From: "Stan Carey" <scarey@massapequawater.com>
To: "Fly, Lora B CIV NAVFAC MIDLANT, IPTNE" <lora.fly@navy.mil>, "'Brayack, ...
CC: "'Steven Scharf'" <sxscharf@gw.dec.state.ny.us>, "'Jim Harrington'" <jbh...
Date: 2/15/2012 7:17 PM
Subject: RE: Request for Information
Attachments: VPB 133 Results.xlsx

Ms. Fly,
Thank you for the prompt response. I already received the file from Mr. Brayack but have not downloaded it yet. Attached are the VPB 133 sample results. It appears that the plume has reached VPB 133 at the shallower depths. I would appreciate your data when available. Thank you.

Stan Carey, Superintendent
Massapequa Water District

-----Original Message-----
From: Fly, Lora B CIV NAVFAC MIDLANT, IPTNE [mailto:lora.fly@navy.mil]
Sent: Wednesday, February 15, 2012 3:42 PM
To: Stan Carey
Cc: Paul Granger; Steven Scharf; Brayack, David
Subject: RE: Request for Information

Mr. Carey,
I have asked Dave Brayack to send you the report that contains the requested information for VPB 121-126 through the file transfer system. The report is approximately 121 Megs. The report for VPB 128 is being finalized so I will send that information to you next week.
Could you please send me the data you collected for VPB 133? Currently, our data is undergoing validation. I will send our data for VPB 133 to you when it is available.
Thank-you,

Lora Fly
Remedial Program Manager
NAVFAC Mid-Atlantic
Northeast IPT
Phone: 757-341-2012
Fax: 757-341-2096
DSN: 341-2012

-----Original Message-----
From: Stan Carey [mailto:scarey@massapequawater.com]
Sent: Wednesday, February 15, 2012 14:55
To: Fly, Lora B CIV NAVFAC MIDLANT, IPTNE
Cc: Paul Granger; 'Steven Scharf'
Subject: Request for Information

Ms Fly:

I am in the process of updating our records and maps with regard to the Bethpage plume. Could you please forward me the latest information on the VPB's upgradient of the Aqua NY and South Farmingdale public supply wells? I believe they are identified as VPB 124, 125,126, and 128 but I am not certain. I would need the physical location, depths, and sampling results

for each depth taken. I would greatly appreciate this information when possible. If you require a more formal (FOIL) request I can have our Attorney prepare the request. Thank you.

Stan Carey, Superintendent

Massapequa Water District

VPB-133																	
Sample Depth (feet bgs):	**114 ft**	**150 ft**	**194 ft**	**234 ft**	**254 ft**	**274 ft**	**294 ft**	**314 ft**	**334 ft**	**354 ft**	**374 ft**	**414 ft**	**434 ft**	**454 ft**	**474 ft**	**494 ft**	
Date collected:	1/4/2012	1/5/2012	1/6/2012	1/9/2012	1/9/2012	1/10/2012	1/10/2012	1/10/2012	1/11/2012	1/11/2012	1/11/2012	1/12/2012	1/12/2012	1/13/2012	1/13/2012	1/13/2012	
Parameter																	
Dichlorodifluoromethane	BDL	BDL	BDL	0.70	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
1,1-Dichloroethene (DCE)	BDL	0.51	BDL	0.59	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
1,1-Dichloroethane (DCA)	BDL	1.30	BDL	2.80	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
cis-1,2-Dichloroethene (DCE)	BDL	BDL	BDL	1.60	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
1,1,1-Trichloroethane (TCA)	BDL	1.70	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
Trichloroethene (TCE)	BDL	1.40	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
1,2-Dichloropropane	BDL	0.81	BDL	2.00	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
Tetrachloroethene(PCE)	BDL	1.30	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
1,2,3-Trichloropropane (TCP)	BDL	0.67	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
Methyl tert-butyl ether (MTBE)	BDL	2.60	BDL	7.70	5.20	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
Perchlorate	BDL	2.10	NT	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	

All results are reported in ppb
BDL - below detection limits
bgs - below grade surface
NT - not tested

VPB-133																	
Sample Depth (feet bgs):	**514 ft**	**534 ft**	**554 ft**	**574 ft**	**614 ft**	**634 ft**	**654 ft**	**694 ft**	**704 ft**	**714 ft**	**734 ft**	**744 ft**	**754 ft**	**764 ft**	**784 ft**	**808 ft**	
Date collected:	1/16/2012	1/16/2012	1/17/2012	1/17/2012	1/18/2012	1/18/2012	1/18/2012	1/20/2012	1/20/2012	1/23/2012	1/23/2012	1/24/2012	1/24/2012	1/24/2011	1/25/2012	1/26/2012	
Parameter																	
Dichlorodifluoromethane	BDL	BDL	BDL	NA	NA	BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,1-Dichloroethene (DCE)	BDL	BDL	BDL	NA	NA	BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,1-Dichloroethane (DCA)	BDL	BDL	BDL	NA	NA	BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
cis-1,2-Dichloroethene (DCE)	BDL	BDL	BDL	NA	NA	BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,1,1-Trichloroethane (TCA)	BDL	BDL	BDL	NA	NA	BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Trichloroethene (TCE)	BDL	BDL	BDL	NA	NA	BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,2-Dichloropropane	BDL	BDL	BDL	NA	NA	BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Tetrachloroethene(PCE)	BDL	BDL	BDL	NA	NA	BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,2,3-Trichloropropane (TCP)	BDL	BDL	BDL	NA	NA	BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Methyl tert-butyl ether (MTBE)	BDL	BDL	BDL	NA	NA	BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Perchlorate	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

All results are reported in ppb
BDL - below detection limits
bgs - below grade surface
NT - not tested
NA - Not analyzable. VOA analysis NA due to no liquid in vials

VPB-133																	
Sample Depth (feet bgs):	**814 ft**	**824 ft**	**834 ft**	**844 ft**	**854 ft**	**864 ft**	**874 ft**	**884 ft**	**904 ft**	**938 ft**	**958 ft**	**974 ft**					
Date collected:	1/26/2012	1/27/2012	1/27/2012	1/30/2012	1/30/2012	1/31/2012	1/31/2012	1/31/2012	2/1/2012	2/2/2012	2/2/2012	2/3/2012					
Parameter																	
Dichlorodifluoromethane	NA	BDL	BDL	NA	NA	BDL	NA	NA	NA	NA	NA	BDL					
1,1-Dichloroethene (DCE)	NA	BDL	BDL	NA	NA	BDL	NA	NA	NA	NA	NA	BDL					
1,1-Dichloroethane (DCA)	NA	BDL	BDL	NA	NA	BDL	NA	NA	NA	NA	NA	BDL					
cis-1,2-Dichloroethene (DCE)	NA	BDL	BDL	NA	NA	BDL	NA	NA	NA	NA	NA	BDL					
1,1,1-Trichloroethane (TCA)	NA	BDL	BDL	NA	NA	BDL	NA	NA	NA	NA	NA	BDL					
Trichloroethene (TCE)	NA	BDL	BDL	NA	NA	BDL	NA	NA	NA	NA	NA	BDL					
1,2-Dichloropropane	NA	BDL	BDL	NA	NA	BDL	NA	NA	NA	NA	NA	BDL					
Tetrachloroethene(PCE)	NA	BDL	BDL	NA	NA	BDL	NA	NA	NA	NA	NA	BDL					
1,2,3-Trichloropropane (TCP)	NA	BDL	BDL	NA	NA	BDL	NA	NA	NA	NA	NA	BDL					
Methyl tert-butyl ether (MTBE)	NA	BDL	BDL	NA	NA	BDL	NA	NA	NA	NA	NA	BDL					
Perchlorate	NA	BDL	BDL	NA	NA	BDL	NA	NA	NA	NA	NA	BDL					

All results are reported in ppb
BDL - below detection limits
bgs - below grade surface
NT - not tested
NA - Not analyzable. VOA analysis NA due to no liquid in vials

TCE is used mainly in dry cleaning and in metal-degreasing operations, but is also used as a solvent for waxes, fats, resins, and oils, and in numerous other fumigant, disinfectant, and extractant of spice oleoresins in food and of caffeine in the production of decaffeinated coffee. The chemical in anaerobic ground water may degrade to more toxic compounds, including **vinyl chloride**. **1,1,1-TCA** is commonly found in building materials, cleaning products, paints, aerosol sprays and metal degreasing agents. **1,1-DCE** is used in making adhesives, synthetic fibers, refrigerants, food packaging and coating resins such as the saran types. It is also used to make flame retardant coatings for fiber and carpet backings, and in piping, coating for steel pipes, and in adhesive applications. **1,1-DCA** has limited use as a solvent for extraction, degreasing, plastics, oils, & fats and as an intermediate in the manufacture of other products such as **vinyl chloride; 1, 1, 1 TCA**; and high vacuum rubber.

Chloroform, bromodichlromethane, chlrodibromethane, dibromochlromethane and bromoform are trihalomethanes (THMs) that generally form when chlorine is added to water in the presence of certain precursors. It should be noted that presence of **chlorofor**m, also know as **trichloromethane,** is not always indicative of disinfection byproduct formation. **Chloroform** in industrial applications is used primarily in the production of c**hlorofluorocarbon (CFC-22)** and plastics like vinyl chloride. Other uses include extraction and purification of some antibiotics, alkaloids, vitamins, and flavors. Historically, the compound has been used as a solvent in lacquers, floor polishes, artificial silk manufacture, resins, fats, greases, gums, waxes, adhesives, oils, and rubber; used as a solvent in photography and dry cleaning; used in fire extinguishers; and used in the preparation of dyes and pesticides. It also was once used as a general anesthetic in surgery but has been replaced by less toxic, safer anesthetics, such as ether. It now has limited use.

PCE has been used primarily as a solvent in dry-cleaning industries and to a lesser extent as a degreasing solvent. **Dichlorofluromethane is a chlrorofluorocarbon**, commonly know as **Freon R12**, was used as a refrigerant prior to being phased out of production. **1,3-Dichloropropane** has several industrial uses and may be found as a contaminant of soil fumigants containing **1,3-dichloropropene**.

Carbon tetrachloride is a manufactured compound that has been used in the production of refrigeration fluid and propellants for aerosol cans, as a pesticide, as a cleaning fluid and degreasing agent, in fire extinguishers, and in spot removers. Because of its harmful effects, these uses are now banned and it is only used in some industrial applications.

1,2-Dichloroethylene (1,2-DCE) is an odorless organic liquid that has two slightly different forms, a "**cis**" form and a "**trans**" form. Both the cis and trans forms (usually as a mixture) are used as a solvent for waxes and resins; in the extraction of rubber; as a refrigerant; in the manufacture of pharmaceuticals and artificial pearls; in the extraction of oils and fats from fish and meat; and in making other organics. **Tetrachloroethene (PCE)** is a colorless organic liquid with a mild, chloroform-like odor. Its greatest use is in the textile industry, and as a component of aerosol dry-cleaning products.

1,2-Dichloropropane

What is 1,2-dichloropropane?

1,2-Dichloropropane is a colorless, flammable liquid with a chloroform-like odor. It is moderately soluble in water and readily evaporates into air. It does not occur naturally in the environment.

1,2-Dichloropropane production in the United States has declined over the past 20 years. It was used in the past as a soil fumigant, chemical intermediate, and industrial solvent and was found in paint strippers, varnishes, and furniture finish removers. Most of these uses were discontinued. Today, almost all of the 1,2-dichloropropane is used as a chemical intermediate to make perchloroethylene and several other related chlorinated chemicals.

http://www.atsdr.cdc.gov/tfacts134.html

Emerging Contaminan
1,2,3-Trichloropropane (TC

September 2

At a Glance

- Colorless to straw-colored liquid.
- Not found in nature – completely man-made.
- Not likely to sorb to soil and has low solubility in water. In the pure form, likely to exist as a dense nonaqueous phase liquid (DNAPL).
- Exposure occurs from industrial settings or hazardous waste sites.
- State of California recognizes TCP as a human carcinogen. Short-term exposure may cause eye and throat irritation; long-term exposure led to kidney failure in mice.
- Federal maximum contaminant level (MCL) not established. State of Hawaii has established a state MCL of 0.6 micrograms per liter.
- Numerous methods are available for TCP detection, including gas chromatography, mass spectroscopy, and liquid-liquid extraction.
- Remediation technologies available to treat TCP contamination in ground water and soil include granular activated carbon (GAC), soil vapor extraction (SVE), and

Introduction

An "emerging contaminant" is a chemical or materia by a perceived, potential, or real threat to human he environment or a lack of published health standards also be "emerging" because a new source or a new has been discovered, or a new detection method or has been developed (DoD 2008). This fact sheet, d Environmental Protection Agency (EPA) Federal Fa and Reuse Office (FFRRO), provides a brief summa contaminant 1,2,3-trichloropropane (TCP), including chemical properties; environmental and health impa and state guidelines; detection and treatment metho additional information.

TCP is an emerging contaminant of interest to the g sector, and other parties. It is recognized by the Sta cause cancer and is a known toxin. The State of Ha a state maximum contaminant level (MCL) of 0.6 mi (µg/L). This fact sheet is intended for use by site ma field personnel in addressing TCP contamination at drinking water supplies.

What is TCP?

- TCP is a chlorinated hydrocarbon (Stepek 2003
- Synonyms include allyl trichloride, glycerol trichl trichlorohydrin (OSHA 2008).
- TCP is exclusively a man-made chemical, typica or hazardous waste sites (Dombeck and Borg 2
- TCP has been used as an industrial solvent, as degreasing agent, and in the production of pesti TOSC 2004).
- TCP is currently used as a chemical intermediat other chemicals (including polysulfone liquid pol dichloropropene), and in the synthesis of hexafl addition, it is used as a crosslinking agent in the polysulfides (DHHS 2005).

soil vapor extraction (SVE), and others.

- TCP is typically found at industrial or hazardous

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e (TCP)
tember 2009

FACT SHEET

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or material that is characterized
human health or the
standards. A contaminant may
e or a new pathway to humans
method or treatment technology
ct sheet, developed by the U.S.
Federal Facilities Restoration
ief summary of the emerging
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State of Hawaii has established
) of 0.6 micrograms per liter
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EPA 505-F-09-010
September 2009