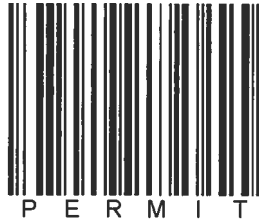


# Permit Documents



DAUB & ASSOCIATES, INC.

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October 29, 2014

Division of Reclamation, Mining and Safety  
Attn: Minerals Division  
1313 Sherman Street, Room 215  
Denver, CO 80203

**Re: Natural Soda Holdings, Inc. P-2014-014 Response to NOI Notice of Deficiencies**

Natural Soda Holdings, Inc. (NSHI) hereby responds to the DRMS Notice of Deficiencies correspondence dated August 28, 2014 and relating to NSHI's Notice of Intent (NOI) to Conduct Prospecting Operations for the experimental RD&D Oil Shale Project located in Rio Blanco County, CO, Sec 35, T1S, R98W. The DRMS has associated that NOI with permit number P-2014-014.

Please find attached:

- Summary sheet with responses to the NOI notice of deficiencies
- NSHI Sampling and Analysis Plan with five quarters of wet chemistry and metals analysis for the 90-4, 90-4, IRI-1, BG-1, and DS-2 groundwater monitoring wells.
- ✓ Spreadsheet with disturbance and well abandonment information for use in the calculation of reclamation costs.
- ✓ NSHI SPCC plan

If you need any additional information, please contact me at (970) 254-1224 or (970) 216-1010 (c), or Bob Warneke at (970) 355-4590.

Regards,

Gerald J. Daub, PG, CPG,  
President,  
Daub & Associates, Inc.

Cc: Bob Warneke (w/o SAP and SPCC)  
Director of Projects  
Natural Soda Holdings, Inc.

Paul Daggett  
BLM, White River Field Office

File

**RECEIVED**

✓ NOV 03 2014

to **DIVISION OF RECLAMATION  
MINING AND SAFETY**

Natural Soda Holdings, Inc.  
DRMS Prospecting Permit P-2014-014

1. DRMS: Initial review of the NOI submittal revealed that a hydrologic sampling and analysis plan was not included with the original submittal. Please submit a hydrologic sampling and analysis plan that complies with the requirements of Rules 3.1.6 and 3.1.7.

D&A responds: Please see attached Sampling and Analysis Plan which supplies information relating to the following DRMS rules: 3.1.7(7)(b) (i) a map that accurately locates all proposed groundwater sample points and any locations that are proposed as a point of compliance, (ii) monitoring well completion schematic, (iii) method of sampling, frequency, and reporting, (iv) parameters analyzed, water quality analysis methods, and quality control and quality assurance methods, (v) formations, aquifers or strata to be sampled, (vi) identify the potential sources of groundwater contamination that will be monitored by each point of compliance monitoring point, (vii) a time-schedule for implementation.

DRMS: Also, please commit to quarterly reporting intervals.

D&A responds: NSHI hereby commits to quarterly reporting intervals.

2. DRMS: Please provide 5 consecutive quarters of ground water quality data in order to establish baseline ambient ground water quality conditions.

D&A responds: Please find five consecutive quarters of wet chemistry and metals groundwater data for the 90-4, 90-4, IRI-1, BG-1, and DS-2 attached. Wet chemistry and metals data for the DS-6 and hydrocarbon data for all wells will begin to be collected in the 4<sup>th</sup> quarter of 2014 to satisfy DRMS requirements 3.1.6(4) and 3.1.7(7)(b) (viii)]

3. DRMS: Please provide all figures necessary to perform the proposed reclamation for the project. The figures shall include specific volumes of overburden and topsoil to be replaced in cubic yards. Also specify which type of equipment will be used for each specific task. The NOI will not issued until a financial warranty in an approvable from is held by the DRMS.

D&A responds: Please find attached: A spreadsheet containing disturbance and well abandonment information for use in the calculation of reclamation costs.

4. DRMS: Please specify what type of cement will be used to construct each proposed well.

D&A responds: NSHI anticipates the use of Halliburton type thixotropic, 12.8 and 15.8 pound per gallon cement.

5. Due to the proposed heating and subsequent cooling of the well(s) and formation what type of well integrity monitoring will occur during and after the heating?

D&A responds: It is anticipated that the EPA will mandate internal and external mechanical integrity testing (MIT) when the EPA issues the Underground Injection Control (UIC) permit to NSHI. This MIT protocol involves pressure testing and temperature logging to ensure well integrity. The application for this permit has been submitted. In addition, the use of an inert gas cap (such as nitrogen) is planned. This inert gas cap will be pressure monitored during OSR activities.

6. DRMS: Please specify the anticipated time frame from start of well construction to well completion.

D&A responds: It is expected that OSR well construction will involve 7-8 months. Contingent upon a timely permitting process, the OSR well should be constructed no later than 2016.

DRMS: What methods will be employed to ensure aquifer isolation during drilling and well completion?

D&A responds:

- Drill the well as quickly as possible
- If mud drilled, then the mud filtercake on well bore wall will help prevent aquifer comingling
- Complete the well with casing that will be cemented to the surface

DRMS: Please provide a copy of the site specific SPCC plan.

D&A responds: Please find SPCC attached.