

EXHIBIT 7 -Rush South- Groundwater Monitoring Plan

Permitted Water Well Sampling Priority Table

Well Permit No.	Approximate Distance from COP (Ft)	Sampling Priority	Determination of Sampling Priority	Property Owner (tax records)
251833	1990	1	Only well available to sample within 1/2 mile	DENVER, CITY & COUNTY OF
2005003AB	1952	NA	well plugged 08/16/2004 - will not be able to sample	DEPARTMENT OF HUMAN SERVICES
2005004AB	1952	NA	well plugged 08/16/2004 - will not be able to sample	DEPARTMENT OF HUMAN SERVICES
2005025AB	1952	NA	well plugged 08/16/2004 - will not be able to sample	DEPARTMENT OF HUMAN SERVICES
33994MH	2318	NA	well plugged 09/21/1999 - will not be able to sample	DENVER, CITY & COUNTY OF
42193MH	2318	NA	well plugged 5/03/2003 - will not be able to sample	DENVER, CITY & COUNTY OF

ConocoPhillips – Niobrara City of Aurora Water Quality Monitoring Program

Background:

ConocoPhillips (COP) is committed to the Water Quality Monitoring requirements required by the Oil and Gas Operator Agreement and associated Best Management Practices (BMP) between ConocoPhillips Company (COPC), a Delaware corporation, and its subsidiaries, and Burlington Resources Oil & Gas Company LP, a Delaware limited partnership, and the City of Aurora (City), Colorado, a municipal corporation. This protocol currently requires collecting baseline water quality samples from water wells located within a ½ mile radius of the proposed O&G well location.

To achieve these requirements, COP has developed the following water sampling protocol:

1. **Well Location Survey** – Civil survey is conducted by COP and a 3rd party Civil Surveyor.
2. **Survey Plat** - Plats are prepared by the Civil Surveyor and delivered to COP. Plats must be approved by the COP project team before the well location is finalized.
3. **Local Permitting** – COP and Consultant (currently CVL Consultants) prepares the appropriate Local Permit application materials for submittal. A list of water wells within ½ mile of the proposed Oil & Gas well location is required for this application.
4. **Engage Water Sampling Consultant** – A copy of the Well Survey Plat is supplied to the Water Sampling Consultant (currently APTIM) to conduct Phase I Environmental Due Diligence.
5. **Phase I Environmental Due Diligence – Desk Review Assessment** – The Water Sampling Consultant, via desk review assessment, conducts due diligence on all water wells within ½ mile of the proposed O&G well location using the best available data, including the Colorado Division of Water Resources, Well Permit Search Database (<http://www.dwr.state.co.us/WellPermitSearch/default.aspx>).
 - a. Review all water wells within ½ mile of the proposed Oil & Gas well.
 - b. Select water wells that were permitted through the State Water Rights Engineer and drilled.
 - c. Select wells that have completion information available for review.
 - d. Rank all available wells and choose highest priority wells for sampling based on COGCC criteria. List specific criteria used to determine well sample rank. The criteria are listed below based on decreasing priority for well selection.
 - i. **Proximity to proposed location** - Available domestic water wells closest to the proposed oil and gas well location are given a higher priority than those located further away from a proposed oil and gas well location.
 - ii. **Type of water source** - Well maintained domestic water wells are preferred over other available water sources. Domestic water wells are given a higher priority than wells used for the following purposes, livestock, irrigation, monitoring, etc.
 - iii. **Orientation of sampling location** - Sample locations from both down gradient and up-gradient locations are preferred if available over cross-gradient locations. If the groundwater flow direction is not known or cannot be inferred from topographic data, sample locations are prioritized to ensure wells are sampled in a radial pattern around the proposed oil and gas well location.
 - iv. **Aquifer availability** - Multiple aquifers are preferred if available. Higher priority is assigned to various domestic water wells to ensure adequate aquifer representation is maintained when possible, sampling the deepest and shallowest aquifers is preferred.
 - v. **Condition of water source** - Water sources which are improperly maintained, non-operational, or otherwise have an impediment to sampling are not required to be sampled and are given a lower priority. The condition and status of a domestic water well is determined based on the presence or absence of well completion records or other documentation available for review on the Colorado Division of Water Resources well permit website including but not limited to approved permits, well completion documents (well construction, pump installation and test reports etc.), expired permits, emergency

verbal agreements and associated permits, plugging and abandonment reports, visual field inspection reports, monitoring hole notices, and age of well. Domestic water wells with documents that indicate a registered well has been completed are placed at a higher priority than wells with (for example) expired permits, monitoring hole notices without completion records, plugging reports, etc. which may be improperly maintained and could call into question the wells' integrity.

- e. Prepare a list of well owner names and contact data for the wells identified in step 5.d, utilizing the Well Permit Database data and the County Tax Assessor data. No contact with well owners should be made at this time unless specifically requested by COP.
- f. Document wells that will not be sampled with a note why sampling is not recommended.
6. **List of Water Wells** – The Water Sampling Consultant provides the list of water wells to COP and to CVL within 5 business days of receiving the request. This information includes Well Permit Number, Approximate Well Distance from COP, Sampling Priority, Current Property Owner (Tax Records) and Determination of Sampling Priority.
7. **Local Permit Application** – The list of Water Wells proposed for sampling will be submitted to the City for review and approval.
8. **Variance Process** – COP may request a variance if:
 - i. No available water sources within the ½ mile radius;
 - ii. Water sources are deemed unsuitable; or
 - iii. The owner of the water well declines access or requires payment for access.
 - iv. The variance request will be sent to Aurora Water:
 Sean Lieske - slieske@auroragov.org; (720) 859-4411
 Sarah Young - syoung@auroragov.org; (303) 739-7279
 Joshua Godwin - jgodwin@auroragov.org; (720) 859-4307
 - v. The variance must be submitted at the time of application submittal.
 - vi. The Aurora Water General Manager has 10 business days from the date of receiving the variance request to respond to the request. If no response is provided, the variance request is deemed approved.
9. **Phase II Landowner Notification and Baseline Sampling** – Upon City approval of Water Well list, COP authorizes Water Sampling Consultant to proceed with sampling. Baseline Sampling is conducted prior to the start of drilling, but no earlier than 6 months prior to anticipated Spud date.
 - a. Prepare a mailing list and an access request letter for each water well owner identified in step 5.e.
 - b. Send letters to the address of record and make follow-up phone calls if contact information is available within a specified period (approx. 5 - 10 business days). If a negative response is received (i.e. returned letter stating access is denied, or verbal denial on the phone), or there is no response to either the letter, or phone calls after 15 - 20 days, then that will constitute a denial of permission to sample. Samples will only be collected where permission has been granted. Document efforts to contact and refusal date.
 - c. Send out access request letters within 5 days of receiving COP approval to proceed.
 - d. Direct all requests from landowners for additional information to the COP representative.
 - e. Set up sampling with well owners who grant access.
 - f. Sample private water wells using standard industry procedures, consistent with the COGCC Model Sampling and Analysis plan and test for the following analytes:

Baseline water quality test

<i>Inorganic Chemicals</i>
Antimony, Arsenic, Asbestos, Barium, Beryllium, Cadmium, Chromium, Cyanide, Fluoride, Mercury, Nitrate, Nitrite, Total Nitrate and Nitrite, Selenium, and Thallium
<i>Volatile Organic Compounds</i>

Methane, Ethane, Propane, BTEX as Benzene, Toluene, Ethylbenzene and Xylenes, Total Petroleum, and Hydrocarbons (TPH) Vinyl Chloride, Carbon Tetrachloride, 1,2-Dichloroethane, Trichloroethylene, Para-Dichlorobenzene, 1,1-Dichloroethylene, 1,1,1-Trichloroethane, cis-1,2 Dichloroethylene, 1,2-Dichloropropane, Ethylbenzene, Monochlorobenzene, o-Dichlorobenzene, Styrene, Tetrachloroethylene, Toluene, Trans-1,2 Dichloroethylene, Xylenes (total), Dichloromethane (methylene chloride), 1,2,4-Trichlorobenzene, 1,1,2 Trichloroethane
<i>Synthetic Organic Contaminants</i>
Alachor, Aldicarb1, Aldicarb sulfoxide, Aldicarb sulfone, Atrazine, Carbofuran, Chlordane, Dibromochloropropane, 2,4-D, Ethylene dibromide, Heptachlor, Heptachlor epoxide, Lindane, Methoxychlor, Polychlorinated biphenyls, Pentachlorophenol, Toxaphene, 2,4,5-TP (Silvex), Benzopyrene, Dalopon, Di(2-ethylhexyl)adipate, Di(2-ethylhexyl)phthalate, Dinoseb, Diquat, Endothall, Endrin, Glyphosate, Hexachlorobenzene, Hexachlorocyclopentadiene, Oxamyl (Vydate), Picloram, Simazine, 2,3,7,8-TCDD (Dioxon)
<i>Radionuclides</i>
Combined radium-226 and radium-2281, Gross alpha particle activity (including radium-226 but excluding radon and uranium), Beta particle and photon radioactivity2
<i>Secondary Maximum Contaminant Levels</i>
Aluminum, Chloride, Color, Corrosivity, Foaming Agents, Odor, pH, Silver, Sulfate, Total Dissolved Solids, Zinc
PFOA (perfluorooctanoic acid) and PFOS (Perfluorooctane Sulfonate)
<i>General Water Quality</i>
Alkalinity, Conductivity & TDS, pH, Dissolved Organic Carbon (or Total Organic Carbon), Bacteria, and Hydrogen Sulfide
<i>Major Ions</i>
Bromide, Chloride, Magnesium, Potassium, Sodium, Sulfate
<i>Metals</i>
Boron, Copper, Iron, Lead, Manganese, Strontium, Uranium, and Radium
<i>Other</i>
Water Level, Stable isotopes of water (Oxygen, Hydrogen, Carbon), Phosphorus

- g. If four or fewer available water sources exist within a ½ mile radius of the location of a proposed New Well, COP shall collect a sample from each available water source.
- h. If no Available Water Sources exists, the City may request that COP drill and construct a monitoring well capable of testing all available aquifers (Requested Well). If COP is unable to obtain rights to drill the Requested Well, the City may request that COP drill a monitoring well capable of testing all available aquifers (City Easement Well).
- i. COP may rely on existing groundwater sampling data provided it was collected in accordance with accepted City standards and within 12 months preceding the beginning of drilling activities.

10. Reporting Results

- a. Water Sampling Consultant will provide COP with a Baseline Water Report including a work summary for all sampled wells for each proposed Oil & Gas well and a complete file (well list and comments, letters, analyses, report and excel data file) for each well sampled.
- b. COP will provide a copy of the analytical results to the City of Aurora, COGCC, and Water Well Owners, within 30 days after receiving analytical results. COP will also report results of field observations including damaged or unsanitary well conditions, adjacent potential pollution sources, odor, waste, color, sediment, bubbles, and effervescence.

11. **Subsequent Annual Sampling** – Post-stimulation sampling of previously sampled water sources must be collected and tested annually until the Reclamation Phase is completed for the well site.

Subsequent annual water quality test

<i>General Water Quality</i>
Alkalinity, Conductivity & TDS, pH, Dissolved Organic Carbon (or Total Organic Carbon), Bacteria, and Hydrogen Sulfide
<i>Major Ions</i>
Bromide, Chloride, Fluoride, Magnesium, Potassium, Sodium, Sulfate, and Nitrate + Nitrite as N
<i>Metals</i>
Arsenic, Barium, Boron, Chromium, Copper, Iron, Lead, Manganese, Selenium, Strontium, Mercury, Uranium, and Radium
<i>Dissolved Gases and Volatile Organic Compounds</i>
Methane, Ethane, Propane, BTEX as Benzene, Toluene, Ethylbenzene and Xylenes, Total Petroleum, and Hydrocarbons (TPH)
<i>Other</i>
Water Level, Stable isotopes of water (Oxygen, Hydrogen, Carbon), Phosphorus