de maximis, inc.

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February 13, 2014

VIA FEDERAL EXPRESS

Mr. James Dotchin
Supervisor, Special Projects Branch
Bureau of Corrective Actions
NDEP-Las Vegas Office
2030 East Flamingo Road, Suite 230
Las Vegas, NV 89119

Subject: Transmittal of Quarterly Operations Report, Fourth Quarter 2013
Groundwater Treatment System, Henderson, Nevada

Dear Mr. Dotchin:

Enclosed is the aforementioned document.

Should you have any questions or comments regarding this report format, please contact me at the number listed above.

Sincerely,

Edward Modiano
GWTS Program Manager
Nevada Certified Environmental Manager
EM No. 2107; Expires October 18, 2015

Enclosures

de maximis, inc.

Via Federal Express:

NDEP c/o McGinley and Associates
Christa Smaling, NDEP-LV Office

Via email:

James Dotchin, Supervisor, Special Projects Branch, NDEP
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Jeff Gibson, AMPAC
Mark Paris, Basic Environmental Company
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Joe Kelly, Montrose Chemical Corporation of California
Paul Sundberg, Consultant to Montrose Chemical Corporation of California
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Jay Steinberg, NERT
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Curt Richards, Olin Corporation
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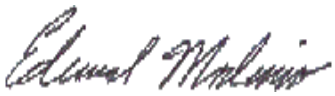
Nick Pogoncheff, PES Environmental
George Crouse, Syngenta Crop Protection
Richard Pfarrer, TIMET
Enoe Marcum, WAPA
Keith Bailey, Environmental Answers
Deni Chambers, Northgate Environmental Management
Brian Waggle, Hargis + Associates, Inc.
Keith Stewart, Stewart Environmental

JURAT

I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been provided in a manner consistent with the current standards of the profession and to the best of my knowledge comply with all applicable federal, state and local statutes, regulations and ordinances.

For the services provided and attested to with this Jurat including the coordination of groundwater sample collection from the Consent Order monitor wells and transect wells, analytical laboratory coordination, and compilation of data and information collected by other firms pertaining to the groundwater treatment system for incorporation into this operations report.

de maximis, inc.



Edward Modiano
GWTS Programs Manager
Nevada Certified Environmental Manager
EM No. 2107; Expires October 18, 2015

Date Signed: February 10, 2014

JURAT

I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been provided in a manner consistent with the current standards of the profession and to the best of my knowledge comply with all applicable federal, state and local statutes, regulations and ordinances.

For the services provided and attested to with this Jurat including the preparation of Attachment C – Capture Analysis Evaluation based on data and information collected by other firms for the Henderson groundwater treatment system for incorporation into this submittal.

HARGIS + ASSOCIATES, INC.

Brian R. Waggle, RG, CEM
Senior Hydrogeologist
Nevada Certified Environmental Manager
No. EM - 1903 (Expires 05/27/14)

Date Signed: February 10, 2014

HARGIS + ASSOCIATES, INC.

Michael R. Long, RG, CEM
Principal Hydrogeologist
Nevada Certified Environmental Manager
No. EM - 1891 (Expires 05/27/14)

Date Signed: February 10, 2014

JURAT

I hereby certify that I am responsible for the services described in this document The services described in this document have been provided in a manner consistent with the current standards of the profession and to the best of my knowledge comply with all applicable federal, state and local statutes, regulations and ordinances.

For the services provided and attested to with this Jurat including the collection of influent and effluent samples from the groundwater treatment system and analytical laboratory coordination.

STEWART ENVIRONMENTAL, INC.

Keith R. Stewart

Keith R. Stewart, CEM
President
Nevada Certified Environmental Manager
No. EM - 1111 (Expires 12/01/14)

Date Signed: February 10, 2014

QUARTERLY OPERATIONS REPORT

GROUNDWATER TREATMENT SYSTEM
HENDERSON, NEVADA

FOURTH QUARTER 2013

TABLE OF CONTENTS

Section Page

ACRONYMS AND ABBREVIATIONS iii

1. 0 INTRODUCTION 1
2. 0 QUARTERLY OPERATIONS STATISTICS 1
3. 0 OPERATIONS EXCEPTION REPORT 2
4. 0 GWTS ACTION SUMMARY 2
5.0 CONSENT ORDER COMPLIANCE 3
6.0 CAPTURE ANALYSIS 4

TABLES

Table

1 DISCHARGE QUALITY COMPLIANCE FOR TREATED GROUNDWATER

TABLE OF CONTENTS (continued)

ATTACHMENTS

Attachment

A GWTS OPERATIONAL DATA

Table A-1: Year-to-Date Henderson GWTS Operating Data-VOCs
Table A-2: Year-to Date Results of LGAC Discharge Pesticide Analysis
Table A-3: Year-to Date Average Extraction Well Pumping Rates
Figure A-1: Monitor Wells and Groundwater Treatment System Components
Figure A-2: Clark County Department of Air Quality Air Emissions Tracking

B TRANSECT WELL DATA

Table B-1: Results of Transect Monitor Well Groundwater Analyses
Laboratory Reports (electronic copies only)

C CAPTURE ANALYSIS EVALUATION

Table C-1: Vertical Head Differences, Fourth Quarter 2013
Table C-2: Water Level Elevations, October 2013
Table C-3: Trench Segment Estimated Water Level Elevations (Line Drift), October 2013
Table C-4: Extraction Well Pumping Rates (Well Drift), October 2013
Table C-5: KT3D Particle Starting Locations, October 2013
Table C-6: KT3D KRIG and Variogram Parameters, October 2013
Table C-7: Mass Flux Comparison, October 2013
Table C-8: Transect Well Monitoring Trend Summary
Figure C-1: Water Levels, Fourth Quarter 2013
Figure C-2: Shallow/Middle Zone Well Pairs in Wellfield Area
Figure C-3: Triangular Network Water Levels, Fourth Quarter 2013
Figure C-4: Estimated Groundwater Treatment System Wellfield Capture, Fourth Quarter 2013
Figure C-5: Downgradient Monitoring Transect Location and Cross Section, October 2013
Figure C-6.1-C-6.7: Benzene, Chlorobenzene, & Chloroform Concentration Trends in Transect Monitor Wells

ACRONYMS AND ABBREVIATIONS

BCL	NDEP basic comparison levels for Human Health established for the BMI Complex and Common Areas (Revision 12- August 2013)
GWTS	groundwater treatment system
LGAC	liquid phase granular activated carbon
MCL	maximum contaminant level
NDEP	Nevada Division of Environmental Protection
the Companies	Pioneer Americas LLC, d/b/a Olin Chlor Alkali Products, Montrose Chemical Corporation of California, and Stauffer Management Company
ug/L	micrograms per liter
VOCs	volatile organic compounds

QUARTERLY OPERATIONS REPORT

GROUNDWATER TREATMENT SYSTEM
HENDERSON, NEVADA

FOURTH QUARTER 2013

1.0 INTRODUCTION

On behalf of the Pioneer Americas LLC, d/b/a Olin Chlor Alkali Products, Montrose Chemical Corporation of California, and Stauffer Management Company (collectively referred herein as "the Companies"), *de maximis, inc.* is submitting this Quarterly Operations Report for the Companies' Groundwater Treatment System (GWTS). This report is submitted per the requirements of the Consent Order dated April 4, 1983 and for GWTS operations conducted during the period October through December 2013.

2.0 QUARTERLY OPERATIONS STATISTICS

The GWTS consists of 16 operating groundwater extraction wells, groundwater treatment by air stripping and carbon adsorption, and return of the treated water to the alluvial aquifer by discharge to three recharge trenches. The GWTS operational statistics for the third quarter 2013 are as follows:

- Total gallons processed during the quarter: 18,417,140 gallons
- Average processing flow rate, when operational: 137 gallons per minute
- On-line percentage of time: 99.7%
- Average influent total Volatile Organic Compound (VOC) concentration: 17,985 micrograms per liter (ug/l)
- Average effluent total VOC concentration: 1.6 ug/l

Additional GWTS operational data consisting of influent and effluent VOC data, flow rates for individual extraction wells and organopesticide discharge data for the liquid phase granular activated carbon (LGAC) system is presented in Attachment A. Figure A-1 represents monitor wells and groundwater treatment system components. Transect Well monitoring results are presented in Attachment B. The Capture Analysis Evaluation is presented in Attachment C.

3.0 OPERATIONS EXCEPTION REPORT

The following is a listing of any exceptions to normal GWTS operations during the fourth quarter (exceptions include, but are not limited to, off-line equipment, significant maintenance, or unusual operating parameters):

- GWTS operation: Minor downtime for routine maintenance;
- Extraction well operations: Minor downtime for routine maintenance;
- Air-stripper operations: Minor downtime for cleaning and routine maintenance;
- LGAC: Minor downtime for periodic backwashing;
- Recharge trench operations: None;
- Continuous water level monitors: None.

4.0 GWTS ACTION SUMMARY

This section advises of routine activities completed for the GWTS during the quarter and of any future activities scheduled for the next two calendar quarters.

Programs Completed during 4th Quarter 2013

- GWTS compliance sampling was conducted weekly throughout the quarter pursuant to the Clark County Department of Air Quality May 2009 air permit. As shown on attached Figure A-2, the total VOC emissions from the air stripper for 2013 was 11,966 pounds versus the permit maximum of 13,300 pounds;
- 4th Quarter transect well sampling was conducted on October 14 and 15 , 2013 and water level measurement data was collected on October 21 and 22, 2013;
- The 3rd Quarter 2013 GWTS Quarterly Operations Report was submitted to NDEP on November 15, 2013;
- A single vessel carbon changeout of the LGAC system was conducted on December 12, 2013;
- The quarterly GWTS influent and effluent samples required for the UIC permit were collected on December 16, 2013.

Future Planned Activities (1st and 2nd Quarters 2014)

- Conduct routine weekly GWTS compliance sampling;
- Redevelop extraction wells as needed;
- Conduct quarterly transect well sampling in January and April 2014;
- Submit 4th Quarter 2013 GWTS Operations Report on or before February 14, 2014;
- Submit the semi-annual UIC Permit Monitoring Report on or before February 14, 2014;

- Conduct annual extraction well sampling in April 2014;
- Conduct annual site wide groundwater monitoring in April 2014;
- Conduct quarterly 2014 UIC permit sampling in March and June 2014;
- Shut down Well C, pending NDEP approval.

5.0 CONSENT ORDER COMPLIANCE

All Consent Order discharge quality compliance requirements for treated groundwater were met during the 4th Quarter 2013. Table 1 provides a summary of the Consent Order compliance requirements versus operational monitoring data.

Table 1: Discharge Quality Compliance for Treated Groundwater

Consent Order Regulated Compound	USEPA MCL[a]	NDEP BCL[b]	Monthly Average [c]	System Monthly Average			Weekly Maximum [c]	System Weekly Max. within Quarter
				Oct.	Nov.	Dec.		
Benzene	5	5	100	0.9	1.1	0.5	200	1.3
Chloroform	80[d]	0.19	250	<2	<2	<2	500	<2
Chlorobenzene	100	100	125	<2	<2	0.1	250	0.4
1,3-dichlorobenzene	-	87	25	<2	<2	<2	50	<2
1,4- dichlorobenzene	75	75	80	<2	<2	<2	160	<2
1,2-dichlorobenzene	600	600	70	<2	<2	<2	140	<2
1,2,4-Trichlorobenzene	70	70	70	<5	<5	<5	140	<5
Dimethyl-disulfide	-	-	60	<1.6	<2	0.7	120	3.4
p-Chlorothioanisole	-	-	75	<9.4	<9.4	<9.4	150	<9.4

Table Notes:

All concentrations in ug/L
< = less than; numerical value is limit of detection for analyte
- = not established

Footnotes:

(a) United States Environmental Protection Agency Maximum Contaminant Level.
(b) BCLs reflect the current NDEP BCLs for Human Health established at the BMI Complex and Common Areas (Revision 12-August 2013).
(c) "Monthly Average" and "Weekly Maximum" columns as described in the 1983 Consent Order.
(d) MCL for Total Trihalomethanes.

6.0 CAPTURE ANALYSIS

The capture efficiency of the GWTS is currently assessed using a combination of triangular network analysis, particle tracking, downgradient concentration trends, groundwater elevation contour maps generated by KT3D-H2O software, and mass flux comparisons. The quarterly water level round was conducted October 21 and October 22, 2013. The capture analysis evaluation is presented in Attachment C.

ATTACHMENT A

GWTS OPERATIONAL DATA

TABLE A-1
YEAR-TO-DATE HENDERSON GWTS OPERATING DATA-VOCs

Sample Date	Sample Location	VOCs								
		BENZENE	MCB	CHCl3	1,2-DCB	1,3-DCB	1,4-DCB	DMDS (A)	1,2,4-TCB	Total VOC
1/4/2013	GWTS Influent	7,400	8,200	42	280	17	440	ND	130	16,509
	A/S Effluent	1.1	4.8	ND	1.1	ND	0.74	14	0.52	22
	LGAC mid-point	0.29	0.88	ND	ND	ND	ND	5.1	ND	6
	GWTS Discharge	0.6	ND	ND	ND	ND	ND	ND	ND	0.6
1/11/2013	GWTS Influent	9,800	11,000	71	370	25	560	ND	140	21,966
	A/S Effluent	2.2	8.8	ND	1.9	ND	1.4	17	0.87	32
	LGAC mid-point	0.41	1.3	ND	ND	ND	ND	ND	ND	2
	GWTS Discharge	0.6	ND	ND	ND	ND	ND	ND	ND	0.6
1/18/2013	GWTS Influent	4,300	5,100	59	320	20	510	ND	94	10,403
	A/S Effluent	1.4	6.5	ND	1.5	ND	1.1	12	0.65	23
	LGAC mid-point	0.43	1.5	ND	0.34	ND	ND	1.2	ND	3
	GWTS Discharge	0.59	ND	ND	ND	ND	ND	ND	ND	0.6
1/25/2013	GWTS Influent	9,300	11,000	54	340	22	520	ND	130	21,366
	A/S Effluent	2.4	9.5	ND	2	ND	1.4	17	0.88	33
	LGAC mid-point	0.56	1.6	ND	0.37	ND	ND	5	ND	8
	GWTS Discharge	0.84	ND	ND	ND	ND	ND	4.9	ND	5.7
2/1/2013	GWTS Influent	8,300	9,100	59	310	20	500	ND	100	18,389
	A/S Effluent	2.1	8.5	ND	1.7	ND	1.2	21	0.61	35
	LGAC mid-point	0.46	1.6	ND	ND	ND	ND	1.1	ND	3
	GWTS Discharge	0.67	ND	ND	ND	ND	ND	ND	ND	0.7
2/8/2013	GWTS Influent	9,400	10,000	65	340	21	560	ND	110	20,496
	A/S Effluent	4.8	16	ND	2.6	ND	2	19	1.3	46
	LGAC mid-point	0.77	2.2	ND	ND	ND	ND	ND	ND	3
	GWTS Discharge	0.72	ND	ND	ND	ND	ND	ND	ND	0.7
2/15/2013	GWTS Influent	11,000	12,000	78	390	24	630	ND	130	24,252
	A/S Effluent	2.7	10	ND	2	ND	1.5	24	0.85	41
	LGAC mid-point	0.64	2.2	ND	0.52	ND	ND	ND	ND	3
	GWTS Discharge	0.76	ND	ND	ND	ND	ND	ND	ND	0.8

TABLE A-1
YEAR-TO-DATE HENDERSON GWTS OPERATING DATA-VOCs

Sample Date	Sample Location	VOCs								
		BENZENE	MCB	CHCL3	1,2-DCB	1,3-DCB	1,4-DCB	DMDS (A)	1,2,4-TCB	Total VOC
2/22/2013	GWTS Influent	9,600	9,900	56	310	20	470	ND	110	20,466
	A/S Effluent	2.7	10	ND	1.8	ND	1.3	19	0.72	36
	LGAC mid-point	0.65	2.1	ND	0.52	ND	ND	ND	ND	3
	GWTS Discharge	0.78	ND	ND	ND	ND	ND	ND	ND	0.8
2/27/2013	GWTS Influent	8,200	11,000	51	300	22	530	ND	88	20,191
	A/S Effluent	1.8	9	ND	1.7	ND	1.3	15	0.67	29
	LGAC mid-point	0.57	2.7	ND	0.58	ND	ND	ND	ND	4
	GWTS Discharge	0.56	ND	ND	ND	ND	ND	ND	ND	0.6
2/27/2013	Single Vessel Carbon Change-out (Vessel B)									
3/4/2013	GWTS Influent	9,000	11,000	67	340	26	530	ND	120	21,083
	A/S Effluent	3.5	15	ND	2.7	ND	2	17	1.1	41
	LGAC mid-point	0.85	0.59	ND	ND	ND	ND	0.6	ND	2
	GWTS Discharge	ND	ND	ND	ND	ND	ND	ND	ND	-
3/15/2013	GWTS Influent	9,100	10,000	57	310	21	500	10	110	20,108
	A/S Effluent	2.3	9.7	ND	2	1.4	1.4	15	0.81	33
	LGAC mid-point	0.79	0.73	ND	ND	ND	ND	0.68	ND	2
	GWTS Discharge	ND	ND	ND	ND	ND	ND	ND	ND	-
3/22/2013	GWTS Influent	9,200	11,000	58	340	23	550	ND	130	21,301
	A/S Effluent	6.6	22	ND	3.3	ND	2.5	22	1.1	58
	LGAC mid-point	1.3	1.4	ND	ND	ND	ND	0.98	ND	4
	GWTS Discharge	ND	ND	ND	ND	ND	ND	ND	ND	-
3/29/2013	GWTS Influent	11,000	12,000	73	360	25	590	ND	110	24,158
	A/S Effluent	5.8	22	ND	3.5	ND	2.7	13	1.2	48
	LGAC mid-point	1.1	1.9	ND	ND	ND	ND	ND	ND	3
	GWTS Discharge	ND	ND	ND	ND	ND	ND	0.88	ND	0.9
4/5/2013	GWTS Influent	9,100	11,000	62	330	22	520	ND	110	21,144
	A/S Effluent	6.7	24	ND	3.6	ND	2.8	16	1.5	55
	LGAC mid-point	1.4	2.2	ND	ND	ND	ND	ND	ND	4
	GWTS Discharge	ND	ND	ND	ND	ND	ND	ND	ND	-

TABLE A-1
YEAR-TO-DATE HENDERSON GWTS OPERATING DATA-VOCs

Sample Date	Sample Location	VOCs								
		BENZENE	MCB	CHCl3	1,2-DCB	1,3-DCB	1,4-DCB	DMDS (A)	1,2,4-TCB	Total VOC
4/12/2013	GWTS Influent	9,000	11,000	61	330	20	520	ND	100	21,031
	A/S Effluent	6.5	25	ND	4	ND	3	20	1.3	60
	LGAC mid-point	1.5	2.8	ND	ND	ND	ND	0.87	ND	5
	GWTS Discharge	ND	ND	ND	ND	ND	ND	ND	ND	-
4/19/2013	GWTS Influent	8,900	11,000	63	330	21	530	ND	98	20,942
	A/S Effluent	5.6	22	ND	3.7	ND	2.8	15	1.3	50
	LGAC mid-point	1.3	2.7	ND	0.41	ND	ND	ND	ND	4
	GWTS Discharge	ND	ND	ND	ND	ND	ND	ND	ND	-
4/26/2013	GWTS Influent	9,300	12,000	63	320	23	520	ND	110	22,336
	A/S Effluent	6.2	26	ND	4.2	ND	3.1	17	1.4	58
	LGAC mid-point	1.4	2.9	ND	ND	ND	ND	ND	ND	4
	GWTS Discharge	ND	ND	ND	ND	ND	ND	2.9	ND	2.9
5/3/2013	GWTS Influent	7,200	8,500	52	290	20	460	ND	100	16,622
	A/S Effluent	7	26	ND	4.1	ND	3.4	11	1.6	53
	LGAC mid-point	1.3	2.9	ND	0.46	ND	ND	ND	ND	5
	GWTS Discharge	ND	ND	ND	ND	ND	ND	ND	ND	-
5/10/2013	GWTS Influent	8,500	10,000	60	340	25	550	ND	120	19,595
	A/S Effluent	7.5	29	ND	4.3	ND	3.7	20	1.6	66
	LGAC mid-point	1.5	4.6	ND	0.76	ND	0.71	1.5	ND	9
	GWTS Discharge	ND	ND	ND	ND	ND	ND	2	ND	2.0
5/17/2013	GWTS Influent	6,700	9,600	53	300	19	480	ND	96	17,248
	A/S Effluent	5.2	23	ND	3.4	ND	2.8	22	1.2	58
	LGAC mid-point	1.4	4	ND	0.5	ND	ND	ND	ND	6
	GWTS Discharge	ND	ND	ND	ND	ND	ND	ND	ND	-
5/23/2013	GWTS Influent	6,900	9,200	47	310	20	510	ND	100	17,087
	A/S Effluent	3.3	14	ND	2.4	ND	1.9	15	0.91	38
	LGAC mid-point	1.3	3.6	ND	0.51	ND	ND	ND	ND	5
	GWTS Discharge	ND	ND	ND	ND	ND	ND	ND	ND	-

TABLE A-1
YEAR-TO-DATE HENDERSON GWTS OPERATING DATA-VOCs

Sample Date	Sample Location	VOCs								
		BENZENE	MCB	CHCl3	1,2-DCB	1,3-DCB	1,4-DCB	DMDS (A)	1,2,4-TCB	Total VOC
5/31/2013	GWTS Influent	11,000	12,000	61	370	26	590	ND	130	24,177
	A/S Effluent	11	34	ND	4.9	ND	3.9	9.4	1.8	65
	LGAC mid-point	2.3	5.5	ND	0.8	ND	0.43	ND	ND	9
	GWTS Discharge	0.28	ND	ND	ND	ND	ND	ND	ND	0.3
6/6/2013	GWTS Influent	11,000	12,000	68	370	26	620	ND	120	24,204
	A/S Effluent	10	35	ND	4.8	ND	4.1	18	1.7	74
	LGAC mid-point	2.6	6.7	ND	0.87	ND	0.48	ND	ND	11
	GWTS Discharge	0.55	ND	ND	ND	ND	ND	ND	ND	0.6
6/14/2013	GWTS Influent	10,000	11,000	51	360	25	570	ND	130	22,136
	A/S Effluent	4.7	18	ND	3.2	ND	2.3	15	1.2	44
	LGAC mid-point	1.6	4.6	ND	0.64	ND	0.38	ND	ND	7
	GWTS Discharge	0.47	ND	ND	ND	ND	ND	ND	ND	0.5
6/21/2013	GWTS Influent	7,900	10,000	54	340	24	570	ND	110	18,998
	A/S Effluent	4.3	20	ND	3.1	ND	2.4	13	0.98	44
	LGAC mid-point	1.6	4.8	ND	0.72	ND	0.39	ND	ND	8
	GWTS Discharge	0.43	ND	ND	ND	ND	ND	ND	ND	0.4
6/28/2013	GWTS Influent	11,000	14,000	74	430	28	720	ND	130	26,382
	A/S Effluent	7.9	30	ND	4.5	ND	3.8	11	1.4	59
	LGAC mid-point	2.2	5.8	ND	0.57	ND	ND	ND	ND	9
	GWTS Discharge	0.59	ND	ND	ND	ND	ND	ND	ND	0.6
7/5/2013	GWTS Influent	10,000	12,000	60	360	25	590	ND	120	23,155
	A/S Effluent	3.5	17	ND	2.9	ND	2.5	16	1	43
	LGAC mid-point	78	57	0.77	1.6	ND	1.3	ND	ND	139
	GWTS Discharge	22	1.5	0.82	ND	ND	ND	ND	ND	24.3
7/12/2013	GWTS Influent	10,000	11,000	64	360	18	600	ND	100	22,142
	A/S Effluent	3	18	ND	2.4	ND	1.8	20	0.84	46
	LGAC mid-point	27	24	0.34	1.1	ND	0.86	ND	ND	53
	GWTS Discharge	15	1.7	0.57	ND	ND	ND	ND	ND	17.3
7/17/2013	Single Vessel Carbon Change-out (Vessel A)									

TABLE A-1
YEAR-TO-DATE HENDERSON GWTS OPERATING DATA-VOCs

Sample Date	Sample Location	VOCs								
		BENZENE	MCB	CHCl3	1,2-DCB	1,3-DCB	1,4-DCB	DMDS (A)	1,2,4-TCB	Total VOC
7/19/2013	GWTS Influent	12,000	14,000	65	390	23	640	ND	98	27,216
	A/S Effluent	2.7	13	ND	2.7	ND	2	8.1	1.2	30
	LGAC mid-point	5.5	1.4	ND	ND	ND	ND	0.53	ND	7
	GWTS Discharge	ND	ND	ND	ND	ND	ND	ND	ND	-
7/26/2013	GWTS Influent	4,600	6,500	35	250	15	370	ND	84	11,854
	A/S Effluent	2.1	9.5	ND	1.7	ND	1.2	2.2	0.54	17
	LGAC mid-point	4.9	0.93	ND	ND	ND	ND	ND	ND	6
	GWTS Discharge	ND	ND	ND	ND	ND	ND	ND	ND	-
8/2/2013	GWTS Influent	7,300	11,000	55	350	22	550	ND	110	19,387
	A/S Effluent	1.8	9.8	ND	2	ND	1.4	3.3	0.68	19
	LGAC mid-point	2.9	1	ND	ND	ND	ND	0.84	ND	5
	GWTS Discharge	ND	ND	ND	ND	ND	ND	ND	ND	-
8/9/2013	GWTS Influent	8,600	10,000	55	380	25	570	ND	130	19,760
	A/S Effluent	2.5	11	ND	2.4	ND	1.7	10	0.73	28
	LGAC mid-point	4.1	1.2	ND	ND	ND	ND	0.94	ND	6
	GWTS Discharge	ND	ND	ND	ND	ND	ND	ND	ND	-
8/16/2013	GWTS Influent	10,000	12,000	70	370	24	620	ND	110	23,194
	A/S Effluent	1.7	8.7	ND	1.8	ND	1.3	15	0.64	29
	LGAC mid-point	4	1.5	ND	ND	ND	ND	ND	ND	6
	GWTS Discharge	ND	ND	ND	ND	ND	ND	1.1	ND	1.1
8/23/2013	GWTS Influent	4,700	5,800	61	350	22	540	ND	93	11,566
	A/S Effluent	1.8	9.1	ND	1.8	ND	1.2	24	0.54	38
	LGAC mid-point	4.1	1.2	ND	ND	ND	ND	ND	ND	5
	GWTS Discharge	ND	ND	ND	ND	ND	ND	1.5	ND	1.5
8/30/2013	GWTS Influent	3,700	4,800	30	190	10	280	ND	63	9,073
	A/S Effluent	2.1	8.9	ND	1.8	ND	1.4	21	0.66	36
	LGAC mid-point	3.6	1.4	ND	ND	ND	ND	ND	ND	5
	GWTS Discharge	0.28	ND	ND	ND	ND	ND	2	ND	2.3

TABLE A-1
YEAR-TO-DATE HENDERSON GWTS OPERATING DATA-VOCs

Sample Date	Sample Location	VOCs								
		BENZENE	MCB	CHCl3	1,2-DCB	1,3-DCB	1,4-DCB	DMDS (A)	1,2,4-TCB	Total VOC
9/6/2013	GWTS Influent	9,900	12,000	65	420	28	630	ND	140	23,183
	A/S Effluent	3.5	15	ND	3.3	ND	2.2	16	1.2	41
	LGAC mid-point	4.2	2.3	ND	ND	ND	ND	ND	ND	7
	GWTS Discharge	0.54	ND	ND	ND	ND	ND	ND	ND	0.5
9/13/2013	GWTS Influent	8,500	11,000	64	380	27	580	ND	130	20,681
	A/S Effluent	4.3	19	ND	3.3	ND	2.5	11	1.3	41
	LGAC mid-point	3.6	2.4	ND	0.28	ND	ND	ND	ND	6
	GWTS Discharge	0.58	ND	ND	ND	ND	ND	ND	ND	0.6
9/20/2013	GWTS Influent	6,400	8,700	57	350	23	540	ND	110	16,180
	A/S Effluent	3.8	16	ND	2.7	ND	2.1	4.4	1.3	30
	LGAC mid-point	3.3	2.3	ND	0.31	ND	ND	ND	ND	6
	GWTS Discharge	0.7	ND	ND	ND	ND	ND	ND	0.28	1.0
9/27/2013	GWTS Influent	8,100	12,000	60	380	27	570	ND	110	21,247
	A/S Effluent	2.7	14	ND	2.5	ND	1.8	21	0.74	43
	LGAC mid-point	3.1	3.1	ND	ND	ND	ND	3.3	ND	10
	GWTS Discharge	0.88	ND	ND	ND	ND	ND	ND	ND	0.9
10/4/2013	GWTS Influent[a]	7,100	9,500	55	310	20	440	55	94	17,574
	A/S Effluent	1.5	9.3	ND	1.7	ND	1.3	4.5	0.54	19
	LGAC mid-point	2.7	2.6	ND	ND	ND	ND	ND	ND	5
	GWTS Discharge	0.79	ND	ND	ND	ND	ND	ND	ND	0.8
10/11/2013	GWTS Influent[a]	6,300	8,800	55	290	19	420	54	91	16,029
	A/S Effluent	0.94	6.9	ND	1.4	ND	0.98	5.6	0.52	16
	LGAC mid-point	2.2	2.2	ND	0.27	ND	ND	ND	ND	5
	GWTS Discharge	0.78	ND	ND	ND	ND	ND	3	ND	3.8
10/18/2013	GWTS Influent[a]	6,300	9,100	62	320	22	480	ND	100	16,384
	A/S Effluent	0.9	5.6	ND	1.3	ND	0.87	6.6	0.46	16
	LGAC mid-point	2.2	1.7	ND	0.28	ND	ND	ND	ND	4
	GWTS Discharge	0.9	ND	ND	ND	ND	ND	ND	ND	0.9

TABLE A-1
YEAR-TO-DATE HENDERSON GWTS OPERATING DATA-VOCs

Sample Date	Sample Location	VOCs								
		BENZENE	MCB	CHCl3	1,2-DCB	1,3-DCB	1,4-DCB	DMDS (A)	1,2,4-TCB	Total VOC
10/25/2013	GWTS Influent	6,000	8,700	58	310	20	450	53	97	15,688
	A/S Effluent	0.97	5.7	ND	1.5	1.1	1	9.4	0.54	20
	LGAC mid-point	2.5	2.2	ND	0.37	ND	ND	3.8	ND	9
	GWTS Discharge	1	ND	ND	ND	ND	ND	3.4	ND	4.4
11/1/2013	GWTS Influent	7,600	11,000	70	340	22	500	ND	100	19,632
	A/S Effluent	1.9	9.5	ND	1.8	ND	1.2	6.7	0.59	22
	LGAC mid-point	2.5	2.4	ND	0.37	ND	ND	2.7	ND	8
	GWTS Discharge	1.1	ND	ND	ND	ND	ND	ND	ND	1.1
11/8/2013	GWTS Influent	7,200	9,800	54	320	22	490	ND	100	17,986
	A/S Effluent	1.3	7.2	ND	1.6	ND	1.1	4.8	0.6	17
	LGAC mid-point	2.2	2.1	ND	0.38	ND	ND	ND	ND	5
	GWTS Discharge	1.1	ND	ND	ND	ND	ND	ND	ND	1.1
11/15/2013	GWTS Influent	7,500	10,000	59	320	23	500	ND	110	18,512
	A/S Effluent	2.1	11	ND	2.4	ND	1.7	6.5	0.89	25
	LGAC mid-point	2.1	2.5	ND	ND	ND	ND	ND	ND	5
	GWTS Discharge	1.1	ND	ND	ND	ND	ND	ND	ND	1.1
11/22/2013	GWTS Influent	7,000	9,700	64	330	21	510	ND	110	17,735
	A/S Effluent	1.4	8	ND	1.7	ND	1.3	9.7	0.65	23
	LGAC mid-point	1.8	2.4	ND	0.45	ND	0.25	2.7	ND	8
	GWTS Discharge	1	ND	ND	ND	ND	ND	ND	ND	1.0
11/29/2013	GWTS Influent	7,600	11,000	60	350	23	540	54	120	19,747
	A/S Effluent	2.1	11	ND	2.2	ND	1.6	12	0.85	30
	LGAC mid-point	1.9	2.4	ND	0.56	ND	ND	ND	ND	5
	GWTS Discharge	1.2	0.41	ND	ND	ND	ND	ND	ND	1.6
12/6/2013	GWTS Influent	7,800	11,000	62	350	24	550	ND	120	19,906
	A/S Effluent	3	15	ND	2.9	ND	2.2	9.5	1.1	34
	LGAC mid-point	1.9	3.1	ND	0.66	ND	0.34	ND	ND	6
	GWTS Discharge	1.3	0.37	ND	ND	ND	ND	2.7	ND	4.4
12/12/2013	Single Vessel Carbon Change-out (Vessel B)									

TABLE A-1
YEAR-TO-DATE HENDERSON GWTS OPERATING DATA-VOCs

Sample Date	Sample Location	VOCs								
		BENZENE	MCB	CHCl3	1,2-DCB	1,3-DCB	1,4-DCB	DMDS (A)	1,2,4-TCB	Total VOC
12/13/2013	GWTS Influent	6,900	9,100	55	330	22	500	ND	110	17,017
	A/S Effluent	4.6	19	ND	3.2	ND	2.6	11	1.4	42
	LGAC mid-point	1.4	2.3	ND	0.55	ND	ND	ND	ND	4
	GWTS Discharge	0.71	ND	ND	ND	ND	ND	ND	ND	0.7
12/19/2013	GWTS Influent	6,700	9,700	55	330	25	510	ND	110	17,430
	A/S Effluent	6.2	27	ND	4.2	ND	3.5	11	1.6	54
	LGAC mid-point	1.1	1.7	ND	ND	ND	ND	ND	ND	3
	GWTS Discharge	ND	ND	ND	ND	ND	ND	ND	ND	-
12/27/2013	GWTS Influent	8,100	11,000	63	330	23	530	32	88	20,166
	A/S Effluent	3.3	17	ND	3	ND	2.2	14	0.9	40
	LGAC mid-point	0.89	1.6	ND	0.25	ND	ND	ND	ND	3
	GWTS Discharge	ND	ND	ND	ND	ND	ND	ND	ND	-
Average Influent Total VOC concentration during Q4 2013										**17,985**
Average Discharge Total VOC concentration during Q4 2013										**1.6**

TABLE A-1
YEAR-TO-DATE HENDERSON GWTS OPERATING DATA-VOCs

Monthly Average		Q4 System Monthly Average Discharge Concentration (ug/L)							
		BENZENE	**MCB**	**CHCL3**	**1,2-DCB**	**1,3-DCB**	**1,4-DCB**	**DMDS (A)**	**1,2,4-TCB**
October		0.9	ND	ND	ND	ND	ND	1.6	ND
November		1.1	ND	ND	ND	ND	ND	ND	ND
December		0.5	0.1	ND	ND	ND	ND	0.7	ND
Weekly Max during Q4 2013		1	0.4	ND	ND	ND	ND	3	ND
Consent Order Discharge Criteria	Weekly Max	200	250	500	140	50	160	120	140
	Monthly Average	100	125	250	70	25	80	60	70
USEPA MCLs[(b)]		5	100	80 [(d)]	600	None	75	None	70
NDEP BCLs[(c)]		5	100	0.193	600	86.7	75	None	70

Footnotes:

(a) = Due to lab error these samples were reanalyzed (outside of hold time) and the unconfirmed report values are presented for indication purposes only

(b) = United States Environmental Protection Agency Maximum Contaminant Level

(c) = The Nevada Department of Environmental Protection Basic Comparison Levels for Human Health established for the BMI Complex and Common Areas (Revision 12-August 2013)

(d) = Total Trihalomethanes

TABLE A-2
YEAR-TO-DATE RESULTS OF LGAC DISCHARGE PESTICIDE ANALYSIS

		ANALYTES, all concentrations in micrograms per liter			
SAMPLE IDENTIFIER	SAMPLE DATE	ALPHA-BHC	BETA-BHC	DELTA-BHC	GAMMA-BHC (LINDANE)
LGAC DISCHARGE	1/4/2013	1.65	0.97	0.072	0.017
	1/11/2013	2.02	1.18	0.105	0.026
	1/18/2013	2.16	1.26	0.103	0.023
	1/25/2013	2.53	1.45	0.137	0.022
	2/1/2013	2.55	1.54	0.131	0.033
	2/8/2013	3.11	1.94	0.17	0.038
	2/15/2013	3.1	1.95	0.174	0.066
	2/22/2013	3.82	2.22	0.202	0.035
	2/27/2013	4.83	3.08	0.261	0.046
	2/27/2013	Single vessel carbon changeout.			
	3/8/2013	0.014	0.011	<0.01	<0.01
	3/15/2013	0.055	0.045	<0.01	<0.01
	3/22/2013	0.076	0.053	<0.01	<0.01
	3/29/2013	0.169	0.142	0.02	<0.01
	4/5/2013	0.555	0.366	0.043	<0.01
	4/12/2013	0.259	0.143	0.015	<0.01
	4/26/2013	0.453	0.284	0.027	<0.01
	5/3/2013	0.57	0.371	0.029	0.012
	5/10/2013	0.656	0.395	0.031	0.029
	5/17/2013	0.972	0.593	0.050	<0.01
	5/23/2013	1.46	0.810	0.067	0.013
	5/31/2013	1.10	0.669	0.050	0.013
	6/6/2013	1.18	0.761	0.060	<0.01
	6/14/2013	1.79	1.11	0.090	<0.01
	6/21/2013	1.79	1.00	0.092	<0.01
	6/28/2013	1.81	1.07	0.096	0.011
	7/5/2013	2.49	1.370	0.134	<0.01
	7/12/2013	1.96	1.210	0.103	<0.01
LGAC DISCHARGE	7/17/2013	Single vessel carbon changeout.			
	7/26/2013	<0.01	<0.01	<0.01	<0.01
	8/2/2013	0.051	0.042	<0.01	<0.01
	8/9/2013	0.073	0.046	<0.01	<0.01
	8/16/2013	0.098	0.067	<0.01	<0.01
	8/23/2013	0.157	0.106	<0.01	<0.01
	8/30/2013	0.269	0.173	0.012	<0.01
	9/6/2013	0.392	0.222	0.020	<0.01
	9/13/2013	0.624	0.336	0.027	<0.01
	9/20/2013	0.654	0.472	0.030	<0.01
	9/27/2013	0.843	0.514	0.042	<0.01
	10/4/2013	1.200	0.765	0.067	<0.01
	10/11/2013	1.860	1.040	0.105	<0.01
	10/18/2013	2.000	1.170	0.124	<0.01

TABLE A-2
YEAR-TO-DATE RESULTS OF LGAC DISCHARGE PESTICIDE ANALYSIS

		ANALYTES, all concentrations in micrograms per liter			
SAMPLE IDENTIFIER	SAMPLE DATE	ALPHA-BHC	BETA-BHC	DELTA-BHC	GAMMA-BHC (LINDANE)
LGAC DISCHARGE	10/25/2013	2.470	1.420	0.15	0.014
	11/1/2013	2.780	1.630	0.148	0.015
	11/8/2013	3.070	1.750	0.178	0.022
	11/15/2013	3.910	2.130	0.206	0.017
	11/22/2013	3.980	2.130	0.202	0.019
	11/29/2013	4.520	2.700	0.264	0.024
	12/6/2013[a]				
	12/12/2013	Single vessel carbon changeout.			
	12/13/2013	0.073	0.055	<0.01	<0.01
	12/19/2013	0.030	0.013	0.011	<0.01
	12/27/2013	0.020	<0.01	<0.01	<0.01
	Maximum Contaminant Level[b]	--	--	--	0.2
	NDEP Basic Comparison Levels for Residential Water[c]	10.95	2.19	11.0	0.2

Footnote:

-- = not established

< = Less than; numerical value is limit of detection for analyte

LGAC = Liquid-Phase Granular Activated Carbon

(a) = Discharge sample not analyzed due to sample being damaged in transit

(b) = United States Environmental Protection Agency Maximum Contaminant Level

(c) = The BCLs for pesticides reflect the current NDEP BCLs for Human Health established for Hexachlorocyclohexane (HCH) isomers at the BMI Complex and Common Areas (Revision 12-August 2013)

TABLE A-3
YEAR-TO-DATE AVERAGE EXTRACTION WELL PUMPING RATES

	EXTRACTION WELLS All monthly average pumping rates in gallons per minute (gpm)															
Month	**C**	**P**	**Q**	**R**	**J**	**N**	**D2**	**E3**	**L**	**F**	**O**	**G**	**H2**	**K2**	**M2**	**I**
January	14	9	8	5	8	1	7	22	12	8	13	9	12	11	9	7
February	14	9	9	5	8	1	8	23	12	8	11	8	12	11	10	8
March	14	8	9	5	9	1	7	25	11	8	10	7	12	11	10	8
April	14	9	10	6	9	1	7	24	11	7	10	7	12	11	10	8
May	14	8	9	6	9	1	8	24	10	6	10	7	12	11	9	8
June	14	9	9	3	9	1	9	24	9	6	10	7	12	11	9	8
July	14	8	9	4	8	1	9	24	8	8	10	8	12	11	9	8
August	14	9	9	4	9	1	9	24	8	9	11	8	12	10	8	8
September	14	8	9	4	8	1	8	23	9	11	14	8	11	10	8	8
October	14	8	9	4	8	1	8	24	11	10	13	7	11	10	7	7
November	14	11	8	3	8	1	8	25	12	10	13	8	11	10	7	7
December	14	11	9	4	8	1	8	24	9	9	13	7	11	11	8	7

Air Photo Date: 2010

SCALE

500 250 0 500 Feet

N

FIGURE A-1
MONITOR WELLS AND GROUNDWATER TREATMENT SYSTEM COMPONENTS

ddms

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FIGURE A-2
CLARK COUNTY DEPARTMENT OF AIR QUALITY AIR EMISSIONS TRACKING

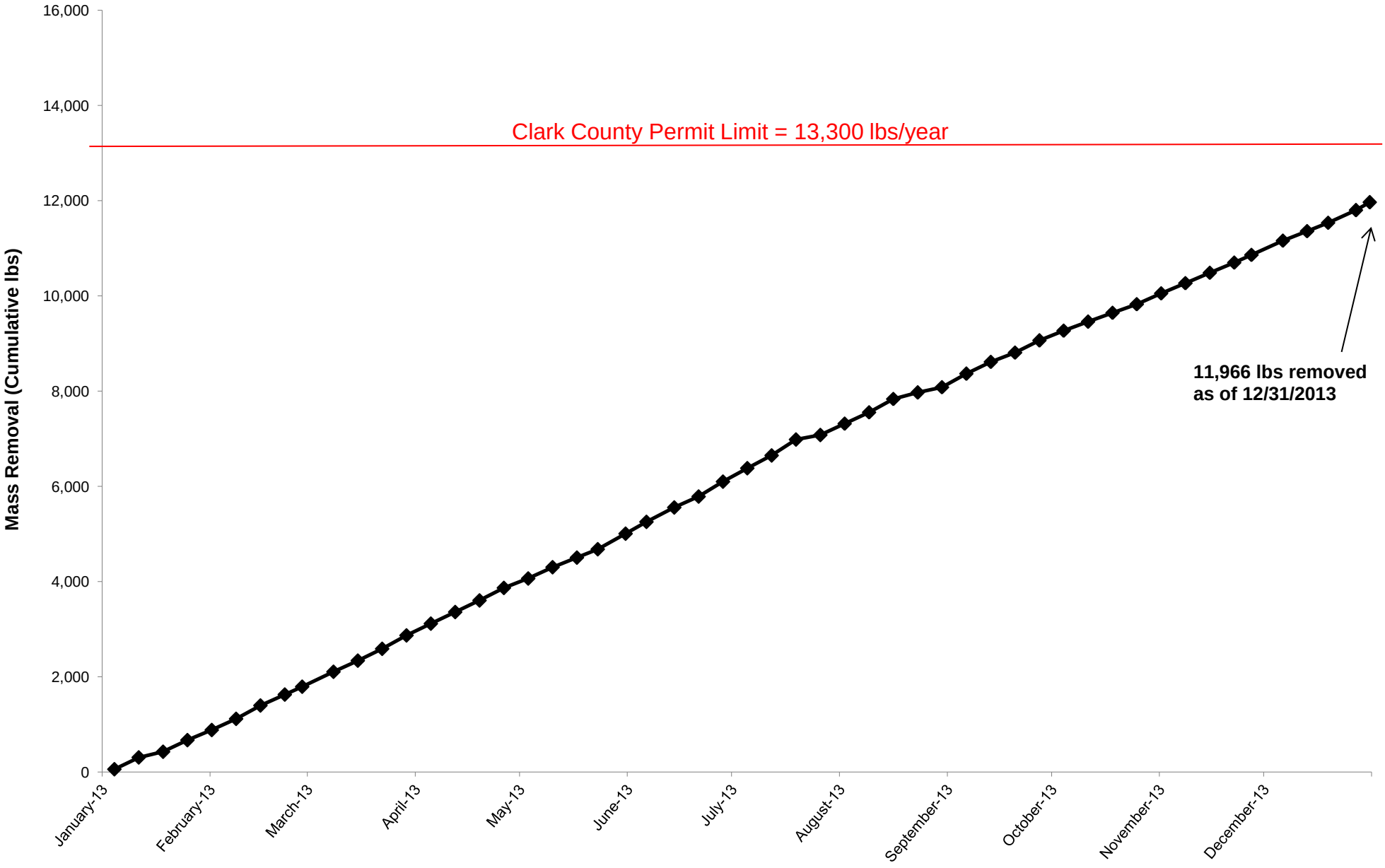

Figure A-2 Air Emissions Tracking Q4 2013
1/15/2014

ATTACHMENT B

TRANSECT WELL DATA

TABLE B-1
RESULTS OF TRANSECT MONITOR WELL GOUNDWATER ANALYSES
(Wells arranged from West to East)

	US EPA MCL[a]	NDEP BCL[b]	MC-47	MC-48	MC-49	MC-113	MC-53	MC-114	MC-50
			10/14/2013	10/14/2013	10/14/2013	10/15/2013	10/15/2013	10/15/2013	10/14/2013
VOLATILE ORGANIC COMPOUNDS (EPA8260B)									
1,1,1,2-Tetrachloroethane	-	0.524	<5	<5	<5	<5	<5	<5	<50
1,1,1-Trichloroethane	200	200	<2	<2	<2	<2	<2	<2	<20
1,1,2,2-Tetrachloroethane	-	0.0671	<2	<2	<2	<2	<2	<2	<20
1,1,2-Trichloroethane	5	5	<2	<2	<2	<2	<2	<2	<20
1,1-Dichloroethane	-	2.42	<2	<2	**2.8**	**0.38 J**	**0.78 J**	**2.5**	<20
1,1-Dichloroethene	7	7	<5	<5	<5	<5	<5	<5	<50
1,1-Dichloropropene	-	-	<2	<2	<2	<2	<2	<2	<20
1,2,3-Trichlorobenzene	-	-	<5	**0.25 J**	**0.98 J**	**1.3 J**	<5	**1 J**	<50
1,2,3-Trichloropropane	-	0.00224	<10	<10	<10	<10	<10	<10	<100
1,2,4-Trichlorobenzene	70	70	<5	**0.43 J**	6	**3.9 J**	<5	**1.4 J**	**6 J**
1,2,4-Trimethylbenzene	-	14.6	<2	<2	<2	<2	<2	<2	<20
1,2-Dibromo-3-Chloropropane	0.2	0.2	<5	<5	<5	<5	<5	<5	<50
1,2-DIBROMOETHANE	0.05	0.05	<2	<2	<2	<2	<2	<2	<20
1,2-Dichlorobenzene	600	600	<2	**0.31 J**	20	2.4	<2	**0.85 J**	**7.7 J**
1,2-Dichloroethane	5	5	<2	<2	**0.6 J**	<2	**0.29 J**	**0.52 J**	<20
1,2-Dichloropropane	5	5	<2	<2	<2	<2	<2	<2	<20
1,3,5-Trimethylbenzene	-	14.5	<2	<2	<2	<2	<2	<2	<20
1,3-Dichlorobenzene	-	86.7	<2	<2	**0.94 J**	<2	**0.32 J**	<2	**11 J**
1,3-Dichloropropane	-	8.25	<2	<2	<2	<2	<2	<2	<20
1,4-Dichlorobenzene	75	75	<2	**0.5 J**	30	4	**0.31 J**	**1 J**	**10 J**
2,2-Dichloropropane	-	-	<2	<2	<2	<2	<2	<2	<20
2-Chlorotoluene	-	91.3	<5	<5	<5	<5	<5	<5	<50
4-Chlorotoluene	-	-	<5	<5	<5	<5	<5	<5	<50
Benzene	5	5	<2	<2	**1.1 J**	**1.2 J**	<2	<2	**960**
Bromobenzene	-	87.6	<5	<5	<5	<5	<5	<5	<50
Bromochloromethane	-	-	<5	<5	<5	<5	<5	<5	<50
Bromodichloromethane	80	0.117	<2	<2	<2	<2	<2	<2	<20
Bromoform	80	8.51	<5	<5	<5	<5	<5	<5	<50
Bromomethane	-	8.66	<5	<5	<5	<5	<5	<5	<50
Carbon tetrachloride	5	5	<1	<1	<1	<1	<1	<1	<10
Chlorobenzene	100	100	<2	**1.7 J**	**300**	12	<2	<2	**700**

TABLE B-1
RESULTS OF TRANSECT MONITOR WELL GOUNDWATER ANALYSES
(Wells arranged from West to East)

	US EPA MCL[a]	NDEP BCL[b]	MC-47	MC-48	MC-49	MC-113	MC-53	MC-114	MC-50
			10/14/2013	10/14/2013	10/14/2013	10/15/2013	10/15/2013	10/15/2013	10/14/2013
Chloroethane	-	23.2	<5	<5	<5	<5	**0.61 J**	**0.92 J**	<50
Chloroform	80	0.193	**8.9**	<2	<2	**0.3 J**	**2.6**	**1.6 J**	<20
Chloromethane	-	2.7	<5	<5	<5	<5	<5	<5	<50
cis-1,2-Dichloroethene	70	70	<2	<2	<2	<2	<2	<2	<20
cis-1,3-Dichloropropene	-	-	<2	<2	<2	<2	<2	<2	<20
Dibromochloromethane	80	0.147	<2	<2	<2	<2	<2	<2	<20
Dibromomethane	-	8.16	<2	<2	<2	<2	<2	<2	<20
Dichlorodifluoromethane	-	395	<5	<5	<5	<5	<5	<5	<50
Dimethyl disulfide	-	-	<2	<2	**1.9 J**	<2	<2	<2	<20
Ethylbenzene	700	700	<2	<2	<2	<2	<2	<2	<20
Hexachlorobutadiene	-	0.862	<5	<5	<5	<5	<5	<5	<50
Isopropylbenzene	-	679	<2	<2	<2	<2	<2	<2	<20
m,p-Xylene	10000	-	<2	<2	<2	<2	<2	<2	<20
Methylene Chloride	5	5	<2	<2	<2	<2	<2	<2	<20
Naphthalene	-	0.143	<5	<5	<5	<5	<5	<5	<50
n-Butylbenzene	-	254	<5	<5	<5	<5	<5	<5	<50
N-Propylbenzene	-	254	<2	<2	<2	<2	<2	<2	<20
o-Xylene	10000	1220	<2	<2	<2	<2	<2	<2	<20
P-ISOPROPYL TOLUENE	-	834	<2	<2	<2	<2	<2	<2	<20
sec-Butylbenzene	-	254	<5	<5	<5	<5	<5	<5	<50
Styrene	100	100	<2	<2	<2	<2	<2	<2	<20
TERT- BUTYLBENZENE	-	254	<5	<5	**0.36 J**	<5	<5	<5	<50
Tetrachloroethene	5	5	<2	<2	<2	<2	**0.61 J**	**0.65 J**	<20
Toluene	1000	1000	<2	<2	<2	<2	<2	<2	<20
trans-1,2-Dichloroethene	100	100	<2	<2	<2	<2	<2	<2	<20
trans-1,3-Dichloropropene	-	-	<2	<2	<2	<2	<2	<2	<20
Trichloroethene	5	5	<2	<2	**0.78 J**	<2	<2	**0.66 J**	<20
Trichlorofluoromethane	-	1290	<5	<5	<5	<5	<5	<5	<50
Vinyl chloride	2	2	<5	<5	<5	<5	<5	<5	<50
ORGANOCHLORINE PESTICIDES (EPA3510C/8081A)									
2,4'-DDD	-	-	<0.095	<0.097	<0.094	<0.094	<0.095	<0.094	<0.094
2,4'-DDE	-	-	<0.095	**0.065 JP**	<0.094	<0.094	**0.047 J**	<0.094	<0.094

TABLE B-1
RESULTS OF TRANSECT MONITOR WELL GOUNDWATER ANALYSES
(Wells arranged from West to East)

	US EPA MCL[(a)]	NDEP BCL[(b)]	MC-47	MC-48	MC-49	MC-113	MC-53	MC-114	MC-50
			10/14/2013	10/14/2013	10/14/2013	10/15/2013	10/15/2013	10/15/2013	10/14/2013
2,4'-DDT	-	-	<0.095	<0.097	<0.094	<0.094	<0.095	<0.094	<0.094
4,4'-DDD	-	0.28	<0.095	<0.097	<0.094	<0.094	<0.095	<0.094	<0.094
4,4'-DDE	-	0.198	<0.095	<0.097	<0.094	<0.094	**0.021 J**	<0.094	<0.094
4,4'-DDT	-	0.198	<0.095	<0.097	<0.094	<0.094	**0.011 J**	<0.094	<0.094
Aldrin	-	0.00395	<0.0047	<0.0048	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047
alpha-BHC	-	11	0.075	0.71	<0.0047	1.4	0.47	0.61	<0.0047
beta-BHC	-	2.19	1.2	**2.4**	**3.8**	**6.1**	1.1	**3.7**	<0.0094
Chlordane	2	2	<0.095	<0.097	<0.094	<0.094	<0.095	<0.094	<0.094
delta-BHC	-	-	0.58	**0.14 J**	0.54	0.25	0.24	**1.1 J**	0.37
Dieldrin	-	0.0042	<0.0047	<0.0048	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047
Endosulfan I	-	-	<0.095	<0.097	<0.094	<0.094	<0.095	<0.094	<0.094
Endosulfan II	-	-	<0.095	<0.097	<0.094	<0.094	<0.095	<0.094	<0.094
Endosulfan sulfate	-	-	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19
Endrin	2	2	<0.095	<0.097	<0.094	<0.094	<0.095	<0.094	<0.094
Endrin aldehyde	-	-	<0.095	<0.097	<0.094	<0.094	<0.095	<0.094	<0.094
Endrin ketone	-	-	<0.095	<0.097	<0.094	<0.094	<0.095	<0.094	<0.094
gamma-BHC (Lindane)	0.2	0.2	**0.0045 J**	<0.097	<0.094	**0.019 J**	<0.095	**0.018 J**	0.13
Heptachlor	0.4	0.4	<0.0095	<0.0097	<0.0094	<0.0094	<0.0095	<0.0094	<0.0094
Heptachlor epoxide	0.2	0.2	<0.0047	<0.0048	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047
Methoxychlor	-	40	<0.095	<0.097	<0.094	<0.094	<0.095	<0.094	<0.094
Toxaphene	3	3	<4.7	<4.8	<4.7	<4.7	<4.7	<4.7	<4.7

Footnotes:

All concentrations are in micrograms per liter (µg/L)

BOLDING indicates detected concentrations

(a) = United States Environmental Protection Agency Maximum Contaminant Level

(b) = The Nevada Department of Environmental Protection Basic Comparison Levels for Human Health established for the BMI Complex and Common Areas (Revision 7-January 2013)

Qualifiers:

J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value

p = The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.

LABORATORY REPORTS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-59760-1
Client Project/Site: 3200B Transect Wells (Henderson)

For:
de maximis, inc.
1322 Scott Street, Suite 104
San Diego, California 92106

Attn: Ed Modiano

Authorized for release by:
10/29/2013 2:04:06 PM

Amy Harris, Project Manager I
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LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Sample Summary 3
Case Narrative 4
Client Sample Results 5
Method Summary 14
Chronicle 15
QC Sample Results 16
QC Association 24
Definitions 25
Certification Summary 26
Chain of Custody 27
Receipt Checklists 28

Sample Summary

Client: de maximis, inc.
Project/Site: 3200B Transect Wells (Henderson)

TestAmerica Job ID: 440-59760-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-59760-1	MC-47-20131014	Water	10/14/13 08:25	10/15/13 10:25
440-59760-2	MC-48-20131014	Water	10/14/13 09:40	10/15/13 10:25
440-59760-3	MC-49-20131014	Water	10/14/13 10:55	10/15/13 10:25
440-59760-4	MC-50-20131014	Water	10/14/13 12:15	10/15/13 10:25

Job ID: 440-59760-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-59760-1

Comments
No additional comments.

Receipt
The samples were received on 10/15/2013 10:25 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.6º C.

Except:
One or more containers for the following sample(s) was received broken or leaking: Sample #3 MC-49-20131014. 1L Amber

GC/MS VOA
Method(s) 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 140131 were outside control limits for Styrene. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

GC Semi VOA
Method(s) 8081A: The continuing calibration verification (CCV) associated with batch 138567 recovered above the upper control limit for Endosulfan sulfate. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: (CCV 440-138567/28), MC-47-20131014 (440-59760-1), MC-48-20131014 (440-59760-2), MC-49-20131014 (440-59760-3), MC-50-20131014 (440-59760-4).

Method(s) 8081A: Insufficient sample volume was available to perform batch matrix spike/matrix spike duplicate (MS/MSD) associated with batch 138216. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

No other analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

VOA Prep
No analytical or quality issues were noted.

Client Sample Results

Client: de maximis, inc.
Project/Site: 3200B Transect Wells (Henderson)

TestAmerica Job ID: 440-59760-1

Client Sample ID: MC-47-20131014

Date Collected: 10/14/13 08:25
Date Received: 10/15/13 10:25

Lab Sample ID: 440-59760-1

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		2.0	0.25	ug/L			10/25/13 13:07	1
Styrene	ND		2.0	0.25	ug/L			10/25/13 13:07	1
cis-1,3-Dichloropropene	ND		2.0	0.25	ug/L			10/25/13 13:07	1
trans-1,3-Dichloropropene	ND		2.0	0.25	ug/L			10/25/13 13:07	1
N-Propylbenzene	ND		2.0	0.25	ug/L			10/25/13 13:07	1
n-Butylbenzene	ND		5.0	0.25	ug/L			10/25/13 13:07	1
4-Chlorotoluene	ND		5.0	0.25	ug/L			10/25/13 13:07	1
1,4-Dichlorobenzene	ND		2.0	0.25	ug/L			10/25/13 13:07	1
1,2-Dibromoethane (EDB)	ND		2.0	0.25	ug/L			10/25/13 13:07	1
1,2-Dichloroethane	ND		2.0	0.25	ug/L			10/25/13 13:07	1
1,3,5-Trimethylbenzene	ND		2.0	0.25	ug/L			10/25/13 13:07	1
Bromobenzene	ND		5.0	0.25	ug/L			10/25/13 13:07	1
Toluene	ND		2.0	0.25	ug/L			10/25/13 13:07	1
Chlorobenzene	ND		2.0	0.25	ug/L			10/25/13 13:07	1
1,2,4-Trichlorobenzene	ND		5.0	0.25	ug/L			10/25/13 13:07	1
Dibromochloromethane	ND		2.0	0.25	ug/L			10/25/13 13:07	1
Tetrachloroethene	ND		2.0	0.25	ug/L			10/25/13 13:07	1
sec-Butylbenzene	ND		5.0	0.25	ug/L			10/25/13 13:07	1
m,p-Xylene	ND		2.0	0.50	ug/L			10/25/13 13:07	1
1,3-Dichloropropane	ND		2.0	0.25	ug/L			10/25/13 13:07	1
cis-1,2-Dichloroethene	ND		2.0	0.25	ug/L			10/25/13 13:07	1
trans-1,2-Dichloroethene	ND		2.0	0.25	ug/L			10/25/13 13:07	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L			10/25/13 13:07	1
Carbon tetrachloride	ND		1.0	0.25	ug/L			10/25/13 13:07	1
1,1-Dichloropropene	ND		2.0	0.25	ug/L			10/25/13 13:07	1
2,2-Dichloropropane	ND		2.0	0.25	ug/L			10/25/13 13:07	1
1,1,1,2-Tetrachloroethane	ND		5.0	0.25	ug/L			10/25/13 13:07	1
Chloroform	**8.9**		2.0	0.25	ug/L			10/25/13 13:07	1
Benzene	ND		2.0	0.25	ug/L			10/25/13 13:07	1
1,1,1-Trichloroethane	ND		2.0	0.25	ug/L			10/25/13 13:07	1
Bromomethane	ND		5.0	0.25	ug/L			10/25/13 13:07	1
Chloromethane	ND		5.0	0.25	ug/L			10/25/13 13:07	1
Dibromomethane	ND		2.0	0.25	ug/L			10/25/13 13:07	1
Bromochloromethane	ND		5.0	0.25	ug/L			10/25/13 13:07	1
Chloroethane	ND		5.0	0.25	ug/L			10/25/13 13:07	1
Vinyl chloride	ND		5.0	0.25	ug/L			10/25/13 13:07	1
Methylene Chloride	ND		2.0	0.50	ug/L			10/25/13 13:07	1
Bromoform	ND		5.0	0.25	ug/L			10/25/13 13:07	1
Bromodichloromethane	ND		2.0	0.25	ug/L			10/25/13 13:07	1
1,1-Dichloroethane	ND		2.0	0.25	ug/L			10/25/13 13:07	1
1,1-Dichloroethene	ND		5.0	0.25	ug/L			10/25/13 13:07	1
Trichlorofluoromethane	ND		5.0	0.25	ug/L			10/25/13 13:07	1
Dichlorodifluoromethane	ND		5.0	0.25	ug/L			10/25/13 13:07	1
1,2-Dichloropropane	ND		2.0	0.25	ug/L			10/25/13 13:07	1
1,1,2-Trichloroethane	ND		2.0	0.25	ug/L			10/25/13 13:07	1
Trichloroethene	ND		2.0	0.25	ug/L			10/25/13 13:07	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.25	ug/L			10/25/13 13:07	1
1,2,3-Trichlorobenzene	ND		5.0	0.25	ug/L			10/25/13 13:07	1
Hexachlorobutadiene	ND		5.0	0.25	ug/L			10/25/13 13:07	1

Client Sample Results

Client: de maximis, inc.
Project/Site: 3200B Transect Wells (Henderson)

TestAmerica Job ID: 440-59760-1

Client Sample ID: MC-47-20131014

Date Collected: 10/14/13 08:25
Date Received: 10/15/13 10:25

Lab Sample ID: 440-59760-1

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0	0.25	ug/L			10/25/13 13:07	1
o-Xylene	ND		2.0	0.25	ug/L			10/25/13 13:07	1
2-Chlorotoluene	ND		5.0	0.25	ug/L			10/25/13 13:07	1
1,2-Dichlorobenzene	ND		2.0	0.25	ug/L			10/25/13 13:07	1
1,2,4-Trimethylbenzene	ND		2.0	0.25	ug/L			10/25/13 13:07	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			10/25/13 13:07	1
1,2,3-Trichloropropane	ND		10	0.25	ug/L			10/25/13 13:07	1
tert-Butylbenzene	ND		5.0	0.25	ug/L			10/25/13 13:07	1
Isopropylbenzene	ND		2.0	0.25	ug/L			10/25/13 13:07	1
p-Isopropyltoluene	ND		2.0	0.25	ug/L			10/25/13 13:07	1
Dimethyl disulfide	ND		2.0	1.0	ug/L			10/25/13 13:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*109*		*80 - 128*		*10/25/13 13:07*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*10/25/13 13:07*	*1*
Dibromofluoromethane (Surr)	*108*		*76 - 132*		*10/25/13 13:07*	*1*

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		0.095	0.019	ug/L		10/17/13 10:29	10/19/13 01:13	1
2,4'-DDE	ND		0.095	0.019	ug/L		10/17/13 10:29	10/19/13 01:13	1
2,4'-DDT	ND		0.095	0.019	ug/L		10/17/13 10:29	10/19/13 01:13	1
4,4'-DDD	ND		0.095	0.0038	ug/L		10/17/13 10:29	10/19/13 01:13	1
4,4'-DDE	ND		0.095	0.0028	ug/L		10/17/13 10:29	10/19/13 01:13	1
4,4'-DDT	ND		0.095	0.0038	ug/L		10/17/13 10:29	10/19/13 01:13	1
Aldrin	ND		0.0047	0.0014	ug/L		10/17/13 10:29	10/19/13 01:13	1
alpha-BHC	**0.075**		0.0047	0.0024	ug/L		10/17/13 10:29	10/19/13 01:13	1
Chlordane	ND		0.095	0.076	ug/L		10/17/13 10:29	10/19/13 01:13	1
delta-BHC	**0.58**		0.19	0.0033	ug/L		10/17/13 10:29	10/19/13 01:13	1
Dieldrin	ND		0.0047	0.0019	ug/L		10/17/13 10:29	10/19/13 01:13	1
Endosulfan I	ND		0.095	0.0028	ug/L		10/17/13 10:29	10/19/13 01:13	1
Endosulfan II	ND		0.095	0.0019	ug/L		10/17/13 10:29	10/19/13 01:13	1
Endosulfan sulfate	ND		0.19	0.0028	ug/L		10/17/13 10:29	10/19/13 01:13	1
Endrin	ND		0.095	0.0019	ug/L		10/17/13 10:29	10/19/13 01:13	1
Endrin aldehyde	ND		0.095	0.0019	ug/L		10/17/13 10:29	10/19/13 01:13	1
Endrin ketone	ND		0.095	0.0066	ug/L		10/17/13 10:29	10/19/13 01:13	1
gamma-BHC (Lindane)	**0.0045**	**J**	0.095	0.0028	ug/L		10/17/13 10:29	10/19/13 01:13	1
Heptachlor	ND		0.0095	0.0028	ug/L		10/17/13 10:29	10/19/13 01:13	1
Heptachlor epoxide	ND		0.0047	0.0024	ug/L		10/17/13 10:29	10/19/13 01:13	1
Methoxychlor	ND		0.095	0.0033	ug/L		10/17/13 10:29	10/19/13 01:13	1
Toxaphene	ND		4.7	0.24	ug/L		10/17/13 10:29	10/19/13 01:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*89*		*45 - 120*	*10/17/13 10:29*	*10/19/13 01:13*	*1*
Tetrachloro-m-xylene	*66*		*35 - 115*	*10/17/13 10:29*	*10/19/13 01:13*	*1*

Method: 8081A - Organochlorine Pesticides (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
beta-BHC	**1.2**		0.047	0.019	ug/L		10/17/13 10:29	10/21/13 19:00	5

Client Sample Results

Client: de maximis, inc.
Project/Site: 3200B Transect Wells (Henderson)

TestAmerica Job ID: 440-59760-1

Client Sample ID: MC-48-20131014

Date Collected: 10/14/13 09:40
Date Received: 10/15/13 10:25

Lab Sample ID: 440-59760-2

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		2.0	0.25	ug/L			10/25/13 14:36	1
Styrene	ND		2.0	0.25	ug/L			10/25/13 14:36	1
cis-1,3-Dichloropropene	ND		2.0	0.25	ug/L			10/25/13 14:36	1
trans-1,3-Dichloropropene	ND		2.0	0.25	ug/L			10/25/13 14:36	1
N-Propylbenzene	ND		2.0	0.25	ug/L			10/25/13 14:36	1
n-Butylbenzene	ND		5.0	0.25	ug/L			10/25/13 14:36	1
4-Chlorotoluene	ND		5.0	0.25	ug/L			10/25/13 14:36	1
1,4-Dichlorobenzene	**0.50**	**J**	2.0	0.25	ug/L			10/25/13 14:36	1
1,2-Dibromoethane (EDB)	ND		2.0	0.25	ug/L			10/25/13 14:36	1
1,2-Dichloroethane	ND		2.0	0.25	ug/L			10/25/13 14:36	1
1,3,5-Trimethylbenzene	ND		2.0	0.25	ug/L			10/25/13 14:36	1
Bromobenzene	ND		5.0	0.25	ug/L			10/25/13 14:36	1
Toluene	ND		2.0	0.25	ug/L			10/25/13 14:36	1
Chlorobenzene	**1.7**	**J**	2.0	0.25	ug/L			10/25/13 14:36	1
1,2,4-Trichlorobenzene	**0.43**	**J**	5.0	0.25	ug/L			10/25/13 14:36	1
Dibromochloromethane	ND		2.0	0.25	ug/L			10/25/13 14:36	1
Tetrachloroethene	ND		2.0	0.25	ug/L			10/25/13 14:36	1
sec-Butylbenzene	ND		5.0	0.25	ug/L			10/25/13 14:36	1
m,p-Xylene	ND		2.0	0.50	ug/L			10/25/13 14:36	1
1,3-Dichloropropane	ND		2.0	0.25	ug/L			10/25/13 14:36	1
cis-1,2-Dichloroethene	ND		2.0	0.25	ug/L			10/25/13 14:36	1
trans-1,2-Dichloroethene	ND		2.0	0.25	ug/L			10/25/13 14:36	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L			10/25/13 14:36	1
Carbon tetrachloride	ND		1.0	0.25	ug/L			10/25/13 14:36	1
1,1-Dichloropropene	ND		2.0	0.25	ug/L			10/25/13 14:36	1
2,2-Dichloropropane	ND		2.0	0.25	ug/L			10/25/13 14:36	1
1,1,1,2-Tetrachloroethane	ND		5.0	0.25	ug/L			10/25/13 14:36	1
Chloroform	ND		2.0	0.25	ug/L			10/25/13 14:36	1
Benzene	ND		2.0	0.25	ug/L			10/25/13 14:36	1
1,1,1-Trichloroethane	ND		2.0	0.25	ug/L			10/25/13 14:36	1
Bromomethane	ND		5.0	0.25	ug/L			10/25/13 14:36	1
Chloromethane	ND		5.0	0.25	ug/L			10/25/13 14:36	1
Dibromomethane	ND		2.0	0.25	ug/L			10/25/13 14:36	1
Bromochloromethane	ND		5.0	0.25	ug/L			10/25/13 14:36	1
Chloroethane	ND		5.0	0.25	ug/L			10/25/13 14:36	1
Vinyl chloride	ND		5.0	0.25	ug/L			10/25/13 14:36	1
Methylene Chloride	ND		2.0	0.50	ug/L			10/25/13 14:36	1
Bromoform	ND		5.0	0.25	ug/L			10/25/13 14:36	1
Bromodichloromethane	ND		2.0	0.25	ug/L			10/25/13 14:36	1
1,1-Dichloroethane	ND		2.0	0.25	ug/L			10/25/13 14:36	1
1,1-Dichloroethene	ND		5.0	0.25	ug/L			10/25/13 14:36	1
Trichlorofluoromethane	ND		5.0	0.25	ug/L			10/25/13 14:36	1
Dichlorodifluoromethane	ND		5.0	0.25	ug/L			10/25/13 14:36	1
1,2-Dichloropropane	ND		2.0	0.25	ug/L			10/25/13 14:36	1
1,1,2-Trichloroethane	ND		2.0	0.25	ug/L			10/25/13 14:36	1
Trichloroethene	ND		2.0	0.25	ug/L			10/25/13 14:36	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.25	ug/L			10/25/13 14:36	1
1,2,3-Trichlorobenzene	**0.25**	**J**	5.0	0.25	ug/L			10/25/13 14:36	1
Hexachlorobutadiene	ND		5.0	0.25	ug/L			10/25/13 14:36	1

Client Sample Results

Client: de maximis, inc.
Project/Site: 3200B Transect Wells (Henderson)

TestAmerica Job ID: 440-59760-1

Client Sample ID: MC-48-20131014

Date Collected: 10/14/13 09:40
Date Received: 10/15/13 10:25

Lab Sample ID: 440-59760-2

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0	0.25	ug/L			10/25/13 14:36	1
o-Xylene	ND		2.0	0.25	ug/L			10/25/13 14:36	1
2-Chlorotoluene	ND		5.0	0.25	ug/L			10/25/13 14:36	1
1,2-Dichlorobenzene	**0.31**	**J**	2.0	0.25	ug/L			10/25/13 14:36	1
1,2,4-Trimethylbenzene	ND		2.0	0.25	ug/L			10/25/13 14:36	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			10/25/13 14:36	1
1,2,3-Trichloropropane	ND		10	0.25	ug/L			10/25/13 14:36	1
tert-Butylbenzene	ND		5.0	0.25	ug/L			10/25/13 14:36	1
Isopropylbenzene	ND		2.0	0.25	ug/L			10/25/13 14:36	1
p-Isopropyltoluene	ND		2.0	0.25	ug/L			10/25/13 14:36	1
Dimethyl disulfide	ND		2.0	1.0	ug/L			10/25/13 14:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*107*		*80 - 128*		*10/25/13 14:36*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*10/25/13 14:36*	*1*
Dibromofluoromethane (Surr)	*104*		*76 - 132*		*10/25/13 14:36*	*1*

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		0.097	0.019	ug/L		10/17/13 10:29	10/19/13 01:41	1
2,4'-DDE	**0.065**	**J p**	0.097	0.019	ug/L		10/17/13 10:29	10/19/13 01:41	1
2,4'-DDT	ND		0.097	0.019	ug/L		10/17/13 10:29	10/19/13 01:41	1
4,4'-DDD	ND		0.097	0.0039	ug/L		10/17/13 10:29	10/19/13 01:41	1
4,4'-DDE	ND		0.097	0.0029	ug/L		10/17/13 10:29	10/19/13 01:41	1
4,4'-DDT	ND		0.097	0.0039	ug/L		10/17/13 10:29	10/19/13 01:41	1
Aldrin	ND		0.0048	0.0014	ug/L		10/17/13 10:29	10/19/13 01:41	1
alpha-BHC	**0.71**		0.0048	0.0024	ug/L		10/17/13 10:29	10/19/13 01:41	1
Chlordane	ND		0.097	0.077	ug/L		10/17/13 10:29	10/19/13 01:41	1
delta-BHC	**0.14**	**J**	0.19	0.0034	ug/L		10/17/13 10:29	10/19/13 01:41	1
Dieldrin	ND		0.0048	0.0019	ug/L		10/17/13 10:29	10/19/13 01:41	1
Endosulfan I	ND		0.097	0.0029	ug/L		10/17/13 10:29	10/19/13 01:41	1
Endosulfan II	ND		0.097	0.0019	ug/L		10/17/13 10:29	10/19/13 01:41	1
Endosulfan sulfate	ND		0.19	0.0029	ug/L		10/17/13 10:29	10/19/13 01:41	1
Endrin	ND		0.097	0.0019	ug/L		10/17/13 10:29	10/19/13 01:41	1
Endrin aldehyde	ND		0.097	0.0019	ug/L		10/17/13 10:29	10/19/13 01:41	1
Endrin ketone	ND		0.097	0.0068	ug/L		10/17/13 10:29	10/19/13 01:41	1
gamma-BHC (Lindane)	ND		0.097	0.0029	ug/L		10/17/13 10:29	10/19/13 01:41	1
Heptachlor	ND		0.0097	0.0029	ug/L		10/17/13 10:29	10/19/13 01:41	1
Heptachlor epoxide	ND		0.0048	0.0024	ug/L		10/17/13 10:29	10/19/13 01:41	1
Methoxychlor	ND		0.097	0.0034	ug/L		10/17/13 10:29	10/19/13 01:41	1
Toxaphene	ND		4.8	0.24	ug/L		10/17/13 10:29	10/19/13 01:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*89*		*45 - 120*	*10/17/13 10:29*	*10/19/13 01:41*	*1*
Tetrachloro-m-xylene	*75*		*35 - 115*	*10/17/13 10:29*	*10/19/13 01:41*	*1*

Method: 8081A - Organochlorine Pesticides (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
beta-BHC	**2.4**		0.097	0.039	ug/L		10/17/13 10:29	10/21/13 19:14	10

Client Sample Results

Client: de maximis, inc.
Project/Site: 3200B Transect Wells (Henderson)

TestAmerica Job ID: 440-59760-1

Client Sample ID: MC-49-20131014

Lab Sample ID: 440-59760-3

Date Collected: 10/14/13 10:55

Matrix: Water

Date Received: 10/15/13 10:25

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		2.0	0.25	ug/L			10/25/13 15:06	1
Styrene	ND		2.0	0.25	ug/L			10/25/13 15:06	1
cis-1,3-Dichloropropene	ND		2.0	0.25	ug/L			10/25/13 15:06	1
trans-1,3-Dichloropropene	ND		2.0	0.25	ug/L			10/25/13 15:06	1
N-Propylbenzene	ND		2.0	0.25	ug/L			10/25/13 15:06	1
n-Butylbenzene	ND		5.0	0.25	ug/L			10/25/13 15:06	1
4-Chlorotoluene	ND		5.0	0.25	ug/L			10/25/13 15:06	1
1,4-Dichlorobenzene	**30**		2.0	0.25	ug/L			10/25/13 15:06	1
1,2-Dibromoethane (EDB)	ND		2.0	0.25	ug/L			10/25/13 15:06	1
1,2-Dichloroethane	**0.60**	**J**	2.0	0.25	ug/L			10/25/13 15:06	1
1,3,5-Trimethylbenzene	ND		2.0	0.25	ug/L			10/25/13 15:06	1
Bromobenzene	ND		5.0	0.25	ug/L			10/25/13 15:06	1
Toluene	ND		2.0	0.25	ug/L			10/25/13 15:06	1
1,2,4-Trichlorobenzene	**6.0**		5.0	0.25	ug/L			10/25/13 15:06	1
Dibromochloromethane	ND		2.0	0.25	ug/L			10/25/13 15:06	1
Tetrachloroethene	ND		2.0	0.25	ug/L			10/25/13 15:06	1
sec-Butylbenzene	ND		5.0	0.25	ug/L			10/25/13 15:06	1
m,p-Xylene	ND		2.0	0.50	ug/L			10/25/13 15:06	1
1,3-Dichloropropane	ND		2.0	0.25	ug/L			10/25/13 15:06	1
cis-1,2-Dichloroethene	ND		2.0	0.25	ug/L			10/25/13 15:06	1
trans-1,2-Dichloroethene	ND		2.0	0.25	ug/L			10/25/13 15:06	1
1,3-Dichlorobenzene	**0.94**	**J**	2.0	0.25	ug/L			10/25/13 15:06	1
Carbon tetrachloride	ND		1.0	0.25	ug/L			10/25/13 15:06	1
1,1-Dichloropropene	ND		2.0	0.25	ug/L			10/25/13 15:06	1
2,2-Dichloropropane	ND		2.0	0.25	ug/L			10/25/13 15:06	1
1,1,1,2-Tetrachloroethane	ND		5.0	0.25	ug/L			10/25/13 15:06	1
Chloroform	ND		2.0	0.25	ug/L			10/25/13 15:06	1
Benzene	**1.1**	**J**	2.0	0.25	ug/L			10/25/13 15:06	1
1,1,1-Trichloroethane	ND		2.0	0.25	ug/L			10/25/13 15:06	1
Bromomethane	ND		5.0	0.25	ug/L			10/25/13 15:06	1
Chloromethane	ND		5.0	0.25	ug/L			10/25/13 15:06	1
Dibromomethane	ND		2.0	0.25	ug/L			10/25/13 15:06	1
Bromochloromethane	ND		5.0	0.25	ug/L			10/25/13 15:06	1
Chloroethane	ND		5.0	0.25	ug/L			10/25/13 15:06	1
Vinyl chloride	ND		5.0	0.25	ug/L			10/25/13 15:06	1
Methylene Chloride	ND		2.0	0.50	ug/L			10/25/13 15:06	1
Bromoform	ND		5.0	0.25	ug/L			10/25/13 15:06	1
Bromodichloromethane	ND		2.0	0.25	ug/L			10/25/13 15:06	1
1,1-Dichloroethane	**2.8**		2.0	0.25	ug/L			10/25/13 15:06	1
1,1-Dichloroethene	ND		5.0	0.25	ug/L			10/25/13 15:06	1
Trichlorofluoromethane	ND		5.0	0.25	ug/L			10/25/13 15:06	1
Dichlorodifluoromethane	ND		5.0	0.25	ug/L			10/25/13 15:06	1
1,2-Dichloropropane	ND		2.0	0.25	ug/L			10/25/13 15:06	1
1,1,2-Trichloroethane	ND		2.0	0.25	ug/L			10/25/13 15:06	1
Trichloroethene	**0.78**	**J**	2.0	0.25	ug/L			10/25/13 15:06	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.25	ug/L			10/25/13 15:06	1
1,2,3-Trichlorobenzene	**0.98**	**J**	5.0	0.25	ug/L			10/25/13 15:06	1
Hexachlorobutadiene	ND		5.0	0.25	ug/L			10/25/13 15:06	1
Naphthalene	ND		5.0	0.25	ug/L			10/25/13 15:06	1

Client Sample Results

Client: de maximis, inc.
Project/Site: 3200B Transect Wells (Henderson)

TestAmerica Job ID: 440-59760-1

Client Sample ID: MC-49-20131014

Date Collected: 10/14/13 10:55
Date Received: 10/15/13 10:25

Lab Sample ID: 440-59760-3

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		2.0	0.25	ug/L			10/25/13 15:06	1
2-Chlorotoluene	ND		5.0	0.25	ug/L			10/25/13 15:06	1
1,2-Dichlorobenzene	**20**		2.0	0.25	ug/L			10/25/13 15:06	1
1,2,4-Trimethylbenzene	ND		2.0	0.25	ug/L			10/25/13 15:06	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			10/25/13 15:06	1
1,2,3-Trichloropropane	ND		10	0.25	ug/L			10/25/13 15:06	1
tert-Butylbenzene	**0.36**	**J**	5.0	0.25	ug/L			10/25/13 15:06	1
Isopropylbenzene	ND		2.0	0.25	ug/L			10/25/13 15:06	1
p-Isopropyltoluene	ND		2.0	0.25	ug/L			10/25/13 15:06	1
Dimethyl disulfide	**1.9**	**J**	2.0	1.0	ug/L			10/25/13 15:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*108*		*80 - 128*		*10/25/13 15:06*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*10/25/13 15:06*	*1*
Dibromofluoromethane (Surr)	*100*		*76 - 132*		*10/25/13 15:06*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	**300**		10	1.3	ug/L			10/25/13 16:05	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*107*		*80 - 128*		*10/25/13 16:05*	*5*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*10/25/13 16:05*	*5*
Dibromofluoromethane (Surr)	*106*		*76 - 132*		*10/25/13 16:05*	*5*

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		0.094	0.019	ug/L		10/17/13 10:29	10/19/13 02:09	1
2,4'-DDE	ND		0.094	0.019	ug/L		10/17/13 10:29	10/19/13 02:09	1
2,4'-DDT	ND		0.094	0.019	ug/L		10/17/13 10:29	10/19/13 02:09	1
4,4'-DDD	ND		0.094	0.0038	ug/L		10/17/13 10:29	10/19/13 02:09	1
4,4'-DDE	ND		0.094	0.0028	ug/L		10/17/13 10:29	10/19/13 02:09	1
4,4'-DDT	ND		0.094	0.0038	ug/L		10/17/13 10:29	10/19/13 02:09	1
Aldrin	ND		0.0047	0.0014	ug/L		10/17/13 10:29	10/19/13 02:09	1
alpha-BHC	ND		0.0047	0.0024	ug/L		10/17/13 10:29	10/19/13 02:09	1
Chlordane	ND		0.094	0.075	ug/L		10/17/13 10:29	10/19/13 02:09	1
delta-BHC	**0.54**		0.19	0.0033	ug/L		10/17/13 10:29	10/19/13 02:09	1
Dieldrin	ND		0.0047	0.0019	ug/L		10/17/13 10:29	10/19/13 02:09	1
Endosulfan I	ND		0.094	0.0028	ug/L		10/17/13 10:29	10/19/13 02:09	1
Endosulfan II	ND		0.094	0.0019	ug/L		10/17/13 10:29	10/19/13 02:09	1
Endosulfan sulfate	ND		0.19	0.0028	ug/L		10/17/13 10:29	10/19/13 02:09	1
Endrin	ND		0.094	0.0019	ug/L		10/17/13 10:29	10/19/13 02:09	1
Endrin aldehyde	ND		0.094	0.0019	ug/L		10/17/13 10:29	10/19/13 02:09	1
Endrin ketone	ND		0.094	0.0066	ug/L		10/17/13 10:29	10/19/13 02:09	1
gamma-BHC (Lindane)	ND		0.094	0.0028	ug/L		10/17/13 10:29	10/19/13 02:09	1
Heptachlor	ND		0.0094	0.0028	ug/L		10/17/13 10:29	10/19/13 02:09	1
Heptachlor epoxide	ND		0.0047	0.0024	ug/L		10/17/13 10:29	10/19/13 02:09	1
Methoxychlor	ND		0.094	0.0033	ug/L		10/17/13 10:29	10/19/13 02:09	1
Toxaphene	ND		4.7	0.24	ug/L		10/17/13 10:29	10/19/13 02:09	1

Client Sample Results

Client: de maximis, inc.
Project/Site: 3200B Transect Wells (Henderson)

TestAmerica Job ID: 440-59760-1

Client Sample ID: MC-49-20131014

Lab Sample ID: 440-59760-3

Date Collected: 10/14/13 10:55
Matrix: Water
Date Received: 10/15/13 10:25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*86*		*45 - 120*	*10/17/13 10:29*	*10/19/13 02:09*	*1*
Tetrachloro-m-xylene	*66*		*35 - 115*	*10/17/13 10:29*	*10/19/13 02:09*	*1*

Method: 8081A - Organochlorine Pesticides (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
beta-BHC	**3.8**		0.47	0.19	ug/L		10/17/13 10:29	10/21/13 19:28	50

Client Sample ID: MC-50-20131014

Lab Sample ID: 440-59760-4

Date Collected: 10/14/13 12:15
Matrix: Water
Date Received: 10/15/13 10:25

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		20	2.5	ug/L			10/25/13 15:35	10
Styrene	ND		20	2.5	ug/L			10/25/13 15:35	10
cis-1,3-Dichloropropene	ND		20	2.5	ug/L			10/25/13 15:35	10
trans-1,3-Dichloropropene	ND		20	2.5	ug/L			10/25/13 15:35	10
N-Propylbenzene	ND		20	2.5	ug/L			10/25/13 15:35	10
n-Butylbenzene	ND		50	2.5	ug/L			10/25/13 15:35	10
4-Chlorotoluene	ND		50	2.5	ug/L			10/25/13 15:35	10
1,4-Dichlorobenzene	**10**	**J**	20	2.5	ug/L			10/25/13 15:35	10
1,2-Dibromoethane (EDB)	ND		20	2.5	ug/L			10/25/13 15:35	10
1,2-Dichloroethane	ND		20	2.5	ug/L			10/25/13 15:35	10
1,3,5-Trimethylbenzene	ND		20	2.5	ug/L			10/25/13 15:35	10
Bromobenzene	ND		50	2.5	ug/L			10/25/13 15:35	10
Toluene	ND		20	2.5	ug/L			10/25/13 15:35	10
Chlorobenzene	**700**		20	2.5	ug/L			10/25/13 15:35	10
1,2,4-Trichlorobenzene	**6.0**	**J**	50	2.5	ug/L			10/25/13 15:35	10
Dibromochloromethane	ND		20	2.5	ug/L			10/25/13 15:35	10
Tetrachloroethene	ND		20	2.5	ug/L			10/25/13 15:35	10
sec-Butylbenzene	ND		50	2.5	ug/L			10/25/13 15:35	10
m,p-Xylene	ND		20	5.0	ug/L			10/25/13 15:35	10
1,3-Dichloropropane	ND		20	2.5	ug/L			10/25/13 15:35	10
cis-1,2-Dichloroethene	ND		20	2.5	ug/L			10/25/13 15:35	10
trans-1,2-Dichloroethene	ND		20	2.5	ug/L			10/25/13 15:35	10
1,3-Dichlorobenzene	**11**	**J**	20	2.5	ug/L			10/25/13 15:35	10
Carbon tetrachloride	ND		10	2.5	ug/L			10/25/13 15:35	10
1,1-Dichloropropene	ND		20	2.5	ug/L			10/25/13 15:35	10
2,2-Dichloropropane	ND		20	2.5	ug/L			10/25/13 15:35	10
1,1,1,2-Tetrachloroethane	ND		50	2.5	ug/L			10/25/13 15:35	10
Chloroform	ND		20	2.5	ug/L			10/25/13 15:35	10
1,1,1-Trichloroethane	ND		20	2.5	ug/L			10/25/13 15:35	10
Bromomethane	ND		50	2.5	ug/L			10/25/13 15:35	10
Chloromethane	ND		50	2.5	ug/L			10/25/13 15:35	10
Dibromomethane	ND		20	2.5	ug/L			10/25/13 15:35	10
Bromochloromethane	ND		50	2.5	ug/L			10/25/13 15:35	10
Chloroethane	ND		50	2.5	ug/L			10/25/13 15:35	10
Vinyl chloride	ND		50	2.5	ug/L			10/25/13 15:35	10
Methylene Chloride	ND		20	5.0	ug/L			10/25/13 15:35	10
Bromoform	ND		50	2.5	ug/L			10/25/13 15:35	10

Client Sample ID: MC-50-20131014

Lab Sample ID: 440-59760-4

Date Collected: 10/14/13 12:15

Matrix: Water

Date Received: 10/15/13 10:25

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		20	2.5	ug/L			10/25/13 15:35	10
1,1-Dichloroethane	ND		20	2.5	ug/L			10/25/13 15:35	10
1,1-Dichloroethene	ND		50	2.5	ug/L			10/25/13 15:35	10
Trichlorofluoromethane	ND		50	2.5	ug/L			10/25/13 15:35	10
Dichlorodifluoromethane	ND		50	2.5	ug/L			10/25/13 15:35	10
1,2-Dichloropropane	ND		20	2.5	ug/L			10/25/13 15:35	10
1,1,2-Trichloroethane	ND		20	2.5	ug/L			10/25/13 15:35	10
Trichloroethene	ND		20	2.5	ug/L			10/25/13 15:35	10
1,1,2,2-Tetrachloroethane	ND		20	2.5	ug/L			10/25/13 15:35	10
1,2,3-Trichlorobenzene	ND		50	2.5	ug/L			10/25/13 15:35	10
Hexachlorobutadiene	ND		50	2.5	ug/L			10/25/13 15:35	10
Naphthalene	ND		50	2.5	ug/L			10/25/13 15:35	10
o-Xylene	ND		20	2.5	ug/L			10/25/13 15:35	10
2-Chlorotoluene	ND		50	2.5	ug/L			10/25/13 15:35	10
1,2-Dichlorobenzene	**7.7**	**J**	20	2.5	ug/L			10/25/13 15:35	10
1,2,4-Trimethylbenzene	ND		20	2.5	ug/L			10/25/13 15:35	10
1,2-Dibromo-3-Chloropropane	ND		50	5.0	ug/L			10/25/13 15:35	10
1,2,3-Trichloropropane	ND		100	2.5	ug/L			10/25/13 15:35	10
tert-Butylbenzene	ND		50	2.5	ug/L			10/25/13 15:35	10
Isopropylbenzene	ND		20	2.5	ug/L			10/25/13 15:35	10
p-Isopropyltoluene	ND		20	2.5	ug/L			10/25/13 15:35	10
Dimethyl disulfide	ND		20	10	ug/L			10/25/13 15:35	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*107*		*80 - 128*		*10/25/13 15:35*	*10*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*10/25/13 15:35*	*10*
Dibromofluoromethane (Surr)	*107*		*76 - 132*		*10/25/13 15:35*	*10*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**960**		100	13	ug/L			10/25/13 16:34	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*108*		*80 - 128*		*10/25/13 16:34*	*50*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*10/25/13 16:34*	*50*
Dibromofluoromethane (Surr)	*109*		*76 - 132*		*10/25/13 16:34*	*50*

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		0.094	0.019	ug/L		10/17/13 10:29	10/19/13 02:36	1
2,4'-DDE	ND		0.094	0.019	ug/L		10/17/13 10:29	10/19/13 02:36	1
2,4'-DDT	ND		0.094	0.019	ug/L		10/17/13 10:29	10/19/13 02:36	1
4,4'-DDD	ND		0.094	0.0038	ug/L		10/17/13 10:29	10/19/13 02:36	1
4,4'-DDE	ND		0.094	0.0028	ug/L		10/17/13 10:29	10/19/13 02:36	1
4,4'-DDT	ND		0.094	0.0038	ug/L		10/17/13 10:29	10/19/13 02:36	1
Aldrin	ND		0.0047	0.0014	ug/L		10/17/13 10:29	10/19/13 02:36	1
alpha-BHC	ND		0.0047	0.0024	ug/L		10/17/13 10:29	10/19/13 02:36	1
beta-BHC	ND		0.0094	0.0038	ug/L		10/17/13 10:29	10/19/13 02:36	1
Chlordane	ND		0.094	0.075	ug/L		10/17/13 10:29	10/19/13 02:36	1
delta-BHC	**0.37**		0.19	0.0033	ug/L		10/17/13 10:29	10/19/13 02:36	1

Client Sample Results

Client: de maximis, inc.
Project/Site: 3200B Transect Wells (Henderson)

TestAmerica Job ID: 440-59760-1

Client Sample ID: MC-50-20131014

Lab Sample ID: 440-59760-4

Date Collected: 10/14/13 12:15

Matrix: Water

Date Received: 10/15/13 10:25

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dieldrin	ND		0.0047	0.0019	ug/L		10/17/13 10:29	10/19/13 02:36	1
Endosulfan I	ND		0.094	0.0028	ug/L		10/17/13 10:29	10/19/13 02:36	1
Endosulfan II	ND		0.094	0.0019	ug/L		10/17/13 10:29	10/19/13 02:36	1
Endosulfan sulfate	ND		0.19	0.0028	ug/L		10/17/13 10:29	10/19/13 02:36	1
Endrin	ND		0.094	0.0019	ug/L		10/17/13 10:29	10/19/13 02:36	1
Endrin aldehyde	ND		0.094	0.0019	ug/L		10/17/13 10:29	10/19/13 02:36	1
Endrin ketone	ND		0.094	0.0066	ug/L		10/17/13 10:29	10/19/13 02:36	1
gamma-BHC (Lindane)	**0.13**		0.094	0.0028	ug/L		10/17/13 10:29	10/19/13 02:36	1
Heptachlor	ND		0.0094	0.0028	ug/L		10/17/13 10:29	10/19/13 02:36	1
Heptachlor epoxide	ND		0.0047	0.0024	ug/L		10/17/13 10:29	10/19/13 02:36	1
Methoxychlor	ND		0.094	0.0033	ug/L		10/17/13 10:29	10/19/13 02:36	1
Toxaphene	ND		4.7	0.24	ug/L		10/17/13 10:29	10/19/13 02:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*86*		*45 - 120*	*10/17/13 10:29*	*10/19/13 02:36*	*1*
Tetrachloro-m-xylene	*73*		*35 - 115*	*10/17/13 10:29*	*10/19/13 02:36*	*1*

Method Summary

Client: de maximis, inc.
Project/Site: 3200B Transect Wells (Henderson)

TestAmerica Job ID: 440-59760-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8081A	Organochlorine Pesticides (GC)	SW846	TAL IRV

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: de maximis, inc.
Project/Site: 3200B Transect Wells (Henderson)

TestAmerica Job ID: 440-59760-1

Client Sample ID: MC-47-20131014

Lab Sample ID: 440-59760-1
Date Collected: 10/14/13 08:25
Matrix: Water
Date Received: 10/15/13 10:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	140131	10/25/13 13:07	AT	TAL IRV
Total/NA	Prep	3510C			1055 mL	2 mL	138216	10/17/13 10:29	AC	TAL IRV
Total/NA	Analysis	8081A		1	1055 mL	2 mL	138567	10/19/13 01:13	KS	TAL IRV
Total/NA	Prep	3510C	DL		1055 mL	2 mL	138216	10/17/13 10:29	AC	TAL IRV
Total/NA	Analysis	8081A	DL	5	1055 mL	2 mL	139040	10/21/13 19:00	KS	TAL IRV

Client Sample ID: MC-48-20131014

Lab Sample ID: 440-59760-2
Date Collected: 10/14/13 09:40
Matrix: Water
Date Received: 10/15/13 10:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	140131	10/25/13 14:36	AT	TAL IRV
Total/NA	Prep	3510C			1035 mL	2 mL	138216	10/17/13 10:29	AC	TAL IRV
Total/NA	Analysis	8081A		1	1035 mL	2 mL	138567	10/19/13 01:41	KS	TAL IRV
Total/NA	Prep	3510C	DL		1035 mL	2 mL	138216	10/17/13 10:29	AC	TAL IRV
Total/NA	Analysis	8081A	DL	10	1035 mL	2 mL	139040	10/21/13 19:14	KS	TAL IRV

Client Sample ID: MC-49-20131014

Lab Sample ID: 440-59760-3
Date Collected: 10/14/13 10:55
Matrix: Water
Date Received: 10/15/13 10:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	140131	10/25/13 15:06	AT	TAL IRV
Total/NA	Analysis	8260B	DL	5	10 mL	10 mL	140131	10/25/13 16:05	AT	TAL IRV
Total/NA	Prep	3510C			1060 mL	2 mL	138216	10/17/13 10:29	AC	TAL IRV
Total/NA	Analysis	8081A		1	1060 mL	2 mL	138567	10/19/13 02:09	KS	TAL IRV
Total/NA	Prep	3510C	DL		1060 mL	2 mL	138216	10/17/13 10:29	AC	TAL IRV
Total/NA	Analysis	8081A	DL	50	1060 mL	2 mL	139040	10/21/13 19:28	KS	TAL IRV

Client Sample ID: MC-50-20131014

Lab Sample ID: 440-59760-4
Date Collected: 10/14/13 12:15
Matrix: Water
Date Received: 10/15/13 10:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	10 mL	10 mL	140131	10/25/13 15:35	AT	TAL IRV
Total/NA	Analysis	8260B	DL	50	10 mL	10 mL	140131	10/25/13 16:34	AT	TAL IRV
Total/NA	Prep	3510C			1060 mL	2 mL	138216	10/17/13 10:29	AC	TAL IRV
Total/NA	Analysis	8081A		1	1060 mL	2 mL	138567	10/19/13 02:36	KS	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-140131/4
Matrix: Water
Analysis Batch: 140131

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
Styrene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
cis-1,3-Dichloropropene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
trans-1,3-Dichloropropene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
N-Propylbenzene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
n-Butylbenzene	ND		5.0	0.25	ug/L			10/25/13 11:08	1
4-Chlorotoluene	ND		5.0	0.25	ug/L			10/25/13 11:08	1
1,4-Dichlorobenzene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
1,2-Dibromoethane (EDB)	ND		2.0	0.25	ug/L			10/25/13 11:08	1
1,2-Dichloroethane	ND		2.0	0.25	ug/L			10/25/13 11:08	1
1,3,5-Trimethylbenzene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
Bromobenzene	ND		5.0	0.25	ug/L			10/25/13 11:08	1
Toluene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
Chlorobenzene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
1,2,4-Trichlorobenzene	ND		5.0	0.25	ug/L			10/25/13 11:08	1
Dibromochloromethane	ND		2.0	0.25	ug/L			10/25/13 11:08	1
Tetrachloroethene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
sec-Butylbenzene	ND		5.0	0.25	ug/L			10/25/13 11:08	1
m,p-Xylene	ND		2.0	0.50	ug/L			10/25/13 11:08	1
1,3-Dichloropropane	ND		2.0	0.25	ug/L			10/25/13 11:08	1
cis-1,2-Dichloroethene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
trans-1,2-Dichloroethene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
Carbon tetrachloride	ND		1.0	0.25	ug/L			10/25/13 11:08	1
1,1-Dichloropropene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
2,2-Dichloropropane	ND		2.0	0.25	ug/L			10/25/13 11:08	1
1,1,1,2-Tetrachloroethane	ND		5.0	0.25	ug/L			10/25/13 11:08	1
Chloroform	ND		2.0	0.25	ug/L			10/25/13 11:08	1
Benzene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
1,1,1-Trichloroethane	ND		2.0	0.25	ug/L			10/25/13 11:08	1
Bromomethane	ND		5.0	0.25	ug/L			10/25/13 11:08	1
Chloromethane	ND		5.0	0.25	ug/L			10/25/13 11:08	1
Dibromomethane	ND		2.0	0.25	ug/L			10/25/13 11:08	1
Bromochloromethane	ND		5.0	0.25	ug/L			10/25/13 11:08	1
Chloroethane	ND		5.0	0.25	ug/L			10/25/13 11:08	1
Vinyl chloride	ND		5.0	0.25	ug/L			10/25/13 11:08	1
Methylene Chloride	ND		2.0	0.50	ug/L			10/25/13 11:08	1
Bromoform	ND		5.0	0.25	ug/L			10/25/13 11:08	1
Bromodichloromethane	ND		2.0	0.25	ug/L			10/25/13 11:08	1
1,1-Dichloroethane	ND		2.0	0.25	ug/L			10/25/13 11:08	1
1,1-Dichloroethene	ND		5.0	0.25	ug/L			10/25/13 11:08	1
Trichlorofluoromethane	ND		5.0	0.25	ug/L			10/25/13 11:08	1
Dichlorodifluoromethane	ND		5.0	0.25	ug/L			10/25/13 11:08	1
1,2-Dichloropropane	ND		2.0	0.25	ug/L			10/25/13 11:08	1
1,1,2-Trichloroethane	ND		2.0	0.25	ug/L			10/25/13 11:08	1
Trichloroethene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.25	ug/L			10/25/13 11:08	1
1,2,3-Trichlorobenzene	ND		5.0	0.25	ug/L			10/25/13 11:08	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-140131/4
Matrix: Water
Analysis Batch: 140131

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	ND		5.0	0.25	ug/L			10/25/13 11:08	1
Naphthalene	ND		5.0	0.25	ug/L			10/25/13 11:08	1
o-Xylene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
2-Chlorotoluene	ND		5.0	0.25	ug/L			10/25/13 11:08	1
1,2-Dichlorobenzene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
1,2,4-Trimethylbenzene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			10/25/13 11:08	1
1,2,3-Trichloropropane	ND		10	0.25	ug/L			10/25/13 11:08	1
tert-Butylbenzene	ND		5.0	0.25	ug/L			10/25/13 11:08	1
Isopropylbenzene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
p-Isopropyltoluene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
Dimethyl disulfide	ND		2.0	1.0	ug/L			10/25/13 11:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*108*		*80 - 128*		*10/25/13 11:08*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*10/25/13 11:08*	*1*
Dibromofluoromethane (Surr)	*106*		*76 - 132*		*10/25/13 11:08*	*1*

Lab Sample ID: LCS 440-140131/5
Matrix: Water
Analysis Batch: 140131

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	25.0	25.7		ug/L		103	70 - 130
Styrene	25.0	27.9		ug/L		112	70 - 134
cis-1,3-Dichloropropene	25.0	30.1		ug/L		120	70 - 133
trans-1,3-Dichloropropene	25.0	28.1		ug/L		112	70 - 132
N-Propylbenzene	25.0	25.5		ug/L		102	67 - 139
n-Butylbenzene	25.0	24.4		ug/L		98	65 - 150
4-Chlorotoluene	25.0	25.6		ug/L		102	70 - 130
1,4-Dichlorobenzene	25.0	24.5		ug/L		98	70 - 130
1,2-Dibromoethane (EDB)	25.0	26.6		ug/L		107	70 - 130
1,2-Dichloroethane	25.0	25.9		ug/L		104	57 - 138
1,3,5-Trimethylbenzene	25.0	25.9		ug/L		104	70 - 136
Bromobenzene	25.0	26.6		ug/L		106	70 - 130
Toluene	25.0	26.5		ug/L		106	70 - 130
Chlorobenzene	25.0	24.8		ug/L		99	70 - 130
1,2,4-Trichlorobenzene	25.0	26.0		ug/L		104	60 - 140
Dibromochloromethane	25.0	27.0		ug/L		108	69 - 145
Tetrachloroethene	25.0	22.5		ug/L		90	70 - 130
sec-Butylbenzene	25.0	24.2		ug/L		97	70 - 138
m,p-Xylene	50.0	50.7		ug/L		101	70 - 130
1,3-Dichloropropane	25.0	26.4		ug/L		106	70 - 130
cis-1,2-Dichloroethene	25.0	31.0		ug/L		124	70 - 133
trans-1,2-Dichloroethene	25.0	28.4		ug/L		114	70 - 130
1,3-Dichlorobenzene	25.0	25.6		ug/L		102	70 - 130
Carbon tetrachloride	25.0	25.0		ug/L		100	60 - 150
1,1-Dichloropropene	25.0	25.1		ug/L		100	70 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-140131/5
Matrix: Water
Analysis Batch: 140131

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,2-Dichloropropane	25.0	26.4		ug/L		106	68 - 141
1,1,1,2-Tetrachloroethane	25.0	27.6		ug/L		110	60 - 141
Chloroform	25.0	28.3		ug/L		113	70 - 130
Benzene	25.0	25.0		ug/L		100	68 - 130
1,1,1-Trichloroethane	25.0	25.9		ug/L		103	70 - 130
Bromomethane	25.0	26.8		ug/L		107	64 - 139
Chloromethane	25.0	27.5		ug/L		110	47 - 140
Dibromomethane	25.0	28.5		ug/L		114	70 - 130
Bromochloromethane	25.0	29.5		ug/L		118	70 - 130
Chloroethane	25.0	27.2		ug/L		109	64 - 135
Vinyl chloride	25.0	25.7		ug/L		103	59 - 133
Methylene Chloride	25.0	29.8		ug/L		119	52 - 130
Bromoform	25.0	29.9		ug/L		119	60 - 148
Bromodichloromethane	25.0	29.1		ug/L		116	70 - 132
1,1-Dichloroethane	25.0	28.8		ug/L		115	64 - 130
1,1-Dichloroethene	25.0	30.3		ug/L		121	70 - 130
Trichlorofluoromethane	25.0	30.6		ug/L		122	60 - 150
Dichlorodifluoromethane	25.0	28.3		ug/L		113	29 - 150
1,2-Dichloropropane	25.0	28.5		ug/L		114	67 - 130
1,1,2-Trichloroethane	25.0	29.0		ug/L		116	70 - 130
Trichloroethene	25.0	25.3		ug/L		101	70 - 130
1,1,2,2-Tetrachloroethane	25.0	28.0		ug/L		112	63 - 130
1,2,3-Trichlorobenzene	25.0	26.3		ug/L		105	60 - 140
Hexachlorobutadiene	25.0	23.4		ug/L		94	10 - 150
Naphthalene	25.0	28.5		ug/L		114	60 - 140
o-Xylene	25.0	26.7		ug/L		107	70 - 130
2-Chlorotoluene	25.0	25.4		ug/L		102	70 - 130
1,2-Dichlorobenzene	25.0	26.0		ug/L		104	70 - 130
1,2,4-Trimethylbenzene	25.0	26.7		ug/L		107	70 - 135
1,2-Dibromo-3-Chloropropane	25.0	25.1		ug/L		100	52 - 140
1,2,3-Trichloropropane	25.0	26.2		ug/L		105	63 - 130
tert-Butylbenzene	25.0	24.5		ug/L		98	70 - 130
Isopropylbenzene	25.0	24.8		ug/L		99	70 - 136
p-Isopropyltoluene	25.0	23.0		ug/L		92	70 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*108*		*80 - 128*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*
Dibromofluoromethane (Surr)	*109*		*76 - 132*

Lab Sample ID: 440-59760-1 MS
Matrix: Water
Analysis Batch: 140131

Client Sample ID: MC-47-20131014
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	ND		25.0	25.5		ug/L		102	70 - 130
Styrene	ND		25.0	ND	F	ug/L		0	29 - 150
cis-1,3-Dichloropropene	ND		25.0	28.8		ug/L		115	70 - 133

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-59760-1 MS
Matrix: Water
Analysis Batch: 140131

Client Sample ID: MC-47-20131014
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	ND		25.0	27.4		ug/L		110	70 - 138
N-Propylbenzene	ND		25.0	25.5		ug/L		102	66 - 135
n-Butylbenzene	ND		25.0	25.0		ug/L		100	61 - 149
4-Chlorotoluene	ND		25.0	25.8		ug/L		103	70 - 130
1,4-Dichlorobenzene	ND		25.0	25.1		ug/L		100	70 - 130
1,2-Dibromoethane (EDB)	ND		25.0	27.7		ug/L		111	70 - 131
1,2-Dichloroethane	ND		25.0	25.0		ug/L		100	56 - 146
1,3,5-Trimethylbenzene	ND		25.0	25.2		ug/L		101	70 - 130
Bromobenzene	ND		25.0	26.6		ug/L		106	70 - 130
Toluene	ND		25.0	25.2		ug/L		101	70 - 130
Chlorobenzene	ND		25.0	25.4		ug/L		102	70 - 130
1,2,4-Trichlorobenzene	ND		25.0	27.3		ug/L		109	60 - 140
Dibromochloromethane	ND		25.0	28.3		ug/L		113	70 - 148
Tetrachloroethene	ND		25.0	22.3		ug/L		89	70 - 137
sec-Butylbenzene	ND		25.0	24.4		ug/L		98	67 - 134
m,p-Xylene	ND		50.0	51.8		ug/L		104	70 - 133
1,3-Dichloropropane	ND		25.0	27.5		ug/L		110	70 - 130
cis-1,2-Dichloroethene	ND		25.0	26.8		ug/L		107	70 - 130
trans-1,2-Dichloroethene	ND		25.0	23.9		ug/L		95	70 - 130
1,3-Dichlorobenzene	ND		25.0	26.3		ug/L		105	70 - 130
Carbon tetrachloride	ND		25.0	22.4		ug/L		90	60 - 150
1,1-Dichloropropene	ND		25.0	22.2		ug/L		89	64 - 130
2,2-Dichloropropane	ND		25.0	22.2		ug/L		89	69 - 138
1,1,1,2-Tetrachloroethane	ND		25.0	28.6		ug/L		114	60 - 149
Chloroform	8.9		25.0	33.9		ug/L		100	70 - 130
Benzene	ND		25.0	22.7		ug/L		91	66 - 130
1,1,1-Trichloroethane	ND		25.0	23.0		ug/L		92	70 - 130
Bromomethane	ND		25.0	21.2		ug/L		85	62 - 131
Chloromethane	ND		25.0	20.5		ug/L		82	39 - 144
Dibromomethane	ND		25.0	27.6		ug/L		110	70 - 130
Bromochloromethane	ND		25.0	26.6		ug/L		106	70 - 130
Chloroethane	ND		25.0	21.4		ug/L		86	68 - 130
Vinyl chloride	ND		25.0	19.6		ug/L		79	50 - 137
Methylene Chloride	ND		25.0	24.9		ug/L		100	52 - 130
Bromoform	ND		25.0	30.4		ug/L		122	59 - 150
Bromodichloromethane	ND		25.0	28.3		ug/L		113	70 - 138
1,1-Dichloroethane	ND		25.0	25.0		ug/L		100	65 - 130
1,1-Dichloroethene	ND		25.0	24.3		ug/L		97	70 - 130
Trichlorofluoromethane	ND		25.0	25.1		ug/L		100	60 - 150
Dichlorodifluoromethane	ND		25.0	21.1		ug/L		85	25 - 142
1,2-Dichloropropane	ND		25.0	26.8		ug/L		107	69 - 130
1,1,2-Trichloroethane	ND		25.0	29.2		ug/L		117	70 - 130
Trichloroethene	ND		25.0	23.4		ug/L		94	70 - 130
1,1,2,2-Tetrachloroethane	ND		25.0	29.8		ug/L		119	63 - 130
1,2,3-Trichlorobenzene	ND		25.0	27.2		ug/L		109	60 - 140
Hexachlorobutadiene	ND		25.0	24.1		ug/L		96	10 - 150
Naphthalene	ND		25.0	29.4		ug/L		118	60 - 140
o-Xylene	ND		25.0	26.4		ug/L		106	70 - 133

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-59760-1 MS
Matrix: Water
Analysis Batch: 140131

Client Sample ID: MC-47-20131014
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chlorotoluene	ND		25.0	25.6		ug/L		102	70 - 130
1,2-Dichlorobenzene	ND		25.0	26.9		ug/L		107	70 - 130
1,2,4-Trimethylbenzene	ND		25.0	26.8		ug/L		107	70 - 130
1,2-Dibromo-3-Chloropropane	ND		25.0	25.0		ug/L		100	48 - 140
1,2,3-Trichloropropane	ND		25.0	27.3		ug/L		109	60 - 130
tert-Butylbenzene	ND		25.0	25.1		ug/L		100	70 - 130
Isopropylbenzene	ND		25.0	24.5		ug/L		98	70 - 132
p-Isopropyltoluene	ND		25.0	23.3		ug/L		93	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Toluene-d8 (Surr)	*108*		*80 - 128*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*
Dibromofluoromethane (Surr)	*106*		*76 - 132*

Lab Sample ID: 440-59760-1 MSD
Matrix: Water
Analysis Batch: 140131

Client Sample ID: MC-47-20131014
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene	ND		25.0	26.4		ug/L		106	70 - 130	3	20
Styrene	ND		25.0	ND	F	ug/L		0	29 - 150	NC	35
cis-1,3-Dichloropropene	ND		25.0	29.6		ug/L		119	70 - 133	3	20
trans-1,3-Dichloropropene	ND		25.0	28.8		ug/L		115	70 - 138	5	25
N-Propylbenzene	ND		25.0	26.2		ug/L		105	66 - 135	3	20
n-Butylbenzene	ND		25.0	25.6		ug/L		102	61 - 149	2	20
4-Chlorotoluene	ND		25.0	26.2		ug/L		105	70 - 130	2	20
1,4-Dichlorobenzene	ND		25.0	25.8		ug/L		103	70 - 130	3	20
1,2-Dibromoethane (EDB)	ND		25.0	29.1		ug/L		117	70 - 131	5	25
1,2-Dichloroethane	ND		25.0	25.4		ug/L		102	56 - 146	2	20
1,3,5-Trimethylbenzene	ND		25.0	25.6		ug/L		102	70 - 130	1	20
Bromobenzene	ND		25.0	27.8		ug/L		111	70 - 130	4	20
Toluene	ND		25.0	25.6		ug/L		103	70 - 130	2	20
Chlorobenzene	ND		25.0	25.8		ug/L		103	70 - 130	1	20
1,2,4-Trichlorobenzene	ND		25.0	28.8		ug/L		115	60 - 140	5	20
Dibromochloromethane	ND		25.0	29.2		ug/L		117	70 - 148	3	25
Tetrachloroethene	ND		25.0	22.6		ug/L		90	70 - 137	1	20
sec-Butylbenzene	ND		25.0	25.0		ug/L		100	67 - 134	3	20
m,p-Xylene	ND		50.0	53.3		ug/L		107	70 - 133	3	25
1,3-Dichloropropane	ND		25.0	28.2		ug/L		113	70 - 130	3	25
cis-1,2-Dichloroethene	ND		25.0	28.5		ug/L		114	70 - 130	6	20
trans-1,2-Dichloroethene	ND		25.0	24.9		ug/L		99	70 - 130	4	20
1,3-Dichlorobenzene	ND		25.0	27.1		ug/L		108	70 - 130	3	20
Carbon tetrachloride	ND		25.0	22.6		ug/L		91	60 - 150	1	25
1,1-Dichloropropene	ND		25.0	22.9		ug/L		92	64 - 130	3	20
2,2-Dichloropropane	ND		25.0	23.8		ug/L		95	69 - 138	7	25
1,1,1,2-Tetrachloroethane	ND		25.0	29.1		ug/L		116	60 - 149	2	20
Chloroform	8.9		25.0	34.5		ug/L		103	70 - 130	2	20
Benzene	ND		25.0	23.0		ug/L		92	66 - 130	1	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-59760-1 MSD
Matrix: Water
Analysis Batch: 140131

Client Sample ID: MC-47-20131014
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND		25.0	23.6		ug/L		94	70 - 130	3	20
Bromomethane	ND		25.0	21.0		ug/L		84	62 - 131	1	25
Chloromethane	ND		25.0	21.6		ug/L		86	39 - 144	5	25
Dibromomethane	ND		25.0	28.7		ug/L		115	70 - 130	4	25
Bromochloromethane	ND		25.0	28.2		ug/L		113	70 - 130	6	25
Chloroethane	ND		25.0	21.8		ug/L		87	68 - 130	2	25
Vinyl chloride	ND		25.0	20.2		ug/L		81	50 - 137	3	30
Methylene Chloride	ND		25.0	25.4		ug/L		101	52 - 130	2	20
Bromoform	ND		25.0	32.5		ug/L		130	59 - 150	7	25
Bromodichloromethane	ND		25.0	29.2		ug/L		117	70 - 138	3	20
1,1-Dichloroethane	ND		25.0	26.0		ug/L		104	65 - 130	4	20
1,1-Dichloroethene	ND		25.0	25.7		ug/L		103	70 - 130	5	20
Trichlorofluoromethane	ND		25.0	25.0		ug/L		100	60 - 150	0	25
Dichlorodifluoromethane	ND		25.0	21.6		ug/L		86	25 - 142	2	30
1,2-Dichloropropane	ND		25.0	27.6		ug/L		110	69 - 130	3	20
1,1,2-Trichloroethane	ND		25.0	30.2		ug/L		121	70 - 130	3	25
Trichloroethene	ND		25.0	23.5		ug/L		94	70 - 130	1	20
1,1,2,2-Tetrachloroethane	ND		25.0	31.5		ug/L		126	63 - 130	5	30
1,2,3-Trichlorobenzene	ND		25.0	29.2		ug/L		117	60 - 140	7	20
Hexachlorobutadiene	ND		25.0	25.2		ug/L		101	10 - 150	5	20
Naphthalene	ND		25.0	32.0		ug/L		128	60 - 140	8	30
o-Xylene	ND		25.0	27.2		ug/L		109	70 - 133	3	20
2-Chlorotoluene	ND		25.0	26.4		ug/L		106	70 - 130	3	20
1,2-Dichlorobenzene	ND		25.0	27.9		ug/L		111	70 - 130	4	20
1,2,4-Trimethylbenzene	ND		25.0	27.4		ug/L		110	70 - 130	2	25
1,2-Dibromo-3-Chloropropane	ND		25.0	28.7		ug/L		115	48 - 140	14	30
1,2,3-Trichloropropane	ND		25.0	29.8		ug/L		119	60 - 130	8	30
tert-Butylbenzene	ND		25.0	25.7		ug/L		103	70 - 130	2	20
Isopropylbenzene	ND		25.0	25.3		ug/L		101	70 - 132	3	20
p-Isopropyltoluene	ND		25.0	23.7		ug/L		95	70 - 130	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*107*		*80 - 128*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*
Dibromofluoromethane (Surr)	*107*		*76 - 132*

Method: 8081A - Organochlorine Pesticides (GC)

Lab Sample ID: MB 440-138216/1-A
Matrix: Water
Analysis Batch: 138567

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 138216

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		0.10	0.020	ug/L		10/17/13 10:29	10/18/13 22:55	1
2,4'-DDE	ND		0.10	0.020	ug/L		10/17/13 10:29	10/18/13 22:55	1
2,4'-DDT	ND		0.10	0.020	ug/L		10/17/13 10:29	10/18/13 22:55	1
4,4'-DDD	ND		0.10	0.0040	ug/L		10/17/13 10:29	10/18/13 22:55	1
4,4'-DDE	ND		0.10	0.0030	ug/L		10/17/13 10:29	10/18/13 22:55	1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 440-138216/1-A
Matrix: Water
Analysis Batch: 138567

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 138216

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDT	ND		0.10	0.0040	ug/L		10/17/13 10:29	10/18/13 22:55	1
Aldrin	ND		0.0050	0.0015	ug/L		10/17/13 10:29	10/18/13 22:55	1
alpha-BHC	ND		0.0050	0.0025	ug/L		10/17/13 10:29	10/18/13 22:55	1
beta-BHC	ND		0.010	0.0040	ug/L		10/17/13 10:29	10/18/13 22:55	1
Chlordane	ND		0.10	0.080	ug/L		10/17/13 10:29	10/18/13 22:55	1
delta-BHC	ND		0.20	0.0035	ug/L		10/17/13 10:29	10/18/13 22:55	1
Dieldrin	ND		0.0050	0.0020	ug/L		10/17/13 10:29	10/18/13 22:55	1
Endosulfan I	ND		0.10	0.0030	ug/L		10/17/13 10:29	10/18/13 22:55	1
Endosulfan II	ND		0.10	0.0020	ug/L		10/17/13 10:29	10/18/13 22:55	1
Endosulfan sulfate	ND		0.20	0.0030	ug/L		10/17/13 10:29	10/18/13 22:55	1
Endrin	ND		0.10	0.0020	ug/L		10/17/13 10:29	10/18/13 22:55	1
Endrin aldehyde	ND		0.10	0.0020	ug/L		10/17/13 10:29	10/18/13 22:55	1
Endrin ketone	ND		0.10	0.0070	ug/L		10/17/13 10:29	10/18/13 22:55	1
gamma-BHC (Lindane)	ND		0.10	0.0030	ug/L		10/17/13 10:29	10/18/13 22:55	1
Heptachlor	ND		0.010	0.0030	ug/L		10/17/13 10:29	10/18/13 22:55	1
Heptachlor epoxide	ND		0.0050	0.0025	ug/L		10/17/13 10:29	10/18/13 22:55	1
Methoxychlor	ND		0.10	0.0035	ug/L		10/17/13 10:29	10/18/13 22:55	1
Toxaphene	ND		5.0	0.25	ug/L		10/17/13 10:29	10/18/13 22:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*91*		*45 - 120*	*10/17/13 10:29*	*10/18/13 22:55*	*1*
Tetrachloro-m-xylene	*73*		*35 - 115*	*10/17/13 10:29*	*10/18/13 22:55*	*1*

Lab Sample ID: LCS 440-138216/2-A
Matrix: Water
Analysis Batch: 138567

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 138216

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4'-DDD	0.500	0.418		ug/L		84	55 - 120
2,4'-DDE	0.500	0.411		ug/L		82	50 - 120
2,4'-DDT	0.500	0.412		ug/L		82	55 - 120
4,4'-DDD	0.500	0.396		ug/L		79	55 - 120
4,4'-DDE	0.500	0.375		ug/L		75	50 - 120
4,4'-DDT	0.500	0.382		ug/L		76	55 - 120
Aldrin	0.500	0.307		ug/L		61	40 - 115
alpha-BHC	0.500	0.379		ug/L		76	45 - 115
beta-BHC	0.500	0.409		ug/L		82	55 - 115
delta-BHC	0.500	0.413		ug/L		83	55 - 115
Dieldrin	0.500	0.372		ug/L		74	55 - 115
Endosulfan I	0.500	0.367		ug/L		73	55 - 115
Endosulfan II	0.500	0.362		ug/L		72	55 - 120
Endosulfan sulfate	0.500	0.410		ug/L		82	60 - 120
Endrin	0.500	0.382		ug/L		76	55 - 115
Endrin aldehyde	0.500	0.385		ug/L		77	50 - 120
Endrin ketone	0.500	0.376		ug/L		75	55 - 120
gamma-BHC (Lindane)	0.500	0.372		ug/L		74	45 - 115
Heptachlor	0.500	0.391		ug/L		78	45 - 115
Heptachlor epoxide	0.500	0.375		ug/L		75	55 - 115

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 440-138216/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138567 — **Prep Batch: 138216**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methoxychlor	0.500	0.389		ug/L		78	60 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*86*		*45 - 120*
Tetrachloro-m-xylene	*74*		*35 - 115*

Lab Sample ID: LCSD 440-138216/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 138567 — **Prep Batch: 138216**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4'-DDD	0.500	0.409		ug/L		82	55 - 120	2	30
2,4'-DDE	0.500	0.401		ug/L		80	50 - 120	2	30
2,4'-DDT	0.500	0.402		ug/L		80	55 - 120	2	30
4,4'-DDD	0.500	0.390		ug/L		78	55 - 120	1	30
4,4'-DDE	0.500	0.366		ug/L		73	50 - 120	2	30
4,4'-DDT	0.500	0.374		ug/L		75	55 - 120	2	30
Aldrin	0.500	0.309		ug/L		62	40 - 115	1	30
alpha-BHC	0.500	0.370		ug/L		74	45 - 115	2	30
beta-BHC	0.500	0.398		ug/L		80	55 - 115	3	30
delta-BHC	0.500	0.405		ug/L		81	55 - 115	2	30
Dieldrin	0.500	0.365		ug/L		73	55 - 115	2	30
Endosulfan I	0.500	0.359		ug/L		72	55 - 115	2	30
Endosulfan II	0.500	0.354		ug/L		71	55 - 120	2	30
Endosulfan sulfate	0.500	0.406		ug/L		81	60 - 120	1	30
Endrin	0.500	0.376		ug/L		75	55 - 115	2	30
Endrin aldehyde	0.500	0.381		ug/L		76	50 - 120	1	30
Endrin ketone	0.500	0.370		ug/L		74	55 - 120	2	30
gamma-BHC (Lindane)	0.500	0.364		ug/L		73	45 - 115	2	30
Heptachlor	0.500	0.383		ug/L		77	45 - 115	2	30
Heptachlor epoxide	0.500	0.366		ug/L		73	55 - 115	2	30
Methoxychlor	0.500	0.383		ug/L		77	60 - 120	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*84*		*45 - 120*
Tetrachloro-m-xylene	*73*		*35 - 115*

QC Association Summary

Client: de maximis, inc.
Project/Site: 3200B Transect Wells (Henderson)

TestAmerica Job ID: 440-59760-1

GC/MS VOA

Analysis Batch: 140131

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-59760-1	MC-47-20131014	Total/NA	Water	8260B	
440-59760-1 MS	MC-47-20131014	Total/NA	Water	8260B	
440-59760-1 MSD	MC-47-20131014	Total/NA	Water	8260B	
440-59760-2	MC-48-20131014	Total/NA	Water	8260B	
440-59760-3	MC-49-20131014	Total/NA	Water	8260B	
440-59760-3 - DL	MC-49-20131014	Total/NA	Water	8260B	
440-59760-4	MC-50-20131014	Total/NA	Water	8260B	
440-59760-4 - DL	MC-50-20131014	Total/NA	Water	8260B	
LCS 440-140131/5	Lab Control Sample	Total/NA	Water	8260B	
MB 440-140131/4	Method Blank	Total/NA	Water	8260B	

GC Semi VOA

Prep Batch: 138216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-59760-1 - DL	MC-47-20131014	Total/NA	Water	3510C	
440-59760-1	MC-47-20131014	Total/NA	Water	3510C	
440-59760-2 - DL	MC-48-20131014	Total/NA	Water	3510C	
440-59760-2	MC-48-20131014	Total/NA	Water	3510C	
440-59760-3 - DL	MC-49-20131014	Total/NA	Water	3510C	
440-59760-3	MC-49-20131014	Total/NA	Water	3510C	
440-59760-4	MC-50-20131014	Total/NA	Water	3510C	
LCS 440-138216/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 440-138216/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 440-138216/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 138567

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-59760-1	MC-47-20131014	Total/NA	Water	8081A	138216
440-59760-2	MC-48-20131014	Total/NA	Water	8081A	138216
440-59760-3	MC-49-20131014	Total/NA	Water	8081A	138216
440-59760-4	MC-50-20131014	Total/NA	Water	8081A	138216
LCS 440-138216/2-A	Lab Control Sample	Total/NA	Water	8081A	138216
LCSD 440-138216/3-A	Lab Control Sample Dup	Total/NA	Water	8081A	138216
MB 440-138216/1-A	Method Blank	Total/NA	Water	8081A	138216

Analysis Batch: 139040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-59760-1 - DL	MC-47-20131014	Total/NA	Water	8081A	138216
440-59760-2 - DL	MC-48-20131014	Total/NA	Water	8081A	138216
440-59760-3 - DL	MC-49-20131014	Total/NA	Water	8081A	138216

Definitions/Glossary

Client: de maximis, inc.
Project/Site: 3200B Transect Wells (Henderson)

TestAmerica Job ID: 440-59760-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F	MS/MSD Recovery and/or RPD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: de maximis, inc.
Project/Site: 3200B Transect Wells (Henderson)

TestAmerica Job ID: 440-59760-1

Laboratory: TestAmerica Irvine

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-14
Arizona	State Program	9	AZ0671	10-13-14
California	LA Cty Sanitation Districts	9	10256	01-31-14
California	NELAP	9	1108CA	01-31-14
California	State Program	9	2706	06-30-14
Guam	State Program	9	Cert. No. 12.002r	01-28-14 *
Hawaii	State Program	9	N/A	01-31-14
Nevada	State Program	9	CA015312007A	07-31-14
New Mexico	State Program	6	N/A	01-31-14
Northern Mariana Islands	State Program	9	MP0002	01-31-14
Oregon	NELAP	10	4005	09-12-14
USDA	Federal		P330-09-00080	06-06-14
USEPA UCMR	Federal	1	CA01531	01-31-15

* Expired certification is currently pending renewal and is considered valid.

Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614
Phone 949.261.1022 fax 949.260.3299

Chain of Custody Record

440-59760 Chain of Custody

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Ed Modiano	Site Contact: Doug Bell	Date:	COC No:
de maximis, Inc.	Tel/Fax: 619-546-8377	Lab Contact: Amy Harris	Carrier:	1 of 1 COCs
1322 Scott St., Suite 101	Analysis Turnaround Time			Job No. 3200B
San Diego, CA 92106	Calendar (C) or Work Days (W)___ W___			SDG No.
(619) 546-8377 Phone	TAT if different from Below_____			
(619) 546-9980 Fax	☒ 2 weeks			
Project Name: 3200B Henderson Transect	☐ 1 week			
Site: Henderson, NV	☐ 2 days			
PO#	☐ 1 day			

Sample Identification	Container Type	Sample Date	Sample Time	Preservation Type	Matrix	# of Containers	Filtered Sample	8260B-HEND-Qtrly	8081A-Pesticides + DDT ByProd								VOC concentration > 500 ppb	MS/MSD REQUIRED	LEVEL IV REQUIRED	Sample Specific Notes:
MC-47- 20131014	Various	10/14/13	0825	4°C	AQ	5		×	×											
MC-48- 20131014	Various	10/14/13	0940	4°C	AQ	5		×	×											
MC-49- 20131014	Various	10/14/13	1055	4°C	AQ	5		×	×											
MC-50- 20131014	Various	10/14/13	1215	4°C	AQ	5		×	×											

[1] I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered fraud and subject to legal action (NAC445.0636)
Signature: [signature] Date 10/14/13

Preservation Used: 1= Ice, 2=HCl; 3=H2SO4; 4=HNO3; 5=NaOH; 6=Other_____

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ☐ *Unknown*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return to Client* ☐ Disposal by Lab Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Sample Int (circle one)
Intact: Y / N on ice: Y / N
temperature:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Condor	10/14/13 1340	[signature]	TA	10/14/13 1340
[signature]	TA	10/14/13 1620			
			[signature]	TA	10/15/13 1025

2.4/1.6°C
6-8

20

Login Sample Receipt Checklist

Client: de maximis, inc.

Job Number: 440-59760-1

Login Number: 59760

List Source: TestAmerica Irvine

List Number: 1

Creator: King, Ronald

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Sampler not listed on chain
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-59961-1
Client Project/Site: 3200B Transect Wells (Henderson)

For:
de maximis, inc.
1322 Scott Street, Suite 104
San Diego, California 92106

Attn: Ed Modiano

Authorized for release by:
10/29/2013 2:09:39 PM

Amy Harris, Project Manager I
(949)261-1022
amy.harris@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Sample Summary 3
Case Narrative 4
Client Sample Results 5
Method Summary 11
Chronicle 12
QC Sample Results 13
QC Association 21
Definitions 22
Certification Summary 23
Chain of Custody 24
Receipt Checklists 25

Sample Summary

Client: de maximis, inc.
Project/Site: 3200B Transect Wells (Henderson)

TestAmerica Job ID: 440-59961-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-59961-1	MC-53-20131015	Water	10/15/13 08:10	10/16/13 10:30
440-59961-2	MC-113-20131015	Water	10/15/13 09:25	10/16/13 10:30
440-59961-3	MC-114-20131015	Water	10/15/13 10:40	10/16/13 10:30

Case Narrative

Client: de maximis, inc.
Project/Site: 3200B Transect Wells (Henderson)

TestAmerica Job ID: 440-59961-1

Job ID: 440-59961-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-59961-1

Comments
No additional comments.

Receipt
The samples were received on 10/16/2013 10:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.1º C.

GC/MS VOA
Method(s) 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 140131 were outside control limits for Styrene. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method(s) 8260B: The following sample(s) submitted for volatiles analysis was received with insufficient preservation (pH >2): MC-113-20131015 (440-59961-2). pH is 6.

No other analytical or quality issues were noted.

GC Semi VOA
Method(s) 8081A: The continuing calibration verification (CCV) associated with batch 139722 recovered above the upper control limit for Endosulfan sulfate. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: (CCV 440-139722/24), MC-113-20131015 (440-59961-2), MC-114-20131015 (440-59961-3), MC-53-20131015 (440-59961-1).

No other analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

VOA Prep
No analytical or quality issues were noted.

Client Sample Results

Client: de maximis, inc.
Project/Site: 3200B Transect Wells (Henderson)

TestAmerica Job ID: 440-59961-1

Client Sample ID: MC-53-20131015

Lab Sample ID: 440-59961-1

Date Collected: 10/15/13 08:10

Matrix: Water

Date Received: 10/16/13 10:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		2.0	0.25	ug/L			10/25/13 17:04	1
Styrene	ND		2.0	0.25	ug/L			10/25/13 17:04	1
cis-1,3-Dichloropropene	ND		2.0	0.25	ug/L			10/25/13 17:04	1
trans-1,3-Dichloropropene	ND		2.0	0.25	ug/L			10/25/13 17:04	1
N-Propylbenzene	ND		2.0	0.25	ug/L			10/25/13 17:04	1
n-Butylbenzene	ND		5.0	0.25	ug/L			10/25/13 17:04	1
4-Chlorotoluene	ND		5.0	0.25	ug/L			10/25/13 17:04	1
1,4-Dichlorobenzene	**0.31**	**J**	2.0	0.25	ug/L			10/25/13 17:04	1
1,2-Dibromoethane (EDB)	ND		2.0	0.25	ug/L			10/25/13 17:04	1
1,2-Dichloroethane	**0.29**	**J**	2.0	0.25	ug/L			10/25/13 17:04	1
1,3,5-Trimethylbenzene	ND		2.0	0.25	ug/L			10/25/13 17:04	1
Bromobenzene	ND		5.0	0.25	ug/L			10/25/13 17:04	1
Toluene	ND		2.0	0.25	ug/L			10/25/13 17:04	1
Chlorobenzene	ND		2.0	0.25	ug/L			10/25/13 17:04	1
1,2,4-Trichlorobenzene	ND		5.0	0.25	ug/L			10/25/13 17:04	1
Dibromochloromethane	ND		2.0	0.25	ug/L			10/25/13 17:04	1
Tetrachloroethene	**0.61**	**J**	2.0	0.25	ug/L			10/25/13 17:04	1
sec-Butylbenzene	ND		5.0	0.25	ug/L			10/25/13 17:04	1
m,p-Xylene	ND		2.0	0.50	ug/L			10/25/13 17:04	1
1,3-Dichloropropane	ND		2.0	0.25	ug/L			10/25/13 17:04	1
cis-1,2-Dichloroethene	ND		2.0	0.25	ug/L			10/25/13 17:04	1
trans-1,2-Dichloroethene	ND		2.0	0.25	ug/L			10/25/13 17:04	1
1,3-Dichlorobenzene	**0.32**	**J**	2.0	0.25	ug/L			10/25/13 17:04	1
Carbon tetrachloride	ND		1.0	0.25	ug/L			10/25/13 17:04	1
1,1-Dichloropropene	ND		2.0	0.25	ug/L			10/25/13 17:04	1
2,2-Dichloropropane	ND		2.0	0.25	ug/L			10/25/13 17:04	1
1,1,1,2-Tetrachloroethane	ND		5.0	0.25	ug/L			10/25/13 17:04	1
Chloroform	**2.6**		2.0	0.25	ug/L			10/25/13 17:04	1
Benzene	ND		2.0	0.25	ug/L			10/25/13 17:04	1
1,1,1-Trichloroethane	ND		2.0	0.25	ug/L			10/25/13 17:04	1
Bromomethane	ND		5.0	0.25	ug/L			10/25/13 17:04	1
Chloromethane	ND		5.0	0.25	ug/L			10/25/13 17:04	1
Dibromomethane	ND		2.0	0.25	ug/L			10/25/13 17:04	1
Bromochloromethane	ND		5.0	0.25	ug/L			10/25/13 17:04	1
Chloroethane	**0.61**	**J**	5.0	0.25	ug/L			10/25/13 17:04	1
Vinyl chloride	ND		5.0	0.25	ug/L			10/25/13 17:04	1
Methylene Chloride	ND		2.0	0.50	ug/L			10/25/13 17:04	1
Bromoform	ND		5.0	0.25	ug/L			10/25/13 17:04	1
Bromodichloromethane	ND		2.0	0.25	ug/L			10/25/13 17:04	1
1,1-Dichloroethane	**0.78**	**J**	2.0	0.25	ug/L			10/25/13 17:04	1
1,1-Dichloroethene	ND		5.0	0.25	ug/L			10/25/13 17:04	1
Trichlorofluoromethane	ND		5.0	0.25	ug/L			10/25/13 17:04	1
Dichlorodifluoromethane	ND		5.0	0.25	ug/L			10/25/13 17:04	1
1,2-Dichloropropane	ND		2.0	0.25	ug/L			10/25/13 17:04	1
1,1,2-Trichloroethane	ND		2.0	0.25	ug/L			10/25/13 17:04	1
Trichloroethene	ND		2.0	0.25	ug/L			10/25/13 17:04	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.25	ug/L			10/25/13 17:04	1
1,2,3-Trichlorobenzene	ND		5.0	0.25	ug/L			10/25/13 17:04	1
Hexachlorobutadiene	ND		5.0	0.25	ug/L			10/25/13 17:04	1

Client Sample Results

Client: de maximis, inc.
Project/Site: 3200B Transect Wells (Henderson)

TestAmerica Job ID: 440-59961-1

Client Sample ID: MC-53-20131015

Date Collected: 10/15/13 08:10
Date Received: 10/16/13 10:30

Lab Sample ID: 440-59961-1

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0	0.25	ug/L			10/25/13 17:04	1
o-Xylene	ND		2.0	0.25	ug/L			10/25/13 17:04	1
2-Chlorotoluene	ND		5.0	0.25	ug/L			10/25/13 17:04	1
1,2-Dichlorobenzene	ND		2.0	0.25	ug/L			10/25/13 17:04	1
1,2,4-Trimethylbenzene	ND		2.0	0.25	ug/L			10/25/13 17:04	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			10/25/13 17:04	1
1,2,3-Trichloropropane	ND		10	0.25	ug/L			10/25/13 17:04	1
tert-Butylbenzene	ND		5.0	0.25	ug/L			10/25/13 17:04	1
Isopropylbenzene	ND		2.0	0.25	ug/L			10/25/13 17:04	1
p-Isopropyltoluene	ND		2.0	0.25	ug/L			10/25/13 17:04	1
Dimethyl disulfide	ND		2.0	1.0	ug/L			10/25/13 17:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*110*		*80 - 128*		*10/25/13 17:04*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*10/25/13 17:04*	*1*
Dibromofluoromethane (Surr)	*107*		*76 - 132*		*10/25/13 17:04*	*1*

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		0.095	0.019	ug/L		10/18/13 10:11	10/23/13 23:23	1
2,4'-DDE	**0.047**	**J**	0.095	0.019	ug/L		10/18/13 10:11	10/23/13 23:23	1
2,4'-DDT	ND		0.095	0.019	ug/L		10/18/13 10:11	10/23/13 23:23	1
4,4'-DDD	ND		0.095	0.0038	ug/L		10/18/13 10:11	10/23/13 23:23	1
4,4'-DDE	**0.021**	**J**	0.095	0.0028	ug/L		10/18/13 10:11	10/23/13 23:23	1
4,4'-DDT	**0.011**	**J**	0.095	0.0038	ug/L		10/18/13 10:11	10/23/13 23:23	1
Aldrin	ND		0.0047	0.0014	ug/L		10/18/13 10:11	10/23/13 23:23	1
alpha-BHC	**0.47**		0.0047	0.0024	ug/L		10/18/13 10:11	10/23/13 23:23	1
Chlordane	ND		0.095	0.076	ug/L		10/18/13 10:11	10/23/13 23:23	1
delta-BHC	**0.24**		0.19	0.0033	ug/L		10/18/13 10:11	10/23/13 23:23	1
Dieldrin	ND		0.0047	0.0019	ug/L		10/18/13 10:11	10/23/13 23:23	1
Endosulfan I	ND		0.095	0.0028	ug/L		10/18/13 10:11	10/23/13 23:23	1
Endosulfan II	ND		0.095	0.0019	ug/L		10/18/13 10:11	10/23/13 23:23	1
Endosulfan sulfate	ND		0.19	0.0028	ug/L		10/18/13 10:11	10/23/13 23:23	1
Endrin	ND		0.095	0.0019	ug/L		10/18/13 10:11	10/23/13 23:23	1
Endrin aldehyde	ND		0.095	0.0019	ug/L		10/18/13 10:11	10/23/13 23:23	1
Endrin ketone	ND		0.095	0.0066	ug/L		10/18/13 10:11	10/23/13 23:23	1
gamma-BHC (Lindane)	ND		0.095	0.0028	ug/L		10/18/13 10:11	10/23/13 23:23	1
Heptachlor	ND		0.0095	0.0028	ug/L		10/18/13 10:11	10/23/13 23:23	1
Heptachlor epoxide	ND		0.0047	0.0024	ug/L		10/18/13 10:11	10/23/13 23:23	1
Methoxychlor	ND		0.095	0.0033	ug/L		10/18/13 10:11	10/23/13 23:23	1
Toxaphene	ND		4.7	0.24	ug/L		10/18/13 10:11	10/23/13 23:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*82*		*45 - 120*	*10/18/13 10:11*	*10/23/13 23:23*	*1*
Tetrachloro-m-xylene	*66*		*35 - 115*	*10/18/13 10:11*	*10/23/13 23:23*	*1*

Method: 8081A - Organochlorine Pesticides (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
beta-BHC	**1.1**		0.047	0.019	ug/L		10/18/13 10:11	10/23/13 23:51	5

Client Sample Results

Client: de maximis, inc.
Project/Site: 3200B Transect Wells (Henderson)

TestAmerica Job ID: 440-59961-1

Client Sample ID: MC-113-20131015

Date Collected: 10/15/13 09:25
Date Received: 10/16/13 10:30

Lab Sample ID: 440-59961-2

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		2.0	0.25	ug/L			10/25/13 17:34	1
Styrene	ND		2.0	0.25	ug/L			10/25/13 17:34	1
cis-1,3-Dichloropropene	ND		2.0	0.25	ug/L			10/25/13 17:34	1
trans-1,3-Dichloropropene	ND		2.0	0.25	ug/L			10/25/13 17:34	1
N-Propylbenzene	ND		2.0	0.25	ug/L			10/25/13 17:34	1
n-Butylbenzene	ND		5.0	0.25	ug/L			10/25/13 17:34	1
4-Chlorotoluene	ND		5.0	0.25	ug/L			10/25/13 17:34	1
1,4-Dichlorobenzene	**4.0**		2.0	0.25	ug/L			10/25/13 17:34	1
1,2-Dibromoethane (EDB)	ND		2.0	0.25	ug/L			10/25/13 17:34	1
1,2-Dichloroethane	ND		2.0	0.25	ug/L			10/25/13 17:34	1
1,3,5-Trimethylbenzene	ND		2.0	0.25	ug/L			10/25/13 17:34	1
Bromobenzene	ND		5.0	0.25	ug/L			10/25/13 17:34	1
Toluene	ND		2.0	0.25	ug/L			10/25/13 17:34	1
Chlorobenzene	**12**		2.0	0.25	ug/L			10/25/13 17:34	1
1,2,4-Trichlorobenzene	**3.9**	**J**	5.0	0.25	ug/L			10/25/13 17:34	1
Dibromochloromethane	ND		2.0	0.25	ug/L			10/25/13 17:34	1
Tetrachloroethene	ND		2.0	0.25	ug/L			10/25/13 17:34	1
sec-Butylbenzene	ND		5.0	0.25	ug/L			10/25/13 17:34	1
m,p-Xylene	ND		2.0	0.50	ug/L			10/25/13 17:34	1
1,3-Dichloropropane	ND		2.0	0.25	ug/L			10/25/13 17:34	1
cis-1,2-Dichloroethene	ND		2.0	0.25	ug/L			10/25/13 17:34	1
trans-1,2-Dichloroethene	ND		2.0	0.25	ug/L			10/25/13 17:34	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L			10/25/13 17:34	1
Carbon tetrachloride	ND		1.0	0.25	ug/L			10/25/13 17:34	1
1,1-Dichloropropene	ND		2.0	0.25	ug/L			10/25/13 17:34	1
2,2-Dichloropropane	ND		2.0	0.25	ug/L			10/25/13 17:34	1
1,1,1,2-Tetrachloroethane	ND		5.0	0.25	ug/L			10/25/13 17:34	1
Chloroform	**0.30**	**J**	2.0	0.25	ug/L			10/25/13 17:34	1
Benzene	**1.2**	**J**	2.0	0.25	ug/L			10/25/13 17:34	1
1,1,1-Trichloroethane	ND		2.0	0.25	ug/L			10/25/13 17:34	1
Bromomethane	ND		5.0	0.25	ug/L			10/25/13 17:34	1
Chloromethane	ND		5.0	0.25	ug/L			10/25/13 17:34	1
Dibromomethane	ND		2.0	0.25	ug/L			10/25/13 17:34	1
Bromochloromethane	ND		5.0	0.25	ug/L			10/25/13 17:34	1
Chloroethane	ND		5.0	0.25	ug/L			10/25/13 17:34	1
Vinyl chloride	ND		5.0	0.25	ug/L			10/25/13 17:34	1
Methylene Chloride	ND		2.0	0.50	ug/L			10/25/13 17:34	1
Bromoform	ND		5.0	0.25	ug/L			10/25/13 17:34	1
Bromodichloromethane	ND		2.0	0.25	ug/L			10/25/13 17:34	1
1,1-Dichloroethane	**0.38**	**J**	2.0	0.25	ug/L			10/25/13 17:34	1
1,1-Dichloroethene	ND		5.0	0.25	ug/L			10/25/13 17:34	1
Trichlorofluoromethane	ND		5.0	0.25	ug/L			10/25/13 17:34	1
Dichlorodifluoromethane	ND		5.0	0.25	ug/L			10/25/13 17:34	1
1,2-Dichloropropane	ND		2.0	0.25	ug/L			10/25/13 17:34	1
1,1,2-Trichloroethane	ND		2.0	0.25	ug/L			10/25/13 17:34	1
Trichloroethene	ND		2.0	0.25	ug/L			10/25/13 17:34	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.25	ug/L			10/25/13 17:34	1
1,2,3-Trichlorobenzene	**1.3**	**J**	5.0	0.25	ug/L			10/25/13 17:34	1
Hexachlorobutadiene	ND		5.0	0.25	ug/L			10/25/13 17:34	1

Client Sample Results

Client: de maximis, inc.
Project/Site: 3200B Transect Wells (Henderson)

TestAmerica Job ID: 440-59961-1

Client Sample ID: MC-113-20131015

Date Collected: 10/15/13 09:25
Date Received: 10/16/13 10:30

Lab Sample ID: 440-59961-2

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0	0.25	ug/L			10/25/13 17:34	1
o-Xylene	ND		2.0	0.25	ug/L			10/25/13 17:34	1
2-Chlorotoluene	ND		5.0	0.25	ug/L			10/25/13 17:34	1
1,2-Dichlorobenzene	**2.4**		2.0	0.25	ug/L			10/25/13 17:34	1
1,2,4-Trimethylbenzene	ND		2.0	0.25	ug/L			10/25/13 17:34	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			10/25/13 17:34	1
1,2,3-Trichloropropane	ND		10	0.25	ug/L			10/25/13 17:34	1
tert-Butylbenzene	ND		5.0	0.25	ug/L			10/25/13 17:34	1
Isopropylbenzene	ND		2.0	0.25	ug/L			10/25/13 17:34	1
p-Isopropyltoluene	ND		2.0	0.25	ug/L			10/25/13 17:34	1
Dimethyl disulfide	ND		2.0	1.0	ug/L			10/25/13 17:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*109*		*80 - 128*		*10/25/13 17:34*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*10/25/13 17:34*	*1*
Dibromofluoromethane (Surr)	*113*		*76 - 132*		*10/25/13 17:34*	*1*

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		0.094	0.019	ug/L		10/18/13 10:11	10/24/13 00:19	1
2,4'-DDE	ND		0.094	0.019	ug/L		10/18/13 10:11	10/24/13 00:19	1
2,4'-DDT	ND		0.094	0.019	ug/L		10/18/13 10:11	10/24/13 00:19	1
4,4'-DDD	ND		0.094	0.0038	ug/L		10/18/13 10:11	10/24/13 00:19	1
4,4'-DDE	ND		0.094	0.0028	ug/L		10/18/13 10:11	10/24/13 00:19	1
4,4'-DDT	ND		0.094	0.0038	ug/L		10/18/13 10:11	10/24/13 00:19	1
Aldrin	ND		0.0047	0.0014	ug/L		10/18/13 10:11	10/24/13 00:19	1
Chlordane	ND		0.094	0.075	ug/L		10/18/13 10:11	10/24/13 00:19	1
delta-BHC	**0.25**		0.19	0.0033	ug/L		10/18/13 10:11	10/24/13 00:19	1
Dieldrin	ND		0.0047	0.0019	ug/L		10/18/13 10:11	10/24/13 00:19	1
Endosulfan I	ND		0.094	0.0028	ug/L		10/18/13 10:11	10/24/13 00:19	1
Endosulfan II	ND		0.094	0.0019	ug/L		10/18/13 10:11	10/24/13 00:19	1
Endosulfan sulfate	ND		0.19	0.0028	ug/L		10/18/13 10:11	10/24/13 00:19	1
Endrin	ND		0.094	0.0019	ug/L		10/18/13 10:11	10/24/13 00:19	1
Endrin aldehyde	ND		0.094	0.0019	ug/L		10/18/13 10:11	10/24/13 00:19	1
Endrin ketone	ND		0.094	0.0066	ug/L		10/18/13 10:11	10/24/13 00:19	1
gamma-BHC (Lindane)	**0.019**	**J**	0.094	0.0028	ug/L		10/18/13 10:11	10/24/13 00:19	1
Heptachlor	ND		0.0094	0.0028	ug/L		10/18/13 10:11	10/24/13 00:19	1
Heptachlor epoxide	ND		0.0047	0.0023	ug/L		10/18/13 10:11	10/24/13 00:19	1
Methoxychlor	ND		0.094	0.0033	ug/L		10/18/13 10:11	10/24/13 00:19	1
Toxaphene	ND		4.7	0.23	ug/L		10/18/13 10:11	10/24/13 00:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*82*		*45 - 120*	*10/18/13 10:11*	*10/24/13 00:19*	*1*
Tetrachloro-m-xylene	*68*		*35 - 115*	*10/18/13 10:11*	*10/24/13 00:19*	*1*

Method: 8081A - Organochlorine Pesticides (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
alpha-BHC	**1.4**		0.094	0.047	ug/L		10/18/13 10:11	10/24/13 00:46	20
beta-BHC	**6.1**		0.19	0.075	ug/L		10/18/13 10:11	10/24/13 00:46	20

Client Sample Results

Client: de maximis, inc.
Project/Site: 3200B Transect Wells (Henderson)

TestAmerica Job ID: 440-59961-1

Client Sample ID: MC-114-20131015

Lab Sample ID: 440-59961-3

Date Collected: 10/15/13 10:40
Matrix: Water
Date Received: 10/16/13 10:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		2.0	0.25	ug/L			10/25/13 18:03	1
Styrene	ND		2.0	0.25	ug/L			10/25/13 18:03	1
cis-1,3-Dichloropropene	ND		2.0	0.25	ug/L			10/25/13 18:03	1
trans-1,3-Dichloropropene	ND		2.0	0.25	ug/L			10/25/13 18:03	1
N-Propylbenzene	ND		2.0	0.25	ug/L			10/25/13 18:03	1
n-Butylbenzene	ND		5.0	0.25	ug/L			10/25/13 18:03	1
4-Chlorotoluene	ND		5.0	0.25	ug/L			10/25/13 18:03	1
1,4-Dichlorobenzene	**1.0**	**J**	2.0	0.25	ug/L			10/25/13 18:03	1
1,2-Dibromoethane (EDB)	ND		2.0	0.25	ug/L			10/25/13 18:03	1
1,2-Dichloroethane	**0.52**	**J**	2.0	0.25	ug/L			10/25/13 18:03	1
1,3,5-Trimethylbenzene	ND		2.0	0.25	ug/L			10/25/13 18:03	1
Bromobenzene	ND		5.0	0.25	ug/L			10/25/13 18:03	1
Toluene	ND		2.0	0.25	ug/L			10/25/13 18:03	1
Chlorobenzene	ND		2.0	0.25	ug/L			10/25/13 18:03	1
1,2,4-Trichlorobenzene	**1.4**	**J**	5.0	0.25	ug/L			10/25/13 18:03	1
Dibromochloromethane	ND		2.0	0.25	ug/L			10/25/13 18:03	1
Tetrachloroethene	**0.65**	**J**	2.0	0.25	ug/L			10/25/13 18:03	1
sec-Butylbenzene	ND		5.0	0.25	ug/L			10/25/13 18:03	1
m,p-Xylene	ND		2.0	0.50	ug/L			10/25/13 18:03	1
1,3-Dichloropropane	ND		2.0	0.25	ug/L			10/25/13 18:03	1
cis-1,2-Dichloroethene	ND		2.0	0.25	ug/L			10/25/13 18:03	1
trans-1,2-Dichloroethene	ND		2.0	0.25	ug/L			10/25/13 18:03	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L			10/25/13 18:03	1
Carbon tetrachloride	ND		1.0	0.25	ug/L			10/25/13 18:03	1
1,1-Dichloropropene	ND		2.0	0.25	ug/L			10/25/13 18:03	1
2,2-Dichloropropane	ND		2.0	0.25	ug/L			10/25/13 18:03	1
1,1,1,2-Tetrachloroethane	ND		5.0	0.25	ug/L			10/25/13 18:03	1
Chloroform	**1.6**	**J**	2.0	0.25	ug/L			10/25/13 18:03	1
Benzene	ND		2.0	0.25	ug/L			10/25/13 18:03	1
1,1,1-Trichloroethane	ND		2.0	0.25	ug/L			10/25/13 18:03	1
Bromomethane	ND		5.0	0.25	ug/L			10/25/13 18:03	1
Chloromethane	ND		5.0	0.25	ug/L			10/25/13 18:03	1
Dibromomethane	ND		2.0	0.25	ug/L			10/25/13 18:03	1
Bromochloromethane	ND		5.0	0.25	ug/L			10/25/13 18:03	1
Chloroethane	**0.92**	**J**	5.0	0.25	ug/L			10/25/13 18:03	1
Vinyl chloride	ND		5.0	0.25	ug/L			10/25/13 18:03	1
Methylene Chloride	ND		2.0	0.50	ug/L			10/25/13 18:03	1
Bromoform	ND		5.0	0.25	ug/L			10/25/13 18:03	1
Bromodichloromethane	ND		2.0	0.25	ug/L			10/25/13 18:03	1
1,1-Dichloroethane	**2.5**		2.0	0.25	ug/L			10/25/13 18:03	1
1,1-Dichloroethene	ND		5.0	0.25	ug/L			10/25/13 18:03	1
Trichlorofluoromethane	ND		5.0	0.25	ug/L			10/25/13 18:03	1
Dichlorodifluoromethane	ND		5.0	0.25	ug/L			10/25/13 18:03	1
1,2-Dichloropropane	ND		2.0	0.25	ug/L			10/25/13 18:03	1
1,1,2-Trichloroethane	ND		2.0	0.25	ug/L			10/25/13 18:03	1
Trichloroethene	**0.66**	**J**	2.0	0.25	ug/L			10/25/13 18:03	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.25	ug/L			10/25/13 18:03	1
1,2,3-Trichlorobenzene	**1.0**	**J**	5.0	0.25	ug/L			10/25/13 18:03	1
Hexachlorobutadiene	ND		5.0	0.25	ug/L			10/25/13 18:03	1

Client Sample Results

Client: de maximis, inc.
Project/Site: 3200B Transect Wells (Henderson)

TestAmerica Job ID: 440-59961-1

Client Sample ID: MC-114-20131015

Lab Sample ID: 440-59961-3

Date Collected: 10/15/13 10:40
Matrix: Water
Date Received: 10/16/13 10:30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0	0.25	ug/L			10/25/13 18:03	1
o-Xylene	ND		2.0	0.25	ug/L			10/25/13 18:03	1
2-Chlorotoluene	ND		5.0	0.25	ug/L			10/25/13 18:03	1
1,2-Dichlorobenzene	**0.85**	**J**	2.0	0.25	ug/L			10/25/13 18:03	1
1,2,4-Trimethylbenzene	ND		2.0	0.25	ug/L			10/25/13 18:03	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			10/25/13 18:03	1
1,2,3-Trichloropropane	ND		10	0.25	ug/L			10/25/13 18:03	1
tert-Butylbenzene	ND		5.0	0.25	ug/L			10/25/13 18:03	1
Isopropylbenzene	ND		2.0	0.25	ug/L			10/25/13 18:03	1
p-Isopropyltoluene	ND		2.0	0.25	ug/L			10/25/13 18:03	1
Dimethyl disulfide	ND		2.0	1.0	ug/L			10/25/13 18:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*109*		*80 - 128*		*10/25/13 18:03*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*10/25/13 18:03*	*1*
Dibromofluoromethane (Surr)	*113*		*76 - 132*		*10/25/13 18:03*	*1*

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		0.094	0.019	ug/L		10/18/13 10:11	10/24/13 01:14	1
2,4'-DDE	ND		0.094	0.019	ug/L		10/18/13 10:11	10/24/13 01:14	1
2,4'-DDT	ND		0.094	0.019	ug/L		10/18/13 10:11	10/24/13 01:14	1
4,4'-DDD	ND		0.094	0.0038	ug/L		10/18/13 10:11	10/24/13 01:14	1
4,4'-DDE	ND		0.094	0.0028	ug/L		10/18/13 10:11	10/24/13 01:14	1
4,4'-DDT	ND		0.094	0.0038	ug/L		10/18/13 10:11	10/24/13 01:14	1
Aldrin	ND		0.0047	0.0014	ug/L		10/18/13 10:11	10/24/13 01:14	1
alpha-BHC	**0.61**		0.0047	0.0024	ug/L		10/18/13 10:11	10/24/13 01:14	1
Chlordane	ND		0.094	0.075	ug/L		10/18/13 10:11	10/24/13 01:14	1
Dieldrin	ND		0.0047	0.0019	ug/L		10/18/13 10:11	10/24/13 01:14	1
Endosulfan I	ND		0.094	0.0028	ug/L		10/18/13 10:11	10/24/13 01:14	1
Endosulfan II	ND		0.094	0.0019	ug/L		10/18/13 10:11	10/24/13 01:14	1
Endosulfan sulfate	ND		0.19	0.0028	ug/L		10/18/13 10:11	10/24/13 01:14	1
Endrin	ND		0.094	0.0019	ug/L		10/18/13 10:11	10/24/13 01:14	1
Endrin aldehyde	ND		0.094	0.0019	ug/L		10/18/13 10:11	10/24/13 01:14	1
Endrin ketone	ND		0.094	0.0066	ug/L		10/18/13 10:11	10/24/13 01:14	1
gamma-BHC (Lindane)	**0.018**	**J**	0.094	0.0028	ug/L		10/18/13 10:11	10/24/13 01:14	1
Heptachlor	ND		0.0094	0.0028	ug/L		10/18/13 10:11	10/24/13 01:14	1
Heptachlor epoxide	ND		0.0047	0.0024	ug/L		10/18/13 10:11	10/24/13 01:14	1
Methoxychlor	ND		0.094	0.0033	ug/L		10/18/13 10:11	10/24/13 01:14	1
Toxaphene	ND		4.7	0.24	ug/L		10/18/13 10:11	10/24/13 01:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*79*		*45 - 120*	*10/18/13 10:11*	*10/24/13 01:14*	*1*
Tetrachloro-m-xylene	*66*		*35 - 115*	*10/18/13 10:11*	*10/24/13 01:14*	*1*

Method: 8081A - Organochlorine Pesticides (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
beta-BHC	**3.7**		0.094	0.038	ug/L		10/18/13 10:11	10/24/13 01:42	10
delta-BHC	**1.1**	**J**	1.9	0.033	ug/L		10/18/13 10:11	10/24/13 01:42	10

Method Summary

Client: de maximis, inc.
Project/Site: 3200B Transect Wells (Henderson)

TestAmerica Job ID: 440-59961-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8081A	Organochlorine Pesticides (GC)	SW846	TAL IRV

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: de maximis, inc.
Project/Site: 3200B Transect Wells (Henderson)

TestAmerica Job ID: 440-59961-1

Client Sample ID: MC-53-20131015

Lab Sample ID: 440-59961-1

Date Collected: 10/15/13 08:10
Matrix: Water
Date Received: 10/16/13 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	140131	10/25/13 17:04	AT	TAL IRV
Total/NA	Prep	3510C			1055 mL	2 mL	138548	10/18/13 10:11	AC	TAL IRV
Total/NA	Analysis	8081A		1	1055 mL	2 mL	139722	10/23/13 23:23	KS	TAL IRV
Total/NA	Prep	3510C	DL		1055 mL	2 mL	138548	10/18/13 10:11	AC	TAL IRV
Total/NA	Analysis	8081A	DL	5	1055 mL	2 mL	139722	10/23/13 23:51	KS	TAL IRV

Client Sample ID: MC-113-20131015

Lab Sample ID: 440-59961-2

Date Collected: 10/15/13 09:25
Matrix: Water
Date Received: 10/16/13 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	140131	10/25/13 17:34	AT	TAL IRV
Total/NA	Prep	3510C			1065 mL	2 mL	138548	10/18/13 10:11	AC	TAL IRV
Total/NA	Analysis	8081A		1	1065 mL	2 mL	139722	10/24/13 00:19	KS	TAL IRV
Total/NA	Prep	3510C	DL		1065 mL	2 mL	138548	10/18/13 10:11	AC	TAL IRV
Total/NA	Analysis	8081A	DL	20	1065 mL	2 mL	139722	10/24/13 00:46	KS	TAL IRV

Client Sample ID: MC-114-20131015

Lab Sample ID: 440-59961-3

Date Collected: 10/15/13 10:40
Matrix: Water
Date Received: 10/16/13 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	140131	10/25/13 18:03	AT	TAL IRV
Total/NA	Prep	3510C			1060 mL	2 mL	138548	10/18/13 10:11	AC	TAL IRV
Total/NA	Analysis	8081A		1	1060 mL	2 mL	139722	10/24/13 01:14	KS	TAL IRV
Total/NA	Prep	3510C	DL		1060 mL	2 mL	138548	10/18/13 10:11	AC	TAL IRV
Total/NA	Analysis	8081A	DL	10	1060 mL	2 mL	139722	10/24/13 01:42	KS	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-140131/4
Matrix: Water
Analysis Batch: 140131

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
Styrene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
cis-1,3-Dichloropropene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
trans-1,3-Dichloropropene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
N-Propylbenzene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
n-Butylbenzene	ND		5.0	0.25	ug/L			10/25/13 11:08	1
4-Chlorotoluene	ND		5.0	0.25	ug/L			10/25/13 11:08	1
1,4-Dichlorobenzene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
1,2-Dibromoethane (EDB)	ND		2.0	0.25	ug/L			10/25/13 11:08	1
1,2-Dichloroethane	ND		2.0	0.25	ug/L			10/25/13 11:08	1
1,3,5-Trimethylbenzene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
Bromobenzene	ND		5.0	0.25	ug/L			10/25/13 11:08	1
Toluene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
Chlorobenzene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
1,2,4-Trichlorobenzene	ND		5.0	0.25	ug/L			10/25/13 11:08	1
Dibromochloromethane	ND		2.0	0.25	ug/L			10/25/13 11:08	1
Tetrachloroethene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
sec-Butylbenzene	ND		5.0	0.25	ug/L			10/25/13 11:08	1
m,p-Xylene	ND		2.0	0.50	ug/L			10/25/13 11:08	1
1,3-Dichloropropane	ND		2.0	0.25	ug/L			10/25/13 11:08	1
cis-1,2-Dichloroethene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
trans-1,2-Dichloroethene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
Carbon tetrachloride	ND		1.0	0.25	ug/L			10/25/13 11:08	1
1,1-Dichloropropene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
2,2-Dichloropropane	ND		2.0	0.25	ug/L			10/25/13 11:08	1
1,1,1,2-Tetrachloroethane	ND		5.0	0.25	ug/L			10/25/13 11:08	1
Chloroform	ND		2.0	0.25	ug/L			10/25/13 11:08	1
Benzene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
1,1,1-Trichloroethane	ND		2.0	0.25	ug/L			10/25/13 11:08	1
Bromomethane	ND		5.0	0.25	ug/L			10/25/13 11:08	1
Chloromethane	ND		5.0	0.25	ug/L			10/25/13 11:08	1
Dibromomethane	ND		2.0	0.25	ug/L			10/25/13 11:08	1
Bromochloromethane	ND		5.0	0.25	ug/L			10/25/13 11:08	1
Chloroethane	ND		5.0	0.25	ug/L			10/25/13 11:08	1
Vinyl chloride	ND		5.0	0.25	ug/L			10/25/13 11:08	1
Methylene Chloride	ND		2.0	0.50	ug/L			10/25/13 11:08	1
Bromoform	ND		5.0	0.25	ug/L			10/25/13 11:08	1
Bromodichloromethane	ND		2.0	0.25	ug/L			10/25/13 11:08	1
1,1-Dichloroethane	ND		2.0	0.25	ug/L			10/25/13 11:08	1
1,1-Dichloroethene	ND		5.0	0.25	ug/L			10/25/13 11:08	1
Trichlorofluoromethane	ND		5.0	0.25	ug/L			10/25/13 11:08	1
Dichlorodifluoromethane	ND		5.0	0.25	ug/L			10/25/13 11:08	1
1,2-Dichloropropane	ND		2.0	0.25	ug/L			10/25/13 11:08	1
1,1,2-Trichloroethane	ND		2.0	0.25	ug/L			10/25/13 11:08	1
Trichloroethene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.25	ug/L			10/25/13 11:08	1
1,2,3-Trichlorobenzene	ND		5.0	0.25	ug/L			10/25/13 11:08	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-140131/4
Matrix: Water
Analysis Batch: 140131

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	ND		5.0	0.25	ug/L			10/25/13 11:08	1
Naphthalene	ND		5.0	0.25	ug/L			10/25/13 11:08	1
o-Xylene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
2-Chlorotoluene	ND		5.0	0.25	ug/L			10/25/13 11:08	1
1,2-Dichlorobenzene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
1,2,4-Trimethylbenzene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			10/25/13 11:08	1
1,2,3-Trichloropropane	ND		10	0.25	ug/L			10/25/13 11:08	1
tert-Butylbenzene	ND		5.0	0.25	ug/L			10/25/13 11:08	1
Isopropylbenzene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
p-Isopropyltoluene	ND		2.0	0.25	ug/L			10/25/13 11:08	1
Dimethyl disulfide	ND		2.0	1.0	ug/L			10/25/13 11:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*108*		*80 - 128*		*10/25/13 11:08*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*10/25/13 11:08*	*1*
Dibromofluoromethane (Surr)	*106*		*76 - 132*		*10/25/13 11:08*	*1*

Lab Sample ID: LCS 440-140131/5
Matrix: Water
Analysis Batch: 140131

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	25.0	25.7		ug/L		103	70 - 130
Styrene	25.0	27.9		ug/L		112	70 - 134
cis-1,3-Dichloropropene	25.0	30.1		ug/L		120	70 - 133
trans-1,3-Dichloropropene	25.0	28.1		ug/L		112	70 - 132
N-Propylbenzene	25.0	25.5		ug/L		102	67 - 139
n-Butylbenzene	25.0	24.4		ug/L		98	65 - 150
4-Chlorotoluene	25.0	25.6		ug/L		102	70 - 130
1,4-Dichlorobenzene	25.0	24.5		ug/L		98	70 - 130
1,2-Dibromoethane (EDB)	25.0	26.6		ug/L		107	70 - 130
1,2-Dichloroethane	25.0	25.9		ug/L		104	57 - 138
1,3,5-Trimethylbenzene	25.0	25.9		ug/L		104	70 - 136
Bromobenzene	25.0	26.6		ug/L		106	70 - 130
Toluene	25.0	26.5		ug/L		106	70 - 130
Chlorobenzene	25.0	24.8		ug/L		99	70 - 130
1,2,4-Trichlorobenzene	25.0	26.0		ug/L		104	60 - 140
Dibromochloromethane	25.0	27.0		ug/L		108	69 - 145
Tetrachloroethene	25.0	22.5		ug/L		90	70 - 130
sec-Butylbenzene	25.0	24.2		ug/L		97	70 - 138
m,p-Xylene	50.0	50.7		ug/L		101	70 - 130
1,3-Dichloropropane	25.0	26.4		ug/L		106	70 - 130
cis-1,2-Dichloroethene	25.0	31.0		ug/L		124	70 - 133
trans-1,2-Dichloroethene	25.0	28.4		ug/L		114	70 - 130
1,3-Dichlorobenzene	25.0	25.6		ug/L		102	70 - 130
Carbon tetrachloride	25.0	25.0		ug/L		100	60 - 150
1,1-Dichloropropene	25.0	25.1		ug/L		100	70 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-140131/5
Matrix: Water
Analysis Batch: 140131

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,2-Dichloropropane	25.0	26.4		ug/L		106	68 - 141
1,1,1,2-Tetrachloroethane	25.0	27.6		ug/L		110	60 - 141
Chloroform	25.0	28.3		ug/L		113	70 - 130
Benzene	25.0	25.0		ug/L		100	68 - 130
1,1,1-Trichloroethane	25.0	25.9		ug/L		103	70 - 130
Bromomethane	25.0	26.8		ug/L		107	64 - 139
Chloromethane	25.0	27.5		ug/L		110	47 - 140
Dibromomethane	25.0	28.5		ug/L		114	70 - 130
Bromochloromethane	25.0	29.5		ug/L		118	70 - 130
Chloroethane	25.0	27.2		ug/L		109	64 - 135
Vinyl chloride	25.0	25.7		ug/L		103	59 - 133
Methylene Chloride	25.0	29.8		ug/L		119	52 - 130
Bromoform	25.0	29.9		ug/L		119	60 - 148
Bromodichloromethane	25.0	29.1		ug/L		116	70 - 132
1,1-Dichloroethane	25.0	28.8		ug/L		115	64 - 130
1,1-Dichloroethene	25.0	30.3		ug/L		121	70 - 130
Trichlorofluoromethane	25.0	30.6		ug/L		122	60 - 150
Dichlorodifluoromethane	25.0	28.3		ug/L		113	29 - 150
1,2-Dichloropropane	25.0	28.5		ug/L		114	67 - 130
1,1,2-Trichloroethane	25.0	29.0		ug/L		116	70 - 130
Trichloroethene	25.0	25.3		ug/L		101	70 - 130
1,1,2,2-Tetrachloroethane	25.0	28.0		ug/L		112	63 - 130
1,2,3-Trichlorobenzene	25.0	26.3		ug/L		105	60 - 140
Hexachlorobutadiene	25.0	23.4		ug/L		94	10 - 150
Naphthalene	25.0	28.5		ug/L		114	60 - 140
o-Xylene	25.0	26.7		ug/L		107	70 - 130
2-Chlorotoluene	25.0	25.4		ug/L		102	70 - 130
1,2-Dichlorobenzene	25.0	26.0		ug/L		104	70 - 130
1,2,4-Trimethylbenzene	25.0	26.7		ug/L		107	70 - 135
1,2-Dibromo-3-Chloropropane	25.0	25.1		ug/L		100	52 - 140
1,2,3-Trichloropropane	25.0	26.2		ug/L		105	63 - 130
tert-Butylbenzene	25.0	24.5		ug/L		98	70 - 130
Isopropylbenzene	25.0	24.8		ug/L		99	70 - 136
p-Isopropyltoluene	25.0	23.0		ug/L		92	70 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*108*		*80 - 128*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*
Dibromofluoromethane (Surr)	*109*		*76 - 132*

Lab Sample ID: 440-59760-B-1 MS
Matrix: Water
Analysis Batch: 140131

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	ND		25.0	25.5		ug/L		102	70 - 130
Styrene	ND		25.0	ND	F	ug/L		0	29 - 150
cis-1,3-Dichloropropene	ND		25.0	28.8		ug/L		115	70 - 133

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-59760-B-1 MS
Matrix: Water
Analysis Batch: 140131

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	ND		25.0	27.4		ug/L		110	70 - 138
N-Propylbenzene	ND		25.0	25.5		ug/L		102	66 - 135
n-Butylbenzene	ND		25.0	25.0		ug/L		100	61 - 149
4-Chlorotoluene	ND		25.0	25.8		ug/L		103	70 - 130
1,4-Dichlorobenzene	ND		25.0	25.1		ug/L		100	70 - 130
1,2-Dibromoethane (EDB)	ND		25.0	27.7		ug/L		111	70 - 131
1,2-Dichloroethane	ND		25.0	25.0		ug/L		100	56 - 146
1,3,5-Trimethylbenzene	ND		25.0	25.2		ug/L		101	70 - 130
Bromobenzene	ND		25.0	26.6		ug/L		106	70 - 130
Toluene	ND		25.0	25.2		ug/L		101	70 - 130
Chlorobenzene	ND		25.0	25.4		ug/L		102	70 - 130
1,2,4-Trichlorobenzene	ND		25.0	27.3		ug/L		109	60 - 140
Dibromochloromethane	ND		25.0	28.3		ug/L		113	70 - 148
Tetrachloroethene	ND		25.0	22.3		ug/L		89	70 - 137
sec-Butylbenzene	ND		25.0	24.4		ug/L		98	67 - 134
m,p-Xylene	ND		50.0	51.8		ug/L		104	70 - 133
1,3-Dichloropropane	ND		25.0	27.5		ug/L		110	70 - 130
cis-1,2-Dichloroethene	ND		25.0	26.8		ug/L		107	70 - 130
trans-1,2-Dichloroethene	ND		25.0	23.9		ug/L		95	70 - 130
1,3-Dichlorobenzene	ND		25.0	26.3		ug/L		105	70 - 130
Carbon tetrachloride	ND		25.0	22.4		ug/L		90	60 - 150
1,1-Dichloropropene	ND		25.0	22.2		ug/L		89	64 - 130
2,2-Dichloropropane	ND		25.0	22.2		ug/L		89	69 - 138
1,1,1,2-Tetrachloroethane	ND		25.0	28.6		ug/L		114	60 - 149
Chloroform	8.9		25.0	33.9		ug/L		100	70 - 130
Benzene	ND		25.0	22.7		ug/L		91	66 - 130
1,1,1-Trichloroethane	ND		25.0	23.0		ug/L		92	70 - 130
Bromomethane	ND		25.0	21.2		ug/L		85	62 - 131
Chloromethane	ND		25.0	20.5		ug/L		82	39 - 144
Dibromomethane	ND		25.0	27.6		ug/L		110	70 - 130
Bromochloromethane	ND		25.0	26.6		ug/L		106	70 - 130
Chloroethane	ND		25.0	21.4		ug/L		86	68 - 130
Vinyl chloride	ND		25.0	19.6		ug/L		79	50 - 137
Methylene Chloride	ND		25.0	24.9		ug/L		100	52 - 130
Bromoform	ND		25.0	30.4		ug/L		122	59 - 150
Bromodichloromethane	ND		25.0	28.3		ug/L		113	70 - 138
1,1-Dichloroethane	ND		25.0	25.0		ug/L		100	65 - 130
1,1-Dichloroethene	ND		25.0	24.3		ug/L		97	70 - 130
Trichlorofluoromethane	ND		25.0	25.1		ug/L		100	60 - 150
Dichlorodifluoromethane	ND		25.0	21.1		ug/L		85	25 - 142
1,2-Dichloropropane	ND		25.0	26.8		ug/L		107	69 - 130
1,1,2-Trichloroethane	ND		25.0	29.2		ug/L		117	70 - 130
Trichloroethene	ND		25.0	23.4		ug/L		94	70 - 130
1,1,2,2-Tetrachloroethane	ND		25.0	29.8		ug/L		119	63 - 130
1,2,3-Trichlorobenzene	ND		25.0	27.2		ug/L		109	60 - 140
Hexachlorobutadiene	ND		25.0	24.1		ug/L		96	10 - 150
Naphthalene	ND		25.0	29.4		ug/L		118	60 - 140
o-Xylene	ND		25.0	26.4		ug/L		106	70 - 133

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-59760-B-1 MS
Matrix: Water
Analysis Batch: 140131

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chlorotoluene	ND		25.0	25.6		ug/L		102	70 - 130
1,2-Dichlorobenzene	ND		25.0	26.9		ug/L		107	70 - 130
1,2,4-Trimethylbenzene	ND		25.0	26.8		ug/L		107	70 - 130
1,2-Dibromo-3-Chloropropane	ND		25.0	25.0		ug/L		100	48 - 140
1,2,3-Trichloropropane	ND		25.0	27.3		ug/L		109	60 - 130
tert-Butylbenzene	ND		25.0	25.1		ug/L		100	70 - 130
Isopropylbenzene	ND		25.0	24.5		ug/L		98	70 - 132
p-Isopropyltoluene	ND		25.0	23.3		ug/L		93	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Toluene-d8 (Surr)	*108*		*80 - 128*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*
Dibromofluoromethane (Surr)	*106*		*76 - 132*

Lab Sample ID: 440-59760-B-1 MSD
Matrix: Water
Analysis Batch: 140131

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene	ND		25.0	26.4		ug/L		106	70 - 130	3	20
Styrene	ND		25.0	ND	F	ug/L		0	29 - 150	NC	35
cis-1,3-Dichloropropene	ND		25.0	29.6		ug/L		119	70 - 133	3	20
trans-1,3-Dichloropropene	ND		25.0	28.8		ug/L		115	70 - 138	5	25
N-Propylbenzene	ND		25.0	26.2		ug/L		105	66 - 135	3	20
n-Butylbenzene	ND		25.0	25.6		ug/L		102	61 - 149	2	20
4-Chlorotoluene	ND		25.0	26.2		ug/L		105	70 - 130	2	20
1,4-Dichlorobenzene	ND		25.0	25.8		ug/L		103	70 - 130	3	20
1,2-Dibromoethane (EDB)	ND		25.0	29.1		ug/L		117	70 - 131	5	25
1,2-Dichloroethane	ND		25.0	25.4		ug/L		102	56 - 146	2	20
1,3,5-Trimethylbenzene	ND		25.0	25.6		ug/L		102	70 - 130	1	20
Bromobenzene	ND		25.0	27.8		ug/L		111	70 - 130	4	20
Toluene	ND		25.0	25.6		ug/L		103	70 - 130	2	20
Chlorobenzene	ND		25.0	25.8		ug/L		103	70 - 130	1	20
1,2,4-Trichlorobenzene	ND		25.0	28.8		ug/L		115	60 - 140	5	20
Dibromochloromethane	ND		25.0	29.2		ug/L		117	70 - 148	3	25
Tetrachloroethene	ND		25.0	22.6		ug/L		90	70 - 137	1	20
sec-Butylbenzene	ND		25.0	25.0		ug/L		100	67 - 134	3	20
m,p-Xylene	ND		50.0	53.3		ug/L		107	70 - 133	3	25
1,3-Dichloropropane	ND		25.0	28.2		ug/L		113	70 - 130	3	25
cis-1,2-Dichloroethene	ND		25.0	28.5		ug/L		114	70 - 130	6	20
trans-1,2-Dichloroethene	ND		25.0	24.9		ug/L		99	70 - 130	4	20
1,3-Dichlorobenzene	ND		25.0	27.1		ug/L		108	70 - 130	3	20
Carbon tetrachloride	ND		25.0	22.6		ug/L		91	60 - 150	1	25
1,1-Dichloropropene	ND		25.0	22.9		ug/L		92	64 - 130	3	20
2,2-Dichloropropane	ND		25.0	23.8		ug/L		95	69 - 138	7	25
1,1,1,2-Tetrachloroethane	ND		25.0	29.1		ug/L		116	60 - 149	2	20
Chloroform	8.9		25.0	34.5		ug/L		103	70 - 130	2	20
Benzene	ND		25.0	23.0		ug/L		92	66 - 130	1	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-59760-B-1 MSD
Matrix: Water
Analysis Batch: 140131

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND		25.0	23.6		ug/L		94	70 - 130	3	20
Bromomethane	ND		25.0	21.0		ug/L		84	62 - 131	1	25
Chloromethane	ND		25.0	21.6		ug/L		86	39 - 144	5	25
Dibromomethane	ND		25.0	28.7		ug/L		115	70 - 130	4	25
Bromochloromethane	ND		25.0	28.2		ug/L		113	70 - 130	6	25
Chloroethane	ND		25.0	21.8		ug/L		87	68 - 130	2	25
Vinyl chloride	ND		25.0	20.2		ug/L		81	50 - 137	3	30
Methylene Chloride	ND		25.0	25.4		ug/L		101	52 - 130	2	20
Bromoform	ND		25.0	32.5		ug/L		130	59 - 150	7	25
Bromodichloromethane	ND		25.0	29.2		ug/L		117	70 - 138	3	20
1,1-Dichloroethane	ND		25.0	26.0		ug/L		104	65 - 130	4	20
1,1-Dichloroethene	ND		25.0	25.7		ug/L		103	70 - 130	5	20
Trichlorofluoromethane	ND		25.0	25.0		ug/L		100	60 - 150	0	25
Dichlorodifluoromethane	ND		25.0	21.6		ug/L		86	25 - 142	2	30
1,2-Dichloropropane	ND		25.0	27.6		ug/L		110	69 - 130	3	20
1,1,2-Trichloroethane	ND		25.0	30.2		ug/L		121	70 - 130	3	25
Trichloroethene	ND		25.0	23.5		ug/L		94	70 - 130	1	20
1,1,2,2-Tetrachloroethane	ND		25.0	31.5		ug/L		126	63 - 130	5	30
1,2,3-Trichlorobenzene	ND		25.0	29.2		ug/L		117	60 - 140	7	20
Hexachlorobutadiene	ND		25.0	25.2		ug/L		101	10 - 150	5	20
Naphthalene	ND		25.0	32.0		ug/L		128	60 - 140	8	30
o-Xylene	ND		25.0	27.2		ug/L		109	70 - 133	3	20
2-Chlorotoluene	ND		25.0	26.4		ug/L		106	70 - 130	3	20
1,2-Dichlorobenzene	ND		25.0	27.9		ug/L		111	70 - 130	4	20
1,2,4-Trimethylbenzene	ND		25.0	27.4		ug/L		110	70 - 130	2	25
1,2-Dibromo-3-Chloropropane	ND		25.0	28.7		ug/L		115	48 - 140	14	30
1,2,3-Trichloropropane	ND		25.0	29.8		ug/L		119	60 - 130	8	30
tert-Butylbenzene	ND		25.0	25.7		ug/L		103	70 - 130	2	20
Isopropylbenzene	ND		25.0	25.3		ug/L		101	70 - 132	3	20
p-Isopropyltoluene	ND		25.0	23.7		ug/L		95	70 - 130	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*107*		*80 - 128*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*
Dibromofluoromethane (Surr)	*107*		*76 - 132*

Method: 8081A - Organochlorine Pesticides (GC)

Lab Sample ID: MB 440-138548/1-A
Matrix: Water
Analysis Batch: 139722

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 138548

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		0.10	0.020	ug/L		10/18/13 10:11	10/23/13 22:00	1
2,4'-DDE	ND		0.10	0.020	ug/L		10/18/13 10:11	10/23/13 22:00	1
2,4'-DDT	ND		0.10	0.020	ug/L		10/18/13 10:11	10/23/13 22:00	1
4,4'-DDD	ND		0.10	0.0040	ug/L		10/18/13 10:11	10/23/13 22:00	1
4,4'-DDE	ND		0.10	0.0030	ug/L		10/18/13 10:11	10/23/13 22:00	1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 440-138548/1-A
Matrix: Water
Analysis Batch: 139722

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 138548

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDT	ND		0.10	0.0040	ug/L		10/18/13 10:11	10/23/13 22:00	1
Aldrin	ND		0.0050	0.0015	ug/L		10/18/13 10:11	10/23/13 22:00	1
alpha-BHC	ND		0.0050	0.0025	ug/L		10/18/13 10:11	10/23/13 22:00	1
beta-BHC	ND		0.010	0.0040	ug/L		10/18/13 10:11	10/23/13 22:00	1
Chlordane	ND		0.10	0.080	ug/L		10/18/13 10:11	10/23/13 22:00	1
delta-BHC	ND		0.20	0.0035	ug/L		10/18/13 10:11	10/23/13 22:00	1
Dieldrin	ND		0.0050	0.0020	ug/L		10/18/13 10:11	10/23/13 22:00	1
Endosulfan I	ND		0.10	0.0030	ug/L		10/18/13 10:11	10/23/13 22:00	1
Endosulfan II	ND		0.10	0.0020	ug/L		10/18/13 10:11	10/23/13 22:00	1
Endosulfan sulfate	ND		0.20	0.0030	ug/L		10/18/13 10:11	10/23/13 22:00	1
Endrin	ND		0.10	0.0020	ug/L		10/18/13 10:11	10/23/13 22:00	1
Endrin aldehyde	ND		0.10	0.0020	ug/L		10/18/13 10:11	10/23/13 22:00	1
Endrin ketone	ND		0.10	0.0070	ug/L		10/18/13 10:11	10/23/13 22:00	1
gamma-BHC (Lindane)	ND		0.10	0.0030	ug/L		10/18/13 10:11	10/23/13 22:00	1
Heptachlor	ND		0.010	0.0030	ug/L		10/18/13 10:11	10/23/13 22:00	1
Heptachlor epoxide	ND		0.0050	0.0025	ug/L		10/18/13 10:11	10/23/13 22:00	1
Methoxychlor	ND		0.10	0.0035	ug/L		10/18/13 10:11	10/23/13 22:00	1
Toxaphene	ND		5.0	0.25	ug/L		10/18/13 10:11	10/23/13 22:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*71*		*45 - 120*	*10/18/13 10:11*	*10/23/13 22:00*	*1*
Tetrachloro-m-xylene	*71*		*35 - 115*	*10/18/13 10:11*	*10/23/13 22:00*	*1*

Lab Sample ID: LCS 440-138548/2-A
Matrix: Water
Analysis Batch: 139722

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 138548

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4'-DDD	0.500	0.414		ug/L		83	55 - 120
2,4'-DDE	0.500	0.406		ug/L		81	50 - 120
2,4'-DDT	0.500	0.409		ug/L		82	55 - 120
4,4'-DDD	0.500	0.394		ug/L		79	55 - 120
4,4'-DDE	0.500	0.372		ug/L		74	50 - 120
4,4'-DDT	0.500	0.381		ug/L		76	55 - 120
Aldrin	0.500	0.291		ug/L		58	40 - 115
alpha-BHC	0.500	0.368		ug/L		74	45 - 115
beta-BHC	0.500	0.398		ug/L		80	55 - 115
delta-BHC	0.500	0.413		ug/L		83	55 - 115
Dieldrin	0.500	0.367		ug/L		73	55 - 115
Endosulfan I	0.500	0.366		ug/L		73	55 - 115
Endosulfan II	0.500	0.370		ug/L		74	55 - 120
Endosulfan sulfate	0.500	0.426		ug/L		85	60 - 120
Endrin	0.500	0.376		ug/L		75	55 - 115
Endrin aldehyde	0.500	0.419		ug/L		84	50 - 120
Endrin ketone	0.500	0.375		ug/L		75	55 - 120
gamma-BHC (Lindane)	0.500	0.365		ug/L		73	45 - 115
Heptachlor	0.500	0.385		ug/L		77	45 - 115
Heptachlor epoxide	0.500	0.370		ug/L		74	55 - 115

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 440-138548/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 139722 — **Prep Batch: 138548**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methoxychlor	0.500	0.379		ug/L		76	60 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*84*		*45 - 120*
Tetrachloro-m-xylene	*71*		*35 - 115*

Lab Sample ID: LCSD 440-138548/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 139722 — **Prep Batch: 138548**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4'-DDD	0.500	0.407		ug/L		81	55 - 120	2	30
2,4'-DDE	0.500	0.400		ug/L		80	50 - 120	2	30
2,4'-DDT	0.500	0.401		ug/L		80	55 - 120	2	30
4,4'-DDD	0.500	0.383		ug/L		77	55 - 120	3	30
4,4'-DDE	0.500	0.369		ug/L		74	50 - 120	1	30
4,4'-DDT	0.500	0.375		ug/L		75	55 - 120	2	30
Aldrin	0.500	0.282		ug/L		56	40 - 115	3	30
alpha-BHC	0.500	0.357		ug/L		71	45 - 115	3	30
beta-BHC	0.500	0.389		ug/L		78	55 - 115	2	30
delta-BHC	0.500	0.406		ug/L		81	55 - 115	2	30
Dieldrin	0.500	0.360		ug/L		72	55 - 115	3	30
Endosulfan I	0.500	0.358		ug/L		72	55 - 115	2	30
Endosulfan II	0.500	0.366		ug/L		73	55 - 120	1	30
Endosulfan sulfate	0.500	0.421		ug/L		84	60 - 120	1	30
Endrin	0.500	0.372		ug/L		74	55 - 115	5	30
Endrin aldehyde	0.500	0.412		ug/L		82	50 - 120	2	30
Endrin ketone	0.500	0.360		ug/L		72	55 - 120	4	30
gamma-BHC (Lindane)	0.500	0.355		ug/L		71	45 - 115	3	30
Heptachlor	0.500	0.377		ug/L		75	45 - 115	2	30
Heptachlor epoxide	0.500	0.361		ug/L		72	55 - 115	3	30
Methoxychlor	0.500	0.373		ug/L		75	60 - 120	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*72*		*35 - 115*

QC Association Summary

Client: de maximis, inc.
Project/Site: 3200B Transect Wells (Henderson)

TestAmerica Job ID: 440-59961-1

GC/MS VOA

Analysis Batch: 140131

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-59760-B-1 MS	Matrix Spike	Total/NA	Water	8260B	
440-59760-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
440-59961-1	MC-53-20131015	Total/NA	Water	8260B	
440-59961-2	MC-113-20131015	Total/NA	Water	8260B	
440-59961-3	MC-114-20131015	Total/NA	Water	8260B	
LCS 440-140131/5	Lab Control Sample	Total/NA	Water	8260B	
MB 440-140131/4	Method Blank	Total/NA	Water	8260B	

GC Semi VOA

Prep Batch: 138548

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-59961-1	MC-53-20131015	Total/NA	Water	3510C	
440-59961-1 - DL	MC-53-20131015	Total/NA	Water	3510C	
440-59961-2 - DL	MC-113-20131015	Total/NA	Water	3510C	
440-59961-2	MC-113-20131015	Total/NA	Water	3510C	
440-59961-3 - DL	MC-114-20131015	Total/NA	Water	3510C	
440-59961-3	MC-114-20131015	Total/NA	Water	3510C	
LCS 440-138548/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 440-138548/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 440-138548/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 139722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-59961-1	MC-53-20131015	Total/NA	Water	8081A	138548
440-59961-1 - DL	MC-53-20131015	Total/NA	Water	8081A	138548
440-59961-2	MC-113-20131015	Total/NA	Water	8081A	138548
440-59961-2 - DL	MC-113-20131015	Total/NA	Water	8081A	138548
440-59961-3	MC-114-20131015	Total/NA	Water	8081A	138548
440-59961-3 - DL	MC-114-20131015	Total/NA	Water	8081A	138548
LCS 440-138548/2-A	Lab Control Sample	Total/NA	Water	8081A	138548
LCSD 440-138548/3-A	Lab Control Sample Dup	Total/NA	Water	8081A	138548
MB 440-138548/1-A	Method Blank	Total/NA	Water	8081A	138548

Definitions/Glossary

Client: de maximis, inc.
Project/Site: 3200B Transect Wells (Henderson)

TestAmerica Job ID: 440-59961-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F	MS/MSD Recovery and/or RPD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: de maximis, inc.
Project/Site: 3200B Transect Wells (Henderson)

TestAmerica Job ID: 440-59961-1

Laboratory: TestAmerica Irvine

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-14
Arizona	State Program	9	AZ0671	10-13-14
California	LA Cty Sanitation Districts	9	10256	01-31-14
California	NELAP	9	1108CA	01-31-14
California	State Program	9	2706	06-30-14
Guam	State Program	9	Cert. No. 12.002r	01-28-14 *
Hawaii	State Program	9	N/A	01-31-14
Nevada	State Program	9	CA015312007A	07-31-14
New Mexico	State Program	6	N/A	01-31-14
Northern Mariana Islands	State Program	9	MP0002	01-31-14
Oregon	NELAP	10	4005	09-12-14
USDA	Federal		P330-09-00080	06-06-14
USEPA UCMR	Federal	1	CA01531	01-31-15

* Expired certification is currently pending renewal and is considered valid.

Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614
Phone 949.261.1022 fax 949.260.3299

440-59961 Chain of Custody

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Ed Modiano	Site Contact: Doug Bell	Date:	COC No:
de maximis, Inc.	Tel/Fax: 619-546-8377	Lab Contact: Amy Harris	Carrier:	1 of 1 COCs
1322 Scott St., Suite 101	Analysis Turnaround Time			Job No. 3200B
San Diego, CA 92106	Calendar (C) or Work Days (W)___ W___			SDG No.
(619) 546-8377 Phone	TAT if different from Below_____			
(619) 546-9980 Fax	☒ 2 weeks			
Project Name: 3200B Henderson Transect	☐ 1 week			
Site: Henderson, NV	☐ 2 days			
PO#	☐ 1 day			

Sample Identification	Container Type	Sample Date	Sample Time	Preservation Type	Matrix	# of Containers	Filtered Sample	8260B-HEND-Qtrly	8081A-Pesticides + DDT ByProd								VOC concentration > 500 ppb	MS/MSD REQUIRED	LEVEL IV REQUIRED	Sample Specific Notes:
MC-53-2013015	Various	10/15/13	0810	4°C	Aq	5		×	×											
MC-113-2013015	Various	10/15/13	0925	4°C	Aq	5		×	×											
MC-114-2013015	Various	10/15/13	1040	4°C	Aq	5		×	×											

[1] I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered fraud and subject to legal action (NAC445.0636)
Signature: Date 10/15/13

Preservation Used: 1=Ice, 2=HCl; 3=H2SO4; 4=HNO3; 5=NaOH; 6=Other_____

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ☐ *Unknown*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return to Client* ☐ Disposal by Lab Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Sample Int (circle one)
Intact: Y / N on ice: Y / N
temperature:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	Convosis	10/15/13 1210		TA	10/15/13 1210
Relinquished by:	Company: TA	Date/Time: 10/15/13 1800	Received by:	Company: TAI 4.4/4.1	Date/Time: 10/16/13 10:30
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

10/17/13 10:50

5.4

Login Sample Receipt Checklist

Client: de maximis, inc.

Job Number: 440-59961-1

Login Number: 59961

List Source: TestAmerica Irvine

List Number: 1

Creator: Freitag, Kevin R

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ATTACHMENT C

CAPTURE ANALYSIS EVALUATION

ATTACHMENT C

CAPTURE ANALYSIS EVALUATION

This attachment presents an evaluation of groundwater treatment system (GWTS) capture for the fourth quarter 2013. The capture evaluation utilizes a multiple lines-of-evidence approach as submitted to the Nevada Division of Environmental Protection (NDEP) (Hargis + Associates, Inc. [H+A], 2009). The approach consists of the following:

- Groundwater level contouring;
- Triangular network water level analyses;
- Particle tracking analyses;
- Mass flux comparisons, and
- Downgradient transect (performance) well groundwater sampling.

The following sections describe data collection, method of analysis, and the results for the evaluation.

1.1 GROUNDWATER LEVEL CONTOURING

Groundwater level contour maps are prepared each quarter to address the Consent Order requirement for the routine evaluation of capture. Figure C-1 is a groundwater elevation contour map displaying the water level measurement data collected by Converse Consultants from approximately 150 locations in the Shallow Zone during the period October 21 and 22, 2013 during the fourth quarter 2013. Water level contours displayed on the map were generated by using KT3D-H2O software. Figure C-1 displays one foot contour intervals with intermediate one-half foot contours in the vicinity of the extraction wellfield and recharge trenches and in the area to the southeast of well I.

Hydraulic head differences and vertical gradients were also calculated from water level measurements taken at available Shallow Zone and Middle Zone well pairs located as shown on Figure C-2. The calculations take into account groundwater density and indicate upward vertical gradients at each well pair location except for well pairs MC-104 and MC-MW-31 and MC-125 and MC-MW-30 (Table C-1).

The downward vertical gradient at well pair MC-104 and MC-MW-31 is consistent with observations in previous quarters (*de maximis, inc.*, 2012a, 2012b, 2013a, 2013b, 2013c, and 2013d). The downward vertical gradient at this well pair may be related to their location. Well MC-104 and MC-MW-31 are

located adjacent to the western recharge trench and are closer to the trench than any other well pair. Recharge from the trench may increase groundwater elevations in Shallow Zone well MC-104 so that calculations indicate a downward gradient to well MC-MW 31. The MC-125 and MC-MW-30 well pair has historically had similar groundwater level elevations. This condition results in the occasional determination of a slightly downward gradient. Typically an upward vertical gradient is present at this well pair (*de maximis, inc.*, 2012a, 2012b, 2013a, 2013b, 2013c, and 2013d).

1.2 TRIANGULAR NETWORK ANALYSIS

The fourth quarter 2013 Shallow Zone data set was used to create a triangular network of three point groundwater flow direction solutions to assess wellfield capture. The results of the triangular network analysis are presented on Figure C-3. A review of Figure C-3 indicates that capture is complete in the area east of well P to the area southeast of well I. An area of incomplete capture exists between wells C and P.

1.3 PARTICLE TRACKING ANALYSIS

1.3.1 Method

A particle tracking analysis was performed on the fourth quarter 2013 Shallow Zone data set to assess wellfield capture. KT3D-H2O software was used to conduct the particle tracking analysis. Tables C-2 through C-6 summarize the KT3D-H2O parameters and other data requested by NDEP (NDEP, 2012). The particle tracking method provides evidence of wellfield capture if all of the particles introduced upgradient of the extraction wellfield are captured by an extraction well. Areas of incomplete or uncertain wellfield capture are indicated where particles move beyond the extraction well line.

Pursuant to the request of NDEP (NDEP, 2012), the density of particles was increased in the area where capture was previously defined as uncertain (between wells C and J) and between wells J and D2. The particles are started along a line located upgradient of the extraction wellfield across the maximum known width of the volatile organic compound (VOC) plumes as described in the evaluation of multiple lines of evidence report (H+A, 2009). The results of the particle tracking analysis are presented on Figure C-4. No dummy wells were used for the particle tracking analysis.

KT3D-H2O software was used to delineate capture areas for each extraction well. The software generated a potentiometric surface for the Shallow Zone at a 0.20 foot contour interval (Figures C-3 and C-4).

Water levels measured in the 16 operating extraction wells were not used in the KT3D-H2O analysis (Table C-2). Estimated head elevations were specified for the ends of each recharge trench line segment in the input file for KT3D-H2O (Table C-3). These heads are not used as fixed values during kriging. Rather they are only used as a “guide” or “first approximation” by the kriging software.

The heads are estimated by extrapolating the gradient (contour line spacing) implied by triangles located immediately down gradient of the trenches back to the line segment (Figure C-3). A drift term of 1 is the default value in the software and is the value input for all specified recharge trench line segments. The KT3D-H2O software does not currently support different drift term values for different line segments. Since all line segments must have the same value by default, changing the drift value from a value of 1 to some other value would not affect the results.

1.3.2 Particle Tracking Results

The results of the particle tracking analysis indicate that the GWTS is effective in capturing and controlling shallow zone groundwater. Groundwater capture is evident in the area just east of well P to the area southeast of well I, including the area where particle density was increased between wells J and D2. While some particles are present beyond the extraction well line between wells D2 and E3 and wells K2 and I, all particles return to the wellfield (Figure C-4). Review of the accompanying water level and triangular network maps also indicate that capture is achieved in this area.

Particle tracking indicates that an area of incomplete capture exists between well C to just west of well MC-124 (Figure C-4). Particles are present beyond the extraction wells in this area stopping in the area of the recharge trenches (Figure C-4). The particle tracking software stops tracking individual particles when they encounter a point or a line source/sink feature. Tracking is also halted when a particle enters an area of very flat gradient to prevent the software from iterating repeatedly which can result in very long run times. This condition is an artifact of the KT3D-H2O software. The area between wells C and P has previously been identified as incomplete from data collected during prior monitoring periods.

1.4 MASS FLUX COMPARSION

GWTS capture efficiency for the fourth quarter 2013 was also evaluated based on the relative mass removed by the system during this period.

The percent reduction in mass flux being achieved by the GWTS system was computed using a groundwater flow budget and mass balance approach based on the data collected from the downgradient transect program combined with operational data routinely obtained for the GWTS. The methods used for this evaluation are consistent with those outlined in the evaluation of multiple lines of evidence report (H+A, 2009).

The total mass of consent order VOCs being removed by the GWTS is computed periodically based on influent concentrations, effluent concentrations, and total flow. This amount of mass removal can be compared to the amount of mass crossing a transect of wells located downgradient from the GWTS extraction wells, approximately near the southern edge of Warm Springs Road (Figure C-5).

By definition, the sum of the mass being removed by the GWTS and the mass escaping should be equivalent to the total mass arriving at the GWTS from upgradient areas.

The GWTS efficiency in terms of mass reduction can then be computed using the following equation:

$PRM = (1-(Mass_{dgt} / [Mass_{gwts} + Mass_{dgt}]))*100$ where:

PRM = Percent VOC mass removal

$Mass_{gwts}$ = Mass removed by the GWTS

$Mass_{dgt}$ = Mass crossing downgradient transect

The total VOC mass flux crossing the downgradient transect during the fourth quarter 2013 was calculated based on the data collected during the downgradient transect program. The groundwater flux crossing the downgradient transect was calculated using Darcy's law:

$Q=KiA$, where

Q = the groundwater flow rate

K = the hydraulic conductivity of the alluvium

i = the hydraulic gradient

A = the cross-sectional area of the alluvium through which groundwater flows.

The transect was divided into five segments in order to represent the variations in saturated thickness and VOC concentrations defined by the six monitor wells along the transect (Figure C-5).

Cross sectional areas were calculated based on the October 2013 water levels and the depth to the Muddy Creek formation presented on the cross section prepared for the Downgradient Transect Upgrade Report prepared in 2008 (H+A, 2008) The hydraulic gradient along the transect was based on water level contours indicated on Figure C-4.

Hydraulic conductivity was determined based on the logarithmic mean of estimates developed from aquifer tests previously conducted in the GWTS area (H+A, 2007). Based on fourth quarter 2013 monitoring data, the groundwater flow rate passing through the entire transect was approximately 134 gallons per minute (gpm). This flow rate is in very good agreement with the average GWTS processing flow rate of approximately 137 gpm for the fourth quarter 2013 (main text, Section 2.0), and is the same as the GWTS flow rate determined during the fourth quarter 2013 water level measurement event (Figure C-1). The similarity of these flow rates provides additional evidence that the GWTS is effective in capturing groundwater flow in this area.

The VOC mass flux along each segment was then computed based on the concentration of VOCs detected at monitor wells that defined each segment. For each segment the average concentration was interpreted assuming a logarithmic distribution of concentrations between the two wells on either side of the segment. The distribution of groundwater contamination transverse to the direction of migration typically approximates a logarithmic distribution rather than a linear distribution. The VOC mass flux for each segment was calculated as the product of the average VOC concentration times the groundwater flux. The individual VOC fluxes were summed to estimate the total VOC flux crossing the transect.

The PRM during the fourth quarter 2013 was 99.6 percent. This PRM is consistent with previous calculations (*de maximis, inc.,* 2012a, 2012b, 2013a, 2013b, 2013c, and 2013d; H+A, 2009). Details regarding the groundwater and VOC flux calculations for the fourth quarter 2013 are provided in Table C-7.

1.5 DOWNGRADIENT TRANSECT (PERFORMANCE) WELL CONCENTRATION TRENDS

GWTS performance is also monitored quarterly through a series of seven monitor wells arrayed in a transect paralleling the extraction wellfield (Figure C-5). Changes and trends in VOC concentrations at these wells, along with the other evaluation methods discussed above provide another measure of GWTS capture. Graphs illustrating benzene, chlorobenzene, and chloroform concentration trends for each well from 2004 to the present are provided in Figure C-6.

As shown on graphs and as summarized in Table C-8; VOC concentrations along the transect are either stable or decreasing and are below MCLs. Exceptions are as follows:

- Well MC-49 where chlorobenzene concentrations are greater than the MCL, and
- Well MC-50 where benzene and chlorobenzene concentrations are greater than their MCLs.

At well MC-50, benzene concentrations decreased during the fourth quarter 2013. However, chlorobenzene continued to increase although at a rate less than observed during previous quarters (Figure C-6). As noted in the previous quarterly operations report, the Companies took steps to improve the performance of extraction wells upgradient of well MC-50. Extraction Wells L, F, O and G were redeveloped in August 2013 and extraction rates were subsequently increased. Based on recent data from well MC-50, it appears that this work was effective in improving system performance.

1.6 PATH FORWARD

As discussed in the third quarter 2013 operations report, the Companies recommended that a conference call or meeting be scheduled with NDEP as soon as possible to collaboratively identify a useful path forward to resolve the GWTS well C-P area capture uncertainty and to determine a logical sequence for the shutdown of well C (*de maximis, inc.*, 2013d). This meeting is currently scheduled for February 20, 2014.

The Companies will continue to collect and analyze water level and water quality data from the GWTS area to evaluate capture on a quarterly basis. The first quarter 2014 monitoring event was conducted in January 2014 and the data will be presented in the first quarter 2014 operations report to be submitted to NDEP in May 2014.

1.7 REFERENCES CITED

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TABLE C-1

VERTICAL HEAD DIFFERENCES

FOURTH QUARTER 2013

Location ID	Water Bearing Zone	Date	Screen Midpoint Elevation	Static Groundwater Elevation October 2013	TDS (mg/l[a])	Water Density (kg/m^3 [b])	Corrected Groundwater Elevations	Hydraulic Head Difference (in feet with respect to overlying unit [Shallow Zone/Middle Zone])	Hydraulic Gradient (ft/ft)	Gradient Direction
MC-122	Shallow	10/21/2013	1,684.04	1,686.36	21,000[c]	1,012.83	1,686.39	+1.63	+0.0436	UPWARD
MC-MW-33	Middle	10/21/2013	1,646.57	1,688.12	710	997.61	1,688.02			
MC-65	Shallow	10/22/2013	1,673.12	1,671.89	13,000	1,006.83	1,671.88	+1.36	+0.0505	UPWARD
MC-MW-37	Middle	10/22/2013	1,646.13	1,673.18	7,100	1,002.41	1,673.25			
MC-09R	Shallow	10/21/2013	1,684.57	1,685.72	15,000	1,008.33	1,685.73	+0.29	+0.0078	UPWARD
MC-MW-29	Middle	10/21/2013	1,646.84	1,685.84	10,000	1,004.58	1,686.02			
MC-125	Shallow	10/21/2013	1,686.18	1,690.29	14,000[c]	1,007.58	1,690.32	-0.02	-0.0016	DOWN-WARD
MC-MW-30	Middle	10/21/2013	1,674.14	1,690.19	13,000	1,006.83	1,690.30			
MC-104	Shallow	10/21/2013	1,679.70	1,687.24	3,700[c]	999.86	1,687.24	-0.54	-0.0555	DOWN-WARD
MC-MW-31	Middle	10/21/2013	1,669.97	1,686.68	5,700	1,001.36	1,686.70			
MC-119	Shallow	10/21/2013	1,689.58	1,689.51	5,500[c]	1,001.21	1,689.50	+0.10	+0.0043	UPWARD
MC-MW-34	Middle	10/21/2013	1,665.31	1,689.65	1,600	998.28	1,689.61			
MC-116	Shallow	10/21/2013	1,684.44	1,693.02	4,200[c]	1,000.24	1,693.03	+0.27	+0.0089	UPWARD
MC-MW-35	Middle	10/21/2013	1,654.08	1,693.39	700	997.60	1,693.30			

Note: All groundwater elevations are in units of feet above mean sea level
Vertical gradients could not be calculated for well pairs MC-MW-32/MC-59 and MW-MW-36/MC-60 as MC-59 and MC-60 were dry. These wells have historically been dry
Vertical gradients could not be calculated for well MC-MW-38 due to lack of nearby shallow zone well.
Groundwater elevations measured at well pair MC-122/MC-33 do not necessarily reflect static conditions. MC-122 is located 17 feet from extraction Well E and MC-MW-33 is located 27 feet from extraction Well O

Footnotes and Abbreviations:

TDS total dissolved solids
mg/l milligrams per liter
kg/m^3 kilograms per cubic meter
ft/ft: feet per foot
a 2013 analytical results unless otherwise specified
b Calculated based on estimated groundwater temperature of 25 degrees celsius based on transect groundwater monitoring round field notes
c Not sampled in 2013 for TDS, estimated based on surrounding well results

HARGIS + ASSOCIATES, INC.

TABLE C-2

WATER LEVEL ELEVATIONS
OCTOBER 2013

Easting	Northing	Groundwater Elevation (feet msl)	Well ID
826111.9639	26719796.3	1716.04	AA-BW-01A
826045.0145	26720212.1	1708.22	AA-BW-02A
825971.0179	26720585.6	1702.53	AA-BW-03A
825696.1733	26719451	1715.57	AA-BW-09A
826447.639	26719904.4	1718.89	AA-MW-16
825534.03	26721671.2	1686.41	E-N
825485.4	26721390.8	1687.81	E-S
825185.53	26722638.8	1672.97	H-10A
823168.07	26722605.5	1696.46	H-14
824126.38	26721612.6	1698.34	H-18A
824407.06	26721202.7	1699.87	H-19
824914.54	26721148.5	1698.98	H-21R
824166.68	26722628.4	1695.51	H-25
825871.32	26721021.8	1693.92	H-28
825183.141	26721872.8	1687.22	H-36C
824660.68	26721179.6	NM	H-43
826110.29	26723485.4	1662.56	H-49A
824507.76	26722290.4	1691.55	H-53
825501.64	26721558.3	1686.18	H-54
823645.49	26720010.2	1710.97	H-55
825665.28	26723934.6	1661.50	H-56A
825486.09	26721520.5	1686.50	H-57
825642.55	26723331.9	1665.05	H-58A
826183.9	26720012.9	1714.22	M-005A
825989.7	26721065.8	1693.46	M-006A
826106.497	26720979.7	1696.98	M-007B
827377.2	26721444.8	1687.02	M-023
826992.8	26719782.7	1724.73	M-057A
827601.3	26719748.4	1724.76	M-064
827385.3	26720104.4	1712.73	M-079
827584.703	26720159.9	1711.95	M-083
826873.45	26720914.1	1698.75	M-098
827309.688	26720851.7	1697.72	M-099
826569.37	26719505.6	1724.91	M-126
825209.5	26721410	1691.40	MC-03
825192.378	26721968.6	1686.83	MC-05
825207.92	26722160.2	1683.49	MC-06
824933.2	26721865.4	1690.88	MC-07

TABLE C-2

WATER LEVEL ELEVATIONS
OCTOBER 2013

Easting	Northing	Groundwater Elevation (feet msl)	Well ID
824684.03	26721897.1	1693.91	MC-08
825450.321	26721902.5	1685.72	MC-09R
825791.43	26721421.1	1687.18	MC-100
825609.33	26721549.1	1686.59	MC-101
825360.369	26721725.7	1686.28	MC-102
825009.31	26721975.7	1691.22	MC-103
824749.04	26722168	1687.24	MC-104
824275.66	26722336.8	1693.78	MC-105
824474.51	26722208.4	1692.43	MC-106
824806.794	26722013.2	1688.43	MC-107
825114.14	26721984.2	1689.14	MC-108
825294.38	26721609.6	1686.84	MC-109
825685.21	26721369.2	1687.36	MC-110
825942.13	26721355.5	1688.14	MC-111
825538.878	26722279.4	1680.36	MC-113
825835.009	26722158.5	1679.29	MC-114
824353.205	26722324	1693.02	MC-116
824498.061	26722226.6	1692.27	MC-117
824613.14	26722149	1690.19	MC-118
824871.628	26721975.1	1689.51	MC-119
824999.345	26721888.7	1690.22	MC-120
825394.542	26721616.1	1686.17	MC-121
825537.969	26721516	1686.36	MC-122
825724.792	26721388.5	1686.99	MC-123
824705.43	26722087.8	1690.22	MC-124
824944.685	26721928.1	1690.29	MC-125
825207.645	26721746.2	1686.48	MC-126
825805.478	26721281.4	1688.58	MC-127
824642.14	26722133.7	1690.30	MC-128
824677.4	26722106.5	1690.19	MC-129
824765.15	26722044.1	1688.00	MC-130
824859.6	26721980.9	1688.87	MC-132
825124.14	26721799.2	1686.64	MC-133
825323.77	26721661.6	1685.52	MC-134
825405.38	26721606.6	1685.83	MC-135
825522.83	26721525.4	1686.15	MC-136
825612.3	26721465.4	1686.32	MC-137
825712.47	26721394.2	1686.71	MC-138
825812.1	26721324.9	1687.62	MC-139

TABLE C-2

WATER LEVEL ELEVATIONS
OCTOBER 2013

Easting	Northing	Groundwater Elevation (feet msl)	Well ID
824270.86	26722460.6	1693.79	MC-21
824434.73	26722340.9	1692.09	MC-22
824539.64	26722268.8	1691.37	MC-23
824640.963	26722190.9	1689.86	MC-24
824800.155	26722071.6	1688.29	MC-25
825061.76	26721868.1	1688.77	MC-26
825346.25	26721667.3	1686.12	MC-27
825440.66	26721600.3	1686.12	MC-28
825566.39	26721514.6	1686.50	MC-29
825683.27	26721434.4	1686.79	MC-30
825826.57	26721329.8	1687.73	MC-31
825990.76	26721214.3	DRY	MC-32
824104.02	26721968.1	1696.97	MC-33
824496.97	26722273.9	1691.72	MC-35
824498.41	26722275.5	1691.71	MC-36
824526.28	26722276.6	1691.45	MC-37
824534.81	26722337.8	1690.88	MC-38
825545.59	26721619.7	1686.48	MC-40
825520.41	26721583.3	1686.44	MC-41
825475.65	26721571.3	1685.94	MC-42
825396.32	26722230.8	DRY	MC-45A
825385.73	26722229.9	NM	MC-46
824952.84	26722431.1	1679.48	MC-48
825182.72	26722360.5	1680.88	MC-49
825534.87	26722076.2	1683.42	MC-50
825647.68	26721900.1	1684.65	MC-51
825795.47	26721893.9	1684.27	MC-52
825942.24	26721920	1683.46	MC-53
826181.13	26721517.9	DRY	MC-55
825598.45	26721782.2	1685.86	MC-56
824989.32	26722230.6	1684.43	MC-58
826296.08	26721329.7	DRY	MC-59
825483.34	26722694.3	DRY	MC-60
825702.25	26722433.4	1674.10	MC-61
825880.72	26722727.6	1669.17	MC-62
826321.93	26722717.1	1669.05	MC-63
826119.27	26722421.2	1671.89	MC-65
826221.26	26722558	1670.26	MC-66
825303.864	26721729.2	1686.37	MC-68

TABLE C-2

WATER LEVEL ELEVATIONS
OCTOBER 2013

Easting	Northing	Groundwater Elevation (feet msl)	Well ID
825235.626	26721806.4	1686.57	MC-69
826045.34	26721434.4	DRY	MC-70
824633.816	26722506.1	DRY	MC-72
824645.595	26722528	DRY	MC-73
824228.29	26722198.2	1694.86	MC-77
824546.42	26722002.3	1693.68	MC-78
824637.59	26721548.3	1697.18	MC-81
824543.21	26722196.4	1691.94	MC-83
824413.48	26722287.1	1692.73	MC-84
824419.27	26722439.1	1691.56	MC-85
824735.42	26722276.8	1685.79	MC-87
824948.93	26722120.4	1689.15	MC-89
824767.77	26722307.5	1684.15	MC-90
825467.591	26722035.6	1684.85	MC-92
825948.78	26721673.2	1685.82	MC-93
825912.02	26721595.3	1686.28	MC-94
825642.3	26721800.5	1685.75	MC-95
825403.16	26721982	1685.44	MC-96
825838.35	26721425.7	1687.37	MC-97
825696.66	26721567.1	1686.54	MC-98
825258.28	26721709.8	1685.709	OLD WELL-E
825626.88	26721457.4	1686.49	OLD WELL-H
824490.09	26722443.2	1689.67	TMW-01
824473.66	26722428.3	1690.55	TMW-02
825730.52	26721507.2	1686.78	TMW-03
825718.3	26721493.3	1686.77	TMW-04
825138.285	26721790.8	1686.93	WELL-D
825760.29	26721365.3	1687.24	WELL-M
824508.12	26722319.3	1691.35	W-N
824421.01	26722094.1	1694.01	W-S

Note: Dummy wells were not included in evaluation
NM = Not Measured

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TABLE C-3

TRENCH SEGMENT ESTIMATED WATER LEVEL ELEVATIONS (LINE DRIFT)
OCTOBER 2013

Easting	Northing	Line ID	Estimated Water Level Elevation (feet msl)
824437.5	26722467.6	West Trench West Segment	1690.7
824621.9	26722329.6	West Trench West Segment	1687.3
824621.9	26722329.0	West Trench Center Segment	1687.3
824807.6	26722189.3	West Trench Center Segment	1686.9
824807.6	26722189.0	West Trench East Segment	1686.9
824992.2	26722049.5	West Trench East Segment	1689.9
824998.6	26722043.7	Center Trench West Segment	1689.9
825086.85	26721976.9	Center Trench West Segment	1689.8
825086.85	26721976.0	Center Trench East Segment	1689.8
825175.1	26721910.1	Center Trench East Segment	1687.4
825186.1	26721902.0	East Trench West Segment	1687.1
825233.4178	26721866.6	East Trench West Segment	1686.6
825233.4178	26721866.0	East Trench West2 Segment	1686.6
825425	26721723.0	East Trench West2 Segment	1686.4
825425	26721723.1	East Trench Center Segment	1686.4
825664.7	26721543.4	East Trench Center Segment	1686.7
825664.7	26721543.0	East Trench East Segment	1686.7
825902.8	26721365.1	East Trench East Segment	1688.0

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TABLE C-4

EXTRACTION WELL PUMPING RATES (WELL DRIFT)
OCTOBER 2013

Easting	Northing	Well ID	Average Pumping Rate for Quarter (cubic ft/day)	Average Pumping Rate for Quarter (gpm)
Well-C	824604.78	26722157.4	2693.3	14.0
Well-D2	825124.062	26721801.9	1522.8	7.9
Well-E3	825263.64	26721705.7	4639.6	24.1
Well-F	825407.5	26721607.4	1971.3	10.2
Well-G	825525.13	26721526.6	1478.5	7.7
Well-H2	825614.58	26721467	2210.1	11.5
Well-I	825814.25	26721329.2	1418.8	7.4
Well-J	824858.85	26721983.7	1617.1	8.4
Well-K2	825712.42	26721397.8	1950.2	10.1
Well-L	825323.72	26721664.3	2161.9	11.2
Well-M2	825769.742	26721358.7	1438.1	7.5
Well-N	824991.644	26721893.9	182.9	1.0
Well-O	825467.246	26721566.8	2506.5	13.0
Well-P	824714.381	26722082.1	1582.5	8.2
Well-Q	824764.38	26722047.2	1705.7	8.9
Well-R	824809.93	26722013.1	837.4	4.4

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TABLE C-5

KT3D PARTICLE STARTING LOCATIONS
OCTOBER 2013

Particle Number	Easting	Northing
1	825008.8437	26721617.46
2	825002.4161	26721622.23
3	824995.9886	26721626.99
4	824989.561	26721631.75
5	824983.1335	26721636.52
6	824976.7059	26721641.28
7	824970.2784	26721646.04
8	824963.8508	26721650.81
9	824957.4233	26721655.57
10	824950.9957	26721660.33
11	824944.5682	26721665.09
12	824938.1406	26721669.86
13	824931.7131	26721674.62
14	824925.2855	26721679.38
15	824918.858	26721684.15
16	824912.4304	26721688.91
17	824906.0029	26721693.67
18	824899.5753	26721698.44
19	824893.2492	26721703.33
20	824887.1034	26721708.45
21	824880.9576	26721713.57
22	824874.8118	26721718.69
23	824868.6661	26721723.81
24	824862.5203	26721728.94
25	824856.3745	26721734.06
26	824850.2288	26721739.18
27	824844.083	26721744.3
28	824837.9372	26721749.42
29	824831.7914	26721754.54
30	824825.6457	26721759.66
31	824819.4999	26721764.79
32	824813.3541	26721769.91
33	824807.2084	26721775.03
34	824801.0626	26721780.15
35	824794.9168	26721785.27
36	824788.7711	26721790.39
37	824782.6253	26721795.51
38	824776.4795	26721800.64

TABLE C-5

KT3D PARTICLE STARTING LOCATIONS
OCTOBER 2013

Particle Number	Easting	Northing
39	824770.3337	26721805.76
40	824764.188	26721810.88
41	824758.0422	26721816
42	824751.8964	26721821.12
43	824745.7507	26721826.24
44	824739.6049	26721831.36
45	824733.3215	26721836.32
46	824727.0286	26721841.26
47	824720.7357	26721846.2
48	824714.4428	26721851.13
49	824708.1499	26721856.07
50	824701.857	26721861.01
51	824695.5641	26721865.95
52	824689.2712	26721870.89
53	824682.9783	26721875.83
54	824676.6854	26721880.77
55	824670.3925	26721885.71
56	824664.0996	26721890.65
57	824657.8067	26721895.59
58	824651.5138	26721900.53
59	824645.2209	26721905.47
60	824638.928	26721910.41
61	824632.6351	26721915.35
62	824626.3423	26721920.29
63	824620.0494	26721925.23
64	824613.7565	26721930.17
65	824607.4636	26721935.11
66	824601.1707	26721940.05
67	824594.8778	26721944.99
68	824588.5849	26721949.93
69	824582.292	26721954.87
70	824575.8937	26721959.66
71	824569.2222	26721964.07
72	824562.5508	26721968.49
73	824555.8793	26721972.9
74	824549.2078	26721977.32
75	824542.5364	26721981.73
76	824535.8649	26721986.15
77	824529.1935	26721990.56

TABLE C-5

KT3D PARTICLE STARTING LOCATIONS
OCTOBER 2013

Particle Number	Easting	Northing
78	824522.522	26721994.98
79	824515.8506	26721999.39
80	824509.1791	26722003.81
81	824502.5076	26722008.22
82	824495.8362	26722012.64
83	824489.1647	26722017.05
84	824482.4933	26722021.47
85	824475.8218	26722025.88
86	824469.1503	26722030.3
87	824462.4789	26722034.71
88	825015.2909	26721609.75
89	825031.701	26721597.39
90	825048.1111	26721585.04
91	825064.5212	26721572.68
92	825079.5799	26721561.68
93	825094.6386	26721550.67
94	825109.6973	26721539.67
95	825124.7559	26721528.66
96	825139.8146	26721517.66
97	825154.8733	26721506.65
98	825169.932	26721495.65
99	825184.9906	26721484.65
100	825200.0493	26721473.64
101	825215.108	26721462.64
102	825230.1667	26721451.63
103	825245.8045	26721440.63
104	825261.4424	26721429.62
105	825277.0803	26721418.62
106	825292.7181	26721407.61
107	825308.356	26721396.61
108	825323.9938	26721385.61
109	825339.6317	26721374.6
110	825355.2695	26721363.6
111	825370.9074	26721352.59
112	825386.5453	26721341.59
113	825402.1831	26721330.58
114	825417.6279	26721320.54
115	825433.0727	26721310.51
116	825448.5175	26721300.47

TABLE C-5

KT3D PARTICLE STARTING LOCATIONS
OCTOBER 2013

Particle Number	Easting	Northing
117	825463.9623	26721290.43
118	825479.4071	26721280.39
119	825494.8519	26721270.35
120	825510.2967	26721260.31
121	825525.7415	26721250.27
122	825541.1863	26721240.23
123	825556.6311	26721230.19
124	825572.0759	26721220.15
125	825589.4513	26721208.18
126	825606.8267	26721196.21
127	825624.2021	26721184.24
128	825641.5775	26721172.27
129	825658.9529	26721160.3
130	825676.3283	26721148.33
131	825693.7037	26721136.37
132	825711.0791	26721124.4
133	825728.4545	26721112.43
134	825745.8299	26721100.46
135	825763.2053	26721088.49
136	825780.0015	26721088.68
137	825796.7977	26721088.87
138	825813.5939	26721089.07
139	825830.3901	26721089.26
140	825847.1864	26721089.45
141	825863.9826	26721089.64
142	825880.7788	26721089.84
143	825897.575	26721090.03
144	825914.3712	26721090.22
145	825931.1674	26721090.42
146	825947.9637	26721090.61

TABLE C-6
KT3D KRIG AND VARIOGRAM PARAMETERS

OCTOBER 2013

KRIGING TECHNIQUE	
Krig Type:	Ordinary
Drift:	Linear Drift in X and Y
	2D Well function (log-linear interpolation near extraction wells)
	2D Line sink function (log-linear interpolation near the trench)

VARIOGRAM PARAMETERS	
Type of Semivariogram Model:	Spherical
Variance Contribution (Sill):	400
Nugget:	0
Horizontal Range:	3500 feet

HARGIS + ASSOCIATES, INC.

TABLE C-7

MASS FLUX COMPARISON
October 2013

Estimated Downgradient VOC Mass	
2.32	lbs of Benzene
6.69	lbs of Chlorobenzene
0.38	lbs of Chloroform
0.94	lbs of 1,4-Dichlorobenzene
0.63	lbs of 1,2-Dichlorobenzene
0.46	lbs of 1,1-Dichloroethane
0.50	lbs of 1,2,3-Trichlorobenzene
0.53	lbs of 1,2,4-Trichlorobenzene
12.44	**Total lbs of VOCs**

GWTS Mass Removal	
2,771	Total lbs of VOCs

99.6%	Percent Removal of Mass by GWTS

Notes:

lbs = Pounds

VOCs = Volatile Organic Compounds

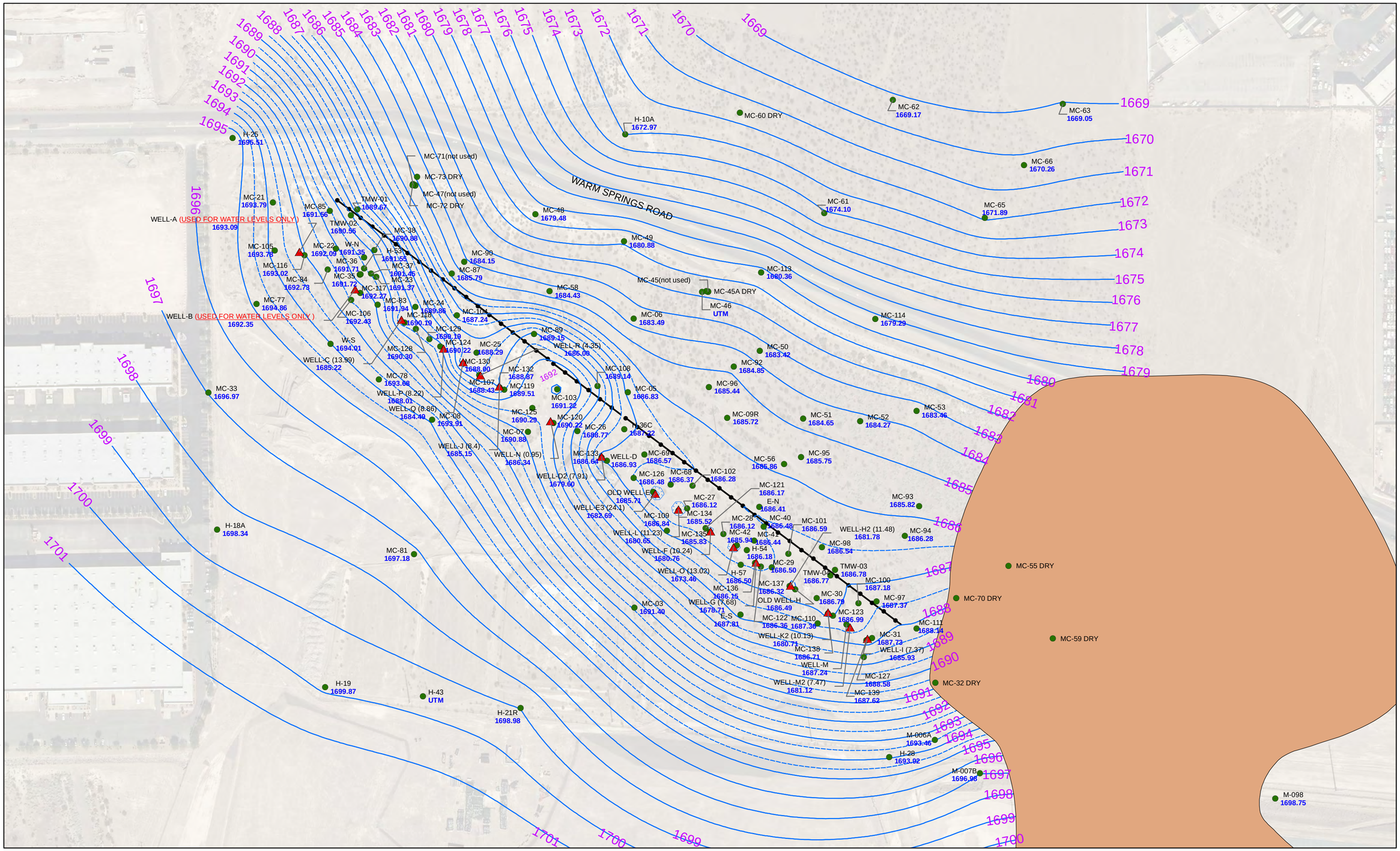
GWTS = Groundwater Treatment System

TABLE C-8

TRANSECT WELL MONITORING TREND SUMMARY

Wells presented West to East
Refer to Figure C-6 for Water Quality Hydrographs

Well	Benzene	Chlorobenzene	Chloroform
MC-47	Less than MCL, less than reporting limits, and stable	Less than MCL, less than reporting limits, and stable	Less than MCL and stable
MC-48	Less than MCL, less than reporting limits, and stable	Less than MCL and decreasing	Less than MCL, less than reporting limits, and stable
MC-49	Less than MCL and decreasing	Greater than MCL and stable	Less than MCL, less than reporting limits, and stable
MC-113	Less than MCL and decreasing	Less than MCL and stable	Less than MCL and decreasing
MC-50	Historically variable; less than MCL 2009-2011; currently greater than MCL and decreased from last quarter	Historically variable; less than MCL 2009-2011; currently greater than MCL and increasing during recent quarters	Less than MCL and stable
MC-114	Less than MCL, less than reporting limits, and stable	Less than MCL, less than reporting limits, and stable	Less than MCL and decreasing
MC-53	Less than MCL, less than reporting limits, and stable	Less than MCL, less than reporting limits, and stable	Less than MCL and decreasing



Name: Water Level Map Oct 2013 Date: 2/11/2014

2011 Air Photo Basemap
Note: Locations based on Nevada State Plane Coordinate System.

EXPLANATION

- MONITOR WELL SHALLOW ZONE
- EXTRACTION WELL
- 1680 WATER LEVEL CONTOURS, IN FEET ABOVE MEAN SEA LEVEL (DEPRESSION CONTOURS INDICATED BY HASH MARKS AND INTERMEDIATE CONTOURS INDICATED BY DASHING)
- RECHARGE TRENCH LOCATIONS
- AREA OF UNCERTAIN SHALLOW ZONE SATURATION

UTM = unable to measure

H-19 1699.87 — Well Identifier; Water Level Elevation, in feet above mean sea level

WELL-J (8.4) 1685.15 — Well Identifier (pumping rate in gallons per minute on October 23, 2013); Water Level Elevation, in feet above mean sea level

N

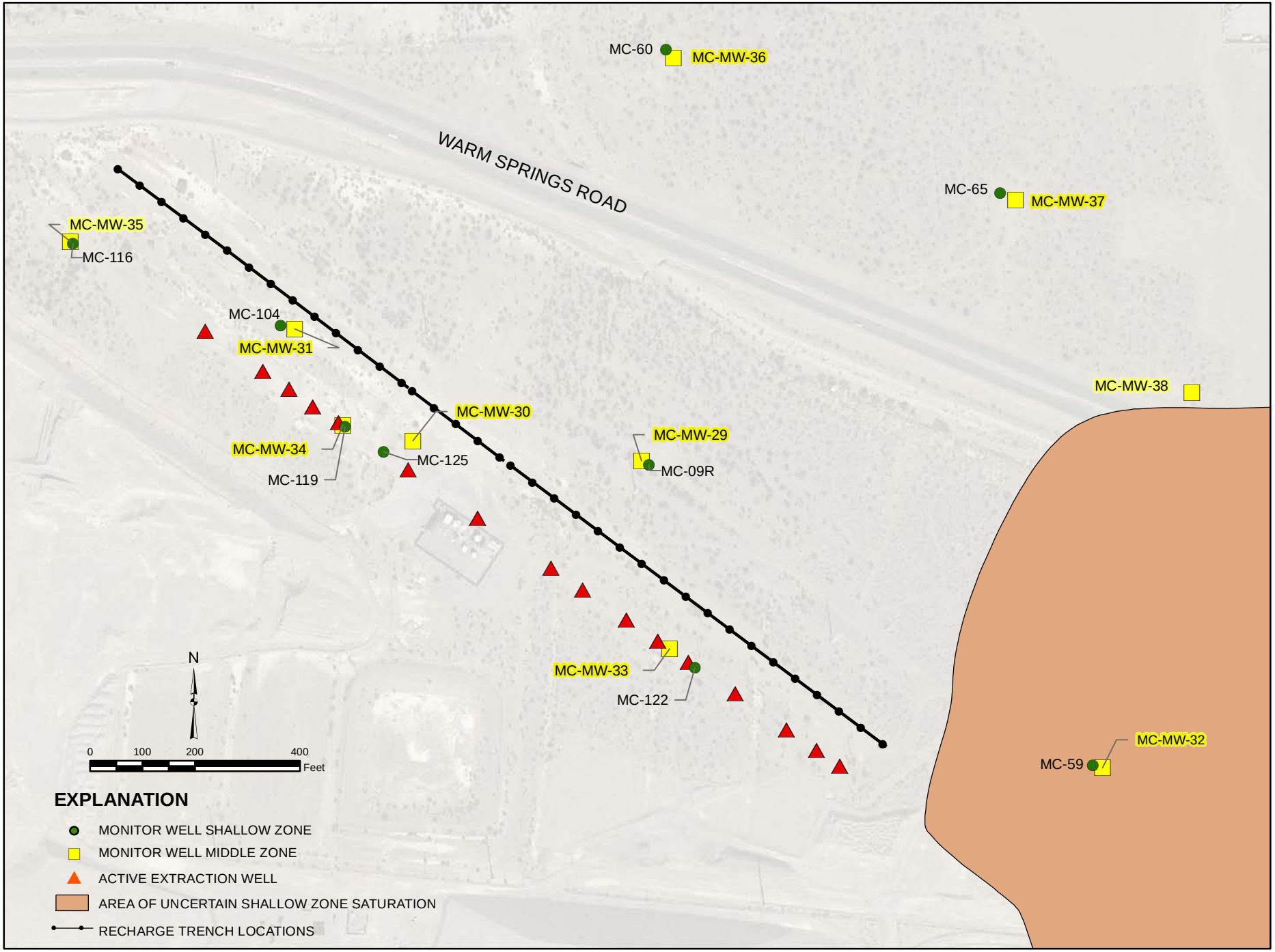
0 150 300 Feet

Contours generated by KT3D-H2O software

Notes: Total wellfield flow rate approximately
134 gallons per minute (gpm) on October 23, 2013
Trench flows:
47 gpm was directed to western recharge trench,
38 gpm was directed to the center trench, and
49 gpm was directed to the eastern recharge trench

FIGURE C-1
WATER LEVELS
FOURTH QUARTER 2013

HARGIS + ASSOCIATES, INC.
HYDROGEOLOGY • ENGINEERING

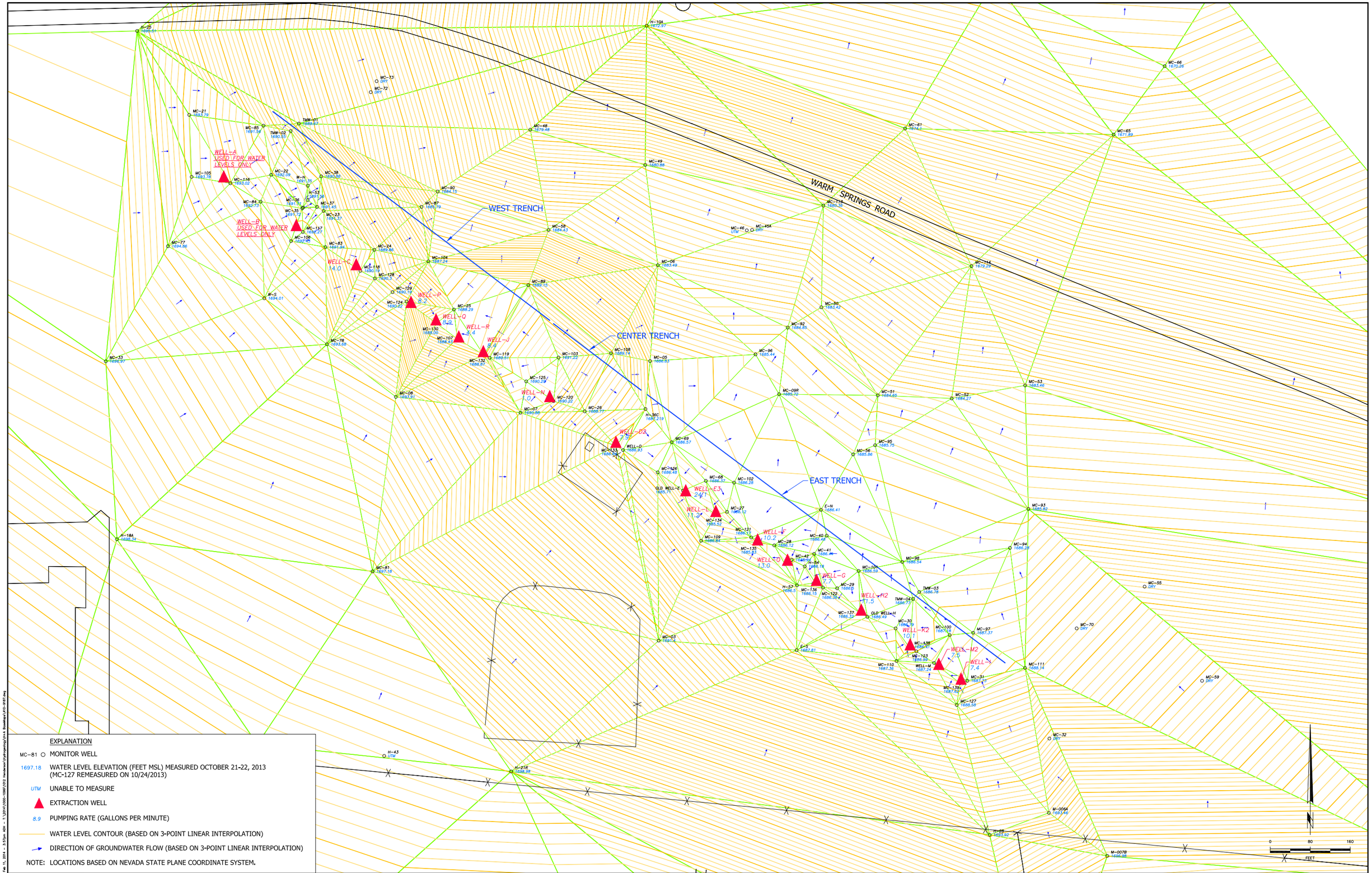


Name: VertGradLocs
Date Saved: 11/20/2012 2:19:22 PM

2011 Air Photo Basemap
Note: Locations based on Nevada State Plane Coordinate System.

FIGURE C-2. SHALLOW/MIDDLE ZONE WELL PAIRS IN WELLFIELD AREA

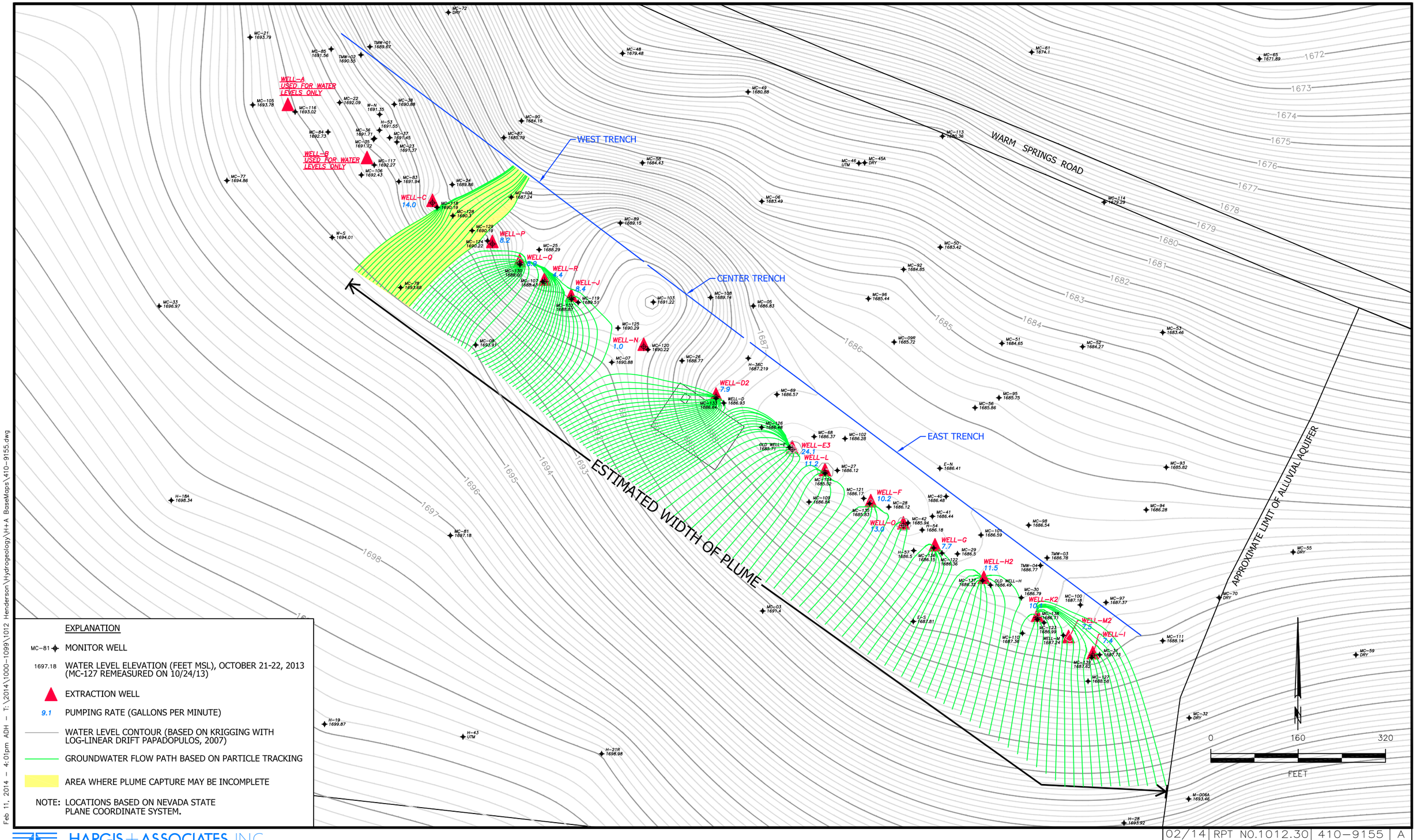
HARGIS + ASSOCIATES, INC
HYDROGEOLOGY • ENGINEERING



HARGIS + ASSOCIATES, INC
Hydrogeology/Engineering

FIGURE C-3.
TRIANGULAR NETWORK WATER LEVELS, FOURTH QUARTER 2013

02/14	RPT NO.1012.30	410-9187	A



HARGIS + ASSOCIATES, INC.
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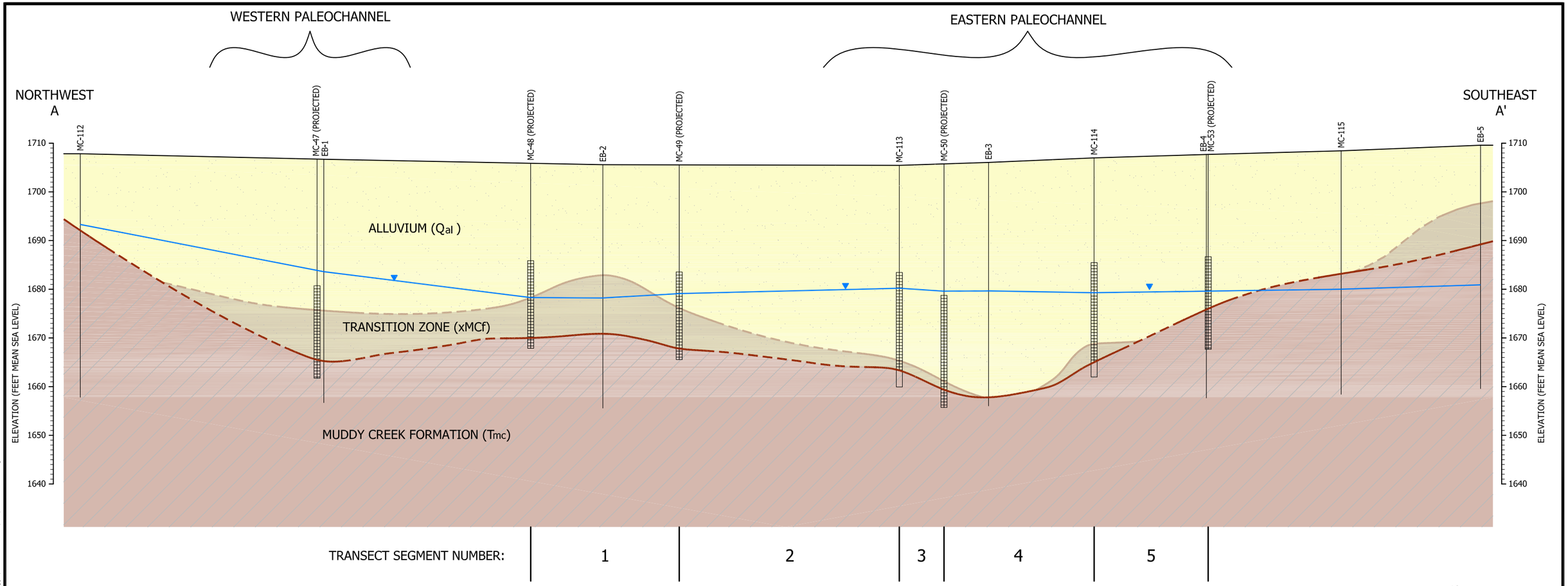
02/14	RPT NO.1012.30	410-9155	A

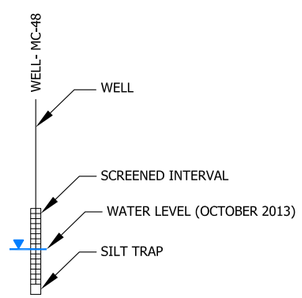
FIGURE C-4.
ESTIMATED GROUNDWATER TREATMENT SYSTEM WELLFIELD CAPTURE, FOURTH QUARTER 2013

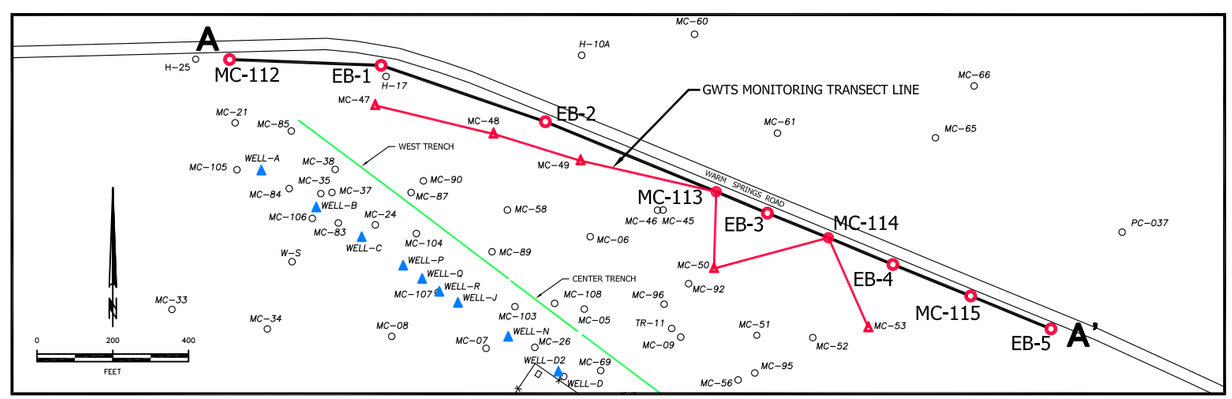


EXPLANATION

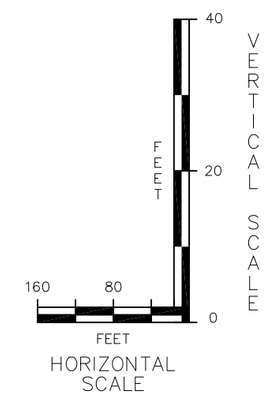
- Qal — QUATERNARY ALLUVIUM
- xMCf — TRANSITIONAL MUDDY CREEK FORMATION
- Tmc — TERTIARY MUDDY CREEK FORMATION
- CONTACT, DASHED WHERE APPROXIMATED
- WATER TABLE, DASHED WHERE APPROXIMATED
- MONITOR WELL
- EXPLORATORY BORING
- MONITOR WELL
- EXTRACTION WELL
- EXISTING DOWNGRADIENT TRANSECT MONITOR WELL

NOTE: MC-112, MC-115 AND EB-1 THROUGH EB-5 WERE ONLY EXPLORATORY BORINGS. WELLS WERE NOT CONSTRUCTED AT THESE LOCATIONS.





CROSS SECTION LOCATION



NOTE: LOCATIONS BASED ON NEVADA STATE PLANE COORDINATE SYSTEM.

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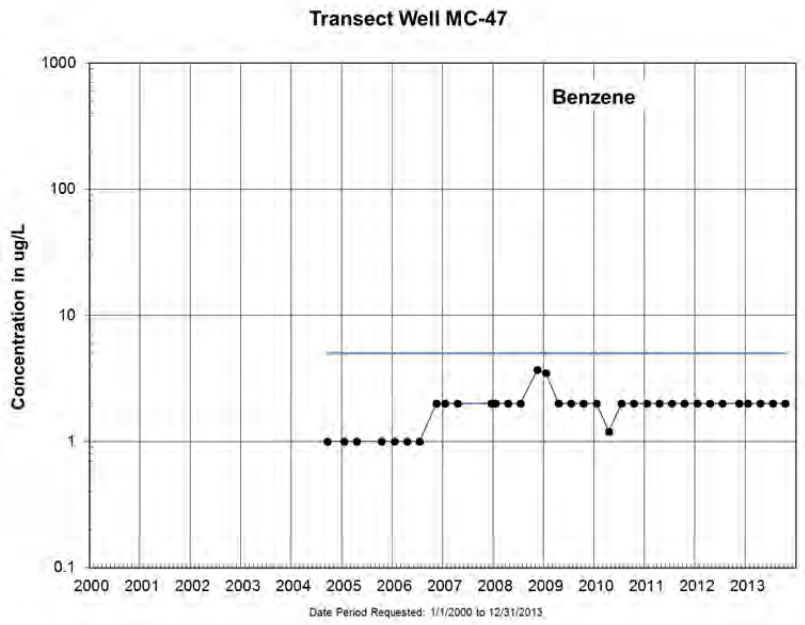
01/14	RPT NO. 1012.30	310-1219	A

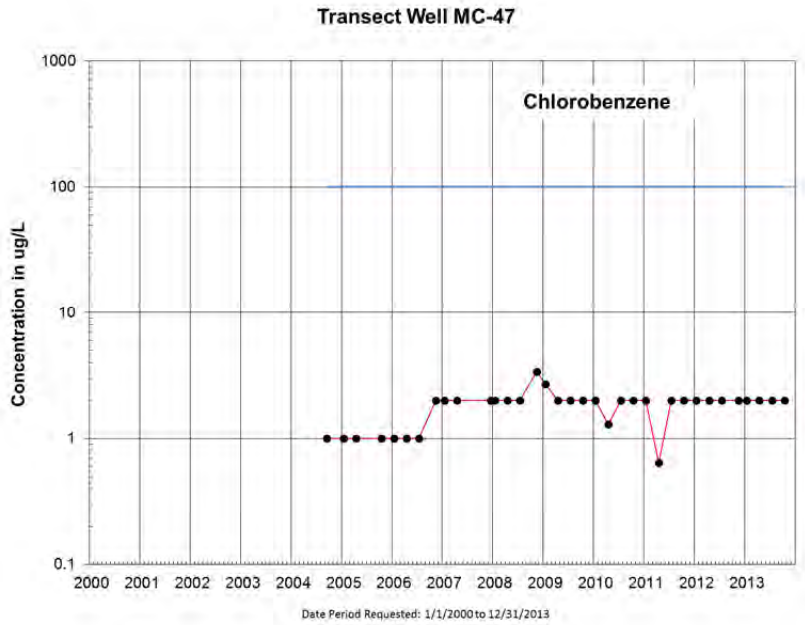
Jan 28, 2014 – 5:44pm ADH – T:\2014\1000-1099\1012 Henderson\Hydrogeology\H+A BaseMaps\310-1219.dwg

FIGURE C-5. DOWNGRADIENT MONITORING TRANSECT LOCATION AND CROSS SECTION, OCTOBER 2013

FIGURES C-6.1 THROUGH C-6.7

BENZENE, CHLOROBENZENE & CHLOROFORM CONCENTRATION TRENDS
IN TRANSECT MONITOR WELLS


Transect Well MC-47
Benzene
Concentration in ug/L
1000
100
10
1
0.1
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013
Date Period Requested: 1/1/2000 to 12/31/2013


Transect Well MC-47
Chlorobenzene
Concentration in ug/L
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10
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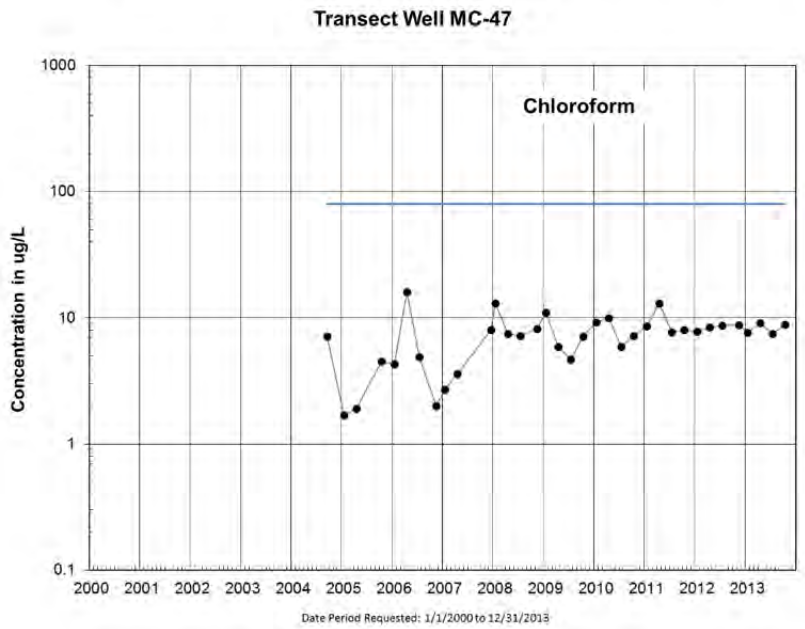
0.1
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013
Date Period Requested: 1/1/2000 to 12/31/2013


Transect Well MC-47
Chloroform
Concentration in ug/L
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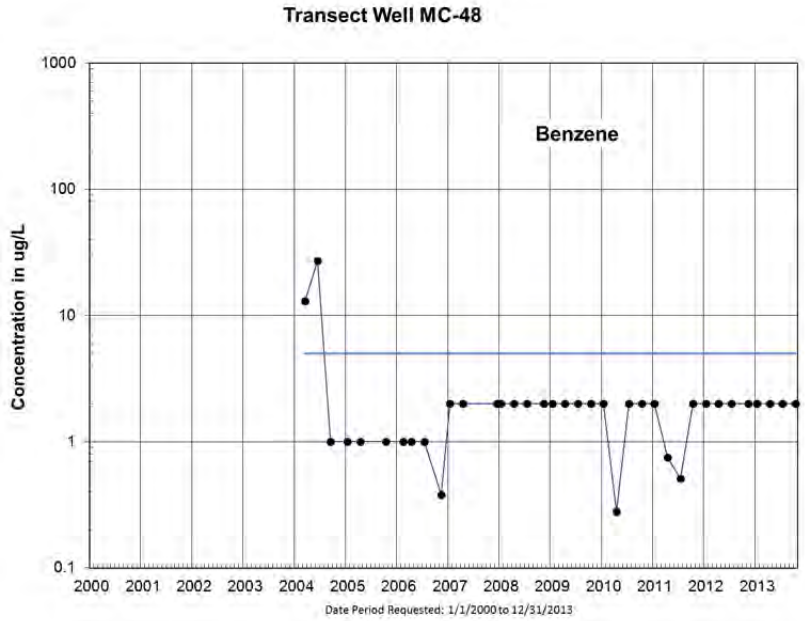
100
10
1
0.1
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013
Date Period Requested: 1/1/2000 to 12/31/2013

Figure C-6.1


Transect Well MC-48
Benzene
Concentration in ug/L
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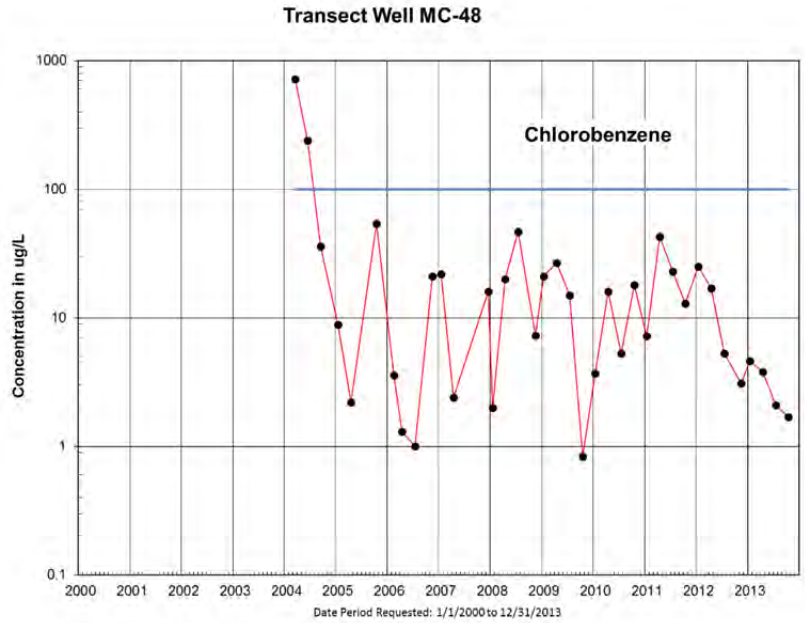
100
10
1
0.1
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013
Date Period Requested: 1/1/2000 to 12/31/2013


Transect Well MC-48
Chlorobenzene
Concentration in ug/L
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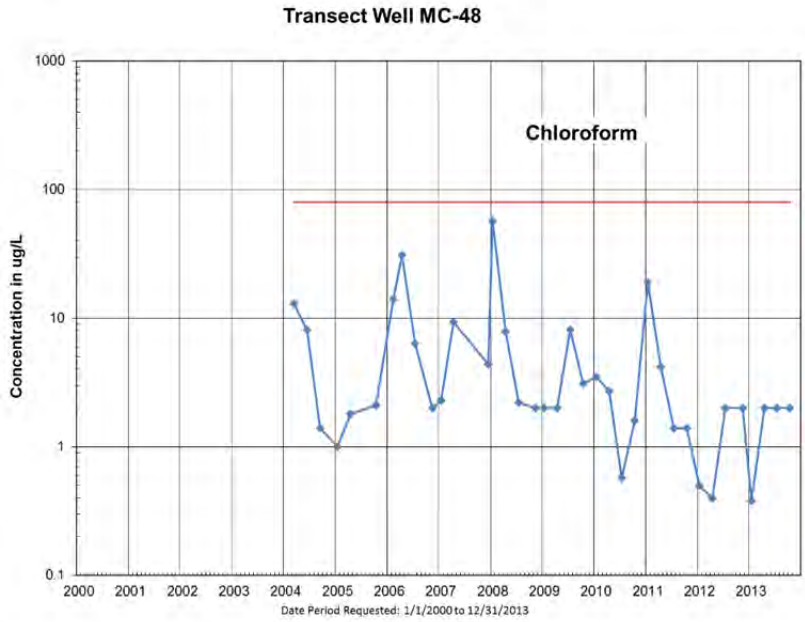
100
10
1
0.1
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013
Date Period Requested: 1/1/2000 to 12/31/2013


Transect Well MC-48
Chloroform
Concentration in ug/L
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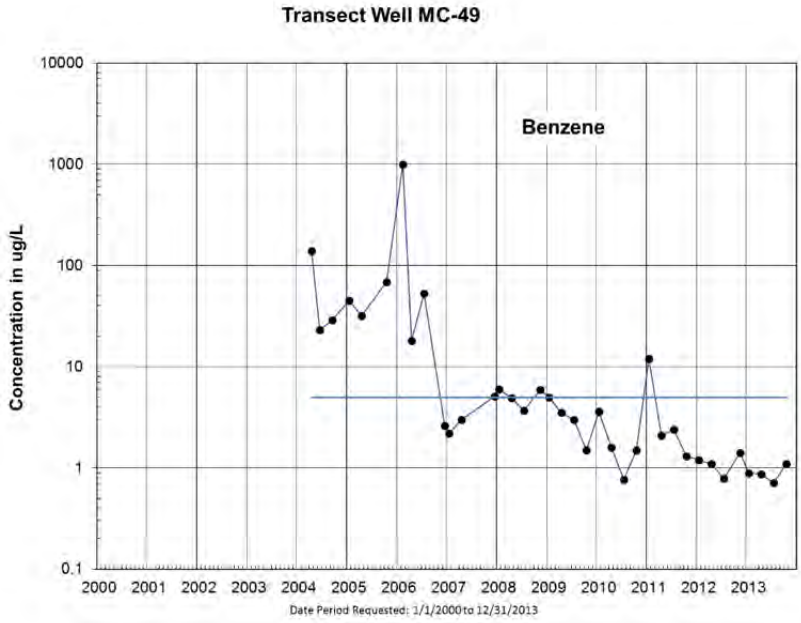
100
10
1
0.1
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013
Date Period Requested: 1/1/2000 to 12/31/2013

Figure C-6.2


Transect Well MC-49
Benzene
Concentration in ug/L
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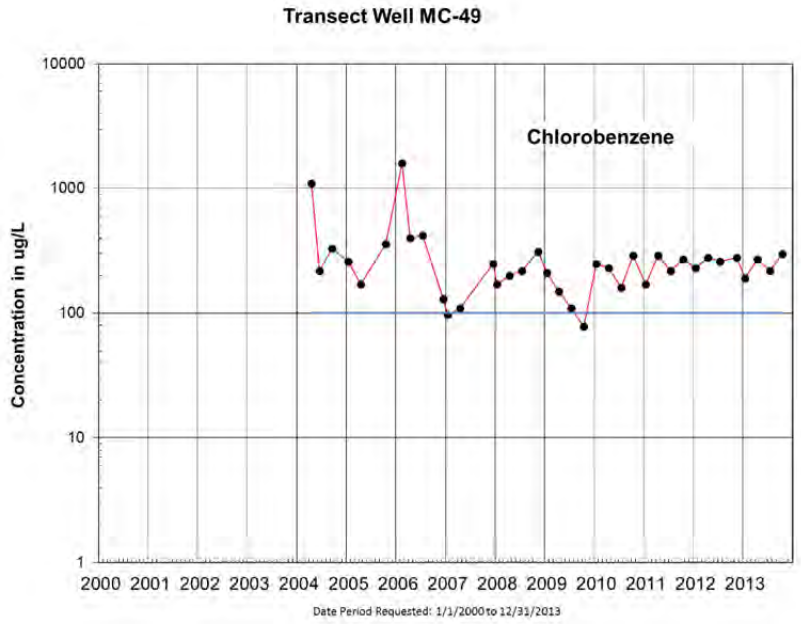
1000
100
10
1
0.1
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013
Date Period Requested: 1/1/2000 to 12/31/2013


Transect Well MC-49
Chlorobenzene
Concentration in ug/L
10000
1000
100
10
1
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013
Date Period Requested: 1/1/2000 to 12/31/2013

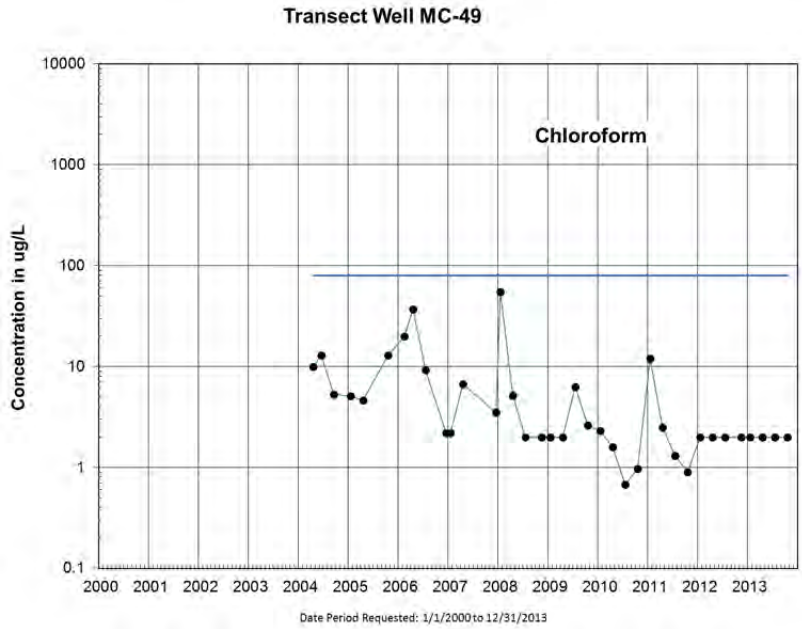
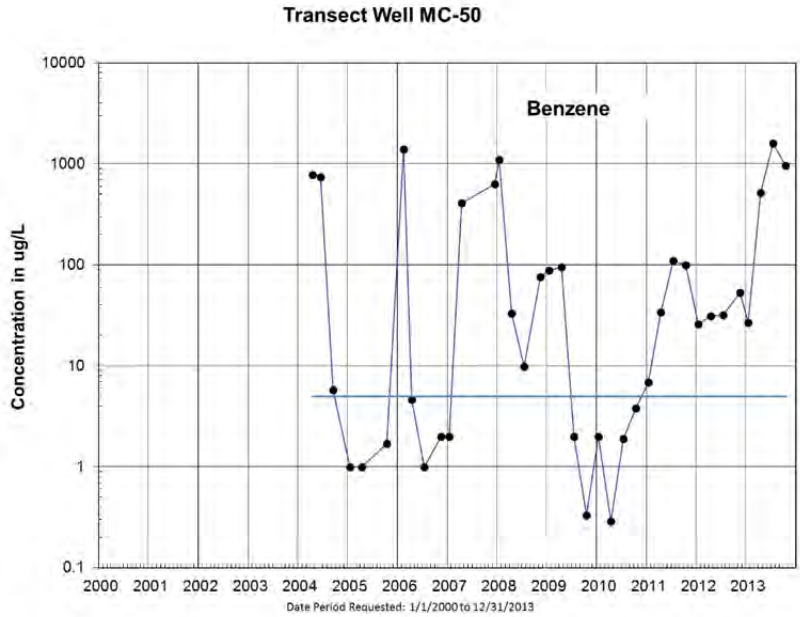
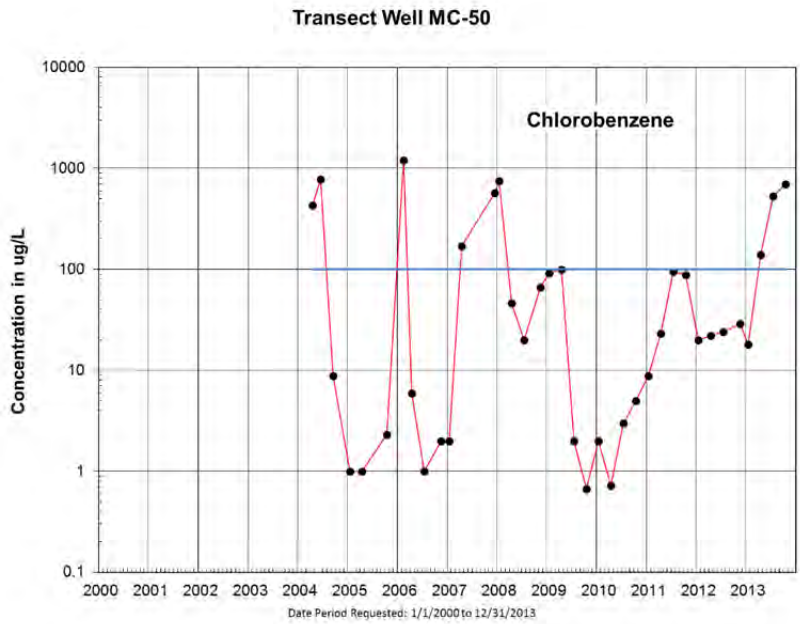

Transect Well MC-49
Chloroform
Concentration in ug/L
10000
1000
100
10
1
0.1
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013
Date Period Requested: 1/1/2000 to 12/31/2013

Figure C-6.3


Transect Well MC-50
Benzene
Concentration in ug/L
10000
1000
100
10
1
0.1
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013
Date Period Requested: 1/1/2000 to 12/31/2013


Transect Well MC-50
Chlorobenzene
Concentration in ug/L
10000
1000
100
10
1
0.1
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013
Date Period Requested: 1/1/2000 to 12/31/2013

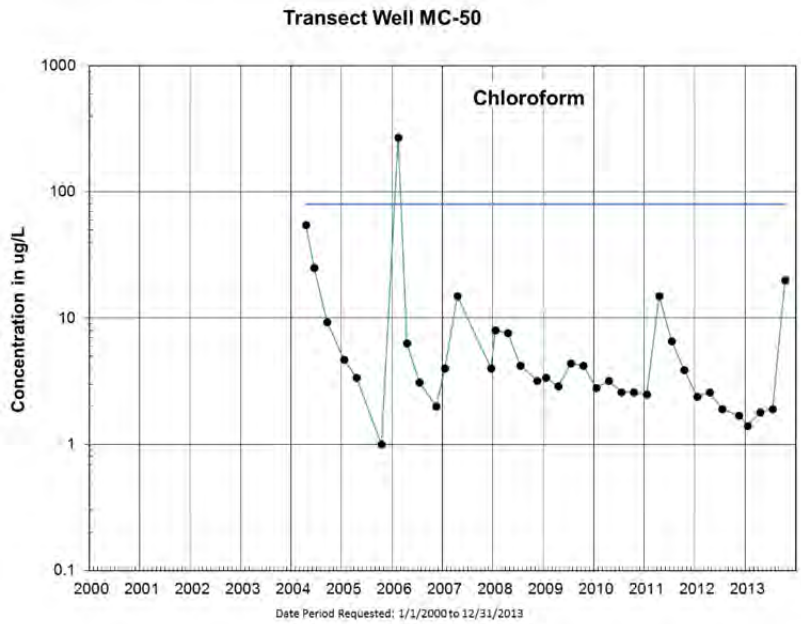
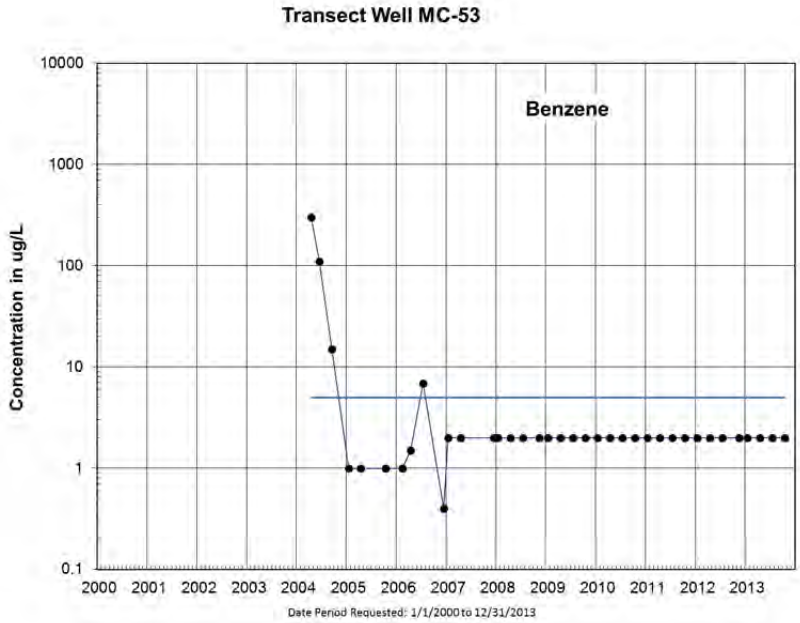
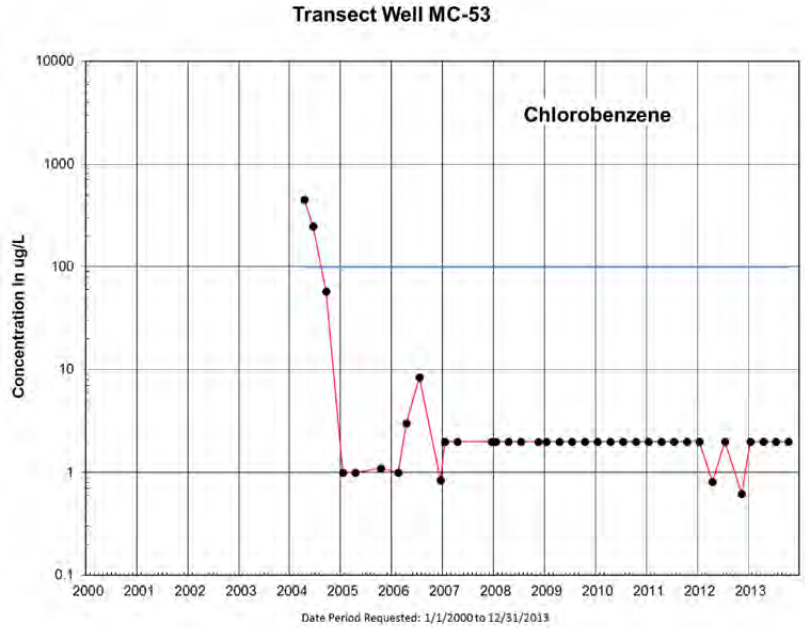

Transect Well MC-50
Chloroform
Concentration in ug/L
1000
100
10
1
0.1
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013
Date Period Requested: 1/1/2000 to 12/31/2013

Figure C-6.4


Transect Well MC-53
Benzene
Concentration in ug/L
10000
1000
100
10
1
0.1
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013
Date Period Requested: 1/1/2000 to 12/31/2013


Transect Well MC-53
Chlorobenzene
Concentration in ug/L
10000
1000
100
10
1
0.1
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013
Date Period Requested: 1/1/2000 to 12/31/2013

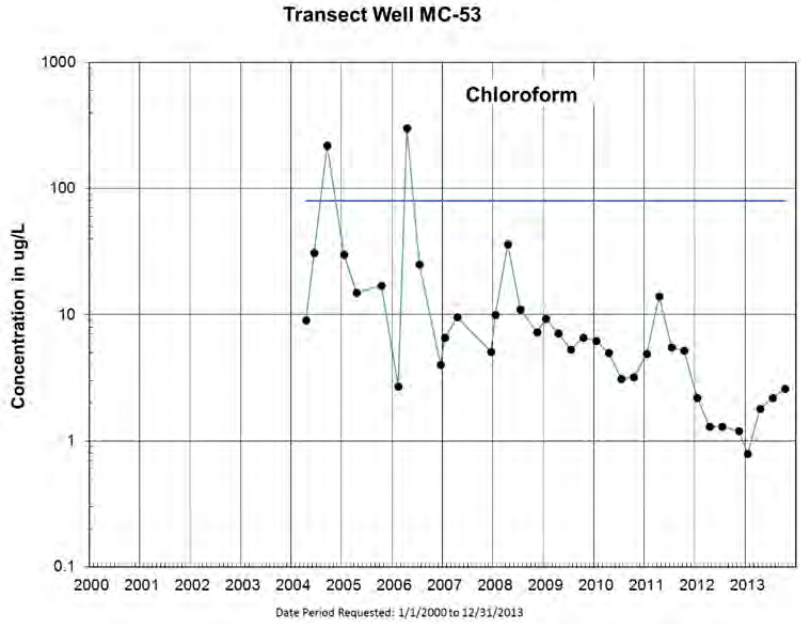
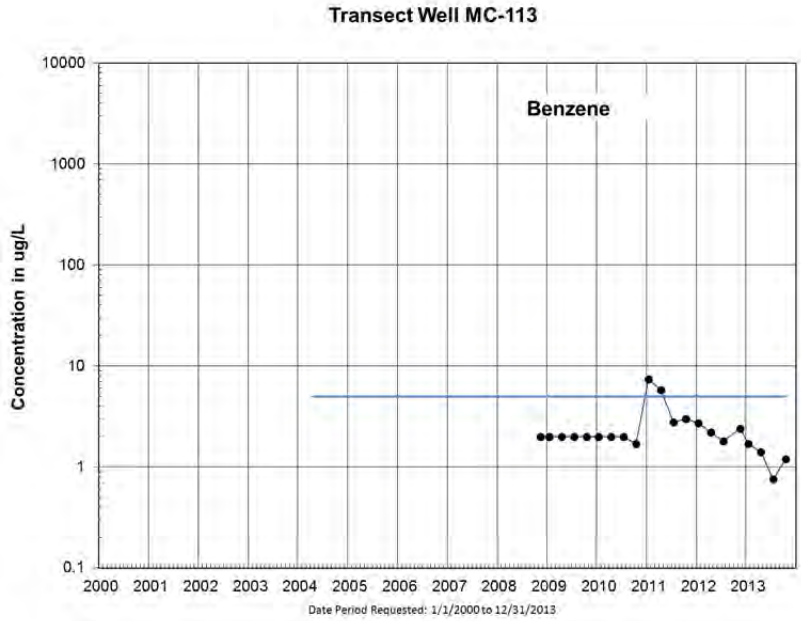
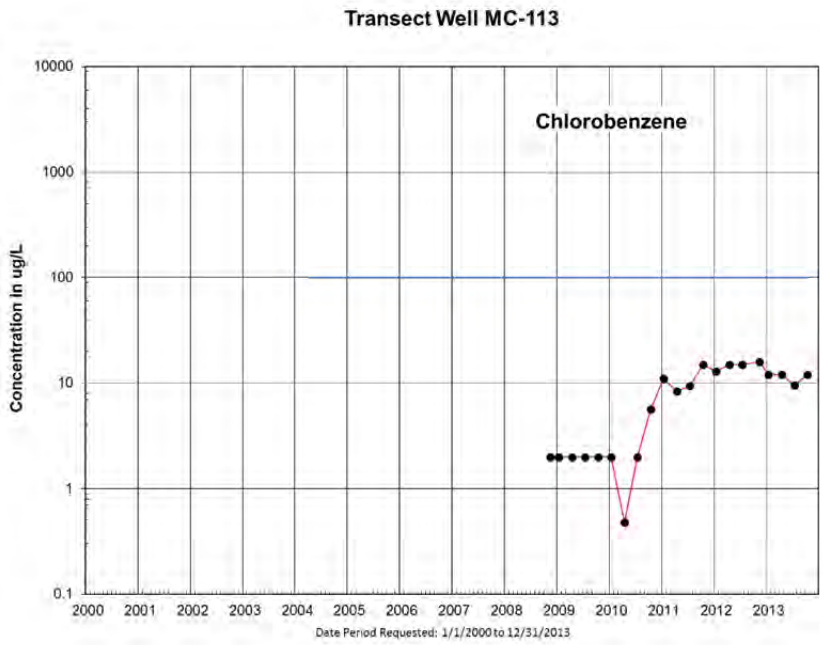

Transect Well MC-53
Chloroform
Concentration in ug/L
1000
100
10
1
0.1
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013
Date Period Requested: 1/1/2000 to 12/31/2013

Figure C-6.5


Transect Well MC-113
Benzene
Concentration in ug/L
10000
1000
100
10
1
0.1
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013
Date Period Requested: 1/1/2000 to 12/31/2013


Transect Well MC-113
Chlorobenzene
Concentration in ug/L
10000
1000
100
10
1
0.1
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013
Date Period Requested: 1/1/2000 to 12/31/2013

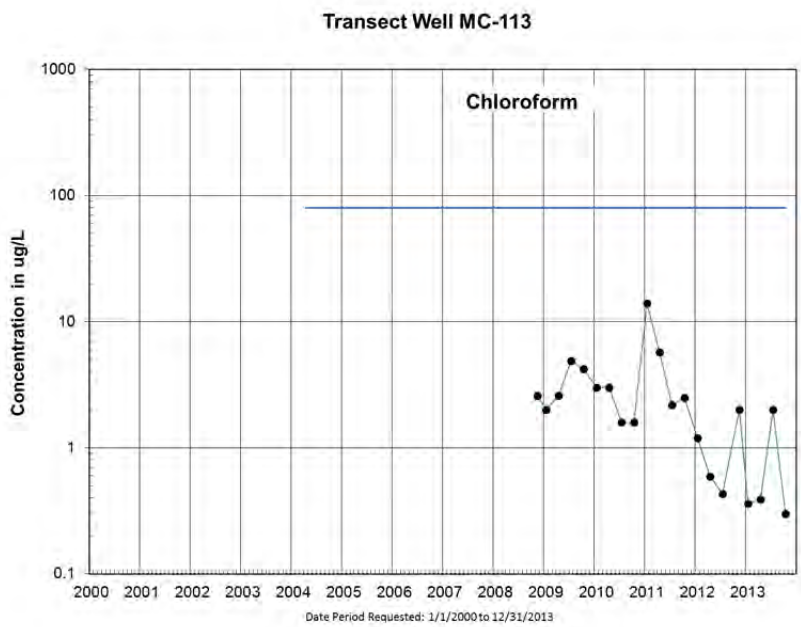
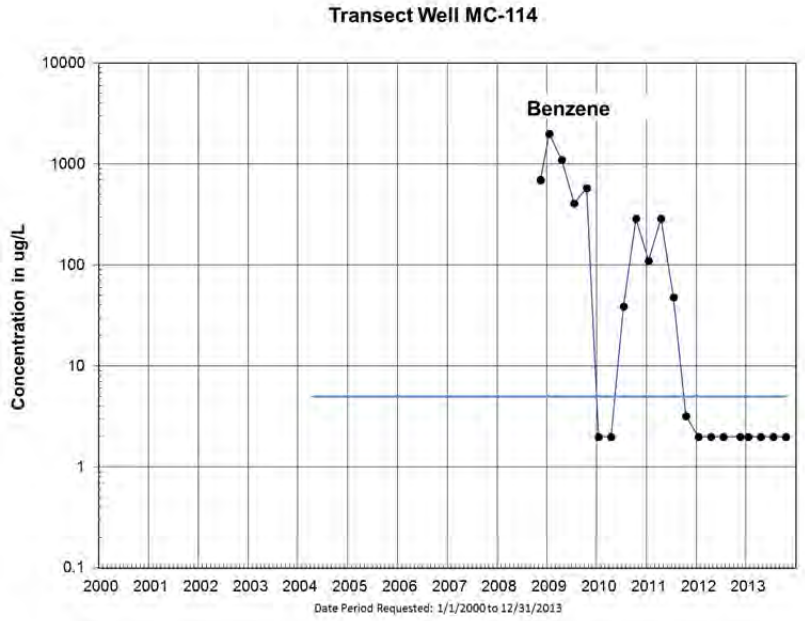
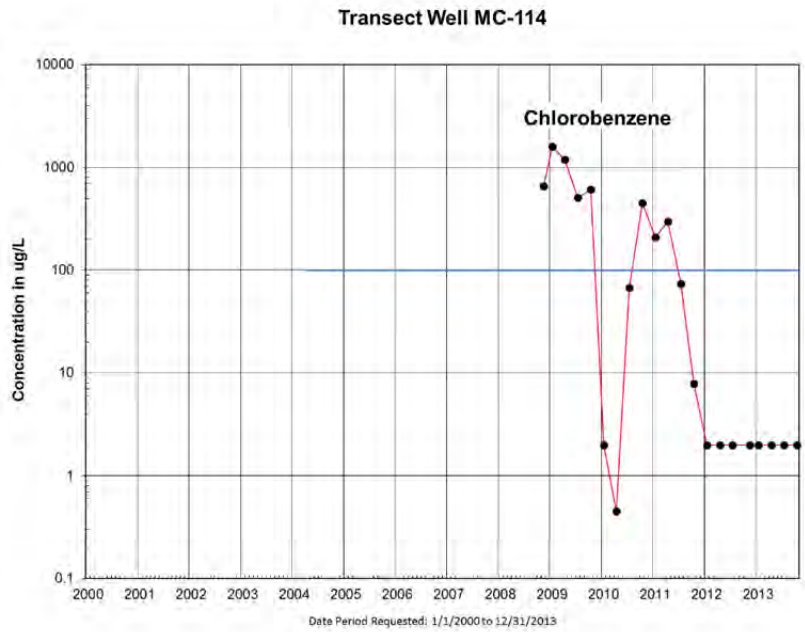

Transect Well MC-113
Chloroform
Concentration in ug/L
1000
100
10
1
0.1
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013
Date Period Requested: 1/1/2000 to 12/31/2013

Figure C-6.6


Transect Well MC-114
Benzene
Concentration in ug/L
10000
1000
100
10
1
0.1
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013
Date Period Requested: 1/1/2000 to 12/31/2013


Transect Well MC-114
Chlorobenzene
Concentration in ug/L
10000
1000
100
10
1
0.1
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013
Date Period Requested: 1/1/2000 to 12/31/2013

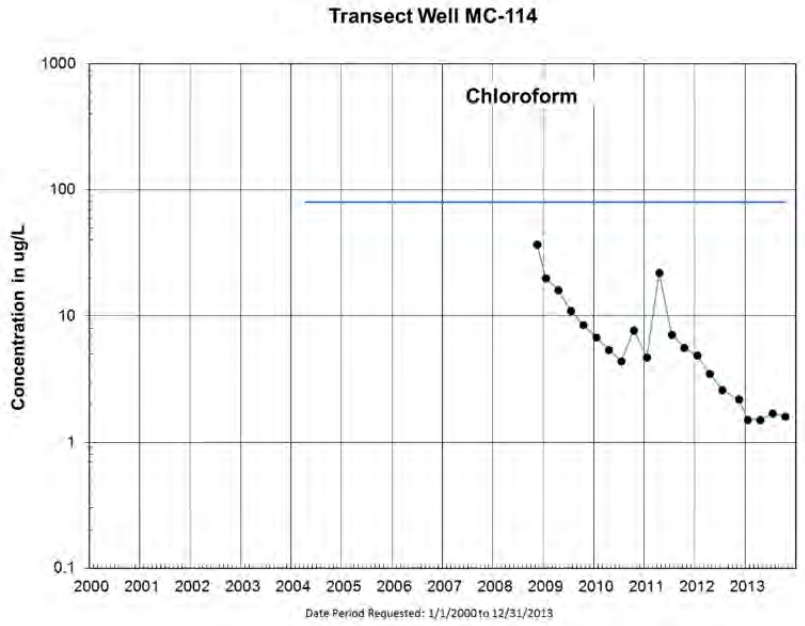

Transect Well MC-114
Chloroform
Concentration in ug/L
1000
100
10
1
0.1
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013
Date Period Requested: 1/1/2000 to 12/31/2013

Figure C-6.7