

**STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION**

ORDER NO. R4-2002-0189

WASTE DISCHARGE REQUIREMENTS

**NORTH STAR MINERALS, INC.
(ACTON CLAY QUARRIES)
(File No. 99-176)**

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) finds:

1. North Star Minerals, Inc. (hereafter Discharger) has submitted a Report of Waste Discharge dated December 2000 for the operation of two clay quarries in the Acton area of Los Angeles County known as the Acton Clay Quarries located at 31375 North Aliso Canyon Road, Acton (the Site). The Site is within the Angeles National Forest on property administered by the U.S. Department of Agriculture Forest Service (Forest Service), and the Discharger has submitted documentation that its proposed operation accords with the United States General Mining Act of 1872 (30 U.S.C. 22 et seq.)
2. The Site consists of two mining areas, known as the Bertha #3 and Bertha #4 claims. The Bertha #3 claim consists of the southwest ¼ of Section 24, Township T4N, Range R13W, San Bernardino Base Meridian of the Acton 7.5-Minute Quadrangle map and is the site for the White Clay Quarry. The Bertha #4 claim consists of the southeast ¼ of Section 24, Township T4N, Range R13W, San Bernardino Base Meridian of the Acton 7.5-Minute Quadrangle map and is the site for the Gray Clay Quarry. The Site is shown on Figure 1, attached hereto and incorporated herein by reference.

Operation of Facilities

3. The Discharger submitted a Plan of Operations (Plan) to the Forest Service for development of the Site. The Plan was effective from January 1, 1996 to December 31, 2000. On August 31, 2000 the Forest Service extended the Plan for another five years, through December 31, 2005.
4. The Discharger proposes to mine both the White and Gray Quarries during the five years of operations described in the extended Plan. The Gray Quarry is proposed to be operated year-round except for periods of heavy rain. Peak production may reach 1,000 tons per day, with annual production expected to reach between 140,000 to 195,000 tons per year. Ore at the Gray Quarry will be mined by ripping with a track-mounted dozer and the mined ore will be trammed to an on-site crushing and screening plant by a wheel loader or by a haul truck.

Drilling and blasting may also be performed. Over the five years of operation described in the extended Plan, the Gray Quarry will be increased from the 2.9 acres that are currently disturbed to an area slightly less than five acres.

5. The White Quarry is proposed to be operated intermittently with peak production estimated to reach 1,000 tons per day, with annual production estimated to be between 20,000 to 60,000 tons per year. Ore at the Gray Quarry will also be mined by ripping with a track-mounted bulldozer and will not require screening. Over the five years of operation described in the extended Plan, the White Quarry will be also be increased from the 2.4 acres that are currently disturbed to an area slightly less than five acres.
6. It is estimated that the Gray Quarry will produce between 1,000 and 5,000 tons of waste annually that will be used to reclaim an adjacent (Allen B) pit that resulted from previous quarrying operations. It is estimated that the White Quarry will produce between 15,000 and 25,000 tons of waste annually that will be placed into a waste dump or backfilled into depleted portions of the quarry. The January 1, 2001 through December 31, 2005 Plan approved by the Forest Service requires the Discharger to place a minimum of six inches of topsoil or suitable overburden on pit terraces, pit bottoms, waste dumps, and other disturbed areas as part of final quarry reclamation. In addition, waste dumps created as part of mining operations are required to be brought to a minimum slope of two units of horizontal run for every one unit of vertical rise (2:1) as part of reclamation procedures.
7. Ore mined from the Site will be loaded onto 18-wheel highway trucks and transported to market via Forest Service Road 4N32, which is the primary access road to the quarries.
8. Water will not be used in the extraction or processing of ore from this operation. Water will be used on the ore only as necessary to control dust if produced by the operation of a screening plant. Haul roads, inactive quarry areas and partially reclaimed areas will also be routinely watered as necessary.

Wastes and Their Classifications

9. There is expected to be little or no potential for the clay ore to generate acid rock drainage. Analytical results from sampling of the ore and waste rock indicate the sulfur content, which would be the potential source of the acid, is low (generally less than 0.1%), and the host rock exhibits high neutralization potential. Based on these factors, the Regional Board has classified the ore and waste rock as a Group C waste, pursuant to § 22480(b)(3) of title 27, California Code of Regulations (27 CCR). Continued testing of ore and waste rock will be performed during the operation of the facility to verify that the material continues to meet the criteria for

classification as a Group C waste. If any materials analyzed pursuant to this Order cannot be classified as a Group C waste, the Regional Board will implement a groundwater monitoring program through revision of the attached Monitoring and Reporting Program No. CI-8516.

Geologic Description of the Site

10. The Gray and White Clay quarries are located within a belt of crystalline Precambrian rocks that form the core of the San Gabriel Mountains of the Angeles National Forest. The San Gabriel anorthosite-syenite complex (Complex) underlies the quarries. The rocks forming the Complex are comprised of early anorthositic and leuco-gabbroic phases followed by mixed gabbroic suites that are overlain by a syenitic suite. A gray clay material is derived from the weathering or alteration of mixed gabbroic and anorthositic rocks. A white clay product is the product of the alteration or weathering of anorthositic layers of the Complex. Rocks at the Site display a relatively homogeneous chemistry.
11. The Site lies within the Acton Hydrologic Subarea of the Santa Clara – Calleguas Creek Hydrologic Unit (Basin Plan) over non-water-bearing rocks that contain limited amounts of groundwater. Surface waters of the Acton Hydrologic Subarea are beneficially used for municipal and agricultural use, groundwater recharge, fresh water replenishment, recreation, warm freshwater habitat, wetland habitat, and wildlife habitat.

Other Legal References

12. On June 13, 1994, the Regional Board adopted a revised Water Quality Control Plan for Coastal Watersheds of Los Angeles and Ventura Counties (Basin Plan) which was subsequently amended on January 27, 1997 by Regional Board Resolution 97-02. The Basin Plan (i) designates beneficial uses for surface waters and groundwater, (ii) sets narrative and numerical objectives that must be maintained to protect the designated beneficial uses and conform to the State anti-degradation policy (State Water Resources Control Board Resolution No. 68-16), and (iii) describes implementation programs to protect all designated waters in the region. The requirements in this Order, as they are met, will be in conformance with the goals of the Basin Plan.
13. The Discharger has submitted a Reclamation Plan for approval, pursuant to the requirements of the Surface Mining and Reclamation Act of 1975 (Public Resources Code § 2710 et seq. [SMARA]), to the California Department of Mining and Geology and the Forest Service. Within 45 days of the issuance of this Order, the Discharger shall provide evidence to the Regional Board of compliance with financial assurance requirements of SMARA for postclosure reclamation. Failure to provide evidence of financial assurance for postclosure reclamation may

be grounds for rescinding this Order and the waste discharge requirements (WDRs) contained herein.

14. Separate financial assurances as required by SMARA which address closure and post-closure maintenance of each quarry (waste management unit [WMU]), and surface water monitoring for as long as the waste poses a threat to water quality, will be required pursuant to 27 CCR § 22510.

California Environmental Quality Act (CEQA) Considerations

15. The County of Los Angeles as the lead agency adopted a mitigated negative declaration for this project on December 31, 2001.

The Regional Board has notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for this discharge, and has provided them with an opportunity to submit their written views and recommendations.

The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge and to the tentative requirements.

IT IS HEREBY ORDERED that North Star Minerals, Inc., in order to meet the provisions contained in Division 7 of the California Water Code (CWC) and regulations adopted thereunder, and provisions of the federal Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. SPECIFICATIONS

1. The Site is considered to be two WMUs. For purposes of clarity, the Bertha claim #3 (White Clay Quarry) is designated as WMU #1, and the Bertha claim #4 (Gray Clay Quarry) is designated as WMU #2.
2. Discharge of wastes to these WMUs shall be limited to topsoil, low-grade ore, and overburden generated from the mining of clay ore.
3. The discharge of any wastes or wastewater to groundwater, surface water, or surface water drainage courses is prohibited.

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4. The use of any leaching chemical, or washwater for mechanical separation, is prohibited.
5. The discharge of processing reagents or their breakdown products, fuels, solvents, or other liquids or solid chemicals used at the Site, to groundwater, surface water, or surface water drainage courses is prohibited.
6. No hazardous wastes, designated wastes, or liquid wastes shall be deposited at the Site.
7. No non-hazardous solid waste (decomposable organic refuse such as, but not necessarily limited to, ordinary household and commercial refuse, tin cans, metals, paper and paper products, cloth and clothing, wood and wood products, lawn clippings, sod, shrubbery, hair, hide, bones, dead animals, roofing paper, tar paper, unquenched ashes mixed, with refuse, market refuse, garbage, etc.) shall be deposited at this Site.
8. No material of a toxic nature such as insecticides, poisons, or radioactive materials, shall be deposited at this Site.
9. This discharge shall not cause a condition of pollution or nuisance as defined by sections 13050(l) and 13050(m) of the CWC.
10. The discharge of waste shall not cause water quality degradation by causing a statistically significant increase over background or baseline concentrations.
11. The Discharger shall remove and relocate at a legal disposal site any wastes that are discharged in violation of these requirements. For the purposes of these requirements, a legal point of disposal is defined as one for which a California regional water quality control board has established WDRs and the disposal site is in full compliance therewith.
12. Within 60 days from the adoption date of this Order, the Discharger must file a Notice of Intent (NOI) to obtain coverage under the statewide General Permit for Discharges of Storm Water Associated With Industrial Activities (Order #97-03-DWQ; NPDES No. CAS000001).
15. The Discharger shall implement the attached Monitoring and Reporting Program (M&RP) No. CI-8516, which is incorporated herein by reference, and revisions thereto in order to detect, at the earliest opportunity, any unauthorized discharge of

waste constituents from the Site or any unreasonable impairment of beneficial uses associated with (caused by) discharges of waste to the WMUs.

B. PROVISIONS

Design and Operation of Waste Management Units (WMUs)

1. The Regional Board can exempt a mining waste pile from installation of liners and leachate collection and removal systems required in 27 CCR § 22470(b), if the Discharger clearly demonstrates that leachate will not form in or escape from that mining unit. Based on the limited potential for the Gray and White Quarries to generate acid rock drainage, installation of liners and leachate collection and removal systems will not be required. However, the Regional Board can require extensive monitoring procedures in lieu of certain containment features. The Discharger will be required to develop contingency plans and implement them if monitoring indicates that the disposal procedures are inadequate. The Discharger will be required to comply with the monitoring requirements of 27 CCR § 20385 through § 20430 with respect to water quality monitoring. Water quality monitoring must be conducted during the active life, closure, and postclosure maintenance of the Site to verify that a WMU is not adversely affecting the beneficial uses of ground or surface waters.
2. No long-term stockpiling or processing of ore shall occur at the WMUs.
3. WMUs #1 and #2 must comply with 27 CCR § 22490(h)(1)(C), as stated: “Diversion and drainage facilities shall be designed and constructed to accommodate the anticipated volume of precipitation and peak flows from surface runoff as follows: Group C – one 10 year, 24 hour storm.”

Requirements for On-Site Uses of Water

4. Any water used for dust control or other non-emergency uses shall be subject to this Order, except for potable water and any other water allowed by this order.
5. Water used at the WMUs shall be limited to the sole purpose of dust suppression. The quantity applied shall be such as to preclude runoff and transport of waste material.

6. All use of dust control water shall be within the boundaries of the Site property. During an emergency, this water may be used for fire fighting on the Site or on undeveloped areas off and adjacent to the Site.
7. No water shall be routinely applied to the Site except for surface dust control. Water used for these purposes shall only be applied by spraying, in quantities not to exceed that necessary to reduce immediate dust hazards and shall not enter the storm water collection system.
8. Washing of equipment or vehicles shall be confined to areas where the waste water will not percolate into the disposal areas or native soils, or enter the storm water collection system, unless specifically permitted by this Order. Access road washdown shall also be confined to areas where the water will not percolate into the disposal areas or native soils. Access road washdown that enters the storm water collection system shall be subject to any NPDES requirements except for potable water and any other water allowed by this Order.
9. Any water used on-site for irrigation or dust control shall not exceed the maximum contaminant levels contained in 22 CCR 64431 for heavy metals, nitrates and inorganic chemicals, and in 22 CCR 64672 for copper and lead.

WMU Closure Specifications

10. The closure of each WMU shall be under the direct supervision of a California Registered civil engineer or certified engineering geologist.
11. Each WMU shall be closed according to an approved closure and postclosure maintenance plan that implements 27 CCR § 22510. The plan shall be submitted to the Regional Board two years before the anticipated closure date.
12. The closure and postclosure maintenance plan shall provide for continued compliance with the applicable standards of title 27 CCR for waste containment, precipitation and drainage controls, and monitoring throughout the closure and postclosure maintenance periods. The plan shall include a time schedule for closure and a sampling and analysis plan adequate to evaluate any wastes left at the site which may impact water quality.
13. Pursuant to 27 CCR § 20950(d) "Closed Units shall be provided with at least two permanent monuments installed by a licensed land surveyor or a registered civil

engineer, from which the location and elevation of wastes, containment structures, and monitoring facilities can be determined throughout the post-closure maintenance period.” WMUs #1 and #2 must have monuments installed at the end of their active period.

14. The Discharger shall provide for adequate funding to pay for the costs of closure and postclosure maintenance as required by 27 CCR § 22510(f) and (g). 27 CCR § 22510(f) states: “The discharger shall provide for adequate funding to pay for the costs of closure and post closure maintenance as required by this article. The discharger shall provide assurance of financial responsibility, acceptable to the RWQCB, pursuant to Chapter 6 of this title. The RWQCB shall periodically review financial assurances and shall modify them as necessary.”

General Provisions

12. This order includes the attached “*Standard Provisions Applicable to Waste Discharge Requirements*”, adopted November 7, 1990 (Attachment 1), which is incorporated herein by reference. If there is any conflict between provisions stated herein and the Standard Provisions, the provisions stated herein will prevail.
13. The Discharger shall maintain a copy of this Order at each WMU so as to be available at all times to personnel operating the Site.
14. The Discharger shall file with the Regional Board a report of any material change or proposed change in the character, location, boundaries, or quantity of this waste discharge or change in operations at least 120 days prior to the date of such proposed change.
15. Prior to any change in ownership or management of the operation, the Discharger shall transit a copy of this Order to the succeeding owner/operator, and forward a copy of the transmittal letter to the Regional Board.
16. These requirements are conditioned upon receipt of all local and state permits for the project, and are not intended to limit or reduce any obligations or requirements which are imposed by any other authority having jurisdiction regarding the project.
17. The Discharger shall comply with all conditions of this Order, including timely submittal of technical and monitoring reports, as directed by the Executive Officer. Violations may result in enforcement action, including Regional Board or court orders requiring

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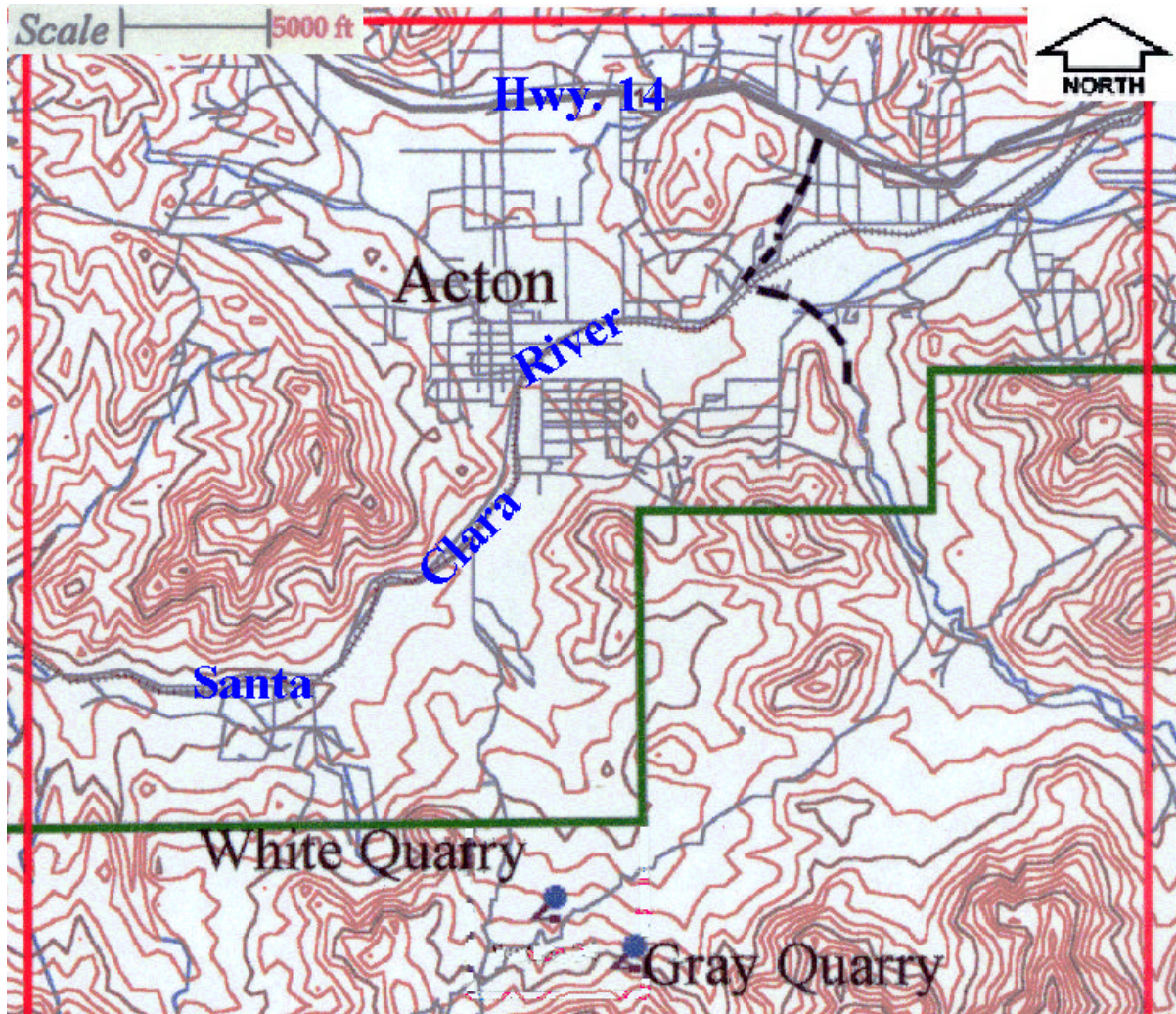
corrective action, imposition of civil monetary liability, or revision or rescission of this Order.

18. In accordance with section 13263(e) of the CWC, these requirements are subject to periodic review and revision by the Regional Board.
19. In accordance with section 13263(g) of the CWC, these requirements shall not create a vested right to continue to discharge and are subject to rescission or modification. All discharges of waste to the waters of the State are privileges, not rights.

I, Dennis A. Dickerson, Executive Officer, do certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on December 12, 2002.

Dennis A. Dickerson
Executive Officer

FIGURE 1
MAP VIEW OF THE WHITE AND GRAY QUARRIES (SITE)



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**ATTACHMENT 1:
STANDARD PROVISIONS**