




**MINERALS PROGRAM INSPECTION REPORT**  
**PHONE: (303) 866-3567**

The Division of Reclamation, Mining and Safety has conducted an inspection of the mining operation noted below. This report documents observations concerning compliance with the terms of the permit and applicable rules and regulations of the Mined Land Reclamation Board.

<b>MINE NAME:</b> Nahcolite Project	<b>MINE/PROSPECTING ID#:</b> M-1983-194	<b>MINERAL:</b> Carbonates	<b>COUNTY:</b> Rio Blanco
<b>INSPECTION TYPE:</b> Monitoring	<b>WEATHER:</b> Clear	<b>INSP. DATE:</b> March 26, 2024	<b>INSP. TIME:</b> 10:00
<b>OPERATOR:</b> Natural Soda LLC	<b>OPERATOR REPRESENTATIVE:</b> None	<b>TYPE OF OPERATION:</b> 112d-3 - Designated Mining Operation	
<b>REASON FOR INSPECTION:</b> Normal I&E Program	<b>BOND CALCULATION TYPE:</b> Partial Bond	<b>BOND AMOUNT:</b> \$4,466,425.00	
<b>DATE OF COMPLAINT:</b> NA	<b>POST INSP. CONTACTS:</b> None	<b>JOINT INSP. AGENCY:</b> None	
<b>INSPECTOR(S):</b> Amy Yeldell	<b>INSPECTOR'S SIGNATURE:</b> 	<b>SIGNATURE DATE:</b> March 26, 2024	

**GENERAL INSPECTION TOPICS**

This list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each. No problems or possible violations were noted during the inspection. The mine operation was found to be in full compliance with Mineral Rules and Regulations of the Colorado Mined Land Reclamation Board for the Extraction of Construction Materials and/or for Hard Rock, Metal and Designated Mining Operations. Any person engaged in any mining operation shall notify the office of any failure or imminent failure, as soon as reasonably practicable after such person has knowledge of such condition or of any impoundment, embankment, or slope that poses a reasonable potential for danger to any persons or property or to the environment; or any environmental protection facility designed to contain or control chemicals or waste which are acid or toxic-forming, as identified in the permit.

(AR) RECORDS----- <u>Y</u>	(FN) FINANCIAL WARRANTY----- <u>Y</u>	(RD) ROADS----- <u>Y</u>
(HB) HYDROLOGIC BALANCE----- <u>N</u>	(BG) BACKFILL & GRADING----- <u>Y</u>	(EX) EXPLOSIVES----- <u>N</u>
(PW) PROCESSING WASTE/TAILING---- <u>N</u>	(SF) PROCESSING FACILITIES----- <u>N</u>	(TS) TOPSOIL----- <u>Y</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>Y</u>	(FW) FISH & WILDLIFE----- <u>N</u>	(RV) REVEGETATION---- <u>N</u>
(SM) SIGNS AND MARKERS----- <u>N</u>	(SP) STORM WATER MGT PLAN---- <u>N</u>	(RS) RECL PLAN/COMP-- <u>N</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>N</u>	(SC) EROSION/SEDIMENTATION-- <u>N</u>	(ST) STIPULATIONS----- <u>N</u>
(AT) ACID OR TOXIC MATERIALS----- <u>N</u>	(OD) OFF-SITE DAMAGE----- <u>N</u>	

Y = Inspected / N = Not inspected / NA = Not applicable to this operation / PB = Problem cited / PV = Possible violation cited

## **OBSERVATIONS**

Throughout February and March, Amy Yeldell, of the Colorado Division of Reclamation, Mining, and Safety (Division) conducted a records review of the Nahcolite Project. This records review will serve as the first quarter inspection for 2024.

The Nahcolite Project is a 112d-3 permitted site that includes a total of 12,248 permitted acres with a maximum disturbance of 260 acres. At this time, approximately 100 acres have been affected. The site is located approximately 25 miles southwest of Meeker, Colorado in Rio Blanco County

### **Availability Of Records:**

The focus of the records review was to determine the accuracy of bond calculation with regards to grading topsoil and overburden. Currently the Division assumes that 24" of overburden and 6" of topsoil per acre will be graded. Depending on the natural topography this number may or may not be realistic. The Division reviewed the electronic permit file stored on Laserfiche. Newer pad layout diagrams contain the earthwork volumes to construct the pad. Attached is a spreadsheet to summarize the findings. Note that the Division did not find layout diagrams for every pad.

In order to continue to increase accuracy of bonding the Division will request that all future pad layout diagrams contain earthwork information.

### **Backfilling and Grading:**

The Division has calculated earthwork volumes based on the pad layout designs and on a 24" /6" avg per acre. In general, the pad layout designs estimate less than 6" of topsoil being salvaged and more than 24" of overburden requiring grading. When looking at the cumulative amount of material to be graded the two methods are similar. In an ideal world, engineered earth work figures would be provided for all pads. However, since this may never be the case then the Division's assumptions to date are sufficient for estimating purposes, where better information is not available.

Ways to improve additional dirt work accuracy could include providing as built earthwork volumes. Similarly, when pads are interim reclaimed, clarifying final earth work volumes required. This could decrease the number of assumptions being made. Lastly clarifying units such as LCY vs CCY vs BCY which affects the total volume to be handled. Depending on the material type, the swell factor is approximately 12%.

### **Financial Warranty:**

The Division holds \$4,466,425.00 in financial warranty. The Division last updated the reclamation cost estimate in February of 2023 for TR-50. In an effort to ensure the Financial Warranty adequately reflects the actual current cost of fulfilling the requirements of the approved reclamation plan the Division has reviewed the reclamation cost estimate.

No problems or violations were noted during this inspection.

Responses to this inspection report should be directed to: Amy Yeldell at the Division of Reclamation, Mining and Safety, Rm 215, 1001 E 62nd Ave, Denver Co 80216. Direct contact can be made by phone at 303-866-3567 Ext 8183 or via email at amy.yeldell@state.co.us

**Inspection Contact Address**

Kirk Daehling  
Natural Soda LLC  
3200 CR 31  
Rifle, CO 81650

Enclosure: Earthwork Spreadsheet

CC:

Travis Marshall, Senior EPS, Grand Junction DRMS  
Tom Cummings, BLM-White River Field Office  
Jamie Reck, Natural Soda LLC  
Jerry Daub, Daub and Associates, Inc.

WELL PADS													
DISTURBED							UNDERGOING INTERIM RECLAMATION						
Description	Cut	Fill	Topsoil	Excess	Acres	D&A Acres	Description	Cut	Fill	Topsoil	Excess	Acres	D&A Acres
10H-13H	7,029	3,176	2,072		5.99	6.67	DS-6	723	405	231	87	0.60	0.58
15H-17H	16,248	12,835	3,095	318	4.70	4.76	DS-7, 2A-2V	999	649	333	17	0.80	0.87
12H-13H-IR (1-3A, 2B-3C)	1,847	1,837	943	10	1.80	1.70	DS-10	2,098	984	696	418	1.50	1.04
18H-1V (estimated)	5,182	3,792	1,747	11	3.10	2.48	WSW-3	857	321	333	203	0.70	0.75
18H-IR-W (estimated)	5,267	4,291	1,233	111	1.60	1.68	WSW-4	794	215	333	245	0.80	0.75
							8H/3A-4H	5,500	3,578	1,111	811	2.30	2.03
							15H-SSMW	688	399	279	10	0.60	0.57
							17H-SSMW Pad	676	389	277	10	0.60	0.29
							14H-1V 2019	4,126	872	1,248	2,006	2.40	1.79
							17H-E SSMW	523	257	255	11	0.60	0.64
TOTAL	35,573	25,931	9,090	450	17.19	17.29	TOTAL	16,984	8,069	5,096	3,818	10.90	9.31
TOTAL based on layout	61,504		13,867		17.19			35,171		8,793		10.90	
TOTAL based on D&A AC	55,789		13,947	-	-	17.29	TOTAL	30,040		7,510	-	-	9.31
WELL PADS													
DISTURBED							UNDERGOING INTERIM RECLAMATION						
Description	Cut	Fill	Topsoil	Excess	Acres	D&A Acres	Description	Cut	Fill	Topsoil	Excess	Acres	D&A Acres
5H						2.25	89-1						0.34
7H						1.76	90-1						0.88
7H-1V (see 15H-1V)						-	90-2						0.43
88-1V						0.45	90-5H						0.20
16-17H-IR-E						2.62	BG-4						0.47
15H-1V (subsumes 7H- 1V)						1.45	BG-6						0.58
16-17H-1V (162,900 - 28,600 of existing 1A- 4HI pad)						4.78	DS-3						0.15
							I (DS-8)						0.61
							K (BG-7)						0.64
							M (DS-9)						0.67
							WSW-2						0.70
							WSW-5 (O-GMW-A)						0.66
							Upgradient Monitor Pad						0.88
TOTAL based on D&A AC	42,979		10,745	-	-	13.32	TOTAL	23,297		5,824	-	-	7.22
CUMULATIVE TOTAL													
CUMULATIVE TOTAL	104,483		24,612	-	-	30.51	CUMULATIVE TOTAL	58,468		14,617	-	-	18.12
Well Pad Overburden	162,951			TR-50		194,278.00		31,327.27					
Well Pad Topsoil	39,229			CIRCES		43,560.00		4,331.07					
Roads AC Decompact	5					4.00		(0.73)					
Roads Topsoil	4,171					3,227.00		(944.00)					

ROADS											
DISTURBED						UNDERGOING INTERIM RECLAMATION					
Description	Cut	Fill	Topsoil	Excess	Acres	Description	Cut	Fill	Topsoil	Excess	Acres
TOTAL	-	-	5,760.00	-	-	TOTAL	-	-	2,582.00	-	-
TOTAL	-	-	-	-	-	TOTAL	-	-	-	-	-
ROADS											
DISTURBED						UNDERGOING INTERIM RECLAMATION					
Description	Cut	Fill	Topsoil	Excess	Acres	Description	Cut	Fill	Topsoil	Excess	Acres
RD A					0.54	RD D					0.02
RD B					1.38	RD G					0.19
RD C					0.43	RD H					0.14
RD E					0.02	RD I					0.04
RD F					0.02	RD I rdp (DS-8)					0.03
RD K					0.04	RD J					0.02
RD 15-17					0.30	RD M rdp (DS-9)					0.19
RD 15H-SSMW					0.03	RD M-K rdp (DS-9/BG-7)					0.20
16/17H-1V					0.17	RD O rdp					0.26
DS-10					0.03	RD DS-6 rdp					0.01
Upgradient Monitor Pad Rd					0.02	RD WSW-3 rdp					0.05
18H-1V (proposed)					0.06						
18H-IR-W (west & temp access; est)					0.04						
18H-1V pipeline rd (estimated)					0.48						
TOTAL	-	-	2,880	-	3.57	TOTAL	-	-	1,291	-	1.16
CUMULATIVE TOTAL	-	-	2,880	-	3.57	CUMULATIVE TOTAL	-	-	1,291	-	1.16