

STATE OF COLORADO

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Executive Director and Chief Medical Officer

Dedicated to protecting and improving the health and environment of the people of Colorado

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Colorado Department
of Public Health
and Environment

March 2, 2012

A. G. Andrikopoulos
A. G. Andrikopoulos Resources, Inc.
P.O. Box 788
Cheyenne, WY 82003-0788

RE: Certification, Colorado Discharge Permit System – Produced Water Treatment Facilities
Permit Number COG840000 Certification Number: COG840009

Dear Mr. Andrikopoulos;

Enclosed please find a copy of the permit certification, which was issued under the Colorado Water Quality Control Act. **Please read the enclosed permit and certification.** The Division holds the permittee legally liable for all permit requirements. The Water Quality Control Division (the Division) has reviewed the application submitted for the **Elk Springs #3 Well** facility and determined that it qualifies for coverage under the CDPS General Permit for **Produced Water Treatment Facilities** (the permit).

As you have been previously notified, this permit and certification requires a substantial amount of additional monitoring requirements and limitations. As these limitations are new, a compliance schedule has been added to the permit, granting time to collect monitoring data for these parameters to determine whether the limitations can be met, and to devise treatment or other activities in order to meet the limitations. During the interim, limitations will be set at report only. If during the course of collecting data for these parameters, and once sufficient data is collected, the permittee may request an amendment to the permit to eliminate parameters which are absent in the effluent discharge, or at levels well below the limitations, in accordance with the Division's Reasonable Potential Guidance document.

Note that coverage under this permit is limited to the water discharged from the unlined pit, to the unnamed tributary that eventually leads to Wolf Creek. Any infiltration from the unlined pit would be under the jurisdiction of the Colorado Oil and Gas Conservation Commission (COGCC).

Facility Information:

• **Industry Description**

The Elk Springs #3 well facility is an oil producing well in the Weber formation that operates year around. The SIC code for this facility is 1311. Crude oil is stored on site in production tanks. Based on DMR data for flow rates, the facility has been reporting the 30 day average as a 30-day cumulative flow. The daily maximum flows have been reported correctly but based on communication with a facility representative there are a couple of instances where the decimal place has been off. In summary, the maximum daily flow has been around 0.02 mgd (14 gpm). To ensure that the flow rate is not exceeded, the permit will be set at a flow rate of 21 gpm (0.03 mgd),

• **Treatment Facility Description**

Oil and water is separated and the water is sent to a 4 chamber skimmer tank. From there the water travels to a filter house and then to an aerated pond and discharge to the unnamed tributary in the Wolf Creek drainage. Wolf Creek travels to the

White River. Any infiltration from the pond would be considered a discharge to groundwater which would be under the jurisdiction of the COGCC.

- **Chemical Usage**

The application identified the following chemicals which are added to the water flow after dissolved air flotation and before entrance into the lined, storage pond. The MSDS documents for these chemicals were provided in the permit application. The MSDS sheets have been reviewed and the following chemicals are been approved for use.

Chemical Name	Purpose	Constituents of Concern
DMO 712	Demulsifier	1,2,4- 1,2,3 and 1,3,5 Trimethylbenzene; Xylene; ethylbenzene
DMO 146	Demulsifier	1,2,4- 1,2,3 and 1,3,5 Trimethylbenzene; Xylene; methanol; 2- ethylhexanol
SCW237	Scale Inhibitor	Methanol; sodium chloride

Chemicals deemed acceptable for use in waters that will or may be discharged to waters of the State are acceptable only when used in accordance with all state and federal regulations, and in strict accordance with the manufacturer's site-specific instructions.

Basis of Certification Limitations:

- **Stream Segment Information**

The discharge is to an unnamed tributary in the Wolf Creek drainage, which is tributary to the White River, within Segment 13a of the White River Sub-basin, Lower Colorado River Basin, found in the Classifications and Numeric Standards for the Lower Colorado River Basin (Regulation No. 37) (**COLCWH13a**). Segment 13a is Use Protected, and is classified for the following beneficial uses: Aquatic Life, Class 2 Warm; Recreation Class N and Agriculture.

- **Technology Based Standards**

The limitations for oil and grease and total suspended solids are from Regulation 62, which apply to all discharges that would be covered under this General Permit.

- **Water Quality Standards**

Limitations for metals and inorganics are based on the water quality standards specific to stream segment COLCWH13a. For this segment metals standards are based on agricultural protection and not the table value standards. Limitations will be based off of these values.

Note that temperature limitations will not be applied as the receiving stream is assumed to be a zero low flow stream in all months. For all other parameters the water quality standards for Segment COSPLS02a will be applied. For organic parameters, only the aquatic life limits in Regulation 31 will be applied.

- **Antidegradation**

Because the receiving water is use protected, an antidegradation evaluation is not applicable to this discharge.

- **Colorado River Basin Salinity**

As this discharge is to the Colorado River basin, the allowable TDS in the discharge is limited to 1 ton/day, 350 tons/year or 500 mg/l. The average TDS of the effluent is approximately 5000 mg/l, and the maximum flow rate is approximately 0.02 mgd. This results in approximately 834 lbs/day or 0.4 tons per day. The discharge is therefore in compliance with these standards, however, monitoring for TDS will be required.

- **Narrative Standards**

Section 31.11(1)(a)(iv) of The Basic Standards and Methodologies for Surface Waters (Regulation No. 31) includes the narrative standard that State surface waters shall be free of substances that are harmful to the beneficial uses or toxic to humans, animals, plants, or aquatic life.

Agricultural Protection

Based on available information, there are no diversions on Wolf Creek or its tributaries and the nearest intake would be on the White River, over 15 miles away. The dilution provided by the White River would be greater than 100:1 and would exempt the discharge from these limitations, and therefore SAR and EC are not evaluated for.

Whole Effluent Toxicity

WET testing is applicable to this stream segment and this discharge may contain metals and/or salts at concentrations that may be toxic to aquatic life, as well as organics found in the treated water or applied in the chemical usage. As this segment is listed for Aquatic Life Warm 2, without the appropriate aquatic life water quality standards, acute WET testing is applicable in this permit.

General Information:

- **Permit Action Fees** : The Annual Fee for this certification is \$2150 [Category 12 Subcategory 2, Manufacturing and Other Industry per CRS 25-8-502] and is invoiced every July. Do Not Pay This Now. The initial invoice will be **prorated** and sent to the legal contact shortly.
- **Changes to the Certification** – Any changes that need to be made to the certification page – changes in outfalls, monitoring requirements, etc., must be submitted using the “Permit and Certification Modification form” available on our website: coloradowaterpermits.com, and signed by the legal contact.
- **Discharge Monitoring Report (DMR)** forms will be mailed out within the next month. Reports must be submitted **monthly** as long as the certification is in effect. The permittee shall provide the Division with any additional monitoring data on the permitted discharge collected for entities other than the Division. This will be supplied to the Division within 48 hours of the receipt of the data by the permittee. If forms have not been received, please contact the Division at 303-692-3517.
- **Sampling Requirements** Sampling shall occur at a point after treatment, or after the implementation of any Best Management Practices (BMPs). If BMPs or treatment are not implemented, sampling shall occur where the discharge leaves control of the permittee, and prior to entering the receiving stream or prior to discharge to land. Samples must be representative of what is entering the receiving stream.
- **Termination requirements** This certification to discharge is effective long term, even though construction and dewatering discharge are only expected for approximately three months. For termination of permit coverage, the permittee must initiate this by sending the “CDPS Permits and Authorization Termination Form.” This form is also available on our web site and must be signed by the legal contact.
- **Groundwater Contamination** If groundwater contamination is encountered, then the permittee is to contact the Division, the permit writer, cease all discharges, and if appropriate, contact the owner of the collection system receiving the discharge. If the dewatering can be treated to meet surface water or groundwater numeric limitations, the certification will be amended to include sampling and monitoring for additional parameters representative of the groundwater contamination. **The discharge of contaminated groundwater, above surface water or groundwater standards, is not authorized under this permit.**
- **Certification Records Information** The following information is what the Division records show for this certification.

For any changes to Contacts – Legal, Local, Billing, or DMR – a “Notice of Change of Contacts form” must be submitted to the Division. This form is also available on our web site and must be signed by the legal contact.

Facility: Ward Unit
Industrial Activities : Crude oil production

Washington County
SIC Code 1311

Legal Contact *Receives all legal documentation, pertaining to the permit certification. [including invoice; is contacted for any questions relating to the facility; and receives DMRs.]*

A.G. Andrikopoulos, President
A.G. Andrikopoulos Resources, Inc.
P.O.Box 788
Cheyenne, WY 82003-0788

Phone number: 307-634-4441
Email: wrs-agari@bresnan.net

Facility, Billing, and DMR Contact *Contacted for general inquiries regarding the facility*

Bill Scribner, Vice President
A.G. Andrikopoulos Resources, Inc.
P.O.Box 788
Cheyenne, WY 82003-0788

Phone number: 307-634-4441
Email: wrs-agari@bresnan.net

If you have any other questions please contact me at 303-692-3655.

Sincerely

A handwritten signature in black ink, appearing to read "Andrew Neuhart". The signature is fluid and cursive, with the first name "Andrew" and last name "Neuhart" clearly distinguishable.

Andrew Neuhart
Assessment Based Permits Unit Manager
WATER QUALITY CONTROL DIVISION

Enclosures: Certification page; General Permit
xc: Moffat County, Local County Health Department
D.E., Technical Services Unit, WQCD