



# FIRST QUARTER 2010 REPORT

Operational and Environmental Monitoring  
Within a Three-Mile Radius of Project Rulison

**September 2010**



Prepared for:



Prepared by:



# **FIRST QUARTER 2010 REPORT**

## **OPERATIONAL AND ENVIRONMENTAL MONITORING WITHIN A THREE-MILE RADIUS OF PROJECT RULISON**

**Prepared for:**

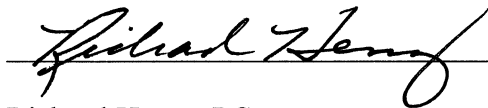
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EnCana Oil & Gas (USA) Inc.  
Williams Production RMT Inc.**

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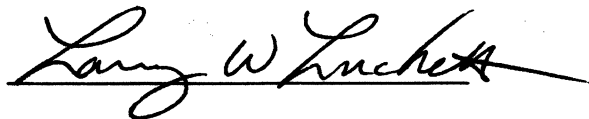
**September 30, 2010**

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## LIST OF ACRONYMS

<sup>228</sup> Ac	actinium-228
<sup>124</sup> Sb	antimony-124
<sup>214</sup> Bi	bismuth-214
BM	Battlement Mesa
<sup>14</sup> C	carbon-14 or radiocarbon
CCR	Code of Colorado Regulations
CDPHE	Colorado Department of Public Health and Environment
<sup>36</sup> Cl	chlorine-36
COC	chain-of-custody
COGCC	Colorado Oil and Gas Conservation Commission
<sup>134</sup> Cs	cesium-134
<sup>137</sup> Cs	cesium-137
<sup>56</sup> Co	cobalt-56
DRO	diesel range organics
EnCana	EnCana Oil & Gas (USA) Inc.
<sup>155</sup> Eu	europium-155
GRO	gasoline range organics
<sup>3</sup> H	tritium or hydrogen-3
J	estimated data qualifier
<sup>85</sup> Kr	krypton-85
mg/L	milligram per liter
MRO	motor oil range organics
Noble	Noble Energy Inc.
<sup>210</sup> Pb	lead-210
<sup>214</sup> Pb	lead-214
<sup>239</sup> Np	Neptunium-239
<sup>40</sup> K	potassium-40
pCi/L	picoCuries per liter
<sup>228</sup> Ra	radium-228
RSAP	Rulison Sampling and Analysis Plan
<sup>22</sup> Na	sodium-22
<sup>90</sup> Sr	strontium-90
<sup>99</sup> Tc	technetium-99
TF	total fraction
<sup>232</sup> Th	thorium-232
Tritium	<sup>3</sup> H or hydrogen-3
TU	tritium unit
<sup>238</sup> U	uranium-238
U	Result is less than the detection limit (i.e., not detected)
UJ	Result is estimated below the detection limit (i.e., not detected)
µg/L	microgram per liter
µR/Hr	microRoentgen per hour
URS	URS Corporation
Williams	Williams Production RMT



# 1 Introduction

This quarterly report presents the first quarter, January 1 through March 31, 2010, operational and environmental monitoring results for Noble Energy Inc. (Noble), EnCana Oil & Gas (USA) Inc. (EnCana), and Williams Production RMT (Williams) natural gas drilling, completion, and production operations within a three-mile radius of the former Project Rulison site near Rulison, Colorado (Figure 1). Monitoring activities conducted during the first quarter included the following:

- 30-day first gas sales delivery sampling and analysis of produced water and natural gas at Noble's Tier II gas well BM 34-22D in monitoring sector 9.
- Quarterly sampling of natural gas and produced water at Noble's existing Tier I gas wells BM 26-22D, BM 26-23A, BM 26-23B, BM 26-23C, BM 26-33C, BM 26-34A, and BM 26-34D in monitoring sectors 9 and 10; and Noble's Tier II BM 26-24B, BM 26-24C, and RF 17-12C gas wells in monitoring sectors 2 and 9.
- Sampling of drill cuttings from EnCana's Tier II Warren 15-9, 15-9BB, and 15-10BB and Warren Federal 15-16 and 15-16BB gas wells on the PI-15 well pad in monitoring sector 11; and
- Sampling of drilling mud solids and fluids at EnCana's Tier II PI-15 well pad in monitoring sector 11.

Sampling and analysis was performed in accordance with the Rulison Sampling and Analysis Plan (RSAP) Revision 2 dated March 31, 2008 (URS 2008).

## **2 Tier I Monitoring**

### **2.1 *Gamma-Ray Log Review***

No new Tier I gas wells were drilled during the first quarter 2010.

### **2.2 *Tier I Drilling Monitoring***

No new Tier I gas wells were drilled during the first quarter 2010.

### **2.3 *Tier I Completion Monitoring***

No new Tier I gas wells were drilled during the first quarter 2010.

### **2.4 *Tier I Production Monitoring***

#### **2.4.1 *First Gas Delivery Sampling and Analysis***

No new Tier I gas wells were brought into production during the first quarter 2010.

#### **2.4.2 *Quarterly Tier I Well Sampling and Analysis***

Quarterly sampling of produced water and natural gas was performed at seven existing Noble Tier I gas wells BM 26-22D, BM 26-23A, BM 26-23B, BM 26-23C, BM 26-33C, BM 26-34A, and BM 26-34D in monitoring sectors 9 and 10 on February 10, 17, and 24 and March 2 and 8, 2010. These wells are currently the closest producing Tier I gas wells within monitoring sectors 9 and 10. Sampling at these wells was performed to fulfill RSAP requirements for quarterly sampling of the existing Tier I producing gas wells for one year and/or sampling at the closest gas well within each monitoring sector. Sampling and analysis was performed as described below.

Natural gas and produced water samples were not obtained at Noble Tier I gas wells BM 36-13, BM 36-13B, and BM 36-23 because these wells were shut-in and are currently on indefinite standby and not producing.

Produced water was obtained from an effluent line at the separator. If more than one gas well was plumbed to the separator, valves were closed by the Company representative to isolate the gas well of interest. Residual fluids in the produced water and natural gas lines were discharged prior to sampling so that a well-specific sample was obtained.

Produced water was collected by discharging the water from the effluent line into a clean 5-gallon bucket until full. Sample aliquots were then taken from the 5-gallon bucket and placed in the appropriately preserved laboratory-supplied sample bottles. Once filled, the sample bottles were capped, labeled, documented on the COC, and placed in an iced cooler. Field parameters, temperature, pH, specific conductance, dissolved oxygen, and oxidation-reduction potential, were measured on a separate sample aliquot at the well site.

Natural gas was sampled by connecting a braided steel sampling hose between the sampling port on the separator line and a laboratory-supplied, evacuated 20-pound gas tank. The sampling hose was flushed with natural gas prior to collecting the sample. The gas tanks are shipped under vacuum from the laboratory, so flushing of the gas tank is not required prior to filling. Because the gas sampling tanks are under vacuum, sampling simply involves opening the sampling hose and tank valves and allowing the tank to fill to capacity. Once filled, the valve on the gas sampling tank and sample port were closed. The Company representative returned any closed valves at the separator to their initial open configuration. The gas tank was labeled, documented on the COC, and placed in a shipping carton.

The iced coolers and gas tanks were shipped by overnight carrier to the analytical laboratories for analysis of the radiological and nonradiological analytes listed in Tables 3 and 4 of the RSAP (URS 2008). The analytical laboratories used included GEL Laboratories LLC in Charleston, South Carolina (for radionuclides other than  $^3\text{H}$ ), ALS Laboratory Group (formerly Paragon Analytics) in Fort Collins, Colorado (for non-radionuclides), and Isotech Laboratories, Inc. in Champaign, Illinois (for  $^3\text{H}$  in produced water and  $^3\text{H}$ , carbon-14 ( $^{14}\text{C}$ ), and gas composition in natural gas).

The analytical results are discussed in Section 5 and are summarized in Tables 1 through 5. The laboratory data packages are included in Appendix A. Laboratory data were independently validated by URS. Data validation reports are included in Appendix B. Field sampling records are included in Appendix C.

## **2.5 Tier I Application for Permit to Drill Conditions of Approval (COA) Monitoring**

No new Tier I gas wells were drilled during the first quarter 2010.

## **3 Tier II Monitoring**

### **3.1 Tier II Drilling Monitoring**

#### **3.1.1 Gamma-Ray Log Review**

No new Tier II gas wells were drilled during the first quarter 2010.

### **3.2 Tier II Production Monitoring**

#### **3.2.1 First Gas Delivery Sampling and Analysis**

Noble's Tier II gas well BM 34-22D in monitoring sector 9 was brought into production during the fourth quarter of 2009. First gas sales occurred at BM 34-22D on December 29, 2009. Produced water and natural gas were sampled at this well on January 13, 2010.

Sampling and analysis of produced water and natural gas were performed as discussed in Section 2.4.2 of this report.

The analytical results are discussed in Section 5 and are summarized in Tables 1 through 5. The laboratory data packages included in Appendix A. Laboratory data were independently validated by URS. Data validation reports are included in Appendix B. Field sampling records are included in Appendix C.

#### **3.2.2 Quarterly Tier II Gas Well Sampling and Analysis**

Quarterly Tier II sampling and analysis were performed at Noble's RF 17-12C, BM 26-24B, and BM 26-24C gas wells during the first quarter 2010. At present, RF 17-12C, is the closest producing gas well within Rulison monitoring sector 2. Produced water and natural gas samples were obtained at this gas well on March 8, 2010. Although BM 26-24B and BM 26-24C are Tier II wells, they are located close to the Tier I boundary and are sampled quarterly as Tier I wells. Produced water and natural gas samples were obtained at these gas wells on March 2, 2010.

Sampling and analysis of produced water and natural gas were performed as discussed in Section 2.4.1 of this report.

The analytical results are discussed in Section 5 and are summarized in Tables 1 through 5. The laboratory data packages in Appendix A. Laboratory data were independently validated by URS. Data validation reports are included in Appendix B. Field sampling records are included in Appendix C.

### **3.3 Tier II APD Conditions of Approval (COA) Monitoring**

#### **3.3.1 Fracing and Flowback Fluid Sampling and Analysis**

No Tier II wells were fraced during the first quarter 2010.

#### **3.3.2 Drill Cuttings Sampling and Analysis**

Composite drill cuttings samples (DC) were collected from EnCana's Tier II gas wells, Warren 15-9, 15-9BB, and 15-10BB and Warren Federal 15-16 and 15-16BB gas wells drilled on the PI-15 pad. The composite samples were collected on February 4 and March 5 and 12, 2010. These samples were collected to fulfill Application for Permit to Drill (APD) Conditions of Approval (COAs).

The composite samples were prepared by collecting approximately 10 aliquots of drill cuttings from the lined pit for each boring and placing them directly into a clean 5-gallon bucket. The sample aliquots were composited and placed in the laboratory-supplied sample bottles. Once filled, the sample bottles were capped, labeled, documented on the COC, and placed in an iced cooler.

The iced sample coolers were shipped by overnight carrier to the analytical laboratory for analysis of the radiological analytes listed in Table 3 of the RSAP (URS 2008). The analytical laboratory used was GEL Laboratories LLC of Charleston, South Carolina.

The analytical results are included in the laboratory data packages in Appendix A and are summarized in Table 1. Laboratory data were independently validated by URS. Data validation reports are included in Appendix B. Field sampling records are included in Appendix C.

#### **3.3.3 Drilling Fluid Sampling and Analysis**

A composite sample of dewatered drilling mud solids (WF-PI-15-MS-CPTF) and a grab sample of extracted drilling mud fluid (WF-PI-15-MF-GPTF) were collected on March 12, 2010 at EnCana's Tier II PI-15 pad following completion of drilling the Tier II Warren 15-9, 15-9BB, and 15-10BB and Warren Federal 15-16 and 15-16BB gas wells. These samples were collected to fulfill APD COAs.

The extracted drilling mud fluid sample was collected by gently discharging approximately 5 gallons of fluid from the storage tank on the well pad into a clean 5-gallon bucket. Sample aliquots were taken from the 5-gallon bucket and placed in appropriately preserved, laboratory-supplied sample bottles. Once filled, the sample bottles were capped, labeled, documented on the COC, and placed in an iced cooler. Field parameters, temperature, pH, specific conductance,

dissolved oxygen, oxidation-reduction potential, and turbidity, were measured on a separate sample aliquot at the well site.

A composite sample of the dewatered drilling mud solids was prepared by collecting approximately 10 solids aliquots from the lined pit on the pad and placing them directly in a clean 5-gallon bucket. The sample aliquots were composited and placed in the laboratory-supplied sample bottles. Once filled, the sample bottles were capped, labeled, documented on the COC, and placed in an iced cooler.

The iced sample coolers were shipped by overnight carrier to the analytical laboratories for analysis of the radiological and nonradiological analytes listed in Tables 3 (fluid and solids) and 4 (fluids only) of the RSAP (URS 2008). The analytical laboratories used included GEL Laboratories LLC in Charleston, South Carolina (radionuclides other than  $^3\text{H}$ ), Paragon Analytics in Fort Collins, Colorado (nonradionuclides), and Isotech Laboratories, Inc. in Champaign, Illinois (for  $^3\text{H}$ ).

The analytical results are included in the laboratory data packages in Appendix A and are summarized in Tables 1 through 4. Laboratory data were independently validated by URS. Data validation reports are included in Appendix B. Field sampling records are included in Appendix C.

## **4 Annual Areal Environmental Monitoring**

Annual areal environmental monitoring was not performed during the first quarter 2010. Annual areal environmental monitoring is scheduled for October 2010.

## 5 Tier I and II Operational Monitoring Results

### 5.1 Tier I and II Radiological Analytical Results

Gross alpha, gross beta, gamma-emitting radionuclides, strontium-90 ( $^{90}\text{Sr}$ ), technetium-99 ( $^{99}\text{Tc}$ ), and chlorine-36 ( $^{36}\text{Cl}$ ) activities were analyzed in produced water (PW), extracted drilling mud fluid (MF), drilling cuttings (DC), and dewatered drilling mud solid (MS) samples collected at Tier I and II gas wells during the first quarter 2010.  $^3\text{H}$  was analyzed in produced water and natural gas (NG) samples.  $^{14}\text{C}$  was also analyzed in natural gas from the producing wells sampled.

The results of the radiological analyses are summarized in Table 1. Table 1 includes both radionuclides detected and those that were analyzed for but were not detected. The table is sorted so that the detected radionuclides occur at the top. These data were independently validated by URS and most of the radiological results were found to be usable without qualification. Data that are deemed usable as qualified or unusable are flagged and identified in the data validation reports (Appendix B) and Table 1. Unusable results are not reported in Table 1.

#### 5.1.1 Gross Alpha Results

Gross alpha activities in the fluid media (produced water and extracted drilling mud fluid) ranged between not detected (less than 21.6) and  $74.2 \pm 32.7$  picoCuries per liter (pCi/L). Gross alpha activity was generally reported at an elevated reporting activity in the fluid media because of the high total dissolved solids (TDS) concentration of the produced water samples. The high TDS concentrations resulted in the evaporation of a smaller sample volume during analysis because the gross alpha analytical method limits the residue after evaporation to 100 milligrams or less. The lowest gross alpha activity detected (less than 21.6 pCi/L) occurred in extracted drilling mud fluid from EnCana's PI-15 Tier II well pad in monitoring sector 11. The highest gross alpha activity detected ( $74.2 \pm 32.7$  pCi/L) occurred in produced water from Noble's BM 26-23C Tier I gas well on the 26K well pad in monitoring sector 10. The gross alpha activity detected is related to naturally occurring alpha-emitting radionuclides, primarily  $^{238}\text{U}$ ,  $^{232}\text{Th}$ , and their daughter products (Figures 2 and 3), found in the subsurface formation fluids or fluids used for drilling or completion.

Gross alpha activities in drill cuttings (DC) and dewatered drilling mud solids (MS) ranged between  $9.69 \pm 4.10$  and an estimated (J)  $15.3 \pm 5.11$  picoCuries per gram (pCi/g). The lowest gross alpha activity detected ( $9.69 \pm 4.10$  pCi/g) occurred in drill cuttings from EnCana's Tier II



Warren Federal 15-16 gas well on the PI-15 pad. The highest gross alpha activity detected ( $15.3 \pm 5.11$  (J) pCi/g) occurred in dewatered drilling mud solids from EnCana's Tier II PI-15 well pad. The gross alpha activity detected is related to naturally occurring alpha-emitting radionuclides, primarily  $^{238}\text{U}$ ,  $^{232}\text{Th}$ , and their daughter products (Figures 2 and 3), found in the dewatered drilling mud solids and subsurface rock formations.

### 5.1.2 Gross Beta Results

Gross beta activities in the fluid media (produced water and extracted drilling mud fluid) samples ranged between not detected (less than 28.8) and  $198 \pm 37.9$  (J) pCi/L. Gross beta activity was generally reported at an elevated reporting activity because of the high TDS concentration in the produced water samples. The high TDS concentrations resulted in the evaporation of a smaller sample volume during analysis because the gross beta analytical method limits the residue after evaporation to 100 milligrams or less. The highest gross beta activity detected ( $198 \pm 37.9$  (J) pCi/L) occurred in produced water from Noble's BM 26-23C Tier I gas well on the 26K well pad in monitoring sector 10. The lowest gross beta activity detected (less than 28.8 pCi/L) occurred in extracted drilling mud fluid from EnCana's Tier II PI-15 well pad in monitoring sector 11.

The elevated gross beta activities are typically related to naturally occurring potassium-40 ( $^{40}\text{K}$ ) in the subsurface formation fluids or fluids used for drilling and completion.  $^{40}\text{K}$  activities in the produced water samples ranged between  $55.6 \pm 54.3$  and  $394 \pm 58.2$  pCi/L. These values are consistent with the gross beta activities reported above. The highest  $^{40}\text{K}$  activity detected ( $394 \pm 58.2$  pCi/L) occurred in produced water from Noble's BM 26-23B Tier II gas well on the 26K well pad in monitoring sector 10. The lowest  $^{40}\text{K}$  activity detected ( $55.6 \pm 54.3$  pCi/L) occurred in produced water from Noble's RF 17-12C Tier II gas well in monitoring sector 2.

Gross beta activities in drill cuttings (DC) and dewatered drilling mud solids (MS) ranged between  $19.4 \pm 3.98$  and  $31.8 \pm 5.95$  (J) pCi/g. The highest gross beta activity detected ( $31.8 \pm 5.95$  (J) pCi/g) occurred in dewatered drilling mud solids from EnCana's Tier II PI-15 well pad. The lowest gross beta activity detected ( $19.4 \pm 3.98$  pCi/g) occurred in drill cuttings from EnCana's Tier II Warren 15-9 gas well on the PI-15 well pad.

The elevated gross beta activities are typically related to naturally occurring potassium-40 ( $^{40}\text{K}$ ) in the subsurface rock formations or drilling mud constituents.  $^{40}\text{K}$  is one of the most abundant naturally occurring radionuclides and primarily occurs in the clay and mica minerals that comprise the subsurface rock formations and drilling mud.  $^{40}\text{K}$  activities in these solid media ranged between  $13.4 \pm 1.48$  and  $22 \pm 2.35$  pCi/g. The highest  $^{40}\text{K}$  activity detected ( $22 \pm 2.35$  pCi/g) occurred in dewatered drilling mud solids from EnCana's Tier II gas wells drilled on the

PI-15 well pad. The lowest  $^{40}\text{K}$  activity detected ( $13.4 \pm 1.48$  pCi/g) occurred in drill cuttings from EnCana's Tier II Warren 15-9 gas well on the PI-15 well pad.

### 5.1.3 $^3\text{H}$ Results

$^3\text{H}$ , the most abundant and mobile radionuclide in the inventory at Project Rulison, was not detected above its reporting concentration in any of the produced water and extracted drilling mud fluid samples analyzed during the first quarter 2010. The  $^3\text{H}$  reporting concentration in the produced waters were less than 10.3 tritium units (TU). One TU equals 1 tritium atom per  $10^{18}$  hydrogen atoms or approximately 3.19 pCi/L (Kazemi et al. 2006). Thus, the  $^3\text{H}$  activities in the produced water samples were less than 33 pCi/L. The Colorado Department of Public Health and Environment (CDPHE) basic ground water standard for  $^3\text{H}$  is 20,000 pCi/L (CDPHE 2009).

### 5.1.4 $^{90}\text{Sr}$ and $^{99}\text{Tc}$ Results

$^{90}\text{Sr}$  and  $^{99}\text{Tc}$ , common radionuclides in the inventory at Project Rulison, were not detected above their reporting activities in any of the fluid media (produced water samples and extracted drilling mud fluid) or drill cuttings analyzed during the first quarter 2010. The  $^{90}\text{Sr}$  and  $^{99}\text{Tc}$  fluid media reporting activities ranged between less than 1.28 and less than 1.79 pCi/L, and less than 27.4 and less than 48.7 pCi/L, respectively. The  $^{90}\text{Sr}$  and  $^{99}\text{Tc}$  reporting activities in drill cuttings ranged between less than 1.24 and less than 1.75 pCi/g, and less than 2.49 and less than 4.49 pCi/g, respectively.

### 5.1.5 $^{36}\text{Cl}$ Results

$^{36}\text{Cl}$ , a less common radionuclide in the inventory at Project Rulison, was not detected above its reporting activities in any of the fluid media (produced water or extracted drilling mud fluid) or drill cuttings samples analyzed during the first quarter 2010. The  $^{36}\text{Cl}$  reporting activities in the fluid media samples ranged between less than 181 and less than 292 pCi/L. The  $^{36}\text{Cl}$  reporting activities in the drill cuttings samples ranged between less than 2.5 and less than 5.08 pCi/g.  $^{36}\text{Cl}$  in the fluid media samples was generally reported at an elevated reporting activity because of the high natural chloride concentration in these samples. The high chloride concentrations resulted in the use of a smaller sample volume (1 to 5 milliliters) because the  $^{36}\text{Cl}$  analytical method limits the precipitate volume used in the analysis.

### 5.1.6 Gamma-Emitting Radionuclide Results

Most of the gamma-emitting radionuclides in the fluid media (produced water and extracted drilling mud fluid) and drill cuttings samples analyzed during the first quarter 2010 were not detected above their reporting activities. Verified gamma-emitting radionuclides detected in the

fluid media samples analyzed include those that naturally occur in the subsurface formation fluids and rocks in the Williams Fork Formation. Naturally occurring gamma-emitting radionuclides detected in the fluid media included actinium-228 ( $^{228}\text{Ac}$ ), bismuth-214 ( $^{214}\text{Bi}$ ),  $^{40}\text{K}$ , lead-212 ( $^{212}\text{Pb}$ ), lead-214 ( $^{214}\text{Pb}$ ), radium-228 ( $^{228}\text{Ra}$ ), and thallium-208 ( $^{208}\text{Tl}$ ). Naturally occurring gamma-emitting radionuclides detected in the drill cuttings included  $^{228}\text{Ac}$ ,  $^{214}\text{Bi}$ ,  $^{40}\text{K}$ ,  $^{212}\text{Pb}$ ,  $^{214}\text{Pb}$ , radium-226 ( $^{226}\text{Ra}$ ),  $^{228}\text{Ra}$ , thorium-230 ( $^{230}\text{Th}$ ),  $^{234}\text{Th}$ ,  $^{208}\text{Tl}$ , and uranium-238 ( $^{238}\text{U}$ ). All of these radionuclides, except for  $^{40}\text{K}$ , are decay products of the thorium-232 ( $^{232}\text{Th}$ ) and uranium-238 ( $^{238}\text{U}$ ) decay series. The thorium and uranium series decay chains are shown as Figures 2 and 3.

### 5.1.7 $^3\text{H}$ and $^{14}\text{C}$ in Natural Gas Results

$^3\text{H}$  was not detected above its reporting concentration in the methane fraction (tritium C1) of any of the natural gas samples analyzed during the first quarter 2010 (Table 1).  $^3\text{H}$  reporting concentrations in natural gas were less than 11 TU (Table 1). One TU equals 1 tritium atom per  $10^{18}$  hydrogen atoms or approximately 3.19 pCi/L in water (pCi/L<sub>water</sub>; Kazemi et al. 2006). For  $^3\text{H}$  analysis, water in the gas is removed using a molecular sieve and the dry methane is subsequently combusted to produce carbon dioxide and water. At 20°C and one atmosphere, it takes approximately 621 liters of combusted methane to produce one liter of water. To convert the reported methane tritium results to pCi/L methane gas (pCi/L<sub>methane</sub>), a conversion factor of  $1.61\text{E-}3 \text{ L}_{\text{water}}/\text{L}_{\text{methane}}$  is used. Thus, the  $^3\text{H}$  activities in the methane fraction of the natural gas samples were less than 0.06 pCi/L<sub>methane</sub>.

$^{14}\text{C}$  concentrations in the methane fraction (14C1) of the natural gas samples analyzed during the first quarter 2010 ranged between not detected (less than 0.4 ) and  $1.6 \pm 0.1$  percent modern carbon (pMC) as shown in Table 1.  $^{14}\text{C}$  is reported as pMC which is set by convention as 13.56 decays per minute per gram of carbon (Kazemi et al. 2006), or 100 pMC.  $^{14}\text{C}$  results less than 2 pMC indicate that modern  $^{14}\text{C}$  is not present in the gas and that the natural gas has been isolated from sources of modern  $^{14}\text{C}$ , such as Project Rulison, for thousands of years.

### 5.1.8 Radiological Results Summary

Project Rulison-related radionuclides, including the most abundant radionuclides in the Project Rulison inventory (Table 1 in URS 2008),  $^3\text{H}$ ,  $^{137}\text{Cs}$ ,  $^{90}\text{Sr}$ ,  $^{99}\text{Tc}$ , and  $^{36}\text{Cl}$  were not detected above their reporting activities in any of the produced water, natural gas, drill cutting, or drilling fluid samples collected within the Project Rulison monitoring zone during the first quarter 2010.

$^{14}\text{C}$  was detected in natural gas at concentrations less than 2 pMC which indicates that the natural gas has been isolated from sources of modern  $^{14}\text{C}$ , such as Project Rulison, for thousands of years.

The only verified gamma-emitting radionuclides detected (e.g.,  $^{40}\text{K}$  and daughter products of the  $^{238}\text{U}$  and  $^{232}\text{Th}$  decay series) are those that naturally occur in the subsurface formation fluids and rocks in the Williams Fork Formation.

Based on the reported results, no verified Project Rulison-related radionuclides were detected in produced water or natural gas during the first quarter 2010. The first quarter 2010 radiological results for produced waters, natural gases, drill cuttings, and drilling fluids are consistent with the radiological results reported for these media during previous quarters.

## **5.2 Tier I and II Non-Radiological Analytical Results**

Total metal, inorganic parameters, and organic constituents were analyzed in produced water (PW) samples collected during the first quarter 2010. The composition of natural gas samples from producing wells was also determined. The results of nonradiological analyses (i.e., total metals, inorganic parameters, organic constituents, and natural gas composition) are summarized in Tables 2 through 5. Independent data validation by URS indicates that most of the non-radiological results are usable without qualification. Data that are deemed usable as qualified or unusable are flagged and identified in the data validation reports (Appendix B). Unusable results are not reported in these tables.

### **5.2.1 Major Cation and Trace Metal Results**

Total metals in produced water samples analyzed during the first quarter 2010 were determined for major cations (calcium, magnesium, sodium, and potassium) and trace metals (arsenic, barium, boron, cadmium, chromium, iron, lead, lithium, manganese, mercury, selenium, strontium, and uranium). The analytical results indicate that these metals are detected at varying concentrations. The results of the major cation and trace metal analyses are summarized in Table 2.

Sodium and potassium are the dominant major cations in the produced water samples. The mean sodium and potassium concentrations detected are 6,922 milligrams per liter (mg/L) and 392 mg/L, respectively. Calcium and magnesium in the produced waters are found at significantly lower concentrations compared to sodium and potassium. The mean calcium and magnesium concentrations are 311 mg/L and 41 mg/L, respectively.

Barium, iron, strontium, lithium, boron, and manganese are the dominant trace metals detected in the produced water samples. Barium, iron, strontium, boron, lithium, and manganese were detected in all of the produced water samples analyzed. Mean concentrations of these trace metals in the produced waters includes barium (87,889 micrograms per liter [ $\mu\text{g/L}$ ]), iron (87,778  $\mu\text{g/L}$ ), strontium (42,778  $\mu\text{g/L}$ ), lithium (5,411  $\mu\text{g/L}$ ), boron (4,100  $\mu\text{g/L}$ ), and manganese (1,370  $\mu\text{g/L}$ ). Less common trace metals detected in some of the produced waters (percentage of detections shown in parenthesis) includes chromium (67%), arsenic (100%), lead (67%), cadmium (100%), selenium (11%), uranium (11%), and mercury (78%). Mean concentrations of these less common trace metals that are less than 50  $\mu\text{g/L}$  but greater than 5  $\mu\text{g/L}$  includes chromium (23.8  $\mu\text{g/L}$ ). The mean concentrations of the remaining trace metals detected but are less than 5  $\mu\text{g/L}$  includes arsenic (2.47  $\mu\text{g/L}$ ), cadmium (2.47  $\mu\text{g/L}$ ), lead (1.46  $\mu\text{g/L}$ ), mercury (0.28  $\mu\text{g/L}$ ), selenium (0.24  $\mu\text{g/L}$ ), and uranium (0.20  $\mu\text{g/L}$ ).

### 5.2.2 Major and Minor Anion and pH Results

Major and minor anions and pH in produced water samples were analyzed during the first quarter 2010. The results of these analyses are summarized in Table 3. Chloride is the dominant major anion in the produced waters. The mean chloride concentration is 14,556 milligrams per liter (mg/L). Chloride is the primary constituent comprising the mean total dissolved solids (TDS) concentration (24,000 mg/L). The next most abundant major anion in the produced waters is bicarbonate (as  $\text{CaCO}_3$ ) whose mean concentration is 1,044 mg/L. Bicarbonate is the primary constituent comprising the mean total alkalinity (as  $\text{CaCO}_3$ ) of 1,044 mg/L. The mean pH for the produced waters is 6.52, which is consistent with bicarbonate being the dominant carbonate component in these fluids. Carbonate (as  $\text{CaCO}_3$ ) was not detected at concentrations above its reporting limit of less than 100 mg/L.

Bromide and ammonia (as N) are the predominant minor anions in produced water with mean concentrations of 98 and 56 mg/L, respectively. Sulfate was detected in 7 produced water samples at an estimated (J) mean concentration of 37 mg/L. Fluoride was detected in 4 produced water samples at an estimated (J) mean concentration of 1.6 mg/L. Nitrate (as N) was detected in 4 produced water samples at an estimated (J) mean concentration of 5.2 mg/L. Nitrite (as N) was detected in 2 produced water samples at an estimated (J) mean concentration of 17 mg/L. The remaining fluoride, nitrate (as N), nitrite (as N), and sulfate results, and the orthophosphate (as P) results were not detected above their respective reporting limits. The occurrence of ammonia and general lack of nitrate and nitrite suggests that these fluids are generally reducing, resulting in the reduction of nitrogen to a -3 oxidation state. The reducing conditions are also consistent with the high dissolved iron concentrations and iron oxyhydroxide precipitates often observed during sampling.

### 5.2.3 Gasoline, Diesel, and Motor Oil Constituent Results

Produced water samples were analyzed for gasoline, diesel, and motor oil range constituents during the first quarter 2010. The results of these analyses are summarized in Table 4. The produced waters had a mean dissolved petroleum hydrocarbon concentration of 491 mg/L. The mean dissolved petroleum hydrocarbons are comprised of 319 mg/L diesel range organics (DRO), 166 mg/L gasoline range organics (GRO), and 6 mg/L motor oil range organics (MRO). Mean concentrations of the dissolved BTEX constituents includes benzene (12,533 µg/L), ethylbenzene (1,449 µg/L), toluene (31,778 µg/L), m+p-xylenes (18,778 µg/L), and o-xylenes (2,956 µg/L). Total xylenes (32 percent) and toluene (47 percent) comprise the bulk of the dissolved BTEX constituents in the produced waters. The mean dissolved methane concentration in the produced waters is 4,603 µg/L.

### 5.2.4 Gas Composition Results

The composition of the natural gas samples was determined during the first quarter 2010. The results of these analyses are summarized in Table 5. Natural gas composition analyses indicate that methane is the predominant component of the gas. The mean methane gas component comprises 89.2 percent. Carbon dioxide (4.23 percent), ethane (4.35 percent), and propane (1.15 percent) comprise the next most abundant natural gas components. These four constituents comprise about 99 percent of the natural gas. The remaining 1 percent of the gas is comprised of iso-butane (0.24 percent), n-butane (0.23 percent), C6+ (0.21 percent), nitrogen (0.14 percent), iso-pentane (0.09 percent), n-pentane (0.07 percent), oxygen (0.03 percent), and traces of helium (0.005 percent) and hydrogen (0.004 percent). With the exception of one argon result (0.008 percent), ethylene, argon, carbon monoxide, and hydrogen sulfide were not detected above their respective reporting limits.

The mean heating value of the natural gas at base conditions (14.696 pound per square inch atmosphere and 60 degrees Fahrenheit [°F]; ASTM 2003) is 0.964 British thermal units per cubic foot (BTU/Ft<sup>3</sup>). The mean relative gas density (calculated as the ratio of natural gas density to air density,  $\rho_g/\rho_a$ ) is 0.643.

### 5.2.5 Non-Radiological Results Summary

The first quarter 2010 nonradiological results for produced waters and natural gases are consistent with the nonradiological results reported for these media during previous quarters.

## 6 References

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**Table 1  
Summary of Radiological Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Activity or Concentration	Counting Error	Reporting Limit	Units	Flag	Detected ?
BM26-33C	Tier I	03/02/2010	NG	SA	14C1	1.2	0.1	0	pMC		Yes
BM26-24C	Tier II	03/02/2010	NG	SA	14C1	1.6	0.1	0	pMC		Yes
RF17-12C	Tier II	03/08/2010	NG	SA	14C1	0.7	0	0.2	pMC		Yes
BM26-22D	Tier I	02/10/2010	PW	SA	Ac-228	37.8	14.9	10.9	pCi/L		Yes
BM26-23A	Tier I	02/24/2010	PW	SA	Ac-228	22.5	10.6	8.25	pCi/L	J,D-I	Yes
BM26-23B	Tier I	02/10/2010	PW	SA	Ac-228	35.8	12.3	8.72	pCi/L		Yes
BM26-23C	Tier I	02/24/2010	PW	SA	Ac-228	40.4	12.8	9.14	pCi/L	J,D-I	Yes
BM26-33C	Tier I	03/02/2010	PW	SA	Ac-228	14.6	10.6	10.3	pCi/L		Yes
BM26-34A	Tier I	02/24/2010	PW	SA	Ac-228	31.1	15.2	11.7	pCi/L	J,D-I	Yes
BM35-32A	Tier I	02/17/2010	PW	SA	Ac-228	19	11.1	8.71	pCi/L		Yes
BM26-24C	Tier II	03/02/2010	PW	SA	Ac-228	29	11.7	10.1	pCi/L		Yes
BM34-22D	Tier II	01/13/2010	PW	SA	Ac-228	21.6	14.8	13.4	pCi/L		Yes
WF-15-10BB	Tier II	03/12/2010	DC	SA	Ac-228	0.856	0.3	0.217	pCi/g	J,D-I	Yes
WF-15-16	Tier II	03/05/2010	DC	SA	Ac-228	1.34	0.421	0.286	pCi/g		Yes
WF-15-16BB	Tier II	03/05/2010	DC	SA	Ac-228	1.85	0.384	0.232	pCi/g		Yes
WF-15-9	Tier II	02/04/2010	DC	SA	Ac-228	1.31	0.347	0.183	pCi/g		Yes
WF-15-9BB	Tier II	03/05/2010	DC	SA	Ac-228	1.19	0.327	0.198	pCi/g		Yes
WF-PI-15	Tier II	03/12/2010	MS	SA	Ac-228	1.23	0.424	0.264	pCi/g	J,D-I	Yes
BM26-23A	Tier I	02/24/2010	PW	SA	Bi-214	18.8	5.91	4.37	pCi/L		Yes
BM26-23B	Tier I	02/10/2010	PW	SA	Bi-214	22.5	7.79	5	pCi/L	J,D-I	Yes
BM26-23C	Tier I	02/24/2010	PW	SA	Bi-214	12.1	5.86	4.84	pCi/L		Yes
BM26-33C	Tier I	03/02/2010	PW	SA	Bi-214	11.8	5.76	4.97	pCi/L	J,D-I	Yes
BM26-34A	Tier I	02/24/2010	PW	SA	Bi-214	9.32	6.76	5.35	pCi/L		Yes
BM26-24C	Tier II	03/02/2010	PW	SA	Bi-214	16.6	6.64	5.55	pCi/L	J,D-I	Yes
RF17-12C	Tier II	03/08/2010	PW	SA	Bi-214	14.9	8.38	7.29	pCi/L	J,D-I	Yes
WF-15-10BB	Tier II	03/12/2010	DC	SA	Bi-214	0.761	0.163	0.112	pCi/g		Yes
WF-15-16	Tier II	03/05/2010	DC	SA	Bi-214	1.16	0.228	0.152	pCi/g		Yes
WF-15-16BB	Tier II	03/05/2010	DC	SA	Bi-214	1.37	0.211	0.125	pCi/g		Yes
WF-15-9	Tier II	02/04/2010	DC	SA	Bi-214	0.979	0.185	0.122	pCi/g		Yes



**Table 1  
Summary of Radiological Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Activity or Concentration	Counting Error	Reporting Limit	Units	Flag	Detected ?
WF-PI-15	Tier II	03/12/2010	MS	SA	Bi-214	1.13	0.224	0.131	pCi/g		Yes
BM26-23B	Tier I	02/10/2010	PW	SA	Gross Alpha	70.4	37.5	55.1	pCi/L		Yes
BM26-23C	Tier I	02/24/2010	PW	SA	Gross Alpha	74.2	32.7	45	pCi/L		Yes
BM35-32A	Tier I	02/17/2010	PW	SA	Gross Alpha	36.9	19.1	29	pCi/L	J,MS-L	Yes
RF17-12C	Tier II	03/08/2010	PW	SA	Gross Alpha	55.9	26.1	35.2	pCi/L	J,LCS-H	Yes
WF-15-10BB	Tier II	03/12/2010	DC	SA	Gross Alpha	10.2	3.95	2.74	pCi/g	J,D-I	Yes
WF-15-16	Tier II	03/05/2010	DC	SA	Gross Alpha	9.69	4.1	3.74	pCi/g		Yes
WF-15-16BB	Tier II	03/05/2010	DC	SA	Gross Alpha	16.8	5.01	3.84	pCi/g		Yes
WF-15-9	Tier II	02/04/2010	DC	SA	Gross Alpha	13.1	4.86	3.94	pCi/g		Yes
WF-15-9BB	Tier II	03/05/2010	DC	SA	Gross Alpha	13.8	4.5	3.71	pCi/g		Yes
WF-PI-15	Tier II	03/12/2010	MS	SA	Gross Alpha	15.3	5.11	2.58	pCi/g	J,D-I	Yes
BM26-22D	Tier I	02/10/2010	PW	SA	Gross Beta	157	34.3	50	pCi/L		Yes
BM26-23A	Tier I	02/24/2010	PW	SA	Gross Beta	127	38.9	61.1	pCi/L		Yes
BM26-23B	Tier I	02/10/2010	PW	SA	Gross Beta	125	31.3	46.6	pCi/L		Yes
BM26-23C	Tier I	02/24/2010	PW	SA	Gross Beta	198	37.9	55.6	pCi/L		Yes
BM26-33C	Tier I	03/02/2010	PW	SA	Gross Beta	38.2	18.6	29.4	pCi/L	J,MS,LCS,D-L	Yes
BM26-34A	Tier I	02/24/2010	PW	SA	Gross Beta	158	43.2	68	pCi/L		Yes
BM35-32A	Tier I	02/17/2010	PW	SA	Gross Beta	51.1	14.6	21.9	pCi/L	J,MS,D-I	Yes
RF17-12C	Tier II	03/08/2010	PW	SA	Gross Beta	61.7	23.6	36.4	pCi/L		Yes
WF-15-10BB	Tier II	03/12/2010	DC	SA	Gross Beta	23.7	3.97	2.76	pCi/g	J,D-I	Yes
WF-15-16	Tier II	03/05/2010	DC	SA	Gross Beta	26.8	4.01	2.85	pCi/g		Yes
WF-15-16BB	Tier II	03/05/2010	DC	SA	Gross Beta	21.1	3.54	2.66	pCi/g		Yes
WF-15-9	Tier II	02/04/2010	DC	SA	Gross Beta	19.4	3.98	3.67	pCi/g		Yes
WF-15-9BB	Tier II	03/05/2010	DC	SA	Gross Beta	20.2	3.45	2.88	pCi/g		Yes
WF-PI-15	Tier II	03/12/2010	MS	SA	Gross Beta	31.8	5.95	4.24	pCi/g	J,D-I	Yes
BM26-22D	Tier I	02/10/2010	PW	SA	K-40	385	60.6	40.1	pCi/L		Yes
BM26-23A	Tier I	02/24/2010	PW	SA	K-40	294	48.8	23.4	pCi/L		Yes
BM26-23B	Tier I	02/10/2010	PW	SA	K-40	394	58.2	24	pCi/L		Yes
BM26-23C	Tier I	02/24/2010	PW	SA	K-40	301	49.5	26.4	pCi/L		Yes

**Table 1  
Summary of Radiological Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Activity or Concentration	Counting Error	Reporting Limit	Units	Flag	Detected ?
BM26-33C	Tier I	03/02/2010	PW	SA	K-40	241	48.1	24.1	pCi/L		Yes
BM26-34A	Tier I	02/24/2010	PW	SA	K-40	251	55.6	30.5	pCi/L		Yes
BM26-34D	Tier I	03/02/2010	PW	SA	K-40	118	39.1	26	pCi/L		Yes
BM35-32A	Tier I	02/17/2010	PW	SA	K-40	259	45.9	20.8	pCi/L		Yes
BM26-24C	Tier II	03/02/2010	PW	SA	K-40	83.9	45.5	24.4	pCi/L		Yes
BM34-22D	Tier II	01/13/2010	PW	SA	K-40	109	55.7	34	pCi/L		Yes
RF17-12C	Tier II	03/08/2010	PW	SA	K-40	55.6	54.3	34.7	pCi/L		Yes
WF-15-10BB	Tier II	03/12/2010	DC	SA	K-40	14	1.72	0.455	pCi/g	J,D-I	Yes
WF-15-16	Tier II	03/05/2010	DC	SA	K-40	21.2	2.76	0.822	pCi/g		Yes
WF-15-16BB	Tier II	03/05/2010	DC	SA	K-40	17.8	2.31	0.606	pCi/g		Yes
WF-15-9	Tier II	02/04/2010	DC	SA	K-40	13.4	1.48	0.496	pCi/g		Yes
WF-15-9BB	Tier II	03/05/2010	DC	SA	K-40	18.1	1.94	0.56	pCi/g		Yes
WF-PI-15	Tier II	03/12/2010	MS	SA	K-40	22	2.35	0.583	pCi/g	J,D-I	Yes
WF-PI-15	Tier II	03/12/2010	MF	SA	K-40	73.8	39	22.7	pCi/L	J,D-I	Yes
BM26-23A	Tier I	02/24/2010	PW	SA	Pb-212	8.12	3.73	3.7	pCi/L		Yes
BM26-23B	Tier I	02/10/2010	PW	SA	Pb-212	12	4.71	4.48	pCi/L		Yes
BM26-23C	Tier I	02/24/2010	PW	SA	Pb-212	8.44	4.32	4.6	pCi/L		Yes
BM26-33C	Tier I	03/02/2010	PW	SA	Pb-212	15.8	5.27	4.73	pCi/L	J,D-I	Yes
WF-15-10BB	Tier II	03/12/2010	DC	SA	Pb-212	1.01	0.139	0.0845	pCi/g		Yes
WF-15-16	Tier II	03/05/2010	DC	SA	Pb-212	1.27	0.214	0.138	pCi/g		Yes
WF-15-16BB	Tier II	03/05/2010	DC	SA	Pb-212	1.57	0.199	0.104	pCi/g		Yes
WF-15-9	Tier II	02/04/2010	DC	SA	Pb-212	1.11	0.154	0.0868	pCi/g		Yes
WF-15-9BB	Tier II	03/05/2010	DC	SA	Pb-212	1.21	0.141	0.0904	pCi/g		Yes
WF-PI-15	Tier II	03/12/2010	MS	SA	Pb-212	1.26	0.156	0.0993	pCi/g		Yes
BM26-23A	Tier I	02/24/2010	PW	SA	Pb-214	13.5	6.2	5.09	pCi/L	J,D-I	Yes
BM26-23B	Tier I	02/10/2010	PW	SA	Pb-214	18.9	6.6	5.15	pCi/L	J,D-I	Yes
BM26-23C	Tier I	02/24/2010	PW	SA	Pb-214	20.2	6.74	5.39	pCi/L	J,D-I	Yes
BM26-33C	Tier I	03/02/2010	PW	SA	Pb-214	13	7.32	5.55	pCi/L	J,D-I	Yes
WF-15-10BB	Tier II	03/12/2010	DC	SA	Pb-214	0.976	0.166	0.109	pCi/g		Yes

**Table 1  
Summary of Radiological Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Activity or Concentration	Counting Error	Reporting Limit	Units	Flag	Detected ?
WF-15-16	Tier II	03/05/2010	DC	SA	Pb-214	1.31	0.272	0.165	pCi/g		Yes
WF-15-16BB	Tier II	03/05/2010	DC	SA	Pb-214	1.48	0.24	0.124	pCi/g		Yes
WF-15-9	Tier II	02/04/2010	DC	SA	Pb-214	1.18	0.197	0.112	pCi/g		Yes
WF-15-9BB	Tier II	03/05/2010	DC	SA	Pb-214	1.25	0.195	0.117	pCi/g		Yes
WF-PI-15	Tier II	03/12/2010	MS	SA	Pb-214	1.35	0.191	0.134	pCi/g		Yes
WF-15-10BB	Tier II	03/12/2010	DC	SA	Ra-226	0.761	0.163	0.112	pCi/g		Yes
WF-15-16	Tier II	03/05/2010	DC	SA	Ra-226	1.16	0.228	0.152	pCi/g		Yes
WF-15-16BB	Tier II	03/05/2010	DC	SA	Ra-226	1.37	0.211	0.125	pCi/g		Yes
WF-15-9	Tier II	02/04/2010	DC	SA	Ra-226	0.979	0.185	0.122	pCi/g		Yes
WF-PI-15	Tier II	03/12/2010	MS	SA	Ra-226	1.13	0.224	0.131	pCi/g		Yes
BM26-22D	Tier I	02/10/2010	PW	SA	Ra-228	37.8	14.9	10.9	pCi/L		Yes
BM26-23A	Tier I	02/24/2010	PW	SA	Ra-228	22.5	10.6	8.25	pCi/L	J,D-I	Yes
BM26-23B	Tier I	02/10/2010	PW	SA	Ra-228	35.8	12.3	8.72	pCi/L		Yes
BM26-23C	Tier I	02/24/2010	PW	SA	Ra-228	40.4	12.8	9.14	pCi/L	J,D-I	Yes
BM26-33C	Tier I	03/02/2010	PW	SA	Ra-228	14.6	10.6	10.3	pCi/L		Yes
BM26-34A	Tier I	02/24/2010	PW	SA	Ra-228	31.1	15.2	11.7	pCi/L	J,D-I	Yes
BM35-32A	Tier I	02/17/2010	PW	SA	Ra-228	19	11.1	8.71	pCi/L		Yes
BM26-24C	Tier II	03/02/2010	PW	SA	Ra-228	29	11.7	10.1	pCi/L		Yes
BM34-22D	Tier II	01/13/2010	PW	SA	Ra-228	21.6	14.8	13.4	pCi/L		Yes
WF-15-10BB	Tier II	03/12/2010	DC	SA	Ra-228	0.856	0.3	0.217	pCi/g	J,D-I	Yes
WF-15-16	Tier II	03/05/2010	DC	SA	Ra-228	1.34	0.421	0.286	pCi/g		Yes
WF-15-16BB	Tier II	03/05/2010	DC	SA	Ra-228	1.85	0.384	0.232	pCi/g		Yes
WF-15-9	Tier II	02/04/2010	DC	SA	Ra-228	1.31	0.347	0.183	pCi/g		Yes
WF-15-9BB	Tier II	03/05/2010	DC	SA	Ra-228	1.19	0.327	0.198	pCi/g		Yes
WF-PI-15	Tier II	03/12/2010	MS	SA	Ra-228	1.23	0.424	0.264	pCi/g	J,D-I	Yes
WF-15-10BB	Tier II	03/12/2010	DC	SA	Th-230	0.761	0.158	0.112	pCi/g		Yes
WF-15-16	Tier II	03/05/2010	DC	SA	Th-230	1.16	0.22	0.152	pCi/g		Yes
WF-15-16BB	Tier II	03/05/2010	DC	SA	Th-230	1.37	0.199	0.125	pCi/g		Yes
WF-15-9	Tier II	02/04/2010	DC	SA	Th-230	0.979	0.178	0.122	pCi/g		Yes

**Table 1  
Summary of Radiological Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Activity or Concentration	Counting Error	Reporting Limit	Units	Flag	Detected ?
WF-PI-15	Tier II	03/12/2010	MS	SA	Th-230	1.13	0.216	0.131	pCi/g		Yes
WF-15-9	Tier II	02/04/2010	DC	SA	Th-234	1.86	1.03	0.967	pCi/g	J,D-I	Yes
BM26-33C	Tier I	03/02/2010	PW	SA	TI-208	3.88	3.39	2.51	pCi/L	J,D-I	Yes
BM34-22D	Tier II	01/13/2010	PW	SA	TI-208	8.77	3.99	3.61	pCi/L	J,D-I	Yes
RF17-12C	Tier II	03/08/2010	PW	SA	TI-208	5.32	3.6	3.29	pCi/L		Yes
WF-15-10BB	Tier II	03/12/2010	DC	SA	TI-208	0.359	0.0699	0.047	pCi/g		Yes
WF-15-16	Tier II	03/05/2010	DC	SA	TI-208	0.376	0.131	0.0856	pCi/g		Yes
WF-15-16BB	Tier II	03/05/2010	DC	SA	TI-208	0.414	0.0892	0.0672	pCi/g		Yes
WF-15-9	Tier II	02/04/2010	DC	SA	TI-208	0.276	0.101	0.0595	pCi/g		Yes
WF-15-9BB	Tier II	03/05/2010	DC	SA	TI-208	0.395	0.0814	0.0525	pCi/g		Yes
WF-PI-15	Tier II	03/12/2010	MS	SA	TI-208	0.401	0.0874	0.0715	pCi/g		Yes
BM26-23C	Tier I	02/24/2010	PW	SA	Total Uranium	1.07	0.0782	0.66	ug/L	J,D-I	Yes
WF-15-10BB	Tier II	03/12/2010	DC	SA	Total Uranium	1.85	0.0601	0.825	ug/g		Yes
WF-15-16	Tier II	03/05/2010	DC	SA	Total Uranium	2.24	0.0787	0.86	ug/g	J,D-I	Yes
WF-15-16BB	Tier II	03/05/2010	DC	SA	Total Uranium	2.89	0.0952	0.851	ug/g	J,D-I	Yes
WF-15-9	Tier II	02/04/2010	DC	SA	Total Uranium	2.11	0.0648	0.825	ug/g	J,D-I	Yes
WF-15-9BB	Tier II	03/05/2010	DC	SA	Total Uranium	2.56	0.0841	0.86	ug/g	J,D-I	Yes
WF-PI-15	Tier II	03/12/2010	MF	SA	Total Uranium	13.1	0.614	0.66	ug/L		Yes
WF-PI-15	Tier II	03/12/2010	MS	SA	Total Uranium	2.39	0.0742	0.834	ug/g		Yes
WF-15-9	Tier II	02/04/2010	DC	SA	U-238	1.86	1.03	0.967	pCi/g	J,D-I	Yes
BM26-22D	Tier I	02/10/2010	NG	SA	14C1	0.6	0	0.6	pMC	U	No
BM26-23A	Tier I	02/24/2010	NG	SA	14C1	0.7	0	0.7	pMC	U	No
BM26-23B	Tier I	02/10/2010	NG	SA	14C1	0.8	0	0.8	pMC	U	No
BM26-23C	Tier I	02/24/2010	NG	SA	14C1	0.4	0	0.4	pMC	U	No
BM26-34A	Tier I	02/24/2010	NG	SA	14C1	0.7	0	0.7	pMC	U	No
BM26-34D	Tier I	03/02/2010	NG	SA	14C1	0.5	0	0.5	pMC	U	No
BM35-32A	Tier I	02/17/2010	NG	SA	14C1	0.8	0	0.8	pMC	U	No
BM26-24B	Tier II	03/02/2010	NG	SA	14C1	0.6	0	0.6	pMC	U	No
BM34-22D	Tier II	01/13/2010	NG	SA	14C1	0.6	0	0	pMC	U	No

**Table 1  
Summary of Radiological Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Activity or Concentration	Counting Error	Reporting Limit	Units	Flag	Detected ?
WF-PI-15	Tier II	03/12/2010	MF	SA	Ac-228	-2.53	8.19	10.6	pCi/L	UJ,D-I	No
BM26-22D	Tier I	02/10/2010	PW	SA	Ag-110m	-1.46	1.92	2.94	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Ag-110m	-0.982	1.2	1.87	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Ag-110m	-7.66	2.01	2.55	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Ag-110m	-1.21	1.46	2.28	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Ag-110m	-0.853	1.39	2.28	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Ag-110m	-0.75	1.7	2.68	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Ag-110m	-0.223	1.33	2.18	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Ag-110m	0.217	1.36	2.34	pCi/L	UJ,D-I	No
BM26-24C	Tier II	03/02/2010	PW	SA	Ag-110m	1.32	1.45	2.55	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Ag-110m	-5.63	2.44	3.26	pCi/L	UJ,D-I	No
RF17-12C	Tier II	03/08/2010	PW	SA	Ag-110m	-0.909	2.07	3.39	pCi/L	U	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	Ag-110m	0.00689	0.0276	0.0493	pCi/g	U	No
WF-15-16	Tier II	03/05/2010	DC	SA	Ag-110m	0.0373	0.0469	0.0846	pCi/g	U	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	Ag-110m	-0.0207	0.0353	0.0566	pCi/g	U	No
WF-15-9	Tier II	02/04/2010	DC	SA	Ag-110m	-0.00526	0.0381	0.0623	pCi/g	U	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Ag-110m	-0.0283	0.0305	0.0478	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Ag-110m	-0.0358	0.0374	0.0575	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Ag-110m	-0.657	1.33	2.2	pCi/L	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Am-241	0.873	13.7	19.7	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Am-241	-6.15	6.31	9.83	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Am-241	-1.43	3.35	4.74	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Am-241	-15.4	8.13	12.7	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Am-241	8.69	11.5	18.5	pCi/L	UJ,D-I	No
BM26-34A	Tier I	02/24/2010	PW	SA	Am-241	1.61	3.64	5.51	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Am-241	-5.37	7.67	12.5	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Am-241	-1.9	5.45	9.12	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Am-241	-9.78	16.6	26.3	pCi/L	UJ,D-I	No
BM34-22D	Tier II	01/13/2010	PW	SA	Am-241	-0.316	4.54	6.8	pCi/L	U	No

**Table 1  
Summary of Radiological Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Activity or Concentration	Counting Error	Reporting Limit	Units	Flag	Detected ?
RF17-12C	Tier II	03/08/2010	PW	SA	Am-241	-21.6	15.2	24.8	pCi/L	UJ,D-I	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	Am-241	-0.0659	0.139	0.243	pCi/g	U	No
WF-15-16	Tier II	03/05/2010	DC	SA	Am-241	-0.388	0.339	0.529	pCi/g	U	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	Am-241	-0.0544	0.177	0.304	pCi/g	U	No
WF-15-9	Tier II	02/04/2010	DC	SA	Am-241	0.0665	0.0622	0.101	pCi/g	U	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Am-241	0.223	0.2	0.37	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Am-241	-0.17	0.231	0.376	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Am-241	14.2	10.2	16.9	pCi/L	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Ba-133	1.81	3.15	4.84	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Ba-133	0.296	1.92	2.79	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Ba-133	2.04	2.01	3.19	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Ba-133	1.16	2.03	3.08	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Ba-133	0.0247	2.2	3.26	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Ba-133	-0.097	2.28	3.42	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Ba-133	1.86	1.95	3.03	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Ba-133	-1.37	2.47	3.12	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Ba-133	-0.552	2.46	3.61	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Ba-133	4.41	2.83	4.79	pCi/L	UJ,D-I	No
RF17-12C	Tier II	03/08/2010	PW	SA	Ba-133	-0.809	2.99	4.31	pCi/L	U	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	Ba-133	0.00806	0.0396	0.0612	pCi/g	UJ,D-I	No
WF-15-16	Tier II	03/05/2010	DC	SA	Ba-133	0.0161	0.0682	0.101	pCi/g	U	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	Ba-133	-0.0195	0.0486	0.0688	pCi/g	U	No
WF-15-9	Tier II	02/04/2010	DC	SA	Ba-133	-0.0295	0.048	0.0674	pCi/g	U	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Ba-133	0.0282	0.0425	0.0682	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Ba-133	-0.0169	0.0511	0.0728	pCi/g	UJ,D-I	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Ba-133	0.58	1.8	3.08	pCi/L	UJ,D-I	No
BM26-22D	Tier I	02/10/2010	PW	SA	Ba-140	1.11	8.19	13.8	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Ba-140	2.91	6.22	10.7	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Ba-140	-0.363	6.38	10.5	pCi/L	U	No

**Table 1  
Summary of Radiological Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Activity or Concentration	Counting Error	Reporting Limit	Units	Flag	Detected ?
BM26-23C	Tier I	02/24/2010	PW	SA	Ba-140	-6.68	7.83	11.9	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Ba-140	0.0658	6.12	10	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Ba-140	-5.07	10	13.5	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Ba-140	-2	5.2	8.4	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Ba-140	-1.53	9.78	16.7	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Ba-140	-1.9	6.5	10.6	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Ba-140	2.04	7.77	13.1	pCi/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Ba-140	5.4	10.8	18.2	pCi/L	U	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	Ba-140	-0.0891	0.192	0.322	pCi/g	U	No
WF-15-16	Tier II	03/05/2010	DC	SA	Ba-140	-0.132	0.39	0.613	pCi/g	U	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	Ba-140	-0.0114	0.294	0.507	pCi/g	U	No
WF-15-9	Tier II	02/04/2010	DC	SA	Ba-140	-0.594	1.47	2.36	pCi/g	U	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Ba-140	0.116	0.282	0.482	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Ba-140	0.055	0.253	0.422	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Ba-140	-2.03	9.38	15.1	pCi/L	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Be-7	7.1	17.4	30.1	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Be-7	-9.56	10.9	17.7	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Be-7	-10.9	17.5	20.4	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Be-7	2.18	12.7	21.4	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Be-7	1.65	12.4	20.7	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Be-7	-11.2	15	23.9	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Be-7	9.11	10.9	19.1	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Be-7	-2.85	12.6	20.4	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Be-7	-2.31	13.6	22.7	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Be-7	10.5	17.4	30.4	pCi/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Be-7	2.67	18.5	31	pCi/L	U	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	Be-7	0.0444	0.284	0.487	pCi/g	U	No
WF-15-16	Tier II	03/05/2010	DC	SA	Be-7	0.0525	0.459	0.762	pCi/g	U	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	Be-7	-0.0404	0.366	0.635	pCi/g	U	No

**Table 1  
Summary of Radiological Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Activity or Concentration	Counting Error	Reporting Limit	Units	Flag	Detected ?
WF-15-9	Tier II	02/04/2010	DC	SA	Be-7	-0.0691	0.492	0.824	pCi/g	U	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Be-7	-0.0761	0.313	0.514	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Be-7	9.9	12.9	22.3	pCi/L	U	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Be-7	-0.154	0.323	0.506	pCi/g	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Bi-212	15	16.3	29.2	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Bi-212	-35.3	30.4	33.7	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Bi-212	12.9	13.2	23.6	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Bi-212	32.8	21.2	37.8	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Bi-212	18.1	22.3	39.2	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Bi-212	29.3	25.3	46.3	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Bi-212	26.2	21.6	37.9	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Bi-212	-18	24.8	32.6	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Bi-212	27.6	23.3	40.8	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Bi-212	11.7	20.7	34.4	pCi/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Bi-212	44	31.6	58.9	pCi/L	U	No
WF-15-16	Tier II	03/05/2010	DC	SA	Bi-212	1.23	1.04	1.46	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Bi-212	-4.03	19.7	32.7	pCi/L	U	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Bi-212	0.976	0.973	1.31	pCi/g	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Bi-214	6.19	7.91	6.76	pCi/L	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Bi-214	-1.32	4.65	5.79	pCi/L	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Ce-139	-1.25	2.18	3.48	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Ce-139	-0.835	1.15	1.91	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Ce-139	-1.03	1.21	1.98	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Ce-139	0.565	1.48	2.44	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Ce-139	-2.54	1.49	2.32	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Ce-139	-0.129	1.42	2.36	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Ce-139	-0.449	1.42	2.29	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Ce-139	0.322	1.41	2.3	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Ce-139	-0.164	1.68	2.82	pCi/L	U	No



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Summary of Radiological Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Activity or Concentration	Counting Error	Reporting Limit	Units	Flag	Detected ?
BM34-22D	Tier II	01/13/2010	PW	SA	Ce-139	-0.545	1.57	2.6	pCi/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Ce-139	-0.996	2.26	3.66	pCi/L	U	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	Ce-139	-0.00496	0.0238	0.0431	pCi/g	U	No
WF-15-16	Tier II	03/05/2010	DC	SA	Ce-139	0.00205	0.0467	0.0727	pCi/g	UJ,D-I	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	Ce-139	0.0348	0.0323	0.0565	pCi/g	UJ,D-I	No
WF-15-9	Tier II	02/04/2010	DC	SA	Ce-139	-0.0147	0.0321	0.0531	pCi/g	UJ,D-I	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Ce-139	0.00277	0.0278	0.0469	pCi/g	UJ,D-I	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Ce-139	-1.62	1.48	2.35	pCi/L	U	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Ce-139	-0.0256	0.0317	0.0492	pCi/g	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Ce-141	0.491	4.22	6.37	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Ce-141	-2.06	2.16	3.59	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Ce-141	-1.57	2.06	3.42	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Ce-141	0.485	2.98	4.53	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Ce-141	-1.11	2.64	4.35	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Ce-141	-1.92	3.08	3.98	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Ce-141	2.25	2.45	4.12	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Ce-141	-0.335	2.83	4.59	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Ce-141	-0.592	4.35	5.23	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Ce-141	-3.74	3.54	5.07	pCi/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Ce-141	-6.4	4.19	6.52	pCi/L	UJ,D-I	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	Ce-141	-0.0151	0.0529	0.0944	pCi/g	U	No
WF-15-16	Tier II	03/05/2010	DC	SA	Ce-141	-0.00105	0.0931	0.151	pCi/g	U	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	Ce-141	0.0335	0.0745	0.125	pCi/g	U	No
WF-15-9	Tier II	02/04/2010	DC	SA	Ce-141	0.0459	0.113	0.196	pCi/g	U	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Ce-141	-0.0309	0.0564	0.0925	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Ce-141	0.0409	0.0607	0.103	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Ce-141	4.15	3.09	4.86	pCi/L	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Ce-144	9.61	16	26.9	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Ce-144	-5.82	8.17	13.7	pCi/L	U	No

**Table 1  
Summary of Radiological Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Activity or Concentration	Counting Error	Reporting Limit	Units	Flag	Detected ?
BM26-23B	Tier I	02/10/2010	PW	SA	Ce-144	0.653	8.46	14.5	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Ce-144	-2.32	10.9	17.1	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Ce-144	-15.4	10.8	17	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Ce-144	0.837	8.97	15.1	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Ce-144	-1.68	9.86	16.1	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Ce-144	0.662	9.62	15.8	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Ce-144	-8.32	12.2	20.2	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Ce-144	7.68	11.8	20.7	pCi/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Ce-144	-4.63	15.3	25.3	pCi/L	U	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	Ce-144	-0.0603	0.176	0.297	pCi/g	U	No
WF-15-16	Tier II	03/05/2010	DC	SA	Ce-144	-0.326	0.303	0.443	pCi/g	U	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	Ce-144	-0.0279	0.212	0.355	pCi/g	U	No
WF-15-9	Tier II	02/04/2010	DC	SA	Ce-144	-0.113	0.209	0.347	pCi/g	U	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Ce-144	-0.0421	0.186	0.313	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Ce-144	0.0155	0.204	0.338	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Ce-144	-0.93	10	16.7	pCi/L	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Cl-36	-75	165	292	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Cl-36	53.1	115	198	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Cl-36	0.305	136	239	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Cl-36	41.8	108	187	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Cl-36	-40.3	144	254	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Cl-36	13.2	103	181	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Cl-36	-13.3	108	192	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Cl-36	25.5	111	192	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Cl-36	-129	110	205	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Cl-36	-219	124	237	pCi/L	UJ,D-I	No
RF17-12C	Tier II	03/08/2010	PW	SA	Cl-36	-65	114	206	pCi/L	U	No
WF-15-16	Tier II	03/05/2010	DC	SA	Cl-36	1.26	2.08	3.65	pCi/g	U	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	Cl-36	-0.264	2.56	5.08	pCi/g	U	No

**Table 1  
Summary of Radiological Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Activity or Concentration	Counting Error	Reporting Limit	Units	Flag	Detected ?
WF-15-9	Tier II	02/04/2010	DC	SA	Cl-36	-0.251	1.26	2.5	pCi/g	U	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Cl-36	1.26	1.99	3.48	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Cl-36	-59.8	144	256	pCi/L	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Co-56	0.325	2.06	3.58	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Co-56	0.785	1.27	2.28	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Co-56	0.713	1.55	2.67	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Co-56	0.776	1.43	2.53	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Co-56	-0.749	1.52	2.44	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Co-56	1.6	2.02	3.6	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Co-56	0.144	1.36	2.35	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Co-56	-0.242	1.52	2.49	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Co-56	0.0743	1.59	2.72	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Co-56	-1.19	2.15	3.37	pCi/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Co-56	0.0618	2.35	3.92	pCi/L	U	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	Co-56	0.0108	0.0329	0.0582	pCi/g	U	No
WF-15-16	Tier II	03/05/2010	DC	SA	Co-56	-0.000423	0.0494	0.0826	pCi/g	U	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	Co-56	0.0174	0.0464	0.0801	pCi/g	U	No
WF-15-9	Tier II	02/04/2010	DC	SA	Co-56	-0.0212	0.0531	0.087	pCi/g	U	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Co-56	0.000809	0.0362	0.0614	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Co-56	-0.022	0.0432	0.0679	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Co-56	0.974	1.47	2.57	pCi/L	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Co-57	0.0973	2.05	3.38	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Co-57	0.466	1.04	1.84	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Co-57	-0.269	1.03	1.76	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Co-57	-0.115	1.38	2.26	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Co-57	-0.705	1.38	2.29	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Co-57	0.774	1.14	1.98	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Co-57	0.609	1.26	2.11	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Co-57	0.495	1.21	2.01	pCi/L	U	No

**Table 1  
Summary of Radiological Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Activity or Concentration	Counting Error	Reporting Limit	Units	Flag	Detected ?
BM26-24C	Tier II	03/02/2010	PW	SA	Co-57	-0.33	1.59	2.68	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Co-57	1.11	1.39	2.48	pCi/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Co-57	1.02	1.95	3.36	pCi/L	U	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	Co-57	-0.0000508	0.021	0.0363	pCi/g	U	No
WF-15-16	Tier II	03/05/2010	DC	SA	Co-57	0.000425	0.0371	0.0596	pCi/g	U	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	Co-57	0.00407	0.0263	0.045	pCi/g	U	No
WF-15-9	Tier II	02/04/2010	DC	SA	Co-57	0.00496	0.0251	0.0435	pCi/g	U	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Co-57	-0.00885	0.0235	0.0386	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Co-57	-0.0196	0.0259	0.0397	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Co-57	-0.0049	1.58	2.17	pCi/L	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Co-58	0.266	2.06	3.42	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Co-58	0.225	1.31	2.18	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Co-58	0.161	1.6	2.7	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Co-58	-0.253	1.48	2.4	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Co-58	-1.91	1.57	2.4	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Co-58	-0.0631	1.83	3.11	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Co-58	0.259	1.4	2.33	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Co-58	-2.93	1.76	2.4	pCi/L	UJ,D-I	No
BM26-24C	Tier II	03/02/2010	PW	SA	Co-58	-0.791	1.46	2.39	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Co-58	1.11	2.23	3.92	pCi/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Co-58	0.0639	2.29	3.83	pCi/L	U	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	Co-58	-0.00000822	0.0298	0.0511	pCi/g	UJ,D-I	No
WF-15-16	Tier II	03/05/2010	DC	SA	Co-58	-0.00758	0.0485	0.0799	pCi/g	U	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	Co-58	-0.0309	0.0471	0.0733	pCi/g	U	No
WF-15-9	Tier II	02/04/2010	DC	SA	Co-58	-0.0118	0.0543	0.091	pCi/g	U	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Co-58	-0.0139	0.0375	0.0612	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Co-58	0.0122	0.0428	0.0738	pCi/g	UJ,D-I	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Co-58	1.2	1.42	2.52	pCi/L	UJ,D-I	No
BM26-22D	Tier I	02/10/2010	PW	SA	Co-60	0.228	2.28	3.88	pCi/L	U	No

**Table 1  
Summary of Radiological Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Activity or Concentration	Counting Error	Reporting Limit	Units	Flag	Detected ?
BM26-23A	Tier I	02/24/2010	PW	SA	Co-60	-0.682	1.54	2.35	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Co-60	-0.746	1.65	2.64	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Co-60	0.748	1.63	2.85	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Co-60	-0.0907	1.61	2.67	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Co-60	2.65	2.08	3.94	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Co-60	-0.452	1.39	2.26	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Co-60	-0.693	1.55	2.5	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Co-60	-0.768	1.72	2.7	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Co-60	0.176	2.18	3.7	pCi/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Co-60	-0.722	1.96	3.09	pCi/L	U	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	Co-60	-0.0192	0.0329	0.0515	pCi/g	U	No
WF-15-16	Tier II	03/05/2010	DC	SA	Co-60	0.00115	0.0585	0.0956	pCi/g	U	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	Co-60	-0.0054	0.0358	0.0587	pCi/g	U	No
WF-15-9	Tier II	02/04/2010	DC	SA	Co-60	-0.00629	0.039	0.0628	pCi/g	U	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Co-60	0.0308	0.038	0.0713	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Co-60	0.0108	1.4	2.34	pCi/L	U	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Co-60	0.0202	0.0497	0.088	pCi/g	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Cr-51	-0.267	19.5	33.2	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Cr-51	2.02	12.4	20.4	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Cr-51	-12.2	12.2	20.1	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Cr-51	-0.338	14	23.7	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Cr-51	0.569	12.7	21.6	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Cr-51	6.53	13.9	24.5	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Cr-51	8.46	11.5	20.2	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Cr-51	7.23	15.1	25.9	pCi/L	UJ,D-I	No
BM26-24C	Tier II	03/02/2010	PW	SA	Cr-51	10.4	13.7	24.3	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Cr-51	-9.14	15.8	26.1	pCi/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Cr-51	7.35	23.1	37.1	pCi/L	U	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	Cr-51	0.124	0.304	0.545	pCi/g	U	No

**Table 1  
Summary of Radiological Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Activity or Concentration	Counting Error	Reporting Limit	Units	Flag	Detected ?
WF-15-16	Tier II	03/05/2010	DC	SA	Cr-51	0.385	0.567	0.987	pCi/g	U	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	Cr-51	0.251	0.435	0.769	pCi/g	U	No
WF-15-9	Tier II	02/04/2010	DC	SA	Cr-51	0.202	0.812	1.43	pCi/g	U	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Cr-51	-0.088	0.337	0.571	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Cr-51	-2	15.3	25.9	pCi/L	U	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Cr-51	-0.0837	0.389	0.648	pCi/g	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Cs-134	2.79	3.17	5	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Cs-134	1.29	1.72	2.97	pCi/L	UJ,D-I	No
BM26-23B	Tier I	02/10/2010	PW	SA	Cs-134	2.57	2.06	3.72	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Cs-134	0.395	1.91	3.17	pCi/L	UJ,D-I	No
BM26-33C	Tier I	03/02/2010	PW	SA	Cs-134	0.256	2.13	3.12	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Cs-134	3.39	2.36	4.38	pCi/L	UJ,D-I	No
BM26-34D	Tier I	03/02/2010	PW	SA	Cs-134	2.21	1.72	3.08	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Cs-134	1.53	1.69	3.02	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Cs-134	3.4	2.06	3.82	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Cs-134	2.48	2.48	4.61	pCi/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Cs-134	0.695	3.11	4.64	pCi/L	U	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	Cs-134	0.0381	0.0426	0.0768	pCi/g	U	No
WF-15-16	Tier II	03/05/2010	DC	SA	Cs-134	0.0775	0.0648	0.12	pCi/g	UJ,D-I	No
WF-15-9	Tier II	02/04/2010	DC	SA	Cs-134	0.0831	0.0497	0.0963	pCi/g	UJ,D-I	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Cs-134	0.0711	0.0424	0.083	pCi/g	UJ,D-I	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Cs-134	0.0883	0.0515	0.1	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Cs-134	0.546	1.68	2.88	pCi/L	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Cs-136	2.73	3.33	6.1	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Cs-136	2.12	2.33	4.21	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Cs-136	0.579	2.41	4.19	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Cs-136	1.17	2.82	4.92	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Cs-136	-0.0572	2.11	3.6	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Cs-136	-1.61	3.64	5.85	pCi/L	U	No

**Table 1  
Summary of Radiological Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Activity or Concentration	Counting Error	Reporting Limit	Units	Flag	Detected ?
BM26-34D	Tier I	03/02/2010	PW	SA	Cs-136	-0.639	1.96	3.24	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Cs-136	-0.428	3.66	6.22	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Cs-136	-1.17	2.18	3.48	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Cs-136	-0.883	3.27	5.43	pCi/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Cs-136	4.6	3.73	7.12	pCi/L	UJ,D-I	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	Cs-136	0.00532	0.0859	0.145	pCi/g	U	No
WF-15-16	Tier II	03/05/2010	DC	SA	Cs-136	-0.0373	0.166	0.267	pCi/g	U	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	Cs-136	-0.034	0.12	0.199	pCi/g	U	No
WF-15-9	Tier II	02/04/2010	DC	SA	Cs-136	0.123	0.578	0.994	pCi/g	U	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Cs-136	-0.0732	0.105	0.157	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Cs-136	-1.25	3.34	5.54	pCi/L	U	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Cs-136	-0.0602	0.116	0.178	pCi/g	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Cs-137	-0.486	2.18	3.54	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Cs-137	0.754	1.32	2.28	pCi/L	UJ,D-I	No
BM26-23B	Tier I	02/10/2010	PW	SA	Cs-137	0.523	3	4.37	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Cs-137	0.883	1.59	2.71	pCi/L	UJ,D-I	No
BM26-33C	Tier I	03/02/2010	PW	SA	Cs-137	0.408	1.85	2.82	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Cs-137	-1.88	2.58	3.23	pCi/L	UJ,D-I	No
BM26-34D	Tier I	03/02/2010	PW	SA	Cs-137	1.02	1.49	2.57	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Cs-137	1.85	1.48	2.7	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Cs-137	0.427	1.69	2.83	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Cs-137	-3.54	3.57	5.43	pCi/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Cs-137	-1.37	2.41	3.91	pCi/L	U	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	Cs-137	-0.0199	0.0316	0.0518	pCi/g	U	No
WF-15-16	Tier II	03/05/2010	DC	SA	Cs-137	-0.0251	0.0502	0.0813	pCi/g	U	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	Cs-137	-0.0204	0.0421	0.0685	pCi/g	U	No
WF-15-9	Tier II	02/04/2010	DC	SA	Cs-137	0.00107	0.0384	0.0639	pCi/g	U	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Cs-137	-0.0216	0.0374	0.0629	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Cs-137	0.00126	0.0462	0.0805	pCi/g	U	No

**Table 1  
Summary of Radiological Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Activity or Concentration	Counting Error	Reporting Limit	Units	Flag	Detected ?
WF-PI-15	Tier II	03/12/2010	MF	SA	Cs-137	-0.251	1.5	2.52	pCi/L	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Eu-152	2.02	7.31	11	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Eu-152	-2.48	3.87	6.07	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Eu-152	1.58	4.32	7.29	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Eu-152	0.465	5.37	7.5	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Eu-152	-0.0274	4.4	7.44	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Eu-152	1.07	5.31	8.12	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Eu-152	-0.181	5.18	7.17	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Eu-152	6.12	4.15	7.36	pCi/L	UJ,D-I	No
BM26-24C	Tier II	03/02/2010	PW	SA	Eu-152	3.88	5.22	8.47	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Eu-152	-1.23	6.18	9.14	pCi/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Eu-152	-0.64	6.81	10.6	pCi/L	U	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	Eu-152	-0.011	0.0975	0.147	pCi/g	U	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	Eu-152	0.0429	0.117	0.18	pCi/g	U	No
WF-15-9	Tier II	02/04/2010	DC	SA	Eu-152	-0.0557	0.126	0.157	pCi/g	U	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Eu-152	0.0126	0.0967	0.148	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Eu-152	0.0627	0.103	0.176	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Eu-152	-1.32	4.12	6.86	pCi/L	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Eu-154	1.01	6.41	11	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Eu-154	-3.56	4	6.03	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Eu-154	-0.438	4.9	8.17	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Eu-154	-1.25	4.43	7.27	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Eu-154	0.187	4.52	7.63	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Eu-154	-0.859	5.37	8.66	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Eu-154	-0.726	4.56	7.58	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Eu-154	-0.218	4.55	7.66	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Eu-154	-1.5	4.45	7.09	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Eu-154	4.06	6.88	12.4	pCi/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Eu-154	2.15	6.42	11.3	pCi/L	U	No



**Table 1  
Summary of Radiological Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Activity or Concentration	Counting Error	Reporting Limit	Units	Flag	Detected ?
WF-15-10BB	Tier II	03/12/2010	DC	SA	Eu-154	-0.017	0.0943	0.158	pCi/g	U	No
WF-15-16	Tier II	03/05/2010	DC	SA	Eu-154	0.0593	0.184	0.311	pCi/g	U	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	Eu-154	0.0678	0.133	0.235	pCi/g	U	No
WF-15-9	Tier II	02/04/2010	DC	SA	Eu-154	-0.0265	0.132	0.214	pCi/g	U	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Eu-154	0.0697	0.113	0.207	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Eu-154	1.71	3.52	6.24	pCi/L	U	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Eu-154	0.0584	0.142	0.252	pCi/g	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Eu-155	6.26	8.48	14.4	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Eu-155	0.876	4.35	7.66	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Eu-155	-0.444	4.15	7.21	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Eu-155	6.01	5.9	10	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Eu-155	0.158	5.97	10.1	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Eu-155	4.68	4.35	7.64	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Eu-155	4.55	5.71	9.63	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Eu-155	-0.374	5	8.26	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Eu-155	-0.237	6.77	11.6	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Eu-155	7.45	5.84	10.6	pCi/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Eu-155	-0.412	8.68	14.7	pCi/L	U	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	Eu-155	0.0761	0.0908	0.164	pCi/g	U	No
WF-15-16	Tier II	03/05/2010	DC	SA	Eu-155	0.18	0.146	0.252	pCi/g	U	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	Eu-155	-0.0254	0.11	0.186	pCi/g	U	No
WF-15-9	Tier II	02/04/2010	DC	SA	Eu-155	-0.00566	0.0953	0.164	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Eu-155	0.344	5.5	9.35	pCi/L	U	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Eu-155	0.0814	0.108	0.187	pCi/g	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Fe-59	-0.16	4.32	7.29	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Fe-59	2.26	2.73	4.89	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Fe-59	-1.03	3.26	5.43	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Fe-59	-2.19	3.28	5.29	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Fe-59	0.0136	2.94	5.02	pCi/L	U	No

**Table 1  
Summary of Radiological Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Activity or Concentration	Counting Error	Reporting Limit	Units	Flag	Detected ?
BM26-34A	Tier I	02/24/2010	PW	SA	Fe-59	-3.06	4	6.18	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Fe-59	1.08	2.74	4.77	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Fe-59	1.34	3.35	5.88	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Fe-59	0.357	3.06	5.17	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Fe-59	-2.91	3.74	5.69	pCi/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Fe-59	-0.87	3.9	6.46	pCi/L	U	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	Fe-59	0.00154	0.0775	0.13	pCi/g	U	No
WF-15-16	Tier II	03/05/2010	DC	SA	Fe-59	-0.016	0.116	0.188	pCi/g	U	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	Fe-59	-0.0239	0.106	0.176	pCi/g	U	No
WF-15-9	Tier II	02/04/2010	DC	SA	Fe-59	0.00263	0.135	0.227	pCi/g	U	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Fe-59	0.0307	0.0928	0.159	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Fe-59	-0.0146	0.105	0.168	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Fe-59	-1.54	3.24	5.31	pCi/L	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Gross Alpha	57.6	54.1	89.8	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Gross Alpha	6.87	31.3	56.5	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Gross Alpha	12.9	17.8	30.6	pCi/L	UJ,MS,D-L	No
BM26-34A	Tier I	02/24/2010	PW	SA	Gross Alpha	21	33.2	57.2	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Gross Alpha	-1.42	30.4	55.2	pCi/L	UJ,MS,D-L	No
BM26-24C	Tier II	03/02/2010	PW	SA	Gross Alpha	-15.9	20	39.3	pCi/L	UJ,MS,D-L	No
BM34-22D	Tier II	01/13/2010	PW	SA	Gross Alpha	10.9	25.3	43.8	pCi/L	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Gross Alpha	14.6	13.5	21.6	pCi/L	UJ,D-I	No
BM26-34D	Tier I	03/02/2010	PW	SA	Gross Beta	-15.5	22.5	39.8	pCi/L	UJ,MS,D-L	No
BM26-24C	Tier II	03/02/2010	PW	SA	Gross Beta	25.8	20.4	33.7	pCi/L	UJ,MS,D-L	No
BM34-22D	Tier II	01/13/2010	PW	SA	Gross Beta	26.9	28.1	47	pCi/L	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Gross Beta	-10.2	16	28.8	pCi/L	UJ,D-I	No
BM26-22D	Tier I	02/10/2010	PW	SA	Hg-203	-0.118	2.35	4	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Hg-203	0.678	1.64	2.37	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Hg-203	1.04	1.46	2.44	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Hg-203	-0.538	1.56	2.63	pCi/L	U	No

**Table 1  
Summary of Radiological Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Activity or Concentration	Counting Error	Reporting Limit	Units	Flag	Detected ?
BM26-33C	Tier I	03/02/2010	PW	SA	Hg-203	-0.89	1.48	2.48	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Hg-203	0.903	1.56	2.77	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Hg-203	0.949	1.45	2.52	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Hg-203	1.3	1.59	2.78	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Hg-203	-0.593	1.76	2.84	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Hg-203	-0.485	2.09	3.33	pCi/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Hg-203	-1.79	2.28	3.75	pCi/L	U	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	Hg-203	0.0173	0.0322	0.0584	pCi/g	U	No
WF-15-16	Tier II	03/05/2010	DC	SA	Hg-203	-0.00976	0.06	0.1	pCi/g	U	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	Hg-203	0.0503	0.0454	0.0825	pCi/g	U	No
WF-15-9	Tier II	02/04/2010	DC	SA	Hg-203	0.000535	0.0606	0.106	pCi/g	U	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Hg-203	0.00431	0.0383	0.0672	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Hg-203	1.02	1.61	2.82	pCi/L	U	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Hg-203	0.00823	0.0401	0.0691	pCi/g	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Ir-192	-0.81	2.11	3.51	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Ir-192	-0.826	1.32	2.09	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Ir-192	0.355	1.4	2.43	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Ir-192	0.0752	1.47	2.5	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Ir-192	0.446	1.45	2.5	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Ir-192	-0.0515	1.54	2.65	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Ir-192	-1.92	1.33	2.1	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Ir-192	-0.686	1.44	2.37	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Ir-192	-0.172	1.55	2.65	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Ir-192	0.182	1.83	3.17	pCi/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Ir-192	0.138	2.17	3.71	pCi/L	U	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	Ir-192	0.00382	0.0303	0.0533	pCi/g	U	No
WF-15-16	Tier II	03/05/2010	DC	SA	Ir-192	-0.0595	0.051	0.0782	pCi/g	U	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	Ir-192	-0.00885	0.0406	0.0684	pCi/g	U	No
WF-15-9	Tier II	02/04/2010	DC	SA	Ir-192	0.0179	0.0453	0.0804	pCi/g	U	No

**Table 1  
Summary of Radiological Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Activity or Concentration	Counting Error	Reporting Limit	Units	Flag	Detected ?
WF-15-9BB	Tier II	03/05/2010	DC	SA	Ir-192	0.0164	0.0313	0.0559	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Ir-192	0.0182	0.0375	0.0654	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Ir-192	0.269	1.49	2.55	pCi/L	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Kr-85	-1320	659	983	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Kr-85	-1900	447	583	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Kr-85	-2370	513	612	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Kr-85	-1390	469	692	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Kr-85	-2340	489	612	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Kr-85	-2840	584	646	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Kr-85	-1420	455	662	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Kr-85	-1430	443	650	pCi/L	UJ,D-I	No
BM26-24C	Tier II	03/02/2010	PW	SA	Kr-85	-908	536	838	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Kr-85	574	567	899	pCi/L	UJ,D-I	No
RF17-12C	Tier II	03/08/2010	PW	SA	Kr-85	-2680	723	904	pCi/L	U	No
WF-15-9	Tier II	02/04/2010	DC	SA	Kr-85	10.4	8.82	14.3	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Kr-85	-3030	489	526	pCi/L	UJ,D-I	No
BM26-22D	Tier I	02/10/2010	PW	SA	Mn-54	0.2	2.1	3.63	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Mn-54	-0.449	1.21	2.03	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Mn-54	-1.82	3.38	2.48	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Mn-54	-0.0854	1.74	2.64	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Mn-54	-0.116	1.61	2.68	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Mn-54	2.08	1.81	3.31	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Mn-54	-1.51	1.56	2.12	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Mn-54	0.228	1.45	2.45	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Mn-54	1.13	1.51	2.7	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Mn-54	-1.25	2.34	3.71	pCi/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Mn-54	-0.43	2.19	3.58	pCi/L	U	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	Mn-54	-0.0272	0.0342	0.0538	pCi/g	U	No
WF-15-16	Tier II	03/05/2010	DC	SA	Mn-54	-0.0273	0.0551	0.088	pCi/g	U	No

**Table 1  
Summary of Radiological Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Activity or Concentration	Counting Error	Reporting Limit	Units	Flag	Detected ?
WF-15-16BB	Tier II	03/05/2010	DC	SA	Mn-54	0.0097	0.0447	0.0759	pCi/g	U	No
WF-15-9	Tier II	02/04/2010	DC	SA	Mn-54	0.00595	0.0448	0.0773	pCi/g	U	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Mn-54	-0.00724	0.0375	0.0623	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Mn-54	0.0161	0.0404	0.0705	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Mn-54	0.511	1.37	2.35	pCi/L	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Na-22	0.309	2.28	3.89	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Na-22	-1.2	1.41	2.14	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Na-22	-0.474	1.77	2.91	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Na-22	-0.382	1.56	2.57	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Na-22	0.0511	1.58	2.67	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Na-22	-0.256	1.89	3.06	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Na-22	-0.241	1.6	2.66	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Na-22	0.0484	1.6	2.72	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Na-22	-0.687	1.56	2.46	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Na-22	1.96	2.39	4.42	pCi/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Na-22	0.756	2.25	3.95	pCi/L	U	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	Na-22	-0.000246	0.0328	0.0564	pCi/g	U	No
WF-15-16	Tier II	03/05/2010	DC	SA	Na-22	0.0176	0.0654	0.11	pCi/g	U	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	Na-22	0.0295	0.046	0.0829	pCi/g	U	No
WF-15-9	Tier II	02/04/2010	DC	SA	Na-22	-0.00896	0.0475	0.0769	pCi/g	U	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Na-22	0.0231	0.0397	0.0725	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Na-22	0.0388	0.0486	0.09	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Na-22	0.649	1.25	2.22	pCi/L	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Nb-94	0.647	1.99	3.38	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Nb-94	-0.193	1.27	2.07	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Nb-94	0.348	1.52	2.62	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Nb-94	0.489	1.5	2.52	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Nb-94	0.512	1.44	2.48	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Nb-94	1.52	1.72	3.11	pCi/L	U	No

**Table 1  
Summary of Radiological Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Activity or Concentration	Counting Error	Reporting Limit	Units	Flag	Detected ?
BM26-34D	Tier I	03/02/2010	PW	SA	Nb-94	0.72	1.39	2.37	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Nb-94	-1.92	1.44	2.22	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Nb-94	-0.233	1.61	2.63	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Nb-94	0.695	2.09	3.65	pCi/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Nb-94	-1.04	2	3.23	pCi/L	U	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	Nb-94	0.00426	0.0287	0.0506	pCi/g	U	No
WF-15-16	Tier II	03/05/2010	DC	SA	Nb-94	0.0205	0.0465	0.0813	pCi/g	U	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	Nb-94	-0.00857	0.0374	0.0619	pCi/g	U	No
WF-15-9	Tier II	02/04/2010	DC	SA	Nb-94	-0.0025	0.0358	0.0616	pCi/g	U	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Nb-94	0.0105	0.0324	0.0572	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Nb-94	0.403	1.3	2.24	pCi/L	U	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Nb-94	-0.00113	0.0365	0.0617	pCi/g	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Nb-95	0.725	2.32	3.92	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Nb-95	-0.796	1.69	2.19	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Nb-95	1.05	1.96	3	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Nb-95	0.941	1.55	2.64	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Nb-95	-1.96	2.51	2.6	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Nb-95	0.233	1.79	3.1	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Nb-95	-0.135	1.41	2.3	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Nb-95	0.0171	1.65	2.77	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Nb-95	-1.73	1.83	2.74	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Nb-95	2.23	2.46	4.46	pCi/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Nb-95	3.31	2.64	4.5	pCi/L	UJ,D-I	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	Nb-95	0.0149	0.038	0.0662	pCi/g	U	No
WF-15-16	Tier II	03/05/2010	DC	SA	Nb-95	0.0754	0.0659	0.12	pCi/g	U	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	Nb-95	0.0269	0.0569	0.0874	pCi/g	U	No
WF-15-9	Tier II	02/04/2010	DC	SA	Nb-95	0.0206	0.0687	0.121	pCi/g	U	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Nb-95	0.0241	0.0405	0.0653	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Nb-95	0.0361	0.0538	0.0855	pCi/g	U	No

**Table 1  
Summary of Radiological Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Activity or Concentration	Counting Error	Reporting Limit	Units	Flag	Detected ?
WF-PI-15	Tier II	03/12/2010	MF	SA	Nb-95	1.25	1.65	2.9	pCi/L	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Nd-147	-9.49	17.1	27.3	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Nd-147	-7.72	11.8	19.1	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Nd-147	-8.08	11.4	17.7	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Nd-147	-0.492	14.8	24.6	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Nd-147	-0.577	12	19.5	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Nd-147	-1.23	16.6	27.4	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Nd-147	5.34	10.3	17.6	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Nd-147	-13.1	20.3	33.4	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Nd-147	-4.76	12.1	19.8	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Nd-147	-1.17	16.1	26.4	pCi/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Nd-147	-9.84	22.8	31.5	pCi/L	U	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	Nd-147	-0.0298	0.408	0.721	pCi/g	U	No
WF-15-16	Tier II	03/05/2010	DC	SA	Nd-147	-0.0104	0.831	1.36	pCi/g	U	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	Nd-147	0.406	0.691	1.25	pCi/g	U	No
WF-15-9	Tier II	02/04/2010	DC	SA	Nd-147	1.81	3.84	6.72	pCi/g	U	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Nd-147	-0.697	0.629	0.922	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Nd-147	2.46	20.7	34.1	pCi/L	U	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Nd-147	-0.249	0.52	0.806	pCi/g	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Np-239	3.61	15.3	25.4	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Np-239	0.572	11.3	19.7	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Np-239	1.5	7.84	13.6	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Np-239	-5.73	14.9	24.3	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Np-239	-21.2	15	24.2	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Np-239	-3.44	11.8	19.8	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Np-239	0.262	13.9	22.9	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Np-239	-4.56	12.5	20.4	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Np-239	-4.55	17.8	30.1	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Np-239	-3.16	11.1	19	pCi/L	U	No

**Table 1  
Summary of Radiological Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Activity or Concentration	Counting Error	Reporting Limit	Units	Flag	Detected ?
RF17-12C	Tier II	03/08/2010	PW	SA	Np-239	2.37	21	35.7	pCi/L	U	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	Np-239	0.397	0.343	0.626	pCi/g	UJ,D-I	No
WF-15-16	Tier II	03/05/2010	DC	SA	Np-239	0.143	0.563	0.933	pCi/g	U	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	Np-239	0.0106	0.42	0.715	pCi/g	U	No
WF-15-9	Tier II	02/04/2010	DC	SA	Np-239	-0.104	0.371	0.63	pCi/g	U	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Np-239	-0.0316	0.347	0.592	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Np-239	-0.227	0.39	0.625	pCi/g	UJ,D-I	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Np-239	-2.25	13.7	23	pCi/L	UJ,D-I	No
BM26-22D	Tier I	02/10/2010	PW	SA	Pb-210	-297	259	397	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Pb-210	-143	183	229	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Pb-210	26.7	43.2	67.4	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Pb-210	-154	187	271	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Pb-210	-139	433	548	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Pb-210	-11.1	43.9	64.2	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Pb-210	-248	180	250	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Pb-210	2.01	128	183	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Pb-210	-116	599	971	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Pb-210	12.9	82	63.8	pCi/L	UJ,D-I	No
RF17-12C	Tier II	03/08/2010	PW	SA	Pb-210	-229	577	796	pCi/L	U	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	Pb-210	-0.00576	3.45	6.19	pCi/g	U	No
WF-15-16	Tier II	03/05/2010	DC	SA	Pb-210	-8.54	14.6	23.1	pCi/g	U	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	Pb-210	2.76	4.9	8.83	pCi/g	U	No
WF-15-9	Tier II	02/04/2010	DC	SA	Pb-210	0.555	0.565	1.11	pCi/g	U	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Pb-210	1.11	7.59	13.6	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Pb-210	-0.537	9.31	15.8	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Pb-210	-212	421	507	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Pb-212	5.73	4.45	6.38	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Pb-212	-0.83	3.8	5.45	pCi/L	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Pb-212	-1.31	3.54	4.89	pCi/L	U	No



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Summary of Radiological Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Activity or Concentration	Counting Error	Reporting Limit	Units	Flag	Detected ?
WF-PI-15	Tier II	03/12/2010	MF	SA	Pb-214	-4.93	4.54	5.7	pCi/L	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Pm-144	-1.89	1.98	2.97	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Pm-144	0.786	1.23	2.13	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Pm-144	0.821	1.54	2.71	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Pm-144	0.206	1.44	2.4	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Pm-144	-0.0913	1.35	2.28	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Pm-144	-2.07	1.69	2.65	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Pm-144	-1.85	1.35	2.02	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Pm-144	-0.046	1.45	2.45	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Pm-144	0.28	1.6	2.66	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Pm-144	0.0126	2.11	3.59	pCi/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Pm-144	-0.482	2.24	3.73	pCi/L	U	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	Pm-144	0.0202	0.0295	0.0543	pCi/g	U	No
WF-15-16	Tier II	03/05/2010	DC	SA	Pm-144	-0.0114	0.0488	0.0808	pCi/g	U	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	Pm-144	0.00581	0.0366	0.0628	pCi/g	U	No
WF-15-9	Tier II	02/04/2010	DC	SA	Pm-144	-0.035	0.0411	0.0663	pCi/g	U	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Pm-144	0.0151	0.0321	0.0574	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Pm-144	-0.651	1.36	2.23	pCi/L	U	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Pm-144	-0.0031	0.0374	0.0628	pCi/g	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Pm-146	-1.58	2.75	4.43	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Pm-146	-0.129	1.52	2.6	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Pm-146	-0.171	2.02	3.37	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Pm-146	0.0141	1.91	3.21	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Pm-146	0.848	2.4	3.32	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Pm-146	0.382	2.02	3.44	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Pm-146	-0.805	1.78	2.92	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Pm-146	-0.245	1.76	2.88	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Pm-146	0.926	2.15	3.71	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Pm-146	0.772	2.59	4.44	pCi/L	U	No

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Summary of Radiological Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Activity or Concentration	Counting Error	Reporting Limit	Units	Flag	Detected ?
RF17-12C	Tier II	03/08/2010	PW	SA	Pm-146	-1.99	2.77	4.32	pCi/L	U	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	Pm-146	0.00533	0.0365	0.0628	pCi/g	U	No
WF-15-16	Tier II	03/05/2010	DC	SA	Pm-146	-0.0443	0.0581	0.0894	pCi/g	U	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	Pm-146	0.0374	0.0473	0.0833	pCi/g	U	No
WF-15-9	Tier II	02/04/2010	DC	SA	Pm-146	0.0166	0.0454	0.079	pCi/g	U	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Pm-146	0.0344	0.0413	0.074	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Pm-146	1.5	1.73	3	pCi/L	U	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Pm-146	-0.034	0.0451	0.0691	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Ra-228	-2.53	8.19	10.6	pCi/L	UJ,D-I	No
BM26-22D	Tier I	02/10/2010	PW	SA	Ru-106	14.3	19.4	34.2	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Ru-106	-14.7	13.3	18.2	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Ru-106	0.0406	13.8	23.8	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Ru-106	4.49	13.7	23.2	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Ru-106	-9.28	13.4	21.9	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Ru-106	-4.7	16.1	26	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Ru-106	-11.7	12.7	19.9	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Ru-106	-3	13.3	22.4	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Ru-106	-1.87	14.6	24	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Ru-106	-7.68	18.9	31.4	pCi/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Ru-106	-3.05	21.4	36.2	pCi/L	U	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	Ru-106	-0.158	0.251	0.413	pCi/g	U	No
WF-15-16	Tier II	03/05/2010	DC	SA	Ru-106	0.031	0.432	0.707	pCi/g	U	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	Ru-106	0.0898	0.328	0.574	pCi/g	U	No
WF-15-9	Tier II	02/04/2010	DC	SA	Ru-106	0.0699	0.364	0.617	pCi/g	U	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Ru-106	0.208	0.291	0.513	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Ru-106	-3.24	12.4	20.9	pCi/L	U	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Ru-106	-0.0703	0.336	0.529	pCi/g	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Sb-124	-1.01	4.98	8	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Sb-124	0.227	3.12	5.33	pCi/L	UJ,D-I	No

**Table 1  
Summary of Radiological Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Activity or Concentration	Counting Error	Reporting Limit	Units	Flag	Detected ?
BM26-23B	Tier I	02/10/2010	PW	SA	Sb-124	-0.609	3.22	5.34	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Sb-124	0.415	3.56	5.98	pCi/L	UJ,D-I	No
BM26-33C	Tier I	03/02/2010	PW	SA	Sb-124	-2.28	3.07	4.75	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Sb-124	-1.7	4.43	7.07	pCi/L	UJ,D-I	No
BM26-34D	Tier I	03/02/2010	PW	SA	Sb-124	2.13	3.5	6.15	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Sb-124	-2.81	3.72	5.54	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Sb-124	-1.4	3.68	5.92	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Sb-124	1.8	4.36	7.91	pCi/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Sb-124	-0.251	5.2	8.8	pCi/L	U	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	Sb-124	0.0581	0.0773	0.146	pCi/g	U	No
WF-15-16	Tier II	03/05/2010	DC	SA	Sb-124	-0.0224	0.105	0.167	pCi/g	U	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	Sb-124	0.0262	0.0842	0.151	pCi/g	U	No
WF-15-9	Tier II	02/04/2010	DC	SA	Sb-124	-0.0119	0.0965	0.158	pCi/g	U	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Sb-124	0.0365	0.0695	0.129	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Sb-124	0.274	3.72	6.38	pCi/L	U	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Sb-124	-0.00964	0.0977	0.158	pCi/g	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Sb-125	2.9	5.95	10.3	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Sb-125	-0.278	3.38	5.79	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Sb-125	1.88	4.1	7.06	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Sb-125	1.2	3.96	6.77	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Sb-125	0.307	4.1	6.85	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Sb-125	-6.87	4.32	6.5	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Sb-125	-0.965	3.67	6.1	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Sb-125	-0.532	3.79	6.2	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Sb-125	2.47	4.4	7.66	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Sb-125	0.648	5.54	9.4	pCi/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Sb-125	-4.23	5.81	9.12	pCi/L	U	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	Sb-125	0.0479	0.0816	0.146	pCi/g	U	No
WF-15-16	Tier II	03/05/2010	DC	SA	Sb-125	-0.0067	0.137	0.226	pCi/g	U	No

**Table 1  
Summary of Radiological Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Activity or Concentration	Counting Error	Reporting Limit	Units	Flag	Detected ?
WF-15-16BB	Tier II	03/05/2010	DC	SA	Sb-125	0.0431	0.0992	0.171	pCi/g	U	No
WF-15-9	Tier II	02/04/2010	DC	SA	Sb-125	0.0739	0.097	0.174	pCi/g	U	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Sb-125	0.0286	0.0771	0.135	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Sb-125	-0.397	3.77	6.23	pCi/L	U	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Sb-125	0.0117	0.0941	0.158	pCi/g	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Sn-113	-1	2.53	4.15	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Sn-113	-0.187	1.62	2.79	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Sn-113	0.237	1.82	3.1	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Sn-113	0.0924	1.89	3.2	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Sn-113	1.49	1.87	3.25	pCi/L	UJ,D-I	No
BM26-34A	Tier I	02/24/2010	PW	SA	Sn-113	-1.11	1.98	3.25	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Sn-113	-0.45	1.74	2.89	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Sn-113	-0.619	1.91	3.11	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Sn-113	0.639	1.99	3.44	pCi/L	UJ,D-I	No
BM34-22D	Tier II	01/13/2010	PW	SA	Sn-113	-2.36	2.66	4.22	pCi/L	UJ,D-I	No
RF17-12C	Tier II	03/08/2010	PW	SA	Sn-113	1.28	2.85	4.92	pCi/L	U	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	Sn-113	-0.0134	0.0415	0.0697	pCi/g	U	No
WF-15-16	Tier II	03/05/2010	DC	SA	Sn-113	-0.0155	0.0616	0.1	pCi/g	U	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	Sn-113	-0.0183	0.0507	0.0829	pCi/g	U	No
WF-15-9	Tier II	02/04/2010	DC	SA	Sn-113	0.00999	0.0562	0.0974	pCi/g	U	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Sn-113	0.0129	0.0434	0.0754	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Sn-113	-0.0299	0.0495	0.0786	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Sn-113	-0.349	1.88	3.13	pCi/L	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Sr-90	0.458	0.901	1.61	pCi/L	UJ,MS-L	No
BM26-23A	Tier I	02/24/2010	PW	SA	Sr-90	0.289	0.935	1.72	pCi/L	UJ,MS-L	No
BM26-23B	Tier I	02/10/2010	PW	SA	Sr-90	0.0977	0.855	1.65	pCi/L	UJ,MS-L	No
BM26-23C	Tier I	02/24/2010	PW	SA	Sr-90	1.69	1.14	1.7	pCi/L	UJ,MS-L	No
BM26-33C	Tier I	03/02/2010	PW	SA	Sr-90	-0.599	0.615	1.49	pCi/L	UJ,MS-L	No
BM26-34A	Tier I	02/24/2010	PW	SA	Sr-90	-0.317	0.843	1.79	pCi/L	UJ,MS-L	No

**Table 1  
Summary of Radiological Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Activity or Concentration	Counting Error	Reporting Limit	Units	Flag	Detected ?
BM26-34D	Tier I	03/02/2010	PW	SA	Sr-90	-0.428	0.79	1.72	pCi/L	UJ,MS-L	No
BM35-32A	Tier I	02/17/2010	PW	SA	Sr-90	0.475	0.732	1.28	pCi/L	UJ,MS,D-I	No
BM26-24C	Tier II	03/02/2010	PW	SA	Sr-90	-0.00809	0.709	1.44	pCi/L	UJ,MS-L	No
BM34-22D	Tier II	01/13/2010	PW	SA	Sr-90	-0.0325	0.81	1.61	pCi/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Sr-90	-0.225	0.859	1.79	pCi/L	U	No
WF-15-16	Tier II	03/05/2010	DC	SA	Sr-90	0.515	1	1.75	pCi/g	UJ,D-I	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	Sr-90	-0.0778	0.705	1.33	pCi/g	UJ,D-I	No
WF-15-9	Tier II	02/04/2010	DC	SA	Sr-90	-0.582	0.69	1.39	pCi/g	UJ,D-I	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Sr-90	0.407	0.712	1.24	pCi/g	UJ,D-I	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Sr-90	1.41	1.12	1.74	pCi/L	UJ,D-I	No
BM26-22D	Tier I	02/10/2010	PW	SA	Tc-99	-15.9	21.1	37.7	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Tc-99	-8.83	17.3	30.3	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Tc-99	-0.383	21.4	37.3	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Tc-99	-4.7	25.8	46.4	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Tc-99	-14	26.5	48.7	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Tc-99	-11.9	23.9	43.9	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Tc-99	5.48	25.2	44.2	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Tc-99	-4.44	22.1	38.4	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Tc-99	-7.63	17	30.1	pCi/L	UJ,Y/T-I	No
BM34-22D	Tier II	01/13/2010	PW	SA	Tc-99	-15.1	23.5	41.2	pCi/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Tc-99	-12.9	24.4	44.9	pCi/L	U	No
WF-15-16	Tier II	03/05/2010	DC	SA	Tc-99	-1.22	1.37	2.49	pCi/g	U	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	Tc-99	-1.91	1.47	2.72	pCi/g	U	No
WF-15-9	Tier II	02/04/2010	DC	SA	Tc-99	-2.97	2.43	4.49	pCi/g	U	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Tc-99	0.105	1.52	2.64	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Tc-99	2.59	16	27.4	pCi/L	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Th-230	422	2870	1510	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Th-230	-477	575	802	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Th-230	347	2240	438	pCi/L	U	No

**Table 1  
Summary of Radiological Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Activity or Concentration	Counting Error	Reporting Limit	Units	Flag	Detected ?
BM26-23C	Tier I	02/24/2010	PW	SA	Th-230	-644	674	967	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Th-230	304	725	1150	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Th-230	-149	342	508	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Th-230	-911	664	933	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Th-230	646	430	752	pCi/L	UJ,D-I	No
BM26-24C	Tier II	03/02/2010	PW	SA	Th-230	1110	1180	1540	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Th-230	515	3320	633	pCi/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Th-230	-1540	943	1510	pCi/L	UJ,D-I	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Th-230	976	787	1080	pCi/L	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Th-234	7.52	179	167	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Th-234	-24.8	70	108	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Th-234	-12.9	38.7	59.1	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Th-234	-72.1	84	123	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Th-234	27.2	137	185	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Th-234	-24.8	43	63.5	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Th-234	-107	83.4	118	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Th-234	-77.6	63.4	91.6	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Th-234	-16.2	178	225	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Th-234	-14.4	50.6	82.1	pCi/L	UJ,D-I	No
RF17-12C	Tier II	03/08/2010	PW	SA	Th-234	87	167	273	pCi/L	U	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	Th-234	-0.598	1.29	2.27	pCi/g	U	No
WF-15-16	Tier II	03/05/2010	DC	SA	Th-234	-3.31	2.81	4.32	pCi/g	UJ,D-I	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	Th-234	1.06	1.46	2.58	pCi/g	UJ,D-I	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Th-234	0.0942	1.67	2.83	pCi/g	UJ,D-I	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Th-234	-0.231	1.95	3.15	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Th-234	-9.64	128	177	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Tl-208	2.02	2.27	2.25	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Tl-208	1.99	2.49	3.72	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Tl-208	1.5	2.73	3.24	pCi/L	U	No

**Table 1  
Summary of Radiological Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Activity or Concentration	Counting Error	Reporting Limit	Units	Flag	Detected ?
BM26-34A	Tier I	02/24/2010	PW	SA	TI-208	0.614	2.77	3.82	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	TI-208	1.23	2.67	3.11	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	TI-208	-0.964	2.26	3.02	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	TI-208	2.52	2.74	3.79	pCi/L	UJ,D-I	No
WF-PI-15	Tier II	03/12/2010	MF	SA	TI-208	0.064	2.5	2.74	pCi/L	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Total Uranium	0.0533	0.00584	0.66	ug/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Total Uranium	0.282	0.0128	0.66	ug/L	UJ,D-I	No
BM26-23B	Tier I	02/10/2010	PW	SA	Total Uranium	0.32	0.0476	1.32	ug/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Total Uranium	0.602	0.0393	0.66	ug/L	UJ,MS-L	No
BM26-34A	Tier I	02/24/2010	PW	SA	Total Uranium	0.244	0.016	0.66	ug/L	UJ,D-I	No
BM26-34D	Tier I	03/02/2010	PW	SA	Total Uranium	0.29	0.02	0.66	ug/L	UJ,MS-L	No
BM35-32A	Tier I	02/17/2010	PW	SA	Total Uranium	0.266	0.013	0.66	ug/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Total Uranium	0.255	0.02	0.66	ug/L	UJ,MS-L	No
BM34-22D	Tier II	01/13/2010	PW	SA	Total Uranium	0.245	0.0126	0.66	ug/L	UJ,D-I	No
RF17-12C	Tier II	03/08/2010	PW	SA	Total Uranium	0.0644	0.00567	0.66	ug/L	UJ,D-I	No
BM26-22D	Tier I	02/10/2010	PW	SA	Tritium	10	0	10	TU	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Tritium	10	0	10	TU	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Tritium	10	0	10	TU	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Tritium	10	0	10	TU	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Tritium	10	0	10	TU	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Tritium	10	0	10	TU	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Tritium	10	0	10	TU	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Tritium	10	0	10	TU	U	No
BM26-24B	Tier II	03/02/2010	PW	SA	Tritium	10	0	10	TU	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Tritium	10	0	10	TU	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Tritium	10.3	0	10.3	TU	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Tritium	10	0	10	TU	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Tritium	10	0	10	TU	U	No
BM26-22D	Tier I	02/10/2010	NG	SA	Tritium C1	10	0	10	TU	U	No

**Table 1  
Summary of Radiological Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Activity or Concentration	Counting Error	Reporting Limit	Units	Flag	Detected ?
BM26-23A	Tier I	02/24/2010	NG	SA	Tritium C1	10	0	10	TU	U	No
BM26-23B	Tier I	02/10/2010	NG	SA	Tritium C1	10	0	10	TU	U	No
BM26-23C	Tier I	02/24/2010	NG	SA	Tritium C1	10	0	10	TU	U	No
BM26-33C	Tier I	03/02/2010	NG	SA	Tritium C1	11	11	0	TU	U	No
BM26-34A	Tier I	02/24/2010	NG	SA	Tritium C1	10	0	10	TU	U	No
BM26-34D	Tier I	03/02/2010	NG	SA	Tritium C1	10	0	10	TU	U	No
BM35-32A	Tier I	02/17/2010	NG	SA	Tritium C1	10	0	10	TU	U	No
BM26-24B	Tier II	03/02/2010	NG	SA	Tritium C1	10	0	10	TU	U	No
BM26-24C	Tier II	03/02/2010	NG	SA	Tritium C1	10	0	10	TU	U	No
BM34-22D	Tier II	01/13/2010	NG	SA	Tritium C1	10	0	0	TU	U	No
RF17-12C	Tier II	03/08/2010	NG	SA	Tritium C1	10	0	10	TU	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	U-235	-20.1	19	27.1	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	U-235	5.02	11.5	15.2	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	U-235	-3.81	11.6	15.3	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	U-235	12.9	13.8	17.9	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	U-235	-2.78	14.2	19.3	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	U-235	-2.47	11.9	15.9	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	U-235	-2.95	12.6	17.3	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	U-235	-3.23	12.6	15.6	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	U-235	-21.6	18.8	21.7	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	U-235	-2.38	15.4	23.3	pCi/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	U-235	11.9	18.8	28.5	pCi/L	U	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	U-235	-0.0381	0.179	0.32	pCi/g	UJ,D-I	No
WF-15-16	Tier II	03/05/2010	DC	SA	U-235	-0.0795	0.303	0.476	pCi/g	U	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	U-235	0.0369	0.231	0.383	pCi/g	U	No
WF-15-9	Tier II	02/04/2010	DC	SA	U-235	0.029	0.187	0.321	pCi/g	U	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	U-235	0.0529	0.182	0.306	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	U-235	17	17	18.5	pCi/L	UJ,D-I	No
WF-PI-15	Tier II	03/12/2010	MS	SA	U-235	0.0654	0.21	0.343	pCi/g	UJ,D-I	No



**Table 1  
Summary of Radiological Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Activity or Concentration	Counting Error	Reporting Limit	Units	Flag	Detected ?
BM26-22D	Tier I	02/10/2010	PW	SA	U-238	7.52	179	167	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	U-238	-24.8	70	108	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	U-238	-12.9	38.7	59.1	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	U-238	-72.1	84	123	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	U-238	27.2	137	185	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	U-238	-24.8	43	63.5	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	U-238	-107	83.4	118	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	U-238	-77.6	63.4	91.6	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	U-238	-16.2	178	225	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	U-238	-14.4	50.6	82.1	pCi/L	UJ,D-I	No
RF17-12C	Tier II	03/08/2010	PW	SA	U-238	87	167	273	pCi/L	U	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	U-238	-0.598	1.29	2.27	pCi/g	U	No
WF-15-16	Tier II	03/05/2010	DC	SA	U-238	-3.31	2.81	4.32	pCi/g	UJ,D-I	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	U-238	1.06	1.46	2.58	pCi/g	UJ,D-I	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	U-238	0.0942	1.67	2.83	pCi/g	UJ,D-I	No
WF-PI-15	Tier II	03/12/2010	MS	SA	U-238	-0.231	1.95	3.15	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	U-238	-9.64	128	177	pCi/L	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Y-88	0.374	2.51	4.24	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Y-88	0.54	1.56	2.73	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Y-88	0.849	1.68	2.99	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Y-88	0.675	1.72	2.95	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Y-88	1.28	1.61	2.96	pCi/L	U	No
BM26-34A	Tier I	02/24/2010	PW	SA	Y-88	-0.0807	2.22	3.69	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Y-88	0.838	1.67	2.91	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Y-88	1.1	1.68	3.05	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Y-88	-0.675	1.81	2.9	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Y-88	-3.47	3.02	3.4	pCi/L	UJ,D-I	No
RF17-12C	Tier II	03/08/2010	PW	SA	Y-88	-0.186	2.67	4.47	pCi/L	U	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	Y-88	0.00171	0.0228	0.0388	pCi/g	U	No

**Table 1  
Summary of Radiological Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Activity or Concentration	Counting Error	Reporting Limit	Units	Flag	Detected ?
WF-15-16	Tier II	03/05/2010	DC	SA	Y-88	-0.000381	0.0406	0.0672	pCi/g	U	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	Y-88	0.00258	0.0336	0.0574	pCi/g	U	No
WF-15-9	Tier II	02/04/2010	DC	SA	Y-88	0.00996	0.0362	0.0648	pCi/g	U	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Y-88	0.00734	0.0341	0.059	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Y-88	0.00616	0.0353	0.0606	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Y-88	-0.315	1.4	2.29	pCi/L	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Zn-65	-4.47	5.18	8.03	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Zn-65	0.642	3.29	4.9	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Zn-65	-2.18	3.82	5.22	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Zn-65	2.6	3.69	5.76	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Zn-65	-0.258	3.53	5.13	pCi/L	UJ,D-I	No
BM26-34A	Tier I	02/24/2010	PW	SA	Zn-65	0.902	4.58	6.75	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Zn-65	-3.49	3.09	4.77	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Zn-65	-5.11	3.46	5.22	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Zn-65	-5.38	3.5	5.01	pCi/L	UJ,D-I	No
BM34-22D	Tier II	01/13/2010	PW	SA	Zn-65	2.8	4.45	7.31	pCi/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Zn-65	2.61	5.11	8.11	pCi/L	U	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	Zn-65	0.0463	0.0801	0.127	pCi/g	U	No
WF-15-16	Tier II	03/05/2010	DC	SA	Zn-65	-0.277	0.15	0.196	pCi/g	U	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	Zn-65	0.0319	0.102	0.156	pCi/g	U	No
WF-15-9	Tier II	02/04/2010	DC	SA	Zn-65	0.052	0.11	0.169	pCi/g	U	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Zn-65	-0.0351	0.107	0.143	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Zn-65	0.0476	0.102	0.157	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Zn-65	-2.64	3.02	4.76	pCi/L	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Zr-95	0.536	3.95	6.59	pCi/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Zr-95	-0.695	2.47	3.97	pCi/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Zr-95	0.0081	2.66	4.5	pCi/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Zr-95	0.786	2.75	4.61	pCi/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Zr-95	-2.17	2.69	4.27	pCi/L	U	No

**Table 1  
Summary of Radiological Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Activity or Concentration	Counting Error	Reporting Limit	Units	Flag	Detected ?
BM26-34A	Tier I	02/24/2010	PW	SA	Zr-95	-1.39	3.22	5.33	pCi/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Zr-95	1.72	2.47	4.27	pCi/L	U	No
BM35-32A	Tier I	02/17/2010	PW	SA	Zr-95	1.33	2.8	4.86	pCi/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Zr-95	-1.01	2.72	4.55	pCi/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Zr-95	-0.679	3.96	6.59	pCi/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Zr-95	-0.0132	3.79	6.37	pCi/L	U	No
WF-15-10BB	Tier II	03/12/2010	DC	SA	Zr-95	-0.00833	0.0635	0.108	pCi/g	U	No
WF-15-16	Tier II	03/05/2010	DC	SA	Zr-95	0.056	0.102	0.179	pCi/g	U	No
WF-15-16BB	Tier II	03/05/2010	DC	SA	Zr-95	0.0221	0.0824	0.142	pCi/g	U	No
WF-15-9	Tier II	02/04/2010	DC	SA	Zr-95	-0.0191	0.103	0.173	pCi/g	U	No
WF-15-9BB	Tier II	03/05/2010	DC	SA	Zr-95	0.0485	0.0701	0.127	pCi/g	U	No
WF-PI-15	Tier II	03/12/2010	MF	SA	Zr-95	1.93	2.59	4.59	pCi/L	U	No
WF-PI-15	Tier II	03/12/2010	MS	SA	Zr-95	0.0345	0.0702	0.125	pCi/g	U	No

**Notes:** FB = flowback water; FW = fracturing fluids; PW = produced water; SA = primary sample; FD = field duplicate; pCi/L = picoCuries per liter; µg/L = micrograms per liter; pMC = percent modern carbon; TU = tritium units; pCi/g = picoCuries per gram; 14C1 = carbon-14 in methane fraction of natural gas; U = analyte was analyzed but was not detected above the minimum detectable activity (MDA); J = the reported analytical result is estimated; UJ = the analyte was analyzed for but was not detected above the MDA; the reported analytical result is an estimate; MS = outside matrix spike acceptance range; D = result was qualified as estimated because the duplicate error ratio criterion was not met; Y/T = tracer yield recovery outside acceptance range; MS = matrix spike recovery outside acceptance range; I = indeterminate result bias; L = likely low result bias; H = likely high result bias.

**Table 2**  
**Summary of Major Cation and Total Metal Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Concentration	Reporting Limit	Units	Flag	Detected ?
BM26-22D	Tier I	02/10/2010	PW	SA	Arsenic	1.8	2	UG/L	B	Yes
BM26-23A	Tier I	02/24/2010	PW	SA	Arsenic	2.4	2	UG/L		Yes
BM26-23B	Tier I	02/10/2010	PW	SA	Arsenic	2.6	2	UG/L		Yes
BM26-23C	Tier I	02/24/2010	PW	SA	Arsenic	2.7	2	UG/L		Yes
BM26-33C	Tier I	03/02/2010	PW	SA	Arsenic	2.2	2	UG/L		Yes
BM26-34D	Tier I	03/02/2010	PW	SA	Arsenic	2.1	2	UG/L		Yes
BM26-24C	Tier II	03/02/2010	PW	SA	Arsenic	2.5	2	UG/L		Yes
BM34-22D	Tier II	01/13/2010	PW	SA	Arsenic	3.3	2	UG/L		Yes
RF17-12C	Tier II	03/08/2010	PW	SA	Arsenic	2.6	2	UG/L		Yes
BM26-22D	Tier I	02/10/2010	PW	SA	Barium	100000	10000	UG/L		Yes
BM26-23A	Tier I	02/24/2010	PW	SA	Barium	96000	10000	UG/L		Yes
BM26-23B	Tier I	02/10/2010	PW	SA	Barium	110000	10000	UG/L		Yes
BM26-23C	Tier I	02/24/2010	PW	SA	Barium	88000	10000	UG/L		Yes
BM26-33C	Tier I	03/02/2010	PW	SA	Barium	49000	500	UG/L		Yes
BM26-34D	Tier I	03/02/2010	PW	SA	Barium	48000	500	UG/L		Yes
BM26-24C	Tier II	03/02/2010	PW	SA	Barium	74000	10000	UG/L		Yes
BM34-22D	Tier II	01/13/2010	PW	SA	Barium	96000	5000	UG/L		Yes
RF17-12C	Tier II	03/08/2010	PW	SA	Barium	130000	10000	UG/L		Yes
BM26-22D	Tier I	02/10/2010	PW	SA	Boron	3600	1000	UG/L		Yes
BM26-23A	Tier I	02/24/2010	PW	SA	Boron	4400	500	UG/L		Yes
BM26-23B	Tier I	02/10/2010	PW	SA	Boron	2900	1000	UG/L		Yes
BM26-23C	Tier I	02/24/2010	PW	SA	Boron	3900	500	UG/L		Yes
BM26-33C	Tier I	03/02/2010	PW	SA	Boron	2900	500	UG/L		Yes
BM26-34D	Tier I	03/02/2010	PW	SA	Boron	4100	500	UG/L		Yes
BM26-24C	Tier II	03/02/2010	PW	SA	Boron	4800	500	UG/L		Yes
BM34-22D	Tier II	01/13/2010	PW	SA	Boron	5300	500	UG/L		Yes
RF17-12C	Tier II	03/08/2010	PW	SA	Boron	5000	1000	UG/L		Yes
BM26-22D	Tier I	02/10/2010	PW	SA	Cadmium	1.8	0.3	UG/L		Yes

**Table 2**  
**Summary of Major Cation and Total Metal Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Concentration	Reporting Limit	Units	Flag	Detected ?
BM26-23A	Tier I	02/24/2010	PW	SA	Cadmium	1.2	0.3	UG/L		Yes
BM26-23B	Tier I	02/10/2010	PW	SA	Cadmium	0.22	0.3	UG/L	B	Yes
BM26-23C	Tier I	02/24/2010	PW	SA	Cadmium	3.9	0.3	UG/L		Yes
BM26-33C	Tier I	03/02/2010	PW	SA	Cadmium	4.9	0.3	UG/L		Yes
BM26-34D	Tier I	03/02/2010	PW	SA	Cadmium	1.3	0.3	UG/L		Yes
BM26-24C	Tier II	03/02/2010	PW	SA	Cadmium	1.8	0.3	UG/L		Yes
BM34-22D	Tier II	01/13/2010	PW	SA	Cadmium	1.1	0.3	UG/L		Yes
RF17-12C	Tier II	03/08/2010	PW	SA	Cadmium	6	0.3	UG/L		Yes
BM26-22D	Tier I	02/10/2010	PW	SA	Calcium	330000	10000	UG/L		Yes
BM26-23A	Tier I	02/24/2010	PW	SA	Calcium	250000	5000	UG/L		Yes
BM26-23B	Tier I	02/10/2010	PW	SA	Calcium	340000	10000	UG/L		Yes
BM26-23C	Tier I	02/24/2010	PW	SA	Calcium	350000	5000	UG/L		Yes
BM26-33C	Tier I	03/02/2010	PW	SA	Calcium	350000	5000	UG/L		Yes
BM26-34D	Tier I	03/02/2010	PW	SA	Calcium	310000	5000	UG/L		Yes
BM26-24C	Tier II	03/02/2010	PW	SA	Calcium	300000	5000	UG/L		Yes
BM34-22D	Tier II	01/13/2010	PW	SA	Calcium	350000	5000	UG/L		Yes
RF17-12C	Tier II	03/08/2010	PW	SA	Calcium	220000	10000	UG/L		Yes
BM26-23A	Tier I	02/24/2010	PW	SA	Chromium	24	50	UG/L	J,SQL-I	Yes
BM26-23C	Tier I	02/24/2010	PW	SA	Chromium	22	50	UG/L	J,SQL-I	Yes
BM26-33C	Tier I	03/02/2010	PW	SA	Chromium	5.5	50	UG/L	J,SQL-I	Yes
BM26-34D	Tier I	03/02/2010	PW	SA	Chromium	5.3	50	UG/L	J,SQL-I	Yes
BM26-24C	Tier II	03/02/2010	PW	SA	Chromium	19	50	UG/L	J,SQL-I	Yes
BM34-22D	Tier II	01/13/2010	PW	SA	Chromium	67	50	UG/L		Yes
BM26-22D	Tier I	02/10/2010	PW	SA	Iron	56000	1000	UG/L		Yes
BM26-23A	Tier I	02/24/2010	PW	SA	Iron	49000	500	UG/L		Yes
BM26-23B	Tier I	02/10/2010	PW	SA	Iron	130000	1000	UG/L		Yes
BM26-23C	Tier I	02/24/2010	PW	SA	Iron	71000	500	UG/L		Yes
BM26-33C	Tier I	03/02/2010	PW	SA	Iron	150000	500	UG/L		Yes

**Table 2**  
**Summary of Major Cation and Total Metal Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Concentration	Reporting Limit	Units	Flag	Detected ?
BM26-34D	Tier I	03/02/2010	PW	SA	Iron	120000	500	UG/L		Yes
BM26-24C	Tier II	03/02/2010	PW	SA	Iron	62000	500	UG/L		Yes
BM34-22D	Tier II	01/13/2010	PW	SA	Iron	84000	500	UG/L		Yes
RF17-12C	Tier II	03/08/2010	PW	SA	Iron	68000	1000	UG/L		Yes
BM26-22D	Tier I	02/10/2010	PW	SA	Lead	0.98	0.5	UG/L		Yes
BM26-23A	Tier I	02/24/2010	PW	SA	Lead	1.3	0.5	UG/L		Yes
BM26-23B	Tier I	02/10/2010	PW	SA	Lead	1.1	0.5	UG/L		Yes
BM26-24C	Tier II	03/02/2010	PW	SA	Lead	1.9	0.5	UG/L		Yes
BM34-22D	Tier II	01/13/2010	PW	SA	Lead	2.7	0.5	UG/L		Yes
RF17-12C	Tier II	03/08/2010	PW	SA	Lead	0.78	0.5	UG/L		Yes
BM26-22D	Tier I	02/10/2010	PW	SA	Lithium	5000	100	UG/L		Yes
BM26-23A	Tier I	02/24/2010	PW	SA	Lithium	6100	50	UG/L		Yes
BM26-23B	Tier I	02/10/2010	PW	SA	Lithium	5200	100	UG/L		Yes
BM26-23C	Tier I	02/24/2010	PW	SA	Lithium	5900	50	UG/L		Yes
BM26-33C	Tier I	03/02/2010	PW	SA	Lithium	3800	50	UG/L		Yes
BM26-34D	Tier I	03/02/2010	PW	SA	Lithium	5200	50	UG/L		Yes
BM26-24C	Tier II	03/02/2010	PW	SA	Lithium	5600	50	UG/L		Yes
BM34-22D	Tier II	01/13/2010	PW	SA	Lithium	5900	50	UG/L		Yes
RF17-12C	Tier II	03/08/2010	PW	SA	Lithium	6000	100	UG/L		Yes
BM26-22D	Tier I	02/10/2010	PW	SA	Magnesium	43000	10000	UG/L		Yes
BM26-23A	Tier I	02/24/2010	PW	SA	Magnesium	34000	5000	UG/L		Yes
BM26-23B	Tier I	02/10/2010	PW	SA	Magnesium	43000	10000	UG/L		Yes
BM26-23C	Tier I	02/24/2010	PW	SA	Magnesium	45000	5000	UG/L		Yes
BM26-33C	Tier I	03/02/2010	PW	SA	Magnesium	41000	5000	UG/L		Yes
BM26-34D	Tier I	03/02/2010	PW	SA	Magnesium	44000	5000	UG/L		Yes
BM26-24C	Tier II	03/02/2010	PW	SA	Magnesium	42000	5000	UG/L		Yes
BM34-22D	Tier II	01/13/2010	PW	SA	Magnesium	49000	5000	UG/L		Yes
RF17-12C	Tier II	03/08/2010	PW	SA	Magnesium	27000	10000	UG/L		Yes

**Table 2**  
**Summary of Major Cation and Total Metal Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Concentration	Reporting Limit	Units	Flag	Detected ?
BM26-22D	Tier I	02/10/2010	PW	SA	Manganese	870	20	UG/L		Yes
BM26-23A	Tier I	02/24/2010	PW	SA	Manganese	810	20	UG/L		Yes
BM26-23B	Tier I	02/10/2010	PW	SA	Manganese	2200	40	UG/L		Yes
BM26-23C	Tier I	02/24/2010	PW	SA	Manganese	1300	20	UG/L		Yes
BM26-33C	Tier I	03/02/2010	PW	SA	Manganese	2200	2	UG/L		Yes
BM26-34D	Tier I	03/02/2010	PW	SA	Manganese	1600	2	UG/L		Yes
BM26-24C	Tier II	03/02/2010	PW	SA	Manganese	950	2	UG/L		Yes
BM34-22D	Tier II	01/13/2010	PW	SA	Manganese	1400	20	UG/L		Yes
RF17-12C	Tier II	03/08/2010	PW	SA	Manganese	1000	20	UG/L		Yes
BM26-22D	Tier I	02/10/2010	PW	SA	Mercury	0.063	0.2	UG/L	J,SQL,MB,CCB-L	Yes
BM26-23A	Tier I	02/24/2010	PW	SA	Mercury	0.066	0.2	UG/L	J,SQL-I	Yes
BM26-23B	Tier I	02/10/2010	PW	SA	Mercury	0.04	0.2	UG/L	J,SQL,MB,CCB-L	Yes
BM26-34D	Tier I	03/02/2010	PW	SA	Mercury	0.4	0.2	UG/L		Yes
BM26-24C	Tier II	03/02/2010	PW	SA	Mercury	1.1	0.2	UG/L		Yes
BM34-22D	Tier II	01/13/2010	PW	SA	Mercury	0.05	0.2	UG/L	J,SQL-I	Yes
RF17-12C	Tier II	03/08/2010	PW	SA	Mercury	0.23	0.2	UG/L		Yes
BM26-22D	Tier I	02/10/2010	PW	SA	Potassium	600000	10000	UG/L		Yes
BM26-23A	Tier I	02/24/2010	PW	SA	Potassium	530000	5000	UG/L		Yes
BM26-23B	Tier I	02/10/2010	PW	SA	Potassium	560000	10000	UG/L		Yes
BM26-23C	Tier I	02/24/2010	PW	SA	Potassium	580000	5000	UG/L		Yes
BM26-33C	Tier I	03/02/2010	PW	SA	Potassium	430000	5000	UG/L		Yes
BM26-34D	Tier I	03/02/2010	PW	SA	Potassium	310000	5000	UG/L		Yes
BM26-24C	Tier II	03/02/2010	PW	SA	Potassium	210000	5000	UG/L		Yes
BM34-22D	Tier II	01/13/2010	PW	SA	Potassium	190000	5000	UG/L		Yes
RF17-12C	Tier II	03/08/2010	PW	SA	Potassium	120000	10000	UG/L		Yes
BM34-22D	Tier II	01/13/2010	PW	SA	Selenium	0.24	1	UG/L	J,SQL-I	Yes
BM26-22D	Tier I	02/10/2010	PW	SA	Sodium	7400000	100000	UG/L		Yes
BM26-23A	Tier I	02/24/2010	PW	SA	Sodium	6900000	100000	UG/L		Yes

**Table 2**  
**Summary of Major Cation and Total Metal Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Concentration	Reporting Limit	Units	Flag	Detected ?
BM26-23B	Tier I	02/10/2010	PW	SA	Sodium	6700000	100000	UG/L		Yes
BM26-23C	Tier I	02/24/2010	PW	SA	Sodium	7000000	100000	UG/L		Yes
BM26-33C	Tier I	03/02/2010	PW	SA	Sodium	5900000	100000	UG/L		Yes
BM26-34D	Tier I	03/02/2010	PW	SA	Sodium	6700000	100000	UG/L		Yes
BM26-24C	Tier II	03/02/2010	PW	SA	Sodium	6700000	100000	UG/L		Yes
BM34-22D	Tier II	01/13/2010	PW	SA	Sodium	8200000	50000	UG/L		Yes
RF17-12C	Tier II	03/08/2010	PW	SA	Sodium	6800000	100000	UG/L		Yes
BM26-22D	Tier I	02/10/2010	PW	SA	Strontium	48000	100	UG/L		Yes
BM26-23A	Tier I	02/24/2010	PW	SA	Strontium	46000	50	UG/L		Yes
BM26-23B	Tier I	02/10/2010	PW	SA	Strontium	51000	100	UG/L		Yes
BM26-23C	Tier I	02/24/2010	PW	SA	Strontium	46000	50	UG/L		Yes
BM26-33C	Tier I	03/02/2010	PW	SA	Strontium	37000	50	UG/L		Yes
BM26-34D	Tier I	03/02/2010	PW	SA	Strontium	33000	50	UG/L		Yes
BM26-24C	Tier II	03/02/2010	PW	SA	Strontium	36000	50	UG/L		Yes
BM34-22D	Tier II	01/13/2010	PW	SA	Strontium	41000	50	UG/L		Yes
RF17-12C	Tier II	03/08/2010	PW	SA	Strontium	47000	100	UG/L		Yes
BM34-22D	Tier II	01/13/2010	PW	SA	Uranium	0.2	0.1	UG/L		Yes
BM26-22D	Tier I	02/10/2010	PW	SA	Chromium	100	100	UG/L	U,CCB-I	No
BM26-23B	Tier I	02/10/2010	PW	SA	Chromium	100	100	UG/L	U,CCB-I	No
RF17-12C	Tier II	03/08/2010	PW	SA	Chromium	100	100	UG/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Lead	0.71	0.71	UG/L	U,CCB-I	No
BM26-33C	Tier I	03/02/2010	PW	SA	Lead	0.5	0.5	UG/L	U,MB,CCB-I	No
BM26-34D	Tier I	03/02/2010	PW	SA	Lead	0.5	0.5	UG/L	U,MB,CCB-I	No
BM26-23C	Tier I	02/24/2010	PW	SA	Mercury	0.2	0.2	UG/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Mercury	0.2	0.2	UG/L	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Selenium	1	1	UG/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Selenium	1	1	UG/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Selenium	1	1	UG/L	U	No



**Table 2**  
**Summary of Major Cation and Total Metal Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Concentration	Reporting Limit	Units	Flag	Detected ?
BM26-23C	Tier I	02/24/2010	PW	SA	Selenium	1	1	UG/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Selenium	1	1	UG/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Selenium	1	1	UG/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Selenium	1	1	UG/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Selenium	1	1	UG/L	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Uranium	0.1	0.1	UG/L	U,CCB-I	No
BM26-23A	Tier I	02/24/2010	PW	SA	Uranium	0.1	0.1	UG/L	U,CCB-I	No
BM26-23B	Tier I	02/10/2010	PW	SA	Uranium	0.1	0.1	UG/L	U,CCB-I	No
BM26-23C	Tier I	02/24/2010	PW	SA	Uranium	0.1	0.1	UG/L	U,CCB-I	No
BM26-33C	Tier I	03/02/2010	PW	SA	Uranium	0.1	0.1	UG/L	U,MB,CCB-I	No
BM26-34D	Tier I	03/02/2010	PW	SA	Uranium	0.1	0.1	UG/L	U,MB,CCB-I	No
BM26-24C	Tier II	03/02/2010	PW	SA	Uranium	0.1	0.1	UG/L	U,MB,CCB-I	No
RF17-12C	Tier II	03/08/2010	PW	SA	Uranium	0.1	0.1	UG/L	U,MB,CCB-I	No

Notes: FB = flowback water; FW = fracing fluids; PW = produced water; SA = primary sample; FD = field duplicate; µg/L = micrograms per liter; mg/L = milligrams per liter; U = analyte was analyzed but was not detected above the reporting limit; J = the reported analytical result is estimated; UJ = the analyte was analyzed for but was not detected above the reporting limit; the reported analytical result is an estimate; SQL = result is below the standard quantitation limit but above than the method detection limit; P = sample did not meet preservation requirement of temperature, pH, and/or headspace; MB = analyte detected in method blank; CCB = analyte detected in continuing calibration blank; MS = outside matrix spike acceptance range; DL = serial dilution analysis results were outside evaluation criterion; PDS = post-digestion spike recovery outside acceptance range; I = indeterminant result bias; L = likely low result bias; H = likely high result bias.

**Table 3**  
**Summary of Major and Minor Anion and pH Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Concentration	Reporting Limit	Units	Flag	Detected ?
BM26-22D	Tier I	02/10/2010	PW	SA	Ammonia (as N)	25	0.5	mg/L		Yes
BM26-23A	Tier I	02/24/2010	PW	SA	Ammonia (as N)	290	10	mg/L		Yes
BM26-23B	Tier I	02/10/2010	PW	SA	Ammonia (as N)	31	1	mg/L		Yes
BM26-23C	Tier I	02/24/2010	PW	SA	Ammonia (as N)	81	2	mg/L		Yes
BM26-33C	Tier I	03/02/2010	PW	SA	Ammonia (as N)	14	0.5	mg/L		Yes
BM26-34D	Tier I	03/02/2010	PW	SA	Ammonia (as N)	14	0.5	mg/L		Yes
BM26-24C	Tier II	03/02/2010	PW	SA	Ammonia (as N)	15	0.5	mg/L		Yes
BM34-22D	Tier II	01/13/2010	PW	SA	Ammonia (as N)	17	1	mg/L		Yes
RF17-12C	Tier II	03/08/2010	PW	SA	Ammonia (as N)	16	0.5	mg/L		Yes
BM26-22D	Tier I	02/10/2010	PW	SA	Bicarbonate (as CaCO <sub>3</sub> )	820	50	mg/L		Yes
BM26-23A	Tier I	02/24/2010	PW	SA	Bicarbonate (as CaCO <sub>3</sub> )	1100	50	mg/L		Yes
BM26-23B	Tier I	02/10/2010	PW	SA	Bicarbonate (as CaCO <sub>3</sub> )	810	50	mg/L		Yes
BM26-23C	Tier I	02/24/2010	PW	SA	Bicarbonate (as CaCO <sub>3</sub> )	890	50	mg/L		Yes
BM26-33C	Tier I	03/02/2010	PW	SA	Bicarbonate (as CaCO <sub>3</sub> )	840	100	mg/L		Yes
BM26-34D	Tier I	03/02/2010	PW	SA	Bicarbonate (as CaCO <sub>3</sub> )	860	100	mg/L		Yes
BM26-24C	Tier II	03/02/2010	PW	SA	Bicarbonate (as CaCO <sub>3</sub> )	1100	100	mg/L		Yes
BM34-22D	Tier II	01/13/2010	PW	SA	Bicarbonate (as CaCO <sub>3</sub> )	2200	100	mg/L		Yes
RF17-12C	Tier II	03/08/2010	PW	SA	Bicarbonate (as CaCO <sub>3</sub> )	780	100	mg/L		Yes
BM26-22D	Tier I	02/10/2010	PW	SA	Bromide	110	10	mg/L		Yes
BM26-23A	Tier I	02/24/2010	PW	SA	Bromide	100	10	mg/L		Yes
BM26-23B	Tier I	02/10/2010	PW	SA	Bromide	100	10	mg/L		Yes
BM26-23C	Tier I	02/24/2010	PW	SA	Bromide	98	10	mg/L		Yes
BM26-33C	Tier I	03/02/2010	PW	SA	Bromide	89	10	mg/L		Yes
BM26-34D	Tier I	03/02/2010	PW	SA	Bromide	110	10	mg/L		Yes
BM26-24C	Tier II	03/02/2010	PW	SA	Bromide	100	10	mg/L		Yes
BM34-22D	Tier II	01/13/2010	PW	SA	Bromide	79	10	mg/L		Yes
RF17-12C	Tier II	03/08/2010	PW	SA	Bromide	98	10	mg/L		Yes
BM26-22D	Tier I	02/10/2010	PW	SA	Chloride	15000	200	mg/L		Yes

**Table 3**  
**Summary of Major and Minor Anion and pH Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Concentration	Reporting Limit	Units	Flag	Detected ?
BM26-23A	Tier I	02/24/2010	PW	SA	Chloride	16000	200	mg/L		Yes
BM26-23B	Tier I	02/10/2010	PW	SA	Chloride	14000	200	mg/L		Yes
BM26-23C	Tier I	02/24/2010	PW	SA	Chloride	17000	200	mg/L		Yes
BM26-33C	Tier I	03/02/2010	PW	SA	Chloride	12000	200	mg/L		Yes
BM26-34D	Tier I	03/02/2010	PW	SA	Chloride	16000	200	mg/L		Yes
BM26-24C	Tier II	03/02/2010	PW	SA	Chloride	14000	200	mg/L		Yes
BM34-22D	Tier II	01/13/2010	PW	SA	Chloride	14000	400	mg/L		Yes
RF17-12C	Tier II	03/08/2010	PW	SA	Chloride	13000	200	mg/L		Yes
BM26-22D	Tier I	02/10/2010	PW	SA	Fluoride	1.9	5	mg/L	J,SQL-I	Yes
BM26-23B	Tier I	02/10/2010	PW	SA	Fluoride	1.7	5	mg/L	J,SQL-I	Yes
BM26-34D	Tier I	03/02/2010	PW	SA	Fluoride	1.4	5	mg/L	J,SQL-I	Yes
RF17-12C	Tier II	03/08/2010	PW	SA	Fluoride	1.4	5	mg/L	J,SQL-I	Yes
BM26-23A	Tier I	02/24/2010	PW	SA	Nitrate (as N)	5.4	10	mg/L	J,SQL-I	Yes
BM26-23B	Tier I	02/10/2010	PW	SA	Nitrate (as N)	5.5	10	mg/L	J	Yes
BM26-34D	Tier I	03/02/2010	PW	SA	Nitrate (as N)	5.3	10	mg/L	J,SQL-I	Yes
BM26-24C	Tier II	03/02/2010	PW	SA	Nitrate (as N)	4.6	10	mg/L	J,SQL-I	Yes
BM26-23A	Tier I	02/24/2010	PW	SA	Nitrite (as N)	17	5	mg/L		Yes
BM26-23C	Tier I	02/24/2010	PW	SA	Nitrite (as N)	17	5	mg/L		Yes
BM26-22D	Tier I	02/10/2010	PW	SA	pH	6.69	0.1	pH	J,HT-I	Yes
BM26-23A	Tier I	02/24/2010	PW	SA	pH	6.49	0.1	pH	J,HT-I	Yes
BM26-23B	Tier I	02/10/2010	PW	SA	pH	6.51	0.1	pH	J,HT-I	Yes
BM26-23C	Tier I	02/24/2010	PW	SA	pH	6.31	0.1	pH	J,HT-I	Yes
BM26-33C	Tier I	03/02/2010	PW	SA	pH	6.43	0.1	pH	J,HT-I	Yes
BM26-34D	Tier I	03/02/2010	PW	SA	pH	6.36	0.1	pH	J,HT-I	Yes
BM26-24C	Tier II	03/02/2010	PW	SA	pH	6.53	0.1	pH	J,HT-I	Yes
BM34-22D	Tier II	01/13/2010	PW	SA	pH	6.74	0.1	pH	J,HT-I	Yes
RF17-12C	Tier II	03/08/2010	PW	SA	pH	6.66	0.1	pH	J,HT-I	Yes
BM26-22D	Tier I	02/10/2010	PW	SA	Sulfate	36	50	mg/L	J,SQL-I	Yes

**Table 3**  
**Summary of Major and Minor Anion and pH Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Concentration	Reporting Limit	Units	Flag	Detected ?
BM26-23B	Tier I	02/10/2010	PW	SA	Sulfate	41	50	mg/L	J,SQL-I	Yes
BM26-33C	Tier I	03/02/2010	PW	SA	Sulfate	29	50	mg/L	J,SQL-I	Yes
BM26-34D	Tier I	03/02/2010	PW	SA	Sulfate	45	50	mg/L	J,SQL-I	Yes
BM26-24C	Tier II	03/02/2010	PW	SA	Sulfate	40	50	mg/L	J,SQL-I	Yes
BM34-22D	Tier II	01/13/2010	PW	SA	Sulfate	40	50	mg/L	J,SQL-I	Yes
RF17-12C	Tier II	03/08/2010	PW	SA	Sulfate	28	50	mg/L	J,SQL-I	Yes
BM26-22D	Tier I	02/10/2010	PW	SA	Total Alkalinity (as CaCO <sub>3</sub> )	820	50	mg/L		Yes
BM26-23A	Tier I	02/24/2010	PW	SA	Total Alkalinity (as CaCO <sub>3</sub> )	1100	50	mg/L		Yes
BM26-23B	Tier I	02/10/2010	PW	SA	Total Alkalinity (as CaCO <sub>3</sub> )	810	50	mg/L		Yes
BM26-23C	Tier I	02/24/2010	PW	SA	Total Alkalinity (as CaCO <sub>3</sub> )	890	50	mg/L		Yes
BM26-33C	Tier I	03/02/2010	PW	SA	Total Alkalinity (as CaCO <sub>3</sub> )	840	100	mg/L		Yes
BM26-34D	Tier I	03/02/2010	PW	SA	Total Alkalinity (as CaCO <sub>3</sub> )	860	100	mg/L		Yes
BM26-24C	Tier II	03/02/2010	PW	SA	Total Alkalinity (as CaCO <sub>3</sub> )	1100	100	mg/L		Yes
BM34-22D	Tier II	01/13/2010	PW	SA	Total Alkalinity (as CaCO <sub>3</sub> )	2200	100	mg/L		Yes
RF17-12C	Tier II	03/08/2010	PW	SA	Total Alkalinity (as CaCO <sub>3</sub> )	780	100	mg/L		Yes
BM26-22D	Tier I	02/10/2010	PW	SA	Total Dissolved Solids	25000	1000	mg/L		Yes
BM26-23A	Tier I	02/24/2010	PW	SA	Total Dissolved Solids	27000	1000	mg/L		Yes
BM26-23B	Tier I	02/10/2010	PW	SA	Total Dissolved Solids	23000	1000	mg/L		Yes
BM26-23C	Tier I	02/24/2010	PW	SA	Total Dissolved Solids	25000	1000	mg/L		Yes
BM26-33C	Tier I	03/02/2010	PW	SA	Total Dissolved Solids	21000	1000	mg/L		Yes
BM26-34D	Tier I	03/02/2010	PW	SA	Total Dissolved Solids	23000	1000	mg/L		Yes
BM26-24C	Tier II	03/02/2010	PW	SA	Total Dissolved Solids	23000	1000	mg/L		Yes
BM34-22D	Tier II	01/13/2010	PW	SA	Total Dissolved Solids	27000	2000	mg/L		Yes
RF17-12C	Tier II	03/08/2010	PW	SA	Total Dissolved Solids	22000	1000	mg/L		Yes
BM26-22D	Tier I	02/10/2010	PW	SA	Carbonate (as CaCO <sub>3</sub> )	50	50	mg/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Carbonate (as CaCO <sub>3</sub> )	50	50	mg/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Carbonate (as CaCO <sub>3</sub> )	50	50	mg/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Carbonate (as CaCO <sub>3</sub> )	50	50	mg/L	U	No

**Table 3**  
**Summary of Major and Minor Anion and pH Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Concentration	Reporting Limit	Units	Flag	Detected ?
BM26-33C	Tier I	03/02/2010	PW	SA	Carbonate (as CaCO <sub>3</sub> )	100	100	mg/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Carbonate (as CaCO <sub>3</sub> )	100	100	mg/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Carbonate (as CaCO <sub>3</sub> )	100	100	mg/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Carbonate (as CaCO <sub>3</sub> )	100	100	mg/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Carbonate (as CaCO <sub>3</sub> )	100	100	mg/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Fluoride	5	5	mg/L	UJ,MS-L	No
BM26-23C	Tier I	02/24/2010	PW	SA	Fluoride	5	5	mg/L	UJ,MS-L	No
BM26-33C	Tier I	03/02/2010	PW	SA	Fluoride	5	5	mg/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Fluoride	5	5	mg/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Fluoride	5	5	mg/L	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Nitrate (as N)	10	10	mg/L	U	No
BM26-23C	Tier I	02/24/2010	PW	SA	Nitrate (as N)	10	10	mg/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Nitrate (as N)	10	10	mg/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Nitrate (as N)	10	10	mg/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Nitrate (as N)	10	10	mg/L	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Nitrite (as N)	5	5	mg/L	U	No
BM26-23B	Tier I	02/10/2010	PW	SA	Nitrite (as N)	5	5	mg/L	U	No
BM26-33C	Tier I	03/02/2010	PW	SA	Nitrite (as N)	5	5	mg/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Nitrite (as N)	5	5	mg/L	U	No
BM26-24C	Tier II	03/02/2010	PW	SA	Nitrite (as N)	5	5	mg/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Nitrite (as N)	5	5	mg/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Nitrite (as N)	5	5	mg/L	U	No
BM26-22D	Tier I	02/10/2010	PW	SA	Orthophosphate (as P)	25	25	mg/L	UJ,CCV-I	No
BM26-23A	Tier I	02/24/2010	PW	SA	Orthophosphate (as P)	25	25	mg/L	UJ,MS-L	No
BM26-23B	Tier I	02/10/2010	PW	SA	Orthophosphate (as P)	25	25	mg/L	UJ,CCV-L	No
BM26-23C	Tier I	02/24/2010	PW	SA	Orthophosphate (as P)	25	25	mg/L	UJ,MS-L	No
BM26-33C	Tier I	03/02/2010	PW	SA	Orthophosphate (as P)	25	25	mg/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Orthophosphate (as P)	25	25	mg/L	U	No

**Table 3  
Summary of Major and Minor Anion and pH Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Concentration	Reporting Limit	Units	Flag	Detected ?
BM26-24C	Tier II	03/02/2010	PW	SA	Orthophosphate (as P)	25	25	mg/L	U	No
BM34-22D	Tier II	01/13/2010	PW	SA	Orthophosphate (as P)	25	25	mg/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Orthophosphate (as P)	25	25	mg/L	U	No
BM26-23A	Tier I	02/24/2010	PW	SA	Sulfate	50	50	mg/L	U,CCB-I	No
BM26-23C	Tier I	02/24/2010	PW	SA	Sulfate	50	50	mg/L	U,CCB-I	No

Notes: FB = flowback water; FW = fracturing fluids; PW = produced water; SA = primary sample; FD = field duplicate; µg/L = micrograms per liter; mg/L = milligrams per liter; U = analyte was analyzed but was not detected above the reporting limit; J = the reported analytical result is estimated; UJ = the analyte was analyzed for but was not detected above the reporting limit; the reported analytical result is an estimate; HT = sample exceeded holding time; SQL = result is below the standard quantitation limit but above than the method detection limit; MB = analyte detected in method blank; CCB = analyte detected in continuing calibration blank; CCV = initial and continuing calibration verification recoveries were outside acceptance range; MS = outside matrix spike acceptance range; I = indeterminant result bias; H = likely high result bias; L = likely low result bias.

**Table 4**  
**Summary of Gasoline, Diesel, and Motor Oil Organics Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Concentration	Reporting Limit	Units	Flag	Detected ?
BM26-22D	Tier I	02/10/2010	PW	SA	Benzene	14000	2000	µg/L		Yes
BM26-23A	Tier I	02/24/2010	PW	SA	Benzene	9800	500	µg/L		Yes
BM26-23B	Tier I	02/10/2010	PW	SA	Benzene	12000	2000	µg/L		Yes
BM26-23C	Tier I	02/24/2010	PW	SA	Benzene	16000	500	µg/L		Yes
BM26-33C	Tier I	03/02/2010	PW	SA	Benzene	13000	500	µg/L		Yes
BM26-34D	Tier I	03/02/2010	PW	SA	Benzene	13000	500	µg/L		Yes
BM26-24C	Tier II	03/02/2010	PW	SA	Benzene	13000	500	µg/L		Yes
BM34-22D	Tier II	01/13/2010	PW	SA	Benzene	11000	1000	µg/L	J,P-I	Yes
RF17-12C	Tier II	03/08/2010	PW	SA	Benzene	11000	500	µg/L		Yes
BM26-22D	Tier I	02/10/2010	PW	SA	Diesel Range Organics	360	4	mg/L	L	Yes
BM26-23A	Tier I	02/24/2010	PW	SA	Diesel Range Organics	140	1.9	mg/L	L,D	Yes
BM26-23B	Tier I	02/10/2010	PW	SA	Diesel Range Organics	150	4	mg/L	L	Yes
BM26-23C	Tier I	02/24/2010	PW	SA	Diesel Range Organics	380	3.8	mg/L	L,D	Yes
BM26-33C	Tier I	03/02/2010	PW	SA	Diesel Range Organics	490	9.4	mg/L	L	Yes
BM26-34D	Tier I	03/02/2010	PW	SA	Diesel Range Organics	150	3.8	mg/L	L,D	Yes
BM26-24C	Tier II	03/02/2010	PW	SA	Diesel Range Organics	220	3.8	mg/L	L,D	Yes
BM34-22D	Tier II	01/13/2010	PW	SA	Diesel Range Organics	270	3.9	mg/L	L,D	Yes
RF17-12C	Tier II	03/08/2010	PW	SA	Diesel Range Organics	710	9.4	mg/L	L,D	Yes
BM26-22D	Tier I	02/10/2010	PW	SA	Ethylbenzene	850	200	µg/L		Yes
BM26-23A	Tier I	02/24/2010	PW	SA	Ethylbenzene	2200	500	µg/L		Yes
BM26-23B	Tier I	02/10/2010	PW	SA	Ethylbenzene	890	200	µg/L		Yes
BM26-23C	Tier I	02/24/2010	PW	SA	Ethylbenzene	3800	500	µg/L		Yes
BM26-33C	Tier I	03/02/2010	PW	SA	Ethylbenzene	1100	500	µg/L		Yes
BM26-34D	Tier I	03/02/2010	PW	SA	Ethylbenzene	890	500	µg/L		Yes
BM26-24C	Tier II	03/02/2010	PW	SA	Ethylbenzene	1400	500	µg/L		Yes
BM34-22D	Tier II	01/13/2010	PW	SA	Ethylbenzene	1000	1000	µg/L	J,P-I	Yes
RF17-12C	Tier II	03/08/2010	PW	SA	Ethylbenzene	910	500	µg/L		Yes
BM26-22D	Tier I	02/10/2010	PW	SA	Gasoline Range Organics	140	10	mg/L	G,H	Yes
BM26-23A	Tier I	02/24/2010	PW	SA	Gasoline Range Organics	200	10	mg/L	G	Yes

**Table 4**  
**Summary of Gasoline, Diesel, and Motor Oil Organics Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Concentration	Reporting Limit	Units	Flag	Detected ?
BM26-23B	Tier I	02/10/2010	PW	SA	Gasoline Range Organics	100	10	mg/L	G	Yes
BM26-23C	Tier I	02/24/2010	PW	SA	Gasoline Range Organics	370	10	mg/L	G,H	Yes
BM26-33C	Tier I	03/02/2010	PW	SA	Gasoline Range Organics	110	5	mg/L	G	Yes
BM26-34D	Tier I	03/02/2010	PW	SA	Gasoline Range Organics	100	5	mg/L	G	Yes
BM26-24C	Tier II	03/02/2010	PW	SA	Gasoline Range Organics	130	5	mg/L	G	Yes
BM34-22D	Tier II	01/13/2010	PW	SA	Gasoline Range Organics	190	5	mg/L	J,G,P,MS-L	Yes
RF17-12C	Tier II	03/08/2010	PW	SA	Gasoline Range Organics	150	5	mg/L	J,G,H,MS-H	Yes
BM26-22D	Tier I	02/10/2010	PW	SA	M+P-Xylene	11000	200	µg/L		Yes
BM26-23A	Tier I	02/24/2010	PW	SA	M+P-Xylene	29000	500	µg/L		Yes
BM26-23B	Tier I	02/10/2010	PW	SA	M+P-Xylene	11000	200	µg/L		Yes
BM26-23C	Tier I	02/24/2010	PW	SA	M+P-Xylene	49000	500	µg/L		Yes
BM26-33C	Tier I	03/02/2010	PW	SA	M+P-Xylene	13000	500	µg/L		Yes
BM26-34D	Tier I	03/02/2010	PW	SA	M+P-Xylene	11000	500	µg/L		Yes
BM26-24C	Tier II	03/02/2010	PW	SA	M+P-Xylene	19000	500	µg/L		Yes
BM34-22D	Tier II	01/13/2010	PW	SA	M+P-Xylene	13000	1000	µg/L	J,P-I	Yes
RF17-12C	Tier II	03/08/2010	PW	SA	M+P-Xylene	13000	500	µg/L		Yes
BM26-22D	Tier I	02/10/2010	PW	SA	Dissolved Methane	4700	1	µg/L		Yes
BM26-23A	Tier I	02/24/2010	PW	SA	Dissolved Methane	5100	1	µg/L		Yes
BM26-23B	Tier I	02/10/2010	PW	SA	Dissolved Methane	4200	1	µg/L		Yes
BM26-23C	Tier I	02/24/2010	PW	SA	Dissolved Methane	4900	1	µg/L		Yes
BM26-33C	Tier I	03/02/2010	PW	SA	Dissolved Methane	5100	1	µg/L		Yes
BM26-34D	Tier I	03/02/2010	PW	SA	Dissolved Methane	5400	1	µg/L		Yes
BM26-24C	Tier II	03/02/2010	PW	SA	Dissolved Methane	4800	1	µg/L		Yes
BM34-22D	Tier II	01/13/2010	PW	SA	Dissolved Methane	430	1	µg/L		Yes
RF17-12C	Tier II	03/08/2010	PW	SA	Dissolved Methane	6800	1	µg/L		Yes
BM26-22D	Tier I	02/10/2010	PW	SA	Motor Oil Range Organics	11	4	mg/L	L	Yes
BM26-23A	Tier I	02/24/2010	PW	SA	Motor Oil Range Organics	3.1	1.9	mg/L	D	Yes
BM26-23B	Tier I	02/10/2010	PW	SA	Motor Oil Range Organics	3.6	4	mg/L	J	Yes
BM26-23C	Tier I	02/24/2010	PW	SA	Motor Oil Range Organics	3.4	3.8	mg/L	J,SQL-I	Yes



**Table 4**  
**Summary of Gasoline, Diesel, and Motor Oil Organics Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Concentration	Reporting Limit	Units	Flag	Detected ?
BM26-24C	Tier II	03/02/2010	PW	SA	Motor Oil Range Organics	6.6	3.8	mg/L	D	Yes
BM34-22D	Tier II	01/13/2010	PW	SA	Motor Oil Range Organics	6.2	3.9	mg/L	D	Yes
BM26-22D	Tier I	02/10/2010	PW	SA	O-Xylene	1900	200	µg/L		Yes
BM26-23A	Tier I	02/24/2010	PW	SA	O-Xylene	4400	500	µg/L		Yes
BM26-23B	Tier I	02/10/2010	PW	SA	O-Xylene	1900	200	µg/L		Yes
BM26-23C	Tier I	02/24/2010	PW	SA	O-Xylene	7800	500	µg/L		Yes
BM26-33C	Tier I	03/02/2010	PW	SA	O-Xylene	2000	500	µg/L		Yes
BM26-34D	Tier I	03/02/2010	PW	SA	O-Xylene	1700	500	µg/L		Yes
BM26-24C	Tier II	03/02/2010	PW	SA	O-Xylene	2900	500	µg/L		Yes
BM34-22D	Tier II	01/13/2010	PW	SA	O-Xylene	2100	1000	µg/L	J,P-I	Yes
RF17-12C	Tier II	03/08/2010	PW	SA	O-Xylene	1900	500	µg/L		Yes
BM26-22D	Tier I	02/10/2010	PW	SA	Toluene	23000	2000	µg/L		Yes
BM26-23A	Tier I	02/24/2010	PW	SA	Toluene	48000	5000	µg/L		Yes
BM26-23B	Tier I	02/10/2010	PW	SA	Toluene	26000	2000	µg/L		Yes
BM26-23C	Tier I	02/24/2010	PW	SA	Toluene	51000	5000	µg/L		Yes
BM26-33C	Tier I	03/02/2010	PW	SA	Toluene	28000	500	µg/L		Yes
BM26-34D	Tier I	03/02/2010	PW	SA	Toluene	27000	500	µg/L		Yes
BM26-24C	Tier II	03/02/2010	PW	SA	Toluene	31000	500	µg/L		Yes
BM34-22D	Tier II	01/13/2010	PW	SA	Toluene	26000	1000	µg/L	J,P-I	Yes
RF17-12C	Tier II	03/08/2010	PW	SA	Toluene	26000	500	µg/L		Yes
BM26-33C	Tier I	03/02/2010	PW	SA	Motor Oil Range Organics	9.4	9.4	mg/L	U	No
BM26-34D	Tier I	03/02/2010	PW	SA	Motor Oil Range Organics	3.8	3.8	mg/L	U	No
RF17-12C	Tier II	03/08/2010	PW	SA	Motor Oil Range Organics	9.4	9.4	mg/L	U,J,B,D,MB-I	No

**Table 4  
Summary of Gasoline, Diesel, and Motor Oil Organics Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Concentration	Reporting Limit	Units	Flag	Detected ?
<p>Notes: PW = produced water; SA = primary sample; FD = field duplicate; µg/L = micrograms per liter; mg/L = milligrams per liter; U = analyte was analyzed but was not detected above the reporting limit; J = the reported analytical result is estimated; UJ = the analyte was analyzed for but was not detected above the reporting limit; the reported analytical result is an estimate; B = analyte detected in associated method blank as well as the sample; D = fuel pattern resembles diesel; G = fuel pattern resembles gasoline; H = fuel pattern was in the heavier end of the retention time window; L = fuel pattern was in the lighter end of the retention time window; M = fuel pattern resembles motor oil; Z = fuel pattern did not resemble typical petroleum hydrocarbon patterns (e.g., gasoline, JP4, JP8, diesel, mineral spirits, motor oil, Stoddard solvent, or bunker C); P = sample did not meet preservation requirement of temperature, pH, and/or headspace (see data validation report for further explanation); SQL-I = sample result is below the sample quantitation limit but above the method detection limit, indeterminant result bias; MS = matrix spike is outside acceptance range; FD = field duplicate acceptance criterion not met; SUR = surrogate recovery outside acceptance range; TB = analyte reported in trip blank; I = indeterminant result bias; H = likely high result bias; L = likely low result bias.</p>										

**Table 5  
Summary of Natural Gas Composition Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Concentration	Reporting Limit	Units	Flag	Detected ?
BM26-24C	Tier II	03/02/2010	NG	SA	Argon	0.0083	0	%		Yes
BM26-22D	Tier I	02/10/2010	NG	SA	BTU	1055	0	BTU/Ft <sup>3</sup>		Yes
BM26-23A	Tier I	02/24/2010	NG	SA	BTU	1048	0	BTU/Ft <sup>3</sup>		Yes
BM26-23B	Tier I	02/10/2010	NG	SA	BTU	1053	0	BTU/Ft <sup>3</sup>		Yes
BM26-23C	Tier I	02/24/2010	NG	SA	BTU	1054	0	BTU/Ft <sup>3</sup>		Yes
BM26-33C	Tier I	03/02/2010	NG	SA	BTU	1064	0	BTU/Ft <sup>3</sup>		Yes
BM26-34A	Tier I	02/24/2010	NG	SA	BTU	1057	0	BTU/Ft <sup>3</sup>		Yes
BM26-34D	Tier I	03/02/2010	NG	SA	BTU	1053	0	BTU/Ft <sup>3</sup>		Yes
BM35-32A	Tier I	02/17/2010	NG	SA	BTU	106	0	BTU/Ft <sup>3</sup>		Yes
BM26-24B	Tier II	03/02/2010	NG	SA	BTU	1020	0	BTU/Ft <sup>3</sup>		Yes
BM26-24C	Tier II	03/02/2010	NG	SA	BTU	1043	0	BTU/Ft <sup>3</sup>		Yes
BM34-22D	Tier II	01/13/2010	NG	SA	BTU	982	0	BTU/Ft <sup>3</sup>		Yes
RF17-12C	Tier II	03/08/2010	NG	SA	BTU	1038	0	BTU/Ft <sup>3</sup>		Yes
BM26-22D	Tier I	02/10/2010	NG	SA	C6+	0.23	0	%		Yes
BM26-23A	Tier I	02/24/2010	NG	SA	C6+	0.211	0	%		Yes
BM26-23B	Tier I	02/10/2010	NG	SA	C6+	0.196	0	%		Yes
BM26-23C	Tier I	02/24/2010	NG	SA	C6+	0.193	0	%		Yes
BM26-33C	Tier I	03/02/2010	NG	SA	C6+	0.222	0	%		Yes
BM26-34A	Tier I	02/24/2010	NG	SA	C6+	0.134	0	%		Yes
BM26-34D	Tier I	03/02/2010	NG	SA	C6+	0.243	0	%		Yes
BM35-32A	Tier I	02/17/2010	NG	SA	C6+	0.17	0	%		Yes
BM26-24B	Tier II	03/02/2010	NG	SA	C6+	0.232	0	%		Yes
BM26-24C	Tier II	03/02/2010	NG	SA	C6+	0.222	0	%		Yes
BM34-22D	Tier II	01/13/2010	NG	SA	C6+	0.23	0	%		Yes
RF17-12C	Tier II	03/08/2010	NG	SA	C6+	0.233	0	%		Yes
BM26-22D	Tier I	02/10/2010	NG	SA	Carbon Dioxide	3.21	0	%		Yes
BM26-23A	Tier I	02/24/2010	NG	SA	Carbon Dioxide	3.75	0	%		Yes

**Table 5  
Summary of Natural Gas Composition Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Concentration	Reporting Limit	Units	Flag	Detected ?
BM26-23B	Tier I	02/10/2010	NG	SA	Carbon Dioxide	3.61	0	%		Yes
BM26-23C	Tier I	02/24/2010	NG	SA	Carbon Dioxide	3.61	0	%		Yes
BM26-33C	Tier I	03/02/2010	NG	SA	Carbon Dioxide	2.77	0	%		Yes
BM26-34A	Tier I	02/24/2010	NG	SA	Carbon Dioxide	2.89	0	%		Yes
BM26-34D	Tier I	03/02/2010	NG	SA	Carbon Dioxide	3.44	0	%		Yes
BM35-32A	Tier I	02/17/2010	NG	SA	Carbon Dioxide	3.43	0	%		Yes
BM26-24B	Tier II	03/02/2010	NG	SA	Carbon Dioxide	5.3	0	%		Yes
BM26-24C	Tier II	03/02/2010	NG	SA	Carbon Dioxide	4.02	0	%		Yes
BM34-22D	Tier II	01/13/2010	NG	SA	Carbon Dioxide	11.38	0	%		Yes
RF17-12C	Tier II	03/08/2010	NG	SA	Carbon Dioxide	3.36	0	%		Yes
BM26-22D	Tier I	02/10/2010	NG	SA	Ethane	4.15	0	%		Yes
BM26-23A	Tier I	02/24/2010	NG	SA	Ethane	4.24	0	%		Yes
BM26-23B	Tier I	02/10/2010	NG	SA	Ethane	4.44	0	%		Yes
BM26-23C	Tier I	02/24/2010	NG	SA	Ethane	4.53	0	%		Yes
BM26-33C	Tier I	03/02/2010	NG	SA	Ethane	4.51	0	%		Yes
BM26-34A	Tier I	02/24/2010	NG	SA	Ethane	4.49	0	%		Yes
BM26-34D	Tier I	03/02/2010	NG	SA	Ethane	4.38	0	%		Yes
BM35-32A	Tier I	02/17/2010	NG	SA	Ethane	4.82	0	%		Yes
BM26-24B	Tier II	03/02/2010	NG	SA	Ethane	3.82	0	%		Yes
BM26-24C	Tier II	03/02/2010	NG	SA	Ethane	4.51	0	%		Yes
BM34-22D	Tier II	01/13/2010	NG	SA	Ethane	4.89	0	%		Yes
RF17-12C	Tier II	03/08/2010	NG	SA	Ethane	3.53	0	%		Yes
BM26-22D	Tier I	02/10/2010	NG	SA	Helium	0.0031	0	%		Yes
BM26-23A	Tier I	02/24/2010	NG	SA	Helium	0.0031	0	%		Yes
BM26-23B	Tier I	02/10/2010	NG	SA	Helium	0.003	0	%		Yes
BM26-23C	Tier I	02/24/2010	NG	SA	Helium	0.0032	0	%		Yes
BM26-33C	Tier I	03/02/2010	NG	SA	Helium	0.0032	0	%		Yes

**Table 5  
Summary of Natural Gas Composition Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Concentration	Reporting Limit	Units	Flag	Detected ?
BM26-34A	Tier I	02/24/2010	NG	SA	Helium	0.0032	0	%		Yes
BM26-34D	Tier I	03/02/2010	NG	SA	Helium	0.0033	0	%		Yes
BM35-32A	Tier I	02/17/2010	NG	SA	Helium	0.027	0	%		Yes
BM26-24B	Tier II	03/02/2010	NG	SA	Helium	0.0028	0	%		Yes
BM26-24C	Tier II	03/02/2010	NG	SA	Helium	0.0032	0	%		Yes
BM34-22D	Tier II	01/13/2010	NG	SA	Helium	0.0024	0	%		Yes
RF17-12C	Tier II	03/08/2010	NG	SA	Helium	0.0028	0	%		Yes
BM26-22D	Tier I	02/10/2010	NG	SA	Hydrogen	0.0047	0	%		Yes
BM26-23A	Tier I	02/24/2010	NG	SA	Hydrogen	0.0035	0	%		Yes
BM26-23B	Tier I	02/10/2010	NG	SA	Hydrogen	0.0034	0	%		Yes
BM26-23C	Tier I	02/24/2010	NG	SA	Hydrogen	0.0047	0	%		Yes
BM26-33C	Tier I	03/02/2010	NG	SA	Hydrogen	0.0053	0	%		Yes
BM26-34A	Tier I	02/24/2010	NG	SA	Hydrogen	0.0046	0	%		Yes
BM26-34D	Tier I	03/02/2010	NG	SA	Hydrogen	0.0051	0	%		Yes
BM35-32A	Tier I	02/17/2010	NG	SA	Hydrogen	0.0025	0	%		Yes
BM26-24B	Tier II	03/02/2010	NG	SA	Hydrogen	0.0021	0	%		Yes
BM26-24C	Tier II	03/02/2010	NG	SA	Hydrogen	0.0044	0	%		Yes
BM34-22D	Tier II	01/13/2010	NG	SA	Hydrogen	0.0056	0	%		Yes
RF17-12C	Tier II	03/08/2010	NG	SA	Hydrogen	0.0039	0	%		Yes
BM26-22D	Tier I	02/10/2010	NG	SA	Iso-Butane	0.241	0	%		Yes
BM26-23A	Tier I	02/24/2010	NG	SA	Iso-Butane	0.242	0	%		Yes
BM26-23B	Tier I	02/10/2010	NG	SA	Iso-Butane	0.255	0	%		Yes
BM26-23C	Tier I	02/24/2010	NG	SA	Iso-Butane	0.264	0	%		Yes
BM26-33C	Tier I	03/02/2010	NG	SA	Iso-Butane	0.268	0	%		Yes
BM26-34A	Tier I	02/24/2010	NG	SA	Iso-Butane	0.25	0	%		Yes
BM26-34D	Tier I	03/02/2010	NG	SA	Iso-Butane	0.236	0	%		Yes
BM35-32A	Tier I	02/17/2010	NG	SA	Iso-Butane	0.277	0	%		Yes

**Table 5  
Summary of Natural Gas Composition Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Concentration	Reporting Limit	Units	Flag	Detected ?
BM26-24B	Tier II	03/02/2010	NG	SA	Iso-Butane	0.19	0	%		Yes
BM26-24C	Tier II	03/02/2010	NG	SA	Iso-Butane	0.248	0	%		Yes
BM34-22D	Tier II	01/13/2010	NG	SA	Iso-Butane	0.268	0	%		Yes
RF17-12C	Tier II	03/08/2010	NG	SA	Iso-Butane	0.181	0	%		Yes
BM26-22D	Tier I	02/10/2010	NG	SA	Iso-Pentane	0.101	0	%		Yes
BM26-23A	Tier I	02/24/2010	NG	SA	Iso-Pentane	0.0965	0	%		Yes
BM26-23B	Tier I	02/10/2010	NG	SA	Iso-Pentane	0.0987	0	%		Yes
BM26-23C	Tier I	02/24/2010	NG	SA	Iso-Pentane	0.0989	0	%		Yes
BM26-33C	Tier I	03/02/2010	NG	SA	Iso-Pentane	0.105	0	%		Yes
BM26-34A	Tier I	02/24/2010	NG	SA	Iso-Pentane	0.0908	0	%		Yes
BM26-34D	Tier I	03/02/2010	NG	SA	Iso-Pentane	0.0916	0	%		Yes
BM35-32A	Tier I	02/17/2010	NG	SA	Iso-Pentane	0.104	0	%		Yes
BM26-24B	Tier II	03/02/2010	NG	SA	Iso-Pentane	0.0679	0	%		Yes
BM26-24C	Tier II	03/02/2010	NG	SA	Iso-Pentane	0.0987	0	%		Yes
BM34-22D	Tier II	01/13/2010	NG	SA	Iso-Pentane	0.103	0	%		Yes
RF17-12C	Tier II	03/08/2010	NG	SA	Iso-Pentane	0.07	0	%		Yes
BM26-22D	Tier I	02/10/2010	NG	SA	Methane (C1)	90.47	0	%		Yes
BM26-23A	Tier I	02/24/2010	NG	SA	Methane (C1)	89.89	0	%		Yes
BM26-23B	Tier I	02/10/2010	NG	SA	Methane (C1)	89.75	0	%		Yes
BM26-23C	Tier I	02/24/2010	NG	SA	Methane (C1)	89.54	0	%		Yes
BM26-33C	Tier I	03/02/2010	NG	SA	Methane (C1)	90.48	0	%		Yes
BM26-34A	Tier I	02/24/2010	NG	SA	Methane (C1)	90.48	0	%		Yes
BM26-34D	Tier I	03/02/2010	NG	SA	Methane (C1)	90.09	0	%		Yes
BM35-32A	Tier I	02/17/2010	NG	SA	Methane (C1)	89.41	0	%		Yes
BM26-24B	Tier II	03/02/2010	NG	SA	Methane (C1)	89.31	0	%		Yes
BM26-24C	Tier II	03/02/2010	NG	SA	Methane (C1)	88.48	0	%		Yes
BM34-22D	Tier II	01/13/2010	NG	SA	Methane (C1)	81.35	0	%		Yes

**Table 5  
Summary of Natural Gas Composition Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Concentration	Reporting Limit	Units	Flag	Detected ?
RF17-12C	Tier II	03/08/2010	NG	SA	Methane (C1)	91.54	0	%		Yes
BM26-22D	Tier I	02/10/2010	NG	SA	N-Butane	0.251	0	%		Yes
BM26-23A	Tier I	02/24/2010	NG	SA	N-Butane	0.236	0	%		Yes
BM26-23B	Tier I	02/10/2010	NG	SA	N-Butane	0.254	0	%		Yes
BM26-23C	Tier I	02/24/2010	NG	SA	N-Butane	0.259	0	%		Yes
BM26-33C	Tier I	03/02/2010	NG	SA	N-Butane	0.258	0	%		Yes
BM26-34A	Tier I	02/24/2010	NG	SA	N-Butane	0.245	0	%		Yes
BM26-34D	Tier I	03/02/2010	NG	SA	N-Butane	0.227	0	%		Yes
BM35-32A	Tier I	02/17/2010	NG	SA	N-Butane	0.271	0	%		Yes
BM26-24B	Tier II	03/02/2010	NG	SA	N-Butane	0.137	0	%		Yes
BM26-24C	Tier II	03/02/2010	NG	SA	N-Butane	0.252	0	%		Yes
BM34-22D	Tier II	01/13/2010	NG	SA	N-Butane	0.27	0	%		Yes
RF17-12C	Tier II	03/08/2010	NG	SA	N-Butane	0.148	0	%		Yes
BM26-22D	Tier I	02/10/2010	NG	SA	Nitrogen	0.096	0	%		Yes
BM26-23A	Tier I	02/24/2010	NG	SA	Nitrogen	0.11	0	%		Yes
BM26-23B	Tier I	02/10/2010	NG	SA	Nitrogen	0.093	0	%		Yes
BM26-23C	Tier I	02/24/2010	NG	SA	Nitrogen	0.13	0	%		Yes
BM26-33C	Tier I	03/02/2010	NG	SA	Nitrogen	0.071	0	%		Yes
BM26-34A	Tier I	02/24/2010	NG	SA	Nitrogen	0.12	0	%		Yes
BM26-34D	Tier I	03/02/2010	NG	SA	Nitrogen	0.077	0	%		Yes
BM35-32A	Tier I	02/17/2010	NG	SA	Nitrogen	0.096	0	%		Yes
BM26-24B	Tier II	03/02/2010	NG	SA	Nitrogen	0.087	0	%		Yes
BM26-24C	Tier II	03/02/2010	NG	SA	Nitrogen	0.68	0	%		Yes
BM34-22D	Tier II	01/13/2010	NG	SA	Nitrogen	0.096	0	%		Yes
RF17-12C	Tier II	03/08/2010	NG	SA	Nitrogen	0.074	0	%		Yes
BM26-22D	Tier I	02/10/2010	NG	SA	N-Pentane	0.075	0	%		Yes
BM26-23A	Tier I	02/24/2010	NG	SA	N-Pentane	0.0701	0	%		Yes

**Table 5  
Summary of Natural Gas Composition Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Concentration	Reporting Limit	Units	Flag	Detected ?
BM26-23B	Tier I	02/10/2010	NG	SA	N-Pentane	0.0716	0	%		Yes
BM26-23C	Tier I	02/24/2010	NG	SA	N-Pentane	0.0705	0	%		Yes
BM26-33C	Tier I	03/02/2010	NG	SA	N-Pentane	0.0768	0	%		Yes
BM26-34A	Tier I	02/24/2010	NG	SA	N-Pentane	0.0647	0	%		Yes
BM26-34D	Tier I	03/02/2010	NG	SA	N-Pentane	0.0676	0	%		Yes
BM35-32A	Tier I	02/17/2010	NG	SA	N-Pentane	0.0737	0	%		Yes
BM26-24B	Tier II	03/02/2010	NG	SA	N-Pentane	0.0468	0	%		Yes
BM26-24C	Tier II	03/02/2010	NG	SA	N-Pentane	0.0731	0	%		Yes
BM34-22D	Tier II	01/13/2010	NG	SA	N-Pentane	0.0786	0	%		Yes
RF17-12C	Tier II	03/08/2010	NG	SA	N-Pentane	0.0464	0	%		Yes
BM26-22D	Tier I	02/10/2010	NG	SA	Oxygen	0.009	0	%		Yes
BM26-23A	Tier I	02/24/2010	NG	SA	Oxygen	0.019	0	%		Yes
BM26-23B	Tier I	02/10/2010	NG	SA	Oxygen	0.009	0	%		Yes
BM26-23C	Tier I	02/24/2010	NG	SA	Oxygen	0.024	0	%		Yes
BM26-34A	Tier I	02/24/2010	NG	SA	Oxygen	0.019	0	%		Yes
BM26-34D	Tier I	03/02/2010	NG	SA	Oxygen	0.007	0	%		Yes
BM35-32A	Tier I	02/17/2010	NG	SA	Oxygen	0.014	0	%		Yes
BM26-24B	Tier II	03/02/2010	NG	SA	Oxygen	0.014	0	%		Yes
BM26-24C	Tier II	03/02/2010	NG	SA	Oxygen	0.17	0	%		Yes
BM34-22D	Tier II	01/13/2010	NG	SA	Oxygen	0.009	0	%		Yes
RF17-12C	Tier II	03/08/2010	NG	SA	Oxygen	0.014	0	%		Yes
BM26-22D	Tier I	02/10/2010	NG	SA	Propane	1.16	0	%		Yes
BM26-23A	Tier I	02/24/2010	NG	SA	Propane	1.13	0	%		Yes
BM26-23B	Tier I	02/10/2010	NG	SA	Propane	1.22	0	%		Yes
BM26-23C	Tier I	02/24/2010	NG	SA	Propane	1.27	0	%		Yes
BM26-33C	Tier I	03/02/2010	NG	SA	Propane	1.23	0	%		Yes
BM26-34A	Tier I	02/24/2010	NG	SA	Propane	1.21	0	%		Yes



**Table 5  
Summary of Natural Gas Composition Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Concentration	Reporting Limit	Units	Flag	Detected ?
BM26-34D	Tier I	03/02/2010	NG	SA	Propane	1.13	0	%		Yes
BM35-32A	Tier I	02/17/2010	NG	SA	Propane	1.33	0	%		Yes
BM26-24B	Tier II	03/02/2010	NG	SA	Propane	0.787	0	%		Yes
BM26-24C	Tier II	03/02/2010	NG	SA	Propane	1.23	0	%		Yes
BM34-22D	Tier II	01/13/2010	NG	SA	Propane	1.32	0	%		Yes
RF17-12C	Tier II	03/08/2010	NG	SA	Propane	0.792	0	%		Yes
BM26-22D	Tier I	02/10/2010	NG	SA	Specific Gravity	0.633	0	$\rho_g/\rho_a$		Yes
BM26-23A	Tier I	02/24/2010	NG	SA	Specific Gravity	0.637	0	$\rho_g/\rho_a$		Yes
BM26-23B	Tier I	02/10/2010	NG	SA	Specific Gravity	0.638	0	$\rho_g/\rho_a$		Yes
BM26-23C	Tier I	02/24/2010	NG	SA	Specific Gravity	0.639	0	$\rho_g/\rho_a$		Yes
BM26-33C	Tier I	03/02/2010	NG	SA	Specific Gravity	0.631	0	$\rho_g/\rho_a$		Yes
BM26-34A	Tier I	02/24/2010	NG	SA	Specific Gravity	0.629	0	$\rho_g/\rho_a$		Yes
BM26-34D	Tier I	03/02/2010	NG	SA	Specific Gravity	0.635	0	$\rho_g/\rho_a$		Yes
BM35-32A	Tier I	02/17/2010	NG	SA	Specific Gravity	0.639	0	$\rho_g/\rho_a$		Yes
BM26-24B	Tier II	03/02/2010	NG	SA	Specific Gravity	0.644	0	$\rho_g/\rho_a$		Yes
BM26-24C	Tier II	03/02/2010	NG	SA	Specific Gravity	0.646	0	$\rho_g/\rho_a$		Yes
BM34-22D	Tier II	01/13/2010	NG	SA	Specific Gravity	0.718	0	$\rho_g/\rho_a$		Yes
RF17-12C	Tier II	03/08/2010	NG	SA	Specific Gravity	0.624	0	$\rho_g/\rho_a$		Yes
BM26-22D	Tier I	02/10/2010	NG	SA	Argon	ND	0	%	U	No
BM26-23A	Tier I	02/24/2010	NG	SA	Argon	ND	0	%	U	No
BM26-23B	Tier I	02/10/2010	NG	SA	Argon	ND	0	%	U	No
BM26-23C	Tier I	02/24/2010	NG	SA	Argon	ND	0	%	U	No
BM26-33C	Tier I	03/02/2010	NG	SA	Argon	ND	0	%	U	No
BM26-34A	Tier I	02/24/2010	NG	SA	Argon	ND	0	%	U	No
BM26-34D	Tier I	03/02/2010	NG	SA	Argon	ND	0	%	U	No
BM35-32A	Tier I	02/17/2010	NG	SA	Argon	ND	0	%	U	No
BM26-24B	Tier II	03/02/2010	NG	SA	Argon	ND	0	%	U	No

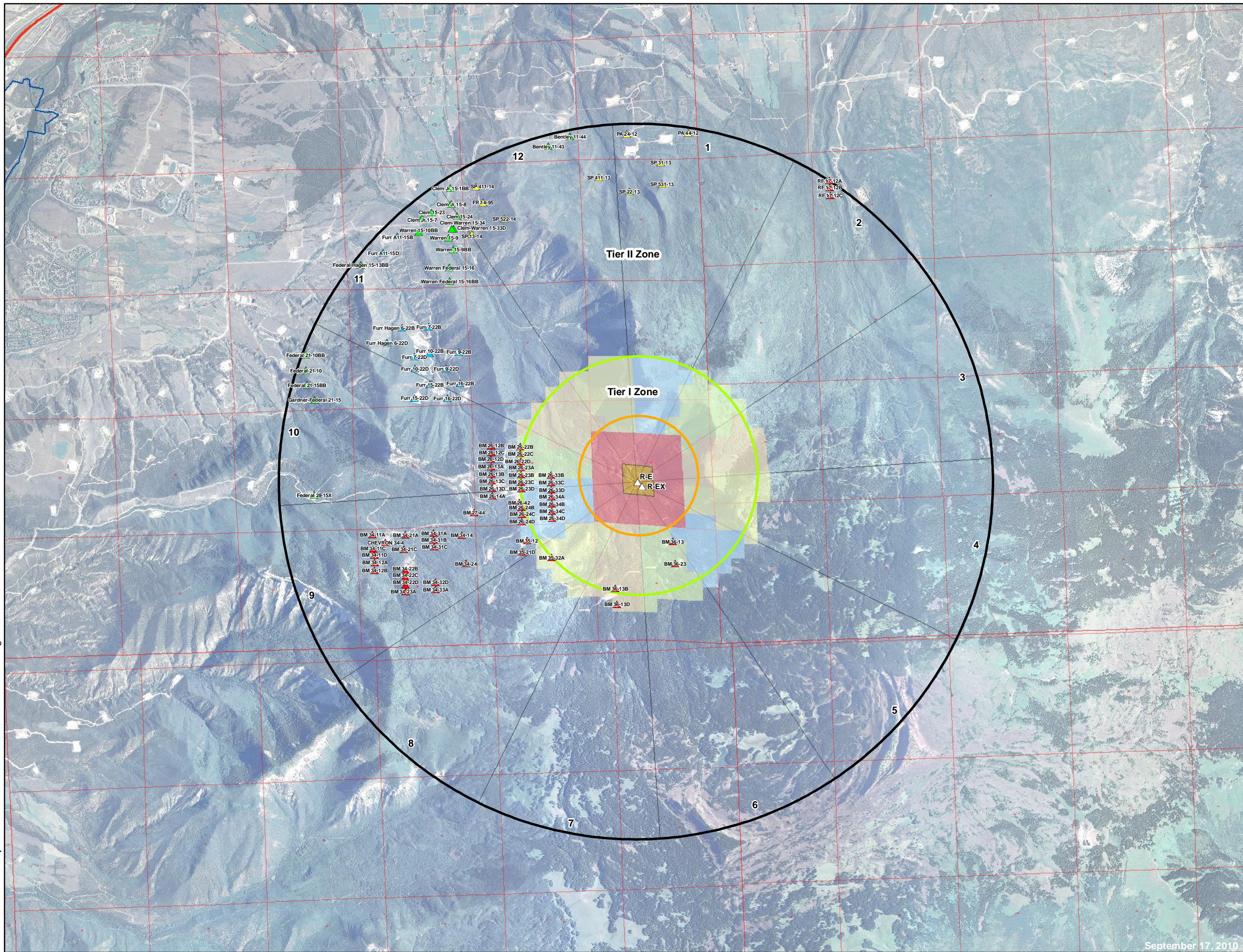
**Table 5  
Summary of Natural Gas Composition Results**

Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Concentration	Reporting Limit	Units	Flag	Detected ?
BM34-22D	Tier II	01/13/2010	NG	SA	Argon	ND	0	%	U	No
RF17-12C	Tier II	03/08/2010	NG	SA	Argon	ND	0	%	U	No
BM26-22D	Tier I	02/10/2010	NG	SA	Carbon Monoxide	ND	0	%	U	No
BM26-23A	Tier I	02/24/2010	NG	SA	Carbon Monoxide	ND	0	%	U	No
BM26-23B	Tier I	02/10/2010	NG	SA	Carbon Monoxide	ND	0	%	U	No
BM26-23C	Tier I	02/24/2010	NG	SA	Carbon Monoxide	ND	0	%	U	No
BM26-33C	Tier I	03/02/2010	NG	SA	Carbon Monoxide	ND	0	%	U	No
BM26-34A	Tier I	02/24/2010	NG	SA	Carbon Monoxide	ND	0	%	U	No
BM26-34D	Tier I	03/02/2010	NG	SA	Carbon Monoxide	ND	0	%	U	No
BM35-32A	Tier I	02/17/2010	NG	SA	Carbon Monoxide	ND	0	%	U	No
BM26-24B	Tier II	03/02/2010	NG	SA	Carbon Monoxide	ND	0	%	U	No
BM26-24C	Tier II	03/02/2010	NG	SA	Carbon Monoxide	ND	0	%	U	No
BM34-22D	Tier II	01/13/2010	NG	SA	Carbon Monoxide	ND	0	%	U	No
RF17-12C	Tier II	03/08/2010	NG	SA	Carbon Monoxide	ND	0	%	U	No
BM26-22D	Tier I	02/10/2010	NG	SA	Ethylene	ND	0	%	U	No
BM26-23A	Tier I	02/24/2010	NG	SA	Ethylene	ND	0	%	U	No
BM26-23B	Tier I	02/10/2010	NG	SA	Ethylene	ND	0	%	U	No
BM26-23C	Tier I	02/24/2010	NG	SA	Ethylene	ND	0	%	U	No
BM26-33C	Tier I	03/02/2010	NG	SA	Ethylene	ND	0	%	U	No
BM26-34A	Tier I	02/24/2010	NG	SA	Ethylene	ND	0	%	U	No
BM26-34D	Tier I	03/02/2010	NG	SA	Ethylene	ND	0	%	U	No
BM35-32A	Tier I	02/17/2010	NG	SA	Ethylene	ND	0	%	U	No
BM26-24B	Tier II	03/02/2010	NG	SA	Ethylene	ND	0	%	U	No
BM26-24C	Tier II	03/02/2010	NG	SA	Ethylene	ND	0	%	U	No
BM34-22D	Tier II	01/13/2010	NG	SA	Ethylene	ND	0	%	U	No
RF17-12C	Tier II	03/08/2010	NG	SA	Ethylene	ND	0	%	U	No
BM26-22D	Tier I	02/10/2010	NG	SA	Hydrogen Sulfide	ND	0	%	U	No

**Table 5  
Summary of Natural Gas Composition Results**

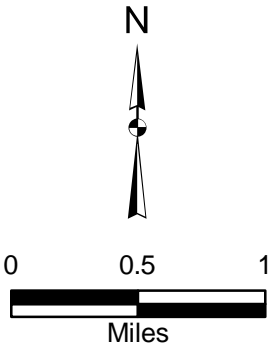
Well Number	Well Type	Sample Date	Medium	Sample Type	Parameter	Concentration	Reporting Limit	Units	Flag	Detected ?
BM26-23A	Tier I	02/24/2010	NG	SA	Hydrogen Sulfide	ND	0	%	U	No
BM26-23B	Tier I	02/10/2010	NG	SA	Hydrogen Sulfide	ND	0	%	U	No
BM26-23C	Tier I	02/24/2010	NG	SA	Hydrogen Sulfide	ND	0	%	U	No
BM26-33C	Tier I	03/02/2010	NG	SA	Hydrogen Sulfide	ND	0	%	U	No
BM26-34A	Tier I	02/24/2010	NG	SA	Hydrogen Sulfide	ND	0	%	U	No
BM26-34D	Tier I	03/02/2010	NG	SA	Hydrogen Sulfide	ND	0	%	U	No
BM35-32A	Tier I	02/17/2010	NG	SA	Hydrogen Sulfide	ND	0	%	U	No
BM26-24B	Tier II	03/02/2010	NG	SA	Hydrogen Sulfide	ND	0	%	U	No
BM26-24C	Tier II	03/02/2010	NG	SA	Hydrogen Sulfide	ND	0	%	U	No
BM34-22D	Tier II	01/13/2010	NG	SA	Hydrogen Sulfide	ND	0	%	U	No
RF17-12C	Tier II	03/08/2010	NG	SA	Hydrogen Sulfide	ND	0	%	U	No
BM26-33C	Tier I	03/02/2010	NG	SA	Oxygen	ND	0	%	U	No

Notes: NG = natural gas; SA = primary sample; FD = field duplicate; % = percent; BTU/Ft<sup>3</sup> = British Thermal Units per cubic foot at 14.696 psia and 60 °F;  $\rho_g/\rho_a$  = relative density (ratio of natural gas density to air density) at 14.696 psia and 60 °F; U = analyte was analyzed but was not detected above the reporting limit; ND = not detected; ‰ = parts per thousand.

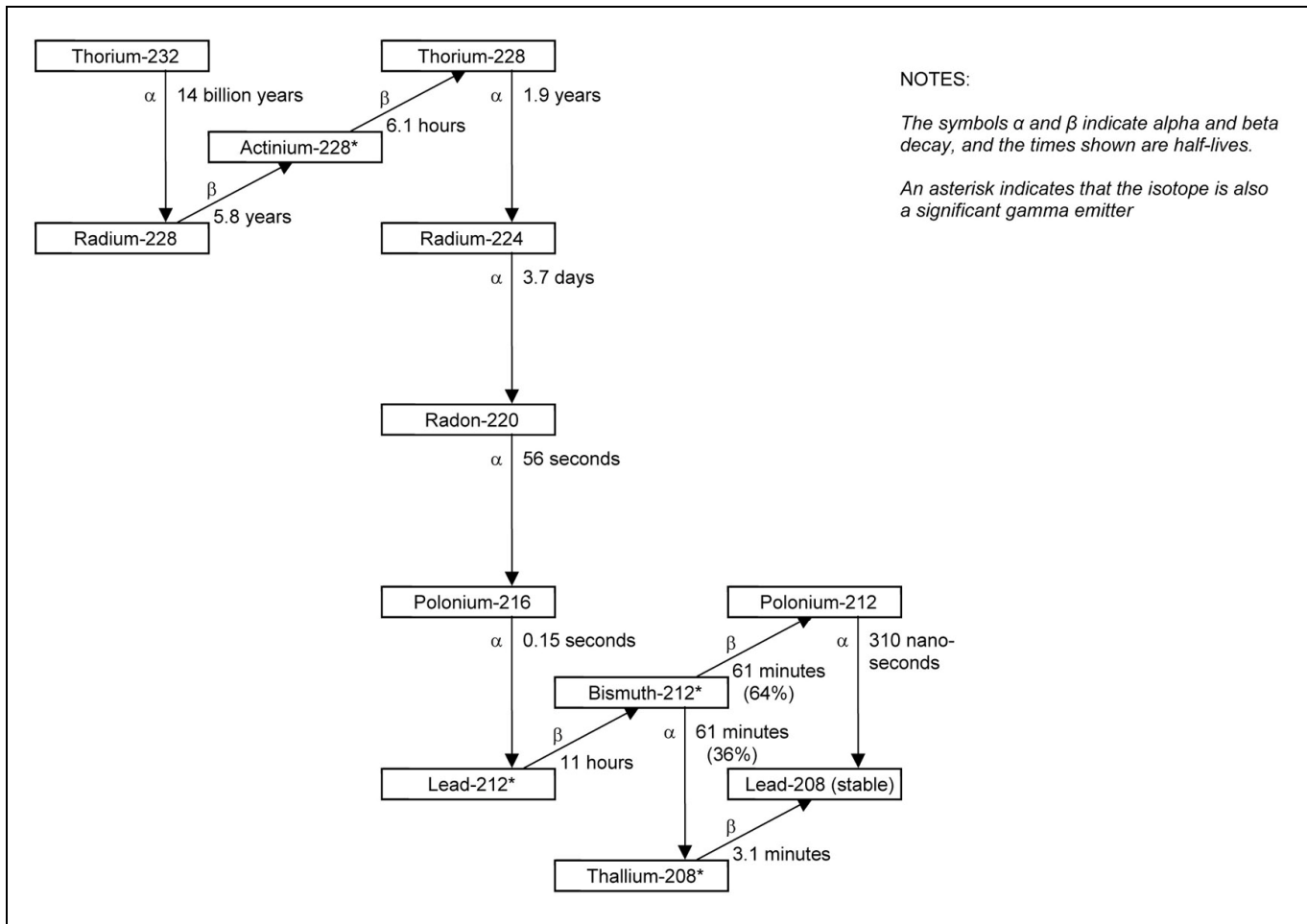


**Legend**

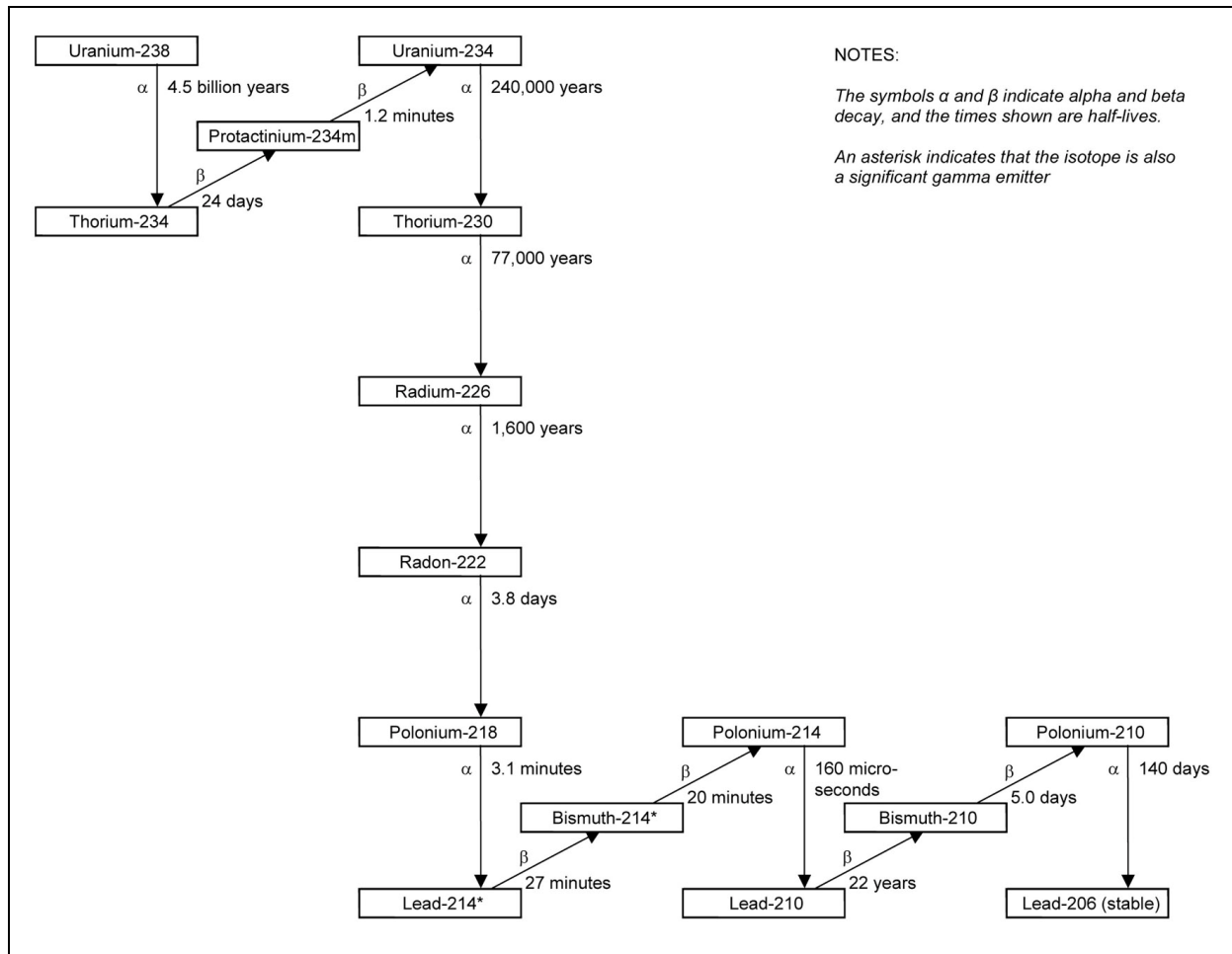
- ▲ Existing Noble Gas Well
- ▲ Existing EnCana Gas Well
- ▲ Existing Williams Gas Well
- ▲ Existing Laramie Gas Well
- △ Project Rulison Well
- COGCC Half- Mile Radius
- 1 Mile Radius Tier I Zone
- 3 Mile Radius Tier II Zone
- Project Rulison Lot 11
- Noble-Williams
- 2010 Voluntary Drilling Moratorium
- Tier I Sector 1
- Tier I Sector 2
- Tier I Sector 3
- Tier I Sector 4
- Tier I Sector 5
- Tier I Sector 6
- Tier I Sector 7
- Tier I Sector 8
- Tier I Sector 9
- Tier I Sector 10
- Tier I Sector 11
- Tier I Sector 12
- Township-Range-Section
- Monitoring Sectors



**Figure 1**  
**Gas Well Locations**  
**First Quarter 2010**  
**Project Rulison Area**  
**Garfield County, Colorado**



**Figure 2. Thorium-232 (Th-232) Decay Series (modified from ANL 2005).**



**Figure 3. Uranium-238 (U-238) Decay Series (modified from ANL 2005).**

**APPENDIX A**  
**LABORATORY DATA PACKAGES**  
**(Appendix on Compact Disk)**

**APPENDIX B**  
**DATA VALIDATION REPORTS**  
**(Appendix on Compact Disk)**



**APPENDIX C**

**FIELD SAMPLING RECORDS**

**(Appendix on Compact Disk)**



HIGH PRESSURE GAS

**WARNING**

**NATURAL GAS PIPELINE**

IN CASE OF EMERGENCY CALL:  
1-800-867-7971

BEFORE DIGGING CALL:  
1-800-822-1967