78-93-3	2-Butanone	12.5	U	3.1	12.5	25	ug/Kg
56-23-5	Carbon Tetrachloride	2.5	U	0.98	2.5	5	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.5	U	0.88	2.5	5	ug/Kg
74-97-5	Bromochloromethane	2.5	U	0.78	2.5	5	ug/Kg
67-66-3	Chloroform	2.5	U	0.73	2.5	5	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.5	U	0.87	2.5	5	ug/Kg
108-87-2	Methylcyclohexane	2.5	U	1.1	2.5	5	ug/Kg
71-43-2	Benzene	2.5	U	0.38	2.5	5	ug/Kg
107-06-2	1,2-Dichloroethane	2.5	U	0.63	2.5	5	ug/Kg
79-01-6	Trichloroethene	16		0.85	2.5	5	ug/Kg
78-87-5	1,2-Dichloropropane	2.5	U	0.26	2.5	5	ug/Kg
75-27-4	Bromodichloromethane	2.5	U	0.62	2.5	5	ug/Kg
108-10-1	4-Methyl-2-Pentanone	12.5	U	2.9	12.5	25	ug/Kg
108-88-3	Toluene	2.5	U	0.63	2.5	5	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.5	U	0.78	2.5	5	ug/Kg

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/16/12
Project:	Bethpage CTO-066	Date Received:	07/17/12
Client Sample ID:	BP-VPB135-GW-278	SDG No.:	D3413
Lab Sample ID:	D3413-06	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.04 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034202.D	1		07/17/12	VF071712

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	2.5	U	0.71	2.5	5	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.5	U	0.89	2.5	5	ug/Kg
591-78-6	2-Hexanone	12.5	U	3.9	12.5	25	ug/Kg
124-48-1	Dibromochloromethane	2.5	U	0.54	2.5	5	ug/Kg
106-93-4	1,2-Dibromoethane	2.5	U	0.63	2.5	5	ug/Kg
127-18-4	Tetrachloroethene	2.5	U	1	2.5	5	ug/Kg
108-90-7	Chlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
100-41-4	Ethyl Benzene	2.5	U	0.62	2.5	5	ug/Kg
179601-23-1	m/p-Xylenes	4.95	U	0.71	4.95	9.9	ug/Kg
95-47-6	o-Xylene	2.5	U	0.67	2.5	5	ug/Kg
100-42-5	Styrene	2.5	U	0.45	2.5	5	ug/Kg
75-25-2	Bromoform	2.5	U	0.73	2.5	5	ug/Kg
98-82-8	Isopropylbenzene	2.5	U	0.48	2.5	5	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.5	U	0.46	2.5	5	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.5	U	0.37	2.5	5	ug/Kg
106-46-7	1,4-Diehlorobenzene	2.5	U	0.41	2.5	5	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.5	U	0.62	2.5	5	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.5	U	0.86	2.5	5	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.5	U	0.69	2.5	5	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
123-91-1	1,4-Dioxane	49.5	U	50	49.5	99	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	42.1		55 - 158		84%	SPK: 50
1868-53-7	Dibromofluoromethane	50.4		53 - 156		101%	SPK: 50
2037-26-5	Toluene-d8	49		85 - 115		98%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.6		85 - 120		97%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	435835	4.35				
540-36-3	1,4-Difluorobenzene	783998	5.09				
3114-55-4	Chlorobenzene-d5	685766	9.3				
3855-82-1	1,4-Dichlorobenzene-d4	321190	12.22				
TENTATIVE IDENTIFIED COMPOUNDS							

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/16/12
Project:	Bethpage CTO-066	Date Received:	07/17/12
Client Sample ID:	BP-VPB135-GW-278	SDG No.:	D3413
Lab Sample ID:	D3413-06	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.04 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034202.D	1		07/17/12	VF071712

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
000592-84-7	Formic acid, butyl ester	5.8	J			6.78	ug/Kg
000111-71-7	Heptanal	5.8	J			11.12	ug/Kg
000124-13-0	Octanal	6.7	J			12.44	ug/Kg
000124-19-6	Nonanal	7.7	J			13.42	ug/Kg

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/17/12
Project:	Bethpage CTO-066	Date Received:	07/19/12
Client Sample ID:	BP-VPB135-GW-298	SDG No.:	D3454
Lab Sample ID:	D3454-02	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034230.D	1		07/19/12	VF071912

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	2.5	U	0.65	2.5	5	ug/Kg
74-87-3	Chloromethane	2.5	U	0.86	2.5	5	ug/Kg
75-01-4	Vinyl Chloride	2.5	U	1.2	2.5	5	ug/Kg
74-83-9	Bromomethane	2.5	U	2.4	2.5	5	ug/Kg
75-00-3	Chloroethane	2.5	U	1.4	2.5	5	ug/Kg
75-69-4	Trichlorofluoromethane	2.5	U	1.3	2.5	5	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.5	U	1.3	2.5	5	ug/Kg
75-35-4	1,1-Dichloroethene	2.5	U	1.5	2.5	5	ug/Kg
67-64-1	Acetone	41		3	12.5	25	ug/Kg
75-15-0	Carbon Disulfide	2.5	U	1.1	2.5	5	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.5	U	0.96	2.5	5	ug/Kg
79-20-9	Methyl Acetate	2.5	U	1.5	2.5	5	ug/Kg
75-09-2	Methylene Chloride	2.5	U	1.4	2.5	5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.5	U	0.69	2.5	5	ug/Kg
75-34-3	1,1-Dichloroethane	2.5	U	0.94	2.5	5	ug/Kg
110-82-7	Cyclohexane	2.5	U	1	2.5	5	ug/Kg
78-93-3	2-Butanone	12	J	3.1	12.5	25	ug/Kg
56-23-5	Carbon Tetrachloride	2.5	U	0.99	2.5	5	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.5	U	0.89	2.5	5	ug/Kg
74-97-5	Bromochloromethane	2.5	U	0.79	2.5	5	ug/Kg
67-66-3	Chloroform	2.5	U	0.74	2.5	5	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.5	U	0.88	2.5	5	ug/Kg
108-87-2	Methylcyclohexane	2.5	U	1.1	2.5	5	ug/Kg
71-43-2	Benzene	2.5	U	0.38	2.5	5	ug/Kg
107-06-2	1,2-Dichloroethane	2.5	U	0.64	2.5	5	ug/Kg
79-01-6	Trichloroethene	35		0.86	2.5	5	ug/Kg
78-87-5	1,2-Dichloropropane	2.5	U	0.26	2.5	5	ug/Kg
75-27-4	Bromodichloromethane	2.5	U	0.62	2.5	5	ug/Kg
108-10-1	4-Methyl-2-Pentanone	12.5	U	2.9	12.5	25	ug/Kg
108-88-3	Toluene	2.5	U	0.64	2.5	5	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.5	U	0.79	2.5	5	ug/Kg

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/17/12
Project:	Bethpage CTO-066	Date Received:	07/19/12
Client Sample ID:	BP-VPB135-GW-298	SDG No.:	D3454
Lab Sample ID:	D3454-02	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034230.D	1		07/19/12	VF071912

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	2.5	U	0.72	2.5	5	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.5	U	0.9	2.5	5	ug/Kg
591-78-6	2-Hexanone	12.5	U	3.9	12.5	25	ug/Kg
124-48-1	Dibromochloromethane	2.5	U	0.54	2.5	5	ug/Kg
106-93-4	1,2-Dibromoethane	2.5	U	0.64	2.5	5	ug/Kg
127-18-4	Tetrachloroethene	2.5	U	1	2.5	5	ug/Kg
108-90-7	Chlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
100-41-4	Ethyl Benzene	2.5	U	0.62	2.5	5	ug/Kg
179601-23-1	m/p-Xylenes	5	U	0.72	5	10	ug/Kg
95-47-6	o-Xylene	2.5	U	0.68	2.5	5	ug/Kg
100-42-5	Styrene	2.5	U	0.45	2.5	5	ug/Kg
75-25-2	Bromoform	2.5	U	0.74	2.5	5	ug/Kg
98-82-8	Isopropylbenzene	2.5	U	0.48	2.5	5	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.5	U	0.46	2.5	5	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.5	U	0.37	2.5	5	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.5	U	0.41	2.5	5	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.5	U	0.62	2.5	5	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.5	U	0.87	2.5	5	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.5	U	0.7	2.5	5	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
123-91-1	1,4-Dioxane	50	U	50	50	100	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	47.4		55 - 158		95%	SPK: 50
1868-53-7	Dibromofluoromethane	51.1		53 - 156		102%	SPK: 50
2037-26-5	Toluene-d8	51.3		85 - 115		103%	SPK: 50
460-00-4	4-Bromofluorobenzene	53		85 - 120		106%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	461274	4.35				
540-36-3	1,4-Difluorobenzene	876212	5.09				
3114-55-4	Chlorobenzene-d5	790074	9.3				
3855-82-1	1,4-Dichlorobenzene-d4	360453	12.22				
TENTATIVE IDENTIFIED COMPOUNDS							

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/17/12
Project:	Bethpage CTO-066	Date Received:	07/19/12
Client Sample ID:	BP-VPB135-GW-298	SDG No.:	D3454
Lab Sample ID:	D3454-02	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034230.D	1		07/19/12	VF071912

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
000123-72-8	Butanal	9.3	J			3.34	ug/Kg
000110-62-3	Pentanal	6.2	J			6.37	ug/Kg
000066-25-1	Hexanal	8.5	J			9.01	ug/Kg
000111-71-7	Heptanal	8.3	J			11.12	ug/Kg
000124-13-0	Octanal	6.5	J			12.44	ug/Kg

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/17/12
Project:	Bethpage CTO-066	Date Received:	07/19/12
Client Sample ID:	BP-VPB135-GW-318	SDG No.:	D3454
Lab Sample ID:	D3454-03	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034231.D	1		07/19/12	VF071912

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	2.5	U	0.65	2.5	5	ug/Kg
74-87-3	Chloromethane	2.5	U	0.86	2.5	5	ug/Kg
75-01-4	Vinyl Chloride	2.5	U	1.2	2.5	5	ug/Kg
74-83-9	Bromomethane	2.5	U	2.4	2.5	5	ug/Kg
75-00-3	Chloroethane	2.5	U	1.4	2.5	5	ug/Kg
75-69-4	Trichlorofluoromethane	2.5	U	1.3	2.5	5	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.5	U	1.3	2.5	5	ug/Kg
75-35-4	1,1-Dichloroethene	2.5	U	1.5	2.5	5	ug/Kg
67-64-1	Acetone	12.5	U	3	12.5	25	ug/Kg
75-15-0	Carbon Disulfide	2.5	U	1.1	2.5	5	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.5	U	0.96	2.5	5	ug/Kg
79-20-9	Methyl Acetate	2.5	U	1.5	2.5	5	ug/Kg
75-09-2	Methylene Chloride	2.5	U	1.4	2.5	5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.5	U	0.69	2.5	5	ug/Kg
75-34-3	1,1-Dichloroethane	2.5	U	0.94	2.5	5	ug/Kg
110-82-7	Cyclohexane	2.5	U	1	2.5	5	ug/Kg
78-93-3	2-Butanone	12.5	U	3.1	12.5	25	ug/Kg
56-23-5	Carbon Tetrachloride	2.5	U	0.99	2.5	5	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.5	U	0.89	2.5	5	ug/Kg
74-97-5	Bromochloromethane	2.5	U	0.79	2.5	5	ug/Kg
67-66-3	Chloroform	2.5	U	0.74	2.5	5	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.5	U	0.88	2.5	5	ug/Kg
108-87-2	Methylcyclohexane	2.5	U	1.1	2.5	5	ug/Kg
71-43-2	Benzene	2.5	U	0.38	2.5	5	ug/Kg
107-06-2	1,2-Dichloroethane	2.5	U	0.64	2.5	5	ug/Kg
79-01-6	Trichloroethene	2.5	U	0.86	2.5	5	ug/Kg
78-87-5	1,2-Dichloropropane	2.5	U	0.26	2.5	5	ug/Kg
75-27-4	Bromodichloromethane	2.5	U	0.62	2.5	5	ug/Kg
108-10-1	4-Methyl-2-Pentanone	12.5	U	2.9	12.5	25	ug/Kg
108-88-3	Toluene	2.5	U	0.64	2.5	5	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.5	U	0.79	2.5	5	ug/Kg

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/17/12
Project:	Bethpage CTO-066	Date Received:	07/19/12
Client Sample ID:	BP-VPB135-GW-318	SDG No.:	D3454
Lab Sample ID:	D3454-03	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034231.D	1		07/19/12	VF071912

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	2.5	U	0.72	2.5	5	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.5	U	0.9	2.5	5	ug/Kg
591-78-6	2-Hexanone	12.5	U	3.9	12.5	25	ug/Kg
124-48-1	Dibromochloromethane	2.5	U	0.54	2.5	5	ug/Kg
106-93-4	1,2-Dibromoethane	2.5	U	0.64	2.5	5	ug/Kg
127-18-4	Tetrachloroethene	2.5	U	1	2.5	5	ug/Kg
108-90-7	Chlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
100-41-4	Ethyl Benzene	2.5	U	0.62	2.5	5	ug/Kg
179601-23-1	m/p-Xylenes	5	U	0.72	5	10	ug/Kg
95-47-6	o-Xylene	2.5	U	0.68	2.5	5	ug/Kg
100-42-5	Styrene	2.5	U	0.45	2.5	5	ug/Kg
75-25-2	Bromoform	2.5	U	0.74	2.5	5	ug/Kg
98-82-8	Isopropylbenzene	2.5	U	0.48	2.5	5	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.5	U	0.46	2.5	5	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.5	U	0.37	2.5	5	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.5	U	0.41	2.5	5	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.5	U	0.62	2.5	5	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.5	U	0.87	2.5	5	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.5	U	0.7	2.5	5	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
123-91-1	1,4-Dioxane	50	U	50	50	100	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	46.6		55 - 158		93%	SPK: 50
1868-53-7	Dibromofluoromethane	52.1		53 - 156		104%	SPK: 50
2037-26-5	Toluene-d8	53.2		85 - 115		106%	SPK: 50
460-00-4	4-Bromofluorobenzene	54		85 - 120		108%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	455110	4.36				
540-36-3	1,4-Difluorobenzene	835770	5.1				
3114-55-4	Chlorobenzene-d5	764975	9.3				
3855-82-1	1,4-Dichlorobenzene-d4	328774	12.22				
TENTATIVE IDENTIFIED COMPOUNDS							

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/17/12
Project:	Bethpage CTO-066	Date Received:	07/19/12
Client Sample ID:	BP-VPB135-GW-318	SDG No.:	D3454
Lab Sample ID:	D3454-03	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034231.D	1		07/19/12	VF071912

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
000124-18-5	Decane	6.4	J			11.33	ug/Kg

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/18/12
Project:	Bethpage CTO-066	Date Received:	07/19/12
Client Sample ID:	BP-VPB135-GW-338	SDG No.:	D3454
Lab Sample ID:	D3454-04	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034232.D	1		07/19/12	VF071912

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	2.5	U	0.65	2.5	5	ug/Kg
74-87-3	Chloromethane	2.5	U	0.86	2.5	5	ug/Kg
75-01-4	Vinyl Chloride	2.5	U	1.2	2.5	5	ug/Kg
74-83-9	Bromomethane	2.5	U	2.4	2.5	5	ug/Kg
75-00-3	Chloroethane	2.5	U	1.4	2.5	5	ug/Kg
75-69-4	Trichlorofluoromethane	2.5	U	1.3	2.5	5	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.5	U	1.3	2.5	5	ug/Kg
75-35-4	1,1-Dichloroethene	2.5	U	1.5	2.5	5	ug/Kg
67-64-1	Acetone	43		3	12.5	25	ug/Kg
75-15-0	Carbon Disulfide	2.5	U	1.1	2.5	5	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.5	U	0.96	2.5	5	ug/Kg
79-20-9	Methyl Acetate	2.5	U	1.5	2.5	5	ug/Kg
75-09-2	Methylene Chloride.	2.5	U	1.4	2.5	5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.5	U	0.69	2.5	5	ug/Kg
75-34-3	1,1-Dichloroethane	2.5	U	0.94	2.5	5	ug/Kg
110-82-7	Cyclohexane	2.5	U	1	2.5	5	ug/Kg
78-93-3	2-Butanone	12.5	U	3.1	12.5	25	ug/Kg
56-23-5	Carbon Tetrachloride	2.5	U	0.99	2.5	5	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.5	U	0.89	2.5	5	ug/Kg
74-97-5	Bromochloromethane	2.5	U	0.79	2.5	5	ug/Kg
67-66-3	Chloroform	2.5	U	0.74	2.5	5	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.5	U	0.88	2.5	5	ug/Kg
108-87-2	Methylcyclohexane	2.5	U	1.1	2.5	5	ug/Kg
71-43-2	Benzene	2.5	U	0.38	2.5	5	ug/Kg
107-06-2	1,2-Dichloroethane	2.5	U	0.64	2.5	5	ug/Kg
79-01-6	Trichloroethene	2.5	U	0.86	2.5	5	ug/Kg
78-87-5	1,2-Dichloropropane	2.5	U	0.26	2.5	5	ug/Kg
75-27-4	Bromodichloromethane	2.5	U	0.62	2.5	5	ug/Kg
108-10-1	4-Methyl-2-Pentanone	12.5	U	2.9	12.5	25	ug/Kg
108-88-3	Toluene	2.5	U	0.64	2.5	5	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.5	U	0.79	2.5	5	ug/Kg

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/18/12
Project:	Bethpage CTO-066	Date Received:	07/19/12
Client Sample ID:	BP-VPB135-GW-338	SDG No.:	D3454
Lab Sample ID:	D3454-04	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034232.D	1		07/19/12	VF071912

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	2.5	U	0.72	2.5	5	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.5	U	0.9	2.5	5	ug/Kg
591-78-6	2-Hexanone	12.5	U	3.9	12.5	25	ug/Kg
124-48-1	Dibromochloromethane	2.5	U	0.54	2.5	5	ug/Kg
106-93-4	1,2-Dibromoethane	2.5	U	0.64	2.5	5	ug/Kg
127-18-4	Tetrachloroethene	2.5	U	1	2.5	5	ug/Kg
108-90-7	Chlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
100-41-4	Ethyl Benzene	2.5	U	0.62	2.5	5	ug/Kg
179601-23-1	m/p-Xylenes	5	U	0.72	5	10	ug/Kg
95-47-6	o-Xylene	2.5	U	0.68	2.5	5	ug/Kg
100-42-5	Styrene	2.5	U	0.45	2.5	5	ug/Kg
75-25-2	Bromoform	2.5	U	0.74	2.5	5	ug/Kg
98-82-8	Isopropylbenzene	2.5	U	0.48	2.5	5	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.5	U	0.46	2.5	5	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.5	U	0.37	2.5	5	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.5	U	0.41	2.5	5	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.5	U	0.62	2.5	5	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.5	U	0.87	2.5	5	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.5	U	0.7	2.5	5	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
123-91-1	1,4-Dioxane	50	U	50	50	100	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	44.6		55 - 158		89%	SPK: 50
1868-53-7	Dibromofluoromethane	50.3		53 - 156		101%	SPK: 50
2037-26-5	Toluene-d8	52.2		85 - 115		104%	SPK: 50
460-00-4	4-Bromofluorobenzene	52.4		85 - 120		105%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	465297	4.35				
540-36-3	1,4-Difluorobenzene	850968	5.09				
3114-55-4	Chlorobenzene-d5	737223	9.3				
3855-82-1	1,4-Dichlorobenzene-d4	323171	12.22				

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/18/12
Project:	Bethpage CTO-066	Date Received:	07/19/12
Client Sample ID:	BP-VPB135-GW-338	SDG No.:	D3454
Lab Sample ID:	D3454-04	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034232.D	1		07/19/12	VF071912

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/18/12
Project:	Bethpage CTO-066	Date Received:	07/19/12
Client Sample ID:	BP-VPB135-GW-358	SDG No.:	D3454
Lab Sample ID:	D3454-05	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034233.D	1		07/19/12	VF071912

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	2.5	U	0.65	2.5	5	ug/Kg
74-87-3	Chloromethane	2.5	U	0.86	2.5	5	ug/Kg
75-01-4	Vinyl Chloride	2.5	U	1.2	2.5	5	ug/Kg
74-83-9	Bromomethane	2.5	U	2.4	2.5	5	ug/Kg
75-00-3	Chloroethane	2.5	U	1.4	2.5	5	ug/Kg
75-69-4	Trichlorofluoromethane	2.5	U	1.3	2.5	5	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.5	U	1.3	2.5	5	ug/Kg
75-35-4	1,1-Dichloroethene	2.5	U	1.5	2.5	5	ug/Kg
67-64-1	Acetone	34		3	12.5	25	ug/Kg
75-15-0	Carbon Disulfide	2.5	U	1.1	2.5	5	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.5	U	0.96	2.5	5	ug/Kg
79-20-9	Methyl Acetate	2.5	U	1.5	2.5	5	ug/Kg
75-09-2	Methylene Chloride	2.5	U	1.4	2.5	5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.5	U	0.69	2.5	5	ug/Kg
75-34-3	1,1-Dichloroethane	2.5	U	0.94	2.5	5	ug/Kg
110-82-7	Cyclohexane	2.5	U	1	2.5	5	ug/Kg
78-93-3	2-Butanone	12.5	U	3.1	12.5	25	ug/Kg
56-23-5	Carbon Tetrachloride	2.5	U	0.99	2.5	5	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.5	U	0.89	2.5	5	ug/Kg
74-97-5	Bromochloromethane	2.5	U	0.79	2.5	5	ug/Kg
67-66-3	Chloroform	2.5	U	0.74	2.5	5	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.5	U	0.88	2.5	5	ug/Kg
108-87-2	Methylcyclohexane	2.5	U	1.1	2.5	5	ug/Kg
71-43-2	Benzene	2.5	U	0.38	2.5	5	ug/Kg
107-06-2	1,2-Dichloroethane	2.5	U	0.64	2.5	5	ug/Kg
79-01-6	Trichloroethene	2.5	U	0.86	2.5	5	ug/Kg
78-87-5	1,2-Dichloropropane	2.5	U	0.26	2.5	5	ug/Kg
75-27-4	Bromodichloromethane	2.5	U	0.62	2.5	5	ug/Kg
108-10-1	4-Methyl-2-Pentanone	12.5	U	2.9	12.5	25	ug/Kg
108-88-3	Toluene	2.5	U	0.64	2.5	5	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.5	U	0.79	2.5	5	ug/Kg

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/18/12
Project:	Bethpage CTO-066	Date Received:	07/19/12
Client Sample ID:	BP-VPB135-GW-358	SDG No.:	D3454
Lab Sample ID:	D3454-05	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034233.D	1		07/19/12	VF071912

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	2.5	U	0.72	2.5	5	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.5	U	0.9	2.5	5	ug/Kg
591-78-6	2-Hexanone	12.5	U	3.9	12.5	25	ug/Kg
124-48-1	Dibromochloromethane	2.5	U	0.54	2.5	5	ug/Kg
106-93-4	1,2-Dibromoethane	2.5	U	0.64	2.5	5	ug/Kg
127-18-4	Tetrachloroethene	2.5	U	1	2.5	5	ug/Kg
108-90-7	Chlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
100-41-4	Ethyl Benzene	2.5	U	0.62	2.5	5	ug/Kg
179601-23-1	m/p-Xylenes	5	U	0.72	5	10	ug/Kg
95-47-6	o-Xylene	2.5	U	0.68	2.5	5	ug/Kg
100-42-5	Styrene	2.5	U	0.45	2.5	5	ug/Kg
75-25-2	Bromoform	2.5	U	0.74	2.5	5	ug/Kg
98-82-8	Isopropylbenzene	2.5	U	0.48	2.5	5	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.5	U	0.46	2.5	5	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.5	U	0.37	2.5	5	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.5	U	0.41	2.5	5	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.5	U	0.62	2.5	5	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.5	U	0.87	2.5	5	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.5	U	0.7	2.5	5	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
123-91-1	1,4-Dioxane	50	U	50	50	100	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	46.3		55 - 158		93%	SPK: 50
1868-53-7	Dibromofluoromethane	51.7		53 - 156		103%	SPK: 50
2037-26-5	Toluene-d8	52.5		85 - 115		105%	SPK: 50
460-00-4	4-Bromofluorobenzene	53.5		85 - 120		107%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	413171	4.36				
540-36-3	1,4-Difluorobenzene	784381	5.09				
3114-55-4	Chlorobenzene-d5	721117	9.3				
3855-82-1	1,4-Dichlorobenzene-d4	319538	12.23				

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/18/12
Project:	Bethpage CTO-066	Date Received:	07/19/12
Client Sample ID:	BP-VPB135-GW-358	SDG No.:	D3454
Lab Sample ID:	D3454-05	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034233.D	1		07/19/12	VF071912

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/18/12
Project:	Bethpage CTO-066	Date Received:	07/19/12
Client Sample ID:	BP-VPB135-GW-378	SDG No.:	D3454
Lab Sample ID:	D3454-06	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.03 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034234.D	1		07/19/12	VF071912

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	2.5	U	0.65	2.5	5	ug/Kg
74-87-3	Chloromethane	2.5	U	0.85	2.5	5	ug/Kg
75-01-4	Vinyl Chloride	2.5	U	1.2	2.5	5	ug/Kg
74-83-9	Bromomethane	2.5	U	2.4	2.5	5	ug/Kg
75-00-3	Chloroethane	2.5	U	1.4	2.5	5	ug/Kg
75-69-4	Trichlorofluoromethane	2.5	U	1.3	2.5	5	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.5	U	1.3	2.5	5	ug/Kg
75-35-4	1,1-Dichloroethene	2.5	U	1.5	2.5	5	ug/Kg
67-64-1	Acetone	18	J	3	12.5	25	ug/Kg
75-15-0	Carbon Disulfide	2.5	U	1.1	2.5	5	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.5	U	0.95	2.5	5	ug/Kg
79-20-9	Methyl Acetate	2.5	U	1.5	2.5	5	ug/Kg
75-09-2	Methylene Chloride	2.5	U	1.4	2.5	5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.5	U	0.69	2.5	5	ug/Kg
75-34-3	1,1-Dichloroethane	2.5	U	0.93	2.5	5	ug/Kg
110-82-7	Cyclohexane	2.5	U	1	2.5	5	ug/Kg
78-93-3	2-Butanone	12.5	U	3.1	12.5	25	ug/Kg
56-23-5	Carbon Tetrachloride	2.5	U	0.98	2.5	5	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.5	U	0.88	2.5	5	ug/Kg
74-97-5	Bromochloromethane	2.5	U	0.79	2.5	5	ug/Kg
67-66-3	Chloroform	2.5	U	0.74	2.5	5	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.5	U	0.87	2.5	5	ug/Kg
108-87-2	Methylcyclohexane	2.5	U	1.1	2.5	5	ug/Kg
71-43-2	Benzene	2.5	U	0.38	2.5	5	ug/Kg
107-06-2	1,2-Dichloroethane	2.5	U	0.64	2.5	5	ug/Kg
79-01-6	Trichloroethene	2.5	U	0.85	2.5	5	ug/Kg
78-87-5	1,2-Dichloropropane	2.5	U	0.26	2.5	5	ug/Kg
75-27-4	Bromodichloromethane	2.5	U	0.62	2.5	5	ug/Kg
108-10-1	4-Methyl-2-Pentanone	12.5	U	2.9	12.5	25	ug/Kg
108-88-3	Toluene	2.5	U	0.64	2.5	5	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.5	U	0.79	2.5	5	ug/Kg

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/18/12
Project:	Bethpage CTO-066	Date Received:	07/19/12
Client Sample ID:	BP-VPB135-GW-378	SDG No.:	D3454
Lab Sample ID:	D3454-06	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.03 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034234.D	1		07/19/12	VF071912

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	2.5	U	0.72	2.5	5	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.5	U	0.89	2.5	5	ug/Kg
591-78-6	2-Hexanone	12.5	U	3.9	12.5	25	ug/Kg
124-48-1	Dibromochloromethane	2.5	U	0.54	2.5	5	ug/Kg
106-93-4	1,2-Dibromoethane	2.5	U	0.64	2.5	5	ug/Kg
127-18-4	Tetrachloroethene	2.5	U	1	2.5	5	ug/Kg
108-90-7	Chlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
100-41-4	Ethyl Benzene	2.5	U	0.62	2.5	5	ug/Kg
179601-23-1	m/p-Xylenes	4.95	U	0.72	4.95	9.9	ug/Kg
95-47-6	o-Xylene	2.5	U	0.68	2.5	5	ug/Kg
100-42-5	Styrene	2.5	U	0.45	2.5	5	ug/Kg
75-25-2	Bromoform	2.5	U	0.74	2.5	5	ug/Kg
98-82-8	Isopropylbenzene	2.5	U	0.48	2.5	5	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.5	U	0.46	2.5	5	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.5	U	0.37	2.5	5	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.5	U	0.41	2.5	5	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.5	U	0.62	2.5	5	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.5	U	0.86	2.5	5	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.5	U	0.7	2.5	5	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
123-91-1	1,4-Dioxane	49.5	U	49.9	49.5	99	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	44.9		55 - 158		90%	SPK: 50
1868-53-7	Dibromofluoromethane	51.8		53 - 156		104%	SPK: 50
2037-26-5	Toluene-d8	52.7		85 - 115		105%	SPK: 50
460-00-4	4-Bromofluorobenzene	52.5		85 - 120		105%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	432941	4.36				
540-36-3	1,4-Difluorobenzene	797497	5.1				
3114-55-4	Chlorobenzene-d5	738991	9.3				
3855-82-1	1,4-Dichlorobenzene-d4	303623	12.22				

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/18/12
Project:	Bethpage CTO-066	Date Received:	07/19/12
Client Sample ID:	BP-VPB135-GW-378	SDG No.:	D3454
Lab Sample ID:	D3454-06	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.03 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034234.D	1		07/19/12	VF071912

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/19/12
Project:	Bethpage CTO-066	Date Received:	07/20/12
Client Sample ID:	BP-VPB135-GW-398	SDG No.:	D3470
Lab Sample ID:	D3470-12	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034322.D	1		07/23/12	VF072312

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	2.5	U	0.65	2.5	5	ug/Kg
74-87-3	Chloromethane	2.5	U	0.86	2.5	5	ug/Kg
75-01-4	Vinyl Chloride	2.5	U	1.2	2.5	5	ug/Kg
74-83-9	Bromomethane	2.5	U	2.4	2.5	5	ug/Kg
75-00-3	Chloroethane	2.5	U	1.4	2.5	5	ug/Kg
75-69-4	Trichlorofluoromethane	2.5	U	1.3	2.5	5	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.5	U	1.3	2.5	5	ug/Kg
75-35-4	1,1-Dichloroethene	2.5	U	1.5	2.5	5	ug/Kg
67-64-1	Acetone	12.5	U	3	12.5	25	ug/Kg
75-15-0	Carbon Disulfide	2.5	U	1.1	2.5	5	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.5	U	0.96	2.5	5	ug/Kg
79-20-9	Methyl Acetate	2.5	U	1.5	2.5	5	ug/Kg
75-09-2	Methylene Chloride	2.5	U	1.4	2.5	5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.5	U	0.69	2.5	5	ug/Kg
75-34-3	1,1-Dichloroethane	2.5	U	0.94	2.5	5	ug/Kg
110-82-7	Cyclohexane	2.5	U	1	2.5	5	ug/Kg
78-93-3	2-Butanone	12.5	U	3.1	12.5	25	ug/Kg
56-23-5	Carbon Tetrachloride	2.5	U	0.99	2.5	5	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.5	U	0.89	2.5	5	ug/Kg
74-97-5	Bromochloromethane	2.5	U	0.79	2.5	5	ug/Kg
67-66-3	Chloroform	2.5	U	0.74	2.5	5	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.5	U	0.88	2.5	5	ug/Kg
108-87-2	Methylcyclohexane	2.5	U	1.1	2.5	5	ug/Kg
71-43-2	Benzene	2.5	U	0.38	2.5	5	ug/Kg
107-06-2	1,2-Dichloroethane	2.5	U	0.64	2.5	5	ug/Kg
79-01-6	Trichloroethene	2.5	U	0.86	2.5	5	ug/Kg
78-87-5	1,2-Dichloropropane	2.5	U	0.26	2.5	5	ug/Kg
75-27-4	Bromodichloromethane	2.5	U	0.62	2.5	5	ug/Kg
108-10-1	4-Methyl-2-Pentanone	12.5	U	2.9	12.5	25	ug/Kg
108-88-3	Toluene	2.5	U	0.64	2.5	5	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.5	U	0.79	2.5	5	ug/Kg

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/19/12
Project:	Bethpage CTO-066	Date Received:	07/20/12
Client Sample ID:	BP-VPB135-GW-398	SDG No.:	D3470
Lab Sample ID:	D3470-12	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034322.D	1		07/23/12	VF072312

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	2.5	U	0.72	2.5	5	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.5	U	0.9	2.5	5	ug/Kg
591-78-6	2-Hexanone	12.5	U	3.9	12.5	25	ug/Kg
124-48-1	Dibromochloromethane	2.5	U	0.54	2.5	5	ug/Kg
106-93-4	1,2-Dibromoethane	2.5	U	0.64	2.5	5	ug/Kg
127-18-4	Tetrachloroethene	2.5	U	1	2.5	5	ug/Kg
108-90-7	Chlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
100-41-4	Ethyl Benzene	2.5	U	0.62	2.5	5	ug/Kg
179601-23-1	m/p-Xylenes	5	U	0.72	5	10	ug/Kg
95-47-6	o-Xylene	2.5	U	0.68	2.5	5	ug/Kg
100-42-5	Styrene	2.5	U	0.45	2.5	5	ug/Kg
75-25-2	Bromoform	2.5	U	0.74	2.5	5	ug/Kg
98-82-8	Isopropylbenzene	2.5	U	0.48	2.5	5	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.5	U	0.46	2.5	5	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.5	U	0.37	2.5	5	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.5	U	0.41	2.5	5	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.5	U	0.62	2.5	5	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.5	U	0.87	2.5	5	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.5	U	0.7	2.5	5	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
123-91-1	1,4-Dioxane	50	U	50	50	100	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	37.7		55 - 158		75%	SPK: 50
1868-53-7	Dibromofluoromethane	45		53 - 156		90%	SPK: 50
2037-26-5	Toluene-d8	48.6		85 - 115		97%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.4		85 - 120		93%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	388619	4.34				
540-36-3	1,4-Difluorobenzene	738343	5.08				
3114-55-4	Chlorobenzene-d5	643855	9.29				
3855-82-1	1,4-Dichlorobenzene-d4	273764	12.22				

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/19/12
Project:	Bethpage CTO-066	Date Received:	07/20/12
Client Sample ID:	BP-VPB135-GW-398	SDG No.:	D3470
Lab Sample ID:	D3470-12	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034322.D	1		07/23/12	VF072312

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/20/12
Project:	Bethpage CTO-066	Date Received:	07/23/12
Client Sample ID:	BP-VPB135-GW-418	SDG No.:	D3507
Lab Sample ID:	D3507-09	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034382.D	1		07/24/12	VF072412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	2.5	U	0.65	2.5	5	ug/Kg
74-87-3	Chloromethane	2.5	U	0.86	2.5	5	ug/Kg
75-01-4	Vinyl Chloride	2.5	U	1.2	2.5	5	ug/Kg
74-83-9	Bromomethane	2.5	U	2.4	2.5	5	ug/Kg
75-00-3	Chloroethane	2.5	U	1.4	2.5	5	ug/Kg
75-69-4	Trichlorofluoromethane	2.5	U	1.3	2.5	5	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.5	U	1.3	2.5	5	ug/Kg
75-35-4	1,1-Dichloroethene	2.5	U	1.5	2.5	5	ug/Kg
67-64-1	Acetone	24	J	3	12.5	25	ug/Kg
75-15-0	Carbon Disulfide	2.5	U	1.1	2.5	5	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.5	U	0.96	2.5	5	ug/Kg
79-20-9	Methyl Acetate	2.5	U	1.5	2.5	5	ug/Kg
75-09-2	Methylene Chloride	2.7	J	1.4	2.5	5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.5	U	0.69	2.5	5	ug/Kg
75-34-3	1,1-Dichloroethane	2.5	U	0.94	2.5	5	ug/Kg
110-82-7	Cyclohexane	2.5	U	1	2.5	5	ug/Kg
78-93-3	2-Butanone	12.5	U	3.1	12.5	25	ug/Kg
56-23-5	Carbon Tetrachloride	2.5	U	0.99	2.5	5	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.5	U	0.89	2.5	5	ug/Kg
74-97-5	Bromochloromethane	2.5	U	0.79	2.5	5	ug/Kg
67-66-3	Chloroform	2.5	U	0.74	2.5	5	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.5	U	0.88	2.5	5	ug/Kg
108-87-2	Methylcyclohexane	2.5	U	1.1	2.5	5	ug/Kg
71-43-2	Benzene	2.5	U	0.38	2.5	5	ug/Kg
107-06-2	1,2-Dichloroethane	2.5	U	0.64	2.5	5	ug/Kg
79-01-6	Trichloroethene	1.5	J	0.86	2.5	5	ug/Kg
78-87-5	1,2-Dichloropropane	2.5	U	0.26	2.5	5	ug/Kg
75-27-4	Bromodichloromethane	2.5	U	0.62	2.5	5	ug/Kg
108-10-1	4-Methyl-2-Pentanone	12.5	U	2.9	12.5	25	ug/Kg
108-88-3	Toluene	2.5	U	0.64	2.5	5	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.5	U	0.79	2.5	5	ug/Kg

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/20/12
Project:	Bethpage CTO-066	Date Received:	07/23/12
Client Sample ID:	BP-VPB135-GW-418	SDG No.:	D3507
Lab Sample ID:	D3507-09	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034382.D	1		07/24/12	VF072412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	2.5	U	0.72	2.5	5	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.5	U	0.9	2.5	5	ug/Kg
591-78-6	2-Hexanone	12.5	U	3.9	12.5	25	ug/Kg
124-48-1	Dibromochloromethane	2.5	U	0.54	2.5	5	ug/Kg
106-93-4	1,2-Dibromoethane	2.5	U	0.64	2.5	5	ug/Kg
127-18-4	Tetrachloroethene	2.5	U	1	2.5	5	ug/Kg
108-90-7	Chlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
100-41-4	Ethyl Benzene	2.5	U	0.62	2.5	5	ug/Kg
179601-23-1	m/p-Xylenes	5	U	0.72	5	10	ug/Kg
95-47-6	o-Xylene	2.5	U	0.68	2.5	5	ug/Kg
100-42-5	Styrene	2.5	U	0.45	2.5	5	ug/Kg
75-25-2	Bromoform	2.5	U	0.74	2.5	5	ug/Kg
98-82-8	Isopropylbenzene	2.5	U	0.48	2.5	5	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.5	U	0.46	2.5	5	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.5	U	0.37	2.5	5	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.5	U	0.41	2.5	5	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.5	U	0.62	2.5	5	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.5	U	0.87	2.5	5	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.5	U	0.7	2.5	5	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
123-91-1	1,4-Dioxane	50	U	50	50	100	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	40.1		55 - 158		80%	SPK: 50
1868-53-7	Dibromofluoromethane	47		53 - 156		94%	SPK: 50
2037-26-5	Toluene-d8	47		85 - 115		94%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.1		85 - 120		94%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	308583	4.37				
540-36-3	1,4-Difluorobenzene	543336	5.11				
3114-55-4	Chlorobenzene-d5	492438	9.31				
3855-82-1	1,4-Dichlorobenzene-d4	226468	12.23				

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/20/12
Project:	Bethpage CTO-066	Date Received:	07/23/12
Client Sample ID:	BP-VPB135-GW-418	SDG No.:	D3507
Lab Sample ID:	D3507-09	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034382.D	1		07/24/12	VF072412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/20/12
Project:	Bethpage CTO-066	Date Received:	07/23/12
Client Sample ID:	BP-VPB135-GW-438	SDG No.:	D3507
Lab Sample ID:	D3507-10	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	1 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034383.D	1		07/24/12	VF072412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	12.5	U	3.2	12.5	25	ug/Kg
74-87-3	Chloromethane	12.5	U	4.3	12.5	25	ug/Kg
75-01-4	Vinyl Chloride	12.5	U	6.2	12.5	25	ug/Kg
74-83-9	Bromomethane	12.5	U	12	12.5	25	ug/Kg
75-00-3	Chloroethane	12.5	U	7	12.5	25	ug/Kg
75-69-4	Trichlorofluoromethane	12.5	U	6.6	12.5	25	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	12.5	U	6.6	12.5	25	ug/Kg
75-35-4	1,1-Dichloroethene	12.5	U	7.4	12.5	25	ug/Kg
67-64-1	Acetone	60	U	15	60	120	ug/Kg
75-15-0	Carbon Disulfide	12.5	U	5.3	12.5	25	ug/Kg
1634-04-4	Methyl tert-butyl Ether	12.5	U	4.8	12.5	25	ug/Kg
79-20-9	Methyl Acetate	12.5	U	7.6	12.5	25	ug/Kg
75-09-2	Methylene Chloride	16	J	7.1	12.5	25	ug/Kg
156-60-5	trans-1,2-Dichloroethene	12.5	U	3.4	12.5	25	ug/Kg
75-34-3	1,1-Dichloroethane	12.5	U	4.7	12.5	25	ug/Kg
110-82-7	Cyclohexane	12.5	U	5	12.5	25	ug/Kg
78-93-3	2-Butanone	60	U	16	60	120	ug/Kg
56-23-5	Carbon Tetrachloride	12.5	U	5	12.5	25	ug/Kg
156-59-2	cis-1,2-Dichloroethene	12.5	U	4.4	12.5	25	ug/Kg
74-97-5	Bromochloromethane	12.5	U	4	12.5	25	ug/Kg
67-66-3	Chloroform	12.5	U	3.7	12.5	25	ug/Kg
71-55-6	1,1,1-Trichloroethane	12.5	U	4.4	12.5	25	ug/Kg
108-87-2	Methylcyclohexane	12.5	U	5.3	12.5	25	ug/Kg
71-43-2	Benzene	12.5	U	1.9	12.5	25	ug/Kg
107-06-2	1,2-Dichloroethane	12.5	U	3.2	12.5	25	ug/Kg
79-01-6	Trichloroethene	12.5	U	4.3	12.5	25	ug/Kg
78-87-5	1,2-Dichloropropane	12.5	U	1.3	12.5	25	ug/Kg
75-27-4	Bromodichloromethane	12.5	U	3.1	12.5	25	ug/Kg
108-10-1	4-Methyl-2-Pentanone	60	U	15	60	120	ug/Kg
108-88-3	Toluene	12.5	U	3.2	12.5	25	ug/Kg
10061-02-6	t-1,3-Dichloropropene	12.5	U	4	12.5	25	ug/Kg

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/20/12
Project:	Bethpage CTO-066	Date Received:	07/23/12
Client Sample ID:	BP-VPB135-GW-438	SDG No.:	D3507
Lab Sample ID:	D3507-10	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	1 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034383.D	1		07/24/12	VF072412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	12.5	U	3.6	12.5	25	ug/Kg
79-00-5	1,1,2-Trichloroethane	12.5	U	4.5	12.5	25	ug/Kg
591-78-6	2-Hexanone	60	U	20	60	120	ug/Kg
124-48-1	Dibromochloromethane	12.5	U	2.7	12.5	25	ug/Kg
106-93-4	1,2-Dibromoethane	12.5	U	3.2	12.5	25	ug/Kg
127-18-4	Tetrachloroethene	12.5	U	5	12.5	25	ug/Kg
108-90-7	Chlorobenzene	12.5	U	2.5	12.5	25	ug/Kg
100-41-4	Ethyl Benzene	12.5	U	3.1	12.5	25	ug/Kg
179601-23-1	m/p-Xylenes	25	U	3.6	25	50	ug/Kg
95-47-6	o-Xylene	12.5	U	3.4	12.5	25	ug/Kg
100-42-5	Styrene	12.5	U	2.2	12.5	25	ug/Kg
75-25-2	Bromoform	12.5	U	3.7	12.5	25	ug/Kg
98-82-8	Isopropylbenzene	12.5	U	2.4	12.5	25	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	12.5	U	2.3	12.5	25	ug/Kg
541-73-1	1,3-Dichlorobenzene	12.5	U	1.8	12.5	25	ug/Kg
106-46-7	1,4-Dichlorobenzene	12.5	U	2	12.5	25	ug/Kg
95-50-1	1,2-Dichlorobenzene	12.5	U	3.1	12.5	25	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	12.5	U	4.4	12.5	25	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	12.5	U	3.5	12.5	25	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	12.5	U	2.5	12.5	25	ug/Kg
123-91-1	1,4-Dioxane	250	U	250	250	500	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	53.5		55 - 158		107%	SPK: 50
1868-53-7	Dibromofluoromethane	55.6		53 - 156		111%	SPK: 50
2037-26-5	Toluene-d8	54		85 - 115		108%	SPK: 50
460-00-4	4-Bromofluorobenzene	54.6		85 - 120		109%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	266779	4.36				
540-36-3	1,4-Difluorobenzene	505298	5.1				
3114-55-4	Chlorobenzene-d5	472983	9.31				
3855-82-1	1,4-Dichlorobenzene-d4	223562	12.23				

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/20/12
Project:	Bethpage CTO-066	Date Received:	07/23/12
Client Sample ID:	BP-VPB135-GW-438	SDG No.:	D3507
Lab Sample ID:	D3507-10	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	1 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034383.D	1		07/24/12	VF072412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/23/12
Project:	Bethpage CTO-066	Date Received:	07/23/12
Client Sample ID:	BP-VPB135-GW-458	SDG No.:	D3507
Lab Sample ID:	D3507-11	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034384.D	1		07/24/12	VF072412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	2.5	U	0.65	2.5	5	ug/Kg
74-87-3	Chloromethane	2.5	U	0.86	2.5	5	ug/Kg
75-01-4	Vinyl Chloride	2.5	U	1.2	2.5	5	ug/Kg
74-83-9	Bromomethane	2.5	U	2.4	2.5	5	ug/Kg
75-00-3	Chloroethane	2.5	U	1.4	2.5	5	ug/Kg
75-69-4	Trichlorofluoromethane	2.5	U	1.3	2.5	5	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.5	U	1.3	2.5	5	ug/Kg
75-35-4	1,1-Dichloroethene	2.5	U	1.5	2.5	5	ug/Kg
67-64-1	Acetone	12.5	U	3	12.5	25	ug/Kg
75-15-0	Carbon Disulfide	2.5	U	1.1	2.5	5	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.5	U	0.96	2.5	5	ug/Kg
79-20-9	Methyl Acetate	2.5	U	1.5	2.5	5	ug/Kg
75-09-2	Methylene Chloride	2.5	J	1.4	2.5	5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.5	U	0.69	2.5	5	ug/Kg
75-34-3	1,1-Dichloroethane	2.5	U	0.94	2.5	5	ug/Kg
110-82-7	Cyclohexane	2.5	U	1	2.5	5	ug/Kg
78-93-3	2-Butanone	12.5	U	3.1	12.5	25	ug/Kg
56-23-5	Carbon Tetrachloride	2.5	U	0.99	2.5	5	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.5	U	0.89	2.5	5	ug/Kg
74-97-5	Bromochloromethane	2.5	U	0.79	2.5	5	ug/Kg
67-66-3	Chloroform	2.5	U	0.74	2.5	5	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.5	U	0.88	2.5	5	ug/Kg
108-87-2	Methylcyclohexane	2.5	U	1.1	2.5	5	ug/Kg
71-43-2	Benzene	2.5	U	0.38	2.5	5	ug/Kg
107-06-2	1,2-Dichloroethane	2.5	U	0.64	2.5	5	ug/Kg
79-01-6	Trichloroethene	2.5	U	0.86	2.5	5	ug/Kg
78-87-5	1,2-Dichloropropane	2.5	U	0.26	2.5	5	ug/Kg
75-27-4	Bromodichloromethane	2.5	U	0.62	2.5	5	ug/Kg
108-10-1	4-Methyl-2-Pentanone	12.5	U	2.9	12.5	25	ug/Kg
108-88-3	Toluene	2.5	U	0.64	2.5	5	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.5	U	0.79	2.5	5	ug/Kg

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/23/12
Project:	Bethpage CTO-066	Date Received:	07/23/12
Client Sample ID:	BP-VPB135-GW-458	SDG No.:	D3507
Lab Sample ID:	D3507-11	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034384.D	1		07/24/12	VF072412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	2.5	U	0.72	2.5	5	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.5	U	0.9	2.5	5	ug/Kg
591-78-6	2-Hexanone	12.5	U	3.9	12.5	25	ug/Kg
124-48-1	Dibromochloromethane	2.5	U	0.54	2.5	5	ug/Kg
106-93-4	1,2-Dibromoethane	2.5	U	0.64	2.5	5	ug/Kg
127-18-4	Tetrachloroethene	2.5	U	1	2.5	5	ug/Kg
108-90-7	Chlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
100-41-4	Ethyl Benzene	2.5	U	0.62	2.5	5	ug/Kg
179601-23-1	m/p-Xylenes	5	U	0.72	5	10	ug/Kg
95-47-6	o-Xylene	2.5	U	0.68	2.5	5	ug/Kg
100-42-5	Styrene	2.5	U	0.45	2.5	5	ug/Kg
75-25-2	Bromoform	2.5	U	0.74	2.5	5	ug/Kg
98-82-8	Isopropylbenzene	2.5	U	0.48	2.5	5	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.5	U	0.46	2.5	5	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.5	U	0.37	2.5	5	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.5	U	0.41	2.5	5	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.5	U	0.62	2.5	5	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.5	U	0.87	2.5	5	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.5	U	0.7	2.5	5	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
123-91-1	1,4-Dioxane	50	U	50	50	100	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	42.6		55 - 158		85%	SPK: 50
1868-53-7	Dibromofluoromethane	46		53 - 156		92%	SPK: 50
2037-26-5	Toluene-d8	46.5		85 - 115		93%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.5		85 - 120		93%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	257133	4.36				
540-36-3	1,4-Difluorobenzene	476685	5.11				
3114-55-4	Chlorobenzene-d5	424271	9.31				
3855-82-1	1,4-Dichlorobenzene-d4	200061	12.23				

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/23/12
Project:	Bethpage CTO-066	Date Received:	07/23/12
Client Sample ID:	BP-VPB135-GW-458	SDG No.:	D3507
Lab Sample ID:	D3507-11	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034384.D	1		07/24/12	VF072412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/23/12
Project:	Bethpage CTO-066	Date Received:	07/23/12
Client Sample ID:	BP-VPB135-GW-478	SDG No.:	D3507
Lab Sample ID:	D3507-12	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VR006676.D	1		07/24/12	VR072412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	0.5	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	0.5	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	0.5	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	0.5	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	3.4		0.35	0.5	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.5	U	0.45	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	0.5	1	ug/L
67-64-1	Acetone	16		0.5	2.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	0.5	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	0.5	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	0.5	1	ug/L
75-34-3	1,1-Dichloroethane	1.4		0.36	0.5	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	0.5	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	0.5	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	0.5	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	0.5	1	ug/L
108-87-2	Methylcyclohexane	0.5	U	0.2	0.5	1	ug/L
71-43-2	Benzene	0.5	U	0.32	0.5	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	0.5	1	ug/L
79-01-6	Trichloroethene	3.1		0.28	0.5	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	0.5	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	0.5	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	2.5	5	ug/L
108-88-3	Toluene	0.5	U	0.37	0.5	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	0.5	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/23/12
Project:	Bethpage CTO-066	Date Received:	07/23/12
Client Sample ID:	BP-VPB135-GW-478	SDG No.:	D3507
Lab Sample ID:	D3507-12	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VR006676.D	1		07/24/12	VR072412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	0.5	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	0.5	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.52	0.5	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	0.5	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	0.5	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	0.5	1	ug/L
100-41-4	Ethyl Benzene	0.5	U	0.2	0.5	1	ug/L
179601-23-1	m/p-Xylenes	1	U	0.95	1	2	ug/L
95-47-6	o-Xylene	0.5	U	0.43	0.5	1	ug/L
100-42-5	Styrene	0.5	U	0.36	0.5	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	0.5	1	ug/L
98-82-8	Isopropylbenzene	0.5	U	0.45	0.5	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	0.5	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	0.5	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	0.5	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	0.5	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	0.5	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	0.5	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	0.5	1	ug/L
123-91-1	1,4-Dioxane	10	U	10	10	20	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	48.9		70 - 120		98%	SPK: 50
1868-53-7	Dibromofluoromethane	47.2		85 - 115		94%	SPK: 50
2037-26-5	Toluene-d8	50		85 - 120		100%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.1		75 - 120		96%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	458901	7.57				
540-36-3	1,4-Difluorobenzene	936089	8.5				
3114-55-4	Chlorobenzene-d5	870505	11.3				
3855-82-1	1,4-Dichlorobenzene-d4	396712	13.24				

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/23/12
Project:	Bethpage CTO-066	Date Received:	07/23/12
Client Sample ID:	BP-VPB135-GW-478	SDG No.:	D3507
Lab Sample ID:	D3507-12	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VR006676.D	1		07/24/12	VR072412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/24/12
Project:	Bethpage CTO-WE62	Date Received:	07/27/12
Client Sample ID:	BP-VPB135-GW-518	SDG No.:	D3596
Lab Sample ID:	D3596-10	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	1.05 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034520.D	1		07/30/12	VF073012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	12	U	3.1	12	24	ug/Kg
74-87-3	Chloromethane	12	U	4.1	12	24	ug/Kg
75-01-4	Vinyl Chloride	12	U	5.9	12	24	ug/Kg
74-83-9	Bromomethane	12	U	12	12	24	ug/Kg
75-00-3	Chloroethane	12	U	6.7	12	24	ug/Kg
75-69-4	Trichlorofluoromethane	12	U	6.3	12	24	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	12	U	6.3	12	24	ug/Kg
75-35-4	1,1-Dichloroethene	12	U	7	12	24	ug/Kg
67-64-1	Acetone	60	U	14	60	120	ug/Kg
75-15-0	Carbon Disulfide	12	U	5	12	24	ug/Kg
1634-04-4	Methyl tert-butyl Ether	12	U	4.6	12	24	ug/Kg
79-20-9	Methyl Acetate	12	U	7.2	12	24	ug/Kg
75-09-2	Methylene Chloride	12	U	6.8	12	24	ug/Kg
156-60-5	trans-1,2-Dichloroethene	12	U	3.3	12	24	ug/Kg
75-34-3	1,1-Dichloroethane	12	U	4.5	12	24	ug/Kg
110-82-7	Cyclohexane	12	U	4.8	12	24	ug/Kg
78-93-3	2-Butanone	60	U	15	60	120	ug/Kg
56-23-5	Carbon Tetrachloride	12	U	4.7	12	24	ug/Kg
156-59-2	cis-1,2-Dichloroethene	12	U	4.2	12	24	ug/Kg
74-97-5	Bromochloromethane	12	U	3.8	12	24	ug/Kg
67-66-3	Chloroform	12	U	3.5	12	24	ug/Kg
71-55-6	1,1,1-Trichloroethane	12	U	4.2	12	24	ug/Kg
108-87-2	Methylcyclohexane	12	U	5	12	24	ug/Kg
71-43-2	Benzene	12	U	1.8	12	24	ug/Kg
107-06-2	1,2-Dichloroethane	12	U	3	12	24	ug/Kg
79-01-6	Trichloroethene	12	U	4.1	12	24	ug/Kg
78-87-5	1,2-Dichloropropane	12	U	1.2	12	24	ug/Kg
75-27-4	Bromodichloromethane	12	U	3	12	24	ug/Kg
108-10-1	4-Methyl-2-Pentanone	60	U	14	60	120	ug/Kg
108-88-3	Toluene	12	U	3	12	24	ug/Kg
10061-02-6	t-1,3-Dichloropropene	12	U	3.8	12	24	ug/Kg

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/24/12
Project:	Bethpage CTO-WE62	Date Received:	07/27/12
Client Sample ID:	BP-VPB135-GW-518	SDG No.:	D3596
Lab Sample ID:	D3596-10	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	1.05 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034520.D	1		07/30/12	VF073012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	12	U	3.4	12	24	ug/Kg
79-00-5	1,1,2-Trichloroethane	12	U	4.3	12	24	ug/Kg
591-78-6	2-Hexanone	60	U	19	60	120	ug/Kg
124-48-1	Dibromochloromethane	12	U	2.6	12	24	ug/Kg
106-93-4	1,2-Dibromoethane	12	U	3	12	24	ug/Kg
127-18-4	Tetrachloroethene	12	U	4.8	12	24	ug/Kg
108-90-7	Chlorobenzene	12	U	2.4	12	24	ug/Kg
100-41-4	Ethyl Benzene	12	U	3	12	24	ug/Kg
179601-23-1	m/p-Xylenes	24	U	3.4	24	48	ug/Kg
95-47-6	o-Xylene	12	U	3.2	12	24	ug/Kg
100-42-5	Styrene	12	U	2.1	12	24	ug/Kg
75-25-2	Bromoform	12	U	3.5	12	24	ug/Kg
98-82-8	Isopropylbenzene	12	U	2.3	12	24	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	12	U	2.2	12	24	ug/Kg
541-73-1	1,3-Dichlorobenzene	12	U	1.8	12	24	ug/Kg
106-46-7	1,4-Dichlorobenzene	12	U	2	12	24	ug/Kg
95-50-1	1,2-Dichlorobenzene	12	U	3	12	24	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	12	U	4.1	12	24	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	12	U	3.3	12	24	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	12	U	2.4	12	24	ug/Kg
123-91-1	1,4-Dioxane	240	U	240	240	480	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	48.4		55 - 158		97%	SPK: 50
1868-53-7	Dibromofluoromethane	50.2		53 - 156		100%	SPK: 50
2037-26-5	Toluene-d8	49.2		85 - 115		98%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.5		85 - 120		103%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	307071	4.39				
540-36-3	1,4-Difluorobenzene	623767	5.14				
3114-55-4	Chlorobenzene-d5	566864	9.34				
3855-82-1	1,4-Dichlorobenzene-d4	242674	12.24				

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/24/12
Project:	Bethpage CTO-WE62	Date Received:	07/27/12
Client Sample ID:	BP-VPB135-GW-518	SDG No.:	D3596
Lab Sample ID:	D3596-10	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	1.05 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034520.D	1		07/30/12	VF073012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/24/12
Project:	Bethpage CTO-WE62	Date Received:	07/27/12
Client Sample ID:	BP-VPB135-GW-538	SDG No.:	D3596
Lab Sample ID:	D3596-11	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	1.04 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034521.D	1		07/30/12	VF073012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	12	U	3.1	12	24	ug/Kg
74-87-3	Chloromethane	12	U	4.1	12	24	ug/Kg
75-01-4	Vinyl Chloride	12	U	5.9	12	24	ug/Kg
74-83-9	Bromomethane	12	U	12	12	24	ug/Kg
75-00-3	Chloroethane	12	U	6.7	12	24	ug/Kg
75-69-4	Trichlorofluoromethane	12	U	6.3	12	24	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	12	U	6.4	12	24	ug/Kg
75-35-4	1,1-Dichloroethene	12	U	7.1	12	24	ug/Kg
67-64-1	Acetone	60	U	15	60	120	ug/Kg
75-15-0	Carbon Disulfide	12	U	5.1	12	24	ug/Kg
1634-04-4	Methyl tert-butyl Ether	12	U	4.6	12	24	ug/Kg
79-20-9	Methyl Acetate	12	U	7.3	12	24	ug/Kg
75-09-2	Methylene Chloride	12	U	6.8	12	24	ug/Kg
156-60-5	trans-1,2-Dichloroethene	12	U	3.3	12	24	ug/Kg
75-34-3	1,1-Dichloroethane	12	U	4.5	12	24	ug/Kg
110-82-7	Cyclohexane	12	U	4.9	12	24	ug/Kg
78-93-3	2-Butanone	60	U	15	60	120	ug/Kg
56-23-5	Carbon Tetrachloride	12	U	4.8	12	24	ug/Kg
156-59-2	cis-1,2-Dichloroethene	12	U	4.3	12	24	ug/Kg
74-97-5	Bromochloromethane	12	U	3.8	12	24	ug/Kg
67-66-3	Chloroform	12	U	3.6	12	24	ug/Kg
71-55-6	1,1,1-Trichloroethane	12	U	4.2	12	24	ug/Kg
108-87-2	Methylcyclohexane	12	U	5.1	12	24	ug/Kg
71-43-2	Benzene	12	U	1.8	12	24	ug/Kg
107-06-2	1,2-Dichloroethane	12	U	3.1	12	24	ug/Kg
79-01-6	Trichloroethene	12	U	4.1	12	24	ug/Kg
78-87-5	1,2-Dichloropropane	12	U	1.2	12	24	ug/Kg
75-27-4	Bromodichloromethane	12	U	3	12	24	ug/Kg
108-10-1	4-Methyl-2-Pentanone	60	U	14	60	120	ug/Kg
108-88-3	Toluene	12	U	3.1	12	24	ug/Kg
10061-02-6	t-1,3-Dichloropropene	12	U	3.8	12	24	ug/Kg

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/24/12
Project:	Bethpage CTO-WE62	Date Received:	07/27/12
Client Sample ID:	BP-VPB135-GW-538	SDG No.:	D3596
Lab Sample ID:	D3596-11	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	1.04 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034521.D	1		07/30/12	VF073012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	12	U	3.5	12	24	ug/Kg
79-00-5	1,1,2-Trichloroethane	12	U	4.3	12	24	ug/Kg
591-78-6	2-Hexanone	60	U	19	60	120	ug/Kg
124-48-1	Dibromochloromethane	12	U	2.6	12	24	ug/Kg
106-93-4	1,2-Dibromoethane	12	U	3.1	12	24	ug/Kg
127-18-4	Tetrachloroethene	12	U	4.9	12	24	ug/Kg
108-90-7	Chlorobenzene	12	U	2.4	12	24	ug/Kg
100-41-4	Ethyl Benzene	12	U	3	12	24	ug/Kg
179601-23-1	m/p-Xylenes	24	U	3.5	24	48	ug/Kg
95-47-6	o-Xylene	12	U	3.3	12	24	ug/Kg
100-42-5	Styrene	12	U	2.2	12	24	ug/Kg
75-25-2	Bromoform	12	U	3.6	12	24	ug/Kg
98-82-8	Isopropylbenzene	12	U	2.3	12	24	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	12	U	2.2	12	24	ug/Kg
541-73-1	1,3-Dichlorobenzene	12	U	1.8	12	24	ug/Kg
106-46-7	1,4-Dichlorobenzene	12	U	2	12	24	ug/Kg
95-50-1	1,2-Dichlorobenzene	12	U	3	12	24	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	12	U	4.2	12	24	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	12	U	3.4	12	24	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	12	U	2.4	12	24	ug/Kg
123-91-1	1,4-Dioxane	240	U	240	240	480	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	47		55 - 158		94%	SPK: 50
1868-53-7	Dibromofluoromethane	49.7		53 - 156		99%	SPK: 50
2037-26-5	Toluene-d8	49.2		85 - 115		99%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.2		85 - 120		102%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	310212	4.39				
540-36-3	1,4-Difluorobenzene	630801	5.13				
3114-55-4	Chlorobenzene-d5	559782	9.34				
3855-82-1	1,4-Dichlorobenzene-d4	246052	12.24				

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/24/12
Project:	Bethpage CTO-WE62	Date Received:	07/27/12
Client Sample ID:	BP-VPB135-GW-538	SDG No.:	D3596
Lab Sample ID:	D3596-11	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	1.04 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034521.D	1		07/30/12	VF073012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/25/12
Project:	Bethpage CTO-WE62	Date Received:	07/27/12
Client Sample ID:	BP-VPB135-GW-558	SDG No.:	D3596
Lab Sample ID:	D3596-12	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034522.D	1		07/30/12	VF073012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	2.5	U	0.65	2.5	5	ug/Kg
74-87-3	Chloromethane	2.5	U	0.86	2.5	5	ug/Kg
75-01-4	Vinyl Chloride	2.5	U	1.2	2.5	5	ug/Kg
74-83-9	Bromomethane	2.5	U	2.4	2.5	5	ug/Kg
75-00-3	Chloroethane	4.8	J	1.4	2.5	5	ug/Kg
75-69-4	Trichlorofluoromethane	2.5	U	1.3	2.5	5	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.5	U	1.3	2.5	5	ug/Kg
75-35-4	1,1-Dichloroethene	2.5	U	1.5	2.5	5	ug/Kg
67-64-1	Acetone	64		3	12.5	25	ug/Kg
75-15-0	Carbon Disulfide	2.5	U	1.1	2.5	5	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.5	U	0.96	2.5	5	ug/Kg
79-20-9	Methyl Acetate	2.5	U	1.5	2.5	5	ug/Kg
75-09-2	Methylene Chloride	2.5	U	1.4	2.5	5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.5	U	0.69	2.5	5	ug/Kg
75-34-3	1,1-Dichloroethane	2.5	U	0.94	2.5	5	ug/Kg
110-82-7	Cyclohexane	2.5	U	1	2.5	5	ug/Kg
78-93-3	2-Butanone	12.5	U	3.1	12.5	25	ug/Kg
56-23-5	Carbon Tetrachloride	2.5	U	0.99	2.5	5	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.5	U	0.89	2.5	5	ug/Kg
74-97-5	Bromochloromethane	2.5	U	0.79	2.5	5	ug/Kg
67-66-3	Chloroform	2.5	U	0.74	2.5	5	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.5	U	0.88	2.5	5	ug/Kg
108-87-2	Methylcyclohexane	2.5	U	1.1	2.5	5	ug/Kg
71-43-2	Benzene	2.5	U	0.38	2.5	5	ug/Kg
107-06-2	1,2-Dichloroethane	2.5	U	0.64	2.5	5	ug/Kg
79-01-6	Trichloroethene	2.5	U	0.86	2.5	5	ug/Kg
78-87-5	1,2-Dichloropropane	2.5	U	0.26	2.5	5	ug/Kg
75-27-4	Bromodichloromethane	2.5	U	0.62	2.5	5	ug/Kg
108-10-1	4-Methyl-2-Pentanone	12.5	U	2.9	12.5	25	ug/Kg
108-88-3	Toluene	2.5	U	0.64	2.5	5	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.5	U	0.79	2.5	5	ug/Kg

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/25/12
Project:	Bethpage CTO-WE62	Date Received:	07/27/12
Client Sample ID:	BP-VPB135-GW-558	SDG No.:	D3596
Lab Sample ID:	D3596-12	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034522.D	1		07/30/12	VF073012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	2.5	U	0.72	2.5	5	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.5	U	0.9	2.5	5	ug/Kg
591-78-6	2-Hexanone	12.5	U	3.9	12.5	25	ug/Kg
124-48-1	Dibromochloromethane	2.5	U	0.54	2.5	5	ug/Kg
106-93-4	1,2-Dibromoethane	2.5	U	0.64	2.5	5	ug/Kg
127-18-4	Tetrachloroethene	2.5	U	1	2.5	5	ug/Kg
108-90-7	Chlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
100-41-4	Ethyl Benzene	2.5	U	0.62	2.5	5	ug/Kg
179601-23-1	m/p-Xylenes	5	U	0.72	5	10	ug/Kg
95-47-6	o-Xylene	2.5	U	0.68	2.5	5	ug/Kg
100-42-5	Styrene	2.5	U	0.45	2.5	5	ug/Kg
75-25-2	Bromoform	2.5	U	0.74	2.5	5	ug/Kg
98-82-8	Isopropylbenzene	2.5	U	0.48	2.5	5	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.5	U	0.46	2.5	5	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.5	U	0.37	2.5	5	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.5	U	0.41	2.5	5	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.5	U	0.62	2.5	5	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.5	U	0.87	2.5	5	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.5	U	0.7	2.5	5	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
123-91-1	1,4-Dioxane	50	U	50	50	100	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	38.8		55 - 158		78%	SPK: 50
1868-53-7	Dibromofluoromethane	45.2		53 - 156		90%	SPK: 50
2037-26-5	Toluene-d8	45.6		85 - 115		91%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.5		85 - 120		93%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	316166	4.39				
540-36-3	1,4-Difluorobenzene	619042	5.14				
3114-55-4	Chlorobenzene-d5	546981	9.33				
3855-82-1	1,4-Dichlorobenzene-d4	229476	12.24				

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/25/12
Project:	Bethpage CTO-WE62	Date Received:	07/27/12
Client Sample ID:	BP-VPB135-GW-558	SDG No.:	D3596
Lab Sample ID:	D3596-12	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034522.D	1		07/30/12	VF073012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/25/12
Project:	Bethpage CTO-WE62	Date Received:	07/27/12
Client Sample ID:	BP-VPB135-GW-578	SDG No.:	D3596
Lab Sample ID:	D3596-13	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VR006764.D	5		07/30/12	VR073012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	2.5	U	1	2.5	5	ug/L
74-87-3	Chloromethane	2.5	U	1	2.5	5	ug/L
75-01-4	Vinyl Chloride	2.5	U	1.7	2.5	5	ug/L
74-83-9	Bromomethane	2.5	U	1	2.5	5	ug/L
75-00-3	Chloroethane	2.5	U	1	2.5	5	ug/L
75-69-4	Trichlorofluoromethane	2.5	U	1.8	2.5	5	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	2.5	U	2.2	2.5	5	ug/L
75-35-4	1,1-Dichloroethene	2.5	U	2.4	2.5	5	ug/L
67-64-1	Acetone	12.5	U	2.5	12.5	25	ug/L
75-15-0	Carbon Disulfide	2.5	U	1	2.5	5	ug/L
1634-04-4	Methyl tert-butyl Ether	2.5	U	1.8	2.5	5	ug/L
79-20-9	Methyl Acetate	2.5	U	1	2.5	5	ug/L
75-09-2	Methylene Chloride	2.5	U	2	2.5	5	ug/L
156-60-5	trans-1,2-Dichloroethene	2.5	U	2	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	2.5	U	1.8	2.5	5	ug/L
110-82-7	Cyclohexane	2.5	U	1	2.5	5	ug/L
78-93-3	2-Butanone	12.5	U	6.6	12.5	25	ug/L
56-23-5	Carbon Tetrachloride	2.5	U	1	2.5	5	ug/L
156-59-2	cis-1,2-Dichloroethene	2.5	U	1.8	2.5	5	ug/L
74-97-5	Bromochloromethane	2.5	UQ	1	2.5	5	ug/L
67-66-3	Chloroform	2.5	U	1.7	2.5	5	ug/L
71-55-6	1,1,1-Trichloroethane	2.5	U	2	2.5	5	ug/L
108-87-2	Methylcyclohexane	2.5	U	1	2.5	5	ug/L
71-43-2	Benzene	2.5	U	1.6	2.5	5	ug/L
107-06-2	1,2-Dichloroethane	2.5	U	2.4	2.5	5	ug/L
79-01-6	Trichloroethene	2.5	U	1.4	2.5	5	ug/L
78-87-5	1,2-Dichloropropane	2.5	U	2.3	2.5	5	ug/L
75-27-4	Bromodichloromethane	2.5	U	1.8	2.5	5	ug/L
108-10-1	4-Methyl-2-Pentanone	12.5	U	10	12.5	25	ug/L
108-88-3	Toluene	2.5	U	1.8	2.5	5	ug/L
10061-02-6	t-1,3-Dichloropropene	2.5	U	1.4	2.5	5	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/25/12
Project:	Bethpage CTO-WE62	Date Received:	07/27/12
Client Sample ID:	BP-VPB135-GW-578	SDG No.:	D3596
Lab Sample ID:	D3596-13	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VR006764.D	5		07/30/12	VR073012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	2.5	U	1.6	2.5	5	ug/L
79-00-5	1,1,2-Trichloroethane	2.5	U	1.9	2.5	5	ug/L
591-78-6	2-Hexanone	12.5	U	9.7	12.5	25	ug/L
124-48-1	Dibromochloromethane	2.5	U	2.6	2.5	5	ug/L
106-93-4	1,2-Dibromoethane	2.5	U	2	2.5	5	ug/L
127-18-4	Tetrachloroethene	2.5	U	1.4	2.5	5	ug/L
108-90-7	Chlorobenzene	2.5	U	2.4	2.5	5	ug/L
100-41-4	Ethyl Benzene	2.4	J	1	2.5	5	ug/L
179601-23-1	m/p-Xylenes	5	U	4.8	5	10	ug/L
95-47-6	o-Xylene	2.5	U	2.2	2.5	5	ug/L
100-42-5	Styrene	2.5	U	1.8	2.5	5	ug/L
75-25-2	Bromoform	2.5	U	2.4	2.5	5	ug/L
98-82-8	Isopropylbenzene	2.5	U	2.2	2.5	5	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	2.5	U	1.6	2.5	5	ug/L
541-73-1	1,3-Dichlorobenzene	2.5	U	2.2	2.5	5	ug/L
106-46-7	1,4-Dichlorobenzene	2.5	U	1.6	2.5	5	ug/L
95-50-1	1,2-Dichlorobenzene	2.5	U	2.2	2.5	5	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	2.5	U	2.3	2.5	5	ug/L
120-82-1	1,2,4-Trichlorobenzene	2.5	U	1	2.5	5	ug/L
87-61-6	1,2,3-Trichlorobenzene	2.5	U	1	2.5	5	ug/L
123-91-1	1,4-Dioxane	50	U	50	50	100	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	48.1		70 - 120		96%	SPK: 50
1868-53-7	Dibromofluoromethane	48		85 - 115		96%	SPK: 50
2037-26-5	Toluene-d8	50.6		85 - 120		101%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.2		75 - 120		102%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	1343420	7.58				
540-36-3	1,4-Difluorobenzene	2277510	8.5				
3114-55-4	Chlorobenzene-d5	2143340	11.31				
3855-82-1	1,4-Dichlorobenzene-d4	1128010	13.24				
TENTATIVE IDENTIFIED COMPOUNDS							

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/25/12
Project:	Bethpage CTO-WE62	Date Received:	07/27/12
Client Sample ID:	BP-VPB135-GW-578	SDG No.:	D3596
Lab Sample ID:	D3596-13	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VR006764.D	5		07/30/12	VR073012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
95-63-6	1,2,4-Trimethylbenzene	2.5	J			12.94	ug/L
91-20-3	Naphthalene	9.7	J			15.04	ug/L

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/26/12
Project:	Bethpage CTO-WE62	Date Received:	07/27/12
Client Sample ID:	BP-VPB135-GW-598	SDG No.:	D3596
Lab Sample ID:	D3596-14	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034523.D	1		07/30/12	VF073012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	2.5	U	0.65	2.5	5	ug/Kg
74-87-3	Chloromethane	2.5	U	0.86	2.5	5	ug/Kg
75-01-4	Vinyl Chloride	2.5	U	1.2	2.5	5	ug/Kg
74-83-9	Bromomethane	2.5	U	2.4	2.5	5	ug/Kg
75-00-3	Chloroethane	2.5	U	1.4	2.5	5	ug/Kg
75-69-4	Trichlorofluoromethane	2.5	U	1.3	2.5	5	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.5	U	1.3	2.5	5	ug/Kg
75-35-4	1,1-Dichloroethene	2.5	U	1.5	2.5	5	ug/Kg
67-64-1	Acetone	12.5	U	3	12.5	25	ug/Kg
75-15-0	Carbon Disulfide	2.5	U	1.1	2.5	5	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.5	U	0.96	2.5	5	ug/Kg
79-20-9	Methyl Acetate	2.5	U	1.5	2.5	5	ug/Kg
75-09-2	Methylene Chloride	2.5	U	1.4	2.5	5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.5	U	0.69	2.5	5	ug/Kg
75-34-3	1,1-Dichloroethane	2.5	U	0.94	2.5	5	ug/Kg
110-82-7	Cyclohexane	2.5	U	1	2.5	5	ug/Kg
78-93-3	2-Butanone	12.5	U	3.1	12.5	25	ug/Kg
56-23-5	Carbon Tetrachloride	2.5	U	0.99	2.5	5	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.5	U	0.89	2.5	5	ug/Kg
74-97-5	Bromochloromethane	2.5	U	0.79	2.5	5	ug/Kg
67-66-3	Chloroform	2.5	U	0.74	2.5	5	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.5	U	0.88	2.5	5	ug/Kg
108-87-2	Methylcyclohexane	2.5	U	1.1	2.5	5	ug/Kg
71-43-2	Benzene	2.5	U	0.38	2.5	5	ug/Kg
107-06-2	1,2-Dichloroethane	2.5	U	0.64	2.5	5	ug/Kg
79-01-6	Trichloroethene	2.5	U	0.86	2.5	5	ug/Kg
78-87-5	1,2-Dichloropropane	2.5	U	0.26	2.5	5	ug/Kg
75-27-4	Bromodichloromethane	2.5	U	0.62	2.5	5	ug/Kg
108-10-1	4-Methyl-2-Pentanone	12.5	U	2.9	12.5	25	ug/Kg
108-88-3	Toluene	2.5	U	0.64	2.5	5	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.5	U	0.79	2.5	5	ug/Kg

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/26/12
Project:	Bethpage CTO-WE62	Date Received:	07/27/12
Client Sample ID:	BP-VPB135-GW-598	SDG No.:	D3596
Lab Sample ID:	D3596-14	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034523.D	1		07/30/12	VF073012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	2.5	U	0.72	2.5	5	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.5	U	0.9	2.5	5	ug/Kg
591-78-6	2-Hexanone	12.5	U	3.9	12.5	25	ug/Kg
124-48-1	Dibromochloromethane	2.5	U	0.54	2.5	5	ug/Kg
106-93-4	1,2-Dibromoethane	2.5	U	0.64	2.5	5	ug/Kg
127-18-4	Tetrachloroethene	2.5	U	1	2.5	5	ug/Kg
108-90-7	Chlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
100-41-4	Ethyl Benzene	2.5	U	0.62	2.5	5	ug/Kg
179601-23-1	m/p-Xylenes	5	U	0.72	5	10	ug/Kg
95-47-6	o-Xylene	2.5	U	0.68	2.5	5	ug/Kg
100-42-5	Styrene	2.5	U	0.45	2.5	5	ug/Kg
75-25-2	Bromoform	2.5	U	0.74	2.5	5	ug/Kg
98-82-8	Isopropylbenzene	2.5	U	0.48	2.5	5	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.5	U	0.46	2.5	5	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.5	U	0.37	2.5	5	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.5	U	0.41	2.5	5	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.5	U	0.62	2.5	5	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.5	U	0.87	2.5	5	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.5	U	0.7	2.5	5	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
123-91-1	1,4-Dioxane	50	U	50	50	100	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	40.8		55 - 158		82%	SPK: 50
1868-53-7	Dibromofluoromethane	48.4		53 - 156		97%	SPK: 50
2037-26-5	Toluene-d8	49.8		85 - 115		100%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.1		85 - 120		98%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	307994	4.39				
540-36-3	1,4-Difluorobenzene	598305	5.13				
3114-55-4	Chlorobenzene-d5	533093	9.34				
3855-82-1	1,4-Dichlorobenzene-d4	225030	12.24				

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/26/12
Project:	Bethpage CTO-WE62	Date Received:	07/27/12
Client Sample ID:	BP-VPB135-GW-598	SDG No.:	D3596
Lab Sample ID:	D3596-14	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034523.D	1		07/30/12	VF073012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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J = Estimated Value
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N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/26/12
Project:	Bethpage CTO-WE62	Date Received:	07/27/12
Client Sample ID:	BP-VPB135-GW-618	SDG No.:	D3596
Lab Sample ID:	D3596-15	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	1 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034524.D	1		07/30/12	VF073012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	12.5	U	3.2	12.5	25	ug/Kg
74-87-3	Chloromethane	12.5	U	4.3	12.5	25	ug/Kg
75-01-4	Vinyl Chloride	12.5	U	6.2	12.5	25	ug/Kg
74-83-9	Bromomethane	12.5	U	12	12.5	25	ug/Kg
75-00-3	Chloroethane	12.5	U	7	12.5	25	ug/Kg
75-69-4	Trichlorofluoromethane	12.5	U	6.6	12.5	25	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	12.5	U	6.6	12.5	25	ug/Kg
75-35-4	1,1-Dichloroethene	12.5	U	7.4	12.5	25	ug/Kg
67-64-1	Acetone	60	U	15	60	120	ug/Kg
75-15-0	Carbon Disulfide	12.5	U	5.3	12.5	25	ug/Kg
1634-04-4	Methyl tert-butyl Ether	12.5	U	4.8	12.5	25	ug/Kg
79-20-9	Methyl Acetate	12.5	U	7.6	12.5	25	ug/Kg
75-09-2	Methylene Chloride	12.5	U	7.1	12.5	25	ug/Kg
156-60-5	trans-1,2-Dichloroethene	12.5	U	3.4	12.5	25	ug/Kg
75-34-3	1,1-Dichloroethane	12.5	U	4.7	12.5	25	ug/Kg
110-82-7	Cyclohexane	12.5	U	5	12.5	25	ug/Kg
78-93-3	2-Butanone	60	U	16	60	120	ug/Kg
56-23-5	Carbon Tetrachloride	12.5	U	5	12.5	25	ug/Kg
156-59-2	cis-1,2-Dichloroethene	12.5	U	4.4	12.5	25	ug/Kg
74-97-5	Bromochloromethane	12.5	U	4	12.5	25	ug/Kg
67-66-3	Chloroform	12.5	U	3.7	12.5	25	ug/Kg
71-55-6	1,1,1-Trichloroethane	12.5	U	4.4	12.5	25	ug/Kg
108-87-2	Methylcyclohexane	12.5	U	5.3	12.5	25	ug/Kg
71-43-2	Benzene	12.5	U	1.9	12.5	25	ug/Kg
107-06-2	1,2-Dichloroethane	12.5	U	3.2	12.5	25	ug/Kg
79-01-6	Trichloroethene	12.5	U	4.3	12.5	25	ug/Kg
78-87-5	1,2-Dichloropropane	12.5	U	1.3	12.5	25	ug/Kg
75-27-4	Bromodichloromethane	12.5	U	3.1	12.5	25	ug/Kg
108-10-1	4-Methyl-2-Pentanone	60	U	15	60	120	ug/Kg
108-88-3	Toluene	12.5	U	3.2	12.5	25	ug/Kg
10061-02-6	t-1,3-Dichloropropene	12.5	U	4	12.5	25	ug/Kg

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/26/12
Project:	Bethpage CTO-WE62	Date Received:	07/27/12
Client Sample ID:	BP-VPB135-GW-618	SDG No.:	D3596
Lab Sample ID:	D3596-15	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	1 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034524.D	1		07/30/12	VF073012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	12.5	U	3.6	12.5	25	ug/Kg
79-00-5	1,1,2-Trichloroethane	12.5	U	4.5	12.5	25	ug/Kg
591-78-6	2-Hexanone	60	U	20	60	120	ug/Kg
124-48-1	Dibromochloromethane	12.5	U	2.7	12.5	25	ug/Kg
106-93-4	1,2-Dibromoethane	12.5	U	3.2	12.5	25	ug/Kg
127-18-4	Tetrachloroethene	12.5	U	5	12.5	25	ug/Kg
108-90-7	Chlorobenzene	12.5	U	2.5	12.5	25	ug/Kg
100-41-4	Ethyl Benzene	12.5	U	3.1	12.5	25	ug/Kg
179601-23-1	m/p-Xylenes	25	U	3.6	25	50	ug/Kg
95-47-6	o-Xylene	12.5	U	3.4	12.5	25	ug/Kg
100-42-5	Styrene	12.5	U	2.2	12.5	25	ug/Kg
75-25-2	Bromoform	12.5	U	3.7	12.5	25	ug/Kg
98-82-8	Isopropylbenzene	12.5	U	2.4	12.5	25	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	12.5	U	2.3	12.5	25	ug/Kg
541-73-1	1,3-Dichlorobenzene	12.5	U	1.8	12.5	25	ug/Kg
106-46-7	1,4-Dichlorobenzene	12.5	U	2	12.5	25	ug/Kg
95-50-1	1,2-Dichlorobenzene	12.5	U	3.1	12.5	25	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	12.5	U	4.4	12.5	25	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	12.5	U	3.5	12.5	25	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	12.5	U	2.5	12.5	25	ug/Kg
123-91-1	1,4-Dioxane	250	U	250	250	500	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	41.6		55 - 158		83%	SPK: 50
1868-53-7	Dibromofluoromethane	48.9		53 - 156		98%	SPK: 50
2037-26-5	Toluene-d8	48.1		85 - 115		96%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.4		85 - 120		97%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	322626	4.39				
540-36-3	1,4-Difluorobenzene	632329	5.14				
3114-55-4	Chlorobenzene-d5	577208	9.33				
3855-82-1	1,4-Dichlorobenzene-d4	249001	12.24				

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/26/12
Project:	Bethpage CTO-WE62	Date Received:	07/27/12
Client Sample ID:	BP-VPB135-GW-618	SDG No.:	D3596
Lab Sample ID:	D3596-15	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	1 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034524.D	1		07/30/12	VF073012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/26/12
Project:	Bethpage CTO-WE62	Date Received:	07/27/12
Client Sample ID:	BP-VPB135-GW-638	SDG No.:	D3596
Lab Sample ID:	D3596-16	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034525.D	1		07/30/12	VF073012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	2.5	U	0.65	2.5	5	ug/Kg
74-87-3	Chloromethane	2.5	U	0.86	2.5	5	ug/Kg
75-01-4	Vinyl Chloride	2.5	U	1.2	2.5	5	ug/Kg
74-83-9	Bromomethane	2.5	U	2.4	2.5	5	ug/Kg
75-00-3	Chloroethane	2.5	U	1.4	2.5	5	ug/Kg
75-69-4	Trichlorofluoromethane	2.5	U	1.3	2.5	5	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.5	U	1.3	2.5	5	ug/Kg
75-35-4	1,1-Dichloroethene	2.5	U	1.5	2.5	5	ug/Kg
67-64-1	Acetone	12.5	U	3	12.5	25	ug/Kg
75-15-0	Carbon Disulfide	2.5	U	1.1	2.5	5	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.5	U	0.96	2.5	5	ug/Kg
79-20-9	Methyl Acetate	2.5	U	1.5	2.5	5	ug/Kg
75-09-2	Methylene Chloride	2.5	U	1.4	2.5	5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.5	U	0.69	2.5	5	ug/Kg
75-34-3	1,1-Dichloroethane	2.5	U	0.94	2.5	5	ug/Kg
110-82-7	Cyclohexane	2.5	U	1	2.5	5	ug/Kg
78-93-3	2-Butanone	12.5	U	3.1	12.5	25	ug/Kg
56-23-5	Carbon Tetrachloride	2.5	U	0.99	2.5	5	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.5	U	0.89	2.5	5	ug/Kg
74-97-5	Bromochloromethane	2.5	U	0.79	2.5	5	ug/Kg
67-66-3	Chloroform	2.5	U	0.74	2.5	5	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.5	U	0.88	2.5	5	ug/Kg
108-87-2	Methylcyclohexane	2.5	U	1.1	2.5	5	ug/Kg
71-43-2	Benzene	2.5	U	0.38	2.5	5	ug/Kg
107-06-2	1,2-Dichloroethane	2.5	U	0.64	2.5	5	ug/Kg
79-01-6	Trichloroethene	2.5	U	0.86	2.5	5	ug/Kg
78-87-5	1,2-Dichloropropane	2.5	U	0.26	2.5	5	ug/Kg
75-27-4	Bromodichloromethane	2.5	U	0.62	2.5	5	ug/Kg
108-10-1	4-Methyl-2-Pentanone	12.5	U	2.9	12.5	25	ug/Kg
108-88-3	Toluene	2.5	U	0.64	2.5	5	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.5	U	0.79	2.5	5	ug/Kg

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/26/12
Project:	Bethpage CTO-WE62	Date Received:	07/27/12
Client Sample ID:	BP-VPB135-GW-638	SDG No.:	D3596
Lab Sample ID:	D3596-16	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034525.D	1		07/30/12	VF073012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	2.5	U	0.72	2.5	5	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.5	U	0.9	2.5	5	ug/Kg
591-78-6	2-Hexanone	12.5	U	3.9	12.5	25	ug/Kg
124-48-1	Dibromochloromethane	2.5	U	0.54	2.5	5	ug/Kg
106-93-4	1,2-Dibromoethane	2.5	U	0.64	2.5	5	ug/Kg
127-18-4	Tetrachloroethene	2.5	U	1	2.5	5	ug/Kg
108-90-7	Chlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
100-41-4	Ethyl Benzene	2.5	U	0.62	2.5	5	ug/Kg
179601-23-1	m/p-Xylenes	5	U	0.72	5	10	ug/Kg
95-47-6	o-Xylene	2.5	U	0.68	2.5	5	ug/Kg
100-42-5	Styrene	2.5	U	0.45	2.5	5	ug/Kg
75-25-2	Bromoform	2.5	U	0.74	2.5	5	ug/Kg
98-82-8	Isopropylbenzene	2.5	U	0.48	2.5	5	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.5	U	0.46	2.5	5	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.5	U	0.37	2.5	5	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.5	U	0.41	2.5	5	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.5	U	0.62	2.5	5	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.5	U	0.87	2.5	5	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.5	U	0.7	2.5	5	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
123-91-1	1,4-Dioxane	50	U	50	50	100	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	38.6		55 - 158		77%	SPK: 50
1868-53-7	Dibromofluoromethane	46.3		53 - 156		93%	SPK: 50
2037-26-5	Toluene-d8	47.1		85 - 115		94%	SPK: 50
460-00-4	4-Bromofluorobenzene	44.8		85 - 120		90%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	306736	4.39				
540-36-3	1,4-Difluorobenzene	586422	5.14				
3114-55-4	Chlorobenzene-d5	531332	9.34				
3855-82-1	1,4-Dichlorobenzene-d4	218725	12.24				

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/26/12
Project:	Bethpage CTO-WE62	Date Received:	07/27/12
Client Sample ID:	BP-VPB135-GW-638	SDG No.:	D3596
Lab Sample ID:	D3596-16	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034525.D	1		07/30/12	VF073012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/26/12
Project:	Bethpage CTO-WE62	Date Received:	07/27/12
Client Sample ID:	BP-VPB135-GW-658	SDG No.:	D3596
Lab Sample ID:	D3596-17	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034526.D	1		07/30/12	VF073012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	2.5	U	0.65	2.5	5	ug/Kg
74-87-3	Chloromethane	2.5	U	0.86	2.5	5	ug/Kg
75-01-4	Vinyl Chloride	2.5	U	1.2	2.5	5	ug/Kg
74-83-9	Bromomethane	2.5	U	2.4	2.5	5	ug/Kg
75-00-3	Chloroethane	2.5	U	1.4	2.5	5	ug/Kg
75-69-4	Trichlorofluoromethane	2.5	U	1.3	2.5	5	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.5	U	1.3	2.5	5	ug/Kg
75-35-4	1,1-Dichloroethene	2.5	U	1.5	2.5	5	ug/Kg
67-64-1	Acetone	12.5	U	3	12.5	25	ug/Kg
75-15-0	Carbon Disulfide	2.5	U	1.1	2.5	5	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.5	U	0.96	2.5	5	ug/Kg
79-20-9	Methyl Acetate	2.5	U	1.5	2.5	5	ug/Kg
75-09-2	Methylene Chloride	2.5	U	1.4	2.5	5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.5	U	0.69	2.5	5	ug/Kg
75-34-3	1,1-Dichloroethane	2.5	U	0.94	2.5	5	ug/Kg
110-82-7	Cyclohexane	2.5	U	1	2.5	5	ug/Kg
78-93-3	2-Butanone	12.5	U	3.1	12.5	25	ug/Kg
56-23-5	Carbon Tetrachloride	2.5	U	0.99	2.5	5	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.5	U	0.89	2.5	5	ug/Kg
74-97-5	Bromochloromethane	2.5	U	0.79	2.5	5	ug/Kg
67-66-3	Chloroform	2.5	U	0.74	2.5	5	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.5	U	0.88	2.5	5	ug/Kg
108-87-2	Methylcyclohexane	2.5	U	1.1	2.5	5	ug/Kg
71-43-2	Benzene	2.5	U	0.38	2.5	5	ug/Kg
107-06-2	1,2-Dichloroethane	2.5	U	0.64	2.5	5	ug/Kg
79-01-6	Trichloroethene	2.5	U	0.86	2.5	5	ug/Kg
78-87-5	1,2-Dichloropropane	2.5	U	0.26	2.5	5	ug/Kg
75-27-4	Bromodichloromethane	2.5	U	0.62	2.5	5	ug/Kg
108-10-1	4-Methyl-2-Pentanone	12.5	U	2.9	12.5	25	ug/Kg
108-88-3	Toluene	2.5	U	0.64	2.5	5	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.5	U	0.79	2.5	5	ug/Kg

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/26/12
Project:	Bethpage CTO-WE62	Date Received:	07/27/12
Client Sample ID:	BP-VPB135-GW-658	SDG No.:	D3596
Lab Sample ID:	D3596-17	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034526.D	1		07/30/12	VF073012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	2.5	U	0.72	2.5	5	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.5	U	0.9	2.5	5	ug/Kg
591-78-6	2-Hexanone	12.5	U	3.9	12.5	25	ug/Kg
124-48-1	Dibromochloromethane	2.5	U	0.54	2.5	5	ug/Kg
106-93-4	1,2-Dibromoethane	2.5	U	0.64	2.5	5	ug/Kg
127-18-4	Tetrachloroethene	2.5	U	1	2.5	5	ug/Kg
108-90-7	Chlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
100-41-4	Ethyl Benzene	2.5	U	0.62	2.5	5	ug/Kg
179601-23-1	m/p-Xylenes	5	U	0.72	5	10	ug/Kg
95-47-6	o-Xylene	2.5	U	0.68	2.5	5	ug/Kg
100-42-5	Styrene	2.5	U	0.45	2.5	5	ug/Kg
75-25-2	Bromoform	2.5	U	0.74	2.5	5	ug/Kg
98-82-8	Isopropylbenzene	2.5	U	0.48	2.5	5	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.5	U	0.46	2.5	5	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.5	U	0.37	2.5	5	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.5	U	0.41	2.5	5	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.5	U	0.62	2.5	5	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.5	U	0.87	2.5	5	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.5	U	0.7	2.5	5	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
123-91-1	1,4-Dioxane	50	U	50	50	100	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	41.9		55 - 158		84%	SPK: 50
1868-53-7	Dibromofluoromethane	47.6		53 - 156		95%	SPK: 50
2037-26-5	Toluene-d8	48.6		85 - 115		97%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.2		85 - 120		98%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	289104	4.39				
540-36-3	1,4-Difluorobenzene	571993	5.13				
3114-55-4	Chlorobenzene-d5	505734	9.34				
3855-82-1	1,4-Dichlorobenzene-d4	218824	12.24				

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/26/12
Project:	Bethpage CTO-WE62	Date Received:	07/27/12
Client Sample ID:	BP-VPB135-GW-658	SDG No.:	D3596
Lab Sample ID:	D3596-17	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034526.D	1		07/30/12	VF073012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/27/12
Project:	Bethpage CTO-WE62	Date Received:	08/01/12
Client Sample ID:	BP-VBP135-GW-678	SDG No.:	D3634
Lab Sample ID:	D3634-02	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.06 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034628.D	1		08/02/12	VF080212

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	2.45	U	0.64	2.45	4.9	ug/Kg
74-87-3	Chloromethane	2.45	U	0.85	2.45	4.9	ug/Kg
75-01-4	Vinyl Chloride	2.45	U	1.2	2.45	4.9	ug/Kg
74-83-9	Bromomethane	2.45	U	2.4	2.45	4.9	ug/Kg
75-00-3	Chloroethane	2.45	U	1.4	2.45	4.9	ug/Kg
75-69-4	Trichlorofluoromethane	2.45	U	1.3	2.45	4.9	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.45	U	1.3	2.45	4.9	ug/Kg
75-35-4	1,1-Dichloroethene	2.45	U	1.5	2.45	4.9	ug/Kg
67-64-1	Acetone	12.5	U	3	12.5	25	ug/Kg
75-15-0	Carbon Disulfide	2.45	U	1	2.45	4.9	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.45	U	0.95	2.45	4.9	ug/Kg
79-20-9	Methyl Acetate	2.45	U	1.5	2.45	4.9	ug/Kg
75-09-2	Methylene Chloride	2.45	U	1.4	2.45	4.9	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.45	U	0.68	2.45	4.9	ug/Kg
75-34-3	1,1-Dichloroethane	2.45	U	0.93	2.45	4.9	ug/Kg
110-82-7	Cyclohexane	2.45	U	1	2.45	4.9	ug/Kg
78-93-3	2-Butanone	12.5	U	3.1	12.5	25	ug/Kg
56-23-5	Carbon Tetrachloride	2.45	U	0.98	2.45	4.9	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.45	U	0.88	2.45	4.9	ug/Kg
74-97-5	Bromochloromethane	2.45	U	0.78	2.45	4.9	ug/Kg
67-66-3	Chloroform	2.45	U	0.73	2.45	4.9	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.45	U	0.87	2.45	4.9	ug/Kg
108-87-2	Methylcyclohexane	2.45	U	1	2.45	4.9	ug/Kg
71-43-2	Benzene	2.45	U	0.38	2.45	4.9	ug/Kg
107-06-2	1,2-Dichloroethane	2.45	U	0.63	2.45	4.9	ug/Kg
79-01-6	Trichloroethene	2.45	U	0.85	2.45	4.9	ug/Kg
78-87-5	1,2-Dichloropropane	2.45	U	0.26	2.45	4.9	ug/Kg
75-27-4	Bromodichloromethane	2.45	U	0.61	2.45	4.9	ug/Kg
108-10-1	4-Methyl-2-Pentanone	12.5	U	2.9	12.5	25	ug/Kg
108-88-3	Toluene	2.45	U	0.63	2.45	4.9	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.45	U	0.78	2.45	4.9	ug/Kg

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/27/12
Project:	Bethpage CTO-WE62	Date Received:	08/01/12
Client Sample ID:	BP-VBP135-GW-678	SDG No.:	D3634
Lab Sample ID:	D3634-02	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.06 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034628.D	1		08/02/12	VF080212

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	2.45	U	0.71	2.45	4.9	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.45	U	0.89	2.45	4.9	ug/Kg
591-78-6	2-Hexanone	12.5	U	3.9	12.5	25	ug/Kg
124-48-1	Dibromochloromethane	2.45	U	0.53	2.45	4.9	ug/Kg
106-93-4	1,2-Dibromoethane	2.45	U	0.63	2.45	4.9	ug/Kg
127-18-4	Tetrachloroethene	2.45	U	1	2.45	4.9	ug/Kg
108-90-7	Chlorobenzene	2.45	U	0.49	2.45	4.9	ug/Kg
100-41-4	Ethyl Benzene	2.45	U	0.61	2.45	4.9	ug/Kg
179601-23-1	m/p-Xylenes	4.95	U	0.71	4.95	9.9	ug/Kg
95-47-6	o-Xylene	2.45	U	0.67	2.45	4.9	ug/Kg
100-42-5	Styrene	2.45	U	0.44	2.45	4.9	ug/Kg
75-25-2	Bromoform	2.45	U	0.73	2.45	4.9	ug/Kg
98-82-8	Isopropylbenzene	2.45	U	0.47	2.45	4.9	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.45	U	0.45	2.45	4.9	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.45	U	0.37	2.45	4.9	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.45	U	0.41	2.45	4.9	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.45	U	0.61	2.45	4.9	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.45	U	0.86	2.45	4.9	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.45	U	0.69	2.45	4.9	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.45	U	0.49	2.45	4.9	ug/Kg
123-91-1	1,4-Dioxane	49.5	U	49	49.5	99	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	39.6		55 - 158		79%	SPK: 50
1868-53-7	Dibromofluoromethane	45.2		53 - 156		90%	SPK: 50
2037-26-5	Toluene-d8	46.8		85 - 115		94%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.6		85 - 120		95%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	262697	4.4				
540-36-3	1,4-Difluorobenzene	489456	5.15				
3114-55-4	Chlorobenzene-d5	457448	9.35				
3855-82-1	1,4-Dichlorobenzene-d4	209203	12.25				
TENTATIVE IDENTIFIED COMPOUNDS							

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/27/12
Project:	Bethpage CTO-WE62	Date Received:	08/01/12
Client Sample ID:	BP-VBP135-GW-678	SDG No.:	D3634
Lab Sample ID:	D3634-02	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.06 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034628.D	1		08/02/12	VF080212

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
000124-18-5	Decane	8.6	J			11.36	ug/Kg

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/27/12
Project:	Bethpage CTO-WE62	Date Received:	08/01/12
Client Sample ID:	BP-VBP135-GW-698	SDG No.:	D3634
Lab Sample ID:	D3634-03	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034629.D	1		08/02/12	VF080212

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	2.5	U	0.65	2.5	5	ug/Kg
74-87-3	Chloromethane	2.5	U	0.86	2.5	5	ug/Kg
75-01-4	Vinyl Chloride	2.5	U	1.2	2.5	5	ug/Kg
74-83-9	Bromomethane	2.5	U	2.4	2.5	5	ug/Kg
75-00-3	Chloroethane	2.5	U	1.4	2.5	5	ug/Kg
75-69-4	Trichlorofluoromethane	2.5	U	1.3	2.5	5	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.5	U	1.3	2.5	5	ug/Kg
75-35-4	1,1-Dichloroethene	2.5	U	1.5	2.5	5	ug/Kg
67-64-1	Acetone	19	J	3	12.5	25	ug/Kg
75-15-0	Carbon Disulfide	2.5	U	1.1	2.5	5	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.5	U	0.96	2.5	5	ug/Kg
79-20-9	Methyl Acetate	2.5	U	1.5	2.5	5	ug/Kg
75-09-2	Methylene Chloride	2.5	U	1.4	2.5	5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.5	U	0.69	2.5	5	ug/Kg
75-34-3	1,1-Dichloroethane	2.5	U	0.94	2.5	5	ug/Kg
110-82-7	Cyclohexane	2.5	U	1	2.5	5	ug/Kg
78-93-3	2-Butanone	12.5	U	3.1	12.5	25	ug/Kg
56-23-5	Carbon Tetrachloride	2.5	U	0.99	2.5	5	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.5	U	0.89	2.5	5	ug/Kg
74-97-5	Bromochloromethane	2.5	U	0.79	2.5	5	ug/Kg
67-66-3	Chloroform	2.5	U	0.74	2.5	5	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.5	U	0.88	2.5	5	ug/Kg
108-87-2	Methylcyclohexane	2.5	U	1.1	2.5	5	ug/Kg
71-43-2	Benzene	2.5	U	0.38	2.5	5	ug/Kg
107-06-2	1,2-Dichloroethane	2.5	U	0.64	2.5	5	ug/Kg
79-01-6	Trichloroethene	2.5	U	0.86	2.5	5	ug/Kg
78-87-5	1,2-Dichloropropane	2.5	U	0.26	2.5	5	ug/Kg
75-27-4	Bromodichloromethane	2.5	U	0.62	2.5	5	ug/Kg
108-10-1	4-Methyl-2-Pentanone	12.5	U	2.9	12.5	25	ug/Kg
108-88-3	Toluene	2.5	U	0.64	2.5	5	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.5	U	0.79	2.5	5	ug/Kg

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/27/12
Project:	Bethpage CTO-WE62	Date Received:	08/01/12
Client Sample ID:	BP-VBP135-GW-698	SDG No.:	D3634
Lab Sample ID:	D3634-03	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034629.D	1		08/02/12	VF080212

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	2.5	U	0.72	2.5	5	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.5	U	0.9	2.5	5	ug/Kg
591-78-6	2-Hexanone	12.5	U	3.9	12.5	25	ug/Kg
124-48-1	Dibromochloromethane	2.5	U	0.54	2.5	5	ug/Kg
106-93-4	1,2-Dibromoethane	2.5	U	0.64	2.5	5	ug/Kg
127-18-4	Tetrachloroethene	2.5	U	1	2.5	5	ug/Kg
108-90-7	Chlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
100-41-4	Ethyl Benzene	2.5	U	0.62	2.5	5	ug/Kg
179601-23-1	m/p-Xylenes	5	U	0.72	5	10	ug/Kg
95-47-6	o-Xylene	2.5	U	0.68	2.5	5	ug/Kg
100-42-5	Styrene	2.5	U	0.45	2.5	5	ug/Kg
75-25-2	Bromoform	2.5	U	0.74	2.5	5	ug/Kg
98-82-8	Isopropylbenzene	2.5	U	0.48	2.5	5	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.5	U	0.46	2.5	5	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.5	U	0.37	2.5	5	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.5	U	0.41	2.5	5	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.5	U	0.62	2.5	5	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.5	U	0.87	2.5	5	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.5	U	0.7	2.5	5	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
123-91-1	1,4-Dioxane	50	U	50	50	100	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	38		55 - 158		76%	SPK: 50
1868-53-7	Dibromofluoromethane	44		53 - 156		88%	SPK: 50
2037-26-5	Toluene-d8	43.9		85 - 115		88%	SPK: 50
460-00-4	4-Bromofluorobenzene	42.7		85 - 120		85%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	273762	4.4				
540-36-3	1,4-Difluorobenzene	511907	5.14				
3114-55-4	Chlorobenzene-d5	465008	9.34				
3855-82-1	1,4-Dichlorobenzene-d4	208714	12.25				
TENTATIVE IDENTIFIED COMPOUNDS							

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/27/12
Project:	Bethpage CTO-WE62	Date Received:	08/01/12
Client Sample ID:	BP-VBP135-GW-698	SDG No.:	D3634
Lab Sample ID:	D3634-03	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034629.D	1		08/02/12	VF080212

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
000124-18-5	Decane	6.6	J			11.36	ug/Kg

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	08/01/12
Project:	Bethpage CTO-WE62	Date Received:	08/03/12
Client Sample ID:	BP-VPB135-GW-784	SDG No.:	D3670
Lab Sample ID:	D3670-02	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.06 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VT004342.D	1		08/03/12	VT080312

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	2.45	U	0.64	2.45	4.9	ug/Kg
74-87-3	Chloromethane	2.45	U	0.85	2.45	4.9	ug/Kg
75-01-4	Vinyl Chloride	2.45	U	1.2	2.45	4.9	ug/Kg
74-83-9	Bromomethane	2.45	U	2.4	2.45	4.9	ug/Kg
75-00-3	Chloroethane	2.45	U	1.4	2.45	4.9	ug/Kg
75-69-4	Trichlorofluoromethane	2.45	U	1.3	2.45	4.9	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.45	U	1.3	2.45	4.9	ug/Kg
75-35-4	1,1-Dichloroethene	2.45	U	1.5	2.45	4.9	ug/Kg
67-64-1	Acetone	54		3	12.5	25	ug/Kg
75-15-0	Carbon Disulfide	2.45	U	1	2.45	4.9	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.45	U	0.95	2.45	4.9	ug/Kg
79-20-9	Methyl Acetate	2.45	U	1.5	2.45	4.9	ug/Kg
75-09-2	Methylene Chloride	2.45	U	1.4	2.45	4.9	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.45	U	0.68	2.45	4.9	ug/Kg
75-34-3	1,1-Dichloroethane	2.45	U	0.93	2.45	4.9	ug/Kg
110-82-7	Cyclohexane	2.45	U	1	2.45	4.9	ug/Kg
78-93-3	2-Butanone	11	J	3.1	12.5	25	ug/Kg
56-23-5	Carbon Tetrachloride	2.45	U	0.98	2.45	4.9	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.45	U	0.88	2.45	4.9	ug/Kg
74-97-5	Bromochloromethane	2.45	U	0.78	2.45	4.9	ug/Kg
67-66-3	Chloroform	2.45	U	0.73	2.45	4.9	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.45	U	0.87	2.45	4.9	ug/Kg
108-87-2	Methylcyclohexane	2.45	U	1	2.45	4.9	ug/Kg
71-43-2	Benzene	2.45	U	0.38	2.45	4.9	ug/Kg
107-06-2	1,2-Dichloroethane	2.45	U	0.63	2.45	4.9	ug/Kg
79-01-6	Trichloroethene	2.45	U	0.85	2.45	4.9	ug/Kg
78-87-5	1,2-Dichloropropane	2.45	U	0.26	2.45	4.9	ug/Kg
75-27-4	Bromodichloromethane	2.45	U	0.61	2.45	4.9	ug/Kg
108-10-1	4-Methyl-2-Pentanone	12.5	U	2.9	12.5	25	ug/Kg
108-88-3	Toluene	2.45	U	0.63	2.45	4.9	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.45	U	0.78	2.45	4.9	ug/Kg

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	08/01/12
Project:	Bethpage CTO-WE62	Date Received:	08/03/12
Client Sample ID:	BP-VPB135-GW-784	SDG No.:	D3670
Lab Sample ID:	D3670-02	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.06 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VT004342.D	1		08/03/12	VT080312

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	2.45	U	0.71	2.45	4.9	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.45	U	0.89	2.45	4.9	ug/Kg
591-78-6	2-Hexanone	12.5	U	3.9	12.5	25	ug/Kg
124-48-1	Dibromochloromethane	2.45	U	0.53	2.45	4.9	ug/Kg
106-93-4	1,2-Dibromoethane	2.45	U	0.63	2.45	4.9	ug/Kg
127-18-4	Tetrachloroethene	2.45	U	1	2.45	4.9	ug/Kg
108-90-7	Chlorobenzene	2.45	U	0.49	2.45	4.9	ug/Kg
100-41-4	Ethyl Benzene	2.45	U	0.61	2.45	4.9	ug/Kg
179601-23-1	m/p-Xylenes	4.95	U	0.71	4.95	9.9	ug/Kg
95-47-6	o-Xylene	2.45	U	0.67	2.45	4.9	ug/Kg
100-42-5	Styrene	2.45	U	0.44	2.45	4.9	ug/Kg
75-25-2	Bromoform	2.45	U	0.73	2.45	4.9	ug/Kg
98-82-8	Isopropylbenzene	2.45	U	0.47	2.45	4.9	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.45	U	0.45	2.45	4.9	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.45	U	0.37	2.45	4.9	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.45	U	0.41	2.45	4.9	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.45	U	0.61	2.45	4.9	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.45	U	0.86	2.45	4.9	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.45	U	0.69	2.45	4.9	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.45	U	0.49	2.45	4.9	ug/Kg
123-91-1	1,4-Dioxane	49.5	U	49	49.5	99	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	49.9		55 - 158		100%	SPK: 50
1868-53-7	Dibromofluoromethane	47.6		53 - 156		95%	SPK: 50
2037-26-5	Toluene-d8	48.9		85 - 115		98%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.8		85 - 120		94%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	1852940	7.43				
540-36-3	1,4-Difluorobenzene	2426220	8.38				
3114-55-4	Chlorobenzene-d5	1975260	11.22				
3855-82-1	1,4-Dichlorobenzene-d4	1040720	13.16				
TENTATIVE IDENTIFIED COMPOUNDS							

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	08/01/12
Project:	Bethpage CTO-WE62	Date Received:	08/03/12
Client Sample ID:	BP-VPB135-GW-784	SDG No.:	D3670
Lab Sample ID:	D3670-02	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.06 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VT004342.D	1		08/03/12	VT080312

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
000115-07-1	Propene	28	J			1.69	ug/Kg
000115-11-7	1-Propene, 2-methyl-	15	J			2	ug/Kg
000124-18-5	Decane	5.3	J			12.55	ug/Kg

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	08/01/12
Project:	Bethpage CTO-WE62	Date Received:	08/03/12
Client Sample ID:	BP-VPB135-GW-814	SDG No.:	D3670
Lab Sample ID:	D3670-03	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VT004343.D	1		08/03/12	VT080312

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	2.5	U	0.65	2.5	5	ug/Kg
74-87-3	Chloromethane	2.5	U	0.86	2.5	5	ug/Kg
75-01-4	Vinyl Chloride	2.5	U	1.2	2.5	5	ug/Kg
74-83-9	Bromomethane	2.5	U	2.4	2.5	5	ug/Kg
75-00-3	Chloroethane	2.5	U	1.4	2.5	5	ug/Kg
75-69-4	Trichlorofluoromethane	2.5	U	1.3	2.5	5	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.5	U	1.3	2.5	5	ug/Kg
75-35-4	1,1-Dichloroethene	2.5	U	1.5	2.5	5	ug/Kg
67-64-1	Acetone	12	J	3	12.5	25	ug/Kg
75-15-0	Carbon Disulfide	2.5	U	1.1	2.5	5	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.5	U	0.96	2.5	5	ug/Kg
79-20-9	Methyl Acetate	2.5	U	1.5	2.5	5	ug/Kg
75-09-2	Methylene Chloride	2.5	U	1.4	2.5	5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.5	U	0.69	2.5	5	ug/Kg
75-34-3	1,1-Dichloroethane	2.5	U	0.94	2.5	5	ug/Kg
110-82-7	Cyclohexane	2.5	U	1	2.5	5	ug/Kg
78-93-3	2-Butanone	12.5	U	3.1	12.5	25	ug/Kg
56-23-5	Carbon Tetrachloride	2.5	U	0.99	2.5	5	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.5	U	0.89	2.5	5	ug/Kg
74-97-5	Bromochloromethane	2.5	U	0.79	2.5	5	ug/Kg
67-66-3	Chloroform	2.5	U	0.74	2.5	5	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.5	U	0.88	2.5	5	ug/Kg
108-87-2	Methylcyclohexane	2.5	U	1.1	2.5	5	ug/Kg
71-43-2	Benzene	2.5	U	0.38	2.5	5	ug/Kg
107-06-2	1,2-Dichloroethane	2.5	U	0.64	2.5	5	ug/Kg
79-01-6	Trichloroethene	2.5	U	0.86	2.5	5	ug/Kg
78-87-5	1,2-Dichloropropane	2.5	U	0.26	2.5	5	ug/Kg
75-27-4	Bromodichloromethane	2.5	U	0.62	2.5	5	ug/Kg
108-10-1	4-Methyl-2-Pentanone	12.5	U	2.9	12.5	25	ug/Kg
108-88-3	Toluene	2.5	U	0.64	2.5	5	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.5	U	0.79	2.5	5	ug/Kg

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	08/01/12
Project:	Bethpage CTO-WE62	Date Received:	08/03/12
Client Sample ID:	BP-VPB135-GW-814	SDG No.:	D3670
Lab Sample ID:	D3670-03	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VT004343.D	1		08/03/12	VT080312

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	2.5	U	0.72	2.5	5	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.5	U	0.9	2.5	5	ug/Kg
591-78-6	2-Hexanone	12.5	U	3.9	12.5	25	ug/Kg
124-48-1	Dibromochloromethane	2.5	U	0.54	2.5	5	ug/Kg
106-93-4	1,2-Dibromoethane	2.5	U	0.64	2.5	5	ug/Kg
127-18-4	Tetrachloroethene	2.5	U	1	2.5	5	ug/Kg
108-90-7	Chlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
100-41-4	Ethyl Benzene	2.5	U	0.62	2.5	5	ug/Kg
179601-23-1	m/p-Xylenes	5	U	0.72	5	10	ug/Kg
95-47-6	o-Xylene	2.5	U	0.68	2.5	5	ug/Kg
100-42-5	Styrene	2.5	U	0.45	2.5	5	ug/Kg
75-25-2	Bromoform	2.5	U	0.74	2.5	5	ug/Kg
98-82-8	Isopropylbenzene	2.5	U	0.48	2.5	5	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.5	U	0.46	2.5	5	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.5	U	0.37	2.5	5	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.5	U	0.41	2.5	5	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.5	U	0.62	2.5	5	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.5	U	0.87	2.5	5	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.5	U	0.7	2.5	5	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
123-91-1	1,4-Dioxane	50	U	50	50	100	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	52.6		55 - 158		105%	SPK: 50
1868-53-7	Dibromofluoromethane	48.4		53 - 156		97%	SPK: 50
2037-26-5	Toluene-d8	48.8		85 - 115		98%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.3		85 - 120		97%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	1804660	7.43				
540-36-3	1,4-Difluorobenzene	2362930	8.38				
3114-55-4	Chlorobenzene-d5	1951940	11.22				
3855-82-1	1,4-Dichlorobenzene-d4	1047650	13.16				
TENTATIVE IDENTIFIED COMPOUNDS							

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	08/01/12
Project:	Bethpage CTO-WE62	Date Received:	08/03/12
Client Sample ID:	BP-VPB135-GW-814	SDG No.:	D3670
Lab Sample ID:	D3670-03	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VT004343.D	1		08/03/12	VT080312

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
000115-07-1	Propene	21	J			1.69	ug/Kg
000115-11-7	1-Propene, 2-methyl-	9.7	J			2	ug/Kg

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	08/01/12
Project:	Bethpage CTO-WE62	Date Received:	08/03/12
Client Sample ID:	BP-VPB135-GW-824	SDG No.:	D3670
Lab Sample ID:	D3670-04	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VT004344.D	1		08/03/12	VT080312

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	2.5	U	0.65	2.5	5	ug/Kg
74-87-3	Chloromethane	2.5	U	0.86	2.5	5	ug/Kg
75-01-4	Vinyl Chloride	2.5	U	1.2	2.5	5	ug/Kg
74-83-9	Bromomethane	2.5	U	2.4	2.5	5	ug/Kg
75-00-3	Chloroethane	2.5	U	1.4	2.5	5	ug/Kg
75-69-4	Trichlorofluoromethane	2.5	U	1.3	2.5	5	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.5	U	1.3	2.5	5	ug/Kg
75-35-4	1,1-Dichloroethene	2.5	U	1.5	2.5	5	ug/Kg
67-64-1	Acetone	19	J	3	12.5	25	ug/Kg
75-15-0	Carbon Disulfide	2.5	U	1.1	2.5	5	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.5	U	0.96	2.5	5	ug/Kg
79-20-9	Methyl Acetate	2.5	U	1.5	2.5	5	ug/Kg
75-09-2	Methylene Chloride	2.5	U	1.4	2.5	5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.5	U	0.69	2.5	5	ug/Kg
75-34-3	1,1-Dichloroethane	2.5	U	0.94	2.5	5	ug/Kg
110-82-7	Cyclohexane	2.5	U	1	2.5	5	ug/Kg
78-93-3	2-Butanone	6.2	J	3.1	12.5	25	ug/Kg
56-23-5	Carbon Tetrachloride	2.5	U	0.99	2.5	5	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.5	U	0.89	2.5	5	ug/Kg
74-97-5	Bromochloromethane	2.5	U	0.79	2.5	5	ug/Kg
67-66-3	Chloroform	2.5	U	0.74	2.5	5	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.5	U	0.88	2.5	5	ug/Kg
108-87-2	Methylcyclohexane	2.5	U	1.1	2.5	5	ug/Kg
71-43-2	Benzene	2.5	U	0.38	2.5	5	ug/Kg
107-06-2	1,2-Dichloroethane	2.5	U	0.64	2.5	5	ug/Kg
79-01-6	Trichloroethene	2.5	U	0.86	2.5	5	ug/Kg
78-87-5	1,2-Dichloropropane	2.5	U	0.26	2.5	5	ug/Kg
75-27-4	Bromodichloromethane	2.5	U	0.62	2.5	5	ug/Kg
108-10-1	4-Methyl-2-Pentanone	12.5	U	2.9	12.5	25	ug/Kg
108-88-3	Toluene	2.5	U	0.64	2.5	5	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.5	U	0.79	2.5	5	ug/Kg

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	08/01/12
Project:	Bethpage CTO-WE62	Date Received:	08/03/12
Client Sample ID:	BP-VPB135-GW-824	SDG No.:	D3670
Lab Sample ID:	D3670-04	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VT004344.D	1		08/03/12	VT080312

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	2.5	U	0.72	2.5	5	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.5	U	0.9	2.5	5	ug/Kg
591-78-6	2-Hexanone	12.5	U	3.9	12.5	25	ug/Kg
124-48-1	Dibromochloromethane	2.5	U	0.54	2.5	5	ug/Kg
106-93-4	1,2-Dibromoethane	2.5	U	0.64	2.5	5	ug/Kg
127-18-4	Tetrachloroethene	2.5	U	1	2.5	5	ug/Kg
108-90-7	Chlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
100-41-4	Ethyl Benzene	2.5	U	0.62	2.5	5	ug/Kg
179601-23-1	m/p-Xylenes	5	U	0.72	5	10	ug/Kg
95-47-6	o-Xylene	2.5	U	0.68	2.5	5	ug/Kg
100-42-5	Styrene	2.5	U	0.45	2.5	5	ug/Kg
75-25-2	Bromoform	2.5	U	0.74	2.5	5	ug/Kg
98-82-8	Isopropylbenzene	2.5	U	0.48	2.5	5	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.5	U	0.46	2.5	5	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.5	U	0.37	2.5	5	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.5	U	0.41	2.5	5	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.5	U	0.62	2.5	5	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.5	U	0.87	2.5	5	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.5	U	0.7	2.5	5	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.5	U	0.5	2.5	5	ug/Kg
123-91-1	1,4-Dioxane	50	U	50	50	100	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	49.2		55 - 158		98%	SPK: 50
1868-53-7	Dibromofluoromethane	47.1		53 - 156		94%	SPK: 50
2037-26-5	Toluene-d8	48.6		85 - 115		97%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.2		85 - 120		90%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	1887610	7.43				
540-36-3	1,4-Difluorobenzene	2458590	8.38				
3114-55-4	Chlorobenzene-d5	1975530	11.23				
3855-82-1	1,4-Dichlorobenzene-d4	944778	13.16				
TENTATIVE IDENTIFIED COMPOUNDS							

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	08/01/12
Project:	Bethpage CTO-WE62	Date Received:	08/03/12
Client Sample ID:	BP-VPB135-GW-824	SDG No.:	D3670
Lab Sample ID:	D3670-04	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VT004344.D	1		08/03/12	VT080312

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
000115-07-1	Propene	19	J			1.69	ug/Kg
000115-11-7	1-Propene, 2-methyl-	9.3	J			2	ug/Kg

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/24/12
Project:	Bethpage CTO-WE62	Date Received:	07/27/12
Client Sample ID:	BP-VPB135-SO-498	SDG No.:	D3596
Lab Sample ID:	D3596-09	Matrix:	SOIL
		% Solid:	81.8

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TOC	83	J	1	48.849	125	250	mg/Kg	07/31/12	07/31/12	9060

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N = Spiked sample recovery not within control limits

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/31/12
Project:	Bethpage CTO-WE62	Date Received:	08/01/12
Client Sample ID:	BP-VBP135-DM-557	SDG No.:	D3634
Lab Sample ID:	D3634-04	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.06 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034630.D	1		08/02/12	VF080212

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	2.45	U	0.64	2.45	4.9	ug/Kg
74-87-3	Chloromethane	2.45	U	0.85	2.45	4.9	ug/Kg
75-01-4	Vinyl Chloride	2.45	U	1.2	2.45	4.9	ug/Kg
74-83-9	Bromomethane	2.45	U	2.4	2.45	4.9	ug/Kg
75-00-3	Chloroethane	2.45	U	1.4	2.45	4.9	ug/Kg
75-69-4	Trichlorofluoromethane	2.45	U	1.3	2.45	4.9	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.45	U	1.3	2.45	4.9	ug/Kg
75-35-4	1,1-Dichloroethene	2.45	U	1.5	2.45	4.9	ug/Kg
67-64-1	Acetone	12.5	U	3	12.5	25	ug/Kg
75-15-0	Carbon Disulfide	2.45	U	1	2.45	4.9	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.45	U	0.95	2.45	4.9	ug/Kg
79-20-9	Methyl Acetate	2.45	U	1.5	2.45	4.9	ug/Kg
75-09-2	Methylene Chloride	2.45	U	1.4	2.45	4.9	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.45	U	0.68	2.45	4.9	ug/Kg
75-34-3	1,1-Dichloroethane	2.45	U	0.93	2.45	4.9	ug/Kg
110-82-7	Cyclohexane	2.45	U	1	2.45	4.9	ug/Kg
78-93-3	2-Butanone	12.5	U	3.1	12.5	25	ug/Kg
56-23-5	Carbon Tetrachloride	2.45	U	0.98	2.45	4.9	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.45	U	0.88	2.45	4.9	ug/Kg
74-97-5	Bromochloromethane	2.45	U	0.78	2.45	4.9	ug/Kg
67-66-3	Chloroform	2.45	U	0.73	2.45	4.9	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.45	U	0.87	2.45	4.9	ug/Kg
108-87-2	Methylcyclohexane	2.45	U	1	2.45	4.9	ug/Kg
71-43-2	Benzene	2.45	U	0.38	2.45	4.9	ug/Kg
107-06-2	1,2-Dichloroethane	2.45	U	0.63	2.45	4.9	ug/Kg
79-01-6	Trichloroethene	2.45	U	0.85	2.45	4.9	ug/Kg
78-87-5	1,2-Dichloropropane	2.45	U	0.26	2.45	4.9	ug/Kg
75-27-4	Bromodichloromethane	2.45	U	0.61	2.45	4.9	ug/Kg
108-10-1	4-Methyl-2-Pentanone	12.5	U	2.9	12.5	25	ug/Kg
108-88-3	Toluene	2.45	U	0.63	2.45	4.9	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.45	U	0.78	2.45	4.9	ug/Kg

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/31/12
Project:	Bethpage CTO-WE62	Date Received:	08/01/12
Client Sample ID:	BP-VBP135-DM-557	SDG No.:	D3634
Lab Sample ID:	D3634-04	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.06 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034630.D	1		08/02/12	VF080212

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	2.45	U	0.71	2.45	4.9	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.45	U	0.89	2.45	4.9	ug/Kg
591-78-6	2-Hexanone	12.5	U	3.9	12.5	25	ug/Kg
124-48-1	Dibromochloromethane	2.45	U	0.53	2.45	4.9	ug/Kg
106-93-4	1,2-Dibromoethane	2.45	U	0.63	2.45	4.9	ug/Kg
127-18-4	Tetrachloroethene	2.45	U	1	2.45	4.9	ug/Kg
108-90-7	Chlorobenzene	2.45	U	0.49	2.45	4.9	ug/Kg
100-41-4	Ethyl Benzene	2.45	U	0.61	2.45	4.9	ug/Kg
179601-23-1	m/p-Xylenes	4.95	U	0.71	4.95	9.9	ug/Kg
95-47-6	o-Xylene	2.45	U	0.67	2.45	4.9	ug/Kg
100-42-5	Styrene	2.45	U	0.44	2.45	4.9	ug/Kg
75-25-2	Bromoform	2.45	U	0.73	2.45	4.9	ug/Kg
98-82-8	Isopropylbenzene	2.45	U	0.47	2.45	4.9	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.45	U	0.45	2.45	4.9	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.45	U	0.37	2.45	4.9	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.45	U	0.41	2.45	4.9	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.45	U	0.61	2.45	4.9	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.45	U	0.86	2.45	4.9	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.45	U	0.69	2.45	4.9	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.45	U	0.49	2.45	4.9	ug/Kg
123-91-1	1,4-Dioxane	49.5	U	49	49.5	99	ug/Kg
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	39.2		55 - 158		78%	SPK: 50
1868-53-7	Dibromofluoromethane	46.8		53 - 156		94%	SPK: 50
2037-26-5	Toluene-d8	44.7		85 - 115		89%	SPK: 50
460-00-4	4-Bromofluorobenzene	44.7		85 - 120		89%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	264164	4.4				
540-36-3	1,4-Difluorobenzene	499461	5.15				
3114-55-4	Chlorobenzene-d5	450099	9.34				
3855-82-1	1,4-Dichlorobenzene-d4	200791	12.25				

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/31/12
Project:	Bethpage CTO-WE62	Date Received:	08/01/12
Client Sample ID:	BP-VBP135-DM-557	SDG No.:	D3634
Lab Sample ID:	D3634-04	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.06 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF034630.D	1		08/02/12	VF080212

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/12/12
Project:	Bethpage CTO-066	Date Received:	07/13/12
Client Sample ID:	BP-VPB-TB-071212	SDG No.:	D3367
Lab Sample ID:	D3367-09	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VR006525.D	1		07/17/12	VR071612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	0.5	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	0.5	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	0.5	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	0.5	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	0.5	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.5	U	0.45	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	0.5	1	ug/L
67-64-1	Acetone	2.5	U	0.5	2.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	0.5	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	0.5	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	0.5	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	0.5	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	0.5	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	0.5	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	0.5	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	0.5	1	ug/L
108-87-2	Methylcyclohexane	0.5	U	0.2	0.5	1	ug/L
71-43-2	Benzene	0.5	U	0.32	0.5	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	0.5	1	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	0.5	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	0.5	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	0.5	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	2.5	5	ug/L
108-88-3	Toluene	0.5	U	0.37	0.5	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	0.5	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/12/12
Project:	Bethpage CTO-066	Date Received:	07/13/12
Client Sample ID:	BP-VPB-TB-071212	SDG No.:	D3367
Lab Sample ID:	D3367-09	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VR006525.D	1		07/17/12	VR071612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	0.5	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	0.5	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.52	0.5	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	0.5	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	0.5	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	0.5	1	ug/L
100-41-4	Ethyl Benzene	0.5	U	0.2	0.5	1	ug/L
179601-23-1	m/p-Xylenes	1	U	0.95	1	2	ug/L
95-47-6	o-Xylene	0.5	U	0.43	0.5	1	ug/L
100-42-5	Styrene	0.5	U	0.36	0.5	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	0.5	1	ug/L
98-82-8	Isopropylbenzene	0.5	U	0.45	0.5	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	0.5	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	0.5	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	0.5	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	0.5	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	0.5	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	0.5	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	0.5	1	ug/L
123-91-1	1,4-Dioxane	10	U	10	10	20	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	58.2		70 - 120		116%	SPK: 50
1868-53-7	Dibromofluoromethane	50.9		85 - 115		102%	SPK: 50
2037-26-5	Toluene-d8	52.2		85 - 120		104%	SPK: 50
460-00-4	4-Bromofluorobenzene	48		75 - 120		96%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	520099	7.57				
540-36-3	1,4-Difluorobenzene	1061790	8.49				
3114-55-4	Chlorobenzene-d5	972592	11.3				
3855-82-1	1,4-Dichlorobenzene-d4	443320	13.24				

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/12/12
Project:	Bethpage CTO-066	Date Received:	07/13/12
Client Sample ID:	BP-VPB-TB-071212	SDG No.:	D3367
Lab Sample ID:	D3367-09	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VR006525.D	1		07/17/12	VR071612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/13/12
Project:	Bethpage CTO-066	Date Received:	07/17/12
Client Sample ID:	BP-VPB-TB-071312-1	SDG No.:	D3413
Lab Sample ID:	D3413-01	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VR006588.D	1		07/19/12	VR071912

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	0.5	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	0.5	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	0.5	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	0.5	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	0.5	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.5	U	0.45	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	0.5	1	ug/L
67-64-1	Acetone	2.5	U	0.5	2.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	0.5	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	0.5	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	0.5	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	0.5	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	0.5	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	0.5	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	0.5	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	0.5	1	ug/L
108-87-2	Methylcyclohexane	0.5	U	0.2	0.5	1	ug/L
71-43-2	Benzene	0.5	U	0.32	0.5	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	0.5	1	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	0.5	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	0.5	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	0.5	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	2.5	5	ug/L
108-88-3	Toluene	0.5	U	0.37	0.5	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	0.5	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/13/12
Project:	Bethpage CTO-066	Date Received:	07/17/12
Client Sample ID:	BP-VPB-TB-071312-1	SDG No.:	D3413
Lab Sample ID:	D3413-01	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VR006588.D	1		07/19/12	VR071912

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	0.5	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	0.5	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.52	0.5	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	0.5	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	0.5	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	0.5	1	ug/L
100-41-4	Ethyl Benzene	0.5	U	0.2	0.5	1	ug/L
179601-23-1	m/p-Xylenes	1	U	0.95	1	2	ug/L
95-47-6	o-Xylene	0.5	U	0.43	0.5	1	ug/L
100-42-5	Styrene	0.5	U	0.36	0.5	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	0.5	1	ug/L
98-82-8	Isopropylbenzene	0.5	U	0.45	0.5	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	0.5	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	0.5	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	0.5	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	0.5	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	0.5	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	0.5	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	0.5	1	ug/L
123-91-1	1,4-Dioxane	10	U	10	10	20	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	57		70 - 120		114%	SPK: 50
1868-53-7	Dibromofluoromethane	49.9		85 - 115		100%	SPK: 50
2037-26-5	Toluene-d8	51.6		85 - 120		103%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.1		75 - 120		98%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	580807	7.57				
540-36-3	1,4-Difluorobenzene	1151390	8.49				
3114-55-4	Chlorobenzene-d5	1044640	11.3				
3855-82-1	1,4-Dichlorobenzene-d4	481535	13.24				

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/13/12
Project:	Bethpage CTO-066	Date Received:	07/17/12
Client Sample ID:	BP-VPB-TB-071312-1	SDG No.:	D3413
Lab Sample ID:	D3413-01	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VR006588.D	1		07/19/12	VR071912

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/17/12
Project:	Bethpage CTO-066	Date Received:	07/19/12
Client Sample ID:	BP-VPB-TB-07	SDG No.:	D3454
Lab Sample ID:	D3454-01	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VH048517.D	1		07/19/12	VH071912

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	2.5	U	0.55	2.5	5	ug/L
74-87-3	Chloromethane	2.5	U	0.54	2.5	5	ug/L
75-01-4	Vinyl Chloride	2.5	U	0.34	2.5	5	ug/L
74-83-9	Bromomethane	2.5	U	0.62	2.5	5	ug/L
75-00-3	Chloroethane	2.5	U	0.66	2.5	5	ug/L
75-69-4	Trichlorofluoromethane	2.5	U	0.35	2.5	5	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	2.5	U	0.45	2.5	5	ug/L
75-35-4	1,1-Dichloroethene	2.5	U	0.47	2.5	5	ug/L
67-64-1	Acetone	12.5	U	2.8	12.5	25	ug/L
75-15-0	Carbon Disulfide	2.5	U	0.54	2.5	5	ug/L
1634-04-4	Methyl tert-butyl Ether	2.5	U	0.35	2.5	5	ug/L
79-20-9	Methyl Acetate	2.5	U	0.83	2.5	5	ug/L
75-09-2	Methylene Chloride	2.5	U	0.41	2.5	5	ug/L
156-60-5	trans-1,2-Dichloroethene	2.5	U	0.41	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	2.5	U	0.36	2.5	5	ug/L
110-82-7	Cyclohexane	2.5	U	0.55	2.5	5	ug/L
78-93-3	2-Butanone	12.5	U	1.3	12.5	25	ug/L
56-23-5	Carbon Tetrachloride	2.5	U	0.62	2.5	5	ug/L
156-59-2	cis-1,2-Dichloroethene	2.5	U	0.35	2.5	5	ug/L
74-97-5	Bromochloromethane	2.5	U	2.2	2.5	5	ug/L
67-66-3	Chloroform	2.5	U	0.34	2.5	5	ug/L
71-55-6	1,1,1-Trichloroethane	2.5	U	0.4	2.5	5	ug/L
108-87-2	Methylcyclohexane	2.5	U	0.68	2.5	5	ug/L
71-43-2	Benzene	2.5	U	0.32	2.5	5	ug/L
107-06-2	1,2-Dichloroethane	2.5	U	0.48	2.5	5	ug/L
79-01-6	Trichloroethene	2.5	U	0.28	2.5	5	ug/L
78-87-5	1,2-Dichloropropane	2.5	U	0.46	2.5	5	ug/L
75-27-4	Bromodichloromethane	2.5	U	0.36	2.5	5	ug/L
108-10-1	4-Methyl-2-Pentanone	12.5	U	2.1	12.5	25	ug/L
108-88-3	Toluene	2.5	U	0.37	2.5	5	ug/L
10061-02-6	t-1,3-Dichloropropene	2.5	U	0.29	2.5	5	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/17/12
Project:	Bethpage CTO-066	Date Received:	07/19/12
Client Sample ID:	BP-VPB-TB-07	SDG No.:	D3454
Lab Sample ID:	D3454-01	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VH048517.D	1		07/19/12	VH071912

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	2.5	U	0.31	2.5	5	ug/L
79-00-5	1,1,2-Trichloroethane	2.5	U	0.38	2.5	5	ug/L
591-78-6	2-Hexanone	12.5	U	1.9	12.5	25	ug/L
124-48-1	Dibromochloromethane	2.5	U	0.52	2.5	5	ug/L
106-93-4	1,2-Dibromoethane	2.5	U	0.41	2.5	5	ug/L
127-18-4	Tetrachloroethene	2.5	U	0.27	2.5	5	ug/L
108-90-7	Chlorobenzene	2.5	U	0.49	2.5	5	ug/L
100-41-4	Ethyl Benzene	2.5	U	0.53	2.5	5	ug/L
179601-23-1	m/p-Xylenes	5	U	0.95	5	10	ug/L
95-47-6	o-Xylene	2.5	U	0.43	2.5	5	ug/L
100-42-5	Styrene	2.5	U	0.36	2.5	5	ug/L
75-25-2	Bromoform	2.5	U	0.47	2.5	5	ug/L
98-82-8	Isopropylbenzene	2.5	U	0.45	2.5	5	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	2.5	U	0.31	2.5	5	ug/L
541-73-1	1,3-Dichlorobenzene	2.5	U	0.43	2.5	5	ug/L
106-46-7	1,4-Dichlorobenzene	2.5	U	0.32	2.5	5	ug/L
95-50-1	1,2-Dichlorobenzene	2.5	U	0.45	2.5	5	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	2.5	U	0.46	2.5	5	ug/L
120-82-1	1,2,4-Trichlorobenzene	2.5	U	0.62	2.5	5	ug/L
87-61-6	1,2,3-Trichlorobenzene	2.5	U	0.65	2.5	5	ug/L
123-91-1	1,4-Dioxane	50	U	50	50	100	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	54.1		70 - 120		108%	SPK: 50
1868-53-7	Dibromofluoromethane	54.5		85 - 115		109%	SPK: 50
2037-26-5	Toluene-d8	56.1		85 - 120		112%	SPK: 50
460-00-4	4-Bromofluorobenzene	59.8		75 - 120		120%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	422231	4.95				
540-36-3	1,4-Difluorobenzene	662785	5.67				
3114-55-4	Chlorobenzene-d5	672140	9.79				
3855-82-1	1,4-Dichlorobenzene-d4	392398	12.52				

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/17/12
Project:	Bethpage CTO-066	Date Received:	07/19/12
Client Sample ID:	BP-VPB-TB-07	SDG No.:	D3454
Lab Sample ID:	D3454-01	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VH048517.D	1		07/19/12	VH071912

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/19/12
Project:	Bethpage CTO-066	Date Received:	07/20/12
Client Sample ID:	BP-VPB-TB-071912	SDG No.:	D3470
Lab Sample ID:	D3470-11	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN000378.D	1		07/21/12	VN072012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	0.5	1	ug/L
74-87-3	Chloromethane	0.4	J	0.2	0.5	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	0.5	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	0.5	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	0.5	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.5	U	0.45	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	0.5	1	ug/L
67-64-1	Acetone	2.5	U	0.5	2.5	5	ug/L
75-15-0	Carbon Disulfide	0.45	J	0.2	0.5	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.47	J	0.41	0.5	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	0.5	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	0.5	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	0.5	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	0.5	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	0.5	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	0.5	1	ug/L
108-87-2	Methylcyclohexane	0.5	U	0.2	0.5	1	ug/L
71-43-2	Benzene	0.5	U	0.32	0.5	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	0.5	1	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	0.5	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	0.5	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	0.5	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	2.5	5	ug/L
108-88-3	Toluene	0.5	U	0.37	0.5	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	0.5	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/19/12
Project:	Bethpage CTO-066	Date Received:	07/20/12
Client Sample ID:	BP-VPB-TB-071912	SDG No.:	D3470
Lab Sample ID:	D3470-11	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN000378.D	1		07/21/12	VN072012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	0.5	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	0.5	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.52	0.5	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	0.5	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	0.5	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	0.5	1	ug/L
100-41-4	Ethyl Benzene	0.5	U	0.2	0.5	1	ug/L
179601-23-1	m/p-Xylenes	1	U	0.95	1	2	ug/L
95-47-6	o-Xylene	0.5	U	0.43	0.5	1	ug/L
100-42-5	Styrene	0.5	U	0.36	0.5	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	0.5	1	ug/L
98-82-8	Isopropylbenzene	0.5	U	0.45	0.5	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	0.5	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	0.5	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	0.5	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	0.5	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	0.5	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	0.5	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	0.5	1	ug/L
123-91-1	1,4-Dioxane	10	U	10	10	20	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	43.4		70 - 120		87%	SPK: 50
1868-53-7	Dibromofluoromethane	45.2		85 - 115		90%	SPK: 50
2037-26-5	Toluene-d8	45.7		85 - 120		91%	SPK: 50
460-00-4	4-Bromofluorobenzene	44.4		75 - 120		89%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	1041940	7.87				
540-36-3	1,4-Difluorobenzene	1521070	8.79				
3114-55-4	Chlorobenzene-d5	1326360	11.62				
3855-82-1	1,4-Dichlorobenzene-d4	678035	13.57				

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/19/12
Project:	Bethpage CTO-066	Date Received:	07/20/12
Client Sample ID:	BP-VPB-TB-071912	SDG No.:	D3470
Lab Sample ID:	D3470-11	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN000378.D	1		07/21/12	VN072012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/20/12
Project:	Bethpage CTO-066	Date Received:	07/23/12
Client Sample ID:	BP-VPB-TB-072012-1	SDG No.:	D3507
Lab Sample ID:	D3507-08	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VR006670.D	1		07/24/12	VR072412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	0.5	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	0.5	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	0.5	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	0.5	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	0.5	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.5	U	0.45	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	0.5	1	ug/L
67-64-1	Acetone	2.5	U	0.5	2.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	0.5	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	0.5	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	0.5	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	0.5	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	0.5	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	0.5	1	ug/L
74-97-5	Bromochloromethane	0.5	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	0.5	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	0.5	1	ug/L
108-87-2	Methylcyclohexane	0.5	U	0.2	0.5	1	ug/L
71-43-2	Benzene	0.5	U	0.32	0.5	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	0.5	1	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	0.5	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	0.5	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	0.5	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	2.5	5	ug/L
108-88-3	Toluene	0.5	U	0.37	0.5	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	0.5	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/20/12
Project:	Bethpage CTO-066	Date Received:	07/23/12
Client Sample ID:	BP-VPB-TB-072012-1	SDG No.:	D3507
Lab Sample ID:	D3507-08	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VR006670.D	1		07/24/12	VR072412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	0.5	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	0.5	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.52	0.5	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	0.5	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	0.5	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	0.5	1	ug/L
100-41-4	Ethyl Benzene	0.5	U	0.2	0.5	1	ug/L
179601-23-1	m/p-Xylenes	1	U	0.95	1	2	ug/L
95-47-6	o-Xylene	0.5	U	0.43	0.5	1	ug/L
100-42-5	Styrene	0.5	U	0.36	0.5	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	0.5	1	ug/L
98-82-8	Isopropylbenzene	0.5	U	0.45	0.5	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	0.5	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	0.5	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	0.5	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	0.5	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	0.5	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	0.5	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	0.5	1	ug/L
123-91-1	1,4-Dioxane	10	U	10	10	20	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	44.8		70 - 120		90%	SPK: 50
1868-53-7	Dibromofluoromethane	47.8		85 - 115		96%	SPK: 50
2037-26-5	Toluene-d8	49.3		85 - 120		99%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.4		75 - 120		95%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	560745	7.57				
540-36-3	1,4-Difluorobenzene	1093390	8.5				
3114-55-4	Chlorobenzene-d5	999338	11.3				
3855-82-1	1,4-Dichlorobenzene-d4	455985	13.24				

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/20/12
Project:	Bethpage CTO-066	Date Received:	07/23/12
Client Sample ID:	BP-VPB-TB-072012-1	SDG No.:	D3507
Lab Sample ID:	D3507-08	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VR006670.D	1		07/24/12	VR072412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/24/12
Project:	Bethpage CTO-WE62	Date Received:	07/27/12
Client Sample ID:	BP-VPB-TB-072412-1	SDG No.:	D3596
Lab Sample ID:	D3596-08	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VR006748.D	1		07/30/12	Vr073012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	0.5	U	0.2	0.5	1	ug/L
74-87-3	Chloromethane	0.5	U	0.2	0.5	1	ug/L
75-01-4	Vinyl Chloride	0.5	U	0.34	0.5	1	ug/L
74-83-9	Bromomethane	0.5	U	0.2	0.5	1	ug/L
75-00-3	Chloroethane	0.5	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	0.5	U	0.35	0.5	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.5	U	0.45	0.5	1	ug/L
75-35-4	1,1-Dichloroethene	0.5	U	0.47	0.5	1	ug/L
67-64-1	Acetone	2.5	U	0.5	2.5	5	ug/L
75-15-0	Carbon Disulfide	0.5	U	0.2	0.5	1	ug/L
1634-04-4	Methyl tert-butyl Ether	0.5	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.5	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	0.5	U	0.41	0.5	1	ug/L
156-60-5	trans-1,2-Dichloroethene	0.5	U	0.41	0.5	1	ug/L
75-34-3	1,1-Dichloroethane	0.5	U	0.36	0.5	1	ug/L
110-82-7	Cyclohexane	0.5	U	0.2	0.5	1	ug/L
78-93-3	2-Butanone	2.5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	0.5	U	0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.5	U	0.35	0.5	1	ug/L
74-97-5	Bromochloromethane	0.5	UQ	0.2	0.5	1	ug/L
67-66-3	Chloroform	0.5	U	0.34	0.5	1	ug/L
71-55-6	1,1,1-Trichloroethane	0.5	U	0.4	0.5	1	ug/L
108-87-2	Methylcyclohexane	0.5	U	0.2	0.5	1	ug/L
71-43-2	Benzene	0.5	U	0.32	0.5	1	ug/L
107-06-2	1,2-Dichloroethane	0.5	U	0.48	0.5	1	ug/L
79-01-6	Trichloroethene	0.5	U	0.28	0.5	1	ug/L
78-87-5	1,2-Dichloropropane	0.5	U	0.46	0.5	1	ug/L
75-27-4	Bromodichloromethane	0.5	U	0.36	0.5	1	ug/L
108-10-1	4-Methyl-2-Pentanone	2.5	U	2.1	2.5	5	ug/L
108-88-3	Toluene	0.5	U	0.37	0.5	1	ug/L
10061-02-6	t-1,3-Dichloropropene	0.5	U	0.29	0.5	1	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/24/12
Project:	Bethpage CTO-WE62	Date Received:	07/27/12
Client Sample ID:	BP-VPB-TB-072412-1	SDG No.:	D3596
Lab Sample ID:	D3596-08	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VR006748.D	1		07/30/12	Vr073012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	0.5	U	0.31	0.5	1	ug/L
79-00-5	1,1,2-Trichloroethane	0.5	U	0.38	0.5	1	ug/L
591-78-6	2-Hexanone	2.5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	0.5	U	0.52	0.5	1	ug/L
106-93-4	1,2-Dibromoethane	0.5	U	0.41	0.5	1	ug/L
127-18-4	Tetrachloroethene	0.5	U	0.27	0.5	1	ug/L
108-90-7	Chlorobenzene	0.5	U	0.49	0.5	1	ug/L
100-41-4	Ethyl Benzene	0.5	U	0.2	0.5	1	ug/L
179601-23-1	m/p-Xylenes	1	U	0.95	1	2	ug/L
95-47-6	o-Xylene	0.5	U	0.43	0.5	1	ug/L
100-42-5	Styrene	0.5	U	0.36	0.5	1	ug/L
75-25-2	Bromoform	0.5	U	0.47	0.5	1	ug/L
98-82-8	Isopropylbenzene	0.5	U	0.45	0.5	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U	0.31	0.5	1	ug/L
541-73-1	1,3-Dichlorobenzene	0.5	U	0.43	0.5	1	ug/L
106-46-7	1,4-Dichlorobenzene	0.5	U	0.32	0.5	1	ug/L
95-50-1	1,2-Dichlorobenzene	0.5	U	0.45	0.5	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.5	U	0.46	0.5	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.5	U	0.2	0.5	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.5	U	0.2	0.5	1	ug/L
123-91-1	1,4-Dioxane	10	U	10	10	20	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	55.3		70 - 120		111%	SPK: 50
1868-53-7	Dibromofluoromethane	50.6		85 - 115		101%	SPK: 50
2037-26-5	Toluene-d8	51.4		85 - 120		103%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.2		75 - 120		103%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	979257	7.58				
540-36-3	1,4-Difluorobenzene	1696420	8.5				
3114-55-4	Chlorobenzene-d5	1586230	11.31				
3855-82-1	1,4-Dichlorobenzene-d4	820788	13.24				

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/24/12
Project:	Bethpage CTO-WE62	Date Received:	07/27/12
Client Sample ID:	BP-VPB-TB-072412-1	SDG No.:	D3596
Lab Sample ID:	D3596-08	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VR006748.D	1		07/30/12	Vr073012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/27/12
Project:	Bethpage CTO-WE62	Date Received:	08/01/12
Client Sample ID:	BP-VPB-TB-072712-1	SDG No.:	D3634
Lab Sample ID:	D3634-01	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN000667.D	1		08/01/12	VN080112

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	2.5	U	0.55	2.5	5	ug/L
74-87-3	Chloromethane	2.5	U	0.54	2.5	5	ug/L
75-01-4	Vinyl Chloride	2.5	U	0.34	2.5	5	ug/L
74-83-9	Bromomethane	2.5	U	0.62	2.5	5	ug/L
75-00-3	Chloroethane	2.5	U	0.66	2.5	5	ug/L
75-69-4	Trichlorofluoromethane	2.5	U	0.35	2.5	5	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	2.5	U	0.45	2.5	5	ug/L
75-35-4	1,1-Dichloroethene	2.5	U	0.47	2.5	5	ug/L
67-64-1	Acetone	12.5	U	2.8	12.5	25	ug/L
75-15-0	Carbon Disulfide	2.5	U	0.54	2.5	5	ug/L
1634-04-4	Methyl tert-butyl Ether	2.5	U	0.35	2.5	5	ug/L
79-20-9	Methyl Acetate	2.5	U	0.83	2.5	5	ug/L
75-09-2	Methylene Chloride	2.5	U	0.41	2.5	5	ug/L
156-60-5	trans-1,2-Dichloroethene	2.5	U	0.41	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	2.5	U	0.36	2.5	5	ug/L
110-82-7	Cyclohexane	2.5	U	0.55	2.5	5	ug/L
78-93-3	2-Butanone	12.5	U	1.3	12.5	25	ug/L
56-23-5	Carbon Tetrachloride	2.5	U	0.62	2.5	5	ug/L
156-59-2	cis-1,2-Dichloroethene	2.5	U	0.35	2.5	5	ug/L
74-97-5	Bromochloromethane	2.5	U	2.2	2.5	5	ug/L
67-66-3	Chloroform	2.5	U	0.34	2.5	5	ug/L
71-55-6	1,1,1-Trichloroethane	2.5	U	0.4	2.5	5	ug/L
108-87-2	Methylcyclohexane	2.5	U	0.68	2.5	5	ug/L
71-43-2	Benzene	2.5	U	0.32	2.5	5	ug/L
107-06-2	1,2-Dichloroethane	2.5	U	0.48	2.5	5	ug/L
79-01-6	Trichloroethene	2.5	U	0.28	2.5	5	ug/L
78-87-5	1,2-Dichloropropane	2.5	U	0.46	2.5	5	ug/L
75-27-4	Bromodichloromethane	2.5	U	0.36	2.5	5	ug/L
108-10-1	4-Methyl-2-Pentanone	12.5	U	2.1	12.5	25	ug/L
108-88-3	Toluene	2.5	U	0.37	2.5	5	ug/L
10061-02-6	t-1,3-Dichloropropene	2.5	U	0.29	2.5	5	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/27/12
Project:	Bethpage CTO-WE62	Date Received:	08/01/12
Client Sample ID:	BP-VPB-TB-072712-1	SDG No.:	D3634
Lab Sample ID:	D3634-01	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN000667.D	1		08/01/12	VN080112

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	2.5	U	0.31	2.5	5	ug/L
79-00-5	1,1,2-Trichloroethane	2.5	U	0.38	2.5	5	ug/L
591-78-6	2-Hexanone	12.5	U	1.9	12.5	25	ug/L
124-48-1	Dibromochloromethane	2.5	U	0.52	2.5	5	ug/L
106-93-4	1,2-Dibromoethane	2.5	U	0.41	2.5	5	ug/L
127-18-4	Tetrachloroethene	2.5	U	0.27	2.5	5	ug/L
108-90-7	Chlorobenzene	2.5	U	0.49	2.5	5	ug/L
100-41-4	Ethyl Benzene	2.5	U	0.53	2.5	5	ug/L
179601-23-1	m/p-Xylenes	5	U	0.95	5	10	ug/L
95-47-6	o-Xylene	2.5	U	0.43	2.5	5	ug/L
100-42-5	Styrene	2.5	U	0.36	2.5	5	ug/L
75-25-2	Bromoform	2.5	U	0.47	2.5	5	ug/L
98-82-8	Isopropylbenzene	2.5	U	0.45	2.5	5	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	2.5	U	0.31	2.5	5	ug/L
541-73-1	1,3-Dichlorobenzene	2.5	U	0.43	2.5	5	ug/L
106-46-7	1,4-Dichlorobenzene	2.5	U	0.32	2.5	5	ug/L
95-50-1	1,2-Dichlorobenzene	2.5	U	0.45	2.5	5	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	2.5	U	0.46	2.5	5	ug/L
120-82-1	1,2,4-Trichlorobenzene	2.5	U	0.62	2.5	5	ug/L
87-61-6	1,2,3-Trichlorobenzene	2.5	U	0.65	2.5	5	ug/L
123-91-1	1,4-Dioxane	50	U	50	50	100	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	46.4		70 - 120		93%	SPK: 50
1868-53-7	Dibromofluoromethane	49.3		85 - 115		99%	SPK: 50
2037-26-5	Toluene-d8	48.2		85 - 120		97%	SPK: 50
460-00-4	4-Bromofluorobenzene	45		75 - 120		90%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	1060120	7.87				
540-36-3	1,4-Difluorobenzene	1605860	8.79				
3114-55-4	Chlorobenzene-d5	1435670	11.62				
3855-82-1	1,4-Dichlorobenzene-d4	721272	13.57				

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	07/27/12
Project:	Bethpage CTO-WE62	Date Received:	08/01/12
Client Sample ID:	BP-VPB-TB-072712-1	SDG No.:	D3634
Lab Sample ID:	D3634-01	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN000667.D	1		08/01/12	VN080112

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	08/01/12
Project:	Bethpage CTO-WE62	Date Received:	08/03/12
Client Sample ID:	BP-VPB-TB-080112	SDG No.:	D3670
Lab Sample ID:	D3670-01	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VH048711.D	1		08/03/12	VH080312

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	2.5	U	0.55	2.5	5	ug/L
74-87-3	Chloromethane	2.5	U	0.54	2.5	5	ug/L
75-01-4	Vinyl Chloride	2.5	U	0.34	2.5	5	ug/L
74-83-9	Bromomethane	2.5	U	0.62	2.5	5	ug/L
75-00-3	Chloroethane	2.5	U	0.66	2.5	5	ug/L
75-69-4	Trichlorofluoromethane	2.5	U	0.35	2.5	5	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	2.5	U	0.45	2.5	5	ug/L
75-35-4	1,1-Dichloroethene	2.5	U	0.47	2.5	5	ug/L
67-64-1	Acetone	12.5	U	2.8	12.5	25	ug/L
75-15-0	Carbon Disulfide	2.5	U	0.54	2.5	5	ug/L
1634-04-4	Methyl tert-butyl Ether	2.5	U	0.35	2.5	5	ug/L
79-20-9	Methyl Acetate	2.5	U	0.83	2.5	5	ug/L
75-09-2	Methylene Chloride	2.5	U	0.41	2.5	5	ug/L
156-60-5	trans-1,2-Dichloroethene	2.5	U	0.41	2.5	5	ug/L
75-34-3	1,1-Dichloroethane	2.5	U	0.36	2.5	5	ug/L
110-82-7	Cyclohexane	2.5	U	0.55	2.5	5	ug/L
78-93-3	2-Butanone	12.5	U	1.3	12.5	25	ug/L
56-23-5	Carbon Tetrachloride	2.5	U	0.62	2.5	5	ug/L
156-59-2	cis-1,2-Dichloroethene	2.5	U	0.35	2.5	5	ug/L
74-97-5	Bromochloromethane	2.5	U	2.2	2.5	5	ug/L
67-66-3	Chloroform	2.5	U	0.34	2.5	5	ug/L
71-55-6	1,1,1-Trichloroethane	2.5	U	0.4	2.5	5	ug/L
108-87-2	Methylcyclohexane	2.5	U	0.68	2.5	5	ug/L
71-43-2	Benzene	2.5	U	0.32	2.5	5	ug/L
107-06-2	1,2-Dichloroethane	2.5	U	0.48	2.5	5	ug/L
79-01-6	Trichloroethene	2.5	U	0.28	2.5	5	ug/L
78-87-5	1,2-Dichloropropane	2.5	U	0.46	2.5	5	ug/L
75-27-4	Bromodichloromethane	2.5	U	0.36	2.5	5	ug/L
108-10-1	4-Methyl-2-Pentanone	12.5	U	2.1	12.5	25	ug/L
108-88-3	Toluene	2.5	U	0.37	2.5	5	ug/L
10061-02-6	t-1,3-Dichloropropene	2.5	U	0.29	2.5	5	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	08/01/12
Project:	Bethpage CTO-WE62	Date Received:	08/03/12
Client Sample ID:	BP-VPB-TB-080112	SDG No.:	D3670
Lab Sample ID:	D3670-01	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VH048711.D	1		08/03/12	VH080312

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	2.5	U	0.31	2.5	5	ug/L
79-00-5	1,1,2-Trichloroethane	2.5	U	0.38	2.5	5	ug/L
591-78-6	2-Hexanone	12.5	U	1.9	12.5	25	ug/L
124-48-1	Dibromochloromethane	2.5	U	0.52	2.5	5	ug/L
106-93-4	1,2-Dibromoethane	2.5	U	0.41	2.5	5	ug/L
127-18-4	Tetrachloroethene	2.5	U	0.27	2.5	5	ug/L
108-90-7	Chlorobenzene	2.5	U	0.49	2.5	5	ug/L
100-41-4	Ethyl Benzene	2.5	U	0.53	2.5	5	ug/L
179601-23-1	m/p-Xylenes	5	U	0.95	5	10	ug/L
95-47-6	o-Xylene	2.5	U	0.43	2.5	5	ug/L
100-42-5	Styrene	2.5	U	0.36	2.5	5	ug/L
75-25-2	Bromoform	2.5	U	0.47	2.5	5	ug/L
98-82-8	Isopropylbenzene	2.5	U	0.45	2.5	5	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	2.5	U	0.31	2.5	5	ug/L
541-73-1	1,3-Dichlorobenzene	2.5	U	0.43	2.5	5	ug/L
106-46-7	1,4-Dichlorobenzene	2.5	U	0.32	2.5	5	ug/L
95-50-1	1,2-Dichlorobenzene	2.5	U	0.45	2.5	5	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	2.5	U	0.46	2.5	5	ug/L
120-82-1	1,2,4-Trichlorobenzene	2.5	U	0.62	2.5	5	ug/L
87-61-6	1,2,3-Trichlorobenzene	2.5	U	0.65	2.5	5	ug/L
123-91-1	1,4-Dioxane	50	U	50	50	100	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	50.4		70 - 120		101%	SPK: 50
1868-53-7	Dibromofluoromethane	50.3		85 - 115		101%	SPK: 50
2037-26-5	Toluene-d8	51.1		85 - 120		102%	SPK: 50
460-00-4	4-Bromofluorobenzene	52.9		75 - 120		106%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	501927	4.95				
540-36-3	1,4-Difluorobenzene	768378	5.66				
3114-55-4	Chlorobenzene-d5	813873	9.78				
3855-82-1	1,4-Dichlorobenzene-d4	426023	12.52				

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	08/01/12
Project:	Bethpage CTO-WE62	Date Received:	08/03/12
Client Sample ID:	BP-VPB-TB-080112	SDG No.:	D3670
Lab Sample ID:	D3670-01	Matrix:	WATER
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VH048711.D	1		08/03/12	VH080312

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution

Section 5

VPB 135 Chain of Custody Records

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER № 1206 | PAGE 1 OF 1 PSS6 /

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02751	Bethpage OU2	D. Brayack	757 461 3824	Chemtech
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
Eric Witt		S. Conti	412 551 2629	284 Sheffield St.
		CARRIER/WAYBILL NUMBER		CITY, STATE
		Fed Ex 8770 6393 5717		Mountainside NJ 07092

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☒ 72 hr. ☐ 7 day ☐ 14 day

72 HR FAX

DATE YEAR 2012	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: VOCs (40ml)								COMMENTS
CONTAINER TYPE PLASTIC (P) or GLASS (G)									G								
PRESERVATIVE USED									4°C HCl								
7/12	0800	BP-VPB-TB-071212		–	–	QC	G	2	2								
7/12	0940	BP-VPB135-GW-63	VPB135	62	63	GW	G	2	2								
7/12	1145	BP-VPB135-GW-108	"	107	108	GW	G	2	2								
7/12	1350	BP-VPB 135-GW-153	"	152	153	GW	G	2	2								

1. RELINQUISHED BY Eric Witt	DATE 7-12-12	TIME 1700	1. RECEIVED BY FED EX	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY Fed Ex	DATE 7/13/12	TIME 9:40	3. RECEIVED BY Ken Rum	DATE 7/13/12	TIME 9:40

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY) 4/02R

D3413

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER № 1207 | PAGE 1 OF 1

PROJECT NO: 112G02751	FACILITY: Bethpage	PROJECT MANAGER D. Brayack	PHONE NUMBER 757 461 3824	LABORATORY NAME AND CONTACT: Chentech
SAMPLERS (SIGNATURE) Eric Watt		FIELD OPERATIONS LEADER S. Conti	PHONE NUMBER 412 551 2629	ADDRESS 284 Sheffield St.
		CARRIER/WAYBILL NUMBER Fed Ex 8770 6393 5728		CITY, STATE Mountainside, NJ 07092

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☒ 72 hr. ☐ 7 day ☐ 14 day

72 Hr Fax Results

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G
PRESERVATIVE USED: 4°C HCl 4°C

DATE YEAR 2012	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: VOCs (40mL)	VOCs (40mL)							COMMENTS
7-13	0800	BP-VPB-TB-071312-1		-	-	QC	G	2	2								
7-13	0925	BP-VPB135-GW-198	VPB135	197	198	GW	G	2	2								
7-13	1110	BP-VPB135-GW-218	"	217	218	GW	G	2	2								
7-16	0945	BP-VPB135-GW-238	"	237	238	GW	G	3	2	1							sample is very turbid
7-16	1145	BP-VPB135-GW-258	"	257	258	GW	G	3	2	1							sample is very turbid
7-16	1405	BP-VPB135-GW-278	"	277	278	GW	G	2	1	1							sample is very turbid

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY Eric Watt	7-16-12	1700	1. RECEIVED BY Fed Ex		
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY Fed Ex	7/17/12	9:50	3. RECEIVED BY	7/17/12	9:50

COMMENTS Temp: 4°C

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER № 1208 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02751	Bethpage OU2	D. Brayack	757 461-3824	Chemtech
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
Eric Watt		S. Conti	412 551-2629	284 Sheffield St.
		CARRIER/WAYBILL NUMBER		CITY, STATE
		Fed Ex 8000 4356 0817		Mountainside, NJ 07092

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☒ 72 hr. ☐ 7 day ☐ 14 day

72 Hr. Fax Results

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G
PRESERVATIVE USED: 4°C HCL 4°C

DATE YEAR 2012	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: VOCs (40mL)	VOCs (40mL)							COMMENTS
7-17	0800	BP-VPB-TB-07		–	–	QC	G	2	2								
7-17	1155	BP-VPB135-GW-298	VPB135	297	298	GW	G	2	1	1							Sample is very turbid
7-17	1410	BP-VPB135-GW-318	VPB135	317	318	GW	G	2	1	1							Sample is very turbid
7-18	0920	BP-VPB135-GW-338	"	337	338	GW	G	2	1	1							Sample is very turbid
7-18	1125	BP-VPB135-GW-358	"	357	358	GW	G	1		1							Sample is very turbid
7-18	1315	BP-VPB135-GW-378	"	377	378	GW	G	2	1	1							Sample is very turbid

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY Eric Watt	7-18-12	1700	1. RECEIVED BY Fed Ex		
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY Fedex	7-19-12	930	3. RECEIVED BY PS	7-19-12	930

COMMENTS Temp: 5°C

220

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY) 4/02R

D3470

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER № 1226 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02751	Bethpage OU2	D. Brayack	757 461-3824	Chemtech/Hummler
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
Eric Witt		S. Conti	412 551-2629	284 Sheffield St.
		CARRIER/WAYBILL NUMBER		CITY, STATE
		FedEx 8770 6393 5680		Mountainside, NJ 07092

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☒ 72 hr. ☐ 7 day ☐ 14 day

72 Hr. Fax Results

DATE YEAR 2012	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: VOCs (40mL)	VOCs (40mL)							COMMENTS
CONTAINER TYPE PLASTIC (P) or GLASS (G)									G	G							
PRESERVATIVE USED									4°C	HCl 4°C							
1 7-19	0800	BP-VPB-TB-071912	—	—	—	QC	G	2	2								
2 7-19	1315	BP-VPB135-GW-398	VPB 135	397	398	GW	G	2	1	1							Sample is very turbid

1. RELINQUISHED BY	DATE	TIME	1. RECEIVED BY	DATE	TIME
Eric Witt	7-19-12	1700	FedEx		
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME
FedEx	7-20-12	1000	Robert Glad	7-20-12	1000

COMMENTS Temp: 6°C

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

D3507

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER № 1227 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02751	Bethpage OU2	D. Brayack	757 461 3824	Chentech/Hummler
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
Eric Watt		S. Conti	412 551 2629	284 Sheffield St.
		CARRIER/WAYBILL NUMBER		CITY, STATE
		Fed Ex 8735 5966 0428		Mountainside, NJ 07092

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☒ 72 hr. ☐ 7 day ☐ 14 day

72 Hr. Fax Results

DATE YEAR 2012	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)	G	G							COMMENTS
									PRESERVATIVE USED	4°C HCl	4°C							
									TYPE OF ANALYSIS	VOCs (40mL)	VOCs (40mL)							
7-20	0800	BP-VPB-TB-072012	—	—	—	QC	G	2	2									
7-20	0930	BP-VPB135-GW-418	VPB135	417	418	GW	G	2	2									Sample is very turbid
7-20	1130	BP-VPB135-GW-438	"	437	438	GW	G	1	1									sample is very turbid
7-23	1000	BP-VPB135-GW-458	"	457	458	GW	G	2	1	1								sample is very turbid
7-23	1150	BP-VPB135-GW-478	"	477	478	GW	G	2	2									

1. RELINQUISHED BY Eric Watt	DATE 7-23-12	TIME 1700	1. RECEIVED BY Fed Ex	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY Fed Ex	DATE 7-24-12	TIME 920	3. RECEIVED BY PS	DATE 7-25-12	TIME 920

COMMENTS Temp: 5°C

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TINUS-001

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER № 1228 | PAGE 1 OF 1

D3596

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02751	Bethpage OU2	D. Brayack	757 461 3824	Chemtech / Hummler
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER: S. Conti	PHONE NUMBER: 412 551 2629	ADDRESS: 284 Sheffield St.
		CARRIER/WAYBILL NUMBER: Fed Ex 8735 5966 0406		CITY, STATE: Mountainside NJ 07092

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☒ 72 hr. ☐ 7 day ☐ 14 day

72 Hr Fax Results

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G
PRESERVATIVE USED: 4°C HCl 4°C

DATE YEAR 2012	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: VOCs (40mL)	VOCs (40mL)	TOC						COMMENTS
7-24	0800	BP-VPB-TB-07242-1						2	2								
7-24	0810	BP-VPB135-SO-498	VPB135	497	498	SO	G	1			1						
7-24	1010	BP-VPB135-GW-518	VPB135	517	518	GW	G	1	1								sample is very turbid
7-24	1520	BP-VPB135-GW-538	"	537	538	GW	G	1	1								sample is very turbid
7-25	1005	BP-VPB135-GW-558	"	557	558	GW	G	2	1	1							sample is very turbid
7-25	1410	BP-VPB135-GW-578	"	577	578	GW	G	2	2								
7-26	0925	BP-VPB135-GW-598	"	597	598	GW	G	1	1								sample is very turbid
7-26	1125	BP-VPB135-GW-618	"	617	618	GW	G	2	1	1							sample is very turbid
7-26	1330	BP-VPB135-GW-638	"	637	638	GW	G	2	1	1							sample is very turbid
7-26	1535	BP-VPB135-GW-658	"	657	658	GW	G	2	1	1							sample is very turbid

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY: Eric Watt	7-26-12	1700	1. RECEIVED BY: Fed Ex		
2. RELINQUISHED BY: Fedex	7/27/12	945	2. RECEIVED BY:		
3. RELINQUISHED BY:			3. RECEIVED BY:		

COMMENTS: Temp 5°C

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY) 4/02R

D3634

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER № 1229 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
112G02751	Bethpage OU2	D. Brayack	757 461 3824	Chemtech/ Hummler
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
Eric Watt		S. Conti	412 551 2629	284 Sheffield St.
		CARRIER/WAYBILL NUMBER		CITY, STATE
		Fed Ex 8735 5966 0439		Mountainside, NJ 07092

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☒ 72 hr. ☐ 7 day ☐ 14 day

72 hr. Fax Results

CONTAINER TYPE PLASTIC (P) or GLASS (G): G
PRESERVATIVE USED: 4°C HCl

DATE YEAR 2012	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: VOCs (40 mL)	COMMENTS
7-27	0800	BP-UPB-TB-072712-1		—	—	QC	G	2	2	
7-27	1000	BP-UPB135-GW-678	UPB135	677	678	GW	G	2	2	sample is very turbid
7-27	1210	BP-UPB135-GW-698	"	697	698	GW	G	2	2	sample is very turbid
7-31	1335	BP-UPB135-DM-557	"	—	—	DM	G	2	2	drilling mud

1. RELINQUISHED BY Eric Watt	DATE 7-31-12	TIME 1700	1. RECEIVED BY Fed Ex	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY Fed Ex	DATE 8/1/12	TIME 9:30AM	3. RECEIVED BY JTT	DATE 8/1/12	TIME 9:30AM

COMMENTS: TEMP: 5°C

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

D 3670

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER № 1230 | PAGE ___ OF ___

PROJECT NO: 112G02751	FACILITY: Bethpage OU2	PROJECT MANAGER D. Brayack	PHONE NUMBER	LABORATORY NAME AND CONTACT: Chemtech / Hummler
SAMPLERS (SIGNATURE) Eric Watt		FIELD OPERATIONS LEADER S. Conti	PHONE NUMBER	ADDRESS 284 Sheffield St.
		CARRIER/WAYBILL NUMBER Fed Ex		CITY, STATE Mountainside, NJ 07092

STANDARD TAT ☐
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G
PRESERVATIVE USED: 4°C HCl

DATE YEAR 2012	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: VOCs	TYPE OF ANALYSIS: PCBs (40mL)	COMMENTS
8-1	0800	BP-UPB-TB-080112				QC	G	2	2		
8-1	1125	BP-UPB135-GW-784	UPB135	783	784	GW	G	2	2		sample is very turbid
8-1	1410	BP-UPB135-GW-814	UPB135	813	814	GW	G	2	2		sample is very turbid
8-1	1620	BP-UPB135-GW-824	"	823	824	GW	G	2	2		sample is very turbid

1. RELINQUISHED BY Eric Watt	DATE 8-2-12	TIME 1600	1. RECEIVED BY Fed Ex	DATE	TIME
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY Fedex	DATE 8-3-12	TIME 925	3. RECEIVED BY PS	DATE 8-3-12	TIME 925

COMMENTS Temp 6°C

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

Section 6

VPB 135 Validation Letters and Tables

Tetra Tech INC **INTERNAL CORRESPONDENCE**

TO:	**D. BRAYACK**	**DATE:**	**AUGUST 22, 2012**
FROM:	**JOSEPH KALINYAK**	**COPIES:**	**DV FILE**
SUBJECT:	**ORGANIC DATA VALIDATION – VOC NWIRP BETHPAGE, CTO WE62 SDG D3367**		

SAMPLES: 10 / Aqueous / VOC

BP-VPB-TB-071012	BP-VPB-TB-071212	BP-VPB135-GW-108
BP-VPB135-GW-153	BP-VPB135-GW-63	BP-VPB136-GW-101
BP-VPB136-GW-161	BP-VPB136-GW-221	BP-VPB136-GW-261
BP-VPB136-GW-281		

2 / Aqueous Samples Analyzed as a Soil / VOC

BP-VPB136-GW-061	BP-VPB136-GW-241

Overview

The sample set for NWIRP Bethpage, CTO WE62, SDG D3367 consisted of twelve (12) aqueous samples including two (2) aqueous trip blank samples. Two of the samples had significant sediment in the samples and were analyzed by the laboratory as soils. All samples were analyzed for volatile organic compounds (VOC) as listed above. No field duplicate sample pairs were included in this Sample Delivery Group (SDG).

The samples were collected by Tetra Tech on July 10, 11, and 12, 2012 and analyzed by ChemTech laboratory. The sample analyses were conducted in accordance with EPA SW-846 Method 8260C for VOCs, analytical and reporting protocols. The data contained in this SDG were validated with regard to the following parameters:

*	• Data completeness
*	• Hold times
*	• GC/MS System Tuning and Performance
	• Initial/continuing calibrations
*	• Laboratory Blank Results
	• Laboratory Control Sample Recoveries
	• Matrix Spike/Matrix Spike Duplicate Recoveries
	• Surrogate Spike Recoveries
*	• Internal Standard Recoveries
*	• Compound Identification
*	• Compound Quantitation
*	• Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Qualified analytical results are presented in Appendix A, results as reported by the laboratory are presented in Appendix B, Region II data validation forms are presented in Appendix C, and documentation supporting these findings is presented in Appendix D.

VOC

The initial calibration average relative response factor (RRF) was less than the 0.05 criteria for 1,4-dioxane for instrument MSVOA_F on 07/11/12 and for instrument MSVOA_R on 07/11/12 and for all continuing calibration verifications (CCVs).

Affected samples: All samples

Action: The non-detected 1,4-dioxane results for all samples were qualified rejected, (UR).

The CCV percent differences (%D) were greater than the 20% quality control limit for methyl acetate for instrument MSVOA_F on 07/16/12 @ 11:34.

Affected sample: BP-VPB136-GW-061 and BP-VPB136-GW-241

Action: The non-detected methyl acetate results for the sample were qualified estimated, (UJ).

The CCV %Ds were greater than the 20% quality control limit for methyl acetate, 2-hexanone, and 1,4-dioxane for instrument MSVOA_R on 07/16/12 @ 23:25.

Affected sample:

BP-VPB-TB-071012	BP-VPB-TB-071212	BP-VPB135-GW-108
BP-VPB135-GW-153	BP-VPB135-GW-63	BP-VPB136-GW-101
BP-VPB136-GW-161	BP-VPB136-GW-221	BP-VPB136-GW-261
BP-VPB136-GW-281		

Action: The positive and non-detected methyl acetate and 2-hexanone results for the samples were qualified estimated, (J) and (UJ), respectively. The 1,4-dioxane results were rejected for the RRF criteria non-compliance and no further action was necessary.

The surrogate %Rs were greater than the quality control limit for 1,2-dichloroethane-d4 for samples BP-VPB136-GW-221, BP-VPB135-GW-63, and BP-VPB136-GW-281. The samples BP-VPB136-GW-221 and BP-VPB135-GW-63 were re-analyzed by the laboratory with similar non-compliant surrogate %Rs. As there was no improvement in the surrogate %Rs, the original sample results for the samples were used for validation.

Affected samples: BP-VPB135-GW-63, BP-VPB136-GW-221, and BP-VPB136-GW-281

Action: The positive VOCs for samples BP-VPB135-GW-63 and BP-VPB136-GW-221 were qualified estimated, (J). All VOC results for sample BP-VPB136-GW-281 were non-detected and no validation action was necessary.

Additional Comments

Positive results below the limit of quantitation (LOQ) and above the method detection limit were qualified as estimated, (J), due to uncertainty near the detection limit.

The laboratory control sample (LCS) percent recoveries (%R) were greater than the quality control limit for chloromethane for batch VBF0716S2.

Affected samples:

BP-VPB-TB-071012	BP-VPB-TB-071212	BP-VPB135-GW-108
BP-VPB135-GW-153	BP-VPB135-GW-63	BP-VPB136-GW-101
BP-VPB136-GW-161	BP-VPB136-GW-221	BP-VPB136-GW-261
BP-VPB136-GW-281		

Action: The sample results for chloromethane were non-detected and therefore no validation action was necessary.

Two matrix spike (MS) and MS duplicate (MSD) samples had %Rs for VOC analytes that there were non-compliant and MS/MSD relative percent differences (RPD) that exceeded the quality control limits for

VOC analytes. No validation action was taken as the spiked samples were not from this SDG.

Fifty-two (52) analytes were reported for VOCs for Method 8260C.

Non-detected sample results were reported to the LOD.

The VOC results for aqueous samples BP-VPB136-GW-061 and BP-VPB136-GW-241 were reported in soil units of µg/kg uncorrected for moisture content.

Samples BP-VPB136-GW-061, BP-VPB136-GW-241, BP-VPB135-GW-108, BP-VPB135-GW-153, BP-VPB135-GW-63, and BP-VPB136-GW-101 had VOCs, including naphthalene and difluorochloromethane, identified in the tentatively identified compound (TIC) page for the laboratory sample analysis reports. This information is included in Appendix B of this report.

EXECUTIVE SUMMARY

Laboratory Performance Issues: Sample VOC results were qualified for RRF criteria, CCV %D, and surrogate %R non-compliances.

Other Factors Affecting Data Quality: Positive results below the Limit of Detection (LOD) and above the method detection limit were qualified as estimated, (J), due to uncertainty near the detection limit.

The data for these analyses were reviewed with reference to the USEPA Region II Hazardous Waste Support Branch Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260C SOP #HW-24 Revision #2 August 2008 and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (April 2009).

Tetra Tech
Joseph Kalinyak
Chemist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:
Appendix A - Qualified Analytical Results
Appendix B - Results as Reported by the Laboratory
Appendix C – Region II Data Validation Forms
Appendix D - Support Documentation

Appendix A

Qualified Analytical Results

Value Qualifier Key (Val Qual)

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The result is an estimated non-detected quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

DATA QUALIFICATION CODE (QUAL CODE)

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is less than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed

PROJ_NO: 02751	NSAMPLE	BP-VPB136-GW-061			BP-VPB136-GW-241		
SDG: D3367	LAB_ID	D3367-02			D3367-06		
FRACTION: OV	SAMP_DATE	7/10/2012			7/12/2012		
MEDIA: SOIL	QC_TYPE	NM			NM		
	UNITS	UG/KG			UG/KG		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		2.5	U		2.45	U	
1,1,2,2-TETRACHLOROETHANE		2.5	U		2.45	U	
1,1,2-TRICHLOROETHANE		2.5	U		2.45	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		2.5	U		2.45	U	
1,1-DICHLOROETHANE		2.5	U		2.45	U	
1,1-DICHLOROETHENE		2.5	U		2.45	U	
1,2,3-TRICHLOROBENZENE		2.5	U		2.45	U	
1,2,4-TRICHLOROBENZENE		2.5	U		2.45	U	
1,2-DIBROMO-3-CHLOROPROPANE		2.5	U		2.45	U	
1,2-DIBROMOETHANE		2.5	U		2.45	U	
1,2-DICHLOROBENZENE		2.5	U		2.45	U	
1,2-DICHLOROETHANE		2.5	U		2.45	U	
1,2-DICHLOROPROPANE		2.5	U		2.45	U	
1,3-DICHLOROBENZENE		2.5	U		2.45	U	
1,4-DICHLOROBENZENE		2.5	U		2.45	U	
1,4-DIOXANE		49.5	UR	C	49	UR	C
2-BUTANONE		12.5	U		12.5	U	
2-HEXANONE		12.5	U		12.5	U	
4-METHYL-2-PENTANONE		12.5	U		12.5	U	
ACETONE		27			24	J	P
BENZENE		2.5	U		2.45	U	
BROMOCHLOROMETHANE		2.5	U		2.45	U	
BROMODICHLOROMETHANE		2.5	U		2.45	U	
BROMOFORM		2.5	U		2.45	U	
BROMOMETHANE		2.5	U		2.45	U	
CARBON DISULFIDE		2.5	U		2.45	U	
CARBON TETRACHLORIDE		2.5	U		2.45	U	
CHLOROBENZENE		2.5	U		2.45	U	
CHLORODIBROMOMETHANE		2.5	U		2.45	U	
CHLOROETHANE		2.5	U		2.45	U	
CHLOROFORM		2.5	U		2.45	U	
CHLOROMETHANE		2.5	U		2.45	U	
CIS-1,2-DICHLOROETHENE		2.5	U		2.45	U	
CIS-1,3-DICHLOROPROPENE		2.5	U		2.45	U	
CYCLOHEXANE		2.5	U		2.45	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB136-GW-061			BP-VPB136-GW-241		
SDG: D3367	LAB_ID	D3367-02			D3367-06		
FRACTION: OV	SAMP_DATE	7/10/2012			7/12/2012		
MEDIA: SOIL	QC_TYPE	NM			NM		
	UNITS	UG/KG			UG/KG		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		2.5	U		2.45	U	
ETHYLBENZENE		2.5	U		2.45	U	
ISOPROPYLBENZENE		2.5	U		2.45	U	
M+P-XYLENES		4.95	U		4.9	U	
METHYL ACETATE		2.5	UJ	C	2.45	UJ	C
METHYL CYCLOHEXANE		2.5	U		2.45	U	
METHYL TERT-BUTYL ETHER		2.5	U		2.45	U	
METHYLENE CHLORIDE		2.5	U		2.45	U	
O-XYLENE		2.5	U		2.45	U	
STYRENE		2.5	U		2.45	U	
TETRACHLOROETHENE		1.4	J	P	2.45	U	
TOLUENE		2.5	U		2.45	U	
TRANS-1,2-DICHLOROETHENE		2.5	U		2.45	U	
TRANS-1,3-DICHLOROPROPENE		2.5	U		2.45	U	
TRICHLOROETHENE		2.5	U		2.45	U	
TRICHLOROFLUOROMETHANE		2.5	U		2.45	U	
VINYL CHLORIDE		2.5	U		2.45	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB135-GW-108			BP-VPB135-GW-153			BP-VPB135-GW-63			BP-VPB136-GW-101		
SDG: D3367	LAB_ID	D3367-11			D3367-12			D3367-10			D3367-03		
FRACTION: OV	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/11/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2,2-TETRACHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.64	J	P	0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		4.7			7.2			0.5	U		0.5	U	
1,1-DICHLOROETHENE		0.5	U		1.9			0.5	U		0.5	U	
1,2,3-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2,4-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMOETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,3-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,4-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,4-DIOXANE		10	UR	C	10	UR	C	10	UR	C	10	UR	C
2-BUTANONE		2.5	U		2.5	U		20	J	R	2.5	U	
2-HEXANONE		2.5	UJ	C	2.5	UJ	C	3.8	J	CPR	2.5	UJ	C
4-METHYL-2-PENTANONE		2.5	U		2.5	U		2.5	U		2.5	U	
ACETONE		21			18			96	J	R	23		
BENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOCHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMODICHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOFORM		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CARBON DISULFIDE		0.5	U		0.5	U		0.5	U		0.5	U	
CARBON TETRACHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLORODIBROMOMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROFORM		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		8			14			0.5	U		0.5	U	
CIS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U		0.5	U	
CYCLOHEXANE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB136-GW-161			BP-VPB136-GW-221			BP-VPB136-GW-261			BP-VPB136-GW-281		
SDG: D3367	LAB_ID	D3367-04			D3367-05			D3367-07			D3367-08		
FRACTION: OV	SAMP_DATE	7/11/2012			7/11/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2,2-TETRACHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2,3-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2,4-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMOETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,3-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,4-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,4-DIOXANE		10	UR	C	10	UR	C	10	UR	C	10	UR	C
2-BUTANONE		2.5	U		2.5	U		2.5	U		2.5	U	
2-HEXANONE		2.5	UJ	C	2.5	UJ	C	2.5	UJ	C	2.5	UJ	C
4-METHYL-2-PENTANONE		2.5	U		2.5	U		2.5	U		2.5	U	
ACETONE		2.5	U		2.5	U		2.5	U		2.5	U	
BENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOCHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMODICHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOFORM		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CARBON DISULFIDE		0.5	U		0.5	U		0.5	U		0.5	U	
CARBON TETRACHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLORODIBROMOMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROFORM		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U		0.5	U	
CYCLOHEXANE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB-TB-071012			BP-VPB-TB-071212		
SDG: D3367	LAB_ID	D3367-01			D3367-09		
FRACTION: OV	SAMP_DATE	7/10/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.5	U	
1,1,2,2-TETRACHLOROETHANE		0.5	U		0.5	U	
1,1,2-TRICHLOROETHANE		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U	
1,1-DICHLOROETHANE		0.5	U		0.5	U	
1,1-DICHLOROETHENE		0.5	U		0.5	U	
1,2,3-TRICHLOROBENZENE		0.5	U		0.5	U	
1,2,4-TRICHLOROBENZENE		0.5	U		0.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U		0.5	U	
1,2-DIBROMOETHANE		0.5	U		0.5	U	
1,2-DICHLOROBENZENE		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U	
1,2-DICHLOROPROPANE		0.5	U		0.5	U	
1,3-DICHLOROBENZENE		0.5	U		0.5	U	
1,4-DICHLOROBENZENE		0.5	U		0.5	U	
1,4-DIOXANE		10	UR	C	10	UR	C
2-BUTANONE		2.5	U		2.5	U	
2-HEXANONE		2.5	UJ	C	2.5	UJ	C
4-METHYL-2-PENTANONE		2.5	U		2.5	U	
ACETONE		2.5	U		2.5	U	
BENZENE		0.5	U		0.5	U	
BROMOCHLOROMETHANE		0.5	U		0.5	U	
BROMODICHLOROMETHANE		0.5	U		0.5	U	
BROMOFORM		0.5	U		0.5	U	
BROMOMETHANE		0.5	U		0.5	U	
CARBON DISULFIDE		0.5	U		0.5	U	
CARBON TETRACHLORIDE		0.5	U		0.5	U	
CHLOROBENZENE		0.5	U		0.5	U	
CHLORODIBROMOMETHANE		0.5	U		0.5	U	
CHLOROETHANE		0.5	U		0.5	U	
CHLOROFORM		0.5	U		0.5	U	
CHLOROMETHANE		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		0.5	U	
CIS-1,3-DICHLOROPROPENE		0.5	U		0.5	U	
CYCLOHEXANE		0.5	U		0.5	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB135-GW-108			BP-VPB135-GW-153			BP-VPB135-GW-63			BP-VPB136-GW-101		
SDG: D3367	LAB_ID	D3367-11			D3367-12			D3367-10			D3367-03		
FRACTION: OV	SAMP_DATE	7/12/2012			7/12/2012			7/12/2012			7/11/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
ISOPROPYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
M+P-XYLENES		1	U		1	U		1	U		1	U	
METHYL ACETATE		0.5	U		0.5	U		0.5	U		0.5	U	
METHYL CYCLOHEXANE		0.5	U		0.5	U		0.5	U		0.5	U	
METHYL TERT-BUTYL ETHER		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
O-XYLENE		0.5	U		0.5	U		0.5	U		0.5	U	
STYRENE		0.5	U		0.5	U		0.5	U		0.5	U	
TETRACHLOROETHENE		5.2			6.1			0.5	U		0.5	U	
TOLUENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		9.9			14			0.5	U		0.5	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB136-GW-161			BP-VPB136-GW-221			BP-VPB136-GW-261			BP-VPB136-GW-281		
SDG: D3367	LAB_ID	D3367-04			D3367-05			D3367-07			D3367-08		
FRACTION: OV	SAMP_DATE	7/11/2012			7/11/2012			7/12/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
ISOPROPYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
M+P-XYLENES		1	U		1	U		1	U		1	U	
METHYL ACETATE		0.5	U		0.5	U		0.5	U		0.5	U	
METHYL CYCLOHEXANE		0.5	U		0.5	U		0.5	U		0.5	U	
METHYL TERT-BUTYL ETHER		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
O-XYLENE		0.5	U		0.5	U		0.5	U		0.5	U	
STYRENE		0.5	U		0.5	U		0.5	U		0.5	U	
TETRACHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TOLUENE		0.5	U		0.41	J	PR	0.5	U		0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		4.6			1.7	J	R	0.5	U		0.5	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB-TB-071012			BP-VPB-TB-071212		
SDG: D3367	LAB_ID	D3367-01			D3367-09		
FRACTION: OV	SAMP_DATE	7/10/2012			7/12/2012		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U	
ETHYLBENZENE		0.5	U		0.5	U	
ISOPROPYLBENZENE		0.5	U		0.5	U	
M+P-XYLENES		1	U		1	U	
METHYL ACETATE		0.5	U		0.5	U	
METHYL CYCLOHEXANE		0.5	U		0.5	U	
METHYL TERT-BUTYL ETHER		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U	
O-XYLENE		0.5	U		0.5	U	
STYRENE		0.5	U		0.5	U	
TETRACHLOROETHENE		0.5	U		0.5	U	
TOLUENE		0.5	U		0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U	
TRANS-1,3-DICHLOROPROPENE		0.5	U		0.5	U	
TRICHLOROETHENE		0.5	U		0.5	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U	
VINYL CHLORIDE		0.5	U		0.5	U	

Tetra Tech INC **INTERNAL CORRESPONDENCE**

TO:	**D. BRAYACK**	**DATE:**	**AUGUST 21, 2012**
FROM:	**JOSEPH KALINYAK**	**COPIES:**	**DV FILE**
SUBJECT:	**ORGANIC DATA VALIDATION – VOC NWIRP BETHPAGE, CTO WE62 SDG D3413**		

SAMPLES: 8 / Aqueous / VOC

BP-VPB-TB-071312	BP-VPB-TB-071312-1	BP-VPB135-GW-198
BP-VPB135-GW-218	BP-VPB136-GW-301	BP-VPB136-GW-321
BP-VPB136-GW-341	BP-VPB136-GW-361	

3 / Aqueous Samples Analyzed as Soils / VOC

BP-VPB135-GW-238	BP-VPB135-GW-258	BP-VPB135-GW-278

Overview

The sample set for NWIRP Bethpage, CTO WE62, SDG D3413 consisted of eleven (11) aqueous samples including two (2) aqueous trip blank samples. Three (3) of the samples had significant sediment in the samples and were analyzed by the laboratory as soils. All samples were analyzed for volatile organic compounds (VOC) as listed above. No field duplicate sample pairs were included in this Sample Delivery Group (SDG).

The samples were collected by Tetra Tech on July 13 and 16, 2012 and analyzed by ChemTech laboratory. The sample analyses were conducted in accordance with EPA SW-846 Method 8260C for VOCs, analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters:

* • Data completeness
* • Hold times
* • GC/MS System Tuning and Performance
• Initial/continuing calibrations
* • Laboratory Blank Results
• Laboratory Control Sample Recoveries
• Matrix Spike/Matrix Spike Duplicate Recoveries
• Surrogate Spike Recoveries
* • Internal Standard Recoveries
* • Compound Identification
* • Compound Quantitation
* • Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Qualified analytical results are presented in Appendix A, results as reported by the laboratory are presented in Appendix B, Region II data validation forms are presented in Appendix C, and documentation supporting these findings is presented in Appendix D.

VOC

The initial calibration average relative response factor (RRF) was less than the 0.05 criteria for 1,4-dioxane for instrument MSVOA_F on 07/17/12, for instrument MSVOA_N on 07/23/12, and for instrument MSVOA_R on 07/11/12 and for all continuing calibration verifications (CCVs).

Affected samples: All samples

Action: The non-detected 1,4-dioxane results for all samples were qualified rejected, (UR).

The CCV percent differences (%D) were greater than the 20% quality control limit for acetone, methyl acetate, 2-butanone, 2-hexanone, and 1,4-dioxane for instrument MSVOA_R on 07/18/12 @ 10:03.

Affected samples:

BP-VPB-TB-071312 BP-VPB136-GW-301

Action: The non-detected acetone, methyl acetate, 2-butanone, and 2-hexanone results for the sample were qualified estimated, (UJ). The 1,4-dioxane non-detected results were rejected for RRF criteria and no further validation action was necessary.

The CCV percent differences (%D) were greater than the 20% quality control limit for acetone, 2-butanone, 2-hexanone, and 1,4-dioxane for instrument MSVOA_R on 07/19/12 @ 09:56.

Affected sample: BP-VPB-TB-071312-1

Action: The non-detected acetone, 2-butanone, and 2-hexanone results for the sample were qualified estimated, (UJ). The 1,4-dioxane non-detected results were rejected for RRF criteria and no further validation action was necessary.

The CCV percent differences (%D) were greater than the 20% quality control limit for acetone, methyl acetate, 2-butanone, 2-hexanone, and 1,4-dioxane for instrument MSVOA_R on 07/20/12 @ 13:47.

Affected samples:

BP-VPB135-GW-198 BP-VPB135-GW-198 dilution analysis

Action: The positive and non-detected acetone, methyl acetate, 2-butanone, and 2-hexanone results for the sample were qualified estimated, (J) and (UJ), respectively. The 1,4-dioxane non-detected results were rejected for RRF criteria and no further validation action was necessary. As only the trichloroethene result for the sample BP-VPB135-GW-198 re-analysis was reported, no validation action was taken for the sample re-analysis results.

The surrogate 1,2-dichloroethane-d4 %Rs were greater than the quality control limit for samples BP-VPB135-GW-198 and BP-VPB136-GW-301. The sample BP-VPB136-GW-301 was re-analyzed with a similar surrogate %R non-compliance. The sample VPB135-GW-198 was re-analyzed, at a dilution due to a high trichloroethene result in the undiluted sample analysis, with a similar surrogate %R non-compliance. The original sample analysis for both samples was reported/validated with the exception of the trichloroethene result for sample BP-VPB135-GW-198 which was reported from the dilution analysis.

Affected samples:

BP-VPB135-GW-198 BP-VPB135-GW-198 dilution analysis
BP-VPB136-GW-301

Action: The positive VOC results reported for the samples were qualified estimated, (J).

Additional Comments

Positive results below the limit of quantitation (LOQ) and above the method detection limit were qualified as estimated, (J), due to uncertainty near the detection limit.

The laboratory control sample (LCS) percent recovery (%R) was greater than the quality control limit for 1,4-dioxane for batch VR0720WBS.

Affected samples:
BP-VPB135-GW-198 BP-VPB135-GW-198 dilution analysis
BP-VPB136-GW-301 re-analysis
Action: The sample results for 1,4-dioxane were rejected for the RRF criteria non-compliance and therefore no validation action was necessary.

A matrix spike (MS) sample and MS duplicate (MSD) sample had %Rs that there were non-compliant and MS/MSD relative percent differences (RPD) that exceeded the quality control limits for several VOC analytes. No validation action was taken as the spiked sample was not from this SDG.

A MS/MSD RPD exceeded the quality control limits for 1,4-dioxane for spiked sample BP-VPB135-GW-238. No validation action was taken for a RPD non-compliance alone.

Sample was analyzed both undiluted and diluted 50X due to a result for trichloroethene which exceeded the highest calibration level for the undiluted sample analysis. Only the trichloroethene result was reported from the 50X dilution analysis.

Fifty-two (52) analytes were reported for VOCs for Method 8260C.

Non-detected sample results were reported to the LOD.

The VOC results for aqueous samples BP-VPB135-GW-238, BP-VPB135-GW-258 , and BP-VPB135-GW-278 were reported in soil units of µg/kg uncorrected for moisture content.

Samples BP-VPB135-GW-238, BP-VPB135-GW-278, BP-VPB135-GW-198, and BP-VPB135-GW-218 had VOCs including naphthalene identified in the tentatively identified compound (TIC) page for the laboratory sample analysis reports. This information is included in Appendix B of this report.

EXECUTIVE SUMMARY

Laboratory Performance Issues: Sample VOC 1,4-dioxane non-detected results were rejected for RRF criteria non-compliances. Sample VOC analytes were qualified for CCV %D and surrogate %R non-compliances.

Other Factors Affecting Data Quality: Positive results below the Limit of Detection (LOD) and above the method detection limit were qualified as estimated, (J), due to uncertainty near the detection limit.

The data for these analyses were reviewed with reference to the USEPA Region II Hazardous Waste Support Branch Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260C SOP #HW-24 Revision #2 August 2008 and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (April 2009).

Tetra Tech
Joseph Kalinyak
Chemist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:
Appendix A - Qualified Analytical Results
Appendix B - Results as Reported by the Laboratory
Appendix C – Region II Data Validation Forms
Appendix D - Support Documentation

Appendix A

Qualified Analytical Results

Value Qualifier Key (Val Qual)

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The result is an estimated non-detected quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

DATA QUALIFICATION CODE (QUAL CODE)

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is less than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed

PROJ_NO: 02751	NSAMPLE	BP-VPB135-GW-238			BP-VPB135-GW-258			BP-VPB135-GW-278		
SDG: D3413	LAB_ID	D3413-04			D3413-05			D3413-06		
FRACTION: OV	SAMP_DATE	7/16/2012			7/16/2012			7/16/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		2.5	U		2.5	U		2.5	U	
1,1,2,2-TETRACHLOROETHANE		2.5	U		2.5	U		2.5	U	
1,1,2-TRICHLOROETHANE		2.5	U		2.5	U		2.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		2.5	U		2.5	U		2.5	U	
1,1-DICHLOROETHANE		2.5	U		2.5	U		2.5	U	
1,1-DICHLOROETHENE		2.5	U		2.5	U		2.5	U	
1,2,3-TRICHLOROBENZENE		2.5	U		2.5	U		2.5	U	
1,2,4-TRICHLOROBENZENE		2.5	U		2.5	U		2.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		2.5	U		2.5	U		2.5	U	
1,2-DIBROMOETHANE		2.5	U		2.5	U		2.5	U	
1,2-DICHLOROBENZENE		2.5	U		2.5	U		2.5	U	
1,2-DICHLOROETHANE		2.5	U		2.5	U		2.5	U	
1,2-DICHLOROPROPANE		2.5	U		2.5	U		2.5	U	
1,3-DICHLOROBENZENE		2.5	U		2.5	U		2.5	U	
1,4-DICHLOROBENZENE		2.5	U		2.5	U		2.5	U	
1,4-DIOXANE		49.5	UR	C	50	UR	C	49.5	UR	C
2-BUTANONE		12.5	U		12.5	U		12.5	U	
2-HEXANONE		12.5	U		12.5	U		12.5	U	
4-METHYL-2-PENTANONE		12.5	U		12.5	U		12.5	U	
ACETONE		35			30			12.5	U	
BENZENE		2.5	U		2.5	U		2.5	U	
BROMOCHLOROMETHANE		2.5	U		2.5	U		2.5	U	
BROMODICHLOROMETHANE		2.5	U		2.5	U		2.5	U	
BROMOFORM		2.5	U		2.5	U		2.5	U	
BROMOMETHANE		2.5	U		2.5	U		2.5	U	
CARBON DISULFIDE		2.5	U		2.5	U		2.5	U	
CARBON TETRACHLORIDE		2.5	U		2.5	U		2.5	U	
CHLOROBENZENE		2.5	U		2.5	U		2.5	U	
CHLORODIBROMOMETHANE		2.5	U		2.5	U		2.5	U	
CHLOROETHANE		2.5	U		2.5	U		2.5	U	
CHLOROFORM		2.5	U		2.5	U		2.5	U	
CHLOROMETHANE		2.5	U		2.5	U		2.5	U	
CIS-1,2-DICHLOROETHENE		2.5	U		2.5	U		2.5	U	
CIS-1,3-DICHLOROPROPENE		2.5	U		2.5	U		2.5	U	
CYCLOHEXANE		2.5	U		2.5	U		2.5	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB135-GW-238			BP-VPB135-GW-258			BP-VPB135-GW-278		
SDG: D3413	LAB_ID	D3413-04			D3413-05			D3413-06		
FRACTION: OV	SAMP_DATE	7/16/2012			7/16/2012			7/16/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		2.5	U		2.5	U		2.5	U	
ETHYLBENZENE		2.5	U		2.5	U		2.5	U	
ISOPROPYLBENZENE		2.5	U		2.5	U		2.5	U	
M+P-XYLENES		4.95	U		5	U		4.95	U	
METHYL ACETATE		2.5	U		2.5	U		2.5	U	
METHYL CYCLOHEXANE		2.5	U		2.5	U		2.5	U	
METHYL TERT-BUTYL ETHER		2.5	U		2.5	U		2.5	U	
METHYLENE CHLORIDE		2.5	U		2.5	U		2.5	U	
O-XYLENE		2.5	U		2.5	U		2.5	U	
STYRENE		2.5	U		2.5	U		2.5	U	
TETRACHLOROETHENE		2.5	U		2.5	U		2.5	U	
TOLUENE		2.5	U		2.5	U		2.5	U	
TRANS-1,2-DICHLOROETHENE		2.5	U		2.5	U		2.5	U	
TRANS-1,3-DICHLOROPROPENE		2.5	U		2.5	U		2.5	U	
TRICHLOROETHENE		2.5	U		4.2	J	P	16		
TRICHLOROFLUOROMETHANE		2.5	U		2.5	U		2.5	U	
VINYL CHLORIDE		2.5	U		2.5	U		2.5	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB135-GW-198			BP-VPB135-GW-198DL			BP-VPB135-GW-218			BP-VPB136-GW-301		
SDG: D3413	LAB_ID	D3413-02			D3413-02DL			D3413-03			D3413-08		
FRACTION: OV	SAMP_DATE	7/13/2012			7/13/2012			7/13/2012			7/13/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U					0.5	U		0.5	U	
1,1,2,2-TETRACHLOROETHANE		0.5	U					0.5	U		0.5	U	
1,1,2-TRICHLOROETHANE		0.5	U					0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U					0.5	U		0.5	U	
1,1-DICHLOROETHANE		5.8	J	R				0.5	U		0.5	U	
1,1-DICHLOROETHENE		0.5	U					0.5	U		0.5	U	
1,2,3-TRICHLOROBENZENE		0.5	U					0.5	U		0.5	U	
1,2,4-TRICHLOROBENZENE		0.5	U					0.5	U		0.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U					0.5	U		0.5	U	
1,2-DIBROMOETHANE		0.5	U					0.5	U		0.5	U	
1,2-DICHLOROBENZENE		0.5	U					0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U					0.5	U		0.5	U	
1,2-DICHLOROPROPANE		0.5	U					0.5	U		0.5	U	
1,3-DICHLOROBENZENE		0.5	U					0.5	U		0.5	U	
1,4-DICHLOROBENZENE		0.5	U					0.5	U		0.5	U	
1,4-DIOXANE		10	UR	C				10	UR	C	10	UR	C
2-BUTANONE		2.5	UJ	C				14			2.5	UJ	C
2-HEXANONE		2.5	UJ	C				5.3			2.5	UJ	C
4-METHYL-2-PENTANONE		2.5	U					2.5	U		2.5	U	
ACETONE		29	J	CR				43			2.5	UJ	C
BENZENE		0.5	U					0.5	U		0.5	U	
BROMOCHLOROMETHANE		0.5	U					0.5	U		0.5	U	
BROMODICHLOROMETHANE		0.5	U					0.5	U		0.5	U	
BROMOFORM		0.5	U					0.5	U		0.5	U	
BROMOMETHANE		0.5	U					0.5	U		0.5	U	
CARBON DISULFIDE		0.5	U					0.5	U		0.5	U	
CARBON TETRACHLORIDE		0.5	U					0.5	U		0.5	U	
CHLOROBENZENE		0.5	U					0.5	U		0.5	U	
CHLORODIBROMOMETHANE		0.5	U					0.5	U		0.5	U	
CHLOROETHANE		0.5	U					0.5	U		0.5	U	
CHLOROFORM		0.5	U					0.5	U		0.5	U	
CHLOROMETHANE		0.5	U					0.42	J	P	0.5	U	
CIS-1,2-DICHLOROETHENE		12	J	R				0.5	U		0.5	U	
CIS-1,3-DICHLOROPROPENE		0.5	U					0.5	U		0.5	U	
CYCLOHEXANE		0.5	U					0.5	U		0.5	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB136-GW-321			BP-VPB136-GW-341			BP-VPB136-GW-361			BP-VPB-TB-071312		
SDG: D3413	LAB_ID	D3413-09			D3413-10			D3413-11			D3413-07		
FRACTION: OV	SAMP_DATE	7/16/2012			7/16/2012			7/16/2012			7/13/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2,2-TETRACHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2,3-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2,4-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMOETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,3-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,4-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,4-DIOXANE		10	UR	C	10	UR	C	10	UR	C	10	UR	C
2-BUTANONE		9.4			2.5	U		2.5	U		2.5	UJ	C
2-HEXANONE		2.5	U		2.5	U		2.5	U		2.5	UJ	C
4-METHYL-2-PENTANONE		2.5	U		2.5	U		2.5	U		2.5	U	
ACETONE		92			2.5	U		2.5	U		2.5	UJ	C
BENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOCHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMODICHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOFORM		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CARBON DISULFIDE		0.5	U		0.5	U		0.5	U		0.5	U	
CARBON TETRACHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLORODIBROMOMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROFORM		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U		0.5	U	
CYCLOHEXANE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB-TB-071312-1
SDG: D3413	LAB_ID	D3413-01
FRACTION: OV	SAMP_DATE	7/13/2012
MEDIA: WATER	QC_TYPE	NM
	UNITS	UG/L
	PCT_SOLIDS	0.0
	DUP_OF	

PARAMETER	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE	0.5	U	
1,1,2,2-TETRACHLOROETHANE	0.5	U	
1,1,2-TRICHLOROETHANE	0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	0.5	U	
1,1-DICHLOROETHANE	0.5	U	
1,1-DICHLOROETHENE	0.5	U	
1,2,3-TRICHLOROBENZENE	0.5	U	
1,2,4-TRICHLOROBENZENE	0.5	U	
1,2-DIBROMO-3-CHLOROPROPANE	0.5	U	
1,2-DIBROMOETHANE	0.5	U	
1,2-DICHLOROBENZENE	0.5	U	
1,2-DICHLOROETHANE	0.5	U	
1,2-DICHLOROPROPANE	0.5	U	
1,3-DICHLOROBENZENE	0.5	U	
1,4-DICHLOROBENZENE	0.5	U	
1,4-DIOXANE	10	UR	C
2-BUTANONE	2.5	UJ	C
2-HEXANONE	2.5	UJ	C
4-METHYL-2-PENTANONE	2.5	U	
ACETONE	2.5	UJ	C
BENZENE	0.5	U	
BROMOCHLOROMETHANE	0.5	U	
BROMODICHLOROMETHANE	0.5	U	
BROMOFORM	0.5	U	
BROMOMETHANE	0.5	U	
CARBON DISULFIDE	0.5	U	
CARBON TETRACHLORIDE	0.5	U	
CHLOROBENZENE	0.5	U	
CHLORODIBROMOMETHANE	0.5	U	
CHLOROETHANE	0.5	U	
CHLOROFORM	0.5	U	
CHLOROMETHANE	0.5	U	
CIS-1,2-DICHLOROETHENE	0.5	U	
CIS-1,3-DICHLOROPROPENE	0.5	U	
CYCLOHEXANE	0.5	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB135-GW-198			BP-VPB135-GW-198DL			BP-VPB135-GW-218			BP-VPB136-GW-301		
SDG: D3413	LAB_ID	D3413-02			D3413-02DL			D3413-03			D3413-08		
FRACTION: OV	SAMP_DATE	7/13/2012			7/13/2012			7/13/2012			7/13/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		0.5	U					0.5	U		0.5	U	
ETHYLBENZENE		0.5	U					0.5	U		0.5	U	
ISOPROPYLBENZENE		0.5	U					0.5	U		0.5	U	
M+P-XYLENES		1	U					1	U		1	U	
METHYL ACETATE		0.5	UJ	C				0.5	U		0.5	UJ	C
METHYL CYCLOHEXANE		0.5	U					0.5	U		0.5	U	
METHYL TERT-BUTYL ETHER		0.5	U					0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U					0.5	U		0.5	U	
O-XYLENE		0.5	U					0.5	U		0.5	U	
STYRENE		0.5	U					0.5	U		0.5	U	
TETRACHLOROETHENE		3.5	J	R				0.51	J	P	0.5	U	
TOLUENE		0.5	U					0.5	U		0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U					0.5	U		0.5	U	
TRANS-1,3-DICHLOROPROPENE		0.5	U					0.5	U		0.5	U	
TRICHLOROETHENE					4000	J	R	140			1.3	J	R
TRICHLOROFLUOROMETHANE		0.5	U					0.5	U		0.5	U	
VINYL CHLORIDE		0.5	U					0.5	U		0.5	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB136-GW-321			BP-VPB136-GW-341			BP-VPB136-GW-361			BP-VPB-TB-071312		
SDG: D3413	LAB_ID	D3413-09			D3413-10			D3413-11			D3413-07		
FRACTION: OV	SAMP_DATE	7/16/2012			7/16/2012			7/16/2012			7/13/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
ISOPROPYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
M+P-XYLENES		1	U		1	U		1	U		1	U	
METHYL ACETATE		0.5	U		0.5	U		0.5	U		0.5	UJ	C
METHYL CYCLOHEXANE		0.5	U		0.5	U		0.5	U		0.5	U	
METHYL TERT-BUTYL ETHER		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
O-XYLENE		0.5	U		0.5	U		0.5	U		0.5	U	
STYRENE		0.5	U		0.5	U		0.5	U		0.5	U	
TETRACHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TOLUENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		0.5	U		0.5	U		0.53	J	P	0.5	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB-TB-071312-1		
SDG: D3413	LAB_ID	D3413-01		
FRACTION: OV	SAMP_DATE	7/13/2012		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		0.5	U	
ETHYLBENZENE		0.5	U	
ISOPROPYLBENZENE		0.5	U	
M+P-XYLENES		1	U	
METHYL ACETATE		0.5	U	
METHYL CYCLOHEXANE		0.5	U	
METHYL TERT-BUTYL ETHER		0.5	U	
METHYLENE CHLORIDE		0.5	U	
O-XYLENE		0.5	U	
STYRENE		0.5	U	
TETRACHLOROETHENE		0.5	U	
TOLUENE		0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U	
TRANS-1,3-DICHLOROPROPENE		0.5	U	
TRICHLOROETHENE		0.5	U	
TRICHLOROFLUOROMETHANE		0.5	U	
VINYL CHLORIDE		0.5	U	

Tetra Tech INC **INTERNAL CORRESPONDENCE**

TO:	**D. BRAYACK**	**DATE:**	**AUGUST 21, 2012**
FROM:	**JOSEPH KALINYAK**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC**
NWIRP BETHPAGE, CTO WE62
SDG D3454

SAMPLES: 1 / Aqueous / VOC

BP-VPB-TB-07

5 / Aqueous Samples Analyzed as Soils / VOC

BP-VPB135-GW-298	BP-VPB135-GW-318	BP-VPB135-GW-338
BP-VPB135-GW-358	BP-VPB135-GW-378	

Overview

The sample set for NWIRP Bethpage, CTO WE62, SDG D3454 consisted of six (6) aqueous samples including one (1) aqueous trip blank sample. Five (5) of the samples had significant sediment in the samples and were analyzed by the laboratory as soils. All samples were analyzed for volatile organic compounds (VOC) as listed above. No field duplicate sample pairs were included in this Sample Delivery Group (SDG).

The samples were collected by Tetra Tech on July 17 and 18, 2012 and analyzed by ChemTech laboratory. The sample analyses were conducted in accordance with EPA SW-846 Method 8260C for VOCs, analytical and reporting protocols. The data contained in this SDG were validated with regard to the following parameters:

- * Data completeness
- * Hold times
- * GC/MS System Tuning and Performance
- Initial/continuing calibrations
- * Laboratory Blank Results
- * Laboratory Control Sample Recoveries
- Matrix Spike/Matrix Spike Duplicate Recoveries
- * Surrogate Spike Recoveries
- * Internal Standard Recoveries
- * Compound Identification
- * Compound Quantitation
- * Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Qualified analytical results are presented in Appendix A, results as reported by the laboratory are presented in Appendix B, Region II data validation forms are presented in Appendix C, and documentation supporting these findings is presented in Appendix D.

VOC

The initial calibration average relative response factor (RRF) was less than the 0.05 criteria for 1,4-dioxane for instrument MSVOA_F on 07/17/12 and for instrument MSVOAH on 07/09/12 and for all continuing calibration verifications (CCVs).

Affected samples: All samples

Action: The non-detected 1,4-dioxane results for all samples were qualified rejected, (UR).

Additional Comments

Positive results below the limit of quantitation (LOQ) and above the method detection limit were qualified as estimated, (J), due to uncertainty near the detection limit.

Two matrix spike (MS) and MS duplicate (MSD) samples had %Rs that there were non-compliant and MS/MSD relative percent differences (RPD) that exceeded the quality control limits for several analytes. No validation action was taken as the spiked samples were not from this SDG.

Fifty-two (52) analytes were reported for VOCs for Method 8260C.

Non-detected sample results were reported to the LOD.

The VOC results for aqueous samples BP-VPB135-GW-298, BP-VPB135-GW-318, BP-VPB135-GW-338, BP-VPB135-GW-358, and BP-VPB135-GW-378 were reported in soil units of µg/kg uncorrected for moisture content.

Samples BP-VPB135-GW-298 and BP-VPB135-GW-318 had VOCs in the tentatively identified compound (TIC) page for the laboratory sample analysis reports. This sample VOC TIC information is included in Appendix B of this report.

EXECUTIVE SUMMARY

Laboratory Performance Issues: Sample VOC 1,4-dioxane non-detected results were rejected for RRF criteria non-compliances.

Other Factors Affecting Data Quality: Positive results below the Limit of Detection (LOD) and above the method detection limit were qualified as estimated, (J), due to uncertainty near the detection limit.

The data for these analyses were reviewed with reference to the USEPA Region II Hazardous Waste Support Branch Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260C SOP #HW-24 Revision #2 August 2008 and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (April 2009).

Tetra Tech
Joseph Kalinyak
Chemist/Data Validator

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Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:
Appendix A - Qualified Analytical Results
Appendix B - Results as Reported by the Laboratory
Appendix C – Region II Data Validation Forms
Appendix D - Support Documentation

Appendix A

Qualified Analytical Results

Value Qualifier Key (Val Qual)

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The result is an estimated non-detected quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

DATA QUALIFICATION CODE (QUAL CODE)

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is less than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed

PROJ_NO: 02751	NSAMPLE	BP-VPB-TB-07		
SDG: D3454	LAB_ID	D3454-01		
FRACTION: OV	SAMP_DATE	7/17/2012		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		2.5	U	
1,1,2,2-TETRACHLOROETHANE		2.5	U	
1,1,2-TRICHLOROETHANE		2.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		2.5	U	
1,1-DICHLOROETHANE		2.5	U	
1,1-DICHLOROETHENE		2.5	U	
1,2,3-TRICHLOROBENZENE		2.5	U	
1,2,4-TRICHLOROBENZENE		2.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		2.5	U	
1,2-DIBROMOETHANE		2.5	U	
1,2-DICHLOROBENZENE		2.5	U	
1,2-DICHLOROETHANE		2.5	U	
1,2-DICHLOROPROPANE		2.5	U	
1,3-DICHLOROBENZENE		2.5	U	
1,4-DICHLOROBENZENE		2.5	U	
1,4-DIOXANE		50	UR	C
2-BUTANONE		12.5	U	
2-HEXANONE		12.5	U	
4-METHYL-2-PENTANONE		12.5	U	
ACETONE		12.5	U	
BENZENE		2.5	U	
BROMOCHLOROMETHANE		2.5	U	
BROMODICHLOROMETHANE		2.5	U	
BROMOFORM		2.5	U	
BROMOMETHANE		2.5	U	
CARBON DISULFIDE		2.5	U	
CARBON TETRACHLORIDE		2.5	U	
CHLOROBENZENE		2.5	U	
CHLORODIBROMOMETHANE		2.5	U	
CHLOROETHANE		2.5	U	
CHLOROFORM		2.5	U	
CHLOROMETHANE		2.5	U	
CIS-1,2-DICHLOROETHENE		2.5	U	
CIS-1,3-DICHLOROPROPENE		2.5	U	
CYCLOHEXANE		2.5	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB-TB-07		
SDG: D3454	LAB_ID	D3454-01		
FRACTION: OV	SAMP_DATE	7/17/2012		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		2.5	U	
ETHYLBENZENE		2.5	U	
ISOPROPYLBENZENE		2.5	U	
M+P-XYLENES		5	U	
METHYL ACETATE		2.5	U	
METHYL CYCLOHEXANE		2.5	U	
METHYL TERT-BUTYL ETHER		2.5	U	
METHYLENE CHLORIDE		2.5	U	
O-XYLENE		2.5	U	
STYRENE		2.5	U	
TETRACHLOROETHENE		2.5	U	
TOLUENE		2.5	U	
TRANS-1,2-DICHLOROETHENE		2.5	U	
TRANS-1,3-DICHLOROPROPENE		2.5	U	
TRICHLOROETHENE		2.5	U	
TRICHLOROFLUOROMETHANE		2.5	U	
VINYL CHLORIDE		2.5	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB135-GW-298			BP-VPB135-GW-318			BP-VPB135-GW-338			BP-VPB135-GW-358		
SDG: D3454	LAB_ID	D3454-02			D3454-03			D3454-04			D3454-05		
FRACTION: OV	SAMP_DATE	7/17/2012			7/17/2012			7/18/2012			7/18/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		2.5	U		2.5	U		2.5	U		2.5	U	
1,1,2,2-TETRACHLOROETHANE		2.5	U		2.5	U		2.5	U		2.5	U	
1,1,2-TRICHLOROETHANE		2.5	U		2.5	U		2.5	U		2.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		2.5	U		2.5	U		2.5	U		2.5	U	
1,1-DICHLOROETHANE		2.5	U		2.5	U		2.5	U		2.5	U	
1,1-DICHLOROETHENE		2.5	U		2.5	U		2.5	U		2.5	U	
1,2,3-TRICHLOROBENZENE		2.5	U		2.5	U		2.5	U		2.5	U	
1,2,4-TRICHLOROBENZENE		2.5	U		2.5	U		2.5	U		2.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		2.5	U		2.5	U		2.5	U		2.5	U	
1,2-DIBROMOETHANE		2.5	U		2.5	U		2.5	U		2.5	U	
1,2-DICHLOROBENZENE		2.5	U		2.5	U		2.5	U		2.5	U	
1,2-DICHLOROETHANE		2.5	U		2.5	U		2.5	U		2.5	U	
1,2-DICHLOROPROPANE		2.5	U		2.5	U		2.5	U		2.5	U	
1,3-DICHLOROBENZENE		2.5	U		2.5	U		2.5	U		2.5	U	
1,4-DICHLOROBENZENE		2.5	U		2.5	U		2.5	U		2.5	U	
1,4-DIOXANE		50	UR	C	50	UR	C	50	UR	C	50	UR	C
2-BUTANONE		12	J	P	12.5	U		12.5	U		12.5	U	
2-HEXANONE		12.5	U		12.5	U		12.5	U		12.5	U	
4-METHYL-2-PENTANONE		12.5	U		12.5	U		12.5	U		12.5	U	
ACETONE		41			12.5	U		43			34		
BENZENE		2.5	U		2.5	U		2.5	U		2.5	U	
BROMOCHLOROMETHANE		2.5	U		2.5	U		2.5	U		2.5	U	
BROMODICHLOROMETHANE		2.5	U		2.5	U		2.5	U		2.5	U	
BROMOFORM		2.5	U		2.5	U		2.5	U		2.5	U	
BROMOMETHANE		2.5	U		2.5	U		2.5	U		2.5	U	
CARBON DISULFIDE		2.5	U		2.5	U		2.5	U		2.5	U	
CARBON TETRACHLORIDE		2.5	U		2.5	U		2.5	U		2.5	U	
CHLOROBENZENE		2.5	U		2.5	U		2.5	U		2.5	U	
CHLORODIBROMOMETHANE		2.5	U		2.5	U		2.5	U		2.5	U	
CHLOROETHANE		2.5	U		2.5	U		2.5	U		2.5	U	
CHLOROFORM		2.5	U		2.5	U		2.5	U		2.5	U	
CHLOROMETHANE		2.5	U		2.5	U		2.5	U		2.5	U	
CIS-1,2-DICHLOROETHENE		2.5	U		2.5	U		2.5	U		2.5	U	
CIS-1,3-DICHLOROPROPENE		2.5	U		2.5	U		2.5	U		2.5	U	
CYCLOHEXANE		2.5	U		2.5	U		2.5	U		2.5	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB135-GW-378		
SDG: D3454	LAB_ID	D3454-06		
FRACTION: OV	SAMP_DATE	7/18/2012		
MEDIA: SOIL	QC_TYPE	NM		
	UNITS	UG/KG		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		2.5	U	
1,1,2,2-TETRACHLOROETHANE		2.5	U	
1,1,2-TRICHLOROETHANE		2.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		2.5	U	
1,1-DICHLOROETHANE		2.5	U	
1,1-DICHLOROETHENE		2.5	U	
1,2,3-TRICHLOROBENZENE		2.5	U	
1,2,4-TRICHLOROBENZENE		2.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		2.5	U	
1,2-DIBROMOETHANE		2.5	U	
1,2-DICHLOROBENZENE		2.5	U	
1,2-DICHLOROETHANE		2.5	U	
1,2-DICHLOROPROPANE		2.5	U	
1,3-DICHLOROBENZENE		2.5	U	
1,4-DICHLOROBENZENE		2.5	U	
1,4-DIOXANE		49.5	UR	C
2-BUTANONE		12.5	U	
2-HEXANONE		12.5	U	
4-METHYL-2-PENTANONE		12.5	U	
ACETONE		18	J	P
BENZENE		2.5	U	
BROMOCHLOROMETHANE		2.5	U	
BROMODICHLOROMETHANE		2.5	U	
BROMOFORM		2.5	U	
BROMOMETHANE		2.5	U	
CARBON DISULFIDE		2.5	U	
CARBON TETRACHLORIDE		2.5	U	
CHLOROBENZENE		2.5	U	
CHLORODIBROMOMETHANE		2.5	U	
CHLOROETHANE		2.5	U	
CHLOROFORM		2.5	U	
CHLOROMETHANE		2.5	U	
CIS-1,2-DICHLOROETHENE		2.5	U	
CIS-1,3-DICHLOROPROPENE		2.5	U	
CYCLOHEXANE		2.5	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB135-GW-298			BP-VPB135-GW-318			BP-VPB135-GW-338			BP-VPB135-GW-358		
SDG: D3454	LAB_ID	D3454-02			D3454-03			D3454-04			D3454-05		
FRACTION: OV	SAMP_DATE	7/17/2012			7/17/2012			7/18/2012			7/18/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		2.5	U		2.5	U		2.5	U		2.5	U	
ETHYLBENZENE		2.5	U		2.5	U		2.5	U		2.5	U	
ISOPROPYLBENZENE		2.5	U		2.5	U		2.5	U		2.5	U	
M+P-XYLENES		5	U		5	U		5	U		5	U	
METHYL ACETATE		2.5	U		2.5	U		2.5	U		2.5	U	
METHYL CYCLOHEXANE		2.5	U		2.5	U		2.5	U		2.5	U	
METHYL TERT-BUTYL ETHER		2.5	U		2.5	U		2.5	U		2.5	U	
METHYLENE CHLORIDE		2.5	U		2.5	U		2.5	U		2.5	U	
O-XYLENE		2.5	U		2.5	U		2.5	U		2.5	U	
STYRENE		2.5	U		2.5	U		2.5	U		2.5	U	
TETRACHLOROETHENE		2.5	U		2.5	U		2.5	U		2.5	U	
TOLUENE		2.5	U		2.5	U		2.5	U		2.5	U	
TRANS-1,2-DICHLOROETHENE		2.5	U		2.5	U		2.5	U		2.5	U	
TRANS-1,3-DICHLOROPROPENE		2.5	U		2.5	U		2.5	U		2.5	U	
TRICHLOROETHENE		35			2.5	U		2.5	U		2.5	U	
TRICHLOROFLUOROMETHANE		2.5	U		2.5	U		2.5	U		2.5	U	
VINYL CHLORIDE		2.5	U		2.5	U		2.5	U		2.5	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB135-GW-378		
SDG: D3454	LAB_ID	D3454-06		
FRACTION: OV	SAMP_DATE	7/18/2012		
MEDIA: SOIL	QC_TYPE	NM		
	UNITS	UG/KG		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		2.5	U	
ETHYLBENZENE		2.5	U	
ISOPROPYLBENZENE		2.5	U	
M+P-XYLENES		4.95	U	
METHYL ACETATE		2.5	U	
METHYL CYCLOHEXANE		2.5	U	
METHYL TERT-BUTYL ETHER		2.5	U	
METHYLENE CHLORIDE		2.5	U	
O-XYLENE		2.5	U	
STYRENE		2.5	U	
TETRACHLOROETHENE		2.5	U	
TOLUENE		2.5	U	
TRANS-1,2-DICHLOROETHENE		2.5	U	
TRANS-1,3-DICHLOROPROPENE		2.5	U	
TRICHLOROETHENE		2.5	U	
TRICHLOROFLUOROMETHANE		2.5	U	
VINYL CHLORIDE		2.5	U	

Tetra Tech INC **INTERNAL CORRESPONDENCE**

TO:	**D. BRAYACK**	**DATE:**	**AUGUST 20, 2012**
FROM:	**JOSEPH KALINYAK**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC**
NWIRP BETHPAGE, CTO WE62
SDG D3470

SAMPLES: 7 / Aqueous / VOC

BP-VPB-TB-071712	BP-VPB-TB-071912	BP-VPB136-GW-381
BP-VPB136-GW-401	BP-VPB136-GW-421	BP-VPB136-GW-441
BP-VPB136-GW-541		

5 / Aqueous Samples Analyzed as Soils / VOC

BP-VPB135-GW-398	BP-VPB136-GW-461	BP-VPB136-GW-481
BP-VPB136-GW-501	BP-VPB136-GW-521	

Overview

The sample set for NWIRP Bethpage, CTO WE62, SDG D3470 consisted of twelve (12) aqueous samples including two (2) aqueous trip blank samples. Five (5) of the samples had significant sediment in the samples and were analyzed by the laboratory as soils. All samples were analyzed for volatile organic compounds (VOC) as listed above. No field duplicate sample pairs were included in this Sample Delivery Group (SDG).

The samples were collected by Tetra Tech on July 17, 18, and 19, 2012 and analyzed by ChemTech laboratory. The sample analyses were conducted in accordance with EPA SW-846 Method 8260C for VOCs, analytical and reporting protocols. The data contained in this SDG were validated with regard to the following parameters:

* • Data completeness
* • Hold times
* • GC/MS System Tuning and Performance
• Initial/continuing calibrations
* • Laboratory Blank Results
* • Laboratory Control Sample Recoveries
* • Matrix Spike/Matrix Spike Duplicate Recoveries
* • Surrogate Spike Recoveries
* • Internal Standard Recoveries
* • Compound Identification
* • Compound Quantitation
* • Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Qualified analytical results are presented in Appendix A, results as reported by the laboratory are presented in Appendix B, Region II data validation forms are presented in Appendix C, and documentation supporting these findings is presented in Appendix D.

VOC

The initial calibration average relative response factor (RRF) was less than the 0.05 criteria for 1,4-dioxane for instrument MSVOA_F on 07/17/12, MSVOA_N on 07/20/12, and for instrument MSVOA_N on 07/23/12 and for all continuing calibration verifications (CCVs).

Affected samples: All samples

Action: The non-detected 1,4-dioxane results for all samples were qualified rejected, (UR).

The following VOC contaminant was detected in the trip blanks at the following maximum concentrations.

Analyte	Maximum Conc. µg/L	Action Level µg/L
Methylene chloride (1)	0.47	4.70
Carbon disulfide (2)	0.5	2.5
Chloromethane (2)	0.46	2.30

(1) Trip blank sample BP-VPB-TB-071912 affecting all samples.
(2) Trip blank sample BP-VPB-TB-071712 affecting all samples

An action level of ten times the maximum level for methylene chloride and five times the maximum level for carbon disulfide and chloromethane has been used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. The trip blank samples were not qualified for trip blank contamination. Carbon disulfide sample results were qualified non-detected, (U), due to trip blank contamination.

Additional Comments

Positive results below the limit of quantitation (LOQ) and above the method detection limit were qualified as estimated, (J), due to uncertainty near the detection limit.

A MS duplicate (MSD) sample had a percent recovery (%R) that was non-compliant for a VOC analyte and a MS/MSD relative percent differences (RPD) that exceeded the quality control limit for an analyte. No validation action was taken as this was not a spiked sample from this SDG.

Fifty-two (52) analytes were reported for VOCs for Method 8260C.

Non-detected sample results were reported to the LOD.

The VOC results for aqueous samples BP-VPB135-GW-398, BP-VPB136-GW-461, BP-VPB136-GW-481, BP-VPB136-GW-501, and, BP-VPB136-GW-521 were reported in soil units of µg/kg uncorrected for moisture content.

Sample BP-VPB136-GW-381 had VOCs, including naphthalene and tert butyl alcohol, identified in the tentatively identified compound (TIC) page for the laboratory sample analysis report. This information is included in Appendix B of this report.

EXECUTIVE SUMMARY

Laboratory Performance Issues: Sample VOC results were qualified for RRF criteria non-compliance and trip blank contamination.

Other Factors Affecting Data Quality: Positive results below the Limit of Detection (LOD) and above the method detection limit were qualified as estimated, (J), due to uncertainty near the detection limit.

The data for these analyses were reviewed with reference to the USEPA Region II Hazardous Waste Support Branch Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260C SOP #HW-24 Revision #2 August 2008 and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (April 2009).

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Chemist/Data Validator

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Joseph A. Samchuck
Data Validation Quality Assurance Officer

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Appendix D - Support Docum entation

APPENDIX A

QUALIFIED LABORATORY RESULTS

Value Qualifier Key (Val Qual)

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The result is an estimated non-detected quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

DATA QUALIFICATION CODE (QUAL CODE)

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is less than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed

PROJ_NO: 02751	NSAMPLE	BP-VPB136-GW-381			BP-VPB136-GW-401			BP-VPB136-GW-421			BP-VPB136-GW-441		
SDG: D3470	LAB_ID	D3470-02			D3470-03			D3470-04			D3470-05		
FRACTION: OV	SAMP_DATE	7/17/2012			7/17/2012			7/17/2012			7/18/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2,2-TETRACHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.69	J	P
1,1-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2,3-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2,4-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMOETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,3-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,4-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,4-DIOXANE		10	UR	C	10	UR	C	10	UR	C	10	UR	C
2-BUTANONE		5.1			2.5	U		2.5	U		2.5	U	
2-HEXANONE		2.5	U		2.5	U		2.5	U		2.5	U	
4-METHYL-2-PENTANONE		2.5	U		2.5	U		2.5	U		2.5	U	
ACETONE		35			4.8	J	P	5.6			5.7		
BENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOCHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMODICHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOFORM		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CARBON DISULFIDE		0.56	U	B	0.5	U	B	0.5	U		0.5	U	
CARBON TETRACHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLORODIBROMOMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROFORM		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROMETHANE		0.5	U	B	0.5	U	B	0.5	U	B	0.53	U	B
CIS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U		0.5	U	
CYCLOHEXANE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB136-GW-541			BP-VPB-TB-071712			BP-VPB-TB-071912		
SDG: D3470	LAB_ID	D3470-10			D3470-01			D3470-11		
FRACTION: OV	SAMP_DATE	7/19/2012			7/17/2012			7/19/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U	
1,1,2,2-TETRACHLOROETHANE		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		1.7			0.5	U		0.5	U	
1,1-DICHLOROETHANE		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHENE		1.1			0.5	U		0.5	U	
1,2,3-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U	
1,2,4-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U		0.5	U		0.5	U	
1,2-DIBROMOETHANE		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROPROPANE		0.5	U		0.5	U		0.5	U	
1,3-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U	
1,4-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U	
1,4-DIOXANE		10	UR	C	10	UR	C	10	UR	C
2-BUTANONE		2.5	U		2.5	U		2.5	U	
2-HEXANONE		2.5	U		2.5	U		2.5	U	
4-METHYL-2-PENTANONE		2.5	U		2.5	U		2.5	U	
ACETONE		4.1	J	P	2.5	U		2.5	U	
BENZENE		0.5	U		0.5	U		0.5	U	
BROMOCHLOROMETHANE		0.5	U		0.5	U		0.5	U	
BROMODICHLOROMETHANE		0.5	U		0.5	U		0.5	U	
BROMOFORM		0.5	U		0.5	U		0.5	U	
BROMOMETHANE		0.5	U		0.5	U		0.5	U	
CARBON DISULFIDE		0.5	U		0.5	J	P	0.45	J	P
CARBON TETRACHLORIDE		0.5	U		0.5	U		0.5	U	
CHLOROBENZENE		0.5	U		0.5	U		0.5	U	
CHLORODIBROMOMETHANE		0.5	U		0.5	U		0.5	U	
CHLOROETHANE		0.5	U		0.5	U		0.5	U	
CHLOROFORM		0.5	U		0.5	U		0.5	U	
CHLOROMETHANE		0.5	U	B	0.46	J	P	0.4	J	P
CIS-1,2-DICHLOROETHENE		0.71	J	P	0.5	U		0.5	U	
CIS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U	
CYCLOHEXANE		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB136-GW-381			BP-VPB136-GW-401			BP-VPB136-GW-421			BP-VPB136-GW-441		
SDG: D3470	LAB_ID	D3470-02			D3470-03			D3470-04			D3470-05		
FRACTION: OV	SAMP_DATE	7/17/2012			7/17/2012			7/17/2012			7/18/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.42	J	P
ETHYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
ISOPROPYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
M+P-XYLENES		1	U		1	U		1	U		1	U	
METHYL ACETATE		0.5	U		0.5	U		0.5	U		0.5	U	
METHYL CYCLOHEXANE		0.5	U		0.5	U		0.5	U		0.5	U	
METHYL TERT-BUTYL ETHER		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
O-XYLENE		0.5	U		0.5	U		0.5	U		0.5	U	
STYRENE		0.5	U		0.5	U		0.5	U		0.5	U	
TETRACHLOROETHENE		0.5	U		0.5	U		0.5	U		2.2		
TOLUENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		0.77	J	P	1			1.8			15		
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		1.8		
VINYL CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB136-GW-541			BP-VPB-TB-071712			BP-VPB-TB-071912		
SDG: D3470	LAB_ID	D3470-10			D3470-01			D3470-11		
FRACTION: OV	SAMP_DATE	7/19/2012			7/17/2012			7/19/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.5	U		0.5	U		0.5	U	
ISOPROPYLBENZENE		0.5	U		0.5	U		0.5	U	
M+P-XYLENES		1	U		1	U		1	U	
METHYL ACETATE		0.5	U		0.5	U		0.5	U	
METHYL CYCLOHEXANE		0.5	U		0.5	U		0.5	U	
METHYL TERT-BUTYL ETHER		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U		0.47	J	P
O-XYLENE		0.5	U		0.5	U		0.5	U	
STYRENE		0.5	U		0.5	U		0.5	U	
TETRACHLOROETHENE		16			0.5	U		0.5	U	
TOLUENE		0.5	U		0.5	U		0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U	
TRANS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		13			0.5	U		0.5	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB135-GW-398			BP-VPB136-GW-461			BP-VPB136-GW-481			BP-VPB136-GW-501		
SDG: D3470	LAB_ID	D3470-12			D3470-06			D3470-07			D3470-08		
FRACTION: OV	SAMP_DATE	7/19/2012			7/18/2012			7/18/2012			7/19/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		2.5	U		2.5	U		2.45	U		2.5	U	
1,1,2,2-TETRACHLOROETHANE		2.5	U		2.5	U		2.45	U		2.5	U	
1,1,2-TRICHLOROETHANE		2.5	U		2.5	U		2.45	U		2.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		2.5	U		2.5	U		2.45	U		2.5	U	
1,1-DICHLOROETHANE		2.5	U		2.5	U		2.45	U		2.5	U	
1,1-DICHLOROETHENE		2.5	U		2.5	U		2.45	U		2.5	U	
1,2,3-TRICHLOROBENZENE		2.5	U		2.5	U		2.45	U		2.5	U	
1,2,4-TRICHLOROBENZENE		2.5	U		2.5	U		2.45	U		2.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		2.5	U		2.5	U		2.45	U		2.5	U	
1,2-DIBROMOETHANE		2.5	U		2.5	U		2.45	U		2.5	U	
1,2-DICHLOROBENZENE		2.5	U		2.5	U		2.45	U		2.5	U	
1,2-DICHLOROETHANE		2.5	U		2.5	U		2.45	U		2.5	U	
1,2-DICHLOROPROPANE		2.5	U		2.5	U		2.45	U		2.5	U	
1,3-DICHLOROBENZENE		2.5	U		2.5	U		2.45	U		2.5	U	
1,4-DICHLOROBENZENE		2.5	U		2.5	U		2.45	U		2.5	U	
1,4-DIOXANE		50	UR	C	50	UR	C	49.5	UR	C	50	UR	C
2-BUTANONE		12.5	U		12.5	U		12.5	U		12.5	U	
2-HEXANONE		12.5	U		12.5	U		12.5	U		12.5	U	
4-METHYL-2-PENTANONE		12.5	U		12.5	U		12.5	U		12.5	U	
ACETONE		12.5	U		12.5	U		12.5	U		12.5	U	
BENZENE		2.5	U		2.5	U		2.45	U		2.5	U	
BROMOCHLOROMETHANE		2.5	U		2.5	U		2.45	U		2.5	U	
BROMODICHLOROMETHANE		2.5	U		2.5	U		2.45	U		2.5	U	
BROMOFORM		2.5	U		2.5	U		2.45	U		2.5	U	
BROMOMETHANE		2.5	U		2.5	U		2.45	U		2.5	U	
CARBON DISULFIDE		2.5	U		2.5	U		2.45	U		2.5	U	
CARBON TETRACHLORIDE		2.5	U		2.5	U		2.45	U		2.5	U	
CHLOROBENZENE		2.5	U		2.5	U		2.45	U		2.5	U	
CHLORODIBROMOMETHANE		2.5	U		2.5	U		2.45	U		2.5	U	
CHLOROETHANE		2.5	U		2.5	U		2.45	U		2.5	U	
CHLOROFORM		2.5	U		2.5	U		2.45	U		2.5	U	
CHLOROMETHANE		2.5	U		2.5	U		2.45	U		2.5	U	
CIS-1,2-DICHLOROETHENE		2.5	U		2.5	U		2.45	U		2.5	U	
CIS-1,3-DICHLOROPROPENE		2.5	U		2.5	U		2.45	U		2.5	U	
CYCLOHEXANE		2.5	U		2.5	U		2.45	U		2.5	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB136-GW-521		
SDG: D3470	LAB_ID	D3470-09		
FRACTION: OV	SAMP_DATE	7/19/2012		
MEDIA: SOIL	QC_TYPE	NM		
	UNITS	UG/KG		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		12.5	U	
1,1,2,2-TETRACHLOROETHANE		12.5	U	
1,1,2-TRICHLOROETHANE		12.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		12.5	U	
1,1-DICHLOROETHANE		12.5	U	
1,1-DICHLOROETHENE		12.5	U	
1,2,3-TRICHLOROBENZENE		12.5	U	
1,2,4-TRICHLOROBENZENE		12.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		12.5	U	
1,2-DIBROMOETHANE		12.5	U	
1,2-DICHLOROBENZENE		12.5	U	
1,2-DICHLOROETHANE		12.5	U	
1,2-DICHLOROPROPANE		12.5	U	
1,3-DICHLOROBENZENE		12.5	U	
1,4-DICHLOROBENZENE		12.5	U	
1,4-DIOXANE		250	UR	C
2-BUTANONE		60	U	
2-HEXANONE		60	U	
4-METHYL-2-PENTANONE		60	U	
ACETONE		60	U	
BENZENE		12.5	U	
BROMOCHLOROMETHANE		12.5	U	
BROMODICHLOROMETHANE		12.5	U	
BROMOFORM		12.5	U	
BROMOMETHANE		12.5	U	
CARBON DISULFIDE		12.5	U	
CARBON TETRACHLORIDE		12.5	U	
CHLOROBENZENE		12.5	U	
CHLORODIBROMOMETHANE		12.5	U	
CHLOROETHANE		12.5	U	
CHLOROFORM		12.5	U	
CHLOROMETHANE		12.5	U	
CIS-1,2-DICHLOROETHENE		12.5	U	
CIS-1,3-DICHLOROPROPENE		12.5	U	
CYCLOHEXANE		12.5	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB135-GW-398			BP-VPB136-GW-461			BP-VPB136-GW-481			BP-VPB136-GW-501		
SDG: D3470	LAB_ID	D3470-12			D3470-06			D3470-07			D3470-08		
FRACTION: OV	SAMP_DATE	7/19/2012			7/18/2012			7/18/2012			7/19/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		2.5	U		2.5	U		2.45	U		2.5	U	
ETHYLBENZENE		2.5	U		2.5	U		2.45	U		2.5	U	
ISOPROPYLBENZENE		2.5	U		2.5	U		2.45	U		2.5	U	
M+P-XYLENES		5	U		5	U		4.95	U		5	U	
METHYL ACETATE		2.5	U		2.5	U		2.45	U		2.5	U	
METHYL CYCLOHEXANE		2.5	U		2.5	U		2.45	U		2.5	U	
METHYL TERT-BUTYL ETHER		2.5	U		2.5	U		2.45	U		2.5	U	
METHYLENE CHLORIDE		2.5	U		2.5	U		2.45	U		2.5	U	
O-XYLENE		2.5	U		2.5	U		2.45	U		2.5	U	
STYRENE		2.5	U		2.5	U		2.45	U		2.5	U	
TETRACHLOROETHENE		2.5	U		2.5	U		2.45	U		2.5	U	
TOLUENE		2.5	U		2.5	U		2.45	U		2.5	U	
TRANS-1,2-DICHLOROETHENE		2.5	U		2.5	U		2.45	U		2.5	U	
TRANS-1,3-DICHLOROPROPENE		2.5	U		2.5	U		2.45	U		2.5	U	
TRICHLOROETHENE		2.5	U		2.5	U		2.45	U		2.5	U	
TRICHLOROFLUOROMETHANE		2.5	U		2.5	U		2.45	U		2.5	U	
VINYL CHLORIDE		2.5	U		2.5	U		2.45	U		2.5	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB136-GW-521		
SDG: D3470	LAB_ID	D3470-09		
FRACTION: OV	SAMP_DATE	7/19/2012		
MEDIA: SOIL	QC_TYPE	NM		
	UNITS	UG/KG		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		12.5	U	
ETHYLBENZENE		12.5	U	
ISOPROPYLBENZENE		12.5	U	
M+P-XYLENES		25	U	
METHYL ACETATE		12.5	U	
METHYL CYCLOHEXANE		12.5	U	
METHYL TERT-BUTYL ETHER		12.5	U	
METHYLENE CHLORIDE		12.5	U	
O-XYLENE		12.5	U	
STYRENE		12.5	U	
TETRACHLOROETHENE		12.5	U	
TOLUENE		12.5	U	
TRANS-1,2-DICHLOROETHENE		12.5	U	
TRANS-1,3-DICHLOROPROPENE		12.5	U	
TRICHLOROETHENE		12.5	U	
TRICHLOROFLUOROMETHANE		12.5	U	
VINYL CHLORIDE		12.5	U	

Tetra Tech INC **INTERNAL CORRESPONDENCE**

TO:	**D. BRAYACK**	**DATE:**	**SEPTEMBER 21, 2012**
FROM:	**JOSEPH KALINYAK**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC**
NWIRP BETHPAGE, CTO WE62
SDG D3507

SAMPLES: 8 / Aqueous / VOC

BP-TB-072012	BP-TT102D-072012	BP-TT102D2-072312
BP-VPB-TB-072012	BP-VPB-TB-072012-1	BP-VPB135-GW-478
BP-VPB136-GW-581	BP-VPB136-SW-072312	

7 / Aqueous Samples Analyzed as Soils / VOC

BP-VPB135-GW-418	BP-VPB135-GW-438	BP-VPB135-GW-458
BP-VPB136-DM-620	BP-VPB136-GW-561	BP-VPB136-GW-601
BP-VPB136-GW-621		

Overview

The sample set for NWIRP Bethpage, CTO WE62, SDG D3507 consisted of fifteen (15) aqueous samples including three (3) aqueous trip blank samples. Seven (7) of the samples had significant sediment in the samples and were analyzed by the laboratory as soils. All samples were analyzed for volatile organic compounds (VOC) as listed above. No field duplicate sample pairs were included in this Sample Delivery Group (SDG).

The samples were collected by Tetra Tech on July 20 and 23, 2012 and analyzed by ChemTech laboratory. The sample analyses were conducted in accordance with EPA SW-846 Method 8260C for VOCs, analytical and reporting protocols. The data contained in this SDG were validated with regard to the following parameters:

* • Data completeness
* • Hold times
* • GC/MS System Tuning and Performance
• Initial/continuing calibrations
* • Laboratory Blank Results
• Laboratory Control Sample Recoveries
• Matrix Spike/Matrix Spike Duplicate Recoveries
* • Surrogate Spike Recoveries
* • Internal Standard Recoveries
* • Compound Identification
* • Compound Quantitation
* • Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Qualified analytical results are presented in Appendix A, results as reported by the laboratory are presented in Appendix B, Region II data validation forms are presented in Appendix C, and documentation supporting these findings is presented in Appendix D.

VOC

The initial calibration average relative response factor (RRF) was less than the 0.05 criteria for 1,4-dioxane for instrument MSVOA_F on 07/17/12 and for instrument MSVOA_R on 07/23/12 and for all continuing calibration verifications (CCVs).

Affected samples: All samples

Action: The non-detected 1,4-dioxane results for all samples were qualified rejected, (UR).

The CCV percent differences (%D) were greater than the 20% quality control limit for chloroethane and bromochloromethane for instrument MSVOA_R on 07/24/12 @ 12:15.

Affected samples:

BP-TB-072012	BP-TT102D-072012	BP-TT102D2-072312
BP-VPB-TB-072012	BP-VPB-TB-072012-1	BP-VPB135-GW-478
BP-VPB136-GW-581	BP-VPB136-SW-072312	

Action: The non-detected chloroethane and bromochloromethane results for the sample were qualified estimated, (UJ).

Additional Comments

Positive results below the limit of quantitation (LOQ) and above the method detection limit were qualified as estimated, (J), due to uncertainty near the detection limit.

The laboratory control sample (LCS)/LCS duplicate (LCSD) relative percent difference (RPD) was greater than the quality control limit for chloroethane for batch VR0724WBSD.

Affected samples:

BP-TB-072012	BP-TT102D-072012	BP-TT102D2-072312
BP-VPB-TB-072012	BP-VPB-TB-072012-1	BP-VPB135-GW-478
BP-VPB136-GW-581	BP-VPB136-SW-072312	

Action: The sample results for chloroethane were non-detected and therefore no validation action was necessary.

A matrix spike (MS) sample and MS duplicate (MSD) sample had %Rs that were non-compliant and MS/MSD relative percent differences (RPD) that exceeded the quality control limits for several analytes for VOC method 8260C. No validation action was taken as the spiked sample was not from this SDG.

Fifty-two (52) analytes were reported for VOCs for Method 8260C.

Non-detected sample results were reported to the LOD.

The VOC results for aqueous samples BP-VPB135-GW-418, BP-VPB135-GW-438, BP-VPB135-GW-458, BP-VPB136-DM-620, BP-VPB136-GW-561, BP-VPB136-GW-601, and BP-VPB136-GW-621 were reported in soil units of µg/kg uncorrected for moisture content.

Sample BP-VPB136-GW-561 had a VOC identified in the tentatively identified compound (TIC) page for the laboratory sample analysis report. This information is included in Appendix B of this report.

EXECUTIVE SUMMARY

Laboratory Performance Issues: Sample VOC results were qualified for RRF criteria and CCV %D non-compliances.

Other Factors Affecting Data Quality: Positive results below the Limit of Detection (LOD) and above the method detection limit were qualified as estimated, (J), due to uncertainty near the detection limit.

The data for these analyses were reviewed with reference to the USEPA Region II Hazardous Waste Support Branch Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260C SOP #HW-24 Revision #2 August 2008 and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (April 2009).

for Tetra Tech
Joseph Kalinyak
Chemist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:
Appendix A - Qualified Analytical Results
Appendix B - Results as Reported by the Laboratory
Appendix C – Region II Data Validation Forms
Appendix D - Support Documentation

Appendix A

Qualified Analytical Results

Value Qualifier Key (Val Qual)

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The result is an estimated non-detected quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

DATA QUALIFICATION CODE (QUAL CODE)

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's r < 0.995
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is less than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed

PROJ_NO: 02751	NSAMPLE	BP-TB-072012			BP-TT102D-072012			BP-TT102D2-072312			BP-VPB135-GW-478		
SDG: D3507	LAB_ID	D3507-13			D3507-14			D3507-15			D3507-12		
FRACTION: OV	SAMP_DATE	7/20/2012			7/20/2012			7/23/2012			7/23/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2,2-TETRACHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		1.4		
1,1-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2,3-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2,4-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMOETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,3-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,4-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,4-DIOXANE		10	UR	C	10	UR	C	10	UR	C	10	UR	C
2-BUTANONE		2.5	U		2.5	U		2.5	U		2.5	U	
2-HEXANONE		2.5	U		2.5	U		2.5	U		2.5	U	
4-METHYL-2-PENTANONE		2.5	U		2.5	U		2.5	U		2.5	U	
ACETONE		2.5	U		2.5	U		2.5	U		16		
BENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOCHLOROMETHANE		0.5	UJ	C	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C
BROMODICHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOFORM		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CARBON DISULFIDE		0.5	U		0.5	U		0.5	U		0.5	U	
CARBON TETRACHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLORODIBROMOMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROETHANE		0.5	UJ	C	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C
CHLOROFORM		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U		0.5	U	
CYCLOHEXANE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB136-GW-581			BP-VPB136-SW-072312			BP-VPB-TB-072012			BP-VPB-TB-072012-1		
SDG: D3507	LAB_ID	D3507-03			D3507-05			D3507-01			D3507-08		
FRACTION: OV	SAMP_DATE	7/23/2012			7/23/2012			7/20/2012			7/20/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2,2-TETRACHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2,3-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2,4-TRICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DIBROMOETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,2-DICHLOROPROPANE		0.5	U		0.5	U		0.5	U		0.5	U	
1,3-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,4-DICHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
1,4-DIOXANE		10	UR	C	10	UR	C	10	UR	C	10	UR	C
2-BUTANONE		2.5	U		2.5	U		2.5	U		2.5	U	
2-HEXANONE		2.5	U		2.5	U		2.5	U		2.5	U	
4-METHYL-2-PENTANONE		2.5	U		2.5	U		2.5	U		2.5	U	
ACETONE		9			2.5	U		2.5	U		2.5	U	
BENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOCHLOROMETHANE		0.5	UJ	C	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C
BROMODICHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOFORM		0.5	U		0.5	U		0.5	U		0.5	U	
BROMOMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CARBON DISULFIDE		0.5	U		2.4			0.5	U		0.5	U	
CARBON TETRACHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLORODIBROMOMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROETHANE		0.5	UJ	C	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C
CHLOROFORM		0.5	U		0.5	U		0.5	U		0.5	U	
CHLOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
CIS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U		0.5	U	
CYCLOHEXANE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02751	NSAMPLE	BP-TB-072012			BP-TT102D-072012			BP-TT102D2-072312			BP-VPB135-GW-478		
SDG: D3507	LAB_ID	D3507-13			D3507-14			D3507-15			D3507-12		
FRACTION: OV	SAMP_DATE	7/20/2012			7/20/2012			7/23/2012			7/23/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
ISOPROPYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
M+P-XYLENES		1	U		1	U		1	U		1	U	
METHYL ACETATE		0.5	U		0.5	U		0.5	U		0.5	U	
METHYL CYCLOHEXANE		0.5	U		0.5	U		0.5	U		0.5	U	
METHYL TERT-BUTYL ETHER		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
O-XYLENE		0.5	U		0.5	U		0.5	U		0.5	U	
STYRENE		0.5	U		0.5	U		0.5	U		0.5	U	
TETRACHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TOLUENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		0.5	U		0.5	U		0.5	U		3.1		
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		3.4		
VINYL CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB136-GW-581			BP-VPB136-SW-072312			BP-VPB-TB-072012			BP-VPB-TB-072012-1		
SDG: D3507	LAB_ID	D3507-03			D3507-05			D3507-01			D3507-08		
FRACTION: OV	SAMP_DATE	7/23/2012			7/23/2012			7/20/2012			7/20/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
ETHYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
ISOPROPYLBENZENE		0.5	U		0.5	U		0.5	U		0.5	U	
M+P-XYLENES		1	U		1	U		1	U		1	U	
METHYL ACETATE		0.5	U		0.5	U		0.5	U		0.5	U	
METHYL CYCLOHEXANE		0.5	U		0.5	U		0.5	U		0.5	U	
METHYL TERT-BUTYL ETHER		0.5	U		0.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	
O-XYLENE		0.5	U		0.5	U		0.5	U		0.5	U	
STYRENE		0.5	U		0.5	U		0.5	U		0.5	U	
TETRACHLOROETHENE		1.5			0.5	U		0.5	U		0.5	U	
TOLUENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,2-DICHLOROETHENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRANS-1,3-DICHLOROPROPENE		0.5	U		0.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		2.6			0.5	U		0.5	U		0.5	U	
TRICHLOROFLUOROMETHANE		0.5	U		0.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		0.5	U		0.5	U		0.5	U		0.5	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB135-GW-418			BP-VPB135-GW-438			BP-VPB135-GW-458			BP-VPB136-DM-620		
SDG: D3507	LAB_ID	D3507-09			D3507-10			D3507-11			D3507-06		
FRACTION: OV	SAMP_DATE	7/20/2012			7/20/2012			7/23/2012			7/23/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		2.5	U		12.5	U		2.5	U		2.45	U	
1,1,2,2-TETRACHLOROETHANE		2.5	U		12.5	U		2.5	U		2.45	U	
1,1,2-TRICHLOROETHANE		2.5	U		12.5	U		2.5	U		2.45	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		2.5	U		12.5	U		2.5	U		2.45	U	
1,1-DICHLOROETHANE		2.5	U		12.5	U		2.5	U		2.45	U	
1,1-DICHLOROETHENE		2.5	U		12.5	U		2.5	U		2.45	U	
1,2,3-TRICHLOROBENZENE		2.5	U		12.5	U		2.5	U		2.45	U	
1,2,4-TRICHLOROBENZENE		2.5	U		12.5	U		2.5	U		2.45	U	
1,2-DIBROMO-3-CHLOROPROPANE		2.5	U		12.5	U		2.5	U		2.45	U	
1,2-DIBROMOETHANE		2.5	U		12.5	U		2.5	U		2.45	U	
1,2-DICHLOROBENZENE		2.5	U		12.5	U		2.5	U		2.45	U	
1,2-DICHLOROETHANE		2.5	U		12.5	U		2.5	U		2.45	U	
1,2-DICHLOROPROPANE		2.5	U		12.5	U		2.5	U		2.45	U	
1,3-DICHLOROBENZENE		2.5	U		12.5	U		2.5	U		2.45	U	
1,4-DICHLOROBENZENE		2.5	U		12.5	U		2.5	U		2.45	U	
1,4-DIOXANE		50	UR	C	250	UR	C	50	UR	C	49.5	UR	C
2-BUTANONE		12.5	U		60	U		12.5	U		12.5	U	
2-HEXANONE		12.5	U		60	U		12.5	U		12.5	U	
4-METHYL-2-PENTANONE		12.5	U		60	U		12.5	U		12.5	U	
ACETONE		24	J	P	60	U		12.5	U		12.5	U	
BENZENE		2.5	U		12.5	U		2.5	U		2.45	U	
BROMOCHLOROMETHANE		2.5	U		12.5	U		2.5	U		2.45	U	
BROMODICHLOROMETHANE		2.5	U		12.5	U		2.5	U		2.45	U	
BROMOFORM		2.5	U		12.5	U		2.5	U		2.45	U	
BROMOMETHANE		2.5	U		12.5	U		2.5	U		2.45	U	
CARBON DISULFIDE		2.5	U		12.5	U		2.5	U		2.45	U	
CARBON TETRACHLORIDE		2.5	U		12.5	U		2.5	U		2.45	U	
CHLOROBENZENE		2.5	U		12.5	U		2.5	U		2.45	U	
CHLORODIBROMOMETHANE		2.5	U		12.5	U		2.5	U		2.45	U	
CHLOROETHANE		2.5	U		12.5	U		2.5	U		2.45	U	
CHLOROFORM		2.5	U		12.5	U		2.5	U		2.45	U	
CHLOROMETHANE		2.5	U		12.5	U		2.5	U		2.45	U	
CIS-1,2-DICHLOROETHENE		2.5	U		12.5	U		2.5	U		2.45	U	
CIS-1,3-DICHLOROPROPENE		2.5	U		12.5	U		2.5	U		2.45	U	
CYCLOHEXANE		2.5	U		12.5	U		2.5	U		2.45	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB136-GW-561			BP-VPB136-GW-601			BP-VPB136-GW-621		
SDG: D3507	LAB_ID	D3507-02			D3507-04			D3507-07		
FRACTION: OV	SAMP_DATE	7/20/2012			7/23/2012			7/23/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		2.5	U		2.5	U		2.5	U	
1,1,2,2-TETRACHLOROETHANE		2.5	U		2.5	U		2.5	U	
1,1,2-TRICHLOROETHANE		2.5	U		2.5	U		2.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		2.5	U		2.5	U		2.5	U	
1,1-DICHLOROETHANE		2.5	U		2.5	U		2.5	U	
1,1-DICHLOROETHENE		2.5	U		2.5	U		2.5	U	
1,2,3-TRICHLOROBENZENE		2.5	U		2.5	U		2.5	U	
1,2,4-TRICHLOROBENZENE		2.5	U		2.5	U		2.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		2.5	U		2.5	U		2.5	U	
1,2-DIBROMOETHANE		2.5	U		2.5	U		2.5	U	
1,2-DICHLOROBENZENE		2.5	U		2.5	U		2.5	U	
1,2-DICHLOROETHANE		2.5	U		2.5	U		2.5	U	
1,2-DICHLOROPROPANE		2.5	U		2.5	U		2.5	U	
1,3-DICHLOROBENZENE		2.5	U		2.5	U		2.5	U	
1,4-DICHLOROBENZENE		2.5	U		2.5	U		2.5	U	
1,4-DIOXANE		50	UR	C	50	UR	C	50	UR	C
2-BUTANONE		12.5	U		12.5	U		12.5	U	
2-HEXANONE		12.5	U		12.5	U		12.5	U	
4-METHYL-2-PENTANONE		12.5	U		12.5	U		12.5	U	
ACETONE		12.5	U		12.5	U		12.5	U	
BENZENE		2.5	U		2.5	U		2.5	U	
BROMOCHLOROMETHANE		2.5	U		2.5	U		2.5	U	
BROMODICHLOROMETHANE		2.5	U		2.5	U		2.5	U	
BROMOFORM		2.5	U		2.5	U		2.5	U	
BROMOMETHANE		2.5	U		2.5	U		2.5	U	
CARBON DISULFIDE		2.5	U		2.5	U		2.5	U	
CARBON TETRACHLORIDE		2.5	U		2.5	U		2.5	U	
CHLOROBENZENE		2.5	U		2.5	U		2.5	U	
CHLORODIBROMOMETHANE		2.5	U		2.5	U		2.5	U	
CHLOROETHANE		2.5	U		2.5	U		2.5	U	
CHLOROFORM		2.5	U		2.5	U		2.5	U	
CHLOROMETHANE		2.5	U		2.5	U		2.5	U	
CIS-1,2-DICHLOROETHENE		2.5	U		2.5	U		2.5	U	
CIS-1,3-DICHLOROPROPENE		2.5	U		2.5	U		2.5	U	
CYCLOHEXANE		2.5	U		2.5	U		2.5	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB135-GW-418			BP-VPB135-GW-438			BP-VPB135-GW-458			BP-VPB136-DM-620		
SDG: D3507	LAB_ID	D3507-09			D3507-10			D3507-11			D3507-06		
FRACTION: OV	SAMP_DATE	7/20/2012			7/20/2012			7/23/2012			7/23/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		2.5	U		12.5	U		2.5	U		2.45	U	
ETHYLBENZENE		2.5	U		12.5	U		2.5	U		2.45	U	
ISOPROPYLBENZENE		2.5	U		12.5	U		2.5	U		2.45	U	
M+P-XYLENES		5	U		25	U		5	U		4.95	U	
METHYL ACETATE		2.5	U		12.5	U		2.5	U		2.45	U	
METHYL CYCLOHEXANE		2.5	U		12.5	U		2.5	U		2.45	U	
METHYL TERT-BUTYL ETHER		2.5	U		12.5	U		2.5	U		2.45	U	
METHYLENE CHLORIDE		2.7	J	P	16	J	P	2.5	J	P	2.8	J	P
O-XYLENE		2.5	U		12.5	U		2.5	U		2.45	U	
STYRENE		2.5	U		12.5	U		2.5	U		2.45	U	
TETRACHLOROETHENE		2.5	U		12.5	U		2.5	U		2.45	U	
TOLUENE		2.5	U		12.5	U		2.5	U		2.45	U	
TRANS-1,2-DICHLOROETHENE		2.5	U		12.5	U		2.5	U		2.45	U	
TRANS-1,3-DICHLOROPROPENE		2.5	U		12.5	U		2.5	U		2.45	U	
TRICHLOROETHENE		1.5	J	P	12.5	U		2.5	U		2.45	U	
TRICHLOROFLUOROMETHANE		2.5	U		12.5	U		2.5	U		2.45	U	
VINYL CHLORIDE		2.5	U		12.5	U		2.5	U		2.45	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB136-GW-561			BP-VPB136-GW-601			BP-VPB136-GW-621		
SDG: D3507	LAB_ID	D3507-02			D3507-04			D3507-07		
FRACTION: OV	SAMP_DATE	7/20/2012			7/23/2012			7/23/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		2.5	U		2.5	U		2.5	U	
ETHYLBENZENE		2.5	U		2.5	U		2.5	U	
ISOPROPYLBENZENE		2.5	U		2.5	U		2.5	U	
M+P-XYLENES		5	U		5	U		5	U	
METHYL ACETATE		2.5	U		2.5	U		2.5	U	
METHYL CYCLOHEXANE		2.5	U		2.5	U		2.5	U	
METHYL TERT-BUTYL ETHER		2.5	U		2.5	U		2.5	U	
METHYLENE CHLORIDE		2.3	J	P	1.9	J	P	2.6	J	P
O-XYLENE		2.5	U		2.5	U		2.5	U	
STYRENE		2.5	U		2.5	U		2.5	U	
TETRACHLOROETHENE		2.5	U		2.5	U		2.5	U	
TOLUENE		2.5	U		2.5	U		2.5	U	
TRANS-1,2-DICHLOROETHENE		2.5	U		2.5	U		2.5	U	
TRANS-1,3-DICHLOROPROPENE		2.5	U		2.5	U		2.5	U	
TRICHLOROETHENE		2.5	U		2.5	U		2.5	U	
TRICHLOROFLUOROMETHANE		2.5	U		2.5	U		2.5	U	
VINYL CHLORIDE		2.5	U		2.5	U		2.5	U	

Tetra Tech INC **INTERNAL CORRESPONDENCE**

TO:	**D. BRAYACK**	**DATE:**	**SEPTEMBER 4, 2012**
FROM:	**JOSEPH KALINYAK**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC**
INORGANIC DATA VALIDATION – TOC
NWIRP BETHPAGE, CTO WE62
SDG D3596

SAMPLES: 3 / Aqueous / VOC

BP-VPB-TB-072412	BP-VPB-TB-072412-1	BP-VPB135-GW-578

12 / Aqueous Samples Analyzed as Soils / VOC

BP-VPB135-GW-518	BP-VPB135-GW-538	BP-VPB135-GW-558
BP-VPB135-GW-598	BP-VPB135-GW-618	BP-VPB135-GW-638
BP-VPB135-GW-658	BP-VPB136-GW-641	BP-VPB136-GW-661
BP-VPB136-GW-681	BP-VPB136-GW-701	BP-VPB136-GW-741

2 / Aqueous / TOC

BP-VPB135-SO-498	BP-VPB136-SB-761

Overview

The sample set for NWIRP Bethpage, CTO WE62, SDG D3596 consisted of fifteen (15) aqueous samples including two (2) aqueous trip blank samples and two (2) soil samples. Twelve (12) of the aqueous samples had significant sediment in the samples and were analyzed by the laboratory as soils. All aqueous samples were analyzed for volatile organic compounds (VOC) and the two (2) soil samples were analyzed for total organic compounds (TOC), as listed above. No field duplicate sample pairs were included in this Sample Delivery Group (SDG).

The samples were collected by Tetra Tech on July 24, 25, and 26, 2012 and analyzed by ChemTech laboratory. The sample analyses were conducted in accordance with EPA SW-846 Method 8260C for VOCs and EPA Method 9060 for TOCs, analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters:

*	• Data completeness
*	• Hold times
*	• GC/MS System Tuning and Performance
	• Initial/continuing calibrations
*	• Laboratory Blank Results
	• Laboratory Control Sample Recoveries
	• Matrix Spike/Matrix Spike Duplicate Recoveries
*	• Surrogate Spike Recoveries
*	• Internal Standard Recoveries
*	• Compound Identification

* • Compound Quantitation
* • Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Qualified analytical results are presented in Appendix A, results as reported by the laboratory are presented in Appendix B, Region II data validation forms are presented in Appendix C, and documentation supporting these findings is presented in Appendix D.

VOC

The initial calibration average relative response factor (RRF) was less than the 0.05 criteria for 1,4-dioxane for instrument MSVOA_F on 07/17/12 and for instrument MSVOA_R on 07/26/12 and for all continuing calibration verifications (CCVs).

Affected samples: All samples

Action: The non-detected 1,4-dioxane results for all samples were qualified rejected, (UR).

The CCV percent differences (%D) were greater than the 20% quality control limit for 1,1,2,2-tetrachloroethane for instrument MSVOA_F on 07/30/12 @ 12:19.

Affected samples:

BP-VPB135-GW-518	BP-VPB135-GW-538	BP-VPB135-GW-558
BP-VPB135-GW-598	BP-VPB135-GW-618	BP-VPB135-GW-638
BP-VPB135-GW-658	BP-VPB136-GW-641	BP-VPB136-GW-661
BP-VPB136-GW-681	BP-VPB136-GW-701	BP-VPB136-GW-741

Action: The non-detected 1,1,2,2-tetrachloroethane results for the sample were qualified estimated, (UJ).

The CCV %Ds were greater than the 20% quality control limit for cyclohexane and carbon tetrachloride for instrument MSVOA_R on 07/30/12 @ 11:02.

Affected samples:

BP-VPB135-GW-578	BP-VPB-TB-072412	BP-VPB-TB-072412-1

Action: The non-detected cyclohexane and carbon tetrachloride results for the sample were qualified estimated, (UJ).

TOC

No issues were identified.

Additional Comments

Positive results below the limit of quantitation (LOQ) and above the method detection limit were qualified as estimated, (J), due to uncertainty near the detection limit.

The laboratory control sample (LCS) %R and the LCS/LCS duplicate (LCSD) relative percent difference (RPD) were greater than the quality control limits for bromochloromethane for batch VR0730WBSD.

Affected samples:

BP-VPB135-GW-578	BP-VPB-TB-072412	BP-VPB-TB-072412-1

Action: The sample results for chloroethane were non-detected and therefore no validation action was necessary.

The matrix spike (MS)/MS duplicate (MSD) sample RPDs were greater than the quality control limits for several analytes. No validation action was taken as the spiked sample was not from this SDG and validation action was not taken for RPD non-compliances alone.

Fifty-two (52) analytes were reported for VOCs for Method 8260C.

Non-detected sample results were reported to the LOD.

Sample BP-VPB135-GW-578 was analyzed at a dilution of 5X, per the narrative due to a foamy bad matrix, resulting in elevated reported concentrations for non-detected VOC analytes.

The VOC results for aqueous samples BP-VPB135-GW-518, BP-VPB135-GW-538, BP-VPB135-GW-558, BP-VPB135-GW-598, BP-VPB135-GW-618, BP-VPB135-GW-638, BP-VPB135-GW-658, BP-VPB136-GW-641, BP-VPB136-GW-661, BP-VPB136-GW-681, BP-VPB136-GW-701, and BP-VPB136-GW-741 were reported in soil units of µg/kg uncorrected for moisture content.

Sample BP-VPB135-GW-578 had VOCs identified in the tentatively identified compound (TIC) page of the laboratory sample analysis report. The sample VOC TIC information is included in Appendix B of this report.

EXECUTIVE SUMMARY

Laboratory Performance Issues: Sample VOC results were qualified for RRF criteria and CCV %D non-compliances.

Other Factors Affecting Data Quality: Positive results below the Limit of Detection (LOD) and above the method detection limit were qualified as estimated, (J), due to uncertainty near the detection limit.

The data for these analyses were reviewed with reference to the USEPA Region II Hazardous Waste Support Branch Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260C SOP #HW-24 Revision #2 August 2008 and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (April 2009).

Tetra Tech
Joseph Kalinyak
Chemist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:
Appendix A - Qualified Analytical Results
Appendix B - Results as Reported by the Laboratory
Appendix C – Region II Data Validation Forms
Appendix D - Support Documentation

Appendix A

Qualified Analytical Results

Value Qualifier Key (Val Qual)

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The result is an estimated non-detected quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

DATA QUALIFICATION CODE (QUAL CODE)

Qualifier Codes:

A	=	Lab Blank Contamination
B	=	Field Blank Contamination
C	=	Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01	=	GC/MS Tuning Noncompliance
D	=	MS/MSD Recovery Noncompliance
E	=	LCS/LCSD Recovery Noncompliance
F	=	Lab Duplicate Imprecision
G	=	Field Duplicate Imprecision
H	=	Holding Time Exceedance
I	=	ICP Serial Dilution Noncompliance
J	=	ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K	=	ICP Interference - includes ICS % R Noncompliance
L	=	Instrument Calibration Range Exceedance
M	=	Sample Preservation Noncompliance
N	=	Internal Standard Noncompliance
N01	=	Internal Standard Recovery Noncompliance Dioxins
N02	=	Recovery Standard Noncompliance Dioxins
N03	=	Clean-up Standard Noncompliance Dioxins
O	=	Poor Instrument Performance (i.e., base-time drifting)
P	=	Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q	=	Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R	=	Surrogates Recovery Noncompliance
S	=	Pesticide/PCB Resolution
T	=	% Breakdown Noncompliance for DDT and Endrin
U	=	RPD between columns/detectors >40% for positive results determined via GC/HPLC
V	=	Non-linear calibrations; correlation coefficient $r < 0.995$
W	=	EMPC result
X	=	Signal to noise response drop
Y	=	Percent solids <30%
Z	=	Uncertainty at 2 sigma deviation is less than sample activity
Z1	=	Tentatively Identified Compound considered presumptively present
Z2	=	Tentatively Identified Compound column bleed

PROJ_NO: 02751	NSAMPLE	BP-VPB135-GW-578			BP-VPB-TB-072412			BP-VPB-TB-072412-1		
SDG: D3596	LAB_ID	D3596-13			D3596-01			D3596-08		
FRACTION: OV	SAMP_DATE	7/25/2012			7/24/2012			7/24/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		2.5	U		0.5	U		0.5	U	
1,1,2,2-TETRACHLOROETHANE		2.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROETHANE		2.5	U		0.5	U		0.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		2.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHANE		2.5	U		0.5	U		0.5	U	
1,1-DICHLOROETHENE		2.5	U		0.5	U		0.5	U	
1,2,3-TRICHLOROBENZENE		2.5	U		0.5	U		0.5	U	
1,2,4-TRICHLOROBENZENE		2.5	U		0.5	U		0.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		2.5	U		0.5	U		0.5	U	
1,2-DIBROMOETHANE		2.5	U		0.5	U		0.5	U	
1,2-DICHLOROBENZENE		2.5	U		0.5	U		0.5	U	
1,2-DICHLOROETHANE		2.5	U		0.5	U		0.5	U	
1,2-DICHLOROPROPANE		2.5	U		0.5	U		0.5	U	
1,3-DICHLOROBENZENE		2.5	U		0.5	U		0.5	U	
1,4-DICHLOROBENZENE		2.5	U		0.5	U		0.5	U	
1,4-DIOXANE		50	UR	C	10	UR	C	10	UR	C
2-BUTANONE		12.5	U		2.5	U		2.5	U	
2-HEXANONE		12.5	U		2.5	U		2.5	U	
4-METHYL-2-PENTANONE		12.5	U		2.5	U		2.5	U	
ACETONE		12.5	U		2.5	U		2.5	U	
BENZENE		2.5	U		0.5	U		0.5	U	
BROMOCHLOROMETHANE		2.5	U		0.5	U		0.5	U	
BROMODICHLOROMETHANE		2.5	U		0.5	U		0.5	U	
BROMOFORM		2.5	U		0.5	U		0.5	U	
BROMOMETHANE		2.5	U		0.5	U		0.5	U	
CARBON DISULFIDE		2.5	U		0.5	U		0.5	U	
CARBON TETRACHLORIDE		2.5	UJ	C	0.5	UJ	C	0.5	UJ	C
CHLOROBENZENE		2.5	U		0.5	U		0.5	U	
CHLORODIBROMOMETHANE		2.5	U		0.5	U		0.5	U	
CHLOROETHANE		2.5	U		0.5	U		0.5	U	
CHLOROFORM		2.5	U		0.5	U		0.5	U	
CHLOROMETHANE		2.5	U		0.5	U		0.5	U	
CIS-1,2-DICHLOROETHENE		2.5	U		0.5	U		0.5	U	
CIS-1,3-DICHLOROPROPENE		2.5	U		0.5	U		0.5	U	
CYCLOHEXANE		2.5	UJ	C	0.5	UJ	C	0.5	UJ	C

PROJ_NO: 02751	NSAMPLE	BP-VPB135-GW-578			BP-VPB-TB-072412			BP-VPB-TB-072412-1		
SDG: D3596	LAB_ID	D3596-13			D3596-01			D3596-08		
FRACTION: OV	SAMP_DATE	7/25/2012			7/24/2012			7/24/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		2.5	U		0.5	U		0.5	U	
ETHYLBENZENE		2.4	J	P	0.5	U		0.5	U	
ISOPROPYLBENZENE		2.5	U		0.5	U		0.5	U	
M+P-XYLENES		5	U		1	U		1	U	
METHYL ACETATE		2.5	U		0.5	U		0.5	U	
METHYL CYCLOHEXANE		2.5	U		0.5	U		0.5	U	
METHYL TERT-BUTYL ETHER		2.5	U		0.5	U		0.5	U	
METHYLENE CHLORIDE		2.5	U		0.5	U		0.5	U	
O-XYLENE		2.5	U		0.5	U		0.5	U	
STYRENE		2.5	U		0.5	U		0.5	U	
TETRACHLOROETHENE		2.5	U		0.5	U		0.5	U	
TOLUENE		2.5	U		0.5	U		0.5	U	
TRANS-1,2-DICHLOROETHENE		2.5	U		0.5	U		0.5	U	
TRANS-1,3-DICHLOROPROPENE		2.5	U		0.5	U		0.5	U	
TRICHLOROETHENE		2.5	U		0.5	U		0.5	U	
TRICHLOROFLUOROMETHANE		2.5	U		0.5	U		0.5	U	
VINYL CHLORIDE		2.5	U		0.5	U		0.5	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB135-GW-518			BP-VPB135-GW-538			BP-VPB135-GW-558			BP-VPB135-GW-598		
SDG: D3596	LAB_ID	D3596-10			D3596-11			D3596-12			D3596-14		
FRACTION: OV	SAMP_DATE	7/24/2012			7/24/2012			7/25/2012			7/26/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		12	U		12	U		2.5	U		2.5	U	
1,1,2,2-TETRACHLOROETHANE		12	UJ	C	12	UJ	C	2.5	UJ	C	2.5	UJ	C
1,1,2-TRICHLOROETHANE		12	U		12	U		2.5	U		2.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		12	U		12	U		2.5	U		2.5	U	
1,1-DICHLOROETHANE		12	U		12	U		2.5	U		2.5	U	
1,1-DICHLOROETHENE		12	U		12	U		2.5	U		2.5	U	
1,2,3-TRICHLOROBENZENE		12	U		12	U		2.5	U		2.5	U	
1,2,4-TRICHLOROBENZENE		12	U		12	U		2.5	U		2.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		12	U		12	U		2.5	U		2.5	U	
1,2-DIBROMOETHANE		12	U		12	U		2.5	U		2.5	U	
1,2-DICHLOROBENZENE		12	U		12	U		2.5	U		2.5	U	
1,2-DICHLOROETHANE		12	U		12	U		2.5	U		2.5	U	
1,2-DICHLOROPROPANE		12	U		12	U		2.5	U		2.5	U	
1,3-DICHLOROBENZENE		12	U		12	U		2.5	U		2.5	U	
1,4-DICHLOROBENZENE		12	U		12	U		2.5	U		2.5	U	
1,4-DIOXANE		240	UR	C	240	UR	C	50	UR	C	50	UR	C
2-BUTANONE		60	U		60	U		12.5	U		12.5	U	
2-HEXANONE		60	U		60	U		12.5	U		12.5	U	
4-METHYL-2-PENTANONE		60	U		60	U		12.5	U		12.5	U	
ACETONE		60	U		60	U		64			12.5	U	
BENZENE		12	U		12	U		2.5	U		2.5	U	
BROMOCHLOROMETHANE		12	U		12	U		2.5	U		2.5	U	
BROMODICHLOROMETHANE		12	U		12	U		2.5	U		2.5	U	
BROMOFORM		12	U		12	U		2.5	U		2.5	U	
BROMOMETHANE		12	U		12	U		2.5	U		2.5	U	
CARBON DISULFIDE		12	U		12	U		2.5	U		2.5	U	
CARBON TETRACHLORIDE		12	U		12	U		2.5	U		2.5	U	
CHLOROBENZENE		12	U		12	U		2.5	U		2.5	U	
CHLORODIBROMOMETHANE		12	U		12	U		2.5	U		2.5	U	
CHLOROETHANE		12	U		12	U		4.8	J	P	2.5	U	
CHLOROFORM		12	U		12	U		2.5	U		2.5	U	
CHLOROMETHANE		12	U		12	U		2.5	U		2.5	U	
CIS-1,2-DICHLOROETHENE		12	U		12	U		2.5	U		2.5	U	
CIS-1,3-DICHLOROPROPENE		12	U		12	U		2.5	U		2.5	U	
CYCLOHEXANE		12	U		12	U		2.5	U		2.5	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB135-GW-618			BP-VPB135-GW-638			BP-VPB135-GW-658			BP-VPB136-GW-641		
SDG: D3596	LAB_ID	D3596-15			D3596-16			D3596-17			D3596-02		
FRACTION: OV	SAMP_DATE	7/26/2012			7/26/2012			7/26/2012			7/24/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		12.5	U		2.5	U		2.5	U		12.5	U	
1,1,2,2-TETRACHLOROETHANE		12.5	UJ	C	2.5	UJ	C	2.5	UJ	C	12.5	UJ	C
1,1,2-TRICHLOROETHANE		12.5	U		2.5	U		2.5	U		12.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		12.5	U		2.5	U		2.5	U		12.5	U	
1,1-DICHLOROETHANE		12.5	U		2.5	U		2.5	U		12.5	U	
1,1-DICHLOROETHENE		12.5	U		2.5	U		2.5	U		12.5	U	
1,2,3-TRICHLOROBENZENE		12.5	U		2.5	U		2.5	U		12.5	U	
1,2,4-TRICHLOROBENZENE		12.5	U		2.5	U		2.5	U		12.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		12.5	U		2.5	U		2.5	U		12.5	U	
1,2-DIBROMOETHANE		12.5	U		2.5	U		2.5	U		12.5	U	
1,2-DICHLOROBENZENE		12.5	U		2.5	U		2.5	U		12.5	U	
1,2-DICHLOROETHANE		12.5	U		2.5	U		2.5	U		12.5	U	
1,2-DICHLOROPROPANE		12.5	U		2.5	U		2.5	U		12.5	U	
1,3-DICHLOROBENZENE		12.5	U		2.5	U		2.5	U		12.5	U	
1,4-DICHLOROBENZENE		12.5	U		2.5	U		2.5	U		12.5	U	
1,4-DIOXANE		250	UR	C	50	UR	C	50	UR	C	250	UR	C
2-BUTANONE		60	U		12.5	U		12.5	U		60	U	
2-HEXANONE		60	U		12.5	U		12.5	U		60	U	
4-METHYL-2-PENTANONE		60	U		12.5	U		12.5	U		60	U	
ACETONE		60	U		12.5	U		12.5	U		60	U	
BENZENE		12.5	U		2.5	U		2.5	U		12.5	U	
BROMOCHLOROMETHANE		12.5	U		2.5	U		2.5	U		12.5	U	
BROMODICHLOROMETHANE		12.5	U		2.5	U		2.5	U		12.5	U	
BROMOFORM		12.5	U		2.5	U		2.5	U		12.5	U	
BROMOMETHANE		12.5	U		2.5	U		2.5	U		12.5	U	
CARBON DISULFIDE		12.5	U		2.5	U		2.5	U		12.5	U	
CARBON TETRACHLORIDE		12.5	U		2.5	U		2.5	U		12.5	U	
CHLOROBENZENE		12.5	U		2.5	U		2.5	U		12.5	U	
CHLORODIBROMOMETHANE		12.5	U		2.5	U		2.5	U		12.5	U	
CHLOROETHANE		12.5	U		2.5	U		2.5	U		12.5	U	
CHLOROFORM		12.5	U		2.5	U		2.5	U		12.5	U	
CHLOROMETHANE		12.5	U		2.5	U		2.5	U		12.5	U	
CIS-1,2-DICHLOROETHENE		12.5	U		2.5	U		2.5	U		12.5	U	
CIS-1,3-DICHLOROPROPENE		12.5	U		2.5	U		2.5	U		12.5	U	
CYCLOHEXANE		12.5	U		2.5	U		2.5	U		12.5	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB136-GW-661			BP-VPB136-GW-681			BP-VPB136-GW-701			BP-VPB136-GW-741		
SDG: D3596	LAB_ID	D3596-03			D3596-04			D3596-05			D3596-06		
FRACTION: OV	SAMP_DATE	7/24/2012			7/24/2012			7/24/2012			7/25/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		2.5	U		2.5	U		2.5	U		2.5	U	
1,1,2,2-TETRACHLOROETHANE		2.5	UJ	C	2.5	UJ	C	2.5	UJ	C	2.5	UJ	C
1,1,2-TRICHLOROETHANE		2.5	U		2.5	U		2.5	U		2.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		2.5	U		2.5	U		2.5	U		2.5	U	
1,1-DICHLOROETHANE		2.5	U		2.5	U		2.5	U		2.5	U	
1,1-DICHLOROETHENE		2.5	U		2.5	U		2.5	U		2.5	U	
1,2,3-TRICHLOROBENZENE		2.5	U		2.5	U		2.5	U		2.5	U	
1,2,4-TRICHLOROBENZENE		2.5	U		2.5	U		2.5	U		2.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		2.5	U		2.5	U		2.5	U		2.5	U	
1,2-DIBROMOETHANE		2.5	U		2.5	U		2.5	U		2.5	U	
1,2-DICHLOROBENZENE		2.5	U		2.5	U		2.5	U		2.5	U	
1,2-DICHLOROETHANE		2.5	U		2.5	U		2.5	U		2.5	U	
1,2-DICHLOROPROPANE		2.5	U		2.5	U		2.5	U		2.5	U	
1,3-DICHLOROBENZENE		2.5	U		2.5	U		2.5	U		2.5	U	
1,4-DICHLOROBENZENE		2.5	U		2.5	U		2.5	U		2.5	U	
1,4-DIOXANE		50	UR	C	50	UR	C	50	UR	C	50	UR	C
2-BUTANONE		12.5	U		12.5	U		12.5	U		12.5	U	
2-HEXANONE		12.5	U		12.5	U		12.5	U		12.5	U	
4-METHYL-2-PENTANONE		12.5	U		12.5	U		12.5	U		12.5	U	
ACETONE		12.5	U		12.5	U		12.5	U		12.5	U	
BENZENE		2.5	U		2.5	U		2.5	U		2.5	U	
BROMOCHLOROMETHANE		2.5	U		2.5	U		2.5	U		2.5	U	
BROMODICHLOROMETHANE		2.5	U		2.5	U		2.5	U		2.5	U	
BROMOFORM		2.5	U		2.5	U		2.5	U		2.5	U	
BROMOMETHANE		2.5	U		2.5	U		2.5	U		2.5	U	
CARBON DISULFIDE		2.5	U		2.5	U		2.5	U		2.5	U	
CARBON TETRACHLORIDE		2.5	U		2.5	U		2.5	U		2.5	U	
CHLOROBENZENE		2.5	U		2.5	U		2.5	U		2.5	U	
CHLORODIBROMOMETHANE		2.5	U		2.5	U		2.5	U		2.5	U	
CHLOROETHANE		2.5	U		2.5	U		2.5	U		2.5	U	
CHLOROFORM		2.5	U		2.5	U		2.5	U		2.5	U	
CHLOROMETHANE		2.5	U		2.5	U		2.5	U		2.5	U	
CIS-1,2-DICHLOROETHENE		2.5	U		2.5	U		2.5	U		2.5	U	
CIS-1,3-DICHLOROPROPENE		2.5	U		2.5	U		2.5	U		2.5	U	
CYCLOHEXANE		2.5	U		2.5	U		2.5	U		2.5	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB135-GW-518			BP-VPB135-GW-538			BP-VPB135-GW-558			BP-VPB135-GW-598		
SDG: D3596	LAB_ID	D3596-10			D3596-11			D3596-12			D3596-14		
FRACTION: OV	SAMP_DATE	7/24/2012			7/24/2012			7/25/2012			7/26/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		12	U		12	U		2.5	U		2.5	U	
ETHYLBENZENE		12	U		12	U		2.5	U		2.5	U	
ISOPROPYLBENZENE		12	U		12	U		2.5	U		2.5	U	
M+P-XYLENES		24	U		24	U		5	U		5	U	
METHYL ACETATE		12	U		12	U		2.5	U		2.5	U	
METHYL CYCLOHEXANE		12	U		12	U		2.5	U		2.5	U	
METHYL TERT-BUTYL ETHER		12	U		12	U		2.5	U		2.5	U	
METHYLENE CHLORIDE		12	U		12	U		2.5	U		2.5	U	
O-XYLENE		12	U		12	U		2.5	U		2.5	U	
STYRENE		12	U		12	U		2.5	U		2.5	U	
TETRACHLOROETHENE		12	U		12	U		2.5	U		2.5	U	
TOLUENE		12	U		12	U		2.5	U		2.5	U	
TRANS-1,2-DICHLOROETHENE		12	U		12	U		2.5	U		2.5	U	
TRANS-1,3-DICHLOROPROPENE		12	U		12	U		2.5	U		2.5	U	
TRICHLOROETHENE		12	U		12	U		2.5	U		2.5	U	
TRICHLOROFLUOROMETHANE		12	U		12	U		2.5	U		2.5	U	
VINYL CHLORIDE		12	U		12	U		2.5	U		2.5	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB135-GW-618			BP-VPB135-GW-638			BP-VPB135-GW-658			BP-VPB136-GW-641		
SDG: D3596	LAB_ID	D3596-15			D3596-16			D3596-17			D3596-02		
FRACTION: OV	SAMP_DATE	7/26/2012			7/26/2012			7/26/2012			7/24/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		12.5	U		2.5	U		2.5	U		12.5	U	
ETHYLBENZENE		12.5	U		2.5	U		2.5	U		12.5	U	
ISOPROPYLBENZENE		12.5	U		2.5	U		2.5	U		12.5	U	
M+P-XYLENES		25	U		5	U		5	U		25	U	
METHYL ACETATE		12.5	U		2.5	U		2.5	U		12.5	U	
METHYL CYCLOHEXANE		12.5	U		2.5	U		2.5	U		12.5	U	
METHYL TERT-BUTYL ETHER		12.5	U		2.5	U		2.5	U		12.5	U	
METHYLENE CHLORIDE		12.5	U		2.5	U		2.5	U		12.5	U	
O-XYLENE		12.5	U		2.5	U		2.5	U		12.5	U	
STYRENE		12.5	U		2.5	U		2.5	U		12.5	U	
TETRACHLOROETHENE		12.5	U		2.5	U		2.5	U		12.5	U	
TOLUENE		12.5	U		2.5	U		2.5	U		12.5	U	
TRANS-1,2-DICHLOROETHENE		12.5	U		2.5	U		2.5	U		12.5	U	
TRANS-1,3-DICHLOROPROPENE		12.5	U		2.5	U		2.5	U		12.5	U	
TRICHLOROETHENE		12.5	U		2.5	U		2.5	U		12.5	U	
TRICHLOROFLUOROMETHANE		12.5	U		2.5	U		2.5	U		12.5	U	
VINYL CHLORIDE		12.5	U		2.5	U		2.5	U		12.5	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB136-GW-661			BP-VPB136-GW-681			BP-VPB136-GW-701			BP-VPB136-GW-741		
SDG: D3596	LAB_ID	D3596-03			D3596-04			D3596-05			D3596-06		
FRACTION: OV	SAMP_DATE	7/24/2012			7/24/2012			7/24/2012			7/25/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		2.5	U		2.5	U		2.5	U		2.5	U	
ETHYLBENZENE		2.5	U		2.5	U		2.5	U		2.5	U	
ISOPROPYLBENZENE		2.5	U		2.5	U		2.5	U		2.5	U	
M+P-XYLENES		5	U		5	U		5	U		5	U	
METHYL ACETATE		2.5	U		2.5	U		2.5	U		2.5	U	
METHYL CYCLOHEXANE		2.5	U		2.5	U		2.5	U		2.5	U	
METHYL TERT-BUTYL ETHER		2.5	U		2.5	U		2.5	U		2.5	U	
METHYLENE CHLORIDE		2.5	U		2.5	U		2.5	U		2.5	U	
O-XYLENE		2.5	U		2.5	U		2.5	U		2.5	U	
STYRENE		2.5	U		2.5	U		2.5	U		2.5	U	
TETRACHLOROETHENE		2.5	U		2.5	U		2.5	U		2.5	U	
TOLUENE		2.5	U		2.5	U		2.5	U		2.5	U	
TRANS-1,2-DICHLOROETHENE		2.5	U		2.5	U		2.5	U		2.5	U	
TRANS-1,3-DICHLOROPROPENE		2.5	U		2.5	U		2.5	U		2.5	U	
TRICHLOROETHENE		2.5	U		2.5	U		2.5	U		2.5	U	
TRICHLOROFLUOROMETHANE		2.5	U		2.5	U		2.5	U		2.5	U	
VINYL CHLORIDE		2.5	U		2.5	U		2.5	U		2.5	U	

Tetra Tech INC **INTERNAL CORRESPONDENCE**

TO:	**D. BRAYACK**	**DATE:**	**SEPTEMBER 5, 2012**
FROM:	**JOSEPH KALINYAK**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC**
NWIRP BETHPAGE, CTO WE62
SDG D3634

SAMPLES: 2 / Aqueous / VOC

BP-VPB-TB-072712 BP-VPB-TB-072712-1

3 / Aqueous Samples Analyzed as Soils / VOC

BP-VPB135-GW-678 BP-VPB135-GW-698 BP-VPB136-GW-802

1 / Drilling Mud Sample / VOC

BP-VPB135-DM-557

Overview

The sample set for NWIRP Bethpage, CTO WE62, SDG D3634 consisted of five (5) aqueous samples including two (2) aqueous trip blank samples and one (1) drilling mud sample. Three (3) of the aqueous samples and the drilling mud sample had significant sediment and were analyzed by the laboratory as soils. All samples were analyzed for volatile organic compounds (VOC) as listed above. No field duplicate sample pairs were included in this Sample Delivery Group (SDG).

The samples were collected by Tetra Tech on July 27 and 31, 2012 and analyzed by ChemTech laboratory. The sample analyses were conducted in accordance with EPA SW-846 Method 8260C for VOCs, analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters:

- * Data completeness
- * Hold times
- * GC/MS System Tuning and Performance
- Initial/continuing calibrations
- * Laboratory Blank Results
- * Laboratory Control Sample Recoveries
- * Matrix Spike/Matrix Spike Duplicate Recoveries
- * Surrogate Spike Recoveries
- * Internal Standard Recoveries
- * Compound Identification
- * Compound Quantitation
- * Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Qualified analytical results are presented in Appendix A, results as reported by the laboratory are presented in Appendix B, Region II data validation forms are presented in Appendix C, and documentation supporting these findings is presented in Appendix D.

VOC

The initial calibration average relative response factor (RRF) was less than the 0.05 criteria for 1,4-dioxane for instrument MSVOA_F on 07/17/12 and for instrument MSVOA_N on 07/23/12 and for all continuing calibration verifications (CCVs).

Affected samples: All samples

Action: The non-detected 1,4-dioxane results for all samples were qualified rejected, (UR).

The CCV percent differences (%D) were greater than the 20% quality control limit for dichlorodifluoromethane and methyl acetate for instrument MSVOA_N on 08/01/12 @ 13:39.

Affected samples: BP-VPB-TB-072712 and BP-VPB-TB-072712-1

Action: The non-detected dichlorodifluoromethane and methyl acetate results for the samples were qualified estimated, (UJ).

Additional Comments

Positive results below the limit of quantitation (LOQ) and above the method detection limit were qualified as estimated, (J), due to uncertainty near the detection limit.

Fifty-two (52) analytes were reported for VOCs for Method 8260C.

Non-detected sample results were reported to the LOD.

The VOC results for samples BP-VPB135-GW-678, BP-VPB135-GW-698, BP-VPB136-GW-802, and BP-VPB135-DM-557 were reported in soil units of µg/kg uncorrected for moisture content.

Samples BP-VPB135-GW-678 and BP-VPB135-GW-698 had the VOC decane identified in the tentatively identified compound (TIC) page of the laboratory sample analysis report. The sample VOC TIC information is included in Appendix B of this report.

EXECUTIVE SUMMARY

Laboratory Performance Issues: Sample VOC results were qualified for RRF criteria and CCV %D non-compliances.

Other Factors Affecting Data Quality: Positive results below the Limit of Detection (LOD) and above the method detection limit were qualified as estimated, (J), due to uncertainty near the detection limit.

The data for these analyses were reviewed with reference to the USEPA Region II Hazardous Waste Support Branch Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260C SOP #HW-24 Revision #2 August 2008 and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (April 2009).

Tetra Tech
Joseph Kalinyak
Chemist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:
Appendix A - Qualified Analytical Results
Appendix B - Results as Reported by the Laboratory
Appendix C – Region II Data Validation Forms
Appendix D - Support Documentation

Appendix A

Qualified Analytical Results

Value Qualifier Key (Val Qual)

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The result is an estimated non-detected quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

DATA QUALIFICATION CODE (QUAL CODE)

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is less than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed

PROJ_NO: 02751	NSAMPLE	BP-VPB135-DM-557			BP-VPB135-GW-678			BP-VPB135-GW-698			BP-VPB136-GW-802		
SDG: D3634	LAB_ID	D3634-04			D3634-02			D3634-03			D3634-06		
FRACTION: OV	SAMP_DATE	7/31/2012			7/27/2012			7/27/2012			7/27/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		2.45	U		2.45	U		2.5	U		12	U	
1,1,2,2-TETRACHLOROETHANE		2.45	U		2.45	U		2.5	U		12	U	
1,1,2-TRICHLOROETHANE		2.45	U		2.45	U		2.5	U		12	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		2.45	U		2.45	U		2.5	U		12	U	
1,1-DICHLOROETHANE		2.45	U		2.45	U		2.5	U		12	U	
1,1-DICHLOROETHENE		2.45	U		2.45	U		2.5	U		12	U	
1,2,3-TRICHLOROBENZENE		2.45	U		2.45	U		2.5	U		12	U	
1,2,4-TRICHLOROBENZENE		2.45	U		2.45	U		2.5	U		12	U	
1,2-DIBROMO-3-CHLOROPROPANE		2.45	U		2.45	U		2.5	U		12	U	
1,2-DIBROMOETHANE		2.45	U		2.45	U		2.5	U		12	U	
1,2-DICHLOROBENZENE		2.45	U		2.45	U		2.5	U		12	U	
1,2-DICHLOROETHANE		2.45	U		2.45	U		2.5	U		12	U	
1,2-DICHLOROPROPANE		2.45	U		2.45	U		2.5	U		12	U	
1,3-DICHLOROBENZENE		2.45	U		2.45	U		2.5	U		12	U	
1,4-DICHLOROBENZENE		2.45	U		2.45	U		2.5	U		12	U	
1,4-DIOXANE		49.5	UR	C	49.5	UR	C	50	UR	C	240	UR	C
2-BUTANONE		12.5	U		12.5	U		12.5	U		60	U	
2-HEXANONE		12.5	U		12.5	U		12.5	U		60	U	
4-METHYL-2-PENTANONE		12.5	U		12.5	U		12.5	U		60	U	
ACETONE		12.5	U		12.5	U		19	J	P	78	J	P
BENZENE		2.45	U		2.45	U		2.5	U		12	U	
BROMOCHLOROMETHANE		2.45	U		2.45	U		2.5	U		12	U	
BROMODICHLOROMETHANE		2.45	U		2.45	U		2.5	U		12	U	
BROMOFORM		2.45	U		2.45	U		2.5	U		12	U	
BROMOMETHANE		2.45	U		2.45	U		2.5	U		12	U	
CARBON DISULFIDE		2.45	U		2.45	U		2.5	U		12	U	
CARBON TETRACHLORIDE		2.45	U		2.45	U		2.5	U		12	U	
CHLOROBENZENE		2.45	U		2.45	U		2.5	U		12	U	
CHLORODIBROMOMETHANE		2.45	U		2.45	U		2.5	U		12	U	
CHLOROETHANE		2.45	U		2.45	U		2.5	U		12	U	
CHLOROFORM		2.45	U		2.45	U		2.5	U		12	U	
CHLOROMETHANE		2.45	U		2.45	U		2.5	U		12	U	
CIS-1,2-DICHLOROETHENE		2.45	U		2.45	U		2.5	U		12	U	
CIS-1,3-DICHLOROPROPENE		2.45	U		2.45	U		2.5	U		12	U	
CYCLOHEXANE		2.45	U		2.45	U		2.5	U		12	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB135-DM-557			BP-VPB135-GW-678			BP-VPB135-GW-698			BP-VPB136-GW-802		
SDG: D3634	LAB_ID	D3634-04			D3634-02			D3634-03			D3634-06		
FRACTION: OV	SAMP_DATE	7/31/2012			7/27/2012			7/27/2012			7/27/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		2.45	U		2.45	U		2.5	U		12	U	
ETHYLBENZENE		2.45	U		2.45	U		2.5	U		12	U	
ISOPROPYLBENZENE		2.45	U		2.45	U		2.5	U		12	U	
M+P-XYLENES		4.95	U		4.95	U		5	U		24	U	
METHYL ACETATE		2.45	U		2.45	U		2.5	U		12	U	
METHYL CYCLOHEXANE		2.45	U		2.45	U		2.5	U		12	U	
METHYL TERT-BUTYL ETHER		2.45	U		2.45	U		2.5	U		12	U	
METHYLENE CHLORIDE		2.45	U		2.45	U		2.5	U		12	U	
O-XYLENE		2.45	U		2.45	U		2.5	U		12	U	
STYRENE		2.45	U		2.45	U		2.5	U		12	U	
TETRACHLOROETHENE		2.45	U		2.45	U		2.5	U		12	U	
TOLUENE		2.45	U		2.45	U		2.5	U		12	U	
TRANS-1,2-DICHLOROETHENE		2.45	U		2.45	U		2.5	U		12	U	
TRANS-1,3-DICHLOROPROPENE		2.45	U		2.45	U		2.5	U		12	U	
TRICHLOROETHENE		2.45	U		2.45	U		2.5	U		12	U	
TRICHLOROFLUOROMETHANE		2.45	U		2.45	U		2.5	U		12	U	
VINYL CHLORIDE		2.45	U		2.45	U		2.5	U		12	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB-TB-072712			BP-VPB-TB-072712-1		
SDG: D3634	LAB_ID	D3634-05			D3634-01		
FRACTION: OV	SAMP_DATE	7/27/2012			7/27/2012		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		2.5	U		2.5	U	
1,1,2,2-TETRACHLOROETHANE		2.5	U		2.5	U	
1,1,2-TRICHLOROETHANE		2.5	U		2.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		2.5	U		2.5	U	
1,1-DICHLOROETHANE		2.5	U		2.5	U	
1,1-DICHLOROETHENE		2.5	U		2.5	U	
1,2,3-TRICHLOROBENZENE		2.5	U		2.5	U	
1,2,4-TRICHLOROBENZENE		2.5	U		2.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		2.5	U		2.5	U	
1,2-DIBROMOETHANE		2.5	U		2.5	U	
1,2-DICHLOROBENZENE		2.5	U		2.5	U	
1,2-DICHLOROETHANE		2.5	U		2.5	U	
1,2-DICHLOROPROPANE		2.5	U		2.5	U	
1,3-DICHLOROBENZENE		2.5	U		2.5	U	
1,4-DICHLOROBENZENE		2.5	U		2.5	U	
1,4-DIOXANE		50	UR	C	50	UR	C
2-BUTANONE		12.5	U		12.5	U	
2-HEXANONE		12.5	U		12.5	U	
4-METHYL-2-PENTANONE		12.5	U		12.5	U	
ACETONE		12.5	U		12.5	U	
BENZENE		2.5	U		2.5	U	
BROMOCHLOROMETHANE		2.5	U		2.5	U	
BROMODICHLOROMETHANE		2.5	U		2.5	U	
BROMOFORM		2.5	U		2.5	U	
BROMOMETHANE		2.5	U		2.5	U	
CARBON DISULFIDE		2.5	U		2.5	U	
CARBON TETRACHLORIDE		2.5	U		2.5	U	
CHLOROBENZENE		2.5	U		2.5	U	
CHLORODIBROMOMETHANE		2.5	U		2.5	U	
CHLOROETHANE		2.5	U		2.5	U	
CHLOROFORM		2.5	U		2.5	U	
CHLOROMETHANE		2.5	U		2.5	U	
CIS-1,2-DICHLOROETHENE		2.5	U		2.5	U	
CIS-1,3-DICHLOROPROPENE		2.5	U		2.5	U	
CYCLOHEXANE		2.5	U		2.5	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB-TB-072712			BP-VPB-TB-072712-1		
SDG: D3634	LAB_ID	D3634-05			D3634-01		
FRACTION: OV	SAMP_DATE	7/27/2012			7/27/2012		
MEDIA: WATER	QC_TYPE	NM			NM		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		2.5	UJ	C	2.5	UJ	C
ETHYLBENZENE		2.5	U		2.5	U	
ISOPROPYLBENZENE		2.5	U		2.5	U	
M+P-XYLENES		5	U		5	U	
METHYL ACETATE		2.5	UJ	C	2.5	UJ	C
METHYL CYCLOHEXANE		2.5	U		2.5	U	
METHYL TERT-BUTYL ETHER		2.5	U		2.5	U	
METHYLENE CHLORIDE		2.5	U		2.5	U	
O-XYLENE		2.5	U		2.5	U	
STYRENE		2.5	U		2.5	U	
TETRACHLOROETHENE		2.5	U		2.5	U	
TOLUENE		2.5	U		2.5	U	
TRANS-1,2-DICHLOROETHENE		2.5	U		2.5	U	
TRANS-1,3-DICHLOROPROPENE		2.5	U		2.5	U	
TRICHLOROETHENE		2.5	U		2.5	U	
TRICHLOROFLUOROMETHANE		2.5	U		2.5	U	
VINYL CHLORIDE		2.5	U		2.5	U	

Tetra Tech **INTERNAL CORRESPONDENCE**

TO:	**D. BRAYACK**	**DATE:**	**SEPTEMBER 25, 2012**
FROM:	**EDWARD SEDLMYER**	**COPIES:**	**DV FILE**
SUBJECT:	**ORGANIC DATA VALIDATION – VOC** **NWIRP BETHPAGE CTO WE62** **SDG D3670**		

SAMPLES: 3 / Aqueous / VOC

BP-VPB135-GW-784 BP-VPB135-GW-814 BP-VPB135-GW-824

1 / Aqueous / VOC

BP-VPB-TB-080112

Overview

The sample set for NWIRP Bethpage, CTO WE62, SDG D3670 consists of three (3) groundwater samples and one (1) trip blank. The groundwater samples were analyzed as soil due to high solid content. All samples were analyzed for volatile organic compounds (VOC).

The samples were collected by Tetra Tech on August 1, 2012 and analyzed by CHEMTECH. All analyses were conducted in accordance with EPA Method SW-846 8260B analytical and reporting protocols. The data contained in this SDG were validated with regard to the following parameters:

* • Data completeness
* • Holding times
• Initial/continuing calibrations
* • GC/MS Tuning
* • Laboratory Method Blank Results
* • Surrogate Recoveries
• Matrix Spike / Matrix Spike Duplicate Recoveries
* • Laboratory Control Sample Recoveries
* • Internal Standard Recoveries
* • Compound Quantitation
* • Compound Identification
* • Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Qualified analytical results are presented in Appendix A, results as reported by the laboratory are presented in Appendix B, Region II data validation forms are presented in Appendix C, and documentation supporting these findings is presented in Appendix D.

Volatile Organic Compounds

All initial and continuing calibration relative response factors (RRFs) were less than the 0.05 quality control limit for 1,4-dioxane on instrument MSVOAH. The non-detected result for 1,4-dioxane in sample BP-VPB-TB-080112 was rejected (UR).

All initial and continuing calibration RRFs were less than the 0.05 quality control limit for 1,4-dioxane on instrument MSVOAT. The non-detected results for 1,4-dioxane were rejected (UR), in all soil samples.

The matrix spike / matrix spike duplicate (MS/MSD) performed on sample BP-VPB135-GW-784 had percent recoveries less than the quality control limit for 1,2,4-trichlorobenzene in the MS/MSD and 1,2,3-trichlorobenzene in the MS. No action was taken on 1,2,3-trichlorobenzene because the MSD and LCS had acceptable recoveries. The nondetected result for 1,2,4-trichlorobenzene in sample BP-VPB135-GW-784 was qualified as estimated (UJ).

Additional Comments

The samples BP-VPB135-GW-784, BP-VPB135-GW-814, and BP-VPB135-GW-824 were analyzed as soils due to sediment in the samples.

Tentatively identified compounds (TIC) were reported by the laboratory for samples BP-VPB135-GW-784, BP-VPB135-GW-814, and BP-VPB135-GW-824. These sample TICs were not included in the electronic database (EDD) but are available for review on the Appendix B laboratory result Form Is.

The results were reported to the limit of detection (LOD). Positive results below the limit of quantitation (LOQ) and above the detection limit (DL) were qualified as estimated, (J), due to uncertainty near the detection limit.

EXECUTIVE SUMMARY

Laboratory Performance Issues: Initial and continuing calibration RRF noncompliances resulted in the rejection of all 1,4-dioxane results for the soil and aqueous samples. MS/MSD recovery noncompliances resulted in the qualification of 1,2,4-trichlorobenzene for one soil sample.

Other Factors Affecting Data Quality: Positive results below the limit of quantitation (LOQ) and above the detection limit (DL) were qualified as estimated, (J), due to uncertainty near the detection limit.

The data for these analyses were reviewed with reference to the USEPA Region II Standard Operating Procedures for Validating Volatile Organic Compounds by SW-846 Method 8260B HW-24 Revision #2 (August 2008) and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (April 2009).

The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech
Edward Sedlmyer
Chemist/Data Validator

Tetra Tech
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:
1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as Reported by the Laboratory
3. Appendix C – Region II Data Validation Forms
4. Appendix D - Support Documentation

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed

PROJ_NO: 02751	NSAMPLE	BP-VPB-TB-080112		
SDG: D3670	LAB_ID	D3670-01		
FRACTION: OV	SAMP_DATE	8/1/2012		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		2.5	U	
1,1,2,2-TETRACHLOROETHANE		2.5	U	
1,1,2-TRICHLOROETHANE		2.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		2.5	U	
1,1-DICHLOROETHANE		2.5	U	
1,1-DICHLOROETHENE		2.5	U	
1,2,3-TRICHLOROBENZENE		2.5	U	
1,2,4-TRICHLOROBENZENE		2.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		2.5	U	
1,2-DIBROMOETHANE		2.5	U	
1,2-DICHLOROBENZENE		2.5	U	
1,2-DICHLOROETHANE		2.5	U	
1,2-DICHLOROPROPANE		2.5	U	
1,3-DICHLOROBENZENE		2.5	U	
1,4-DICHLOROBENZENE		2.5	U	
1,4-DIOXANE		50	UR	C
2-BUTANONE		12.5	U	
2-HEXANONE		12.5	U	
4-METHYL-2-PENTANONE		12.5	U	
ACETONE		12.5	U	
BENZENE		2.5	U	
BROMOCHLOROMETHANE		2.5	U	
BROMODICHLOROMETHANE		2.5	U	
BROMOFORM		2.5	U	
BROMOMETHANE		2.5	U	
CARBON DISULFIDE		2.5	U	
CARBON TETRACHLORIDE		2.5	U	
CHLOROBENZENE		2.5	U	
CHLORODIBROMOMETHANE		2.5	U	
CHLOROETHANE		2.5	U	
CHLOROFORM		2.5	U	
CHLOROMETHANE		2.5	U	
CIS-1,2-DICHLOROETHENE		2.5	U	
CIS-1,3-DICHLOROPROPENE		2.5	U	
CYCLOHEXANE		2.5	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB-TB-080112		
SDG: D3670	LAB_ID	D3670-01		
FRACTION: OV	SAMP_DATE	8/1/2012		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		2.5	U	
ETHYLBENZENE		2.5	U	
ISOPROPYLBENZENE		2.5	U	
M+P-XYLENES		5	U	
METHYL ACETATE		2.5	U	
METHYL CYCLOHEXANE		2.5	U	
METHYL TERT-BUTYL ETHER		2.5	U	
METHYLENE CHLORIDE		2.5	U	
O-XYLENE		2.5	U	
STYRENE		2.5	U	
TETRACHLOROETHENE		2.5	U	
TOLUENE		2.5	U	
TRANS-1,2-DICHLOROETHENE		2.5	U	
TRANS-1,3-DICHLOROPROPENE		2.5	U	
TRICHLOROETHENE		2.5	U	
TRICHLOROFLUOROMETHANE		2.5	U	
VINYL CHLORIDE		2.5	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB135-GW-784			BP-VPB135-GW-814			BP-VPB135-GW-824		
SDG: D3670	LAB_ID	D3670-02			D3670-03			D3670-04		
FRACTION: OV	SAMP_DATE	8/1/2012			8/1/2012			8/1/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		2.45	U		2.5	U		2.5	U	
1,1,2,2-TETRACHLOROETHANE		2.45	U		2.5	U		2.5	U	
1,1,2-TRICHLOROETHANE		2.45	U		2.5	U		2.5	U	
1,1,2-TRICHLOROTRIFLUOROETHANE		2.45	U		2.5	U		2.5	U	
1,1-DICHLOROETHANE		2.45	U		2.5	U		2.5	U	
1,1-DICHLOROETHENE		2.45	U		2.5	U		2.5	U	
1,2,3-TRICHLOROBENZENE		2.45	U		2.5	U		2.5	U	
1,2,4-TRICHLOROBENZENE		2.45	UJ	D	2.5	U		2.5	U	
1,2-DIBROMO-3-CHLOROPROPANE		2.45	U		2.5	U		2.5	U	
1,2-DIBROMOETHANE		2.45	U		2.5	U		2.5	U	
1,2-DICHLOROBENZENE		2.45	U		2.5	U		2.5	U	
1,2-DICHLOROETHANE		2.45	U		2.5	U		2.5	U	
1,2-DICHLOROPROPANE		2.45	U		2.5	U		2.5	U	
1,3-DICHLOROBENZENE		2.45	U		2.5	U		2.5	U	
1,4-DICHLOROBENZENE		2.45	U		2.5	U		2.5	U	
1,4-DIOXANE		49.5	UR	C	50	UR	C	50	UR	C
2-BUTANONE		11	J	P	12.5	U		6.2	J	P
2-HEXANONE		12.5	U		12.5	U		12.5	U	
4-METHYL-2-PENTANONE		12.5	U		12.5	U		12.5	U	
ACETONE		54			12	J	P	19	J	P
BENZENE		2.45	U		2.5	U		2.5	U	
BROMOCHLOROMETHANE		2.45	U		2.5	U		2.5	U	
BROMODICHLOROMETHANE		2.45	U		2.5	U		2.5	U	
BROMOFORM		2.45	U		2.5	U		2.5	U	
BROMOMETHANE		2.45	U		2.5	U		2.5	U	
CARBON DISULFIDE		2.45	U		2.5	U		2.5	U	
CARBON TETRACHLORIDE		2.45	U		2.5	U		2.5	U	
CHLOROBENZENE		2.45	U		2.5	U		2.5	U	
CHLORODIBROMOMETHANE		2.45	U		2.5	U		2.5	U	
CHLOROETHANE		2.45	U		2.5	U		2.5	U	
CHLOROFORM		2.45	U		2.5	U		2.5	U	
CHLOROMETHANE		2.45	U		2.5	U		2.5	U	
CIS-1,2-DICHLOROETHENE		2.45	U		2.5	U		2.5	U	
CIS-1,3-DICHLOROPROPENE		2.45	U		2.5	U		2.5	U	
CYCLOHEXANE		2.45	U		2.5	U		2.5	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB135-GW-784			BP-VPB135-GW-814			BP-VPB135-GW-824		
SDG: D3670	LAB_ID	D3670-02			D3670-03			D3670-04		
FRACTION: OV	SAMP_DATE	8/1/2012			8/1/2012			8/1/2012		
MEDIA: SOIL	QC_TYPE	NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DICHLORODIFLUOROMETHANE		2.45	U		2.5	U		2.5	U	
ETHYLBENZENE		2.45	U		2.5	U		2.5	U	
ISOPROPYLBENZENE		2.45	U		2.5	U		2.5	U	
M+P-XYLENES		4.95	U		5	U		5	U	
METHYL ACETATE		2.45	U		2.5	U		2.5	U	
METHYL CYCLOHEXANE		2.45	U		2.5	U		2.5	U	
METHYL TERT-BUTYL ETHER		2.45	U		2.5	U		2.5	U	
METHYLENE CHLORIDE		2.45	U		2.5	U		2.5	U	
O-XYLENE		2.45	U		2.5	U		2.5	U	
STYRENE		2.45	U		2.5	U		2.5	U	
TETRACHLOROETHENE		2.45	U		2.5	U		2.5	U	
TOLUENE		2.45	U		2.5	U		2.5	U	
TRANS-1,2-DICHLOROETHENE		2.45	U		2.5	U		2.5	U	
TRANS-1,3-DICHLOROPROPENE		2.45	U		2.5	U		2.5	U	
TRICHLOROETHENE		2.45	U		2.5	U		2.5	U	
TRICHLOROFLUOROMETHANE		2.45	U		2.5	U		2.5	U	
VINYL CHLORIDE		2.45	U		2.5	U		2.5	U	

Section 7

VPB 135 Detected Compounds Table

VALIDATED ANALYTICAL RESULTS
DETECTED COMPOUNDS FOR VERTICAL PROFILE BORING 135
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT
BETHPAGE, NEW YORK

No.	Sample ID	Depth (feet bgs)[1]	Analysis Type	Total VOCs (µg/L)[2]	TCE	PCE	1,1-DCA	1,1-DCE	Cis-1,2-DCE	Chloro ethane	Chloro methane	2-Hexanone	2-Butanone	Ace.	Ethyl Benzene	Freon 11	Freon 113	Methylene Chloride
1	BP-VPB135-GW-063	63	AQ	ND								3.8 J	20 J	96 J				
2	BP-VPB135-GW-108	108	AQ	27.8	9.9	5.2	4.7		8					21			0.64 J	
3	BP-VPB135-GW-153	153	AQ	43.2	14	6.1	7.2	1.9	14					18				
4	BP-VPB135-GW-198	198	AQ	4021.3	4000 J	3.5 J	5.8 J		12 J					29 J				
5	BP-VPB135-GW-218	218	AQ	140.51	140	0.51 J					0.42 J	5.3	14	43				
6	BP-VPB135-GW-238	238	SO[3]	ND										35				
7	BP-VPB135-GW-258	258	SO[3]	4.2	4.2 J									30				
8	BP-VPB135-GW-278	278	SO[3]	16	16													
9	BP-VPB135-GW-298	298	SO[3]	35	35								12 J	41				
10	BP-VPB135-GW-318	318	SO[3]	ND														
11	BP-VPB135-GW-338	338	SO[3]	ND										43				
12	BP-VPB135-GW-358	358	SO[3]	ND										34				
13	BP-VPB135-GW-378	378	SO[3]	ND										18 J				
14	BP-VPB135-GW-398	398	SO[3]	ND														
15	BP-VPB135-GW-418	418	SO[3]	1.5	1.5 J									24 J				2.7 J
16	BP-VPB135-GW-438	438	SO[3]	ND														16 J
17	BP-VPB135-GW-458	458	SO[3]	ND														2.5 J
18	BP-VPB135-GW-478	478	AQ	4.5	3.1		1.4							16		3.4		
19	BP-VPB135-GW-518	518	SO[3]	ND														
20	BP-VPB135-GW-538	538	SO[3]	ND														
21	BP-VPB135-GW-558	558	SO[3]	ND						4.8 J				64				
22	BP-VPB135-GW-578	578	AQ	ND											2.4 J			
23	BP-VPB135-GW-598	598	SO	ND														
24	BP-VPB135-GW-618	618	SO[3]	ND														
25	BP-VPB135-GW-638	638	SO[3]	ND														
26	BP-VPB135-GW-658	658	SO[3]	ND														
27	BP-VPB135-GW-678	678	SO[3]	ND														
28	BP-VPB135-GW-698	698	SO[3]	ND										19 J				
29	BP-VPB135-GW-784	784	SO[4]	ND									11 J	54				
30	BP-VPB135-GW-814	814	SO[5]	ND										12 J				
31	BP-VPB135-GW-824	824	SO[6]	ND									6.2 J	19 J				

Notes:

bgs: Below ground surface
µg/L: micrograms per liter
J: Estimated Value
ND: Not detected

TCE: Trichloroethene
PCE: Tetrachloroethene
1,1-DCA: 1,1-Dichloroethane
1,1-DCE: 1,1-Dichloroethene

cis-1,2-DCE: 1,2-Dichloroethene
Ace.: Acetone

[1] Samples were taken on 20-foot centers starting at 200 ft bgs to the total depth of the borehole. Where a sample could not be obtained from the designated interval, an attempt was made at the next 10-foot interval or at the

[2] TCE, PCE, 1,1-DCA, 1,1-DCE, 1,2-DCA, and Cis-1,2-DCE used to calculate Total VOCs

[3] Results are reported as a soil on a wet weight basis (microgram per kilogram)

Section 8

Survey

VBP-135 coordinates surveyed with Trimble® GPS on September 12, 2012.

Coordinate system: NAD83 New York State Plane

213434.86 N

1123926.26 E