UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Final Analytical Report

Site Name.....	BLADES GROUNDWATER
Sample Collection Date(s).....	10/08/18 13:54- 10/11/18 14:29
Contact.....	Connor O'Loughlin
Report Date.....	12/20/18 15:27
Project #.....	DAS R35450
Work Order.....	1810015

Analyses included in this report:

Pesticides by CLP Equivalent
Total Mercury by CLP Equivalent
Total Metals by CLP Equivalent (ICPMS)
PFCs by EPA 537
Total Metals by CLP Equivalent (ICP)

Approved for Release

OASQA Representative

Site Name: BLADES GROUNDWATER **Project #: DAS R35450**

Report Narrative

Pesticide Analysis Note:
Toxaphene was analyzed according to the lab's on-demand procedures.

Samples 1810015-01, 02, 04, 05, 06, 08, 09, 12, 16 were received at the lab after the holding time to extract had expired. Results or quantitation limits are qualified as estimates (J or UJ respectively).

Metals Analysis Note:
The arsenic results for samples 1810015-03 and 08 were slightly negative, which put them outside the acceptance range for non-detect results at 1 ug/L. The quantitation limit was raised to 2 ug/L for these two samples to compensate for any possible matrix effects.

Mercury Analysis Note:
Samples 1810015-01 to 16 and 18 were analyzed outside of the EPA recommended holding time. Results or quantitation limits are qualified as estimates (J or UJ respectively).

PFCs Analysis Note: Results for PFHpA, PFOA and PFNA in samples 181005-11, 12, 13, 14, 15, 16, 17, 18, 19 and 20 are qualified as estimates (J or UJ respectively), due to a recovery failure of the internal standard (ISTD) (MPFOA) area of the most recent continuing calibration (CCV) of the average from the initial calibration.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: BLADES GROUNDWATER **Project #: DAS R35450**

ANALYTICAL REPORT FOR SAMPLES

Station ID	Laboratory ID	Matrix	Date Sampled	Date Received
BDE-GW-02	1810015-01	Groundwater	10/09/18 15:24	10/16/18 12:15
BDE-GW-03	1810015-02	Groundwater	10/08/18 15:22	10/16/18 12:15
BDE-DMW-03	1810015-03	Groundwater	10/10/18 17:11	10/16/18 12:15
BDE-GW-02D	1810015-04	Groundwater	10/09/18 15:24	10/16/18 12:15
BDE-GW-01	1810015-05	Groundwater	10/09/18 11:54	10/16/18 12:15
BDE-DMW-02	1810015-06	Groundwater	10/09/18 09:10	10/16/18 12:15
BDE-DMW-01	1810015-07	Groundwater	10/10/18 09:08	10/16/18 12:15
BDE-GW-04	1810015-08	Groundwater	10/08/18 13:54	10/16/18 12:15
BDE-GW-05	1810015-09	Groundwater	10/08/18 16:44	10/16/18 12:15
BDE-GW-07	1810015-10	Groundwater	10/10/18 11:31	10/16/18 12:15
BDE-GW-08	1810015-11	Groundwater	10/11/18 11:56	10/16/18 12:15
BDE-GW-09	1810015-12	Groundwater	10/09/18 10:01	10/16/18 12:15
BDE-GW-10	1810015-13	Groundwater	10/11/18 13:09	10/16/18 12:15
BDE-GW-11	1810015-14	Groundwater	10/11/18 08:53	10/16/18 12:15
BDE-GW-12	1810015-15	Groundwater	10/11/18 10:23	10/16/18 12:15
BDE-GW-13	1810015-16	Groundwater	10/08/18 18:10	10/16/18 12:15
BDE-GW-14	1810015-17	Groundwater	10/11/18 14:29	10/16/18 12:15
BDE-GW-15	1810015-18	Groundwater	10/10/18 18:42	10/16/18 12:15
BDE-FRB-01	1810015-19	Water	10/08/18 17:40	10/16/18 12:15
BDE-FRB-02	1810015-20	Water	10/09/18 13:00	10/16/18 12:15
BDE-FRB-03	1810015-21	Water	10/10/18 16:00	10/16/18 12:15
BDE-FRB-04	1810015-22	Water	10/11/18 12:45	10/16/18 12:15

USEPA CLP COC (LAB COPY)
DateShipped: 10/15/2018
CarrierName: FedEx
AirbillNo: 898705788948

CHAIN OF CUSTODY RECORD

DAS #: R35450
Cooler #: 1

No: 3-101518-092135-0014
Lab: USEPA Region III
Lab Contact: Ex. 4 CBI
Lab Phone: 410-305-2938

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
BDE-GW-02	C0AD8	Ground Water/ START	Grab	Pesticides(21)	1282 (4 C), 1283 (4 C) (2)	BDE-GW-02	01/09/2018 15:24	1810015 -01
BDE-GW-03	C0AD9	Ground Water/ START	Grab	Pesticides(21)	1289 (4 C), 1290 (4 C) (2)	BDE-GW-03	10/08/2018 15:22	-02
BDE-DMW-03	C0AF4	Ground Water/ START	Grab	Pesticides(21)	1394 (4 C), 1395 (4 C) (2)	BDE-DMW-03	10/10/2018 17:11	-03
BDE-GW-02D	C0AF5	Ground Water/ START	Grab	Pesticides(21)	1401 (4 C), 1402 (4 C) (2)	BDE-GW-02D	10/09/2018 15:24	-04

Special Instructions:

Shipment for Case Complete? Y
Samples Transferred From Chain of Custody #

Analysis Key

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
Samples for Analysis	Ex. 4 CBI (WESTON)	10-15-2018 17:00	Ex. 4 CBI EBAT	10/16/18 12:15	5.5°C CP 10/16/18

USEPA CLP COC (LAB COPY)
DateShipped: 10/15/2018
CarrierName: FedEx
AirbillNo: 898705788959

CHAIN OF CUSTODY RECORD

DAS #: R35450
Cooler #: 2

No: 3-101518-093625-0015
Lab: USEPA Region III
Lab Contact: Ex. 4 CBI
Lab Phone: 410-305-2938

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
BDE-GW-01	C0AD2	Ground Water/ START	Grab	Pesticides(21)	1240 (4 C), 1241 (4 C), 1407 (4 C), 1408 (4 C), 1409 (4 C), 1410 (4 C) (6)	BDE-GW-01	10/09/2018 11:54	1810015 -05
BDE-DMW-02	C0AF3	Ground Water/ START	Grab	Pesticides(21)	1387 (4 C), 1388 (4 C) (2)	BDE-DMW-02	10/09/2018 09:10	-06
BDE-DMW-01	C0AG0	Ground Water/ START	Grab	Pesticides(21)	1425 (4 C), 1426 (4 C) (2)	BDE-DMW-01	10/10/2018 09:08	-07

Sample(s) to be used for Lab QC: BDE-GW-01 Tag 1407, BDE-GW-01 Tag 1408, BDE-GW-01 Tag 1409, BDE-GW-01 Tag 1410

Shipment for Case Complete? Y
Samples Transferred From Chain of Custody #

Analysis Key

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
SAMPLES FOR ANALYSIS	Ex. 4 CBI (WRIDN)	10-15-2018 17:00	Ex. 4 CBI ESAT	10/16/18 12:15	4.0°C CR 10/16/18

USEPA CLP COC (LAB COPY)
DateShipped: 10/15/2018
CarrierName: FedEx
AirbillNo: 898705788960

CHAIN OF CUSTODY RECORD

DAS #: R35450
Cooler #: 3

No: 3-101518-095159-0016
Lab: USEPA Region III
Lab Contact: Ex. 4 CBI
Lab Phone: 410-305-2938

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
BDE-GW-04	C0AE0	Ground Water/ START	Grab	Pesticides(21)	1296 (4 C), 1297 (4 C) (2)	BDE-GW-04	10/08/2020 13:54	1810015
BDE-GW-05	C0AE1	Ground Water/ START	Grab	Pesticides(21)	1303 (4 C), 1304 (4 C) (2)	BDE-GW-05	10/08/2018 16:44	-08
BDE-GW-07	C0AE3	Ground Water/ START	Grab	Pesticides(21)	1317 (4 C), 1318 (4 C) (2)	BDE-GW-07	10/10/2018 11:31	-09
BDE-GW-08	C0AE4	Ground Water/ START	Grab	Pesticides(21)	1324 (4 C), 1325 (4 C) (2)	BDE-GW-08	10/11/2018 11:56	-10
								-11

Special Instructions:

Shipment for Case Complete? Y
Samples Transferred From Chain of Custody #

Analysis Key

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
Samples for analysis	Ex. 4 CBI (WESTON)	10-15-2018 17:00	Ex. 4 CBI ESAT	10/16/18 12:15	3.5°C

USEPA CLP COC (LAB COPY)

DateShipped: 10/15/2018
CarrierName: FedEx
AirbillNo: 898705788915

CHAIN OF CUSTODY RECORD

DAS #: R35450
Cooler #: 4

No: 3-101518-095524-0017

Lab: USEPA Region III
Lab Contact: Ex. 4 CBI
Lab Phone: 410-305-2938

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
BDE-GW-09	C0AE5	Ground Water/ START	Grab	Pesticides(21)	1331 (4 C), 1332 (4 C) (2)	BDE-GW-09	10/09/2018 10:01	1810015
BDE-GW-10	C0AE6	Ground Water/ START	Grab	Pesticides(21)	1338 (4 C), 1339 (4 C) (2)	BDE-GW-10	10/11/2018 13:09	-12
BDE-GW-11	C0AE7	Ground Water/ START	Grab	Pesticides(21)	1345 (4 C), 1346 (4 C) (2)	BDE-GW-11	10/11/2018 08:53	-13
BDE-GW-12	C0AE8	Ground Water/ START	Grab	Pesticides(21)	1352 (4 C), 1353 (4 C) (2)	BDE-GW-12	10/11/2018 10:23	-14
								-15

Special Instructions:

Shipment for Case Complete? Y

Samples Transferred From Chain of Custody #

Analysis Key

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
samples for analysis	Ex. 4 CBI	10-15-2018 @ 17:00	Ex. 4 CBI EDHT	10/16/18 12:15	6.0°C ES 10/16/18

USEPA CLP COC (LAB COPY)

DateShipped: 10/15/2018
CarrierName: FedEx
AirbillNo: 898705788981

CHAIN OF CUSTODY RECORD

DAS #: R35450
Cooler #: 5

No: 3-101518-095647-0018

Lab: USEPA Region III
Lab Contact: Ex. 4 CBI
Lab Phone: 410-305-2938

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
BDE-GW-13	C0AE9	Ground Water/ START	Grab	Pesticides(21)	1359 (4 C), 1360 (4 C) (2)	BDE-GW-13	10/08/2018 18:10	1810015 -16
BDE-GW-14	C0AF0	Ground Water/ START	Grab	Pesticides(21)	1366 (4 C), 1367 (4 C) (2)	BDE-GW-14	10/11/2018 14:29	-17
BDE-GW-15	C0AF1	Ground Water/ START	Grab	Pesticides(21)	1373 (4 C), 1374 (4 C) (2)	BDE-GW-15	10/10/2018 18:42	-18

Special Instructions:

Shipment for Case Complete? Y

Samples Transferred From Chain of Custody #

Analysis Key

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
Samples for analysis	Ex. 4 CBI (WEJMN)	10-15-2018 17:00	Ex. 4 CBI ESAT	10/16/18 12:15	6.0°C CP 10/16/18

USEPA CLP COC (LAB COPY)
DateShipped: 10/15/2018
CarrierName: FedEx
AirbillNo: 898705789006

CHAIN OF CUSTODY RECORD

DAS #: R35450
Cooler #: 6

No: 3-101518-101709-0019
Lab: USEPA Region III
Lab Contact: Ex. 4 CBI
Lab Phone: 410-305-2938

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
BDE-GW-01	C0AD2	Ground Water/ START	Grab	Perfluorinated Compounds (PFCS)(21)	1243 (Trizma), 1244 (Trizma), 1411 (Trizma), 1412 (Trizma), 1413 (Trizma), 1414 (Trizma) (6)	BDE-GW-01	10/09/2018 11:54	1810015 -05
BDE-GW-02	C0AD8	Ground Water/ START	Grab	Perfluorinated Compounds (PFCS)(21)	1285 (Trizma), 1286 (Trizma) (2)	BDE-GW-02	01/09/2018 15:24	-01
BDE-DMW-02	C0AF3	Ground Water/ START	Grab	Perfluorinated Compounds (PFCS)(21)	1390 (Trizma), 1391 (Trizma) (2)	BDE-DMW-02	10/09/2018 09:10	-06
BDE-DMW-03	C0AF4	Ground Water/ START	Grab	Perfluorinated Compounds (PFCS)(21)	1397 (Trizma), 1398 (Trizma) (2)	BDE-DMW-03	10/10/2018 17:11	-03
BDE-GW-02D	C0AF5	Ground Water/ START	Grab	Perfluorinated Compounds (PFCS)(21)	1404 (Trizma), 1405 (Trizma) (2)	BDE-GW-02D	10/09/2018 15:24	-04
BDE-FRB-01	C0AF6	Field Reagent Blank/ START	Grab	Perfluorinated Compounds (PFCS)(21)	1416 (Trizma), 1417 (Trizma) (2)	BDE-FRB-01	10/08/2018 17:40	-19
BDE-FRB-02	C0AF7	Field Reagent Blank/ START	Grab	Perfluorinated Compounds (PFCS)(21)	1418 (Trizma), 1419 (Trizma) (2)	BDE-FRB-02	10/09/2018 13:00	-20
BDE-FRB-03	C0AF8	Field Reagent Blank/ START	Grab	Perfluorinated Compounds (PFCS)(21)	1420 (Trizma), 1421 (Trizma) (2)	BDE-FRB-03	10/10/2018 16:00	-21
BDE-FRB-04	C0AF9	Field Reagent Blank/ START	Grab	Perfluorinated Compounds (PFCS)(21)	1422 (Trizma), 1423 (Trizma) (2)	BDE-FRB-04	10/11/2018 12:45	-22

Sample(s) to be used for Lab QC: BDE-GW-01 Tag 1411, BDE-GW-01 Tag 1412, BDE-GW-01 Tag 1413, BDE-GW-01 Tag 1414

Shipment for Case Complete? Y
Samples Transferred From Chain of Custody #

Analysis Key

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
SAMPLES TO ANALYSIS	Ex. 4 CBI (WESTON)	10-15-2018 17:00	Ex. 4 CBI ESAT	10/16/18 12:15	5.0°C 10/16/18

USEPA CLP COC (LAB COPY)

DateShipped: 10/15/2018
CarrierName: FedEx
AirbillNo: 898705789006

CHAIN OF CUSTODY RECORD

DAS #: R35450
Cooler #: 6

No: 3-101518-101709-0019

Lab: USEPA Region III
Lab Contact: Ex. 4 CBI
Lab Phone: 410-305-2938

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
BDE-DMW-01	C0AG0	Ground Water/ START	Grab	Perfluorinated Compounds (PFCS)(21)	1428 (Trizma), 1429 (Trizma) (2)	BDE-DMW-01	10/10/2018 09:08	1810015 -07

Special Instructions:

Shipment for Case Complete? Y

Samples Transferred From Chain of Custody #

Analysis Key

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
Samples for analysis	Ex. 4 CBI (WESTON)	10-15-2018 17:00	Ex. 4 CBI ESAT	10/16/18 12:15	5.0°C CT 10/16/18

USEPA CLP COC (LAB COPY)
DateShipped: 10/15/2018
CarrierName: FedEx
AirbillNo: 898705788926

CHAIN OF CUSTODY RECORD

DAS #: R35450
Cooler #: 7

No: 3-101518-102541-0020
Lab: USEPA Region III
Lab Contact: Ex. 4 CBI
Lab Phone: 410-305-2938

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
BDE-GW-03	C0AD9	Ground Water/ START	Grab	Perfluorinated Compounds (PFCS)(21)	1292 (Trizma), 1293 (Trizma) (2)	BDE-GW-03	10/08/2018 15:22	1810015 -02
BDE-GW-04	C0AE0	Ground Water/ START	Grab	Perfluorinated Compounds (PFCS)(21)	1299 (Trizma), 1300 (Trizma) (2)	BDE-GW-04	10/08/2020 13:54	-08
BDE-GW-05	C0AE1	Ground Water/ START	Grab	Perfluorinated Compounds (PFCS)(21)	1306 (Trizma), 1307 (Trizma) (2)	BDE-GW-05	10/08/2018 16:44	-09
BDE-GW-07	C0AE3	Ground Water/ START	Grab	Perfluorinated Compounds (PFCS)(21)	1320 (Trizma), 1321 (Trizma) (2)	BDE-GW-07	10/10/2018 11:31	-10
BDE-GW-08	C0AE4	Ground Water/ START	Grab	Perfluorinated Compounds (PFCS)(21)	1327 (Trizma), 1328 (Trizma) (2)	BDE-GW-08	10/11/2018 11:56	-11
BDE-GW-09	C0AE5	Ground Water/ START	Grab	Perfluorinated Compounds (PFCS)(21)	1334 (Trizma), 1335 (Trizma) (2)	BDE-GW-09	10/09/2018 10:01	-12
BDE-GW-10	C0AE6	Ground Water/ START	Grab	Perfluorinated Compounds (PFCS)(21)	1341 (Trizma), 1342 (Trizma) (2)	BDE-GW-10	10/11/2018 13:09	-13
BDE-GW-11	C0AE7	Ground Water/ START	Grab	Perfluorinated Compounds (PFCS)(21)	1348 (Trizma), 1349 (Trizma) (2)	BDE-GW-11	10/11/2018 08:53	-14
BDE-GW-12	C0AE8	Ground Water/ START	Grab	Perfluorinated Compounds (PFCS)(21)	1355 (Trizma), 1356 (Trizma) (2)	BDE-GW-12	10/11/2018 10:23	-15
BDE-GW-13	C0AE9	Ground Water/ START	Grab	Perfluorinated Compounds (PFCS)(21)	1362 (Trizma), 1363 (Trizma) (2)	BDE-GW-13	10/08/2018 18:10	-16

Special Instructions:

Shipment for Case Complete? Y
Samples Transferred From Chain of Custody #

Analysis Key

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
samples for analysis	Ex. 4 CBI (WESTON)	10-15-2018 17:00	Ex. 4 CBI ESAT	10/16/18 12:15	5.5°C CP 10/16/18

USEPA CLP COC (LAB COPY)
DateShipped: 10/15/2018
CarrierName: FedEx
AirbillNo: 898705788926

CHAIN OF CUSTODY RECORD

DAS #: R35450
Cooler #: 7

No: 3-101518-102541-0020
Lab: USEPA Region III
Lab Contact: Ex. 4 CBI
Lab Phone: 410-305-2938

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
BDE-GW-14	C0AF0	Ground Water/ START	Grab	Perfluorinated Compounds (PFCS)(21)	1369 (Trizma), 1370 (Trizma) (2)	BDE-GW-14	10/11/2018 14:29	1810015 -17
BDE-GW-15	C0AF1	Ground Water/ START	Grab	Perfluorinated Compounds (PFCS)(21)	1376 (Trizma), 1377 (Trizma) (2)	BDE-GW-15	10/10/2018 18:42	-18

Special Instructions:

Shipment for Case Complete? Y
Samples Transferred From Chain of Custody #

Analysis Key

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
samples for analysis	Ex. 4 CBI (WESTON	10-15-2018 17:00	Ex. 4 CBI ESAT	10/16/18 12:15	5.5°C CP 10/16/18

USEPA CLP COC (LAB COPY)
DateShipped: 10/15/2018
CarrierName: FedEx
AirbillNo: 89870578937

CHAIN OF CUSTODY RECORD

DAS #: R35450
Cooler #: 8

No: 3-101518-103305-0022
Lab: USEPA Region III
Lab Contact: Ex. 4 CBI
Lab Phone: 410-305-2938

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
BDE-GW-01	MC0AD2	Ground Water/ START	Grab	Metals + Hg, ISM02.4 ICP-MS(21)	1242 (HNO3 pH<2) (1)	BDE-GW-01	10/09/2018 11:54	1810015 -05
BDE-GW-02	MC0AD8	Ground Water/ START	Grab	Metals + Hg, ISM02.4 ICP-MS(21)	1284 (HNO3 pH<2) (1)	BDE-GW-02	01/09/2018 15:24	-01
BDE-GW-03	MC0AD9	Ground Water/ START	Grab	Metals + Hg, ISM02.4 ICP-MS(21)	1291 (HNO3 pH<2) (1)	BDE-GW-03	10/08/2018 15:22	-02
BDE-GW-04	MC0AE0	Ground Water/ START	Grab	Metals + Hg, ISM02.4 ICP-MS(21)	1298 (HNO3 pH<2) (1)	BDE-GW-04	10/08/2020 13:54	-08
BDE-DMW-02	MC0AF3	Ground Water/ START	Grab	Metals + Hg, ISM02.4 ICP-MS(21)	1389 (HNO3 pH<2) (1)	BDE-DMW-02	10/09/2018 09:10	-06
BDE-DMW-03	MC0AF4	Ground Water/ START	Grab	Metals + Hg, ISM02.4 ICP-MS(21)	1396 (HNO3 pH<2) (1)	BDE-DMW-03	10/10/2018 17:11	-03
BDE-GW-02D	MC0AF5	Ground Water/ START	Grab	Metals + Hg, ISM02.4 ICP-MS(21)	1403 (HNO3 pH<2) (1)	BDE-GW-02D	10/09/2018 15:24	-04
BDE-DMW-01	MC0AG0	Ground Water/ START	Grab	Metals + Hg, ISM02.4 ICP-MS(21)	1427 (HNO3 pH<2) (1)	BDE-DMW-01	10/10/2018 09:08	-07

Sample(s) to be used for Lab QC: BDE-GW-01 Tag 1242

Shipment for Case Complete? Y
Samples Transferred From Chain of Custody #

Analysis Key

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
Samples for analysis	Ex. 4 CBI (WEMN)	10-15-2018 17:00	Ex. 4 CBI ESAT	10/16/18 12:15	6.0°C CJ 10/16/18

USEPA CLP COC (LAB COPY)
DateShipped: 10/15/2018
CarrierName: FedEx
AirbillNo: 898705788970

CHAIN OF CUSTODY RECORD

DAS #: R35450
Cooler #: 9

No: 3-101518-104453-0023
Lab: USEPA Region III
Lab Contact: Ex. 4 CBI
Lab Phone: 410-305-2938

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
BDE-GW-05	MC0AE1	Ground Water/ START	Grab	Metals + Hg, ISM02.4 ICP-MS(21)	1305 (HNO3 pH<2) (1)	BDE-GW-05	10/08/2018 16:44	1810015 -09
BDE-GW-07	MC0AE3	Ground Water/ START	Grab	Metals + Hg, ISM02.4 ICP-MS(21)	1319 (HNO3 pH<2) (1)	BDE-GW-07	10/10/2018 11:31	-10
BDE-GW-08	MC0AE4	Ground Water/ START	Grab	Metals + Hg, ISM02.4 ICP-MS(21)	1326 (HNO3 pH<2) (1)	BDE-GW-08	10/11/2018 11:56	-11
BDE-GW-09	MC0AE5	Ground Water/ START	Grab	Metals + Hg, ISM02.4 ICP-MS(21)	1333 (HNO3 pH<2) (1)	BDE-GW-09	10/09/2018 10:01	-12
BDE-GW-10	MC0AE6	Ground Water/ START	Grab	Metals + Hg, ISM02.4 ICP-MS(21)	1340 (HNO3 pH<2) (1)	BDE-GW-10	10/11/2018 13:09	-13
BDE-GW-11	MC0AE7	Ground Water/ START	Grab	Metals + Hg, ISM02.4 ICP-MS(21)	1347 (HNO3 pH<2) (1)	BDE-GW-11	10/11/2018 08:53	-14
BDE-GW-12	MC0AE8	Ground Water/ START	Grab	Metals + Hg, ISM02.4 ICP-MS(21)	1354 (HNO3 pH<2) (1)	BDE-GW-12	10/11/2018 10:23	-15
BDE-GW-13	MC0AE9	Ground Water/ START	Grab	Metals + Hg, ISM02.4 ICP-MS(21)	1361 (HNO3 pH<2) (1)	BDE-GW-13	10/08/2018 18:10	-16
BDE-GW-14	MC0AF0	Ground Water/ START	Grab	Metals + Hg, ISM02.4 ICP-MS(21)	1368 (HNO3 pH<2) (1)	BDE-GW-14	10/11/2018 14:29	-17
BDE-GW-15	MC0AF1	Ground Water/ START	Grab	Metals + Hg, ISM02.4 ICP-MS(21)	1375 (HNO3 pH<2) (1)	BDE-GW-15	10/10/2018 18:42	-18

Special Instructions:

Shipment for Case Complete? Y
Samples Transferred From Chain of Custody #

Analysis Key

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
samples for analysis	Ex. 4 CBI (WESTON)	10-15-2018 17:00	Ex. 4 CBI ESAT	10/16/18 12:15	6.0°C CP 10/16/18

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

HPLC Identification

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-01								
Station ID: BDE-GW-02								
Sample Matrix: Groundwater								
Collected: 10/09/2018								
PFBS (perfluorobutanesulfonic acid)	**62.4**		8.62	ng/L	1	10/19/18	10/23/18 03:20	EPA 537/R3QA242/243
PFHpA (perfluoroheptanoic acid)	**19.8**		8.62	ng/L	1	10/19/18	10/23/18 03:20	EPA 537/R3QA242/243
PFHxS (perfluorohexanesulfonic acid)	**15.5**		8.62	ng/L	1	10/19/18	10/23/18 03:20	EPA 537/R3QA242/243
PFNA (perfluorononanoic acid)	U		8.62	ng/L	1	10/19/18	10/23/18 03:20	EPA 537/R3QA242/243
PFOS (perfluorooctanesulfonic acid)	**2820**		216	ng/L	25	10/19/18	11/06/18 00:07	EPA 537/R3QA242/243
PFOA (perfluorooctanoic acid)	U		8.62	ng/L	1	10/19/18	10/23/18 03:20	EPA 537/R3QA242/243

Surrogates

Analyte	Result	Flags/ Qualifiers	**%Recovery**	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-01								
Station ID: BDE-GW-02								
Sample Matrix: Groundwater								
Collected: 10/09/2018								
Surrogate: MPFHxA	39.8		**115 %**	ng/L	*70-130*	10/19/18	10/23/18 03:20	*EPA 537/R3QA242/243*
Surrogate: MPFDA	35.9		**104 %**	ng/L	*70-130*	10/19/18	10/23/18 03:20	*EPA 537/R3QA242/243*

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

HPLC Identification

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-02								
Station ID: BDE-GW-03								
Sample Matrix: Groundwater								
Collected: 10/08/2018								
PFBS (perfluorobutanesulfonic acid)	**10.7**		8.93	ng/L	1	10/19/18	10/23/18 03:46	EPA 537/R3QA242/243
PFHpA (perfluoroheptanoic acid)	**10.9**		8.93	ng/L	1	10/19/18	10/23/18 03:46	EPA 537/R3QA242/243
PFHxS (perfluorohexanesulfonic acid)	**33.8**		8.93	ng/L	1	10/19/18	10/23/18 03:46	EPA 537/R3QA242/243
PFNA (perfluorononanoic acid)	U		8.93	ng/L	1	10/19/18	10/23/18 03:46	EPA 537/R3QA242/243
PFOS (perfluorooctanesulfonic acid)	**156**		44.6	ng/L	5	10/19/18	11/15/18 16:16	EPA 537/R3QA242/243
PFOA (perfluorooctanoic acid)	**29.1**		8.93	ng/L	1	10/19/18	10/23/18 03:46	EPA 537/R3QA242/243

Surrogates

Analyte	Result	Flags/ Qualifiers	**%Recovery**	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-02								
Station ID: BDE-GW-03								
Sample Matrix: Groundwater								
Collected: 10/08/2018								
Surrogate: MPFHxA	41.7		**117 %**	ng/L	*70-130*	10/19/18	10/23/18 03:46	*EPA 537/R3QA242/243*
Surrogate: MPFDA	39.6		**111 %**	ng/L	*70-130*	10/19/18	10/23/18 03:46	*EPA 537/R3QA242/243*

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

HPLC Identification

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-03								
Station ID: BDE-DMW-03								
Sample Matrix: Groundwater								
Collected: 10/10/2018								
PFBS (perfluorobutanesulfonic acid)	**200**		43.9	ng/L	5	10/19/18	11/15/18 17:08	EPA 537/R3QA242/243
PFHpA (perfluoroheptanoic acid)	U		8.77	ng/L	1	10/19/18	10/23/18 04:12	EPA 537/R3QA242/243
PFHxS (perfluorohexanesulfonic acid)	**17.3**		8.77	ng/L	1	10/19/18	10/23/18 04:12	EPA 537/R3QA242/243
PFNA (perfluorononanoic acid)	U		8.77	ng/L	1	10/19/18	10/23/18 04:12	EPA 537/R3QA242/243
PFOS (perfluorooctanesulfonic acid)	**151**		43.9	ng/L	5	10/19/18	11/15/18 17:08	EPA 537/R3QA242/243
PFOA (perfluorooctanoic acid)	**20.9**		8.77	ng/L	1	10/19/18	10/23/18 04:12	EPA 537/R3QA242/243

Surrogates

Analyte	Result	Flags/ Qualifiers	**%Recovery**	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-03								
Station ID: BDE-DMW-03								
Sample Matrix: Groundwater								
Collected: 10/10/2018								
Surrogate: MPFHxA	35.0		**100 %**	ng/L	*70-130*	10/19/18	10/23/18 04:12	*EPA 537/R3QA242/243*
Surrogate: MPFDA	33.7		**96 %**	ng/L	*70-130*	10/19/18	10/23/18 04:12	*EPA 537/R3QA242/243*

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

HPLC Identification

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-04								
Station ID: BDE-GW-02D								
Sample Matrix: Groundwater								
Collected: 10/09/2018								
PFBS (perfluorobutanesulfonic acid)	**60.6**		8.62	ng/L	1	10/19/18	10/23/18 04:37	EPA 537/R3QA242/243
PFHpA (perfluoroheptanoic acid)	**19.1**		8.62	ng/L	1	10/19/18	10/23/18 04:37	EPA 537/R3QA242/243
PFHxS (perfluorohexanesulfonic acid)	**16.7**		8.62	ng/L	1	10/19/18	10/23/18 04:37	EPA 537/R3QA242/243
PFNA (perfluorononanoic acid)	U		8.62	ng/L	1	10/19/18	10/23/18 04:37	EPA 537/R3QA242/243
PFOS (perfluorooctanesulfonic acid)	**2620**		216	ng/L	25	10/19/18	11/06/18 00:32	EPA 537/R3QA242/243
PFOA (perfluorooctanoic acid)	U		8.62	ng/L	1	10/19/18	10/23/18 04:37	EPA 537/R3QA242/243

Surrogates

Analyte	Result	Flags/ Qualifiers	**%Recovery**	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-04								
Station ID: BDE-GW-02D								
Sample Matrix: Groundwater								
Collected: 10/09/2018								
Surrogate: MPFHxA	37.4		**108 %**	ng/L	*70-130*	10/19/18	10/23/18 04:37	*EPA 537/R3QA242/243*
Surrogate: MPFDA	36.5		**106 %**	ng/L	*70-130*	10/19/18	10/23/18 04:37	*EPA 537/R3QA242/243*

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

HPLC Identification

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-05								
Station ID: BDE-GW-01								
Sample Matrix: Groundwater								
Collected: 10/09/2018								
PFBS (perfluorobutanesulfonic acid)	**14.5**		8.62	ng/L	1	10/19/18	10/23/18 05:03	EPA 537/R3QA242/243
PFHpA (perfluoroheptanoic acid)	U		8.62	ng/L	1	10/19/18	10/23/18 05:03	EPA 537/R3QA242/243
PFHxS (perfluorohexanesulfonic acid)	U		8.62	ng/L	1	10/19/18	10/23/18 05:03	EPA 537/R3QA242/243
PFNA (perfluorononanoic acid)	U		8.62	ng/L	1	10/19/18	10/23/18 05:03	EPA 537/R3QA242/243
PFOS (perfluorooctanesulfonic acid)	**183**		43.1	ng/L	5	10/19/18	11/06/18 00:58	EPA 537/R3QA242/243
PFOA (perfluorooctanoic acid)	**10.1**		8.62	ng/L	1	10/19/18	10/23/18 05:03	EPA 537/R3QA242/243

Surrogates

Analyte	Result	Flags/ Qualifiers	**%Recovery**	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-05								
Station ID: BDE-GW-01								
Sample Matrix: Groundwater								
Collected: 10/09/2018								
Surrogate: MPFHxA	36.6		**106 %**	ng/L	*70-130*	10/19/18	10/23/18 05:03	*EPA 537/R3QA242/243*
Surrogate: MPFDA	35.3		**102 %**	ng/L	*70-130*	10/19/18	10/23/18 05:03	*EPA 537/R3QA242/243*

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

HPLC Identification

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-06								
Station ID: BDE-DMW-02								
Sample Matrix: Groundwater								
Collected: 10/09/2018								
PFBS (perfluorobutanesulfonic acid)	**93.6**		8.93	ng/L	1	10/19/18	10/23/18 06:20	EPA 537/R3QA242/243
PFHpA (perfluoroheptanoic acid)	U		8.93	ng/L	1	10/19/18	10/23/18 06:20	EPA 537/R3QA242/243
PFHxS (perfluorohexanesulfonic acid)	U		8.93	ng/L	1	10/19/18	10/23/18 06:20	EPA 537/R3QA242/243
PFNA (perfluorononanoic acid)	U		8.93	ng/L	1	10/19/18	10/23/18 06:20	EPA 537/R3QA242/243
PFOS (perfluorooctanesulfonic acid)	**74.2**		8.93	ng/L	1	10/19/18	10/23/18 06:20	EPA 537/R3QA242/243
PFOA (perfluorooctanoic acid)	**16.6**		8.93	ng/L	1	10/19/18	10/23/18 06:20	EPA 537/R3QA242/243

Surrogates

Analyte	Result	Flags/ Qualifiers	**%Recovery**	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-06								
Station ID: BDE-DMW-02								
Sample Matrix: Groundwater								
Collected: 10/09/2018								
Surrogate: MPFHxA	40.7		**114 %**	ng/L	*70-130*	10/19/18	10/23/18 06:20	*EPA 537/R3QA242/243*
Surrogate: MPFDA	40.4		**113 %**	ng/L	*70-130*	10/19/18	10/23/18 06:20	*EPA 537/R3QA242/243*

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

HPLC Identification

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-07								
Station ID: BDE-DMW-01								
Sample Matrix: Groundwater								
Collected: 10/10/2018								
PFBS (perfluorobutanesulfonic acid)	**52.2**		8.77	ng/L	1	10/19/18	10/23/18 06:45	EPA 537/R3QA242/243
PFHpA (perfluoroheptanoic acid)	U		8.77	ng/L	1	10/19/18	10/23/18 06:45	EPA 537/R3QA242/243
PFHxS (perfluorohexanesulfonic acid)	**9.09**		8.77	ng/L	1	10/19/18	10/23/18 06:45	EPA 537/R3QA242/243
PFNA (perfluorononanoic acid)	U		8.77	ng/L	1	10/19/18	10/23/18 06:45	EPA 537/R3QA242/243
PFOS (perfluorooctanesulfonic acid)	**122**		8.77	ng/L	1	10/19/18	10/23/18 06:45	EPA 537/R3QA242/243
PFOA (perfluorooctanoic acid)	**16.3**		8.77	ng/L	1	10/19/18	10/23/18 06:45	EPA 537/R3QA242/243

Surrogates

Analyte	Result	Flags/ Qualifiers	**%Recovery**	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-07								
Station ID: BDE-DMW-01								
Sample Matrix: Groundwater								
Collected: 10/10/2018								
Surrogate: MPFHxA	40.5		**115 %**	ng/L	*70-130*	10/19/18	10/23/18 06:45	*EPA 537/R3QA242/243*
Surrogate: MPFDA	34.5		**98 %**	ng/L	*70-130*	10/19/18	10/23/18 06:45	*EPA 537/R3QA242/243*

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

HPLC Identification

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-08								
Station ID: BDE-GW-04								
Sample Matrix: Groundwater								
Collected: 10/08/2018								
PFBS (perfluorobutanesulfonic acid)	**68.7**		8.93	ng/L	1	10/19/18	10/23/18 07:11	EPA 537/R3QA242/243
PFHpA (perfluoroheptanoic acid)	**17.9**		8.93	ng/L	1	10/19/18	10/23/18 07:11	EPA 537/R3QA242/243
PFHxS (perfluorohexanesulfonic acid)	**42.0**		8.93	ng/L	1	10/19/18	10/23/18 07:11	EPA 537/R3QA242/243
PFNA (perfluorononanoic acid)	U		8.93	ng/L	1	10/19/18	10/23/18 07:11	EPA 537/R3QA242/243
PFOS (perfluorooctanesulfonic acid)	**73.2**		8.93	ng/L	1	10/19/18	10/23/18 07:11	EPA 537/R3QA242/243
PFOA (perfluorooctanoic acid)	**33.5**		8.93	ng/L	1	10/19/18	10/23/18 07:11	EPA 537/R3QA242/243

Surrogates

Analyte	Result	Flags/ Qualifiers	**%Recovery**	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-08								
Station ID: BDE-GW-04								
Sample Matrix: Groundwater								
Collected: 10/08/2018								
Surrogate: MPFHxA	41.5		**116 %**	ng/L	*70-130*	10/19/18	10/23/18 07:11	*EPA 537/R3QA242/243*
Surrogate: MPFDA	44.8		**125 %**	ng/L	*70-130*	10/19/18	10/23/18 07:11	*EPA 537/R3QA242/243*

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

HPLC Identification

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-09								
Station ID: BDE-GW-05								
Sample Matrix: Groundwater								
Collected: 10/08/2018								
PFBS (perfluorobutanesulfonic acid)	**31.1**		8.62	ng/L	1	10/19/18	10/23/18 07:36	EPA 537/R3QA242/243
PFHpA (perfluoroheptanoic acid)	**17.5**		8.62	ng/L	1	10/19/18	10/23/18 07:36	EPA 537/R3QA242/243
PFHxS (perfluorohexanesulfonic acid)	U		8.62	ng/L	1	10/19/18	10/23/18 07:36	EPA 537/R3QA242/243
PFNA (perfluorononanoic acid)	U		8.62	ng/L	1	10/19/18	10/23/18 07:36	EPA 537/R3QA242/243
PFOS (perfluorooctanesulfonic acid)	**215**		43.1	ng/L	5	10/19/18	11/15/18 17:33	EPA 537/R3QA242/243
PFOA (perfluorooctanoic acid)	**27.9**		8.62	ng/L	1	10/19/18	10/23/18 07:36	EPA 537/R3QA242/243

Surrogates

Analyte	Result	Flags/ Qualifiers	**%Recovery**	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-09								
Station ID: BDE-GW-05								
Sample Matrix: Groundwater								
Collected: 10/08/2018								
Surrogate: MPFHxA	39.4		**114 %**	ng/L	*70-130*	10/19/18	10/23/18 07:36	*EPA 537/R3QA242/243*
Surrogate: MPFDA	39.6		**115 %**	ng/L	*70-130*	10/19/18	10/23/18 07:36	*EPA 537/R3QA242/243*

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

HPLC Identification

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-10								
Station ID: BDE-GW-07								
Sample Matrix: Groundwater								
Collected: 10/10/2018								
PFBS (perfluorobutanesulfonic acid)	**32.2**		8.93	ng/L	1	10/19/18	10/23/18 08:02	EPA 537/R3QA242/243
PFHpA (perfluoroheptanoic acid)	**12.0**		8.93	ng/L	1	10/19/18	10/23/18 08:02	EPA 537/R3QA242/243
PFHxS (perfluorohexanesulfonic acid)	U		8.93	ng/L	1	10/19/18	10/23/18 08:02	EPA 537/R3QA242/243
PFNA (perfluorononanoic acid)	**11.6**		8.93	ng/L	1	10/19/18	10/23/18 08:02	EPA 537/R3QA242/243
PFOS (perfluorooctanesulfonic acid)	**347**		44.6	ng/L	5	10/19/18	11/06/18 02:15	EPA 537/R3QA242/243
PFOA (perfluorooctanoic acid)	**35.1**		8.93	ng/L	1	10/19/18	10/23/18 08:02	EPA 537/R3QA242/243

Surrogates

Analyte	Result	Flags/ Qualifiers	**%Recovery**	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-10								
Station ID: BDE-GW-07								
Sample Matrix: Groundwater								
Collected: 10/10/2018								
Surrogate: MPFHxA	43.9		**123 %**	ng/L	*70-130*	10/19/18	10/23/18 08:02	*EPA 537/R3QA242/243*
Surrogate: MPFDA	45.6		**128 %**	ng/L	*70-130*	10/19/18	10/23/18 08:02	*EPA 537/R3QA242/243*

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

HPLC Identification

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-11								
Station ID: BDE-GW-08								
Sample Matrix: Groundwater								
Collected: 10/11/2018								
PFBS (perfluorobutanesulfonic acid)	**25.2**		8.77	ng/L	1	10/19/18	10/23/18 09:19	EPA 537/R3QA242/243
PFHpA (perfluoroheptanoic acid)	U	UJ	8.77	ng/L	1	10/19/18	10/23/18 09:19	EPA 537/R3QA242/243
PFHxS (perfluorohexanesulfonic acid)	U		8.77	ng/L	1	10/19/18	10/23/18 09:19	EPA 537/R3QA242/243
PFNA (perfluorononanoic acid)	U	UJ	8.77	ng/L	1	10/19/18	10/23/18 09:19	EPA 537/R3QA242/243
PFOS (perfluorooctanesulfonic acid)	**155**		8.77	ng/L	1	10/19/18	10/23/18 09:19	EPA 537/R3QA242/243
PFOA (perfluorooctanoic acid)	**10.3**	**J**	8.77	ng/L	1	10/19/18	10/23/18 09:19	EPA 537/R3QA242/243

Surrogates

Analyte	Result	Flags/ Qualifiers	**%Recovery**	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-11								
Station ID: BDE-GW-08								
Sample Matrix: Groundwater								
Collected: 10/11/2018								
Surrogate: MPFHxA	42.8		**122 %**	ng/L	*70-130*	10/19/18	10/23/18 09:19	*EPA 537/R3QA242/243*
Surrogate: MPFDA	39.3		**112 %**	ng/L	*70-130*	10/19/18	10/23/18 09:19	*EPA 537/R3QA242/243*

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

HPLC Identification

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-12								
Station ID: BDE-GW-09								
Sample Matrix: Groundwater								
Collected: 10/09/2018								
PFBS (perfluorobutanesulfonic acid)	**31.5**		8.62	ng/L	1	10/19/18	10/23/18 09:44	EPA 537/R3QA242/243
PFHpA (perfluoroheptanoic acid)	U	UJ	8.62	ng/L	1	10/19/18	10/23/18 09:44	EPA 537/R3QA242/243
PFHxS (perfluorohexanesulfonic acid)	U		8.62	ng/L	1	10/19/18	10/23/18 09:44	EPA 537/R3QA242/243
PFNA (perfluorononanoic acid)	U	UJ	8.62	ng/L	1	10/19/18	10/23/18 09:44	EPA 537/R3QA242/243
PFOS (perfluorooctanesulfonic acid)	**241**		43.1	ng/L	5	10/19/18	11/06/18 02:40	EPA 537/R3QA242/243
PFOA (perfluorooctanoic acid)	**18.8**	**J**	8.62	ng/L	1	10/19/18	10/23/18 09:44	EPA 537/R3QA242/243

Surrogates

Analyte	Result	Flags/ Qualifiers	**%Recovery**	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-12								
Station ID: BDE-GW-09								
Sample Matrix: Groundwater								
Collected: 10/09/2018								
Surrogate: MPFHxA	38.6		**112 %**	ng/L	*70-130*	10/19/18	10/23/18 09:44	*EPA 537/R3QA242/243*
Surrogate: MPFDA	36.3		**105 %**	ng/L	*70-130*	10/19/18	10/23/18 09:44	*EPA 537/R3QA242/243*

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

HPLC Identification

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-13								
Station ID: BDE-GW-10								
Sample Matrix: Groundwater								
Collected: 10/11/2018								
PFBS (perfluorobutanesulfonic acid)	**40.4**		8.62	ng/L	1	10/19/18	10/23/18 10:10	EPA 537/R3QA242/243
PFHpA (perfluoroheptanoic acid)	**12.4**	J	8.62	ng/L	1	10/19/18	10/23/18 10:10	EPA 537/R3QA242/243
PFHxS (perfluorohexanesulfonic acid)	U		8.62	ng/L	1	10/19/18	10/23/18 10:10	EPA 537/R3QA242/243
PFNA (perfluorononanoic acid)	U	UJ	8.62	ng/L	1	10/19/18	10/23/18 10:10	EPA 537/R3QA242/243
PFOS (perfluorooctanesulfonic acid)	**1300**		86.2	ng/L	10	10/19/18	11/06/18 03:06	EPA 537/R3QA242/243
PFOA (perfluorooctanoic acid)	**33.0**	J	8.62	ng/L	1	10/19/18	10/23/18 10:10	EPA 537/R3QA242/243

Surrogates

Analyte	Result	Flags/ Qualifiers	%Recovery	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-13								
Station ID: BDE-GW-10								
Sample Matrix: Groundwater								
Collected: 10/11/2018								
Surrogate: MPFHxA	38.0		**110 %**	ng/L	*70-130*	10/19/18	10/23/18 10:10	*EPA 537/R3QA242/243*
Surrogate: MPFDA	37.0		**107 %**	ng/L	*70-130*	10/19/18	10/23/18 10:10	*EPA 537/R3QA242/243*

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

HPLC Identification

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-14								
Station ID: BDE-GW-11								
Sample Matrix: Groundwater								
Collected: 10/11/2018								
PFBS (perfluorobutanesulfonic acid)	**61.9**		8.77	ng/L	1	10/19/18	10/23/18 10:36	EPA 537/R3QA242/243
PFHpA (perfluoroheptanoic acid)	**12.6**	J	8.77	ng/L	1	10/19/18	10/23/18 10:36	EPA 537/R3QA242/243
PFHxS (perfluorohexanesulfonic acid)	**11.8**		8.77	ng/L	1	10/19/18	10/23/18 10:36	EPA 537/R3QA242/243
PFNA (perfluorononanoic acid)	U	UJ	8.77	ng/L	1	10/19/18	10/23/18 10:36	EPA 537/R3QA242/243
PFOS (perfluorooctanesulfonic acid)	**228**		43.9	ng/L	5	10/19/18	11/16/18 00:00	EPA 537/R3QA242/243
PFOA (perfluorooctanoic acid)	**25.0**	J	8.77	ng/L	1	10/19/18	10/23/18 10:36	EPA 537/R3QA242/243

Surrogates

Analyte	Result	Flags/ Qualifiers	**%Recovery**	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-14								
Station ID: BDE-GW-11								
Sample Matrix: Groundwater								
Collected: 10/11/2018								
Surrogate: MPFHxA	40.2		**115 %**	ng/L	*70-130*	10/19/18	10/23/18 10:36	*EPA 537/R3QA242/243*
Surrogate: MPFDA	36.9		**105 %**	ng/L	*70-130*	10/19/18	10/23/18 10:36	*EPA 537/R3QA242/243*

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

HPLC Identification

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-15								
Station ID: BDE-GW-12								
Sample Matrix: Groundwater								
Collected: 10/11/2018								
PFBS (perfluorobutanesulfonic acid)	**34.5**		8.93	ng/L	1	10/19/18	10/23/18 11:01	EPA 537/R3QA242/243
PFHpA (perfluoroheptanoic acid)	U	UJ	8.93	ng/L	1	10/19/18	10/23/18 11:01	EPA 537/R3QA242/243
PFHxS (perfluorohexanesulfonic acid)	U		8.93	ng/L	1	10/19/18	10/23/18 11:01	EPA 537/R3QA242/243
PFNA (perfluorononanoic acid)	U	UJ	8.93	ng/L	1	10/19/18	10/23/18 11:01	EPA 537/R3QA242/243
PFOS (perfluorooctanesulfonic acid)	**156**		8.93	ng/L	1	10/19/18	10/23/18 11:01	EPA 537/R3QA242/243
PFOA (perfluorooctanoic acid)	**14.8**	**J**	8.93	ng/L	1	10/19/18	10/23/18 11:01	EPA 537/R3QA242/243

Surrogates

Analyte	Result	Flags/ Qualifiers	**%Recovery**	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-15								
Station ID: BDE-GW-12								
Sample Matrix: Groundwater								
Collected: 10/11/2018								
Surrogate: MPFHxA	41.1		**115 %**	ng/L	*70-130*	10/19/18	10/23/18 11:01	*EPA 537/R3QA242/243*
Surrogate: MPFDA	39.0		**109 %**	ng/L	*70-130*	10/19/18	10/23/18 11:01	*EPA 537/R3QA242/243*

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

HPLC Identification

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-16								
Station ID: BDE-GW-13								
Sample Matrix: Groundwater								
Collected: 10/08/2018								
PFBS (perfluorobutanesulfonic acid)	**32.7**		8.62	ng/L	1	10/19/18	10/23/18 11:27	EPA 537/R3QA242/243
PFHpA (perfluoroheptanoic acid)	U	UJ	8.62	ng/L	1	10/19/18	10/23/18 11:27	EPA 537/R3QA242/243
PFHxS (perfluorohexanesulfonic acid)	U		8.62	ng/L	1	10/19/18	10/23/18 11:27	EPA 537/R3QA242/243
PFNA (perfluorononanoic acid)	U	UJ	8.62	ng/L	1	10/19/18	10/23/18 11:27	EPA 537/R3QA242/243
PFOS (perfluorooctanesulfonic acid)	**265**		43.1	ng/L	5	10/19/18	11/06/18 03:32	EPA 537/R3QA242/243
PFOA (perfluorooctanoic acid)	U	UJ	8.62	ng/L	1	10/19/18	10/23/18 11:27	EPA 537/R3QA242/243

Surrogates

Analyte	Result	Flags/ Qualifiers	**%Recovery**	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-16								
Station ID: BDE-GW-13								
Sample Matrix: Groundwater								
Collected: 10/08/2018								
Surrogate: MPFHxA	36.5		**106 %**	ng/L	*70-130*	10/19/18	10/23/18 11:27	*EPA 537/R3QA242/243*
Surrogate: MPFDA	35.6		**103 %**	ng/L	*70-130*	10/19/18	10/23/18 11:27	*EPA 537/R3QA242/243*

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

HPLC Identification

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-17								
Station ID: BDE-GW-14								
Sample Matrix: Groundwater								
Collected: 10/11/2018								
PFBS (perfluorobutanesulfonic acid)	**271**		89.3	ng/L	10	10/19/18	11/15/18 18:25	EPA 537/R3QA242/243
PFHpA (perfluoroheptanoic acid)	**12.3**	J	8.93	ng/L	1	10/19/18	10/23/18 11:53	EPA 537/R3QA242/243
PFHxS (perfluorohexanesulfonic acid)	**37.0**		8.93	ng/L	1	10/19/18	10/23/18 11:53	EPA 537/R3QA242/243
PFNA (perfluorononanoic acid)	U	UJ	8.93	ng/L	1	10/19/18	10/23/18 11:53	EPA 537/R3QA242/243
PFOS (perfluorooctanesulfonic acid)	**465**		89.3	ng/L	10	10/19/18	11/15/18 18:25	EPA 537/R3QA242/243
PFOA (perfluorooctanoic acid)	**33.2**	J	8.93	ng/L	1	10/19/18	10/23/18 11:53	EPA 537/R3QA242/243

Surrogates

Analyte	Result	Flags/ Qualifiers	**%Recovery**	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-17								
Station ID: BDE-GW-14								
Sample Matrix: Groundwater								
Collected: 10/11/2018								
Surrogate: MPFHxA	36.3		**102 %**	ng/L	*70-130*	10/19/18	10/23/18 11:53	*EPA 537/R3QA242/243*
Surrogate: MPFDA	37.4		**105 %**	ng/L	*70-130*	10/19/18	10/23/18 11:53	*EPA 537/R3QA242/243*

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

HPLC Identification

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-18								
Station ID: BDE-GW-15								
Sample Matrix: Groundwater								
Collected: 10/10/2018								
PFBS (perfluorobutanesulfonic acid)	**49.1**		8.77	ng/L	1	10/19/18	10/23/18 12:18	EPA 537/R3QA242/243
PFHpA (perfluoroheptanoic acid)	**9.12**	J	8.77	ng/L	1	10/19/18	10/23/18 12:18	EPA 537/R3QA242/243
PFHxS (perfluorohexanesulfonic acid)	U		8.77	ng/L	1	10/19/18	10/23/18 12:18	EPA 537/R3QA242/243
PFNA (perfluorononanoic acid)	U	UJ	8.77	ng/L	1	10/19/18	10/23/18 12:18	EPA 537/R3QA242/243
PFOS (perfluorooctanesulfonic acid)	**190**		43.9	ng/L	5	10/19/18	11/15/18 18:50	EPA 537/R3QA242/243
PFOA (perfluorooctanoic acid)	**22.4**	J	8.77	ng/L	1	10/19/18	10/23/18 12:18	EPA 537/R3QA242/243

Surrogates

Analyte	Result	Flags/ Qualifiers	**%Recovery**	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-18								
Station ID: BDE-GW-15								
Sample Matrix: Groundwater								
Collected: 10/10/2018								
Surrogate: MPFHxA	34.9		**99 %**	ng/L	*70-130*	10/19/18	10/23/18 12:18	*EPA 537/R3QA242/243*
Surrogate: MPFDA	36.6		**104 %**	ng/L	*70-130*	10/19/18	10/23/18 12:18	*EPA 537/R3QA242/243*

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

HPLC Identification

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-19								
Station ID: BDE-FRB-01								
Sample Matrix: Water								
Collected: 10/08/2018								
PFBS (perfluorobutanesulfonic acid)	U		10.0	ng/L	1	10/19/18	10/23/18 12:44	EPA 537/R3QA242/243
PFHpA (perfluoroheptanoic acid)	U	UJ	10.0	ng/L	1	10/19/18	10/23/18 12:44	EPA 537/R3QA242/243
PFHxS (perfluorohexanesulfonic acid)	U		10.0	ng/L	1	10/19/18	10/23/18 12:44	EPA 537/R3QA242/243
PFNA (perfluorononanoic acid)	U	UJ	10.0	ng/L	1	10/19/18	10/23/18 12:44	EPA 537/R3QA242/243
PFOS (perfluorooctanesulfonic acid)	U		10.0	ng/L	1	10/19/18	10/23/18 12:44	EPA 537/R3QA242/243
PFOA (perfluorooctanoic acid)	U	UJ	10.0	ng/L	1	10/19/18	10/23/18 12:44	EPA 537/R3QA242/243

Surrogates

Analyte	Result	Flags/ Qualifiers	**%Recovery**	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-19								
Station ID: BDE-FRB-01								
Sample Matrix: Water								
Collected: 10/08/2018								
Surrogate: MPFHxA	39.2		**98 %**	ng/L	*70-130*	10/19/18	10/23/18 12:44	*EPA 537/R3QA242/243*
Surrogate: MPFDA	39.0		**98 %**	ng/L	*70-130*	10/19/18	10/23/18 12:44	*EPA 537/R3QA242/243*

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

HPLC Identification

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-20								
Station ID: BDE-FRB-02								
Sample Matrix: Water								
Collected: 10/09/2018								
PFBS (perfluorobutanesulfonic acid)	U		10.0	ng/L	1	10/19/18	10/23/18 13:09	EPA 537/R3QA242/243
PFHpA (perfluoroheptanoic acid)	U	UJ	10.0	ng/L	1	10/19/18	10/23/18 13:09	EPA 537/R3QA242/243
PFHxS (perfluorohexanesulfonic acid)	U		10.0	ng/L	1	10/19/18	10/23/18 13:09	EPA 537/R3QA242/243
PFNA (perfluorononanoic acid)	U	UJ	10.0	ng/L	1	10/19/18	10/23/18 13:09	EPA 537/R3QA242/243
PFOS (perfluorooctanesulfonic acid)	U		10.0	ng/L	1	10/19/18	10/23/18 13:09	EPA 537/R3QA242/243
PFOA (perfluorooctanoic acid)	U	UJ	10.0	ng/L	1	10/19/18	10/23/18 13:09	EPA 537/R3QA242/243

Surrogates

Analyte	Result	Flags/ Qualifiers	**%Recovery**	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-20								
Station ID: BDE-FRB-02								
Sample Matrix: Water								
Collected: 10/09/2018								
Surrogate: MPFHxA	40.7		**102 %**	ng/L	*70-130*	10/19/18	10/23/18 13:09	*EPA 537/R3QA242/243*
Surrogate: MPFDA	39.5		**99 %**	ng/L	*70-130*	10/19/18	10/23/18 13:09	*EPA 537/R3QA242/243*

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

HPLC Identification

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-21								
Station ID: BDE-FRB-03								
Sample Matrix: Water								
Collected: 10/10/2018								
PFBS (perfluorobutanesulfonic acid)	U		10.0	ng/L	1	10/19/18	11/05/18 23:15	EPA 537/R3QA242/243
PFHpA (perfluoroheptanoic acid)	U		10.0	ng/L	1	10/19/18	11/05/18 23:15	EPA 537/R3QA242/243
PFHxS (perfluorohexanesulfonic acid)	U		10.0	ng/L	1	10/19/18	11/05/18 23:15	EPA 537/R3QA242/243
PFNA (perfluorononanoic acid)	U		10.0	ng/L	1	10/19/18	11/05/18 23:15	EPA 537/R3QA242/243
PFOS (perfluorooctanesulfonic acid)	U		10.0	ng/L	1	10/19/18	11/05/18 23:15	EPA 537/R3QA242/243
PFOA (perfluorooctanoic acid)	U		10.0	ng/L	1	10/19/18	11/05/18 23:15	EPA 537/R3QA242/243

Surrogates

Analyte	Result	Flags/ Qualifiers	**%Recovery**	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-21								
Station ID: BDE-FRB-03								
Sample Matrix: Water								
Collected: 10/10/2018								
Surrogate: MPFHxA	40.0		**100 %**	ng/L	*70-130*	10/19/18	11/05/18 23:15	*EPA 537/R3QA242/243*
Surrogate: MPFDA	40.8		**102 %**	ng/L	*70-130*	10/19/18	11/05/18 23:15	*EPA 537/R3QA242/243*

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

HPLC Identification

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-22								
Station ID: BDE-FRB-04								
Sample Matrix: Water								
Collected: 10/11/2018								
PFBS (perfluorobutanesulfonic acid)	U		10.0	ng/L	1	10/19/18	11/05/18 23:41	EPA 537/R3QA242/243
PFHpA (perfluoroheptanoic acid)	U		10.0	ng/L	1	10/19/18	11/05/18 23:41	EPA 537/R3QA242/243
PFHxS (perfluorohexanesulfonic acid)	U		10.0	ng/L	1	10/19/18	11/05/18 23:41	EPA 537/R3QA242/243
PFNA (perfluorononanoic acid)	U		10.0	ng/L	1	10/19/18	11/05/18 23:41	EPA 537/R3QA242/243
PFOS (perfluorooctanesulfonic acid)	U		10.0	ng/L	1	10/19/18	11/05/18 23:41	EPA 537/R3QA242/243
PFOA (perfluorooctanoic acid)	U		10.0	ng/L	1	10/19/18	11/05/18 23:41	EPA 537/R3QA242/243

Surrogates

Analyte	Result	Flags/ Qualifiers	**%Recovery**	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-22								
Station ID: BDE-FRB-04								
Sample Matrix: Water								
Collected: 10/11/2018								
Surrogate: MPFHxA	39.4		**99 %**	ng/L	*70-130*	10/19/18	11/05/18 23:41	*EPA 537/R3QA242/243*
Surrogate: MPFDA	38.7		**97 %**	ng/L	*70-130*	10/19/18	11/05/18 23:41	*EPA 537/R3QA242/243*

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

Organochlorine Pesticides and PCBs

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-01								
Station ID: BDE-GW-02								
Sample Matrix: Groundwater								
Collected: 10/09/2018								
Aldrin	U	UJ, H2	0.048	ug/L	1	10/17/18	11/01/18 23:24	R3QA237
alpha-BHC	U	UJ, H2	0.048	ug/L	1	10/17/18	11/01/18 23:24	R3QA237
beta-BHC	U	UJ, H2	0.048	ug/L	1	10/17/18	11/01/18 23:24	R3QA237
delta-BHC	U	UJ, H2	0.048	ug/L	1	10/17/18	11/01/18 23:24	R3QA237
gamma-BHC (Lindane)	U	UJ, H2	0.048	ug/L	1	10/17/18	11/01/18 23:24	R3QA237
alpha-Chlordane	U	UJ, H2	0.048	ug/L	1	10/17/18	11/01/18 23:24	R3QA237
gamma-Chlordane	U	UJ, H2	0.048	ug/L	1	10/17/18	11/01/18 23:24	R3QA237
4,4'-DDD	U	UJ, H2	0.095	ug/L	1	10/17/18	11/01/18 23:24	R3QA237
4,4'-DDE	U	UJ, H2	0.095	ug/L	1	10/17/18	11/01/18 23:24	R3QA237
4,4'-DDT	U	UJ, H2	0.095	ug/L	1	10/17/18	11/01/18 23:24	R3QA237
Dieldrin	U	UJ, H2	0.095	ug/L	1	10/17/18	11/01/18 23:24	R3QA237
Endosulfan I	U	UJ, H2	0.048	ug/L	1	10/17/18	11/01/18 23:24	R3QA237
Endosulfan II	U	UJ, H2	0.095	ug/L	1	10/17/18	11/01/18 23:24	R3QA237
Endosulfan sulfate	U	UJ, H2	0.095	ug/L	1	10/17/18	11/01/18 23:24	R3QA237
Endrin	U	UJ, H2	0.095	ug/L	1	10/17/18	11/01/18 23:24	R3QA237
Endrin aldehyde	U	UJ, H2	0.095	ug/L	1	10/17/18	11/01/18 23:24	R3QA237
Endrin ketone	U	UJ, H2	0.095	ug/L	1	10/17/18	11/01/18 23:24	R3QA237
Heptachlor	U	UJ, H2	0.048	ug/L	1	10/17/18	11/01/18 23:24	R3QA237
Heptachlor epoxide	U	UJ, H2	0.048	ug/L	1	10/17/18	11/01/18 23:24	R3QA237
Methoxychlor	U	UJ, H2	0.476	ug/L	1	10/17/18	11/01/18 23:24	R3QA237
Toxaphene	U	UJ, H2	4.76	ug/L	1	10/17/18	11/01/18 23:24	R3QA237

Surrogates

Analyte	Result	Flags/ Qualifiers	**%Recovery**	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-01								
Station ID: BDE-GW-02								
Sample Matrix: Groundwater								
Collected: 10/09/2018								
Surrogate: Tetrachloro-meta-xylene	0.643		**68 %**	ug/L	*30-150*	10/17/18	11/01/18 23:24	*R3QA237*
Surrogate: Decachlorobiphenyl	0.957		**100 %**	ug/L	*30-150*	10/17/18	11/01/18 23:24	*R3QA237*

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

Organochlorine Pesticides and PCBs

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-02								
Station ID: BDE-GW-03								
Sample Matrix: Groundwater								
Collected: 10/08/2018								
Aldrin	U	UJ, H2	0.048	ug/L	1	10/17/18	11/01/18 23:46	R3QA237
alpha-BHC	U	UJ, H2	0.048	ug/L	1	10/17/18	11/01/18 23:46	R3QA237
beta-BHC	U	UJ, H2	0.048	ug/L	1	10/17/18	11/01/18 23:46	R3QA237
delta-BHC	U	UJ, H2	0.048	ug/L	1	10/17/18	11/01/18 23:46	R3QA237
gamma-BHC (Lindane)	U	UJ, H2	0.048	ug/L	1	10/17/18	11/01/18 23:46	R3QA237
alpha-Chlordane	U	UJ, H2	0.048	ug/L	1	10/17/18	11/01/18 23:46	R3QA237
gamma-Chlordane	U	UJ, H2	0.048	ug/L	1	10/17/18	11/01/18 23:46	R3QA237
4,4'-DDD	U	UJ, H2	0.095	ug/L	1	10/17/18	11/01/18 23:46	R3QA237
4,4'-DDE	U	UJ, H2	0.095	ug/L	1	10/17/18	11/01/18 23:46	R3QA237
4,4'-DDT	U	UJ, H2	0.095	ug/L	1	10/17/18	11/01/18 23:46	R3QA237
Dieldrin	**0.957**	J, H2	0.095	ug/L	1	10/17/18	11/01/18 23:46	R3QA237
Endosulfan I	U	UJ, H2	0.048	ug/L	1	10/17/18	11/01/18 23:46	R3QA237
Endosulfan II	U	UJ, H2	0.095	ug/L	1	10/17/18	11/01/18 23:46	R3QA237
Endosulfan sulfate	U	UJ, H2	0.095	ug/L	1	10/17/18	11/01/18 23:46	R3QA237
Endrin	U	UJ, H2	0.095	ug/L	1	10/17/18	11/01/18 23:46	R3QA237
Endrin aldehyde	U	UJ, H2	0.095	ug/L	1	10/17/18	11/01/18 23:46	R3QA237
Endrin ketone	U	UJ, H2	0.095	ug/L	1	10/17/18	11/01/18 23:46	R3QA237
Heptachlor	U	UJ, H2	0.048	ug/L	1	10/17/18	11/01/18 23:46	R3QA237
Heptachlor epoxide	U	UJ, H2	0.048	ug/L	1	10/17/18	11/01/18 23:46	R3QA237
Methoxychlor	U	UJ, H2	0.476	ug/L	1	10/17/18	11/01/18 23:46	R3QA237
Toxaphene	U	UJ, H2	4.76	ug/L	1	10/17/18	11/01/18 23:46	R3QA237

Surrogates

Analyte	Result	Flags/ Qualifiers	**%Recovery**	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-02								
Station ID: BDE-GW-03								
Sample Matrix: Groundwater								
Collected: 10/08/2018								
Surrogate: Tetrachloro-meta-xylene	0.547		**57 %**	ug/L	*30-150*	10/17/18	11/01/18 23:46	*R3QA237*
Surrogate: Decachlorobiphenyl	1.03		**108 %**	ug/L	*30-150*	10/17/18	11/01/18 23:46	*R3QA237*

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

Organochlorine Pesticides and PCBs

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-03								
Station ID: BDE-DMW-03								
Sample Matrix: Groundwater								
Collected: 10/10/2018								
Aldrin	U		0.050	ug/L	1	10/17/18	11/02/18 00:08	R3QA237
alpha-BHC	U		0.050	ug/L	1	10/17/18	11/02/18 00:08	R3QA237
beta-BHC	U		0.050	ug/L	1	10/17/18	11/02/18 00:08	R3QA237
delta-BHC	U		0.050	ug/L	1	10/17/18	11/02/18 00:08	R3QA237
gamma-BHC (Lindane)	U		0.050	ug/L	1	10/17/18	11/02/18 00:08	R3QA237
alpha-Chlordane	U		0.050	ug/L	1	10/17/18	11/02/18 00:08	R3QA237
gamma-Chlordane	U		0.050	ug/L	1	10/17/18	11/02/18 00:08	R3QA237
4,4'-DDD	U		0.100	ug/L	1	10/17/18	11/02/18 00:08	R3QA237
4,4'-DDE	U		0.100	ug/L	1	10/17/18	11/02/18 00:08	R3QA237
4,4'-DDT	U		0.100	ug/L	1	10/17/18	11/02/18 00:08	R3QA237
Dieldrin	U		0.100	ug/L	1	10/17/18	11/02/18 00:08	R3QA237
Endosulfan I	U		0.050	ug/L	1	10/17/18	11/02/18 00:08	R3QA237
Endosulfan II	U		0.100	ug/L	1	10/17/18	11/02/18 00:08	R3QA237
Endosulfan sulfate	U		0.100	ug/L	1	10/17/18	11/02/18 00:08	R3QA237
Endrin	U		0.100	ug/L	1	10/17/18	11/02/18 00:08	R3QA237
Endrin aldehyde	U		0.100	ug/L	1	10/17/18	11/02/18 00:08	R3QA237
Endrin ketone	U		0.100	ug/L	1	10/17/18	11/02/18 00:08	R3QA237
Heptachlor	U		0.050	ug/L	1	10/17/18	11/02/18 00:08	R3QA237
Heptachlor epoxide	U		0.050	ug/L	1	10/17/18	11/02/18 00:08	R3QA237
Methoxychlor	U		0.500	ug/L	1	10/17/18	11/02/18 00:08	R3QA237
Toxaphene	U		5.00	ug/L	1	10/17/18	11/02/18 00:08	R3QA237

Surrogates

Analyte	Result	Flags/ Qualifiers	**%Recovery**	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-03								
Station ID: BDE-DMW-03								
Sample Matrix: Groundwater								
Collected: 10/10/2018								
Surrogate: Tetrachloro-meta-xylene	0.651		**65 %**	ug/L	*30-150*	10/17/18	11/02/18 00:08	*R3QA237*
Surrogate: Decachlorobiphenyl	0.912		**91 %**	ug/L	*30-150*	10/17/18	11/02/18 00:08	*R3QA237*

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

Organochlorine Pesticides and PCBs

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-04								
Station ID: BDE-GW-02D								
Sample Matrix: Groundwater								
Collected: 10/09/2018								
Aldrin	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 00:30	R3QA237
alpha-BHC	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 00:30	R3QA237
beta-BHC	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 00:30	R3QA237
delta-BHC	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 00:30	R3QA237
gamma-BHC (Lindane)	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 00:30	R3QA237
alpha-Chlordane	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 00:30	R3QA237
gamma-Chlordane	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 00:30	R3QA237
4,4'-DDD	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 00:30	R3QA237
4,4'-DDE	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 00:30	R3QA237
4,4'-DDT	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 00:30	R3QA237
Dieldrin	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 00:30	R3QA237
Endosulfan I	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 00:30	R3QA237
Endosulfan II	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 00:30	R3QA237
Endosulfan sulfate	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 00:30	R3QA237
Endrin	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 00:30	R3QA237
Endrin aldehyde	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 00:30	R3QA237
Endrin ketone	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 00:30	R3QA237
Heptachlor	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 00:30	R3QA237
Heptachlor epoxide	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 00:30	R3QA237
Methoxychlor	U	UJ, H2	0.476	ug/L	1	10/17/18	11/02/18 00:30	R3QA237
Toxaphene	U	UJ, H2	4.76	ug/L	1	10/17/18	11/02/18 00:30	R3QA237

Surrogates

Analyte	Result	Flags/ Qualifiers	**%Recovery**	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-04								
Station ID: BDE-GW-02D								
Sample Matrix: Groundwater								
Collected: 10/09/2018								
Surrogate: Tetrachloro-meta-xylene	0.683		**72 %**	ug/L	*30-150*	10/17/18	11/02/18 00:30	*R3QA237*
Surrogate: Decachlorobiphenyl	0.861		**90 %**	ug/L	*30-150*	10/17/18	11/02/18 00:30	*R3QA237*

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

Organochlorine Pesticides and PCBs

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-05								
Station ID: BDE-GW-01								
Sample Matrix: Groundwater								
Collected: 10/09/2018								
Aldrin	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 00:52	R3QA237
alpha-BHC	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 00:52	R3QA237
beta-BHC	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 00:52	R3QA237
delta-BHC	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 00:52	R3QA237
gamma-BHC (Lindane)	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 00:52	R3QA237
alpha-Chlordane	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 00:52	R3QA237
gamma-Chlordane	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 00:52	R3QA237
4,4'-DDD	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 00:52	R3QA237
4,4'-DDE	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 00:52	R3QA237
4,4'-DDT	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 00:52	R3QA237
Dieldrin	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 00:52	R3QA237
Endosulfan I	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 00:52	R3QA237
Endosulfan II	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 00:52	R3QA237
Endosulfan sulfate	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 00:52	R3QA237
Endrin	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 00:52	R3QA237
Endrin aldehyde	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 00:52	R3QA237
Endrin ketone	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 00:52	R3QA237
Heptachlor	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 00:52	R3QA237
Heptachlor epoxide	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 00:52	R3QA237
Methoxychlor	U	UJ, H2	0.476	ug/L	1	10/17/18	11/02/18 00:52	R3QA237
Toxaphene	U	UJ, H2	4.76	ug/L	1	10/17/18	11/02/18 00:52	R3QA237

Surrogates

Analyte	Result	Flags/ Qualifiers	**%Recovery**	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-05								
Station ID: BDE-GW-01								
Sample Matrix: Groundwater								
Collected: 10/09/2018								
Surrogate: Tetrachloro-meta-xylene	0.672		**71 %**	ug/L	*30-150*	10/17/18	11/02/18 00:52	*R3QA237*
Surrogate: Decachlorobiphenyl	0.840		**88 %**	ug/L	*30-150*	10/17/18	11/02/18 00:52	*R3QA237*

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

Organochlorine Pesticides and PCBs

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-06								
Station ID: BDE-DMW-02								
Sample Matrix: Groundwater								
Collected: 10/09/2018								
Aldrin	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 01:58	R3QA237
alpha-BHC	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 01:58	R3QA237
beta-BHC	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 01:58	R3QA237
delta-BHC	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 01:58	R3QA237
gamma-BHC (Lindane)	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 01:58	R3QA237
alpha-Chlordane	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 01:58	R3QA237
gamma-Chlordane	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 01:58	R3QA237
4,4'-DDD	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 01:58	R3QA237
4,4'-DDE	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 01:58	R3QA237
4,4'-DDT	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 01:58	R3QA237
Dieldrin	**0.341**	J, H2	0.095	ug/L	1	10/17/18	11/02/18 01:58	R3QA237
Endosulfan I	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 01:58	R3QA237
Endosulfan II	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 01:58	R3QA237
Endosulfan sulfate	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 01:58	R3QA237
Endrin	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 01:58	R3QA237
Endrin aldehyde	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 01:58	R3QA237
Endrin ketone	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 01:58	R3QA237
Heptachlor	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 01:58	R3QA237
Heptachlor epoxide	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 01:58	R3QA237
Methoxychlor	U	UJ, H2	0.476	ug/L	1	10/17/18	11/02/18 01:58	R3QA237
Toxaphene	U	UJ, H2	4.76	ug/L	1	10/17/18	11/02/18 01:58	R3QA237

Surrogates

Analyte	Result	Flags/ Qualifiers	**%Recovery**	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-06								
Station ID: BDE-DMW-02								
Sample Matrix: Groundwater								
Collected: 10/09/2018								
Surrogate: Tetrachloro-meta-xylene	0.700		**74 %**	ug/L	*30-150*	10/17/18	11/02/18 01:58	*R3QA237*
Surrogate: Decachlorobiphenyl	0.931		**98 %**	ug/L	*30-150*	10/17/18	11/02/18 01:58	*R3QA237*

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

Organochlorine Pesticides and PCBs

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-07								
Station ID: BDE-DMW-01								
Sample Matrix: Groundwater								
Collected: 10/10/2018								
Aldrin	U		0.048	ug/L	1	10/17/18	11/02/18 02:20	R3QA237
alpha-BHC	U		0.048	ug/L	1	10/17/18	11/02/18 02:20	R3QA237
beta-BHC	U		0.048	ug/L	1	10/17/18	11/02/18 02:20	R3QA237
delta-BHC	U		0.048	ug/L	1	10/17/18	11/02/18 02:20	R3QA237
gamma-BHC (Lindane)	U		0.048	ug/L	1	10/17/18	11/02/18 02:20	R3QA237
alpha-Chlordane	U		0.048	ug/L	1	10/17/18	11/02/18 02:20	R3QA237
gamma-Chlordane	U		0.048	ug/L	1	10/17/18	11/02/18 02:20	R3QA237
4,4'-DDD	U		0.095	ug/L	1	10/17/18	11/02/18 02:20	R3QA237
4,4'-DDE	U		0.095	ug/L	1	10/17/18	11/02/18 02:20	R3QA237
4,4'-DDT	U		0.095	ug/L	1	10/17/18	11/02/18 02:20	R3QA237
Dieldrin	U		0.095	ug/L	1	10/17/18	11/02/18 02:20	R3QA237
Endosulfan I	U		0.048	ug/L	1	10/17/18	11/02/18 02:20	R3QA237
Endosulfan II	U		0.095	ug/L	1	10/17/18	11/02/18 02:20	R3QA237
Endosulfan sulfate	U		0.095	ug/L	1	10/17/18	11/02/18 02:20	R3QA237
Endrin	U		0.095	ug/L	1	10/17/18	11/02/18 02:20	R3QA237
Endrin aldehyde	U		0.095	ug/L	1	10/17/18	11/02/18 02:20	R3QA237
Endrin ketone	U		0.095	ug/L	1	10/17/18	11/02/18 02:20	R3QA237
Heptachlor	U		0.048	ug/L	1	10/17/18	11/02/18 02:20	R3QA237
Heptachlor epoxide	U		0.048	ug/L	1	10/17/18	11/02/18 02:20	R3QA237
Methoxychlor	U		0.476	ug/L	1	10/17/18	11/02/18 02:20	R3QA237
Toxaphene	U		4.76	ug/L	1	10/17/18	11/02/18 02:20	R3QA237

Surrogates

Analyte	Result	Flags/ Qualifiers	**%Recovery**	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-07								
Station ID: BDE-DMW-01								
Sample Matrix: Groundwater								
Collected: 10/10/2018								
Surrogate: Tetrachloro-meta-xylene	0.699		**73 %**	ug/L	*30-150*	10/17/18	11/02/18 02:20	*R3QA237*
Surrogate: Decachlorobiphenyl	0.867		**91 %**	ug/L	*30-150*	10/17/18	11/02/18 02:20	*R3QA237*

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

Organochlorine Pesticides and PCBs

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-08								
Station ID: BDE-GW-04								
Sample Matrix: Groundwater								
Collected: 10/08/2018								
Aldrin	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 02:42	R3QA237
alpha-BHC	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 02:42	R3QA237
beta-BHC	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 02:42	R3QA237
delta-BHC	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 02:42	R3QA237
gamma-BHC (Lindane)	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 02:42	R3QA237
alpha-Chlordane	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 02:42	R3QA237
gamma-Chlordane	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 02:42	R3QA237
4,4'-DDD	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 02:42	R3QA237
4,4'-DDE	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 02:42	R3QA237
4,4'-DDT	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 02:42	R3QA237
Dieldrin	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 02:42	R3QA237
Endosulfan I	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 02:42	R3QA237
Endosulfan II	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 02:42	R3QA237
Endosulfan sulfate	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 02:42	R3QA237
Endrin	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 02:42	R3QA237
Endrin aldehyde	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 02:42	R3QA237
Endrin ketone	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 02:42	R3QA237
Heptachlor	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 02:42	R3QA237
Heptachlor epoxide	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 02:42	R3QA237
Methoxychlor	U	UJ, H2	0.476	ug/L	1	10/17/18	11/02/18 02:42	R3QA237
Toxaphene	U	UJ, H2	4.76	ug/L	1	10/17/18	11/02/18 02:42	R3QA237

Surrogates

Analyte	Result	Flags/ Qualifiers	**%Recovery**	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-08								
Station ID: BDE-GW-04								
Sample Matrix: Groundwater								
Collected: 10/08/2018								
Surrogate: Tetrachloro-meta-xylene	0.570		**60 %**	ug/L	*30-150*	10/17/18	11/02/18 02:42	*R3QA237*
Surrogate: Decachlorobiphenyl	0.985		**103 %**	ug/L	*30-150*	10/17/18	11/02/18 02:42	*R3QA237*

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

Organochlorine Pesticides and PCBs

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-09								
Station ID: BDE-GW-05								
Sample Matrix: Groundwater								
Collected: 10/08/2018								
Aldrin	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 03:04	R3QA237
alpha-BHC	U	H2, UJ	0.048	ug/L	1	10/17/18	11/02/18 03:04	R3QA237
beta-BHC	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 03:04	R3QA237
delta-BHC	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 03:04	R3QA237
gamma-BHC (Lindane)	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 03:04	R3QA237
alpha-Chlordane	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 03:04	R3QA237
gamma-Chlordane	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 03:04	R3QA237
4,4'-DDD	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 03:04	R3QA237
4,4'-DDE	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 03:04	R3QA237
4,4'-DDT	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 03:04	R3QA237
Dieldrin	**1.82**	J, H2	0.190	ug/L	2	10/17/18	11/02/18 13:21	R3QA237
Endosulfan I	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 03:04	R3QA237
Endosulfan II	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 03:04	R3QA237
Endosulfan sulfate	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 03:04	R3QA237
Endrin	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 03:04	R3QA237
Endrin aldehyde	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 03:04	R3QA237
Endrin ketone	**0.096**	J, H2	0.095	ug/L	1	10/17/18	11/02/18 03:04	R3QA237
Heptachlor	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 03:04	R3QA237
Heptachlor epoxide	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 03:04	R3QA237
Methoxychlor	U	UJ, H2	0.476	ug/L	1	10/17/18	11/02/18 03:04	R3QA237
Toxaphene	U	H2, UJ	4.76	ug/L	1	10/17/18	11/02/18 03:04	R3QA237

Surrogates

Analyte	Result	Flags/ Qualifiers	**%Recovery**	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-09								
Station ID: BDE-GW-05								
Sample Matrix: Groundwater								
Collected: 10/08/2018								
Surrogate: Tetrachloro-meta-xylene	0.598		**63 %**	ug/L	*30-150*	10/17/18	11/02/18 03:04	*R3QA237*
Surrogate: Decachlorobiphenyl	0.789		**83 %**	ug/L	*30-150*	10/17/18	11/02/18 03:04	*R3QA237*

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

Organochlorine Pesticides and PCBs

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-10								
Station ID: BDE-GW-07								
Sample Matrix: Groundwater								
Collected: 10/10/2018								
Aldrin	U		0.048	ug/L	1	10/17/18	11/02/18 03:26	R3QA237
alpha-BHC	U		0.048	ug/L	1	10/17/18	11/02/18 03:26	R3QA237
beta-BHC	U		0.048	ug/L	1	10/17/18	11/02/18 03:26	R3QA237
delta-BHC	U		0.048	ug/L	1	10/17/18	11/02/18 03:26	R3QA237
gamma-BHC (Lindane)	U		0.048	ug/L	1	10/17/18	11/02/18 03:26	R3QA237
alpha-Chlordane	U		0.048	ug/L	1	10/17/18	11/02/18 03:26	R3QA237
gamma-Chlordane	U		0.048	ug/L	1	10/17/18	11/02/18 03:26	R3QA237
4,4'-DDD	U		0.095	ug/L	1	10/17/18	11/02/18 03:26	R3QA237
4,4'-DDE	U		0.095	ug/L	1	10/17/18	11/02/18 03:26	R3QA237
4,4'-DDT	U		0.095	ug/L	1	10/17/18	11/02/18 03:26	R3QA237
Dieldrin	U		0.095	ug/L	1	10/17/18	11/02/18 03:26	R3QA237
Endosulfan I	U		0.048	ug/L	1	10/17/18	11/02/18 03:26	R3QA237
Endosulfan II	U		0.095	ug/L	1	10/17/18	11/02/18 03:26	R3QA237
Endosulfan sulfate	U		0.095	ug/L	1	10/17/18	11/02/18 03:26	R3QA237
Endrin	U		0.095	ug/L	1	10/17/18	11/02/18 03:26	R3QA237
Endrin aldehyde	U		0.095	ug/L	1	10/17/18	11/02/18 03:26	R3QA237
Endrin ketone	U		0.095	ug/L	1	10/17/18	11/02/18 03:26	R3QA237
Heptachlor	U		0.048	ug/L	1	10/17/18	11/02/18 03:26	R3QA237
Heptachlor epoxide	U		0.048	ug/L	1	10/17/18	11/02/18 03:26	R3QA237
Methoxychlor	U		0.476	ug/L	1	10/17/18	11/02/18 03:26	R3QA237
Toxaphene	U		4.76	ug/L	1	10/17/18	11/02/18 03:26	R3QA237

Surrogates

Analyte	Result	Flags/ Qualifiers	**%Recovery**	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-10								
Station ID: BDE-GW-07								
Sample Matrix: Groundwater								
Collected: 10/10/2018								
Surrogate: Tetrachloro-meta-xylene	0.621		**65 %**	ug/L	*30-150*	10/17/18	11/02/18 03:26	*R3QA237*
Surrogate: Decachlorobiphenyl	0.970		**102 %**	ug/L	*30-150*	10/17/18	11/02/18 03:26	*R3QA237*

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

Organochlorine Pesticides and PCBs

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-11								
Station ID: BDE-GW-08								
Sample Matrix: Groundwater								
Collected: 10/11/2018								
Aldrin	U		0.048	ug/L	1	10/17/18	11/02/18 03:47	R3QA237
alpha-BHC	U		0.048	ug/L	1	10/17/18	11/02/18 03:47	R3QA237
beta-BHC	U		0.048	ug/L	1	10/17/18	11/02/18 03:47	R3QA237
delta-BHC	U		0.048	ug/L	1	10/17/18	11/02/18 03:47	R3QA237
gamma-BHC (Lindane)	U		0.048	ug/L	1	10/17/18	11/02/18 03:47	R3QA237
alpha-Chlordane	U		0.048	ug/L	1	10/17/18	11/02/18 03:47	R3QA237
gamma-Chlordane	U		0.048	ug/L	1	10/17/18	11/02/18 03:47	R3QA237
4,4'-DDD	U		0.095	ug/L	1	10/17/18	11/02/18 03:47	R3QA237
4,4'-DDE	U		0.095	ug/L	1	10/17/18	11/02/18 03:47	R3QA237
4,4'-DDT	U		0.095	ug/L	1	10/17/18	11/02/18 03:47	R3QA237
Dieldrin	**0.101**		0.095	ug/L	1	10/17/18	11/02/18 03:47	R3QA237
Endosulfan I	U		0.048	ug/L	1	10/17/18	11/02/18 03:47	R3QA237
Endosulfan II	U		0.095	ug/L	1	10/17/18	11/02/18 03:47	R3QA237
Endosulfan sulfate	U		0.095	ug/L	1	10/17/18	11/02/18 03:47	R3QA237
Endrin	U		0.095	ug/L	1	10/17/18	11/02/18 03:47	R3QA237
Endrin aldehyde	U		0.095	ug/L	1	10/17/18	11/02/18 03:47	R3QA237
Endrin ketone	U		0.095	ug/L	1	10/17/18	11/02/18 03:47	R3QA237
Heptachlor	U		0.048	ug/L	1	10/17/18	11/02/18 03:47	R3QA237
Heptachlor epoxide	U		0.048	ug/L	1	10/17/18	11/02/18 03:47	R3QA237
Methoxychlor	U		0.476	ug/L	1	10/17/18	11/02/18 03:47	R3QA237
Toxaphene	U		4.76	ug/L	1	10/17/18	11/02/18 03:47	R3QA237

Surrogates

Analyte	Result	Flags/ Qualifiers	**%Recovery**	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-11								
Station ID: BDE-GW-08								
Sample Matrix: Groundwater								
Collected: 10/11/2018								
Surrogate: Tetrachloro-meta-xylene	0.697		**73 %**	ug/L	*30-150*	10/17/18	11/02/18 03:47	*R3QA237*
Surrogate: Decachlorobiphenyl	0.990		**104 %**	ug/L	*30-150*	10/17/18	11/02/18 03:47	*R3QA237*

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

Organochlorine Pesticides and PCBs

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-12								
Station ID: BDE-GW-09								
Sample Matrix: Groundwater								
Collected: 10/09/2018								
Aldrin	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 04:09	R3QA237
alpha-BHC	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 04:09	R3QA237
beta-BHC	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 04:09	R3QA237
delta-BHC	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 04:09	R3QA237
gamma-BHC (Lindane)	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 04:09	R3QA237
alpha-Chlordane	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 04:09	R3QA237
gamma-Chlordane	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 04:09	R3QA237
4,4'-DDD	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 04:09	R3QA237
4,4'-DDE	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 04:09	R3QA237
4,4'-DDT	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 04:09	R3QA237
Dieldrin	**0.416**	J, H2	0.095	ug/L	1	10/17/18	11/02/18 04:09	R3QA237
Endosulfan I	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 04:09	R3QA237
Endosulfan II	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 04:09	R3QA237
Endosulfan sulfate	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 04:09	R3QA237
Endrin	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 04:09	R3QA237
Endrin aldehyde	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 04:09	R3QA237
Endrin ketone	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 04:09	R3QA237
Heptachlor	U	H2, UJ	0.048	ug/L	1	10/17/18	11/02/18 04:09	R3QA237
Heptachlor epoxide	U	H2, UJ	0.048	ug/L	1	10/17/18	11/02/18 04:09	R3QA237
Methoxychlor	U	UJ, H2	0.476	ug/L	1	10/17/18	11/02/18 04:09	R3QA237
Toxaphene	U	UJ, H2	4.76	ug/L	1	10/17/18	11/02/18 04:09	R3QA237

Surrogates

Analyte	Result	Flags/ Qualifiers	**%Recovery**	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-12								
Station ID: BDE-GW-09								
Sample Matrix: Groundwater								
Collected: 10/09/2018								
Surrogate: Tetrachloro-meta-xylene	0.572		**60 %**	ug/L	*30-150*	10/17/18	11/02/18 04:09	*R3QA237*
Surrogate: Decachlorobiphenyl	0.921		**97 %**	ug/L	*30-150*	10/17/18	11/02/18 04:09	*R3QA237*

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

Organochlorine Pesticides and PCBs

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-13								
Station ID: BDE-GW-10								
Sample Matrix: Groundwater								
Collected: 10/11/2018								
Aldrin	U		0.048	ug/L	1	10/17/18	11/02/18 04:31	R3QA237
alpha-BHC	U		0.048	ug/L	1	10/17/18	11/02/18 04:31	R3QA237
beta-BHC	U		0.048	ug/L	1	10/17/18	11/02/18 04:31	R3QA237
delta-BHC	U		0.048	ug/L	1	10/17/18	11/02/18 04:31	R3QA237
gamma-BHC (Lindane)	U		0.048	ug/L	1	10/17/18	11/02/18 04:31	R3QA237
alpha-Chlordane	U		0.048	ug/L	1	10/17/18	11/02/18 04:31	R3QA237
gamma-Chlordane	U		0.048	ug/L	1	10/17/18	11/02/18 04:31	R3QA237
4,4'-DDD	U		0.095	ug/L	1	10/17/18	11/02/18 04:31	R3QA237
4,4'-DDE	U		0.095	ug/L	1	10/17/18	11/02/18 04:31	R3QA237
4,4'-DDT	U		0.095	ug/L	1	10/17/18	11/02/18 04:31	R3QA237
Dieldrin	U		0.095	ug/L	1	10/17/18	11/02/18 04:31	R3QA237
Endosulfan I	U		0.048	ug/L	1	10/17/18	11/02/18 04:31	R3QA237
Endosulfan II	U		0.095	ug/L	1	10/17/18	11/02/18 04:31	R3QA237
Endosulfan sulfate	U		0.095	ug/L	1	10/17/18	11/02/18 04:31	R3QA237
Endrin	U		0.095	ug/L	1	10/17/18	11/02/18 04:31	R3QA237
Endrin aldehyde	U		0.095	ug/L	1	10/17/18	11/02/18 04:31	R3QA237
Endrin ketone	U		0.095	ug/L	1	10/17/18	11/02/18 04:31	R3QA237
Heptachlor	U		0.048	ug/L	1	10/17/18	11/02/18 04:31	R3QA237
Heptachlor epoxide	U		0.048	ug/L	1	10/17/18	11/02/18 04:31	R3QA237
Methoxychlor	U		0.476	ug/L	1	10/17/18	11/02/18 04:31	R3QA237
Toxaphene	U		4.76	ug/L	1	10/17/18	11/02/18 04:31	R3QA237

Surrogates

Analyte	Result	Flags/ Qualifiers	**%Recovery**	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-13								
Station ID: BDE-GW-10								
Sample Matrix: Groundwater								
Collected: 10/11/2018								
Surrogate: Tetrachloro-meta-xylene	0.554		**58 %**	ug/L	*30-150*	10/17/18	11/02/18 04:31	*R3QA237*
Surrogate: Decachlorobiphenyl	0.985		**103 %**	ug/L	*30-150*	10/17/18	11/02/18 04:31	*R3QA237*

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

Organochlorine Pesticides and PCBs

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-14								
Station ID: BDE-GW-11								
Sample Matrix: Groundwater								
Collected: 10/11/2018								
Aldrin	U		0.049	ug/L	1	10/17/18	11/02/18 04:53	R3QA237
alpha-BHC	U		0.049	ug/L	1	10/17/18	11/02/18 04:53	R3QA237
beta-BHC	U		0.049	ug/L	1	10/17/18	11/02/18 04:53	R3QA237
delta-BHC	U		0.049	ug/L	1	10/17/18	11/02/18 04:53	R3QA237
gamma-BHC (Lindane)	U		0.049	ug/L	1	10/17/18	11/02/18 04:53	R3QA237
alpha-Chlordane	U		0.049	ug/L	1	10/17/18	11/02/18 04:53	R3QA237
gamma-Chlordane	U		0.049	ug/L	1	10/17/18	11/02/18 04:53	R3QA237
4,4'-DDD	U		0.097	ug/L	1	10/17/18	11/02/18 04:53	R3QA237
4,4'-DDE	U		0.097	ug/L	1	10/17/18	11/02/18 04:53	R3QA237
4,4'-DDT	U		0.097	ug/L	1	10/17/18	11/02/18 04:53	R3QA237
Dieldrin	**0.791**		0.097	ug/L	1	10/17/18	11/02/18 04:53	R3QA237
Endosulfan I	U		0.049	ug/L	1	10/17/18	11/02/18 04:53	R3QA237
Endosulfan II	U		0.097	ug/L	1	10/17/18	11/02/18 04:53	R3QA237
Endosulfan sulfate	U		0.097	ug/L	1	10/17/18	11/02/18 04:53	R3QA237
Endrin	U		0.097	ug/L	1	10/17/18	11/02/18 04:53	R3QA237
Endrin aldehyde	U		0.097	ug/L	1	10/17/18	11/02/18 04:53	R3QA237
Endrin ketone	U		0.097	ug/L	1	10/17/18	11/02/18 04:53	R3QA237
Heptachlor	U		0.049	ug/L	1	10/17/18	11/02/18 04:53	R3QA237
Heptachlor epoxide	U		0.049	ug/L	1	10/17/18	11/02/18 04:53	R3QA237
Methoxychlor	U		0.485	ug/L	1	10/17/18	11/02/18 04:53	R3QA237
Toxaphene	U		4.85	ug/L	1	10/17/18	11/02/18 04:53	R3QA237

Surrogates

Analyte	Result	Flags/ Qualifiers	**%Recovery**	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-14								
Station ID: BDE-GW-11								
Sample Matrix: Groundwater								
Collected: 10/11/2018								
Surrogate: Tetrachloro-meta-xylene	0.632		**65 %**	ug/L	*30-150*	10/17/18	11/02/18 04:53	*R3QA237*
Surrogate: Decachlorobiphenyl	1.03		**106 %**	ug/L	*30-150*	10/17/18	11/02/18 04:53	*R3QA237*

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

Organochlorine Pesticides and PCBs

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-15								
Station ID: BDE-GW-12								
Sample Matrix: Groundwater								
Collected: 10/11/2018								
Aldrin	U		0.049	ug/L	1	10/17/18	11/02/18 05:15	R3QA237
alpha-BHC	U		0.049	ug/L	1	10/17/18	11/02/18 05:15	R3QA237
beta-BHC	U		0.049	ug/L	1	10/17/18	11/02/18 05:15	R3QA237
delta-BHC	U		0.049	ug/L	1	10/17/18	11/02/18 05:15	R3QA237
gamma-BHC (Lindane)	U		0.049	ug/L	1	10/17/18	11/02/18 05:15	R3QA237
alpha-Chlordane	U		0.049	ug/L	1	10/17/18	11/02/18 05:15	R3QA237
gamma-Chlordane	U		0.049	ug/L	1	10/17/18	11/02/18 05:15	R3QA237
4,4'-DDD	U		0.097	ug/L	1	10/17/18	11/02/18 05:15	R3QA237
4,4'-DDE	U		0.097	ug/L	1	10/17/18	11/02/18 05:15	R3QA237
4,4'-DDT	U		0.097	ug/L	1	10/17/18	11/02/18 05:15	R3QA237
Dieldrin	**0.136**		0.097	ug/L	1	10/17/18	11/02/18 05:15	R3QA237
Endosulfan I	U		0.049	ug/L	1	10/17/18	11/02/18 05:15	R3QA237
Endosulfan II	U		0.097	ug/L	1	10/17/18	11/02/18 05:15	R3QA237
Endosulfan sulfate	U		0.097	ug/L	1	10/17/18	11/02/18 05:15	R3QA237
Endrin	U		0.097	ug/L	1	10/17/18	11/02/18 05:15	R3QA237
Endrin aldehyde	U		0.097	ug/L	1	10/17/18	11/02/18 05:15	R3QA237
Endrin ketone	U		0.097	ug/L	1	10/17/18	11/02/18 05:15	R3QA237
Heptachlor	U		0.049	ug/L	1	10/17/18	11/02/18 05:15	R3QA237
Heptachlor epoxide	U		0.049	ug/L	1	10/17/18	11/02/18 05:15	R3QA237
Methoxychlor	U		0.485	ug/L	1	10/17/18	11/02/18 05:15	R3QA237
Toxaphene	U		4.85	ug/L	1	10/17/18	11/02/18 05:15	R3QA237

Surrogates

Analyte	Result	Flags/ Qualifiers	**%Recovery**	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-15								
Station ID: BDE-GW-12								
Sample Matrix: Groundwater								
Collected: 10/11/2018								
Surrogate: Tetrachloro-meta-xylene	0.656		**68 %**	ug/L	*30-150*	10/17/18	11/02/18 05:15	*R3QA237*
Surrogate: Decachlorobiphenyl	0.984		**101 %**	ug/L	*30-150*	10/17/18	11/02/18 05:15	*R3QA237*

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

Organochlorine Pesticides and PCBs

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-16								
Station ID: BDE-GW-13								
Sample Matrix: Groundwater								
Collected: 10/08/2018								
Aldrin	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 05:37	R3QA237
alpha-BHC	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 05:37	R3QA237
beta-BHC	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 05:37	R3QA237
delta-BHC	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 05:37	R3QA237
gamma-BHC (Lindane)	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 05:37	R3QA237
alpha-Chlordane	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 05:37	R3QA237
gamma-Chlordane	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 05:37	R3QA237
4,4'-DDD	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 05:37	R3QA237
4,4'-DDE	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 05:37	R3QA237
4,4'-DDT	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 05:37	R3QA237
Dieldrin	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 05:37	R3QA237
Endosulfan I	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 05:37	R3QA237
Endosulfan II	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 05:37	R3QA237
Endosulfan sulfate	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 05:37	R3QA237
Endrin	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 05:37	R3QA237
Endrin aldehyde	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 05:37	R3QA237
Endrin ketone	U	UJ, H2	0.095	ug/L	1	10/17/18	11/02/18 05:37	R3QA237
Heptachlor	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 05:37	R3QA237
Heptachlor epoxide	U	UJ, H2	0.048	ug/L	1	10/17/18	11/02/18 05:37	R3QA237
Methoxychlor	U	UJ, H2	0.476	ug/L	1	10/17/18	11/02/18 05:37	R3QA237
Toxaphene	U	UJ, H2	4.76	ug/L	1	10/17/18	11/02/18 05:37	R3QA237

Surrogates

Analyte	Result	Flags/ Qualifiers	**%Recovery**	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-16								
Station ID: BDE-GW-13								
Sample Matrix: Groundwater								
Collected: 10/08/2018								
Surrogate: Tetrachloro-meta-xylene	0.673		**71 %**	ug/L	*30-150*	10/17/18	11/02/18 05:37	*R3QA237*
Surrogate: Decachlorobiphenyl	0.638		**67 %**	ug/L	*30-150*	10/17/18	11/02/18 05:37	*R3QA237*

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

Organochlorine Pesticides and PCBs

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-17								
Station ID: BDE-GW-14								
Sample Matrix: Groundwater								
Collected: 10/11/2018								
Aldrin	U		0.049	ug/L	1	10/17/18	11/02/18 05:59	R3QA237
alpha-BHC	U		0.049	ug/L	1	10/17/18	11/02/18 05:59	R3QA237
beta-BHC	U		0.049	ug/L	1	10/17/18	11/02/18 05:59	R3QA237
delta-BHC	U		0.049	ug/L	1	10/17/18	11/02/18 05:59	R3QA237
gamma-BHC (Lindane)	U		0.049	ug/L	1	10/17/18	11/02/18 05:59	R3QA237
alpha-Chlordane	**0.075**		0.049	ug/L	1	10/17/18	11/02/18 05:59	R3QA237
gamma-Chlordane	U		0.049	ug/L	1	10/17/18	11/02/18 05:59	R3QA237
4,4'-DDD	U		0.097	ug/L	1	10/17/18	11/02/18 05:59	R3QA237
4,4'-DDE	U		0.097	ug/L	1	10/17/18	11/02/18 05:59	R3QA237
4,4'-DDT	U		0.097	ug/L	1	10/17/18	11/02/18 05:59	R3QA237
Dieldrin	**0.302**		0.097	ug/L	1	10/17/18	11/02/18 05:59	R3QA237
Endosulfan I	**0.059**		0.049	ug/L	1	10/17/18	11/02/18 05:59	R3QA237
Endosulfan II	U		0.097	ug/L	1	10/17/18	11/02/18 05:59	R3QA237
Endosulfan sulfate	U		0.097	ug/L	1	10/17/18	11/02/18 05:59	R3QA237
Endrin	U		0.097	ug/L	1	10/17/18	11/02/18 05:59	R3QA237
Endrin aldehyde	U		0.097	ug/L	1	10/17/18	11/02/18 05:59	R3QA237
Endrin ketone	U		0.097	ug/L	1	10/17/18	11/02/18 05:59	R3QA237
Heptachlor	U		0.049	ug/L	1	10/17/18	11/02/18 05:59	R3QA237
Heptachlor epoxide	**0.088**		0.049	ug/L	1	10/17/18	11/02/18 05:59	R3QA237
Methoxychlor	U		0.485	ug/L	1	10/17/18	11/02/18 05:59	R3QA237
Toxaphene	U		4.85	ug/L	1	10/17/18	11/02/18 05:59	R3QA237

Surrogates

Analyte	Result	Flags/ Qualifiers	**%Recovery**	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-17								
Station ID: BDE-GW-14								
Sample Matrix: Groundwater								
Collected: 10/11/2018								
Surrogate: Tetrachloro-meta-xylene	0.677		**70 %**	ug/L	*30-150*	10/17/18	11/02/18 05:59	*R3QA237*
Surrogate: Decachlorobiphenyl	0.747		**77 %**	ug/L	*30-150*	10/17/18	11/02/18 05:59	*R3QA237*

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

Organochlorine Pesticides and PCBs

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-18								
Station ID: BDE-GW-15								
Sample Matrix: Groundwater								
Collected: 10/10/2018								
Aldrin	U		0.048	ug/L	1	10/17/18	11/02/18 06:21	R3QA237
alpha-BHC	U		0.048	ug/L	1	10/17/18	11/02/18 06:21	R3QA237
beta-BHC	U		0.048	ug/L	1	10/17/18	11/02/18 06:21	R3QA237
delta-BHC	U		0.048	ug/L	1	10/17/18	11/02/18 06:21	R3QA237
gamma-BHC (Lindane)	U		0.048	ug/L	1	10/17/18	11/02/18 06:21	R3QA237
alpha-Chlordane	U		0.048	ug/L	1	10/17/18	11/02/18 06:21	R3QA237
gamma-Chlordane	U		0.048	ug/L	1	10/17/18	11/02/18 06:21	R3QA237
4,4'-DDD	U		0.095	ug/L	1	10/17/18	11/02/18 06:21	R3QA237
4,4'-DDE	U		0.095	ug/L	1	10/17/18	11/02/18 06:21	R3QA237
4,4'-DDT	U		0.095	ug/L	1	10/17/18	11/02/18 06:21	R3QA237
Dieldrin	**0.139**		0.095	ug/L	1	10/17/18	11/02/18 06:21	R3QA237
Endosulfan I	U		0.048	ug/L	1	10/17/18	11/02/18 06:21	R3QA237
Endosulfan II	U		0.095	ug/L	1	10/17/18	11/02/18 06:21	R3QA237
Endosulfan sulfate	U		0.095	ug/L	1	10/17/18	11/02/18 06:21	R3QA237
Endrin	U		0.095	ug/L	1	10/17/18	11/02/18 06:21	R3QA237
Endrin aldehyde	U		0.095	ug/L	1	10/17/18	11/02/18 06:21	R3QA237
Endrin ketone	U		0.095	ug/L	1	10/17/18	11/02/18 06:21	R3QA237
Heptachlor	U		0.048	ug/L	1	10/17/18	11/02/18 06:21	R3QA237
Heptachlor epoxide	U		0.048	ug/L	1	10/17/18	11/02/18 06:21	R3QA237
Methoxychlor	U		0.476	ug/L	1	10/17/18	11/02/18 06:21	R3QA237
Toxaphene	U		4.76	ug/L	1	10/17/18	11/02/18 06:21	R3QA237

Surrogates

Analyte	Result	Flags/ Qualifiers	**%Recovery**	Units	%Recovery Limits	Prepared	Analyzed	Method/SOP#
Lab ID: 1810015-18								
Station ID: BDE-GW-15								
Sample Matrix: Groundwater								
Collected: 10/10/2018								
Surrogate: Tetrachloro-meta-xylene	0.681		**72 %**	ug/L	*30-150*	10/17/18	11/02/18 06:21	*R3QA237*
Surrogate: Decachlorobiphenyl	0.758		**80 %**	ug/L	*30-150*	10/17/18	11/02/18 06:21	*R3QA237*

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

Total Metals

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID:	1810015-01							
Station ID:	BDE-GW-02							
Sample Matrix:	Groundwater							
Collected:	10/09/2018							
Aluminum	**26.4**		20.0	ug/L	2.5	10/18/18	10/30/18 13:05	R3QA155/R3QA116
Antimony	U		2.0	ug/L	2.5	10/18/18	10/30/18 13:05	R3QA155/R3QA116
Arsenic	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:05	R3QA155/R3QA116
Barium	**20.8**		10.0	ug/L	2.5	10/18/18	10/30/18 13:05	R3QA155/R3QA116
Beryllium	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:05	R3QA155/R3QA116
Cadmium	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:05	R3QA155/R3QA116
Calcium	**18100**		500	ug/L	1	10/18/18	10/30/18 18:07	R3QA155/R3QA159
Chromium	U		2.0	ug/L	2.5	10/18/18	10/30/18 13:05	R3QA155/R3QA116
Cobalt	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:05	R3QA155/R3QA116
Copper	U		2.0	ug/L	2.5	10/18/18	10/30/18 13:05	R3QA155/R3QA116
Iron	U		100	ug/L	1	10/18/18	10/30/18 18:07	R3QA155/R3QA159
Lead	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:05	R3QA155/R3QA116
Magnesium	**2290**		500	ug/L	1	10/18/18	10/30/18 18:07	R3QA155/R3QA159
Manganese	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:05	R3QA155/R3QA116
Mercury	U	H1, UJ	0.2	ug/L	1	11/06/18	11/08/18 11:30	R3QA131
Nickel	**1.1**		1.0	ug/L	2.5	10/18/18	10/30/18 13:05	R3QA155/R3QA116
Potassium	**2380**		500	ug/L	1	10/18/18	10/30/18 18:07	R3QA155/R3QA159
Selenium	U		5.0	ug/L	2.5	10/18/18	10/30/18 13:05	R3QA155/R3QA116
Silver	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:05	R3QA155/R3QA116
Sodium	**5870**		500	ug/L	1	10/18/18	10/30/18 18:07	R3QA155/R3QA159
Thallium	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:05	R3QA155/R3QA116
Vanadium	U		5.0	ug/L	2.5	10/18/18	10/30/18 13:05	R3QA155/R3QA116
Zinc	**2.9**	J	2.0	ug/L	2.5	10/18/18	10/30/18 13:05	R3QA155/R3QA116

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

Total Metals

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID:	1810015-02							
Station ID:	BDE-GW-03							
Sample Matrix:	Groundwater							
Collected:	10/08/2018							
Aluminum	**133**		20.0	ug/L	2.5	10/18/18	10/30/18 13:13	R3QA155/R3QA116
Antimony	U		2.0	ug/L	2.5	10/18/18	10/30/18 13:13	R3QA155/R3QA116
Arsenic	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:13	R3QA155/R3QA116
Barium	**36.4**		10.0	ug/L	2.5	10/18/18	10/30/18 13:13	R3QA155/R3QA116
Beryllium	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:13	R3QA155/R3QA116
Cadmium	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:13	R3QA155/R3QA116
Calcium	**8970**		500	ug/L	1	10/18/18	10/30/18 18:23	R3QA155/R3QA159
Chromium	U		2.0	ug/L	2.5	10/18/18	10/30/18 13:13	R3QA155/R3QA116
Cobalt	**1.9**		1.0	ug/L	2.5	10/18/18	10/30/18 13:13	R3QA155/R3QA116
Copper	U		2.0	ug/L	2.5	10/18/18	10/30/18 13:13	R3QA155/R3QA116
Iron	U		100	ug/L	1	10/18/18	10/30/18 18:23	R3QA155/R3QA159
Lead	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:13	R3QA155/R3QA116
Magnesium	**1250**		500	ug/L	1	10/18/18	10/30/18 18:23	R3QA155/R3QA159
Manganese	**18.0**		1.0	ug/L	2.5	10/18/18	10/30/18 13:13	R3QA155/R3QA116
Mercury	U	H1, UJ	0.2	ug/L	1	11/06/18	11/08/18 11:32	R3QA131
Nickel	**4.1**		1.0	ug/L	2.5	10/18/18	10/30/18 13:13	R3QA155/R3QA116
Potassium	**2240**		500	ug/L	1	10/18/18	10/30/18 18:23	R3QA155/R3QA159
Selenium	U		5.0	ug/L	2.5	10/18/18	10/30/18 13:13	R3QA155/R3QA116
Silver	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:13	R3QA155/R3QA116
Sodium	**8230**		500	ug/L	1	10/18/18	10/30/18 18:23	R3QA155/R3QA159
Thallium	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:13	R3QA155/R3QA116
Vanadium	U		5.0	ug/L	2.5	10/18/18	10/30/18 13:13	R3QA155/R3QA116
Zinc	**12.2**		2.0	ug/L	2.5	10/18/18	10/30/18 13:13	R3QA155/R3QA116

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

Total Metals

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID:	1810015-03							
Station ID:	BDE-DMW-03							
Sample Matrix:	Groundwater							
Collected:	10/10/2018							
Aluminum	**37.0**		20.0	ug/L	2.5	10/18/18	10/30/18 13:35	R3QA155/R3QA116
Antimony	U		2.0	ug/L	2.5	10/18/18	10/30/18 13:35	R3QA155/R3QA116
Arsenic	U		2.0	ug/L	2.5	10/18/18	10/30/18 13:35	R3QA155/R3QA116
Barium	**93.7**		10.0	ug/L	2.5	10/18/18	10/30/18 13:35	R3QA155/R3QA116
Beryllium	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:35	R3QA155/R3QA116
Cadmium	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:35	R3QA155/R3QA116
Calcium	**8430**		500	ug/L	1	10/18/18	10/30/18 18:30	R3QA155/R3QA159
Chromium	U		2.0	ug/L	2.5	10/18/18	10/30/18 13:35	R3QA155/R3QA116
Cobalt	**3.1**		1.0	ug/L	2.5	10/18/18	10/30/18 13:35	R3QA155/R3QA116
Copper	U		2.0	ug/L	2.5	10/18/18	10/30/18 13:35	R3QA155/R3QA116
Iron	U		100	ug/L	1	10/18/18	10/30/18 18:30	R3QA155/R3QA159
Lead	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:35	R3QA155/R3QA116
Magnesium	**1790**		500	ug/L	1	10/18/18	10/30/18 18:30	R3QA155/R3QA159
Manganese	**46.0**		1.0	ug/L	2.5	10/18/18	10/30/18 13:35	R3QA155/R3QA116
Mercury	**0.6**	H1, J	0.2	ug/L	1	11/06/18	11/08/18 11:34	R3QA131
Nickel	**22.1**		1.0	ug/L	2.5	10/18/18	10/30/18 13:35	R3QA155/R3QA116
Potassium	**7030**		500	ug/L	1	10/18/18	10/30/18 18:30	R3QA155/R3QA159
Selenium	U		5.0	ug/L	2.5	10/18/18	10/30/18 13:35	R3QA155/R3QA116
Silver	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:35	R3QA155/R3QA116
Sodium	**13400**		500	ug/L	1	10/18/18	10/30/18 18:30	R3QA155/R3QA159
Thallium	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:35	R3QA155/R3QA116
Vanadium	U		5.0	ug/L	2.5	10/18/18	10/30/18 13:35	R3QA155/R3QA116
Zinc	**7.5**		2.0	ug/L	2.5	10/18/18	10/30/18 13:35	R3QA155/R3QA116

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

Total Metals

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID:	1810015-04							
Station ID:	BDE-GW-02D							
Sample Matrix:	Groundwater							
Collected:	10/09/2018							
Aluminum	**24.5**		20.0	ug/L	2.5	10/18/18	10/30/18 13:39	R3QA155/R3QA116
Antimony	U		2.0	ug/L	2.5	10/18/18	10/30/18 13:39	R3QA155/R3QA116
Arsenic	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:39	R3QA155/R3QA116
Barium	**18.3**		10.0	ug/L	2.5	10/18/18	10/30/18 13:39	R3QA155/R3QA116
Beryllium	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:39	R3QA155/R3QA116
Cadmium	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:39	R3QA155/R3QA116
Calcium	**17600**		500	ug/L	1	10/18/18	10/30/18 18:34	R3QA155/R3QA159
Chromium	U		2.0	ug/L	2.5	10/18/18	10/30/18 13:39	R3QA155/R3QA116
Cobalt	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:39	R3QA155/R3QA116
Copper	U		2.0	ug/L	2.5	10/18/18	10/30/18 13:39	R3QA155/R3QA116
Iron	U		100	ug/L	1	10/18/18	10/30/18 18:34	R3QA155/R3QA159
Lead	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:39	R3QA155/R3QA116
Magnesium	**2180**		500	ug/L	1	10/18/18	10/30/18 18:34	R3QA155/R3QA159
Manganese	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:39	R3QA155/R3QA116
Mercury	U	H1, UJ	0.2	ug/L	1	11/06/18	11/08/18 11:36	R3QA131
Nickel	**1.0**		1.0	ug/L	2.5	10/18/18	10/30/18 13:39	R3QA155/R3QA116
Potassium	**2370**		500	ug/L	1	10/18/18	10/30/18 18:34	R3QA155/R3QA159
Selenium	U		5.0	ug/L	2.5	10/18/18	10/30/18 13:39	R3QA155/R3QA116
Silver	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:39	R3QA155/R3QA116
Sodium	**5730**		500	ug/L	1	10/18/18	10/30/18 18:34	R3QA155/R3QA159
Thallium	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:39	R3QA155/R3QA116
Vanadium	U		5.0	ug/L	2.5	10/18/18	10/30/18 13:39	R3QA155/R3QA116
Zinc	**4.7**		2.0	ug/L	2.5	10/18/18	10/30/18 13:39	R3QA155/R3QA116

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

Total Metals

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID:	1810015-05							
Station ID:	BDE-GW-01							
Sample Matrix:	Groundwater							
Collected:	10/09/2018							
Aluminum	**830**		200	ug/L	1	10/18/18	10/30/18 18:38	R3QA155/R3QA159
Antimony	U		2.0	ug/L	2.5	10/18/18	10/30/18 13:43	R3QA155/R3QA116
Arsenic	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:43	R3QA155/R3QA116
Barium	U		10.0	ug/L	2.5	10/18/18	10/30/18 13:43	R3QA155/R3QA116
Beryllium	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:43	R3QA155/R3QA116
Cadmium	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:43	R3QA155/R3QA116
Calcium	**11800**		500	ug/L	1	10/18/18	10/30/18 18:38	R3QA155/R3QA159
Chromium	U		2.0	ug/L	2.5	10/18/18	10/30/18 13:43	R3QA155/R3QA116
Cobalt	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:43	R3QA155/R3QA116
Copper	**3.2**		2.0	ug/L	2.5	10/18/18	10/30/18 13:43	R3QA155/R3QA116
Iron	**448**		100	ug/L	1	10/18/18	10/30/18 18:38	R3QA155/R3QA159
Lead	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:43	R3QA155/R3QA116
Magnesium	**1630**		500	ug/L	1	10/18/18	10/30/18 18:38	R3QA155/R3QA159
Manganese	**2.3**		1.0	ug/L	2.5	10/18/18	10/30/18 13:43	R3QA155/R3QA116
Mercury	U	H1, UJ	0.2	ug/L	1	11/06/18	11/08/18 11:42	R3QA131
Nickel	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:43	R3QA155/R3QA116
Potassium	**658**		500	ug/L	1	10/18/18	10/30/18 18:38	R3QA155/R3QA159
Selenium	U		5.0	ug/L	2.5	10/18/18	10/30/18 13:43	R3QA155/R3QA116
Silver	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:43	R3QA155/R3QA116
Sodium	**1020**		500	ug/L	1	10/18/18	10/30/18 18:38	R3QA155/R3QA159
Thallium	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:43	R3QA155/R3QA116
Vanadium	U		5.0	ug/L	2.5	10/18/18	10/30/18 13:43	R3QA155/R3QA116
Zinc	**3.6**		2.0	ug/L	2.5	10/18/18	10/30/18 13:43	R3QA155/R3QA116

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

Total Metals

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID:	1810015-06							
Station ID:	BDE-DMW-02							
Sample Matrix:	Groundwater							
Collected:	10/09/2018							
Aluminum	**53.6**		20.0	ug/L	2.5	10/18/18	10/30/18 13:47	R3QA155/R3QA116
Antimony	U		2.0	ug/L	2.5	10/18/18	10/30/18 13:47	R3QA155/R3QA116
Arsenic	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:47	R3QA155/R3QA116
Barium	**115**		10.0	ug/L	2.5	10/18/18	10/30/18 13:47	R3QA155/R3QA116
Beryllium	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:47	R3QA155/R3QA116
Cadmium	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:47	R3QA155/R3QA116
Calcium	**12700**		500	ug/L	1	10/18/18	10/30/18 18:42	R3QA155/R3QA159
Chromium	U		2.0	ug/L	2.5	10/18/18	10/30/18 13:47	R3QA155/R3QA116
Cobalt	**7.5**		1.0	ug/L	2.5	10/18/18	10/30/18 13:47	R3QA155/R3QA116
Copper	U		2.0	ug/L	2.5	10/18/18	10/30/18 13:47	R3QA155/R3QA116
Iron	U		100	ug/L	1	10/18/18	10/30/18 18:42	R3QA155/R3QA159
Lead	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:47	R3QA155/R3QA116
Magnesium	**2780**		500	ug/L	1	10/18/18	10/30/18 18:42	R3QA155/R3QA159
Manganese	**153**		1.0	ug/L	2.5	10/18/18	10/30/18 13:47	R3QA155/R3QA116
Mercury	U	H1, UJ	0.2	ug/L	1	11/06/18	11/08/18 11:48	R3QA131
Nickel	**2.7**		1.0	ug/L	2.5	10/18/18	10/30/18 13:47	R3QA155/R3QA116
Potassium	**3620**		500	ug/L	1	10/18/18	10/30/18 18:42	R3QA155/R3QA159
Selenium	U		5.0	ug/L	2.5	10/18/18	10/30/18 13:47	R3QA155/R3QA116
Silver	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:47	R3QA155/R3QA116
Sodium	**13600**		500	ug/L	1	10/18/18	10/30/18 18:42	R3QA155/R3QA159
Thallium	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:47	R3QA155/R3QA116
Vanadium	U		5.0	ug/L	2.5	10/18/18	10/30/18 13:47	R3QA155/R3QA116
Zinc	**16.9**		2.0	ug/L	2.5	10/18/18	10/30/18 13:47	R3QA155/R3QA116

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

Total Metals

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID:	1810015-07							
Station ID:	BDE-DMW-01							
Sample Matrix:	Groundwater							
Collected:	10/10/2018							
Aluminum	**22.2**		20.0	ug/L	2.5	10/18/18	10/30/18 13:51	R3QA155/R3QA116
Antimony	U		2.0	ug/L	2.5	10/18/18	10/30/18 13:51	R3QA155/R3QA116
Arsenic	**1.3**		1.0	ug/L	2.5	10/18/18	10/30/18 13:51	R3QA155/R3QA116
Barium	**89.2**		10.0	ug/L	2.5	10/18/18	10/30/18 13:51	R3QA155/R3QA116
Beryllium	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:51	R3QA155/R3QA116
Cadmium	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:51	R3QA155/R3QA116
Calcium	**20900**		500	ug/L	1	10/18/18	10/30/18 18:46	R3QA155/R3QA159
Chromium	U		2.0	ug/L	2.5	10/18/18	10/30/18 13:51	R3QA155/R3QA116
Cobalt	**1.0**		1.0	ug/L	2.5	10/18/18	10/30/18 13:51	R3QA155/R3QA116
Copper	U		2.0	ug/L	2.5	10/18/18	10/30/18 13:51	R3QA155/R3QA116
Iron	U		100	ug/L	1	10/18/18	10/30/18 18:46	R3QA155/R3QA159
Lead	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:51	R3QA155/R3QA116
Magnesium	**1980**		500	ug/L	1	10/18/18	10/30/18 18:46	R3QA155/R3QA159
Manganese	**38.5**		1.0	ug/L	2.5	10/18/18	10/30/18 13:51	R3QA155/R3QA116
Mercury	U	H1, UJ	0.2	ug/L	1	11/06/18	11/08/18 11:50	R3QA131
Nickel	**1.3**		1.0	ug/L	2.5	10/18/18	10/30/18 13:51	R3QA155/R3QA116
Potassium	**13500**		500	ug/L	1	10/18/18	10/30/18 18:46	R3QA155/R3QA159
Selenium	U		5.0	ug/L	2.5	10/18/18	10/30/18 13:51	R3QA155/R3QA116
Silver	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:51	R3QA155/R3QA116
Sodium	**17400**		500	ug/L	1	10/18/18	10/30/18 18:46	R3QA155/R3QA159
Thallium	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:51	R3QA155/R3QA116
Vanadium	U		5.0	ug/L	2.5	10/18/18	10/30/18 13:51	R3QA155/R3QA116
Zinc	**2.0**		2.0	ug/L	2.5	10/18/18	10/30/18 13:51	R3QA155/R3QA116

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

Total Metals

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID:	1810015-08							
Station ID:	BDE-GW-04							
Sample Matrix:	Groundwater							
Collected:	10/08/2018							
Aluminum	**252**		20.0	ug/L	2.5	10/18/18	10/30/18 13:54	R3QA155/R3QA116
Antimony	U		2.0	ug/L	2.5	10/18/18	10/30/18 13:54	R3QA155/R3QA116
Arsenic	U		2.0	ug/L	2.5	10/18/18	10/30/18 13:54	R3QA155/R3QA116
Barium	**33.5**		10.0	ug/L	2.5	10/18/18	10/30/18 13:54	R3QA155/R3QA116
Beryllium	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:54	R3QA155/R3QA116
Cadmium	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:54	R3QA155/R3QA116
Calcium	**13800**		500	ug/L	1	10/18/18	10/30/18 18:50	R3QA155/R3QA159
Chromium	U		2.0	ug/L	2.5	10/18/18	10/30/18 13:54	R3QA155/R3QA116
Cobalt	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:54	R3QA155/R3QA116
Copper	U		2.0	ug/L	2.5	10/18/18	10/30/18 13:54	R3QA155/R3QA116
Iron	**166**		100	ug/L	1	10/18/18	10/30/18 18:50	R3QA155/R3QA159
Lead	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:54	R3QA155/R3QA116
Magnesium	**2230**		500	ug/L	1	10/18/18	10/30/18 18:50	R3QA155/R3QA159
Manganese	**1.9**		1.0	ug/L	2.5	10/18/18	10/30/18 13:54	R3QA155/R3QA116
Mercury	U	H1, UJ	0.2	ug/L	1	11/06/18	11/08/18 11:52	R3QA131
Nickel	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:54	R3QA155/R3QA116
Potassium	**3180**		500	ug/L	1	10/18/18	10/30/18 18:50	R3QA155/R3QA159
Selenium	U		5.0	ug/L	2.5	10/18/18	10/30/18 13:54	R3QA155/R3QA116
Silver	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:54	R3QA155/R3QA116
Sodium	**9500**		500	ug/L	1	10/18/18	10/30/18 18:50	R3QA155/R3QA159
Thallium	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:54	R3QA155/R3QA116
Vanadium	U		5.0	ug/L	2.5	10/18/18	10/30/18 13:54	R3QA155/R3QA116
Zinc	**2.0**		2.0	ug/L	2.5	10/18/18	10/30/18 13:54	R3QA155/R3QA116

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

Total Metals

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID:	1810015-09							
Station ID:	BDE-GW-05							
Sample Matrix:	Groundwater							
Collected:	10/08/2018							
Aluminum	**55.9**		20.0	ug/L	2.5	10/18/18	10/30/18 13:58	R3QA155/R3QA116
Antimony	U		2.0	ug/L	2.5	10/18/18	10/30/18 13:58	R3QA155/R3QA116
Arsenic	**1.7**		1.0	ug/L	2.5	10/18/18	10/30/18 13:58	R3QA155/R3QA116
Barium	**34.1**		10.0	ug/L	2.5	10/18/18	10/30/18 13:58	R3QA155/R3QA116
Beryllium	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:58	R3QA155/R3QA116
Cadmium	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:58	R3QA155/R3QA116
Calcium	**23600**		500	ug/L	1	10/18/18	10/30/18 18:54	R3QA155/R3QA159
Chromium	U		2.0	ug/L	2.5	10/18/18	10/30/18 13:58	R3QA155/R3QA116
Cobalt	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:58	R3QA155/R3QA116
Copper	U		2.0	ug/L	2.5	10/18/18	10/30/18 13:58	R3QA155/R3QA116
Iron	**115**		100	ug/L	1	10/18/18	10/30/18 18:54	R3QA155/R3QA159
Lead	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:58	R3QA155/R3QA116
Magnesium	**2250**		500	ug/L	1	10/18/18	10/30/18 18:54	R3QA155/R3QA159
Manganese	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:58	R3QA155/R3QA116
Mercury	U	H1, UJ	0.2	ug/L	1	11/06/18	11/08/18 11:54	R3QA131
Nickel	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:58	R3QA155/R3QA116
Potassium	**3560**		500	ug/L	1	10/18/18	10/30/18 18:54	R3QA155/R3QA159
Selenium	U		5.0	ug/L	2.5	10/18/18	10/30/18 13:58	R3QA155/R3QA116
Silver	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:58	R3QA155/R3QA116
Sodium	**8490**		500	ug/L	1	10/18/18	10/30/18 18:54	R3QA155/R3QA159
Thallium	U		1.0	ug/L	2.5	10/18/18	10/30/18 13:58	R3QA155/R3QA116
Vanadium	U		5.0	ug/L	2.5	10/18/18	10/30/18 13:58	R3QA155/R3QA116
Zinc	**4.7**		2.0	ug/L	2.5	10/18/18	10/30/18 13:58	R3QA155/R3QA116

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

Total Metals

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID:	1810015-10							
Station ID:	BDE-GW-07							
Sample Matrix:	Groundwater							
Collected:	10/10/2018							
Aluminum	**101**		20.0	ug/L	2.5	10/18/18	10/30/18 14:02	R3QA155/R3QA116
Antimony	U		2.0	ug/L	2.5	10/18/18	10/30/18 14:02	R3QA155/R3QA116
Arsenic	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:02	R3QA155/R3QA116
Barium	**26.0**		10.0	ug/L	2.5	10/18/18	10/30/18 14:02	R3QA155/R3QA116
Beryllium	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:02	R3QA155/R3QA116
Cadmium	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:02	R3QA155/R3QA116
Calcium	**11900**		500	ug/L	1	10/18/18	10/30/18 18:58	R3QA155/R3QA159
Chromium	**28.2**		2.0	ug/L	2.5	10/18/18	10/30/18 14:02	R3QA155/R3QA116
Cobalt	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:02	R3QA155/R3QA116
Copper	**3.6**		2.0	ug/L	2.5	10/18/18	10/30/18 14:02	R3QA155/R3QA116
Iron	**114**		100	ug/L	1	10/18/18	10/30/18 18:58	R3QA155/R3QA159
Lead	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:02	R3QA155/R3QA116
Magnesium	**2090**		500	ug/L	1	10/18/18	10/30/18 18:58	R3QA155/R3QA159
Manganese	**4.5**		1.0	ug/L	2.5	10/18/18	10/30/18 14:02	R3QA155/R3QA116
Mercury	U	H1, UJ	0.2	ug/L	1	11/06/18	11/08/18 11:56	R3QA131
Nickel	**25.1**		1.0	ug/L	2.5	10/18/18	10/30/18 14:02	R3QA155/R3QA116
Potassium	**2970**		500	ug/L	1	10/18/18	10/30/18 18:58	R3QA155/R3QA159
Selenium	U		5.0	ug/L	2.5	10/18/18	10/30/18 14:02	R3QA155/R3QA116
Silver	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:02	R3QA155/R3QA116
Sodium	**6820**		500	ug/L	1	10/18/18	10/30/18 18:58	R3QA155/R3QA159
Thallium	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:02	R3QA155/R3QA116
Vanadium	U		5.0	ug/L	2.5	10/18/18	10/30/18 14:02	R3QA155/R3QA116
Zinc	**30.2**		2.0	ug/L	2.5	10/18/18	10/30/18 14:02	R3QA155/R3QA116

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

Total Metals

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID:	1810015-11							
Station ID:	BDE-GW-08							
Sample Matrix:	Groundwater							
Collected:	10/11/2018							
Aluminum	**21.9**		20.0	ug/L	2.5	10/18/18	10/30/18 14:06	R3QA155/R3QA116
Antimony	U		2.0	ug/L	2.5	10/18/18	10/30/18 14:06	R3QA155/R3QA116
Arsenic	**1.6**		1.0	ug/L	2.5	10/18/18	10/30/18 14:06	R3QA155/R3QA116
Barium	**54.6**		10.0	ug/L	2.5	10/18/18	10/30/18 14:06	R3QA155/R3QA116
Beryllium	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:06	R3QA155/R3QA116
Cadmium	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:06	R3QA155/R3QA116
Calcium	**17900**		500	ug/L	1	10/18/18	10/30/18 19:09	R3QA155/R3QA159
Chromium	U		2.0	ug/L	2.5	10/18/18	10/30/18 14:06	R3QA155/R3QA116
Cobalt	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:06	R3QA155/R3QA116
Copper	U		2.0	ug/L	2.5	10/18/18	10/30/18 14:06	R3QA155/R3QA116
Iron	U		100	ug/L	1	10/18/18	10/30/18 19:09	R3QA155/R3QA159
Lead	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:06	R3QA155/R3QA116
Magnesium	**2230**		500	ug/L	1	10/18/18	10/30/18 19:09	R3QA155/R3QA159
Manganese	**5.2**		1.0	ug/L	2.5	10/18/18	10/30/18 14:06	R3QA155/R3QA116
Mercury	U	H1, UJ	0.2	ug/L	1	11/06/18	11/08/18 12:04	R3QA131
Nickel	**1.1**		1.0	ug/L	2.5	10/18/18	10/30/18 14:06	R3QA155/R3QA116
Potassium	**2140**		500	ug/L	1	10/18/18	10/30/18 19:09	R3QA155/R3QA159
Selenium	U		5.0	ug/L	2.5	10/18/18	10/30/18 14:06	R3QA155/R3QA116
Silver	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:06	R3QA155/R3QA116
Sodium	**9270**		500	ug/L	1	10/18/18	10/30/18 19:09	R3QA155/R3QA159
Thallium	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:06	R3QA155/R3QA116
Vanadium	U		5.0	ug/L	2.5	10/18/18	10/30/18 14:06	R3QA155/R3QA116
Zinc	**6.4**		2.0	ug/L	2.5	10/18/18	10/30/18 14:06	R3QA155/R3QA116

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

Total Metals

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID:	1810015-12							
Station ID:	BDE-GW-09							
Sample Matrix:	Groundwater							
Collected:	10/09/2018							
Aluminum	**176**		20.0	ug/L	2.5	10/18/18	10/30/18 14:28	R3QA155/R3QA116
Antimony	U		2.0	ug/L	2.5	10/18/18	10/30/18 14:28	R3QA155/R3QA116
Arsenic	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:28	R3QA155/R3QA116
Barium	**46.8**		10.0	ug/L	2.5	10/18/18	10/30/18 14:28	R3QA155/R3QA116
Beryllium	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:28	R3QA155/R3QA116
Cadmium	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:28	R3QA155/R3QA116
Calcium	**36700**		500	ug/L	1	10/18/18	10/30/18 19:17	R3QA155/R3QA159
Chromium	U		2.0	ug/L	2.5	10/18/18	10/30/18 14:28	R3QA155/R3QA116
Cobalt	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:28	R3QA155/R3QA116
Copper	U		2.0	ug/L	2.5	10/18/18	10/30/18 14:28	R3QA155/R3QA116
Iron	U		100	ug/L	1	10/18/18	10/30/18 19:17	R3QA155/R3QA159
Lead	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:28	R3QA155/R3QA116
Magnesium	**2830**		500	ug/L	1	10/18/18	10/30/18 19:17	R3QA155/R3QA159
Manganese	**1.4**		1.0	ug/L	2.5	10/18/18	10/30/18 14:28	R3QA155/R3QA116
Mercury	U	H1, UJ	0.2	ug/L	1	11/06/18	11/08/18 12:08	R3QA131
Nickel	**4.2**		1.0	ug/L	2.5	10/18/18	10/30/18 14:28	R3QA155/R3QA116
Potassium	**4270**		500	ug/L	1	10/18/18	10/30/18 19:17	R3QA155/R3QA159
Selenium	U		5.0	ug/L	2.5	10/18/18	10/30/18 14:28	R3QA155/R3QA116
Silver	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:28	R3QA155/R3QA116
Sodium	**10400**		500	ug/L	1	10/18/18	10/30/18 19:17	R3QA155/R3QA159
Thallium	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:28	R3QA155/R3QA116
Vanadium	U		5.0	ug/L	2.5	10/18/18	10/30/18 14:28	R3QA155/R3QA116
Zinc	**7.1**		2.0	ug/L	2.5	10/18/18	10/30/18 14:28	R3QA155/R3QA116

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

Total Metals

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID:	1810015-13							
Station ID:	BDE-GW-10							
Sample Matrix:	Groundwater							
Collected:	10/11/2018							
Aluminum	**77.0**		20.0	ug/L	2.5	10/18/18	10/30/18 14:35	R3QA155/R3QA116
Antimony	U		2.0	ug/L	2.5	10/18/18	10/30/18 14:35	R3QA155/R3QA116
Arsenic	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:35	R3QA155/R3QA116
Barium	**26.0**		10.0	ug/L	2.5	10/18/18	10/30/18 14:35	R3QA155/R3QA116
Beryllium	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:35	R3QA155/R3QA116
Cadmium	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:35	R3QA155/R3QA116
Calcium	**9090**		500	ug/L	1	10/18/18	10/30/18 19:25	R3QA155/R3QA159
Chromium	**22.8**		2.0	ug/L	2.5	10/18/18	10/30/18 14:35	R3QA155/R3QA116
Cobalt	**1.1**		1.0	ug/L	2.5	10/18/18	10/30/18 14:35	R3QA155/R3QA116
Copper	**8.3**		2.0	ug/L	2.5	10/18/18	10/30/18 14:35	R3QA155/R3QA116
Iron	U		100	ug/L	1	10/18/18	10/30/18 19:25	R3QA155/R3QA159
Lead	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:35	R3QA155/R3QA116
Magnesium	**1130**		500	ug/L	1	10/18/18	10/30/18 19:25	R3QA155/R3QA159
Manganese	**10.5**		1.0	ug/L	2.5	10/18/18	10/30/18 14:35	R3QA155/R3QA116
Mercury	U	UJ, H1	0.2	ug/L	1	11/06/18	11/08/18 12:12	R3QA131
Nickel	**324**		1.0	ug/L	2.5	10/18/18	10/30/18 14:35	R3QA155/R3QA116
Potassium	**3610**		500	ug/L	1	10/18/18	10/30/18 19:25	R3QA155/R3QA159
Selenium	U		5.0	ug/L	2.5	10/18/18	10/30/18 14:35	R3QA155/R3QA116
Silver	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:35	R3QA155/R3QA116
Sodium	**5310**		500	ug/L	1	10/18/18	10/30/18 19:25	R3QA155/R3QA159
Thallium	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:35	R3QA155/R3QA116
Vanadium	**6.2**		5.0	ug/L	2.5	10/18/18	10/30/18 14:35	R3QA155/R3QA116
Zinc	**304**		2.0	ug/L	2.5	10/18/18	10/30/18 14:35	R3QA155/R3QA116

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

Total Metals

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID:	1810015-14							
Station ID:	BDE-GW-11							
Sample Matrix:	Groundwater							
Collected:	10/11/2018							
Aluminum	**53.7**		20.0	ug/L	2.5	10/18/18	10/30/18 14:39	R3QA155/R3QA116
Antimony	U		2.0	ug/L	2.5	10/18/18	10/30/18 14:39	R3QA155/R3QA116
Arsenic	**2.3**		1.0	ug/L	2.5	10/18/18	10/30/18 14:39	R3QA155/R3QA116
Barium	**45.8**		10.0	ug/L	2.5	10/18/18	10/30/18 14:39	R3QA155/R3QA116
Beryllium	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:39	R3QA155/R3QA116
Cadmium	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:39	R3QA155/R3QA116
Calcium	**14000**		500	ug/L	1	10/18/18	10/30/18 19:29	R3QA155/R3QA159
Chromium	U		2.0	ug/L	2.5	10/18/18	10/30/18 14:39	R3QA155/R3QA116
Cobalt	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:39	R3QA155/R3QA116
Copper	U		2.0	ug/L	2.5	10/18/18	10/30/18 14:39	R3QA155/R3QA116
Iron	**114**		100	ug/L	1	10/18/18	10/30/18 19:29	R3QA155/R3QA159
Lead	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:39	R3QA155/R3QA116
Magnesium	**1660**		500	ug/L	1	10/18/18	10/30/18 19:29	R3QA155/R3QA159
Manganese	**11.2**		1.0	ug/L	2.5	10/18/18	10/30/18 14:39	R3QA155/R3QA116
Mercury	U	H1, UJ	0.2	ug/L	1	11/06/18	11/08/18 12:14	R3QA131
Nickel	**33.2**		1.0	ug/L	2.5	10/18/18	10/30/18 14:39	R3QA155/R3QA116
Potassium	**3690**		500	ug/L	1	10/18/18	10/30/18 19:29	R3QA155/R3QA159
Selenium	U		5.0	ug/L	2.5	10/18/18	10/30/18 14:39	R3QA155/R3QA116
Silver	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:39	R3QA155/R3QA116
Sodium	**23200**		500	ug/L	1	10/18/18	10/30/18 19:29	R3QA155/R3QA159
Thallium	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:39	R3QA155/R3QA116
Vanadium	**6.2**		5.0	ug/L	2.5	10/18/18	10/30/18 14:39	R3QA155/R3QA116
Zinc	**24.8**		2.0	ug/L	2.5	10/18/18	10/30/18 14:39	R3QA155/R3QA116

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Region 3 Environmental Science Center
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701 Mapes Road
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Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

Total Metals

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID:	1810015-15							
Station ID:	BDE-GW-12							
Sample Matrix:	Groundwater							
Collected:	10/11/2018							
Aluminum	**114**		20.0	ug/L	2.5	10/18/18	10/30/18 14:43	R3QA155/R3QA116
Antimony	U		2.0	ug/L	2.5	10/18/18	10/30/18 14:43	R3QA155/R3QA116
Arsenic	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:43	R3QA155/R3QA116
Barium	**74.0**		10.0	ug/L	2.5	10/18/18	10/30/18 14:43	R3QA155/R3QA116
Beryllium	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:43	R3QA155/R3QA116
Cadmium	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:43	R3QA155/R3QA116
Calcium	**29400**		500	ug/L	1	10/18/18	10/30/18 19:33	R3QA155/R3QA159
Chromium	U		2.0	ug/L	2.5	10/18/18	10/30/18 14:43	R3QA155/R3QA116
Cobalt	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:43	R3QA155/R3QA116
Copper	U		2.0	ug/L	2.5	10/18/18	10/30/18 14:43	R3QA155/R3QA116
Iron	U		100	ug/L	1	10/18/18	10/30/18 19:33	R3QA155/R3QA159
Lead	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:43	R3QA155/R3QA116
Magnesium	**2530**		500	ug/L	1	10/18/18	10/30/18 19:33	R3QA155/R3QA159
Manganese	**3.5**		1.0	ug/L	2.5	10/18/18	10/30/18 14:43	R3QA155/R3QA116
Mercury	U	H1, UJ	0.2	ug/L	1	11/06/18	11/08/18 12:16	R3QA131
Nickel	**2.0**		1.0	ug/L	2.5	10/18/18	10/30/18 14:43	R3QA155/R3QA116
Potassium	**6630**		500	ug/L	1	10/18/18	10/30/18 19:33	R3QA155/R3QA159
Selenium	U		5.0	ug/L	2.5	10/18/18	10/30/18 14:43	R3QA155/R3QA116
Silver	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:43	R3QA155/R3QA116
Sodium	**17300**		500	ug/L	1	10/18/18	10/30/18 19:33	R3QA155/R3QA159
Thallium	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:43	R3QA155/R3QA116
Vanadium	**5.0**		5.0	ug/L	2.5	10/18/18	10/30/18 14:43	R3QA155/R3QA116
Zinc	**3.1**		2.0	ug/L	2.5	10/18/18	10/30/18 14:43	R3QA155/R3QA116

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

Total Metals

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID:	1810015-16							
Station ID:	BDE-GW-13							
Sample Matrix:	Groundwater							
Collected:	10/08/2018							
Aluminum	**261**		20.0	ug/L	2.5	10/18/18	10/30/18 14:47	R3QA155/R3QA116
Antimony	U		2.0	ug/L	2.5	10/18/18	10/30/18 14:47	R3QA155/R3QA116
Arsenic	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:47	R3QA155/R3QA116
Barium	**56.7**		10.0	ug/L	2.5	10/18/18	10/30/18 14:47	R3QA155/R3QA116
Beryllium	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:47	R3QA155/R3QA116
Cadmium	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:47	R3QA155/R3QA116
Calcium	**6840**		500	ug/L	1	10/18/18	10/30/18 19:37	R3QA155/R3QA159
Chromium	U		2.0	ug/L	2.5	10/18/18	10/30/18 14:47	R3QA155/R3QA116
Cobalt	**1.3**		1.0	ug/L	2.5	10/18/18	10/30/18 14:47	R3QA155/R3QA116
Copper	U		2.0	ug/L	2.5	10/18/18	10/30/18 14:47	R3QA155/R3QA116
Iron	U		100	ug/L	1	10/18/18	10/30/18 19:37	R3QA155/R3QA159
Lead	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:47	R3QA155/R3QA116
Magnesium	**1580**		500	ug/L	1	10/18/18	10/30/18 19:37	R3QA155/R3QA159
Manganese	**31.5**		1.0	ug/L	2.5	10/18/18	10/30/18 14:47	R3QA155/R3QA116
Mercury	U	H1, UJ	0.2	ug/L	1	11/06/18	11/08/18 12:18	R3QA131
Nickel	**2.3**		1.0	ug/L	2.5	10/18/18	10/30/18 14:47	R3QA155/R3QA116
Potassium	**4470**		500	ug/L	1	10/18/18	10/30/18 19:37	R3QA155/R3QA159
Selenium	U		5.0	ug/L	2.5	10/18/18	10/30/18 14:47	R3QA155/R3QA116
Silver	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:47	R3QA155/R3QA116
Sodium	**2500**		500	ug/L	1	10/18/18	10/30/18 19:37	R3QA155/R3QA159
Thallium	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:47	R3QA155/R3QA116
Vanadium	U		5.0	ug/L	2.5	10/18/18	10/30/18 14:47	R3QA155/R3QA116
Zinc	**78.9**		2.0	ug/L	2.5	10/18/18	10/30/18 14:47	R3QA155/R3QA116

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

Total Metals

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID:	1810015-17							
Station ID:	BDE-GW-14							
Sample Matrix:	Groundwater							
Collected:	10/11/2018							
Aluminum	**476**		20.0	ug/L	2.5	10/18/18	10/30/18 14:51	R3QA155/R3QA116
Antimony	U		2.0	ug/L	2.5	10/18/18	10/30/18 14:51	R3QA155/R3QA116
Arsenic	**2.2**		1.0	ug/L	2.5	10/18/18	10/30/18 14:51	R3QA155/R3QA116
Barium	**15.0**		10.0	ug/L	2.5	10/18/18	10/30/18 14:51	R3QA155/R3QA116
Beryllium	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:51	R3QA155/R3QA116
Cadmium	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:51	R3QA155/R3QA116
Calcium	**15100**		500	ug/L	1	10/18/18	10/30/18 19:41	R3QA155/R3QA159
Chromium	U		2.0	ug/L	2.5	10/18/18	10/30/18 14:51	R3QA155/R3QA116
Cobalt	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:51	R3QA155/R3QA116
Copper	**2.0**		2.0	ug/L	2.5	10/18/18	10/30/18 14:51	R3QA155/R3QA116
Iron	**254**		100	ug/L	1	10/18/18	10/30/18 19:41	R3QA155/R3QA159
Lead	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:51	R3QA155/R3QA116
Magnesium	**1620**		500	ug/L	1	10/18/18	10/30/18 19:41	R3QA155/R3QA159
Manganese	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:51	R3QA155/R3QA116
Mercury	U		0.2	ug/L	1	11/06/18	11/08/18 12:20	R3QA131
Nickel	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:51	R3QA155/R3QA116
Potassium	**2010**		500	ug/L	1	10/18/18	10/30/18 19:41	R3QA155/R3QA159
Selenium	U		5.0	ug/L	2.5	10/18/18	10/30/18 14:51	R3QA155/R3QA116
Silver	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:51	R3QA155/R3QA116
Sodium	**8790**		500	ug/L	1	10/18/18	10/30/18 19:41	R3QA155/R3QA159
Thallium	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:51	R3QA155/R3QA116
Vanadium	**8.7**		5.0	ug/L	2.5	10/18/18	10/30/18 14:51	R3QA155/R3QA116
Zinc	**38.2**		2.0	ug/L	2.5	10/18/18	10/30/18 14:51	R3QA155/R3QA116

Site Name: **BLADES GROUNDWATER** **Project #:** **DAS R35450**

Total Metals

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID:	1810015-18							
Station ID:	BDE-GW-15							
Sample Matrix:	Groundwater							
Collected:	10/10/2018							
Aluminum	**373**		20.0	ug/L	2.5	10/18/18	10/30/18 14:54	R3QA155/R3QA116
Antimony	U		2.0	ug/L	2.5	10/18/18	10/30/18 14:54	R3QA155/R3QA116
Arsenic	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:54	R3QA155/R3QA116
Barium	**26.0**		10.0	ug/L	2.5	10/18/18	10/30/18 14:54	R3QA155/R3QA116
Beryllium	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:54	R3QA155/R3QA116
Cadmium	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:54	R3QA155/R3QA116
Calcium	**7400**		500	ug/L	1	10/18/18	10/30/18 19:44	R3QA155/R3QA159
Chromium	**16.9**		2.0	ug/L	2.5	10/18/18	10/30/18 14:54	R3QA155/R3QA116
Cobalt	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:54	R3QA155/R3QA116
Copper	U		2.0	ug/L	2.5	10/18/18	10/30/18 14:54	R3QA155/R3QA116
Iron	**184**		100	ug/L	1	10/18/18	10/30/18 19:44	R3QA155/R3QA159
Lead	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:54	R3QA155/R3QA116
Magnesium	**1240**		500	ug/L	1	10/18/18	10/30/18 19:44	R3QA155/R3QA159
Manganese	**20.1**		1.0	ug/L	2.5	10/18/18	10/30/18 14:54	R3QA155/R3QA116
Mercury	U	H1, UJ	0.2	ug/L	1	11/06/18	11/08/18 12:22	R3QA131
Nickel	**4.0**		1.0	ug/L	2.5	10/18/18	10/30/18 14:54	R3QA155/R3QA116
Potassium	**2140**		500	ug/L	1	10/18/18	10/30/18 19:44	R3QA155/R3QA159
Selenium	U		5.0	ug/L	2.5	10/18/18	10/30/18 14:54	R3QA155/R3QA116
Silver	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:54	R3QA155/R3QA116
Sodium	**3090**		500	ug/L	1	10/18/18	10/30/18 19:44	R3QA155/R3QA159
Thallium	U		1.0	ug/L	2.5	10/18/18	10/30/18 14:54	R3QA155/R3QA116
Vanadium	U		5.0	ug/L	2.5	10/18/18	10/30/18 14:54	R3QA155/R3QA116
Zinc	**114**		2.0	ug/L	2.5	10/18/18	10/30/18 14:54	R3QA155/R3QA116

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: BLADES GROUNDWATER **Project #: DAS R35450**

QC Data
HPLC Identification

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BJ81803 - EPA 537										
Blank (BJ81803-BLK1)				Prepared: 10/19/18 23:59			Analyzed: 10/23/18 02:03			
PFBS (perfluorobutanesulfonic acid)	U	10.0	ng/L							
PFHpA (perfluoroheptanoic acid)	U	10.0	"							
PFHxS (perfluorohexanesulfonic acid)	U	10.0	"							
PFNA (perfluorononanoic acid)	U	10.0	"							
PFOS (perfluorooctanesulfonic acid)	U	10.0	"							
PFOA (perfluorooctanoic acid)	U	10.0	"							
Surrogate: MPFHxA	*43.1*		"	*40.000*		*108*	*70-130*			
Surrogate: MPFDA	*39.1*		"	*40.000*		*98*	*70-130*			
LCS (BJ81803-BS1)				Prepared: 10/19/18 23:59			Analyzed: 10/23/18 02:29			
PFBS (perfluorobutanesulfonic acid)	97.7	10.0	ng/L	88.000		111	70-130			
PFHpA (perfluoroheptanoic acid)	110	10.0	"	100.00		110	70-130			
PFHxS (perfluorohexanesulfonic acid)	108	10.0	"	94.000		115	70-130			
PFNA (perfluorononanoic acid)	109	10.0	"	100.00		109	70-130			
PFOS (perfluorooctanesulfonic acid)	97.7	10.0	"	96.000		102	70-130			
PFOA (perfluorooctanoic acid)	109	10.0	"	100.00		109	70-130			
Surrogate: MPFHxA	*42.5*		"	*40.000*		*106*	*70-130*			
Surrogate: MPFDA	*40.0*		"	*40.000*		*100*	*70-130*			
Matrix Spike (BJ81803-MS1)	**Source: 1810015-05**			Prepared: 10/19/18 23:59			Analyzed: 10/23/18 05:28			
PFBS (perfluorobutanesulfonic acid)	93.4	8.62	ng/L	75.862	14.5	104	70-130			
PFHpA (perfluoroheptanoic acid)	100	8.62	"	86.207	U	117	70-130			
PFHxS (perfluorohexanesulfonic acid)	99.1	8.62	"	81.034	U	122	70-130			
PFNA (perfluorononanoic acid)	100	8.62	"	86.207	U	116	70-130			
PFOS (perfluorooctanesulfonic acid)	263	43.1	"	82.759	183	96	70-130			
PFOA (perfluorooctanoic acid)	108	8.62	"	86.207	10.1	113	70-130			
Surrogate: MPFHxA	*37.4*		"	*34.483*		*109*	*70-130*			
Surrogate: MPFDA	*36.5*		"	*34.483*		*106*	*70-130*			

Site Name: BLADES GROUNDWATER **Project #: DAS R35450**

QC Data
HPLC Identification

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BJ81803 - EPA 537										
Matrix Spike Dup (BJ81803-MSD1)		**Source: 1810015-05**		Prepared: 10/19/18 23:59		Analyzed: 10/23/18 05:54				
PFBS (perfluorobutanesulfonic acid)	101	8.62	ng/L	75.862	14.5	114	70-130	8	25	
PFHpA (perfluoroheptanoic acid)	107	8.62	"	86.207	U	124	70-130	6	25	
PFHxS (perfluorohexanesulfonic acid)	104	8.62	"	81.034	U	128	70-130	5	25	
PFNA (perfluorononanoic acid)	107	8.62	"	86.207	U	124	70-130	6	25	
PFOS (perfluorooctanesulfonic acid)	273	43.1	"	82.759	183	109	70-130	4	25	
PFOA (perfluorooctanoic acid)	113	8.62	"	86.207	10.1	119	70-130	4	25	
Surrogate: MPFHxA	*40.7*		*"*	*34.483*		*118*	*70-130*			
Surrogate: MPFDA	*39.4*		*"*	*34.483*		*114*	*70-130*			

Site Name: BLADES GROUNDWATER **Project #: DAS R35450**

QC Data
Organochlorine Pesticides and PCBs

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BJ81702 - EPA 3520C PCB/Pest										
Blank (BJ81702-BLK1)				Prepared: 10/17/18 08:00		Analyzed: 11/01/18 18:38				
Aldrin	U	0.050	ug/L							
alpha-BHC	U	0.050	"							
beta-BHC	U	0.050	"							
delta-BHC	U	0.050	"							
gamma-BHC (Lindane)	U	0.050	"							
alpha-Chlordane	U	0.050	"							
gamma-Chlordane	U	0.050	"							
4,4'-DDD	U	0.100	"							
4,4'-DDE	U	0.100	"							
4,4'-DDT	U	0.100	"							
Dieldrin	U	0.100	"							
Endosulfan I	U	0.050	"							
Endosulfan II	U	0.100	"							
Endosulfan sulfate	U	0.100	"							
Endrin	U	0.100	"							
Endrin aldehyde	U	0.100	"							
Endrin ketone	U	0.100	"							
Heptachlor	U	0.050	"							
Heptachlor epoxide	U	0.050	"							
Methoxychlor	U	0.500	"							
Toxaphene	U	5.00	"							
Surrogate: Tetrachloro-meta-xylene	*0.719*		*"*	*1.0000*		*72*	*30-150*			
Surrogate: Decachlorobiphenyl	*0.725*		*"*	*1.0000*		*72*	*30-150*			
LCS (BJ81702-BS1)				Prepared: 10/17/18 08:00		Analyzed: 11/01/18 19:44				
Aldrin	0.372	0.050	ug/L	0.40000		93	70-130			
alpha-BHC	0.385	0.050	"	0.40000		96	70-130			
beta-BHC	0.407	0.050	"	0.40000		102	70-130			
delta-BHC	0.416	0.050	"	0.40000		104	70-130			
gamma-BHC (Lindane)	0.394	0.050	"	0.40000		99	70-130			
alpha-Chlordane	0.390	0.050	"	0.40000		98	70-130			
gamma-Chlordane	0.396	0.050	"	0.40000		99	70-130			
4,4'-DDD	0.846	0.100	"	0.80000		106	70-130			
4,4'-DDE	0.776	0.100	"	0.80000		97	70-130			
4,4'-DDT	0.830	0.100	"	0.80000		104	70-130			
Dieldrin	0.804	0.100	"	0.80000		100	70-130			
Endosulfan I	0.391	0.050	"	0.40000		98	70-130			
Endosulfan II	0.864	0.100	"	0.80000		108	70-130			
Endosulfan sulfate	0.837	0.100	"	0.80000		105	70-130			
Endrin	0.874	0.100	"	0.80000		109	70-130			
Endrin aldehyde	0.850	0.100	"	0.80000		106	70-130			
Endrin ketone	0.895	0.100	"	0.80000		112	70-130			
Heptachlor	0.370	0.050	"	0.40000		93	70-130			
Heptachlor epoxide	0.398	0.050	"	0.40000		99	70-130			
Methoxychlor	4.55	0.500	"	4.0000		114	70-130			

Site Name: BLADES GROUNDWATER **Project #: DAS R35450**

QC Data
Organochlorine Pesticides and PCBs

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BJ81702 - EPA 3520C PCB/Pest										
LCS (BJ81702-BS1)				Prepared: 10/17/18 08:00			Analyzed: 11/01/18 19:44			
Surrogate: Tetrachloro-meta-xylene	*0.756*		*ug/L*	*1.0000*		*76*	*30-150*			
Surrogate: Decachlorobiphenyl	*0.753*		*"*	*1.0000*		*75*	*30-150*			
Matrix Spike (BJ81702-MS1)		**Source: 1810015-05**		Prepared: 10/17/18 08:00			Analyzed: 11/02/18 01:14			
Aldrin	0.330	0.048	ug/L	0.38095	U	87	40-120			
alpha-BHC	0.341	0.048	"	0.38095	U	90	50-150			
beta-BHC	0.382	0.048	"	0.38095	U	100	50-150			
delta-BHC	0.414	0.048	"	0.38095	U	109	50-150			
gamma-BHC (Lindane)	0.356	0.048	"	0.38095	U	94	56-123			
alpha-Chlordane	0.364	0.048	"	0.38095	U	95	50-150			
gamma-Chlordane	0.373	0.048	"	0.38095	U	98	50-150			
4,4'-DDD	0.809	0.095	"	0.76190	U	106	50-150			
4,4'-DDE	0.736	0.095	"	0.76190	U	97	50-150			
4,4'-DDT	0.792	0.095	"	0.76190	U	104	38-127			
Dieldrin	0.767	0.095	"	0.76190	U	101	52-126			
Endosulfan I	0.362	0.048	"	0.38095	U	95	50-150			
Endosulfan II	0.805	0.095	"	0.76190	U	106	50-150			
Endosulfan sulfate	0.777	0.095	"	0.76190	U	102	50-150			
Endrin	0.826	0.095	"	0.76190	U	108	56-121			
Endrin aldehyde	0.762	0.095	"	0.76190	U	100	50-150			
Endrin ketone	0.843	0.095	"	0.76190	U	111	50-150			
Heptachlor	0.330	0.048	"	0.38095	U	87	40-131			
Heptachlor epoxide	0.366	0.048	"	0.38095	U	96	50-150			
Methoxychlor	4.41	0.476	"	3.8095	U	116	50-150			
Toxaphene	U	4.76	"		U		50-150			
Surrogate: Tetrachloro-meta-xylene	*0.644*		*"*	*0.95238*		*68*	*30-150*			
Surrogate: Decachlorobiphenyl	*0.899*		*"*	*0.95238*		*94*	*30-150*			

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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Site Name: BLADES GROUNDWATER **Project #: DAS R35450**

QC Data
Organochlorine Pesticides and PCBs

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BJ81702 - EPA 3520C PCB/Pest										
Matrix Spike Dup (BJ81702-MSD1)		**Source: 1810015-05**		Prepared: 10/17/18 08:00		Analyzed: 11/02/18 01:36				
Aldrin	0.262	0.048	ug/L	0.38095	U	69	40-120	23	22	A
alpha-BHC	0.318	0.048	"	0.38095	U	83	50-150	7	25	
beta-BHC	0.362	0.048	"	0.38095	U	95	50-150	5	25	
delta-BHC	0.396	0.048	"	0.38095	U	104	50-150	4	25	
gamma-BHC (Lindane)	0.341	0.048	"	0.38095	U	89	56-123	4	15	
alpha-Chlordane	0.353	0.048	"	0.38095	U	93	50-150	3	25	
gamma-Chlordane	0.360	0.048	"	0.38095	U	94	50-150	4	25	
4,4'-DDD	0.810	0.095	"	0.76190	U	106	50-150	0.1	25	
4,4'-DDE	0.716	0.095	"	0.76190	U	94	50-150	3	25	
4,4'-DDT	0.768	0.095	"	0.76190	U	101	38-127	3	27	
Dieldrin	0.747	0.095	"	0.76190	U	98	52-126	3	18	
Endosulfan I	0.354	0.048	"	0.38095	U	93	50-150	2	25	
Endosulfan II	0.787	0.095	"	0.76190	U	103	50-150	2	25	
Endosulfan sulfate	0.763	0.095	"	0.76190	U	100	50-150	2	25	
Endrin	0.805	0.095	"	0.76190	U	106	56-121	3	21	
Endrin aldehyde	0.748	0.095	"	0.76190	U	98	50-150	2	25	
Endrin ketone	0.829	0.095	"	0.76190	U	109	50-150	2	25	
Heptachlor	0.302	0.048	"	0.38095	U	79	40-131	9	20	
Heptachlor epoxide	0.355	0.048	"	0.38095	U	93	50-150	3	25	
Methoxychlor	4.31	0.476	"	3.8095	U	113	50-150	2	25	
Toxaphene	U	4.76	"		U		50-150		25	
Surrogate: Tetrachloro-meta-xylene	*0.650*		*"*	*0.95238*		*68*	*30-150*			
Surrogate: Decachlorobiphenyl	*0.924*		*"*	*0.95238*		*97*	*30-150*			

Site Name: BLADES GROUNDWATER **Project #: DAS R35450**

QC Data
Total Metals

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BJ81801 - Metals Water Prep										
Blank (BJ81801-BLK1)				Prepared: 10/18/18 10:58		Analyzed: 10/30/18 12:28				
Antimony	U	2.0	ug/L							
Arsenic	U	1.0	"							
Barium	U	10.0	"							
Beryllium	U	1.0	"							
Cadmium	U	1.0	"							
Chromium	U	2.0	"							
Cobalt	U	1.0	"							
Copper	U	2.0	"							
Lead	U	1.0	"							
Manganese	U	1.0	"							
Nickel	U	1.0	"							
Selenium	U	5.0	"							
Silver	U	1.0	"							
Thallium	U	1.0	"							
Vanadium	U	5.0	"							
Zinc	U	2.0	"							
Aluminum	U	20.0	"							
Blank (BJ81801-BLK2)				Prepared: 10/18/18 10:58		Analyzed: 10/30/18 17:56				
Aluminum	U	200	ug/L							
Calcium	U	500	"							
Iron	U	100	"							
Magnesium	U	500	"							
Potassium	U	500	"							
Sodium	U	500	"							
LCS (BJ81801-BS1)				Prepared: 10/18/18 10:58		Analyzed: 10/30/18 12:36				
Antimony	50.0	2.0	ug/L	50.000		100	85-115			
Arsenic	47.4	1.0	"	50.000		95	85-115			
Barium	190	10.0	"	200.00		95	85-115			
Beryllium	4.7	1.0	"	5.0000		95	85-115			
Cadmium	5.1	1.0	"	5.0000		101	85-115			
Chromium	50.1	2.0	"	50.000		100	85-115			
Cobalt	48.9	1.0	"	50.000		98	85-115			
Copper	48.9	2.0	"	50.000		98	85-115			
Lead	47.5	1.0	"	50.000		95	85-115			
Manganese	49.0	1.0	"	50.000		98	85-115			
Nickel	48.7	1.0	"	50.000		97	85-115			
Selenium	48.1	5.0	"	50.000		96	85-115			
Silver	5.0	1.0	"	5.0000		100	85-115			
Thallium	44.8	1.0	"	50.000		90	85-115			
Vanadium	51.6	5.0	"	50.000		103	85-115			
Zinc	47.5	2.0	"	50.000		95	85-115			
Aluminum	200	20.0	"	200.00		100	85-115			

Site Name: BLADES GROUNDWATER **Project #: DAS R35450**

QC Data
Total Metals

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BJ81801 - Metals Water Prep										
LCS (BJ81801-BS2)				Prepared: 10/18/18 10:58		Analyzed: 10/30/18 18:03				
Aluminum	1931.60	200	ug/L	2000.0		97	85-115			
Calcium	9842.37	500	"	10000		98	85-115			
Iron	4889.14	100	"	5000.0		98	85-115			
Magnesium	9714.18	500	"	10000		97	85-115			
Potassium	19465.4	500	"	20000		97	85-115			
Sodium	9718.12	500	"	10000		97	85-115			
Duplicate (BJ81801-DUP1)		**Source: 1810015-01**		Prepared: 10/18/18 10:58		Analyzed: 10/30/18 13:09				
Antimony	0.1	2.0	ug/L		0.1			3	20	
Arsenic	U	1.0	"		U				20	
Barium	18.4	10.0	"		20.8			13	20	
Beryllium	0.004	1.0	"		0.008			71	20	D
Cadmium	0.02	1.0	"		0.02			42	20	D
Chromium	U	2.0	"		U				20	
Cobalt	0.1	1.0	"		0.1			4	20	
Copper	0.8	2.0	"		1.0			14	20	
Lead	0.03	1.0	"		0.04			32	20	D
Manganese	0.2	1.0	"		0.2			5	20	
Nickel	1.0	1.0	"		1.1			6	20	
Selenium	0.6	5.0	"		0.8			19	20	
Silver	U	1.0	"		U				20	
Thallium	0.003	1.0	"		0.002			5	20	
Vanadium	2.4	5.0	"		2.9			19	20	
Zinc	2.2	2.0	"		2.9			26	20	A
Aluminum	23.5	20.0	"		26.4			11	20	
Duplicate (BJ81801-DUP2)		**Source: 1810015-01**		Prepared: 10/18/18 10:58		Analyzed: 10/30/18 18:11				
Calcium	18093.5	500	ug/L		18081.6			0.07	20	
Iron	11.6095	100	"		12.1502			5	20	
Magnesium	2278.88	500	"		2290.38			0.5	20	
Potassium	2370.02	500	"		2375.84			0.2	20	
Sodium	5843.41	500	"		5867.12			0.4	20	

Site Name: BLADES GROUNDWATER **Project #: DAS R35450**

QC Data
Total Metals

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BJ81801 - Metals Water Prep										
Duplicate (BJ81801-DUP3)		**Source: 1810015-11**		Prepared: 10/18/18 10:58		Analyzed: 10/30/18 14:09				
Antimony	0.1	2.0	ug/L		0.1			5	20	
Arsenic	0.09	1.0	"		1.6			178	20	D
Barium	47.6	10.0	"		54.6			14	20	
Beryllium	0.03	1.0	"		0.03			9	20	
Cadmium	0.08	1.0	"		0.1			19	20	
Chromium	U	2.0	"		U				20	
Cobalt	0.6	1.0	"		0.6			0.4	20	
Copper	0.7	2.0	"		0.6			22	20	D
Lead	0.05	1.0	"		0.05			3	20	
Manganese	5.2	1.0	"		5.2			0.8	20	
Nickel	0.9	1.0	"		1.1			19	20	
Selenium	0.6	5.0	"		0.8			37	20	D
Silver	U	1.0	"		U				20	
Thallium	0.006	1.0	"		0.006			0.5	20	
Vanadium	2.0	5.0	"		1.5			29	20	D
Zinc	6.1	2.0	"		6.4			5	20	
Aluminum	19.0	20.0	"		21.9			14	20	
Duplicate (BJ81801-DUP4)		**Source: 1810015-11**		Prepared: 10/18/18 10:58		Analyzed: 10/30/18 19:13				
Calcium	17815.1	500	ug/L		17922.3			0.6	20	
Iron	2.73066	100	"		5.17234			62	20	D
Magnesium	2232.89	500	"		2231.51			0.06	20	
Potassium	2132.95	500	"		2138.82			0.3	20	
Sodium	8951.19	500	"		9274.40			4	20	
Matrix Spike (BJ81801-MS1)		**Source: 1810015-02**		Prepared: 10/18/18 10:58		Analyzed: 10/30/18 13:17				
Antimony	51.3	2.0	ug/L	50.000	0.06	102	70-130			
Arsenic	49.8	1.0	"	50.000	0.07	99	70-130			
Barium	240	10.0	"	200.00	36.4	102	70-130			
Beryllium	5.1	1.0	"	5.0000	0.1	100	70-130			
Cadmium	5.2	1.0	"	5.0000	0.05	103	70-130			
Chromium	49.0	2.0	"	50.000	U	98	70-130			
Cobalt	49.8	1.0	"	50.000	1.9	96	70-130			
Copper	50.8	2.0	"	50.000	0.9	100	70-130			
Lead	48.5	1.0	"	50.000	0.2	97	70-130			
Manganese	66.8	1.0	"	50.000	18.0	98	70-130			
Nickel	53.8	1.0	"	50.000	4.1	99	70-130			
Selenium	48.8	5.0	"	50.000	1.0	96	70-130			
Silver	4.9	1.0	"	5.0000	0.006	98	70-130			
Thallium	46.3	1.0	"	50.000	0.007	93	70-130			
Vanadium	53.1	5.0	"	50.000	0.2	106	70-130			
Zinc	59.9	2.0	"	50.000	12.2	95	70-130			
Aluminum	350	20.0	"	200.00	133	108	70-130			

Site Name: BLADES GROUNDWATER **Project #: DAS R35450**

QC Data
Total Metals

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BJ81801 - Metals Water Prep										
Matrix Spike (BJ81801-MS2)		**Source: 1810015-02**		Prepared: 10/18/18 10:58			Analyzed: 10/30/18 18:27			
Calcium	18992.9	500	ug/L	10000	8966.02	100	70-130			
Iron	4890.27	100	"	5000.0	27.1726	97	70-130			
Magnesium	10606.3	500	"	10000	1249.91	94	70-130			
Potassium	21436.9	500	"	20000	2239.30	96	70-130			
Sodium	17974.4	500	"	10000	8233.12	97	70-130			
Matrix Spike (BJ81801-MS3)		**Source: 1810015-12**		Prepared: 10/18/18 10:58			Analyzed: 10/30/18 14:32			
Antimony	48.8	2.0	ug/L	50.000	0.2	97	70-130			
Arsenic	48.5	1.0	"	50.000	U	97	70-130			
Barium	239	10.0	"	200.00	46.8	96	70-130			
Beryllium	4.9	1.0	"	5.0000	0.02	98	70-130			
Cadmium	4.7	1.0	"	5.0000	0.05	93	70-130			
Chromium	47.9	2.0	"	50.000	U	96	70-130			
Cobalt	46.9	1.0	"	50.000	0.2	93	70-130			
Copper	48.0	2.0	"	50.000	0.9	94	70-130			
Lead	46.3	1.0	"	50.000	0.08	92	70-130			
Manganese	49.4	1.0	"	50.000	1.4	96	70-130			
Nickel	52.0	1.0	"	50.000	4.2	96	70-130			
Selenium	47.4	5.0	"	50.000	1.1	92	70-130			
Silver	4.9	1.0	"	5.0000	U	98	70-130			
Thallium	44.5	1.0	"	50.000	0.01	89	70-130			
Vanadium	47.2	5.0	"	50.000	2.0	90	70-130			
Zinc	53.7	2.0	"	50.000	7.1	93	70-130			
Aluminum	400	20.0	"	200.00	176	112	70-130			
Matrix Spike (BJ81801-MS4)		**Source: 1810015-12**		Prepared: 10/18/18 10:58			Analyzed: 10/30/18 19:21			
Calcium	46011.8	500	ug/L	10000	36747.0	93	70-130			
Iron	5142.92	100	"	5000.0	70.0620	101	70-130			
Magnesium	12279.2	500	"	10000	2825.55	95	70-130			
Potassium	23455.5	500	"	20000	4270.67	96	70-130			
Sodium	19965.3	500	"	10000	10413.8	96	70-130			

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: BLADES GROUNDWATER **Project #: DAS R35450**

QC Data
Total Metals

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BK80504 - Mercury 245.1/245.2/7470a Prep										
Blank (BK80504-BLK1)				Prepared: 11/06/18 10:25			Analyzed: 11/08/18 11:24			
Mercury	U	0.2	ug/L							
Blank (BK80504-BLK2)				Prepared: 11/06/18 10:25			Analyzed: 11/08/18 11:58			
Mercury	U	0.2	ug/L							
LCS (BK80504-BS1)				Prepared: 11/06/18 10:25			Analyzed: 11/08/18 11:26			
Mercury	1.88	0.2	ug/L	2.0000		94	85-115			
Duplicate (BK80504-DUP1)		**Source: 1810015-05**		Prepared: 11/06/18 10:25			Analyzed: 11/08/18 11:44			
Mercury	U	0.2	ug/L		U				20	
Duplicate (BK80504-DUP2)		**Source: 1810015-12**		Prepared: 11/06/18 10:25			Analyzed: 11/08/18 12:10			
Mercury	U	0.2	ug/L		U				20	
Matrix Spike (BK80504-MS1)		**Source: 1810015-05**		Prepared: 11/06/18 10:25			Analyzed: 11/08/18 11:46			
Mercury	1.75	0.2	ug/L	2.0000	U	88	70-130			
Matrix Spike (BK80504-MS2)		**Source: 1810015-11**		Prepared: 11/06/18 10:25			Analyzed: 11/08/18 12:06			
Mercury	1.92	0.2	ug/L	2.0000	U	96	70-130			

Site Name: BLADES GROUNDWATER **Project #: DAS R35450**

Notes and Definitions

UJ	The analyte was not detected at or above the quantitation limit. The quantitation limit is an estimate.
J	The identification of the analyte is acceptable; the reported value is an estimate.
H2	This sample was extracted outside of the EPA recommended holding time.
H1	This sample was analyzed outside the EPA recommended holding time.
D	Source sample result and/or duplicate sample result are below the quantitation limit and the RPD is artificially high. Precision data (RPD value) has no significance for this QC Sample.
A	Quality control value is outside acceptance limits.
%REC	Percent Recovery
RPD	Relative Percent Difference
U	Analyte included in the analysis, but not detected at or above the quantitation limit.
NR	Not Reported

QUANTITATION LIMIT: The lowest concentration of an analyte that can be reliably measured within specified limits of precision and accuracy for a specific laboratory analytical method and that takes into account analytical adjustments made during sample preparation and analysis.

SOLID SAMPLE RESULTS - REPORTING PROTOCOL: Percent Solids (percent dry wt at 105 degrees C) determinations are routinely performed for most organic and inorganic analyses. Consequently, these samples are analyzed wet and converted to a dry weight result for reporting purposes. If metals and mercury analyses are requested, they are routinely prepared for analyses by an initial drying at 60 degrees C, homogenized prior to digestion, and are analyzed and reported on a dry weight basis. Oil-type samples are analyzed and reported on a wet weight basis for all analyses because of the nature of the sample matrix. Any exceptions to this protocol will be noted in the narrative.

ON-DEMAND: The term 'on-demand' analysis, if noted in the report narrative, refers to Section 13.1.4 in the Region III OASQA Laboratory Quality Manual, which provides procedures for non-routine analyses or analytes.