# Response No. 13 Attachment

# Table 2b for Soil Properties of SMC-1-2-3 Shaft Muck Pile Samples

TABLE 2
Soll ChemicaIl Analytlcal Results - Aprll 2012
Total Metals by SW 6010/SW 6020 and Radiochemistry by E903.0/RA-05
RIO GRANDE RESOURCES SOIL SAMPLING AND TESTING FOR CLOSEOUT PLAN
MT. TAYLOR MINE, SAN MATEO, NEW MEXICO

| Sample ID | LOCATION | Collection Depth (inches bgs) | Collection Date | Arsenic | Barium | Cadmium | Chromium | Lead | Mercury | Radlum 226 | Radlum 228 | Selenium | Sliver | Uranium | Uranium-234 | Uranium-235 | Uranium-238 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CONCENTRATION | | | mg/L | | | | | | pCi/g | pCi/g | mg/L | | | mg/L | | |
| Analytical Method | | | | SW 6020 | SW 6010 B | SW 6010 B | SW 6010 B | SW 6010 B | SW 7470A | E903 0 | RA-05 | SW 6020 | SW 6020 | SW 6020 | SW 6020 | SW 6020 | SW 6020 |
| NMED SSL DAF 1 | | | | 1.31E-02 | 3.01E•02 | 1.37 | 9.86E+07 | NA | 0.571 | 30[3] | | 0.965 | 1.57 | 49.3 | 49.3 | 49.3 | 49.3 |
| MT-4-D-S3 (48" B.G.) | **MT-4-D** | 48 | 4/10/2.012 | 0.003 | 0.88 | <0.001 | 0.009 | 0.003 | <0,002 | 6.7 | 0.8 | 0.020 | <0.002 D | 0.013 D | 0.013 D | 0.013 D | 0.013 D |
| MT-4-E-S1 (0-4" B.G.) | **MT-4-E** | 0-4 | 4/10/2.012 | 0,034 | 34 | <0.001 | 0.007 | 0.008 | <0,002 | 8,7 | 1.5 | 0.15 | <0.002 D | 0.39 D | 0.39 D | 0.39 D | 0.39 D |
| MT-4-E-S2 (10-12"' B.G.) | **MT-4-E** | 10-12 | 4/10/2.012 | 0.005 | 0.22 | <0.001 | 0.011 | 0.005 | <0,002 | 4.8 | 0.4 | 0.072 | <0.002 D | 0.014 D | 0.014 D | 0.014 D | 0.014 D |
| MT-4-E-S3 (36" B.G.) | **MT-4-E** | 36 | 4/10/2.012 | 0.003 | 0.13 | <0.001 | 0.007 | 0.003 | <0,002 | 2.9 | 0.7 | 0.026 | 0.0030 | 0.0043 D | 0.0043 D | 0.0043 D | 0.0043 D |
| MT-4-E-S3 (48" B.G.) | **MT-4-E** | 48 | 4/10/2.012 | .0.005 B | 0.06 | <0.001 | 0.006 | 0.002 | <0,002 | 6.2 | 0.4 | 0.011 | <0.001 | 0.027 | 0.027 | 0.027 | 0.027 |
| MT-4-F *(6" B.G.)* | **MT-4-F** | 6 | 4/10/2.012 | 0.005 | <0.05 | <0.001 | <0.005 | 0.003 | <0,002 | 0.8 | 1.0 | 0.002 | <0.002 D | 0.0027 D | 0.0027 D | 0.0027 D | 0.0027 D |
| MT-5-F (6" B.G.) | **MT-6-f** | 6 | 4/10/2.012 | 0.002 | <0.05 | <0.001 | <0.005 | 0,001 | <0,002 | 2.0 | 0.8 | 0.001 | 0.003 D | 0.0029 D | 0.0029 D | 0.0029 D | 0.0029 D |
| MT-6-A-S1 (0-5" B.G,) | **MT-6-A** | 0-5 | 4/10/2.012 | 0.012 | 7.3 | <0.001 | 0.007 | 0.016 | <0,002 | 6.4 | 0.2 | 0.007 | <0.001 | 0.044 | 0.044 | 0.044 | 0.044 |
| MT-6-A-S2 (12-20" B .G.) | **MT-6-B** | 12-20 | 4/10/2.012 | 0.003 B | 0.05 | <0.001 | 0.007 | <0.001 | <0,002 | 0.4 | 0.1 | 0.15 | <0.001 | 0.26 U | 0.26 U | 0.26 U | 0.26 U |
| MT-6-B-S1 (8-10" B.G.) | **MT-6-B** | 8-10 | 4/10/2.012 | 0.004 B | 0.05 | <0.001 | 0.007 | <0.001 | <0,002 | 0.8 | 0.2 | 0.16 | <0.001 | 0.26 | 0.26 | 0.26 | 0.26 |
| MT-6-B-S2 (30" B.G.) | **MT-6-8** | 30 | 4/10/2.012 | 0.002 B | 0.06 | <0.001 | <0.005 | <0.001 | <0,002 | 4.1 | 0.8 | 0.003 | <0.001 | 0.014 | 0.014 | 0.014 | 0.014 |
| MT-7-C (6 " B.G.) | **MT-7-C** | 6 | 4/10/2.012 | 0.002 | <0.05 | <0.001 | 0.006 | 0.002 | <0,002 | 0.6 | 0.8 | <0.001 | <0.002 D | 0.0023 D | 0.0023 D | 0.0023 D | 0.0023 D |
| MT-8-F [6" B.-G.) | **MT-8-F** | 6 | 4/10/2.012 | 0.001 | 0.05 | 0.001 | 0.005 | 0.001 | 0.002 | -1000 | -1000 | 0.001 | 0.002 D | 0.0006 D | 0.0006 D | 0.0006 D | 0.0006 D |
| MT-A-C (6" B.G.) | **MT-A-C** | 6 | 4/10/2.012 | 0.003 | <0.05 | <0.001 | <0.005 | 0.001 | <0,002 | 1.7 | 0.5 | 0.044 | <0.002 D | 0.14 | 0.14 | 0.14 | 0.14 |
| MT-Borrow/Background | **MT-Borrow** | 24-66 | 4/10/2.012 | 0.001 | <0.05 | <0.001 | <0.005 | <0,001 | <0,002 | 0.7 | 0.7 | 0.001 | <0.002 D | 0.0007 | 0.0007 | 0.0007 | 0.0007 |
| MT-OP-C-S1 (0-6" B.G.) | **MT-OP-C** | 0-6 | 4/10/2.012 | 0;015 | 0.05 | <0.001 | 0.010 | 0.001 | <0,002 | 53:3 | 2.1 | 0.052 | <0.001 | 1.8 | 1.8 | 1.8 | 1.8 |
| MT-OP-C-S2 (20" B .G.) | **MT-OP·C** | 20 | 4/10/2.012 | 0.005 | 0.05 | <0.001 | 0.007 | 0.002 | <0,002 | 1.7 | 0.6 | 0.018 | <0,002 D | 0.14 | 0.14 | 0.14 | 0.14 |
| MT-OP-C-S3 (48-50" B.G.) | **MT-OP-C** | 48-50 | 4/10/2.012 | 0.004 | <0.05 | <0.001 | <0.005 | <0,001 | <0,002 | 0,8 | 0.8 | 0.028 | <0,002 D | 0.049 | 0.049 | 0.049 | 0.049 |
| MT-OP-C-S4 (72" B.G.) | **MT-OP-C** | 72 | 4/10/2.012 | 0.004 | <0.05 | <0.001 | <0.005 | <0,001 | <0,002 | 1.5 | 0.6 | 0.025 | <0,002 D | 0.0064 | 0.0064 | 0.0064 | 0.0064 |
| MT-OP-D-S1 (0-6" B.G.) | **MT-OP-D** | 0-6 | 4/10/2.012 | 0.013 | 1.3 | <0.001 | 0.007 | 0.008 | <0,002 | 51.9 | 0.5 | 0.009 | <0,002 D | 0.23 | 0.23 | 0.23 | 0.23 |
| MT-OP-D-S2 (48-50" B.G.) | **MT-OP-D** | 48-50 | 4/10/2.012 | 0.001 | 0.05 | <0.001 | <0.005 | <0.001 | <0,002 | 1,9 | 0.6 | 0.005 | <0,002 D | 0. 10 | 0. 10 | 0. 10 | 0. 10 |
| MT-OP-D-S3 (76° B.G.) | **MT-OP-D** | 76 | 4/10/2.012 | 0.006 | 0.11 | <0.001 | 0.012 | 0.009 | <0,002 | 0.6 | 0.5 | 0.002 | <0,002 D | 0.0034 | 0.0034 | 0.0034 | 0.0034 |
| MT-OP-E (6" B.G.) | **MT-OP-E** | 6 | 4/10/2.012 | 0.004 | 0.05 | <0.001 | 0.006 | 0,003 | <0,002 | 1.1 | 0.8 | 0.005 | <0,002 D | 0.0056 | 0.0056 | 0.0056 | 0.0056 |
| MT-WP-SM1 | | | | | | | | | | 0.7 | | | | | 0.60 | 0.03 | 0.60 |
| MT-WP-SM2 | | | | | | | | | | 0.7 | | | | | 0.80 | 0.10 | 0.20 |
| MT-WP-SM3 | | | | | | | | | | 1.1 | | | | | 1.1 | -0.02 | 0.9 |

Notes:
bgs = below ground surface
mg/Kg = milligrams/Kilogram
DAF = Dilution Attenuation factor
NA = No DAF values available, NMED 2012, rev6

Total metals concentrations should be compared to background soil sample cocentrations before comparing to Soil Screeening Levels (SSL). Only metals concentrations above bacckground should be considered for comparison to SSLs.
NMED considers a DAF = 20 to be protective of groundwater for a 0.5-acre source. SSL values are included for reference only, as they are applicable for reclamation, not for mines that are active or on stand-by status.
B = The analyte was detected in the method blank
D = reporting limit increased due to sample matrix
U = Not detected at minimum detectable concentration

# NMED Cmnt 37

# Surface and Subsurface Radiological Characterization

# Surface and Subsurface Soil Radiologic Characterization

## Windblown Area, Ore Pad Area and Mine Compound

## Mount Taylor Mine Site

## San Mateo, NM


**Prepared by:**

**AVM Environmental Services, Inc.**

**1717 Del Norte Blvd.**

**Grants, NM 87020**


**Prepared for:**

**Rio Grande Resource Corporation**

**PO Box 1150**

**Grants, NM 87020**

**August 14, 2023**

## Table of Contents



## Tables



## Figures



## Appendices

## 1.0 Introduction and Background

This report provides the results of the Soil Radiologic Characterization (SRC) that was conducted at the Mt. Taylor Mine (Site) in Cibola County, near San Mateo, New Mexico. This SRC was performed to evaluate the lateral and vertical extent of radiologic contamination exceeding the Site Radiation Cleanup Criteria (RCC) of 6.8 pCi/g Ra-226 to estimate radiologic impacted material volumes within three specified areas of the Site; the Windblown Area, Ore Pad Area and portions of the Mine Compound Area, also known as the "Service and Support area". The methods and procedures used were consistent with the June 2020 Work Plan for Post-Mining Radiological Surveys of Permit Area and Impacted Lands (2020 Work Plan) and the applicable survey methods described in the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM, EPA 2000a). The RCC specified in the March 2016 *Joint Guidance for the Cleanup and Reclamation of Existing Uranium Mining Operations in New Mexico* (EMNRD, 2016) (2016 Guidance) by the Energy, Minerals & Natural Resources Department (EMNRD) and the New Mexico Environment Department (NMED) was used for the investigation level (IL). The Ra-226 cleanup criteria of 5.0 pCi/g above the background level in land averaged over 100 square meters in surface soil (top six inches) specified in the Joint Guidance is taken from the UMTRCA (40 CFR 192) regulation, which is based on an unrestricted land use exposure scenario. A 6.8 pCi/g Ra-226 IL (5.0 pCi/g plus 1.8 pCi/g background level) has been established for the Site.

The Site was an underground uranium mine located in Cibola County, near San Mateo, New Mexico. The mine was developed by Gulf Mineral Resources Company (Gulf) in the 1970s and ore production occurred from 1979 to 1982. Following transfer of Site to Chevron Resources Company in 1985, the ore production resumed and continued until 1990. Rio Grande Resources (RGR) acquired the Site in 1991. In 1999 the Site entered standby status under Mine Permit C1002RE with EMNRD. On December 29, 2017, the permit changed to an active status, and on December 3, 2019, RGR notified MMD of intentions to begin the Site closeout/closure process. The following sections describe the strategy, methods and procedures that were used and the results of the SRC conducted at the Site.

## 2.0 Previous Characterization

Surface gamma radiation surveys were performed periodically within operationally controlled areas of the Site to monitor changes in radiological conditions during a period of remedial excavations in the Mine Water Treatment Unit (MWTU) ponds, construction of the disposal cell and placement of contaminated mine materials, and gradual removal of ore from the ore stockpile. The most recent gamma survey prior to this characterization, conducted March 27, 2021, showed elevated gamma radiation levels in certain operational areas within the Controlled Area boundaries, including the three areas included in this SRC, the Windblown Area, Ore Pad Area and the Mine Compound Area. The survey results are summarized in The June 2020 Work Plan, and indicate surface soils in portions of the Windblown Area, the Mine Compound and the entire Ore Pad Area exceed the 6.8 pCi/g Ra-226 IL.

Additionally, a radiologic subsurface soil investigation was performed in a portion of the Mine Compound Area as part of the 2020 Diesel Investigation. The results are summarized in the Mount Taylor Mine, Diesel Release Investigation Report of Finding, April 2021, Ensero Solutions, Inc. (Ensero 2021). The soil borings sample results within the Mine Compound Area indicate Ra-226 levels exceeding the IL in subsurface soils ranging from a depth of ground surface to 10 feet below ground surface (bgs) in the area around the Production Shaft.

## 3.0 Objective of the Radiological Characterization

The Site is a former uranium mine, therefore the surface and subsurface soil is expected to be impacted by radionuclides associated with the uranium decay series, with Ra-226 being the primary Constituent of Concern (COC). The objective of this characterization is to evaluate Ra-226 contamination exceeding the Site IL of 6.8 pCi/g Ra-226 in surface and subsurface soils to estimate volumes of radiologic impacted material within the Windblown, Ore Pad and Mine Compound Areas.

## 4.0 Field Investigation

Field investigations for this characterization were conducted consistent with the 2020 Work Plan and were conducted during the period of April 11, 2023 through June 14, 2023. The three specified soil characterization areas are shown in Figure 1. The field investigations included, both static 0.5 inch thick lead (Pb) collimated and uncollimated (bare) 2x2 sodium iodide (NaI) detector gamma radiologic survey measurements and Differential Global Positioning System (DGPS) based bare detector gamma scan surveys, along with ex-situ soil screening, soil sampling and offsite vendor laboratory analysis. The geo-located gamma scans were conducted to provide Ra-226 concentration level estimates in surface soil and to determine the test pit and sampling locations to assess subsurface radiologic contamination relative to the IL. Ex-situ gamma radiation soil screening was performed to provide real-time information to estimate subsurface contamination depths. Subsurface soil sampling and offsite vendor laboratory analysis was performed to confirm subsurface contamination depths below the IL as estimated by field ex-situ gamma radiation soil screening. Additionally, gamma radiation static surveys count per minute (cpm) measurements, exposure rate (µR/hr) measurements and surface soil samples and analysis were performed at selected locations to update the Site-specific correlation.

### 4.1 Surface Gamma Radiation Scan and Static Survey

The instrument configuration for direct gamma radiation level measurements during this characterization consisted of lead collimated and bare 2x2 NaI scintillation detectors (Eberline SPA-3 or Ludlum 44-10) for detection of gamma radiation, coupled to a scaler/rate meter (Ludlum 2221 or Ludlum 2241). This instrument configuration is used widely for this type of survey and is recommended by the MARSSIM. The scaler/rate meters were interfaced with a sub-meter accurate DGPS with surveying software and a data

logger/controller for electronically recording the gamma radiation levels to the corresponding geo-location coordinates. The coordinate system that was used for this work was the State Plane Coordinate System (NAD83, New Mexico West, US Feet) system. Direct gamma radiation surveys using a NaI scintillation detector provide radiation levels in counts per unit time, generally obtained as cpm. A Ludlum Model 19 µR Meter was used for gamma exposure rate (µR/hr) measurements.

During this characterization, systematic gamma radiation scan surveys using bare 2x2 NaI detectors were performed at the Site to determine the level of Ra-226 in surface soil within the characterization areas. Although bare detectors do not avoid lateral gamma radiation shine, bare detectors have a large field of view and provide a large scan coverage area for an efficient and conservative lateral extent of contamination assessment. The gamma scan surveys were performed consistent with the 2020 Work Plan. Thirty-feet spaced geo-projected transects for each area were digitally created using mapping software and loaded on the field data logger/controller. Based on a conservative field of view (FOV) of at least six feet diameter for a bare 2x2 NaI detector for Ra-226 gamma radiations, a scanning transects spacing of 30 feet would provide at least a 20% scan coverage. The gamma scan survey was performed by scanning along these transects with a bare 2x2 NaI detector at 12 inches above the ground surface at a scan rate of about three feet per second, with a data collection time interval of two seconds.

The geo-located gamma scan data includes the gamma scan point ID, date and time, location coordinates, and bare detector gamma cpm. The scan data was exported from the data logger and the bare detector cpm were converted to equivalent Ra-226 estimate using the Site-specific correlation (Ra-226 pCi/g = 0.0005 x CPM)-7.3228 $R^2$ = 0.97)(2020 Work Plan). The scan data was mapped using a mapping software, arranged in color coded ranges and then reviewed to identify areas that exceeded the IL. The color-coded range was structured to include the Ra-226 6.8 pCi/g IL as shown in Figures 2 and 3. The characterization gamma scan survey included approximately 12,107 gamma scan data points within a total of approximately 40 acres at the Site. The gamma scan data was exported from the scan system data logger into an Excel file. The detector cpm was converted into equivalent estimated surface soil Ra-226 concentration in pCi/g using the Site-specific correlation for bare detectors as discussed in Section 4.5 of the 2020 Work Plan. A typical gamma scan data export table from the scan system data logger is shown in Table 1. Gamma scan survey data for this characterization are provided in electronic file.

One-minute static gamma radiation surveys were performed prior to collecting a soil sample at each surface soil sampling and test pit location using a bare 2x2 NaI detector and collimated 2x2 NaI detector. The survey data were recorded on Static Gamma Radiation Survey Forms, which are included in Appendix A. The bare detector cpm data was converted to equivalent Ra-226 estimate using the Site-specific correlation. A site-specific correlation for a 2x2 NaI 0.5-inch thick lead collimated detector was developed using the surface (0 – 6 Inch) soil samples collected from the Windblown Area and the co-located collimated detector survey performed during this characterization, which is included in Appendix C. This correlation regression yielded an equation of Ra=226 = (CPM x 0.0016) – 8.41 with an acceptable $R^2$ value

of 0.83 The collimated detector measurements were converted to soil Ra-226 concentrations using this correlation equation. The static gamma survey results are summarized in Table 2.

### 4.2 Ra-226 Radiation Cleanup Criteria Contamination Boundary

The Windblown area Ra-226 6.8 pCi/g RCC contamination boundary delineated based on the surface gamma scan survey and a 6.8 pCi/g Ra-226 RCC contamination boundary based on the surface soil sample ex-situ screening and vendor laboratory results are shown in Figure 4. The ex-situ and vendor lab Ra-226 pCi/g surface soil sample results are lower than the Ra-226 pCi/g concentrations estimated by the bare 2x2 NaI detector surface soil gamma scan. Based on the results of the soil sample analysis and static gamma radiation surveys, the area of the Windblown Area that exceeds the IL is smaller than previously estimated by bare detector gamma scan surveys alone, as shown in Figure 4. The primary cause of the overestimated Ra-226 concentrations in the Windblown Area determined by the bare detector gamma scan survey appears to be the lateral gamma radiation shine interference from nearby areas with elevated Ra-226 concentrations, specifically the close proximity to the Ore Pad Area. As discussed previously, one-minute static gamma radiation level measurements were performed prior to collecting a soil sample at each location using a bare and a 0.5 inch lead collimated 2x2 NaI detector. As shown in Tables 2 and 3, the Ra-226 concentration estimates determined using the collimated detector are comparable to the on-Site ex-situ gamma screening and the vendor laboratory Ra-226 analytical results. Thus, delineation of the Windblown Area surface soils exceeding the 6.8 pCi/g Ra-226 IL using the collimated static gamma survey, the on-Site ex-situ gamma screening and the vendor laboratory Ra-226 analytical results are appropriate, as shown in Figure 4.

As shown in Tables 2 and 4, and Figure 2 the entire Ore Pad Area surface soil far exceeds the 6.8 pCi/g Ra-226 IL. Additionally, surface soil gamma scans previously performed in 2018 and 2020 (2020 Work Plan) for area exposure rates (µR/hr) included the Mine Compound Area and showed that the majority of the Mine Compound Area exceeds the IL. As shown in Figure 3, the surface gamma scan performed during this characterization also shows that the surface soil in the majority of the Mine Compound Area exceeds the 6.8 pCi/g Ra-226 IL. To better characterize the surface soil and to assist in the selection of test pit locations, the surface gamma scan survey was performed at a higher density, 30-feet transect spacing, compared to the previous scan (2021) density of 60-ft transect spacing.

### 4.3 Test Pits, Soil Sampling and Ex-Situ Gamma Radiation Soil Screening

Test pit trench excavations, subsurface soil sampling and on-Site ex-situ gamma radiation soil screening were performed from May 17 through June 7, 2023. These methods were used to determine the subsurface soil Ra-226 contamination depth exceeding the IL at the test pit locations within the three characterization areas. The ex-situ gamma radiation soil screening was conducted to provide a real-time estimate of Ra-226 concentrations in subsurface soil samples. This method is more reliable than the in-situ

direct gamma radiation level measurements and allows for real-time Ra-226 concentration assessments. The on-Site ex-situ soil screening method consists of selectively measuring the 609 KeV region gamma radiations of Bi-214, a decay product of Ra-226. A single channel analyzer (Ludlum L2221) integrated with a Ludlum 44-20 3x3 NaI scintillation detector was used to measure the 609 keV energy peak region of Bi-214. The soil sample was placed around the plastic lined detector in a heavily lead shielded counting chamber. The heavily shielded counting chamber lowers the system background counts, thus improving the system's minimum detectable concentration (MDC). A reference soil with the Ra-226 concentration of 6.6 pCi/g, comparable to the 6.8 pCi/g IL, was prepared as described in Appendix C and was used for soil screening during this characterization. The 6.6 pCi/g reference soil provides a conservative estimate of Ra-226 concentration in samples below the IL.

A total of 12 locations were selected in the Windblown Area for surface and subsurface soil sampling in areas that exceeded the IL determined by the surface soil gamma scan survey, as shown in Figure 2. Twenty-eight test pit locations were selected for subsurface soil sampling based on the surface soil gamma scan survey and Site operational history where Ra-226 contamination was likely to be deeper than one-foot bgs, twenty test pits in the Mine Compound Area and eight in the Ore Pad Area, as shown in Figures 2 and 3.

Hand augers and sampling trowels were used to collect surface and subsurface soil samples up to a depth of 1.5 feet in the Windblown Area. At each of the 11 sample locations selected in the Windblown Area, a surface (0 – 6”) and a subsurface (1’ – 1.5’) soil sample were collected. At one location, a sample was collected at 0-1” and 2"-6” depths for surface soils Ra-226 contamination distribution analysis. A backhoe was used to excavate a trench at each selected test pit location for subsurface soil sample collection in the Ore Pad and Mine Compound areas. The trenches were excavated at approximately one-to-two-foot depth intervals depending on visual observations of the type and consistency of the soil. At each interval, a subsurface soil sample was collected from the base of the excavation for ex-situ soil screening. The excavation continued at least 2 feet after native soil was observed and on-Site ex-situ soil screening indicated Ra-226 concentrations were below the 6.8 pCi/g IL. The test pit excavation soil sample logs and the field soil screening forms are included in Appendix B. The test pit subsurface soil ex-situ gamma screening data is summarized in Tables 3, 4 and 5, which includes Ra-226 concentrations of the samples relative to the 6.8 pCi/g IL.

Although the primary objective of the ex-situ gamma radiation soil screening was to determine the Ra-226 concentrations above or below the 6.8 pCi/g IL, Ra-226 concentrations were estimated in all test pit excavation subsurface soil samples collected and screened. During the setup of the soil screening system prior to mobilizing in the field, a calibration/correlation of the ex-situ soil screening system was performed using a 6.6 pCi/g, a 25 pCi/g and a 50 pCi/g reference soil. This correlation is included in Appendix C. The estimated Ra-226 concentration of the subsurface soil samples determined using this correlation are included in Tables 3, 4 and 5.

Fourteen samples out of a total of 24 surface and subsurface soil samples screened on-Site from the Windblown Area were sent to the off-Site vendor laboratory, Energy Laboratories, in Casper, WY. From the Ore Pad and Mine Compound Areas, 34 samples out of a total of 88 subsurface soil samples screened onsite were sent to the off-site vendor laboratory. These soil samples were analyzed for Ra-226 using EPA Method 901.1 (modified for soil matrix) for confirmation of the on-Site ex-situ soil screening results. The 53 samples sent to the laboratory included at least one sample from each test pit excavation that screened below the IL. Also, 10% (5 samples) of the samples sent to the lab were split in the field and sent to the lab for quality assurance/quality control (QA/QC) duplicates. The laboratory results reports are included in Appendix B and are summarized in Table 3, 4 and 5. As shown in these tables, the estimated Ra-226 levels by on-Site ex-situ soil screening are comparable with the laboratory Ra-226 results, specifically in regard to determining the depth of Ra-226 levels above or below the IL.

### 4.4 Windblown Area Characterization Summary

As shown in Table 3 and Table 6, 11 of the 12 surface soil (0 – 6”) samples from the Windblown Area screened on-Site and analyzed by the vendor laboratory show Ra-226 pCi/g below the 6.8 pCi/g IL. The only location above the IL was WBSB-08 at 9.7 pCi/g. The Ra-226 concentration in all of the Windblown Area subsurface samples screened on-Site and analyzed by the vendor laboratory show Ra-226 pCi/g concentrations below the Ra-226 6.8 pCi/g IL, which is far below the Ra-226 15 pCi/g 2016 Guidance for 6-inch soil layers six inches bgs. This demonstrates that the Ra-226 levels exceeding the IL are contained only within the surface soil (0 – 6”) in the Windblown area, as shown in Figure 4 and Table 3. Furthermore, analyzing the 0-1” and 2”-6” soil samples resulted in Ra-226 concentrations of 2.0 pCi/g in the 0-1” sample and 1.0 pCi/g in the 2”-6” sample. Based upon the lab results in the Windblown area, the majority of the contamination is distributed within the top one inch of soil.

### 4.5 Ore Pad Area Characterization Summary

Results of test pit excavation observations and subsurface soil sampling analysis in the Ore Pad Area show waste rock depth from surface level to the native soil at approximately three to five feet bgs at four (OPSB-02, OPSB-03, OPSB-04 and OPSB-05) out of the five selected test pit locations, as shown in Table 4 and 6. The on-Site ex-situ gamma screening results show Ra-226 concentrations ranging from about 22 to 510 pCi/g as shown in Table 4. At test pit location OPSB-01, waste rock was observed at depths greater than five feet. A thin dark clay layer was observed at about five feet bgs. Excavation continued as light gray waste rock material and debris was constantly observed to a depth of 13.5 feet bgs, the excavation depth limit of the trenching equipment. The on-Site ex-situ gamma screening results show a Ra-226 concentration in the 0 to 13 feet composite sample from this location at 74 pCi/g, and 31 pCi/g Ra-226 in the sample from a depth of 13.5 feet. Since waste rock depth at all other test pit locations in the Ore Pad Area was approximately four to five feet, three additional test pits were excavated east of OPSB-01 to determine the

extent of waste rock depth in the area. Test pit locations OPSB-06 and OPSB-07 were selected at approximately 150' and 100' east of OPSB-01, respectively. Both of these test pits showed waste rock depths of approximately 4' bgs before observing native soil. Test pit location OPSB-08 was selected approximately 62' east of OPSB-01 and showed a waste rock and debris depth similar to that of OPSB-01. According to Site operational history, a portion of the nearby treatment pond may have been backfilled with low grade waste rock and used as part of the foundation for the Ore Pad Area. The waste rock depth in the OPSB-01 area is estimated to be about 15 feet bgs based on the nearby ore-pad runoff retention pond depth.

### 4.6 Mine Compound Area Characterization Summary

Results of test pit excavation observations and subsurface soil sampling analysis in the Mine Compound Area show subsurface soil exceeding the 6.8 pCi/g Ra-226 IL at varying depths ranging from ground surface to about seven feet bgs as shown in Tables 5 and 6 and Figure 5. Soil exceeding the IL is generally limited to only the surface soil (<1.0 feet) in the areas around test pit locations MCSB-04, MCSB-10, MCSB-12, MCSB-13, MCSB-14, MCSB-15, MCSB-16, MCSB-17 and MCSB-18. At the other nine test pit locations, soil/ material depths bgs exceeding the IL are shown in Table 6, except at test pit locations MCSB-02 and MCSB-05. Test pits MCSB-02 and MCSB-05 had an isolated layer of soil/gravel that exceeded the IL while the soil above and below the layer screened below the IL. At test pit location MCSB-02, soil exceeding the IL was found in a gravel layer at a depth of 3.5 to 4.5 feet bgs, while at a depth of 5.5 to 6.5 feet bgs at test pit location MCSB-05, as shown in Tables 5 and 6, and Figure 5. At each test pit location, when native soil was observed, excavation continued into the native soil at least two feet to ensure that the soil/material exceeding the IL had been identified. Two additional observation test pit excavations up to nine feet were performed at locations MCSB-19 and MCSB-20. These two test pits are located east of locations MCSB-08 and MCSB-11, between the shop yard fence and the road. The purpose of these two observational test pit excavations was to estimate the lateral extent of subsurface waste rock material found at locations MCSB-08 and MCSB-11. Identification of any waste rock material was noted by visual observation. No waste rock material was observed in test pit MCSB-19, east of Test Pit MCSB-08. A thin (approximately 3") layer of waste rock material at a depth of 2.0 to 2.25' was observed in Test Pit MCSB-20, indicating that the lateral extent boundary of subsurface waste rock material is between MCSB-11 and the shop yard fence line. Based on the field soil screening and the laboratory sample results, depths of Ra-226 concentrations above the 6.8 pCi/g IL at each Ore Pad and Mine Compound Area test pit and Windblown Area sampling location are summarized in Table 6.

## 5.0 Soil Sampling and Analysis

Soil samples from the Windblown Area and subsurface soil samples from the test pit excavations collected for on-Site ex-situ gamma radiation soil screening were collected consistent with the 2020 Work Plan. Field QA/QC duplicate samples were split at a frequency of 10% of the total number of soil samples collected. A total of 112 surface and subsurface soil samples were collected during this characterization. Field sampling

equipment used for soil sampling included: stainless steel scoops, bowls, spoons, and hand auger barrels were decontaminated between sample locations. The soil sampling equipment decontamination was conducted by brushing off loose visible soil and wiped with clean towels. Excavator buckets were cleaned by removing any loose, visible soil. Any soils excavated from the test pits were returned to the test pit excavations from which the soil came. Personal protection equipment (PPE), such as gloves, were brushed off and scanned for residual contamination and were disposed of.

Surface and subsurface soil samples were analyzed by on-Site ex-situ gamma radiation soil screening (AVM SOP-4) to estimate Ra-226 concentrations. A completed Chain-of-Custody (COC) along with the surface soil samples and confirmatory soil samples were placed in labeled Ziploc bags, and packaged in coolers with sealed lids and shipped to Energy Laboratories, Inc for Ra-226 analysis. The soil samples were analyzed for Ra-226 with a reporting limit of 0.5 pCi/g, using EPA Method 901.1 (modified for soil matrix). The completed COCs are included with the analytical results reports in Appendix B.

## 6. 0 Quality Assurance and Quality Control Measures

QA/QC measures were implemented during this characterization to ensure that decisions were made based on data of acceptable quality. All radiologic survey instruments have been calibrated at least annually. Additionally, operational functions checks were performed on all radiologic instruments daily prior to use. The calibration and function check documents are included in Appendix C. During this characterization, no instruments were found to be out of calibration or inoperable as indicated by the operational function checks. The instrument background measurements for bare 2x2 NaI detectors during daily operational function checks were less than 10,000 cpm as shown in Appendix C. The bare detector field of view (FOV) at 12 inches above the ground surface is conservatively assumed at an area of six feet diameter. The 2x2 NaI detector response factor is determined to be 0.0005 pCi/g/cpm from the linear regression for the Site-specific correlation included in Appendix C. Based on the above detector parameters, the Ra-226 minimum detectable concentrations (MDCs) for a scan survey at a scan speed of three feet per second, calculated using MARSSIM guidance, were less than 1.0 pCi/g, which is significantly less than 50% of the 6.8 pCi/g IL. The ex-situ soil gamma radiation screening system was calibrated prior to mobilization in the field and daily operational function checks were performed prior to use. The calibration and function check documentation are included in Appendix C. Based on the highest system background (blank) measurements from daily operational function checks and efficiency (pCi/g/cpm), the highest Ra-226 MDC for the screening system calculated was less than 0.8 pCi/g, significantly less than the 6.8 pCi/g IL. The MDCs during the supplemental characterization met the QA objective.

The QA/QC measures also included field QA/QC duplicate soil sampling at a frequency of 10% of the soil samples collected for laboratory analysis. As discussed above, field QA/QC duplicate soil samples were collected and sent to the laboratory for analysis, and the QA/QC duplicate results are included in appropriate summary tables.

# Tables

**Table 1**
**Typical Gamma Scan Data Exported from the Scan System Data Logger**

| ID | Time | Northing(1) (feet) | Easting(1) (feet) | MSL Elevation (feet) | CPM 2x2 Bare NaI Detector | Ra-226 pCi/g(2) | Zone_ID |
|---|---|---|---|---|---|---|---|
| 1 | 4/11/2023 12:58 | 1579644.59 | 2782922.79 | 7350 | 37181 | 11.27 | Mine_Compound |
| 2 | 4/11/2023 12:58 | 1579644.55 | 2782925.05 | 7350 | 35699 | 10.53 | Mine_Compound |
| 3 | 4/11/2023 12:58 | 1579644.42 | 2782929.34 | 7350 | 34119 | 9.74 | Mine_Compound |
| 4 | 4/11/2023 12:58 | 1579644.62 | 2782934.44 | 7350 | 33580 | 9.47 | Mine_Compound |
| 5 | 4/11/2023 12:58 | 1579645.02 | 2782938.58 | 7350 | 36088 | 10.72 | Mine_Compound |
| 6 | 4/11/2023 12:58 | 1579644.99 | 2782943.19 | 7350 | 36656 | 11.01 | Mine_Compound |
| 7 | 4/11/2023 12:58 | 1579643.77 | 2782946.70 | 7350 | 38855 | 12.11 | Mine_Compound |
| 8 | 4/11/2023 12:58 | 1579643.87 | 2782947.05 | 7350 | 35564 | 10.46 | Mine_Compound |
| 9 | 4/11/2023 12:58 | 1579644.03 | 2782950.60 | 7350 | 37249 | 11.30 | Mine_Compound |
| 10 | 4/11/2023 12:58 | 1579645.17 | 2782955.46 | 7351 | 34818 | 10.09 | Mine_Compound |
| 11 | 4/11/2023 12:58 | 1579644.44 | 2782960.55 | 7350 | 33211 | 9.29 | Mine_Compound |
| 12 | 4/11/2023 12:58 | 1579644.36 | 2782966.24 | 7350 | 35848 | 10.60 | Mine_Compound |
| 13 | 4/11/2023 12:58 | 1579645.40 | 2782971.43 | 7351 | 44480 | 14.92 | Mine_Compound |
| 14 | 4/11/2023 12:58 | 1579644.95 | 2782976.50 | 7351 | 40445 | 12.90 | Mine_Compound |
| 15 | 4/11/2023 12:59 | 1579644.04 | 2782981.35 | 7351 | 38310 | 11.84 | Mine_Compound |
| 16 | 4/11/2023 12:59 | 1579644.89 | 2782986.75 | 7351 | 34757 | 10.06 | Mine_Compound |
| 17 | 4/11/2023 12:59 | 1579645.26 | 2782992.08 | 7351 | 35607 | 10.48 | Mine_Compound |
| 18 | 4/11/2023 12:59 | 1579645.28 | 2782997.28 | 7351 | 34693 | 10.03 | Mine_Compound |
| 19 | 4/11/2023 12:59 | 1579644.62 | 2783002.45 | 7352 | 31665 | 8.51 | Mine_Compound |
| 20 | 4/11/2023 12:59 | 1579644.26 | 2783008.07 | 7352 | 34754 | 10.06 | Mine_Compound |
| 21 | 4/11/2023 12:59 | 1579644.42 | 2783013.72 | 7352 | 32487 | 8.92 | Mine_Compound |
| 22 | 4/11/2023 12:59 | 1579645.39 | 2783019.31 | 7352 | 31633 | 8.50 | Mine_Compound |
| 23 | 4/11/2023 12:59 | 1579645.34 | 2783024.97 | 7352 | 35967 | 10.66 | Mine_Compound |
| 24 | 4/11/2023 12:59 | 1579645.52 | 2783030.66 | 7352 | 40738 | 13.05 | Mine_Compound |
| 25 | 4/11/2023 12:59 | 1579644.54 | 2783036.55 | 7352 | 44013 | 14.69 | Mine_Compound |
| 26 | 4/11/2023 12:59 | 1579643.73 | 2783042.37 | 7353 | 43985 | 14.67 | Mine_Compound |
| 27 | 4/11/2023 12:59 | 1579644.36 | 2783047.96 | 7353 | 39949 | 12.65 | Mine_Compound |
| 28 | 4/11/2023 12:59 | 1579644.72 | 2783053.66 | 7353 | 40529 | 12.94 | Mine_Compound |
| 29 | 4/11/2023 12:59 | 1579644.62 | 2783058.85 | 7353 | 39350 | 12.36 | Mine_Compound |
| 30 | 4/11/2023 12:59 | 1579644.57 | 2783064.21 | 7354 | 37544 | 11.45 | Mine_Compound |
| 31 | 4/11/2023 12:59 | 1579644.14 | 2783069.71 | 7354 | 35781 | 10.57 | Mine_Compound |
| 32 | 4/11/2023 12:59 | 1579643.88 | 2783075.08 | 7354 | 35911 | 10.64 | Mine_Compound |
| 33 | 4/11/2023 12:59 | 1579644.60 | 2783080.73 | 7355 | 31419 | 8.39 | Mine_Compound |
| 34 | 4/11/2023 12:59 | 1579645.54 | 2783086.33 | 7355 | 33426 | 9.39 | Mine_Compound |
| 35 | 4/11/2023 12:59 | 1579645.93 | 2783091.25 | 7355 | 37444 | 11.40 | Mine_Compound |

(1) projection: StatePlane NAD 1983 NM West-feet
(2) Ra-226 pCi/g is determined from surface soil gamma radiation scan using 2x2 NaI detector and Site-specific gamma radiation level (cpm) correlation

## Table 2
## Static Gamma Radiation Survey at Soil Sampling/Test Pit Locations

| Survey Date | Survey Point ID/Description | Survey Point Coordinate NAD83 StatePlane NM West, Feet | | Static Gamma Radiation Survey | | | | Gamma Exposure Rate µR/hr |
|---|---|---|---|---|---|---|---|---|
| | | | | Bare 2x2 NaI Detector | | Collimated (0.5" Pb) 2x2 NaI Detector | | |
| | | Northing | Easting | CPM | Estimated Ra-226 pCi/g | CPM | Estimated Ra-226 pCi/g | |
| 05/17/23 | WBSB-01 | 1,581,413 | 2,782,866 | 26,897 | 6.1 | 6,297 | 1.7 | 33 |
| 05/17/23 | WBSB-02 | 1,581,390 | 2,782,444 | 26,749 | 6.1 | 6,350 | 1.7 | 33 |
| 05/17/23 | WBSB-03 | 1,581,356 | 2,783,329 | 24,529 | 4.9 | 6,073 | 1.3 | 31 |
| 05/17/23 | WBSB-04 | 1,581,339 | 2,782,706 | 30,064 | 7.7 | 6,069 | 1.3 | 37 |
| 05/17/23 | WBSB-05 | 1,581,329 | 2,783,062 | 31,828 | 8.6 | 6,945 | 2.7 | 41 |
| 05/17/23 | WBSB-06 | 1,581,271 | 2,782,942 | 35,410 | 10.4 | 7,288 | 3.3 | 47 |
| 05/17/23 | WBSB-07 | 1,581,187 | 2,783,253 | 37,965 | 11.7 | 8,183 | 4.7 | 47 |
| 05/17/23 | WBSB-08 | 1,581,164 | 2,782,988 | 55,849 | 20.6 | 11,042 | 9.3 | 70 |
| 05/31/23 | WBSB-09 | 1,581,254 | 2,782,870 | 36,491 | 10.9 | 6,599 | 2.1 | 44 |
| 05/31/23 | WBSB-10 | 1,581,263 | 2,783,140 | 34,898 | 10.1 | 7,286 | 3.2 | 48 |
| 05/31/23 | WBSB-11 | 1,581,277 | 2,783,335 | 29,002 | 7.2 | 6,602 | 2.2 | 34 |
| 05/31/23 | WBSB-12 | 1,581,228 | 2,782,908 | 40,341 | 12.9 | 7,153 | 3.0 | 55 |
| 05/31/23 | OPSB-01 | 1,580,834 | 2,782,884 | 2,328,550 | 1157 | 716,621 | 1138 | 2,100 |
| 05/31/23 | OPSB-02 | 1,580,812 | 2,783,138 | 505,097 | 245 | 160,357 | 248 | 650 |
| 05/31/23 | OPSB-03 | 1,580,599 | 2,783,013 | 700,063 | 343 | 247,434 | 387 | 900 |
| 05/31/23 | OPSB-04 | 1,580,328 | 2,782,874 | 408,698 | 197 | 133,199 | 205 | 450 |
| 05/31/23 | OPSB-05 | 1,580,386 | 2,783,136 | 446,083 | 216 | 156,044 | 241 | 450 |
| 05/30/23 | MCSB-01 | 1,579,585 | 2,783,019 | 35,807 | 10.6 | 10,538 | 8.5 | 41 |
| 05/30/23 | MCSB-02 | 1,579,573 | 2,783,167 | 34,096 | 9.7 | 9,678 | 7.1 | 39 |
| 05/30/23 | MCSB-03 | 1,579,343 | 2,782,883 | 34,019 | 9.7 | 9,832 | 7.3 | 39 |
| 05/30/23 | MCSB-04 | 1,579,317 | 2,783,098 | 34,656 | 10.0 | 10,811 | 8.9 | 40 |
| 05/24/23 | MCSB-05 | 1,579,183 | 2,782,702 | 52,231 | 18.8 | 14,892 | 15 | 65 |
| 05/24/23 | MCSB-06 | 1,579,162 | 2,783,064 | 31,976 | 8.7 | 8,548 | 5.3 | 37 |
| 05/24/23 | MCSB-07 | 1,579,040 | 2,783,010 | 52,974 | 19.2 | 18,511 | 21 | 65 |
| 05/23/23 | MCSB-08 | 1,578,849 | 2,782,249 | 107,010 | 46.2 | 39,626 | 55.0 | 125 |
| 05/23/23 | MCSB-09 | 1,578,850 | 2,782,582 | 28,188 | 6.8 | 8,193 | 4.7 | 33 |
| 05/23/23 | MCSB-10 | 1,578,758 | 2,782,444 | 39,814 | 12.6 | 12,984 | 12 | 43 |
| 05/22/23 | MCSB-11 | 1,578,611 | 2,782,258 | 53,106 | 19.2 | 18,055 | 20 | 60 |
| 05/22/23 | MCSB-12 | 1,578,521 | 2,782,569 | 29,299 | 7.3 | 9,090 | 6.1 | 33 |
| 05/22/23 | MCSB-13 | 1,578,301 | 2,782,557 | 21,952 | 3.7 | 6,254 | 1.6 | 25 |
| 05/23/23 | MCSB-14 | 1,578,278 | 2,782,258 | 21,642 | 3.5 | 6,366 | 1.8 | 25 |
| 05/18/23 | MCSB-15 | 1,578,214 | 2,782,398 | 48,059 | 16.7 | 15,633 | 17 | 51 |
| 05/18/23 | MCSB-16 | 1,578,084 | 2,782,313 | 30,445 | 7.9 | 11,069 | 9.3 | 33 |
| 05/18/23 | MCSB-17 | 1,578,085 | 2,782,599 | 18,059 | 1.7 | 5,891 | 1.0 | 19 |
| 05/18/23 | MCSB-18 | 1,578,071 | 2,782,424 | 17,170 | 1.3 | 5,046 | <0.6 | 19 |
| 05/31/23 | MCSB-19 | 1,578,837 | 2,782,317 | 69,850 | 27.6 | 24,522 | 31 | 80 |
| 05/31/23 | MCSB-20 | 1,578,650 | 2,782,298 | 55,167 | 20.3 | 18,497 | 21 | 65 |

## Table 3
## Windblown Area Surface and Subsurface Soil Sample Field Ex-Situ Gamma Screening and Vendor Laboratory Results Summary

| Sampling Data | | | | | Field Soil Screening Data | | | | | | | Laboratory Data | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Sample Depth (ft) | Sample Date | Sample Time | Description | Screen Date | Sample Weight grams | 609 (559-669) Kev Gross Counts CP5M | CPM | 6.6 pCi/g Ra-226 Reference Soil CPM | Soil Gamma Screening Estimated Ra-226 pCi/g | SSL (< or >) | Sample Sent to Lab | Ra-226 pCi/g | Error Estimate pCi/g | MDC pCi/g |
| WBSB-01 0-6" | 0.5 | 5/17/2023 | 855 | Light brown alluvium, sandy-loam | 5/17/2023 | 3000 | 1406 | 281 | 536 | 2.5 | < | Y | 0.9 | 0.1 | 0.1 |
| WBSB-01 1'-1.5' | 1.5 | 5/17/2023 | 906 | Brown silty clay | 5/17/2023 | 3000 | 1244 | 249 | 536 | 2.1 | < | N | - | - | - |
| WBSB-02 0-6" | 0.5 | 5/17/2023 | 815 | Light brown alluvium, sandy-loam | 5/17/2023 | 3000 | 1577 | 315 | 536 | 3.0 | < | Y | 1.5 | 0.1 | 0.1 |
| WBSB-02 1'-1.5' | 1.5 | 5/17/2023 | 820 | Brown silty clay | 5/17/2023 | 2958 | 1008 | 204 | 536 | 1.5 | < | N | - | - | - |
| WBSB-03 0-6" | 0.5 | 5/17/2023 | 942 | Light brown alluvium, sandy-loam | 5/17/2023 | 3000 | 2039 | 408 | 536 | 4.3 | < | Y | 3.2 | 0.2 | 0.1 |
| WBSB-03 1'-1.5' | 1.5 | 5/17/2023 | 948 | Brown silty clay | 5/17/2023 | 3000 | 1136 | 227 | 536 | 1.8 | < | N | - | - | - |
| WBSB-04 0-6" | 0.5 | 5/17/2023 | 835 | Light brown alluvium, sandy-loam | 5/17/2023 | 3000 | 1521 | 304 | 536 | 2.9 | < | Y | 1.5 | 0.1 | 0.1 |
| WBSB-04 1'-1.5' | 1.5 | 5/17/2023 | 845 | Brown silty clay | 5/17/2023 | 2840 | 1189 | 251 | 536 | 2.1 | < | N | - | - | - |
| WBSB-05 0-6" | 0.5 | 5/17/2023 | 920 | Light brown alluvium, sandy-loam | 5/17/2023 | 3000 | 1747 | 349 | 536 | 3.5 | < | Y | 2.1 | 0.2 | 0.1 |
| WBSB-05 1'-1.5' | 1.5 | 5/17/2023 | 930 | Brown silty clay | 5/17/2023 | 2835 | 1086 | 230 | 536 | 1.8 | < | N | - | - | - |
| WBSB-06 0-6" | 0.5 | 5/17/2023 | 1054 | Light brown alluvium, sandy-loam | 5/17/2023 | 3000 | 1406 | 281 | 536 | 2.5 | < | Y | 1.3 | 0.1 | 0.1 |
| DSSB-01 | | | WBSB-06 0-6" Field QA/QC Duplicate | | | | | | | | < | Y | 1.1 | 0.1 | 0.1 |
| WBSB-06 1'-1.5' | 1.5 | 5/17/2023 | 1100 | Brown silty clay | 5/17/2023 | 2876 | 1004 | 209 | 536 | 1.5 | < | N | - | - | - |
| WBSB-07 0-6" | 0.5 | 5/17/2023 | 1014 | Light brown alluvium, sandy-loam | 5/17/2023 | 3000 | 2272 | 454 | 536 | 5.0 | ≤ | Y | 3.7 | 0.2 | 0.1 |
| WBSB-07 1'-1.5' | 1.5 | 5/17/2023 | 930 | Brown silty clay | 5/17/2023 | 3000 | 1082 | 216 | 536 | 1.6 | < | N | - | - | - |
| WBSB-08 0-6" | 0.5 | 5/17/2023 | 1034 | Light brown alluvium, sandy-loam | 5/17/2023 | 3000 | 4140 | 828 | 536 | 10.2 | > | Y | 9.7 | 0.3 | 0.2 |
| WBSB-08 1'-1.5' | 1.5 | 5/17/2023 | 1042 | Brown silty clay | 5/17/2023 | 3000 | 1118 | 224 | 536 | 1.7 | < | Y | 0.9 | 0.1 | 0.1 |
| WBSB-09 0-6" | 0.5 | 5/31/2023 | 825 | Light brown alluvium, sandy-loam | 5/31/2023 | 3000 | 1393 | 279 | 536 | 2.5 | < | Y | 1.2 | 0.1 | 0.1 |
| WBSB-09 6-12" | 1 | 5/31/2023 | 835 | Brown silty clay | 5/31/2023 | 3000 | 1170 | 234 | 536 | 1.9 | < | N | - | - | - |
| WBSB-10 0-6" | 0.5 | 5/31/2023 | 910 | Light brown alluvium, sandy-loam | 5/31/2023 | 3000 | 2217 | 443 | 536 | 4.8 | < | Y | 3.5 | 0.2 | 0.1 |
| WBSB-10 6-12" | 1 | 5/31/2023 | 915 | Brown loam/roots | 5/31/2023 | 3000 | 1380 | 276 | 536 | 2.5 | < | N | - | - | - |
| WBSB-11 0-6" | 0.5 | 5/31/2023 | 935 | Light brown alluvium, sandy-loam | 5/31/2023 | 3000 | 1959 | 392 | 536 | 4.1 | < | Y | 2.7 | 0.2 | 0.1 |
| WBSB-11 6-12" | 1 | 5/31/2023 | 940 | Sandstone/sand | 5/31/2023 | 2008 | 1053 | 315 | 536 | 3.0 | < | N | - | - | - |
| WBSB-12 0-1" | 0.08 | 5/31/2023 | 850 | Light brown alluvium, sandy-loam | 5/31/2023 | 3000 | 1736 | 347 | 536 | 3.5 | < | Y | 2.0 | 0.2 | 0.1 |
| WBSB-12 2-6" | 0.5 | 5/31/2023 | 900 | Brown loam/ sandy | 5/31/2023 | 3000 | 1117 | 223 | 536 | 1.7 | < | Y | 1.0 | 0.1 | 0.1 |

(1) Projection: NAD 1983, New Mexico West, Feet.

## Table 4
## Ore Pad Area Subsurface Soil Sample Field Ex-Situ Gamma Screening and Vendor Laboratory Results Summary

| Sampling Data | | | | | Field Soil Screening Data | | | | | | | Laboratory Data | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Sample Depth (ft) | Sample Date | Sample Time | Description | Screen Date | Sample Weight grams | 609 (559-669) Kev Gross Counts CP5M | CPM | 6.6 pCi/g Ra-226 Reference Soil CPM | Soil Gamma Screening Estimated Ra-226 pCi/g | SSL (< or >) | Sample Sent to Lab | Ra-226 pCi/g | Error Estimate pCi/g | MDC pCi/g |
| OPSB-01 0-13' | 0 to 13' | 6/1/2023 | 1005 | Light/dark grey waste rock | 6/1/2023 | 3000 | 26904 | 5381 | 529 | 74 | > | N | - | - | - |
| OPSB-01 13.5' | 13.5 | 6/1/2023 | 1020 | Light/dark grey waste rock | 6/1/2023 | 3000 | 11560 | 2312 | 529 | 31 | > | N | - | - | - |
| OPSB-02 0-4' | 0 to 4' | 6/1/2023 | 1115 | Grey/dark ore waste rock | 6/1/2023 | 3000 | 182551 | 36510 | 529 | 510 | > | N | - | - | - |
| OPSB-02 4.5' | 4.5 | 6/1/2023 | 1100 | Dark/light grey clay & waste rock | 6/1/2023 | 3000 | 35425 | 7085 | 529 | 98 | > | N | - | - | - |
| OPSB-02 5.5' | 5.5 | 6/1/2023 | 1120 | Light brown silty sand mix | 6/1/2023 | 3000 | 1189 | 238 | 529 | 1.9 | < | Y | 0.9 | 0.1 | 0.1 |
| DSSB-05 | | | OPSB-02 5.5' Field QA/QC Duplicate | | | | | | | | < | Y | 0.8 | 0.1 | 0.1 |
| OPSB-03 0-4' | 0 to 4' | 6/1/2023 | 850 | Grey/dark waste rock mix | 6/1/2023 | 3000 | 56365 | 11273 | 529 | 156 | > | N | - | - | - |
| OPSB-03 4.2' | 4.2 | 6/1/2023 | 910 | Grey/dark brown clay waste rock mix | 6/1/2023 | 1708 | 2091 | 735 | 529 | 8.9 | > | Y | 4.4 | 0.2 | 0.1 |
| OPSB-03 4.5' | 4.5 | 6/1/2023 | 925 | Dark brown clay | 6/1/2023 | 3000 | 1193 | 239 | 529 | 1.9 | < | Y | 0.8 | 0.1 | 0.1 |
| OPSB-04 0-4' | 0 to 4' | 6/1/2023 | 815 | Grey/dark waste rock mix | 6/1/2023 | 3000 | 8428 | 1686 | 529 | 22 | > | N | - | - | - |
| OPSB-04 4.8' | 4.83 | 6/1/2023 | 825 | Dark clay mixed with brown silty soil | 6/1/2023 | 3000 | 1124 | 225 | 529 | 1.8 | < | N | - | - | - |
| OPSB-04 4.5' | 4.5 | 6/1/2023 | 835 | Grey/dark brown clay waste rock mix | 6/1/2023 | 3000 | 4373 | 875 | 529 | 11 | > | N | - | - | - |
| OPSB-05 0-3' | 0 to 3' | 6/1/2023 | 1200 | Grey/dark waste rock mix | 6/1/2023 | 3000 | 32147 | 6429 | 529 | 89 | > | N | - | - | - |
| OPSB-05 3' | 3 | 6/1/2023 | 1140 | Grey/dark brown clay waste rock mix | 6/1/2023 | 3000 | 5526 | 1105 | 529 | 14 | > | N | - | - | - |
| OPSB-05 3.75' | 3.75 | 6/1/2023 | 1155 | Light brown sandy silty soil | 6/1/2023 | 3000 | 1587 | 317 | 529 | 3.0 | < | Y | 0.9 | 0.1 | 0.1 |

(1) Projection: NAD 1983, New Mexico West, Feet.

## Table 5
## Mine Compound Test Pit Subsurface Soil Sample Field Ex-Situ Gamma Screening and Vendor Laboratory Results Summary

| Sampling Data | | | | | Field Soil Screening Data | | | | | | | Laboratory Data | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Sample Depth (ft) | Sample Date | Sample Time | Description | Screen Date | Sample Weight grams | 609 (559-669) Kev Gross Counts CP5M | CPM | 6.6 pCi/g Ra-226 Reference Soil CPM | Soil Gamma Screening Estimated Ra-226 pCi/g | SSL (< or >) | Sample Sent to Lab | Ra-226 pCi/g | Error Estimate pCi/g | MDC pCi/g |
| MCSB-01 1' | 1 | 5/30/2023 | 1240 | 3" Roadbase gravel mixed with dark brown silty clay | 5/30/2023 | 3000 | 2326 | 465 | 570 | 5.1 | < | N | - | - | - |
| MCSB-01 2' | 2 | 5/30/2023 | 1250 | Brown loamy clay w/ gravel | 5/30/2023 | 3000 | 2965 | 593 | 570 | 6.9 | ≈ | Y | 5.9 | 0.2 | 0.1 |
| DSSB-04 | | | MCSB-01 2' Field QA/QC Duplicate | | | | | | | | ≈ | Y | 5.8 | 0.2 | 0.1 |
| MCSB-01 3' | 3 | 5/30/2023 | 1300 | Brown loamy soil | 5/30/2023 | 3000 | 1240 | 248 | 570 | 2.1 | < | Y | 0.8 | 0.1 | 0.1 |
| MCSB-01 4' | 4 | 5/30/2023 | 1315 | Brown loamy clay | 5/30/2023 | 3000 | 1120 | 224 | 570 | 1.7 | < | N | - | - | - |
| MCSB-02 1' | 1 | 5/30/2023 | 1030 | Red roadbase gravel | 5/30/2023 | 3000 | 1243 | 249 | 570 | 2.1 | < | N | - | - | - |
| MCSB-02 2' | 2 | 5/30/2023 | 1040 | silty clay mix w/ 3/4" gravel | 5/30/2023 | 3000 | 1620 | 324 | 570 | 3.1 | < | N | - | - | - |
| MCSB-02 3' | 3 | 5/30/2023 | 1050 | Grey, greenish black clay/bentonite | 5/30/2023 | 3000 | 947 | 189 | 570 | 1.2 | < | Y | 0.8 | 0.1 | 0.1 |
| MCSB-02 4' | 4 | 5/30/2023 | 1100 | Loose sandy silt w/ reddish gravel. Slight DRO odor | 5/30/2023 | 3000 | 5236 | 1047 | 570 | 13.3 | > | Y | 12.6 | 0.4 | 0.2 |
| MCSB-02 5.2' | 5.2 | 5/30/2023 | 1115 | Loose dark brown silty clay | 5/30/2023 | 3000 | 1426 | 285 | 570 | 2.6 | < | Y | 1.4 | 0.1 | 0.1 |
| MCSB-03 1' | 1 | 5/30/2023 | 1340 | Light brown loamy soil w/ small amounts gravel | 5/30/2023 | 3000 | 3386 | 677 | 570 | 8.1 | > | Y | 5.9 | 0.2 | 0.1 |
| MCSB-03 2' | 2 | 5/30/2023 | 1350 | Brown loamy soil | 5/30/2023 | 3000 | 1201 | 240 | 570 | 2.0 | < | Y | 0.8 | 0.1 | 0.1 |
| MCSB-03 3' | 3 | 5/30/2023 | 1400 | Brown sandy loam | 5/30/2023 | 3000 | 1279 | 256 | 570 | 2.2 | < | N | - | - | - |
| MCSB-04 1' | 1 | 5/30/2023 | 935 | 0-6" Red roadbase gravel, 6"-12" Brown silty soil w/ gravel | 5/30/2023 | 3000 | 1055 | 211 | 570 | 1.6 | < | Y | 1.4 | 0.1 | 0.1 |
| MCSB-04 2' | 2 | 5/30/2023 | 945 | Gravel roadbase | 5/30/2023 | 3000 | 1919 | 384 | 570 | 4.0 | < | Y | 3.4 | 0.2 | 0.1 |
| MCSB-04 3.5' | 3.5 | 5/30/2023 | 955 | Mixed dark brown silty sandy and rocks | 5/30/2023 | 3000 | 1017 | 203 | 570 | 1.4 | < | N | - | - | - |
| MCSB-04 4.5' | 4.5 | 5/30/2023 | 1005 | Dark brown silty clay w/ gravel-cobbles | 5/30/2023 | 3000 | 1274 | 255 | 570 | 2.2 | < | N | - | - | - |
| MCSB-5 1' | 1 | 5/24/2023 | 1010 | 0-6" gravel roadbase, 6"-12" brown silty sand | 5/25/2023 | 3000 | 1183 | 237 | 555 | 1.9 | < | N | - | - | - |
| MCSB-5 2' | 2 | 5/24/2023 | 1020 | Brown silty sandy soil | 5/25/2023 | 3000 | 1309 | 262 | 555 | 2.3 | < | N | - | - | - |
| MCSB-5 3' | 3 | 5/24/2023 | 1030 | Rocky w/ silty sand soil | 5/25/2023 | 3000 | 1162 | 232 | 555 | 1.8 | < | N | - | - | - |
| MCSB-5 4' | 4 | 5/24/2023 | 1040 | Rocky w/ silty sand soil | 5/25/2023 | 3000 | 1262 | 252 | 555 | 2.1 | < | Y | 1.5 | 0.1 | 0.1 |
| MCSB-5 6' | 6 | 5/24/2023 | 1100 | Gravel, sandy soil | 5/25/2023 | 3000 | 6564 | 1313 | 555 | 17.0 | > | Y | 16.1 | 0.4 | 0.2 |
| MCSB-5 7.5' | 7.5 | 5/24/2023 | 1110 | Dark brown silty soil | 5/25/2023 | 3000 | 1150 | 230 | 555 | 1.8 | < | Y | 1.0 | 0.1 | 0.1 |
| MCSB-06 1' | 1 | 5/30/2023 | 822 | 0-8" red 1" roadbase gravel, 8"-12" dark brown soil gravel mix | 5/30/2023 | 3000 | 19543 | 3909 | 570 | 53.3 | > | N | - | - | - |
| MCSB-06 2' | 2 | 5/30/2023 | 835 | Dark brown packed clay with gravel | 5/30/2023 | 3000 | 4112 | 822 | 570 | 10.1 | > | N | - | - | - |
| MCSB-06 3.25' | 3.25 | 5/30/2023 | 850 | Dark brown packed clay with gravel | 5/30/2023 | 3000 | 1477 | 295 | 570 | 2.7 | < | N | - | - | - |
| MCSB-06 4.25' | 4.25 | 5/30/2023 | 900 | Dark brown silty clay | 5/30/2023 | 3000 | 1091 | 218 | 570 | 1.7 | < | N | - | - | - |
| MCSB-06 6' | 6 | 5/30/2023 | 915 | Rocky silty clay | 5/30/2023 | 3000 | 1311 | 262 | 570 | 2.3 | < | Y | 1.9 | 0.2 | 0.1 |

## Table 5 (Continued)
## Mine Compound Test Pit Subsurface Soil Sample Field Ex-Situ Gamma Screening and Vendor Laboratory Results Summary

| Sampling Data | | | | | Field Soil Screening Data | | | | | | | Laboratory Data | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Sample Depth (ft) | Sample Date | Sample Time | Description | Screen Date | Sample Weight grams | 609 (559-669) Kev Gross Counts CP5M | CPM | 6.6 pCi/g Ra-226 Reference Soil CPM | Soil Gamma Screening Estimated Ra-226 pCi/g | SSL (< or >) | Sample Sent to Lab | Ra-226 pCi/g | Error Estimate pCi/g | MDC pCi/g |
| MCSB-7 1' | 1 | 5/24/2023 | 1220 | Gravel/Roadbase w/ sand | 5/25/2023 | 3000 | 10973 | 2195 | 555 | 29.3 | > | N | - | - | - |
| MCSB-7 2' | 2 | 5/24/2023 | 1232 | Dark brown clay/bentonite silty | 5/25/2023 | 3000 | 1333 | 267 | 555 | 2.3 | < | N | - | - | - |
| MCSB-7 3' | 3 | 5/24/2023 | 1246 | light brown/greyish sandy silty | 5/25/2023 | 3000 | 2872 | 574 | 555 | 6.6 | ≈ | Y | 6.3 | 0.2 | 0.1 |
| DSSB-03 | | | | MCSB-7 3' Field QA/QC Duplicate | | | | | | | | Y | 6.2 | 0.2 | 0.1 |
| MCSB-7 4.5' | 4.5 | 5/24/2023 | 1300 | Light brown silty sand mix | 5/25/2023 | 3000 | 1396 | 279 | 555 | 2.5 | < | Y | 1.2 | 0.1 | 0.1 |
| MCSB-7 5.5' | 5.5 | 5/24/2023 | 1110 | Light brown/grey clay soil | 5/25/2023 | 3000 | 1150 | 230 | 555 | 1.8 | < | N | - | - | - |
| MCSB-08 1' | 1 | 5/23/2023 | 1035 | Clay mixed w/ grey waste rock | 5/23/2023 | 3000 | 29705 | 5941 | 586 | 81.8 | > | N | - | - | - |
| MCSB-08 2' | 2 | 5/23/2023 | 1045 | Clay mixed w/ grey waste rock | 5/23/2023 | 3000 | 34740 | 6948 | 586 | 95.9 | > | N | - | - | - |
| MCSB-08 3' | 3 | 5/23/2023 | 1058 | Clay mixed w/ sandy grey waste rock | 5/23/2023 | 3000 | 19380 | 3876 | 586 | 52.9 | > | N | - | - | - |
| MCSB-08 5' | 5 | 5/23/2023 | 1110 | Clay mixed w/ sandy grey waste rock | 5/23/2023 | 3000 | 33460 | 6692 | 586 | 92.3 | > | Y | 77.1 | 0.9 | 0.4 |
| MCSB-08 6.5' | 6.5 | 5/23/2023 | 1125 | Black gravel/soil DRO odor | 5/23/2023 | 3000 | 1266 | 253 | 586 | 2.1 | < | Y | 1.1 | 0.1 | 0.1 |
| MCSB-08 12' | 12 | 5/23/2023 | 1145 | Dark rocky clay | 5/23/2023 | 3000 | 2421 | 484 | 586 | 5.4 | ≤ | N | - | - | - |
| MCSB-9 1' | 1 | 5/24/2023 | 825 | Gravel/Roadbase w/ sand | 5/25/2023 | 3000 | 4191 | 838 | 555 | 10.3 | > | Y | 7.9 | 0.3 | 0.1 |
| MCSB-9 2' | 2 | 5/24/2023 | 840 | Brown sandy soil | 5/25/2023 | 3000 | 980 | 196 | 555 | 1.3 | < | Y | 0.6 | 0.1 | 0.1 |
| MCSB-9 3' | 3 | 5/24/2023 | 850 | Brown sandy soil | 5/25/2023 | 3000 | 1056 | 211 | 555 | 1.6 | < | N | - | - | - |
| MCSB-9 4' | 4 | 5/24/2023 | 900 | Brown sandy soil | 5/25/2023 | 3000 | 1082 | 216 | 555 | 1.6 | < | N | - | - | - |
| MCSB-10 1' | 1 | 5/24/2023 | 915 | Gravel/Roadbase w/ sand | 5/25/2023 | 3000 | 920 | 184 | 555 | 1.2 | < | Y | 0.8 | 0.1 | 0.1 |
| MCSB-10 2' | 2 | 5/24/2023 | 922 | Loose light brown sandy silty soil | 5/25/2023 | 3000 | 913 | 183 | 555 | 1.2 | < | Y | | | |
| MCSB-10 3' | 3 | 5/24/2023 | 930 | Dark brown clay mix w/ sandy silt | 5/25/2023 | 3000 | 930 | 186 | 555 | 1.2 | < | N | - | - | - |
| MCSB-10 4' | 4 | 5/24/2023 | 943 | Dark brown clay mix w/ sandy silt | 5/25/2023 | 3000 | 1055 | 211 | 555 | 1.6 | < | N | - | - | - |
| MCSB-11 1' | 1 | 5/22/2023 | 1030 | 0-4" Roadbase gravel, 4"-12" grey rocky sandy waste rock | 5/22/2023 | 3000 | 12907 | 2581 | 551 | 34.7 | > | N | - | - | - |
| MCSB-11 2' | 2 | 5/22/2023 | 1040 | Dark grey rocky sandy waste rock | 5/22/2023 | 3000 | 42761 | 8552 | 551 | 118.3 | > | N | - | - | - |
| MCSB-11 3' | 3 | 5/22/2023 | 1050 | Grey waste rock w/ brown silty mix | 5/22/2023 | 3000 | 15497 | 3099 | 551 | 42.0 | > | N | - | - | - |
| MCSB-11 4' | 4 | 5/22/2023 | 1104 | Dark brown rocky loose soil | 5/22/2023 | 3000 | 3871 | 774 | 551 | 9.4 | > | Y | 11.0 | 0.4 | 0.2 |
| MCSB-11 5' | 5 | 5/22/2023 | 1112 | Dark brown clay mix w/ pebbles | 5/22/2023 | 3000 | 2036 | 407 | 551 | 4.3 | < | Y | 2.8 | 0.2 | 0.1 |
| MCSB-11 6' | 6 | 5/23/2023 | 835 | Dark brown sandy clay mix | 5/23/2023 | 3000 | 1824 | 365 | 586 | 3.7 | < | N | - | - | - |

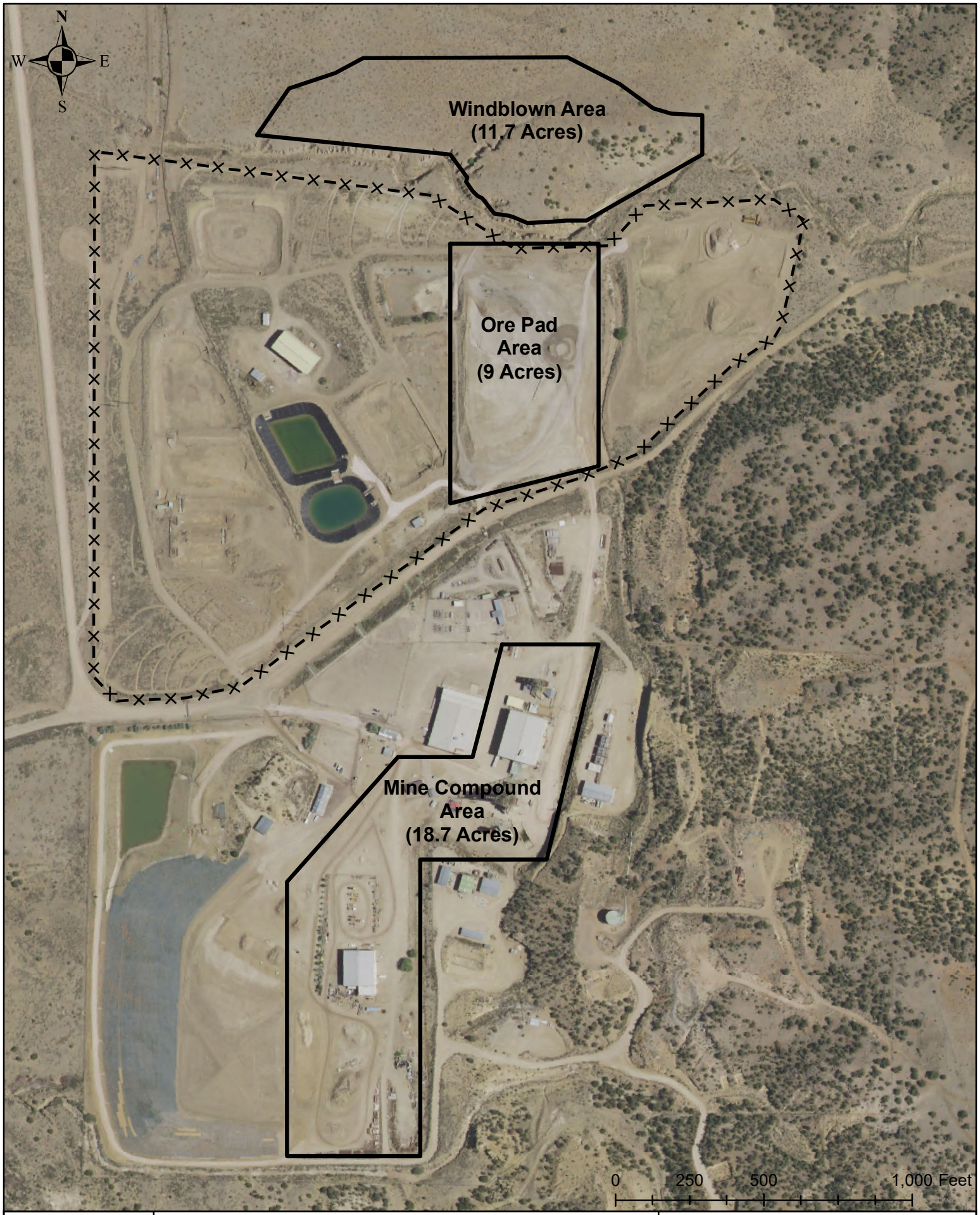
## Table 5 (Continued)
## Mine Compound Test Pit Subsurface Soil Sample Field Ex-Situ Gamma Screening and Vendor Laboratory Results Summary

| Sampling Data | | | | | Field Soil Screening Data | | | | | | | Laboratory Data | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Sample Depth (ft) | Sample Date | Sample Time | Description | Screen Date | Sample Weight grams | 609 (559-669) Kev Gross Counts CP5M | CPM | 6.6 pCi/g Ra-226 Reference Soil CPM | Soil Gamma Screening Estimated Ra-226 pCi/g | SSL (< or >) | Sample Sent to Lab | Ra-226 pCi/g | Error Estimate pCi/g | MDC pCi/g |
| MCSB-12 1' | 1 | 5/22/2023 | 928 | 0-6" Roadbase gravel, 6"-12" 3/4-1" gravel sandy | 5/22/2023 | 3000 | 1957 | 391 | 551 | 4.1 | < | Y | 3.3 | 0.2 | 0.1 |
| MCSB-12 2' | 2 | 5/22/2023 | 935 | Black gravel/soil DRO odor | 5/22/2023 | 3000 | 1793 | 359 | 551 | 3.6 | < | N | - | - | - |
| MCSB-12 3' | 3 | 5/22/2023 | 948 | Hard packed brown silty sand | 5/22/2023 | 3000 | 915 | 183 | 551 | 1.2 | < | N | - | - | - |
| MCSB-12 4' | 4 | 5/22/2023 | 956 | Hard packed brown silty sand | 5/22/2023 | 3000 | 923 | 185 | 551 | 1.2 | < | N | - | - | - |
| MCSB-13 1' | 1 | 5/22/2023 | 825 | 0-4" Roadbase gravel, 4"-12" dark silty clay | 5/22/2023 | 3000 | 1197 | 239 | 551 | 1.9 | < | Y | 1.2 | 0.1 | 0.1 |
| MCSB-13 2' | 2 | 5/22/2023 | 839 | Dark silty clay | 5/22/2023 | 3000 | 1253 | 251 | 551 | 2.1 | < | N | - | - | - |
| MCSB-13 3' | 3 | 5/22/2023 | 851 | Dark silty clay | 5/22/2023 | 3000 | 1309 | 262 | 551 | 2.3 | < | N | - | - | - |
| MCSB-13 4' | 4 | 5/22/2023 | 905 | Light brown sandstone silty | 5/22/2023 | 3000 | 1210 | 242 | 551 | 2.0 | < | N | - | - | - |
| MCSB-14 1' | 1 | 5/23/2023 | 853 | Dark brown topsoil, cobbles | 5/23/2023 | 3000 | 1982 | 396 | 586 | 4.1 | < | Y | 3.8 | 0.2 | 0.1 |
| MCSB-14 2' | 2 | 5/23/2023 | 905 | Grey sandy waste rock | 5/23/2023 | 3000 | 1942 | 388 | 586 | 4.0 | < | N | - | - | - |
| MCSB-14 3' | 3 | 5/23/2023 | 915 | Grey sandy waste rock | 5/23/2023 | 3000 | 1856 | 371 | 586 | 3.8 | < | N | - | - | - |
| MCSB-14 4' | 4 | 5/23/2023 | 920 | Grey sandy waste rock | 5/23/2023 | 3000 | 1795 | 359 | 586 | 3.6 | < | N | - | - | - |
| MCSB-14 5' | 5 | 5/23/2023 | 932 | Dark brown clay | 5/23/2023 | 3000 | 1274 | 255 | 586 | 2.2 | < | N | - | - | - |
| MCSB-14 6' | 6 | 5/23/2023 | 950 | Dark brown clay | 5/23/2023 | 3000 | 1059 | 212 | 586 | 1.6 | < | N | - | - | - |
| MCSB-15 1' | 1 | 5/18/2023 | 1138 | Light brown clay/sand mix | 5/18/2023 | 3000 | 1503 | 301 | 539 | 2.8 | < | Y | 1.6 | 0.1 | 0.1 |
| DSSB-02 | | | MCSB-15 1' Field QA/QC Duplicate | | | | | | | | < | Y | 1.3 | 0.1 | 0.1 |
| MCSB-15 2' | 2 | 5/18/2023 | 1145 | Light brown clay/sand-road base mixed | 5/18/2023 | 3000 | 1389 | 278 | 539 | 2.5 | < | N | - | - | - |
| MCSB-15 3' | 3 | 5/18/2023 | 1158 | Brown /greyish clay/sand mix | 5/18/2023 | 3000 | 2206 | 441 | 539 | 4.8 | < | N | - | - | - |
| MCSB-15 4' | 4 | 5/18/2023 | 1212 | Brown clay/sand mix | 5/18/2023 | 3000 | 1415 | 283 | 539 | 2.6 | < | N | - | - | - |
| MCSB-16 1' | 1 | 5/18/2023 | 1045 | Rocky w/ sand - grey/light green color | 5/18/2023 | 3000 | 2498 | 500 | 539 | 5.6 | ≤ | Y | 4.8 | 0.2 | 0.2 |
| MCSB-16 2' | 2 | 5/18/2023 | 1100 | Light brown alluvium, sandy-loam | 5/18/2023 | 3000 | 1646 | 329 | 539 | 3.2 | < | Y | 2.4 | 0.2 | 0.1 |
| MCSB-16 3' | 3 | 5/18/2023 | 1110 | Shale/sandy, light grey/brown | 5/18/2023 | 3000 | 1587 | 317 | 539 | 3.0 | < | N | - | - | - |
| MCSB-16 4' | 4 | 5/18/2023 | 1120 | Light borown sandy loam | 5/18/2023 | 3000 | 1280 | 256 | 539 | 2.2 | < | N | - | - | - |

**Table 6**
**Subsurface Ra-226 Contamination Depth Summary**

| Area | Test Pit ID | Test Pit Location Coordinates, NAD83 NM West (Feet) | | Date | Depth of Soil Ra-226 Contamination >RCC (Feet bgs) |
|---|---|---|---|---|---|
| | | Northing | Easting | | |
| Windblown Area | WBSB-01 | 1581418.18 | 2782862.43 | 05/17/23 | **0** |
| | WBSB-02 | 1581391.39 | 2782444.66 | 05/17/23 | **0** |
| | WBSB-03 | 1581357.28 | 2783327.71 | 05/17/23 | **0** |
| | WBSB-04 | 1581342.67 | 2782705.31 | 05/17/23 | **0** |
| | WBSB-05 | 1581330.49 | 2783059.75 | 05/17/23 | **0** |
| | WBSB-06 | 1581265.93 | 2782941.60 | 05/17/23 | **0** |
| | WBSB-07 | 1581192.86 | 2783257.06 | 05/17/23 | **0** |
| | WBSB-08 | 1581162.41 | 2782991.54 | 05/17/23 | **0.5** |
| | WBSB-09 | 1580833.55 | 2782884.36 | 05/31/23 | **0** |
| | WBSB-10 | 1580832.33 | 2783163.28 | 05/31/23 | **0** |
| | WBSB-11 | 1580598.48 | 2783012.25 | 05/31/23 | **0** |
| | WBSB-12 | 1580328.08 | 2782874.61 | 05/31/23 | **0** |
| Ore Pad Area | OPSB-01 | 1580834.11 | 2782884.42 | 05/31/23 | **≈15** |
| | OPSB-02 | 1580811.55 | 2783138.10 | 05/31/23 | **4.2** |
| | OPSB-03 | 1580599.03 | 2783012.73 | 05/31/23 | **4.3** |
| | OPSB-04 | 1580328.29 | 2782874.34 | 05/31/23 | **4.5** |
| | OPSB-05 | 1580386.28 | 2783136.44 | 05/31/23 | **3.0** |
| | OPSB-06 | 1580827.17 | 2783031.17 | 06/07/23 | **3.0** |
| | OPSB-07 | 1580839.91 | 2782985.85 | 06/07/23 | **3.0** |
| | OPSB-08 | 1580839.92 | 2782946.79 | 06/07/23 | **≈15** |
| Mine Compound Area | MCSB-01 | 1579584.67 | 2783018.74 | 05/30/23 | **<1.0** |
| | MCSB-02 | 1579573.01 | 2783166.70 | 05/30/23 | **0 to 1.0 and 3.5 to 4.5** |
| | MCSB-03 | 1579343.02 | 2782883.30 | 05/30/23 | **<1.0** |
| | MCSB-04 | 1579317.49 | 2783098.04 | 05/30/23 | **<1.0** |
| | MCSB-05 | 1579183.08 | 2782701.94 | 05/24/23 | **0 to 1.0 and 6.0 to 7.0** |
| | MCSB-06 | 1579162.34 | 2783064.40 | 05/24/23 | **2.0** |
| | MCSB-07 | 1579040.09 | 2783009.78 | 05/24/23 | **1.0** |
| | MCSB-08 | 1578849.18 | 2782249.48 | 05/23/23 | **6.0** |
| | MCSB-09 | 1578849.89 | 2782581.54 | 05/23/23 | **<0.5** |
| | MCSB-10 | 1578758.24 | 2782443.51 | 05/23/23 | **<1.0** |
| | MCSB-11 | 1578610.92 | 2782257.53 | 05/22/23 | **4.5** |
| | MCSB-12 | 1578520.57 | 2782569.17 | 05/22/23 | **<1.0** |
| | MCSB-13 | 1578300.74 | 2782557.01 | 05/22/23 | **0** |
| | MCSB-14 | 1578278.15 | 2782258.40 | 05/23/23 | **0** |
| | MCSB-15 | 1578214.43 | 2782398.32 | 05/18/23 | **<0.5** |
| | MCSB-16 | 1578084.02 | 2782313.13 | 05/18/23 | **<1.0** |
| | MCSB-17 | 1578084.66 | 2782598.61 | 05/18/23 | **0** |
| | MCSB-18 | 1578071.36 | 2782423.53 | 05/18/23 | **0** |

# Figures




AVM Environmental Services, Inc.

Figure 1
Mt. Taylor Mine Site
Soil Radiologic Characterization Areas

**Legend**

North Controlled Fence

Soil Radiologic Characterization Area

WBSB-01
WBSB-02
WBSB-03
WBSB-04
WBSB-05
WBSB-06
WBSB-07
WBSB-08
WBSB-09
WBSB-10
WBSB-11
WBSB-12
OPSB-01 (≈15')
OPSB-08 (≈15')
OPSB-07 (3.0')
OPSB-06 (3.0')
OPSB-02 (4.2')
OPSB-03 (4.3')
OPSB-05 (3.0')
OPSB-04 (4.5')
0
200
400
800 Feet

N
W
E
S

Environmental Services, Inc.

Figure 2
Mt. Taylor Mine Site
Windblown and Ore Pad Area Soil Sample/Test Pit Locations
and April 2023 Surface Gamma Scan Survey

## Legend

**Ra-226 pCi/g**

- <1.8 pCi/g
- 1.9 - 6.8 pCi/g
- 6.9 - 10.0 pCi/g
- 10.1 - 20.0 pCi/g
- 20.1 - 30.0 pCi/g
- 30.1 - 40.0 pCi/g
- >40.1 pCi/g
- North Controlled Fence
- Soil Radiologic Characterization Area
- Soil Sample/Test Pit (>6.8 Ra-226 pCi/g RCC Depth) Location

Note: Ra-226 pCi/g is determined from surface soil gamma radiation scan using 2x2 NaI detector and Site specific gamma radiation level (cpm) correlation.

MCSB-01
MCSB-02
MCSB-03
MCSB-04
MCSB-05
MCSB-06
MCSB-07
MCSB-08
MCSB-19
MCSB-09
MCSB-10
MCSB-20
MCSB-11
MCSB-12
MCSB-13
MCSB-14
MCSB-15
MCSB-16
MCSB-18
MCSB-17

0 100 200 400 Feet

N
W E
S

Environmental Services, Inc.

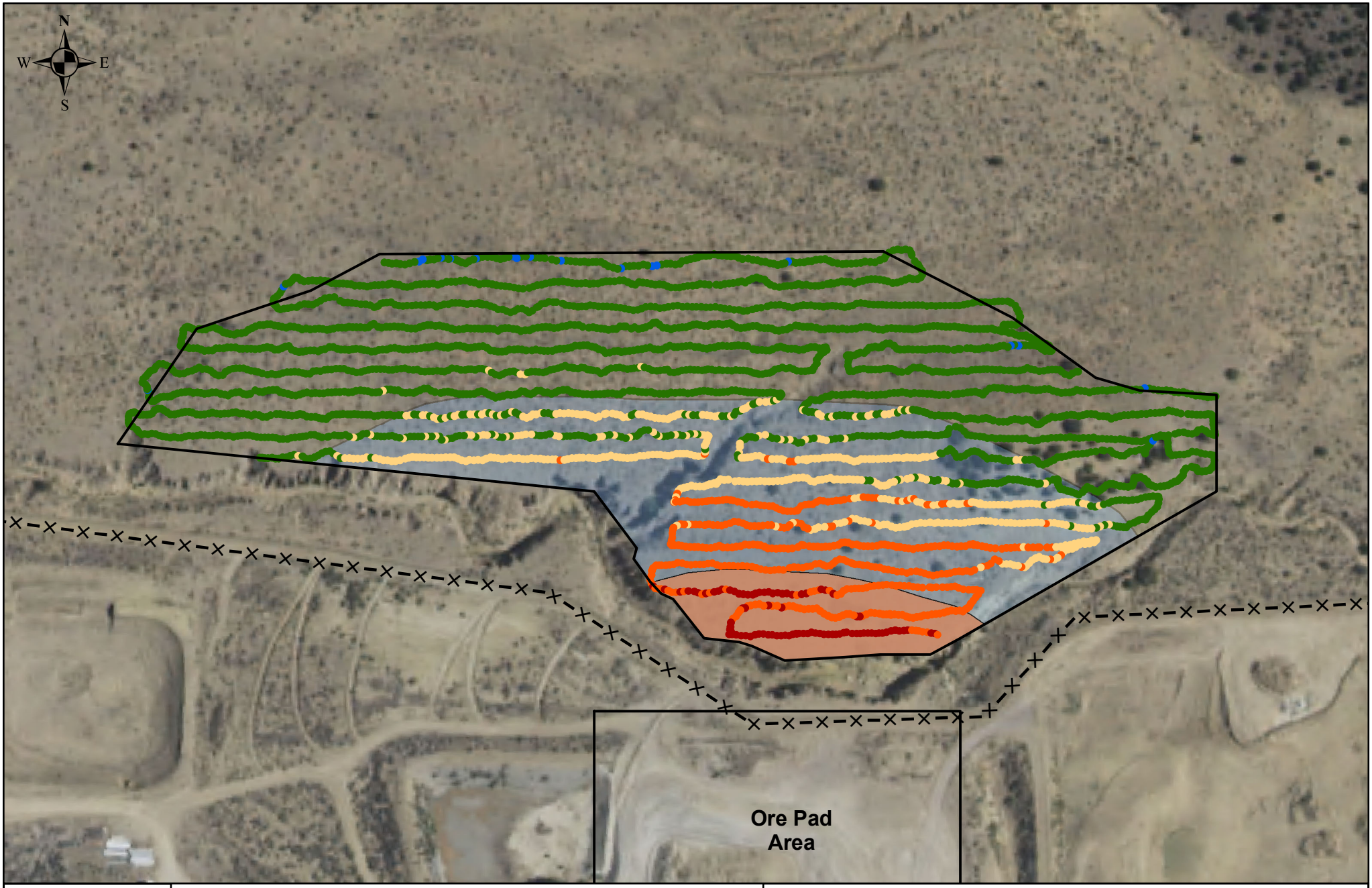
Figure 3
Mt. Taylor Mine Site
Mine Compound Area Soil Sample/Test Pit Locations
and April 2023 Surface Gamma Scan Survey

**Legend**

**Ra-226 pCi/g**

- <1.8 pCi/g
- 1.9 - 6.8 pCi/g
- 6.9 - 10.0 pCi/g
- 10.1 - 20.0 pCi/g
- 20.1 - 30.0 pCi/g
- 30.1 - 40.0 pCi/g
- >40.1 pCi/g
- Soil Sample/Test Pit Location
- North Controlled Fence
- Soil Radiologic Characterization Area

Note: Ra-226 pCi/g is determined from surface soil gamma radiation scan using 2x2 NaI detector and Site specific gamma radiation level (cpm) correlation.




Environmental Services, Inc.

# Figure 4
# Mt. Taylor Mine Site
# Windblown Area Surface Soil Ra-226 6.8 pCi/g Release Criteria Contamination Boundary

**Legend**

**Ra-226 pCi/g**

- <1.8 pCi/g
- 1.9 - 6.8 pCi/g
- 6.9 - 10.0 pCi/g
- 10.1 - 20.0 pCi/g
- 20.1 - 30.0 pCi/g
- 30.1 - 40.0 pCi/g
- >40.1 pCi/g
- North Controlled Fence
- Surface Gamma Scan Survey Based 6.8 Ra-226 Boundary
- Soil Sample Based 6.8 Ra-226 pCi/g Boundary
- Soil Radiologic Characterization Area

Note: Ra-226 pCi/g is determined from surface soil gamma radiation scan using 2x2 NaI detector and Site specific gamma radiation level (cpm) correlation.

MCSB-01

| Sample ID | On-Site Soil Screening Ra-226 pCi/g | Lab Results Ra-226 pCi/g |
|---|---|---|
| MCSB-01 1' | 5.1 | - |
| MCSB-01 2' | 6.9 | 5.9 |
| MCSB-01 3' | 2.1 | - |
| MCSB-01 4' | 1.7 | - |

MCSB-02

| Sample ID | On-Site Soil Screening Ra-226 pCi/g | Lab Results Ra-226 pCi/g |
|---|---|---|
| MCSB-02 1' | 2.1 | - |
| MCSB-02 2' | 3.1 | - |
| MCSB-02 3' | 1.2 | 0.8 |
| MCSB-02 4' | 13.3 | 12.6 |
| MCSB-02 5.2' | 2.6 | 1.4 |

MCSB-03

| Sample ID | On-Site Soil Screening Ra-226 pCi/g | Lab Results Ra-226 pCi/g |
|---|---|---|
| MCSB-03 1' | 8.1 | 5.9 |
| MCSB-03 2' | 2.0 | 0.8 |
| MCSB-03 3' | 2.2 | - |

MCSB-04

| Sample ID | On-Site Soil Screening Ra-226 pCi/g | Lab Results Ra-226 pCi/g |
|---|---|---|
| MCSB-04 1' | 1.6 | 1.4 |
| MCSB-04 2' | 4.0 | 3.4 |
| MCSB-04 3.5' | 1.4 | - |
| MCSB-04 4.5' | 2.2 | - |

MCSB-05

| Sample ID | On-Site Soil Screening Ra-226 pCi/g | Lab Results Ra-226 pCi/g |
|---|---|---|
| MCSB-05 1' | 1.9 | - |
| MCSB-05 2' | 2.3 | - |
| MCSB-05 3' | 1.8 | - |
| MCSB-05 4' | 2.1 | 1.5 |
| MCSB-05 6' | 17 | 16.1 |
| MCSB-05 7.5' | 1.8 | 1.0 |

MCSB-06

| Sample ID | On-Site Soil Screening Ra-226 pCi/g | Lab Results Ra-226 pCi/g |
|---|---|---|
| MCSB-06 1' | 53.3 | - |
| MCSB-06 2' | 10.1 | - |
| MCSB-06 3.25' | 2.7 | - |
| MCSB-06 4.25' | 1.7 | - |
| MCSB-06 6' | 2.3 | 1.9 |

MCSB-07

| Sample ID | On-Site Soil Screening Ra-226 pCi/g | Lab Results Ra-226 pCi/g |
|---|---|---|
| MCSB-07 1' | 29.3 | - |
| MCSB-07 2' | 2.3 | - |
| MCSB-07 3' | 6.6 | 6.3 |
| MCSB-07 4.5' | 2.5 | 1.2 |
| MCSB-07 5.5' | 1.8 | - |

MCSB-08

| Sample ID | On-Site Soil Screening Ra-226 pCi/g | Lab Results Ra-226 pCi/g |
|---|---|---|
| MCSB-08 1' | 81.8 | - |
| MCSB-08 2' | 95.9 | - |
| MCSB-08 3' | 52.9 | - |
| MCSB-08 5' | 92.3 | 77.1 |
| MCSB-08 6.5' | 2.1 | 1.1 |
| MCSB-08 12' | 5.4 | - |

MCSB-09

| Sample ID | On-Site Soil Screening Ra-226 pCi/g | Lab Results Ra-226 pCi/g |
|---|---|---|
| MCSB-09 1' | 10.3 | 7.9 |
| MCSB-09 2' | 1.3 | 0.6 |
| MCSB-09 3' | 1.6 | - |
| MCSB-09 4' | 1.6 | - |

MCSB-10

| Sample ID | On-Site Soil Screening Ra-226 pCi/g | Lab Results Ra-226 pCi/g |
|---|---|---|
| MCSB-10 1' | 1.2 | 0.8 |
| MCSB-10 2' | 1.2 | - |
| MCSB-10 3' | 1.2 | - |
| MCSB-10 4' | 1.6 | - |

MCSB-11

| Sample ID | On-Site Soil Screening Ra-226 pCi/g | Lab Results Ra-226 pCi/g |
|---|---|---|
| MCSB-11 1' | 34.7 | - |
| MCSB-11 2' | 118.3 | - |
| MCSB-11 3' | 42.0 | - |
| MCSB-11 4' | 9.4 | 11.0 |
| MCSB-11 5' | 4.3 | 2.8 |
| MCSB-11 6' | 3.7 | - |

MCSB-12

| Sample ID | On-Site Soil Screening Ra-226 pCi/g | Lab Results Ra-226 pCi/g |
|---|---|---|
| MCSB-12 1' | 4.1 | 3.3 |
| MCSB-12 2' | 3.6 | - |
| MCSB-12 3' | 1.2 | - |
| MCSB-12 4' | 1.2 | - |

MCSB-13

| Sample ID | On-Site Soil Screening Ra-226 pCi/g | Lab Results Ra-226 pCi/g |
|---|---|---|
| MCSB-13 1' | 1.9 | 1.2 |
| MCSB-13 2' | 2.1 | - |
| MCSB-13 3' | 2.3 | - |
| MCSB-13 4' | 2.0 | - |

MCSB-14

| Sample ID | On-Site Soil Screening Ra-226 pCi/g | Lab Results Ra-226 pCi/g |
|---|---|---|
| MCSB-14 1' | 4.1 | 3.8 |
| MCSB-14 2' | 4.0 | - |
| MCSB-14 3' | 3.8 | - |
| MCSB-14 4' | 3.6 | - |
| MCSB-14 5' | 2.2 | - |
| MCSB-14 6' | 1.6 | - |

MCSB-15

| Sample ID | On-Site Soil Screening Ra-226 pCi/g | Lab Results Ra-226 pCi/g |
|---|---|---|
| MCSB-15 1' | 2.8 | 1.6 |
| MCSB-15 2' | 2.5 | - |
| MCSB-15 3' | 4.8 | - |
| MCSB-15 4' | 2.6 | - |

MCSB-16

| Sample ID | On-Site Soil Screening Ra-226 pCi/g | Lab Results Ra-226 pCi/g |
|---|---|---|
| MCSB-16 1' | 5.6 | 4.8 |
| MCSB-16 2' | 3.2 | 0.24 |
| MCSB-16 3' | 3.0 | - |
| MCSB-16 4' | 2.2 | - |

MCSB-17

| Sample ID | On-Site Soil Screening Ra-226 pCi/g | Lab Results Ra-226 pCi/g |
|---|---|---|
| MCSB-17 1' | 1.3 | 0.7 |
| MCSB-17 2' | 1.6 | - |

MCSB-18

| Sample ID | On-Site Soil Screening Ra-226 pCi/g | Lab Results Ra-226 pCi/g |
|---|---|---|
| MCSB-18 1'-1.5' | 3.2 | 2.6 |
| MCSB-18 2' | 2.3 | |
| MCSB-18 3' | 2.3 | |

0 125 250 500 Feet

N W E S

Environmental Services, Inc.

Figure 5
Mt. Taylor Mine Site
Mine Compound Area Subsurface Soil Sample
On-Site Ex-Situ Soil Screening and Lab Results
and April 2023 Surface Gamma Scan Survey

**Legend**

**Ra-226 pCi/g**

- <1.8 pCi/g
- 1.9 - 6.8 pCi/g
- 6.9 - 10.0 pCi/g
- 10.1 - 20.0 pCi/g
- 20.1 - 30.0 pCi/g
- 30.1 - 40.0 pCi/g
- >40.1 pCi/g
- Soil Sample/Test Pit Location
- North Controlled Fence
- Soil Radiologic Characterization Area

Note: Ra-226 pCi/g is determined from surface soil gamma radiation scan using 2x2 NaI detector and Site specific gamma radiation level (cpm) correlation.

# Appendix A
# Surface Gamma Radiation Static Survey Field Forms

**AVM Environmental Services, Inc.**
**Gamma Radiation Survey**
**Static Gamma Radiation Survey Field Form**

Instrumentation : Scaler/Ratemeter L2241-2 S#287029 Detector SPA-3 #30

Instrument Calibration Date: 10-7-22, Instrument Daily Function Check Performed: ✓

2"x2" NaI Detector Collimated ✓ Yes or ✓ No.

Survey Area/Unit Decsription Mt. Taylor Mine Site

| Survey Date | Survey Point ID/Description | Survey Point Coordinate | | Gamma Radiation Reading - CPM | | Exposure Rate µR/hr | Comments/Notes |
|---|---|---|---|---|---|---|---|
| | | Northing | Easting | Bare | Collimated (0.5"Pb) | | |
| 5-17-23 | WBSB-01 | 1581412.80 | 2782866.15 | 26897 | 6297 | 33 | |
| 5-17-23 | WBSB-02 | 1581389.51 | 2782444.25 | 26749 | 6350 | 33 | |
| 5-17-23 | WBSB-03 | 1581356.39 | 2783329.27 | 24529 | 6073 | 31 | |
| 5-17-23 | WBSB-04 | 1581338.82 | 2782705.91 | 30064 | 6069 | 37 | |
| 5-17-23 | WBSB-05 | 1581328.80 | 2783062.43 | 31828 | 6945 | 41 | |
| 5-17-23 | WBSB-06 | 1581271.37 | 2782942.27 | 35410 | 7288 | 47 | |
| 5-17-23 | WBSB-07 | 1581187.28 | 2783252.71 | 37965 | 8183 | 47 | |
| 5-17-23 | WBSB-08 | 1581164.47 | 2782987.54 | 55849 | 11042 | 70 | |
| 5-31-23 | WBSB-09 | 1581254.28 | 2782870.27 | 36491 | 6599 | 44 | |
| 5-31-23 | WBSB-10 | 1581262.56 | 2783140.16 | 34898 | 7286 | 48 | |
| 5-31-23 | WBSB-11 | 1581277.45 | 2783335.44 | 29002 | 6602 | 34 | |
| 5-31-23 | WBSB-12 | 1581227.90 | 2782907.89 | 40341 | 7153 | 55 | |
| 5-31-23 | OPSB-01 | 1580834.11 | 2782884.42 | 2328550 | 716621 | 2100 | |
| 5-31-23 | OPSB-02 | 1580811.55 | 2783138.10 | 505097 | 160357 | 650 | |
| 5-31-23 | OPSB-03 | 1580599.03 | 2783012.73 | 700063 | 247434 | 900 | |
| 5-31-23 | OPSB-04 | 1580328.29 | 2782874.34 | 408698 | 133199 | 450 | |
| 5-31-23 | OPSB-05 | 1580386.28 | 2783136.44 | 446083 | 156044 | 450 | |
| 5-30-23 | MCSB-01 | 1579584.67 | 2783018.74 | 35807 | 10538 | 41 | |
| 5-30-23 | MCSB-02 | 1579573.01 | 2783166.70 | 34096 | 9678 | 39 | |
| 5-30 23 | MCSB-03 | 1579343.02 | 2782883.30 | 34019 | 9832 | 39 | |
| 5-30-23 | MCSB-04 | 1579317.49 | 2783098.04 | 34656 | 10811 | 40 | |

Technician Signature _____, Reviewed by _____

**AVM Environmental Services, Inc.**
**Gamma Radiation Survey**
**Static Gamma Radiation Survey Field Form**

Instrumentation : Scaler/Ratemeter L2241-2 S#287029 Detector SPA-3 #30

Instrument Calibration Date: 10-7-22, Instrument Daily Function Check Performed: ✓

2"x2" NaI Detector Collimated ✓ Yes or ✓ No.

Survey Area/Unit Decsription Mt. Taylor Mine Site

| Survey Date | Survey Point ID/Description | Survey Point Coordinate | | Gamma Radiation Reading - CPM | | Exposure Rate µR/hr | Comments/Notes |
|---|---|---|---|---|---|---|---|
| | | Northing | Easting | Bare | Collimated (0.5"Pb) | | |
| 5-24-23 | MCSB-05 | 1579183.08 | 2782701.94 | 52231 | 14892 | 65 | |
| 5-24-23 | MCSB-06 | 1579162.34 | 2783064.40 | 31976 ~~31967~~ | 8548 | 37 | |
| 5-24-23 | MCSB-07 | 1579040.09 | 2783009.78 | 52974 | 18511 | 65 | |
| 5-23-23 | MCSB-08 | 1578849.18 | 2782249.48 | 107010 | 39626 | 125 | |
| 5-23-23 | MCSB-09 | 1578849.89 | 2782581.54 | 28188 | 8193 | 33 | |
| 5-23-23 | MCSB-10 | 1578758.24 | 2782443.51 | 39814 | 12984 | 43 | |
| 5-22-23 | MCSB-11 | 1578610.92 | 2782257.53 | 53106 | 18055 | 60 | |
| 5-22-23 | MCSB-12 | 1578520.57 | 2782569.17 | 29299 | 9090 | 33 | |
| 5-22-23 | MCSB-13 | 1578300.74 | 2782557.01 | 21952 | 6254 | 25 | |
| 5-23-23 | MCSB-14 | 1578278.15 | 2782258.40 | 21642 | 6366 | 25 | |
| 5-18-23 | MCSB-15 | 1578214.43 | 2782398.32 | 48059 | 15633 | 51 | |
| 5-18-23 | MCSB-16 | 1578084.02 | 2782313.13 | 30445 | 11069 | 33 | |
| 5-18-23 | MCSB-17 | 1578084.66 | 2782598.61 | 18059 | 5891 | 19 | |
| 5-18-23 | MCSB-18 | 1578071.36 | 2782423.53 | 17170 | 5046 | 19 | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Technician Signature _____, Reviewed by _____

**AVM Environmental Services, Inc.**
**Gamma Radiation Survey**
**Static Gamma Radiation Survey Field Form**

Instrumentation : Scaler/Ratemeter 2241-2 S#287029 , Detector SPA-3 #30

Instrument Calibration Date: 10-7-22 , Instrument Daily Function Check Performed: ✓

2"x2" NaI Detector Collimated ✓ Yes or ✓ No.

Survey Area/Unit Decsription Mt. Taylor Mine Site

| Survey Date | Survey Point ID/Description | Survey Point Coordinate | | Gamma Radiation Reading - CPM | | Exposure Rate µR/hr | Comments/Notes |
|---|---|---|---|---|---|---|---|
| | | Northing | Easting | Bare | Collimated (0.5"Pb) | | |
| 5-31-23 | MCSB-19 | 1578837 | 2782317 | 69850 | 24522 | 80 | |
| 5-31-23 | MCSB-20 | 1578650 | 2782298 | 55167 | 18497 | 65 | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Technician Signature _____, Reviewed by _____

# Appendix B

## Surface and Subsurface Contamination Field Investigation Documentation
## Soil Sample Log Forms
## Field Soil Sample Ex-Situ Gamma Radiation Screening Forms
## Soil Sample COCs and Laboratory Analytical Result Reports)

**AVM Environmental Services, Inc.**
**Subsurface Soil Sample Log Form**
**Mt. Taylor Mine Site**

| Sample ID | Sample Date/Time | Sample Depth | Sample Description | Comments/Notes |
|---|---|---|---|---|
| WBSB-02 0-0.5' | 0815 5-17-23 | 0-6" | Light brown Alluvium Loam | Surface Soil dry |
| WBSB-02 1.0-1.5' | 0820 5-17-23 | 1.0'-1.5' | Brown Silty Clay | Moist soil |
| WBSB-04 0-0.5' | 0835 5-17-23 | 0-6" | Light brown Alluvium -Loam | |
| WBSB-04 1.0'-1.5' | 0845 5-17-23 | 1.0'-1.5' | Brown Silty Clay | |
| WBSB-01 0-0.5' | 0855 5-17-23 | 0-6" | Light brown Alluvium Loam | |
| WBSB-01 1.0-1.5' | 0906 5-17-23 | 1.0'-1.5' | Brown Silty clay | |
| WBSB-05 0-0.5' | 0920 5-17-23 | 0-6" | Light brown Alluvium -Loam | |
| WBSB-05 1.0'-1.5' | 0930 5-17-23 | 1.0'-1.5' | brown Silty Clay | |
| WBSB-03 0-0.5' | 0942 5-17-23 | 0-6" | Light brown Alluvium -Loam | |
| WBSB-03 1.0'-1.5' | 0948 5-17-23 | 1.0'-1.5' | brown silty clay | |
| WBSB-07 0-6" | 1014 5-17-23 | 0-6" | Light brown Alluvium Loam | |
| WBSB-07 1.0'-1.5' | 1020 5-17-23 | 1.0'-1.5' | brown silty clay | |
| WBSB-08 0-0.5" | 1034 5-17-23 | 0-6" | Light brown Alluvium -Loam | |
| WBSB-08 1.0-1.5 | 1042 5-17-23 | 1.0'-1.5' | brown Silty Clay | |
| | | | | |

**AVM Environmental Services, Inc.**
**Subsurface Soil Sample Log Form**
**Mt. Taylor Mine Site**

| Sample ID | Sample Date/Time | Sample Depth | Sample Description | Comments/Notes |
|---|---|---|---|---|
| WBSB-06 0-0.5' | 1054 5-17-23 | 0-6" | Light brown Alluvium - Loam | |
| WBSB-06 1.0-1.5' | 1100 5-17-23 | 1.0'-1.5' | brown silty clay | |
| WBSB-09 0-6" | 5-31-23 @825 | 0-6" | light brown Alluvium Sandy | |
| WBSB-09 6-12' | 5-31-23 @835 | 6-12" | brown Silty Clay | |
| WBSB-12 0-1" | 5-31-23 @850 | 0-1" | Alluvium brown Sandy | |
| WBSB-12 2-6" | 5-31-23 @900 | 2-6" | brown loam / Sand | |
| WBSB-10 0-6" | 5-31-23 @910 | 0-6" | Alluvium light brown Sandy | |
| WBSB-10 6-12" | 5-31-23 @915 | 6-12" | brown loam / Roots | |
| WBSB-11 0-6" | 5-31-23 @935 | 0-6' | Alluvium light brown Sandy | |
| WBSB-11 6-10" | 5-31-23 940 | 6-10" | Sandstone / Sand. | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

**AVM Environmental Services, Inc.**
**Subsurface Soil Sample Log Form**
**Mt. Taylor Mine Site**

| Sample ID | Sample Date/Time | Sample Depth | Sample Description | Comments/Notes |
|---|---|---|---|---|
| MCSB-17 1' 5-18-23 | 5-18-23 845 | 1' | | 0-1' gravel/Road base @1' appears native |
| MCSB-17 2 | 5-18-23 857 | 2' | | native to Depth of 5.5' |
| MCSB-18-1-1.5 | 5-18-23 948 | 1-1.5' | | |
| MCSB-18 2 | 5-18-23 958 | 2' | clay Sand loam Dark conglomerate multi Color | Metal Debris @ 2.5' |
| MCSB-18 3 | 5-18-23 1010 | 3' | Charcoal-Rust light Brown | |
| MCSB-18 4 | 5-18-23 1018 | 4' | Clay Dk Brown | native @ ± 5' |
| MCSB-16 1 | 5-18-23 1045 | 1' | Rocky light grey/green | Top 1' = 5" soil) ± 5" gravel |
| MCSB-16 2 | 5-18-23 1100 | 2' | light brown Alluvium/Sand | |
| MCSB-16 3 | 5-18-23 1110 | 3' | light grayish/Brown mix of Shale | |
| MCSB-16 4 | 5-18-23 1120 | 4' | | |
| MCSB-15 1 | 5-18-23 1138 | 1' | Brown clay/Sand | from borrow A or B |
| MCSB-15 2 | 5-18-23 1145 | 2' | " " /gravel Roadbase | |
| MCSB-15 3 | 5-18-23 1158 | 3' | Brown Clay/Sand grey | |
| MCSB-15 4 | 5-18-23 1212 | 4' | Brown Clay/Sand | |
| | | | | |

**AVM Environmental Services, Inc.**
**Subsurface Soil Sample Log Form**
**Mt. Taylor Mine Site**

| Sample ID | Sample Date/Time | Sample Depth | Sample Description | Comments/Notes |
|---|---|---|---|---|
| MCSB-13 - 1' | 5-22-23 825 | 1' | 0-4" Road base<br>4-12" Dark Silt Clay | |
| MCSB-13 2' | 5-22-23 839 | 2' | 1'-2' Dark Silt Clay | |
| MCSB-13 3' | 5-22-23 851 | 3' | Light/Dark Silt Clay | |
| MCSB-13 4' | 5-22-23 905 | 4' | Sandstone<br>light brown Sandy/Silt Soil | some @ 6' |
| MCSB-12 1' | 5-22-23 928 | 1' | 0-6" Road base<br>6"-12" Large gravel 3/4"-1" | |
| MCSB-12 2' | 5-22-23 935 | 2' | odor/DRO<br>Dark/Black gravel | |
| MCSB-12 3' | 5-22-23 948 | 3' | Brown Silty/Sandy Hard pack | |
| MCSB-12 4' | 5-22-23 956 | 4' | " " " | |
| MCSB-11 1' | 5-22-23 1030 | 1' | 0-4" Road base<br>4-12" Grey Rocky loose Waste Rock | |
| MCSB-11 2' | 5-22-23 1040 | 2' | White Rock<br>Dark Grey Rocky loose Soil | |
| MCSB-11 3' | 5-22-23 1050 | 3' | Grey Waste Rock/Brown Silty mix | |
| MCSB-11 4' | 5-22-23 1104 | 4' | Dark brown/Rocky = Interface | |
| MCSB-11 5' | 5-22-23 1112 | 5' | Pebbles<br>Dark brown/~~Rocky~~ Clay | appears native @ 6.5' |
| MCSB-11 6' | 5-23-23 835 | 6' | Dark brown Clay/Sand | |
| | | | | |

**AVM Environmental Services, Inc.**
**Subsurface Soil Sample Log Form**
**Mt. Taylor Mine Site**

| Sample ID | Sample Date/Time | Sample Depth | Sample Description | Comments/Notes |
|---|---|---|---|---|
| MCSB-14 1' | 5-23-23 853 | 1' | Cobble<br>Dark brown topsoil Maybe backfill | |
| MCSB-14 2' | 5-23-23 905 | 2' | Grey / mine waste | metal Debris @ 1'-2' |
| MCSB-14 3' | 5-23-23 915 | 3' | " " " | metal Debris hoses etc. |
| MCSB-14 4' | 5-23-23 920 | 4' | " " " | Debris |
| MCSB-14 5' | 5-23-23 932 | 5' | Dark brown Clay | |
| MCSB-14 6' | 5-23-23 950 | 6' | " " | Clay & Charcoal Past 6' |
| MCSB-08 1' | 5-23-23 1035 | 1' | Clay mix w/ Mine Waste Rock | |
| MCSB-08 2' | 5-23-23 1045 | 2' | " " " | |
| MCSB-08 3' | 5-23-23 1058 | 3' | " " " Sandy | |
| MCSB-08 5' | 5-23-23 1110 | 5' | Sandy/clay mine Waste | 3'-5' Same material |
| MCSB-08 6.5' | 5-23-23 1125 | 6.5' | Sandy mix<br>Dark/Black DRO smell | 2'-6' Same waste Sandy |
| MCSB-08 12', 11.5' | 5-23-23 1145 | 12' | Dark Rocky Clay. | |
| MCSB-09 1' | 5-24-23 825 | 1' | 0-6" Road base<br>6-12" Road base | 0-2' Road base |
| MCSB-09 2' | 5-24-23 840 | 2' | Brown Sandy Soil | |
| MCSB-09 3' | 5-24-23 850 | 3' | " " " | |

**AVM Environmental Services, Inc.**
**Subsurface Soil Sample Log Form**
**Mt. Taylor Mine Site**

| Sample ID | Sample Date/Time | Sample Depth | Sample Description | Comments/Notes |
|---|---|---|---|---|
| MCSB-09 4' | 5-24-23 900 | 4' | Brown Sandy Soil | |
| MCSB-10 1' | 5-24-23 915 | 1' | Road Base | |
| MCSB-10 2' | 5-24-23 922 | 2' | unconsolidated light brown silty Sand | |
| MCSB-10 3' | 5-24-23 930 | 3' | Clay Dark Brown " " | |
| MCSB-10 4' | 5-24-23 943 | 4' | clay Dark Brown / Sandy Silty | |
| MCSB-10 5' | — | 5' | Dark Brown / Sandy - Clay | |
| MCSB-5 1' | 5-24-23 @ 1010 | 1' | 0-6" Road base Brown Silty Sand | |
| MCSB-5 2' | 5-24-23 @ 1020 | 2' | Brown silty Sand | |
| MCSB-5 3' | 5-24-23 @ 1030 | 3' | " " " Rocky | |
| MCSB-5 4' | 5-24-23 @ 1040 | 4' | " " " " | |
| MCSB-5 ~~5~~ 6' | 5-24-23 @ 1100 | 6' | gravel / Sandy Rocky | 6'-7' gravel Sandy Road base |
| MCSB-5 7.5' | 5-24-23 @ 1110 | 7.5' | Dark brown Silty Soil | Starts @ ± 7' |
| MCSB-07 1' | 5-24-23 @ 1220 | 1' | 0 ± 8" Gravel | |
| MCSB-07 2' | 5-24-23 @ 1232 | 2' | Dark Clay / bentonite Silts | |
| MCSB-07 3' | 5-24-23 @ 1246 | 3' | | |

**AVM Environmental Services, Inc.**
**Subsurface Soil Sample Log Form**
**Mt. Taylor Mine Site**

| Sample ID | Sample Date/Time | Sample Depth | Sample Description | Comments/Notes |
|---|---|---|---|---|
| MCSB-07 4.5' | 5-24-23 @1300 | 4.5' | light brown Sandy Silty | |
| MCSB-07 5.5' | 5.24.23 @1310 | 5.5' | light brown Clay / grey clay | |
| MCSB-07 6.6' | 5.24.23 @ | 6.6' | no Sample Same as above | |
| MCSB-06 1' | 5-30-23 @822 | 1' | 0-8" Red Road base 1" Dark brown Soil gravel mix | ~~VP Slight Pro growth~~ |
| MCSB-06 2' | 5-30-23 @835 | 2' | Dark brown Rock clay w gravel 1" | |
| MCSB-06 3.25 | 5-30-23 @850 | 3.25 | " " " " | Metal Debris @ 2.5' |
| MCSB-06 4.25' | 5-30-23 @900 | 4.25 | Dark brown Silty/clay | ~4' non-mineralized ore body. |
| MCSB-06 6' | 5-30-23 @915 | 6' | Silty/Rocky w/ Clay | |
| MCSB-06 6.5' | 5-30-23 | 6.5 | No Sample Clay w/ Silty/loose | |
| MCSB-04 1' | 5-30-23 @935 | 1' | 0-6" Road base Red 6-12" Brown Silty w/ gravel | |
| MCSB-04 2' | 5-30-23 @945 | 2' | All Road base 0-2' light Brown | |
| MCSB-04 3.5' | 5-30-23 @955 | 3.5' | Darkish Rocky Mix Rocky Silty Sandy | |
| MCSB-04 4.5' | 5-30-23 @1005 | 4.5' | Dark brown Silty w/ light gravel/cobble Clay | |
| MCSB-04 5'-6' | 5-30-23 | 5'-6' | Clay Consolidated Silty Dark brown | bank |
| | | | | |

**AVM Environmental Services, Inc.**
**Subsurface Soil Sample Log Form**
**Mt. Taylor Mine Site**

| Sample ID | Sample Date/Time | Sample Depth | Sample Description | Comments/Notes |
|---|---|---|---|---|
| MCSB-02 1' | 5-30-23 @ 1030 | 1' | 0-6" Red Road base | |
| MCSB-02 2' | 5-30-23 @ 1040 | 2' | Clay Silt mix w/ 3/4" gravel | |
| MCSB-02 3' | 5-30-23 @ 1050 | 3' | grey clay / silty bentonite greenish / black | |
| MCSB-02 4' | 5-30-23 @ 1100 | 4' | loose, sandy silt / gravel light brown (reddish) gravel | DRO odor (slight) |
| MCSB-02 5.2' | 5-30-23 @ 1115 | 5.2' | dark brown, silty unconsolidated clay | |
| MCSB-02 6.2' | 5-30-23 @ | 6.2' | " " " no Sample | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

**AVM Environmental Services, Inc.**
**Subsurface Soil Sample Log Form**
**Mt. Taylor Mine Site**

| Sample ID | Sample Date/Time | Sample Depth | Sample Description | Comments/Notes |
|---|---|---|---|---|
| MCSB-01 1' | 5-30-23 @1240 | 1' | 3" gravel road base ~~dark~~ brown clay mixed w/ gravel | |
| MCSB-01 - 2' | 5-30-23 @1250 | 2' | brown loomy ~~&~~ clay w/gravel | |
| MCSB-01 3' | 5-30-23 @0900 | 3' | brown loomy no gravel | |
| MCSB-01 4' | 5-30-23 @0915 | 4' | brown loom/clay no gravel | |
| MCSB-01 6' | 5-30-23 no sample | 6' | " " " | |
| MCSB-03 1' | 5-30-23 @0940 | 1' | light brown loomy w/some gravel | 0-8" roadbase gravel 3/4" |
| MCSB-03 2' | 5-30-23 @0950 | 2' | ~~brown~~ loomy no gravel | |
| MCSB-03 3' | 5-30-23 @0200 | 3' | brown sandy/loom no gravel | |
| MCSB-03 4.25' | NO sample | | " " " | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

**AVM Environmental Services, Inc.**
**Subsurface Soil Sample Log Form**
**Mt. Taylor Mine Site**

| Sample ID | Sample Date/Time | Sample Depth | Sample Description | Comments/Notes |
|---|---|---|---|---|
| OPSB-04 0-4' | 6-1-23 @815 | 0-4' | 0-4' Grey Waste Rock | |
| OPSB-04 4.8', ~~4.83~~ UP | 6-1-23 @825 | 4.8', ~~4.10~~ UP | Dark Clay / brown Silty | |
| OPSB-04 4.5' | 6-1-23 @835 | 4.5' | Mix Clay & Waste Rock | Interface |
| OPSB-03 0-4' | 6-1-23 @850 | 0-4' | Waste Rock light/Dark grey | |
| OPSB-03 4.2' | 6-1-23 @910 | 4.2' | mix Clay / waste Rock | Interface |
| OPSB-03 4.5' | 6-1-23 @925 | 4.5' | Dark brown Clay | |
| OPSB-01 0-13' | 6-1-23 @1025 | 0-13' | Waste Rock - Grey | |
| OPSB-01 13.5' | 6-1-23 @1020 | 13.5' | Waste Rock - Grey | limit of backhoe |
| OPSB-02 4.5' | 6-1-23 @1100 | 4.5' | Dark Clay / waste Rock | Interface |
| OPSB-02 0-4' | 6-1-23 @1115 | 0-4' | Dark Grey - Sandy waste Rock | |
| OPSB-02 5.5' | 6-1-23 @1120 | 5.5' | light brown Sandy Silty | |
| OPSB-05 3' | 6-1-23 @1140 | 3' | Dark Clay / Waste Rock | Interface |
| OPSB-05 3.75' | 6-1-23 @1155 | 3.75' | light brown Sandy Silty | |
| OPSB-05 0-3' | 6-1-23 @1200 | 0-3' | Waste Rock | |
| | | | | |

**AVM Environmental Services, Inc.**
**Field Soil Sample Gamma Radiation Screening Form**
**Mt. Taylor Mine Site**

**Instrumentation : Scaler/Ratemeter** L 2221 SN 68782 , **Detector** L44-20 S# 295573
**Instrument Calibration Date:** 5-10-23 , **Instrument Function Check Performed:** ✓
**Survey Area/Unit Decsription** Mt. Taylor Mine Site

**Area exposure rate:** 10-12

| Date/Time | Soil Sample ID | Sample Weight Grams | 609 (559-669) Kev Gross Counts, CP5M | Weight Corrected CP5M | CPM | Reference Soil Compare (< or >) | Comments |
|---|---|---|---|---|---|---|---|
| 5-17-23 | Blank | – | 349 | | 70 | | |
| 5-17-23 | 6.6 pCi/g Ra-226 | 3000 | 2682 | | 536 | | |
| 5-17-23 | WBSB 01 0-6" @ 855 | 3000 | 1406 | | 282 | | |
| 5-17-23 | WBSB 01 1'-1.5' @ 906 | 3000 | 1244 | | 249 | | |
| 5-17-23 | WBSB 02 0-6" @ 815 ~~820~~ | 3000 | 1577 | | 315 | | |
| 5-17-23 | WBSB 02 1'-1.5' @ 820 | 2958 | 1008 | 1022 | 204 | | |
| 5-17-23 | WBSB 03 0-6" 5-17-23 @ 942 | 3000 | 2039 | | 408 | | |
| 5-17-23 | WBSB 03 1'-1.5' 5-17-23 @ 948 | 3000 | 1136 | | 227 | | |
| 5-17-23 | WBSB 04 0-6" 5-17-23 @ 835 | 3000 | 1521 | | 304 | | |
| 5-17-23 | WBSB 04 1'-1.5' 5-17-23 @ 845 | 2840 | 1189 | 1256 | 251 | | |
| 5-17-23 | WBSB 05 0-6" 5-17-23 @ 920 | 3000 | 1747 | | 349 | | |
| 5-17-23 | WBSB 05 1'-1.5' 5-17-23 @ 930 | 2835 | 1086 | 1149 | 230 | | QA/QC CPSM: 1093 |
| 5-17-23 | WBSB 06 0-6" 5-17-23 @ 1054 | 3000 | 1406 | | 281 | | |
| 5-17-23 | WBSB-06 1-1.5' 5-17-23 @ 1100 | 2876 | 1004 | 1047 | 209 | | |
| 5-17-23 | WBSB-07 0-6" 5-17-23 @ 1014 | 3000 | 2272 | | 454 | | |

Technician Signature _____ , Reviewed by MP

**AVM Environmental Services, Inc.**
**Field Soil Sample Gamma Radiation Screening Form**
**Mt. Taylor Mine Site**

Instrumentation : Scaler/Ratemeter L2221 S# 68782, Detector L44-20 S# 295573
Instrument Calibration Date: 5-10-23, Instrument Function Check Performed: ✓
Survey Area/Unit Decsription Mt. Taylor Mine Site

Area exposure rate: 10-12

| Date/Time | Soil Sample ID | Sample Weight Grams | 609 (559-669) Kev Gross Counts, CP5M | Weight Corrected CP5M | CPM | Reference Soil Compare (< or >) | Comments |
|---|---|---|---|---|---|---|---|
| 5-17-23 | WBSB-07 1'-1.5' @ 5-17-23 0930 | 3000 | 1082 | | 216 | | |
| 5-17-23 | WBSB-08 0-6" @ 5-17-23 1034 | 3000 | 4140 | | 828 | | QA/QC CP5M: 4183 |
| 5-17-23 | WBSB-08 1'-1.5' @ 5-17-23 1042 | 3000 | 1118 | | 224 | | |
| 5-18-23 | Blank | | 330 | | 66 | | |
| 5-18-23 | 6.6pCi/g $R_a$-226 | 3000 | 2695 | | 539 | | |
| 5-18-23 | MCSB-15 4 @ 5-18-23 1212 | 3000 | 1415 | | 283 | | |
| 5-18-23 | MCSB-16 4 @ 5-18-23 1120 | 3000 | 1280 | | 256 | | |
| 5-18-23 | MCSB-17 2' @ 5-18-23 857 | 3000 | 1070 | | 214 | | |
| 5-18-23 | MCSB 18 3' @ 5-18-23 1010 | 3000 | 1306 | | 261 | | |
| 5-18-23 | MCSB 15 3' @ 5-18-23 1158 | 3000 | 2206 | | 441 | | |
| 5-18-23 | MCSB 16 3' @ 5-18-23 1110 | 3000 | 1587 | | 317 | | |
| 5-18-23 | MCSB 17 1' @ 5-18-23 845 | 3000 | 974 | | 195 | | |
| 5-18-23 | MCSB 18 2' @ 5-18-23 958 | 3000 | 1321 | | 264 | | |
| 5-18-23 | MCSB 15 2' @ 5-18-23 1145 | 3000 | 1389 | | 278 | | |
| 5-18-23 | MCSB 16 2' @ 5-18-23 1100 | 3000 | 1646 | | 329 | | QA/QC CP5M: 1621 |

Technician Signature _____, Reviewed by _____

**AVM Environmental Services, Inc.**
**Field Soil Sample Gamma Radiation Screening Form**
**Mt. Taylor Mine Site**

Instrumentation : Scaler/Ratemeter L2221 S# 68782, Detector L44-20 S# 295573
Instrument Calibration Date: 5-10-23, Instrument Function Check Performed: ✓
Survey Area/Unit Decsription Mt. Taylor Mine Site

Area exposure rate: 10-12

| Date/Time | Soil Sample ID | Sample Weight Grams | 609 (559-669) Kev Gross Counts, CP5M | Weight Corrected CP5M | CPM | Reference Soil Compare (< or >) | Comments |
|---|---|---|---|---|---|---|---|
| 5-18-23 | MCSB-18 1-1.5' 5-18-23 @ 943 | 3000 | 1634 | | 327 | | |
| 5-18-23 | MCSB-15 1' 5-18-23 1138 | 3000 | 1503 | | 301 | | |
| 5-18-23 | MCSB-16 1' 5-18-23 @ 1045 | 3000 | 2498 | | 500 | | |
| 5-22-23 | Blank | — | 342 | | 68 | | |
| 5-22-23 | 6.6 pCi/g Ra-226 | 3000 | 2755 | | 551 | | |
| 5-22-23 | MCSB-11 5' 5-22-23 @ 1112 | 3000 | 2036 | | 407 | | |
| 5-22-23 | MCSB-12 4' 5-22-23 @ 956 | 3000 | 923 | | 185 | | |
| 5-22-23 | MCSB-13 4' 5-22-23 @ 905 | 3000 | 1210 | | 242 | | |
| 5-22-23 | MCSB-12 3' 5-22-23 @ 948 | 3000 | 915 | | 183 | | |
| 5-22-23 | MCSB-12 2' 5-22-23 @ 935 | 3000 | 1793 | | 359 | | |
| 5-22-23 | MCSB-12 1' 5-22-23 @ 928 | 3000 | 1957 | | 391 | | |
| 5-22-23 | MCSB-13 3' 5-22-23 @ 851 | 3000 | 1309 | | 262 | | |
| 5-22-23 | MCSB-13 2' 5-22-23 @ 839 | 3000 | 1253 | | 251 | | |
| 5-22-23 | MCSB-13 1' 5-22-23 @ 825 | 3000 | 1197 | | 239 | | |
| 5-22-23 | MCSB-11 4' 5-22-23 @ 1104 | 3000 | 3871 | | 774 | | QA/QC CP5M: 3855 |

Technician Signature _____, Reviewed by _____

**AVM Environmental Services, Inc.**
**Field Soil Sample Gamma Radiation Screening Form**
**Mt. Taylor Mine Site**

Instrumentation : Scaler/Ratemeter L2221 S#68782, Detector L44-20 S# 295573
Instrument Calibration Date: 5-10-23, Instrument Function Check Performed: ✓
Survey Area/Unit Decsription Mt. Taylor Mine Site

Area exposure rate: 10-12

| Date/Time | Soil Sample ID | Sample Weight Grams | 609 (559-669) Kev Gross Counts, CP5M | Weight Corrected CP5M | CPM | Reference Soil Compare (< or >) | Comments |
|---|---|---|---|---|---|---|---|
| 5-22-23 | MCSB-11 3' 5-22-23 @ 1050 | 3000 | 15497 | | 3099 | | |
| 5-22-23 | MCSB-11 2' 5-22-23 @ 1040 | 3000 | 42761 | | 8552 | | |
| 5-22-23 | MCSB-11 1' 5-22-23 @ 1030 | 3000 | 12907 | | 2581 | | |
| 5-23-23 | Blank | | 357 | | 71 | | |
| 5-23-23 | 6.6 pCi/g Ra-226 | 3000 | 2930 | | 586 | | |
| 5-23-23 | MCSB-11 6' 5-23-23 @ 835 | 3000 | 1824 | | 365 | | |
| 5-23-23 | MCSB-08 12' 5-23-23 @ 1145 | 3000 | 2421 | | 484 | | |
| 5-23-23 | MCSB-14 6' 5-23-23 @ 950 | 3000 | 1059 | | 212 | | |
| 5-23-23 | MCSB-14 5' 5-23-23 @ 932 | 3000 | 1274 | | 255 | | |
| 5-23-23 | MCSB-08 6.5' 5-23-23 @ 1125 | 3000 | 1266 | | 253 | | |
| 5-23-23 | MCSB-08 1' 5-23-23 @ 1035 | 3000 | 29705 | | 5941 | | |
| 5-23-23 | MCSB-14 1' 5-22-23 @ 853 | 3000 | 1982 | | 396 | | |
| 5-23-23 | MCSB-14 4' 5-23-23 @ 920 | 3000 | 1795 | | 359 | | |
| 5-23-23 | MCSB-14 3' 5-23-23 @ 915 | 3000 | 1856 | | 371 | | |
| 5-23-23 | MCSB-14 2' 5-23-23 @ 905 | 3000 | 1942 | | 388 | | QA/QC CPGM: 1942 |

Technician Signature _____, Reviewed by _____

**AVM Environmental Services, Inc.**
**Field Soil Sample Gamma Radiation Screening Form**
**Mt. Taylor Mine Site**

Instrumentation : Scaler/Ratemeter L2221 S# 68782, Detector L44-20 S# 295573
Instrument Calibration Date: 5-10-23, Instrument Function Check Performed: ✓
Survey Area/Unit Decsription Mt Taylor Mine Site

Area exposure rate: 10-12

| Date/Time | Soil Sample ID | Sample Weight Grams | 609 (559-669) Kev Gross Counts, CP5M | Weight Corrected CP5M | CPM | Reference Soil Compare (< or >) | Comments |
|---|---|---|---|---|---|---|---|
| 5-23-23 | MCSB-8 5' 5-23-23 @1110 | 3000 | 33460 | | 6692 | | |
| 5-23-23 | MCSB-8 3' 5-23-23 @1058 | 3000 | 19380 | | 3876 | | |
| 5-23-23 | MCSB-8 2' 5-23-23 @1045 | 3000 | 34740 | | 6948 | | |
| 5-25-23 | Blank | — | 363 | | 73 | | |
| 5-25-23 | 6.6 pCi/g $R_a$-226 | 3000 | 2776 | | 555 | | |
| 5-25-23 | MCSB-10 4' 5-24-23 @943 | 3000 | 1055 | | 211 | | |
| 5-25-23 | MCSB-9 4' 5-24-23 @900 | 3000 | 1082 | | 216 | | |
| 5-25-23 | MCSB-7 5.5' 5-24-23 @1310 | 3000 | 1607 | | 321 | | |
| 5-25-23 | MCSB-5 7.5' 5-24-23 @1110 | 3000 | 1150 | | 230 | | |
| 5-25-23 | MCSB-9 3' 5-24-23 @850 | 3000 | 1056 | | 211 | | |
| 5-25-23 | MCSB-9 2' 5-24-23 @840 | 3000 | 980 | | 196 | | |
| 5-25-23 | MCSB-9 1' 5-24-23 @825 | 3000 | 4191 | | 838 | | |
| 5-25-23 | MCSB-10 3' 5-24-23 @930 | 3000 | 930 | | 186 | | |
| 5-25-23 | MCSB-10 2' 5-24-23 @922 | 3000 | 913 | | 183 | | |
| 5-25-23 | MCSB-10 1' 5-24-23 @915 | 3000 | 920 | | 184 | | QA/QC CP5M: 935 |

Technician Signature _____, Reviewed by _____

**AVM Environmental Services, Inc.**
**Field Soil Sample Gamma Radiation Screening Form**
**Mt. Taylor Mine Site**

Instrumentation : Scaler/Ratemeter L 2221 S#68782, Detector L 44-20 S# 295573
Instrument Calibration Date: 5-10-23, Instrument Function Check Performed: ✓
Survey Area/Unit Decsription Mt. Taylor Mine Site

Area exposure rate: 10-12

| Date/Time | Soil Sample ID | Sample Weight Grams | 609 (559-669) Kev Gross Counts, CP5M | Weight Corrected CP5M | CPM | Reference Soil Compare (< or >) | Comments |
|---|---|---|---|---|---|---|---|
| 5-25-23 | MCSB-05 6' 5-24-23 @1100 | 3000 | 6564 | | 1313 | | |
| 5-25-23 | MCSB-05 4' 5-24-23 @1040 | 3000 | 1262 | | 252 | | |
| 5-25-23 | MCSB-05 3' 5-24-23 @1030 | 3000 | 1162 | | 232 | | |
| 5-25-23 | MCSB-05 2' 5-24-23 @1020 | 3000 | 1309 | | 262 | | |
| 5-25-23 | MCSB-05 1' 5-24-23 @1010 | 3000 | 1183 | | 237 | | |
| 5-25-23 | MCSB-07 4.5' 5-24-23 @1300 | 3000 | 1396 | | 279 | | |
| 5-25-23 | MCSB-07 3' 5-24-23 @1246 | 3000 | 2872 | | 574 | | |
| 5-25-23 | MCSB-07 2' 5-24-23 @1232 | 3000 | 1333 | | 267 | | |
| 5-25-23 | MCSB-07 1' 5-24-23 @1220 | 3000 | 10973 | | 2195 | | |
| 5-30-23 | Blank | — | 360 | | 72 | | |
| 5-30-23 | 6.6 pC/g $Ra_{-226}$ | 3000 | 2848 | | 570 | | |
| 5-30-23 | MCSB-06 6' 5-30-23 @915 | 3000 | 1311 | | 262 | | |
| 5-30-23 | MCSB-04 4.5' 5-30-23 @1005 | 3000 | 1274 | | 255 | | |
| 5-30-23 | MCSB-02 5.2' 5-30-23 @1115 | 3000 | 1426 | | 285 | | |
| 5-30-23 | MCSB-02 4' 5-30-23 @1100 | 3000 | 5236 | | 1047 | | |

Technician Signature _____, Reviewed by _____

**AVM Environmental Services, Inc.**
**Field Soil Sample Gamma Radiation Screening Form**
**Mt. Taylor Mine Site**

Instrumentation : Scaler/Ratemeter L2221 S#68782, Detector L44-20 S# 295573
Instrument Calibration Date: 5-10-23, Instrument Function Check Performed: ✓
Survey Area/Unit Decsription Mt. Taylor Mine Site

Area exposure rate: 10-12

| Date | Soil Sample ID | Sample Weight Grams | 609 (559-669) Kev Gross Counts, CP5M | Weight Corrected CP5M | CPM | Reference Soil Compare (< or >) | Comments |
|---|---|---|---|---|---|---|---|
| 5-30-23 | MCSB-02 3' 5-30-23 @1050 | 3000 | 947 | | 189 | | |
| 5-30-23 | MCSB-02 2' 5-30-23 @1040 | 3000 | 1620 | | 324 | | |
| 5-30-23 | MCSB-02 1' 5-30-23 @1030 | 3000 | 1243 | | 249 | | |
| 5-30-23 | MCSB-06 4.25' 5-30-23 @900 | 3000 | 1091 | | 218 | | |
| 5-30-23 | MCSB-06 3.25' 5-30-23 @850 | 3000 | 1477 | | 295 | | |
| 5-30-23 | MCSB-06 2' 5-30-23 @835 | 3000 | 4112 | | 822 | | QA/QC CP5M: 4168 |
| 5-30-23 | MCSB-06 1' 5-30-23 @822 | 3000 | 19543 | | 3909 | | |
| 5-30-23 | MCSB-01 4' 5-30-23 @1315 | 3000 | 1120 | | 224 | | |
| 5-30-23 | MCSB-04 3.5' 5-30-23 @955 | 3000 | 1017 | | 203 | | |
| 5-30-23 | MCSB-04 2' 5-30-23 @945 | 3000 | 1919 | | 384 | | |
| 5-30-23 | MCSB-04 1' 5-30-23 @935 | 3000 | 1055 | | 211 | | |
| 5-30-23 | MCSB-01 3' 5-30-23 @1300 | 3000 | 1240 | | 248 | | |
| 5-30-23 | MCSB-01 2' 5-30-23 @1250 | 3000 | 2965 | | 593 | | |
| 5-30-23 | MCSB-01 1' 5-30-23 @1240 | 3000 | 2326 | | 465 | | |
| 5-30-23 | MCSB-03 3' 5-3-23 @1400 | 3000 | 1279 | | 256 | | |

Technician Signature _____, Reviewed by _____

**AVM Environmental Services, Inc.**
**Field Soil Sample Gamma Radiation Screening Form**
**Mt. Taylor Mine Site**

Instrumentation : Scaler/Ratemeter L2221 S#68782, Detector L44-20 S# 295573
Instrument Calibration Date: 5-10-23, Instrument Function Check Performed: ✓
Survey Area/Unit Decsription Mt taylor Mine Site

Area exposure rate: 10-12

| Date | Soil Sample ID | Sample Weight Grams | 609 (559-669) Kev Gross Counts, CP5M | Weight Corrected CP5M | CPM | Reference Soil Compare (< or >) | Comments |
|---|---|---|---|---|---|---|---|
| 5-30-23 | MCSB-03 2' 5-30-23 @1350 | 3000 | 1201 | | 240 | | QA/QC CP5M: 1194 |
| 5-30-23 | MCSB-03 1' 5-30-23 @1340 | 3000 | 3386 | | 677 | | |
| 5-31-23 | Blank | — | 320 | | 64 | | |
| 5-31-23 | 6.6 pCi/g Ra-226 | 3000 | 2679 | | .536 | | |
| 5-31-23 | WBSB-09 0-6" 5-31-23 @825 | 3000 | 1393 | | 279 | | |
| 5-31-23 | WBSB-09 6-12" 5-31-23 @835 | 3000 | 1170 | | 234 | | |
| 5-31-23 | WBSB-10 0-6" 5-31-23 @910 | 3000 | 2217 | | 443 | | |
| 5-31-23 | WBSB-10 6-12" 5-31-23 @915 | 3000 | 1380 | | 276 | | |
| 5-31-23 | WBSB-11 0-6" 5-31-23 @935 | 3000 | 1959 | | 392 | | |
| 5-31-23 | WBSB-11 6-12" 5-31-23 @940 | 2008 JP | 1053 | 1573 | 315 | | |
| 5-31-23 | WBSB-12 0-1" 5-31-23 @850 | 3000 | 1736 | | 347 | | |
| 5-31-23 | WBSB-12 2-6" 5-31-23 @900 | 3000 | 1117 | | 223 | | |
| 6-1-23 | Blank | — | 355 | | 71 | | |
| 6-1-23 | 6.6 pCi/g | 3000 | 2644 | | 529 | | |
| 6-1-23 | OPSB-05 3.75' 6-1-23 @1155 | 3000 | 1587 | | 317 | | |

Technician Signature _____, Reviewed by _____

**AVM Environmental Services, Inc.**
**Field Soil Sample Gamma Radiation Screening Form**
**Mt. Taylor Mine Site**

**Instrumentation : Scaler/Ratemeter** L 2221 S#68782 , **Detector** L44-20 S# 245573
**Instrument Calibration Date:** 5-10-23 , **Instrument Function Check Performed:** ✓
**Survey Area/Unit Decsription** Mt. Taylor Mine Site

**Area exposure rate:** 10-12

| Date | Soil Sample ID | Sample Weight Grams | 609 (559-669) Kev Gross Counts, CP5M | Weight Corrected CP5M | CPM | Reference Soil Compare (< or >) | Comments |
|---|---|---|---|---|---|---|---|
| 6-1-23 | OPSB-03 4.5' 6-1-23 @ 925 | 3000 | 1193 | | 239 | | |
| 6-1-23 | OPSB-02 5.5' 6-1-23 @ 1120 | 3000 | 1189 | | 238 | | |
| 6-1-23 | OPSB-04 ~~4'~~ 4.10" 6-1-23 @ 825 | 3000 | 1124 | | 225 | | 4.8' |
| 6-1-23 | OPSB-05 3' 6-1-23 @ 1140 | 3000 | 5526 | | 1105 | | |
| 6-1-23 | OPSB-03 4.2' 6-1-23 @ 910 | 1708 | 2091 | 3673 | 735 | | |
| 6-1-23 | OPSB-02 4.5' 6-1-23 @ 1100 | 3000 | 35425 | | 7085 | | |
| 6-1-23 | OPSB-04 4.5' 6-1-23 @ 835 | 3000 | 4373 | | 875 | | |
| 6-1-23 | OPSB-01 13.5' 6-1-23 @ 1020 | 3000 | 11560 | | 2312 | | QA/QC CP5M: 11423 |
| 6-1-23 | OPSB-01 0-13' 6-1-23 @ 1025 | 3000 | 26904 | | 5381 | | |
| 6-1-23 | OPSB-02 0-4' 6-1-23 @ 1115 | 3000 | 182551 | | 36510 | | |
| 6-1-23 | OPSB-03 0-4' 6-1-23 @ 850 | 3000 | 56365 | | 11273 | | |
| 6-1-23 | OPSB-04 0-4' 6-1-23 @ 815 | 3000 | 8428 | | 1686 | | |
| 6-1-23 | OPSB-05 0-3' 6-1-23 @ 1200 | 3000 | 32147 | | 6429 | | |
| | | | | | | | |
| | | | | | | | |

Technician Signature _____, Reviewed by _____

# ANALYTICAL SUMMARY REPORT

August 07, 2023

Rio Grande Resources Corporation
PO Box 1150
Grants, NM 87020-1150

Work Order: C23060688 Quote ID: C16056

Project Name: MTM Subsurface soil investigation

Energy Laboratories, Inc. Casper WY received the following 53 samples for Rio Grande Resources Corporation on 6/19/2023 for analysis.

| Lab ID | Client Sample ID | Collect Date | Receive Date | Matrix | Test |
|---|---|---|---|---|---|
| C23060688-001 | WBSB-02 0-6" | 05/17/23 8:15 | 06/19/23 | Soil | Gamma Sample Preparation Drying/Grinding, Radiochemistry Gross Gamma |
| C23060688-002 | WBSB-04 0-6 | 05/17/23 8:35 | 06/19/23 | Soil | Same As Above |
| C23060688-003 | WBSB-01 0-6' | 05/17/23 8:55 | 06/19/23 | Soil | Same As Above |
| C23060688-004 | WBSB-05 0-6" | 05/17/23 9:20 | 06/19/23 | Soil | Same As Above |
| C23060688-005 | WBSB-03 0-6" | 05/17/23 9:42 | 06/19/23 | Soil | Same As Above |
| C23060688-006 | WBSB-07 0-6" | 05/17/23 10:14 | 06/19/23 | Soil | Same As Above |
| C23060688-007 | WBSB-08 0-6" | 05/17/23 10:34 | 06/19/23 | Soil | Same As Above |
| C23060688-008 | WBSB-08 1'-1.5' | 05/17/23 10:42 | 06/19/23 | Soil | Same As Above |
| C23060688-009 | WBSB-06- 0-6" | 05/17/23 10:54 | 06/19/23 | Soil | Same As Above |
| C23060688-010 | DSSB-01 | 05/17/23 12:00 | 06/19/23 | Soil | Same As Above |
| C23060688-011 | MCSB-16 1' | 05/18/23 10:45 | 06/19/23 | Soil | Same As Above |
| C23060688-012 | MCSB-16 2' | 05/18/23 11:00 | 06/19/23 | Soil | Same As Above |
| C23060688-013 | MCSB-15 1' | 05/18/23 11:38 | 06/19/23 | Soil | Same As Above |
| C23060688-014 | MCSB-17 1' | 05/18/23 8:45 | 06/19/23 | Soil | Same As Above |
| C23060688-015 | MCSB-18 1'-1.5' | 05/18/23 9:48 | 06/19/23 | Soil | Same As Above |
| C23060688-016 | DSSB-02 | 05/18/23 13:00 | 06/19/23 | Soil | Same As Above |
| C23060688-017 | MCSB-11 4' | 05/22/23 11:04 | 06/19/23 | Soil | Same As Above |
| C23060688-018 | MCSB-13 1' | 05/22/23 8:25 | 06/19/23 | Soil | Same As Above |
| C23060688-019 | MCSB-12 1' | 05/22/23 9:28 | 06/19/23 | Soil | Same As Above |
| C23060688-020 | MCSB-11 5' | 05/22/23 11:12 | 06/19/23 | Soil | Same As Above |
| C23060688-021 | MCSB-14 1' | 05/23/23 8:53 | 06/19/23 | Soil | Same As Above |
| C23060688-022 | MCSB-08 5' | 05/23/23 11:10 | 06/19/23 | Soil | Same As Above |
| C23060688-023 | MCSB-08 6.5' | 05/23/23 11:25 | 06/19/23 | Soil | Same As Above |
| C23060688-024 | MCSB-9 1' | 05/24/23 8:25 | 06/19/23 | Soil | Same As Above |
| C23060688-025 | MCSB-9 2' | 05/24/23 8:40 | 06/19/23 | Soil | Same As Above |
| C23060688-026 | MCSB-10 1' | 05/24/23 9:15 | 06/19/23 | Soil | Same As Above |

# ANALYTICAL SUMMARY REPORT

| | | | | | |
|---|---|---|---|---|---|
| C23060688-027 | MCSB-5 4' | 05/24/23 10:40 | 06/19/23 | Soil | Same As Above |
| C23060688-028 | MCSB-5 6' | 05/24/23 11:00 | 06/19/23 | Soil | Same As Above |
| C23060688-029 | MCSB-5 7.5' | 05/24/23 11:10 | 06/19/23 | Soil | Same As Above |
| C23060688-030 | MCSB-7 3' | 05/24/23 12:46 | 06/19/23 | Soil | Same As Above |
| C23060688-031 | MCSB-7 4.5' | 05/24/23 13:00 | 06/19/23 | Soil | Same As Above |
| C23060688-032 | DSSB-03 | 05/24/23 13:30 | 06/19/23 | Soil | Same As Above |
| C23060688-033 | MCSB-06 6' | 05/30/23 9:15 | 06/19/23 | Soil | Same As Above |
| C23060688-034 | MCSB-04 1' | 05/30/23 9:35 | 06/19/23 | Soil | Same As Above |
| C23060688-035 | MCSB-04 2' | 05/30/23 9:45 | 06/19/23 | Soil | Same As Above |
| C23060688-036 | MCSB-02 3' | 05/30/23 10:50 | 06/19/23 | Soil | Same As Above |
| C23060688-037 | MCSB-02 4' | 05/30/23 11:00 | 06/19/23 | Soil | Same As Above |
| C23060688-038 | MCSB-02 5.2' | 05/30/23 11:15 | 06/19/23 | Soil | Same As Above |
| C23060688-039 | MCSB-01 2' | 05/30/23 12:50 | 06/19/23 | Soil | Same As Above |
| C23060688-040 | MCSB-01 3' | 05/30/23 13:00 | 06/19/23 | Soil | Same As Above |
| C23060688-041 | MCSB-03 1' | 05/30/23 13:40 | 06/19/23 | Soil | Same As Above |
| C23060688-042 | MCSB-03 2' | 05/30/23 13:50 | 06/19/23 | Soil | Same As Above |
| C23060688-043 | DSSB-04 | 05/30/23 14:15 | 06/19/23 | Soil | Same As Above |
| C23060688-044 | WBSB-09 0-6" | 05/31/23 8:25 | 06/19/23 | Soil | Same As Above |
| C23060688-045 | WBSB-12 0-1" | 05/31/23 8:50 | 06/19/23 | Soil | Same As Above |
| C23060688-046 | WBSB-12 2-6" | 05/31/23 9:00 | 06/19/23 | Soil | Same As Above |
| C23060688-047 | WBSB-10 0-6" | 05/31/23 9:10 | 06/19/23 | Soil | Same As Above |
| C23060688-048 | WBSB-11 0-6" | 05/31/23 9:35 | 06/19/23 | Soil | Same As Above |
| C23060688-049 | OPSB-03 4.2' | 06/01/23 9:10 | 06/19/23 | Soil | Same As Above |
| C23060688-050 | OPSB-03 4.5' | 06/01/23 9:25 | 06/19/23 | Soil | Same As Above |
| C23060688-051 | OPSB-02 5.5' | 06/01/23 11:20 | 06/19/23 | Soil | Same As Above |
| C23060688-052 | OPSB-05 3.75' | 06/01/23 11:55 | 06/19/23 | Soil | Same As Above |
| C23060688-053 | DSSB-05 | 06/01/23 12:30 | 06/19/23 | Soil | Same As Above |

The analyses presented in this report were performed by Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

If you have any questions regarding these test results, please contact your Project Manager .

Report Approved By:

**CLIENT:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Work Order:** C23060688

**Report Date:** 08/07/23

# CASE NARRATIVE

ORIGINAL SAMPLE SUBMITTAL(S)
All original sample submittals have been returned with the data package.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)
Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

GROSS ALPHA ANALYSIS
Method 900.0 for gross alpha and gross beta is intended as a drinking water method for low TDS waters. Data provided by this method for non potable waters should be viewed as inconsistent.

RADON IN AIR ANALYSIS
The desired exposure time is 48 hours (2 days). The time delay in returning the canister to the laboratory for processing should be as short as possible to avoid excessive decay. Maximum recommended delay between end of exposure to beginning of counting should not exceed 8 days.

SOIL/SOLID SAMPLES
All samples reported on an as received basis unless otherwise indicated.

ATRAZINE, SIMAZINE AND PCB ANALYSIS
Data for PCBs, Atrazine and Simazine are reported from EPA 525.2. PCB data reported by ELI reflects the results for seven individual Aroclors. When the results for all seven are ND (not detected), the sample meets EPA compliance criteria for PCB monitoring.

SUBCONTRACTING ANALYSIS
Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

BRANCH LABORATORY LOCATIONS
eli-b - Energy Laboratories, Inc. - Billings, MT
eli-g - Energy Laboratories, Inc. - Gillette, WY
eli-h - Energy Laboratories, Inc. - Helena, MT

ISO 17025 DISCLAIMER:
The results of this Analytical Report relate only to the items submitted for analysis.

ENERGY LABORATORIES, INC. - CASPER,WY certifies that certain method selections contained in this report meet requirements as set forth by the above accrediting authorities. Some results requested by the client may not be covered under these certifications. All analysis data to be submitted for regulatory enforcement should be certified in the sample state of origin. Please verify ELI's certification coverage by visiting www.energylab.com

ELI appreciates the opportunity to provide you with this analytical service. For additional information and services visit our web page www.energylab.com.

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-001
**Client Sample ID:** WBSB-02 0-6"

**Report Date:** 08/07/23
**Collection Date:** 05/17/23 08:15
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | 1.4 | pCi/g-dry | | | | E901.1 | 07/25/23 11:24 / haw |
| Radium 224 precision (±) | 0.8 | pCi/g-dry | | | | E901.1 | 07/25/23 11:24 / haw |
| Radium 224 MDC | 1.2 | pCi/g-dry | | | | E901.1 | 07/25/23 11:24 / haw |
| Radium 226 | 1.5 | pCi/g-dry | | | | E901.1 | 07/25/23 11:24 / haw |
| Radium 226 precision (±) | 0.1 | pCi/g-dry | | | | E901.1 | 07/25/23 11:24 / haw |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 07/25/23 11:24 / haw |
| Radium 228 | 1.4 | pCi/g-dry | | | | E901.1 | 07/25/23 11:24 / haw |
| Radium 228 precision (±) | 0.3 | pCi/g-dry | | | | E901.1 | 07/25/23 11:24 / haw |
| Radium 228 MDC | 0.2 | pCi/g-dry | | | | E901.1 | 07/25/23 11:24 / haw |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-002
**Client Sample ID:** WBSB-04 0-6

**Report Date:** 08/07/23
**Collection Date:** 05/17/23 08:35
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | 1.5 | pCi/g-dry | | | | E901.1 | 07/25/23 13:51 / haw |
| Radium 224 precision (±) | 0.8 | pCi/g-dry | | | | E901.1 | 07/25/23 13:51 / haw |
| Radium 224 MDC | 1.2 | pCi/g-dry | | | | E901.1 | 07/25/23 13:51 / haw |
| Radium 226 | 1.5 | pCi/g-dry | | | | E901.1 | 07/25/23 13:51 / haw |
| Radium 226 precision (±) | 0.1 | pCi/g-dry | | | | E901.1 | 07/25/23 13:51 / haw |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 07/25/23 13:51 / haw |
| Radium 228 | 1.5 | pCi/g-dry | | | | E901.1 | 07/25/23 13:51 / haw |
| Radium 228 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 07/25/23 13:51 / haw |
| Radium 228 MDC | 0.2 | pCi/g-dry | | | | E901.1 | 07/25/23 13:51 / haw |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-003
**Client Sample ID:** WBSB-01 0-6'

**Report Date:** 08/07/23
**Collection Date:** 05/17/23 08:55
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | 1.7 | pCi/g-dry | | | | E901.1 | 07/25/23 15:01 / haw |
| Radium 224 precision (±) | 0.7 | pCi/g-dry | | | | E901.1 | 07/25/23 15:01 / haw |
| Radium 224 MDC | 1.0 | pCi/g-dry | | | | E901.1 | 07/25/23 15:01 / haw |
| Radium 226 | 0.9 | pCi/g-dry | | | | E901.1 | 07/25/23 15:01 / haw |
| Radium 226 precision (±) | 0.1 | pCi/g-dry | | | | E901.1 | 07/25/23 15:01 / haw |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 07/25/23 15:01 / haw |
| Radium 228 | 1.4 | pCi/g-dry | | | | E901.1 | 07/25/23 15:01 / haw |
| Radium 228 precision (±) | 0.3 | pCi/g-dry | | | | E901.1 | 07/25/23 15:01 / haw |
| Radium 228 MDC | 0.2 | pCi/g-dry | | | | E901.1 | 07/25/23 15:01 / haw |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-004
**Client Sample ID:** WBSB-05 0-6"

**Report Date:** 08/07/23
**Collection Date:** 05/17/23 09:20
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | -0.4 | pCi/g-dry | U | | | E901.1 | 07/25/23 16:03 / haw |
| Radium 224 precision (±) | 1.5 | pCi/g-dry | | | | E901.1 | 07/25/23 16:03 / haw |
| Radium 224 MDC | 2.5 | pCi/g-dry | | | | E901.1 | 07/25/23 16:03 / haw |
| Radium 226 | 2.1 | pCi/g-dry | | | | E901.1 | 07/25/23 16:03 / haw |
| Radium 226 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 07/25/23 16:03 / haw |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 07/25/23 16:03 / haw |
| Radium 228 | 1.2 | pCi/g-dry | | | | E901.1 | 07/25/23 16:03 / haw |
| Radium 228 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 07/25/23 16:03 / haw |
| Radium 228 MDC | 0.2 | pCi/g-dry | | | | E901.1 | 07/25/23 16:03 / haw |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected at Minimum Detectable Concentration (MDC)
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-005
**Client Sample ID:** WBSB-03 0-6"

**Report Date:** 08/07/23
**Collection Date:** 05/17/23 09:42
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | 0.4 | pCi/g-dry | U | | | E901.1 | 07/25/23 17:08 / haw |
| Radium 224 precision (±) | 1.6 | pCi/g-dry | | | | E901.1 | 07/25/23 17:08 / haw |
| Radium 224 MDC | 2.6 | pCi/g-dry | | | | E901.1 | 07/25/23 17:08 / haw |
| Radium 226 | 3.2 | pCi/g-dry | | | | E901.1 | 07/25/23 17:08 / haw |
| Radium 226 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 07/25/23 17:08 / haw |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 07/25/23 17:08 / haw |
| Radium 228 | 1.2 | pCi/g-dry | | | | E901.1 | 07/25/23 17:08 / haw |
| Radium 228 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 07/25/23 17:08 / haw |
| Radium 228 MDC | 0.2 | pCi/g-dry | | | | E901.1 | 07/25/23 17:08 / haw |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected at Minimum Detectable Concentration (MDC)
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-006
**Client Sample ID:** WBSB-07 0-6"

**Report Date:** 08/07/23
**Collection Date:** 05/17/23 10:14
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | 0.04 | pCi/g-dry | U | | | E901.1 | 07/26/23 08:25 / haw |
| Radium 224 precision (±) | 1.8 | pCi/g-dry | | | | E901.1 | 07/26/23 08:25 / haw |
| Radium 224 MDC | 2.9 | pCi/g-dry | | | | E901.1 | 07/26/23 08:25 / haw |
| Radium 226 | 3.7 | pCi/g-dry | | | | E901.1 | 07/26/23 08:25 / haw |
| Radium 226 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 07/26/23 08:25 / haw |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 07/26/23 08:25 / haw |
| Radium 228 | 1.1 | pCi/g-dry | | | | E901.1 | 07/26/23 08:25 / haw |
| Radium 228 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 07/26/23 08:25 / haw |
| Radium 228 MDC | 0.3 | pCi/g-dry | | | | E901.1 | 07/26/23 08:25 / haw |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected at Minimum Detectable Concentration (MDC)
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-007
**Client Sample ID:** WBSB-08 0-6"

**Report Date:** 08/07/23
**Collection Date:** 05/17/23 10:34
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | 0.06 | pCi/g-dry | U | | | E901.1 | 07/26/23 09:29 / haw |
| Radium 224 precision (±) | 2.5 | pCi/g-dry | | | | E901.1 | 07/26/23 09:29 / haw |
| Radium 224 MDC | 4.2 | pCi/g-dry | | | | E901.1 | 07/26/23 09:29 / haw |
| Radium 226 | 9.7 | pCi/g-dry | | | | E901.1 | 07/26/23 09:29 / haw |
| Radium 226 precision (±) | 0.3 | pCi/g-dry | | | | E901.1 | 07/26/23 09:29 / haw |
| Radium 226 MDC | 0.2 | pCi/g-dry | | | | E901.1 | 07/26/23 09:29 / haw |
| Radium 228 | 1.4 | pCi/g-dry | | | | E901.1 | 07/26/23 09:29 / haw |
| Radium 228 precision (±) | 0.4 | pCi/g-dry | | | | E901.1 | 07/26/23 09:29 / haw |
| Radium 228 MDC | 0.5 | pCi/g-dry | | | | E901.1 | 07/26/23 09:29 / haw |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected at Minimum Detectable Concentration (MDC)
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-008
**Client Sample ID:** WBSB-08 1'-1.5'

**Report Date:** 08/07/23
**Collection Date:** 05/17/23 10:42
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | -0.3 | pCi/g-dry | U | | | E901.1 | 07/26/23 10:45 / haw |
| Radium 224 precision (±) | 1.5 | pCi/g-dry | | | | E901.1 | 07/26/23 10:45 / haw |
| Radium 224 MDC | 2.4 | pCi/g-dry | | | | E901.1 | 07/26/23 10:45 / haw |
| Radium 226 | 0.9 | pCi/g-dry | | | | E901.1 | 07/26/23 10:45 / haw |
| Radium 226 precision (±) | 0.1 | pCi/g-dry | | | | E901.1 | 07/26/23 10:45 / haw |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 07/26/23 10:45 / haw |
| Radium 228 | 1.1 | pCi/g-dry | | | | E901.1 | 07/26/23 10:45 / haw |
| Radium 228 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 07/26/23 10:45 / haw |
| Radium 228 MDC | 0.2 | pCi/g-dry | | | | E901.1 | 07/26/23 10:45 / haw |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected at Minimum Detectable Concentration (MDC)
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-009
**Client Sample ID:** WBSB-06- 0-6"

**Report Date:** 08/07/23
**Collection Date:** 05/17/23 10:54
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | 1.2 | pCi/g-dry | | | | E901.1 | 07/26/23 12:41 / haw |
| Radium 224 precision (±) | 0.7 | pCi/g-dry | | | | E901.1 | 07/26/23 12:41 / haw |
| Radium 224 MDC | 1.1 | pCi/g-dry | | | | E901.1 | 07/26/23 12:41 / haw |
| Radium 226 | 1.3 | pCi/g-dry | | | | E901.1 | 07/26/23 12:41 / haw |
| Radium 226 precision (±) | 0.1 | pCi/g-dry | | | | E901.1 | 07/26/23 12:41 / haw |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 07/26/23 12:41 / haw |
| Radium 228 | 1.2 | pCi/g-dry | | | | E901.1 | 07/26/23 12:41 / haw |
| Radium 228 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 07/26/23 12:41 / haw |
| Radium 228 MDC | 0.2 | pCi/g-dry | | | | E901.1 | 07/26/23 12:41 / haw |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-010
**Client Sample ID:** DSSB-01

**Report Date:** 08/07/23
**Collection Date:** 05/17/23 12:00
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | 0.02 | pCi/g-dry | U | | | E901.1 | 07/26/23 14:29 / haw |
| Radium 224 precision (±) | 1.4 | pCi/g-dry | | | | E901.1 | 07/26/23 14:29 / haw |
| Radium 224 MDC | 2.4 | pCi/g-dry | | | | E901.1 | 07/26/23 14:29 / haw |
| Radium 226 | 1.1 | pCi/g-dry | | | | E901.1 | 07/26/23 14:29 / haw |
| Radium 226 precision (±) | 0.1 | pCi/g-dry | | | | E901.1 | 07/26/23 14:29 / haw |
| Radium 226 MDC | 0.09 | pCi/g-dry | | | | E901.1 | 07/26/23 14:29 / haw |
| Radium 228 | 1.3 | pCi/g-dry | | | | E901.1 | 07/26/23 14:29 / haw |
| Radium 228 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 07/26/23 14:29 / haw |
| Radium 228 MDC | 0.2 | pCi/g-dry | | | | E901.1 | 07/26/23 14:29 / haw |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected at Minimum Detectable Concentration (MDC)
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-011
**Client Sample ID:** MCSB-16 1'

**Report Date:** 08/07/23
**Collection Date:** 05/18/23 10:45
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | -0.5 | pCi/g-dry | U | | | E901.1 | 07/26/23 16:45 / haw |
| Radium 224 precision (±) | 1.8 | pCi/g-dry | | | | E901.1 | 07/26/23 16:45 / haw |
| Radium 224 MDC | 2.9 | pCi/g-dry | | | | E901.1 | 07/26/23 16:45 / haw |
| Radium 226 | 4.8 | pCi/g-dry | | | | E901.1 | 07/26/23 16:45 / haw |
| Radium 226 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 07/26/23 16:45 / haw |
| Radium 226 MDC | 0.2 | pCi/g-dry | | | | E901.1 | 07/26/23 16:45 / haw |
| Radium 228 | 0.6 | pCi/g-dry | | | | E901.1 | 07/26/23 16:45 / haw |
| Radium 228 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 07/26/23 16:45 / haw |
| Radium 228 MDC | 0.3 | pCi/g-dry | | | | E901.1 | 07/26/23 16:45 / haw |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected at Minimum Detectable Concentration (MDC)
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-012
**Client Sample ID:** MCSB-16 2'

**Report Date:** 08/07/23
**Collection Date:** 05/18/23 11:00
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | -0.3 | pCi/g-dry | U | | | E901.1 | 07/27/23 09:38 / haw |
| Radium 224 precision (±) | 1.5 | pCi/g-dry | | | | E901.1 | 07/27/23 09:38 / haw |
| Radium 224 MDC | 2.5 | pCi/g-dry | | | | E901.1 | 07/27/23 09:38 / haw |
| Radium 226 | 2.4 | pCi/g-dry | | | | E901.1 | 07/27/23 09:38 / haw |
| Radium 226 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 07/27/23 09:38 / haw |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 07/27/23 09:38 / haw |
| Radium 228 | 1 | pCi/g-dry | | | | E901.1 | 07/27/23 09:38 / haw |
| Radium 228 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 07/27/23 09:38 / haw |
| Radium 228 MDC | 0.3 | pCi/g-dry | | | | E901.1 | 07/27/23 09:38 / haw |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected at Minimum Detectable Concentration (MDC)
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-013
**Client Sample ID:** MCSB-15 1'

**Report Date:** 08/07/23
**Collection Date:** 05/18/23 11:38
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | 0.3 | pCi/g-dry | U | | | E901.1 | 07/27/23 11:22 / haw |
| Radium 224 precision (±) | 1.5 | pCi/g-dry | | | | E901.1 | 07/27/23 11:22 / haw |
| Radium 224 MDC | 2.5 | pCi/g-dry | | | | E901.1 | 07/27/23 11:22 / haw |
| Radium 226 | 1.6 | pCi/g-dry | | | | E901.1 | 07/27/23 11:22 / haw |
| Radium 226 precision (±) | 0.1 | pCi/g-dry | | | | E901.1 | 07/27/23 11:22 / haw |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 07/27/23 11:22 / haw |
| Radium 228 | 1.2 | pCi/g-dry | | | | E901.1 | 07/27/23 11:22 / haw |
| Radium 228 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 07/27/23 11:22 / haw |
| Radium 228 MDC | 0.2 | pCi/g-dry | | | | E901.1 | 07/27/23 11:22 / haw |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected at Minimum Detectable Concentration (MDC)
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-014
**Client Sample ID:** MCSB-17 1'

**Report Date:** 08/07/23
**Collection Date:** 05/18/23 08:45
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | 1.1 | pCi/g-dry | | | | E901.1 | 07/27/23 12:55 / haw |
| Radium 224 precision (±) | 0.6 | pCi/g-dry | | | | E901.1 | 07/27/23 12:55 / haw |
| Radium 224 MDC | 0.9 | pCi/g-dry | | | | E901.1 | 07/27/23 12:55 / haw |
| Radium 226 | 0.7 | pCi/g-dry | | | | E901.1 | 07/27/23 12:55 / haw |
| Radium 226 precision (±) | 0.1 | pCi/g-dry | | | | E901.1 | 07/27/23 12:55 / haw |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 07/27/23 12:55 / haw |
| Radium 228 | 1.1 | pCi/g-dry | | | | E901.1 | 07/27/23 12:55 / haw |
| Radium 228 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 07/27/23 12:55 / haw |
| Radium 228 MDC | 0.2 | pCi/g-dry | | | | E901.1 | 07/27/23 12:55 / haw |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-015
**Client Sample ID:** MCSB-18 1'-1.5'

**Report Date:** 08/07/23
**Collection Date:** 05/18/23 09:48
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | -0.4 | pCi/g-dry | U | | | E901.1 | 07/27/23 13:56 / haw |
| Radium 224 precision (±) | 1.4 | pCi/g-dry | | | | E901.1 | 07/27/23 13:56 / haw |
| Radium 224 MDC | 2.4 | pCi/g-dry | | | | E901.1 | 07/27/23 13:56 / haw |
| Radium 226 | 2.6 | pCi/g-dry | | | | E901.1 | 07/27/23 13:56 / haw |
| Radium 226 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 07/27/23 13:56 / haw |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 07/27/23 13:56 / haw |
| Radium 228 | 0.9 | pCi/g-dry | | | | E901.1 | 07/27/23 13:56 / haw |
| Radium 228 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 07/27/23 13:56 / haw |
| Radium 228 MDC | 0.2 | pCi/g-dry | | | | E901.1 | 07/27/23 13:56 / haw |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected at Minimum Detectable Concentration (MDC)
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-016
**Client Sample ID:** DSSB-02

**Report Date:** 08/07/23
**Collection Date:** 05/18/23 13:00
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | 1.4 | pCi/g-dry | | | | E901.1 | 07/27/23 15:17 / haw |
| Radium 224 precision (±) | 0.7 | pCi/g-dry | | | | E901.1 | 07/27/23 15:17 / haw |
| Radium 224 MDC | 1.2 | pCi/g-dry | | | | E901.1 | 07/27/23 15:17 / haw |
| Radium 226 | 1.3 | pCi/g-dry | | | | E901.1 | 07/27/23 15:17 / haw |
| Radium 226 precision (±) | 0.1 | pCi/g-dry | | | | E901.1 | 07/27/23 15:17 / haw |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 07/27/23 15:17 / haw |
| Radium 228 | 1.2 | pCi/g-dry | | | | E901.1 | 07/27/23 15:17 / haw |
| Radium 228 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 07/27/23 15:17 / haw |
| Radium 228 MDC | 0.2 | pCi/g-dry | | | | E901.1 | 07/27/23 15:17 / haw |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-017
**Client Sample ID:** MCSB-11 4'

**Report Date:** 08/07/23
**Collection Date:** 05/22/23 11:04
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | 0.6 | pCi/g-dry | U | | | E901.1 | 07/27/23 16:21 / haw |
| Radium 224 precision (±) | 2.4 | pCi/g-dry | | | | E901.1 | 07/27/23 16:21 / haw |
| Radium 224 MDC | 4.0 | pCi/g-dry | | | | E901.1 | 07/27/23 16:21 / haw |
| Radium 226 | 11.0 | pCi/g-dry | | | | E901.1 | 07/27/23 16:21 / haw |
| Radium 226 precision (±) | 0.4 | pCi/g-dry | | | | E901.1 | 07/27/23 16:21 / haw |
| Radium 226 MDC | 0.2 | pCi/g-dry | | | | E901.1 | 07/27/23 16:21 / haw |
| Radium 228 | 1.1 | pCi/g-dry | | | | E901.1 | 07/27/23 16:21 / haw |
| Radium 228 precision (±) | 0.4 | pCi/g-dry | | | | E901.1 | 07/27/23 16:21 / haw |
| Radium 228 MDC | 0.5 | pCi/g-dry | | | | E901.1 | 07/27/23 16:21 / haw |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected at Minimum Detectable Concentration (MDC)
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-018
**Client Sample ID:** MCSB-13 1'

**Report Date:** 08/07/23
**Collection Date:** 05/22/23 08:25
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | 2.1 | pCi/g-dry | | | | E901.1 | 07/27/23 17:27 / haw |
| Radium 224 precision (±) | 0.7 | pCi/g-dry | | | | E901.1 | 07/27/23 17:27 / haw |
| Radium 224 MDC | 1.1 | pCi/g-dry | | | | E901.1 | 07/27/23 17:27 / haw |
| Radium 226 | 1.2 | pCi/g-dry | | | | E901.1 | 07/27/23 17:27 / haw |
| Radium 226 precision (±) | 0.1 | pCi/g-dry | | | | E901.1 | 07/27/23 17:27 / haw |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 07/27/23 17:27 / haw |
| Radium 228 | 1.7 | pCi/g-dry | | | | E901.1 | 07/27/23 17:27 / haw |
| Radium 228 precision (±) | 0.3 | pCi/g-dry | | | | E901.1 | 07/27/23 17:27 / haw |
| Radium 228 MDC | 0.3 | pCi/g-dry | | | | E901.1 | 07/27/23 17:27 / haw |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-019
**Client Sample ID:** MCSB-12 1'

**Report Date:** 08/07/23
**Collection Date:** 05/22/23 09:28
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | -0.4 | pCi/g-dry | U | | | E901.1 | 07/28/23 09:11 / haw |
| Radium 224 precision (±) | 1.2 | pCi/g-dry | | | | E901.1 | 07/28/23 09:11 / haw |
| Radium 224 MDC | 2.0 | pCi/g-dry | | | | E901.1 | 07/28/23 09:11 / haw |
| Radium 226 | 3.3 | pCi/g-dry | | | | E901.1 | 07/28/23 09:11 / haw |
| Radium 226 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 07/28/23 09:11 / haw |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 07/28/23 09:11 / haw |
| Radium 228 | 0.4 | pCi/g-dry | | | | E901.1 | 07/28/23 09:11 / haw |
| Radium 228 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 07/28/23 09:11 / haw |
| Radium 228 MDC | 0.2 | pCi/g-dry | | | | E901.1 | 07/28/23 09:11 / haw |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected at Minimum Detectable Concentration (MDC)
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-020
**Client Sample ID:** MCSB-11 5'

**Report Date:** 08/07/23
**Collection Date:** 05/22/23 11:12
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | 0.4 | pCi/g-dry | U | | | E901.1 | 07/28/23 10:12 / haw |
| Radium 224 precision (±) | 1.7 | pCi/g-dry | | | | E901.1 | 07/28/23 10:12 / haw |
| Radium 224 MDC | 2.9 | pCi/g-dry | | | | E901.1 | 07/28/23 10:12 / haw |
| Radium 226 | 2.8 | pCi/g-dry | | | | E901.1 | 07/28/23 10:12 / haw |
| Radium 226 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 07/28/23 10:12 / haw |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 07/28/23 10:12 / haw |
| Radium 228 | 1.4 | pCi/g-dry | | | | E901.1 | 07/28/23 10:12 / haw |
| Radium 228 precision (±) | 0.3 | pCi/g-dry | | | | E901.1 | 07/28/23 10:12 / haw |
| Radium 228 MDC | 0.3 | pCi/g-dry | | | | E901.1 | 07/28/23 10:12 / haw |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected at Minimum Detectable Concentration (MDC)
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-021
**Client Sample ID:** MCSB-14 1'

**Report Date:** 08/07/23
**Collection Date:** 05/23/23 08:53
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | 0.2 | pCi/g-dry | U | | | E901.1 | 07/28/23 13:29 / haw |
| Radium 224 precision (±) | 1.7 | pCi/g-dry | | | | E901.1 | 07/28/23 13:29 / haw |
| Radium 224 MDC | 2.9 | pCi/g-dry | | | | E901.1 | 07/28/23 13:29 / haw |
| Radium 226 | 3.8 | pCi/g-dry | | | | E901.1 | 07/28/23 13:29 / haw |
| Radium 226 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 07/28/23 13:29 / haw |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 07/28/23 13:29 / haw |
| Radium 228 | 1.1 | pCi/g-dry | | | | E901.1 | 07/28/23 13:29 / haw |
| Radium 228 precision (±) | 0.3 | pCi/g-dry | | | | E901.1 | 07/28/23 13:29 / haw |
| Radium 228 MDC | 0.3 | pCi/g-dry | | | | E901.1 | 07/28/23 13:29 / haw |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected at Minimum Detectable Concentration (MDC)
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-022
**Client Sample ID:** MCSB-08 5'

**Report Date:** 08/07/23
**Collection Date:** 05/23/23 11:10
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | -1 | pCi/g-dry | U | | | E901.1 | 07/28/23 14:36 / haw |
| Radium 224 precision (±) | 5.4 | pCi/g-dry | | | | E901.1 | 07/28/23 14:36 / haw |
| Radium 224 MDC | 8.9 | pCi/g-dry | | | | E901.1 | 07/28/23 14:36 / haw |
| Radium 226 | 77.1 | pCi/g-dry | | | | E901.1 | 07/28/23 14:36 / haw |
| Radium 226 precision (±) | 0.9 | pCi/g-dry | | | | E901.1 | 07/28/23 14:36 / haw |
| Radium 226 MDC | 0.4 | pCi/g-dry | | | | E901.1 | 07/28/23 14:36 / haw |
| Radium 228 | -0.3 | pCi/g-dry | U | | | E901.1 | 07/28/23 14:36 / haw |
| Radium 228 precision (±) | 0.7 | pCi/g-dry | | | | E901.1 | 07/28/23 14:36 / haw |
| Radium 228 MDC | 1.1 | pCi/g-dry | | | | E901.1 | 07/28/23 14:36 / haw |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected at Minimum Detectable Concentration (MDC)
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-023
**Client Sample ID:** MCSB-08 6.5'

**Report Date:** 08/07/23
**Collection Date:** 05/23/23 11:25
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | 1.3 | pCi/g-dry | | | | E901.1 | 07/28/23 15:46 / haw |
| Radium 224 precision (±) | 0.7 | pCi/g-dry | | | | E901.1 | 07/28/23 15:46 / haw |
| Radium 224 MDC | 1.0 | pCi/g-dry | | | | E901.1 | 07/28/23 15:46 / haw |
| Radium 226 | 1.1 | pCi/g-dry | | | | E901.1 | 07/28/23 15:46 / haw |
| Radium 226 precision (±) | 0.1 | pCi/g-dry | | | | E901.1 | 07/28/23 15:46 / haw |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 07/28/23 15:46 / haw |
| Radium 228 | 1.4 | pCi/g-dry | | | | E901.1 | 07/28/23 15:46 / haw |
| Radium 228 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 07/28/23 15:46 / haw |
| Radium 228 MDC | 0.2 | pCi/g-dry | | | | E901.1 | 07/28/23 15:46 / haw |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-024
**Client Sample ID:** MCSB-9 1'

**Report Date:** 08/07/23
**Collection Date:** 05/24/23 08:25
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | -0.3 | pCi/g-dry | U | | | E901.1 | 07/31/23 10:02 / haw |
| Radium 224 precision (±) | 1.8 | pCi/g-dry | | | | E901.1 | 07/31/23 10:02 / haw |
| Radium 224 MDC | 3.0 | pCi/g-dry | | | | E901.1 | 07/31/23 10:02 / haw |
| Radium 226 | 7.9 | pCi/g-dry | | | | E901.1 | 07/31/23 10:02 / haw |
| Radium 226 precision (±) | 0.3 | pCi/g-dry | | | | E901.1 | 07/31/23 10:02 / haw |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 07/31/23 10:02 / haw |
| Radium 228 | 0.3 | pCi/g-dry | U | | | E901.1 | 07/31/23 10:02 / haw |
| Radium 228 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 07/31/23 10:02 / haw |
| Radium 228 MDC | 0.4 | pCi/g-dry | | | | E901.1 | 07/31/23 10:02 / haw |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected at Minimum Detectable Concentration (MDC)
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-025
**Client Sample ID:** MCSB-9 2'

**Report Date:** 08/07/23
**Collection Date:** 05/24/23 08:40
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | 0.3 | pCi/g-dry | U | | | E901.1 | 07/31/23 11:08 / haw |
| Radium 224 precision (±) | 1.1 | pCi/g-dry | | | | E901.1 | 07/31/23 11:08 / haw |
| Radium 224 MDC | 1.8 | pCi/g-dry | | | | E901.1 | 07/31/23 11:08 / haw |
| Radium 226 | 0.6 | pCi/g-dry | | | | E901.1 | 07/31/23 11:08 / haw |
| Radium 226 precision (±) | 0.1 | pCi/g-dry | | | | E901.1 | 07/31/23 11:08 / haw |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 07/31/23 11:08 / haw |
| Radium 228 | 0.8 | pCi/g-dry | | | | E901.1 | 07/31/23 11:08 / haw |
| Radium 228 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 07/31/23 11:08 / haw |
| Radium 228 MDC | 0.2 | pCi/g-dry | | | | E901.1 | 07/31/23 11:08 / haw |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected at Minimum Detectable Concentration (MDC)
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-026
**Client Sample ID:** MCSB-10 1'

**Report Date:** 08/07/23
**Collection Date:** 05/24/23 09:15
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | 1 | pCi/g-dry | | | | E901.1 | 07/31/23 12:18 / haw |
| Radium 224 precision (±) | 0.5 | pCi/g-dry | | | | E901.1 | 07/31/23 12:18 / haw |
| Radium 224 MDC | 0.8 | pCi/g-dry | | | | E901.1 | 07/31/23 12:18 / haw |
| Radium 226 | 0.8 | pCi/g-dry | | | | E901.1 | 07/31/23 12:18 / haw |
| Radium 226 precision (±) | 0.1 | pCi/g-dry | | | | E901.1 | 07/31/23 12:18 / haw |
| Radium 226 MDC | 0.09 | pCi/g-dry | | | | E901.1 | 07/31/23 12:18 / haw |
| Radium 228 | 0.9 | pCi/g-dry | | | | E901.1 | 07/31/23 12:18 / haw |
| Radium 228 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 07/31/23 12:18 / haw |
| Radium 228 MDC | 0.2 | pCi/g-dry | | | | E901.1 | 07/31/23 12:18 / haw |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-027
**Client Sample ID:** MCSB-5 4'

**Report Date:** 08/07/23
**Collection Date:** 05/24/23 10:40
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | 1.4 | pCi/g-dry | | | | E901.1 | 07/31/23 13:22 / haw |
| Radium 224 precision (±) | 0.7 | pCi/g-dry | | | | E901.1 | 07/31/23 13:22 / haw |
| Radium 224 MDC | 1.2 | pCi/g-dry | | | | E901.1 | 07/31/23 13:22 / haw |
| Radium 226 | 1.5 | pCi/g-dry | | | | E901.1 | 07/31/23 13:22 / haw |
| Radium 226 precision (±) | 0.1 | pCi/g-dry | | | | E901.1 | 07/31/23 13:22 / haw |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 07/31/23 13:22 / haw |
| Radium 228 | 1.3 | pCi/g-dry | | | | E901.1 | 07/31/23 13:22 / haw |
| Radium 228 precision (±) | 0.3 | pCi/g-dry | | | | E901.1 | 07/31/23 13:22 / haw |
| Radium 228 MDC | 0.3 | pCi/g-dry | | | | E901.1 | 07/31/23 13:22 / haw |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-028
**Client Sample ID:** MCSB-5 6'

**Report Date:** 08/07/23
**Collection Date:** 05/24/23 11:00
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | -0.6 | pCi/g-dry | U | | | E901.1 | 07/31/23 14:40 / haw |
| Radium 224 precision (±) | 2.4 | pCi/g-dry | | | | E901.1 | 07/31/23 14:40 / haw |
| Radium 224 MDC | 3.9 | pCi/g-dry | | | | E901.1 | 07/31/23 14:40 / haw |
| Radium 226 | 16.1 | pCi/g-dry | | | | E901.1 | 07/31/23 14:40 / haw |
| Radium 226 precision (±) | 0.4 | pCi/g-dry | | | | E901.1 | 07/31/23 14:40 / haw |
| Radium 226 MDC | 0.2 | pCi/g-dry | | | | E901.1 | 07/31/23 14:40 / haw |
| Radium 228 | 0.3 | pCi/g-dry | U | | | E901.1 | 07/31/23 14:40 / haw |
| Radium 228 precision (±) | 0.3 | pCi/g-dry | | | | E901.1 | 07/31/23 14:40 / haw |
| Radium 228 MDC | 0.5 | pCi/g-dry | | | | E901.1 | 07/31/23 14:40 / haw |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected at Minimum Detectable Concentration (MDC)
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-029
**Client Sample ID:** MCSB-5 7.5'

**Report Date:** 08/07/23
**Collection Date:** 05/24/23 11:10
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | 1.3 | pCi/g-dry | | | | E901.1 | 07/31/23 15:55 / haw |
| Radium 224 precision (±) | 0.6 | pCi/g-dry | | | | E901.1 | 07/31/23 15:55 / haw |
| Radium 224 MDC | 1 | pCi/g-dry | | | | E901.1 | 07/31/23 15:55 / haw |
| Radium 226 | 1.0 | pCi/g-dry | | | | E901.1 | 07/31/23 15:55 / haw |
| Radium 226 precision (±) | 0.1 | pCi/g-dry | | | | E901.1 | 07/31/23 15:55 / haw |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 07/31/23 15:55 / haw |
| Radium 228 | 1.1 | pCi/g-dry | | | | E901.1 | 07/31/23 15:55 / haw |
| Radium 228 precision (±) | 0.3 | pCi/g-dry | | | | E901.1 | 07/31/23 15:55 / haw |
| Radium 228 MDC | 0.3 | pCi/g-dry | | | | E901.1 | 07/31/23 15:55 / haw |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-030
**Client Sample ID:** MCSB-7 3'

**Report Date:** 08/07/23
**Collection Date:** 05/24/23 12:46
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | 0.4 | pCi/g-dry | U | | | E901.1 | 07/31/23 17:08 / haw |
| Radium 224 precision (±) | 1.6 | pCi/g-dry | | | | E901.1 | 07/31/23 17:08 / haw |
| Radium 224 MDC | 2.6 | pCi/g-dry | | | | E901.1 | 07/31/23 17:08 / haw |
| Radium 226 | 6.3 | pCi/g-dry | | | | E901.1 | 07/31/23 17:08 / haw |
| Radium 226 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 07/31/23 17:08 / haw |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 07/31/23 17:08 / haw |
| Radium 228 | 0.2 | pCi/g-dry | U | | | E901.1 | 07/31/23 17:08 / haw |
| Radium 228 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 07/31/23 17:08 / haw |
| Radium 228 MDC | 0.4 | pCi/g-dry | | | | E901.1 | 07/31/23 17:08 / haw |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected at Minimum Detectable Concentration (MDC)
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-031
**Client Sample ID:** MCSB-7 4.5'

**Report Date:** 08/07/23
**Collection Date:** 05/24/23 13:00
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | 2.1 | pCi/g-dry | | | | E901.1 | 08/01/23 08:48 / haw |
| Radium 224 precision (±) | 0.7 | pCi/g-dry | | | | E901.1 | 08/01/23 08:48 / haw |
| Radium 224 MDC | 1.1 | pCi/g-dry | | | | E901.1 | 08/01/23 08:48 / haw |
| Radium 226 | 1.2 | pCi/g-dry | | | | E901.1 | 08/01/23 08:48 / haw |
| Radium 226 precision (±) | 0.1 | pCi/g-dry | | | | E901.1 | 08/01/23 08:48 / haw |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 08/01/23 08:48 / haw |
| Radium 228 | 1.6 | pCi/g-dry | | | | E901.1 | 08/01/23 08:48 / haw |
| Radium 228 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 08/01/23 08:48 / haw |
| Radium 228 MDC | 0.2 | pCi/g-dry | | | | E901.1 | 08/01/23 08:48 / haw |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-032
**Client Sample ID:** DSSB-03

**Report Date:** 08/07/23
**Collection Date:** 05/24/23 13:30
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | 0.4 | pCi/g-dry | U | | | E901.1 | 08/01/23 09:52 / haw |
| Radium 224 precision (±) | 1.6 | pCi/g-dry | | | | E901.1 | 08/01/23 09:52 / haw |
| Radium 224 MDC | 2.6 | pCi/g-dry | | | | E901.1 | 08/01/23 09:52 / haw |
| Radium 226 | 6.2 | pCi/g-dry | | | | E901.1 | 08/01/23 09:52 / haw |
| Radium 226 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 08/01/23 09:52 / haw |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 08/01/23 09:52 / haw |
| Radium 228 | 0.3 | pCi/g-dry | U | | | E901.1 | 08/01/23 09:52 / haw |
| Radium 228 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 08/01/23 09:52 / haw |
| Radium 228 MDC | 0.3 | pCi/g-dry | | | | E901.1 | 08/01/23 09:52 / haw |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected at Minimum Detectable Concentration (MDC)
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-033
**Client Sample ID:** MCSB-06 6'

**Report Date:** 08/07/23
**Collection Date:** 05/30/23 09:15
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | -0.4 | pCi/g-dry | U | | | E901.1 | 08/01/23 11:07 / haw |
| Radium 224 precision (±) | 1.6 | pCi/g-dry | | | | E901.1 | 08/01/23 11:07 / haw |
| Radium 224 MDC | 2.6 | pCi/g-dry | | | | E901.1 | 08/01/23 11:07 / haw |
| Radium 226 | 1.9 | pCi/g-dry | | | | E901.1 | 08/01/23 11:07 / haw |
| Radium 226 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 08/01/23 11:07 / haw |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 08/01/23 11:07 / haw |
| Radium 228 | 1.3 | pCi/g-dry | | | | E901.1 | 08/01/23 11:07 / haw |
| Radium 228 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 08/01/23 11:07 / haw |
| Radium 228 MDC | 0.2 | pCi/g-dry | | | | E901.1 | 08/01/23 11:07 / haw |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected at Minimum Detectable Concentration (MDC)
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-034
**Client Sample ID:** MCSB-04 1'

**Report Date:** 08/07/23
**Collection Date:** 05/30/23 09:35
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | -0.3 | pCi/g-dry | U | | | E901.1 | 08/01/23 13:40 / haw |
| Radium 224 precision (±) | 0.9 | pCi/g-dry | | | | E901.1 | 08/01/23 13:40 / haw |
| Radium 224 MDC | 1.5 | pCi/g-dry | | | | E901.1 | 08/01/23 13:40 / haw |
| Radium 226 | 1.4 | pCi/g-dry | | | | E901.1 | 08/01/23 13:40 / haw |
| Radium 226 precision (±) | 0.1 | pCi/g-dry | | | | E901.1 | 08/01/23 13:40 / haw |
| Radium 226 MDC | 0.08 | pCi/g-dry | | | | E901.1 | 08/01/23 13:40 / haw |
| Radium 228 | 0.2 | pCi/g-dry | | | | E901.1 | 08/01/23 13:40 / haw |
| Radium 228 precision (±) | 0.1 | pCi/g-dry | | | | E901.1 | 08/01/23 13:40 / haw |
| Radium 228 MDC | 0.2 | pCi/g-dry | | | | E901.1 | 08/01/23 13:40 / haw |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected at Minimum Detectable Concentration (MDC)
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-035
**Client Sample ID:** MCSB-04 2'

**Report Date:** 08/07/23
**Collection Date:** 05/30/23 09:45
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | 0.3 | pCi/g-dry | U | | | E901.1 | 08/01/23 14:42 / haw |
| Radium 224 precision (±) | 1.4 | pCi/g-dry | | | | E901.1 | 08/01/23 14:42 / haw |
| Radium 224 MDC | 2.3 | pCi/g-dry | | | | E901.1 | 08/01/23 14:42 / haw |
| Radium 226 | 3.4 | pCi/g-dry | | | | E901.1 | 08/01/23 14:42 / haw |
| Radium 226 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 08/01/23 14:42 / haw |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 08/01/23 14:42 / haw |
| Radium 228 | 0.4 | pCi/g-dry | | | | E901.1 | 08/01/23 14:42 / haw |
| Radium 228 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 08/01/23 14:42 / haw |
| Radium 228 MDC | 0.3 | pCi/g-dry | | | | E901.1 | 08/01/23 14:42 / haw |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected at Minimum Detectable Concentration (MDC)
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-036
**Client Sample ID:** MCSB-02 3'

**Report Date:** 08/07/23
**Collection Date:** 05/30/23 10:50
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | 0.3 | pCi/g-dry | U | | | E901.1 | 08/01/23 15:59 / haw |
| Radium 224 precision (±) | 1.0 | pCi/g-dry | | | | E901.1 | 08/01/23 15:59 / haw |
| Radium 224 MDC | 1.7 | pCi/g-dry | | | | E901.1 | 08/01/23 15:59 / haw |
| Radium 226 | 0.8 | pCi/g-dry | | | | E901.1 | 08/01/23 15:59 / haw |
| Radium 226 precision (±) | 0.1 | pCi/g-dry | | | | E901.1 | 08/01/23 15:59 / haw |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 08/01/23 15:59 / haw |
| Radium 228 | 0.7 | pCi/g-dry | | | | E901.1 | 08/01/23 15:59 / haw |
| Radium 228 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 08/01/23 15:59 / haw |
| Radium 228 MDC | 0.2 | pCi/g-dry | | | | E901.1 | 08/01/23 15:59 / haw |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected at Minimum Detectable Concentration (MDC)
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-037
**Client Sample ID:** MCSB-02 4'

**Report Date:** 08/07/23
**Collection Date:** 05/30/23 11:00
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | 0.4 | pCi/g-dry | U | | | E901.1 | 08/01/23 17:13 / haw |
| Radium 224 precision (±) | 2.1 | pCi/g-dry | | | | E901.1 | 08/01/23 17:13 / haw |
| Radium 224 MDC | 3.5 | pCi/g-dry | | | | E901.1 | 08/01/23 17:13 / haw |
| Radium 226 | 12.6 | pCi/g-dry | | | | E901.1 | 08/01/23 17:13 / haw |
| Radium 226 precision (±) | 0.4 | pCi/g-dry | | | | E901.1 | 08/01/23 17:13 / haw |
| Radium 226 MDC | 0.2 | pCi/g-dry | | | | E901.1 | 08/01/23 17:13 / haw |
| Radium 228 | 0.3 | pCi/g-dry | U | | | E901.1 | 08/01/23 17:13 / haw |
| Radium 228 precision (±) | 0.3 | pCi/g-dry | | | | E901.1 | 08/01/23 17:13 / haw |
| Radium 228 MDC | 0.4 | pCi/g-dry | | | | E901.1 | 08/01/23 17:13 / haw |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected at Minimum Detectable Concentration (MDC)
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-038
**Client Sample ID:** MCSB-02 5.2'

**Report Date:** 08/07/23
**Collection Date:** 05/30/23 11:15
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | 2.0 | pCi/g-dry | | | | E901.1 | 08/02/23 08:25 / haw |
| Radium 224 precision (±) | 0.7 | pCi/g-dry | | | | E901.1 | 08/02/23 08:25 / haw |
| Radium 224 MDC | 1.1 | pCi/g-dry | | | | E901.1 | 08/02/23 08:25 / haw |
| Radium 226 | 1.4 | pCi/g-dry | | | | E901.1 | 08/02/23 08:25 / haw |
| Radium 226 precision (±) | 0.1 | pCi/g-dry | | | | E901.1 | 08/02/23 08:25 / haw |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 08/02/23 08:25 / haw |
| Radium 228 | 1.7 | pCi/g-dry | | | | E901.1 | 08/02/23 08:25 / haw |
| Radium 228 precision (±) | 0.3 | pCi/g-dry | | | | E901.1 | 08/02/23 08:25 / haw |
| Radium 228 MDC | 0.2 | pCi/g-dry | | | | E901.1 | 08/02/23 08:25 / haw |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-039
**Client Sample ID:** MCSB-01 2'

**Report Date:** 08/07/23
**Collection Date:** 05/30/23 12:50
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | -0.5 | pCi/g-dry | U | | | E901.1 | 08/02/23 12:03 / sec |
| Radium 224 precision (±) | 1.6 | pCi/g-dry | | | | E901.1 | 08/02/23 12:03 / sec |
| Radium 224 MDC | 2.6 | pCi/g-dry | | | | E901.1 | 08/02/23 12:03 / sec |
| Radium 226 | 5.9 | pCi/g-dry | | | | E901.1 | 08/02/23 12:03 / sec |
| Radium 226 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 08/02/23 12:03 / sec |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 08/02/23 12:03 / sec |
| Radium 228 | 0.5 | pCi/g-dry | | | | E901.1 | 08/02/23 12:03 / sec |
| Radium 228 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 08/02/23 12:03 / sec |
| Radium 228 MDC | 0.3 | pCi/g-dry | | | | E901.1 | 08/02/23 12:03 / sec |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected at Minimum Detectable Concentration (MDC)
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-040
**Client Sample ID:** MCSB-01 3'

**Report Date:** 08/07/23
**Collection Date:** 05/30/23 13:00
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | 1.4 | pCi/g-dry | | | | E901.1 | 08/02/23 13:56 / sec |
| Radium 224 precision (±) | 0.6 | pCi/g-dry | | | | E901.1 | 08/02/23 13:56 / sec |
| Radium 224 MDC | 1 | pCi/g-dry | | | | E901.1 | 08/02/23 13:56 / sec |
| Radium 226 | 0.8 | pCi/g-dry | | | | E901.1 | 08/02/23 13:56 / sec |
| Radium 226 precision (±) | 0.1 | pCi/g-dry | | | | E901.1 | 08/02/23 13:56 / sec |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 08/02/23 13:56 / sec |
| Radium 228 | 1.2 | pCi/g-dry | | | | E901.1 | 08/02/23 13:56 / sec |
| Radium 228 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 08/02/23 13:56 / sec |
| Radium 228 MDC | 0.2 | pCi/g-dry | | | | E901.1 | 08/02/23 13:56 / sec |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-041
**Client Sample ID:** MCSB-03 1'

**Report Date:** 08/07/23
**Collection Date:** 05/30/23 13:40
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | -0.4 | pCi/g-dry | U | | | E901.1 | 08/02/23 15:03 / sec |
| Radium 224 precision (±) | 1.6 | pCi/g-dry | | | | E901.1 | 08/02/23 15:03 / sec |
| Radium 224 MDC | 2.7 | pCi/g-dry | | | | E901.1 | 08/02/23 15:03 / sec |
| Radium 226 | 5.9 | pCi/g-dry | | | | E901.1 | 08/02/23 15:03 / sec |
| Radium 226 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 08/02/23 15:03 / sec |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 08/02/23 15:03 / sec |
| Radium 228 | 0.4 | pCi/g-dry | | | | E901.1 | 08/02/23 15:03 / sec |
| Radium 228 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 08/02/23 15:03 / sec |
| Radium 228 MDC | 0.3 | pCi/g-dry | | | | E901.1 | 08/02/23 15:03 / sec |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected at Minimum Detectable Concentration (MDC)
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-042
**Client Sample ID:** MCSB-03 2'

**Report Date:** 08/07/23
**Collection Date:** 05/30/23 13:50
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | 1.2 | pCi/g-dry | | | | E901.1 | 08/02/23 16:13 / sec |
| Radium 224 precision (±) | 0.6 | pCi/g-dry | | | | E901.1 | 08/02/23 16:13 / sec |
| Radium 224 MDC | 1 | pCi/g-dry | | | | E901.1 | 08/02/23 16:13 / sec |
| Radium 226 | 0.8 | pCi/g-dry | | | | E901.1 | 08/02/23 16:13 / sec |
| Radium 226 precision (±) | 0.1 | pCi/g-dry | | | | E901.1 | 08/02/23 16:13 / sec |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 08/02/23 16:13 / sec |
| Radium 228 | 1.3 | pCi/g-dry | | | | E901.1 | 08/02/23 16:13 / sec |
| Radium 228 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 08/02/23 16:13 / sec |
| Radium 228 MDC | 0.2 | pCi/g-dry | | | | E901.1 | 08/02/23 16:13 / sec |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-043
**Client Sample ID:** DSSB-04

**Report Date:** 08/07/23
**Collection Date:** 05/30/23 14:15
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | 0.2 | pCi/g-dry | U | | | E901.1 | 08/02/23 17:18 / sec |
| Radium 224 precision (±) | 1.7 | pCi/g-dry | | | | E901.1 | 08/02/23 17:18 / sec |
| Radium 224 MDC | 2.8 | pCi/g-dry | | | | E901.1 | 08/02/23 17:18 / sec |
| Radium 226 | 5.8 | pCi/g-dry | | | | E901.1 | 08/02/23 17:18 / sec |
| Radium 226 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 08/02/23 17:18 / sec |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 08/02/23 17:18 / sec |
| Radium 228 | 0.6 | pCi/g-dry | | | | E901.1 | 08/02/23 17:18 / sec |
| Radium 228 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 08/02/23 17:18 / sec |
| Radium 228 MDC | 0.2 | pCi/g-dry | | | | E901.1 | 08/02/23 17:18 / sec |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected at Minimum Detectable Concentration (MDC)
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-044
**Client Sample ID:** WBSB-09 0-6"

**Report Date:** 08/07/23
**Collection Date:** 05/31/23 08:25
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | 1.4 | pCi/g-dry | | | | E901.1 | 08/03/23 08:51 / sec |
| Radium 224 precision (±) | 0.7 | pCi/g-dry | | | | E901.1 | 08/03/23 08:51 / sec |
| Radium 224 MDC | 1.2 | pCi/g-dry | | | | E901.1 | 08/03/23 08:51 / sec |
| Radium 226 | 1.2 | pCi/g-dry | | | | E901.1 | 08/03/23 08:51 / sec |
| Radium 226 precision (±) | 0.1 | pCi/g-dry | | | | E901.1 | 08/03/23 08:51 / sec |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 08/03/23 08:51 / sec |
| Radium 228 | 1.4 | pCi/g-dry | | | | E901.1 | 08/03/23 08:51 / sec |
| Radium 228 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 08/03/23 08:51 / sec |
| Radium 228 MDC | 0.3 | pCi/g-dry | | | | E901.1 | 08/03/23 08:51 / sec |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-045
**Client Sample ID:** WBSB-12 0-1"

**Report Date:** 08/07/23
**Collection Date:** 05/31/23 08:50
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | 1.4 | pCi/g-dry | | | | E901.1 | 08/03/23 09:57 / sec |
| Radium 224 precision (±) | 0.8 | pCi/g-dry | | | | E901.1 | 08/03/23 09:57 / sec |
| Radium 224 MDC | 1.3 | pCi/g-dry | | | | E901.1 | 08/03/23 09:57 / sec |
| Radium 226 | 2.0 | pCi/g-dry | | | | E901.1 | 08/03/23 09:57 / sec |
| Radium 226 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 08/03/23 09:57 / sec |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 08/03/23 09:57 / sec |
| Radium 228 | 1.2 | pCi/g-dry | | | | E901.1 | 08/03/23 09:57 / sec |
| Radium 228 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 08/03/23 09:57 / sec |
| Radium 228 MDC | 0.2 | pCi/g-dry | | | | E901.1 | 08/03/23 09:57 / sec |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-046
**Client Sample ID:** WBSB-12 2-6"

**Report Date:** 08/07/23
**Collection Date:** 05/31/23 09:00
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | 1.7 | pCi/g-dry | | | | E901.1 | 08/03/23 11:04 / sec |
| Radium 224 precision (±) | 0.7 | pCi/g-dry | | | | E901.1 | 08/03/23 11:04 / sec |
| Radium 224 MDC | 1.0 | pCi/g-dry | | | | E901.1 | 08/03/23 11:04 / sec |
| Radium 226 | 1 | pCi/g-dry | | | | E901.1 | 08/03/23 11:04 / sec |
| Radium 226 precision (±) | 0.1 | pCi/g-dry | | | | E901.1 | 08/03/23 11:04 / sec |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 08/03/23 11:04 / sec |
| Radium 228 | 1.2 | pCi/g-dry | | | | E901.1 | 08/03/23 11:04 / sec |
| Radium 228 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 08/03/23 11:04 / sec |
| Radium 228 MDC | 0.3 | pCi/g-dry | | | | E901.1 | 08/03/23 11:04 / sec |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-047
**Client Sample ID:** WBSB-10 0-6"

**Report Date:** 08/07/23
**Collection Date:** 05/31/23 09:10
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | -0.4 | pCi/g-dry | U | | | E901.1 | 08/03/23 12:10 / sec |
| Radium 224 precision (±) | 1.6 | pCi/g-dry | | | | E901.1 | 08/03/23 12:10 / sec |
| Radium 224 MDC | 2.6 | pCi/g-dry | | | | E901.1 | 08/03/23 12:10 / sec |
| Radium 226 | 3.5 | pCi/g-dry | | | | E901.1 | 08/03/23 12:10 / sec |
| Radium 226 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 08/03/23 12:10 / sec |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 08/03/23 12:10 / sec |
| Radium 228 | 1.2 | pCi/g-dry | | | | E901.1 | 08/03/23 12:10 / sec |
| Radium 228 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 08/03/23 12:10 / sec |
| Radium 228 MDC | 0.2 | pCi/g-dry | | | | E901.1 | 08/03/23 12:10 / sec |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected at Minimum Detectable Concentration (MDC)
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-048
**Client Sample ID:** WBSB-11 0-6"

**Report Date:** 08/07/23
**Collection Date:** 05/31/23 09:35
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | 1.4 | pCi/g-dry | | | | E901.1 | 08/03/23 13:24 / sec |
| Radium 224 precision (±) | 0.9 | pCi/g-dry | | | | E901.1 | 08/03/23 13:24 / sec |
| Radium 224 MDC | 1.4 | pCi/g-dry | | | | E901.1 | 08/03/23 13:24 / sec |
| Radium 226 | 2.7 | pCi/g-dry | | | | E901.1 | 08/03/23 13:24 / sec |
| Radium 226 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 08/03/23 13:24 / sec |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 08/03/23 13:24 / sec |
| Radium 228 | 1.3 | pCi/g-dry | | | | E901.1 | 08/03/23 13:24 / sec |
| Radium 228 precision (±) | 0.3 | pCi/g-dry | | | | E901.1 | 08/03/23 13:24 / sec |
| Radium 228 MDC | 0.3 | pCi/g-dry | | | | E901.1 | 08/03/23 13:24 / sec |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-049
**Client Sample ID:** OPSB-03 4.2'

**Report Date:** 08/07/23
**Collection Date:** 06/01/23 09:10
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | -0.3 | pCi/g-dry | U | | | E901.1 | 08/03/23 15:37 / sec |
| Radium 224 precision (±) | 1.8 | pCi/g-dry | | | | E901.1 | 08/03/23 15:37 / sec |
| Radium 224 MDC | 3.0 | pCi/g-dry | | | | E901.1 | 08/03/23 15:37 / sec |
| Radium 226 | 4.4 | pCi/g-dry | | | | E901.1 | 08/03/23 15:37 / sec |
| Radium 226 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 08/03/23 15:37 / sec |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 08/03/23 15:37 / sec |
| Radium 228 | 0.9 | pCi/g-dry | | | | E901.1 | 08/03/23 15:37 / sec |
| Radium 228 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 08/03/23 15:37 / sec |
| Radium 228 MDC | 0.3 | pCi/g-dry | | | | E901.1 | 08/03/23 15:37 / sec |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected at Minimum Detectable Concentration (MDC)
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-050
**Client Sample ID:** OPSB-03 4.5'

**Report Date:** 08/07/23
**Collection Date:** 06/01/23 09:25
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | 1.6 | pCi/g-dry | | | | E901.1 | 08/03/23 16:44 / sec |
| Radium 224 precision (±) | 0.7 | pCi/g-dry | | | | E901.1 | 08/03/23 16:44 / sec |
| Radium 224 MDC | 1.1 | pCi/g-dry | | | | E901.1 | 08/03/23 16:44 / sec |
| Radium 226 | 0.8 | pCi/g-dry | | | | E901.1 | 08/03/23 16:44 / sec |
| Radium 226 precision (±) | 0.1 | pCi/g-dry | | | | E901.1 | 08/03/23 16:44 / sec |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 08/03/23 16:44 / sec |
| Radium 228 | 1.3 | pCi/g-dry | | | | E901.1 | 08/03/23 16:44 / sec |
| Radium 228 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 08/03/23 16:44 / sec |
| Radium 228 MDC | 0.2 | pCi/g-dry | | | | E901.1 | 08/03/23 16:44 / sec |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-051
**Client Sample ID:** OPSB-02 5.5'

**Report Date:** 08/07/23
**Collection Date:** 06/01/23 11:20
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | 0.1 | pCi/g-dry | U | | | E901.1 | 08/03/23 17:46 / sec |
| Radium 224 precision (±) | 1.4 | pCi/g-dry | | | | E901.1 | 08/03/23 17:46 / sec |
| Radium 224 MDC | 2.4 | pCi/g-dry | | | | E901.1 | 08/03/23 17:46 / sec |
| Radium 226 | 0.9 | pCi/g-dry | | | | E901.1 | 08/03/23 17:46 / sec |
| Radium 226 precision (±) | 0.1 | pCi/g-dry | | | | E901.1 | 08/03/23 17:46 / sec |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 08/03/23 17:46 / sec |
| Radium 228 | 1.1 | pCi/g-dry | | | | E901.1 | 08/03/23 17:46 / sec |
| Radium 228 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 08/03/23 17:46 / sec |
| Radium 228 MDC | 0.2 | pCi/g-dry | | | | E901.1 | 08/03/23 17:46 / sec |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
U - Not detected at Minimum Detectable Concentration (MDC)
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-052
**Client Sample ID:** OPSB-05 3.75'

**Report Date:** 08/07/23
**Collection Date:** 06/01/23 11:55
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | 1.7 | pCi/g-dry | | | | E901.1 | 08/04/23 08:54 / sec |
| Radium 224 precision (±) | 0.7 | pCi/g-dry | | | | E901.1 | 08/04/23 08:54 / sec |
| Radium 224 MDC | 1.1 | pCi/g-dry | | | | E901.1 | 08/04/23 08:54 / sec |
| Radium 226 | 0.9 | pCi/g-dry | | | | E901.1 | 08/04/23 08:54 / sec |
| Radium 226 precision (±) | 0.1 | pCi/g-dry | | | | E901.1 | 08/04/23 08:54 / sec |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 08/04/23 08:54 / sec |
| Radium 228 | 1.5 | pCi/g-dry | | | | E901.1 | 08/04/23 08:54 / sec |
| Radium 228 precision (±) | 0.3 | pCi/g-dry | | | | E901.1 | 08/04/23 08:54 / sec |
| Radium 228 MDC | 0.3 | pCi/g-dry | | | | E901.1 | 08/04/23 08:54 / sec |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation
**Project:** MTM Subsurface soil investigation
**Lab ID:** C23060688-053
**Client Sample ID:** DSSB-05

**Report Date:** 08/07/23
**Collection Date:** 06/01/23 12:30
**DateReceived:** 06/19/23
**Matrix:** Soil

| Analyses | Result | Units | Qualifiers | RL | MCL/ QCL | Method | Analysis Date / By |
|---|---|---|---|---|---|---|---|
| **RADIONUCLIDES, GAMMA** | | | | | | | |
| Radium 224 | 1.2 | pCi/g-dry | | | | E901.1 | 08/04/23 10:57 / sec |
| Radium 224 precision (±) | 0.6 | pCi/g-dry | | | | E901.1 | 08/04/23 10:57 / sec |
| Radium 224 MDC | 0.9 | pCi/g-dry | | | | E901.1 | 08/04/23 10:57 / sec |
| Radium 226 | 0.8 | pCi/g-dry | | | | E901.1 | 08/04/23 10:57 / sec |
| Radium 226 precision (±) | 0.1 | pCi/g-dry | | | | E901.1 | 08/04/23 10:57 / sec |
| Radium 226 MDC | 0.1 | pCi/g-dry | | | | E901.1 | 08/04/23 10:57 / sec |
| Radium 228 | 1.1 | pCi/g-dry | | | | E901.1 | 08/04/23 10:57 / sec |
| Radium 228 precision (±) | 0.2 | pCi/g-dry | | | | E901.1 | 08/04/23 10:57 / sec |
| Radium 228 MDC | 0.3 | pCi/g-dry | | | | E901.1 | 08/04/23 10:57 / sec |

**Report Definitions:**
RL - Analyte Reporting Limit
QCL - Quality Control Limit
MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

# QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation **Work Order:** C23060688 **Report Date:** 08/04/23

| Analyte | Count | Result | Units | RL | %REC | Low Limit | High Limit | RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| **Method: E901.1** | | | | | | | | | | Batch: R296981 |
| **Lab ID: MB-296981** | 9 | Method Blank | | | Run: GAM-HPGE 2_230725A | | | | | 07/25/23 09:16 |
| Radium 224 | | 0.2 | pCi/g-dry | | | | | | | U |
| Radium 224 precision (±) | | 0.4 | pCi/g-dry | | | | | | | |
| Radium 224 MDC | | 0.7 | pCi/g-dry | | | | | | | |
| Radium 226 | | 0.2 | pCi/g-dry | | | | | | | |
| Radium 226 precision (±) | | 0.06 | pCi/g-dry | | | | | | | |
| Radium 226 MDC | | 0.06 | pCi/g-dry | | | | | | | |
| Radium 228 | | 0.09 | pCi/g-dry | | | | | | | U |
| Radium 228 precision (±) | | 0.09 | pCi/g-dry | | | | | | | |
| Radium 228 MDC | | 0.1 | pCi/g-dry | | | | | | | |
| **Lab ID: LCS-296981** | 6 | Laboratory Control Sample | | | Run: GAM-HPGE 2_230725A | | | | | 07/25/23 10:20 |
| Cobalt 60 | | 8.1 | pCi/g-dry | | 90 | 70 | 130 | | | |
| Cobalt 60 precision (±) | | 0.55 | pCi/g-dry | | | | | | | |
| Cobalt 60 MDC | | 0.83 | pCi/g-dry | | | | | | | |
| Radium 226 | | 50 | pCi/g-dry | | 92 | 70 | 130 | | | |
| Radium 226 precision (±) | | 2.3 | pCi/g-dry | | | | | | | |
| Radium 226 MDC | | 2.6 | pCi/g-dry | | | | | | | |
| **Lab ID: C23060688-001ADUP** | 9 | Sample Duplicate | | | Run: GAM-HPGE 2_230725A | | | | | 07/25/23 12:49 |
| Radium 224 | | 1.5 | pCi/g-dry | | | | | 12 | 30 | |
| Radium 224 precision (±) | | 0.76 | pCi/g-dry | | | | | | | |
| Radium 224 MDC | | 1.2 | pCi/g-dry | | | | | | | |
| Radium 226 | | 1.6 | pCi/g-dry | | | | | 6.1 | 30 | |
| Radium 226 precision (±) | | 0.16 | pCi/g-dry | | | | | | | |
| Radium 226 MDC | | 0.14 | pCi/g-dry | | | | | | | |
| Radium 228 | | 1.4 | pCi/g-dry | | | | | 1.8 | 30 | |
| Radium 228 precision (±) | | 0.25 | pCi/g-dry | | | | | | | |
| Radium 228 MDC | | 0.24 | pCi/g-dry | | | | | | | |
| - The RER result for Ra224 is 0.16, Ra226 is 0.44 and Ra228 is 0.07. | | | | | | | | | | |
| **Lab ID: C23060688-011ADUP** | 9 | Sample Duplicate | | | Run: GAM-HPGE 2_230725A | | | | | 07/27/23 08:36 |
| Radium 224 | | -0.48 | pCi/g-dry | | | | | 5.3 | 30 | U |
| Radium 224 precision (±) | | 1.7 | pCi/g-dry | | | | | | | |
| Radium 224 MDC | | 2.8 | pCi/g-dry | | | | | | | |
| Radium 226 | | 4.9 | pCi/g-dry | | | | | 1.9 | 30 | |
| Radium 226 precision (±) | | 0.24 | pCi/g-dry | | | | | | | |
| Radium 226 MDC | | 0.14 | pCi/g-dry | | | | | | | |
| Radium 228 | | 0.86 | pCi/g-dry | | | | | 44 | 30 | R |
| Radium 228 precision (±) | | 0.26 | pCi/g-dry | | | | | | | |
| Radium 228 MDC | | 0.31 | pCi/g-dry | | | | | | | |
| - Duplicate RPD for Ra228 is outside of the acceptance range for this analysis. However, the RER is less than or equal to the limit of 3, the RER result is 0.86. | | | | | | | | | | |
| -The RER result for Ra224 is 0.01 and Ra226 is 0.28. | | | | | | | | | | |

**Qualifiers:**

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

R - Relative Percent Difference (RPD) exceeds advisory limit

U - Not detected at Minimum Detectable Concentration (MDC)

# QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation **Work Order:** C23060688 **Report Date:** 08/04/23

| Analyte | Count | Result | Units | RL | %REC | Low Limit | High Limit | RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| **Method: E901.1** | | | | | | | | | | Batch: R297133 |
| **Lab ID: MB-297133** | 9 | Method Blank | | | | Run: GAM-HPGE 2_230728A | | | | 07/28/23 11:18 |
| Radium 224 | | 0.2 | pCi/g-dry | | | | | | | U |
| Radium 224 precision (±) | | 0.4 | pCi/g-dry | | | | | | | |
| Radium 224 MDC | | 0.7 | pCi/g-dry | | | | | | | |
| Radium 226 | | 0.2 | pCi/g-dry | | | | | | | |
| Radium 226 precision (±) | | 0.05 | pCi/g-dry | | | | | | | |
| Radium 226 MDC | | 0.05 | pCi/g-dry | | | | | | | |
| Radium 228 | | 0.1 | pCi/g-dry | | | | | | | U |
| Radium 228 precision (±) | | 0.1 | pCi/g-dry | | | | | | | |
| Radium 228 MDC | | 0.1 | pCi/g-dry | | | | | | | |
| **Lab ID: LCS-297133** | 6 | Laboratory Control Sample | | | | Run: GAM-HPGE 2_230728A | | | | 07/28/23 12:25 |
| Cobalt 60 | | 7.7 | pCi/g-dry | | 85 | 70 | 130 | | | |
| Cobalt 60 precision (±) | | 0.53 | pCi/g-dry | | | | | | | |
| Cobalt 60 MDC | | 0.82 | pCi/g-dry | | | | | | | |
| Radium 226 | | 50 | pCi/g-dry | | 92 | 70 | 130 | | | |
| Radium 226 precision (±) | | 2.3 | pCi/g-dry | | | | | | | |
| Radium 226 MDC | | 2.6 | pCi/g-dry | | | | | | | |
| **Lab ID: C23060688-023ADUP** | 9 | Sample Duplicate | | | | Run: GAM-HPGE 2_230728A | | | | 07/28/23 17:06 |
| Radium 224 | | 1.3 | pCi/g-dry | | | | | 1.1 | 30 | |
| Radium 224 precision (±) | | 0.67 | pCi/g-dry | | | | | | | |
| Radium 224 MDC | | 1.1 | pCi/g-dry | | | | | | | |
| Radium 226 | | 1.1 | pCi/g-dry | | | | | 5.5 | 30 | |
| Radium 226 precision (±) | | 0.13 | pCi/g-dry | | | | | | | |
| Radium 226 MDC | | 0.11 | pCi/g-dry | | | | | | | |
| Radium 228 | | 1.4 | pCi/g-dry | | | | | 1.3 | 30 | |
| Radium 228 precision (±) | | 0.23 | pCi/g-dry | | | | | | | |
| Radium 228 MDC | | 0.21 | pCi/g-dry | | | | | | | |
| - The RER result for Ra224 is 0.02, Ra226 is 0.32, Ra228 is 0.06. | | | | | | | | | | |
| **Lab ID: C23060688-033ADUP** | 9 | Sample Duplicate | | | | Run: GAM-HPGE 2_230728A | | | | 08/01/23 12:13 |
| Radium 224 | | 0.33 | pCi/g-dry | | | | | 3200 | 30 | UR |
| Radium 224 precision (±) | | 1.5 | pCi/g-dry | | | | | | | |
| Radium 224 MDC | | 2.5 | pCi/g-dry | | | | | | | |
| Radium 226 | | 1.9 | pCi/g-dry | | | | | 0.5 | 30 | |
| Radium 226 precision (±) | | 0.16 | pCi/g-dry | | | | | | | |
| Radium 226 MDC | | 0.11 | pCi/g-dry | | | | | | | |
| Radium 228 | | 1.2 | pCi/g-dry | | | | | 0.7 | 30 | |
| Radium 228 precision (±) | | 0.23 | pCi/g-dry | | | | | | | |
| Radium 228 MDC | | 0.22 | pCi/g-dry | | | | | | | |
| - Duplicate RPD for Ra224 is outside of the acceptance range for this analysis. However, the RER is less than or equal to the limit of 3, the RER result for Ra224 is 0.33. The RER result for Ra226 is 0.04 and Ra228 is 0.03 | | | | | | | | | | |

**Qualifiers:**

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

R - Relative Percent Difference (RPD) exceeds advisory limit

U - Not detected at Minimum Detectable Concentration (MDC)

# QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Rio Grande Resources Corporation **Work Order:** C23060688 **Report Date:** 08/04/23

| Analyte | Count | Result | Units | RL | %REC | Low Limit | High Limit | RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| **Method: E901.1** | | | | | | | | | | Batch: R297281 |
| **Lab ID: MB-297281** | 9 | Method Blank | | | | Run: GAM-HPGE 2_230802A | | | | 08/02/23 09:38 |
| Radium 224 | | 0.02 | pCi/g-dry | | | | | | | U |
| Radium 224 precision (±) | | 0.4 | pCi/g-dry | | | | | | | |
| Radium 224 MDC | | 0.7 | pCi/g-dry | | | | | | | |
| Radium 226 | | 0.2 | pCi/g-dry | | | | | | | |
| Radium 226 precision (±) | | 0.05 | pCi/g-dry | | | | | | | |
| Radium 226 MDC | | 0.05 | pCi/g-dry | | | | | | | |
| Radium 228 | | 0.06 | pCi/g-dry | | | | | | | U |
| Radium 228 precision (±) | | 0.09 | pCi/g-dry | | | | | | | |
| Radium 228 MDC | | 0.1 | pCi/g-dry | | | | | | | |
| **Lab ID: C23060688-048ADUP** | 9 | Sample Duplicate | | | | Run: GAM-HPGE 2_230802A | | | | 08/03/23 14:34 |
| Radium 224 | | -0.41 | pCi/g-dry | | | | | 360 | 30 | UR |
| Radium 224 precision (±) | | 1.5 | pCi/g-dry | | | | | | | |
| Radium 224 MDC | | 2.5 | pCi/g-dry | | | | | | | |
| Radium 226 | | 2.7 | pCi/g-dry | | | | | 0.5 | 30 | |
| Radium 226 precision (±) | | 0.18 | pCi/g-dry | | | | | | | |
| Radium 226 MDC | | 0.13 | pCi/g-dry | | | | | | | |
| Radium 228 | | 1.4 | pCi/g-dry | | | | | 11 | 30 | |
| Radium 228 precision (±) | | 0.28 | pCi/g-dry | | | | | | | |
| Radium 228 MDC | | 0.29 | pCi/g-dry | | | | | | | |
| - Duplicate RPD for Ra224 is outside of the acceptance range for this analysis. However, the RER is less than or equal to the limit of 3, the RER result is 1.05. The RER result for Ra226 is 0.05 and Ra228 is 0.41. | | | | | | | | | | |
| **Lab ID: C23060688-052ADUP** | 9 | Sample Duplicate | | | | Run: GAM-HPGE 2_230802A | | | | 08/04/23 09:55 |
| Radium 224 | | 0.041 | pCi/g-dry | | | | | 190 | 30 | UR |
| Radium 224 precision (±) | | 1.7 | pCi/g-dry | | | | | | | |
| Radium 224 MDC | | 2.8 | pCi/g-dry | | | | | | | |
| Radium 226 | | 1.1 | pCi/g-dry | | | | | 17 | 30 | |
| Radium 226 precision (±) | | 0.14 | pCi/g-dry | | | | | | | |
| Radium 226 MDC | | 0.11 | pCi/g-dry | | | | | | | |
| Radium 228 | | 1.3 | pCi/g-dry | | | | | 16 | 30 | |
| Radium 228 precision (±) | | 0.24 | pCi/g-dry | | | | | | | |
| Radium 228 MDC | | 0.23 | pCi/g-dry | | | | | | | |
| - Duplicate RPD for Ra224 is outside of the acceptance range for this analysis. However, the RER is less than or equal to the limit of 3, the RER result is 0.90. The RER result for Ra226 is 0.92 and Ra228 is 0.61. | | | | | | | | | | |
| **Lab ID: LCS-297281** | 6 | Laboratory Control Sample | | | | Run: GAM-HPGE 2_230802A | | | | 08/04/23 14:26 |
| Cobalt 60 | | 8.0 | pCi/g-dry | | 88 | 70 | 130 | | | |
| Cobalt 60 precision (±) | | 0.57 | pCi/g-dry | | | | | | | |
| Cobalt 60 MDC | | 0.72 | pCi/g-dry | | | | | | | |
| Radium 226 | | 48 | pCi/g-dry | | 89 | 70 | 130 | | | |
| Radium 226 precision (±) | | 2.1 | pCi/g-dry | | | | | | | |
| Radium 226 MDC | | 2.4 | pCi/g-dry | | | | | | | |

**Qualifiers:**

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

R - Relative Percent Difference (RPD) exceeds advisory limit

U - Not detected at Minimum Detectable Concentration (MDC)

# Work Order Receipt Checklist

## Rio Grande Resources Corporation C23060688

Login completed by: Dakota R. Januska
Date Received: 6/19/2023
Reviewed by: mstephens
Received by: slr
Reviewed Date: 6/21/2023
Carrier name: UPS

| | | | |
|---|---|---|---|
| Shipping container/cooler in good condition? | Yes ☑ | No ☐ | Not Present ☐ |
| Custody seals intact on all shipping container(s)/cooler(s)? | Yes ☑ | No ☐ | Not Present ☐ |
| Custody seals intact on all sample bottles? | Yes ☐ | No ☐ | Not Present ☑ |
| Chain of custody present? | Yes ☑ | No ☐ | |
| Chain of custody signed when 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 holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.) | Yes ☑ | No ☐ | |
| Temp Blank received in all shipping container(s)/cooler(s)? | Yes ☑ | No ☐ | Not Applicable ☐ |
| Container/Temp Blank temperature: | 19.0°C No Ice | | |
| Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4"). | Yes ☐ | No ☐ | No VOA vials submitted ☑ |
| Water - pH acceptable upon receipt? | Yes ☐ | No ☐ | Not Applicable ☑ |

### 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.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

### Contact and Corrective Action Comments:

Energy Labs INC is missing pages three and four worth of samples from the chain of custody. All other samples are present and match the Chain of Custody.

We received the missing samples on 6/20/2023 @1000. The samples are intact and match the Chain of Custody. The Temperature for the cooler was 24.8°C and received with no temp blank or ice.
NOTE: The Lab Sample ID's will reflect a received date of when the initial samples were received which will be 6/19/2023 @1000.
Called and spoke with Ms.Anita and informed her we received the samples.

# Work Order Receipt Checklist - Continued

## Rio Grande Resources Corporation C23060688

Temperature Blank temperature for Cooler 1 was 19.0°C and Cooler 2 was 18.9°C.

6/19/23 DR

ENERGY LABORATORIES
Trust our People. Trust our Data.

# Chain of Custody & Analytical Request Record

www.energylab.com



## Account Information *(Billing information)*

| | |
|---|---|
| Company/Name | Rio Grande Resources Corporation |
| Contact | Anita Willcox |
| Phone | 505-287-7971 |
| Mailing Address | PO Box 1150 |
| City, State, Zip | Grants, NM 87020 |
| Email | anita.willcox@ga.com |
| Receive Invoice | ☐Hard Copy ▣Email |
| Receive Report | ☐Hard Copy ☐Email |
| Purchase Order | MT11572 |
| Quote | 16056 |
| Bottle Order | |

## Report Information *(if different than Account Information)*

| | |
|---|---|
| Company/Name | Rio Grande Resources Corporation |
| Contact | Bruce Norquist |
| Phone | 505-287-7971 |
| Mailing Address | PO Box 1150 |
| City, State, Zip | Grants, NM 87020 |
| Email | bruce.norquist@ga.com |
| Receive Report | ▣Hard Copy ▣Email |

Special Report/Formats:
☐ LEVEL IV ☐NELAC ☐ EDD/EDT *(contact laboratory)* ☐ Other_____

## Comments

## Project Information

| | |
|---|---|
| Project Name, PWSID, Permit, etc. | MTM Subsurface soil investigation |
| Sampler Name | Victor Patel |
| Sampler Phone | 505-287-7971 |
| Sample Origin State | New Mexico |
| EPA/State Compliance | ☐ Yes ▣ No |

**URANIUM MINING CLIENTS MUST indicate sample type**
▣ Unprocessed Ore
☐ Processed Ore (Ground or Refined) **CALL BEFORE SENDING
☐ 11(e)2 Byproduct Material (Can ONLY be Submitted to ELI Casper Location)

**Matrix Codes**
A - Air
W - Water
S - Soils/ Solids
V - Vegetation
B - Bioassay
O - Oil
DW - Drinking Water

**Analysis Requested**

All turnaround times are standard unless marked as RUSH.
Energy Laboratories MUST be contacted prior to RUSH sample submittal for charges and scheduling – See Instructions Page

| | Sample Identification (Name, Location, Interval, etc.) | Collection Date | Collection Time | Number of Containers | Matrix (See Codes Above) | EPA 901.1 Modified for Soil | See Attached | RUSH TAT | ELI LAB ID (Laboratory Use Only) |
|---|---|---|---|---|---|---|---|---|---|
| 1 | WBSB-02 0-6" | 05/17/2023 | 8:15 am | 1 | S | ✓ | | | |
| 2 | WBSB-04 0-6' | 05/17/2023 | 8:35 am | 1 | S | ✓ | | | |
| 3 | WBSB-01 0-6' | 05/17/2023 | 8:55 am | 1 | S | ✓ | | | |
| 4 | WBSB-05 0-6" | 05/17/2023 | 9:20 am | 1 | S | ✓ | | | |
| 5 | WBSB-03 0-6" | 05/17/2023 | 9:42 am | 1 | S | ✓ | | | |
| 6 | WBSB-07 0-6" | 05/17/2023 | 10:14 am | 1 | S | ✓ | | | |
| 7 | WBSB-08 0-6" | 05/17/2023 | 10:34 am | 1 | S | ✓ | | | |
| 8 | WBSB-08 1'-1.5' | 05/17/2023 | 10:42 am | 1 | S | ✓ | | | |
| 9 | WBSB-06 0-6" | 05/17/2023 | 10:54 am | 1 | S | ✓ | | | |

**ELI is REQUIRED to provide preservative traceability.** If the preservatives supplied with the bottle order were **NOT** used, please attach your preservative information with this COC.

| Custody Record MUST be signed | Relinquished by (print) | Date/Time | Signature | Received by (print) | Date/Time | Signature |
|---|---|---|---|---|---|---|
| | Bruce L. Norquist | 6/14/23 | Bruce L. Norquist | | 6/19/23 | |
| | Relinquished by (print) | Date/Time | Signature | Received by Laboratory (print) | Date/Time | Signature |
| | | | | Shelby Richins | 1005 | |

**LABORATORY USE ONLY**

| Shipped By | Cooler ID(s) | Custody Seals Y N C B | Intact Y N | Receipt Temp °C | Temp Blank Y N | On Ice Y N | Payment Type CC Cash Check_____ | Amount $ | Receipt Number *(cash/check only)* |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested.
This serves as notice of this possibility. All subcontracted data will be clearly notated on your analytical report.

# Chain of Custody & Analytical Request Record

ENERGY LABORATORIES — Trust our People. Trust our Data.

www.energylab.com



## Account Information *(Billing information)*

| | |
|---|---|
| Company/Name | Rio Grande Resources Corporation |
| Contact | Anita Willcox |
| Phone | 505-287-7971 |
| Mailing Address | PO Box 1150 |
| City, State, Zip | Grants, NM 87020 |
| Email | anita.willcox@ga.com |
| Receive Invoice | ☐Hard Copy ☒Email |
| Receive Report | ☐Hard Copy ☐Email |
| Purchase Order | MT11572 |
| Quote | 16056 |
| Bottle Order | |

## Report Information *(if different than Account Information)*

| | |
|---|---|
| Company/Name | Rio Grande Resources Corporation |
| Contact | Bruce Norquist |
| Phone | 505-287-7971 |
| Mailing Address | PO Box 1150 |
| City, State, Zip | Grants, NM 87020 |
| Email | bruce.norquist@ga.com |
| Receive Report | ☒Hard Copy ☒Email |
| Special Report/Formats: | ☐ LEVEL IV ☐NELAC ☐ EDD/EDT *(contact laboratory)* ☐ Other_____ |

## Comments

## Project Information

| | |
|---|---|
| Project Name, PWSID, Permit, etc. | MTM Subsurface soil investigation |
| Sampler Name | Victor Patel |
| Sampler Phone | 505-287-7971 |
| Sample Origin State | New Mexico |
| EPA/State Compliance | ☐ Yes ☒ No |

**URANIUM MINING CLIENTS MUST indicate sample type**
- ☒ Unprocessed Ore
- ☐ Processed Ore (Ground or Refined) **CALL BEFORE SENDING
- ☐ 11(e)2 Byproduct Material (Can ONLY be Submitted to ELI Casper Location)

**Matrix Codes**

A - Air; W- Water; S - Soils/ Solids; V - Vegetation; B - Bioassay; O - Oil; DW - Drinking Water

All turnaround times are standard unless marked as RUSH.

Energy Laboratories MUST be contacted prior to RUSH sample submittal for charges and scheduling – See Instructions Page

| | Sample Identification *(Name, Location, Interval, etc.)* | Collection Date | Collection Time | Number of Containers | Matrix *(See Codes Above)* | EPA 901.1 Modified for Soil | See Attached | RUSH TAT | ELI LAB ID *Laboratory Use Only* |
|---|---|---|---|---|---|---|---|---|---|
| 1 | DSSB-01 | 05/17/2023 | 12:00 pm | 1 | S | ✓ | | | |
| 2 | MCSB-16 1' | 05/18/2023 | 10:45 am | 1 | S | ✓ | | | |
| 3 | MCSB-16 2' | 05/18/2023 | 11:00 am | 1 | S | ✓ | | | |
| 4 | MCSB-15 1' | 05/18/2023 | 11:38 am | 1 | S | ✓ | | | |
| 5 | MCSB-17 1' | 05/18/2023 | 8:45 am | 1 | S | ✓ | | | |
| 6 | MCSB-18 1'-1.5' | 05/18/2023 | 9:48 am | 1 | S | ✓ | | | |
| 7 | DSSB-02 | 05/18/2023 | 1:00 pm | 1 | S | ✓ | | | |
| 8 | MCSB-11 4' | 05/22/2023 | 11:04 am | 1 | S | ✓ | | | |
| 9 | MCSB-13 1' | 05/22/2023 | 8:25 am | 1 | S | ✓ | | | |

**ELI is REQUIRED to provide preservative traceability.** If the preservatives supplied with the bottle order were **NOT** used, please attach your preservative information with this COC.

| Custody Record MUST be signed | | | | | | | |
|---|---|---|---|---|---|---|---|
| Relinquished by (print) | Bruce L. Norquist | Date/Time | 6/14/23 | Signature | Bruce L. Norquist | Received by (print) | Date/Time 6/19/23 | Signature |
| Relinquished by (print) | | Date/Time | | Signature | | Received by Laboratory (print) Shelby Richins | Date/Time 1000 | Signature |

**LABORATORY USE ONLY**

| Shipped By | Cooler ID(s) | Custody Seals Y N C B | Intact Y N | Receipt Temp °C | Temp Blank Y N | On Ice Y N | Payment Type CC Cash Check_____ | Amount $ | Receipt Number *(cash/check only)* |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All subcontracted data will be clearly notated on your analytical report.

ENERGY LABORATORIES
Trust our People. Trust our Data.

# Chain of Custody & Analytical Request Record

www.energylab.com



## Account Information *(Billing information)*

| | |
|---|---|
| Company/Name | Rio Grande Resources Corporation |
| Contact | Anita Willcox |
| Phone | 505-287-7971 |
| Mailing Address | PO Box 1150 |
| City, State, Zip | Grants, NM 87020 |
| Email | anita.willcox@ga.com |
| Receive Invoice | ☐Hard Copy ☒Email |
| Receive Report | ☐Hard Copy ☐Email |
| Purchase Order | MT11572 |
| Quote | 16056 |
| Bottle Order | |

## Report Information *(if different than Account Information)*

| | |
|---|---|
| Company/Name | Rio Grande Resources Corporation |
| Contact | Bruce Norquist |
| Phone | 505-287-7971 |
| Mailing Address | PO Box 1150 |
| City, State, Zip | Grants, NM 87020 |
| Email | bruce.norquist@ga.com |
| Receive Report | ☒Hard Copy ☒Email |
| Special Report/Formats: | ☐ LEVEL IV ☐NELAC ☐ EDD/EDT *(contact laboratory)* ☐ Other_____ |

## Comments

## Project Information

| | |
|---|---|
| Project Name, PWSID, Permit, etc. | MTM Subsurface soil investigation |
| Sampler Name | Victor Patel |
| Sampler Phone | 505-287-7971 |
| Sample Origin State | New Mexico |
| EPA/State Compliance | ☐ Yes ☒ No |

**URANIUM MINING CLIENTS MUST indicate sample type**
☒ Unprocessed Ore
☐ Processed Ore (Ground or Refined) **CALL BEFORE SENDING
☐ 11(e)2 Byproduct Material (Can ONLY be Submitted to ELI Casper Location)

**Matrix Codes**
A - Air
W - Water
S - Soils/Solids
V - Vegetation
B - Bioassay
O - Oil
DW - Drinking Water

All turnaround times are standard unless marked as RUSH.
Energy Laboratories MUST be contacted prior to RUSH sample submittal for charges and scheduling – See Instructions Page

| | Sample Identification *(Name, Location, Interval, etc.)* | Collection Date | Collection Time | Number of Containers | Matrix *(See Codes Above)* | EPA 901.1 Modified for Soil | See Attached | RUSH TAT | ELI LAB ID *Laboratory Use Only* |
|---|---|---|---|---|---|---|---|---|---|
| 1 | MCSB-12 1' | 05/22/2023 | 9:28 am | 1 | S | ✓ | | | C23060688 |
| 2 | MCSB-11 5' | 05/22/2023 | 11:12 am | 1 | S | ✓ | | | |
| 3 | MCSB-14 1' | 05/23/2023 | 8:53 am | 1 | S | ✓ | | | |
| 4 | MCSB-08 5' | 05/23/2023 | 11:10 am | 1 | S | ✓ | | | |
| 5 | MCSB-08 6.5' | 05/23/2023 | 11:25 am | 1 | S | ✓ | | | |
| 6 | MCSB-9 1' | 05/24/2023 | 8:25 am | 1 | S | ✓ | | | |
| 7 | MCSB-9 2' | 05/24/2023 | 8:40 am | 1 | S | ✓ | | | |
| 8 | MCSB-10 1' | 05/24/2023 | 9:15 am | 1 | S | ✓ | | | |
| 9 | MCSB-5 4' | 05/24/2023 | 10:40 am | 1 | S | ✓ | | | |

**ELI is REQUIRED to provide preservative traceability.** If the preservatives supplied with the bottle order were **NOT** used, please attach your preservative information with this COC.

| Custody Record MUST be signed | Relinquished by (print) | Date/Time | Signature | Received by (print) | Date/Time | Signature |
|---|---|---|---|---|---|---|
| | Bruce L. Norquist | 6/14/23 | Bruce L. Norquist | | 6/19/23 | |
| | Relinquished by (print) | Date/Time | Signature | Received by Laboratory (print) | Date/Time | Signature |
| | | | | Shelby Richins | 1000 | |

**LABORATORY USE ONLY**

| Shipped By | Cooler ID(s) | Custody Seals Y N C B | Intact Y N | Receipt Temp °C | Temp Blank Y N | On Ice Y N | Payment Type CC Cash Check_____ | Amount $ | Receipt Number *(cash/check only)* |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All subcontracted data will be clearly notated on your analytical report.

ENERGY LABORATORIES
Trust our People. Trust our Data.

# Chain of Custody & Analytical Request Record

www.energylab.com



## Account Information *(Billing information)*

| | |
|---|---|
| Company/Name | Rio Grande Resources Corporation |
| Contact | Anita Willcox |
| Phone | 505-287-7971 |
| Mailing Address | PO Box 1150 |
| City, State, Zip | Grants, NM 87020 |
| Email | anita.willcox@ga.com |
| Receive Invoice | ☐Hard Copy ▣Email |
| Receive Report | ☐Hard Copy ☐Email |
| Purchase Order | MT11572 |
| Quote | 16056 |
| Bottle Order | |

## Report Information *(if different than Account Information)*

| | |
|---|---|
| Company/Name | Rio Grande Resources Corporation |
| Contact | Bruce Norquist |
| Phone | 505-287-7971 |
| Mailing Address | PO Box 1150 |
| City, State, Zip | Grants, NM 87020 |
| Email | bruce.norquist@ga.com |
| Receive Report | ▣Hard Copy ▣Email |

Special Report/Formats:
☐ LEVEL IV ☐NELAC ☐ EDD/EDT *(contact laboratory)* ☐ Other_____

## Comments

## Project Information

| | |
|---|---|
| Project Name, PWSID, Permit, etc. | MTM Subsurface soil investigation |
| Sampler Name | Victor Patel |
| Sampler Phone | 505-287-7971 |
| Sample Origin State | New Mexico |
| EPA/State Compliance | ☐ Yes ▣ No |

**URANIUM MINING CLIENTS MUST indicate sample type**
▣ Unprocessed Ore
☐ Processed Ore (Ground or Refined) **CALL BEFORE SENDING
☐ 11(e)2 Byproduct Material (Can ONLY be Submitted to ELI Casper Location)

**Matrix Codes**
A - Air
W - Water
S - Soils/Solids
V - Vegetation
B - Bioassay
O - Oil
DW - Drinking Water

All turnaround times are standard unless marked as RUSH.
Energy Laboratories MUST be contacted prior to RUSH sample submittal for charges and scheduling – See Instructions Page

| | Sample Identification *(Name, Location, Interval, etc.)* | Collection Date | Collection Time | Number of Containers | Matrix *(See Codes Above)* | EPA 901.1 Modified for Soil | See Attached | RUSH TAT | ELI LAB ID *Laboratory Use Only* |
|---|---|---|---|---|---|---|---|---|---|
| 1 | MCSB-5 6' | 05/24/2023 | 11:00 am | 1 | S | ✓ | | | C23060688-1 |
| 2 | MCSB-5 7.5' | 05/24/2023 | 11:10 am | 1 | S | ✓ | | | -2 |
| 3 | MCSB-7 3' | 05/24/2023 | 12:46 pm | 1 | S | ✓ | | | -3 |
| 4 | MCSB-7 4.5' | 05/24/2023 | 1:00 pm | 1 | S | ✓ | | | -4 |
| 5 | DSSB-03 | 05/24/2023 | 1:30 pm | 1 | S | ✓ | | | -5 |
| 6 | MCSB-06 6' | 05/30/2023 | 9:15 am | 1 | S | ✓ | | | -6 |
| 7 | MCSB-04 1' | 05/30/2023 | 9:35 am | 1 | S | ✓ | | | -7 |
| 8 | MCSB-04 2' | 05/30/2023 | 9:45 am | 1 | S | ✓ | | | -8 |
| 9 | MCSB-02 3' | 05/30/2023 | 10:50 am | 1 | S | ✓ | | | -9 |

**ELI is REQUIRED to provide preservative traceability.** If the preservatives supplied with the bottle order were **NOT** used, please attach your preservative information with this COC.

| Custody Record MUST be signed | Relinquished by (print) | Date/Time | Signature | Received by (print) | Date/Time | Signature |
|---|---|---|---|---|---|---|
| | Bruce L. Norquist | 6/14/23 | Bruce L. Norquist | | 6/19/23 | |
| | Relinquished by (print) | Date/Time | Signature | Received by Laboratory (print) | Date/Time | Signature |
| | | | | Shelby Richins | 1000 | |

**LABORATORY USE ONLY**

| Shipped By | Cooler ID(s) | Custody Seals Y N C B | Intact Y N | Receipt Temp °C | Temp Blank Y N | On Ice Y N | Payment Type CC Cash Check_____ | Amount $ | Receipt Number *(cash/check only)* |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested.
This serves as notice of this possibility. All subcontracted data will be clearly notated on your analytical report.

ENERGY LABORATORIES
Trust our People. Trust our Data.

# Chain of Custody & Analytical Request Record

www.energylab.com



## Account Information *(Billing information)*

| | |
|---|---|
| Company/Name | Rio Grande Resources Corporation |
| Contact | Anita Willcox |
| Phone | 505-287-7971 |
| Mailing Address | PO Box 1150 |
| City, State, Zip | Grants, NM 87020 |
| Email | anita.willcox@ga.com |
| Receive Invoice | ☐Hard Copy ☒Email |
| Receive Report | ☐Hard Copy ☐Email |
| Purchase Order | MT11572 |
| Quote | 16056 |
| Bottle Order | |

## Report Information *(if different than Account Information)*

| | |
|---|---|
| Company/Name | Rio Grande Resources Corporation |
| Contact | Bruce Norquist |
| Phone | 505-287-7971 |
| Mailing Address | PO Box 1150 |
| City, State, Zip | Grants, NM 87020 |
| Email | bruce.norquist@ga.com |
| Receive Report | ☒Hard Copy ☒Email |
| Special Report/Formats: | ☐ LEVEL IV ☐NELAC ☐ EDD/EDT *(contact laboratory)* ☐ Other_____ |

## Comments

## Project Information

| | |
|---|---|
| Project Name, PWSID, Permit, etc. | MTM Subsurface soil investigation |
| Sampler Name | Victor Patel |
| Sampler Phone | 505-287-7971 |
| Sample Origin State | New Mexico |
| EPA/State Compliance | ☐ Yes ☒ No |

**URANIUM MINING CLIENTS MUST indicate sample type**
☒ Unprocessed Ore
☐ Processed Ore (Ground or Refined) **CALL BEFORE SENDING
☐ 11(e)2 Byproduct Material (Can ONLY be Submitted to ELI Casper Location)

**Matrix Codes**
A - Air
W - Water
S - Soils/Solids
V - Vegetation
B - Bioassay
O - Oil
DW - Drinking Water

All turnaround times are standard unless marked as RUSH.
Energy Laboratories MUST be contacted prior to RUSH sample submittal for charges and scheduling – See Instructions Page

| | Sample Identification *(Name, Location, Interval, etc.)* | Collection Date | Collection Time | Number of Containers | Matrix *(See Codes Above)* | EPA 901.1 Modified for Soil | See Attached | RUSH TAT | ELI LAB ID *Laboratory Use Only* |
|---|---|---|---|---|---|---|---|---|---|
| 1 | MCSB-02 4' | 05/30/2023 | 11:00 am | 1 | S | ✓ | | | |
| 2 | MCSB-02 5.2' | 05/30/2023 | 11:15 am | 1 | S | ✓ | | | |
| 3 | MCSB-01 2' | 05/30/2023 | 12:50 pm | 1 | S | ✓ | | | |
| 4 | MCSB-01 3' | 05/30/2023 | 1:00 pm | 1 | S | ✓ | | | |
| 5 | MCSB-03 1' | 05/30/2023 | 1:40 pm | 1 | S | ✓ | | | |
| 6 | MCSB-03 2' | 05/30/2023 | 1:50 pm | 1 | S | ✓ | | | |
| 7 | DSSB-04 | 05/30/2023 | 2:15 pm | 1 | S | ✓ | | | |
| 8 | WBSB-09 0-6" | 05/31/2023 | 8:25 am | 1 | S | ✓ | | | |
| 9 | WBSB-12 0-1" | 05/31/2023 | 8:50 am | 1 | S | ✓ | | | |

**ELI is REQUIRED to provide preservative traceability.** If the preservatives supplied with the bottle order were **NOT** used, please attach your preservative information with this COC.

| Custody Record MUST be signed | Relinquished by (print) | Date/Time | Signature | Received by (print) | Date/Time | Signature |
|---|---|---|---|---|---|---|
| | Bruce L. Norquist | 6/14/23 | Bruce L. Norquist | | 6/19/23 | |
| | Relinquished by (print) | Date/Time | Signature | Received by Laboratory (print) | Date/Time | Signature |
| | | | | Brett Richins | 1020 | |

**LABORATORY USE ONLY**

| Shipped By | Cooler ID(s) | Custody Seals Y N C B | Intact Y N | Receipt Temp °C | Temp Blank Y N | On Ice Y N | Payment Type CC Cash Check_____ | Amount $ | Receipt Number *(cash/check only)* |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All subcontracted data will be clearly notated on your analytical report.

ENERGY LABORATORIES
Trust our People. Trust our Data.

# Chain of Custody & Analytical Request Record

www.energylab.com



## Account Information (Billing information)

| | |
|---|---|
| Company/Name | Rio Grande Resources Corporation |
| Contact | Anita Willcox |
| Phone | 505-287-7971 |
| Mailing Address | PO Box 1150 |
| City, State, Zip | Grants, NM 87020 |
| Email | anita.willcox@ga.com |
| Receive Invoice | ☐Hard Copy ☒Email |
| Receive Report | ☐Hard Copy ☐Email |
| Purchase Order | MT11572 |
| Quote | 16056 |
| Bottle Order | |

## Report Information (if different than Account Information)

| | |
|---|---|
| Company/Name | Rio Grande Resources Corporation |
| Contact | Bruce Norquist |
| Phone | 505-287-7971 |
| Mailing Address | PO Box 1150 |
| City, State, Zip | Grants, NM 87020 |
| Email | bruce.norquist@ga.com |
| Receive Report | ☒Hard Copy ☒Email |
| Special Report/Formats: | ☐ LEVEL IV ☐NELAC ☐ EDD/EDT (contact laboratory) ☐ Other_____ |

## Comments

## Project Information

| | |
|---|---|
| Project Name, PWSID, Permit, etc. | MTM Subsurface soil investigation |
| Sampler Name | Victor Patel |
| Sampler Phone | 505-287-7971 |
| Sample Origin State | New Mexico |
| EPA/State Compliance | ☐ Yes ☒ No |

**URANIUM MINING CLIENTS MUST indicate sample type**
☒ Unprocessed Ore
☐ Processed Ore (Ground or Refined) **CALL BEFORE SENDING
☐ 11(e)2 Byproduct Material (Can ONLY be Submitted to ELI Casper Location)

**Matrix Codes**
A - Air
W - Water
S - Soils/Solids
V - Vegetation
B - Bioassay
O - Oil
DW - Drinking Water

All turnaround times are standard unless marked as RUSH.
Energy Laboratories MUST be contacted prior to RUSH sample submittal for charges and scheduling – See Instructions Page

| | Sample Identification (Name, Location, Interval, etc.) | Collection Date | Collection Time | Number of Containers | Matrix (See Codes Above) | EPA 901.1 Modified for Soil | See Attached | RUSH TAT | ELI LAB ID (Laboratory Use Only) |
|---|---|---|---|---|---|---|---|---|---|
| 1 | WBSB-12 2-6" | 05/31/2023 | 9:00 am | 1 | S | ✓ | | | |
| 2 | WBSB-10 0-6" | 05/31/2023 | 9:10 am | 1 | S | ✓ | | | |
| 3 | WBSB-11 0-6" | 05/31/2023 | 9:35 am | 1 | S | ✓ | | | |
| 4 | OPSB-03 4.2' | 06/01/2023 | 9:10 am | 1 | S | ✓ | | | |
| 5 | OPSB-03 4.5' | 06/01/2023 | 9:25 am | 1 | S | ✓ | | | |
| 6 | OPSB-02 5.5' | 06/01/2023 | 11:20 am | 1 | S | ✓ | | | |
| 7 | OPSB-05 3.75' | 06/01/2023 | 11:55 am | 1 | S | ✓ | | | |
| 8 | DSSB-05 | 06/01/2023 | 12:30 pm | 1 | S | ✓ | | | |
| 9 | | | | | | | | | |

**ELI is REQUIRED to provide preservative traceability.** If the preservatives supplied with the bottle order were **NOT** used, please attach your preservative information with this COC.

| Custody Record MUST be signed | Relinquished by (print) | Date/Time | Signature | Received by (print) | Date/Time | Signature |
|---|---|---|---|---|---|---|
| | Bruce L. Norquist | 6/14/23 | Bruce L Norquist | | 6/19/23 | |
| | Relinquished by (print) | Date/Time | Signature | Received by Laboratory (print) | Date/Time | Signature |
| | | | | Shelby Nichols | 1000 | |

**LABORATORY USE ONLY**

| Shipped By | Cooler ID(s) | Custody Seals Y N C B | Intact Y N | Receipt Temp °C | Temp Blank Y N | On Ice Y N | Payment Type CC Cash Check_____ | Amount $ | Receipt Number (cash/check only) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All subcontracted data will be clearly notated on your analytical report.

# Appendix C

## Radiologic Instrument Calibration and Operational Function Check and Collimated Detector Correlation Documentation

**AVM Environmental Services, Inc.**
**Ludlum SCA L2221 - 44-20 3x3 NaI Detector Function Check**
**559 - 659 KeV Gamma Radiation Soil Screening**

L2221 #290801

Function Check Source ID: 1% $U_3O_8$ Ore in Sealed can

Ludlum 44-20 3x3 NaI Detector, #PR295573

Acceptable background Count (cpm) Range (20%) 53 to 79

Acceptable Source Count (cpm) Range (20%) 12557 to 18835

| Date | Physical Check | Cal Date | Battery(1) Volts or OK | HV Volts | Threshhold mV (2) | Window mV | Window In/Out | BKG Counts cpm | Source Counrts cpm | Within Acceptable Range Y or N | MDC pCi/gm | Tech |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5-17-23 | ✓ | 5-10-23 | ✓ | 577 | 559 | 100 | in | 70 | 16805 | Y | — | VP |
| 5-18-23 | ✓ | 5-10-23 | ✓ | 578 | 559 | 100 | in | 66 | 16200 | Y | — | VP |
| 5-22-23 | ✓ | 5-10-23 | ✓ | 582 | 559 | 100 | in | 68 | 15900 | Y | — | VP |
| 5-23-23 | ✓ | 5-10-23 | ✓ | 582 | 559 | 100 | in | 71 | 15508 | Y | — | VP |
| 5-25-23 | ✓ | 5-10-23 | ✓ | 578 | 559 | 100 | in | 73 | 16253 | Y | — | VP |
| 5-30-23 | ✓ | 5-10-23 | ✓ | 577 | 559 | 100 | in | 72 | 16101 | Y | — | VP |
| 5-31-23 | ✓ | 5-10-23 | ✓ | 575 | 559 | 100 | in | 64 | 15789 | Y | | VP |
| 6-1-23 | ✓ | 5-10-23 | ✓ | 577 | 559 | 100 | in | 71 | 16224 | Y | — | VP |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

Note: (1) Battery Voltage for Ludlum 2221 must be >5.3 volts; (2) Threshhold must be at 220 mV; (3) Window @ 440, must be IN

**AVM Environmental Services, Inc**
**Scaler/Ratemeter - HP-210L Detector Function Check**

Scaler/Ratemeter ID: LIZ S#274216

HP-210L Detector ID: ANA-1

Function Check Source ID: 1% $U_3O_8$ Ore in Sealed can

Acceptable background Count (cpm) Range (20%) 34 to 50

Acceptable Source Count (cpm) Range (20%) 2880 to 4320

| Date | Physical Check | Cal date | Battery Volts or OK | HV Volts | BKG Counts cpm | Source Counrts cpm | Within Acceptable Range Y or N | Comments | Tech |
|---|---|---|---|---|---|---|---|---|---|
| 10-7-22 | ✓ | 10-7-22 | ok | .9 | 40 | 3700 | y | @ AVM office | VP |
| 1-4-23 | ✓ | 10-7-22 | ok | .9 | 45 | 3600 | y | @ AVM office | VP |
| 4-5-23 | ✓ | 10-7-22 | ok | .9 | 40 | 3600 | y | @ AVM office | VP |
| 4-11-23 | ✓ | 10-7-22 | ok | .9 | 40 | 3600 | y | @ AVM office | VP |
| 4-12-23 | ✓ | 10-7-22 | ok | .9 | 40 | 3600 | y | @ AVM office | VP |
| 4-13-23 | ✓ | 10-7-22 | ok | .9 | 40 | 3600 | y | @ AVM office | VP |
| 4-20-23 | ✓ | 10-7-22 | ok | .9 | 40 | 3600 | y | @ AVM office | VP |
| 5-9-23 | ✓ | 10-7-22 | ok | .9 | 40 | 3600 | y | @ AVM office | VP |
| 5-16-23 | ✓ | 10-7-22 | ok | .9 | 40 | 3400 | y | @ AVM office | VP |
| 5-17-23 | ✓ | 10-7-22 | ok | .9 | 40 | 3300 | y | @ AVM office | VP |
| 5-18-23 | ✓ | 10-7-22 | ok | .9 | 40 | 3400 | y | @ AVM office | VP |
| 5-22-23 | ✓ | 10-7-22 | ok | .9 | 40 | 3300 | y | @ AVM office | VP |
| 5-23-23 | ✓ | 10-7-22 | ok | .9 | 40 | 3400 | y | @ AVM office | VP |
| 5-24-23 | ✓ | 10-7-22 | ok | .9 | 40 | 3600 | y | @ AVM office | VP |
| 5-25-23 | ✓ | 10-7-22 | ok | .9 | 40 | 3400 | y | @ AVM office | VP |
| 5-30-23 | ✓ | 10-7-22 | ok | .9 | 45 | 3600 | y | @ AVM office | VP |
| 5-31-23 | ✓ | 10-7-22 | ok | .9 | 40 | 3300 | y | @ AVM office | VP |
| 6-1-23 | ✓ | 10-7-22 | ok | .9 | 40 | 3400 | y | @ AVM office | VP |

Note: (1) Threshhold must be at 100 mV;

**AVM Environmental Services, Inc.**
**Scaler/Ratemeter - 2" x 2" NaI Detector Function Check**

Function Check Source ID: 1% $U_3O_8$ Ore in Sealed can

2" x 2" NaI Detector ID: SPA-3 S# 408522-30

Acceptable background Count (cpm) Range (20%) 6391 to 9587 (Bare)

Acceptable background Count (cpm) Range (20%) 2546 to 3820 (collimated)

Acceptable Source Count (cpm) Range (20%) 77687 to 116531

| Date | Scaler/Ratemeter | Physical Check | Cal Due | Battery[1] Volts or OK | HV Volts | THR mV[2] | Window In or OUT[3] | C.C.[4] | BKG Counts cpm | Source Counrts cpm | Within Acceptable Range Y or N | MDC pCi/gm | Tech |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2-1-23 | L2221 S# 290801 | ✓ | 10-7-23 | ok | 900 | 10 | out | 1 | 7989 Bare / 3183 Coll. | 97109 | Y | – | VP |
| 4-5-23 | L2221 S# 68782 | ✓ | 10-7-23 | ok | 900 | 10 | out | 1 | 7621 Bare / 2949 Coll. | 99478 | Y | – | VP |
| 4-11-23 | L2221 S# 68782 | ✓ | 10-7-23 | ok | 900 | 10 | out | 1 | 7822 Bare / 3044 Coll. | 99630 | Y | – | VP |
| 4-12-23 | L2221 S# 68782 | ✓ | 10-7-23 | ok | 900 | 10 | out | 1 | 7947 Bare / 3122 Coll. | 98687 | Y | – | VP |
| 4-13-23 | L2221 S# 68782 | ✓ | 10-7-23 | ok | 900 | 10 | out | 1 | 7894 Bare / 3150 Coll. | 99731 | Y | – | VP |
| 4-20-23 | L2221 S# 68782 | ✓ | 10-7-23 | ok | 900 | 10 | out | 1 | 7850 Bare / 2987 Coll. | 99214 | Y | – | VP |
| 5-16-23 | L2221 S# 68782 | ✓ | 10-7-23 | ok | 900 | 10 | out | 1 | 7714 Bare / 3018 Coll. | 97431 | Y | – | VP |
| 5-17-23 | L2241-2 S# 287029 | ✓ | 10-7-23 | ok | 900 | 10 | N/A | 1 | 7914 Bare / 3002 Coll. | 99331 | Y | – | VP |
| 5-18-23 | L2241-2 S# 287029 | ✓ | 10-7-23 | ok | 900 | 10 | N/A | 1 | 7842 Bare / 3118 Coll. | 98522 | Y | – | VP |
| 5-22-23 | L2241-2 S# 287029 | ✓ | 10-7-23 | ok | 900 | 10 | N/A | 1 | VP 7644 3108 Bare / 7644 Coll. | 97555 | Y | – | VP |
| 5-23-23 | L2241-2 S# 287029 | ✓ | 10-7-23 | ok | 900 | 10 | N/A | 1 | 7912 Bare / 2974 Coll. | 98782 | Y | – | VP |
| 5-24-23 | L2241-2 S# 287029 | ✓ | 10-7-23 | ok | 900 | 10 | N/A | 1 | 8086 Bare / 3157 Coll. | 98949 | Y | – | VP |
| 5-30-23 | L2241-2 S# 287029 | ✓ | 10-7-23 | ok | 900 | 10 | N/A | 1 | 7814 Bare / 3160 Coll. | 97901 | Y | – | VP |
| 5-31-23 | L2241-2 S# 287029 | ✓ | 10-7-23 | ok | 900 | 10 | N/A | 1 | 7833 Bare / 3022 Coll. | 98634 | Y | – | VP |
| 6-1-23 | L2241-2 S# 287029 | ✓ | 10-7-23 | ok | 900 | 10 | N/A | 1 | 7882 Bare / 3018 Coll. | 97601 | Y | – | VP |
| 6-7-23 | L2241-2 S# 287029 | ✓ | 10-7-23 | ok | 900 | 10 | N/A | 1 | 7942 Bare / 3001 Coll. | 98441 | Y | – | VP |

Note: (1) Battery Voltage for Ludlum 2221 must be >5.3 volts; (2) Threshhold must be at 10.0 mV; (3) Window Position must be OUT; (4) CC on L2241-2 set at 0.001
For L2241-2 Check HV and Threshold using Ludlum 500 pulser.

**AVM Environmental Services, Inc.**
**Micro R Meter Function Check Form**

Micro R Meter: Ludlum 19, SR#76248

Function Check Source ID: 1% $U_3O_8$ Ore in Sealed can

Function Check @ Calibration 115

Acceptable Function Check Reading (uR/hr) Range (20%) 92 to 138

| Date | Physical Check | Cal Date | Battery(1) Volts or OK | BKG Reading uR/hr | Source Reading (2) uR/hr | Within Acceptable Range Y or N | Cal Due | Tech |
|---|---|---|---|---|---|---|---|---|
| 10-17-22 | ✓ | 10-6-22 | ok | 10-12 | 110 | y | 10-6-23 | VP |
| 1-4-23 | ✓ | 10-6-22 | ok | 8-10 | 120 | y | 10-6-23 | VP |
| 4-5-23 | ✓ | 10-6-22 | ok | 8-10 | 110 | y | 10-6-23 | VP |
| 4-11-23 | ✓ | 10-6-22 | ok | 8-10 | 110 | y | 10-6-23 | VP |
| 4-12-23 | ✓ | 10-6-22 | ok | 8-10 | 110 | y | 10-6-23 | VP |
| 4-13-23 | ✓ | 10-6-22 | ok | 8-10 | 110 | y | 10-6-23 | VP |
| 4-20-23 | ✓ | 10-6-22 | ok | 8-10 | 110 | y | 10-6-23 | VP |
| 5-9-23 | ✓ | 10-6-22 | ok | 8-10 | 110 | y | 10-6-23 | VP |
| 5-16-23 | ✓ | 10-6-22 | ok | 8-10 | 110 | y | 10-6-23 | VP |
| 5-17-23 | ✓ | 10-6-22 | ok | 8-10 | 110 | y | 10-6-23 | VP |
| 5-18-23 | ✓ | 10-6-22 | ok | 8-10 | 110 | y | 10-6-23 | VP |
| 5-22-23 | ✓ | 10-6-22 | ok | 10-12 | 100 | y | 10-6-23 | VP |
| 5-23-23 | ✓ | 10-6-22 | ok | 8-10 | 100 | y | 10-6-23 | VP |
| 5-24-23 | ✓ | 10-6-22 | ok | 8-10 | 110 | y | 10-6-23 | VP |
| 5-25-23 | ✓ | 10-6-22 | ok | 10-12 | 110 | y | 10-6-23 | VP |
| 5-30-23 | ✓ | 10-6-22 | ok | 8-10 | 100 | y | 10-6-23 | VP |
| 5-31-23 | ✓ | 10-6-22 | ok | 8-10 | 100 | y | 10-6-23 | VP |
| 6-1-23 | ✓ | 10-6-22 | ok | 8-10 | 110 | y | 10-6-23 | VP |

**Note: (1) Battery Voltage must be within BAT TEST Range (2) Function Check Source must be placed in the circle on the front side of the meter**

**AVM Environmental Services Inc.**

**Scaler/Ratemeter Calibration Form**

Model : L2221 S/N: 68782

Reference Instrument/Source: Ludlum Pulser 500, S/N:114513

**HV Calibration**

HV Readout (2 points): Ref/Inst 600 / 600 Ref/Inst 900 / 900

**Ratemeter Calibration**

Instrument Threshold @ 100 (10 mV), WIN: Out, HV 900VDC; Pulser Threshold @ 200 (20mV)

| Range/Mode | Range Multiplier | Calibration Point (Pulser Setting) cpm x multiplier | Target CPM (±5%) | As Found Reading | | Left or Set Reading |
|---|---|---|---|---|---|---|
| Ratemeter | x1 | 40x1 | 38-42 | 40 | | 40 |
| | x1 | 40x10 | 380-420 | 400 | | 400 |
| | x10 | 40x100 | 3800-4200 | 4000 | | 4000 |
| | x100 | 40x1K | 38K-42K | 40000 | | 40000 |
| | x1K | 40x10K | 380K-420K | 400000 | | 400000 |
| Digital Ratemeter | - | 40x1 | 38-42 | 39 | | 39 |
| | - | 40x10 | 380-420 | 400 | | 400 |
| | - | 40x100 | 3800-4200 | 3960 | | 3960 |
| | - | 40x1K | 38K-42K | 39500 | | 39500 |
| | - | 40x10K | 380K-420K | 395000 | | 395000 |
| | | | | | | |

**Threshold/Gain Calibration**

WIN OUT

| Pulser Amplitude (mV) | Pulser CPM | | L2221 Theshold (mv) | Target CPM | L2221 CPM Found | | L2221 CPM Left or Set @ |
|---|---|---|---|---|---|---|---|
| 10.0 | 40000 | | 100 (10 mV) | 27K -33K | 31534 | | 31534 |
| 20.0 | 40000 | | 200 (20 mV) | 27K -33K | 29273 | | 29273 |
| 30.0 | 40000 | | 300 (30 mV) | 27K -33K | 30822 | | 30822 |
| 40.0 | 40000 | | 400 (40 mV) | 27K -33K | 29659 | | 29659 |
| 50.0 | 40000 | | 500 (50 mV) | 27K -33K | 29242 | | 29242 |

Note: Use R174 Gain Control on Power Supply Board to adjust L2221 CPM @75% for Threshold/Gain Calibration

**Window Cut-off Points Check**

L2221 Threshold set @100 (10.0 mv)

WIN @ 100 (10.0 mV) ✓ WIN @ 400 (40.0 mV) ✓

WIN @ 200 (20.0 mV) ✓ WIN @ 500 (50.0 mV) ✓

Date 10-7-22 Calibrated By Victor Patel

**AVM Environmental Services Inc.**

**Scaler/Ratemeter Calibration Form**

Model : L2221 S/N: 290801

Reference Instrument/Source: Ludlum Pulser 500, S/N:114513

**HV Calibration**

HV Readout (2 points): Ref/Inst 600 / 600 Ref/Inst 900 / 900

**Ratemeter Calibration**

Instrument Threshold @ 100 (10 mV), WIN: Out, HV 900VDC; Pulser Threshold @ 200 (20mV)

| Range/Mode | Range Multiplier | Calibration Point (Pulser Setting) cpm x multiplier | Target CPM (±5%) | As Found Reading | | Left or Set Reading |
|---|---|---|---|---|---|---|
| Ratemeter | x1 | 40x1 | 38-42 | 40 | | 40 |
| | x1 | 40x10 | 380-420 | 400 | | 400 |
| | x10 | 40x100 | 3800-4200 | 4000 | | 4000 |
| | x100 | 40x1K | 38K-42K | 40000 | | 40000 |
| | x1K | 40x10K | 380K-420K | 400000 | | 400000 |
| Digital Ratemeter | - | 40x1 | 38-42 | 40 | | 40 |
| | - | 40x10 | 380-420 | 395 | | 395 |
| | - | 40x100 | 3800-4200 | 3950 | | 3950 |
| | - | 40x1K | 38K-42K | 39503 | | 39503 |
| | - | 40x10K | 380K-420K | 395978 | | 395978 |
| | | | | | | |

**Threshold/Gain Calibration**

WIN OUT

| Pulser Amplitude (mV) | Pulser CPM | | L2221 Theshold (mv) | Target CPM | L2221 CPM Found | | L2221 CPM Left or Set @ |
|---|---|---|---|---|---|---|---|
| 10.0 | 40000 | | 100 (10 mV) | 27K -33K | 30889 | | 30889 |
| 20.0 | 40000 | | 200 (20 mV) | 27K -33K | 30419 | | 30419 |
| 30.0 | 40000 | | 300 (30 mV) | 27K -33K | 29799 | | 29799 |
| 40.0 | 40000 | | 400 (40 mV) | 27K -33K | 30238 | | 30238 |
| 50.0 | 40000 | | 500 (50 mV) | 27K -33K | 30330 | | 30330 |

Note: Use R174 Gain Control on Power Supply Board to adjust L2221 CPM @75% for Threshold/Gain Calibration

**Window Cut-off Points Check**

L2221 Threshold set @100 (10.0 mv)

WIN @ 100 (10.0 mV) ✓ WIN @ 400 (40.0 mV) ✓

WIN @ 200 (20.0 mV) ✓ WIN @ 500 (50.0 mV) ✓

Date 10-7-22 Calibrated By Victor Patel

**AVM Environmental Services Inc.**
**Scaler/Ratemeter Calibration Form**

Scaler/Ratemeter Model L2241-2 S/N 287029

Calibration Source Ludlum Model 500 Pulser #114513

Threshold (input sensitivity), Found at 10 mV Left or Set at 10 mV

Window, In/Out N/A Window N/A mV

Pulser Amplitude Set @ 20 mV

| Range/Mode | Calibration Point (Pulser Setting) cpm x multiplier | As Found Reading | Left or Set Reading |
|---|---|---|---|
| Ratemeter | 40x1 | 38-42 | 38-42 |
| | 40x10 | 395-400 | 395-400 |
| | 40x100 | 3.95k-4k | 3.95k-4k |
| | 40x1k | 39.6k-40k | 39.6k-40k |
| | | | |
| Scaler | 40x1 | 39 | 39 |
| | 40x10 | 398 | 398 |
| | 40x100 | 3998 | 3998 |
| | 40x1k | 39940 | 39940 |

HV Set @ 900 VDC

Date 10-7-22 Calibrated By Victor Patel

**AVM Environmental Services Inc.**
**Scaler/Ratemeter Calibration Form**

Scaler/Ratemeter Model L12 S/N 274216

Calibration Source Ludlum Model 500 Pulser #114513

Threshold (input sensitivity), Found at 10 mV Left or Set at 10 mV

Window, In/Out N/A Window N/A mV

Pulser Amplitude Set @ 20 mV

| Range/Mode | Calibration Point (Pulser Setting) cpm x multiplier | As Found Reading | Left or Set Reading |
|---|---|---|---|
| x 1 | 40x10 | 400 | 400 |
| x 10 | 40x100 | 4000 | 4000 |
| x 100 | 40x1k | 40k | 40k |
| x 1000 | 40x10k | 400k | 400k |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

HV Set @ 900 VDC

Date 10-7-22 Calibrated By [signature] Vicky Patel

**AVM Environmental Services Inc.**
L2221 SCA/L44-20 Energy Calibration Form

SCA: L2221, SR #290801 Detector: Ludlum 44-20 (3x3 NaI Scintillator)

Calibration Source: Cs-137 Check Source, 5 uCi (August 2008) For 662 KeV Peak Cal

Threshold (input sensitivity) **652**

Window, In/Out **IN** Window **20**

HV Initial 100, At Peak 579

Maximum CPM: 198160 Background CPM: 13

HV Set @ 579 VDC

For Bi-214 609.2 KeV Peak (559 - 659 KeV ROI), Set Threshold @ 559, Window @ 100

Calibration Check w 1% U3O8 Ore Check Source: 15696 CPM

BKG = 65 cpm

Date 5-10-23 Calibrated By

**AVM Environmental Services, Inc.**
**Field Soil Sample Gamma Radiation Screening Form**
**Mt. Taylor Mine Site**

**Instrumentation : Scaler/Ratemeter** L2221 S# 68782 , **Detector** L44-20 S#295573
**Instrument Calibration Date:** 10-7-22 , **Instrument Function Check Performed:** ✓
**Survey Area/Unit Decsription** Mt Taylor Mine - Correlation Calibration

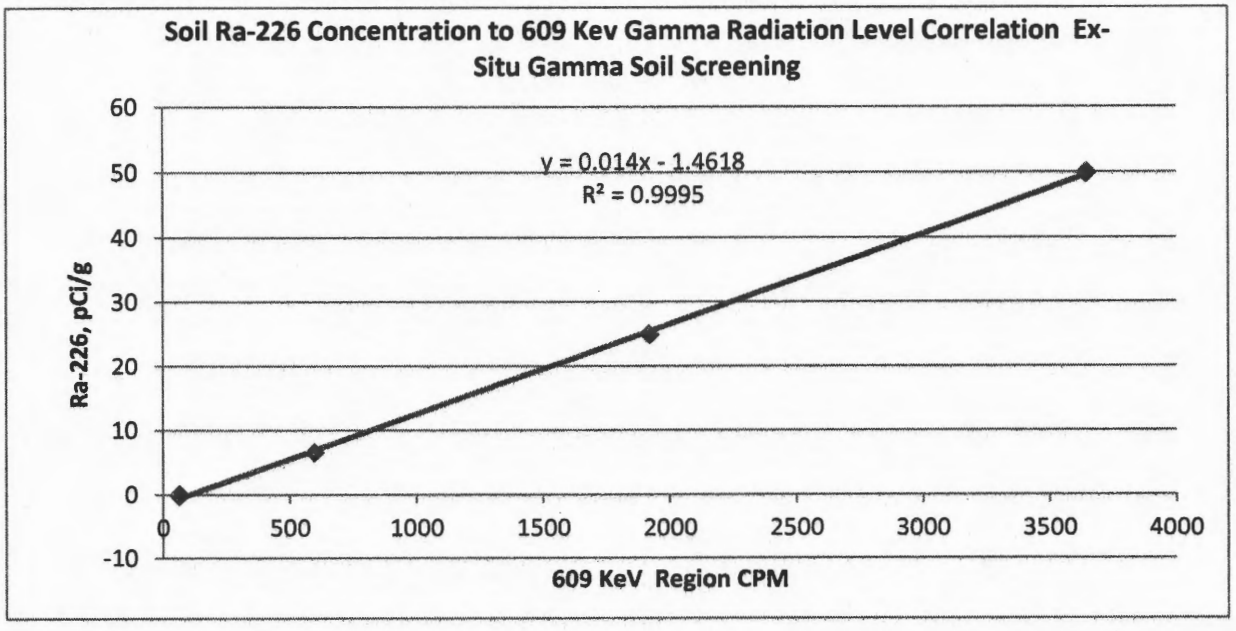
**Area exposure rate:**

| Date/Time | Soil Sample ID | Sample Weight Grams | 609 (559-669) Kev Gross Counts, CP5M | Weight Corrected CP5M | CPM | Reference Soil Compare (< or >) | Comments |
|---|---|---|---|---|---|---|---|
| 5-10-23 | Blank | | 329 | | 66 | | |
| 5-10-23 | 6.6pCi/g Ref. Soil | 3000 | 2998 | | 600 | | |
| 5-10-23 | 25 pCi/g Ref Soil | 2984 | 9552 | 9603 | 1921 | | |
| 5-10-23 | 50 pCi/g Ref Soil | 2976 | 18078 | 18224 | 3645 | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Technician Signature _____ , Reviewed by _____

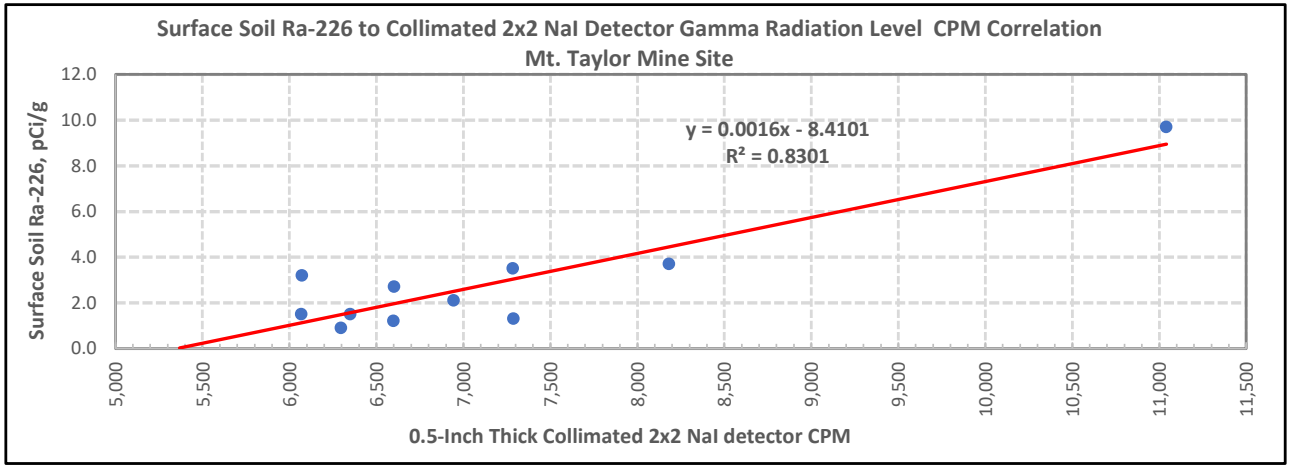
**AVM Environmental Services**
**Ex-Situ Soil Screening Gamma Radiation Level to Ra-226 Correlation**
**Mt. Taylor Mine Site Subsurface Soil Investigation**

| Reference Soil ID | Date | Ra-226 pCi/g | Wt gms | 609 KeV CP5Min Gross (3x3 Nal Detector) | CPM |
|---|---|---|---|---|---|
| Blank | 5/10/2023 | - | - | 329 | 66 |
| 6.6 pCi/g Ra-226 Ref Soil | 5/10/2023 | 6.6 | 3000 | 2998 | 600 |
| 25 pCi/g Ra-226 Ref Soil | 5/10/2023 | 25 | 3000 | 9603 | 1921 |
| 50 pCi/g Ra-226 Ref Soil | 5/10/2023 | 50 | 3000 | 18224 | 3645 |



## Surface Soil Ra-226 to Gamma Radiation Level Correlation
## Mount Taylor Mine Site

| Survey Date | Survey Point ID/Description | Survey Point Coordinate NAD83 StatePlane NM West, Feet | | Static Gamma Radiation Survey | | Sample Laboratory Analysis | Gamma Exposure Rate µR/hr |
|---|---|---|---|---|---|---|---|
| | | Northing | Easting | Bare 2x2 NaI Detector CPM | Collimated (0.5" Pb) 2x2 NaI Detector CPM | Ra-226 pCi/g | |
| 05/17/23 | WBSB-01 | 1,581,413 | 2,782,866 | 26,897 | 6,297 | **0.9** | 33 |
| 05/17/23 | WBSB-02 | 1,581,390 | 2,782,444 | 26,749 | 6,350 | **1.5** | 33 |
| 05/17/23 | WBSB-03 | 1,581,356 | 2,783,329 | 24,529 | 6,073 | **3.2** | 31 |
| 05/17/23 | WBSB-04 | 1,581,339 | 2,782,706 | 30,064 | 6,069 | **1.5** | 37 |
| 05/17/23 | WBSB-05 | 1,581,329 | 2,783,062 | 31,828 | 6,945 | **2.1** | 41 |
| 05/17/23 | WBSB-06 | 1,581,271 | 2,782,942 | 35,410 | 7,288 | **1.3** | 47 |
| 05/17/23 | WBSB-07 | 1,581,187 | 2,783,253 | 37,965 | 8,183 | **3.7** | 47 |
| 05/17/23 | WBSB-08 | 1,581,164 | 2,782,988 | 55,849 | 11,042 | **9.7** | 70 |
| 05/31/23 | WBSB-09 | 1,581,254 | 2,782,870 | 36,491 | 6,599 | **1.2** | 44 |
| 05/31/23 | WBSB-10 | 1,581,263 | 2,783,140 | 34,898 | 7,286 | **3.5** | 48 |
| 05/31/23 | WBSB-11 | 1,581,277 | 2,783,335 | 29,002 | 6,602 | **2.7** | 34 |




SUMMARY OUTPUT

### Regression Statistics

| | |
|---|---|
| Multiple R | 0.91 |
| R Square | 0.83 |
| Adjusted R Square | 0.81 |
| Standard Error | 1.08 |
| Observations | 11 |

**ANOVA**

| | df | SS | MS | F | Significance F |
|---|---|---|---|---|---|
| Regression | 1 | 50.92 | 50.92 | 43.97 | 9.58E-05 |
| Residual | 9 | 10.42 | 1.16 | | |
| Total | 10 | 61.35 | | | |

| | Coefficients | Standard Error | t Stat | P-value | Lower 95% | Upper 95% | Lower 95.0% | Upper 95.0% |
|---|---|---|---|---|---|---|---|---|
| Intercept | -8.41 | 1.73 | -4.87 | 0.00089 | -12.32 | -4.50 | -12.32 | -4.50 |
| X Variable 1 | 0.00 | 0.00 | 6.63 | 0.00010 | 0.00104 | 0.00211 | 0.00104 | 0.00211 |

# NMED Cmnt 39.1

# Table 1, Summary of Materials Destined for the Disposal Well

## Comment 39.1 - Table 1 Summary of Materials Destined for the Disposal Cell

| EXCAVATION - Contaminated Soil | | |
|---|---|---|
| **LOCATION** | **Volume, CY** | **Destination** |
| Treated Water Discharge Pipeline (TWDP) Corridor | 8,400 | Disposal Cell |
| Borrow Area C north of Marquez Arroyo (Including hotspots identified by ERG survey) | 25,000 | |
| Ore Pad and Ore Pad Runoff Retention Pond | 91,400 | |
| MWTU Area less pond basins and Borrow area A | 29,100 | |
| County Road 334 and Other roads | 12,000 | |
| Service and Support Areas | 106,950 | |
| Disposal Cell Expansion Pit Area | 9,300 | |
| SSWP Area | 3,000 | |
| Diesel-contminted Soil | 7,400 | |
| Continental Divide Coop Substation | 1,850 | |
| **Total** | **294,400** | CY |

| Removal - Buildings | | |
|---|---|---|
| **LOCATION** | **Volume, LCY** | **Destination** |
| Pump Building (Chill Water Pump House) | 334 | Disposal Cell |
| Chlorine Building | 174 | |
| Shaft Heating Building | 356 | |
| Glycol Heat Exchanger | 356 | |
| Cooling Tower | 1,597 | |
| Car (Maintenance) Shop | 10,000 | |
| Water Treatment and Boiler Building | 344 | |
| Core Storage Building | 1,773 | |
| Fan Shop | 347 | |
| Flocculant Treatment Facility | 77 | |
| Barium ChlorideTreatment Facility | 111 | |
| Ion Exchange Plant | 8,348 | |
| Fuel Pump House | 34 | |
| Sanitary Treatment Plant | 493 | |
| Mine Ventilation Structure | 702 | |
| 24- Foot Shaft Headframe | 8,633 | |
| Treated Water Discharge Pipe | 2,642 | |
| MWTU Pond 2 | 1,178 | |
| MWTU Pond 3 | 1,500 | |
| MWTU ponds (1,4,5,6,7 8) | 4,272 | |
| **Total** | **43,271** | CY |

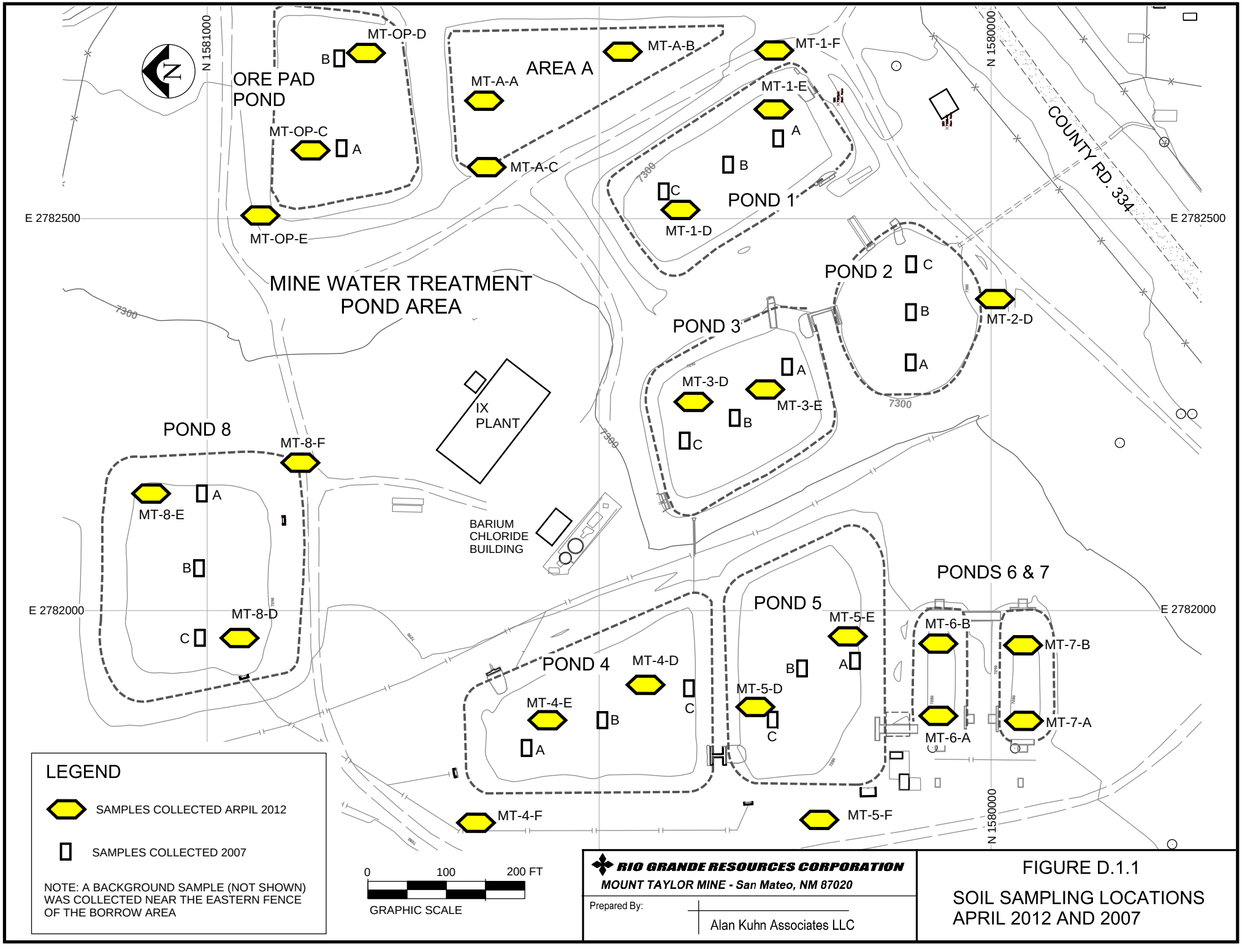
| Removal - Other Debris | | |
|---|---|---|
| **LOCATION** | **Volume, LCY** | **Sources** |
| Mine Car rails | 22 | Disposal Cell |
| Ore Load pad an wash bay | 718 | |
| MWTU Pump House | 28 | |
| Pipe Laydown | 1,556 | |
| N laydown | 5,556 | |
| Skips | 296 | |
| MWTU Pipes | 109 | |
| BACL Tanks | 39 | |
| South Laydown Yard debris | 16,311 | |
| South Laydown Soil | 5,392 | |
| Car Shop Yard | 4,762 | |
| **Total** | **34,789** | CY |

| | | |
|---|---|---|
| **Total All Materials, Soils and Debris** | **372,461** | CY |

| | | |
|---|---|---|
| **Disposal Cell Capacity at 25-Acres** | **942,450** | CY |

# NMED Cmnt 40

# Sample Location Maps for Figure D-1-1


N 1581000
N 1580000
E 2782500
E 2782000
ORE PAD POND
MT-OP-D
B
MT-OP-C
A
MT-OP-E
AREA A
MT-A-A
MT-A-B
MT-A-C
MT-1-F
MT-1-E
A
B
C
MT-1-D
POND 1
COUNTY RD. 334
MINE WATER TREATMENT POND AREA
7300
POND 2
C
B
A
MT-2-D
POND 3
MT-3-D
MT-3-E
A
B
C
IX PLANT
POND 8
MT-8-F
MT-8-E
A
B
C
MT-8-D
BARIUM CHLORIDE BUILDING
PONDS 6 & 7
POND 5
MT-5-E
A
B
MT-5-D
C
MT-6-B
MT-7-B
MT-6-A
MT-7-A
POND 4
MT-4-D
MT-4-E
A
B
C
MT-4-F
MT-5-F
LEGEND
SAMPLES COLLECTED ARPIL 2012
SAMPLES COLLECTED 2007
NOTE: A BACKGROUND SAMPLE (NOT SHOWN) WAS COLLECTED NEAR THE EASTERN FENCE OF THE BORROW AREA
0
100
200 FT
GRAPHIC SCALE
RIO GRANDE RESOURCES CORPORATION
MOUNT TAYLOR MINE - San Mateo, NM 87020
Prepared By:
Alan Kuhn Associates LLC
FIGURE D.1.1
SOIL SAMPLING LOCATIONS
APRIL 2012 AND 2007

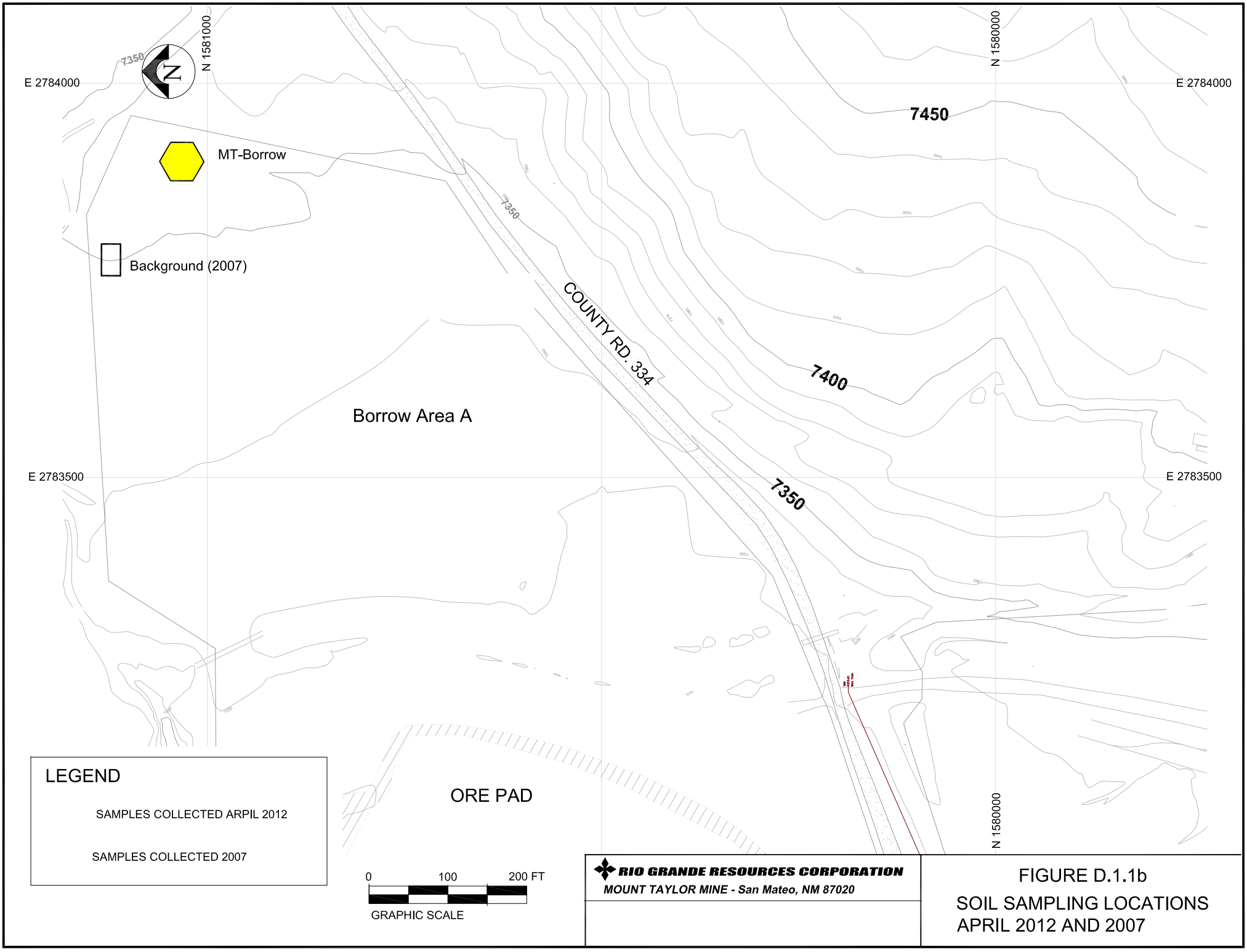
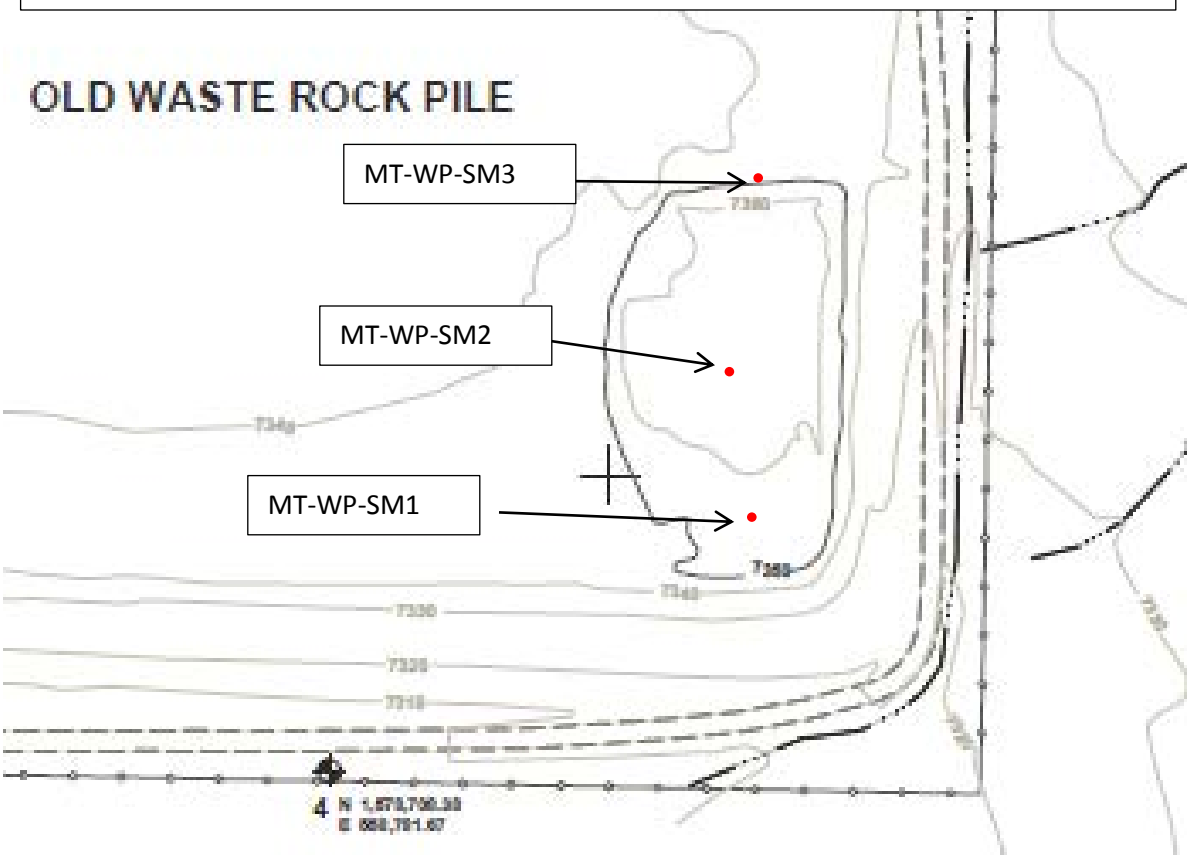

N 1581000
N 1580000
E 2784000
E 2783500
7350
7400
7450
MT-Borrow
Background (2007)
COUNTY RD. 334
Borrow Area A
ORE PAD
LEGEND
SAMPLES COLLECTED ARPIL 2012
SAMPLES COLLECTED 2007
0
100
200 FT
GRAPHIC SCALE
RIO GRANDE RESOURCES CORPORATION
MOUNT TAYLOR MINE - San Mateo, NM 87020
FIGURE D.1.1b
SOIL SAMPLING LOCATIONS
APRIL 2012 AND 2007

Figure D.1.1c

## MT TAYLOR MINE SHAFT MUCK SAMPLE LOCATIONS – 5/18/2010




Bulk samples of shaft muck from Mt. Taylor Mine waste rock pile collected on 5/18/2012 by Alan Kuhn. Locations are approximate (+/- 50 ft) based on visual reference to slopes. Splits delivered 5/18/12 to Kleinfelder Albuquerque for grain size analysis and plasticity tests. Other splits left with RGR Mine office for shipment to Energy Labs for testing of U and Ra concentration.