BRIAN SANDOVAL Governor STATE OF NEVADA



KAY SCHERER Interim Director

JASON KING, P.E. State Engineer

DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES DIVISION OF WATER RESOURCES

901 South Stewart Street, Suite 2002 Carson City, Nevada 89701-5250 (775) 684-2800 • Fax (775) 684-2811 <u>http://water.nv.gov</u>

November 10, 2016

Patrick Highsmith, CEO Esmeralda Minerals, LLC 108 N. Minnesota Street Carson City, Nevada 89703

Re: Three waiver requests to not plug existing wells for a period of 1 year (P-waiver).

Well Name and locations:

CV-01, SW¼ NE¼ Section 29, T.2S., R.40E., M.D.B.&M. CV-03, SE¼ NE¼ Section 29, T.2S., R.40E., M.D.B.&M. CV-04, SW¼ NE¼ Section 29, T.2S., R.40E., M.D.B.&M. all within the Clayton Valley Hydrographic Basin (143), Nevada.

Dear Mr. Highsmith:

Our office has received and reviewed your requests to not plug the existing wells CV-01, CV-03 and CV-04. Wells CV-01, CV-02, CV-03, CV-04, CV-05 and CV-06 were ordered plugged by letter dated October 12, 2016, upon belief that the wells were sunk or bored by a non-licensed well driller. The Nevada Division of Water Resources (Division) has received plugging logs for CV-05 and CV-06 and those logs are under review. You previously indicated that you are in the process of arranging for the plugging of CV-02. The remaining three wells, CV-01, CV-03 and CV-04, are the subject of your waiver requests.

AUTHORITY¹

NRS 534.017 "Well driller" defined. "Well driller" means any person who drills a well or wells, for compensation or otherwise.

¹ The statutes and regulations referenced directly in this letter may not be all inclusive. See, Nevada Revised Statutes chapters 532 to 538, inclusive, also chapters 540, 543 and 544 and Well Drilling regulations Nevada Administrative Code chapter 534.

NRS 534.0175 "Well drilling" and "drilling a well" defined. "well drilling" or "drilling a well" are synonymous, and mean drilling or boring new wells, placing casing in wells, cleaning and repairing existing wells, cementing wells and doing all other things normally associated with the construction or rehabilitation of wells.

NRS 534.140 Well drillers: Annual licenses; fees; continuing education; regulations for well drilling; licensing by State contractors' Board.

1. Every well driller, before engaging in the physical drilling of a well in this State for development of water, must annually apply to the State Engineer for a license to drill.

NRS 534.160 License required to drill well; revocation of or refusal to reissue license; order to plug well; penalty for allowing an unlicensed person to drill.

1. A person shall not drill a well for water in this state without having first obtained a welldrilling license.

2. Well drillers must comply with the regulations adopted by the State Engineer governing the drilling of water wells.

5. The State Engineer shall order any person who drills a well without a license to plug that well. If the well is not plugged within 30 days after the order, the State Engineer shall plug the well at the expense of the person who owned or drilled the well.

NAC 534.220 "Well" defined. "Well" means a penetration in the ground made for the purpose of measuring, testing, sampling or producing groundwater. The term includes a water well, monitoring well or exploratory well.

NAC 534.235 "Well bore" defined. "Well bore" means a cylindrical hole made in the construction or drilling of a well.

NAC 534.047 "Borehole" defined. "borehole" means a penetration in the ground that is deeper than the longest dimension of its opening at the surface and is made to obtain geologic, geophysical or geotechnical information relating to engineering or for any purpose other than for use as a well.

NAC 534.4369 Boreholes: Generally.

1. A borehole may be drilled or plugged by a person who is not a licensed well driller.

2. A person who constructs or plugs a borehole is not required to file with the Division a notice of intent to drill or plug the borehole.

3. A borehole may be drilled without obtaining from the Division a permit to appropriate water or a waiver of the requirement to obtain such a permit.

7. A borehole must not be used to divert water for any purpose.

NAC 534.4371 Boreholes: Plugging requirements.

1. A borehole must be plugged within 60 days after it is drilled.

6. If casing is set in a borehole, the borehole must be completed as a well pursuant to the provisions of this chapter.

NAC 534.330 Responsibilities of licensed well drillers at drilling site.

A well driller licensed by the State Engineer:

1. Must be present at the well-drilling site when the drill rig is in operation and when any activity involving the construction, reconditioning or plugging of the well is conducted. If the licensed well driller leaves the drilling site, the drilling operation must be shut down until that licensed well driller or another well driller licensed pursuant to this chapter returns to the site. If the Division determines that drilling operations occurred during any period in which a licensed well driller was not present at the well-drilling site, the Division may order the drilling operation to cease and conduct an investigation. The drilling operation may not recommence until the Division approves the drilling operation.

GENERAL

<u>CV-01:</u>

CV-01 is described in the Well Driller's Report as a test well drilled with a rotary mud method. The total depth is 900 feet. The hole diameter is 14.75 inch and there is 8 inch nominal casing installed to depth and sealed from surface to 100 feet. The well was started on February 6, 2015, and completed February 25, 2015. The well was tested for 24 hours at a rate of greater than 250 gallons per minute (gpm) via air lifting. The driller report was signed by Rick Lewis, License #1793, and dated September 20, 2016. Via telephone call of November 4, 2016, Mr. Lewis indicated he was only on the well-site 2 days to oversee the seal. He indicated that the log was recreated from Pure Energy/GeoXplor/Harris Exploration notes and information and that the well was drilled, re-drilled to greater diameter, cased and gravel-packed prior to his involvement.²

Via press release of October 3, 2014, Pure Energy stated, in part, that its operator GeoXplor Corp. had successfully completed the CV-01 lithium brine proto-production well to a depth of 900 feet. The release indicated that the proto-production well was cased to a depth from the surface and perforated casing was installed from the top of the enriched zone to the bottom of the well. It said that pump tests and bulk sampling were underway to determine the overall grade of the lithium brine and define the optimum pumping rates for this type of proto-production lithium brine well. It further stated that the CV-01 well would be utilized for hydrological testing of the brine field, assist in determining lithium brine reserves and bulk sampling of brine for analysis and mineral recovery process testing.

Via press release of November 5, 2014, Pure Energy stated, in part, that drill hole CV-01 was completed to a depth of 900 feet and the hole was stabilized, flushed and pumped. The release indicated that samples were collected from the pumped fluids and that the Company will continue further bulk sampling of the brine for continued analysis.

² Personal communication by telephone between Tim Wilson, P.E., Manager II, Division of Water Resources and Mr. Rick Lewis, November 4, 2016.

Via press release of February 9, 2015, Pure Energy stated, in part, that the drilling work would commence with widening of the existing borehole CV-01 that was drilled in September and October 2014. The release indicated that the recently completed down-hole geophysical work in CV-01 refined the understanding of the brine-bearing horizons intersected in CV-01, and allows the optimum well installation to be designed. It stated that following the widening of CV-01, an 8-inch diameter well would be installed to allow pumping tests to be completed that will provide important hydrologic parameters to be determined. It indicated that these parameters will be helpful in determining future possible lithium-brine pumping rates.

Via press release of March 16, 2015, Pure Energy again stated, in part, that CV-01 was drilled as a borehole in September and October of 2014. It goes on to state that the company's operator, GeoXplor Corp. mobilized Harris Exploration Drilling to the site to ream and widen the borehole so that it can be used as a test-production well.

Via press release of April 8, 2015, Pure Energy stated, in part, that a high capacity electric submersible pump was installed in CV-01 and was used to conduct a preliminary step-test that produced flow rates from 40 to 180 gpm. It also said that after recovery, a long-term constant discharge test was performed at 150 gpm for a period of 8 hours.

<u>CV-03:</u>

CV-03 is described in the Well Driller's Report as a test well drilled with a rotary mud method. It also indicates that the total depth is 2,000 feet, the hole diameter is 12.75 inch, there is 8 inch nominal casing installed to 50 feet and 6 inch PVC casing from surface to 1,924 feet in depth and that a 50 foot seal was placed. The well was started on April 12, 2016, and completed July 29, 2016. The driller report was signed by Rick Lewis, License #1793, and dated October 3, 2016, along with an attached letter indicating that he was only on this well-site during gravel packing and to observe the correct placement of the cement seal. Via telephone call of November 4, 2016, Mr. Lewis indicated he was on the well-site for placing of the gravel pack and the seal, only. This took about a week due to difficulties placing the gravel pack to the specifications of the client. He indicated that the log was recreated from Pure Energy/GeoXplor/Harris Exploration notes and information and that the well was drilled and cased prior to his involvement.³

Via press release of November 16, 2015, Pure Energy stated, in part, that it had commenced a second drill campaign in Clayton Valley South (CVS). It is noted that Harris Exploration Drilling had successfully drilled and developed productive lithium brine wells in earlier stages of drilling at CVS. It also indicated that this phase is for up to 3 resource assessment wells. Pure Energy CEO stated "[w]e are pleased to begin this next phase of drilling at CVS and that conservative assumptions were applied in modeling the southern zone of the brine resource; and these new wells would improve their understanding of the reservoirs and the brine grade in this zone."

³ Personal communication by telephone between Tim Wilson, P.E., Manager II, Division of Water Resources and Mr. Rick Lewis, November 4, 2016.

Via press release of April 14, 2016, Pure Energy stated, in part, that based on their track record during the phase 2 drill program at CVS, Harris Exploration Drilling and Associates Inc. remains the primary drill contractor on the Project. It said that Pure Energy expected to drill CV-03 to a depth of 1,640 feet before completing its construction with appropriate gravel pack, bentonite and screening. It indicated that CV-03 would serve a dual purpose as a monitor well for upcoming pump tests and as a deeper exploration well and that once the new well was developed and drilling muds dispersed, geophysical logs would help characterize the aquifers for sampling.

<u>CV-04:</u>

CV-04 is described in the Well Driller's Report as a test well drilled with air, rotary, mud methods. The log indicates that the total depth is 1,340 feet, the hole diameter is 12.75 inch to 50 feet then 5.25 inch from 50 feet to 1,190 feet in depth, that there is 8 inch nominal casing to 50 feet and 3 inch PVC from surface to total depth and that a 50 foot seal was placed. The well was started on December 8, 2015, and completed February 8, 2016. The Well Driller's Report was signed by Patrick Harris on October 4, 2016, and indicates "Core Borehole." Patrick Harris is not a licensed driller in Nevada. License #1793 was entered on the report, which is Rick Lewis; however, it is believed that it may have been put on the report in error. The Division's well supervisor is working with Patrick Harris to correct possible errors on the log.

Via press release of February 16, 2016, Pure Energy stated, in part, that it had successfully completed well CV-04 from surface to a depth of 1,340 feet. It further indicated that after installing steel casing to 400 feet below surface, the drillers employed mud rotary methods to complete the well and that high fluid inflows necessitated termination of the well before the targeted depth of 1,500 feet. It said that the driller completed the well by installing a 3" PVC casing with screened sections open from 260 feet to 1,200 feet bgl.

FINDINGS

Two supplemental letters were addressed to the Division in support of the position to stop the plugging order and issues waivers. The first letter is from Taggart & Taggart, Ltd., dated November 1, 2016, and the second from Nevada Water Solutions LLC, dated November 4, 2016. Both letters, in part and in general, indicate that it was not the intent of Pure Energy to drill wells; rather, the intent was to drill mineral exploration boreholes. In addition, they state that CV-01 and CV-03 were completed as wells in compliance with Nevada statutes and regulations. Both of the letters raise issues that are addressed herein.

Pure Energy asserts that the intent of the drilling program was to drill mineral exploration boreholes. A borehole is drilled to obtain geologic, geophysical or geotechnical information relating to engineering or for any purpose other than for use as a well.⁴ A borehole <u>may</u> [emphasis added] be drilled or plugged by a person who is not a Nevada licensed well driller;⁵ however, a borehole is

⁴ NAC § 534.047.

⁵ NAC § 534.4369(1).

temporary and must be plugged within 60 days after it is drilled and a borehole must not be used to divert water for any purpose.^{6.7} In examining Pure Energy's press releases and records on file in the Division, as detailed above and below, the intent of the drilling program appears conclusive in that the ultimate purpose was to drill wells.

<u>CV-01:</u>

The press release of October 3, 2014, relating to CV-01, clearly states that the well was completed as a "lithium brine proto-production well" and that the well was cased to allow for pump testing and bulk sampling. Later, the well was increased in diameter for the purpose of using it as a "test-production well." Ultimately, Pure Energy confirmed that a high capacity electric submersible pump was installed in CV-01 and used to conduct a preliminary step-test and a long-term constant discharge test. A review of records on file in the Division show that for the original drilling of the well, an unlicensed driller was used, no Notice of Intent to Drill card was filed or approved, and no waivers or water right permits were obtained despite the stated intent to use the well as a proto-production well. Subsequently, Pure Energy decided to increase the diameter of the well to use the well as a test-production well. Again, an unlicensed driller was used, no Notice of Intent to Drill card was filed or approved, and no waivers or water right permits or water right permits were obtained driller was used.

Pure Energy contends the intent was to drill a borehole and at some unspecified point the intent changed and at that point a licensed well driller was used to convert the borehole to a well in compliance with well drilling regulations. Per the press release of October 3, 2014, CV-01 was completed sometime in prior to October 3, 2014. A borehole must be plugged within 60 days after it is drilled. According to the Well Driller's Report, the alleged conversion from a "borehole" to a well occurred February 6, 2015, and was completed February 25, 2015. This exceeds the 60 day time limit for a borehole. In addition, the licensed driller claims only to have been on the drill site for 2 days and only for the purpose of overseeing the placement of a sanitary seal. For the alleged conversion, no Notice of Intent to Drill card was filed or approved, no waivers or water right permits were obtained, and a Well Driller's Report was not filed within 30 days, as required.

A well driller licensed by the Nevada State Engineer must be present at the well-drilling site at all times when the drill rig is in operation and when any activity involving the construction, reconditioning or plugging of the well is conducted. If the licensed well driller leaves the drilling site, the drilling operation must be shut down until that licensed well driller or another well driller licensed pursuant to this chapter returns to the site. If the Division determines that drilling operations occurred during any period in which a licensed well driller was not present at the well-drilling site, the Division may order the drilling operation to cease and conduct an investigation. The drilling operation may not recommence until the Division approves the drilling operation.⁸ This preceding section of the Nevada

⁸ NAC § 534.330.

⁶ NAC § 534.4371(1).

⁷ NAC § 534.4369(7).

Administrative Code clearly indicates that a Nevada licensed well driller must be on-site at all times for the drilling and construction of a well.

Under Pure Energy's conversion scenario, the licensed driller was not onsite for the drilling of the hole, the placement of the casing, or the placement of the gravel pack in violation of NAC § 534.330. Pure Energy contends that a borehole can be converted to a well, and the Division agrees, but only if all other applicable statutes and regulations are followed. For compliance with NAC § 534.330, the borehole must be started by a Nevada licensed driller if the borehole is ultimately converted to a well. The decision to convert a borehole to a well must occur within 60 days as a borehole must be plugged within 60 days after it is drilled. If the decision is made to convert the borehole to a well, all necessary waivers or permits must be requested and approved, the licensed driller must file a Notice of Intent to Drill card and receive approval to perform the work, the licensed driller must be present and a Well Driller's Report must be filed within 30 days from completion of the work. In this case, an unlicensed driller performed nearly all of the work, a licensed driller was not present at the well-drilling site when the drill rig was in operation and when any activity involving the construction of the well was conducted except for the seal, no Notice of Intent to Drill card was filed or approved, no waivers or water right permits were obtained, and a Well Driller's Report was not filed within 30 days, as required.

If it was accepted that CV-01 was a borehole, despite evidence to the contrary as detailed above, a borehole can only exist for 60 days and cannot be used to divert water for any purpose. CV-01 was used for at least two pump tests and is still in existence today sans waiver or water right permit.

<u>CV-03:</u>

For CV-03, the press release of April 14, 2016, stated that based on their track record during the phase 2 drill program at CVS, Harris Exploration Drilling and Associates Inc. would remain as the primary drill contractor on the Project. Harris Exploration Drilling/Principal Patrick Harris is not a licensed driller in the state of Nevada. Pure Energy stated that its intent was to drill CV-03 to a depth of up to 1,640 feet before completing its construction with appropriate gravel pack, bentonite and screening. Further, Pure Energy asserts it was intended that CV-03 serve a dual purpose as a monitor well for upcoming pump tests and as a deeper exploration well. A review of records on file in the Division show that for the original drilling of the well, an unlicensed driller was used, no Notice of Intent to Drill card was filed or approved, and no waivers or water right permits were obtained despite the stated intent to use the well as a monitor well for upcoming pump tests and as a deeper exploration well. Pure Energy contends that the intent was to drill a borehole and that at some unspecified point the intent changed and at that point a licensed well driller was used to convert the borehole to a well in compliance with well drilling regulations. According to the Well Driller's Report, the alleged conversion from a "borehole" to a well started on April 12, 2016, and was completed July 29, 2016. The licensed driller claims only to have been on the drill site for about one week and only for the purpose of overseeing the placement of the gravel pack and the seal. For the alleged conversion, no Notice of Intent to Drill card was filed or approved, no waivers or water right permits were obtained

prior to the work, and a Well Driller's Report was not filed within 30 days, as required. On July 13, 2016, and in response to a complaint filed July 1, 2016, by Rockwood, Pure Energy met with the Division to discuss the well drilling activities. Pure Energy agreed to file mining and milling waivers, retroactively for the 6 wells, CV-01 through CV-06 and those waivers were approved July 28, 2016, but were subsequently rescinded by the Division.

A well driller licensed by the State Engineer must be present at the well-drilling site when the drill rig is in operation and when any activity involving the construction, reconditioning or plugging of the well is conducted. If the licensed well driller leaves the drilling site, the drilling operation must be shut down until that licensed well driller or another well driller licensed pursuant to this chapter returns to the site. If the Division determines that drilling operations occurred during any period in which a licensed well driller was not present at the well-drilling site, the Division may order the drilling operation to cease and conduct an investigation. The drilling operation may not recommence until the Division approves the drilling operation.9 This preceding section of the Nevada Administrative Code clearly indicates that a Nevada licensed well driller must be on-site at all times for the drilling of a well. Under Pure Energy's conversion scenario, the licensed driller was not onsite for the drilling of the hole or the placement of the casing in violation of NAC § 534.330. Again, Pure Energy contends that a borehole can be converted to a well, and as previously stated, the Division agrees; however, that conversion may only occur if all other applicable statutes and regulations are followed. For compliance with NAC § 534.330, the borehole must be started by a Nevada licensed driller if the borehole is ultimately converted to a well. The decision to convert a borehole to a well must occur within 60 days as a borehole must be plugged within 60 days after it is drilled. If the decision is made to convert the borehole to a well, all necessary waivers or permits must be requested and approved, the licensed driller must file a Notice of Intent to Drill card and receive approval to perform the work, the licensed driller must be present and a Well Driller's Report must be filed within 30 days from completion of the work. In this case, an unlicensed driller performed a significant portion of the work, a licensed driller was not present at the well-drilling site when the drill rig was in operation and when any activity involving the construction of the well was conducted except for the gravel pack and seal, no Notice of Intent to Drill card was filed or approved, no waivers or water right permits were obtained, and a Well Driller's Report was not filed within 30 days, as required.

CV-04:

For CV-04, the press release of February 16, 2016, stated, in part, that it successfully completed well CV-04 from surface to a depth of 1,340 feet. It further indicated that after installing steel casing to 400 feet below surface, the drillers employed mud rotary methods to complete the <u>well</u> [emphasis added] and that high fluid inflows necessitated termination of the well before the targeted depth of 1,500 feet. A review of records on file in the Division show that for the original drilling of the well, an unlicensed driller was used, no Notice of Intent to Drill card was filed or approved, and no waivers or water right permits were obtained despite the stated intent to complete CV-04 as a well. Pure Energy contends that the intent was to drill a borehole; however, no attempt was made to request

⁹ NAC § 534.330.

a waiver of the requirement that a borehole be plugged within 60 days after it is drilled. According to the Well Driller's Report, the alleged borehole was started on December 8, 2015, and completed February 8, 2016. If it is accepted as a borehole, per regulation, CV-04 should have been plugged by April 8, 2016. If this site is a well, it was drilled by an unlicensed driller and must be plugged. If the site is a borehole, it is an illegal borehole and must be plugged. Pure Energy requests that CV-04 be preserved as a monitor well and indicates that it will file whatever paperwork is necessary to convert CV-04 to a monitoring well.¹⁰

The letter of November 1, 2016, by Taggart & Taggart Ltd. mentions that on multiple occasions representatives from the State Engineer's office (Division) visited the Pure Energy drilling sites and did not mention the activity was not in compliance. The site was visited on February 11, 2016, and was incidental to the basin designation hearing for Clayton Valley in Silver Peak, Nevada. After the hearing, it was noticed that there were two well drilling rigs in the distance and it was decided to try and reach the drilling sites by vehicle in order to determine what activity was taking place. At the first well drilling site, Division staff was met by a driller who indicated that he was in charge of both drill rigs. The drill rigs and equipment were from Harris Exploration Drilling. The driller indicated that he was drilling exploratory boreholes, that he was aware of the borehole regulations and assured staff that the holes were only temporarily cased, would not be pumped and would be plugged after the holes were logged as required by a Bureau of Land Management Notice of Intent. Dr. Andy Robinson of Pure Energy arrived onsite later and reiterated the claims about the nature of the drilling sites indicating further that no water would be pumped and only a few small samples (less than 1 liter) would be taken at various depths by dipping into the well.

Based on these representations, it was believed that Pure Energy was acting within the borehole regulations at that time. Since the visit was unplanned and informal, it cannot be said with certainty which of the six well sites were visited. An informal visit was also conducted on or around June 28, 2016. Field notes from the visit indicate that Well CV-03 was being test pumped and workers indicated that a gravel pack and seal was to be installed. At least two other visits to the Pure Energy drill sites were subsequently conducted, but each time no contact was made with any representative of Pure Energy.

CONCLUSIONS

Based on the information reviewed, it is believed that Pure Energy constructed six wells in Clayton Valley named CV-01, CV-02, CV-03, CV-04, CV-05 and CV-06. On October 12, 2016, the State Engineer ordered all six wells plugged as required by NRS § 534.160(5). Pure Energy has plugged wells CV-05 and CV-06 and intends to plug CV-02; however, they have requested through various agents to keep open CV-01, CV-03 and CV-04 (hereinafter the Wells), specifically through the filing of three P-Waiver requests on November 1, 2016.

¹⁰ See Correspondence from Taggart & Taggart, Ltd., November 1, 2016, official record in the Office of the State Engineer.

The two supplemental letters submitted by Taggart & Taggart, Ltd. and Nevada Water Solutions LLC. contend that a borehole can be converted to a well, and the Division agrees, but only if all other applicable statutes and regulations are followed. A well driller licensed by the State Engineer must be present at the well-drilling site when the drill rig is in operation and when any activity involving the construction, reconditioning or plugging of the well is conducted. This was clearly not the case in the drilling of the remaining wells.

The wells were drilled without obtaining permits to appropriate water as required by NRS § 533.325 and NRS § 534.050 and were drilled without first obtaining waivers pursuant to NRS § 534.050 and NAC § 534.440.¹¹ The Wells were drilled without the benefit of a Nevada licensed well driller, as required by NRS § 534.160(1) and NAC § 534.320. The wells were drilled without first submitting and receiving approval for Notice of Intent to Drill cards, as required by NAC § 534.320. The State Engineer finds these are serious violations of Nevada law and regulations.

RULING

Based on the findings and conclusions herein, the State Engineer does not find good cause to issue waivers for the Wells and hereby <u>denies</u> the three P-waiver requests. Compliance with the plugging letter dated October 12, 2016, remains in effect.

Respectfully, Jim Wikon, PE.

Tim Wilson, P.E. Manger II, Well Driling

TW/jm

cc:

Taggart & Taggart, via e-mail and hard copy to follow Tim Donahoe, SRK, via e-mail and hard copy to follow

¹¹ Note, prior to basin designation on March 7, 2016, wells could have been drilled by a Nevada licensed well driller in a non-designated basin (prior to March 7, 2016) without the benefit of a waiver or permit, but no use of the wells could have occurred until such time as the proper permits and waivers were obtained.



Amount

Division of Water Resources Receipt for Payment



Taggart & Taggart Ltd 108 North Minnesota Street Carson City, NV 89703

Check #: 5950 Check Date: 11/1/2016 Date Received: 11/1/2016 Receipt #: 27898

Fee Type/Fee desc

Notes

2017

FY

\$120.00 P-WAIVER

Permit #

1.1

Invoice #

- Waivers

COVERS (3) P-WIAVERS

CK TOTAL \$360.00

IN THE OFFICE OF THE STATE ENGINEER OF THE STATE OF NEVADA REQUEST FOR WAIVER TO NOT PLUG AN EXISTING WELL FOR A PERIOD OF ONE (1) YEAR

The applicant and/or person or company responsible:

Patrick Highsmith	Chief Executive Offi	cer Esme	eralda Minerals, LLC
Name 108 N. Minnesota Street	Title Carson City	Neva	Company da 89703
Street Address or PO Box	City or To	wn	State and ZIP Code
Telephone number of responsible party:	(303) 668	3-3264	
SW 1/4 NE 1/4 Section	dinates and Map Dat 29 T 02 S		& M.
$ \begin{cases} \text{Latitude (N):} & 37.738281 \\ \text{Longitude (W):} & -117.559853 \end{cases} $	or {UTM (n UTM (n	n) E: n) N:	Datum NAD83/WGS8-
County Assessor Parcel Number (APN): Street Address (if any): Not applicable (
Purpose and reason for requesting this w		shoots as nocassani)	
The Applicant requests a waiver to not p conditions in Clayton Valley and the pot minerals from beneath Applicant's mine- existing well network for water level mod developing additional background and b Applicant in demonstrating trespass and Applicant's valid mineral claims. In add efforts, at Federal, State and local levels What is the NDWR well log number? What is the water right permit number?	tential capture/depletic ral claims. The well m onitoring. Monitoring of aseline hydrogeologic the taking of lithium, lition, the data will be , for its Clayton Valley	n, by others, of lithium ay be useful to augment lata collected from the data for Clayton Vall- and its associated minused to support Applie	n and its associated nt the State Engineer's well will be useful for ey. The data will also aid erals, from beneath
The following iter	ms must be submitted	with the waiver req	uest: 📅 📩 🔟
• Affidavit of Intent to Plug a	Well		office
Signatory Contact Information:			C S
(775) 828-6800		Timothy P. Donahoe	
Telephone Number		Printed Name	
5250 Neil Road, Suite 300		Simily !	? Danale
Mailing Address		Signature	
Reno, Nevada 89502		Oct-25-2016	
City, State, ZIP Code		Date	

Revised 12/14 - waiver_p

\$120 FILING FEE MUST ACCOMPANY THIS REQUEST

IN THE OFFICE OF THE STATE ENGINEER OF NEVADA

AFFIDAVIT OF INTENT TO ABANDON A WELL

		Notice of Intent #	
I, <u>P</u>	ATRICK HIGHSMITH, C.E.O.	Name & Title	20
E	SMERALDA MINERALS, LLC.	_Company	RE
10	08 N. MINNESOTA STREET	_Address	RECEIVE 2016 NOV - 1 PM
<u>C</u>	ARSON CITY, NEVADA 89703		EIVED
(3	303) 668-3264	_Telephone Number	ED 4:25
of the re	eal property located at:		ini .
Street a	ddress (if any) not applicable (Well CV-01))	
County	Assessor Parcel Number (APN) 006-281-	02	
Situated	within the SW 1/4 NE 1/4 Sect	ion <u>29</u> T <u>02 s R</u>	40 E, M.D.B. & M.
{Latin	tude (N): $\frac{37.738281}{-117.559853}$ or $\begin{cases} U^{*}\\ U^{*} \end{cases}$	ΓM (m) E:	Datum NAD83/WGS84
and whe	ereupon an existing well or wells are loca	ted or to be located, fully und	erstand that I shall be
	ible for, and shall cause the existing wel		
containe	ed in Nevada Administrative Code (NAC) 5	34.420 and all other applicable	e rules and regulations
for drilli	ing/plugging wells in the State of Nevada.		
I shall fi	urther make any purchaser of this parcel aw	are of these conditions.	
Respons (Printed	sible Party Name): Patrick Highsmith	(Signature):	
State of County of	A 1.		
Subscrib	bed and sworn to before me on 10/25/1	10	
by <u>Pa</u>	trich Highsmith	Appointment Re	AH HOPE - State of Nevada corded in Carson City pires September 17, 2019

Signature of Notary Public Required



Amount

Division of Water Resources Receipt for Payment



Taggart & Taggart Ltd 108 North Minnesota Street Carson City, NV 89703

Check #: 5950 Check Date: 11/1/2016 Date Received: 11/1/2016 Receipt #: 27898

Fee Type/Fee desc

Notes

2017

FY

\$120.00 P-WAIVER

Permit #

Invoice #

- Waivers

COVERS (3) P-WIAVERS

CK TOTAL \$360.00

IN THE OFFICE OF THE STATE ENGINEER OF THE STATE OF NEVADA REQUEST FOR WAIVER TO NOT PLUG AN EXISTING WELL FOR A PERIOD OF ONE (1) YEAR

The applicant and/or person or company responsible:

Patrick Highsmith	Chief Executive O	fficer	Esmeralda Min	erals, LLC
Name 108 N. Minnesota Street	Title Carson City		Con Nevada 89703	mpany
Street Address or PO Box	City or	Town		d ZIP Code
Telephone number of responsible party:	(303) 6	68-3264		
Location of the well: PLSS, GPS Coor SE 1/4 NE 1/4 Section	<u>29</u> T <u>02 s</u>	<u> </u>	M.D.B. & M.	
Latitude (N): 37.736717 Longitude (W): -117.559078	or {UTM UTM	(m) E: (m) N:	}	Datum NAD83/WGS84
County Assessor Parcel Number (APN): Street Address (if any): Not applicable of Purpose and reason for requesting this w The Applicant requests a waiver to not p conditions in Clayton Valley and the por minerals from beneath Applicant's mine existing well network for water level mod developing additional background and b Applicant in demonstrating trespass and Applicant's valid mineral claims. In add efforts, at Federal, State and local levels	(Well CV-03) vaiver: (Attach addition olug the existing well tential capture/deple ral claims. The well onitoring. Monitoring aseline hydrogeolog the taking of lithium lition, the data will b , for its Clayton Vall	l so that it may b tion, by others, c may be useful to g data collected f ic data for Clayt n, and its associa e used to suppor	be used to monitor of lithium and its a paugment the Stat from the well will on Valley. The da ted minerals, from t Applicant's ong t.	associated te Engineer's be useful for ta will also aid n beneath oing permitting
What is the water right permit number?	none	_		RECEIV
The following iter	ms must be submitt	ed with the wai		
• Affidavit of Intent to Plug a	Well			25
Signatory Contact Information:				
(775) 828-6800		Timothy P. D	onahoe	
Telephone Number		Printed Name		
5250 Neil Road, Suite 300		Zini	12 P. Dank	1_
Mailing Address		Signature C	7	
Reno, Nevada 89502		Oct-25-2016		
City, State, ZIP Code		Date		

Revised 12/14 - waiver_p

\$120 FILING FEE MUST ACCOMPANY THIS REQUEST

IN THE OFFICE OF THE STATE ENGINEER OF NEVADA

AFFIDAVIT OF INTENT TO ABANDON A WELL

	Notice of Intent #	
I, PATRICK HIGHSMITH, C.E.O.	Name & Title	
ESMERALDA MINERALS, LLC.	Company	RECE 2016 NOV -
108 N. MINNESOTA STREET	Address	RECEIVE
CARSON CITY, NEVADA 89703		EIVED
(303) 668-3264	Telephone Number	S OFFI
of the real property located at:		ic is
Street address (if any) not applicable (Well CV-0)3)	
County Assessor Parcel Number (APN) 006-28	1-02	
Situated within the SE 1/4 NE 1/4 Se	ection <u>29</u> T 02 S R	40 E, M.D.B. & M.
$ \left\{ \begin{array}{c} \text{Latitude (N):} & 37.736717 \\ \text{Longitude (W):} & -117.559078 \end{array} \right\} \text{ or } \left\{ \begin{array}{c} 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 $	UTM (m) E:	Datum NAD83/WGS84
and whereupon an existing well or wells are loo	cated or to be located, fully under	erstand that I shall be
responsible for, and shall cause the existing w		
contained in Nevada Administrative Code (NAC) 534.420 and all other applicable	rules and regulations
for drilling/plugging wells in the State of Nevada		
I shall further make any purchaser of this parcel a	ware of these conditions.	
Responsible Party(Printed Name):Patrick Highsmith	_(Signature):	_
State of Nevada		
County of <u>Carson City</u>		
Subscribed and sworn to before me on <u>10/25/1</u> by <u>Patrich Highsmith</u>	SARA Notary Public Appointment Rec	VH HOPE - State of Nevrada corded in Carson City ites September 17, 2019
Xa		

Signature of Notary Public Required



Amount

Division of Water Resources Receipt for Payment

Invoice #



Taggart & Taggart Ltd 108 North Minnesota Street Carson City, NV 89703

Check #: 5950 Check Date: 11/1/2016 Date Received: 11/1/2016 Receipt #: 27898

Fee Type/Fee desc

Notes

2017

FY

\$120.00 P-WAIVER

Permit #

- Waivers

COVERS (3) P-WIAVERS

CK TOTAL \$360.00

IN THE OFFICE OF THE STATE ENGINEER OF THE STATE OF NEVADA REQUEST FOR WAIVER TO NOT PLUG AN EXISTING WELL FOR A PERIOD OF ONE (1) YEAR

The applicant and/or person or company responsible:

Patrick Highsmith	Chief Executive Officer	Esmeralda Minerals, LLC
Name 108 N. Minnesota Street	Title Carson City	Company Nevada 89703
Street Address or PO Box	City or Town	State and ZIP Code
Telephone number of responsible party:	(303) 668-3264	
SW 1/4 NE 1/4 Section		uired. 6, M.D.B. & M.
Latitude (N): 37.710413 Longitude (W): -117.581181	$ \label{eq:utility} or \left\{ \begin{array}{l} UTM \mbox{(m) E:} \\ UTM \mbox{(m) N:} \end{array} \right. \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $	Datum NAD83/WGS84
County Assessor Parcel Number (APN)	: 006-341-01	
Street Address (if any): Not applicable	(Well CV-04)	the second state of the second
Purpose and reason for requesting this v	vaiver: (Attach additional sheets as nec	essary)
The Applicant requests a waiver to not		
conditions in Clayton Valley and the po	tential capture/depletion, by other	s, of lithium and its associated
minerals from beneath Applicant's mine	ral claims. The well may be usefu	to augment the State Engineer's
existing well network for water level m	onitoring. Monitoring data collected	ed from the well will be useful for
developing additional background and b	paseline hydrogeologic data for Cla	ayton Valley. The data will also aid
Applicant in demonstrating trespass and	the taking of lithium, and its asso	ciated minerals, from beneath
Applicant's valid mineral claims. In add	dition, the data will be used to sup	port Applicant's ongoing permitting
efforts, at Federal, State and local levels	s, for its Clayton Valley South Pro	ect.
		20
What is the NDWR well log number?	Pending	16N 22
		REC 2016 NOV -
What is the water right permit number?	None	
		vaiver request:
The following ite	ms must be submitted with the v	vaiver request:
• Affidavit of Intent to Plug a		valver request:

Signatory Contact Information:

(775) 828-6800

Telephone Number

5250 Neil Road, Suite 300

Mailing Address

Reno, Nevada 89502 City, State, ZIP Code

I imothy P.	Donahoe
Printed Name	

the P. Donke Signature

Oct-25-2016 Date

Revised 12/14 - waiver_p

\$120 FILING FEE MUST ACCOMPANY THIS REQUEST

IN THE OFFICE OF THE STATE ENGINEER OF NEVADA

AFFIDAVIT OF INTENT TO ABANDON A WELL

		Notice of Intent #	
I,	PATRICK HIGHSMITH, C.E.O.	Name & Title	~ ~2
	ESMERALDA MINERALS, LLC.	Company	RE 2016 NOV
	108 N. MINNESOTA STREET	Address	ECEIV
	CARSON CITY, NEVADA 89703		
	(303) 668-3264	Telephone Number	
of the	real property located at:		С С С
Street	address (if any) not applicable (Well CV-04)		
Count	y Assessor Parcel Number (APN) 006-341-0	1	
Situat	ed within the SW 1/4 NE 1/4 Secti	on 06 T 03 S R	40 E, M.D.B. & M.
and w respor contai	the existing well or wells are locat need in Nevada Administrative Code (NAC) 5 illing/plugging wells in the State of Nevada.	ed or to be located, fully unde to be plugged in accordance	e with the provisions
I shall	further make any purchaser of this parcel awa	are of these conditions.	
	nsible Party ed Name): Patrick Highsmith	(Signature):	5
State of Count	of Nevada y of <u>Canson City</u>		
Subsc	ribed and sworn to before me on 10/25/11	l	
by _	atrich Highsmith	Notary Public	AAH HOPE Ic - State of Nevada tecorded in Carson City Expires September 17, 2019

Signature of Notary Public Required



PAUL G. TAGGART SONIA E. TAGGART TAGGART & TAGGART, LTD. A PROFESSIONAL CORPORATION 108 NORTH MINNESOTA STREET

CARSON CITY, NEVADA 89703 www.nvwaterlaw.com RACHEL L. WISE DAVID H. RIGDON TIMOTHY D. O'CONNOR

2016 NOV -1 PH 4: 21

EIVED

INTE ENGINEERS OFFIC

November 1, 2016

Jason King, State Engineer Division of Water Resources 901 South Stewart Street, 2nd Floor Carson City, NV 89701

Re: Plugging requirement in letter dated October 12, 2016

Dear Mr. King:

Our firm represents Pure Energy Minerals, LTD. We are writing in response to your letter dated October 12, 2016. Pure Energy agrees to plug three wells – CV-2, CV-5 and CV-6. However, Pure Energy respectfully requests that your office grant waivers that are requested herein, and that your order to plug wells CV-1, CV-3, and CV-4 be thereby set aside. Waiver requests for these wells are filed with this letter.

Alternatively, Pure Energy requests that the 30-day allotment of time to plug these three wells be tolled while these waivers and the new information contained in this letter are evaluated by your office. This can be done by rescinding the October 12, 2016 order until the assessment of new information and surrounding circumstances can be completed.

Pure Energy firmly believes that Nevada's well drilling regulations should be applied based on the intent of the person is who is drilling a hole in the ground. If their intent is to drill a well for the development of water, Nevada's well drilling regulations should apply. If their intent is to drill a hole to explore for minerals, those regulations should not apply. Most importantly, if the intent of a person who is drilling a hole changes during the exploration process, that person must *complete* the well pursuant to Nevada well regulations. *See* NAC 534.4371(6).

In this case, Pure Energy did not have the intent to develop water when it drilled the holes that became CV-1, CV-3, and CV-4. These holes do not need to be plugged because they were drilled as exploration boreholes with the intent and purpose of discovering minerals in Clayton Valley, not to develop water. The boreholes are used to ascertain where wells should be completed to best access lithium brine. While the State Engineer's Office may have authority to regulate brine, it should not limit or regulate mineral exploration.

I. <u>Pure Energy's CV-1, CV-3, and CV-4 were drilled as boreholes in search of lithium</u> <u>but CV-1 and CV-3 were completed as wells in compliance with Nevada regulations.</u> <u>CV-4 remains a borehole.</u>

At the time of drilling, Pure Energy did not intend to have these holes operate as water wells, as defined in the NAC or which are traditionally under the authority of the State Engineer. The Pure Energy boreholes were used to develop an understanding of the subsurface geology and its prospectivity for the mineral of interest. These holes were not drilled for the development of water. Further, when these boreholes were collared, there was no intention of diverting (even small amounts of) groundwater unless favorable geology was encountered. The intent and purpose of the boreholes was to discover whether such favorable geology existed in that location. As such, during the initial drilling, the well driller requirements provided in NRS § 534.140 and NRS § 534.160 did not apply. This is no different than boreholes used to discover other minerals, such as gold.

Upon the discovery of favorable geology in the CV-1 and CV-3 locations, Pure Energy decided to convert these boreholes into temporary exploratory wells for further testing. A conversion of a borehole to a temporary well is permitted by NAC 534.4371(6). Pure Energy agrees that at the time the decision was made to convert these boreholes to wells, all licensing and waiver requirements to maintain them as wells became applicable. This is precisely the plugging process has begun at CV-2 – that well did not meet the well requirements.

What may not be clear from the information that has been provided to the State Engineeris that the CV-1 and CV-3 boreholes were completed as wells under direct supervision of a licensed well driller in full compliance with NAC § 534.4371(6). This new information should be considered, and the current thirty (30) day deadline for plugging these wells should be rescinded while this new information is reviewed. Also, the pumping test at CV-3 was then conducted under a valid MM waiver granted to Pure Energy by the State Engineer. CV-1 and CV-3 meet the standards of a compliant well as outlined in the NAC.

During that same mineral exploration program, Pure Energy also drilled borehole CV-4. CV-4 did not encounter lithium-bearing brine, therefore it was not completed as a largerdiameter well. Though CV-4 has not been completed as a well, it can be used to monitor the piezometric surface and other parameters of the groundwater and aquifers. The as-built configuration of CV-4 is in compliance with the technical requirements of a well. Pure Energy is prepared to file any necessary paperwork the State Engineer requires in order to convert CV-4 into a monitoring well or instrumentation borehole.

The requirement that any company exploring for dissolved minerals would need to use a licensed well driller each time they drill a hole is unreasonable. These requirements would result in a barrage of well-based paperwork flooding the State Engineer's office, as well as an overabundance of completely constructed - and later plugged - wells used solely for mineral exploration. This cannot be the best way to protect the groundwater, the environment, or the resources of the State Engineer's office. When any company is searching for lithium, a borehole

must first be drilled to ensure that the lithium bearing brine is at the location. Using wells for this limited purpose is unreasonably costly, time consuming, and can damage the aquifer.

Pure Energy's own exploration experience highlights this falsity. To date, Pure Energy has drilled a total of six boreholes in Clayton Valley. Pure Energy plugged and reclaimed CV-5 and CV-6 because the boreholes *did not encounter favorable geology* in the form of lithiumbearing brine. Rather, they encountered only fresh water, which is not likely to be a prospective source of lithium. Thus, Pure Energy decided that these boreholes would not be completed as wells for further use. In short, the essential first step in exploring for lithium is to, in fact, locate favorable geology and lithium-bearing brine. The lithium brine must simply be found before a well is created to extract the brine. The notion that exploration for minerals can only be done through a well under the licensing and stringent construction requirements of the State Engineer would serve only to harm the industry, resources of the State Engineer's Office, and the aquifer itself. The same notion brings up questions of the State Engineer's legal authority to stand between a company and their federally issued mining claim.

Because Pure Energy began each existing hole with the intent to explore for lithium brine with a borehole in Clayton Valley, there was no requirement for the holes to be *drilled* by a licensed well driller. When Pure Energy's intent changed for these holes, the NAC requirements for licensed well drillers and the completion of the well applied to the conversion of a borehole to a well. NAC 534.4761(6). Pure Energy had CV-1 and CV-3 *completed* by a licensed well driller. CV-4 has not been converted to a well, but is available for conversion to an instrumentation borehole or monitoring well in the future. Therefore, these wells and borehole are compliant with the law and should not be plugged.

II. Even if the State Engineer insists that CV-1, CV-3, and CV-4 were drilled as wells, the State Engineer has the discretion to waive the requirements of NRS § 534.140 and NRS § 534.160.

State Engineer's office is granted authority to waive any plugging requirement of a well under NRS § 534.060(8). This authority was clearly granted to the State Engineer by the legislature: "The State Engineer may grant the owner of a well a waiver of the requirement that the well be plugged under circumstances other than those set forth in subsection 7." Subsection 7 discusses abandoned or soon-to-be abandoned wells, and the State Engineer's options in dealing with such wells. NRS § 534.060(8) deals with waiving a plugging requirement in "circumstances other than" abandoned wells. A circumstance requiring plugging of a well, other than an abandoned well, has presented itself in this case. The State Engineer should exercise his discretion under NRS § 534.060(8) to waive the requirement.

This authority is further clarified in NAC § 534.449. There is no requirement that the well be abandoned or slated for abandonment in order to qualify for a waiver from a plugging requirement. Rather, the NAC *does not allow* for abandoned wells to qualify for these waivers. *"The State Engineer will not grant such waivers if the well is dry or abandoned."* NAC § 534.449. This necessarily means that these waivers are used for circumstances other than abandoned wells, leaving open this option to all other plugging requirements. Therefore, NAC § 534.449 allows for waivers to plugging requirements be granted in circumstances such as these.

The language of this regulation should be construed based on the 'Presumption of Consistent Usage.' This canon of statutory construction holds that where a document has used one term in one place, and a materially different term in another, the presumption is that the different term denotes a different idea. A material variation in language suggests a material variation in meaning. Here, such a material variation in language and meaning is clear. Subsection 7 deals with abandoned wells, or wells that are set to be abandoned. Subsection 8, when discussing the waiver of a plugging requirement, uses only the general term "well." Thus, subsection 8's material variation of terminology denotes a difference in meaning from subsection 7.

III. <u>The State Engineer should exercise his discretion and waive the plugging</u> requirements of CV-1, CV-3, and CV-4 if he decides well drilling requirements apply to the holes.

Even if the State Engineer insists that holes drilled to discover minerals are going to be defined as wells, the State Engineer should waive the well plugging requirements given the circumstances of this specific case. Pure Energy has attempted in good faith to comply with all requirements to ensure they can continue their projects in Clayton Valley.

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First, CV-1, CV-3 and CV-4 are critical to Pure Energy's exploration for lithium in Clayton Valley South Project. Pure Energy has invested millions of dollars in their Clayton Valley project, with a large portion going toward the drilling and completing of CV-1 and CV-3. The exploration project is equally as critical to the future of Nevada's growing economy. The rising need for lithium for electric vehicles and batteries is demanding a higher production rate of lithium. Nevada is currently at the forefront of the renewable future, but will only be able to remain in that position if the policies and the law work together to make it practical for companies to come to Nevada. Further, these wells, even if used merely as monitoring wells, allow Pure Energy to "keep an eye" on their federal mineral rights. Pure Energy has evidence that Albemarle Corp. is actively pumping in such a way that the brine is being taken from beneath Pure Energy's claims, and such drawdown of lithium bearing brine by Albemarle Corp.'s project may constitute mineral theft under the federal mining act and related statutes. The placement of CV-1, CV-3, and CV-4 is essential to Pure Energy's ability to monitor the piezometric surface and other aspects of the ground water and brine beneath Pure Energy's claim during this important period as it seeks to develop the mineral resource adjacent to Albemarle Corp.'s active operation.

Second, Pure Energy's holes are likely boreholes because Pure Energy's intent and purpose in drilling the holes was exploration for a federally locatable mineral on its valid federal mineral claims. The boreholes' purpose was not to divert or develop water in a traditional sense, but rather to find where to put wells to access the lithium brine. Without knowing the location of the productive lithium brine, Pure Energy would be forced to drill fully-cased and ultimately sealed wells in the valley to only be used for mineral exploration.

Third, on multiple occasions, representatives from the State Engineer's office visited the Pure Energy drilling sites. During these visits, the State Engineer's office representatives were

satisfied with Pure Energy's activity. The representatives witnessed the activity, and never mentioned that Pure Energy's activity may require any notices, permits, waivers, or other State Engineer paperwork in order to be compliant with the NRS or NAC. When the State Engineer eventually informed Pure Energy that aspects of the activity did in fact overlap with the water laws, Pure Energy has followed each instruction given by the State Engineer in order to become compliant.

Fourth, the statutory definitions of "wells" and "boreholes" are at best, confusing, and at worst, conflicting - making the requirements of when to use a well-driller difficult to distinguish.¹ This last point is further emphasized by the multiple reiterations of the clarification letters the State Engineer's office has sent out to the lithium community. These letters responded to the questions the State Engineer received regarding whether brine is considered groundwater under the NRS and whether a hole used to extract brine is indeed a well or a borehole. These letters were sent after Pure Energy's drilling in the basin, so Pure Energy did not have the benefit of the clarification letters prior to commencing its work. Also, workshops are now being held to educate the lithium community about these laws with Mr. Wilson himself as a presenter. Had Pure Energy had such clarification, the boreholes may well have been constructed within the State Engineer's current interpretation of the law.

Lastly, requiring Pure Energy to plug all of these wells would be grossly inequitable. Pure Energy would be forced to file new applications for waivers in hopes of drilling new wells in Clayton Valley with a licensed well driller. These 'new wells' would likely have the same characteristics, construction, and placement of CV-1, CV-3 and CV-4. This would also require additional penetrations in the aquifer, which would be un-necessary if the existing wells remain intact. As far as Pure Energy is aware, the construction of CV-1, CV-3, and CV-4 are in full compliance with the requirements of the Nevada water law. Since all remaining wells have been constructed in compliance with the regulations, there would be no material changes in the outcome. In fact, minimizing drill holes where possible is likely in the best interest of the people of Nevada.

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Pure Energy fully understands the State Engineer's concerns of having all wells be constructed by licensed well drillers. Pure Energy understands this is not a trivial requirement. However, given the specifics of this case, any plugging requirement for these wells should be waived and Pure Energy's waivers be accepted. Because the State Engineer's ultimate goal is compliance with the regulations and not punishment for punishment's sake, the State Engineer should find the waivers are warranted. While NRS § 534.160 does state that wells drilled by an

¹ "Well" means a penetration in the ground made for the purpose of measuring, testing, sampling or producing groundwater. The term includes a water well, monitoring well or exploratory well. NAC § 534.220; "Monitoring well" means any well that is constructed to evaluate, observe or determine the quality, quantity, temperature, pressure or other characteristic of groundwater or an aquifer. The term includes an observation well. NAC § 534.148; "Observation well" means a *borehole* in which a temporary casing has been set and which is used to observe, test and measure the elevation of the water table, the pressure variations within an aquifer and the movement of contaminants inside or outside a zone of saturation. NAC § 534.165(emphasis added); "Exploratory well" means a *borehole or well* constructed to determine the availability, quantity or quality of water or whether an aquifer is capable of transmitting water to a well. NAC § 534.120(emphasis added); See also NAC § 534.420(5)(discussing plugging requirements generally, but uses borehole and well interchangeably).

unlicensed well-driller shall be plugged, NRS § 534.060(8) and NAC § 534.449 make this requirement waivable. An order plugging the wells will add nothing to the situation except cost to Pure Energy. The message of the need to have a licensed well driller for well completion during lithium exploration has already been made abundantly clear through the State Engineer's letters and presentations – a luxury Pure Energy did not have the chance to take advantage of. But by waiving the requirement in this case, the State Engineer will be able to bring Pure Energy into compliance without the unnecessary waste and unproductive punishment.

If these conditions are not agreeable, please contact us immediately so that Pure Energy can select the best course of action moving forward.

Should you have any questions, please feel free to contact Pure Energy's counsel at Taggart and Taggart.

Sincerely,

Timothy D. O'Connor, Esq. for Paul G. Taggart, Esq. TAGGART & TAGGART, LTD.

PGT/tdo

RECEIVED 2016 NOV - 1 PM 4: 24 STATE ENGINEERS OFFICE

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Taggart & Taggart, L(d. 104 North Misnescota Steet Cartons City, Nerrada 87003 (775)982-9900 - Telephone (775)983-9900 - Facsimile	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	AFFIDAVIT OF PATRICK HIGHSMITH STATE OF COLORADO) SS. COUNTY OF ARAPAHOE) I. Patrick Highsmith, do hereby swear under penalty of perjury that the following assertions are true and correct to the best of my knowledge and belief: I. I am over the age of eighteen (18) and of sound mind. 2. I am an authorized representative of Pure Energy Minerals, Ltd. 3. Pure Energy has the rights to valid federal mining claims in Clayton Valley. 4. Pure Energy drilled six (6) boreholes in Clayton Valley: CV-1, CV-2, CV-3, CV-4, CV-5, and CV-6. 5. The intent and purpose of the boreholes was mineral exploration, to discover whether favorable geology existed in the areas of the boreholes. 6. At the time boreholes CV-1 and CV-3 were drilled, there was no intent to have the boreholes operate as production wells unless favorable geology was encountered. 7. Upon discovery of favorable geology in the CV-1 and CV-3 locations, Pure Energy decided to convert the boreholes into wells using a licensed well driller. 8. Rick Lewis, licensed well driller #1793, oversaw the completion of both CV-1 and CV-3 from a borehole to a well. 9. Pure Energy has commissioned a licensed well driller to plug CV-2 because it did not meet the technical specifications of a well as outlined in the Nevada Administrative Code. 10. CV-4 has not been completed as a well. It was drilled as a borehole, and can be used to monitor the piezometric surface and other parameters of the ground water and aquifers. The as-built configuration of CV-4 is in compliance with the technical requirements of a well. 11. Neither CV-5 nor CV-6 encountered favorable geology at their locations.
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CV-5 and CV-6 were both plugged upon the realization that no favorable geology was 12. 1 encountered at their locations. Such plugging was accomplished before the receipt of the letter from 2 the State Engineer's office dated October 12, 2016. 3

CV-1, CV-3, and CV-4 have the capability to produce important data that will allow 4 13. Pure Energy to monitor the drawdown of groundwater and brine caused by Rockwood's pumping in 5 the basin. 6

Pure Energy has collected data indicating that Rockwood's pumping is actively taking 7 14. 8 brine from under Pure Energy's valid Federal mining claims.

Plugging CV-1, CV-3, and CV-4 would inhibit Pure Energy's ability to advance its 9 15. lithium exploration and development project. 10

Plugging CV-1, CV-3, and CV-4 would also prevent Pure Energy from monitoring the 16. drawdown of groundwater and lithium-bearing brine due to Rockwood's pumping.

To date, Pure Energy has spent at least \$2,500,000 drilling and completing its boreholes 17. in Clayton Valley.

This affidavit is made from the Affiant's personal knowledge, or made to the best of his 15 knowledge. 16

17 I declare under penalty of perjury under the law of the State of Nevada that the foregoing is 18 true and correct. 2016 NO

DATED this 1st day of November, 2016.

SUBSCRIBED and SWORN to before me on this 15 day of November, 2016, by Patrick Highsmith.

NOTARY PUBLIC

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NOTARY PLIBLIC OTARY ID 20184003895 EXPIRES JANUARY 29, 2020

HIGHSMITH

County of Dougles

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Taggart & Taggar 108 North Minnesota S

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Nevada Water Solutions LLC

Water Rights / Resource Permitting Expertise

Thomas K. Gallagher, PE Hydrologic Engineer

775-825-1653 / FAX 775-825-1683 675 Sierra Rose Dr., #109 / Reno, NV 89511 tomg@nevadawatersolutions.com

Jason King, P.E. Nevada State Engineer 901 S. Stewart St., 2nd Floor Carson City, NV 89701

Re: Letter to Pure Energy Minerals regarding exploration drilling in Clayton Valley

Dear Mr. King:

In response to yours of October 12, 2016 directing Pure Energy Minerals to plug boreholes, we provide the following reasoning for your consideration and respectfully request that the Order be set aside. Pure Energy firmly believes that these holes need not be plugged because they were, by definition, mineral exploration boreholes, and not wells drilled for the development of water at the time of the boring. Thus the licensing requirement provided in NRS § 534.140 and 534.160 does not apply since they were not wells drilled for the development of water. It is our understanding that the distinction in Chapter 534 of both the statute and regulation between the definition of boreholes, with their limited and principal regulatory requirement that they be plugged within 60 days, and fully regulated wells, is that if the *intent* of the borehole is to develop water at the outset then it is a well.

Pure Energy does agree that, at the time the decision was made in the field to keep the boreholes open for further testing, all licensing and permission to keep them as monitor wells did in fact come into play. The boreholes were, therefore then completed as a well under the direct supervision of a licensed well driller. Pure Energy's failure was in not obtaining permission, under the provision for monitor well waivers, in advance of the conversion of the borehole into a monitor well. We therefore are submitting applications for a monitor well waiver, as we need to continue to obtain groundwater elevations and water chemistry sampling data for our conceptual model that will guide us moving forward toward possibly developing the potential mineral resources in Clayton Valley.

Please consider this a formal request that you set aside the Order to plug the wells. It appears there has been some confusion in how the statute and regulation applies. We believe we can operate on an exploratory basis drilling boreholes for mineral exploration, and monitor wells as needed under the existing rules, and when it comes time to pursue the permitting for the appropriation of underground water, we will address any questions that may arise related to our necessary application for diversion and/or consumptive use of water at the earliest possible date.

Best regards, allyc homa K.

Thomas K. Gallagher, P.E. Manager Nevada Water Solutions LLC

NOV 0 4 2016 STATE ENGINEER'S OFFICE

November 4, 2016

PAUL G. TAGGART SONIA E. TAGGART

. . . .

TAGGART & TAGGART, LTD. A PROFESSIONAL CORPORATION 108 NORTH MINNESOTA STREET CARSON CITY, NEVADA 89703 www.nywaterlaw.com

RACHEL L. WISE DAVID H. RIGDON TIMOTHY D O'CONNOR

November 1, 2016

Jason King, State Engineer Division of Water Resources 901 South Stewart Street, 2nd Floor Carson City, NV 89701

Re: Plugging requirement in letter dated October 12, 2016

Dear Mr. King:

Our firm represents Pure Energy Minerals, LTD. We are writing in response to your letter dated October 12, 2016. Pure Energy agrees to plug three wells – CV-2, CV-5 and CV-6. However, Pure Energy respectfully requests that your office grant waivers that are requested herein, and that your order to plug wells CV-1, CV-3, and CV-4 be thereby set aside. Waiver requests for these wells are filed with this letter.

Alternatively, Pure Energy requests that the 30-day allotment of time to plug these three wells be tolled while these waivers and the new information contained in this letter are evaluated by your office. This can be done by rescinding the October 12, 2016 order until the assessment of new information and surrounding circumstances can be completed.

Pure Energy firmly believes that Nevada's well drilling regulations should be applied based on the intent of the person is who is drilling a hole in the ground. If their intent is to drill a well for the development of water, Nevada's well drilling regulations should apply. If their intent is to drill a hole to explore for minerals, those regulations should not apply. Most importantly, if the intent of a person who is drilling a hole changes during the exploration process, that person must *complete* the well pursuant to Nevada well regulations. *See* NAC 534.4371(6).

In this case, Pure Energy did not have the intent to develop water when it drilled the holes that became CV-1, CV-3, and CV-4. These holes do not need to be plugged because they were drilled as exploration boreholes with the intent and purpose of discovering minerals in Clayton Valley, not to develop water. The boreholes are used to ascertain where wells should be completed to best access lithium brine. While the State Engineer's Office may have authority to regulate brine, it should not limit or regulate mineral exploration.

I. <u>Pure Energy's CV-1, CV-3, and CV-4 were drilled as boreholes in search of lithium</u> <u>but CV-1 and CV-3 were completed as wells in compliance with Nevada regulations.</u> <u>CV-4 remains a borehole.</u>

At the time of drilling, Pure Energy did not intend to have these holes operate as water wells, as defined in the NAC or which are traditionally under the authority of the State Engineer. The Pure Energy boreholes were used to develop an understanding of the subsurface geology and its prospectivity for the mineral of interest. These holes were not drilled for the development of water. Further, when these boreholes were collared, there was no intention of diverting (even small amounts of) groundwater unless favorable geology was encountered. The intent and purpose of the boreholes was to discover whether such favorable geology existed in that location. As such, during the initial drilling, the well driller requirements provided in NRS § 534.140 and NRS § 534.160 did not apply. This is no different than boreholes used to discover other minerals, such as gold.

Upon the discovery of favorable geology in the CV-1 and CV-3 locations, Pure Energy decided to convert these boreholes into temporary exploratory wells for further testing. A conversion of a borehole to a temporary well is permitted by NAC 534.4371(6). Pure Energy agrees that at the time the decision was made to convert these boreholes to wells, all licensing and waiver requirements to maintain them as wells became applicable. This is precisely the plugging process has begun at CV-2 – that well did not meet the well requirements.

What may not be clear from the information that has been provided to the State Engineer is that the CV-1 and CV-3 boreholes were completed as wells under direct supervision of a licensed well driller in full compliance with NAC § 534.4371(6). This new information should be considered, and the current thirty (30) day deadline for plugging these wells should be rescinded while this new information is reviewed. Also, the pumping test at CV-3 was then conducted under a valid MM waiver granted to Pure Energy by the State Engineer. CV-1 and CV-3 meet the standards of a compliant well as outlined in the NAC.

During that same mineral exploration program, Pure Energy also drilled borehole CV-4. CV-4 did not encounter lithium-bearing brine, therefore it was not completed as a largerdiameter well. Though CV-4 has not been completed as a well, it can be used to monitor the piezometric surface and other parameters of the groundwater and aquifers. The as-built configuration of CV-4 is in compliance with the technical requirements of a well. Pure Energy is prepared to file any necessary paperwork the State Engineer requires in order to convert CV-4 into a monitoring well or instrumentation borehole.

The requirement that any company exploring for dissolved minerals would need to use a licensed well driller each time they drill a hole is unreasonable. These requirements would result in a barrage of well-based paperwork flooding the State Engineer's office, as well as an overabundance of completely constructed - and later plugged - wells used solely for mineral exploration. This cannot be the best way to protect the groundwater, the environment, or the resources of the State Engineer's office. When any company is searching for lithium, a borehole

must first be drilled to ensure that the lithium bearing brine is at the location. Using wells for this limited purpose is unreasonably costly, time consuming, and can damage the aquifer.

Pure Energy's own exploration experience highlights this falsity. To date, Pure Energy has drilled a total of six boreholes in Clayton Valley. Pure Energy plugged and reclaimed CV-5 and CV-6 because the boreholes *did not encounter favorable geology* in the form of lithiumbearing brine. Rather, they encountered only fresh water, which is not likely to be a prospective source of lithium. Thus, Pure Energy decided that these boreholes would not be completed as wells for further use. In short, the essential first step in exploring for lithium is to, in fact, locate favorable geology and lithium-bearing brine. The lithium brine must simply be found before a well is created to extract the brine. The notion that exploration for minerals can only be done through a well under the licensing and stringent construction requirements of the State Engineer would serve only to harm the industry, resources of the State Engineer's legal authority to stand between a company and their federally issued mining claim.

Because Pure Energy began each existing hole with the intent to explore for lithium brine with a borehole in Clayton Valley, there was no requirement for the holes to be *drilled* by a licensed well driller. When Pure Energy's intent changed for these holes, the NAC requirements for licensed well drillers and the completion of the well applied to the conversion of a borehole to a well. NAC 534.4761(6). Pure Energy had CV-1 and CV-3 *completed* by a licensed well driller. CV-4 has not been converted to a well, but is available for conversion to an instrumentation borehole or monitoring well in the future. Therefore, these wells and borehole are compliant with the law and should not be plugged.

II. <u>Even if the State Engineer insists that CV-1, CV-3, and CV-4 were drilled as wells,</u> the State Engineer has the discretion to waive the requirements of NRS § 534.140 and NRS § 534.160.

State Engineer's office is granted authority to waive any plugging requirement of a well under NRS § 534.060(8). This authority was clearly granted to the State Engineer by the legislature: "The State Engineer may grant the owner of a well a waiver of the requirement that the well be plugged under circumstances other than those set forth in subsection 7." Subsection 7 discusses abandoned or soon-to-be abandoned wells, and the State Engineer's options in dealing with such wells. NRS § 534.060(8) deals with waiving a plugging requirement in "circumstances other than" abandoned wells. A circumstance requiring plugging of a well, other than an abandoned well, has presented itself in this case. The State Engineer should exercise his discretion under NRS § 534.060(8) to waive the requirement.

This authority is further clarified in NAC § 534.449. There is no requirement that the well be abandoned or slated for abandonment in order to qualify for a waiver from a plugging requirement. Rather, the NAC *does not allow* for abandoned wells to qualify for these waivers. *"The State Engineer will not grant such waivers if the well is dry or abandoned."* NAC § 534.449. This necessarily means that these waivers are used for circumstances other than abandoned wells, leaving open this option to all other plugging requirements. Therefore, NAC § 534.449 allows for waivers to plugging requirements be granted in circumstances such as these.

The language of this regulation should be construed based on the 'Presumption of Consistent Usage.' This canon of statutory construction holds that where a document has used one term in one place, and a materially different term in another, the presumption is that the different term denotes a different idea. A material variation in language suggests a material variation in meaning. Here, such a material variation in language and meaning is clear. Subsection 7 deals with abandoned wells, or wells that are set to be abandoned. Subsection 8, when discussing the waiver of a plugging requirement, uses only the general term "well." Thus, subsection 8's material variation of terminology denotes a difference in meaning from subsection 7.

III. <u>The State Engineer should exercise his discretion and waive the plugging</u> requirements of CV-1, CV-3, and CV-4 if he decides well drilling requirements apply to the holes.

Even if the State Engineer insists that holes drilled to discover minerals are going to be defined as wells, the State Engineer should waive the well plugging requirements given the circumstances of this specific case. Pure Energy has attempted in good faith to comply with all requirements to ensure they can continue their projects in Clayton Valley.

First, CV-1, CV-3 and CV-4 are critical to Pure Energy's exploration for lithium in Clayton Valley South Project. Pure Energy has invested millions of dollars in their Clayton Valley project, with a large portion going toward the drilling and completing of CV-1 and CV-3. The exploration project is equally as critical to the future of Nevada's growing economy. The rising need for lithium for electric vehicles and batteries is demanding a higher production rate of lithium. Nevada is currently at the forefront of the renewable future, but will only be able to remain in that position if the policies and the law work together to make it practical for companies to come to Nevada. Further, these wells, even if used merely as monitoring wells, allow Pure Energy to "keep an eye" on their federal mineral rights. Pure Energy has evidence that Albemarle Corp. is actively pumping in such a way that the brine is being taken from beneath Pure Energy's claims, and such drawdown of lithium bearing brine by Albemarle Corp.'s project may constitute mineral theft under the federal mining act and related statutes. The placement of CV-1, CV-3, and CV-4 is essential to Pure Energy's ability to monitor the piezometric surface and other aspects of the ground water and brine beneath Pure Energy's claim during this important period as it seeks to develop the mineral resource adjacent to Albemarle Corp.'s active operation.

Second, Pure Energy's holes are likely boreholes because Pure Energy's intent and purpose in drilling the holes was exploration for a federally locatable mineral on its valid federal mineral claims. The boreholes' purpose was not to divert or develop water in a traditional sense, but rather to find where to put wells to access the lithium brine. Without knowing the location of the productive lithium brine, Pure Energy would be forced to drill fully-cased and ultimately sealed wells in the valley to only be used for mineral exploration.

Third, on multiple occasions, representatives from the State Engineer's office visited the Pure Energy drilling sites. During these visits, the State Engineer's office representatives were

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satisfied with Pure Energy's activity. The representatives witnessed the activity, and never mentioned that Pure Energy's activity may require any notices, permits, waivers, or other State Engineer paperwork in order to be compliant with the NRS or NAC. When the State Engineer eventually informed Pure Energy that aspects of the activity did in fact overlap with the water laws, Pure Energy has followed each instruction given by the State Engineer in order to become compliant.

Fourth, the statutory definitions of "wells" and "boreholes" are at best, confusing, and at worst, conflicting - making the requirements of when to use a well-driller difficult to distinguish.¹ This last point is further emphasized by the multiple reiterations of the clarification letters the State Engineer's office has sent out to the lithium community. These letters responded to the questions the State Engineer received regarding whether brine is considered groundwater under the NRS and whether a hole used to extract brine is indeed a well or a borehole. These letters were sent after Pure Energy's drilling in the basin, so Pure Energy did not have the benefit of the clarification letters prior to commencing its work. Also, workshops are now being held to educate the lithium community about these laws with Mr. Wilson himself as a presenter. Had Pure Energy had such clarification, the boreholes may well have been constructed within the State Engineer's current interpretation of the law.

Lastly, requiring Pure Energy to plug all of these wells would be grossly inequitable. Pure Energy would be forced to file new applications for waivers in hopes of drilling new wells in Clayton Valley with a licensed well driller. These 'new wells' would likely have the same characteristics, construction, and placement of CV-1, CV-3 and CV-4. This would also require additional penetrations in the aquifer, which would be un-necessary if the existing wells remain intact. As far as Pure Energy is aware, the construction of CV-1, CV-3, and CV-4 are in full compliance with the requirements of the Nevada water law. Since all remaining wells have been constructed in compliance with the regulations, there would be no material changes in the outcome. In fact, minimizing drill holes where possible is likely in the best interest of the people of Nevada.

Pure Energy fully understands the State Engineer's concerns of having all wells be constructed by licensed well drillers. Pure Energy understands this is not a trivial requirement. However, given the specifics of this case, any plugging requirement for these wells should be waived and Pure Energy's waivers be accepted. Because the State Engineer's ultimate goal is compliance with the regulations and not punishment for punishment's sake, the State Engineer should find the waivers are warranted. While NRS § 534.160 does state that wells drilled by an

¹ "Well" means a penetration in the ground made for the purpose of measuring, testing, sampling or producing groundwater. The term includes a water well, monitoring well or exploratory well. NAC § 534.220; "Monitoring well" means any well that is constructed to evaluate, observe or determine the quality, quantity, temperature, pressure or other characteristic of groundwater or an aquifer. The term includes an observation well. NAC § 534.148; "Observation well" means a *borehole* in which a temporary casing has been set and which is used to observe, test and measure the elevation of the water table, the pressure variations within an aquifer and the movement of contaminants inside or outside a zone of saturation. NAC § 534.165(emphasis added); "Exploratory well" means a *borehole or well* constructed to determine the availability, quantity or quality of water or whether an aquifer is capable of transmitting water to a well. NAC § 534.120(emphasis added); See also NAC § 534.420(5)(discussing plugging requirements generally, but uses borehole and well interchangeably).

unlicensed well-driller shall be plugged, NRS § 534.060(8) and NAC § 534.449 make this requirement waivable. An order plugging the wells will add nothing to the situation except cost to Pure Energy. The message of the need to have a licensed well driller for well completion during lithium exploration has already been made abundantly clear through the State Engineer's letters and presentations – a luxury Pure Energy did not have the chance to take advantage of. But by waiving the requirement in this case, the State Engineer will be able to bring Pure Energy into compliance without the unnecessary waste and unproductive punishment.

If these conditions are not agreeable, please contact us immediately so that Pure Energy can select the best course of action moving forward.

Should you have any questions, please feel free to contact Pure Energy's counsel at Taggart and Taggart.

Sincerely,

Timothy D. O'Connor, Esq. for Paul G. Taggart, Esq. TAGGART & TAGGART, LTD.

PGT tdo

Micheline N. Fairbank

Sarah Hope <Sarah@legaltnt.com> Wednesday, November 02, 2016 9:38 AM Micheline N. Fairbank Paul Taggart; Tim O'Connor; Dorene A. Wright **Pure Energy Minerals Attachments:** 2016-11-01 Ltr to King re Plugging Requirement.pdf

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From:

Sent:

To:

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Subject:

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Attached please find a letter our office filed yesterday with the State Engineer regarding Pure Energy Minerals.

Thank you,

Sarah Hope Legal Assistant TAGGART & TAGGART, LTD. 108 North Minnesota Street Carson City, Nevada 89703. (775) 882-9900 - Telephone (775) 883-9900 - Facsimile

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