0069023

FIELD SCREENING
FINAL DATA DELIVERABLE COVER SHEET

Date: Tuesday, March 29, 2005

Sample Authorization Form (SAF) Number: F02-001

SDG Number (assigned by Sample Management): FP0229 Dayes 4/11/05

Attachments (check all that apply or N/A):

X	Test Results
N/A	Narrative Summary
N/A	Chain of Custody(s)
X	Logbook Pages
N/A	Anomaly Report

Total number of pages (including cover sheet): 19

Comments:
200-ZP-1 Process Sampling and Analysis– VOA - Water

THESE TESTS WERE CONDUCTED USING QC-2

FEB 2006 RECEIVED

Analyst Signature — Date 3/29/05

Reviewer's Signature — Date 2/6/06

Distribution: CPP Sample Management A0-21
Project (Specify)

_____ Requires distribution to listed project personnel by Sample Management (check if applicable)

RECEIVED MAR 2 1 2006 EDMC

00000001

200-ZP-1 Phase III Pump and Treat System

Process Monitoring Field Screening Results
Advanced Data Copy, SAF F02-001/F02-002

				WATER ANALYSES		
Sample Location	*HEIS Number*	*Sample/ Analysis Date*	*Sample Time*	*TCM (ug/L)*	*CCl_4 (ug/L)*	*TCE (ug/L)*
Field Blank	B194T9	09/16/04	08:40	<2.0	17	<2.0
Post Tank T-02-01	B194V0	09/16/04	08:42	<2.0	16	<2.0
Post Valve V-01-01	B194V1	09/16/04	08:44	<2.0	15	<2.0
Post Tank T-01-01	B194V2	09/16/04	08:48	18	4500	6.7
Extraction Well #1	B19504	09/16/04	08:44	16	6200	3.5
Extraction Well #2	B19505	09/16/04	08:46	27	9700	9.8
Extraction Well # 2 Duplicate	B19506	09/16/04	08:05	19	5100	8.9
Extraction Well #3	B19507	09/16/04	08:05	20	5000	8.8
Extraction Well #4	B19508	09/16/04	08:07	22	3900	7.3
Extraction Well #5	B19509	09/16/04	08:13	20	1200	2.3
Field Blank	B1BJV3	11/02/04	08:05	<2.0	3.9	<2.0
Post Tank T-02-01	B1BJV4	11/02/04	08:05	<2.0	3.8	<2.0
Post Valve V-01-01	B1BJV5	11/02/04	08:35	<2.0	3.8	<2.0
Post Tank T-01-01	B1BJV6	11/02/04	08:51	18	2653	7.6
Extraction Well #1	B1BJV7	11/02/04	09:15	14	3371	3.5
Extraction Well #2	B1BJV8	11/02/04	09:30	20	4460	11
Extraction Well # 3	B1BJV9	11/02/04	10:55	16	2934	10
Extraction Well #4	B1BJW0	11/02/04	10:32	19	2067	7.1
Extraction Well #4 Duplicate	B1BJW1	11/02/04	10:32	18	2213	7.6
Extraction Well #5	B1BJW2	11/02/04	11:15	16	778	<2.0
Field Blank	B1BR69	11/11/04	08:37	<2.0	15	<2.0
Extraction Well #1	B1BR70	11/11/04	08:49	16	3333	4.1
Extraction Well #2	B1BR71	11/11/04	08:50	25	4702	12
Extraction Well # 3	B1BR72	11/11/04	08:29	17	2876	11
Extraction Well #4	B1BR73	11/11/04	08:26	20	2183	8.2
Extraction Well #5	B1BR74	11/11/04	08:19	19	782	2.2
Extraction Well #5 Duplicate	B1BR75	11/11/04	08:19	19	798	2.3
Field Blank	B1FRW3	11/16/04	09:12	<2.0	16	<2.0
Extraction Well #1	B1BFK2	11/16/04	09:14	16	3226	6.3
Extraction Well #1 Duplicate	B1BFK3	11/16/04	09:14	17	3331	6.5
Extraction Well # 2	B1BFK4	11/16/04	09:15	29	4521	13
Extraction Well #3	B1BFK5	11/16/04	09:04	18	2881	12
Extraction Well #4	B1BFK6	11/16/04	09:02	20	2129	9.6
Extraction Well #5	B1BFK7	11/16/04	08:55	20	820	5.2

Samples not corrected to two significant figures for values above 100 ppb
Zalexander
1-23-06

200000002

200-ZP-1 Phase III Pump and Treat System

Process Monitoring Field Screening Results

Advanced Data Copy, SAF F02-001/F02-002

Field Blank	B1C146	12/21/04	10:10	<2.0	3.3	<2.0
Post Tank T-02-01	B1C147	12/21/04	10:13	<2.0	2.9	<2.0
Post Valve V-01-01	B1C148	12/21/04	10:18	<2.0	2.9	<2.0
Post Tank T-01-01	B1C149	12/21/04	10:21	14	2344	6.4
Extraction Well #1	B1C150	12/21/04	10:22	13	3127	3.7
Extraction Well #2	---	Well Offline	---	---	---	---
Extraction Well # 3	B1C151	12/21/04	13:12	14	2666	9
Extraction Well #4	B1C152	12/21/04	13:10	16	1891	6.6
Extraction Well #5	B1C153	12/21/04	13:03	15	679	2.2
Extraction Well #5 Duplicate	B1C154	12/21/04	13:03	15	727	2.3
Field Blank	B1C386	01/25/05	07:59	<2.0	12	<2.0
Post Tank T-02-01	B1C383	01/25/05	08:03	<2.0	13	<2.0
Post Valve V-01-01	B1C384	01/25/05	08:25	<2.0	12	<2.0
Post Tank T-01-01	B1C385	01/25/05	08:43	16	2458	7.3
Extraction Well #1	B1C387	01/25/05	08:50	15	3543	4.6
Extraction Well #1 Duplicate	B1C388	01/25/05	08:50	14	3201	4.0
Extraction Well #2	B1C7Y7	01/25/05	09:12	21	4471	9.7
Extraction Well # 3	B1C389	01/25/05	09:43	16	2577	9.6
Extraction Well #4	B1C390	01/25/05	09:54	18	1869	7.4
Extraction Well #5	B1C391	01/25/05	10:14	18	672	2.5
Field Blank	B1CD20	02/17/05	09:15	<2.0	9.8	<2.0
Post Tank T-02-01	B1CD21	02/17/05	09:17	<2.0	6.5	<2.0
Post Valve V-01-01	B1CD22	02/17/05	09:20	<2.0	7.7	<2.0
Post Tank T-01-01	B1CD23	02/17/05	09:25	12	2596	5.7
Extraction Well #1	B1CD24	02/17/05	09:27	10	3031	2.9
Extraction Well #2	B1CD25	02/17/05	09:29	20	4338	7.8
Extraction Well #2 Duplicate	B1CD26	02/17/05	09:29	17	4178	7.5
Extraction Well # 3	B1CD27	02/17/05	12:19	13	2641	7.4
Extraction Well #4	B1CD28	02/17/05	12:17	14	1717	5.2
Extraction Well #5	-----	Well Offline	-----	-----	-----	-----
Field Blank	B1CH02	03/17/05	10:41	<2.0	11	<2.0
Post Tank T-02-01	B1CH03	03/17/05	10:48	<2.0	4.6	<2.0
Post Valve V-01-01	B1CH04	03/17/05	10:54	<2.0	4.5	<2.0
Post Tank T-01-01	B1CH05	03/17/05	10:57	13	2807	7.5
Extraction Well #1	B1CH06	03/17/05	10:59	12	3289	4.9
Extraction Well #2	B1CH07	03/17/05	11:01	17	4521	9.4
Extraction Well #3	B1CH08	03/17/05	13:36	13	2855	9.0
Extraction Well # 3 Duplicate	B1CH09	03/17/05	13:36	13	3011	9.3
Extraction Well #4	B1CH10	03/17/05	13:38	14	2030	7.2
Extraction Well #5	-----	Well Offline	-----	-----	-----	-----

Samples not corrected to two significant figures for values above 100 ppb.
gale Lander
1-23-06

44

200-ZP-1 Process
200-UP-1 RI

mathansen / GS / [illegible] 8/23/04

MOBILE LABORATORY DATA/LOG SHEET

Site Names: 200-ZP-1 Phase III (Logbook HNF-N-293 1, SAF F02-001/F02-002);
200-UP-1 Remedial Investigation; C4299 (699-36-70B) (SAF F04-014)

Date: 8/20/04

Sample Number	HEIS Number	Sample Time	Sample Type	Sampler (Initials)	Analysis Time	Analytical Results			Comments
						TCM ug/L	CCl4 ug/L	TCE ug/L	
DI Blank	—	0630	Water	TMJ/DJA	0934	<2.0	<2.0	<2.0	hs012.d
100ug/L Cal. Check	—	0900	Water	TMJ/DJA	0946	106 106%	108 108%	107 107%	hs013.d; Acceptable recoveries.
DI Blank	—	0630	Water	TMJ/DJA	0957	<2.0	<2.0	<2.0	hs014.d
Field Blank	B194T9	0804	Water	TMJ/DJA	1030	<2.0	22	<2.0	hs017.d;
Z-T2-01	B194V0	0806	Water	TMJ/DJA	1041	<2.0	21	<2.0	hs018;
Z-V1-01	B194V1	0810	Water	TMJ/DJA	1053	<2.0	21	<2.0	hs019;
C4299, 270'	B193H8	1005	Water	TMJ/DJA	1104	7.0	<2.0	<2.0	hs020;
Z-V1-02 MS	-	0810	Water	TMJ/DJA	1115	11.8 118%	10.9 109%	12.8 128%	hs021.d; (10 ug/L)
Z-V1-03 MSD	-	0810	Water	TMJ/DJA	1126	146 73%	201 101%	179 90%	hs022.d RPD = 5.14 (200 ug/L)
Z-T1-01	B194V2	0813	Water	TMJ/DJA	1138	16	3680	6.2	hs023d;
Z-W1-01	B19504	0815	Water	TMJ/DJA	1149	13	4026	2.1	hs024d; Manifold Bldg
Z-W2-01	B19505	0817	Water	TMJ/DJA	1201	19	5289	8.9	hs025d; Manifold Bldg
Z-W2-02 Duplicate	B19506	0817	Water	TMJ/DJA	1212	19	5138	8.8	hs026d; Manifold Bldg RPD = 2.90
Z-W3-01	B19507	0836	Water	TMJ/DJA	1223	14	3566	7.8	hs027d; Manifold Bldg
Z-W4-01	B19508	0839	Water	TMJ/DJA	1235	18	3106	6.6	Hs028.d; Manifold Bldg
Z-W5-01	B19509	0845	Water	TMJ/DJA	1246	16	1158	<2.0	Hs029.d; Manifold Bldg
DI Blank	—	0630	Water	TMJ/DJA	1257	<2.0	<2.0	<2.0	hs030d;
3000ug/L Cal. check	—	1245	Water	TMJ/DJA	1309	~~3140~~ 3199 107%	3382 ~~107%~~ 113	3640 121%	hs031d; Acceptable recoveries
DI Blank	—	0630	Water	TMJ/DJA	1320	<2.0	<2.0	<2.0	hs032d;
						ppm	ppm	ppm	
Blank	—	—	Air	TMJ/DJA	0949	<1.0	<1.0	NA	B&K 1302
25.5 ppm Cal. Check	—	—	Air	TMJ/DJA	0951	<1.0	23.6 93%	NA	B&K 1302 Acceptable recovery.
Z-A3-01	B19548	0822	Air	TMJ/DJA	0953	<1.0	<1.0	NA	B&K 1302
Z-A2-01	B19547	0824	Air	TMJ/DJA	0955	<1.0	10	NA	B&K 1302
Blank	—	—	Air	TMJ/DJA	0957	<1.0	<1.0	NA	B&K 1302

For instrument operation information, please refer to logbook HNF-N-292 1, page 52.

mathansen / [illegible] 8/23/04

[illegible] 8/23/04

Reviewed P.M. Gent

3/16/05

00000004

52

200ZP-1 Monthly/Process
216-Z-9. Characterization

DJ Alexander/
GS/DJ Alexander

MOBILE LABORATORY DATA/LOG SHEET (Logbook HNF-N-293 1, SAF F02-001/F02-002/F04-007)

Site Name: 200-ZP-1 Phase III / 200-UP-1 RI/FS 3-D Aquifer Characterization — Date: 11/02/04

DJ Alexander 1-13-05

Sample Number	HEIS Number	Sample Time (PST)	Sample Type	Sampler (Initials)	Analysis Time (PDT)	Analytical Results TCM ug/L	CCl4 ug/L	TCE ug/L	Comments
DI Blank	----	0715	Water	MAB/DJA/ROM	1045	<2.0	<2.0	<2.0	hs012.d
100ug/L Cal. Check	----	0945	Water	MAB/DJA/ROM	1056	86 86%	89 89%	110 110%	hs013.d; Acceptable recoveries.
DI Blank	----	0715	Water	MAB/DJA/ROM	1142	<2.0	<2.0	<2.0	hs016.d
Field Blank	B1BJV3	0805	Water	MAB/DJA/ROM	1153	<2.0	3.9	<2.0	hs017.d
Z-T2-01	B1BJV4	0805	Water	MAB/DJA/ROM	1203	<2.0	3.8	<2.0	hs018.d
Z-V1-01	B1BJV5	0835	Water	MAB/DJA/ROM	1214	<2.0	3.8	<2.0	hs019.d
Z-V1-02 MS	----	0835	Water	MAB/DJA/ROM	1225	10.4 104%	7.37 74%	11.9 119%	hs020.d
Z-V1-03 MSD	----	0835	Water	MAB/DJA/ROM	1236	10.3 103%	7.51 75%	12.0 120%	hs021.d; (RPD= 0.19%)
Z-9, 292 ft	B1LLT2	*	Water	MAB/DJA/ROM	1247	413	2918	11	hs022.d; *sampled 10-19-04 PCE = 420
Z-9, 297.5 ft	B1LLT3	**	Water	MAB/DJA/ROM	1258	1039	286	4.4	hs023.d; **sampled 10-25-04 PCE = 420
Z-T1-01	B1BJV6	0851	Water	MAB/DJA/ROM	1309	18	2653	7.2	hs024.d
Z-W1-01	B1BJV7	0915	Water	MAB/DJA/ROM	1319	14	3371	3.5	hs025.d
Z-W2-01	B1BJV8	0930	Water	MAB/DJA/ROM	1330	20	4460	11	hs026.d
Z-W3-01	B1BJV9	1055	Water	MAB/DJA/ROM	1341	16	2934	10	hs027.d; Manifold Bldg
Z-W4-01	B1BJW0	1032	Water	MAB/DJA/ROM	1352	19	2067	7.1	hs028.d; Manifold Bldg
Z-W4-02	B1BJW1	1032	Water	MAB/DJA/ROM	1402	18	2213	7.6	hs029.d; (RPD= 0.07%)
Z-W5-01	B1BJW2	1115	Water	MAB/DJA/ROM	1413	16	778	<2.0	hs030.d; Manifold Bldg
DI Blank	----	0715	Water	MAB/DJA/ROM	1424	<2.0	<2.0	<2.0	hs031.d
3000ug/L Cal. check	----	1200	Water	MAB/DJA/ROM	1435	~~3272~~ 3399 113%	~~3299~~ 3329 111%	3853 128%	hs032.d; Acceptable recoveries
DI Blank	----	0715	Water	MAB/DJA/ROM	1446	<2.0	<2.0	<2.0	hs033.d
						ppm	ppm	ppm	
Blank	----	----	Air	MAB/DJA/ROM	1330	<1.0	<1.0	NA	B&K 1302
25.5 ppm Cal. Check	----	----	Air	MAB/DJA/ROM	1332	NA	23.2 91%	NA	B&K 1302 Acceptable recovery.
Z-A3-01	B1BJW3	1111	Air	MAB/DJA/ROM	1334	<1.0	<1.0	NA	B&K 1302
Z-A2-01	B1BJW4	1107	Air	MAB/DJA/ROM	1336	<1.0	9.35	NA	B&K 1302
Blank	----	----	Air	MAB/DJA/ROM	1340	<1.0	<1.0	NA	B&K 1302

For instrument operation information, please refer to logbook HNF-N-292 1, page 64.

00000005

D.J. ALEXANDER
DJ Alexander
1-13-05

Reviewed
B. JOHANSEN/MBJohansen
3/10/05

200-ZP-1 Weekly /Process
216-Z-9 Characterization

DJ Alexander/GS/
DJ Alexander

MOBILE LABORATORY DATA/LOG SHEET (Logbook HNF-N-293 1, SAF F02-001/F02-002/F04-007)

Site Name: 200-ZP-1 Phase III / 200-UP-1 RI/FS 3-D Aquifer Characterization **Date:** 11/11/04

DJ Alexander 1-13-05

Sample Number	HEIS Number	Sample Time (PST)	Sample Type	Sampler (Initials)	Analysis Time (PDT)	Analytical Results			Comments
						TCM µg/L	CCl4 µg/L	TCE µg/L	
DI Blank	----	0705	Water	MAB/DJA	1030	<2.0	<2.0	<2.0	hs011.d
100 µg/L Cal. Check	----	0715	Water	MAB/DJA	1056	106 106%	107 107%	101 101%	hs012.d; Acceptable recoveries.
DI Blank	----	0705	Water	MAB/DJA	1129	<2.0	<2.0	<2.0	hs015.d
Field Blank	B1BR69	0837	Water	MAB/DJA	1140	<2.0	15	<2.0	hs016.d
Z-9, 339 ft	B1LT4	*	Water	MAB/DJA	1151	690	32	2.8	hs017.d; *sampled 11-02-04 PCE=420
Z-9, 339 ft MS	----	*	Water	MAB/DJA	1201	30 300%	14 140%	14 140%	hs018.d; *sampled 11-02-04
Z-9, 339 ft MSD	----	*	Water	MAB/DJA	1212	29 290%	15 150%	15 150%	hs019.d; *sampled 11-02-04 (RPD= 7%)
Z-9, 357 ft	B1LT5	*	Water	MAB/DJA	1223	353	258	2.9	hs020.d; *sampled 11-08-04 PCE=420
Z-9, 365 ft	B1LT6	*	Water	MAB/DJA	1234	152	1174	7.2	hs021.d; *sampled 11-10-04 PCE=420
Z-W1-01	B1BR70	0849	Water	MAB/DJA	1245	16	3333	4.1	hs022.d
Z-W2-01	B1BR71	0850	Water	MAB/DJA	1256	25	4702	12	hs023.d
Z-W3-01	B1BR72	0829	Water	MAB/DJA	1307	17	2876	~~+++~~ II 1-13-05	hs024.d; Manifold Bldg
Z-W4-01	B1BR73	0826	Water	MAB/DJA	1318	20	2183	8.2	hs025.d; Manifold Bldg
Z-W5-01	B1BR74	0819	Water	MAB/DJA	1329	19	782	2.2	hs026.d; Manifold Bldg
Z-W5-02	B1BR75	0819	Water	MAB/DJA	1340	19	798	2.3	hs027.d; (RPD= 2%)
DI Blank	----	0705	Water	MAB/DJA	1351	<2.0	<2.0	<2.0	hs028.d
3000 µg/L Cal. check	----	1130	Water	MAB/DJA	1402	3281 109%	3338 111%	3763 125%	hs029.d; Acceptable recoveries
DI Blank	----	0705	Water	MAB/DJA	1413	<2.0	<2.0	<2.0	hs030.d

For instrument operation information, please refer to logbook HNF-N-292 1, page 67.

DJA 1-13-05

00000006

Reviewed By JOHANSEN 3/16/05

D.J. ALEXANDER
DJ alexander 1-13-05

54

200-ZP-1 Weekly / Process
216-Z-9 Characterization

DJ Alexander / GS / DJ alexander

MOBILE LABORATORY DATA/LOG SHEET (Logbook HNF-N-293 1, SAF F02-001/F02-002/F04-007)
Site Name: 200-ZP-1 Phase III / 200-UP-1 RI/FS 3-D Aquifer Characterization **Date:** 11/16/04

DJ alexander 1-13-05

Sample Number	HEIS Number	Sample Time (PST)	Sample Type	Sampler (Initials)	Analysis Time (PDT)	Analytical Results			Comments
						TCM ug/L	CCl4 ug/L	TCE ug/L	
DI Blank	—	0800	Water	MAB/DJA	1055	2.4	3.7	<2.0	hs012.d
100ug/L Cal. Check	—	0814	Water	MAB/DJA	1105	107 107%	105 105%	121 121%	hs013.d; Acceptable recoveries.
DI Blank	B1FRW3	0800	Water	MAB/DJA	1116	<2.0	3.2	<2.0	hs014.d
Field Blank	~~B1BFK1~~	0912	Water	MAB/DJA	1127	<2.0	16	<2.0	hs015.d
Z-9, 377 ft	B1CCT7	*0930	Water	MAB/DJA	1138	301	472	7.5	hs016.d; *sampled 11-15-04 PIE-1D
Z-9, 377 ft MS	—	*0930	Water	MAB/DJA	1149	223 112%	233 117%	255 127%	hs017.d; *sampled 11-15-04
Z-9, 377 ft MSD	—	*0930	Water	MAB/DJA	1159	221 111%	215 108%	250 125%	hs018.d; *sampled 11-15-04 (RPD= 3.7%)
Z-W1-01	B1BFK2	0914	Water	MAB/DJA	1210	16	3226	6.3	hs019.d
Z-W1-02	B1BFK3	0914	Water	MAB/DJA	1221	17	3331	6.5	hs020.d; (RPD= 3%)
Z-W2-01	B1BFK4	0915	Water	MAB/DJA	1232	29	4521	13	hs021.d; Manifold Bldg
Z-W3-01	B1BFK5	0904	Water	MAB/DJA	1243	18	2881	12	hs022.d; Manifold Bldg
Z-W4-01	B1BFK6	0902	Water	MAB/DJA	1254	20	2129	9.6	hs023.d; Manifold Bldg
Z-W5-01	B1BFK7	0855	Water	MAB/DJA	1304	20	820	5.2	hs024.d; Manifold Bldg
DI Blank	—	1100**	Water	MAB/DJA	1315	2.5	2.7	<2.0	hs025.d
3000ug/L Cal. check	—	1200	Water	MAB/DJA	1326	3401 113%	3345 112%	3789 126%	hs026.d; Acceptable recoveries
DI Blank	—	1100**	Water	MAB/DJA	1337	<2.0	2.8	<2.0	hs027.d

** Sample blanks prepared in other mobile trailer to determine source of blank contamination.
For instrument operation information, please refer to logbook HNF-N-292 1, page 68.

DJA 11-1-05 sample number changed to duplicate number in another data set.

DJA 1-13-05

00000007

D.J. ALEXANDER
DJ alexander
1-13-05

Reviewed By [illegible] 3/16/05

200-ZP-1 Monthly/Process
VISTA Engr. DNAPL GW Sampling

DJAlexander/GS/
DJAlexander

MOBILE LABORATORY DATA/LOG SHEET (Logbook HNF-N-293 1, SAF F02-001/F02-002/F04-007)

Site Name: 200-ZP-1 Phase III / 200-UP-1 RI/FS 3-D Aquifer Characterization **Date: 12/21/04**

DJAlexander 1-17-05

Sample Number	HEIS Number	Sample Time (PST)	Sample Type	Sampler (Initials)	Analysis Time (PDT)	Analytical Results TCM ug/L	CCl4 ug/L	TCE ug/L	Comments
DI Blank	—	0900	Water	DJA	1233	<2.0	<2.0	<2.0	hs012.d
100ug/L Cal. Check	—	0915	Water	DJA	1244	99 99%	97 97%	94 94%	hs013.d; Acceptable recoveries.
DI Blank	—	0900	Water	DJA	1316	<2.0	<2.0	<2.0	hs016.d
Field Blank	B1C146	1010	Water	DJA	1327	<2.0	3.3	<2.0	hs017.d
Z-T2-01	B1C147	1013	Water	DJA	1338	<2.0	2.9	<2.0	hs018.d
Z-V1-01	B1C148	1018	Water	DJA	1349	<2.0	2.9	<2.0	hs019.d
Z-V1-02 MS	-	1018	Water	DJA	1400	13.3 133%	9.65 97%	14.7 147%	hs020.d
Z-V1-03 MSD	-	1018	Water	DJA	1410	12.6 126%	8.52 85%	13.6 136%	hs021.d (RPD= 12.4%)
299-W15-17	B1C092	*1012	Water	DJA	1421	<2.0	2.2	<2.0	hs022.d; *sampled 12-13-04 PLE-420
299-W15-17	B1C0R6	*1302	Water	DJA	1432	<2.0	2.0	4.8	hs023.d; *sampled 12-13-04
299-W15-17	B1C0R8	*1212	Water	DJA	1443	<2.0	15	4.2	hs024.d; *sampled 12-14-04
299-W15-17	B1C0T0	*1212	Water	DJA	1454	6.0	16	5.3	hs025.d; *sampled 12-14-04
299-W15-17	B1C0T2	*1152	Water	DJA	1505	2.0	15	4.5	hs026.d; *sampled 12-15-04
Z-T1-01	B1C149	1021	Water	DJA	1515	14	2344	6.4	hs027.d;
Z-W1-01	B1C150	1022	Water	DJA	1526	13	3127	3.7	hs028.d;
Z-W3-01	B1C151	1312	Water	DJA	1537	14	2666	8.8	hs029.d; Manifold Bldg.
Z-W4-01	B1C152	1310	Water	DJA	1548	16	1891	6.6	hs030.d; Manifold Bldg.
Z-W5-01	B1C153	1303	Water	DJA	1559	15	679	2.2	hs031.d; Manifold Bldg.
Z-W5-02	B1C154	1303	Water	DJA	1610	15	727	2.3	hs032.d; Manifold Bldg. (RPD=6.83%)
DI Blank	—	0900	Water	DJA	1621	<2.0	<2.0	<2.0	hs033.d;
3000ug/L Cal. check	—	0915	Water	DJA	1631	3258 109%	3494 117%	3719 124%	hs034.d; Acceptable recoveries
DI Blank	—	0900	Water	DJA	1642	<2.0	<2.0	<2.0	hs035.d;
						ppm	ppm	ppm	
Blank	—	—	Air	DJA	1220	<1.0	<1.0	NA	B&K 1302
25.5 ppm Cal. Check	—	—	Air	DJA	1222	NA	22.9 90%	NA	B&K 1302 Acceptable recovery.
Z-A3-01	B1C144	1028	Air	DJA	1224	<1.0	<1.0	NA	B&K 1302
Z-A2-01	B1C145	1032	Air	DJA	1226	<1.0	6.60	NA	B&K 1302
Blank	—	—	Air	DJA	1230	<1.0	<1.0	NA	B&K 1302

Extraction Well No. 2 was not sampled – pump is broken and well is off-line per P. Wilkerson, 12-21-04.
For instrument operation information, please refer to logbook HNF-N-292 1, page 73.

00000008

By _____ 3/14/05

DJAlexander 1-17-05
D.J. ALEXANDER

62

200ZP-1 Quarterly/Monthly Process DJAlexander/
VISTA DNAPL, Z-9 Characterization, (P05-005) GS/DJAlexander
and RCRA SX Borehole Characterization (P05-007)

MOBILE LABORATORY DATA/LOG SHEET (Logbook HNF-N-293 1, SAF F02-001/F02-002/F04-007)

Site Name: 200-ZP-1 Phase III / 200-UP-1 RI/FS 3-D Aquifer Characterization Date: 1/25/05

DJAlexander 1-26-05

Sample Number	RIES Number	Sample Time (PST)	Sample Type	Sampler (Initials)	Analysis Time (PDT)	Analytical Results TCM µg/L	CCl4 µg/L	TCE µg/L	Comments
DI Blank	—	0710	Water	DJA/MAB	1038	<2.0	2.1	<2.0	hs012.d
100µg/L Cal. Check	—	0735	Water	DJA/MAB	1048	103 103%	97 97%	94 94%	hs013.d; Acceptable recoveries.
DI Blank	—	0710	Water	DJA/MAB	1121	<2.0	2.2	<2.0	hs016.d
Field Blank	B1C386	0759	Water	DJA/MAB	1132	<2.0	12	<2.0	hs017.d
Z-T2-01	B1C383	0800	Water	DJA/MAB	1143	<2.0	13	<2.0	hs018.d
Z-T2-02 MS	—	0803	Water	DJA/MAB	1153	10.5 105%	8.3 83%	10.7 107%	hs019.d
Z-T2-03 MSD	—	0803	Water	DJA/MAB	1204	10.5 105%	8.0 80%	10.2 102%	hs020.d; (RPD= 3.68%)
Z-V1-01	B1C384	0825	Water	DJA/MAB	1215	<2.0	12	<2.0	hs021.d
Z-T1-01	B1C385	0843	Water	DJA/MAB	1226	16	2458	7.3	hs022.d
Z-W1-01	B1C387	0850	Water	DJA/MAB	1237	15	3543	4.6	hs023.d
Z-W1-02	B1C388	0850	Water	DJA/MAB	1248	14	3201	4.0	hs024.d; (RPD= 10.14%)
Z-W2-01	B1C7Y7	0912	Water	DJA/MAB	1258	21	4471	9.7	hs025.d
Z-W3-01	B1C389	0943	Water	DJA/MAB	1309	16	2577	9.6	hs026.d; Manifold Bldg
Z-W4-01	B1C390	0954	Water	DJA/MAB	1320	18	1869	7.4	hs027.d; Manifold Bldg
Z-W5-01	B1C391	1014	Water	DJA/MAB	1331	18	672	2.5	hs028.d; Manifold Bldg
C4667, 288 ft	B1C351	*1111	Water	DJA/MAB	1342	3.9	90	2.2	hs029.d; *Sampled 1-13-05
C4667, 308 ft	B1C354	*1145	Water	DJA/MAB	1353	<2.0	3.1	<2.0	hs030.d; *Sampled 1-19-05
C4667, 328 ft	B1C357	*1100	Water	DJA/MAB	1404	2.3	5.2	<2.0	hs031.d; *Sampled 1-20-05
C4667, 348 ft	B1C360	*1100	Water	DJA/MAB	1415	<2.0	3.9	<2.0	hs032.d; *Sampled 1-21-05
299-W14-14	B1C4F8	*1120	Water	DJA/MAB	1426	4.8	298	2.2	hs033.d; *Sampled 1-13-05
299-W14-14	B1C4H0	*1255	Water	DJA/MAB	1437	6.1	423	3.4	hs034.d; *Sampled 1-13-05
299-W14-14	B1C4H2	*1423	Water	DJA/MAB	1448	7.4	411	3.5	hs035.d; *Sampled 1-13-05
299-W14-6	B1C4H4	*1040	Water	DJA/MAB	1459	4.6	164	<2.0	hs036.d; *Sampled 1-21-05
299-W14-6	B1C4H6	*1040	Water	DJA/MAB	1510	3.3	99	<2.0	hs037.d; *Sampled 1-21-05
299-W14-12 D	B1C4H8	*1014	Water	DJA/MAB	1521	<2.0	45	<2.0	hs038.d; *Sampled 1-24-05
299-W14-12 D	B1C4J0	*1232	Water	DJA/MAB	1532	<2.0	65	<2.0	hs039.d; *Sampled 1-24-05
Z-9, 482 ft	B1CLV1	Unk.	Water	DJA/MAB	1542	36	2.2	<2.0	hs040.d; *Sampled 1-13-05
DI Blank	—	0710	Water	DJA/MAB	1553	<2.0	2.0	<2.0	hs041.d
3000µg/L Cal. check	—	1343	Water	DJA/MAB	1604	3046 102%	2902 97%	3419 114%	hs042.d; Acceptable recoveries.
DI Blank	—	0710	Water	DJA/MAB	1615	<2.0	2.3	<2.0	hs043.d
						ppm	ppm	ppm	
Blank	—	—	Air	DJA/MAB	1326	<1.0	<1.0	NA	B&K 1302
25.5 ppm Cal Check	—	—	Air	DJA/MAB	1328	NA	22.8 89.4%	NA	B&K 1302 Acceptable recovery.
Z-A3-01	B1C382	0724	Air	DJA/MAB	1330	<1.0	<1.0	NA	B&K 1302
Z-A2-01	B1C381	0743	Air	DJA/MAB	1332	<1.0	8.15	NA	B&K 1302
Blank	—	—	Air	DJA/MAB	1335	<1.0	<1.0	NA	B&K 1302

PLE= 420

DMO 3/22/05

For instrument operation information, please refer to logbook HNF-N-292 1, page 76.

DJAlexander 1-26-05

Reviewed By _____ 3/10/05

200-ZP-1 Monthly Process Monitoring
VISTA Engr. DNAPL GW Samples

DJ Alexander/GS/
DJalexander

65

MOBILE LABORATORY DATA/LOG SHEET (Logbook HNF-N-293 1, SAF F02-001/F02-002/F04-007)

Site Name: 200-ZP-1 Phase III / 200-UP-1 RI/FS 3-D Aquifer Characterization

Date: 2/17/05

DJalexander 2-18-05

Sample Number	HEIS Number	Sample Time (PST)	Sample Type	Sampler (Initials)	Analysis Time (PDT)	Analytical Results TCM µg/L	CCl4 µg/L	TCE µg/L	Comments
DI Blank	----	0742	Water	DJA	1217	<2.0	<2.0	<2.0	hs015.d
100µg/L Cal. Check	----	~~0910~~ 0900	Water	DJA	1228	110 110%	114 114%	109 109%	hs016.d; Acceptable recoveries.
DI Blank	----	0742	Water	DJA	1300	<2.0	<2.0	<2.0	hs019.d
Field Blank	B1CD20	0915	Water	DJA	1311	<2.0	9.8	<2.0	hs020.d
Z-T2-01	B1CD21	0917	Water	DJA	1322	<2.0	6.5	<2.0	hs021.d
Z-V1-01	B1CD22	0920	Water	DJA	1332	<2.0	7.7	<2.0	hs022.d
Z-V1-02 MS	----	0920	Water	DJA	1343	11 110%	11 110%	12 120%	hs023.d
Z-V1-03 MSD	----	0920	Water	DJA	1354	12 120%	11 110%	12 120%	hs024d; (RPD= 0%)
Z-T1-01	B1CD23	0925	Water	DJA	1405	12	2596	5.7	hs025.d
Z-W1-01	B1CD24	0927	Water	DJA	1416	10	3031	2.9	hs026.d
Z-W2-01	B1CD25	0929	Water	DJA	1427	20	4338	7.8	hs027.d
Z-W2-02	B1CD26	0929	Water	DJA	1437	17	4178	7.5	hs028.d; (RPD= 3.76%)
Z-W3-01	B1CD27	1219	Water	DJA	1448	13	2641	7.4	hs029.d; Manifold Bldg
Z-W4-01	B1CD28	1217	Water	DJA	1459	14	1717	5.2	hs030.d; Manifold Bldg
Z-W5-01*	----	----	Water	DJA	----	----	----	----	----
299-W15-2	B1C8H7	1320*	Water	DJA	1510	3.2	65	<2.0	hs032.d; *Sampled 2-10 -05 PCE=<2.0
299-W15-2	B1C8X5	1320*	Water	DJA	1521	9.2	68	<2.0	hs033.d: *Sampled 2-10 -05
299-W4-9	B1C8X8	1100*	Water	DJA	1531	12	133	6.9	hs034.d; *Sampled 2-14 -05
299-W4-9	B1C8Y0	1322*	Water	DJA	1542	11	125	6.4	hs035.d; *Sampled 2-14 -05
DI Blank	----	0742	Water	DJA	1553	<2.0	<2.0	<2.0	hs036.d
3000µg/L Cal. check	----	1520	Water	DJA	1636	2951 98%	2685 90%	3213 109%	hs039.d; Acceptable recoveries
DI Blank	----	0742	Water	DJA	1647	<2.0	<2.0	<2.0	hs040.d
						ppm	ppm	ppm	
Blank	----	----	Air	DJA	1112	<1.0	<1.0	NA	B&K 1302
25.5 ppm Cal. Check	----	----	Air	DJA	1114	NA	23.0 90%	NA	B&K 1302 Acceptable recovery.
Z-A3-01	B1CD18	0933	Air	DJA	1116	<1.0	<1.0	NA	B&K 1302
Z-A2-01	B1CD19	0935	Air	DJA	1118	<1.0	7.78	NA	B&K 1302
Blank	----	----	Air	DJA	1121	<1.0	<1.0	NA	B&K 1302

For instrument operation information, please refer to logbook HNF-N-292 1, page 79.

* Extraction Well No. 5 is off-line – unable to sample.

DJalexander 2/18/05

D.J. ALEXANDER

Reviewed By _____ 3/16/05

66 200-ZP-1 Monthly Process Monitoring RCRA-GW samples - C4669 (299-W11-25)

DJ Alexander / GS / DJ Alexander

MOBILE LABORATORY DATA/LOG SHEET (Logbook HNF-N-293 1, SAF F02-001/F02-002/F04-007)

Site Name: 200-ZP-1 Phase III / 200-UP-1 RI/FS 3-D Aquifer Characterization — Date: 3/17/05

DJ Alexander 3-21-05

Sample Number	HEIS Number	Sample Time (PST)	Sample Type	Sampler (Initials)	Analysis Time (PDT)	Analytical Results TCM µg/L	CCl4 µg/L	TCE µg/L	Comments
DI Blank	---	0940	Water	DJA	1334	<2.0	<2.0	<2.0	hs014.d
100µg/L Cal. Check	---	1113	Water	DJA	1344	93 93%	97 97%	88 88%	hs015.d; Acceptable recoveries.
DI Blank	---	0940	Water	DJA	1417	<2.0	<2.0	<2.0	hs018.d
Field Blank	B1CH02	1041	Water	DJA	1428	<2.0	11	<2.0	hs019.d
Z-T2-01	B1CH03	1048	Water	DJA	1439	<2.0	4.6	<2.0	hs020.d
Z-T2-02 MS	---	1048	Water	DJA	1450	13 130%	8.0 80%	130 130%	hs021.d
Z-T2-03 MSD	---	1048	Water	DJA	1501	13 130%	7.6 76%	13 130%	hs022.d; (RPD= 7.7%)
Z-V1-01	B1CH04	1054	Water	DJA	1512	<2.0	4.5	<2.0	hs023.d
Z-T1-01	B1CH05	1057	Water	DJA	1523	13	2807	7.5	hs024.d
Z-W1-01	B1CH06	1059	Water	DJA	1534	12	3269	4.9	hs025.d
Z-W2-01	B1CH07	1101	Water	DJA	1544	17	4521	9.4	hs026.d
Z-W3-01	B1CH08	1336	Water	DJA	1555	13	2855	9.0	hs027.d; Manifold Bldg
Z-W3-02	B1CH09	1336	Water	DJA	1606	13	3011	9.3	hs028.d; Manifold Bldg; (RPD= 5.3%)
Z-W4-01	B1CH10	1338	Water	DJA	1617	14	2030	7.2	hs029.d; Manifold Bldg
Z-W5-01**	-----	----	Water	DJA	----	----	----	----	----
C4669, 380 ft	B1CF13	*1310	Water	DJA	1628	27	998	9.1	hs030.d; *Sampled 3-04-05
C4669, 400 ft	B1CDR1	*1515	Water	DJA	1639	36	1050	8.7	hs031.d; *Sampled 3-07-05
C4669, 409.5 ft	B1CDR0	*1445	Water	DJA	1650	33	884	9.0	hs032.d; *Sampled 3-08-05
DI Blank	---	0940	Water	DJA	1701	<2.0	<2.0	<2.0	hs033.d
3000µg/L Cal. Check	---	1647	Water	DJA	1817	2708 90%	1739 58%	2857 95%	hs040.d; Unacceptable recovery for CCl4. ***See note below.
DI Blank	---	0940	Water	DJA	1828	<2.0	<2.0	<2.0	hs041.d
						ppm	ppm	ppm	
Blank	---	---	Air	DJA	1122	<1.0	<1.0	NA	B&K 1302
25.5 ppm Cal. Check	---	---	Air	DJA	1125	NA	22.1 87%	NA	B&K 1302 Acceptable recovery.
Z-A3-01	B1CH13	1044	Air	DJA	1127	<1.0	<1.0	NA	B&K 1302
Z-A2-01	B1CH14	1045	Air	DJA	1129	<1.0	7.89	NA	B&K 1302
Blank	---	---	Air	DJA	1133	<1.0	<1.0	NA	B&K 1302

For instrument operation information, please refer to logbook HNF-N-292 1, page 80 80 DJA 3-30-05

** Extraction Well No. 5 is off line – unable to sample.

*** Believe the 1000 µg/L LCS parent stock to be bad, as the first 3000 µg/L standard was the remainder of the standard created on 2-10-05. Second and third 3000 µg/L standards were from standard mix created today, 3-17-05 from LCS parent stock. All three had less than acceptable results. The standard created today and the LCS parent stock will be discarded. The next LCS standard will be created from a new vial of LCS parent stock.

Reviewed By TM Munson / TM Munson 3/29/05

DJ Alexander 3-21-05

D.J. ALEXANDER

52

200-ZP-1 Process
200-UP-1 RI

mathansen/GS/amanarson

200-ZP-1 Daily Activity Log
(Logbook HNF-N-292 1, SAF F02-001/ F02-002)
200-UP-1 Remedial Investigation;
C4299 (699-36-70B) (SAF F04-014)
Date: 8/20/04

0630	T. M. Johansen and Deb Alexander arrive on-site at laboratory trailer located at 200-ZP-1 to perform monthly sampling and analysis of the 200-ZP-1 pump and treat. Turned on HP 5890 gas chromatograph S/N 3235A47685 and HP 7694 headspace autosampler S/N 3617I01945. Loaded methods HSECDFID.MTH (HP 5890) and HSECDFID.HSM (HP 7694).
0645	Split flow = 40.6 mL/min. Septum purge = 3.12 mL/min.
0655	Prepared new warm-up standards of 5 and 10 ug/L. Created sample sequence "Z082004.Z"
0710	Prepared calibration standards of 5, 100, 200, 2000, 4000, and 8000 ug/L.
0800	Exited laboratory trailer to collect process water samples.
0817	Started calibration of HP 5890 gas chromatograph.
0850	Returned to laboratory trailer with samples.
0912	Completed calibration of HP 5890 gas chromatograph. Calibration curves are acceptable.
0949	Started analysis of process air samples using the B&K 1302 FTIR S/N 1732828 gas analyzer. For information on this instrument, see logbook HNF-N-294 1.
0957	Completed analysis of process air samples. Analysis results are found on the data sheet in logbook HNF-N-293-1.
0900	Prepared 100 ug/L ealibration check standard.
0934	100 ug/L calibration cheek: DCM = 70 (70%), TCM = 106 (106 %), CCl_4 = 108 (108) TCE = 107 (107 %), PCE = 112 (112%). Acceptable recoveries.
1030	Started analysis of proeess water samples.
1040	Prepared 200-UP-1 Remedial Investigation sample B193H8 (F04-014) collected from C4299, 270 feet. Transferred 10 mL of sample to clean 20 mL HP vial using a pipette. Sediment had settled to the bottom of the vial, therefore filtration was not necessary. See logbook HNF-N-384 1 for sampling information.
1100	Prepared matrix spike and matrix spike duplieate. Added 2 uL of 50 ug/mL of LCS parent stoek to 10 ml of Z-V1-02 for a total of 10 ug/L. Aceidently, added 2 uL of 1000 ug/mL of LCS parent stock to 10 ml of Z-V1-03 for a total of 200 ug/L.
1115	Matrix spike recovery for Z-V1-02 = 109 %
1126	Matrix spike duplicate recovery for Z-V1-03 = 201 % Note: Relative Percent Difference = 5.14 %
1246	Completed analysis of process water samples.
1248	Prepared 3000 ug/L calibration check standard.
1309	3000 ug/L calibration check: DCM = 3278 (109%), TCM = 3199 (107%), CCl_4 = 3382 (113%), TCE = 3640 (121%), PCE = 3250 (108%).Acceptable Rec.
1350	Disposed of liquid and solid waste.
1400	Loaded standby method, shut down equipment, left site.

Data recorded in real time using a laptop computer.

mathansen/amanarson 8/23/04

Reviewed By P.M. GENT

MAR 16 2005

64

200-ZP-1 Monthly/Process
216-Z-9 Characterization

DJ Alexander /GS/
DJ Alexander

200-ZP-1 Daily Activity Log
(Logbook HNF-N-292 1, SAF F02-001/ F02-002)
216-Z-9 Trench Characterization
(Logbook HNF-N-296 3, SAF F03-019)
Date: 11/02/04

DJ Alexander
1-13-2005

0700	M.A. Baechler, D.J. Alexander, and R.O. Mahood arrive on-site at laboratory trailer located at 200-ZP-1 to perform monthly sampling and analysis of the 200-ZP-1 pump and treat and analysis of Z-9 well samples. Turned on HP 5890 gas chromatograph S/N 3235A47685 and HP 7694 headspace autosampler S/N 3617I01945. Loaded methods HSECDFID.MTH (HP 5890) and HSECDFID.HSM (HP 7694).
0720	Split flow = 40.0 mL/min. Septum purge = 2.96 mL/min.
0730	Prepared new warm-up standards of 5 and 10 µg/L. Created sample sequence "Z110204.Z"
0735	Prepared calibration standards of 5, 100, 200, 2000, 4000, and 8000 µg/L.
0800	Exited laboratory trailer to collect process water samples from main building.
0828	Started calibration of HP 5890 gas chromatograph.
0923	Completed calibration of HP 5890 gas chromatograph. Calibration curves are acceptable.
0935	Returned to laboratory trailer with first set of samples.
0945	Prepared 100 µg/L calibration check standard. 86 DJA 1-23-06
~~0956~~ 1056	100 µg/L calibration check: DCM = 84 (84%), TCM = ~~96~~ (96%), CCl_4 = 89 (89%), TCE = 110 (110%), PCE = 91 (91%). Acceptable recoveries.
1025	Left trailer to collect remaining process water samples at outlying manifold buildings.
1042	Started analysis of process water samples.
1045	Prepared Z-9 samples. Transferred 10 mL of each sample to a clean 20 mL HP vial using a pipette. See logbook HNF-296 3 for data.
1100	Prepared matrix spike and matrix spike duplicate. Added 2 µL of 50 µg/mL of LCS parent stock to 10 ml of B19400MS and MSD for a total of 10 µg/L each sample.
1125	Returned to trailer with remaining samples.
1225	Matrix spike recovery for V1-02MS = 74%.
1236	Matrix spike duplicate recovery for V1-03MSD = 75%. Note: Relative Percent Difference (RPD) = 0.19.
1200	Prepared 3000 µg/L calibration check standard.
1413 ~~1313~~	Completed analysis of process water samples.
1435 1335	3000 µg/L calibration check: DCM = 3373 (112%), TCM = 3399 (113%), CCl_4 = 3329 (111%), TCE = 3853 (128%), PCE = 3373 (112%). Acceptable recoveries.
1450 ~~1330~~	Loaded standby method and shut down equipment.
1455 ~~1415~~	Disposed of liquid and solid waste.
1510 1430	Left site.

Data recorded in real time using a laptop computer.

D.J. ALEXANDER
DJ Alexander
1-13-05

Reviewed
By: M.R. Adams
Mary Adams
JAN 2 4 2006

200-ZP-1 Weekly / Process
216-Z-9 Characterization

DJ Alexander / GS / DJ Alexander

200-ZP-1 Daily Activity Log
(Logbook HNF-N-292 1, SAF F02-001/ F02-002)
216-Z-9 Trench Characterization
(Logbook HNF-N-296 3, SAF F03-019)
Date: 11/11/04

DJ Alexander 1-13-05

0640	M.A. Baechler and D.J. Alexander arrive on-site at laboratory trailer located at 200-ZP-1 to perform weekly sampling and analysis of the 200-ZP-1 pump and treat and analysis of Z-9 well samples. Turned on HP 5890 gas chromatograph S/N 3235A47685 and HP 7694 headspace autosampler S/N 3617I01945. Loaded methods HSECDFID.MTH (HP 5890) and HSECDFID.HSM (HP 7694).
0650	Split flow = 39.9 mL/min. Septum purge = 2.91 mL/min.
0700	Prepared new warm-up standards of 5 and 10 µg/L. Created sample sequence "Z111104.Z"
0710	Prepared calibration standards of 5, 100, 200, 2000, 4000, and 8000 µg/L.
0730	Started calibration of HP 5890 gas chromatograph.
0715	Prepared 100 µg/L calibration check standard.
0920	Completed calibration of HP 5890 gas chromatograph. Calibration curves are acceptable.
~~0950~~ 1050	100 µg/L calibration check: DCM = 95 (95%), TCM = 106 (106%), CCl_4 = 107 (107%), TCE = 101 (101%), PCE = 103 (103%). Acceptable recoveries.
1030	Prepared Z-9 samples. Transferred 10 mL of each sample to a clean 20 mL HP vial using a pipette. See logbook HNF-296 3 for data.
1050	Prepared matrix spike and matrix spike duplicate. Added 2 µL of 50 µg/mL of LCS parent stock to 10 ml of Z-9, 339ft.MS and MSD for a total of 10 µg/L each sample.
1101	Matrix spike recovery for Z-9, 339ft.MS = 140%.
1112	Matrix spike duplicate recovery for Z-9, 339ft.MSD = 150%. Note: Relative Percent Difference (RPD) = 7%.
1115	Matrix effects exhibited on TCM recovery.
1130	Prepared 3000 µg/L calibration check standard.
1302	3000 µg/L calibration check: DCM = 3286 (110%), TCM = 3281 (109%), CCl_4 = 3338 (111%), TCE = 3763 (125%), PCE = 3298 (110%). Acceptable recoveries.
1327	Loaded standby method and shut down equipment.
1335	Disposed of liquid and solid waste.
1345	Left site.

1402
1420
1430
1435

Data recorded in real time using a laptop computer.

DJA 1-13-05

D.J. ALEXANDER
DJ Alexander
1-13-05

Reviewed
By MA Baechler / MA Baechler
3/16/05

68

200-ZP-1 Weekly / Process
216-Z-9 Characterization

DJ Alexander / GS /
DJ Alexander

200-ZP-1 Daily Activity Log
(Logbook HNF-N-292 1, SAF F02-001/ F02-002)
216-Z-9 Trench Characterization
(Logbook HNF-N-296 3, SAF F03-019)
Date: 11/16/04

DJ Alexander
1-13-05

0645	M.A. Baechler and D.J. Alexander arrive on-site at laboratory trailer located at 200-ZP-1 to perform weekly sampling and analysis of the 200-ZP-1 pump and treat and analysis of Z-9 well samples. Turned on HP 5890 gas chromatograph S/N 3235A47685 and HP 7694 headspace autosampler S/N 3617I01945. Loaded methods HSECDFID.MTH (HP 5890) and HSECDFID.HSM (HP 7694).
0700	Split flow = 40.1 mL/min. Septum purge = 2.99 mL/min.
0715	Prepared new warm-up standards of 5 and 10 µg/L. Created sample sequence "Z111604.Z"
0730	Prepared calibration standards of 5, 100, 200, 2000, 4000, and 8000 µg/L.
0744	Started calibration of HP 5890 gas chromatograph.
0814	Prepared 100 µg/L calibration check standard.
0933	Completed calibration of HP 5890 gas chromatograph. Calibration curves are acceptable.
~~1005~~ 1105	100 µg/L calibration check: DCM = 76 (76%), TCM = 107 (107%), CCl_4 = 105 (105%), TCE = 121 (121%), PCE = 110 (110%). Acceptable recoveries.
1010	Prepared Z-9 samples. Transferred 10 mL of each sample to a clean 20 mL HP vial using a pipette. See logbook HNF-296 3 for data.
1030	Prepared matrix spike and matrix spike duplicate. Added 40 µL of 50 µg/mL of LCS parent stock to 10 ml of Z-9, 377ft.MS and MSD for a total of 200 µg/L each sample.
1049 ~~1049~~	Matrix spike recovery for Z-9, 377ft.MS = 117%.
1159 ~~1059~~	Matrix spike duplicate recovery for Z-9, 377ft.MSD = 108%. Note: Relative Percent Difference (RPD) = 3.7%.
1200	Prepared 3000 µg/L calibration check standard.
1326 ~~1226~~	3000 µg/L calibration check: DCM = 3414 (114%), TCM = 3401 (113%), CCl_4 = 3345 (112%), TCE = 3789 (126%), PCE = 3194 (106%). Acceptable recoveries.
1345 ~~1245~~	Loaded standby method and shut down equipment.
1350 ~~1305~~	Disposed of liquid and solid waste.
1410 ~~1330~~	Left site.

Data recorded in real time using a laptop computer.

DJA
1-13-05

D.J. ALEXANDER
DJ Alexander
1-13-05

Reviewed
By DJ Alexander 3/16/05

00000015

200-ZP-1 Monthly (Process
VISTA Engr. DNAPL GW Sampling

DJ Alexander /GS/
DJ alexander

200-ZP-1 Daily Activity Log
(Logbook HNF-N-292 1, SAF F02-001/ F02-002)
VISTA Engineering Technologies DNAPL
Groundwater Sampling (SAF F05-005)
Date: 12/21/04

	0845	D.J. Alexander arrives on-site at laboratory trailer located at 200-ZP-1 to perform monthly sampling and analysis of the 200-ZP-1 pump and treat. Turned on HP 5890 gas chromatograph S/N 3235A47685 and HP 7694 headspace autosampler S/N 3617I01945. Loaded methods HSECDFID.MTH (HP 5890) and HSECDFID.HSM (HP 7694).
	0905	Split flow = 40.2 mL/min. Septum purge = 3.03 mL/min.
	0910	Prepared new warm-up standards of 5 and 10 µg/L. Created sample sequence "Z122104.Z"
	0915	Prepared calibration standards of 5, 100, 200, 2000, 4000, and 8000 µg/L.
	0915	Prepared 100 µg/L calibration check standard.
	0915	Prepared 3000 µg/L calibration check standard.
	0922	Started calibration of HP 5890 gas chromatograph.
	1000	Exited laboratory trailer to collect process water samples.
	1030	Returned to laboratory trailer with samples.
	~~1144~~ 1244	100 µg/L calibration check: DCM = ~~87~~ 99 (~~87~~ 99 %), TCM = ~~92~~ 99 (~~92~~ 99 %), CCl_4 = ~~75~~ 97 (~~75~~ 97) TCE = ~~84~~ 94 (~~84~~ 94%), PCE = ~~80~~ 94 (~~80~~ 94%). Acceptable recoveries.
	1230	Completed analysis of process air samples. Analysis results are found on the data sheet in logbook HNF-N-293-1.
	1240	Prepared matrix spike and matrix spike duplicate. Added 2 uL of 50 µg/mL of LCS parent stock, to 10 ml of Z-V1-02, Z-V2-03 for a total of 10 µg/L.
	1255	Left trailer to collect remaining process water samples at outlying manifold buildings.
1400	~~1300~~	Matrix spike recovery for Z-V1-02 = 97 %
	1307	Returned to trailer with remaining samples.
	1315	Prepared 299-W15-17 samples B1C092, B1C0R6, B1C0R8, B1C0T0, and B1C0T2. Transferred 10 mL of each sample to a clean 20 mL HP vial using a pipette. See logbook HNF-N-296 3 for sampling information.
	1338	Started analysis of process water samples.
	1410	Matrix spike duplicate recovery for Z-V1-03 = 85 % Note: Relative Percent Difference = 12.4%
1610	1510	Completed analysis of process water samples.
1631	1530	3000 µg/L calibration check: DCM = 3438 (115%), TCM = 3258 (109%), CCl_4 = 3494 (117%), TCE = 3719 (124%), PCE = 3164 (106%). Acceptable Recoveries.
1655	1545	Disposed of liquid and solid waste.
1710	1600	Loaded standby method, shut down equipment, left site.

Data recorded in real time using a laptop computer.

1-17-2005

00000016

D.J. ALEXANDER 1-17-05
DJ Alexander

Reviewed By Brockmans
3-16-05

76

200ZP-1 Quarterly/Monthly Process
VISTA DNAPL, Z-9 Characterization,
and RCRA SX Borehole Characterization

DJ Alexander/
GS/DJ Alexander

200-ZP-1 Daily Activity Log
(Logbook HNF-N-292 1, SAF F02-001)
VISTA Engineering Technologies DNAPL Groundwater Sampling
Wells 299-W14-14, 299-W14-6, and 299-W14-12 (Logbook HNF-N-296-3, SAF F05-005)

DJ Alexander
1-26-05

216-Z-9 Trench Characterization;
C3426/299-W18-16 (Logbook HNF-N-388-1, SAF F03-019)
GW Sampling for RCRA Boreholes in the S-SX, T, and TX-TY WM;
C4667/299-W22-47 (Logbook HNF-N-384-1, SAF F05-007)
Date: 01/25/05

0635	D. J. Alexander and M.A. Baechler arrive on-site at laboratory trailer located at 200-ZP-1 to perform quarterly sampling and analysis of the 200-ZP-1 pump and treat. Turned on HP 5890 gas chromatograph S/N 3235A47685 and HP 7694 headspace autosampler S/N 3617I01945. Loaded methods HSECDFID.MTH (HP 5890) and HSECDFID.HSM (HP 7694).
0715	Split flow = 39.9 mL/min. Septum purge = 2.87 mL/min.
0720	Prepared new warm-up standards of 5 and 10 µg/L. Created sample sequence "Z012505.Z"
0725	Prepared calibration standards of 5, 100, 200, 2000, 4000, and 8000 µg/L.
0730	Started calibration of HP 5890 gas chromatograph.
0735	Prepared 100 µg/L calibration check standard.
0800	Exited laboratory trailer to collect process water samples.
0916	Completed calibration of HP 5890 gas chromatograph. Calibration curves are acceptable.
~~0948~~ 1046	100 µg/L calibration check: DCM = 85 (85%), TCM = 103 (103 %), CCl_4 = 97 (97%) TCE = 94 (94%), PCE = 91 (91%). Acceptable recoveries.
1015	Prepared matrix spike and matrix spike duplicate. Added 2 µL of 50 µg/mL of LCS parent stock to 10 mL of T2-02 and T2-03 for a total of ~~100~~ µg/L per sample.
1040	Returned to laboratory trailer with samples. 10 TMT 3-10-05
1129	Prepared additional field screening samples. Transferred 10 mL of each sample to a clean 20 mL HP vial using a pipette. See logbook HNF-N-388-1 for sampling information on Z-9 sample. Data from well(s) 299-W14-14, 299-W14-6, and 299-W14-12 will be recorded in logbook HNF-N-296-3. Data from well C4667 will be recorded in logbook HNF-N-384-1.
1143	Started analysis of process water samples.
1153	Matrix spike recovery for T2-02 = 83 %.
1204	Matrix spike duplicate recovery for T2-03 = 80%. Note: Relative Percent Difference (RPD) = 3.68%.
1231	Completed analysis of process water samples.
1343	Prepared 3000 µg/L calibration check standard.
~~1364~~ 1604	3000 µg/L calibration check: DCM = 3292 (110%), TCM = 3046 (102%), CCl_4 = 2902 (97%), TCE = 3419 (114%), PCE = 2847 (94%). Acceptable recoveries.
~~1530~~ 1620	Loaded standby method, shut down equipment, and turned down nitrogen gas supply. Turned off outside hydrogen and breathing air gas bottles.
1625 ~~1545~~	Disposed of liquid and solid waste.
1630 ~~1600~~	Left trailer. TMT 3-10-05

Data recorded in real time using a laptop computer.

DJ Alexander
D.J. ALEXANDER 1-26-2005

00000017

200-ZP-1 Monthly Process Monitoring
VISTA DNAPL GW Samples

DJAlexander/GS/
DJalexander

200-ZP-1 Daily Activity Log
(Logbook HNF-N-292 1, SAF F02-001)
VISTA Engineering Technologies DNAPL
Groundwater Sampling 299-W15-2 and 299-W4-9
(Logbook HNF-N-296-3, SAF F05-005)
Date: 02/17/05

DJalexander 2-18-05

0735	D. J. Alexander arrives on-site at laboratory trailer located at 200-ZP-1 to perform quarterly sampling and analysis of the 200-ZP-1 pump and treat. Turned on HP 5890 gas chromatograph S/N 3235A47685 and HP 7694 headspace autosampler S/N 3617101945. Loaded methods HSECDFID.MTH (HP 5890) and HSECDFID.HSM (HP 7694).
0745	Prepared new warm-up standards of 5 and 10 µg/L. Created sample sequence "Z021705.Z"
0813	Split flow = 40.1 mL/min. Septum purge = 3.16 mL/min.
0815	Started calibration of HP 5890 gas chromatograph.
0817	Prepared calibration standards of 5, 100, 200, 2000, 4000, and 8000 µg/L.
0900	Prepared 100 µg/L calibration check standard.
0910	Exited laboratory trailer to collect process water samples from main ZP-1 P&T building.
0940	Returned to laboratory trailer with samples from main building.
0950	Prepared matrix spike and matrix spike duplicate. Added 2 µL of 50 µg/mL of LCS parent stock to 10 mL of V1-02 and V1-03 for a total of 10 µg/L per sample.
1010	Completed calibration of HP 5890 gas chromatograph. Calibration curves are acceptable.
1020	Prepared additional field screening samples. Transferred 10 mL of each sample to a clean 20 mL HP vial using a pipette. See logbook HNF-N-296 3 for sampling information on VISTA Engineering DNAPL Groundwater samples.
1128	100 µg/L calibration check: DCM = 117 (117%), TCM = 110 (110 %), CCl_4 = 114 (114%), TCE = 109 (109%), PCE = 112 (112%). Acceptable recoveries.
1204	Exited laboratory trailer to collect process water samples at outlying buildings.
1211	Started analysis of process water samples.
1225	Returned to laboratory trailer with samples from outlying buildings.
1343 ~~1243~~	Matrix spike recovery for V1-02 = 110%.
1354 ~~1254~~	Matrix spike duplicate recovery for V1-03 = 110%. Note: Relative Percent Difference (RPD) = 0%.
1359	Completed analysis of process water samples.
1520	Prepared 3000 µg/L calibration check standard.
~~1536~~ 1630	3000 µg/L calibration check: DCM = 2949 (98%), TCM = 2951 (98%), CCl_4 = 2685 (90%), TCE = 3213 (107%), PCE = 2804 (94%). Acceptable recoveries.
~~1556~~ 1645	Loaded standby method, shut down equipment, and turned down nitrogen gas supply. Turned off outside hydrogen and breathing air gas bottles.
~~1600~~ 1700	Disposed of liquid and solid waste.
~~1610~~ 1710	Left trailer and 200W area.

Data recorded in real time using a laptop computer.

0 MS 3/16/05

RJA 2-18-05

DJalexander 2/18/05

D.J. ALEXANDER

Reviewed By _____ /3/16/05

00000018

82

200-ZP-1 Monthly / Process
RCRA GW Sampling - C4669

DJAlexander / GS / DJAlexander

200-ZP-1 Daily Activity Log
(Logbook HNF-N-292 1, SAF F02-001/F02-002)
GW Sampling for RCRA Boreholes in the S-SX, T, and TX-TY WM;
C4669/299-W11-25 (Logbook HNF-N-384-2, SAF F05-007)
Date: 03/17/05

DJAlexander 3-18-05 30 RB 3-30-05

0930	D. J. Alexander arrives on-site at laboratory trailer located at 200-ZP-1 to perform quarterly sampling and analysis of the 200-ZP-1 pump and treat. Turned on HP 5890 gas chromatograph S/N 3235A47685 and HP 7694 headspace autosampler S/N 3617101945. Loaded methods HSECDFID.MTH (HP 5890) and HSECDFID.HSM (HP 7694).
0948	Prepared new warm-up standards of 5 and 10 µg/L. Created sample sequence "Z031705.Z"
0954	Split flow = 40.1 mL/min. Septum purge = 3.01 mL/min.
0956	Started calibration of HP 5890 gas chromatograph.
1000	Prepared calibration standards of 5, 100, 200, 2000, 4000, and 8000 µg/L.
1039	Exited laboratory trailer to collect process water samples.
1105	Returned to laboratory trailer with samples.
1113	Prepared 100 µg/L calibration check standard.
1139	Prepared a second 4000 µg/L calibration check standard, as first one was not within acceptable limits.
1144	Prepared additional field screening samples. Transferred 10 mL of each sample to a clean 20 mL HP vial using a pipette. See logbook HNF-N-384-2 for sampling information on Well C4669 samples. See logbook HNF-N-296 4 for sampling information on VISTA Engineering DNAPL groundwater samples.
1211	Prepared matrix spike and matrix spike duplicate. Added 2 µL of 50 µg/mL of LCS parent stock to 10 mL of T2-02 and T2-03 for a total of 10 µg/L per sample.
1212	Completed calibration of HP 5890 gas chromatograph. Calibration curves are acceptable. Second 4000 µg/L calibration check standard is well within acceptable limits.
1244	100 µg/L calibration check: DCM = 75 (75%), TCM = 93 (93 %), CCl_4 = 97 (97%), TCE = 88 (88%), PCE = 79 (79%). Acceptable recoveries.
1328	Started analysis of process water samples.
1350	Matrix spike recovery for T2-02 = 80%.
1401	Matrix spike duplicate recovery for T2-03 = 76%. Note: Relative Percent Difference (RPD) = 7.7%.
1445	Prepared 3000 µg/L calibration check standard.
1517	Completed analysis of process water samples.
1612	3000 µg/L calibration check: DCM = 1911 (64%), TCM = 1853 (62%), CCl_4 = 1717 (57%), TCE = 1943 (65%), PCE = 1622 (54%). Unacceptable recoveries; rerunning 3000 µg/L calibration check.
1620	Prepared second 3000 µg/L calibration check standard.
1644	3000 µg/L calibration check: DCM = 487 (16%), TCM = 2726 (91%), CCl_4 = 1705 (57%), TCE = 2591 (86%), PCE = 2795 (93%). Unacceptable recoveries; rerunning 3000 µg/L calibration check.
1647	Prepared third 3000 µg/L calibration check standard.
1717	3000 µg/L calibration check: DCM = 481 (16%), TCM = 2708 (90%), CCl_4 = 1739 (58%), TCE = 2615 (87%), PCE = 2856 (95%). Acceptable recoveries, except CCl_4 and DCM. Did not have time to rerun standard again, will make new standards next week for next GC run. Believe the current batch of LCS standard to be the problem, will discard the working stock and the primary stock from which it was created. Samples run today are not suspect, they have been compared to the previous four months of results and are all within expected ranges.
1736	Loaded standby method, shut down equipment, and turned down nitrogen gas supply. Turned off outside hydrogen and breathing air gas bottles.
1738	Disposed of liquid and solid waste.
1740	Left trailer and 200W area.

00000019

Data recorded in real time using a laptop computer.

DJAlexander 3-18-05 30 RB 3-30-05
D.J. ALEXANDER

Reviewed by: TMY/mrk 3/21/05