

LLNL Livermore Site Third Quarter 2013 Self-Monitoring Report

This quarterly report presents the third quarter 2013 self-monitoring data for the ground water and soil vapor treatment facilities at the Lawrence Livermore National Laboratory (LLNL) Livermore Site. The volumes of ground water and soil vapor treated, and volatile organic compound (VOC) mass removed during the third quarter of 2013 are presented in Tables 1 and 2, respectively. An historical summary of VOC volume and mass removed are presented in Tables 3 and 4, respectively.

Attachment A presents results of ground water treatment facility and extraction well (ground water and soil vapor) VOC, chromium, and bioassay analyses (Tables A-1 through A-5). During the third quarter of 2013, all effluent sample analytical results were within acceptable discharge limits.

Self-monitoring reports for all treatment facilities are presented in Attachment B. Monthly volumes of ground water extracted are shown in Attachment B; however, instantaneous flow rates are not shown for wells that are now only used for sampling and are not continuously pumped. The monthly volume shown for these wells is the quantity of water evacuated for sampling purposes.

A map showing Livermore Site treatment areas and treatment facility locations, and ground water elevation contour maps showing hydraulic capture zones for hydrostratigraphic units (HSUs) 1B, 2, 3A, 3B, 4, and 5, are presented in Attachment C. The contour maps for the individual HSUs are based on data collected during the third quarter of 2013.

Table 1. Volumes of ground water and soil vapor extracted and treated at the Livermore Site, July through September 2013.

Treatment Area ^a	Month	Volume of ground water extracted (Kgal) ^b	Volume of vapor extracted (Kcf) ^b
TFA	July	11,028	-
	August	8,867	-
	September	9,597	-
TFB	July	3,294	-
	August	2,798	-
	September	2,793	-
TFC	July	3,852	-
	August	3,625	-
	September	3,746	-
TFD	July	6,479	787
	August	5,099	712
	September	5,178	745
TFE	July	2,274	1,330
	August	1,035	1,048
	September	1,263	1,422
TFG	July	452	-
	August	473	-
	September	492	-
TFH	July	629	2,022
	August	695	2,166
	September	598	2,169
TOTAL^c		74,267	12,401

^a Totals include ground water and soil vapor extracted from the following facilities:

TFA area: TFA, TFA-E

TFB area: TFB

TFC area: TFC, TFC-E, TFC-SE

TFD area: TFD, TFD-E, TFD-HPD, TFD-S, TFD-SE, TFD-SS, TFD-W, VTFD-ETCS, VTFD-HS

TFE area: TFE-E, TFE-HS, TFE-NW, TFE-SE, TFE-SW, TFE-W, VTFE-ELM, VTFE-HS

TFG area: TFG-1, TFG-N

TFH area: TF406, TF406-NW, TF518-N, TF518-PZ, TF5475-1, TF5475-2, TF5475-3, VTF406-HS, VTF511, VTF518-PZ, VTF5475

TFH started operation in February 1993 for fuel hydrocarbon remediation. In August 1995, the regulatory agencies agreed that the vadose zone remediation was complete, and in October 1996 a No Further Action status was granted for the ground water.

^b Totals are derived from individual extraction wells shown in Attachment B.

^c Rounded number.

Kcf = Thousands of cubic feet.

Kgal = Thousands of gallons.

Table 2. VOC mass removed at the Livermore Site, July through September 2013.

Treatment Area ^a	VOC mass removed from ground water (kg)	VOC mass removed from soil vapor (kg)	Total VOC mass removed (kg) ^b
TFA	1.1	-	1.1
TFB	0.6	-	0.6
TFC	1.2	-	1.2
TFD	4.9	0.4	5.3
TFE	1.4	0.7	2.1
TFG	0.1	-	0.1
TFH	0.4	5.6	6.0
TOTAL^b	9.7	6.7	16.4

Table 3. Historical summary of volumes of water and soil vapor removed at the Livermore Site through September 2013.

Treatment Area ^a	Volume of ground water extracted (Mgal)	Volume of vapor extracted (Mcf)
TFA	2,043	-
TFB	489	-
TFC	555	-
TFD	1,132	121
TFE	406	191
TFG	91	-
TFH	177	272
TOTAL^b	4,893	584

Table 4. Historical summary of VOC mass removed from water and soil vapor at the Livermore Site through September 2013.

Treatment Area ^a	VOC mass removed from ground water (kg)	VOC mass removed from soil vapor (kg)	Total VOC mass removed (kg) ^b
TFA	214	-	214
TFB	83	-	83
TFC	112	-	112
TFD	882	98	980
TFE	231	156	387
TFG	12	-	12
TFH	41	1,271	1,312
TOTAL^b	1,575	1,525	3,100

^a Refer to Table 1 footnote for facilities in each treatment facility area.

^b Rounded number.

Abbreviations for Tables 2, 3 and 4:

kg = Kilograms.

Mcf = Millions of cubic feet.

Mgal = Millions of gallons.

VOC = Volatile organic compound.

Attachment A

VOC, Chromium, and Bioassay

Analyses

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFA													
TFA-I001	02-JUL-13	E601	<0.5	0.97	0.75	<0.5	1.2	<1	<0.5	6.1	<0.5	0.61	<0.5
TFA-I001	02-AUG-13	E601	<0.5	0.98	0.79	<0.5	1.2	<1	<0.5	6.5	<0.5	0.68	<0.5
TFA-I001	04-SEP-13	E601	<0.5	0.88	0.69	<0.5	1.1	<1	<0.5	5.8	<0.5	0.59	<0.5
TFA-E001	02-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFA-E001	02-AUG-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFA-E001	04-SEP-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFA-E^a	---	---	--	--	--	--	--	--	--	--	--	--	--
TFB													
TFB-I002	02-JUL-13	E601	<0.5	2.4	<0.5	<0.5	1.3	<1	2.1	0.94	<0.5	10	<0.5
TFB-I002	01-AUG-13	E601	0.51	2.2	<0.5	<0.5	1.3	<1	3.1	1	<0.5	10	<0.5
TFB-I002	04-SEP-13	E601	0.56	2.2	<0.5	<0.5	1.3	<1	2.6	1.1	<0.5	10	<0.5
TFB-E002	02-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFB-E002	01-AUG-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFB-E002	04-SEP-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFC													
TFC-I003	01-JUL-13	E601	<0.5	0.99	<0.5	<0.5	0.7	<1	9.8	3.2	<0.5	10	<0.5
TFC-I003	01-AUG-13	E601	<0.5	0.98	<0.5	<0.5	0.74	<1	11	3.5	<0.5	11	<0.5
TFC-I003	05-SEP-13	E601	<0.5	0.92	<0.5	<0.5	0.67	<1	8.9	3.6	<0.5	10	<0.5
TFC-E003	01-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFC-E003	01-AUG-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFC-E003	05-SEP-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFC-E													
MTU1-I	01-JUL-13	E601	<0.5	13	<0.5	<0.5	0.76	<1	10	<0.5	<0.5	7.1	3.6
MTU1-I	06-AUG-13	E601	<0.5	13	<0.5	<0.5	0.87	<1	13	0.56	<0.5	8.3	4.3
MTU1-I	05-SEP-13	E601	<0.5	12	<0.5	<0.5	0.72	<1	8.4	<0.5	<0.5	6.9	3.6
MTU1-E	01-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU1-E	06-AUG-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU1-E	05-SEP-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFC-SE													
PTU1-I	01-JUL-13	E601	<0.5	7.5	<0.5	<0.5	1.7	<1	15	0.57	<0.5	13	0.99
PTU1-I	01-AUG-13	E601	<0.5	7.6	<0.5	<0.5	1.6	<1	17	0.65	<0.5	14	1
PTU1-I	05-SEP-13	E601	<0.5	7.1	<0.5	<0.5	1.6	<1	13	0.69	<0.5	13	1.1
PTU1-E	01-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU1-E	01-AUG-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU1-E	05-SEP-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD													
TFD-I004	01-JUL-13	E601	2.1	3.2	<0.5	<0.5	1.1	<1	0.77	1.8	<0.5	55	14
TFD-I004	02-AUG-13	E601	2.1	3.1	<0.5	<0.5	1.3	<1	0.75	2	<0.5	57	12
TFD-I004	05-SEP-13	E601	2.1	2.9	<0.5	<0.5	<0.5	<1	0.68	3.6	<0.5	61	11
TFD-E004	01-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-E004	02-AUG-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-E004	05-SEP-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-E													
PTU8-I	01-JUL-13	E601	4	2	<0.5	1.3	7.4	<1	<0.5	6	<0.5	100	1.1
PTU8-I	06-AUG-13	E601	3.4	1.4	<0.5	0.67	3.5	<1	<0.5	3.3	<0.5	80	0.78
PTU8-I	12-SEP-13	E601	3.8	1.3	<0.5	0.83	4.3	<1	<0.5	4.1	<0.5	85	1.1
PTU8-E	01-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU8-E	06-AUG-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU8-E	12-SEP-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-HPD													
PTU10-I	11-JUL-13	E601	1.5	0.52	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	39	<0.5
PTU10-I	07-AUG-13	E601	1.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	37	<0.5
PTU10-I	10-SEP-13	E601	1.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	37	<0.5
PTU10-E	11-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU10-E	07-AUG-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU10-E	10-SEP-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-S													
PTU2-I	08-JUL-13	E601	0.83	1.6	<0.5	<0.5	4.3	<1	1.3	5.8	<0.5	53	<0.5
PTU2-I	02-AUG-13	E601	1	1.7	<0.5	<0.5	4.4	<1	1.4	6.4	<0.5	61	<0.5
PTU2-I	05-SEP-13	E601	1.1	1.7	<0.5	<0.5	4.2	<1	1.1	6.4	<0.5	58	<0.5

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFD-S (cont.)													
PTU2-E	08-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU2-E	02-AUG-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU2-E	05-SEP-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-SE													
PTU11-I	01-JUL-13	E601	0.59	4	0.66	1.3	8.7	<1	1.3	24	<0.5	89	<0.5
PTU11-I	06-AUG-13	E601	0.57	3.9	0.7	1.3	9.4	<1	1.4	28	<0.5	98	<0.5
PTU11-I	05-SEP-13	E601	0.67	4.2	0.71	1.5	9.7	<1	1.3	29	<0.5	96	<0.5
PTU11-E	01-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU11-E	06-AUG-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU11-E	05-SEP-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-SS^b													
PTU12-I	08-JUL-13	E601	1.7	2.3	0.6	2	10	<1	0.56	18	<0.5	110	4.9
PTU12-I	12-SEP-13	E601	0.71	2.2	0.6	2.1	8.4	<1	<0.5	29	<0.5	100	5.3
PTU12-E	08-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU12-E	12-SEP-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-W													
PTU6-I	10-JUL-13	E601	<0.5	5.2	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	4.4	39
PTU6-I	07-AUG-13	E601	<0.5	5.1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	4.1	39
PTU6-I	10-SEP-13	E601	<0.5	5.2	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	4.1	35
PTU6-E	10-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU6-E	07-AUG-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU6-E	10-SEP-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFE-E													
PTU3-I	09-JUL-13	E601	<0.5	2.2	<0.5	<0.5	6.6	<1	6.5	6.3	<0.5	45	<0.5
PTU3-I	01-AUG-13	E601	<0.5	2.4	<0.5	<0.5	6.9	<1	7.2	6.6	<0.5	49	<0.5
PTU3-I	04-SEP-13	E601	<0.5	2.3	<0.5	<0.5	6.3	<1	5.7	6.4	<0.5	46	<0.5
PTU3-E	09-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU3-E	01-AUG-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU3-E	04-SEP-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFE-HS													
W-2105	17-JUL-13	E601	<0.5	0.99	<0.5	<0.5	1.8	4.6	3.9	16	<0.5	260	<0.5
GTU07-I	17-JUL-13	E601	<0.5	1	<0.5	<0.5	1.8	4.6	4	14	<0.5	250	<0.5
GTU07-I	01-AUG-13	E601	<0.5	1	<0.5	<0.5	1.9	4.3	4.5	15	<0.5	260	<0.5
GTU07-I	10-SEP-13	E601	<0.5	0.86	<0.5	<0.5	1.7	4	3.8	16	<0.5	250	<0.5
GTU07-E	17-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU07-E	01-AUG-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU07-E	10-SEP-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFE-NW													
PTU9-I	09-JUL-13	E601	<0.5	1.3	<0.5	<0.5	<0.5	<1	1.2	<0.5	<0.5	11	<0.5
PTU9-I	13-AUG-13	E601	<0.5	1.3	<0.5	<0.5	<0.5	<1	1.3	<0.5	<0.5	12	<0.5
PTU9-I	05-SEP-13	E601	<0.5	1.2	<0.5	<0.5	<0.5	<1	1.1	<0.5	<0.5	11	<0.5
PTU9-E	09-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU9-E	13-AUG-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU9-E	05-SEP-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFE-SE													
W-359	09-JUL-13	E601	3.2	1.4	<0.5	<0.5	16	<1	6.5	7.6	<0.5	180	0.66
MTU04-I	01-AUG-13	E601	3.1	1.4	<0.5	<0.5	16	<1	7.2	7.7	<0.5	180	0.7
MTU04-I	04-SEP-13	E601	3.2	1.2	<0.5	<0.5	13	<1	5.2	7.5	<0.5	170	0.59
MTU04-E	09-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU04-E	01-AUG-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU04-E	04-SEP-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFE-SW^c													
MTU03-I	09-JUL-13	E601	0.99	1.4	<0.5	<0.5	0.54	<1	0.71	1	<0.5	25	<0.5
MTU03-E	09-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFE-W													
MTU05-I	09-JUL-13	E601	<0.5	1.1	<0.5	<0.5	1.8	<1	11	6.4	<0.5	28	<0.5
MTU05-I	07-AUG-13	E601	<0.5	0.79	<0.5	<0.5	0.92	2.2	1.4	1.2	<0.5	18	<0.5
MTU05-I	10-SEP-13	E601	<0.5	0.74	<0.5	<0.5	0.85	2.1	1.2	1.2	<0.5	17	<0.5
MTU05-E	09-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU05-E	07-AUG-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFE-W (cont.)													
MTU05-E	10-SEP-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFG-1													
W-1111	10-JUL-13	E601	2.8	11	<0.5	<0.5	0.83	<1	<0.5	0.88	<0.5	3.6	<0.5
GTU01-I	05-AUG-13	E601	2.9	11	<0.5	<0.5	0.91	<1	0.53	1	<0.5	3.8	<0.5
GTU01-I	04-SEP-13	E601	2.9	10	<0.5	<0.5	0.86	<1	<0.5	1	<0.5	3.7	<0.5
GTU01-E	10-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU01-E	05-AUG-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU01-E	04-SEP-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFG-N													
MTU02-I	10-JUL-13	E601	<0.5	1.5	<0.5	<0.5	1.4	<1	1.4	15	<0.5	5.1	<0.5
MTU02-I	05-AUG-13	E601	<0.5	1.4	<0.5	<0.5	1.3	<1	1.3	16	<0.5	5.1	<0.5
MTU02-I	04-SEP-13	E601	<0.5	1.4	<0.5	<0.5	1.2	<1	1.1	16	<0.5	4.6	<0.5
MTU02-E	10-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU02-E	05-AUG-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU02-E	04-SEP-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TF406													
PTU5-I	10-JUL-13	E601	<0.5	0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	3.6	<0.5
PTU5-I	07-AUG-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	4	<0.5
PTU5-I	10-SEP-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	3.7	<0.5
PTU5-E	10-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU5-E	07-AUG-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU5-E	10-SEP-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TF406-NW													
W-1801	09-JUL-13	E601	<0.5	1.2	<0.5	<0.5	<0.5	<1	3.9	0.66	<0.5	20	<0.5
GTU03-I	02-AUG-13	E601	<0.5	1.2	<0.5	<0.5	<0.5	<1	3.8	0.69	<0.5	20	<0.5
GTU03-I	05-SEP-13	E601	<0.5	1.2	<0.5	<0.5	<0.5	<1	3.1	0.71	<0.5	19	<0.5
GTU03-E	09-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU03-E	02-AUG-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU03-E	05-SEP-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TF518-N^d W-1410	02-AUG-13	E601	2.2	2.4	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	14	<0.5
TF5475-1^e W-1302-2	14-AUG-13	E601	1.9	37	1.3	4.6	17	3.7	6	42	<0.5	340	<0.5
TF5475-2 GTU09-I	01-JUL-13	E601	1.7	16	<0.5	2.3	14	<1	5.1	27	<0.5	240	<0.5
GTU09-I	06-AUG-13	E601	2.2	24	0.68	3	19	<1	6.7	41	<0.5	320	<0.5
GTU09-I	05-SEP-13	E601	2.1	21	0.57	2.8	17	<1	5.6	38	<0.5	270	<0.5
GTU09-E	01-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU09-E	06-AUG-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU09-E	05-SEP-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TF5475-3^f	---	---	--	--	--	--	--	--	--	--	--	--	--

Notes on following page.

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

^a TFA-E did not operate during the third quarter reporting period due to lack of ground water in extraction well W-254, the sole source of water for this facility.

^b TFD-SS did not operate during the month of August due to being secured for REVAL (Remediation Evaluation) work.

^c TFE-SW did not operate during the months of August and September due to REVAL (Remediation Evaluation) work.

^d TF518-N did not operate during this reporting period due to mixed waste disposition issues.

^e TF5475-1 did not operate during this reporting period due to mixed waste disposition issues.

^f TF5475-3 did not operate during this reporting period due to mixed waste disposition issues.

Notes:

CTET = Carbon tetrachloride

CFORM = Chloroform

1,1-DCA = 1,1-Dichloroethane

1,2-DCA = 1,2-Dichloroethane

1,1-DCE = 1,1-Dichloroethylene

1,2-DCE = 1,2-Dichloroethylene

Freon 113 = Trichlorotrifluoroethane

PCE = Tetrachloroethylene

1,1,1-TCA = 1,1,1-Trichloroethane

TCE = Trichloroethene

Freon 11 = Trichlorofluoromethane

VOC = volatile organic compound

Numbers in **BOLD** print indicate positive values above the detection limit.

Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFA													
W-109	29-AUG-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	0.56	0.95	<0.5	<0.5	<0.5
W-262	11-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
W-404	29-AUG-13	E601	<0.5	<0.5	0.78	<0.5	1	<1	<0.5	4.8	<0.5	<0.5	<0.5
W-408	29-AUG-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	0.55	<0.5	<0.5	<0.5
W-415	11-JUL-13	E601	<0.5	1.4	0.65	<0.5	1.4	<1	<0.5	9.6	<0.5	0.94	<0.5
W-457	29-AUG-13	E601	<0.5	<0.5	0.79	<0.5	0.78	<1	<0.5	5.6	<0.5	<0.5	<0.5
W-518	11-JUL-13	E601	<0.5	<0.5	5.2	<0.5	2.7	<1	<0.5	3.5	<0.5	<0.5	<0.5
W-522	11-JUL-13	E601	<0.5	<0.5	1.5	<0.5	1	<1	<0.5	2.8	<0.5	<0.5	<0.5
W-605	11-JUL-13	E601	<0.5	<0.5	0.73	<0.5	0.95	<1	<0.5	12	<0.5	0.64	<0.5
W-614	11-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	4.7	<0.5	<0.5	<0.5
W-712	11-JUL-13	E601	3	3.2	1.1	<0.5	3.5	<1	<0.5	1.9	<0.5	3.4	<0.5
W-714	11-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	6.4	<0.5	<0.5	<0.5
W-903	29-AUG-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	3.5	<0.5	<0.5	<0.5
W-904	29-AUG-13	E601	<0.5	<0.5	0.51	<0.5	0.7	<1	<0.5	4.7	<0.5	<0.5	<0.5
W-1001	11-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
W-1004	11-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	1.9	<0.5	<0.5	<0.5
W-1009	11-JUL-13	E601	1.1	4.9	0.68	<0.5	3	<1	0.6	10	<0.5	1.8	<0.5
TFA-E^a													
W-254 ^b	29-APR-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	20	<0.5	0.5	<0.5
TFB													
W-357	10-JUL-13	E601	1.4	2.9	<0.5	<0.5	1.6	<1	4.8	1	<0.5	30	<0.5
W-610	10-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	0.61	<1	1	<0.5	<0.5	1.2	<0.5
W-620	10-JUL-13	E601	<0.5	0.86	<0.5	<0.5	0.89	<1	1.5	0.98	<0.5	3.5	<0.5
W-621	10-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	1.3	<0.5
W-655	10-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	5.5	<0.5	<0.5	0.7	<0.5
W-704	10-JUL-13	E601	0.55	3.9	<0.5	<0.5	2	<1	5.8	2.4	<0.5	17	<0.5
W-1423	10-JUL-13	E601	0.77	4.6	<0.5	<0.5	3	<1	3	1.6	<0.5	8.6	<0.5
W-2501	10-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	1.4	<0.5	<0.5	5.6	<0.5
W-2502	10-JUL-13	E601	0.84	4.4	<0.5	<0.5	2.3	<1	0.56	<0.5	<0.5	2.3	<0.5
TFC													
W-701	08-JUL-13	E601	<0.5	2	<0.5	<0.5	1.5	<1	28	2.5	<0.5	17	<0.5
W-1015	08-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	0.65	<1	1.7	0.77	<0.5	3.8	<0.5
W-1102	08-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	2.6	<0.5	<0.5	1.3	<0.5
W-1103	08-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	1.1	<0.5
W-1104	08-JUL-13	E601	<0.5	0.66	<0.5	<0.5	<0.5	<1	2.7	4.7	<0.5	9.2	<0.5
W-1116	08-JUL-13	E601	<0.5	1.1	<0.5	<0.5	<0.5	<1	6.2	3.4	<0.5	7	<0.5

Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFC-E													
W-368	06-AUG-13	E601	<0.5	4.6	<0.5	<0.5	<0.5	<1	18	2.4	<0.5	11	2.9
W-413	06-AUG-13	E601	<0.5	14	<0.5	<0.5	0.89	<1	10	<0.5	<0.5	7.7	4
TFC-SE													
W-1213	01-JUL-13	E601	<0.5	8	<0.5	<0.5	1.6	<1	6.7	<0.5	<0.5	9.7	<0.5
W-2201	01-JUL-13	E601	<0.5	7.8	<0.5	<0.5	1.8	<1	18	0.73	<0.5	14	1.2
TFD													
W-351	08-JUL-13	E601	30	5	<0.5	0.83	6.4	<1	5.8	6.7	<0.5	550	1.1
W-653	08-JUL-13	E601	21	6.1	<0.5	<0.5	0.77	<1	3.1	0.75	<0.5	600	<0.5
W-906	08-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	2.8	<0.5
W-907-2	08-JUL-13	E601	<0.5	4.2	<0.5	<0.5	2.9	<1	1.4	5.9	<0.5	61	<0.5
W-2011	08-JUL-13	E601	0.86	0.83	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	20	<0.5
W-2101	08-JUL-13	E601	5.1	2	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	160	<0.5
W-2102	08-JUL-13	E601	15	4.7	<0.5	<0.5	<0.5	<1	2	<0.5	<0.5	460	1.1
W-1206	08-JUL-13	E601	0.79	4.2	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	14	<0.5
W-1208	08-JUL-13	E601	2	1.8	<0.5	<0.5	<0.5	<1	<0.5	0.55	<0.5	42	29
TFD-E													
W-2006	26-SEP-13	E601	1.1	2.1	2.9	9.1	88	1.5	<0.5	83	<0.5	550	<0.5
W-1301	06-AUG-13	E601	7.2	2.4	1.8	5.6	48	<1	0.87	32	<0.5	240	<0.5
W-1303	06-AUG-13	E601	4	2.3	0.66	2.3	5.1	<1	<0.5	6.4	<0.5	140	4.8
W-1306	06-AUG-13	E601	1.9	1.8	<0.5	<0.5	<0.5	<1	<0.5	2.2	<0.5	54	<0.5
W-1307	06-AUG-13	E601	3.1	0.68	<0.5	<0.5	<0.5	<1	<0.5	0.73	<0.5	37	<0.5
W-1550	06-AUG-13	E601	6.7	5.1	<0.5	<0.5	0.71	<1	0.66	2.4	<0.5	200	<0.5
W-2203	06-AUG-13	E601	10	2.7	<0.5	<0.5	2.1	<1	2.1	6.1	<0.5	98	<0.5
TFD-HPD													
W-1254	11-JUL-13	E601	1.6	0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	38	<0.5
W-1650	30-JUL-13	E601	2.8	1.1	<0.5	<0.5	<0.5	<1	1.7	<0.5	<0.5	130	<0.5
W-1653	30-JUL-13	E601	<0.5	1.5	<0.5	<0.5	<0.5	5.3	<0.5	0.61	<0.5	93	<0.5
W-1655	30-JUL-13	E601	<0.5	1.7	<0.5	<0.5	<0.5	2.2	<0.5	1.8	<0.5	49	<0.5
W-1657	30-JUL-13	E601	9.6	4.3	<0.5	<0.5	<0.5	<1	3.6	<0.5	<0.5	1100	<0.5
TFD-S													
W-1503	08-JUL-13	E601	1.8	1.8	<0.5	<0.5	1.3	<1	0.52	1.7	<0.5	50	<0.5
W-1504	08-JUL-13	E601	<0.5	1.2	<0.5	<0.5	9.2	1.1	2.6	12	<0.5	68	<0.5
W-1510	08-JUL-13	E601	<0.5	2.1	<0.5	<0.5	2.6	<1	<0.5	3.7	<0.5	31	<0.5

Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFD-SE													
W-314	06-AUG-13	E601	<0.5	2.8	0.58	0.55	3.4	<1	1.4	6.5	<0.5	53	<0.5
W-2005	06-AUG-13	E601	<0.5	0.66	<0.5	0.97	11	<1	<0.5	27	<0.5	55	<0.5
W-1308	06-AUG-13	E601	<0.5	0.99	0.77	2.2	12	<1	<0.5	72	<0.5	76	<0.5
W-1403	06-AUG-13	E601	2.1	15	1.3	4.2	38	<1	4.3	92	<0.5	350	<0.5
W-1904	05-SEP-13	E601	<0.5	<0.5	<0.5	<0.5	3.9	<1	<0.5	20	<0.5	8.4	<0.5
SIP-ETC-201	05-SEP-13	E601	<0.5	0.65	2.2	0.86	60	<1	<0.5	340	<0.5	200	<0.5
TFD-SS													
W-1523	08-JUL-13	E601	3.4	3.3	<0.5	1.4	11	<1	1.4	15	<0.5	120	<0.5
W-1601	08-JUL-13	E601	3.3	4.1	1.3	5.3	27	1	1.4	79	<0.5	250	<0.5
W-1602	08-JUL-13	E601	<0.5	1.5	<0.5	<0.5	0.67	<1	<0.5	1.7	<0.5	12	2.9
W-1603	08-JUL-13	E601	1.3	2	0.78	2.5	11	<1	<0.5	20	<0.5	120	7.5
TFD-W													
W-1215	10-JUL-13	E601	<0.5	8.9	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	4.4	18
W-1216	10-JUL-13	E601	<0.5	5.1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	2.7	28
W-1902	10-JUL-13	E601	0.51	3.3	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	5.1	55
TFE-E													
W-566	09-JUL-13	E601	<0.5	2.6	<0.5	<0.5	5.1	<1	7.5	3	<0.5	36	<0.5
W-1109	09-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	22	<1	4.7	38	<0.5	130	<0.5
W-1903	17-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	18	<1	5.5	15	<0.5	32	<0.5
W-1909 ^b	14-NOV-11	E601	<0.5	<0.5	<0.5	<0.5	9.1	1.1	<0.5	5.4	<0.5	6.5	<0.5
W-2305	09-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	41	<1	17	39	<0.5	63	<0.5
TFE-HS													
W-2105	17-JUL-13	E601	<0.5	0.99	<0.5	<0.5	1.8	4.6	3.9	16	<0.5	260	<0.5
TFE-NW													
W-1211	09-JUL-13	E601	<0.5	1.5	<0.5	<0.5	<0.5	<1	1.5	<0.5	<0.5	8.4	<0.5
W-1409	09-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	0.58	<1	0.52	1.4	<0.5	27	<0.5
TFE-SE													
W-359	09-JUL-13	E601	3.2	1.4	<0.5	<0.5	16	<1	6.5	7.6	<0.5	180	0.66
TFE-SW													
W-1516	09-JUL-13	E601	0.53	1.1	<0.5	<0.5	<0.5	<1	0.82	0.54	<0.5	9.9	<0.5
W-1518	09-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	1.5	1.2	3.4	0.99	<0.5	12	<0.5
W-1520	09-JUL-13	E601	8.2	5.6	<0.5	2.8	1.9	1.7	<0.5	10	<0.5	220	<0.5

Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFE-SW (cont.)													
W-1522	17-JUL-13	E601	5.2	4.4	0.91	<0.5	7.2	15	1.3	2.1	<0.5	110	<0.5
TFE-W													
W-292	09-JUL-13	E601	<0.5	0.82	<0.5	<0.5	0.89	2.2	1.3	1.1	<0.5	17	<0.5
W-305	09-JUL-13	E601	<0.5	1.2	<0.5	<0.5	2.2	<1	16	8.8	<0.5	33	0.6
TFG-1													
W-1111	10-JUL-13	E601	2.8	11	<0.5	<0.5	0.83	<1	<0.5	0.88	<0.5	3.6	<0.5
TFG-N													
W-1806	10-JUL-13	E601	<0.5	0.76	<0.5	<0.5	<0.5	<1	<0.5	9.5	<0.5	3.2	<0.5
W-1807	10-JUL-13	E601	<0.5	1.8	<0.5	<0.5	1.7	<1	1.8	18	<0.5	5.7	<0.5
TF406													
W-1309	10-JUL-13	E601	0.55	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	2.4	<0.5
W-1310	10-JUL-13	E601	<0.5	0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	3.6	<0.5
TF406-NW													
W-1801	09-JUL-13	E601	<0.5	1.2	<0.5	<0.5	<0.5	<1	3.9	0.66	<0.5	20	<0.5
TF518-N^a													
W-1410	02-AUG-13	E601	2.2	2.4	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	14	<0.5
TF518-PZ													
W-1615	18-JUL-13	E601	<0.5	<0.5	<0.5	<0.5	2.7	<1	<0.5	24	<0.5	130	<0.5
W-518-1913 ^b	23-MAY-11	E601	<0.5	<0.5	<0.5	<0.5	0.76	<1	<0.5	3.8	<0.5	29	<0.5
W-518-1914 ^b	17-JAN-13	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	44	<0.5	3.6	<0.5
W-518-1915	18-JUL-13	E601	<0.5	0.94	<0.5	<0.5	6.2	<1	<0.5	65	<0.5	600	<0.5
SVB-518-201 ^b	07-FEB-08	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	35	<0.5	8.5	<0.5
SVB-518-204 ^b	07-FEB-08	E601	<0.5	0.63	<0.5	<0.5	1.4	<1	<0.5	43	<0.5	550	<0.5
TF5475-1^a													
W-1302-2	14-AUG-13	E601	1.9	37	1.3	4.6	17	3.7	6	42	<0.5	340	<0.5
TF5475-2													
W-1108	06-AUG-13	E601	2.1	23	0.66	2.9	18	<1	6.5	41	<0.5	320	<0.5
W-1415 ^b	15-OCT-12	E601	<0.5	6.5	<0.5	<0.5	3	7.2	<0.5	5.8	<0.5	47	<0.5

Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TF5475-3^a													
W-1604	15-AUG-13	E601	6.4	78	2.2	19	46	3.8	20	100	<0.5	970	<0.5
W-1605	12-AUG-13	E601	<0.5	11	<0.5	0.81	<0.5	1.2	<0.5	2.2	<0.5	24	<0.5
W-1608	12-AUG-13	E601	<0.5	13	<0.5	2	0.89	1.8	<0.5	3.7	<0.5	42	<0.5
W-1609	12-AUG-13	E601	<0.5	33	0.55	2.3	3.5	<1	<0.5	8.2	<0.5	78	<0.5

Notes on following page.

Table A-2. VOC analyses of samples from treatment facility extraction wells.

^a Treatment Facility did not operate during reporting period. Please refer to Table A-1 for details.

^b Most recent VOC sample results available.

Notes:

CTET = Carbon tetrachloride

CFORM = Chloroform

1,1-DCA = 1,1-Dichloroethane

1,2-DCA = 1,2-Dichloroethane

1,1-DCE = 1,1-Dichloroethylene

1,2-DCE = 1,2-Dichloroethylene

Freon 113 = Trichlorotrifluoroethane

PCE = Tetrachloroethylene

1,1,1-TCA = 1,1,1-Trichloroethane

TCE = Trichloroethene

Freon 11 = Trichlorofluoromethane

VOC = volatile organic compound

Numbers in **BOLD** print indicate positive values above the detection limit.

Table A-3. VOC analyses of vapor samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE PPM(V/V)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
VTFD-ETCS													
W-1904	06-AUG-13	TO15DIT	<0.005	<0.005	<0.005	<0.005	0.011	<0.005	<0.005	0.18	<0.005	0.068	<0.005
W-ETC-2003	06-AUG-13	TO15DIT	<0.005	<0.005	<0.005	<0.005	0.012	<0.005	<0.005	0.12	<0.005	0.044	<0.005
W-ETC-2004A	06-AUG-13	TO15DIT	<0.005	0.0089	<0.005	<0.005	0.006	<0.005	<0.005	0.31	<0.005	0.1	<0.005
W-ETC-2004B	06-AUG-13	TO15DIT	<0.005	0.013	0.0059	<0.005	0.096	<0.005	<0.005	0.57	<0.005	1.2	<0.005
SIP-ETC-201	06-AUG-13	TO15DIT	<0.005	<0.005	0.0087	<0.005	0.088	<0.005	<0.005	0.52	<0.005	0.56	<0.005
VTFD-HS^a													
W-653 ^b	03-NOV-09	TO15DIT	0.026	<0.005	<0.005	<0.005	<0.005	<0.005	0.016	<0.005	<0.005	0.58	<0.005
W-2011 ^b	15-FEB-07	TO15DI	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.081	<0.005
W-2101 ^b	03-NOV-09	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.052	<0.005
W-2102 ^b	15-FEB-07	TO15DI	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.11	<0.005
VTFE-ELM													
W-1903	26-AUG-13	TO15DIT	<0.005	<0.005	0.015	<0.005	1.3	<0.005	0.52	1.1	<0.005	2.2	0.0062
W-1909 ^b	06-OCT-11	TO15DIT	<0.005	0.034	<0.005	<0.005	0.51	<0.005	0.054	0.88	<0.005	1.2	<0.005
W-2305 ^b	06-OCT-11	TO15DIT	<0.005	<0.005	<0.005	<0.005	0.2	<0.005	0.036	0.46	<0.005	0.55	<0.005
W-543-001	26-AUG-13	TO15DIT	<0.005	<0.005	<0.005	<0.005	0.01	<0.005	<0.005	0.48	<0.005	0.077	<0.005
W-543-003	26-AUG-13	TO15DIT	<0.005	0.023	<0.005	<0.005	0.062	<0.005	0.017	0.17	<0.005	0.35	<0.005
W-543-1908	26-AUG-13	TO15DIT	<0.005	<0.005	<0.005	<0.005	0.015	<0.005	<0.005	0.052	<0.005	0.19	<0.005
VTFE-HS													
W-2105	30-JUL-13	TO15DIT	<0.005	0.0057	<0.005	<0.005	0.014	<0.005	0.11	0.14	<0.005	2	<0.005
W-ETS-2008A	30-JUL-13	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0092	<0.005	0.018	<0.005
W-ETS-2008B	30-JUL-13	TO15DIT	<0.005	0.0075	<0.005	<0.005	0.0086	<0.005	0.017	0.48	<0.005	0.91	<0.005
W-ETS-2009	30-JUL-13	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.1	<0.005	0.33	<0.005
W-ETS-2010A	30-JUL-13	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.092	<0.005	0.13	<0.005
W-ETS-2010B	30-JUL-13	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.047	<0.005	0.072	<0.005
VTF406-HS													
W-217	06-AUG-13	TO15DIT	0.12	0.045	0.0094	<0.005	0.74	0.013	0.14	0.72	<0.005	2.6	0.012
W-514-2007A	07-AUG-13	TO15DIT	0.15	<0.005	<0.005	<0.005	0.073	<0.005	0.14	0.089	<0.005	0.47	4.8
W-514-2007B	06-AUG-13	TO15DIT	0.057	0.024	0.0054	<0.005	0.34	<0.005	0.05	0.24	<0.005	0.91	0.034
VTF511													
W-2204	11-SEP-13	TO15DIT	0.086	0.026	<0.01	0.026	0.019	<0.01	<0.01	0.61	<0.01	6.3	<0.01
W-2205	11-SEP-13	TO15DIT	0.027	<0.005	<0.005	<0.005	0.0099	<0.005	<0.005	0.097	<0.005	1.3	<0.005
W-2206	11-SEP-13	TO15DIT	<0.005	0.006	<0.005	0.016	<0.005	<0.005	<0.005	0.12	<0.005	0.96	<0.005
W-2207A	11-SEP-13	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0088	<0.005	0.26	<0.005
W-2207B	06-AUG-13	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.018	<0.005	1.2	<0.005

Table A-3. VOC analyses of vapor samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE PPM(V/V)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
VTF511 (cont.)													
W-2208A	11-SEP-13	TO15DIT	0.038	0.021	<0.01	<0.01	0.038	<0.01	<0.01	0.028	<0.01	6.6	0.052
W-2208B	06-AUG-13	TO15DIT	0.11	0.085	0.057	<0.025	0.47	0.12	0.082	0.35	<0.025	17	0.09
VTF518-PZ													
W-1615	07-AUG-13	TO15DIT	<0.01	<0.01	<0.01	<0.01	0.25	<0.01	0.038	3.1	<0.01	6.5	<0.01
W-518-1913	10-SEP-13	TO15DIT	<0.005	<0.005	<0.005	<0.005	0.0089	<0.005	<0.005	0.036	<0.005	0.32	<0.005
W-518-1914	10-SEP-13	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.71	<0.005	0.089	<0.005
W-518-1915	07-AUG-13	TO15DIT	<0.01	<0.01	<0.01	<0.01	0.093	<0.01	<0.01	8	<0.01	4.1	<0.01
SVB-518-201	10-SEP-13	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0066	<0.005	0.016	<0.005
SVB-518-204	10-SEP-13	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.077	<0.005	0.18	<0.005
VTF5475^c													
W-1605	14-AUG-13	TO15DIT	<0.005	0.1	<0.005	0.0054	0.059	<0.005	0.012	0.034	<0.005	0.36	<0.005
W-1608	14-AUG-13	TO15DIT	<0.005	0.078	<0.005	<0.005	0.037	<0.005	0.015	0.039	<0.005	0.28	<0.005
W-2211	15-AUG-13	TO15DIT	0.008	0.32	0.01	0.026	0.18	<0.005	0.043	0.14	<0.005	1	<0.005
W-2212	15-AUG-13	TO15DIT	0.0055	0.1	<0.005	0.0093	0.12	<0.005	0.025	0.042	<0.005	0.34	<0.005
W-ETS-507	14-AUG-13	TO15DIT	<0.005	1.3	<0.005	0.043	0.0078	<0.005	<0.005	0.23	<0.005	0.96	<0.005
W-2302	14-AUG-13	TO15DIT	0.023	0.33	0.015	<0.01	0.46	<0.01	0.18	0.33	<0.01	5	<0.01
W-2303	14-AUG-13	TO15DIT	<0.005	0.48	0.018	0.054	0.1	<0.005	0.015	0.26	<0.005	1.9	<0.005
SVI-ETS-504	15-AUG-13	TO15DIT	<0.005	0.028	<0.005	<0.005	<0.005	<0.005	<0.005	0.012	<0.005	0.062	<0.005

Notes on following page.

Table A-3. VOC analyses of vapor samples from treatment facility extraction wells.

^a VTFD-HS did not operate during reporting period. As of August 30, 2013, VES13 has been removed from service at VTFD-HS. Extraction wells are operated cyclically without applied-vacuum. Ground water is treated at TFD.

^b Most recent VOC vapor sample results available.

^c VTF5475 did not operate during reporting period due to mixed waste disposition issues.

Notes:

CTET = Carbon tetrachloride

CFORM = Chloroform

1,1-DCA = 1,1-Dichloroethane

1,2-DCA = 1,2-Dichloroethane

1,1-DCE = 1,1-Dichloroethylene

1,2-DCE = 1,2-Dichloroethylene

Freon 113 = Trichlorotrifluoroethane

PCE = Tetrachloroethylene

1,1,1-TCA = 1,1,1-Trichloroethane

TCE = Trichloroethene

Freon 11 = Trichlorofluoromethane

VOC = volatile organic compound

Numbers in **BOLD** print indicate positive values above the detection limit.

Table A-4. Chromium analyses of influent, effluent and receiving water samples by treatment facility.

Treatment Facility	Sample Station	Date Sampled	Chromium (total)^a mg/L (ppm)	Hexavalent Chromium mg/L (ppm)
TFA	TFA-I001	02-JUL-13	0.017	NA
	TFA-E001	02-JUL-13	0.017	NA
TFB	TFB-I002	02-JUL-13	0.018	NA
	TFB-E002	02-JUL-13	0.02	NA
	TFB-E002	01-AUG-13	0.019	NA
	TFB-E002	04-SEP-13	0.023	NA
	TFB-R002	02-JUL-13	0.016	NA
TFC	TFC-I003	01-JUL-13	0.023	NA
	TFC-E003	01-JUL-13	0.023	NA
	TFC-E003	01-AUG-13	0.022	NA
	TFC-E003	05-SEP-13	0.024	NA
	TFC-R003	01-JUL-13	0.0097	NA
TFC-E	MTU1-I	01-JUL-13	0.045	NA
	MTU1-E	01-JUL-13	0.046	NA
	MTU1-E	06-AUG-13	0.047	NA
	MTU1-E	05-SEP-13	0.024	NA
TFC-SE	PTU1-I	01-JUL-13	0.035	NA
	PTU1-E	01-JUL-13	0.035	NA
	PTU1-E	01-AUG-13	0.031	NA
	PTU1-E	05-SEP-13	0.036	NA
TFD	TFD-I004	01-JUL-13	0.013	NA
	TFD-E004	01-JUL-13	0.012	NA
TFD-E	PTU8-I	01-JUL-13	0.0061	NA
	PTU8-E	01-JUL-13	0.0063	NA
TFD-HPD	PTU10-I	11-JUL-13	0.013	NA
	PTU10-E	11-JUL-13	0.014	NA
TFD-S	PTU2-I	08-JUL-13	0.016	NA
	PTU2-E	08-JUL-13	0.016	NA
TFD-SE	PTU11-I	01-JUL-13	0.014	NA
	PTU11-E	01-JUL-13	0.01	NA
TFD-SS	PTU12-I	08-JUL-13	0.015	NA
	PTU12-E	08-JUL-13	0.015	NA
TFD-W	PTU6-I	10-JUL-13	0.013	NA
	PTU6-E	10-JUL-13	0.013	NA
TFE-E	PTU3-I	09-JUL-13	0.012	NA
	PTU3-E	09-JUL-13	0.012	NA
TFE-HS	GTU07-I	17-JUL-13	0.0054	NA
	GTU07-E	17-JUL-13	<0.001	NA
TFE-NW	PTU9-I	09-JUL-13	0.012	NA
	PTU9-E	09-JUL-13	0.012	NA
TFE-SE	W-359	09-JUL-13	0.0092	NA
	MTU04-E	09-JUL-13	0.009	NA

Table A-4. Chromium analyses of influent, effluent and receiving water samples by treatment facility.

Treatment Facility	Sample Station	Date Sampled	Chromium (total)^a mg/L (ppm)	Hexavalent Chromium mg/L (ppm)
TFE-SW	MTU03-I	09-JUL-13	0.016	NA
	MTU03-E	09-JUL-13	0.016	NA
TFE-W	MTU05-I	09-JUL-13	0.013	NA
	MTU05-E	09-JUL-13	0.011	NA
TFG-1	W-1111	10-JUL-13	0.009	NA
	GTU01-E	10-JUL-13	<0.001	NA
	TFG-ASW	10-JUL-13	0.015	NA
TFG-N	MTU02-I	10-JUL-13	0.0088	NA
	MTU02-E	10-JUL-13	0.0092	NA
TF406	PTU5-I	10-JUL-13	0.016	NA
	PTU5-E	10-JUL-13	0.014	NA
TF406-NW	W-1801	09-JUL-13	0.0023	NA
	GTU03-E	09-JUL-13	<0.001	NA
TF5475-2	GTU09-I	01-JUL-13	0.013	NA
	GTU09-E	01-JUL-13	0.005	NA

^aA discharge limit of 0.050 ppm is set for total chromium during the dry season (April 1-November 30), and no limit is set for total chromium for the wet season (December 1-March 31); however, a limit of 0.022 ppm hexavalent chromium applies during the wet season. Discharge limits are defined in the Explanation of Significant Differences for metals discharge limits (April 1997).

Shaded values exceeded the discharge limit. See text for explanation.

Table A-5. Bioassay, turbidity, and chloride analyses of influent and effluent samples by treatment facility.

Treatment Facility	Sample Station	Date Sampled	Aquatic Bioassay^a Percent Survival	Turbidity Nephelometric Turbidity Units (NTU)	Chloride (mg/L)
TFA	TFA-E001	02-JUL-13	100 (100)	NA	NA
TFB	TFB-E002	02-JUL-13	100 (100)	NA	NA
TFC	TFC-E003	01-JUL-13	100 (100)	NA	NA
TFC-E	MTU1-E	01-JUL-13	100 (100)	NA	NA
TFC-SE	PTU1-E	01-JUL-13	100 (100)	NA	NA
TFD	TFD-E004	01-JUL-13	100 (100)	NA	NA
TFD-E	PTU8-E	10-JUL-13	100 (100)	NA	NA
TFD-HPD	PTU10-E	11-JUL-13	100 (100)	NA	NA
TFD-S	PTU2-E	08-JUL-13	100 (100)	NA	NA
TFD-SE	PTU11-E	10-JUL-13	100 (100)	NA	NA
TFD-SS	PTU12-E	08-JUL-13	100 (100)	NA	NA
TFD-W	PTU6-E	10-JUL-13	100 (100)	NA	NA
TFE-E	PTU3-E	09-JUL-13	100 (100)	NA	NA
TFE-HS	GTU07-E	17-JUL-13	100 (100)	NA	NA
TFE-NW	PTU9-E	09-JUL-13	100 (100)	NA	NA
TFE-SE	MTU04-E	09-JUL-13	100 (100)	NA	NA
TFE-SW	MTU03-E	09-JUL-13	100 (100)	NA	NA
TFE-W	MTU05-E	09-JUL-13	100 (100)	NA	NA
TFG-1	GTU01-E	10-JUL-13	100 (100)	NA	NA
TFG-N	MTU02-E	10-JUL-13	100 (100)	NA	NA
TF406	PTU5-E	10-JUL-13	100 (100)	NA	NA
TF406-NW	GTU03-E	09-JUL-13	100 (100)	NA	NA
TF5475-2	GTU09-E	01-JUL-13	100 (100)	NA	NA

^aTest species was Fathead minnow and the test duration was 96 hours.

Percent survival in the control group samples shown in parentheses.

Note: NA = not applicable

Explanation of Abbreviations

TFA-I001 is a sampling port located immediately prior to the TFA Treatment System.

TFA-E001 is a sampling port located immediately after the TFA Treatment System, at the beginning of the discharge pipeline.

TFA receiving water is routinely sampled at the TFG-ASW location.

TFB-I002 is a sampling port located immediately prior to the TFB Treatment System.

TFB-E002 is a sampling port located immediately after the TFB Treatment System, at the beginning of the discharge pipeline.

TFB-R002 is a sampling station in the drainage ditch north of TFB, located approximately 75 ft downstream from the discharge point.

TFC-I003 is a sampling port located immediately prior to the TFC Treatment System.

TFC-E003 is a sampling port located immediately after the TFC Treatment System, at the beginning of the discharge pipeline.

TFC-R003 is a sampling station in Arroyo Las Positas, located approximately 75 ft downstream from the TFC discharge point.

TFD-I004 is a sampling port located immediately prior to the TFD Treatment System.

TFD-E004 is a sampling port located immediately after the TFD Treatment System, prior to discharge to the Lake Haussmann or to the underground discharge pipeline leading to Arroyo Las Positas.

TFD-R004 is now combined with and collected at the TFC-R003 location. Results are reported under TFC-R003, as approved by the RWQCB.

CRD1-I is a sampling port located immediately prior to the catalytic column in the Catalytic Reductive Dehalogenation treatment unit 1 (CRD1).

CRD1-E is the effluent from the catalytic column in the Catalytic Reductive Dehalogenation treatment unit 1 (CRD1) and then reinjected at W-1302.

CRD2-I is a sampling port located immediately prior to the catalytic columns in the Catalytic Reductive Dehalogenation treatment unit 2 (CRD2).

CRD2-E is the effluent from the last catalytic column in the Catalytic Reductive Dehalogenation treatment unit 2 (CRD2) and then reinjected at W-1610.

GTU01-I is a sampling port located immediately prior to GTU01, which is currently operating in the TFG-1 area.

GTU01-E is a sampling port located immediately after GTU01, which is currently operating in the TFG-1 area.

GTU01 receiving water is routinely sampled at the TFG-ASW location.

GTU03-I is a sampling port located immediately prior to GTU03, which is currently operating in the TF406 Northwest area.

GTU03-E is a sampling port located immediately after GTU03, which is currently operating in the TF406 Northwest area.

GTU03 receiving water is routinely sampled at the TFC-R003 location.

GTU07-I is a sampling port located immediately prior to GTU07, which is currently operating in the TFE Hotspot area.

GTU07-E is a sampling port located immediately after GTU07, which is currently operating in the TFE Hotspot area.

GTU07 receiving water is routinely sampled at the TFC-R003 location.

GTU09-I is a sampling port located immediately prior to GTU09, which is currently operating in the TF5475 area.

GTU09-E is a sampling port located immediately after GTU09, which is currently operating in the TF5475 area.

GTU09 receiving water is routinely sampled at the TFC-R003 location.

MTU02-I is a sampling port located immediately prior to MTU02, which is currently operating in the TFG North area.

MTU02-E is a sampling port located immediately after MTU02, which is currently operating in the TFG North area.

MTU02 receiving water is routinely sampled at the TFC-R003 location.

MTU03-I is a sampling port located immediately prior to MTU03, which is currently operating in the TFE Southwest area.

MTU03-E is a sampling port located immediately after MTU03, which is currently operating in the TFE Southwest area.

MTU03 receiving water is routinely sampled at the TFC-R003 location.

MTU04-I is a sampling port located immediately prior to MTU04, which is currently operating in the TFE Southeast area.

MTU04-E is a sampling port located immediately after MTU04, which is currently operating in the TFE Southeast area.

MTU04 receiving water is routinely sampled at the TFC-R003 location.

MTU05-I is a sampling port located immediately prior to MTU05, which is currently operating in the TFE West area.

MTU05-E is a sampling port located immediately after MTU05, which is currently operating in the TFE West area.

MTU05 receiving water is routinely sampled at the TFC-R003 location.

MTU1-I is a sampling port located immediately prior to MTU1, which is currently operating in the TFC East area.

MTU1-E is a sampling port located immediately after MTU1, which is currently operating in the TFC East area.

Explanation of Abbreviations

MTU1 receiving water is routinely sampled at the TFC-R003 location.

PTU1-I is a sampling port located immediately prior to PTU-1, which is currently operating in the TFC Southeast area.

PTU1-E is a sampling port located immediately after PTU-1, which is currently operating in the TFC Southeast area.

PTU1 receiving water is routinely sampled at the TFC-R003 location.

PTU2-I is a sampling port located immediately prior to PTU-2, which is currently operating in the TFD South area.

PTU2-E is a sampling port located immediately after PTU-2, which is currently operating in the TFD South area.

PTU2 receiving water is routinely sampled at TFC-R003 during the wet season.

PTU3-I is a sampling port located immediately prior to PTU-3, which is currently operating in the TFE East area.

PTU3-E is a sampling port located immediately after PTU-3, which is currently operating in the TFE East area.

PTU3 receiving water is routinely sampled at the TFC-R003 location.

PTU5-I is a sampling port located immediately prior to PTU-5, which is currently operating in the TF406 extraction location.

PTU5-E is a sampling port located immediately after PTU-5, which is currently operating in the TF406 extraction location.

PTU5 receiving water is routinely sampled at the TFC-R003 location.

PTU6-I is a sampling port located immediately prior to PTU-6, which is currently operating in the TFD West area.

PTU6-E is a sampling port located immediately after PTU-6, which is currently operating in the TFD West area.

PTU6 receiving water is routinely sampled at the TFC-R003 location.

PTU8-I is a sampling port located immediately prior to PTU-8, which is currently operating in the TFD East area.

PTU8-E is a sampling port located immediately after PTU-8, which is currently operating in the TFD East area.

PTU8 receiving water is routinely sampled at the TFC-R003 location.

PTU9-I is a sampling port located immediately prior to PTU-9, which is currently operating in the TFE Northwest area.

PTU9-E is a sampling port located immediately after PTU-9, which is currently operating in the TFE Northwest area.

PTU9 receiving water is routinely sampled at the TFC-R003 location.

PTU10-I is a sampling port located immediately prior to PTU-10, which is currently operating in the TFD Helipad area.

PTU10-E is a sampling port located immediately after PTU-10, which is currently operating in the TFD Helipad area.

PTU10 receiving water is routinely sampled at the TFC-R003 location.

PTU11-I is a sampling port located immediately prior to PTU-11, which is currently operating in the TFD Southeast area.

PTU11-E is a sampling port located immediately after PTU-11, which is currently operating in the TFD Southeast area.

PTU11 receiving water is routinely sampled at the TFC-R003 location.

PTU12-I is a sampling port located immediately prior to PTU-12, which is currently operating in the TFD Southshore area.

PTU12-E is a sampling port located immediately after PTU-12, which is currently operating in the TFD Southshore area.

PTU12 receiving water is routinely sampled at the TFC-R003 location.

STU06-I is a sampling port located immediately prior to STU06, which is operating in the TFA East area.

STU06-E is a sampling port located immediately after STU06, which is operating in the TFA East area.

STU06 receiving water is routinely sampled at the TFG-ASW location.

STU09-I is a sampling port located immediately prior to STU09, which is currently operating in the TF518-North area.

STU09-E is a sampling port located immediately after STU09, which is currently operating in the TF518-North area.

STU09 receiving water is routinely sampled at the TFC-R003 location.

Attachment B

Self-Monitoring Reports

**Self-Monitoring Report
LLNL Treatment Facility A (TFA)
AREA TFA**

1. Reporting Period: Business Month July Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>																											
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>

Total monthly time facility operated (hours): 855

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-02-2013</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>21.2</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-109	0	0.0
W-262	278	0.0
W-404	1,682,696	33.2
W-408	0	0.0
W-415	1,886,608	40.3
W-457	739,440	14.8
W-605	436,348	8.6
W-518	237,346	4.7
W-522	787,028	15.5
W-614	562,344	11.0
W-1001	174,376	3.8
W-1004	576,552	11.4
W-1009	1,212,720	23.9
W-712	318,204	6.5
W-714	429,188	8.5
W-903	0	0.0
W-904	1,984,624	40.8
Total:	<u>11,027,752</u>	<u>223.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>5,210,552</u>

**Self-Monitoring Report (cont'd)
LLNL Treatment Facility A (TFA)
AREA TFA**

Arroyo Seco

TFG-ASW

5,817,200

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____

Steve Kawaguchi

Date: 08-01-2013

Self-Monitoring Report LLNL Treatment Facility A (TFA) AREA TFA

1. Reporting Period: Business Month August Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
 16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30**

Total monthly time facility operated (hours): 725

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-02-2013
Influent pH: 7.0
Effluent pH: 7.5
Effluent Temperature (°C): 18.4

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-109	992	0.0
W-262	0	0.0
W-404	1,409,585	32.8
W-408	13,856	10.0
W-415	1,537,440	38.6
W-457	597,432	14.0
W-518	201,846	4.7
W-522	669,020	15.5
W-605	372,184	8.6
W-614	482,548	11.3
W-712	269,272	6.2
W-714	131,180	8.3
W-1009	1,036,800	23.9
W-903	37,376	13.8
W-904	1,476,272	37.5
W-1001	137,020	3.1
W-1004	494,592	11.4
Total:	<u>8,867,415</u>	<u>239.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>4,676,556</u>

Self-Monitoring Report (cont'd)
LLNL Treatment Facility A (TFA)
AREA TFA

Arroyo Seco

TFG-ASW

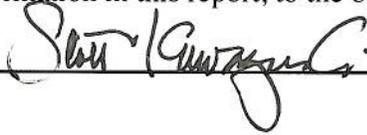
4,190,859

6. Comments:

W-714 down on 8-11-13 due to flow meter failure. W-903 restarted on 8-28-13.
W-408 restarted on 8-29-13.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____



Date: 09-04-2013

Self-Monitoring Report

LLNL Treatment Facility A (TFA)

AREA TFA

1. Reporting Period: Business Month September Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August 31
 September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 722

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-04-2013
 Influent pH: 7.0
 Effluent pH: 7.5
 Effluent Temperature (°C): 19.1

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-109	0	0.0
W-262	0	0.0
W-404	1,375,136	31.8
W-408	465,608	10.7
W-415	1,624,576	38.3
W-457	604,576	13.7
W-518	200,146	4.6
W-522	680,276	15.6
W-605	364,372	8.6
W-614	478,984	11.1
W-712	242,132	6.4
W-714	76,984	8.5
W-903	593,024	13.8
W-904	1,228,432	31.9
W-1001	134,596	3.1
W-1004	487,648	11.7
W-1009	1,040,512	23.9
Total:	<u>9,597,002</u>	<u>233.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>4,545,102</u>

Self-Monitoring Report (cont'd)
LLNL Treatment Facility A (TFA)
AREA TFA

Arroyo Seco

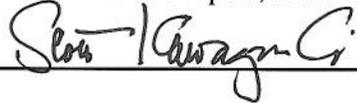
TFG-ASW

5,051,900

6. Comments:

Facility was shutdown on 09-08-2013 due to power surge. Facility was restarted on 09-09-2013. W-714 flow meter replaced and well started on 9-24-13. W-712 down on 9-26-13 due to contactor failure.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2013

**Self-Monitoring Report
LLNL Solar Treatment Unit 06 (STU06)
AREA TFA-E**

1. Reporting Period: Business Month July Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

June	27	28	29	30															
July	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15				
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-254	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>0</u>

6. Comments:

Facility secured due to lack of water in extraction well.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Scott Kawaguchi Date: 08-01-2013

**Self-Monitoring Report
LLNL Solar Treatment Unit 06 (STU06)
AREA TFA-E**

1. Reporting Period: Business Month August Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-254	0	0.0
Total:	<u>0</u>	<u>0.0</u>

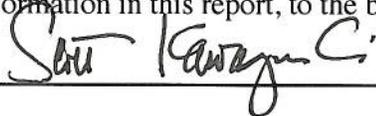
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>0</u>

6. Comments:

Facility secured due to lack of water in extraction well.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-04-2013

**Self-Monitoring Report
LLNL Solar Treatment Unit 06 (STU06)
AREA TFA-E**

1. Reporting Period: Business Month September Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August 31
September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-254	0	0.0
Total:	<u>0</u>	<u>0.0</u>

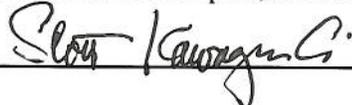
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>0</u>

6. Comments:

Facility secured due to lack of water in extraction well.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2013

Self-Monitoring Report LLNL Treatment Facility B (TFB) AREA TFB

1. Reporting Period: Business Month July Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>																	
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>						
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>					

Total monthly time facility operated (hours): 850

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-02-2013</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>8.0</u>
Effluent Temperature (°C):	<u>25.6</u>

4. Wellfield Data:

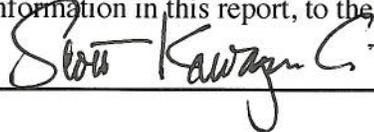
<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-357	417,736	8.4
W-610	303,728	5.3
W-620	268,556	5.3
W-621	152	0.0
W-655	68	0.0
W-704	860,200	17.0
W-1423	249,676	5.1
W-2501	803,246	15.9
W-2502	390,242	7.9
Total:	<u>3,293,604</u>	<u>64.9</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>3,293,604</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-01-2013

**Land Observation Report date:
TFB-R002 - West Perimeter Drainage Channel**

1. Reporting Period: Business Month July Year 2013

2. Date compliance sampling performed 07-02-2013

3. Weather Conditions:

Average air tempertaure (°C):	<u>26.5</u>
6-day total precipitation (in):	<u>0.00</u>
Average wind speed/direction (mph):	<u>4/SW</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Scott Kawaguchi Date: 08-13-2013

Self-Monitoring Report LLNL Treatment Facility B (TFB) AREA TFB

1. Reporting Period: Business Month August Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30**

Total monthly time facility operated (hours): 727

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-01-2013
 Influent pH: 7.0
 Effluent pH: 7.5
 Effluent Temperature (°C): 19

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-357	342,416	8.0
W-610	274,468	6.6
W-620	243,176	5.6
W-621	0	0.0
W-655	0	0.0
W-704	737,016	17.2
W-1423	189,344	4.6
W-2501	698,039	16.1
W-2502	313,876	7.5
Total:	<u>2,798,335</u>	<u>65.6</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>2,798,335</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Shut Kawaga Co. Date: 09-04-2013

**Land Observation Report date:
TFB-R002 - West Perimeter Drainage Channel**

1. Reporting Period: Business Month August Year 2013

2. Date compliance sampling performed 08-01-2013

3. Weather Conditions:

Average air tempertaure (°C):	<u>18.68</u>
6-day total precipitation (in):	<u>0.00</u>
Average wind speed/direction (mph):	<u>6/ WSW</u>

4. Receiving Data:

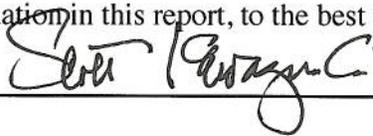
Sample			
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>	
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>	

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-10-2013

Self-Monitoring Report LLNL Treatment Facility B (TFB) AREA TFB

1. Reporting Period: Business Month September Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August 31
 September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 725

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-04-2013
 Influent pH: 7.0
 Effluent pH: 7.5
 Effluent Temperature (°C): 18.9

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-357	345,128	7.5
W-610	260,388	6.3
W-620	245,832	5.7
W-621	0	0.0
W-655	0	0.0
W-704	735,208	17.2
W-1423	194,268	4.1
W-2501	686,558	16.3
W-2502	325,547	7.0
Total:	<u>2,792,929</u>	<u>64.1</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>2,791,829</u>
<u>Building 133 Cooling Tower</u>	<u>TFB-E-B133CT</u>	<u>1,100</u>

6. Comments:

Facility was shutdown on 09-08-2013 due to power surge. Facility was restarted on 09-09-2013. Began diverting effluent water to B133 cooling tower reverse osmosis plant for reuse on 9-30-13.

Self-Monitoring Report (cont'd)
LLNL Treatment Facility B (TFB)
AREA TFB

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Stout Lawrence C. Date: 10-01-2013

**Land Observation Report date:
TFB-R002 - West Perimeter Drainage Channel**

1. Reporting Period: Business Month September Year 2013

2. Date compliance sampling performed 09-04-2013

3. Weather Conditions:

Average air tempertaure (°C):	<u>20.74</u>
6-day total precipitation (in):	<u>0.02</u>
Average wind speed/direction (mph):	<u>6/ SW</u>

4. Receiving Data:

Sample			
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>	
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>	

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Steve Casagrande Date: 10-04-2013

Self-Monitoring Report LLNL Treatment Facility C (TFC) AREA TFC

1. Reporting Period: Business Month July Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>																
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>					
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>				

Total monthly time facility operated (hours): 852

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-01-2013</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>8.0</u>
Effluent Temperature (°C):	<u>22.3</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-701	680,152	13.5
W-1015	159,444	3.3
W-1102	189,188	3.9
W-1103	105,694	2.2
W-1104	1,346,352	27.1
W-1116	55,152	1.6
Total:	<u>2,535,982</u>	<u>51.6</u>

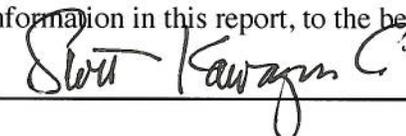
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>2,535,982</u>

6. Comments:

W-1116 operated intermittently due to flow meter issues.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-01-2013

**Land Observation Report date:
TFC-R003 - Arroyo Las Positas**

1. Reporting Period: Business Month July Year 2013

2. Date compliance sampling performed 07-01-2013

3. Weather Conditions:

Average air tempertaure (°C):	<u>25.46</u>
6-day total precipitation (in):	<u>0.00</u>
Average wind speed/direction (mph):	<u>5/ SW</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Stout Kawaguchi Date: 08-13-2013

Self-Monitoring Report LLNL Treatment Facility C (TFC) AREA TFC

1. Reporting Period: Business Month August Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 729

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-01-2013
Influent pH: 7.0
Effluent pH: 7.5
Effluent Temperature (°C): 20

4. Wellfield Data:

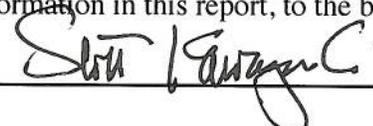
<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-701	581,744	13.5
W-1015	138,836	3.1
W-1102	160,616	3.9
W-1103	90,099	2.0
W-1104	1,155,568	26.7
W-1116	71,527	1.8
Total:	<u>2,198,390</u>	<u>51.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>2,198,390</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-05-2013

**Land Observation Report date:
TFC-R003 - Arroyo Las Positas**

1. Reporting Period: Business Month August Year 2013

2. Date compliance sampling performed 08-01-2013

3. Weather Conditions:

Average air tempertaure (°C):	<u>18.68</u>
6-day total precipitation (in):	<u>0.00</u>
Average wind speed/direction (mph):	<u>6/ WSW</u>

4. Receiving Data:

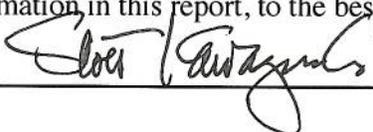
Sample			
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>	
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>	

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-10-2013

Self-Monitoring Report LLNL Treatment Facility C (TFC) AREA TFC

1. Reporting Period: Business Month September Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August 31
 September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 752

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-05-2013
 Influent pH: 7.0
 Effluent pH: 7.5
 Effluent Temperature (°C): 20.6

4. Wellfield Data:

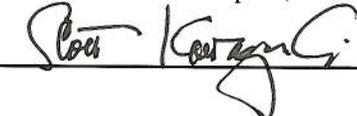
<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-701	597,120	13.4
W-1015	140,988	3.2
W-1102	165,892	3.5
W-1103	93,660	2.2
W-1104	1,186,288	26.9
W-1116	75,311	1.8
Total:	<u>2,259,259</u>	<u>51.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>2,259,259</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2013

**Land Observation Report date:
TFC-R003 - Arroyo Las Positas**

1. Reporting Period: Business Month September Year 2013

2. Date compliance sampling performed 09-05-2013

3. Weather Conditions:

Average air tempertaure (°C):	<u>20.46</u>
6-day total precipitation (in):	<u>0.02</u>
Average wind speed/direction (mph):	<u>7/SW</u>

4. Receiving Data:

Sample			
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>	
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>	

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Steve Gonzalez Date: 10-04-2013

**Self-Monitoring Report
LLNL Mini Treatment Unit 1 (MTU1)
AREA TFC-E**

1. Reporting Period: Business Month July Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>29</u>	<u>30</u>																												
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>															
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>															

Total monthly time facility operated (hours): 764

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-01-2013</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>25.8</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-368	72,570	1.6
W-413	755,218	15.8
Total:	<u>827,788</u>	<u>17.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>827,788</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-01-2013

**Self-Monitoring Report
LLNL Mini Treatment Unit 1 (MTU1)
AREA TFC-E**

1. Reporting Period: Business Month August Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>31</u>														
August	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	

Total monthly time facility operated (hours): **708**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>08-06-2013</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>25.6</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-368	71,268	1.5
W-413	703,533	16.6
Total:	<u>774,801</u>	<u>18.1</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>774,801</u>

6. Comments:

Facility was down partial days on 8/16 and 8/17 to prepare for resin testing.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **09-04-2013**

Self-Monitoring Report

LLNL Mini Treatment Unit 1 (MTU1)

AREA TFC-E

1. Reporting Period: Business Month September Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August	<u>30</u>	<u>31</u>																											
September	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>														
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>														

Total monthly time facility operated (hours): 766

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>09-05-2013</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>22.4</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-368	68,940	1.5
W-413	744,552	16.2
Total:	<u>813,492</u>	<u>17.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>813,492</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **10-01-2013**

Self-Monitoring Report LLNL Portable Treatment Unit 1 (PTU1) AREA TFC-SE

1. Reporting Period: Business Month July Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>												
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	13	14	15	
	16	17	18	19	20	21	22	23	24	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>

Total monthly time facility operated (hours): 536

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-01-2013</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>8.0</u>
Effluent Temperature (°C):	<u>21.9</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1213	107,019	3.5
W-2201	381,090	12.2
Total:		
	<u>488,109</u>	<u>15.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>488,109</u>

6. Comments:

Facility secured on 7-12-13 for drainage ditch vegetation maintenance. Restarted on 7-25-13.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Scott Kawaguchi Date: 08-01-2013

Self-Monitoring Report

LLNL Portable Treatment Unit 1 (PTU1)

AREA TFC-SE

1. Reporting Period: Business Month August Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30**

Total monthly time facility operated (hours): 729

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-01-2013
Influent pH: 7.0
Effluent pH: 7.5
Effluent Temperature (°C): 20.5

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1213	133,056	3.1
W-2201	519,248	12.2
Total:	<u>652,304</u>	<u>15.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>652,304</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: *Steve Kawaguchi* Date: 09-04-2013

Self-Monitoring Report

LLNL Portable Treatment Unit 1 (PTU1)

AREA TFC-SE

1. Reporting Period: Business Month September Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August 31
 September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 753

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-05-2013
 Influent pH: 7.0
 Effluent pH: 7.5
 Effluent Temperature (°C): 21.2

4. Wellfield Data:

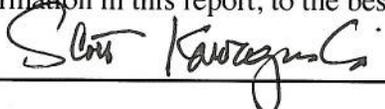
<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1213	136,559	3.1
W-2201	536,349	12.1
Total:	<u>672,908</u>	<u>15.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>672,908</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2013

Self-Monitoring Report LLNL Treatment Facility D (TFD) AREA TFD

1. Reporting Period: Business Month July Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>																											
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>																
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>															

Total monthly time facility operated (hours): 834

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-01-2013</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>8.0</u>
Effluent Temperature (°C):	<u>22.7</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-351	66,443	1.3
W-653	3,786	3.0
W-906	34	0.0
W-907-2	485,204	9.8
W-2011	7,297	3.0
W-2101	8,443	3.0
W-2102	17,451	3.0
W-1206	613,623	9.8
W-1208	1,034,199	12.4
<hr/>		
Total:	<u>2,236,480</u>	<u>45.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>2,236,480</u>
<u>TFD irrigation supply</u>	<u>TFD-IRR</u>	<u>0</u>

6. Comments:

Facility down on 7-25-13 due to high air stripper level fault. Restarted on 7-26-13.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Self-Monitoring Report (cont'd)
LLNL Treatment Facility D (TFD)
AREA TFD

Operator Signature: Scott Kawaguchi Date: 08-01-2013

Self-Monitoring Report LLNL Treatment Facility D (TFD) AREA TFD

1. Reporting Period: Business Month August Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
 16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30**

Total monthly time facility operated (hours): 730

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-02-2013
 Influent pH: 7.5
 Effluent pH: 7.5
 Effluent Temperature (°C): 21.4

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-351	58,052	1.3
W-653	3,321	3.0
W-906	0	0.0
W-907-2	417,951	9.8
W-2011	6,372	3.0
W-2101	7,465	3.0
W-2102	17,572	3.0
W-1206	533,738	12.5
W-1208	915,752	21.1
Total:	<u>1,960,223</u>	<u>56.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,960,223</u>
<u>TFD irrigation supply</u>	<u>TFD-IRR</u>	<u>0</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Self-Monitoring Report (cont'd)
LLNL Treatment Facility D (TFD)
AREA TFD

Operator Signature:  Date: 09-05-2013

Self-Monitoring Report

LLNL Treatment Facility D (TFD)

AREA TFD

1. Reporting Period: Business Month September Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August 31
 September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 670

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-05-2013
 Influent pH: 7.5
 Effluent pH: 7.5
 Effluent Temperature (°C): 21.8

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-351	52,521	1.3
W-653	3,083	3.0
W-906	0	0.0
W-907-2	379,681	9.4
W-2011	5,913	3.0
W-2101	6,970	3.0
W-2102	15,240	3.0
W-1206	482,952	12.1
W-1208	837,825	21.1
Total:	<u>1,784,185</u>	<u>55.9</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,784,185</u>
<u>TFD irrigation supply</u>	<u>TFD-IRR</u>	<u>0</u>

6. Comments:

Facility was shutdown on 09-20-2013 due to air stripper high level fault (sheared diffuser). Diffuser replaced and facility was restarted on 09-23-2013.

Self-Monitoring Report (cont'd)
LLNL Treatment Facility D (TFD)
AREA TFD

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Scott Lawrence G. Date: 10-02-2013

Self-Monitoring Report

LLNL Portable Treatment Unit 8 (PTU8)

AREA TFD-E

1. Reporting Period: Business Month July Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>29</u>	<u>30</u>																												
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	06	07	08	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>															
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>															

Total monthly time facility operated (hours): 639

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-01-2013</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>25.5</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-2006	768	0.0
W-1301	24,089	0.6
W-1306	11,016	0.2
W-1307	213,730	0.9
W-1550	20,623	0.5
W-2203	9,280	0.2
W-1303	58,019	1.3
Total:	<u>337,525</u>	<u>3.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>337,525</u>

6. Comments:

Facility was down for discharge pump maintenance and rewiring of the hours meter.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Date: 08-01-2013

Self-Monitoring Report

LLNL Portable Treatment Unit 8 (PTU8)

AREA TFD-E

1. Reporting Period: Business Month August Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>31</u>														
August	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	

Total monthly time facility operated (hours): 720

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>08-06-2013</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>25.5</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-2006	854	0.0
W-1301	30,183	0.6
W-1303	76,243	1.8
W-1306	13,177	0.3
W-1307	311,212	6.9
W-1550	22,721	0.5
W-2203	10,430	0.2
Total:	<u>464,820</u>	<u>10.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>464,820</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: *Acant Van Jay* Date: **09-04-2013**

**Self-Monitoring Report
LLNL Portable Treatment Unit 8 (PTU8)
AREA TFD-E**

1. Reporting Period: Business Month September Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August 30 31
 September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 738

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-12-2013
 Influent pH: 7.0
 Effluent pH: 7.5
 Effluent Temperature (°C): 25.4

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-2006	875	0.0
W-1301	32,134	0.7
W-1306	13,609	0.3
W-1307	351,769	7.7
W-1550	22,622	0.5
W-2203	10,804	0.3
W-1303	85,132	1.8
Total:	<u>516,945</u>	<u>11.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>516,945</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2013

**Self-Monitoring Report
LLNL Portable Treatment Unit 10 (PTU10)
AREA TFD-HPD**

1. Reporting Period: Business Month July Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>29</u>	<u>30</u>																													
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	14	<u>15</u>																
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>															

Total monthly time facility operated (hours): 763

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-11-2013</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>20.5</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1254	282,521	4.1
Total:	<u>282,521</u>	<u>4.1</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>282,521</u>

6. Comments:

The facility shut down at 21:34 on 7-13-13 due to facility low flow. The facility was restarted at 11:22 on 7-15-13.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-12-2013

**Self-Monitoring Report
LLNL Portable Treatment Unit 10 (PTU10)
AREA TFD-HPD**

1. Reporting Period: Business Month August Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 723

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-07-2013
Influent pH: 7.5
Effluent pH: 7.5
Effluent Temperature (°C): 20.6

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1254	284,144	6.9
Total:	<u>284,144</u>	<u>6.9</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>284,144</u>

6. Comments:

NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy L. Smith Date: 09-11-2013

**Self-Monitoring Report
LLNL Portable Treatment Unit 10 (PTU10)
AREA TFD-HPD**

1. Reporting Period: Business Month September Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August 31
September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 590

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-10-2013
Influent pH: 7.4
Effluent pH: 7.5
Effluent Temperature (°C): 23.4

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1254	240,150	7.2
Total:	<u>240,150</u>	<u>7.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>240,150</u>

6. Comments:

Facility was shutdown at 14:10 on 09-20-2013 as requested by Ben Johnson due to the invasive species control program. Facility was restarted at 10:20 on 09-27-2013.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Fuld Date: 10-09-2013

Self-Monitoring Report LLNL ISB01 (ISB01) AREA TFD-HPD

1. Reporting Period: Business Month July Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

June		<u>29</u>	<u>30</u>																												
July		<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	13	14	15															
		16	17	18	19	20	21	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	30	31														

Total monthly time facility operated (hours): 500

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1650	338	4.7
W-1653	226	1.2
W-1655	105	3.4
W-1657	3	0.2
Total:		
	<u>672</u>	<u>9.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>ISB01 injection well</u>	<u>W-1552</u>	<u>672</u>

6. Comments:

Compliance sampling is not required at this facility due to the fact that ISB01 is a closed loop system, and water is not discharged to the environment. Water was circulated through the system but was not treated. On 7-2-13 approximately 161.08 gallons of facility water were diverted to the premixing tote, and an additional amount was added on 7-3-13. On 7-22-13 approximately 54.13 gallons of facility water were diverted to the premixing tote and not injected into W-1552. The facility did not operate for a number of days while the Lacrox pump was being tested, or the premixing tote was being filled with facility water. The facility was also down for a number of hours to allow the water level to recover in W-1552.

Self-Monitoring Report (cont'd)
LLNL ISB01 (ISB01)
AREA TFD-HPD

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  _____ Date: 08-16-2013

Self-Monitoring Report LLNL ISB01 (ISB01) AREA TFD-HPD

1. Reporting Period: Business Month August Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August **01** **02** **03** **04** **05** 06 07 08 **09** **10** **11** **12** 13 14 15
 16 **17** **18** **19** 20 21 22 **23** **24** **25** **26** 27 28 29 **30**

Total monthly time facility operated (hours): 319

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1650	287	5.7
W-1653	223	3.1
W-1655	73	2.5
W-1657	10	0.1
 Total:	<hr/> 593	<hr/> 11.4

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>ISB01 injection well</u>	<u>W-1552</u>	<u>593</u>

6. Comments:

Compliance sampling is not required at this facility due to the fact that ISB01 is a closed loop system, and water is not discharged to the environment. Water was circulated through the system but was not treated. On 8-20-13 approximately 171.65 gallons of facility water were diverted into the premixing tote. The facility did not operate for a number of days / hours while the Larox pump was injecting ethyl lactate into W-1552. The facility was also down for a number of hours to allow the water level to recover in W-1552.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-23-2013

Self-Monitoring Report LLNL ISB01 (ISB01) AREA TFD-HPD

1. Reporting Period: Business Month September Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August	<u>31</u>																													
September	<u>01</u>	<u>02</u>	<u>03</u>	04	05	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	11	12	<u>13</u>	<u>14</u>	<u>15</u>															
	<u>16</u>	17	18	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	26	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>															

Total monthly time facility operated (hours): **472**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1650	679	3.7
W-1653	530	3.0
W-1655	83	2.4
W-1657	13	0.1
Total:	<u>1,305</u>	<u>9.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>ISB01 injection well</u>	<u>W-1552</u>	<u>1,305</u>

6. Comments:

Compliance sampling is not required at this facility due to the fact that ISB01 is a closed loop system, and water is not discharged to the environment. Water was circulated through the system but was not treated. On 9-06-13 approximately 130.18 gallons of facility water were diverted into the premixing tote. On 9-26-13 approximately 80.17 gallons of facility water were diverted into the premixing tote. The facility did not operate for a number of days / hours while the Larox pump was injecting ethyl lactate into W-1552. The facility was also down for a number of hours to allow the water level to recover in W-1552.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Self-Monitoring Report

LLNL Portable Treatment Unit 2 (PTU2)

AREA TFD-S

1. Reporting Period: Business Month July Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>29</u>	30																													
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>																
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>															

Total monthly time facility operated (hours): 736

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-08-2013</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>22.3</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1503	496,264	11.3
W-1504	392,862	8.9
W-1510	215,059	4.9
Total:	<u>1,104,185</u>	<u>25.1</u>

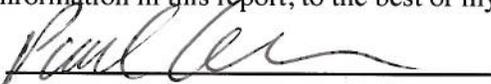
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,104,185</u>

6. Comments:

System shut down on 6/29/13 to 7/1/13 due to electronic communications alarm.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-01-2013

**Self-Monitoring Report
LLNL Portable Treatment Unit 2 (PTU2)
AREA TFD-S**

1. Reporting Period: Business Month August Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August **01** **02** 03 04 05 06 07 08 09 10 11 12 13 **14** **15**
 16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30**

Total monthly time facility operated (hours): **409**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **08-02-2013**
Influent pH: **7.0**
Effluent pH: **7.0**
Effluent Temperature (°C): **22.9**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1503	274,840	11.6
W-1504	214,736	9.1
W-1510	117,792	4.8
Total:	<u>607,368</u>	<u>25.4</u>

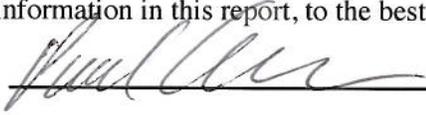
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>607,368</u>

6. Comments:

Facility was shutdown on 08-02-2013 for storm drain maintenance. Facility was restarted on 08-14-2013.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **09-03-2013**

Self-Monitoring Report
LLNL Portable Treatment Unit 2 (PTU2)
AREA TFD-S

1. Reporting Period: Business Month September Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August 31
 September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 471

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-05-2013
 Influent pH: 7.0
 Effluent pH: 7.0
 Effluent Temperature (°C): 23

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1503	309,000	11.3
W-1504	249,226	8.8
W-1510	129,366	4.8
Total:	<u>687,592</u>	<u>24.9</u>

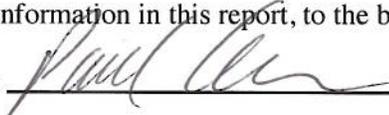
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>687,592</u>

6. Comments:

Facility was shutdown on 09-07-2013 due to watchdog alarm. Facility was restarted on 09-12-2013. Facility was shutdown on 09-13-2013 due to tree root blocking discharge outlet. Facility was restarted on 09-19-2013.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2013

Self-Monitoring Report

LLNL Portable Treatment Unit 11 (PTU11)

AREA TFD-SE

1. Reporting Period: Business Month July Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>29</u>	<u>30</u>																													
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>																
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>															

Total monthly time facility operated (hours): 792

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-01-2013</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>23.3</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-314	286,915	6.2
W-2005	30,703	0.6
W-1308	75,115	1.4
W-1403	48,899	1.0
W-1904	0	0.0
SIP-ETC-201	0	0.0
Total:	<u>441,632</u>	<u>9.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>441,632</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-01-2013

Self-Monitoring Report

LLNL Portable Treatment Unit 11 (PTU11)

AREA TFD-SE

1. Reporting Period: Business Month August Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 720

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-06-2013
 Influent pH: 7.0
 Effluent pH: 7.5
 Effluent Temperature (°C): 23

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-314	335,936	7.5
W-2005	26,097	0.5
W-1308	82,599	1.8
W-1403	54,653	1.3
W-1904	0	0.0
SIP-ETC-201	0	0.0
Total:	<u>499,285</u>	<u>11.1</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>499,285</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-04-2013

**Self-Monitoring Report
LLNL Portable Treatment Unit 11 (PTU11)
AREA TFD-SE**

1. Reporting Period: Business Month September Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August 31
 September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 744

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-05-2013
 Influent pH: 7.0
 Effluent pH: 7.5
 Effluent Temperature (°C): 22.9

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-314	344,075	7.4
W-2005	32,257	0.9
W-1308	89,853	1.9
W-1403	55,818	1.1
W-1904	0	0.0
SIP-ETC-201	0	0.0
Total:	<u>522,003</u>	<u>11.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>522,003</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2013

**Self-Monitoring Report
LLNL Portable Treatment Unit 12 (PTU12)
AREA TFD-SS**

1. Reporting Period: Business Month July Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>29</u>	<u>30</u>																	
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			

Total monthly time facility operated (hours): 410

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 07-08-2013
 Influent pH: 7.0
 Effluent pH: 7.0
 Effluent Temperature (°C): 22

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1523	154,627	6.3
W-1601	15,808	1.0
W-1602	63,654	4.0
W-1603	300,011	12.2
Total:	<u>534,100</u>	<u>23.5</u>

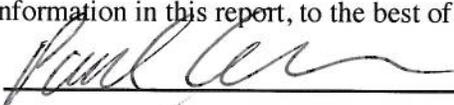
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>534,100</u>

6. Comments:

System secured on 7/15/13 through 7/31/13 for REVAL, maintenance and upgrades.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-01-2013

**Self-Monitoring Report
LLNL Portable Treatment Unit 12 (PTU12)
AREA TFD-SS**

1. Reporting Period: Business Month August Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1523	0	0.0
W-1601	0	0.0
W-1602	0	0.0
W-1603	0	0.0
Total:	<u>0</u>	<u>0.0</u>

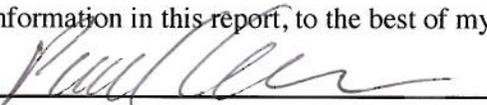
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>0</u>

6. Comments:

System was secured on 7/15/13 for REVAL work.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **09-05-2013**

**Self-Monitoring Report
LLNL Portable Treatment Unit 12 (PTU12)
AREA TFD-SS**

1. Reporting Period: Business Month September Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August 31
September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 108

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-12-2013
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 21.7

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1523	49,063	0.0
W-1601	5,092	2.1
W-1602	14,286	4.4
W-1603	80,466	13.5
Total:	<u>148,907</u>	<u>20.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>148,907</u>

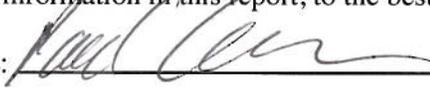
6. Comments:

For the September 2013 reporting month PTU12 was operated under T&V operations resulting in several start-up and shut-downs as follows: Shutdown on 07-15-2013. restarted on 09-11-2013. Facility was shutdown on 09-11-2013. Facility was restarted on 09-12-2013. Facility was shutdown on 09-12-2013. Facility was restarted on 09-13-2013. Facility was shutdown on 09-13-2013. Facility was restarted on 09-16-2013. Facility was shutdown on 09-16-2013. Facility was restarted on 09-17-2013. Facility was shutdown on 09-17-2013. Facility was restarted on 09-18-2013. Facility was shutdown on 09-18-2013. Facility was restarted on 09-19-2013. Facility was shutdown on 09-19-2013. Facility was restarted on 09-20-2013. Facility was shutdown on 09-20-2013.

Self-Monitoring Report (cont'd)
LLNL Portable Treatment Unit 12 (PTU12)
AREA TFD-SS

Facility was restarted on 09-23-2013. Facility was shutdown on 09-27-2013.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **10-02-2013**

Self-Monitoring Report

LLNL Portable Treatment Unit 6 (PTU6)

AREA TFD-W

1. Reporting Period: Business Month July Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>29</u>	<u>30</u>																												
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>															
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	27	28	29	30	31														

Total monthly time facility operated (hours): 679

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-10-2013</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>21.2</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1215	406,372	10.1
W-1216	404,760	10.1
W-1902	730,404	18.1
Total:	<u>1,541,536</u>	<u>38.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,541,536</u>

6. Comments:

The facility was shut down at 10:40 on 7-26-13 for ditch maintenance work.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-12-2013

Self-Monitoring Report LLNL Portable Treatment Unit 6 (PTU6) AREA TFD-W

1. Reporting Period: Business Month August Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August 01 **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
 16 **17** **18** **19** 20 21 **22** **23** **24** **25** **26** **27** **28** **29**

Total monthly time facility operated (hours): 583

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-07-2013
 Influent pH: 7.5
 Effluent pH: 7.5
 Effluent Temperature (°C): 25.1

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1215	338,885	10.0
W-1216	336,799	10.2
W-1902	607,103	18.0
Total:	<u>1,282,787</u>	<u>38.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,282,787</u>

6. Comments:

Ditch maintenance work completed. The facility was restarted at 09:55 on 08-02-2013. The facility shut down at 14:12 on 8-19-13 due to W-1216 flow meter failure. The facility was restarted at 09:06 on 8-22-13.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kivil Date: 09-11-2013

Self-Monitoring Report LLNL Portable Treatment Unit 6 (PTU6) AREA TFD-W

1. Reporting Period: Business Month September Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August	<u>30</u>	<u>31</u>																												
September	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>															
	<u>16</u>	<u>17</u>	18	<u>19</u>	<u>20</u>	21	22	23	24	25	26	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>															

Total monthly time facility operated (hours): **569**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>09-10-2013</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>25.5</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1215	341,082	10.1
W-1216	334,573	10.2
W-1902	601,719	18.1
Total:	<u>1,277,374</u>	<u>38.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,277,374</u>

6. Comments:

Facility was shutdown at 09:49 on 09-17-2013 to perform repair work on discharge pump outlet line. Facility was restarted at 08:54 on 09-19-2013. Facility was shutdown at 13:57 on 09-20-2013 as requested by Ben Johnson for invasive species control program . Facility was restarted at 10:09 on 09-27-2013.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: *Billy Hill* Date: **10-09-2013**

Self-Monitoring Report LLNL Vapor Extraction System 11 (VES11) AREA VTFD-ETCS

1. Reporting Period: Business Month July Year 2013

2. Dates (in **bold** and underline) treatment facility operated

June	<u>28</u>	29	30																												
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>																
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>															

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1904	81	0.0	0	0	0
W-ETC-2003	325,432	7.0	-.44	80	764
W-ETC-2004A	50,419	1.1	-1.44	80	764
W-ETC-2004B	411,030	8.7	-1.35	80	764
SIP-ETC-201	15	0.0	0	0	0
Total:	<u>786,977</u>	<u>16.8</u>			

4. Comments:

Facility shutdown 6/28 at 17:02 caused by low discharge separator level, and restarted 7/1 at 06:48. Well field flow rates/vacuum decreased 7/2 in an effort to improve blower performance. End month volumes for extraction wells were calculated from individual flow measurements, and not derived from facility totalizer values.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 08-15-2013

**Self-Monitoring Report
LLNL Vapor Extraction System 11 (VES11)
AREA VTFD-ETCS**

1. Reporting Period: Business Month August Year 2013

2. Dates (in **bold** and underline) treatment facility operated

August **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
 16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30**

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1904	68	0.0	0	0	1
W-ETC-2003	295,524	7.0	-.43	68	725
W-ETC-2004A	41,363	1.1	-1.44	68	725
W-ETC-2004B	375,271	8.7	-1.35	68	725
SIP-ETC-201	15	0.0	0	0	0
Total:	<u>712,241</u>	<u>16.8</u>			

4. Comments:

Quarterly vapor samples collected from idle and operating extraction well 8/6/13.
End month volumes for extraction wells were calculated from individual flow measurements, and not derived from facility totalizer values.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 09-16-2013

Self-Monitoring Report
LLNL Vapor Extraction System 11 (VES11)
AREA VTFD-ETCS

1. Reporting Period: Business Month September Year 2013

2. Dates (in **bold** and underline) treatment facility operated

August 31
 September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1904	0	0.0	0	0	0
W-ETC-2003	311,380	6.8	-0.44	58	746
W-ETC-2004A	41,195	1.1	-1.45	58	746
W-ETC-2004B	392,540	8.8	-1.35	58	746
SIP-ETC-201	0	0.0	0	0	0
Total:	<u>745,115</u>	<u>16.7</u>			

4. Comments:

End month volumes for facility and extraction wells were calculated from individual flow measurements, and not derived from facility totalizer values.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-03-2013

Self-Monitoring Report

LLNL Vapor Extraction System 13 (VES13)

AREA VTFD-HS

1. Reporting Period: Business Month August Year 2013

2. Dates (in **bold** and underline) treatment facility operated

August	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

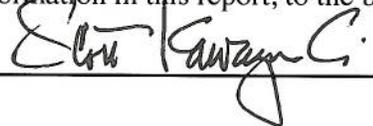
3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-653	0	0.0	0	0	0
W-2011	0	0.0	0	0	0
W-2101	0	0.0	0	0	0
W-2102	0	0.0	0	0	0
Total:	<u>0</u>	<u>0.0</u>			

4. Comments:

System did not operate during this period. Per regulatory agreement, VES13 is being removed from service at VTFD-HS. Cyclic pumping of ground water with treatment at TFD Main will continue at the four TFD-HS wells.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-10-2013

**Self-Monitoring Report
LLNL Portable Treatment Unit 3 (PTU3)
AREA TFE-E**

1. Reporting Period: Business Month July Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>28</u>	<u>29</u>	<u>30</u>																												
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>

Total monthly time facility operated (hours): 825

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 07-09-2013
 Influent pH: 7.0
 Effluent pH: 7.0
 Effluent Temperature (°C): 22.3

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-566	406,675	8.3
W-1109	44,858	0.9
W-1903	9,921	0.0
W-1909	0	0.0
W-2305	26	0.5
Total:		
	<u>461,480</u>	<u>9.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>461,480</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 08-13-2013

Self-Monitoring Report LLNL Portable Treatment Unit 3 (PTU3) AREA TFE-E

1. Reporting Period: Business Month August Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August **01** **02** 03 04 05 06 07 08 09 10 11 12 13 **14** **15**
 16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30**

Total monthly time facility operated (hours): 429

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-01-2013
 Influent pH: 7.0
 Effluent pH: 7.0
 Effluent Temperature (°C): 20.7

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-566	216,196	8.3
W-1109	23,065	0.9
W-1903	7,748	0.2
W-1909	0	0.0
W-2305	0	0.0
Total:	<u>247,009</u>	<u>9.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>247,009</u>

6. Comments:

Facility was shutdown on 08-02-2013. Facility was restarted on 08-14-2013.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: *Sam Thomas* Date: 09-09-2013

Self-Monitoring Report

LLNL Portable Treatment Unit 3 (PTU3)

AREA TFE-E

1. Reporting Period: Business Month September Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August 31
 September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 746

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-31-2013
 Influent pH: 7.0
 Effluent pH: 7.0
 Effluent Temperature (°C): 20.5

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-566	376,012	8.5
W-1109	41,702	0.9
W-1903	13,611	0.2
W-1909	0	0.0
W-2305	0	0.0
Total:	<u>431,325</u>	<u>9.7</u>

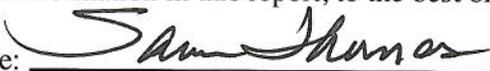
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>431,325</u>

6. Comments:

Facility was shutdown on 09-19-2013 for drainage ditch maintenance. Facility was restarted on 09-19-2013.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2013

Self-Monitoring Report

LLNL GAC Treatment Unit 07 (GTU07)

AREA TFE-HS

1. Reporting Period: Business Month July Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>28</u>	<u>29</u>	<u>30</u>																												
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	10	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>

Total monthly time facility operated (hours): 749

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-17-2013</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>20</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-2105	472	0.7
Total:	<u>472</u>	<u>0.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>472</u>

6. Comments:

Facility shutdown 7/9/13 at 07:00 to replace W-2105 water level transducer. Facility was restarted 7/11 at 08:30. Facility shutdown 7/16/13 to allow W-2105 water level to increase prior to collection of monthly/quarterly/semi-annual water samples. Facility was restarted 7/17/13. W-2105 utilizes vacuum-enhanced groundwater extraction combined with cyclic pump operation. Therefore constant flow rate and hours of operation may not correspond.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-02-2013

Self-Monitoring Report

LLNL GAC Treatment Unit 07 (GTU07)

AREA TFE-HS

1. Reporting Period: Business Month August Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 707

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-01-2013
 Influent pH: 7.0
 Effluent pH: 7.0
 Effluent Temperature (°C): 18.2

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-2105	444	0.6
Total:	<u>444</u>	<u>0.6</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>444</u>

6. Comments:

GTU 07/W-2105 secured 7/31 at 14:20 to allow groundwater levels to increase prior to collection of monthly compliance samples. Facility was restarted 8/1 at 06:38.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 09-09-2013

Self-Monitoring Report

LLNL GAC Treatment Unit 07 (GTU07)

AREA TFE-HS

1. Reporting Period: Business Month September Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August 31
 September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 722

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-10-2013
 Influent pH: 7.0
 Effluent pH: 7.0
 Effluent Temperature (°C): 26.2

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-2105	414	1.0
Total:	<u>414</u>	<u>1.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>414</u>

6. Comments:

Facility shutdown 9/9/13 at 08:00 to allow W-2105 water level to increase prior to collection of monthly water samples. Facility was restarted 9/10/13 at 07:35 hrs. W-2105 utilizes vacuum-enhanced groundwater extraction combined with cyclic pump operation. Therefore constant flow rate and hours of operation may not correspond.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thurman Date: 10-02-2013

**Self-Monitoring Report
LLNL Portable Treatment Unit 9 (PTU9)
AREA TFE-NW**

1. Reporting Period: Business Month August Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August 01 **02** 03 04 05 **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
 16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30**

Total monthly time facility operated (hours): 574

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-13-2013
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 23

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1211	201,559	6.0
W-1409	60,181	1.7
Total:	<u>261,740</u>	<u>7.7</u>

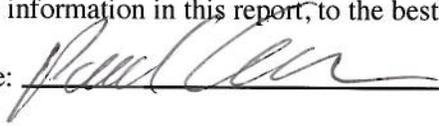
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>261,740</u>

6. Comments:

Facility was shutdown on 07-26-13 for storm drain maintenance. Facility was restarted on 08-02-2013. Facility was shutdown on 08-02-2013 for electronic repairs. Facility was restarted on 08-06-2013.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-04-2013

**Self-Monitoring Report
LLNL Portable Treatment Unit 9 (PTU9)
AREA TFE-NW**

1. Reporting Period: Business Month September Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August 31
 September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 550

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-05-2013
 Influent pH: 7.0
 Effluent pH: 7.0
 Effluent Temperature (°C): 8.3

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1211	184,834	5.8
W-1409	57,427	1.7
Total:	<u>242,261</u>	<u>7.5</u>

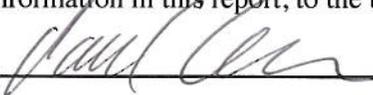
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>242,261</u>

6. Comments:

Facility was shutdown on 09-19-2013 for discharge pump evaluation and invasive species control work. Facility was restarted on 09-27-2013.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-02-2013

**Self-Monitoring Report
LLNL Mini Treatment Unit 04 (MTU04)
AREA TFE-SE**

1. Reporting Period: Business Month August Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August **01** **02** 03 04 05 06 07 08 09 10 11 12 13 14 **15**
 16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30**

Total monthly time facility operated (hours): 432

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-01-2013
 Influent pH: 7.0
 Effluent pH: 7.0
 Effluent Temperature (°C): 21.6

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-359	217,540	8.2
Total:	<u>217,540</u>	<u>8.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>217,540</u>

6. Comments:

Facility was shutdown on 08-02-2013. Facility was restarted on 08-14-2013.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-09-2013

Self-Monitoring Report
LLNL Mini Treatment Unit 04 (MTU04)
AREA TFE-SE

1. Reporting Period: Business Month September Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August 31
 September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 738

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-31-2013
 Influent pH: 7.0
 Effluent pH: 7.0
 Effluent Temperature (°C): 21.5

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-359	369,805	8.3
Total:	<u>369,805</u>	<u>8.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>369,805</u>

6. Comments:

Facility was shutdown on 09-19-2013 at 06:56 in support of BLDG 438 drainage ditch maintenance project. Facility was restarted on 09-19-2013 at 08:18.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 10-01-2013

Self-Monitoring Report
LLNL Mini Treatment Unit 03 (MTU03)
AREA TFE-SW

1. Reporting Period: Business Month July Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>29</u>	<u>30</u>																													
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>																
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31															

Total monthly time facility operated (hours): 407

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-09-2013</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>27.1</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1516	243,918	10.0
W-1518	11,764	0.5
W-1520	24,562	1.0
W-1522	0	0.0
Total:		
	<u>280,244</u>	<u>11.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>280,244</u>

6. Comments:

W-1518 shut down at 05:57 on 7-11-13 due to low flow and was restarted at 12:43 on 7-11-13. W-1518 shut down at 05:51 on 07-14-13 due to low flow. The facility was shut down at 10:50 on 7-15-13 for temporary power setup at the facility and for implementing treatment facility upgrades (REVAL).

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-12-2013

**Self-Monitoring Report
LLNL Mini Treatment Unit 03 (MTU03)
AREA TFE-SW**

1. Reporting Period: Business Month August Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1516	0	0.0
W-1518	0	0.0
W-1520	0	0.0
W-1522	0	0.0
Total:		
	<u>0</u>	<u>0.0</u>

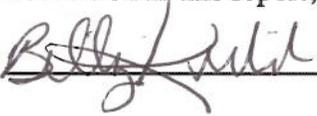
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>0</u>

6. Comments:

The facility was shut down and did not operate during the month due to construction associated with facility upgrades.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-11-2013

**Self-Monitoring Report
LLNL Mini Treatment Unit 03 (MTU03)
AREA TFE-SW**

1. Reporting Period: Business Month September Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August	31														
September	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1516	0	0.0
W-1518	0	0.0
W-1520	0	0.0
W-1522	0	0.0
<hr/>		
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>0</u>

6. Comments:

The facility was shut down and did not operate during the month while going through a REVAL (construction) process.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy L. L. L. Date: 10-09-2013

Self-Monitoring Report
LLNL Mini Treatment Unit 05 (MTU05)
AREA TFE-W

1. Reporting Period: Business Month July Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>29</u>	<u>30</u>																													
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>																
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	27	28	29	30	31															

Total monthly time facility operated (hours): 670

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-09-2013</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>22.3</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-292	244,030	6.0
W-305	566,350	13.9
Total:	<u>810,380</u>	<u>19.9</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>810,380</u>

6. Comments:

The facility was shut down at 11:17 on 7-26-13 for ditch maintenance work.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-12-2013

Self-Monitoring Report
LLNL Mini Treatment Unit 05 (MTU05)
AREA TFE-W

1. Reporting Period: Business Month August Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29

Total monthly time facility operated (hours): 646

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-07-2013
Influent pH: 7.5
Effluent pH: 7.5
Effluent Temperature (°C): 21.9

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-292	235,345	6.2
W-305	72,936	14.0
Total:	<u>308,281</u>	<u>20.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>308,281</u>

6. Comments:

Ditch maintenance work completed. The facility was restarted at 07:55 on 08-02-2013. W-305 shutdown at 22:03 on 8-5-13 due to a defective pump.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy L. Hill Date: 09-11-2013

**Self-Monitoring Report
LLNL Mini Treatment Unit 05 (MTU05)
AREA TFE-W**

1. Reporting Period: Business Month September Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August 30 31
 September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 605

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-10-2013
 Influent pH: 7.4
 Effluent pH: 7.5
 Effluent Temperature (°C): 20.7

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-292	219,277	6.0
W-305	0	0.0
Total:	<u>219,277</u>	<u>6.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>219,277</u>

6. Comments:

Facility was shutdown at 13:44 on 09-20-2013. Facility was restarted at 10:00 on 09-27-2013. The shut down was requested by Ben Johnson for invasive species control program.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kidd Date: 10-09-2013

Self-Monitoring Report
LLNL Vapor Extraction System 16 (VES16)
AREA VTFE-ELM

1. Reporting Period: Business Month July Year 2013

2. Dates (in **bold** and underline) treatment facility operated

June	<u>28</u>	<u>29</u>	<u>30</u>	04	05	06	07	08	09	10	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>

3. Wellfield Data:

<u>Source</u>	<u>Monthly</u> Volume(cu. ft)	<u>Instantaneous</u> Flow Rate(scfm)	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> of Op.
W-1903	42,371	1.2	-16.57	70	578
W-1909	0	0.0	0	0	0
W-2305	0	0.0	0	0	0
W-543-001	0	0.0	0	0	0
W-543-003	602,604	16.5	-1.5	70	578
W-543-1908	0	0.0	0	0	0
Total:	<u>644,975</u>	<u>17.7</u>			

4. Comments:

Facility shutdown 6/29 and was restarted 7/1 at 08:10 due to loss of operating liquid. Operations were suspended 7/3 to perform preventative maintenance to vacuum unit. Facility was restarted 7/11 at 10:30.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-02-2013

**Self-Monitoring Report
LLNL Vapor Extraction System 16 (VES16)
AREA VTFF-ELM**

1. Reporting Period: Business Month August Year 2013

2. Dates (in **bold** and underline) treatment facility operated

August **01** **02** 03 04 05 06 07 08 09 10 11 12 13 **14** **15**
 16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30**

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1903	25,149	0.9	-16.37	76	415
W-1909	0	0.0	0	0	0
W-2305	0	0.0	0	0	0
W-543-001	12	0.0	0	0	0
W-543-003	418,392	16.4	-1.5	75	415
W-543-1908	20	0.0	0	0	0
Total:	<u>443,573</u>	<u>17.4</u>			

4. Comments:

Facility was shutdown on 08-02-2013. Facility was restarted on 08-14-2013.
 Facility was shutdown on 08-28-2013. Facility was restarted on 08-29-2013.
 Quarterly vapor samples collected from operating and idle extraction wells
 8/26/13.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-09-2013

**Self-Monitoring Report
LLNL Vapor Extraction System 16 (VES16)
AREA VTFF-ELM**

1. Reporting Period: Business Month September Year 2013

2. Dates (in **bold** and underline) treatment facility operated

August 31
September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1903	27,561	0.6	-16.85	67	746
W-1909	0	0.0	0	0	0
W-2305	0	0.0	0	0	0
W-543-001	0	0.0	0	0	0
W-543-003	777,976	17.1	-1	67	746
W-543-1908	0	0.0	0	0	0
Total:	<u>805,537</u>	<u>17.7</u>			

4. Comments:

Facility secured in conjunction with PTU 3 on 9/19/13 at 06:30 to facilitate vegetation removal from drainage channel. Facility was restarted 9/19 at 08:40.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-02-2013

Self-Monitoring Report

LLNL Vapor Extraction System 12 (VES12)

AREA VTFE-HS

1. Reporting Period: Business Month July Year 2013

2. Dates (in **bold** and underline) treatment facility operated

June	<u>28</u>	<u>29</u>	<u>30</u>																												
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	10	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>																
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>															

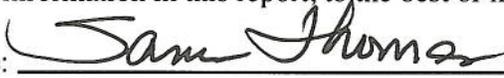
3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-2105	78,883	1.6	-10.9	86	776
W-ETS-2008A	8	0.0	0	0	0
W-ETS-2008B	605,581	11.9	-10.65	86	776
W-ETS-2009	34	0.0	0	0	0
W-ETS-2010A	10	0.0	0	0	0
W-ETS-2010B	9	0.0	0	0	0
<hr/>					
Total:	<u>684,525</u>	<u>13.6</u>			

4. Comments:

Facility shutdown 7/9/13 at 07:00 to replace W-2105 water level transducer. Facility was restarted 7/11/13 at 08:26. Well field cumulative volumes and operating hours have been revised due to facility and well field totalizers accumulating while facility offline. Quarterly vapor samples collected from operating and idle extraction wells 7/30/13.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-02-2013

Self-Monitoring Report

LLNL Vapor Extraction System 12 (VES12)

AREA VTFE-HS

1. Reporting Period: Business Month August Year 2013

2. Dates (in **bold** and underline) treatment facility operated

August **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
 16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30**

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-2105	71,880	1.7	-12.27	69	724
W-ETS-2008A	0	0.0	0	0	0
W-ETS-2008B	532,920	12.0	-12.01	69	724
W-ETS-2009	0	0.0	0	0	0
W-ETS-2010A	0	0.0	0	0	0
W-ETS-2010B	0	0.0	0	0	0
Total:	<u>604,800</u>	<u>13.6</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-09-2013

Self-Monitoring Report
LLNL Vapor Extraction System 12 (VES12)
AREA VTFE-HS

1. Reporting Period: Business Month September Year 2013

2. Dates (in **bold** and underline) treatment facility operated

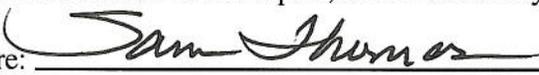
August 31
 September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-2105	70,078	1.6	-12.5	78	746
W-ETS-2008A	0	0.0	0	0	0
W-ETS-2008B	546,376	11.9	-12.23	78	746
W-ETS-2009	0	0.0	0	0	0
W-ETS-2010A	0	0.0	0	0	0
W-ETS-2010B	0	0.0	0	0	0
Total:	<u>616,454</u>	<u>13.4</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-02-2013

Self-Monitoring Report
LLNL GAC Treatment Unit 01 (GTU01)
AREA TFG-1

1. Reporting Period: Business Month July Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>29</u>	<u>30</u>																	
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>				
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>			

Total monthly time facility operated (hours): 790

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-10-2013</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>22.5</u>

4. Wellfield Data:

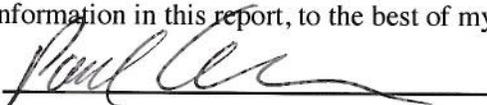
<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1111	247,248	5.2
Total:	<u>247,248</u>	<u>5.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>247,248</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-01-2013

**Land Observation Report date:
TFG-ASW - Arroyo Seco**

1. Reporting Period: Business Month July Year 2013

2. Date compliance sampling performed 07-10-2013

3. Weather Conditions:

Average air tempertaure (°C):	<u>21.9</u>
6-day total precipitation (in):	<u>0.00</u>
Average wind speed/direction (mph):	<u>5/ SW</u>

4. Receiving Data:

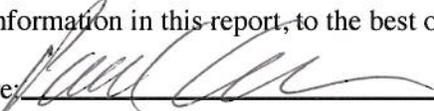
Sample <u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>N/A</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2013

**Self-Monitoring Report
LLNL GAC Treatment Unit 01 (GTU01)
AREA TFG-1**

1. Reporting Period: Business Month August Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
 16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30**

Total monthly time facility operated (hours): 714

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-05-2013
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 22.4

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1111	<u>224,476</u>	<u>5.3</u>
Total:	<u>224,476</u>	<u>5.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>224,476</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-03-2013

**Land Observation Report date:
TFG-ASW - Arroyo Seco**

1. Reporting Period: Business Month August Year 2013

2. Date compliance sampling performed 08-05-2013

3. Weather Conditions:

Average air tempertaure (°C):	<u>17.87</u>
6-day total precipitation (in):	<u>0.00</u>
Average wind speed/direction (mph):	<u>6/SW</u>

4. Receiving Data:

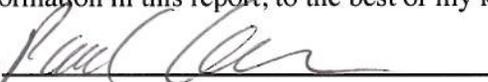
Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>N/A</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2013

Self-Monitoring Report

LLNL GAC Treatment Unit 01 (GTU01)

AREA TFG-1

1. Reporting Period: Business Month September Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August 31
 September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 738

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-04-2013
 Influent pH: 7.0
 Effluent pH: 7.0
 Effluent Temperature (°C): 22.3

4. Wellfield Data:

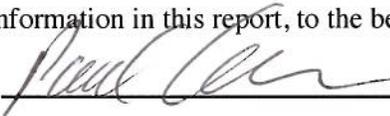
<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1111	230,997	5.2
Total:	<u>230,997</u>	<u>5.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>230,997</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2013

**Land Observation Report date:
TFG-ASW - Arroyo Seco**

1. Reporting Period: Business Month September Year 2013

2. Date compliance sampling performed 09-04-2013

3. Weather Conditions:

Average air tempertaure (°C):	<u>20.74</u>
6-day total precipitation (in):	<u>0.02</u>
Average wind speed/direction (mph):	<u>6/ SW</u>

4. Receiving Data:

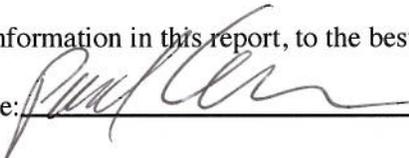
Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>N/A</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 11-05-2013

Self-Monitoring Report
LLNL Mini Treatment Unit 02 (MTU02)
AREA TFG-N

1. Reporting Period: Business Month July Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>29</u>	<u>30</u>															
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>		
	16	17	18	19	20	21	22	23	24	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>31</u>	

Total monthly time facility operated (hours): 556

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-10-2013</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>22.5</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1806	65,404	1.6
W-1807	139,678	4.3
Total:	<u>205,082</u>	<u>5.9</u>

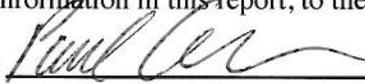
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>205,082</u>

6. Comments:

System secured on 7/15/13 to 7/25/13 for power distribution maintenance and upgrades.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-01-2013

Self-Monitoring Report
LLNL Mini Treatment Unit 02 (MTU02)
AREA TFG-N

1. Reporting Period: Business Month August Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
 16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30**

Total monthly time facility operated (hours): 725

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-05-2013
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 22.4

4. Wellfield Data:

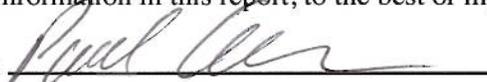
<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1806	72,808	1.7
W-1807	175,849	4.0
Total:	<u>248,657</u>	<u>5.8</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>248,657</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-03-2013

Self-Monitoring Report
LLNL Mini Treatment Unit 02 (MTU02)
AREA TFG-N

1. Reporting Period: Business Month September Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August 31
 September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 755

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-04-2013
 Influent pH: 7.0
 Effluent pH: 7.0
 Effluent Temperature (°C): 22.5

4. Wellfield Data:

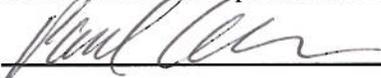
<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1806	76,037	1.7
W-1807	185,291	4.1
Total:	<u>261,328</u>	<u>5.8</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>261,328</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2013

Self-Monitoring Report

LLNL Portable Treatment Unit 5 (PTU5)

AREA TF406

1. Reporting Period: Business Month July Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

June	29	30																													
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>																
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	27	28	29	30	31															

Total monthly time facility operated (hours): 606

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-10-2013</u>
Influent pH:	<u>7.5</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>22.6</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1309	118	4.5
W-1310	318,557	9.0
Total:	<u>318,675</u>	<u>13.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>318,675</u>

6. Comments:

The facility was shut down at 10:28 on 6-28-13 to evaluate the effect that PTU5 had on W-1516 at TFE-SW. The facility was restarted at 10:48 on 7-1-13. The facility was shut down at 11:02 on 7-26-13 for ditch maintenance work.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Lytle Date: 08-12-2013

**Self-Monitoring Report
LLNL Portable Treatment Unit 5 (PTU5)
AREA TF406**

1. Reporting Period: Business Month August Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29

Total monthly time facility operated (hours): 654

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 08-07-2013
Influent pH: 7.5
Effluent pH: 7.5
Effluent Temperature (°C): 22.2

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1309	0	0.0
W-1310	343,344	9.0
Total:	<u>343,344</u>	<u>9.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>343,344</u>

6. Comments:

Ditch maintenance work completed. The facility was restarted at 09:00 on 08-02-2013.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kirtel Date: 09-11-2013

Self-Monitoring Report

LLNL Portable Treatment Unit 5 (PTU5)

AREA TF406

1. Reporting Period: Business Month September Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August	<u>30</u>	<u>31</u>														
September	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	21	22	23	24	25	26	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	

Total monthly time facility operated (hours): 614

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>09-10-2013</u>
Influent pH:	<u>7.4</u>
Effluent pH:	<u>7.5</u>
Effluent Temperature (°C):	<u>22.4</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1309	0	0.0
W-1310	323,514	9.0
Total:	<u>323,514</u>	<u>9.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>323,514</u>

6. Comments:

Facility was shutdown at 13:34 on 09-20-2013. Facility was restarted at 09:48 on 09-27-2013. The facility was shut down for the invasive species control program as requested by Ben Johnson.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kidd Date: 10-09-2013

**Self-Monitoring Report
LLNL GAC Treatment Unit 03 (GTU03)
AREA TF406-NW**

1. Reporting Period: Business Month July Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>29</u>	<u>30</u>																													
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>																
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	27	28	29	30	31															

Total monthly time facility operated (hours): 670

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-09-2013</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>23.7</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1801	246,771	6.1
Total:	<u>246,771</u>	<u>6.1</u>

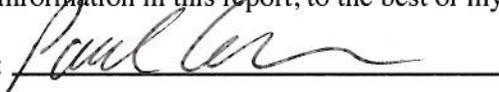
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>246,771</u>

6. Comments:

System secured on 7/26/13 through 7/31/13 for drainage ditch maintenance.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-01-2013

**Self-Monitoring Report
LLNL GAC Treatment Unit 03 (GTU03)
AREA TF406-NW**

1. Reporting Period: Business Month August Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August 01 **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
 16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30**

Total monthly time facility operated (hours): **670**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **08-02-2013**
Influent pH: **7.0**
Effluent pH: **7.0**
Effluent Temperature (°C): **22.9**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1801	244,190	6.2
Total:	<u>244,190</u>	<u>6.2</u>

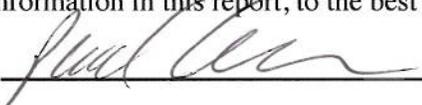
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>244,190</u>

6. Comments:

System secure from 7/26/13 to 8/2/13 for storm drain maintenance.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **09-03-2013**

**Self-Monitoring Report
LLNL GAC Treatment Unit 03 (GTU03)
AREA TF406-NW**

1. Reporting Period: Business Month September Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August 31
 September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 579

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-05-2013
 Influent pH: 7.0
 Effluent pH: 7.0
 Effluent Temperature (°C): 32

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1801	209,379	6.2
Total:	<u>209,379</u>	<u>6.2</u>

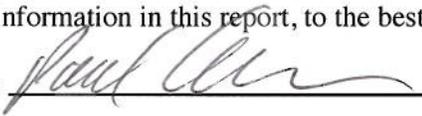
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>209,379</u>

6. Comments:

System secure from 9/20/2013 to 9/27/2013 for invasive species control work.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2013

**Self-Monitoring Report
LLNL Solar Treatment Unit 09 (STU09)
AREA TF518-N**

1. Reporting Period: Business Month July Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

June	27	28	29	30																											
July	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1410	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>0</u>

6. Comments:

This treatment facility was shut down on 2-20-08 due to elevated tritium activities in the facility influent. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Scott Kawaguchi Date: 08-01-2013

Self-Monitoring Report
LLNL Solar Treatment Unit 09 (STU09)
AREA TF518-N

1. Reporting Period: Business Month August Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1410	0	0.0
Total:	<u>0</u>	<u>0.0</u>

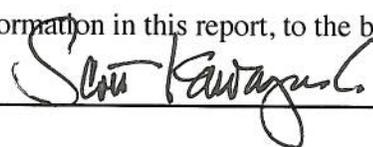
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>0</u>

6. Comments:

This treatment facility was shut down on 2-20-08 due to elevated tritium activities in the facility influent. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-04-2013

**Self-Monitoring Report
LLNL Solar Treatment Unit 09 (STU09)
AREA TF518-N**

1. Reporting Period: Business Month September Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August	31														
September	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1410	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>0</u>

6. Comments:

This treatment facility was shut down on 2-20-08 due to elevated tritium activities in the facility influent. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: *Shou Kawaguchi* Date: **10-01-2013**

Self-Monitoring Report
LLNL Treatment Facility 518-HDTANK (TF518-HDTANK)
AREA TF518-PZ

1. Reporting Period: Business Month July Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>29</u>	<u>30</u>																												
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>															
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	25	26	27	28	<u>29</u>	<u>30</u>	<u>31</u>														

Total monthly time facility operated (hours): 672

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1615	73	0.0
W-518-1913	0	0.0
W-518-1914	0	0.0
W-518-1915	21	0.0
SVB-518-201	0	0.0
SVB-518-204	0	0.0
Total:		
	<u>94</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>94</u>

6. Comments:

Facility operations interrupted 7/24/13 to perform pneumatic interference tests on extraction wells in the Bldg. 511, 419 and 512 areas. Facility was restarted 7/29/13. Groundwater from this facility is transported to and treated at TFB Main.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 08-02-2013

Self-Monitoring Report
LLNL Treatment Facility 518-HDTANK (TF518-HDTANK)
AREA TF518-PZ

1. Reporting Period: Business Month August Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
16 **17** **18** **19** 20 21 22 23 24 25 26 27 **28** **29** **30**

Total monthly time facility operated (hours): **496**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1615	50	0.0
W-518-1913	0	0.0
W-518-1914	0	0.0
W-518-1915	17	0.0
SVB-518-201	0	0.0
SVB-518-204	0	0.0
Total:	<u>67</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>66</u>

6. Comments:

Air supply to pneumatic pumps shutdown 8/19 to 8/28 to allow water levels to recover for quarterly wellhead groundwater sample collection. Groundwater from this facility is transferred to and treated at TFB Main.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: *Sam Thomas* Date: **09-09-2013**

Self-Monitoring Report
LLNL Treatment Facility 518-HDTANK (TF518-HDTANK)
AREA TF518-PZ

1. Reporting Period: Business Month September Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August 31
 September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 248

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1615	17	0.0
W-518-1913	0	0.0
W-518-1914	0	0.0
W-518-1915	1	0.0
SVB-518-201	0	0.0
SVB-518-204	0	0.0
Total:	<u>18</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>18</u>

6. Comments:

Groundwater from this facility is transferred to and treated at TFB Main.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2013

Self-Monitoring Report

LLNL Catalytic Reductive Dehalogenation 1 (CRD1)

AREA TF5475-1

1. Reporting Period: Business Month July Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

June	29	30																													
July	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15																
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31															

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1302-2	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>CRD-1 injection</u>	<u>W-1302-1</u>	<u>0</u>

6. Comments:

The treatment facility was shut down on 7/27/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-12-2013

**Self-Monitoring Report
LLNL Catalytic Reductive Dehalogenation 1 (CRD1)
AREA TF5475-1**

1. Reporting Period: Business Month August Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1302-2	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>CRD-1 injection</u>	<u>W-1302-1</u>	<u>0</u>

6. Comments:

The treatment facility was shut down on 7/27/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-11-2013

Self-Monitoring Report LLNL Catalytic Reductive Dehalogenation 1 (CRD1) AREA TF5475-1

1. Reporting Period: Business Month September Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August	31														
September	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1302-2	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>CRD-1 injection</u>	<u>W-1302-1</u>	<u>0</u>

6. Comments:

The treatment facility was shut down on 7/27/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kester Date: 10-09-2013

**Self-Monitoring Report
LLNL GAC Treatment Unit 09 (GTU09)
AREA TF5475-2**

1. Reporting Period: Business Month July Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

June	<u>29</u>	<u>30</u>																												
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>															
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>															

Total monthly time facility operated (hours): 767

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>07-01-2013</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>24.5</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1108	62,981	1.4
W-1415	0	0.0
Total:	<u>62,981</u>	<u>1.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>62,981</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-01-2013

**Self-Monitoring Report
LLNL GAC Treatment Unit 09 (GTU09)
AREA TF5475-2**

1. Reporting Period: Business Month August Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

July	<u>31</u>														
August	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	

Total monthly time facility operated (hours): **720**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y):	<u>08-06-2013</u>
Influent pH:	<u>7.0</u>
Effluent pH:	<u>7.0</u>
Effluent Temperature (°C):	<u>24.2</u>

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1108	107,224	2.5
W-1415	0	0.0
Total:	<u>107,224</u>	<u>2.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>107,224</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: *Scott VanNoy* Date: **09-17-2013**

Self-Monitoring Report
LLNL GAC Treatment Unit 09 (GTU09)
AREA TF5475-2

1. Reporting Period: Business Month September Year 2013

2. Dates (in **bold and underline**) treated ground water was discharged

August	<u>30</u>	<u>31</u>													
September	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	07	08	<u>09</u>	<u>10</u>	<u>11</u>	12	13	14	15
	16	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	29	<u>30</u>

Total monthly time facility operated (hours): 513

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 09-05-2013
 Influent pH: 7.0
 Effluent pH: 7.0
 Effluent Temperature (°C): 21.9

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1108	64,638	1.9
W-1415	0	0.0
Total:	<u>64,638</u>	<u>1.9</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>64,638</u>

6. Comments:

Facility was down 9/7 and 9/8 due to a snap IO fault. Facility was down from 9/12 thru 9/16 due to ethernet connection to FCS. Facility was down 9/28 due to carbon canister change out.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2013

Self-Monitoring Report

LLNL Catalytic Reductive Dehalogenation 2 (CRD2)

AREA TF5475-3

1. Reporting Period: Business Month July Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

June	29	30																													
July	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15																
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31															

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1604	0	0.0
W-1605	0	0.0
W-1608	0	0.0
W-1609	0	0.0
Total:		
	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>CRD-2 injection</u>	<u>W-1610</u>	<u>0</u>

6. Comments:

The treatment facility was shut down on 8/31/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kula Date: 08-12-2013

Self-Monitoring Report

LLNL Catalytic Reductive Dehalogenation 2 (CRD2)

AREA TF5475-3

1. Reporting Period: Business Month August Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1604	0	0.0
W-1605	0	0.0
W-1608	0	0.0
W-1609	0	0.0
Total:	<u>0</u>	<u>0.0</u>

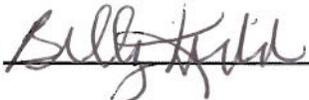
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>CRD-2 injection</u>	<u>W-1610</u>	<u>0</u>

6. Comments:

The treatment facility was shut down on 8/31/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-12-2013

**Self-Monitoring Report
LLNL Catalytic Reductive Dehalogenation 2 (CRD2)
AREA TF5475-3**

1. Reporting Period: Business Month September Year 2013

2. Dates (in **bold** and underline) treated ground water was discharged

August	31														
September	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1604	0	0.0
W-1605	0	0.0
W-1608	0	0.0
W-1609	0	0.0
<hr/>		
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>CRD-2 injection</u>	<u>W-1610</u>	<u>0</u>

6. Comments:

The treatment facility was shut down on 8/31/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: *Billy K. Hill* Date: 10-09-2013

Self-Monitoring Report
LLNL Vapor Extraction System 08 (VES08)
AREA VTF406-HS

1. Reporting Period: Business Month July Year 2013

2. Dates (in **bold** and underline) treatment facility operated

June	<u>28</u>	<u>29</u>	<u>30</u>																											
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>															
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	26	27	28	<u>29</u>	<u>30</u>	<u>31</u>														

3. Wellfield Data:

<u>Source</u>	<u>Monthly</u> Volume(cu. ft)	<u>Instantaneous</u> Flow Rate(scfm)	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> of Op.
W-217	643,881	15.6	-2.51	82	745
W-514-2007A	0	0.0	0	0	0
W-514-2007B	417,551	10.1	-2.88	82	745
Total:	<u>1,061,432</u>	<u>25.8</u>			

4. Comments:

Facility shutdown 7/25 to 7/29 in accordance with the pneumatic interference test on extraction wells in the Bldg. 419/511 and 514 area.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-13-2013

**Self-Monitoring Report
LLNL Vapor Extraction System 08 (VES08)
AREA VTF406-HS**

1. Reporting Period: Business Month August Year 2013

2. Dates (in **bold** and underline) treatment facility operated

August **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30**

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-217	685,862	15.8	-2.57	75	723
W-514-2007A	0	0.0	0	0	0
W-514-2007B	451,434	10.4	-2.96	75	723
Total:	<u>1,137,296</u>	<u>26.2</u>			

4. Comments:

End month volumes for extraction wells were calculated from individual flow measurements, and not derived from facility totalizer values.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-16-2013

**Self-Monitoring Report
LLNL Vapor Extraction System 08 (VES08)
AREA VTF406-HS**

1. Reporting Period: Business Month September Year 2013

2. Dates (in **bold** and underline) treatment facility operated

August 31
September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-217	695,963	15.5	-2.51	72	742
W-514-2007A	0	0.0	0	0	0
W-514-2007B	455,253	10.1	-2.89	72	742
Total:	<u>1,151,216</u>	<u>25.6</u>			

4. Comments:

End month volumes for extraction wells were calculated from individual flow measurements, and not derived from facility totalizer values.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-03-2013

Self-Monitoring Report
LLNL Vapor Extraction System 05 (VES05)
AREA VTF511

1. Reporting Period: Business Month July Year 2013

2. Dates (in **bold** and underline) treatment facility operated

June	<u>28</u>	<u>29</u>	<u>30</u>																	
July	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>					
	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	26	27	28	<u>29</u>	<u>30</u>	<u>31</u>				

3. Wellfield Data:

<u>Source</u>	<u>Monthly</u> Volume(cu. ft)	<u>Instantaneous</u> Flow Rate(scfm)	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> of Op.
W-2204	0	0.0	0	0	26
W-2205	0	0.0	0	0	26
W-2206	0	0.0	0	0	26
W-2207A	0	0.0	0	0	26
W-2207B	418,066	9.9	-4.7	82	26
W-2208A	0	0.0	0	0	26
W-2208B	367,474	8.5	-4.1	82	26
Total:	<u>785,540</u>	<u>18.5</u>			

4. Comments:

Facility shutdown 7/24 at 06:15 and restarted 7/25 at 11:06, shutdown 7/25 at 14:16 and restarted 7/29 at 07:50 in accordance with the pneumatic interference test on extraction wells in the Bldg. 419/511 and 514 area.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: *Sam Thomas* Date: **08-02-2013**

Self-Monitoring Report
LLNL Vapor Extraction System 05 (VES05)
AREA VTF511

1. Reporting Period: Business Month August Year 2013

2. Dates (in **bold** and underline) treatment facility operated

August **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30**

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-2204	0	0.0	0	0	0
W-2205	0	0.0	0	0	0
W-2206	0	0.0	0	0	0
W-2207A	0	0.0	0	0	0
W-2207B	448,041	10.1	-4.7	72	721
W-2208A	0	0.0	0	0	0
W-2208B	362,117	8.4	-4.2	72	721
Total:	<u>810,158</u>	<u>18.4</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-09-2013

Self-Monitoring Report
LLNL Vapor Extraction System 05 (VES05)
AREA VTF511

1. Reporting Period: Business Month September Year **2013**

2. Dates (in **bold** and underline) treatment facility operated

August 31
 September 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

3. Wellfield Data:

<u>Source</u>	<u>Monthly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-2204	0	0.0	0	0	0
W-2205	0	0.0	0	0	0
W-2206	0	0.0	0	0	0
W-2207A	0	0.0	0	0	0
W-2207B	426,427	9.3	-4.7	78	744
W-2208A	0	0.0	0	0	0
W-2208B	392,664	8.4	-4.3	78	744
Total:	<u>819,091</u>	<u>17.8</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-01-2013

**Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ**

1. Reporting Period: Business Month July Week: 1 Year 2013

2. Dates (in **bold** and underline) treatment facility operated

June **29** **30**
July **01** **02** **03** **04** **05**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	38,521	3.8	-18.3	58	169
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	9,123	0.9	-21	58	169
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>47,644</u>	<u>4.7</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 08-02-2013

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month July **Week: 2** Year **2013**

2. Dates (in **bold** and underline) treatment facility operated

July **06** **07** **08** **09** **10** **11** **12**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	39,410	3.9	-18	64	168
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	9,095	0.9	-21	64	168
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>48,505</u>	<u>4.8</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **08-02-2013**

**Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ**

1. Reporting Period: Business Month July **Week: 3** Year **2013**

2. Dates (in **bold** and underline) treatment facility operated

July **13** **14** **15** **16** **17** **18** **19**

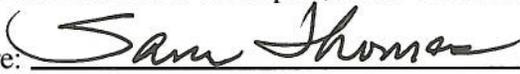
3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	36,482	3.6	-18	78	169
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	9,121	0.9	-20.8	78	169
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>45,603</u>	<u>4.5</u>			

4. Comments:

Facility shutdown 7/18 from 08:00 to 09:00 to facilitate tests conducted by Hydrogeology group.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **08-02-2013**

**Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ**

1. Reporting Period: Business Month July **Week: 4** Year **2013**

2. Dates (in **bold** and underline) treatment facility operated

July **20** **21** **22** **23** **24** 25 26

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	26,633	3.7	-18	60	120
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	6,478	0.9	-20.8	60	120
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>33,111</u>	<u>4.6</u>			

4. Comments:

Facility operations interrupted 7/24/13 to perform pneumatic interference tests on extraction wells in the Bldg. 511, 419 and 512 areas.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **08-02-2013**

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month August Week: 1 Year 2013

2. Dates (in **bold** and underline) treatment facility operated

July 27 28 **29** **30** **31**
 August **01** **02**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	21,996	3.9	-18.5	56	94
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	5,076	0.9	-21.2	56	94
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>27,072</u>	<u>4.8</u>			

4. Comments:

Facility was shutdown on 07-24-2013. Facility was restarted on 07-29-2013.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 09-16-2013

**Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ**

1. Reporting Period: Business Month August **Week: 2** Year **2013**

2. Dates (in **bold** and underline) treatment facility operated

August **03** **04** **05** **06** **07** **08** **09**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	38,333	4.0	-18	59	160
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	8,625	0.9	-21.2	59	160
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>46,958</u>	<u>4.9</u>			

4. Comments:

Facility was shutdown on 08-03-2013. Facility was restarted on 08-03-2013.
(Unplanned power outage)

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **09-16-2013**

**Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ**

1. Reporting Period: Business Month August **Week: 3** Year **2013**

2. Dates (in **bold** and underline) treatment facility operated

August **10** **11** **12** **13** **14** **15** **16**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	39,097	3.9	-18	58	167
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	10,025	1.0	-20.8	58	167
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>49,122</u>	<u>4.9</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: *Sam Thomas* Date: **09-16-2013**

**Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ**

1. Reporting Period: Business Month August **Week: 4** Year **2013**

2. Dates (in **bold** and underline) treatment facility operated

August **17** **18** **19** **20** **21** **22** **23**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	36,627	3.6	-18.5	58	170
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	10,174	1.0	-21	58	170
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>46,801</u>	<u>4.6</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **09-16-2013**

**Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ**

1. Reporting Period: Business Month August **Week: 5** Year **2013**

2. Dates (in **bold** and underline) treatment facility operated

August **24** **25** **26** **27** **28** **29** **30**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	39,015	3.9	-18	56	167
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	10,004	1.0	-20.8	56	167
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>49,019</u>	<u>4.9</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: *Sam Thomas* Date: **09-16-2013**

**Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ**

1. Reporting Period: Business Month September Week: 1 Year 2013

2. Dates (in **bold** and underline) treatment facility operated

August 31
September 01 02 03 04 05 06

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	39,396	3.9	-17.8	60	168
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	10,102	1.0	-21	60	168
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>49,498</u>	<u>4.9</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-02-2013

**Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ**

1. Reporting Period: Business Month September **Week: 2** Year **2013**

2. Dates (in **bold** and underline) treatment facility operated

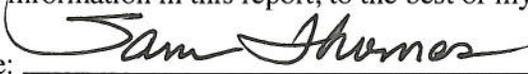
September **07** **08** **09** **10** **11** **12** **13**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	39,340	3.9	-17.5	56	168
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	10,087	1.0	-21	56	168
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>49,427</u>	<u>4.9</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **10-02-2013**

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month September Week: 3 Year 2013

2. Dates (in **bold** and underline) treatment facility operated

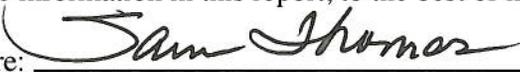
September **14** **15** **16** **17** **18** **19** **20**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	40,159	4.0	-17.5	57	167
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	10,040	1.0	-20.5	57	167
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>50,199</u>	<u>5.0</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-03-2013

**Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ**

1. Reporting Period: Business Month September **Week: 4** Year **2013**

2. Dates (in **bold** and underline) treatment facility operated

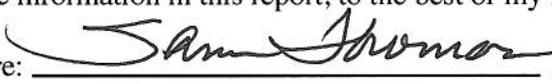
September **21** **22** **23** **24** **25** **26** **27**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	39,546	3.9	-17.6	56	169
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	10,140	1.0	-20.8	56	169
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>49,686</u>	<u>4.9</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **10-03-2013**

Self-Monitoring Report

LLNL Vapor Extraction System 01 (VES01)

AREA VTF5475

1. Reporting Period: Business Month July Year 2013

2. Dates (in **bold** and underline) treatment facility operated

June	29	30														
July	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-ETS-507	0	0.0	0	0	0
W-1605	0	0.0	0	0	0
W-1608	0	0.0	0	0	0
W-2211	0	0.0	0	0	0
W-2212	0	0.0	0	0	0
W-2302	0	0.0	0	0	0
W-2303	0	0.0	0	0	0
SVI-ETS-504	0	0.0	0	0	0
Total:	<u>0</u>	<u>0.0</u>			

4. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>VTF5475 Vapor Injection Well</u>	<u>SVI-ETS-505</u>	<u>0</u>

5. Comments:

This treatment facility was shut down on 10-12-07 due to a FY2008 funding reduction. The facility will be restarted once a solution for mixed waste generation is implemented.

6. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 08-12-2013

**Self-Monitoring Report
LLNL Vapor Extraction System 01 (VES01)
AREA VTF5475**

1. Reporting Period: Business Month August Year 2013

2. Dates (in **bold** and underline) treatment facility operated

August 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1605	0	0.0	0	0	0
W-1608	0	0.0	0	0	0
W-2211	0	0.0	0	0	0
W-2212	0	0.0	0	0	0
W-ETS-507	0	0.0	0	0	0
W-2302	0	0.0	0	0	0
W-2303	0	0.0	0	0	0
SVI-ETS-504	0	0.0	0	0	0
Total:	<u>0</u>	<u>0.0</u>			

4. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>VTF5475 Vapor Injection Well</u>	<u>SVI-ETS-505</u>	<u>0</u>

5. Comments:

This treatment facility was shut down on 10-12-07 due to a FY2008 funding reduction. The facility will be restarted once a solution for mixed waste generation is implemented.

6. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy L. Liddell Date: 09-12-2013

Self-Monitoring Report

LLNL Vapor Extraction System 01 (VES01)

AREA VTF5475

1. Reporting Period: Business Month September Year 2013

2. Dates (in **bold** and underline) treatment facility operated

August	31														
September	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1605	0	0.0	0	0	0
W-1608	0	0.0	0	0	0
W-2211	0	0.0	0	0	0
W-2212	0	0.0	0	0	0
W-ETS-507	0	0.0	0	0	0
W-2302	0	0.0	0	0	0
W-2303	0	0.0	0	0	0
SVI-ETS-504	0	0.0	0	0	0
Total:	<u>0</u>	<u>0.0</u>			

4. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>VTF5475 Vapor Injection Well</u>	<u>SVI-ETS-505</u>	<u>0</u>

5. Comments:

This treatment facility was shut down on 10-12-07 due to a FY2008 funding reduction. The facility will be restarted once a solution for mixed waste generation is implemented.

6. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-16-2013

Attachment C

Figures

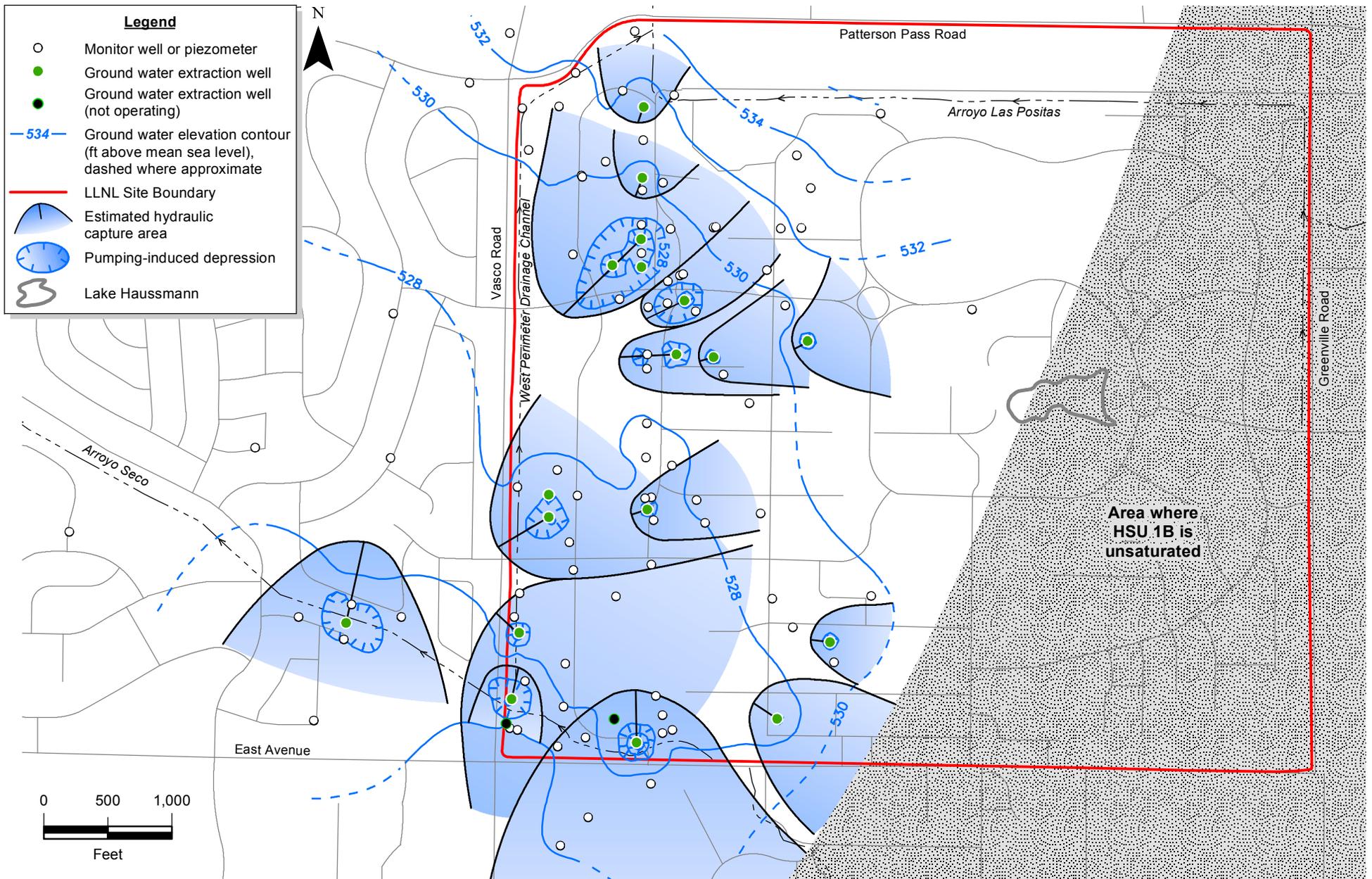


Figure 2. Ground water elevation contour map based on 108 wells completed within HSU-1B showing estimated hydraulic capture areas, LLNL and vicinity, third quarter 2013.

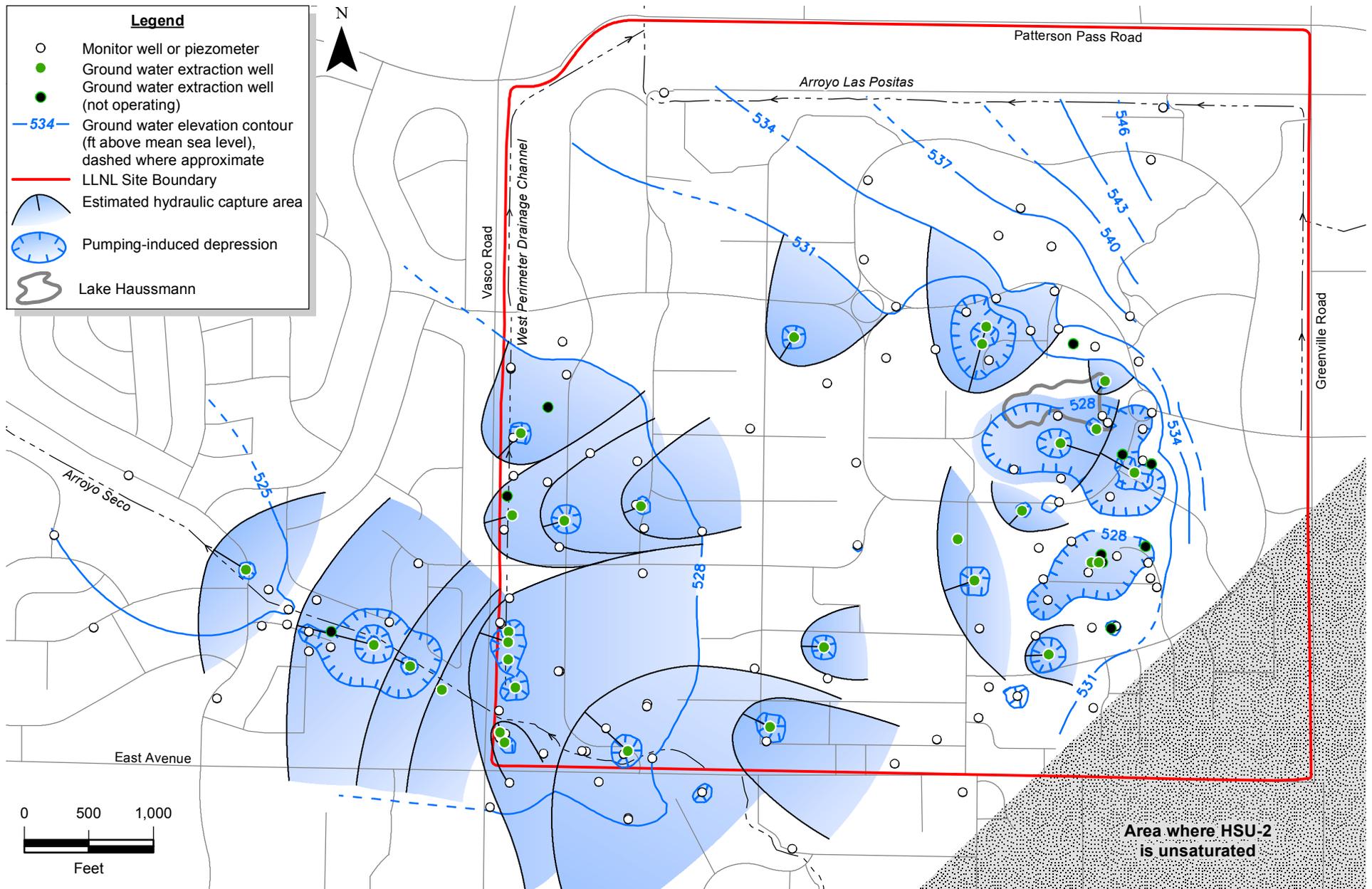


Figure 3. Ground water elevation contour map based on 154 wells completed within HSU-2 showing estimated hydraulic capture areas, LLNL and vicinity, third quarter 2013.

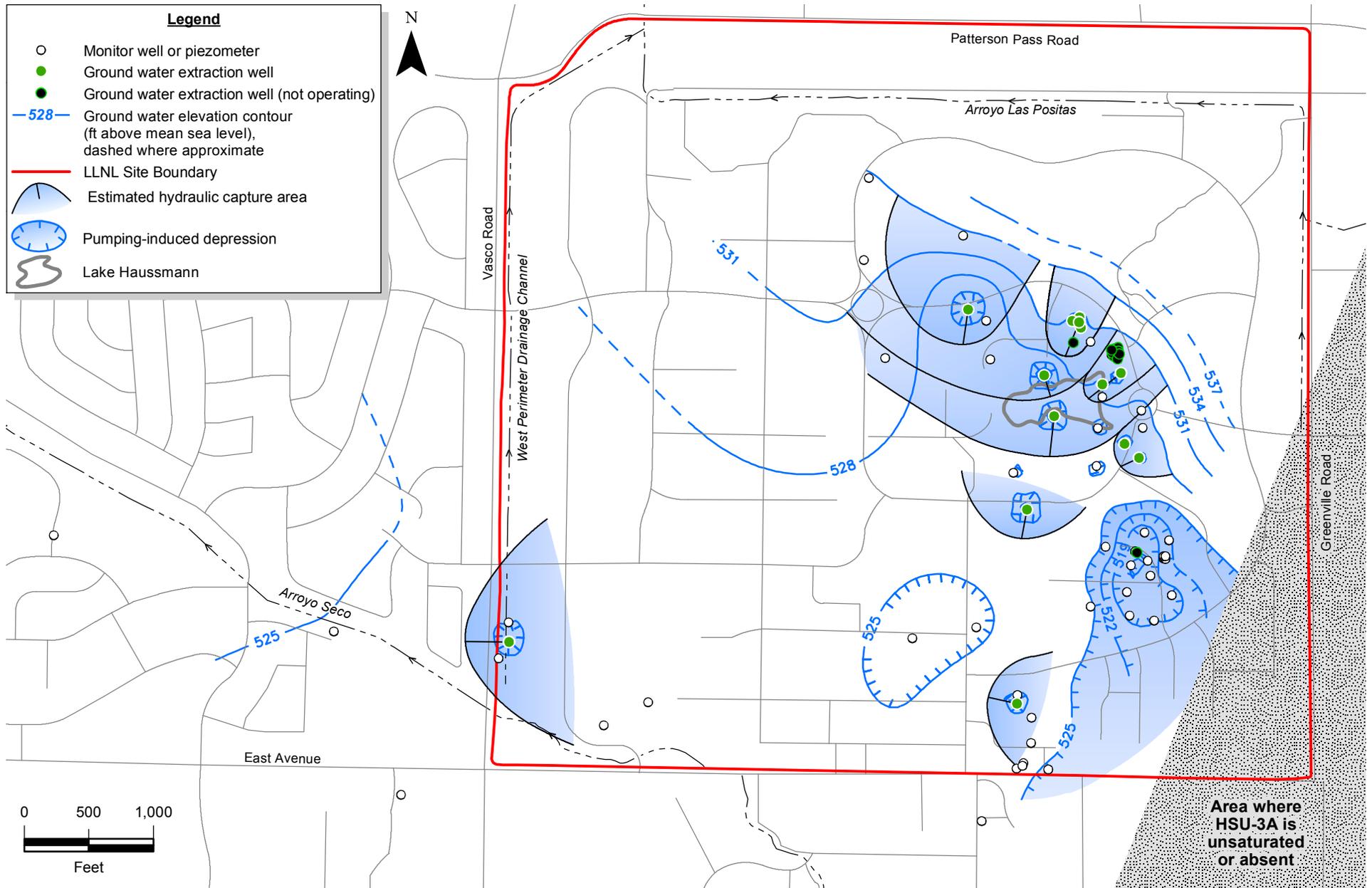


Figure 4. Ground water elevation contour map based on 73 wells completed within HSU-3A showing estimated hydraulic capture areas, LLNL and vicinity, third quarter 2013.



Figure 5. Ground water elevation contour map based on 35 wells completed within HSU-3B showing estimated hydraulic capture areas, LLNL and vicinity, third quarter 2013.

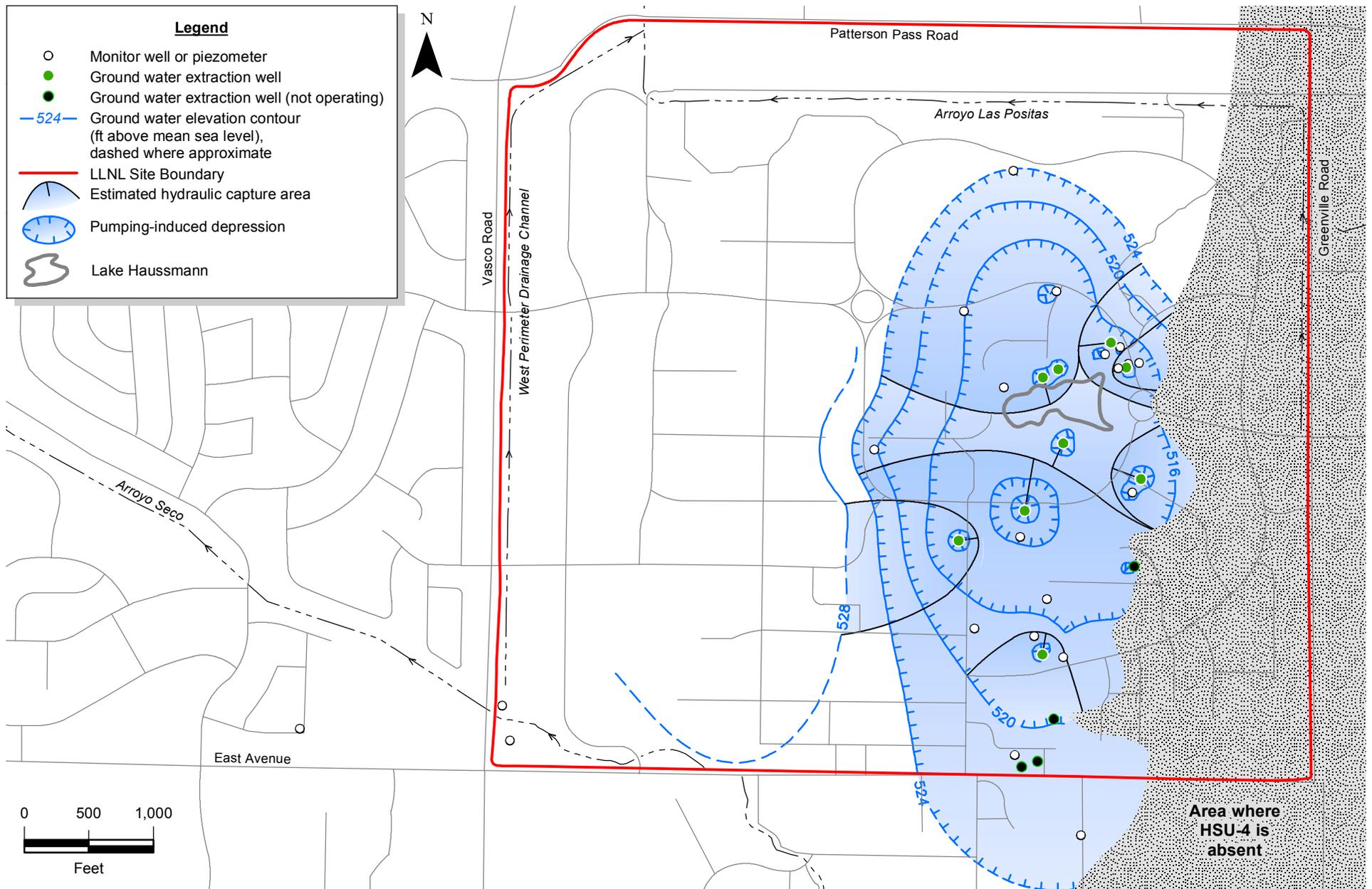


Figure 6. Ground water elevation contour map based on 34 wells completed within HSU-4 showing estimated hydraulic capture areas, LLNL and vicinity, third quarter 2013.

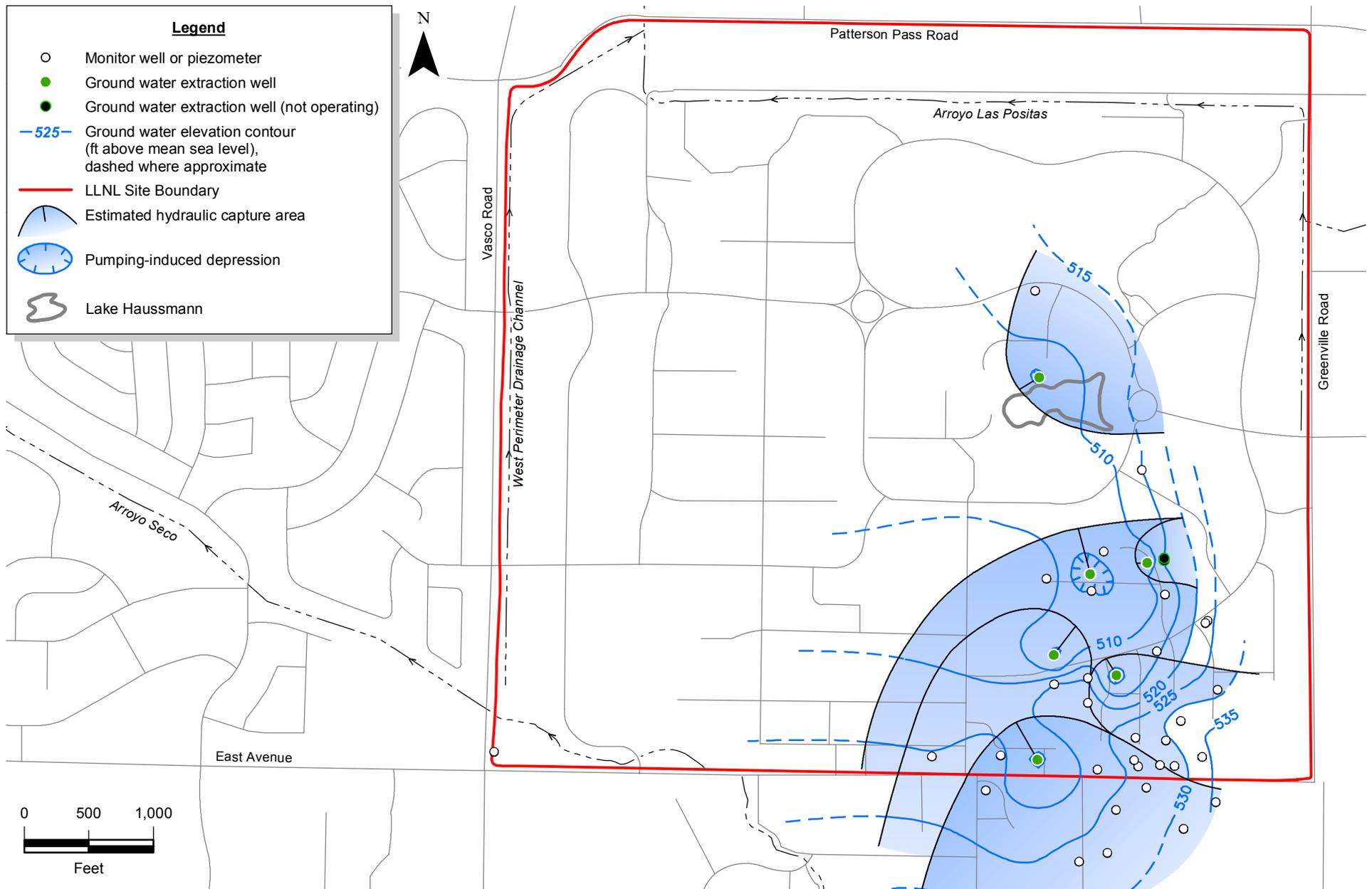


Figure 7. Ground water elevation contour map based on 41 wells completed within HSU-5 showing estimated hydraulic capture areas, LLNL and vicinity, third quarter 2013.