COMPLIANCE / ENGINEERING / REMEDIATION

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October 9, 2006

Ms. Debbie Baldwin
Colorado Oil and Gas Conservation Commission
1120 Lincoln Street, Suite 801
Denver, Colorado 80203

RE: September 21, 2006 Methane Seep Survey
Bondad, Colorado

Dear Ms. Baldwin:

LT Environmental, Inc. (LTE) is pleased to provide the Colorado Oil and Gas Conservation Commission (COGCC) with this letter summarizing the results of the tenth methane seep survey conducted at the Bondad Gas Seep Site (Site) located in Bondad, Colorado on September 21, 2006. This is the second survey since drilling and re-completion activities were conducted at the Bryce 1-X well between late July 2006 and early August 2006.

BACKGROUND

At the request of the COGCC, LTE conducted an initial methane gas seep survey of the Site in response to an explosion of a residence located at 4034 US Highway 550 (the former Yoakum Residence). The results of the initial soil gas survey are presented in the *Methane Seep Survey Report* (March 2005). Additional soil gas surveys were performed on April 19, 2005, June 10, 2005, November 1, 2005, December 2, 2005, January 30, 2006, April 6, 2006, June 28, 2006, and August 28, 2006. All project reports are available on the COGCC website at www.oil-gas.state.co.us.

LTE conducted a geophysical survey of the seep area in April 2005 which identified several areas suspected of containing buried structures with the potential to act as conduits for methane gas. Exploratory excavation activities were conducted in these suspect areas in August 2005 and the abandoned Bryce 1-X well was uncovered in the main gas seep area. In November, 2005, LTE provided oversight during the excavation, inspection, and initial remediation of the Bryce 1-X well and sandstone bedrock surface. Reports summarizing the geophysical survey, exploratory excavation activities, and the Bryce 1-X well remediation activities are also available on the COGCC website.

Recent activity at the site has included continued operation and maintenance (O&M) of the methane detection systems located at the fire station, Weston well house, Weston residence, Wilson residence, Buddhue residence, and Bandy (former Grant) residence.

SITE DESCRIPTION

The Site is located in Bondad, Colorado, approximately 20 miles south of Durango, Colorado (Figure 1). The Site is located approximately 0.25 miles north of the confluence of the Animas River to the west and the Florida River to the east. The Site consists of several tracts of land covering more than 100 acres. The surrounding land use consists of several residential properties, agricultural properties,

a fire station, US Highway 550, the Animas River, and the Florida River. The majority of land in the area is privately owned.

METHANE GAS SEEP SURVEY

Methodology

On September 21, 2006, LTE was on site to conduct the tenth methane gas seep survey of the Site. The scope of the survey was similar to the previous surveys conducted at the Site. During the soil gas survey, tubing was lowered into each borehole and gas measurements were collected directly from the shallow surface soil approximately three feet below ground surface (bgs). LTE measured the concentration of methane, carbon monoxide, hydrogen sulfide, and oxygen at each sampling location.

LTE created a sampling grid to cover the mapping area systematically and to provide a means to delineate the extent of the gas seepage. LTE collected a soil gas measurement at the corners of each square in the grid. Each sample location was recorded using a Trimble GeoXT® global positioning system (GPS). When methane was detected along the edges of the grid, additional measurements were collected outside of the grid to define the extent of the seep area more completely.

LTE measured the methane concentration in the soil around the exterior of all five houses in the mapping area, near the water wells associated with each of the structures, and along the valley floor of both the Animas and Florida Rivers.

Soil Gas Survey Results

LTE personnel advanced a total of 127 subsurface probes across the project area. Results of this survey indicate that elevated methane gas was detected in an area around the Bryce 1-X well covering approximately 2.4 acres. The distribution of the methane gas in this area extended approximately 360 feet north of, 40 feet south of, 220 feet west of, and 80 feet east of the Bryce 1-X well. Detected methane concentrations in the seep area ranged from 500 parts per million (ppm) (0.05%) to 20%.

Methane was detected near the Buddhue water well at a concentration of 23%. Methane was not detected around the Weston, Bandy, Wilson, or Williams residences nor near the water wells associated with these structures. Methane was not detected in the vicinity of the Cain 31-2 coal bed methane (CBM) production well during the September 2006 survey.

Methane was not detected along the floodplain of the Animas River nor the Florida River during the September 2006 methane seep survey.

Figure 1 shows all methane concentrations recorded during the August 2006 methane seep survey.

Methane Seep Survey Comparison

Fewer gas measurements were collected during the September 2006 survey than during previous surveys. The decrease in the number of gas measurements collected is the result of a smaller seep area requiring fewer measurements to define the areal extent of seepage.

LTE prepared a map illustrating the historical areal extent of methane seepage identified during the previous gas survey events (Figure 2). Comparison of the September 2006 data indicates that the areal extent of the primary seep area (around the abandoned Bryce 1-X well) is relatively consistent with the August 2006 survey. During the June 2006 and August 2006 surveys, the primary seep area extended over an area of approximately 5.7 acres and 2.7 acres, respectively. During the September 2006 survey, the primary seep area extended over an area of approximately 2.4 acres. This is the smallest areal extent of methane seepage observed at the site since monitoring began in February 2005.

The average methane concentration detected within the primary seep area during September 2006 is also consistent with the August 2006 survey. Data indicate that the concentrations within the primary seep area during the August and September 2006 surveys are the lowest concentrations detected since monitoring began in February 2005. The table below presents the number of points reporting detectable concentrations of methane and the average methane concentrations within the primary seep area during each of the soil gas survey events.

Table 1. Average Methane Concentrations

Survey Date	Number of Survey Points	Average Subsurface Methane (%)
Feb-05	112	23
Apr-05	45	33
Jun-05	37	21
Nov-05	45	32
Dec-05	25	21
Jan-06	31	10
Apr-06	32	29
Jun-06	23	25
Aug-06	13	2
Sep-06	13	3

The methane concentration detected near the Buddhue water well was 90% during the April 2006 and June 2006 surveys. During the September 2006 survey, the methane concentration near the Buddhue water well was 23%.

WELLHEAD DETECTION

LTE contract personnel attempted to locate the former N. Spatter #1 (API No. 05-067-05217), which was plugged and abandoned in 1998. The contractor visited the site on October 3, 2006 and used a metal detector to attempt to locate the abandoned well marker beneath the ground surface with the assistance of Mr. Russ Knight, pumper for Petrogulf Corporation. The contractor identified two possible locations of the abandoned well using the metal detector, but was unable to penetrate the shallow soil with a shovel due to large cobbles and stiff clay. A GPS was used to mark the locations with strong magnetic signals. The GPS coordinates of the possible locations of the N. Spatter #1 well are:

Location #1 : *Latitude*: 37.05512
Longitude: -107.87234

Location #2 : *Latitude*: 37.0552
Longitude: -107.8723

CONCLUSIONS AND RECOMMENDATIONS

The results of the September 2006 and August 2006 survey indicate that the areal extent and concentrations of methane seepage has decreased. These significant decreases are most likely the result of reentering, plugging, and abandoning the Bryce 1-X well in July - August 2006. Seep activity continues around the fire station and the Buddhue water well, but not in the vicinity of the other residences within the mapping area.

The primary methane seep appears to have been caused by gas migrating from the Fruitland Formation up the well bore of the Bryce 1-X well. The gas moved vertically upward along the well bore and then migrated laterally into permeable layers and aquifers of the Nacimiento Formation where well casing was absent and/or structurally compromised. It appears that the plugging of the Bryce 1-X has reduced the gas seepage at the ground surface. LTE recommends continued monitoring of the methane seep at the Site as a safety precaution for the residents in the area and to monitor the effectiveness of the plugging activities.

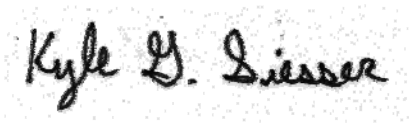
The next soil gas survey event is scheduled for December 2006. The monthly O&M will continue to be conducted by Standby Safety of Cortez, Colorado.

LTE was unable to confirm the location of the N. Spatter #1 using a shovel to excavate overlying soil. However, the strong magnetic signal exhibited by the metal detector indicates the N. Spatter #1 is located at one of the two areas identified. LTE recommends the use of an excavator or water knife to remove the shallow subsurface soil in the vicinity of the abandoned well in order to confirm or deny the possible locations of the N. Spatter #1 well.

In addition, LTE and COGCC staff have scheduled a meeting for October 20, 2006, at which time plans for active remediation of the residual gas in the gravel terrace deposits and in the ground water aquifers of the Nacimento Formation will be discussed. LTE appreciates the opportunity to provide environmental services to the COGCC. If you have any questions regarding this report or would like additional information, please contact us at (303) 433-9788.

Sincerely,

LT ENVIRONMENTAL, INC.

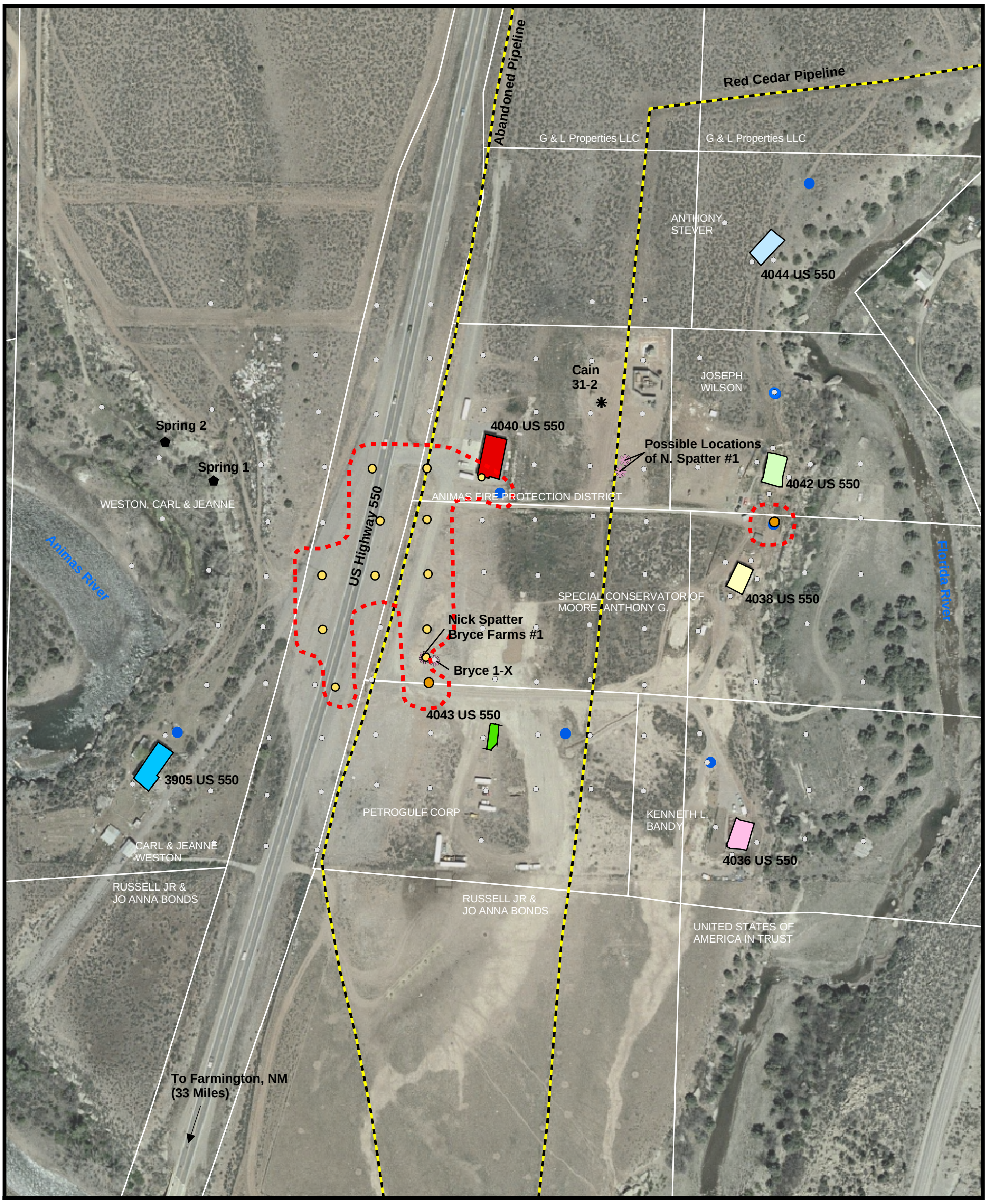


Kyle G. Siesser
Staff Geologist

John D. Peterson, P.G.
Project Manager

Attachments

FIGURES



LEGEND

- Water Supply Well
- Springs
- Gas Well
- Former Oil and Gas Well

Extent of Methane Seepage

- September 2006

Utilities

- Buried Gas Pipeline

Structures

- Williams Residence
- Fire Station
- Wilson Residence
- Buddhue Residence
- Bandy (former Grant) Residence
- Former Yoakum Residence
- Weston Residence

Subsurface Methane Measurements

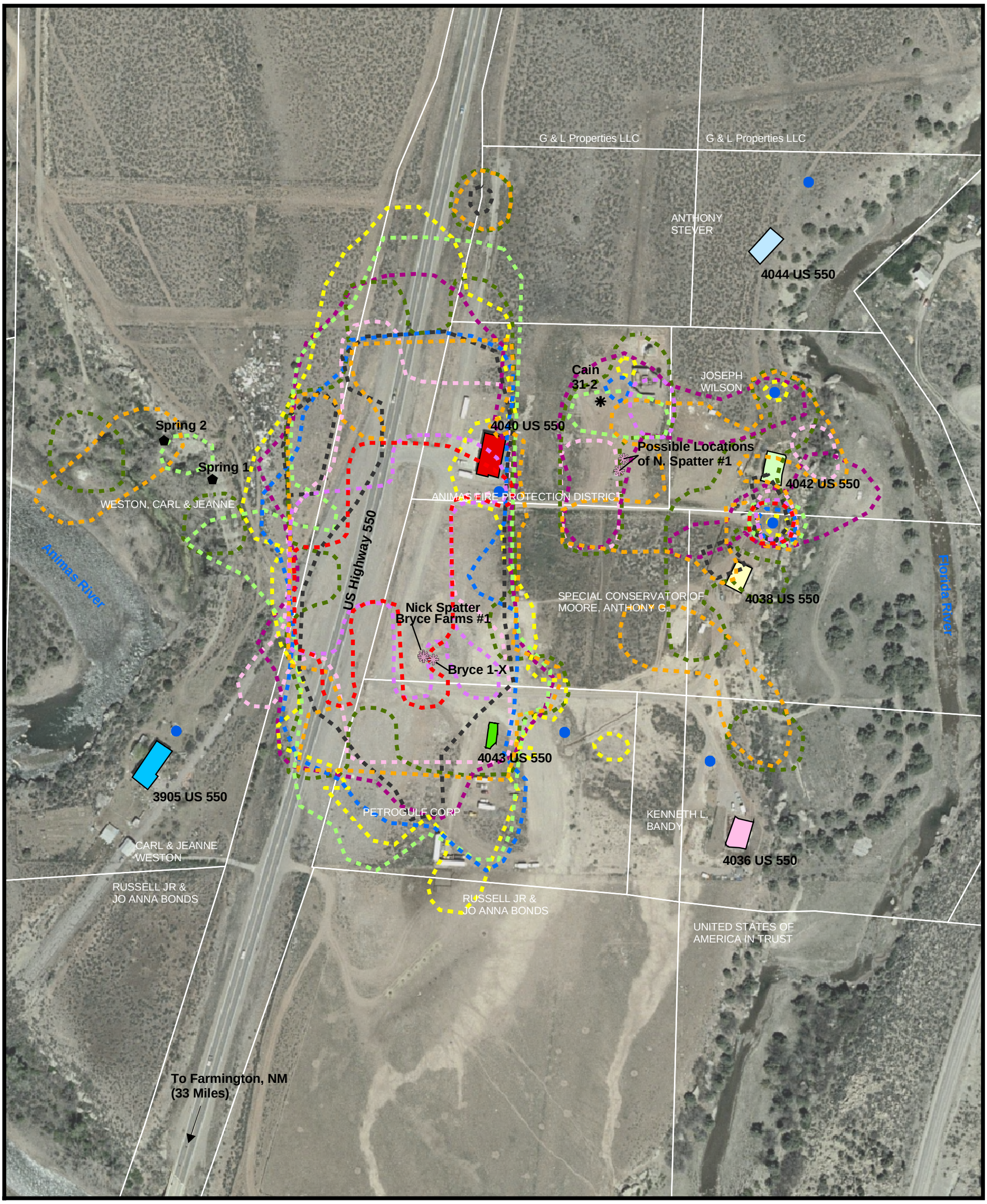
- 0
- 500 ppm - 5%
- 6% - 15%
- 16% - 25%
- 26% - 50%
- 51% - 75%
- 75% - 100%

0 350 Feet

N

Landowner and Property Boundaries Labeled in White

FIGURE 1
SUBSURFACE METHANE MEASUREMENTS
SEPTEMBER 2006
BONDAD GAS SEEP
BONDAD, CO
COLORADO OIL AND GAS CONSERVATION COMMISSION



Legend

Extent of Methane Seepage

- September 2006
- August 2006
- June 2006
- April 2006
- January 2006
- December 2005
- November 2005
- June 2005
- April 2005
- February 2005

Structures

- Williams Residence
- Fire Station
- Wilson Residence
- Buddhue Residence
- Bandy (former Grant) Residence
- Former Yoakum Residence
- Weston Residence

- Water Supply Wells
- Springs
- Gas Well
- Former Oil and Gas Well

0 360
Feet

N

Landowner and Property Boundaries Labeled in White

FIGURE 2
HISTORICAL SUBSURFACE METHANE MEASUREMENTS
FEBRUARY 2005 - SEPTEMBER 2006
BONDAD GAS SEEP
BONDAD, CO
COLORADO OIL AND GAS CONSERVATION COMMISSION