



DOMINION

March 3, 2017

Mr. David Hogan
Mammoth-San Manuel Unified School District
PO Box 406
San Manuel, Arizona 85631

RE: Limited Water Quality Sampling
Mammoth-San Manuel Unified School District
San Manuel High School
711 South McNab Parkway
San Manuel, Arizona 85631

Dominion Project No. 1607.02
Purchase Order No. 1617785

Dear Mr. Hogan,

Pursuant to your request, Dominion Environmental Consultants, Inc. (Dominion) conducted limited water quality sampling on February 17, 2017 at the above referenced location.

BACKGROUND

The Mammoth-San Manuel Unified School District reportedly identified elevated lead concentrations in samples of drinking water taken in the Auditorium Building at San Manuel High School. Dominion was directed to conduct additional sampling in the Auditorium Building.

SCOPE OF WORK

Dominion was requested to:

- Conduct limited first draw water sampling for lead at the client-identified drinking water taps.
- Provide a report of the findings to the client.

SAMPLING TECHNIQUES

Lead Water Sampling

First-draw water samples were collected in 1 liter laboratory prepared bottled preserved with nitric acid. The water samples were transported to the analytical laboratory, under chain of custody for analysis.

ANALYTICAL LABORATORY RESULTS

Lead Water Sampling

On February 17, 2017, Dominion collected a total of fifteen water samples from the client-identified sinks, drinking fountains, and the water heater in the Auditorium Building. The United States Environmental Protection Agency (EPA) action level for lead in drinking water is 0.015 mg/L. Of the fifteen samples collected, four sample site locations were identified with lead in exceedance of the EPA action level. The laboratory analytical report indicated that the lead levels in the samples collected from the auditorium drinking fountains, the water heater, and the west hose bib were all above the action level. One additional sample site location, the north hose bib, was identified with lead near the action level (0.014 mg/L) (see Exhibit 1 – Lead Water Summary Chart and Exhibit 2 – Lead Water Laboratory Results).

CONCLUSIONS

Based on the analytical data presented in this report, four of the water samples collected from the property contained lead in concentrations above the EPA action level.

RECOMMENDATIONS

- Dominion recommends that the school contact Arizona Department of Environmental Quality (ADEQ), Arizona Department of Health Services (ADHS) and the School Facilities Board (SFB) for further guidance.

LIMITATIONS

The conclusions and results contained herein are based solely on the information presented in this report. The limited sampling, testing, and observations described in the report represent conditions only at the specified times and locations. Additional information or contamination which were hidden, undiscovered, inaccessible, or are not a part of the finding presented herein, would result in the modification of the conclusions and recommendations made herein. The limited sampling methods, techniques, and scope of services were not comprehensive or to be considered all inclusive. Any remediation guidelines are minimum general guidelines, based solely on the findings presented herein. They are presented as a courtesy and are not to be considered a complete or detailed set of specifications. Dominion performed its investigation in a specific area, as directed by the client.

Dominion's scope of service for this report did not include the inspection for, or identification of, lead paint, asbestos materials, or any other hazardous or controlled substances not specifically identified herein. The presence of any asbestos material should be verified prior to any work being performed by workers covered by asbestos regulatory guidelines.

Dominion is not responsible for the accuracy of information or any services provided by others, or for conditions or consequences arising from relevant facts that were withheld, concealed, undiscovered or not fully disclosed. Dominion is not a law firm, and therefore, makes no representations regarding any potential liability of any person or entity for site conditions. Further, Dominion is not qualified to present medical advice. If any present or future health issues are in question, it is recommended that the findings in this report be presented to a qualified medical professional for evaluation.

If you should have any questions or would like to discuss the contents of this report, please do not hesitate to contact me at any time.

Sincerely,

Dominion Environmental Consultants, Inc.



Nicholas Wahnefried
Industrial Hygiene Project Manager



Ryan Kuhn, Ph.D., CIH
Corporate Director of Industrial Hygiene Services

Enclosures:

- Exhibit 1 – Lead Water Summary Chart
- Exhibit 2 – Lead Water Laboratory Results
- Exhibit 3 – Water Sample Location Map

EXHIBIT 1

Dominion Environmental Consultants, Inc.
Lead Sample Summary

Dominion Project Number: 1607.02		Client: Mamoth-San Manuel School District	
Sample Date: February 17, 2017		Site: San Manuel High School	
Sample Number	Sample Location	Reading Detection Limit (mg/L)	Lead Concentration (mg/L)
Tap 1	District Office - Kitchen Sink	0.001	<0.001
Tap 2	District Office - Mens Restroom Sink	0.001	0.001
Tap 3	District Office - Womens Restroom Sink	0.001	<0.001
Tap 4	North Drinking Fountains	0.001	0.062
Tap 5	Auditorium - Mens Restroom Sink	0.001	0.005
Tap 6	South Drinking Fountains	0.001	0.028
Tap 7	Auditorium - Womens Restroom Sink	0.001	0.002
Tap 8	Mens Dressing Room Sink	0.001	0.007
Tap 9	Mens Backstage Restroom Sink	0.001	0.002
Tap 10	Womens Dressing Room Sink	0.001	0.003
Tap 11	Womens Backstage Restroom Sink	0.001	0.001
Tap 12	Band Room Drinking Fountain	0.001	0.002
Tap 13	North Hose Bib	0.001	0.014
Tap 14	Water Heater	0.001	0.460
Tap 15	West Hose Bib	0.001	0.110

EXHIBIT 2



2105 S. 48th Street, Suite 102
Tempe, AZ 85282
(602) 437-0762



February 24, 2017

Ryan Kuhn
Dominion Environmental Cons.
20045 N. 19th Ave., Bldg. 7
Phoenix, AZ 85027

Workorder #: A1702093

Client Project Name: San Manuel HS
Client Project Number: 1607.02

Dear Ryan Kuhn

Apex Analytical Laboratory received 15 sample(s) for analysis on 02/17/17 .

All analyses met laboratory QA/QC requirements with any exceptions addressed in the Case Narrative.

If you have any questions or concerns regarding the analysis of your samples, please contact the laboratory at (602) 437-0762.

Sincerely,

A handwritten signature in black ink that reads 'Robert V. Woods'.

Robert Woods
Laboratory Director

ADHS License No. AZ0768



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Tempe, AZ 85282
(602) 437-0762
ADHS License No. AZ0768

Workorder: Dominion Environmental Cons.
Client: A1702093

Project Name: San Manuel HS
Project Number: 1607.02

Case Narrative

All samples and QC associated with your samples met the quality control objectives. Any discrepancies will be addressed in this case narrative. Data qualifiers in this report are in accordance with ADEQ Data Qualifiers.



Definitions

CCV	Continuing Calibration Verification: A solution of one or more compounds used to evaluate the performance of the instrument system with respect to a defined set of method criteria.
Duplicate	Two aliquots of the same sample analyzed separately with identical procedures. Analyses of the sample and duplicate indicates precision associated with laboratory procedures.
LCS	Laboratory Control Sample: An aliquot of a blank matrix to which known quantities of the method analytes are added in the laboratory. The LCS is analyzed exactly like a sample, and its purpose is to determine whether the methodology is in control, and whether the laboratory is making accurate and precise measurements.
LCSD	Laboratory Control Sample Duplicate: A duplicate analyses of an LCS. It is an indication of precision and accuracy.
MS	Matrix Spike: An aliquot of an environmental sample to which known quantities of the method analytes are added in the laboratory. The MS is analyzed exactly like a sample, and its purpose is to determine whether the sample matrix contributes bias to the analytical results.
MSD	Matrix Spike Duplicate: A duplicate analyses of an MS. It also is an indication of precision and accuracy.
RPD	Reported Percent Difference. RPD is simply a QC measurement used by taking the difference of two results, and dividing by the average of the two results, and converting that number to a percent.



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Client Contact:	Ryan Kuhn	Work Order #:	A1702093
Company	Dominion Environmental Cons.	Project Name:	San Manuel HS
Address:	20045 N. 19th Ave., Bldg. 7	Project Number:	1607.02
City, State, Zip:	Phoenix, AZ 85027	Received Date:	2/17/17

Sample Temperature, °C:	Ambient
Samples received intact:	Yes
Correct container:	Yes
Correct preservation:	Yes
Comments regarding sample receipt:	Sample(s) received in good condition

SAMPLE SUMMARY

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME
A1702093-01	Tap 1	DW	2/17/17	5:15
A1702093-02	Tap 2	DW	2/17/17	5:16
A1702093-03	Tap 3	DW	2/17/17	5:17
A1702093-04	Tap 4	DW	2/17/17	5:20
A1702093-05	Tap 5	DW	2/17/17	5:21
A1702093-06	Tap 6	DW	2/17/17	5:22
A1702093-07	Tap 7	DW	2/17/17	5:23
A1702093-08	Tap 8	DW	2/17/17	5:28
A1702093-09	Tap 9	DW	2/17/17	5:29
A1702093-10	Tap 10	DW	2/17/17	5:30
A1702093-11	Tap 11	DW	2/17/17	5:30
A1702093-12	Tap 12	DW	2/17/17	5:33
A1702093-13	Tap 13	DW	2/17/17	5:35
A1702093-14	Tap 14	DW	2/17/17	5:40
A1702093-15	Tap 15	DW	2/17/17	5:45
Total number samples received		15		



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Sample Report
Method 200.8 ICP-MS Metals

Workorder: A1702093

Client: Dominion Environmental Cons.
Project Name: San Manuel HS
Project Number: 1607.02

Client ID: Tap 1

Sample Date: 2/17/17
Sample Time: 5:15

Lab ID: A1702093-01

Matrix: DW
Prep Date: 2/20/17

Compound	CAS No.	Report Limit, mg/L	DL	Sample Result, mg/L	Qualifier	Analysis Date	Analyst	QC Batch
Lead	7439-92-1	0.001	1	<0.001		2/20/17	PS	022017_200.8

Client ID: Tap 2

Sample Date: 2/17/17
Sample Time: 5:16

Lab ID: A1702093-02

Matrix: DW
Prep Date: 2/20/17

Compound	CAS No.	Report Limit, mg/L	DL	Sample Result, mg/L	Qualifier	Analysis Date	Analyst	QC Batch
Lead	7439-92-1	0.001	1	0.001		2/20/17	PS	022017_200.8

Client ID: Tap 3

Sample Date: 2/17/17
Sample Time: 5:17

Lab ID: A1702093-03

Matrix: DW
Prep Date: 2/20/17

Compound	CAS No.	Report Limit, mg/L	DL	Sample Result, mg/L	Qualifier	Analysis Date	Analyst	QC Batch
Lead	7439-92-1	0.001	1	<0.001		2/20/17	PS	022017_200.8

Client ID: Tap 4

Sample Date: 2/17/17
Sample Time: 5:20

Lab ID: A1702093-04

Matrix: DW
Prep Date: 2/20/17

Compound	CAS No.	Report Limit, mg/L	DL	Sample Result, mg/L	Qualifier	Analysis Date	Analyst	QC Batch
Lead	7439-92-1	0.001	1	0.062		2/20/17	PS	022017_200.8



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Sample Report Method 200.8 ICP-MS Metals

Workorder: A1702093

Client: Dominion Environmental Cons.

Project Name: San Manuel HS

Project Number: 1607.02

Client ID: Tap 5

Lab ID: A1702093-05

Sample Date: 2/17/17

Matrix: DW

Sample Time: 5:21

Prep Date: 2/20/17

Compound	CAS No.	Report Limit, mg/L	DL	Sample Result, mg/L	Qualifier	Analysis Date	Analyst	QC Batch
Lead	7439-92-1	0.001	1	0.005		2/20/17	PS	022017_200.8

Client ID: Tap 6

Lab ID: A1702093-06

Sample Date: 2/17/17

Matrix: DW

Sample Time: 5:22

Prep Date: 2/20/17

Compound	CAS No.	Report Limit, mg/L	DL	Sample Result, mg/L	Qualifier	Analysis Date	Analyst	QC Batch
Lead	7439-92-1	0.001	1	0.028		2/20/17	PS	022017_200.8

Client ID: Tap 7

Lab ID: A1702093-07

Sample Date: 2/17/17

Matrix: DW

Sample Time: 5:23

Prep Date: 2/20/17

Compound	CAS No.	Report Limit, mg/L	DL	Sample Result, mg/L	Qualifier	Analysis Date	Analyst	QC Batch
Lead	7439-92-1	0.001	1	0.002		2/20/17	PS	022017_200.8

Client ID: Tap 8

Lab ID: A1702093-08

Sample Date: 2/17/17

Matrix: DW

Sample Time: 5:28

Prep Date: 2/20/17

Compound	CAS No.	Report Limit, mg/L	DL	Sample Result, mg/L	Qualifier	Analysis Date	Analyst	QC Batch
Lead	7439-92-1	0.001	1	0.007		2/20/17	PS	022017_200.8



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Sample Report Method 200.8 ICP-MS Metals

Workorder: A1702093

Client: Dominion Environmental Cons.

Project Name: San Manuel HS

Project Number: 1607.02

Client ID: Tap 9

Lab ID: A1702093-09

Sample Date: 2/17/17

Matrix: DW

Sample Time: 5:29

Prep Date: 2/20/17

Compound	CAS No.	Report Limit, mg/L	DL	Sample Result, mg/L	Qualifier	Analysis Date	Analyst	QC Batch
Lead	7439-92-1	0.001	1	0.002		2/20/17	PS	022017_200.8

Client ID: Tap 10

Lab ID: A1702093-10

Sample Date: 2/17/17

Matrix: DW

Sample Time: 5:30

Prep Date: 2/20/17

Compound	CAS No.	Report Limit, mg/L	DL	Sample Result, mg/L	Qualifier	Analysis Date	Analyst	QC Batch
Lead	7439-92-1	0.001	1	0.003		2/20/17	PS	022017_200.8

Client ID: Tap 11

Lab ID: A1702093-11

Sample Date: 2/17/17

Matrix: DW

Sample Time: 5:30

Prep Date: 2/20/17

Compound	CAS No.	Report Limit, mg/L	DL	Sample Result, mg/L	Qualifier	Analysis Date	Analyst	QC Batch
Lead	7439-92-1	0.001	1	0.001		2/20/17	PS	022017_200.8

Client ID: Tap 12

Lab ID: A1702093-12

Sample Date: 2/17/17

Matrix: DW

Sample Time: 5:33

Prep Date: 2/20/17

Compound	CAS No.	Report Limit, mg/L	DL	Sample Result, mg/L	Qualifier	Analysis Date	Analyst	QC Batch
Lead	7439-92-1	0.001	1	0.002		2/20/17	PS	022017_200.8



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Sample Report Method 200.8 ICP-MS Metals

Workorder: A1702093

Client: Dominion Environmental Cons.

Project Name: San Manuel HS

Project Number: 1607.02

Client ID: Tap 13

Lab ID: A1702093-13

Sample Date: 2/17/17

Matrix: DW

Sample Time: 5:35

Prep Date: 2/20/17

Compound	CAS No.	Report Limit, mg/L	DL	Sample Result, mg/L	Qualifier	Analysis Date	Analyst	QC Batch
Lead	7439-92-1	0.001	1	0.014		2/20/17	PS	022017_200.8

Client ID: Tap 14

Lab ID: A1702093-14

Sample Date: 2/17/17

Matrix: DW

Sample Time: 5:40

Prep Date: 2/20/17

Compound	CAS No.	Report Limit, mg/L	DL	Sample Result, mg/L	Qualifier	Analysis Date	Analyst	QC Batch
Lead	7439-92-1	0.001	1	0.46		2/20/17	PS	022017_200.8

Client ID: Tap 15

Lab ID: A1702093-15

Sample Date: 2/17/17

Matrix: DW

Sample Time: 5:45

Prep Date: 2/20/17

Compound	CAS No.	Report Limit, mg/L	DL	Sample Result, mg/L	Qualifier	Analysis Date	Analyst	QC Batch
Lead	7439-92-1	0.001	1	0.11		2/23/17	PS	022317_200.8



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Quality Control Data - Method Blank
Method 200.8 ICP-MS Metals

Work Order: A1702093

Project Name: San Manuel HS

Client: Dominion Environmental Cons.

Project Number: 1607.02

Prep Date: 2/20/17

Compound	CAS No.	Report Limit mg/L	Blank Result, mg/L	Qualifier	Analysis Date	Analyst	QC Batch
Lead	7439-92-1	0.001	<0.001		2/20/17	PS	022017_200.8

Prep Date: 2/23/17

Compound	CAS No.	Report Limit mg/L	Blank Result, mg/L	Qualifier	Analysis Date	Analyst	QC Batch
Lead	7439-92-1	0.001	<0.001		2/23/17	PS	022317_200.8



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Quality Control Data - LCS/LCSD
Method 200.8 ICP-MS Metals

Work Order: A1702093
QC Batch ID: 022017_200.8

Prep Date: 2/20/17
Analysis Date: 2/20/17
Analyst: PS

Compound	LCS Result, mg/L	LCS % Rec	LCSD Result, mg/L	LCSD % Rec	True Value, mg/L	Recovery Limits %	Recovery RPD	RPD Limit, %	Qualifier
Lead	0.0522	104%	0.0522	104%	0.050	85-115	0%	20%	

QC Batch ID: 022317_200.8

Analysis Date: 2/23/17

Compound	LCS Result, mg/L	LCS % Rec	LCSD Result, mg/L	LCSD % Rec	True Value, mg/L	Recovery Limits %	Recovery RPD	RPD Limit, %	Qualifier
Lead	0.0547	109%	0.0521	104%	0.050	85-115	5%	20%	



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Quality Control Data - MS/MSD
Method 200.8 ICP-MS Metals

Work Order: A1702093
QC Batch ID: 022017_200.8

Prep Date: 2/20/17
Analysis Date: 2/20/17
Analyst: PS
Spiked Sample ID: A1702080-96

Compound	Sample Result, mg/L	MS Result, mg/L	MS % Rec	MSD Result, mg/L	MSD % Rec	True Value, mg/L	Recovery Limits %	RPD %	Qualifier
Lead	0.0033	0.0520	97%	0.0526	99%	0.050	70-130	1%	

QC Batch ID: 022317_200.8

Spiked Sample ID: A1702093-15

Compound	Sample Result, mg/L	MS Result, mg/L	MS % Rec	MSD Result, mg/L	MSD % Rec	True Value, mg/L	Recovery Limits %	RPD %	Qualifier
Lead	0.111	0.156	91%	0.164	106%	0.050	70-130	5%	



Chain of Custody / Analysis Request

2105 S. 48th Street, Suite 102 Tempe AZ 85282 602.437.0762
www.AzApexLab.com woods@azapexlab.com

Lab Number:

A1702093

Customer Contact:	Ryan Kuhn	Page	1	of	2	P.O. #:	200861	
Company Name:	Dominion Environmental Consultants	Sampler (signature):						
Address:	20045 N. 19th Ave., Bldg. 7	Project Name:	San Manuel HS Auditorium					
City, State, Zip:	Phoenix, AZ 85027	Project Number:	1607.02					
Phone:	623-516-1415	Fax:		Fax Results:	Y	N	E-Mail Address:	rkuhn@dominion-env.com

Sample Receipt				Turn Around Request				Analytical Parameters and Methods Requested																			
Temperature <u>Ambient</u> °C				24 Hours <input type="checkbox"/> 48 Hours <input type="checkbox"/>																							
Custody Seals: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				72 Hours <input type="checkbox"/> 5 working Day <input checked="" type="checkbox"/>																							
Custody Seals Intact: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				Requested Report Delivery Date																							
Total # of Containers: <u>10</u>																											
Sample Information								Sample Matrix Type*	Preservative	Number of Containers	200.8 - (Pb in DW)																
Lab #	Date Collected	Time Collected	Sample Identification																								
1	2/17/17	05:15	Tap 1		DW	HNO3	1	X																			
2		05:16	Tap 2																								
3		05:17	Tap 3																								
4		05:20	Tap 4																								
5		05:21	Tap 5																								
6		05:22	Tap 6																								
7		05:23	Tap 7																								
8		05:28	Tap 8																								
9		05:29	Tap 9																								
10		05:30	Tap 10																								

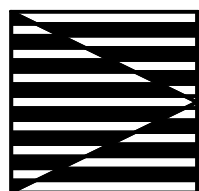
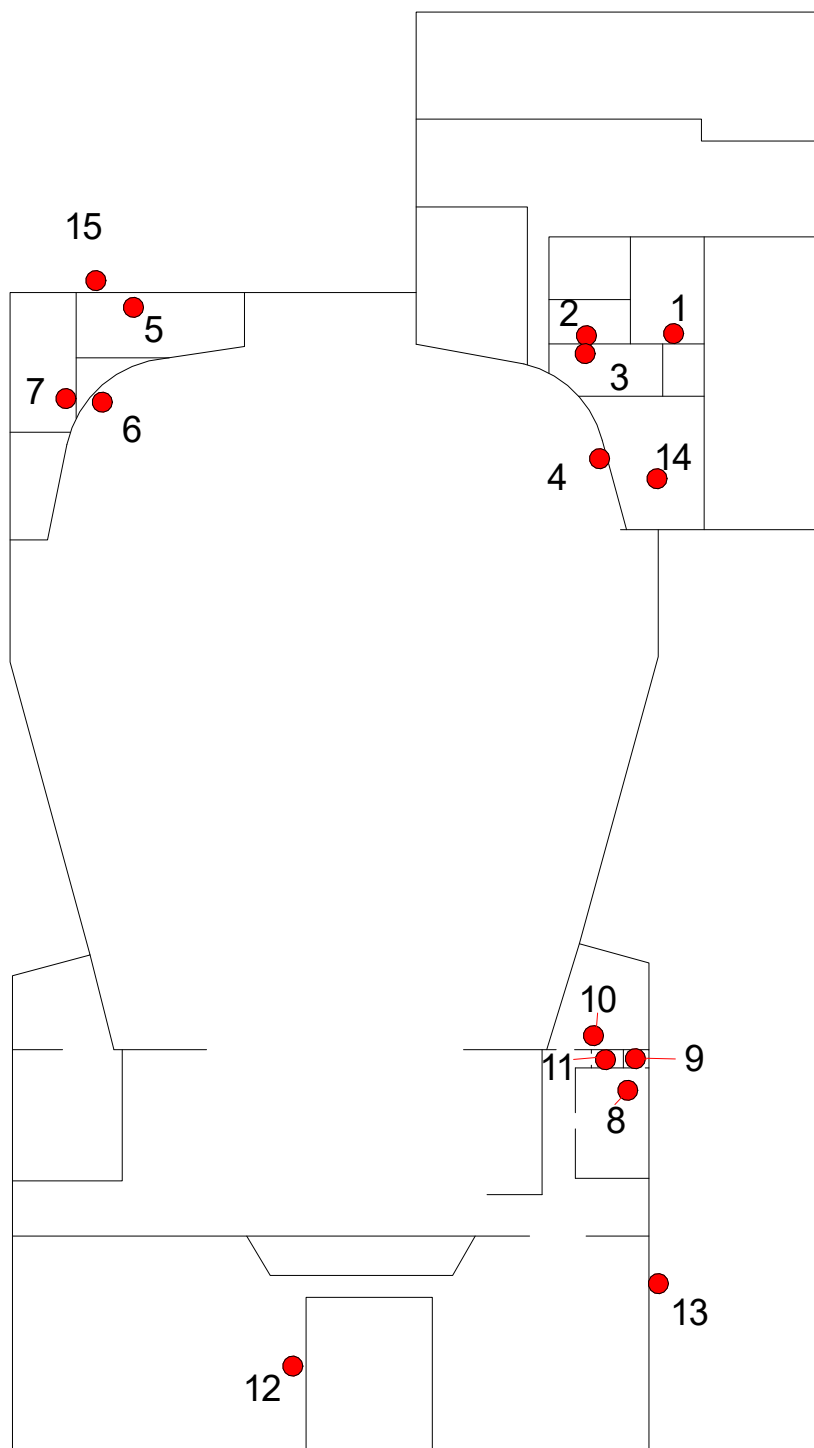
Instructions / Special Requirements:

Matrix* S=Soil/Solid WW=Waste Water DW=Drinking Water GW=Groundwater A=Air O=Other

Date:	Time:	Samples Relinquished By:	Received By:
2/17/17	0800		

All services are performed subject to the Apex Standard Terms & Conditions unless otherwise specified in advance.

EXHIBIT 3



Water Sample Location Map
 San Manuel High School - Auditorium Building
 711 McNab Parkway, San Manuel, Arizona 85631

Project No. 1607.02

DOMINION ENVIRONMENTAL CONSULTANTS, INC.

20045 North 19th Avenue, Building 7, Phoenix, Arizona 85027
 Office: (623) 516-1415 Fax: (623) 516-0017