





September 18th 2024

State of Colorado Division of Reclamation, Mining & Safety 1313 Sherman St., Room 215 Denver, CO 80203

Attn: Environmental Protection Specialist

Re: GCC Energy, LLC, King II Mine

CDRMS Permit # C-1981-035

Annual Compaction: King I Annual Compaction Results

Mr. Wein:

Please find enclosed a copy of Trautner Geotech's Annual Compaction Results of the King I Lower and Upper Refuse Piles.

Please contact me at 970.9094022, or at michael@summitmining.co f you have any questions or require any additional information.

Sincerely,

Michael Dickson

# TRAUTNER GEOTECHLLC

GEOTECHNICAL ENGINEERING, MATERIAL TESTING AND ENGINEERING GEOLOGY

#### **DAILY FIELD REPORT AND TEST RESULTS**

PROJECT NAME: GCC Energy Mine Annual Refuse

Density Testing 2024

TECHNICIAN: See Below

PROJECT NO.: 58549MT

DATE: 9/1/2024 thru 9/15/2024

REQUESTED SERVICE: Nuclear Field Density Test

CONTRACTOR: GCC EARTHWORK CONTRACTOR: GCC FOREMAN: Wade

Technician field notes and comments: We arrived on-site as requested. We performed six (6) nuclear field density tests on previously placed and compacted material. All test results were verbally given to Wade. \*Elevation descriptions should be considered approximate and are based on field observations.

#### **NUCLEAR FIELD DENSITY TEST RESULTS**

Date	Test No.	Test Location	Probe Depth (in)	Test Elevation	Proctor Density (PCF)	Optimum Moisture (%)	Field Density (PCF)	Field Moisture (%)	Relative Compaction (%)	Material Type	Technician
9/11/24	1	Refuse pile – Lower/lower, SW corner	8	7424	82.7	13.5	84.6	6.4	100	Coal mine reject material Lab 5077-A	P. Walston
9/11/24	2	Refuse pile – Middle, NE corner	8	7430	82.7	13.5	88.6	6.3	100	Coal mine reject material Lab 5077-A	P. Walston
9/11/24	3	Refuse pile – Bench, NW side	8	7428	82.7	13.5	85.4	6.5	100	Coal mine reject material Lab 5077-A	P. Walston
9/11/24	4	Upper refuse pile – NW side near entry road	8	7564	82.7	13.5	82.4	6.4	100	Coal mine reject material Lab 5077-A	P. Walston
9/11/24	5	Upper refuse pile – center S	8	7556	82.7	13.5	89.5	6.4	100	Coal mine reject material Lab 5077-A	P. Walston
9/11/24	6	Upper refuse pile – NE	8	7570	82.7	13.5	86.5	6.4	100	Coal mine reject material Lab 5077-A	P. Walston

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### **Gauge Moisture Verification Against Nuclear Gauge**

	Project:	GCC Energy Annual Refuse Pile Density testing	_Project No	58549MT	Date:	9/11/2024
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2024

			2021								
Lab No.	Date	Tare	Tare + Wet	Tare + Dry	Wt. of Water	Wt. of Dry Soil	% Moisture	Gauge Moisture	Difference In Readings	Gauge No.	Test Location
5247-A	9/11/2024	618.3	2320.4	2219.2	101.2	1600.9	6.3	32.3	26.0	33	Test #2
5247-B	9/11/2024	585.8	2262	2159.6	102.4	1573.8	6.5	34.9	28.4	33	Test #3
								AVG:	27.2		