

BHP Mineral Resources Oak Grove Exploration Project - Responses to New Mexico State Agency Comments.		
Comment #	Agency Comment	BHP Response
New Mexico Mining and Minerals Division (MMD) Comments		
1	1. Section 6.C states that groundwater is anticipated to be encountered during exploration. Are there any known aquifers that might be encountered during drilling and if so at what depths?	Groundwater is anticipated based on review of depth to groundwater information from drill sites in the general area. There are no known aquifers in the proposed project area.
2	2. Section 6.B states "in the event water is encountered while drilling, a thicker mud would be pumped into the drill to plug the water source." What is the management plan if multiple aquifers are encountered to prevent the commingling of aquifers? For example, will telescopic casing be used?	BHP Mineral Resources, Inc (BHP) and National EWP Inc. (National) propose to implement a drilling plan that allows for thick mud (bentonite) to be used throughout the drilling process.
3	3. Section 8.A provides an estimated financial assurance amount of \$46,150.00. MMD has calculated the financial assurance to be \$91,237.74, based on MMD's 2013 guidance document. A financial assurance instrument will need to be provided with this amount.	BHP is in receipt of this information and is coordinating for the financial assurance instrument.
New Mexico Environment Department (NMED) Mining Environmental Compliance Section (MECS) Ground Water Quality Bureau Comments		
4	MECS personnel reviewed the Office of the State Engineer (OSE) Points of Diversion (POD) database to evaluate the presence of ground water production wells in the area of the proposed project. Ground water production wells (livestock watering) were listed in the OSE database in the vicinity of the proposed project. The total dissolved solids (TDS) concentration of ground water is not stated in the application. In the likely instance ground water is encountered while advancing the boring to the potential total depth of 5,000 feet below ground surface, plugging, and abandonment of the boring should comply with OSE regulations for wet holes. The Applicant indicates either mud pits or mud tanks will be utilized during drilling activities. In addition, the Applicant indicates at the conclusion of the exploration project, all drill cuttings and desiccated drilling mud will be removed from the site and disposed in accordance with state and federal regulations.	BHP and National acknowledge this information and will follow the appropriate regulations depending on whether groundwater is encountered.

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5	NMED finds that the exploration project is likely to have a minimal impact to the environment if operated and reclaimed with the approved permits, pollution controls, and the comments above.	Comment noted.
NMED Surface Water Quality Bureau Comments		
6	This Project will disturb one or more acres and storm water discharges may be covered under either the U.S. Environmental Protection Agency (USEPA) National Pollutant Discharge Elimination System (NPDES) Construction General Permit (CGP) or under the Multi-Sector General Permit (MSGP) under Sector G Metal Mining.	Comment noted.
7	Among other things, a SWPPP must be prepared for the site and that appropriate Best Management Practices (BMPs) be installed and maintained both during and after construction to prevent, to the extent practicable, pollutants (primarily sediment, oil & grease and construction materials from construction sites) in storm water runoff from entering waters of the U.S. This permit also requires that permanent stabilization measures (revegetation, paving, etc.), and permanent storm water management measures (storm water detention/retention structures, velocity dissipation devices, etc.) be implemented post construction to minimize, in the long term, pollutants in storm water runoff from entering these waters. Operators of certain small construction activity (disturbance of one to five acres) may be waived from permit requirements under limited circumstances. To be eligible for this waiver, operators must certify to EPA that they are eligible (see Section 9 Appendix C of the CGP). Waivers are only available to stormwater discharges associated with small construction activities (i.e., 1-5 acres). If this Project transitions into mining activities, MSGP coverage would be required at that time.	Westland Resources, Inc. has submitted a request for a NPDES permitting waiver with EPA for the Project. Should permit coverage under the CGP be required, that would be obtained. BHP acknowledges that if the Project transitions into mining activities, MSGP coverage would be required at that time.
8	The following best management practices are recommended to protect surface water quality: <ul style="list-style-type: none"> • Fuel, oil, hydraulic fluid, lubricants, and other petrochemicals must have a secondary containment system to prevent spills. • Ground water sump pits may not be used as disposal locations for hydraulic fluids, oils, contaminated drilling mud or other materials that may pose a pollution risk to surface and ground water. 	These measures and practices will be incorporated into BHP's project.

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	<ul style="list-style-type: none"> • Appropriate spill clean-up materials such as absorbent pads must be available on-site at all times during road construction, site preparations, drilling and reclamation to address potential spills. • Report all spills immediately to the NMED as required by the New Mexico Water Quality Control Commission regulations (20.6.2.1203 NMAC). For non-emergencies during normal business hours, call 505-428-2500. For non-emergencies after hours, call 866-428-6535 or 505-428-6535 (voice mail, twenty-four hours a day). For emergencies only, call 505-827-9329 twenty-four hours a day (NM Dept of Public Safety). 	
9	The SWQB finds the Applicant's proposed exploration is likely to have a minimal impact to surface waters if operated and reclaimed with the approved permits and pollution controls and the comments above.	Comment noted.
NMED Air Quality Bureau		
10	<p>The <i>New Mexico Mining Act</i> of 1993 states that "Nothing in the <i>New Mexico Mining Act</i> shall supersede current or future requirements and standards of any other applicable federal or state law." Thus, the applicant is expected to comply with all requirements of federal and state laws pertaining to air quality. Current requirements which may be applicable in this mining project include, but are not limited to the following:</p> <p>Paragraph (1) of Subsection A of 20.2.72.200 NMAC, <i>Application for Construction, Modification, NSPS, and NESHAP - Permits and Revisions</i>, states that air quality permits must be obtained by:</p> <p>"Any person constructing a stationary source which has a potential emission rate greater than 10 pounds per hour or 25 tons per year of any regulated air contaminant for which there is a National or New Mexico Ambient Air Quality Standard. If the specified threshold in this subsection is exceeded for any one regulated air contaminant, all regulated air contaminants with National or New Mexico Ambient Air Quality Standards emitted are subject to permit review."</p> <p>Further, Paragraph (3) of this subsection states that air quality permits must be obtained by:</p> <p>"Any person constructing or modifying any source or installing any equipment which is subject to 20.2.77 NMAC, <i>New Source Performance Standards</i>, 20.2.78 NMAC, <i>Emission Standards for Hazardous Air</i></p>	<p>Comment noted.</p> <p>BHP and National acknowledge this information and will comply with applicable air quality requirements.</p>

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	<p><i>Pollutants</i>, or any other New Mexico Air Quality Control Regulation which contains emission limitations for any regulated air contaminant." Also, Paragraph (1) of Subsection A of 20.2.73.200 NMAC, <i>Notice of Intent</i>, states that:</p> <p>"Any owner or operator intending to construct a new stationary source which has a potential emission rate greater than 10 tons per year of any regulated air contaminant or 1 ton per year of lead shall file a notice of intent with the department."</p>	
11	<p>In addition, pursuant to Subsection A of 19.10.3.302 NMAC, <i>Minimal Impact Exploration Operations</i>:</p> <p>"A minimal impact exploration operation will not exceed 1000 cubic yards of excavation per permit. Disturbances for constructed roads, drill pads and mud pits shall be no more than 5 acres total and will not be counted in the excavated materials. The type of road construction, the number and type of drill pads, and other disturbances when considered with site specific conditions will be major factors in determining eligibility for minimal impact status which is in the discretion of the director."</p>	Comment noted.
12	<p>The above is not intended to be an exhaustive list of all requirements that could apply. The applicant should be aware that this evaluation does not supersede the requirements of any current federal or state air quality requirement.</p>	Comment noted.
13	<p>Fugitive dust is a common problem at mining sites and this project will temporarily impact air quality as a result of these emissions. However, with the appropriate dust control measures in place, the increased levels should be minimal. Disturbed surface areas, within and adjacent to the project area, should be reclaimed to avoid long-term problems with erosion and fugitive dust. EPA's <i>Compilation of Air Pollutant Emission Factors, AP-42, "Miscellaneous Sources"</i> lists a variety of control strategies that can be included in a comprehensive facility dust control plan. A few possible control strategies are listed below:</p> <p>Paved roads: covering of loads in trucks to eliminate truck spillage, paving of access areas to sites, vacuum sweeping, water flushing, and broom sweeping and flushing.</p>	These measures and practices will be incorporated into BHP's project plan.

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	<p>Material handling: wind speed reduction and wet suppression, including watering and application of surfactants (wet suppression should not confound track out problems).</p> <p>Bulldozing: wet suppression of materials to "optimum moisture" for compaction.</p> <p>Scraping: wet suppression of scraper travel routes.</p> <p>Storage piles: enclosure or covering of piles, application of surfactants.</p> <p>Miscellaneous fugitive dust sources: watering, application of surfactants or reduction of surface wind speed with windbreaks or source enclosures.</p>	
14	<p>The AQB has no objection to the current request for a minimal impact exploration permit from MMD.</p> <p>The applicant is expected to comply with all requirements of federal and state laws pertaining to air quality. This written evaluation does not supersede the applicability of any forthcoming state or federal regulations.</p>	Comment noted.
State of New Mexico Department of Cultural Affairs Historic Preservation Division (Letter Dated December 19, 2019)		
15	<p>On behalf of the New Mexico State Historic Preservation Officer (SHPO) I want to thank you for cooperating with the SHPO in regards to the aforementioned project. I have reviewed the submitted document entitled <i>"A Cultural Resources Inventory for Proposed Mineral Exploitation Activities on US. Bureau of Land Management (Las Cruces District) Land South of Silver City, Grant County, New Mexico (NMCRIS #143562)"</i>.</p> <p>The SHPO concurs with the report's findings and recommendations of eligibility and/or effects as proposed</p>	Comment noted.
Office of State Engineer		
16	<p>1. Discrepancies within the application and attachments</p> <p>a. Attachment 1 First page title states "Range" 20 South. Looks like, it should be "Township" 20 South.</p> <p>b. Unclear which cementing will be used during the abandonment of the borehole</p> <p>i. Needs to be consistent: currently there are two different types of the cementing agent provided In the "Plugging Plan" submitted to the District 3 office and in the MMD application.</p>	<p>1a. Comment Noted. The first page title of Attachment 1 should read Township 20 South, not Range 20 South.</p> <p>1b. Abandonite and Portland cement are proposed for use in the abandonment of the borehole depending on weather water is encountered during drilling. If artesian water is encountered Portland cement will be used from the bottom of the borehole to 2 feet below the surface with 2 feet of topsoil to the surface, and abandonite would not be used. If no flowing water is encountered,</p>

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		abandonite would be used from bottom of the borehole to 12 feet below the surface, then 10 feet of Portland cement and 2 feet of top soil to the surface (See Attached Borehole Diagram).
17	<p>2. Groundwater</p> <p>a. Based on the proposed borehole depth, it is most likely that groundwater would be encountered. It is also very likely that groundwater at this depth may be under artesian conditions and/or the stratified aquifer conditions which will require additional administrative filings with the NMOSE through our District 3 Office.</p> <p>b. In the unlikely event that no water is encountered MMD regulations (19.10.3 NMAC) will prevail and NMOSE regulations (19.27.4 NMAC) would not apply.</p> <p>c. It has been confirmed that the Applicant has filed an application for a <i>Permit to Drill a Well with No Water Right</i> and a <i>Well Plugging Plan of Operations</i> with NMOSE District 3 Office (provided as Attachment 6 in the application)</p>	BHP and National acknowledge this information and will follow the appropriate regulations depending on whether artesian or non-artesian groundwater is encountered.
18	<p>3. Borehole Abandonment</p> <p>a. In the unlikely event that the groundwater is not encountered MMD regulations for plugging (Subsection L of 19.10.302 NMAC) will prevail over NMOSE regulations for plugging (Subsection C of 19.27.4.30 NMAC)</p> <p>b. If water is encountered NMOSE well plugging regulations (Subsection C of 19.27.4.30 NMAC for non-artesian conditions; Subsection K of 19.27.4.31 NMAC for artesian conditions) should be followed.</p>	BHP and National acknowledge and will comply with these requirements.
19	Two USGS 7.5-minute Topo maps (Tyrone and White Signal Quadrangles: web links provided in the references) and GIS data from NMOSE Geographic Information System database were used to locate surface water bodies in the vicinity of the proposed project drill site. The project site is approximately 4 miles north of the <i>Cherry Creek</i> intermittent stream and approximately 6.5 miles southwest of the tail of another intermittent stream, the <i>Rio de Arenas</i> . Subsection F of Section 6- <i>Groundwater/Surface Water Information</i> (page 16) of the MM D's "Part 3 Minimal Impact	BHP and National acknowledge this information, and will comply with these requirements. The proposed drill site is not located within 100 feet of any drainage.

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	Exploration Operation PERMIT APPLICATION INSTRUCTIONS " (2012), suggests that drilling in or near water courses even if it is dry for most of the year is not preferred and will likely result in some drilling restrictions by the MMD. NMOSE regulation 19.27.4.29.P.(2)NMAC notes that drilling fluids and cuttings shall not be allowed to migrate or be discharged off property under the control of the well owner, and that no drilling fluid or cuttings be discharged into any waters of the State. It is recommended to avoid drilling in or within 100 feet of any drainages. Using data from USGS topo maps and the NMOSE GIS layers, it does not appear that the proposed location is within 100-feet of any drainage.	
20	Since it is likely that groundwater will be encountered, the NMOSE requirements for the drilling and plugging of the proposed borehole should be met. A <i>Permit to Drill a Well with No Water Right</i> for the proposed borehole (that encounter water) would be required (This permit application has already been filed by the Applicant, but the NMOSE District 3 Office may require the filing of an <i>Artesian Well Plan of Operations</i> if artesian conditions are encountered). The NMOSE regulation 19.27.4 also requires that the borehole be drilled by a New Mexico-licensed well driller.	National is a New Mexico-licensed well driller. BHP and National will comply with this requirement should artesian conditions be encountered.
21	MMD regulations (19.10.3 NMAC) prevail over those of NMOSE (19.27.4 NMAC) if groundwater is not encountered during exploratory drilling (this scenario is un-likely for the proposed borehole depth of 5000 feet). For exploratory borings that do not encounter a water-bearing stratum, MMD plugging regulation Subsection L of NMAC 19.10.3.302 addresses MMD-preferred plugging alternatives. In the event that drilling does encounter groundwater (a more likely scenario for the proposed borehole under this application), pluggings should be according to either a pre-approved plugging conditions attached to the NMOSE drilling permits, or can be separately conditioned by a <i>Well Plugging Plan of Operations</i> , as dictated by NMOSE Water Rights District 3 (Deming Office).	BHP and National acknowledge and will comply with MMD and NMOSE requirements.
22	Additional details regarding well plugging requirements under 19.27.4 NMAC are included in the attached document ("General Concerns Related to NMOSE Regulation of Exploratory Borehole Drilling Encountering Groundwater and Associated Plugging of these Borings").	BHP and National acknowledge and will comply with the additional requirements provided in the attached document.

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23	<p>Plugging Plan provided to the NMOSE District 3 (Deming) Office notes that the borehole will be decommissioned with a high solids bentonite grout (with a limited upper interval of cement), while the responses provided to the MMD on page 18 of the MMD permit application note that the borehole will be entirely plugged with neat cement slurry. [If the borehole is not flowing, a highsolids bentonite grout is an acceptable sealant If. water chemistry does not preclude its use - Chloride concentration in excess of 1500 mg/l or total hardness in excess of 500 mg/l are derogatory to bentonite sealant use, and bentonite sealant should not be used in this case]. Refer to the NMOSE guidelines for well construction and plugging: https://www.ose.state.nm.us/Statewide/Guidelines/SealantTableSigned.pdf. as well.</p>	BHP and National acknowledge and will comply with these requirements. Mixing water will be tested to ensure chloride concentration and total hardness are below these thresholds.
24	<p>Section 2.2 of the biological evaluation report has the error regarding the OSE requiring a concrete pad around the surface casing. This borehole will not be a monitoring well (unless the Applicant has failed to indicate as such on their filings), and the NMOSE does not have a requirement for a concrete pad around the monitoring well surface casing. If conversion of the exploratory borehole to a monitoring well is being considered, administrative filings with the NMOSE is required.</p>	Comment noted. Drilling, closure, and reclamation will be conducted as outlined in the comments above.
New Mexico Department of Game and Fish		
25	<p>BHP is proposing to use closed loop drilling technology for the project, utilizing an open tank approximately five feet in height to contain the drilling fluids. The Department supports the use of closed loop drilling techniques but recommends that a closed containment tank is used. If an open containment tank is used, it should be covered or netted to exclude flying and terrestrial animals from contacting drilling fluids. Extruded plastic, knit or woven netting material is preferred. Monofilament nylon netting should not be used due to its tendency to ensnare wildlife and cause injury or death. All materials should be resistant to corrosion and ultraviolet radiation. The Department recommends a mesh size of 3/8 inch to exclude smaller animals. Netting must be held taut and securely fastened to a rigid and adequately supportive frame to prevent sagging. Regular</p>	These measures will be incorporated into the Project.

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	inspection and maintenance is critical to repair holes and to restore tension to sagging netting material.	
26	The invasive noxious weed African rue (<i>Peganum harmala</i>) is known to occur in Grant County. African rue thrives on disturbed sites and along roadsides. It is extremely drought tolerant and will undergo rapid vegetative growth when soil moisture is available. African rue is extremely toxic to horses, sheep, cattle and humans, containing at least four types of poisonous alkaloids. In order to help control its spread into currently undisturbed semi-desert grassland habitats, the Department recommends that any vehicles and equipment arriving on site be thoroughly cleaned of all visible dirt and mud in a manner that will help contain and control the potential spread of weed seeds. The operator should also incorporate a weed monitoring program that includes a commitment to aggressive African rue control on the project site and access roads.	These measures will be incorporated into the Project.
27	For post-construction reclamation of the project area, the Department recommends that only native plant species are used in the reclamation seed mix. The Department also recommends that the seed mix and mulch be certified weed-free, and that seed test results are requested from the vendor in order to avoid inadvertently introducing non-native species to the reclamation site. Any alternate seeds used to substitute for primary plant species that are unavailable at the time of reclamation should also be native. When possible, the Department recommends using seeds that are sourced from the same region and habitat type as the reclamation site.	The seed mix to be used will include only native seed and it will be approved by the Bureau of Land Management.
Navajo National Heritage and Historic Preservation Department		
28	After reviewing your letter and cross referencing our Traditional Cultural Properties (TCP's) database, NNHHPD-TCP has determined that there are No Navajo TCP's in the project area and you may proceed without further consultation for this project.	Comment noted.

