Steven Scharf - NGC Phase 2 RI Work Plan Addendum #2

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Date: 6/21/2006 12:38 PM
Subject: NGC Phase 2 RI Work Plan Addendum #2
CC: "San Giovanni, Carlo" <CSanGiovanni@arcadis-us.com>, "Wolfert, Mike" <MW...
Attachments: phase12 vpb data fn.pdf; phase12 vpb data.pdf

Steve:

We have received the NYSDEC approval of the above and appreciate the expedited review. As discussed, ARCADIS had initiated drilling of some new VPBs to keep the RI field program on schedule.

As requested in the approval, ARCADIS is providing a discussion of results and recommendations based on the data obtained so that we can obtain NYSDEC input as to the need for the contingency VPBs. As stated in Work Plan Addendum #2, one goal of the VPBs is to assess potential source-strength VOC concentrations in groundwater on site, with the contingency VPBs drilled to determine site boundary source strength VOC concentrations, if such concentrations were found in the primary, upgradient VPBs. As of today, VP-18A and VP-28A have been drilled at prior locations of VP-18 and VP-28, respectively (see Figure 1 provided with Work Plan Addendum #2). Based on the results from VP-18A, associated contingency VPB-10A, was drilled and sampled at the former location of VP-10. Attached are the preliminary data from VP-10, VP-10A, VP-18, VP-18A, VP-28, and VP-28A for consideration.

Based on the results from VP-18A and VP-10A, ARCADIS does not recommend drilling of VP-4A since source strength VOCs at the site boundary were succesfully delineated by drilling and sampling of VP-10A. Based on the results from VP-28A, ARCADIS does not recommend drilling of VP-2A since source strength VOCs were not identified at VP-28A.

Please let me know if there is concurrence with these recommendations.

<<phase12 vpb data fn.pdf>> <<phase12 vpb data.pdf>>

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Table 1. Summary of VOC Concentrations in Groundwater for Additional On-Site Vertical Profile Borings, Phase 2 Remedial Investigation, Former Grumman Settling Ponds (Operable Unit 3 - Bethpage Community Park), Bethapge, New York.

CONSTITUENT (units in ug/L)	NYSDEC SCGs	Sample ID: / Depth bls: / Date:	VP-10A (50-55) 6/13/2006	VP-10A (55-60) 6/13/2006	VP-10A (60-65) 6/13/2006	VP-10 (65-70) 08/23/2004	VP-10 (85-90) 08/20/2004	VP-10 (105-110) 08/20/2004	VP-10 (125-130) 08/19/2004	VP-10 (145-150) 08/19/2004	VP-18A (50-55) 6/7/2006	VP-18A (55-60) 6/7/2006
Site-Related VOCs												
1,1,1-Trichoroethane	5		<5	<5	<5	**0.7**	<5	<5	<5	<5	**5**	**15**
1,1,2-Trichloroethane	1		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1-Dichloroethane	5		<5	<5	<5	**2**	<5	<5	<5	<5	**5 J**	**12**
1,1-Dichloroethene	5		<5	<5	<5	**1**	<5	<5	<5	<5	**5 J**	**15**
1,2-Dichloroethane	0.6		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Carbon disulfide	50		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Carbon tetrachloride	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chlorodifluoromethane	NE		<5	<5	<5					. . .	<5	<5
Chloroethane	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chloroform	5		<5	<5	**1 J**	**2**	**11**	**5**	**8**	**2 J**	**1 J**	**0.5 J**
cis-1,2-Dichloroethene	5		**1 J**	**3**	**12**	**160**	**15 J**	**2**	**2 J**	**4 J**	**1500 D**	**2800 D**
cis-1,3-Dichlorpropene	0.4		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Dichlorodifluoromethane	5		<5	<5	<5	. . .	. . .	. . .	. . .	. . .	<5	<5
trans-1,2-Dichloroethene	5		<5	<5	**0.4 J**	<5	<5	<5	<5	<5	**4 J**	**10**
trans-1,3-Dichloropropene	NE		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Tetrachloroethene	5		<5	<5	<5	**4**	<5	<5	<5	<5	**0.7 J**	**0.8 J**
Trichloroethene	5		**5**	**11**	**26**	**47**	**13 J**	**6**	**4 J**	**6**	**59**	**120**
Trichlorotrifluoroethane	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl Chloride	2		<5	<5	<5	<2	<2	<2	<2	<2	<2	<2
Other VOCs			<5	<5	<5							
Ethylbenzene	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2-Dichloropropane	1		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Xylenes	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Toluene	5		<5	**0.4 J**	<5	<5	<5	<5	<5	<5	<5	<5
2-Butanone (MEK)	50		<5	<5	<5	<10	<10	<10	<10	<10	<10	<10
Acetone	50		**9 J**	<5	<5	<10	<10	<10	<10	<10	**7 J**	<10
Bromomethane	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Methylene Chloride	50		<5	<5	<5	<5	<5	<5	<5	<5	**1 JB**	**1 JB**
Chloromethane	NE		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-Methyl-2-pentanone (MIBK)	NE		<5	<5	<5	<10	<10	<10	<10	<10	<10	<10
Benzene	1		<5	<5	<5	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7
1,1,2,2-Tetrachloroethane	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-Hexanone	NE		<5	<5	<5	<5	<5	<5	<5	<5	<10	<10
Bromodichloromethane	NE		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Bromoform	NE		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chlorobenzene	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Dibromochloromethane	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Styrene	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl Acetate	NE		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Total VOCs	**--**		**15**	**14**	**39**	**217**	**39**	**13**	**14**	**12**	**1,588**	**2,974**

See footnotes on last page.

Table 1. Summary of VOC Concentrations in Groundwater for Additional On-Site Vertical Profile Borings, Phase 2 Remedial Investigation, Former Grumman Settling Ponds (Operable Unit 3 - Bethpage Community Park), Bethapge, New York.

CONSTITUENT (units in ug/L)	NYSDEC SCGs	Sample ID: / Depth bls: / Date:	VP-18A (60-65) 6/6/2006	VP-18 (65-70) 11/30/2004	VP-18 (75-80) 11/30/2004	VP-18 (85-90) 11/29/2004	VP-18 (95-100) 11/29/2004	VP-18 (105-110) 11/23/2004	VP-28A (53-58) 6/5/2006	VP-28 (57-62) 6/20/2005	VP-28 (62-67) 6/20/2005	VP-28 (73-78) 6/20/2005
Site-Related VOCs												
1,1,1-Trichoroethane	5		**23**	**11**	<5	<5	<5	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	1		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1-Dichloroethane	5		**20**	**12**	**4** J	<5	<5	<5	**4** J	**10**	<5	<5
1,1-Dichloroethene	5		**20**	**10**	<5	<5	<5	<5	<5	**1** J	<5	<5
1,2-Dichloroethane	0.6		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Carbon disulfide	50		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Carbon tetrachloride	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chlorodifluoromethane	NE		<5						<5			
Chloroethane	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chloroform	5		**0.5** J	**3** J	**3** J	**4** J	**7**	**6**	<5	**2** J	**2** J	**1** J
cis-1,2-Dichloroethene	5		**3800** D	**2800** D	**36**	**5**	**4** J	**2** J	**130**	**190**	**6**	**3** J
cis-1,3-Dichlorpropene	0.4		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Dichlorodifluoromethane	5		<5						<5			
trans-1,2-Dichloroethene	5		**13**	**8**	<5	<5	<5	<5	<5	**0.6** J	<5	<5
trans-1,3-Dichloropropene	NE		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Tetrachloroethene	5		**2** J	**1** J	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethene	5		**300** D	**150** D	**22**	**5**	**9**	**3** J	**46**	**110**	**11**	**6**
Trichlorotrifluoroethane	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl Chloride	2		**1** J	**0.8** J	<2	<2	<2	<2	**0.9** JM	<2	<2	<2
Other VOCs												
Ethylbenzene	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2-Dichloropropane	1		<5	**1** J	<5	<5	<5	<5	<5	<5	<5	<5
Xylenes	5		<5	<5	<5	<5	<5	<5	**1** J	<5	<5	<5
Toluene	5		**0.3** J	<5	<5	<5	<5	<5	**1** J	<5	**0.4** J	<5
2-Butanone (MEK)	50		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Acetone	50		<10	<10	<10	<10	<10	<10	**10**	<10	<10	**4** J
Bromomethane	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Methylene Chloride	50		**2** JB	<5	<5	<5	<5	<5	**2** JB	<5	<5	<5
Chloromethane	NE		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-Methyl-2-pentanone (MIBK)	NE		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Benzene	1		<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7
1,1,2,2-Tetrachloroethane	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-Hexanone	NE		<10	<5	<5	<5	<5	<5	<10	<10	<10	<10
Bromodichloromethane	NE		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Bromoform	NE		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chlorobenzene	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Dibromochloromethane	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Styrene	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl Acetate	NE		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Total VOCs	**--**		**4,182**	**2,997**	**65**	**14**	**20**	**11**	**194.9**	**313.6**	**19.4**	**14**

See footnotes on last page.

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CONSTITUENT (units in ug/L)	NYSDEC SCGs	Sample ID: / Depth bls: / Date:	VP-28 (95-100) 6/17/2005		VP-28 (105-110) 6/17/2005	
Site-Related VOCs						
1,1,1-Trichoroethane	5		<5		<5	
1,1,2-Trichloroethane	1		<5		<5	
1,1-Dichloroethane	5		<5		<5	
1,1-Dichloroethene	5		<5		<5	
1,2-Dichloroethane	0.6		<5		<5	
Carbon disulfide	50		<5		<5	
Carbon tetrachloride	5		<5		<5	
Chlorodifluoromethane	NE					
Chloroethane	5		<5		<5	
Chloroform	5		**4**	**J**	**3**	**J**
cis-1,2-Dichloroethene	5		**0.9**	**J**	**0.9**	**J**
cis-1,3-Dichlorpropene	0.4		<5		<5	
Dichlorodifluoromethane	5					
trans-1,2-Dichloroethene	5		<5		<5	
trans-1,3-Dichloropropene	NE		<5		<5	
Tetrachloroethene	5		<5		<5	
Trichloroethene	5		**1**	**J**	**1**	**J**
Trichlorotrifluoroethane	5		<5		<5	
Vinyl Chloride	2		<2		<2	
Other VOCs						
Ethylbenzene	5		<5		<5	
1,2-Dichloropropane	1		<5		<5	
Xylenes	5		<5		<5	
Toluene	5		<5		<5	
2-Butanone (MEK)	50		<10		<10	
Acetone	50		<10		<10	
Bromomethane	5		<5		<5	
Methylene Chloride	50		<5		<5	
Chloromethane	NE		<5		<5	
4-Methyl-2-pentanone (MIBK)	NE		<10		<10	
Benzene	1		<0.7		<0.7	
1,1,2,2-Tetrachloroethane	5		<5		<5	
2-Hexanone	NE		<10		<10	
Bromodichloromethane	NE		<5		<5	
Bromoform	NE		<5		<5	
Chlorobenzene	5		<5		<5	
Dibromochloromethane	5		<5		<5	
Styrene	5		<5		<5	
Vinyl Acetate	NE		<5		<5	
Total VOCs	**--**		**5.9**		**4.9**	

See footnotes on last page.

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ug/L	Micrograms per liter.
(1)	Data obtained from Table B-5, Investigation Sampling Program, Bethpage Community Park (Dvirka & Bartilucci, 2003).
	Exceeds associated SCG value.
Bold	Detected compound.
bls	below land surface
NYSDEC SCG	New York State Department of Environmental Conservation Standards Criteria and Guidance Values.
NE	Not Established.
. . .	Not Analyzed.
J	Estimated value.
B	Detected in associated blank.
D	Constituent quantified at a secondary dilution.