MONTANA ENVIRONMENTAL TRUST GROUP PROPERTY SOIL SAMPLING & ANALYTICAL REPORT

FOR:

EAST HELENA PUBLIC SCHOOLS

BY:

SDL ENTERPRISES, LLC

Objective

East Helena Public School (EHPS) is considering purchasing 55 acres of land that was formerly owned by Asarco Properties. Based on the historic information the property was flooded with waste materials produced at the Asarco Plant, there is reasonable concern that past waste materials from the flooding have impacted the surface and sub-surface on the subject property. A complete and thorough soil sampling process was conducted with 16 data points per acre. A complete soil assessment report was created herein for the East Helena School Board (EHSB) and the Montana Environmental Trust Group (METG) to assist with a potential purchase of the property. The remediation potential to the site will be considered by the EHSB for the purpose of acquisition of the parcel for a future building site for additional elementary, middle and high schools along with playing fields and recreational walkways and bikeways.

Location

The Property represents 55 acres of property, directly north of Radley School, west of Valley Drive, currently owned by METG. The EHSB is evaluating the purchase of this property for future school expansion. This property is located in the East Helena Asarco Superfund Site.

History

East Helena was the home of an operating lead smelter for more than 100 years. There has been an ongoing program remediating lead contaminated soil in East Helena over the last twenty years in an effort to protect the public from exposure to contaminated soils. Remediation of soils in and around the schools has created a clean and healthful environment on the school campuses. The school district in East Helena has 1,150 students that are educated in 3 school buildings located within that superfund site. East Helena is a growing community that is being impacted by new home construction, particularly from Mountain View Meadows Subdivision. At least 61 homes have already been built in an affordable housing portion of the subdivision, with more anticipated. The 1st phase of the development has more than 600 acres, approved for 800 homes. Using a per child figure of 0.4 school aged children per home formula quickly shows that the potential increase of 350 students in this subdivision would exceed the capacity of the existing buildings. With the future of expansion of classroom space necessitated by this growth of this single subdivision and other subdivisions, it is necessary for the school district to find property for a minimum of one to two new elementary or middle schools and a potential expansion of the district to have a high school. The property immediately adjacent to Radley Elementary is a logical move for the EHPS to consider to purchase. The EHSB, however, are concerned about the soil. The purpose of this project will be to identify real levels of contamination and the cost associated to remediate the property for a future school site.

Sampling Summary

The property was divided into 56 sections approximately one acre in size, to form a grid pattern that can be recreated for remediation purposes or further soil investigation in the future. There was a 16 spot composite sample collected from each individual section. A total of 896 sample points were used to collect the surface samples on the project. All surface samples were taken at 0-1 inch in depth from the ground surface. Additionally, a total of ten pit sample locations were established on the property. Four samples were collected from each pit sample location at depth intervals of 0-4, 4-6, 4-8, and 8-12 inches in depth from the ground surface. Four field duplicate samples were also collected. The methods of collection for the project were in accordance with *Hydrometrics Inc. 1991b Sampling and Analysis Plan (SAP)* created for the East Helena Residential Soils Project, as well as all the Modifications to the Administrative Order on Consent that update the current SAP.

Analysis Summary

All samples collected on the property were submitted to Energy Laboratories for analysis. Each of the samples was analyzed for lead, arsenic, and cadmium. All sample results for the property can be found in the Laboratory Analytical Reports. In addition, the data can be found in the Surface Sample Analytical Table, Pit Sample Analytical Table, as well as on the grid maps.

Of the 56 surface samples collected, 50 of the samples had concentrations exceeding 1000 ppm Pb. The remaining 6 samples ranged in concentration from 784 ppm Pb to 987 ppm Pb. Of the 56 surface samples collected, 31 of the samples had concentrations exceeding 100 ppm As. The remaining 25 samples ranged from 61 ppm As to 97 ppm As. All action levels for remediation on the East Helena Residential Soils Project are based on surface sample results. The project requires the analysis of Cadmium although no action level for Cadmium is in place on the project. The Cadmium results can be found in the Laboratory Analytical Reports. Given the concentrations of both lead and arsenic found on the surface of the property, however, all of the 56 sections of the property require remediation. Historically, The East Helena Residential Soils Project considered all remediation at schools similar as residential remediation in regard to action levels and cleanup levels.

In accordance with, East Helena Superfund Site, Operable Unit #2, Residential Soils And Undeveloped Lands Final Record Of Decision, September 2009, the entire property qualifies for remediation based on the surface levels over 500 ppm Pb.

The sample results for the pit sample range from 133 ppm Pb to 1050 ppm Pb for the 0-4 inch depth interval, 30 ppm Pb to 701 ppm Pb for the 4-6 inch depth interval, 29 ppm Pb to 406 ppm Pb for the 4-8 inch depth interval, 34 ppm Pb to 322 ppm Pb for the 8-12 inch depth interval.

Remediation Factors

In determining practical remediation factors from a construction perspective; current site conditions, proposed land use, soil type, surface sampling results, pit sample results, feasible disposal facility and replacement soil options are considered.

The current site conditions of an open field adjacent to currently developed properties without any natural or other obstacles make the property a viable property for remediation without any foreseen negative impact to the surrounding properties or community.

The proposed land use as a school property requires that remediation be performed. Once a remediation remedy is in place however, the property would be suitable for school use much like East Valley Middle School.

The soil type on the property does impact the practical decisions when determining remediation methods. The current topsoil layer is approximately 2-6 inches in depth and is considered rocky within that depth interval. Under that layer is an almost continual layer of rock with intermixed sand and loam with a few pockets of primarily sand.

As stated previously, the surface soil concentrations dictate that all areas of the 55 acre parcel be remediated if it is to be used as a school. The pit sample results indicate that a removal of 6 to 8 inches of soil is necessary to get the Pb levels to meet cleanup levels.

The METG currently offers a location for disposal of contaminated soils at a designated location adjacent to East Helena.

Suitable replacement soils are available locally. A facility such as school requires a variety of land uses for the property such as parking areas, activity fields, and actual building footprints. If a site plan was in place at the time of remediation it would be reasonable to import materials to be used in that area such as topsoil for activity fields and gravel materials for parking areas. In fact, you could actually complete parking areas and grassed activity fields prior to the school being built.

While considering all the factors involved from a construction perspective the two prevailing factors with this property are the contamination layer and the soil type and profile. The contamination is relatively uniform on this site and includes all portions of the property. This eliminates the possibility of partial remediation of the site or multiple types of remediation as the conditions are consistent throughout the property.

Remediation Options

Capping

Capping is the process of adding a cap or cover, over surfaces that do not meet remedial goals for new use. Caps do not reduce the concentrations of metals or arsenic in the soil. They do provide a barrier to exposure that would otherwise occur therefore interrupting the pathway for exposure. Capping can be a cost effective method when the contamination is deep in the ground and the removal and disposal options are costly. The few known examples of capping over future residential areas require a cap that is 24-48 inches in depth. Given the contamination layer on the property resides in the top 6 inches capping is not a viable remediation option for this property. Material import costs deem the process of general capping unrealistic. The cost to put even a 12-16 inch cap on the property is equal to the cost to remove and replace at the estimated 6" level for this property.

Asphalt capping is another method of providing a barrier to interrupt the pathway for exposure, generally seen in commercial applications. Again, given the thin layer of contamination on this property it makes this method unrealistic. The costs to asphalt an area one half acre in size would be in the \$50,000 range. In order to apply asphalt you need a solid base layer of road mix material. Typically that would be in the 6" range for parking lots, following the removal of the topsoil layer. If you were placing that base atop a topsoil layer however you may have to increase that to the 12"-18" range to achieve an adequate base layer. The cost associated to add the additional material is roughly an additional \$20,000 per acre. Again, the costs associated with this simply do not add up to being a realistic alternative.

In Place Treatment

The process of deep tilling simply put is thoroughly blending the soil to lower the surface soil contamination levels. In place treatment is considered an option when the surface soil profile has contamination but the subsurface levels are much lower. Amendments such as lime, phosphorus, and organic matter can be incorporated into the soils at the time of tilling. These amendments render lead less mobile in the soil. In some soil, lime actually enhances the mobility of arsenic therefore additional testing of the soil with amendments would need to be performed. The contamination layer on this property and the low subsurface soil level does make tilling an option for the property. However, the soil contains heavy rock, therefore requiring tilling to go much deeper and more passes to get enough fine material into the mixtures in order to achieve the desired contamination levels in the mixture. In addition, through the process of tilling the soil rock is continually worked up to the surface. That creates additional tasks of collecting, removing, and disposing of the rock throughout the process. Considering the amount of rock removed through that process by deep tilling this property,

you could expect to be dropping the elevation of the property approximately 4 inches. In addition, you would be left with a surface area that consists primarily of a sandy mixture with rock, void of organics suitable for successful planting and vegetative growth. Ultimately you may have to add topsoil with suitable organic matter to establish even field standard level of vegetative coverage on the property.

Deep tilling on this property when considering the conditions would cost in the \$15,000 range per acre. If it were necessary to import a 4 inch material layer of replacement soils, that would be approximately an additional \$15,000 per acre.

Removal and Replacement

The combination of the relatively thin layer of contamination and the poor quality and rocky soil conditions on the property make a thin removal and replacement of soils a primary option over a deep tilling option. The removal and replacement process would remove the contaminated soil down to an accepted level and provide an import material layer suitable for its intended use. The East Helena Residential Soils Program to date has operated under a program that involves post sampling. Meaning each section requires post sampling after the removal process to ensure the remaining surface levels meet the cleanup criteria. Given that factor along with the fact that the pit samples were taken from ten locations spread throughout the property, there remains a level of variability. It is reasonable to assume there would be sections where excavation would be sufficient at four inches in depth, where other sections could require excavation up to ten inches in depth to meet the cleanup criteria. Nonetheless, when considering all factors, an average excavation depth for the property of 6 to 7 inches would be a reasonable conclusion to achieve the desired cleanup levels.

The cost to remove and replace the soil on this property would be in the 35-40K per acre range. This estimate is using current market value and conditions and assumes a suitable storage area for remediated soils is available.

Summary

All data collected on this project was in accordance with the current Sampling and Analysis Plan used for the East Helena Residential Soils Project. The grid pattern established on the project can be easily recreated for remediation purposes or further soil investigation in the future.

In accordance with, East Helena Superfund Site, Operable Unit #2, Residential Soils And Undeveloped Lands Final Record Of Decision, September 2009, the entire property qualifies for remediation based on the surface levels over 500 ppm Pb.

All opinions reflected in the Remediation Factors, Remediation Options, and Summary sections of this report are from a construction perspective and are based on 20 years of experience not only in the remediation field but specifically on the East Helena Residential Soils Project.

Removal and replacement is the best option given the conditions on the property. More importantly, however, it is more protective of children. Tilling may be considered as an option by some given the cost difference in removal and replacement. But I would warn that the conditions left by tilling would require adding 4-6 inches in material at the time of development whether the use is for parking, activity fields, or common grounds areas. Removal and replacement is also more protective than tilling if you consider the barrier the backfill material provides. Example: If at the completion of tilling you had a surface averaging 300 ppm Pb and the placement of additional import material was not considered part of the remediation project, then 300 ppm Pb would be the surface exposure level. Whereas, in the case of removal and replacement, if at the completion of excavation you had that same 300 ppm Pb average, you would have six inches of backfill material that would cover that layer. Typically, backfill materials are in the 25-40 ppm Pb range for the area and that would be your exposure level.

The EPA has developed voluntary *School Siting Guidelines, October 2011* that are intended to encourage, inform and improve consideration of environmental factors in local school siting decision-making process without infringing on local decision-making authority.

The Lewis & Clark County Health Department Institutional Controls will be a further determining factor for dealing with levels of tolerable contamination. The Lewis and Clark County Health Department will play an important role in the final siting of the school property ensuring it meets all of the necessary protective factors associated with Human Health.

The EPA would be the ultimate authority and regulating agency and in conjunction with the DEQ and Lewis and Clark County would ultimately evaluate the property and make a determination on an approved remediation method. They thoroughly review the whole process including the overall protection of human health, compliance, permanence, reduction in toxicity, short term effectiveness, implementation, cost, state acceptance, and community acceptance, etc when considering remedial alternatives. This is a more complex situation with a property owned by one party (METG) and interest in a potential purchase by another party (East Helena School District). Also, consider the Trust, DOJ, DEQ, and EPA would likely all have to agree on whether a purchase price or offer from the East Helena Schools would be adequate to justify a sale. As shown in this report the entire property requires remediation and the estimated costs associated with that work have been provided herein.

Any purchase of such property should be reviewed on a cost analysis basis discovering all pertinent reductions in value due to the existing contamination and ROD requirements. Clearly, this is a complex situation with multiple parties involved and with numerous questions yet to be answered. That said, the school district is interested in purchasing the property, the proposed use would be a positive impact on the town and community as a whole, the owners of the land will be selling the property, and the EPA is involved in the process and has an interest in protecting human health.

References

- Hydrometrics Inc. 1991b Sampling and Analysis Plan (SAP)
- East Helena Superfund Site, Operable Unit #2, Residential Soils And Undeveloped Lands Final Record Of Decision, September 2009(ROD)
- School Siting Guidelines, October 2011

Analytical Tables

SURFACE SAMPLE ANALYTICAL TABLE

Laboratory ID	Client Sample ID	Depth	Pb	As	Cd
H13010124-001	Pre METV1-1	0-1	1580	148	19
H13010124-002	Pre METV1-2	0-1	1550	158	13
H13010124-003	Pre METV1-3	0-1	1360	152	12
H13010124-004	Pre METV1-4	0-1	1460	135	17
H13010124-005	Pre METV1-5	0-1	1350	126	18
H13010124-006	Pre METV1-6	0-1	1460	113	20
H13010124-007	Pre METV1-7	0-1	1660	133	28
H13010124-008	Pre METV1-8	0-1	1390	124	20
H13010124-009	Pre METV1-9	0-1	1350	114	22
H13010124-010	Pre METV1-10	0-1	965	88	23
H13010124-011	Pre METV1-11	0-1	1820	169	18
H13010124-012	Pre METV1-12	0-1	1670	162	14
H13010124-013	Pre METV1-13	0-1	1930	172	16
H13010124-014	Pre METV1-14	0-1	1820	183	14
H13010124-015	Pre METV1-15	0-1	1430	134	16
H13010125-001	Pre METV1-16	0-1	1510	142	20
H13010125-002	Pre METV1-17	0-1	1540	133	17
H13010125-003	Pre METV1-18	0-1	1290	116	
H13010125-004	Pre METV1-19	0-1	1320	110	18
H13010125-005	Pre METV1-20	0-1	987	89	16
H13010125-006	Pre METV1-20d	0-1	1040	97	14
H13010125-007	Pre METV1-21	0-1	2190	193	14
H13010125-008	Pre METV1-22	0-1	1770	155	20
H13010125-009	Pre METV1-23	0-1	2150	-	18
H13010125-010	Pre METV1-24	0-1	1570	160	29
H13010125-011	Pre METV1-25	0-1	1640	120	24
13010125-012	Pre METV1-26	0-1	1670	117	29
H13010125-013	Pre METV1-27	0-1	1270	104	29
113010125-014	Pre METV1-28	0-1	1340	87	22
113010125-015	Pre METV1-29	0-1	1090	86	20
113010126-001	Pre METV1-30	0-1	1270	81	22
113010126-002	Pre METV1-31	0-1	-	78	20
113010126-003	Pre METV1-32	0-1	2290	144	33
113010126-004	Pre METV1-33	0-1	1550 1250	127	34
113010126-005	Pre METV1-34	0-1	1250	92	27
113010126-006	Pre METV1-35	0-1	1250	86	27
113010126-007	Pre METV1-36	0-1	THE RESERVE THE PERSON NAMED IN COLUMN 2 IS NOT THE OWNER.	97	27
113010126-008	Pre METV1-37	0-1	1010 961	81	23
13010126-009	Pre METV1-38	0-1		76	22
13010126-010	Pre METV1-39	0-1	1080	76	25
13010126-011	Pre METV1-40	0-1	784 884	61	19
13010126-012	Pre METV1-40d	0-1	903	61	21
13010126-013	Pre METV1-41	0-1	2520	68	20
13010126-014	Pre METV1-42	0-1	THE RESERVE AND ADDRESS OF THE PARTY OF THE	185	30
13010126-015	Pre METV1-43	0-1	2910	153	35
13010127-001	Pre METV1-44	0-1	2050	123	36
13010127-001	Pre METV1-45	0-1	1850	96	34
13010127-002	Pre METV1-45	0-1	1400	96	29
13010127-004	Pre METV1-47	-	1730	72	33
13010127-004	Pre METV1-47	0-1	1240	80	26
13010127-005	Pre METV1-49	0-1	1470	75	27
13010127-006	Pre METV1-49	0-1	1400	89	28
13010127-007		0-1	1280	61	25
13010127-008	Pre METV1-51	0-1	1740	135	27
13010127-009	Pre METV1-52	0-1	1320	123	22
	Pre METV1-53	0-1	2070	84	42
13010127-011	Pre METV1-54	0-1	1770	96	34
13010121-009	Pre METV1-55	0-1	932	65	18
13010121-010	Pre METV1-56	0-1	1040	80	24

PIT SAMPLE ANALYTICAL TABLE

Sample ID	Client Sample ID	Depth	Pb	As	Cd
H13010127-012	Pre METV1-P1a	0-4	711	99	25
H13010127-013	Pre METV1-P1b	4-6	144	23	27
H13010127-014	Pre METV1-P1c	4-8	350	50	22
H13010127-015	Pre METV1-P1d	8-12	226	32	6
H13010122-001	Pre METV1-P2a	0-4	132	47	6
H13010122-002	Pre METV1-P2b	4-6	30	8	2
H13010122-003	Pre METV1-P2bd	4-6	33	8	2
H13010122-004	Pre METV1-P2c	4-8	29	15	<1
H13010122-005	Pre METV1-P2d	8-12	34	13	<1
H13010122-006	Pre METV1-P3a	0-4	468	85	12
H13010122-007	Pre METV1-P3b	4-6	53	15	4
H13010122-008	Pre METV1-P3c	4-8	84	18	5
H13010122-009	Pre METV1-P3d	8-12	50	15	<1
H13010122-010	Pre METV1-P4a	0-4	1050	151	12
H13010122-011	Pre METV1-P4b	4-6	519	82	16
H13010122-012	Pre METV1-P4c	4-8	245	55	20
H13010122-013	Pre METV1-P4d	8-12	138	30	14
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H13010122-014	Pre METV1-P5a	0-4	133	35	8
H13010122-015	Pre METV1-P5b	4-6	54	24	5
H13010123-001	Pre METV1-P5c	4-8	66	23	10
H13010123-002	Pre METV1-P5d	8-12	46	15	4
H13010123-003	Pre METV1-P6a	0-4	931	106	24
H13010123-004	Pre METV1-P6b	4-6	454	108	7
H13010123-005	Pre METV1-P6c	4-8	86	21	2
H13010123-006	Pre METV1-P6d	8-12	94	16	2
H13010123-007	Pre METV1-P7a	0-4	542	70	14
H13010123-008	Pre METV1-P7b	4-6	435	67	7
H13010123-009	Pre METV1-P7bd	4-6	428	61	7
H13010123-010	Pre METV1-P7c	4-8	210	44	4
H13010123-011	Pre METV1-P7d	8-12	213	34	4
		CROSCO VICTORIA med politecto che a conservamento serva			
H13010123-012	Pre METV1-P8a	0-4	343	59	9
H13010123-013	Pre METV1-P8b	4-6	120	29	3
H13010123-014	Pre METV1-P8c	4-8	134	26	3
H13010123-015	Pre METV1-P8d	8-12	34	11	<1
U12010121 000		2.00194628322244224425444			
H13010121-001	Pre METV1-P9a	0-4	653	65	13
H13010121-002	Pre METV1-P9b	4-6	405	59	9
H13010121-003	Pre METV1-P9c	4-8	384	52	99
H13010121-004	Pre METV1-P9d	8-12	124	23	2
H13010121-005	Dec MACTIVA DAG	STATE OF THE PARTY			
	Pre METV1-P10a	0-4	797	73	16
	Pre METV1-P10b	4-6	701	67	12
CANADA CONTRACTOR OF THE PARTY	Pre METV1-P10c	4-8	406	37	8
1113010121-008	Pre METV1-P10d	8-12	322	28	6

Grid Maps





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	P3	0-4" - 468 mg/kg 4-6" - 53 mg/kg 6-8" - 84 mg/kg 8-12" - 50 mg/kg	∞		©	P2 0-4" - 132 mg/kg 4-6" - 30 mg/kg 6-8" - 29 mg/kg 8-12" - 34 mg/kg	4	(c)	<u>(</u>	0-4" - 711 mg/kg 4-6" - 144 mg/kg 6-8" - 350 mg/kg 8-12" - 226 mg/kg	VELS
	8	©	®)		©	٩	(4)	0-4" - 1050 mg/kg 4-6" - 519 mg/kg 6-8" - 245 mg/kg 8-12" - 138 mg/kg	(2)		SAMPLE LEAD LEVELS
		8	8	2-5 0-4" - 133 mg/kg 4-6" - 54 mg/kg 6-8" - 66 mg/kg 8-12" - 46 mg/kg	②	8	2	8	8	Ø	PIT SAM
	98 (0)	0-4" - 343 mg/kg 4-6" - 120 mg/kg 6-8" - 134 mg/kg 8-12" - 34 mg/kg	8	6	(8)	P7 0-4" - 542 mg/kg 4-6" - 435 mg/kg 6-8" - 210 mg/kg 8-12" - 213 mg/kg	8	©		0-4" - 931 mg/kg 4-6" - 454 mg/kg 6-8" - 86 mg/kg 8-12" - 94 mg/kg	
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67										иомтн 🔯	LEGEND 0-4"-931 mg/kg LEAD LEV 4-6"-454 mg/kg 6-8"-86 mg/kg

Analytical Data

Helena, MT 877-472-0711 · Billings, MT 800-735-4489 · Casper, WY 888-235-0515 Gillette, WY 866-686-7175 · Rapid City, SD 888-672-1225 · College Station, TX 888-690-2218

ANALYTICAL SUMMARY REPORT

January 17, 2013

SDL Enterprises PO Box 1122 E Helena, MT 59635-1125

Workorder No.: H13010124

Project Name: 1001 EHSD METV1

Energy Laboratories Inc Helena MT received the following 15 samples for SDL Enterprises on 1/8/2013 for analysis.

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Sample ID	Client Sample ID	Collect Date Receiv	e Date Matrix	Test
H13010124-001	Pre METV1-1 0-1" [0-1]	10/22/12 9:00 01/0	8/13 Soil	Metals by ICP/ICPMS, Total Digestion, Total Metals Soil Preparation
H13010124-002	Pre METV1-2 0-1" [0-1]	10/22/12 9:30 01/0	8/13 Soil	Same As Above
H13010124-003	Pre METV1-3 0-1" [0-1]	10/22/12 10:00 01/0	3/13 Soil	Same As Above
H13010124-004	Pre METV1-4 0-1" [0-1]	10/22/12 10:30 01/0	3/13 Soil	Same As Above
H13010124-005	Pre METV1-5 0-1" [0-1]	10/22/12 11:00 01/0	3/13 Soil	Same As Above
H13010124-006	Pre METV1-6 0-1" [0-1]	10/22/12 11:30 01/0	3/13 Soil	Same As Above
H13010124-007	Pre METV1-7 0-1" [0-1]	10/22/12 12:00 01/0	3/13 Soil	Same As Above
H13010124-008	Pre METV1-8 0-1" [0-1]	10/22/12 13:30 01/08	3/13 Soil	Same As Above
H13010124-009	Pre METV1-9 0-1" [0-1]	10/22/12 14:00 01/08	3/13 Soil	Same As Above
H13010124-010	Pre METV1-10 0-1" [0-1]	10/22/12 14:30 01/08	3/13 Soil	Same As Above
H13010124-011	Pre METV1-11 0-1" [0-1]	10/22/12 15:00 01/08	3/13 Soil	Same As Above
H13010124-012	Pre METV1-12 0-1" [0-1]	10/22/12 15:30 01/08	3/13 Soil	Same As Above
H13010124-013	Pre METV1-13 0-1" [0-1]	10/22/12 16:00 01/08	3/13 Soil	Same As Above
H13010124-014	Pre METV1-14 0-1" [0-1]	10/23/12 8:00 01/08	3/13 Soil	Same As Above
H13010124-015	Pre METV1-15 0-1" [0-1]	10/23/12 8:30 01/08	3/13 Soil	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 3161 E. Lyndale Ave., Helena, MT 59604, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

Digitally signed by Amanda B. Blackburn

Date: 2013.01.18 11:21:28 -07:00



ENERGY LABORATORIES

1001 EHSD METV1 SDL Enterprises

H13010124

Workorder: Project: Client:

Helena, MT 877-472-0711 & Billings, MT 800-735-4489 ® Casper, WY 888-235-0515 Gillette, WY 866-686-7175 ® Rapid City, SD 888-672-1225 ® College Station, TX 888-690-2218

LABORATORY ANALYTICAL REPORT Prepared by Helena, MT Branch

Report Date: 01/17/13

Date Received: 01/08/13

		Analysis	sis	As-T	L-PO	Pb-T	
		Units	S	mg/kg	mg/kg	mg/kg	
Sample ID	Client Sample ID	d	Low	Results	Results	Results	
H13010124-001	Pre METV1-1 0-1"	0	1	148	19	1580	
H13010124-002	Pre METV1-2 0-1"	0	-	158	13	1550	
H13010124-003	Pre METV1-3 0-1"	0	-	152	12	1360	
H13010124-004	Pre METV1-4 0-1"	0	-	135	17	1460	
H13010124-005	Pre METV1-5 0-1"	0	-	126	18	1350	
H13010124-006	Pre METV1-6 0-1"	0	-	113	20	1460	
H13010124-007	Pre METV1-7 0-1"	0	-	133	28	1660	
H13010124-008	Pre METV1-8 0-1"	0	-	124	20	1390	
H13010124-009	Pre METV1-9 0-1"	0	-	114	22	1350	
H13010124-010	Pre METV1-10 0-1"	0	-	88	23	965	
H13010124-011	Pre METV1-11 0-1"	0	-	169	18	1820	
H13010124-012	Pre METV1-12 0-1"	0	-	162	14	1670	
H13010124-013	Pre METV1-13 0-1"	0	-	172	16	1930	
H13010124-014	Pre METV1-14 0-1"	0	-	183	41	1820	
H13010124-015	Pre METV1-15 0-1"	0	-	134	16	1430	

Helena, MT 877-472-0711 © Billings, MT 808-735-4489 © Casper, WY 888-235-0515 Gillette, WY 866-686-7175 © Rapid City, SD 888-672-1225 © College Station, TX 888-690-2218

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: SDL Enterprises

Report Date: 01/17/13

Project: 1001 EHSD METV1

Work Order: H13010124

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7							Ana	lytical R	ın: ICP2-HE	130114B
Sample ID: ICV	3 Init	ial Calibratio	n Verification S	Standard						- /13 11:35
Arsenic		0.795	mg/L	0.0092	99	90	110		01/14/	10 11.00
Cadmium		0.392	mg/L	0.0010	98	90	110			
Lead		0.774	mg/L	0.013	97	90	110			
Sample ID: ICSA	3 Inte	erference Ch	eck Sample A						01/14/	13 11:50
Arsenic		-0.00599	mg/L	0.0092		0	0		01/14/	10 11.50
Cadmium		0.00206	mg/L	0.0010		0	0			
Lead		0.0189	mg/L	0.013		0	0			
Sample ID: ICSAB	3 Inte	erference Ch	eck Sample At	3					01/14/	13 11:54
Arsenic		1.09	mg/L	0.0092	109	80	120		01/14/	10 11.04
Cadmium		0.917	mg/L	0.0010	92	80	120			
Lead		0.980	mg/L	0.013	98	80	120			

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: SDL Enterprises

Report Date: 01/17/13

Work Order: H13010124

Project: 1001 EHSD METV1

Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW	6010B				7					Bat	ch: 19233
Sample ID: MB-	19233	3 M	ethod Blank				Run: ICP2-I	HE_130114B		01/14	/13 13:31
Arsenic			ND	mg/kg	0.4			_			, , , , , , , ,
Cadmium			ND	mg/kg	0.01						
Lead			ND	mg/kg	1						
Sample ID: LFB-	-19233	3 La	boratory For	tified Blank			Run: ICP2-l	HE_130114B		01/14/	/13 13:35
Arsenic			50.2	mg/kg	1.0	100	80	120			
Cadmium			24.8	mg/kg	1.0	99	80	120			
Lead			49.1	mg/kg	1.0	98	80	120			
Sample ID: LCS-	-19233	3 La	boratory Cor	ntrol Sample			Run: ICP2-I	HE_130114B		01/14/	13 13:38
Arsenic			262	mg/kg	1.5	77	72.3	106.4			
Cadmium			112	mg/kg	1.0	83	73	105.1			
Lead			163	mg/kg	3.1	88	75.9	108.6			
Sample ID: H130	10124-015AMS	3 Sa	mple Matrix	Spike			Run: ICP2-l	HE_130114B		01/14/	13 14:59
Arsenic			169	mg/kg	1.5	71	75	125			S
Cadmium			38.2	mg/kg	1.0	90	75	125			
Lead			1410	mg/kg	3.1		75	125			Α
Sample ID: H130	10124-015AMS	D 3 Sa	mple Matrix	Spike Duplicate			Run: ICP2-F	HE 130114B		01/14/	13 15:03

1.5

1.0

3.1

84

97

75

75

75

125

125

125

3.6

4.5

3.2

20

20

20

Α

175

39.9

1450

mg/kg

mg/kg

mg/kg

Qualifiers:

Arsenic

Lead

Cadmium

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

S - Spike recovery outside of advisory limits.

Helena, MT 877-472-0711 ° Billings, MT 800-735-4489 ° Casper, WY 888-235-0515 Gillette, WY 866-686-7175 ° Rapid City, SD 888-672-1225 ° College Station, TX 888-690-2218

Standard Reporting Procedures

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as -dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

Workorder Receipt Checklist

SDL Enterprises

None

H13010124

Login completed by:	Wanda Johnson		Date	Received: 1/8/2013
Reviewed by:	BL2000\sdull		Re	eceived by: elm
Reviewed Date:	1/10/2013			Carrier Hand Del name:
Shipping container/cooler in	good condition?	Yes 🗸	No 🗌	Not Present
Custody seals intact on shipp	oing container/cooler?	Yes	No 🗌	Not Present 🗸
Custody seals intact on samp	ble bottles?	Yes	No 🗌	Not Present 🗸
Chain of custody present?		Yes 🗸	No 🗌	
Chain of custody signed whe	n relinquished and received?	Yes 🗸	No 🗌	
Chain of custody agrees with	sample labels?	Yes 🗸	No 🗌	
Samples in proper container/	bottle?	Yes 🗸	No 🗌	
Sample containers intact?		Yes 🗸	No 🗌	
Sufficient sample volume for	indicated test?	Yes 🗸	No 🗌	
All samples received within he (Exclude analyses that are co such as pH, DO, Res CI, Sul	nsidered field parameters	Yes √	No 🗌	
Temp Blank received?		Yes	No 🗹	Not Applicable
Container/Temp Blank tempe	rature:	12.3℃ No Ice		
Water - VOA vials have zero	neadspace?	Yes	No 🗌	No VOA vials submitted 🗸
Water - pH acceptable upon r	eceipt?	Yes	No 🗌	Not Applicable
Contact and Corrective Action	Comments:			



+ 8-13 16:08 [1] Cover Letter
ignature)
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Split Samples:
[] Accepted [] Declined

ANALYTICAL SUMMARY REPORT

January 17, 2013

SDL Enterprises PO Box 1122 E Helena, MT 59635-1125

Workorder No.: H13010125

Project Name: 1001 EHSD METV1

Energy Laboratories Inc Helena MT received the following 15 samples for SDL Enterprises on 1/8/2013 for analysis.

			•		
Sample ID	Client Sample ID	Collect Date F	Receive Date	Matrix	Test
H13010125-001	Pre METV1-16 0-1" [0-1]	10/23/12 9:00	01/08/13	Soil	Metals by ICP/ICPMS, Total Digestion, Total Metals Soil Preparation
H13010125-002	Pre METV1-17 0-1" [0-1]	10/23/12 9:30	01/08/13	Soil	Same As Above
H13010125-003	Pre METV1-18 0-1" [0-1]	10/23/12 10:00	0 01/08/13	Soil	Same As Above
H13010125-004	Pre METV1-19 0-1" [0-1]	10/23/12 10:30	0 01/08/13	Soil	Same As Above
H13010125-005	Pre METV1-20 0-1" [0-1]	10/23/12 11:00	0 01/08/13	Soil	Same As Above
H13010125-006	Pre METV1-20d 0-1" [0-1]	10/23/12 11:30	0 01/08/13	Soil	Same As Above
H13010125-007	Pre METV1-21 0-1" [0-1]	10/23/12 13:30	01/08/13	Soil	Same As Above
H13010125-008	Pre METV1-22 0-1" [0-1]	10/23/12 14:00	01/08/13	Soil	Same As Above
H13010125-009	Pre METV1-23 0-1" [0-1]	10/23/12 14:30	01/08/13	Soil	Same As Above
H13010125-010	Pre METV1-24 0-1" [0-1]	10/23/12 15:00	01/08/13	Soil	Same As Above
H13010125-011	Pre METV1-25 0-1" [0-1]	10/23/12 15:30	01/08/13	Soil	Same As Above
H13010125-012	Pre METV1-26 0-1" [0-1]	10/24/12 11:00	01/08/13	Soil	Same As Above
H13010125-013	Pre METV1-27 0-1" [0-1]	10/24/12 11:30	01/08/13	Soil	Same As Above
H13010125-014	Pre METV1-28 0-1" [0-1]	10/24/12 12:00	01/08/13	Soil	Same As Above
H13010125-015	Pre METV1-29 0-1" [0-1]	10/24/12 13:30	01/08/13	Soil	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 3161 E. Lyndale Ave., Helena, MT 59604, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

Digitally signed by Amanda B. Blackburn

Date: 2013.01.18 11:25:48 -07:00



Helena, MT 877-472-0711 & Billings, MT 800-735-4489 ® Casper, WY 868-235-0515 Gillette, WY 866-686-7175 ® Rapid City, SD 888-672-1225 ® College Station, TX 888-690-2218

LABORATORY ANALYTICAL REPORT Prepared by Helena, MT Branch

	Renort Date: 04147/43	Date Boosings of 100Hp	Date necessed. 01/08/13	
in part of a par				
	SDL Enterprises	1001 EHSD METV1	H13010125	

Workorder: Client: Project:

		Analysis	sis	As-T	Cd-T	Pb-T	
		Units		mg/kg	mg/kg	mg/kg	
Sample ID	Client Sample ID	ď	Low	Results	Results	Results	
H13010125-001	Pre METV1-16 0-1"	0	+	142	20	1510	
H13010125-002	Pre METV1-17 0-1"	0	-	133	17	1540	
H13010125-003	Pre METV1-18 0-1"	0	,-	116	18	1290	
H13010125-004	Pre METV1-19 0-1"	0	,	110	16	1320	
H13010125-005	Pre METV1-20 0-1"	0	,	88	14	987	
H13010125-006	Pre METV1-20d 0-1"	0	-	97	14	1040	
H13010125-007	Pre METV1-21 0-1"	0	-	193	20	2190	
H13010125-008	Pre METV1-22 0-1"	0	-	155	18	1770	
H13010125-009	Pre METV1-23 0-1"	0	-	160	59	2150	
H13010125-010	Pre METV1-24 0-1"	0	-	120	24	1570	
H13010125-011	Pre METV1-25 0-1"	0		117	59	1640	
H13010125-012	Pre METV1-26 0-1"	0	-	104	29	1670	
	Pre METV1-27 0-1"	0	-	87	22	1270	
H13010125-014	Pre METV1-28 0-1"	0	-	86	20	1340	
H13010125-015	Pre METV1-29 0-1"	0	-	81	22	1090	

Helena, MT 877-472-0711 © Billings, MT 800-735-4489 © Casper, WY 808-235-0515 Gillette, WY 866-686-7175 © Rapid City, SD 888-672-1225 © College Station, TX 868-690-2218

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: SDL Enterprises

Project: 1001 EHSD METV1

Report Date: 01/17/13

Work Order: H13010125

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7							Ana	lytical Ru	ın: ICP2-HE	130114E
Sample ID: ICV	3 Init	ial Calibration	on Verificati	on Standard					01/14	13 11:35
Arsenic		0.795	mg/L	0.0092	99	90	110			
Cadmium		0.392	mg/L	0.0010	98	90	110			
Lead		0.774	mg/L	0.013	97	90	110			
Sample ID: ICSA	3 Inte	erference Cl	neck Sampl	e A					01/14/	13 11:50
Arsenic		-0.00599	mg/L	0.0092		0	0			
Cadmium		0.00206	mg/L	0.0010		0	0			
Lead		0.0189	mg/L	0.013		0	0			
Sample ID: ICSAB	3 Inte	erference Ch	neck Sample	e AB					01/14/	13 11:54
Arsenic		1.09	mg/L	0.0092	109	80	120		(D) 54, 1, 181	
Cadmium		0.917	mg/L	0.0010	92	80	120			
Lead		0.980	mg/L	0.013	98	80	120			

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: SDL Enterprises

Project: 1001 EHSD METV1

Report Date: 01/17/13

Work Order: H13010125

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6010B									Bate	ch: 19234
Sample ID: MB-19234	3 Ме	thod Blank				Run: ICP2-I	HE_130114B		01/14/	13 15:06
Arsenic		ND	mg/kg	0.4						
Cadmium		ND	mg/kg	0.01						
Lead		ND	mg/kg	1						
Sample ID: LFB-19234	3 Lab	oratory For	tified Blank			Run: ICP2-l	HE_130114B		01/14/	13 15:10
Arsenic		50.4	mg/kg	1.0	101	80	120			
Cadmium		24.9	mg/kg	1.0	100	80	120			
Lead		50.0	mg/kg	1.0	100	80	120			
Sample ID: LCS-19234	3 Lab	oratory Cor	trol Sample			Run: ICP2-F	HE_130114B		01/14/	13 15:14
Arsenic		273	mg/kg	1.5	81	72.3	106.4			
Cadmium		118	mg/kg	1.0	88	73	105.1			
Lead		170	mg/kg	3.0	93	75.9	108.6			
Sample ID: H13010125-015AMS	3 Sar	nple Matrix	Spike			Run: ICP2-F	HE_130114B		. 01/14/	13 17:01
Arsenic		125	mg/kg	1.5	89	75	125			
Cadmium		45.3	mg/kg	1.0	92	75	125			
Lead		1140	mg/kg	3.1		75	125			Α
Sample ID: H13010125-015AMSI	D 3 San	nple Matrix	Spike Duplicate			Run: ICP2-F	IE_130114B		01/14/-	13 17:04
Arsenic		128	mg/kg	1.5	95	75	125	2.2	20	
Cadmium		47.9	mg/kg	1.0	103	75	125	5.6	20	
Lead		1210	mg/kg	3.1		75	125	5.8	20	Α

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

Helena, MT 877-472-0711 © Billings, MT 800-735-4489 © Casper, WY 888-235-0515 Gillette, WY 866-686-7175 © Rapid City, SD 888-672-1225 © College Station, TX 888-690-2218

Standard Reporting Procedures

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

Workorder Receipt Checklist

SDL Enterprises

None

H13010125

Login completed by:	Wanda Johnson		Date	Received: 1/8/2013
Reviewed by:	BL2000\sdull		Re	ceived by: elm
Reviewed Date:	1/10/2013			Carrier Hand Del name:
Shipping container/cooler in g	good condition?	Yes √	No 🗌	Not Present
Custody seals intact on shipp	ping container/cooler?	Yes	No 🗌	Not Present ✓
Custody seals intact on samp	ble bottles?	Yes	No 🗌	Not Present ✓
Chain of custody present?		Yes ✓	No 🗌	
Chain of custody signed when	n relinquished and received?	Yes 🗸	No 🗌	
Chain of custody agrees with	sample labels?	Yes 🗸	No 🗌	
Samples in proper container/b	oottle?	Yes 🗸	No 🗌	
Sample containers intact?		Yes ✓	No 🗌	
Sufficient sample volume for i	indicated test?	Yes 🗸	No 🗌	
All samples received within ho (Exclude analyses that are co such as pH, DO, Res CI, Sulf	nsidered field parameters	Yes 🗸	No 🗌	
Temp Blank received?		Yes	No 🗸	Not Applicable
Container/Temp Blank temper	rature:	12.3℃ No Ice		
Water - VOA vials have zero h	neadspace?	Yes	No 🗌	No VOA vials submitted
Water - pH acceptable upon re	eceipt?	Yes	No 🗌	Not Applicable
Contact and Corrective Action	Comments:			



					•	R/AY/12	tojayfra	Elfreja.	PO/24/2	K/23/12	10/23/12	10 A 3/13	10/23/21	21/52/14	10/23/12	10/83/12	16/83/12	io[63]ia	Missia	Masha	DATE ST	SAMPLERS: (Signature)	/00/	CIN LODGE
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2	Date/Time		Date/Time	1609	Date Time	(4-4)	(610)	(643)	(n+0)	(0+1)	(0-;4)	(200	(04")	(0-10)	(ot-9)	(mrd)	10-1")	(0-10)	(a+0)	10-1	SAMPLE NUMBER		PROJECT NAME	
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F 8-13 16:19[1] Cover Letter	me Enclosed:	15m0 12.3 ft8/100	Remarks	Air Bill #	LAB Shipped via: FedEx, Ups															H130/0/25		REMARKS		

Gillette, WY 866-686-7175 © Rapid City, SD 888-672-1225 © College Station, TX 888-690-2218

ANALYTICAL SUMMARY REPORT

January 17, 2013

SDL Enterprises PO Box 1122 E Helena, MT 59635-1125

Workorder No.: H13010126

Project Name: 1001 EHSD METV1

Energy Laboratories Inc Helena MT received the following 15 samples for SDL Enterprises on 1/8/2013 for analysis.

				to the many old.
Sample ID	Client Sample ID	Collect Date Receive Date	Matrix	Test
H13010126-001	Pre METV1-30 (0-1")	10/24/12 14:00 01/08/13	Soil	Metals by ICP/ICPMS, Total Digestion, Total Metals Soil Preparation
H13010126-002	Pre METV1-31 (0-1")	10/24/12 14:30 01/08/13	Soil	Same As Above
H13010126-003	Pre METV1-32 (0-1")	10/24/12 15:00 01/08/13	Soil	Same As Above
H13010126-004	Pre METV1-33 (0-1")	10/24/12 15:30 01/08/13	Soil	Same As Above
H13010126-005	Pre METV1-34 (0-1")	10/25/12 10:00 01/08/13	Soil	Same As Above
H13010126-006	Pre METV1-35 (0-1")	10/25/12 10:30 01/08/13	Soil	Same As Above
H13010126-007	Pre METV1-36 (0-1")	10/25/12 11:00 01/08/13	Soil	Same As Above
H13010126-008	Pre METV1-37 (0-1")	10/25/12 11:30 01/08/13	Soil	Same As Above
H13010126-009	Pre METV1-38 (0-1")	10/25/12 12:00 01/08/13	Soil	Same As Above
H13010126-010	Pre METV1-39 (0-1")	10/25/12 13:30 01/08/13	Soil	Same As Above
H13010126-011	Pre METV1-40 (0-1")	10/25/12 14:00 01/08/13	Soil	Same As Above
H13010126-012	Pre METV1-40d (0-1")	10/25/12 14:30 01/08/13	Soil	Same As Above
H13010126-013	Pre METV1-41 (0-1")	10/25/12 15:00 01/08/13	Soil	Same As Above
H13010126-014	Pre METV1-42 (0-1")	10/26/12 10:00 01/08/13	Soil	Same As Above
H13010126-015	Pre METV1-43 (0-1")	10/26/12 10:30 01/08/13	Soil	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 3161 E. Lyndale Ave., Helena, MT 59604, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

Digitally signed by Amanda B. Blackburn

Date: 2013.01.18 11:28:18 -07:00



Client:

Helena, MT 877-472-0711 * Billings, MT 800-735-4489 * Casper, WY 808-235-0515 Gillette, WY 865-686-7175 * Rapid City, SD 888-672-1225 * College Station, TX 888-690-2218

LABORATORY ANALYTICAL REPORT Prepared by Helena, MT Branch

Report Date: 01/17/13 Date Received: 01/08/13 SDL Enterprises 1001 EHSD METV1 H13010126 Workorder: Project:

		•		-	-	
		Units		mg/kg	mg/kg	тд/кд
Sample ID	Client Sample ID	dn	Low	Results	Results	Results
H13010126-001	Pre METV1-30 (0-1")	0	0	78	20	1270
	Pre METV1-31 (0-1")	0	0	144	33	2290
H13010126-003	Pre METV1-32 (0-1")	0	0	127	34	1550
H13010126-004	Pre METV1-33 (0-1")	0	0	92	27	1250
H13010126-005	Pre METV1-34 (0-1")	0	0	86	27	1250
H13010126-006	Pre METV1-35 (0-1")	0	0	46	27	1250
H13010126-007	Pre METV1-36 (0-1")	0	0	81	23	1010
H13010126-008	Pre METV1-37 (0-1")	0	0	9/	22	961
H13010126-009	Pre METV1-38 (0-1")	0	0	92	25	1080
H13010126-010	Pre METV1-39 (0-1")	0	0	61	19	784
H13010126-011	Pre METV1-40 (0-1")	0	0	61	21	884
H13010126-012 F	Pre METV1-40d (0-1")	0	0	89	20	8003
H13010126-013 F	Pre METV1-41 (0-1")	0	0	185	30	2520
H13010126-014 F	Pre METV1-42 (0-1")	0	0	153	35	2910
H13010126-015 F	Pre METV1-43 (0-1")	0	0	123	36	2050



QA/QC Summary Report

Prepared by Helena, MT Branch

Client: SDL Enterprises

Project: 1001 EHSD METV1

Report Date: 01/17/13 **Work Order:** H13010126

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7							An	alytical Ru	ın: ICP2-HE_	_130115B
Sample ID: ICV	3 Ini	tial Calibratio	on Verificati	on Standard					01/15/	/13 10:02
Arsenic		0.787	mg/L	0.0092	98	90	110			
Cadmium		0.395	mg/L	0.0010	99	90	110			
Lead		0.783	mg/L	0.013	98	90	110			
Sample ID: ICSA	3 Inte	erference Ch	neck Sampl	e A					01/15/	13 10:17
Arsenic		-0.00129	mg/L	0.0092		0	0			
Cadmium		-0.00354	mg/L	0.0010		0	0			
Lead		-0.00340	mg/L	0.013		0	0			
Sample ID: ICSAB	3 Inte	erference Ch	neck Sampl	e AB					01/15/	13 10:21
Arsenic		1.08	mg/L	0.0092	108	80	120			
Cadmium		0.907	mg/L	0.0010	91	80	120			
Lead		0.955	mg/L	0.013	95	80	120			

Qualifiers:

RL - Analyte reporting limit.

Helena, MT 877-472-0711 · Billings, MT 800-735-4489 · Casper, WY 808-235-0515 Gillette, WY 866-686-7175 · Rapid City, SD 888-672-1225 · College Station, TX 888-690-2218

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: SDL Enterprises

Report Date: 01/17/13

Project: 1001 EHSD METV1

Work Order: H13010126

Analyte	Count Resu	t Units	RL	%REC L	ow Limit I	High Limit	RPD	RPDLimit	Qual
Method: SW6010B					****			Bato	ch: 19244
Sample ID: MB-19244	3 Method Bla	nk		R	lun: ICP2-HE	E_130115B		01/15/	13 11:18
Arsenic	Ni	D mg/kg	0.4						
Cadmium	NI	D mg/kg	0.01						
Lead	Ni) mg/kg	1						
Sample ID: LFB-19244	3 Laboratory	Fortified Blank		R	un: ICP2-HE	E_130115B		01/15/	13 11:22
Arsenic	47.	0 mg/kg	1.0	94	80	120			
Cadmium	23.	3 mg/kg	1.0	93	80	120			
Lead	45.	3 mg/kg	1.0	92	80	120			
Sample ID: LCS-19244	3 Laboratory	Control Sample		R	un: ICP2-HE	E_130115B		01/15/	13 11:25
Arsenic	27	5 mg/kg	1.5	80	72.3	106.4			
Cadmium	116	i mg/kg	1.0	85	73	105.1			
Lead	169	mg/kg	3.1	91	75.9	108.6			
Sample ID: H13010126-015AMS	3 Sample Mat	rix Spike		R	un: ICP2-HE	E_130115B		01/15/	13 12:45
Arsenic	156	s mg/kg	1.5	67	75	125			S
Cadmium	52.8	B mg/kg	1.0	70	75	125			S
Lead	1930) mg/kg	3.1		75	125			Α
Sample ID: H13010126-015AMSD	3 Sample Mat	rix Spike Duplicate		R	un: ICP2-HE	130115B		01/15/	13 12:49
Arsenic	158		1.5	72	75	125	1.5	20	S S
Cadmium	53.3	mg/kg	1.0	72	75	125	0.9	20	S
Lead	1910	mg/kg	3.1		75	125	1.1	20	A

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

S - Spike recovery outside of advisory limits.

Helena, MT 877-472-0711 ® Billings, MT 800-735-4489 ® Casper, WY 888-235-0515 Gillette, WY 866-686-7175 © Rapid City, SD 888-672-1225 © College Station, TX 888-690-2218

Standard Reporting Procedures

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

Workorder Receipt Checklist

SDL Enterprises

None

H13010126

Login completed by:	Esther L. Merritt		Date	Received: 1/8/2013
Reviewed by:	BL2000\sdull		Re	eceived by: elm
Reviewed Date:	1/10/2013			Carrier Hand Del name:
Shipping container/cooler in	good condition?	Yes 🔽	No 🗌	Not Present
Custody seals intact on ship	ping container/cooler?	Yes	No 🗌	Not Present 🗹
Custody seals intact on sam	ple bottles?	Yes 🗌	No 🗌	Not Present ✓
Chain of custody present?		Yes 🗸	No 🗌	
Chain of custody signed whe	en relinquished and received?	Yes 🗸	No 🗌	
Chain of custody agrees with	sample labels?	Yes 🔽	No 🗌	
Samples in proper container/	/bottle?	Yes 🗹	No 🗌	
Sample containers intact?		Yes ✓	No 🗌	
Sufficient sample volume for	indicated test?	Yes ✓	No 🗌	
All samples received within h (Exclude analyses that are co such as pH, DO, Res CI, Sul	onsidered field parameters	Yes ✓	No 🗌	
Temp Blank received?		Yes	No 🗹	Not Applicable
Container/Temp Blank tempe	erature:	12.3℃ No lce		
Water - VOA vials have zero	headspace?	Yes	No 🗌	No VOA vials submitted
Water - pH acceptable upon i	receipt?	Yes 🗌	No 🗌	Not Applicable
Contact and Corrective Action	n Comments:			



Page 6 of 6

1001 EHSD METV1

ANALYTICAL SUMMARY REPORT

January 17, 2013

Project Name:

SDL Enterprises PO Box 1122 E Helena, MT 59635-1125

E l'Iciciia, Wil ecce : :20

Workorder No.: H13010127

Energy Laboratories Inc Helena MT received the following 15 samples for SDL Enterprises on 1/8/2013 for analysis.

Lifelgy Laborator	noo mo morana ma marana				
Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H13010127-001	Pre METV1-44 0-1" [0-1]	10/26/12 11:	:00 01/08/13	Soil	Metals by ICP/ICPMS, Total Digestion, Total Metals Soil Preparation
H13010127-002	Pre METV1-45 0-1" [0-1]	10/26/12 11:	30 01/08/13	Soil	Same As Above
H13010127-003	Pre METV1-46 0-1" [0-1]	10/26/12 12	:00 01/08/13	Soil	Same As Above
H13010127-004	Pre METV1-47 0-1" [0-1]	10/26/12 13	:30 01/08/13	Soil	Same As Above
H13010127-005	Pre METV1-48 0-1" [0-1]	10/26/12 14	:00 01/08/13	Soil	Same As Above
H13010127-006	Pre METV1-49 0-1" [0-1]	10/26/12 14	:30 01/08/13	Soil	Same As Above
H13010127-007	Pre METV1-50 0-1" [0-1]	10/26/12 15	:00 01/08/13	Soil	Same As Above
H13010127-008	Pre METV1-51 0-1" [0-1]	10/29/12 11	:00 01/08/13	Soil	Same As Above
H13010127-009	Pre METV1-52 0-1" [0-1]	10/29/12 11	:30 01/08/13	Soil	Same As Above
H13010127-010	Pre METV1-53 0-1" [0-1]	10/29/12 12	:00 01/08/13	Soil	Same As Above
H13010127-011	Pre METV1-54 0-1" [0-1]	10/29/12 12	:30 01/08/13	Soil	Same As Above
H13010127-012	Pre METV1-P1a 0-4" [0-4] 10/29/12 13	:30 01/08/13	Soil	Same As Above
H13010127-013	Pre METV1-P1b 4-6" [4-6	5] 10/29/12 14	:00 01/08/13	Soil	Same As Above
H13010127-014	Pre METV1-P1c 4-8" [4-8] 10/29/12 14	:30 01/08/13	Soil	Same As Above
H13010127-015	Pre METV1-P1d 8-12" [8- 12]	- 10/29/12 15	:00 01/08/13	Soil	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 3161 E. Lyndale Ave., Helena, MT 59604, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

Digitally signed by Amanda B. Blackburn

Date: 2013.01.18 11:29:45 -07:00



SDL Enterprises 1001 EHSD METV1

Client:

Helena, MT 877-472-0711 ° Billings, MT 800-735-4489 ° Casper, WY 888-235-0515 Gillette, WY 865-686-7175 ° Rapid City, SD 888-672-1225 ° College Station, TX 888-590-2218

LABORATORY ANALYTICAL REPORT Prepared by Helena, MT Branch

Report Date: 01/17/13 Date Received: 01/08/13

Project:	1001 EHSD METV1	-					Date Received: 01/08/13
Workorder:	H13010127						
		Analysis	As-T	F.	Cd-T	Pb-T	
		Units	ш	mg/kg	mg/kg	mg/kg	
Sample ID	Client Sample ID	Up Low	ш.	lesults	Results	Results	
H13010127-001	Pre METV1-44 0-1"	0 1	6	91	34	1850	
H13010127-002	Pre METV1-45 0-1"	0 1	6	96	59	1400	
H13010127-003	Pre METV1-46 0-1"	0 1	7	2	33	1730	
H13010127-004	Pre METV1-47 0-1"	0	ω	000	56	1240	
H13010127-005	Pre METV1-48 0-1"	0	7	75	27	1470	
H13010127-006	Pre METV1-49 0-1"	0 1	٣	39	28	1400	
H13010127-007	Pre METV1-50 0-1"	0 1	w	1.0	22	1280	
H13010127-008	Pre METV1-51 0-1"	0 1	-	35	27	1740	
H13010127-009	Pre METV1-52 0-1"	0 1	-	23	22	1320	
H13010127-010	Pre METV1-53 0-1"	0	ω	34	42	2070	
H13010127-011	Pre METV1-54 0-1"	0	0,	96	34	1770	
H13010127-012	Pre METV1-P1a 0-4"	0 4	0,	66	22	711	
H13010127-013	Pre METV1-P1b 4-6"	4 6	.,	23	27	144	
H13010127-014	Pre METV1-P1c 4-8"	4 8		20	22	350	
H13010127-015	Pre METV1-P1d 8-12"	8	01	32	9	226	

Prepared by Helena, MT Branch

Client: SDL Enterprises
Project: 1001 EHSD METV1

Report Date: 01/17/13

Work Order: H13010127

Analyte		Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	E200.7						A	nalytical Ru	un: ICP2-HE_	_130116A
Sample ID:	ICV	Initial Calibra	tion Verific	ation Standard					01/16	3/13 08:57
Arsenic		0.808	mg/L	0.0092	101	90	110			
Cadmium		0.397	mg/L	0.0010	99	90	110			
Lead		0.809	mg/L	0.013	101	90	110			
Sample ID:	ICSA	Interference	Check San	nple A					01/16	6/13 09:12
Arsenic		-0.00612	mg/L	0.0092		0	0			
Cadmium		0.000900	mg/L	0.0010		0	0			
Lead		0.0562	mg/L	0.013		0	0			
Sample ID:	ICSAB	Interference	Check San	nple AB					01/16	6/13 09:16
Arsenic		1.11	mg/L	0.0092	111	80	120			
Cadmium		0.921	mg/L	0.0010	92	80	120			
Lead		0.965	mg/L	0.013	96	80	120			
Method:	E200.7		<u> </u>				A	nalytical R	un: ICP2-HE	_130117B
Sample ID:	ICV	Initial Calibra	ation Verific	ation Standard					01/17	7/13 09:30
Arsenic	300 - 3000	0.808	mg/L	0.0092	101	90	110			
Sample ID:	ICSA	Interference	Check Sar	nple A					01/17	7/13 09:45
Arsenic		0.00487	mg/L	0.0092		0	0			
Sample ID:	ICSAB	Interference	Check Sar	nple AB					01/17	7/13 09:49
Arsenic		1.10	mg/L	0.0092	110	80	120			

Qualifiers:

RL - Analyte reporting limit.

Prepared by Helena, MT Branch

Client: SDL Enterprises

Project: 1001 EHSD METV1

Report Date: 01/17/13
Work Order: H13010127

Analyte		Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	SW6010B								Bate	ch: 19245
Sample ID:	MB-19245	Method Blank				Run: ICP2-	HE 130116A		01/16	/13 09:31
Arsenic		ND	mg/kg	0.4						
Cadmium		ND	mg/kg	0.01						
Lead		ND	mg/kg	1						
Sample ID:	LFB-19245	Laboratory Fo	rtified Blank			Run: ICP2-	HE_130116A		01/16	/13 09:35
Arsenic		50.3	mg/kg	1.0	101	80	120			
Cadmium		24.9	mg/kg	1.0	100	80	120			
Lead		51.4	mg/kg	1.0	103	80	120			
Sample ID:	LCS-19245	Laboratory Co	entrol Sample			Run: ICP2-	HE_130116A		01/16/	13 09:39
Arsenic		287	mg/kg	1.5	84	72.3	106.4			,
Cadmium	,	123	mg/kg	1.0	91	73	105.1			
Lead		186	mg/kg	3.1	100	75.9	108.6			
Sample ID:	H13010127-015AMS	Sample Matrix	Spike			Run: ICP2-I	HE_130116A		01/16/	13 10:59
Arsenic		82.7	mg/kg	1.5	108	75	125			
Cadmium		29.2	mg/kg	1.0	95	75	125			
Lead		279	mg/kg	3.1		75	125			Α
Sample ID:	H13010127-015AMSD	Sample Matrix	Spike Duplicate			Run: ICP2-I	HE_130116A		01/16/	13 11:02
Arsenic		82.7	mg/kg	1.5	108	75	125	0.1	20	
Cadmium		28.9	mg/kg	1.0	94	75	125	8.0	20	
Lead		305	mg/kg	3.1		75	125	9.0	20	Α
Method: S	SW6010B								Batc	h: 19245
Sample ID:	MB-19245	Method Blank				Run: ICP2-l	HE_130117B		01/17/	13 11:18
Arsenic		ND	mg/kg	0.4						
Cadmium		ND	mg/kg	0.01						
Lead		ND	mg/kg	1						
Lead		ND	mg/kg	1						

Qualifiers:

RL - Analyte reporting limit.

Helena, MT 877-472-0711 · Billings, MT 800-735-4489 · Casper, WY 888-235-0515 Gillette, WY 866-686-7175 · Rapid City, SD 888-672-1225 · College Station, TX 888-690-2218

Standard Reporting Procedures

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as -dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

Workorder Receipt Checklist

SDL Enterprises

None

H13010127

Login completed by:	Wanda Johnson		Date	Received: 1/8/2013	
Reviewed by:	BL2000\sdull		Re	eceived by: elm	
Reviewed Date:	1/10/2013			Carrier Hand Del name:	
Shipping container/cooler in	good condition?	Yes ✓	No 🗌	Not Present	
Custody seals intact on shipp	ping container/cooler?	Yes	No 🗌	Not Present 🗸	
Custody seals intact on samp	ble bottles?	Yes	No 🗌	Not Present ✓	
Chain of custody present?		Yes 🗹	No 🗌		
Chain of custody signed whe	n relinquished and received?	Yes 🗸	No 🗌		
Chain of custody agrees with	sample labels?	Yes 🔽	No 🗌		
Samples in proper container/l	pottle?	Yes 🔽	No 🗌		
Sample containers intact?		Yes 🗹	No 🗌		
Sufficient sample volume for i	ndicated test?	Yes 🗸	No 🗌		
All samples received within ho (Exclude analyses that are co such as pH, DO, Res CI, Sulf	nsidered field parameters	Yes ✓	No 🗌		
Temp Blank received?		Yes	No 🔽	Not Applicable	
Container/Temp Blank temper	ature:	12.3℃ No Ice			
Water - VOA vials have zero h	neadspace?	Yes	No 🗌	No VOA vials submitted	
Water - pH acceptable upon r	eceipt?	Yes 🗌	No 🗌	Not Applicable	
Contact and Corrective Action	Comments:				:



								100/10/2	10/18/14	E//25/8/	10/201/3	Erhelai	2:/62/21	E/16E/91	10/9/13	BIGEIN	1026/13	10/26/12	196/01	relas lia	The liast	supplet.	DATE SI	200.	(00)	PROJ. NO
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		·	Date/Time		Date/Time	18:06	Date/Time	12/2	(84)	(4-6)	(0.4)	10-10)	10	Ó	Ø	0	6	0	16	6	(g)	0	SAMPLE NUMBER		ETVI	PROJECT NAME
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1001 EHSD METV1 SDL Enterprises

Client: Project: Workorder:

Helena, MT 677-472-0711 • Billings, MT 800-735-4489 • Casper, WY 868-235-0515 Gillette, WY 866-686-7175 • Rapid City, SD 888-672-1225 • College Station, TX 888-590-2218

LABORATORY ANALYTICAL REPORT Prepared by Helena, MT Branch

Report Date: 01/17/13

Date Received: 01/08/13

Workorder:	H13010122						Late Received: 01/08/13
		Analysis	Si S	As-T	L-b0	Pb-T	
	1	Units	ya.	mg/kg	mg/kg	mg/kg	
Sample ID	Client Sample ID	η	Low	Results	Results	Results	
H13010122-001	Pre METV1-P2a 0-4"	0	4	47	9	132	
H13010122-002	Pre METV1-P2b 4-6"	4	9	80	8	30	
H13010122-003	Pre METV1-P2bd 4-6"	4	9	80	8	33	
H13010122-004	Pre METV1-P2c 4-8"	4	80	15	, ,	29	
H13010122-005	Pre METV1-P2d 8-12"	8	12	13	<u>^</u>	34	
H13010122-006	Pre METV1-P3a 0-4"	0	4	85	12	468	
H13010122-007	Pre METV1-P3b 4-6"	4	9	15	4	53	
H13010122-008	Pre METV1-P3c 4-8"	4	80	18	S	84	
H13010122-009	Pre METV1-P3d 8-12"	œ	12	15	<u>_</u>	50	
H13010122-010	Pre METV1-P4a 0-4"	0	4	151	12	1050	
H13010122-011	Pre METV1-P4b 4-6"	4	9	82	16	519	
H13010122-012	Pre METV1-P4c 4-8"	4	8	55	20	245	
H13010122-013	Pre METV1-P4d 8-12"	œ	12	30	41	138	
H13010122-014	Pre METV1-P5a 0-4"	0	4	35	80	133	
H13010122-015	Pre METV1-P5b 4-6"	4	9	24	വ	54	



Prepared by Helena, MT Branch

Client: SDL Enterprises

Project: 1001 EHSD METV1

Report Date: 01/17/13 **Work Order:** H13010122

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7				-	***********	· · · · · · · · · · · · · · · · · · ·	Ana	alytical Ru	ın: ICP2-HE_	130111
Sample ID: ICV	3 Init	ial Calibration	on Verificatio	n Standard					01/11/	/13 10:42
Arsenic		0.814	mg/L	0.0092	102	90	110			
Cadmium		0.396	mg/L	0.0010	99	90	110			
Lead		0.754	mg/L	0.013	94	90	110			
Sample ID: ICSA	3 Inte	erference Cl	neck Sample	Α					01/11/	13 10:57
Arsenic		-0.0177	mg/L	0.0092		0	0			
Cadmium		0.00197	mg/L	0.0010		0	0			
Lead		0.0114	mg/L	0.013		0	0			
Sample ID: ICSAB	3 Inte	rference Ch	neck Sample	AB					01/11/	13 11:01
Arsenic		1.07	mg/L	0.0092	107	80	120			
Cadmium		0.902	mg/L	0.0010	90	80	120			
Lead		0.972	mg/L	0.013	97	80	120			
Method: E200.7					*************		Ana	lytical Ru	n: ICP2-HE_	130114E
Sample ID: ICV	3 Initi	al Calibratio	n Verification	Standard						13 11:35
Arsenic		0.795	mg/L	0.0092	99	90	110			
Cadmium		0.392	mg/L	0.0010	98	90	110			
Lead		0.774	mg/L	0.013	97	90	110			
Sample ID: ICSA	3 Inte	rference Ch	eck Sample	A					01/14/	13 11:50
Arsenic		-0.00599	mg/L	0.0092		0	0			
Cadmium		0.00206	mg/L	0.0010		0	0			
Lead		0.0189	mg/L	0.013		0	0			
Sample ID: ICSAB	3 Inter	ference Ch	eck Sample	AB					01/14/1	13 11:54
Arsenic		1.09	mg/L	0.0092	109	80	120			
Cadmium		0.917	mg/L	0.0010	92	80	120			
Lead		0.980	mg/L	0.013	98	80	120			
Method: E200.7							Anal	lytical Ru	n: ICP2-HE_	130115B
Sample ID: ICV	Initia	d Calibration	n Verification	Standard				-		3 10:02
Arsenic		0.787	mg/L	0.0092	98	90	110		31/10/1	10.02
Sample ID: ICSA	Inter	ference Ch	eck Sample /	Ą					01/15/1	3 10:17
Arsenic		0.00129	mg/L	0.0092		0	0		31/10/1	3 10.17
Sample ID: ICSAB	Inter	ference Ch	eck Sample /	AB					01/15/1	3 10:21
Arsenic		1.08	mg/L	0.0092	108	80	120		0 1/10/1	0 10.21

Qualifiers:

RL - Analyte reporting limit.



Prepared by Helena, MT Branch

Client: SDL Enterprises

Report Date: 01/17/13
Work Order: H13010122

Project: 1001 EHSD METV1

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6010B									Bato	h: 19222
Sample ID: MB-19222	3 Me	ethod Blank				Run: ICP2-I	HE_130111B			13 11:58
Arsenic		0.7	mg/kg	0.4						
Cadmium		0.02	mg/kg	0.01						
Lead		ND	mg/kg	1						
Sample ID: LFB-19222	3 Lal	poratory Fo	rtified Blank			Run: ICP2-l	HE_130111B		01/11/	13 12:01
Arsenic		50.5	mg/kg	1.0	100	80	120		01/11/	10 12.01
Cadmium		24.5	mg/kg	1.0	98	80	120			
Lead		48.5	mg/kg	1.0	97	80	120			
Sample ID: LCS-19222	3 Lat	oratory Co	ntrol Sample			Run: ICP2-F	HE_130111B		01/11/	3 12:05
Arsenic		284	mg/kg	1.5	84	72.3	106.4		01/11/	0 12.00
Cadmium		120	mg/kg	1.0	89	73	105.1			
Lead		174	mg/kg	3.0	95	75.9	108.6			
Sample ID: H13010122-015AMS	3 Sar	mple Matrix	Spike			Run: ICP2-F	IE 130111B		01/11/1	3 13:26
Arsenic		69.1	mg/kg	1.5	90	75	125		01/11/1	3 13.20
Cadmium		26.6	mg/kg	1.0	89	75	125			
Lead		96.9	mg/kg	3.1	106	75	125			
Sample ID: H13010122-015AMSD	3 San	nple Matrix	Spike Duplicate			Run: ICP2-H	IE 130111B		01/11/1	3 13:30
Arsenic		67.8	mg/kg	1.5	88	75	125	1.9	20	0 10.00
Cadmium		25.3	mg/kg	1.0	84	75	125	5.2	20	
Lead		82.6	mg/kg	3.1	77	75	125	16	20	
Method: SW6010B									Ratel	1: 19222
Sample ID: MB-19222	3 Met	hod Blank				Run: ICP2-H	F 130114B			
Arsenic		ND	mg/kg	0.4		rian. for £ 11	L_100114D		01/14/1	3 12:35
Cadmium		ND	mg/kg	0.01						
Lead		ND	mg/kg	1						
Method: SW6010B			H-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1					***	Potoh	: 19222
Sample ID: MB-19222	3 Meth	nod Blank			ì	Run: ICP2-H	E 12011ED			
Arsenic		ND	mg/kg	0.4		1 turi. 101 Z-11	L_130113D		01/15/1:	3 11:06
Cadmium		ND	mg/kg	0.01						
Lead		ND	mg/kg	1						
Lead		ND	mg/kg	1						

Qualifiers:

RL - Analyte reporting limit.

Helena, MT 877-472-0711 © Billings, MT 800-735-4489 © Casper, WY 888-235-0515 Gillette, WY 866-686-7175 © Rapid City, SD 888-672-1225 © College Station, TX 888-690-2218

Standard Reporting Procedures

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

Workorder Receipt Checklist

SDL Enterprises

H13010122

Login completed by:	Wanda Johnson		Date	e Received: 1/8/2013
Reviewed by:	BL2000\sdull		R	eceived by: elm
Reviewed Date:	1/11/2013			Carrier Hand Del name:
Shipping container/cooler in	good condition?	Yes 🗹	No 🗌	Not Present
Custody seals intact on ship	ping container/cooler?	Yes	No 🗌	Not Present 🗹
Custody seals intact on sam	ple bottles?	Yes	No 🗌	Not Present 🗹
Chain of custody present?		Yes 🔽	No 🗌	
Chain of custody signed whe	en relinquished and received?	Yes 🗸	No 🗌	
Chain of custody agrees with	n sample labels?	Yes	No 🗸	
Samples in proper container	/bottle?	Yes 🗸	No 🗌	
Sample containers intact?		Yes 🔽	No 🗌	
Sufficient sample volume for	indicated test?	Yes 🔽	No 🗌	
All samples received within h (Exclude analyses that are co such as pH, DO, Res Cl, Su	onsidered field parameters	Yes ✓	No 🗌	
Temp Blank received?		Yes	No 🗸	Not Applicable
Container/Temp Blank tempe	erature:	12.3℃ No Ice		
Water - VOA vials have zero	headspace?	Yes	No 🗌	No VOA vials submitted
Water - pH acceptable upon	receipt?	Yes []	No 🗌	Not Applicable 🔽
Contact and Corrective Action	n Comments:			

Sample ID on COC is Pre METV1-P2bd 4-6", bag states METV1-P2bd 8-12". Contacted client regarding difference. Wj 1/9/13



œ.				N	21/4/21	16/31/12	Ascha	10/20/12	10/30/13	er/ag/ar	E110x191	10/35/13	10 80/12	19/20/12	E11428)	10/20/12	10/29/13	Elfector.	idaglia	DATE STA#		CAMPI EDC: / Cont.	PROJ. NO	
	Relinquished (Signature)	Remadusiaed (Signature)		Relinquished (Signature)	1430	1400	1220	1200	1130	1100	103	1000	0930	0900	1730	1700	1630	1600	1530	TIME				
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•	we)	ure)			TO METV1- PSB	THETVI-150	REMETHI-PHA	GEMETUI-PHE	R METHI-PHB	Pro METYI-PHA		fre HETVI-PSC	BR METHI-136	Se METHI-P30	PR METVI-Pad	FRE METHI-PAC		FRETIVI-P26	Br METVI-PZa	SAMPLE	Mary	F421-11=11-1	PROJEC	
. (Date/Time	Date/Time	18:05	Date/Time													0	6	24	SAMPLE NUMBER		1	PROJECT NAME	Ĭ
Ì	6				4-6"	D-4"	8-17	4-80	400 11	0-4"	8-8711	4-811	11.9.14	044	8-12"	48"	4-6"	4-6"	0-4"					A DIA
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	Received by: (Signature)	Received by: (Signature)		Received by: (Signature)																	As G	_		Car
	1-8							1						_										
Split Samples: [] Accepted	Date/Time	Remarks		LAB															Z		and the second second			
plit Samples: Accepted Declined	₽	12 2 style // 10	Air Bill #	Shipped via: FedEx, Ups													,		H (30/0/2)		REMARKS			š

ANALYTICAL SUMMARY REPORT

January 17, 2013

SDL Enterprises PO Box 1122 E Helena, MT 59635-1125

Workorder No.: H13010123

Project Name: 1001 EHSD METV1

Energy Laboratories Inc Helena MT received the following 15 samples for SDL Enterprises on 1/8/2013 for analysis.

· ·	2				or moreo to tot analysis.
Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H13010123-001	Pre METV1-P5c 4-8" [4-8]] 10/31/12 15:	00 01/08/13	Soil	Metals by ICP/ICPMS, Total Digestion, Total Metals Soil Preparation
H13010123-002	Pre METV1-P5d 8-12" [8- 12]	10/31/12 15:	30 01/08/13	Soil	Same As Above
H13010123-003	Pre METV1-P6a 0-4" [0-4]] 11/01/12 9:00	01/08/13	Soil	Same As Above
H13010123-004	Pre METV1-P6b 4-6" [4-6]] 11/01/12 9:30	0 01/08/13	Soil	Same As Above
H13010123-005	Pre METV1-P6c 4-8" [4-8]	11/01/12 10:0	00 01/08/13	Soil	Same As Above
H13010123-006	Pre METV1-P6d 8-12" [8- 12]	11/01/12 10:3	30 01/08/13	Soil	Same As Above
H13010123-007	Pre METV1-P7a 0-4" [0-4]	11/01/12 11:0	00 01/08/13	Soil	Same As Above
H13010123-008	Pre METV1-P7b 4-6" [4-6]	11/01/12 11:3	30 01/08/13	Soil	Same As Above
H13010123-009	Pre METV1-P7bd 4-6" [4-6]	11/01/12 12:0	00 01/08/13	Soil	Same As Above
H13010123-010	Pre METV1-P7c 4-8" [4-8]	11/01/12 12:3	30 01/08/13	Soil	Same As Above
H13010123-011	Pre METV1-P7d 8-12" [8- 12]	11/01/12 13:0	00 01/08/13	Soil	Same As Above
H13010123-012	Pre METV1-P8a 0-4" [0-4]	11/02/12 9:00	01/08/13	Soil	Same As Above
H13010123-013	Pre METV1-P8b 4-6" [4-6]	11/02/12 9:30	01/08/13	Soil	Same As Above
H13010123-014	Pre METV1-P8c 4-8" [4-8]	11/02/12 10:0	0 01/08/13	Soil	Same As Above
H13010123-015	Pre METV1-P8d 8-12" [8- 12]	11/02/12 10:3	0 01/08/13	Soil	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 3161 E. Lyndale Ave., Helena, MT 59604, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

Digitally signed by Amanda B. Blackburn

Date: 2013.01.18 11:20:01 -07:00



Helena, MT 877-472-0711 $^\circ$ Billings, MT 800-735-4489 $^\circ$ Casper, WY 888-235-0515 Gillette, WY 866-686-7175 o Rapid City, SD 888-672-1225 o College Station, TX 888-690-2218

LABORATORY ANALYTICAL REPORT Prepared by Helena, MT Branch

Report Date: 01/17/13 Date Received: 01/08/13 1001 EHSD METV1 SDL Enterprises H13010123

Workorder: Project: Client:

		Analysis	Sis	As-T	L-po	Pb-T	
	l	Units	(5)	mg/kg	mg/kg	mg/kg	
Sample ID C	Client Sample ID	d	Low	Results	Results	Results	
H13010123-001 P	Pre METV1-P5c 4-8"	4	8	23	10	99	
H13010123-002 P	Pre METV1-P5d 8-12"	8	12	15	4	46	
H13010123-003 P	Pre METV1-P6a 0-4"	0	4	106	24	331	
H13010123-004 P	Pre METV1-P6b 4-6"	4	9	108	7	154	
	Pre METV1-P6c 4-8"	4	80	21	01	98	
H13010123-006 P	Pre METV1-P6d 8-12"	80	12	16	0	94	
H13010123-007 P	Pre METV1-P7a 0-4"	0	4	70	4	542	
	Pre METV1-P7b 4-6"	4	9	29	7	135	
H13010123-009 P	Pre METV1-P7bd 4-6"	4	9	61	7	128	
H13010123-010 P	Pre METV1-P7c 4-8"	4	œ	44	4	210	
H13010123-011 P	Pre METV1-P7d 8-12"	8	12	34	4	13	
H13010123-012 P	Pre METV1-P8a 0-4"	0	4	29	o	343	
H13010123-013 PI	Pre METV1-P8b 4-6"	4	9	29	က	20	
H13010123-014 Pi	Pre METV1-P8c 4-8"	4	80	26	က	34	
H13010123-015 PI	Pre METV1-P8d 8-12"	ω	12	Ξ	<u>~</u>	34	

Helena, MT 877-472-0711 © Billings, MT 800-735-4489 © Casper, WY 808-235-0515 Gillette, WY 866-686-7175 © Rapid City, SD 888-672-1225 © College Station, TX 808-690-2218

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: SDL Enterprises

Report Date: 01/17/13

Project: 1001 EHSD METV1

Work Order: H13010123

Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	E200.7							An	alytical Ru	ın: ICP2-HE	130111B
Sample ID:	ICV	3 Init	ial Calibration	on Verificati	on Standard						/13 10:42
Arsenic			0.814	mg/L	0.0092	102	90	110		35 2235 11	
Cadmium			0.396	mg/L	0.0010	99	90	110			
Lead			0.754	mg/L	0.013	94	90	110			
Sample ID:	ICSA	3 Inte	erference Cl	neck Sampl	e A					01/11/	13 10:57
Arsenic			-0.0177	mg/L	0.0092		0	0			
Cadmium			0.00197	mg/L	0.0010		0	0			
Lead			0.0114	mg/L	0.013		0	0			
Sample ID:	ICSAB	3 Inte	erference Ch	neck Sampl	e AB					01/11/	13 11:01
Arsenic			1.07	mg/L	0.0092	107	80	120			
Cadmium			0.902	mg/L	0.0010	90	80	120			
Lead			0.972	mg/L	0.013	97	80	120			
Method:	E200.7						-	Ana	alytical Ru	n: ICP2-HE_	130114B
Sample ID:	ICV	Initi	al Calibratio	n Verificatio	on Standard					01/14/	13 11:35
Arsenic			0.795	mg/L	0.0092	99	90	110			
Sample ID:	ICSA	Inte	rference Ch	eck Sample	e A					01/14/	13 11:50
Arsenic			-0.00599	mg/L	0.0092		0	0		01/1-4/	10 11.50
Sample ID: 1	ICSAB	Inte	rference Ch	eck Sample	e AB					01/14/1	13 11:54
Arsenic			1.09	mg/L	0.0092	109	80	120			

Qualifiers:

RL - Analyte reporting limit.

Prepared by Helena, MT Branch

Client: SDL Enterprises
Project: 1001 EHSD METV1

Report Date: 01/17/13

Work Order: H13010123

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6010B				-					Bat	ch: 1922
Sample ID: MB-19223	3 Me	ethod Blank				Run: ICP2-	HE_130111B		01/11	/13 13:33
Arsenic		ND	mg/kg	0.4						
Cadmium		0.03	mg/kg	0.01						
Lead		ND	mg/kg	1						
Sample ID: LFB-19223	3 La	boratory For	rtified Blank			Run: ICP2-I	HE_130111B		01/11	/13 13:37
Arsenic		49.4	mg/kg	1.0	99	80	120			
Cadmium		23.7	mg/kg	1.0	95	80	120			
Lead		47.7	mg/kg	1.0	95	80	120			
Sample ID: LCS-19223	3 Lal	ooratory Cor	ntrol Sample			Run: ICP2-I	HE_130111B		01/11	13 13:41
Arsenic		281	mg/kg	1.5	83	72.3	106.4		01/11/	10 10.11
Cadmium		115	mg/kg	1.0	85	73	105.1			
Lead		169	mg/kg	3.1	91	75.9	108.6			
Sample ID: H13010123-015AMS	3 Sai	mple Matrix	Spike			Run: ICP2-H	HE_130111B		01/11/	13 15:28
Arsenic		56.1	mg/kg	1.5	90	75	125		01/11/	10 10.20
Cadmium		23.5	mg/kg	1.0	94	75	125			
Lead		76.3	mg/kg	3.1	85	75	125			
Sample ID: H13010123-015AMSE	3 Sar	mple Matrix	Spike Duplicate			Run: ICP2-F	IE 130111B		01/11/	13 15:32
Arsenic		59.5	mg/kg	1.5	97	75	125	6.0	20	10 10.02
Cadmium		23.5	mg/kg	1.0	94	75	125	0.1	20	
Lead		71.4	mg/kg	3.1	75	75	125	6.6	20	
Method: SW6010B						·			Bato	h: 19223
Sample ID: MB-19223	3 Met	hod Blank				Run: ICP2-F	IE 130114B			13 13:01
Arsenic		0.5	mg/kg	0.4					01/14/	10.01
Cadmium		ND	mg/kg	0.01						
Lead		ND	mg/kg	1						

Qualifiers:

RL - Analyte reporting limit.

Helena, MT 677-472-0711 © Billings, MT 800-735-4489 © Casper, WY 888-235-0515 Gillette, WY 866-686-7175 © Rapid City, SD 888-672-1225 © College Station, TX 888-690-2218

Standard Reporting Procedures

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as —dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

Workorder Receipt Checklist

SDL Enterprises

None

H13010123

Login completed by:	Wanda Johnson		Date	Received: 1/8/2013	
Reviewed by:	BL2000\sdull		Re	ceived by: elm	
Reviewed Date:	1/10/2013			Carrier Hand Del name:	
Shipping container/cooler in	good condition?	Yes ✓	No 🗌	Not Present	
Custody seals intact on shipp	ping container/cooler?	Yes	No 🗌	Not Present 🗸	
Custody seals intact on samp	ole bottles?	Yes	No 🗌	Not Present 🗹	
Chain of custody present?		Yes ✓	No 🗌		
Chain of custody signed whe	n relinquished and received?	Yes 🗹	No 🗌		
Chain of custody agrees with	sample labels?	Yes 🗸	No 🗌		
Samples in proper container/	bottle?	Yes 🗸	No 🗌		
Sample containers intact?		Yes 🔽	No 🗌		
Sufficient sample volume for	indicated test?	Yes 🗸	No 🗌		
All samples received within he (Exclude analyses that are co such as pH, DO, Res CI, Sul	nsidered field parameters	Yes ✓	No 🗌		
Temp Blank received?		Yes	No ✓	Not Applicable	
Container/Temp Blank temper	rature:	12.3℃ No Ice			
Water - VOA vials have zero l	headspace?	Yes	No 🗌	No VOA vials submitted	\checkmark
Water - pH acceptable upon r		Yes	No 🗌	Not Applicable	
Contact and Corrective Action	Comments:				



										•
PREJ. NO					PROJE	PROJECT NAME	KZ			
	1001				EHSD-METVI	ETVI	NINE			
SAMPLER.	SAMPLERS: (Signature)	nre)		1					·	
	N. C.	h	111	hill	\		Top.	-	·	REMARKS
DATE	STA #	TIME	COMP	GRAB	SAMPLE	SAMPLE NUMBER	NO, OF			
16/31		1500		X	fre METVI-PSC	1.8.	\frac{1}{2}		T	H13010123
10/54/13		2557		X	fre METVI-156	181.8	/ 1			
11/1/18		0900		×	Pre METUI-Pha	(0-4")	/ / /			
11/1/12		08.50		X		7-6	1 /			
colita		1000		X	X fre METVI-86 C	2-8	``			
11/1/13		1630		N	for HETVI-	4-13	1 1			
11/1/13		Call		×	fre HETVI-Pla	6-0	1 / /			
Milia		1/30		×	freMETUI-P76	4.6	1 1			
14/1/2		1200		X	fre METUT-176d	9-4	74 1			
21/1/11		1250		×	fre METVI-PTE	4-8	10 10			
11/1/13		1300		×	Prestie TVI-PTd	8-73	// /			
11/2/13		0,200		X	PretteTVI-PSA	6-9	<i>^</i>			
11/2/11		0930		X	BRAFTUI-P86	9-14	711			
140/12		1000		×	Gre 118 TV1-886	8-10	7, 1	_		
11/2/13		1050		×	PRIETUI-188	8-13				And the second s
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		Relinquished (<i>Signature</i>)	ēd (.	Sign	nature)	Date/Time	Received by: (Signature)		Date/Time	Endosed:
						Jan	ha New H	7	1813 16:0	Parameter List with DTLs Cover Letter
			-	-	The state of the s)	

Split Samples: [] Accepted [] Declined

ANALYTICAL SUMMARY REPORT

January 15, 2013

SDL Enterprises PO Box 1122 E Helena, MT 59635-1125

Workorder No.: H13010121

Project Name: 1001 EHSD METV1

Energy Laboratories Inc Helena MT received the following 10 samples for SDL Enterprises on 1/8/2013 for analysis.

100		-			ONE HOUSE OF THE CONTROL OF STATE OF THE STA
Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H13010121-001	Pre METV1-P9a 0-4 [0-4]	11/02/12 11:	:00 01/08/13	Soil	Metals by ICP/ICPMS, Total Digestion, Total Metals Soil Preparation
H13010121-002	Pre METV1-P9b 4-6 [4-6]	11/02/12 11:	30 01/08/13	Soil	Same As Above
H13010121-003	Pre METV1-P9c 4-8 [4-8]	11/02/12 12:	00 01/08/13	Soil	Same As Above
H13010121-004	Pre METV1-P9d 8-12 [8- 12]	11/02/12 12:	30 01/08/13	Soil	Same As Above
H13010121-005	Pre METV1-P10a 0-4 [0-4]	11/02/12 14:	00 01/08/13	Soil	Same As Above
H13010121-006	Pre METV1-P10b 4-6 [4-6]] 11/02/12 14:	30 01/08/13	Soil	Same As Above
H13010121-007	Pre METV1-P10c 4-8 [4-8]	11/02/12 15:	00 01/08/13	Soil	Same As Above
H13010121-008	Pre METV1-P10d 8-12 [8- 12]	11/02/12 15:	30 01/08/13	Soil	Same As Above
H13010121-009	Pre METV1-55 0-1 [0-1]	11/02/12 16:	00 01/08/13	Soil	Same As Above
H13010121-010	Pre METV1-56 0-1 [0-1]	11/02/12 16:	30 01/08/13	Soil	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 3161 E. Lyndale Ave., Helena, MT 59604, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

Wandr Jeb
Project Manager - Holona, MT

If you have any questions regarding these test results, please call.

Report Approved By:

Digitally signed by Wanda Johnson

Date: 2013.01.16 12:40:39 -07:00



SDL Enterprises 1001 EHSD METV1

H13010121

Project: Workorder: Client:

Helena, MT 877-472-0711 » Billings, MT 800-735-4489 » Casper, WY 888-235-0515 Gillette, WY 866-686-7175 » Rapid City, SD 888-672-1225 » College Station, TX 888-690-2218

LABORATORY ANALYTICAL REPORT Prepared by Helena, MT Branch

Report Date: 01/15/13 **Date Received:** 01/08/13

Pb-T			653	405	384	124	797	701	406	
Cd-T		Results	13	6	6	2	16	12	80	
As-T	mg/kg	Results	65	29	52	23	73	29	37	00
Analysis	3	Up Low	4	9	80	12	4	9	80	12
Anal	Units	Up	0	4	4	8	0	4	4	α
		Client Sample ID	Pre METV1-P9a 0-4	Pre METV1-P9b 4-6	Pre METV1-P9c 4-8	Pre METV1-P9d 8-12	Pre METV1-P10a 0-4	Pre METV1-P10b 4-6	Pre METV1-P10c 4-8	Pre METV1-P10d 8-12
		-	113010121-001	413010121-002	H3010121-003	H13010121-004	H3010121-005	H13010121-006	413010121-007	H13010121-008



Prepared by Helena, MT Branch

Client: SDL Enterprises

Project: 1001 EHSD METV1

Report Date: 01/15/13

Work Order: H13010121

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7							Ar	nalytical Ru	ın: ICP2-HE	_130110B
Sample ID: ICV	3 Init	ial Calibrati	on Verificatio	n Standard						/13 09:15
Arsenic		0.797	mg/L	0.0092	100	90	110		- 1, 10	
Cadmium		0.400	mg/L	0.0010	100	90	110			
Lead		0.787	mg/L	0.013	98	90	110			
Sample ID: ICSA	3 Inte	erference C	heck Sample	e A					01/10/	/13 09:30
Arsenic		-0.0206	mg/L	0.0092		0	0		01/10/	10 00,00
Cadmium	,	0.000570	mg/L	0.0010		0	0			
Lead		0.0261	mg/L	0.013		0	0			
Sample ID: ICSAB	3 Inte	rference Cl	neck Sample	AB					01/10/	13 09:34
Arsenic		1.09	mg/L	0.0092	109	80	120		01/10/	10 05.04
Cadmium		0.912	mg/L	0.0010	91	80	120			
Lead		1.000	mg/L	0.013	100	80	120			
Method: E200.7							An	alytical Ru	n: ICP2-HE_	130111B
Sample ID: ICV	2 Initia	al Calibratio	n Verificatio	n Standard						13 10:42
Cadmium		0.396	mg/L	0.0010	99	90	110		01/11/	10 10.42
Lead		0.754	mg/L	0.013	94	90	110			
Sample ID: ICSA	2 Inte	rference Ch	neck Sample	Α					01/11/	13 10:57
Cadmium		0.00197	mg/L	0.0010		0	0		01/11/	10 10.57
Lead		0.0114	mg/L	0.013		0	0			
Sample ID: ICSAB	2 Inter	rference Ch	eck Sample	AB					01/11/	13 11:01
Cadmium		0.902	mg/L	0.0010	90	80	120		01/11/	10 11.01
Lead		0.972	mg/L	0.013	97	80	120			

Qualifiers:

RL - Analyte reporting limit.

Prepared by Helena, MT Branch

Client: SDL Enterprises

Project: 1001 EHSD METV1

Report Date: 01/15/13

Work Order: H13010121

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6010B										ch: 1921
Sample ID: MB-19217	3	Method Blank				Run: ICP2-I	HE 130110B			/13 13:4:
Arsenic		ND	mg/kg	0.4			12_100110B		01/10,	13 13.4
Cadmium		0.05	mg/kg	0.01						
Lead		ND	mg/kg	1						
Sample ID: LFB-19217	3 [_aboratory For	tified Blank			Run: ICP2-l	HE_130110B		01/10/	13 13:47
Arsenic		50.2	mg/kg	1.0	100	80	120		0 17 1 07	10 10.47
Cadmium		24.8	mg/kg	1.0	99	80	120			
Lead		49.9	mg/kg	1.0	100	80	120			
Sample ID: LCS-19217	3 [aboratory Cor	ntrol Sample			Run: ICP2-F	HE_130110B		01/10/	13 13:51
Arsenic		299	mg/kg	1.5	88	72.3	106.4		0 17 1 07	10.01
Cadmium		129	mg/kg	1.0	95	73	105.1			
Lead		198	mg/kg	3.1	107	75.9	108.6			
Sample ID: H13010121-010AMS	3 8	Sample Matrix	Spike			Run: ICP2-F	IE 130110B		01/10/	13 14:46
Arsenic		127	mg/kg	1.5	95	75	125		01/10/	10 14.40
Cadmium		43.9	mg/kg	1.0	82	75	125			
Lead		1070	mg/kg	3.1		75	125			Α
Sample ID: H13010121-010AMSI	3 3	Sample Matrix	Spike Duplicate			Run: ICP2-F	IE 130110B		01/10/	13 14:50
Arsenic		125	mg/kg	1.5	92	75	125	1.1	20	
Cadmium		44.9	mg/kg	1.0	86	75	125	2.2	20	
Lead		1080	mg/kg	3.1		75	125	1.1	20	Α
Method: SW6010B			· · · · · · · · · · · · · · · · · · ·			7 (Batc	h: 19217
Sample ID: MB-19217	3 M	lethod Blank				Run: ICP2-H	E 130111B			3 11:50
Arsenic		ND	mg/kg	0.4					01/11/	5 11.50
Cadmium		ND	mg/kg	0.01						
Lead		ND	mg/kg	1						

Qualifiers:

RL - Analyte reporting limit.

 $^{{\}sf A}$ - The analyte level was greater than four times the spike level. In accordance with the method ${\sf \%}$ recovery is not calculated.



	Relinquished (Signature)	Relinquished Gignature)	Kellinquished (Signature)			1/2/13 1/3/30 X	isae	1400	1230	1200	X 32.1: 8/2/// X	STA # TIME COMP	(amanbic): Countries	(CC)	PROJ. NO
	nature) Date/Time		Date/Time 1/8/13		1.0 of 18131,000	Par				the METHI- Pd 44	TRIMETI 1-890	1	July 1	EHSD-METHI	PROJECT NAME
	Received by: (Signature)	Received by: (Signature)	(60) Received by: (Signature)			1 0	- 4					NO. OF	CONTAI	VINERS	
Split Samples: [] Accepted [] Declined	Date/fime Enclosed: Date/fime Enclosed:	Remarks Air Bill #	LAB Shipped via: FedEx, Ups Or other								H13010131		REMARKS		- Carlotte