

NPDES PERMIT NO. NM0028711

FACT SHEET

FOR THE DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
(NPDES) PERMIT TO DISCHARGE TO WATERS OF THE UNITED STATES

APPLICANT

LAC Minerals (USA) LLC
582 County Road #55
Cerrillos, NM 87010

ISSUING OFFICE

U.S. Environmental Protection Agency
Region 6
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PREPARED BY

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DATE PREPARED

July 1, 2016

PERMIT ACTION

Proposed reissuance of the current permit issued with an effective date of June 1, 2011 and an expiration date of May 31, 2016.

RECEIVING WATER – BASIN

Lower Cunningham Gulch (an ephemeral stream), thence to Galisteo Creek (an intermittent stream), thence to Rio Grande.

DOCUMENT ABBREVIATIONS

In the document that follows, various abbreviations are used. They are as follows:

4Q3	Lowest four-day average flow rate expected to occur once every three-years
BAT	Best available technology economically achievable
BCT	Best conventional pollutant control technology
BPT	Best practicable control technology currently available
BMP	Best management plan
BOD	Biochemical oxygen demand (five-day unless noted otherwise)
BPJ	Best professional judgment
CBOD	Carbonaceous biochemical oxygen demand (five-day unless noted otherwise)
CD	Critical dilution
CFR	Code of Federal Regulations
cfs	Cubic feet per second
COD	Chemical oxygen demand
COE	United States Corp of Engineers
CWA	Clean Water Act
DMR	Discharge monitoring report
ELG	Effluent limitation guidelines
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
FCB	Fecal coliform bacteria
F&WS	United States Fish and Wildlife Service
mg/l	Milligrams per liter (one part per million)
ug/l	Micrograms per liter (one part per billion)
MGD	Million gallons per day
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NMIP	New Mexico NPDES Permit Implementation Procedures
NMWQS	New Mexico State Standards for Interstate and Intrastate Surface Waters
NPDES	National Pollutant Discharge Elimination System
SQL	Minimum quantification level
O&G	Oil and grease
POTW	Publically owned treatment works
RP	Reasonable potential
SIC	Standard industrial classification
s.u.	Standard units (for parameter pH)
SWQB	Surface Water Quality Bureau
TDS	Total dissolved solids
TMDL	Total maximum daily load
TRC	Total residual chlorine
TSS	Total suspended solids
UAA	Use attainability analysis
USFWS	United States Fish & Wildlife Service
USGS	United States Geological Service
WLA	Wasteload allocation
WET	Whole effluent toxicity
WQCC	New Mexico Water Quality Control Commission
WQMP	Water Quality Management Plan
WWTP	Wastewater treatment plant

I. CHANGES FROM THE PREVIOUS PERMIT

Changes from the permit previously issued April 11, 2011, with an effective date of June 1, 2011, and an expiration date of May 31, 2016, are:

- A. On January 30, 2013 EPA approved the applicability of section 20.6.4.97 of the NM WQS to the receiving water because the State submitted a Use Attainable Assessment (UAA) to support an aquatic life designation that does not meet the CWA §101(a)(2) objective as required by 40 CFR 131.10(j)(1). The designated uses under 20.6.4.97 NMAC, are livestock watering, wildlife habitat, limited aquatic life use and secondary contact.

II. APPLICANT LOCATION and ACTIVITY

As described in the application, the Cunningham Hill Mine is located at 582 County Road # 55, in Cerrillos, Santa Fe County, NM 87010. Under the Standard Industrial Classification (SIC) Code(s) 1041, the applicant operates gold mine reclamation.



The source of the potential discharge from this reclamation mine is an open pit which is filled with natural groundwater recharge and stormwater runoff. At this point, the water level is over 200 feet below the elevation of the discharge channel. The earliest projection for discharge to occur is around 2050; but, indications are that it may be longer than that. The long-term remediation plan for the open pit pool, in accordance with an NMED-approved Abatement Plan, is to allow stormwater collected and conveyed from Upper Cunningham Gulch to fill the pit. LAC is planning to perform some maintenance activities on the diversion channel constructed to help convey the water, but there are currently no new plans. As the pit fills it will inundate the rock walls and reduce acid wall seepage. Lime is occasionally added to the pit lake to adjust pH to acceptable levels, and no other chemicals are currently used. The principal discharges from

Outfall 001 are made into Cunningham Gulch (an ephemeral stream), thence to Galisteo Creek (an intermittent stream), and thence to Rio Grande in Waterbody Segment Code No. 20.6.4.110 of the Rio Grande Basin.

III. EFFLUENT CHARACTERISTICS

There has been no discharge since EPA issued the first permit. Sampling requirements for effluent characteristics are established in the permit.

IV. REGULATORY AUTHORITY/PERMIT ACTION

In November 1972, Congress passed the Federal Water Pollution Control Act establishing the NPDES permit program to control water pollution. These amendments established technology-based or end-of-pipe control mechanisms and an interim goal to achieve “water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water,” more commonly known as the “swimmable, fishable” goal. Further amendments in 1977 of the CWA gave EPA the authority to implement pollution control programs such as setting wastewater standards for industry and established the basic structure for regulating pollutants discharges into the waters of the United States. In addition, it made it unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a permit was obtained under its provisions. Regulations governing the EPA administered NPDES permit program are generally found at 40 CFR §122 (program requirements & permit conditions), §124 (procedures for decision making), §125 (technology-based standards) and §136 (analytical procedures). Other parts of 40 CFR provide guidance for specific activities and may be used in this document as required.

It has been brought to EPA’s attention that in some mining facilities leachate from waste rock site or seepage of mine water settling pond or tailing pond may reach surface water through hydrologic connection. This permit does not authorize any discharge through hydrologic connection nor discharges at locations other than Outfall 001 as specified in the permit.

V. DRAFT PERMIT RATIONALE AND PROPOSED PERMIT CONDITIONS

A. OVERVIEW of TECHNOLOGY-BASED VERSUS WATER QUALITY STANDARDS-BASED EFFLUENT LIMITATIONS AND CONDITIONS

Regulations contained in 40 CFR §122.44 requires that NPDES permit limits are developed that meet the more stringent of either technology-based effluent limitation guidelines, numerical and/or narrative water quality standard-based effluent limits, or the previous permit.

B. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS

Regulations promulgated at 40 CFR §122.44 (a) require technology-based effluent limitations to be placed in NPDES permits based on ELGs where applicable, on BPJ in the absence of guidelines, or on a combination of the two. In the absence of promulgated guidelines for the discharge, permit conditions may be established using BPJ procedures. EPA establishes

limitations based on the following technology-based controls: BPT, BCT, and BAT. These levels of treatment are:

BPT - The first level of technology-based standards generally based on the average of the best existing performance facilities within an industrial category or subcategory.

BCT - Technology-based standard for the discharge from existing industrial point sources of conventional pollutants.

BAT - The most appropriate means available on a national basis for controlling the direct discharge of toxic and non-conventional pollutants to navigable waters. BAT effluent limits represent the best existing performance of treatment technologies that are economically achievable within an industrial point source category or subcategory.

The provisions of Subpart J of 40 CFR 440 are applicable to discharges from mines that produce gold bearing ores from open-pit operations other than placer deposits (§440.100(a)(1)). Subpart L-General Provisions and Definitions indicates that “mines” is an active mining area (§440.132(g)) and the “active mining area” does not include any area of land on or in which grading has been completed to return the earth to desired contour and reclamation work has begun (§440.132(a)). The applicant indicates in the application that the activity is a mine reclamation project. Therefore, the provisions of Subpart J of Part 440 do not apply to the potential discharge from this reclamation project. The proposed permit authorizes discharges of mine drainage from reclamation areas only.

C. WATER QUALITY BASED LIMITATIONS

1. General Comments

Water quality based requirements are necessary where effluent limits are more stringent than technology-based limits are necessary to maintain or achieve federal or state water quality limits. Under Section 301(b)(1)(C) of the CWA, discharges are subject to effluent limitations based on federal or state WQS. Effluent limitations and/or conditions established in the draft permit are in compliance with applicable State WQS and applicable State water quality management plans to assure that surface WQS of the receiving waters are protected and maintained, or attained.

2. Implementation

The NPDES permits contain technology-based effluent limitations reflecting the best controls available. Where these technology-based permit limits do not protect water quality or the designated uses, additional water quality-based effluent limitations and/or conditions are included in the NPDES permits. State narrative and numerical water quality standards are used in conjunction with EPA criteria and other available toxicity information to determine the adequacy of technology-based permit limits and the need for additional water quality-based controls.

3. State Water Quality Standards

The general and specific stream standards are provided in NMWQS (20.6.4 NMAC amended through June 2013). The designated uses of Cunningham Gulch, defined under the Water Quality Segment No. 20.6.4.97, are wildlife habitat, livestock watering, limited aquatic life and secondary contact. On January 30, 2013 EPA approved section 20.6.4.97 of the NM WQS because the State submitted a Use Attainable Assessment (UAA) to support an aquatic life designation that does not meet the CWA §101(a)(2) objective as required by 40 CFR 131.10(j)(1). The waters will be subjected to 20.6.4.97 NMAC. For the limited aquatic life use, the acute aquatic life criteria of Subsection I and J of 20.6.4.900 NMAC apply.

4. Permit Action - Water Quality-Based Limits

There have been no discharges from the facility since the last reissuance of the permit and no discharges are expected until around 20150, therefore, no new effluent characteristics data are available for evaluation of reasonable potential. Monitoring requirements and effluent limitations for total selenium and gross alpha in the current permit are proposed to be continued in the permit and pH range of 6.6 to 9.0 is continued. The permit requires sampling for effluent characterization evaluation. The permit may be reopened to include additional effluent limitations and monitoring requirements if new effluent data would demonstrate reasonable potential to exceed WQS.

D. WHOLE EFFLUENT TOXICITY

Procedures for implementing WET terms and conditions in NPDES permits are contained in the NMIP, March 2012. Table 11 of Section V of the NMIP outlines the type of WET testing for different types of discharges. Acute biomonitoring, at the critical dilution of 100%, for *Daphnia pulex* at a frequency of 1/year is continued in this permit renewal.

E. OPERATION AND E-REPORTING

The applicant is required to operate the treatment facility at maximum efficiency at all times; to monitor the facility's discharge on a regular basis; and report the results quarterly if discharging. The monitoring results will be available to the public.

Monitoring results shall be reported to EPA on either the electronic or paper Discharge Monitoring Report (DMR) approved formats. Monitoring results can be submitted electronically in lieu of the paper DMR Form. All DMRs shall be electronically reported effective December 21, 2016 per 40 CFR 127.16. To submit electronically, access the NetDMR website at www.epa.gov/netdmr and contact the R6NetDMR@epa.gov in-box for further instructions. Until you are approved for Net DMR, you must report on the Discharge Monitoring Report (DMR) Form EPA No. 3320-1 in accordance with the "General Instructions" provided on the form. No additional copies are needed if reporting electronically, however when submitting paper form EPA No. 3320-1, the permittee shall submit the original DMR signed and certified as required by Part III.D.11 and all other reports required by Part III.D. to the EPA and copies to NMED as required (See Part III.D.IV of the permit). Reports shall be submitted quarterly.

VI. 303(d) LIST

The receiving stream, Cunningham Gulch is not listed for impairment in the Final List of Assessed Surface Waters of November 2014. Therefore, no other WQ-based effluent limitations are proposed.

VIII. ANTIDegradation

The NMAC, Section 20.6.4.8 “Antidegradation Policy and Implementation Plan” sets forth the requirements to protect designated uses through implementation of the State water quality standards. The limitations and monitoring requirements set forth in the proposed permit are developed from the State water quality standards and are protective of those designated uses. Furthermore, the policy sets forth the intent to protect the existing quality of those waters, whose quality exceeds their designated use. The permit requirements and the limits are protective of the assimilative capacity of the receiving waters, which is protective of the designated uses of that water, NMAC Section 20.6.4.8.A.2.

IX. ANTIBACKSLIDING

The proposed permit is consistent with the requirements to meet antibacksliding provisions of the Clean Water Act, Section 402(o) and 40 CFR §122.44(l), which state in part that interim or final effluent limitations must be as stringent as those in the previous permit. No relaxation of permit conditions is proposed.

X. ENDANGERED SPECIES CONSIDERATIONS

In accordance with requirements under section 7(a)(2) of the Endangered Species Act, EPA has reviewed this permit for its effect on listed threatened and endangered species and designated critical habitat. According to the most recent county listing of species available for the State of New Mexico, the following species may be present in the Santa Fe County where the proposed NPDES discharge occurs: Yellow-billed Cuckoo, Mexican spotted owl, and Southwestern willow flycatcher.

The potential discharge is unlikely to reach Rio Grande. Southwestern willow flycatcher and Mexican spotted owl were not observed during surveys for endangered and threatened species in the Cunningham Hill Mine Reclamation Project area in June 1991. After reviewing information available to EPA, EPA maintains the previous determination that the reissuance of Permit No. NM0028711 will have “no effect” on listed threatened and endangered species nor will designated critical habitat be adversely modified.

XI. HISTORICAL and ARCHEOLOGICAL PRESERVATION CONSIDERATIONS

The reissuance of the permit should have no impact on historical and/or archeological sites since no construction activities are planned in the reissuance.

XII. PERMIT REOPENER

The permit may be reopened and modified during the life of the permit when new information, such as effluent characteristics, approval of new State Water Quality Standards, or approval of new TMDL, becomes available.

XIII. VARIANCE REQUESTS

No variance requests have been received.

XIV. CERTIFICATION

The permit is in the process of certification by the State Agency following regulations promulgated at 40 CFR 124.53. A draft permit and draft public notice will be sent to the District Engineer, Corps of Engineers; to the Regional Director of the U.S. Fish and Wildlife Service and to the National Marine Fisheries Service prior to the publication of that notice.

XV. FINAL DETERMINATION

The public notice describes the procedures for the formulation of final determinations.

XVI. ADMINISTRATIVE RECORD

The following information was used to develop the proposed permit:

A. APPLICATION(S)

EPA Application Forms 1 and 2C received November 30, 2015.

B. STATE OF NEW MEXICO REFERENCES

New Mexico State Standards for Interstate and Intrastate Surface Water, 20.6.4 NMAC, as amended through June 2013.

Procedures for Implementing National Pollutant Discharge Elimination System Permits in New Mexico, March 2012.

State of New Mexico 303(d) List for Assessed Stream and River Reaches, 2014-2016.

State of New Mexico Use Attainability Analyses (UAAs), June 2012