# BEFORE THE OIL AND GAS CONSERVATION COMMISSION OF THE STATE OF COLORADO

IN THE MATTER OF THE APPLICATION FOR	)	CAUSE NO. 1
RENEWING THE PERMIT TO ALLOW CONTINUED	)	
DISHARGE OF TREATED PRODUCTION WATER	)	DOCKET NO. 151200689
FROM THE WELLINGTON MUDDY UNIT INTO	)	
BOXELDER CREEK ALLUVIUM, LARIMER	)	TYPE: GENERAL
COUNTY, COLORADO	)	ADMINSTRATIVE

#### **ENTRY OF APPEARANCE**

PLEASE TAKE NOTICE that by this pleading, Steven J. Bushong of Porzak Browning & Bushong LLP, hereby enters his appearance on behalf of Applicant Wellington Operating Company, LLC. Mr. Bushong's contact information is as set forth below:

Steven J. Bushong (Att. # 21782) Porzak Browning & Bushong LLP 2120 13<sup>th</sup> Street Boulder, Colorado 80302 Telephone: 303-443-6800

Fax: 303-443-6864

Email: sjbushong@pbblaw.com

Respectfully submitted this 9th day of October, 2015.

PORZAK BROWNING & BUSHONG LLP

Steven J. Bushong (#21782)

# BEFORE THE OIL AND GAS CONSERVATION COMMISSION OF THE STATE OF COLORADO

IN THE MATTER OF THE APPLICATION FOR RENEWING )	CAUSE NO. 1
THE PERMIT TO ALLOW CONTINUED DISCHARGE OF )	
TREATED PRODUCTION WATER FROM THE WELLINGTON )	DOCKET NO
MUDDY UNIT INTO THE BOXELDER CREEK )	
ALLUVIUM, LARIMER COUNTY, COLORADO )	

#### **APPLICATION**

Wellington Operating Company, LLC (Operator No. 95233) ("Applicant"), an oil and gas operating company, by its consultants Telesto Solutions Inc., respectfully submits this application to the Oil and Gas Conservation Commission of the State of Colorado for renewing the existing pit permit (Pit Permit Nos.: 281818 and 281824) to allow continued discharge of treated production water from the Wellington Muddy Unit into the Boxelder Creek alluvium in Larimer County Colorado, and in support of the application states as follows:

1. Applicant operates a production water treatment plant ("Facility") classified as an Exploration and Production (E&P) Waste facility under COGCC pit permit numbers 281818 and 281824 (Figure 1). The Facility is located at:

Address: 1590 East Larimer County Road 70

Wellington, CO 80549

Legal Description: SW ¼ SE ¼ Section 7, Township 9 North, Range 68

West 6<sup>th</sup> P.M.

The Facility and legal contact information is provided below:

Bradley A. Pomeroy Wellington Operating Company 6065 S. Quebec Street, Suite 201 Centennial, CO 80111 (303) 220-5399

- 2. Cause Orders No. 1-165 and No. 1-108 apply to the application and establish, among other things, approval to allow discharge of treated produced water from the Wellington Muddy Unit into the Boxelder Creek alluvium. As indicated in Order No.1-108:
  - a. Rule 907.a. of the Rules and Regulations of the Colorado Oil and Gas

- Conservation Commission (COGCC) establishes the policy of encouraging and promoting waste minimization by beneficial use, reuse and recycling.
- b. Rule 907.c.(2)E. allows the discharge of produced water into the waters of the State of Colorado, and the beneficial use of this water in accordance with applicable state statutes and regulations governing the use and administration of water.
- c. The Memorandum of Agreement between the COGCC, the Water Quality Control Commission (WQCC) and the Water Quality Control Division (WQCD) for the implementation of SB89-181 Amendments to the Colorado Water Quality Control Act (August 28, 1990; the "Water Quality MOA") acknowledged the COGCC as the "implementing agency" for oil and gas activities under its jurisdiction that result in discharge to ground water, and for adopting points of compliance for such discharges to protect present and future beneficial uses of water.
- d. Rule 907.c.(3) allows the reuse of produced water in a manner consistent with existing water rights and in consideration of water quality standards and classifications established by the WQCC for waters of the state, or any point of compliance established by the COGCC Director pursuant to Rule 324 D.
- e. Rule 904.a.(2) requires production pits in sensitive areas to be lined. The results of the Sensitive Area Decision Tree, Rule 901.e. and Figure 901-1, indicate that four (4) of the key sensitive area criteria are not met for Applicants proposed project (e.g. the alluvial aquifer is not classified for domestic use, no well head protection area is impacted, the project is not close to domestic or public water supply wells, the depth to ground water is greater than 20 ft); nevertheless, the Applicant stated that by its nature, an aquifer recharge beneficial use project is "sensitive."
- f. Rule 502.b. allows variances to COGCC rules and regulations. Rule 910.a. lists applicable ground water concentrations. Rule 901.d. allows operators to propose alternative methods for determining compliance with COGCC rules and regulations using alternative points of compliance.
- 3. Applicant was granted Pit Permit Numbers 281818 and 281824 on December 5<sup>th</sup>, 2005 which, subsequently, were renewed on January 1<sup>st</sup>, 2011 (Exhibit A) authorizing discharge of treated water from the Facility into the Boxelder Creek alluvium. The Facility has been discharging treated water through the Rapid Infiltration Basins (RIBs) since April 2006.
- 4. The current permit will expire on December 31<sup>st</sup>, 2015. The Applicant communicated with COGCC and was informed on September 14<sup>th</sup>, 2015 to apply by October 8<sup>th</sup>, 2015 so that the permit renewal request could be included in the docket for the December 7<sup>th</sup> and 8<sup>th</sup>, 2015 hearing. The permit renewal includes no amendments.
- 5. Applicant has obtained a classification from the Office of the State Engineer that produced water from the Wellington Muddy Unit is nontributary and the above referenced pit permit numbers only relate to water quality regulations pertaining to the treated produced water.

- 6. Applicant is the only entity that can withdraw produced water from the field and the renewal of the permit does not impact any existing water users in Northern Colorado.
- 7. The only wells between the infiltration basin and the point of compliance are irrigation wells owned by the family and entities of Mr. Richard Seaworth, the surface owner, who is a partner of the Wellington Operating Company and supports the Facility operation and discharge.
- 8. Monitoring data collected from the various outfall locations (Figure 2) specified in the permit since the last permit renewal is provided in Exhibit B. A review of the data indicates that the Facility discharge (001A) has been in compliance with the discharge limitations, set forth in the permit since the last permit renewal in December 2010.
- 9. Telesto Solutions, Inc (Telesto) will remain as the consultant for the Applicant to provide technical services relating to Facility operation and management.
- 10. Steve Rogers, Senior Industrial Water Process/Operations Specialist, ARCADIS will remain as the Operator in Responsible Charge for the Facility. Steve Rogers holds a Class A Industrial Wastewater Operator License and works with Telesto to ensure compliance of the Facility as specified in the permit.
- 11. The granting of this application will not cause significant adverse environmental impact to the waters of the State of Colorado, and is essential for the continued beneficial use of this resource.
- 12. All the monitoring wells are at least 1,000 feet away from the adjacent property. The names and addresses of the adjacent property holders (potential interested parties for this application) according to the information and belief of the Applicant are set forth in Exhibit C attached hereto and made a part hereof.

WHEREFORE, Applicant respectfully requests that this matter be set for hearing in December 2015, that notice be given as required by law and upon such hearing this Commission enter its order consistent with Applicant's proposal as set forth above.

Dated: October 8, 2015

TELESTO SOLUTIONS, INC.

Parker Coit

Telesto Solutions, Inc. Consultants for Wellington

**Operating Company** 

2950 E. Harmony Rd, Suite 200

Fort Collins, CO-80528

970-484 7704

## **VERIFICATION**

STATE OF COLORADO	)
	)ss
COUNTY OF LARIMER	)

Bradley A. Pomeroy, President of Wellington Operating Company, upon oath deposes and says that he has read the foregoing Application and that the statements contained therein are true to the best of his knowledge, information and belief.

WELLINGTON OPERATING COMPANY

Bradley Pomeroy, President

Subscribed and sworn to before me this 8<sup>th</sup> day of October 2015, by Bradley A. Pomeroy, President, Wellington Operating Company.

Witness my hand and official seal.

My commission expires

DANIEL E. DAWKINS

NOTARY PUBLIC

STATE OF COLORADO

NOTARY ID 19954006846

Y COMMISSION EXPIRES JUNE 30, 2019

**Notary Public** 

# BEFORE THE OIL AND GAS CONSERVATION COMMISSION OF THE STATE OF COLORADO

IN THE MATTER OF THE APPLICATION FOR RENEWING	)	CAUSE NO. 1
THE PERMIT TO ALLOW CONTINUED DISCHARGE OF	)	
TREATED PRODUCTION WATER FROM THE WELLINGTON	)	DOCKET NO.
MUDDY UNIT INTO THE BOXELDER CREEK	)	
ALLUVIUM, LARIMER COUNTY, COLORADO	)	

## AFFIDAVIT OF MAILING

STATE OF COLORADO	)
	) ss
COUNTY OF LARIMER	)

Parker Coit, of lawful age, and being fist duly sown upon his oath, states and declares:

That he is a consulting geologist contracted by the Wellington Operating Company and that on or before October 8, 2015 he caused a copy of the attached Application to be deposited in the United States Mail, postage prepaid, addressed to the parties listed on <a href="Exhibit C">Exhibit C</a> to the application.

Parker Coit

Subscribed and sworn to before me this 8th day of October 2015.

Witness my hand and official seal.

My commission expires 10/04/19

Publi

Notary Public

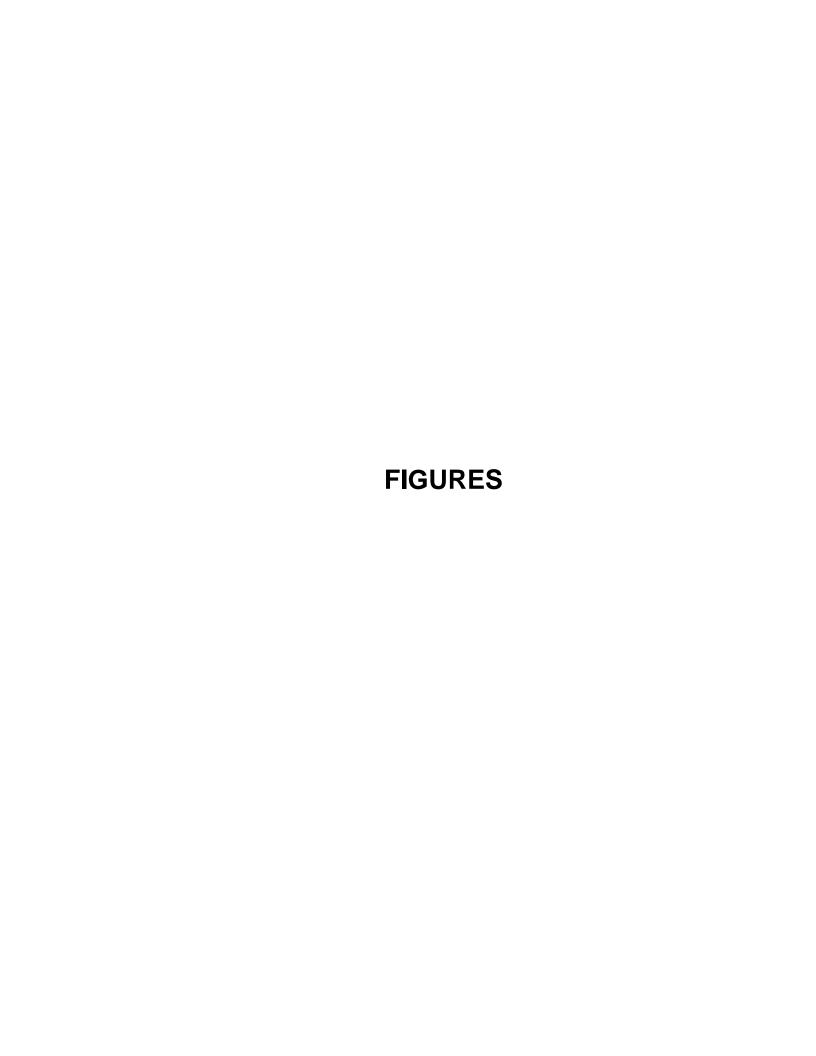




FIGURE 1 REFERENCE MAP





FIGURE 2 WELLINGTON OPERATING COMPANY MONITORING WELLS



# **EXHIBIT A**Previous Permit Renewal

ORIGINAL

PIT Permit No.: 281818 & 281824

County: Larimer

# AUTHORIZATION TO DISCHARGE UNDER THE COLORADO OIL AND GAS CONSERVATION COMMISSION

### DISCHARGE PERMIT SYSTEM

In compliance with the provisions of the Colorado Oil and Gas Conservation Commission Rules and Regulations (2 CCR-404), the Colorado Water Quality Control Act, (25-8-101 et seq., CRS, 1973 as amended) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq.; the "Act") the

#### WELLINGTON OPERATING COMPANY

is authorized to discharge from Wellington Production Water Treatment Facility located at 1590 East Larimer County Road 70 to the Boxelder Creek alluvial groundwater aquifer in accordance with effluent limitations, monitoring requirements and other conditions set forth in Part I and II hereof. All discharges authorized herein shall be consistent with the terms and conditions of this permit.

The applicant may demand an adjudicatory hearing within thirty (30) days of the issuance of the final permit determination, per the Colorado Discharge Permit System Regulations, 61.7(1). Should the applicant choose to contest any of the effluent limitations, monitoring requirements or other conditions contained herein, the applicant must comply with Section 24-4-104 CRS 1973 and the Colorado Discharge Permit System Regulations. Failure to contest any such effluent limitation, monitoring requirement, or other condition, constitutes consent to the condition by the Applicant.

This permit and the authorization to discharge shall expire at midnight, December 31, 2015.

Issued and Signed this 8 day of April 2011

COLORADO OIL AND GAS CONSERVATION COMMISSION

David Neslin, Director

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#### PART 1

#### A. TERMS AND CONDITIONS

#### 1. Effluent Limitations

Beginning no later than the effective date of this permit and lasting through December 31, 2015, the permittee is authorized to discharge from the following outfall(s): Outfall 001 A, production water treatment facility, prior to discharge to effluent pipeline; and Outfalls 050 C, 050 D, and 050 E, monitoring wells located within the Boxelder Creek alluvium, approximately one-quarter mile downgradient from the Rapid Infiltration Basins (RIBs) which are located at the terminus of the 3,850-foot effluent pipeline from the production water treatment facility. Compliance with effluent limitations for organic constituents will be determined at Outfall 001 A. Compliance with effluent limitations for inorganic constituents will be determined at Outfalls 050 C, 050 D, and 050 E.

In accordance with the Oil and Gas Conservation Commission Rules and Regulations, the Water Quality Control Commission Regulations for Effluent Limitations, Section 62.5, and the Basic Standards for Ground Water Section 41.5.B, 5 C.C.R. 1002-2, the permitted discharge shall not contain effluent parameter concentrations which exceed the following limitations specified below or exceed the specified flow limitation.

Outfall 001 A - Production Water Treatment Facility Discharge

Effluent Parameter		Discharge	Limitations
	30-Day Avg	7-Day Avg	Daily Max
Flow, MGD	0.144 MGD	N/A	Report
pH, s.u. (minimum-maximum)	N/A	N/A	6.5-8.5
Oil and Grease, mg/l	N/A	N/A	10
Total Dissolved Solids, mg/l	N/A	N/A	Report
Sodium, mg/l	N/A	N/A	Report
Chloride, mg/l	N/A	N/A	Report
Fluoride, mg/l	N/A	N/A	Report
Sulfate, mg/l	N/A	N/A	Report
Barium, mg/l	N/A	N/A	Report
Boron, mg/l	N/A	N/A	Report
Thallium, mg/l	N/A	N/A	Report
Benzene, mg/l	N/A	N/A	0.005
Toluene, mg/l	N/A	N/A	1
Ethylbenzene, mg/l	N/A	N/A	0.7
Xylenes, total mg/l	N/A	N/A	1.4
Naphthalene, mg/l	N/A	N/A	0.14

There shall be no discharge of floating solids.

Outfall 050 A - Upgradient Monitoring well in the Boxelder Creek alluvium

Effluent Parameter		Discharge Limitations	
	30-Day Avg	7-Day Avg	Daily Max
Total Dissolved Solids, mg/l	Report	N/A	Report
Sodium, mg/l	N/A	N/A	Report
Chloride, mg/l	250	N/A	Report
Sulfate, mg/l	N/A	N/A	Report
Fluoride, mg/l	2	N/A	Report
Barium, mg/l	2	N/A	Report
Boron, mg/l	5	N/A	Report
Thallium, mg/l	0.002	N/A	Report

Outfall 050~B – Monitoring well in the Boxelder Creek alluvium, proximal to discharge

Effluent Parameter		Discharge	e Limitations
	30-Day Avg	7-Day Avg	Daily Max
Total Dissolved Solids, mg/I	N/A	N/A	Report
Sodium, mg/l	N/A	N/A	Report
Chloride, mg/l	N/A	N/A	Report
Sulfate, mg/l	N/A	N/A	Report
Fluoride, mg/l	N/A	N/A	Report
Barium, mg/l	N/A	N/A	Report
Boron, mg/l	N/A	N/A	Report
Thallium, mg/l	N/A	N/A	Report
Benzene, mg/l	0.005	N/A	Report
Ethylbenzene, mg/l	1	N/A	Report
Toluene, mg/l	0.7	N/A	Report
Xylenes, total, mg/l	1.4	N/A	Report

Outfall 050 C - Monitoring well in the Boxelder Creek alluvium, one-quarter mile downgradient from RIBs

Effluent Parameter		Discharge	Discharge Limitations	
	30-Day Avg	7-Day Avg	Daily Max	
Total Dissolved Solids, mg/l	Report	N/A	Report	
Sodium, mg/l	N/A	N/A	Report	
Chloride, mg/l	250	N/A	Report	
Sulfate, mg/l	N/A	N/A	Report	
Fluoride, mg/l	2	N/A	Report	
Barium, mg/l	2	N/A	Report	
Boron, mg/l	5	N/A	Report	
Thallium, mg/l	0.002	N/A	Report	

See Part I.C. for Definitions.

PART I Page vi Pit Permit No. 281818 & 281824

 $Outfall\ 050D-Monitoring\ well\ in\ the\ Boxelder\ Creek\ all uvium,\ one-quarter\ mile\ downgradient\ from\ RIBs$ 

Effluent Parameter		Discharge Limitations	
	30-Day Avg	7-Day Avg	<u>Daily Max</u>
Total Dissolved Solids, mg/l	Report	N/A	Report
Sodium, mg/l	N/A	N/A	Report
Chloride, mg/l	250	N/A	Report
Sulfate, mg/l	N/A	N/A	Report
Fluoride, mg/l	2	N/A	Report
Barium, mg/l	2	N/A	Report
Boron, mg/l	5	N/A	Report
Thallium, mg/l	0.002	N/A	Report

See Part I.C. for Definitions.

 $Outfall\ 050\ E-Monitoring\ well\ in\ the\ Boxelder\ Creek\ alluvium,\ one-quarter\ mile\ downgradient\ from\ RIBs$ 

Effluent Parameter		Discharge	e Limitations
	30-Day Avg	7-Day Avg	Daily Max
Total Dissolved Solids, mg/l	Report	N/A	Report
Sodium, mg/l	N/A	N/A	Report
Chloride, mg/l	250	N/A	Report
Sulfate, mg/l	N/A	N/A	Report
Fluoride, mg/l	2	N/A	Report
Barium, mg/l	2	N/A	Report
Boron, mg/l	5	N/A	Report
Thallium, mg/l	0.002	N/A	Report

See Part I.C. for Definitions.

#### 2. Compliance Schedule

The permittee shall achieve compliance with the effluent limitations of Part I.A beginning with the effective date of this permit.

<u>RIB maintenance</u>: The permittee will be required to operate and maintain the RIBs in conformance with guidance provided by the Division, which is attached to the Rationale as Appendix B.

#### 3. Salinity Parameters

In order to characterize the Salinity (as quantified by Total Dissolved Solids) being discharged from the site, the permittee shall monitor the wastewater effluent at the following frequencies:

Outfall	Frequency	Sample Type
001 A	Quarterly	Composite
050 A	Quarterly	Grab
050 B	Quarterly	Grab
050 C	Quarterly	Grab
050 D	Quarterly	Grab
050 E	Quarterly	Grab

Self-monitoring samples taken in compliance with the monitoring requires specified above shall be taken at those locations listed in Part I.B.1.

Where, based on a minimum of 5 samples, the permittee demonstrates to the satisfaction of the COGCC and Water Quality Control Division that the level of total dissolved solids (TDS) in the effluent can be calculated based upon the level of electrical conductivity, the COGCC and Division may allow the permittee to measure and report TDS in terms of electrical conductivity.

#### B. MONITORING REQUIREMENTS

#### 1. Frequency and Sample Type

In order to obtain an indication of the probable compliance or noncompliance with the effluent limitations specified in Part I.A.1, the permittee shall monitor all effluent parameters at the following frequencies. Such monitoring will begin immediately and last for the life of the permit unless otherwise noted. The results of such monitoring shall be reported on the Discharge Monitoring Report (See Part I.B.2.)

#### (a) Outfalls

Monitoring Requirements, Outfall 001A, Facility Discharge

Parameter	Measurement Frequency	Sample Type
Flow, MGD	Continuous	Recorder
Oil and Grease, mg/l	Weekly	Visual <u>a</u> /
pH, s.u.	Monthly	Grab
Total Dissolved Solids, mg/l	Monthly	Composite
Sodium	Monthly	Composite
Chloride, mg/l	Monthly	Composite
Sulfate, mg/l	Monthly b/	Composite
Fluoride, mg/l	Monthly	Composite
Barium, mg/l	Monthly	Composite
Boron, mg/l	Monthly	Composite
Thallium, mg/l	Monthly	Composite
Benzene, mg/l <sup>-i/</sup>	Monthly	Grab
Toluene, mg/l <sup>1/</sup>	Monthly	Grab
Ethylbenzene, mg/l <sup>-i/</sup>	Monthly	Grab
Xylenes, total, mg/l <sup>i/</sup>	Monthly	Grab
Naphthalene, mg/l <sup>j/</sup>	Monthly	Grab

a/If a visible sheen is noted, a grab sample shall be collected and analyzed for oil and grease. The results are to be reported on the DMR under parameter 03582.

<sup>&</sup>lt;u>b/For sulfate, the discharge is at a lower concentration than the receiving water.</u> The effluent limitation will be set at the 85th percentile of upgradient monitoring well data collected for the first two years of this permit. Thereafter, the monitoring frequency will be reduced to annually.

This parameter is subject to "Noncompliance Notification" requirements of Part II.A.3.(b)(v) of this permit.

#### PART I Page ix Pit Permit No. 281818 & 281824

## Monitoring Requirements, Outfall 050 A, Upgradient Monitoring Well

Parameter	Measurement Frequency	Sample Type
Total Dissolved Solids, mg/l	Quarterly	Grab
Sodium, mg/l	Quarterly	Grab
Chloride, mg/l	Quarterly	Grab
Fluoride, mg/l	Quarterly	Grab
Barium, mg/I	Quarterly	Grab
Boron, mg/l	Quarterly	Grab
Thallium, mg/l	Quarterly	Grab

#### Monitoring Requirements, Outfall 050 B, Downgradient Monitoring Well

Parameter	Measurement Frequency	Sample Type
Total Dissolved Solids, mg/l	Quarterly	Grab
Sodium, mg/l	Quarterly	Grab
Chloride, mg/l	Quarterly	Grab
Fluoride, mg/l	Quarterly	Grab
Barium, mg/l	Quarterly	Grab
Boron, mg/l	Quarterly	Grab
Thallium, mg/l	Quarterly	Grab
Benzene, mg/l	Annually	Grab
Ethylbenzene, mg/l	Annually	Grab
Toluene, mg/l	Annually	Grab
Xylenes, total, mg/l	Annually	Grab

# Monitoring Requirements, Outfall 050 C, Downgradient Monitoring Well

Parameter	Measurement Frequency	Sample Type
Total Dissolved Solids, mg/l	Quarterly	Grab
Sodium, mg/I	Quarterly	Grab
Chloride, mg/l	Quarterly	Grab
Fluoride, mg/l <sup>j/</sup>	Quarterly	Grab
Barium, mg/l <sup>_l/</sup>	Quarterly	Grab
Boron, mg/l	Quarterly	Grab
Thallium, mg/l <sup>-i/</sup>	Quarterly	Grab
Fluoride, mg/l <sup>i/</sup> Barium, mg/l <sup>i/</sup> Boron, mg/l	Quarterly Quarterly Quarterly	Grab Grab Grab

This parameter is subject to "Noncompliance Notification" requirements of Part II.A.3.(b)(v) of this permit.

# Monitoring Requirements, Outfall 050 D, Downgradient Monitoring Well

Parameter	Measurement Frequency	Sample Type
Total Dissolved Solids, mg/l	Quarterly	Grab
Sodium, mg/l	Quarterly	Grab
Chloride, mg/l	Quarterly	Grab
Fluoride, mg/l <sup>1/</sup>	Quarterly	Grab
Barium, mg/l <sup>-1/</sup>	Quarterly	Grab
Boron, mg/l	Quarterly	Grab
Thallium, mg/l <sup>1/</sup>	Quarterly	Grab

This parameter is subject to "Noncompliance Notification" requirements of Part II.A.3.(b)(v) of this permit.

# Monitoring Requirements, Outfall 050 E, Downgradient Monitoring Well

Parameter	Measurement Frequency	Sample Type
Total Dissolved Solids, mg/l	Quarterly	Grab
Sodium, mg/l	Quarterly	Grab
Chloride, mg/l	Quarterly	Grab
Fluoride, mg/l <sup>1/</sup>	Quarterly	Grab
Barium, mg/t <sup>1/</sup>	Quarterly	Grab
Boron, mg/l	Quarterly	Grab
Thallium, mg/l <sup>1/</sup>	Quarterly	Grab

This parameter is subject to "Noncompliance Notification" requirements of Part H.A.3.(b)(v) of this permit.

Self-monitoring sampling by the permittee for compliance with the monitoring requirements specified above shall be performed at the following location(s):

 $Outfall \ 001 \ A-production \ water \ treatment \ facility, prior \ to \ discharge \ to \ effluent \ pipeline, sampled \ from \ the pressurized \ plant \ water \ system$ 

Outfall 050 A - monitoring well located upgradient in the Boxelder Creek alluvium

Outfall 050 B - monitoring well located in the Boxelder Creek alluvium, proximal to the discharge

Outfall 050 C - monitoring well located within the Boxelder Creek alluvium, approximately one-quarter mile downgradient from the Rapid Infiltration Basins (RIBs) which are located at the terminus of the 3,850-foot effluent pipeline from the production water treatment facility.

Outfall 050 D - monitoring well located within the Boxelder Creek alluvium, approximately one-quarter mile downgradient from the Rapid Infiltration Basins (RIBs).

Outfall 050 E - monitoring well located within the Boxelder Creek alluvium, approximately one-quarter mile downgradient from the Rapid Infiltration Basins (RIBs).

Compliance with effluent limitations for organic constituents will be determined at Outfall 001 A. Compliance with effluent limitations for inorganic constituents will be determined at Outfall 050 C, 050 D, and 050 E. Monitoring at Outfall 050 B is for information only, Outfall 050 B is not to be used to determine compliance with the conditions of this permit.

If the permittee, using the approved analytical methods, monitors any parameter more frequently than required by this permit, then the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report Form or other forms as required by the Division. Such increased frequency shall also be indicated.

#### (b). Oil and Grease Monitoring

For every outfall with oil and grease monitoring, in the event an oil sheen or floating oil is observed, a grab sample shall be collected, analyzed, and reported on the appropriate DMR. In addition, corrective action shall be taken immediately to mitigate the discharge of oil and grease. A description of the corrective action taken shall be included with the DMR.

See Part I.C. for Definitions.

#### 2. Reporting of Data

Reporting of the data gathered in compliance with Part I.B.1 shall be on a monthly basis for Outfall 001 A, for Outfall 050 A, Outfall 050 B, Outfall 050 C, Outfall 050 D, and Outfall 050 E. Monitoring results shall be summarized for each calendar month and reported on Division-approved discharge monitoring report (DMR) forms (EPA form 3320-1). The forms shall be mailed to the agencies listed below so they are received no later than the 28th day of the month following the end of the quarter (for example, the DMR for the first calendar quarter must be received by the COGCC and Division by April 28th). If no discharge occurs during the reporting period, "No Discharge" shall be reported. In addition to the DMR, COGCC will receive monitoring data in a computer spreadsheet format.

The DMR forms consist of four pages - the top "original" copy, and three attached no-carbon-required copies. After the DMR form has been filled out and signed, the four copies must be separated and distributed as follows:

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The first <u>original</u> signed copy of each discharge monitoring report shall be submitted to the COGCC at the following address:

Colorado Oil and Gas Conservation Commission Environmental Section 1120 Lincoln Street Suite 802 Denver, Colorado 80203

The first <u>duplicate</u> signed copy of each discharge monitoring report (DMR) shall be submitted to the Division at the following address:

Colorado Department of Public Health and Environment Water Quality Control Division Permits Section WQCD-PCP-B2 4300 Cherry Creek Drive South Denver, Colorado 80222-1530

The third and fourth copies are for the permittee records. The Discharge Monitoring Report forms shall be filled out accurately and completely in accordance with requirements of this permit and the instructions on the forms. They shall be signed by an authorized person as identified in Part I.D.

#### C. DEFINITIONS OF TERMS

- 1. "Acute Toxicity" means there shall be no acute toxicity in the effluent from this discharge point. The acute toxicity limitation is exceeded if 1) a statistically significant difference in mortality (at the 95% confidence level) is observed for either species between the control and any dilution less that or equal to the identified IWC or 2) a species mortality in any dilution of effluent (including 100% effluent) exceeds 50%.
- 2. "Composite" sample is a minimum of four (4) grab samples collected at equally spaced two (2) hour intervals and proportioned according to flow.
- "Continuous" measurement is a measurement obtained from an automatic recording device which continually provides measurements.
- 4. "Daily Maximum limitation" means the limitation for this parameter shall be applied as an instantaneous maximum (or, for pH or DO, instantaneous minimum) value. The instantaneous value is defined as the analytical result of any individual sample. DMRs shall include the maximum (and/or minimum) of all instantaneous values within the calendar month. Any instantaneous value beyond the noted daily maximum limitation for the indicated parameter shall be considered a violation of this permit.
- 5. "Grab" sample, is a single "dip and take" sample so as to be representative of the parameter being monitored.
- 6. "In-situ" measurement is defined as a single reading, observation or measurement taken in the field at the point of discharge.
- 7. "Instantaneous" measurement is a single reading, observation, or measurement performed on site using existing monitoring facilities.
- 8. "Potentially dissolved (PD) metal fraction "is defined in the <u>Basic Standards and Methodologies for Surface Water</u> Section 31.5(31), as that portion of a constituent measured from the filtrate of a water and suspended

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sediment sample that was first treated with nitric acid to a pH of 2 or less and let stand for 8 to 96 hours prior to sample filtration using a 0.4 or 0.45-UM membrane filter. Note the "potentially dissolved" method cannot be used where nitric acid will interfere with the analytical procedure used for the constituent measured.

- 9. "Quarterly measurement frequency" means samples may be collected at any time during the calendar quarter if a continual discharge occurs. If the discharge is intermittent, then samples shall be collected during the period that discharge occurs.
- 10. "Recorder" requires the continuous operation of a chart and/or totalizer (or drinking water rotameters or pump hour meters where previously approved.)
- 11. "Seven (7) day average" means, with the exception of fecal coliform bacteria, the arithmetic mean of all samples collected in a seven (7) consecutive day period. For fecal coliform bacteria, it is the geometric mean of all samples taken in a seven (7) consecutive day period. Such seven (7) day averages shall be calculated for all calendar weeks, which are defined as beginning on Sunday and ending on Saturday. If the calendar week overlaps two months (i.e. the Sunday is in one month and the Saturday in the following month), the seven (7) day average calculated for that calendar week shall be associated with the month that contains the Saturday. Samples may not be used for more than one (1) reporting period. (Not applicable to fecal coliform determinations.)

- 12. "Thirty (30) day average" means, except for fecal coliform bacteria, the arithmetic mean of all samples collected during a thirty (30) consecutive-day period. For fecal coliform bacteria, it is the geometric mean of all samples collected in a thirty (30) day period. The permittee shall report the appropriate mean of all self-monitoring sample data collected during the calendar month on the Discharge Monitoring Reports. Samples shall not be used for more than one (1) reporting period.
- 13. "Twenty four (24) hour composite" sample is a combination of at least eight (8) sample aliquots of at least 100 milliliters, collected at equally spaced intervals during the operating hours of a facility over a twenty-four (24) hour period. For volatile pollutants, aliquots must be combined in the laboratory immediately before analysis. The composite must be flow proportional; either the time interval between each aliquot or the volume of each aliquot must be proportional to either the wastewater or effluent flow at the time of sampling or the total wastewater or effluent flow since the collection of the previous aliquot. Aliquots may be collected manually or automatically.
- 14. "Visual" observation is observing the discharge to check for the presence of a visible sheen or floating oil.
- 15. "Water Quality Control Division" or "Division" means the state Water Quality Control Division as established in 25-8-101 et al.)

#### D. REPORTING

#### 1. Signatory Requirements

All reports required for submittal shall be signed and certified for accuracy by the permittee in accord with the following criteria:

- In the case of corporations, by a principal executive officer of at least the level of vice-president or his or her duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge described in the form originates;
- b) In the case of a partnership, by a general partner;
- c) In the case of a sole proprietorship, by the proprietor;
- d) In the case of a municipal, state, or other public facility, by either a principal executive officer, ranking elected official or other duly authorized employee.

#### E. SPECIAL REQUIREMENTS

Nothing herein contained shall be construed as allowing any discharge to waters of the State other than through the discharge points specifically authorized in this permit. Nothing herein contained shall be construed as excusing any liability the permittee might have, civil or criminal, for any spill.

The submittal of a Spill Prevention Control and Countermeasure Plan (SPCC Plan) as required by 40 CFR Part 112 may satisfy all or part of this requirement. Should additional materials exist on site which are not addressed in the SPCC Plan, addressing those materials as per the above is required.

#### F. GENERAL REQUIREMENTS

#### 1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this permit and, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points shall not be changed without notification to and approval by the COGCC and Division.

### 2. Analytical and Sampling Methods for Monitoring

The permittee shall install, calibrate, use and maintain monitoring methods and equipment, including biological and indicated pollutant monitoring methods. Analytical and sampling methods utilized by the discharger shall be approved methods as defined by Colorado Regulations for Effluent Limitations (5 CCR 1002-3, Section 62.18, and federal regulations (40 CFR 136) and any other applicable State or Federal regulations. The analytical method selected for a parameter shall be the one that can measure the lowest detected limit for that parameter unless the permit limitation or stream standard for those parameters not limited, is within the testing range of another approved method. When requested in writing, the Water Quality Control Division may approve an alternative analytical procedure or any significant modification to an approved procedure.

When the most sensitive analytical method which complies with this part, has a detection limit greater than or equal to the permit limit, the permittee shall report "less than (the detectable limit)," as appropriate. Such reports shall not be considered as violations of the permit limit. The present lowest method detection limits for specific parameters (which have limitations which are, in some cases, less than or equal to the detection limit) are as follows:

Arsenic	0.01 mg/l
Benzene	0.001 mg/l
Total Residual Chlorine	0.05  mg/I
Cadmium	0.0003 mg/l
Chromium	0.01 mg/l
Chromium, Hexavalent	0.01 mg/l
Copper	0.005 mg/l
Lead	0.005 mg/l
Total Mercury	0.00025 mg/l
Nickel	0.05 mg/l
Selenium	0.01 mg/i
Silver	0.0002 mg/l
Zine	0.05 mg/l

These limits apply to the total recoverable or the potentially dissolved fraction of metals.

For hexavalent chromium, samples must be unacidified so that dissolved concentrations will be measured rather than potentially dissolved concentrations.

#### 3. Records

The permittee shall establish and maintain records. Those records shall include the following:

- The date, type, exact location, and time of sampling or measurements;
- b) The individual(s) who performed the sampling or measurements;
- c) The date(s) the analyses were performed;
- d) The individual(s) who performed the analyses;
- e) The analytical techniques or methods used;
- f) The results of such analyses; and
- g) Any other observations which may result in an impact on the quality or quantity of the discharge as indicated

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in 40 CFR 122.44 (i)(1)(iii).

The permittee shall retain for a minimum of three (3) years records of all monitoring information, including all original strip chart recordings for continuous monitoring instrumentation, all calibration and maintenance records, copies of all reports required by this permit and records of all data used to complete the application for this permit. This period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the permittee or when requested by the COGCC or Division.

#### 4. Flow Measuring Device

If not already a part of the permitted facility, within ninety (90) days after the effective date of the permit, a flow measuring device shall be installed to give representative values of effluent quantities at the respective discharge points. Unless specifically exempted, or modified in Part I.B.2 of this permit, a flow measuring device will be applicable at all designated discharge points.

At the request of the COGCC or Water Quality Control Division, the permittee shall show proof of the accuracy of any flow-measuring device used in obtaining data submitted in the monitoring report. The flow-measuring device must indicate values within ten (10) percent of the actual flow being discharged from the facility.

#### PART II

#### A. MANAGEMENT REQUIREMENTS

#### 1. Change in Discharge

The permittee shall inform the COGCC and Division (Permits Section) in writing of any intent to construct, install, or alter any process, facility, or activity that is likely to result in a new or altered discharge, either in terms of location or effluent quality or quantity prior to the occurrence of the new or altered discharge, and shall furnish the COGCC and Division such plans and specifications which the COGCC and Division deems reasonably necessary to evaluate the effect on the discharge and receiving stream.

Process modifications include, but are not limited to, the introduction of any new pollutant not previously identified in the permit, or any other modifications which may result in a discharge of a quantity or quality different from that which was evaluated in the drafting of the permit including subsequent amendments. Following such notice, the permittee may be required to submit a new or revised COGCC/ Division application and the permit may be modified to specify and limit any pollutants not previously limited, if the new or altered discharge might be inconsistent with the conditions of the existing permit. In no case shall the permittee implement such change without first modifying the permit to reflect the change or obtaining confirmation from the COGCC and Division that no change is required in the permit.

#### 2. Special Notifications - Definitions

- a) Bypass: The intentional diversion of waste streams from any portion of a treatment facility.
- b) Severe Property Damage: Substantial physical damage to property at the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. It does not mean economic loss caused by delays in production.
- c) Spill: An incident in which flows or solid materials are accidentally or unintentionally allowed to flow or escape so as to be lost from the treatment, processing or manufacturing system which may cause or threaten pollution of state waters.
- d) Upset: An exceptional incident in which there is unintentional and temporary noncompliance with permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.

#### 3. Noncompliance Notification

- a) If, for any reason, the permittee does not comply with or will be unable to comply with any discharge limitations or standards specified in this permit, the permittee shall, at a minimum, provide the Oil and Gas Conservation Commission, the Water Quality Control Division, and with the following information:
  - (i) A description of the discharge and cause of noncompliance;
  - (ii) The period of noncompliance, including exact dates and times and/or the anticipated time when the discharge will return to compliance; and
  - (iii) Steps being taken to reduce, eliminate, and prevent recurrence of the noncomplying discharge.

#### 3. Noncompliance Notification (Continued)

- b) The permittee shall report the following instances of noncompliance <u>orally within twenty-four (24) hours</u> from the time the permittee becomes aware of the noncompliance, and shall mail to the COGCC and Division a written report <u>within five (5) days</u> after becoming aware of the noncompliance:
  - (i) Any instance of noncompliance which may endanger health or the environment regardless of the cause of the incident;
  - (ii) Any unanticipated bypass;
  - (iii) Any upset or spill which causes an exceedence of any effluent limitation in the permit;
  - (iv) Daily maximum violations for any toxic pollutants or hazardous substances limited by PART I-A of this permit and specified as requiring 24-hour notification.
- c) The permittee shall report all other instances of non-compliance which are not required to be reported within 24 hours at the time Discharge Monitoring Reports are submitted. The reports shall contain the information listed in sub-paragraph (a) of this section.

#### 4. Submission of Incorrect or Incomplete Information

Where the permittee failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or report to the COGCC and Division, the permittee shall promptly submit the relevant information which was not submitted or any additional information needed to correct any erroneous information previously submitted.

#### Bypass

- a.) The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it is also essential maintenance to assure efficient operation. COGCC and Division notification is not required.
- b.) A bypass which causes effluent limitations to be exceeded is prohibited, and the COGCC and/or Division may take enforcement action against a permittee for such a bypass, unless:
  - i) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
  - ii) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if the permittee could have installed adequate backup equipment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and
  - iii) The permittee submitted notices as required in "Bypass Notification", Part II.A.6.

#### 6. Bypass Notification

If the permittee knows in advance of the need for a bypass, a notice shall be submitted, at least ten days before the date of the bypass, to the COGCC and Division. The bypass shall be subject to COGCC and Division approval and limitations imposed by the COGCC and Division. Violations of requirements imposed by the COGCC and Division will constitute a violation of this permit.

#### 7. Upsets

#### a) Effect of an Upset

An upset constitutes an affirmative defense to an action brought for noncompliance with permit effluent limitations if the requirements of paragraph (b) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final. Administrative action is subject to judicial review.

#### b) Conditions Necessary for a Demonstration of Upset

A permittee who wishes to establish the affirmative defense of upset shall demonstrate through properly signed contemporaneous operating logs, or other relevant evidence that:

- (i) An upset occurred and that the permittee can identify the specific cause(s) of the upset; and
- (ii) The permitted facility was at the time being properly operated; and
- (iii) The permittee submitted notice of the upset as required in Part II.A.3. of this permit (24-hour notice); and
- (iv) The permittee complied with any remedial measures required under 40 CFR 122.7(d) of the federal regulations.

#### c) Burden of Proof

In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

#### 8. Removed Substances

Solids, sludges, or other pollutants removed in the course of treatment or control of wastewaters shall be properly disposed of in a manner such as to prevent any pollutant from such materials from entering waters of the State.

For all domestic wastewater treatment works, and industrial facilities, the permittee shall dispose of sludge in accordance with all State and Federal regulations.

#### 9. Minimization of Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to waters of the State resulting from noncompliance with any effluent limitations specified in this permit. As necessary, accelerated or additional monitoring to determine the nature and impact of the noncomplying discharge is required.

#### 10. Discharge Point

Any discharge to the waters of the State from a point source other than specifically authorized by this permit is prohibited.

#### 11. Reduction, Loss, or Failure of Treatment Facility

The permittee has the duty to halt or reduce any activity if necessary to maintain compliance with the effluent limitations of the permit. Upon reduction, loss, or failure of the treatment facility, the permittee shall, to the extent necessary to maintain compliance with its permit, control production, control sources of wastewater, or all discharges, until the facility is restored or an alternative method of treatment is provided. This provision also applies to power failures, unless an alternative power source sufficient to operate the wastewater control facilities is provided.

It shall not be a defense for a permittee in an enforcement action that it would be necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

#### 12. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

#### B. RESPONSIBILITIES

#### 1. Inspections and Right to Entry

The permittee shall allow the Directors of the Oil and Gas Conservation Commission and/or Water Quality Control Division and/or their authorized representatives, upon the presentation of credentials:

- a) To enter upon the permittee's premises where a regulated facility or activity is located or in which any records are required to be kept under the terms and conditions of this permit;
- b) At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit and to inspect any monitoring equipment or monitoring method required in the permit; and
- c) To enter upon the permittee's premises in a reasonable manner and at a reasonable time to inspect and/or investigate, any actual, suspected, or potential source of water pollution, or to ascertain compliance or non-compliance with the Colorado Oil and Gas Conservation Commission Rules and Regulations, the Colorado Water Quality Control Act, or any other applicable state or federal statute or regulation, or any order promulgated by the COGCC or Division. The investigation may include, but is not limited to, the following: sampling of any discharge and/or process waters, the taking of photographs, interviewing of any person having knowledge related to the discharge permit or alleged violation, access to any and all facilities or areas within the permittee's premises that may have any affect on the discharge, permit, or alleged violation.
- d) The COGCC or Division shall split samples taken by the COGCC or Division during any investigation with the permittee if requested to do so by the permittee.

#### 2. Duty to Provide Information

The permittee shall furnish to the COGCC and Division, within a reasonable time, any information which the COGCC and Division may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the COGCC and Division, upon request, copies of records required to be kept by this permit.

#### 3. Transfer of Ownership or Control

A permit may be transferred to a new permittee only upon the completion of the following:

- a) The current permittee notifies the COGCC and Division in writing 30 days in advance of the proposed transfer date; and
- b) The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage and liability between them; and
- c) Fee requirements of the Colorado Discharge Permit System Regulations, Section 61.15 COGCC RULES SERIES 300 have been met.

#### 4. Availability of Reports

Except for data determined to be confidential under Section 308 of the Federal Clean Water Act and Colorado Discharge Permit Regulations 5 CCR 1002-2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Oil and Gas Conservation Commission and the Water Quality Control Division.

As required by the Federal Clean Water Act, effluent data shall not be considered confidential. Knowingly making false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the Federal Clean Water Act, and Section 25-8-610 C.R.S.B.

#### 5. Modification, Suspension, or Revocation of Permits By the COGCC or Division

The filing of a request by the permittee for a permit modification, revocation and reissuance, inactivation or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

All permit modification, termination or revocation and reissuance actions shall be subject to the requirements of COGCC Rule 908 and the Colorado Discharge Permit System Regulations, Sections 61.8(8), 5 C.C.R. 1002-2, except for minor modifications.

- a) This permit may be modified, suspended, or revoked in whole or in part during its term for reasons determined by the COGCC and/or Division including but not limited to, the following:
  - (i) Violation of any terms or conditions of the permit;
  - Obtaining a permit by misrepresentation or failing to disclose any fact which is material to the granting or denial of a permit or to the establishment of terms or conditions of the permit;
  - (iii) Materially false or inaccurate statements or information in the application for the permit;

# 5. Modification, Suspension, or Revocation of Permits By the COGCC or Division (continued)

- (iv) Promulgation of toxic effluent standards or prohibitions (including any schedule of compliance specified in such effluent standard or prohibition) which are established under Section 307 of the Clean Water Act, where such a toxic pollutant is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit.
- (v) Promulgation of Water Quality Standards applicable to waters affected by the permitted discharge; or
- (vi) Effluent limitations or other requirements applicable pursuant to the State Act or federal requirements; or
- (vii) Control regulations promulgated; or
- (viii) Data submitted pursuant to Part I.B indicates a potential for violation of adopted Water Quality Standards or stream classifications.
- (ix) Removal of a temporary modification to a stream standard thereby requiring the application of the stream standard.
- (X) This permit may be modified in whole or in part to include any conditions where data submitted pursuant to Part I.B.3 indicates that such conditions are necessary to ensure compliance with applicable water quality standards and protection of classified uses.
- (b) At the request of the permittee, the COGCC and/or Division may modify or terminate this permit if the following conditions are met:
  - (i) In the case of termination, the permittee notifies the COGCC and Division of its intent to terminate the permit 90 days prior to the desired date of termination and the permittee has ceased any and all discharges to state waters and demonstrates to the COGCC and Division there is no probability of further uncontrolled discharge(s) which may affect waters of the State.
  - (ii) The Environmental Protection Agency has been notified of the proposed modification or termination and does not object in writing within thirty (30) days of receipt of notification;
  - (iii) The COGCC and Division finds that the permittee has shown reasonable grounds consistent with the Federal and State statutes and regulations for such modification, amendment or termination;
  - (iv) Fee requirements of Section 61.15 of Colorado Discharge Permit System Regulations have been met; and
  - (v) Requirements of public notice have been met.

### 6. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to under Section 311 (Oil and Hazardous Substance Liability) of the Clean Water Act.

#### 7. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority granted by Section 510 of the Clean Water Act.

#### 8. Permit Violations

Failure to comply with any terms and/or conditions of this permit shall be a violation of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit.

#### 9. Property Rights

The issuance of this permit does not convey any property or water rights in either real or personal property, or stream flows, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

#### 10. Severability

The provisions of this permit are severable. If any provisions of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances and the application of the remainder of this permit shall not be affected.

#### 11. Renewal Application

If the permittee desires to continue to discharge, a permit renewal application shall be submitted at least one hundred eighty (180) days before this permit expires. If the permittee anticipates there will be no discharge after the expiration date of this permit, the COGCC and Division should be promptly notified so that it can terminate the permit in accordance with Part II,B,6.

#### 12. Confidentiality

Any information relating to any secret process, method of manufacture or production, or sales or marketing data which has been declared confidential by the permittee, and which may be acquired, ascertained, or discovered, whether in any sampling investigation, emergency investigation, or otherwise, shall not be publicly disclosed by any member, officer, or employee of the COGCC or the Division, but shall be kept confidential. Any person seeking to invoke the protection of this Subsection (11) shall bear the burden of proving its applicability. This section shall never be interpreted as preventing full disclosure of effluent data.

#### BEFORE THE OIL AND GAS CONSERVATION COMMISSION OF THE STATE OF COLORADO

IN THE MATTER OF A WASTEWATER	)	CAUSE NO. 1
DISCHARGE PERMIT RENEWAL AND	í	0.1002110.1
REQUEST TO ALLOW THE DISCHARGE	Ś	ORDER NO. 1-165
OF TREATED PRODUCED WATER FROM	Ś	011221.110.1100
THE WELLINGTON MUDDY UNIT INTO	ý	
THE BOXELDER CREEK ALLUVIUM,	ý	
LARIMER COUNTY,	í	

#### REPORT OF THE COMMISSION

This cause was heard by the Commission on February 22, 2011, at the Chancery Building, 1120 Lincoln Street, Suite 801, Denver, Colorado, upon application for an order for renewal of an existing pit permit to allow continued discharge of treated production water from the Wellington Muddy Unit into the Boxelder Creek alluvium in Larimer County Colorado, and upon a staff request to extend the current permit until such time as staff can complete the permit renewal process.

#### **FINDINGS**

The Commission finds as follows:

- 1. Wellington Operating Company, LLC (Wellington) as applicant herein, is an interested party in the subject matter of the above-referenced hearing.
- Due notice of the time, place and purpose of the hearing has been given in all respects as required by law.
- 3. The Commission has jurisdiction over the subject matter embraced in said notice and the parties interested therein, and jurisdiction to promulgate the hereinafter prescribed order.
- 4. On August 15, 2005, the Commission entered Order No. 1-108, which authorized Commission staff to process and approve a variance from Rule 901.f. and Rule 904.a.(2) to allow Wellington to discharge treated produced water from the Wellington Muddy Unit into the Boxelder Creek alluvium at the following location:

# Township 9 North, Range 68 West, 6<sup>th</sup> P.M. Section 7: SE%

- 5. The variance authorized by Order No. 1-108 was subject to the Commission staff imposing conditions of approval including the following: 1) amount of financial assurance to be provided; 2) identification of the responsible party(ies); 3) establishment of points of compliance (POC) closer to the infiltration pit than the property boundary; 4) installation of additional monitoring wells spaced at regular intervals across the paleo-channel of Boxelder Creek and between the POC and the infiltration pit; 5) establishment of type, monitoring frequency and location of each monitoring well; 6) preparation of a contingency plan; 7) establishment of a process for immediate notification of Commission and Water Quality Control Division (WQCD) staffs if an upset occurs; 8) monitoring of irrigation wells; and 9) any other conditions Commission staff, in consultation with WQCD, believe are appropriate.
- 6. Wellington was issued a discharge permit (Permit) on December 5, 2005 for the 3W Production Water Treatment Facility (Pit Permit Numbers 281818 and 281824). The Permit expires by its own terms on December 31, 2010.
- 7. On October 7, 2010, Wellington, by its representative, filed with the Commission a verified application for a permit renewal, and requested a hearing before the Commission. The matter was heard during the Commission's November 29, 2010 hearing; however a final permit was not ready for consideration at that time. Instead the Commission issued Order No. 1-161 (Docket No. 1011-GA-19), which continued the Permit until such time as a renewal permit is approved by the Commission, or Order No. 1-161 is otherwise modified by action of the Commission.
- 8. Staff has now completed a draft permit in cooperation with the WQCD. The Manager of the WQCD Groundwater, Land Application, and Industrial General Permits Unit has

indicated his concurrence with the issuance of the draft permit by letter dated January 28, 2011 to the Commission Director. Staff proposes to issue a permit renewal to Wellington, containing largely the same terms and conditions as the previous permit, with the exception of reducing monitoring frequency in some cases from monthly to quarterly.

- 9. The draft permit has been available for inspection at the offices of the Commission and on the Commission web page since the publication of the Notice of Hearing. No public comments have been received regarding the draft permit.
- 10. Based on the facts stated in the verified application, the concurrence letter from the CDPHE- WQCD dated January 28, 2011, having received no protests, and based on the Hearing Officer review of the application, case file, and analysis by the Commission technical staff, the Commission should enter an order authorizing the execution of the proposed discharge permit as presented.

#### ORDER

#### NOW, THEREFORE IT IS ORDERED, that:

- 1. The Director is hereby authorized to execute a discharge permit renewal to Wellington Operating Company, LLC, with the substance and form as consented to by the Colorado Department of Public Health and Environment Water Quality Control Division, by letter dated January 28, 2011.
  - 2. The term of the Permit shall be from January 1, 2011 through December 31, 2015.

IT IS FURTHER ORDERED, that the provisions contained in the above Order shall become effective immediately.

IT IS FURTHER ORDERED, that the Commission expressly reserves its right, after notice and hearing, to alter, amend or repeal any and/or all of the above Orders.

ENTERED this 8th day of March, 2011, as of February 22, 2011.

OIL AND GAS CONSERVATION COMMISSION OF THE STATE OF COLORADO

Robert A. Willis, Acting Secretary

Dated at Suite 801 1120 Lincoln Street Denver, Colorado 80203 March 8, 2011

# **EXHIBIT B**Discharge Data and Graphs

Parameter	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11
Flow - MGD	0.0658	0.0885	0.1	0.082	0.1	0.0733	0.0725	0.075	0.08	0.08	0.09
pH max	7.69	8.15	7.49	8.39	8.52	8.18	8.6	8.16	8.4	8.3	8.36
pH min	7.06	7.25	7.31	7.25	7.7	7.66	7.6	8.16	8.36	8.3	8.1
Oil & Grease - Visible Sheen	0	0	0	0	0	0	0	0	0	0	0
Yes = 1 No = 0	U	U	U	U	U	U	U	U	U	U	U
Oil & Grease		0	0	0	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.
Total Dissolved Solids	2400	2400	2400	2400	2400	2400	2500	2400	2300	2400	2400
Chloride	470	470	460	450	450	460	450	450	440	440	430
Fluoride	4.65	4.4	4	4.2	4.4	4.2	4	4.2	3.9	4.1	4.2
Sodium	892	820	830	830	830	860	810	820	830	650	820
Sulfate	15	16	5.6	13	14	12	14	9.6	13	17	16
Barium	7.1	7.1	6.9	7.5	7.4	7	6.7	6.9	7.5	5.5	6.7
Boron	2.5	2.5	2.5	2.5	2.5	2.5	2.6	2.6	2.4	2.6	2.5
Thallium	<0.0002	<0.0002	<0.0002	< 0.0002	<0.0002	<0.0002	<0.0002	< 0.0002	<0.0002	<0.0002	< 0.0002
Benzene	< 0.001	<0.001	0.0003	0.00017	0.0003	<0.001	<0.001	<0.001	< 0.001	< 0.001	< 0.001
Toluene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Ethyl Benzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Xylene, Total	0.00028	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Naphthalene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

	Min	Max	Avg
Total			
Dissolved			
Solids	2100	2700	2360
Chloride	390	490	437.8333
Fluoride	3.9	5	4.2475
Sodium	420	1000	827.7
Sulfate	5.6	30	13.27
Barium	2.2	12	7.28
Boron	2.3	2.8	2.506667
Thallium	< 0.0002	< 0.0002	< 0.0002

Parameter	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12
Flow - MGD	0.105	0.07	0.08	0.05	0.075	0.07	0.08	0.4	0.07	0.08	0.087
pH max	8.4	8.4	8.3	8.2	8.4	8.3	8.3	8.2	8.3	8.3	8.2
pH min	8.4	8.4	8.3	8.2	7.9	8.3	8.3	8.2	8.3	7.3	7.7
Oil & Grease - Visible Sheen	0	0	0	0	0	0	0	0	0	0	0
Yes = 1 No = 0	U	U	U	U	O	O	U	U	U	U	U
Oil & Grease	N.S.										
Total Dissolved Solids	2300	2400	2300	2400	2400	2400	2400	2400	2400	2400	2400
Chloride	390	420	430	430	450	450	460	440	440	390	420
Fluoride	4.1	4.4	4.2	4	4.1	4.3	4.2	4	4.2	4.1	4.3
Sodium	800	770	750	810	760	800	760	800	760	790	790
Sulfate	16	12	11	6	8.9	11	9.5	7.8	8.4	9.6	11
Barium	6.1	7.8	8.1	7.3	12	8.4	7.5	8.1	7.6	7.5	7.8
Boron	2.5	2.6	2.5	2.5	2.4	2.5	2.4	2.3	2.4	2.3	2.4
Thallium	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Benzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Toluene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Ethyl Benzene	<0.001	< 0.001	<0.001	<0.001	<0.001	<0.001	< 0.001	<0.001	< 0.001	<0.001	<0.001
Xylene, Total	<0.002	<0.002	<0.002	< 0.002	<0.002	< 0.002	< 0.002	<0.002	<0.002	<0.002	< 0.002
Naphthalene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	< 0.001

Parameter	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13
Flow - MGD	0.089	0.086	0.096	0.088	0.1	0.022	0.082	0.07	0.077	0.077	0.088
pH max	8.1	8.1	8.1	8	8	8	8	8	7.8	7.8	7.8
pH min	7.8	7.6	7.5	7.7	7.7	7.9	7.7	7.8	7.5	7.5	7.6
Oil & Grease - Visible Sheen	0	0	0	0	0	0	0	0	0	0	0
Yes = 1 No = 0	U	O	O	O	O	O	U	O	O	O	O
Oil & Grease	N.S.										
Total Dissolved Solids	2400	2400	2400	2400	2400	2400	2400	2300	2200	2200	2300
Chloride	490	430	450	460	440	450	430	440	430	410	440
Fluoride	3.9	4.1	4	4.2	4	4.2	4.4	4	4.3	4.4	4.2
Sodium	900	780	750	810	870	830	810	800	810	730	830
Sulfate	7.1	12	11	5.7	11	12	13	20	27	28	13
Barium	8.5	7.8	6.8	7.5	7.7	7.7	7.1	7.2	5	2.2	7.2
Boron	2.7	2.4	2.4	2.4	2.6	2.5	2.4	2.4	2.4	2.5	2.5
Thallium	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Benzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.00031	< 0.001
Toluene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Ethyl Benzene	<0.001	<0.001	<0.001	< 0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	< 0.001
Xylene, Total	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Naphthalene	<0.001	<0.001	<0.001	< 0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

Parameter	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14
Flow - MGD	0.098	0.097	0.091	0.085	0.08	0.095	0.085	0.068	0.07	0.059	0.062
pH max	7.8	7.9	7.8	8.1	7.9	7.9	7.8	7.8	7.9	8.3	7.8
pH min	7.1	7.7	7.6	7	7.7	7.2	7	7.7	7.7	7.6	7.7
Oil & Grease - Visible Sheen	0	0	0	0	0	0	0	0	0	0	0
Yes = 1 No = 0	U	O	O	O	O	O	U	0	O	O	O
Oil & Grease	N.S.										
Total Dissolved Solids	2300	2200	2300	2300	2300	2300	2700	2600	2400	2400	2500
Chloride	430	400	440	410	430	440	430	440	430	460	450
Fluoride	4.2	3.9	3.9	4.3	4.4	4.2	4.3	4.3	4.2	4.3	4.5
Sodium	740	830	850	850	910	890	900	870	880	420	880
Sulfate	30	13	14	14	17	14	12	13	13	14	15
Barium	6.4	7.6	4.3	4	7.5	7	6.9	7.1	9.1	7.9	6.9
Boron	2.5	2.6	2.6	2.5	2.4	2.5	2.5	2.5	2.6	2.4	2.6
Thallium	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Benzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Toluene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Ethyl Benzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Xylene, Total	< 0.002	< 0.002	< 0.002	< 0.002	<0.002	<0.002	0.00116	<0.002	<0.002	<0.002	<0.002
Naphthalene	< 0.001	< 0.001	<0.001	< 0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	< 0.001

Parameter	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15
Flow - MGD	0.064	0.069	0.067	0.071	0.075	0.071	0.073	0.063	0.061	0.055	0.073
pH max	7.8	7.9	7.9	8	8.3	7.8	7.9	8	7.8	7.8	7.7
pH min	7.7	7.8	7.5	7.7	7.7	7.7	7.7	7.6	7.6	7.7	7.6
Oil & Grease - Visible Sheen	0	0	0	0	0	0	0	0	0	0	0
Yes = 1 No = 0	U	U	U	U	O	U	U	O	O	O	U
Oil & Grease	N.S.										
Total Dissolved Solids	2400	2300	2200	2300	2600	2400	2200	2100	2400	2300	2400
Chloride	440	430	430	430	450	430	430	430	430	430	420
Fluoride	4.5	4.3	4.1	4.3	4.5	4.6	4.4	4.4	4.1	4.3	4.3
Sodium	920	900	850	860	830	850	860	840	880	900	870
Sulfate	14	9	15	11	13	13	14	14	13	13	14
Barium	7.9	7	7.8	7.9	7.5	8.1	6.5	7.7	6.5	7.4	6.9
Boron	2.6	2.5	2.6	2.6	2.6	2.5	2.4	2.5	2.4	2.6	2.5
Thallium	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Benzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Toluene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Ethyl Benzene	< 0.001	< 0.001	<0.001	< 0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	< 0.001
Xylene, Total	< 0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	< 0.002	<0.002	<0.002	<0.002
Naphthalene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

Parameter	Apr-15	May-15	Jun-15	Jul-15	Aug-15
Flow - MGD	0.102	0.087	0.08	0.103	0.118
pH max	8	7.8	7.7	7.7	7.8
pH min	7.6	7.6	7.6	7.5	7.6
Oil & Grease - Visible Sheen	0	0	0	0	0
Yes = 1 No = 0	U	U	U	O	U
Oil & Grease	N.S.	N.S.	N.S.	N.S.	N.S.
Total Dissolved Solids	2200	2400	2400	2100	2200
Chloride	420	460	480	430	410
Fluoride	4.2	4.7	5	4.4	4.4
Sodium	920	910	1000	880	870
Sulfate	13	14	16	12	13
Barium	8	10	11	6	6.7
Boron	2.5	2.6	2.8	2.8	2.5
Thallium	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Benzene	< 0.001	0.00048	< 0.001	<0.001	< 0.001
Toluene	< 0.001	<0.001	< 0.001	<0.001	< 0.001
Ethyl Benzene	< 0.001	< 0.001	<0.001	<0.001	<0.001
Xylene, Total	< 0.002	0.00031	< 0.002	< 0.002	< 0.002
Naphthalene	<0.001	<0.001	<0.001	<0.001	<0.001

Parameter	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Jun-11	Sep-11	Nov-11	Mar-12
Total Dissolved Solids	1400	1500	1500	1500	1500	1600	1600	1600	1500	1500	1500
Chloride	14	13	14	14	14	14	15	15	13	13	14
Fluoride	0.64	0.81	0.81	0.8	0.08	0.83	0.8	0.65	0.75	0.74	0.7
Sodium	50	48	50	1	56	52	51	51	49	51	51
Sulfate	870	860	840	840	890	930	900	810	830	820	870
Barium	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Boron	0.19	0.19	0.18	<0.1	0.19	0.18	0.19	0.21	0.2	0.19	0.18
Thallium	< 0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	< 0.0002	<0.0002	<0.0002	< 0.0002	< 0.0002

	Min	Max	Avg
Total			
Dissolved			
Solids	1200	1700	1512.5
Chloride	13	21	15.5
Fluoride	0.08	0.95	0.769583
Sodium	1	58	49.54167
Sulfate	710	930	828.75
Barium	0.15	0.2	0.175
Boron	0.18	0.22	0.192609
Thallium	<0.0002	0.00021	<0.0002

Parameter	Jun-12	Sep-12	Nov-12	Mar-13	Jun-13	Aug-13	Nov-13	Mar-14	Jun-14	Aug-14	Nov-14
Total Dissolved Solids	1700	1600	1500	1400	1600	1500	1400	1200	1500	1600	1500
Chloride	15	15	14	15	18	16	15	14	17	18	18
Fluoride	0.8	0.69	0.74	0.83	0.9	0.8	0.75	0.94	0.83	0.85	0.77
Sodium	51	50	49	47	53	53	51	49	52	53	53
Sulfate	890	850	820	720	840	740	770	710	800	840	840
Barium	<0.1	0.2	<0.1	<0.1	0.15	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Boron	0.19	0.2	0.22	0.2	0.19	0.19	0.18	0.18	0.19	0.18	0.18
Thallium	<0.0002	0.00021	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	< 0.0002	< 0.0002

Parameter	Feb-15	May-15	Aug-15
Total Dissolved Solids	1500	1600	1400
Chloride	17	21	20
Fluoride	0.78	0.87	0.95
Sodium	53	57	58
Sulfate	810	810	860
Barium	<0.1	<0.1	<0.1
Boron	0.2	0.21	0.21
Thallium	<0.0002	< 0.0002	< 0.0002

#### 050B

Parameter	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Jun-11	Sep-11	Nov-11	Mar-12
Total Dissolved Solids	1400	1200	1000	1100	1100	1100	1100	1200	1400	1200	950
Chloride	220	90	54	61	64	60	57	66	160	69	31
Fluoride	1.5	1.3	1.2	1.1	1.1	0.97	0.98	0.78	0.89	0.82	0.78
Sodium	270	140	89	<1	160	110	120	98	230	75	91
Sulfate	390	460	450	430	430	410	400	460	370	440	380
Barium	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.12
Boron	0.92	0.41	0.25	<0.1	0.58	0.37	0.44	0.36	1	0.26	0.33
Thallium	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.00022	< 0.0002	< 0.0002	< 0.0002
Benzene	< 0.001	<0.001	<0.001	<0.001	N.S.	N.S.	N.S.	N.S.	<0.001	N.S.	N.S.
Toluene	< 0.001	<0.001	<0.001	<0.001	N.S.	N.S.	N.S.	N.S.	< 0.001	N.S.	N.S.
Ethyl Benzene	< 0.002	<0.001	<0.001	<0.001	N.S.	N.S.	N.S.	N.S.	<0.002	N.S.	N.S.
Xylene, Total	< 0.001	<0.001	< 0.001	<0.001	N.S.	N.S.	N.S.	N.S.	<0.001	N.S.	N.S.

<sup>\*</sup>N.S. = Not Sampled

	Min	Max	Avg
Total			
Dissolved			
Solids	950	1500	1193.75
Chloride	19	280	83.04167
Fluoride	0.76	1.3	0.975417
Sodium	41	230	110.5652
Sulfate	240	660	433.75
Barium	0.12	0.29	0.192
Boron	0.16	1	0.391304
Thallium	< 0.0002	0.0043	< 0.0002

#### 050B

Parameter	Jun-12	Sep-12	Nov-12	Mar-13	Jun-13	Aug-13	Nov-13	Mar-14	Jun-14	Aug-14	Nov-14
Total Dissolved Solids	1000	1500	1100	1000	1000	1200	1300	1400	1300	1400	1400
Chloride	19	280	120	33	20	61	210	200	75	95	100
Fluoride	0.84	0.76	0.92	0.91	1.2	1	0.88	1.1	1.1	0.85	0.94
Sodium	41	86	110	54	48	53	130	190	180	210	160
Sulfate	450	240	300	440	440	390	280	340	510	460	540
Barium	0.29	<0.1	0.19	<0.1	0.16	<0.1	<0.1	0.2	<0.1	<0.1	<0.1
Boron	0.16	0.49	0.44	0.19	0.17	0.23	0.56	0.66	0.49	0.6	0.43
Thallium	0.0043	< 0.0002	0.00021	< 0.0002	0.00022	< 0.0002	< 0.0002	0.00029	< 0.0002	< 0.0002	< 0.0002
Benzene	N.S.	<0.001	N.S.	<0.001	N.S.	N.S.	N.S.	N.S.	N.S.	<0.001	N.S.
Toluene	N.S.	<0.001	N.S.	<0.001	N.S.	N.S.	N.S.	N.S.	N.S.	<0.001	N.S.
Ethyl Benzene	N.S.	< 0.002	N.S.	< 0.002	N.S.	N.S.	N.S.	N.S.	N.S.	< 0.002	N.S.
Xylene, Total	N.S.	<0.001	N.S.	<0.001	N.S.	N.S.	N.S.	N.S.	N.S.	<0.001	N.S.

<sup>\*</sup>N.S. = Not Sampled

#### 050B

Parameter	Feb-15	May-15	Aug-15
Total Dissolved Solids	1100	1300	1300
Chloride	22	24	22
Fluoride	1	1	0.99
Sodium	55	54	59
Sulfate	500	630	660
Barium	<0.1	<0.1	<0.1
Boron	0.2	0.19	0.19
Thallium	< 0.0002	< 0.0002	< 0.0002
Benzene	N.S.	<0.001	< 0.001
Toluene	N.S.	<0.001	< 0.001
Ethyl Benzene	N.S.	<0.002	< 0.002
Xylene, Total	N.S.	<0.001	<0.001

<sup>\*</sup>N.S. = Not Sampled

#### 050C

Parameter	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Jun-11	Sep-11	Nov-11
Total Dissolved Solids	1300	1300	1300	1300	1400	1400	1400	1400	1400	1400
Chloride	85	42	23	18	16	15	14	15	22	16
Fluoride	0.58	0.8	0.8	0.8	0.87	0.52	0.81	0.67	0.75	0.74
Sodium	70	74	78	< 1	58	57	54	52	53	57
Sulfate	570	630	680	710	750	750	740	710	690	760
Barium	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Boron	0.29	0.29	0.26	<0.1	0.2	0.2	0.19	0.19	0.21	0.19
Thallium	< 0.0002	0.00028	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002

	Min	Max	Avg
Total			
Dissolved			
Solids	1100	1800	1370.833
Chloride	14	42	20.83333
Fluoride	0.52	1	0.804167
Sodium	47	110	60.56522
Sulfate	500	1000	724.5833
Barium	0.11	0.11	0.11
Boron	0.16	0.33	0.209565
Thallium	< 0.0002	0.00028	< 0.0002

#### 050C

Parameter	Mar-12	Jun-12	Sep-12	Nov-12	Mar-13	Jun-13	Aug-13	Nov-13	Mar-14	Jun-14	Aug-14
Total Dissolved Solids	1400	1300	1300	1400	1400	1400	1100	1800	1500	1300	1300
Chloride	15	21	30	28	16	17	22	24	17	15	18
Fluoride	0.73	0.67	0.72	0.82	0.84	0.96	0.81	1	1	0.9	0.86
Sodium	54	50	62	77	56	55	52	110	52	53	52
Sulfate	770	620	630	680	760	760	500	1000	770	900	680
Barium	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.11	<0.1	<0.1
Boron	0.18	0.18	0.22	0.22	0.2	0.19	0.16	0.33	0.19	0.19	0.19
Thallium	<0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	<0.0002

#### 050C

Parameter	Nov-14	Feb-15	May-15	Aug-15
Total Dissolved Solids	1300	1300	1400	1400
Chloride	30	22	18	26
Fluoride	0.8	0.77	0.85	0.81
Sodium	75	61	54	47
Sulfate	630	660	750	860
Barium	<0.1	<0.1	<0.1	<0.1
Boron	0.25	0.22	0.19	0.18
Thallium	< 0.0002	< 0.0002	< 0.0002	< 0.0002

#### 050D

Parameter	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Jun-11	Sep-11	Nov-11	Mar-12
Total Dissolved Solids	1300	1300	1300	1300	1300	1300	1300	1300	1400	1300	1300
Chloride	10	10	10	10	10	9.5	9.9	11	10	11	10
Fluoride	0.61	0.78	0.75	0.8	0.81	0.84	0.75	0.67	0.73	0.73	0.7
Sodium	37	38	37	< 1	38	38	39	38	37	39	38
Sulfate	720	740	740	730	740	750	710	690	730	710	700
Barium	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Boron	0.16	0.16	0.15	<0.1	0.16	0.16	0.16	0.17	0.17	0.17	0.16
Thallium	< 0.0002	< 0.0002	< 0.0002	<0.0002	< 0.0002	< 0.0002	< 0.0002	<0.0002	< 0.0002	< 0.0002	<0.0002

	Min	Max	Avg
Total			
Dissolved			
Solids	1200	1400	1306.667
Chloride	10	18	12.2
Fluoride	0.63	1	0.796667
Sodium	35	46	38.73333
Sulfate	660	750	692
Barium	<0.1	<0.1	<0.1
Boron	0.15	0.18	0.166667
Thallium	<0.0002	< 0.0002	<0.0002

#### 050D

Parameter	Jun-12	Sep-12	Nov-12	Mar-13	Jun-13	Aug-13	Nov-13	Mar-14	Jun-14	Aug-14	Nov-14
Total Dissolved Solids	1400	1300	1300	1300	1300	1400	1200	1200	1300	1300	1200
Chloride	11	11	11	11	11	14	12	11	11	11	12
Fluoride	0.63	0.76	0.8	0.8	0.97	0.83	0.82	1	0.83	0.82	0.78
Sodium	38	35	37	38	38	43	38	36	37	38	38
Sulfate	690	690	690	680	670	700	670	670	660	660	690
Barium	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Boron	0.16	0.16	0.18	0.17	0.17	0.18	0.17	0.16	0.16	0.17	0.15
Thallium	< 0.0002	< 0.0002	< 0.0002	<0.0002	< 0.0002	< 0.0002	< 0.0002	<0.0002	<0.0002	< 0.0002	< 0.0002

#### 050D

Parameter	Feb-15	May-15	Aug-15
Total Dissolved Solids	1300	1400	1400
Chloride	13	16	18
Fluoride	0.64	0.76	0.81
Sodium	39	42	46
Sulfate	720	740	750
Barium	<0.1	<0.1	<0.1
Boron	0.17	0.17	0.17
Thallium	< 0.0002	< 0.0002	< 0.0002

#### 050E

Parameter	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Jun-11	Sep-11	Nov-11
Total Dissolved Solids	1100	980	880	900	860	850	900	870	880	820
Chloride	52	33	31	29	23	22	27	20	18	21
Fluoride	0.69	0.72	0.71	0.72	0.73	0.74	0.66	0.79	0.78	0.69
Sodium	57	55	53	50	49	50	51	47	46	46
Sulfate	470	410	360	350	360	360	360	370	330	310
Barium	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.47	<0.1	<0.1	<0.1
Boron	0.21	0.21	0.19	0.18	0.16	0.16	0.17	0.15	0.15	0.18
Thallium	<0.0002	< 0.0002	< 0.0002	<0.0002	<0.0002	<0.0002	0.00029	< 0.0002	<0.0002	< 0.0002

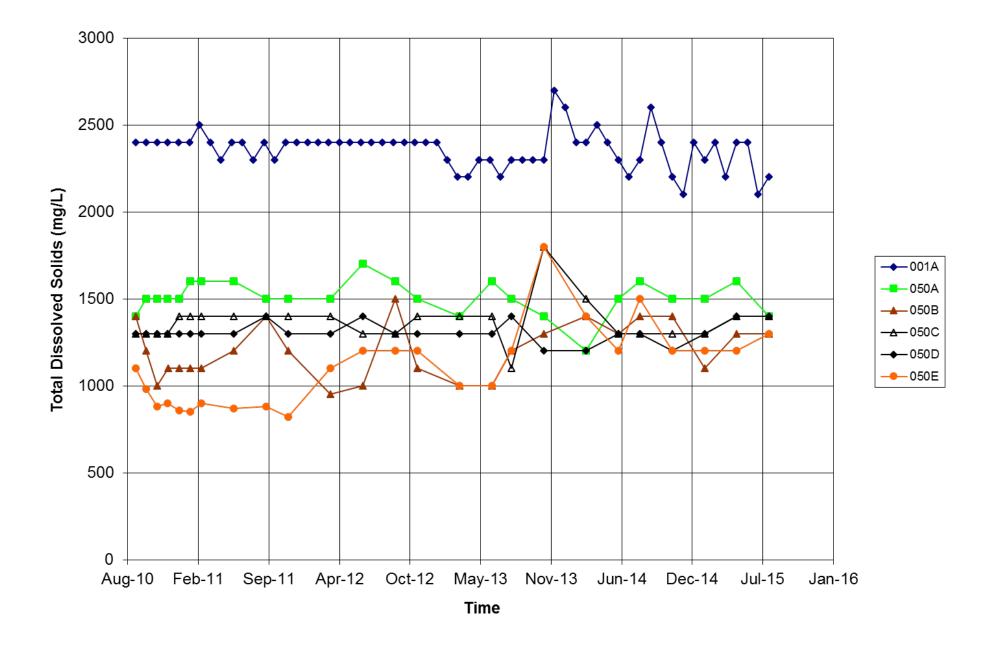
	Min	Max	Avg
Total			
Dissolved			
Solids	1000	1800	1246.667
Chloride	16	36	22.26667
Fluoride	0.65	1	0.832
Sodium	40	110	54.33333
Sulfate	490	990	614
Barium	<0.1	0.56	0.216667
Boron	0.12	0.33	0.173333
Thallium	< 0.0002	0.0004	< 0.0002

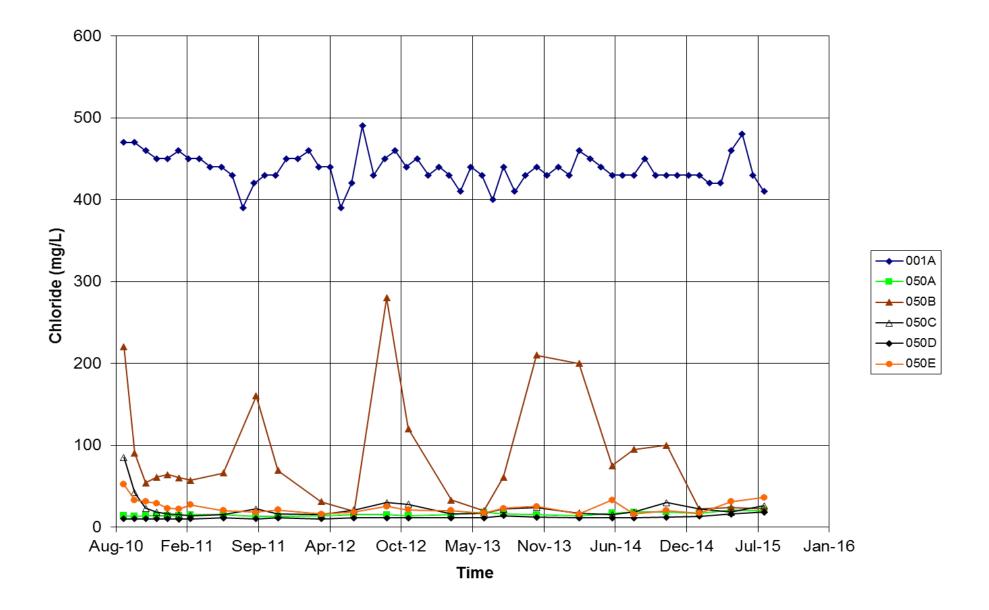
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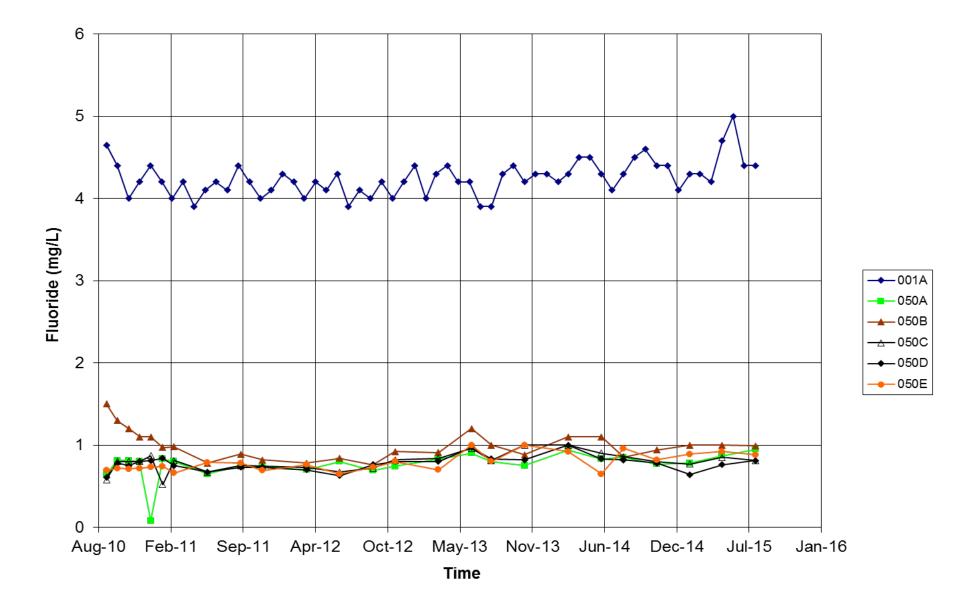
Parameter	Mar-12	Jun-12	Sep-12	Nov-12	Mar-13	Jun-13	Aug-13	Nov-13	Mar-14	Jun-14
Total Dissolved Solids	1100	1200	1200	1200	1000	1000	1200	1800	1400	1200
Chloride	16	18	25	21	20	17	23	25	16	33
Fluoride	0.76	0.65	0.73	0.8	0.7	1	0.8	1	0.92	0.65
Sodium	49	47	45	45	49	48	52	110	55	55
Sulfate	540	550	560	540	500	490	500	990	730	610
Barium	0.11	0.16	0.12	0.25	0.56	0.12	<0.1	<0.1	0.11	0.4
Boron	0.12	0.13	0.19	0.2	0.18	0.16	0.16	0.33	0.14	0.16
Thallium	<0.0002	< 0.0002	< 0.0002	< 0.0002	0.0004	< 0.0002	< 0.0002	<0.0002	< 0.0002	< 0.0002

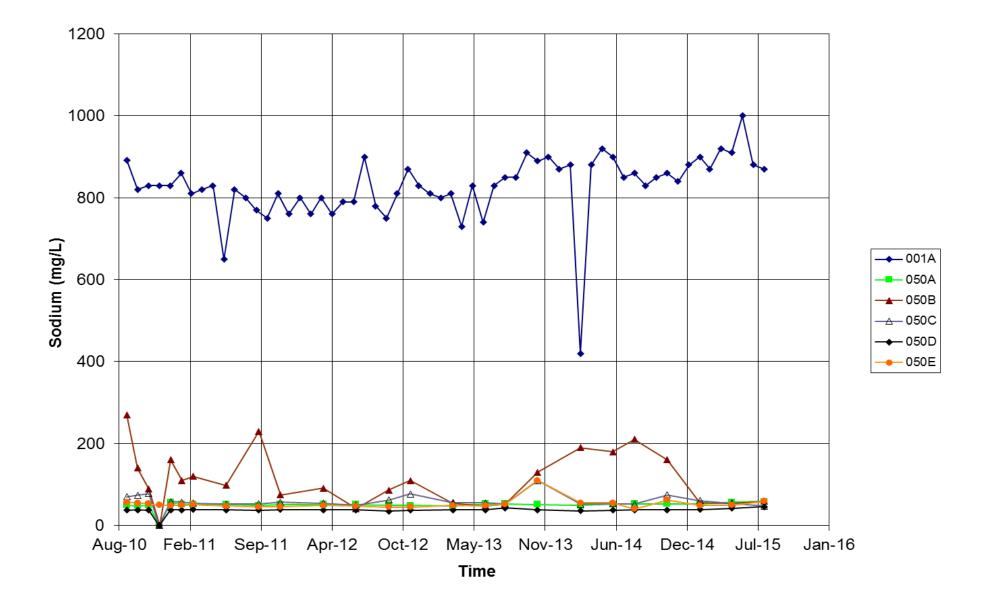
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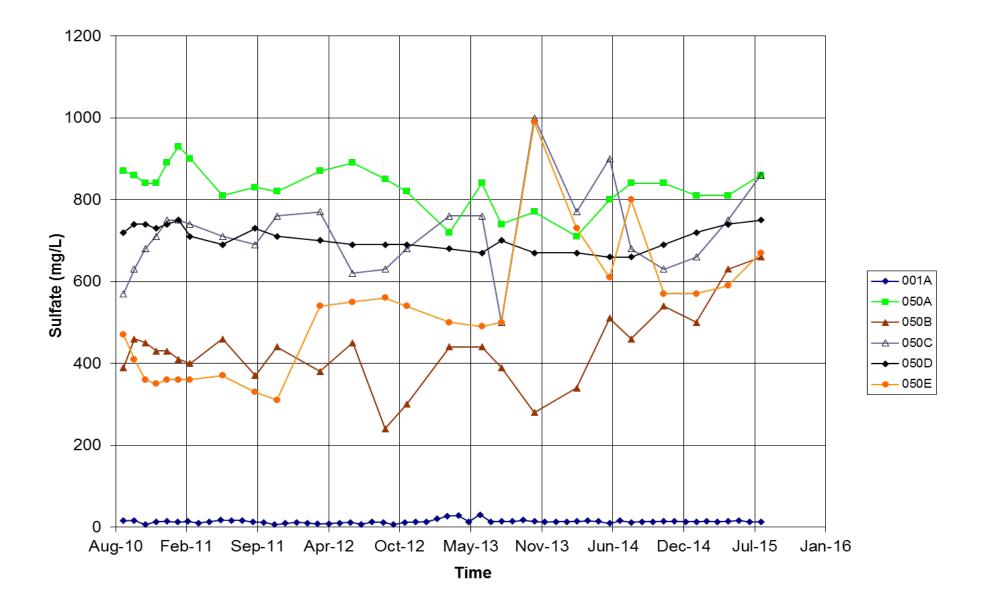
Parameter	Aug-14	Nov-14	Feb-15	May-15	Aug-15
Total Dissolved Solids	1500	1200	1200	1200	1300
Chloride	16	20	17	31	36
Fluoride	0.96	0.82	0.89	0.92	0.88
Sodium	40	62	49	50	59
Sulfate	800	570	570	590	670
Barium	0.12	<0.1	<0.1	<0.1	<0.1
Boron	0.18	0.19	0.15	0.13	0.18
Thallium	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002

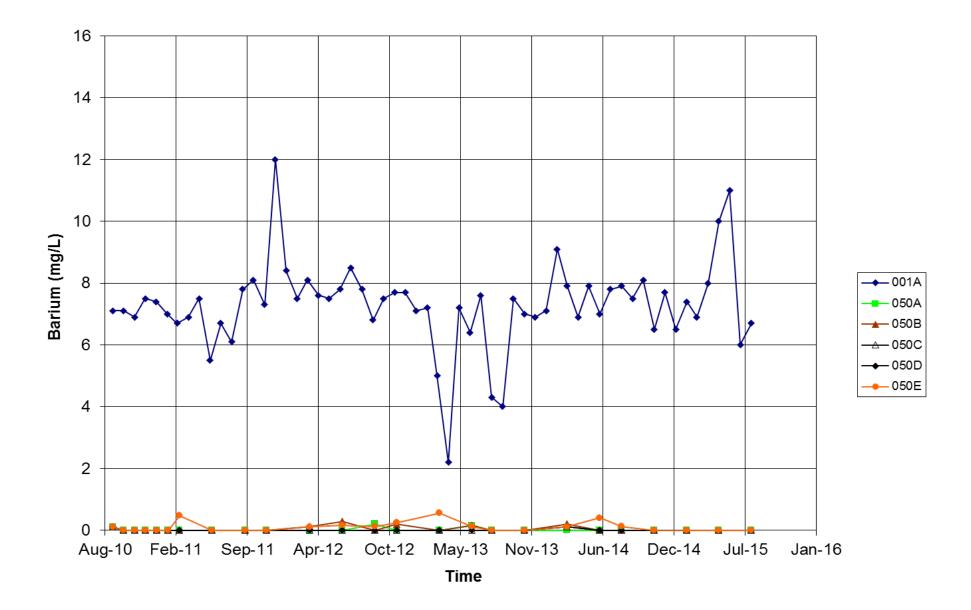


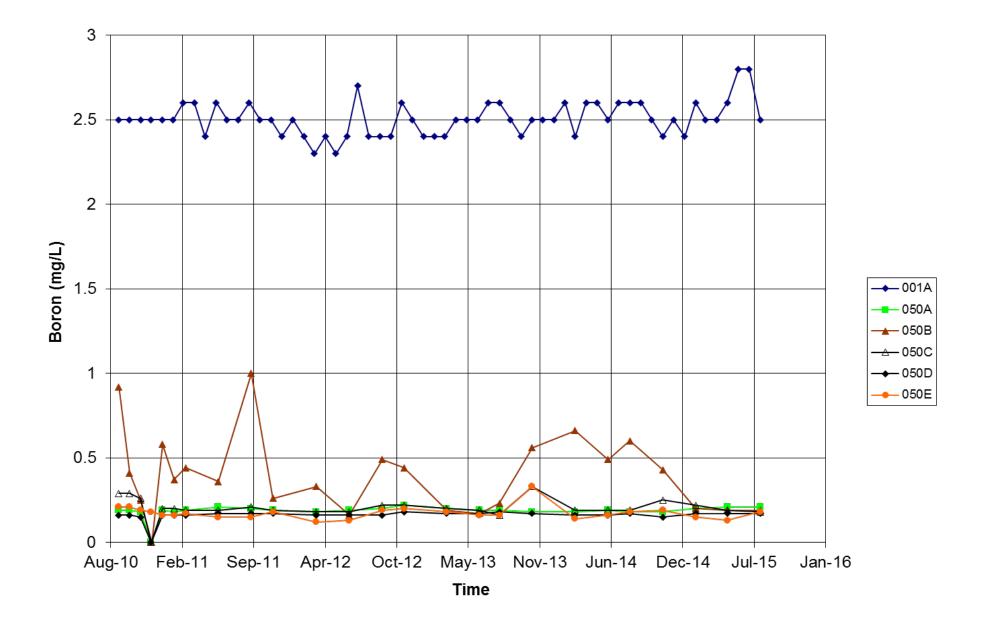












# **EXHIBIT C**List of Parties to be Noticed

#### **EXHIBIT C**

#### **INTERESTED PARTIES**

The Estate of Lorain Foster 106 S. Overland Trail Ft. Collins CO 80521

Prairie Peak Retrievers 3217 East County Road 70 Wellington CO 80549

#### Applicant's Address

Bradley A. Pomeroy Wellington Operating Company 6065 S.Quebec Street,Suite 201 Englewood, CO 80111

#### Applicant's Attorney Address

Steven Bushong POZRACK BROWNING & BUSHONG LLP 929 Pearl Street, Suite 300 Boulder,CO 80302

#### Local Government Designee

Troy Swain Weld County Department of Planning Services 1555 North 17<sup>th</sup> Avenue Greeley,CO 80631