NPDES PERMIT NO. NM0030180
FACT SHEET

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

APPLICANT

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DATE PREPARED

June 1, 2019

PERMIT ACTION

Proposed re-issuance of the current permit issued on July 29, 2014, with an effective date of September 1, 2014, and an expiration date of August 31, 2019.

RECEIVING WATER – BASIN

Multiple streams specified in Section II

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
DO	Dissolved oxygen
ELG	Effluent limitation guidelines
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
FWS	United States Fish and Wildlife Service
mg/l	Milligrams per liter
ug/l	Micrograms per liter
lbs	Pounds
MG	Million gallons
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
MQL	Minimum quantification level
O&G	Oil and grease
POTW	Publically owned treatment works
RP	Reasonable potential
SS	Settleable solids
SSM	Sufficiently Sensitive Method
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
USGS	United States Geological Service
WLA	Waste Load 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

The changes from the current permit issued on July 29, 2014, with an effective date of September 1, 2014, and an expiration date of August 31, 2019, include:

- Monitoring of turbidity has been established at all outfalls.
- Requirement of turbidity control has been added.
- New aluminum limitation for Outfall 014 has been established.
- Pollutant analyses at each outfall have been required.

II. APPLICANT LOCATION and ACTIVITY

As described in the application, the Ancho-Gachupin-Brackett ("Ancho") Mine is located at York Canyon complex, at the end of Highway 555, Colfax County, New Mexico.

Discharges of mine drainage are to various streams named Salyers Canyon, Ancho Canyon, Gachupin Canyon, Brackett Canyon, and Vermejo River in the Segment No. 20.6.4.309 of Canadian River Basin. Outfall locations and flow information are listed below:

Outfall	Latitude	Longitude	Receiving Stream	Monthly Average Flow (MGD)
004**	36° 48' 15"	104° 51' 30"	Ancho Canyon	0.610
005	36° 48' 15"	104° 51' 30"	Salyers Canyon	0.390
006**	36° 48' 45"	104° 52' 15"	Salyers Canyon	0.133
007**	36° 49' 15"	104° 52' 45"	Salyers Canyon	0.0
011	36° 47' 45"	104° 51' 00"	Ancho Canyon	0.128
012**	36° 47' 30"	104° 50' 15"	Un-named Canyon, then to Vermejo River	36 (1 event)
014	36° 46' 60"	104° 52' 00"	Vermejo River	Inactive
015	36° 47' 15"	104° 52' 00"	Gachupin Canyon	Inactive
016*	36° 47' 15"	104° 53' 30"	Gachupin Canyon	NA
017	36° 47' 15"	104° 53' 30"	Salyers Canyon	0.236 (1 event)
018	36° 47' 15"	104° 53' 60"	Gachupin Canyon	0.320
019*	36° 47' 30"	104° 54' 15"	Gachupin Canyon	NA
020*	36° 47' 30"	104° 54' 15"	Gachupin Canyon	NA
021*	36° 47' 45"	104° 54' 30"	Gachupin Canyon	NA
022*	36° 47' 45"	104° 54' 30"	Gachupin Canyon	NA
023*	36° 47' 60"	104° 54' 45"	Gachupin Canyon	NA
030**	36° 47' 15"	104° 54' 00"	Gachupin Canyon	0.045 (1 event)
031	36° 47' 15"	104° 53' 30"	Gachupin Canyon	0.683
032**	36° 47' 15"	104° 53' 00"	Gachupin Canyon	0.108
033*	36° 47' 15"	104° 53' 60"	Gachupin Canyon	NA
034**	36° 46' 30"	104° 52' 30"	Brackett Canyon	0.001

* SMCRA bond has been released; outfall is removed in this permit.
**Expected bonds to be release by August 2019.

Under the Standard Industrial Classification (SIC) Code 1221, the applicant operates a post-operative coal mine. Active mining has been ceased; the mine has been in reclamation process. A portion of the mine has received Phase III bond release (no longer subjected to NPDES permit requirements), and the remainder is in Phase II bond release. On-going activities include routine inspection and sampling of monitoring wells and impoundments, vegetative cover sampling, and ground inspections. Activities may

also include the breaching or removal of temporary impoundments after sediment control release is obtained.

III. EFFLUENT CHARACTERISTICS

Submitted data (varied) in Form 2C for the outfalls are as follows:

Parameter	**Max** (mg/l unless noted)	**Avg.** (mg/l unless noted)
pH, minimum, standard units (su)	6.34	NA
pH, maximum, standard units (su)	9.2	NA
Flow (MGD)	13.74	0.81 (long term)
Temperature (C), winter	9.1	
Temperature (C), summer	23.6	

DMRs show there are exceedance in term of aluminum (total recoverable) limit for Outfalls: 004, 005, 006, 011, 012, 018, 022, 031, 032, 033. DMRs are available upon request.

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 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 is proposed that the permit be issued for a 5-year term following regulations promulgated at 40 CFR §122.46(a).

V. DRAFT PERMIT RATIONALE AND CONDITIONS

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

Regulations contained in 40 CFR §122.44 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

1. General Comments

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, including BOD, TSS, *E. coli* bacteria, pH, and O&G.

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.

2. Effluent Limitation Guidelines

The Western Alkaline Coal Mining Subcategory addresses drainage from coal mining operations from reclamation areas, brushing and grabbing areas, topsoil stockpiling areas, and regraded areas in the arid and semiarid western United States. Because the permittee has ceased surface mining and claimed that previously surface mined areas are undergoing reclamation, effluent guidelines in 40 CFR Part 434, subpart H are incorporated into the proposed permit. In accordance with the provision in 40 CFR 434.82 (BPT) and 434.83 (BAT), the permittee is required to submit a site-specific Sediment Control Plan (SCP) that is designed to prevent an increase in the average annual sediment yield from pre-mined, undisturbed conditions. Because the permittee has already had an approved site-specific SCP, the permittee is required only to resubmit updates to EPA. Also, because EPA has relied on the Office of Surface Mining or State Mining Programs agency (Mining Office) to review and approve the SCP under the Surface Mining Control and Reclamation Act (SMCRA) authority, the permittee is required to submit updated SCP approved by the Mining Office and shall keep a copy and any update on site for inspection purposes. EPA retains this requirement from the previous permit.

According to 40 CFR 434.81, all requirements of the SCP (including quarterly inspection) must be complied until the appropriate SMCRA authority has authorized bond release.

C. WATER QUALITY BASED LIMITATIONS

1. General Comments

Water quality based requirements are necessary where effluent limits 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/Tribe WQS. Effluent limitations and/or conditions established in the draft permit are in compliance with applicable State/Tribe WQS and applicable State/Tribe 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/Tribe narrative and numerical water quality standards are used in conjunction with EPA criterion and other available toxicity information to determine the adequacy of technology-based permit limits and the need for additional water quality-based controls.

Mine drainages discharge due to precipitation events from reclamation areas to Salyers Canyon, Ancho Canyon, Gachupin Canyon, Bracket Canyon, and unnamed tributaries to Vermejo River, thence to the Canadian River in Segment 20.6.4.309 NMAC of the Canadian River Basin. Portions of Gachupin Canyon, Bracket Canyon and an unnamed tributary to Brackett Canyon are in Segment 20.6.4.97 NMAC of the Canadian River Basin.

3. State Water Quality Standards

The general and specific stream standards are provided in NMWQS (20.6.4 NMAC approved on August 11, 2017). The stream (20.6.4.309 NMAC) designated uses are domestic water supply, irrigation, high quality coldwater aquatic life, livestock watering, wildlife habitat, and primary contact. The stream (20.6.4.97 NMAC) designated uses are livestock watering, wildlife habitat, limited aquatic life and secondary contact.

4. Permit Action - Water Quality-Based Limits

According to the NMIP and “Small Business Exemption” defined in Form 2C, the permittee must provide test analyses for: aluminum (dissolved), aluminum (total recoverable), antimony (dissolved), arsenic (dissolved), nickel (dissolved), selenium (dissolved), thallium (dissolved), zinc (dissolved), cyanide (total recoverable), phenols and 2,3,7,8-TCDD (Dioxin). This renewal application does not include those analyses in addition to other required information or data on Form 2C V-1 thru V-3. EPA does not request these information/data during this permit application review because the discharges are intermittent and possibly caused by stormwater events. In addition, it is uncertain when the next discharge would happen at all the outfalls in a reasonable amount of time; to address the missing data, the permit will instead require the pollutants be tested at each outfall when discharge first occurs. Upon receiving the test results, EPA will re-evaluate them and may propose modification to the permit if necessary to protect the State WQS. In additional, the permittee intends to close out all the remaining outfalls in this permit term. CMI expects Ancho Mine to be fully released from bond reclamation liability within 5 years; The bond release determination is made by New Mexico Mining and Minerals Division. Upon the bond release, if requested by the permittee, EPA would delete appropriate outfalls via a minor permit modification and/or terminate this permit.

Table 1: Aluminum (total recoverable) limits calculated using hardness value [20.6.4.900.I NMAC]

	Ambient hardness value, mg/L	Aluminum limit, mg/L (Acute AL)***	Aluminum limit, mg/L (Chronic AL)	Comment
Previously provided by permittee	140*	5.423*	2.173*	Limits are retained in this permit
Provided by permittee	142** (VR-2 location)			From 2015 to 2018
Provided by NMED	140** (Station Vermej073.7)			on 9/15/16

*Determined in the previous Response To Comment.

**Calculated geometric mean value of current data.
***Limit is retained (due to very close hardness values) and applicable to all outfalls, except Outfall 014 in this permit.

Table 2: Outfall 014 (due to designated uses for perennial stream 20.6.4.309 NMAC)

	Limit, mg/L (Chronic AL) 30-day average	Limit, mg/L, daily maximum	Comment
Aluminum (total recoverable)	2.173 (see Table 1)	2.173 x 1.5 = 3.259	Daily max. limit is protective of acute AL (see Table 1).

Criterion of 5 mg/L (dissolved aluminium) for irrigation use is applicable for the stream segment 20.6.4.309 NMAC. Since the reclamation is planned to finish within five years, EPA is not reevaluating this criterion and retains the existing limit for total recoverable aluminum (TRA), which is expected to also be protective of the irrigation use. EPA denies the permittee request to remove the existing TRA limit because there were exceedances even for 1-micron filtration since January 30, 2017. Because NMED letter dated January 30, 2017 is not clear about authorization of the 1-micron filter, EPA denies the permittee request to continue the 1-micron filtration for TRA. In discussions the State while this permit was being drafted, NMED indicated they had not formally authorized use of the 1-micron filter for the aluminum WQS. Until NMED approves the request (then authorized by EPA subsequently), the permittee must follow the test filtration specified for TRA according to 20.6.4.900.I NMAC.

EPA establishes new limits for TRA at Outfall 014 (stated in Table 2) due to applicable uses criteria for Vermejo River. EPA believes the limits (criteria applied at the end of the pipe) is the most protective at this time since the outfall is inactive, and there was no discharge during the previous permit term. The limits may be revised when discharge data (flow, concentration) are available at this outfall.

D. MONITORING FREQUENCY FOR LIMITED PARAMETERS

EPA retains the monitoring frequency for all outfalls as follows:

Parameter	Frequency	Sample Type
Flow	Monthly	Estimate
TRA	Monthly	Grab
Turbidity (see TMDL below)	Monthly	Grab

E. WHOLE EFFLUENT TOXICITY

EPA continues with no WET monitoring for the discharges due to reclamation process and same reason stated for TRA above.

VI. TMDL REQUIREMENTS

Vermejo River from Rail Canyon to York Canyon (Segment 20.6.4.309) is not supporting for high quality coldwater aquatic life due to turbidity, dissolve oxygen, specific conductance and temperature. TMDL for specific conductance was available in 2007. EPA believes the discharges (precipitation events) are not likely to cause major effects of dissolve oxygen, specific conductance and temperature. EPA proposes to monitor the discharges for turbidity monthly. In addition, EPA also adds requirement of “all practicable turbidity control techniques” for breaching or removal of BMPs pursuant to

20.6.4.13.J NMAC. The permit has a standard reopener clause that would allow the permit to be changed if at a later date additional requirements on new or revised TMDLs are completed.

VII. 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 draft permit are developed from the Tribe/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 receiving water, which is protective of the designated uses of that water, NMAC Section 20.6.4.8.A.2.

VIII. 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)(2)(i)(B), which state in part that interim or final effluent limitations must be as stringent as those in the previous permit, unless information is available which was not available at the time of permit issuance. No draft permit condition is less stringent than the previous one.

IX. ENDANGERED SPECIES CONSIDERATIONS

According to the list updated on May 16, 2019 for Colfax County, NM obtained from http://ecos.fws.gov, there are 7 endangered (E)/threatened (T) species: Yellow-billed Cuckoo (T), Mexican spotted owl (T), Piping Plover (T), Southwestern willow flycatcher (E), Black-footed ferret (E), Canada Lynx (T) and New Mexico meadow jumping mouse (E) . 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.

Because the permitting action area does not provide suitable habitats to those species and this permitting action does not contribute to declines of those species, EPA determines that this permit renewal action has no effect on those species.

X. HISTORICAL and ARCHEOLOGICAL PRESERVATION CONSIDERATIONS

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

XI. PERMIT REOPENER

The permit may be reopened and modified during the life of the permit if NMWQS are promulgated or revised. In addition, if the State develops a TMDL, this permit may be reopened to establish effluent limitations for the parameter(s) to be consistent with that TMDL. Modification of the permit is subject to the provisions of 40 CFR §124.5.

XII. VARIANCE REQUESTS

None

XIII. 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 of COE, to the Regional Director of FWS and to the National Marine Fisheries Service prior to the publication of that notice.

XIV. FINAL DETERMINATION

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

XV. ADMINISTRATIVE RECORD

The following information was used to develop the draft permit:

A. APPLICATION(s)

EPA Application Form 1 and Form 2C dated February 25, 2019

B. 40 CFR CITATIONS

Sections 122, 124, 125, 133, 136.

C. STATE OF NEW MEXICO REFERENCES

New Mexico State Standards for Interstate and Intrastate Surface Water, 20.6.4 NMAC; WQCC effective March 2, 2017; EPA approved on August 11, 2017.

State of New Mexico 303(d) List for Assessed Stream and River Reaches, 2018-2020.

D. MISCELLANEOUS

Procedures for Implementing National Pollutant Discharge Elimination System Permits in New Mexico – NMIP, March 15, 2012.

NMED email dated May 22, 2019.

Permittee email dated April 4, 2019.