Basic Remediation COMPANY

TECHNICAL MEMORANDUM

To:	Brian Rakvica (NDEP)
From:	Ranajit Sahu (BRC)
cc:	Jim Najima (NDEP)
	Mark Jones (ERM)
Date:	April 27, 2007
Subject:	Technical Memorandum – Soil Characterization for Potential Off-Site Dust Deposition, BMI Common Areas (Eastside) Site, Clark County, Nevada – Revision 1

INTRODUCTION

The objective of this Technical Memorandum is to provide and evaluate all of the data that was collected pursuant to a field investigation whose goal was to identify and characterize the distribution of BRC Site-related chemicals (SRCs) that may have been entrained in fugitive dust and carried downwind of the BMI Common Areas (Eastside) ponds. After investigating all feasible downwind locations, BRC decided that the property owned by Radio Nevada Corporation (Figure 1) was the only suitable and viable location to conduct the sampling. Sample locations were chosen to characterize potential fugitive dust deposition on the site, based on an NDEP-approved Work Plan (December 1, 2005). The soil matrix samples were collected from four locations to provide spatial coverage throughout the site. Geotechnical and Environmental Services (GES) of Las Vegas, Nevada conducted surface soil sampling at each of the locations (shown in Figure 2) on August 3, 2006. This revision of the technical memorandum (Revision 1) incorporates NDEP comments dated January 9, 2007 and February 13, 2007 on this issue. NDEP comments and BRC response to comments are provided in Attachment A.

DESCRIPTION OF SURFACE SOIL SAMPLING

Initially, GES collected four surface soil samples from throughout the chosen sampling location to characterize fugitive dust deposition. The four sample locations are generally evenly spaced throughout and were purposely located to avoid existing natural shallow drainages. The four surface soil samples were numbered BRC-DD-01, BRC-DD-02, BRC-DD-03 and BRC-DD-04. The soil sampling, sample handling, and sample chain-of-custody procedures were all performed in accordance with the project Quality Assurance Project Plan (QAPP; BRC and MWH 2006a) and Field Sampling Standard Operating Procedures (FSSOPs; BRC and MWH 2006b). The soil

samples were submitted to project laboratories (EMSL and STL) for the analytical methods listed in Table 1.

Because of an elevated lead level finding, location BRC-DD-02 was re-sampled on February 22, 2007 and analyzed for lead. The sample was also analyzed for asbestos in order to address the repeatability of the one asbestos fiber reported in this sample in the first round of sampling.

SOIL ANALYTICAL RESULTS

A summary of the sampling analytical results are presented in Tables 2 through 8. The full laboratory reports for the sampling were included on the previously submitted and approved Data Validation Summary Report (DVSR Dataset #40; BRC and MWH 2006c). A separate validation report for the re-sampled lead sample collected on February 22, 2007 is not being provided. However, BRC has reviewed the associated laboratory data and determined that this result is valid and acceptable for use.

EVALUATION OF RESULTS

Surface soil samples were 1) properly collected throughout the Radio Nevada Corporation property, 2) properly handled, and 3) properly analyzed by the project laboratories. A summary of results, with comparisons to U.S. Environmental Protection Agency (USEPA) Region 9 residential preliminary remediation goals (PRGs) and background levels, are attached in Tables 2 through 8. Given that surface soils only were collected, and detected results indicate only slight elevations of some compounds compared to PRGs and/or background levels, and the relative immobility of these compounds, comparisons to USEPA soil screening levels (SSLs) were not conducted. Results of organophosphorus pesticides (Table 5), polynuclear aromatic hydrocarbons (PAHs; Table 6), and semi-volatile organic compounds (SVOCs: Table 8) were reported below laboratory reporting limits for all four dust deposition samples.

There are elevated levels of certain analytes detected at location BRC-DD-02. Results from the general chemistry analyses (Table 2) indicate that one long (>10um) fiber of asbestos was identified in sample BRC-DD-02 initially and four long fibers in the re-sample. All general chemistry results for BRC-DD-02 were consistent with other sample location results. Results from dioxin/furans analyses (Table 3) indicate an elevated TCDD TEQ of 334.5 parts per trillion (ppt) reported in sample BRC-DD-02. Results of radionuclide analyses (Table 7) indicate activities above background levels (presented in the *Background Shallow Soil Summary Report, BMI Complex and Common Area Vicinity* [BRC/TIMET 2007, currently in review by the NDEP]) for lead-210 in BRC-DD-01, BRC-DD-02, and BRC-DD-04 at 3.97 ± 1.2 pCi/g, 3.91 ± 1 pCi/g,

and 3.19 ± 1 pCi/g, respectively. Lead and manganese were found at the highest proportional concentration to background values in sample BRC-DD-02, at 1,200 mg/kg and 4,820 mg/kg, respectively. The re-sample result for lead was 89 mg/kg. The metal results are presented in Table 4.

Statistical Comparison of Metals and Radionuclides to Background

Comparison statistics for metals and radionuclides were conducted. The comparison of site-related soil concentrations to background levels was conducted using the existing, provisional soils background dataset presented in the *Background Shallow Soil Summary Report, BMI Complex and Common Area Vicinity* (BRC/TIMET 2007, currently in review by the NDEP). The computer statistical software program Guided Interactive Statistical Decision Tools (GISdT®; Neptune and Company 2007), was used to perform all statistical comparisons, with a decision error of alpha = 0.025. These statistics are provided in Attachment B. Boxplots were also prepared to qualitatively evaluate whether the site data and background data are comparable. These boxplots are included in Attachment C.

Comparison of Metals and Radionuclides to Upper Ponds Data

Results from the comparison statistics (Attachment B) indicate concentrations above background levels of barium, cadmium, lead, manganese, molybdenum, niobium, palladium, silver, tin, tungsten, and lead-210. Because several metals and lead-210 are elevated compared with background levels, additional qualitative comparisons were then performed. Specifically, BRC evaluated if the results are consistent with dust deposition from BRC's Upper Ponds. A series of bar charts showing the concentrations of metals at each of the Upper Pond locations were prepared as a way of 'fingerprinting' the on-site Upper Ponds contamination. These were then compared to similar bar charts for the concentrations of metals at each of the deposition sample locations (as well as average background concentrations). These bar charts are included in Attachment C.

While several metals are considered to be above background concentrations based on the statistical comparison tests, it would be expected that if elevated levels of lead-210 and selected metals at the dust deposition locations were a result of airborne deposition from the Upper Ponds, then a similar contamination pattern should generally occur. Review of these bar charts indicates that three metals that are consistently the highest in the Upper Pond samples are chromium, lead, and vanadium. However, chromium and vanadium are not observed as elevated in the dust deposition samples. For the radionuclides, thorium-230, uranium-233/234, uranium-238, and radium-226 are consistently highest in the Upper Pond samples, but not in the dust deposition

samples. Also, radium-226 is always much higher than radium-228 in the Upper Ponds samples, but radium-228 is higher than radium-226 in each of the dust deposition samples. Although, since only one of the Upper Pond samples was analyzed for lead-210, conclusions on this radionuclide cannot be drawn, the patterns for both metals and radionuclides are sufficiently different for the Upper Pond samples as compared to the dust deposition samples.

Comparison of Organochlorine Pesticides to Other Recent Investigation Data

There are also several detected organochlorine pesticides in the dust deposition samples. There are no established background levels for these compounds; however, these pesticides are fairly ubiquitous in the environment (USEPA 2000, ATSDR 2002, 2005). Also, there were several sources for organochlorine pesticides in the BMI Complex. The detected levels of organochlorine pesticides are low, well below USEPA Region 9 residential PRGs, and are consistent with levels found in other recent investigations in the area. These investigations include the 2006 Borrow Area investigation, the 2005 TRECO investigation, and the recently completed 2007 Parcel 4A/4B investigation. Summary results of each of these investigations are presented in the table below.

Chemical	USEPA Region 9 Residential PRG	Borrow Area	TRECO	Parcel 4A/B	Dust Deposition	Upper Ponds
2,4-DDD	--	0.12	ND	0.0019	0.0022	NA
2,4-DDE	--	0.022	ND	0.04	0.027	NA
4,4-DDD	2.4	0.0022	ND	ND	ND	**48**
4,4-DDE	1.7	0.063	0.049	0.055	0.04	**220**
4,4-DDT	1.7	0.062	0.0083	0.009	0.01	**420**
Aldrin	0.029	ND	ND	ND	ND	0.0082
alpha-BHC	0.090	0.012	0.0071	ND	ND	**3.1**
beta-BHC	0.32	0.46	0.0061	0.025	0.0039	**3.1**
Chlordane	1.6	ND	ND	ND	ND	**88**
delta-BHC	--	0.056	ND	ND	ND	0.12
Dieldrin	0.030	0.015	ND	ND	ND	0.013
Endosulfan I	367	ND	ND	ND	ND	180
Endosulfan II	367	ND	ND	ND	ND	0.063
Endrin	18	0.0022	ND	ND	ND	ND
Endrin aldehyde	--	ND	ND	ND	ND	0.0034
gamma-Chlordane	1.6	0.011	ND	ND	ND	**10**
Heptachlor	0.11	ND	ND	ND	ND	**3.1**
Heptachlor epoxide	0.053	ND	ND	ND	ND	**0.093**
Lindane	0.44	0.016	0.0032	ND	ND	0.18
Methoxychlor	306	0.044	0.052	0.0061	ND	110

All results in mg/kg. NA = not analyzed
-- = none established. ND = not detected.
Bold = exceeds USEPA PRG.

The same organochlorine compounds (2,4-DDD, 2,4-DDE, 4,4-DDE, 4,4-DDT, and beta-BHC) consistently show up in each of these investigations, at low parts per billion levels. This pattern is inconsistent with the contaminated Upper Ponds data, which indicates additional elevated levels of chlordane, heptachlor, and endosulfan.

SUMMARY AND CONCLUSIONS

Although BRC does not disagree with the premise that some deposition onto off-site areas via entrainment in fugitive dust may have occurred from the Upper Ponds, the patterns (i.e., non-uniform concentrations in this area) and levels that are found in the dust deposition sample area do not support the idea that the Upper Ponds are the exclusive source of contaminant transport to this area. Detected levels are generally low compared to both background and risk-based levels, and are not consistent with patterns of contamination seen in the Upper Ponds. There are other possible sources of these low level impacts, including impacts from the industrial facilities, which are also upwind of the dust deposition site, as well as other potential sources. For example, the original high lead detection at BRC-DD-02 could have come from activities such as hunting or firearm discharge. The level detected was very elevated as compared to lead concentrations in the Upper Ponds. Overall, as discussed earlier, the elevated levels seen are inconsistent with deposition from the BRC Upper Ponds alone since that would result in: (a) uniform (or more uniform than observed) concentrations throughout this downwind area; and (b) be consistent with relative concentrations of various contaminants in the Upper Ponds. Neither of this was the case. While overland transport is another possible mechanism, given the berms around each of the Upper Ponds and the lack of conveyance ditches leading to the off-site location sampled, BRC is sceptical that drainage could have cause this location to be an accumulation point for on-Site wastes. If so, again, BRC would expect contaminant fingerprints more consistent with those on-Site. Therefore, BRC concludes that any impacts from the Upper Ponds to off-site downwind locations, while not impossible, are negligible. Also, the observed impacts to the off-site area are not solely due to source areas in the Upper Ponds alone.

REFERENCES

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Neptune and Company. 2007. Guided Interactive Statistical Decision Tools (GIS_dT). www.gisdt.org.

U.S. Environmental Protection Agency (USEPA). 2000. PBT National Action Plan for the Level 1 Pesticides. Public Review Draft. USEPA Persistent, Bioaccumulative and Toxic Pollutants (PBT) Pesticides Work Group.

List of Attachments:

Figure 1 – Site Location with Wind Rose

Figure 2 – Downwind Dust Deposition Sampling Locations

Table 1 – List of Analytes

Table 2 – General Chemistry and Asbestos Analytical Results

Table 3 –Dioxins/Furans Analytical Results

Table 4 – Metals Analytical Results

Table 5 – Pesticide Analytical Results

Table 6 – PAH Analytical Results

Table 7 – Radionuclide Analytical Results

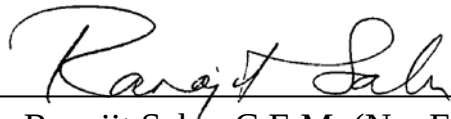
Table 8 – SVOC Analytical Results

Attachment A – NDEP Comments and BRC Response to Comments

Attachment B – Background Comparison Statistics

Attachment C – Qualitative Comparison Boxplots and Bar Charts

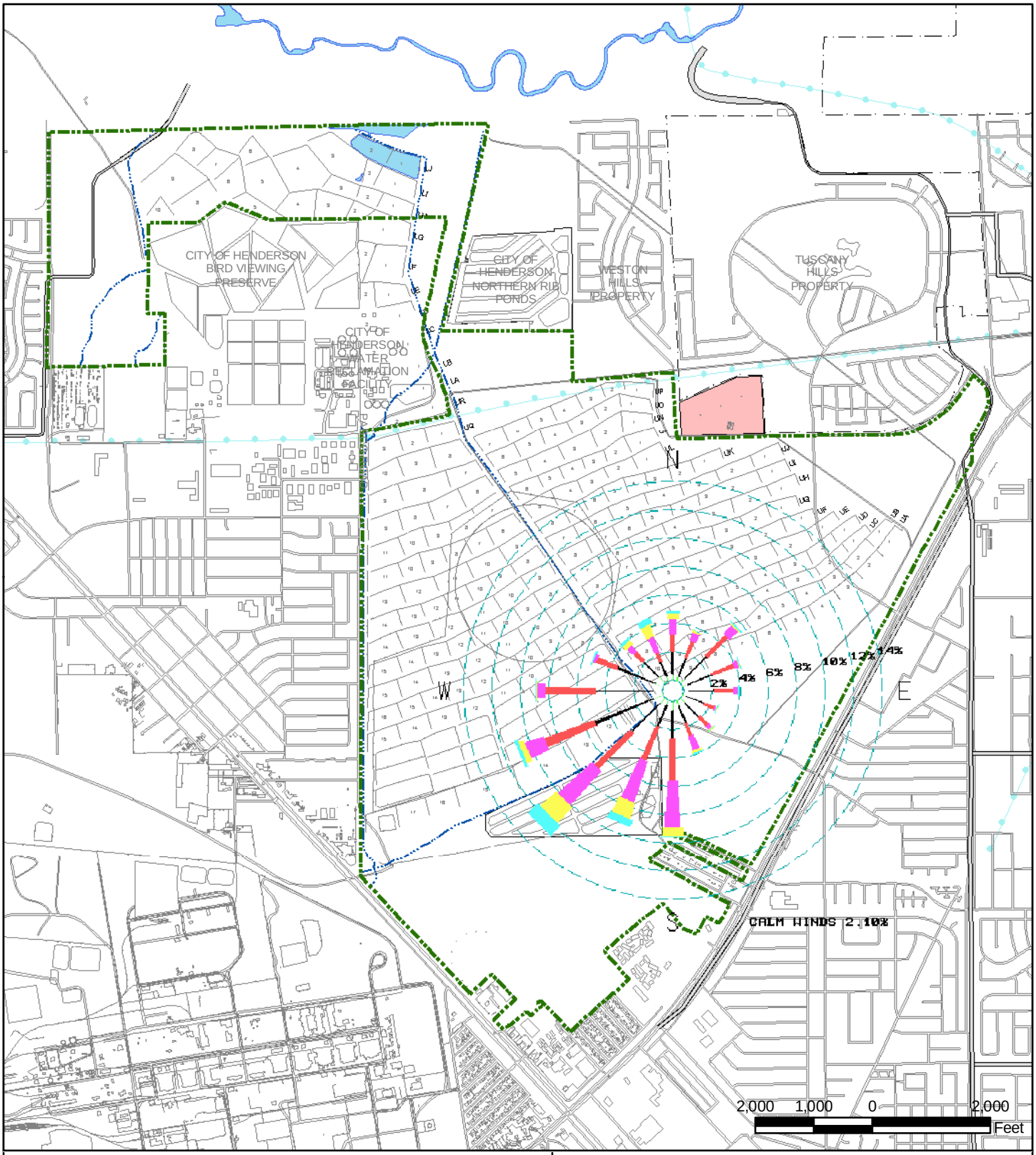
I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been provided in a manner consistent with the current standards of the profession and to the best of my knowledge comply with all applicable federal, state and local statutes, regulations and ordinances. I hereby certify that all laboratory analytical data was generated by a laboratory certified by the NDEP for each constituent and media presented herein.



April 27, 2007

Dr. Ranajit Sahu, C.E.M. (No. EM-1699, Exp. 10/07/2007) Date
BRC Project Manager

FIGURES



Eastside Boundary

Radio Nevada Corporation Property

WIND SPEED (KNOTS)

CALMS 1-3 4-6 7-10 11-16 17-21 +21

Notes:
Frequencies indicate direction from which the wind is blowing.
Wind data for Las Vegas, NV from Jan. 1984 to Dec. 1992.

BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE 1

SITE LOCATION WITH WIND ROSE

Basic Remediation COMPANY

Prepared by:	Date	JOB No. 1881425
MKJ MWH	11/29/06	FILE: GIS/BRC/LOCATION.MXD

Sample Location

Fall 2005 Aerial Photo

BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE 2

DOWNWIND DUST DEPOSITION SAMPLING LOCATIONS

Basic Remediation COMPANY

Prepared by:	Date	JOB No. 1881425
MKJ MWH	11/29/06	FILE: GIS/BRC/DOWNWIND_SAMPLES.MXD

TABLES

TABLE 1
LIST OF ANALYTES
SOIL CHARACTERIZATION FOR POTENTIAL DUST DEPOSITION
BMI COMMON AREAS (EASTSIDE)
CLARK COUNTY, NEVADA
(Page 1 of 6)

Parameter of Interest	Analytical Method	Compound List	CAS Number	Soil Reporting Limit	
pH	**EPA 345.1**	pH in soil	pH	NA	pHunits
Ions	**EPA 300.0**	Chloride	16887-00-6	5	mg/kg
		Fluoride	16984-48-8	1	mg/kg
		Nitrate (as N)	14797-55-8	0.25	mg/kg
		Nitrite (as N)	14797-65-0	0.25	mg/kg
		Sulfate	14808-79-8	5	mg/kg
	EPA 314.0	Perchlorate	14797-73-0	40	ug/kg
Metals	**EPA 6020/6010B**	Aluminum	7429-90-5	3	mg/kg
		Antimony	7440-36-0	1	mg/kg
		Arsenic	7440-38-2	1	mg/kg
		Barium	7440-39-3	2	mg/kg
		Beryllium	7440-41-7	0.5	mg/kg
		Boron	7440-42-8	5	mg/kg
		Cadmium	7440-43-9	0.5	mg/kg
		Calcium	7440-70-2	50	mg/kg
		Chromium	7440-47-3	1	mg/kg
		Cobalt	7440-48-4	1	mg/kg
		Copper	7440-50-8	1	mg/kg
		Iron	7439-89-6	10	mg/kg
		Lead	7439-92-1	0.3	mg/kg
		Lithium	7439-93-2	5	mg/kg
		Magnesium	7439-95-4	50	mg/kg
		Manganese	7439-96-5	1	mg/kg
		Molybdenum	7439-98-7	1	mg/kg
		Nickel	7440-02-0	1	mg/kg
		Niobium	7440-03-1	1	mg/kg
		Palladium	7440-05-3	1	mg/kg
		Phosphorus	7723-14-0	50	mg/kg
		Platinum	7440-06-4	1	mg/kg
		Potassium	7440-09-7	50	mg/kg
		Selenium	7782-49-2	0.5	mg/kg
		Silicon	7440-21-3	50	mg/kg
		Silver	7440-22-4	1	mg/kg
		Sodium	7440-23-5	50	mg/kg
		Strontium	7440-24-6	1	mg/kg
		Thallium	7440-28-0	1	mg/kg
		Tin	7440-31-5	1	mg/kg
		Titanium	7440-32-6	1	mg/kg
		Tungsten	7440-33-7	1	mg/kg
		Uranium	7440-61-1	1	mg/kg
		Vanadium	7440-62-2	1	mg/kg
		Zinc	7440-66-6	2	mg/kg
		Zirconium	14940-68-2	10	mg/kg
	EPA 7196A	Chromium (VI)	18540-29-9	10	mg/kg
	EPA 7470/7471A	Mercury	7439-97-6	0.03	mg/kg

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BMI COMMON AREAS (EASTSIDE)
CLARK COUNTY, NEVADA

Parameter of Interest	Analytical Method	Compound List	CAS Number	Soil Reporting Limit	
Asbestos	**Elutriator/TEM**	Asbestos	1332-21-4	1	fibers/cm^3
Polychlorinated Dibenzodioxins/ Dibenzofurans	**EPA 8290**	1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001-02-0	10	pg/g
		1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268-87-9	10	pg/g
		1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	5	pg/g
		1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	5	pg/g
		1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	5	pg/g
		1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9	5	pg/g
		1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227-28-6	5	pg/g
		1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9	5	pg/g
		1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653-85-7	5	pg/g
		1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9	5	pg/g
		1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408-74-3	5	pg/g
		1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	5	pg/g
		1,2,3,7,8-Pentachlorodibenzo-p-dioxin	40321-76-4	5	pg/g
		2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5	5	pg/g
		2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4	5	pg/g
		2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1	pg/g
		2,3,7,8-Tetrachlororodibenzo-p-dioxin	1746-01-6	1	pg/g
Polynuclear Aromatic Hydrocarbons	**EPA 8310**	Acenaphthene	83-32-9	50	ug/kg
		Acenaphthylene	208-96-8	100	ug/kg
		Anthracene	120-12-7	30	ug/kg
		Benzo(a)anthracene	56-55-3	15	ug/kg
		Benzo(a)pyrene	50-32-8	15	ug/kg
		Benzo(b)fluoranthene	205-99-2	15	ug/kg
		Benzo(g,h,i)perylene	191-24-2	30	ug/kg
		Benzo(k)fluoranthene	207-08-9	15	ug/kg
		Chrysene	218-01-9	15	ug/kg
		Dibenzo(a,h)anthracene	53-70-3	30	ug/kg
		Indeno(1,2,3-cd)pyrene	193-39-5	15	ug/kg
		Phenanthrene	85-01-8	30	ug/kg
		Pyrene	129-00-0	30	ug/kg
Radiochemicals	**EPA 901.1/ HASL AM02**	Actinium-228	14331-83-0	*	pCi/g
		Bismuth-212	14913-49-6	*	pCi/g
		Bismuth-214	14733-03-0	*	pCi/g
		Lead-210	14255-04-0	*	pCi/g
		Lead-212	15092-94-1	*	pCi/g
		Lead-214	15067-28-4	*	pCi/g
		Potassium-40	13966-00-2	*	pCi/g
		Thallium-208	14913-50-9	*	pCi/g
		Protactinium-234	15100-28-4	*	pCi/g
		Thorium-227	015623-47-9	*	pCi/g
		Thorium-234	15065-10-8	*	pCi/g
	EPA 903.0	Radium-226	13982-63-3	1.0	pCi/g
	EPA 904.0	Radium-228	15262-20-1	1.0	pCi/g

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CLARK COUNTY, NEVADA

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Radiochemicals	**HASL 300 A-01R**	Thorium-228	14274-82-9	1.0	pCi/g
		Thorium-230	14269-63-7	1.0	pCi/g
		Thorium-232	7440-29-1	1.0	pCi/g
		Uranium-233/234	13966-29-5	1.0	pCi/g
		Uranium 235/236	15117-96-1	1.0	pCi/g
		Uranium-238	7440-61-1	1.0	pCi/g
	Back quantitated from parent radionuclide	Bismuth-210 (from Pb-210)	14331-79-4	*	pCi/g
		Polonium-210 (from Bi-210)	13981-52-7	*	pCi/g
		Polonium-212 (from Bi-212)	13981-52-7	*	pCi/g
		Polonium-214 (from Bi-214)	15735-67-8	*	pCi/g
		Polonium-216 (from Ra-224)	15756-58-8	*	pCi/g
		Polonium-218 (from Ra-226)	15422-74-9	*	pCi/g
		Radium-223 (from Th-227)	15623-45-7	*	pCi/g
		Radium-224 (from Pb-212)	13233-32-4	*	pCi/g
		Thorium-231 (from U-235)	014932-40-2	*	pCi/g
		Protactinium-231 (from Th-227)	014331-85-2	*	pCi/g
		Actinium-227 (from Th-227)	014952-40-0	*	pCi/g
		Polonium-215 (from Th-227)	015706-52-2	*	pCi/g
		Lead-211 (from Th-227)	015816-77-0	*	pCi/g
		Bismuth-211 (from Th-227)	015229-37-5	*	pCi/g
		Thallium-207 (from Th-227)	NA	*	pCi/g
Organochlorine Pesticides	**EPA 8081A**	2,4-DDD	53-19-0	1.7	ug/kg
		2,4-DDE	3424-82-6	1.7	ug/kg
		4,4-DDD	72-54-8	1.7	ug/kg
		4,4-DDE	72-55-9	1.7	ug/kg
		4,4-DDT	50-29-3	1.7	ug/kg
		Aldrin	309-00-2	1.7	ug/kg
		alpha-BHC	319-84-6	1.7	ug/kg
		alpha-Chlordane	5103-71-9	1.7	ug/kg
		beta-BHC	319-85-7	1.7	ug/kg
		Chlordane	57-74-9	17	ug/kg
		delta-BHC	319-86-8	1.7	ug/kg
		Dieldrin	60-57-1	1.7	ug/kg
		Endosulfan I	959-98-8	1.7	ug/kg
		Endosulfan II	33213-65-9	1.7	ug/kg
		Endosulfan sulfate	1031-07-8	1.7	ug/kg
		Endrin	72-20-8	1.7	ug/kg
		Endrin aldehyde	7421-93-4	1.7	ug/kg
		Endrin ketone	53494-70-5	1.7	ug/kg
		gamma-BHC (Lindane)	58-89-9	1.7	ug/kg
		gamma-Chlordane	5103-74-2	1.7	ug/kg
		Heptachlor	76-44-8	1.7	ug/kg
		Heptachlor epoxide	1024-57-3	1.7	ug/kg
		Hexachlorobenzene	118-74-1	17	ug/kg
		Methoxychlor	72-43-5	3.3	ug/kg
		Toxaphene	8001-35-2	67	ug/kg

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Parameter of Interest	Analytical Method	Compound List	CAS Number	Soil Reporting Limit	
Organophosphorous Pesticides	**EPA 8141A**	Azinphos-ethyl	264-27-19	13	ug/kg
		Azinphos-methyl	86-50-0	13	ug/kg
		Carbophenothion	786-19-6	13	ug/kg
		Chlorpyrifos	2921-88-2	13	ug/kg
		Coumaphos	56-72-4	13	ug/kg
		Demeton-O	298-03-3	13	ug/kg
		Demeton-S	126-75-0	13	ug/kg
		Diazinon	333-41-5	13	ug/kg
		Dichlorvos	62-73-7	13	ug/kg
		Dimethoate	60-51-5	13	ug/kg
		Disulfoton	298-04-4	13	ug/kg
		EPN	2104-64-5	13	ug/kg
		Ethoprop	13194-48-4	13	ug/kg
		Ethyl parathion	56-38-2	13	ug/kg
		Fampphur	52-85-7	13	ug/kg
		Fenthion	55-38-9	13	ug/kg
		Malathion	121-75-5	13	ug/kg
		Methyl parathion	298-00-0	13	ug/kg
		Mevinphos	7786-34-7	33	ug/kg
		Naled	300-76-5	33	ug/kg
		O,O,O-Triethyl phosphorothioate (TEPP)	297-97-2	13	ug/kg
		Phorate	298-02-2	13	ug/kg
		Phosmet	732-11-6	13	ug/kg
		Ronnel	299-84-3	13	ug/kg
		Stirophos (Tetrachlorovinphos)	22248-79-9	13	ug/kg
		Sulfotep	3689-24-5	13	ug/kg
Semivolatile Organic Compounds	**EPA 8270C**	1,2,4,5-Tetrachlorobenzene	95-94-3	330	ug/kg
		1,2-Diphenyhydrazine (Azobenzene)	122-66-7	330	ug/kg
		1,4-Dioxane	123-91-1	330	ug/kg
		2,4,5-Trichlorophenol	95-95-4	330	ug/kg
		2,4,6-Trichlorophenol	88-06-2	330	ug/kg
		2,4-Dichlorophenol	120-83-2	330	ug/kg
		2,4-Dimethylphenol	105-67-9	330	ug/kg
		2,4-Dinitrophenol	51-28-5	1600	ug/kg
		2,4-Dinitrotoluene	121-14-2	330	ug/kg
		2,6-Dinitrotoluene	606-20-2	330	ug/kg
		2-Chloronaphthalene	91-58-7	330	ug/kg
		2-Chlorophenol	95-57-8	330	ug/kg
		2-Methylnaphthalene	91-57-6	330	ug/kg
		2-Nitroaniline	88-74-4	1600	ug/kg
		2-Nitrophenol	88-75-5	330	ug/kg
		3,3-Dichlorobenzidine	91-94-1	1600	ug/kg
		3-Nitroaniline	99-09-2	1600	ug/kg
		4,4'-Dichlorobenzil	3457-46-3	330	ug/kg

TABLE 1
LIST OF ANALYTES
SOIL CHARACTERIZATION FOR POTENTIAL DUST DEPOSITION
BMI COMMON AREAS (EASTSIDE)
CLARK COUNTY, NEVADA

Parameter of Interest	Analytical Method	Compound List	CAS Number	Soil Reporting Limit	
Semivolatile Organic Compounds	**EPA 8270C**	4-Bromophenyl phenyl ether	101-55-3	330	ug/kg
		4-Chloro-3-methylphenol	59-50-7	330	ug/kg
		4-Chlorophenyl phenyl ether	7005-72-3	330	ug/kg
		4-Chlorothioanisole	123-09-1	330	ug/kg
		4-Chlorothiophenol	106-54-7	330	ug/kg
		4-Nitroaniline	100-01-6	1600	ug/kg
		4-Nitrophenol	100-02-7	1600	ug/kg
		Acenaphthene	83-32-9	330	ug/kg
		Acenaphthylene	208-96-8	330	ug/kg
		Acetophenone	98-86-2	330	ug/kg
		Aniline	62-53-3	330	ug/kg
		Anthracene	120-12-7	330	ug/kg
		Azobenzene	103-33-3	330	ug/kg
		Benzo(a)anthracene	56-55-3	330	ug/kg
		Benzo(a)pyrene	50-32-8	330	ug/kg
		Benzo(b)fluoranthene	205-99-2	330	ug/kg
		Benzo(g,h,i)perylene	191-24-2	330	ug/kg
		Benzo(k)fluoranthene	207-08-9	330	ug/kg
		Benzoic acid	65-85-0	1600	ug/kg
		Benzyl alcohol	100-51-6	330	ug/kg
		Benzyl butyl phthalate	85-68-7	330	ug/kg
		bis(2-Chloroethoxy)methane	111-91-1	330	ug/kg
		bis(2-Chloroethyl) ether	111-44-4	330	ug/kg
		bis(2-Chloroisopropyl) ether	108-60-1	330	ug/kg
		bis(2-Ethylhexyl) phthalate	117-81-7	330	ug/kg
		bis(Chloromethyl) ether	542-88-1	330	ug/kg
		bis(p-Chlorophenyl) sulfone	80-07-9	330	ug/kg
		bis(p-Chlorophenyl)disulfide	1142-19-4	330	ug/kg
		Carbazole	86-74-8	330	ug/kg
		Chrysene	218-01-9	330	ug/kg
		Dibenzo(a,h)anthracene	53-70-3	330	ug/kg
		Dibenzofuran	132-64-9	330	ug/kg
		Dichloromethyl ether	542-88-1	330	ug/kg
		Diethyl phthalate	84-66-2	330	ug/kg
		Dimethyl phthalate	131-11-3	330	ug/kg
		Di-n-butyl phthalate	84-74-2	330	ug/kg
		Di-n-octyl phthalate	117-84-0	330	ug/kg
		Diphenyl disulfide	882-33-7	330	ug/kg
		Diphenyl sulfide	139-66-2	330	ug/kg
		Diphenyl sulfone	127-63-9	330	ug/kg
		Fluoranthene	206-44-0	330	ug/kg
		Fluorene	86-73-7	330	ug/kg
		Hexachlorobenzene	118-74-1	1600	ug/kg
		Hexachlorobutadiene	87-68-3	1600	ug/kg

TABLE 1
LIST OF ANALYTES
SOIL CHARACTERIZATION FOR POTENTIAL DUST DEPOSITION
BMI COMMON AREAS (EASTSIDE)
CLARK COUNTY, NEVADA

Parameter of Interest	Analytical Method	Compound List	CAS Number	Soil Reporting Limit	
Semivolatile Organic Compounds	**EPA 8270C**	Hexachlorocyclopentadiene	77-47-4	1600	ug/kg
		Hexachloroethane	67-72-1	330	ug/kg
		Hydroxymethyl phthalimide	118-29-6	330	ug/kg
		Indeno(1,2,3-cd)pyrene	193-39-5	330	ug/kg
		Isophorone	78-59-1	330	ug/kg
		m,p-Cresol	106-44-5	330	ug/kg
		Naphthalene	91-20-3	330	ug/kg
		Nitrobenzene	98-95-3	330	ug/kg
		N-nitrosodi-n-propylamine	621-64-7	330	ug/kg
		N-nitrosodiphenylamine	86-30-6	330	ug/kg
		Octachlorostyrene	29082-74-4	330	ug/kg
		o-Cresol	95-48-7	330	ug/kg
		p-Chloroaniline (4-Chloroaniline)	106-47-8	330	ug/kg
		Pentachlorobenzene	608-93-5	330	ug/kg
		Pentachlorophenol	87-86-5	1600	ug/kg
		Phenanthrene	85-01-8	330	ug/kg
		Phenol	108-95-2	330	ug/kg
		Pyrene	129-00-0	330	ug/kg
		Pyridine	110-86-1	660	ug/kg
		Thiophenol	108-95-5	330	ug/kg
		Tentatively Identified Compounds (TICs)		NA	ug/kg

Reporting Limits - Based on laboratory limits for primary laboratory (STL).
Laboratory limits are subject to matrix interferences and may not always be achieved in all samples.
*Reporting limit for specific radionuclide to be set based on the performance of Cs-137 in the specific sample matrix.
NA = Not applicable

TABLE 2
GENERAL CHEMISTRY AND ASBESTOS ANALYTICAL RESULTS
SOIL CHARACTERIZATION FOR POTENTIAL DUST DEPOSITION
BMI COMMON AREAS (EASTSIDE)
CLARK COUNTY, NEVADA

Analyte	Units	USEPA Region 9 Residential PRG	BRC-DD-01	BRC-DD-02	BRC-DD-03	BRC-DD-04
Asbestos, Long (>10um)	structures	--	0	1 (4[a])	0	0
Chloride	mg/kg	--	3.2 J	3.6	3.3	3.7
Fluoride	mg/kg	3,666	0.69 BJ	1.2	0.81 BJ	1.1
Nitrate (as N)	mg/kg	--	1.6	3	2.6	2.6
Nitrite (as N)	mg/kg	--	1.3	0.93	0.88	0.91
Percent Moisture	percent	--	0.37	0.4	0.4	0.5
Perchlorate	mg/kg	7.8	0.107	0.0338 J	0.0301 J	0.0738
pH (Hydrogen Ion)	none	--	8.6	8.4	8.2	8.2
Sulfate	mg/kg	--	16.4	24.8	19.4	17.7

Bold = above USEPA Region 9 Residential PRG.

[a]February 22, 2007 re-sample result.

-- = None established.

TABLE 3
DIOXINS/FURANS ANALYTICAL RESULTS
SOIL CHARACTERIZATION FOR POTENTIAL DUST DEPOSITION
BMI COMMON AREAS (EASTSIDE)
CLARK COUNTY, NEVADA

Analyte	ATSDR Screening level	BRC-DD-01	BRC-DD-02	BRC-DD-03	BRC-DD-04
TCDD TEQ	50	63.2	334.5	47.7	30.0

= above ATSDR screening level of 50 ppt for TCDD TEQs.

All results in pg/g.

TABLE 4
METALS ANALYTICAL RESULTS
SOIL CHARACTERIZATION FOR POTENTIAL DUST DEPOSITION
BMI COMMON AREAS (EASTSIDE)
CLARK COUNTY, NEVADA
(Page 1 of 1)

Analyte	USEPA Region 9 Residential PRG	Background Range	BRC-DD-01	BRC-DD-02	BRC-DD-03	BRC-DD-04
Aluminum	76,142	3740 - 15300	8650	7620	7150	7180
Antimony	31	0.12 - 1	0.37 J	0.45 J	0.29 J	0.42 J
Arsenic	0.39	2.1 - 7.2	**4.9**	**17.6**	**3.8**	**6.4**
Barium	5,375	73 - 836	407	703	689	726
Beryllium	154	0.16 - 0.89	0.39	0.38 J	0.4	0.35
Boron	16,000	3.2 - 11.6	3.7 J	< 25.1	3.7 J	5.7
Cadmium	37	0.052 - 0.16	0.19	0.26	0.17	0.16
Calcium	--	8160 - 82800	17100	35100	17000	44600
Chromium	100,000	2.6 - 16.7	13.5	11.4	10.8	10.1
Hexavalent Chromium	30	0.251	< 0.4	< 0.4	< 0.4	< 0.4
Cobalt	903	3.7 - 16.3	5.6	7.5	9.1	5
Copper	3,129	7.8 - 30.5	11.7	44.1	11.7	11.7
Iron	23,463	5410 - 19700	10900 J	8460 J	9630 J	9380 J
Lead	400	3 - 35.1	37.7	**1200** (89[a])	32	52.3
Lithium	1,564	7.5 - 26.5	15.5	12.6	15.2	13.5
Magnesium	--	4580 - 17500	7120 J	7900 J	6220 J	6390 J
Manganese	1,762	151 - 1090	546 J	4820 J	846 J	560 J
Mercury	23	0.0072 - 0.11	0.021 J	0.011 J	0.0097 J	0.018 J
Molybdenum	391	0.17 - 2	0.82	1.3	0.87	0.92
Nickel	1,564	7.8 - 30	11.7	12.5	11.1	9.6
Niobium	--	1.015 - 2.8	3.1	6.9	3.9	4.4
Palladium	--	0.14 - 1.5	0.33	1.1	0.48	0.81
Phosphorus	--	--	882	1120	534	660
Platinum	--	0.0435 - 0.099	0.039 BJ	0.048 BJ	0.046 BJ	0.04 BJ
Potassium	--	625 - 3890	1810 J	2030 J	2020 J	3020 J
Selenium	391	0.1 - 0.6	< 0.5	< 0.5	< 0.5	< 0.5
Silicon	--	335 - 4150	1090 J+	1160 J+	829 J+	896 J+
Silver	391	0.019 - 0.26	0.15 J	0.28 J	0.13 J	0.12 J
Sodium	--	111 - 1320	112	199	106	210
Strontium	46,924	69 - 808	105 J	264 J	150 J	252 J
Thallium	5.2	0.1 - 1.8	0.26	1.2	0.25	0.18 J
Tin	46,924	0.187 - 0.8	1.1	1.4	0.98	0.8
Titanium	100,000	200 - 1010	413 J	395 J	383 J	418 J
Tungsten	--	0.49 - 2.5	1.5	3.5	1.2	1.2
Uranium	16	0.43 - 2.7	0.79	0.91	0.88	0.82
Vanadium	78	14.6 - 59.1	32.6	30.7	29.8	27.6
Zinc	23,463	15.4 - 121	28.9	38.7	28.7	28.5
Zirconium	--	60.1 - 179	99 J	147 J	111 J	110 J

Bold = above USEPA Region 9 Residential PRG.

= above background range. Note: the background range is from the combined ENVIRON and BRC/TIMET background datasets. This combined dataset has not yet been approved by NDEP.

[a]February 22, 2007 re-sample result.

All results in mg/kg.

-- = None established.

TABLE 5
PESTICIDE ANALYTICAL RESULTS
SOIL CHARACTERIZATION FOR POTENTIAL DUST DEPOSITION
BMI COMMON AREAS (EASTSIDE)
CLARK COUNTY, NEVADA
(Page 1 of 2)

Analyte	USEPA Region 9 Residential PRG	BRC-DD-01	BRC-DD-02	BRC-DD-03	BRC-DD-04
Organochlorine Pesticides					
2,4-DDD	--	< 0.0017	0.0022 J+	< 0.0017	< 0.0017
2,4-DDE	--	0.0047 J-	0.027 J+	0.0032 J-	0.0047 J-
4,4-DDD	2.4	< 0.0017	< 0.0017	< 0.0017	< 0.0017
4,4-DDE	1.7	0.0078 J-	0.04 J+	0.028	0.019
4,4-DDT	1.7	0.005	0.01	0.0038	0.006
Aldrin	0.029	< 0.0017	< 0.0017	< 0.0017	< 0.0017
alpha-BHC	0.090	< 0.0017	< 0.0017	< 0.0017	< 0.0017
alpha-Chlordane	1.6	< 0.0017	< 0.0017	< 0.0017	< 0.0017
beta-BHC	0.32	0.0024	0.0039 J+	0.0021	< 0.0017
Chlordane	1.6	< 0.017	< 0.017	< 0.017	< 0.017
delta-BHC	--	< 0.0017	< 0.0017	< 0.0017	< 0.0017
Dieldrin	0.030	< 0.0017	< 0.0017	< 0.0017	< 0.0017
Endosulfan I	367	< 0.0017	< 0.0017	< 0.0017	< 0.0017
Endosulfan II	367	< 0.0017	< 0.0017	< 0.0017	< 0.0017
Endosulfan sulfate	--	< 0.0017	< 0.0017	< 0.0017	< 0.0017
Endrin	18	< 0.0017	< 0.0017	< 0.0017	< 0.0017
Endrin aldehyde	--	< 0.0017	< 0.0017	< 0.0017	< 0.0017
Endrin ketone	--	< 0.0017	< 0.0017	< 0.0017	< 0.0017
gamma-Chlordane	1.6	< 0.0017	< 0.0017	< 0.0017	< 0.0017
Heptachlor	0.11	< 0.0017	< 0.0017	< 0.0017	< 0.0017
Heptachlor epoxide	0.053	< 0.0017	< 0.0017	< 0.0017	< 0.0017
Lindane	0.44	< 0.0017	< 0.0017	< 0.0017	< 0.0017
Methoxychlor	306	< 0.0033	< 0.0033	< 0.0033	< 0.0033
Toxaphene	0.44	< 0.067	< 0.067	< 0.067	< 0.067
Organophosphorus Pesticides					
Azinphos-ethyl	--	< 0.033	< 0.033	< 0.033	< 0.033
Azinphos-methyl	--	< 0.013 UJ-	< 0.013 UJ-	< 0.013 UJ-	< 0.013 UJ-
Carbophenothion	--	< 0.033	< 0.033	< 0.033	< 0.033
Carbophenothion-methyl	--	< 0.033	< 0.033	< 0.033	< 0.033
Chlorpyrifos	183	< 0.013	< 0.013 UJ	< 0.013 UJ	< 0.013 UJ
Coumaphos	--	< 0.013 UJ-	< 0.013 UJ	< 0.013 UJ	< 0.013 UJ
Demeton-O	2.4	< 0.013	< 0.013 UJ	< 0.013 UJ	< 0.013 UJ
Demeton-S	2.4	< 0.013 UJ-	< 0.013 UJ-	< 0.013 UJ-	< 0.013 UJ-
Diazinon	55	< 0.013	< 0.013 UJ	< 0.013 UJ	< 0.013 UJ
Dichlorvos	1.7	< 0.013	< 0.013 UJ	< 0.013 UJ	< 0.013 UJ
Disulfoton	2.4	< 0.013 UJ-	< 0.013 UJ-	< 0.013 UJ-	< 0.013 UJ-
Ethoprophos	--	< 0.013	< 0.013 UJ	< 0.013 UJ	< 0.013 UJ
Ethyl p-nitrophenyl phenylphosphoroth	0.61	< 0.013	< 0.013 UJ	< 0.013 UJ	< 0.013 UJ
Famphur	--	< 0.013 UJ-	< 0.013 UJ	< 0.013 UJ	< 0.013 UJ
Fenthion	--	< 0.013 UJ-	< 0.013 UJ	< 0.013 UJ	< 0.013 UJ
Malathion	1,222	< 0.013	< 0.013 UJ	< 0.013 UJ	< 0.013 UJ
Methyl parathion	15	< 0.013	< 0.013 UJ	< 0.013 UJ	< 0.013 UJ
Mevinphos	--	< 0.013 UJ-	< 0.013 UJ	< 0.013 UJ	< 0.013 UJ

TABLE 5
PESTICIDE ANALYTICAL RESULTS
SOIL CHARACTERIZATION FOR POTENTIAL DUST DEPOSITION
BMI COMMON AREAS (EASTSIDE)
CLARK COUNTY, NEVADA

Analyte	USEPA Region 9 Residential PRG	BRC-DD-01	BRC-DD-02	BRC-DD-03	BRC-DD-04
O,O,O-Triethyl phosphorothioate	--	< 0.013	< 0.013 UJ	< 0.013 UJ	< 0.013 UJ
Parathion	367	< 0.013	< 0.013 UJ-	< 0.013 UJ-	< 0.013 UJ-
Phorate	12	< 0.013	< 0.013 UJ	< 0.013 UJ	< 0.013 UJ
Phosmet	1,222	< 0.067	< 0.067	< 0.067	< 0.067
Ronnel	3,055	< 0.067	< 0.067 UJ	< 0.067 UJ	< 0.067 UJ
Sulfotep	31	< 0.013	< 0.013 UJ	< 0.013 UJ	< 0.013 UJ
Tetrachlorvinphos (Stirophos)	20	< 0.013	< 0.013 UJ-	< 0.013 UJ-	< 0.013 UJ-

Bold = above USEPA Region 9 Residential PRG.
All results in mg/kg.
-- = None established.

TABLE 6
PAH ANALYTICAL RESULTS
SOIL CHARACTERIZATION FOR POTENTIAL DUST DEPOSITION
BMI COMMON AREAS (EASTSIDE)
CLARK COUNTY, NEVADA

Analyte	USEPA Region 9 Residential PRG	BRC-DD-01	BRC-DD-02	BRC-DD-03	BRC-DD-04
Acenaphthene	3,682	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	--	< 0.1	< 0.1	< 0.1	< 0.1
Anthracene	21,896	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(a)anthracene	0.62	< 0.015	< 0.015	< 0.015	< 0.015
Benzo(a)pyrene	0.062	< 0.015	< 0.015	< 0.015	< 0.015
Benzo(b)fluoranthene	0.62	< 0.015	< 0.015	< 0.015	< 0.015
Benzo(g,h,i)perylene	--	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(k)fluoranthene	6.2	< 0.015	< 0.015	< 0.015	< 0.015
Chrysene	62	< 0.015	< 0.015	< 0.015	< 0.015
Dibenzo(a,h)anthracene	0.062	< 0.03	< 0.03	< 0.03	< 0.03
Indeno(1,2,3-cd)pyrene	0.62	< 0.015	< 0.015	< 0.015	< 0.015
Phenanthrene	--	< 0.03	< 0.03	< 0.03	< 0.03
Pyrene	2,316	< 0.03	< 0.03	< 0.03	< 0.03

Bold = above USEPA Region 9 Residential PRG.
All results in mg/kg.
-- = None established.

TABLE 7
RADIONUCLIDE ANALYTICAL RESULTS
SOIL CHARACTERIZATION FOR POTENTIAL DUST DEPOSITION
BMI COMMON AREAS (EASTSIDE)
CLARK COUNTY, NEVADA
(Page 1 of 1)

Analyte	USEPA Region 9 Residential PRG	Background Range	BRC-DD-01	BRC-DD-02	BRC-DD-03	BRC-DD-04
Actinium-227 (from Th-227)	0.10	-0.57 - 0.4	-0.0951 ± 0.19 U	0.0655 ± 0.17 U	0.392 ± 0.17 U	0.0991 ± 0.14 U
Actinium-228	732	1.11 - 3.4	1.83 ± 0.27 U	1.13 ± 0.26	1.37 ± 0.25 U	1.47 ± 0.26 U
Bismuth-210 (from Pb-210)	4,800	-0.6 - 2.2	3.97 ± 1.2	3.91 ± 1	2.38 ± 0.65 U	3.19 ± 1
Bismuth-211 (from Th-227)	>100,000	-0.57 - 0.4	-0.0951 ± 0.19 U	0.0655 ± 0.17 U	0.392 ± 0.17 U	0.0991 ± 0.14 U
Bismuth-212	22,600	0.29 - 1.82	1.47 ± 0.54 U	0.966 ± 0.47 U	0.974 ± 0.44 U	1.6 ± 0.45 U
Bismuth-214	8,190	0.52 - 1.62	0.824 ± 0.15 U	1.18 ± 0.13 U	0.964 ± 0.13 U	1.11 ± 0.12 U
Cesium-137	50,600	--	0.33 ± 0.059	0.38 ± 0.06	0.0109 ± 0.028 U	0.176 ± 0.051
Cobalt-57	8.7	-0.045 - 0.04	0.0617 ± 0.15 U	0.192 ± 0.14 U	-0.232 ± 0.13 U	-0.0513 ± 0.12 U
Cobalt-60	0.036	-0.073 - 0.082	**0.055 ± 0.044 U**	-0.0128 ± 0.038 U	-0.00817 ± 0.033 U	0.00353 ± 0.036 U
Lead-210	0.15	-0.6 - 2.2	**3.97 ± 1.2**	**3.91 ± 1**	**2.38 ± 0.65 U**	**3.19 ± 1**
Lead-211 (from Th-227)	>100,000	-0.57 - 0.4	-0.0951 ± 0.19 U	0.0655 ± 0.17 U	0.392 ± 0.17 U	0.0991 ± 0.14 U
Lead-212	3,640	0.94 - 2.11	1.46 ± 0.14	1.49 ± 0.12	1.34 ± 0.12	1.62 ± 0.13
Lead-214	46,300	0.61 - 1.72	1 ± 0.14	1.07 ± 0.13	0.977 ± 0.14	0.933 ± 0.12
Polonium-210 (from Bi-210)	38	-0.6 - 2.2	3.97 ± 1.2	3.91 ± 1	2.38 ± 0.65 U	3.19 ± 1
Polonium-212 (from Bi-212)	--	-0.19 - 1.17	0.941 ± 0.35 U	0.618 ± 0.30 U	0.623 ± 0.28 U	1.02 ± 0.29 U
Polonium-214 (from Bi-214)	>100,000	0.52 - 1.62	0.824 ± 0.15 U	1.18 ± 0.13 U	0.964 ± 0.13 U	1.11 ± 0.12 U
Polonium-215 (from Th-227)	>100,000	-0.57 - 0.4	-0.0951 ± 0.19 U	0.0655 ± 0.17 U	0.392 ± 0.17 U	0.0991 ± 0.14 U
Polonium-216 (from Ra-224)	>100,000	1.08 - 2.11	1.46 ± 0.14	1.49 ± 0.12	1.34 ± 0.12	1.62 ± 0.13
Polonium-218 (from Ra-226)	>100,000	0.494 - 2.36	0.381 ± 0.097 J	0.231 ± 0.065 J	0.313 ± 0.08 J	0.295 ± 0.077 J
Potassium-40	0.11	17.8 - 35	**26 ± 2.2**	**23.3 ± 1.9**	**32.8 ± 2.4**	**31.2 ± 2.4**
Radium-223 (from Th-227)	90	-0.57 - 0.4	-0.0951 ± 0.19 U	0.0655 ± 0.17 U	0.392 ± 0.17 U	0.0991 ± 0.14 U
Radium-224 (from Pb-212)	741	1.08 - 2.11	1.46 ± 0.14	1.49 ± 0.12	1.34 ± 0.12	1.62 ± 0.13
Radium-226	0.012	0.494 - 2.36	**0.381 ± 0.097 J**	**0.231 ± 0.065 J**	**0.313 ± 0.08 J**	**0.295 ± 0.077 J**
Radium-228	0.068	0.946 - 2.94	**1.28 ± 0.18 BJ**	**1.47 ± 0.18 BJ**	**1.93 ± 0.21 BJ**	**1.35 ± 0.2 BJ**
Thallium-207 (from Th-227)	>100,000	-0.57 - 0.4	-0.0951 ± 0.19 U	0.0655 ± 0.17 U	0.392 ± 0.17 U	0.0991 ± 0.14 U
Thallium-208	22,600	0.33 - 0.72	0.619 ± 0.081	0.518 ± 0.081	0.402 ± 0.055	0.457 ± 0.057
Thorium-227	113	-0.57 - 0.4	-0.0951 ± 0.19 U	0.0655 ± 0.17 U	0.392 ± 0.17 U	0.0991 ± 0.14 U
Thorium-228	0.15	1.07 - 2.28	**1.09 ± 0.14**	**0.961 ± 0.12**	**0.947 ± 0.12**	**1.08 ± 0.12**
Thorium-230	3.5	0.66 - 3.01	0.543 ± 0.09	0.838 ± 0.11	0.836 ± 0.11	0.567 ± 0.08
Thorium-231 (from U-235)	31,300	0 - 0.21	0.00558 ± 0.0083 U	0.0145 ± 0.012 U	0.00462 ± 0.008 U	0 ± 0.0083 U
Thorium-232	3.1	1.05 - 2.23	0.987 ± 0.13	0.937 ± 0.12	0.775 ± 0.11	1.09 ± 0.12
Thorium-234	1,330	-0.53 - 2.5	2.8 ± 0.99 U	0.994 ± 0.46 U	-0.232 ± 0.55 U	0.674 ± 0.85 U
Uranium-233/234	0.20	0.47 - 2.84	**0.268 ± 0.052 J**	**0.307 ± 0.055 J**	**0.305 ± 0.055 J**	0 ± 0.0083 U
Uranium-235/236	4.0	0 - 0.21	0.00558 ± 0.0083 U	0.0145 ± 0.012 U	0.00462 ± 0.008 U	0 ± 0.0083 U
Uranium-238	0.74	0.45 - 2.37	0.275 ± 0.053 J	0.313 ± 0.056 J	0.297 ± 0.054 J	0.0109 ± 0.0098 U

Bold = above USEPA Region 9 Residential PRG.

= above background range. Note: the background range is from the combined ENVIRON and BRC/TIMET background datasets. This combined dataset has not yet been approved by NDEP.

All results in pCi/g.

-- = None established.

TABLE 8
SVOC ANALYTICAL RESULTS
SOIL CHARACTERIZATION FOR POTENTIAL DUST DEPOSITION
BMI COMMON AREAS (EASTSIDE)
CLARK COUNTY, NEVADA
(Page 1 of 2)

Analyte	USEPA Region 9 Residential PRG	BRC-DD-01	BRC-DD-02	BRC-DD-03	BRC-DD-04
1,2,4,5-Tetrachlorobenzene	18	< 0.33	< 0.33	< 0.33	< 0.33
1,4-Dioxane	44	< 0.33	< 0.33	< 0.33	< 0.33
2,4,5-Trichlorophenol	6,110	< 0.33	< 0.33	< 0.33	< 0.33
2,4,6-Trichlorophenol	6.1	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dichlorophenol	183	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dimethylphenol	1,222	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dinitrophenol	122	< 1.6	< 1.6	< 1.6	< 1.6
2,4-Dinitrotoluene	0.72	< 0.33	< 0.33	< 0.33	< 0.33
2,6-Dinitrotoluene	0.72	< 0.33	< 0.33	< 0.33	< 0.33
2-Chloronaphthalene	4,937	< 0.33	< 0.33	< 0.33	< 0.33
2-Chlorophenol	63	< 0.33	< 0.33	< 0.33	< 0.33
2-Methylnaphthalene	--	< 0.33	< 0.33	< 0.33	< 0.33
2-Nitroaniline	183	< 1.6	< 1.6	< 1.6	< 1.6
2-Nitrophenol	--	< 0.33	< 0.33	< 0.33	< 0.33
3,3'-Dichlorobenzidine	1.1	**< 1.6**	**< 1.6**	**< 1.6**	**< 1.6**
3-Methylphenol & 4-Methylphenol	306	< 0.66	< 0.66	< 0.66	< 0.66
3-Nitroaniline	18	< 1.6	< 1.6	< 1.6	< 1.6
4,4'-Dichlorobenzil	--	NA	NA	NA	NA
4-Bromophenyl phenyl ether	--	< 0.33	< 0.33	< 0.33	< 0.33
4-Chloro-3-Methylphenol	--	< 0.33	< 0.33	< 0.33	< 0.33
4-Chlorophenyl phenyl ether	--	< 0.33	< 0.33	< 0.33	< 0.33
4-Chlorothioanisole	--	< 0.33	< 0.33	< 0.33	< 0.33
4-Nitrophenol	--	< 1.6	< 1.6	< 1.6	< 1.6
Acetophenone	--	< 0.33	< 0.33	< 0.33	< 0.33
Aniline	85	< 0.33	< 0.33	< 0.33	< 0.33
Azobenzene	4.4	< 0.33	< 0.33	< 0.33	< 0.33
Benzenethiol	--	< 0.33	< 0.33	< 0.33	< 0.33
Benzoic acid	100,000	< 1.6	< 1.6	< 1.6	< 1.6
Benzyl alcohol	18,331	< 0.33	< 0.33	< 0.33	< 0.33
Benzyl butyl phthalate	12,221	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethoxy)methane	--	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Chloroethyl)ether	0.22	**< 0.33**	**< 0.33**	**< 0.33**	**< 0.33**
bis(2-Chloroisopropyl)ether	2.9	< 0.33	< 0.33	< 0.33	< 0.33
bis(2-Ethylhexyl)phthalate	35	< 0.33	< 0.33	< 0.33	< 0.33
bis(Chloromethyl)ether	0.0002	NA	NA	NA	NA
bis(p-Chlorophenyl)disulfide	--	< 0.33	< 0.33	< 0.33	< 0.33
bis(p-Chlorophenyl)sulfone	--	< 0.33	< 0.33	< 0.33	< 0.33
Carbazole	24	< 0.33	< 0.33	< 0.33	< 0.33
Dibenzofuran	145	< 0.33	< 0.33	< 0.33	< 0.33
Dibutyl phthalate	6,110	< 0.33	< 0.33	< 0.33	< 0.33
Diethyl phthalate	48,882	< 0.33	< 0.33	< 0.33	< 0.33
Dimethyl phthalate	100,000	< 0.33	< 0.33	< 0.33	< 0.33
Di-n-octyl phthalate	2,444	< 0.33	< 0.33	< 0.33	< 0.33
Diphenyl sulfone	183.3	< 0.33	< 0.33	< 0.33	< 0.33

TABLE 8
SVOC ANALYTICAL RESULTS
SOIL CHARACTERIZATION FOR POTENTIAL DUST DEPOSITION
BMI COMMON AREAS (EASTSIDE)
CLARK COUNTY, NEVADA
(Page 2 of 2)

Analyte	USEPA Region 9 Residential PRG	BRC-DD-01	BRC-DD-02	BRC-DD-03	BRC-DD-04
Fluoranthene	2,294	< 0.33	< 0.33	< 0.33	< 0.33
Fluorene	2,747	< 0.33	< 0.33	< 0.33	< 0.33
Hexachloro-1,3-butadiene	6.2	< 0.33	< 0.33	< 0.33	< 0.33
Hexachlorobenzene	0.30	**< 0.33**	**< 0.33**	**< 0.33**	**< 0.33**
Hexachlorocyclopentadiene	365	< 1.6	< 1.6	< 1.6	< 1.6
Hexachloroethane	35	< 0.33	< 0.33	< 0.33	< 0.33
Hydroxymethyl phthalimide	--	< 0.33	< 0.33	< 0.33	< 0.33
Isophorone	512	< 0.33	< 0.33	< 0.33	< 0.33
Naphthalene	56	< 0.33	< 0.33	< 0.33	< 0.33
Nitrobenzene	20	< 0.33	< 0.33	< 0.33	< 0.33
N-nitrosodi-n-propylamine	0.069	**< 0.33**	**< 0.33**	**< 0.33**	**< 0.33**
N-nitrosodiphenylamine	99	< 0.33	< 0.33	< 0.33	< 0.33
o-Cresol	3,055	< 0.33	< 0.33	< 0.33	< 0.33
Octachlorostyrene	--	< 0.33	< 0.33	< 0.33	< 0.33
p-Chloroaniline	244	< 0.33	< 0.33	< 0.33	< 0.33
p-Chlorothiophenol	--	< 0.33	< 0.33	< 0.33	< 0.33
Pentachlorobenzene	49	< 0.33	< 0.33	< 0.33	< 0.33
Pentachlorophenol	3.0	< 1.6	< 1.6	< 1.6	< 1.6
Phenol	18,331	< 0.33	< 0.33	< 0.33	< 0.33
Phenyl Disulfide	--	< 0.33	< 0.33	< 0.33	< 0.33
Phenyl Sulfide	--	< 0.33	< 0.33	< 0.33	< 0.33
Phthalic acid	61,103	< 1.6	< 1.6	< 1.6	< 1.6
p-Nitroaniline	23	< 1.6	< 1.6	< 1.6	< 1.6
Pyridine	61	< 0.66	< 0.66	< 0.66	< 0.66

Bold = above USEPA Region 9 Residential PRG.
All results in mg/kg.
-- = None established.
NA = Not analyzed.

ATTACHMENT A

NDEP COMMENTS AND BRC RESPONSE TO COMMENTS

Attachment A-1
Response to NDEP Comments Dated January 9, 2007 on the December 4, 2006 Technical Memorandum – Soil Characterization for Potential Off-Site Dust Deposition

1. Introduction, the NDEP has the following comments:
   a. BRC states that the purpose of the memorandum is to "provide all of the data that was collected". The purpose of the memorandum should be expanded to include "evaluation of the data".

Response: *Comment noted. The text has been changed to reflect this comment.*

   b. BRC states that the four locations were selected to provide "full spatial coverage throughout the site." Please note that it has not been shown that four locations provides "full spatial coverage".

Response: *The four samples were collected from four locations in each of the quadrants of the property. This is what is meant by full spatial coverage. Given the intent of determining impacts due to airborne deposition, BRC believes that the locations do provide full spatial coverage.*

2. Description of Surface Soil Sampling, the NDEP has the following comments:
   a. BRC states that the sampling locations "were purposely located to avoid natural shallow drainages." Based on a review of Figure 2 it appears that location BRC-DD-02 (and possibly others) is located in a drainage feature or a road of some sort. Please discuss what this feature is. In addition, it is not necessarily incorrect to locate downwind samples in depressions. These depressions often provide a "sink" for windblown contaminants.

Response: *The sample locations on the figure are based on field GPS readings; however, GPS readings do not provide for an exact location. Therefore, interpretations based on the figure should not be made. Field observations during the sample collection did not indicate that this sample was collected from any type of discernable drainage feature.*

3. Summary, the NDEP has the following comments:
   a. BRC states "There is some indication that there may have been a firing range in this area that may be the explanation for the elevated levels around BRC-DD-02." Please explain what the "indication" is that BRC is referencing. Adequate documentation to support this statement has not been provided. In addition, the suite of contaminants that are located in these samples is not consistent with a firing range in the opinion of the NDEP.

Response: *When the workplan was in preparation and BRC contacted the representatives from the Site, there was mention of this possibility. However, BRC has not been able to obtain documentation to this effect. It is more likely that there may have been random target practice in this area as opposed to any sort of fixed firing range. BRC has frequently observed signs of firearm discharge in the vicinity of the Common Areas.*

b. There are a number of compounds at elevated concentrations at location BRC-DD-02 that are not likely associated with a firing range. BRC has not provided any documentation to explain how these compounds may have come to be located at location BRC-DD-02.

Response: *Comment noted. Please see BRC's revised memorandum and discussions therein. Compounds can come to be on this location from aerial deposition from numerous potential upwind sources. BRC's analysis indicates that the concentrations observed do not point solely to BRC as the source. It is also BRC's belief that the magnitude of the observed concentrations is not significantly greater that background or other comparable regulatory levels.*

c. BRC also notes that elevated levels of lead-210 were noted at 3 of the 4 locations that were sampled. BRC goes on to state "These elevated levels are inconsistent with deposition from the BRC site since that would result in uniform concentrations throughout this downwind area." BRC has not provided any documentation to explain how these elevated concentrations of radionuclides may have come to be located at 75% of the sampling locations. NDEP does not concur with BRC's conclusion.

Response: *Given the conclusions drawn from the evaluation, although concentrations of lead-210 are elevated, it is BRC's opinion that this does not necessarily point to BRC's Upper Ponds as the source of these elevated levels.*

d. BRC also notes that asbestos was detected at location BRC-DD-02 and states "This is not inconsistent with the other sample locations." This statement is confusing. The other sample locations have zero fibers detected. Please explain how one fiber is "not inconsistent" with zero fibers. In addition, in all future submittals, please refrain from using double negatives (e.g.: not inconsistent, do not disagree, etc.). Transparency should be a goal for all parties.

Response: *Comment noted. This location was re-sampled in February. The re-sampled results indicated four asbestos long fibers.*

e. BRC has not provided any comparison of chemical data collected at locations BRC-DD-01 through BRC-DD-04 to Site data. Based upon a review of this data and known upwind sources it is the conclusion of the NDEP that BRC is the likely source of these contaminants.

Response: *Comparisons to contaminated Upper Ponds are provided in the revised memo attached. Given the conclusions drawn from the evaluation, although concentrations of some compounds are elevated, it is BRC's opinion that the concentrations observed are not consistent with impacts from the Upper Ponds.*

f. BRC states "Results of organochlorine and organophosphorous pesticides…were reported below laboratory reporting limits for all four samples." Based on a review of Table 5, this is not correct. Table 5 shows detections of DDE and DDT in all four samples (various isomers) as well as detections of beta-BHC.

Response: *The text has been corrected to reflected this comment.*

g. BRC's 'background comparison' is not defensible. A far more rigorous comparison needs to be completed if BRC is to assert that these results are consistent with background.

Response: *A more rigorous statistical comparison to background levels has been provided in the revised memo.*

4. Table 5, the NDEP has the following comments:
   a. It is necessary to compare these analytical results to a metric (e.g.: USEPA Region IX PRGs, USEPA Region IX SSLs, etc.). This should include a comparison of detection limits to a metric.

Response: *Comparison to USEPA Region 9 PRGs has been provided in the revised memo. Given that surface soils only were collected, and the results indicate only slight elevations of some compounds compared to PRGs and/or background levels, and the relative immobility of these compounds, comparisons to USEPA soil screening levels (SSLs) were not conducted.*

5. Table 7, the NDEP has the following comments:
   a. Please explain the "<" symbol used for radium-226.

Response: *Table 7 has been corrected.*

   b. Please explain why the back quantitation for the remaining radionuclides was not completed (per the work plan).

Response: *Back quantitation results for the remaining radionuclides have been added in the revised memo.*

6. NDEP Conclusions are as follows:
   a. It is the belief of the NDEP that BRC appears to be the source of these contaminants. BRC should include the windblown dust pathway in all future risk assessments. In addition, as necessary, off-Site areas should be included in the Site characterization. If BRC disagrees, additional work will need to be completed.

Response: *Given the conclusions drawn from the evaluation, although concentrations of some compounds are elevated, this does not mean that the Upper Ponds are the source of these elevated levels. In addition, future risk assessment at the site will be conducted following remediation. Therefore, the windblown dust pathway to off-site receptors would be negligible, and well below risks associated with on-site exposures.*

b. It is the belief of the NDEP that BRC should install upwind and downwind air monitors to determine the influence of the Site on downwind receptors. It is suggested that the Perimeter Air Monitoring Plan be used as a guide to implement an air monitoring program as soon as possible. If BRC disagrees, adequate justification must be provided.

Response: *Given the conclusions drawn from the evaluation, it is BRC's belief that installation of air monitors is not warranted at this time.*

Attachment A-2
Response to NDEP Comments Dated February 13, 2007 on the BRC Response to NDEP Response dated January 9, 2007 Regarding the December 4, 2006 Technical Memorandum – Soil Characterization for Potential Off-Site Dust Deposition

1. BRC's response does not appear to address all of the NDEP's comments issued in the January 9, 2007 letter. Please include each of the comments from the January 9, 2007 letter in the fully annotated response to comments for this letter.

Response: *Response to comments, as well as revisions to the technical memorandum have been provided.*

2. BRC proposes to complete a variety of analyses in support of the Technical Memorandum submitted on December 4, 2006 and commented on by the NDEP on January 9, 2007. Generally, the NDEP agrees with BRC's proposal to complete additional analyses, however, it is not clear that many of the analyses are necessary.
   a. For example, DDE, DDT and various BHC isomers have been detected off-Site.
      i. Background levels for these contaminants have not been established.
      ii. These contaminants are known to exist on Site.
      iii. It is not clear to the NDEP that BRC will be able to demonstrate that these contaminants did not source from the Site.

Response: *Given the conclusions drawn from the evaluation, although concentrations of some compounds are elevated, it is BRC's belief that the concentrations observed are not consistent with BRC's Upper Ponds as the source.*

   b. Regardless of the outcome of the background analyses proposed by BRC the organic compounds discussed above came to be located off-Site through some mechanism. That mechanism may be overland transport by surface water or it may be airborne deposition. It is the belief of the NDEP that BRC cannot resolve this issue through the proposed analyses.

Response: *Please see response to comment 2a above.*

   c. It is not clear to the NDEP that meaningful statistical analyses can be conducted with four sample locations. It is suggested that BRC discuss this matter with the NDEP and the NDEP's statisticians prior to proceeding with these analyses.

Response: *The Guided Interactive Statistical Decision Tools (GISdT) computer statistical software program indicates that the statistics can be performed with as few as three samples.*

3. BRC's response labeled "a" discusses that the airborne pathway "at least from the consideration of lead" does not seem feasible. Regardless of this statement, if the airborne pathway seems feasible for any contaminant this pathway must be retained. It is the opinion

of the NDEP that there is sufficient information to substantiate the feasibility of this pathway, at this time.

Response: *Given the conclusions drawn from the evaluation, although concentrations of some compounds are elevated, this does not mean that the Upper Ponds are the source of these elevated levels.*

4. NDEP agrees that BRC should complete the proposed analyses that are suggested in the subject document, however, the time frame to respond seems excessive. NDEP appreciates that this response time is likely driven by the chemical analyses that are proposed. NDEP requests the following:
   a. BRC should complete the analytical calculations and comparisons that are suggested in BRC's response and submit these to the NDEP by March 30, 3007.

Response: *Comment noted. BRC appreciates NDEP's granting of an additional 30 days to complete this work.*

   b. A revised report containing all of the new analytical data and conclusions can be submitted to the NDEP by May 9, 2007.

Response: *Comment noted.*

   c. BRC should consider adding additional sampling locations to substantiate BRC's conclusions.

Response: *BRC believes that the re-sampling conducted after the main data collection provides sufficient additional data at this time.*

   d. BRC should consider installing air monitoring equipment downgradient and upgradient of the Upper Ponds. Regardless of BRC's opinion regarding the feasibility of historic aerial deposition as a pathway this information would provide useful baseline data prior to the implementation of the Perimeter Air Monitoring Plan. In addition, this monitoring would provide useful quantitative information regarding the existence of the airborne deposition pathway.

Response: *Given the conclusions drawn from the evaluation, it is BRC's belief that that installation of an air monitors is not warranted at this time.*

ATTACHMENT B

BACKGROUND COMPARISON STATISTICS

ATTACHMENT B
DUST DISPERSION BACKGROUND COMPARISONS
CLARK COUNTY, NEVADA
(Page 1 of 2)

Chemical	Background										Site										T Test	Quantile Test	Slippage Test	WRS Test	Greater than Background?	Units	Basis
	No. of Detects	Total Samples	% Detects	Minimum Detect	Maximum Detect	1st Quantile	Median	Mean	3rd Quantile	Standard Deviation	No. of Detects	Total Samples	% Detects	Minimum Detect	Maximum Detect	1st Quantile	Median	Mean	3rd Quantile	Standard Deviation	*p*	*p*	*p*	*p*			
Aluminum	45	45	100%	5530	13900	7230	9950	9730	11800	2497	4	4	100%	7150	8650	7173	7400	7650	7878	700	1.0 E+0	1.0 E+0	1.0 E+0	9.3 E-1	NO	mg/kg	Multiple tests
Antimony	37	45	82%	0.12	0.50	0.23	0.33	0.33	0.42	0.11	4	4	100%	0.29	0.45	0.35	0.40	0.38	0.43	0.070	1.2 E-1	NA	1.0 E+0	1.8 E-2	NO	mg/kg	Multiple tests; review of boxplots
Arsenic	45	45	100%	2.1	7.2	3.0	3.7	4.1	5.3	1.4	4	4	100%	3.8	18	4.6	5.7	8.2	9.2	6.4	1.5 E-1	1.8 E-1	8.2 E-2	2.9 E-2	NO	mg/kg	Multiple tests
Barium	45	45	100%	90	604	148	190	219	228	107	4	4	100%	407	726	619	696	631	709	150	5.0 E-3	9.9 E-4	2.2 E-4	8.4 E-4	YES	mg/kg	Multiple tests
Beryllium	45	45	100%	0.16	0.89	0.41	0.61	0.58	0.77	0.20	4	4	100%	0.35	0.40	0.37	0.39	0.38	0.39	0.022	1.0 E+0	1.0 E+0	1.0 E+0	9.8 E-1	NO	mg/kg	Multiple tests
Boron	16	37	43%	5.2	12	2.6	2.6	4.4	6.1	2.5	3	4	75%	3.7	5.7	3.7	4.7	6.4	11	10	2.1 E-1	NA	1.0 E+0	6.9 E-1	NO	mg/kg	Multiple tests
Cadmium	17	45	38%	0.092	0.16	0.13	0.25	0.20	0.26	0.064	4	4	100%	0.16	0.26	0.17	0.18	0.20	0.21	0.045	6.4 E-1	1.0 E+0	3.0 E-3	2.6 E-6	YES	mg/kg	Slippage and WRS Tests; Dust Max > Background
Calcium	37	37	100%	10900	43200	15950	19500	21559	26150	7924	4	4	100%	17000	44600	17080	26100	28450	37480	13720	2.0 E-1	1.6 E-1	9.8 E-2	1.3 E-1	NO	mg/kg	Multiple tests
Chromium (Total)	45	45	100%	3.6	17	7.9	11	10	13	3.1	4	4	100%	10	14	11	11	11	12	1.5	1.5 E-1	6.1 E-1	1.0 E+0	2.9 E-1	NO	mg/kg	Multiple tests
Chromium (VI)	0	37	0%	NA	NA	0.20	0.20	0.20	0.21	0.0023	0	4	0%	NA	NA	0.40	0.20	0.20	0.40	0	1.0 E+0	1.0 E+0	NA	NaN	NO	mg/kg	Multiple tests
Cobalt	45	45	100%	4.1	15	7.2	8.8	8.5	9.6	2.1	4	4	100%	5.0	9.1	5.5	6.6	6.8	7.9	1.9	9.1 E-1	1.0 E+0	1.0 E+0	9.4 E-1	NO	mg/kg	Multiple tests
Copper	45	45	100%	8.1	26	16	19	18	20	4.1	4	4	100%	12	44	12	12	20	20	16	4.1 E-1	6.1 E-1	8.2 E-2	8.9 E-1	NO	mg/kg	Multiple tests
Iron	45	45	100%	8960	19700	11950	14400	14009	16450	2678	4	4	100%	8460	10900	9150	9505	9593	9948	1006	1.0 E+0	1.0 E+0	1.0 E+0	1.0 E+0	NO	mg/kg	Multiple tests
Lead	45	45	100%	6.0	35	9.1	11	13	16	6.0	4	4	100%	32	89	36	45	53	339	580	2.7 E-2	9.9 E-4	2.2 E-4	5.8 E-4	YES	mg/kg	Multiple tests
Lithium	37	37	100%	7.5	24	9.9	12	14	18	4.6	4	4	100%	13	16	13	14	14	15	1.4	3.3 E-1	1.0 E+0	1.0 E+0	2.2 E-1	NO	mg/kg	Multiple tests
Magnesium	45	45	100%	4880	17500	8420	9750	10092	12150	2758	4	4	100%	6220	7900	6348	6755	6908	7315	768	1.0 E+0	1.0 E+0	1.0 E+0	9.9 E-1	NO	mg/kg	Multiple tests
Manganese	45	45	100%	263	1090	406	455	472	509	130	4	4	100%	546	4820	557	703	1693	1840	2089	1.6 E-1	9.9 E-4	8.2 E-2	2.2 E-3	YES	mg/kg	Quantile and WRS Tests; Dust Max > Background
Mercury	40	45	89%	0.0091	0.082	0.017	0.021	0.023	0.027	0.012	4	4	100%	0.0097	0.021	0.011	0.015	0.015	0.019	0.0054	9.8 E-1	1.0 E+0	1.0 E+0	9.6 E-1	NO	mg/kg	Multiple tests
Molybdenum	45	45	100%	0.27	1.1	0.36	0.45	0.52	0.71	0.20	4	4	100%	0.82	1.3	0.86	0.90	0.98	1.0	0.22	1.1 E-2	5.9 E-4	8.2 E-2	1.2 E-3	YES	mg/kg	Multiple tests
Nickel	45	45	100%	8.4	30	14	17	16	18	4.4	4	4	100%	9.6	13	11	11	11	12	1.2	1.0 E+0	1.0 E+0	1.0 E+0	9.9 E-1	NO	mg/kg	Multiple tests
Niobium	36	37	97%	1.0	2.8	1.1	1.3	1.6	1.8	0.77	4	4	100%	3.1	6.9	3.7	4.2	4.6	5.0	1.6	1.7 E-2	NA	1.1 E-5	4.7 E-4	YES	mg/kg	Multiple tests
Palladium	37	37	100%	0.19	1.5	0.25	0.29	0.35	0.38	0.22	4	4	100%	0.33	1.1	0.44	0.65	0.68	0.88	0.34	7.7 E-2	1.2 E-2	1.0 E+0	8.3 E-3	YES	mg/kg	Quantile and WRS Tests
Platinum	1	37	3%	0.082	0.082	0.050	0.050	0.051	0.050	0.0053	0	4	0%	NA	NA	0.040	0.022	0.022	0.047	0.0044	1.0 E+0	1.0 E+0	1.0 E+0	1.0 E+0	NO	mg/kg	Multiple tests
Potassium	37	37	100%	1240	3890	1600	1840	2236	2865	765	4	4	100%	1810	3020	1968	2025	2220	2278	543	5.2 E-1	1.0 E+0	1.0 E+0	2.8 E-1	NO	mg/kg	Multiple tests
Selenium	28	45	62%	0.11	0.60	0.25	0.26	0.29	0.32	0.098	0	4	0%	NA	NA	0.50	0.25	0.25	0.50	0	9.9 E-1	1.0 E+0	1.0 E+0	6.5 E-1	NO	mg/kg	Multiple tests
Silicon	37	37	100%	335	4150	597	844	1393	1895	1162	4	4	100%	829	1160	879	993	994	1108	157	9.7 E-1	1.0 E+0	1.0 E+0	3.8 E-1	NO	mg/kg	Multiple tests
Silver	8	45	18%	0.036	0.083	0.50	0.50	0.42	0.50	0.17	4	4	100%	0.12	0.28	0.13	0.14	0.17	0.18	0.074	1.0 E+0	1.0 E+0	2.0 E-3	6.3 E-7	YES	mg/kg	Slippage and WRS Tests; Dust Max > Background
Sodium	37	37	100%	111	693	146	166	248	323	157	4	4	100%	106	210	111	156	157	202	55	9.8 E-1	1.0 E+0	1.0 E+0	8.9 E-1	NO	mg/kg	Multiple tests
Strontium	37	37	100%	87	808	119	143	168	170	122	4	4	100%	105	264	139	201	193	255	78	3.0 E-1	1.6 E-1	1.0 E+0	1.4 E-1	NO	mg/kg	Multiple tests
Thallium	20	45	44%	0.13	1.7	0.50	0.50	0.67	1.1	0.44	4	4	100%	0.18	1.2	0.23	0.26	0.47	0.50	0.49	7.6 E-1	5.7 E-1	1.0 E+0	4.5 E-1	NO	mg/kg	Multiple tests
Tin	37	37	100%	0.28	0.80	0.51	0.55	0.55	0.62	0.11	4	4	100%	0.80	1.4	0.94	1.0	1.1	1.2	0.25	1.2 E-2	6.9 E-4	3.8 E-4	6.1 E-4	YES	mg/kg	Multiple tests
Titanium	45	45	100%	244	936	442	535	535	633	156	4	4	100%	383	418	392	404	402	414	16	1.0 E+0	1.0 E+0	1.0 E+0	9.8 E-1	NO	mg/kg	Multiple tests
Tungsten	0	37	0%	NA	NA	1.3	1.3	1.3	1.3	0.0082	4	4	100%	1.2	3.5	1.2	1.4	1.9	2.0	1.1	1.8 E-1	NA	NA	1.2 E-3	YES	mg/kg	WRS Test; ND in background
Uranium	37	37	100%	0.43	1.8	0.80	0.89	0.91	1.0	0.24	4	4	100%	0.79	0.91	0.81	0.85	0.85	0.89	0.055	9.0 E-1	1.0 E+0	1.0 E+0	7.8 E-1	NO	mg/kg	Multiple tests
Vanadium	45	45	100%	16	57	25	35	35	43	10	4	4	100%	28	33	29	30	30	31	2.1	9.9 E-1	1.0 E+0	1.0 E+0	9.1 E-1	NO	mg/kg	Multiple tests
Zinc	45	45	100%	25	121	36	42	44	50	15	4	4	100%	29	39	29	29	31	31	5.0	1.0 E+0	1.0 E+0	1.0 E+0	1.0 E+0	NO	mg/kg	Multiple tests
Zirconium	37	37	100%	60	176	115	123	125	141	26	4	4	100%	99	147	107	111	117	120	21	7.5 E-1	6.0 E-1	1.0 E+0	8.9 E-1	NO	mg/kg	Multiple tests

ATTACHMENT B
DUST DISPERSION BACKGROUND COMPARISONS
CLARK COUNTY, NEVADA
(Page 2 of 2)

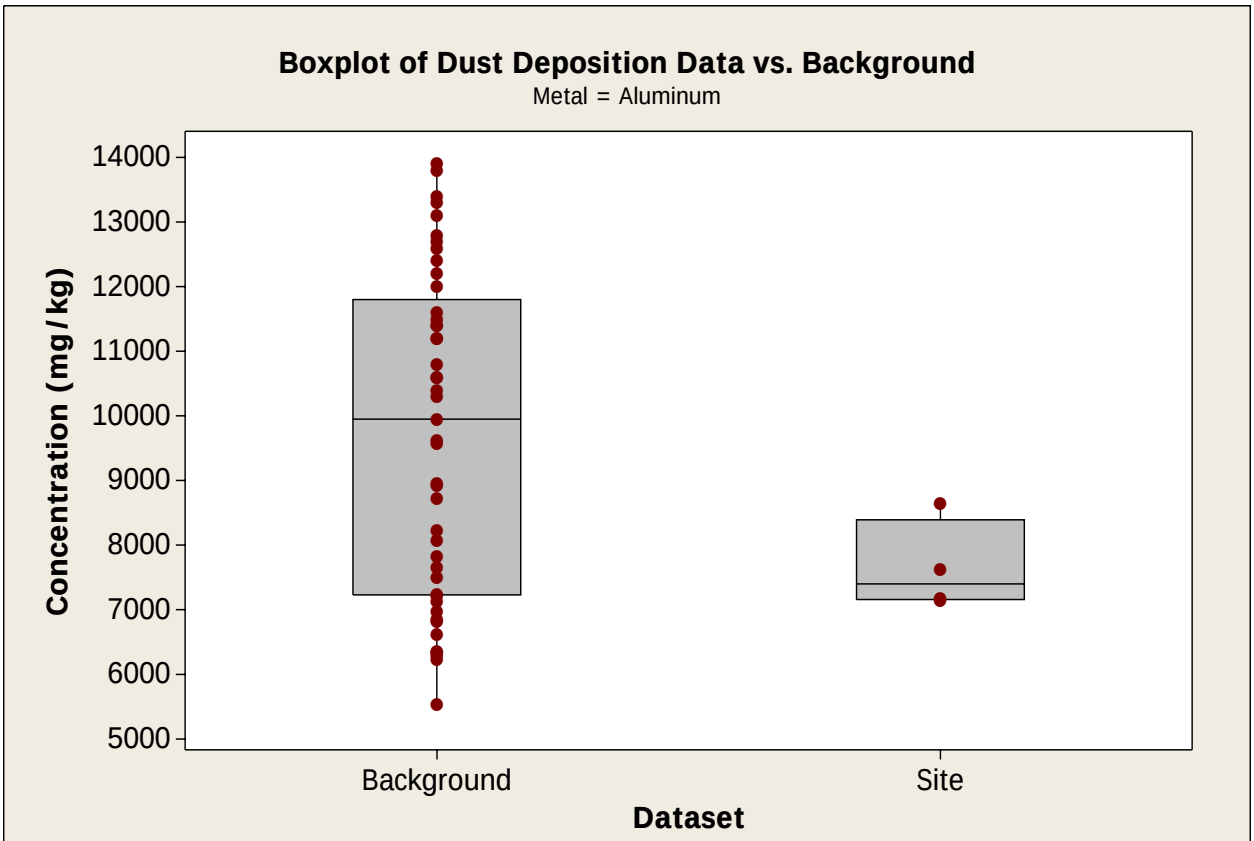
Chemical	Background No. of Detects	Background Total Samples	Background % Detects	Background Minimum Detect	Background Maximum Detect	Background 1st Quantile	Background Median	Background Mean	Background 3rd Quantile	Background Standard Deviation	Site No. of Detects	Site Total Samples	Site % Detects	Site Minimum Detect	Site Maximum Detect	Site 1st Quantile	Site Median	Site Mean	Site 3rd Quantile	Site Standard Deviation	T Test *p*	Quantile Test *p*	Slippage Test *p*	WRS Test *p*	Greater than Background?	Units	Basis
Actinium-228	45	45	100%	1.2	2.5	1.5	1.8	1.8	2.1	0.32	1	4	25%	1.1	1.1	1.2	1.4	1.5	1.7	0.29	9.5 E-1	1.0 E+0	1.0 E+0	9.9 E-1	NO	pCi/g	Multiple tests
Bismuth 212	25	45	56%	0.71	1.8	0.80	0.92	0.99	1.2	0.33	0	4	0%	NA	NA	0.97	1.2	1.3	1.6	0.33	1.0 E-1	NA	1.0 E+0	8.0 E-1	NO	pCi/g	Multiple tests
Bismuth-214	45	45	100%	0.60	1.3	0.77	0.90	0.89	0.96	0.17	0	4	0%	NA	NA	0.86	1.0	1.0	1.2	0.16	1.0 E-1	NA	1.0 E+0	8.3 E-1	NO	pCi/g	Multiple tests
Cobalt-57	0	37	0%	NA	NA	-0.0090	0.0070	0.0025	0.014	0.016	0	4	0%	NA	NA	-0.19	0.0052	-0.0074	0.16	0.18	-	NA	NA	-	NO	pCi/g	ND in dust and in Background
Cobalt-60	0	37	0%	NA	NA	-0.025	-0.0040	-0.0077	0.012	0.028	0	4	0%	NA	NA	-0.012	-0.0023	0.0094	0.042	0.031	-	NA	NA	-	NO	pCi/g	ND in dust and in Background
Lead-210	0	45	0%	NA	NA	0.45	0.80	0.90	1.5	0.60	3	4	75%	3.2	4.0	2.6	3.6	3.4	4.0	0.74	2.7 E-3	NA	NA	1.5 E-9	YES	pCi/g	WRS and T-Test; ND in background
Lead-212	45	45	100%	0.94	2.0	1.3	1.5	1.5	1.7	0.27	4	4	100%	1.3	1.6	1.4	1.5	1.5	1.6	0.12	6.3 E-1	1.0 E+0	1.0 E+0	5.7 E-1	NO	pCi/g	Multiple tests
Lead-214	45	45	100%	0.68	1.2	0.83	0.88	0.91	0.98	0.12	4	4	100%	0.93	1.1	0.94	0.99	1.0	1.1	0.057	2.3 E-2	5.2 E-1	1.0 E+0	3.8 E-2	NO	pCi/g	Multiple tests; review of boxplots
Potassium-40	45	45	100%	20	34	23	25	25	28	3.1	4	4	100%	23	33	24	29	28	32	4.4	1.4 E-1	1.8 E-1	1.0 E+0	7.7 E-2	NO	pCi/g	Multiple tests
Radium-226	33	37	89%	0.49	1.6	0.87	0.99	1.0	1.2	0.24	4	8	50%	0.231	0.38	0.30	0.38	0.36	0.41	0.073	1.0 E+0	1.0 E+0	1.0 E+0	1.0 E+0	NO	pCi/g	Multiple tests
Radium-228	23	30	77%	1.3	2.9	1.7	1.9	1.9	2.1	0.43	4	4	100%	1.28	1.9	1.3	1.4	1.5	1.8	0.29	9.7 E-1	1.0 E+0	1.0 E+0	9.3 E-1	NO	pCi/g	Multiple tests
Thallium-208	45	45	100%	0.41	0.72	0.49	0.53	0.55	0.62	0.083	4	4	100%	0.40	0.62	0.42	0.49	0.50	0.59	0.093	8.4 E-1	1.0 E+0	1.0 E+0	8.9 E-1	NO	pCi/g	Multiple tests
Thorium-227	0	37	0%	NA	NA	-0.21	0.030	-0.011	0.14	0.23	0	4	0%	NA	NA	-0.055	0.082	0.12	0.32	0.20	1.5 E-1	NA	NA	NaN	NO	pCi/g	Multiple tests
Thorium-228	45	45	100%	1.2	2.3	1.5	1.8	1.7	1.9	0.26	4	4	100%	0.95	1.1	0.95	1.0	1.0	1.1	0.076	1.0 E+0	1.0 E+0	1.0 E+0	1.0 E+0	NO	pCi/g	Multiple tests
Thorium-230	45	45	100%	0.72	1.7	0.93	1.2	1.1	1.2	0.22	4	4	100%	0.54	0.84	0.55	0.70	0.70	0.84	0.16	1.0 E+0	1.0 E+0	1.0 E+0	1.0 E+0	NO	pCi/g	Multiple tests
Thorium-232	45	45	100%	1.1	2.2	1.5	1.7	1.7	1.8	0.26	4	4	100%	0.78	1.1	0.82	0.96	0.95	1.1	0.13	1.0 E+0	1.0 E+0	1.0 E+0	1.0 E+0	NO	pCi/g	Multiple tests
Thorium-234	22	45	49%	1.1	2.1	0.71	1.1	1.1	1.7	0.61	0	4	0%	NA	NA	-0.0055	0.83	1.1	2.3	1.3	5.4 E-1	NA	1.0 E+0	9.1 E-1	NO	pCi/g	Multiple tests
Uranium 233/234	9	37	24%	0.70	1.2	0.80	0.89	0.90	1.0	0.17	3	4	75%	0.27	0.31	0.067	0.29	0.22	0.31	0.15	1.0 E+0	NA	1.0 E+0	9.1 E-1	NO	pCi/g	Multiple tests
Uranium 235	20	45	44%	0.042	0.13	0.037	0.059	0.062	0.089	0.033	0	4	0%	NA	NA	0.0012	0.0051	0.0062	0.012	0.0061	1.0 E+0	NA	1.0 E+0	9.6 E-1	NO	pCi/g	Multiple tests
Uranium-238	45	45	100%	0.45	1.4	0.79	0.91	0.90	1.0	0.18	3	4	75%	0.28	0.31	0.077	0.29	0.22	0.31	0.14	1.0 E+0	1.0 E+0	1.0 E+0	1.0 E+0	NO	pCi/g	Multiple tests

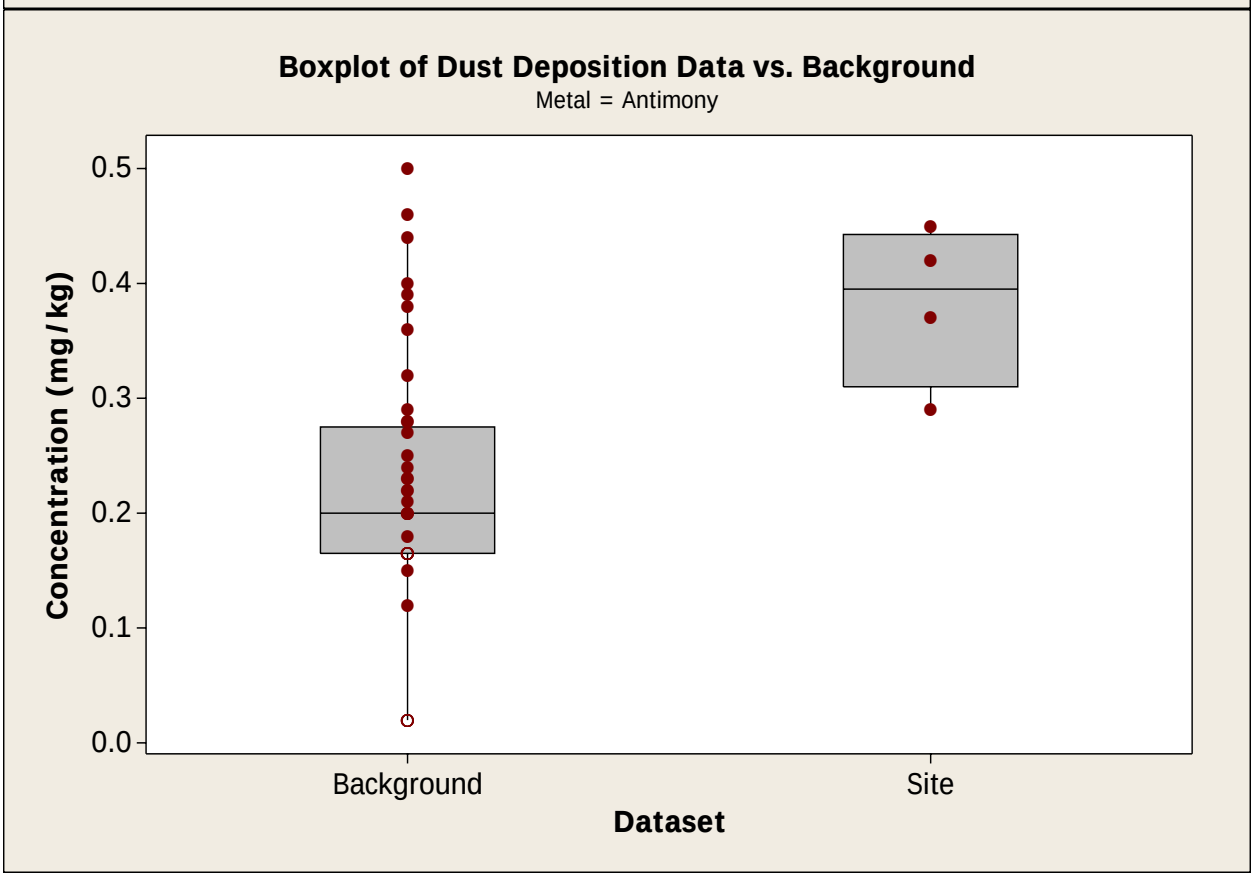
Note: Summary and background comparison statistics were performed using one-half the detection limit for metals. Summary statistics were conducted using Minitab and the background comparison statistics were conducted using GISdT® (Neptune and Company 2007).
BOLD with Highlight indicates Site concentrations are greater than background.
WRS = Wilcoxon Rank Sum Test with the Gehan Modification
mg/kg - milligrams per kilogram
pCi/g - picoCuries per gram

ATTACHMENT C

QUALITATIVE COMPARISON BOXPLOTS AND BAR CHARTS

Attachment C-1





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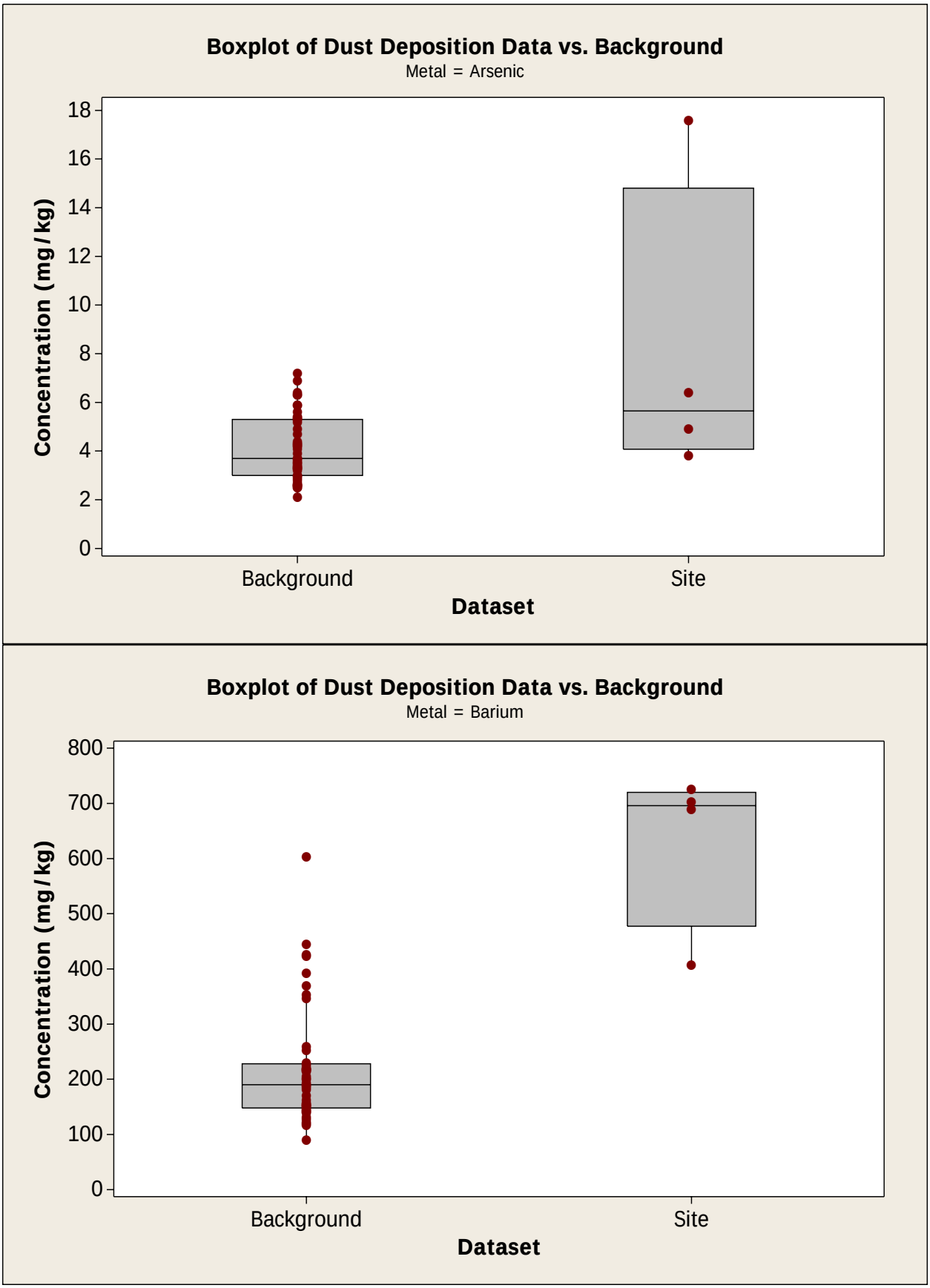

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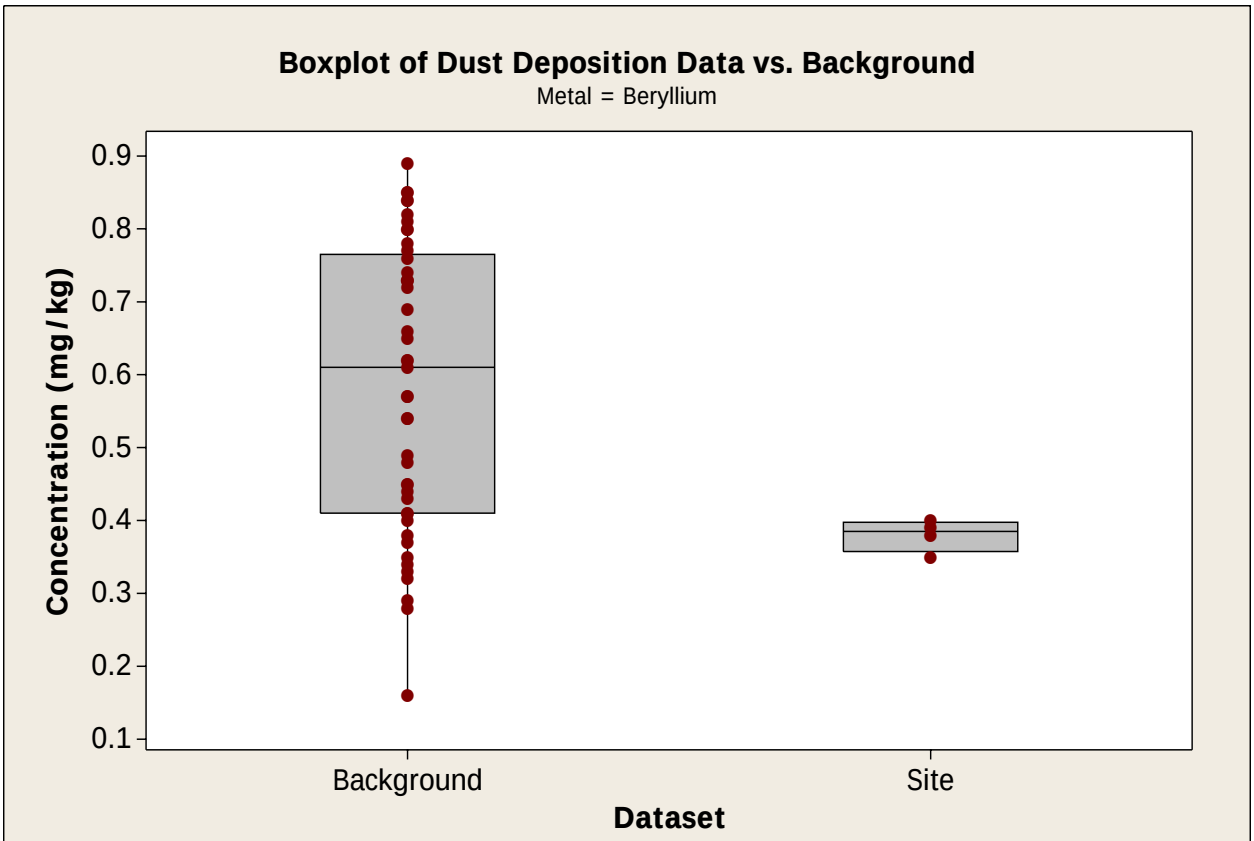

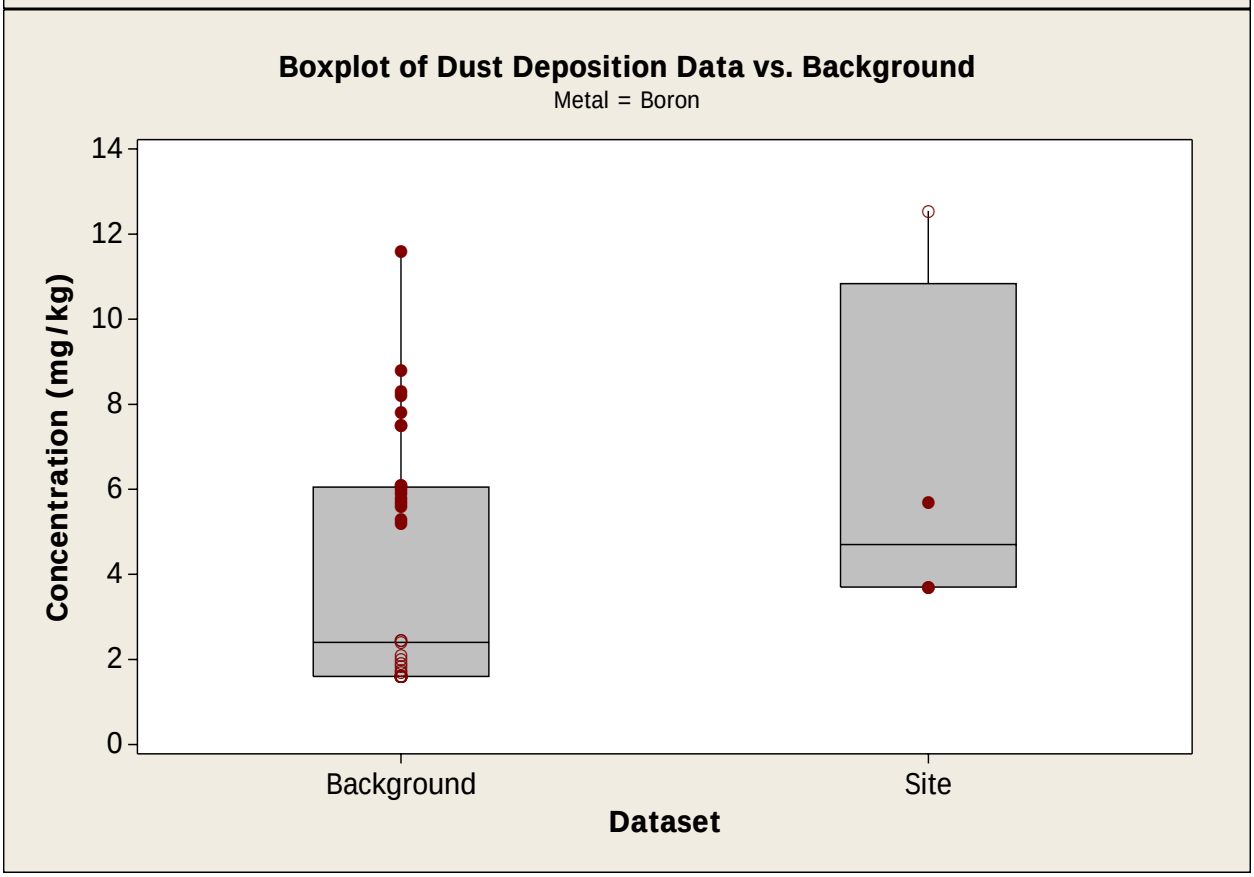

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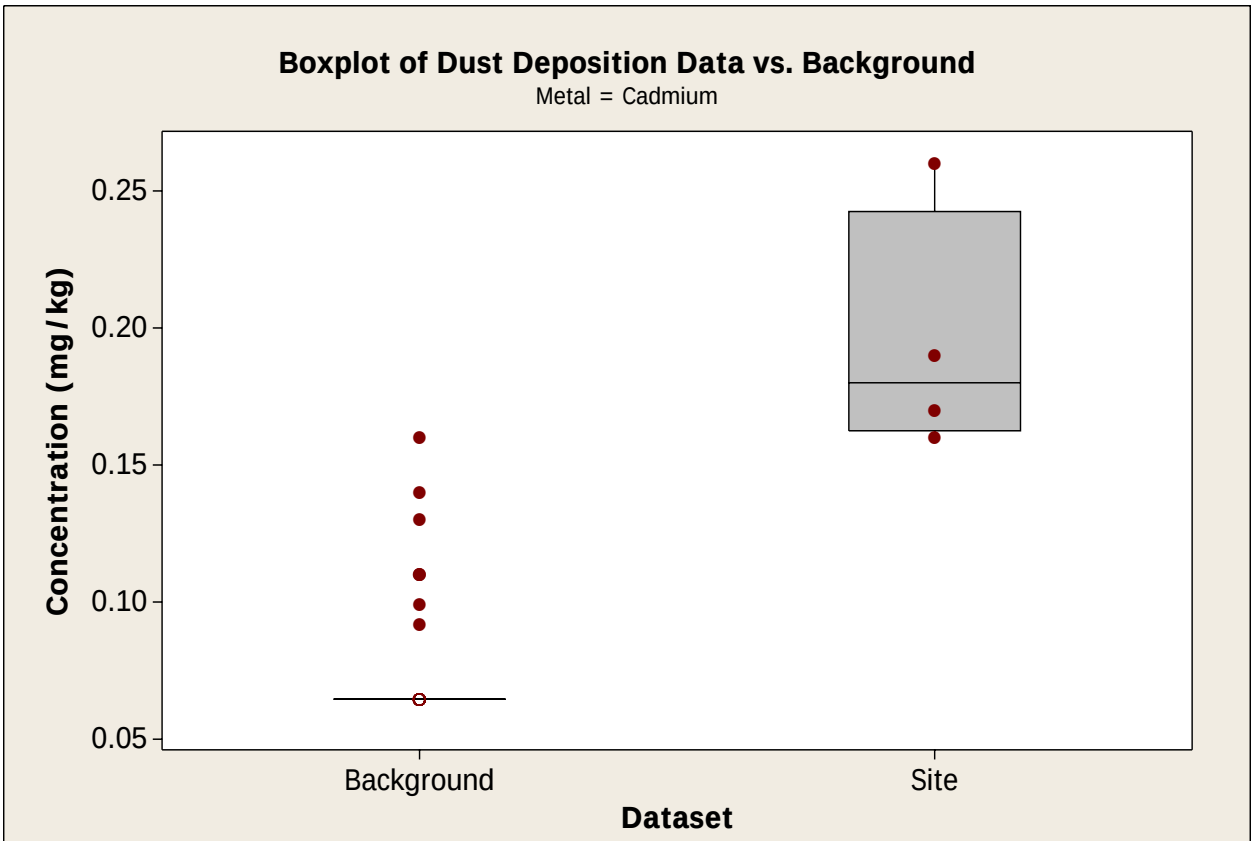

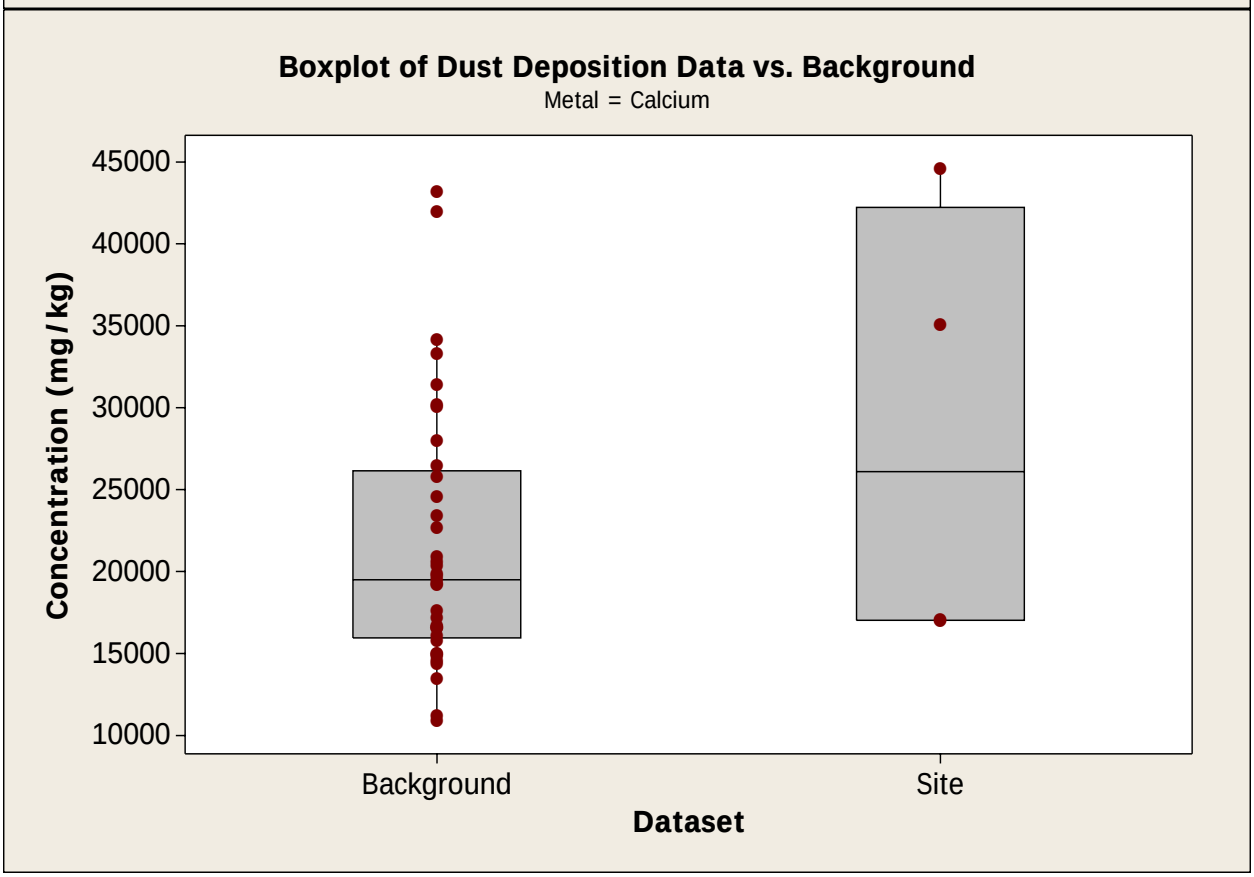

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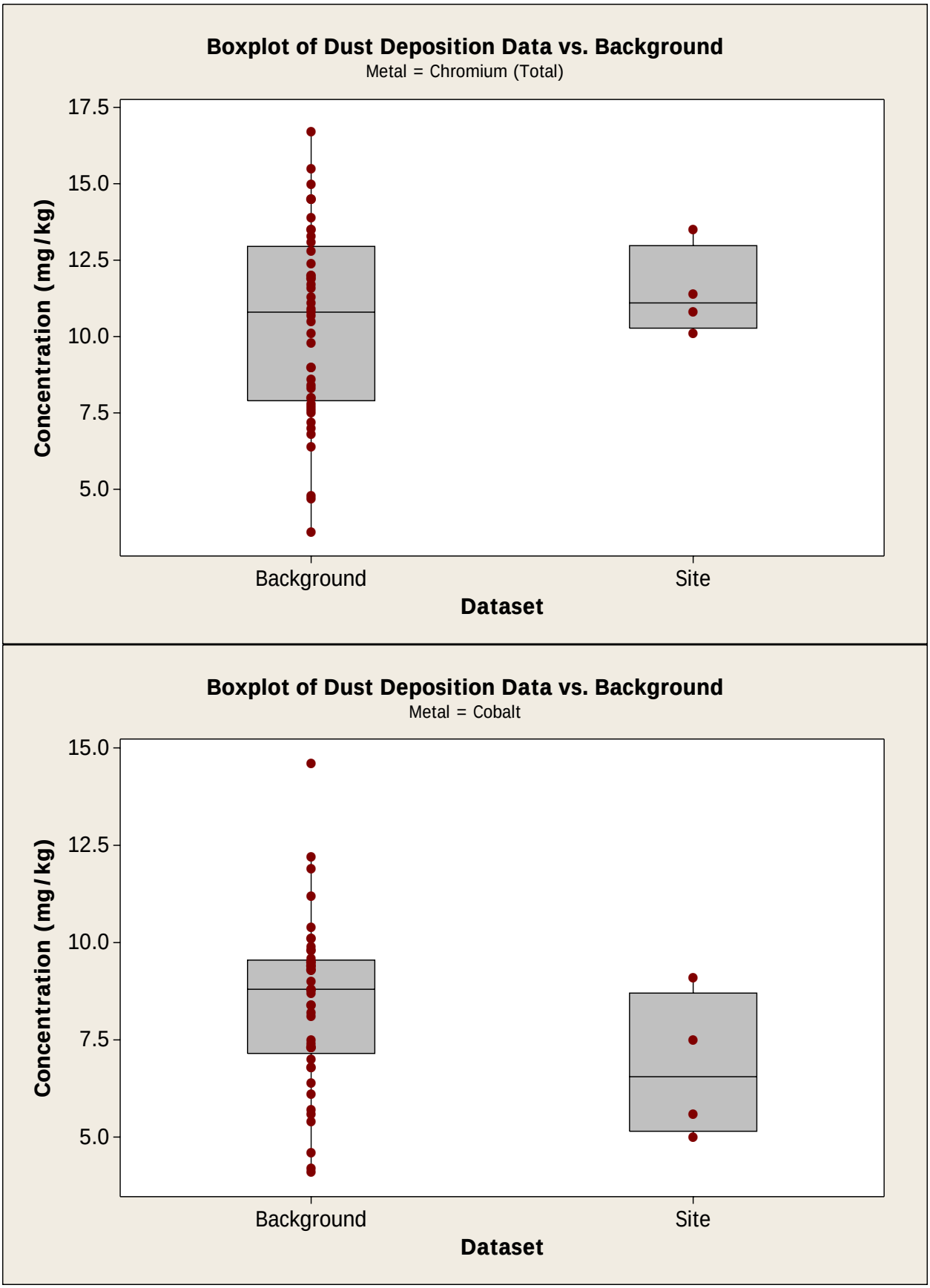

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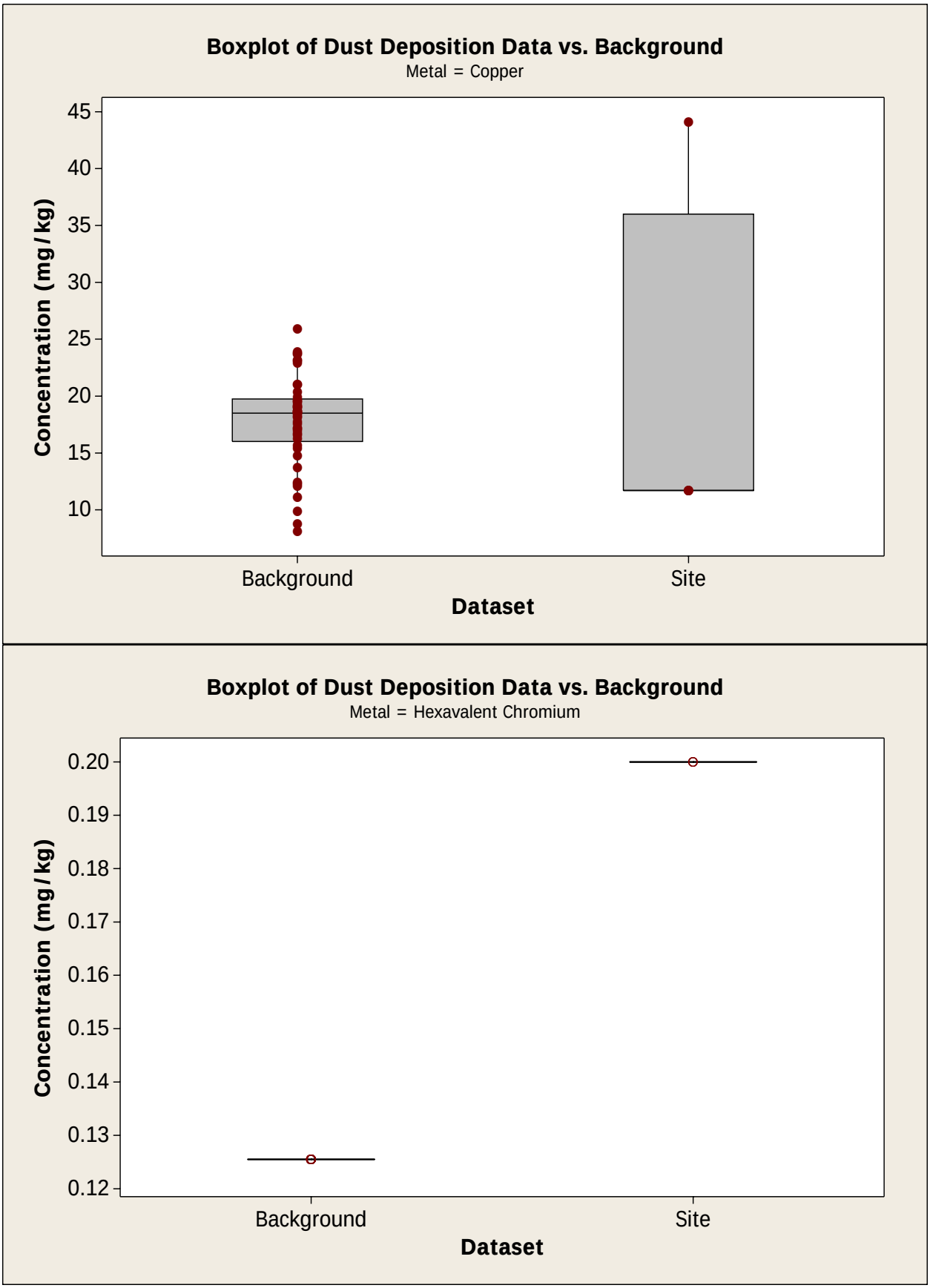

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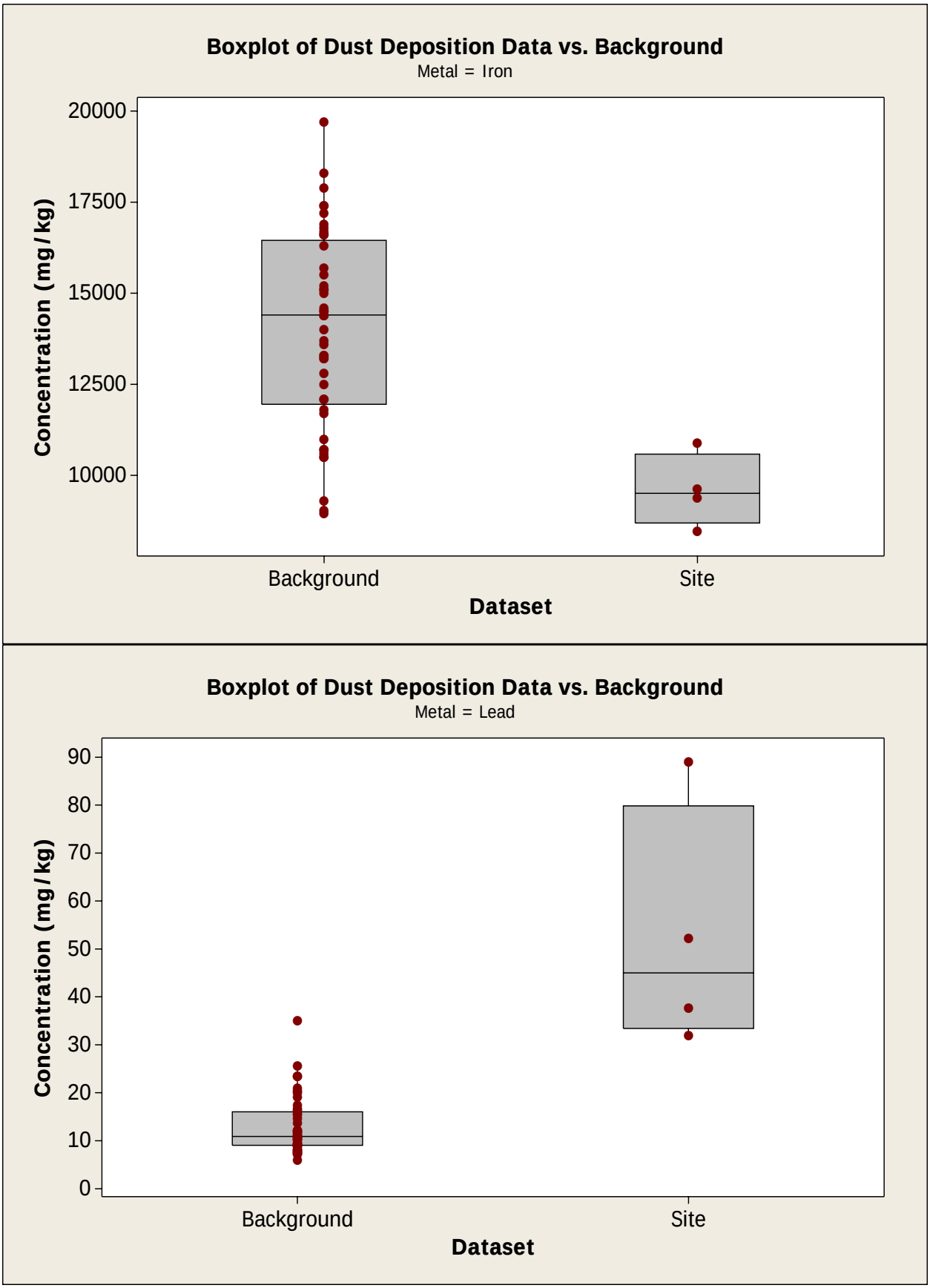

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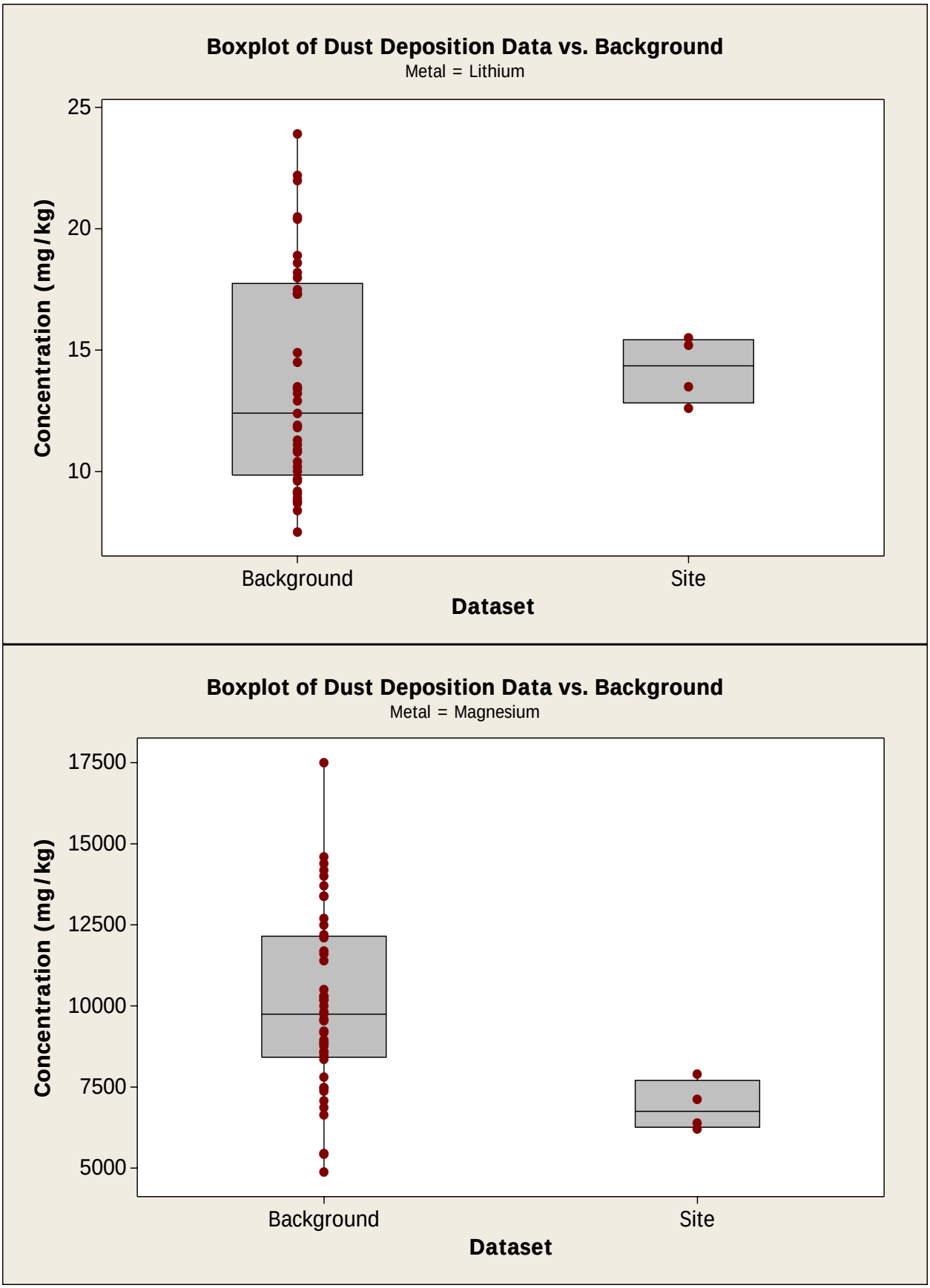

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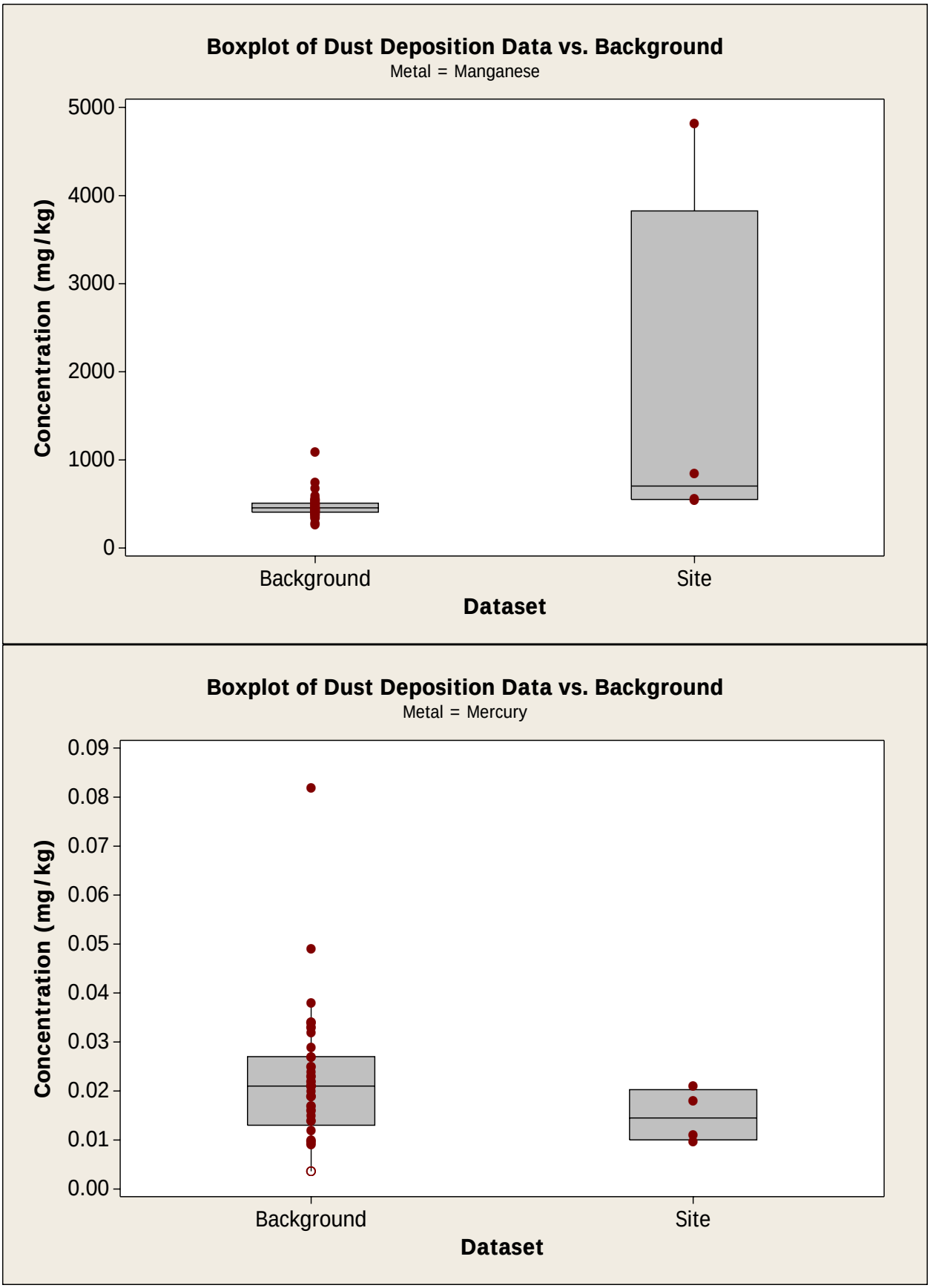

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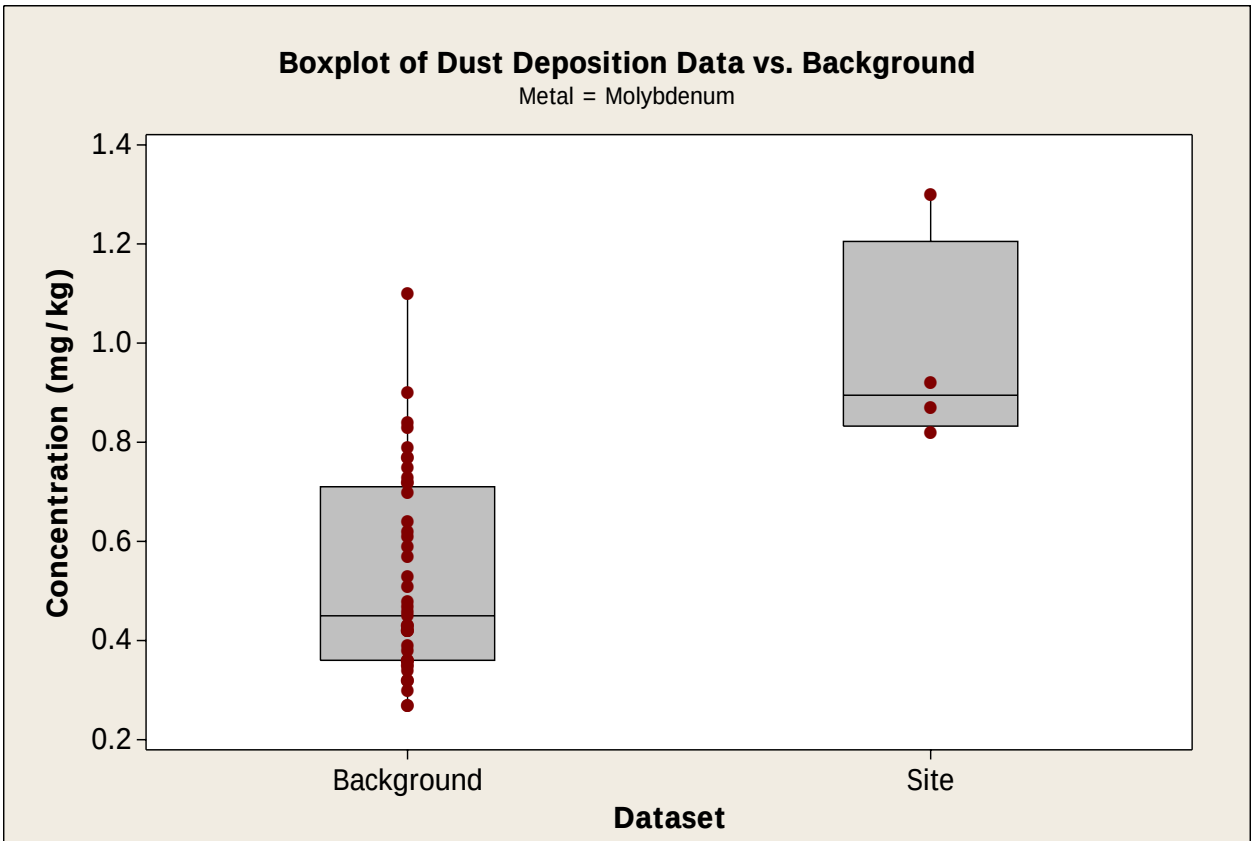

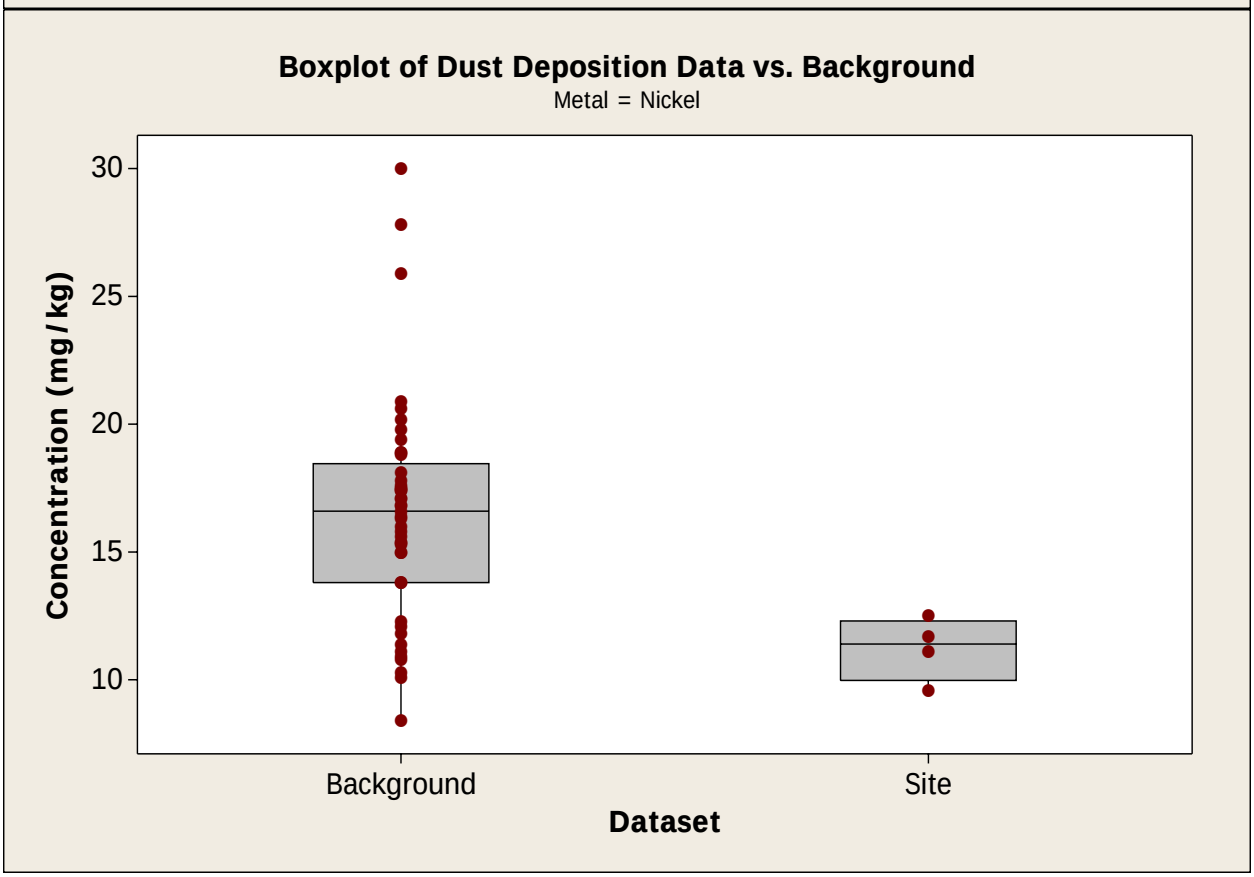

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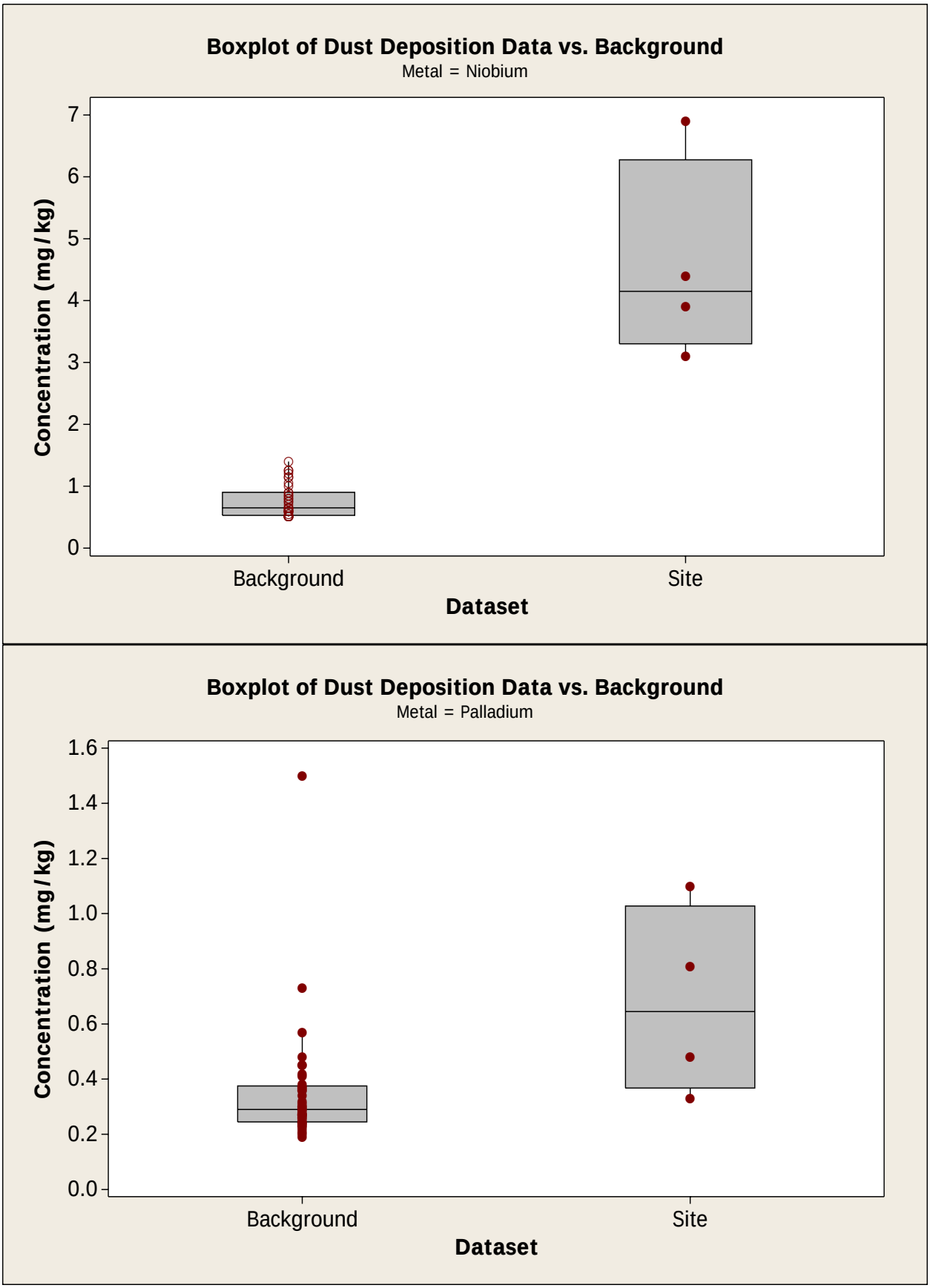

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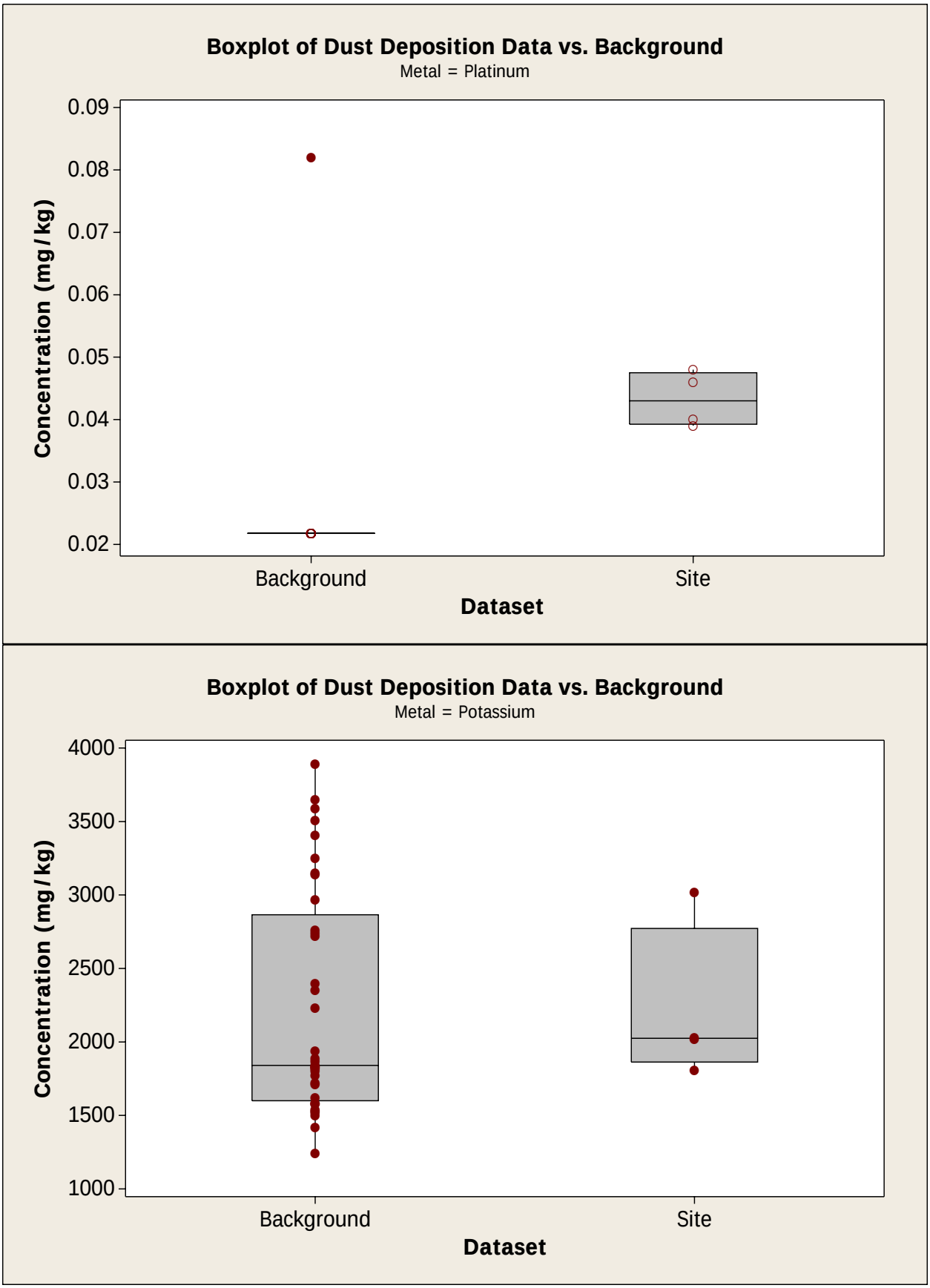

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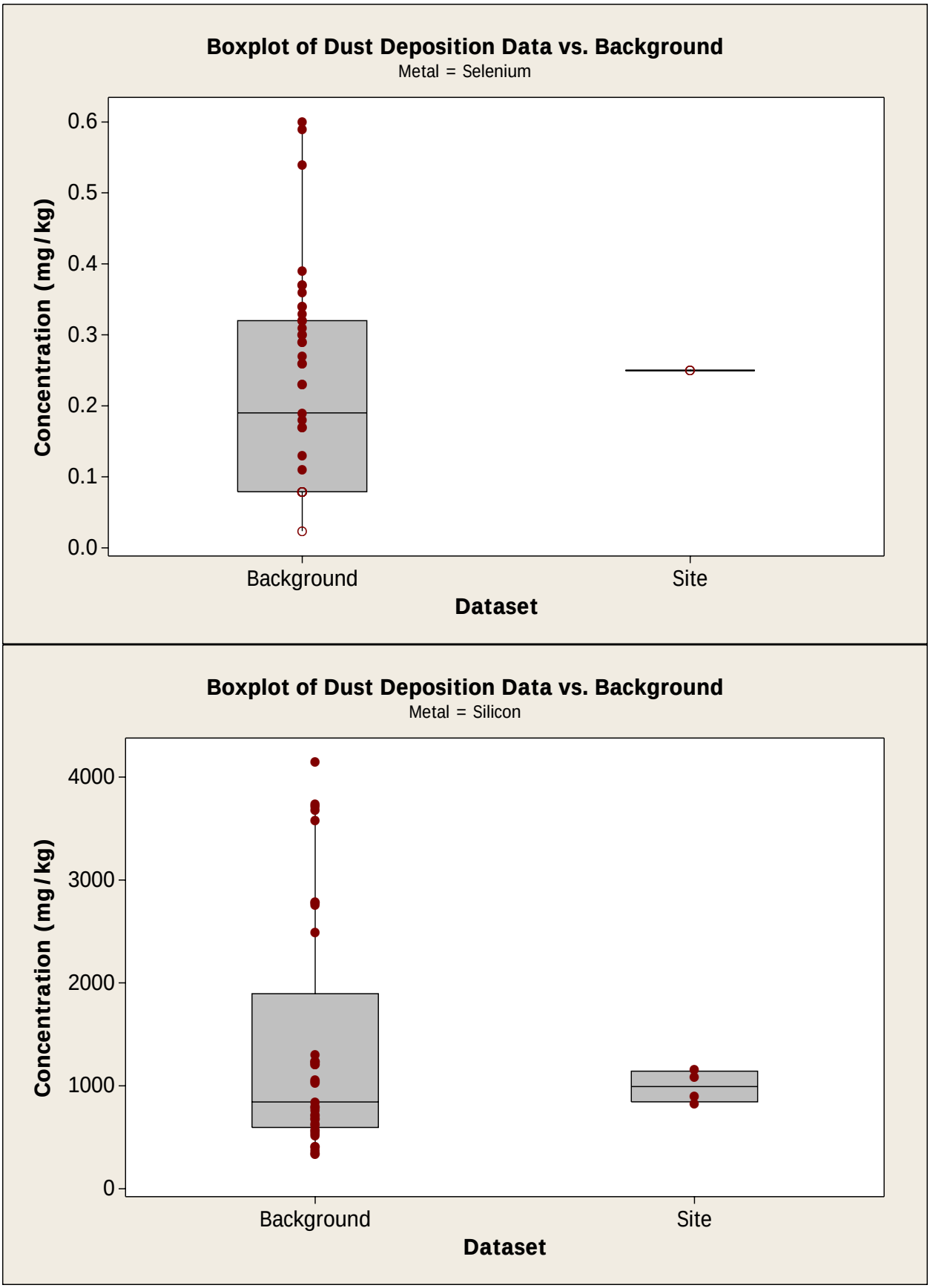

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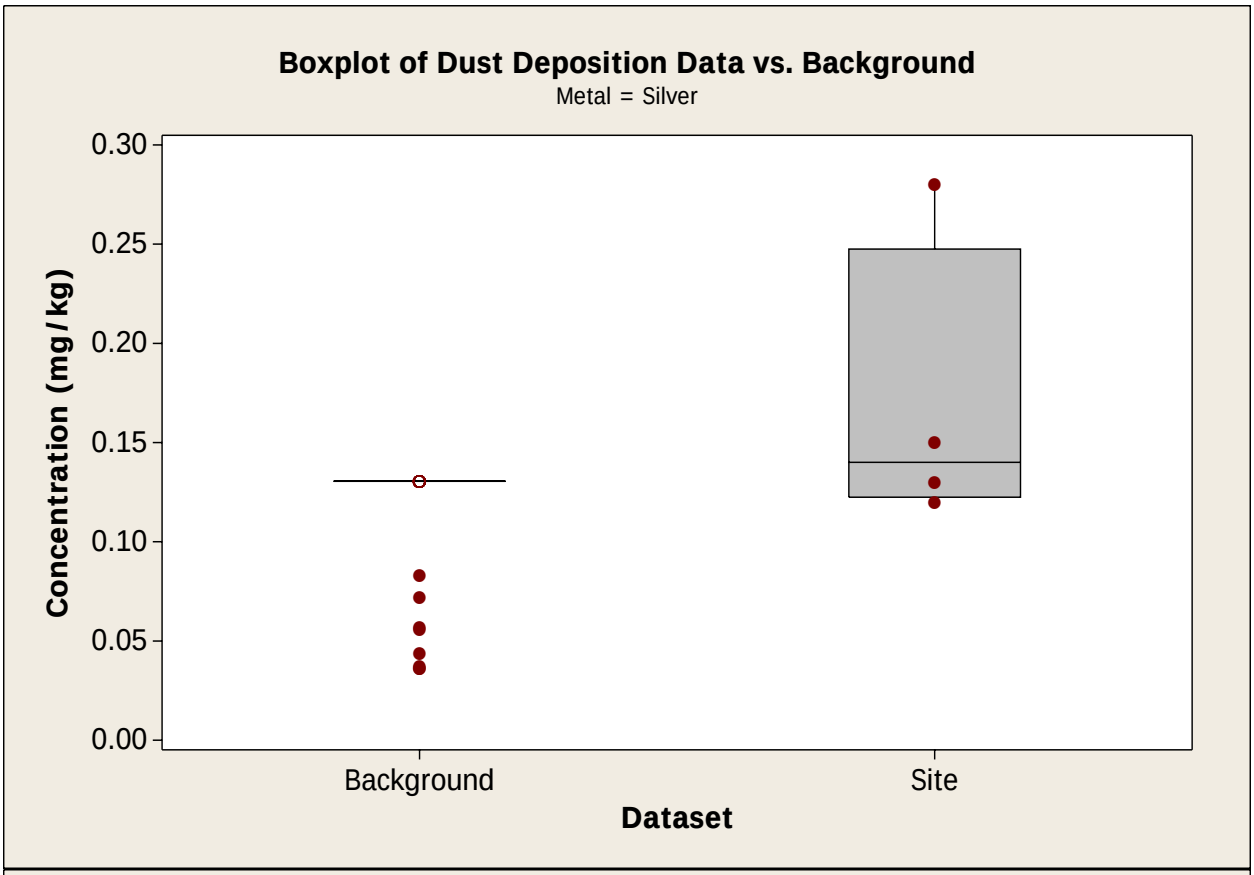

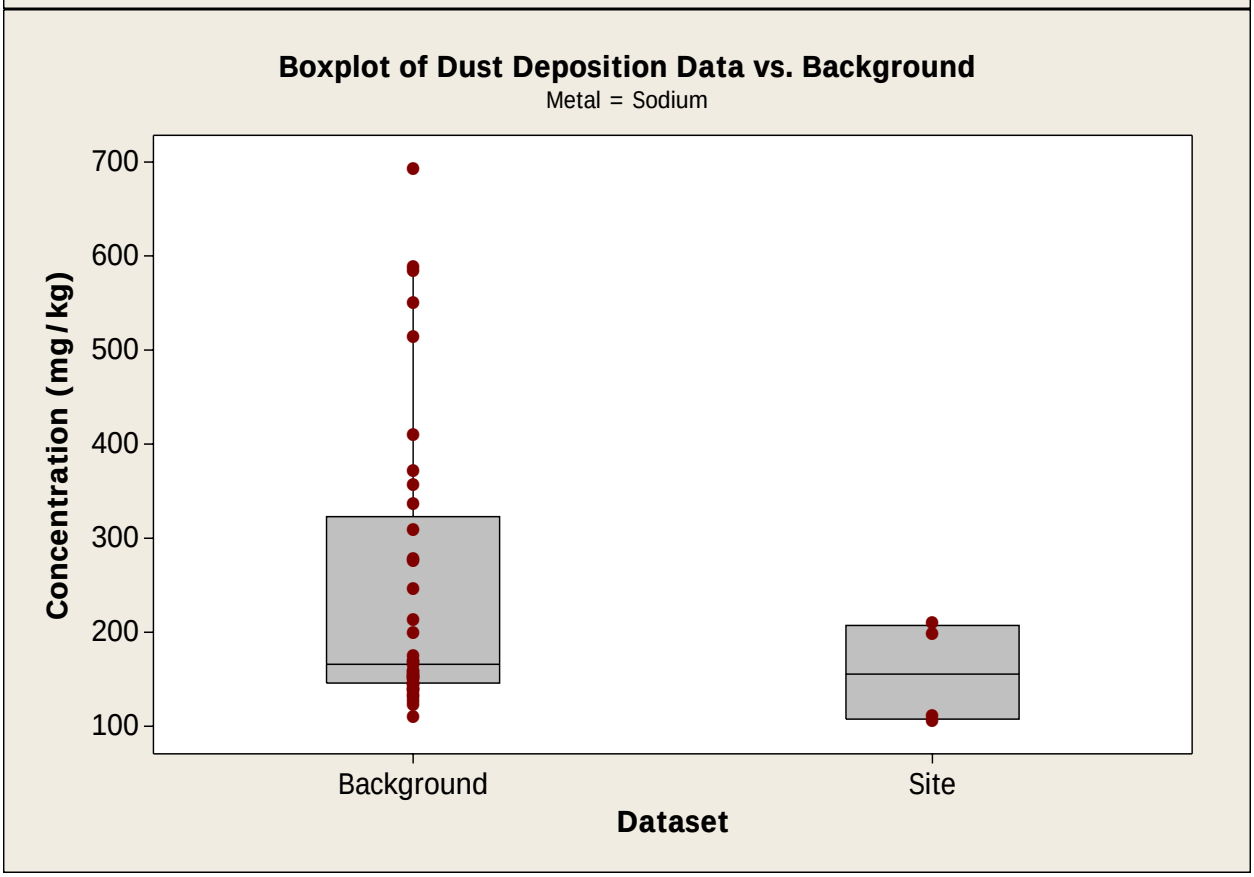

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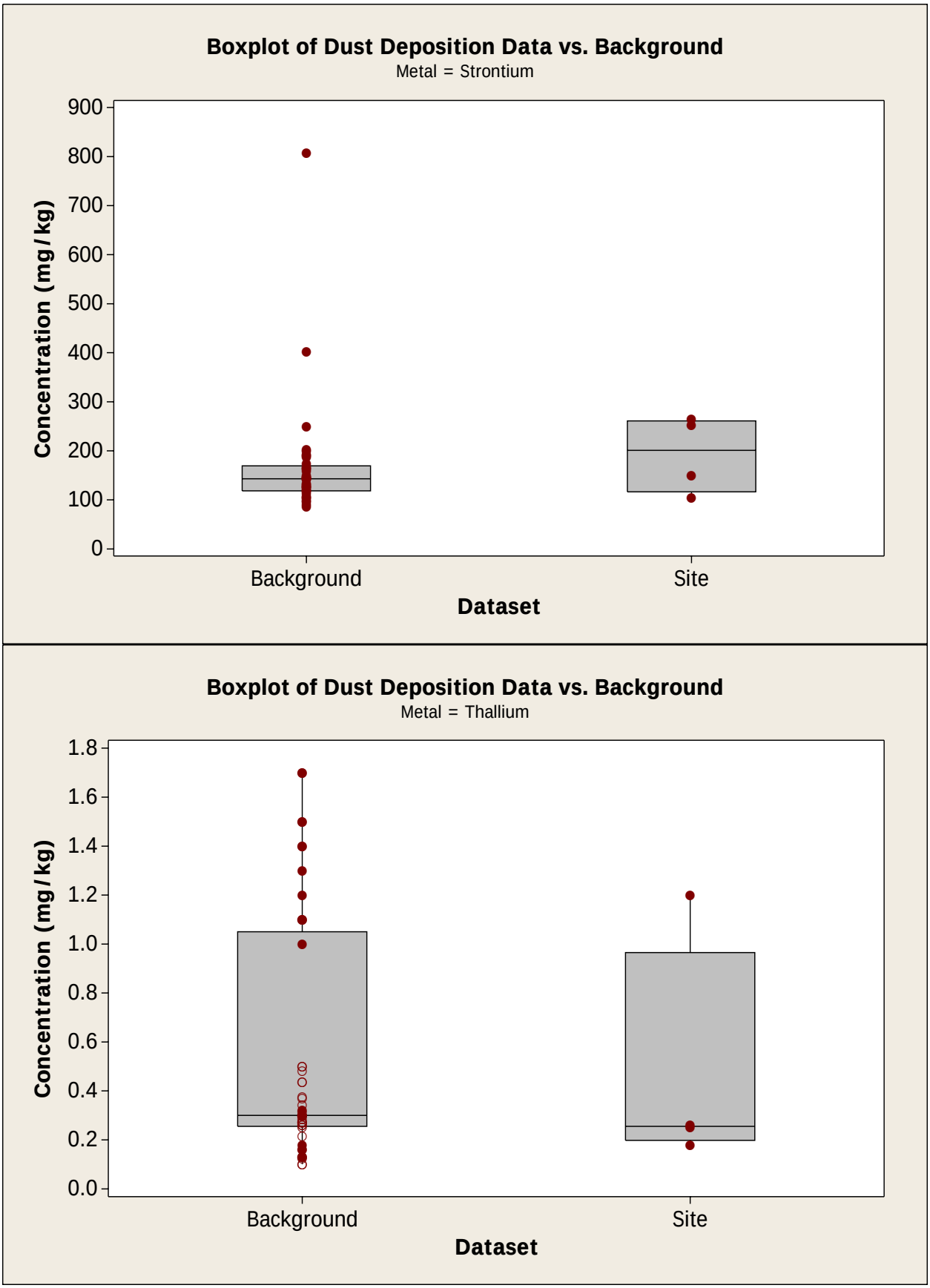

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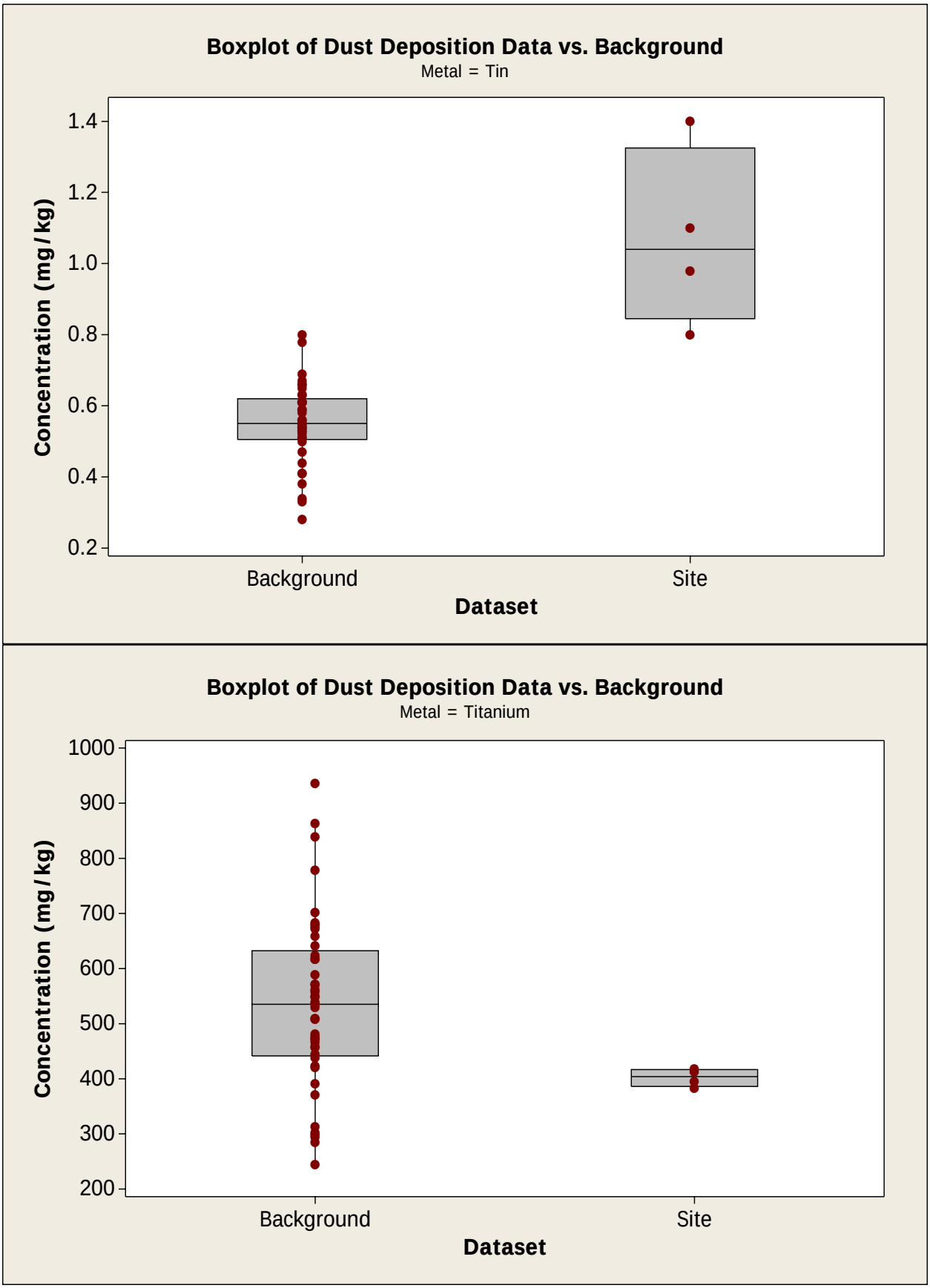

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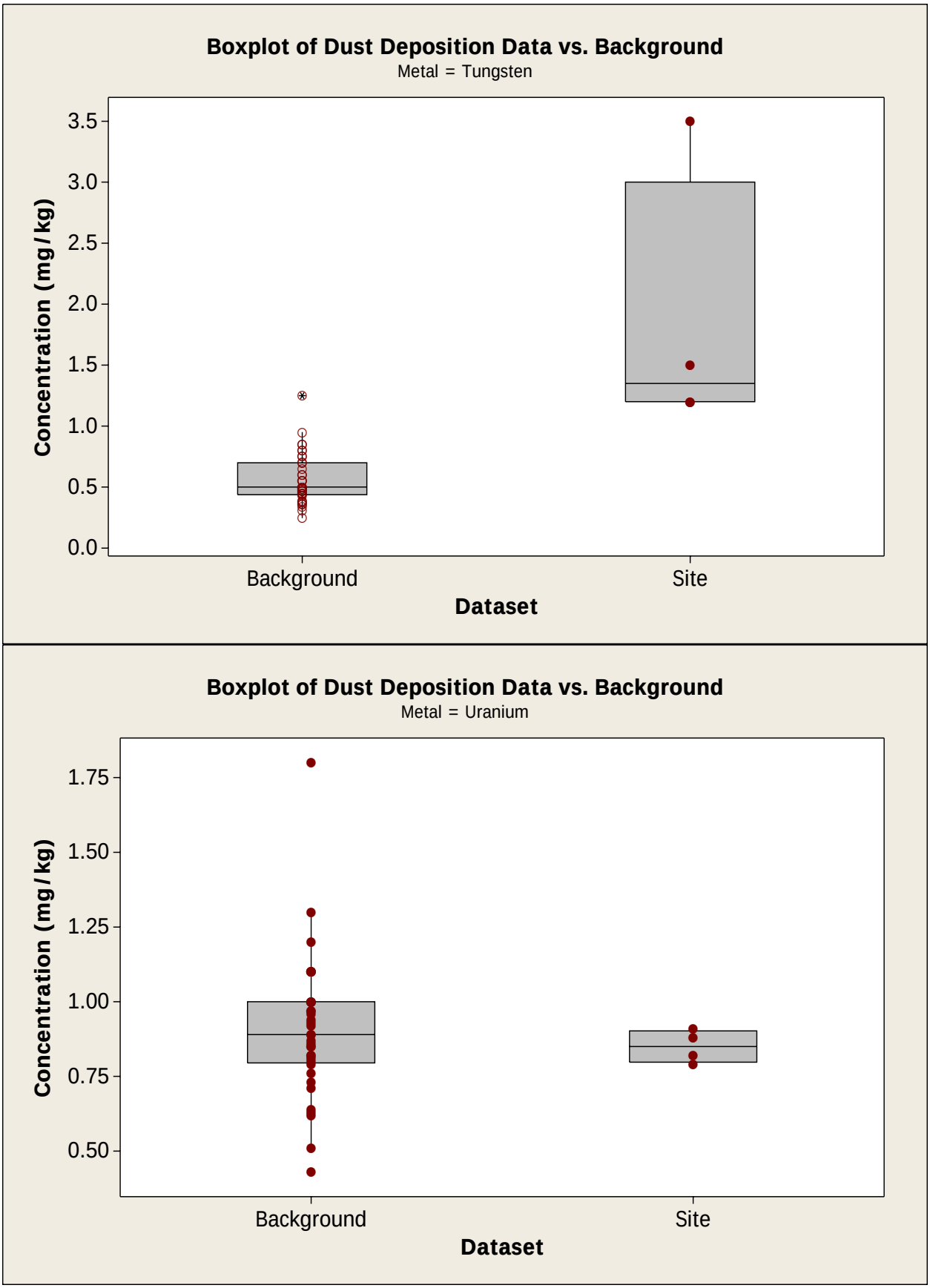

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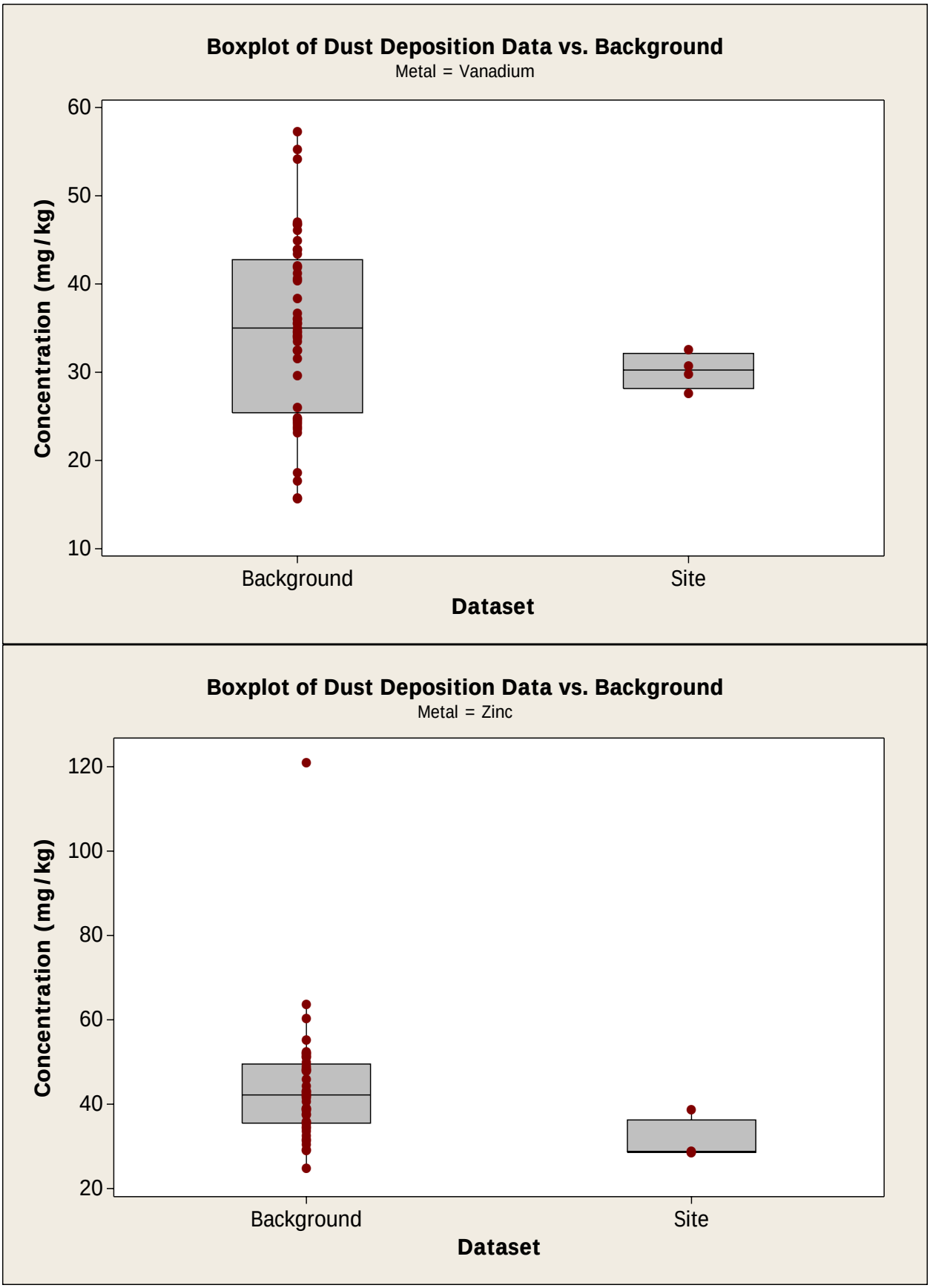

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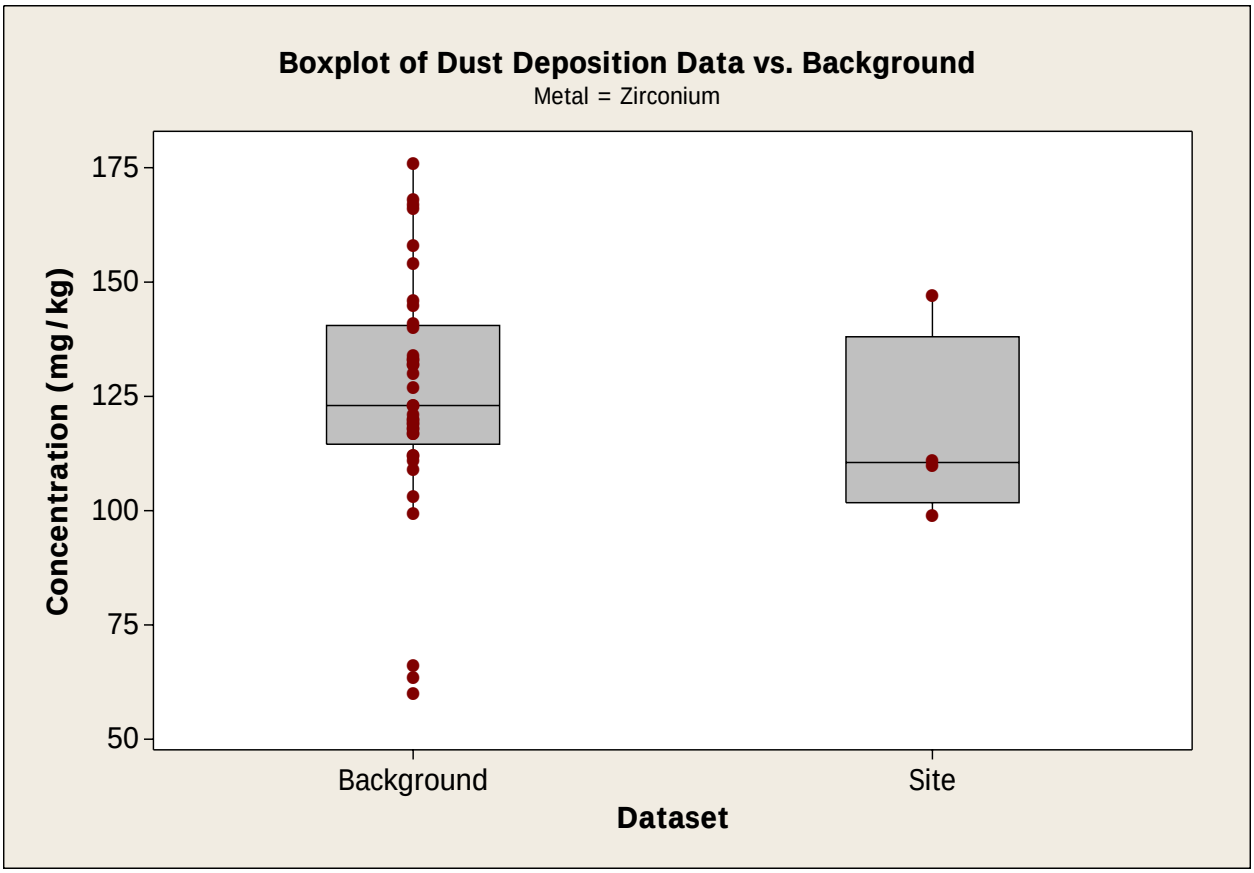

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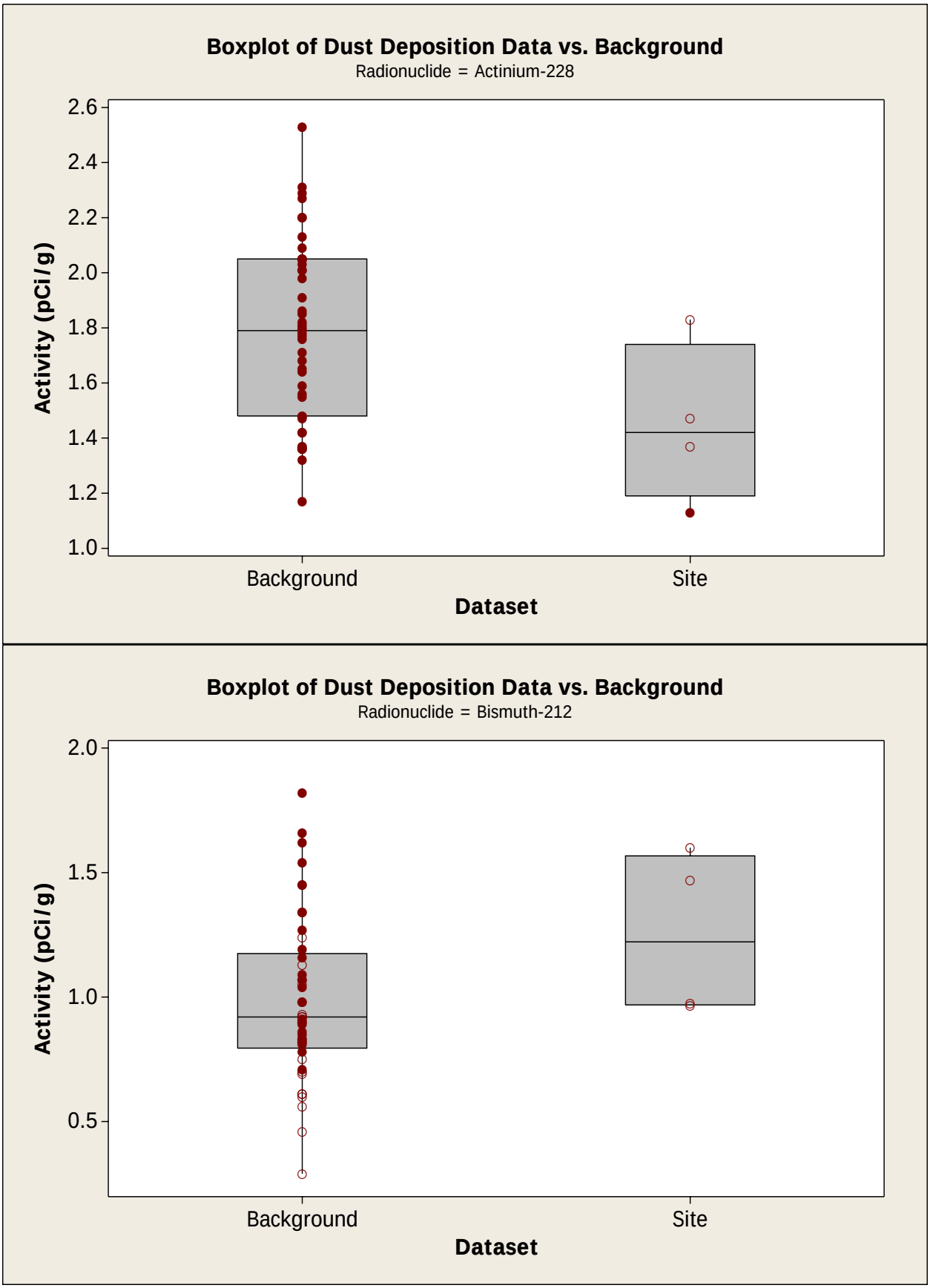

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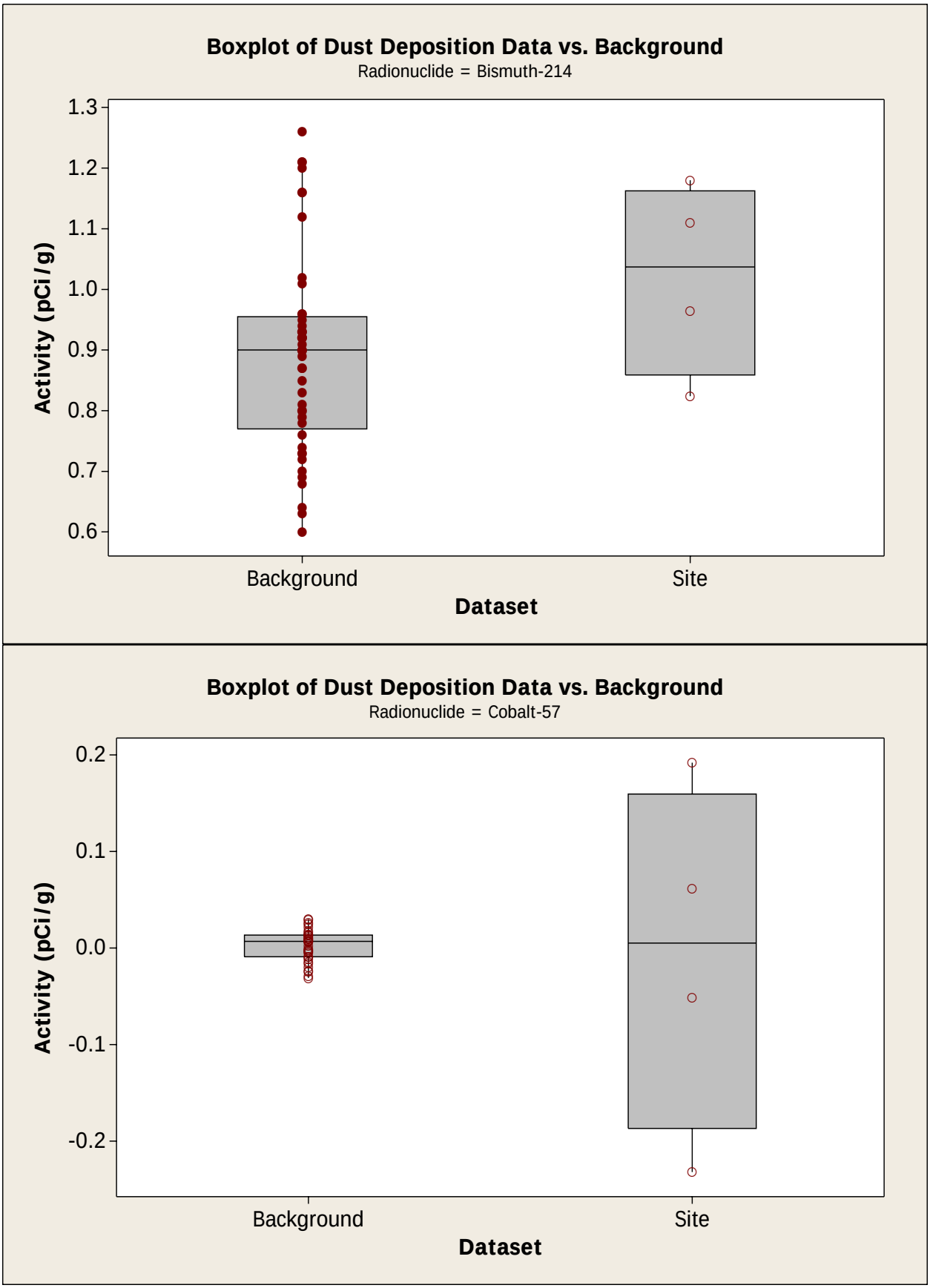
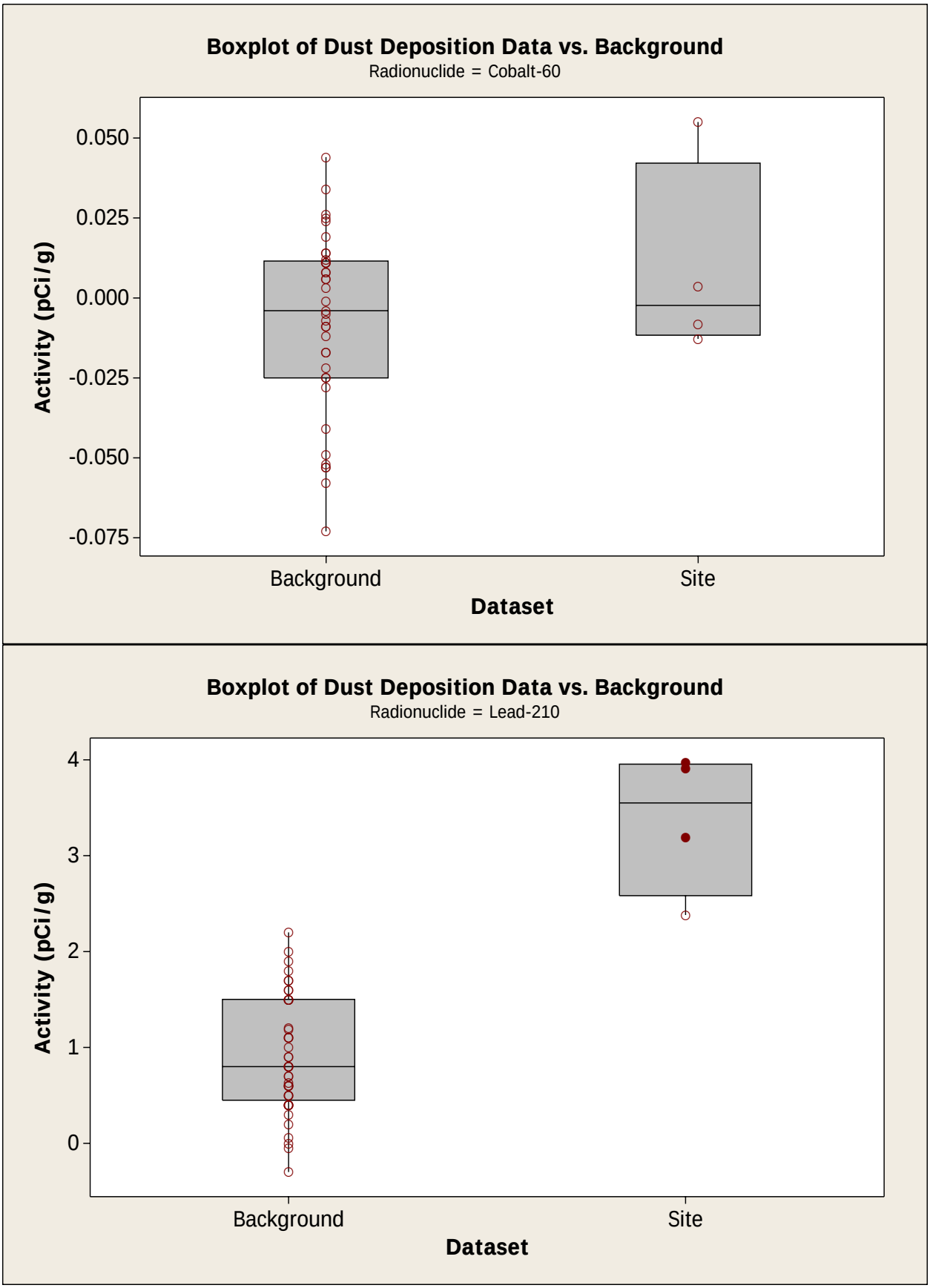
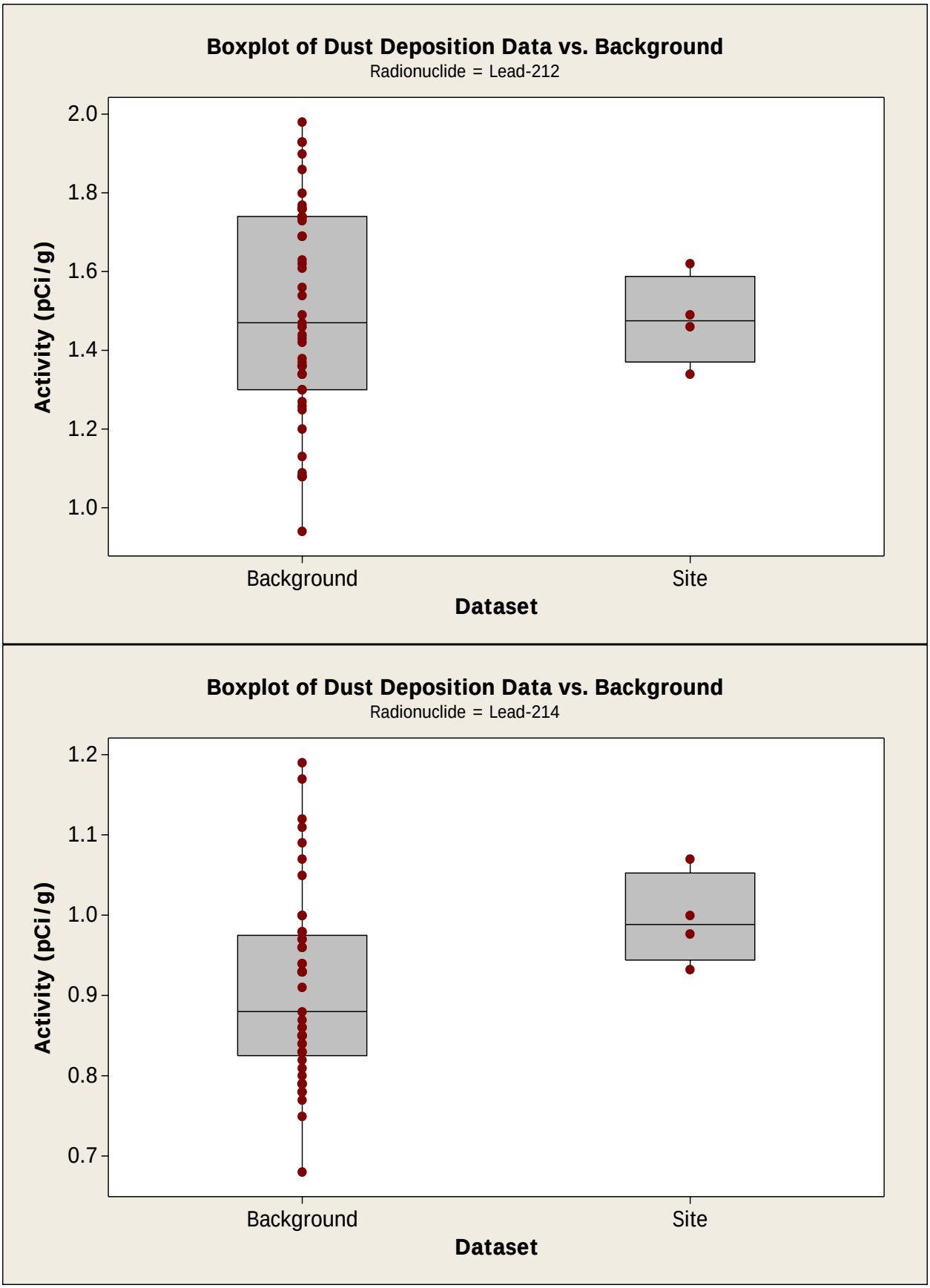


Attachment C-1



Attachment C-1



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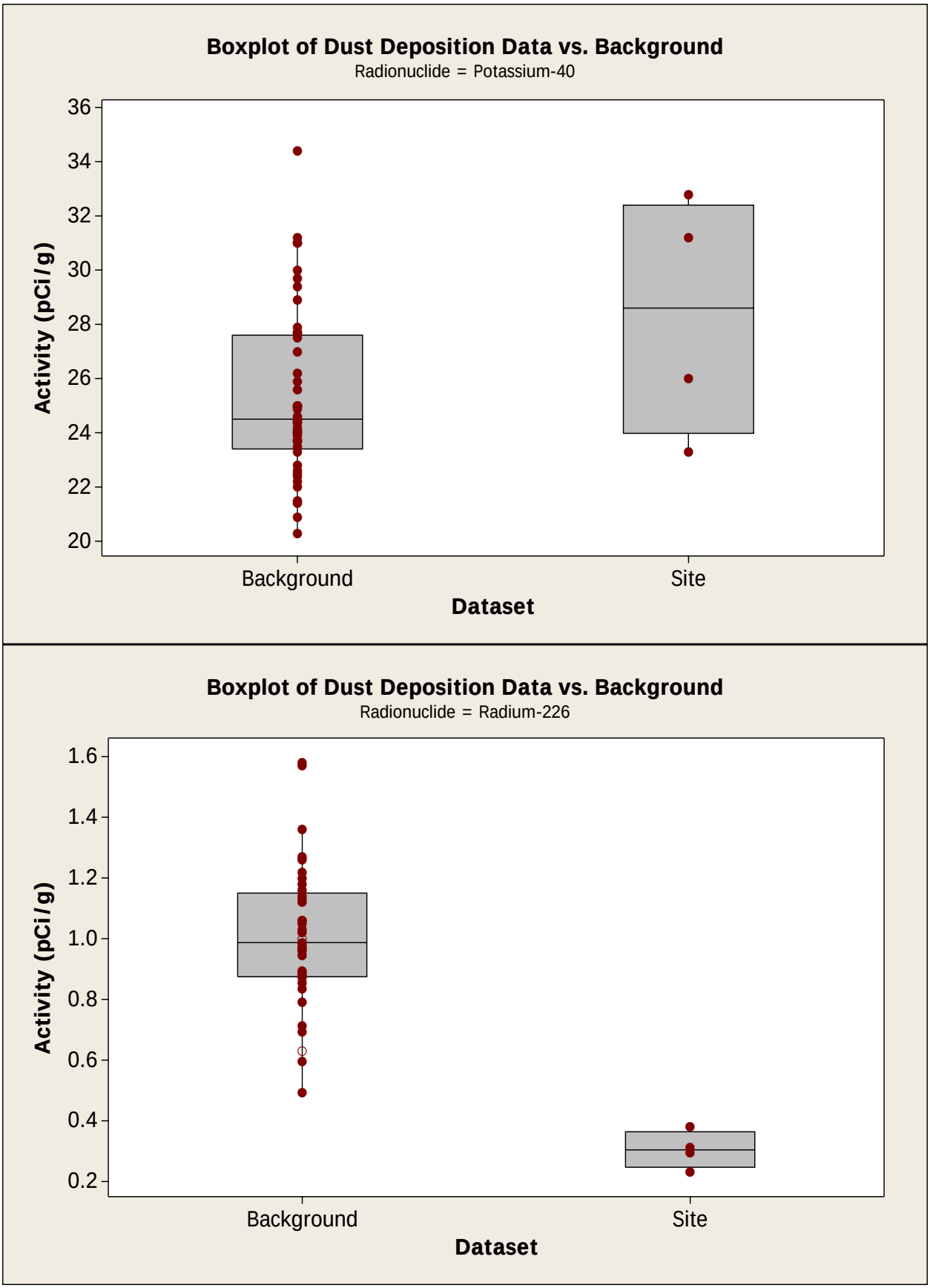

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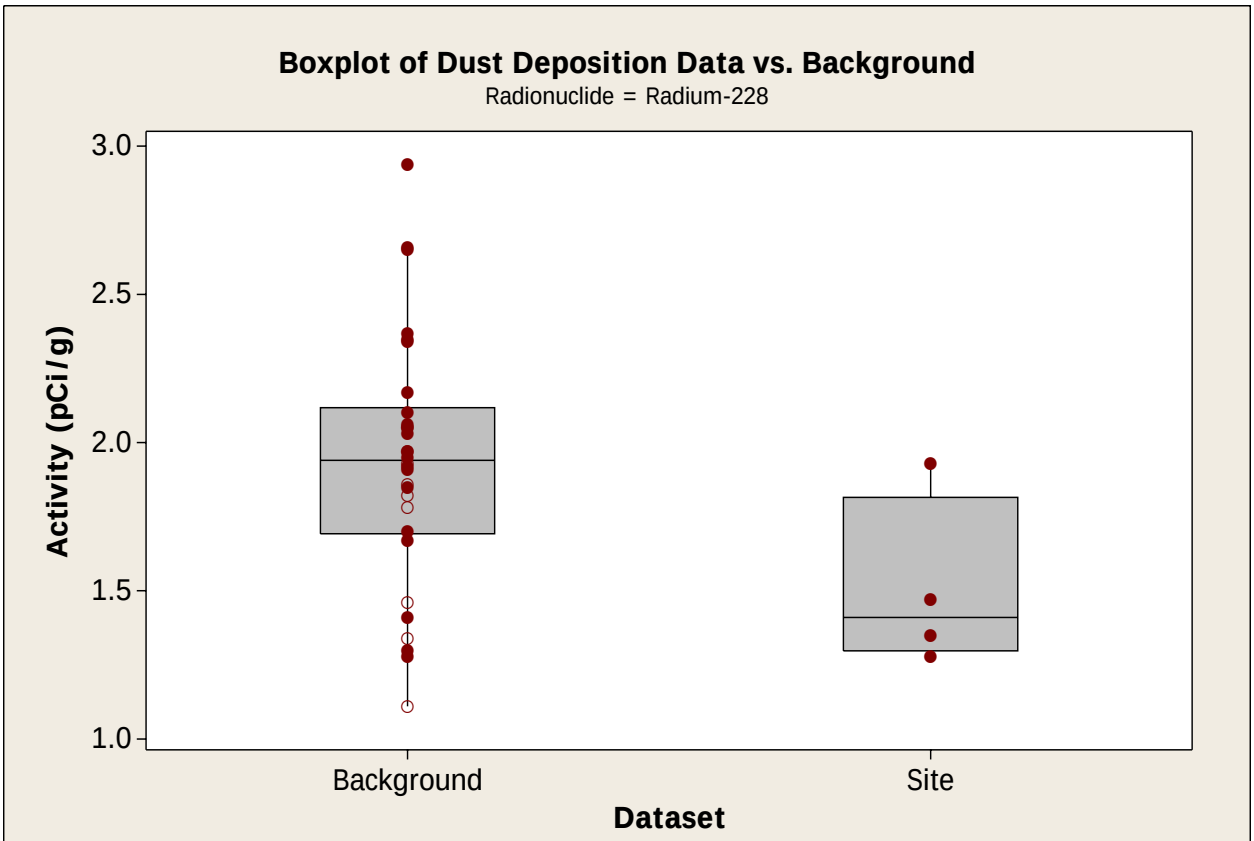

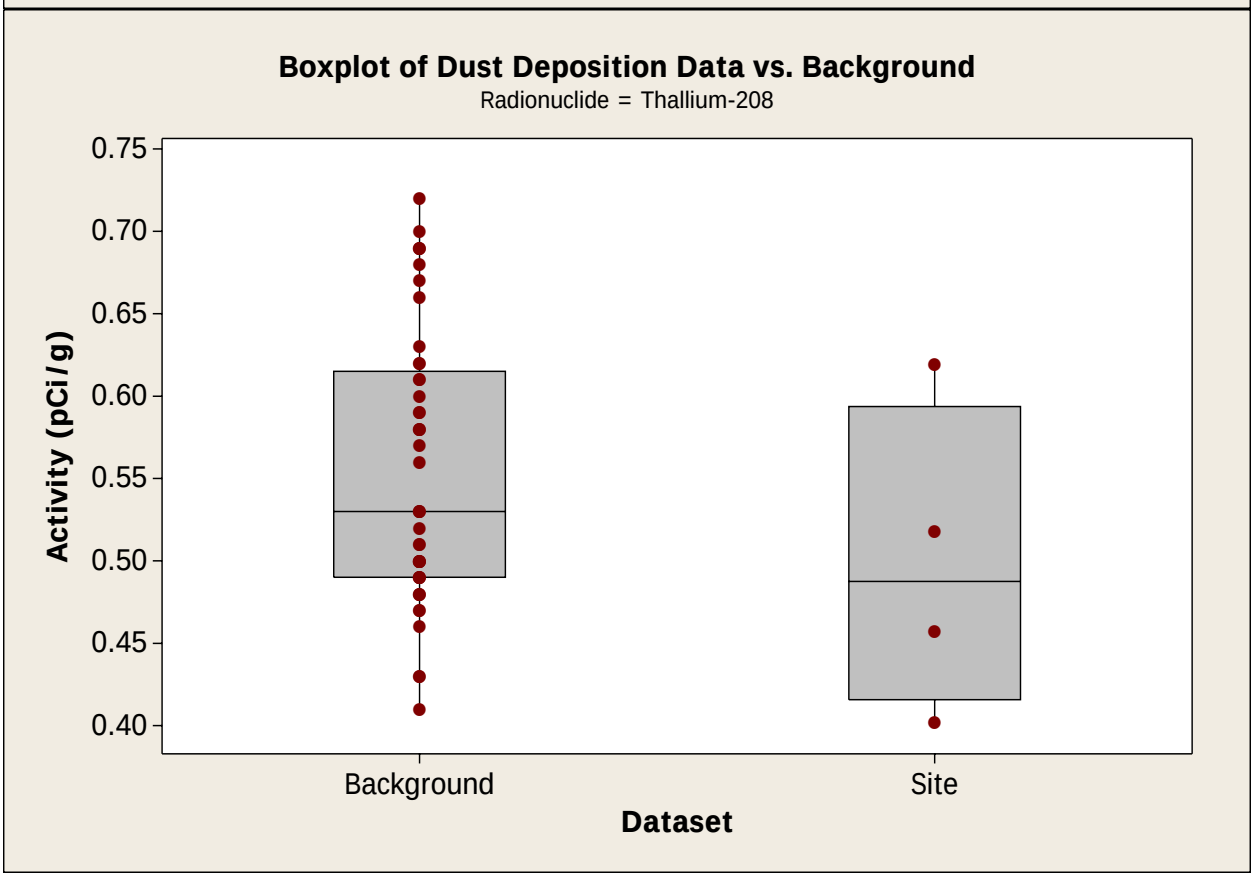

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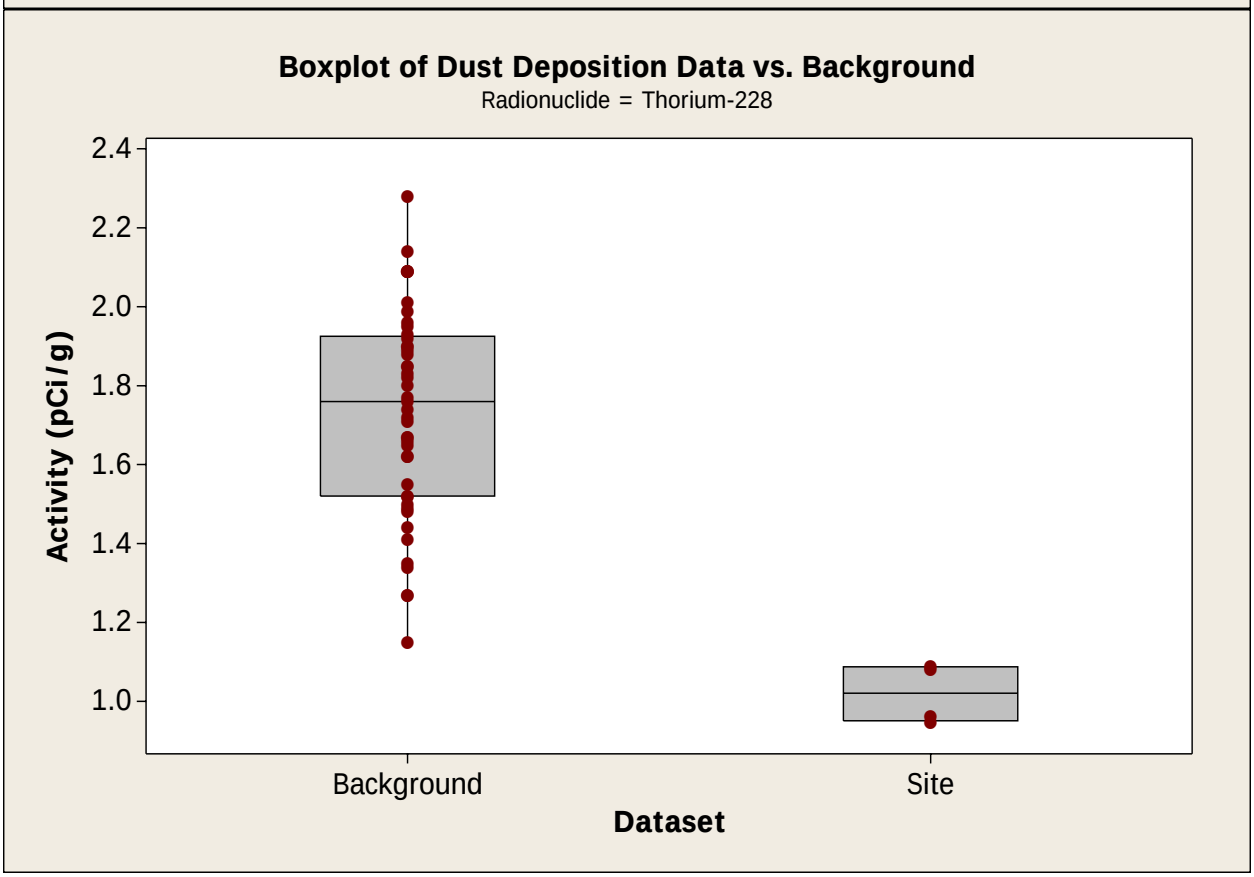

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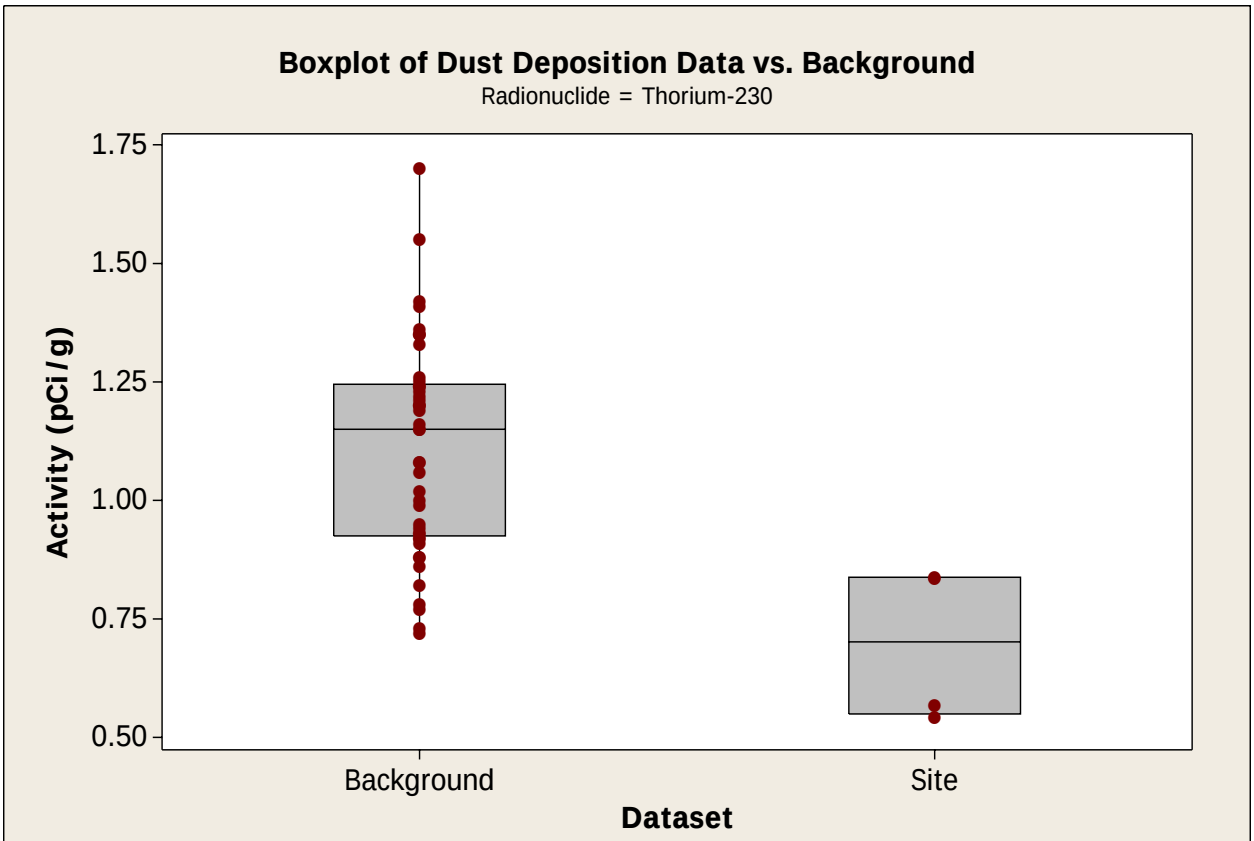

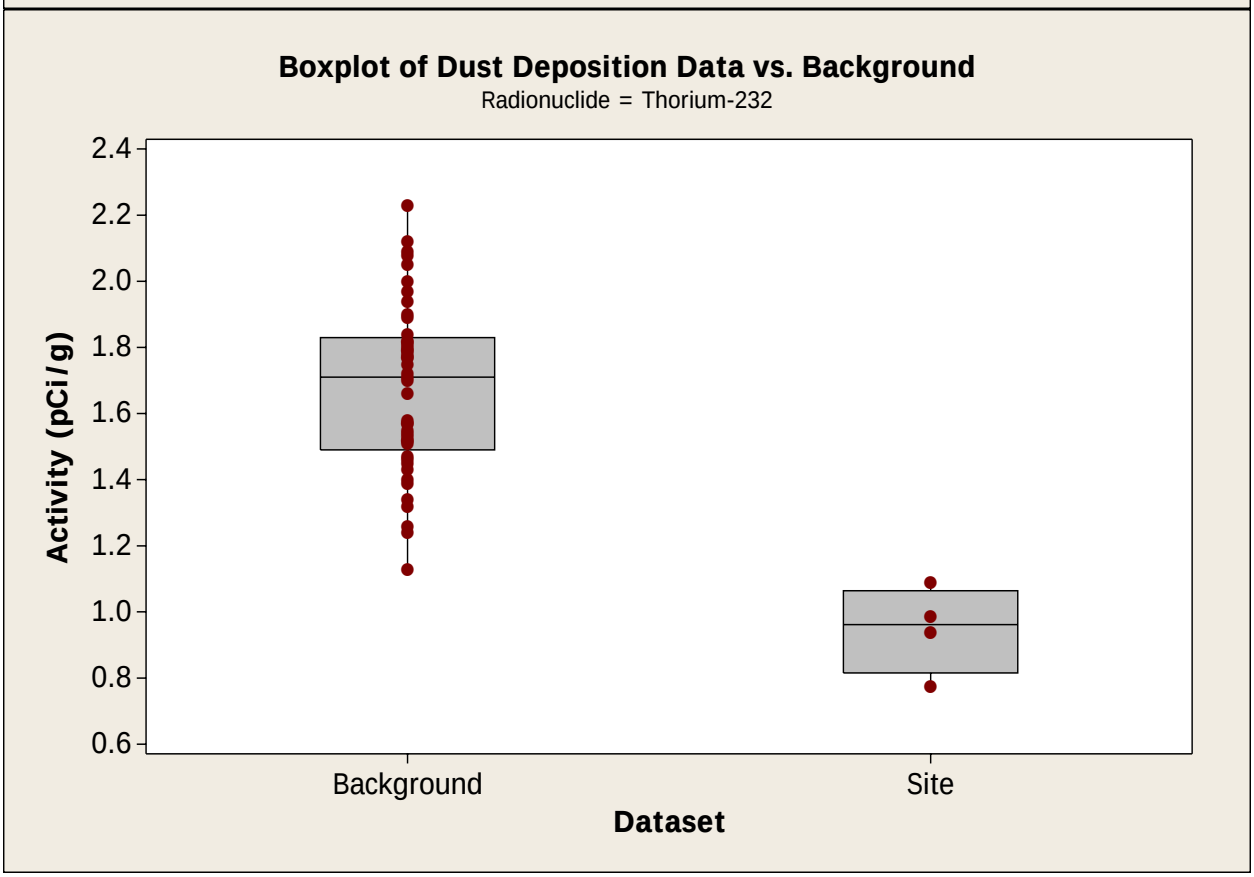

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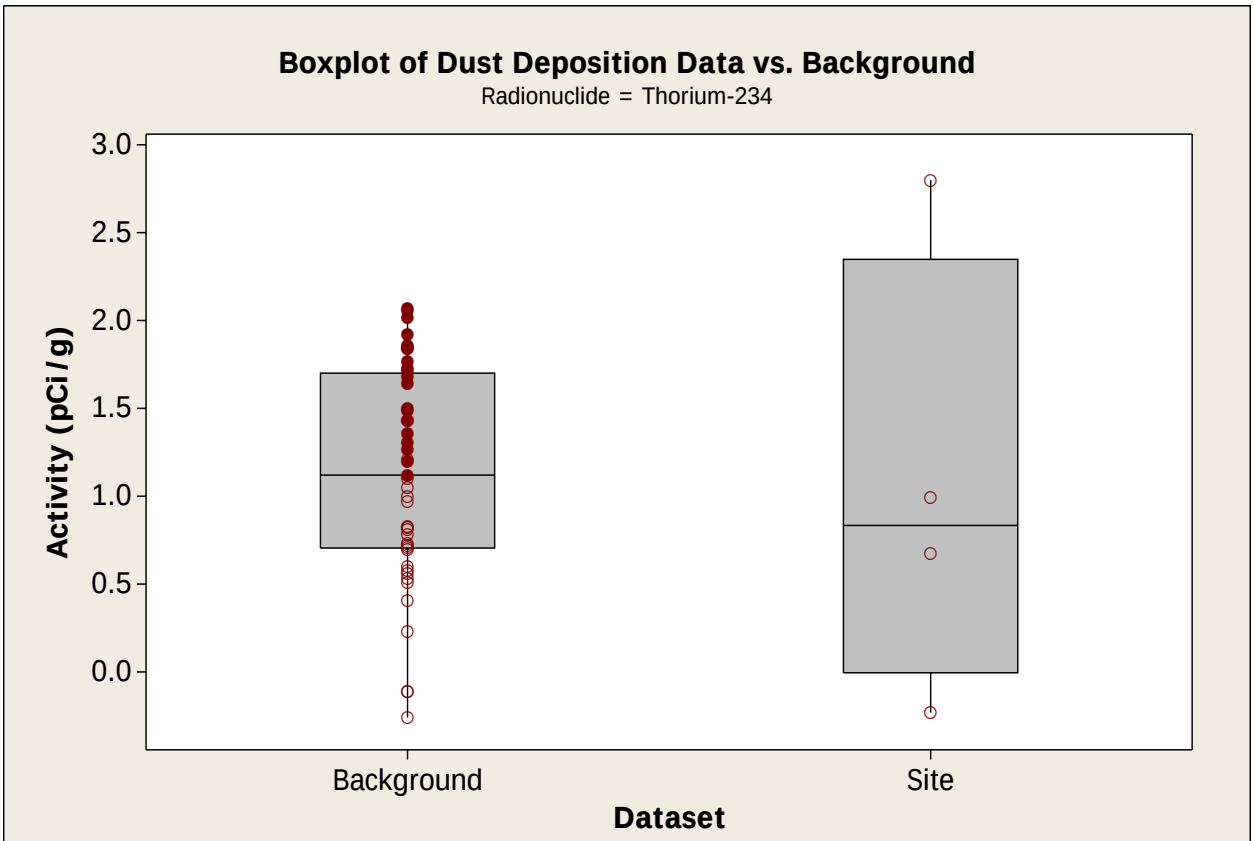
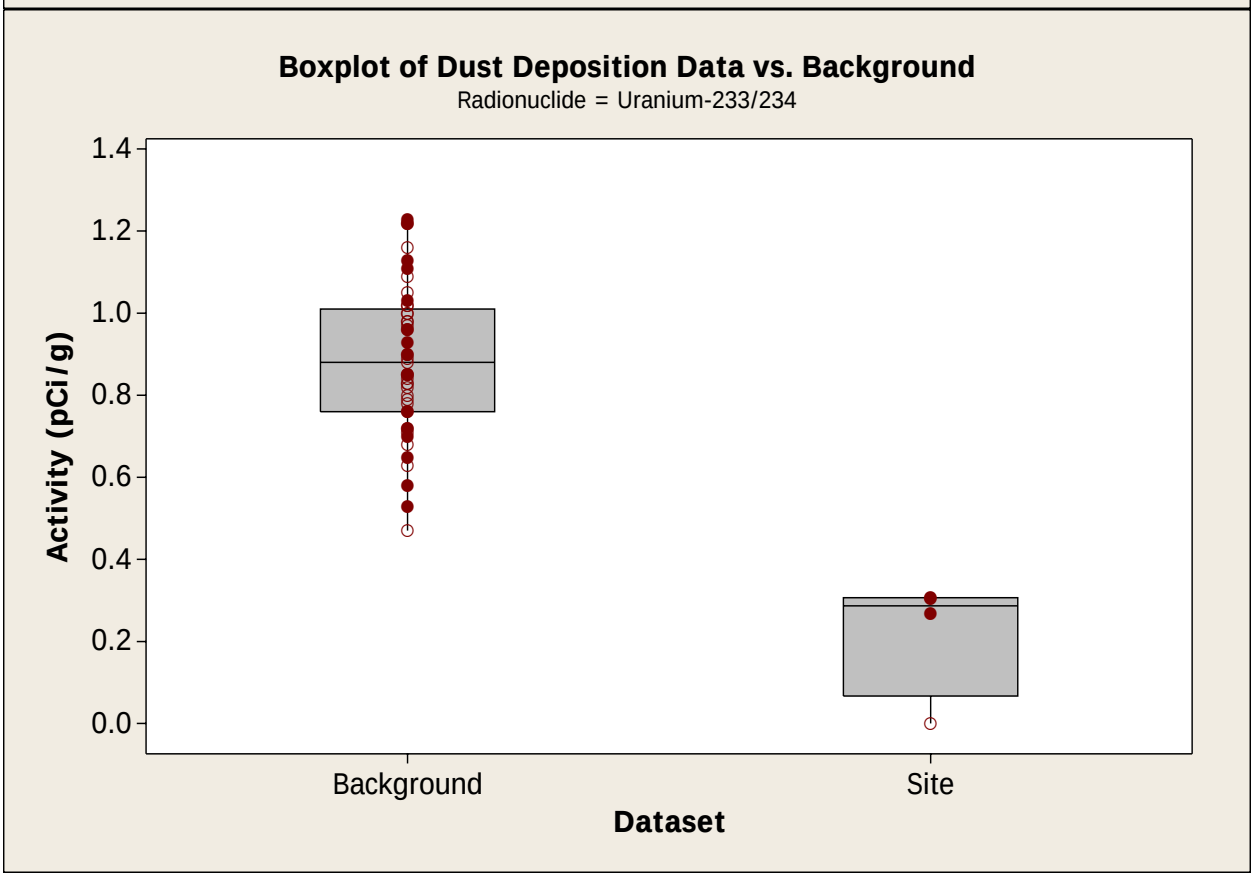
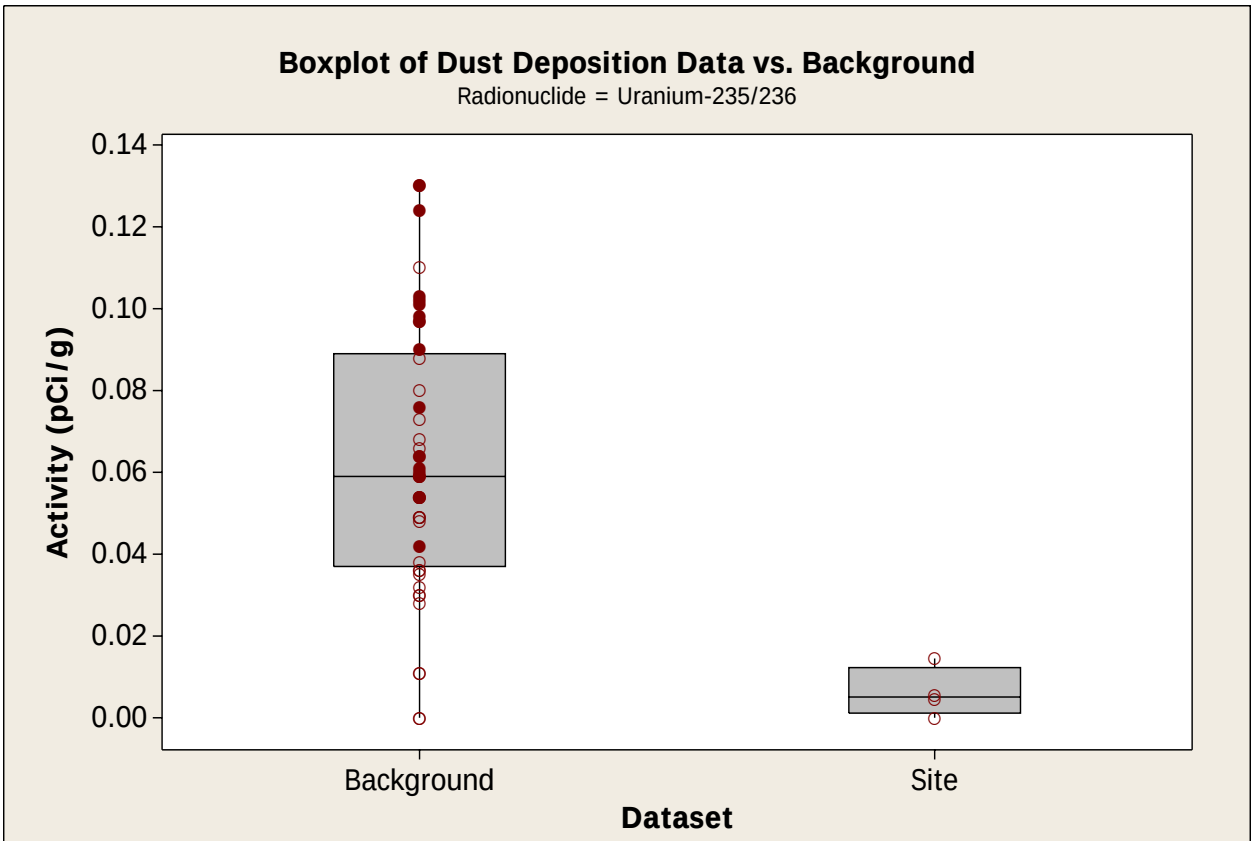
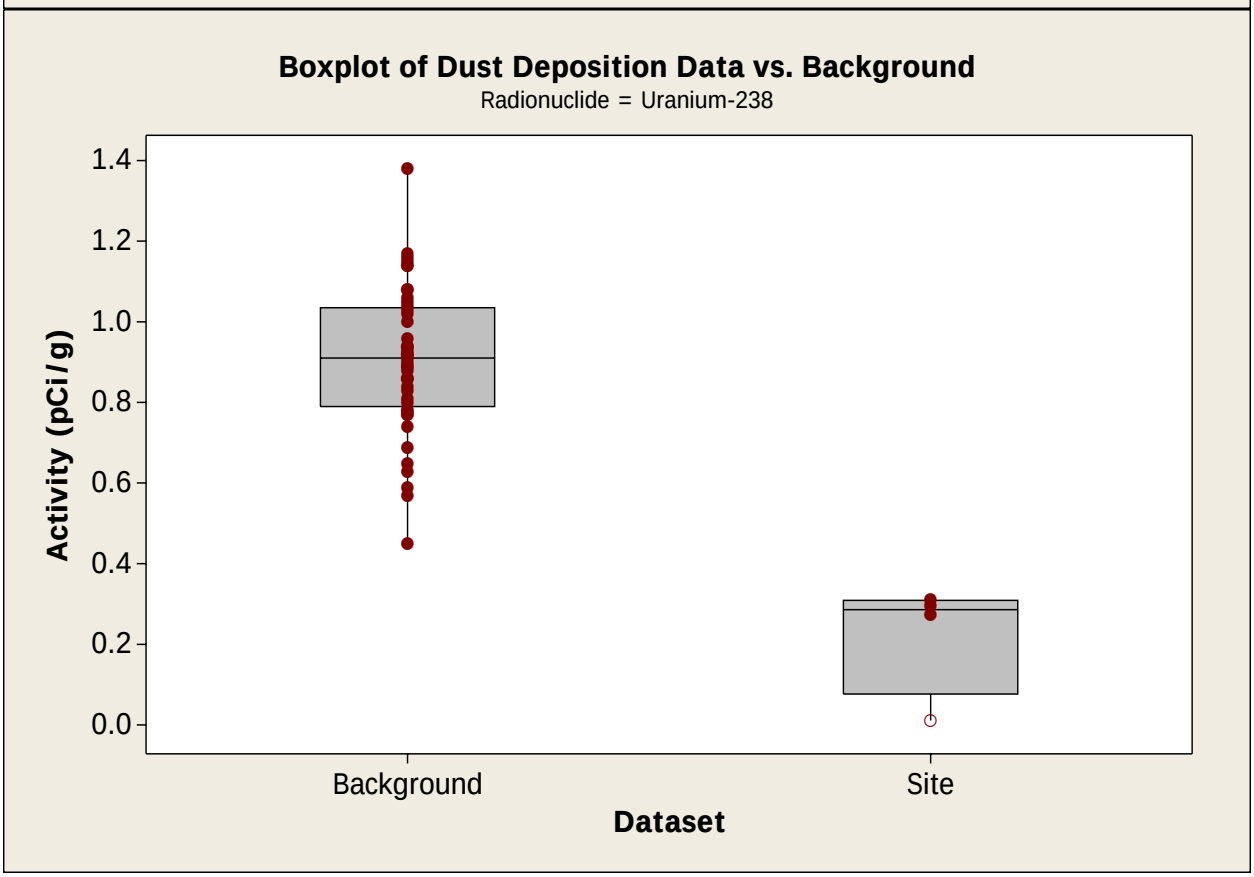


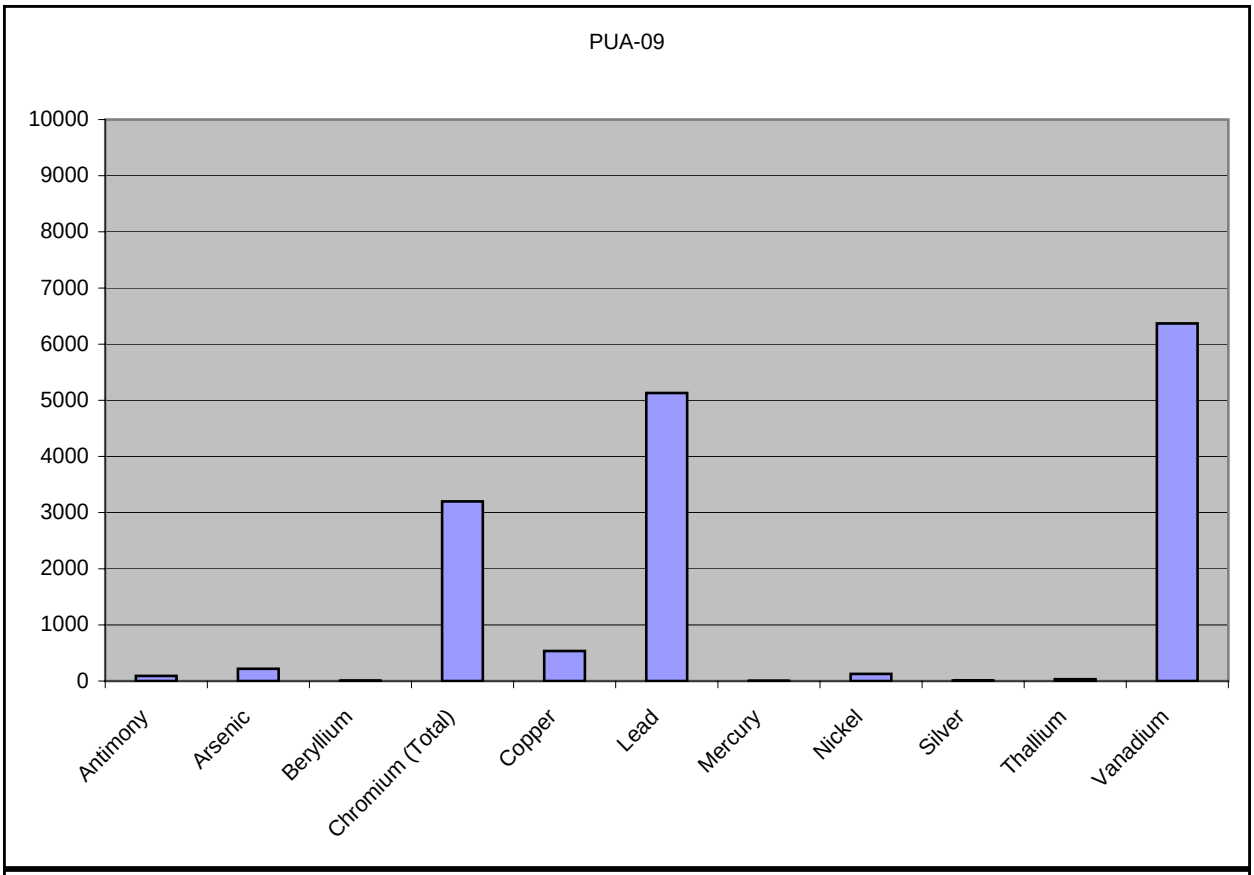


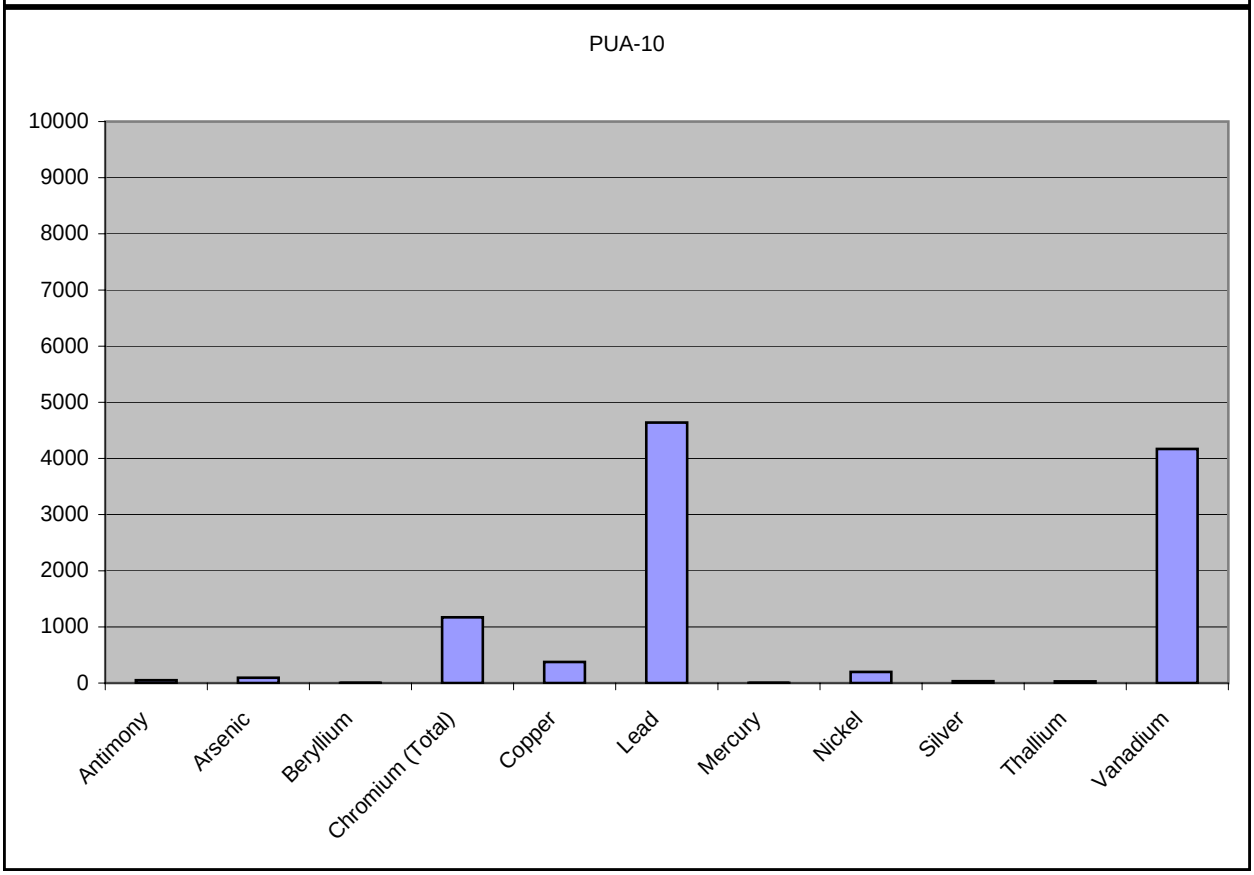
Attachment C-1





Attachment C-2
Bar Charts Comparing Upper Pond Data with Dust Depostion Data - Metals





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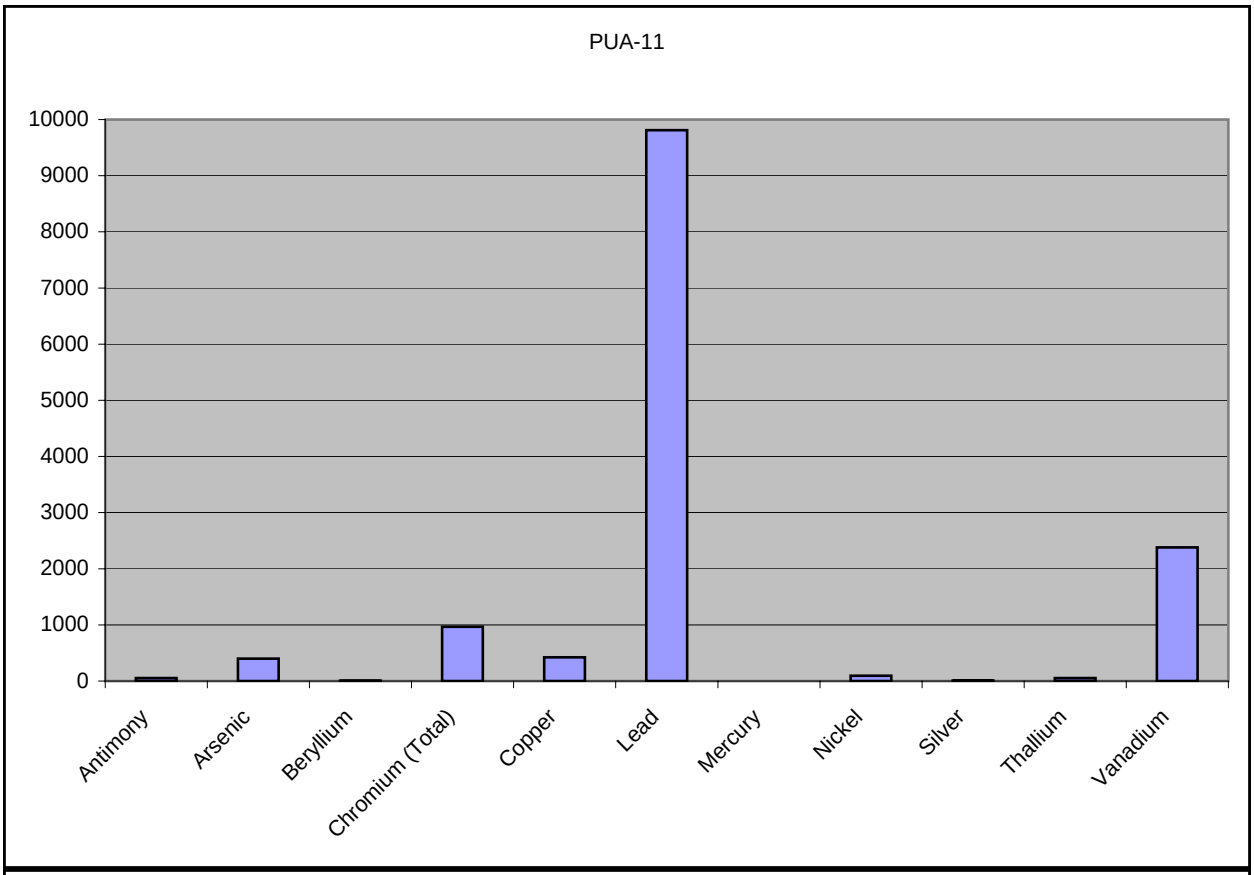
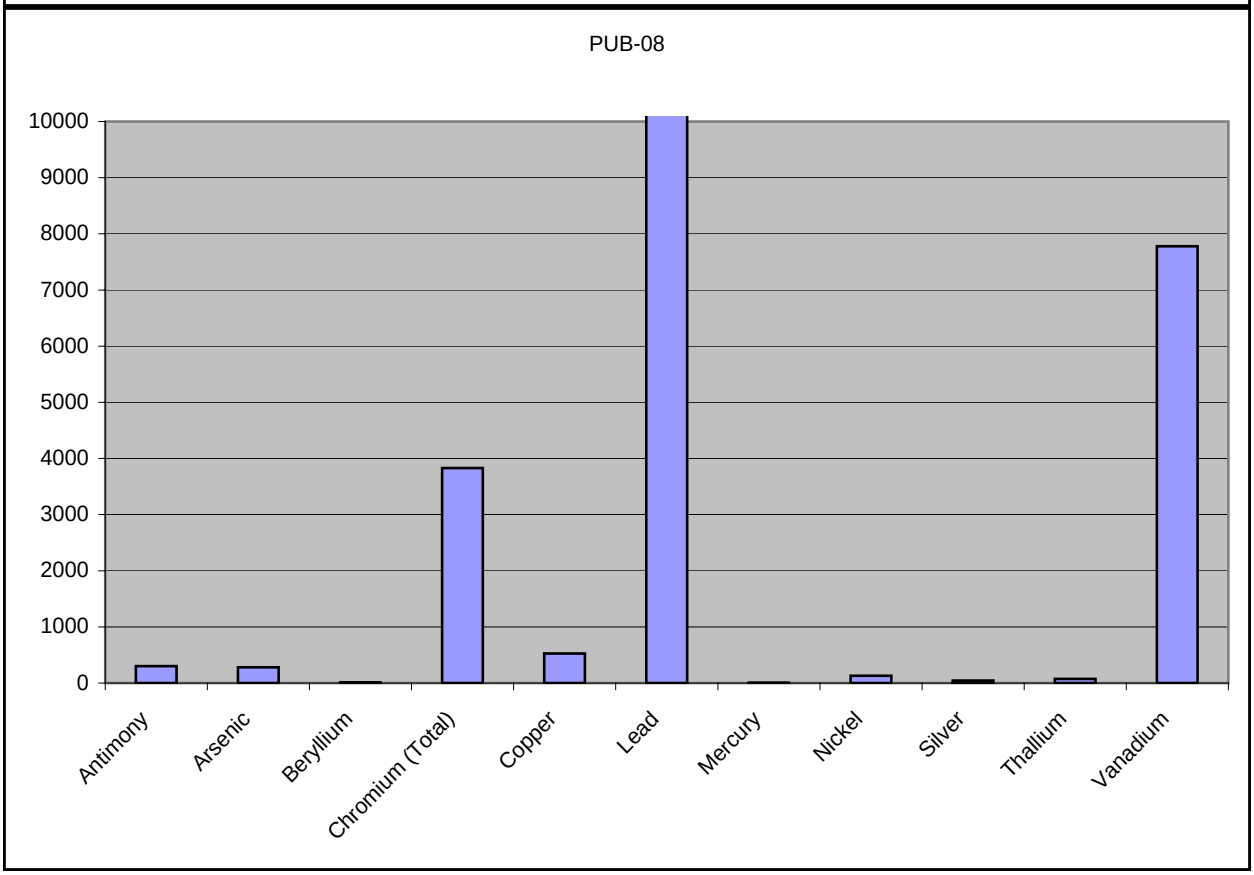
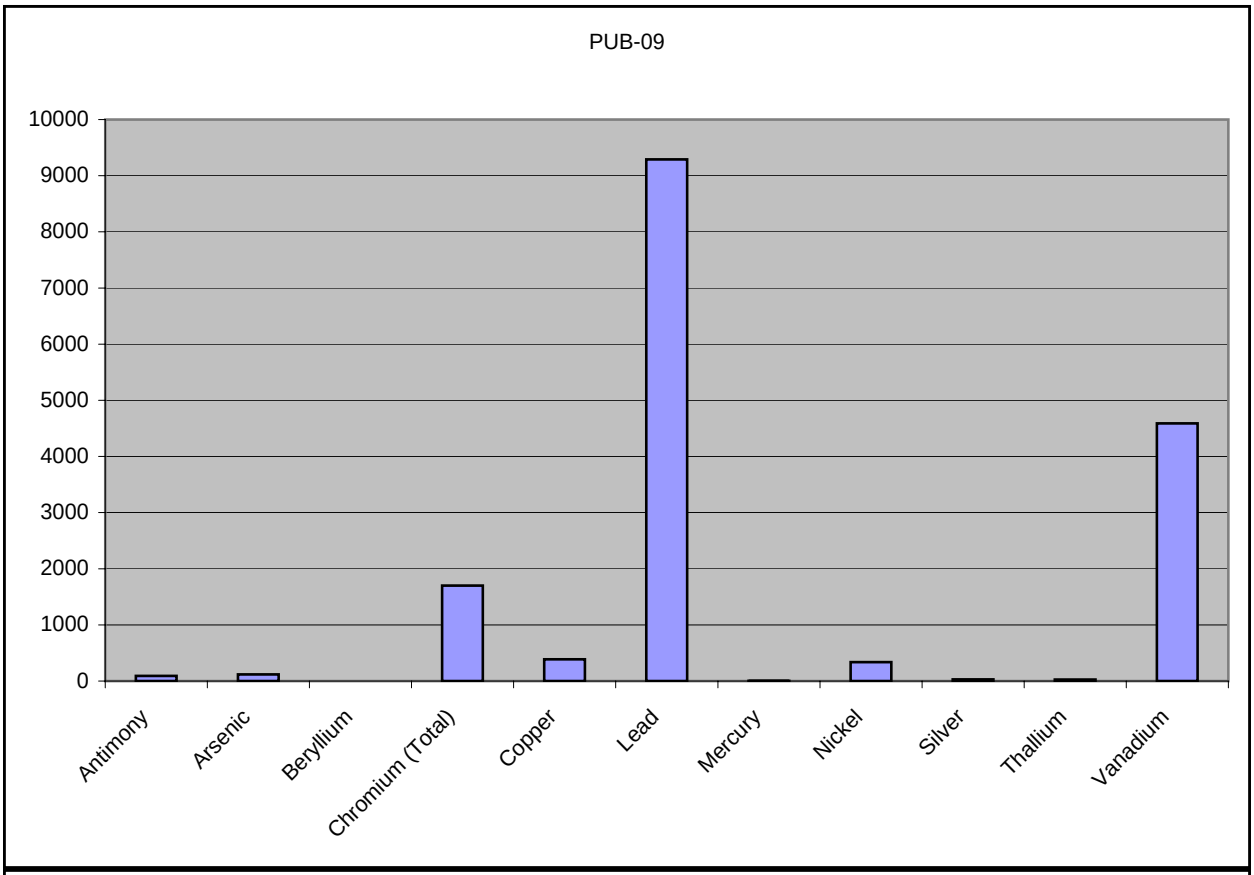
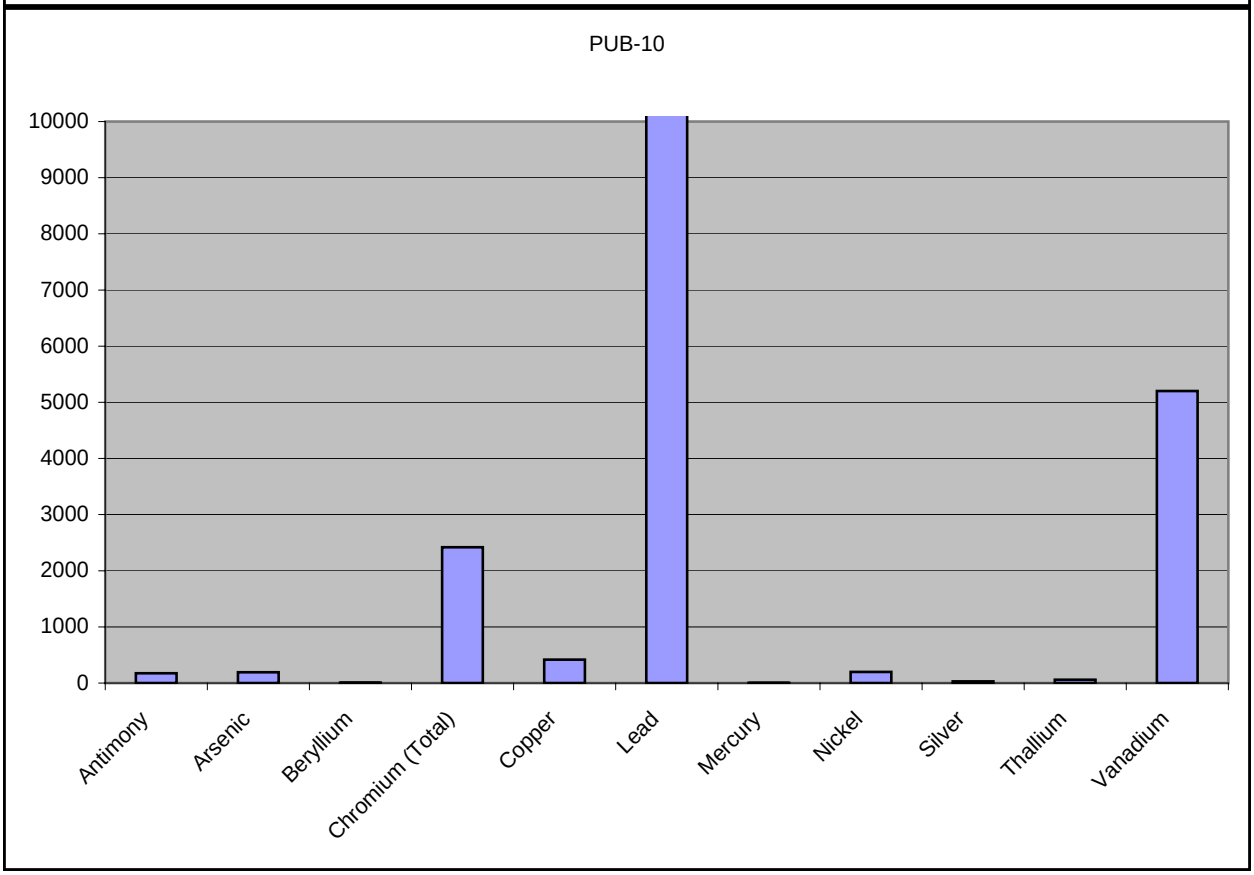
Bar Charts Comparing Upper Pond Data with Dust Depostion Data - Metals



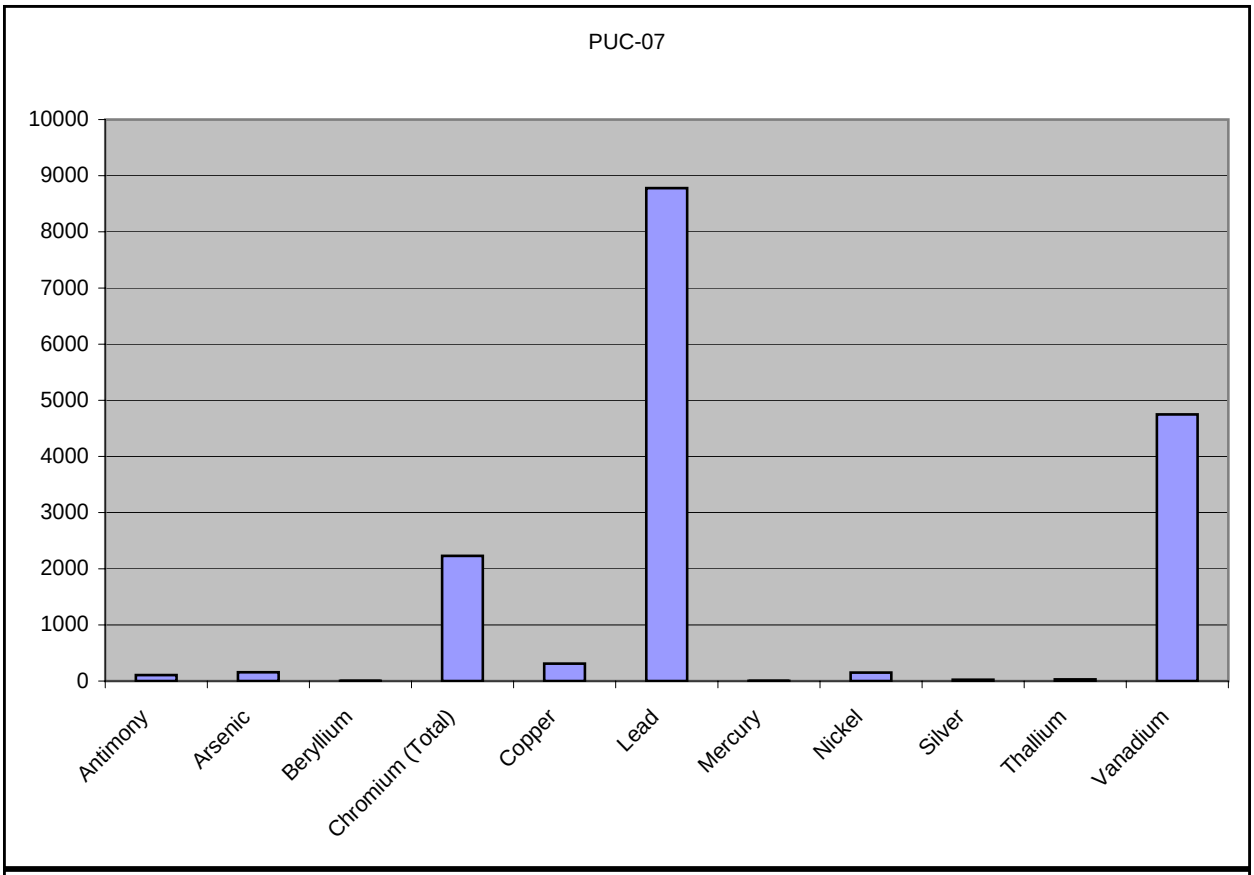


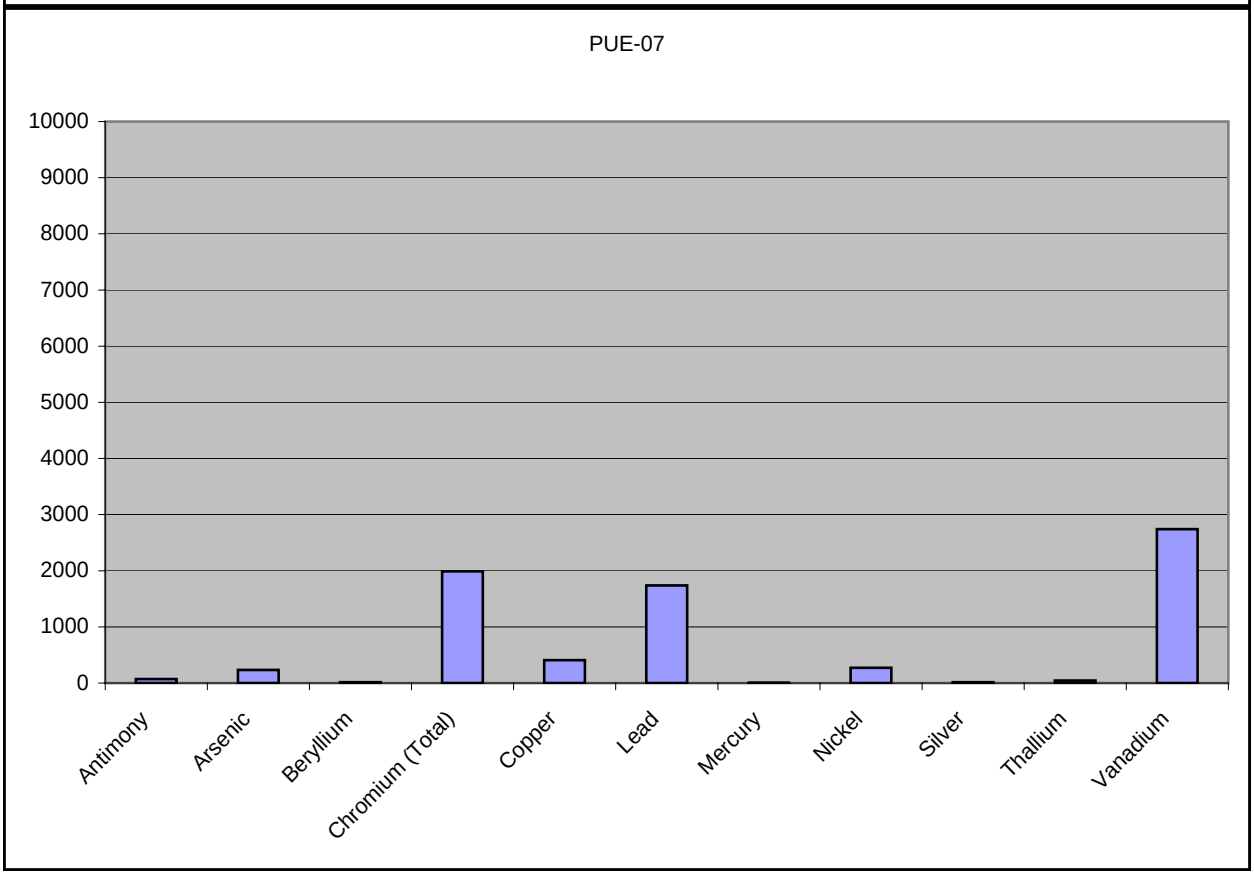
Attachment C-2
Bar Charts Comparing Upper Pond Data with Dust Depostion Data - Metals



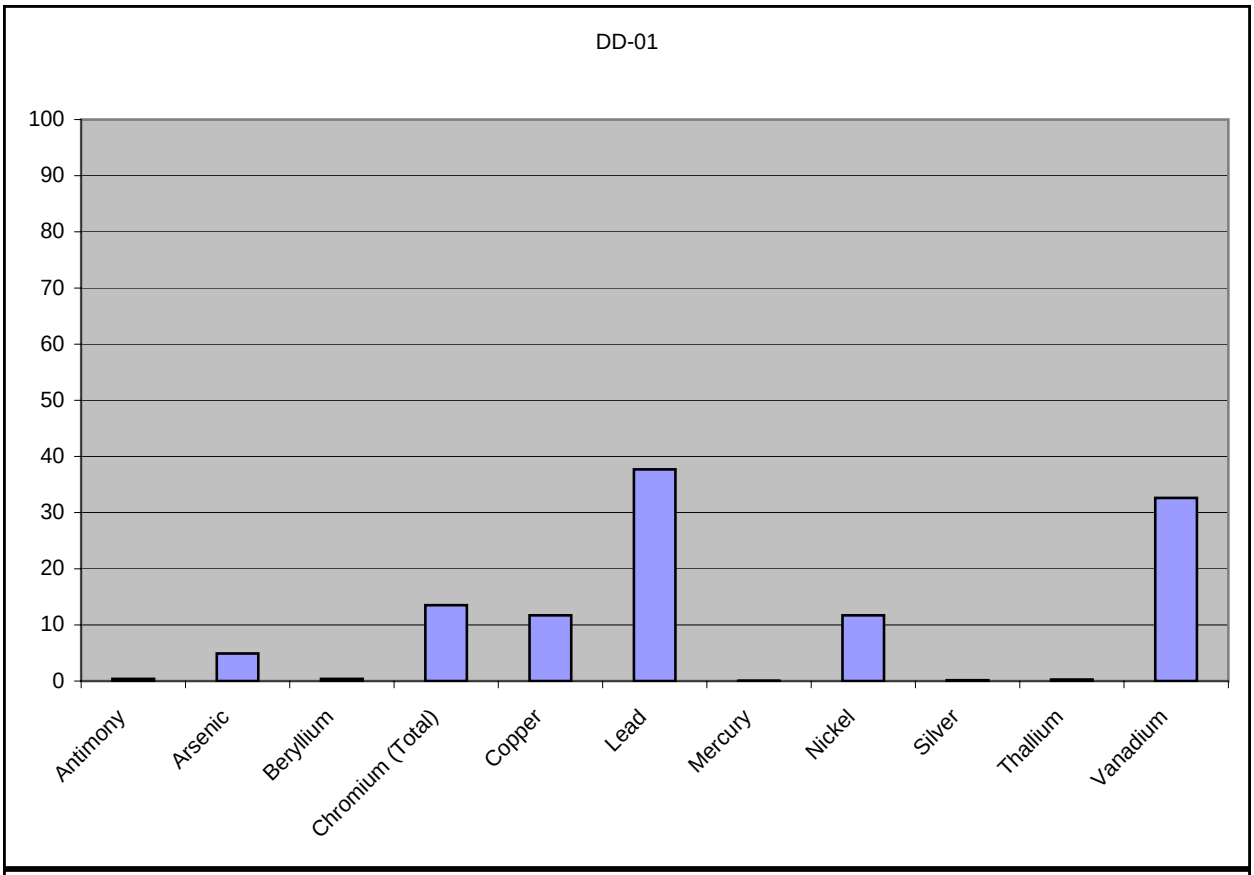


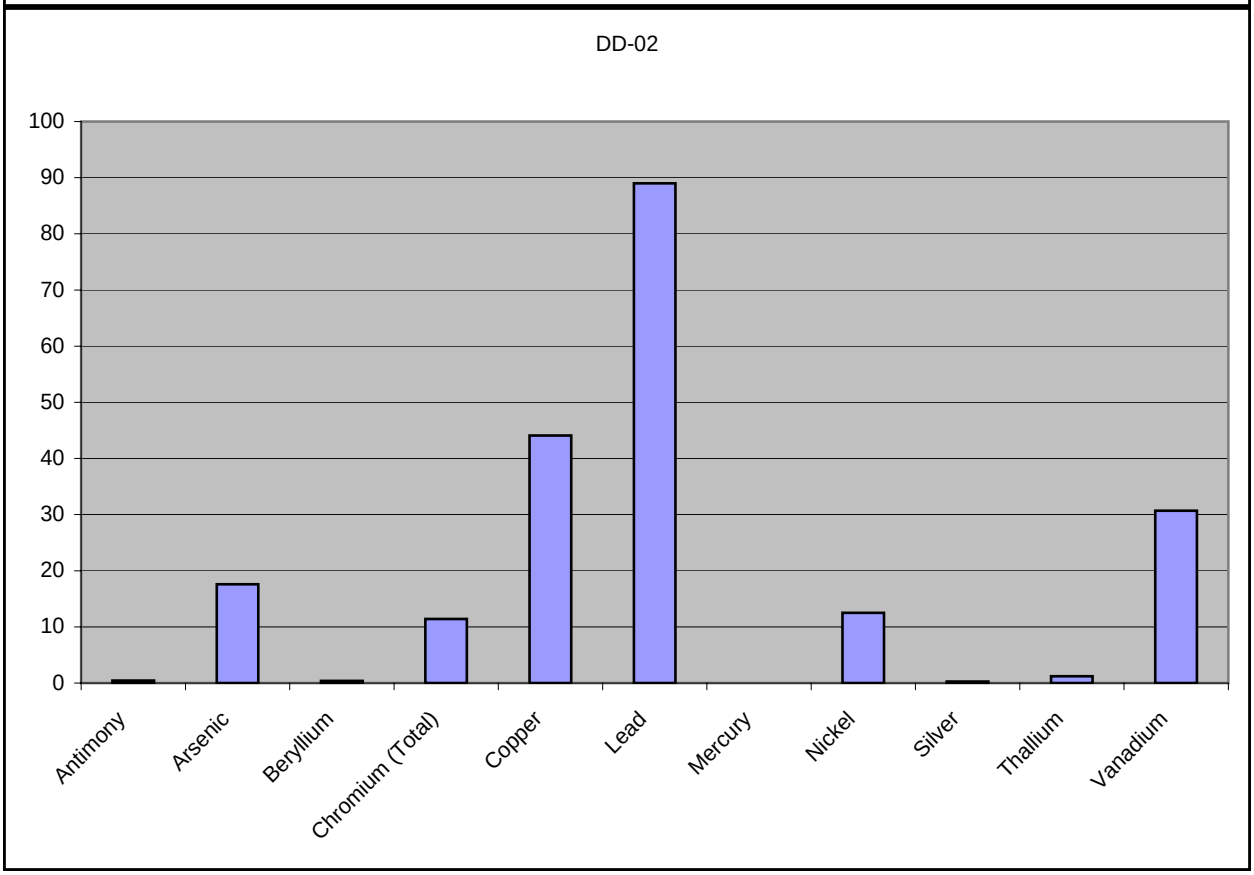
Attachment C-2
Bar Charts Comparing Upper Pond Data with Dust Depostion Data - Metals



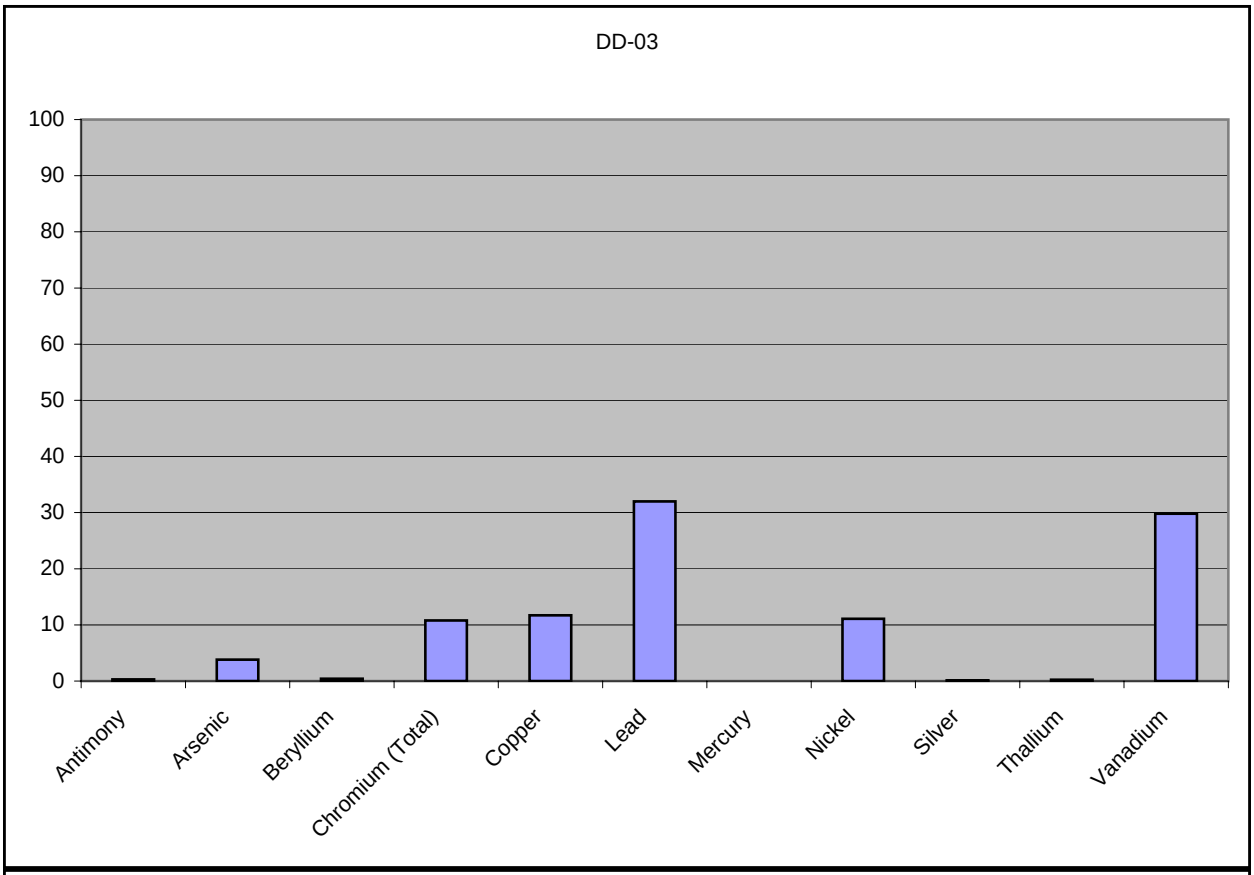


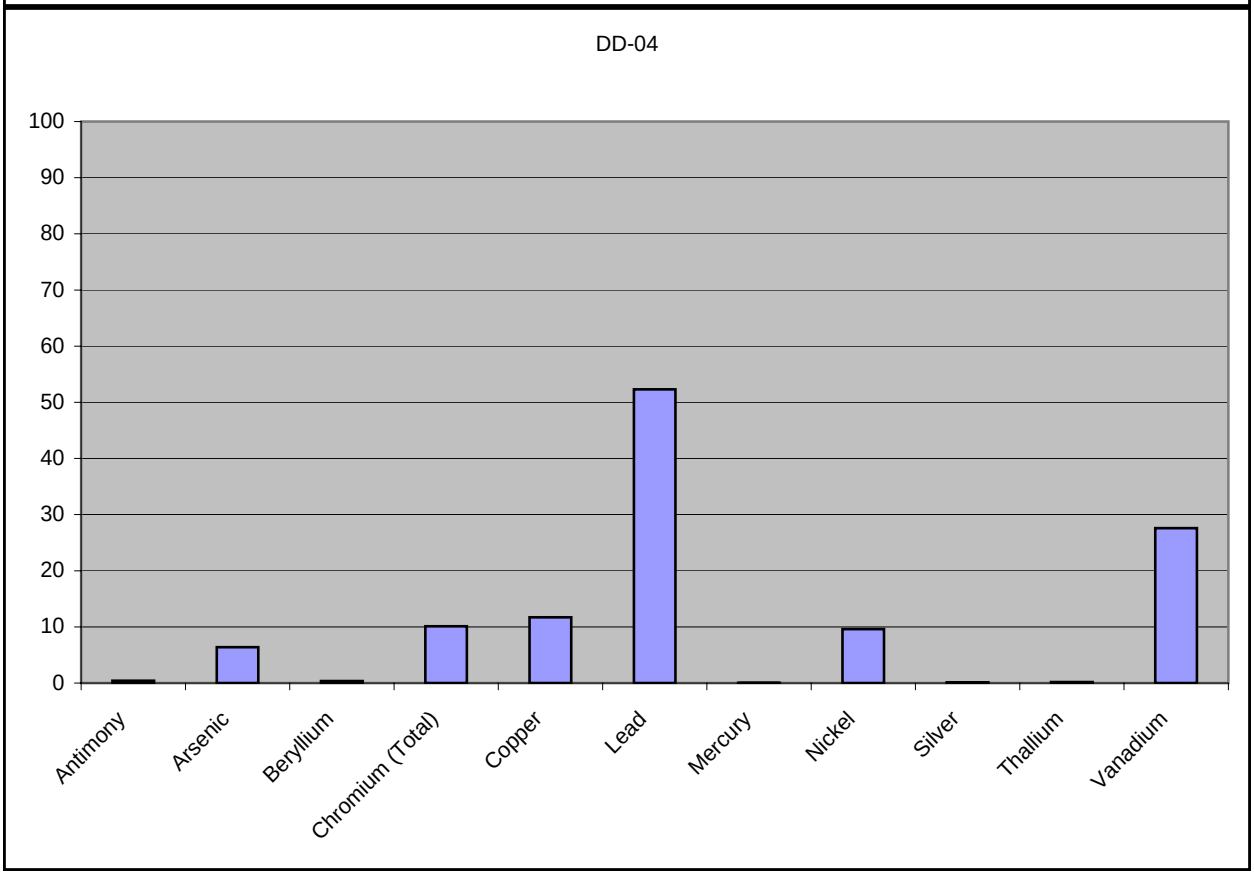
Attachment C-2
Bar Charts Comparing Upper Pond Data with Dust Depostion Data - Metals



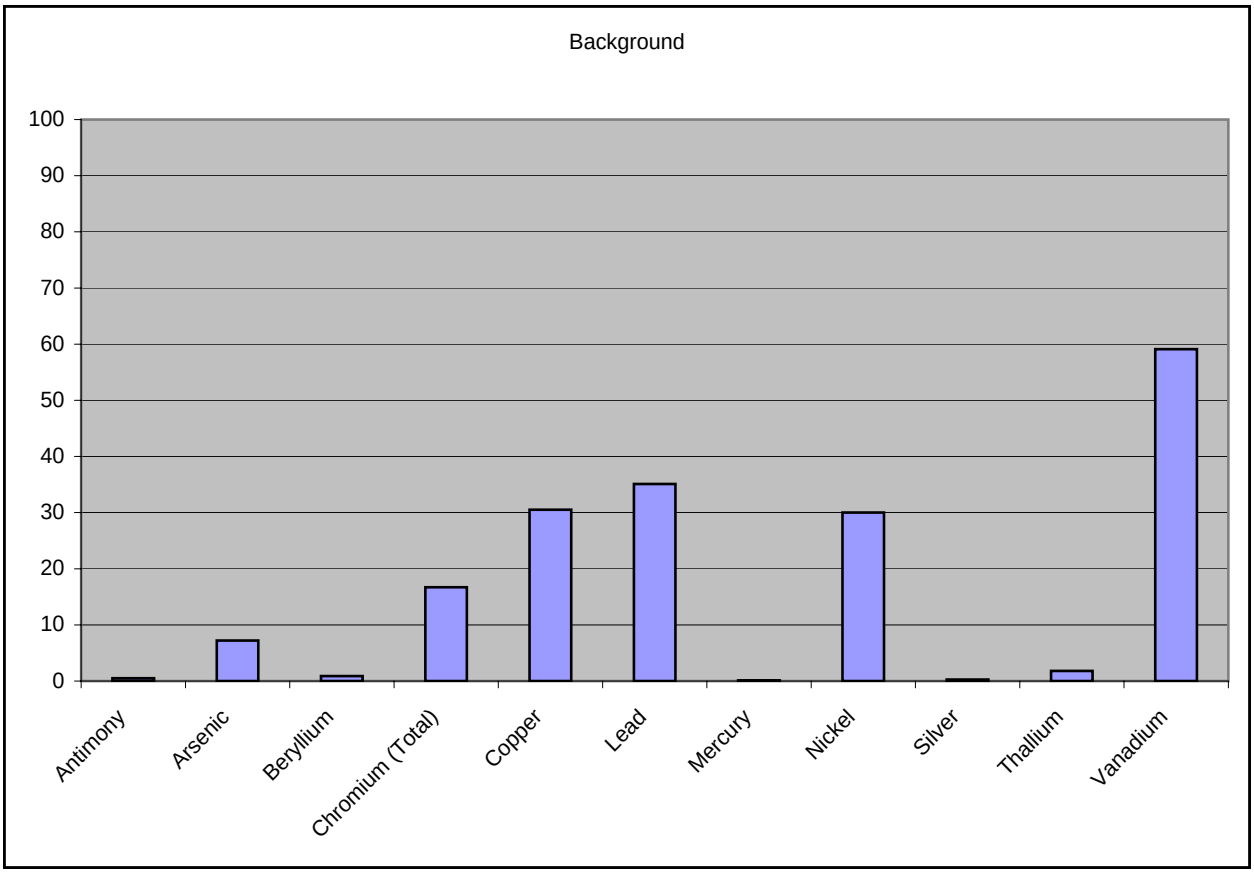


Attachment C-2
Bar Charts Comparing Upper Pond Data with Dust Depostion Data - Metals

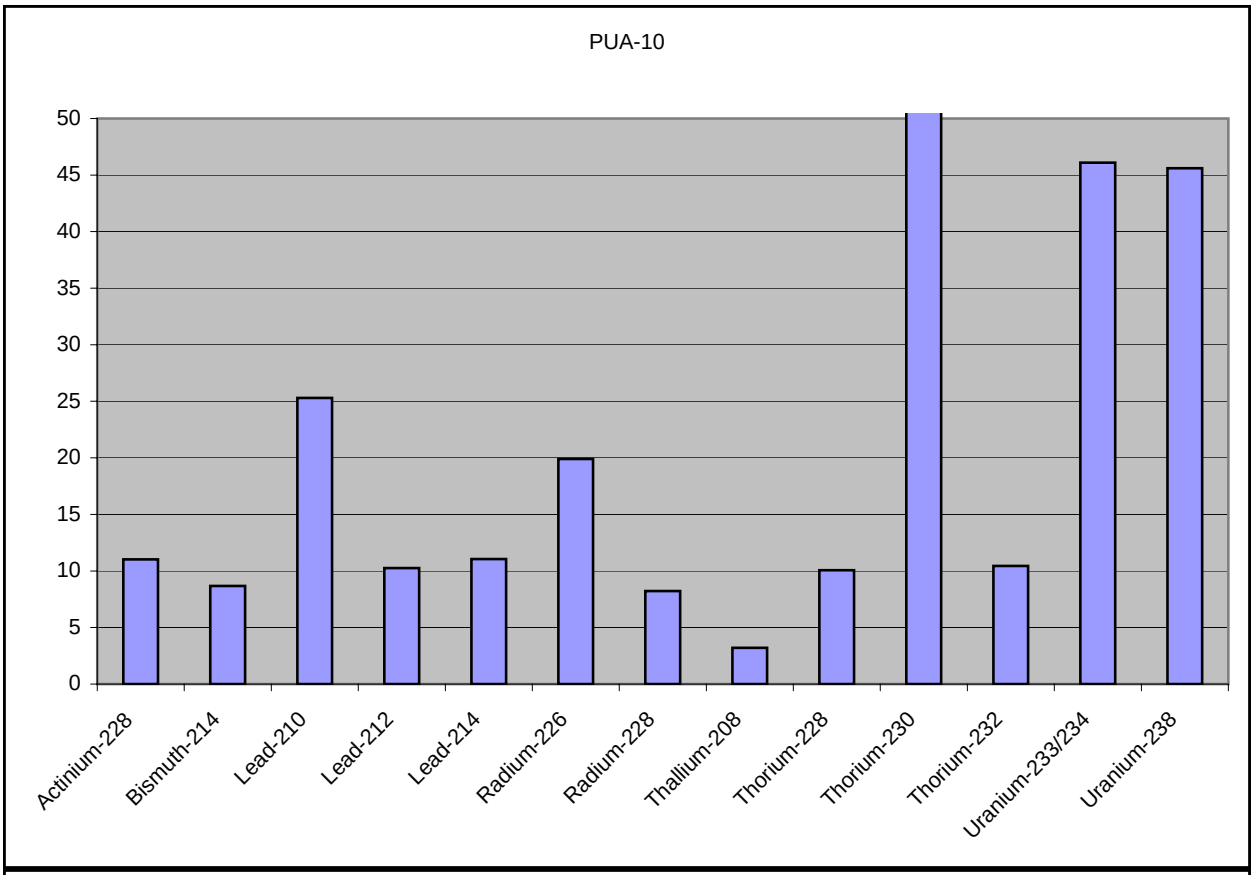


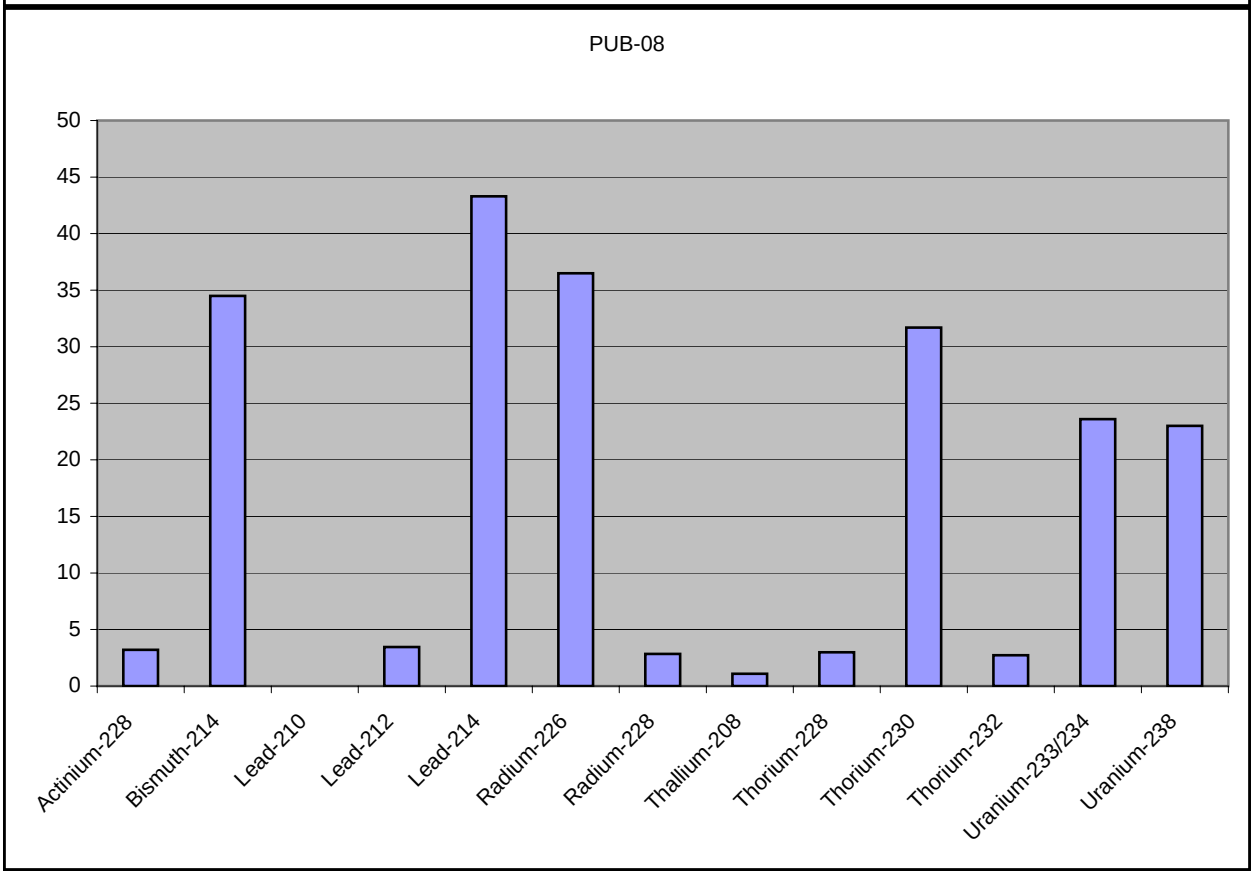


Attachment C-2
Bar Charts Comparing Upper Pond Data with Dust Depostion Data - Metals

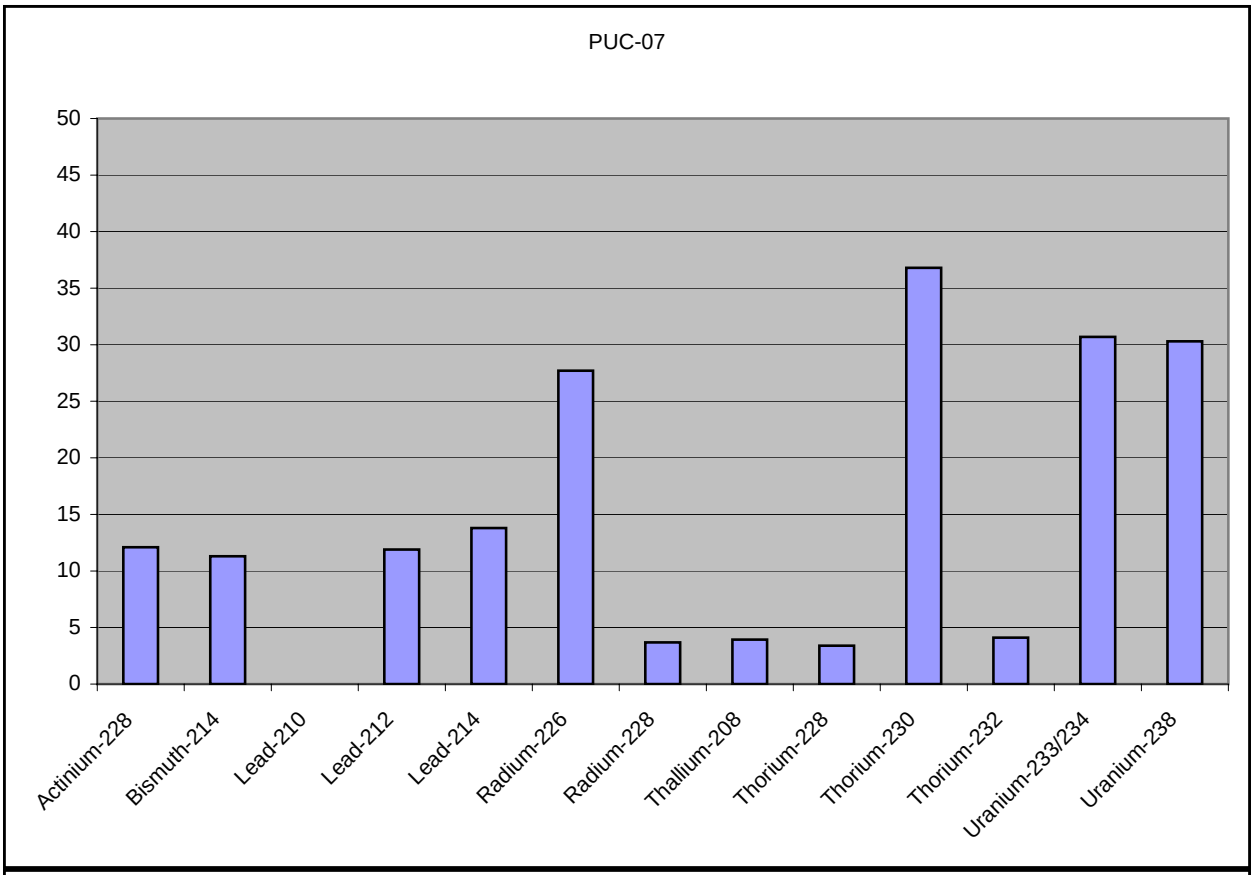


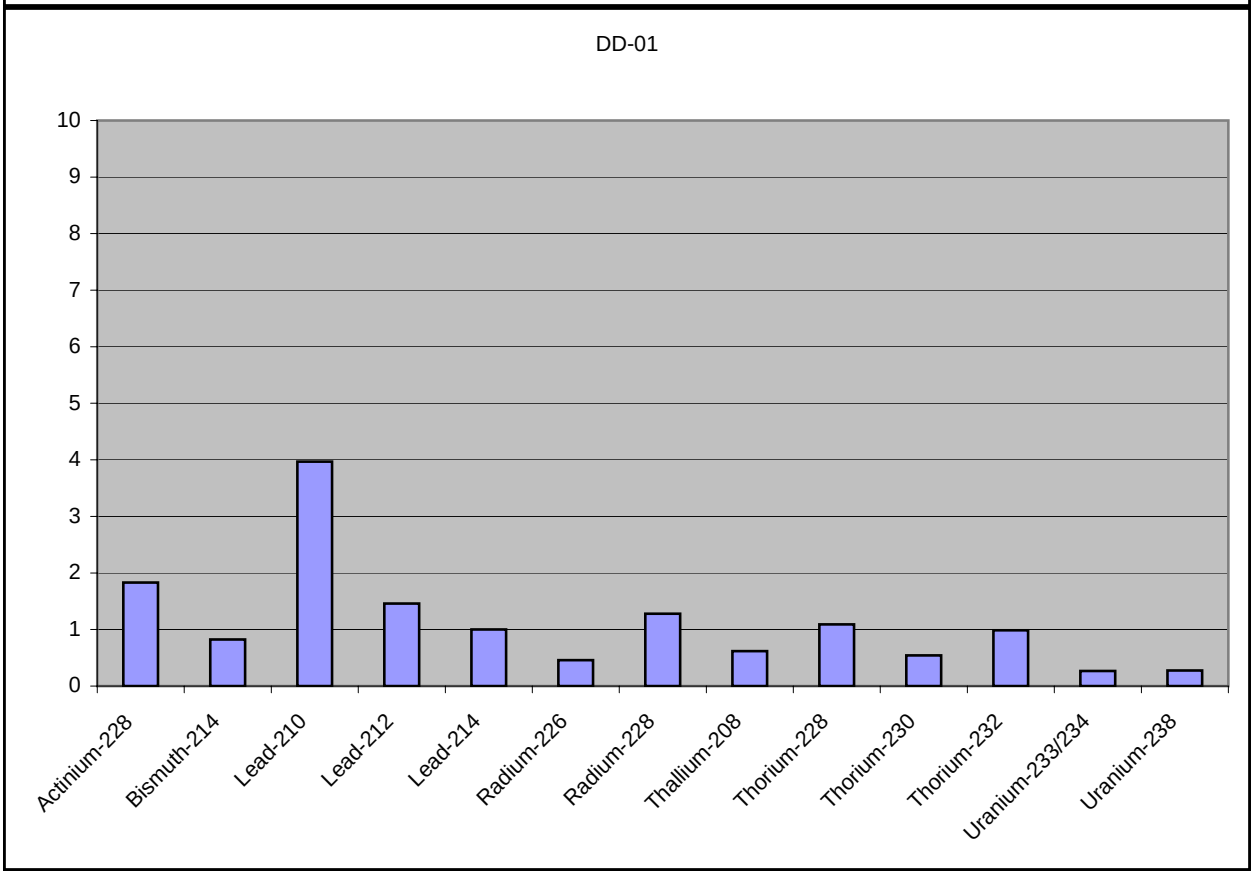
Attachment C-2
Bar Charts Comparing Upper Pond Data with Dust Depostion Data - Radionuclides



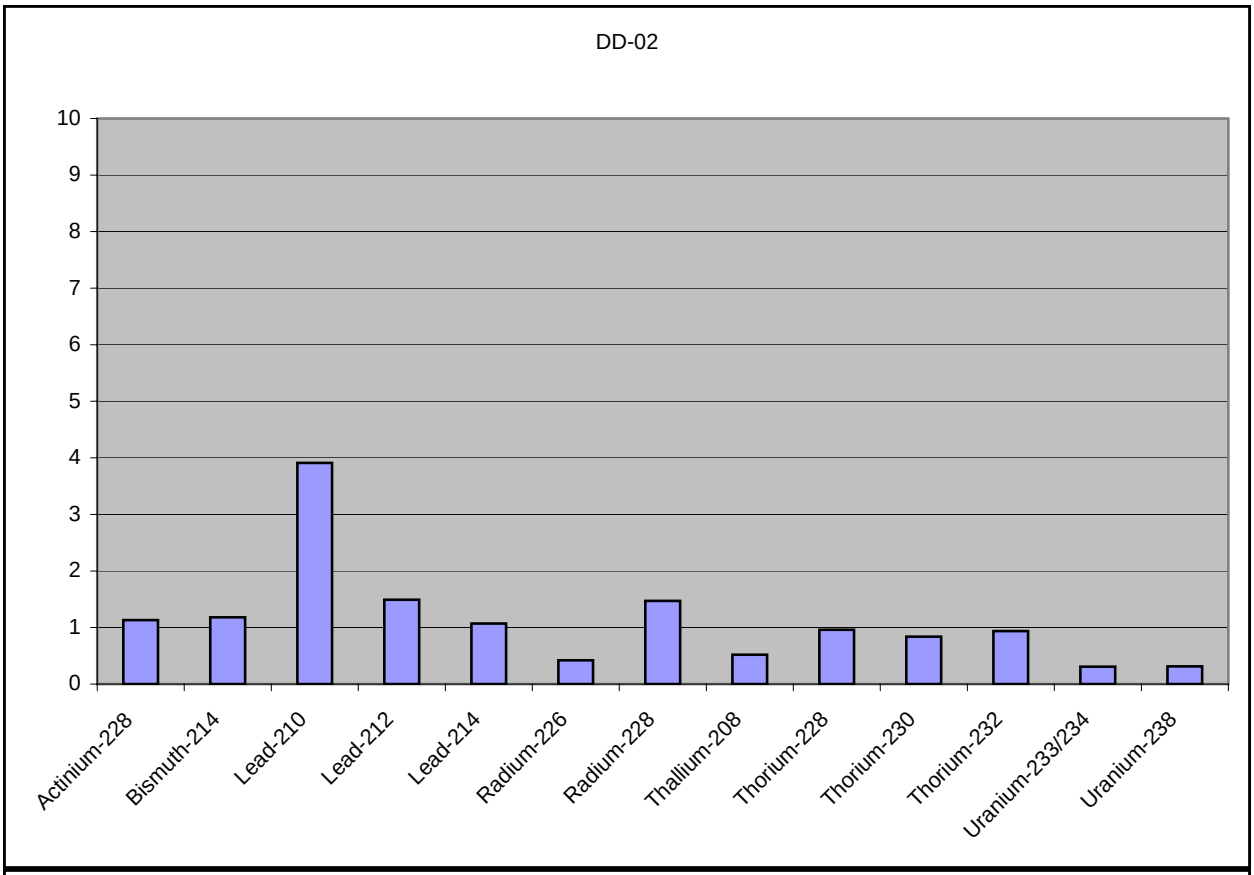


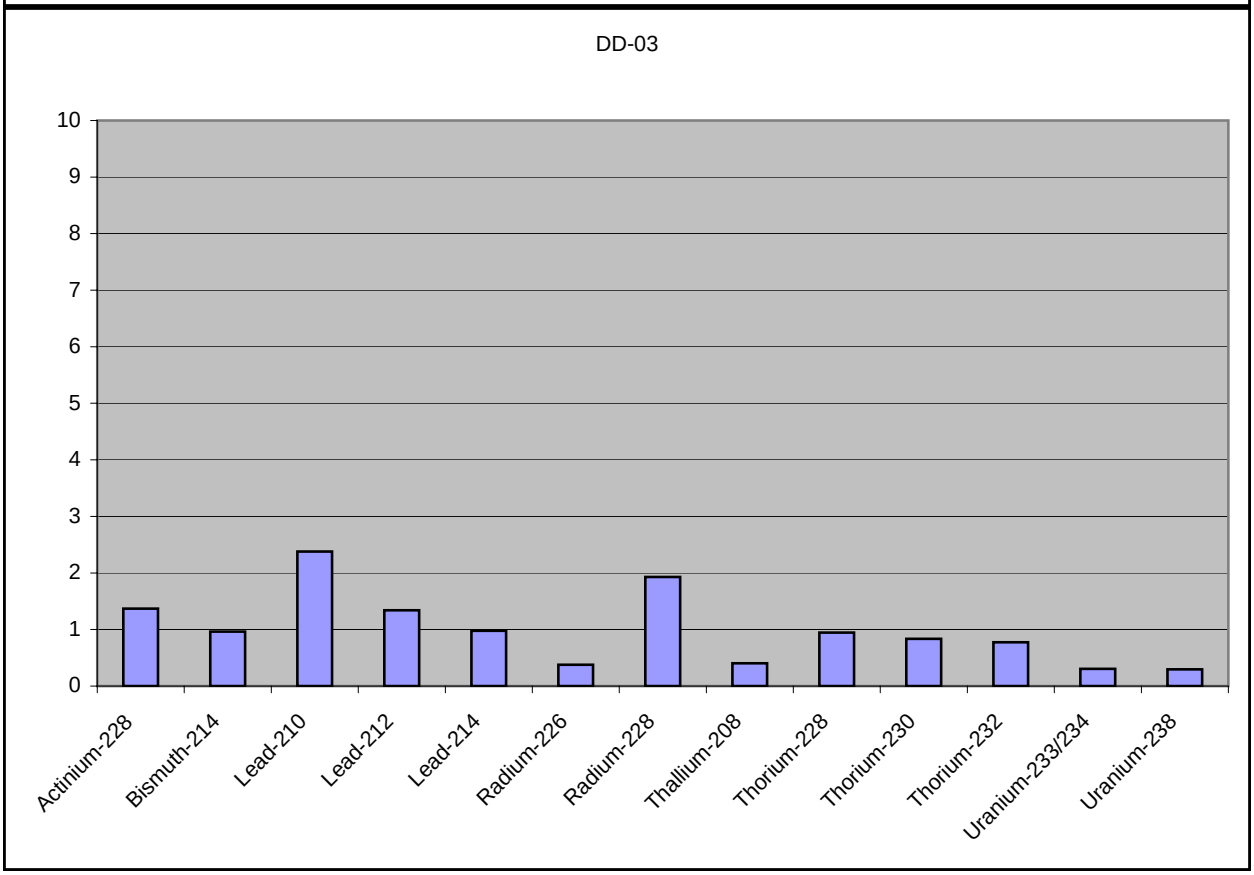
Attachment C-2
Bar Charts Comparing Upper Pond Data with Dust Depostion Data - Radionuclides





Attachment C-2
Bar Charts Comparing Upper Pond Data with Dust Depostion Data - Radionuclides





Attachment C-2
Bar Charts Comparing Upper Pond Data with Dust Depostion Data - Radionuclides