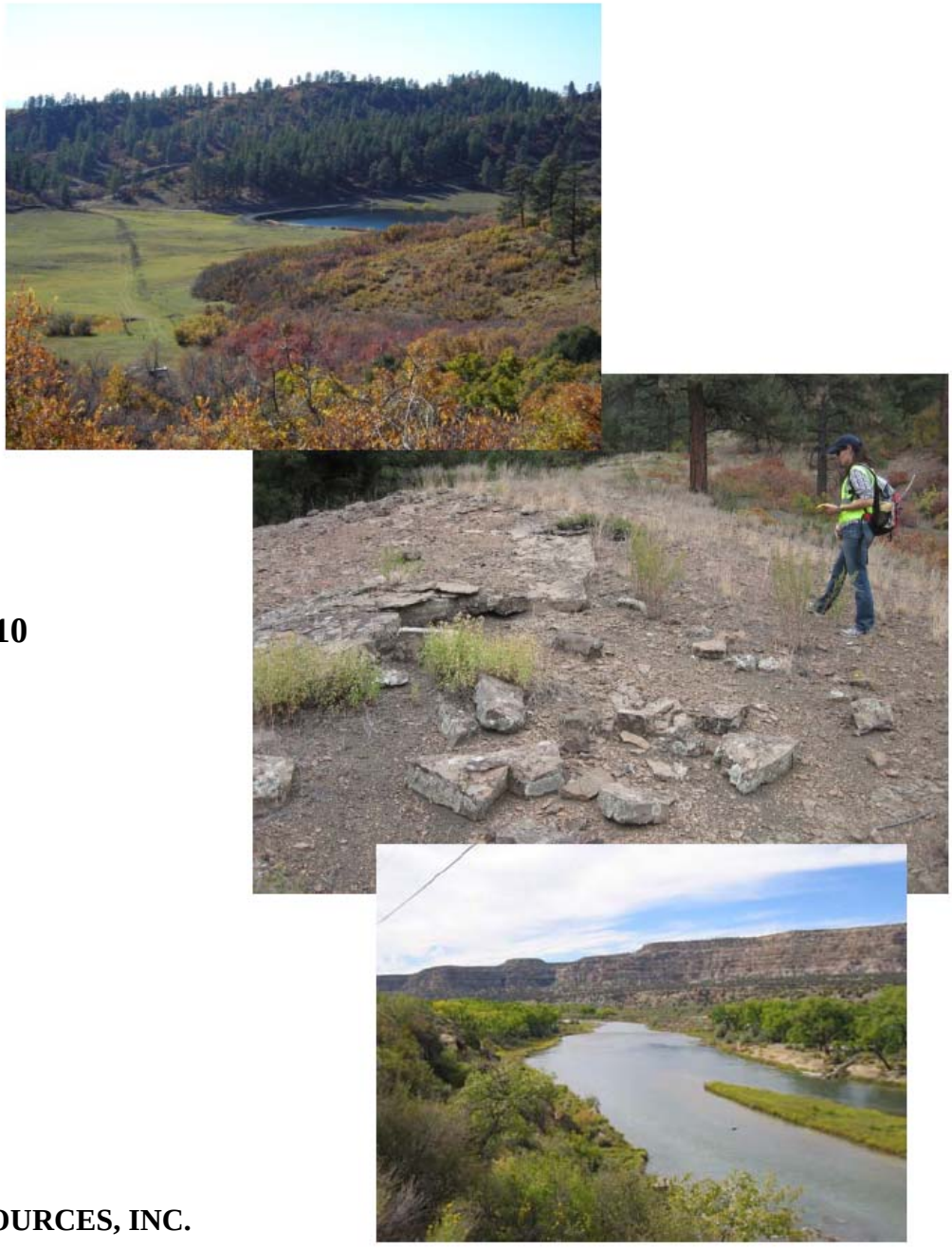
2010 FRUITLAND OUTCROP MONITORING REPORT

ARCHULETA COUNTY, COLORADO



DECEMBER 2010

Prepared For:

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Dallas, Texas

and

PETROX RESOURCES, INC.
Meeker, Colorado

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EXECUTIVE SUMMARY

This Fruitland Formation (Kf) Outcrop Monitoring Report has been prepared at the request of Elm Ridge Resources, Inc. (Elm Ridge) and Petrox Resources, Inc. (Petrox) for the eastern half of the northern rim of the San Juan Basin (SJB) in Archuleta County, Colorado. This monitoring program meets the requirements of Sections 1, 2, and 6 of the Conditions of Approval for the Pargin Mountain 10U #3 production well permit (Permit), issued by the Colorado Oil and Gas Conservation Commission (COGCC).

Surface water inspections were performed at six locations where drainages transect the Kf outcrop from July 15, 2010, to August 18, 2010. Methane seepage was not observed at the six streams inspected. As a result, no stream water samples were collected for dissolved methane analysis.

From 2007 to 2009, total volumetric methane flux was calculated using all methane flux values recorded in the field, regardless of the technical limitations of the flux meter. However, methane flux values that are below the reporting limit of 0.2 moles per square meter per day (moles/m^2·day) are not considered accurate and/or repeatable by the manufacturer of the flux meter. Therefore, the total volumetric methane flux reported in prior years appears to be inflated with inaccurate data. In 2010, only methane flux values above the reporting limit were used, resulting in a more accurate total volumetric methane flux.

The number of sample points with methane detected above the flux meter reporting limit decreased from three in 2009 to zero in 2010. Methane flux values observed below the reporting limit along the Kf outcrop in Archuleta County are very low and likely indicative of background conditions.

Methane flux was not detected above the reportable limit at the Big Horn-Schomburg #1 abandoned well site. Results of the survey continue to suggest there is no seepage at the Big Horn-Schomburg #1 abandoned well site.

Six natural springs along the Archuleta Kf outcrop were sampled for methane in July 2010. Methane was reported in the spring water at very low concentrations, which are below the 2 milligram per liter threshold that allows the samples to be further analyzed. The very low values also reflect the reduced risk for explosive conditions in a confined area. Methane was not detected at any of the subsurface soil gas measurements adjacent to 13 natural springs.

In order to maintain compliance with Sections 1, 2, and 6 of the COGCC Permit, LTE makes the following recommendations:

- Continue annual monitoring at the six drainage transects for discharges of methane gas from watercourses and soil;
- Continue annual monitoring of the Big Horn-Schomburg #1 abandoned well site as required under Section 6 of the COGCC Permit; and
- Perform regional reconnaissance survey and field verification activities in 2011.

SECTION 1.0

INTRODUCTION

This Fruitland Formation (Kf) Outcrop Monitoring Report has been prepared at the request of Elm Ridge Resources, Inc. (Elm Ridge) and Petrox Resources, Inc. (Petrox) for the eastern half of the northern rim of the San Juan Basin (SJB) in Archuleta County, Colorado.

1.1 PROJECT OBJECTIVES

The objectives of the monitoring program meet the requirements of Sections 1, 2, and 6 of the Conditions of Approval for the Pargin Mountain 10U #3 production well permit (Permit), issued by the Colorado Oil and Gas Conservation Commission (COGCC). These requirements include a Kf outcrop reconnaissance, a natural spring survey, and a soil gas survey of the Big Horn-Schomburg #1 abandoned well site. The monitoring program also includes a survey of Kf methane emissions where drainages transect the outcrop.

In total, the scope of work provides an efficient and repeatable means to characterize subsurface gas seepage, if any, in the project area by inspecting those areas with the greatest potential for seeps based on geological characteristics and historical field observations. Using a portable flux meter, LTE collects soil gas flux measurements along six drainage transects during annual investigations. Monitoring for the presence or absence of methane, carbon monoxide, and hydrogen sulfide along the six drainage transects is used to quantify changes in methane seepage volumes, if any, over time along the Kf outcrop in Archuleta County.

The Kf outcrop reconnaissance conducted every three years supplements the transects investigation and includes low altitude, high-resolution infrared aerial imagery to map the vegetation along the outcrop; identifying suspect areas for further field investigation; and surveying for the presence or absence of methane, carbon monoxide, and hydrogen sulfide in those suspect areas. The data are used to identify new potential seeps and to quantify changes in methane seepage, if any, over time along the Kf outcrop in Archuleta County.

The annual natural spring survey includes measuring spring flow and collecting water samples for analysis of water chemistry and dissolved methane. The data collected are used to document changes to water quality and quantity over time. The data may also be useful in various aspects of the Kf reservoir engineering models.

The COGCC Permit includes the Big Horn-Schomburg #1 survey which requires an annual soil gas survey around the abandoned production well and monitoring the permanent soil monitoring probe. The abandoned production well is located in the southeast quarter of the southeast quarter of Section 14U, Township 34 North, Range 5 West. LTE has surveyed the abandoned well site annually since 2006.

1.2 PROJECT AREA DESCRIPTION

The project area includes approximately 18 miles of Kf outcrop starting on the west end at the La Plata County–Archuleta County boundary near Beaver Creek and extends southeast along the

outcrop to the Southern Ute Indian Tribe (SUIT) Reservation boundary at Cabezon Canyon. Figure 1 illustrates the project area. A detailed project area map is included as Figure 2.

1.3 BACKGROUND

In July 2006, the United States Forest Service (USFS) and the Bureau of Land Management (BLM) issued the *Final Environmental Impact Statement, Northern San Juan Basin Coal Bed Methane Project (FEIS)* pertaining to the oil and gas industry's request to conduct coal bed methane (CBM) development on federal lands within the northern rim of the SJB (USFS/BLM, 2006). One of the potential impacts identified in the FEIS is methane seepage at the Kf outcrop, a phenomenon already observed in the western half of the northern rim in La Plata County (LT Environmental, Inc. [LTE], 2009). The FEIS recommends surveys of the Kf outcrop to monitor the potential for methane seepage and document changes over time and space.

As stated in the FEIS, methane seeps have been observed and reported in the SJB since the late 1800s, particularly from the outcrop of the coal beds in the Kf within La Plata County. Seeps may be monitored through detailed mapping, subsurface and surface methane measurements, natural spring surveys, and reconnaissance surveys along the outcrop looking for areas of stressed and dead vegetation.

Since 1997, LTE has conducted methane seep monitoring on the Kf outcrop in La Plata County, Colorado. The monitoring program in Archuleta County has been modeled after the La Plata County monitoring program.

In September 2004, LTE conducted the initial investigation of the Kf outcrop in Archuleta County (LTE, 2004). The scope of the initial investigation included an aerial fly-over reconnaissance of the entire outcrop followed by field inspections of identified suspect areas. Suspect areas are locations where stressed and dead vegetation on the Kf outcrop were observed. Additionally, areas where surface water bodies, namely rivers and streams, transect the Kf outcrop were investigated. Using traditional subsurface soil gas sampling techniques, no methane seep activity was noted during the 2004 investigation. Areas of dead and stressed vegetation appeared to have been the result of drought conditions and/or pine beetle infestation.

In September 2005, LTE conducted a second investigation of the Kf outcrop in Archuleta County (LTE, 2006a). The scope of the second investigation included aerial imagery acquisition using an infrared (IR) camera to identify suspect areas on the Kf outcrop. LTE visited each accessible suspect area, collected shallow subsurface gas concentration measurements, and inspected the vegetation to identify potential causes of mortality. LTE also performed the first survey of natural springs located on the outcrop in order to provide a baseline of natural spring water conditions on the outcrop. Results of the 2005 monitoring event indicated that methane was not detected in the shallow subsurface soil sample locations in Archuleta County. Very low concentrations of dissolved methane were detected in several of the natural springs sampled in the project area during the 2005 monitoring event.

In 2006, LTE conducted a third investigation of the Kf outcrop in Archuleta County (LTE, 2006b). This investigation included surface water inspections of seven drainages along the Kf outcrop, sampling natural springs identified by LTE and the BLM during past surveys, collecting

subsurface gas measurements from four permanent gas monitoring probe lines, and conducting soil gas surveys on the Candelaria Ranch and the Big Horn-Schomburg #1 abandoned well site. Results of the 2006 monitoring event were similar to the results of the 2005 monitoring event: methane was not detected in the shallow subsurface soil in Archuleta County with the exception of a low concentration (20 parts per million [ppm]) recorded at one sample point in Pole Gulch. Very low concentrations of dissolved methane were detected in several of the natural springs sampled during the 2006 investigation.

Equipment capable of detecting very low concentrations of methane seepage became available for the 2007 investigation. This equipment, which measures methane flux from the ground surface, has been used since 2007 at the Big Horn-Schomburg #1 abandoned well site and areas within the Kf outcrop at drainage transects. Traditional subsurface gas detection techniques, as described in Section 2.3.1, used in these areas prior to 2007 were not capable of detecting methane at the low levels subsequently reported from 2007 to present. The presence of methane (reported annually since 2007 using flux equipment) at locations where methane had not been detected prior to 2007 (using subsurface gas detection equipment) does not necessarily represent an increase in methane seep conditions.

From 2007 to 2009, LTE conducted the three investigations of the Kf outcrop in Archuleta County. The scope of work included completing surface water inspections and soil gas surveys of six water courses along the outcrop, conducting a soil gas survey at the Big Horn-Schomburg #1 abandoned well site, and sampling natural springs. These were conducted using a flux meter to measure methane seeps.

In 2008, the scope of work also included a regional reconnaissance of the Kf outcrop using infrared aerial imagery and field verification techniques.

1.4 SCOPE OF WORK

The scope of work for the investigation included the following tasks:

- Obtaining permission to access private properties;
- Inspecting six Kf outcrop drainage transects;
- Measuring soil gas at the Big Horn-Schomburg #1 abandoned well site;
- Surveying and sampling natural springs; and
- Preparing this report.

1.5 ORGANIZATION OF REPORT

This report is organized into five sections including this introduction as Section 1.0. The field methods are described in Section 2.0. The results of the investigation are presented in Section 3.0. The conclusions and recommendations are summarized in Section 4.0. References are presented in Section 5.0, and figures, tables, and appendices follow the text in separate sections.

SECTION 2.0

FIELD METHODS

This section describes the data collection methods used to conduct surface water inspections, soil gas flux surveys, subsurface soil gas surveys, locate and log sampling locations using global positioning systems (GPS), and conduct natural spring surveys.

2.1 PROPERTY ACCESS

Prior to conducting the 2010 field activities, LTE acquired land information from the Archuleta County Assessor's Office. LTE cross-referenced parcel data and the Kf outcrop geometry to identify owners of parcels located on the Kf outcrop. Much of the outcrop land is within federal land with unrestricted access. LTE attempted to contact private landowners along the Kf outcrop in Archuleta County. LTE personnel were denied access to several properties; and as a result, no investigation activities were conducted on these properties during the 2010 monitoring event. The 2010 status of access to parcels is presented in Table 1 and illustrated on Figure 3.

2.2 DETAILED MAPPING

The grids for detailed mapping areas consisted of varying numbers of squares, ranging in area from 2,500 square feet (ft^2) to 40,000 ft^2. In general, 50-foot and 200-foot grid spacings were used, depending on site-specific needs. The grid mapping system has proven to be systematic, consistent, repeatable, and successful in delineating the areal extent of seepage.

LTE collected a flux measurement at the corner of each grid square. When methane was detected along the outer edges of the mapping area, additional grid points were developed and measured to determine the extent of methane seepage.

Full color spectrum aerial photographs used as base maps for field use and figures for this report are dated 2005 and 2007 and do not necessarily indicate present surface conditions. The geologic contacts depicted on the aerial photographic maps were derived from geologic maps prepared by the Colorado Geological Survey (CGS) and digitized at a scale of 1:25,000. Accuracy of the formation contact is reduced when aerial photographs are viewed at a smaller scale.

LTE conducted inspections along six locations where surface water drainages transect the Kf outcrop in Archuleta County from July 15, 2010, to August 18, 2010.

2.2.1 Flux Measurements

The flux of soil gases moving across the soil surface to the atmosphere were measured using a West Systems, LLC (West Systems) portable gas flux meter. The flux meter has been used to measure soil gas seepage on the Kf outcrop since 2007. The meter measures the flux of methane, hydrogen sulfide, and carbon dioxide by employing individual gas-specific sensors that record the increases, if any, of gas concentrations over time for a given surface area. These increases in concentration over time are proportional to the flux of each gas measured. A brief description of

the flux meter is summarized below. Information on the West Systems portable gas flux meter is provided in Appendix A.

The flux meter components include an accumulation chamber connected by circulation tubes to the gas detector unit. At each sampling point, the accumulation chamber was placed on the ground surface to capture gas seeping from the ground. Captured gases are continuously mixed by a small fan within the accumulation chamber during the measurement process. A pump moves the gases in the accumulation chamber to the detector unit. After passing through the detector unit, gases are returned to the chamber. This closed loop process allows soil gases discharging to the chamber to increase over time. Any increases in concentrations are measured and recorded automatically. No gas is allowed to escape the system; however, a vacuum is not created during the process. This enables the measurement of natural seep conditions, if present. The result for each gas is reported as a mass flux in units of moles per square meter per day (moles/m^2·day).

Flux measurement accuracy can be limited by surface conditions. One of the most important factors is the quality of the seal between the accumulation chamber base and the ground surface. To ensure a proper seal between the ground surface and the chamber, LTE personnel chose relatively flat surfaces where possible and placed loose soil around the base of the chamber to reduce the potential for gas loss at the base of the chamber. In addition, LTE attempted to minimize ground disturbance during the measurement process in order to maintain the natural seep conditions. In areas with heterogeneous surfaces, the seal was sometimes difficult to achieve. This scenario was evident at locations with poorly developed soil or the soil surface was obscured by decayed organic matter on the forest floor.

The methane sensor within the flux meter unit has a range of 60 ppm to 50,000 ppm. The methane flux measurement range is 0.2 to 300 moles/m^2·day. Methane flux values below 0.2 moles/m^2·day are detectable with decreased accuracy. Due to the low accuracy and confidence level of methane flux values below 0.2 moles/m^2·day, the reporting limit set for the flux meter is 0.2 moles/m^2·day. As a result, reporting of methane flux values did not include values below the reporting limit and were not included in methane flux contours or in the calculation of total methane flux volumes. Supporting methane flux data are included in Appendix B.

The carbon dioxide sensor has a full-scale range of 0 to 20,000 ppm by volume (ppmV) and a flux measurement range of 0 to 600 moles/m^2·day at an accuracy of ±25 percent (%).

The hydrogen sulfide detector has a full-scale range of 0 to 20 ppm and a flux measurement range of 0.0025 to 0.5 moles/m^2·day at an accuracy of ±25%. The sensor is an electrochemical cell that measures hydrogen sulfide through a chemical oxidation process. The sensing process consumes a small amount of the hydrogen sulfide, which is not returned to the flux meter's accumulation chamber. Therefore, the flux meter can underestimate hydrogen sulfide flux by as much as 10%.

During the measurement process, gas concentrations are recorded at one-second intervals and directly downloaded via Bluetooth® connection to a portable digital assistant (PDA) integrated with the Trimble GeoXT® GPS unit (described below). Other measurements recorded included barometric pressure, temperature, date, and time.

Integrated West Systems Flux Manager® software on the GPS unit recorded the gas measurement data. The software plotted the curve of gas concentration versus time for each measurement collected. LTE selected the best-fit line for the curve generated. The slope of the best-fit line is proportional to the flux at the measurement point.

2.2.2 Global Positioning System Data Management

Each sample location was recorded using a GPS unit. Soil gas sampling grids were created in ArcView® and pre-loaded into the GPS unit so field personnel could quickly and accurately position detection equipment along the project area. Soil gas measurements and other relevant field data were then stored as attributes in the GPS unit along with the associated location data. The data stored in the GPS unit were later downloaded for processing and reporting.

The GPS unit location data were collected in the World Geodetic System 1984 (WGS 84) and projected in Universal Transverse Mercator (UTM) Zone 13 North, North American Datum 1983 (NAD 83) for use in an ArcView® project file. On average, 25 GPS log points were collected for each point feature in order to obtain more accurate positioning.

Readings collected with the GPS unit can be located with one-meter accuracy. However, the terrain along the Kf outcrop can adversely impact GPS unit accuracy. North-facing slopes and heavily wooded areas can distort or block satellite signals. When satellite signals are limited, positioning accuracy decreases. In locations where the GPS unit could not obtain a signal, LTE field personnel noted measurement data on their field reference maps. Specifications of the GPS unit are included in Appendix A.

2.3 NATURAL SPRINGS MONITORING

2.3.1 Subsurface Soil Gas Measurements

LTE conducted shallow subsurface soil gas surveys utilizing a rod, slide-hammer, plastic tubing perforated at depth, and a multi-gas field meter. A GPS was also used to map survey points and record field measurements during the natural spring sampling phase of the project.

LTE personnel used a Mine Safety Appliances (MSA) GasPort® multi-gas meter to measure the concentrations of methane, carbon monoxide, hydrogen sulfide, and oxygen in the subsurface soil. Subsurface soil gas measurements were collected by using a hand-driven slide hammer to drive a ½-inch diameter steel rod into the ground to depths ranging from one foot below ground surface (bgs) to three feet bgs. Occasionally, advancement of boreholes in consolidated outcrop materials was limited. Where probe refusal occurred, measurements were taken at the depth bored.

The rod was removed from the ground and ¼-inch diameter polyethylene tubing was inserted into the borehole. The tubing was perforated at the bottom six inches to allow soil gas to enter the tubing. Once the temporary tubing was in place and the borehole was sealed with native soil, LTE personnel attached the multi-gas meter to the tubing. The multi-gas meter's internal pump pulled gas from the soil, through the tubing, and into the meter's gas sensors.

LTE recorded the maximum concentrations of methane, carbon monoxide, and hydrogen sulfide; and the minimum concentration of oxygen at each sampling location. Data were recorded in a field notebook and on the GPS.

The multi-gas meter is capable of detecting methane in concentrations from 0 to 100%, oxygen concentrations from 0 to 25%, carbon monoxide concentrations from 0 to 1,000 ppm, and hydrogen sulfide concentrations from 0 to 100 ppm. Specifications for the multi-gas meter are included in Appendix A.

2.3.2 Water Sampling

At each sampled natural spring, LTE collected water samples and monitored for subsurface soil gases near the springs using the multi-gas meter. At each natural spring, LTE located the position and elevation using the GPS. A water discharge rate was measured using a graduated cylinder and stop-watch. Water quality measurements, including pH, electrical conductivity (EC), and temperature were collected at each sampled natural spring.

Laboratory analytical water samples were collected at each accessible and flowing natural spring in bottles and containers prepared by the subcontracted analytical laboratories. Each sample bottle was labeled, indicating the project and sample identification, and the date and time of sample collection. Samples were delivered directly or shipped to the laboratories under chain-of-custody controls.

In 2010, natural spring water samples were collected and submitted to Four Corners Geoscience, Inc. for analysis of dissolved methane. Water samples were submitted to Green Analytical Laboratories for general water chemistry analyses.

2.4 ABANDONED PRODUCTION WELL SOIL GAS MAPPING

The Big Horn-Schomburg #1 production well was drilled and abandoned in 1961. Reference information indicates that the Kf is close to, or outcrops, at this location (USFS/BLM, 2006). Geologic maps from the FEIS indicate that the abandoned production well is located in the transition zone between the Kf and the Kirtland Formation (Kk).

LTE conducted an initial subsurface soil gas survey and installed a permanent gas monitoring probe in the vicinity of the abandoned well in September 2005. As a stipulation of the COGCC Permit, a soil gas survey surrounding the abandoned Big Horn-Schomburg #1 production well was conducted on July 15, 2010, for the presence or absence of subsurface methane.

LTE personnel collected methane flux points next to each abandoned production well and in the vicinity utilizing the flux meter. If methane was detected in soil, the seep area was then delineated in all four directions.

SECTION 3.0

MONITORING RESULTS

This section describes the results of the field activities conducted from July 15, 2010, to August 18, 2010.

3.1 DRAINAGE TRANSECTS SURVEY

LTE conducted inspections at the following six locations where surface water drainages transect the Kf outcrop in Archuleta County from July 15, 2010, to August 18, 2010 (Figure 2):

- Beaver Creek;
- Squaw Creek;
- Little Squaw Creek;
- Pole Gulch;
- Peterson Gulch; and
- Stollsteimer Creek.

The locations of these creeks are shown in Figures 1 and 2.

3.1.1 Water Surface Inspections

Methane was not observed being discharged as bubbles on the water surface at any of the six drainage transects inspected during the 2010 investigation.

3.1.2 Soil Gas Flux Measurements

Using the flux meter, LTE personnel collected soil gas flux measurements along the six drainage transects during the 2010 investigation. Methane flux values ranged from 0.0069 moles/m^2·day (Peterson Gulch) to 0.1493 moles/m^2·day (Stollsteimer Creek).

All 974 methane flux measurements were below the lower limit of the flux meter reporting limit of 0.2 moles/m^2·day. Therefore, the methane flux values recorded during 2010 are considered very low.

Results of the soil gas flux measurement surveys indicate that there are potentially low background levels of methane present at the ground surface along the Kf outcrop in Archuleta County. For a better perspective of the methane flux rates, LTE converted the mass flux measurements into volumetric flux. The unit conversion is based on the molecular weight and density of methane at approximately 7,000 feet above mean sea level. The calculation is as follows:

$$\frac{\text{mol } CH_4}{m^2 \cdot \text{day}} \times \frac{16.04276 \text{ g } CH_4}{\text{mol } CH_4} \times \frac{0.0698 \text{ ft}^3 CH_4}{\text{g } CH_4} = \frac{\text{ft}^3 CH_4{}^3}{m^2 \cdot \text{day}}$$

Notes: CH4 – methane; g – grams; ft3 – cubic feet

Based on the calculation, the maximum methane flux rate recorded in Archuleta County during the 2010 soil gas survey was 0.1219 cubic feet per square meter per day ($ft^3/m^2 \cdot day$).

The soil gas flux measurement survey results for the six drainages are presented on Figures 4 through 9. Minimum and maximum methane flux values by drainage are summarized in Table 2. Appendix B contains the soil gas flux measurement results for each sample location.

3.1.3 Total Methane Flux Estimations

LTE estimated the total flux of methane at each drainage transect using data collected with the flux meter. Flux data were interpolated and gridded along each of the six drainage transect areas, and then contoured and processed to estimate the total flux.

For a better perspective of the methane flux rates, LTE converted the mass flux values into volumetric flux units of cubic feet per day (CFD), assuming equal areas. The unit conversion is based on the molecular weight of the gas and the density of the gas at approximately 7,000 feet above mean sea level. For methane flux, the calculation is as follows:

$$\frac{\text{mol } CH_4}{\text{day}} \times \frac{16.04276 \text{ g } CH_4}{\text{mol } CH_4} \times \frac{0.0698 \text{ ft}^3 CH_4}{\text{g } CH_4} = \frac{\text{ft}^3 CH_4}{\text{day}}$$

For example,

$$1.0 \text{ mole/day } CH_4 = 1.12 \text{ CFD } CH_4$$

Due to the limited number of sample points and the high number of points with no measurable flux, the volumetric flux values calculated are an estimate and may not represent actual values for the specific areas. Total volumetric methane flux calculated for the Kf outcrop in Archuleta County in 2010 utilizing all methane flux values was 18.8 thousand cubic feet per day (MCFD). A total estimated volumetric methane flux in 2010 utilizing only those values that were equal to or greater than the reporting limit was 0.0 MCFD.

From 2007 to 2009, total volumetric methane flux was calculated using all methane flux values recorded in the field, regardless of the technical limitations of the flux meter. However, methane flux values that are below the reporting limit of 0.2 moles/$m^2 \cdot$day are not considered accurate and/or repeatable by the manufacturer of the flux meter. Therefore, the total volumetric methane flux reported in prior years appears to be inflated with inaccurate data. In 2010, only methane flux values above the reporting limit were used, resulting in a more accurate total volumetric methane flux.

Using all methane flux values, the total volumetric methane flux increased from 13.7 MCFD in 2009 to 18.8 MCFD in 2010. This increase can be equated to a greater number of sample points and should not be seen as an increase in methane seepage. Every location sampled in Archuleta County fell below the reportable detection limit of 0.2 moles/$m^2 \cdot$day in 2010, compared to 3 points in 2009. When using only reportable methane flux values, the total reportable methane

flux volume went from 0.52 MCFD in 2009 to 0.00 MCFD in 2010. Methane that is detected in Archuleta County appears to be associated with background levels.

A discussion of the methods and calculations used to determine total methane flux is presented in Appendix C. Total methane flux estimates are summarized in Table 2.

3.1.4 Total Carbon Dioxide Flux Estimations

As with estimating the total flux of methane at each drainage transect using data collected with the flux meter, LTE interpolated and gridded carbon dioxide flux data along each of the six drainage transect areas, and then contoured and processed to estimate total flux. Carbon dioxide flux contours and values are included on figures in Appendix D.

For a better perspective of the carbon dioxide flux rates, LTE converted the mass flux values into volumetric flux units of CFD, assuming equal areas. The unit conversion is based on the molecular weight of the gas and the density of the gas at approximately 7,000 feet above mean sea level. For carbon dioxide flux, the calculation is as follows, where CO_2 represents carbon dioxide:

$$\frac{\text{mol } CO_2}{\text{day}} \times \frac{44.01 \text{ g } CO_2}{\text{mol } CO_2} \times \frac{0.0253 \text{ ft}^3 CO_2}{\text{g } CO_2} = \frac{\text{ft}^3 CO_2}{\text{day}}$$

For example,

$$1.0 \text{ mole/day } CO_2 = 1.11 \text{ CFD } CO_2$$

Due to very low concentrations of methane detected along the drainage transects, the carbon dioxide flux values do not appear to correlate with methane concentrations. It appears that carbon dioxide is naturally occurring along the drainage transects and as a result, carbon dioxide data is not discussed for each transect. Carbon dioxide flux data are included in Appendix B.

3.2 BIG HORN-SCHOMBURG #1 ABANDONED WELL SITE SURVEY

LTE conducted the 2010 Big Horn-Schomburg #1 abandoned production well survey on July 15, 2010. LTE collected 14 flux measurements. Methane was not reported at any of the 14 points surveyed with the flux meter. The maximum methane flux measurement recorded was 0.1493 moles/m^2·day, which is below the reporting limit of the flux meter and is considered low. The flux measurement results are presented in Table 2. Figure 10 presents the results of the Big Horn-Schomburg #1 abandoned well site soil gas survey.

3.3 NATURAL SPRINGS SURVEY

3.3.1 Sampling Status

During LTE's previous literature and interview research, a total of 27 potential natural springs were identified on the Kf outcrop in Archuleta County. All 27 natural springs were located in physically accessible areas. The locations of natural springs are presented on Figure 11.

A summary of the natural springs sampled in 2010, along with past sampling status, is presented in Table 3.

Ten springs were not sampled in 2010 due to property access denial by property owners. The natural spring identified as Miser Spring and a pipeline was field-verified by LTE in 2006 and appears to be a hand-dug well used as a water supply for the residence located nearby. LTE was not granted access to this spring in 2010.

LTE personnel were unable to field-locate the natural spring identified as Seep Spring.

Five springs (Vance Meadow Spring, Townsend Spring, Walt Spring #1, Corrigan Spring, and Big Hole Spring) were dry at the time of the 2010 sampling event.

LTE was able to collect water samples from the following natural springs in 2010:

Natural Spring	Location	GPS Location (Northing)	GPS Location (Easting)
Watson Well Spring	Section 19-T35N-R5W	1232573.797	2428920.250
Crain Spring	Section 20-T35N-R5W	1229136.933	2432587.070
Vance Spring #1	Section 8-T35N-R5WA	1213690.159	2433944.129
Willow Spring	Section 15-T34N-R5WA	1207206.498	2446331.295
Section 14 Spring	Section 14-T 34N-R5WA	1206894.748	2450487.926
NW John Grub	Section 11U-T34N-R5W	1203606.349	2458338.090

Note: The Northing and Easting coordinates are in Colorado State Plane South (feet) – NAD 83.

3.3.2 Field Observations and Measurements

Field observations and measurements of temperature, pH, and electrical conductivity (EC) were collected at the sampled natural springs. The 2010 field observations and measurements for the natural springs, including historical measurements, are summarized in Table 4.

Natural spring discharge rates were measured at four of the six water sampling locations in July 2010. Measurements were calculated by dividing the known volume of a container by the time required to fill the container. Watson Well Spring, where water collected and discharged through a domestic system, was not measured. Natural spring discharge rates, including historical data, are presented in Table 5.

At natural springs with a measurable flow, the maximum flow rate was 2.0 gallons per minute (gpm) at Crain Spring. The flow rates observed in 2010 are similar to the low flow rates observed historically in the Archuleta County Kf outcrop monitoring events.

3.3.3 Natural Springs Sampling and Analysis

In 2010, natural spring water samples were collected and submitted to Four Corners Geoscience, Inc. for analysis of dissolved methane. The COGCC uses 2 milligrams per liter (mg/L) for methane in domestic water systems as the threshold to identify water for further investigation of

the origin of the methane in the water. The COGCC holds that water systems containing dissolved methane concentrations above 2 mg/L have an increased risk of desorption from the water and create potentially explosive conditions in confined spaces. In 2010, dissolved methane was only detected in water from the NW John Grub Spring (0.07 mg/L), well below the 2 mg/L threshold. Laboratory analytical results for dissolved methane in natural spring waters, including historical results, are summarized in Table 6.

All natural springs sampled are calcium bicarbonate waters. Major ion chemistry of the natural springs is summarized in Table 7. Analytical results and stiff diagrams are presented in Appendix D.

3.3.4 Subsurface Soil Gas Measurements

One set of subsurface soil gas measurements using the multi-gas meter was collected at 13 natural springs in July 2010. Subsurface soil methane was not detected at NW John Grub Spring. The results of the subsurface soil gas measurements are summarized in Table 8.

SECTION 4.0

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

4.1 SUMMARY

Surface water inspections were performed at six locations where drainages transect the Kf outcrop from July 15, 2010, to August 18, 2010. Methane seep was not observed bubbling on the water surface at any of the six streams inspected. As a result, no stream water samples were collected for dissolved methane analysis.

The 2010 monitoring event was the fourth year that methane flux measurements were collected using a flux meter. From 2007 to 2009, total volumetric methane flux was calculated using all methane flux values recorded in the field, regardless of the technical limitations of the flux meter. However, methane flux values that are below the reporting limit of 0.2 moles/m^2·day are not considered accurate and/or repeatable by the manufacturer of the flux meter. Therefore, the total volumetric methane flux reported in prior years appears to be inflated with inaccurate data. In 2010, only methane flux values above the reporting limit were used, resulting in a more accurate total volumetric methane flux.

LTE personnel collected 974 soil gas flux measurements at the six drainage transects during the 2010 investigation. All methane flux measurements were below the 0.2 mg/L reportable limit of the flux meter. As a result, a total estimated methane flux volume, utilizing only those values that were equal to or greater than the reporting limit, was 0.0 MCFD.

The number of sample points increased from 84 in 2007 to 974 in 2010. The number of sample points with methane detected above the flux meter reporting limit went from five in 2007 to none in 2010.

Fourteen soil gas methane flux measurement points were taken in 2010 at the Big Horn-Schomburg #1 abandoned well site. No methane fluxes were detected above the reportable limit. Results of the survey continue to suggest there is no seepage at the Big Horn-Schomburg #1 abandoned well site.

Water discharge rates from three natural springs were measured in July 2010. Similar low flow rates have been typically measured in previous years.

Of the 27 documented natural springs along the Archuleta Kf outcrop, six natural springs were sampled for methane in July 2010. Methane was reported in the spring water at very low concentrations, which are below the 2.0 mg/L threshold that allows the samples to be analyzed further. Methane was not detected at any of the subsurface soil gas measurements adjacent to 13 natural springs.

General water chemistry of natural springs, including major ion concentrations, was analyzed for the second time in 2010. All natural springs sampled show a calcium bicarbonate signature. Subsurface soil gas was measured adjacent to 13 natural springs. Methane was not detected at any of the locations.

4.2 CONCLUSIONS

The lack of reportable methane flux values from the 974 sample points in 2010 along the Kf outcrop in Archuleta County suggests there is little or no methane seepage occurring over the mapped areas.

The very low concentrations of methane detected in the natural spring water samples along the Kf outcrop in Archuleta County also suggests that methane is not seeping in those areas, and what low values exist in water at limited natural springs reflect the reduced risk for explosive conditions in a confined area.

4.3 RECOMMENDATIONS

In order to maintain compliance with the COGCC Permit, LTE makes the following recommendations.

- Continue annual monitoring at the six drainage transects for discharges of methane gas from watercourses and soil;
- Continue annual monitoring of the Big Horn-Schomburg #1 abandoned well site as required under Section 6 of the COGCC Permit; and
- Perform regional reconnaissance survey and field verification activities in 2011.

SECTION 5.0

REFERENCES

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-----. 2008b. *2007 Fruitland Outcrop Monitoring Report, La Plata County, Colorado*. June 2008.

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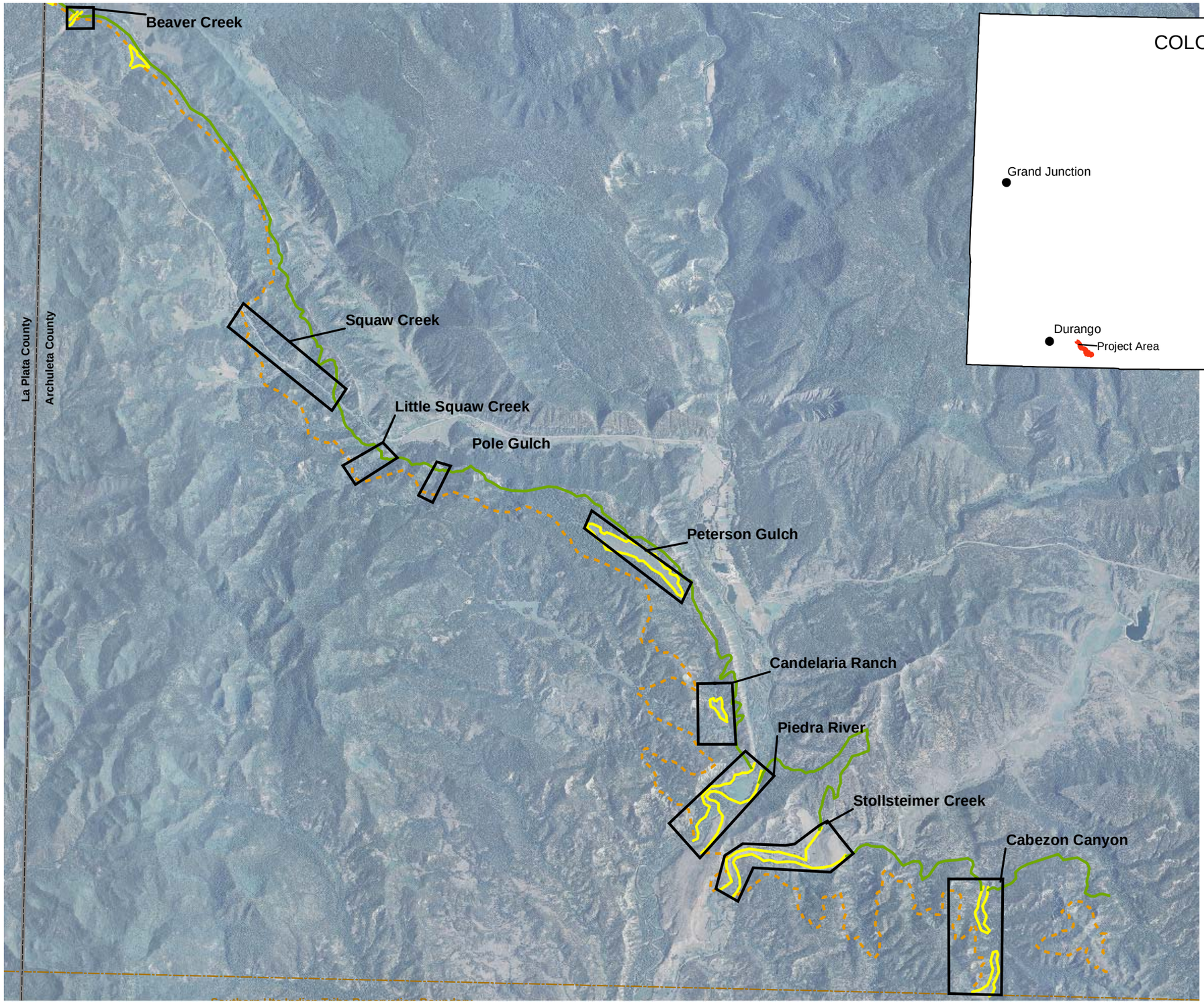
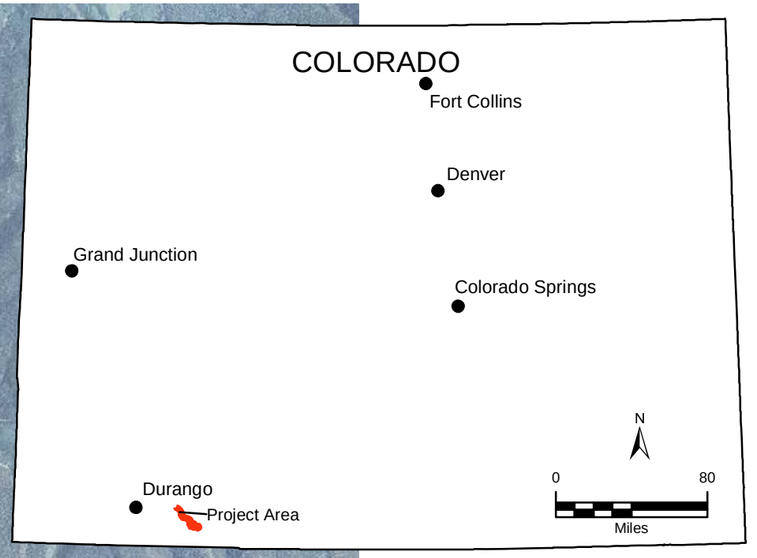
FIGURES





Legend

- Area of Interest
- County Boundary
- Southern Ute Indian Tribe Reservation Boundary

Geology

- Fruitland Formation (Kf)
- Fruitland Formation Tongue (Kft)
- Kirtland Formation (Kk)
- Pictured Cliffs Formation (Kpc)
- Pictured Cliffs Formation Tongue (Kpct)
- Quaternary Alluvium (Qa)
- Quaternary Gravel (Qg)

Image Courtesy of USDA/NRCS, 2009

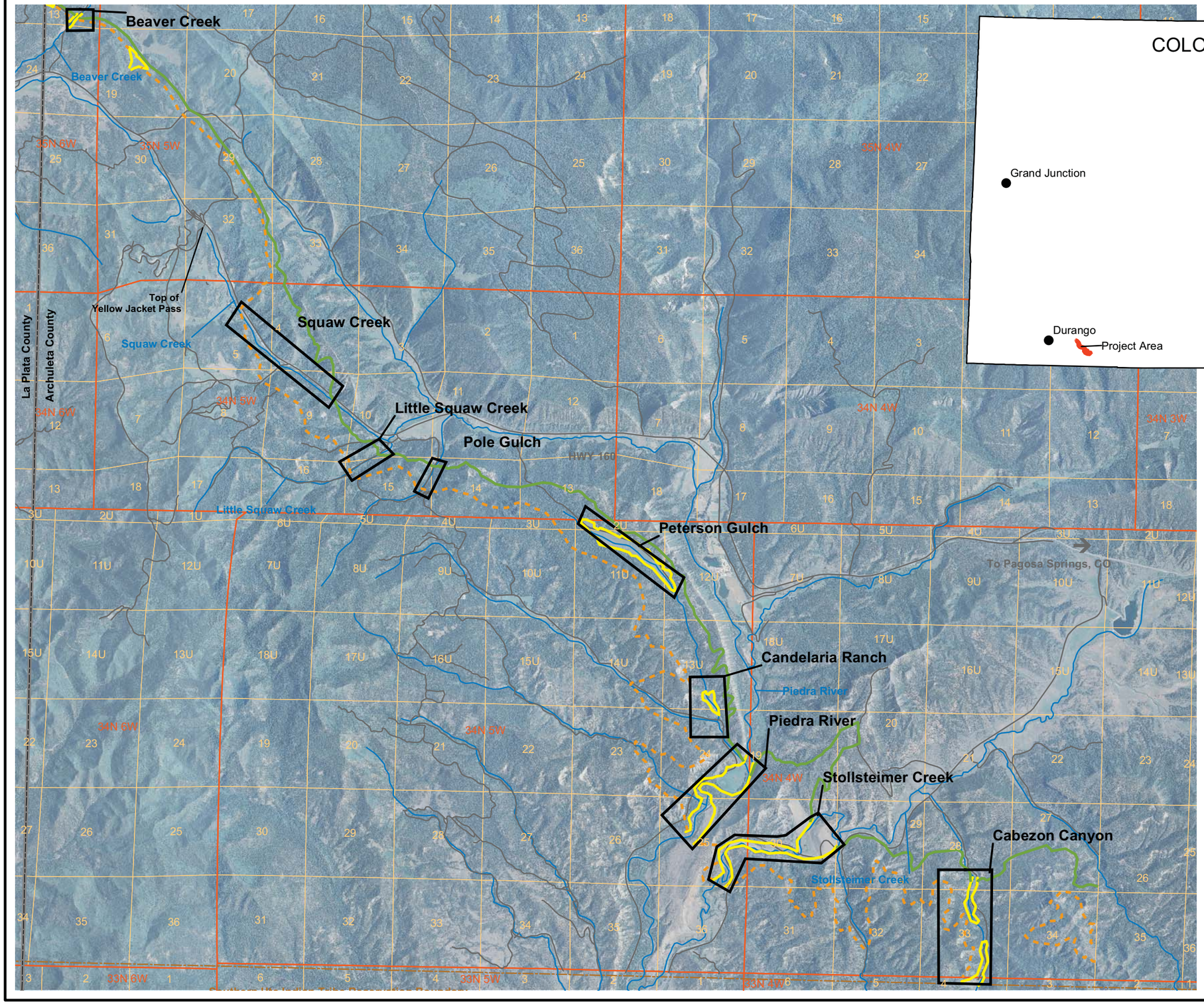
0 6,000 12,000
Feet

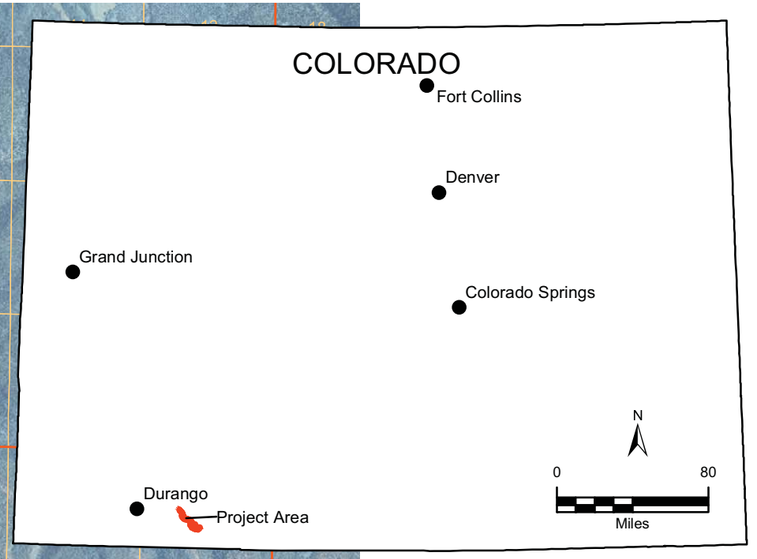
N

FIGURE 1
PROJECT AREA MAP
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES AND PETROX RESOURCES

P:\San Juan Basin GIS\Archuleta\Fruitland_OMR\MXDs\Subgas_Flux\2010\Fig_01_ProjArea.mxd





Legend

- Area of Interest
- County Boundary
- Southern Ute Indian Tribe Reservation Boundary
- Township Range
- Section
- Roads
- Rivers

Geology

- Fruitland Formation (Kf)
- Fruitland Formation Tongue (Kft)
- Kirtland Formation (Kk)
- Pictured Cliffs Formation (Kpc)
- Pictured Cliffs Formation Tongue (Kpct)
- Quaternary Alluvium (Qa)
- Quaternary Gravel (Qg)

Image Courtesy of USDA/NRCS, 2009

0 6,000 12,000
Feet

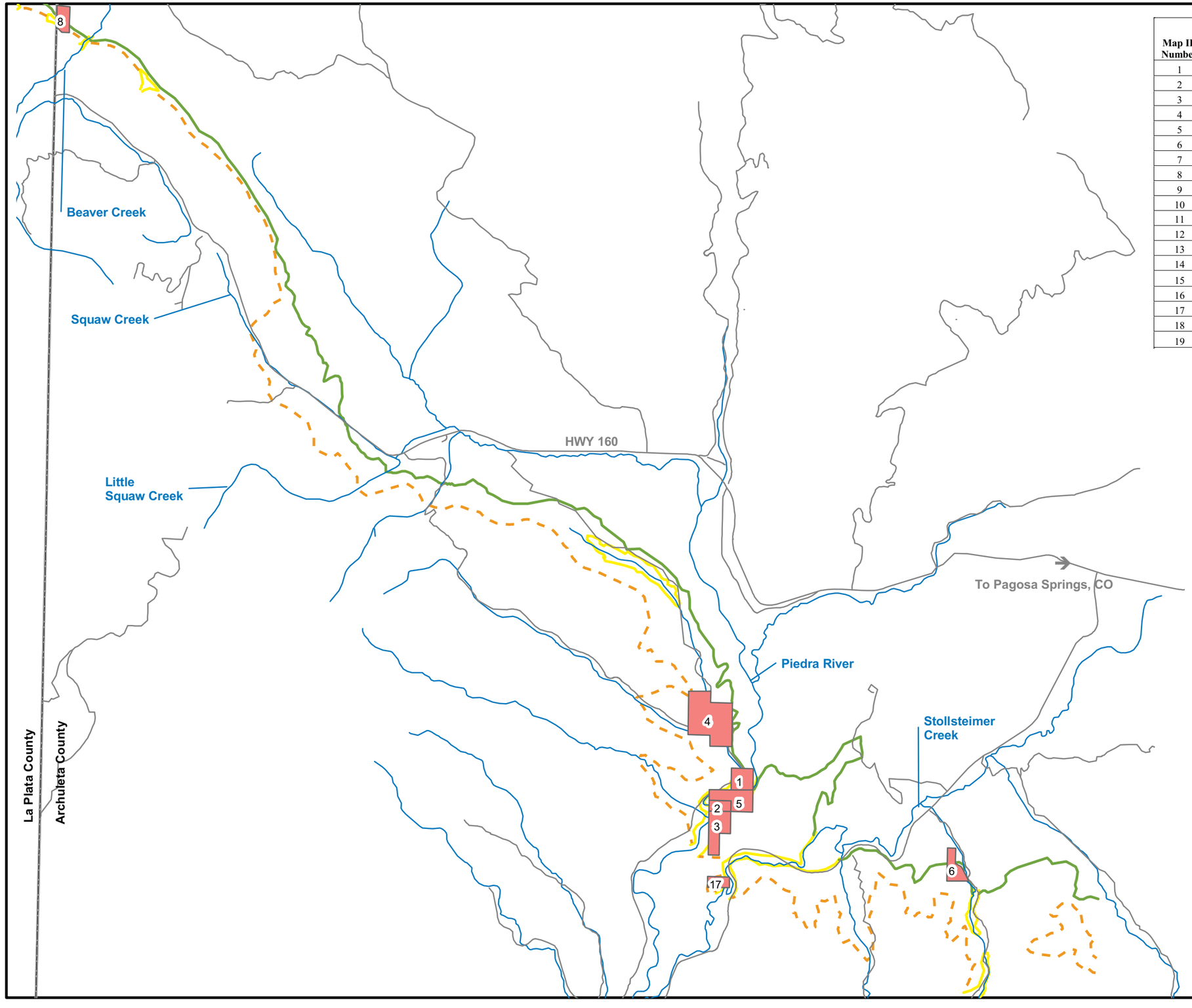
N

FIGURE 2
PROJECT AREA MAP - DETAIL
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES AND PETROX RESOURCES

P:\San Juan Basin GIS\Archuleta\Fruitland_OMR\MXDs\Subgas_Flux\2010\Fig_02_ProjArea_detail.mxd

Map ID Number	Parcel Number	LTE Access	Owner Name
1	589724400007	NO	CANDELARIA LUCY S & GONZALES BERN
2	589724400010	NO	CANDELARIA ROGER
3	589725100011	NO	CANDELARIA ROGER
4	589713300006	NO	CANDELARIA SUSIE E TRUST
5	589724400008	NO	CANDELARIA SY TRUSTEE & GILBERT C
6	589528300041	NO	CHENAULT ROBERT G
7	589711200001	YES	GRUBB JOHN W & PAMELA K
8	567913300015	NO	LEONARD RAMONA
9	589530100039	YES	MARTINEZ MEL
10	567913400016	YES	PEINADO EMILIO JR & KAREN R
11	568301100001	YES	PUBLIC LANDS
12	568501100001	YES	PUBLIC LANDS
13	589701400004	YES	PUBLIC LANDS
14	589725100012	YES	PUBLIC LANDS
15	589726400024	YES	PUBLIC LANDS
16	589701400003	YES	UNITED STATES OF AMERICA FOREST S
17	589725400015	NO	VAUGHN LARRY C
18	568319200034	YES	WATSON DAVID LLOYD & WATSON DALE
19	567913400017	YES	WOOD LEE THOMAS & PEGGY DARLENE



Legend

- Rivers

Geology

- Fruitland Formation (Kf)
- Fruitland Formation Tongue (Kft)
- Kirtland Formation (Kk)
- Pictured Cliffs Formation (Kpc)
- Pictured Cliffs Formation Tongue (Kpct)
- Quaternary Alluvium (Qa)
- Quaternary Gravel (Qg)
- No Access

All other areas gave approval to access,
are located on Public Lands,or did not require access.

0 6,000 12,000
Feet

N

FIGURE 3
PROPERTY ACCESS MAP
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES AND PETROX RESOURCES

P:\San Juan Basin GIS\Archuleta\Fruitland_OMR\MXDs\Subgas_Flux\2010\Fig_03_PropertyAccess.mxd

Legend

Natural Spring Location

Parcel Boundary & Owner (White)

Methane Flux Measurement (mol/m ^{2} • day)

- 0.0000 - 0.1999
- 0.2000 - 0.5000
- 0.5001 - 1.0000
- 1.0001 - 10.0000
- 10.0001 - 50.0000
- 50.0001 - 100.0000
- 100.0001 - 220.0000

mol/m^2 • day - moles per square meter per day

All flux points are less than 0.2 mol/m^2 • day methane, therefore no contours have been drawn

Township Range Section

Surface Water

Geology

- Fruitland Formation (Kf)
- Fruitland Formation Tongue (Kft)
- Kirtland Formation (Kk)
- Pictured Cliffs Formation (Kpc)
- Pictured Cliffs Formation Tongue (Kpct)
- Quaternary Alluvium (Qa)
- Quaternary Gravel (Qg)

IMAGE COURTESY OF USDA/NRCS, 2009

0 250 500

Feet

N

FIGURE 4
METHANE FLUX CONTOURS
BEAVER CREEK
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO
ELM RIDGE RESOURCES AND PETROX RESOURCES

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Legend

Natural Spring Location

Parcel Boundary & Owner (White)

Methane Flux Measurement (mol/m^2 • day)

- 0.0000 - 0.1999
- 0.2000 - 0.5000
- 0.5001 - 1.0000
- 1.0001 - 10.0000
- 10.0001 - 50.0000
- 50.0001 - 100.0000
- 100.0001 - 220.0000

mol/m^2 • day - moles per square meter per day

All flux points are less than 0.2 mol/m^2 • day methane, therefore no contours have been drawn

Township Range Section

Surface Water

Geology

- Fruitland Formation (Kf)
- Fruitland Formation Tongue (Kft)
- Kirtland Formation (Kk)
- Pictured Cliffs Formation (Kpc)
- Pictured Cliffs Formation Tongue (Kpct)
- Quaternary Alluvium (Qa)
- Quaternary Gravel (Qg)

IMAGE COURTESY OF USDA/NRCS, 2009

0 400 800

Feet

N

FIGURE 5
METHANE FLUX CONTOURS
SQUAW CREEK
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES AND PETROX RESOURCES

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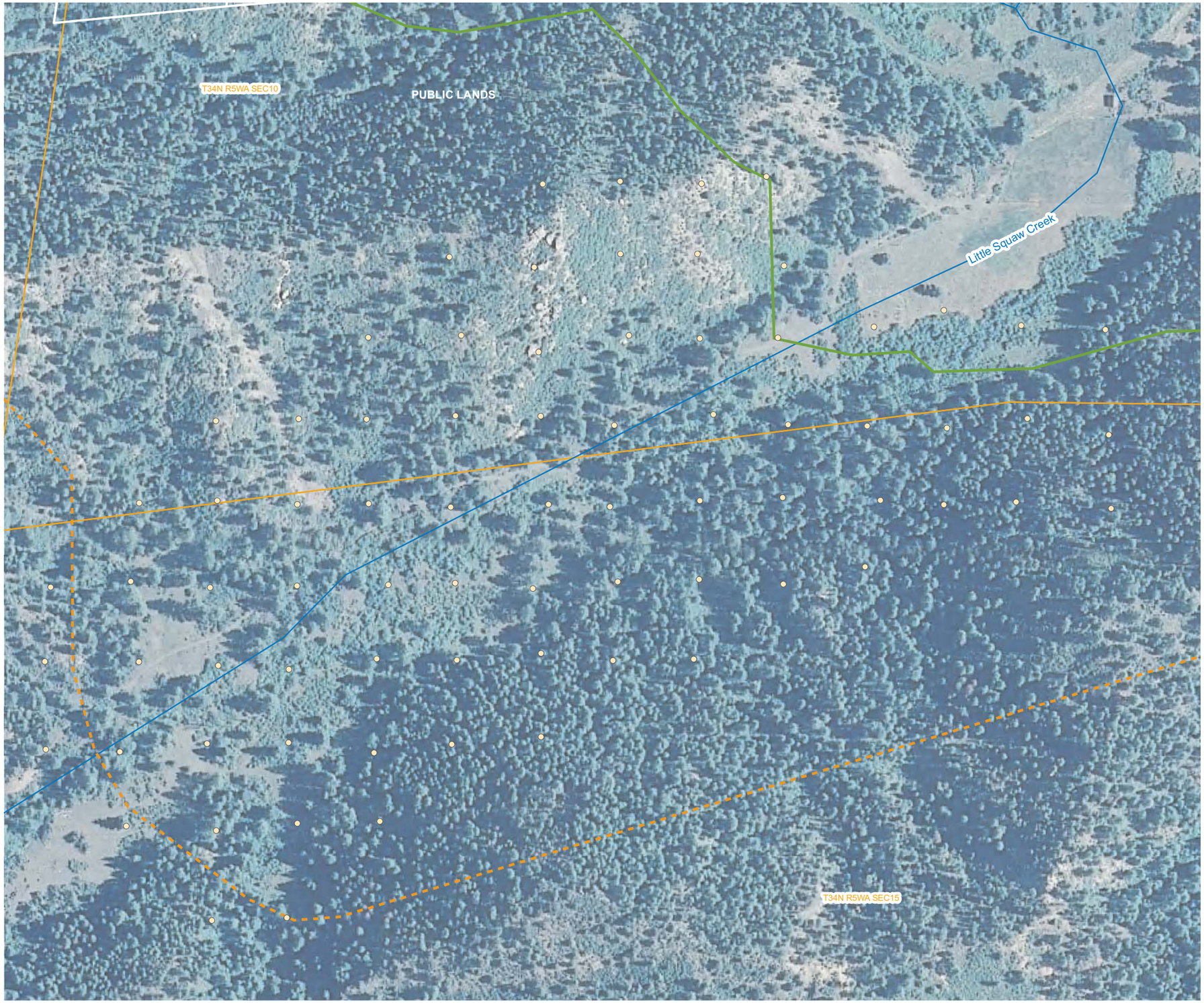

Legend

- Natural Spring Location
- Parcel Boundary & Owner (White)

Methane Flux Measurement (mol/m ^{2} • day)

- 0.0000 - 0.1999
- 0.2000 - 0.5000
- 0.5001 - 1.0000
- 1.0001 - 10.0000
- 10.0001 - 50.0000
- 50.0001 - 100.0000
- 100.0001 - 220.0000

mol/m^2 • day - moles per square meter per day

All flux points are less than 0.2 mol/m^2 • day methane, therefore no contours have been drawn

- Township Range Section
- Surface Water

Geology

- Fruitland Formation (Kf)
- Fruitland Formation Tongue (Kft)
- Kirtland Formation (Kk)
- Pictured Cliffs Formation (Kpc)
- Pictured Cliffs Formation Tongue (Kpct)
- Quaternary Alluvium (Qa)
- Quaternary Gravel (Qg)

IMAGE COURTESY OF USDA/NRCS, 2009

0 250 500
Feet

N

FIGURE 6
METHANE FLUX CONTOURS
LITTLE SQUAW CREEK
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO
ELM RIDGE RESOURCES AND PETROX RESOURCES

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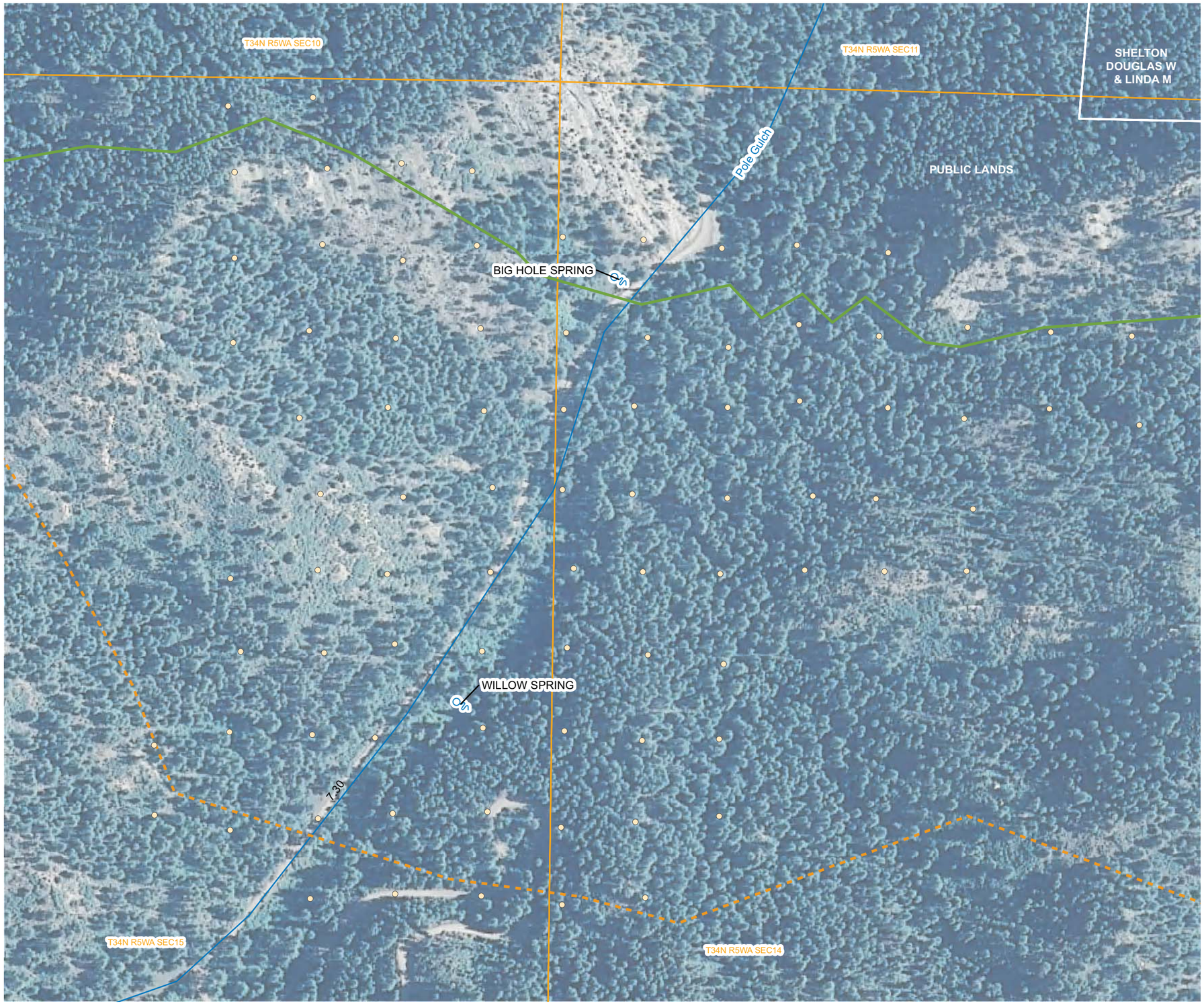

Legend

- Natural Spring Location
- Parcel Boundary & Owner (White)

Methane Flux Measurement (mol/m ^{2} • day)

- 0.0000 - 0.1999
- 0.2000 - 0.5000
- 0.5001 - 1.0000
- 1.0001 - 10.0000
- 10.0001 - 50.0000
- 50.0001 - 100.0000
- 100.0001 - 220.0000

mol/m^2 • day - moles per square meter per day

All flux points are less than 0.2 mol/m^2 • day methane, therefore no contours have been drawn

- Township Range Section
- Surface Water

Geology

- Fruitland Formation (Kf)
- Fruitland Formation Tongue (Kft)
- Kirtland Formation (Kk)
- Pictured Cliffs Formation (Kpc)
- Pictured Cliffs Formation Tongue (Kpct)
- Quaternary Alluvium (Qa)
- Quaternary Gravel (Qg)

IMAGE COURTESY OF USDA/NRCS, 2009

0 250 500
Feet

N

FIGURE 7
METHANE FLUX CONTOURS
POLE GULCH
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO
ELM RIDGE RESOURCES AND PETROX RESOURCES

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PUBLIC LANDS

PUBLIC LANDS

ALDABBAGH SAM

HARRIS & ZIBELM

T34N R5WA SEC13

T34N R4WA SEC18

WAYPOINT 0003 SPRING

ALDABBAGH SAM

T34N R5W SEC3U

T34N R5W SEC2U

T34N R5W SEC1U

Piedra River

PUBLIC LANDS

MCKEE JOE C & JIL

NW JOHN GRUB SPRING

SE JOHN GRUB SPRING

GRUBB JOHN W & PAMELA K

HITTI RIVER RANCH LLC

T34N R5W SEC10U

T34N R5W SEC11U

T34N R5W SEC12U

PUBLIC LANDS

Peterson Gulch

Legend

Natural Spring Location

Parcel Boundary & Owner (White)

Methane Flux Measurement (mol/m ^{2} • day)

- 0.0000 - 0.1999
- 0.2000 - 0.5000
- 0.5001 - 1.0000
- 1.0001 - 10.0000
- 10.0001 - 50.0000
- 50.0001 - 100.0000
- 100.0001 - 220.0000

mol/m^2 • day - moles per square meter per day

All flux points are less than 0.2 mol/m^2 • day methane, therefore no contours have been drawn

Township Range Section

Surface Water

Geology

- Fruitland Formation (Kf)
- Fruitland Formation Tongue (Kft)
- Kirtland Formation (Kk)
- Pictured Cliffs Formation (Kpc)
- Pictured Cliffs Formation Tongue (Kpct)
- Quaternary Alluvium (Qa)
- Quaternary Gravel (Qg)

IMAGE COURTESY OF USDA/NRCS, 2009

0 700 1,400

Feet

N

FIGURE 8
METHANE FLUX CONTOURS
PETERSON GULCH
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO
ELM RIDGE RESOURCES AND PETROX RESOURCES

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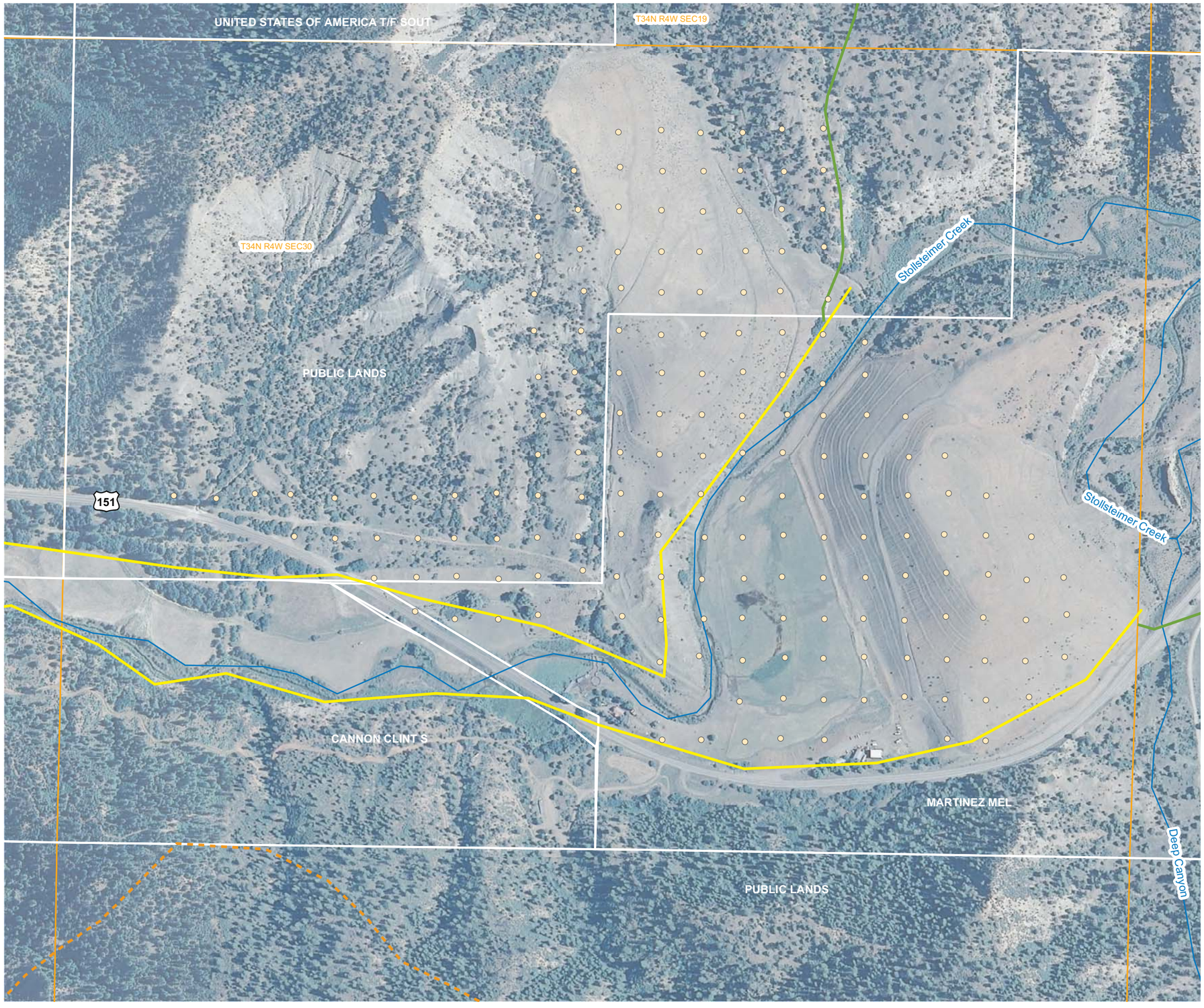


Legend

Natural Spring Location

Parcel Boundary & Owner (White)

Methane Flux Measurement (mol/m ^{2} • day)

- 0.0000 - 0.1999
- 0.2000 - 0.5000
- 0.5001 - 1.0000
- 1.0001 - 10.0000
- 10.0001 - 50.0000
- 50.0001 - 100.0000
- 100.0001 - 220.0000

mol/m^2 • day - moles per square meter per day

All flux points are less than 0.2 mol/m^2 • day methane, therefore no contours have been drawn

Township Range Section

Surface Water

Geology

- Fruitland Formation (Kf)
- Fruitland Formation Tongue (Kft)
- Kirtland Formation (Kk)
- Pictured Cliffs Formation (Kpc)
- Pictured Cliffs Formation Tongue (Kpct)
- Quaternary Alluvium (Qa)
- Quaternary Gravel (Qg)

IMAGE COURTESY OF USDA/NRCS, 2009

0 500 1,000

Feet

N

FIGURE 9
METHANE FLUX CONTOURS
STOLLSTEIMER CREEK
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO
ELM RIDGE RESOURCES AND PETROX RESOURCES

P:\San Juan Basin GIS\Archuleta\Fruitland_OMR\MXDs\Subgas_Flux\2010\Fig_03_CH4.mxd

Legend

- Abandoned Oil and Gas Well
- Natural Spring Location
- Parcel Boundary & Owner (White)

Methane Flux Measurement (mol/m ^{2} • day)

- 0.0000 - 0.1999
- 0.2000 - 0.5000
- 0.5001 - 1.0000
- 1.0001 - 10.0000
- 10.0001 - 50.0000
- 50.0001 - 100.0000
- 100.0001 - 220.0000

mol/m^2 • day - moles per square meter per day

All flux points are less than 0.2 mol/m^2 • day methane, therefore no contours have been drawn

- Township Range Section
- Surface Water

Geology

- Fruitland Formation (Kf)
- Fruitland Formation Tongue (Kft)
- Kirtland Formation (Kk)
- Pictured Cliffs Formation (Kpc)
- Pictured Cliffs Formation Tongue (Kpct)
- Quaternary Alluvium (Qa)
- Quaternary Gravel (Qg)

IMAGE COURTESY OF USDA/NRCS, 2009

0 80 160
Feet

N

FIGURE 10
METHANE FLUX CONTOURS
BIG HORN-SCHOMBURG #1
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO
ELM RIDGE RESOURCES AND PETROX RESOURCES

P:\San Juan Basin GIS\Archuleta\Fruitland_OMR\MXDs\Subgas_Flux\2010\Fig_03_CH4.mxd

RAMONA SPRING
RAMONA LEONARD SPRING (MONA)
WOOD/CORRIGAN SPRING
CORRIGAN SPRING
WATSON WELL SPRING
GRASSY SPRING
CRAIN SPRING
SEEP SPRING
THICK SPRING
WALT SPRING #1
TOWNSEND SPRING
VANCE SPRING #1
VANCE MEADOW SPRING
BIG HOLE SPRING
SECTION 14 SPRING (REICH)
WILLOW SPRING
WAYPOINT 0003 SPRING
NW JOHN GRUB SPRING
SE JOHN GRUB SPRING
SECTION 10U SPRING
SPRING 1212
SPRING 3424
CANDELARIA A SPRING
CANDELARIA B SPRING
MISER SPRING AND PIPELINE
VAUGHN SPRING
La Plata County
Archuleta County
35N 6W
35N 5W
35N 4W
34N 6W
34N 5W
34N 4W

Legend

Natural Spring Status - Spring 2010

- Sampled
- Field Parameters Only
- Dry
- Not Located
- No Access/No Sample Collected
- Roads
- Rivers
- Wetland Area, No Channel Flow
- County Boundary
- Southern Ute Indian Tribe Reservation Boundary
- Township and Ranges Lines
- Section

Geology

- Fruitland Formation (Kf)
- Fruitland Formation Tongue (Kft)
- Kirtland Formation (Kk)
- Pictured Cliffs Formation (Kpc)
- Pictured Cliffs Formation Tongue (Kpct)
- Quaternary Alluvium (Qa)
- Quaternary Gravel (Qg)

Subsurface methane measurements were collected from temporary soil probes advanced with slide hammer at all springs, except those not located or not accessable.

All subsurface methane measurements were collected during Spring 2010. Concentrations were 0 parts per million (ppm) Methane for all locations surveyed.

Image Courtesy of USDA/NRCS, 2009

0 6,000 12,000
Feet

N

FIGURE 11
NATURAL SPRINGS STATUS - SPRING 2010
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES AND PETROX RESOURCES

P:\San Juan Basin GIS\Archuleta\Fruitland_OMR\MXDs\Subgas_Flux\2010\Fig_17_Nat_Spr_Loc_SPRING_2010.mxd

TABLES

TABLE 1
PROPERTY OWNER AND ACCESS INFORMATION
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES, INC. AND PETROX RESOURCES, INC.

Map ID Number	Parcel Number	LTE Access	Owner Name	Physical Address	Mailing Address	Mailing City	Mailing State and Zip	Legal Description
1	589724400007	NO	CANDELARIA LUCY S & GONZALES BERN	COUNTY RD 193 5879	PO BOX 1812	ARBOLES	CO 811210000	34U-5W SEC 24
2	589724400010	NO	CANDELARIA ROGER	COUNTY RD 193 5801A	9105 SIXTH ST	LANHAM	MD 207060000	34U-5W SEC 24
3	589725100011	NO	CANDELARIA ROGER	COUNTY RD 193 5801	9105 SIXTH ST	LANHAM	MD 207060000	34U-5W SEC 25
4	589713300006	NO	CANDELARIA SUSIE E TRUST	COUNTY RD 193 6551	8815 N ACACIA GROVE	TUCSON	AZ 85743	34U-5W SEC 13
5	589724400008	NO	CANDELARIA SY TRUSTEE & GILBERT C	COUNTY RD 193 X	PO BOX 1771	ARBOLES	CO 811210000	34U-5W SEC 24
6	589528300041	NO	CHENAULT ROBERT G	COUNTY RD 917 1001	PO BOX 328	BLOOMFIELD	NM 874130000	34U-4W SEC 28
7	589711200001	YES	GRUBB JOHN W & PAMELA K	W HIGHWAY 160 24160	8325 OLD AZTEC HWY	FLORA VISTA	NM 874150000	34U-5W SEC 11
8	567913300015	NO	LEONARD RAMONA	W HIGHWAY 160 31861M	PO BOX 207	MAYER	AZ 863330000	35-6W SEC 13
9	589530100039	YES	MARTINEZ MEL	HIGHWAY 151 5461	5671 HIGHWAY 151	PAGOSA SPRINGS	CO 811470000	34U-4W SEC 29
10	567913400016	YES	PEINADO EMILIO JR & KAREN R	W HIGHWAY 160 31861B	PO BOX 706	BAYFIELD	CO 811220000	35-6W SEC 13
11	568301100001	YES	PUBLIC LANDS					
12	568501100001	YES	PUBLIC LANDS					
13	589701400004	YES	PUBLIC LANDS					
14	589725100012	YES	PUBLIC LANDS					
15	589726400024	YES	PUBLIC LANDS					
16	589701400003	YES	UNITED STATES OF AMERICA FOREST S	HIGHWAY 151 X	11127 W 8TH AVE	LAKEWOOD	CO 802250000	34U-5W
17	589725400015	NO	VAUGHN LARRY C	HIGHWAY 151 6505A	6505A HWY 151	PAGOSA SPRINGS	CO 811470000	34U-5W SEC 25
18	568319200034	YES	WATSON DAVID LLOYD & WATSON DALI	W HIGHWAY 160 30301A	30301 US HWY 160	BAYFIELD	CO 811220000	35-5W SEC 19
19	567913400017	YES	WOOD LEE THOMAS & PEGGY DARLENE	W HIGHWAY 160 31861L	31861 L W HWY 160	BAYFIELD	CO 811220000	35-6W SEC 13

Notes:

Indicates access denied by property owner

TABLE 2
METHANE FLUX DATA
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES, INC. AND PETROX RESOURCES, INC.

Mapping Area	Total Number of Methane Flux Points				Number of Sample Points with Methane greater than reporting limit[1]				Maximum Measurable Methane Flux[2] (moles/m^2·day)			
	2007	2008	2009	2010	2007	2008	2009	2010	2007	2008	2009	2010
Beaver Creek	14	53	46	48	1	0	0	0	0.2000	0.1579	0.0607	0.0740
Little Squaw Creek	21	77	78	77	2	2	0	0	**0.2300**	**0.2911**	0.0268	0.0852
Yellow Jacket Pass/ Squaw Creek	10	208	170	204	0	0	0	0	0.0700	0.0373	0.0970	0.0140
Pole Gulch	10	86	87	85	1	0	1	0	**0.3000**	0.1775	**0.2156**	0.1089
Peterson Gulch	18	357	331	382	1	0	0	0	**0.2300**	0.1925	0.1733	0.0069
Stollsteimer Creek	11	201	203	176	0	3	2	0	0.1500	**0.3440**	0.3382	0.1493
TOTAL	**84**	**982**	**915**	**972**	**5**	**5**	**3**	**0**	--	--	--	--
Abandoned Production Well												
Big Horn-Schomburg #1	5	9	5	9	1	0	1	0	**0.2364**	0.0661	0.0055	0.0852

Mapping Area	Volumetric Methane Flux (MCFD)					
	2008[2] (All Points)	2008[1] (Points >0.2 moles/m2·day)	2009[2] (All Points)	2009[1] (Points >0.2 moles/m2·day)	2010[2] (All Points)	2010[1] (Points >0.2 moles/m2·day)
Beaver Creek	3.5	0	0.8	0	1.7	0
Little Squaw Creek	6.1	0.27	0.2	0	0.2	0
Yellow Jacket Pass/ Squaw Creek	1.5	0	1.4	0	1.4	0
Pole Gulch	4.6	0	1.7	0.02	0.1	0
Peterson Gulch	5.6	0	4.8	0	2.0	0
Stollsteimer Creek	9.3	0.38	4.8	0.50	13.3	0
TOTAL	30.7	0.65	13.7	0.52	18.7	0

Notes:

moles/m^2·day - moles per meter squared per day

MCFD - thousand cubic feet per day

-- - No data available

> - greater than

[1] - Only methane flux values that were greater than the portable flux meter reporting limit of 0.2 moles/m^2·day were used in calculations

[2] - All methane flux values used in caculations

Bold indicates methane flux values above the reporting limit

TABLE 3
NATURAL SPRINGS SAMPLING STATUS
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES, INC. AND PETROX RESOURCES, INC.

NATURAL SPRING	MONTH AND YEAR						
	September 2005	May/June 2006	October 2007	October 2008	May 2009	October 2009	July 2010
Ramona Spring	NS	NS	NS	Dry	Not Located	Not Located	No Access
Ramona Leonard Spring	NS	Sampled	Sampled	Sampled	Sampled	Sampled	No Access
Wood Spring	NS	NS	NS	Dry	Sampled	Dry	NS
Beaver Creek	NS	NS	NS	Sampled	NS	NS	NS
Corrigan Spring	NS	NS	NS	Not Located	Sampled	Dry	Dry
Watson Well Spring	NS	Sampled	NS	Sampled	Sampled	Sampled	Sampled
Grassy Spring	NS	Sampled	Sampled	No Access	No Access	No Access	No Access
Crain Spring	NS	Sampled	NS	Sampled	Sampled	Dry	Sampled
Thick Spring	NS	Sampled	Sampled	Not Located	Sampled	Dry	NS
Seep Spring	NS	NS	NS	Dry	Not Located	Not Located	Not Located
Walt Spring #1	NS	Sampled	NS	Dry	Dry	Dry	Dry
Townsend Spring	NS	NS	NS	Dry	Dry	Dry	Dry
Vance Spring #1	NS	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled
Vance Meadow Spring	NS	Sampled	Sampled	Sampled	Sampled	Dry	Dry
Willow Spring	NS	Sampled	Sampled	Sampled	Sampled	Dry	Sampled
Big Hole Spring	NS	Sampled		Dry	Not Located	Not Located	Dry
Section 14 (Reich) Spring	Sampled	Sampled	Sampled	Sampled	Sampled	Dry	Sampled
Waypoint 0003 Spring	NS	NS	NS	Not Located	Not Located	Not Located	NS
NW John Grubb Spring	Sampled	Sampled	Sampled	Sampled	Sampled	Dry	Sampled
SE John Grubb Spring	Sampled	Sampled	Sampled	Sampled	Sampled	Dry	NS
High Watson Spring	NS	NS	NS	NS	NS	NS	NS
Section 10U Spring	Sampled	Sampled	NS	No Access	No Access	No Access	No Access
Spring 1212	Sampled	Sampled	NS	No Access	No Access	No Access	No Access
Spring 3424	Sampled	Sampled	NS	No Access	No Access	No Access	No Access
Candelaria A Spring	NS		NS	No Access	No Access	No Access	No Access
Candelaria B Spring	NS	Sampled	NS	No Access	No Access	No Access	No Access
Vaughn Spring	NS	NS	NS	No Access	No Access	No Access	No Access
Miser Spring & Pipeline	NS	NS	NS	No Access	No Access	No Access	No Access

Notes:
NS - Not Sampled

TABLE 4
NATURAL SPRINGS FIELD OBSERVATIONS AND MEASUREMENTS
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES, INC. AND PETROX RESOURCES, INC.

Natural Spring	2009 Field Observations / Notes	2010 Field Observations / Notes	Inspection Date	Water Quality Field Measurements				
				Conductivity (µS/cm)	pH (Units)	ORP (mV)	Temperature (^{0}C)	TDS (ppm)
Ramona Leonard Spring (Mona)	Sampled in May and October	Not sampled due to access	9/19/2005	NM	NM	NM	NM	NM
			6/1/2006	768.4	6.35	107	13.5	522.4
			10/13/2007	793.5	7.68	42	11.8	413.4
			10/16/2008	879	6.99	185.6	9.67	571
			5/28/2009	793	6.97	NM	9.1	NM
			10/8/2009	825	7.24	NM	10	NM
			7/12/2010	NM	NM	NM	NM	NM
Ramona Spring	Not Located	Not sampled due to access	6/1/2006	NM	NM	NM	NM	NM
			10/14/2007	NM	NM	NM	NM	NM
			10/16/2008	NM	NM	NM	NM	NM
			5/28/2009	NM	NM	NM	NM	NM
			10/8/2009	NM	NM	NM	NM	NM
Wood/Corrigan Spring	Sampled in May; Dry in October	Dry	6/1/2006	NM	NM	NM	NM	NM
			10/14/2008	NM	NM	NM	NM	NM
			10/16/2008	NM	NM	NM	NM	NM
			5/14/2009	480	6.96	NM	7.5	NM
			10/8/2009	NM	NM	NM	NM	NM
			7/12/2010	NM	NM	NM	NM	NM
Corrigan Spring	Not Located	Dry	6/1/2006	170.3	6.08	122	17.7	109.7
			10/13/2007	NM	NM	NM	NM	NM
			10/16/2008	NM	NM	NM	NM	NM
			5/14/2009	NM	NM	NM	NM	NM
			10/8/2009	NM	NM	NM	NM	NM
			7/12/2010	NM	NM	NM	NM	NM
Beaver Creek	Not Sampled	Not Sampled	10/13/2007	286.6	8.00	21	10.0	146.6
			10/16/2008	303.0	7.40	166.0	5.80	197
			5/14/2009	NM	NM	NM	NM	NM
			10/8/2009	NM	NM	NM	NM	NM
Watson Well Spring	Sampled in May and October	Sampled July 2010	6/1/2006	745.5	7.29	34	13.0	507.7
			10/14/2007	NM	NM	NM	NM	NM
			10/16/2008	869.0	6.9	273.20	13.90	565
			5/28/2009	705	6.9	NM	9.9	NM
			10/8/2009	852	6.9	NM	13.4	NM
			7/12/2010	570	6.75	NM	17.8	NM
High Watson Spring	Not Sampled - Dry in Spring and Fall	Dry	10/16/2008	743	7.25	159.5	10.98	483
			5/28/2009	NM	NM	NM	NM	NM
			10/8/2009	NM	NM	NM	NM	NM
Grassy Spring	No Access	No Access	6/1/2006	570.3	7.5	-115	29.1	375.3
			10/14/2007	88.37	8.18	16	8.6	44.32
			5/28/2009	NM	NM	NM	NM	NM
			10/8/2009	NM	NM	NM	NM	NM
Crain Spring	Sampled in May. Dry in October	Sampled July 2010	6/1/2006	570.3	7.5	-115	29.1	375.3
			10/14/2007	NM	NM	NM	NM	NM
			10/16/2008	526.0	7.47	273.00	8.80	342
			5/14/2009	811	6.87	NM	7.5	NM
			10/8/2009	NM	NM	NM	NM	NM
			7/12/2010	482	6.8	NM	11.8	NM
Seep Spring	Not Located	Not Located	5/24/2006	NM	NM	NM	NM	NM
			10/14/2007	NM	NM	NM	NM	NM
			10/17/2008	NM	NM	NM	NM	NM
			5/28/2009	NM	NM	NM	NM	NM
			10/8/2009	NM	NM	NM	NM	NM
			7/12/2010	NM	NM	NM	NM	NM
Walt Spring #1	Dry	Dry	5/24/2006	524	7.9	86	12.1	345.4
			10/14/2007	NM	NM	NM	NM	NM
			10/17/2008	NM	NM	NM	NM	NM
			5/28/2009	NM	NM	NM	NM	NM
			10/8/2009	NM	NM	NM	NM	NM
			7/12/2010	NM	NM	NM	NM	NM
Townsend Spring	Dry	Dry	5/24/2006	NM	NM	NM	NM	NM
			10/14/2007	NM	NM	NM	NM	NM
			10/17/2008	NM	NM	NM	NM	NM
			5/28/2009	NM	NM	NM	NM	NM
			10/8/2009	NM	NM	NM	NM	NM
			7/12/2010	NM	NM	NM	NM	NM

TABLE 4
NATURAL SPRINGS FIELD OBSERVATIONS AND MEASUREMENTS
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES, INC. AND PETROX RESOURCES, INC.

Natural Spring	2009 Field Observations / Notes	2010 Field Observations / Notes	Inspection Date	Water Quality Field Measurements				
				Conductivity (µS/cm)	pH (Units)	ORP (mV)	Temperature (^{0}C)	TDS (ppm)
Thick Spring	Sampled in May; Dry in October	Bog not sampled	5/24/2006	325.6	7.80	120	11.7	214.6
			10/13/2007	376.5	7.74	32	12.9	192.2
			10/16/2008	NM	NM	NM	NM	NM
			5/28/2009	54.6	7.52	NM	12.3	NM
			10/8/2009	NM	NM	NM	NM	NM
			7/12/2010	NM	NM	NM	NM	NM
Vance Spring #1	Sampled in May and October	Sampled July 2010	5/26/2006	404	7.75	-12	11.6	269.6
			10/14/2007	417.1	7.34	519	9.6	213.2
			10/16/2008	464.0	7.2	120.30	7.20	302
			6/1/2009	399	7.88	NM	12.8	NM
			10/8/2009	481	7.41	NM	6.8	NM
			7/12/2010	421	7.13	NM	15.8	NM
Vance Meadow Spring	Sampled in May. Dry in October	Dry	6/6/2006	459.9	7.2	-60	16.5	310.9
			10/14/2007	389.8	7.2	-67	12.2	195.1
			10/16/2008	476.0	7.9	249.60	8.00	308
			6/1/2009	455	7.23	NM	13.7	NM
			10/8/2009	NM	NM	NM	NM	NM
			7/12/2010	NM	NM	NM	NM	NM
Big Hole Spring	Not Located	Dry	5/24/2006	365.5	7.27	141	11.7	249.1
			10/13/2007	NM	NM	NM	NM	NM
			10/18/2008	NM	NM	NM	NM	NM
			6/1/2009	NM	NM	NM	NM	NM
			10/8/2009	NM	NM	NM	NM	NM
			7/12/2010	NM	NM	NM	NM	NM
Willow Spring	Sampled in May; Dry in October	Sampled July 2010	5/24/2006	252.9	7.39	122	14.0	178.7
			10/13/2007	318.3	7.42	508	13.9	161.4
			10/18/2008	325.0	7.09	243.40	6.60	211
			6/1/2009	285	7.54	NM	10.4	NM
			10/8/2009	NM	NM	NM	NM	NM
			7/12/2010	284	6.7	NM	12.4	NM
Section 14 Spring (Reich)	Sampled in May; Dry in October	Sampled July 2010	9/19/2005	412.2	7.93	NM	20.2	277.5
			5/24/2006	372.9	7.48	79	13.3	251.5
			10/14/2007	394.7	7.92	0	10.7	198.7
			10/18/2008	445.0	7.09	45.00	8.61	290
			6/5/2009	607	6.89	NM	9	NM
			10/8/2009	NM	NM	NM	NM	NM
			7/12/2010	404	6.77	NM	10.7	NM
Waypoint 0003 Spring	Not Located	Not Located	5/26/2006	NM	NM	NM	NM	NM
			10/14/2007	NM	NM	NM	NM	NM
			10/18/2008	NM	NM	NM	NM	NM
			6/5/2009	NM	NM	NM	NM	NM
			10/8/2009	NM	NM	NM	NM	NM
NW John Grub Spring	Sampled in May; Dry in October	Sampled July 2010	9/19/2005	415.8	6.97	NM	15.8	282.3
			5/26/2006	421.7	7.83	108	27	275.9
			10/14/2007	292.2	7.28	-162	17.1	254.8
			10/18/2008	425	7.07	-15	15.68	276
			6/5/2009	339	8.7	NM	14.5	NM
			10/8/2009	NM	NM	NM	NM	NM
			7/12/2010	441	5.91	NM	16.4	NM
SE John Grub Spring	Sampled in May; Dry in October	Bog not sampled	9/19/2005	524.5	7.04	NM	15.6	358.5
			5/26/2006	509.5	7.86	-49	24.4	336.9
			10/14/2007	980.1	7.29	-68	18.4	513
			10/18/2008	528	7.18	63.5	12.37	342
			6/5/2009	542	6.58	12	NM	NM
			10/8/2009	NM	NM	NM	NM	NM
			7/12/2010	NM	NM	NM	NM	NM
Section 10U Spring	No Access	No Access	9/19/2005	458.1	7.27	131	10.9	314.7
			6/6/2006	489.9	7.18	521	20.0	328.2
			10/14/2007	NM	NM	NM	NM	NM
			6/5/2009	NM	NM	NM	NM	NM
			10/8/2009	NM	NM	NM	NM	NM
Spring 1212	No Access	No Access	10/7/2005	420	6.59	NM	9.1	NM
			6/6/2006	356.6	7.29	75	15.3	243.9
			10/14/2007	NM	NM	NM	NM	NM
			6/5/2009	NM	NM	NM	NM	NM
			10/8/2009	NM	NM	NM	NM	NM

TABLE 4
NATURAL SPRINGS FIELD OBSERVATIONS AND MEASUREMENTS
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES, INC. AND PETROX RESOURCES, INC.

Natural Spring	2009 Field Observations / Notes	2010 Field Observations / Notes	Inspection Date	Water Quality Field Measurements				
				Conductivity (µS/cm)	pH (Units)	ORP (mV)	Temperature (^{0}C)	TDS (ppm)
Spring 3424	No Access	No Access	9/14/2005	725.2	6.86	71	16.5	504
			5/26/2006	641.5	7.97	-98	17.3	436.7
			10/14/2007	NM	NM	NM	NM	NM
			6/5/2009	NM	NM	NM	NM	NM
			10/8/2009	NM	NM	NM	NM	NM
Candelaria A Spring	No Access	No Access	5/26/2006	NM	NM	NM	NM	NM
			10/14/2007	NM	NM	NM	NM	NM
			6/5/2009	NM	NM	NM	NM	NM
			10/8/2009	NM	NM	NM	NM	NM
Candelaria B Spring	No Access	No Access	5/26/2006	NM	NM	NM	NM	NM
			10/14/2007	NM	NM	NM	NM	NM
			6/5/2009	NM	NM	NM	NM	NM
			10/8/2009	NM	NM	NM	NM	NM
Vaughn Spring	No Access	No Access	6/6/2006	730.7	7.55	521	20.1	509.5
			10/14/2007	NM	NM	NM	NM	NM
			6/5/2009	NM	NM	NM	NM	NM
			10/8/2009	NM	NM	NM	NM	NM
Miser Spring and Pipeline	No Access	No Access	6/6/2006	NM	NM	NM	NM	NM
			10/14/2007	NM	NM	NM	NM	NM
			6/5/2009	NM	NM	NM	NM	NM
			10/8/2009	NM	NM	NM	NM	NM

Notes:

µS/cm - microSiemens per centimeter
ORP - oxidation reduction potential
mV - millivolts
^{0}C - degrees celsius
TDS - total dissolved solids
ppm - parts per million
NM - Not Measured

TABLE 5
NATURAL SPRINGS WATER FLOW RATE MEASURMENTS
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES, INC. AND PETROX RESOURCES, INC.

NATURAL SPRING	FLOW RATES (Gallons/Minute)						
	September 2005	May/June 2006	October 2007	October 2008	May 2009	October 2009	July 2010
Ramona Leonard Spring	NM	0.6	0.4	0.75	1.3	0.24	NM
Beaver Creek	NM	NM	7	NM	NM	NM	NM
Corrigan Spring	NM	1	NM	NM	0.75	NM	NM
Grassy Spring	NM	NM	<0.25	NM	NM	NM	NM
Crain Spring	NM	NM	NM	0.2	2.66	NM	2
Walt Spring #1	NM	NM	<1	NM	NM	NM	NM
Thick Spring	NM	2	<1	NM	NM	NM	NM
Vance Spring #1	NM	1	<0.5	0	1.9	0.2	NM
Vance Meadow Spring	NM	<0.5	<0.5	0	NM	NM	0.27
Big Hole Spring	NM	<1	NM	NM	NM	NM	NM
Willow Spring	NM	1	<0.25	0.03	0.6	NM	0.5
Section 14 Spring	NM	<1	<0.5	0	1.5	NM	1.3
NW John Grub Spring	0.1	<1	<0.5	0.9	NM	NM	NM
SE John Grub Spring	0.25	<1	<0.25	0	NM	NM	NM
Section 10U Spring	0.9	1	NM	NM	NM	NM	NM
Spring 1212	NM	5.28	NM	NM	NM	NM	NM
Spring 3424	1	1	NM	NM	NM	NM	NM
Townsend Spring	NM	NM	NM	NM	NM	NM	NM
Seep Spring	NM	NM	NM	NM	NM	NM	NM
Watson Well Spring	NM	NM	NM	NM	NM	NM	NM
Vaughn Spring	NM	<1	NM	NM	NM	NM	NM

Notes:
NM - Not Measured
< - less than designated flow rate

TABLE 6
NATURAL SPRINGS ANALYTICAL RESULTS - DISSOLVED METHANE
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES, INC. AND PETROX RESOURCES, INC.

NATURAL SPRING	METHANE CONCENTRATIONS (mg/L)						
	September 2005	May/June 2006	October 2007	October 2008	May 2009	October 2009	July 2010
Ramona Leonard Spring	<0.0005	<0.001	<0.02	<0.02	<0.02	<0.02	NS
Beaver Creek	NS	NS	<0.02	<0.02	NS	NS	NS
Corrigan Spring	NS	<0.001	NS	NS	<0.02	NS	NS
Watson Well Spring	NS	0.016	NS	<0.02	<0.02	<0.02	NS
Grassy Spring	NS	NS	<0.02	NS	NS	NS	NS
Crain Spring	NS	0.0067	NS	<0.02	<0.02	NS	<0.02
Walt Spring #1	NS	<0.001	NS	NS	NS	NS	NS
Thick Spring	NS	<0.001	<0.02	NS	<0.02	NS	NS
Vance Spring #1	NS	0.022	<0.02	0.05	<0.02	<0.02	<0.02
Vance Meadow Spring	NS	0.011	0.06	<0.02	<0.02	NS	NS
Big Hole Spring	NS	0.001	NS	NS	NS	NS	NS
Willow Spring	NS	<0.001	<0.02	<0.02	<0.02	NS	<0.02
Section 14 Spring	0.0006	<0.001	0.02	0.02	<0.02	NS	NS
NW John Grub Spring	0.015	0.0016	0.30	0.03	0.07	NS	0.07
SE John Grub Spring	<0.0005	0.0025	0.65	<0.02	0.02	NS	NS
Section 10U Spring	<0.0005	0.0062	NS	NS	NS	NS	NS
Section 12U Spring	<0.0005	NS	NS	NS	NS	NS	NS
Spring 1212	0.0005	<0.001	NS	NS	NS	NS	NS
Spring 3424	0.0017	0.023	NS	NS	NS	NS	NS
Townsend Spring	NS	NS	NS	NS	NS	NS	NS
Vaughn Spring	NS	0.0037	NS	NS	NS	NS	NS

Notes:

mg/L - milligrams per liter

NS - Not Sampled

< - indicates not detected above the detection limit

TABLE 7
NATURAL SPRINGS ANALYTICAL RESULTS - MAJOR IONS
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES, INC. AND PETROX RESOURCES, INC.

Natural Spring	Date	Cations				Anions			
		Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Carbonate (mg/L)	Bicarbonate (mg/L)	Sulfate (mg/L)	Chloride (mg/L)
Beaver Creek	October 2008	35.0	10.7	8.6	1.9	<10	128	33	<10
	May 2009	NS	NS	NS	NS	NS	NS	NS	NS
	July 2010	NS	NS	NS	NS	NS	NS	NS	NS
Crain Spring	October 2008	65.6	18.8	15.2	1.6	<10	214	98	<10
	May 2009	74.7	21.1	19.6	1.4	<10	230	134	<10
	July 2010	68.3	18.3	14.4	1.9	<10	190	76	<10
NW John Grub Spring	October 2008	59.1	12.8	<0.5	0.6	<10	187	54	<10
	May 2009	30.9	16	11.3	0.6	<10	117	67	<10
	July 2010	66.1	14	12	0.8	<10	175	71	<10
Ramona Leonard Spring	October 2008	138	27.7	9.6	1.6	<10	200	340	<10
	May 2009	120	23.1	8.5	1.3	<10	181	250	<10
	July 2010	NS	NS	NS	NS	NS	NS	NS	NS
SE John Grub Spring	October 2008	65.3	16.9	14	0.7	<10	214	78	<10
	May 2009	72.2	16.6	14.3	0.6	10	238	57	<10
	July 2010	NS	NS	NS	NS	NS	NS	NS	NS
Section 14 Spring	October 2008	48.8	6	27	0.6	<10	189	43	<10
	May 2009	62.8	6.7	24.5	1	10	188	61	<10
	July 2010	57.5	6.1	24.7	0.8	<10	169	55	<10
Thick Spring	October 2008	NS	NS	NS	NS	NS	NS	NS	NS
	May 2009	44.6	8.2	14.4	0.8	<10	124	28	22
	July 2010	NS	NS	NS	NS	NS	NS	NS	NS
Vance Meadow Spring	October 2008	68.3	9	14.4	2.6	<10	244	11	<10
	May 2009	66.7	8.2	14	2.7	<10	236	11	<10
	July 2010	NS	NS	NS	NS	NS	NS	NS	NS
Vance Spring #1	October 2008	52.5	6.6	13.1	5.9	<10	182	19	<10
	May 2009	57.8	7.7	14.3	4.2	<10	208	<10	<10
	July 2010	63.4	8.4	14.9	5.8	<10	226	<10	<10
Watson Well Spring	October 2008	109	38.7	25.5	2.4	<10	394	134	<10
	May 2009	86.8	30.7	20.5	1.9	<10	288	94	<10
	July 2010	78.1	26.9	18.1	2.5	12	218	84	<10
Willow Spring	October 2008	39.3	5.8	16.5	1.4	<10	157	19	<10
	May 2009	34.5	5.1	16.1	1.4	<10	122	18	<10
	July 2010	39.2	5.7	16.3	1.8	<10	131	16	<10
Wood Spring	October 2008	NS	NS	NS	NS	NS	NS	NS	NS
	May 2009	65.7	11.6	10.7	1.6	<10	142	122	<10
	July 2010	NS	NS	NS	NS	NS	NS	NS	NS

Notes:
mg/L - milligrams per liter
NA - Not Analyzed
< - less than the laboratory reporting limit

TABLE 8
SUBSURFACE SOIL GAS MEASUREMENTS AT NATURAL SPRINGS
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES, INC. AND PETROX RESOURCES, INC.

NATURAL SPRING -2008	Date	SUBSURFACE SOIL GAS CONCENTRATIONS			
		Methane (ppm)	Oxygen (%)	Hydrogen Sulfide (ppm)	Carbon Monoxide (ppm)
Beaver Creek	October 2008	0	19.4	0	1
	May 2009	NM	NM	NM	NM
	October 2009	NM	NM	NM	NM
	July 2010	NM	NM	NM	NM
Big Hole Spring	October 2008	0	20.7	0	0
	May 2009	NM	NM	NM	NM
	October 2009	NM	NM	NM	NM
	July 2010	0	20	0	0
Corrigan Spring	October 2008	NM	NM	NM	NM
	May 2009	NM	NM	NM	NM
	October 2009	NM	NM	NM	NM
	July 2010	0	19.8	0	0
Crain Spring	October 2008	0	18.8	0	4
	May 2009	0	20.6	0	8
	October 2009	0	19.2	0	0
	July 2010	0	19.4	0	0
NW John Grub Spring	October 2008	0	20.8	0	0
	May 2009	0	20.6	0	6
	October 2009	0	20	0	0
	July 2010	0	19.7	0	0
Ramona Leonard Spring	October 2008	0	18.5	0	8
	May 2009	0	19.3	0	0
	October 2009	0	19.1	0	0
	July 2010	0	20	0	0
Ramona Spring	October 2008	0	18.6	0	0
	May 2009	NM	NM	NM	NM
	October 2009	NM	NM	NM	NM
	July 2010	NM	NM	NM	NM
SE John Grub Spring	October 2008	0	20.7	0	0
	May 2009	0	20.4	0	7
	October 2009	0	20	0	0
	July 2010	0	20	0	0
Section 14 Spring	October 2008	0	20.6	0	0
	May 2009	0	20.8	0	0
	October 2009	0	19.2	0	0
	July 2010	0	19.2	0	0
Seep Spring	October 2008	500	20.8	0	7
	May 2009	NM	NM	NM	NM
	October 2009	NM	NM	NM	NM
	July 2010	NM	NM	NM	NM
Thick Spring	October 2008	NM	NM	NM	NM
	May 2009	0	20.1	0	22
	October 2009	0	19.4	0	0
	July 2010	0	19.4	0	0
Townsend Spring	October 2008	0	22	0	1
	May 2009	0	20.4	0	0
	October 2009	0	19	0	0
	July 2010	0	20	0	0
Vance Meadow Spring	October 2008	0	21	0	4
	May 2009	0	20.8	0	5
	October 2009	0	19	0	0
	July 2010	NM	20	0	0
Vance Spring #1	October 2008	0	20	0	20
	May 2009	0	20.7	0	6
	October 2009	0	19.3	0	6
	July 2010	0	19.8	0	0
Walt Spring #1	October 2008	500	20	0	12
	May 2009	0	20.8	0	0
	October 2009	0	19.4	0	0
	July 2010	0	NM	NM	NM

TABLE 8
SUBSURFACE SOIL GAS MEASUREMENTS AT NATURAL SPRINGS
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES, INC. AND PETROX RESOURCES, INC.

NATURAL SPRING -2008	Date	SUBSURFACE SOIL GAS CONCENTRATIONS			
		Methane (ppm)	Oxygen (%)	Hydrogen Sulfide (ppm)	Carbon Monoxide (ppm)
Watson Spring	October 2008	NM	NM	NM	NM
	May 2009	0	20.5	0	0
	October 2009	0	19.2	NM	6
	July 2010	0	19.7	0	0
Willow Spring	October 2008	0	20.4	0	0
	May 2009	0	20.9	0	4
	October 2009	0	19.2	0	0
	July 2010	0	20	0	0
Wood Spring	October 2008	NM	NM	NM	NM
	May 2009	0	20.2	0	28
	October 2009	0	19.5	NM	0
	July 2010	NM	NM	NM	NM

Notes:
ppm - parts per million
% - percent
NM - Not Measured

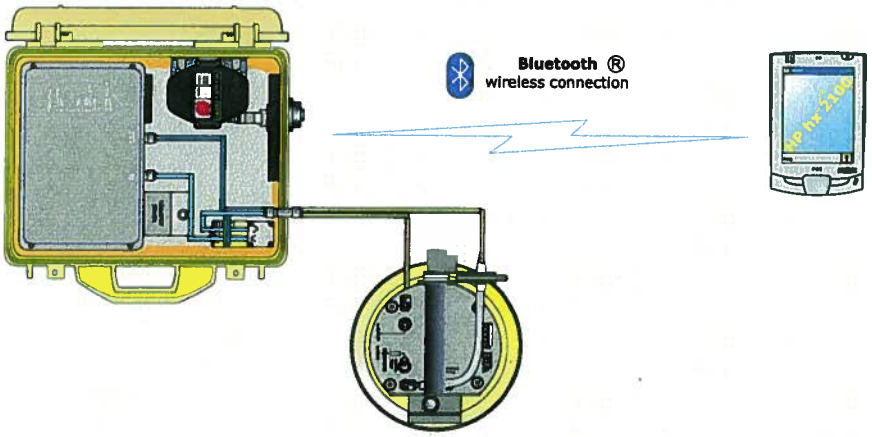
APPENDIX A

EQUIPMENT SPECFICATIONS

WEST Systems portable soil flux meter

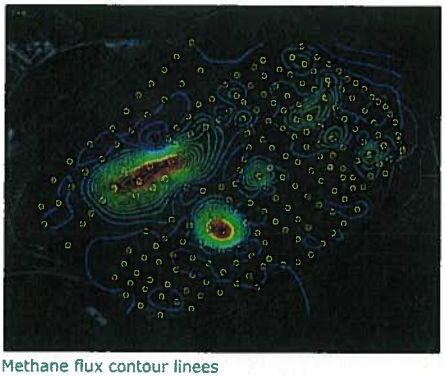
for Carbon dioxide, Methane and Hydrogen sulfide fluxes

The WEST Systems Fluxmeter is a portable instrument for the measurement of soil gas diffuse degassing phenomena that uses the accumulation chamber method.



This method studied for soil respiration in agronomy (Parkinson) and for soil degassing in volcanic areas (R. Cioni et al.), has been designed by WEST Systems to obtain a portable instrument that allows the performance of measurements with very good accuracy in a short time. The instrument allows a wide range evaluation of the amount of soil gas flux and can be utilized for the evaluation of biogas degassing (landfills), for the survey of non visible degassing phenomena in volcanic and geothermal areas as well as soil respiration rate in agronomy. In the picture below, the results of the degassing survey of a landfill.

Portable fluxmeter



Methane flux contour linees

a group of researchers during a flux mapping fieldwork, using the WS-LI820 flux meter

Courtesy of United States Geological Survey

WEST Systems

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Portable soil flux meter

Common physical characteristics:
Total Weight = 8.3 Kg/16 lbs. to be carried on the back using the backpack-like support vest. The field operator will also have to carry one of the accumulation chambers and the palmtop:

Warm Up
Only at instrument cold start-up a warm-up time of 20 minutes is required. The typical measurement time ranges from 2 to 4 minutes and the autonomy of the instrument is about 4 hours with a single NiMH 14.4 Volts, 2.6 A/h battery. The instrument comes with two interchangeable batteries.

Accumulation Chamber specifications:
- Accumulation chamber A diameter : 200 mm / Height: 100 mm / weight: 1.5 Kg/3.3 lbs
- Accumulation chamber B diameter : 200 mm / Height: 200mm / weight : 2.2 Kg /4.84 lbs

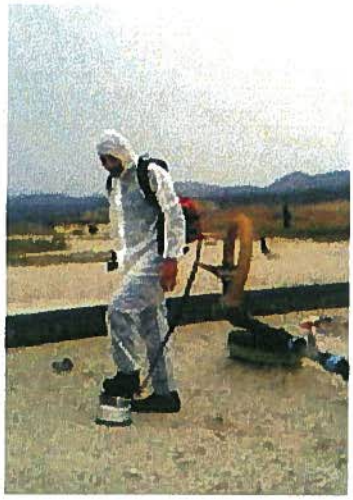
Palm top computer: PocketPC Color Display based on Windows Mobile operating system.
- PalmTop with cables, 0.3 Kg/0.7 lbs.
- Size 125mm (4.8") x 82mm (3.2") * 25 mm (1").

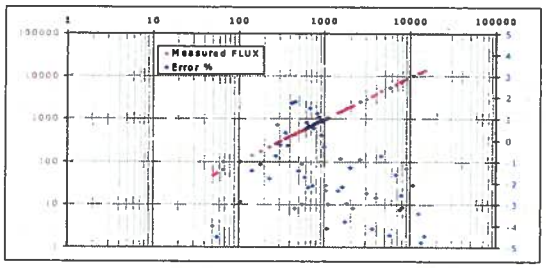
Software The instrument is supplied with a custom software, FluxManager, which allows recording and visualization of the increase in concentration of the target gas in the accumulation chamber, and then the flux calculations. The obtained measurements can be saved on the palmtop computer and then transferred to a desktop PC with a USB connection or using a SD card.

The instrument is supplied complete with:
- backpack-like support vest
- Carrying case for transport and storage
- 2 batteries NiMH 14.4 Volts 2.6 A/h and 1 NiMH battery charger Accumulation chamber A and B
- Palmtop Pocket PC
- User Manual, in English
- FLUX Manager Software for Windows Mobile, in English

The standard flux meter configuration is supplied with a single gas detector, normally the carbon dioxide detector. The fluxmeter can host two sensors by the way special releases, based on specific customer request, it can be supplied with a maximum of 3 sensors.

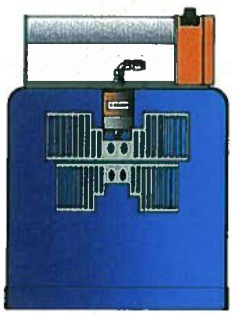
Finally we improved the connection between the instrument and the palmtop that now is based on BlueTooth wireless embedded device.





The measured carbon dioxide flux vs imposed flux (grams m^{-2} day^{-1});
The error % vs imposed flux (in blue).

The instrument is extremely versatile and allows measurement of flux in 2/4 minutes. In the picture: Soil bio-gas flux monitoring in a landfil.



Accumulation Chamber Type B

The accumulation chambers

In the normal use of instrument only the chamber B is used. To extend the instrument sensitivity to very low fluxes the accumulation chamber A is supplied.

	Type A	Type B
net area m^2	0.0314	
net volume m^3	0.003	0.006

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CO_2 - LI820

LI820 based Carbon dioxide fluxmeter

The CO_2 Fluxmeter is equipped with the LICOR LI-820 the most accurate and reliable portable carbon dioxide detector. The LI-820 is a double beam infrared sensor compensated for temperature variation in the range from -10 to 45°C and for atmospheric pressure variation in the range 660-1060 HPa. Accuracy 2% repeatability ±5ppm. The full scale range can be set to 1000 , 2000, 5000 or 20000 ppmV of carbon dioxide. The characteristics of precision refer to the sensor set to a full scale range of 20000 ppmV. If a very high sensitivity is required, the detector can be set to 1000 or 2000 ppm full scale value to measure with very high precision fluxes in the range from 0 to 10 moles m^{-2} day^{-1}

CO_2 FLUX Measurement range:
from 0 up 600 moles m^{-2} day^{-1}

The accuracy depends on the measured flux:

0 to 0.5 moles m^{-2} day^{-1}	25% (Acc.ch.A)
0.5 to 1 moles m^{-2} day^{-1}	15% (Acc.ch.A or B)
1 to 150 moles m^{-2} day^{-1}	10% (Acc.ch.B)
150 to 300 moles m^{-2} day^{-1}	10% (Acc.ch.B)
300 to 600 moles m^{-2} day^{-1}	20% (Acc.ch.B)

WS-DRAGER CO_2

WS-DRAGER: CO_2 Flux measurement:

A double beam infrared sensor compensated for temperature variation in the range from -20 to 65°C. Accuracy 3%. The full scale value can be set from 2,000 to 300,000 ppm of carbon dioxide. Carbon Dioxide flux measurement range from 0.5 to 1500 moles/m^2 per day.

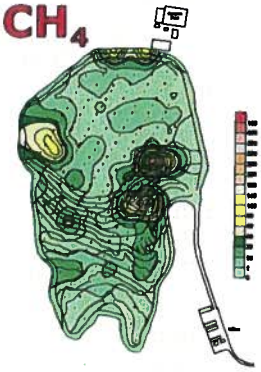
The precision depends on the measured flux:

range:0.5 – 5 moles/m^2 per day 25% (Acc. chamber A)

5-350 moles/m^2/day 10% (Acc. chamber B)

350-600 moles/ m^2/day 25% (Acc. chamber B)

600-1500 moles/ m^2/day 25% (Acc.Ch.B / F.S.=10%)



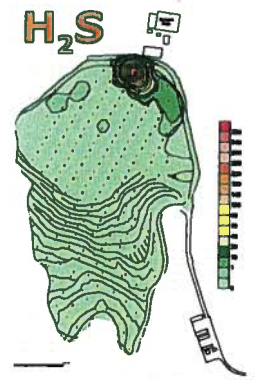
WS-HC CH^4

Methane fluxmeter

The methane sensor is an IR spectrometer. The full-scale range is 50000ppm, accuracy of 5% of reading, and repeatability is 2% of span. Detection limit 60 ppm, resolution 22 ppm. The detector was designed to measure the not controlled emissions of landfill, but it can be used to detect methane emission from coal or wherever the 0.2 moles/m^2/day detection limit is acceptable.

Methane Flux measurement range
from 0.2 up 300 moles m^{-2} day^{-1}
The fluxmeter is provided with 2 accumulation chambers and the accuracy depends on the measured flux:

0.2 to 10 moles m^{-2} day^{-1}	25% (Acc.Ch.A)
10 to 150 moles m^{-2} day^{-1}	15% (Acc.Ch.A)
150 to 300 moles m^{-2} day^{-1}	20% (Acc.Ch.B)



H_2S - WEST

Hydrogen sulfide

The hydrogen sulphide detector is a electrochemical cell with the following specifications:
The full-scale range is 20ppm, with a precision of 3% of reading, and the repeatability is 1.5% of span with a zero offset of 0.3%.

H_2S Flux measurement range: from 0.0025 to 0.5 moles/m^2 per day.
The precision depends on the measured flux:
0.0025 – 0.05 moles/m^2 per day ±25% (Acc. Chamber A)
0.05 – 0.5 moles/m^2 per day ±10% (Acc. Chamber B)

NOTE: The hydrogen sulphide flux evaluation can be affected by the presence of large quantities of water in both liquid and vapour phases.

We thanks to N.Lima et al. for the maps.

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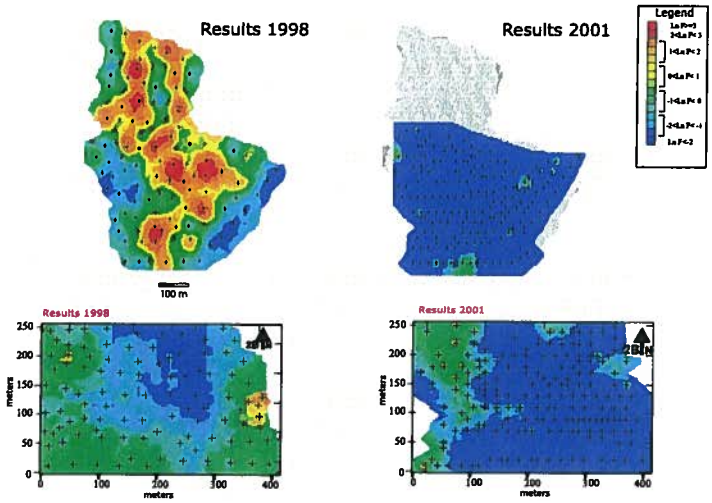
Application on a landfill: mapping the biogas non controlled emissions.

The figure shows the compare between the results of the measurement regime of a land/fill undertaken in 1998 and 2001: the mapping performed in 1998 gave clear indications of the areas which required intervention to improve the cover and the capture system.
The interventions were performed only where necessary with a significant economic savings.
The measurement regime of 2001 indicates without any doubt that the intervensions were efficient and state-of-the-art.



The obtained results:

- Minor atmospheric emissions;
- Higher quantity and better quality of biogas for cogeneration;
- Optimisation of management costs.

Continuous soil flux monitoring

WEST Systems produces a soil gas station for the continuous monitoring of carbon dioxide and hydrogen sulfide flux, soil temperature , soil water content, soil pressure gradient, soil heat flux and meteorological parameters.
For more information contact your local representative, visit our web site or e-mail to: g.virgili@westsystems.com

Local sales representative

H.Q.

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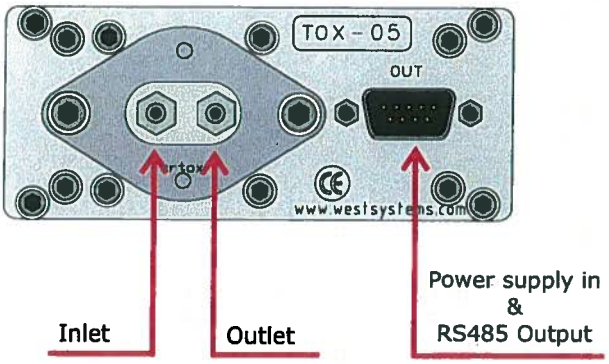
Hydrogen Sulfide Detector



Pin	Signal
1	Gnd
2	+VDC
3	Gnd
4	RS485-B
5	RS485-A
6	Gnd
7	+12V
8	Gnd
9	RS485-B

Legenda
Gnd: Ground reference for power supply and RS485
+VDC: 10-28 Volts Power supply input
RS485-A: Digital signal output A
RS485-B: Digital signal output B

Sensor specifications
Ambient conditions:
Air temperature -40°C to 65 °C
Air pressure 700 hPa to 1300 hPa
Air RH 5% - 95% non condensating.
Expected sensor life > 24 months.
Chemical cell order code: WEST H2S-BH
Detector order code: WEST TOX-05-H2S-BH
Factory calibration : 20 ppm
RMS Noise <= 0.02 ppm
Zero Offset <= 0.2 ppm
Max Overrange >= 200 ppm

The chemical cell reaction is:

$$H_2S + 2O_2 = H_2SO_4$$

the gas sample specific consuption is very low:

2.5×10^{-10} moles/Sec per ppm

Due to this consuption the H2S flux is methodically understimated by a -10% with the AccumulationChamber A and by a -5% when using the accumulation chamber B. Then we advise to use the accumulation chamber B except when the flux is very very low.

Appendix M

WS-HC detector

WS-HC Hydrocarbon Flux measurement:
The HydroCarbon detector is based on a double beam infrared spectrometer able to detect methane, hexane , propane and other molecules with HC linkages. The instrument comes calibrated for the methane. *The instrument requires a frequent **zero base-line** calibration that will be done using atmospheric air. The calibration requires 20 second.*

Detector specifications:

Accuracy 5%

Repeatibility 2%

Resolution 22 ppm (Methane equivalent)

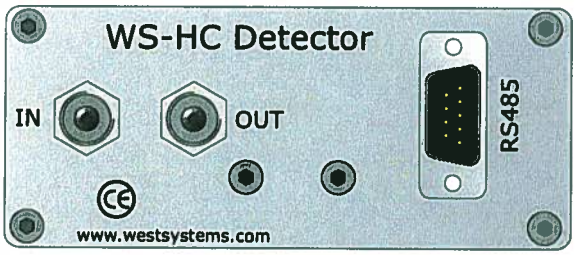
Full scale range is 50000 ppm of methane.

Detection limit 60 ppm.

Methane flux measurement range from 0.1 to 150 moles/m^2 per day.
The precision depends on the measured flux:

```
range 0.1  5      moles/ m^2 per day ±25%
      5 - 150     moles/ m^2 per day ±10%
```

The measurement of very low fluxes (< 0.1 moles/m^2/day) is possible but the error will increase due to the low detector sensitivity.



RS485 Connector DB9 Male panel

Pin 1	**Gnd**
Pin 2	**+Power supply**
Pin 3	**Gnd**
Pin 4	**RS485 B**
Pin 5	**RS485 A**
Pin 6	**Gnd**
Pin 7	**+Power supply**
Pin 8	**Gnd**
Pin 9	**RS485 B**

The gas fittings can be used with rilsan 6x4 mm tubes or silicon 5x3.2 tubes. Please respect inlet and outlet ports.

LI-820 Specifications

CO_2 Specifications

Measurement Range: 0-1000 ppm, 0-2000 ppm with 14 cm bench; 0-5000 ppm, 0-20000 ppm with 5 cm bench

Accuracy: < 2.5% of reading with 14 cm bench; 4% of reading with 5 cm bench

Calibration Drift

[1]Zero Drift: < 0.15 ppm / °C

[2]Span Drift at 370 ppm: < 0.03% / °C

[3]Total Drift at 370 ppm: <0.4 ppm / °C

RMS Noise at 370 ppm with 1 sec Signal Filtering: < 1 ppm

[1] Zero drift is the change with temperature at 0 concentration
[2] Span drift is the change after re-zeroing following a temperature change
[3] Total drift is the change with temperature without re-zeroing or re-spanning

Measurement Principle: Non-Dispersive Infrared

Traceability: Traceable gases to WMO standards from 0-3000 ppm. Traceable gases to EPA protocol gases from 3000 to 20000 ppm

Pressure Compensation Range: 15 kPa-115 kPa

Maximum Gas Flow Rate: 1 liter/minute

Output Signals: Two Analog Voltage (0-2.5 V or 0-5 V) and Two Current (4-20 mA)
Digital: TTL (0-5 V) or Open Collector

DAC Resolution: 14-bits across user-specified range

Source Life: 18000 hours

Power Requirements: Input Voltage 12-30 VDC
1.2A @ 12V (14 W) maximum during warm-up with heaters on
0.3 A @ 12 V (3.6 W) average after warm-up with heaters on

Supply Operating Range: 12-30 VDC

Operating Temperature Range: -20 to 45 °C

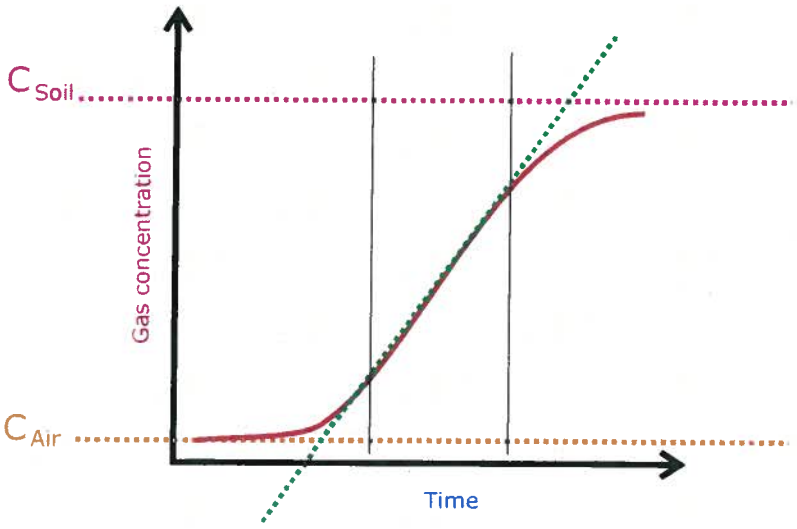
Relative Humidity Range: 0 to 95% RH, Non-Condensing

Dimensions: 8.75" x 6" x 3" (22.23 x 15.25 x 7.62 cm)

Weight: 2.2 lbs (1 kg)

Quantifying the flux

How explained in the chapter 3 the flux is proportional to the concentration increase ratio ppm/sec. The proportionality factor depends on the chamber volume/surface ratio as well as the barometric pressure and the air temperature inside the accumulation chamber.



There are two methods to carry out the field work, in both cases for each measurement you have to record the type of accumulation chamber used, the barometric pressure, and the air temperature.
The variation of few mBar of the pressure and or few degrees of temperature do not affect the evaluation of flux very much, then you can use a mean value for both parameters. Of course that depends on the accuracy you want to reach for the evaluation of flux.
The instrument measures the barometric pressure, using the embedded pressure sensor of the LICOR, with a good accuracy. A platinum Pt100 or a thermo-couple thermometer can be used to measure the air temperature as well as the soil temperature.

Choosing the flux measurement unit

The first measurements made, 10 years ago, with the accumulation chamber was expressed in cm/sec which is a speed, the speed of carbon dioxide flowing out from the soil. During the last ten years several units have been used by volcanologist and by geochemistry researchers. The most common unit is grams/squaremeter per day, but using the same instrument for two gas species to express the flux using this unit means to have two different conversion factors. Actually we use the unit **moles/squaremeter per day** that has two advantages: A single conversion factor for every gas specie and an easy conversion of the flux in grams/sm per day simply multiplying the result expressed in moles/sm per day for the molecular weight of the target gas.

From the [tools][settings] menu you can set the accumulation chamber factor in the "A.c.K." field.

If this factor is set to 1 the instrument will give you results expressed in ppm/sec, that's simply the slope of the curve in the selected interval.

If you set the A.c.K to a value different from 1 the instrument will give you the results expressed in moles per square meter per day.

Please see next page.

Quantifying the flux

Method 1: Measuring the slope

Set the Accumulation Chamber factor to 1 in order to have the flux measurement expressed in the slope unit "ppm/sec" and translate it in the desired unit with a post processing.
Using this method you can focus only on the accumulation chamber interfacing with the soil, the flux curve shape and the other aspects of the measurement, putting off choosing the correct accumulation chamber factor.

Method 2: Measuring the flux directly in moles/sm/day.

To get the results directly in moles/sm/day you have to set the Accumulation Chamber factor to the correct value, taking it from the tables.
For each measurement, if there are variations in the air temperature, or of the barometric pressure, or if you changed the accumulation chamber you have to select the [tools][settings] menu and put the correct accumulation chamber factor in the "A.c.K." field. This operation can be "critical". In any case on the saved files you'll find the results of flux evaluation expressed in both units , the raw ppm/sec and the moles/sm/day computed with the A.c.K. you set.

The accumulation chamber factors

Here following the formula used to compute the A.c.K.:

$$K = \frac{86400 \cdot P}{10^6 \cdot R \cdot T_k} \cdot \frac{V}{A}$$

Where

- **P** is the barometric pressure expressed in mBar (HPa)
- **R** is the gas constant 0.08314510 bar $L\,K^{-1}\,mol^{-1}$
- $\mathbf{T_k}$ is the air temperature expressed in Kelvin degree
- **V** is the chamber net volume in cubic meters
- **A** is the chamber inlet net area in square meters.

The dimensions of the A.c.K. are

$$K = \frac{moles \cdot meter^{-2} \cdot day^{-1}}{ppm \cdot sec^{-1}}$$

In the table the conversion factors vs temperaure and barometric pressure for the Accumulation Chamber Type A and B are reported.

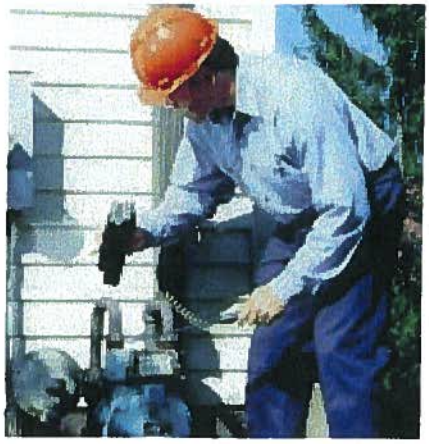
An example:

You're using the accumulation chamber B, the slope of the flux curve is 2.5 ppm/sec, the barometric pressure is 1008 mBar (HPa) and the air temperature is 22 °C.
From the table B get the value that correspond to the barometric pressure and temperature. In this case I get the value computed for 25°C and 1013 mBar : 0.696.

Then the flux is: 2.5 x 0.696= 1.74 moles per square meter per day.

Gasport® Gas Tester

The Gasport Gas Tester is designed for gas utility workers to detect methane and certain toxic gases. It is a reliable, simple, versatile tool to help your service technicians get the job done quickly! With multiple ranges and sensing capabilities built into one rugged housing, the Gasport Tester simplifies your work by reducing the number of meters you have to carry on the job.



Applications

The Gasport Tester's poison-tolerant methane sensor provides three measurement ranges for your daily service needs:

- Open air, safety sampling
- Small, in-home leak detection
- Street/outdoor service line leak detection

Features and Benefits

- **Proven in field use–rugged and reliable**
  Less costly to maintain, less time in repair
- **Multiple functions in one instrument**
  No need to buy, carry & maintain multiple instruments
- **New, poison-tolerant combustible gas sensor**
  Reduces meter ownership costs
- **User-selectable, "silent" operation mode**
  Reduces customer disturbances and worries
- **Fast warm up time**
  Fastest warm up time in industry saves time
- **Can monitor up to four gases at a time**
  Fewer instruments to carry
- **Show all gas concentrations simultaneously**
  Eliminates guesswork on what reading is displayed
- **Autoranging methane sensor**
  Automatically switches between 0-5% and 5-100% methane ranges
- **Gas readings recorded for later retrieval**
  Can double check readings after job is done
- **Simple manual or automated calibration options**
  Reduces training time and helps ensure accuracy
- **Intrinsically safe**
  Meets safety standards for work in hazardous areas
- **Lifetime warranty on case and electronics**
  Reduced maintenance and lifetime costs

Specifications

Gas	Range	Resolution
Methane	0–5000 ppm	50 ppm
Methane	0–100% LEL or 0–5% CH_4	1 % LEL or 0.1% CH_4
Methane	5–100% CH_4	1% CH_4
Oxygen	0–25%	0.1%
Carbon Monoxide	0–1000 ppm	1 ppm
Hydrogen Sulfide	0–100 ppm	1 ppm

Battery types: NiCd and Alkaline
Case material: Impact resistant, stainless-steel-fiber-filled polycarbonate
Operating temperature: normal -10 to 40°C; extended -20 to 50°C
Operating humidity: Continuous: 15-95% RH, non-condensing
Intermittent duty: 5-95% RH, non condensing
Warm up time: Less than 20 seconds to initial readings
Datalog capacity: 12 hours
Input: 3 clearly marked, metal domed keys
Warranty: Case and Electronics: Lifetime
Sensors and consumable parts: 1 year

The answer for gas utilities' gas detection needs

Gasport® Gas Tester

Ordering Information

Battery Chargers

Part No.	Description
494716	Omega 120 VAC 50/60Hz
495965	Omega 220 VAC 50/60Hz
801759	Omega 110/220 VAC, Five Unit, 50/60Hz
800525	Omega 8 - 24VDC for vehicle use

Battery Packs

Part No.	Description
496990	Standard NiCd Rechargeable
800526	Alkaline, Type C
711041	Alkaline, with Thumbscrews
800527	Heavy Duty NiCd Rechargeable

Sensors

Part No.	Description
813693	Combustible Gas
480566	O_2
812389	CO
812390	H_2S

Protective Boots

Part No.	Description
804955	Black, for NiCd Battery Packs
802806	Orange, for NiCd Battery Packs
806751	Black, for Alkaline Battery Packs
806750	Orange, for Alkaline Battery Packs
806749	Black, for HD NiCd Battery Packs
806748	Orange, for HD NiCd Battery Packs
812833	Yellow Soft Carrying Case with Harness
711022	Black padded Vinyl Carrying Case with Harness

Sampling Equipment

Part No.	Description
800332	Probe - 1 ft., plastic
800333	Probe - 3 ft., plastic
803561	Probe - 3 ft., plastic (holes 2" from end) (bar hole probe)
803962	Probe - 3 ft., plastic (holes 2" from handle) (solid probe)
803848	Probe - Hot Gas Sampler
710465	Sampling Line - 5 ft., coiled
497333	Sampling Line - 10 ft.
497334	Sampling Line - 15 ft.
497335	Sampling Line - 25 ft.

Sampling Accessories

Part No.	Description
801582	Replacement Filter, Probe, pkg. of 10
801291	External Filter Holder
014318	Charcoal Filter
711039	Line Scrubber Filter Holder
711059	Line Scrubber Replacement Cartridges, Box of 12
808935	Dust Filter, Pump Module
802897	Water Trap (Teflon) Filter, Pump Module

Calibration Check Equipment

Part No.	Description
477149	Calibration Kit Model RP with 0.25 lpm Regulator
491041	Calibration Gas - methane, 2.5%
473180	Calibration Gas - 300 ppm CO
813718	Calibration Gas - methane, 2.5% oxygen, 15%60 ppm CO
813720	Calibration Gas - methane, 2.5% oxygen, 15%300 ppm CO 10 ppm H_2S
710288	Gasmiser™ Demand Regulator 0 - 3.0 lpm

Accessories

Part No.	Description
804679	Data Docking Module Kit. Includes the Data Docking Module, MSA Link Software and Instruction Manual

Approvals

The Gasport Gas Tester has been designed to meet intrinsic safety testing requirements in certain hazardous atmospheres.

The Gasport Gas Tester is approved by MET (an OSHA Nationally Recognized Testing Laboratory [NRTL]) for use in Class I, Division I, Groups A, B, C, D; Class II, Division I, Groups E, F, G; and Class III Hazardous locations. Gaspor tGas Testers sold in Canada are approved by CSA for use in Class I, Division I, Groups A, B, C, and D locations.

Contact MSA at 1-800-MSA-2222 for more information or with questions regarding the status of approvals.

Gasport Gas Tester Kits

	LEL Display	O_2	CO	H_2S	Alarms Always	Alarms Optional	Leak Detect Page	Peak	Alkaline Battery	NiCd Battery	5ft Coiled Line	1ft Probe	Part No.
4-Gas, Selectable, NiCd	•	•	•	•		•	•	•		•	•	•	711489
4-Gas, Selectable, Alkaline	•	•	•	•		•	•	•	•		•	•	711490
3-Gas, Selectable, NiCd	•	•	•			•	•	•		•	•	•	711493
3-Gas, Selectable, Alkaline	•	•	•			•	•	•	•		•	•	711494
2-Gas, Selectable, NiCd	•		•			•	•	•		•	•	•	711495
2-Gas, Selectable, Alkaline	•		•			•	•	•	•		•	•	711496
4-Gas, Alarms On, NiCd	•	•	•	•	•		•	•		•	•	•	711491
4-Gas, Alarms On, Alkaline	•	•	•	•	•		•	•	•		•	•	711492

Assemble-to-Order (ATO) System: You Make the Choices

The ATO System makes it easy to "custom order" the Gasport Gas Tester, configured exactly the way you want it. You can choose from an extensive line of base instrument components and accessories. To obtain a copy of the "ATO System and Price Information for the Gasport Gas Tester," call toll-free 1-800-MSA-2222, and request Bulletin 0804-28. **To obtain a copy of the ATO via FAX, call MSA QuickLit Information Service at 1-800-672-9010. At the prompt, request QuickLit Document #2345 (ATO for Gasport Gas Tester).**

ID 08-04-27-MC / May 2000

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P.O. Box 426
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Phone (412) 967-3000
www.MSAnet.com

U.S. Customer Service Center
1-800-MSA-2222

MSA International
Phone (412) 967-3354
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Offices and representatives worldwide
For further information:

MSA

GeoXT

The total GPS platform for all your GIS field requirements

The GeoXT™ handheld, from the GeoExplorer® series, is an essential tool for maintaining your GIS. It's all you need to collect location data, keep existing GIS information up to date, and even mobilize your GIS.

The unique GeoExplorer series combines a Trimble® GPS receiver with a rugged field-ready handheld computer running the Microsoft® Windows Mobile™ 2003 software for Pocket PCs. Plus there's an internal battery that easily lasts for a whole day of GPS operation. The result is tightly integrated, tough, and incredibly powerful.

High-accuracy Integrated GPS

The GeoXT is optimized to provide the reliable, high-accuracy location data you need. Advanced features like EVEREST™ multipath rejection technology let you work under canopy, in urban canyons, or anywhere where accuracy is crucial.

Need submeter accuracy in real-time? Use corrections from a satellite-based augmentation system (SBAS) like WAAS[1] or EGNOS[2]. Want to get that extra edge in precision? Collect data with Trimble's TerraSync™ or GPScorrect™ software, and then postprocess back in the office.

Because the GPS receiver and antenna are built into the handheld computer, it's never been easier to use GPS in your application. The system is more than just cable-free: it's a totally integrated solution.

Optimized productivity

Take advantage of the power and flexibility of Windows Mobile software for Pocket PCs by choosing from the most comprehensive range of field software available—whether off-the-shelf or purpose-built. Whatever your needs, Windows Mobile lets you choose a software solution to match your workflow.

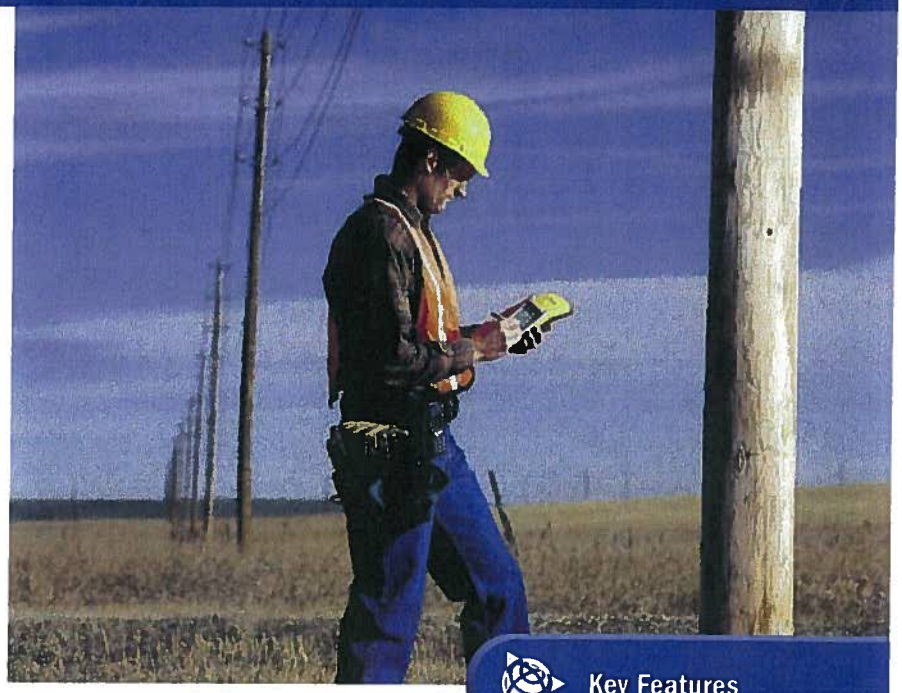
Windows Mobile includes familiar Microsoft productivity tools, including Pocket Word, Pocket Excel, and Pocket Outlook®. Pocket Outlook lets you synchronize e-mails, contacts, appointments, and data with your office computer, so whether you're in the office or in the field, you're always up to date.

Go wireless with integrated Bluetooth®* for connection to other Bluetooth-enabled devices, including cell phones and PCs. You also have the option to use the USB support module to connect to a desktop computer, or use the optional serial clip for cabled connections in the field.

Receive a free copy of Microsoft Streets & Trips** 2004 software with your GeoXT handheld, and take advantage of comprehensive map and travel information for easy navigation and route planning.

All the memory you need

There's plenty of storage space in the GeoXT for all your GIS data. The fast processor and large memory mean even big graphics files load quickly—and they're crisp and crystal-clear on the advanced TFT outdoor color screen.



Key Features

- High-performance submeter GPS with integrated WAAS/EGNOS
- Windows Mobile 2003 software for Pocket PCs, allowing maximum flexibility in software choice
- Rugged handheld with all-day battery
- Advanced color TFT display with backlight
- Integrated Bluetooth for wireless connectivity

From data collection to data maintenance, to mobile GIS and beyond ... the GeoXT is the handheld of choice.

* *Bluetooth type approvals are country specific. GeoExplorer series handhelds are approved for use with Bluetooth in the USA. For a complete list of other countries with Bluetooth approval please refer to: www.trimble.com/geo_bluetooth.html.*

** *Microsoft Streets & Trips 2004 software available in US/Canada; Microsoft AutoRoute® 2004 in Europe.*

Trimble.

GeoXT

The total GPS platform for all your GIS field requirements

Standard features

System
- Microsoft Windows Mobile 2003 software for Pocket PCs
- 206 MHz Intel StrongARM processor
- 512 MB non-volatile Flash data storage
- Outdoor color display
- Ergonomic cable-free handheld
- Rugged and water-resistant design
- All-day internally rechargeable battery
- Bluetooth wireless

GPS
- Submeter accuracy
- Integrated WAAS[1]/EGNOS[2]
- RTCM real-time correction support
- NMEA and TSIP protocol support
- EVEREST multipath rejection technology

Software
- GPS Controller for control of integrated GPS and in-field mission planning
- GPS Connector for connecting integrated GPS to external ports
- File Explorer, Internet Explorer, Pocket Outlook (Inbox, Calendar, Contacts, Tasks, Notes), Sprite Pocket Backup, Transcriber, Pocket Word, Pocket Excel, Pictures, Windows® Media Player, Bluetooth File Transfer, Calculator, ActiveSync®
- Microsoft Streets & Trips/AutoRoute 2004 software

Accessories
- Support module with power supply and USB data cable
- Getting Started Guide
- Companion CD includes Outlook 2002 and ActiveSync 3.7.1
- Hand strap
- Pouch
- Stylus

Optional Features

Software
- TerraSync
- GPScorrect for ESRI® ArcPad®
- GPS Pathfinder® Tools Software Development Kit (SDK)
- GPS Pathfinder Office
- Trimble GPS Analyst extension for ArcGIS®

Accessories
- Serial clip for field data and power input
- Vehicle power adaptor[3]
- Portable power kit[3]
- Hurricane antenna
- External patch antenna
- Pole-mountable ground plane
- Baseball cap with antenna sleeve
- Beacon-on-a-Belt (BoB™) differential correction receiver[3]
- Hard carry case
- Null modem cable[3]
- Backpack kit

Specifications subject to change without notice.

Technical specifications

Physical

Size	21.5 cm × 9.9 cm × 7.7 cm (8.5 in × 3.9 in × 3.0 in)
Weight	0.72 kg (1.59 lb) with battery
Processor	206 MHz Intel StrongARM SA-1110
Memory	64 MB RAM and 512 MB internal Flash disk
Power	
Low (no GPS)	0.6 Watts
Normal (with GPS)	1.4 Watts
High (with GPS, backlight, and Bluetooth)	2.5 Watts
Battery	Internal lithium-ion, rapidly rechargeable in unit, 21 Watt-hours

Environmental

Temperature	
Operating	-10 °C to +50 °C (14 °F to 122 °F)
Storage	-20 °C to +70 °C (-4 °F to 158 °F)
Humidity	99% non-condensing
Casing	Wind-driven rain and dust-resistant per IP 54 standard Slip-resistant grip, shock- and vibration-resistant

Input/output

Communications	Bluetooth for wireless connectivity USB via support module, serial via optional DE9 serial clip adaptor
Bluetooth	
Certification	Bluetooth type approvals are country specific. GeoExplorer series handhelds are approved for use with Bluetooth in the USA. For a complete list of other countries with Bluetooth approval please refer to www.trimble.com/geoxt_ts.asp.
Profiles	
Both client and host support	Serial Port, File Transfer (using OBEX)
Client support only	Dial-Up Networking, Lan Access
Host support only	Basic Imaging, Object Push
Display	Advanced outdoor TFT, 240 × 320 pixel, 65,536 colors, with backlight
Audio	Microphone and half duplex speaker, record and playback utilities
Interface	Anti-glare coated touch screen, Soft Input Panel (SIP) virtual keyboard 2 hardware control keys plus 4 programmable permanent touch buttons Handwriting recognition software, Audio system events, warnings, and notifications

GPS

Channels	12
Integrated real-time	WAAS[1] or EGNOS[2]
Update rate	1 Hz
Time to first fix	30 sec (typical)
Protocols	NMEA (GGA, VTG, GLL, GSA, ZDA, GSV, RMC), TSIP (Trimble Standard Interface Protocol)

Accuracy (RMS)[4] after differential correction

Postprocessed[5]	Submeter
Carrier postprocessed[6]	
With 10 minutes tracking satellites	30 cm
Real-time	Submeter

1 *WAAS (Wide Area Augmentation System). Available in North America only. For more information, see http://gps.faa.gov/programs/index.htm.*
2 *EGNOS (European Geostationary Navigation Overlay System). Available in Europe only. For more information, see http://www.esa.int/export/esaSA/navigation.html.*
3 *Serial clip also required.*
4 *Horizontal accuracy. Requires data to be collected with minimum of 4 satellites, maximum PDOP of 6, minimum SNR of 4, minimum elevation of 15 degrees, and reasonable multipath conditions. Ionospheric conditions, multipath signals or obstruction of the sky by buildings or heavy tree canopy may degrade precision by interfering with signal reception. Accuracy varies with proximity to base station by +1 ppm for postprocessing and real-time, and by +5 ppm for carrier postprocessing.*
5 *Postprocessing with GPS Pathfinder Office software or GPS Analyst extension for ArcGIS.*
6 *Requires collection of carrier data. (Only available with the GPS Pathfinder Office software).*

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ULTRAMETER II™

OVER 50 YEARS

MYRON L COMPANY

Water Quality Instrumentation

Accuracy • Reliability • Simplicity

ULTRAMETER II™

Advanced Design • Superior Performance

MADE IN USA

OVER 50 YEARS

pH/ORP Sensor protective cap

Four-digit display for full 9999 readings, with autoranging capability up to 200 mS/200 ppt

Powerful microprocessor based surface-mount circuitry

Display prompts for simple pH calibration

Memory for 100 readings with Date & Time Stamp

Real Time Clock

Factory calibrations stored in microprocessor

Conductivity

Resistivity

TDS

Temperature

pH

ORP

CE

ULTRA-FAST
ULTRA-EASY
ULTRA-POWERFUL

Since 1957, the Myron L Company has designed and manufactured highly reliable analytical instruments for a wide variety of applications. Thousands of professionals around the world rely every day on the performance of our instruments. Demanding uses range from boiler water testing to ultrapure water control to medical instruments for artificial kidney machines.

We are proud of the trust our handheld instruments and monitor/controllers have earned in the past. Our product line has evolved to a new level of outstanding performance and value in analytical instruments: the Ultrameter II series. While priced like affordable single-parameter instruments, the Ultrameter II does the job of three, four or even six instruments.

Accuracy You Can Trust

Both Ultrameter II models deliver performance of ±1% of reading (not merely full scale). This high level of accuracy has been achieved through advanced four-electrode conductivity cell technology, a unique pH/ORP sensor and powerful microprocessor-based circuitry. With displayed values of up to 9999, the full four-digit LCD ensures resolution levels never before possible in such affordable instruments. Factory calibrated with NIST traceable solutions, each Ultrameter II may be supplied with both certification of traceability and NIST traceable solutions for definitive calibration.

Fast and accurate in the laboratory, both Ultrameter II models are rugged enough for daily in-line controller checks in hostile process applications.

Innovative Engineering

The Ultrameter II is a prime example of how high-tech engineering can greatly simplify and streamline a task. Whether in the lab, industrial plant, or in a remote field location, merely:

1. Fill the cell cup
2. Push a parameter key
3. Take the reading

Temperature compensation and range selection are both rapid and automatic. The Ultrameter II is a true one-hand operation instrument.

Easy to Calibrate

All calibrations are quickly accomplished by pressing the ☒ or ☒ keys to agree with our NIST traceable Standard Solution. When calibration is necessary, display prompts simplify pH calibration and make sure the correct buffer is being used. Plus, all parameters (excluding factory-set temperature) have an internal electronic setting that can be used for field calibration and as a check on pH/ORP sensor life.

Advanced Features

- Fully automatic temperature compensation
- User adjustable temperature compensation (up to 9.99%/°C) which also allows TC to be disabled for applications requiring non-compensated readings.
- User adjustable conductivity/TDS conversion ratio for greater accuracy when measuring solutions not contained in the microprocessor.
- Auto-shutoff maximizes the life of the single 9V battery to more than 100 hours/5000 tests.
- Non-volatile microprocessor provides data back-up, even when the battery is changed. This assures all calibrations and memory data will be retained.
- Extended life pH/ORP sensor is user replaceable in the field.

High Performance at a Low Cost

Beyond their affordable purchase price, Ultra-Fast, Ultra-Easy, Ultra-Powerful Ultrameter II's save both time and money. Measure for measure, Ultrameter II's give you a better return on your investment than any other handheld instrument. To see for yourself, contact your distributor or the Myron L Company today.

Multiple Applications

Irrigation Water

Hydroponics

Laboratories

Homeland Security

Reverse Osmosis

Deionization

Wastewater

Cooling Towers

Environmental

Desalination

Fountain Solutions

BENEFITS DESIGNED TO SAVE YOU TIME & MONEY

Built-in IR Port allows you to conveniently download your data to a computer. **(Requires Myron L uDock™ Accessory Package)**

Ample memory provides increased flexibility to record and store 100 separate readings.

Real Time Clock with Date & Time Stamp allows you to maintain the integrity of each individual reading.

The advanced four-electrode cell for conductivity/resistivity/TDS eliminates polarization, allowing greater accuracy and stability with minimal maintenance.

The pH/ORP sensor chamber provides protection to a unique porous liquid-junction.

The large capacity KCl reservoir guarantees extended life.

A custom LCD helps simplify calibration and operation by using annunciators and prompts to indicate various conditions.

IP67/NEMA 6 rated Ultrameter II's are waterproof and buoyant and can be fully immersed to 3 feet/1 meter.

Features

Ultrameter II™ Models	4PII Conductivity TDS, Resistivity Temperature	6PII Conductivity, TDS Resistivity, pH ORP, Temperature
Autoranging	•	•
Adjustable Temp. Compensation	•	•
Adjustable Cond/TDS ratio	•	•
Memory (100 readings)	•	•
Date & Time Stamp	•	•
pH Calibration Prompts		•
Low battery indicator	•	•
Auto-off	•	•

Specifications

Display	4 Digit Liquid Crystal Display
Dimensions LxWxH	196 x 68 x 64 mm/ 7.7 x 2.7 x 2.5 inches
Weight	352 g/12.4 oz.
Case/conductivity cell material	VALOX*
Cell capacities	pH/ORP: 1,2 ml/0.04 oz. Cond/TDS/Res: 5 ml/0.2 oz.
Power	9V alkaline battery
Battery life	>100 hours (5000 readings)
Operating/storage temperature	0 – 55°C/32 – 132°F
Protection ratings	IP67/NEMA 6 Waterproof to 1 meter/3 feet

*™GENERAL ELECTRIC

Parameters

	Conductivity	TDS	Resistivity	pH	ORP	Temperature
Ranges	0–9999 µS/cm 10–200 mS/cm in 5 autoranges	0–9999 ppm 10–200 ppt in 5 autoranges	10 KΩ–30 MΩ	0–14 pH	±999 mV	0–71°C 32–160°F
Resolution	0.01(<100 µS) 0.1(<1000 µS) 1.0(<10 mS) 0.01(<100 mS) 0.1(<200 mS)	0.01(<100 ppm) 0.1(<1000 ppm) 1.0(<10 ppt) 0.01(<100 ppt) 0.1(<200 ppt)	0.01(<100 KΩ) 0.1(<1000 KΩ) 0.1(>1 MΩ)	±0.01 pH	±1 mV	0.1°C/F
Accuracy	±1% of reading	±1% of reading	±1% of reading	±0.01 pH	±1 mV	±0.1°C
Auto Temperature Compensation	0–71°C 32–160°F	0–71°C 32–160°F	0–71°C 32–160°F	0–71°C 32–160°F	—	—
Adjustable Temperature Compensation to 25°C	0–9.99%/°C	0–9.99%/°C	0–9.99%/°C	—	—	—
Conductivity/TDS Ratios Preprogrammed	KCl, 442*, NaCl	KCl, 442*, NaCl	—	—	—	—
Adjustable Conductivity/TDS Ratio Factor	0.20–7.99	0.20–7.99	—	—	—	—

*442 Natural Water Standard ™ Myron L Company

Accessories

uDock™ Accessory Package includes uDock™, USB cable and Macintosh/PC application software for downloading data. MODEL: U2CIP

Certificates confirming the NIST traceability of an Ultrameter II are available (must be specified when placing instrument order). MODEL: MC

Conductivity Standard Solutions are necessary to maintain accuracy and for periodic calibration of conductivity/TDS parameters. All Standard Solutions are NIST traceable for your complete confidence. RECOMMENDED VALUES: KCl-7000 (7 mS), 442-3000 (TDS), or NaCl-14.0 (mS) available in 2 oz/59 ml, 1 qt/1 L, and 1 gal/3,8 L.

pH Buffers are necessary to maintain accuracy and for periodic calibration of pH and ORP parameters. Calibration with pH 7 Buffer is especially important. All pH 4, 7, and 10 Buffers are NIST traceable and are available in 2 oz/59 ml, 1 qt/1 L, and 1 gal/3,8 L.

pH Sensor Storage Solution
Available in 2 oz/59 ml, 1 qt/1 L, and 1 gal/3,8 L.
MODEL: SS2OZ, SSQ and SSG

Certificate of NIST traceability for pH Buffer or Conductivity Standard Solutions are available (must be specified when placing solution order). MODEL: SC

Hard protective case (small)
MODEL: UPP

Hard protective case (kit) with three buffers (pH 4, 7, and 10), one pH/ORP storage solution, and two standard solutions, (KCl-7000 and 442-3000). All bottles are 2 oz/59 ml.
MODEL: PKU

Soft protective case is constructed of padded Nylon and features a belt clip for hands-free mobility.
MODEL: UCC (Blue)
UCCDT (Desert Tan)

Replacement pH/ORP sensor user-replaceable, features a unique/porous liquid-junction.
MODEL: RPR

Built on Trust

Founded in 1957, Myron L Company is one of the world's leading manufacturers of water quality instruments. Because of our policy of continuous product improvement, changes in design and the specifications in this brochure are possible. You have our assurance any changes will be guided by our product philosophy: Accuracy, Reliability, Simplicity.

Limited Warranty

All Myron L Ultrameter II's have a Two (2) Year Limited Warranty. The pH/ORP sensors have a Six (6) Month Limited Warranty. Warranty is limited to the repair or replacement of the Ultrameter II only, at our discretion. Myron L Company assumes no other responsibility or liability.

MYRON L COMPANY
Water Quality Instrumentation
Accuracy • Reliability • Simplicity

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SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

UMIIB 03-08

APPENDIX B

FLUX METER DATA

APPENDIX B
METHANE FLUX MEASUREMENTS
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES, INC. AND PETROX RESOURCES, INC.

Location	Site Point Identification	Northing	Easting	Date	CH4 Flux	H2S Flux	CO2 Flux	Pressure	Temperature (Degrees Celsius)	Date & Time of Measurement	CH4 Slope	H2S Slope	CO2 Slope
BC	bca71710_1_17072010	1234755.4360000	2424968.8780000	7/17/2010	0.0000	0.0000	0.0000	781.5	23.5	17-07-2010 08:03:45	0.0000	-0.0050	-0.9390
BC	bca71710_10_17072010	1234549.7050000	2426579.9190000	7/17/2010	0.0000	0.0000	0.0360	775.0	30.7	17-07-2010 09:01:34	0.0000	-0.0010	0.1510
BC	bca71710_11_17072010	1234753.9910000	2426580.1540000	7/17/2010	0.0000	0.0000	0.0836	775.0	31.3	17-07-2010 09:09:10	0.0000	-0.0010	0.3510
BC	bca71710_12_17072010	1234940.1910000	2426569.7400000	7/17/2010	0.0000	0.0000	0.0936	775.0	31.9	17-07-2010 09:14:27	0.0000	-0.0030	0.3940
BC	bca71710_13_17072010	1234933.1130000	2426375.0540000	7/17/2010	0.0000	0.0000	0.0000	776.6	32.5	17-07-2010 09:19:48	0.0000	-0.0010	-0.3410
BC	bca71710_14_17072010	1234944.1010000	2426170.7550000	7/17/2010	0.0000	0.0000	0.0854	776.6	33.0	17-07-2010 09:25:31	0.0000	-0.0020	0.3600
BC	bca71710_15_17072010	1234946.3370000	2425983.1350000	7/17/2010	0.0000	0.0000	0.1764	776.6	33.6	17-07-2010 09:32:15	0.0000	-0.0010	0.7450
BC	bca71710_16_17072010	1234949.1490000	2425764.2360000	7/17/2010	0.0000	0.0000	0.0007	779.7	33.9	17-07-2010 09:36:46	0.0000	-0.0020	0.0030
BC	bca71710_17_17072010	1234937.2330000	2425554.0050000	7/17/2010	0.0000	0.0000	0.1047	780.5	34.2	17-07-2010 09:41:54	0.0000	0.0000	0.4410
BC	bca71710_18_17072010	1234954.6880000	2425361.1280000	7/17/2010	0.0000	0.0000	0.2444	781.3	34.5	17-07-2010 09:46:19	0.0000	0.0000	1.0290
BC	bca71710_19_17072010	1234948.9520000	2425166.7740000	7/17/2010	0.0000	0.0000	0.0145	781.3	34.8	17-07-2010 09:50:15	0.0000	-0.0050	0.0610
BC	bca71710_21_17072010	1234917.8380000	2424774.7530000	7/17/2010	0.0000	0.0000	0.1031	780.0	36.8	17-07-2010 10:07:22	-0.0080	-0.0020	0.4380
BC	bca71710_23_17072010	1235153.0750000	2424973.7160000	7/17/2010	0.0000	0.0000	0.0000	780.1	37.7	17-07-2010 10:18:18	-0.2710	-0.0030	-0.0310
BC	bca71710_24_17072010	1235132.6020000	2425164.0910000	7/17/2010	0.0000	0.0009	0.1713	780.1	38.2	17-07-2010 10:23:32	0.0000	0.0040	0.7310
BC	bca71710_25_17072010	1235112.9790000	2425380.9660000	7/17/2010	0.0000	0.0002	0.0604	780.1	38.5	17-07-2010 10:30:38	0.0000	0.0010	0.2580
BC	bca71710_26_17072010	1235144.7930000	2425575.7370000	7/17/2010	0.0000	0.0005	0.1468	780.8	38.7	17-07-2010 10:34:14	0.0000	0.0020	0.6270
BC	bca71710_27_17072010	1235149.4350000	2425772.7340000	7/17/2010	0.0000	0.0002	0.1273	780.8	38.9	17-07-2010 10:37:59	0.0000	0.0010	0.5440
BC	bca71710_28_17072010	1235149.2140000	2425969.9960000	7/17/2010	0.0000	0.0007	0.1206	780.5	39.3	17-07-2010 10:44:30	0.0000	0.0030	0.5160
BC	bca71710_29_17072010	1235145.0950000	2426177.2270000	7/17/2010	0.0000	0.0002	0.0000	776.9	39.5	17-07-2010 10:50:44	0.0000	0.0010	-0.0060
BC	bca71710_3_17072010	1234775.5930000	2425385.3160000	7/17/2010	0.0000	0.0000	0.4389	781.3	26.4	17-07-2010 08:14:03	-0.0060	-0.0020	1.7990
BC	bca71710_30_17072010	1235155.6410000	2426374.3200000	7/17/2010	0.0000	0.0005	0.0330	776.9	39.7	17-07-2010 10:56:13	0.0000	0.0020	0.1420
BC	bca71710_31_17072010	1235154.7040000	2426572.7100000	7/17/2010	0.0000	0.0005	0.1775	774.7	39.9	17-07-2010 11:01:21	0.0000	0.0020	0.7670
BC	bca71710_34_17072010	1235565.9080000	2425173.7740000	7/17/2010	0.0000	0.0012	0.1668	779.0	41.8	17-07-2010 11:55:13	0.0000	0.0050	0.7210
BC	bca71710_35_17072010	1235563.3110000	2424984.4010000	7/17/2010	0.0000	0.0012	0.1372	779.6	42.6	17-07-2010 12:02:44	0.0000	0.0050	0.5940
BC	bca71710_37_17072010	1235754.6850000	2424774.9570000	7/17/2010	0.0000	0.0007	0.1085	777.5	43.2	17-07-2010 12:13:45	0.0000	0.0030	0.4720
BC	bca71710_38_17072010	1235757.7090000	2424575.4470000	7/17/2010	0.0000	0.0018	0.0002	776.3	43.4	17-07-2010 12:19:57	0.0000	0.0080	0.0010
BC	bca71710_39_17072010	1235752.9630000	2424383.1760000	7/17/2010	0.0000	0.0002	0.0023	777.2	43.7	17-07-2010 12:26:36	0.0000	0.0010	0.0100
BC	bca71710_4_17072010	1234752.6250000	2425575.6390000	7/17/2010	0.0000	0.0000	0.2102	779.7	27.7	17-07-2010 08:20:39	0.0000	-0.0030	0.8670
BC	bca71710_43_17072010	1235558.1760000	2424586.4680000	7/17/2010	0.0000	0.0002	0.0357	777.5	44.6	17-07-2010 12:52:13	-0.0310	0.0010	0.1560
BC	bca71710_45_17072010	1235361.0160000	2424975.3720000	7/17/2010	0.0000	0.0000	0.0714	777.3	44.7	17-07-2010 13:00:54	0.0000	0.0000	0.3120
BC	bca71710_46_17072010	1235349.6670000	2424774.1690000	7/17/2010	0.0000	0.0014	0.2116	777.5	44.7	17-07-2010 13:05:08	0.0000	0.0060	0.9250
BC	bca71710_47_17072010	1235348.9840000	2424572.1610000	7/17/2010	0.0000	0.0041	0.3019	778.0	44.8	17-07-2010 13:08:39	0.0000	0.0180	1.3190
BC	bca71710_48_17072010	1235326.0780000	2424376.9650000	7/17/2010	0.0000	0.0011	0.0146	778.0	44.8	17-07-2010 13:13:35	0.0000	0.0050	0.0640
BC	bca71710_50_17072010	1235137.9130000	2424387.5570000	7/17/2010	0.0000	0.0016	0.2935	776.5	45.1	17-07-2010 13:23:56	0.0000	0.0070	1.2860
BC	bca71710_51_17072010	1235149.7820000	2424579.6030000	7/17/2010	0.0000	0.0014	0.0607	777.3	45.3	17-07-2010 13:28:18	0.0000	0.0060	0.2660
BC	bca71710_7_17072010	1234757.8330000	2426174.0910000	7/17/2010	0.0000	0.0000	0.1248	775.3	29.5	17-07-2010 08:39:43	0.0000	-0.0020	0.5210
BC	bca71710_8_17072010	1234777.6820000	2426377.8320000	7/17/2010	0.0000	0.0000	0.2093	773.8	29.8	17-07-2010 08:45:10	0.0000	-0.0030	0.8760
BC	bca71710_9_17072010	1234547.3590000	2426374.4540000	7/17/2010	0.0000	0.0000	0.2902	775.0	30.3	17-07-2010 08:53:55	0.0000	-0.0010	1.2150
BC	bca71710_44_17072010	1235553.2790000	2424779.3640000	7/17/2010	0.0002	0.0005	0.0213	777.3	44.6	17-07-2010 12:55:46	0.0010	0.0020	0.0930
BC	bca71710_36_17072010	1235748.5750000	2424978.9850000	7/17/2010	0.0009	0.0007	0.0478	777.5	43.0	17-07-2010 12:09:16	0.0040	0.0030	0.2080
BC	bca71710_42_17072010	1235553.1230000	2424377.2000000	7/17/2010	0.0023	0.0000	0.0000	778.0	44.5	17-07-2010 12:48:21	0.0100	0.0000	-0.0680
BC	bca71710_5_17072010	1234748.7710000	2425768.1750000	7/17/2010	0.0031	0.0000	0.1347	779.4	28.4	17-07-2010 08:25:19	0.0130	-0.0030	0.5570
BC	bca71710_6_17072010	1234765.1180000	2425976.0240000	7/17/2010	0.0068	0.0000	0.0000	779.4	29.0	17-07-2010 08:31:03	0.0280	-0.0030	-0.0230
BC	bca71710_2_17072010	1234751.9270000	2425183.1640000	7/17/2010	0.0081	0.0000	0.5308	781.2	25.0	17-07-2010 08:09:08	0.0330	-0.0030	2.1660
BC	bca71710_32_17072010	1235348.7130000	2425183.5390000	7/17/2010	0.0172	0.0000	0.1172	779.0	40.7	17-07-2010 11:43:23	0.0740	0.0000	0.5050

APPENDIX B (CONTINUED)
METHANE FLUX MEASUREMENTS
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES, INC. AND PETROX RESOURCES, INC.

Location	Site Point Identification	Northing	Easting	Date	CH4 Flux	H2S Flux	CO2 Flux	Pressure	Temperature (Degrees Celsius)	Date & Time of Measurement	CH4 Slope	H2S Slope	CO2 Slope
BC	bca71710_20_17072010	1234933.4210000	2424973.7450000	7/17/2010	0.0297	0.0000	0.0054	780.8	36.2	17-07-2010 10:02:01	0.1260	-0.0010	0.0230
BC	bca71710_22_17072010	1235139.3210000	2424775.6320000	7/17/2010	0.0686	0.0000	0.2285	780.1	37.2	17-07-2010 10:11:49	0.2920	0.0000	0.9720
BC	bca71710_33_17072010	1235356.4540000	2425365.1180000	7/17/2010	0.0740	0.0005	0.3523	779.0	41.0	17-07-2010 11:47:33	0.3190	0.0020	1.5190
BHS	bhs71510_01_15072010	1194628.4060000	2459522.0280000	7/15/2010	0.0000	0.0000	0.0309	803.9	21.1	15-07-2010 09:14:30	0.0000	0.0000	0.1210
BHS	bhs71510_02_15072010	1194606.4980000	2459512.9790000	7/15/2010	0.0000	0.0000	0.1195	803.9	22.0	15-07-2010 09:16:30	0.0000	0.0000	0.4690
BHS	bhs71510_03_15072010	1194613.8190000	2459551.1380000	7/15/2010	0.0000	0.0000	0.0734	802.9	22.6	15-07-2010 09:18:18	-0.0040	0.0000	0.2890
BHS	bhs71510_04_15072010	1194654.7500000	2459536.3430000	7/15/2010	0.0000	0.0000	0.0000	808.1	23.2	15-07-2010 09:19:38	-0.4390	0.0000	-1.9580
BHS	bhs71510_05_15072010	1194654.1410000	2459493.0190000	7/15/2010	0.0000	0.0000	0.2478	802.9	23.8	15-07-2010 09:21:05	-0.0010	0.0000	0.9800
BHS	bhs71510_10_15072010	1194628.2810000	2459583.5750000	7/15/2010	0.0012	0.0000	0.0320	803.0	29.6	15-07-2010 09:37:56	0.0050	0.0000	0.1290
BHS	bhs71510_11_15072010	1194656.0390000	2459568.2760000	7/15/2010	0.0260	0.0000	0.0691	803.0	30.3	15-07-2010 09:39:54	0.1050	0.0000	0.2790
BHS	bhs71510_13_15072010	1194686.8750000	2459493.7900000	7/15/2010	0.0343	0.0000	0.1428	803.2	31.5	15-07-2010 09:44:49	0.1390	0.0000	0.5790
BHS	bhs71510_8_15072010	1194590.5310000	2459533.4800000	7/15/2010	0.0356	0.0000	0.0257	802.9	28.1	15-07-2010 09:33:27	0.1430	-0.0020	0.1030
BHS	bhs71510_9_15072010	1194597.2260000	2459567.0780000	7/15/2010	0.0527	0.0000	0.0485	802.9	29.0	15-07-2010 09:35:28	0.2120	0.0000	0.1950
BHS	bhs71510_14_15072010	1194678.0730000	2459460.9610000	7/15/2010	0.0529	0.0000	0.0738	802.9	32.2	15-07-2010 09:47:35	0.2150	0.0000	0.3000
BHS	bhs71510_7_15072010	1194609.9280000	2459492.8270000	7/15/2010	0.0597	0.0003	0.0319	803.0	26.1	15-07-2010 09:28:47	0.2380	0.0010	0.1270
BHS	bhs71510_06_15072010	1194636.9140000	2459484.1740000	7/15/2010	0.0834	0.0000	0.0721	803.0	24.8	15-07-2010 09:25:18	0.3310	-0.0010	0.2860
BHS	bhs71510_12_15072010	1194676.0550000	2459536.3580000	7/15/2010	0.0852	0.0000	0.1601	803.0	30.9	15-07-2010 09:42:24	0.3450	0.0000	0.6480
FG	fg80210_01_02082010	1208313.9790000	2447381.0630000	8/2/2010	0.0000	0.0000	0.0000	790.4	28.8	02-08-2010 11:23:31	0.0000	-0.0020	-0.0540
FG	fg80210_02_02082010	1208332.9750000	2447157.2130000	8/2/2010	0.0000	0.0000	0.0000	790.4	29.9	02-08-2010 11:28:39	0.0000	0.0000	-0.0250
FG	fg80210_03_02082010	1208324.7730000	2446973.2950000	8/2/2010	0.0000	0.0000	0.0000	792.0	30.3	02-08-2010 11:32:34	-0.0600	-0.0010	-0.4090
FG	fg80210_04_02082010	1208346.0970000	2446780.4030000	8/2/2010	0.0000	0.0012	0.0000	792.3	30.7	02-08-2010 11:36:51	-0.2680	0.0050	-0.0150
FG	fg80210_05_02082010	1208352.3300000	2446582.0640000	8/2/2010	0.0000	0.0012	0.2232	790.8	31.0	02-08-2010 11:40:23	-0.5230	0.0050	0.9180
FG	fg80210_06_02082010	1208331.6560000	2446371.2830000	8/2/2010	0.0000	0.0000	0.0077	788.1	31.7	02-08-2010 11:50:46	0.0000	-0.0040	0.0320
FG	fg80210_07_02082010	1208515.1450000	2446359.4380000	8/2/2010	0.0000	0.0007	0.0000	788.1	32.1	02-08-2010 11:55:37	0.0000	0.0030	-0.0430
FG	fg80210_08_02082010	1208533.5950000	2446186.4860000	8/2/2010	0.0000	0.0010	0.2851	787.3	32.4	02-08-2010 11:59:25	0.0000	0.0040	1.1830
FG	fg80210_10_02082010	1208695.1290000	2445968.8490000	8/2/2010	0.0000	0.0010	0.1223	785.2	34.2	02-08-2010 12:15:46	-0.1890	0.0040	0.5120
FG	fg80210_12_02082010	1208511.8870000	2445775.9400000	8/2/2010	0.0000	0.0005	0.0000	787.9	35.8	02-08-2010 12:27:13	-0.0390	0.0020	-0.1470
FG	fg80210_13_02082010	1208301.2970000	2445776.5520000	8/2/2010	0.0000	0.0000	0.0303	783.5	36.9	02-08-2010 12:34:53	0.0000	-0.0020	0.1280
FG	fg80210_14_02082010	1208334.4730000	2445992.5520000	8/2/2010	0.0000	0.0000	0.1001	783.5	37.4	02-08-2010 12:40:15	0.0000	0.0000	0.4240
FG	fg80210_16_05082010	1208081.9580000	2446988.8550000	8/5/2010	0.0000	0.0000	0.1574	793.0	28.5	05-08-2010 09:21:18	0.0000	0.0000	0.6400
FG	fg80210_17_05082010	1207933.9770000	2446987.0630000	8/5/2010	0.0000	0.0000	0.0476	793.0	28.9	05-08-2010 09:25:29	0.0000	-0.0030	0.1940
FG	fg80210_18_05082010	1207712.1140000	2446986.1950000	8/5/2010	0.0000	0.0002	0.0000	792.1	29.0	05-08-2010 09:28:36	0.0000	0.0010	-0.5960
FG	fg80210_19_05082010	1207525.6140000	2446968.8170000	8/5/2010	0.0000	0.0005	0.3417	791.1	29.1	05-08-2010 09:31:08	0.0000	0.0020	1.3960
FG	fg80210_20_05082010	1207304.5310000	2446977.1900000	8/5/2010	0.0000	0.0002	0.2585	790.6	29.2	05-08-2010 09:33:53	0.0000	0.0010	1.0570
FG	fg80210_21_05082010	1207120.2970000	2446966.3490000	8/5/2010	0.0000	0.0005	0.7176	789.6	29.2	05-08-2010 09:36:53	0.0000	0.0020	2.9380
FG	fg80210_22_05082010	1206931.3100000	2446966.4870000	8/5/2010	0.0000	0.0000	0.1635	789.0	29.2	05-08-2010 09:40:53	0.0000	0.0000	0.6700
FG	fg80210_23_05082010	1206916.4550000	2446760.6860000	8/5/2010	0.0000	0.0000	0.0017	787.3	29.2	05-08-2010 09:45:03	0.0000	-0.0010	0.0070
FG	fg80210_24_05082010	1206731.0270000	2446784.9560000	8/5/2010	0.0000	0.0000	0.0423	785.5	29.3	05-08-2010 09:48:29	0.0000	0.0000	0.1740
FG	fg80210_25_05082010	1206713.5710000	2446580.2790000	8/5/2010	0.0000	0.0007	0.0000	783.9	29.3	05-08-2010 09:53:23	0.0000	0.0030	-0.8680
FG	fg80210_26_05082010	1206734.9690000	2446382.0280000	8/5/2010	0.0000	0.0005	0.1548	785.9	29.4	05-08-2010 09:56:37	0.0000	0.0020	0.6370
FG	fg80210_27_05082010	1206740.2700000	2446170.1530000	8/5/2010	0.0000	0.0005	0.1548	785.9	29.4	05-08-2010 09:56:40	0.0000	0.0020	0.6370
FG	fg80210_28_05082010	1206728.3310000	2445961.8880000	8/5/2010	0.0000	0.0002	0.1415	787.6	29.4	05-08-2010 09:59:00	0.0000	0.0010	0.5810
FG	fg80210_29_05082010	1206925.2160000	2445981.6860000	8/5/2010	0.0000	0.0002	0.0000	789.7	29.6	05-08-2010 10:07:27	0.0000	0.0010	-0.0760
FG	fg80210_30_05082010	1206897.0590000	2445765.2460000	8/5/2010	0.0000	0.0000	0.3189	789.7	29.8	05-08-2010 10:15:46	0.0000	-0.0040	1.3080
FG	fg80210_31_05082010	1206933.6180000	2445579.4530000	8/5/2010	0.0000	0.0000	0.3394	788.9	29.9	05-08-2010 10:19:44	0.0000	-0.0010	1.3940

APPENDIX B (CONTINUED)
METHANE FLUX MEASUREMENTS
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES, INC. AND PETROX RESOURCES, INC.

Location	Site Point Identification	Northing	Easting	Date	CH4 Flux	H2S Flux	CO2 Flux	Pressure	Temperature (Degrees Celsius)	Date & Time of Measurement	CH4 Slope	H2S Slope	CO2 Slope
FG	fg80210_32_05082010	1207105.3010000	2445578.4870000	8/5/2010	0.0000	0.0000	0.3153	787.7	30.1	05-08-2010 10:23:24	0.0000	-0.0020	1.2980
FG	fg80210_33_05082010	1207137.3400000	2445763.7590000	8/5/2010	0.0000	0.0000	0.4767	786.9	30.2	05-08-2010 10:26:57	0.0000	0.0000	1.9650
FG	fg80210_34_05082010	1207131.0740000	2445966.7900000	8/5/2010	0.0000	0.0005	0.5985	789.0	30.3	05-08-2010 10:30:13	0.0000	0.0020	2.4610
FG	fg80210_35_05082010	1207331.6050000	2445996.1500000	8/5/2010	0.0000	0.0000	0.0000	790.9	30.4	05-08-2010 10:33:09	0.0000	-0.0010	-0.2180
FG	fg80210_36_05082010	1207334.9890000	2445791.3420000	8/5/2010	0.0000	0.0000	0.0000	788.6	30.4	05-08-2010 10:37:03	0.0000	0.0000	-0.0040
FG	fg80210_37_05082010	1207514.6280000	2445766.3770000	8/5/2010	0.0000	0.0000	0.0000	787.9	30.5	05-08-2010 10:40:19	0.0000	-0.0010	-0.4950
FG	fg80210_38_05082010	1207534.7490000	2445980.2390000	8/5/2010	0.0000	0.0002	0.0206	786.3	30.6	05-08-2010 10:43:37	0.0000	0.0010	0.0850

APPENDIX B (CONTINUED)
METHANE FLUX MEASUREMENTS
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES, INC. AND PETROX RESOURCES, INC.

Location	Site Point Identification	Northing	Easting	Date	CH4 Flux	H2S Flux	CO2 Flux	Pressure	Temperature (Degrees Celsius)	Date & Time of Measurement	CH4 Slope	H2S Slope	CO2 Slope
FG	fg80210_40_06082010	1208117.4490000	2446590.8440000	8/6/2010	0.0000	0.0005	0.0000	791.0	20.7	06-08-2010 08:26:53	0.0000	0.0020	-1.4210
FG	fg80210_41_06082010	1208128.5040000	2446380.4040000	8/6/2010	0.0000	0.0003	0.0000	791.0	21.2	06-08-2010 08:30:12	0.0000	0.0010	-0.2710
FG	fg80210_42_06082010	1208104.2620000	2446172.3220000	8/6/2010	0.0000	0.0000	0.1856	789.5	21.7	06-08-2010 08:33:23	0.0000	-0.0020	0.7410
FG	fg80210_44_06082010	1208093.4840000	2445773.0760000	8/6/2010	0.0000	0.0000	0.0000	785.9	23.2	06-08-2010 08:44:07	0.0000	-0.0020	-0.0260
FG	fg80210_46_06082010	1207721.7170000	2445986.7480000	8/6/2010	0.0000	0.0002	0.0000	783.6	25.1	06-08-2010 08:55:53	-0.0190	0.0010	-0.0760
FG	fg80210_47_06082010	1207934.1530000	2446152.5680000	8/6/2010	0.0000	0.0000	0.1323	782.8	25.7	06-08-2010 09:00:23	-0.0840	-0.0060	0.5400
FG	fg80210_49_06082010	1207525.1050000	2446151.3820000	8/6/2010	0.0000	0.0000	0.0168	786.0	28.5	06-08-2010 09:18:53	-0.0120	0.0000	0.0690
FG	fg80210_50_06082010	1207353.2730000	2446169.2370000	8/6/2010	0.0000	0.0000	0.1550	786.6	29.2	06-08-2010 09:23:37	0.0000	-0.0010	0.6370
FG	fg80210_51_06082010	1207123.5420000	2446121.6030000	8/6/2010	0.0000	0.0000	0.0496	788.7	31.8	06-08-2010 09:45:24	-0.0010	-0.0070	0.2050
FG	fg80210_52_06082010	1206942.0960000	2446397.2180000	8/6/2010	0.0000	0.0002	0.0034	788.7	33.6	06-08-2010 10:00:31	0.0000	0.0010	0.0140
FG	fg80210_53_06082010	1206903.8460000	2446578.1200000	8/6/2010	0.0000	0.0000	0.1337	785.9	33.7	06-08-2010 10:05:02	0.0000	0.0000	0.5580
FG	fg80210_54_06082010	1207140.2430000	2446586.7180000	8/6/2010	0.0000	0.0000	0.0024	785.0	33.8	06-08-2010 10:09:06	-0.3230	-0.0010	0.0100
FG	fg80210_55_06082010	1207116.8770000	2446777.0130000	8/6/2010	0.0000	0.0002	0.0369	786.9	33.8	06-08-2010 10:13:40	0.0000	0.0010	0.1540
FG	fg80210_56_06082010	1207327.1060000	2446791.0340000	8/6/2010	0.0000	0.0005	0.3737	784.6	33.8	06-08-2010 10:20:22	0.0000	0.0020	1.5630
FG	fg80210_57_06082010	1207531.2480000	2446778.4270000	8/6/2010	0.0000	0.0000	0.5779	787.3	33.8	06-08-2010 10:24:00	-0.0010	0.0000	2.4090
FG	fg80210_58_06082010	1207721.6670000	2446752.6340000	8/6/2010	0.0000	0.0002	0.1370	789.1	33.9	06-08-2010 10:27:11	0.0000	0.0010	0.5700
FG	fg80210_59_06082010	1207937.8500000	2446757.7740000	8/6/2010	0.0000	0.0000	0.1902	789.8	34.0	06-08-2010 10:30:53	0.0000	0.0000	0.7910
FG	fg80210_60_06082010	1207950.3390000	2447163.6900000	8/6/2010	0.0000	0.0000	0.0000	790.5	34.0	06-08-2010 10:39:03	-0.0220	-0.0020	-0.5820
FG	fg80210_61_06082010	1208137.9940000	2447162.5380000	8/6/2010	0.0000	0.0000	0.0164	790.4	34.0	06-08-2010 10:41:46	0.0000	0.0000	0.0680
FG	fg80210_62_06082010	1208109.5610000	2447358.9750000	8/6/2010	0.0000	0.0000	0.1134	790.9	34.0	06-08-2010 10:47:13	0.0000	-0.0010	0.4710
FG	fg80210_63_06082010	1208131.3060000	2447576.3520000	8/6/2010	0.0000	0.0029	0.1610	790.2	34.0	06-08-2010 10:52:04	0.0000	0.0120	0.6690
FG	fg80210_64_06082010	1208118.8980000	2447780.6650000	8/6/2010	0.0000	0.0005	0.4302	788.9	34.0	06-08-2010 10:55:42	0.0000	0.0020	1.7910
FG	fg80210_65_06082010	1208109.3600000	2447980.0050000	8/6/2010	0.0000	0.0000	0.0029	788.3	34.1	06-08-2010 10:59:40	0.0000	-0.0020	0.0120
FG	fg80210_66_06082010	1207890.6760000	2447997.5850000	8/6/2010	0.0000	0.0012	0.3819	787.7	34.2	06-08-2010 11:04:04	0.0000	0.0050	1.5930
FG	fg80210_67_06082010	1207930.9240000	2447777.0190000	8/6/2010	0.0000	0.0012	0.2154	785.9	34.3	06-08-2010 11:07:44	-0.0010	0.0050	0.9010
FG	fg80210_68_06082010	1207906.3630000	2447567.7680000	8/6/2010	0.0000	0.0010	0.0000	787.4	34.4	06-08-2010 11:10:59	0.0000	0.0040	-0.1310
FG	fg80210_69_06082010	1207933.1000000	2447380.0690000	8/6/2010	0.0000	0.0002	0.1975	787.5	34.5	06-08-2010 11:13:43	-0.0020	0.0010	0.8250
FG	fg80210_70_06082010	1207717.0980000	2447196.3870000	8/6/2010	0.0000	0.0005	0.0511	789.3	34.7	06-08-2010 11:19:20	-0.0010	0.0020	0.2130
FG	fg80210_71_06082010	1207710.0270000	2447351.1920000	8/6/2010	0.0000	0.0012	0.0268	787.7	34.9	06-08-2010 11:22:27	-0.0440	0.0050	0.1120
FG	fg80210_72_06082010	1207685.3280000	2447589.7100000	8/6/2010	0.0000	0.0012	0.7646	786.7	35.1	06-08-2010 11:28:17	-0.0030	0.0050	3.2030
FG	fg80210_73_06082010	1207532.4410000	2447573.8480000	8/6/2010	0.0000	0.0000	0.0000	786.5	35.4	06-08-2010 11:35:20	0.0000	-0.0020	-0.3200
FG	fg80210_74_06082010	1207532.1270000	2447372.2130000	8/6/2010	0.0000	0.0017	0.0000	783.2	35.7	06-08-2010 11:38:41	0.0000	0.0070	-0.5980
FG	fg80210_75_06082010	1207535.3190000	2447176.6010000	8/6/2010	0.0000	0.0000	0.4137	783.8	35.9	06-08-2010 11:42:10	0.0000	-0.0030	1.7440
FG	fg80210_76_06082010	1207344.4510000	2446592.8610000	8/6/2010	0.0000	0.0000	0.0986	786.3	36.4	06-08-2010 11:53:00	-0.0010	-0.0030	0.4150
FG	fg80210_77_06082010	1207147.3950000	2446385.9900000	8/6/2010	0.0000	0.0000	0.2934	788.5	36.5	06-08-2010 12:00:10	0.0000	0.0000	1.2320
FG	fg80210_78_06082010	1206937.2950000	2446164.4510000	8/6/2010	0.0000	0.0000	0.7464	788.2	36.5	06-08-2010 12:04:50	-0.0040	0.0000	3.1350
FG	fg80210_80_06082010	1207530.3700000	2446404.9650000	8/6/2010	0.0000	0.0002	0.0198	789.0	36.5	06-08-2010 12:13:53	0.0000	0.0010	0.0830
FG	fg80210_81_06082010	1207539.0710000	2446608.6530000	8/6/2010	0.0000	0.0012	0.0000	788.9	36.5	06-08-2010 12:17:53	-0.0010	0.0050	-0.0100
FG	fg80210_82_06082010	1207732.4400000	2446580.9670000	8/6/2010	0.0000	0.0024	0.2082	789.1	36.7	06-08-2010 12:21:33	-0.1030	0.0100	0.8740
FG	fg80210_83_06082010	1207737.6430000	2446409.4060000	8/6/2010	0.0000	0.0000	0.0000	789.5	36.8	06-08-2010 12:25:28	-0.0120	-0.0010	-2.1310
FG	fg80210_84_06082010	1207925.7820000	2446388.9420000	8/6/2010	0.0000	0.0002	0.1395	788.5	37.1	06-08-2010 12:28:26	-0.0020	0.0010	0.5870
FG	fg80210_85_06082010	1207929.3190000	2446584.8740000	8/6/2010	0.0000	0.0024	0.0000	788.9	37.3	06-08-2010 12:30:40	-0.1720	0.0100	-0.0090
FG	fg80210_15_02082010	1208295.4240000	2446189.7260000	8/2/2010	0.0002	0.0028	0.1186	786.5	37.6	02-08-2010 12:43:16	0.0010	0.0120	0.5010
FG	fg80210_79_06082010	1207335.5930000	2446383.6670000	8/6/2010	0.0002	0.0010	0.0324	787.7	36.5	06-08-2010 12:11:27	0.0010	0.0040	0.1360
FG	fg80210_48_06082010	1207713.9260000	2446190.3230000	8/6/2010	0.0002	0.0000	0.0017	787.1	28.0	06-08-2010 09:15:06	0.0010	-0.0030	0.0070

APPENDIX B (CONTINUED)
METHANE FLUX MEASUREMENTS
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES, INC. AND PETROX RESOURCES, INC.

Location	Site Point Identification	Northing	Easting	Date	CH4 Flux	H2S Flux	CO2 Flux	Pressure	Temperature (Degrees Celsius)	Date & Time of Measurement	CH4 Slope	H2S Slope	CO2 Slope
FG	fg80210_45_06082010	1207908.7870000	2445935.2370000	8/6/2010	0.0005	0.0000	0.3747	783.0	24.1	06-08-2010 08:49:12	0.0020	0.0000	1.5210
FG	fg80210_43_06082010	1208122.5990000	2445959.7780000	8/6/2010	0.0005	0.0000	0.0107	788.5	22.4	06-08-2010 08:38:40	0.0020	-0.0010	0.0430
FG	fg80210_39_06082010	1208106.1670000	2446790.4830000	8/6/2010	0.0005	0.0000	0.2046	791.0	19.8	06-08-2010 08:22:06	0.0020	-0.0020	0.8100
FG	fg80210_09_02082010	1208521.1540000	2446004.0910000	8/2/2010	0.0007	0.0000	0.0180	787.3	33.3	02-08-2010 12:10:04	0.0030	0.0000	0.0750
FG	fg80210_11_02082010	1208673.9590000	2445760.2450000	8/2/2010	0.0069	0.0000	0.0000	785.6	35.1	02-08-2010 12:22:25	0.0290	-0.0020	-0.1610
LSC	lsc80310_01_03082010	1209102.9260000	2443381.3660000	8/3/2010	0.0000	0.0005	0.0000	792.5	26.2	03-08-2010 08:19:41	-0.0520	0.0020	-0.0080
LSC	lsc80310_02_03082010	1209322.0390000	2443338.2380000	8/3/2010	0.0000	0.0000	0.0000	792.5	26.7	03-08-2010 08:25:28	0.0000	-0.0010	-0.2460
LSC	lsc80310_03_03082010	1209304.4210000	2443178.8980000	8/3/2010	0.0000	0.0002	0.3855	792.4	27.5	03-08-2010 08:34:12	0.0000	0.0010	1.5640
LSC	lsc80310_04_03082010	1209310.5480000	2442979.0790000	8/3/2010	0.0000	0.0005	0.7531	790.1	28.0	03-08-2010 08:37:40	0.0000	0.0020	3.0690
LSC	lsc80310_06_03082010	1209124.4690000	2442560.2230000	8/3/2010	0.0000	0.0000	0.2016	785.1	29.6	03-08-2010 08:46:53	0.0000	0.0000	0.8310
LSC	lsc80310_07_03082010	1209099.7330000	2442767.9670000	8/3/2010	0.0000	0.0017	0.2148	786.5	29.9	03-08-2010 08:49:42	-0.0050	0.0070	0.8850
LSC	lsc80310_08_03082010	1209132.4510000	2442979.6310000	8/3/2010	0.0000	0.0019	0.0000	787.7	31.1	03-08-2010 09:26:11	0.0000	0.0080	-0.1880
LSC	lsc80310_10_04082010	1208952.9870000	2443602.5120000	8/4/2010	0.0000	0.0005	0.0000	793.5	25.0	04-08-2010 07:57:18	-0.0330	0.0020	-0.2010
LSC	lsc80310_13_04082010	1208946.3790000	2444170.5090000	8/4/2010	0.0000	0.0007	0.1817	794.3	25.7	04-08-2010 08:08:36	-0.0170	0.0030	0.7310
LSC	lsc80310_14_04082010	1208926.6080000	2443366.4510000	8/4/2010	0.0000	0.0010	0.0000	793.3	26.0	04-08-2010 08:16:22	-0.0030	0.0040	-0.0250
LSC	lsc80310_15_04082010	1208924.6790000	2443175.3310000	8/4/2010	0.0000	0.0007	0.2369	793.0	26.1	04-08-2010 08:19:19	0.0000	0.0030	0.9560
LSC	lsc80310_16_04082010	1208932.3020000	2443001.2190000	8/4/2010	0.0000	0.0007	0.5050	792.0	26.4	04-08-2010 08:22:53	-0.0010	0.0030	2.0420
LSC	lsc80310_17_04082010	1208891.6650000	2442778.9150000	8/4/2010	0.0000	0.0002	0.1359	790.9	26.7	04-08-2010 08:28:53	-0.0020	0.0010	0.5510
LSC	lsc80310_18_04082010	1208932.3380000	2442589.4520000	8/4/2010	0.0000	0.0015	0.0000	789.4	27.1	04-08-2010 08:33:36	-0.0010	0.0060	-0.7300
LSC	lsc80310_19_04082010	1208927.3710000	2442360.5520000	8/4/2010	0.0000	0.0000	0.0739	787.4	27.7	04-08-2010 08:38:42	-0.0020	-0.0010	0.3020
LSC	lsc80310_20_04082010	1208722.2020000	2441986.4650000	8/4/2010	0.0000	0.0000	0.0000	788.5	28.8	04-08-2010 08:49:40	-0.0760	-0.0030	-0.0030
LSC	lsc80310_21_04082010	1208726.9480000	2442189.8200000	8/4/2010	0.0000	0.0000	0.0702	787.8	29.3	04-08-2010 08:53:37	0.0000	-0.0020	0.2880
LSC	lsc80310_22_04082010	1208726.6580000	2442356.2390000	8/4/2010	0.0000	0.0000	0.0000	789.5	29.9	04-08-2010 08:58:15	0.0000	-0.0020	-0.0040
LSC	lsc80310_23_04082010	1208734.8460000	2442574.9800000	8/4/2010	0.0000	0.0000	0.0000	790.2	30.4	04-08-2010 09:02:10	-0.0380	-0.0020	-0.0750
LSC	lsc80310_24_04082010	1208733.8010000	2442784.0090000	8/4/2010	0.0000	0.0000	0.0010	790.2	30.9	04-08-2010 09:06:22	-0.0600	-0.0020	0.0040
LSC	lsc80310_25_04082010	1208711.5540000	2442965.2400000	8/4/2010	0.0000	0.0000	0.0700	791.4	31.3	04-08-2010 09:11:45	-0.0350	-0.0010	0.2880
LSC	lsc80310_26_04082010	1208511.6310000	2442954.2420000	8/4/2010	0.0000	0.0000	0.3559	792.5	32.0	04-08-2010 09:25:16	-0.5020	-0.0040	1.4650
LSC	lsc80310_27_04082010	1208517.1450000	2442803.5540000	8/4/2010	0.0000	0.0000	0.0000	792.4	32.3	04-08-2010 09:30:52	0.0000	-0.0010	-0.0110
LSC	lsc80310_28_04082010	1208510.4250000	2442563.6410000	8/4/2010	0.0000	0.0000	0.2719	792.3	32.6	04-08-2010 09:34:50	-0.0040	0.0000	1.1220
LSC	lsc80310_29_04082010	1208518.5180000	2442361.7770000	8/4/2010	0.0000	0.0000	0.0373	791.6	32.9	04-08-2010 09:38:04	-0.0100	0.0000	0.1540
LSC	lsc80310_30_04082010	1208517.1020000	2442186.5670000	8/4/2010	0.0000	0.0005	0.0780	791.2	33.3	04-08-2010 09:42:35	0.0000	0.0020	0.3230
LSC	lsc80310_31_04082010	1208526.7180000	2441989.5870000	8/4/2010	0.0000	0.0000	0.0000	789.5	33.8	04-08-2010 09:47:11	0.0000	-0.0030	-0.0650
LSC	lsc80310_32_04082010	1208520.4540000	2441798.6710000	8/4/2010	0.0000	0.0000	0.1151	788.2	34.4	04-08-2010 09:51:53	-0.1660	-0.0020	0.4800
LSC	lsc80310_34_04082010	1208131.6900000	2441566.3270000	8/4/2010	0.0000	0.0000	0.0072	788.5	35.3	04-08-2010 10:03:20	-0.2010	0.0000	0.0300
LSC	lsc80310_35_04082010	1207915.4230000	2441569.1700000	8/4/2010	0.0000	0.0000	0.0784	788.7	35.6	04-08-2010 10:07:10	-0.0420	-0.0030	0.3280
LSC	lsc80310_36_04082010	1207727.3960000	2441766.9710000	8/4/2010	0.0000	0.0000	0.1326	789.7	36.0	04-08-2010 10:13:45	0.0000	-0.0020	0.5550
LSC	lsc80310_37_04082010	1207716.0820000	2441987.4050000	8/4/2010	0.0000	0.0000	0.0664	790.2	36.2	04-08-2010 10:41:25	0.0000	0.0000	0.2780
LSC	lsc80310_38_04082010	1207495.6330000	2441976.4950000	8/4/2010	0.0000	0.0010	0.1119	789.3	36.2	04-08-2010 10:45:17	-0.0070	0.0040	0.4690
LSC	lsc80310_39_04082010	1207502.5600000	2442160.6870000	8/4/2010	0.0000	0.0019	0.1660	788.5	36.1	04-08-2010 10:50:16	0.0000	0.0080	0.6960
LSC	lsc80310_40_04082010	1207733.4800000	2442186.5180000	8/4/2010	0.0000	0.0000	0.0969	789.3	36.1	04-08-2010 10:53:46	-0.0010	-0.0010	0.4060
LSC	lsc80310_41_04082010	1207738.7750000	2442389.4530000	8/4/2010	0.0000	0.0005	0.0406	790.0	36.2	04-08-2010 10:58:26	0.0000	0.0020	0.1700
LSC	lsc80310_42_04082010	1207927.7100000	2442565.3870000	8/4/2010	0.0000	0.0000	0.0000	788.1	36.3	04-08-2010 11:03:37	-0.0020	-0.0010	-5.2120
LSC	lsc80310_43_04082010	1208134.8180000	2442578.4720000	8/4/2010	0.0000	0.0000	0.3062	788.5	36.3	04-08-2010 11:08:01	0.0000	-0.0010	1.2850
LSC	lsc80310_44_04082010	1208323.5130000	2442574.4280000	8/4/2010	0.0000	0.0005	0.2719	791.2	36.3	04-08-2010 11:11:16	0.0000	0.0020	1.1370
LSC	lsc80310_45_04082010	1208320.0440000	2442409.9930000	8/4/2010	0.0000	0.0002	0.4823	791.4	36.4	04-08-2010 11:15:17	0.0000	0.0010	2.0170

APPENDIX B (CONTINUED)
METHANE FLUX MEASUREMENTS
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES, INC. AND PETROX RESOURCES, INC.

Location	Site Point Identification	Northing	Easting	Date	CH4 Flux	H2S Flux	CO2 Flux	Pressure	Temperature (Degrees Celsius)	Date & Time of Measurement	CH4 Slope	H2S Slope	CO2 Slope
LSC	lsc80310_46_04082010	1208138.1600000	2442382.0200000	8/4/2010	0.0000	0.0000	0.3524	791.2	36.6	04-08-2010 11:19:13	0.0000	0.0000	1.4750
LSC	lsc80310_47_04082010	1207906.9650000	2442374.6540000	8/4/2010	0.0000	0.0000	0.2621	790.9	36.8	04-08-2010 11:23:00	-0.0090	0.0000	1.0980
LSC	lsc80310_48_04082010	1208111.8180000	2442166.0700000	8/4/2010	0.0000	0.0005	0.2495	790.5	37.1	04-08-2010 11:27:38	0.0000	0.0020	1.0470
LSC	lsc80310_49_04082010	1207932.2200000	2442165.3430000	8/4/2010	0.0000	0.0000	0.2745	790.6	37.4	04-08-2010 11:31:25	-0.0170	0.0000	1.1530
LSC	lsc80310_53_04082010	1208121.1650000	2441992.5720000	8/4/2010	0.0000	0.0007	0.3383	789.8	38.4	04-08-2010 11:45:33	0.0000	0.0030	1.4270
LSC	lsc80310_54_04082010	1208327.7260000	2441777.6610000	8/4/2010	0.0000	0.0012	0.2590	789.8	38.6	04-08-2010 11:48:37	0.0000	0.0050	1.0930
LSC	lsc80310_55_04082010	1208312.9780000	2441972.7300000	8/4/2010	0.0000	0.0009	0.0381	788.9	38.9	04-08-2010 11:54:29	-0.0190	0.0040	0.1610
LSC	lsc80310_56_04082010	1208317.1650000	2442185.5450000	8/4/2010	0.0000	0.0000	0.1083	789.3	39.0	04-08-2010 11:57:06	0.0000	-0.0030	0.4580
LSC	lsc80310_57_04082010	1208525.9740000	2443174.6380000	8/4/2010	0.0000	0.0002	0.4408	790.0	39.1	04-08-2010 12:06:23	0.0000	0.0010	1.8630
LSC	lsc80310_59_04082010	1208527.0590000	2443618.6880000	8/4/2010	0.0000	0.0007	0.2283	791.3	39.0	04-08-2010 12:12:54	0.0000	0.0030	0.9630
LSC	lsc80310_61_04082010	1208522.9290000	2443951.5170000	8/4/2010	0.0000	0.0000	0.0000	789.8	38.7	04-08-2010 12:19:08	-0.0040	0.0000	-1.9340
LSC	lsc80310_64_04082010	1208728.1760000	2443978.8280000	8/4/2010	0.0000	0.0000	0.0204	790.4	37.9	04-08-2010 12:37:09	-0.0020	-0.0010	0.0860
LSC	lsc80310_65_04082010	1208704.3370000	2443781.9330000	8/4/2010	0.0000	0.0000	0.3768	790.8	37.6	04-08-2010 12:41:51	0.0000	-0.0010	1.5830
LSC	lsc80310_66_04082010	1208709.7530000	2443585.6820000	8/4/2010	0.0000	0.0000	0.0093	791.3	37.4	04-08-2010 12:45:24	0.0000	0.0000	0.0390
LSC	lsc80310_67_04082010	1208713.4090000	2443391.4260000	8/4/2010	0.0000	0.0014	0.0503	791.8	37.2	04-08-2010 12:48:15	0.0000	0.0060	0.2110
LSC	lsc80310_69_05082010	1208310.3640000	2442764.6810000	8/5/2010	0.0000	0.0002	0.0663	791.8	25.0	05-08-2010 08:09:48	0.0000	0.0010	0.2670
LSC	lsc80310_70_05082010	1208151.6050000	2442784.7010000	8/5/2010	0.0000	0.0000	0.1720	791.8	25.6	05-08-2010 08:13:48	0.0000	-0.0010	0.6940
LSC	lsc80310_71_05082010	1207946.5890000	2442785.2190000	8/5/2010	0.0000	0.0000	0.0000	791.0	26.1	05-08-2010 08:19:34	-0.0020	-0.0010	-4.8170
LSC	lsc80310_73_05082010	1208327.5700000	2442973.2930000	8/5/2010	0.0000	0.0000	0.1447	790.3	26.7	05-08-2010 08:33:30	0.0000	0.0000	0.5870
LSC	lsc80310_74_05082010	1208333.0810000	2443173.6390000	8/5/2010	0.0000	0.0010	0.0000	791.6	26.8	05-08-2010 08:36:39	-0.0030	0.0040	-0.2790
LSC	lsc80310_75_05082010	1208137.6260000	2443160.3380000	8/5/2010	0.0000	0.0010	0.3887	791.2	26.9	05-08-2010 08:40:28	0.0000	0.0040	1.5760
LSC	lsc80310_76_05082010	1208321.7660000	2443379.9600000	8/5/2010	0.0000	0.0012	0.0484	789.4	27.1	05-08-2010 08:45:02	0.0000	0.0050	0.1970
LSC	lsc80310_77_05082010	1208363.9410000	2443580.6950000	8/5/2010	0.0000	0.0000	0.2455	790.1	27.3	05-08-2010 08:50:51	0.0000	0.0000	0.9980
LSC	lsc80310_63_04082010	1208687.6490000	2444178.9340000	8/4/2010	0.0002	0.0000	0.3308	786.3	38.1	04-08-2010 12:32:41	0.0010	-0.0020	1.4000
LSC	lsc80310_62_04082010	1208507.5840000	2444184.8580000	8/4/2010	0.0002	0.0000	0.0000	787.8	38.4	04-08-2010 12:26:53	0.0010	-0.0030	-0.1750
LSC	lsc80310_58_04082010	1208533.8900000	2443378.5140000	8/4/2010	0.0002	0.0002	0.4261	791.2	39.1	04-08-2010 12:09:05	0.0010	0.0010	1.7980
LSC	lsc80310_60_04082010	1208516.1460000	2443773.8540000	8/4/2010	0.0002	0.0000	0.1019	790.9	38.9	04-08-2010 12:15:45	0.0010	0.0000	0.4300
LSC	lsc80310_68_04082010	1208738.3220000	2443208.4040000	8/4/2010	0.0002	0.0005	0.0277	791.8	37.1	04-08-2010 12:54:16	0.0010	0.0020	0.1160
LSC	lsc80310_05_03082010	1209304.1880000	2442789.1430000	8/3/2010	0.0007	0.0000	0.5181	786.3	28.8	03-08-2010 08:42:35	0.0030	-0.0010	2.1270
LSC	lsc80310_50_04082010	1207929.7710000	2441964.5780000	8/4/2010	0.0012	0.0017	0.5122	790.4	37.6	04-08-2010 11:34:32	0.0050	0.0070	2.1530
LSC	lsc80310_12_04082010	1208956.3080000	2443964.0170000	8/4/2010	0.0012	0.0000	0.2990	793.7	25.5	04-08-2010 08:04:27	0.0050	-0.0020	1.2030
LSC	lsc80310_72_05082010	1208133.7280000	2442961.5500000	8/5/2010	0.0017	0.0000	0.3141	787.5	26.5	05-08-2010 08:27:10	0.0070	-0.0010	1.2780
LSC	lsc80310_11_04082010	1208993.7930000	2443774.1190000	8/4/2010	0.0022	0.0015	0.0861	793.5	25.2	04-08-2010 08:00:37	0.0090	0.0060	0.3460
LSC	lsc80310_33_04082010	1208313.9040000	2441581.0130000	8/4/2010	0.0031	0.0000	0.2778	788.9	35.0	04-08-2010 09:57:42	0.0130	-0.0030	1.1600
LSC	lsc80310_52_04082010	1208130.8490000	2441797.6270000	8/4/2010	0.0036	0.0002	0.0439	790.0	38.1	04-08-2010 11:42:02	0.0150	0.0010	0.1850
LSC	lsc80310_51_04082010	1207910.0100000	2441751.1680000	8/4/2010	0.0100	0.0000	0.1904	790.4	37.9	04-08-2010 11:38:39	0.0420	-0.0010	0.8010
LSC	lsc80310_09_03082010	1209132.3490000	2443169.1240000	8/3/2010	0.0140	0.0007	0.0440	787.7	31.3	03-08-2010 09:29:27	0.0580	0.0030	0.1820
PG	pg72010_01_27072010	1204523.2730000	2456782.7750000	7/27/2010	0.0000	0.0000	0.0502	789.6	37.2	27-07-2010 10:41:17	0.0000	-0.0120	0.2110
PG	pg72010_02_20072010	1204716.3930000	2456182.8620000	7/20/2010	0.0000	0.0048	0.1579	789.8	20.7	20-07-2010 07:47:56	-2.3190	0.0190	0.6280
PG	pg72010_03_20072010	1204931.7510000	2456178.4450000	7/20/2010	0.0000	0.0045	0.0000	789.0	21.3	20-07-2010 07:50:10	-0.6750	0.0180	-2.6990
PG	pg72010_06_20072010	1205506.3990000	2456180.0900000	7/20/2010	0.0000	0.0040	0.3590	787.2	22.8	20-07-2010 07:57:32	-0.6490	0.0160	1.4430
PG	pg72010_07_20072010	1205719.7410000	2456182.7900000	7/20/2010	0.0000	0.0025	0.0065	787.0	23.3	20-07-2010 08:00:21	-0.0270	0.0100	0.0260
PG	pg72010_08_20072010	1205913.4040000	2456166.9890000	7/20/2010	0.0000	0.0042	0.0000	785.2	23.9	20-07-2010 08:03:45	-0.3110	0.0170	-1.3230
PG	pg72010_09_20072010	1206128.7750000	2456192.9780000	7/20/2010	0.0000	0.0060	0.0794	788.7	24.3	20-07-2010 08:06:15	-0.0330	0.0240	0.3200
PG	pg72010_10_20072010	1206321.5260000	2456179.3210000	7/20/2010	0.0000	0.0000	0.0698	782.7	24.8	20-07-2010 08:09:46	0.0000	-0.0050	0.2840

APPENDIX B (CONTINUED)
METHANE FLUX MEASUREMENTS
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES, INC. AND PETROX RESOURCES, INC.

Location	Site Point Identification	Northing	Easting	Date	CH4 Flux	H2S Flux	CO2 Flux	Pressure	Temperature (Degrees Celsius)	Date & Time of Measurement	CH4 Slope	H2S Slope	CO2 Slope
PG	pg72010_100_20072010	1205318.3240000	2456762.4020000	7/20/2010	0.0000	0.0000	0.0149	786.5	42.9	20-07-2010 13:14:16	0.0000	-0.0010	0.0640
PG	pg72010_100_29072010	1202125.8660000	2460919.5110000	7/29/2010	0.0000	0.0002	0.1289	795.6	37.9	29-07-2010 10:42:11	-0.0410	0.0010	0.5390
PG	pg72010_101_20072010	1205315.6430000	2456566.9110000	7/20/2010	0.0000	0.0000	0.1441	786.5	42.9	20-07-2010 13:17:15	0.0000	0.0000	0.6190
PG	pg72010_101_29072010	1202141.0700000	2461202.2930000	7/29/2010	0.0000	0.0014	0.5426	796.0	38.2	29-07-2010 10:46:30	0.0000	0.0060	2.2690
PG	pg72010_102_20072010	1205138.5980000	2456620.8930000	7/20/2010	0.0000	0.0000	0.0000	786.8	42.8	20-07-2010 13:21:14	0.0000	-0.0010	-0.0310
PG	pg72010_102_29072010	1201907.8570000	2461176.0060000	7/29/2010	0.0000	0.0000	0.0000	801.1	38.3	29-07-2010 10:49:29	-1.1380	-0.0030	-0.3150
PG	pg72010_103_20072010	1205132.4240000	2456774.8400000	7/20/2010	0.0000	0.0009	0.2103	786.9	42.8	20-07-2010 13:23:52	0.0000	0.0040	0.9030
PG	pg72010_103_29072010	1201910.1200000	2461385.6510000	7/29/2010	0.0000	0.0024	0.0186	795.5	38.3	29-07-2010 10:52:50	-0.3730	0.0100	0.0780
PG	pg72010_104_20072010	1205128.9260000	2456972.3150000	7/20/2010	0.0000	0.0007	0.1120	786.6	42.7	20-07-2010 13:26:45	-0.0010	0.0030	0.4810
PG	pg72010_104_29072010	1201728.9760000	2461390.5500000	7/29/2010	0.0000	0.0000	0.0240	796.7	36.9	29-07-2010 11:30:00	0.0000	-0.0020	0.1000
PG	pg72010_105_20072010	1205126.5250000	2457184.5010000	7/20/2010	0.0000	0.0000	0.0000	786.7	42.7	20-07-2010 13:29:40	-0.0060	0.0000	-0.0960
PG	pg72010_105_29072010	1201723.1600000	2461164.1600000	7/29/2010	0.0000	0.0007	0.0480	795.6	36.8	29-07-2010 11:33:35	0.0000	0.0030	0.2000
PG	pg72010_106_20072010	1205125.5080000	2457369.0450000	7/20/2010	0.0000	0.0005	0.4379	786.8	42.6	20-07-2010 13:32:21	0.0000	0.0020	1.8790
PG	pg72010_106_29072010	1201531.2790000	2461142.3030000	7/29/2010	0.0000	0.0005	0.0132	795.6	36.8	29-07-2010 11:34:35	0.0000	0.0020	0.0550
PG	pg72010_107_20072010	1204921.4590000	2457578.6300000	7/20/2010	0.0000	0.0005	0.1497	786.4	42.7	20-07-2010 13:35:57	-0.0040	0.0020	0.6430
PG	pg72010_107_29072010	1201305.3090000	2460970.4850000	7/29/2010	0.0000	0.0007	0.2130	796.4	36.7	29-07-2010 11:37:36	0.0000	0.0030	0.8860
PG	pg72010_108_20072010	1204912.4440000	2457346.7510000	7/20/2010	0.0000	0.0000	0.0000	787.3	42.7	20-07-2010 13:38:59	-0.0040	0.0000	-0.9830
PG	pg72010_108_29072010	1201127.7570000	2460979.1570000	7/29/2010	0.0000	0.0002	0.2492	797.2	36.5	29-07-2010 11:41:14	0.0000	0.0010	1.0350
PG	pg72010_109_20072010	1204934.2220000	2457172.9710000	7/20/2010	0.0000	0.0000	0.0706	786.8	42.8	20-07-2010 13:41:29	0.0000	-0.0020	0.3030
PG	pg72010_109_29072010	1200939.6890000	2460779.2490000	7/29/2010	0.0000	0.0000	0.2101	797.5	36.4	29-07-2010 11:44:25	0.0000	0.0000	0.8720
PG	pg72010_11_27072010	1204519.8810000	2457767.5400000	7/27/2010	0.0000	0.0012	0.1533	787.8	39.2	27-07-2010 11:19:20	0.0000	0.0050	0.6500
PG	pg72010_110_20072010	1204924.5810000	2456982.5180000	7/20/2010	0.0000	0.0007	0.0000	787.3	42.8	20-07-2010 13:43:59	0.0000	0.0030	-1.0680
PG	pg72010_110_29072010	1200710.3460000	2460762.5370000	7/29/2010	0.0000	0.0002	0.2093	797.6	36.3	29-07-2010 11:47:39	-0.0010	0.0010	0.8680
PG	pg72010_111_20072010	1204920.0790000	2456781.0570000	7/20/2010	0.0000	0.0000	0.0000	787.1	42.9	20-07-2010 13:46:46	0.0000	-0.0010	-0.3010
PG	pg72010_111_29072010	1200533.4460000	2460758.1360000	7/29/2010	0.0000	0.0000	0.0135	797.1	36.2	29-07-2010 11:50:28	-0.0030	0.0000	0.0560
PG	pg72010_112_20072010	1204913.5990000	2456567.6240000	7/20/2010	0.0000	0.0005	0.0000	787.4	42.9	20-07-2010 13:49:20	0.0000	0.0020	-0.1930
PG	pg72010_112_29072010	1200533.8700000	2460561.6880000	7/29/2010	0.0000	0.0019	0.0352	796.7	36.2	29-07-2010 11:53:08	0.0000	0.0080	0.1460
PG	pg72010_113_29072010	1200530.1830000	2460375.2550000	7/29/2010	0.0000	0.0017	0.1615	796.0	36.1	29-07-2010 11:55:28	0.0000	0.0070	0.6710
PG	pg72010_114_29072010	1200732.2180000	2460380.3690000	7/29/2010	0.0000	0.0014	0.0799	795.6	36.1	29-07-2010 11:58:19	-0.0040	0.0060	0.3320
PG	pg72010_115_29072010	1200726.2690000	2460580.8570000	7/29/2010	0.0000	0.0022	0.0983	794.9	36.1	29-07-2010 12:01:37	0.0000	0.0090	0.4090
PG	pg72010_116_29072010	1200935.3000000	2460581.4050000	7/29/2010	0.0000	0.0007	0.0443	796.1	36.1	29-07-2010 12:05:37	0.0000	0.0030	0.1840
PG	pg72010_117_29072010	1200941.9110000	2460392.5060000	7/29/2010	0.0000	0.0019	0.0470	796.8	36.2	29-07-2010 12:09:36	0.0000	0.0080	0.1950
PG	pg72010_118_29072010	1200933.4450000	2460188.5710000	7/29/2010	0.0000	0.0007	0.2678	795.5	36.3	29-07-2010 12:12:36	-0.0030	0.0030	1.1140
PG	pg72010_119_29072010	1201130.0110000	2460171.4470000	7/29/2010	0.0000	0.0014	0.4830	795.4	36.3	29-07-2010 12:15:34	0.0000	0.0060	2.0090
PG	pg72010_12_27072010	1204523.0220000	2457580.6500000	7/27/2010	0.0000	0.0014	0.1839	788.3	39.2	27-07-2010 11:22:37	-0.0030	0.0060	0.7790
PG	pg72010_121_29072010	1201324.7600000	2460171.5880000	7/29/2010	0.0000	0.0000	0.0255	795.6	36.4	29-07-2010 12:19:13	0.0000	0.0000	0.1060
PG	pg72010_122_29072010	1201312.9630000	2459949.2080000	7/29/2010	0.0000	0.0000	0.0416	795.5	36.4	29-07-2010 12:24:05	0.0000	-0.0030	0.1730
PG	pg72010_123_29072010	1201323.5260000	2459769.4180000	7/29/2010	0.0000	0.0017	0.0746	794.1	36.4	29-07-2010 12:26:44	0.0000	0.0070	0.3110
PG	pg72010_124_29072010	1201514.7750000	2459764.4920000	7/29/2010	0.0000	0.0019	0.0913	793.2	36.4	29-07-2010 12:29:19	0.0000	0.0080	0.3810
PG	pg72010_125_29072010	1201511.3320000	2459582.3810000	7/29/2010	0.0000	0.0029	0.1270	793.3	36.4	29-07-2010 12:31:50	0.0000	0.0120	0.5300
PG	pg72010_126_29072010	1201727.3230000	2459565.9310000	7/29/2010	0.0000	0.0022	0.6280	792.6	36.5	29-07-2010 12:34:14	0.0000	0.0090	2.6230
PG	pg72010_127_29072010	1201724.2840000	2459367.5280000	7/29/2010	0.0000	0.0024	0.0084	793.0	36.5	29-07-2010 12:36:57	0.0000	0.0100	0.0350
PG	pg72010_128_29072010	1201713.2070000	2459168.1720000	7/29/2010	0.0000	0.0029	0.1504	792.0	36.6	29-07-2010 12:39:38	0.0000	0.0120	0.6290
PG	pg72010_129_29072010	1201911.1860000	2459221.7620000	7/29/2010	0.0000	0.0000	0.0012	790.9	36.8	29-07-2010 12:42:57	-0.0010	-0.0010	0.0050
PG	pg72010_13_20072010	1206328.0400000	2455587.4320000	7/20/2010	0.0000	0.0044	0.0365	784.3	25.9	20-07-2010 08:17:52	0.0000	0.0180	0.1490

APPENDIX B (CONTINUED)
METHANE FLUX MEASUREMENTS
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES, INC. AND PETROX RESOURCES, INC.

Location	Site Point Identification	Northing	Easting	Date	CH4 Flux	H2S Flux	CO2 Flux	Pressure	Temperature (Degrees Celsius)	Date & Time of Measurement	CH4 Slope	H2S Slope	CO2 Slope
PG	pg72010_130_29072010	1202109.9120000	2459187.1080000	7/29/2010	0.0000	0.0002	0.1049	792.3	37.0	29-07-2010 12:47:34	0.0000	0.0010	0.4390
PG	pg72010_131_29072010	1202294.3900000	2459207.7030000	7/29/2010	0.0000	0.0038	0.4339	792.6	37.1	29-07-2010 12:50:20	0.0000	0.0160	1.8160
PG	pg72010_132_29072010	1202527.0180000	2459185.5670000	7/29/2010	0.0000	0.0000	0.0000	793.5	37.2	29-07-2010 12:53:17	0.0000	0.0000	-0.1490
PG	pg72010_133_29072010	1202724.8080000	2459177.6260000	7/29/2010	0.0000	0.0012	0.1557	794.1	37.3	29-07-2010 12:56:08	0.0000	0.0050	0.6510
PG	pg72010_134_29072010	1202918.2440000	2459168.2180000	7/29/2010	0.0000	0.0033	0.2903	794.3	37.5	29-07-2010 12:58:37	0.0000	0.0140	1.2140
PG	pg72010_135_29072010	1203128.7020000	2459176.1920000	7/29/2010	0.0000	0.0002	0.0626	794.3	37.6	29-07-2010 13:00:58	-0.0230	0.0010	0.2620
PG	pg72010_136_30072010	1204107.1790000	2458169.5860000	7/30/2010	0.0000	0.0000	0.0991	790.9	24.7	30-07-2010 07:27:55	-0.0260	-0.0040	0.3990
PG	pg72010_137_30072010	1204130.9730000	2458371.5790000	7/30/2010	0.0000	0.0005	0.4648	790.9	25.4	30-07-2010 07:32:25	-0.0040	0.0020	1.8760
PG	pg72010_138_30072010	1204113.3960000	2458572.0640000	7/30/2010	0.0000	0.0000	0.0675	790.0	25.8	30-07-2010 07:35:57	-0.0150	0.0000	0.2730
PG	pg72010_14_20072010	1206314.4210000	2455398.2190000	7/20/2010	0.0000	0.0022	0.0947	785.1	26.3	20-07-2010 08:20:48	0.0000	0.0090	0.3860
PG	pg72010_14_27072010	1204511.2080000	2457173.3360000	7/27/2010	0.0000	0.0000	0.0000	788.9	39.3	27-07-2010 11:29:59	-0.2710	-0.0040	-0.2410
PG	pg72010_140_30072010	1203942.5830000	2458770.9420000	7/30/2010	0.0000	0.0000	0.1202	791.2	26.7	30-07-2010 07:46:28	-0.0170	-0.0020	0.4870
PG	pg72010_141_30072010	1203933.8680000	2458551.6950000	7/30/2010	0.0000	0.0000	0.0594	790.4	26.9	30-07-2010 07:49:56	0.0000	-0.0020	0.2410
PG	pg72010_143_30072010	1203929.0360000	2458170.6540000	7/30/2010	0.0000	0.0000	0.2863	791.4	27.3	30-07-2010 07:55:53	-0.0100	0.0000	1.1620
PG	pg72010_144_30072010	1203724.2150000	2457975.2730000	7/30/2010	0.0000	0.0000	0.1714	791.6	27.5	30-07-2010 07:58:55	0.0000	0.0000	0.6960
PG	pg72010_145_30072010	1203723.7880000	2458170.6110000	7/30/2010	0.0000	0.0000	0.1113	791.8	27.6	30-07-2010 08:02:13	0.0000	0.0000	0.4520
PG	pg72010_146_30072010	1203715.1670000	2458381.9730000	7/30/2010	0.0000	0.0005	0.3980	792.0	27.8	30-07-2010 08:04:51	-0.0550	0.0020	1.6170
PG	pg72010_148_30072010	1203727.3130000	2458769.0260000	7/30/2010	0.0000	0.0000	0.0000	792.0	28.2	30-07-2010 08:09:46	-0.0070	-0.0010	-0.1460
PG	pg72010_15_20072010	1206125.5960000	2455375.3230000	7/20/2010	0.0000	0.0005	0.1155	784.3	26.7	20-07-2010 08:23:16	-1.4970	0.0020	0.4720
PG	pg72010_150_30072010	1203722.9860000	2459163.1830000	7/30/2010	0.0000	0.0000	0.0000	791.7	28.6	30-07-2010 08:15:05	0.0000	0.0000	-0.1820
PG	pg72010_151_30072010	1203495.6160000	2459573.9390000	7/30/2010	0.0000	0.0005	0.1410	790.3	28.9	30-07-2010 08:19:51	-0.0070	0.0020	0.5760
PG	pg72010_153_30072010	1203522.0580000	2459170.0410000	7/30/2010	0.0000	0.0002	0.1037	790.6	29.2	30-07-2010 08:25:17	-0.0050	0.0010	0.4240
PG	pg72010_154_30072010	1203520.0010000	2458973.6780000	7/30/2010	0.0000	0.0012	0.2328	791.3	29.5	30-07-2010 08:27:48	-0.0220	0.0050	0.9520
PG	pg72010_155_30072010	1203512.0340000	2458771.9660000	7/30/2010	0.0000	0.0015	0.1629	792.1	29.7	30-07-2010 08:30:10	-0.0130	0.0060	0.6660
PG	pg72010_156_30072010	1203514.8020000	2458557.4750000	7/30/2010	0.0000	0.0000	0.1954	792.8	30.1	30-07-2010 08:33:06	0.0000	-0.0010	0.7990
PG	pg72010_158_30072010	1203516.0860000	2458167.3780000	7/30/2010	0.0000	0.0012	0.3085	792.5	31.0	30-07-2010 08:37:51	0.0000	0.0050	1.2660
PG	pg72010_159_30072010	1203513.4360000	2457973.9510000	7/30/2010	0.0000	0.0000	0.0000	792.1	31.7	30-07-2010 08:40:59	0.0000	0.0000	-0.0540
PG	pg72010_160_30072010	1203316.5840000	2457974.2120000	7/30/2010	0.0000	0.0000	0.0068	792.1	32.9	30-07-2010 08:46:14	0.0000	-0.0030	0.0280
PG	pg72010_161_30072010	1203319.7700000	2458174.9260000	7/30/2010	0.0000	0.0012	0.0253	791.8	33.7	30-07-2010 08:48:58	0.0000	0.0050	0.1050
PG	pg72010_162_30072010	1203319.1700000	2458375.3460000	7/30/2010	0.0000	0.0010	0.0853	792.1	34.2	30-07-2010 08:51:12	0.0000	0.0040	0.3540
PG	pg72010_163_30072010	1203321.5410000	2458579.4550000	7/30/2010	0.0000	0.0014	0.3058	792.4	34.6	30-07-2010 08:53:12	0.0000	0.0060	1.2700
PG	pg72010_164_30072010	1203319.0990000	2458781.1770000	7/30/2010	0.0000	0.0012	0.0958	792.5	34.9	30-07-2010 08:55:26	-0.0050	0.0050	0.3980
PG	pg72010_168_30072010	1203321.5410000	2459576.5360000	7/30/2010	0.0000	0.0010	0.1974	792.1	35.7	30-07-2010 09:04:27	-0.0030	0.0040	0.8230
PG	pg72010_169_30072010	1203318.3450000	2459772.2910000	7/30/2010	0.0000	0.0007	0.3051	791.8	35.8	30-07-2010 09:06:56	-0.1140	0.0030	1.2730
PG	pg72010_17_20072010	1206119.3800000	2455753.0260000	7/20/2010	0.0000	0.0000	0.1409	787.1	27.7	20-07-2010 08:29:34	0.0000	-0.0080	0.5760
PG	pg72010_170_30072010	1203122.4330000	2459974.3610000	7/30/2010	0.0000	0.0002	0.0752	791.2	35.8	30-07-2010 09:10:57	0.0000	0.0010	0.3140
PG	pg72010_171_30072010	1203125.7580000	2459774.4540000	7/30/2010	0.0000	0.0000	0.0000	790.5	35.8	30-07-2010 09:13:59	0.0000	0.0000	-0.0520
PG	pg72010_172_30072010	1203113.8470000	2459571.5900000	7/30/2010	0.0000	0.0010	0.0952	795.9	35.8	30-07-2010 09:16:09	0.0000	0.0040	0.3950
PG	pg72010_173_30072010	1203120.5300000	2459362.6440000	7/30/2010	0.0000	0.0012	0.2488	792.1	35.9	30-07-2010 09:18:13	0.0000	0.0050	1.0380
PG	pg72010_174_30072010	1203125.6410000	2458968.1370000	7/30/2010	0.0000	0.0007	0.1608	792.4	36.1	30-07-2010 09:21:20	0.0000	0.0030	0.6710
PG	pg72010_175_30072010	1203126.8670000	2458774.0560000	7/30/2010	0.0000	0.0010	0.7527	792.6	36.3	30-07-2010 09:23:29	0.0000	0.0040	3.1420
PG	pg72010_176_30072010	1203117.2610000	2458572.7810000	7/30/2010	0.0000	0.0012	0.0029	792.6	36.6	30-07-2010 09:25:29	0.0000	0.0050	0.0120
PG	pg72010_177_30072010	1203123.6080000	2458373.8380000	7/30/2010	0.0000	0.0005	0.0000	792.3	36.9	30-07-2010 09:27:40	0.0000	0.0020	-0.2040
PG	pg72010_178_30072010	1203119.7970000	2458161.0190000	7/30/2010	0.0000	0.0012	0.3637	791.7	37.3	30-07-2010 09:29:56	0.0000	0.0050	1.5250
PG	pg72010_179_30072010	1203122.4140000	2457968.9080000	7/30/2010	0.0000	0.0000	0.0000	791.6	37.9	30-07-2010 09:33:01	-0.0710	0.0000	-0.1570

APPENDIX B (CONTINUED)
METHANE FLUX MEASUREMENTS
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES, INC. AND PETROX RESOURCES, INC.

Location	Site Point Identification	Northing	Easting	Date	CH4 Flux	H2S Flux	CO2 Flux	Pressure	Temperature (Degrees Celsius)	Date & Time of Measurement	CH4 Slope	H2S Slope	CO2 Slope
PG	pg72010_18_20072010	1206137.4900000	2455984.1600000	7/20/2010	0.0000	0.0020	0.1197	785.6	28.2	20-07-2010 08:34:01	-0.0040	0.0080	0.4910
PG	pg72010_18_27072010	1204319.2850000	2456370.5020000	7/27/2010	0.0000	0.0021	0.4099	789.1	39.6	27-07-2010 11:42:21	-0.9940	0.0090	1.7370
PG	pg72010_180_30072010	1202919.1070000	2458169.9840000	7/30/2010	0.0000	0.0002	0.0389	791.3	39.2	30-07-2010 09:40:07	0.0000	0.0010	0.1640
PG	pg72010_181_30072010	1202945.1930000	2458385.0100000	7/30/2010	0.0000	0.0002	0.2723	790.8	39.5	30-07-2010 09:44:00	0.0000	0.0010	1.1510
PG	pg72010_182_30072010	1202925.9140000	2458577.5970000	7/30/2010	0.0000	0.0002	0.0646	792.1	39.7	30-07-2010 09:46:37	0.0000	0.0010	0.2730
PG	pg72010_183_30072010	1202925.9320000	2458777.2110000	7/30/2010	0.0000	0.0005	0.0391	792.0	39.7	30-07-2010 09:48:56	0.0000	0.0020	0.1650
PG	pg72010_184_30072010	1202924.3950000	2458982.1310000	7/30/2010	0.0000	0.0007	0.0251	792.4	39.8	30-07-2010 09:51:20	0.0000	0.0030	0.1060
PG	pg72010_185_30072010	1202933.9450000	2459376.1820000	7/30/2010	0.0000	0.0009	0.1242	792.5	39.7	30-07-2010 09:54:30	0.0000	0.0040	0.5240
PG	pg72010_186_30072010	1202920.9210000	2459575.3850000	7/30/2010	0.0000	0.0009	0.1230	792.6	39.7	30-07-2010 09:56:37	0.0000	0.0040	0.5190
PG	pg72010_187_30072010	1202913.6590000	2459776.5810000	7/30/2010	0.0000	0.0012	0.1559	792.4	39.6	30-07-2010 09:59:00	0.0000	0.0050	0.6580
PG	pg72010_188_30072010	1202933.6920000	2459971.0620000	7/30/2010	0.0000	0.0002	0.0142	792.1	39.6	30-07-2010 10:01:32	0.0000	0.0010	0.0600
PG	pg72010_189_30072010	1202910.4070000	2460175.1770000	7/30/2010	0.0000	0.0000	0.0076	791.3	39.5	30-07-2010 10:04:40	0.0000	0.0000	0.0320
PG	pg72010_19_27072010	1204111.1870000	2456365.6110000	7/27/2010	0.0000	0.0000	0.0000	789.1	39.6	27-07-2010 11:45:03	0.0000	-0.0060	-0.0780
PG	pg72010_190_30072010	1202721.0700000	2460376.6280000	7/30/2010	0.0000	0.0000	0.0000	790.6	39.4	30-07-2010 10:18:33	0.0000	-0.0030	-0.0630
PG	pg72010_191_30072010	1202729.4750000	2460172.6390000	7/30/2010	0.0000	0.0000	0.0000	791.3	39.4	30-07-2010 10:21:27	0.0000	0.0000	-0.0870
PG	pg72010_192_30072010	1202732.1680000	2459973.1760000	7/30/2010	0.0000	0.0000	0.1976	791.7	39.4	30-07-2010 10:24:14	0.0000	-0.0020	0.8340
PG	pg72010_193_30072010	1202732.1810000	2459775.3840000	7/30/2010	0.0000	0.0007	0.0341	792.3	39.4	30-07-2010 10:27:18	0.0000	0.0030	0.1440
PG	pg72010_194_30072010	1202718.7360000	2459574.4850000	7/30/2010	0.0000	0.0005	0.0410	792.6	39.5	30-07-2010 10:29:25	0.0000	0.0020	0.1730
PG	pg72010_195_30072010	1202720.0330000	2459386.0510000	7/30/2010	0.0000	0.0002	0.1318	792.8	39.7	30-07-2010 10:31:49	0.0000	0.0010	0.5560
PG	pg72010_196_30072010	1202719.8080000	2458966.2450000	7/30/2010	0.0000	0.0000	0.2185	793.6	40.0	30-07-2010 10:36:10	0.0000	-0.0040	0.9220
PG	pg72010_197_30072010	1202715.0740000	2458782.9350000	7/30/2010	0.0000	0.0000	0.0000	792.0	40.2	30-07-2010 10:38:49	0.0000	0.0000	-0.0560
PG	pg72010_198_30072010	1202699.5720000	2458535.4370000	7/30/2010	0.0000	0.0000	0.0000	791.6	40.5	30-07-2010 10:42:39	0.0000	-0.0060	-0.1900
PG	pg72010_20_20072010	1205931.4460000	2455784.8120000	7/20/2010	0.0000	0.0036	0.1177	784.7	28.7	20-07-2010 08:39:23	0.0000	0.0150	0.4840
PG	pg72010_200_30072010	1202709.4690000	2458173.0910000	7/30/2010	0.0000	0.0000	0.0000	791.3	41.0	30-07-2010 10:49:24	-0.0780	-0.0010	-0.1810
PG	pg72010_201_30072010	1202711.9040000	2457967.8140000	7/30/2010	0.0000	0.0012	0.2215	794.3	41.1	30-07-2010 10:52:29	-0.1390	0.0050	0.9370
PG	pg72010_202_30072010	1202938.6870000	2457967.1520000	7/30/2010	0.0000	0.0002	0.0974	796.1	41.2	30-07-2010 10:57:16	0.0000	0.0010	0.4110
PG	pg72010_203_30072010	1202515.0990000	2457986.7170000	7/30/2010	0.0000	0.0000	0.0118	790.9	41.1	30-07-2010 11:04:58	0.0000	-0.0020	0.0500
PG	pg72010_204_30072010	1202524.8260000	2458166.2230000	7/30/2010	0.0000	0.0002	0.0214	789.8	40.9	30-07-2010 11:09:32	0.0000	0.0010	0.0910
PG	pg72010_205_30072010	1202539.3960000	2458373.8180000	7/30/2010	0.0000	0.0005	0.1329	789.3	40.7	30-07-2010 11:14:17	0.0000	0.0020	0.5650
PG	pg72010_206_30072010	1202511.4720000	2458575.6390000	7/30/2010	0.0000	0.0002	0.1211	790.0	40.5	30-07-2010 11:17:27	0.0000	0.0010	0.5140
PG	pg72010_207_30072010	1202523.2810000	2458792.3080000	7/30/2010	0.0000	0.0009	0.2010	790.5	40.3	30-07-2010 11:19:48	0.0000	0.0040	0.8520
PG	pg72010_208_30072010	1202519.4260000	2458996.8120000	7/30/2010	0.0000	0.0002	0.1806	791.8	40.1	30-07-2010 11:22:43	0.0000	0.0010	0.7640
PG	pg72010_209_30072010	1202320.1340000	2458960.3690000	7/30/2010	0.0000	0.0000	0.0000	795.4	39.8	30-07-2010 11:26:59	0.0000	-0.0010	-0.4430
PG	pg72010_21_27072010	1203717.5840000	2456373.0670000	7/27/2010	0.0000	0.0002	0.2537	788.7	39.4	27-07-2010 12:08:37	-0.0040	0.0010	1.0750
PG	pg72010_210_30072010	1202300.2780000	2458788.7290000	7/30/2010	0.0000	0.0005	0.2378	790.4	39.6	30-07-2010 11:29:39	0.0000	0.0020	1.0060
PG	pg72010_211_30072010	1202329.0770000	2458600.0150000	7/30/2010	0.0000	0.0000	0.1427	789.5	39.5	30-07-2010 11:32:03	0.0000	0.0000	0.6040
PG	pg72010_212_30072010	1202099.4680000	2458769.1770000	7/30/2010	0.0000	0.0002	0.0274	789.1	39.3	30-07-2010 11:36:05	0.0000	0.0010	0.1160
PG	pg72010_213_30072010	1201940.4030000	2458965.9370000	7/30/2010	0.0000	0.0005	0.0685	788.7	39.2	30-07-2010 11:40:19	0.0000	0.0020	0.2900
PG	pg72010_214_30072010	1202110.7520000	2458979.1290000	7/30/2010	0.0000	0.0000	0.0333	788.9	39.1	30-07-2010 11:43:34	0.0000	0.0000	0.1410
PG	pg72010_215_30072010	1203098.4020000	2457370.6810000	7/30/2010	0.0000	0.0000	0.0666	789.8	39.4	30-07-2010 11:57:53	0.0000	0.0000	0.2820
PG	pg72010_216_30072010	1203330.2910000	2457382.0750000	7/30/2010	0.0000	0.0000	0.0456	789.7	39.6	30-07-2010 12:01:10	0.0000	-0.0050	0.1930
PG	pg72010_217_30072010	1203528.0900000	2457374.9510000	7/30/2010	0.0000	0.0017	0.0844	790.4	39.7	30-07-2010 12:03:21	0.0000	0.0070	0.3570
PG	pg72010_218_30072010	1203313.2300000	2457194.8050000	7/30/2010	0.0000	0.0000	0.0000	790.6	39.8	30-07-2010 12:06:00	0.0000	0.0000	-0.2100
PG	pg72010_219_30072010	1203097.7390000	2457164.9230000	7/30/2010	0.0000	0.0002	0.0392	790.0	39.9	30-07-2010 12:08:48	0.0000	0.0010	0.1660
PG	pg72010_22_20072010	1205930.7420000	2455379.7020000	7/20/2010	0.0000	0.0000	0.1152	787.1	29.2	20-07-2010 08:45:19	-0.0020	-0.0010	0.4730

APPENDIX B (CONTINUED)
METHANE FLUX MEASUREMENTS
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES, INC. AND PETROX RESOURCES, INC.

Location	Site Point Identification	Northing	Easting	Date	CH4 Flux	H2S Flux	CO2 Flux	Pressure	Temperature (Degrees Celsius)	Date & Time of Measurement	CH4 Slope	H2S Slope	CO2 Slope
PG	pg72010_22_27072010	1203531.8780000	2456367.3080000	7/27/2010	0.0000	0.0000	0.1317	788.5	39.3	27-07-2010 12:12:08	0.0000	-0.0020	0.5580
PG	pg72010_220_30072010	1203339.8480000	2456984.2720000	7/30/2010	0.0000	0.0000	0.0162	789.4	40.5	30-07-2010 12:20:54	0.0000	-0.0020	0.0690
PG	pg72010_221_30072010	1203309.1990000	2456784.5280000	7/30/2010	0.0000	0.0000	0.3108	789.4	40.9	30-07-2010 12:23:20	-0.0130	-0.0030	1.3220
PG	pg72010_222_30072010	1203309.7790000	2456577.3670000	7/30/2010	0.0000	0.0000	0.1188	788.9	41.2	30-07-2010 12:25:42	-0.0010	0.0000	0.5060
PG	pg72010_223_02082010	1202526.7990000	2460569.9690000	8/2/2010	0.0000	0.0000	0.0854	793.3	22.2	02-08-2010 07:25:18	0.0000	-0.0010	0.3400
PG	pg72010_224_02082010	1202513.1760000	2460369.0420000	8/2/2010	0.0000	0.0003	0.0000	793.3	23.1	02-08-2010 07:28:37	-0.0030	0.0010	-0.0880
PG	pg72010_226_02082010	1202531.4600000	2459988.5450000	8/2/2010	0.0000	0.0002	0.1185	793.2	24.3	02-08-2010 07:34:56	-0.0050	0.0010	0.4750
PG	pg72010_227_02082010	1202514.1620000	2459776.1280000	8/2/2010	0.0000	0.0002	0.0532	794.9	24.6	02-08-2010 07:37:16	-0.0040	0.0010	0.2130
PG	pg72010_228_02082010	1202518.3640000	2459576.5070000	8/2/2010	0.0000	0.0002	0.2554	793.9	24.9	02-08-2010 07:39:29	-0.0350	0.0010	1.0250
PG	pg72010_229_02082010	1202526.9160000	2459380.1820000	8/2/2010	0.0000	0.0002	0.0000	793.9	25.1	02-08-2010 07:41:51	-0.0150	0.0010	-0.0670
PG	pg72010_23_20072010	1205905.0010000	2455172.9300000	7/20/2010	0.0000	0.0024	0.0834	786.5	29.4	20-07-2010 08:47:28	0.0000	0.0100	0.3430
PG	pg72010_23_27072010	1203306.0100000	2456370.6640000	7/27/2010	0.0000	0.0000	0.3274	788.2	39.2	27-07-2010 12:16:15	0.0000	-0.0020	1.3870
PG	pg72010_230_02082010	1202298.0720000	2459365.5040000	8/2/2010	0.0000	0.0000	0.1246	793.6	25.4	02-08-2010 07:45:15	-0.2320	-0.0020	0.5010
PG	pg72010_231_02082010	1202285.0980000	2459569.6820000	8/2/2010	0.0000	0.0000	0.3122	792.9	25.7	02-08-2010 07:48:17	-0.2740	0.0000	1.2580
PG	pg72010_232_02082010	1202324.4420000	2459790.6240000	8/2/2010	0.0000	0.0000	0.1801	793.2	25.9	02-08-2010 07:50:54	-0.0500	0.0000	0.7260
PG	pg72010_233_02082010	1202322.8540000	2459978.1520000	8/2/2010	0.0000	0.0000	0.0000	794.0	26.1	02-08-2010 07:53:24	-0.0010	0.0000	-0.5210
PG	pg72010_235_02082010	1202319.3410000	2460363.2680000	8/2/2010	0.0000	0.0000	0.0983	797.4	26.4	02-08-2010 07:58:21	0.0000	0.0000	0.3950
PG	pg72010_236_02082010	1202319.5780000	2460573.7220000	8/2/2010	0.0000	0.0000	0.0000	794.0	26.6	02-08-2010 08:01:17	-0.0010	-0.0010	-1.4420
PG	pg72010_237_02082010	1202327.6600000	2460761.5550000	8/2/2010	0.0000	0.0002	0.0327	794.7	26.8	02-08-2010 08:03:52	-0.1450	0.0010	0.1320
PG	pg72010_238_02082010	1202133.6720000	2460794.7730000	8/2/2010	0.0000	0.0000	0.2000	793.3	27.0	02-08-2010 08:09:06	0.0000	-0.0030	0.8090
PG	pg72010_24_20072010	1205716.3970000	2455021.0800000	7/20/2010	0.0000	0.0012	0.0518	787.0	29.6	20-07-2010 08:50:45	0.0000	0.0050	0.2130
PG	pg72010_24_27072010	1203163.4540000	2456586.3780000	7/27/2010	0.0000	0.0000	0.2575	787.7	39.0	27-07-2010 12:21:35	0.0000	-0.0010	1.0910
PG	pg72010_240_02082010	1202132.9910000	2460362.4580000	8/2/2010	0.0000	0.0000	0.2815	794.1	27.4	02-08-2010 08:17:29	0.0000	0.0000	1.1390
PG	pg72010_242_02082010	1202110.6100000	2459980.3660000	8/2/2010	0.0000	0.0000	0.0000	794.5	27.6	02-08-2010 08:23:16	0.0000	-0.0010	-0.1440
PG	pg72010_243_02082010	1202117.9690000	2459785.4040000	8/2/2010	0.0000	0.0000	0.1978	794.5	27.8	02-08-2010 08:25:58	0.0000	-0.0010	0.8010
PG	pg72010_246_02082010	1201898.0620000	2459359.1240000	8/2/2010	0.0000	0.0000	0.0000	793.5	28.2	02-08-2010 08:36:26	0.0000	0.0000	-0.2270
PG	pg72010_247_02082010	1201930.4810000	2459575.7730000	8/2/2010	0.0000	0.0012	0.3039	791.8	28.3	02-08-2010 08:39:24	0.0000	0.0050	1.2370
PG	pg72010_248_02082010	1201925.6920000	2459805.5930000	8/2/2010	0.0000	0.0010	0.0359	792.8	28.4	02-08-2010 08:43:05	-0.0050	0.0040	0.1460
PG	pg72010_249_02082010	1201916.4030000	2459973.1460000	8/2/2010	0.0000	0.0010	0.2442	793.9	28.5	02-08-2010 08:45:29	-0.0040	0.0040	0.9920
PG	pg72010_25_20072010	1205711.9330000	2455198.7860000	7/20/2010	0.0000	0.0002	0.1628	787.4	30.0	20-07-2010 08:56:28	-0.0050	0.0010	0.6700
PG	pg72010_25_27072010	1203132.5110000	2456789.9450000	7/27/2010	0.0000	0.0002	0.0937	789.5	38.9	27-07-2010 12:26:35	0.0000	0.0010	0.3960
PG	pg72010_250_02082010	1201927.8020000	2460166.8120000	8/2/2010	0.0000	0.0012	0.3774	794.8	28.6	02-08-2010 08:47:46	-0.0100	0.0050	1.5320
PG	pg72010_251_02082010	1201924.3210000	2460383.1200000	8/2/2010	0.0000	0.0007	0.0714	795.1	28.7	02-08-2010 08:50:11	-0.0050	0.0030	0.2900
PG	pg72010_252_02082010	1201919.8230000	2460578.7930000	8/2/2010	0.0000	0.0020	0.0840	795.2	28.7	02-08-2010 08:52:08	-0.0230	0.0080	0.3410
PG	pg72010_253_02082010	1201928.8480000	2460777.3700000	8/2/2010	0.0000	0.0020	0.1227	795.2	28.8	02-08-2010 08:54:21	0.0000	0.0080	0.4980
PG	pg72010_254_02082010	1201937.5290000	2461010.3460000	8/2/2010	0.0000	0.0002	0.0000	794.9	28.9	02-08-2010 08:57:09	0.0000	0.0010	-0.0620
PG	pg72010_255_02082010	1201676.5470000	2460945.2820000	8/2/2010	0.0000	0.0007	0.5231	794.8	29.0	02-08-2010 09:00:20	-0.0010	0.0030	2.1260
PG	pg72010_256_02082010	1201723.2310000	2460766.9580000	8/2/2010	0.0000	0.0017	0.0743	794.9	29.0	02-08-2010 09:02:31	-0.0060	0.0070	0.3020
PG	pg72010_257_02082010	1201717.1210000	2460566.6230000	8/2/2010	0.0000	0.0007	0.2014	795.5	29.1	02-08-2010 09:05:07	0.0000	0.0030	0.8180
PG	pg72010_258_02082010	1201723.5980000	2460370.5430000	8/2/2010	0.0000	0.0007	0.2146	795.6	29.2	02-08-2010 09:07:37	-0.0030	0.0030	0.8720
PG	pg72010_259_02082010	1201726.6840000	2460173.8460000	8/2/2010	0.0000	0.0000	0.1335	795.5	29.5	02-08-2010 09:16:01	-0.0020	0.0000	0.5430
PG	pg72010_26_20072010	1205720.0520000	2455371.6510000	7/20/2010	0.0000	0.0007	0.0779	787.4	30.2	20-07-2010 08:58:49	-0.0010	0.0030	0.3210
PG	pg72010_26_27072010	1203118.1850000	2456983.7610000	7/27/2010	0.0000	0.0014	0.1899	787.9	38.9	27-07-2010 12:29:13	0.0000	0.0060	0.8040
PG	pg72010_260_02082010	1201699.0860000	2459976.5260000	8/2/2010	0.0000	0.0010	0.1011	794.9	29.7	02-08-2010 09:19:03	-0.0060	0.0040	0.4120
PG	pg72010_262_02082010	1201484.5530000	2459969.9340000	8/2/2010	0.0000	0.0012	0.4122	793.2	30.1	02-08-2010 09:28:25	-0.0020	0.0050	1.6850

APPENDIX B (CONTINUED)
METHANE FLUX MEASUREMENTS
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES, INC. AND PETROX RESOURCES, INC.

Location	Site Point Identification	Northing	Easting	Date	CH4 Flux	H2S Flux	CO2 Flux	Pressure	Temperature (Degrees Celsius)	Date & Time of Measurement	CH4 Slope	H2S Slope	CO2 Slope
PG	pg72010_263_02082010	1201491.6770000	2460163.5630000	8/2/2010	0.0000	0.0005	0.0614	793.9	30.2	02-08-2010 09:32:04	0.0000	0.0020	0.2510
PG	pg72010_264_02082010	1201521.7220000	2460370.0510000	8/2/2010	0.0000	0.0007	0.2104	794.7	30.3	02-08-2010 09:34:50	-0.0210	0.0030	0.8590
PG	pg72010_265_02082010	1201514.6890000	2460575.1500000	8/2/2010	0.0000	0.0007	0.2104	794.7	30.3	02-08-2010 09:34:54	-0.0210	0.0030	0.8590
PG	pg72010_266_02082010	1201523.0310000	2460780.1210000	8/2/2010	0.0000	0.0015	0.0951	795.5	30.3	02-08-2010 09:42:08	0.0000	0.0060	0.3880
PG	pg72010_267_02082010	1201513.6370000	2460976.8770000	8/2/2010	0.0000	0.0000	0.0032	795.5	30.4	02-08-2010 09:45:03	0.0000	-0.0020	0.0130
PG	pg72010_268_02082010	1201328.7760000	2460772.4340000	8/2/2010	0.0000	0.0015	0.3571	795.2	30.5	02-08-2010 09:47:43	-0.0030	0.0060	1.4580
PG	pg72010_269_02082010	1201324.8480000	2460572.0930000	8/2/2010	0.0000	0.0020	0.1889	795.6	30.6	02-08-2010 09:49:53	-0.0050	0.0080	0.7710
PG	pg72010_27_20072010	1205707.4860000	2455587.3540000	7/20/2010	0.0000	0.0017	0.0162	787.0	30.5	20-07-2010 09:01:53	-0.0250	0.0070	0.0670
PG	pg72010_27_27072010	1202910.1050000	2456970.2260000	7/27/2010	0.0000	0.0002	0.3249	787.8	38.9	27-07-2010 12:32:38	0.0000	0.0010	1.3760
PG	pg72010_270_02082010	1201310.2990000	2460360.3220000	8/2/2010	0.0000	0.0007	0.1065	795.4	30.6	02-08-2010 09:52:21	0.0000	0.0030	0.4350
PG	pg72010_271_02082010	1201112.5400000	2460386.8690000	8/2/2010	0.0000	0.0015	0.1923	794.8	30.7	02-08-2010 09:54:45	0.0000	0.0060	0.7860
PG	pg72010_272_02082010	1201129.7220000	2460566.2930000	8/2/2010	0.0000	0.0015	0.2198	794.7	30.8	02-08-2010 09:57:21	-0.0090	0.0060	0.8990
PG	pg72010_273_02082010	1201117.8880000	2460775.1230000	8/2/2010	0.0000	0.0012	0.0676	795.8	30.9	02-08-2010 09:59:56	0.0000	0.0050	0.2760
PG	pg72010_28_20072010	1205723.5520000	2455770.5490000	7/20/2010	0.0000	0.0000	0.0201	787.1	30.6	20-07-2010 09:04:27	0.0000	0.0000	0.0830
PG	pg72010_28_27072010	1202935.9930000	2457162.7640000	7/27/2010	0.0000	0.0000	0.2868	786.9	38.9	27-07-2010 12:36:37	0.0000	-0.0010	1.2160
PG	pg72010_29_20072010	1205721.0590000	2455975.5920000	7/20/2010	0.0000	0.0010	0.0743	786.6	30.8	20-07-2010 09:07:26	-0.0010	0.0040	0.3070
PG	pg72010_29_27072010	1202937.4190000	2457392.3750000	7/27/2010	0.0000	0.0000	0.2321	787.7	38.9	27-07-2010 12:40:14	0.0000	-0.0010	0.9830
PG	pg72010_3_27072010	1204534.3920000	2456607.9030000	7/27/2010	0.0000	0.0000	0.0000	789.6	38.2	27-07-2010 10:49:18	0.0000	-0.0010	-0.2010
PG	pg72010_30_20072010	1205509.4070000	2455975.8160000	7/20/2010	0.0000	0.0005	0.0658	786.5	31.0	20-07-2010 09:10:19	-0.0170	0.0020	0.2720
PG	pg72010_30_27072010	1202727.0360000	2457383.0490000	7/27/2010	0.0000	0.0000	0.0000	787.8	38.9	27-07-2010 12:45:03	0.0000	-0.0060	-0.0670
PG	pg72010_31_20072010	1205527.4550000	2455759.0420000	7/20/2010	0.0000	0.0007	0.0172	787.5	31.2	20-07-2010 09:12:56	-0.0130	0.0030	0.0710
PG	pg72010_31_27072010	1202732.0450000	2457555.9780000	7/27/2010	0.0000	0.0028	0.1276	786.7	38.9	27-07-2010 12:47:30	0.0000	0.0120	0.5410
PG	pg72010_32_20072010	1205513.3610000	2455559.6060000	7/20/2010	0.0000	0.0015	0.0196	787.7	31.4	20-07-2010 09:15:49	-0.0070	0.0060	0.0810
PG	pg72010_32_27072010	1202712.4470000	2457758.4300000	7/27/2010	0.0000	0.0000	0.0000	787.3	38.9	27-07-2010 12:52:01	0.0000	-0.0020	-0.1090
PG	pg72010_33_20072010	1205518.3740000	2455375.1590000	7/20/2010	0.0000	0.0005	0.0193	787.7	31.6	20-07-2010 09:18:38	-0.0070	0.0020	0.0800
PG	pg72010_33_27072010	1202915.0660000	2457572.4210000	7/27/2010	0.0000	0.0000	0.3010	787.3	39.0	27-07-2010 12:57:07	0.0000	-0.0010	1.2760
PG	pg72010_34_20072010	1205522.8040000	2455176.8750000	7/20/2010	0.0000	0.0007	0.1270	787.4	31.8	20-07-2010 09:21:10	-0.0190	0.0030	0.5260
PG	pg72010_34_27072010	1202929.0430000	2457767.0370000	7/27/2010	0.0000	0.0000	0.0000	787.5	39.1	27-07-2010 13:00:57	0.0000	-0.0040	-0.1190
PG	pg72010_35_20072010	1205514.8700000	2454972.9390000	7/20/2010	0.0000	0.0024	0.0807	787.9	32.0	20-07-2010 09:23:30	0.0000	0.0100	0.3340
PG	pg72010_35_27072010	1203129.7430000	2457780.0940000	7/27/2010	0.0000	0.0005	0.5207	788.3	39.2	27-07-2010 13:06:45	0.0000	0.0020	2.2060
PG	pg72010_36_20072010	1205304.4140000	2454974.4970000	7/20/2010	0.0000	0.0007	0.1974	788.2	32.3	20-07-2010 09:26:03	-0.0040	0.0030	0.8180
PG	pg72010_36_27072010	1203322.4480000	2457769.5330000	7/27/2010	0.0000	0.0017	0.0826	788.6	39.3	27-07-2010 13:10:13	0.0000	0.0070	0.3500
PG	pg72010_37_20072010	1205330.9900000	2455172.4060000	7/20/2010	0.0000	0.0007	0.1028	788.9	32.5	20-07-2010 09:28:26	-0.0020	0.0030	0.4260
PG	pg72010_37_27072010	1203535.9350000	2457775.4290000	7/27/2010	0.0000	0.0000	0.2363	789.0	39.4	27-07-2010 13:12:42	0.0000	-0.0010	1.0010
PG	pg72010_38_20072010	1205329.7570000	2455371.3720000	7/20/2010	0.0000	0.0005	0.0369	788.3	32.8	20-07-2010 09:31:30	-0.0140	0.0020	0.1530
PG	pg72010_38_27072010	1203726.6660000	2457772.5050000	7/27/2010	0.0000	0.0021	0.0829	789.5	39.5	27-07-2010 13:15:09	-0.1000	0.0090	0.3510
PG	pg72010_39_27072010	1203923.7560000	2457770.0400000	7/27/2010	0.0000	0.0009	0.2910	789.3	39.6	27-07-2010 13:18:09	0.0000	0.0040	1.2330
PG	pg72010_4_27072010	1204759.0620000	2456602.8160000	7/27/2010	0.0000	0.0002	0.0135	789.6	38.7	27-07-2010 10:54:16	0.0000	0.0010	0.0570
PG	pg72010_40_20072010	1205330.8420000	2455784.4000000	7/20/2010	0.0000	0.0000	0.0589	788.1	33.2	20-07-2010 09:37:18	0.0000	-0.0010	0.2450
PG	pg72010_40_27072010	1204131.2950000	2457769.6570000	7/27/2010	0.0000	0.0009	0.0000	788.9	39.7	27-07-2010 13:21:39	0.0000	0.0040	-0.1530
PG	pg72010_41_20072010	1205328.4820000	2455957.2690000	7/20/2010	0.0000	0.0014	0.1224	788.1	33.4	20-07-2010 09:40:01	-0.0400	0.0060	0.5090
PG	pg72010_41_27072010	1204328.1420000	2457775.2620000	7/27/2010	0.0000	0.0014	0.3509	787.8	39.9	27-07-2010 13:24:50	0.0000	0.0060	1.4910
PG	pg72010_42_20072010	1205118.2530000	2455979.3590000	7/20/2010	0.0000	0.0005	0.0981	788.2	33.6	20-07-2010 09:43:29	0.0000	0.0020	0.4080
PG	pg72010_42_27072010	1204336.2800000	2457569.5740000	7/27/2010	0.0000	0.0002	0.0165	787.7	40.1	27-07-2010 13:27:41	0.0000	0.0010	0.0700
PG	pg72010_43_20072010	1205123.4530000	2455768.7810000	7/20/2010	0.0000	0.0014	0.0719	788.6	33.7	20-07-2010 09:45:52	-0.0010	0.0060	0.2990

APPENDIX B (CONTINUED)
METHANE FLUX MEASUREMENTS
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES, INC. AND PETROX RESOURCES, INC.

Location	Site Point Identification	Northing	Easting	Date	CH4 Flux	H2S Flux	CO2 Flux	Pressure	Temperature (Degrees Celsius)	Date & Time of Measurement	CH4 Slope	H2S Slope	CO2 Slope
PG	pg72010_43_27072010	1204338.5350000	2457379.6100000	7/27/2010	0.0000	0.0002	0.2510	787.8	40.4	27-07-2010 13:30:57	0.0000	0.0010	1.0680
PG	pg72010_44_20072010	1205108.5370000	2455577.9240000	7/20/2010	0.0000	0.0024	0.2114	788.5	33.9	20-07-2010 09:48:30	-0.0070	0.0100	0.8800
PG	pg72010_44_27072010	1204343.0520000	2457152.4530000	7/27/2010	0.0000	0.0000	0.2331	787.7	40.7	27-07-2010 13:34:20	0.0000	0.0000	0.9930
PG	pg72010_45_20072010	1205044.8900000	2455289.7490000	7/20/2010	0.0000	0.0000	0.0749	788.6	34.2	20-07-2010 09:51:28	-0.0100	-0.0010	0.3120
PG	pg72010_45_27072010	1204331.0410000	2456965.9670000	7/27/2010	0.0000	0.0038	0.1079	787.7	40.8	27-07-2010 13:36:56	0.0000	0.0160	0.4600
PG	pg72010_46_20072010	1205130.0430000	2455174.2180000	7/20/2010	0.0000	0.0005	0.0000	788.9	34.4	20-07-2010 09:53:59	0.0000	0.0020	-0.3460
PG	pg72010_47_20072010	1205131.4290000	2454962.2860000	7/20/2010	0.0000	0.0010	0.1103	788.9	34.7	20-07-2010 09:56:18	0.0000	0.0040	0.4600
PG	pg72010_47_29072010	1204113.4910000	2456576.9660000	7/29/2010	0.0000	0.0000	2.4836	793.7	23.6	29-07-2010 07:15:34	0.0000	-0.0020	9.9280
PG	pg72010_48_20072010	1204926.1770000	2454949.2600000	7/20/2010	0.0000	0.0000	0.0115	789.0	35.0	20-07-2010 10:00:23	-0.0340	0.0000	0.0480
PG	pg72010_49_20072010	1204921.4120000	2455171.3520000	7/20/2010	0.0000	0.0002	0.0851	789.0	35.4	20-07-2010 10:03:05	-0.0110	0.0010	0.3560
PG	pg72010_5_27072010	1204733.3640000	2456795.5570000	7/27/2010	0.0000	0.0000	0.2184	788.6	38.9	27-07-2010 10:58:28	0.0000	0.0000	0.9240
PG	pg72010_50_20072010	1204872.2710000	2455372.1610000	7/20/2010	0.0000	0.0012	0.1061	789.1	35.7	20-07-2010 10:07:25	0.0000	0.0050	0.4440
PG	pg72010_50_29072010	1203582.9900000	2456573.7170000	7/29/2010	0.0000	0.0000	0.2514	794.7	25.8	29-07-2010 07:27:13	0.0000	-0.0030	1.0110
PG	pg72010_51_20072010	1204917.8030000	2455583.1130000	7/20/2010	0.0000	0.0014	0.0334	789.1	35.9	20-07-2010 10:09:42	-0.0020	0.0060	0.1400
PG	pg72010_52_20072010	1204927.3710000	2455783.0060000	7/20/2010	0.0000	0.0002	0.0446	789.1	36.0	20-07-2010 10:11:50	0.0000	0.0010	0.1870
PG	pg72010_52_29072010	1203720.0110000	2456772.4800000	7/29/2010	0.0000	0.0005	0.2021	793.2	26.7	29-07-2010 07:38:03	-0.0050	0.0020	0.8170
PG	pg72010_53_20072010	1204927.3920000	2455974.1610000	7/20/2010	0.0000	0.0007	0.1686	788.9	36.2	20-07-2010 10:14:52	-0.0020	0.0030	0.7070
PG	pg72010_53_29072010	1203924.2400000	2456777.7300000	7/29/2010	0.0000	0.0005	0.3586	797.8	26.9	29-07-2010 07:40:30	-0.0520	0.0020	1.4420
PG	pg72010_54_20072010	1204731.2590000	2455967.7490000	7/20/2010	0.0000	0.0019	0.0391	789.3	36.4	20-07-2010 10:19:01	0.0000	0.0080	0.1640
PG	pg72010_54_29072010	1204129.8940000	2456778.2080000	7/29/2010	0.0000	0.0000	0.1282	794.0	27.0	29-07-2010 07:43:19	-0.0630	0.0000	0.5180
PG	pg72010_55_20072010	1204728.7210000	2455787.3050000	7/20/2010	0.0000	0.0005	0.0458	789.3	36.5	20-07-2010 10:21:14	0.0000	0.0020	0.1920
PG	pg72010_56_20072010	1204741.7980000	2455575.8170000	7/20/2010	0.0000	0.0010	0.1765	789.3	36.7	20-07-2010 10:23:42	0.0000	0.0040	0.7410
PG	pg72010_56_29072010	1204117.4290000	2457182.9730000	7/29/2010	0.0000	0.0015	0.0000	793.6	27.6	29-07-2010 07:49:39	0.0000	0.0060	-0.0780
PG	pg72010_57_20072010	1204725.9980000	2455391.1620000	7/20/2010	0.0000	0.0012	0.1428	789.1	36.9	20-07-2010 10:25:47	0.0000	0.0050	0.6000
PG	pg72010_57_29072010	1204114.7230000	2457366.8370000	7/29/2010	0.0000	0.0007	0.1496	793.7	28.1	29-07-2010 07:52:44	0.0000	0.0030	0.6070
PG	pg72010_58_20072010	1204726.1440000	2455174.3290000	7/20/2010	0.0000	0.0000	0.0186	791.3	37.2	20-07-2010 10:28:43	-0.7430	-0.0050	0.0780
PG	pg72010_59_20072010	1204688.3200000	2454989.4490000	7/20/2010	0.0000	0.0000	0.0665	789.1	37.5	20-07-2010 10:31:28	-0.1240	-0.0030	0.2800
PG	pg72010_59_29072010	1203916.3250000	2457576.0920000	7/29/2010	0.0000	0.0017	0.2323	801.1	28.8	29-07-2010 07:57:31	-0.0080	0.0070	0.9360
PG	pg72010_6_27072010	1204720.5460000	2456977.8950000	7/27/2010	0.0000	0.0005	0.0834	788.7	39.0	27-07-2010 11:01:58	0.0000	0.0020	0.3530
PG	pg72010_60_20072010	1204515.0740000	2454982.5050000	7/20/2010	0.0000	0.0000	0.0000	788.7	37.9	20-07-2010 10:35:58	0.0000	-0.0010	-0.0380
PG	pg72010_61_20072010	1204515.0130000	2455186.0910000	7/20/2010	0.0000	0.0000	0.0000	788.3	38.2	20-07-2010 10:38:36	0.0000	0.0000	-0.1890
PG	pg72010_61_29072010	1203926.1290000	2457165.9610000	7/29/2010	0.0000	0.0007	0.3074	798.0	29.6	29-07-2010 08:02:55	-0.0750	0.0030	1.2470
PG	pg72010_62_20072010	1204501.0500000	2455372.2720000	7/20/2010	0.0000	0.0000	0.0538	788.9	38.3	20-07-2010 10:41:13	0.0000	-0.0030	0.2270
PG	pg72010_62_29072010	1203915.1360000	2456972.5830000	7/29/2010	0.0000	0.0000	0.0663	802.1	30.0	29-07-2010 08:05:16	-0.5070	0.0000	0.2680
PG	pg72010_63_20072010	1204495.5300000	2455589.1160000	7/20/2010	0.0000	0.0000	0.0005	789.1	38.5	20-07-2010 10:43:57	0.0000	0.0000	0.0020
PG	pg72010_63_29072010	1203713.8030000	2456983.5630000	7/29/2010	0.0000	0.0000	0.0364	793.7	30.9	29-07-2010 08:09:44	0.0000	-0.0010	0.1490
PG	pg72010_64_20072010	1204504.2880000	2455780.4370000	7/20/2010	0.0000	0.0000	0.0000	789.3	38.5	20-07-2010 10:46:25	0.0000	-0.0050	-0.0590
PG	pg72010_64_29072010	1203526.1340000	2456976.0570000	7/29/2010	0.0000	0.0015	0.1377	793.7	31.5	29-07-2010 08:12:09	-0.0130	0.0060	0.5650
PG	pg72010_65_20072010	1204513.2580000	2455962.1160000	7/20/2010	0.0000	0.0000	0.0000	789.4	38.6	20-07-2010 10:48:50	0.0000	-0.0040	-0.0480
PG	pg72010_65_29072010	1203517.6600000	2457177.0720000	7/29/2010	0.0000	0.0019	0.1514	793.3	32.1	29-07-2010 08:15:34	-0.0310	0.0080	0.6230
PG	pg72010_66_20072010	1204331.8410000	2456161.4830000	7/20/2010	0.0000	0.0002	0.0085	789.5	38.7	20-07-2010 10:51:32	0.0000	0.0010	0.0360
PG	pg72010_66_29072010	1203725.6540000	2457173.6790000	7/29/2010	0.0000	0.0010	0.3330	793.7	32.5	29-07-2010 08:18:04	0.0000	0.0040	1.3710
PG	pg72010_67_20072010	1204126.8050000	2456184.0070000	7/20/2010	0.0000	0.0002	0.0000	790.0	38.7	20-07-2010 10:53:34	0.0000	0.0010	-0.1010
PG	pg72010_67_29072010	1203730.6030000	2457381.5750000	7/29/2010	0.0000	0.0017	0.1354	794.0	32.8	29-07-2010 08:20:29	-0.0060	0.0070	0.5580
PG	pg72010_69_20072010	1203720.8180000	2456189.2570000	7/20/2010	0.0000	0.0000	0.0064	789.7	38.8	20-07-2010 11:02:18	-0.0300	-0.0050	0.0270

APPENDIX B (CONTINUED)
METHANE FLUX MEASUREMENTS
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES, INC. AND PETROX RESOURCES, INC.

Location	Site Point Identification	Northing	Easting	Date	CH4 Flux	H2S Flux	CO2 Flux	Pressure	Temperature (Degrees Celsius)	Date & Time of Measurement	CH4 Slope	H2S Slope	CO2 Slope
PG	pg72010_69_29072010	1203513.9250000	2457571.8330000	7/29/2010	0.0000	0.0015	0.3431	794.3	33.2	29-07-2010 08:26:24	-0.0020	0.0060	1.4150
PG	pg72010_7_27072010	1204716.8880000	2457199.6410000	7/27/2010	0.0000	0.0000	0.0770	788.5	39.0	27-07-2010 11:05:10	0.0000	-0.0010	0.3260
PG	pg72010_70_20072010	1203527.7030000	2456170.3430000	7/20/2010	0.0000	0.0000	0.0244	789.1	38.9	20-07-2010 11:05:37	0.0000	0.0000	0.1030
PG	pg72010_70_29072010	1203333.8440000	2457576.9860000	7/29/2010	0.0000	0.0005	0.2484	794.4	33.4	29-07-2010 08:28:47	-0.0160	0.0020	1.0250
PG	pg72010_71_20072010	1203323.2730000	2456175.9970000	7/20/2010	0.0000	0.0000	0.0823	788.9	38.9	20-07-2010 11:08:47	0.0000	0.0000	0.3480
PG	pg72010_72_29072010	1203921.4080000	2457975.8080000	7/29/2010	0.0000	0.0000	0.0000	793.7	34.8	29-07-2010 09:00:07	0.0000	0.0000	-0.3220
PG	pg72010_73_20072010	1203765.6790000	2455981.9530000	7/20/2010	0.0000	0.0007	0.1561	788.7	39.2	20-07-2010 11:16:30	0.0000	0.0030	0.6610
PG	pg72010_73_29072010	1204111.7410000	2457985.2180000	7/29/2010	0.0000	0.0005	0.0731	794.3	34.9	29-07-2010 09:02:44	-0.0030	0.0020	0.3030
PG	pg72010_74_20072010	1203959.2330000	2455968.2760000	7/20/2010	0.0000	0.0000	0.0385	789.0	39.4	20-07-2010 11:20:02	0.0000	-0.0060	0.1630
PG	pg72010_74_29072010	1204318.8860000	2457976.8380000	7/29/2010	0.0000	0.0017	0.0246	793.6	34.9	29-07-2010 09:05:23	-0.0050	0.0070	0.1020
PG	pg72010_75_20072010	1204083.3590000	2456003.8720000	7/20/2010	0.0000	0.0014	0.1627	789.4	39.5	20-07-2010 11:22:20	-1.2200	0.0060	0.6890
PG	pg72010_75_29072010	1204319.4700000	2458196.0110000	7/29/2010	0.0000	0.0005	0.0494	793.0	34.8	29-07-2010 09:09:06	-0.0010	0.0020	0.2050
PG	pg72010_76_20072010	1204311.7800000	2455993.2610000	7/20/2010	0.0000	0.0057	0.0352	789.7	39.6	20-07-2010 11:24:36	-0.0530	0.0240	0.1490
PG	pg72010_76_29072010	1204327.0660000	2458395.4310000	7/29/2010	0.0000	0.0000	0.1334	792.3	34.7	29-07-2010 09:12:44	-0.0010	-0.0010	0.5540
PG	pg72010_77_20072010	1204312.5200000	2455779.3610000	7/20/2010	0.0000	0.0000	0.0993	789.4	39.8	20-07-2010 11:27:07	-0.2270	-0.0040	0.4210
PG	pg72010_77_29072010	1204334.2710000	2458580.7090000	7/29/2010	0.0000	0.0017	0.0000	791.6	34.7	29-07-2010 09:15:49	0.0000	0.0070	-0.2400
PG	pg72010_78_20072010	1204341.1930000	2455590.1780000	7/20/2010	0.0000	0.0000	0.0000	789.3	39.9	20-07-2010 11:29:20	-0.1060	0.0000	-0.2330
PG	pg72010_78_29072010	1204321.7060000	2458778.5150000	7/29/2010	0.0000	0.0017	0.0387	791.4	34.7	29-07-2010 09:18:44	0.0000	0.0070	0.1610
PG	pg72010_79_20072010	1204341.3410000	2455358.7680000	7/20/2010	0.0000	0.0000	0.0549	788.9	40.1	20-07-2010 11:33:08	-0.1230	-0.0030	0.2330
PG	pg72010_79_29072010	1204112.2450000	2458777.5230000	7/29/2010	0.0000	0.0000	0.2625	791.8	34.6	29-07-2010 09:22:12	0.0000	0.0000	1.0910
PG	pg72010_8_27072010	1204728.1750000	2457382.5380000	7/27/2010	0.0000	0.0005	0.0000	788.3	39.1	27-07-2010 11:08:44	0.0000	0.0020	-0.0060
PG	pg72010_80_20072010	1204323.5570000	2455160.0490000	7/20/2010	0.0000	0.0005	0.0087	789.0	40.3	20-07-2010 11:35:51	0.0000	0.0020	0.0370
PG	pg72010_80_29072010	1204126.4430000	2458975.4680000	7/29/2010	0.0000	0.0012	0.0880	793.2	34.7	29-07-2010 09:25:42	-0.0030	0.0050	0.3650
PG	pg72010_81_20072010	1204122.4480000	2455371.7330000	7/20/2010	0.0000	0.0000	0.0531	788.5	40.7	20-07-2010 11:41:56	0.0000	0.0000	0.2260
PG	pg72010_81_29072010	1204114.5130000	2459170.8030000	7/29/2010	0.0000	0.0000	0.2946	793.5	34.7	29-07-2010 09:29:37	0.0000	-0.0010	1.2220
PG	pg72010_82_29072010	1203890.3300000	2459178.6370000	7/29/2010	0.0000	0.0010	0.1526	792.6	34.8	29-07-2010 09:40:01	-0.0030	0.0040	0.6340
PG	pg72010_83_20072010	1203719.0860000	2455751.5100000	7/20/2010	0.0000	0.0012	0.0925	788.6	41.1	20-07-2010 11:48:49	-1.2770	0.0050	0.3940
PG	pg72010_83_29072010	1203924.2390000	2459388.3650000	7/29/2010	0.0000	0.0002	0.0337	792.8	34.9	29-07-2010 09:45:44	0.0000	0.0010	0.1400
PG	pg72010_84_20072010	1203927.4680000	2455811.4170000	7/20/2010	0.0000	0.0007	0.1807	787.7	41.2	20-07-2010 11:51:39	0.0000	0.0030	0.7710
PG	pg72010_84_29072010	1203732.8900000	2459394.2140000	7/29/2010	0.0000	0.0007	0.3223	793.2	35.1	29-07-2010 09:48:58	0.0000	0.0030	1.3390
PG	pg72010_85_20072010	1204150.0450000	2455786.4610000	7/20/2010	0.0000	0.0007	0.0633	788.5	41.3	20-07-2010 11:54:35	0.0000	0.0030	0.2700
PG	pg72010_85_29072010	1203742.8960000	2459564.3610000	7/29/2010	0.0000	0.0019	0.0623	792.6	35.2	29-07-2010 09:51:25	0.0000	0.0080	0.2590
PG	pg72010_86_20072010	1204131.1800000	2455591.2150000	7/20/2010	0.0000	0.0021	0.1034	788.9	41.4	20-07-2010 11:56:43	0.0000	0.0090	0.4410
PG	pg72010_86_29072010	1203705.7400000	2459781.0180000	7/29/2010	0.0000	0.0010	0.2507	792.8	35.4	29-07-2010 09:54:24	0.0000	0.0040	1.0430
PG	pg72010_87_20072010	1204539.6650000	2456371.2620000	7/20/2010	0.0000	0.0000	0.0591	788.5	41.5	20-07-2010 12:32:39	-0.0100	-0.0070	0.2520
PG	pg72010_87_29072010	1203515.4400000	2459777.6880000	7/29/2010	0.0000	0.0000	0.0000	793.5	35.4	29-07-2010 09:59:34	0.0000	-0.0020	-0.1200
PG	pg72010_88_20072010	1204722.1260000	2456383.9320000	7/20/2010	0.0000	0.0000	0.0000	788.8	41.5	20-07-2010 12:34:59	-0.0340	-0.0020	-0.2800
PG	pg72010_89_29072010	1203345.3990000	2459966.4720000	7/29/2010	0.0000	0.0000	0.3881	792.8	35.4	29-07-2010 10:06:35	0.0000	0.0000	1.6150
PG	pg72010_9_27072010	1204723.5430000	2457597.9430000	7/27/2010	0.0000	0.0000	0.0050	788.1	39.1	27-07-2010 11:12:39	-1.7240	-0.0010	0.0210
PG	pg72010_90_29072010	1203321.3630000	2460166.4690000	7/29/2010	0.0000	0.0012	0.3276	793.0	35.4	29-07-2010 10:09:34	0.0000	0.0050	1.3630
PG	pg72010_91_20072010	1205330.4340000	2456387.2400000	7/20/2010	0.0000	0.0000	0.0820	786.9	42.0	20-07-2010 12:43:22	0.0000	0.0000	0.3510
PG	pg72010_91_29072010	1203111.1100000	2460187.1780000	7/29/2010	0.0000	0.0019	0.0969	791.6	35.4	29-07-2010 10:12:03	0.0000	0.0080	0.4040
PG	pg72010_92_20072010	1205547.8920000	2456364.7270000	7/20/2010	0.0000	0.0000	0.2236	786.8	42.2	20-07-2010 12:46:23	0.0000	-0.0010	0.9580
PG	pg72010_93_20072010	1205730.5780000	2456373.0390000	7/20/2010	0.0000	0.0005	0.0000	786.4	42.4	20-07-2010 12:49:23	0.0000	0.0020	-0.1860
PG	pg72010_93_29072010	1202917.6900000	2460374.6040000	7/29/2010	0.0000	0.0012	0.0511	791.6	35.6	29-07-2010 10:17:49	0.0000	0.0050	0.2130

APPENDIX B (CONTINUED)
METHANE FLUX MEASUREMENTS
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES, INC. AND PETROX RESOURCES, INC.

Location	Site Point Identification	Northing	Easting	Date	CH4 Flux	H2S Flux	CO2 Flux	Pressure	Temperature (Degrees Celsius)	Date & Time of Measurement	CH4 Slope	H2S Slope	CO2 Slope
PG	pg72010_94_20072010	1205917.2270000	2456366.7810000	7/20/2010	0.0000	0.0009	0.0000	785.4	42.6	20-07-2010 12:52:22	-0.0310	0.0040	-1.1250
PG	pg72010_94_29072010	1202928.4370000	2460576.3170000	7/29/2010	0.0000	0.0031	0.2042	792.9	35.9	29-07-2010 10:21:50	0.0000	0.0130	0.8510
PG	pg72010_95_20072010	1206135.6670000	2456366.1580000	7/20/2010	0.0000	0.0002	1.1137	784.2	42.7	20-07-2010 12:56:22	0.0000	0.0010	4.7960
PG	pg72010_95_29072010	1202720.1700000	2460580.5730000	7/29/2010	0.0000	0.0007	0.2266	794.1	36.3	29-07-2010 10:25:25	0.0000	0.0030	0.9440
PG	pg72010_96_20072010	1205718.0910000	2456573.7690000	7/20/2010	0.0000	0.0000	0.0000	783.0	42.9	20-07-2010 13:01:00	0.0000	0.0000	-2.4140
PG	pg72010_96_29072010	1202729.0830000	2460791.1190000	7/29/2010	0.0000	0.0002	0.0000	799.7	36.7	29-07-2010 10:28:56	-0.0450	0.0010	-0.4690
PG	pg72010_97_20072010	1205514.5670000	2456562.7980000	7/20/2010	0.0000	0.0005	0.0123	785.0	42.9	20-07-2010 13:04:13	0.0000	0.0020	0.0530
PG	pg72010_97_29072010	1202511.5610000	2460783.0530000	7/29/2010	0.0000	0.0010	0.0000	794.7	37.1	29-07-2010 10:32:19	-0.0650	0.0040	-0.0250
PG	pg72010_98_20072010	1205509.4060000	2456769.1980000	7/20/2010	0.0000	0.0007	0.1293	786.1	43.0	20-07-2010 13:06:55	0.0000	0.0030	0.5560
PG	pg72010_98_29072010	1202530.3220000	2460977.6840000	7/29/2010	0.0000	0.0022	0.0000	800.2	37.4	29-07-2010 10:35:33	-0.0010	0.0090	-0.0520
PG	pg72010_99_20072010	1205313.6000000	2456981.4010000	7/20/2010	0.0000	0.0009	0.0421	785.4	43.0	20-07-2010 13:10:50	0.0000	0.0040	0.1810
PG	pg72010_99_29072010	1202335.2070000	2460980.0200000	7/29/2010	0.0000	0.0000	0.1109	794.3	37.7	29-07-2010 10:38:57	-0.3970	0.0000	0.4640
PG	pg72010_72_20072010	1203554.5270000	2455977.0030000	7/20/2010	0.0002	0.0000	0.0531	788.3	39.1	20-07-2010 11:13:11	0.0010	-0.0020	0.2250
PG	pg72010_68_20072010	1203940.9840000	2456174.5300000	7/20/2010	0.0002	0.0000	0.0000	790.0	38.7	20-07-2010 10:55:36	0.0010	-0.0030	-0.0250
PG	pg72010_92_29072010	1203131.9940000	2460381.6120000	7/29/2010	0.0002	0.0014	0.0048	792.4	35.5	29-07-2010 10:14:48	0.0010	0.0060	0.0200
PG	pg72010_88_29072010	1203531.8820000	2459971.7840000	7/29/2010	0.0002	0.0000	0.0000	793.7	35.5	29-07-2010 10:03:19	0.0010	0.0000	-0.1070
PG	pg72010_19_20072010	1205937.7000000	2455970.3120000	7/20/2010	0.0002	0.0012	0.0956	784.2	28.5	20-07-2010 08:36:52	0.0010	0.0050	0.3930
PG	pg72010_21_20072010	1205922.3130000	2455570.5660000	7/20/2010	0.0002	0.0019	0.1314	785.8	29.0	20-07-2010 08:42:45	0.0010	0.0080	0.5400
PG	pg72010_12_20072010	1206341.3100000	2455753.3520000	7/20/2010	0.0002	0.0037	0.1573	783.8	25.5	20-07-2010 08:14:58	0.0010	0.0150	0.6410
PG	pg72010_147_30072010	1203730.6480000	2458581.0780000	7/30/2010	0.0002	0.0000	0.1968	791.9	28.0	30-07-2010 08:07:22	0.0010	0.0000	0.8000
PG	pg72010_58_29072010	1204124.2640000	2457565.2680000	7/29/2010	0.0002	0.0007	0.2208	793.7	28.4	29-07-2010 07:55:01	0.0010	0.0030	0.8970
PG	pg72010_245_02082010	1202112.3550000	2459378.8610000	8/2/2010	0.0002	0.0000	0.0000	793.5	28.0	02-08-2010 08:31:48	0.0010	0.0000	-0.1760
PG	pg72010_142_30072010	1203938.7110000	2458370.5970000	7/30/2010	0.0002	0.0007	0.0000	791.3	27.1	30-07-2010 07:53:15	0.0010	0.0030	-0.1300
PG	pg72010_157_30072010	1203507.0530000	2458385.2310000	7/30/2010	0.0002	0.0002	0.3518	800.3	30.5	30-07-2010 08:35:14	0.0010	0.0010	1.4270
PG	pg72010_244_02082010	1202100.4610000	2459565.6260000	8/2/2010	0.0002	0.0000	0.4961	793.7	27.9	02-08-2010 08:28:59	0.0010	-0.0010	2.0120
PG	pg72010_234_02082010	1202321.1120000	2460169.2130000	8/2/2010	0.0002	0.0000	0.2742	794.4	26.3	02-08-2010 07:55:56	0.0010	0.0000	1.1050
PG	pg72010_48_29072010	1203931.1730000	2456561.6600000	7/29/2010	0.0002	0.0000	0.4555	793.7	24.8	29-07-2010 07:20:12	0.0010	-0.0030	1.8280
PG	pg72010_04_20072010	1205137.4070000	2456181.6340000	7/20/2010	0.0002	0.0050	0.0899	787.4	21.9	20-07-2010 07:52:55	0.0010	0.0200	0.3600
PG	pg72010_01_20072010	1204514.6900000	2456162.6880000	7/20/2010	0.0003	0.0028	0.0693	789.6	20.1	20-07-2010 07:45:31	0.0010	0.0110	0.2750
PG	pg72010_261_02082010	1201709.1090000	2459779.5720000	8/2/2010	0.0005	0.0000	0.3113	794.1	29.9	02-08-2010 09:22:57	0.0020	-0.0010	1.2700
PG	pg72010_11_20072010	1206339.5990000	2455971.1610000	7/20/2010	0.0005	0.0037	0.0083	782.8	25.1	20-07-2010 08:12:10	0.0020	0.0150	0.0340
PG	pg72010_139_30072010	1203943.4140000	2458982.0640000	7/30/2010	0.0005	0.0000	0.1233	790.0	26.4	30-07-2010 07:42:30	0.0020	-0.0020	0.5000
PG	pg72010_239_02082010	1202123.3840000	2460588.2640000	8/2/2010	0.0005	0.0000	0.0000	794.3	27.3	02-08-2010 08:14:32	0.0020	-0.0030	-0.1030
PG	pg72010_49_29072010	1203726.9360000	2456590.8890000	7/29/2010	0.0005	0.0000	0.2397	793.3	25.3	29-07-2010 07:22:50	0.0020	0.0000	0.9640
PG	pg72010_05_20072010	1205320.3510000	2456178.2140000	7/20/2010	0.0005	0.0045	0.0000	787.4	22.4	20-07-2010 07:55:16	0.0020	0.0180	-0.0070
PG	pg72010_82_20072010	1203913.7820000	2455523.4020000	7/20/2010	0.0007	0.0005	0.0256	788.2	41.0	20-07-2010 11:45:18	0.0030	0.0020	0.1090
PG	pg72010_199_30072010	1202715.7900000	2458367.1240000	7/30/2010	0.0007	0.0002	0.1212	791.4	40.8	30-07-2010 10:45:44	0.0030	0.0010	0.5140
PG	pg72010_149_30072010	1203717.3290000	2458964.9930000	7/30/2010	0.0007	0.0005	0.1918	791.7	28.4	30-07-2010 08:12:19	0.0030	0.0020	0.7810
PG	pg72010_90_20072010	1205133.1700000	2456369.4300000	7/20/2010	0.0009	0.0000	0.1167	787.4	41.8	20-07-2010 12:40:34	0.0040	-0.0010	0.4990
PG	pg72010_71_29072010	1203132.1300000	2457573.9320000	7/29/2010	0.0010	0.0000	0.1380	794.7	33.8	29-07-2010 08:33:35	0.0040	0.0000	0.5700
PG	pg72010_241_02082010	1202127.8230000	2460179.3160000	8/2/2010	0.0010	0.0000	0.0000	794.5	27.5	02-08-2010 08:20:33	0.0040	0.0000	-0.9870
PG	pg72010_89_20072010	1204937.3970000	2456380.8580000	7/20/2010	0.0012	0.0000	0.0033	788.4	41.7	20-07-2010 12:38:00	0.0050	-0.0010	0.0140
PG	pg72010_166_30072010	1203326.1070000	2459174.2350000	7/30/2010	0.0014	0.0005	0.0868	792.9	35.4	30-07-2010 08:59:46	0.0060	0.0020	0.3610
PG	pg72010_60_29072010	1203908.9850000	2457370.6200000	7/29/2010	0.0022	0.0002	0.1387	794.0	29.3	29-07-2010 08:00:30	0.0090	0.0010	0.5650
PG	pg72010_225_02082010	1202531.9910000	2460193.6480000	8/2/2010	0.0025	0.0000	0.0127	793.2	23.8	02-08-2010 07:32:29	0.0100	0.0000	0.0510

APPENDIX B (CONTINUED)
METHANE FLUX MEASUREMENTS
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES, INC. AND PETROX RESOURCES, INC.

Location	Site Point Identification	Northing	Easting	Date	CH4 Flux	H2S Flux	CO2 Flux	Pressure	Temperature (Degrees Celsius)	Date & Time of Measurement	CH4 Slope	H2S Slope	CO2 Slope
PG	pg72010_167_30072010	1203324.3410000	2459379.0240000	7/30/2010	0.0029	0.0022	0.1123	792.1	35.6	30-07-2010 09:02:08	0.0120	0.0090	0.4680
PG	pg72010_68_29072010	1203727.4350000	2457579.7320000	7/29/2010	0.0036	0.0005	0.2210	794.4	33.1	29-07-2010 08:23:49	0.0150	0.0020	0.9110
PG	pg72010_165_30072010	1203316.6620000	2458974.2470000	7/30/2010	0.0041	0.0012	0.1675	792.5	35.2	30-07-2010 08:57:35	0.0170	0.0050	0.6970
PG	pg72010_39_20072010	1205331.1550000	2455579.4520000	7/20/2010	0.0041	0.0005	0.1890	787.9	33.0	20-07-2010 09:34:10	0.0170	0.0020	0.7850
PG	pg72010_16_20072010	1206122.2280000	2455557.8570000	7/20/2010	0.0044	0.0051	0.1076	785.4	27.2	20-07-2010 08:26:21	0.0180	0.0210	0.4400
PG	pg72010_20_27072010	1203907.9510000	2456365.2680000	7/27/2010	0.0066	0.0002	0.0116	789.1	39.4	27-07-2010 12:05:56	0.0280	0.0010	0.0490
PG	pg72010_10_27072010	1204743.5090000	2457764.6220000	7/27/2010	0.0111	0.0000	0.1299	788.5	39.2	27-07-2010 11:15:43	0.0470	0.0000	0.5500
PG	pg72010_152_30072010	1203540.2750000	2459384.6550000	7/30/2010	0.0196	0.0005	0.0000	791.3	29.0	30-07-2010 08:22:22	0.0800	0.0020	-0.0060
PG	pg72010_55_29072010	1204114.6740000	2456971.0160000	7/29/2010	0.0212	0.0002	0.1818	793.5	27.3	29-07-2010 07:46:35	0.0860	0.0010	0.7360
PG	pg72010_13_27072010	1204510.9040000	2457372.3090000	7/27/2010	0.0376	0.0005	0.1070	788.9	39.2	27-07-2010 11:26:18	0.1590	0.0020	0.4530
PG	pg72010_16_27072010	1204327.7770000	2456768.8000000	7/27/2010	0.0474	0.0007	0.2432	788.6	39.5	27-07-2010 11:37:50	0.2010	0.0030	1.0310
PG	pg72010_15_27072010	1204543.7420000	2456954.6670000	7/27/2010	0.0578	0.0000	0.0000	788.9	39.4	27-07-2010 11:33:30	0.2450	-0.0010	-0.2160
PG	pg72010_51_29072010	1203548.6570000	2456778.8670000	7/29/2010	0.0970	0.0000	0.0299	793.0	26.5	29-07-2010 07:35:30	0.3920	-0.0040	0.1210
PG	pg72010_17_27072010	1204325.7370000	2456570.8470000	7/27/2010	0.1089	0.0019	0.0163	791.4	39.6	27-07-2010 11:40:00	0.4600	0.0080	0.0690
SC	sc80210_01_02082010	1186128.7900000	2466556.4150000	8/2/2010	0.0000	0.0026	0.0880	811.6	21.8	02-08-2010 09:25:03	0.0000	0.0100	0.3420
SC	sc80210_03_02082010	1186109.8370000	2466192.0450000	8/2/2010	0.0000	0.0005	0.5683	810.3	23.3	02-08-2010 09:30:34	0.0000	0.0020	2.2230
SC	sc80210_04_02082010	1186122.5710000	2465982.4000000	8/2/2010	0.0000	0.0013	0.1495	810.4	23.9	02-08-2010 09:33:06	0.0000	0.0050	0.5860
SC	sc80210_05_02082010	1186110.8410000	2466773.3040000	8/2/2010	0.0000	0.0028	0.0000	810.5	24.9	02-08-2010 09:38:29	-0.0170	0.0110	-0.9500
SC	sc80210_06_02082010	1186123.2680000	2466964.4660000	8/2/2010	0.0000	0.0033	0.2853	810.3	25.2	02-08-2010 09:40:51	0.0000	0.0130	1.1230
SC	sc80210_07_02082010	1186114.2680000	2467164.2510000	8/2/2010	0.0000	0.0031	0.1316	816.0	25.6	02-08-2010 09:43:28	0.0000	0.0120	0.5150
SC	sc80210_08_02082010	1186124.8240000	2467362.8920000	8/2/2010	0.0000	0.0025	0.1594	810.1	25.9	02-08-2010 09:45:55	0.0000	0.0100	0.6290
SC	sc80210_09_02082010	1186136.8800000	2467567.3480000	8/2/2010	0.0000	0.0056	0.1746	810.0	26.2	02-08-2010 09:49:13	0.0000	0.0220	0.6900
SC	sc80210_10_02082010	1185911.8370000	2467570.0340000	8/2/2010	0.0000	0.0018	0.1999	810.0	26.6	02-08-2010 09:51:53	0.0000	0.0070	0.7910
SC	sc80210_100_03082010	1185529.9050000	2469774.2650000	8/3/2010	0.0000	0.0015	0.0282	808.8	37.7	03-08-2010 12:01:05	0.0000	0.0060	0.1160
SC	sc80210_101_03082010	1185744.5880000	2469776.7180000	8/3/2010	0.0000	0.0017	0.5769	808.8	37.6	03-08-2010 12:04:59	0.0000	0.0070	2.3700
SC	sc80210_107_04082010	1184931.8590000	2468962.4130000	8/4/2010	0.0000	0.0013	0.0000	813.7	21.2	04-08-2010 07:48:59	0.0000	0.0050	-0.0380
SC	sc80210_108_04082010	1185128.4100000	2468976.6690000	8/4/2010	0.0000	0.0005	0.6912	813.7	21.7	04-08-2010 07:51:15	0.0000	0.0020	2.6780
SC	sc80210_11_02082010	1185915.0790000	2467360.3620000	8/2/2010	0.0000	0.0040	0.3958	811.1	26.8	02-08-2010 09:53:59	0.0000	0.0160	1.5650
SC	sc80210_12_02082010	1185912.5780000	2467180.9830000	8/2/2010	0.0000	0.0073	1.7161	811.2	27.0	02-08-2010 09:56:10	0.0000	0.0290	6.7890
SC	sc80210_13_02082010	1185915.2900000	2466981.5270000	8/2/2010	0.0000	0.0030	0.3247	811.1	27.3	02-08-2010 09:58:16	0.0000	0.0120	1.2860
SC	sc80210_18_02082010	1185728.0080000	2467370.6820000	8/2/2010	0.0000	0.0025	0.0000	811.4	32.5	02-08-2010 10:23:38	0.0000	0.0100	-0.7500
SC	sc80210_20_02082010	1185554.8680000	2467168.1520000	8/2/2010	0.0000	0.0022	0.0000	811.8	33.7	02-08-2010 10:35:26	-0.3300	0.0090	-0.6710
SC	sc80210_22_02082010	1185515.5420000	2467576.6350000	8/2/2010	0.0000	0.0022	0.2489	811.8	35.0	02-08-2010 10:46:39	0.0000	0.0090	1.0100
SC	sc80210_25_02082010	1185918.1580000	2467768.1280000	8/2/2010	0.0000	0.0029	0.1178	811.5	38.8	02-08-2010 11:37:04	-0.1520	0.0120	0.4840
SC	sc80210_28_02082010	1186518.6180000	2467796.3160000	8/2/2010	0.0000	0.0056	0.0391	812.2	39.3	02-08-2010 11:51:31	0.0000	0.0230	0.1610
SC	sc80210_29_02082010	1186706.6980000	2467773.4680000	8/2/2010	0.0000	0.0044	0.0883	808.3	39.3	02-08-2010 11:55:10	0.0000	0.0180	0.3650
SC	sc80210_31_02082010	1187112.7930000	2467753.1480000	8/2/2010	0.0000	0.0075	0.0273	806.3	39.4	02-08-2010 12:01:59	0.0000	0.0310	0.1130
SC	sc80210_33_02082010	1187492.0620000	2467771.3250000	8/2/2010	0.0000	0.0007	0.1258	805.7	39.6	02-08-2010 12:07:12	0.0000	0.0030	0.5220
SC	sc80210_34_02082010	1187720.2950000	2467948.7600000	8/2/2010	0.0000	0.0019	0.1416	804.8	39.9	02-08-2010 12:12:00	0.0000	0.0080	0.5890
SC	sc80210_35_02082010	1187527.4200000	2467967.2930000	8/2/2010	0.0000	0.0053	0.0632	802.4	40.2	02-08-2010 12:16:07	0.0000	0.0220	0.2640
SC	sc80210_36_02082010	1187333.3550000	2467976.3470000	8/2/2010	0.0000	0.0034	0.0000	803.3	40.3	02-08-2010 12:18:28	0.0000	0.0140	-0.2800
SC	sc80210_37_02082010	1187127.4630000	2467995.7670000	8/2/2010	0.0000	0.0154	0.0636	804.6	40.5	02-08-2010 12:20:52	0.0000	0.0640	0.2650
SC	sc80210_38_02082010	1186932.2960000	2467983.5630000	8/2/2010	0.0000	0.0031	0.1598	806.0	40.5	02-08-2010 12:23:14	0.0000	0.0130	0.6650
SC	sc80210_39_02082010	1186730.3980000	2467952.0400000	8/2/2010	0.0000	0.0055	0.0190	807.6	40.7	02-08-2010 12:26:55	0.0000	0.0230	0.0790
SC	sc80210_41_02082010	1186336.1590000	2467969.5180000	8/2/2010	0.0000	0.0037	0.0022	820.6	40.6	02-08-2010 12:35:04	0.0000	0.0150	0.0090

APPENDIX B (CONTINUED)
METHANE FLUX MEASUREMENTS
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES, INC. AND PETROX RESOURCES, INC.

Location	Site Point Identification	Northing	Easting	Date	CH4 Flux	H2S Flux	CO2 Flux	Pressure	Temperature (Degrees Celsius)	Date & Time of Measurement	CH4 Slope	H2S Slope	CO2 Slope
SC	sc80210_42_02082010	1186116.6780000	2467986.3050000	8/2/2010	0.0000	0.0041	0.0000	807.9	40.7	02-08-2010 12:37:47	0.0000	0.0170	-0.0800
SC	sc80210_44_03082010	1185755.6680000	2467990.8700000	8/3/2010	0.0000	0.0008	0.0000	813.7	21.6	03-08-2010 07:38:30	0.0000	0.0030	-0.3130
SC	sc80210_45_03082010	1185725.6070000	2468158.7220000	8/3/2010	0.0000	0.0000	0.8073	813.0	22.5	03-08-2010 07:41:47	0.0000	-0.0010	3.1390
SC	sc80210_46_03082010	1185934.3080000	2468179.4170000	8/3/2010	0.0000	0.0013	0.1521	817.9	23.0	03-08-2010 07:44:22	0.0000	0.0050	0.5890
SC	sc80210_47_03082010	1186134.9130000	2468177.4400000	8/3/2010	0.0000	0.0003	0.0423	812.2	23.5	03-08-2010 07:46:27	0.0000	0.0010	0.1650
SC	sc80210_48_03082010	1186335.6350000	2468175.5720000	8/3/2010	0.0000	0.0010	0.0000	812.0	23.8	03-08-2010 07:48:37	0.0000	0.0040	-0.1390
SC	sc80210_49_03082010	1186530.1930000	2468172.6840000	8/3/2010	0.0000	0.0005	0.0674	811.4	24.1	03-08-2010 07:50:35	0.0000	0.0020	0.2640
SC	sc80210_50_03082010	1186725.4620000	2468170.5700000	8/3/2010	0.0000	0.0010	0.0000	811.1	24.4	03-08-2010 07:52:49	0.0000	0.0040	-0.1540
SC	sc80210_51_03082010	1186935.1690000	2468170.3070000	8/3/2010	0.0000	0.0013	0.0305	810.4	24.6	03-08-2010 07:55:13	0.0000	0.0050	0.1200
SC	sc80210_53_03082010	1187319.1760000	2468163.6540000	8/3/2010	0.0000	0.0041	0.0000	808.4	25.1	03-08-2010 07:59:55	0.0000	0.0160	-0.1920
SC	sc80210_54_03082010	1187540.7820000	2468165.8670000	8/3/2010	0.0000	0.0023	0.0026	820.9	25.2	03-08-2010 08:02:40	0.0000	0.0090	0.0100
SC	sc80210_55_03082010	1187737.0680000	2468174.4800000	8/3/2010	0.0000	0.0025	0.0000	807.3	25.6	03-08-2010 08:05:11	0.0000	0.0100	-0.0700
SC	sc80210_56_03082010	1187907.0800000	2468167.0050000	8/3/2010	0.0000	0.0043	0.0000	807.1	25.9	03-08-2010 08:07:16	0.0000	0.0170	-2.2540
SC	sc80210_57_03082010	1187917.8520000	2468375.8820000	8/3/2010	0.0000	0.0048	0.0000	807.1	26.4	03-08-2010 08:10:10	0.0000	0.0190	-0.0490
SC	sc80210_58_03082010	1187716.4660000	2468382.7810000	8/3/2010	0.0000	0.0018	0.0378	809.3	27.0	03-08-2010 08:13:57	0.0000	0.0070	0.1500
SC	sc80210_59_03082010	1187524.7330000	2468377.7490000	8/3/2010	0.0000	0.0015	0.2169	808.6	27.4	03-08-2010 08:16:41	0.0000	0.0060	0.8620
SC	sc80210_60_03082010	1187322.0170000	2468377.8760000	8/3/2010	0.0000	0.0015	0.0000	808.6	27.8	03-08-2010 08:19:41	0.0000	0.0060	-0.4900
SC	sc80210_62_03082010	1187123.6880000	2468566.7210000	8/3/2010	0.0000	0.0013	0.1961	822.1	28.4	03-08-2010 08:26:07	0.0000	0.0050	0.7690
SC	sc80210_63_03082010	1187321.9710000	2468564.9010000	8/3/2010	0.0000	0.0015	0.0000	808.9	28.8	03-08-2010 08:29:10	0.0000	0.0060	-0.0160
SC	sc80210_66_03082010	1187720.3170000	2468765.2230000	8/3/2010	0.0000	0.0013	0.0386	810.7	29.7	03-08-2010 08:39:23	0.0000	0.0050	0.1540
SC	sc80210_67_03082010	1187906.1270000	2468776.4460000	8/3/2010	0.0000	0.0000	0.3555	811.1	29.9	03-08-2010 08:43:07	0.0000	0.0000	1.4200
SC	sc80210_72_03082010	1186921.3730000	2468758.5300000	8/3/2010	0.0000	0.0000	0.9770	809.7	31.8	03-08-2010 09:09:25	0.0000	0.0000	3.9340
SC	sc80210_74_03082010	1186913.2110000	2468376.7470000	8/3/2010	0.0000	0.0015	0.0000	808.9	32.6	03-08-2010 09:17:42	0.0000	0.0060	-0.7270
SC	sc80210_75_03082010	1186726.2140000	2468379.1410000	8/3/2010	0.0000	0.0044	0.0925	808.9	32.9	03-08-2010 09:21:07	0.0000	0.0180	0.3740
SC	sc80210_76_03082010	1186524.1200000	2468367.7880000	8/3/2010	0.0000	0.0027	0.0732	809.1	33.0	03-08-2010 09:23:53	0.0000	0.0110	0.2960
SC	sc80210_77_03082010	1186325.4580000	2468367.7670000	8/3/2010	0.0000	0.0042	0.0000	809.9	33.1	03-08-2010 09:26:17	0.0000	0.0170	-0.0110
SC	sc80210_78_03082010	1186129.5000000	2468371.5560000	8/3/2010	0.0000	0.0020	0.1061	824.7	33.0	03-08-2010 09:28:24	0.0000	0.0080	0.4210
SC	sc80210_79_03082010	1185931.3030000	2468361.4190000	8/3/2010	0.0000	0.0035	0.0000	811.5	33.1	03-08-2010 09:30:53	0.0000	0.0140	-0.0770
SC	sc80210_80_03082010	1185724.0210000	2468376.9050000	8/3/2010	0.0000	0.0042	0.0790	811.1	33.1	03-08-2010 09:33:28	0.0000	0.0170	0.3190
SC	sc80210_83_03082010	1185305.8140000	2468369.3140000	8/3/2010	0.0000	0.0079	0.0461	813.8	35.5	03-08-2010 10:28:09	-0.0160	0.0320	0.1870
SC	sc80210_84_03082010	1185514.3730000	2468375.2730000	8/3/2010	0.0000	0.0084	0.0273	812.9	35.6	03-08-2010 10:30:44	0.0000	0.0340	0.1110
SC	sc80210_85_03082010	1184913.9490000	2468788.8990000	8/3/2010	0.0000	0.0064	0.3428	812.0	36.8	03-08-2010 10:44:31	0.0000	0.0260	1.3990
SC	sc80210_86_03082010	1185331.9980000	2470358.5260000	8/3/2010	0.0000	0.0115	0.1754	813.4	37.9	03-08-2010 10:55:31	0.0000	0.0470	0.7170
SC	sc80210_87_03082010	1185540.0710000	2470368.6980000	8/3/2010	0.0000	0.0054	0.0073	810.0	38.0	03-08-2010 10:57:47	0.0000	0.0220	0.0300
SC	sc80210_88_03082010	1185721.7160000	2470352.4210000	8/3/2010	0.0000	0.0105	0.0338	809.6	38.2	03-08-2010 11:00:09	0.0000	0.0430	0.1390
SC	sc80210_89_03082010	1185920.8980000	2470194.1570000	8/3/2010	0.0000	0.0061	0.3158	809.4	38.7	03-08-2010 11:03:56	0.0000	0.0250	1.3010
SC	sc80210_95_03082010	1185512.0360000	2469571.8300000	8/3/2010	0.0000	0.0034	0.0000	810.0	38.2	03-08-2010 11:42:23	0.0000	0.0140	-0.0260
SC	sc80210_96_03082010	1185326.1980000	2469584.0950000	8/3/2010	0.0000	0.0017	0.0127	811.0	38.1	03-08-2010 11:46:04	0.0000	0.0070	0.0520
SC	sc80210_98_03082010	1185123.5660000	2469769.4760000	8/3/2010	0.0000	0.0017	0.0000	812.2	38.0	03-08-2010 11:53:17	0.0000	0.0070	-0.0560
SC	sc81810_01_18082010	1184925.2020000	2469178.4670000	8/18/2010	0.0000	0.0008	0.0096	812.6	18.5	18-08-2010 08:31:32	0.0000	0.0030	0.0370
SC	sc81810_02_18082010	1185120.4910000	2469175.2990000	8/18/2010	0.0000	0.0008	0.1734	812.6	19.6	18-08-2010 08:34:42	0.0000	0.0030	0.6680
SC	sc81810_03_18082010	1185120.1410000	2469373.8430000	8/18/2010	0.0000	0.0003	0.2438	812.7	20.6	18-08-2010 08:37:39	0.0000	0.0010	0.9420
SC	sc81810_05_18082010	1185520.0940000	2469369.0930000	8/18/2010	0.0000	0.0008	0.2198	812.3	22.4	18-08-2010 08:43:10	0.0000	0.0030	0.8550
SC	sc81810_06_18082010	1185721.5380000	2469380.2570000	8/18/2010	0.0000	0.0003	0.0328	812.3	23.2	18-08-2010 08:45:35	0.0000	0.0010	0.1280
SC	sc81810_07_18082010	1185919.4020000	2469371.4560000	8/18/2010	0.0000	0.0003	0.0350	811.5	23.9	18-08-2010 08:48:16	0.0000	0.0010	0.1370

APPENDIX B (CONTINUED)
METHANE FLUX MEASUREMENTS
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES, INC. AND PETROX RESOURCES, INC.

Location	Site Point Identification	Northing	Easting	Date	CH4 Flux	H2S Flux	CO2 Flux	Pressure	Temperature (Degrees Celsius)	Date & Time of Measurement	CH4 Slope	H2S Slope	CO2 Slope
SC	sc81810_08_18082010	1186118.9710000	2469372.0320000	8/18/2010	0.0000	0.0000	0.0173	810.7	24.5	18-08-2010 08:50:39	0.0000	-0.0010	0.0680
SC	sc81810_09_18082010	1186318.9920000	2469379.5980000	8/18/2010	0.0000	0.0003	0.0848	809.9	25.1	18-08-2010 08:53:03	0.0000	0.0010	0.3340
SC	sc81810_10_18082010	1186519.7170000	2469386.1330000	8/18/2010	0.0000	0.0003	0.0246	809.9	25.8	18-08-2010 08:56:01	-0.0300	0.0010	0.0970
SC	sc81810_11_18082010	1186715.7210000	2469377.5470000	8/18/2010	0.0000	0.0003	0.2160	809.9	26.4	18-08-2010 08:58:33	-0.0410	0.0010	0.8540
SC	sc81810_12_18082010	1186876.1900000	2469375.7850000	8/18/2010	0.0000	0.0005	0.1583	811.8	27.5	18-08-2010 09:02:55	0.0000	0.0020	0.6270
SC	sc81810_13_18082010	1186672.2820000	2469169.2710000	8/18/2010	0.0000	0.0000	0.1644	812.3	28.1	18-08-2010 09:05:45	0.0000	0.0000	0.6520
SC	sc81810_14_18082010	1186516.1080000	2469172.6270000	8/18/2010	0.0000	0.0008	0.2964	812.5	28.6	18-08-2010 09:07:54	0.0000	0.0030	1.1770
SC	sc81810_15_18082010	1186315.5960000	2469177.0930000	8/18/2010	0.0000	0.0000	0.0583	812.6	29.1	18-08-2010 09:10:26	0.0000	0.0000	0.2320
SC	sc81810_16_18082010	1186120.1930000	2469165.0710000	8/18/2010	0.0000	0.0008	0.1517	811.5	29.6	18-08-2010 09:12:42	0.0000	0.0030	0.6050
SC	sc81810_18_18082010	1185720.1390000	2469172.3250000	8/18/2010	0.0000	0.0013	0.2225	812.5	30.5	18-08-2010 09:16:51	-0.3270	0.0050	0.8890
SC	sc81810_19_18082010	1185517.2030000	2469177.7950000	8/18/2010	0.0000	0.0003	0.1783	812.5	30.8	18-08-2010 09:19:02	0.0000	0.0010	0.7130
SC	sc81810_20_18082010	1185325.2040000	2469173.8470000	8/18/2010	0.0000	0.0010	0.2624	812.5	31.2	18-08-2010 09:21:09	0.0000	0.0040	1.0510
SC	sc81810_21_18082010	1185327.3480000	2468984.7410000	8/18/2010	0.0000	0.0017	0.2065	812.5	31.5	18-08-2010 09:23:09	0.0000	0.0070	0.8280
SC	sc81810_22_18082010	1185522.0300000	2468977.1240000	8/18/2010	0.0000	0.0020	0.6299	812.6	32.1	18-08-2010 09:26:21	0.0000	0.0080	2.5300
SC	sc81810_23_18082010	1185724.5620000	2468969.9170000	8/18/2010	0.0000	0.0015	0.4046	812.7	32.5	18-08-2010 09:28:34	0.0000	0.0060	1.6270
SC	sc81810_24_18082010	1185930.2040000	2468976.9070000	8/18/2010	0.0000	0.0015	0.4552	812.7	32.8	18-08-2010 09:30:26	0.0000	0.0060	1.8320
SC	sc81810_25_18082010	1186121.1820000	2468971.1540000	8/18/2010	0.0000	0.0002	0.2848	812.7	33.2	18-08-2010 09:32:15	0.0000	0.0010	1.1480
SC	sc81810_27_18082010	1186107.9730000	2468776.3400000	8/18/2010	0.0000	0.0002	0.1839	812.3	34.2	18-08-2010 09:38:40	0.0000	0.0010	0.7440
SC	sc81810_28_18082010	1185918.6980000	2468775.8910000	8/18/2010	0.0000	0.0007	0.4299	812.5	34.4	18-08-2010 09:40:38	-0.0750	0.0030	1.7400
SC	sc81810_29_18082010	1185716.3750000	2468783.5960000	8/18/2010	0.0000	0.0010	0.1073	823.6	34.8	18-08-2010 09:42:34	0.0000	0.0040	0.4290
SC	sc81810_30_18082010	1185523.4620000	2468774.5890000	8/18/2010	0.0000	0.0017	0.3169	812.5	35.0	18-08-2010 09:44:26	0.0000	0.0070	1.2850
SC	sc81810_31_18082010	1185314.9170000	2468775.9690000	8/18/2010	0.0000	0.0015	0.3811	812.5	35.3	18-08-2010 09:46:19	0.0000	0.0060	1.5470
SC	sc81810_32_18082010	1185112.6290000	2468760.9880000	8/18/2010	0.0000	0.0012	0.1226	812.5	35.5	18-08-2010 09:48:15	0.0000	0.0050	0.4980
SC	sc81810_33_18082010	1185518.4160000	2468586.2110000	8/18/2010	0.0000	0.0000	0.0582	812.5	36.1	18-08-2010 09:53:10	0.0000	-0.0010	0.2370
SC	sc81810_34_18082010	1185712.1640000	2468577.0540000	8/18/2010	0.0000	0.0025	0.3497	812.3	36.4	18-08-2010 09:55:04	0.0000	0.0100	1.4250
SC	sc81810_36_18082010	1184924.8330000	2468573.0340000	8/18/2010	0.0000	0.0012	0.1414	812.3	37.5	18-08-2010 10:02:41	0.0000	0.0050	0.5780
SC	sc81810_37_18082010	1184924.9280000	2468381.6210000	8/18/2010	0.0000	0.0005	0.0611	812.5	37.9	18-08-2010 10:06:09	0.0000	0.0020	0.2500
SC	sc81810_38_18082010	1185134.9010000	2470182.7990000	8/18/2010	0.0000	0.0012	0.0000	808.3	41.8	18-08-2010 11:01:47	0.0000	0.0050	-0.0240
SC	sc81810_39_18082010	1185310.6550000	2470165.0530000	8/18/2010	0.0000	0.0010	0.0853	808.3	42.2	18-08-2010 11:05:27	0.0000	0.0040	0.3560
SC	sc81810_40_18082010	1185513.1330000	2470167.7610000	8/18/2010	0.0000	0.0005	0.0000	807.5	42.6	18-08-2010 11:09:19	0.0000	0.0020	-0.0370
SC	sc81810_41_18082010	1185710.1880000	2470170.7070000	8/18/2010	0.0000	0.0005	0.0246	806.6	42.9	18-08-2010 11:13:44	0.0000	0.0020	0.1030
SC	sc81810_42_18082010	1185737.0540000	2469982.8850000	8/18/2010	0.0000	0.0000	0.0565	806.6	43.2	18-08-2010 11:16:42	0.0000	-0.0030	0.2370
SC	sc81810_43_18082010	1185524.8420000	2469958.3500000	8/18/2010	0.0000	0.0005	0.1175	818.4	43.4	18-08-2010 11:19:15	0.0000	0.0020	0.4860
SC	sc81810_44_18082010	1185312.8170000	2469966.7770000	8/18/2010	0.0000	0.0002	0.0064	806.6	43.5	18-08-2010 11:22:31	0.0000	0.0010	0.0270
SC	sc81810_45_18082010	1185118.9100000	2469971.1380000	8/18/2010	0.0000	0.0014	0.0021	808.4	43.6	18-08-2010 11:25:36	0.0000	0.0060	0.0090
SC	sc81810_46_18082010	1184918.7940000	2469969.3230000	8/18/2010	0.0000	0.0000	0.0453	808.4	43.7	18-08-2010 11:28:37	0.0000	-0.0020	0.1900
SC	sc81810_47_18082010	1184929.3400000	2469780.6510000	8/18/2010	0.0000	0.0000	0.0000	808.6	43.7	18-08-2010 11:31:06	0.0000	-0.0040	-0.0480
SC	sc81810_48_18082010	1186130.8300000	2468571.9090000	8/18/2010	0.0000	0.0000	0.0165	810.0	44.2	18-08-2010 11:46:35	0.0000	-0.0150	0.0690
SC	sc81810_49_18082010	1186318.2860000	2468582.1110000	8/18/2010	0.0000	0.0000	0.0115	810.2	44.4	18-08-2010 11:49:05	0.0000	-0.0050	0.0480
SC	sc81810_50_18082010	1186521.6860000	2468575.6140000	8/18/2010	0.0000	0.0000	0.0000	809.1	44.6	18-08-2010 11:51:18	0.0000	-0.0040	-0.0080
SC	sc81810_51_18082010	1186721.8720000	2468577.8040000	8/18/2010	0.0000	0.0000	0.1796	808.5	44.7	18-08-2010 11:53:34	0.0000	-0.0050	0.7550
SC	sc81810_52_18082010	1186730.6610000	2468777.9810000	8/18/2010	0.0000	0.0000	0.1356	807.3	44.9	18-08-2010 11:55:29	0.0000	-0.0030	0.5710
SC	sc81810_53_18082010	1186716.7220000	2468973.1720000	8/18/2010	0.0000	0.0019	0.0102	809.1	45.0	18-08-2010 11:57:32	0.0000	0.0080	0.0430
SC	sc81810_54_18082010	1186925.3360000	2468971.9180000	8/18/2010	0.0000	0.0012	0.0400	810.1	45.2	18-08-2010 11:59:53	-0.0090	0.0050	0.1680
SC	sc81810_55_18082010	1187127.2840000	2468962.1600000	8/18/2010	0.0000	0.0002	0.1525	809.0	45.3	18-08-2010 12:02:03	-0.0320	0.0010	0.6420

APPENDIX B (CONTINUED)
METHANE FLUX MEASUREMENTS
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES, INC. AND PETROX RESOURCES, INC.

Location	Site Point Identification	Northing	Easting	Date	CH4 Flux	H2S Flux	CO2 Flux	Pressure	Temperature (Degrees Celsius)	Date & Time of Measurement	CH4 Slope	H2S Slope	CO2 Slope
SC	sc81810_56_18082010	1187323.0660000	2468968.9840000	8/18/2010	0.0000	0.0000	0.0650	808.7	45.5	18-08-2010 12:04:15	-0.0070	-0.0020	0.2740
SC	sc81810_57_18082010	1187529.7880000	2468968.6590000	8/18/2010	0.0000	0.0002	0.0000	809.4	45.6	18-08-2010 12:06:54	-0.4410	0.0010	-0.0200
SC	sc81810_58_18082010	1187715.2680000	2468979.3850000	8/18/2010	0.0000	0.0012	0.0088	808.7	45.8	18-08-2010 12:09:33	-0.0130	0.0050	0.0370
SC	sc81810_59_18082010	1187922.4210000	2468969.2540000	8/18/2010	0.0000	0.0000	0.0199	807.9	45.9	18-08-2010 12:12:10	0.0000	0.0000	0.0840
SC	sc81810_60_18082010	1187925.4800000	2469173.1780000	8/18/2010	0.0000	0.0009	0.0220	807.0	46.1	18-08-2010 12:15:42	0.0000	0.0040	0.0930
SC	sc81810_61_18082010	1187721.0810000	2469172.8860000	8/18/2010	0.0000	0.0000	0.0420	806.6	46.3	18-08-2010 12:17:57	0.0000	-0.0040	0.1780
SC	sc81810_62_18082010	1187529.2830000	2469169.4370000	8/18/2010	0.0000	0.0000	0.0000	807.0	46.4	18-08-2010 12:20:33	0.0000	-0.0060	-0.0460
SC	sc81810_63_18082010	1187344.1660000	2469177.1180000	8/18/2010	0.0000	0.0000	0.0156	807.5	46.5	18-08-2010 12:23:07	0.0000	-0.0050	0.0660
SC	sc81810_64_18082010	1187088.5690000	2469195.5870000	8/18/2010	0.0000	0.0000	0.0421	809.0	46.5	18-08-2010 12:26:06	0.0000	-0.0060	0.1780
SC	sc81810_65_18082010	1186915.2560000	2469172.0920000	8/18/2010	0.0000	0.0009	0.2922	810.2	46.6	18-08-2010 12:28:38	0.0000	0.0040	1.2330
SC	sc81810_66_18082010	1186521.2120000	2468996.2210000	8/18/2010	0.0000	0.0036	0.4593	810.3	46.6	18-08-2010 12:32:09	0.0000	0.0150	1.9380
SC	sc81810_67_18082010	1186514.0960000	2468774.9810000	8/18/2010	0.0000	0.0007	0.0474	811.0	46.7	18-08-2010 12:35:28	0.0000	0.0030	0.2000
SC	sc81810_68_18082010	1186333.2590000	2468775.7800000	8/18/2010	0.0000	0.0000	0.0639	809.4	46.7	18-08-2010 12:37:37	0.0000	-0.0030	0.2700
SC	sc80210_52_03082010	1187142.4690000	2468179.1560000	8/3/2010	0.0003	0.0018	0.0208	809.7	24.9	03-08-2010 07:57:39	0.0010	0.0070	0.0820
SC	sc80210_02_02082010	1186132.9300000	2466380.6500000	8/2/2010	0.0003	0.0021	0.0706	811.6	22.6	02-08-2010 09:27:46	0.0010	0.0080	0.2750
SC	sc81810_04_18082010	1185331.5460000	2469372.2990000	8/18/2010	0.0003	0.0003	0.0691	812.3	21.7	18-08-2010 08:40:48	0.0010	0.0010	0.2680
SC	sc80210_30_02082010	1186932.3150000	2467751.7490000	8/2/2010	0.0007	0.0044	0.0660	808.1	39.3	02-08-2010 11:59:04	0.0030	0.0180	0.2730
SC	sc80210_104_03082010	1186320.3320000	2469769.3150000	8/3/2010	0.0029	0.0015	0.0588	807.0	37.4	03-08-2010 12:14:45	0.0120	0.0060	0.2420
SC	sc81810_17_18082010	1185917.9630000	2469177.1330000	8/18/2010	0.0035	0.0005	0.0626	812.3	30.1	18-08-2010 09:14:55	0.0140	0.0020	0.2500
SC	sc81810_26_18082010	1186333.9630000	2468973.2850000	8/18/2010	0.0045	0.0002	0.0713	812.3	33.6	18-08-2010 09:35:31	0.0180	0.0010	0.2880
SC	sc80210_90_03082010	1186510.7200000	2469576.4770000	8/3/2010	0.0046	0.0019	0.1490	809.0	39.7	03-08-2010 11:21:26	0.0190	0.0080	0.6160
SC	sc80210_64_03082010	1187518.5730000	2468581.1530000	8/3/2010	0.0048	0.0015	0.0000	809.7	29.1	03-08-2010 08:32:30	0.0190	0.0060	-0.2030
SC	sc80210_43_02082010	1185922.4740000	2467968.9060000	8/2/2010	0.0053	0.0058	0.0000	808.5	40.8	02-08-2010 12:40:33	0.0220	0.0240	-0.1630
SC	sc80210_106_03082010	1185928.2380000	2469970.8660000	8/3/2010	0.0073	0.0010	0.1362	807.0	37.7	03-08-2010 12:23:03	0.0300	0.0040	0.5610
SC	sc80210_23_02082010	1185729.5900000	2467771.1020000	8/2/2010	0.0173	0.0010	0.0000	812.0	38.1	02-08-2010 11:26:13	0.0710	0.0040	-0.3490
SC	sc80210_17_02082010	1185722.9260000	2467175.1120000	8/2/2010	0.0186	0.0027	0.6743	811.2	32.0	02-08-2010 10:20:15	0.0750	0.0110	2.7120
SC	sc80210_70_03082010	1187323.9660000	2468791.3780000	8/3/2010	0.0304	0.0007	0.0842	810.3	31.1	03-08-2010 08:59:04	0.1220	0.0030	0.3380
SC	sc80210_16_02082010	1185717.8830000	2466966.4020000	8/2/2010	0.0311	0.0015	0.2062	810.8	31.4	02-08-2010 10:16:58	0.1250	0.0060	0.8280
SC	sc80210_91_03082010	1186312.1290000	2469592.8410000	8/3/2010	0.0319	0.0017	0.0000	808.7	39.4	03-08-2010 11:25:35	0.1320	0.0070	-0.0330
SC	sc80210_97_03082010	1185136.6290000	2469571.4640000	8/3/2010	0.0327	0.0012	0.0312	811.1	38.0	03-08-2010 11:49:48	0.1340	0.0050	0.1280
SC	sc80210_105_03082010	1186123.1350000	2469973.0750000	8/3/2010	0.0335	0.0034	1.0050	806.9	37.5	03-08-2010 12:18:18	0.1380	0.0140	4.1370
SC	sc80210_26_02082010	1186124.7540000	2467772.2200000	8/2/2010	0.0365	0.0034	0.1401	811.5	38.9	02-08-2010 11:40:59	0.1500	0.0140	0.5760
SC	sc80210_102_03082010	1185933.0360000	2469766.6700000	8/3/2010	0.0387	0.0022	0.2800	807.7	37.4	03-08-2010 12:08:31	0.1590	0.0090	1.1510
SC	sc80210_71_03082010	1187121.4880000	2468781.1670000	8/3/2010	0.0413	0.0005	0.0294	810.3	31.4	03-08-2010 09:03:58	0.1660	0.0020	0.1180
SC	sc80210_27_02082010	1186325.0140000	2467771.5110000	8/2/2010	0.0457	0.0007	0.1963	812.2	39.1	02-08-2010 11:45:46	0.1880	0.0030	0.8070
SC	sc80210_65_03082010	1187521.6980000	2468761.1390000	8/3/2010	0.0518	0.0008	0.0088	809.7	29.4	03-08-2010 08:35:51	0.2070	0.0030	0.0350
SC	sc80210_93_03082010	1185926.0200000	2469583.4870000	8/3/2010	0.0540	0.0007	0.1473	807.7	38.7	03-08-2010 11:35:23	0.2230	0.0030	0.6080
SC	sc80210_94_03082010	1185731.5310000	2469576.6870000	8/3/2010	0.0563	0.0019	0.0000	807.7	38.4	03-08-2010 11:39:22	0.2320	0.0080	-0.0950
SC	sc80210_73_03082010	1186916.6200000	2468583.4850000	8/3/2010	0.0590	0.0015	0.0000	810.0	32.2	03-08-2010 09:13:25	0.2380	0.0060	-2.6280
SC	sc80210_14_02082010	1185912.5210000	2466774.0540000	8/2/2010	0.0598	0.0068	0.1248	811.0	27.6	02-08-2010 10:00:40	0.2370	0.0270	0.4950
SC	sc80210_69_03082010	1187716.3270000	2468585.3850000	8/3/2010	0.0604	0.0002	0.0459	810.3	30.5	03-08-2010 08:52:43	0.2420	0.0010	0.1840
SC	sc80210_81_03082010	1185530.5870000	2468185.3020000	8/3/2010	0.0621	0.0044	0.0000	812.0	35.0	03-08-2010 10:18:15	0.2520	0.0180	-0.2470
SC	sc80210_24_02082010	1185537.6370000	2467771.3350000	8/2/2010	0.0627	0.0046	0.3158	812.0	38.3	02-08-2010 11:30:23	0.2570	0.0190	1.2950
SC	sc80210_40_02082010	1186532.4750000	2467972.6870000	8/2/2010	0.0635	0.0065	0.0838	807.7	40.7	02-08-2010 12:31:22	0.2640	0.0270	0.3480
SC	sc80210_32_02082010	1187300.1010000	2467770.7600000	8/2/2010	0.0647	0.0051	0.1338	806.8	39.4	02-08-2010 12:04:33	0.2680	0.0210	0.5540

APPENDIX B (CONTINUED)
METHANE FLUX MEASUREMENTS
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES, INC. AND PETROX RESOURCES, INC.

Location	Site Point Identification	Northing	Easting	Date	CH4 Flux	H2S Flux	CO2 Flux	Pressure	Temperature (Degrees Celsius)	Date & Time of Measurement	CH4 Slope	H2S Slope	CO2 Slope
SC	sc80210_61_03082010	1187120.9010000	2468378.4740000	8/3/2010	0.0665	0.0013	0.0000	808.8	28.2	03-08-2010 08:22:47	0.2650	0.0050	-0.3200
SC	sc80210_68_03082010	1187904.6800000	2468569.9120000	8/3/2010	0.0677	0.0005	0.0000	811.1	30.3	03-08-2010 08:48:53	0.2710	0.0020	-0.1970
SC	sc80210_19_02082010	1185713.7610000	2467578.6490000	8/2/2010	0.0719	0.0040	0.0000	811.4	32.8	02-08-2010 10:26:42	0.2900	0.0160	-0.0550
SC	sc80210_99_03082010	1185317.8730000	2469778.9140000	8/3/2010	0.0787	0.0002	0.0007	810.7	37.9	03-08-2010 11:57:04	0.3230	0.0010	0.0030
SC	sc80210_21_02082010	1185517.7700000	2467363.0830000	8/2/2010	0.0933	0.0005	0.4821	811.8	34.6	02-08-2010 10:42:30	0.3780	0.0020	1.9540
SC	sc80210_15_02082010	1185923.2080000	2466574.7060000	8/2/2010	0.0946	0.0015	0.1694	811.4	28.4	02-08-2010 10:05:01	0.3760	0.0060	0.6730
SC	sc80210_82_03082010	1185336.9770000	2468562.5550000	8/3/2010	0.1211	0.0113	0.0049	813.3	35.2	03-08-2010 10:23:21	0.4910	0.0460	0.0200
SC	sc80210_92_03082010	1186124.2020000	2469587.7420000	8/3/2010	0.1350	0.0015	0.0944	807.7	39.1	03-08-2010 11:29:26	0.5580	0.0060	0.3900
SC	sc80210_103_03082010	1186134.7380000	2469788.9110000	8/3/2010	0.1471	0.0017	0.2348	806.9	37.3	03-08-2010 12:11:32	0.6050	0.0070	0.9660
SC	sc81810_35_18082010	1185917.3490000	2468590.0950000	8/18/2010	0.1493	0.0005	0.1206	812.3	36.7	18-08-2010 09:57:07	0.6090	0.0020	0.4920
YJP	yjp071910_01_19072010	1215751.1640000	2436014.8390000	7/19/2010	0.0000	0.0017	0.1199	780.3	27.0	19-07-2010 09:16:49	0.0000	0.0070	0.4930
YJP	yjp071910_02_19072010	1215488.3230000	2436009.0440000	7/19/2010	0.0000	0.0000	0.0986	780.3	28.9	19-07-2010 09:25:49	0.0000	-0.0030	0.4080
YJP	yjp071910_03_19072010	1215138.5910000	2435937.8740000	7/19/2010	0.0000	0.0000	0.1125	782.5	31.2	19-07-2010 09:40:21	0.0000	0.0000	0.4680
YJP	yjp071910_04_19072010	1215104.5670000	2436158.9930000	7/19/2010	0.0000	0.0000	0.1051	781.1	32.1	19-07-2010 09:47:26	0.0000	-0.0010	0.4390
YJP	yjp071910_05_19072010	1214919.7920000	2436150.6920000	7/19/2010	0.0000	0.0000	0.1135	778.2	32.7	19-07-2010 09:52:33	0.0000	-0.0010	0.4770
YJP	yjp071910_06_19072010	1214869.4800000	2436388.3800000	7/19/2010	0.0000	0.0000	0.0511	777.5	34.1	19-07-2010 10:05:49	0.0000	-0.0010	0.2160
YJP	yjp071910_08_19072010	1214666.5330000	2436587.4930000	7/19/2010	0.0000	0.0000	0.0000	778.0	35.0	19-07-2010 10:17:22	0.0000	-0.0020	-0.0640
YJP	yjp071910_09_19072010	1214548.1940000	2436563.5660000	7/19/2010	0.0000	0.0000	0.0417	777.4	35.7	19-07-2010 10:28:11	0.0000	0.0000	0.1770
YJP	yjp071910_10_19072010	1214293.4570000	2436576.8680000	7/19/2010	0.0000	0.0000	0.1523	778.4	36.1	19-07-2010 10:33:10	-0.0150	-0.0010	0.6470
YJP	yjp071910_101_23072010	1214727.5610000	2437972.1510000	7/23/2010	0.0000	0.0000	0.0000	776.1	26.1	23-07-2010 07:55:21	-0.0040	-0.0050	-0.0810
YJP	yjp071910_103_23072010	1214537.9520000	2437785.5410000	7/23/2010	0.0000	0.0000	0.1227	778.6	26.5	23-07-2010 08:09:32	-0.0480	-0.0050	0.5050
YJP	yjp071910_104_23072010	1214745.0080000	2437794.0540000	7/23/2010	0.0000	0.0000	0.0000	778.6	26.6	23-07-2010 08:15:14	-0.0490	-0.0050	-0.1070
YJP	yjp071910_105_23072010	1214926.4670000	2437789.3990000	7/23/2010	0.0000	0.0000	0.2212	778.6	26.8	23-07-2010 08:20:39	-0.0050	-0.0050	0.9110
YJP	yjp071910_106_23072010	1215141.5120000	2437755.7610000	7/23/2010	0.0000	0.0000	0.0155	777.3	26.9	23-07-2010 08:26:14	-0.1240	-0.0060	0.0640
YJP	yjp071910_107_23072010	1215338.0680000	2437554.6420000	7/23/2010	0.0000	0.0000	0.2009	775.9	27.0	23-07-2010 08:33:01	-0.1720	-0.0060	0.8310
YJP	yjp071910_108_23072010	1215514.3950000	2437350.5280000	7/23/2010	0.0000	0.0000	0.0000	775.5	27.1	23-07-2010 08:41:37	-0.0600	-0.0050	-0.4160
YJP	yjp071910_109_23072010	1215543.8210000	2437171.0170000	7/23/2010	0.0000	0.0000	0.0828	775.1	27.2	23-07-2010 08:47:49	-0.3610	-0.0040	0.3430
YJP	yjp071910_11_19072010	1214130.6590000	2436549.7530000	7/19/2010	0.0000	0.0005	0.0273	777.8	36.5	19-07-2010 10:37:02	0.0000	0.0020	0.1160
YJP	yjp071910_110_23072010	1215534.8690000	2436972.8190000	7/23/2010	0.0000	0.0000	0.5066	774.9	27.4	23-07-2010 08:52:33	-0.6730	-0.0030	2.1010
YJP	yjp071910_111_23072010	1215747.5370000	2436779.4630000	7/23/2010	0.0000	0.0000	0.1100	776.3	27.8	23-07-2010 09:00:31	-0.1310	-0.0060	0.4560
YJP	yjp071910_112_23072010	1215731.5300000	2436547.8020000	7/23/2010	0.0000	0.0000	0.1171	776.2	28.2	23-07-2010 09:20:33	-0.0120	-0.0030	0.4860
YJP	yjp071910_113_23072010	1215561.8250000	2436576.4820000	7/23/2010	0.0000	0.0000	0.0000	778.5	28.3	23-07-2010 09:25:37	-0.3340	-0.0060	-1.2650
YJP	yjp071910_114_23072010	1215525.4740000	2436780.5860000	7/23/2010	0.0000	0.0000	0.0000	777.4	28.3	23-07-2010 09:33:29	-0.4580	-0.0080	-0.3260
YJP	yjp071910_115_23072010	1215293.9540000	2436777.4500000	7/23/2010	0.0000	0.0000	0.0000	776.9	28.5	23-07-2010 09:37:50	-0.7700	-0.0030	-2.9120
YJP	yjp071910_116_23072010	1215128.9920000	2436765.7710000	7/23/2010	0.0000	0.0000	3.8015	779.2	28.7	23-07-2010 09:45:07	-0.0350	-0.0030	15.7450
YJP	yjp071910_117_23072010	1215121.6000000	2436968.8370000	7/23/2010	0.0000	0.0000	0.0427	779.2	28.9	23-07-2010 09:50:22	-0.0090	-0.0070	0.1770
YJP	yjp071910_119_23072010	1215311.1010000	2437154.1270000	7/23/2010	0.0000	0.0000	0.0000	777.8	29.3	23-07-2010 10:01:53	0.0000	-0.0060	-0.0060
YJP	yjp071910_12_19072010	1213926.0710000	2436557.7880000	7/19/2010	0.0000	0.0000	0.4678	777.4	36.8	19-07-2010 10:40:25	-0.0210	-0.0020	1.9940
YJP	yjp071910_120_23072010	1215319.4150000	2437354.2060000	7/23/2010	0.0000	0.0000	0.0558	777.8	29.5	23-07-2010 10:15:22	0.0000	0.0000	0.2320
YJP	yjp071910_121_23072010	1215112.2790000	2437577.6540000	7/23/2010	0.0000	0.0000	0.0274	777.8	29.7	23-07-2010 10:21:44	0.0000	-0.0070	0.1140
YJP	yjp071910_122_23072010	1215132.2090000	2437375.1740000	7/23/2010	0.0000	0.0000	0.0096	779.0	29.8	23-07-2010 10:26:32	0.0000	-0.0060	0.0400
YJP	yjp071910_123_23072010	1215119.0680000	2437183.8520000	7/23/2010	0.0000	0.0000	0.0959	779.0	29.9	23-07-2010 10:32:09	0.0000	-0.0070	0.3990
YJP	yjp071910_124_23072010	1214935.3440000	2436982.6600000	7/23/2010	0.0000	0.0000	0.0101	780.0	30.3	23-07-2010 10:38:47	0.0000	-0.0060	0.0420
YJP	yjp071910_125_23072010	1214916.3320000	2437180.9140000	7/23/2010	0.0000	0.0000	0.2269	780.4	30.5	23-07-2010 10:42:03	0.0000	-0.0030	0.9440
YJP	yjp071910_126_23072010	1214926.8430000	2437373.9630000	7/23/2010	0.0000	0.0000	0.0000	780.0	30.7	23-07-2010 10:47:01	0.0000	-0.0060	-0.0060

APPENDIX B (CONTINUED)
METHANE FLUX MEASUREMENTS
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES, INC. AND PETROX RESOURCES, INC.

Location	Site Point Identification	Northing	Easting	Date	CH4 Flux	H2S Flux	CO2 Flux	Pressure	Temperature (Degrees Celsius)	Date & Time of Measurement	CH4 Slope	H2S Slope	CO2 Slope
YJP	yjp071910_127_23072010	1214913.5990000	2437569.1700000	7/23/2010	0.0000	0.0000	0.1863	780.0	31.1	23-07-2010 10:52:10	0.0000	-0.0070	0.7770
YJP	yjp071910_128_23072010	1214732.8290000	2437579.8670000	7/23/2010	0.0000	0.0000	0.1576	778.6	31.4	23-07-2010 10:56:33	0.0000	-0.0060	0.6590
YJP	yjp071910_129_23072010	1214736.8800000	2437368.6170000	7/23/2010	0.0000	0.0000	0.0062	779.2	32.1	23-07-2010 11:09:32	-0.0410	-0.0090	0.0260
YJP	yjp071910_130_23072010	1214711.8000000	2437170.5140000	7/23/2010	0.0000	0.0000	0.6663	780.5	32.4	23-07-2010 11:12:46	-0.0200	-0.0040	2.7890
YJP	yjp071910_131_23072010	1214724.1300000	2436984.5090000	7/23/2010	0.0000	0.0000	0.4223	784.3	32.9	23-07-2010 11:19:36	-0.6230	-0.0100	1.7620
YJP	yjp071910_132_23072010	1214504.9780000	2436965.0310000	7/23/2010	0.0000	0.0000	0.2528	780.6	33.3	23-07-2010 11:27:35	-0.5700	-0.0050	1.0610
YJP	yjp071910_133_23072010	1214325.7590000	2436966.6410000	7/23/2010	0.0000	0.0000	0.6294	779.2	33.6	23-07-2010 11:32:59	-1.2710	-0.0060	2.6490
YJP	yjp071910_134_23072010	1214318.2450000	2437187.3380000	7/23/2010	0.0000	0.0000	0.1801	778.6	33.7	23-07-2010 11:37:27	0.0000	0.0000	0.7590
YJP	yjp071910_136_23072010	1214519.4550000	2437398.9240000	7/23/2010	0.0000	0.0000	0.0920	781.6	34.4	23-07-2010 11:50:13	0.0000	-0.0050	0.3870
YJP	yjp071910_137_23072010	1214520.1580000	2437579.8760000	7/23/2010	0.0000	0.0012	0.0000	781.1	34.5	23-07-2010 11:53:16	0.0000	0.0050	-0.1510
YJP	yjp071910_14_19072010	1213724.3440000	2436774.2140000	7/19/2010	0.0000	0.0000	0.0066	781.1	37.8	19-07-2010 10:54:27	-0.0030	-0.0010	0.0280
YJP	yjp071910_140_23072010	1214101.7750000	2437575.4750000	7/23/2010	0.0000	0.0026	0.3178	782.3	35.4	23-07-2010 12:05:28	-0.1870	0.0110	1.3400
YJP	yjp071910_141_23072010	1214155.7760000	2437756.6300000	7/23/2010	0.0000	0.0000	0.0000	782.1	35.9	23-07-2010 12:11:28	0.0000	-0.0020	-0.0140
YJP	yjp071910_142_23072010	1214325.9830000	2437780.9710000	7/23/2010	0.0000	0.0005	0.0371	782.1	36.2	23-07-2010 12:15:27	0.0000	0.0020	0.1570
YJP	yjp071910_143_23072010	1214297.8130000	2437971.0170000	7/23/2010	0.0000	0.0000	0.0000	780.9	36.3	23-07-2010 12:18:25	0.0000	-0.0050	-0.0150
YJP	yjp071910_144_23072010	1214155.3220000	2437972.6140000	7/23/2010	0.0000	0.0000	0.0205	781.5	36.5	23-07-2010 12:21:53	0.0000	-0.0020	0.0870
YJP	yjp071910_145_23072010	1214131.8140000	2438133.9640000	7/23/2010	0.0000	0.0005	0.5542	782.3	36.7	23-07-2010 12:26:48	0.0000	0.0020	2.3470
YJP	yjp071910_146_26072010	1213719.8410000	2439143.5630000	7/26/2010	0.0000	0.0005	0.2327	785.0	21.5	26-07-2010 08:11:37	0.0000	0.0020	0.9340
YJP	yjp071910_147_26072010	1213529.8400000	2439148.3440000	7/26/2010	0.0000	0.0010	0.4606	785.0	22.7	26-07-2010 08:15:32	0.0000	0.0040	1.8560
YJP	yjp071910_148_26072010	1213483.5750000	2438994.9650000	7/26/2010	0.0000	0.0010	0.2287	785.1	23.8	26-07-2010 08:20:22	0.0000	0.0040	0.9250
YJP	yjp071910_149_26072010	1213706.6780000	2438968.2310000	7/26/2010	0.0000	0.0010	0.2832	785.5	24.4	26-07-2010 08:23:40	0.0000	0.0040	1.1470
YJP	yjp071910_15_19072010	1213737.0640000	2436961.1090000	7/19/2010	0.0000	0.0002	0.0002	781.1	38.5	19-07-2010 11:03:24	-0.0160	0.0010	0.0010
YJP	yjp071910_150_26072010	1213928.6780000	2439002.4970000	7/26/2010	0.0000	0.0017	0.4600	785.0	25.0	26-07-2010 08:27:43	-0.0330	0.0070	1.8680
YJP	yjp071910_151_26072010	1214108.5870000	2438998.7950000	7/26/2010	0.0000	0.0000	0.0767	784.6	25.5	26-07-2010 08:32:00	0.0000	0.0000	0.3120
YJP	yjp071910_152_26072010	1214334.9550000	2438969.1690000	7/26/2010	0.0000	0.0015	0.4536	784.0	25.9	26-07-2010 08:35:46	0.0000	0.0060	1.8500
YJP	yjp071910_153_26072010	1214533.6940000	2438973.8890000	7/26/2010	0.0000	0.0007	0.6564	783.6	26.1	26-07-2010 08:38:32	0.0000	0.0030	2.6800
YJP	yjp071910_154_26072010	1214717.0370000	2438966.9490000	7/26/2010	0.0000	0.0007	0.0000	782.8	26.4	26-07-2010 08:42:48	0.0000	0.0030	-0.4510
YJP	yjp071910_155_26072010	1214920.6980000	2438978.0710000	7/26/2010	0.0000	0.0002	0.0709	781.6	26.7	26-07-2010 08:46:08	0.0000	0.0010	0.2910
YJP	yjp071910_156_26072010	1214924.1180000	2439162.5370000	7/26/2010	0.0000	0.0017	0.2826	780.5	27.0	26-07-2010 08:51:44	0.0000	0.0070	1.1620
YJP	yjp071910_157_26072010	1214917.3890000	2439381.6700000	7/26/2010	0.0000	0.0005	0.3130	780.6	27.3	26-07-2010 08:57:21	0.0000	0.0020	1.2880
YJP	yjp071910_158_26072010	1214935.0660000	2439568.9390000	7/26/2010	0.0000	0.0002	0.2830	778.5	27.6	26-07-2010 09:02:15	0.0000	0.0010	1.1690
YJP	yjp071910_159_26072010	1214933.1630000	2439785.1250000	7/26/2010	0.0000	0.0000	0.2006	777.3	27.7	26-07-2010 09:07:15	0.0000	0.0000	0.8300
YJP	yjp071910_16_19072010	1213744.1940000	2437181.9590000	7/19/2010	0.0000	0.0007	0.0117	782.0	39.0	19-07-2010 11:08:46	-0.0040	0.0030	0.0500
YJP	yjp071910_160_26072010	1214731.1620000	2439751.0360000	7/26/2010	0.0000	0.0000	0.1372	776.3	27.9	26-07-2010 09:11:25	0.0000	0.0000	0.5690
YJP	yjp071910_161_26072010	1214722.0650000	2439585.3750000	7/26/2010	0.0000	0.0012	0.0319	777.5	28.0	26-07-2010 09:14:20	0.0000	0.0050	0.1320
YJP	yjp071910_163_26072010	1214721.4010000	2439171.4890000	7/26/2010	0.0000	0.0005	0.2043	780.4	28.1	26-07-2010 09:22:09	-0.0080	0.0020	0.8430
YJP	yjp071910_164_26072010	1214510.7840000	2439182.7420000	7/26/2010	0.0000	0.0012	0.0902	781.2	28.2	26-07-2010 09:25:43	-0.0030	0.0050	0.3720
YJP	yjp071910_165_26072010	1214512.2500000	2439377.5880000	7/26/2010	0.0000	0.0010	0.3494	781.5	28.3	26-07-2010 09:28:34	-0.0070	0.0040	1.4410
YJP	yjp071910_166_26072010	1214533.8060000	2439563.4200000	7/26/2010	0.0000	0.0000	0.0000	781.2	28.4	26-07-2010 09:33:22	-0.0240	0.0000	-3.1540
YJP	yjp071910_167_26072010	1214548.6210000	2439789.0670000	7/26/2010	0.0000	0.0000	0.0121	779.7	28.5	26-07-2010 09:37:59	0.0000	-0.0030	0.0500
YJP	yjp071910_168_26072010	1214528.5440000	2439963.1480000	7/26/2010	0.0000	0.0010	0.0849	780.1	28.6	26-07-2010 09:41:29	0.0000	0.0040	0.3510
YJP	yjp071910_169_26072010	1214516.7770000	2440187.1820000	7/26/2010	0.0000	0.0000	0.0837	778.9	28.7	26-07-2010 09:48:00	0.0000	-0.0010	0.3470
YJP	yjp071910_17_19072010	1213690.7460000	2437358.3840000	7/19/2010	0.0000	0.0005	0.1076	782.0	39.6	19-07-2010 11:14:29	-0.0020	0.0020	0.4600
YJP	yjp071910_170_26072010	1214325.3370000	2440164.5810000	7/26/2010	0.0000	0.0000	0.0148	776.8	30.5	26-07-2010 10:14:16	0.0000	-0.0060	0.0620
YJP	yjp071910_171_26072010	1214320.7900000	2439978.6240000	7/26/2010	0.0000	0.0000	0.0139	776.8	30.9	26-07-2010 10:19:06	0.0000	-0.0030	0.0580

APPENDIX B (CONTINUED)
METHANE FLUX MEASUREMENTS
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES, INC. AND PETROX RESOURCES, INC.

Location	Site Point Identification	Northing	Easting	Date	CH4 Flux	H2S Flux	CO2 Flux	Pressure	Temperature (Degrees Celsius)	Date & Time of Measurement	CH4 Slope	H2S Slope	CO2 Slope
YJP	yjp071910_172_26072010	1214326.2670000	2439781.7530000	7/26/2010	0.0000	0.0000	0.0067	776.8	31.2	26-07-2010 10:24:10	0.0000	-0.0020	0.0280
YJP	yjp071910_173_26072010	1214324.3900000	2439575.3120000	7/26/2010	0.0000	0.0000	0.0000	781.3	31.4	26-07-2010 10:28:14	0.0000	-0.0040	-0.1000
YJP	yjp071910_174_26072010	1214331.2190000	2439388.4510000	7/26/2010	0.0000	0.0000	0.2071	780.9	31.5	26-07-2010 10:34:11	0.0000	-0.0060	0.8640
YJP	yjp071910_175_26072010	1214323.0990000	2439179.4680000	7/26/2010	0.0000	0.0000	0.0676	781.7	31.7	26-07-2010 10:38:09	0.0000	-0.0010	0.2820
YJP	yjp071910_176_26072010	1214135.7370000	2439159.5530000	7/26/2010	0.0000	0.0000	0.3121	781.1	31.9	26-07-2010 10:42:04	0.0000	-0.0040	1.3030
YJP	yjp071910_177_26072010	1214122.2950000	2439363.3370000	7/26/2010	0.0000	0.0000	0.3528	781.1	32.3	26-07-2010 10:46:40	0.0000	-0.0090	1.4750
YJP	yjp071910_178_26072010	1214120.0000000	2439573.2270000	7/26/2010	0.0000	0.0000	0.1555	782.4	32.8	26-07-2010 10:53:33	0.0000	-0.0070	0.6500
YJP	yjp071910_179_26072010	1214135.6600000	2439767.1000000	7/26/2010	0.0000	0.0000	0.4019	779.7	33.3	26-07-2010 11:01:21	0.0000	-0.0040	1.6890
YJP	yjp071910_18_19072010	1213695.1940000	2437591.8010000	7/19/2010	0.0000	0.0012	0.0417	780.4	40.0	19-07-2010 11:21:04	0.0000	0.0050	0.1790
YJP	yjp071910_180_26072010	1214110.3140000	2439973.0200000	7/26/2010	0.0000	0.0000	0.0214	779.7	33.5	26-07-2010 11:06:28	0.0000	-0.0070	0.0900
YJP	yjp071910_181_26072010	1214131.8280000	2440184.6300000	7/26/2010	0.0000	0.0000	0.0000	777.4	33.6	26-07-2010 11:11:35	0.0000	-0.0080	-0.0400
YJP	yjp071910_182_26072010	1213924.4650000	2440187.4180000	7/26/2010	0.0000	0.0000	0.0000	775.8	33.1	26-07-2010 11:44:20	0.0000	-0.0120	-0.1250
YJP	yjp071910_183_26072010	1213937.9540000	2439971.4960000	7/26/2010	0.0000	0.0000	0.0000	777.7	33.2	26-07-2010 11:50:17	0.0000	-0.0080	-0.0040
YJP	yjp071910_184_26072010	1213944.7540000	2439772.4790000	7/26/2010	0.0000	0.0000	0.1239	777.7	33.8	26-07-2010 11:57:32	0.0000	-0.0060	0.5230
YJP	yjp071910_185_26072010	1213931.5710000	2439576.2120000	7/26/2010	0.0000	0.0000	0.0066	779.6	34.1	26-07-2010 12:01:13	0.0000	-0.0030	0.0280
YJP	yjp071910_186_26072010	1213915.6390000	2439368.8080000	7/26/2010	0.0000	0.0000	0.3463	781.3	34.5	26-07-2010 12:05:26	0.0000	0.0000	1.4580
YJP	yjp071910_187_26072010	1213906.7210000	2439184.2890000	7/26/2010	0.0000	0.0000	0.0000	783.0	34.8	26-07-2010 12:08:59	0.0000	-0.0040	-0.0090
YJP	yjp071910_188_26072010	1213710.7690000	2439377.0170000	7/26/2010	0.0000	0.0000	0.0237	783.4	35.6	26-07-2010 12:17:30	0.0000	-0.0050	0.1000
YJP	yjp071910_189_26072010	1213724.0360000	2439558.2930000	7/26/2010	0.0000	0.0000	0.2694	783.0	35.9	26-07-2010 12:21:48	0.0000	-0.0030	1.1370
YJP	yjp071910_19_19072010	1213735.6380000	2437776.0990000	7/19/2010	0.0000	0.0002	0.1407	780.4	40.2	19-07-2010 11:26:51	0.0000	0.0010	0.6040
YJP	yjp071910_190_26072010	1213722.6520000	2439773.6850000	7/26/2010	0.0000	0.0000	0.0000	781.2	36.2	26-07-2010 12:26:49	0.0000	-0.0040	-0.1800
YJP	yjp071910_191_26072010	1213714.7350000	2439976.5920000	7/26/2010	0.0000	0.0000	0.1888	780.4	36.6	26-07-2010 12:31:31	0.0000	-0.0070	0.8010
YJP	yjp071910_192_26072010	1213537.2990000	2439779.9990000	7/26/2010	0.0000	0.0000	0.0676	780.4	36.9	26-07-2010 12:38:21	0.0000	-0.0040	0.2870
YJP	yjp071910_193_26072010	1213530.7510000	2439586.2800000	7/26/2010	0.0000	0.0000	0.2879	781.2	37.2	26-07-2010 12:43:04	0.0000	-0.0030	1.2230
YJP	yjp071910_194_26072010	1213524.9520000	2439392.7020000	7/26/2010	0.0000	0.0000	0.2386	782.3	37.5	26-07-2010 12:47:37	0.0000	-0.0030	1.0130
YJP	yjp071910_195_26072010	1213312.0150000	2439577.6320000	7/26/2010	0.0000	0.0000	0.1098	790.4	38.5	26-07-2010 13:01:11	0.0000	-0.0110	0.4630
YJP	yjp071910_196_26072010	1213237.3030000	2439353.3040000	7/26/2010	0.0000	0.0000	0.2207	790.4	38.7	26-07-2010 13:06:49	0.0000	-0.0040	0.9310
YJP	yjp071910_197_26072010	1213291.0610000	2439169.9450000	7/26/2010	0.0000	0.0019	0.4139	784.0	38.8	26-07-2010 13:09:59	0.0000	0.0080	1.7610
YJP	yjp071910_198_26072010	1213313.0090000	2438961.3090000	7/26/2010	0.0000	0.0026	0.2053	784.2	38.8	26-07-2010 13:14:08	0.0000	0.0110	0.8730
YJP	yjp071910_199_26072010	1213397.9710000	2438741.1860000	7/26/2010	0.0000	0.0000	0.0000	783.4	38.8	26-07-2010 13:18:46	0.0000	-0.0050	-2.1310
YJP	yjp071910_20_19072010	1213697.4720000	2437964.1080000	7/19/2010	0.0000	0.0019	0.0945	779.7	40.3	19-07-2010 11:35:39	0.0000	0.0080	0.4060
YJP	yjp071910_200_26072010	1213521.8000000	2438784.1270000	7/26/2010	0.0000	0.0000	0.3446	782.3	38.8	26-07-2010 13:24:36	0.0000	-0.0020	1.4690
YJP	yjp071910_201_26072010	1213652.6170000	2438822.6310000	7/26/2010	0.0000	0.0005	0.2904	783.5	38.7	26-07-2010 13:27:52	0.0000	0.0020	1.2360
YJP	yjp071910_202_27072010	1213186.0070000	2439165.2720000	7/27/2010	0.0000	0.0000	0.0000	783.9	25.6	27-07-2010 08:16:32	0.0000	0.0000	0.0000
YJP	yjp071910_203_27072010	1213132.3250000	2438990.7010000	7/27/2010	0.0000	0.0000	0.0692	783.9	26.7	27-07-2010 08:22:48	-0.0710	-0.0040	0.2830
YJP	yjp071910_204_27072010	1213110.5220000	2438781.7790000	7/27/2010	0.0000	0.0017	0.0054	781.6	27.3	27-07-2010 08:27:53	0.0000	0.0070	0.0220
YJP	yjp071910_21_19072010	1213723.3330000	2438179.0500000	7/19/2010	0.0000	0.0007	0.0935	780.0	40.4	19-07-2010 11:43:11	0.0000	0.0030	0.4020
YJP	yjp071910_22_19072010	1213706.9900000	2438379.5630000	7/19/2010	0.0000	0.0002	0.0616	781.9	40.4	19-07-2010 11:48:57	0.0000	0.0010	0.2640
YJP	yjp071910_23_19072010	1213513.5650000	2438381.3880000	7/19/2010	0.0000	0.0000	0.0394	781.9	40.4	19-07-2010 12:03:25	0.0000	0.0000	0.1690
YJP	yjp071910_24_19072010	1213504.5140000	2438163.9890000	7/19/2010	0.0000	0.0002	0.0000	781.9	40.9	19-07-2010 12:11:47	0.0000	0.0010	-0.0250
YJP	yjp071910_25_19072010	1213485.4260000	2437991.3820000	7/19/2010	0.0000	0.0009	0.1637	776.2	41.7	19-07-2010 12:39:37	-0.1030	0.0040	0.7100
YJP	yjp071910_27_19072010	1213516.9800000	2437591.3140000	7/19/2010	0.0000	0.0002	0.1067	777.7	41.7	19-07-2010 12:49:40	-0.0020	0.0010	0.4620
YJP	yjp071910_28_19072010	1213546.5360000	2437423.5360000	7/19/2010	0.0000	0.0000	0.1748	777.4	41.7	19-07-2010 12:54:09	-0.0420	0.0000	0.7570
YJP	yjp071910_30_19072010	1213338.9720000	2437966.1760000	7/19/2010	0.0000	0.0000	0.0000	776.1	41.9	19-07-2010 13:09:00	0.0000	-0.0010	-4.3910
YJP	yjp071910_31_19072010	1213289.8740000	2438220.0020000	7/19/2010	0.0000	0.0000	0.1124	773.9	42.3	19-07-2010 13:22:23	0.0000	-0.0010	0.4900

APPENDIX B (CONTINUED)
METHANE FLUX MEASUREMENTS
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES, INC. AND PETROX RESOURCES, INC.

Location	Site Point Identification	Northing	Easting	Date	CH4 Flux	H2S Flux	CO2 Flux	Pressure	Temperature (Degrees Celsius)	Date & Time of Measurement	CH4 Slope	H2S Slope	CO2 Slope
YJP	yjp071910_32_19072010	1213303.0100000	2438389.5840000	7/19/2010	0.0000	0.0002	0.0000	776.1	43.0	19-07-2010 13:30:40	0.0000	0.0010	-1.1750
YJP	yjp071910_33_19072010	1213314.9420000	2438538.7190000	7/19/2010	0.0000	0.0011	0.0323	775.9	43.9	19-07-2010 13:40:40	0.0000	0.0050	0.1410
YJP	yjp071910_34_19072010	1213523.8280000	2438603.0480000	7/19/2010	0.0000	0.0009	0.0373	776.2	44.2	19-07-2010 13:48:01	0.0000	0.0040	0.1630
YJP	yjp071910_35_19072010	1213697.1830000	2438597.8830000	7/19/2010	0.0000	0.0000	0.1359	779.6	44.4	19-07-2010 13:54:30	0.0000	-0.0010	0.5920
YJP	yjp071910_36_19072010	1213920.1260000	2438593.3280000	7/19/2010	0.0000	0.0000	0.1260	781.1	44.5	19-07-2010 14:00:41	0.0000	0.0000	0.5480
YJP	yjp071910_37_19072010	1213913.0420000	2438390.6380000	7/19/2010	0.0000	0.0016	0.0701	781.2	44.7	19-07-2010 14:06:05	0.0000	0.0070	0.3050
YJP	yjp071910_38_19072010	1213909.5750000	2438178.0570000	7/19/2010	0.0000	0.0000	0.0586	781.1	44.9	19-07-2010 14:10:10	0.0000	0.0000	0.2550
YJP	yjp071910_39_19072010	1213919.8230000	2437973.9130000	7/19/2010	0.0000	0.0014	0.1272	779.5	44.9	19-07-2010 14:14:01	0.0000	0.0060	0.5550
YJP	yjp071910_40_19072010	1213911.2710000	2437769.2020000	7/19/2010	0.0000	0.0007	0.1602	779.5	45.0	19-07-2010 14:16:48	0.0000	0.0030	0.6990
YJP	yjp071910_41_19072010	1213901.7420000	2437567.2090000	7/19/2010	0.0000	0.0014	0.1159	779.3	45.0	19-07-2010 14:19:33	0.0000	0.0060	0.5060
YJP	yjp071910_42_19072010	1213905.4720000	2437360.6740000	7/19/2010	0.0000	0.0011	0.0898	779.5	45.0	19-07-2010 14:22:22	0.0000	0.0050	0.3920
YJP	yjp071910_43_19072010	1213939.6320000	2437177.7110000	7/19/2010	0.0000	0.0000	0.0016	780.0	45.0	19-07-2010 14:26:20	0.0000	-0.0160	0.0070
YJP	yjp071910_44_19072010	1213906.4490000	2436966.8560000	7/19/2010	0.0000	0.0000	0.0133	779.5	45.0	19-07-2010 14:28:57	0.0000	0.0000	0.0580
YJP	yjp071910_45_21072010	1214144.1160000	2437363.2930000	7/21/2010	0.0000	0.0000	0.4497	784.1	24.0	21-07-2010 07:53:01	0.0000	0.0000	1.8220
YJP	yjp071910_46_21072010	1214119.9440000	2437177.4520000	7/21/2010	0.0000	0.0000	0.3203	784.1	25.2	21-07-2010 07:56:37	0.0000	-0.0020	1.3030
YJP	yjp071910_47_21072010	1214128.1450000	2436976.4650000	7/21/2010	0.0000	0.0000	0.3512	784.1	25.9	21-07-2010 07:59:56	0.0000	-0.0020	1.4320
YJP	yjp071910_48_21072010	1214121.5980000	2436771.6280000	7/21/2010	0.0000	0.0000	0.0724	781.7	26.7	21-07-2010 08:05:43	0.0000	-0.0030	0.2970
YJP	yjp071910_49_21072010	1214343.9370000	2436790.3440000	7/21/2010	0.0000	0.0000	0.0917	780.3	27.6	21-07-2010 08:14:40	0.0000	-0.0070	0.3780
YJP	yjp071910_50_21072010	1214524.6390000	2436783.6230000	7/21/2010	0.0000	0.0000	0.0654	780.3	28.0	21-07-2010 08:19:50	0.0000	-0.0020	0.2700
YJP	yjp071910_51_21072010	1214712.8450000	2436787.1380000	7/21/2010	0.0000	0.0000	0.1403	778.8	28.4	21-07-2010 08:26:11	0.0000	-0.0030	0.5810
YJP	yjp071910_52_21072010	1214930.5120000	2436768.5710000	7/21/2010	0.0000	0.0000	0.0114	781.3	29.3	21-07-2010 08:42:49	0.0000	-0.0080	0.0470
YJP	yjp071910_53_21072010	1214890.7760000	2436550.8470000	7/21/2010	0.0000	0.0000	0.1305	781.3	29.3	21-07-2010 08:43:45	0.0000	-0.0040	0.5400
YJP	yjp071910_54_21072010	1215071.8580000	2436580.5510000	7/21/2010	0.0000	0.0019	0.3346	780.4	29.6	21-07-2010 08:50:23	0.0000	0.0080	1.3880
YJP	yjp071910_55_21072010	1215203.0060000	2436419.6800000	7/21/2010	0.0000	0.0000	0.2721	781.7	29.7	21-07-2010 08:55:42	0.0000	-0.0020	1.1270
YJP	yjp071910_56_21072010	1215328.3430000	2436592.5660000	7/21/2010	0.0000	0.0019	0.0000	781.2	29.9	21-07-2010 09:04:29	0.0000	0.0080	-0.4520
YJP	yjp071910_57_21072010	1215338.3370000	2436393.5100000	7/21/2010	0.0000	0.0007	0.3366	780.8	29.9	21-07-2010 09:09:08	0.0000	0.0030	1.3970
YJP	yjp071910_58_21072010	1215291.5180000	2436210.7270000	7/21/2010	0.0000	0.0000	0.2725	781.5	30.0	21-07-2010 09:15:25	0.0000	-0.0010	1.1300
YJP	yjp071910_59_21072010	1215391.6570000	2436000.1470000	7/21/2010	0.0000	0.0000	0.2083	781.6	30.1	21-07-2010 09:24:23	0.0000	0.0000	0.8640
YJP	yjp071910_60_21072010	1215501.5320000	2436186.8490000	7/21/2010	0.0000	0.0007	0.3877	780.6	30.4	21-07-2010 09:43:07	0.0000	0.0030	1.6120
YJP	yjp071910_61_21072010	1215502.3150000	2436367.3550000	7/21/2010	0.0000	0.0005	0.0320	780.6	30.5	21-07-2010 09:48:00	0.0000	0.0020	0.1330
YJP	yjp071910_62_21072010	1215728.1570000	2436161.8630000	7/21/2010	0.0000	0.0000	0.1638	780.4	30.7	21-07-2010 09:53:09	0.0000	-0.0010	0.6820
YJP	yjp071910_63_21072010	1215689.1340000	2436381.8810000	7/21/2010	0.0000	0.0000	0.0103	780.6	31.6	21-07-2010 10:06:07	0.0000	-0.0050	0.0430
YJP	yjp071910_64_21072010	1215960.7430000	2436401.6480000	7/21/2010	0.0000	0.0000	0.2195	777.8	32.1	21-07-2010 10:15:13	0.0000	-0.0060	0.9210
YJP	yjp071910_65_21072010	1215931.2420000	2436571.3900000	7/21/2010	0.0000	0.0000	0.1173	777.8	32.5	21-07-2010 10:19:55	0.0000	-0.0050	0.4930
YJP	yjp071910_66_21072010	1215929.8770000	2436775.1060000	7/21/2010	0.0000	0.0000	0.2627	778.0	32.9	21-07-2010 10:24:51	0.0000	-0.0070	1.1050
YJP	yjp071910_67_21072010	1215919.7890000	2436970.7760000	7/21/2010	0.0000	0.0000	0.1463	778.0	33.3	21-07-2010 10:30:21	0.0000	-0.0070	0.6160
YJP	yjp071910_68_21072010	1215726.9500000	2437002.7760000	7/21/2010	0.0000	0.0000	0.0777	776.3	33.5	21-07-2010 10:35:59	0.0000	-0.0050	0.3280
YJP	yjp071910_69_21072010	1215717.6080000	2437184.3530000	7/21/2010	0.0000	0.0000	0.1742	775.0	33.6	21-07-2010 10:41:36	0.0000	-0.0060	0.7370
YJP	yjp071910_70_21072010	1215742.5700000	2437375.1250000	7/21/2010	0.0000	0.0000	0.0721	775.0	33.6	21-07-2010 10:46:37	0.0000	-0.0060	0.3050
YJP	yjp071910_71_21072010	1215528.8380000	2437605.1030000	7/21/2010	0.0000	0.0000	0.1727	774.6	33.9	21-07-2010 10:55:57	0.0000	-0.0060	0.7320
YJP	yjp071910_72_21072010	1215504.0700000	2437758.6160000	7/21/2010	0.0000	0.0000	0.1807	775.1	34.1	21-07-2010 11:00:28	0.0000	-0.0050	0.7660
YJP	yjp071910_73_21072010	1215333.0540000	2437790.4750000	7/21/2010	0.0000	0.0000	0.2337	774.0	34.2	21-07-2010 11:07:41	0.0000	-0.0040	0.9920
YJP	yjp071910_74_21072010	1215347.5150000	2437961.9360000	7/21/2010	0.0000	0.0000	0.0530	774.7	34.4	21-07-2010 11:12:02	0.0000	0.0000	0.2250
YJP	yjp071910_75_21072010	1215318.0730000	2438186.5920000	7/21/2010	0.0000	0.0000	0.1836	774.3	34.6	21-07-2010 11:17:52	0.0000	-0.0050	0.7800
YJP	yjp071910_76_21072010	1215102.9640000	2438175.7990000	7/21/2010	0.0000	0.0000	0.2115	773.2	34.9	21-07-2010 11:27:25	0.0000	-0.0050	0.9010

APPENDIX B (CONTINUED)
METHANE FLUX MEASUREMENTS
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES, INC. AND PETROX RESOURCES, INC.

Location	Site Point Identification	Northing	Easting	Date	CH4 Flux	H2S Flux	CO2 Flux	Pressure	Temperature (Degrees Celsius)	Date & Time of Measurement	CH4 Slope	H2S Slope	CO2 Slope
YJP	yjp071910_77_21072010	1215131.4070000	2438373.8460000	7/21/2010	0.0000	0.0000	0.0471	772.6	35.2	21-07-2010 11:32:41	0.0000	-0.0060	0.2010
YJP	yjp071910_78_21072010	1214914.9800000	2438352.8380000	7/21/2010	0.0000	0.0000	0.0170	772.6	36.5	21-07-2010 12:00:11	0.0000	-0.0030	0.0730
YJP	yjp071910_79_21072010	1215127.6440000	2438553.9800000	7/21/2010	0.0000	0.0047	0.2519	773.9	36.9	21-07-2010 12:06:08	0.0000	0.0200	1.0790
YJP	yjp071910_80_21072010	1214937.2160000	2438556.4110000	7/21/2010	0.0000	0.0009	0.1445	775.7	37.2	21-07-2010 12:11:13	0.0000	0.0040	0.6180
YJP	yjp071910_81_21072010	1214736.2140000	2438398.6080000	7/21/2010	0.0000	0.0019	0.2014	777.0	37.6	21-07-2010 12:17:41	0.0000	0.0080	0.8610
YJP	yjp071910_82_21072010	1214543.7280000	2438371.3340000	7/21/2010	0.0000	0.0026	0.4299	776.6	37.9	21-07-2010 12:22:40	0.0000	0.0110	1.8410
YJP	yjp071910_83_21072010	1214327.5870000	2438371.8370000	7/21/2010	0.0000	0.0012	0.1406	778.5	38.1	21-07-2010 12:27:10	0.0000	0.0050	0.6010
YJP	yjp071910_84_21072010	1214147.0160000	2438362.9860000	7/21/2010	0.0000	0.0000	0.0263	781.1	38.3	21-07-2010 12:30:46	0.0000	-0.0010	0.1120
YJP	yjp071910_85_21072010	1214119.2420000	2438577.9680000	7/21/2010	0.0000	0.0000	0.0303	782.3	38.5	21-07-2010 12:34:20	-0.0180	-0.0020	0.1290
YJP	yjp071910_86_21072010	1214322.0910000	2438571.9530000	7/21/2010	0.0000	0.0019	0.2278	782.7	38.6	21-07-2010 12:38:00	-0.0030	0.0080	0.9700
YJP	yjp071910_87_21072010	1214525.3790000	2438565.7880000	7/21/2010	0.0000	0.0000	0.0361	782.3	38.7	21-07-2010 12:41:51	0.0000	0.0000	0.1540
YJP	yjp071910_88_21072010	1214722.7650000	2438583.5880000	7/21/2010	0.0000	0.0042	0.1349	780.3	38.9	21-07-2010 12:45:38	0.0000	0.0180	0.5770
YJP	yjp071910_89_21072010	1214923.8030000	2438765.6130000	7/21/2010	0.0000	0.0026	0.4241	778.8	39.1	21-07-2010 12:50:01	0.0000	0.0110	1.8180
YJP	yjp071910_90_21072010	1214745.2860000	2438794.9940000	7/21/2010	0.0000	0.0047	0.3037	779.2	39.5	21-07-2010 12:55:18	0.0000	0.0200	1.3030
YJP	yjp071910_91_21072010	1214511.3540000	2438774.6830000	7/21/2010	0.0000	0.0014	0.1880	780.4	39.7	21-07-2010 12:57:48	0.0000	0.0060	0.8060
YJP	yjp071910_92_21072010	1214327.4980000	2438776.5790000	7/21/2010	0.0000	0.0026	0.1368	781.1	39.9	21-07-2010 13:00:16	-0.0020	0.0110	0.5860
YJP	yjp071910_93_21072010	1214117.4890000	2438769.9540000	7/21/2010	0.0000	0.0009	0.1226	782.0	40.0	21-07-2010 13:02:43	0.0000	0.0040	0.5250
YJP	yjp071910_94_21072010	1213911.4300000	2438757.0610000	7/21/2010	0.0000	0.0012	0.1159	782.4	40.1	21-07-2010 13:05:49	0.0000	0.0050	0.4960
YJP	yjp071910_95_23072010	1214318.6470000	2438204.2800000	7/23/2010	0.0000	0.0000	0.0202	780.0	23.5	23-07-2010 07:18:02	0.0000	-0.0030	0.0820
YJP	yjp071910_96_23072010	1214502.9110000	2438168.9030000	7/23/2010	0.0000	0.0000	0.0066	780.0	24.6	23-07-2010 07:26:00	0.0000	-0.0020	0.0270
YJP	yjp071910_97_23072010	1214725.1060000	2438183.1770000	7/23/2010	0.0000	0.0000	0.1789	780.0	25.0	23-07-2010 07:31:02	0.0000	-0.0030	0.7310
YJP	yjp071910_98_23072010	1214929.7530000	2438184.3830000	7/23/2010	0.0000	0.0000	0.0401	775.7	25.3	23-07-2010 07:35:42	0.0000	-0.0030	0.1650
YJP	yjp071910_99_23072010	1215135.3530000	2437983.0950000	7/23/2010	0.0002	0.0000	0.1588	775.7	25.6	23-07-2010 07:43:52	0.0010	-0.0050	0.6540
YJP	yjp071910_162_26072010	1214724.8920000	2439374.4820000	7/26/2010	0.0007	0.0005	0.1498	778.2	28.0	26-07-2010 09:18:33	0.0030	0.0020	0.6200
YJP	yjp071910_102_23072010	1214532.3270000	2437981.8530000	7/23/2010	0.0015	0.0000	0.0105	778.6	26.2	23-07-2010 07:59:41	0.0060	-0.0040	0.0430
YJP	yjp071910_100_23072010	1214933.7130000	2437989.7890000	7/23/2010	0.0027	0.0000	0.0053	776.1	25.9	23-07-2010 07:51:04	0.0110	-0.0050	0.0220
YJP	yjp071910_135_23072010	1214510.7710000	2437169.6300000	7/23/2010	0.0028	0.0000	0.1137	779.4	34.0	23-07-2010 11:44:35	0.0120	-0.0100	0.4790
YJP	yjp071910_118_23072010	1215304.3400000	2436968.7040000	7/23/2010	0.0029	0.0000	0.1942	778.8	29.1	23-07-2010 09:56:54	0.0120	-0.0020	0.8060
YJP	yjp071910_07_19072010	1214690.8660000	2436394.8330000	7/19/2010	0.0125	0.0000	0.0439	776.9	34.6	19-07-2010 10:13:12	0.0530	-0.0010	0.1860
YJP	yjp071910_139_23072010	1214341.8820000	2437385.1610000	7/23/2010	0.0240	0.0000	0.0000	783.9	35.0	23-07-2010 12:00:40	0.1010	-0.0030	-0.8680
YJP	yjp071910_29_19072010	1213328.3320000	2437749.9620000	7/19/2010	0.0272	0.0000	0.0316	776.1	41.8	19-07-2010 13:02:45	0.1180	0.0000	0.1370
YJP	yjp071910_26_19072010	1213479.2190000	2437744.3320000	7/19/2010	0.0311	0.0012	0.0673	775.8	41.8	19-07-2010 12:43:30	0.1350	0.0050	0.2920
YJP	yjp071910_13_19072010	1213928.8520000	2436791.0900000	7/19/2010	0.0507	0.0005	0.0779	779.7	37.5	19-07-2010 10:49:44	0.2160	0.0020	0.3320
YJP	yjp071910_138_23072010	1214322.8850000	2437541.6840000	7/23/2010	0.0635	0.0007	0.0519	780.6	34.8	23-07-2010 11:57:24	0.2680	0.0030	0.2190

APPENDIX C

VOLUMETRIC METHANE FLUX CALCULATIONS

Grid Volume Computations

Wed Nov 17 12:01:20 2010

Upper Surface

Grid File Name:	P:\Archuleta County\2010 Monitoring\SURFER\BC_CH4.grd
Grid Size:	21 rows x 35 columns
X Minimum:	2424276.965
X Maximum:	2426680.154
X Spacing:	70.682029411772
Y Minimum:	1234447.359
Y Maximum:	1235857.709
Y Spacing:	70.517500000005
Z Minimum:	-0.014605215399007
Z Maximum:	0.063842057047009

Lower Surface

Level Surface defined by Z = 0

Volumes

Z Scale Factor:	0.0929

Total Volumes by:

Trapezoidal Rule:	1446.7588589868
Simpson's Rule:	1443.8518766785
Simpson's 3/8 Rule:	1433.4759177523

Cut & Fill Volumes

Positive Volume [Cut]:	1546.5765510648
Negative Volume [Fill]:	99.817692078009
Net Volume [Cut-Fill]:	1446.7588589868

Areas

Planar Areas

Positive Planar Area [Cut]:	1758888.3066554
Negative Planar Area [Fill]:	970026.89829669

Blanked Planar Area:	660422.40119846
Total Planar Area:	3389337.6061506

Surface Areas

Positive Surface Area [Cut]:	1758888.306772
Negative Surface Area [Fill]:	970026.89830158

Grid Volume Computations

Wed Nov 17 12:03:09 2010

Upper Surface

Grid File Name:	P:\Archuleta County\2010 Monitoring\SURFER\BC_CO2.grd
Grid Size:	21 rows x 35 columns
X Minimum:	2424276.965
X Maximum:	2426680.154
X Spacing:	70.682029411772
Y Minimum:	1234447.359
Y Maximum:	1235857.709
Y Spacing:	70.517500000005
Z Minimum:	-0.015517544886276
Z Maximum:	0.5179394340729

Lower Surface

Level Surface defined by Z = 0

Volumes

Z Scale Factor:	0.0929

Total Volumes by:

Trapezoidal Rule:	37927.185094986
Simpson's Rule:	37793.019674136
Simpson's 3/8 Rule:	38035.678338981

Cut & Fill Volumes

Positive Volume [Cut]:	37940.417985659
Negative Volume [Fill]:	13.232890672887
Net Volume [Cut-Fill]:	37927.185094986

Areas

Planar Areas

Positive Planar Area [Cut]:	2709157.7209637
Negative Planar Area [Fill]:	19757.483988369

Blanked Planar Area:	660422.40119846
Total Planar Area:	3389337.6061506

Surface Areas

Positive Surface Area [Cut]:	2709157.7274773
Negative Surface Area [Fill]:	19757.483989958

Grid Volume Computations

Fri Oct 01 16:50:10 2010

Upper Surface

Grid File Name:	P:\Archuleta County\2010 Monitoring\SURFER\BHS_CH4.grd
Grid Size:	17 rows x 19 columns
X Minimum:	2459430
X Maximum:	2459610
X Spacing:	10
Y Minimum:	1194560
Y Maximum:	1194716.875
Y Spacing:	9.8046875
Z Minimum:	-0.0054230811907967
Z Maximum:	0.083810165713488

Lower Surface

Level Surface defined by Z = 0

Volumes

Z Scale Factor:	0.0929

Total Volumes by:

Trapezoidal Rule:	88.981227912507
Simpson's Rule:	88.779100118081
Simpson's 3/8 Rule:	89.069263001397

Cut & Fill Volumes

Positive Volume [Cut]:	89.195706958343
Negative Volume [Fill]:	0.21447904583602
Net Volume [Cut-Fill]:	88.981227912507

Areas

Planar Areas

Positive Planar Area [Cut]:	20075.234649474
Negative Planar Area [Fill]:	857.77316302647

Blanked Planar Area:	7304.4921875
Total Planar Area:	28237.5

Surface Areas

Positive Surface Area [Cut]:	20075.234798874
Negative Surface Area [Fill]:	857.77316406436

Grid Volume Computations

Fri Oct 01 16:50:28 2010

Upper Surface

Grid File Name:	P:\Archuleta County\2010 Monitoring\SURFER\BHS_CO2.grd
Grid Size:	17 rows x 19 columns
X Minimum:	2459430.961
X Maximum:	2459613.575
X Spacing:	10.145222222226
Y Minimum:	1194560.531
Y Maximum:	1194716.875
Y Spacing:	9.7715000000026
Z Minimum:	0.011789604895758
Z Maximum:	0.22743671233067

Lower Surface

Level Surface defined by Z = 0

Volumes

Z Scale Factor:	0.0929

Total Volumes by:

Trapezoidal Rule:	166.97018455036
Simpson's Rule:	167.71132832081
Simpson's 3/8 Rule:	166.66182166041

Cut & Fill Volumes

Positive Volume [Cut]:	166.97018455036
Negative Volume [Fill]:	0
Net Volume [Cut-Fill]:	166.97018455036

Areas

Planar Areas

Positive Planar Area [Cut]:	21363.38539254
Negative Planar Area [Fill]:	0

Blanked Planar Area:	7187.2178234765
Total Planar Area:	28550.603216017

Surface Areas

Positive Surface Area [Cut]:	21363.385974223
Negative Surface Area [Fill]:	0

Grid Volume Computations

Fri Oct 01 16:22:41 2010

Upper Surface

Grid File Name:	P:\Archuleta County\2010 Monitoring\SURFER\FG_CH4.grd
Grid Size:	35 rows x 41 columns
X Minimum:	2445378.487
X Maximum:	2448197.585
X Spacing:	70.477449999994
Y Minimum:	1206513.571
Y Maximum:	1208895.129
Y Spacing:	70.045823529411
Z Minimum:	-0.00014829013338187
Z Maximum:	0.0065599736606623

Lower Surface

Level Surface defined by Z = 0

Volumes

Z Scale Factor:	0.0929

Total Volumes by:

Trapezoidal Rule:	75.578009647347
Simpson's Rule:	75.465015848241
Simpson's 3/8 Rule:	74.365365697541

Cut & Fill Volumes

Positive Volume [Cut]:	76.89156983685
Negative Volume [Fill]:	1.313560189503
Net Volume [Cut-Fill]:	75.578009647347

Areas

Planar Areas

Positive Planar Area [Cut]:	3080235.2600336
Negative Planar Area [Fill]:	1977363.7155936

Blanked Planar Area:	1656246.4190561
Total Planar Area:	6713845.3946833

Surface Areas

Positive Surface Area [Cut]:	3080235.260034
Negative Surface Area [Fill]:	1977363.7155936

Grid Volume Computations

Fri Oct 01 16:23:08 2010

Upper Surface

Grid File Name:	P:\Archuleta County\2010 Monitoring\SURFER\FG_CO2.grd
Grid Size:	35 rows x 41 columns
X Minimum:	2445378.487
X Maximum:	2448197.585
X Spacing:	70.477449999994
Y Minimum:	1206513.571
Y Maximum:	1208895.129
Y Spacing:	70.045823529411
Z Minimum:	-0.087115787021784
Z Maximum:	0.69311136718975

Lower Surface

Level Surface defined by Z = 0

Volumes

Z Scale Factor:	0.0929

Total Volumes by:

Trapezoidal Rule:	67987.026393659
Simpson's Rule:	67837.890919422
Simpson's 3/8 Rule:	68144.204358651

Cut & Fill Volumes

Positive Volume [Cut]:	68200.142550932
Negative Volume [Fill]:	213.11615727329
Net Volume [Cut-Fill]:	67987.026393659

Areas

Planar Areas

Positive Planar Area [Cut]:	4789805.5843674
Negative Planar Area [Fill]:	267793.39125987

Blanked Planar Area:	1656246.4190561
Total Planar Area:	6713845.3946833

Surface Areas

Positive Surface Area [Cut]:	4789805.6114676
Negative Surface Area [Fill]:	267793.3914012

Grid Volume Computations

Fri Oct 01 16:23:35 2010

Upper Surface

Grid File Name:	P:\Archuleta County\2010 Monitoring\SURFER\LSC_CH4.grd
Grid Size:	33 rows x 44 columns
X Minimum:	2441366.327
X Maximum:	2444384.858
X Spacing:	70.198395348836
Y Minimum:	1207295.633
Y Maximum:	1209522.039
Y Spacing:	69.575187500006
Z Minimum:	-0.002637122819541
Z Maximum:	0.011044191654231

Lower Surface

Level Surface defined by Z = 0

Volumes

Z Scale Factor:	0.0929

Total Volumes by:

Trapezoidal Rule:	166.92385610461
Simpson's Rule:	167.84038756018
Simpson's 3/8 Rule:	167.01630353712

Cut & Fill Volumes

Positive Volume [Cut]:	196.23174839198
Negative Volume [Fill]:	29.307892287372
Net Volume [Cut-Fill]:	166.92385610461

Areas

Planar Areas

Positive Planar Area [Cut]:	2846677.5484327
Negative Planar Area [Fill]:	1607591.1165258

Blanked Planar Area:	2266206.864628
Total Planar Area:	6720475.5295865

Surface Areas

Positive Surface Area [Cut]:	2846677.5484355
Negative Surface Area [Fill]:	1607591.116526

Grid Volume Computations

Fri Oct 01 16:23:57 2010

Upper Surface

Grid File Name:	P:\Archuleta County\2010 Monitoring\SURFER\LSC_CO2.grd
Grid Size:	33 rows x 44 columns
X Minimum:	2441366.327
X Maximum:	2444384.858
X Spacing:	70.198395348836
Y Minimum:	1207295.633
Y Maximum:	1209522.039
Y Spacing:	69.575187500006
Z Minimum:	-0.045751017990017
Z Maximum:	0.74934917487652

Lower Surface

Level Surface defined by Z = 0

Volumes

Z Scale Factor:	0.0929

Total Volumes by:

Trapezoidal Rule:	69393.447537104
Simpson's Rule:	69471.351787633
Simpson's 3/8 Rule:	69120.5199366

Cut & Fill Volumes

Positive Volume [Cut]:	69701.266751006
Negative Volume [Fill]:	307.81921390189
Net Volume [Cut-Fill]:	69393.447537104

Areas

Planar Areas

Positive Planar Area [Cut]:	4226383.9009386
Negative Planar Area [Fill]:	227884.76401991

Blanked Planar Area:	2266206.864628
Total Planar Area:	6720475.5295865

Surface Areas

Positive Surface Area [Cut]:	4226383.9197494
Negative Surface Area [Fill]:	227884.76414658

Grid Volume Computations

Fri Oct 01 16:24:16 2010

Upper Surface

Grid File Name:	P:\Archuleta County\2010 Monitoring\SURFER\PG_CH4.grd
Grid Size:	90 rows x 100 columns
X Minimum:	2454749.26
X Maximum:	2461590.55
X Spacing:	69.10393939394
Y Minimum:	1200330.183
Y Maximum:	1206541.31
Y Spacing:	69.787943820226
Z Minimum:	-0.0031203575722888
Z Maximum:	0.088639623409055

Lower Surface

Level Surface defined by Z = 0

Volumes

Z Scale Factor:	0.0929

Total Volumes by:

Trapezoidal Rule:	1731.6182408207
Simpson's Rule:	1726.2653568842
Simpson's 3/8 Rule:	1735.8424456466

Cut & Fill Volumes

Positive Volume [Cut]:	1818.6995133812
Negative Volume [Fill]:	87.081272560496
Net Volume [Cut-Fill]:	1731.6182408207

Areas

Planar Areas

Positive Planar Area [Cut]:	8536930.8036682
Negative Planar Area [Fill]:	7628497.604617

Blanked Planar Area:	26326692.625546
Total Planar Area:	42492121.033831

Surface Areas

Positive Surface Area [Cut]:	8536930.8039069
Negative Surface Area [Fill]:	7628497.6046189

Grid Volume Computations

Fri Oct 01 16:24:37 2010

Upper Surface

Grid File Name:	P:\Archuleta County\2010 Monitoring\SURFER\PG_CO2.grd
Grid Size:	90 rows x 100 columns
X Minimum:	2454749.26
X Maximum:	2461590.55
X Spacing:	69.10393939394
Y Minimum:	1200330.183
Y Maximum:	1206541.31
Y Spacing:	69.787943820226
Z Minimum:	-0.037470803799766
Z Maximum:	1.9976326608581

Lower Surface

Level Surface defined by Z = 0

Volumes

Z Scale Factor:	0.0929

Total Volumes by:

Trapezoidal Rule:	204957.78434215
Simpson's Rule:	204793.59611557
Simpson's 3/8 Rule:	204864.07100662

Cut & Fill Volumes

Positive Volume [Cut]:	205104.07029473
Negative Volume [Fill]:	146.28595258761
Net Volume [Cut-Fill]:	204957.78434215

Areas

Planar Areas

Positive Planar Area [Cut]:	15984288.512569
Negative Planar Area [Fill]:	181139.89571666

Blanked Planar Area:	26326692.625546
Total Planar Area:	42492121.033831

Surface Areas

Positive Surface Area [Cut]:	15984288.614744
Negative Surface Area [Fill]:	181139.89583804

Grid Volume Computations

Fri Oct 01 16:24:55 2010

Upper Surface

Grid File Name:	P:\Archuleta County\2010 Monitoring\SURFER\SC_CH4.grd
Grid Size:	50 rows x 69 columns
X Minimum:	2465782.4
X Maximum:	2470568.698
X Spacing:	70.386735294117
Y Minimum:	1184713.949
Y Maximum:	1188125.48
Y Spacing:	69.623081632652
Z Minimum:	-0.024797753165864
Z Maximum:	0.13081048214841

Lower Surface

Level Surface defined by Z = 0

Volumes

Z Scale Factor:	0.0929

Total Volumes by:

Trapezoidal Rule:	11325.262552114
Simpson's Rule:	11288.365659229
Simpson's 3/8 Rule:	11322.466335981

Cut & Fill Volumes

Positive Volume [Cut]:	11853.131426176
Negative Volume [Fill]:	527.86887406273
Net Volume [Cut-Fill]:	11325.262552114

Areas

Planar Areas

Positive Planar Area [Cut]:	6648639.6141263
Negative Planar Area [Fill]:	3346014.606331

Blanked Planar Area:	6333949.7817804
Total Planar Area:	16328604.002238

Surface Areas

Positive Surface Area [Cut]:	6648639.615392
Negative Surface Area [Fill]:	3346014.6063786

Grid Volume Computations

Fri Oct 01 16:25:13 2010

Upper Surface

Grid File Name:	P:\Archuleta County\2010 Monitoring\SURFER\SC_CO2.grd
Grid Size:	50 rows x 69 columns
X Minimum:	2465782.4
X Maximum:	2470568.698
X Spacing:	70.386735294117
Y Minimum:	1184713.949
Y Maximum:	1188125.48
Y Spacing:	69.623081632652
Z Minimum:	-0.14724906934535
Z Maximum:	1.5759198873358

Lower Surface

Level Surface defined by Z = 0

Volumes

Z Scale Factor:	0.0929

Total Volumes by:

Trapezoidal Rule:	137245.89483763
Simpson's Rule:	137453.30548901
Simpson's 3/8 Rule:	136852.95089808

Cut & Fill Volumes

Positive Volume [Cut]:	137553.83018571
Negative Volume [Fill]:	307.93534807867
Net Volume [Cut-Fill]:	137245.89483763

Areas

Planar Areas

Positive Planar Area [Cut]:	9810022.5625197
Negative Planar Area [Fill]:	184631.65793756

Blanked Planar Area:	6333949.7817804
Total Planar Area:	16328604.002238

Surface Areas

Positive Surface Area [Cut]:	9810022.6316441
Negative Surface Area [Fill]:	184631.6591163

Grid Volume Computations

Fri Oct 01 16:25:36 2010

Upper Surface

Grid File Name:	P:\Archuleta County\2010 Monitoring\SURFER\YJP_CH4.grd
Grid Size:	47 rows x 67 columns
X Minimum:	2435737.874
X Maximum:	2440387.418
X Spacing:	70.44763636364
Y Minimum:	1212910.522
Y Maximum:	1216160.743
Y Spacing:	70.656978260867
Z Minimum:	-0.01240865318533
Z Maximum:	0.053215000144632

Lower Surface

Level Surface defined by Z = 0

Volumes

Z Scale Factor:	0.0929

Total Volumes by:

Trapezoidal Rule:	1083.9705195823
Simpson's Rule:	1087.7333757865
Simpson's 3/8 Rule:	1083.6441913632

Cut & Fill Volumes

Positive Volume [Cut]:	1228.3530404651
Negative Volume [Fill]:	144.38252088286
Net Volume [Cut-Fill]:	1083.9705195823

Areas

Planar Areas

Positive Planar Area [Cut]:	4963935.8938894
Negative Planar Area [Fill]:	5807627.5344773

Blanked Planar Area:	4340482.1208576
Total Planar Area:	15112045.549224

Surface Areas

Positive Surface Area [Cut]:	4963935.8939643
Negative Surface Area [Fill]:	5807627.5344808

Grid Volume Computations

Fri Oct 01 16:26:23 2010

Upper Surface

Grid File Name:	P:\Archuleta County\2010 Monitoring\SURFER\YJP_CO2.grd
Grid Size:	47 rows x 67 columns
X Minimum:	2435737.874
X Maximum:	2440387.418
X Spacing:	70.44763636364
Y Minimum:	1212910.522
Y Maximum:	1216160.743
Y Spacing:	70.656978260867
Z Minimum:	-0.085700297141876
Z Maximum:	2.8536156408705

Lower Surface

Level Surface defined by Z = 0

Volumes

Z Scale Factor:	0.0929

Total Volumes by:

Trapezoidal Rule:	157534.1758573
Simpson's Rule:	157824.60152149
Simpson's 3/8 Rule:	157418.09825203

Cut & Fill Volumes

Positive Volume [Cut]:	157825.96523621
Negative Volume [Fill]:	291.78937890743
Net Volume [Cut-Fill]:	157534.1758573

Areas

Planar Areas

Positive Planar Area [Cut]:	10564481.932592
Negative Planar Area [Fill]:	207081.49577466

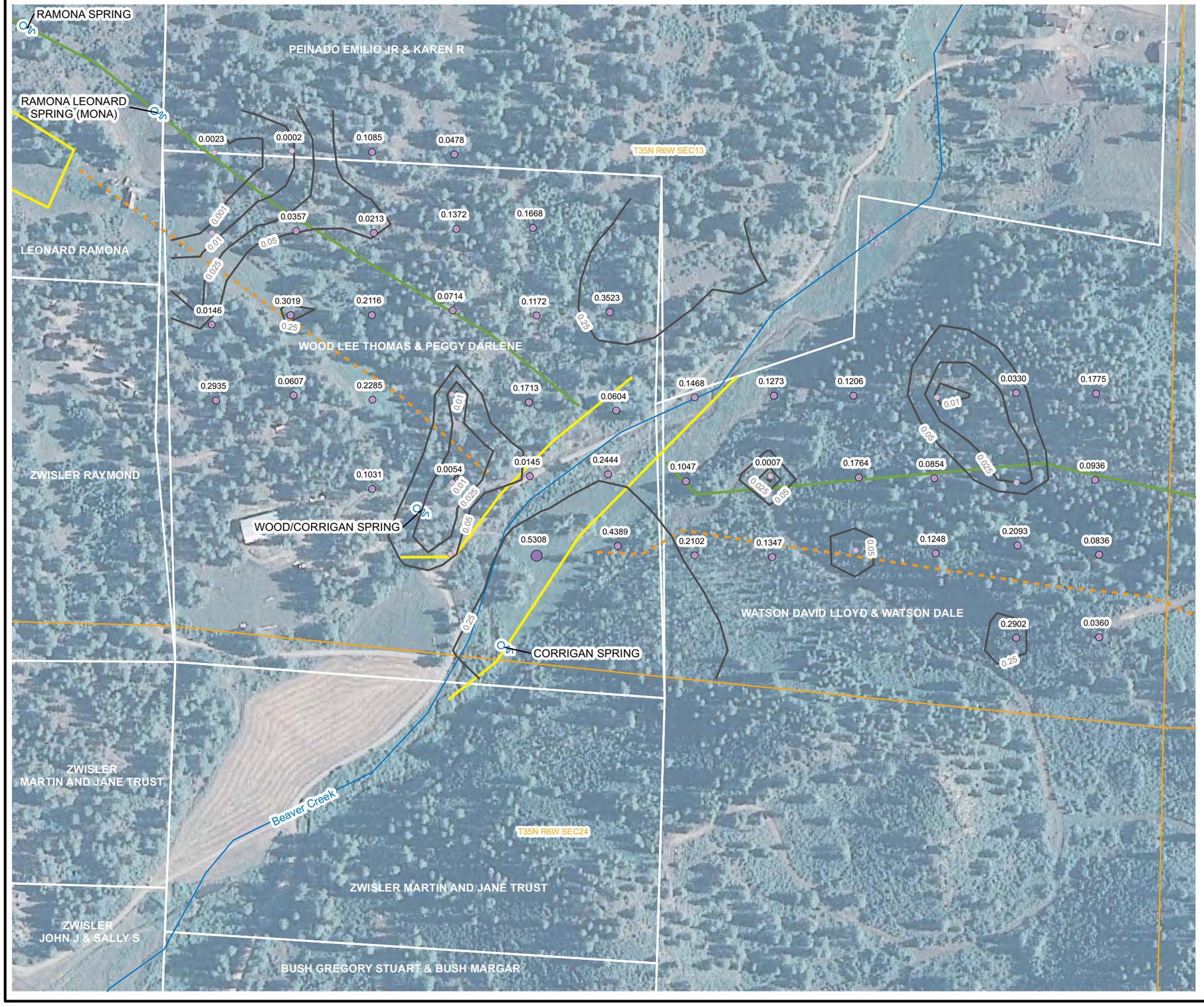
Blanked Planar Area:	4340482.1208576
Total Planar Area:	15112045.549224

Surface Areas

Positive Surface Area [Cut]:	10564482.080935
Negative Surface Area [Fill]:	207081.49613686

APPENDIX D

CARBON DIOXIDE FLUX CONTOURS



Legend

- Natural Spring Location
- Parcel Boundary & Owner (White)
- Carbon Dioxide Flux Contour (mol/m^2 • day)
- Contour Interval Varies

Carbon Dioxide Flux Measurement (mol/m^2 • day)

- 0.0000 - 0.0100
- 0.0101 - 0.5000
- 0.5001 - 1.0000
- 1.0001 - 5.0000
- 5.0001 - 10.0000

mol/m^2 • day - moles per square meter per day

Points not labeled are 0.0000 mol/m^2 • day Carbon Dioxide

- Township Range Section
- Surface Water

Geology

- Fruitland Formation (Kf)
- Fruitland Formation Tongue (Kft)
- Kirtland Formation (Kk)
- Pictured Cliffs Formation (Kpc)
- Pictured Cliffs Formation Tongue (Kpct)
- Quaternary Alluvium (Qa)
- Quaternary Gravel (Qg)

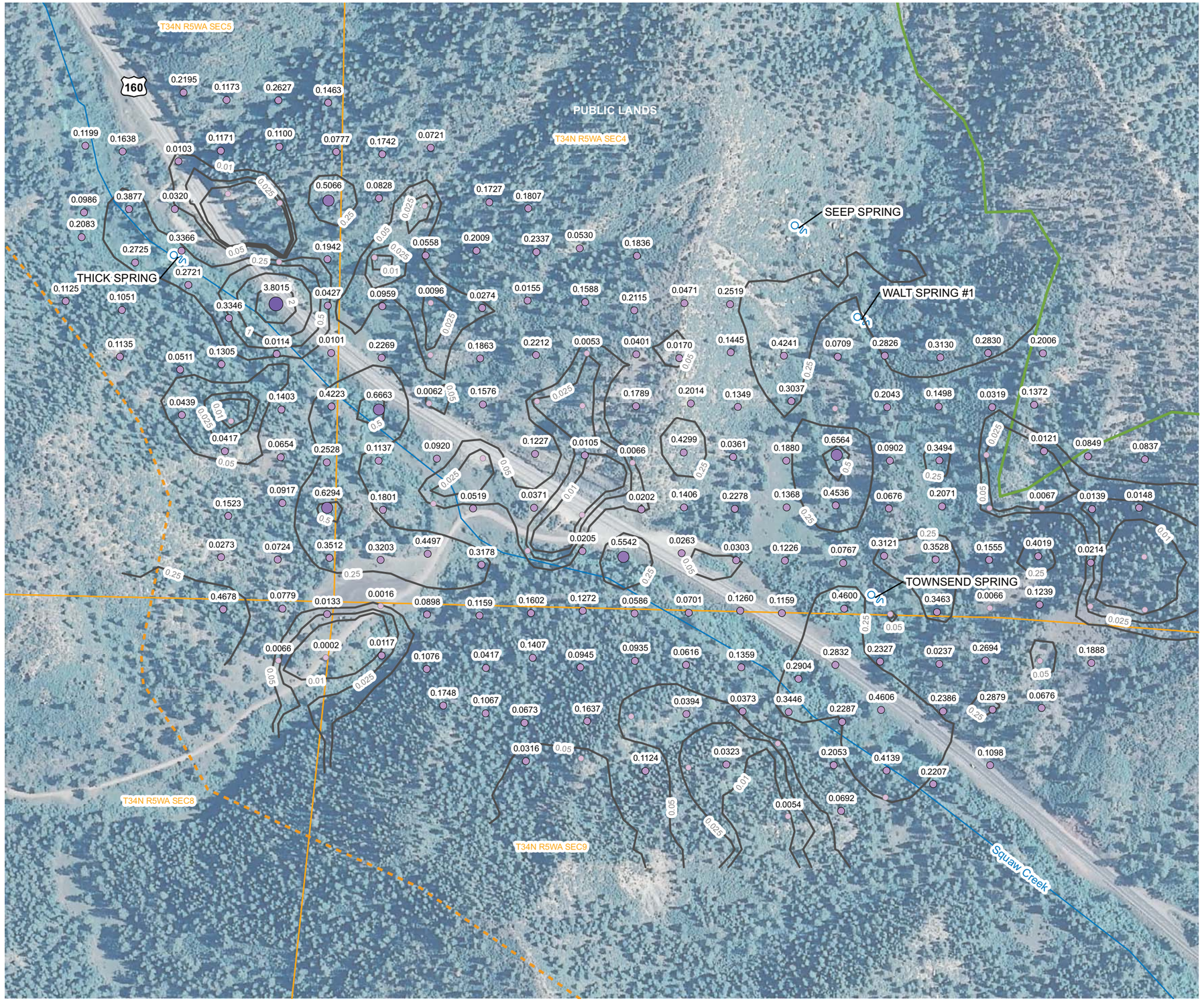
IMAGE COURTESY OF USDA/NRCS, 2009

0 250 500
Feet

N

FIGURE D1
CARBON DIOXIDE FLUX CONTOURS
BEAVER CREEK
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO
ELM RIDGE RESOURCES AND PETROX RESOURCES

P:\San Juan Basin GIS\Archuleta\Fruitland_OMR\MXDs\Subgas_Flux\2010\Fig_06_CO2.mxd



Legend

- Natural Spring Location
- Parcel Boundary & Owner (White)
- Carbon Dioxide Flux Contour (mol/m^2 • day)
- Contour Interval Varies

Carbon Dioxide Flux Measurement (mol/m^2 • day)

- 0.0000 - 0.0100
- 0.0101 - 0.5000
- 0.5001 - 1.0000
- 1.0001 - 5.0000
- 5.0001 - 10.0000

mol/m^2 • day - moles per square meter per day

Points not labeled are 0.0000 mol/m^2 • day Carbon Dioxide

- Township Range Section
- Surface Water

Geology

- Fruitland Formation (Kf)
- Fruitland Formation Tongue (Kft)
- Kirtland Formation (Kk)
- Pictured Cliffs Formation (Kpc)
- Pictured Cliffs Formation Tongue (Kpct)
- Quaternary Alluvium (Qa)
- Quaternary Gravel (Qg)

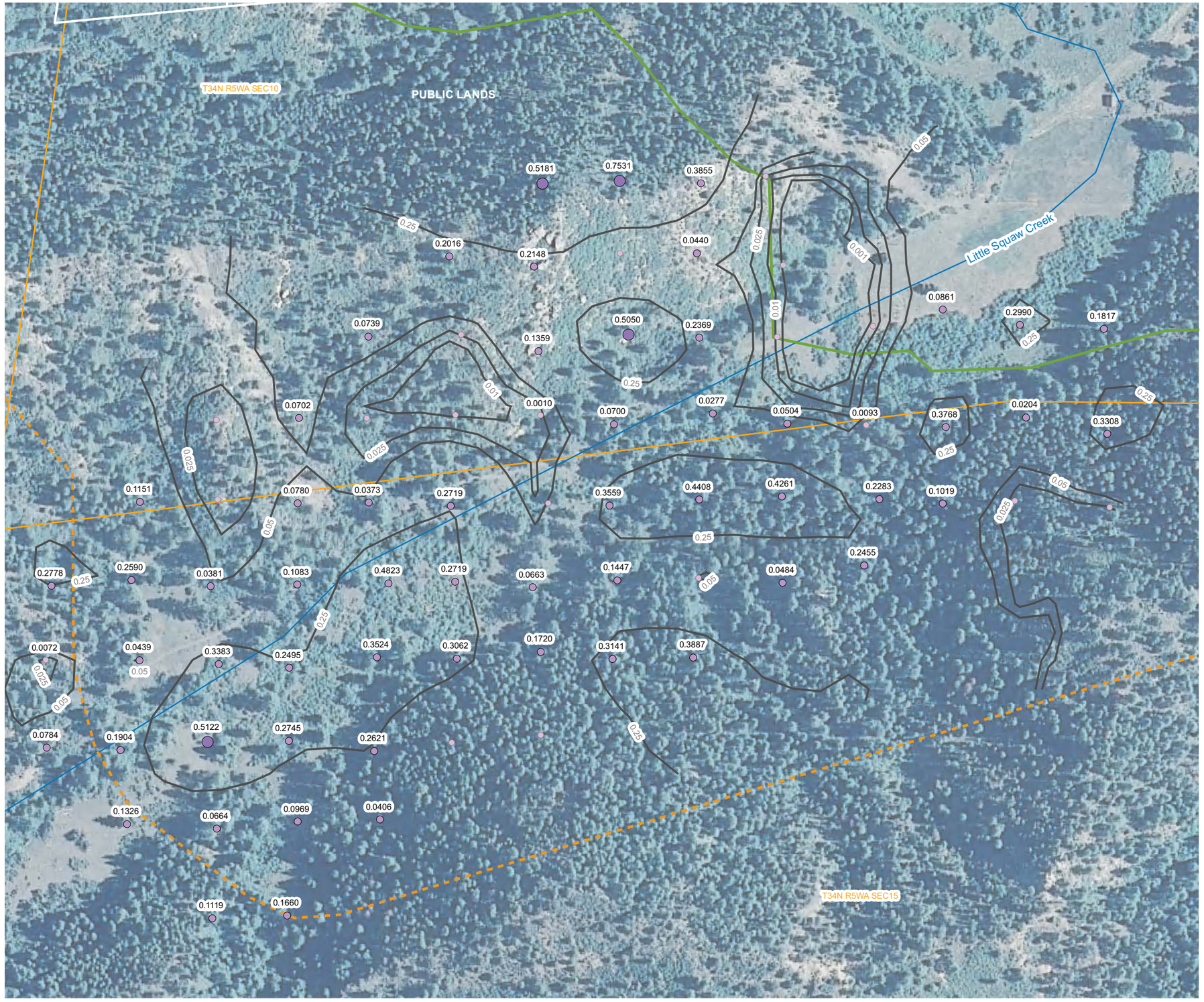
IMAGE COURTESY OF USDA/NRCS, 2009

0 400 800
Feet

N

FIGURE D2
CARBON DIOXIDE FLUX CONTOURS
SQUAW CREEK
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO
ELM RIDGE RESOURCES AND PETROX RESOURCES

P:\San Juan Basin GIS\Archuleta\Fruitland_OMR\MXDs\Subgas_Flux\2010\Fig_06_CO2.mxd



Legend

- Natural Spring Location
- Parcel Boundary & Owner (White)
- Carbon Dioxide Flux Contour (mol/m^2 • day)
- Contour Interval Varies

Carbon Dioxide Flux Measurement (mol/m^2 • day)

- 0.0000 - 0.0100
- 0.0101 - 0.5000
- 0.5001 - 1.0000
- 1.0001 - 5.0000
- 5.0001 - 10.0000

mol/m^2 • day - moles per square meter per day

Points not labeled are 0.0000 mol/m^2 • day Carbon Dioxide

- Township Range Section
- Surface Water

Geology

- Fruitland Formation (Kf)
- Fruitland Formation Tongue (Kft)
- Kirtland Formation (Kk)
- Pictured Cliffs Formation (Kpc)
- Pictured Cliffs Formation Tongue (Kpct)
- Quaternary Alluvium (Qa)
- Quaternary Gravel (Qg)

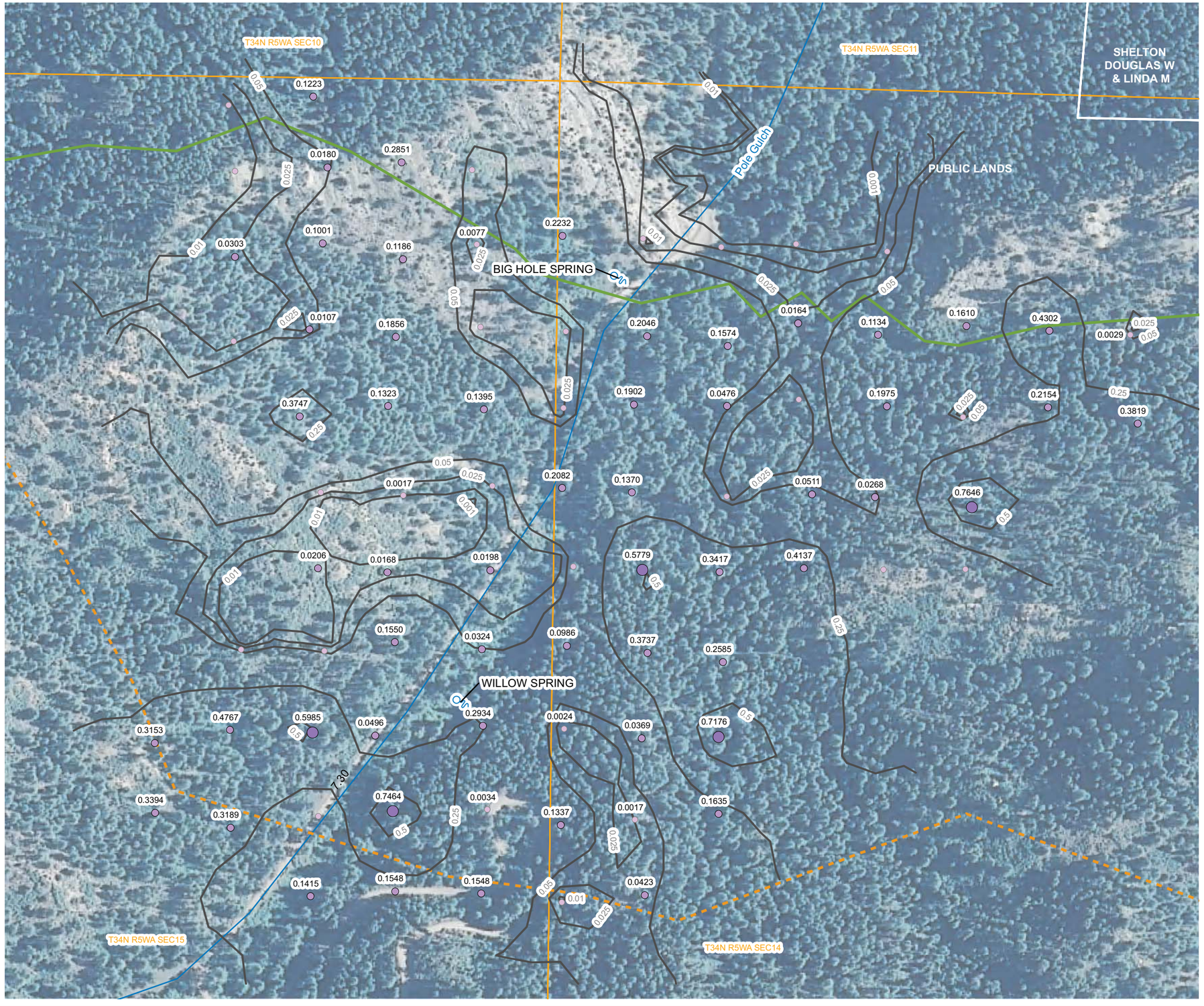
IMAGE COURTESY OF USDA/NRCS, 2009

0 250 500
Feet

N

FIGURE D3
CARBON DIOXIDE FLUX CONTOURS
LITTLE SQUAW CREEK
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO
ELM RIDGE RESOURCES AND PETROX RESOURCES

P:\San Juan Basin GIS\Archuleta\Fruitland_OMR\MXDs\Subgas_Flux\2010\Fig_06_CO2.mxd



Legend

- Natural Spring Location
- Parcel Boundary & Owner (White)
- Carbon Dioxide Flux Contour (mol/m^2 • day)
- Contour Interval Varies

Carbon Dioxide Flux Measurement (mol/m^2 • day)

- 0.0000 - 0.0100
- 0.0101 - 0.5000
- 0.5001 - 1.0000
- 1.0001 - 5.0000
- 5.0001 - 10.0000

mol/m^2 • day - moles per square meter per day

Points not labeled are 0.0000 mol/m^2 • day Carbon Dioxide

- Township Range Section
- Surface Water

Geology

- Fruitland Formation (Kf)
- Fruitland Formation Tongue (Kft)
- Kirtland Formation (Kk)
- Pictured Cliffs Formation (Kpc)
- Pictured Cliffs Formation Tongue (Kpct)
- Quaternary Alluvium (Qa)
- Quaternary Gravel (Qg)

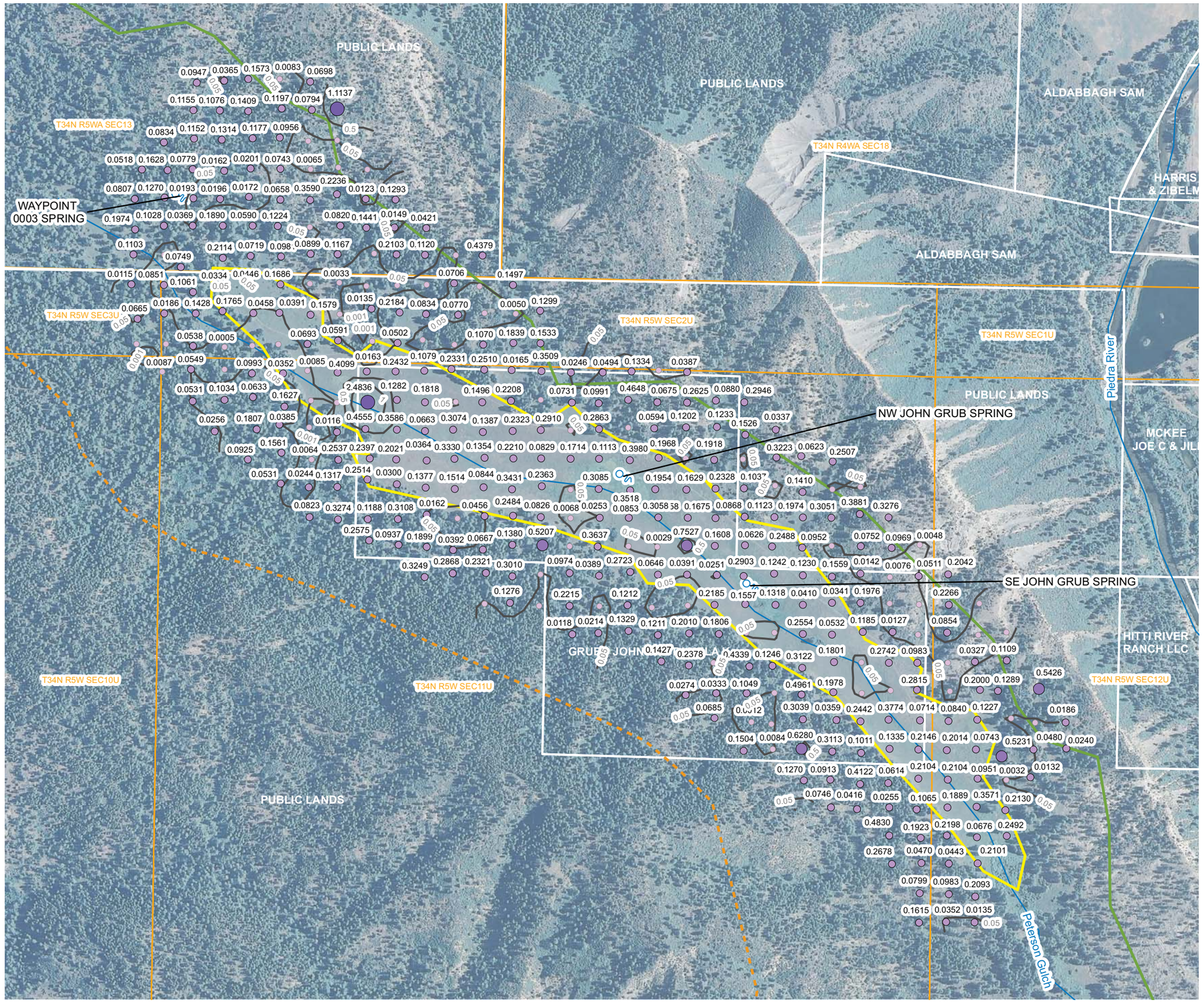
IMAGE COURTESY OF USDA/NRCS, 2009

0 250 500
Feet

N

FIGURE D4
CARBON DIOXIDE FLUX CONTOURS
POLE GULCH
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO
ELM RIDGE RESOURCES AND PETROX RESOURCES

P:\San Juan Basin GIS\Archuleta\Fruitland_OMR\MXDs\Subgas_Flux\2010\Fig_06_CO2.mxd



Legend

- Natural Spring Location
- Parcel Boundary & Owner (White)
- Carbon Dioxide Flux Contour (mol/m^2 • day)
- Contour Interval Varies

Carbon Dioxide Flux Measurement (mol/m^2 • day)

- 0.0000 - 0.0100
- 0.0101 - 0.5000
- 0.5001 - 1.0000
- 1.0001 - 5.0000
- 5.0001 - 10.0000

mol/m^2 • day - moles per square meter per day

Points not labeled are 0.0000 mol/m^2 • day Carbon Dioxide

- Township Range Section
- Surface Water

Geology

- Fruitland Formation (Kf)
- Fruitland Formation Tongue (Kft)
- Kirtland Formation (Kk)
- Pictured Cliffs Formation (Kpc)
- Pictured Cliffs Formation Tongue (Kpct)
- Quaternary Alluvium (Qa)
- Quaternary Gravel (Qg)

IMAGE COURTESY OF USDA/NRCS, 2009

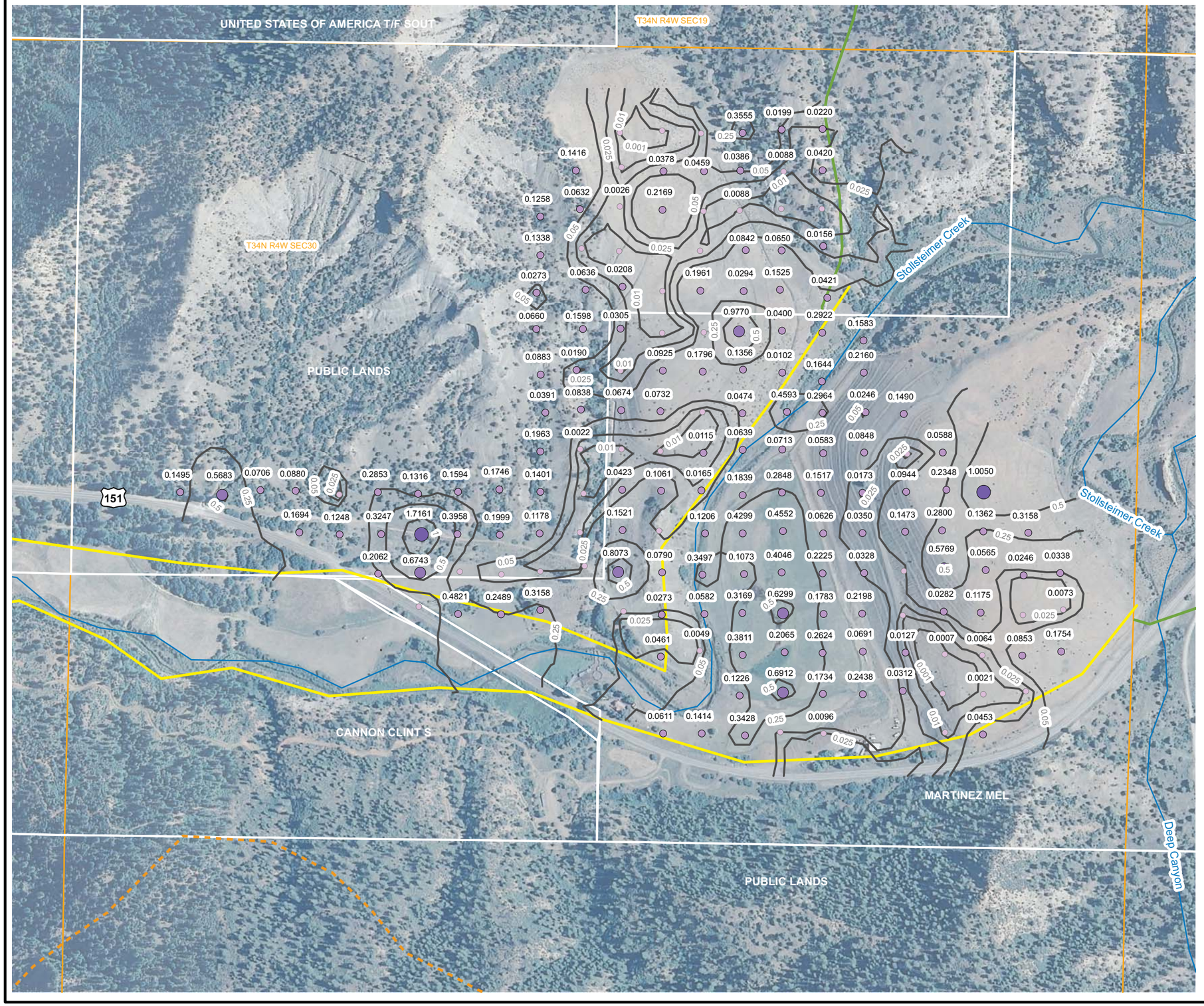
0 700 1,400
Feet

N

FIGURE D5
CARBON DIOXIDE FLUX CONTOURS
PETERSON GULCH
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO

ELM RIDGE RESOURCES AND PETROX RESOURCES

P:\San Juan Basin GIS\Archuleta\Fruitland_OMR\MXDs\Subgas_Flux\2010\Fig_06_CO2.mxd



Legend

- Natural Spring Location
- Parcel Boundary & Owner (White)
- Carbon Dioxide Flux Contour (mol/m^2 • day)
- Contour Interval Varies

Carbon Dioxide Flux Measurement (mol/m^2 • day)

- 0.0000 - 0.0100
- 0.0101 - 0.5000
- 0.5001 - 1.0000
- 1.0001 - 5.0000
- 5.0001 - 10.0000

mol/m^2 • day - moles per square meter per day

Points not labeled are 0.0000 mol/m^2 • day Carbon Dioxide

- Township Range Section
- Surface Water

Geology

- Fruitland Formation (Kf)
- Fruitland Formation Tongue (Kft)
- Kirtland Formation (Kk)
- Pictured Cliffs Formation (Kpc)
- Pictured Cliffs Formation Tongue (Kpct)
- Quaternary Alluvium (Qa)
- Quaternary Gravel (Qg)

IMAGE COURTESY OF USDA/NRCS, 2009

0 500 1,000
Feet

N

FIGURE D6
CARBON DIOXIDE FLUX CONTOURS
STOLLSTEIMER CREEK
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO
ELM RIDGE RESOURCES AND PETROX RESOURCES

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Legend

- Abandoned Oil and Gas Well
- Natural Spring Location
- Parcel Boundary & Owner (White)
- Carbon Dioxide Flux Contour (mol/m^2 • day)
- Contour Interval Varies

Carbon Dioxide Flux Measurement (mol/m^2 • day)

- 0.0000 - 0.0100
- 0.0101 - 0.5000
- 0.5001 - 1.0000
- 1.0001 - 5.0000
- 5.0001 - 10.0000

mol/m^2 • day - moles per square meter per day

Points not labeled are 0.0000 mol/m^2 • day Carbon Dioxide

- Township Range Section
- Surface Water

Geology

- Fruitland Formation (Kf)
- Fruitland Formation Tongue (Kft)
- Kirtland Formation (Kk)
- Pictured Cliffs Formation (Kpc)
- Pictured Cliffs Formation Tongue (Kpct)
- Quaternary Alluvium (Qa)
- Quaternary Gravel (Qg)

IMAGE COURTESY OF USDA/NRCS, 2009

0 80 160
Feet

N

FIGURE D7
CARBON DIOXIDE FLUX CONTOURS
BIG HORN-SCHOMBURG #1
2010 FRUITLAND OUTCROP MONITORING
ARCHULETA COUNTY, COLORADO
ELM RIDGE RESOURCES AND PETROX RESOURCES

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APPENDIX E

NATURAL SPRINGS LABORATORY ANALYTICAL RESULTS

AND STIFF DIAGRAMS

GAL ID No.: 1007-066

July 30, 2010

LT Environmental
PO Box 874
Bayfield, CO 81122
Attention: Travis Laverty

Project Name:
Project Number: MS 1010
Date Received: 07/12/10

This is to transmit the attached analytical report. The analytical data and information contained therein was generated using specified or selected methods contained in references, such as Standard Methods for the Examination of Water and Wastewater, 18th & 19th editions, and Methods for Determination of Organic Compounds in Drinking Water, EPA-600/4-79-020.

Samples were received by Green Analytical Laboratories in good condition on 07/12/10.

If you should have any questions or comments regarding this report, please do not hesitate to call.

Sincerely,

Debbie Zufelt
Laboratory Manager

Green Analytical Laboratories
75 Suttle Street
Durango, CO 81303

GAL I.D.: **1007-066-01**

LT Environmental
PO Box 874
Bayfield, CO 81122
Attention: Travis Laverty

Date Received: 07/12/10
Date Reported: 07/30/10
QC Batches:

PROJECT NAME:
PROJECT NUMBER: MS 1010
SAMPLE I.D.: NW John Grubb

Sample Date: 07/12/10
Sample Matrix: Water

Laboratory Report

RESULTS

PARAMETER	METHOD	REPORT LIMIT	RESULT	DIL	UNITS	Maximum Contamination Level
Alkalinity, Total	2320B	10	177	1	mg/L	
Alkalinity, Bicarbonate	2320B	10	175	1	mg/L	
Alkalinity, Carbonate	2320B	10	<10	1	mg/L	
Alkalinity, Hydroxide	2320B	10	<10	1	mg/L	
Bromide	4500 Br	0.10	<0.10	1	mg/L	
Calcium	200.7	0.5	66.1	1	mg/L	
Chloride	4500CL	10	<10	1	mg/L	
Conductivity	2510B	1.0	439	1	uS/cm	
Fluoride	4500F C	0.2	0.3	1	mg/L	4.0
H2 S	Calc.	0.05	<0.05	1	mg/L	
Iron	200.7	0.05	0.15	1	mg/L	
Magnesium	200.7	0.5	14.0	1	mg/L	
Manganese	200.8	0.0005	0.0305	1	mg/L	
Nitrate/Nitrite as N	353.3	0.02	0.02	1	mg/L	
pH	150.1	NA	7.29	NA	SU	
Potassium	200.7	0.5	0.8	1	mg/L	
Selenium	200.8	0.001	<0.001	1	mg/L	0.05
Sodium	200.7	0.5	12.1	1	mg/L	
Sulfate	4500SO4	10	71	1	mg/L	
Sulfide	4500S_	0.05	<0.05	1	mg/L	
TDS	2540C	10	220	1	mg/L	
Hardness	Calc	10	223	1	mg/L	
CAB	Calc		5.13		%	

_____
Debbie Zufelt, Laboratory Manager

Green Analytical Laboratories
75 Suttle Street
Durango, CO 81303

GAL I.D.: **1007-066-02**

LT Environmental
PO Box 874
Bayfield, CO 81122
Attention: Travis Laverty

Date Received: 07/12/10
Date Reported: 07/30/10
QC Batches:

PROJECT NAME:
PROJECT NUMBER: MS 1010
SAMPLE I.D.: Section 14

Sample Date: 07/12/10
Sample Matrix: Water

Laboratory Report

RESULTS

PARAMETER	METHOD	REPORT LIMIT	RESULT	DIL	UNITS	Maximum Contamination Level
Alkalinity, Total	2320B	10	171	1	mg/L	
Alkalinity, Bicarbonate	2320B	10	169	1	mg/L	
Alkalinity, Carbonate	2320B	10	<10	1	mg/L	
Alkalinity, Hydroxide	2320B	10	<10	1	mg/L	
Bromide	4500 Br	0.10	0.3	1	mg/L	
Calcium	200.7	0.5	57.5	1	mg/L	
Chloride	4500CL	10	<10	1	mg/L	
Conductivity	2510B	1.0	407	1	uS/cm	
Fluoride	4500F C	0.2	0.5	1	mg/L	4.0
H2 S	Calc.	0.05	<0.05	1	mg/L	
Iron	200.7	0.05	<0.05	1	mg/L	
Magnesium	200.7	0.5	6.1	1	mg/L	
Manganese	200.8	0.0005	0.0027	1	mg/L	
Nitrate/Nitrite as N	353.3	0.02	<0.02	1	mg/L	
pH	150.1	NA	7.26	NA	SU	
Potassium	200.7	0.5	0.8	1	mg/L	
Selenium	200.8	0.001	0.001	1	mg/L	0.05
Sodium	200.7	0.5	24.7	1	mg/L	
Sulfate	4500SO4	10	55	1	mg/L	
Sulfide	4500S_	0.05	<0.05	1	mg/L	
TDS	2540C	10	228	1	mg/L	
Hardness	Calc	10	169	1	mg/L	
CAB	Calc		4.02		%	

_____
Debbie Zufelt, Laboratory Manager

Green Analytical Laboratories
75 Suttle Street
Durango, CO 81303

GAL I.D.: **1007-066-03**

LT Environmental
PO Box 874
Bayfield, CO 81122
Attention: Travis Laverty

Date Received: 07/12/10
Date Reported: 07/30/10
QC Batches:

PROJECT NAME:
PROJECT NUMBER: MS 1010
SAMPLE I.D.: Willow

Sample Date: 07/12/10
Sample Matrix: Water

Laboratory Report

RESULTS

PARAMETER	METHOD	REPORT LIMIT	RESULT	DIL	UNITS	Maximum Contamination Level
Alkalinity, Total	2320B	10	133	1	mg/L	
Alkalinity, Bicarbonate	2320B	10	131	1	mg/L	
Alkalinity, Carbonate	2320B	10	<10	1	mg/L	
Alkalinity, Hydroxide	2320B	10	<10	1	mg/L	
Bromide	4500 Br	0.10	0.17	1	mg/L	
Calcium	200.7	0.5	39.2	1	mg/L	
Chloride	4500CL	10	<10	1	mg/L	
Conductivity	2510B	1.0	290	1	uS/cm	
Fluoride	4500F C	0.2	0.2	1	mg/L	4.0
H2 S	Calc.	0.05	<0.05	1	mg/L	
Iron	200.7	0.05	0.07	1	mg/L	
Magnesium	200.7	0.5	5.7	1	mg/L	
Manganese	200.8	0.0005	0.0332	1	mg/L	
Nitrate/Nitrite as N	353.3	0.02	<0.02	1	mg/L	
pH	150.1	NA	7.00	NA	SU	
Potassium	200.7	0.5	1.8	1	mg/L	
Selenium	200.8	0.001	<0.001	1	mg/L	0.05
Sodium	200.7	0.5	16.3	1	mg/L	
Sulfate	4500SO4	10	16	1	mg/L	
Sulfide	4500S_	0.05	<0.05	1	mg/L	
TDS	2540C	10	160	1	mg/L	
Hardness	Calc	10	121	1	mg/L	
CAB	Calc		8.75		%	

_____
Debbie Zufelt, Laboratory Manager

Green Analytical Laboratories
75 Suttle Street
Durango, CO 81303

GAL I.D.: **1007-066-04**

LT Environmental
PO Box 874
Bayfield, CO 81122
Attention: Travis Laverty

Date Received: 07/12/10
Date Reported: 07/30/10
QC Batches:

PROJECT NAME:
PROJECT NUMBER: MS 1010
SAMPLE I.D.: Vance #1

Sample Date: 07/12/10
Sample Matrix: Water

Laboratory Report

RESULTS

PARAMETER	METHOD	REPORT LIMIT	RESULT	DIL	UNITS	Maximum Contamination Level
Alkalinity, Total	2320B	10	226	1	mg/L	
Alkalinity, Bicarbonate	2320B	10	226	1	mg/L	
Alkalinity, Carbonate	2320B	10	<10	1	mg/L	
Alkalinity, Hydroxide	2320B	10	<10	1	mg/L	
Bromide	4500 Br	0.10	<0.10	1	mg/L	
Calcium	200.7	0.5	63.4	1	mg/L	
Chloride	4500CL	10	<10	1	mg/L	
Conductivity	2510B	1.0	433	1	uS/cm	
Fluoride	4500F C	0.2	<0.2	1	mg/L	4.0
H2 S	Calc.	0.05	<0.05	1	mg/L	
Iron	200.7	0.05	0.06	1	mg/L	
Magnesium	200.7	0.5	8.4	1	mg/L	
Manganese	200.8	0.0005	0.0939	1	mg/L	
Nitrate/Nitrite as N	353.3	0.02	0.04	1	mg/L	
pH	150.1	NA	7.72	NA	SU	
Potassium	200.7	0.5	5.8	1	mg/L	
Selenium	200.8	0.001	<0.001	1	mg/L	0.05
Sodium	200.7	0.5	14.9	1	mg/L	
Sulfate	4500SO4	10	<10	1	mg/L	
Sulfide	4500S_	0.05	<0.05	1	mg/L	
TDS	2540C	10	245	1	mg/L	
Hardness	Calc	10	193	1	mg/L	
CAB	Calc		6.96		%	

_____
Debbie Zufelt, Laboratory Manager

Green Analytical Laboratories
75 Suttle Street
Durango, CO 81303

GAL I.D.: **1007-066-05**

LT Environmental
PO Box 874
Bayfield, CO 81122
Attention: Travis Laverty

Date Received: 07/12/10
Date Reported: 07/30/10
QC Batches:

PROJECT NAME:
PROJECT NUMBER: MS 1010
SAMPLE I.D.: Watson

Sample Date: 07/12/10
Sample Matrix: Water

Laboratory Report

RESULTS

PARAMETER	METHOD	REPORT LIMIT	RESULT	DIL	UNITS	Maximum Contamination Level
Alkalinity, Total	2320B	10	230	1	mg/L	
Alkalinity, Bicarbonate	2320B	10	218	1	mg/L	
Alkalinity, Carbonate	2320B	10	12	1	mg/L	
Alkalinity, Hydroxide	2320B	10	<10	1	mg/L	
Bromide	4500 Br	0.10	0.42	1	mg/L	
Calcium	200.7	0.5	78.1	1	mg/L	
Chloride	4500CL	10	<10	1	mg/L	
Conductivity	2510B	1.0	566	1	uS/cm	
Fluoride	4500F C	0.2	<0.2	1	mg/L	4.0
H2 S	Calc.	0.05	<0.05	1	mg/L	
Iron	200.7	0.05	0.10	1	mg/L	
Magnesium	200.7	0.5	26.9	1	mg/L	
Manganese	200.8	0.0005	0.0048	1	mg/L	
Nitrate/Nitrite as N	353.3	0.02	2.61	1	mg/L	
pH	150.1	NA	7.03	NA	SU	
Potassium	200.7	0.5	2.5	1	mg/L	
Selenium	200.8	0.001	<0.001	1	mg/L	0.05
Sodium	200.7	0.5	18.1	1	mg/L	
Sulfate	4500SO4	10	84	1	mg/L	
Sulfide	4500S_	0.05	<0.05	1	mg/L	
TDS	2540C	10	325	1	mg/L	
Hardness	Calc	10	306	1	mg/L	
CAB	Calc		8.00		%	

_____
Debbie Zufelt, Laboratory Manager

Green Analytical Laboratories
75 Suttle Street
Durango, CO 81303

GAL I.D.: **1007-066-06**

LT Environmental
PO Box 874
Bayfield, CO 81122
Attention: Travis Laverty

Date Received: 07/12/10
Date Reported: 07/30/10
QC Batches:

PROJECT NAME:
PROJECT NUMBER: MS 1010
SAMPLE I.D.: Crain

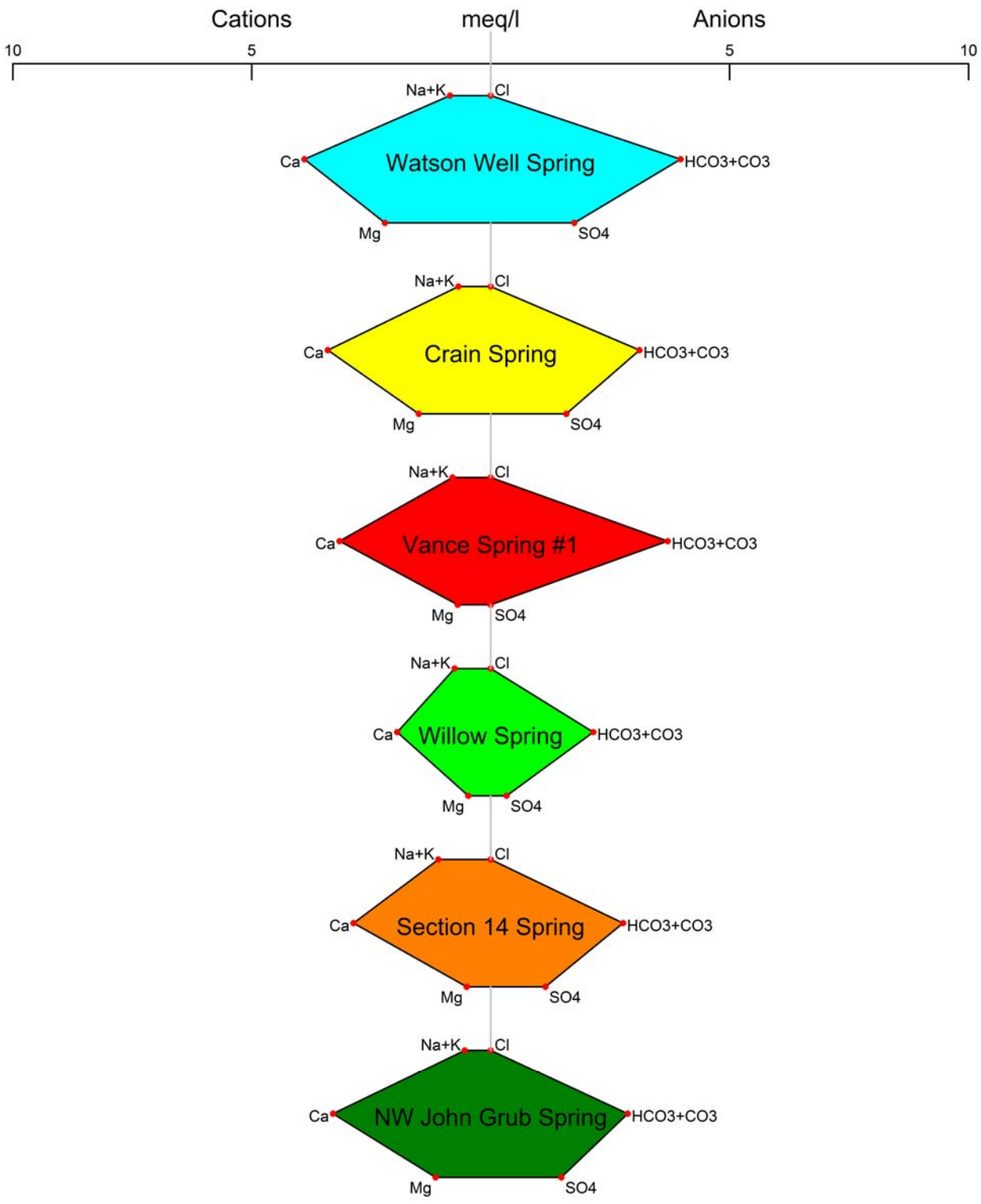
Sample Date: 07/12/10
Sample Matrix: Water

Laboratory Report

RESULTS

PARAMETER	METHOD	REPORT LIMIT	RESULT	DIL	UNITS	Maximum Contamination Level
Alkalinity, Total	2320B	10	196	1	mg/L	
Alkalinity, Bicarbonate	2320B	10	190	1	mg/L	
Alkalinity, Carbonate	2320B	10	<10	1	mg/L	
Alkalinity, Hydroxide	2320B	10	<10	1	mg/L	
Bromide	4500 Br	0.10	0.30	1	mg/L	
Calcium	200.7	0.5	68.3	1	mg/L	
Chloride	4500CL	10	<10	1	mg/L	
Conductivity	2510B	1.0	476	1	uS/cm	
Fluoride	4500F C	0.2	<0.2	1	mg/L	4.0
H2 S	Calc.	0.05	<0.05	1	mg/L	
Iron	200.7	0.05	<0.05	1	mg/L	
Magnesium	200.7	0.5	18.3	1	mg/L	
Manganese	200.8	0.0005	0.0054	1	mg/L	
Nitrate/Nitrite as N	353.3	0.02	0.06	1	mg/L	
pH	150.1	NA	7.46	NA	SU	
Potassium	200.7	0.5	1.9	1	mg/L	
Selenium	200.8	0.001	<0.001	1	mg/L	0.05
Sodium	200.7	0.5	14.4	1	mg/L	
Sulfate	4500SO4	10	76	1	mg/L	
Sulfide	4500S_	0.05	<0.05	1	mg/L	
TDS	2540C	10	220	1	mg/L	
Hardness	Calc	10	246	1	mg/L	
CAB	Calc		6.02		%	

_____
Debbie Zufelt, Laboratory Manager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meq/l
Anions
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5
5
10
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Ca
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HCO3+CO3
Mg
SO4
Na+K
Cl
Ca
Crain Spring
HCO3+CO3
Mg
SO4
Na+K
Cl
Ca
Vance Spring #1
HCO3+CO3
Mg
SO4
Na+K
Cl
Ca
Willow Spring
HCO3+CO3
Mg
SO4
Na+K
Cl
Ca
Section 14 Spring
HCO3+CO3
Mg
SO4
Na+K
Cl
Ca
NW John Grub Spring
HCO3+CO3
Mg
SO4