

**Summary Packet**  
**Vertical Profile Boring 131**

**NWIRP Bethpage**  
Bethpage, New York



**Naval Facilities Engineering Command**  
**Mid-Atlantic**

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

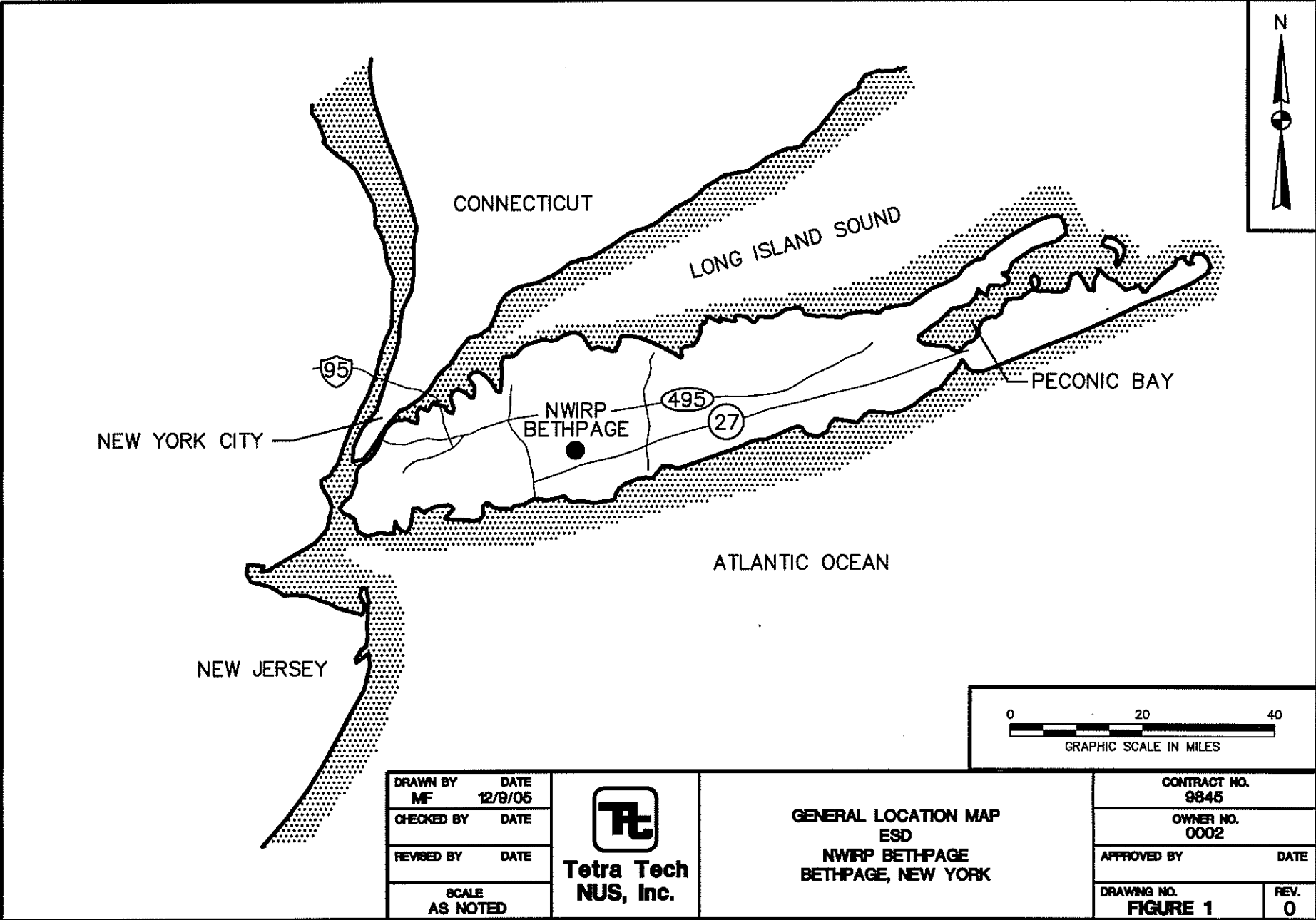
July 2012

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## **Section 1**

### **Figures**

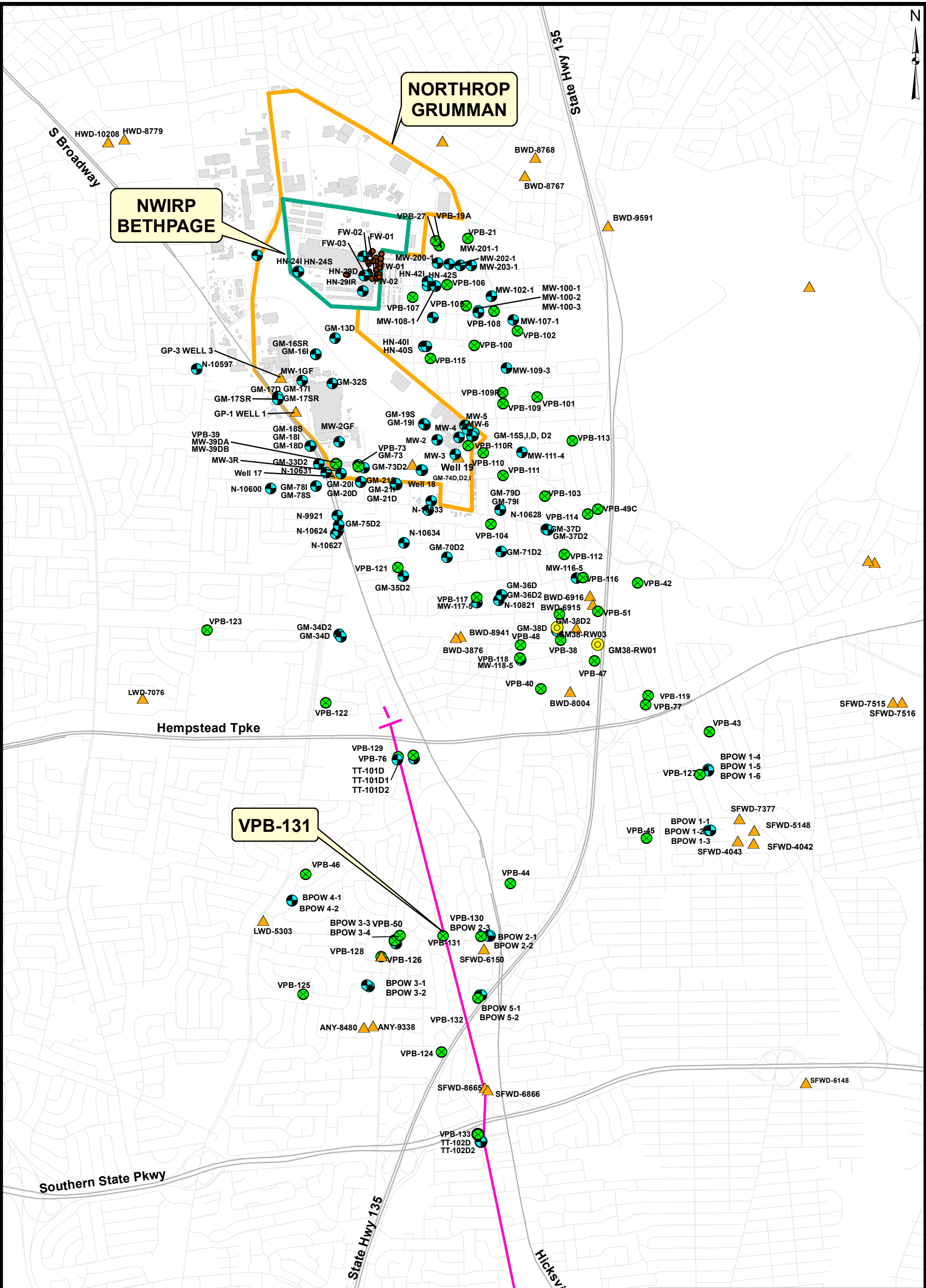


DRAWN BY	DATE
MF	12/9/06
CHECKED BY	DATE
REVISD BY	DATE
SCALE AS NOTED	







**GENERAL LOCATION MAP  
ESD  
NWIRP BETHPAGE  
BETHPAGE, NEW YORK**


CONTRACT NO. 9845	
OWNER NO. 0002	
APPROVED BY	DATE
DRAWING NO. <b>FIGURE 1</b>	REV. <b>0</b>



**Legend**

-  MONITORING WELL
-  WATER SUPPLY WELL
-  RECOVERY WELL
-  VERTICAL PROFILE BORING





**VPB-131  
CROSS SECTION AND LOCATION MAP  
BETHPAGE GROUNDWATER PLUME  
NEW YORK**

FILE	112G00622	SCALE	AS NOTED
FIGURE NO.	2	REV	DATE
			7/17/12



**Section 2**

**VPB 131 Boring/Gamma Logs**



### Boring Log

PROJECT NAME: Bethpage OU-2 Investigation BORING No.: BP-VPB-131  
 PROJECT NUMBER: 112G02751 DATE: March 5, 2011  
 DRILLING COMPANY: Delta Well and Pump GEOLOGIST: J. Ferguson  
 DRILLING RIG: Port-A-Drill, Mud Rotary / H.S.A. DRILLER: B. Murphy / J. Gueci

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			U S C S *	Remarks	PID/FID Reading (ppm)			
					Soil Density/ Consistency or Rock Hardness	Color	Material Classification			Sample	Sampler BZ	Borehole**	Driller BZ**
	0-1	/			Dark Bm	Silty, medium-coarse sand,	SM	Logged auger cuttings.	0	0	0	0	
	1-2	/			Dark Bm	trace-little, med. Gravel, moist.	SM						
	2-3	/			Tan-Lt. Brown			SM					
	3-4	/			Tan-Lt. Brown			SM					
	4-5	/			Tan-Lt. Brown			SM					
	5-6	/			Tan-Lt. Brown	Silty, medium-coarse sand,	SM	Logged auger cuttings.	0	0	0	0	
	6-7	/			Tan-Lt. Brown	trace-little, med. Quartzose gravel	SM						
	7-8	/			Tan-Lt. Brown	moist.	SM						
	8-9	/			Tan-Lt. Brown			SM					
	9-10	/			Tan-Lt. Brown			SM					
	10-11	/			Tan-Lt. Brown	Silty, medium-coarse sand,	SM	Logged auger cuttings.	0	0	0	0	
	11-12	/			Tan-Lt. Brown	trace-little, med. Quartzose gravel	SM						
	12-13	/			Tan-Lt. Brown	moist.	SM						
	13-14	/			Tan-Lt. Brown			SM					
	14-15	/			Tan-Lt. Brown			SM					
	15-16	/			Tan-Lt. Brown	Silty, medium-coarse sand,	SM	Logged auger cuttings.	0	0	0	0	
	16-17	/			Tan-Lt. Brown	trace-little, med. Quartzose gravel	SM						
	17-18	/			Tan-Lt. Brown	moist.	SM						
	18-19	/			Tan-Lt. Brown			SM					
	19-20	/			Tan-Lt. Brown			SM					
	20-21	/			Tan-Lt. Brown	Silty, medium-coarse sand,	SM	Logged auger cuttings.	0	0	0	0	
	21-22	/			Tan-Lt. Brown	trace-little, med. Quartzose gravel	SM						
	22-23	/			Tan-Lt. Brown	moist, silt tence 24'-26'.	SM						
	23-24	/			Tan-Lt. Brown			SM					
	24-25	/			Tan-Lt. Brown			ML					

Remarks: Set 8" I.D. Sch. 40 steel surface casing to 58' below ground surface. (Failing F-10) Drilling Area Background (ppm): 0  
12" ID HAS borehole to 25' BGS, annular space filled with bentonite at base. Soil backfill above. (Gueci/Murphy)

Converted to Well: Yes  No  Boring I.D. #: BP-VPB-131





# Boring Log

PROJECT NAME: Bethpage OU-2 Investigation  
 PROJECT NUMBER: 112G02751  
 DRILLING COMPANY: Delta Well and Pump  
 DRILLING RIG: Port-A-Drill, Mud Rotary / H.S.A.

BORING No.: BP-VPB-131  
 DATE: March 5, 2011  
 GEOLOGIST: J. Ferguson  
 DRILLER: B. Murphy / J. Gucci

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/FL) or Screened Interval	MATERIAL DESCRIPTION			U S C S	Remarks	PID/FID Reading (ppm)			
					Soil Density/ Consistency or Rock Hardness	Color	Material Classification			Sample	Sampler BZ	Borehole**	Driller BZ**
	25-26	/				Tan	Sandy (fine), silt.	ML	Screened mud rotary	0	0	0	0
	26-27	/			Tan-Brown		Silty, fine to coarse sand and	SM/GM	cuttings. 08:37				
	27-28	/			Tan-Brown		fine to coarse gravel, moist.	SM/GM					
	28-29	/			Tan-Brown			SM/GM					
	29-30	/			Tan-Brown			SM/GM					
	30-31	/			Tan-Brown		Silty, sandy (fine) fine to medium	SM/GM					
	31-32	/			Tan-Brown		quarzose gravel, and gravelly	SM/GM					
	32-33	/			Tan-Brown		Sandy (fine), silt.	ML	Geophysical log.				
	33-34	/			Tan-Brown			ML					
	34-35	/			Tan-Brown			ML					
	35-36	/			Tan-Brown		Silty, sandy (fine) fine to medium	SM/GM	Screened mud rotary	0	0	0	0
	36-37	/			Tan-Brown		quarzose gravel, and gravelly	SM/GM	cuttings.				
	37-38	/			Tan-Brown			SM/GM					
	38-39	/			Tan-Brown			SM/GM					
	39-40	/			Tan-Brown			SM/GM					
	40-41	/			Tan-Brown		Silty, sandy (fine) fine to medium	SM/GM					
	41-42	/			Tan-Brown		quarzose gravel, and gravelly	SM/GM					
	42-43	/			Tan-Brown			SM/GM					
	43-44	/			Tan-Brown			SM/GM					
	44-45	/			Tan-Brown			SM/GM					
	45-46	/			Tan-Brown		Silty, sandy (fine) fine to medium	SM/GM					
	46-47	/			Tan-Brown		quarzose gravel, and gravelly	SM/GM					
	47-48	/			Tan-Brown			SM/GM					
	48-49	/			Dense	Red brown	Silty, medium-coarse sand, wet.	SM	Split spoon sample	0	0	0	0
	49-50	/				Red brown	trace to little fine to medium gravel.	SM					

Remarks: Set 8" I.D. Sch. 40 steel surface casing to 58' below ground surface. (Failing F-10) Drilling Area Background (ppm): 0  
12" ID HAS borehole to 25' BGS, annular space filled with bentonite at base. Soil backfill above. (Gucci/Murphy)

Converted to Well: Yes  No  Boring I.D. #: BP-VPB-131



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 DRILLING COMPANY: Delta Well and Pump  
 DRILLING RIG: Port-A-Drill, Mud Rotary / H.S.A.

BORING No.: BP-VPB-131  
 DATE: March 5, 2011  
 GEOLOGIST: J. Ferguson  
 DRILLER: B. Murphy / C. Cobb

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		U S C S *	Remarks	PID/FID Reading (ppm)			
					Soil Density/ Consistency or Rock Hardness	Color			Material Classification	Sample	Sampler BZ	Borehole**
	50-51	/			Tan-Omg brn	Medium to coarse sand and	SP GP	8"-ID steel casing	0	0	0	0
	51-52	/			Tan-Omg brn	medium to coarse gravel.	SP GP	installed to 58' bgs.				
	52-53	/			Tan-Omg brn		SP GP					
	53-54	/			Tan-Omg brn		SP GP					
	54-55	/			Tan-Omg brn		SP GP					
	55-56	/			Tan-Omg brn		SP GP					
	56-57	/			Tan-Omg brn		SP GP					
	57-58	/			Tan-Omg brn		SP GP					
	58-59	/			Tan-Omg brn	Medium to coarse sand and	SP GP	Screened mud rotary	0	0	0	0
	59-60	/			Tan-Omg brn	medium to coarse gravel.	SP GP	cuttings.				
	60-61	/			Tan-Omg brn	Medium to coarse sand and	SP GP	Screened mud rotary				
	61-62	/			Tan-Omg brn	medium to coarse gravel.	SP GP	cuttings.				
	62-63	/			Tan-Omg brn		SP GP					
	63-64	/			Tan-Omg brn		SP GP					
	64-65	/			Tan-Omg brn		SP GP					
	65-66	/		Tan-Omg brn	Medium to coarse sand and	SP GP	Screened mud rotary	0	0	0	0	
	66-67	/		Tan-Omg brn	medium to coarse gravel.	SP GP	cuttings.					
	67-68	/		Tan-Omg brn		SP GP						
GWS	68-69	/		Tan- Red brwn		SP GP	BP-VPB131-GW-68					
	69-70	/		Tan- Red brwn		SP GP	3/15/2012 16:05					
	70-71	/		Tan- Red brwn	Medium to coarse sand and	SM SP	Screened mud rotary	0	0	0	0	
	71-72	/		Tan- Red brwn	medium to coarse gravel.	SM SP	cuttings.					
	72-73	/		Tan- Red brwn		SM SP						
	73-74	/		Tan- Red brwn		SM SP						
	74-75	/		Tan- Red brwn		SM SP						

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Converted to Well: Yes  No  Boring I.D. #: BP-VPB-131



### Boring Log

PROJECT NAME: Bethpage OU-2 Investigation  
 PROJECT NUMBER: 112G02751  
 DRILLING COMPANY: Delta Well and Pump  
 DRILLING RIG: Port-A-Drill, 6" I.D. Mud Rotary

BORING No.: BP-VPB-131  
 DATE: March 16, 2012  
 GEOLOGIST: J. Ferguson  
 DRILLER: B. Murphy / C. Cobb

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		U S C S *	Remarks	PID/FID Reading (ppm)			
					Soil Density/ Consistency or Rock Hardness	Color			Material Classification	Sample	Sampler BZ	Borehole**
	75-76	/			Tan-Orng brn	Medium to coarse sand trace fine	SP GP	Screened mud rotary	0	0	0	0
	76-77	/			Tan-Orng brn	gravel.	SP GP	cuttings.				
	77-78	/			Tan-Orng brn		SP GP					
	78-79	/			Tan- Red brwn		SP GP					
	79-80	/			Tan- Red brwn		SP GP					
	80-81	/			Tan-gray	Sandy (fine) silt and sandy clay.	CL	Screened mud rotary	0	0	0	0
	81-82	/			Tan-gray		CL	cuttings.				
	82-83	/			Tan-brown	Micaceous, silty fine sand.	SM					
	83-84	/			Tan-brown		SM					
	84-85	/			Tan-brown		SM					
	85-86	/		Tan-brown	Micaceous, silty fine sand.	SM	Screened mud rotary	0	0	0	0	
	86-87	/		Tan-brown		SM	cuttings.					
	87-88	/		Tan-brown		SM						
	88-89	/		Tan-brown		SM						
	89-90	/		Tan-brown		SM						
	90-91	/		Tan-brown	Micaceous, silty fine sand.	SM	Screened mud rotary	0	0	0	0	
	91-92	/		Tan-brown		SM	cuttings.					
	92-93	/		Tan-brown		SM						
	93-94	/		Tan-brown		SM						
	94-95	/		Tan-brown		SM						
	95-96	/		Tan-brown	Micaceous, silty fine sand.	SM	Screened mud rotary	0	0	0	0	
	96-97	/		Tan-brown		SM	cuttings.					
	97-98	/		Tan-brown		SM						
	98-99	/		Tan-brown		SM						
	99-100	/		Tan-brown		SM						

Remarks: \_\_\_\_\_ Drilling Area Background (ppm): 0

Converted to Well: Yes \_\_\_\_\_ No X Boring I.D. #: BP-VPB-131



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					Soil Density/ Consistency or Rock Hardness	Color	Material Classification			Sample	Sampler BZ	Borehole**	Driller BZ*	
	100-101	/				Tan-brown	Silty, fine-medium sand, tr. Fine gravel.	SP/SM	Screened mud rotary	0	0	0	0	
	101-102	/				Tan-brown			SP/SM	cuttings.				
	102-103	/				Tan-brown			SP/SM					
	103-104	/				Tan-brown			SP/SM					
	104-105	/				Tan-brown			SP/SM					
	105-106	/				Tan-brown		Silty, fine to medium sand, trace	SM	Screened mud rotary	0	0	0	0
	106-107	/				Tan-brown		fine gravel.	SM	cuttings.				
	107-108	/				Tan-brown			SM					
	108-109	/				Tan-brown			SM					
	109-110	/				Tan-brown			SM					
	110-111	/				Tan-brown		Silty, fine to medium sand, trace	SM	Screened mud rotary	0	0	0	0
	111-112	/				Tan-brown		fine gravel.	SM	cuttings.				
	112-113	/			Tan-brown			SM						
	113-114	/			Tan-brown			SM						
	114-115	/			Tan-brown			SM						
	115-116	/			Tan-brown		Silty, fine to medium sand, trace	SM	Screened mud rotary	0	0	0	0	
	116-117	/			Tan-brown		fine gravel.	SM	cuttings.					
	117-118	/			Tan-brown			SM						
GWS	118-119	/			Tan-brown			SM	BP-VPB131-GW-118					
	119-120	/			Tan-brown			SM	3/16/2012 11:00					
	120-121	/			Tan-brown		Silty, fine to medium sand, trace	SM	Screened mud rotary	0	0	0	0	
	121-122	/			Tan-brown		fine gravel.	SM	cuttings.					
	122-123	/			Tan-brown			SM						
	123-124	/			Tan-brown			SM						
	124-125	/			Tan-brown			SM						

Remarks: \_\_\_\_\_ Drilling Area Background (ppm): 0

Converted to Well: Yes \_\_\_\_\_ No X Boring I.D. #: BP-VPB-131



# Boring Log

PROJECT NAME: Bethpage OU-2 Investigation  
 PROJECT NUMBER: 112G02751  
 DRILLING COMPANY: Delta Well and Pump  
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BORING No.: BP-VPB-131  
 DATE: March 16, 2012  
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 DRILLER: B. Murphy / C. Cobb

Sample No. and Type or RQD	Depth (FL) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/FL) or Screened Interval	MATERIAL DESCRIPTION			U S C S *	Remarks	PID/FID Reading (ppm)			
					Soil Density/ Consistency or Rock Hardness	Color	Material Classification			Sample	Sampler BZ	Borehole**	Driller BZ**
	125-126	/				Tan	Silty, fine to medium sand, trace	SM	Logged mud rotary	0	0	0	0
	126-127	/				Tan	lignite.	SM	cuttings.				
	127-128	/				Tan		SM					
	128-129	/				Tan		SM					
	129-130	/				Tan		SM					
	130-131	/				Tan	Silty, fine to medium sand, trace	SM	Logged mud rotary	0	0	0	0
	131-132	/				Tan	lignite.	SM	cuttings.				
	132-133	/				Tan		SM					
	133-134	/				Tan		SM					
	134-135	/				Tan		SM					
	135-136	/				Tan	Fine to medium sand, trace silt.	SM		0	0	0	0
	136-137	/				Tan	Sandy (fine) clay.	CL					
	137-138	/				Tan		CL					
	138-139	/				Tan	Silty, fine to medium sand, trace	SP					
	139-140	/				Tan	lignite.	SP					
	140-141	/				Tan	Silty, fine to medium sand, trace	SM	Logged mud rotary	0	0	0	0
	141-142	/				Tan	lignite.	SM	cuttings.				
	142-143	/				Tan		SM					
	143-144	/				Tan		SM					
	144-145	/				Tan		SM					
	145-146	/			Tan	Silty, fine to medium sand, trace	SM	Logged mud rotary	0	0	0	0	
	146-147	/			Tan	lignite.	SM	cuttings.					
	147-148	/			Tan		SM						
	148-149	/			Tan		SM						
	149-150	/			Tan		SM						

Remarks: \_\_\_\_\_  
 Drilling Area Background (ppm):

Converted to Well: Yes \_\_\_\_\_ No  Boring I.D. #: BP-VPB-131



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					Soil Density/ Consistency or Rock Hardness	Color	Material Classification			Sample	Sampler BZ	Borehole**	Driller BZ**	
	150-151	/				Tan	Fine to medium sand, trace silt.	SP	Logged mud rotary	0	0	0	0	
	151-152	/				Tan			SP	cuttings.				
	152-153	/				Tan			SP					
	153-154	/				Tan			SP					
	154-155	/				Tan			SP					
	155-156	/				Tan			SP	Logged mud rotary	0	0	0	0
	156-157	/				Tan			SP	cuttings.				
	157-158	/				Tan			SP					
	158-159	/				Tan			SP					
	159-160	/				Tan			SP					
	160-161	/				Tan			SP	Logged mud rotary	0	0	0	0
	161-162	/				Tan			SP	cuttings.				
	162-163	/				Tan			SP					
	163-164	/				Tan			SP					
	164-165	/				Tan			SP					
	165-166	/				Tan			SP	Logged mud rotary	0	0	0	0
	166-167	/				Tan			SP	cuttings.				
	167-168	/				Tan			SP					
GWS	168-169	/				Tan			SP	BP-VPB131-GW-168				
	169-170	/				Tan			SP	3/16/2012 11:30				
	170-171	/			Tan			SM	Logged mud rotary	0	0	0	0	
	171-172	/			Tan			SM	and mica. cuttings.					
	172-173	/			Tan			SP						
	173-174	/			Tan			SP						
	174-175	/			Tan			SP						

Remarks: \_\_\_\_\_ Drilling Area Background (ppm): 0

Converted to Well: Yes \_\_\_\_\_ No X Boring I.D. #: BP-VPB-131



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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			U S C S *	Remarks	PID/FID Reading (ppm)				
					Soil Density/ Consistency or Rock Hardness	Color	Material Classification			Sample	Sampler BZ	Borehole**	Driller BZ**	
	175-176	/				Tan	Silty, fine to medium sand, trace	SM	Screened mud rotary	0	0	0	0	
	176-177	/				Tan		lignite and mica.	SM	cuttings.				
	177-178	/				Tan			SM					
	178-179	/				Tan			SM					
	179-180	/				Tan			SM					
	180-181	/				Tan		Silty, fine to medium sand, trace	SM	Screened mud rotary	0	0	0	0
	181-182	/				Tan		and mica.	SM	cuttings.				
	182-183	/				Tan			SM					
	183-184	/				Tan			SM					
	184-185	/				Tan			SM					
	185-186	/				Tan		Silty, fine to medium sand, trace	SM	Screened mud rotary	0	0	0	0
	186-187	/				Tan		and mica.	SM	cuttings.				
	187-188	/				Tan			SM					
	188-189	/				Tan			SM					
	189-190	/				Tan			SM					
	190-191	/				Tan-gray		Inter bedded sandy (fine) silt and	ML SM	Screened mud rotary	0	0	0	0
	191-192	/				Tan-gray		silty, fine sand, trace to little lignite	ML SM	cuttings.				
	192-193	/				Tan-gray			ML SM					
	193-194	/				Tan-gray			ML SM					
	194-195	/				Tan-gray			ML SM					
	195-196	/			Tan-gray		Inter bedded sandy (fine) silt and	ML SM	Screened mud rotary	0	0	0	0	
	196-197	/			Tan-gray		silty, fine sand, trace to little lignite	ML SM	cuttings.					
	197-198	/			Tan-gray			ML SM						
	198-199	/			Tan-gray			ML SM						
	199-200	/			Tan-gray			ML SM						

Remarks: \_\_\_\_\_ Drilling Area Background (ppm): 0

Converted to Well: Yes \_\_\_\_\_ No X Boring I.D. #: BP-VPB-131



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 DRILLING COMPANY: Delta Well and Pump  
 DRILLING RIG: Port-A-Drill, 6" I.D. Mud Rotary

BORING No.: BP-VPB-131  
 DATE: March 19, 2012  
 GEOLOGIST: J. Ferguson  
 DRILLER: B. Murphy / C. Cobb

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			U S C S *	Remarks	PID/FID Reading (ppm)				
					Soil Density/ Consistency or Rock Hardness	Color	Material Classification			Sample	Sampler BZ	Borehole**	Driller BZ**	
	200-201	/				Tan-gray	Inter bedded sandy (fine) silt and	ML SM	Screened mud rotary	0	0	0	0	
	201-202	/				Tan-gray	silty, fine sand, trace to little lignite	ML SM	cuttings.					
	202-203	/				Tan-gray			ML SM					
	203-204	/				Tan-gray			ML SM					
	204-205	/				Tan-gray			ML SM					
	205-206	/												
	205-206	/				Tan-gray	Inter bedded sandy (fine) silt and	ML SM	Screened mud rotary	0	0	0	0	
	206-207	/												
	206-207	/				Tan-gray	silty, fine sand, trace to little lignite	ML SM	cuttings.					
	207-208	/				Tan-gray			ML SM					
GWS	208-209	/				Tan-gray			ML SM	BP-VPB131-GW-208				
	209-210	/				Tan-gray			ML SM	3/19/2012 12:30				
	210-211	/												
	210-211	/				Gray	Silty, very fine to fine sand,	SM	Screened mud rotary	0	0	0	0	
	211-212	/												
	211-212	/				Gray	micaceous, trace lignite.	SM	cuttings.					
	212-213	/				Gray			SM					
	213-214	/				Gray			SM					
	214-215	/				Gray			SM					
	215-216	/												
	215-216	/				Gray	Silty, very fine to fine sand,	SM	Screened mud rotary	0	0	0	0	
	216-217	/												
	216-217	/				Gray	micaceous, trace lignite.	SM	cuttings.					
	217-218	/				Gray			SM					
	218-219	/				Gray			SM					
	219-220	/			Gray			SM						
	220-221	/												
	220-221	/			Gray	Silty, very fine to fine sand,	SM	Screened mud rotary	0	0	0	0		
	221-222	/												
	221-222	/			Gray	micaceous, trace lignite.	SM	cuttings.						
	222-223	/			Gray			SM						
	223-224	/			Gray			SM						
	224-225	/			Gray			SM						

Remarks: \_\_\_\_\_ Drilling Area Background (ppm):

Converted to Well: Yes \_\_\_\_\_ No  Boring I.D. #: BP-VPB-131





### Boring Log

PROJECT NAME: Bethpage OU-2 Investigation  
 PROJECT NUMBER: 112G02751  
 DRILLING COMPANY: Delta Well and Pump  
 DRILLING RIG: Port-A-Drill, 6" I.D. Mud Rotary

BORING No.: BP-VPB-131  
 DATE: March 19, 2012  
 GEOLOGIST: J. Ferguson  
 DRILLER: B. Murphy / C. Cobb

Sample No. and Type or RGD	Depth (Ft.) or Run No.	Blows / 6" or RGD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION			U S C S *	Remarks	PIDFID Reading (ppm)					
					Soil Density/ Consistency or Rock Hardness	Color	Material Classification			Sample	Sampler BZ	Borehole**	Driller BZ**		
	225-226	/				Tan-gray	Very fine to fine sand, traces	SM	Screened mud rotary	0	0	0	0		
	226-227	/				Tan-gray	silt and clay.		SM	cuttings.					
	227-228	/				Tan-gray			SM						
GWS	228-229	/				Tan-gray			SM	BP-VPB131-GW-228					
	229-230	/				Tan-gray			SM	03/19/2012: 14:10					
	230-231	/					Tan-gray	Very fine to fine sand, traces	SM	Screened mud rotary	0	0	0	0	
	231-232	/					Tan-gray	silt and clay.	SM	cuttings.					
	232-233	/					Tan-gray		SM						
	233-234	/					Tan-gray		SM						
	234-235	/					Tan-gray		SM						
	235-236	/					Tan-gray	Very fine to fine sand, traces	SM	Screened mud rotary	0	0	0	0	
	236-237	/					Tan-gray	silt and clay.	SM	cuttings.					
	237-238	/					Tan-gray		SM						
	238-239	/					Tan-gray		SM						
	239-240	/					Tan-gray		SM						
	240-241	/						Tan-gray	Very fine to fine sand, traces	SM	Screened mud rotary	0	0	0	0
	241-242	/						Tan-gray	silt and clay.	SM	cuttings.				
	242-243	/						Tan-gray		SM					
	243-244	/						Tan-gray		SM					
	244-245	/						Tan-gray		SM					
	245-246	/						Tan-gray	Very fine to fine sand, traces	SM	Screened mud rotary	0	0	0	0
	246-247	/						Tan-gray	silt and clay.	SM	cuttings.				
	247-248	/						Tan-gray		SM					
GWS	248-249	/						Tan-gray		SM	BP-VPB131-GW-248				
	249-250	/						Tan-gray		SM	03/19/2012: 16:00				

Remarks: \_\_\_\_\_ Drilling Area Background (ppm): 0

Converted to Well: Yes \_\_\_\_\_ No X Boring I.D. #: BP-VPB-131



### Boring Log

PROJECT NAME: Bethpage OU-2 Investigation  
 PROJECT NUMBER: 112G02751  
 DRILLING COMPANY: Delta Well and Pump  
 DRILLING RIG: Port-A-Drill, 6" I.D. Mud Rotary

BORING No.: BP-VPB-131  
 DATE: March 20, 2012  
 GEOLOGIST: J. Ferguson  
 DRILLER: B. Murphy / C. Cobb

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			U S C S *	Remarks	PID/FID Reading (ppm)				
					Soil Density/ Consistency or Rock Hardness	Color	Material Classification			Sample	Sampler BZ	Borehole**	Driller BZ**	
	250-251	/				Gray	Lignitic, fine sand, interbedded	SM	Screened mud rotary	0	0	0	0	
	251-252	/				Gray	silt and clay laminae.		SM	cuttings.				
	252-253	/				Gray			SM					
	253-254	/				Gray			SM					
	254-255	/				Gray			SM					
	255-256	/				Gray	Lignitic, fine sand, interbedded		SM	Screened mud rotary	0	0	0	0
	256-257	/				Gray	silt and clay laminae.		SM	cuttings.				
	257-258	/				Gray			SM					
	258-259	/				Gray			SM					
	259-260	/				Gray			SM					
	260-261	/				Gray	Lignitic, fine sand, interbedded		SM	Screened mud rotary	0	0	0	0
	261-262	/				Gray	silt and clay laminae.		SM	cuttings.				
	262-263	/				Gray			SM					
	263-264	/				Gray			SM					
	264-265	/				Gray			SM					
	265-266	/				Gray	Lignitic, fine sand, interbedded		SM	Screened mud rotary	0	0	0	0
	266-267	/				Gray	silt and clay laminae.		SM	cuttings.				
	267-268	/				Gray			SM					
GWS	268-269	/				Gray			SM	BP-VPB131-GW-268				
	269-270	/				Gray			SM	03/20/2012: 10:10				
	270-271	/			Gray	Lignitic, fine sand, interbedded		SM	Screened mud rotary	0	0	0	0	
	271-272	/			Gray	silt and clay laminae.		SM	cuttings.					
	272-273	/			Gray			SM						
	273-274	/			Gray			SM						
	274-275	/			Gray			SM						

Remarks: \_\_\_\_\_ Drilling Area Background (ppm): 0

Converted to Well: Yes \_\_\_\_\_ No X Boring I.D. #: BP-VPB-131



### Boring Log

PROJECT NAME: Bethpage OU-2 Investigation  
 PROJECT NUMBER: 112G02751  
 DRILLING COMPANY: Delta Well and Pump  
 DRILLING RIG: Port-A-Drill, 6" I.D. Mud Rotary

BORING No.: BP-VPB-131  
 DATE: March 20, 2012  
 GEOLOGIST: J. Ferguson  
 DRILLER: B. Murphy / C. Cobb

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			U S C S *	Remarks	PID/FID Reading (ppm)				
					Soil Density/ Consistency or Rock Hardness	Color	Material Classification			Sample	Sampler BZ	Borehole**	Driller BZ**	
	275-276	/				Gray	Lignitic, fine sand, interbedded	SM	Screened mud rotary	0	0	0	0	
	276-277	/				Gray	silt and clay laminae.		SM	cuttings.				
	277-278	/				Gray			SM					
	278-279	/				Gray			SM					
	279-280	/				Gray			SM					
	280-281	/				Gray	Lignitic, fine sand.		SP	Screened mud rotary	0	0	0	0
	281-282	/				Gray			SP	cuttings.				
	282-283	/				Gray			SP					
	283-284	/				Gray			SP					
	284-285	/				Gray			SP					
	285-286	/			Gray	Silty, micaceous, lignitic, fine sand.		SP	Screened mud rotary	0	0	0	0	
	286-287	/			Gray			SP	cuttings.					
	287-288	/			Gray			SP						
GWS	288-289	/			Gray			SP	BP-VPB131-GW-288					
	289-290	/			Gray			SP	03/20/2012: 11:50					
	290-291	/			Gray	Lignitic, fine sand, trace to little		SM	Screened mud rotary	0	0	0	0	
	291-292	/			Gray	silt and clay.		SM	cuttings.					
	292-293	/			Gray			SM						
	293-294	/			Gray			SM						
	294-295	/			Gray			SM						
	295-296	/			Gray	Lignitic, fine sand, trace to little		SM	Screened mud rotary	0	0	0	0	
	296-297	/			Gray-white	Sandy (very fine to fine) silt		ML CL	cuttings.					
	297-298	/			Gray-white	and clay.		ML CL						
	298-299	/			Gray-white			ML CL						
	299-300	/			Gray-white			ML CL						

Remarks: \_\_\_\_\_ Drilling Area Background (ppm): 0

Converted to Well: Yes \_\_\_\_\_ No X Boring I.D. #: BP-VPB-131



# Boring Log

PROJECT NAME: Bethpage OU-2 Investigation  
 PROJECT NUMBER: 112G02751  
 DRILLING COMPANY: Delta Well and Pump  
 DRILLING RIG: Port-A-Drill, 6" I.D. Mud Rotary

BORING No.: BP-VPB-131  
 DATE: March 20, 2012  
 GEOLOGIST: J. Ferguson  
 DRILLER: B. Murphy / C. Cobb

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			U S C S *	Remarks	PID/FID Reading (ppm)				
					Soil Density/ Consistency or Rock Hardness	Color	Material Classification			Sample	Sampler BZ	Borehole**	Driller BZ**	
	300-301	/				Gray-white	Silty, sandy (fine) clay.	CL	Screened mud rotary	0	0	0	0	
	301-302	/				Gray-white			CL	cuttings.				
	302-303	/				Gray-white			CL					
	303-304	/				Gray-white			CL					
	304-305	/				Gray-white			CL					
	305-306	/				Gray-white		Silty, sandy (fine) clay.	CL	Screened mud rotary	0	0	0	0
	306-307	/				Gray-white			CL	cuttings.				
	307-308	/				Gray-white			CL					
GWS	308-309	/				Dark gray		Micaceous, lignitic, sandy (fine)	ML CL	BP-VPB131-GW-308				
	309-310	/				Dark gray		silt and clay.	ML CL	03/20/2012: 13:50				
	310-311	/				Gray		Lignitic, fine sand, trace to little	SM	Screened mud rotary	0	0	0	0
	311-312	/				Gray		silt and clay.	SM	cuttings.				
	312-313	/				Gray			SM					
	313-314	/				Gray			SM					
	314-315	/				Gray			SM					
	315-316	/				Gray		Lignitic, fine sand, trace to little	SM	Screened mud rotary	0	0	0	0
	316-317	/				Gray		silt and clay.	SM	cuttings.				
	317-318	/				Gray			SM					
	318-319	/				Gray			SM					
	319-320	/				Gray			SM					
	320-321	/				Gray		Lignitic, fine sand, trace to little	SM	Screened mud rotary	0	0	0	0
	321-322	/				Gray		silt and clay.	SM	cuttings.				
	322-323	/				Gray			SM					
	323-324	/				Gray			SM					
	324-325	/				Gray			SM					

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes  No  Boring I.D. #: BP-VPB-131



### Boring Log

PROJECT NAME: Bethpage OU-2 Investigation  
 PROJECT NUMBER: 112G02751  
 DRILLING COMPANY: Delta Drilling  
 DRILLING RIG: Delta Well and Pump

BORING No.: BP-VPB-131  
 DATE: March 20-21, 2012  
 GEOLOGIST: J. Ferguson  
 DRILLER: B. Murphy / C. Cobb

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			U S C S *	Remarks	PID/FID Reading (ppm)				
					Soil Density/ Consistency or Rock Hardness	Color	Material Classification			Sample	Sampler BZ	Borehole**	Driller BZ**	
	325-326	/				Tan brown	Silty, fine-medium sand.	SM	Screened mud rotary	0	0	0	0	
	326-327	/				Tan brown			SM	cuttings.				
GWS	327-328	/				Tan brown			SM	BP-VPB131-GW-328				
	328-329	/				Tan brown			SM	03/20/2012 : 15:45				
	329-330	/				Tan brown			SM					
	330-331	/					Tan brown	Silty, fine-medium sand.	SM	Screened mud rotary	0	0	0	0
	331-332	/					Tan brown		SM	cuttings.				
	332-333	/					Tan brown		SM					
	333-334	/					Tan brown		SM					
	334-335	/					Tan brown		SM					
	335-336	/					Tan brown	Silty, fine-medium sand.	SM	Screened mud rotary	0	0	0	0
	336-337	/					Tan brown		SM	cuttings.				
	337-338	/					Tan brown		SM					
	338-339	/					Tan brown		SM					
	339-340	/					Tan brown		SM					
	340-341	/					Gray	Lignitic, fine sand, interbedded	SM	Screened mud rotary	0	0	0	0
	341-342	/					Gray	silt and clay, micaceous.	SM	cuttings.				
	342-343	/					Gray		SM					
	343-344	/					Gray		SM					
	344-345	/					Gray		SM					
	345-346	/					Gray	Lignitic, fine sand, trace to little	SM	Screened mud rotary	0	0	0	0
	346-347	/					Gray	silt and clay, micaceous.	SM	cuttings.				
	347-348	/					Gray		SM					
GWS	348-349	/					Gray		SM	BP-VPB131-GW-348				
	349-350	/					Gray		SM	03/21/2012: 10:00				

Remarks: \_\_\_\_\_

Drilling Area Background (ppm):

Converted to Well: Yes \_\_\_\_\_ No \_\_\_\_\_ X \_\_\_\_\_ Boring I.D. #: BP-VPB-131



# Boring Log

PROJECT NAME: Bethpage OU-2 Investigation  
 PROJECT NUMBER: 112G02751  
 DRILLING COMPANY: Delta Well and Pump  
 DRILLING RIG: Port-A-Drill, 6" I.D. Mud Rotary

BORING No.: BP-VPB-131  
 DATE: March 21, 2012  
 GEOLOGIST: J. Ferguson  
 DRILLER: B. Murphy / C. Cobb

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			U S C S *	Remarks	PID/FID Reading (ppm)				
					Soil Density/ Consistency or Rock Hardness	Color	Material Classification			Sample	Sampler BZ	Borehole**	Driller BZ*	
	350-351	/				Gray	Silty, micaceous, fine sand, tr. to little	SM	Screened mud rotary	0	0	0	0	
	351-352	/				Gray		silt and clay.	SM	cuttings.				
	352-353	/				Gray			SM					
	353-354	/				Gray			SM					
	354-355	/				Gray			SM					
	355-356	/				Gray		Silty, micaceous, fine sand, tr. to little	SM	Screened mud rotary	0	0	0	0
	356-357	/				Gray		silt and clay.	SM	cuttings.				
	357-358	/				Gray			SM					
	358-359	/				Gray			SM					
	359-360	/				Gray			SM					
	360-361	/				Gray		Silty, micaceous, fine sand, tr. to little	SM	Screened mud rotary	0	0	0	0
	361-362	/				Gray		silt and clay.	SM	cuttings.				
	362-363	/				Gray			SM					
	363-364	/				Gray			SM					
	364-365	/				Gray			SM					
	365-366	/				Dark gray		Silty, micaceous, fine sand, tr. to little	SM	Screened mud rotary	0	0	0	0
	366-367	/				Dark gray		silt and clay.	SM	cuttings.				
	367-368	/				Dark gray			SM					
GWS	368-369	/			Dark gray			SM	BP-VPB131-GW-368					
	369-370	/			Dark gray			SM	03/21/2012 :12:00					
	370-371	/			Dark gray		Silty, micaceous, fine sand, tr. to little	SM	Screened mud rotary	0	0	0	0	
	371-372	/			Dark gray		silt and clay.	SM	cuttings.					
	372-373	/			Dark gray			SM						
	373-374	/			Dark gray		Silty, sandy (fine) clay.	SM						
	374-375	/			Dark gray		Silty, sandy (fine) clay.	SM						

Remarks: \_\_\_\_\_

Drilling Area Background (ppm):

Converted to Well: Yes  No  X  Boring I.D. #: BP-VPB-131



### Boring Log

PROJECT NAME: Bethpage OU-2 Investigation  
 PROJECT NUMBER: 112G02751  
 DRILLING COMPANY: Delta Well and Pump  
 DRILLING RIG: Port-A-Drill, 6" I.D. Mud Rotary

BORING No.: BP-VPB-131  
 DATE: March 21, 2012  
 GEOLOGIST: J. Ferguson  
 DRILLER: B. Murphy / C. Cobb

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			U S C S *	Remarks	PID/FID Reading (ppm)			
					Soil Density/ Consistency or Rock Hardness	Color	Material Classification			Sample	Sampler BZ	Borehole**	Driller BZ**
	375-376	/				Gray-white	Silty, sandy (fine) clay.	CL		0	0	0	0
	376-377	/				Tan-gray	Silty fine-medium sand, trace silt	SM					
	377-378	/				Tan-gray	laminae.	SM					
	378-379	/				Tan-gray		SM					
	379-380	/				Tan-gray		SM					
	380-381	/				Tan-gray	Silty fine-medium sand, trace silt	SM		0	0	0	0
	381-382	/				Tan-gray	laminae.	SM					
	382-383	/				Tan-gray		SM					
	383-384	/				Tan-gray		SM					
	384-385	/				Tan-gray		SM					
	385-386	/				Tan-gray	Silty fine-medium sand, trace silt	SM		0	0	0	0
	386-387	/				Tan-gray	laminae.	SM					
	387-388	/				Tan-gray		SM					
GWS	388-389	/				Tan-gray		SM	BP-VPB131-GW-388				
	389-390	/				Tan-gray		SM	03/21/2012 :14:00				
	390-391	/				Tan-gray	Silty fine-medium sand, trace silt	SM		0	0	0	0
	391-392	/				Tan-gray	laminae.	SM					
	392-393	/				Tan-gray		SM					
	393-394	/				Tan-gray		SM					
	394-395	/				Tan-gray		SM					
	395-396	/			Tan-gray	Silty fine-medium sand, trace silt	SM		0	0	0	0	
	396-397	/			Tan-gray	laminae.	SM						
	397-398	/			Tan-gray		SM						
	398-399	/			Tan-gray		SM						
	399-400	/			Tan-gray		SM						

Remarks: \_\_\_\_\_ Drilling Area Background (ppm):

Converted to Well: Yes \_\_\_\_\_ No \_\_\_\_\_ X \_\_\_\_\_ Boring I.D. #: BP-VPB-131



### Boring Log

PROJECT NAME: Bethpage OU-2 Investigation  
 PROJECT NUMBER: 112G02751  
 DRILLING COMPANY: Delta Well and Pump  
 DRILLING RIG: Port-A-Drill, 6" I.D. Mud Rotary

BORING No.: BP-VPB-131  
 DATE: March 21-22, 2012  
 GEOLOGIST: J. Ferguson  
 DRILLER: B. Murphy / C. Cobb

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			U S C S *	Remarks	PID/FID Reading (ppm)				
					Soil Density/ Consistency or Rock Hardness	Color	Material Classification			Sample	Sampler BZ	Borehole**	Driller BZ**	
	400-401	/				Tan-gray	Silty fine-medium sand, trace silt	SM		0	0	0	0	
	401-402	/				Tan-gray	laminae.		SM					
	402-403	/				Tan-gray			SM					
	403-404	/				Tan-gray			SM					
	404-405	/				Tan-gray			SM					
	405-406	/				Tan-gray	Silty, micaceous, very fine-fine sand.		SM		0	0	0	0
	406-407	/				Tan-gray			SM					
	407-408	/				Tan-gray			SM					
GWS	408-409	/				Tan-gray			SM	BP-VPB131-GW-408				
	409-410	/				Tan-gray			SM	03/21/2012 :16:00				
	410-411	/				Tan-gray	Silty fine-medium sand, trace silt		SM	03/22/12 Started dilling	0	0	0	0
	411-412	/				Tan-gray	laminae.		SM	408'				
	412-413	/				Tan-gray			SM					
	413-414	/				Very dense Tan-gray	Silty fine-medium sand, trace silt		SM	Split spoon sample				
	414-415	/				Tan-gray	laminae.		SM	14:35				
	415-416	/				Tan-gray	Silty fine-medium sand, trace silt		SM		0	0	0	0
	416-417	/				Tan-gray	laminae.		SM					
	417-418	/				Tan-gray			SM					
	418-419	/				Tan-gray			SM					
	419-420	/				Tan-gray			SM					
	420-421	/				Tan-gray	Silty fine-medium sand, trace silt		SM		0	0	0	0
	421-422	/				Tan-gray	laminae.		SM					
	422-423	/				Tan-gray			SM					
	423-424	/				Tan-gray	Silty fine-medium sand, trace silt		SM	Mud rotary cuttings.				
	424-425	/			Tan-gray	laminae.		SM						

Remarks: \_\_\_\_\_ Drilling Area Background (ppm): 0

Converted to Well: Yes No X Boring I.D. #: BP-VPB-131





### Boring Log

PROJECT NAME: Bethpage OU-2 Investigation  
 PROJECT NUMBER: 112G02751  
 DRILLING COMPANY: Delta Well and Pump  
 DRILLING RIG: Port-A-Drill, 6" I.D. Mud Rotary

BORING No.: BP-VPB-131  
 DATE: March 22, 2012  
 GEOLOGIST: J. Ferguson  
 DRILLER: B. Murphy / C. Cobb

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			U S C S *	Remarks	PID/FID Reading (ppm)				
					Soil Density/ Consistency or Rock Hardness	Color	Material Classification			Sample	Sampler BZ	Borehole**	Driller BZ**	
	425-426	/				Gray	Silty, micaceous, very fine-fine sand,	SM		0	0	0	0	
	426-427	/				Gray	and sandy silt.	SM						
	427-428	/				Gray			SM					
GWS	428-429	/				Gray			SM	BP-VPB131-GW-428				
	429-430	/				Gray			SM	03/22/2012 :13:20				
	430-431	/				Gray to white			SM					
	431-432	/				Gray to white			SM					
	432-433	/				Gray to white			SM					
	433-434	/				Very dense Tan-gray	Fine-medium sand, trace silt		SM	Split spoon sample	0	0	0	0
	434-435	/				Tan-gray	laminae.		SM	14:35				
	435-436	/				Gray to white	Silty, micaceous, fine-medium sand,		SM					
	436-437	/				Gray to white	trace to little lignite.		SM					
	437-438	/				Gray to white			SM					
	438-439	/				Gray to white			SM					
	439-440	/				Gray to white			SM					
	440-441	/				Gray to white	Silty, micaceous, fine-medium sand,		SM		0	0	0	0
	441-442	/				Gray to white	trace to little lignite.		SM					
	442-443	/				Gray to white			SM					
	443-444	/				Gray to white			SM					
	444-445	/				Gray to white			SM					
	445-446	/			Gray	Micaceous, lignitic, fine-medium sand,		SM		0	0	0	0	
	446-447	/			Gray	trace to little lignite.		SM						
	447-448	/			Gray			SM						
GWS	448-449	/			Gray			SM	BP-VPB131-GW-448					
	449-450	/			Gray			SM	03/22/2012 :15:05					

Remarks: \_\_\_\_\_

Drilling Area Background (ppm):

Converted to Well: Yes \_\_\_\_\_ No \_\_\_\_\_ X \_\_\_\_\_ Boring I.D. #: BP-VPB-131



# Boring Log

PROJECT NAME: Bethpage OU-2 Investigation  
 PROJECT NUMBER: 112G02751  
 DRILLING COMPANY: Delta Well and Pump  
 DRILLING RIG: Port-A-Drill, 6" I.D. Mud Rotary

BORING No.: VPB-131  
 DATE: March 22-23, 2012  
 GEOLOGIST: J. Ferguson  
 DRILLER: B. Murphy / C. Cobb

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/FL) or Screened Interval	MATERIAL DESCRIPTION			U S C S *	Remarks	PID/FID Reading (ppm)				
					Soil Density/ Consistency or Rock Hardness	Color	Material Classification			Sample	Sampler BZ	Borehole**	Driller BZ**	
	450-451	/				Gray	Sandy (fine) Clay and clayey	CL SC	Logged mud rotary cuttings.	0	0	0	0	
	451-452	/				Gray	fine sand	CL SC						
	452-453	/				Gray		CL SC						
	453-454	/				Gray		CL SC						
	454-455	/				Gray to white		Silty, very fine sand, trace silt and clay	SM ML					
	455-456	/				Gray to white		Silty, very fine sand, trace silt and clay	SM ML	Logged mud rotary cuttings.	0	0	0	0
	456-457	/				Gray to white			SM ML					
	457-458	/				Gray to white			SM ML					
	458-459	/				Gray to white		Sandy (fine) Silt	ML					
	459-460	/				Gray to white			ML					
	460-461	/				Gray to white		Silty, very fine sand, trace silt and clay	SM ML	Logged mud rotary cuttings.	0	0	0	0
	461-462	/				Gray to white			SM ML					
	462-463	/				Gray to white			SM ML					
	463-464	/				Gray to white			SM ML					
	464-465	/				Gray to white			SM ML					
	465-466	/				Gray to white		Silty, micaceous, fine-medium sand,	SM ML	Logged mud rotary cuttings.	0	0	0	0
	466-467	/				Gray to white		trace to little lignite.	SM ML					
	467-468	/				Gray to white			SM ML					
GWS	468-469	/				Gray to white			SM ML	BP-VPB131-GW-468				
	469-470	/				Gray to white			SM ML	March 23, 2012; 10:05				
	470-471	/				Gray-white		Silty, sandy (fine) clay.	CL	Logged mud rotary cuttings.	0	0	0	0
	471-472	/				Gray-white			CL					
	472-473	/				Gray to white			SM ML					
	473-474	/				Gray to white			SM ML					
	474-475	/				Gray to white			SM ML					

Remarks: \_\_\_\_\_

Drilling Area Background (ppm):

Converted to Well: Yes  No  Boring I.D. #: VPB-131



### Boring Log

PROJECT NAME: Bethpage OU-2 Investigation  
 PROJECT NUMBER: 112G02751  
 DRILLING COMPANY: Delta Well and Pump  
 DRILLING RIG: Port-A-Drill, 6" I.D. Mud Rotary

BORING No.: VPB-131  
 DATE: March 23, 2012  
 GEOLOGIST: J. Ferguson  
 DRILLER: B. Murphy / C. Cobb

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			U S C S *	Remarks	PID/FID Reading (ppm)				
					Soil Density/ Consistency or Rock Hardness	Color	Material Classification			Sample	Sampler BZ	Borehole**	Driller BZ**	
	475-476	/				Gray to white	Silty, very fine sand, trace silt and clay	SM	Logged mud rotary cuttings.	0	0	0	0	
	476-477	/				Gray to white			SM					
	477-478	/				Gray to white			SM					
	478-479	/				Gray to white			SM					
	479-480	/				Gray to white			ML					
	480-481	/				Gray to white			SM	Logged mud rotary cuttings.	0	0	0	0
	481-482	/				Gray to white			SM					
	482-483	/				Gray to white			SM					
	483-484	/				Gray to white			SM					
	484-485	/				Gray to white			SM					
	485-486	/				Gray to white			SM		0	0	0	0
	486-487	/				Gray to white			SM ML	Micaceous, sandy (fine) silt.				
	487-488	/				Gray to white			SM ML					
GWS	488-489	/				Gray to white			SM	BP-VPB131-GW-488				
	489-490	/				Gray to white			SM	March 23, 2012; 12:00				
	490-491	/				Gray to white			SM	Logged mud rotary cuttings.	0	0	0	0
	491-492	/				Gray to white			SM					
	492-493	/				Gray to white			SM					
	493-494	/				Gray to white			SM					
	494-495	/				Gray to white			SM					
	495-496	/			Gray to white			SM		0	0	0	0	
	496-497	/			Gray to white			SM						
	497-498	/			Gray to white			SM						
GWS	498-499	/			Gray to white			SM	BP-VPB131-GW-498					
	499-500	/			Gray to white			SM	March 23, 2012; 14:30					

Remarks: \_\_\_\_\_ Drilling Area Background (ppm): 0

Converted to Well: Yes          No          X          Boring I.D. #: VPB-131



### Boring Log

PROJECT NAME: Bethpage OU-2 Investigation  
 PROJECT NUMBER: 112G02751  
 DRILLING COMPANY: Delta Well and Pump  
 DRILLING RIG: Port-A-Drill, 6" I.D. Mud Rotary

BORING No.: VPB-131  
 DATE: March 26, 2012  
 GEOLOGIST: J. Ferguson  
 DRILLER: B. Murphy / C. Cobb

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			U S C S *	Remarks	PID/FID Reading (ppm)				
					Soil Density/ Consistency or Rock Hardness	Color	Material Classification			Sample	Sampler BZ	Borehole*	Driller BZ*	
	500-501					Gray to white	Silty, very fine sand, trace silt and clay	SM ML		0	0	0	0	
	501-502					Gray to white		SM ML						
	502-503					Gray to white		SM ML						
	503-504					Gray to white		SM ML						
	504-505					Gray to white		SM ML						
	505-506					Gray to white		Silty, micaceous, fine-medium sand	SM ML					
	506-507					Gray to white		trace silt laminae.	SM ML					
	507-508					Gray to white			SM ML					
GWS	508-509					Gray to white			SM ML	BP-VPB131-GW-508	0	0	0	0
	509-510					Gray to white			SM ML	March 26, 2012; 10:30				
	510-511					Gray			SM					
	511-512					Gray			SM					
	512-513					Gray			SM					
	513-514					Gray			SM					
SS	514-515					Very dense	Gray	Silty, micaceous fine-medium sand,	SM					
	515-516					Gray	trace to little lignite (1 mm) laminae.	SM		0	0	0	0	
	516-517					Gray		SM						
	517-518					Gray		SM						
	518-519					Gray		SM						
	519-520					Gray to white	Sandy (fine) Silt and Clay.	ML CL						
	520-521					Gray to white		ML CL	Logged mud rotary cuttings.	0	0	0	0	
	521-522					Gray to white		ML CL						
	522-523					Gray to white		ML CL						
	523-524					Gray to white		ML CL						
	524-525					Gray	Silty, micaceous, fine-medium sand	SM						

Remarks: \_\_\_\_\_

Drilling Area Background (ppm):

Converted to Well: Yes \_\_\_\_\_ No \_\_\_\_\_ X \_\_\_\_\_ Boring I.D. #: VPB-131



### Boring Log

PROJECT NAME: Bethpage OU-2 Investigation  
 PROJECT NUMBER: 112G02751  
 DRILLING COMPANY: Delta Well and Pump  
 DRILLING RIG: Port-A-Drill, 6" I.D. Mud Rotary

BORING No.: VPB-131  
 DATE: March 27, 2012  
 GEOLOGIST: J. Ferguson  
 DRILLER: B. Murphy / C. Cobb

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/FL) or Screened Interval	MATERIAL DESCRIPTION			U S C S *	Remarks	PID/FID Reading (ppm)			
					Soil Density/ Consistency or Rock Hardness	Color	Material Classification			Sample	Sampler BZ	Borehole*	Driller BZ**
	525-526	/				Gray	Silty, micaceous fine-medium sand,	SM	Logged mud rotary cuttings.	0	0	0	0
	526-527	/			Gray	trace silt laminae.		SM					
	527-528	/			Gray			SM					
GWS	528-529	/			Gray			SM	BP-VPB131-GW-528				
	529-530	/			Gray			SM	March 27, 2012; 11:30				
	530-531	/			Gray	Silty, micaceous fine-medium sand,		SM	Logged mud rotary cuttings.	0	0	0	0
	531-532	/			Gray	trace silt laminae.		SM					
	532-533	/			Gray			SM					
	533-534	/			Gray			SM					
	534-535	/			Gray			SM					
	535-536	/			Gray	Silty, micaceous fine-medium sand,		SM	Logged mud rotary cuttings.	0	0	0	0
	536-537	/			Gray	trace silt laminae.		SM					
	537-538	/			Gray			SM					
	538-539	/			Gray to white	Interbedded sandy (fine) silt		ML SM					
	539-540	/			Gray to white	and silty fine sand.		ML SM					
	540-541	/			Gray to white			ML SM	Logged mud rotary cuttings.	0	0	0	0
	541-542	/			Gray to white			ML SM					
	542-543	/			Gray	Silty, micaceous fine-medium sand,		SM					
	543-544	/			Gray	trace silt laminae.		SM					
	544-545	/			Gray			SM					
	545-546	/			Gray	Silty, micaceous fine-medium sand,		SM	Logged mud rotary cuttings.	0	0	0	0
	546-547	/			Gray	trace silt laminae.		SM					
	547-548	/			Gray			SM					
GWS	548-549	/			Gray			SM	BP-VPB131-GW-548	0	0	0	0
	549-550	/			Gray			SM	March 27, 2012; 16:00				

Remarks: \_\_\_\_\_

Drilling Area Background (ppm): 0

Converted to Well: Yes \_\_\_\_\_ No X Boring I.D. #: VPB-131



### Boring Log

PROJECT NAME: Bethpage OU-2 Investigation  
 PROJECT NUMBER: 112G02751  
 DRILLING COMPANY: Delta Well and Pump  
 DRILLING RIG: Port-A-Drill, 6" I.D. Mud Rotary

BORING No.: VPB-131  
 DATE: March 28, 2012  
 GEOLOGIST: J. Ferguson  
 DRILLER: B. Murphy / C. Cobb

Sample No. and Type or RCD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION			U S C S	Remarks	PID/FID Reading (ppm)				
					Soil Density/ Consistency or Rock Hardness	Color	Material Classification			Sample	Sampler BZ	Borehole*	Driller BZ*	
	550-551	/				Gray to white	Silty, fine-medium sand.	SM	Logged mud rotary cuttings.	0	0	0	0	
	551-552	/				Gray to white			SM					
	552-553	/				Gray to white			SM					
	553-554	/				Gray to white			SM					
	554-555	/				Gray to white			SM					
	555-556	/				Gray	Micaceous, silty, fine-medium sand.		SM		0	0	0	0
	556-557	/				Gray			SM					
	557-558	/				Gray			SM					
	558-559	/				Gray			SM					
	559-560	/				Gray			SM					
	560-561	/				Gray to white	Silty, fine-medium sand.		SM	Logged mud rotary cuttings.	0	0	0	0
	561-562	/				Gray to white			SM					
	562-563	/				Gray to white	Micaceous, medium to coarse sand.		SP					
	563-564	/				Gray to white			SP					
	564-565	/				Gray to white	Interbedded sandy (fine) silt		ML SM					
	565-566	/				Gray to white	and silty fine sand.		ML SM		0	0	0	0
	566-567	/				Gray	Micaceous, silty, fine-medium sand.		SM					
	567-568	/				Gray			SM					
GWS	568-569	/				Gray			SM	BP-VPB131-GW-568	0	0	0	0
	569-570	/				Gray			SM	March 28, 2012; 10:15				
	570-571	/			Gray	Micaceous, medium to coarse sand.		SP	Logged mud rotary cuttings.					
	571-572	/			Gray			SP						
	572-573	/			Gray			SP						
	573-574	/			Gray			SP						
	574-575	/			Gray	Micaceous, medium to coarse sand.		SP		0	0	0	0	

Remarks: \_\_\_\_\_  
 Drilling Area Background (ppm): 0

Converted to Well: Yes \_\_\_\_\_ No X Boring I.D. #: VPB-131



### Boring Log

PROJECT NAME: Bethpage OU-2 Investigation  
 PROJECT NUMBER: 112G02751  
 DRILLING COMPANY: Delta Well and Pump  
 DRILLING RIG: Port-A-Drill, 6" I.D. Mud Rotary

BORING No.: VPB-131  
 DATE: March 28, 2012  
 GEOLOGIST: J. Ferguson  
 DRILLER: B. Murphy / C. Cobb

Sample No. and Type or RCD	Depth (Ft) or Run No.	Blows / 6" or RGD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft) or Screened Interval	MATERIAL DESCRIPTION			U S C S *	Remarks	PID/FID Reading (ppm)				
					Soil Density/ Consistency or Rock Hardness	Color	Material Classification			Sample	Sampler BZ	Borehole**	Driller BZ**	
	575-576	/				Gray	Micaceous, medium to coarse sand.	SP		0	0	0	0	
	576-577	/				Gray			SP					
	577-578	/				Gray			SP					
	578-579	/				Gray			SP					
	579-580	/				Gray			SP					
	580-581	/				Gray to white		Interbedded sandy (fine) silt	ML SM	Logged mud rotary cuttings.	0	0	0	0
	581-582	/				Gray to white		and silty fine sand.	ML SM					
	582-583	/				Gray			ML SM					
	583-584	/				Gray			ML SM					
	584-585	/				Gray			ML SM					
	585-586	/			Gray			ML SM	Logged mud rotary cuttings.	0	0	0	0	
	586-587	/			Gray		Micaceous, silty, fine-medium sand.	SM						
	587-588	/			Gray		with interbedded silt laminae.	SM						
GWS	588-589	/			Gray to white			SM	BP-VPB131-GW-588	0	0	0	0	
	589-590	/			Gray to white			SM	March 28, 2012; 12:10					
	590-591	/			Gray		Micaceous, silty, fine-medium sand.	SM	Logged mud rotary cuttings.					
	591-592	/			Gray		with interbedded silt laminae.	SM						
	592-593	/			Gray			SM						
	593-594	/			Gray			SM						
	594-595	/			Gray			SM						
	595-596	/			Gray		Micaceous, silty, fine-medium sand.	SM		0	0	0	0	
	596-597	/			Gray		with interbedded silt laminae.	SM						
	597-598	/			Gray			SM						
	598-599	/			Gray			SM						
	599-600	/			Gray			SM						

Remarks: \_\_\_\_\_  
 Drilling Area Background (ppm): 0

Converted to Well: Yes \_\_\_\_\_ No \_\_\_\_\_ X \_\_\_\_\_ Boring I.D. #: VPB-131



# Boring Log

PROJECT NAME: Bethpage OU-2 Investigation  
 PROJECT NUMBER: 112G02751  
 DRILLING COMPANY: Delta Well and Pump  
 DRILLING RIG: Port-A-Drill, 6" I.D. Mud Rotary

BORING No.: VPB-131  
 DATE: March 28, 2012  
 GEOLOGIST: J. Ferguson  
 DRILLER: B. Murphy / C. Cobb

Sample No. and Type or RQD	Depth (FL) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/FL) or Screened Interval	MATERIAL DESCRIPTION			U S C S *	Remarks	PID/FID Reading (ppm)			
					Soil Density/ Consistency or Rock Hardness	Color	Material Classification			Sample	Sampler BZ	Borehole**	Driller BZ**
	600-601	/				Gray to white	Interbedded silt and silty fine	SM ML	Logged mud rotary cuttings.	0	0	0	0
	601-602	/				Gray to white	sand	SM ML					
	602-603	/				Gray to white	Silty fine-medium sand, trace to little	SM					
	603-604	/				Gray to white	silt laminae	SM					
	604-605	/				Gray to white		SM					
	605-606	/				Gray to white	Silty fine-medium sand, trace to little	SM	Logged mud rotary cuttings.	0	0	0	0
	606-607	/				Gray to white	silt laminae	SM					
	607-608	/				Gray to white		SM					
GWS	608-609	/				Gray to white	Silty, clayey, fine-coarse quartzose	SM	BP-VPB131-GW-608	0	0	0	0
	609-610	/				Gray to white	sand, trace-little lignite.	SM	March 28, 2012; 14:20				
	610-611	/				Gray to white	Silty fine-medium sand, trace to little	SM	Logged mud rotary cuttings.	0	0	0	0
	611-612	/				Gray to white	silt laminae	SM					
	612-613	/				Gray to white		SM					
	613-614	/				Gray to white		SM					
	614-615	/				Gray to white		SM					
	615-616	/				Gray to white	Interbedded medium-coarse sand	SM ML	Logged mud rotary cuttings.	0	0	0	0
	616-617	/				Gray to white	and silt laminae	SM ML					
	617-618	/				Gray to white		SM ML					
GWS	618-619	/				Gray to white		SM ML	BP-VPB131-GW-618	0	0	0	0
	619-620	/				Gray to white		SM ML	March 29, 2012; 11:45				
	620-621	/				Gray to white	Interbedded medium-coarse sand	SP	Logged mud rotary cuttings.	0	0	0	0
	621-622	/				Gray to white	trace silt laminae	SP					
	622-623	/				Gray to white		SP					
	623-624	/				Gray to white		SP					
	624-625	/				Gray to white		SP					

Remarks: \_\_\_\_\_

Drilling Area Background (ppm): 0

Converted to Well: Yes  No  Boring I.D. #: VPB-131





### Boring Log

PROJECT NAME: Bethpage OU-2 Investigation  
 PROJECT NUMBER: 112G02751  
 DRILLING COMPANY: Delta Well and Pump  
 DRILLING RIG: Port-A-Drill, 6" I.D. Mud Rotary

BORING No.: VPB-133  
 DATE: March 29 - April 4, 2012  
 GEOLOGIST: J. Ferguson  
 DRILLER: B. Murphy / C. Cobb

Sample No. and Type or RCD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION			U S C S *	Remarks	PID/FID Reading (ppm)			
					Soil Density/ Consistency or Rock Hardness	Color	Material Classification			Sample	Sampler BZ	Borehole*	Driller BZ**
	625-626	/				Gray to white	Micaceous, fine to medium sand	SP	Logged mud rotary cuttings.	0	0	0	0
	626-627	/				Gray to white	trace silt and lignite.	SP					
	627-628	/				Gray to white		SP					
GWS	628-629	/				Gray to white		SP	BP-VPB131-GW-628	0	0	0	0
	629-630	/				Gray to white		SP	March 29, 2012; 13:50				
	630-631	/				Gray to white	Micaceous, fine to medium sand	SP	Logged mud rotary cuttings.	0	0	0	0
	631-632	/				Gray to white	trace silt and lignite.	SP					
	632-633	/				Gray to white		SP					
	633-634	/				Gray to white		SP					
	634-635	/				Gray to white		SP					
	635-636	/				Gray to white	Micaceous, fine to medium sand	SP	Logged mud rotary cuttings.	0	0	0	0
	636-637	/				Gray to white	trace silt and lignite.	SP					
	637-638	/				Gray to white		SP					
GWS	638-639	/				Gray to white		SP	BP-VPB131-GW-638	0	0	0	0
	639-640	/				Gray to white		SP	March 29, 2012; 15:50				
	640-641	/				Gray to white	Micaceous, fine to medium sand	SP	Logged mud rotary cuttings.	0	0	0	0
	641-642	/				Gray to white	trace silt and lignite.	SP					
	642-643	/				Gray to white		SP					
	643-644	/				Gray to white		SP					
	644-645	/				Gray to white	Interbedded fine-medium sand	SM ML					
	645-646	/			Gray to white	and silt laminae, micaceous.	SM ML		0	0	0	0	
	646-647	/			Gray to white		SM ML						
	647-648	/			Gray to white		SM ML						
GWS	648-649	/			Gray to white		SM ML	BP-VPB131-GW-648					
	649-650	/			Gray to white		SM ML	April 2, 2012; 15:30					

Remarks: \_\_\_\_\_

Drilling Area Background (ppm): 0

Converted to Well: Yes          No          X          Boring I.D. #: VPB-131



### Boring Log

PROJECT NAME: Bethpage OU-2 Investigation  
 PROJECT NUMBER: 112G02751  
 DRILLING COMPANY: Delta Well and Pump  
 DRILLING RIG: Port-A-Drill, 6" I.D. Mud Rotary

BORING No.: VPB-131  
 DATE: April 3, 2012  
 GEOLOGIST: J. Ferguson  
 DRILLER: B. Murphy / C. Cobb

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			U S C S *	Remarks	PID/FID Reading (ppm)			
					Soil Density/ Consistency or Rock Hardness	Color	Material Classification			Sample	Sampler BZ	Borehole**	Driller BZ**
	650-651	/				Gray to white	Interbedded fine-medium sand	SM ML	Logged mud rotary cuttings.	0	0	0	0
	651-652	/				Gray to white	and silt laminae, micaceous.	SM ML					
	652-653	/				Gray to white		SM ML					
	653-654	/				Gray to white		SM ML					
	654-655	/				Gray to white		SM ML					
	655-656	/				Gray to white	Interbedded fine-medium sand	SM ML		0	0	0	0
	656-657	/				Gray to white	and silt laminae, micaceous.	SM ML					
	657-658	/				Gray to white		SM ML					
	658-659	/				Gray to white		SM ML					
	659-660	/				Gray to white		SM ML					
	660-661	/				Gray to white	Interbedded fine-medium sand	SM ML	Logged mud rotary cuttings.	0	0	0	0
	661-662	/				Gray to white	and silt laminae, micaceous.	SM ML					
	662-663	/				Gray to white		SM ML					
GWS	663-664	/				Gray to white		SM ML	BP-VPB131-GW-663	0	0	0	0
	664-665	/				Gray to white		SM ML	April 3, 2012; 12:45				
	665-666	/				Gray to white	Interbedded fine-medium sand	SM ML	Logged mud rotary cuttings.	0	0	0	0
	666-667	/				Gray to white	and silt laminae, micaceous.	SM ML					
	667-668	/				Gray to white		SM ML					
	668-669	/				Gray to white		SM ML					
	669-670	/				Gray to white		SM ML					
	670-671	/			Hard	Gray to white	Silty, sandy (fine) clay.	CL	Logged mud rotary cuttings.	0	0	0	0
	671-672	/				Gray to white	micaceous.	CL					
	672-673	/				Gray to white		CL					
GWS	673-674	/				Gray to white		CL	BP-VPB131-GW-673	0	0	0	0
	674-675	/				Gray to white		CL	April 3, 2012; 15:00				

Remarks: \_\_\_\_\_

Drilling Area Background (ppm):

Converted to Well: Yes  No  Boring I.D. #: VPB-131



### Boring Log

PROJECT NAME: Bethpage OU-2 Investigation  
 PROJECT NUMBER: 112G02751  
 DRILLING COMPANY: Delta Well and Pump  
 DRILLING RIG: Port-A-Drill, 6" I.D. Mud Rotary

BORING No.: VPB-131  
 DATE: April 4, 2012  
 GEOLOGIST: J. Ferguson  
 DRILLER: B. Murphy / C. Cobb

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			U S C S *	Remarks	PID/FID Reading (ppm)				
					Soil Density/ Consistency or Rock Hardness	Color	Material Classification			Sample	Sampler BZ	Borehole**	Driller BZ**	
	675-676	/			Hard	Gray to white	Silty, sandy (fine) clay.	CL	Logged mud rotary cuttings.	0	0	0	0	
	676-677	/				Gray to white	micaceous.	CL						
	677-678	/				Gray to white		CL						
	678-679	/				Gray to white		CL						
	679-680	/				Gray to white		CL						
	680-681	/				Hard	Gray to white	Silty, sandy (fine) clay.	CL	Logged mud rotary cuttings.	0	0	0	0
	681-682	/					Gray to white	micaceous.	CL					
	682-683	/					Gray to white		CL					
	683-684	/					Gray to white		CL					
	684-685	/					Gray to white		CL					
	685-686	/				Hard	Gray to white	Silty, sandy (fine) clay.	CL	Logged mud rotary cuttings.	0	0	0	0
	686-687	/					Gray to white	micaceous.	CL					
	687-688	/					Gray to white		CL					
	688-689	/					Gray to white		SM					
	689-690	/					Gray to white		SM					
	690-691	/					Gray to white	Interbedded silt and silty fine to coarse	SM	Logged mud rotary cuttings.	0	0	0	0
	691-692	/					Gray to white	quartzose sand.	SM					
	692-693	/					Gray to white		SM					
GWS	693-694	/					Gray to white		SM	BP-VPB131-GW-693				
	694-695	/					Gray	Micaceous, silty, fine sand	SM	April 4, 2012; 10:40	0	0	0	0
	695-696	/				Gray		SM						
	696-697	/				Gray		SM						
	697-698	/				Gray		SM						
	698-699	/				Gray		SM						
	699-700	/				Gray		SM						

Remarks: \_\_\_\_\_

Drilling Area Background (ppm): 0

Converted to Well: Yes  No  Boring I.D. #: VPB-131



### Boring Log

PROJECT NAME: Bethpage OU-2 Investigation  
 PROJECT NUMBER: 112G02751  
 DRILLING COMPANY: Delta Well and Pump  
 DRILLING RIG: Port-A-Drill, 6" I.D. Mud Rotary

BORING No.: VPB-131  
 DATE: April 4, 2012  
 GEOLOGIST: J. Ferguson  
 DRILLER: B. Murphy / C. Cobb

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			U S C S *	Remarks	PID/FID Reading (ppm)				
					Soil Density/ Consistency or Rock Hardness	Color	Material Classification			Sample	Sampler BZ	Borehole**	Driller BZ**	
	700-701	/				Tan to white	Fine to medium sand, trace silt/lignite.	SM SP	Logged mud rotary cuttings.	0	0	0	0	
	701-702	/				Tan to white		SM SP						
	702-703	/				Tan to white		SM SP						
GWS	703-704	/				Tan to white		SM SP	BP-VPB131-GW-703	0	0	0	0	
	704-705	/				Tan to white		SM SP	April 4, 2012; 12:30					
	705-706	/				Tan to white		SM SP		0	0	0	0	
	706-707	/				Tan to white		SM SP						
	707-708	/				Tan to white		SM SP						
	708-709	/				Tan to white		SM SP						
	709-710	/				Tan to white		SM SP						
	710-711	/				Tan to white		SM SP	Logged mud rotary cuttings.	0	0	0	0	
	711-712	/				Tan to white		SM SP						
	712-713	/				Gray to white		SM ML	Interbedded sandy (fine) silt					
	713-714	/				Gray to white		SM ML	and silty, fine sand.					
	714-715	/				Gray to white		SM ML						
	715-716	/				Gray to white		SM ML	Interbedded sandy (fine) silt	Logged mud rotary cuttings.	0	0	0	0
	716-717	/				Gray to white		SM ML	and silty, fine sand.					
	717-718	/				Gray to white		SM ML						
	718-719	/				Gray to white		SM ML						
	719-720	/				Gray to white		SM ML						
	720-721	/				Tan-gray		CL	Silty, sandy (fine) clay.	Logged mud rotary cuttings.	0	0	0	0
	721-722	/				Tan-gray		CL						
	722-723	/				Tan-gray		CL						
GWS	723-724	/				Tan-gray		CL	BP-VPB131-GW-723	0	0	0	0	
	724-725	/			Tan-gray		CL	April 4, 2012; 14:30						

Remarks: \_\_\_\_\_

Drilling Area Background (ppm):

Converted to Well: Yes  No  Boring I.D. #: VPB-131



### Boring Log

PROJECT NAME: Bethpage OU-2 Investigation  
 PROJECT NUMBER: 112G02751  
 DRILLING COMPANY: Delta Well and Pump  
 DRILLING RIG: Port-A-Drill, 6" I.D. Mud Rotary

BORING No.: VPB-131  
 DATE: April 4, 2012  
 GEOLOGIST: J. Ferguson  
 DRILLER: B. Murphy / C. Cobb

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			U S C S *	Remarks	PID/FID Reading (ppm)				
					Soil Density/ Consistency or Rock Hardness	Color	Material Classification			Sample	Sampler BZ	Borehole**	Driller BZ**	
	725-726	/				Gray-white	Silty, sandy (fine) clay.	CL	Logged mud rotary cuttings.	0	0	0	0	
	726-727	/				Gray-white			CL					
	727-728	/				Gray-white			CL					
	728-729	/				Gray-white			CL					
	729-730	/				Gray-white			CL					
	730-731	/				Gray-white	Silty, sandy (fine) clay.		CL	Logged mud rotary cuttings.	0	0	0	0
	731-732	/				Gray-white			CL					
	732-733	/				Gray-white			CL					
	733-734	/				Gray-white			CL					
	734-735	/				Gray	Interbedded medium-coarse sand		SC CL					
	735-736	/				Gray	and clay laminae		SC CL		0	0	0	0
	736-737	/				Gray			SC CL					
	737-738	/				Gray			SC CL					
	738-739	/				Gray			SC CL					
	739-740	/				Gray			SC CL					
	740-741	/				Gray	Silty, micaceous, fine sand. Trace lignite.		SM/SP	Logged mud rotary cuttings.	0	0	0	0
	741-742	/				Gray			SM/SP					
	742-743	/				Gray			SM/SP					
GWS	743-744	/				Gray			SM/SP	BP-VPB131-GW-743	0	0	0	0
	744-745	/				Gray			SM/SP	April 4, 2012; 16:35				
	745-746	/				Tan to Lt brown	Sandy (fine), medium quartzose gravel		GP	Logged mud rotary cuttings.	0	0	0	0
	746-747	/				Tan to Lt brown			GP					
	747-748	/				Tan to Lt brown			GP					
	748-749	/				Tan to Lt brown			GP					
	749-750	/				Tan to Lt brown			GP					

Remarks: \_\_\_\_\_

Drilling Area Background (ppm): 0

Converted to Well: Yes \_\_\_\_\_ No \_\_\_\_\_ X \_\_\_\_\_

Boring I.D. #: VPB-131



### Boring Log

PROJECT NAME: Bethpage OU-2 Investigation  
 PROJECT NUMBER: 112G02751  
 DRILLING COMPANY: Delta Well and Pump  
 DRILLING RIG: Mud Rotary

BORING No.: VPB-131  
 DATE: April 5, 2012  
 GEOLOGIST: J. Ferguson  
 DRILLER: B. Murphy / C. Cobb

Sample No. and Type or ROD	Depth (Ft.) or Run No.	Blows / 6" or ROD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION			U S C S *	Remarks	PID/FID Reading (ppm)				
					Soil Density/ Consistency or Rock Hardness	Color	Material Classification			Sample	Sampler BZ	Borehole**	Drifter BZ**	
	750-751	/				Tan to White	Silty, fine-medium quartzose gravel.	GM		0	0	0	0	
	751-752	/							GM					
	752-753	/							GM					
	753-754	/							GM					
	754-755	/							GM					
	755-756	/					Tan to White	Silty, fine-medium quartzose gravel.	GM		0	0	0	0
	756-757	/							GM					
	757-758	/							GM					
	758-759	/							GM					
	759-760	/							GM					
	760-761	/					Gray to White	Clayey, fine-coarse sand and little	SM GM		0	0	0	0
	761-762	/					Gray to White	fine quartzose gravel.	SM GM					
	762-763	/					Gray to White		SM GM					
GWS	763-764	/					Gray to White		SM GM	BP-VPB131-GW-763	0	0	0	0
	764-765	/					Gray to white		SM GM	April 5, 2012; 10:20				
	765-766	/				Gray to White		SM GM		0	0	0	0	
	766-767	/				Gray to White		SM GM						
	767-768	/				Gray to White		SM GM						
	768-769	/				Gray-white	Silty, sandy (fine) clay.	CL	Logged mud rotary cuttings.					
	769-770	/				Gray-white		CL						
	770-771	/				Gray	Micaceous, medium to coarse sand.	SP		0	0	0	0	
	771-772	/				Gray		SP						
	772-773	/				Gray		SP						
	773-774	/				Gray		SP						
	774-775	/				Gray	Micaceous, medium to coarse sand.	SP						

Remarks: \_\_\_\_\_

Drilling Area Background (ppm):

Converted to Well: Yes \_\_\_\_\_ No \_\_\_\_\_ X \_\_\_\_\_ Boring I.D. #: VPB-131



### Boring Log

PROJECT NAME: Bethpage OU-2 Investigation  
 PROJECT NUMBER: 112G02751  
 DRILLING COMPANY: Delta Well and Pump  
 DRILLING RIG: Port-A-Drill, 6" I.D. Mud Rotary

BORING No.: VPB-131  
 DATE: April 5, 2012  
 GEOLOGIST: J. Ferguson  
 DRILLER: B. Murphy / C. Cobb

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			U S C S *	Remarks	PID/FID Reading (ppm)			
					Soil Density/ Consistency or Rock Hardness	Color	Material Classification			Sample	Sampler BZ	Borehole**	Driller BZ**
	775-776	/				Gray	Micaceous, medium to coarse sand.	SP		0	0	0	0
	776-777	/				Gray		SP					
	777-778	/				Gray		SP					
	778-779	/				Gray-white	Silty, sandy (fine) clay.	CL					
	779-780	/				Gray-white		CL					
	780-781	/				Gray-white		CL		0	0	0	0
	781-782	/				Gray	Micaceous, medium to coarse sand.	SP					
	782-783	/				Gray		SP					
GWS	783-784	/				Gray		SP	BP-VPB131-GW-783	0	0	0	0
	784-785	/				Gray		SP	April 5, 2012; 13:30				
	785-786	/				Gray to white	Interbedded silt and silty fine	SM		0	0	0	0
	786-787	/				Gray to white	sand	SM					
	787-788	/				Gray to white		SM					
	788-789	/				Gray to white		SM					
	789-790	/				Gray to white		SM					
	790-791	/				Gray to white	Interbedded silt and silty fine	SM		0	0	0	0
	791-792	/				Gray to white	sand	SM					
	792-793	/				Gray to white		SM					
	793-794	/				Gray to white		SM					
	794-795	/				Gray to white		SM					
	795-796	/			Gray to white	Interbedded silt and silty fine	SM ML		0	0	0	0	
	796-797	/			Gray to white	sand	SM ML						
	797-798	/			Gray to white		SM ML						
	798-799	/			Gray to white		SM ML						
	799-800	/			Gray to white		SM ML						

Remarks: \_\_\_\_\_

Drilling Area Background (ppm): 0

Converted to Well: Yes \_\_\_\_\_ No \_\_\_\_\_ X \_\_\_\_\_ Boring I.D. #: VPB-131



# Boring Log

PROJECT NAME: Bethpage OU-2 Investigation  
 PROJECT NUMBER: 112G02751  
 DRILLING COMPANY: Delta Well and Pump  
 DRILLING RIG: Port-A-Drill, 6" I.D. Mud Rotary

BORING No.: VPB-131  
 DATE: April 5-6, 2012  
 GEOLOGIST: J. Ferguson  
 DRILLER: B. Murphy / C. Cobb

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/FL) or Screened Interval	MATERIAL DESCRIPTION			U S C S *	Remarks	PID/FID Reading (ppm)				
					Soil Density/ Consistency or Rock Hardness	Color	Material Classification			Sample	Sampler BZ	Borehole**	Driller BZ**	
	800-801	/			Hard	gray to white	Silty, very fine to fine sand.	SM		0	0	0	0	
	801-802	/				gray to white			SM					
	802-803	/				gray to white			SM					
	803-804	/				gray to white			SM					
	804-805	/				gray to white			SM					
	805-806	/				gray to white		Silly, very fine to fine sand.	SM		0	0	0	0
	806-807	/				gray to white			SM					
	807-808	/				gray to white			SM					
GWS	808-809	/				gray to white		Sandy (very fine) silt.	ML	BP-VPB131-GW-808	0	0	0	0
	809-810	/				gray to white			ML	April 5, 2012; 16:30				
	810-811	/				gray to white		Sandy (very fine) silt.	ML					
	811-812	/				gray to white			ML					
	812-813	/				gray to white			ML					
	813-814	/				gray to white			ML					
	814-815	/				gray to white			ML					
	815-816	/				gray to white		Sandy (very fine) silt.	ML		0	0	0	0
	816-817	/				Gray to white			ML					
	817-818	/				Gray to white			ML					
	818-819	/				Gray to white			ML					
	819-820	/				Gray to white			ML					
	820-821	/				Gray-white		Silty, sandy (fine) clay.	CL		0	0	0	0
	821-822	/				Gray-white			CL					
	822-823	/				Gray-white			CL					
GWS	823-824	/				Gray-white			CL	BP-VPB131-GW-823	0	0	0	0
	824-825	/			Gray to white		Silty, micaceous, very fine to fine sand.	SM	April 6, 2012; 11:20					

Remarks: \_\_\_\_\_

Drilling Area Background (ppm):

Converted to Well: Yes  No  Boring I.D. #: VPB-131





### Boring Log

PROJECT NAME: Bethpage OU-2 Investigation  
 PROJECT NUMBER: 112G02751  
 DRILLING COMPANY: Delta Well and Pump  
 DRILLING RIG: Port-A-Drill, 6" I.D. Mud Rotary

BORING No.: VPB-131  
 DATE: April 6, 2012  
 GEOLOGIST: J. Ferguson  
 DRILLER: B. Murphy / C. Cobb

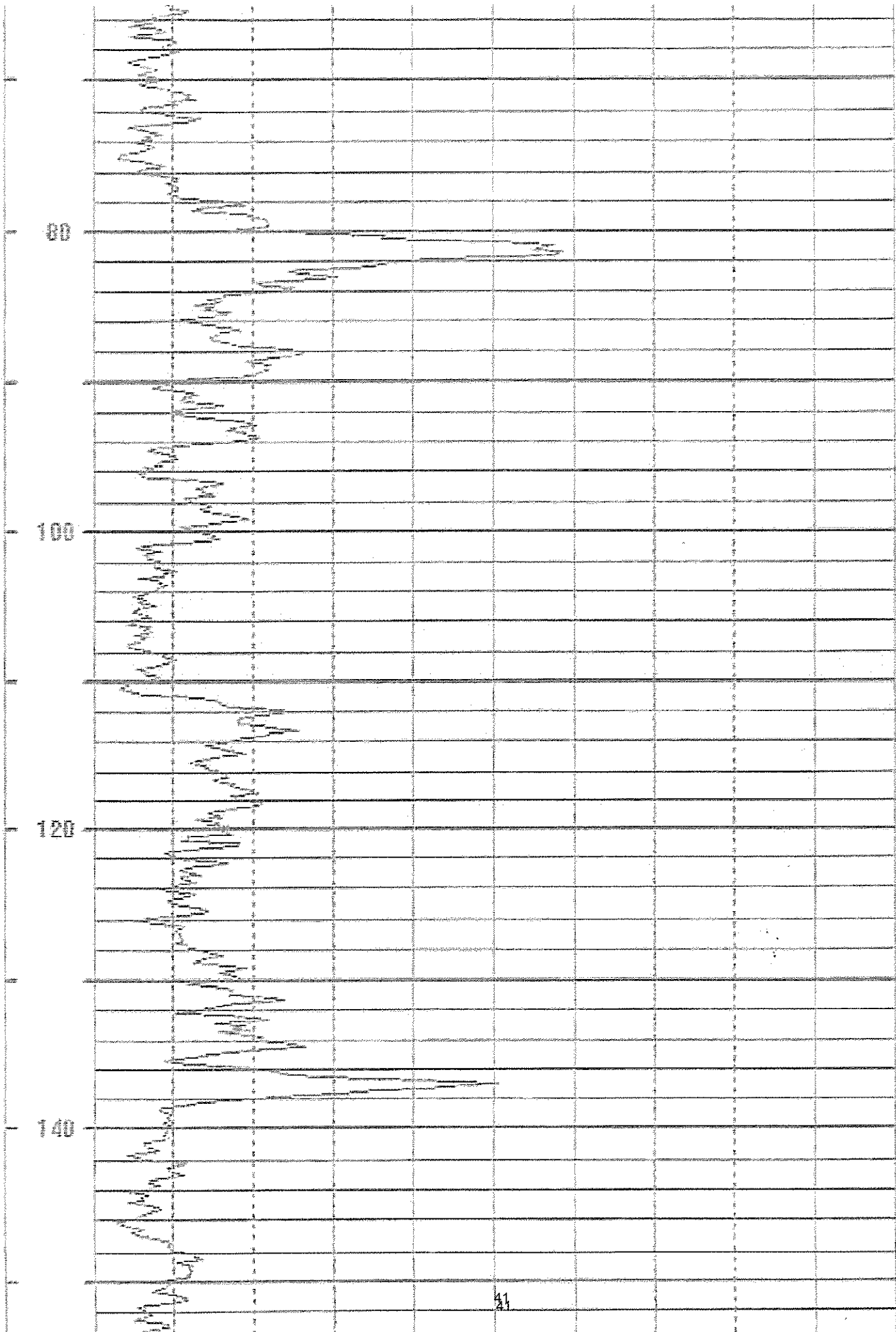
Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION			U S C S	Remarks	PID/FID Reading (ppm)			
					Soil Density/ Consistency or Rock Hardness	Color	Material Classification			Sample	Sampler BZ	Borehole**	Driller BZ**
	825-826	/				Gray	Interbedded medium-coarse sand	SC CL		0	0	0	0
	826-827	/				Gray	and clay laminae	SC CL					
	827-828	/				Gray		SC CL					
	828-829	/				Gray to white	Micaceous, silty, fine sand	SM					
	829-830	/				gray to white	Sandy (very fine) Clay	CL					
	830-831	/				gray to white		CL		0	0	0	0
	831-832	/				gray to white		CL					
	832-833	/				gray to white		CL					
	833-834	/				Gray to white	Micaceous, silty, fine to medium sand	SM					
	834-835	/				Gray to white		SM					
	835-836	/				Gray to white	Micaceous, silty, fine to medium sand	SM		0	0	0	0
	836-837	/				Gray to white		SM					
	837-838	/				Gray to white		SM					
	838-839	/				Gray to white		SM					
	839-840	/				Gray to white		SM					
	840-841	/				Gray to white	Micaceous, silty, fine to medium sand	SM		0	0	0	0
	841-842	/				Gray to white		SM					
	842-843	/				Gray to white		SM					
GWS	843-844	/				Gray to white		SM	BP-VPB131-GW-843	0	0	0	0
	844-845	/				Gray to white		SM	April 6, 2012; 14:45				
	845-846	/				Gray to white	Micaceous, silty, fine to medium sand	SM		0	0	0	0
	846-847	/				Gray to white		SM					
	847-848	/				Gray to white		SM					
	848-849	/				Gray to white		SM					
	849-850	/				Gray to white		SM					

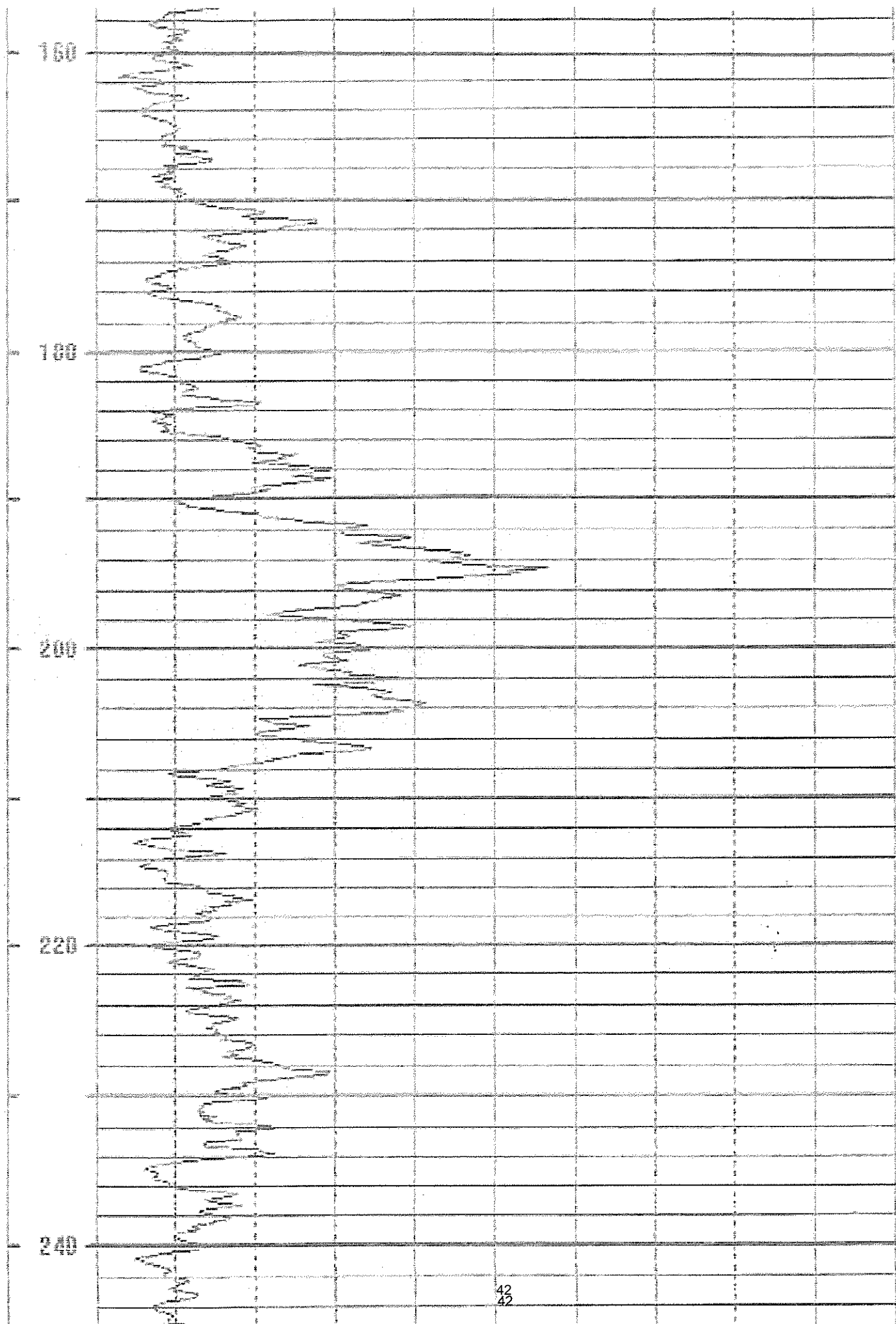
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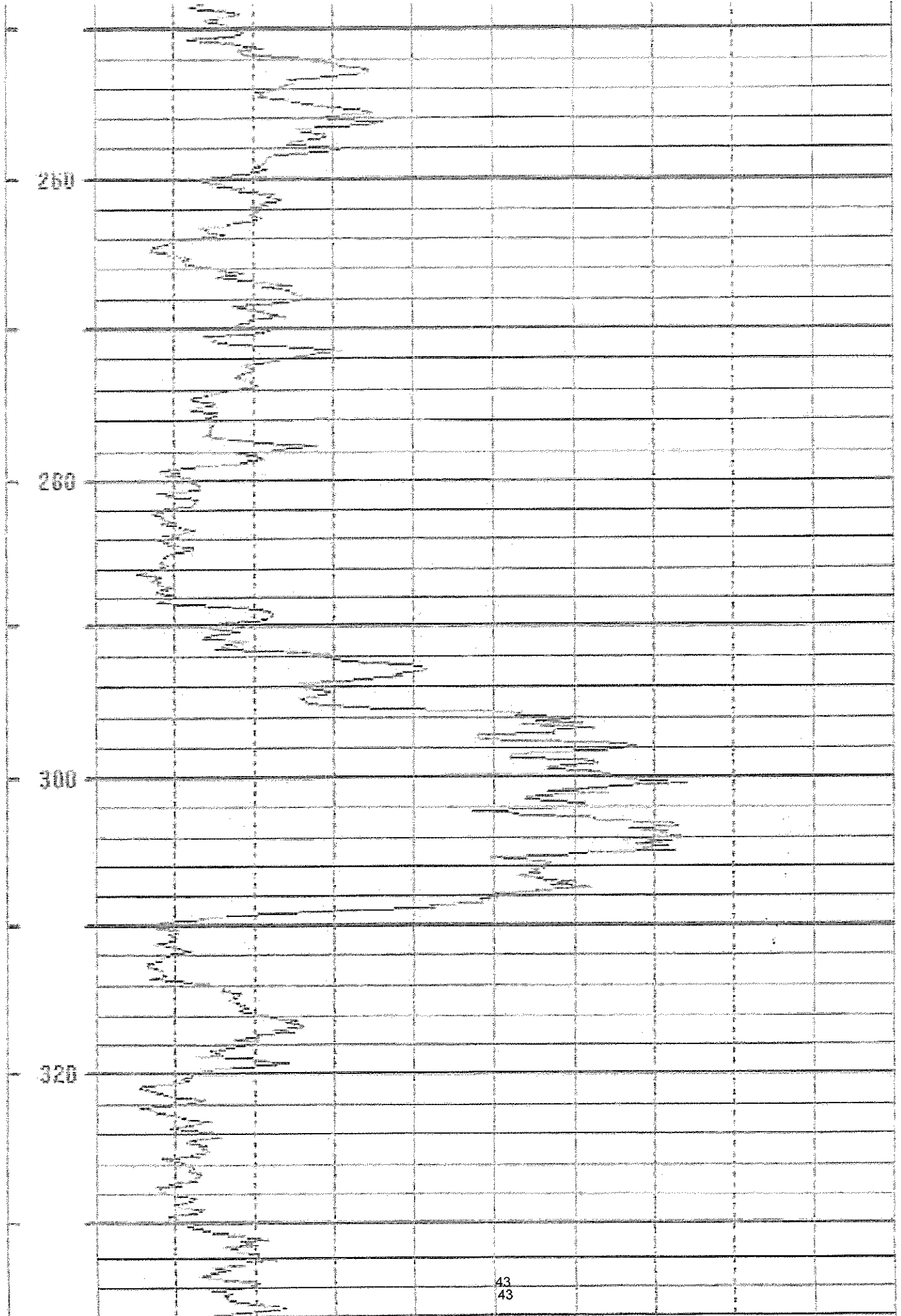
Drilling Area Background (ppm):

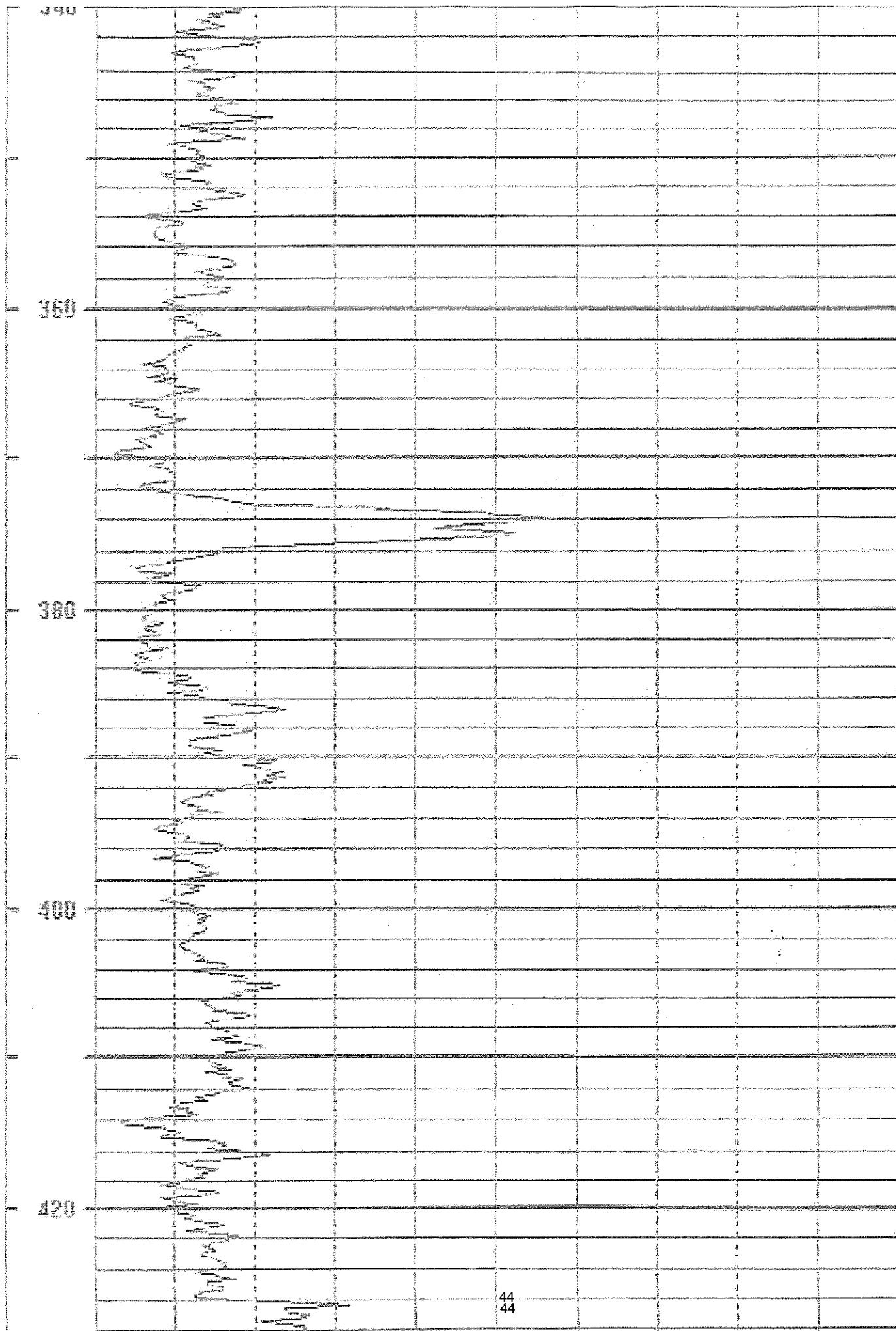
Converted to Well: Yes \_\_\_\_\_ No \_\_\_\_\_ X \_\_\_\_\_ Boring I.D. #: VPB-131











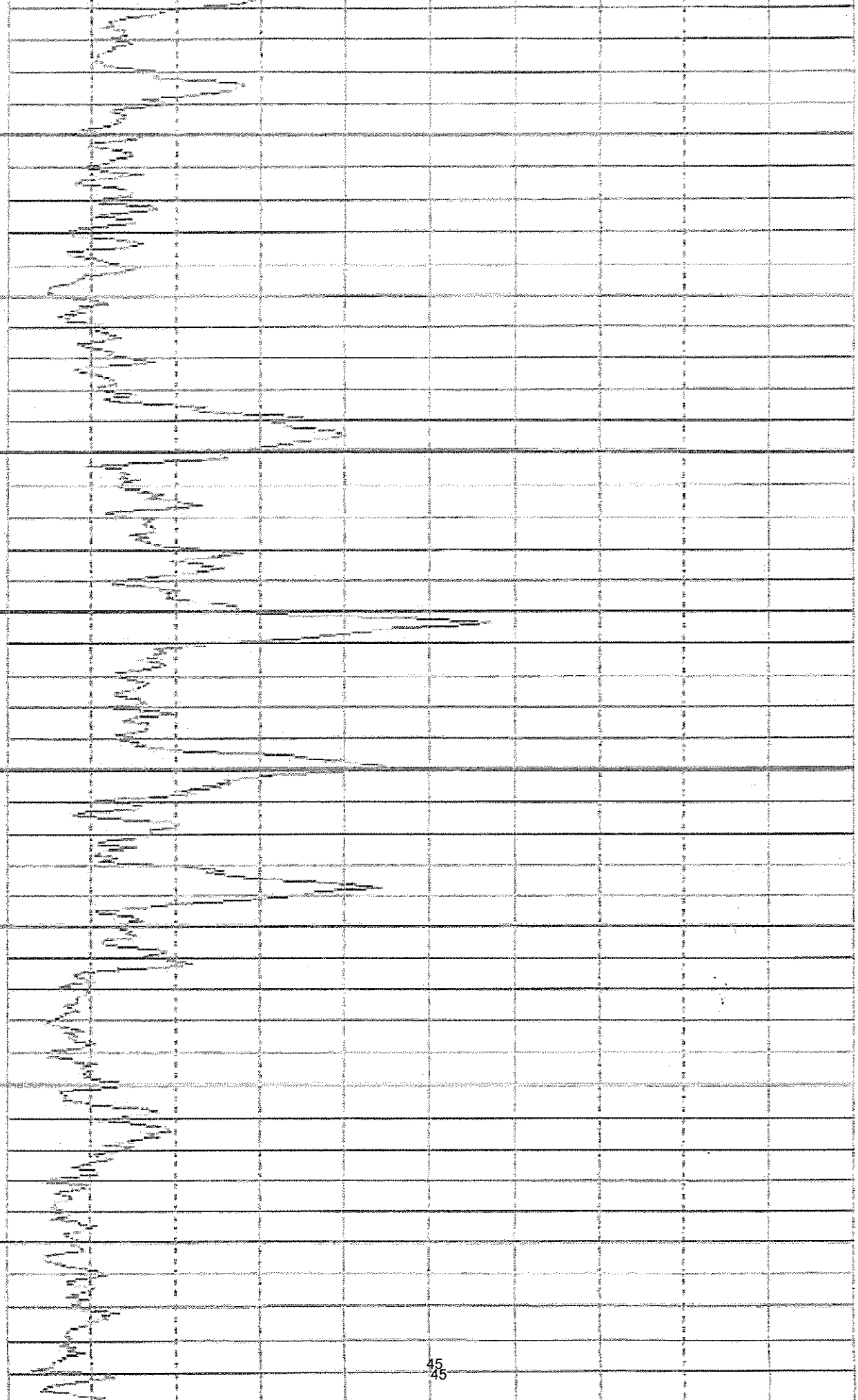
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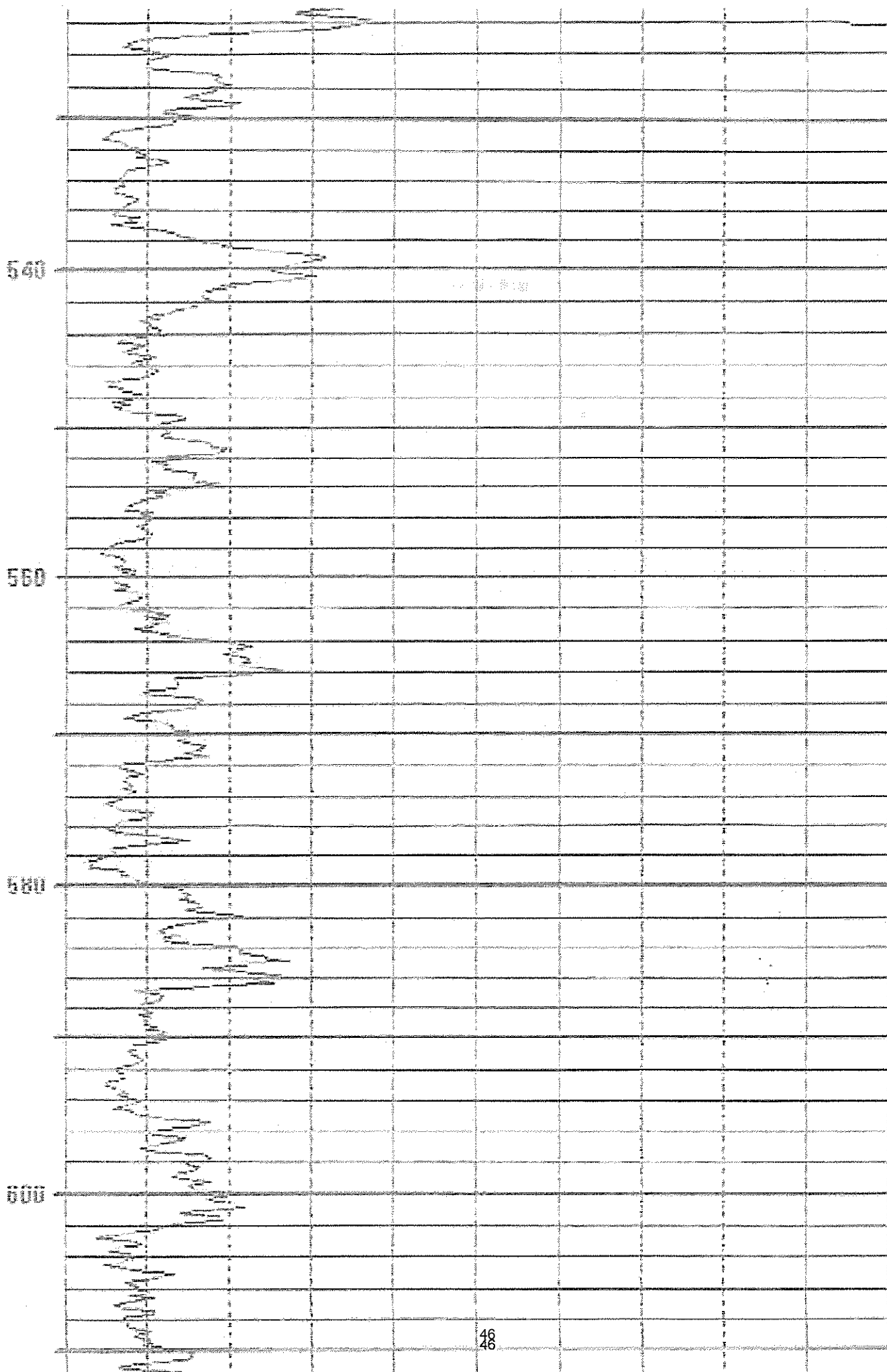
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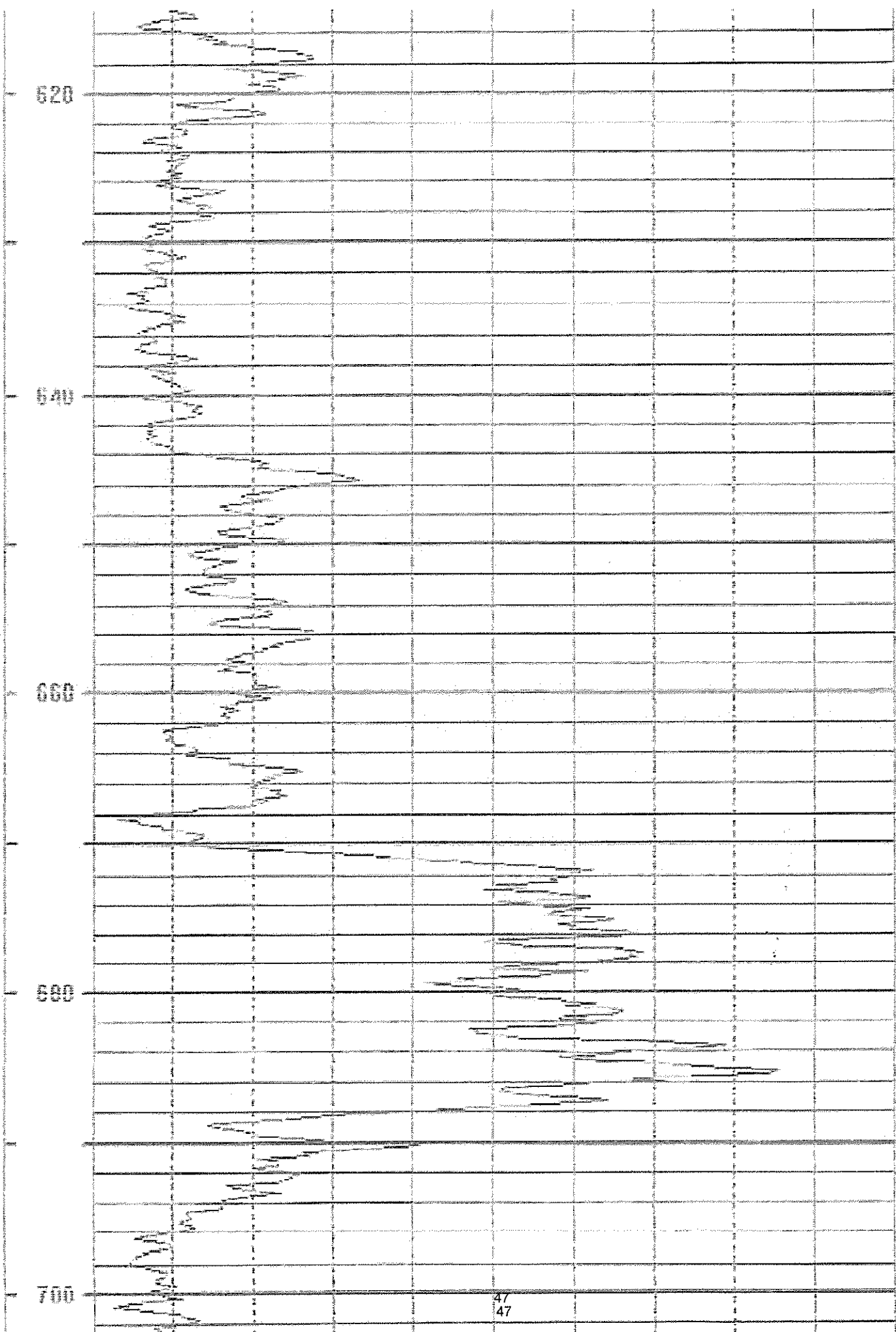
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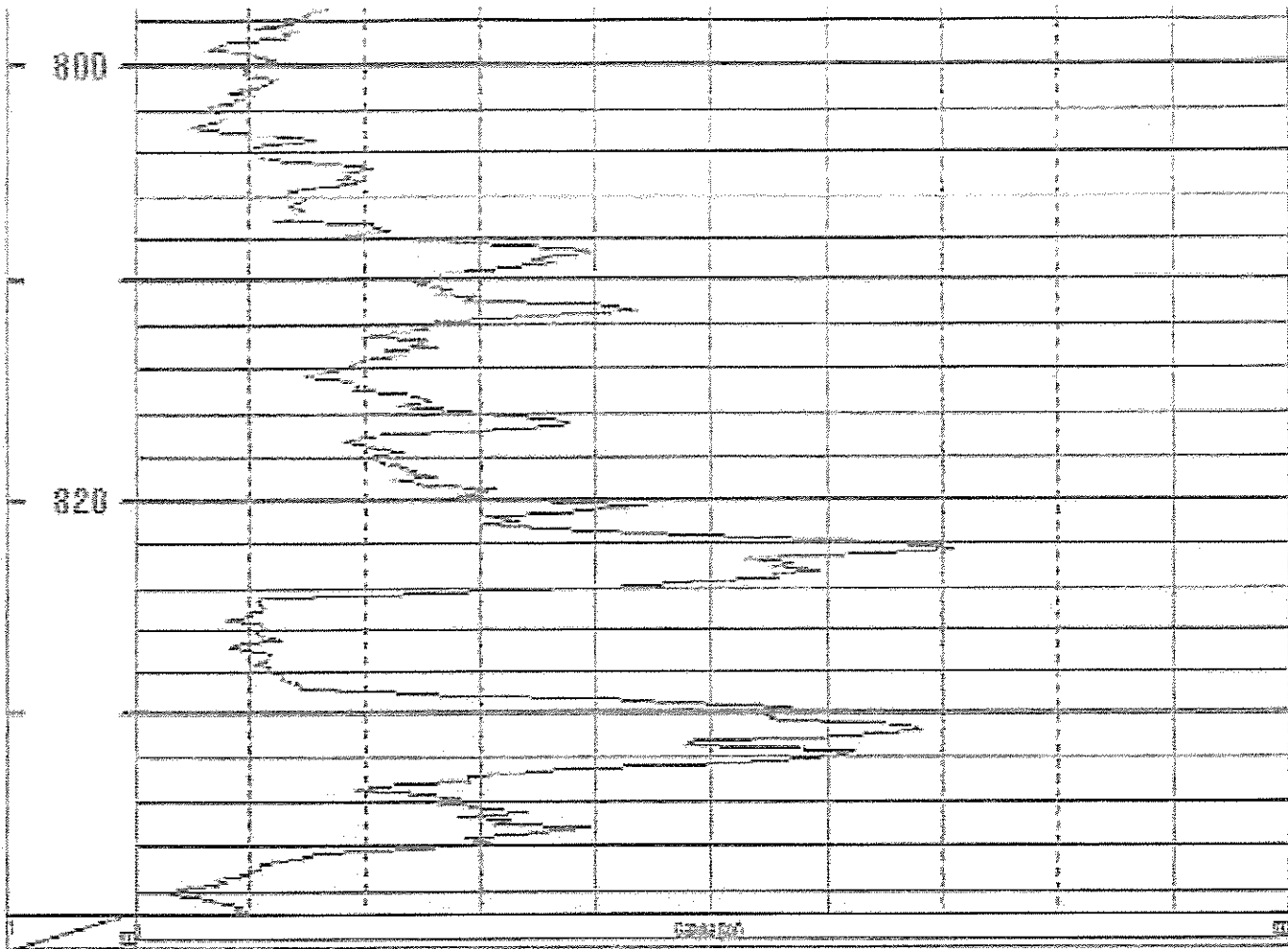


720

740

760

780

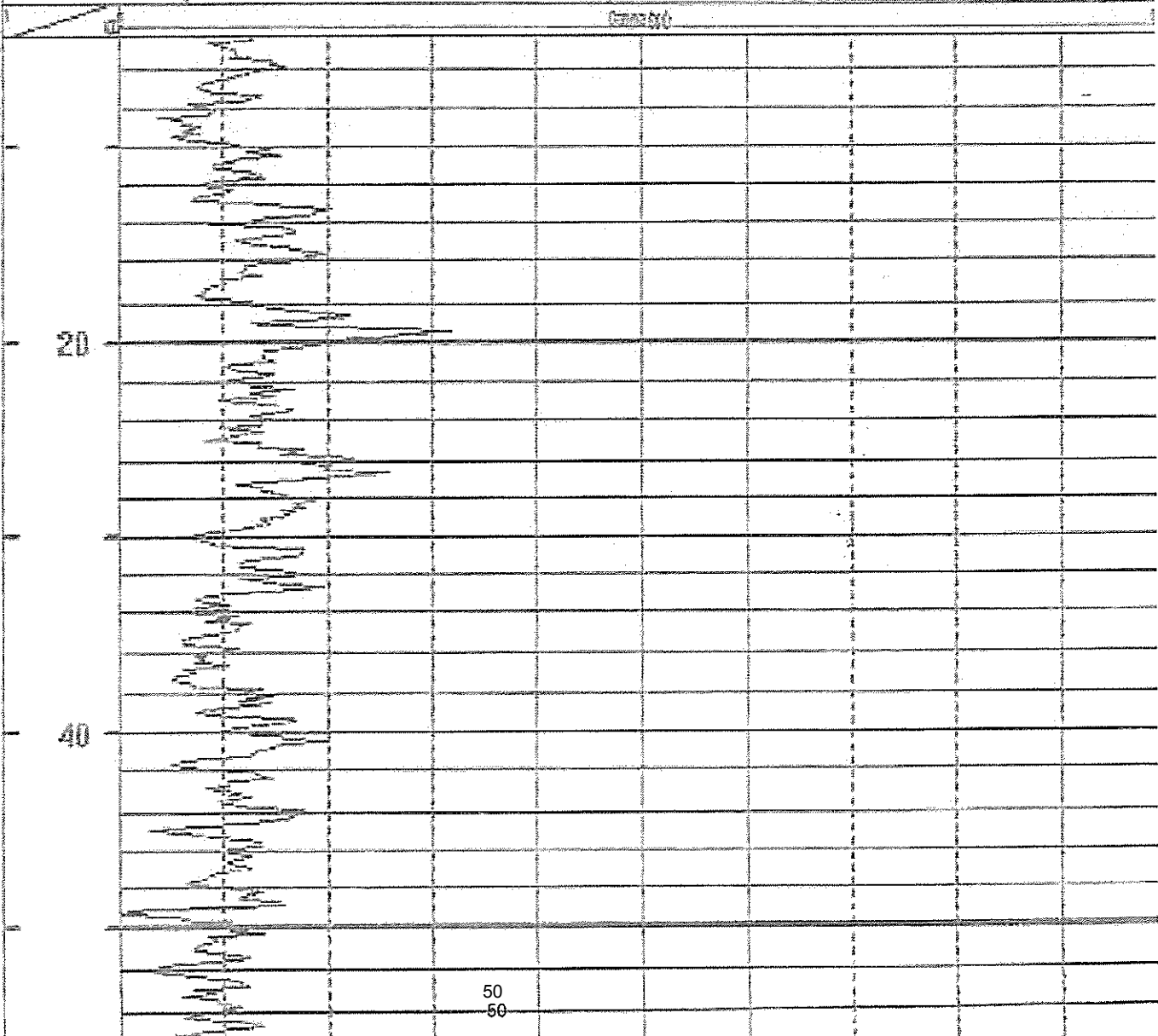


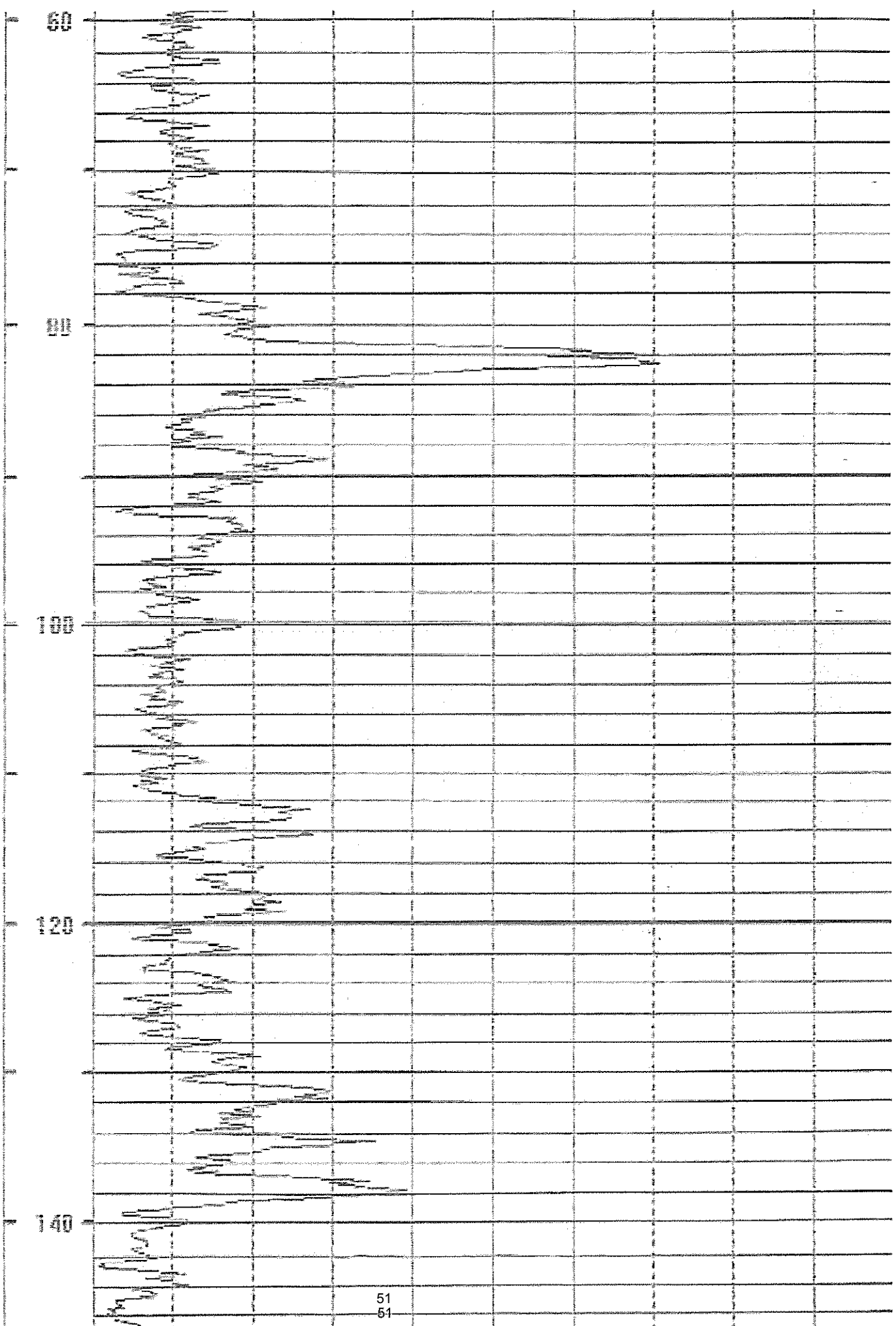
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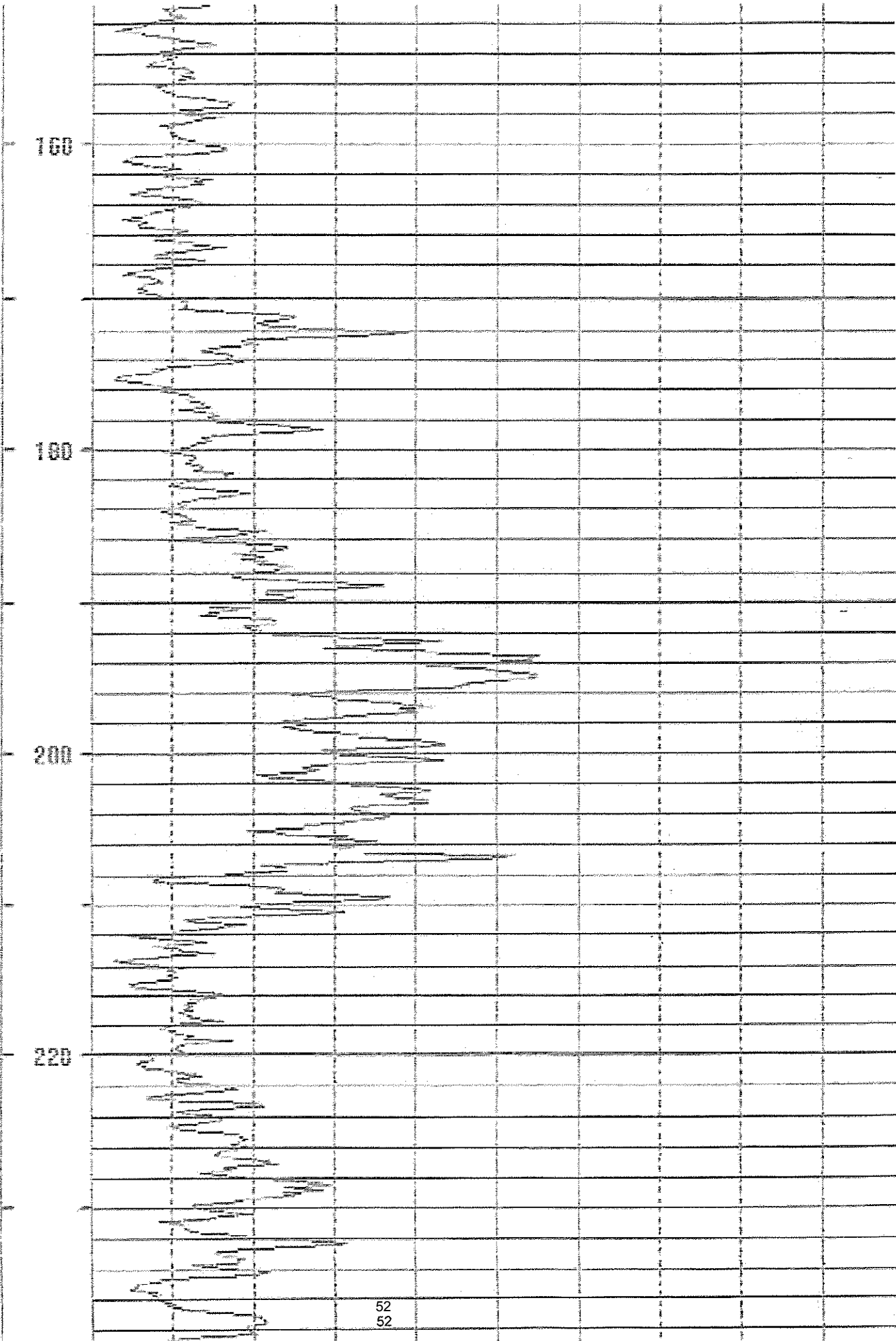
Gamma Log Up

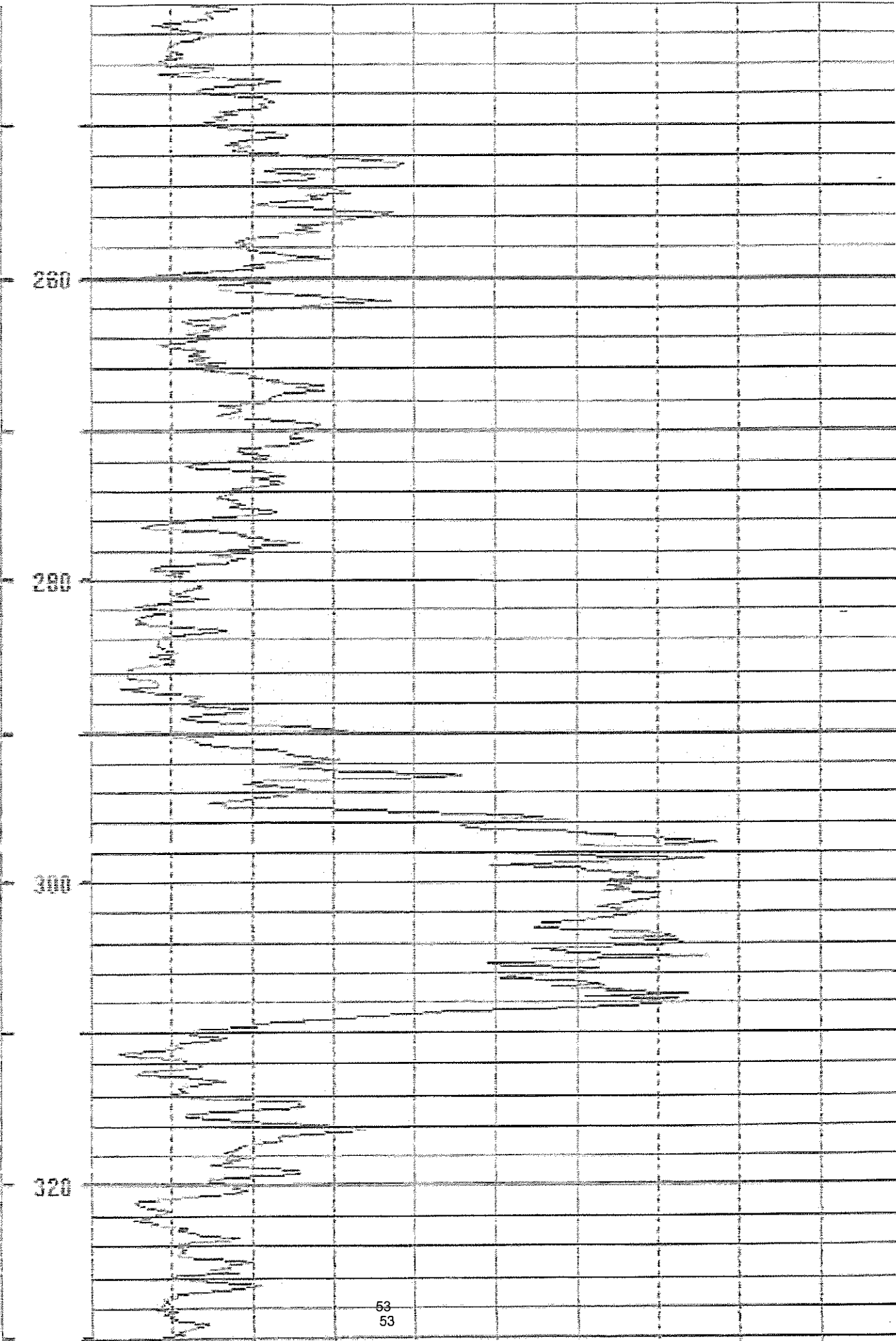
DATE: 04/09/2012 TIME: 11:37 FAX: 202-261-1234 WWW.DELTAWELL.COM

COMPANY: DELTA WELL & PUMP CO., INC.		Casing
Location: MWRP PIPING ROCK		
Well	VPB-131	Depth Driller
		Depth Logger
Date	04/09/2012	BH Fluid
		Logged by: CMU
File Name	717	Witness: JIM F.







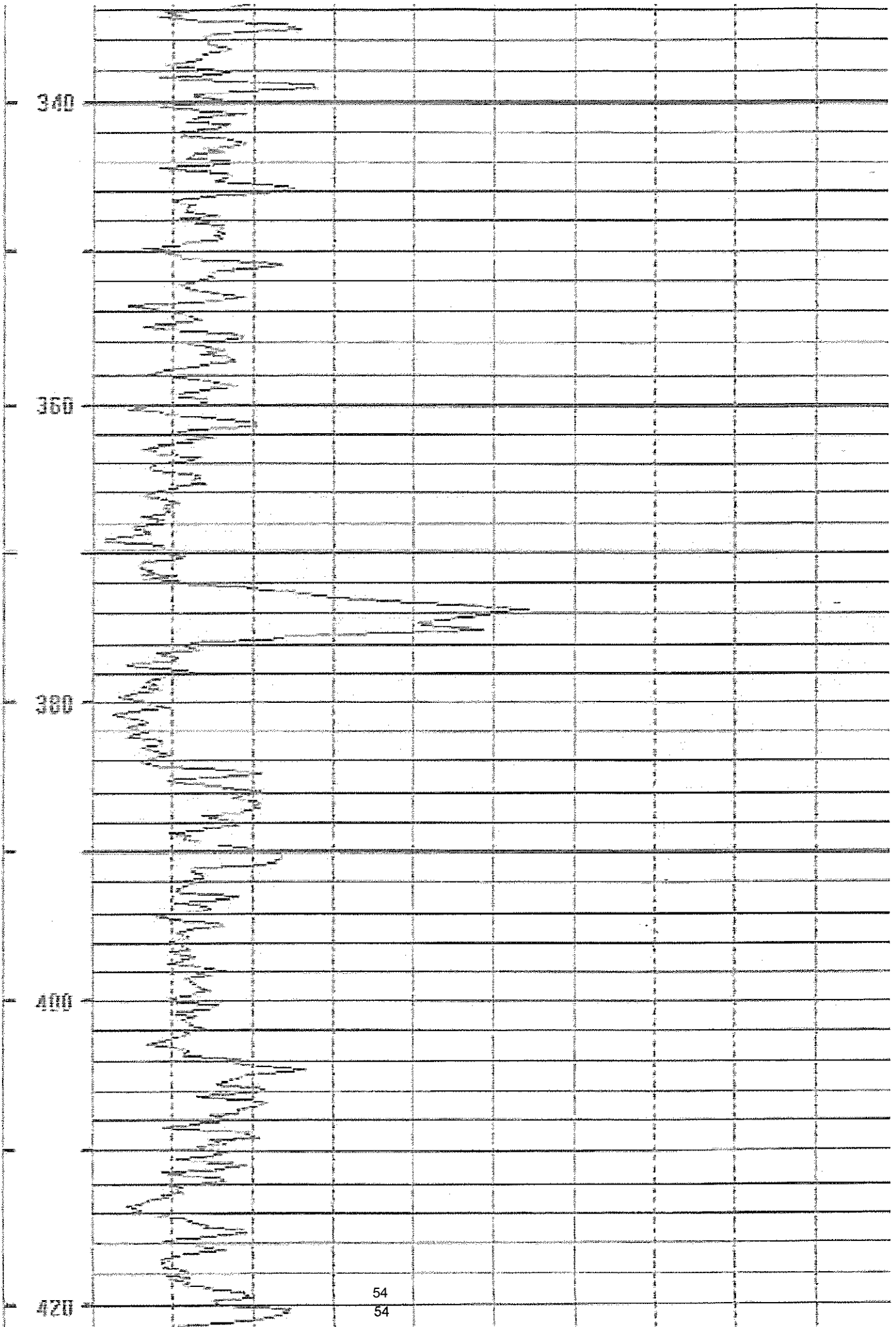


260

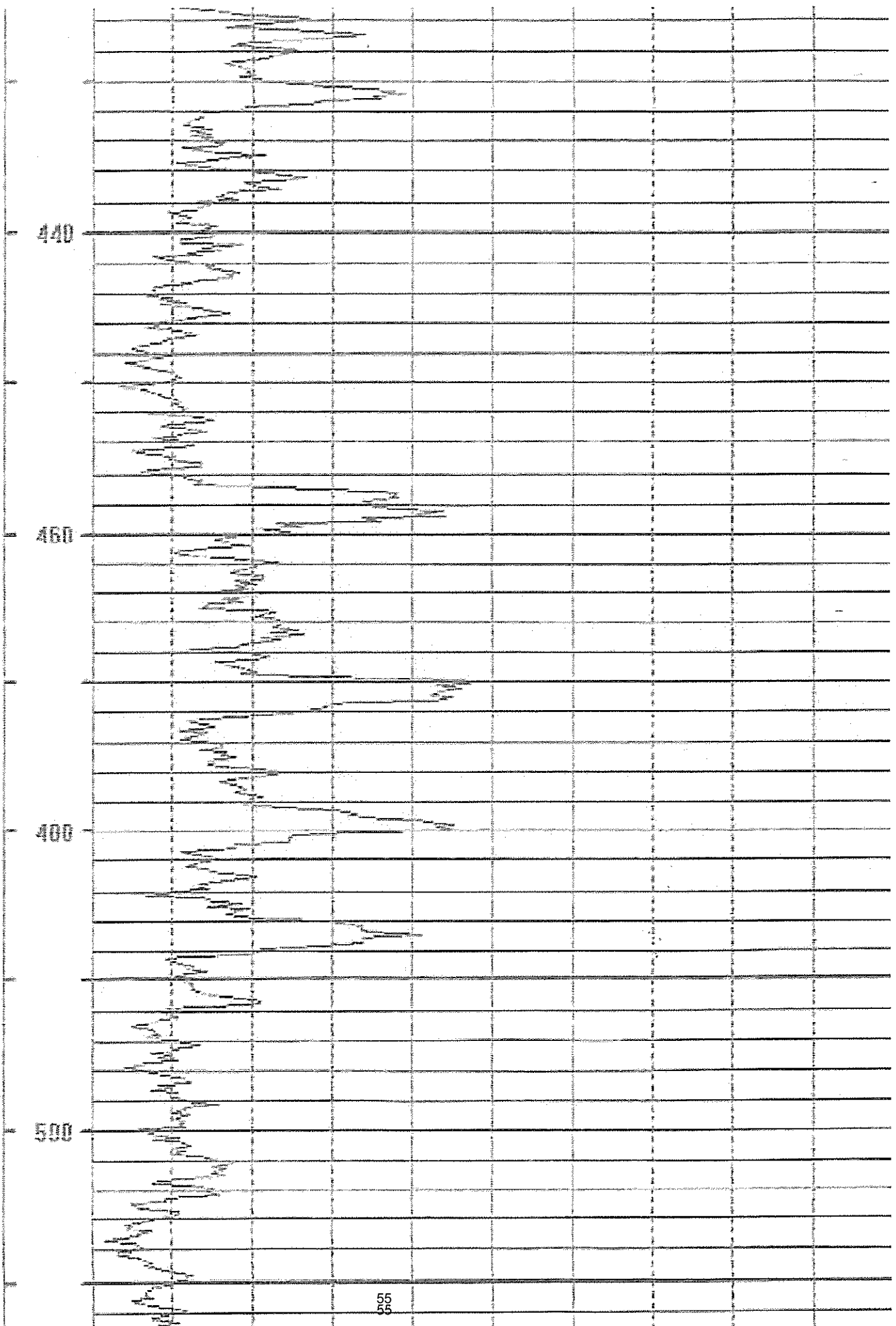
280

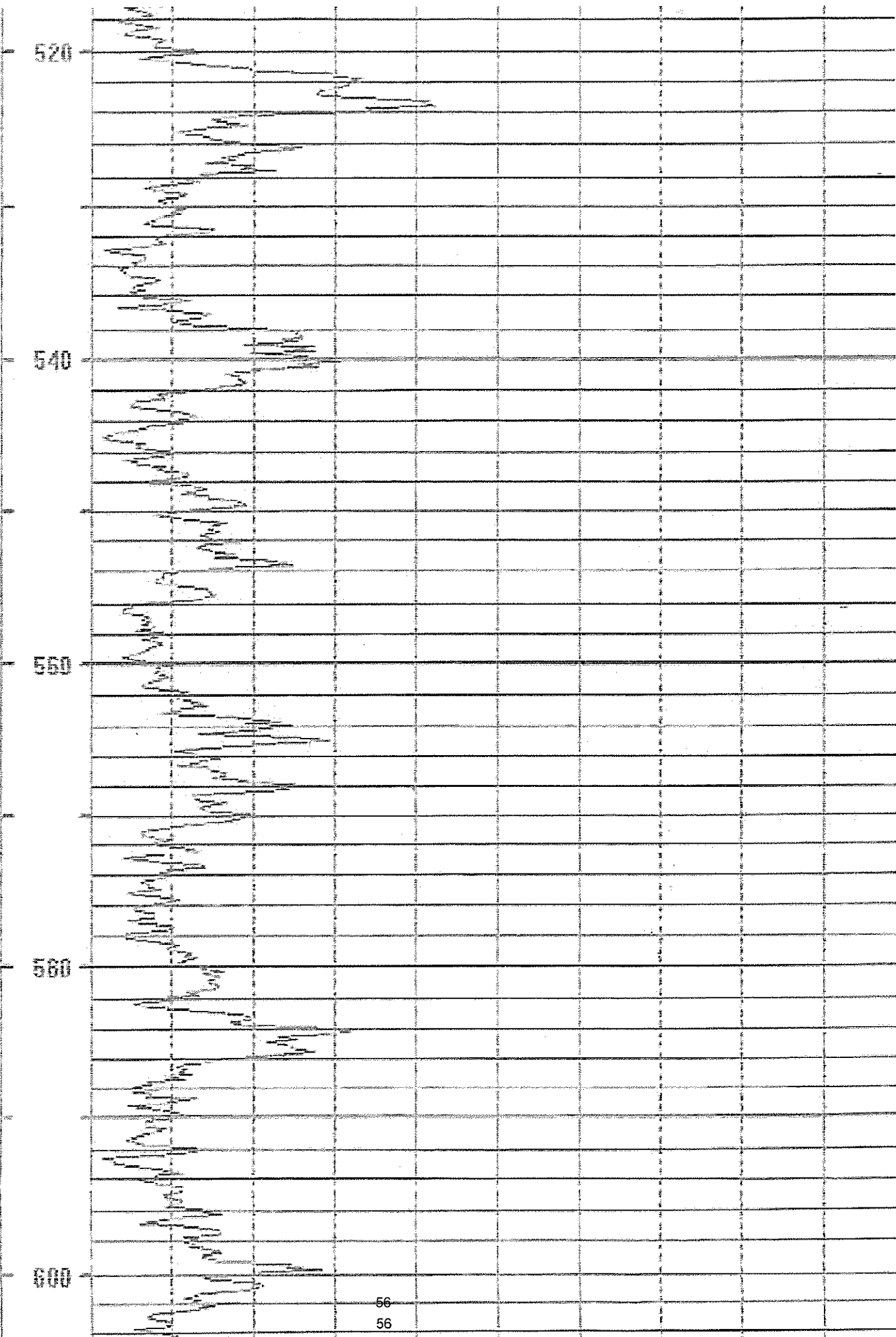
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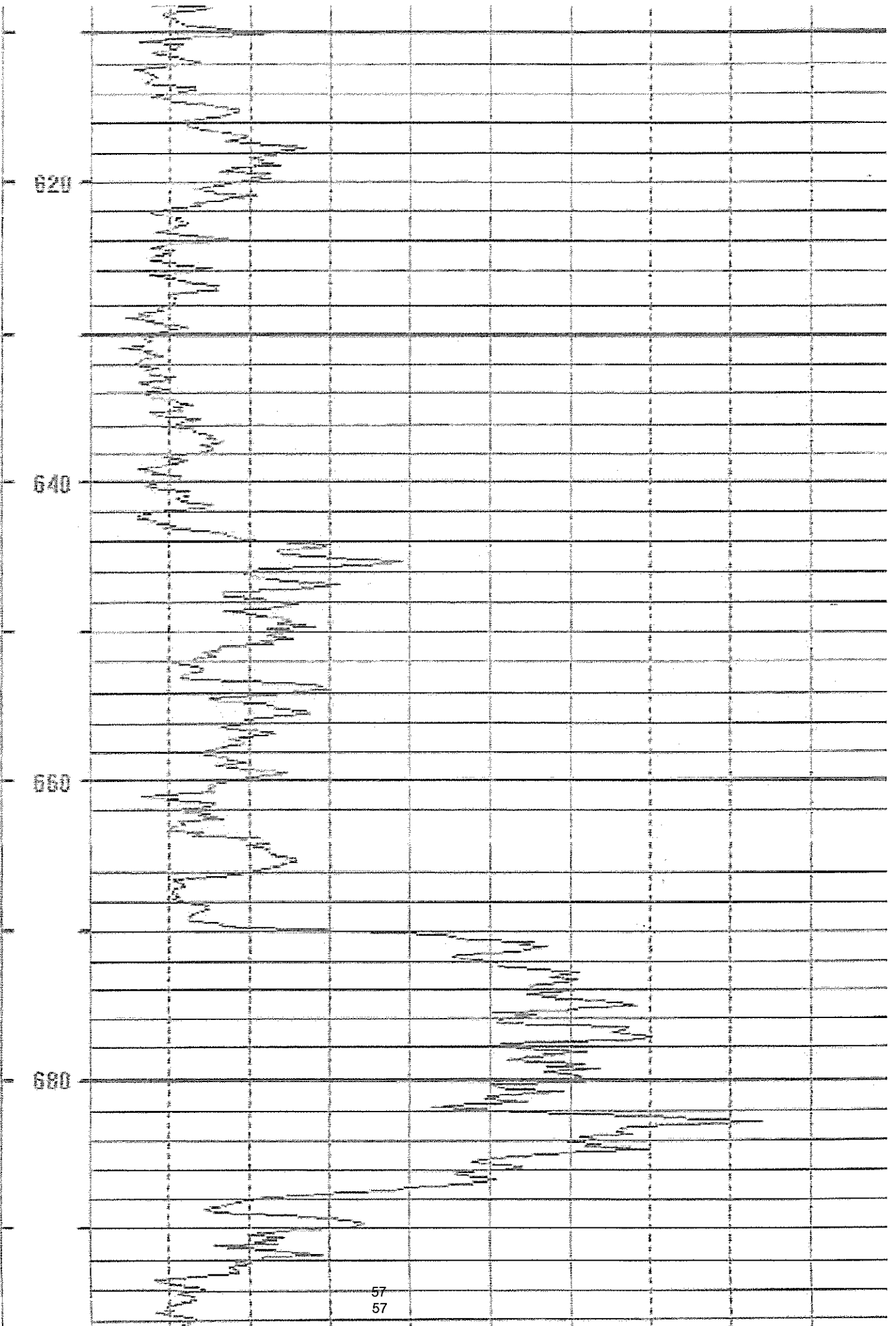
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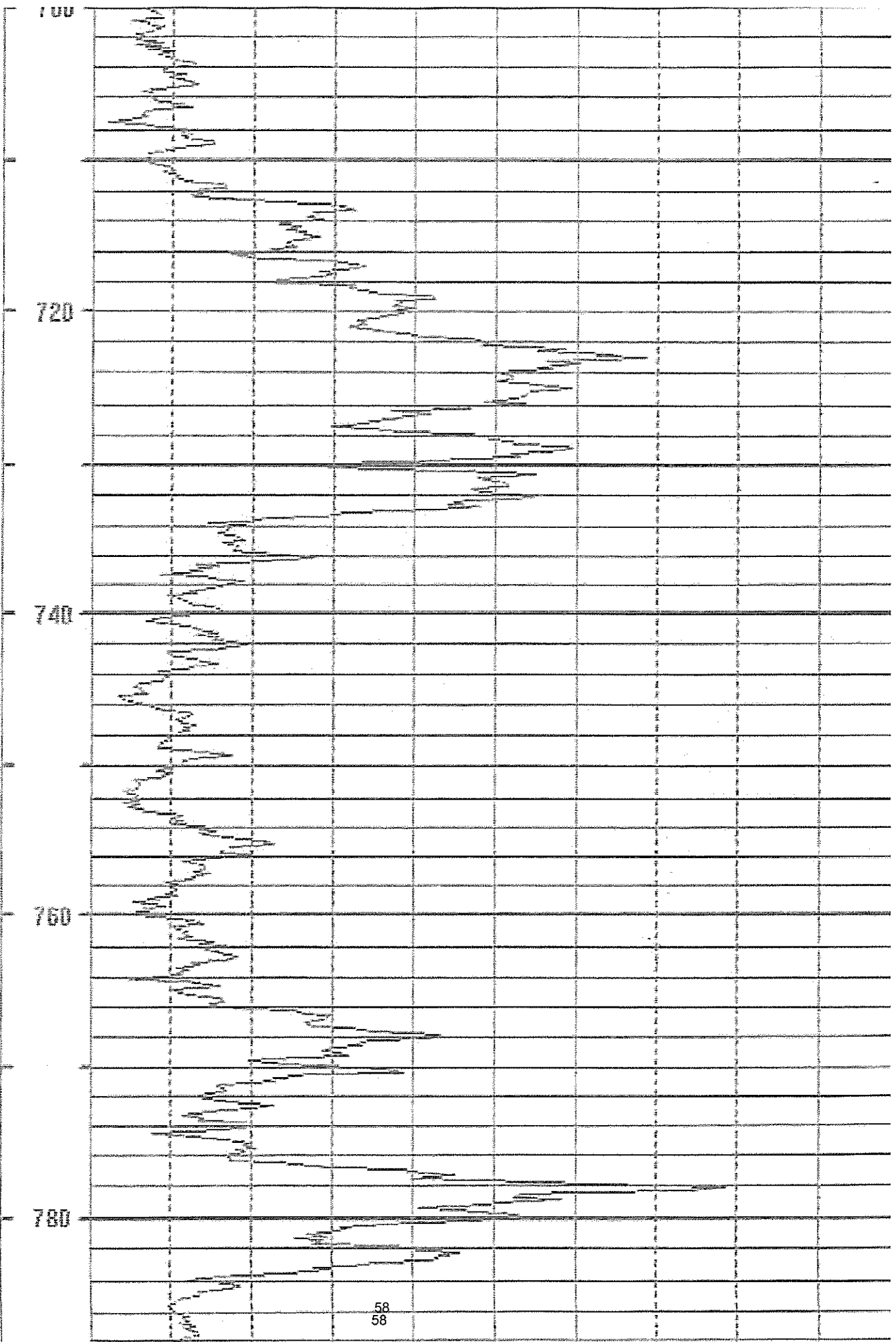


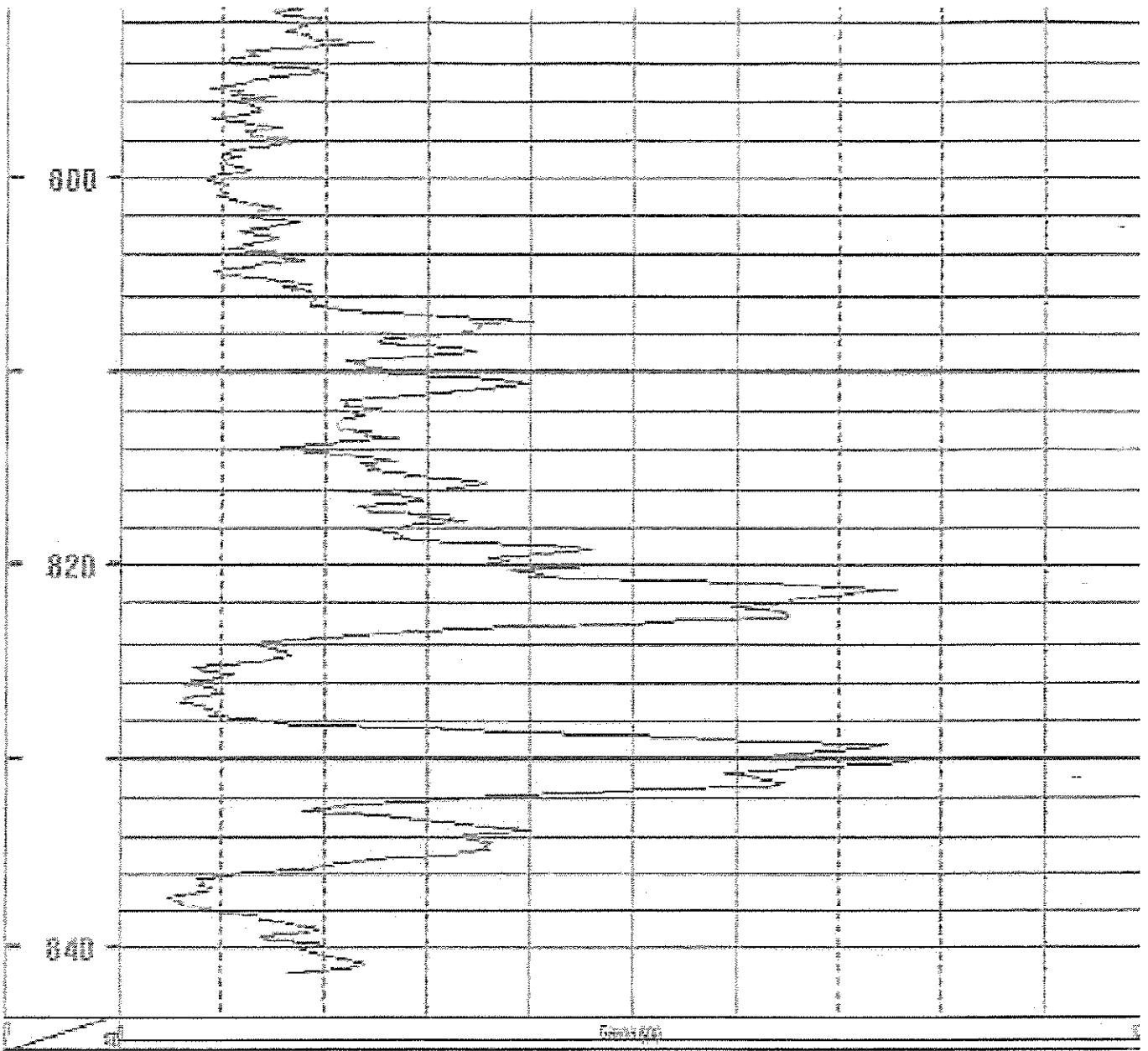












Date: Monday, July 11, 2011 Time: 11:52 AM File: C:\Program Files\AutoCAD\acad.rvt (1/17/11) p. 11

**Section 3**

**VPB 131 Groundwater Sample Log Sheets**



# GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW  
 Project No.: 112G00622/112G02751  
PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB131-GW-068  
 Sample Location: VPB-131  
 Sampled By: JF

- Domestic Well Data
- Monitoring Well Data
- Other Well Type: Vertical Profile Boring
- QA Sample Type: \_\_\_\_\_

C.O.C. No.: 1193  
 Type of Sample:  
 Low Concentration  
 High Concentration

### SAMPLING DATA:

Date: <u>3/15/2012</u>	Color Visual	pH Standard	S.C. mS/cm	Temp. Degrees C	Turbidity NTU	DO mg/l	ORP mV	Other NA
Time: <u>16:05</u>	<u>LT BRN</u>	<u>5.39</u>	<u>0.762</u>	<u>13.92</u>	<u>178</u>	<u>7.90</u>	<u>99</u>	<u>0.465</u>
Method: <u>Hydropunch</u>								

### PURGE DATA:

Date: <u>NA</u>	<u>LT BRN</u>	<u>5.39</u>	<u>0.762</u>	<u>13.92</u>	<u>178</u>	<u>7.90</u>	<u>99</u>	<u>0.465</u>
Method: <u>NA</u>								
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	3
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):



# GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW  
 Project No.: 112G00622/112G02751  
PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB131-GW-118  
 Sample Location: VPB-131  
 Sampled By: JF

- Domestic Well Data
- Monitoring Well Data
- Other Well Type: Vertical Profile Boring
- QA Sample Type: \_\_\_\_\_

C.O.C. No.: 1193  
 Type of Sample:  
 Low Concentration  
 High Concentration

### SAMPLING DATA:

Date: <u>3/16/2012</u>	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Time: <u>11:00</u>	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA <u>TP5</u>
Method: <u>Hydropunch</u>	<u>LT Ppm</u>	<u>5.41</u>	<u>0.456</u>	<u>11.43</u>	<u>77.5</u>	<u>4.07</u>	<u>60</u>	<u>0.295</u>

### PURGE DATA:

Date: <u>NA</u>	<u>LT Ppm</u>	<u>5.41</u>	<u>0.456</u>	<u>11.43</u>	<u>77.5</u>	<u>4.07</u>	<u>60</u>	<u>0.295</u>
Method: <u>NA</u>								
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	<u>2</u>
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):





# GROUNDWATER SAMPLE LOG SHEET

Project Site Name: **BETHPAGE OU-2 OFFSITE GW**  
 Project No.: **112G00622/112G02751**  
**PRE-DESIGN FIELD INVES**

Sample ID No.: **BP-VPB131-GW-168**  
 Sample Location: **VPB-131**  
 Sampled By: **JF**

- Domestic Well Data
- Monitoring Well Data
- Other Well Type: Vertical Profile Boring
- QA Sample Type: \_\_\_\_\_

C.O.C. No.: 1193  
 Type of Sample:  
 Low Concentration  
 High Concentration

### SAMPLING DATA:

Date: <u>3 / 19 / 2012</u>	Color Visual	pH Standard	S.C. mS/cm	Temp. Degrees C	Turbidity NTU	DO mg/l	ORP mV	Other TDS NA g/L
Time: <u>11:30</u>	<u>0mg Bcn</u>	<u>5.80</u>	<u>0.706</u>	<u>15.16</u>	<u>7800</u>	<u>2.13</u>	<u>16</u>	<u>0.452</u>
Method: <u>Hydropunch</u>								

### PURGE DATA:

Date: <u>NA</u>	<u>0mg Bcn</u>	<u>5.80</u>	<u>0.706</u>	<u>15.16</u>	<u>7800</u>	<u>2.13</u>	<u>16</u>	<u>0.452 g/L</u>
Method: <u>NA</u>								
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):

JF



# GROUNDWATER SAMPLE LOG SHEET

Project Site Name: **BETHPAGE OU-2 OFFSITE GW**  
 Project No.: **112G00622/112G02751**  
**PRE-DESIGN FIELD INVES**

Sample ID No.: **BP-VPB131-GW-208**  
 Sample Location: **VPB-131**  
 Sampled By: **JF**

Domestic Well Data  
 Monitoring Well Data  
 Other Well Type: Vertical Profile Boring  
 QA Sample Type: \_\_\_\_\_

C.O.C. No.: 1193  
 Type of Sample:  
 Low Concentration  
 High Concentration

### SAMPLING DATA:

Date: <u>3 / 19 / 2012</u>	Color Visual	pH Standard	S.C. mS/cm	Temp. Degrees C	Turbidity NTU	DO mg/l	ORP mV	Other <u>775 <del>mg</del> g/L</u>
Time: <u>12:30</u>	<u>LT 619</u>	<u>6.15</u>	<u>0.274</u>	<u>19.50</u>	<u>453</u>	<u>2.73</u>	<u>79</u>	<u>0.178</u>
Method: <u>Hydropunch</u>								

### PURGE DATA:

Date: <u>NA</u>								
Method: <u>NA</u>								
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	<input checked="" type="checkbox"/>
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.

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



# GROUNDWATER SAMPLE LOG SHEET

Project Site Name: **BETHPAGE OU-2 OFFSITE GW**  
 Project No.: **112G00622/112G02751**  
**PRE-DESIGN FIELD INVES**

Sample ID No.: **BP-VPB131-GW-228**  
 Sample Location: **VPB-131**  
 Sampled By: **JF**

- Domestic Well Data
- Monitoring Well Data
- Other Well Type: Vertical Profile Boring
- QA Sample Type: \_\_\_\_\_

C.O.C. No.: 1193  
 Type of Sample:  
 Low Concentration  
 High Concentration

**SAMPLING DATA:**

Date:	<u>31/19/2012</u>	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Time:	<u>14:10</u>	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	<u>ms 9/L</u>
Method:	<u>Hydropunch</u>	<u>Brag Brn</u>	<u>5.59</u>	<u>0.315</u>	<u>18.62</u>	<u>7800</u>	<u>5.34</u>	<u>77</u>	<u>0.205</u>

**PURGE DATA:**

Date:	<u>NA</u>	<u>Brag Brn</u>	<u>5.59</u>	<u>0.315</u>	<u>18.62</u>	<u>7800</u>	<u>5.34</u>	<u>77</u>	<u>0.205</u>
Method:	<u>NA</u>								
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	<u>2</u>
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):**



# GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW  
 Project No.: 112G00622/112G02751  
PRE-DESIGN FIELD INVES

Sample ID No.: EP-VPB131-GW-248  
 Sample Location: VPB-131  
 Sampled By: JF

- Domestic Well Data
- Monitoring Well Data
- Other Well Type: Vertical Profile Boring
- QA Sample Type: \_\_\_\_\_

C.O.C. No.: 1193  
 Type of Sample:  
 Low Concentration  
 High Concentration

### SAMPLING DATA:

Date: <u>31/11/12</u>	Color Visual	pH Standard	S.C. mS/cm	Temp. Degrees C	Turbidity NTU	DO mg/l	ORP mV	Other TDS <del>mg</del> g/L
Time: <u>16:00</u>	<u>lt. brn</u>	<u>5.56</u>	<u>0.383</u>	<u>18.83</u>	<u>190</u>	<u>5.40</u>	<u>84</u>	<u>0.249</u>
Method: <u>Hydropunch</u>								

### PURGE DATA:

Date: <u>NA</u>	<u>lt brn</u>	<u>5.56</u>	<u>0.383</u>	<u>18.83</u>	<u>170</u>	<u>5.40</u>	<u>84</u>	<u>0.249</u>
Method: <u>NA</u>								
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):



# GROUNDWATER SAMPLE LOG SHEET

Project Site Name: **BETHPAGE OU-2 OFFSITE GW**  
 Project No.: **112G00622/112G02751**  
**PRE-DESIGN FIELD INVES**

Sample ID No.: **BP-VPB131-GW-268**  
 Sample Location: **VPB-131**  
 Sampled By: **JF**

- Domestic Well Data
- Monitoring Well Data
- Other Well Type: Vertical Profile Boring
- QA Sample Type: \_\_\_\_\_

C.O.C. No.: 1199  
 Type of Sample:  
 Low Concentration  
 High Concentration

**SAMPLING DATA:**

Date: <u>31 20 12016</u>	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Time: <u>10:10</u>	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	SDS NA
Method: <u>Hydropunch</u>	<u>LT 6mg</u>	<u>5.55</u>	<u>0.294</u>	<u>15.74</u>	<u>181</u>	<u>6.31</u>	<u>133</u>	<u>0.191</u>

**PURGE DATA:**

Date: <u>NA</u>	<u>LT 6mg</u>	<u>5.55</u>	<u>0.294</u>	<u>15.74</u>	<u>181</u>	<u>6.31</u>	<u>133</u>	<u>0.191</u>
Method: <u>NA</u>								
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	2
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 NUS, Inc.

# GROUNDWATER SAMPLE LOG SHEET

Page 1 of 1

Project Site Name: BETHPAGE OU-2 OFFSITE GW  
 Project No.: 112G00622/112G02751  
PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB131-GW-288  
 Sample Location: VPB-131  
 Sampled By: JF

Domestic Well Data  
 Monitoring Well Data  
 Other Well Type: Vertical Profile Boring  
 QA Sample Type: \_\_\_\_\_

C.O.C. No.: 1194  
 Type of Sample:  
 Low Concentration  
 High Concentration

### SAMPLING DATA:

Date: <u>3 120 1 2012</u>	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Time: <u>11:50</u>	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	JDSNA
Method: <u>Hydropunch</u>	<u>DARK BRG</u>	<u>4.91</u>	<u>0.641</u>	<u>18.36</u>	<u>&gt; 800</u>	<u>2.63</u>	<u>97</u>	<u>0.411</u>

### PURGE DATA:

Date: <u>NA</u>	<u>DARK BRG</u>	<u>4.91</u>	<u>0.641</u>	<u>18.36</u>	<u>&gt; 800</u>	<u>2.63</u>	<u>97</u>	<u>0.411</u>
Method: <u>NA</u>								
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	<u>2</u> <u>Not Pres</u>

### 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.

LITHOLOGY - silt, mudstone, lignite, fine sand.

Circle if Applicable:  
 MS/MSD Duplicate ID No.: \_\_\_\_\_

Signature(s):



# GROUNDWATER SAMPLE LOG SHEET

Project Site Name: **BETHPAGE OU-2 OFFSITE GW**  
 Project No.: **112G00622/112G02751**  
**PRE-DESIGN FIELD INVES**

Sample ID No.: **BP-VPB131-GW-308**  
 Sample Location: **VPB-131**  
 Sampled By: **JF**

- Domestic Well Data
- Monitoring Well Data
- Other Well Type: Vertical Profile Boring
- QA Sample Type: \_\_\_\_\_

C.O.C. No.: 1194  
 Type of Sample:  
 Low Concentration  
 High Concentration

### SAMPLING DATA:

Date: <u>31 201 2012</u>	Color Visual	pH Standard	S.C. mS/cm	Temp. Degrees C	Turbidity NTU	DO mg/l	ORP mV	Other <sup>TPS</sup> NA <u>5/2</u>
Time: <u>13:50</u>	<u>DK Gray</u>	<u>6.16</u>	<u>0.624</u>	<u>19.47</u>	<u>&gt; 800</u>	<u>3.45</u>	<u>86</u>	<u>0.399</u>
Method: <u>Hydropunch</u>								

### PURGE DATA:

Date: <u>NA</u>	<u>DK Gray</u>	<u>6.16</u>	<u>0.624</u>	<u>19.47</u>	<u>&gt; 800</u>	<u>3.45</u>	<u>26</u>	<u>0.399</u>
Method: <u>NA</u>								
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	<u>2</u> 40ml Glass Vial	<u>2</u>

### 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.

*Dark Gray, micaceous, lignite. Sandy (fine) silt and clay.*

Circle if Applicable:

MS/MSD	Duplicate ID No.:
--------	-------------------

Signature(s):



Tetra Tech NUS, Inc.

# GROUNDWATER SAMPLE LOG SHEET

Page      of     

Project Site Name: BETHPAGE OU-2 OFFSITE GW      Sample ID No.: BP-VPB131-GW-328  
 Project No.: 112G00622/112G02751      Sample Location: VPB-131  
PRE-DESIGN FIELD INVES      Sampled By: JF

Domestic Well Data      C.O.C. No.: 1194  
 Monitoring Well Data      Type of Sample:  
 Other Well Type: Vertical Profile Boring       Low Concentration  
 QA Sample Type: \_\_\_\_\_       High Concentration

### SAMPLING DATA:

Date: <u>3/20/2012</u>	Color Visual	pH Standard	S.C. mS/cm	Temp. Degrees C	Turbidity NTU	DO mg/l	ORP mV	Other
Time: <u>15:45</u>	<u>lt. brn</u>	<u>5.89</u>	<u>0.223</u>	<u>20.33</u>	<u>115</u>	<u>3.88</u>	<u>65</u>	<u>0.143</u>
Method: <u>Hydropunch</u>								

### PURGE DATA:

Date: <u>NA</u>	<u>lt. brn</u>	<u>5.89</u>	<u>0.223</u>	<u>20.33</u>	<u>115</u>	<u>3.88</u>	<u>65</u>	<u>0.143</u>
Method: <u>NA</u>								
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 <del>2</del> 40ml Glass Vials	<u>2</u>
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.

*tan-brown, silty fine-medium sand.*

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





# GROUNDWATER SAMPLE LOG SHEET

Project Site Name: **BETHPAGE OU-2 OFFSITE GW**  
 Project No.: **112G00622/112G02751**  
**PRE-DESIGN FIELD INVES**

Sample ID No.: **BP-VPB131-GW-348**  
 Sample Location: **VPB-131**  
 Sampled By: **JF**

- Domestic Well Data
- Monitoring Well Data
- Other Well Type: Vertical Profile Boring
- QA Sample Type: \_\_\_\_\_

C.O.C. No.: 1194  
 Type of Sample:  
 Low Concentration  
 High Concentration

**SAMPLING DATA:**

Date:	<u>31 31 1 2012</u>	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Time:	<u>10100</u>	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	TDS <del>NA</del> %/c
Method:	Hydropunch	<u>GRAY</u>	<u>5.76</u>	<u>0.412</u>	<u>16.35</u>	<u>430</u>	<u>5.59</u>	<u>104</u>	<u>0.267</u>

**PURGE DATA:**

Date:	NA	<u>GRAY</u>	<u>5.76</u>	<u>0.412</u>	<u>16.35</u>	<u>430</u>	<u>5.59</u>	<u>104</u>	<u>0.267</u>
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	<u>2</u>
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.

*GRAY, SILTY, MICACEOUS fin-m. s. sand*

**Circle if Applicable:**

MS/MSD	Duplicate ID No.:
--------	-------------------

**Signature(s):**



# GROUNDWATER SAMPLE LOG SHEET

Project Site Name: **BETHPAGE OU-2 OFFSITE GW**  
 Project No.: **112G00622/112G02751**  
**PRE-DESIGN FIELD INVES**

Sample ID No.: **BP-VPB131-GW-368**  
 Sample Location: **VPB-131**  
 Sampled By: **JF**

- Domestic Well Data
- Monitoring Well Data
- Other Well Type: Vertical Profile Boring
- QA Sample Type: \_\_\_\_\_

C.O.C. No.: 1194  
 Type of Sample:  
 Low Concentration  
 High Concentration

### SAMPLING DATA:

Date: <u>31 01 2017</u>	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Time: <u>12:00</u>	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Method: <u>Hydropunch</u>	<u>6744</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>

### PURGE DATA:

Date: <u>NA</u>								
Method: <u>NA</u>								
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	<u>1</u> or 2- 40ml Glass Vials	<u>1</u>
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.

*Under bank, micaceous, silty very fine sand and silt (V.F.F) 5.25*

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



Tetra Tech NUS, Inc.

# GROUNDWATER SAMPLE LOG SHEET

Page 1 of 1

Project Site Name: BETHPAGE OU-2 OFFSITE GW  
 Project No.: 112G00622/112G02751  
PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB131-GW-389  
 Sample Location: VPB-131  
 Sampled By: JF

- Domestic Well Data  
 Monitoring Well Data  
 Other Well Type: Vertical Profile Boring  
 QA Sample Type: \_\_\_\_\_

C.O.C. No.: 1194  
 Type of Sample:  
 Low Concentration  
 High Concentration

### SAMPLING DATA:

Date:	<u>31 Jul 2012</u>	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Time:	<u>14:00</u>	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Method:	Hydropunch	<u>LT 603</u>	<u>5.73</u>	<u>0.249</u>	<u>19.54</u>	<u>273</u>	<u>3.42</u>	<u>84</u>	<u>0.162</u>

### PURGE DATA:

Date:	NA	<u>LT 603</u>	<u>5.73</u>	<u>0.249</u>	<u>19.54</u>	<u>273</u>	<u>3.42</u>	<u>84</u>	<u>0.162</u>
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 <del>2</del> 40ml Glass Vials	<input checked="" type="checkbox"/>
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.

*FAN-929 Silty fine-medium sand*

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



# GROUNDWATER SAMPLE LOG SHEET

Project Site Name: **BETHPAGE OU-2 OFFSITE GW**  
 Project No.: **112G00622/112G02751**  
**PRE-DESIGN FIELD INVES**

Sample ID No.: **BP-VPB131-GW-408**  
 Sample Location: **VPB-131**  
 Sampled By: **JF**

- Domestic Well Data
- Monitoring Well Data
- Other Well Type: Vertical Profile Boring
- QA Sample Type: \_\_\_\_\_

C.O.C. No.: 1194  
 Type of Sample:  
 Low Concentration  
 High Concentration

**SAMPLING DATA:**

Date: <u>31/01/2013</u>	Color Visual	pH Standard	S.C. mS/cm	Temp. Degrees C	Turbidity NTU	DO mg/l	ORP mV	Other TMS NA 9/c
Time: <u>16:00</u>	<u>LT. grey</u>	<u>5.76</u>	<u>0.231</u>	<u>18.18</u>	<u>445</u>	<u>4.81</u>	<u>53</u>	<u>0.150</u>
Method: <u>Hydropunch</u>								

**PURGE DATA:**

Date: <u>NA</u>	<u>LT. grey</u>	<u>5.76</u>	<u>0.231</u>	<u>18.18</u>	<u>445</u>	<u>4.81</u>	<u>53</u>	<u>0.150</u>
Method: <u>NA</u>								
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	2 x 40ml Glass Vial <u>NON-Press.</u>	<u>2</u>

**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.

See MICROWAVE S.I. by VP - for Sub

Circle if Applicable:		Signature(s): <u>JF</u>
MS/MSD	Duplicate ID No.:	



# GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW  
 Project No.: 112G00622/112G02751  
PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB131-GW-128  
 Sample Location: VPB-131  
 Sampled By: JF

- Domestic Well Data
- Monitoring Well Data
- Other Well Type: Vertical Profile Boring
- QA Sample Type: \_\_\_\_\_

C.O.C. No.: 1194  
 Type of Sample:  
 Low Concentration  
 High Concentration

### SAMPLING DATA:

Date: <u>031 27 1 2012</u>	Color Visual	pH Standard	S.C. mS/cm	Temp. Degrees C	Turbidity NTU	DO mg/l	ORP mV	Other TDS <del>mg</del> /L
Time: <u>13:20</u>	<u>6.04</u>	<u>5.57</u>	<u>0.807</u>	<u>17.79</u>	<u>324</u>	<u>5.66</u>	<u>-68</u>	<u>0.517</u>
Method: <u>Hydropunch</u>								

### PURGE DATA:

Date: <u>NA</u>	<u>6.04</u>	<u>5.57</u>	<u>0.807</u>	<u>17.79</u>	<u>324</u>	<u>5.66</u>	<u>-68</u>	<u>0.517</u>
Method: <u>NA</u>								
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	<u>2</u> <del>40ml</del> Glass Vial <u>Non Pres</u>	<u>2</u>

### 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.

GRAVEL, MUCKY SANDY (VF-Fine) SILT and 3.0% Very fine-fine sand

Circle if Applicable:

MS/MSD	Duplicate ID No.:
--------	-------------------

Signature(s): JF



# GROUNDWATER SAMPLE LOG SHEET

Project Site Name: **BETHPAGE OU-2 OFFSITE GW**  
 Project No.: **112G00622/112G02751**  
**PRE-DESIGN FIELD INVES**

Sample ID No.: **BP-VPB131-GW-448**  
 Sample Location: **VPB-131**  
 Sampled By: **JF**

Domestic Well Data  
 Monitoring Well Data  
 Other Well Type: Vertical Profile Boring  
 QA Sample Type: \_\_\_\_\_

C.O.C. No.: 1194  
 Type of Sample:  
 Low Concentration  
 High Concentration

### SAMPLING DATA:

Date:	<u>31 Oct 2013</u>	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Time:	<u>15:05</u>	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	<u>TDs <del>NA</del> 6/L</u>
Method:	Hydropunch	<u>LT 6mg</u>	<u>5.38</u>	<u>0.489</u>	<u>18.95</u>	<u>173</u>	<u>5.82</u>	<u>32</u>	<u>0.318</u>

### PURGE DATA:

Date:	NA	<u>LT 6mg</u>	<u>5.38</u>	<u>0.489</u>	<u>18.95</u>	<u>173</u>	<u>5.82</u>	<u>32</u>	<u>0.318</u>
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	140ml Glass Vial <i>Non Pres.</i>	<u>2</u>

### 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.

*Very mucous, lignite, very fine- fine sand*

Circle if Applicable:

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



# GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW  
 Project No.: 112G00622/112G02751  
PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB131-GW-468  
 Sample Location: VPB-131  
 Sampled By: JF

- Domestic Well Data  
 Monitoring Well Data  
 Other Well Type: Vertical Profile Boring  
 QA Sample Type: \_\_\_\_\_

C.O.C. No.: 1195  
 Type of Sample:  
 Low Concentration  
 High Concentration

### SAMPLING DATA:

Date:	<u>31/3/2012</u>	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Time:	<u>10:05</u>	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	TDS NA <u>2/k</u>
Method:	Hydropunch	<u>LT. Grey</u>	<u>6.01</u>	<u>0.453</u>	<u>16.97</u>	<u>695</u>	<u>8.57</u>	<u>137</u>	<u>0.294</u>

### PURGE DATA:

Date:	NA	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Method:	NA	<u>LT. Grey</u>	<u>6.01</u>	<u>0.453</u>	<u>16.97</u>	<u>695</u>	<u>8.57</u>	<u>137</u>	<u>0.294</u>
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	<u>71</u> -40ml Glass Vial	<input checked="" type="checkbox"/>

### 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.

*Grey, silty, micaceous, fine-medium sand, trace - little lignite*

Circle if Applicable:

MS/MSD	Duplicate ID No.:
--------	-------------------

Signature(s):



# GROUNDWATER SAMPLE LOG SHEET

Project Site Name: **BETHPAGE OU-2 OFFSITE GW**  
 Project No.: **112G00622/112G02751**  
**PRE-DESIGN FIELD INVES**

Sample ID No.: **BP-VPB131-GW-488**  
 Sample Location: **VPB-131**  
 Sampled By: **JF**

- Domestic Well Data
- Monitoring Well Data
- Other Well Type: Vertical Profile Boring
- QA Sample Type: \_\_\_\_\_

C.O.C. No.: 1195  
 Type of Sample:  
 Low Concentration  
 High Concentration

### SAMPLING DATA:

Date:	<u>31 23 2012</u>	Color		pH		S.C.		Temp.		Turbidity		DO		ORP		Other	
Time:	<u>12:00</u>	Visual		Standard		mS/cm		Degrees C		NTU		mg/l		mV		705 NA	<u>9/c</u>
Method:	<u>Hydropunch</u>	<u>LT. Brn</u>		<u>6.16</u>		<u>0.450</u>		<u>18.27</u>		<u>228</u>		<u>5.69</u>		<u>63</u>		<u>0.273</u>	

### PURGE DATA:

Date:	<u>NA</u>	<u>LT. Brn</u>		<u>6.16</u>		<u>0.450</u>		<u>18.27</u>		<u>228</u>		<u>5.69</u>		<u>63</u>		<u>0.273</u>	
Method:	<u>NA</u>																
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	<u>2 x 40ml Glass Vial Non-Pres</u>	<u>2</u>

### 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.

Grey-white micaceous silty, fine coarse sand, low-1/4" silt laminae

### Circle if Applicable:

MS/MSD Duplicate ID No.:

### Signature(s):

[Signature]





# GROUNDWATER SAMPLE LOG SHEET

Project Site Name: **BETHPAGE OU-2 OFFSITE GW**  
 Project No.: **112G00622/112G02751**  
**PRE-DESIGN FIELD INVES**

Sample ID No.: **BP-VPB131-GW-388**  
 Sample Location: **VPB-131**  
 Sampled By: **JF**

- Domestic Well Data
- Monitoring Well Data
- Other Well Type: Vertical Profile Boring
- QA Sample Type: \_\_\_\_\_

C.O.C. No.: 1195  
 Type of Sample:  
 Low Concentration  
 High Concentration

### SAMPLING DATA:

Date:	<u>31 26 17</u>	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Time:	<u>10:30</u>	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Method:	Hydropunch	<u>DK Gray</u>	<u>5.65</u>	<u>0.847</u>	<u>13.01</u>	<u>&gt;800</u>	<u>5.65</u>	<u>108</u>	<u>0.543</u>

### PURGE DATA:

Date:	NA	<u>DK Gray</u>	<u>5.65</u>	<u>0.847</u>	<u>13.01</u>	<u>&gt;800</u>	<u>5.65</u>	<u>108</u>	<u>0.543</u>
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	<u>3</u> 40ml Glass Vial	<u>2</u>

### 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.

*Dense gray-white micaceous fine-medium sand, trace - little silt laminae*

Circle if Applicable:

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



# GROUNDWATER SAMPLE LOG SHEET

Project Site Name: **BETHPAGE OU-2 OFFSITE GW**  
 Project No.: **112G00622/112G02751**  
**PRE-DESIGN FIELD INVES**

Sample ID No.: **BP-VPB131-GW-528**  
 Sample Location: **VPB-131**  
 Sampled By: **JF**

- Domestic Well Data
- Monitoring Well Data
- Other Well Type: Vertical Profile Boring
- QA Sample Type: \_\_\_\_\_

C.O.C. No.: 1195  
 Type of Sample:  
 Low Concentration  
 High Concentration

### SAMPLING DATA:

Date: <u>031 27 1 2012</u>	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Time: <u>11:30</u>	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	TDS NA <u>9/L</u>
Method: <u>Hydropunch</u>	<u>GRAY</u>	<u>5.69</u>	<u>0.576</u>	<u>9.13</u>	<u>7800</u>	<u>5.10</u>	<u>-327</u>	<u>0.368</u>

### PURGE DATA:

Date: <u>NA</u>	<u>GRAY</u>	<u>5.69</u>	<u>0.576</u>	<u>9.13</u>	<u>7800</u>	<u>5.10</u>	<u>-327</u>	<u>0.368</u>
Method: <u>NA</u>								
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	<u>2</u>
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.

GRAY 5.14, One - mid. low grad. trace - little silt perme

### Circle if Applicable:

MS/MSD	Duplicate ID No.:
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Signature(s): [Signature]



# GROUNDWATER SAMPLE LOG SHEET

Project Site Name: **BETHPAGE OU-2 OFFSITE GW**  
 Project No.: **112G00622/112G02751**  
**PRE-DESIGN FIELD INVES**

Sample ID No.: **BP-VPB131-GW-548**  
 Sample Location: **VPB-131**  
 Sampled By: **JF**

- Domestic Well Data
- Monitoring Well Data
- Other Well Type: Vertical Profile Boring
- QA Sample Type: \_\_\_\_\_

C.O.C. No.: 1195  
 Type of Sample:  
 Low Concentration  
 High Concentration

**SAMPLING DATA:**

Date:	3/27/2012	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Time:	16:00	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Method:	Hydropunch	6.0	6.10	0.194	11.84	312	8.56	-138	0.094

**PURGE DATA:**

Date:	NA	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Method:	NA	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Monitor Reading (ppm):		6.0	6.10	0.194	11.84	312	8.56	-138	0.094
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	2
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.

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



# GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW  
 Project No.: 112G00622/112G02751  
PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB131-GW-568  
 Sample Location: VPB-131  
 Sampled By: JF

- Domestic Well Data
- Monitoring Well Data
- Other Well Type: Vertical Profile Boring
- QA Sample Type: \_\_\_\_\_

C.O.C. No.: 1196  
 Type of Sample:  
 Low Concentration  
 High Concentration

### SAMPLING DATA:

Date: <u>31 Dec 1 2012</u>	Color Visual	pH Standard	S.C. mS/cm	Temp. Degrees C	Turbidity NTU	DO mg/l	ORP mV	Other NA
Time: <u>10:15</u>	<u>6.6M</u>	<u>6.17</u>	<u>0.526</u>	<u>11.54</u>	<u>&gt;800</u>	<u>4.37</u>	<u>-160</u>	<u>0.337</u>
Method: <u>Hydropunch</u>								

### PURGE DATA:

Date: <u>NA</u>	<u>6.6M</u>	<u>6.17</u>	<u>0.526</u>	<u>11.54</u>	<u>&gt;800</u>	<u>4.37</u>	<u>-160</u>	<u>0.337</u>
Method: <u>NA</u>								
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 of 2, 40ml Glass Vials	<input checked="" type="checkbox"/>
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.:
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### Signature(s):

JF



# GROUNDWATER SAMPLE LOG SHEET

Project Site Name: **BETHPAGE OU-2 OFFSITE GW**  
 Project No.: **112G00622/112G02751**  
**PRE-DESIGN FIELD INVES**

Sample ID No.: **BP-VPB131-GW-588**  
 Sample Location: **VPB-131**  
 Sampled By: **JF**

- Domestic Well Data
- Monitoring Well Data
- Other Well Type: Vertical Profile Boring
- QA Sample Type: \_\_\_\_\_

C.O.C. No.: 1196  
 Type of Sample:  
 Low Concentration  
 High Concentration

### SAMPLING DATA:

Date: <u>31 28 12012</u>	Color Visual	pH Standard	S.C. mS/cm	Temp. Degrees C	Turbidity NTU	DO mg/l	ORP mV	Other NA
Time: <u>12:10</u>	<u>Gray-white</u>	<u>6.43</u>	<u>0.102</u>	<u>11.45</u>	<u>320</u>	<u>4.10</u>	<u>-63</u>	<u>0.067</u>
Method: <u>Hydropunch</u>								

### PURGE DATA:

Date: <u>NA</u>	<u>Gray-white</u>	<u>6.43</u>	<u>0.102</u>	<u>11.45</u>	<u>320</u>	<u>4.10</u>	<u>-63</u>	<u>0.067</u>
Method: <u>NA</u>								
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 of 2-40ml Glass Vials	<u>2</u>
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.

*Gray-white, silty, very fine-medium sand, with silt laminae.*

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



# GROUNDWATER SAMPLE LOG SHEET

Project Site Name: **BETHPAGE OU-2 OFFSITE GW**  
 Project No.: **112G00622/112G02751**  
**PRE-DESIGN FIELD INVES**

Sample ID No.: **BP-VPB131-GW-608**  
 Sample Location: **VPB-131**  
 Sampled By: **JF**

- Domestic Well Data
- Monitoring Well Data
- Other Well Type: Vertical Profile Boring
- QA Sample Type: \_\_\_\_\_

C.O.C. No.: 1196  
 Type of Sample:  
 Low Concentration  
 High Concentration

**SAMPLING DATA:**

Date: <u>31 Dec 12012</u>	Color Visual	pH Standard	S.C. mS/cm	Temp. Degrees C	Turbidity NTU	DO mg/l	ORP mV	Other TDS NA <u>g/L</u>
Time: <u>14:20</u>	<u>GRAY</u>	<u>5.88</u>	<u>0.603</u>	<u>14.29</u>	<u>&gt;800</u>	<u>7.33</u>	<u>-115</u>	<u>0.386</u>
Method: <u>Hydropunch</u>								

**PURGE DATA:**

Date: <u>NA</u>	<u>GRAY</u>	<u>5.88</u>	<u>0.603</u>	<u>14.29</u>	<u>&gt;800</u>	<u>7.33</u>	<u>-115</u>	<u>0.386</u>
Method: <u>NA</u>								
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	2
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.

*Silty, fine-medium sand, fine silt, little-some silt removed.*

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



# GROUNDWATER SAMPLE LOG SHEET

Project Site Name: **BETHPAGE OU-2 OFFSITE GW**  
 Project No.: **112G00622/112G02751**  
**PRE-DESIGN FIELD INVES**

Sample ID No.: **BP-VPB131-GW-618**  
 Sample Location: **VPB-131**  
 Sampled By: **JF**

- Domestic Well Data
- Monitoring Well Data
- Other Well Type: Vertical Profile Boring
- QA Sample Type: \_\_\_\_\_

C.O.C. No.: 1196  
 Type of Sample:  
 Low Concentration  
 High Concentration

### SAMPLING DATA:

Date: <u>31 29 12012</u>	Color Visual	pH Standard	S.C. mS/cm	Temp. Degrees C	Turbidity NTU	DO mg/l	ORP mV	Other NA
Time: <u>11:45</u>	<u>GRAY</u>	—	—	—	—	—	—	—
Method: <u>Hydropunch</u>								

### 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	2
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.

*GRAY SILTY FINE TO COARSE QUARTZOSE SAND TRACE-1.1% lignite.*

MS/MSD	Duplicate ID No.:	Signature(s): 
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# GROUNDWATER SAMPLE LOG SHEET

Project Site Name: **BETHPAGE OU-2 OFFSITE GW**  
 Project No.: **112G00622/112G02751**  
**PRE-DESIGN FIELD INVES**

Sample ID No.: **BP-VPB131-GW-628**  
 Sample Location: **VPB-131**  
 Sampled By: **JF**

- Domestic Well Data
- Monitoring Well Data
- Other Well Type: Vertical Profile Boring
- QA Sample Type: \_\_\_\_\_

C.O.C. No.: 1196  
 Type of Sample:  
 Low Concentration  
 High Concentration

**SAMPLING DATA:**

Date: <u>3/29/12</u>	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Time: <u>13:50</u>	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Method: <u>Hydropunch</u>	<u>6200</u>	<u>6.52</u>	<u>0.603</u>	<u>14.76</u>	<u>7800</u>	<u>3.06</u>	<u>-46</u>	<u>0.387</u>

**PURGE DATA:**

Date: <u>NA</u>								
Method: <u>NA</u>								
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	<u>2</u>
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.

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





# GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW  
 Project No.: 112G00622/112G02751  
PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB131-GW-638  
 Sample Location: VPB-131  
 Sampled By: JF

- Domestic Well Data
- Monitoring Well Data
- Other Well Type: Vertical Profile Boring
- QA Sample Type: \_\_\_\_\_

C.O.C. No.: 1186  
 Type of Sample:  
 Low Concentration  
 High Concentration

### SAMPLING DATA:

Date: <u>31 29 1 2017</u>	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Time: <u>15:50</u>	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Method: <u>Hydropunch</u>	<u>6.00</u>	—	—	—	—	—	—	—

### 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 <del>2</del> 40ml Glass Vials	<input checked="" type="checkbox"/>
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.

*Site: Env - Coasts, QUANTROSE sand, fine-grained lignite.*

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



# GROUNDWATER SAMPLE LOG SHEET

Project Site Name: **BETHPAGE OU-2 OFFSITE GW**  
 Project No.: **112G00622/112G02751**  
**PRE-DESIGN FIELD INVES**

Sample ID No.: **BP-VPB131-GW-648**  
 Sample Location: **VPB-131**  
 Sampled By: **JF**

- Domestic Well Data
- Monitoring Well Data
- Other Well Type: Vertical Profile Boring
- QA Sample Type: \_\_\_\_\_

C.O.C. No.: 1209  
 Type of Sample:  
 Low Concentration  
 High Concentration

**SAMPLING DATA:**

Date: <u>4/12/2012</u>	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Time: <u>18:30</u>	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Method: <u>Hydropunch</u>	<u>6114</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>7800</u>	<u>—</u>	<u>—</u>	<u>—</u>

**PURGE DATA:**

Date: <u>NA</u>								
Method: <u>NA</u>								
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.

*Silly, murky, fine-grained sand, turbid.*

Circle if Applicable:	
MS/MSD	Duplicate ID No.:

Signature(s): JF



# GROUNDWATER SAMPLE LOG SHEET

Project Site Name: **BETHPAGE OU-2 OFFSITE GW**  
 Project No.: **112G00622/112G02751**  
**PRE-DESIGN FIELD INVES**

Sample ID No.: **BP-VPB131-GW-663**  
 Sample Location: **VPB-131**  
 Sampled By: **JF**

- Domestic Well Data
- Monitoring Well Data
- Other Well Type: Vertical Profile Boring
- QA Sample Type: \_\_\_\_\_

C.O.C. No.: 1203  
 Type of Sample:  
 Low Concentration  
 High Concentration

**SAMPLING DATA:**

Date: <u>4/3/2012</u>	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Time: <u>12:45</u>	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Method: <u>Hydropunch</u>	<u>DK GRAY</u>	<u>5.53</u>	<u>8.717</u>	<u>15.75</u>	<u>&gt;800</u>	<u>4.20</u>	<u>0.459</u>	<u>0.459</u>

**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	2
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.

*Sandy (F-M) GRAY-WHITE CLAY and CLAYEY, FINE TO COARSE SAND S&GCL*

<b>Circle if Applicable:</b>		<b>Signature(s):</b>
MS/MSD	Duplicate ID No.:	<i>JF</i>



# GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE OU-2 OFFSITE GW  
 Project No.: 112G00622/112G02751  
PRE-DESIGN FIELD INVES

Sample ID No.: BP-VPB131-GW-073  
 Sample Location: VPB-131  
 Sampled By: JF

- Domestic Well Data
- Monitoring Well Data
- Other Well Type: Vertical Profile Boring
- QA Sample Type: \_\_\_\_\_

C.O.C. No.: 1203  
 Type of Sample:  
 Low Concentration  
 High Concentration

### SAMPLING DATA:

Date: <u>4/13/2012</u>	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Time: <u>15:00</u>	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Method: <u>Hydropunch</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>

### PURGE DATA:

Date: <u>NA</u>								
Method: <u>NA</u>								
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*

*NO*

### 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  *No Recovery in sample*  
 Check box if not enough volume.

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

*IN HARD, GRAY, MICACEOUS CLAY, Trace fine sand*

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



# GROUNDWATER SAMPLE LOG SHEET

Project Site Name: **BETHPAGE OU-2 OFFSITE GW**  
 Project No.: **112G00622/112G02751**  
**PRE-DESIGN FIELD INVES**

Sample ID No.: **BP-VPB131-GW-693**  
 Sample Location: **VPB-131**  
 Sampled By: **JF**

- Domestic Well Data
- Monitoring Well Data
- Other Well Type: Vertical Profile Boring
- QA Sample Type: \_\_\_\_\_

C.O.C. No.: 1209  
 Type of Sample:  
 Low Concentration  
 High Concentration

### SAMPLING DATA:

Date: <u>4/4/2012</u>	Color Visual	pH Standard	S.C. mS/cm	Temp. Degrees C	Turbidity NTU	DO mg/l	ORP mV	Other NA
Time: <u>10:40</u>	<u>GRAY</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>&gt;800</u>	<u>—</u>	<u>—</u>	<u>—</u>
Method: <u>Hydropunch</u>								

### PURGE DATA:

Date: <u>NA</u>								
Method: <u>NA</u>								
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	<input checked="" type="checkbox"/>
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.

*\* ONE 40 ml 400 sample is just short of full bottle resulting in 2-3 mm bubble  
 SILTY, GRAY, FINE COARSE GRANULOSE SAND*

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	<i>JF</i>



# GROUNDWATER SAMPLE LOG SHEET

Project Site Name: **BETHPAGE OU-2 OFFSITE GW**  
 Project No.: **112G00622/112G02751**  
**PRE-DESIGN FIELD INVES**

Sample ID No.: **BP-VPB131-GW-703**  
 Sample Location: **VPB-131**  
 Sampled By: **JF**

- Domestic Well Data
- Monitoring Well Data
- Other Well Type: Vertical Profile Boring
- QA Sample Type: \_\_\_\_\_

C.O.C. No.: 1203  
 Type of Sample:  
 Low Concentration  
 High Concentration

### SAMPLING DATA:

Date: <u>4/4/2012</u>	Color Visual	pH Standard	S.C. mS/cm	Temp. Degrees C	Turbidity NTU	DO mg/l	ORP mV	Other
Time: <u>12:30</u>	<u>lt. Brn</u>	<u>5.84</u>	<u>0.157</u>	<u>15.20</u>	<u>230</u>	<u>5.30</u>	<u>-56</u>	<u>105 NA 3/L</u>
Method: <u>Hydropunch</u>								

### PURGE DATA:

Date: <u>NA</u>								
Method: <u>NA</u>								
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 of <u>2</u> 40ml Glass Vials	<u>2</u>
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.

*Dark white, medium, coarse sand (quartzose) to shamed*

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



# GROUNDWATER SAMPLE LOG SHEET

Project Site Name: **BETHPAGE OU-2 OFFSITE GW**  
 Project No.: **112G00622/112G02751**  
**PRE-DESIGN FIELD INVES**

Sample ID No.: **BP-VPB131-GW-723**  
 Sample Location: **VPB-131**  
 Sampled By: **JF**

- Domestic Well Data
- Monitoring Well Data
- Other Well Type: Vertical Profile Boring
- QA Sample Type: \_\_\_\_\_

C.O.C. No.: 1203  
 Type of Sample:  
 Low Concentration  
 High Concentration

### SAMPLING DATA:

Date: <u>4/4/12</u>	Color Visual	pH Standard	S.C. mS/cm	Temp. Degrees C	Turbidity NTU	DO mg/l	ORP mV	Other NA
Time: <u>1430</u>	<u>Li. Brn</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Method: <u>Hydropunch</u>								

### 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	2
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.

*TAN - GRAY, micaceous, silty, fine-medium sand, trace to little lignite.*

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



# GROUNDWATER SAMPLE LOG SHEET

Project Site Name: **BETHPAGE OU-2 OFFSITE GW**  
 Project No.: **112G00622/112G02751**  
**PRE-DESIGN FIELD INVES**

Sample ID No.: **BP-VPB131-GW-743**  
 Sample Location: **VPB-131**  
 Sampled By: **JF**

- Domestic Well Data
- Monitoring Well Data
- Other Well Type: Vertical Profile Boring
- QA Sample Type: \_\_\_\_\_

C.O.C. No.: 1203  
 Type of Sample:  
 Low Concentration  
 High Concentration

**SAMPLING DATA:**

Date: <u>4/4/2012</u>	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Time: <u>16:35</u>	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Method: <u>Hydropunch</u>	<u>GRAY</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>

**PURGE DATA:**

Date: <u>NA</u>								
Method: <u>NA</u>								
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	2
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.

*GRAY, SILTY, MUDS, AND SAND, FROM LOG-6*

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





# GROUNDWATER SAMPLE LOG SHEET

Project Site Name: **BETHPAGE OU-2 OFFSITE GW**  
 Project No.: **112G00622/112G02751**  
**PRE-DESIGN FIELD INVES**

Sample ID No.: **BP-VPB131-GW-763**  
 Sample Location: **VPB-131**  
 Sampled By: **JF**

- Domestic Well Data
- Monitoring Well Data
- Other Well Type: Vertical Profile Boring
- QA Sample Type: \_\_\_\_\_

C.O.C. No.: 1203  
 Type of Sample:  
 Low Concentration  
 High Concentration

**SAMPLING DATA:**

Date: <u>4/5/12</u>	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Time: <u>10:20</u>	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Method: <u>Hydropunch</u>	<u>GRAY</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>

**PURGE DATA:**

Date: <u>NA</u>								
Method: <u>NA</u>								
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	2
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.

*Collected Field Blank (BP-VPB131-GW-FBI) using NECL Reagent Grade H<sub>2</sub>O  
 white-gray, clayey, fine to coarse sand, little fine gravel.*

Circle if Applicable:	
MS/MSD	Duplicate ID No.:

Signature(s):



## GROUNDWATER SAMPLE LOG SHEET

<b>Project Site Name:</b>	<b>BETHPAGE OU-2 OFFSITE GW</b>	<b>Sample ID No.:</b>	<b>BP-VPB131-GW-383</b>
<b>Project No.:</b>	<b>112G00622/112G02751</b>	<b>Sample Location:</b>	<b>VPB-131</b>
	<b><u>PRE-DESIGN FIELD INVES</u></b>	<b>Sampled By:</b>	<b>JF</b>
<input type="checkbox"/> Domestic Well Data <input type="checkbox"/> Monitoring Well Data <input checked="" type="checkbox"/> Other Well Type: <u>Vertical Profile Boring</u> <input type="checkbox"/> QA Sample Type: _____		<b>C.O.C. No.:</b> <u>1203</u> <b>Type of Sample:</b> <input checked="" type="checkbox"/> Low Concentration <input type="checkbox"/> High Concentration	

**SAMPLING DATA:**

Date: <u>4/5/12</u>	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Other
Time: <u>13:30</u>	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	mV	NA
Method: <u>Hydropunch</u>	<u>Gray</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>

**PURGE DATA:**

Date: <u>NA</u>								
Method: <u>NA</u>								
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.

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

Project Site Name: **BETHPAGE OU-2 OFFSITE GW**  
 Project No.: **112G00622/112G02751**  
**PRE-DESIGN FIELD INVES**

Sample ID No.: **BP-VPB131-GW-0178**  
 Sample Location: **VPB-131**  
 Sampled By: **JF**

- Domestic Well Data
- Monitoring Well Data
- Other Well Type:
- QA Sample Type:

**Vertical Profile Boring**

C.O.C. No.: **1203**  
 Type of Sample:  
 Low Concentration  
 High Concentration

**SAMPLING DATA:**

Date: <b>7/15/2012</b>	Color Visual	pH Standard	S.C. mS/cm	Temp. Degrees C	Turbidity NTU	DO mg/l	ORP mV	Other NA <sup>3/2</sup>
Time: <b>10:30</b>	<b>GRAY</b>	<b>8.68</b>	<b>0.637</b>	<b>16.38</b>	<b>7800</b>		<b>-70</b>	<b>0.401</b>
Method: <b>Hydropunch</b>								

**PURGE DATA:**

Date: <b>NA</b>								
Method: <b>NA</b>								
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	<input checked="" type="checkbox"/>
TOC	4 DEG C	4 or 8 oz. Glass Jar	
VOCs	4 DEG C	1-40ml Glass Vial	

**OBSERVATIONS / NOTES:**

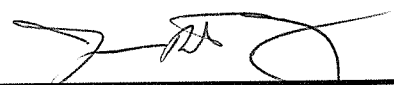
2" MW = 0.163 gal/ft

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.

*GRAY Sandy (F-L) CLAY and CLAYEY FINE-GRAINED SAND*

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



Tetra Tech NUS, Inc.

# GROUNDWATER SAMPLE LOG SHEET

Page 1 of 1

Project Site Name: **BETHPAGE OU-2 OFFSITE GW**  
 Project No.: **112G00622/112G02751**  
**PRE-DESIGN FIELD INVES**

Sample ID No.: **BP-VPB131-GW-823**  
 Sample Location: **VPB-131**  
 Sampled By: **JF**

Domestic Well Data  
 Monitoring Well Data  
 Other Well Type: Vertical Profile Boring  
 QA Sample Type: \_\_\_\_\_

C.O.C. No.: 1203  
 Type of Sample:  
 Low Concentration  
 High Concentration

### SAMPLING DATA:

Date: <u>4/6/12</u>	Color Visual	pH Standard	S.C. mS/cm	Temp. Degrees C	Turbidity NTU	DO mg/l	ORP mV	Other NA
Time: <u>1126</u>	<u>Grey</u>	—	—	—	—	—	—	—
Method: <u>Hydropunch</u>								

### PURGE DATA:

Date: <u>NA</u>								
Method: <u>NA</u>								
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	<u>2</u>
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):



# GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHANE 002  
 Project No.: 112602751

Sample ID No.: BRVVB131-SW-043  
 Sample Location: VVB131  
 Sampled By: J. Ferguson  
 C.O.C. No.: 1205

- Domestic Well Data
- Monitoring Well Data
- Other Well Type: \_\_\_\_\_
- QA Sample Type: \_\_\_\_\_

- Type of Sample:
- Low Concentration
  - High Concentration

**SAMPLING DATA:**

Date:	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
<u>April 6, 2005</u>	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	
Time: <u>14:45</u>								
Method: <u>BARB</u>								

**PURGE DATA:**

Date:	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
<u>NA</u>								
Method: <u>NA</u>								
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:**

Analysis	Preservative	Container Requirements	Collected
<u>BARB B</u>	<u>None</u>	<u>2 - 40ml glass</u>	<u>2</u>

**OBSERVATIONS / NOTES:**

*Insufficient volume for gw quality parameter*

Circle if Applicable:		Signature(s): <u>J-R</u>
MS/MSD	Duplicate ID No.:	



# QA SAMPLE LOG SHEET

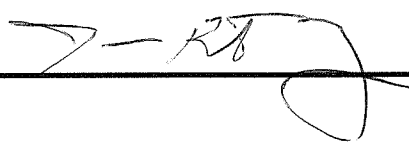
Project Site Name: BETHPAGE OU-2 OFFSITE Sample ID No.: BP-VPB-131-TB1  
 Project Number: 112G00622 Sampled By: J. Ferguson  
 Sample Location: VPB-131 C.O.C. Number: 1193  
 QA Sample Type:  
 Trip Blank  Rinsate Blank  
 Source Water Blank  Other Blank \_\_\_\_\_

SAMPLING DATA:	WATER SOURCE:
Date: <u>April 15, 2012</u> Time: <u>14:30</u> Method: <u>Lab prepared Trip blank</u>	<input checked="" type="checkbox"/> Laboratory Prepared <input type="checkbox"/> Tap <input type="checkbox"/> Purchased <input type="checkbox"/> Fire Hydrant <input type="checkbox"/> Other _____

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):	RINSATE INFORMATION (If Applicable):
Product Name: _____ Supplier: _____ Manufacturer: _____ Order Number: _____ Lot Number: _____ Expiration Date: _____	Media Type: _____ Equipment Used: _____ Equipment Type: <input type="checkbox"/> Dedicated <input type="checkbox"/> 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):  




# QA SAMPLE LOG SHEET


Project Site Name: BETHPAGE OU-2 OFFSITE Sample ID No.: BP-VPB-131-TRD  
 Project Number: 112G00622 Sampled By: J. Ferguson  
 Sample Location: \_\_\_\_\_ C.O.C. Number: 1194  
 QA Sample Type:  
 Trip Blank  Rinsate Blank  
 Source Water Blank  Other Blank \_\_\_\_\_

SAMPLING DATA:	WATER SOURCE:
Date: <u>3-20-2012</u> Time: <u>08:00</u> Method: <u>TRIP BLANK</u>	<input checked="" type="checkbox"/> Laboratory Prepared <input type="checkbox"/> Tap <input type="checkbox"/> Purchased <input type="checkbox"/> Fire Hydrant <input type="checkbox"/> Other _____

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):	RINSATE INFORMATION (If Applicable):
Product Name: _____ Supplier: _____ Manufacturer: _____ Order Number: _____ Lot Number: _____ Expiration Date: _____	Media Type: _____ Equipment Used: _____ Equipment Type: <input type="checkbox"/> Dedicated <input type="checkbox"/> Reusable

SAMPLE COLLECTION INFORMATION:			
Analysis	Preservative	Container Requirements	Collected
VOCs	Cool 4°C /HCL	<u>2</u> 40 ml GLASS VIALS	<u>(YES)</u> NO

**OBSERVATIONS / NOTES:**

Signature(s):  




# QA SAMPLE LOG SHEET


Project Site Name: BETHPAGE OU-2 OFFSITE Sample ID No.: BP-VPB-131-1B3  
 Project Number: 112G00622 Sampled By: J. Ingus  
 Sample Location: \_\_\_\_\_ C.O.C. Number: 1195  
 QA Sample Type:  
 Trip Blank  Rinsate Blank  
 Source Water Blank  Other Blank \_\_\_\_\_

SAMPLING DATA:	WATER SOURCE:
Date: <u>3-23-2012</u>	<input checked="" type="checkbox"/> Laboratory Prepared <input type="checkbox"/> Tap
Time: <u>09:30</u>	<input type="checkbox"/> Purchased <input type="checkbox"/> Fire Hydrant
Method: <u>LWB purged</u>	<input type="checkbox"/> Other _____

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):	RINSATE INFORMATION (If Applicable):
Product Name: _____	Media Type: _____
Supplier: _____	Equipment Used: _____
Manufacturer: _____	Equipment Type: <input type="checkbox"/> Dedicated
Order Number: _____	<input type="checkbox"/> Reusable
Lot Number: _____	
Expiration Date: _____	

SAMPLE COLLECTION INFORMATION:			
Analysis	Preservative	Container Requirements	Collected
VOCs	Cool 4°C /HCL	240 ml GLASS VIALS	YES / NO

**OBSERVATIONS / NOTES:**

Signature(s):  






# QA SAMPLE LOG SHEET

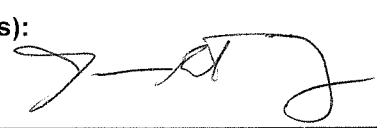
Project Site Name: BETHLEHEM 002 - Sample ID Number: BP-VPB131-TB4  
 Project Number: 112602751 Sampled By: J. W. GOSWAMI  
 Sample Location: BP-VPB131 C.O.C. Number: 1196  
 QA Sample Type:  
 Trip Blank  Rinsate Blank  
 Source Water Blank  Other Blank \_\_\_\_\_

SAMPLING DATA:	WATER SOURCE:
Date: <u>MARCH 28, 2012</u>	<input checked="" type="checkbox"/> Laboratory Prepared <input type="checkbox"/> Tap
Time: <u>08:00</u>	<input type="checkbox"/> Purchased <input type="checkbox"/> Fire Hydrant
Method: <u>Lab Prepared</u>	<input type="checkbox"/> Other _____

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):	RINSATE INFORMATION (If Applicable):
Product Name: _____	Media Type: _____
Supplier: _____	Equipment Used: _____
Manufacturer: _____	Equipment Type: <input type="checkbox"/> Dedicated
Order Number: _____	<input type="checkbox"/> Reusable
Lot Number: _____	
Expiration Date: _____	

SAMPLE COLLECTION INFORMATION:			
Analysis	Preservative	Container Requirements	Collected
Volatiles	Cool 4°C & HCl	2	YES / NO
Semivolatiles	Cool 4°C		YES / NO
Pesticide / PCB	Cool 4°C		YES / NO
Metals	Cool 4°C & HNO <sub>3</sub>		YES / NO
Cyanide	Cool 4°C & NaOH		YES / NO

**OBSERVATIONS / NOTES:**

Signature(s): 



# QA SAMPLE LOG SHEET

Project Site Name: BETHPHOS DU-2 Sample ID Number: BP-VPB171-6W-TB5  
 Project Number: 112602751 Sampled By: J. Penwell  
 Sample Location: BP-VPB171 C.O.C. Number: 1203  
 QA Sample Type:

- Trip Blank  Rinsate Blank  
 Source Water Blank  Other Blank \_\_\_\_\_

SAMPLING DATA:	WATER SOURCE:
----------------	---------------

Date: <u>April 2, 2012</u> Time: <u>08:00</u> Method: <u>Lab Prepared</u>	<input checked="" type="checkbox"/> Laboratory Prepared <input type="checkbox"/> Tap <input type="checkbox"/> Purchased <input type="checkbox"/> Fire Hydrant <input type="checkbox"/> Other _____
---	--

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

Product Name: _____ Supplier: _____ Manufacturer: _____ Order Number: _____ Lot Number: _____ Expiration Date: _____	Media Type: _____ Equipment Used: _____ Equipment Type: <input type="checkbox"/> Dedicated <input type="checkbox"/> Reusable
---	--

SAMPLE COLLECTION INFORMATION:			
--------------------------------	--	--	--

Analysis	Preservative	Container Requirements	Collected
Volatiles	Cool 4°C & HCl	2	YES / NO
Semivolatiles	Cool 4°C		YES / NO
Pesticide / PCB	Cool 4°C		YES / NO
Metals	Cool 4°C & HNO <sub>3</sub>		YES / NO
Cyanide	Cool 4°C & NaOH		YES / NO

OBSERVATIONS / NOTES:
-----------------------

Signature(s):



### GROUNDWATER SAMPLE LOG SHEET

Project Site Name: BETHPAGE 002  
 Project No.: VPB 131

Sample ID No.: BP-VPB131-7136  
 Sample Location: VPB131  
 Sampled By: J. Ferguson  
 C.O.C. No.: 1205

- Domestic Well Data
- Monitoring Well Data
- Other Well Type: \_\_\_\_\_
- QA Sample Type: \_\_\_\_\_

- Type of Sample:
- Low Concentration
  - High Concentration

**SAMPLING DATA:**

Date:	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
<u>April 6, 2012</u>	—	—	—	—	—	—	—	—
Time: <u>14:30</u>								
Method: <u>LAB PREPARED</u>								

**PURGE DATA:**

Date:	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method:								
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:**

Analysis	Preservative	Container Requirements	Collected
<u>VOL 0260B</u>	<u>HCL</u>	<u>2-40ml Glass</u>	<u>2</u>

**OBSERVATIONS / NOTES:**

Circle if Applicable:

<input type="checkbox"/> MS/MSD	Duplicate ID No.:
---------------------------------	-------------------

Signature(s): J. Ferguson

**Section 4**  
**VPB 131 Analytical Data Sheets**  
**(Chemtech and AirToxics)**

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/15/12
Project:	Bethpage CTO-066	Date Received:	03/20/12
Client Sample ID:	BP-VPB131-GW-068	SDG No.:	D1891
Lab Sample ID:	D1891-03	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
VR004344.D	1		03/22/12	VR032212

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/15/12
Project:	Bethpage CTO-066	Date Received:	03/20/12
Client Sample ID:	BP-VPB131-GW-068	SDG No.:	D1891
Lab Sample ID:	D1891-03	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
VR004344.D	1		03/22/12	VR032212

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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	56.5		70 - 120		113%	SPK: 50
1868-53-7	Dibromofluoromethane	50.6		85 - 115		101%	SPK: 50
2037-26-5	Toluene-d8	50.8		85 - 120		102%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.8		75 - 120		96%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	2199540	7.58				
540-36-3	1,4-Difluorobenzene	3819330	8.5				
3114-55-4	Chlorobenzene-d5	3480160	11.31				
3855-82-1	1,4-Dichlorobenzene-d4	1800290	13.26				

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/15/12
Project:	Bethpage CTO-066	Date Received:	03/20/12
Client Sample ID:	BP-VPB131-GW-068	SDG No.:	D1891
Lab Sample ID:	D1891-03	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
VR004344.D	1		03/22/12	VR032212

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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/19/12
Project:	Bethpage CTO-066	Date Received:	03/20/12
Client Sample ID:	BP-VPB131-GW-168	SDG No.:	D1891
Lab Sample ID:	D1891-04	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
VR004345.D	1		03/22/12	VR032212

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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	12		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



## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/19/12
Project:	Bethpage CTO-066	Date Received:	03/20/12
Client Sample ID:	BP-VPB131-GW-168	SDG No.:	D1891
Lab Sample ID:	D1891-04	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
VR004345.D	1		03/22/12	VR032212

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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	56.1		70 - 120		112%	SPK: 50
1868-53-7	Dibromofluoromethane	50.1		85 - 115		100%	SPK: 50
2037-26-5	Toluene-d8	50.4		85 - 120		101%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.3		75 - 120		97%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	2159680	7.58				
540-36-3	1,4-Difluorobenzene	3739760	8.5				
3114-55-4	Chlorobenzene-d5	3405780	11.31				
3855-82-1	1,4-Dichlorobenzene-d4	1758720	13.26				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							

**Report of Analysis**

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/19/12
Project:	Bethpage CTO-066	Date Received:	03/20/12
Client Sample ID:	BP-VPB131-GW-168	SDG No.:	D1891
Lab Sample ID:	D1891-04	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
VR004345.D	1		03/22/12	VR032212

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
000115-07-1	Propene	6.4	J			1.79	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/19/12
Project:	Bethpage CTO-066	Date Received:	03/20/12
Client Sample ID:	BP-VPB131-GW-208	SDG No.:	D1891
Lab Sample ID:	D1891-05	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
VR004301.D	1		03/21/12	VR032112

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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	1.2		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	3.3		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	0.81	J	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	3.4		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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/19/12
Project:	Bethpage CTO-066	Date Received:	03/20/12
Client Sample ID:	BP-VPB131-GW-208	SDG No.:	D1891
Lab Sample ID:	D1891-05	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
VR004301.D	1		03/21/12	VR032112

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	20	U	20	20	20	ug/L
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	58.5		70 - 120		117%	SPK: 50
1868-53-7	Dibromofluoromethane	51.9		85 - 115		104%	SPK: 50
2037-26-5	Toluene-d8	51.9		85 - 120		104%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.8		75 - 120		100%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	2030620	7.57				
540-36-3	1,4-Difluorobenzene	3540950	8.5				
3114-55-4	Chlorobenzene-d5	3299910	11.31				
3855-82-1	1,4-Dichlorobenzene-d4	1722320	13.26				

**Report of Analysis**

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/19/12
Project:	Bethpage CTO-066	Date Received:	03/20/12
Client Sample ID:	BP-VPB131-GW-208	SDG No.:	D1891
Lab Sample ID:	D1891-05	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
VR004301.D	1		03/21/12	VR032112

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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/16/12
Project:	Bethpage CTO-066	Date Received:	03/20/12
Client Sample ID:	BP-VPB131-GW-118	SDG No.:	D1891
Lab Sample ID:	D1891-06	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
VR004288.D	1		03/20/12	VR032012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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	520	E	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	0.6	J	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	0.81	J	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/16/12
Project:	Bethpage CTO-066	Date Received:	03/20/12
Client Sample ID:	BP-VPB131-GW-118	SDG No.:	D1891
Lab Sample ID:	D1891-06	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
VR004288.D	1		03/20/12	VR032012

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	20	U	20	20	20	ug/L
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	57.7		70 - 120		115%	SPK: 50
1868-53-7	Dibromofluoromethane	50.5		85 - 115		101%	SPK: 50
2037-26-5	Toluene-d8	50.8		85 - 120		102%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.7		75 - 120		97%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	2353310	7.58				
540-36-3	1,4-Difluorobenzene	4217660	8.5				
3114-55-4	Chlorobenzene-d5	3811860	11.31				
3855-82-1	1,4-Dichlorobenzene-d4	1954990	13.26				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							

**Report of Analysis**

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/16/12
Project:	Bethpage CTO-066	Date Received:	03/20/12
Client Sample ID:	BP-VPB131-GW-118	SDG No.:	D1891
Lab Sample ID:	D1891-06	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
VR004288.D	1		03/20/12	VR032012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
108-20-3	Diisopropyl ether	0.80	J			5.85	ug/L
000994-05-8	Butane, 2-methoxy-2-methyl-	30	J			8.14	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



### Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/16/12
Project:	Bethpage CTO-066	Date Received:	03/20/12
Client Sample ID:	BP-VPB131-GW-118DL	SDG No.:	D1891
Lab Sample ID:	D1891-06DL	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
VR004296.D	20		03/21/12	VR032112

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	10	U	4	10	20	ug/L
74-87-3	Chloromethane	10	U	4	10	20	ug/L
75-01-4	Vinyl Chloride	10	U	6.8	10	20	ug/L
74-83-9	Bromomethane	10	U	4	10	20	ug/L
75-00-3	Chloroethane	10	U	4	10	20	ug/L
75-69-4	Trichlorofluoromethane	10	U	7	10	20	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	10	U	9	10	20	ug/L
75-35-4	1,1-Dichloroethene	10	U	9.4	10	20	ug/L
67-64-1	Acetone	50	U	10	50	100	ug/L
75-15-0	Carbon Disulfide	10	U	4	10	20	ug/L
1634-04-4	Methyl tert-butyl Ether	710	D	7	10	20	ug/L
79-20-9	Methyl Acetate	10	U	4	10	20	ug/L
75-09-2	Methylene Chloride	10	U	8.2	10	20	ug/L
156-60-5	trans-1,2-Dichloroethene	10	U	8.2	10	20	ug/L
75-34-3	1,1-Dichloroethane	10	U	7.2	10	20	ug/L
110-82-7	Cyclohexane	10	U	4	10	20	ug/L
78-93-3	2-Butanone	50	U	26	50	100	ug/L
56-23-5	Carbon Tetrachloride	10	U	4	10	20	ug/L
156-59-2	cis-1,2-Dichloroethene	10	U	7	10	20	ug/L
74-97-5	Bromochloromethane	10	U	4	10	20	ug/L
67-66-3	Chloroform	10	U	6.8	10	20	ug/L
71-55-6	1,1,1-Trichloroethane	10	U	8	10	20	ug/L
108-87-2	Methylcyclohexane	10	U	4	10	20	ug/L
71-43-2	Benzene	10	U	6.4	10	20	ug/L
107-06-2	1,2-Dichloroethane	10	U	9.6	10	20	ug/L
79-01-6	Trichloroethene	10	U	5.6	10	20	ug/L
78-87-5	1,2-Dichloropropane	10	U	9.2	10	20	ug/L
75-27-4	Bromodichloromethane	10	U	7.2	10	20	ug/L
108-10-1	4-Methyl-2-Pentanone	50	U	42	50	100	ug/L
108-88-3	Toluene	10	U	7.4	10	20	ug/L
10061-02-6	t-1,3-Dichloropropene	10	U	5.8	10	20	ug/L

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/16/12
Project:	Bethpage CTO-066	Date Received:	03/20/12
Client Sample ID:	BP-VPB131-GW-118DL	SDG No.:	D1891
Lab Sample ID:	D1891-06DL	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
VR004296.D	20		03/21/12	VR032112

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	10	U	6.2	10	20	ug/L
79-00-5	1,1,2-Trichloroethane	10	U	7.6	10	20	ug/L
591-78-6	2-Hexanone	50	U	39	50	100	ug/L
124-48-1	Dibromochloromethane	10	U	10	10	20	ug/L
106-93-4	1,2-Dibromoethane	10	U	8.2	10	20	ug/L
127-18-4	Tetrachloroethene	10	U	5.4	10	20	ug/L
108-90-7	Chlorobenzene	10	U	9.8	10	20	ug/L
100-41-4	Ethyl Benzene	10	U	4	10	20	ug/L
179601-23-1	m/p-Xylenes	20	U	19	20	40	ug/L
95-47-6	o-Xylene	10	U	8.6	10	20	ug/L
100-42-5	Styrene	10	U	7.2	10	20	ug/L
75-25-2	Bromoform	10	U	9.4	10	20	ug/L
98-82-8	Isopropylbenzene	10	U	9	10	20	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	10	U	6.2	10	20	ug/L
541-73-1	1,3-Dichlorobenzene	10	U	8.6	10	20	ug/L
106-46-7	1,4-Dichlorobenzene	10	U	6.4	10	20	ug/L
95-50-1	1,2-Dichlorobenzene	10	U	9	10	20	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	10	U	9.2	10	20	ug/L
120-82-1	1,2,4-Trichlorobenzene	10	U	4	10	20	ug/L
87-61-6	1,2,3-Trichlorobenzene	10	U	4	10	20	ug/L
123-91-1	1,4-Dioxane	400	U	400	400	400	ug/L
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	58		70 - 120		116%	SPK: 50
1868-53-7	Dibromofluoromethane	51.7		85 - 115		103%	SPK: 50
2037-26-5	Toluene-d8	50.8		85 - 120		102%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.3		75 - 120		97%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	2218870	7.58				
540-36-3	1,4-Difluorobenzene	3923540	8.5				
3114-55-4	Chlorobenzene-d5	3581030	11.31				
3855-82-1	1,4-Dichlorobenzene-d4	1852150	13.26				

**Report of Analysis**

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/16/12
Project:	Bethpage CTO-066	Date Received:	03/20/12
Client Sample ID:	BP-VPB131-GW-118DL	SDG No.:	D1891
Lab Sample ID:	D1891-06DL	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
VR004296.D	20		03/21/12	VR032112

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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/19/12
Project:	Bethpage CTO-066	Date Received:	03/20/12
Client Sample ID:	BP-VPB131-GW-228	SDG No.:	D1891
Lab Sample ID:	D1891-07	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
VR004346.D	1		03/22/12	VR032212

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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	1.6		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	1.2		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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/19/12
Project:	Bethpage CTO-066	Date Received:	03/20/12
Client Sample ID:	BP-VPB131-GW-228	SDG No.:	D1891
Lab Sample ID:	D1891-07	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
VR004346.D	1		03/22/12	VR032212

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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	57.5		70 - 120		115%	SPK: 50
1868-53-7	Dibromofluoromethane	51.1		85 - 115		102%	SPK: 50
2037-26-5	Toluene-d8	50.6		85 - 120		101%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.6		75 - 120		95%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	2088190	7.58				
540-36-3	1,4-Difluorobenzene	3636670	8.5				
3114-55-4	Chlorobenzene-d5	3307580	11.31				
3855-82-1	1,4-Dichlorobenzene-d4	1696500	13.26				

### Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/19/12
Project:	Bethpage CTO-066	Date Received:	03/20/12
Client Sample ID:	BP-VPB131-GW-228	SDG No.:	D1891
Lab Sample ID:	D1891-07	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
VR004346.D	1		03/22/12	VR032212

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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/19/12
Project:	Bethpage CTO-066	Date Received:	03/20/12
Client Sample ID:	BP-VPB131-GW-248	SDG No.:	D1891
Lab Sample ID:	D1891-08	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
VR004347.D	1		03/22/12	VR032212

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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	1.2		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	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	2.5		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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/19/12
Project:	Bethpage CTO-066	Date Received:	03/20/12
Client Sample ID:	BP-VPB131-GW-248	SDG No.:	D1891
Lab Sample ID:	D1891-08	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
VR004347.D	1		03/22/12	VR032212

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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	58.6		70 - 120		117%	SPK: 50
1868-53-7	Dibromofluoromethane	51.2		85 - 115		102%	SPK: 50
2037-26-5	Toluene-d8	50.8		85 - 120		102%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.6		75 - 120		95%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	1942930	7.58				
540-36-3	1,4-Difluorobenzene	3400560	8.5				
3114-55-4	Chlorobenzene-d5	3109230	11.31				
3855-82-1	1,4-Dichlorobenzene-d4	1570290	13.26				



## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/19/12
Project:	Bethpage CTO-066	Date Received:	03/20/12
Client Sample ID:	BP-VPB131-GW-248	SDG No.:	D1891
Lab Sample ID:	D1891-08	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
VR004347.D	1		03/22/12	VR032212

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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/20/12
Project:	Bethpage CTO-066	Date Received:	03/23/12
Client Sample ID:	BP-VPB131-GW-268	SDG No.:	D1947
Lab Sample ID:	D1947-02	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
VR004384.D	1		03/24/12	VR032312

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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	5	J	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/20/12
Project:	Bethpage CTO-066	Date Received:	03/23/12
Client Sample ID:	BP-VPB131-GW-268	SDG No.:	D1947
Lab Sample ID:	D1947-02	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
VR004384.D	1		03/24/12	VR032312

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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	57.7		70 - 120		115%	SPK: 50
1868-53-7	Dibromofluoromethane	51		85 - 115		102%	SPK: 50
2037-26-5	Toluene-d8	51.1		85 - 120		102%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.9		75 - 120		96%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	2893920	7.57				
540-36-3	1,4-Difluorobenzene	5051360	8.5				
3114-55-4	Chlorobenzene-d5	4599520	11.31				
3855-82-1	1,4-Dichlorobenzene-d4	2362020	13.26				

**Report of Analysis**

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/20/12
Project:	Bethpage CTO-066	Date Received:	03/23/12
Client Sample ID:	BP-VPB131-GW-268	SDG No.:	D1947
Lab Sample ID:	D1947-02	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
VR004384.D	1		03/24/12	VR032312

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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/20/12
Project:	Bethpage CTO-066	Date Received:	03/23/12
Client Sample ID:	BP-VPB131-GW-288	SDG No.:	D1947
Lab Sample ID:	D1947-03	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
VF031837.D	1		03/27/12	VF032612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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	14	J	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	5.6	B	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/20/12
Project:	Bethpage CTO-066	Date Received:	03/23/12
Client Sample ID:	BP-VPB131-GW-288	SDG No.:	D1947
Lab Sample ID:	D1947-03	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
VF031837.D	1		03/27/12	VF032612

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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	37.7		55 - 158		75%	SPK: 50
1868-53-7	Dibromofluoromethane	47.3		53 - 156		95%	SPK: 50
2037-26-5	Toluene-d8	46.1		85 - 115		92%	SPK: 50
460-00-4	4-Bromofluorobenzene	30.7	*	85 - 120		61%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	95475	4.39				
540-36-3	1,4-Difluorobenzene	173766	5.12				
3114-55-4	Chlorobenzene-d5	140599	9.32				
3855-82-1	1,4-Dichlorobenzene-d4	38507	12.24				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/20/12
Project:	Bethpage CTO-066	Date Received:	03/23/12
Client Sample ID:	BP-VPB131-GW-288	SDG No.:	D1947
Lab Sample ID:	D1947-03	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
VF031837.D	1		03/27/12	VF032612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
000071-36-3	1-Butanol	5.5	J			5.77	ug/Kg
	unknown10.28	7.4	J			10.28	ug/Kg
052937-36-7	trans-2-Methyl-3-octene	8.7	J			10.91	ug/Kg
002207-04-7	Cyclohexane, 1,4-dimethyl-, trans-	8.5	J			11.22	ug/Kg
000124-18-5	Decane	10	J			11.35	ug/Kg
	unknown11.70	6.8	J			11.7	ug/Kg
001678-93-9	Cyclohexane, butyl-	5.0	J			11.89	ug/Kg
054299-96-6	Cyclooctene, 1,2-dimethyl-	6.3	J			12.9	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/20/12
Project:	Bethpage CTO-066	Date Received:	03/23/12
Client Sample ID:	BP-VPB131-GW-288RE	SDG No.:	D1947
Lab Sample ID:	D1947-03RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.05 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
VF031864.D	1		03/27/12	VF032712

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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	11	J	3	12.5	25	ug/Kg
75-15-0	Carbon Disulfide	2.5	U	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	3.7	J	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	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	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	0.61	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



## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/20/12
Project:	Bethpage CTO-066	Date Received:	03/23/12
Client Sample ID:	BP-VPB131-GW-288RE	SDG No.:	D1947
Lab Sample ID:	D1947-03RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.05 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
VF031864.D	1		03/27/12	VF032712

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	0.53	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	0.61	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-Dichlorobenzene	2.5	U	0.41	2.5	5	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.5	U	0.61	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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	39.8		55 - 158		80%	SPK: 50
1868-53-7	Dibromofluoromethane	47.3		53 - 156		95%	SPK: 50
2037-26-5	Toluene-d8	46.9		85 - 115		94%	SPK: 50
460-00-4	4-Bromofluorobenzene	32.8	*	85 - 120		66%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	96575	4.37				
540-36-3	1,4-Difluorobenzene	175613	5.12				
3114-55-4	Chlorobenzene-d5	150278	9.32				
3855-82-1	1,4-Dichlorobenzene-d4	40538	12.23				

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/20/12
Project:	Bethpage CTO-066	Date Received:	03/23/12
Client Sample ID:	BP-VPB131-GW-288RE	SDG No.:	D1947
Lab Sample ID:	D1947-03RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.05      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
VF031864.D	1		03/27/12	VF032712

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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/20/12
Project:	Bethpage CTO-066	Date Received:	03/23/12
Client Sample ID:	BP-VPB131-GW-308	SDG No.:	D1947
Lab Sample ID:	D1947-04	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.05 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
VF031838.D	1		03/27/12	VF032612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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	40		3	12.5	25	ug/Kg
75-15-0	Carbon Disulfide	2.5	U	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	6	B	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	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	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	0.61	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/20/12
Project:	Bethpage CTO-066	Date Received:	03/23/12
Client Sample ID:	BP-VPB131-GW-308	SDG No.:	D1947
Lab Sample ID:	D1947-04	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.05 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
VF031838.D	1		03/27/12	VF032612

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	0.53	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	0.61	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-Dichlorobenzene	2.5	U	0.41	2.5	5	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.5	U	0.61	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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	38.8		55 - 158		78%	SPK: 50
1868-53-7	Dibromofluoromethane	45.7		53 - 156		91%	SPK: 50
2037-26-5	Toluene-d8	45.3		85 - 115		91%	SPK: 50
460-00-4	4-Bromofluorobenzene	35.6	*	85 - 120		71%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	94093	4.39				
540-36-3	1,4-Difluorobenzene	174879	5.13				
3114-55-4	Chlorobenzene-d5	144416	9.32				
3855-82-1	1,4-Dichlorobenzene-d4	46651	12.24				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/20/12
Project:	Bethpage CTO-066	Date Received:	03/23/12
Client Sample ID:	BP-VPB131-GW-308	SDG No.:	D1947
Lab Sample ID:	D1947-04	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.05 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
VF031838.D	1		03/27/12	VF032612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
006236-88-0	Cyclohexane, 1-ethyl-4-methyl-, tr	7.6	J			9.8	ug/Kg
	unknown10.28	11	J			10.28	ug/Kg
019150-21-1	trans-3-Decene	13	J			10.91	ug/Kg
002207-03-6	Cyclohexane, 1,3-dimethyl-, trans-	12	J			11.23	ug/Kg
086711-78-6	2- Chloropropionic acid, decyl est	13	J			11.34	ug/Kg
002847-72-5	Decane, 4-methyl-	10	J			11.7	ug/Kg
001678-93-9	Cyclohexane, butyl-	8.1	J			11.89	ug/Kg
1000152-47-3	trans-Decalin, 2-methyl-	11	J			12.89	ug/Kg
000629-59-4	Tetradecane	11	J			14.84	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/20/12
Project:	Bethpage CTO-066	Date Received:	03/23/12
Client Sample ID:	BP-VPB131-GW-308RE	SDG No.:	D1947
Lab Sample ID:	D1947-04RE	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
VF031865.D	1		03/27/12	VF032712

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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	17	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	3.6	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/20/12
Project:	Bethpage CTO-066	Date Received:	03/23/12
Client Sample ID:	BP-VPB131-GW-308RE	SDG No.:	D1947
Lab Sample ID:	D1947-04RE	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
VF031865.D	1		03/27/12	VF032712

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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	39.4		55 - 158		79%	SPK: 50
1868-53-7	Dibromofluoromethane	46.9		53 - 156		94%	SPK: 50
2037-26-5	Toluene-d8	47.8		85 - 115		96%	SPK: 50
460-00-4	4-Bromofluorobenzene	37.2	*	85 - 120		74%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	96980	4.38				
540-36-3	1,4-Difluorobenzene	172605	5.12				
3114-55-4	Chlorobenzene-d5	154089	9.31				
3855-82-1	1,4-Dichlorobenzene-d4	48531	12.23				

**Report of Analysis**

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/20/12
Project:	Bethpage CTO-066	Date Received:	03/23/12
Client Sample ID:	BP-VPB131-GW-308RE	SDG No.:	D1947
Lab Sample ID:	D1947-04RE	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
VF031865.D	1		03/27/12	VF032712

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



## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/20/12
Project:	Bethpage CTO-066	Date Received:	03/23/12
Client Sample ID:	BP-VPB131-GW-328	SDG No.:	D1947
Lab Sample ID:	D1947-05	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
VR004397.D	1		03/24/12	VR032412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/20/12
Project:	Bethpage CTO-066	Date Received:	03/23/12
Client Sample ID:	BP-VPB131-GW-328	SDG No.:	D1947
Lab Sample ID:	D1947-05	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
VR004397.D	1		03/24/12	VR032412

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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	54.6		70 - 120		109%	SPK: 50
1868-53-7	Dibromofluoromethane	50.6		85 - 115		101%	SPK: 50
2037-26-5	Toluene-d8	50.3		85 - 120		101%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.6		75 - 120		95%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	3173090	7.58				
540-36-3	1,4-Difluorobenzene	5586720	8.5				
3114-55-4	Chlorobenzene-d5	5085020	11.31				
3855-82-1	1,4-Dichlorobenzene-d4	2661300	13.26				

**Report of Analysis**

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/20/12
Project:	Bethpage CTO-066	Date Received:	03/23/12
Client Sample ID:	BP-VPB131-GW-328	SDG No.:	D1947
Lab Sample ID:	D1947-05	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
VR004397.D	1		03/24/12	VR032412

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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/21/12
Project:	Bethpage CTO-066	Date Received:	03/23/12
Client Sample ID:	BP-VPB131-GW-348	SDG No.:	D1947
Lab Sample ID:	D1947-06	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
VR004386.D	1		03/24/12	VR032312

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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	5.8		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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/21/12
Project:	Bethpage CTO-066	Date Received:	03/23/12
Client Sample ID:	BP-VPB131-GW-348	SDG No.:	D1947
Lab Sample ID:	D1947-06	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
VR004386.D	1		03/24/12	VR032312

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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	60		70 - 120		120%	SPK: 50
1868-53-7	Dibromofluoromethane	51.5		85 - 115		103%	SPK: 50
2037-26-5	Toluene-d8	51.6		85 - 120		103%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.6		75 - 120		97%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	2710130	7.57				
540-36-3	1,4-Difluorobenzene	4731460	8.5				
3114-55-4	Chlorobenzene-d5	4351560	11.31				
3855-82-1	1,4-Dichlorobenzene-d4	2213360	13.26				

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/21/12
Project:	Bethpage CTO-066	Date Received:	03/23/12
Client Sample ID:	BP-VPB131-GW-348	SDG No.:	D1947
Lab Sample ID:	D1947-06	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
VR004386.D	1		03/24/12	VR032312

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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/21/12
Project:	Bethpage CTO-066	Date Received:	03/23/12
Client Sample ID:	BP-VPB131-GW-368	SDG No.:	D1947
Lab Sample ID:	D1947-07	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-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF031839.D	1		03/27/12	VF032612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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	24	J	3	12.5	25	ug/Kg
75-15-0	Carbon Disulfide	2.8	J	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	7.1	B	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	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	0.63	2.5	5	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.5	U	0.78	2.5	5	ug/Kg

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/21/12
Project:	Bethpage CTO-066	Date Received:	03/23/12
Client Sample ID:	BP-VPB131-GW-368	SDG No.:	D1947
Lab Sample ID:	D1947-07	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-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF031839.D	1		03/27/12	VF032612

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-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	0.69	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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	38.7		55 - 158		77%	SPK: 50
1868-53-7	Dibromofluoromethane	46.7		53 - 156		93%	SPK: 50
2037-26-5	Toluene-d8	45.8		85 - 115		92%	SPK: 50
460-00-4	4-Bromofluorobenzene	38.7	*	85 - 120		77%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	101794	4.39				
540-36-3	1,4-Difluorobenzene	185296	5.13				
3114-55-4	Chlorobenzene-d5	164044	9.32				
3855-82-1	1,4-Dichlorobenzene-d4	61236	12.24				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							



## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/21/12
Project:	Bethpage CTO-066	Date Received:	03/23/12
Client Sample ID:	BP-VPB131-GW-368	SDG No.:	D1947
Lab Sample ID:	D1947-07	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-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF031839.D	1		03/27/12	VF032612

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
000123-72-8	Butanal	10	J			3.35	ug/Kg
000592-84-7	Formic acid, butyl ester	25	J			6.8	ug/Kg
	unknown10.28	8.8	J			10.28	ug/Kg
062960-77-4	4-Octene, 2,6-dimethyl-, [S-(Z)]-	9.0	J			10.91	ug/Kg
004291-79-6	Cyclohexane, 1-methyl-2-propyl-	9.1	J			11.22	ug/Kg
000124-18-5	Decane	14	J			11.35	ug/Kg
002847-72-5	Decane, 4-methyl-	11	J			11.7	ug/Kg
001678-93-9	Cyclohexane, butyl-	8.9	J			11.89	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/21/12
Project:	Bethpage CTO-066	Date Received:	03/23/12
Client Sample ID:	BP-VPB131-GW-368RE	SDG No.:	D1947
Lab Sample ID:	D1947-07RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	4.95 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
VF031866.D	1		03/27/12	VF032712

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	2.55	U	0.66	2.55	5.1	ug/Kg
74-87-3	Chloromethane	2.55	U	0.87	2.55	5.1	ug/Kg
75-01-4	Vinyl Chloride	2.55	U	1.2	2.55	5.1	ug/Kg
74-83-9	Bromomethane	2.55	U	2.5	2.55	5.1	ug/Kg
75-00-3	Chloroethane	2.55	U	1.4	2.55	5.1	ug/Kg
75-69-4	Trichlorofluoromethane	2.55	U	1.3	2.55	5.1	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.55	U	1.3	2.55	5.1	ug/Kg
75-35-4	1,1-Dichloroethene	2.55	U	1.5	2.55	5.1	ug/Kg
67-64-1	Acetone	20	J	3.1	12.5	25	ug/Kg
75-15-0	Carbon Disulfide	2.55	U	1.1	2.55	5.1	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.55	U	0.97	2.55	5.1	ug/Kg
79-20-9	Methyl Acetate	2.55	U	1.5	2.55	5.1	ug/Kg
75-09-2	Methylene Chloride	3.9	J	1.4	2.55	5.1	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.55	U	0.7	2.55	5.1	ug/Kg
75-34-3	1,1-Dichloroethane	2.55	U	0.95	2.55	5.1	ug/Kg
110-82-7	Cyclohexane	2.55	U	1	2.55	5.1	ug/Kg
78-93-3	2-Butanone	12.5	U	3.1	12.5	25	ug/Kg
56-23-5	Carbon Tetrachloride	2.55	U	1	2.55	5.1	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.55	U	0.9	2.55	5.1	ug/Kg
74-97-5	Bromochloromethane	2.55	U	0.8	2.55	5.1	ug/Kg
67-66-3	Chloroform	2.55	U	0.75	2.55	5.1	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.55	U	0.89	2.55	5.1	ug/Kg
108-87-2	Methylcyclohexane	2.55	U	1.1	2.55	5.1	ug/Kg
71-43-2	Benzene	2.55	U	0.38	2.55	5.1	ug/Kg
107-06-2	1,2-Dichloroethane	2.55	U	0.65	2.55	5.1	ug/Kg
79-01-6	Trichloroethene	2.55	U	0.87	2.55	5.1	ug/Kg
78-87-5	1,2-Dichloropropane	2.55	U	0.26	2.55	5.1	ug/Kg
75-27-4	Bromodichloromethane	2.55	U	0.63	2.55	5.1	ug/Kg
108-10-1	4-Methyl-2-Pentanone	12.5	U	2.9	12.5	25	ug/Kg
108-88-3	Toluene	2.55	U	0.65	2.55	5.1	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.55	U	0.8	2.55	5.1	ug/Kg

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/21/12
Project:	Bethpage CTO-066	Date Received:	03/23/12
Client Sample ID:	BP-VPB131-GW-368RE	SDG No.:	D1947
Lab Sample ID:	D1947-07RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	4.95 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
VF031866.D	1		03/27/12	VF032712

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	2.55	U	0.73	2.55	5.1	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.55	U	0.91	2.55	5.1	ug/Kg
591-78-6	2-Hexanone	12.5	U	4	12.5	25	ug/Kg
124-48-1	Dibromochloromethane	2.55	U	0.55	2.55	5.1	ug/Kg
106-93-4	1,2-Dibromoethane	2.55	U	0.65	2.55	5.1	ug/Kg
127-18-4	Tetrachloroethene	2.55	U	1	2.55	5.1	ug/Kg
108-90-7	Chlorobenzene	2.55	U	0.51	2.55	5.1	ug/Kg
100-41-4	Ethyl Benzene	2.55	U	0.63	2.55	5.1	ug/Kg
179601-23-1	m/p-Xylenes	5	U	0.73	5	10	ug/Kg
95-47-6	o-Xylene	2.55	U	0.69	2.55	5.1	ug/Kg
100-42-5	Styrene	2.55	U	0.45	2.55	5.1	ug/Kg
75-25-2	Bromoform	2.55	U	0.75	2.55	5.1	ug/Kg
98-82-8	Isopropylbenzene	2.55	U	0.48	2.55	5.1	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.55	U	0.46	2.55	5.1	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.55	U	0.37	2.55	5.1	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.55	U	0.41	2.55	5.1	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.55	U	0.63	2.55	5.1	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.55	U	0.88	2.55	5.1	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.55	U	0.71	2.55	5.1	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.55	U	0.51	2.55	5.1	ug/Kg
123-91-1	1,4-Dioxane	50	U	51	50	100	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	38.3		55 - 158		77%	SPK: 50
1868-53-7	Dibromofluoromethane	46.8		53 - 156		94%	SPK: 50
2037-26-5	Toluene-d8	47.8		85 - 115		96%	SPK: 50
460-00-4	4-Bromofluorobenzene	39.4	*	85 - 120		79%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	105027	4.37				
540-36-3	1,4-Difluorobenzene	185052	5.12				
3114-55-4	Chlorobenzene-d5	170007	9.31				
3855-82-1	1,4-Dichlorobenzene-d4	57989	12.23				

**Report of Analysis**

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/21/12
Project:	Bethpage CTO-066	Date Received:	03/23/12
Client Sample ID:	BP-VPB131-GW-368RE	SDG No.:	D1947
Lab Sample ID:	D1947-07RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	4.95 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
VF031866.D	1		03/27/12	VF032712

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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/21/12
Project:	Bethpage CTO-066	Date Received:	03/23/12
Client Sample ID:	BP-VPB131-GW-388	SDG No.:	D1947
Lab Sample ID:	D1947-08	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
VR004398.D	1		03/24/12	Vr032412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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	3.9	J	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/21/12
Project:	Bethpage CTO-066	Date Received:	03/23/12
Client Sample ID:	BP-VPB131-GW-388	SDG No.:	D1947
Lab Sample ID:	D1947-08	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
VR004398.D	1		03/24/12	Vr032412

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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	55.3		70 - 120		111%	SPK: 50
1868-53-7	Dibromofluoromethane	50.8		85 - 115		102%	SPK: 50
2037-26-5	Toluene-d8	50.8		85 - 120		102%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.7		75 - 120		95%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	3064000	7.58				
540-36-3	1,4-Difluorobenzene	5389140	8.5				
3114-55-4	Chlorobenzene-d5	4919440	11.31				
3855-82-1	1,4-Dichlorobenzene-d4	2541040	13.26				

**Report of Analysis**

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/21/12
Project:	Bethpage CTO-066	Date Received:	03/23/12
Client Sample ID:	BP-VPB131-GW-388	SDG No.:	D1947
Lab Sample ID:	D1947-08	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
VR004398.D	1		03/24/12	Vr032412

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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/21/12
Project:	Bethpage CTO-066	Date Received:	03/23/12
Client Sample ID:	BP-VPB131-GW-408	SDG No.:	D1947
Lab Sample ID:	D1947-09	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
VR004399.D	1		03/24/12	VR032412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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	3.2	J	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



## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/21/12
Project:	Bethpage CTO-066	Date Received:	03/23/12
Client Sample ID:	BP-VPB131-GW-408	SDG No.:	D1947
Lab Sample ID:	D1947-09	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
VR004399.D	1		03/24/12	VR032412

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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	56.7		70 - 120		113%	SPK: 50
1868-53-7	Dibromofluoromethane	50.5		85 - 115		101%	SPK: 50
2037-26-5	Toluene-d8	50.5		85 - 120		101%	SPK: 50
460-00-4	4-Bromofluorobenzene	48		75 - 120		96%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	2941700	7.58				
540-36-3	1,4-Difluorobenzene	5155750	8.5				
3114-55-4	Chlorobenzene-d5	4689250	11.31				
3855-82-1	1,4-Dichlorobenzene-d4	2441300	13.26				



## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/22/12
Project:	Bethpage CTO-066	Date Received:	03/23/12
Client Sample ID:	BP-VPB131-GW-428	SDG No.:	D1947
Lab Sample ID:	D1947-10	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	4.99 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
VF031867.D	1		03/27/12	VF032712

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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	2.5	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	17	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	5.5		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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/22/12
Project:	Bethpage CTO-066	Date Received:	03/23/12
Client Sample ID:	BP-VPB131-GW-428	SDG No.:	D1947
Lab Sample ID:	D1947-10	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	4.99 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
VF031867.D	1		03/27/12	VF032712

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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	39.8		55 - 158		80%	SPK: 50
1868-53-7	Dibromofluoromethane	45.5		53 - 156		91%	SPK: 50
2037-26-5	Toluene-d8	48		85 - 115		96%	SPK: 50
460-00-4	4-Bromofluorobenzene	43.5		85 - 120		87%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	104104	4.37				
540-36-3	1,4-Difluorobenzene	190642	5.11				
3114-55-4	Chlorobenzene-d5	184528	9.31				
3855-82-1	1,4-Dichlorobenzene-d4	74526	12.22				



## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/22/12
Project:	Bethpage CTO-066	Date Received:	03/23/12
Client Sample ID:	BP-VPB131-GW-448	SDG No.:	D1947
Lab Sample ID:	D1947-11	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
VR004400.D	1		03/24/12	VR032412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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	6.4		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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/22/12
Project:	Bethpage CTO-066	Date Received:	03/23/12
Client Sample ID:	BP-VPB131-GW-448	SDG No.:	D1947
Lab Sample ID:	D1947-11	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
VR004400.D	1		03/24/12	VR032412

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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	58.2		70 - 120		116%	SPK: 50
1868-53-7	Dibromofluoromethane	51.7		85 - 115		103%	SPK: 50
2037-26-5	Toluene-d8	51.3		85 - 120		103%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.9		75 - 120		98%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	2825770	7.58				
540-36-3	1,4-Difluorobenzene	4961510	8.5				
3114-55-4	Chlorobenzene-d5	4527830	11.31				
3855-82-1	1,4-Dichlorobenzene-d4	2361960	13.26				





## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/23/12
Project:	Bethpage CTO-066	Date Received:	03/28/12
Client Sample ID:	BP-VPB131-GW-468	SDG No.:	D2005
Lab Sample ID:	D2005-02	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
VR004516.D	1		03/30/12	VR033012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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	2.1	J	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/23/12
Project:	Bethpage CTO-066	Date Received:	03/28/12
Client Sample ID:	BP-VPB131-GW-468	SDG No.:	D2005
Lab Sample ID:	D2005-02	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
VR004516.D	1		03/30/12	VR033012

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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	45.1		70 - 120		90%	SPK: 50
1868-53-7	Dibromofluoromethane	47.1		85 - 115		94%	SPK: 50
2037-26-5	Toluene-d8	49.2		85 - 120		98%	SPK: 50
460-00-4	4-Bromofluorobenzene	48		75 - 120		96%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	2245810	7.58				
540-36-3	1,4-Difluorobenzene	3717780	8.5				
3114-55-4	Chlorobenzene-d5	3335320	11.31				
3855-82-1	1,4-Dichlorobenzene-d4	1654480	13.26				

**Report of Analysis**

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/23/12
Project:	Bethpage CTO-066	Date Received:	03/28/12
Client Sample ID:	BP-VPB131-GW-468	SDG No.:	D2005
Lab Sample ID:	D2005-02	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
VR004516.D	1		03/30/12	VR033012

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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/23/12
Project:	Bethpage CTO-066	Date Received:	03/28/12
Client Sample ID:	BP-VPB131-GW-488	SDG No.:	D2005
Lab Sample ID:	D2005-03	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
VR004517.D	1		03/30/12	VR033012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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	6.5		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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/23/12
Project:	Bethpage CTO-066	Date Received:	03/28/12
Client Sample ID:	BP-VPB131-GW-488	SDG No.:	D2005
Lab Sample ID:	D2005-03	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
VR004517.D	1		03/30/12	VR033012

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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	44.9		70 - 120		90%	SPK: 50
1868-53-7	Dibromofluoromethane	47.2		85 - 115		94%	SPK: 50
2037-26-5	Toluene-d8	49.6		85 - 120		99%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.7		75 - 120		95%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	2192750	7.58				
540-36-3	1,4-Difluorobenzene	3641210	8.5				
3114-55-4	Chlorobenzene-d5	3254400	11.31				
3855-82-1	1,4-Dichlorobenzene-d4	1623100	13.26				

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/23/12
Project:	Bethpage CTO-066	Date Received:	03/28/12
Client Sample ID:	BP-VPB131-GW-488	SDG No.:	D2005
Lab Sample ID:	D2005-03	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
VR004517.D	1		03/30/12	VR033012

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

**Report of Analysis**

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/23/12
Project:	Bethpage CTO-066	Date Received:	03/28/12
Client Sample ID:	BP-VPB131-55-498	SDG No.:	D2005
Lab Sample ID:	D2005-04	Matrix:	SOIL
		% Solid:	85.4

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
TOC	920		1	48.849	125	250	mg/Kg	03/30/12	03/30/12	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

N = Presumptive Evidence of a Compound

E = Value Exceeds Calibration Range

OR = Over Range

N = Spiked sample recovery not within control limits

**Report of Analysis**

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/23/12
Project:	Bethpage CTO-066	Date Received:	03/28/12
Client Sample ID:	BP-VPB131-55-498	SDG No.:	D2005
Lab Sample ID:	D2005-04	Matrix:	SOIL
		% Solid:	85.4

<b>Parameter</b>	<b>Conc.</b>	<b>Qua.</b>	<b>DF</b>	<b>MDL</b>	<b>LOD</b>	<b>LOQ / CRQL</b>	<b>Units</b>	<b>Prep Date</b>	<b>Date Ana.</b>	<b>Ana Met.</b>
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## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/26/12
Project:	Bethpage CTO-066	Date Received:	03/28/12
Client Sample ID:	BP-VPB131-GW-508	SDG No.:	D2005
Lab Sample ID:	D2005-05	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	4.97 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
VF031987.D	1		03/31/12	VF033012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	2.5	U	0.65	2.5	5	ug/Kg
74-87-3	Chloromethane	2.5	U	0.87	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	2.5	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	78		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	0.97	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	0.95	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	1	2.5	5	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.5	U	0.9	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	0.89	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	0.87	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/26/12
Project:	Bethpage CTO-066	Date Received:	03/28/12
Client Sample ID:	BP-VPB131-GW-508	SDG No.:	D2005
Lab Sample ID:	D2005-05	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	4.97 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
VF031987.D	1		03/31/12	VF033012

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	0.91	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	0.88	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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	43.2		55 - 158		87%	SPK: 50
1868-53-7	Dibromofluoromethane	50.1		53 - 156		100%	SPK: 50
2037-26-5	Toluene-d8	47.6		85 - 115		95%	SPK: 50
460-00-4	4-Bromofluorobenzene	40.1	*	85 - 120		80%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	102023	4.36				
540-36-3	1,4-Difluorobenzene	172954	5.11				
3114-55-4	Chlorobenzene-d5	133463	9.31				
3855-82-1	1,4-Dichlorobenzene-d4	48917	12.23				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/26/12
Project:	Bethpage CTO-066	Date Received:	03/28/12
Client Sample ID:	BP-VPB131-GW-508	SDG No.:	D2005
Lab Sample ID:	D2005-05	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	4.97 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
VF031987.D	1		03/31/12	VF033012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
003728-54-9	Cyclohexane, 1-ethyl-2-methyl-	6.6	J			9.78	ug/Kg
062960-77-4	4-Octene, 2,6-dimethyl-, [S-(Z)]-	8.5	J			10.89	ug/Kg
086710-36-3	1,3-Dimethyl-5-n-decylcyclohexane	5.2	J			11.14	ug/Kg
002207-03-6	Cyclohexane, 1,3-dimethyl-, trans-	7.6	J			11.22	ug/Kg
000124-18-5	Decane	7.5	J			11.34	ug/Kg
002847-72-5	Decane, 4-methyl-	6.9	J			11.69	ug/Kg
	unknown11.84	5.5	J			11.84	ug/Kg
002958-76-1	Naphthalene, decahydro-2-methyl-	5.9	J			12.89	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/26/12
Project:	Bethpage CTO-066	Date Received:	03/28/12
Client Sample ID:	BP-VPB131-GW-508RE	SDG No.:	D2005
Lab Sample ID:	D2005-05RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.02 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
VF032006.D	1		04/01/12	VF040112

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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	48		3	12.5	25	ug/Kg
75-15-0	Carbon Disulfide	1.5	J	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/26/12
Project:	Bethpage CTO-066	Date Received:	03/28/12
Client Sample ID:	BP-VPB131-GW-508RE	SDG No.:	D2005
Lab Sample ID:	D2005-05RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.02 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
VF032006.D	1		04/01/12	VF040112

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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	50		55 - 158		100%	SPK: 50
1868-53-7	Dibromofluoromethane	55.5		53 - 156		111%	SPK: 50
2037-26-5	Toluene-d8	44.6		85 - 115		89%	SPK: 50
460-00-4	4-Bromofluorobenzene	37.6	*	85 - 120		75%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	109396	4.39				
540-36-3	1,4-Difluorobenzene	198893	5.13				
3114-55-4	Chlorobenzene-d5	146814	9.32				
3855-82-1	1,4-Dichlorobenzene-d4	50757	12.24				

**Report of Analysis**

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/26/12
Project:	Bethpage CTO-066	Date Received:	03/28/12
Client Sample ID:	BP-VPB131-GW-508RE	SDG No.:	D2005
Lab Sample ID:	D2005-05RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.02     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
VF032006.D	1		04/01/12	VF040112

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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/27/12
Project:	Bethpage CTO-066	Date Received:	03/28/12
Client Sample ID:	BP-VPB131-GW-528	SDG No.:	D2005
Lab Sample ID:	D2005-06	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
VR004521.D	1		03/30/12	VR033012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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	12		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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/27/12
Project:	Bethpage CTO-066	Date Received:	03/28/12
Client Sample ID:	BP-VPB131-GW-528	SDG No.:	D2005
Lab Sample ID:	D2005-06	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
VR004521.D	1		03/30/12	VR033012

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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	43.8		70 - 120		88%	SPK: 50
1868-53-7	Dibromofluoromethane	47.1		85 - 115		94%	SPK: 50
2037-26-5	Toluene-d8	49.8		85 - 120		100%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.3		75 - 120		97%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	2361480	7.58				
540-36-3	1,4-Difluorobenzene	3892530	8.5				
3114-55-4	Chlorobenzene-d5	3517670	11.31				
3855-82-1	1,4-Dichlorobenzene-d4	1768210	13.26				

### TENTATIVE IDENTIFIED COMPOUNDS



## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/27/12
Project:	Bethpage CTO-066	Date Received:	03/28/12
Client Sample ID:	BP-VPB131-GW-528	SDG No.:	D2005
Lab Sample ID:	D2005-06	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
VR004521.D	1		03/30/12	VR033012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
000115-07-1	Propene	16	J			1.8	ug/L
	unknown2.17	5.7	J			2.17	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.43	J			12.95	ug/L
91-20-3	Naphthalene	1.8	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/27/12
Project:	Bethpage CTO-066	Date Received:	03/28/12
Client Sample ID:	BP-VPB131-GW-548	SDG No.:	D2005
Lab Sample ID:	D2005-07	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
VR004522.D	1		03/30/12	VR033012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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	5.1		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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/27/12
Project:	Bethpage CTO-066	Date Received:	03/28/12
Client Sample ID:	BP-VPB131-GW-548	SDG No.:	D2005
Lab Sample ID:	D2005-07	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
VR004522.D	1		03/30/12	VR033012

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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	45.1		70 - 120		90%	SPK: 50
1868-53-7	Dibromofluoromethane	47		85 - 115		94%	SPK: 50
2037-26-5	Toluene-d8	49.8		85 - 120		100%	SPK: 50
460-00-4	4-Bromofluorobenzene	49		75 - 120		98%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	2333150	7.58				
540-36-3	1,4-Difluorobenzene	3861240	8.5				
3114-55-4	Chlorobenzene-d5	3488930	11.31				
3855-82-1	1,4-Dichlorobenzene-d4	1767800	13.26				

### TENTATIVE IDENTIFIED COMPOUNDS

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/27/12
Project:	Bethpage CTO-066	Date Received:	03/28/12
Client Sample ID:	BP-VPB131-GW-548	SDG No.:	D2005
Lab Sample ID:	D2005-07	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
VR004522.D	1		03/30/12	VR033012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
91-20-3	Naphthalene	1.2	J			15.05	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/28/12
Project:	Bethpage CTO-066	Date Received:	03/31/12
Client Sample ID:	BP-VPB131-GW-568	SDG No.:	D2057
Lab Sample ID:	D2057-02	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
VR004618.D	1		04/04/12	vr040412

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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	14		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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/28/12
Project:	Bethpage CTO-066	Date Received:	03/31/12
Client Sample ID:	BP-VPB131-GW-568	SDG No.:	D2057
Lab Sample ID:	D2057-02	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
VR004618.D	1		04/04/12	vr040412

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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	47.5		70 - 120		95%	SPK: 50
1868-53-7	Dibromofluoromethane	47.7		85 - 115		95%	SPK: 50
2037-26-5	Toluene-d8	52.8		85 - 120		106%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.8		75 - 120		98%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	2539090	7.58				
540-36-3	1,4-Difluorobenzene	4151270	8.5				
3114-55-4	Chlorobenzene-d5	3715260	11.31				
3855-82-1	1,4-Dichlorobenzene-d4	1834980	13.26				

### Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	03/28/12	
Project:	Bethpage CTO-066		Date Received:	03/31/12	
Client Sample ID:	BP-VPB131-GW-568		SDG No.:	D2057	
Lab Sample ID:	D2057-02		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
VR004618.D	1		04/04/12	vr040412

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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/28/12
Project:	Bethpage CTO-066	Date Received:	03/31/12
Client Sample ID:	BP-VPB131-GW-588	SDG No.:	D2057
Lab Sample ID:	D2057-03	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
VR004605.D	1		04/03/12	VR040312

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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	8.5		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



## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/28/12
Project:	Bethpage CTO-066	Date Received:	03/31/12
Client Sample ID:	BP-VPB131-GW-588	SDG No.:	D2057
Lab Sample ID:	D2057-03	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
VR004605.D	1		04/03/12	VR040312

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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	47.8		70 - 120		96%	SPK: 50
1868-53-7	Dibromofluoromethane	47.2		85 - 115		94%	SPK: 50
2037-26-5	Toluene-d8	53.4		85 - 120		107%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.6		75 - 120		99%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	2615090	7.58				
540-36-3	1,4-Difluorobenzene	4304980	8.5				
3114-55-4	Chlorobenzene-d5	3877200	11.32				
3855-82-1	1,4-Dichlorobenzene-d4	1939170	13.26				

**Report of Analysis**

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/28/12
Project:	Bethpage CTO-066	Date Received:	03/31/12
Client Sample ID:	BP-VPB131-GW-588	SDG No.:	D2057
Lab Sample ID:	D2057-03	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
VR004605.D	1		04/03/12	VR040312

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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/28/12
Project:	Bethpage CTO-066	Date Received:	03/31/12
Client Sample ID:	BP-VPB131-GW-608	SDG No.:	D2057
Lab Sample ID:	D2057-04	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	4.99 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
VF032056.D	1		04/03/12	VF040212

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	2.5	U	0.65	2.5	5	ug/Kg
74-87-3	Chloromethane	1.1	J	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	2.5	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	27		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	UQ	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/28/12
Project:	Bethpage CTO-066	Date Received:	03/31/12
Client Sample ID:	BP-VPB131-GW-608	SDG No.:	D2057
Lab Sample ID:	D2057-04	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	4.99 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
VF032056.D	1		04/03/12	VF040212

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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	39		55 - 158		78%	SPK: 50
1868-53-7	Dibromofluoromethane	51.5		53 - 156		103%	SPK: 50
2037-26-5	Toluene-d8	43.8		85 - 115		88%	SPK: 50
460-00-4	4-Bromofluorobenzene	34.6	*	85 - 120		69%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	89276	4.37				
540-36-3	1,4-Difluorobenzene	146690	5.11				
3114-55-4	Chlorobenzene-d5	104077	9.31				
3855-82-1	1,4-Dichlorobenzene-d4	37294	12.23				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/28/12
Project:	Bethpage CTO-066	Date Received:	03/31/12
Client Sample ID:	BP-VPB131-GW-608	SDG No.:	D2057
Lab Sample ID:	D2057-04	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	4.99 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
VF032056.D	1		04/03/12	VF040212

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
000123-72-8	Butanal	5.8	J			3.35	ug/Kg
000592-84-7	Formic acid, butyl ester	5.3	J			6.79	ug/Kg
004926-78-7	Cyclohexane, 1-ethyl-4-methyl-, ci	6.2	J			9.77	ug/Kg
013395-76-1	Cyclohexanone, 2,3-dimethyl-	6.6	J			10.26	ug/Kg
062960-76-3	4-Octene, 2,6-dimethyl-, [S-(E)]-	9.1	J			10.9	ug/Kg
004291-79-6	Cyclohexane, 1-methyl-2-propyl-	7.8	J			11.21	ug/Kg
100025-44-3	5H-Naphtho[2,3-c]carbazole, 5-meth	8.6	J			11.25	ug/Kg
000124-18-5	Decane	9.9	J			11.33	ug/Kg
007664-80-4	Octyl thioglycolate	6.6	J			11.69	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/28/12
Project:	Bethpage CTO-066	Date Received:	03/31/12
Client Sample ID:	BP-VPB131-GW-608RE	SDG No.:	D2057
Lab Sample ID:	D2057-04RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.07 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
VF032073.D	1		04/03/12	Vf040312

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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	1.4	2.45	4.9	ug/Kg
67-64-1	Acetone	18	J	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	2.7	JB	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	0.37	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/28/12
Project:	Bethpage CTO-066	Date Received:	03/31/12
Client Sample ID:	BP-VPB131-GW-608RE	SDG No.:	D2057
Lab Sample ID:	D2057-04RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.07 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
VF032073.D	1		04/03/12	Vf040312

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	0.36	2.45	4.9	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.45	U	0.4	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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	45.6		55 - 158		91%	SPK: 50
1868-53-7	Dibromofluoromethane	45.6		53 - 156		91%	SPK: 50
2037-26-5	Toluene-d8	49.4		85 - 115		99%	SPK: 50
460-00-4	4-Bromofluorobenzene	40.5	*	85 - 120		81%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	111044	4.38				
540-36-3	1,4-Difluorobenzene	187381	5.12				
3114-55-4	Chlorobenzene-d5	142126	9.31				
3855-82-1	1,4-Dichlorobenzene-d4	46022	12.23				

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/28/12
Project:	Bethpage CTO-066	Date Received:	03/31/12
Client Sample ID:	BP-VPB131-GW-608RE	SDG No.:	D2057
Lab Sample ID:	D2057-04RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.07 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
VF032073.D	1		04/03/12	Vf040312

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



## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/29/12
Project:	Bethpage CTO-066	Date Received:	03/31/12
Client Sample ID:	BP-VPB131-GW-618	SDG No.:	D2057
Lab Sample ID:	D2057-05	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-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF032057.D	1		04/03/12	VF040212

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	2.5	U	0.65	2.5	5	ug/Kg
74-87-3	Chloromethane	1.1	J	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	32		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	UQ	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/29/12
Project:	Bethpage CTO-066	Date Received:	03/31/12
Client Sample ID:	BP-VPB131-GW-618	SDG No.:	D2057
Lab Sample ID:	D2057-05	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-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF032057.D	1		04/03/12	VF040212

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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	38.4		55 - 158		77%	SPK: 50
1868-53-7	Dibromofluoromethane	53		53 - 156		106%	SPK: 50
2037-26-5	Toluene-d8	45.5		85 - 115		91%	SPK: 50
460-00-4	4-Bromofluorobenzene	35.8	*	85 - 120		72%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	84771	4.37				
540-36-3	1,4-Difluorobenzene	136529	5.11				
3114-55-4	Chlorobenzene-d5	103701	9.31				
3855-82-1	1,4-Dichlorobenzene-d4	36323	12.23				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/29/12
Project:	Bethpage CTO-066	Date Received:	03/31/12
Client Sample ID:	BP-VPB131-GW-618	SDG No.:	D2057
Lab Sample ID:	D2057-05	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-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF032057.D	1		04/03/12	VF040212

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
000123-72-8	Butanal	6.2	J			3.34	ug/Kg
000592-84-7	Formic acid, butyl ester	10	J			6.79	ug/Kg
003728-54-9	Cyclohexane, 1-ethyl-2-methyl-	6.8	J			9.77	ug/Kg
000765-14-0	Vinyl lauryl ether	7.8	J			10.26	ug/Kg
1000144-07-3	1R,2c,3t,4t-Tetramethyl-cyclohexan	9.1	J			10.9	ug/Kg
013837-67-7	m-Menthane, (1S,3S)-(+)-	8.0	J			11.21	ug/Kg
000124-18-5	Decane	8.4	J			11.34	ug/Kg
1000152-47-3	trans-Decalin, 2-methyl-	5.4	J			12.89	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/29/12
Project:	Bethpage CTO-066	Date Received:	03/31/12
Client Sample ID:	BP-VPB131-GW-618RE	SDG No.:	D2057
Lab Sample ID:	D2057-05RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	4.98 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
VF032074.D	1		04/03/12	Vf040312

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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	2.5	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	26		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	2.4	JB	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/29/12
Project:	Bethpage CTO-066	Date Received:	03/31/12
Client Sample ID:	BP-VPB131-GW-618RE	SDG No.:	D2057
Lab Sample ID:	D2057-05RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	4.98 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
VF032074.D	1		04/03/12	Vf040312

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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	46.3		55 - 158		93%	SPK: 50
1868-53-7	Dibromofluoromethane	46		53 - 156		92%	SPK: 50
2037-26-5	Toluene-d8	49.4		85 - 115		99%	SPK: 50
460-00-4	4-Bromofluorobenzene	40.7	*	85 - 120		81%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	105939	4.37				
540-36-3	1,4-Difluorobenzene	181881	5.11				
3114-55-4	Chlorobenzene-d5	134445	9.31				
3855-82-1	1,4-Dichlorobenzene-d4	43401	12.23				

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/29/12
Project:	Bethpage CTO-066	Date Received:	03/31/12
Client Sample ID:	BP-VPB131-GW-618RE	SDG No.:	D2057
Lab Sample ID:	D2057-05RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	4.98 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
VF032074.D	1		04/03/12	Vf040312

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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/29/12
Project:	Bethpage CTO-066	Date Received:	03/31/12
Client Sample ID:	BP-VPB131-GW-628	SDG No.:	D2057
Lab Sample ID:	D2057-06	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.05 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
VF032076.D	1		04/03/12	Vf040312

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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	19	J	3	12.5	25	ug/Kg
75-15-0	Carbon Disulfide	2.5	U	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	2.9	JB	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	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	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	0.61	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/29/12
Project:	Bethpage CTO-066	Date Received:	03/31/12
Client Sample ID:	BP-VPB131-GW-628	SDG No.:	D2057
Lab Sample ID:	D2057-06	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.05 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
VF032076.D	1		04/03/12	Vf040312

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	0.53	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	0.61	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-Dichlorobenzene	2.5	U	0.41	2.5	5	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.5	U	0.61	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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	46.4		55 - 158		93%	SPK: 50
1868-53-7	Dibromofluoromethane	46.9		53 - 156		94%	SPK: 50
2037-26-5	Toluene-d8	49.6		85 - 115		99%	SPK: 50
460-00-4	4-Bromofluorobenzene	41.7	*	85 - 120		83%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	106941	4.37				
540-36-3	1,4-Difluorobenzene	183361	5.11				
3114-55-4	Chlorobenzene-d5	140796	9.32				
3855-82-1	1,4-Dichlorobenzene-d4	47269	12.23				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							



## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/29/12
Project:	Bethpage CTO-066	Date Received:	03/31/12
Client Sample ID:	BP-VPB131-GW-628	SDG No.:	D2057
Lab Sample ID:	D2057-06	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.05      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
VF032076.D	1		04/03/12	Vf040312

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
000123-72-8	Butanal	8.7	J			3.35	ug/Kg
000592-84-7	Formic acid, butyl ester	6.6	J			6.79	ug/Kg
003728-54-9	Cyclohexane, 1-ethyl-2-methyl-	5.1	J			9.78	ug/Kg
	unknown10.26	5.0	J			10.26	ug/Kg
004057-42-5	2-Octene, 2,6-dimethyl-	8.6	J			10.9	ug/Kg
000590-66-9	Cyclohexane, 1,1-dimethyl-	6.2	J			11.22	ug/Kg
001072-16-8	Octane, 2,7-dimethyl-	7.1	J			11.34	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/29/12
Project:	Bethpage CTO-066	Date Received:	03/31/12
Client Sample ID:	BP-VPB131-GW-628RE	SDG No.:	D2057
Lab Sample ID:	D2057-06RE	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
VF032089.D	1		04/04/12	Vf040312

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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	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	0.96	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/29/12
Project:	Bethpage CTO-066	Date Received:	03/31/12
Client Sample ID:	BP-VPB131-GW-628RE	SDG No.:	D2057
Lab Sample ID:	D2057-06RE	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
VF032089.D	1		04/04/12	Vf040312

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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	40.7		55 - 158		81%	SPK: 50
1868-53-7	Dibromofluoromethane	47		53 - 156		94%	SPK: 50
2037-26-5	Toluene-d8	48.1		85 - 115		96%	SPK: 50
460-00-4	4-Bromofluorobenzene	38.7	*	85 - 120		77%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	90009	4.37				
540-36-3	1,4-Difluorobenzene	152162	5.12				
3114-55-4	Chlorobenzene-d5	108285	9.32				
3855-82-1	1,4-Dichlorobenzene-d4	36258	12.23				

**Report of Analysis**

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/29/12
Project:	Bethpage CTO-066	Date Received:	03/31/12
Client Sample ID:	BP-VPB131-GW-628RE	SDG No.:	D2057
Lab Sample ID:	D2057-06RE	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
VF032089.D	1		04/04/12	Vf040312

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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/29/12
Project:	Bethpage CTO-066	Date Received:	03/31/12
Client Sample ID:	BP-VPB131-GW-638	SDG No.:	D2057
Lab Sample ID:	D2057-07	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	4.98 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
VF032075.D	1		04/03/12	Vf040312

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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	2.5	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	16	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	2.4	JB	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/29/12
Project:	Bethpage CTO-066	Date Received:	03/31/12
Client Sample ID:	BP-VPB131-GW-638	SDG No.:	D2057
Lab Sample ID:	D2057-07	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	4.98 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
VF032075.D	1		04/03/12	Vf040312

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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	42.8		55 - 158		86%	SPK: 50
1868-53-7	Dibromofluoromethane	45.1		53 - 156		90%	SPK: 50
2037-26-5	Toluene-d8	48.5		85 - 115		97%	SPK: 50
460-00-4	4-Bromofluorobenzene	38.6	*	85 - 120		77%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	111316	4.37				
540-36-3	1,4-Difluorobenzene	187150	5.11				
3114-55-4	Chlorobenzene-d5	139509	9.32				
3855-82-1	1,4-Dichlorobenzene-d4	43554	12.23				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/29/12
Project:	Bethpage CTO-066	Date Received:	03/31/12
Client Sample ID:	BP-VPB131-GW-638	SDG No.:	D2057
Lab Sample ID:	D2057-07	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	4.98 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
VF032075.D	1		04/03/12	Vf040312

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
000109-92-2	Ethene, ethoxy-	8.5	J			3.35	ug/Kg
000592-84-7	Formic acid, butyl ester	9.5	J			6.79	ug/Kg
	unknown10.26	5.6	J			10.26	ug/Kg
006783-92-2	Cyclohexane, 1,1,2,3-tetramethyl-	10	J			10.9	ug/Kg
	unknown11.14	5.5	J			11.14	ug/Kg
004923-77-7	Cyclohexane, 1-ethyl-2-methyl-, ci	8.8	J			11.22	ug/Kg
000124-18-5	Decane	11	J			11.34	ug/Kg
007058-01-7	Cyclohexane, (1-methylpropyl)-	5.3	J			11.84	ug/Kg
001678-93-9	Cyclohexane, butyl-	5.1	J			11.89	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/29/12
Project:	Bethpage CTO-066	Date Received:	03/31/12
Client Sample ID:	BP-VPB131-GW-638RE	SDG No.:	D2057
Lab Sample ID:	D2057-07RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.05 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
VF032090.D	1		04/04/12	Vf040312

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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	14	J	3	12.5	25	ug/Kg
75-15-0	Carbon Disulfide	2.5	U	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	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	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	0.61	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



## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/29/12
Project:	Bethpage CTO-066	Date Received:	03/31/12
Client Sample ID:	BP-VPB131-GW-638RE	SDG No.:	D2057
Lab Sample ID:	D2057-07RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.05 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
VF032090.D	1		04/04/12	Vf040312

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	0.53	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	0.61	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-Dichlorobenzene	2.5	U	0.41	2.5	5	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.5	U	0.61	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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	39.1		55 - 158		78%	SPK: 50
1868-53-7	Dibromofluoromethane	44.9		53 - 156		90%	SPK: 50
2037-26-5	Toluene-d8	47.1		85 - 115		94%	SPK: 50
460-00-4	4-Bromofluorobenzene	35.2	*	85 - 120		70%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	92409	4.37				
540-36-3	1,4-Difluorobenzene	155164	5.11				
3114-55-4	Chlorobenzene-d5	107462	9.32				
3855-82-1	1,4-Dichlorobenzene-d4	35781	12.23				

### Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/29/12
Project:	Bethpage CTO-066	Date Received:	03/31/12
Client Sample ID:	BP-VPB131-GW-638RE	SDG No.:	D2057
Lab Sample ID:	D2057-07RE	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	5.05      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
VF032090.D	1		04/04/12	Vf040312

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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/02/12
Project:	Bethpage CTO-066	Date Received:	04/07/12
Client Sample ID:	BP-VPB131-GW-648	SDG No.:	D2157
Lab Sample ID:	D2157-02	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-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF032237.D	1		04/09/12	VF040912

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	2.5	U	0.65	2.5	5	ug/Kg
74-87-3	Chloromethane	1	J	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	20	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	3.9	JB	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/02/12
Project:	Bethpage CTO-066	Date Received:	04/07/12
Client Sample ID:	BP-VPB131-GW-648	SDG No.:	D2157
Lab Sample ID:	D2157-02	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-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF032237.D	1		04/09/12	VF040912

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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	38.1		55 - 158		76%	SPK: 50
1868-53-7	Dibromofluoromethane	44		53 - 156		88%	SPK: 50
2037-26-5	Toluene-d8	48.2		85 - 115		96%	SPK: 50
460-00-4	4-Bromofluorobenzene	44.1		85 - 120		88%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	114352	4.38				
540-36-3	1,4-Difluorobenzene	185550	5.12				
3114-55-4	Chlorobenzene-d5	146869	9.31				
3855-82-1	1,4-Dichlorobenzene-d4	42781	12.23				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/02/12
Project:	Bethpage CTO-066	Date Received:	04/07/12
Client Sample ID:	BP-VPB131-GW-648	SDG No.:	D2157
Lab Sample ID:	D2157-02	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-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF032237.D	1		04/09/12	VF040912

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
004057-42-5	2-Octene, 2,6-dimethyl-	11	J			10.9	ug/Kg
000582-16-1	Naphthalene, 2,7-dimethyl-	37	J			12.47	ug/Kg
000581-42-0	Naphthalene, 2,6-dimethyl-	17	J			12.86	ug/Kg
013703-52-1	Benzene, (1,4-cyclohexadien-1-yl)-	15	J			12.96	ug/Kg
91-20-3	Naphthalene	3.7	J			14.14	ug/Kg
001680-51-9	Naphthalene, 1,2,3,4-tetrahydro-6-	14	J			14.43	ug/Kg
004175-54-6	Naphthalene, 1,2,3,4-tetrahydro-1, unknown14.84	15 10	J J			14.81 14.84	ug/Kg ug/Kg
000090-12-0	Naphthalene, 1-methyl-	21	J			14.97	ug/Kg
042775-75-7	Naphthalene, 5-ethyl-1,2,3,4-tetra	12	J			15.03	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/03/12
Project:	Bethpage CTO-066	Date Received:	04/07/12
Client Sample ID:	BP-VPB131-GW-668	SDG No.:	D2157
Lab Sample ID:	D2157-03	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-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF032238.D	1		04/09/12	VF040912

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	2.5	U	0.65	2.5	5	ug/Kg
74-87-3	Chloromethane	1.9	J	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	44		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	3.8	JB	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/03/12
Project:	Bethpage CTO-066	Date Received:	04/07/12
Client Sample ID:	BP-VPB131-GW-668	SDG No.:	D2157
Lab Sample ID:	D2157-03	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-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF032238.D	1		04/09/12	VF040912

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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	39		55 - 158		78%	SPK: 50
1868-53-7	Dibromofluoromethane	44.7		53 - 156		89%	SPK: 50
2037-26-5	Toluene-d8	47.6		85 - 115		95%	SPK: 50
460-00-4	4-Bromofluorobenzene	43.9		85 - 120		88%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	111336	4.37				
540-36-3	1,4-Difluorobenzene	180584	5.11				
3114-55-4	Chlorobenzene-d5	139815	9.32				
3855-82-1	1,4-Dichlorobenzene-d4	44764	12.23				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/03/12
Project:	Bethpage CTO-066	Date Received:	04/07/12
Client Sample ID:	BP-VPB131-GW-668	SDG No.:	D2157
Lab Sample ID:	D2157-03	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-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF032238.D	1		04/09/12	VF040912

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
000071-36-3	1-Butanol	9.8	J			5.75	ug/Kg
000592-84-7	Formic acid, butyl ester	10	J			6.79	ug/Kg
	unknown10.27	7.2	J			10.27	ug/Kg
003404-77-1	1-Hexene, 3,3-dimethyl-	13	J			10.89	ug/Kg
000124-18-5	Decane	10	J			11.34	ug/Kg
062016-33-5	Octane, 2,3,6-trimethyl-	8.4	J			11.69	ug/Kg
	unknown11.85	9.1	J			11.85	ug/Kg
000581-42-0	Naphthalene, 2,6-dimethyl-	47	J			12.44	ug/Kg
000575-37-1	Naphthalene, 1,7-dimethyl-	33	J			12.84	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



## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/04/12
Project:	Bethpage CTO-066	Date Received:	04/07/12
Client Sample ID:	BP-VPB131-GW-693	SDG No.:	D2157
Lab Sample ID:	D2157-04	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	4.99 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
VF032239.D	1		04/09/12	VF040912

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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	2.5	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	25	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	3.5	JB	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/04/12
Project:	Bethpage CTO-066	Date Received:	04/07/12
Client Sample ID:	BP-VPB131-GW-693	SDG No.:	D2157
Lab Sample ID:	D2157-04	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	4.99 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
VF032239.D	1		04/09/12	VF040912

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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	40.1		55 - 158		80%	SPK: 50
1868-53-7	Dibromofluoromethane	46.3		53 - 156		93%	SPK: 50
2037-26-5	Toluene-d8	47.9		85 - 115		96%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.3		85 - 120		91%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	109267	4.38				
540-36-3	1,4-Difluorobenzene	177174	5.12				
3114-55-4	Chlorobenzene-d5	136448	9.31				
3855-82-1	1,4-Dichlorobenzene-d4	45002	12.23				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/04/12
Project:	Bethpage CTO-066	Date Received:	04/07/12
Client Sample ID:	BP-VPB131-GW-693	SDG No.:	D2157
Lab Sample ID:	D2157-04	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	4.99 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
VF032239.D	1		04/09/12	VF040912

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
002919-23-5	Cyclobutanol	5.7	J			1.25	ug/Kg
000691-37-2	1-Pentene, 4-methyl-	7.1	J			5.77	ug/Kg
000592-84-7	Formic acid, butyl ester	8.9	J			6.79	ug/Kg
	unknown10.90	5.6	J			10.9	ug/Kg
000582-16-1	Naphthalene, 2,7-dimethyl-	6.4	J			12.45	ug/Kg
000581-42-0	Naphthalene, 2,6-dimethyl-	8.6	J			12.85	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/04/12
Project:	Bethpage CTO-066	Date Received:	04/07/12
Client Sample ID:	BP-VPB131-GW-703	SDG No.:	D2157
Lab Sample ID:	D2157-05	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
VR004695.D	1		04/09/12	VR040912

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	0.56	J	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	2.2		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	6.1		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	2.1		0.2	0.5	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1.2		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	1.8		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	61		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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/04/12
Project:	Bethpage CTO-066	Date Received:	04/07/12
Client Sample ID:	BP-VPB131-GW-703	SDG No.:	D2157
Lab Sample ID:	D2157-05	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
VR004695.D	1		04/09/12	VR040912

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	0.52	J	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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	48.8		70 - 120		98%	SPK: 50
1868-53-7	Dibromofluoromethane	47.8		85 - 115		96%	SPK: 50
2037-26-5	Toluene-d8	53.2		85 - 120		107%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.7		75 - 120		99%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	2207290	7.58				
540-36-3	1,4-Difluorobenzene	3637530	8.5				
3114-55-4	Chlorobenzene-d5	3345740	11.31				
3855-82-1	1,4-Dichlorobenzene-d4	1674550	13.26				

**Report of Analysis**

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/04/12
Project:	Bethpage CTO-066	Date Received:	04/07/12
Client Sample ID:	BP-VPB131-GW-703	SDG No.:	D2157
Lab Sample ID:	D2157-05	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
VR004695.D	1		04/09/12	VR040912

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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/04/12
Project:	Bethpage CTO-066	Date Received:	04/07/12
Client Sample ID:	BP-VPB131-GW-723	SDG No.:	D2157
Lab Sample ID:	D2157-06	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
VR004707.D	1		04/10/12	Vr041012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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	24		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	3.1	J	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/04/12
Project:	Bethpage CTO-066	Date Received:	04/07/12
Client Sample ID:	BP-VPB131-GW-723	SDG No.:	D2157
Lab Sample ID:	D2157-06	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
VR004707.D	1		04/10/12	Vr041012

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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	48.6		70 - 120		97%	SPK: 50
1868-53-7	Dibromofluoromethane	48.3		85 - 115		97%	SPK: 50
2037-26-5	Toluene-d8	53		85 - 120		106%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.1		75 - 120		100%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	2176530	7.57				
540-36-3	1,4-Difluorobenzene	3595040	8.5				
3114-55-4	Chlorobenzene-d5	3307510	11.31				
3855-82-1	1,4-Dichlorobenzene-d4	1637330	13.26				



**Report of Analysis**

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/04/12
Project:	Bethpage CTO-066	Date Received:	04/07/12
Client Sample ID:	BP-VPB131-GW-723	SDG No.:	D2157
Lab Sample ID:	D2157-06	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
VR004707.D	1		04/10/12	Vr041012

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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/04/12
Project:	Bethpage CTO-066	Date Received:	04/07/12
Client Sample ID:	BP-VPB131-GW-743	SDG No.:	D2157
Lab Sample ID:	D2157-07	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	4.95 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
VF032240.D	1		04/09/12	VF040912

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	2.55	U	0.66	2.55	5.1	ug/Kg
74-87-3	Chloromethane	2.55	U	0.87	2.55	5.1	ug/Kg
75-01-4	Vinyl Chloride	2.55	U	1.2	2.55	5.1	ug/Kg
74-83-9	Bromomethane	2.55	U	2.5	2.55	5.1	ug/Kg
75-00-3	Chloroethane	2.55	U	1.4	2.55	5.1	ug/Kg
75-69-4	Trichlorofluoromethane	2.55	U	1.3	2.55	5.1	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.55	U	1.3	2.55	5.1	ug/Kg
75-35-4	1,1-Dichloroethene	2.55	U	1.5	2.55	5.1	ug/Kg
67-64-1	Acetone	31		3.1	12.5	25	ug/Kg
75-15-0	Carbon Disulfide	2.55	U	1.1	2.55	5.1	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.55	U	0.97	2.55	5.1	ug/Kg
79-20-9	Methyl Acetate	2.55	U	1.5	2.55	5.1	ug/Kg
75-09-2	Methylene Chloride	3.7	JB	1.4	2.55	5.1	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.55	U	0.7	2.55	5.1	ug/Kg
75-34-3	1,1-Dichloroethane	2.55	U	0.95	2.55	5.1	ug/Kg
110-82-7	Cyclohexane	2.55	U	1	2.55	5.1	ug/Kg
78-93-3	2-Butanone	12.5	U	3.1	12.5	25	ug/Kg
56-23-5	Carbon Tetrachloride	2.55	U	1	2.55	5.1	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.55	U	0.9	2.55	5.1	ug/Kg
74-97-5	Bromochloromethane	2.55	U	0.8	2.55	5.1	ug/Kg
67-66-3	Chloroform	2.55	U	0.75	2.55	5.1	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.55	U	0.89	2.55	5.1	ug/Kg
108-87-2	Methylcyclohexane	2.55	U	1.1	2.55	5.1	ug/Kg
71-43-2	Benzene	2.55	U	0.38	2.55	5.1	ug/Kg
107-06-2	1,2-Dichloroethane	2.55	U	0.65	2.55	5.1	ug/Kg
79-01-6	Trichloroethene	2.55	U	0.87	2.55	5.1	ug/Kg
78-87-5	1,2-Dichloropropane	2.55	U	0.26	2.55	5.1	ug/Kg
75-27-4	Bromodichloromethane	2.55	U	0.63	2.55	5.1	ug/Kg
108-10-1	4-Methyl-2-Pentanone	12.5	U	2.9	12.5	25	ug/Kg
108-88-3	Toluene	2.55	U	0.65	2.55	5.1	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.55	U	0.8	2.55	5.1	ug/Kg

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/04/12
Project:	Bethpage CTO-066	Date Received:	04/07/12
Client Sample ID:	BP-VPB131-GW-743	SDG No.:	D2157
Lab Sample ID:	D2157-07	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	4.95 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
VF032240.D	1		04/09/12	VF040912

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	2.55	U	0.73	2.55	5.1	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.55	U	0.91	2.55	5.1	ug/Kg
591-78-6	2-Hexanone	12.5	U	4	12.5	25	ug/Kg
124-48-1	Dibromochloromethane	2.55	U	0.55	2.55	5.1	ug/Kg
106-93-4	1,2-Dibromoethane	2.55	U	0.65	2.55	5.1	ug/Kg
127-18-4	Tetrachloroethene	2.55	U	1	2.55	5.1	ug/Kg
108-90-7	Chlorobenzene	2.55	U	0.51	2.55	5.1	ug/Kg
100-41-4	Ethyl Benzene	2.55	U	0.63	2.55	5.1	ug/Kg
179601-23-1	m/p-Xylenes	5	U	0.73	5	10	ug/Kg
95-47-6	o-Xylene	2.55	U	0.69	2.55	5.1	ug/Kg
100-42-5	Styrene	2.55	U	0.45	2.55	5.1	ug/Kg
75-25-2	Bromoform	2.55	U	0.75	2.55	5.1	ug/Kg
98-82-8	Isopropylbenzene	2.55	U	0.48	2.55	5.1	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.55	U	0.46	2.55	5.1	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.55	U	0.37	2.55	5.1	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.55	U	0.41	2.55	5.1	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.55	U	0.63	2.55	5.1	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.55	U	0.88	2.55	5.1	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.55	U	0.71	2.55	5.1	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.55	U	0.51	2.55	5.1	ug/Kg
123-91-1	1,4-Dioxane	50	U	51	50	100	ug/Kg
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	42.4		55 - 158		85%	SPK: 50
1868-53-7	Dibromofluoromethane	44.4		53 - 156		89%	SPK: 50
2037-26-5	Toluene-d8	47.1		85 - 115		94%	SPK: 50
460-00-4	4-Bromofluorobenzene	43.3		85 - 120		87%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	103638	4.38				
540-36-3	1,4-Difluorobenzene	174426	5.12				
3114-55-4	Chlorobenzene-d5	134747	9.31				
3855-82-1	1,4-Dichlorobenzene-d4	42760	12.23				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/04/12
Project:	Bethpage CTO-066	Date Received:	04/07/12
Client Sample ID:	BP-VPB131-GW-743	SDG No.:	D2157
Lab Sample ID:	D2157-07	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	4.95 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
VF032240.D	1		04/09/12	VF040912

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
002919-23-5	Cyclobutanol	7.1	J			1.26	ug/Kg
	unknown2.10	6.5	J			2.1	ug/Kg
000071-36-3	1-Butanol	13	J			5.76	ug/Kg
000592-84-7	Formic acid, butyl ester	5.6	J			6.79	ug/Kg
019150-21-1	trans-3-Decene	6.6	J			10.9	ug/Kg
000124-18-5	Decane	5.1	J			11.34	ug/Kg
000493-02-7	Naphthalene, decahydro-, trans-	6.3	J			12.29	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/05/12
Project:	Bethpage CTO-066	Date Received:	04/07/12
Client Sample ID:	BP-VPB131-GW-763	SDG No.:	D2157
Lab Sample ID:	D2157-08	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	4.99 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
VF032241.D	1		04/09/12	VF040912

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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	2.5	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	21	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	JB	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/05/12
Project:	Bethpage CTO-066	Date Received:	04/07/12
Client Sample ID:	BP-VPB131-GW-763	SDG No.:	D2157
Lab Sample ID:	D2157-08	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	4.99 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
VF032241.D	1		04/09/12	VF040912

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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	43.1		55 - 158		86%	SPK: 50
1868-53-7	Dibromofluoromethane	43.7		53 - 156		87%	SPK: 50
2037-26-5	Toluene-d8	47.9		85 - 115		96%	SPK: 50
460-00-4	4-Bromofluorobenzene	43.7		85 - 120		87%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	88270	4.38				
540-36-3	1,4-Difluorobenzene	149163	5.12				
3114-55-4	Chlorobenzene-d5	112950	9.31				
3855-82-1	1,4-Dichlorobenzene-d4	38668	12.23				

### TENTATIVE IDENTIFIED COMPOUNDS

**Report of Analysis**

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/05/12
Project:	Bethpage CTO-066	Date Received:	04/07/12
Client Sample ID:	BP-VPB131-GW-763	SDG No.:	D2157
Lab Sample ID:	D2157-08	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	4.99 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
VF032241.D	1		04/09/12	VF040912

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
000109-66-0	Pentane	10	J			1.26	ug/Kg
	unknown2.10	6.2	J			2.1	ug/Kg
000071-36-3	1-Butanol	6.8	J			5.77	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/05/12
Project:	Bethpage CTO-066	Date Received:	04/07/12
Client Sample ID:	BP-VPB131-GW-783	SDG No.:	D2157
Lab Sample ID:	D2157-10	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
VF032242.D	1		04/09/12	VF040912

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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	7.2	J	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



## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/05/12
Project:	Bethpage CTO-066	Date Received:	04/07/12
Client Sample ID:	BP-VPB131-GW-783	SDG No.:	D2157
Lab Sample ID:	D2157-10	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
VF032242.D	1		04/09/12	VF040912

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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	47.8		55 - 158		96%	SPK: 50
1868-53-7	Dibromofluoromethane	47.4		53 - 156		95%	SPK: 50
2037-26-5	Toluene-d8	47.8		85 - 115		96%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.7		85 - 120		93%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	102086	4.37				
540-36-3	1,4-Difluorobenzene	177886	5.12				
3114-55-4	Chlorobenzene-d5	143274	9.32				
3855-82-1	1,4-Dichlorobenzene-d4	52227	12.23				

### TENTATIVE IDENTIFIED COMPOUNDS

**Report of Analysis**

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/05/12
Project:	Bethpage CTO-066	Date Received:	04/07/12
Client Sample ID:	BP-VPB131-GW-783	SDG No.:	D2157
Lab Sample ID:	D2157-10	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
VF032242.D	1		04/09/12	VF040912

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
000071-36-3	1-Butanol	5.7	J			5.76	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/05/12
Project:	Bethpage CTO-066	Date Received:	04/07/12
Client Sample ID:	BP-VPB131-GW-808	SDG No.:	D2157
Lab Sample ID:	D2157-12	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	4.96 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
VF032243.D	1		04/09/12	VF040912

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
75-71-8	Dichlorodifluoromethane	2.5	U	0.66	2.5	5	ug/Kg
74-87-3	Chloromethane	2.5	U	0.87	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	2.5	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	0.97	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	1.4	JB	1.4	2.5	5	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.5	U	0.7	2.5	5	ug/Kg
75-34-3	1,1-Dichloroethane	2.5	U	0.95	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	1	2.5	5	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.5	U	0.9	2.5	5	ug/Kg
74-97-5	Bromochloromethane	2.5	U	0.8	2.5	5	ug/Kg
67-66-3	Chloroform	2.5	U	0.75	2.5	5	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.5	U	0.89	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	0.65	2.5	5	ug/Kg
79-01-6	Trichloroethene	2.5	U	0.87	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	0.65	2.5	5	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.5	U	0.8	2.5	5	ug/Kg

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/05/12
Project:	Bethpage CTO-066	Date Received:	04/07/12
Client Sample ID:	BP-VPB131-GW-808	SDG No.:	D2157
Lab Sample ID:	D2157-12	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	4.96 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
VF032243.D	1		04/09/12	VF040912

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
10061-01-5	cis-1,3-Dichloropropene	2.5	U	0.73	2.5	5	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.5	U	0.91	2.5	5	ug/Kg
591-78-6	2-Hexanone	12.5	U	4	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	0.65	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	0.73	5	10	ug/Kg
95-47-6	o-Xylene	2.5	U	0.69	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	0.75	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	0.88	2.5	5	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.5	U	0.71	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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	39.4		55 - 158		79%	SPK: 50
1868-53-7	Dibromofluoromethane	45.8		53 - 156		92%	SPK: 50
2037-26-5	Toluene-d8	47.4		85 - 115		95%	SPK: 50
460-00-4	4-Bromofluorobenzene	44.8		85 - 120		90%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	100976	4.37				
540-36-3	1,4-Difluorobenzene	172104	5.12				
3114-55-4	Chlorobenzene-d5	130727	9.32				
3855-82-1	1,4-Dichlorobenzene-d4	42716	12.23				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/05/12
Project:	Bethpage CTO-066	Date Received:	04/07/12
Client Sample ID:	BP-VPB131-GW-808	SDG No.:	D2157
Lab Sample ID:	D2157-12	Matrix:	SOIL
Analytical Method:	SW8260C	% Moisture:	100
Sample Wt/Vol:	4.96 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
VF032243.D	1		04/09/12	VF040912

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
000071-36-3	1-Butanol	7.7	J			5.76	ug/Kg
000592-84-7	Formic acid, butyl ester	6.2	J			6.8	ug/Kg
061141-80-8	Cyclohexane, 1,2-diethyl-3-methyl-	7.3	J			10.9	ug/Kg
003913-02-8	1-Octanol, 2-butyl-	6.8	J			11.34	ug/Kg
066633-38-3	Cyclodecene, 1-methyl-	6.0	J			12.89	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/06/12
Project:	Bethpage CTO-066	Date Received:	04/07/12
Client Sample ID:	BP-VPB131-GW-823	SDG No.:	D2157
Lab Sample ID:	D2157-13	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
VR004704.D	1		04/10/12	Vr041012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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	5.5		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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/06/12
Project:	Bethpage CTO-066	Date Received:	04/07/12
Client Sample ID:	BP-VPB131-GW-823	SDG No.:	D2157
Lab Sample ID:	D2157-13	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
VR004704.D	1		04/10/12	Vr041012

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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	49.6		70 - 120		99%	SPK: 50
1868-53-7	Dibromofluoromethane	48.4		85 - 115		97%	SPK: 50
2037-26-5	Toluene-d8	52.7		85 - 120		105%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.3		75 - 120		101%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	2250270	7.57				
540-36-3	1,4-Difluorobenzene	3735150	8.5				
3114-55-4	Chlorobenzene-d5	3432670	11.31				
3855-82-1	1,4-Dichlorobenzene-d4	1733070	13.26				

**Report of Analysis**

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/06/12
Project:	Bethpage CTO-066	Date Received:	04/07/12
Client Sample ID:	BP-VPB131-GW-823	SDG No.:	D2157
Lab Sample ID:	D2157-13	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
VR004704.D	1		04/10/12	Vr041012

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



## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/06/12
Project:	Bethpage CTO-066	Date Received:	04/12/12
Client Sample ID:	BP-VPB131-GW-843	SDG No.:	D2198
Lab Sample ID:	D2198-02	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-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF032332.D	1		04/12/12	VF041212

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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	2.3	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/06/12
Project:	Bethpage CTO-066	Date Received:	04/12/12
Client Sample ID:	BP-VPB131-GW-843	SDG No.:	D2198
Lab Sample ID:	D2198-02	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-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF032332.D	1		04/12/12	VF041212

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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	41.4		55 - 158		83%	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	42.4		85 - 120		85%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	97822	4.36				
540-36-3	1,4-Difluorobenzene	164281	5.1				
3114-55-4	Chlorobenzene-d5	122267	9.3				
3855-82-1	1,4-Dichlorobenzene-d4	42245	12.22				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/06/12
Project:	Bethpage CTO-066	Date Received:	04/12/12
Client Sample ID:	BP-VPB131-GW-843	SDG No.:	D2198
Lab Sample ID:	D2198-02	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-624 ID : 0.25	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VF032332.D	1		04/12/12	VF041212

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
000091-17-8	Naphthalene, decahydro-	32	J			12.28	ug/Kg
001120-21-4	Undecane	40	J			12.52	ug/Kg
000493-01-6	Naphthalene, decahydro-, cis-	27	J			12.78	ug/Kg
002958-76-1	Naphthalene, decahydro-2-methyl-	38	J			12.88	ug/Kg
002958-75-0	1-Methyldecahydronaphthalene	34	J			13.05	ug/Kg
1000152-47-3	trans-Decalin, 2-methyl-	18	J			13.12	ug/Kg
1000155-85-6	cis-Decalin, 2-syn-methyl-	30	J			13.26	ug/Kg
000112-40-3	Dodecane	46	J			13.42	ug/Kg
1000158-89-1	Decalin, syn-1-methyl-, cis-	27	J			13.49	ug/Kg
	unknown13.55	18	J			13.55	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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/15/12
Project:	Bethpage CTO-066	Date Received:	03/20/12
Client Sample ID:	BP-VPB131-TB1	SDG No.:	D1891
Lab Sample ID:	D1891-01	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
VR004369.D	1		03/23/12	VR032312

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/15/12
Project:	Bethpage CTO-066	Date Received:	03/20/12
Client Sample ID:	BP-VPB131-TB1	SDG No.:	D1891
Lab Sample ID:	D1891-01	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
VR004369.D	1		03/23/12	VR032312

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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	51.7		70 - 120		103%	SPK: 50
1868-53-7	Dibromofluoromethane	49.4		85 - 115		99%	SPK: 50
2037-26-5	Toluene-d8	49.8		85 - 120		100%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.1		75 - 120		94%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	3617790	7.58				
540-36-3	1,4-Difluorobenzene	6300940	8.5				
3114-55-4	Chlorobenzene-d5	5708930	11.31				
3855-82-1	1,4-Dichlorobenzene-d4	2979060	13.26				

**Report of Analysis**

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/15/12
Project:	Bethpage CTO-066	Date Received:	03/20/12
Client Sample ID:	BP-VPB131-TB1	SDG No.:	D1891
Lab Sample ID:	D1891-01	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
VR004369.D	1		03/23/12	VR032312

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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/20/12
Project:	Bethpage CTO-066	Date Received:	03/23/12
Client Sample ID:	BP-VPB131-TB2	SDG No.:	D1947
Lab Sample ID:	D1947-01	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
VR004383.D	1		03/24/12	VR032312

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/20/12
Project:	Bethpage CTO-066	Date Received:	03/23/12
Client Sample ID:	BP-VPB131-TB2	SDG No.:	D1947
Lab Sample ID:	D1947-01	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
VR004383.D	1		03/24/12	VR032312

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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	56.3		70 - 120		113%	SPK: 50
1868-53-7	Dibromofluoromethane	50.3		85 - 115		101%	SPK: 50
2037-26-5	Toluene-d8	50.8		85 - 120		102%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.8		75 - 120		96%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	3049900	7.57				
540-36-3	1,4-Difluorobenzene	5280900	8.5				
3114-55-4	Chlorobenzene-d5	4834750	11.31				
3855-82-1	1,4-Dichlorobenzene-d4	2433080	13.26				



## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/20/12
Project:	Bethpage CTO-066	Date Received:	03/23/12
Client Sample ID:	BP-VPB131-TB2	SDG No.:	D1947
Lab Sample ID:	D1947-01	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
VR004383.D	1		03/24/12	VR032312

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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/23/12
Project:	Bethpage CTO-066	Date Received:	03/28/12
Client Sample ID:	BP-VPB131-TB3	SDG No.:	D2005
Lab Sample ID:	D2005-01	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
VR004515.D	1		03/30/12	VR033012

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/23/12
Project:	Bethpage CTO-066	Date Received:	03/28/12
Client Sample ID:	BP-VPB131-TB3	SDG No.:	D2005
Lab Sample ID:	D2005-01	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
VR004515.D	1		03/30/12	VR033012

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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	45.5		70 - 120		91%	SPK: 50
1868-53-7	Dibromofluoromethane	47.2		85 - 115		94%	SPK: 50
2037-26-5	Toluene-d8	49.2		85 - 120		98%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.3		75 - 120		97%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	2208860	7.58				
540-36-3	1,4-Difluorobenzene	3701600	8.5				
3114-55-4	Chlorobenzene-d5	3316290	11.32				
3855-82-1	1,4-Dichlorobenzene-d4	1677570	13.26				

**Report of Analysis**

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/23/12
Project:	Bethpage CTO-066	Date Received:	03/28/12
Client Sample ID:	BP-VPB131-TB3	SDG No.:	D2005
Lab Sample ID:	D2005-01	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
VR004515.D	1		03/30/12	VR033012

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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/28/12
Project:	Bethpage CTO-066	Date Received:	03/31/12
Client Sample ID:	BP-VPB131-TB4	SDG No.:	D2057
Lab Sample ID:	D2057-01	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
VR004592.D	1		04/03/12	VR040312

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/28/12
Project:	Bethpage CTO-066	Date Received:	03/31/12
Client Sample ID:	BP-VPB131-TB4	SDG No.:	D2057
Lab Sample ID:	D2057-01	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
VR004592.D	1		04/03/12	VR040312

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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	50.3		70 - 120		101%	SPK: 50
1868-53-7	Dibromofluoromethane	48		85 - 115		96%	SPK: 50
2037-26-5	Toluene-d8	52.6		85 - 120		105%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.1		75 - 120		96%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	2239110	7.58				
540-36-3	1,4-Difluorobenzene	3664470	8.5				
3114-55-4	Chlorobenzene-d5	3280030	11.31				
3855-82-1	1,4-Dichlorobenzene-d4	1632690	13.26				

**Report of Analysis**

Client:	Tetra Tech NUS, Inc.	Date Collected:	03/28/12
Project:	Bethpage CTO-066	Date Received:	03/31/12
Client Sample ID:	BP-VPB131-TB4	SDG No.:	D2057
Lab Sample ID:	D2057-01	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
VR004592.D	1		04/03/12	VR040312

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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/02/12
Project:	Bethpage CTO-066	Date Received:	04/07/12
Client Sample ID:	BP-VPB131-GW-TB5	SDG No.:	D2157
Lab Sample ID:	D2157-01	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
VR004694.D	1		04/09/12	VR040912

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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



## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/02/12
Project:	Bethpage CTO-066	Date Received:	04/07/12
Client Sample ID:	BP-VPB131-GW-TB5	SDG No.:	D2157
Lab Sample ID:	D2157-01	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
VR004694.D	1		04/09/12	VR040912

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
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	49		70 - 120		98%	SPK: 50
1868-53-7	Dibromofluoromethane	47.5		85 - 115		95%	SPK: 50
2037-26-5	Toluene-d8	52.9		85 - 120		106%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.5		75 - 120		99%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	2218640	7.58				
540-36-3	1,4-Difluorobenzene	3673470	8.5				
3114-55-4	Chlorobenzene-d5	3386950	11.31				
3855-82-1	1,4-Dichlorobenzene-d4	1669980	13.26				

**Report of Analysis**

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/02/12
Project:	Bethpage CTO-066	Date Received:	04/07/12
Client Sample ID:	BP-VPB131-GW-TB5	SDG No.:	D2157
Lab Sample ID:	D2157-01	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
VR004694.D	1		04/09/12	VR040912

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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/06/12
Project:	Bethpage CTO-066	Date Received:	04/12/12
Client Sample ID:	BP-VPB-TB-6	SDG No.:	D2198
Lab Sample ID:	D2198-01	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
VG041614.D	1		04/13/12	VG041212

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
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

## Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/06/12
Project:	Bethpage CTO-066	Date Received:	04/12/12
Client Sample ID:	BP-VPB-TB-6	SDG No.:	D2198
Lab Sample ID:	D2198-01	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
VG041614.D	1		04/13/12	VG041212

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	UQ	10	10	20	ug/L
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	57.4		70 - 120		115%	SPK: 50
1868-53-7	Dibromofluoromethane	51.6		85 - 115		103%	SPK: 50
2037-26-5	Toluene-d8	47.5		85 - 120		95%	SPK: 50
460-00-4	4-Bromofluorobenzene	55.7		75 - 120		111%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	555415	3.83				
540-36-3	1,4-Difluorobenzene	1015190	4.61				
3114-55-4	Chlorobenzene-d5	1030640	9.61				
3855-82-1	1,4-Dichlorobenzene-d4	442799	13.32				

**Report of Analysis**

Client:	Tetra Tech NUS, Inc.	Date Collected:	04/06/12
Project:	Bethpage CTO-066	Date Received:	04/12/12
Client Sample ID:	BP-VPB-TB-6	SDG No.:	D2198
Lab Sample ID:	D2198-01	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
VG041614.D	1		04/13/12	VG041212

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



Air Toxics

Client Sample ID: BP-VPB131-AIR-032912

Lab ID#: 1203669-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a040217	Date of Collection:	3/29/12 4:10:00 PM
Dil. Factor:	1.34	Date of Analysis:	4/2/12 09:14 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.067	Not Detected U	0.36	Not Detected U
Carbon Tetrachloride	0.067	0.066 J	0.42	0.42 J
Trichloroethene	0.067	Not Detected U	0.36	Not Detected U
Bromodichloromethane	0.067	Not Detected U	0.45	Not Detected U
1,1,2-Trichloroethane	0.067	Not Detected U	0.36	Not Detected U
Tetrachloroethene	0.067	Not Detected U	0.45	Not Detected U
Dibromochloromethane	0.067	Not Detected U	0.57	Not Detected U
1,2-Dibromoethane (EDB)	0.067	Not Detected U	0.51	Not Detected U
1,1,2,2-Tetrachloroethane	0.067	Not Detected U	0.46	Not Detected U
1,3-Dichlorobenzene	0.067	Not Detected U	0.40	Not Detected U
1,4-Dichlorobenzene	0.067	Not Detected U	0.40	Not Detected U
1,2-Dichlorobenzene	0.067	Not Detected U	0.40	Not Detected U
Freon 12	0.067	0.52	0.33	2.6
Freon 114	0.067	Not Detected U	0.47	Not Detected U
Freon 11	0.067	0.22	0.38	1.2
Freon 113	0.067	0.062 J	0.51	0.48 J
Bromoform	0.067	Not Detected U	0.69	Not Detected U
Vinyl Chloride	0.13	Not Detected U	0.34	Not Detected U
1,1-Dichloroethene	0.13	Not Detected U	0.53	Not Detected U
1,1-Dichloroethane	0.13	Not Detected U	0.54	Not Detected U
cis-1,2-Dichloroethene	0.13	Not Detected U	0.53	Not Detected U
Benzene	0.13	0.14	0.43	0.44
1,2-Dichloroethane	0.13	Not Detected U	0.54	Not Detected U
Toluene	0.13	0.13	0.50	0.51
Ethyl Benzene	0.13	Not Detected U	0.58	Not Detected U
m,p-Xylene	0.13	0.042 J	0.58	0.18 J
o-Xylene	0.13	Not Detected U	0.58	Not Detected U
trans-1,2-Dichloroethene	0.13	Not Detected U	0.53	Not Detected U
Methyl tert-butyl ether	0.13	Not Detected U	0.48	Not Detected U
Chloromethane	0.13	0.50	0.28	1.0
Bromomethane	0.13	Not Detected U	0.52	Not Detected U
Chloroethane	0.67	Not Detected U	1.8	Not Detected U
Hexane	0.13	0.051 J	0.47	0.18 J
2-Butanone (Methyl Ethyl Ketone)	0.67	0.16 J	2.0	0.47 J
Chloroform	0.13	0.015 J	0.65	0.072 J
Cyclohexane	0.13	Not Detected U	0.46	Not Detected U
1,2-Dichloropropane	0.13	Not Detected U	0.62	Not Detected U
1,4-Dioxane	0.13	Not Detected U	0.48	Not Detected U
cis-1,3-Dichloropropene	0.13	Not Detected U	0.61	Not Detected U
4-Methyl-2-pentanone	0.13	Not Detected U	0.55	Not Detected U
trans-1,3-Dichloropropene	0.13	Not Detected U	0.61	Not Detected U
Chlorobenzene	0.13	Not Detected U	0.62	Not Detected U



Air Toxics

Client Sample ID: BP-VPB131-AIR-032912

Lab ID#: 1203669-01A

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

File Name:	a040217	Date of Collection:	3/29/12 4:10:00 PM
Dil. Factor:	1.34	Date of Analysis:	4/2/12 09:14 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	0.13	Not Detected U	0.57	Not Detected U
1,3,5-Trimethylbenzene	0.13	Not Detected U	0.66	Not Detected U
1,2,4-Trimethylbenzene	0.13	Not Detected U	0.66	Not Detected U
alpha-Chlorotoluene	0.13	Not Detected U	0.69	Not Detected U
2,2,4-Trimethylpentane	0.13	Not Detected U	0.62	Not Detected U
tert-Butyl alcohol	0.67	Not Detected U	2.0	Not Detected U
Methylene Chloride	0.67	0.078 J	2.3	0.27 J
Hexachlorobutadiene	0.67	Not Detected U	7.1	Not Detected U
Ethanol	0.67	1.0	1.3	2.0
1,2,4-Trichlorobenzene	0.67	Not Detected U	5.0	Not Detected U

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.  
 J = Estimated value.

**TENTATIVELY IDENTIFIED COMPOUNDS**

Compound	CAS Number	Match Quality	Amount ((ppbv))
Propane, 2-methyl-	75-28-5	56%	0.74 NJ
2-Propanone	67-64-1	9.0%	1.4 NJ

NJ =The identification is based on presumptive evidence; estimated value.

**Container Type: 6 Liter Summa Canister (100% Certified)**

Surrogates	%Recovery	Method Limits
4-Bromofluorobenzene	101	87-118
1,2-Dichloroethane-d4	111	78-134
Toluene-d8	100	91-106



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1203669-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a040206a	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	4/2/12 11:57 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.050	Not Detected U	0.27	Not Detected U
Carbon Tetrachloride	0.050	Not Detected U	0.31	Not Detected U
Trichloroethene	0.050	Not Detected U	0.27	Not Detected U
Bromodichloromethane	0.050	Not Detected U	0.34	Not Detected U
1,1,2-Trichloroethane	0.050	Not Detected U	0.27	Not Detected U
Tetrachloroethene	0.050	Not Detected U	0.34	Not Detected U
Dibromochloromethane	0.050	Not Detected U	0.42	Not Detected U
1,2-Dibromoethane (EDB)	0.050	Not Detected U	0.38	Not Detected U
1,1,2,2-Tetrachloroethane	0.050	Not Detected U	0.34	Not Detected U
1,3-Dichlorobenzene	0.050	Not Detected U	0.30	Not Detected U
1,4-Dichlorobenzene	0.050	Not Detected U	0.30	Not Detected U
1,2-Dichlorobenzene	0.050	Not Detected U	0.30	Not Detected U
Freon 12	0.050	Not Detected U	0.25	Not Detected U
Freon 114	0.050	Not Detected U	0.35	Not Detected U
Freon 11	0.050	Not Detected U	0.28	Not Detected U
Freon 113	0.050	Not Detected U	0.38	Not Detected U
Bromoform	0.050	Not Detected U	0.52	Not Detected U
Vinyl Chloride	0.10	Not Detected U	0.26	Not Detected U
1,1-Dichloroethene	0.10	Not Detected U	0.40	Not Detected U
1,1-Dichloroethane	0.10	Not Detected U	0.40	Not Detected U
cis-1,2-Dichloroethene	0.10	Not Detected U	0.40	Not Detected U
Benzene	0.10	Not Detected U	0.32	Not Detected U
1,2-Dichloroethane	0.10	Not Detected U	0.40	Not Detected U
Toluene	0.10	0.014 J	0.38	0.052 J
Ethyl Benzene	0.10	Not Detected U	0.43	Not Detected U
m,p-Xylene	0.10	Not Detected U	0.43	Not Detected U
o-Xylene	0.10	Not Detected U	0.43	Not Detected U
trans-1,2-Dichloroethene	0.10	Not Detected U	0.40	Not Detected U
Methyl tert-butyl ether	0.10	Not Detected U	0.36	Not Detected U
Chloromethane	0.10	Not Detected U	0.21	Not Detected U
Bromomethane	0.10	Not Detected U	0.39	Not Detected U
Chloroethane	0.50	Not Detected U	1.3	Not Detected U
Hexane	0.10	Not Detected U	0.35	Not Detected U
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected U	1.5	Not Detected U
Chloroform	0.10	Not Detected U	0.49	Not Detected U
Cyclohexane	0.10	Not Detected U	0.34	Not Detected U
1,2-Dichloropropane	0.10	Not Detected U	0.46	Not Detected U
1,4-Dioxane	0.10	Not Detected U	0.36	Not Detected U
cis-1,3-Dichloropropene	0.10	Not Detected U	0.45	Not Detected U
4-Methyl-2-pentanone	0.10	Not Detected U	0.41	Not Detected U
trans-1,3-Dichloropropene	0.10	Not Detected U	0.45	Not Detected U
Chlorobenzene	0.10	Not Detected U	0.46	Not Detected U





Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1203669-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a040206a	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	4/2/12 11:57 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	0.10	Not Detected U	0.42	Not Detected U
1,3,5-Trimethylbenzene	0.10	Not Detected U	0.49	Not Detected U
1,2,4-Trimethylbenzene	0.10	Not Detected U	0.49	Not Detected U
alpha-Chlorotoluene	0.10	Not Detected U	0.52	Not Detected U
2,2,4-Trimethylpentane	0.10	Not Detected U	0.47	Not Detected U
tert-Butyl alcohol	0.50	Not Detected U	1.5	Not Detected U
Methylene Chloride	0.50	0.040 J	1.7	0.14 J
Hexachlorobutadiene	0.50	Not Detected U	5.3	Not Detected U
Ethanol	0.50	Not Detected U	0.94	Not Detected U
1,2,4-Trichlorobenzene	0.50	0.069 J	3.7	0.51 J

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL.  
 J = Estimated value.

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ((ppbv))
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None Identified

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
4-Bromofluorobenzene	100	87-118
1,2-Dichloroethane-d4	107	78-134
Toluene-d8	98	91-106

**Section 5**

**VPB 131 Chain of Custody Records**



TETRA TECH NUS, INC.

CHAIN OF CUSTODY

NUMBER **Nº 1193**

PAGE 1 OF 1

D1891

PROJECT NO: <b>112608751</b>		FACILITY: <b>Bent Pond DU-2</b>		PROJECT MANAGER <b>David Bryner</b>		PHONE NUMBER		LABORATORY NAME AND CONTACT: <b>Chromat</b>				
SAMPLERS (SIGNATURE) 				FIELD OPERATIONS LEADER <b>J. Ferguson / S. Conitz</b>		PHONE NUMBER <b>412-496-9283</b>		ADDRESS <b>284 Sheffield Street</b>				
				CARRIER/WAYBILL NUMBER <b>Fedex AB# 8758 0716 6014</b>				CITY, STATE <b>Mountainside NJ 07092</b>				
STANDARD TAT <input type="checkbox"/> RUSH TAT <input type="checkbox"/> <input type="checkbox"/> 24 hr. <input type="checkbox"/> 48 hr. <input checked="" type="checkbox"/> 72 hr. <input type="checkbox"/> 7 day <input type="checkbox"/> 14 day								CONTAINER TYPE PLASTIC (P) or GLASS (G)		TYPE OF ANALYSIS B360 B-VOCs HPL 6		
								PRESERVATIVE USED				
DATE YEAR	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				COMMENTS
3/15	14:00	BP-VPB131-TB1	TRIP	NA	NA	GW	G	2	x			
3/15	13:00	BP-VPB131-EQB1	NA	NA	NA	GW	G	1	x			
3/15	16:05	BP-VPB131-GW-068	VPB 131	68	70	GW	G	3	x			
3/19	11:30	BP-VPB131-GW-168	VPB 131	168	170	GW	G	2	x			
3/19	12:30	BP-VPB131-GW-208	VPB 131	208	210	GW	G	2	x			
3/16	11:00	BP-VPB131-GW-118	VPB 131	118	120	GW	G	2	x			
3/19	14:10	BP-VPB131-GW-228	VPB 131	228	230	GW	G	2	x			
3/19	16:00	BP-VPB131-GW-248	VPB 131	248	250	GW	G	2	x			
1. RELINQUISHED BY				DATE	TIME	1. RECEIVED BY <b>Federal Express AB# 8758 0716 6014</b>				DATE	TIME	
2. RELINQUISHED BY				DATE	TIME	2. RECEIVED BY				DATE	TIME	
3. RELINQUISHED BY <b>Fedex</b>				DATE	TIME	3. RECEIVED BY <b>PS</b>				DATE	TIME	
COMMENTS <b>Temp 4°C</b>												

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FORM NO. TINUS-001

D 1947



TETRA TECH NUS, INC.

CHAIN OF CUSTODY

NUMBER **N<sup>o</sup> 1194**

PAGE **1** OF **1**

PROJECT NO: <b>112602751</b>		FACILITY: <b>BETHPAGE 002</b>		PROJECT MANAGER <b>DAVE BRAYAK</b>		PHONE NUMBER		LABORATORY NAME AND CONTACT: <b>LITEMTECH</b>			
SAMPLERS (SIGNATURE) 		FIELD OPERATIONS LEADER <b>S. LINTZ/J. Ferguson</b>		PHONE NUMBER <b>412 496 9283</b>		ADDRESS <b>284 Shattfield Street</b>				CITY, STATE <b>Mountainside NJ 07093</b>	
STANDARD TAT <input type="checkbox"/> RUSH TAT <input type="checkbox"/> <input type="checkbox"/> 24 hr. <input type="checkbox"/> 48 hr. <input checked="" type="checkbox"/> 72 hr. <input type="checkbox"/> 7 day <input type="checkbox"/> 14 day		CARRIER/WAYBILL NUMBER <b>Federal Express NB<sup>n</sup> 8000 4355 8276</b>		CONTAINER TYPE PLASTIC (P) or GLASS (G)		PRESERVATIVE USED		TYPE OF ANALYSIS <b>8260 B - VOC's</b>			
DATE YEAR <b>2012</b>		LOCATION ID		TOP DEPTH (FT)		BOTTOM DEPTH (FT)					
TIME		SAMPLE ID		No. OF CONTAINERS		COMMENTS					
<b>3/20 08:00</b>		<b>BP-VPB131-TB2</b>		<b>NA NA</b>		<b>GW G 2</b>		<b>X</b>			
<b>3/20 10:10</b>		<b>BP-VPB131-GW-268</b>		<b>268 270</b>		<b>GW G 2</b>		<b>X</b>			
<b>3/20 11:50</b>		<b>BP-VPB131-GW-288</b>		<b>288 290</b>		<b>GW G 2</b>		<b>(X)</b>		<b>⊗ Non Preserved</b>	
<b>3/20 13:50</b>		<b>BP-VPB131-GW-308</b>		<b>308 310</b>		<b>GW G 2</b>		<b>(X)</b>		<b>⊗ Non Preserved</b>	
<b>3/20 15:45</b>		<b>BP-VPB131-GW-328</b>		<b>328 330</b>		<b>GW G 2</b>		<b>X</b>			
<b>3/21 10:00</b>		<b>BP-VPB131-GW-348</b>		<b>348 350</b>		<b>GW G 2</b>		<b>X</b>			
<b>3/21 12:00</b>		<b>BP-VPB131-GW-368</b>		<b>368 370</b>		<b>GW G 2</b>		<b>X</b>			
<b>3/21 14:00</b>		<b>BP-VPB131-GW-388</b>		<b>388 390</b>		<b>GW G 2</b>		<b>X</b>			
<b>3/21 16:00</b>		<b>BP-VPB131-GW-408</b>		<b>408 410</b>		<b>GW G 2</b>		<b>(X)</b>		<b>⊗ Non preserved</b>	
<b>3/22 13:30</b>		<b>BP-VPB131-GW-428</b>		<b>428 430</b>		<b>GW G 2</b>		<b>(X)</b>		<b>⊗ Non preserved.</b>	
<b>3/22 15:05</b>		<b>BP-VPB131-GW-448</b>		<b>448 450</b>		<b>GW G 2</b>		<b>(X)</b>		<b>⊗ Non preserved</b>	
<b>3/22 12:30</b>		<b>BP-VPB131-EQB2</b>		<b>NA NA</b>		<b>GW G 1</b>		<b>(X)</b>		<b>⊗ Non preserved</b>	
1. RELINQUISHED BY 		DATE <b>3/22/2012</b>		TIME <b>17:30</b>		1. RECEIVED BY <b>Federal Express NB<sup>n</sup> 8000 4355 8276</b>		DATE <b>3/22/2012</b>		TIME <b>17:30</b>	
2. RELINQUISHED BY 		DATE		TIME		2. RECEIVED BY		DATE		TIME	
3. RELINQUISHED BY <b>Fed Ex</b>		DATE <b>3/23/12</b>		TIME <b>1:25</b>		3. RECEIVED BY <b>Ken Luma</b>		DATE <b>3/23/12</b>		TIME <b>9:25</b>	
COMMENTS <b>Temp: 4°C</b>											

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D2005



TETRA TECH NUS, INC.

CHAIN OF CUSTODY

NUMBER **Nº 1195**

PAGE **1** OF **1**

PROJECT NO: <b>1126003751</b>	FACILITY: <b>BETHPAGE 003</b>	PROJECT MANAGER <b>David Bryjak</b>	PHONE NUMBER	LABORATORY NAME AND CONTACT: <b>CHEMQUEST</b>
SAMPLERS (SIGNATURE) 		FIELD OPERATIONS LEADER <b>J. Ingusor / S. Lamb</b>	PHONE NUMBER <b>412 496 9283</b>	ADDRESS <b>204 Shieldfield Drive</b>
CARRIER/WAYBILL NUMBER <b>Fed Ex Ab# 8758 0716 6047</b>			CITY, STATE <b>Mantua NJ</b>	

DATE YEAR	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)			PRESERVATIVE USED	TYPE OF ANALYSIS	COMMENTS
3/23	09:30	BP-VPB131-TB3	VPB131	N/A	N/A	GW	G	2	-	-	2			
3/23	10:05	BP-VPB131-6W-468	VPB131	468	470	GW	G	2	2	-	-			
3/23	12:00	BP-VPB131-6W-488	VPB131	488	490	GW	G	2	2	-	-			
3/23	14:30	BP-VPB131-55-498	VPB131	498	500	SO	G	1	-	-	1			
3/26	10:30	BP-VPB131-6W-508	VPB131	508	510	GW	G	2	2	-	-			
3/27	11:30	BP-VPB131-6W-528	VPB131	528	530	GW	G	2	-	2	-			
3/27	16:00	BP-VPB131-6W-548	VPB131	548	550	GW	G	2	-	2	-			

1. RELINQUISHED BY 	DATE <b>3/27/2012</b>	TIME <b>17:00</b>	1. RECEIVED BY <b>Federal Express AB# 8758 0716 6047</b>	DATE <b>3/27/2012</b>	TIME <b>17:00</b>
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY <b>Fed Ex</b>	DATE <b>3/28/12</b>	TIME <b>9:20</b>	3. RECEIVED BY <b>Van R...</b>	DATE <b>3/28/12</b>	TIME <b>9:20</b>

Temp: 4°C

D2057



TETRA TECH NUS, INC.

CHAIN OF CUSTODY

NUMBER **Nº 1196**

PAGE      OF     

PROJECT NO: 112602751	FACILITY: BETHPAGE 002	PROJECT MANAGER David Braynck	PHONE NUMBER 757-461-3824	LABORATORY NAME AND CONTACT: ChemTECH
SAMPLERS (SIGNATURE) 		FIELD OPERATIONS LEADER S. Conti / J. Ferguson	PHONE NUMBER 412-496-9283	ADDRESS 284 Shalkwid Drive
		CARRIER/WAYBILL NUMBER FedEx Air# 8758 0716 6058	CITY, STATE Mountainside NJ 07092	

DATE YEAR	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)		PRESERVATIVE USED	TYPE OF ANALYSIS	COMMENTS
3/28	08:00	BP-VPB131-TB4	VPB 131	NA	NA	GW	G	2		G		8260B VOC	
3/28	10:15	BP-VPB131-6W-568	VPB 131	568	570	GW	G	2		G			
3/28	12:10	BP-VPB131-6W-588	VPB 131	588	590	GW	G	2		G			
3/28	14:20	BP-VPB131-6W-608	VPB 131	608	610	GW	G	2		G			
3/29	11:45	BP-VPB131-6W-618	VPB 131	618	620	GW	G	2		G			
3/29	13:50	BP-VPB131-6W-628	VPB 131	628	630	GW	G	2		G			
3/29	15:50	BP-VPB131-6W-638	VPB 131	638	640	GW	G	2		G			

1. RELINQUISHED BY 	DATE 3/30/2012	TIME 13:15	1. RECEIVED BY FedEx Air# 8758 0716 6058	DATE 3/30/2012	TIME 13:15
2. RELINQUISHED BY 	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY FedEx	DATE 3/31/12	TIME 10:00	3. RECEIVED BY PS	DATE 3/31/12	TIME 10:00

COMMENTS: TEMP 40°C

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D2157



TETRA TECH NUS, INC.

CHAIN OF CUSTODY

NUMBER **N<sup>o</sup> 1203**

PAGE **1** OF **1**

PROJECT NO: <b>11260 2751</b>		FACILITY: <b>BETHPAGE 002 VPB131</b>		PROJECT MANAGER <b>David Bernack</b>		PHONE NUMBER <b>757-461-3824</b>		LABORATORY NAME AND CONTACT: <b>LINANTECH 908-785-8900</b>									
SAMPLERS (SIGNATURE) 				FIELD OPERATIONS LEADER <b>J. Ferguson / S. Lank</b>		PHONE NUMBER <b>410-496-9283</b>		ADDRESS <b>284 Sheffield Drive</b>									
				CARRIER/WAYBILL NUMBER <b>Federal Express AB# 8746 2316 7736</b>				CITY, STATE <b>Mountainside NJ 07092</b>									
STANDARD TAT <input type="checkbox"/> RUSH TAT <input type="checkbox"/> <input type="checkbox"/> 24 hr. <input type="checkbox"/> 48 hr. <input checked="" type="checkbox"/> 72 hr. <input type="checkbox"/> 7 day <input type="checkbox"/> 14 day				CONTAINER TYPE PLASTIC (P) or GLASS (G)		PRESERVATIVE USED		TYPE OF ANALYSIS <b>8260 B VAC</b> <b>HCL 6</b>									
DATE YEAR <b>2012</b>		LOCATION ID		TOP DEPTH (FT)		BOTTOM DEPTH (FT)						MATRIX (GW, SO, SW, SD, QC, ETC.)		COLLECTION METHOD GRAB (G) COMP (C)		No. OF CONTAINERS	
<b>4/2</b>		<b>08:00</b>		<b>BP-VPB131-GW-FB5</b>		<b>FB</b>		<b>-</b>		<b>GW</b>		<b>6</b>		<b>2</b>		<b>X</b>	
<b>4/2</b>		<b>11:36</b>		<b>BP-VPB131-GW-648</b>		<b>VPB 131</b>		<b>648 650</b>		<b>GW</b>		<b>(G)</b>		<b>2</b>		<b>X</b>	
<b>4/3</b>		<b>12:45</b>		<b>BP-VPB131-GW-663</b>		<b>VPB 131</b>		<b>663 665</b>		<b>GW</b>		<b>G</b>		<b>2</b>		<b>X</b>	
<b>4/4</b>		<b>10:40</b>		<b>BP-VPB131-GW-693</b>		<b>VPB 131</b>		<b>693 695</b>		<b>GW</b>		<b>G</b>		<b>2</b>		<b>X</b>	
<b>4/4</b>		<b>12:30</b>		<b>BP-VPB131-GW-703</b>		<b>VPB 131</b>		<b>703 705</b>		<b>GW</b>		<b>G</b>		<b>2</b>		<b>X</b>	
<b>4/4</b>		<b>14:30</b>		<b>BP-VPB131-GW-723</b>		<b>VPB 131</b>		<b>723 725</b>		<b>GW</b>		<b>G</b>		<b>2</b>		<b>X</b>	
<b>4/4</b>		<b>16:35</b>		<b>BP-VPB131-GW-743</b>		<b>VPB 131</b>		<b>743 745</b>		<b>GW</b>		<b>G</b>		<b>2</b>		<b>X</b>	
<b>4/5</b>		<b>10:20</b>		<b>BP-VPB131-GW-763</b>		<b>VPB 131</b>		<b>763 765</b>		<b>GW</b>		<b>G</b>		<b>2</b>		<b>X</b>	
<b>4/5</b>		<b>10:35</b>		<b>BP-VPB131-GW-FB1</b>		<b>VPB 131</b>		<b>-</b>		<b>GW</b>		<b>G</b>		<b>2</b>		<b>X</b>	
<b>4/5</b>		<b>13:30</b>		<b>BP-VPB131-GW-783</b>		<b>VPB 131</b>		<b>783 785</b>		<b>GW</b>		<b>G</b>		<b>2</b>		<b>X</b>	
<b>4/5</b>		<b>13:45</b>		<b>BP-VPB131-GW-FB2</b>		<b>VPB 131</b>		<b>-</b>		<b>GW</b>		<b>G</b>		<b>2</b>		<b>X</b>	
<b>4/5</b>		<b>16:30</b>		<b>BP-VPB131-GW-808</b>		<b>VPB 131</b>		<b>808 810</b>		<b>GW</b>		<b>G</b>		<b>2</b>		<b>X</b>	
<b>4/6</b>		<b>11:20</b>		<b>BP-VPB131-GW-823</b>		<b>VPB 131</b>		<b>823 825</b>		<b>GW</b>		<b>G</b>		<b>2</b>		<b>X</b>	
1. RELINQUISHED BY				DATE <b>4-6-2012</b>		TIME <b>13:00</b>		1. RECEIVED BY <b>Federal Express AB# 8746 2316 7736</b>				DATE <b>4-6-2012</b>		TIME <b>13:00</b>			
2. RELINQUISHED BY				DATE		TIME		2. RECEIVED BY				DATE		TIME			
3. RELINQUISHED BY <b>FedEx</b>				DATE <b>4/7/12</b>		TIME <b>11:15</b>		3. RECEIVED BY 				DATE <b>4/7/12</b>		TIME <b>11:15</b>			
COMMENTS																	
<b>Temp: 4°C</b>																	

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FORM NO. TINUS-001



TETRA TECH NUS, INC.

CHAIN OF CUSTODY

NUMBER **N<sup>o</sup> 1205**PAGE      OF     

D2198

PROJECT NO: 112602751		FACILITY: BENTPAC 002		PROJECT MANAGER David Brayack		PHONE NUMBER 757-461-3824		LABORATORY NAME AND CONTACT: Chantech				
SAMPLERS (SIGNATURE)				FIELD OPERATIONS LEADER J. Ferguson / S. Conti		PHONE NUMBER 412-496-9283		ADDRESS 284 Sheffield Drive				
				CARRIER/WAYBILL NUMBER 8746 2316 7747				CITY, STATE Mountainside NJ 07092				
STANDARD TAT <input type="checkbox"/> RUSH TAT <input type="checkbox"/> <input type="checkbox"/> 24 hr. <input type="checkbox"/> 48 hr. <input type="checkbox"/> 72 hr. <input type="checkbox"/> 7 day <input type="checkbox"/> 14 day				CONTAINER TYPE PLASTIC (P) or GLASS (G) G		PRESERVATIVE USED ITC		TYPE OF ANALYSIS VOC 8260 B				COMMENTS
DATE YEAR 3/6												
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	PRESERVATIVE USED	COMMENTS
14:30	BP-VPB-IB-6			VPB 131	-	-	GW	G	2	x		
14:45	BP-VPB131-GW-843			VPB 131	843	845	GW	G	2	x		
1. RELINQUISHED BY <i>[Signature]</i> DATE 4/11/12 TIME 17:00												1. RECEIVED BY <i>[Signature]</i> DATE 4/11/12 TIME 17:00
2. RELINQUISHED BY <i>[Signature]</i> DATE 4/12/12 TIME 9:35												2. RECEIVED BY <i>[Signature]</i> DATE 4/12/12 TIME 9:35
3. RELINQUISHED BY <i>[Signature]</i> DATE 4/12/12 TIME 9:35												3. RECEIVED BY <i>[Signature]</i> DATE 4/12/12 TIME 9:35
COMMENTS Temp: 4°C												

DISTRIBUTION

WHITE (ACCOMPANIES SAMPLE)

YELLOW (FIELD)

COPY  
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PINK (FILE COPY)

4/02R  
FORM NO. TINUS-001





TETRA TECH NUS, INC.

CHAIN OF CUSTODY

NUMBER **Nº 1198**

PAGE **1** OF **1**

1203669

PROJECT NO: <b>112G02751</b>	FACILITY: <b>BETHPAGE D02</b>	PROJECT MANAGER <b>D. BRAYACK</b>	PHONE NUMBER <b>757 461 3824</b>	LABORATORY NAME AND CONTACT: <b>AIR TOXICS / A. SCOTT</b>
SAMPLERS (SIGNATURE) 	<b>CTO 066</b>	FIELD OPERATIONS LEADER <b>CONTI/FERGUSON</b>	PHONE NUMBER <b>412 551 2629</b>	ADDRESS <b>180-B BLUE RAVINE RD</b>
CARRIER/WAYBILL NUMBER <b>FED EX # 8758 0716 6069</b>			CITY, STATE <b>FOLSOM CA. 95630</b>	

STANDARD TAT   
RUSH TAT   
 24 hr.  48 hr.  72 hr.  7 day  14 day

CONTAINER TYPE  
PLASTIC (P) or GLASS (G)

PRESERVATIVE USED

DATE YEAR	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 8 HR SUMMA VOCs TO 15 A	LAB ID	INITIAL - 30 min Hg	FINAL - 0 in Hg	COMMENTS
3/29	16:10	BP-VPB131-AIR-032912	VPB 131	-	-	AIR	G	1					CAU# 14889 TAKEN DURING DRIVING OF VPB-131

Custody Seal Intact?  
Y N None Temp NA

1. RELINQUISHED BY 	DATE <b>3/29/2012</b>	TIME <b>17:00</b>	1. RECEIVED BY <b>FED EX AIR# 8758 0716 6069</b>	DATE <b>3/29/2012</b>	TIME <b>17:00</b>
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY 	DATE <b>3/30/12</b>	TIME <b>0400</b>
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

**Section 6**

**VPB 131 Validation Letter and Table**



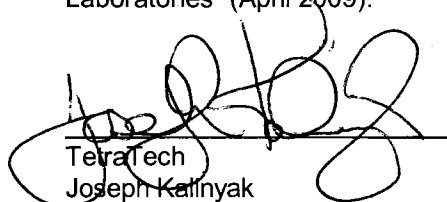


**EXECUTIVE SUMMARY**

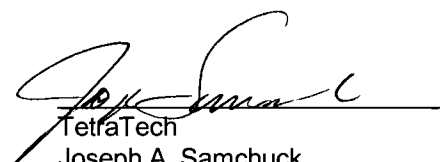
**Laboratory Performance Issues:** Sample VOC results were qualified for CCV %D quality control limit non-compliances.

**Other Factors Affecting Data Quality:** 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 data for these analyses were reviewed with reference to the USEPA SW-846 Method 8260B, USEPA Region II Hazardous Waste Support Branch Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B SOP HW-24 Revision #2 August 2008 and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (April 2009).



TetraTech  
Joseph Kalinyak  
Chemist/Data Validator



TetraTech  
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 ( $< 2 \times$  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 SDG: D1891 FRACTION: OV MEDIA: WATER	NSAMPLE	BP-VPB131-GW-068			BP-VPB131-GW-118			BP-VPB131-GW-118DL			BP-VPB131-GW-168		
	LAB_ID	D1891-03			D1891-06			D1891-06DL			D1891-04		
	SAMP_DATE	3/15/2012			3/16/2012			3/16/2012			3/19/2012		
	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	0.5	U		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	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	2.5	U		2.5	U					12			
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	UJ	C				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	UJ	C				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		0.5	U					0.5	U		
CIS-1,2-DICHLOROETHENE	0.5	U		0.6	J	P				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 SDG: D1891 FRACTION: OV MEDIA: WATER	NSAMPLE	BP-VPB131-GW-208			BP-VPB131-GW-228			BP-VPB131-GW-248			BP-VPB131-TB1		
	LAB_ID	D1891-05			D1891-07			D1891-08			D1891-01		
	SAMP_DATE	3/19/2012			3/19/2012			3/19/2012			3/15/2012		
	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	3.3			1.6			1.2			0.5	U		
1,1-DICHLOROETHENE	1.2			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	UJ	C	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		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	UJ	C	0.5	U		0.5	U		0.5	U		
BROMOFORM	0.5	UJ	C	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	UJ	C	0.5	U		0.5	U		0.5	UJ	C	
CHLOROBENZENE	0.5	U		0.5	U		0.5	U		0.5	U		
CHLORODIBROMOMETHANE	0.5	UJ	C	0.5	U		0.5	U		0.5	U		
CHLOROETHANE	0.5	U		0.5	U		0.5	U		0.5	U		
CHLOROFORM	0.81	J	P	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 SDG: D1891 FRACTION: OV MEDIA: WATER	NSAMPLE	BP-VPB131-GW-068			BP-VPB131-GW-118			BP-VPB131-GW-118DL			BP-VPB131-GW-168		
	LAB_ID	D1891-03			D1891-06			D1891-06DL			D1891-04		
	SAMP_DATE	3/15/2012			3/16/2012			3/16/2012			3/19/2012		
	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	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					710			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	0.5	U		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	0.5	U		0.81	J	P				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-VPB131-GW-208			BP-VPB131-GW-228			BP-VPB131-GW-248			BP-VPB131-TB1		
SDG: D1891	LAB_ID	D1891-05			D1891-07			D1891-08			D1891-01		
FRACTION: OV	SAMP_DATE	3/19/2012			3/19/2012			3/19/2012			3/15/2012		
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	3.4			1.2			2.5			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		



TO: D. BRAYACK DATE: JUNE 21, 2012

FROM: EDWARD SEDLMYER COPIES: DV FILE

SUBJECT: ORGANIC DATA VALIDATION – VOC  
 NWIRP BETHPAGE CTO WE62  
 SDG D1947

SAMPLES: 8 / Aqueous / VOC

BP-VPB131-EQB2	BP-VPB131-GW-268	BP-VPB131-GW-328
BP-VPB131-GW-348	BP-VPB131-GW-388	BP-VPB131-GW-408
BP-VPB131-GW-448	BP-VPB131-TB2	

4 / Soil / VOC

BP-VPB131-GW-288	BP-VPB131-GW-308	BP-VPB131-GW-368
BP-VPB131-GW-428		

Overview

The sample set for NWIRP Bethpage, CTO WE62, SDG D1947 consists of six (6) aqueous environmental samples, four (4) soil environmental samples, one (1) equipment blank, and one (1) trip blank. All samples were analyzed for volatile organic compounds (VOC).

The samples were collected by Tetra Tech on March 20, 21, and 22, 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

The following contaminant was detected in laboratory method blanks at the following maximum concentration:

<u>Contaminant</u>	<u>Maximum Concentration (ug/kg)</u>	<u>Action Level (ug/kg)</u>
Methylene chloride <sup>(1)</sup>	4.9	49

1 – Detected in method blank VBF0326S2 and affecting samples BP-VPB131-GW-288, BP-VPB131-GW-308, and BP-VPB131-GW-368.

An action level of 10X the maximum contaminant concentration of methylene chloride was established to evaluate the samples for laboratory method blank contamination. Sample aliquot, percent solids, and dilution factors were taken into consideration during application of the blank action level. The positive methylene chloride results less than the action level were qualified as (U) for samples BP-VPB131-GW-288, BP-VPB131-GW-308, and BP-VPB131-GW-368.

All initial and continuing calibration relative response factors (RRFs) were less than the 0.05 quality control limit for 1,4-dioxane on instrument MSVOA\_R. The non-detected results for 1,4-dioxane were rejected (UR), in all aqueous samples.

An initial calibration percent relative standard deviation (%RSD) exceeded the 15% quality control limit for tetrachloroethene on instrument MSVOA\_R, on 03/15/12. Only non-detected results were reported for tetrachloroethene and these were qualified as estimated (UJ) in all aqueous samples.

Continuing calibration percent differences (%Ds) were greater than the 20% quality control limit for carbon tetrachloride, 1,2,4-trichlorobenzene, and 1,2,3-trichlorobenzene on instrument MSVOA\_R, on 03/23/12 at 16:38. The nondetected results reported for carbon tetrachloride, 1,2,4-trichlorobenzene, and 1,2,3-trichlorobenzene were qualified as estimated (UJ), in samples BP-VPB131-TB2, BP-VPB131-GW-268, and BP-VPB131-GW-348.

Continuing calibration percent differences (%Ds) were greater than the 20% quality control limit for cyclohexane, carbon tetrachloride, 1,2-dichloroethane, and 1,2,3-trichlorobenzene on instrument MSVOA\_R, on 03/24/12 at 14:08. The nondetected results reported for cyclohexane, carbon tetrachloride, 1,2-dichloroethane, and 1,2,3-trichlorobenzene were qualified as estimated (UJ), in samples BP-VPB131-GW-328, BP-VPB131-GW-388, BP-VPB131-GW-408, BP-VPB131-GW-448, and BP-VPB131-EQB2.

All initial and continuing calibration RRFs were less than the 0.05 quality control limit for 1,4-dioxane on instrument MSVOA\_F. The non-detected results for 1,4-dioxane were rejected (UR), in all soil samples.

An initial calibration %RSD exceeded the 15% quality control limit for trichlorofluoromethane on instrument MSVOA\_F, on 03/22/12. Only non-detected results were reported for trichlorofluoromethane and these were qualified as estimated (UJ) in all aqueous samples.

The surrogate 4-bromofluorobenzene had percent recoveries less than the lower quality control limit for samples BP-VPB131-GW-288, BP-VPB131-GW-308, and BP-VPB131-GW-368. The samples were re-analyzed with similar results. The original results were used for validation. The positive and nondetected results for samples BP-VPB131-GW-288, BP-VPB131-GW-308, and BP-VPB131-GW-368 have been qualified as estimated (J) and (UJ), respectively.

The internal standard 1,4-dichlorobenzene-d4 had a %R less than 50% of the associated continuing

calibration for sample BP-VPB131-GW-288. The sample was re-analyzed with similar results. The nondetected results quantitated using 1,4-dichlorobenzene-d4 have been qualified as estimated (UJ).

In the laboratory control sample BSF0326S3, the percent recovery (%R) of methylene chloride was greater than the upper quality control limit and the 1,4-dioxane was less than the lower quality control limit. No action was taken on this basis because the methylene chloride results were previously qualified due to blank contamination and the 1,4-dioxane results were rejected due to a calibration noncompliance.

In the laboratory control sample BSF0327S2, the percent recovery (%R) of 1,4-dioxane was less than the lower quality control limit. No action was taken on this basis because the 1,4-dioxane results were rejected due to a calibration noncompliance.

#### Additional Comments

The samples BP-VPB131-GW-288, BP-VPB131-GW-308, BP-VPB131-GW-368, and BP-VPB131-GW-428 were analyzed as soils due to sediment in the samples.

The equipment blank had detections for acetone, 2-butanone, and 4-methyl-2-pentanone. No action was taken on equipment blank contamination.

Tentatively identified compounds (TIC) were reported by the laboratory for samples BP-VPB131-EQB2, BP-VPB131-GW-288, BP-VPB131-GW-308, and BP-VPB131-GW-368. 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.

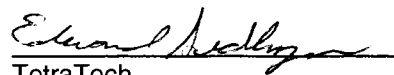
#### EXECUTIVE SUMMARY

**Laboratory Performance Issues:** Laboratory method blank contamination resulted in the qualification of several methylene chloride results. Initial and continuing calibration noncompliances resulted in the qualification of several results for the soil and aqueous samples. Surrogate and internal standard recovery noncompliances resulted in the qualification of several results for the soil samples.

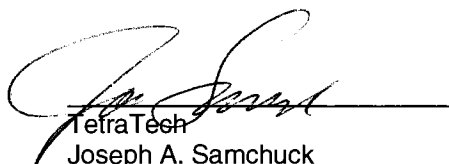
**Other Factors Affecting Data Quality:** Positive results below the limit of quantitation (LOQ) and above the detection limit (DL) were qualified as estimated, (J), due to uncertainty near the detection limit.

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.



TetraTech  
Edward Sedlmyer  
Chemist/Data Validator



TetraTech  
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 ( $< 2 \times$  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-VPB131-EQB2			BP-VPB131-GW-268			BP-VPB131-GW-328			BP-VPB131-GW-348		
SDG: D1947	LAB_ID	D1947-12			D1947-02			D1947-05			D1947-06		
FRACTION: OV	SAMP_DATE	3/22/2012			3/20/2012			3/20/2012			3/21/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	100.0			100.0			100.0			100.0		
	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	UJ	C	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C	
1,2,4-TRICHLOROBENZENE	0.5	U		0.5	UJ	C	0.5	U		0.5	UJ	C	
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	UJ	C	0.5	U		0.5	UJ	C	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			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	2.3	J	P	2.5	U		2.5	U		2.5	U		
ACETONE	12			5	J	P	2.5	U		5.8			
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	UJ	C	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C	
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	UJ	C	0.5	U		0.5	UJ	C	0.5	U		

PROJ_NO: 02751	NSAMPLE	BP-VPB131-GW-388			BP-VPB131-GW-408			BP-VPB131-GW-448			BP-VPB131-TB2		
SDG: D1947	LAB_ID	D1947-08			D1947-09			D1947-11			D1947-01		
FRACTION: OV	SAMP_DATE	3/21/2012			3/21/2012			3/22/2012			3/20/2012		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	100.0			100.0			100.0			100.0		
	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	UJ	C	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C	
1,2,4-TRICHLOROBENZENE	0.5	U		0.5	U		0.5	U		0.5	UJ	C	
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	UJ	C	0.5	UJ	C	0.5	UJ	C	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	3.9	J	P	3.2	J	P	6.4			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	UJ	C	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C	
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	UJ	C	0.5	UJ	C	0.5	UJ	C	0.5	U		

PROJ_NO: 02751 SDG: D1947 FRACTION: OV MEDIA: WATER	NSAMPLE	BP-VPB131-EQB2			BP-VPB131-GW-268			BP-VPB131-GW-328			BP-VPB131-GW-348		
	LAB_ID	D1947-12			D1947-02			D1947-05			D1947-06		
	SAMP_DATE	3/22/2012			3/20/2012			3/20/2012			3/21/2012		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	100.0			100.0			100.0			100.0		
	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	UJ	C	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C	
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		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 SDG: D1947 FRACTION: OV MEDIA: WATER	NSAMPLE	BP-VPB131-GW-388			BP-VPB131-GW-408			BP-VPB131-GW-448			BP-VPB131-TB2		
	LAB_ID	D1947-08			D1947-09			D1947-11			D1947-01		
	SAMP_DATE	3/21/2012			3/21/2012			3/22/2012			3/20/2012		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	100.0			100.0			100.0			100.0		
	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	UJ	C	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C	
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		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 SDG: D1947 FRACTION: OV MEDIA: SOIL	NSAMPLE	BP-VPB131-GW-288			BP-VPB131-GW-308			BP-VPB131-GW-368			BP-VPB131-GW-428		
	LAB_ID	D1947-03			D1947-04			D1947-07			D1947-10		
	SAMP_DATE	3/20/2012			3/20/2012			3/21/2012			3/22/2012		
	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	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	U		
1,1,2,2-TETRACHLOROETHANE	2.45	UJ	NR	2.5	UJ	R	2.5	UJ	R	2.5	U		
1,1,2-TRICHLOROETHANE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	U		
1,1,2-TRICHLOROTRIFLUOROETHANE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	U		
1,1-DICHLOROETHANE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	U		
1,1-DICHLOROETHENE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	U		
1,2,3-TRICHLOROBENZENE	2.45	UJ	NR	2.5	UJ	R	2.5	UJ	R	2.5	U		
1,2,4-TRICHLOROBENZENE	2.45	UJ	NR	2.5	UJ	R	2.5	UJ	R	2.5	U		
1,2-DIBROMO-3-CHLOROPROPANE	2.45	UJ	NR	2.5	UJ	R	2.5	UJ	R	2.5	U		
1,2-DIBROMOETHANE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	U		
1,2-DICHLOROBENZENE	2.45	UJ	NR	2.5	UJ	R	2.5	UJ	R	2.5	U		
1,2-DICHLOROETHANE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	U		
1,2-DICHLOROPROPANE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	U		
1,3-DICHLOROBENZENE	2.45	UJ	NR	2.5	UJ	R	2.5	UJ	R	2.5	U		
1,4-DICHLOROBENZENE	2.45	UJ	NR	2.5	UJ	R	2.5	UJ	R	2.5	U		
1,4-DIOXANE	49.5	UR	C	49.5	UR	C	49.5	UR	C	50	UR	C	
2-BUTANONE	12.5	UJ	R	12.5	UJ	R	12.5	UJ	R	12.5	U		
2-HEXANONE	12.5	UJ	R	12.5	UJ	R	12.5	UJ	R	12.5	U		
4-METHYL-2-PENTANONE	12.5	UJ	R	12.5	UJ	R	12.5	UJ	R	12.5	U		
ACETONE	14	J	PR	40	J	R	24	J	PR	17	J	P	
BENZENE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	U		
BROMOCHLOROMETHANE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	U		
BROMODICHLOROMETHANE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	U		
BROMOFORM	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	U		
BROMOMETHANE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	U		
CARBON DISULFIDE	2.45	UJ	R	2.5	UJ	R	2.8	J	PR	2.5	U		
CARBON TETRACHLORIDE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	U		
CHLOROBENZENE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	U		
CHLORODIBROMOMETHANE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	U		
CHLOROETHANE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	U		
CHLOROFORM	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	U		
CHLOROMETHANE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	U		
CIS-1,2-DICHLOROETHENE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	U		
CIS-1,3-DICHLOROPROPENE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	U		
CYCLOHEXANE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	U		

PROJ_NO: 02751 SDG: D1947 FRACTION: OV MEDIA: SOIL	NSAMPLE	BP-VPB131-GW-288			BP-VPB131-GW-308			BP-VPB131-GW-368			BP-VPB131-GW-428		
	LAB_ID	D1947-03			D1947-04			D1947-07			D1947-10		
	SAMP_DATE	3/20/2012			3/20/2012			3/21/2012			3/22/2012		
	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	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	U		
ETHYLBENZENE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	U		
ISOPROPYLBENZENE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	U		
M+P-XYLENES	4.95	UJ	R	4.95	UJ	R	4.95	UJ	R	5	U		
METHYL ACETATE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	U		
METHYL CYCLOHEXANE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	U		
METHYL TERT-BUTYL ETHER	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	U		
METHYLENE CHLORIDE	5.6	U	A	6	U	A	7.1	U	A	5.5			
O-XYLENE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	U		
STYRENE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	U		
TETRACHLOROETHENE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	U		
TOLUENE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	U		
TRANS-1,2-DICHLOROETHENE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	U		
TRANS-1,3-DICHLOROPROPENE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	U		
TRICHLOROETHENE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	U		
TRICHLOROFLUOROMETHANE	2.45	UJ	CR	2.5	UJ	CR	2.5	UJ	CR	2.5	UJ	C	
VINYL CHLORIDE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	U		





as a soil. The sample results were reported in µg/Kg units based on the dry weight of the sample.

The initial and continuing calibrations performed on instruments MSVOA\_F and MSVOA\_R had Relative Response Factors (RRFs) for 1,4-dioxane below the 0.05 quality control criterion. All samples were affected. Only non-detected results were reported for this compound in the affected samples and these non-detects were qualified as rejected, (UR).

The continuing calibration performed on instrument MSVOA\_F on 03/30/12 @ 20:38 had a Percent Difference (%D) for bromomethane which exceeded the 20% quality control criterion. The non-detected result reported for this compound in the affected sample, BP-VPB131-GW-508, was qualified as estimated, (UJ).

The continuing calibration %Ds for bromodichloromethane, trans-1,3-dichloropropene, chlorobenzene, ethylbenzene, m/p-xylenes, o-xylene, styrene, isopropylbenzene, and 1,2,4-trichlorobenzene and Percent Drifts (%Drifts) for carbon tetrachloride, dibromochloromethane, bromoform, and 1,2,3-trichlorobenzene were greater than the 20% quality control limit. Samples, BP-VPB131-GW-468, BP-VPB131-GW-488, BP-VPB131-GW-528, BP-VPB131-GW-548, and BP-VPB131-TB3 were affected. The non-detected results reported for these compounds in the affected samples were qualified as estimated, (UJ).

The Percent Recovery (%R) for the surrogate spike compound, 4-bromofluorobenzene, was below the lower quality control limit in sample BP-VPB131-GW-508. The sample was reanalyzed with similar results. The results from the initial analysis were used in the data validation. The positive and non-detected results reported for the target compounds in this sample were qualified as estimated, (J) and (UJ), respectively.

The %R for methylene chloride in the Laboratory Control Sample (LCS) associated with batch #F0330S1 was below the lower quality control limit. The non-detected result reported for this compound in the affected sample, BP-VPB131-GW-508, was qualified as estimated, (UJ).

### **Total Organic Carbon (TOC)**

No issues were noted.

### **Additional Comments**

The continuing calibration performed on instrument MSVOA\_F on 04/01/12 @ 15:29 had a %D for bromomethane and a %Drift for methylene chloride which exceeded the 20% quality control limit. No action was necessary because the associated sample results were not used in the data validation.

The Matrix Spike/Matrix Spike Duplicate (MS/MSD) analyses associated with batch #F0330S1 had %Rs and Relative Percent Differences (RPDs) for several VOC compounds above the upper quality control limits. No action was taken because no positive results were reported for these compounds in the associated sample, the LCS did not have high %Rs for these compounds, and the parent sample was not a sample of interest.

The Region II Data Validation Standard Operating Procedure (SOP) for TOC analysis was not present on the EPA Region II internet site; therefore, EPA Region II worksheets for this parameter are not included in the data validation letter.


Positive results reported below the Limit of Quantitation (LOQ) but above the Method Detection Limit (MDL) were qualified as estimated, (J). Non-detected results are reported to the Limit of Detection (LOD).

**EXECUTIVE SUMMARY**

**Laboratory Performance Issues:** Initial and continuing calibration RRFs were below 0.05 for 1,4-dioxane. Some continuing calibration %Ds and %Drifts exceeded 20%. One sample had a low surrogate %R. An LCS had a low %R for methylene chloride.

**Other Factors Affecting Data Quality:** The VOC MS/MSD had many noncompliances.

The data for these analyses were reviewed with reference to the SOP #HW-24 Revision #2, USEPA Region II Hazardous Waste Support Branch Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B (August 2008), EPA Method SW-846 8260C and 9060 analytical and reporting protocols, and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (April 2009).



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Chemist/Data Validator



Tetra Tech, Inc.  
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Data Validation Quality Assurance Manager

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 ( $< 2 \times \text{IDL}$  for inorganics and  $< \text{CRQL}$  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

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	UJ	C	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C
1,2,4-TRICHLOROBENZENE	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C
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	2.1	J	P	6.5			12			5.1		
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	UJ	C	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C
BROMOFORM	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C
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	UJ	C	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C
CHLOROBENZENE	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C
CHLORODIBROMOMETHANE	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C
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	

<b>PROJ_NO: 02751</b> <b>SDG: D2005</b> <b>FRACTION: OV</b> <b>MEDIA: WATER</b>	NSAMPLE	BP-VPB131-TB3		
	LAB_ID	D2005-01		
	SAMP_DATE	3/23/2012		
	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-TRICHLOROENZENE	0.5	UJ	C	
1,2,4-TRICHLOROENZENE	0.5	UJ	C	
1,2-DIBROMO-3-CHLOROPROPANE	0.5	U		
1,2-DIBROMOETHANE	0.5	U		
1,2-DICHLOROENZENE	0.5	U		
1,2-DICHLOROETHANE	0.5	U		
1,2-DICHLOROPROPANE	0.5	U		
1,3-DICHLOROENZENE	0.5	U		
1,4-DICHLOROENZENE	0.5	U		
1,4-DIOXANE	10	UR	C	
2-BUTANONE	2.5	U		
2-HEXANONE	2.5	U		
4-METHYL-2-PENTANONE	2.5	U		
ACETONE	2.5	U		
BENZENE	0.5	U		
BROMOCHLOROMETHANE	0.5	U		
BROMODICHLOROMETHANE	0.5	UJ	C	
BROMOFORM	0.5	UJ	C	
BROMOMETHANE	0.5	U		
CARBON DISULFIDE	0.5	U		
CARBON TETRACHLORIDE	0.5	UJ	C	
CHLOROENZENE	0.5	UJ	C	
CHLORODIBROMOMETHANE	0.5	UJ	C	
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 SDG: D2005 FRACTION: OV MEDIA: WATER	NSAMPLE	BP-VPB131-GW-468			BP-VPB131-GW-488			BP-VPB131-GW-528			BP-VPB131-GW-548		
	LAB_ID	D2005-02			D2005-03			D2005-06			D2005-07		
	SAMP_DATE	3/23/2012			3/23/2012			3/27/2012			3/27/2012		
	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	UJ	C	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C	
ISOPROPYLBENZENE	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C	
M+P-XYLENES	1	UJ	C	1	UJ	C	1	UJ	C	1	UJ	C	
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	UJ	C	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C	
STYRENE	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C	
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	UJ	C	0.5	UJ	C	0.5	UJ	C	0.5	UJ	C	
TRICHLOROETHENE	0.5	U		0.5	U		0.5	U		0.5	U		
TRICHLOROFUOROMETHANE	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		

<b>PROJ_NO: 02751</b> <b>SDG: D2005</b> <b>FRACTION: OV</b> <b>MEDIA: WATER</b>	NSAMPLE	BP-VPB131-TB3		
	LAB_ID	D2005-01		
	SAMP_DATE	3/23/2012		
	QC_TYPE	NM		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER	RESULT	VQL	QLCD	
DICHLORODIFLUOROMETHANE	0.5	U		
ETHYLBENZENE	0.5	UJ	C	
ISOPROPYLBENZENE	0.5	UJ	C	
M+P-XYLENES	1	UJ	C	
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	UJ	C	
STYRENE	0.5	UJ	C	
TETRACHLOROETHENE	0.5	U		
TOLUENE	0.5	U		
TRANS-1,2-DICHLOROETHENE	0.5	U		
TRANS-1,3-DICHLOROPROPENE	0.5	UJ	C	
TRICHLOROETHENE	0.5	U		
TRICHLOROFLUOROMETHANE	0.5	U		
VINYL CHLORIDE	0.5	U		



<b>PROJ_NO: 02751</b> <b>SDG: D2005</b> <b>FRACTION: OV</b> <b>MEDIA: SOIL</b>	NSAMPLE	BP-VPB131-GW-508		
	LAB_ID	D2005-05		
	SAMP_DATE	3/26/2012		
	QC_TYPE	NM		
	UNITS	UG/KG		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER	RESULT	VQL	QLCD	
1,1,1-TRICHLOROETHANE	2.5	UJ	R	
1,1,2,2-TETRACHLOROETHANE	2.5	UJ	R	
1,1,2-TRICHLOROETHANE	2.5	UJ	R	
1,1,2-TRICHLOROTRIFLUOROETHANE	2.5	UJ	R	
1,1-DICHLOROETHANE	2.5	UJ	R	
1,1-DICHLOROETHENE	2.5	UJ	R	
1,2,3-TRICHLOROBENZENE	2.5	UJ	R	
1,2,4-TRICHLOROBENZENE	2.5	UJ	R	
1,2-DIBROMO-3-CHLOROPROPANE	2.5	UJ	R	
1,2-DIBROMOETHANE	2.5	UJ	R	
1,2-DICHLOROBENZENE	2.5	UJ	R	
1,2-DICHLOROETHANE	2.5	UJ	R	
1,2-DICHLOROPROPANE	2.5	UJ	R	
1,3-DICHLOROBENZENE	2.5	UJ	R	
1,4-DICHLOROBENZENE	2.5	UJ	R	
1,4-DIOXANE	50	UR	C	
2-BUTANONE	12.5	UJ	R	
2-HEXANONE	12.5	UJ	R	
4-METHYL-2-PENTANONE	12.5	UJ	R	
ACETONE	78	J	R	
BENZENE	2.5	UJ	R	
BROMOCHLOROMETHANE	2.5	UJ	R	
BROMODICHLOROMETHANE	2.5	UJ	R	
BROMOFORM	2.5	UJ	R	
BROMOMETHANE	2.5	UJ	CR	
CARBON DISULFIDE	2.5	UJ	R	
CARBON TETRACHLORIDE	2.5	UJ	R	
CHLOROBENZENE	2.5	UJ	R	
CHLORODIBROMOMETHANE	2.5	UJ	R	
CHLOROETHANE	2.5	UJ	R	
CHLOROFORM	2.5	UJ	R	
CHLOROMETHANE	2.5	UJ	R	
CIS-1,2-DICHLOROETHENE	2.5	UJ	R	
CIS-1,3-DICHLOROPROPENE	2.5	UJ	R	
CYCLOHEXANE	2.5	UJ	R	

PROJ_NO: 02751	NSAMPLE	BP-VPB131-GW-508		
SDG: D2005	LAB_ID	D2005-05		
FRACTION: OV	SAMP_DATE	3/26/2012		
MEDIA: SOIL	QC_TYPE	NM		
	UNITS	UG/KG		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER	RESULT	VQL	QLCD	
DICHLORODIFLUOROMETHANE	2.5	UJ	R	
ETHYLBENZENE	2.5	UJ	R	
ISOPROPYLBENZENE	2.5	UJ	R	
M+P-XYLENES	5	UJ	R	
METHYL ACETATE	2.5	UJ	R	
METHYL CYCLOHEXANE	2.5	UJ	R	
METHYL TERT-BUTYL ETHER	2.5	UJ	R	
METHYLENE CHLORIDE	2.5	UJ	ER	
O-XYLENE	2.5	UJ	R	
STYRENE	2.5	UJ	R	
TETRACHLOROETHENE	2.5	UJ	R	
TOLUENE	2.5	UJ	R	
TRANS-1,2-DICHLOROETHENE	2.5	UJ	R	
TRANS-1,3-DICHLOROPROPENE	2.5	UJ	R	
TRICHLOROETHENE	2.5	UJ	R	
TRICHLOROFLUOROMETHANE	2.5	UJ	R	
VINYL CHLORIDE	2.5	UJ	R	

<b>PROJ_NO: 02751</b> <b>SDG: D2005</b> <b>FRACTION: MISC</b> <b>MEDIA: SOIL</b>	<b>NSAMPLE</b>	BP-VPB131-55-498		
	<b>LAB_ID</b>	D2005-04		
	<b>SAMP_DATE</b>	3/23/2012		
	<b>QC_TYPE</b>	NM		
	<b>UNITS</b>	MG/KG		
	<b>PCT_SOLIDS</b>	85.4		
	<b>DUP_OF</b>			
<b>PARAMETER</b>	<b>RESULT</b>	<b>VQL</b>	<b>QLCD</b>	
TOTAL ORGANIC CARBON	920			



TO: D. BRAYACK DATE: MAY 22, 2012

FROM: MICHELLE L. ALLEN COPIES: DV FILE

SUBJECT: ORGANIC DATA VALIDATION – VOC  
 NAVAL WEAPONS INDUSTRIAL RESERVE PLANT (NWIRP), BETHPAGE  
 CTO WE62  
 SAMPLE DELIVERY GROUPS (SDGs) D2057 & D2198

SAMPLES: SDG D2057

7/Aqueous/VOC

BP-VPB131-GW-568	BP-VPB131-GW-588	BP-VPB131-GW-608
BP-VPB131-GW-618	BP-VPB131-GW-628	BP-VPB131-GW-638
BP-VPB131-TB4		

SDG D2198

2/Aqueous/VOC

BP-VPB131-GW-843	BP-VPB-TB-6
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**Overview**

The sample sets for NWIRP Bethpage SDGs D2057 and D2198 consisted of seven (7) aqueous environmental samples and two (2) trip blanks. All eight (8) aqueous samples were analyzed for Target Compound List (TCL) volatile organic compounds (VOC). No field duplicate sample pair was associated with this sample data groups (SDGs).

The samples were collected by Tetra Tech, Inc. on March 28, 29, and April 6, 2012 and analyzed by Chemtech. All analyses were conducted in accordance with EPA Method SW-846 8260C analytical and reporting protocols. The data contained in this SDG was validated with regard to the following parameters:

- \* • Data completeness
- \* • Hold times
- \* • GC/MS System Tuning and Performance
- Initial/continuing calibrations
- Laboratory Method and Field Blank Results
- Surrogate Spike Recoveries
- Internal Standard Results
- Laboratory Control Sample/Laboratory Control Sample Duplicate Results
- Matrix Spike/Matrix Spike Duplicate Sample Results
- \* • 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.

### **Volatiles (VOC)**

Due to the nature of the matrix, the environmental groundwater samples, BP-VPB131-GW-608, BP-VPB131-GW-618, BP-VPB131-GW-628, BP-VPB131-GW-638, and BP-VPB131-GW-843 were analyzed as soils. The sample results were reported in µg/Kg based on the dry weight of the sample.

The initial and continuing calibrations performed on instruments MSVOA\_F, MSVOA\_G, and MSVOA\_R had Relative Response Factors (RRFs) for 1,4-dioxane below the 0.05 quality control criterion. All samples were affected. Only non-detected results were reported for this compound in the affected samples and these non-detects were qualified as rejected, (UR).

The continuing calibration from SDG D2198 performed on instrument MSVOA\_G on 04/12/12 @ 23:17 had a Percent Difference (%D) for carbon disulfide which exceeded the 20% quality control criterion. The non-detected result reported for this compound in the affected sample, BP-VPB131-GW-843, was qualified as estimated, (UJ).

The following compound was detected in the laboratory method blank at the maximum concentration as indicated below:

<u>Compound</u>	<u>Maximum Conc. (µg/Kg)</u>	<u>Action Level (µg/Kg)</u>
Methylene Chloride <sup>(1)</sup>	5.8	58

<sup>(1)</sup> Maximum concentration detected in the laboratory method blank, VBF0403S1, affecting samples BP-VPB131-GW-608RE, BP-VPB131-GW-618RE, BP-VPB131-GW-628, and BP-VPB131-GW-638, in SDG C2057.

An action level of 10X the maximum concentration was established to evaluate laboratory contamination for the common laboratory contaminant, methylene chloride. Dilution factor and sample aliquot, if necessary, were taken into consideration during the application of the action level. Positive results reported for methylene chloride in the affected samples below the established action level were qualified as non-detected, (U).

The Percent Recoveries (%Rs) for the surrogate spike compound, 4-bromofluorobenzene, were below the lower quality control limit in samples BP-VPB131-GW-608, BP-VPB131-GW-618, BP-VPB131-GW-628, and BP-VPB131-GW-638. The samples were reanalyzed with similar results. The results from the initial analyses of samples BP-VPB131-GW-628 and BP-VPB131-GW-638 were used in the data validation. The results from the reanalyses of samples BP-VPB131-GW-608 and BP-VPB131-GW-618 were used in the data validation due to an internal standard area noncompliance. The positive and non-detected results reported for the target compounds in this sample were qualified as estimated, (J) and (UJ), respectively.

### **Additional Comments**

The continuing calibration performed on instrument MSVOA\_F on 04/02/12 @ 13:44 had a Percent Drift (%Drift) for methylene chloride which exceeded the 20% quality control limit. No action was necessary because the associated sample results were not used in the data validation.

The internal standard areas for 1,4-dichlorobenzene-d4 were below the 50% quality control limit in the initial analyses of samples BP-VPB131-GW-608 and BP-VPB131-GW-618. The samples were reanalyzed and yielded acceptable internal standard areas. The results from the reanalyses were used in the data validation. No validation qualification was necessary.

The %R for 1,2-dibromoethane in the Laboratory Control Sample (LCS) from SDG D2198 associated with batch #R0404W1 was above the upper quality control limit. No action was necessary in the associated sample because this result was rejected due to a calibration noncompliance.

The %R for 1,4-dioxane in the Laboratory Control Sample (LCS) from SDG D2198 associated with batch #G0412W3 was below the lower quality control limit. No action was necessary in the associated sample because this result was rejected due to a calibration noncompliance.

The Matrix Spike/Matrix Spike Duplicate (MS/MSD) analyses from SDG D2057 associated with batch #R0404W1 had Relative Percent Differences (RPDs) for 4-methyl-2-pentanone, 2-hexanone, 1,2,3-dichlorobenzene, and 1,4-dioxane above the 20% quality control limit. No action was taken because no positive results were reported for these compounds in the associated sample, the MS, MSD, and LCS had acceptable %Rs for these compounds, and the parent sample was not from this SDG.

The MS/MSD analyses from SDG D2198 associated with batch #G0412W1 had several noncompliant %Rs and %RPDs. No action was taken because this sample was not part of this SDG and no samples from this SDG were associated with this batch.

Positive results reported below the Limit of Quantitation (LOQ) but above the Method Detection Limit (MDL) were qualified as estimated, (J). Non-detected results are reported to the Limit of Detection (LOD).

### **EXECUTIVE SUMMARY**

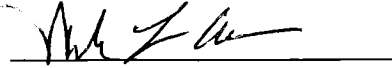
**Laboratory Performance Issues:** Initial and continuing calibration RRFs were below 0.05 for 1,4-dioxane. Some continuing calibration %Ds and %Drifts exceeded 20%. One sample had a low surrogate %R. An LCS had a low %R for methylene chloride.

**Other Factors Affecting Data Quality:** The VOC MS/MSD had many noncompliances.

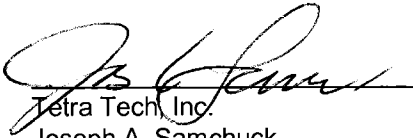
TO: D. BRAYACK  
SDGs: D2057 & D2198

PAGE: 4

The data for these analyses were reviewed with reference to the SOP #HW-24 Revision #2, USEPA Region II Hazardous Waste Support Branch Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B (August 2008), EPA Method SW-846 8260C analytical and reporting protocols, and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (April 2009).



Tetra Tech, Inc.  
Michelle L. Allen  
Chemist/Data Validator



Tetra Tech, Inc.  
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 ( $< 2 \times$  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-VPB131-GW-843		
SDG: D2198	LAB_ID	D2198-02		
FRACTION: OV	SAMP_DATE	4/6/2012		
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	50	UR	C	
2-BUTANONE	12.5	U		
2-HEXANONE	12.5	U		
4-METHYL-2-PENTANONE	12.5	U		
ACETONE	34			
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-VPB131-GW-843		
SDG: D2198	LAB_ID	D2198-02		
FRACTION: OV	SAMP_DATE	4/6/2012		
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	5	U		
METHYL ACETATE	2.5	U		
METHYL CYCLOHEXANE	2.5	U		
METHYL TERT-BUTYL ETHER	2.5	U		
METHYLENE CHLORIDE	2.3	J	P	
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		

<b>PROJ_NO: 02751</b> <b>SDG: D2198</b> <b>FRACTION: OV</b> <b>MEDIA: WATER</b>	NSAMPLE	BP-VPB-TB-6		
	LAB_ID	D2198-01		
	SAMP_DATE	4/6/2012		
	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	U		
2-HEXANONE	2.5	U		
4-METHYL-2-PENTANONE	2.5	U		
ACETONE	2.5	U		
BENZENE	0.5	U		
BROMOCHLOROMETHANE	0.5	U		
BROMODICHLOROMETHANE	0.5	U		
BROMOFORM	0.5	U		
BROMOMETHANE	0.5	U		
CARBON DISULFIDE	0.5	UJ	C	
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-VPB-TB-6		
SDG: D2198	LAB_ID	D2198-01		
FRACTION: OV	SAMP_DATE	4/6/2012		
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		

PROJ_NO: 02751 SDG: D2057 FRACTION: OV MEDIA: WATER	NSAMPLE	BP-VPB131-GW-568			BP-VPB131-GW-588			BP-VPB131-TB4		
	LAB_ID	D2057-02			D2057-03			D2057-01		
	SAMP_DATE	3/28/2012			3/28/2012			3/28/2012		
	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	0.5	U		0.5	U		0.5	U		
1,1-DICHLOROETHANE	0.5	U		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	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	14			8.5			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	U		0.5	U		
CARBON TETRACHLORIDE	0.5	U		0.5	U		0.5	U		
CHLOROETHANE	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		0.5	U		0.5	U		
CIS-1,2-DICHLOROETHENE	0.5	U		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		

<b>PROJ_NO: 02751</b> <b>SDG: D2057</b> <b>FRACTION: OV</b> <b>MEDIA: WATER</b>	NSAMPLE	BP-VPB131-GW-568			BP-VPB131-GW-588			BP-VPB131-TB4		
	LAB_ID	D2057-02			D2057-03			D2057-01		
	SAMP_DATE	3/28/2012			3/28/2012			3/28/2012		
	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		0.5	U		
O-XYLENE	0.5	U		0.5	U		0.5	U		
STYRENE	0.5	U		0.5	U		0.5	U		
TETRACHLOROETHENE	0.5	U		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	0.5	U		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-VPB131-GW-608RE			BP-VPB131-GW-618RE			BP-VPB131-GW-628			BP-VPB131-GW-638		
SDG: D2057	LAB_ID	D2057-04RE			D2057-05RE			D2057-06			D2057-07		
FRACTION: OV	SAMP_DATE	3/28/2012			3/29/2012			3/29/2012			3/29/2012		
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	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
1,1,2,2-TETRACHLOROETHANE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
1,1,2-TRICHLOROETHANE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
1,1,2-TRICHLOROTRIFLUOROETHANE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
1,1-DICHLOROETHANE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
1,1-DICHLOROETHENE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
1,2,3-TRICHLOROBENZENE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
1,2,4-TRICHLOROBENZENE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
1,2-DIBROMO-3-CHLOROPROPANE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
1,2-DIBROMOETHANE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
1,2-DICHLOROBENZENE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
1,2-DICHLOROETHANE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
1,2-DICHLOROPROPANE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
1,3-DICHLOROBENZENE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
1,4-DICHLOROBENZENE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
1,4-DIOXANE	49.5	UR	C	50	UR	C	49.5	UR	C	50	UR	CR	
2-BUTANONE	12.5	UJ	R	12.5	UJ	R	12.5	UJ	R	12.5	UJ	R	
2-HEXANONE	12.5	UJ	R	12.5	UJ	R	12.5	UJ	R	12.5	UJ	R	
4-METHYL-2-PENTANONE	12.5	UJ	R	12.5	UJ	R	12.5	UJ	R	12.5	UJ	R	
ACETONE	18	J	PR	26	J	R	19	J	PR	16	J	PR	
BENZENE	2.45	UJ	R	2.5	U	R	2.5	UJ	R	2.5	UJ		
BROMOCHLOROMETHANE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
BROMODICHLOROMETHANE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
BROMOFORM	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
BROMOMETHANE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
CARBON DISULFIDE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
CARBON TETRACHLORIDE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
CHLOROBENZENE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
CHLORODIBROMOMETHANE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
CHLOROETHANE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
CHLOROFORM	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
CHLOROMETHANE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
CIS-1,2-DICHLOROETHENE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
CIS-1,3-DICHLOROPROPENE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
CYCLOHEXANE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	



PROJ_NO: 02751 SDG: D2057 FRACTION: OV MEDIA: SOIL	NSAMPLE	BP-VPB131-GW-608RE			BP-VPB131-GW-618RE			BP-VPB131-GW-628			BP-VPB131-GW-638		
	LAB_ID	D2057-04RE			D2057-05RE			D2057-06			D2057-07		
	SAMP_DATE	3/28/2012			3/29/2012			3/29/2012			3/29/2012		
	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	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
ETHYLBENZENE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
ISOPROPYLBENZENE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
M+P-XYLENES	4.95	UJ	R	5	UJ	R	4.95	UJ	R	5	UJ	R	
METHYL ACETATE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
METHYL CYCLOHEXANE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
METHYL TERT-BUTYL ETHER	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
METHYLENE CHLORIDE	2.7	UJ	R	2.4	UJ	R	2.9	U	A	2.4	U	A	
O-XYLENE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
STYRENE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
TETRACHLOROETHENE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
TOLUENE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
TRANS-1,2-DICHLOROETHENE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
TRANS-1,3-DICHLOROPROPENE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
TRICHLOROETHENE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
TRICHLOROFLUOROMETHANE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	
VINYL CHLORIDE	2.45	UJ	R	2.5	UJ	R	2.5	UJ	R	2.5	UJ	R	



TO: D. BRAYACK DATE: MAY 3, 2012

FROM: JOSEPH KALINYAK COPIES: DV FILE

SUBJECT: ORGANIC DATA VALIDATION – VOC  
 NWIRP BETHPAGE, CTO WE62  
 SDG D2157

SAMPLES: 6 / Aqueous / VOC

BP-VPB131-GW-703	BP-VPB131-GW-723	BP-VPB131-GW-823
BP-VPB131-GW-FB1	BP-VPB131-GW-FB2	BP-VPB131-GW-TB5

7 / Soil / VOC

BP-VPB131-GW-648	BP-VPB131-GW-663	BP-VPB131-GW-693
BP-VPB131-GW-743	BP-VPB131-GW-763	BP-VPB131-GW-783
BP-VPB131-GW-808		

**Overview**

The sample set for NWIRP Bethpage, CTO WE62, SDG D2157, consisted of thirteen (13) aqueous samples including two (2) aqueous field blank samples and one (1) aqueous trip blank sample. The samples listed as soils above were actually aqueous ground water samples and were treated as soils due to significant particulate matter and were analyzed and reported on a wet basis. All samples were analyzed for volatile organic compounds (VOC). No field duplicate sample pairs were included in this Sample Delivery Group (SDG).

The samples were collected by Tetra Tech on April 2, 3, 4, 5, and 6, 2012 and analyzed by ChemTech laboratory. All analyses were conducted in accordance with EPA Method SW-846 8260C 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
- \* • Surrogate Spike Recoveries
- \* • Internal Standard Recoveries
- Matrix Spike/Matrix Spike Duplicate 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 following VOC contaminants were detected in a method blank and field blank sample at the following maximum concentrations.

<u>Analyte</u>	<u>Maximum Conc.</u>	<u>Action Level</u>
Methylene chloride <sup>(1)</sup>	5 µg/kg	50 µg/kg
2-Butanone <sup>(2)</sup>	3.9 µg/L	39.0 µg/L (µg/kg)
Acetone <sup>(2)</sup>	5.4 µg/L	54.0 µg/L (µg/kg)

<sup>(1)</sup> Method blank VBF0409S1 affecting samples BP-VPB131-GW-648, BP-VPB131-GW-663, BP-VPB131-GW-693, BP-VPB131-GW-743, BP-VPB131-GW-763, BP-VPB131-GW-783, and BP-VPB131-GW-808.

<sup>(2)</sup> Field blank sample BP-VPB131-GW-FB2 affecting all samples.

An action level of ten times the maximum level for the common laboratory contaminants methylene chloride, acetone, and 2-butanone 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. Positive sample results less than the action level were qualified non-detected, (U). The field blank and trip blank samples were not qualified for blank contamination.

The initial calibration average relative response factors (RRF) for 1,4-dioxane were less than the 0.05 criteria for instrument MSVOA\_F on 04/08/12 and instrument MSVOA\_R on 04/01/12 and for all continuing calibration verifications (CCV) on both instruments.

**Affected samples:** All samples

**Action:** The non-detected 1,4-dioxane results for the samples were qualified rejected, (UR).

The CCV percent differences (%Ds) were greater than the 20% quality control limit for dibromochloromethane and bromoform for instrument MSVOA\_R on 04/09/12 @ 10:01.

**Affected samples:** BP-VPB131-GW-703 and BP-VPB131-GW-TB5

**Action:** Sample non-detected results for dibromochloromethane and bromoform were qualified estimated, (UJ).

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.

**Additional Comments**

The CCV %D was greater than the 20% quality control limit for 1,4-dioxane for instrument MSVOA\_F on 04/09/12 @ 17:01.

**Affected samples:**

BP-VPB131-GW-648	BP-VPB131-GW-663	BP-VPB131-GW-693
BP-VPB131-GW-743	BP-VPB131-GW-763	BP-VPB131-GW-783
BP-VPB131-GW-808		

**Action:** No validation action was necessary as all sample non-detected 1,4-dioxane results were rejected for RRF criteria non-compliances.

The laboratory control sample (LCS) percent recovery (%R) was greater than the quality control limit for 1,4-dioxane for batch VBF0409S1.

**Affected samples:**

BP-VPB131-GW-648

BP-VPB131-GW-663

BP-VPB131-GW-693

BP-VPB131-GW-743

BP-VPB131-GW-763

BP-VPB131-GW-783

BP-VPB131-GW-808

**Action:** No validation action was necessary as all sample non-detected 1,4-dioxane results were rejected for RRF criteria non-compliances.

A matrix spike (MS) sample D2127-10 and MS duplicate (MSD) sample D2127-11 had an MS/MSD relative percent difference (RPD) which was non-compliant for 1,4-dioxane. No validation action was taken as the spiked sample was not from this SDG and results are not qualified for non-compliant MS/MSD RPDs alone.

A MS sample D2123-09 and MSD sample D2123-10 had MS/MSD RPDs which were non-compliant for many VOC analytes. No validation action was taken as the spiked sample was not from this SDG and results are not qualified for non-compliant MS/MSD RPDs alone.

Fifty-two (52) analytes were reported for VOCs.

Non-detected sample results were reported to the LOD.

Tentatively identified compounds (TIC) were reported by the laboratory for samples BP-VPB131-GW-648, BP-VPB131-GW-663, BP-VPB131-GW-693, BP-VPB131-GW-743, BP-VPB131-GW-763, BP-VPB131-GW-783, and BP-VPB131-GW-808. These sample TICs were not included in the electronic database (EDD) but are available for review on the Appendix B laboratory result Form Is.

**EXECUTIVE SUMMARY**

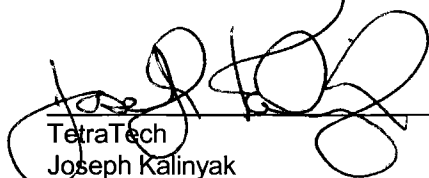
**Laboratory Performance Issues:** Sample VOC analyte results were qualified non-detected for blank contamination. All sample 1,4-dioxane results were rejected due to RRF criteria non-compliance. Sample VOC results were qualified for CCV %D quality control limit non-compliances.

**Other Factors Affecting Data Quality:** 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.

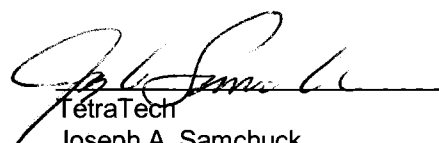
TO: D. BRAYACK  
SDG: D2157

PAGE: 4

The data for these analyses were reviewed with reference to the USEPA SW-846 Method 8260B, USEPA Region II Hazardous Waste Support Branch Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B SOP HW-24 Revision #2 August 2008 and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (April 2009).



TetraTech  
Joseph Kalinyak  
Chemist/Data Validator



TetraTech  
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 ( $< 2 \times$  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 SDG: D2157 FRACTION: OV MEDIA: WATER	NSAMPLE	BP-VPB131-GW-703			BP-VPB131-GW-723			BP-VPB131-GW-823			BP-VPB131-GW-FB1		
	LAB_ID	D2157-05			D2157-06			D2157-13			D2157-09		
	SAMP_DATE	4/4/2012			4/4/2012			4/6/2012			4/5/2012		
	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	0.52	J	P	0.5	U		0.5	U		0.5	U		
1,1,2-TRICHLOROTRIFLUOROETHANE	2.2			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		3.1	U	B	2.5	U		3.8	J	P	
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	6.1	U	B	24	U	B	5.5	U	B	5	J	P	
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	UJ	C	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	2.1			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	UJ	C	0.5	U		0.5	U		0.5	U		
CHLOROETHANE	0.5	U		0.5	U		0.5	U		0.5	U		
CHLOROFORM	1.8			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	1.2			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		



<b>PROJ_NO: 02751</b> <b>SDG: D2157</b> <b>FRACTION: OV</b> <b>MEDIA: WATER</b>	NSAMPLE	BP-VPB131-GW-FB2			BP-VPB131-GW-TB5		
	LAB_ID	D2157-11			D2157-01		
	SAMP_DATE	4/5/2012			4/2/2012		
	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	3.9	J	P	2.5	U		
2-HEXANONE	2.5	U		2.5	U		
4-METHYL-2-PENTANONE	2.5	U		2.5	U		
ACETONE	5.4			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	UJ	C	
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	UJ	C	
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		

<b>PROJ_NO: 02751</b> <b>SDG: D2157</b> <b>FRACTION: OV</b> <b>MEDIA: WATER</b>	NSAMPLE	BP-VPB131-GW-703			BP-VPB131-GW-723			BP-VPB131-GW-823			BP-VPB131-GW-FB1		
	LAB_ID	D2157-05			D2157-06			D2157-13			D2157-09		
	SAMP_DATE	4/4/2012			4/4/2012			4/6/2012			4/5/2012		
	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	0.56	J	P	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	61			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		

<b>PROJ_NO: 02751</b> <b>SDG: D2157</b> <b>FRACTION: OV</b> <b>MEDIA: WATER</b>	NSAMPLE	BP-VPB131-GW-FB2			BP-VPB131-GW-TB5		
	LAB_ID	D2157-11			D2157-01		
	SAMP_DATE	4/5/2012			4/2/2012		
	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		

PROJ_NO: 02751 SDG: D2157 FRACTION: OV MEDIA: SOIL	NSAMPLE	BP-VPB131-GW-648			BP-VPB131-GW-663			BP-VPB131-GW-693			BP-VPB131-GW-743		
	LAB_ID	D2157-02			D2157-03			D2157-04			D2157-07		
	SAMP_DATE	4/2/2012			4/3/2012			4/4/2012			4/4/2012		
	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		2.55	U		
1,1,2,2-TETRACHLOROETHANE	2.5	U		2.5	U		2.5	U		2.55	U		
1,1,2-TRICHLOROETHANE	2.5	U		2.5	U		2.5	U		2.55	U		
1,1,2-TRICHLOROTRIFLUOROETHANE	2.5	U		2.5	U		2.5	U		2.55	U		
1,1-DICHLOROETHANE	2.5	U		2.5	U		2.5	U		2.55	U		
1,1-DICHLOROETHENE	2.5	U		2.5	U		2.5	U		2.55	U		
1,2,3-TRICHLOROBENZENE	2.5	U		2.5	U		2.5	U		2.55	U		
1,2,4-TRICHLOROBENZENE	2.5	U		2.5	U		2.5	U		2.55	U		
1,2-DIBROMO-3-CHLOROPROPANE	2.5	U		2.5	U		2.5	U		2.55	U		
1,2-DIBROMOETHANE	2.5	U		2.5	U		2.5	U		2.55	U		
1,2-DICHLOROBENZENE	2.5	U		2.5	U		2.5	U		2.55	U		
1,2-DICHLOROETHANE	2.5	U		2.5	U		2.5	U		2.55	U		
1,2-DICHLOROPROPANE	2.5	U		2.5	U		2.5	U		2.55	U		
1,3-DICHLOROBENZENE	2.5	U		2.5	U		2.5	U		2.55	U		
1,4-DICHLOROBENZENE	2.5	U		2.5	U		2.5	U		2.55	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	20	U	B	44	U	B	25	U	B	31	U	B	
BENZENE	2.5	U		2.5	U		2.5	U		2.55	U		
BROMOCHLOROMETHANE	2.5	U		2.5	U		2.5	U		2.55	U		
BROMODICHLOROMETHANE	2.5	U		2.5	U		2.5	U		2.55	U		
BROMOFORM	2.5	U		2.5	U		2.5	U		2.55	U		
BROMOMETHANE	2.5	U		2.5	U		2.5	U		2.55	U		
CARBON DISULFIDE	2.5	U		2.5	U		2.5	U		2.55	U		
CARBON TETRACHLORIDE	2.5	U		2.5	U		2.5	U		2.55	U		
CHLOROBENZENE	2.5	U		2.5	U		2.5	U		2.55	U		
CHLORODIBROMOMETHANE	2.5	U		2.5	U		2.5	U		2.55	U		
CHLOROETHANE	2.5	U		2.5	U		2.5	U		2.55	U		
CHLOROFORM	2.5	U		2.5	U		2.5	U		2.55	U		
CHLOROMETHANE	1	J	P	1.9	J	P	2.5	U		2.55	U		
CIS-1,2-DICHLOROETHENE	2.5	U		2.5	U		2.5	U		2.55	U		
CIS-1,3-DICHLOROPROPENE	2.5	U		2.5	U		2.5	U		2.55	U		
CYCLOHEXANE	2.5	U		2.5	U		2.5	U		2.55	U		

PROJ_NO: 02751 SDG: D2157 FRACTION: OV MEDIA: SOIL	NSAMPLE	BP-VPB131-GW-763			BP-VPB131-GW-783			BP-VPB131-GW-808		
	LAB_ID	D2157-08			D2157-10			D2157-12		
	SAMP_DATE	4/5/2012			4/5/2012			4/5/2012		
	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		2.45	U		2.5	U		
1,1,2,2-TETRACHLOROETHANE	2.5	U		2.45	U		2.5	U		
1,1,2-TRICHLOROETHANE	2.5	U		2.45	U		2.5	U		
1,1,2-TRICHLOROTRIFLUOROETHANE	2.5	U		2.45	U		2.5	U		
1,1-DICHLOROETHANE	2.5	U		2.45	U		2.5	U		
1,1-DICHLOROETHENE	2.5	U		2.45	U		2.5	U		
1,2,3-TRICHLOROENZENE	2.5	U		2.45	U		2.5	U		
1,2,4-TRICHLOROENZENE	2.5	U		2.45	U		2.5	U		
1,2-DIBROMO-3-CHLOROPROPANE	2.5	U		2.45	U		2.5	U		
1,2-DIBROMOETHANE	2.5	U		2.45	U		2.5	U		
1,2-DICHLOROENZENE	2.5	U		2.45	U		2.5	U		
1,2-DICHLOROETHANE	2.5	U		2.45	U		2.5	U		
1,2-DICHLOROPROPANE	2.5	U		2.45	U		2.5	U		
1,3-DICHLOROENZENE	2.5	U		2.45	U		2.5	U		
1,4-DICHLOROENZENE	2.5	U		2.45	U		2.5	U		
1,4-DIOXANE	50	UR	C	49.5	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	21	U	B	7.2	U	B	12	U	B	
BENZENE	2.5	U		2.45	U		2.5	U		
BROMOCHLOROMETHANE	2.5	U		2.45	U		2.5	U		
BROMODICHLOROMETHANE	2.5	U		2.45	U		2.5	U		
BROMOFORM	2.5	U		2.45	U		2.5	U		
BROMOMETHANE	2.5	U		2.45	U		2.5	U		
CARBON DISULFIDE	2.5	U		2.45	U		2.5	U		
CARBON TETRACHLORIDE	2.5	U		2.45	U		2.5	U		
CHLOROENZENE	2.5	U		2.45	U		2.5	U		
CHLORODIBROMOMETHANE	2.5	U		2.45	U		2.5	U		
CHLOROETHANE	2.5	U		2.45	U		2.5	U		
CHLOROFORM	2.5	U		2.45	U		2.5	U		
CHLOROMETHANE	2.5	U		2.45	U		2.5	U		
CIS-1,2-DICHLOROETHENE	2.5	U		2.45	U		2.5	U		
CIS-1,3-DICHLOROPROPENE	2.5	U		2.45	U		2.5	U		
CYCLOHEXANE	2.5	U		2.45	U		2.5	U		

PROJ_NO: 02751 SDG: D2157 FRACTION: OV MEDIA: SOIL	NSAMPLE	BP-VPB131-GW-648			BP-VPB131-GW-663			BP-VPB131-GW-693			BP-VPB131-GW-743		
	LAB_ID	D2157-02			D2157-03			D2157-04			D2157-07		
	SAMP_DATE	4/2/2012			4/3/2012			4/4/2012			4/4/2012		
	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		2.55	U		
ETHYLBENZENE	2.5	U		2.5	U		2.5	U		2.55	U		
ISOPROPYLBENZENE	2.5	U		2.5	U		2.5	U		2.55	U		
M+P-XYLENES	5	U		5	U		5	U		5	U		
METHYL ACETATE	2.5	U		2.5	U		2.5	U		2.55	U		
METHYL CYCLOHEXANE	2.5	U		2.5	U		2.5	U		2.55	U		
METHYL TERT-BUTYL ETHER	2.5	U		2.5	U		2.5	U		2.55	U		
METHYLENE CHLORIDE	3.9	U	B	3.8	U	B	3.5	U	B	3.7	U	B	
O-XYLENE	2.5	U		2.5	U		2.5	U		2.55	U		
STYRENE	2.5	U		2.5	U		2.5	U		2.55	U		
TETRACHLOROETHENE	2.5	U		2.5	U		2.5	U		2.55	U		
TOLUENE	2.5	U		2.5	U		2.5	U		2.55	U		
TRANS-1,2-DICHLOROETHENE	2.5	U		2.5	U		2.5	U		2.55	U		
TRANS-1,3-DICHLOROPROPENE	2.5	U		2.5	U		2.5	U		2.55	U		
TRICHLOROETHENE	2.5	U		2.5	U		2.5	U		2.55	U		
TRICHLOROFLUOROMETHANE	2.5	U		2.5	U		2.5	U		2.55	U		
VINYL CHLORIDE	2.5	U		2.5	U		2.5	U		2.55	U		

<b>PROJ_NO: 02751</b> <b>SDG: D2157</b> <b>FRACTION: OV</b> <b>MEDIA: SOIL</b>	NSAMPLE	BP-VPB131-GW-763			BP-VPB131-GW-783			BP-VPB131-GW-808		
	LAB_ID	D2157-08			D2157-10			D2157-12		
	SAMP_DATE	4/5/2012			4/5/2012			4/5/2012		
	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		2.45	U		2.5	U		
ETHYLBENZENE	2.5	U		2.45	U		2.5	U		
ISOPROPYLBENZENE	2.5	U		2.45	U		2.5	U		
M+P-XYLENES	5	U		4.95	U		5	U		
METHYL ACETATE	2.5	U		2.45	U		2.5	U		
METHYL CYCLOHEXANE	2.5	U		2.45	U		2.5	U		
METHYL TERT-BUTYL ETHER	2.5	U		2.45	U		2.5	U		
METHYLENE CHLORIDE	2	U	B	2.45	U		1.4	U	B	
O-XYLENE	2.5	U		2.45	U		2.5	U		
STYRENE	2.5	U		2.45	U		2.5	U		
TETRACHLOROETHENE	2.5	U		2.45	U		2.5	U		
TOLUENE	2.5	U		2.45	U		2.5	U		
TRANS-1,2-DICHLOROETHENE	2.5	U		2.45	U		2.5	U		
TRANS-1,3-DICHLOROPROPENE	2.5	U		2.45	U		2.5	U		
TRICHLOROETHENE	2.5	U		2.45	U		2.5	U		
TRICHLOROFLUOROMETHANE	2.5	U		2.45	U		2.5	U		
VINYL CHLORIDE	2.5	U		2.45	U		2.5	U		





Volatile Organic Compounds

The following contaminants were detected in the laboratory method blank at the following maximum concentrations:

<u>Contaminant</u>	<u>Maximum Concentration (ug/m<sup>3</sup>)</u>	<u>Action Level (ug/m<sup>3</sup>)</u>
Toluene	0.052	0.26
Methylene chloride	0.14	1.4
1,2,4-Trichlorobenzene	0.51	2.55

An action level of 10X for was established to evaluate methylene chloride; 5X for toluene and 1,2,4-trichlorobenzene in the affected sample for laboratory method blank contamination. Sample aliquot and dilution factors were taken into consideration during application of the blank action level. The positive methylene chloride result greater than the action level in sample BP-VPB131-AIR-032912 was qualified as (U).

Tentatively identified compounds (TICs) in sample BP-VPB131-AIR-032912 were qualified as presumptively present (NJ). The TIC results were reported in PPBV units.

Additional Comments

Positive results below the reporting limit (RL) and above the method detection limit (MDL) were qualified as estimated, (J), due to uncertainty near the detection limit.

EXECUTIVE SUMMARY

**Laboratory Performance Issues:** Blank contamination resulted in the qualification of methylene chloride.

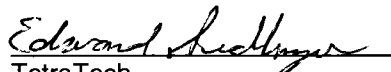
**Other Factors Affecting Data Quality:** Positive results below the reporting limit (RL) and above the method detection limit (MDL) were qualified as estimated, (J), due to uncertainty near the detection limit.

TO: D. BRAYAK  
SDG: 1203669

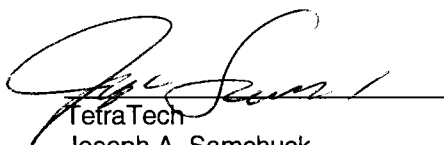
PAGE: 3

The data for these analyses were reviewed with reference to the EPA National Functional Guidelines for Organic Data Validation (10/99), USEPA Region II Standard Operating Procedures for Validating Air Samples Volatile Organic Analysis of Ambient Air In Canister by Method TO-15 HW-31 Revision #4 (October 2006) 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.



TetraTech  
Edward Sedlmyer  
Chemist/Data Validator



TetraTech  
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 ( $< 2 \times$  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-VPB131-AIR-032912	
SDG: 1203669	LAB_ID	1203669-01A	
FRACTION: OV-M3	SAMP_DATE	3/29/2012	
MEDIA: AIR	QC_TYPE	NM	
	UNITS	UG/M3	
	PCT_SOLIDS	199.0	
	DUP_OF		
PARAMETER	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE	0.36	U	
1,1,2,2-TETRACHLOROETHANE	0.46	U	
1,1,2-TRICHLOROETHANE	0.36	U	
1,1,2-TRICHLOROTRIFLUOROETHANE	0.48	J	P
1,1-DICHLOROETHANE	0.54	U	
1,1-DICHLOROETHENE	0.53	U	
1,2,4-TRICHLOROBENZENE	5	U	
1,2,4-TRIMETHYLBENZENE	0.66	U	
1,2-DIBROMOETHANE	0.51	U	
1,2-DICHLOROBENZENE	0.4	U	
1,2-DICHLOROETHANE	0.54	U	
1,2-DICHLOROPROPANE	0.62	U	
1,2-DICHLOROTETRAFLUROETHANE	0.47	U	
1,3,5-TRIMETHYLBENZENE	0.66	U	
1,3-DICHLOROBENZENE	0.4	U	
1,4-DICHLOROBENZENE	0.4	U	
1,4-DIOXANE	0.48	U	
2,2,4-TRIMETHYLPENTANE	0.62	U	
2-BUTANONE	0.47	J	P
4-METHYL-2-PENTANONE	0.55	U	
BENZENE	0.44		
BENZYL CHLORIDE	0.69	U	
BROMDICHLOROMETHANE	0.45	U	
BROMOFORM	0.69	U	
BROMOMETHANE	0.52	U	
CARBON TETRACHLORIDE	0.42	J	P
CHLOROBENZENE	0.62	U	
CHLORODIBROMOMETHANE	0.57	U	
CHLOROETHANE	1.8	U	
CHLOROFORM	0.072	J	P
CHLOROMETHANE	1		
CIS-1,2-DICHLOROETHENE	0.53	U	
CIS-1,3-DICHLOROPROPENE	0.61	U	
CYCLOHEXANE	0.46	U	
DICHLORODIFLUOROMETHANE	2.6		

PROJ_NO: 02751	NSAMPLE	BP-VPB131-AIR-032912	
SDG: 1203669	LAB_ID	1203669-01A	
FRACTION: OV-M3	SAMP_DATE	3/29/2012	
MEDIA: AIR	QC_TYPE	NM	
	UNITS	UG/M3	
	PCT_SOLIDS	199.0	
	DUP_OF		
PARAMETER	RESULT	VQL	QLCD
ETHANOL	2		
ETHYLBENZENE	0.58	U	
HEXACHLOROBUTADIENE	7.1	U	
HEXANE	0.18	J	P
M+P-XYLENES	0.18	J	P
METHYL TERT-BUTYL ETHER	0.48	U	
METHYLENE CHLORIDE	0.27	U	A
O-XYLENE	0.58	U	
STYRENE	0.57	U	
TERTIARY-BUTYL ALCOHOL	2	U	
TETRACHLOROETHENE	0.45	U	
TOLUENE	0.51		
TRANS-1,2-DICHLOROETHENE	0.53	U	
TRANS-1,3-DICHLOROPROPENE	0.61	U	
TRICHLOROETHENE	0.36	U	
TRICHLOROFLUOROMETHANE	1.2		
VINYL CHLORIDE	0.34	U	

PROJ_NO: 02751	NSAMPLE	BP-VPB131-AIR-032912	
SDG: 1203669	LAB_ID	1203669-01A	
FRACTION: OV-V	SAMP_DATE	3/29/2012	
MEDIA: AIR	QC_TYPE	NM	
	UNITS	PPBV	
	PCT_SOLIDS	199.0	
	DUP_OF		
PARAMETER	RESULT	VQL	QLCD
ACETONE	1.4	NJ	Z1
ISOBUTANE	0.74	NJ	Z1

**Section 7**

**VPB 131 Detected Compounds Table**



**VALIDATED ANALYTICAL DATA  
DETECTED COMPOUNDS FOR VERTICAL PROFILE BORING 131  
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT  
BETHPAGE, NEW YORK**

No.	Sample ID	Depth (feet bgs) <sup>1</sup>	Analysis Type	Total VOCs (µg/L) <sup>2</sup>	TCE	1,1-DCA	1,1-DCE	1,1,2-TCA	Chloroform	Cis-1,2-DCE	Chloro methane	Ace.	Freon 12	Freon 113	Carbon Disulfide	Carbon Tetrachloride	Methylene Chloride	tert BME
1	BP-VPB131-GW-068	68	AQ	ND														
2	BP-VPB131-GW-118	118	AQ	1.41	0.81 J					0.6 J								710
3	BP-VPB131-GW-168	168	AQ	ND								12						
4	BP-VPB131-GW-208	208	AQ	8.71	3.4	3.3	1.2		0.81 J									
5	BP-VPB131-GW-228	228	AQ	2.8	1.2	1.6												
6	BP-VPB131-GW-248	248	AQ	3.7	2.5	1.2												
7	BP-VPB131-GW-268	268	AQ	ND								5 J						
8	BP-VPB131-GW-288	288	SO3	ND								14 J						
9	BP-VPB131-GW-308	308	SO3	ND								40 J						
10	BP-VPB131-GW-328	328	AQ	ND														
11	BP-VPB131-GW-348	348	AQ	ND								5.8						
12	BP-VPB131-GW-368	368	SO3	ND								24 J			2.8 J			
13	BP-VPB131-GW-388	388	AQ	ND								3.9 J						
14	BP-VPB131-GW-408	408	AQ	ND								3.2 J						
15	BP-VPB131-GW-428	428	SO3	ND								17 J					5.5	
16	BP-VPB131-GW-448	448	AQ	ND								6.4						
17	BP-VPB131-GW-468	468	AQ	ND								2.1 J						
18	BP-VPB131-GW-488	488	AQ	ND								6.5						
19	BP-VPB131-GW-508	508	SO3	ND								78 J						
20	BP-VPB131-GW-528	528	AQ	ND								12						
21	BP-VPB131-GW-548	548	AQ	ND								5.1						
22	BP-VPB131-GW-568	568	AQ	ND								14						
23	BP-VPB131-GW-588	588	AQ	ND								8.5						
24	BP-VPB131-GW-608	608	SO3	ND								18 J						
25	BP-VPB131-GW-618	618	SO3	ND								26						
26	BP-VPB131-GW-628	628	SO3	ND								19 J						
27	BP-VPB131-GW-638	638	SO3	ND								16 J						
28	BP-VPB131-GW-648	648	SO3	ND							1 J							
29	BP-VPB131-GW-663	663	SO3	ND							1.9 J							
30	BP-VPB131-GW-693	693	SO3	ND														
31	BP-VPB131-GW-703	703	AQ	64.52	61			0.52 J	1.8	1.2			0.56 J	2.2		2.1		
32	BP-VPB131-GW-723	723	AQ	ND														
33	BP-VPB131-GW-743	743	SO3	ND														
34	BP-VPB131-GW-763	763	SO3	ND														
35	BP-VPB131-GW-783	783	SO3	ND														
36	BP-VPB131-GW-808	808	SO3	ND														
37	BP-VPB131-GW-823	823	AQ	ND														
38	BP-VPB131-GW-843	843	AQ	ND								34					2.3 J	

**Notes:**

bgs: Below ground surface

µg/L: micrograms per liter

J: Estimated Value

ND: Not detected

TCE: Trichloroethene

1,1-DCA: 1,1-Dichloroethane

1,1-DCE: 1,1-Dichloroethene

1,1,2-TCA: 1,1,2-Trichloroethane

cis-1,2-DCE: 1,2-Dichloroethene

Ace.: Acetone

tert BME: tert. ButylMethylEther

<sup>1</sup> 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 direction of the site

<sup>2</sup> TCE, PCE, 1,1-DCA, 1,1-DCE, 1,2-DCA, Cis-1,2-DCE, and chloroform used to calculate Total VOCs

<sup>3</sup> Results are reported as a soil on a wet weight basis (microgram per kilogram)

**Section 8**  
**Survey**

VBP-131 coordinates surveyed with Trimble® GPS on September 12, 2012.

Coordinate system: NAD83 New York State Plane

199851.40 N

1126448.18 E