Table 1
1H2018 Surface Water Validated Results
American Cyanamid Superfund Site
Bridgewater Township, New Jersey

						Location ID	CB-02				CB-03				CB-04				CB-05				CB-06				CB-08			
						Sample Date	5/9/2018				5/9/2018				5/10/2018				5/10/2018				5/10/2018				5/10/2018			
						N=Normal, FD=Field Duplicate	N				N				N				N				N				N			
Parameter	Unit	**NJDEP SWQC HH[1]**	**NJDEP SWQC ECO[2]**	NWQC HH1[3]	**NWQC HH2[4]**	*NJGWQS[5]*	Result	Qual	MDL	RL	Result	Qual	MDL	RL	Result	Qual	MDL	RL	Result	Qual	MDL	RL	Result	Qual	MDL	RL	Result	Qual	MDL	RL
Volatile Organic Compounds																														
1,2-Dichlorobenzene	ug/L	2000	NS	420	1300	600	0.32	J	0.22	1	0.24	J	0.22	1	0.31	J	0.22	1	0.41	J	0.2	1	< 1	U	0.2	1	< 1	U	0.2	1
1,4-Dichlorobenzene	ug/L	550	NS	63	190	75	< 1	U	0.33	1	< 1	U	0.33	1	< 1	U	0.33	1	< 1	U	0.3	1	< 1	U	0.3	1	< 1	U	0.3	1
Benzene	ug/L	0.15	NS	2.1	58	1	0.55	J	0.09	1	*1.1*		0.09	1	*2.6*		0.09	1	*5.7*		0.1	1	0.19	J	0.1	1	< 1	U	0.1	1
Chlorobenzene	ug/L	210	NS	130	1600	50	1		0.24	1	1.5		0.24	1	1.9		0.24	1	2.8		0.2	1	0.9	J	0.2	1	< 1	U	0.2	1
Naphthalene	ug/L	NS	NS	NS	NS	300	2.4		0.26	1	2.8		0.26	1	< 1	U	0.26	1	< 1	U	0.3	1	< 1	U	0.3	1	< 1	U	0.3	1
Toluene	ug/L	1300	NS	1300	15000	600	< 1	U	0.25	1	< 1	U	0.25	1	0.42	J	0.25	1	0.38	J	0.3	1	0.31	J	0.3	1	< 1	U	0.3	1
Xylenes, Total	ug/L	NS	NS	NS	NS	1000	< 2	U	0.28	2	< 2	U	0.28	2	< 2	U	0.28	2	< 2	U	0.3	2	< 2	U	0.3	2	< 2	U	0.3	2
Semivolatile Organic Compounds																														
2-Methylnaphthalene	ug/L	NS	NS	NS	NS	30	< 10	U	1.1	10	< 10	U	1.1	10	< 10	UJ	1.1	10	< 10	UJ	1.1	10	< 10	UJ	1.1	10	< 10	UJ	1.1	10
Aniline	ug/L	NS	NS	NS	NS	6	< 10	U	0.5	10	< 10	U	0.5	10	< 10	U	0.5	10	< 10	U	0.5	10	< 10	U	0.5	10	< 10	U	0.5	10
Nitrobenzene	ug/L	17	NS	17	690	6	< 1	U	0.57	1	< 1	U	0.57	1	< 1	U	0.57	1	< 1	U	0.6	1	< 1	U	0.6	1	< 1	U	0.6	1
N-Nitrosodiphenylamine	ug/L	3.3	NS	3.3	6	10	< 10	U	0.89	10	< 10	U	0.89	10	< 10	U	0.89	10	< 10	U	0.9	10	< 10	U	0.9	10	< 10	U	0.9	10
Total Metals																														
Aluminum	ug/L	NS	NS	NS	NS	200	NA				NA				NA				NA				NA				NA			
Arsenic	ug/L	0.017	NS	0.018	0.14	3	NA				NA				NA				NA				NA				NA			
Barium	ug/L	2000	NS	1000	NS	6000	NA				NA				NA				NA				NA				NA			
Cadmium	ug/L	3.4	NS	5	NS	4	NA				NA				NA				NA				NA				NA			
Chromium	ug/L	92	NS	100	NS	70	NA				NA				NA				NA				NA				NA			
Cobalt	ug/L	NS	NS	NS	NS	100	NA				NA				NA				NA				NA				NA			
Copper	ug/L	1300	NS	1300	NS	1300	NA				NA				NA				NA				NA				NA			
Iron	ug/L	NS	NS	NS	NS	300	NA				NA				NA				NA				NA				NA			
Lead	ug/L	5	NS	NS	NS	5	NA				NA				NA				NA				NA				NA			
Manganese	ug/L	NS	NS	50	100	50	NA				NA				NA				NA				NA				NA			
Mercury	ug/L	0.05	NS	NS	NS	2	NA				NA				NA				NA				NA				NA			
Vanadium	ug/L	NS	NS	NS	NS	NS	NA				NA				NA				NA				NA				NA			
Zinc	ug/L	7400	NS	7400	26000	2000	NA				NA				NA				NA				NA				NA			
Dissolved Metals																														
Aluminum	ug/L	NS	NS	NS	NS	200	< 40	U	15	40	< 40	U	15	40	< 40	U	15	40	< 40	U	15	40	< 40	U	15	40	< 40	U	15	40
Arsenic	ug/L	NS	150	NS	NS	3	1.2	J	0.77	2	1.2	J	0.77	2	1	J	0.77	2	0.77	J	0.8	2	0.77	J	0.8	2	< 2	U	0.8	2
Barium	ug/L	NS	NS	NS	NS	6000	72		1.1	4	69.9		1.1	4	81.4		1.1	4	79.2		1.1	4	73.1		1.1	4	71.2		1.1	4
Cadmium	ug/L	NS	CALC	NS	NS	4	< 2	U	0.61	2	< 2	U	0.61	2	< 2	U	0.61	2	< 2	U	0.6	2	< 2	U	0.6	2	< 2	U	0.6	2
Chromium	ug/L	NS	NS	NS	NS	70	< 4	U	1.3	4	< 4	U	1.3	4	< 4	U	1.3	4	< 4	U	1.3	4	< 4	U	1.3	4	< 4	U	1.3	4
Cobalt	ug/L	NS	NS	NS	NS	100	< 4	U	1.3	4	< 4	U	1.3	4	< 4	U	1.3	4	< 4	U	1.3	4	< 4	U	1.3	4	< 4	U	1.3	4
Copper	ug/L	NS	CALC	NS	NS	1300	< 4	U	1.9	4	< 4	U	1.9	4	< 4	U	1.9	4	< 4	U	1.9	4	< 4	U	1.9	4	< 4	U	1.9	4
Iron	ug/L	NS	NS	NS	NS	300	< 120	U	45.7	120	< 120	U	45.7	120	< 120	U	45.7	120	< 120	U	46	120	< 120	U	46	120	< 120	U	46	120
Lead	ug/L	NS	5.4	NS	NS	5	< 1.2	U	0.37	1.2	< 1.2	U	0.37	1.2	< 1.2	U	0.37	1.2	< 1.2	U	0.4	1.2	< 1.2	U	0.4	1.2	< 1.2	U	0.4	1.2
Manganese	ug/L	NS	NS	NS	NS	50	*186*		2.7	8	*80.2*		2.7	8	*328*		2.7	8	*126*		2.7	8	*71.4*		2.7	8	29.6		2.7	8
Mercury	ug/L	NS	0.77	NS	NS	2	< 0.2	U	0.12	0.2	< 0.2	U	0.12	0.2	< 0.2	U	0.12	0.2	< 0.2	U	0.1	0.2	< 0.2	U	0.1	0.2	< 0.2	U	0.1	0.2
Vanadium	ug/L	NS	NS	NS	NS	NS	< 4	U	1.2	4	< 4	U	1.2	4	< 4	U	1.2	4	< 4	U	1.2	4	< 4	U	1.2	4	< 4	U	1.2	4
Zinc	ug/L	NS	CALC	NS	NS	2000	< 16	U	5.4	16	< 16	U	5.4	16	< 16	U	5.4	16	< 16	U	5.4	16	< 16	U	5.4	16	< 16	U	5.4	16

Checked by JAS 6/22/2018

GOLDER

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						N=Normal, FD=Field Duplicate	N				N				N				N				N				N			
Parameter	Unit	**NJDEP SWQC HH[1]**	**NJDEP SWQC ECO[2]**	NWQC HH1[3]	**NWQC HH2[4]**	*NJGWQS[5]*	Result	Qual	MDL	RL	Result	Qual	MDL	RL	Result	Qual	MDL	RL	Result	Qual	MDL	RL	Result	Qual	MDL	RL	Result	Qual	MDL	RL
General Chemistry																														
Hardness	mg/L	NS	NS	NS	NS	NS	184		5	5	186		5	5	182		5	5	176		10	10	184		10	10	180		10	10
Total Methyl Mercury	ng/l	NS	NS	NS	NS	NS	NA				NA				NA				NA				NA				NA			
Dissolved Methyl Mercury	ng/l	NS	NS	NS	NS	NS	0.19		0.02	0.1	0.2		0.02	0.1	0.21		0.02	0.1	NA				NA				NA			
Total Suspended Solids	mg/L	NS	NS	NS	NS	NS	6		0.4	0.4	13.8		0.4	0.4	15.4		0.4	0.4	3		0.4	0.4	5.8		0.4	0.4	1.9		0.4	0.4

Notes:

1. NJDEP SWQC HH is the New Jersey Department of Environmental Protection Surface Water Quality Criteria, Fresh Water (FW2) Criteria for Human Health in ug/L. Compared against Total Metals results only.
2. NJDEP SWQC ECO is the New Jersey Department of Environmental Protection Surface Water Quality Criteria, Fresh Water (FW2) Criteria for Aquatic Chronic in ug/L. Compared against Dissolved Metals results only.

3. NWQC HH1 is the National Recommended Water Quality Criteria for Human Health for the consumption of water + organism in ug/L. Maximum Contaminant Level used for cadmium and chromium as specified in the NWQC table. Compared against Total Metals results only.
4. NWQC HH2 is the National Recommended Water Quality Criteria for Human Health for the consumption of organism. Mercury and methyl mercury do not have listed surface water criteria, although a fish tissue target level has been set. Compared against Total Metals results only.
5. NJGWQS is the New Jersey Groundwater Quality Standards (N.J.A.C. 7:9C).
6. Cuckel's Brook samples are only compared to NJDEP SWQC ECO and NJGWQS.
7. Exceedances of NWQC HH1 are shown underlined. Exceedances of NJGWQS are shown in *italics*. Exceedances of any of the other three screening levels (NJDEP SWQC HH, NJDEP SWQC ECO, NWQC HH2) are shown in **bold**.

Abbreviations:
CALC = calculated standard
MDL = method detection limit
NA = not analyzed
NS = standard not available
Qual = qualifier
RL = reporting limit
Units: mg/L = milligrams per liter; ug/L = micrograms per liter; ng/L = nanograms per liter

Qualifiers:
J = estimated result
UJ = not detected above RL; RL estimated
U = not detected above RL

Checked by JAS 6/22/2018

Table 1
1H2018 Surface Water Validated Results
American Cyanamid Superfund Site
Bridgewater Township, New Jersey

						Location ID	CB-09				CB-10				MB-01				MS-01				RR-01				RR-03			
						Sample Date	5/10/2018				5/10/2018				5/8/2018				5/9/2018				5/8/2018				5/8/2018			
						N=Normal, FD=Field Duplicate	N				N				N				N				N				FD			
Parameter	Unit	**NJDEP SWQC HH[1]**	**NJDEP SWQC ECO[2]**	NWQC HH1[3]	**NWQC HH2[4]**	*NJGWQS[5]*	Result	Qual	MDL	RL	Result	Qual	MDL	RL	Result	Qual	MDL	RL	Result	Qual	MDL	RL	Result	Qual	MDL	RL	Result	Qual	MDL	RL
Volatile Organic Compounds																														
1,2-Dichlorobenzene	ug/L	2000	NS	420	1300	600	< 1	U	0.2	1	< 1	U	0.2	1	< 1	U	0.2	1	< 1	U	0.2	1	< 1	U	0.22	1	< 1	U	0.22	1
1,4-Dichlorobenzene	ug/L	550	NS	63	190	75	< 1	U	0.3	1	< 1	U	0.3	1	< 1	U	0.3	1	< 1	U	0.3	1	< 1	U	0.33	1	< 1	U	0.33	1
Benzene	ug/L	0.15	NS	2.1	58	1	< 1	U	0.1	1	< 1	U	0.1	1	< 1	U	0.1	1	< 1	U	0.1	1	< 1	U	0.09	1	**0.29**	J	0.09	1
Chlorobenzene	ug/L	210	NS	130	1600	50	< 1	U	0.2	1	< 1	U	0.2	1	< 1	U	0.2	1	< 1	U	0.2	1	< 1	U	0.24	1	< 1	U	0.24	1
Naphthalene	ug/L	NS	NS	NS	NS	300	< 1	U	0.3	1	< 1	U	0.3	1	< 1	U	0.3	1	< 1	U	0.3	1	< 1	U	0.26	1	< 1	U	0.26	1
Toluene	ug/L	1300	NS	1300	15000	600	< 1	U	0.3	1	< 1	U	0.3	1	< 1	U	0.3	1	< 1	U	0.3	1	< 1	U	0.25	1	< 1	U	0.25	1
Xylenes, Total	ug/L	NS	NS	NS	NS	1000	< 2	U	0.3	2	< 2	U	0.3	2	< 2	U	0.3	2	< 2	U	0.3	2	< 2	U	0.28	2	< 2	U	0.28	2
Semivolatile Organic Compounds																														
2-Methylnaphthalene	ug/L	NS	NS	NS	NS	30	< 10	UJ	1.1	10	< 10	UJ	1.1	10	< 10	UJ	1.1	10	< 10	U	1.1	10	< 10	UJ	1.1	10	< 10	UJ	1.1	10
Aniline	ug/L	NS	NS	NS	NS	6	< 10	U	0.5	10	< 10	U	0.5	10	< 10	U	0.5	10	< 10	U	0.5	10	< 10	U	0.5	10	< 10	U	0.5	10
Nitrobenzene	ug/L	17	NS	17	690	6	< 1	U	0.6	1	< 1	U	0.6	1	< 1	U	0.6	1	< 1	U	0.6	1	< 1	U	0.57	1	< 1	U	0.57	1
N-Nitrosodiphenylamine	ug/L	3.3	NS	3.3	6	10	< 10	U	0.9	10	< 10	U	0.9	10	< 10	U	0.9	10	< 10	U	0.9	10	< 10	U	0.89	10	< 10	U	0.89	10
Total Metals																														
Aluminum	ug/L	NS	NS	NS	NS	200	NA				NA				32.7	J	15	40	104		15	40	35	J	15	40	57.3		15	40
Arsenic	ug/L	0.017	NS	0.018	0.14	3	NA				NA				**1.2**	J	0.8	2	**0.93**	J	0.8	2	< 2	U	0.77	2	< 2	U	0.77	2
Barium	ug/L	2000	NS	1000	NS	6000	NA				NA				60.2		1.1	4	58		1.1	4	55.4		1.1	4	54.4		1.1	4
Cadmium	ug/L	3.4	NS	5	NS	4	NA				NA				< 2	U	0.6	2	< 2	U	0.6	2	< 2	U	0.61	2	< 2	U	0.61	2
Chromium	ug/L	92	NS	100	NS	70	NA				NA				5		1.3	4	< 4	U	1.3	4	< 4	U	1.3	4	< 4	U	1.3	4
Cobalt	ug/L	NS	NS	NS	NS	100	NA				NA				< 4	U	1.3	4	< 4	U	1.3	4	< 4	U	1.3	4	< 4	U	1.3	4
Copper	ug/L	1300	NS	1300	NS	1300	NA				NA				4.7		1.9	4	1.9	J	1.9	4	2.5	J	1.9	4	3.1	J	1.9	4
Iron	ug/L	NS	NS	NS	NS	300	NA				NA				*616*		46	120	*345*		46	120	188		45.7	120	273		45.7	120
Lead	ug/L	5	NS	NS	NS	5	NA				NA				< 1.2	U	0.4	1.2	0.62	J	0.4	1.2	< 1.2	U	0.37	1.2	< 1.2	U	0.37	1.2
Manganese	ug/L	NS	NS	50	100	50	NA				NA				42.5		2.7	8	*80.3*		2.7	8	*63.1*		2.7	8	*81.8*		2.7	8
Mercury	ug/L	0.05	NS	NS	NS	2	NA				NA				< 0.2	U	0.1	0.2	< 0.2	U	0.1	0.2	< 0.2	U	0.12	0.2	< 0.2	U	0.12	0.2
Vanadium	ug/L	NS	NS	NS	NS	NS	NA				NA				2.1	J	1.2	4	< 4	U	1.2	4	< 4	U	1.2	4	< 4	U	1.2	4
Zinc	ug/L	7400	NS	7400	26000	2000	NA				NA				< 16	U	5.4	16	< 16	U	5.4	16	< 16	U	5.4	16	6.3	J	5.4	16
Dissolved Metals																														
Aluminum	ug/L	NS	NS	NS	NS	200	< 40	U	15	40	< 40	U	15	40	< 40	U	15	40	< 40	U	15	40	< 40	U	15	40	< 40	U	15	40
Arsenic	ug/L	NS	150	NS	NS	3	< 2	U	0.8	2	< 2	U	0.8	2	1.2	J	0.8	2	< 2	U	0.8	2	1.1	J	0.77	2	0.81	J	0.77	2
Barium	ug/L	NS	NS	NS	NS	6000	73.1		1.1	4	71.5		1.1	4	66.6		1.1	4	50.4		1.1	4	57.2		1.1	4	54.8		1.1	4
Cadmium	ug/L	NS	CALC	NS	NS	4	< 2	U	0.6	2	< 2	U	0.6	2	< 2	U	0.6	2	< 2	U	0.6	2	< 2	U	0.61	2	< 2	U	0.61	2
Chromium	ug/L	NS	NS	NS	NS	70	< 4	U	1.3	4	< 4	U	1.3	4	< 4	U	1.3	4	< 4	U	1.3	4	< 4	U	1.3	4	< 4	U	1.3	4
Cobalt	ug/L	NS	NS	NS	NS	100	< 4	U	1.3	4	< 4	U	1.3	4	< 4	U	1.3	4	< 4	U	1.3	4	< 4	U	1.3	4	< 4	U	1.3	4
Copper	ug/L	NS	CALC	NS	NS	1300	< 4	U	1.9	4	< 4	U	1.9	4	< 4	U	1.9	4	< 4	U	1.9	4	< 4	U	1.9	4	< 4	U	1.9	4
Iron	ug/L	NS	NS	NS	NS	300	< 120	U	46	120	< 120	U	46	120	< 120	U	46	120	< 120	U	46	120	< 120	U	45.7	120	< 120	U	45.7	120
Lead	ug/L	NS	5.4	NS	NS	5	< 1.2	U	0.4	1.2	< 1.2	U	0.4	1.2	< 1.2	U	0.4	1.2	< 1.2	U	0.4	1.2	< 1.2	U	0.37	1.2	< 1.2	U	0.37	1.2
Manganese	ug/L	NS	NS	NS	NS	50	42.1		2.7	8	19.8		2.7	8	6.2	J	2.7	8	10.6		2.7	8	< 8	U	2.7	8	< 8	U	2.7	8
Mercury	ug/L	NS	0.77	NS	NS	2	< 0.2	U	0.1	0.2	< 0.2	U	0.1	0.2	< 0.2	U	0.1	0.2	< 0.2	U	0.1	0.2	< 0.2	U	0.12	0.2	< 0.2	U	0.12	0.2
Vanadium	ug/L	NS	NS	NS	NS	NS	< 4	U	1.2	4	< 4	U	1.2	4	1.4	J	1.2	4	< 4	U	1.2	4	< 4	U	1.2	4	< 4	U	1.2	4
Zinc	ug/L	NS	CALC	NS	NS	2000	9.8	J	5.4	16	< 16	U	5.4	16	< 16	U	5.4	16	< 16	U	5.4	16	< 16	U	5.4	16	< 16	U	5.4	16

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GOLDER

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						Location ID	CB-09				CB-10				MB-01				MS-01				RR-01				RR-03			
						Sample Date	5/10/2018				5/10/2018				5/8/2018				5/9/2018				5/8/2018				5/8/2018			
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General Chemistry																														
Hardness	mg/L	NS	NS	NS	NS	NS	180		10	10	176		10	10	172		5	5	78		5	5	136		5	5	134		5	5
Total Methyl Mercury	ng/l	NS	NS	NS	NS	NS	NA				NA				NA				NA				0.13		0.02	0.1	0.14		0.02	0.1
Dissolved Methyl Mercury	ng/l	NS	NS	NS	NS	NS	NA				NA				NA				NA				0.082		0.02	0.1	0.079		0.02	0.1
Total Suspended Solids	mg/L	NS	NS	NS	NS	NS	1.8		0.4	0.4	0.8		0.4	0.4	11		0.4	0.4	4.9		0.4	0.4	2.7	J	0.4	0.4	3.1		0.4	0.4

Notes:

1. NJDEP SWQC HH is the New Jersey Department of Environmental Protection Surface Water Quality Criteria, Fresh Water (FW2) Criteria for Human Health in ug/L. Compared against Total Metals results only.
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NS = standard not available
Qual = qualifier
RL = reporting limit
Units: mg/L = milligrams per liter; ug/L = micrograms per liter; ng/L = nanograms per liter

Qualifiers:
J = estimated result
UJ = not detected above RL; RL estimated
U = not detected above RL

Checked by JAS 6/22/2018

Table 1
1H2018 Surface Water Validated Results
American Cyanamid Superfund Site
Bridgewater Township, New Jersey

						Location ID	RR-03				RR-04				RR-05				RR-06				RR-09				RR-10			
						Sample Date	5/8/2018				5/9/2018				5/9/2018				5/9/2018				5/9/2018				5/9/2018			
						N=Normal, FD=Field Duplicate	N				N				N				N				N				N			
Parameter	Unit	**NJDEP SWQC HH[1]**	**NJDEP SWQC ECO[2]**	NWQC HH1[3]	**NWQC HH2[4]**	*NJGWQS[5]*	Result	Qual	MDL	RL	Result	Qual	MDL	RL	Result	Qual	MDL	RL	Result	Qual	MDL	RL	Result	Qual	MDL	RL	Result	Qual	MDL	RL
Volatile Organic Compounds																														
1,2-Dichlorobenzene	ug/L	2000	NS	420	1300	600	< 1	U	0.22	1	< 1	U	0.2	1	0.26	J	0.22	1	< 1	U	0.2	1	< 1	U	0.2	1	< 1	U	0.2	1
1,4-Dichlorobenzene	ug/L	550	NS	63	190	75	< 1	U	0.33	1	< 1	U	0.3	1	< 1	U	0.33	1	< 1	U	0.3	1	< 1	U	0.3	1	< 1	U	0.3	1
Benzene	ug/L	0.15	NS	2.1	58	1	**0.28**	J	0.09	1	**0.48**	J	0.1	1	***1.1***		0.09	1	< 1	U	0.1	1	< 1	U	0.1	1	< 1	U	0.1	1
Chlorobenzene	ug/L	210	NS	130	1600	50	< 1	U	0.24	1	< 1	U	0.2	1	< 1	U	0.24	1	< 1	U	0.2	1	< 1	U	0.2	1	< 1	U	0.2	1
Naphthalene	ug/L	NS	NS	NS	NS	300	< 1	U	0.26	1	< 1	U	0.3	1	0.47	J	0.26	1	< 1	U	0.3	1	< 1	U	0.3	1	< 1	U	0.3	1
Toluene	ug/L	1300	NS	1300	15000	600	< 1	U	0.25	1	< 1	U	0.3	1	< 1	U	0.25	1	< 1	U	0.3	1	< 1	U	0.3	1	< 1	U	0.3	1
Xylenes, Total	ug/L	NS	NS	NS	NS	1000	< 2	U	0.28	2	< 2	U	0.3	2	< 2	U	0.28	2	< 2	U	0.3	2	< 2	U	0.3	2	< 2	U	0.3	2
Semivolatile Organic Compounds																														
2-Methylnaphthalene	ug/L	NS	NS	NS	NS	30	< 10	UJ	1.1	10	< 10	U	1.1	10	< 10	U	1.1	10	< 10	U	1.1	10	< 10	U	1.1	10	< 10	U	1.1	10
Aniline	ug/L	NS	NS	NS	NS	6	< 10	U	0.5	10	< 10	U	0.5	10	< 10	U	0.5	10	< 10	U	0.5	10	< 10	U	0.5	10	< 10	U	0.5	10
Nitrobenzene	ug/L	17	NS	17	690	6	< 1	U	0.57	1	< 1	U	0.6	1	< 1	U	0.57	1	< 1	U	0.6	1	< 1	U	0.6	1	< 1	U	0.6	1
N-Nitrosodiphenylamine	ug/L	3.3	NS	3.3	6	10	< 10	U	0.89	10	< 10	U	0.9	10	< 10	U	0.89	10	< 10	U	0.9	10	< 10	U	0.9	10	< 10	U	0.9	10
Total Metals																														
Aluminum	ug/L	NS	NS	NS	NS	200	52		15	40	51.3		15	40	66.8		15	40	48		15	40	48.4		15	40	37	J	15	40
Arsenic	ug/L	0.017	NS	0.018	0.14	3	**0.81**	J	0.77	2	**0.87**	J	0.8	2	**1.1**	J	0.77	2	< 2	U	0.8	2	< 2	U	0.8	2	< 2	U	0.8	2
Barium	ug/L	2000	NS	1000	NS	6000	52.3		1.1	4	60.6		1.1	4	65.2		1.1	4	55.8		1.1	4	51.6		1.1	4	50.4		1.1	4
Cadmium	ug/L	3.4	NS	5	NS	4	< 2	U	0.61	2	< 2	U	0.6	2	< 2	U	0.61	2	< 2	U	0.6	2	< 2	U	0.6	2	< 2	U	0.6	2
Chromium	ug/L	92	NS	100	NS	70	< 4	U	1.3	4	< 4	U	1.3	4	< 4	U	1.3	4	< 4	U	1.3	4	< 4	U	1.3	4	< 4	U	1.3	4
Cobalt	ug/L	NS	NS	NS	NS	100	< 4	U	1.3	4	< 4	U	1.3	4	< 4	U	1.3	4	< 4	U	1.3	4	< 4	U	1.3	4	< 4	U	1.3	4
Copper	ug/L	1300	NS	1300	NS	1300	2.9	J	1.9	4	2.2	J	1.9	4	3.3	J	1.9	4	3	J	1.9	4	< 4	U	1.9	4	7.5		1.9	4
Iron	ug/L	NS	NS	NS	NS	300	257		45.7	120	288		46	120	*429*		45.7	120	233		46	120	190		46	120	172		46	120
Lead	ug/L	5	NS	NS	NS	5	0.44	J	0.37	1.2	< 1.2	U	0.4	1.2	0.48	J	0.37	1.2	< 1.2	U	0.4	1.2	< 1.2	U	0.4	1.2	0.48	J	0.4	1.2
Manganese	ug/L	NS	NS	50	100	50	*79.9*		2.7	8	***110***		2.7	8	***169***		2.7	8	*93.1*		2.7	8	44.6		2.7	8	44		2.7	8
Mercury	ug/L	0.05	NS	NS	NS	2	< 0.2	U	0.12	0.2	< 0.2	U	0.1	0.2	< 0.2	U	0.12	0.2	< 0.2	U	0.1	0.2	< 0.2	U	0.1	0.2	**0.15**	J	0.1	0.2
Vanadium	ug/L	NS	NS	NS	NS	NS	< 4	U	1.2	4	< 4	U	1.2	4	< 4	U	1.2	4	< 4	U	1.2	4	< 4	U	1.2	4	< 4	U	1.2	4
Zinc	ug/L	7400	NS	7400	26000	2000	7.1	J	5.4	16	6.8	J	5.4	16	6.7	J	5.4	16	9	J	5.4	16	< 16	U	5.4	16	6.6	J	5.4	16
Dissolved Metals																														
Aluminum	ug/L	NS	NS	NS	NS	200	< 40	U	15	40	< 40	U	15	40	< 40	U	15	40	< 40	U	15	40	< 40	U	15	40	< 40	U	15	40
Arsenic	ug/L	NS	150	NS	NS	3	< 2	U	0.77	2	< 2	U	0.8	2	0.79	J	0.77	2	< 2	U	0.8	2	< 2	U	0.8	2	< 2	U	0.8	2
Barium	ug/L	NS	NS	NS	NS	6000	53.7		1.1	4	51.6		1.1	4	53.3		1.1	4	50.6		1.1	4	45.1		1.1	4	46.3		1.1	4
Cadmium	ug/L	NS	CALC	NS	NS	4	< 2	U	0.61	2	< 2	U	0.6	2	< 2	U	0.61	2	< 2	U	0.6	2	< 2	U	0.6	2	< 2	U	0.6	2
Chromium	ug/L	NS	NS	NS	NS	70	< 4	U	1.3	4	< 4	U	1.3	4	< 4	U	1.3	4	< 4	U	1.3	4	< 4	U	1.3	4	< 4	U	1.3	4
Cobalt	ug/L	NS	NS	NS	NS	100	< 4	U	1.3	4	< 4	U	1.3	4	< 4	U	1.3	4	< 4	U	1.3	4	< 4	U	1.3	4	< 4	U	1.3	4
Copper	ug/L	NS	CALC	NS	NS	1300	< 4	U	1.9	4	< 4	U	1.9	4	< 4	U	1.9	4	< 4	U	1.9	4	< 4	U	1.9	4	< 4	U	1.9	4
Iron	ug/L	NS	NS	NS	NS	300	< 120	U	45.7	120	< 120	U	46	120	< 120	U	45.7	120	< 120	U	46	120	< 120	U	46	120	< 120	U	46	120
Lead	ug/L	NS	5.4	NS	NS	5	< 1.2	U	0.37	1.2	< 1.2	U	0.4	1.2	< 1.2	U	0.37	1.2	< 1.2	U	0.4	1.2	< 1.2	U	0.4	1.2	< 1.2	U	0.4	1.2
Manganese	ug/L	NS	NS	NS	NS	50	< 8	U	2.7	8	< 8	U	2.7	8	3.7	J	2.7	8	< 8	U	2.7	8	< 8	U	2.7	8	< 8	U	2.7	8
Mercury	ug/L	NS	0.77	NS	NS	2	< 0.2	U	0.12	0.2	< 0.2	U	0.1	0.2	< 0.2	U	0.12	0.2	< 0.2	U	0.1	0.2	< 0.2	U	0.1	0.2	< 0.2	U	0.1	0.2
Vanadium	ug/L	NS	NS	NS	NS	NS	< 4	U	1.2	4	< 4	U	1.2	4	< 4	U	1.2	4	< 4	U	1.2	4	< 4	U	1.2	4	< 4	U	1.2	4
Zinc	ug/L	NS	CALC	NS	NS	2000	< 16	U	5.4	16	< 16	U	5.4	16	< 16	U	5.4	16	13.7	J	5.4	16	< 16	U	5.4	16	< 16	U	5.4	16

Checked by JAS 6/22/2018

GOLDER

Table 1
1H2018 Surface Water Validated Results
American Cyanamid Superfund Site
Bridgewater Township, New Jersey

						Location ID	RR-03				RR-04				RR-05				RR-06				RR-09				RR-10			
						Sample Date	5/8/2018				5/9/2018				5/9/2018				5/9/2018				5/9/2018				5/9/2018			
						N=Normal, FD=Field Duplicate	N				N				N				N				N				N			
Parameter	Unit	**NJDEP SWQC HH[1]**	**NJDEP SWQC ECO[2]**	NWQC HH1[3]	**NWQC HH2[4]**	*NJGWQS[5]*	Result	Qual	MDL	RL	Result	Qual	MDL	RL	Result	Qual	MDL	RL	Result	Qual	MDL	RL	Result	Qual	MDL	RL	Result	Qual	MDL	RL
General Chemistry																														
Hardness	mg/L	NS	NS	NS	NS	NS	136		5	5	134		5	5	142		5	5	76		5	5	108		5	5	118		5	5
Total Methyl Mercury	ng/l	NS	NS	NS	NS	NS	0.13		0.02	0.1	NA				0.23	J	0.02	0.1	NA				NA				NA			
Dissolved Methyl Mercury	ng/l	NS	NS	NS	NS	NS	0.09		0.02	0.1	NA				0.11	J	0.02	0.1	NA				NA				NA			
Total Suspended Solids	mg/L	NS	NS	NS	NS	NS	3.4		0.4	0.4	2.8		0.4	0.4	3.6		0.4	0.4	2.9		0.4	0.4	4.7		0.4	0.4	2.4		0.4	0.4

Notes:

1. NJDEP SWQC HH is the New Jersey Department of Environmental Protection Surface Water Quality Criteria, Fresh Water (FW2) Criteria for Human Health in ug/L. Compared against Total Metals results only.
2. NJDEP SWQC ECO is the New Jersey Department of Environmental Protection Surface Water Quality Criteria, Fresh Water (FW2) Criteria for Aquatic Chronic in ug/L. Compared against Dissolved Metals results only.

3. NWQC HH1 is the National Recommended Water Quality Criteria for Human Health for the consumption of water + organism in ug/L. Maximum Contaminant Level used for cadmium and chromium as specified in the NWQC table. Compared against Total Metals results only.
4. NWQC HH2 is the National Recommended Water Quality Criteria for Human Health for the consumption of organism. Mercury and methyl mercury do not have listed surface water criteria, although a fish tissue target level has been set. Compared against Total Metals results only.
5. NJGWQS is the New Jersey Groundwater Quality Standards (N.J.A.C. 7:9C).
6. Cuckel's Brook samples are only compared to NJDEP SWQC ECO and NJGWQS.
7. Exceedances of NWQC HH1 are shown underlined. Exceedances of NJGWQS are shown in *italics*. Exceedances of any of the other three screening levels (NJDEP SWQC HH, NJDEP SWQC ECO, NWQC HH2) are shown in **bold**.

Abbreviations:
CALC = calculated standard
MDL = method detection limit
NA = not analyzed
NS = standard not available
Qual = qualifier
RL = reporting limit
Units: mg/L = milligrams per liter; ug/L = micrograms per liter; ng/L = nanograms per liter

Qualifiers:
J = estimated result
UJ = not detected above RL; RL estimated
U = not detected above RL

Checked by JAS 6/22/2018