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February 20, 2013

David Moody  
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Dear Dave;

Please find enclosed four copies of the *2012 Status Update, Casing Leak Investigation, C, E, and F-Wellfields, Smith Ranch – Highland Operations*. Also included is a CD with pdf files of all the included materials

Sincerely,

A handwritten signature in black ink, appearing to read "Toby Wright", is written over a light blue horizontal line.

Toby Wright  
President

Cc file

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**2012 Status Update  
Casing Leak Investigation  
C, E and F Wellfields  
Smith Ranch-Highland Operations**

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**February 20, 2013**



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## ACRONYMS AND ABBREVIATIONS

|        |   |
|--------|---|
| AOC    | Administrative Order on Consent             |
| Cameco | Cameco Resources                            |
| CLI    | casing leak investigation                   |
| HSU    | hydrostratigraphic units                    |
| LQD    | Land Quality Division                       |
| mg/L   | milligrams per liter                        |
| MIT    | mechanical integrity testing                |
| PRI    | Power Resources, Inc.                       |
| SRH    | Smith Ranch Highland                        |
| WDEQ   | Wyoming Department of Environmental Quality |
| WES    | Wright Environmental Services               |

## 1.0 INTRODUCTION

On August 11, 2000, Power Resources, Inc. (PRI) received an Administrative Order on Consent (AOC) from the Wyoming Department of Environmental Quality (WDEQ), Land Quality Division (LQD) in response to a PRI Environmental Audit Report of Highland Uranium Project Wellfields dated November 21, 1999. The AOC required a compliance schedule and permit revision to be submitted within 60 days and submittal of quarterly progress reports until approval to cease was received. Additionally, the AOC required that PRI maintain the mechanical integrity of all operating injection wells. PRI responded to the AOC within the required 60 days on October 19, 2000, by submitting the requested Compliance Schedule and the Minor Permit Revision materials.

PRI, now doing business as Cameco Resources (Cameco), wishes to identify and mitigate potential impacts from the casing leaks and is implementing a sequential approach to accomplish this objective. The initial component of this casing leak investigation (CLI) involved an extensive records review and analysis to identify the hydrostratigraphic units (HSUs) potentially affected by casing failures in the C-, E-, and F-Wellfields (Plate 1) and the areas within these wellfields where these impacts may have occurred. The next component of the CLI involves field studies to determine the extent of the potential impacts in each identified HSU. The final component of this sequential approach will involve mitigation planning and implementation activities for the identified impacts. This report presents a summary of activities conducted between November 2011 and December 2012 to accomplish the following objectives:

- Determine general lithology and saturated thickness, if any, for potentially affected HSUs in each wellfield.
- Determine water quantity and quality in existing shallow monitoring wells.
- Determine upgradient water quality in each potentially affected HSU as a substitute for baseline or background water quality.
- Type water sources (upgradient, historic, current HSU water quality) to characterize differences in water quality and to aid in bounding the impacts to the HSUs. Use characteristics of water quality in each water source to determine impacts to HSUs.
- Utilize data gathered during targeted drilling activities to refine calculations and prepare a systematic plan for determining bounds of impacted HSUs.

## 2.0 SUMMARY OF PREVIOUS ACTIVITIES

In the proposed Compliance Schedule, PRI outlined investigative and mitigative activities for the C-, E-, and F-Wellfields. These activities included delineating the extent of affected areas, determining background water quality for affected HSUs, and commencing fluid recovery from affected sands. Fluid recovery did occur for the 140 and 130 Sands in areas of the E- and F-Wellfields, respectively. Numerous shallow monitoring wells were installed in the C-, E-, and F-Wellfields in the upper HSUs, predominantly the 140 Sand. PRI and Cameco have sampled these shallow monitoring wells since installation. The number of wells sampled was reduced as the wells became dry or the water quality in the well indicated that water impacted by mining activities was no longer present.

In an effort to ensure that a comprehensive cataloging of wells that failed mechanical integrity testing (MIT) existed for the C-, E-, and F-Wellfields, a review of MIT records at Smith Ranch Highland (SRH) was conducted (Wright Environmental Services [WES], 2011). For the majority of wells, the cause of the MIT failure could be correlated to either a failure of the casing or a failure of the MIT procedure. However, for a percentage of wells the cause of the MIT failure could not be determined. The percentage of wells for which the cause of the MIT failure could not be determined was less than 15 percent in the C- and E-Wellfields and approximately 30 percent in the F-Wellfield.

In addition, the 2011 investigation resulted in the correlation of the interval of compromised casing with a geologic unit, where possible. This correlation allows a more complete understanding of potential impacts to HSUs and in what areas of the wellfields these impacts may have occurred.

The synthesis of MIT and CLI information provided a clearer picture of the HSUs and the potential extent of impacts from injection wells with compromised casing. This allowed the formulation of a conceptual approach to systematically guide the casing leak investigation efforts.

As little information was available on the geology and hydrogeology of the shallow HSUs, simplifying assumptions were made to initially focus the investigation. In an effort to identify a spatial extent of affected area, an analytical approach was developed to calculate radial flow from a well into an unsaturated aquifer. The objective of these calculations was to develop a range of potential distances that fluids may have traveled from a well with compromised casing in a sandstone unit. Simplifying assumptions used for these calculations were as follows.

- Sandstone unit was initially unsaturated
- Sharp wetting front

- Wetting front pressure head is atmospheric pressure
- Well pressure is constant
- Infinite, flat aquifer
- Casing leak height was the width of the aquifer and the leak occurred for seven years

The median calculated flow distance based on the above simplifying assumptions and the assumed permeability and porosity was identified. Half the calculated median radial flow distance fluids may have traveled from a failed well was used as the target for investigating potentially affected HSUs in localized areas in each wellfield (WES, 2011).

### **3.0 2012 FIELD ACTIVITIES TECHNICAL APPROACH**

The recommended approach to additional investigations was to drill a set of targeted boreholes in each wellfield located in an area within the bounds defined by the analytical calculations discussed above. One borehole was drilled to determine the lithology of all potentially affected HSUs in that area. If groundwater was encountered, a well was installed. Other boreholes were drilled into the shallow HSUs identified during the drilling of the first borehole. Wells were installed in each borehole where groundwater was identified. These targeted wells were used to assess the hydrogeology and groundwater quality of the HSUs and refine the analytical calculations. Additional groupings of wells were installed in the southern portion of the F-Wellfield to assess the utility of the analytical approach for targeting CLI well locations. The findings of this delineation investigation would allow a refinement of assumptions to be applied to the delineation of impacted HSUs in all three wellfields.

#### **3.1 Well Installation**

During the 2011- 2012 field program, a total of 23 monitoring wells were installed in the C-, E- and F-Wellfields and in two upgradient locations to collect water samples from the HSUs above the production zone (Figures 1-3). At each location, a group of wells, referred to herein as a cluster, were installed to monitor individual sand units. One well cluster was completed in the C-Wellfield with wells completed in the 100, 110, and 120 Sands (Table 1 and Figure 1). One cluster of wells was completed in the E-Wellfield with wells completed in the 110, 120, and 140 Sands (Table 2 and Figure 2). Four well clusters and two individual wells were completed in the F-Wellfield with wells completed in the 110, 120 and 150 Sands (Table 3 and Figure 3). Additionally, clusters were installed outside of the E- and F-Wellfields to obtain upgradient water quality information. Four wells were completed in the 100, 110, 130 and 140 Sands north of the E-Wellfield and two wells were completed in the 110 and 120 Sands north of the F-Wellfield (Figures 2 and 3).

Delineation holes were drilled at each well cluster location to obtain geophysical information, which was used to determine a target depth for monitoring well installations. Monitoring wells were installed to these targeted depths using a dual-rotary rig capable of casing advance. Eventually, a mud-air rotary combination drilling method was employed to more efficiently complete monitoring wells. A complete summary of drilling activities and methodology is presented in Appendix A.

#### **3.2 Hydrologic Testing**

Short-term aquifer tests were executed on all newly installed wells. Specific capacity and transient analyses were used to estimate transmissivity and hydraulic conductivity values for all wells sampled during a site-wide sampling program conducted in the

third and fourth quarters of 2012. A detailed summary of aquifer testing procedures is discussed in Appendix B.

### **3.3 Shallow Monitoring Well Sampling**

Approximately 104 wells were installed at SRH prior to 2011. Some of the previously installed wells were no longer sampled after they were either determined to be dry or the water quality was considered to no longer be indicative of the presence of casing leak related impacts. Cameco has conducted quarterly sampling on ten of the existing shallow monitoring wells installed as part of the CLI for several years. Cameco reestablished monitoring of all existing shallow monitoring wells in the third quarter of 2012, including wells installed during 2011 and 2012 to ensure that the current water quality and quantity in areas previously investigated was quantified. A tabulation of wells installed as part of the CLI and the status of each are provided in Tables 1, 2, and 3.

Fifty-one wells were monitored in the C-Wellfield in 2012 (Table 1). A detailed summary of shallow monitor well sampling is discussed in Appendix C. These wells are completed in the 60, 80, 100, 110, 120, 130, 140, and 150 Sands. Six wells were determined to be dry. Two wells exhibited very slow recharge and only one bore volume could be removed before the sample was collected. One other well was determined to be unsampleable because the well recovers less than one foot in 24 hours.

Forty-six wells were monitored in the E-Wellfield in 2012 (Table 2). These wells are completed in the 80, 140, and 150 Sands. Seven wells were determined to be dry. One well exhibited very slow recharge and only one bore volume could be removed before the sample was collected. One other well contained less than 1.5 feet of water and could not be sampled.

Thirty wells were monitored in the F-Wellfield in 2012 (Table 3). These wells are completed in the 100, 110, 120, 130, 140, 150, and 160 Sands. Two wells were determined to be dry and were not sampled. One well was not sampled because it had less than one foot of water in the casing. Additionally, two wells could not be sampled because of well problems that prohibited the pump from working properly.

Several wells have extremely low discharge and require a day to several days to recharge before sampling can be conducted.



## **4.0 HYDROGEOLOGIC CHARACTERISTICS**

An understanding of the geologic framework within the C-, E-, and F-Wellfields was needed to allow a more complete investigation of the potential impacts to the HSUs. Therefore, cross sections and isopach maps were generated for the C-, E-, and F-Wellfields. Three cross sections were developed for each wellfield (Plate 1). Existing injection and production well geophysical logs were interpreted and stratigraphic relationships developed within each wellfield. Every attempt was made to use the existing naming convention previously developed for sand units at the site.

### **4.1 Geology**

A continuous coal seam was identified at depth within most of the geophysical logs and was used as a marker bed for stratigraphic interpretation. In addition, a population of monitoring wells had been installed during the previous CLI work and the sand unit interpretations of this earlier work were incorporated into the current analysis. As a final check, the well defined production zone geophysical signature and sand picks were used to verify the stratigraphic interpretations.

Cross sections are presented in Plates 2 through 10. As shown on the sections, the thicknesses of individual sand units are variable, often laterally discontinuous (pinch-out) and interbedded. The drilling program confirmed this interpretation. Sand units are partially- to fully-indurated, coarse- to fine-grained, with fractional amounts of gravel and fine-grained materials. Fine-grained units are comprised of silt- and clay-sized fractions and often contain bentonite.

Sand unit isopach maps are presented in Figures 4 through 18. Isopachs were created for the 140 to the 100 sand units within C-, E-, and F-Wellfields. The maps illustrate spatial variability within sand units as linear and meandering features that vary in thickness. These features are consistent with a fluvial depositional environment.

### **4.2 Hydrogeology**

Short-term aquifer tests were performed to determine an optimal rate for sampling and estimate aquifer hydraulic properties using the data collected during sampling. Appendix B describes short-term aquifer testing procedures, discusses the analytical methods used to evaluate the data, and presents the results from these analyses. Potentiometric surface maps for the 130 and 140 Sands in the C-Wellfield, the 140 Sand in the E-Wellfield, and the 120 Sand in the F-Wellfield are shown on Figures 19 through 22, respectively.

In general, the uppermost sand units (160 and 150) are unsaturated, highly discontinuous or thinly saturated. During the 2011-2012 CLI drilling, the first partially saturated to saturated HSU was identified in the F-Wellfield as the 120 Sand, in the E-Wellfield as the 140 Sand, and in the C-Wellfield as the 120 Sand. The 140 and 130 sand units, in the vicinity of the newly installed well cluster are unsaturated (C-South area); elsewhere in the C-Wellfield, particularly C-North, the 140 and 130 Sands are partially saturated to saturated.

Constant rate, single well pumping tests were performed on all of the wells installed as part of the 2011-2012 field program. Drawdown data were collected and reduced; and aquifer properties (transmissivity and hydraulic conductivity) were estimated using the Cooper-Jacob method (pumping), Theis Recovery method (recovery), and from specific capacity calculations. The results of hydraulic testing are consistent with literature values for the geologic materials present in the subsurface and are presented in Table 4.

## 5.0 ASSESSMENT OF WATER QUALITY

The 2012 water quality data is provided in Tables 5 through 10. A more detailed discussion of the shallow sand unit water quality in the SRH C-, E- and F-Wellfields is provided in Appendix D. The water quality analysis identified that water in the C-North Wellfield is different in composition from water in the the C-South, E-, and F-Wellfields and has different water quality signature from the water quality of purge storage reservoir 2 (PSR-2) between 1995 and the present. The water quality in several of the wells completed in the 130 and 140 Sands of the C-North Wellfield appears to have been influenced by multiple sources.

Chloride concentrations greater than 20 milligrams per liter (mg/L) have routinely been viewed by Cameco as indicative of impacts from facility operations. The upgradient water quality indicates that this cutoff is reasonable for assessing significant water quality impacts. Water quality time trend plots are provided in Appendix E.

### 5.1 Upgradient Water Quality

Four wells were installed upgradient of the C- and E-Wellfields and two wells were completed upgradient of the F-Wellfield to gather information on the likely water quality of the shallow HSUs (Figures 2 and 3). The reported combined radium and adjusted gross alpha concentrations in CBG-1 exceeded WDEQ Water Quality Division, Rules and Regulations, Chapter 8, Table I Livestock (Class III) Standards in the samples collected in June and August 2012 (Table 6). Adjusted gross alpha and radium concentrations exceeded livestock standards (Class III) in the June and August samples of FBG-1 (Table 10). All other parameters meet the WDEQ/WQD Class I and Class III standards. Chloride concentrations in the upgradient wells are less than 10 mg/L in all samples collected in 2012. The reported sulfate concentrations for these background wells were less than 250 mg/L.

During previous work on the CLI, PRI reviewed available baseline water quality (PRI, 2000a) and determined that the water in the shallow sand units met Class III groundwater standards. However, a historic well, MX-2686A, installed in 1972 prior to in-situ recovery under the current permit to mine, and likely completed in the 130 Sand has high sulfate concentrations (Table 11). Sulfate concentrations in this well are higher than those reported for other areas of the C-Wellfield, higher than the average PSR-2/Irrigator values from 1995 to the present (Appendix D), and higher than lixiviant values (PRI, 2000b). This well was located near former North Morton Mine radium ponds (Figure 23). The 1980 aerial photo (Figure 23) shows the location of former North Morton Mine facilities, radium ponds and a large pond in the footprint of PSR-2, to the north. For ease of viewing, the current C-Wellfield is shown on the aerial.

The range of available upgradient and baseline water quality indicates that the class of use is variable spatially, both vertically and laterally and varies between exceeding Class III and meeting Class I Standards. Water quality of the shallow HSUs can vary from Class I in areas with no radionuclide deposition, to Class III in areas near radionuclide deposition, to less than Class III in areas of uranium mineralization and where historic conventional mining activities have occurred. Establishing a single baseline class of use for all shallow HSUs at SRH is problematic due to presence of abundant and sporadic natural mineralization.

### **5.1.1 C-Wellfield Water Quality**

Chloride concentrations greater than 20 mg/L were reported in thirty wells in the C-Wellfield. These wells are completed in the 130 and 140 Sands and chloride concentrations ranged from 21 to 349 mg/L. A map of the chloride isoconcentrations in the 130 and 140 Sands are provided as Figure 24 and 25, respectively. Chloride concentrations generally decrease from north to south across the C-North Wellfield in both the 130 and 140 Sands. The distribution of these data are consistent with the anticipated groundwater flow and constituent transport given the 140 sand isopach presented in Figure 4. Time series water quality data plots presented in Appendix E indicate that several shallow C-North Wellfield wells completed in the 130 and 140 Sands show increasing chloride trends.

As discussed in Appendix D, the stiff diagrams of the wells in C-North look different from those in C-South. In particular, calcium, chloride, magnesium and sulfate constitute higher proportions of the waters at the C-North end of the wellfield for the wells completed in the 130 and 140 sands (Figure D-4). Comparing the stiff diagrams of the 130 and 140 sands to a proxy for the PSR-2 water quality and the water quality of CBG-4, which was completed in the 140 Sand, the stiff diagrams of the water quality in the C-North Wellfield show a similarity of the shape of the PSR-2 stiff diagram. However, several of the stiff diagrams for the 140 Sand have a higher proportion of sulfate than the PSR-2 proxy, indicating pre-ISR mining impacts to local and shallow groundwater from another source(s), such as the North Morton radium ponds and the larger North Morton Mine pond footprint on which PSR-2 now resides.

Data from the C-North Wellfield were plotted based on the sand association of the 140 and 130 sands along with the upgradient (CBG) well concentrations, the average water quality data collected from the irrigator (land application of treated waters), to represent the chemistry of PSR-2 and a water sample from a well drilled prior to in-situ mining (MX-2686A). The plots show the proxy for PSR-2 is higher in concentration for selenium and uranium than the C-North wells completed in the 140 and 130 Sands (Figure D-13). Almost all of the 140 and 130 sand samples are higher in sulfate than the average proxy PSR-2 and lixiviant (Table 1, PRI, 2000b) indicating the sulfate concentrations are unlikely the result of PSR-2 or impacts from casing leaks. Sulfate concentrations for the well MX-2686A are higher than those measured

in the C-North well samples indicating impacts to groundwater from historic mining operations before in-situ recovery operations began at SRH.

Comparing sand units across wellfields indicates that samples from wells in the 130 and 140 sands from the southern portion of C-Wellfield are more similar in chemistry to E-Wellfield 140 Sand water quality than to the 130 and 140 Sand water quality in northern part of C-Wellfield (Figure D-11).

### **5.1.2 E-Wellfield Water Quality**

Elevated chloride concentrations were reported in twelve wells in the E-Wellfield. These wells are completed in the 120, 140 and 146 Sands and chloride concentrations ranged from 22 to 104 mg/L. A map of the chloride isoconcentrations in the 140 Sand is provided as Figure 26. Elevated chloride concentrations are localized in the E-wellfield.

The three sample locations in the E-Wellfield with the highest concentrations of sulfate and chloride are E6-2, E10-5 and E14-2. The three locations are not in close proximity and other sample locations with water quality with different chemical signatures are located between these wells. The stiff diagrams show the chemistry at these locations is different from adjacent wells (Figure D-5). The stiff diagram pattern indicates these changes in well chemistry appear to be localized differences and not related to a phenomenon that is wellfield-wide in scale. These water quality evaluations provide additional data indicating that impacts from casing leaks are limited and localized in the areas of E-Wellfield investigated to date.

### **5.1.3 F-Wellfield Water Quality**

Elevated chloride concentrations were reported in six of the thirty wells sampled in the F-Wellfield. The chloride concentrations reported in these wells ranged from 20 to 168 mg/L. These six wells are completed in the 120, 140, and 160 Sands. A map of the chloride isoconcentrations in the 120 Sand is provided as Figure 27. Chloride concentrations in the 120 Sand (Figure 27) and in the 140 Sand indicate that impacts from casing leaks are limited and localized in areas of the F-Wellfield investigated to date.

Samples collected from the F-Wellfield show a definite trend of chemistry with spatial location. The stiff diagrams show wells in the western portion of F-Wellfield that are completed in the 120 Sand have a much higher proportion of sulfate than the other sand units (Figure D-6). In general, no other water chemistry distinctions can be determined for the F-Wellfield. These water quality evaluations provide additional data indicating that impacts from casing leaks are limited and localized in the F-Wellfield.

## **6.0 DISCUSSION**

Monitoring wells were installed in portions of the C-, E-, and F-Wellfields where previous MIT failures had occurred but no water quality data were available. The resulting characterization data indicated that not all sand units are saturated and that impacts to sand units did not occur in every location of MIT failures. Geologic interpretation and generation of isopachs and cross sections provides a framework for guiding further investigations in the C-, E-, and F-Wellfields. Review of the water quality data available for shallow C-North wells indicates the influence of sources other than casing leaks on the water quality in this area.

### **6.1 C-Wellfield**

The 130 and 140 sands are 20 to 40 feet thick and are well defined laterally throughout the C-Wellfield (Plate 2). The 110 and the 100 sand in this well field are less defined with the 110 Sand pinching out to the north into thin, less than ten feet thick, sand lenses within shale (Plate 4). The 100 Sand is thickest on the southern and the southwestern margins of the field but this sand decreases in thickness and uniformity toward the middle of the C-Wellfield and then reestablishes in C-north.

Water quality samples from wells completed in the 130 and 140 Sands in the northern portion of C-Wellfield have higher proportions of chloride and sulfate compared to the sands in the southern portion of the C-Wellfield. Wells completed in the 130 and 140 Sands of C-North appear to have water quality indicative of more than one source. Wells near PSR-2 have higher sulfate concentrations than reported in the water quality data available for the irrigator/PSR-2 (Figure D-16) and higher than other wells in C-South and E-Wellfields that are attributed to casing leak impacts. Additionally, wells farther from PSR-2 but near the previous locations of historic mining ponds show similar high sulfate concentrations. Wells with elevated sulfate concentrations seem to indicate impacts to the shallow HSUs from historic mining activity.

The chloride and sulfate concentrations decrease from northeast to southwest in the C-North Wellfield. However, isolated areas of elevated chloride and sulfate occur near the location of historic mining ponds. Differences in water quality in the 130 and 140 Sands appear between the wells of the C-North Wellfield. Vertical extent of the impacts visible in the 130 and 140 Sands has not yet been defined below the 130 Sand.

### **6.2 E-Wellfield**

The 100 Sand is largely continuous in the western portion of the E-Wellfield and pinches out moving to the east. This sand completely pinches out in the northeastern portion of the E-Wellfield (Plate 6). Channelization is apparent in the 120 and the 130

Sands (Figures 10 and 11). The 120 Sand in the E-wellfield shows laterally discontinuous and thin sand lenses. The 130 Sand thickens and becomes more continuous in the northern portion of the E-Wellfield. This sand forms a channel in this region down-cutting into the 120 Sand (Plate 6). Surface elevations vary across this wellfield with highest elevations in the middle of the wellfield, thus it is in this area that the 150 and 160 Sands are the most apparent.

Water chemistry in the E-Wellfield indicates that the impacts from casing leaks are localized and do not appear to be widespread. PRI pumped the 140 Sand in the E-Wellfield between 1999 and 2005. These corrective actions have decreased the chloride concentrations in the western portion of this E-Wellfield, however elevated chloride remains in a few locations. No wells in the southern portion of the E-Wellfield contain elevated chloride concentrations.

### **6.3 F-Wellfield**

Within the F-Wellfield, sand units are identifiable and present with the 160 Sand at or near the surface and the 100 Sand approximately 350 feet below ground surface. The lateral variations of the sands within the F-Wellfield show an increase in thickness from east to west. As well as thickening to the west, the 140, 130, and the 120 Sands merge into a large approximately 125 foot thick sand unit (Plate 8). The sands below and above this large interconnected package are generally discontinuous across the wellfield.

Water chemistry in the F-Wellfield indicates that the impacts from casing leaks are localized and do not appear to be widespread. PRI pumped the 140 Sand in the F-Wellfield between 2001 and 2003. Elevated chloride has been identified in the 120 Sand in the F-Wellfield. The 130 and 140 Sands in this area are not saturated and the 120 Sand was the first available water in the western portion of this wellfield.

## 7.0 RECOMMENDATIONS

The generation of wellfield geologic cross-sections and isopach maps have improved understanding of the geology of the C-, E-, and F-Wellfields. These isopachs, cross-sections and available water quality data can be used to guide the continuing CLI for the remaining areas of the C-, E-, and F-Wellfields. In the E- and F-Wellfields, elevated chloride concentrations are frequently identified where the sands are thicker. Below are recommendations for consideration in 2013 for the CLI.

Additional well clusters are recommended in the C-South, E-, and F-Wellfields in areas where identified chloride concentrations have been identified and in areas where known failures have occurred but no shallow monitoring wells are currently located.

The current drilling/well completion method of mud-rotary drilling to a depth above the zone targeted for well completion, cementing of a surface casing and then air rotary drilling to final drill hold depth provides an efficient means for well completion. This method should be continued for remaining areas of the C-, E-, and F-Wellfields.

Currently, the vertical and horizontal boundary of impacts in the C-North Wellfield is not known. Additional drilling should occur on the margins of the C-North Wellfield and to depths below the 130 Sand to bound impacts in this area.

Additional aquifer testing in C-North after the installation of wells in HSUs below the 130 Sand are recommended to provide useful information on the nature of fluid movement in this area.

Water quality data indicate multiple sources for the impacts identified in the C-North Wellfield. Additional drilling, water quality sampling, and historic data review will likely aid in further understanding and distinguishing these sources and their impacts.

The lack of variability in the per well quarterly sampling results indicates that quarterly sampling of shallow monitoring wells is not required. It is recommended that shallow monitoring well sampling occur twice per year with the full suite of analytes (Guideline 8) collected in the second half of the year and the short suite of analytes collected in the first half of the year. Additionally, 37 wells are dry, have low recharge or cannot be sampled. Dropping these wells (Table 12) from the sampling program is recommended. If ongoing CLI activities indicate that additional data are needed in the areas near these wells, recommendations as to resume monitoring, redrilling or reinstallation could be made at that time.



## **8.0 REFERENCES**

Power Resources, Inc. 2000a. Letter from Bill Kearney to John Wagner, Permit 603-A2, Administrative Order on Consent (Docket no. 3211-00) Compliance Schedule, October 19, 2000.

Power Resources, Inc. 2000b. Letter from Bill Kearney to John Wagner, Permit to Mine No. 603, Highland Uranium Project Quarterly Report, July to September 2000, November 2, 2000.

Wright Environmental Services, Inc. 2011. Status Update: Casing Leak Investigation C-, E- and F-Wellfields. Highland Uranium Project.

## FIGURES

# LEGEND

- SHALLOW MONITORING WELL
- CLI MONITORING WELL CLUSTER
- WELLFIELD PATTERN
- - - PERMIT BOUNDARY
- SECTION LINE
- MONITOR WELL RING

N 887500.00  
E 388500.00

N 887500.00  
E 392500.00

SECTION 11, T 36N, R 73W  
SECTION 14, T 36N, R 73W

PERMIT BOUNDARY

14

**C WELLFIELD (NORTH)**

**C WELLFIELD (SOUTH)**

N 884500.00  
E 392500.00

1

N 883000.00  
E 386000.00

● C22-2  
● C22-3  
● C22-4

■ C17-1

■ C22-1

■ C18-1

■ C20-1

■ C14-3

■ C12-1

■ C8-2

■ C8-1

■ C8-3

■ C4-3

■ C4-5

■ C4-1

■ C3-5

■ C3-4

■ C3-2A

■ C3-1

■ C1-2

■ C1-4

■ C1-5

■ C1-1

■ C1-3

■ C1-6

■ C2-2A

■ C2-1

■ C3-3

■ C5-1

■ C5-4

■ C5-6

■ C5-5

■ C6-4

■ C6-1

■ C6-3

■ C9-1

■ C11-4

■ C11-2

■ C11-6

■ C11-1

■ C11-5

■ C6-2

■ C5-3

■ C5-2

■ C4-2A

■ C4-1

■ C8-2

■ C8-1

■ C8-3

■ C12-1

■ C14-3

■ C16-1

■ C18-1

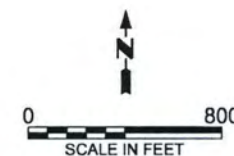
■ C20-1

■ C22-1

■ C22-2

■ C22-3

■ C22-4



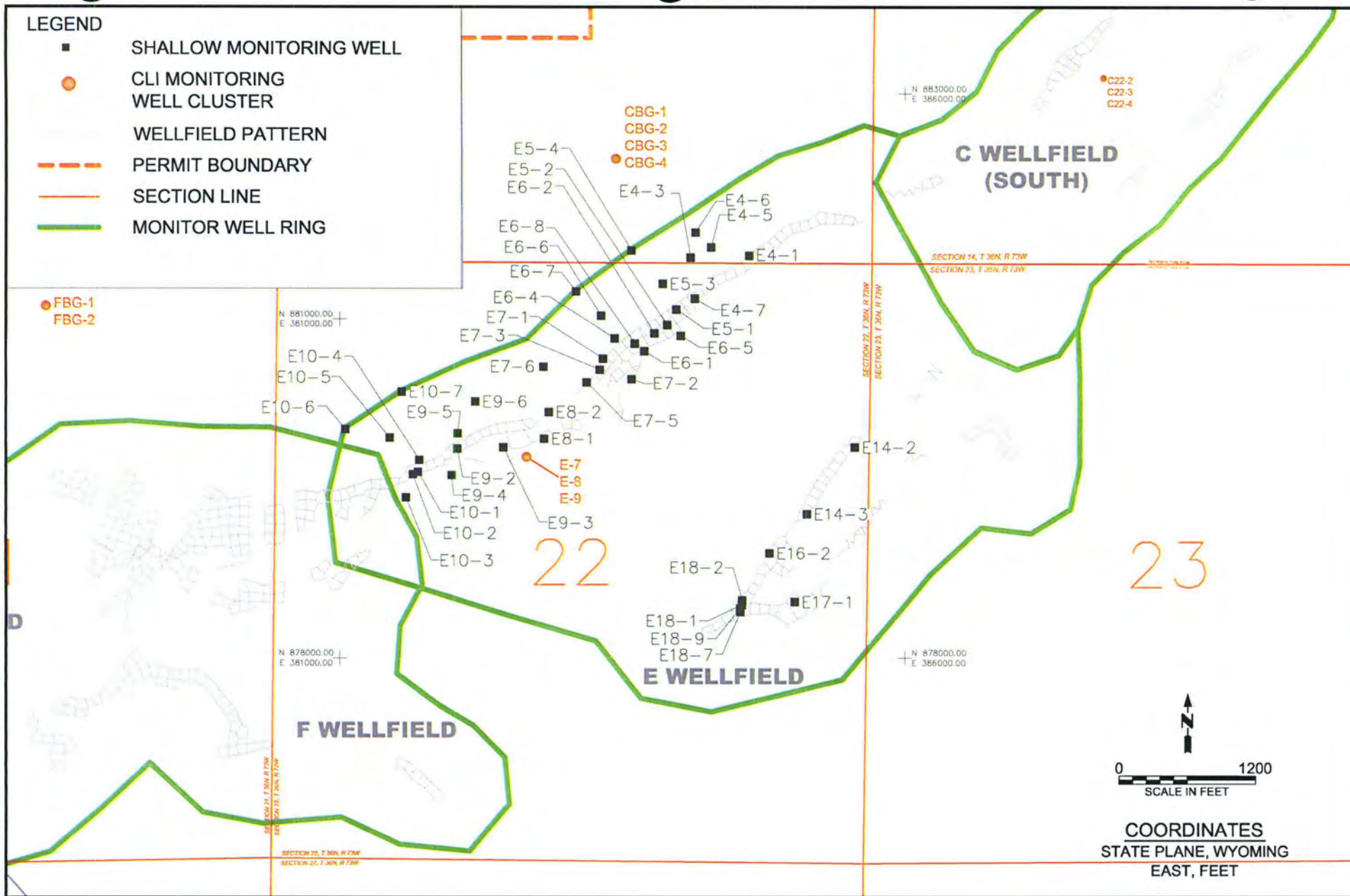
COORDINATES  
STATE PLANE, WYOMING  
EAST, FEET

|                           |                    |
|---------------------------|--------------------|
| PROJECT:<br><b>386200</b> | TASK:<br><b>07</b> |
| PREPARED BY:<br>          |                    |

**FIGURE 1  
SHALLOW GROUNDWATER WELL LOCATIONS  
C-WELLFIELD**

|  |
|--|
| PREPARED FOR:<br><br><b>Cameco Resources</b> |
|--|

1/31/2013 R:\Highland\_Smith\_Ranch\MTI\_Investigation\Calculations\AutoCad\2010-CLL-YEARLY-REPORT\WELLS\_MONITORING.dwg

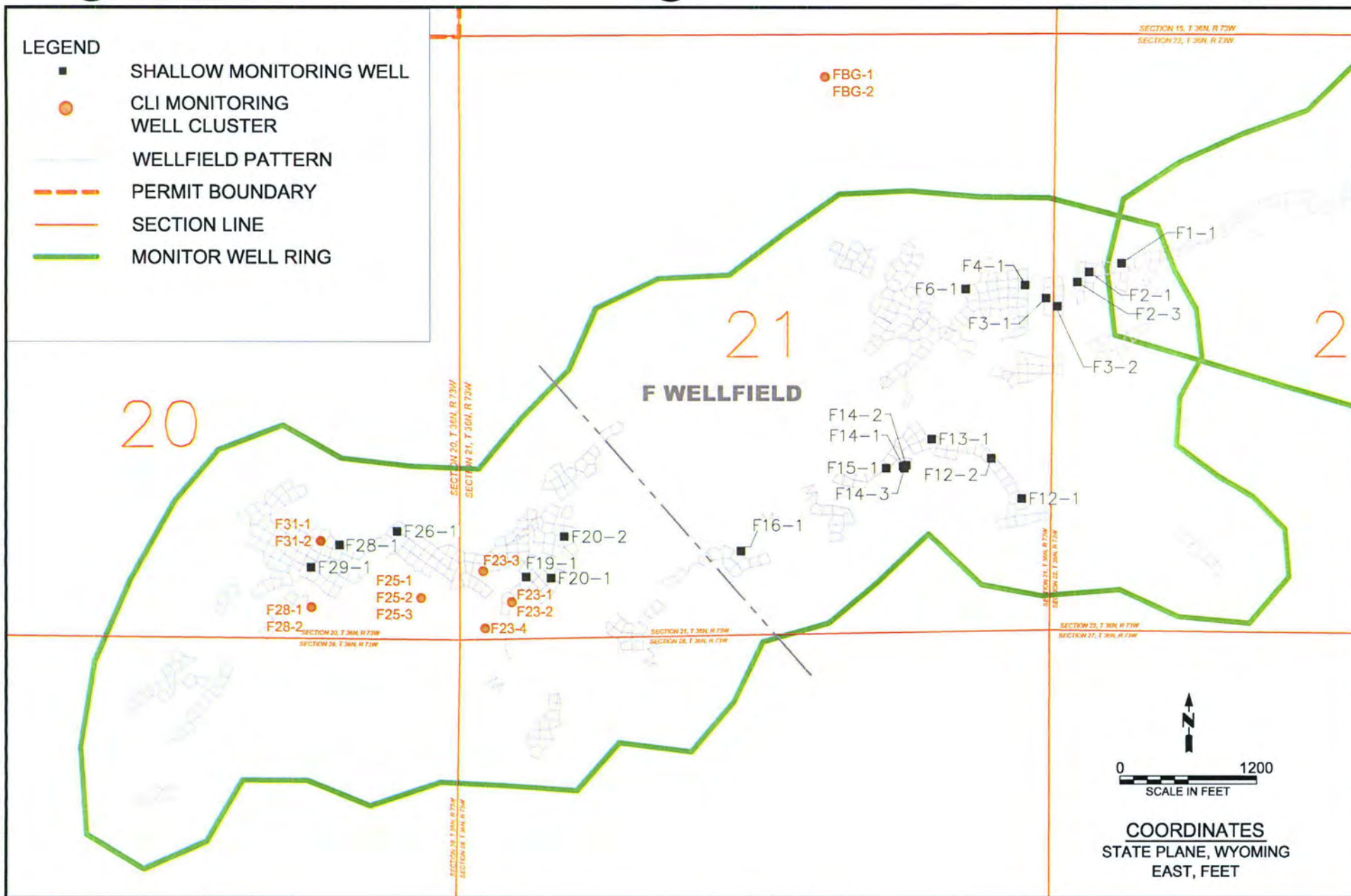


**FIGURE 2**  
**SHALLOW GROUNDWATER WELL LOCATIONS**  
**E-WELLFIELD**

|                           |                    |
|---------------------------|--------------------|
| PROJECT:<br><b>386200</b> | TASK:<br><b>07</b> |
| PREPARED BY:<br>          |                    |

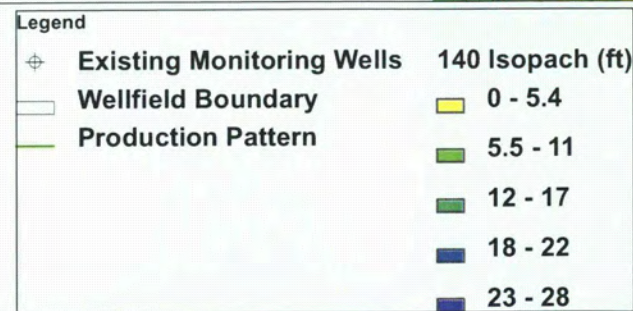
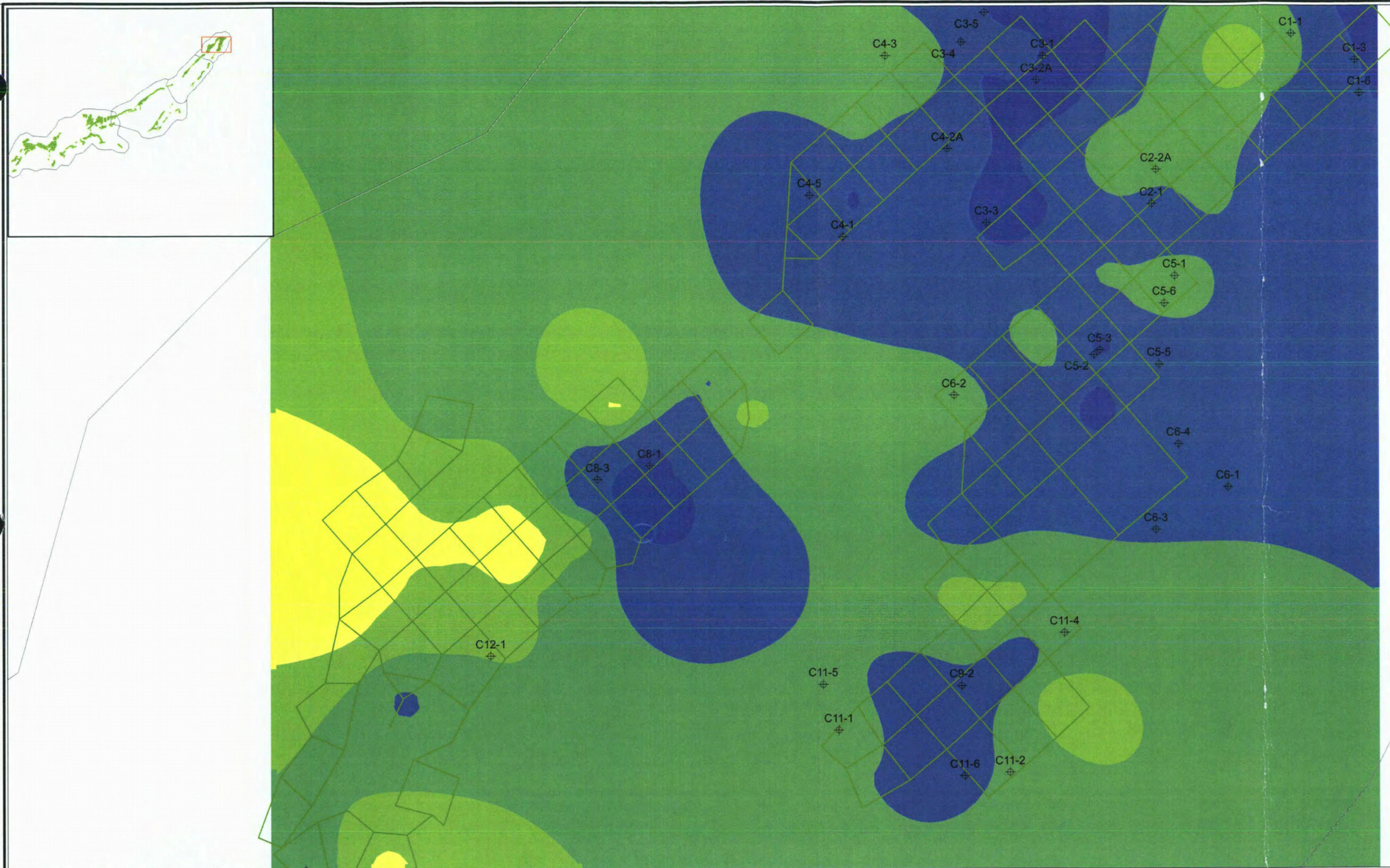
|                  |
|------------------|
|                  |
| Cameco Resources |





**FIGURE 3**  
**SHALLOW GROUNDWATER WELL LOCATIONS**  
**F-WELLFIELD**





0 65 130 260 Feet

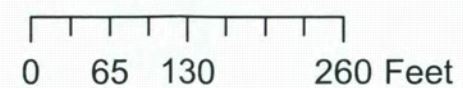
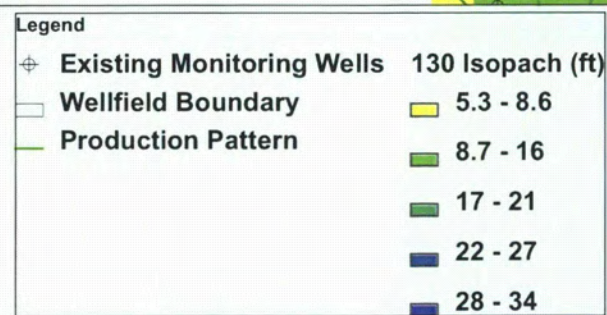
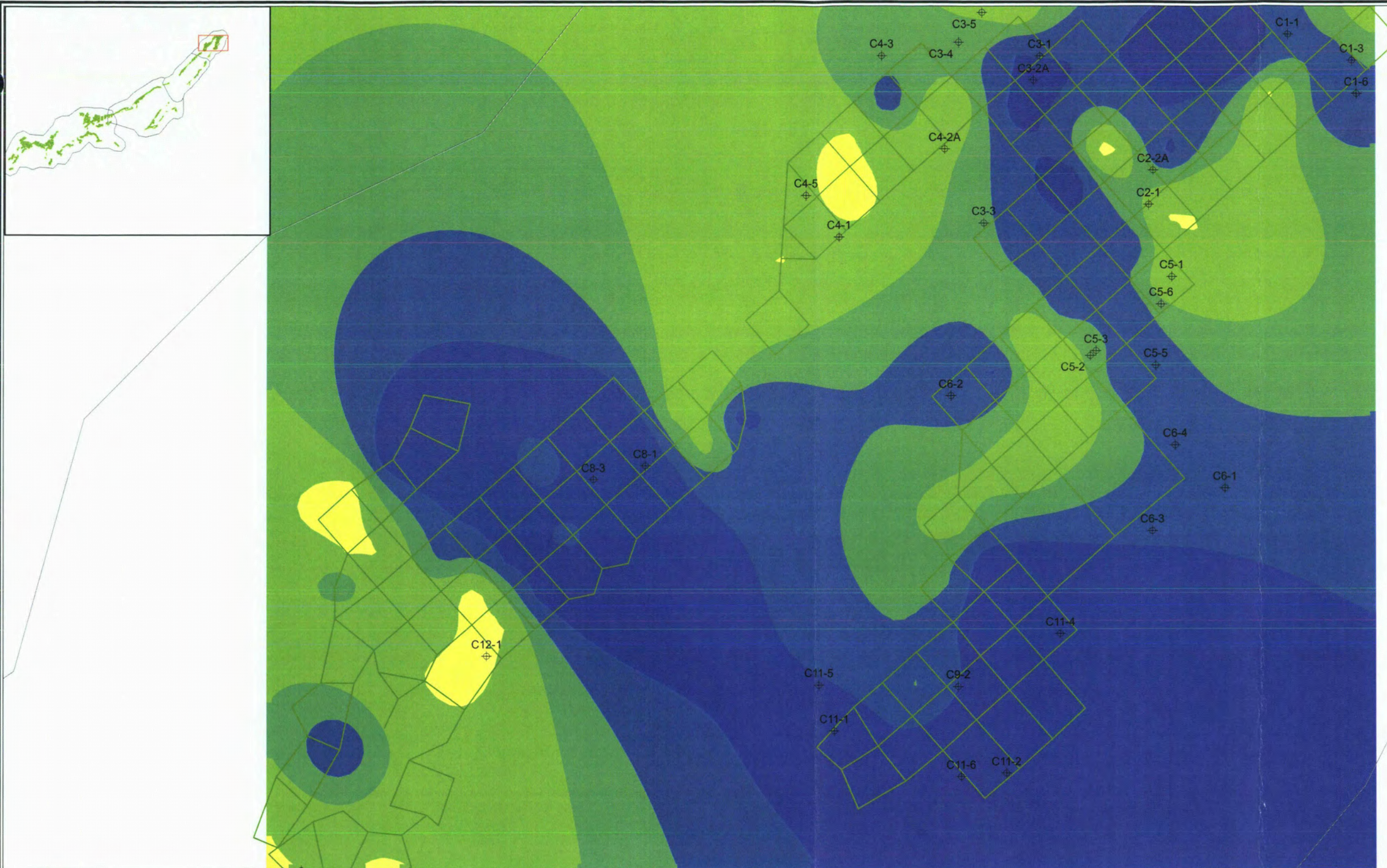


**FIGURE 4**  
**C-WELLFIELD 140 ISOPACH**

|              |        |      |    |
|--------------|--------|------|----|
| PROJECT      | 386200 | TASK | 11 |
| PREPARED BY: |        |      |    |

|               |                                |
|---------------|--------------------------------|
| PREPARED FOR: | <br>Cameco<br>Cameco Resources |
|---------------|--------------------------------|



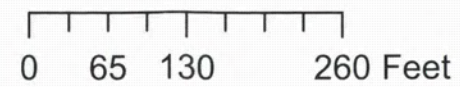
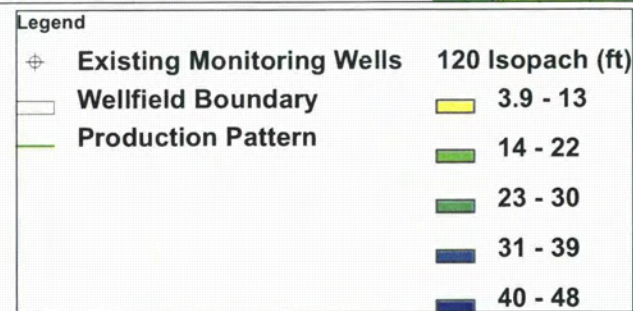
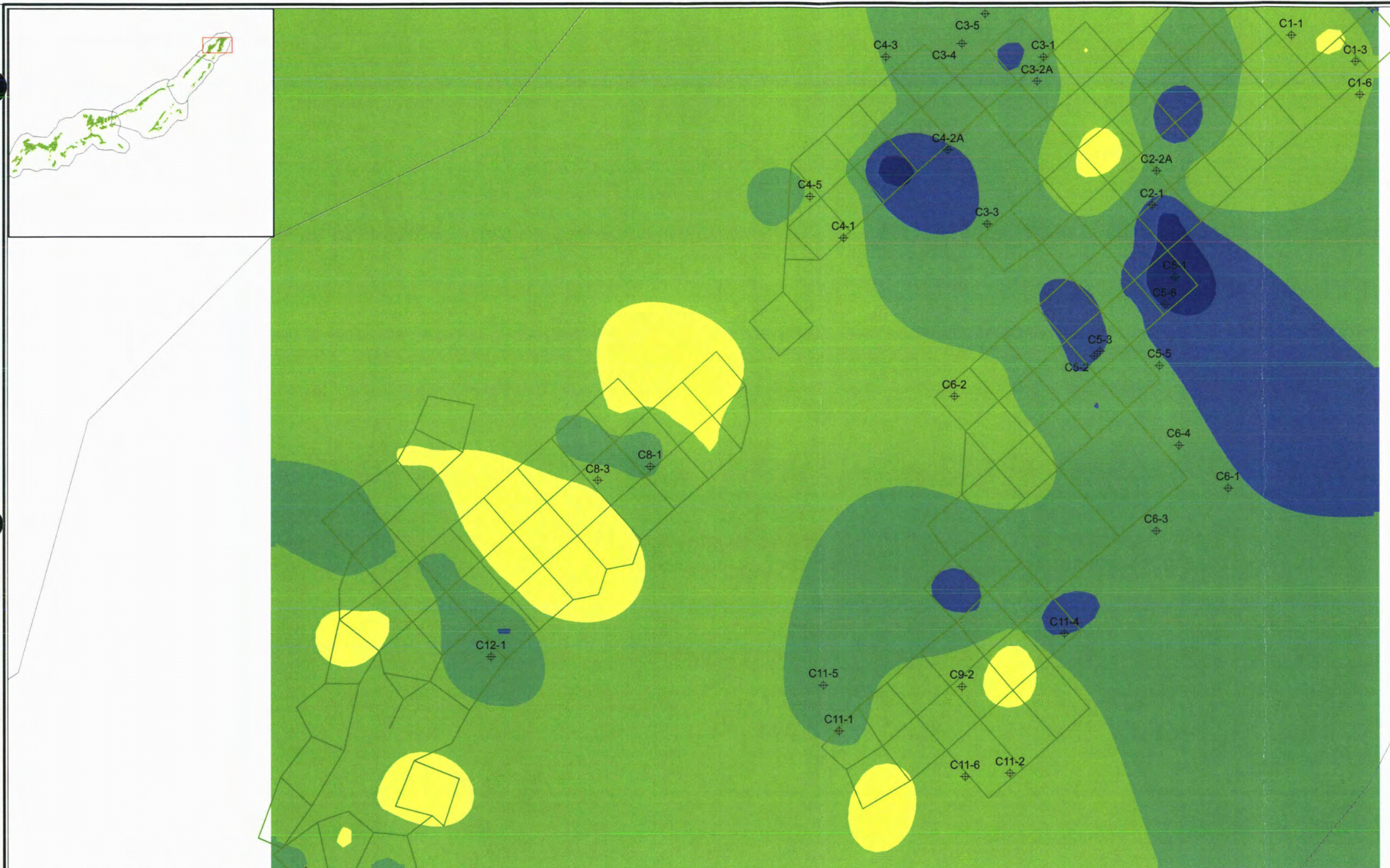


**FIGURE 5**  
**C-WELLFIELD 130 ISOPACH**

|             |        |      |    |
|-------------|--------|------|----|
| PROJECT     | 386200 | TASK | 11 |
| PREPARED BY |        |      |    |

|              |                      |
|--------------|----------------------|
| PREPARED FOR | <br>Cameco Resources |
|--------------|----------------------|



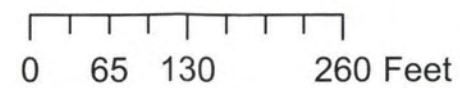
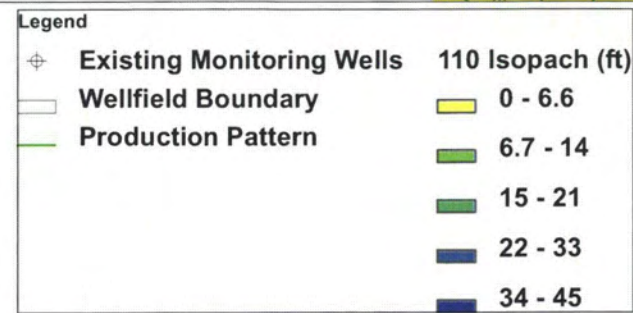
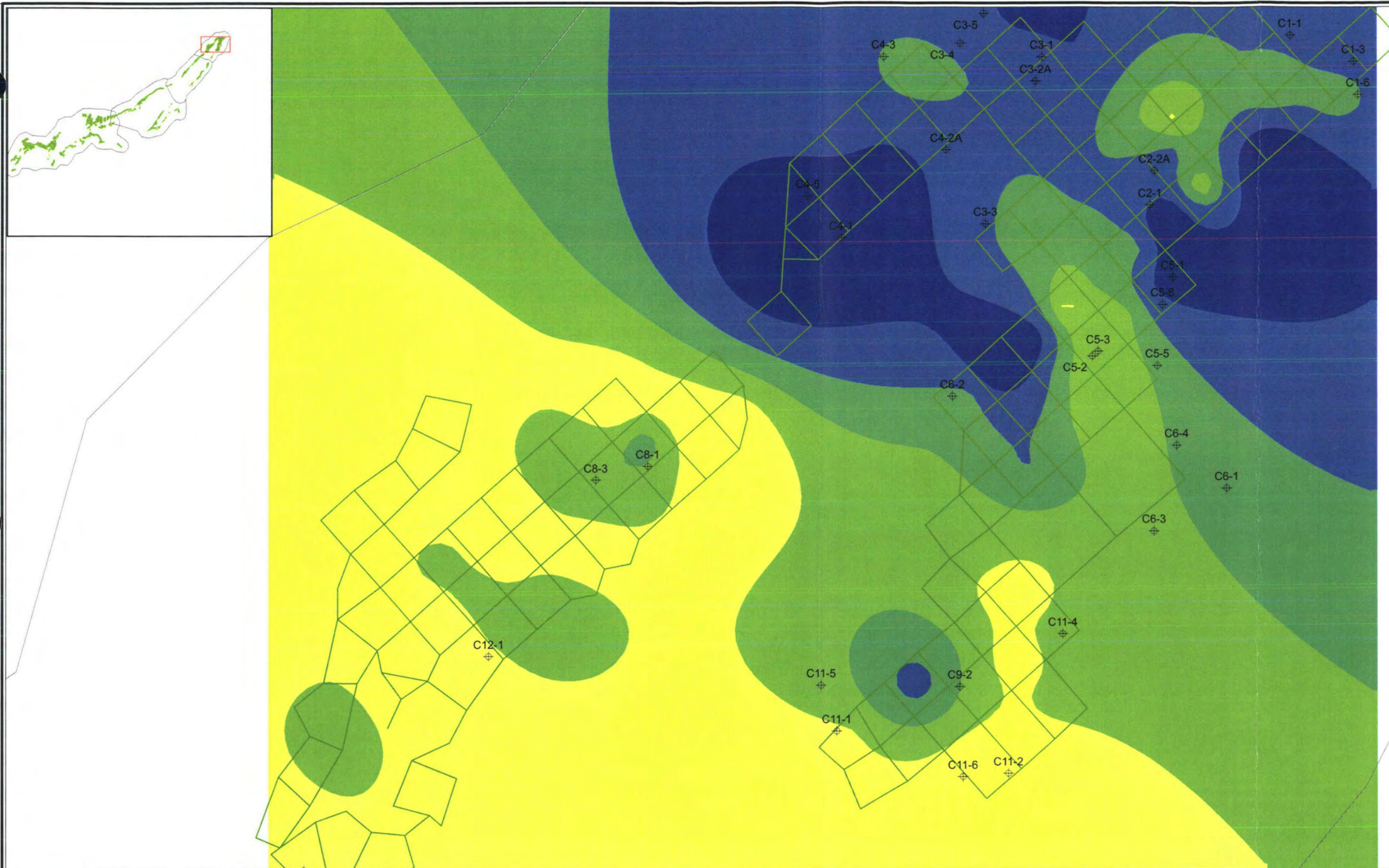


**FIGURE 6**  
**C-WELLFIELD 120 ISOPACH**

|             |        |      |    |
|-------------|--------|------|----|
| PROJECT     | 386200 | TASK | 11 |
| PREPARED BY |        |      |    |

|              |                                |
|--------------|--------------------------------|
| PREPARED FOR | <br>Cameco<br>Cameco Resources |
|--------------|--------------------------------|



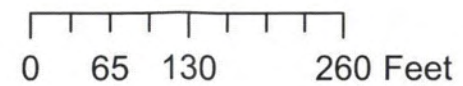
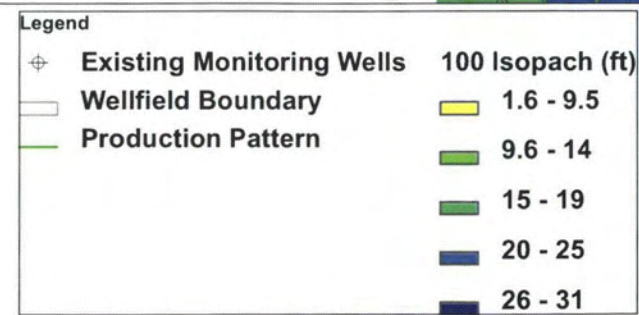
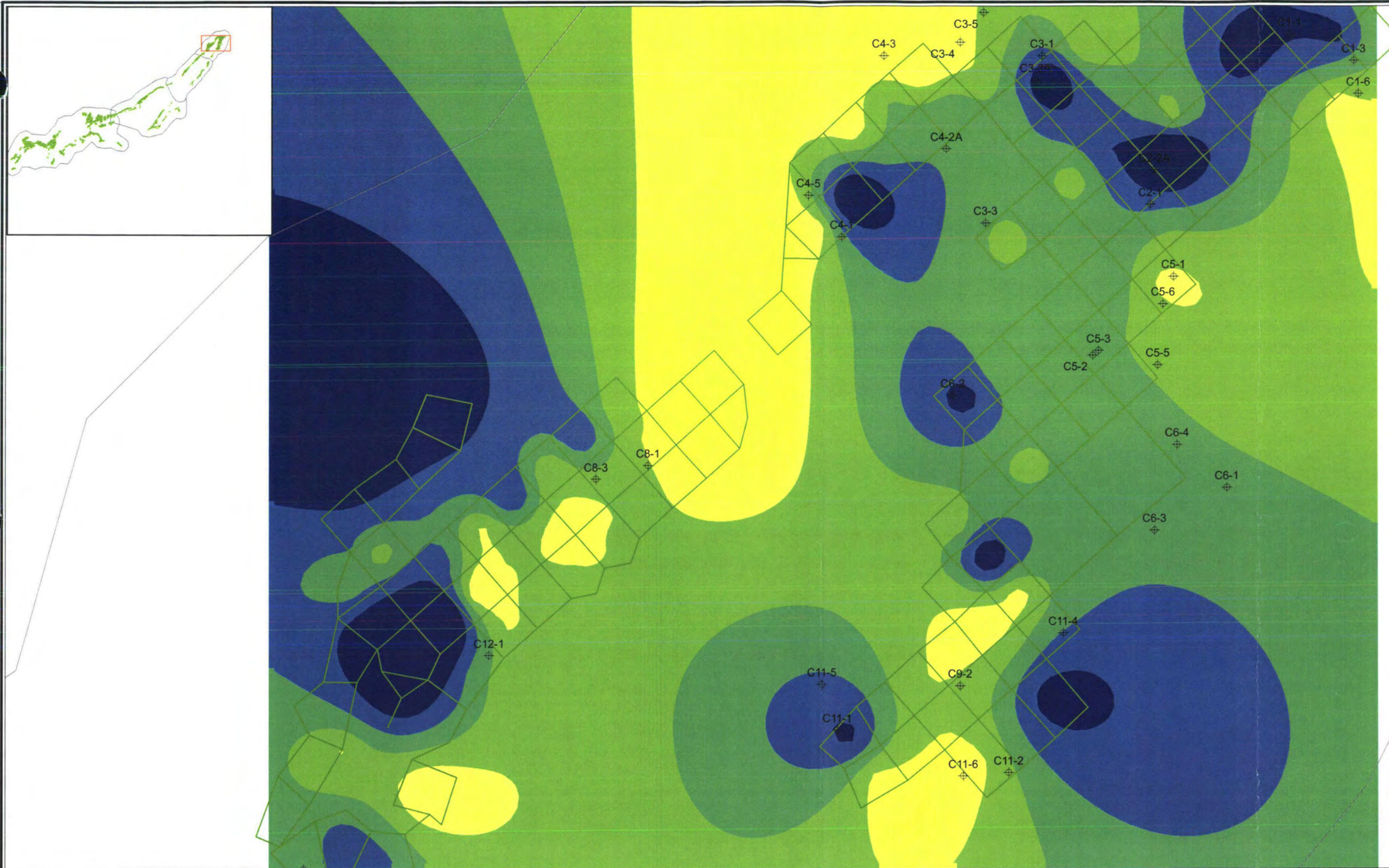


**FIGURE 7**  
**C-WELLFIELD 110 ISOPACH**

|             |        |      |    |
|-------------|--------|------|----|
| PROJECT     | 386200 | TASK | 11 |
| PREPARED BY |        |      |    |

|               |                  |
|---------------|------------------|
| PREPARED FOR: |                  |
|               | Cameco Resources |





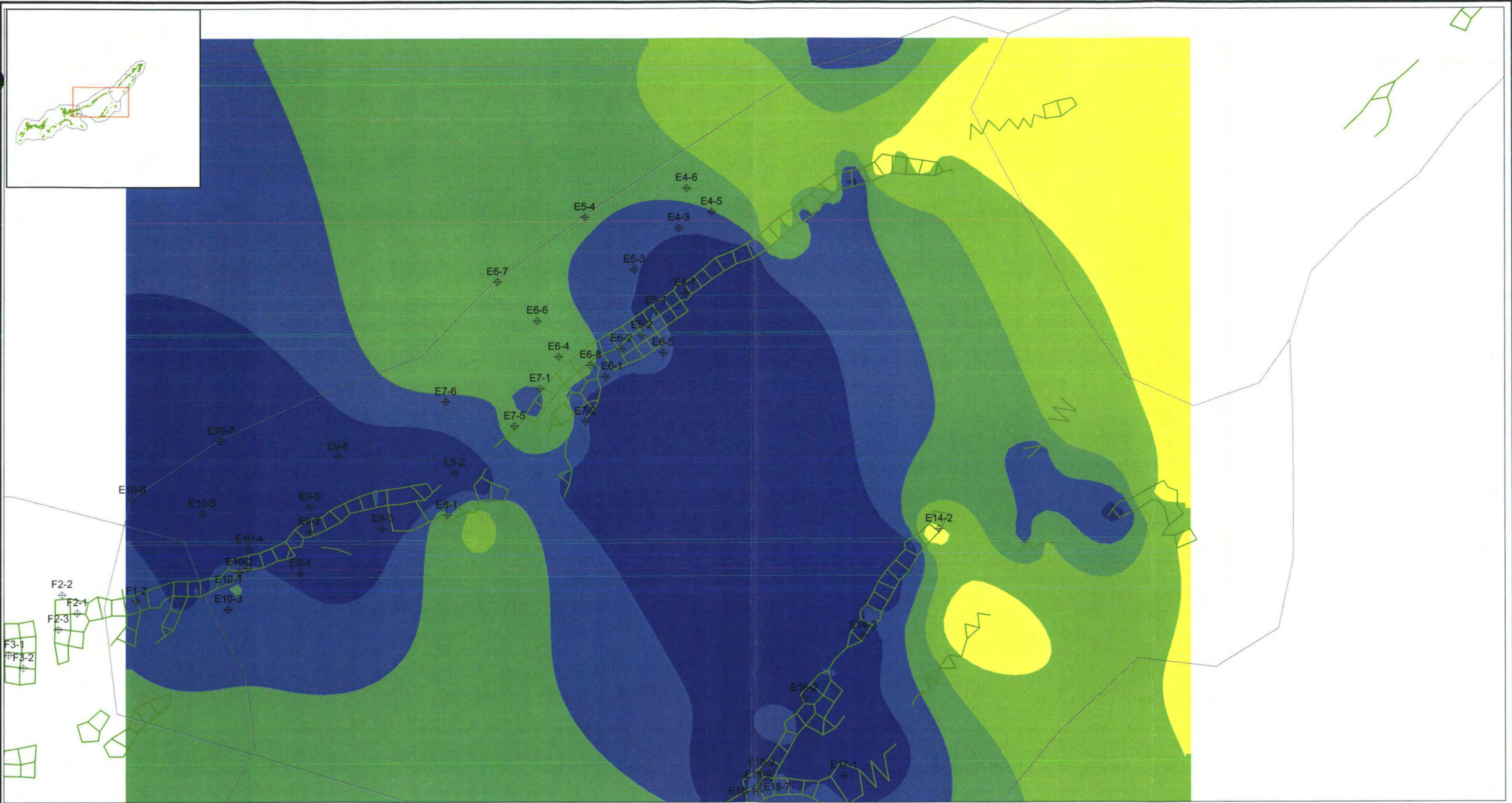
**FIGURE 8**  
**C-WELLFIELD 100 ISOPACH**

|             |        |      |    |
|-------------|--------|------|----|
| PROJECT     | 386200 | TASK | 11 |
| PREPARED BY |        |      |    |

|              |                      |
|--------------|----------------------|
| PREPARED FOR | <br>Cameco Resources |
|--------------|----------------------|



Path: R:\Highland\_Ranch\MTI\_Investigation\Products\Reports\2012\_CLI\_Report\Figures\E\_Isopach.mxd



| Legend |                    |
|--------|--------------------|
|        | Monitoring Wells   |
|        | Wellfield Boundary |
|        | Production Pattern |
|        | 140 Isopach (ft)   |
|        | 3.4 - 19           |
|        | 20 - 30            |
|        | 31 - 40            |
|        | 41 - 49            |
|        | 50 - 60            |

0 160320 640 Feet



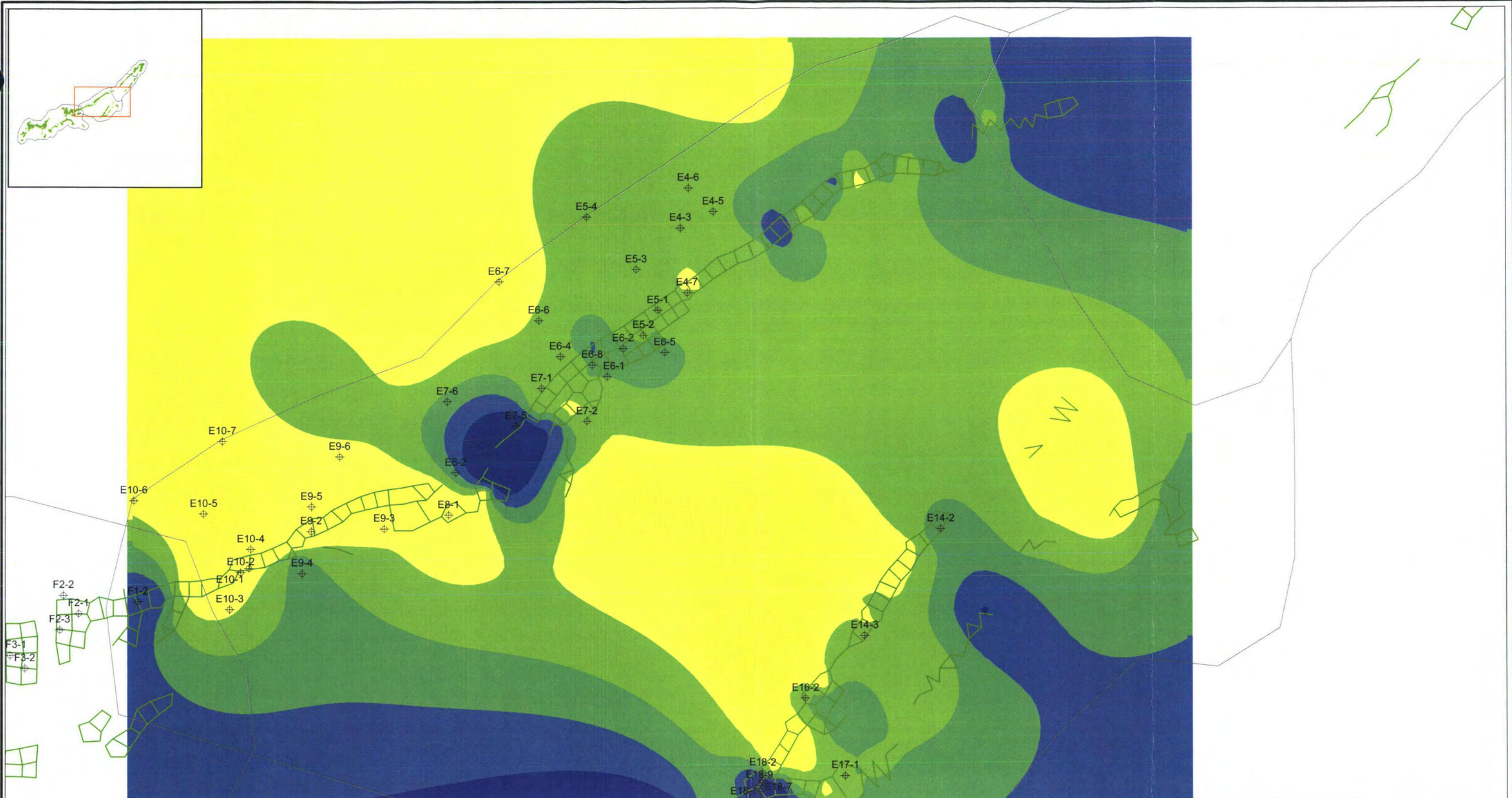
**FIGURE 9**  
**E-WELLFIELD 140 ISOPACH**

|             |        |      |    |
|-------------|--------|------|----|
| PROJECT     | 386200 | TASK | 11 |
| PREPARED BY |        |      |    |

|                  |  |
|------------------|--|
| PREPARED FOR:    |  |
| Cameco Resources |  |



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| Legend |                             |
|--------|-----------------------------|
|        | Monitoring Wells            |
|        | Wellfield Boundary          |
|        | Production Pattern          |
|        | 130 Isopach (ft)<br>0 - 9.6 |
|        | 9.7 - 15                    |
|        | 16 - 22                     |
|        | 23 - 30                     |
|        | 31 - 40                     |

0 160320 640 Feet



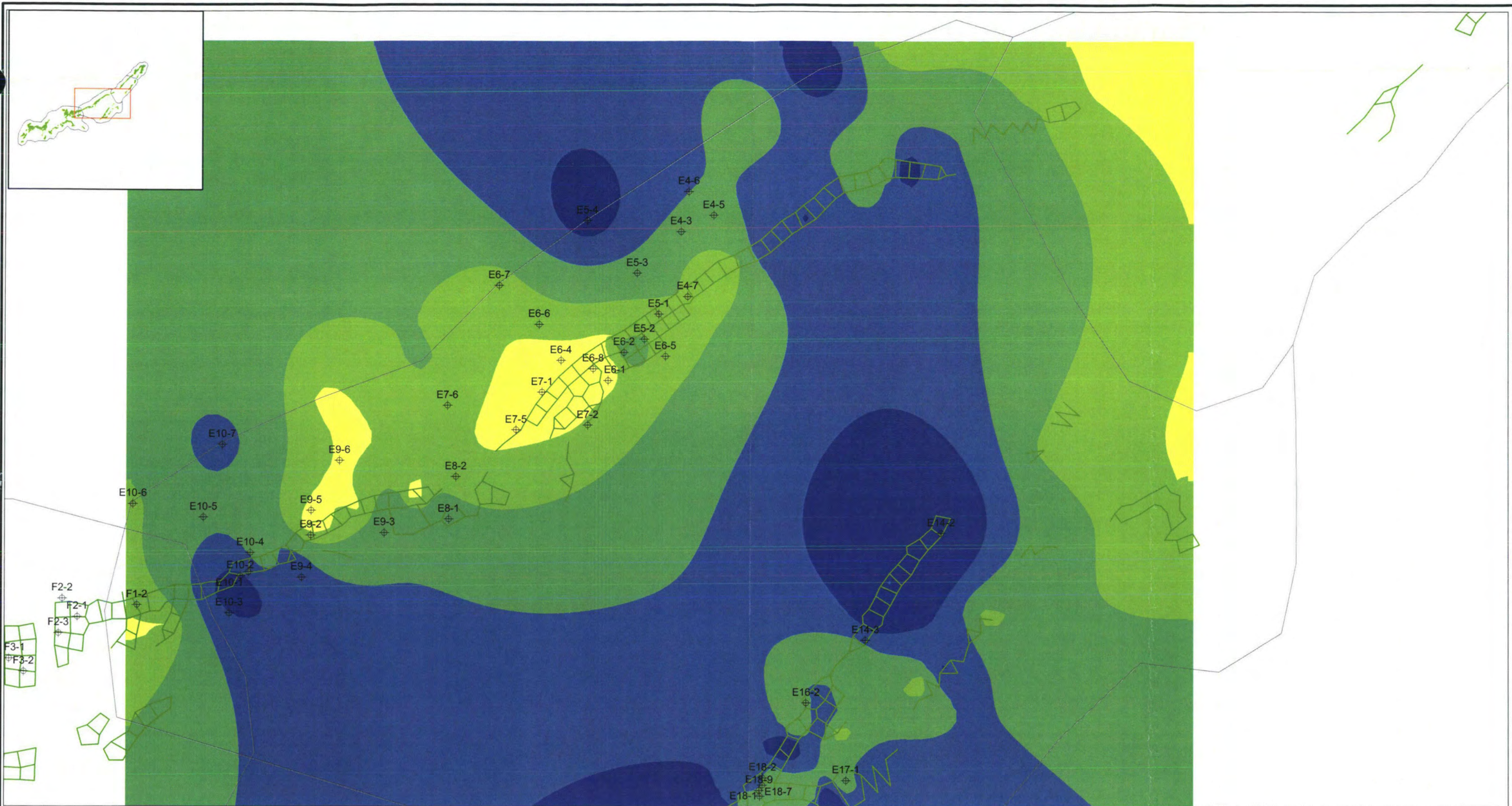
**FIGURE 10**  
**E-WELLFIELD 130 ISOPACH**

|                   |            |
|-------------------|------------|
| PROJECT<br>386200 | TASK<br>11 |
| PREPARED BY<br>   |            |

|                                      |
|--------------------------------------|
| PREPARED FOR<br><br>Cameco Resources |
|--------------------------------------|



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| Legend |                    |
|--------|--------------------|
|        | Monitoring Wells   |
|        | Wellfield Boundary |
|        | Production Pattern |
|        | 120 Isopach (ft)   |
|        | 2.8 - 5            |
|        | 5.1 - 10           |
|        | 11 - 20            |
|        | 21 - 30            |
|        | 31 - 40            |

0 160320 640 Feet

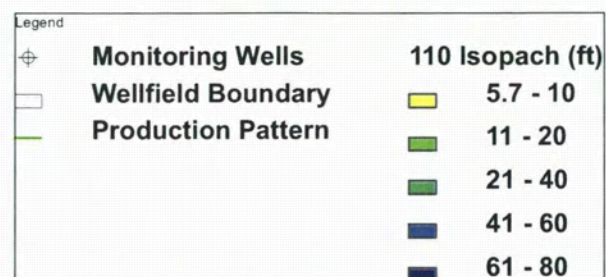
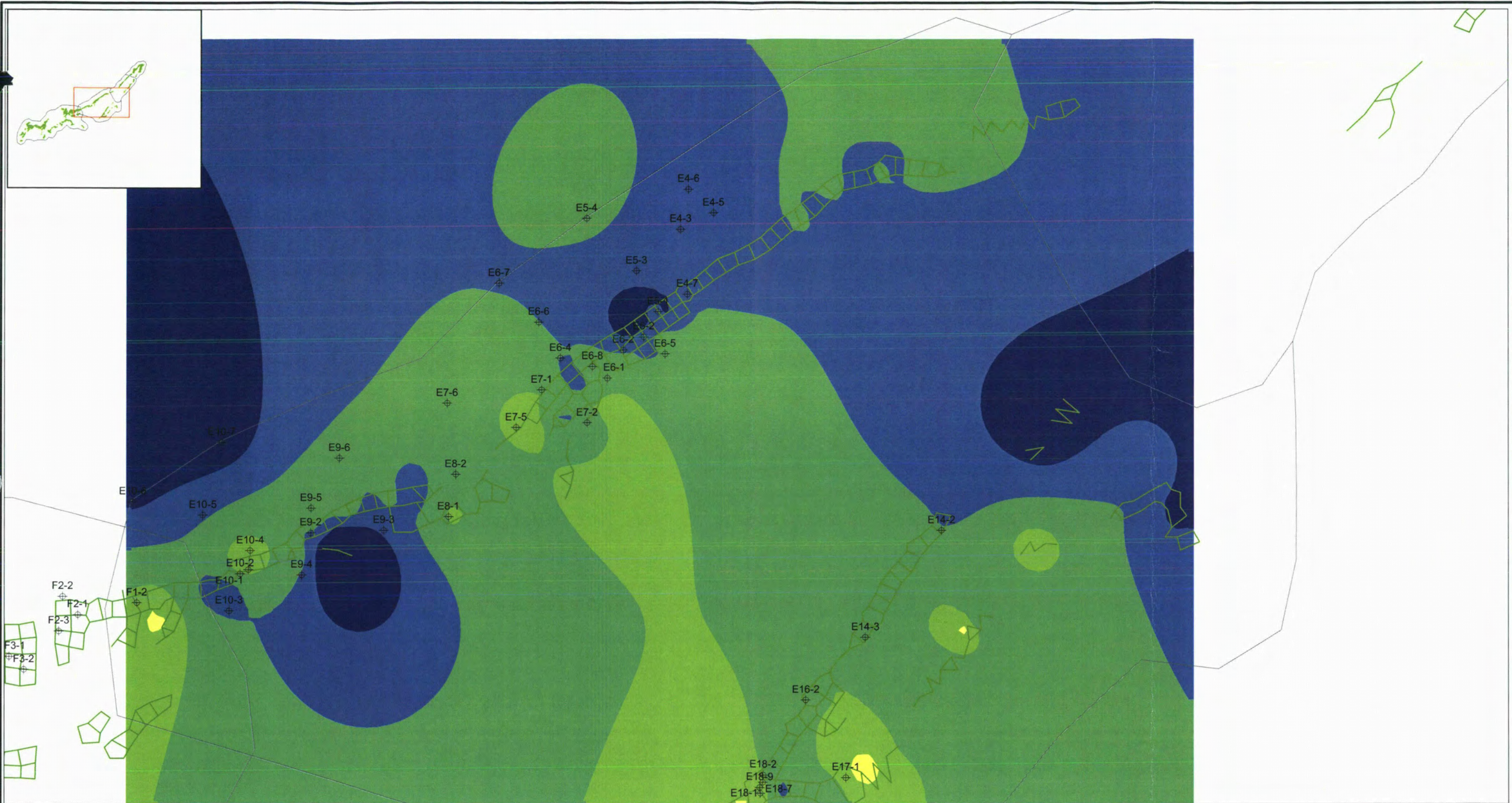


**FIGURE 11**  
**E-WELLFIELD 120 ISOPACH**

|             |        |      |    |
|-------------|--------|------|----|
| PROJECT     | 386200 | TASK | 11 |
| PREPARED BY |        |      |    |

|              |  |
|--------------|--|
| PREPARED FOR |  |
|--------------|--|





0 160320 640 Feet



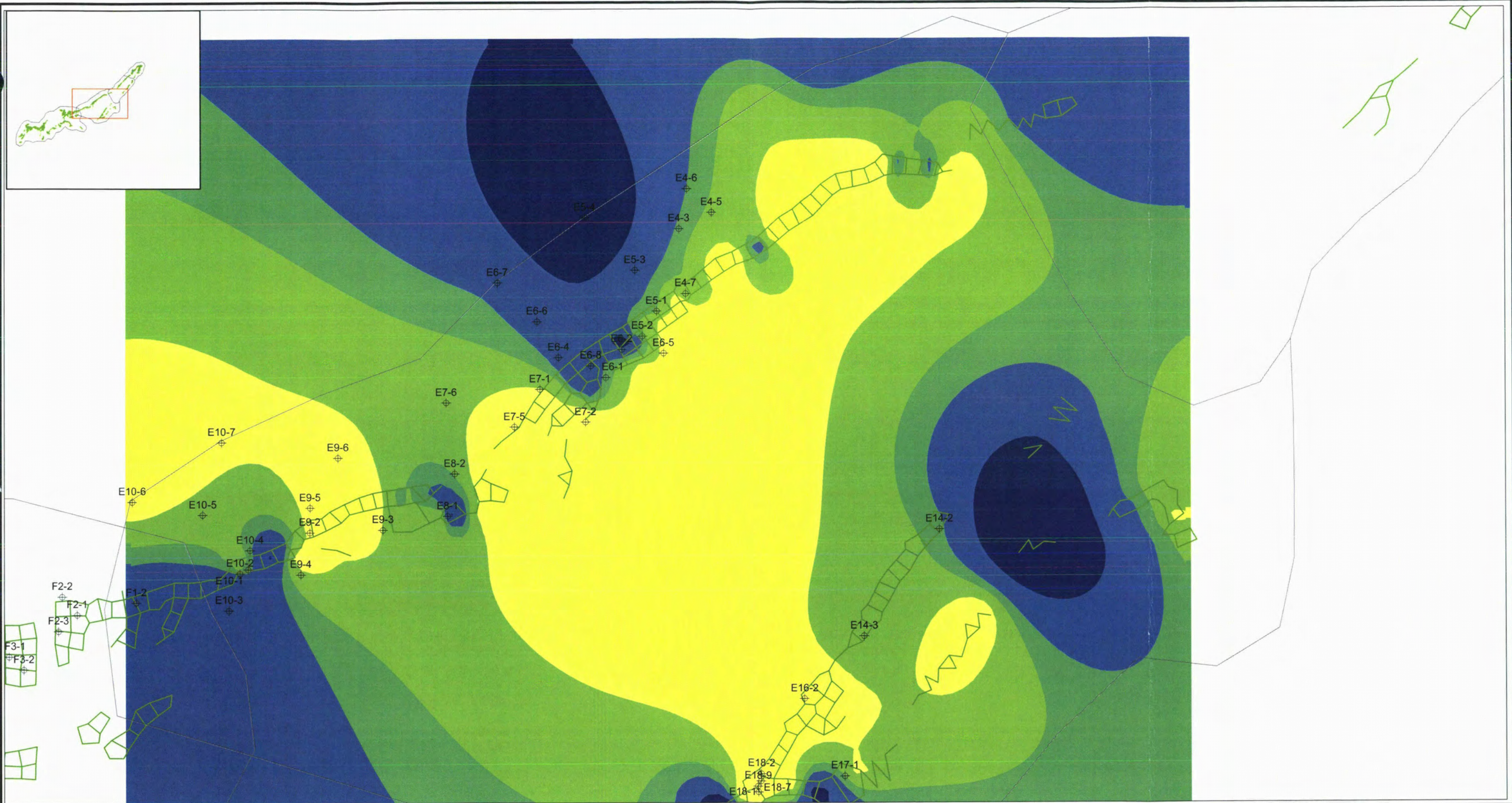
**FIGURE 12**  
**E-WELLFIELD 110 ISOPACH**

|             |        |      |    |
|-------------|--------|------|----|
| PROJECT     | 386200 | TASK | 11 |
| PREPARED BY |        |      |    |

|              |                  |
|--------------|------------------|
| PREPARED FOR |                  |
|              | Cameco Resources |



Path: R:\Highland\_Ranch\MTI\_Investigation\Products\Reports\2012\_CLI\_Report\Figures\E\_isopach.mxd



| Legend           |                    |
|------------------|--------------------|
|                  | Monitoring Wells   |
|                  | Wellfield Boundary |
|                  | Production Pattern |
| 100 Isopach (ft) |                    |
|                  | 3.8 - 10           |
|                  | 11 - 16            |
|                  | 17 - 20            |
|                  | 21 - 30            |
|                  | 31 - 40            |

0 160320 640 Feet



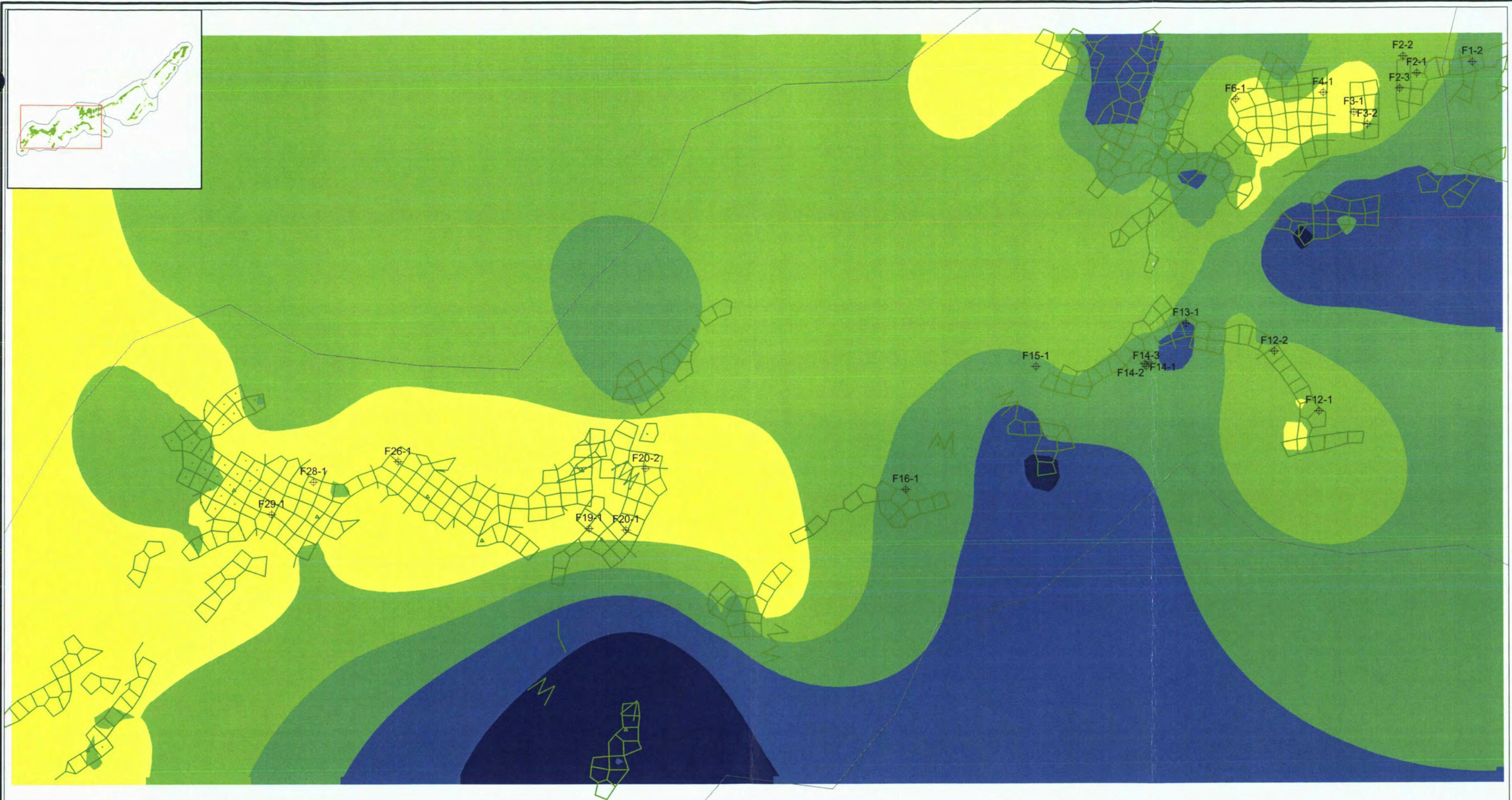
**FIGURE 13**  
**E-WELLFIELD 100 ISOPACH**

|                   |            |
|-------------------|------------|
| PROJECT<br>386200 | TASK<br>11 |
| PREPARED BY<br>   |            |

|                                      |
|--------------------------------------|
| PREPARED FOR<br><br>Cameco Resources |
|--------------------------------------|



Path: R:\Highland\Investigation\Products\Reports\2012\_CLI\_Report\Figures\F\_modified\_Isopach.mxd



|                    |                    |
|--------------------|--------------------|
| Monitoring Wells   | F 140 Isopach (ft) |
| Wellfield Boundary | 8.4 - 23           |
| Production Pattern | 24 - 30            |
|                    | 31 - 37            |
|                    | 38 - 48            |
|                    | 49 - 76            |

0 160320 640 Feet



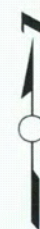
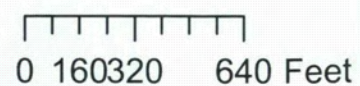
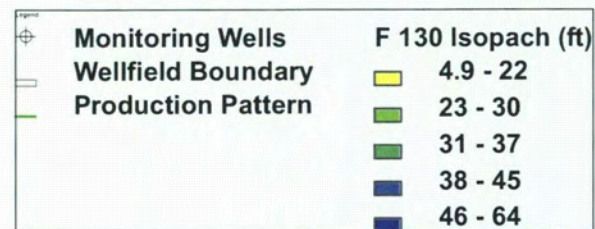
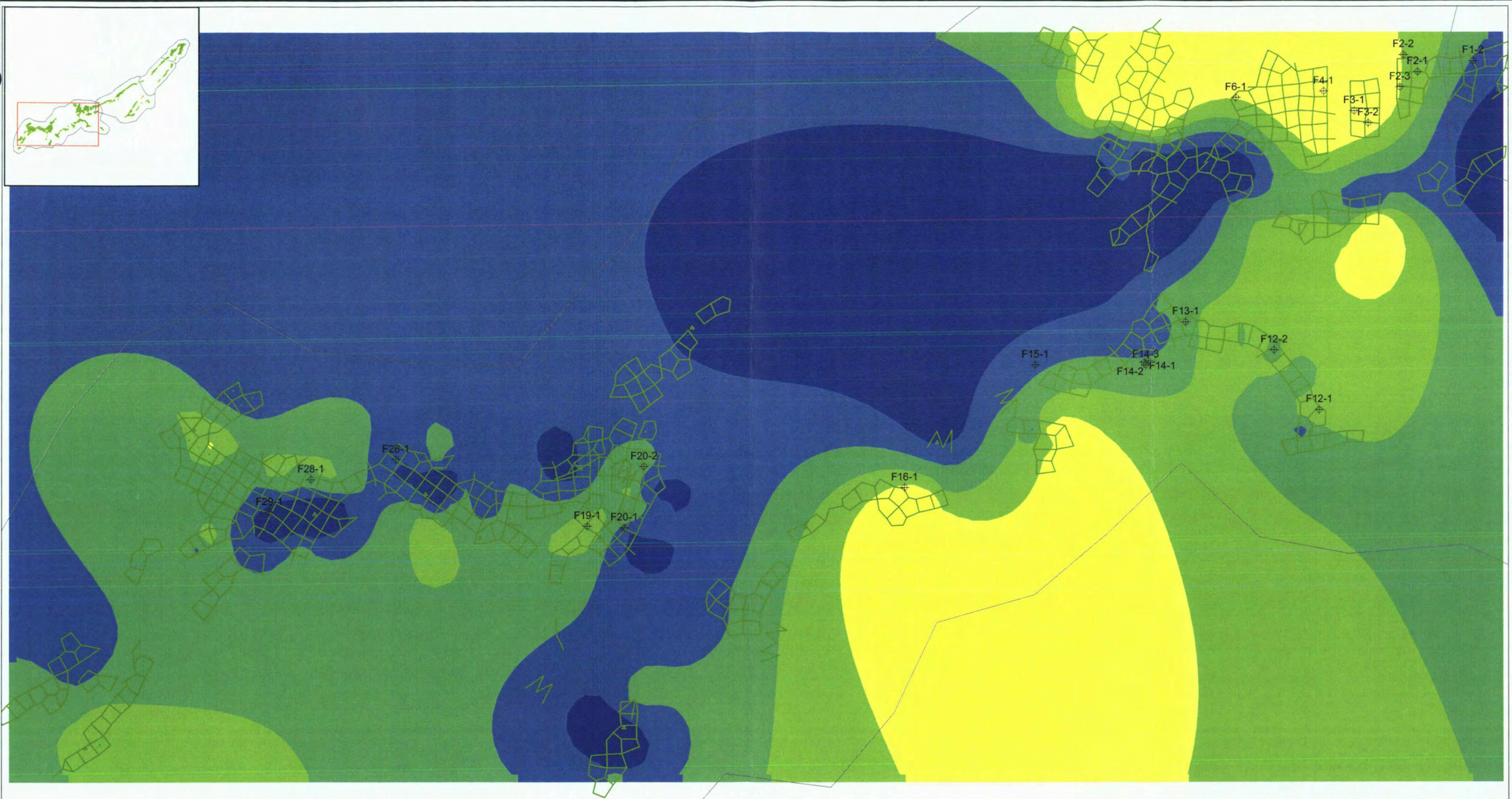
**FIGURE 14**  
**F-WELLFIELD 140 ISOPACH**

|             |        |      |    |
|-------------|--------|------|----|
| PROJECT     | 386200 | TASK | 11 |
| PREPARED BY |        |      |    |

|              |  |
|--------------|--|
| PREPARED FOR |  |
|--------------|--|



Path: R:\Highland\_Ranch\MTI\_Investigation\Products\Reports\2012\_CLJ\_Report\Figures\F\_modified\_Isopach.mxd



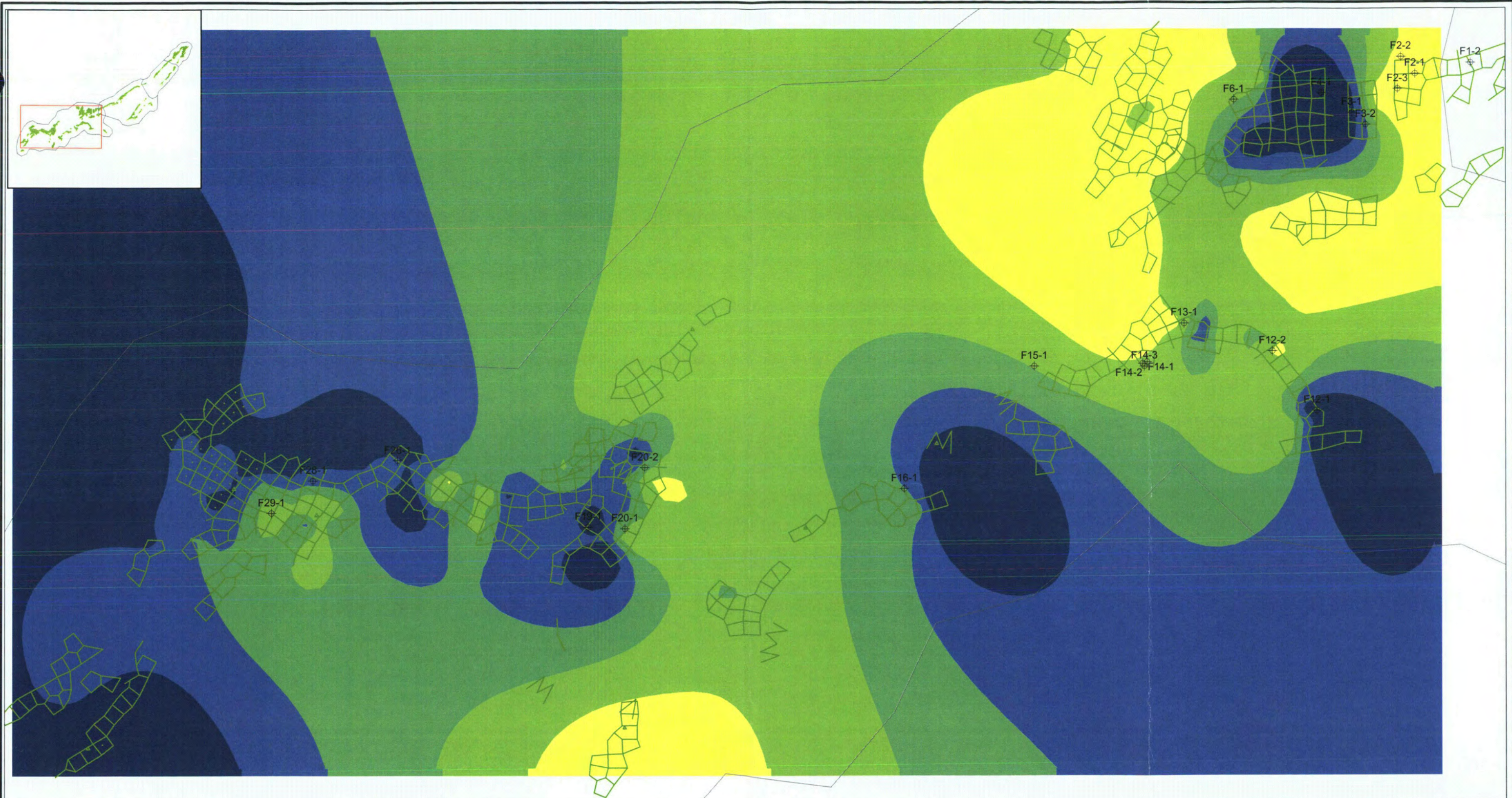
**FIGURE 15**  
**F-WELLFIELD 130 ISOPACH**

|                 |          |
|-----------------|----------|
| PROJECT: 386200 | TASK: 11 |
| PREPARED BY:    |          |

|               |
|---------------|
| PREPARED FOR: |
|---------------|



Path: R:\Highland\Investigation\Products\Reports\2012\_CLI\_Report\Figures\F\_modified\_Isopach.mxd



Legend

Monitoring Wells

Wellfield Boundary

Production Pattern

F 120 Isopach (ft)

5.1 - 18

19 - 25

26 - 32

33 - 38

39 - 53

0 160320 640 Feet



**FIGURE 16**  
**F-WELLFIELD 120 ISOPACH**

PROJECT

386200

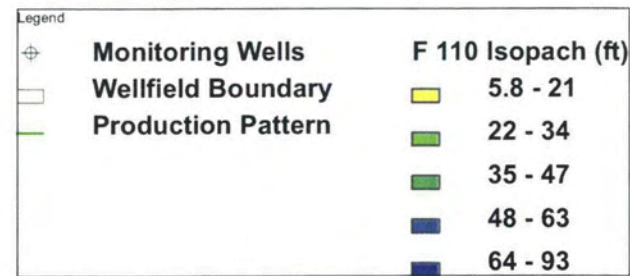
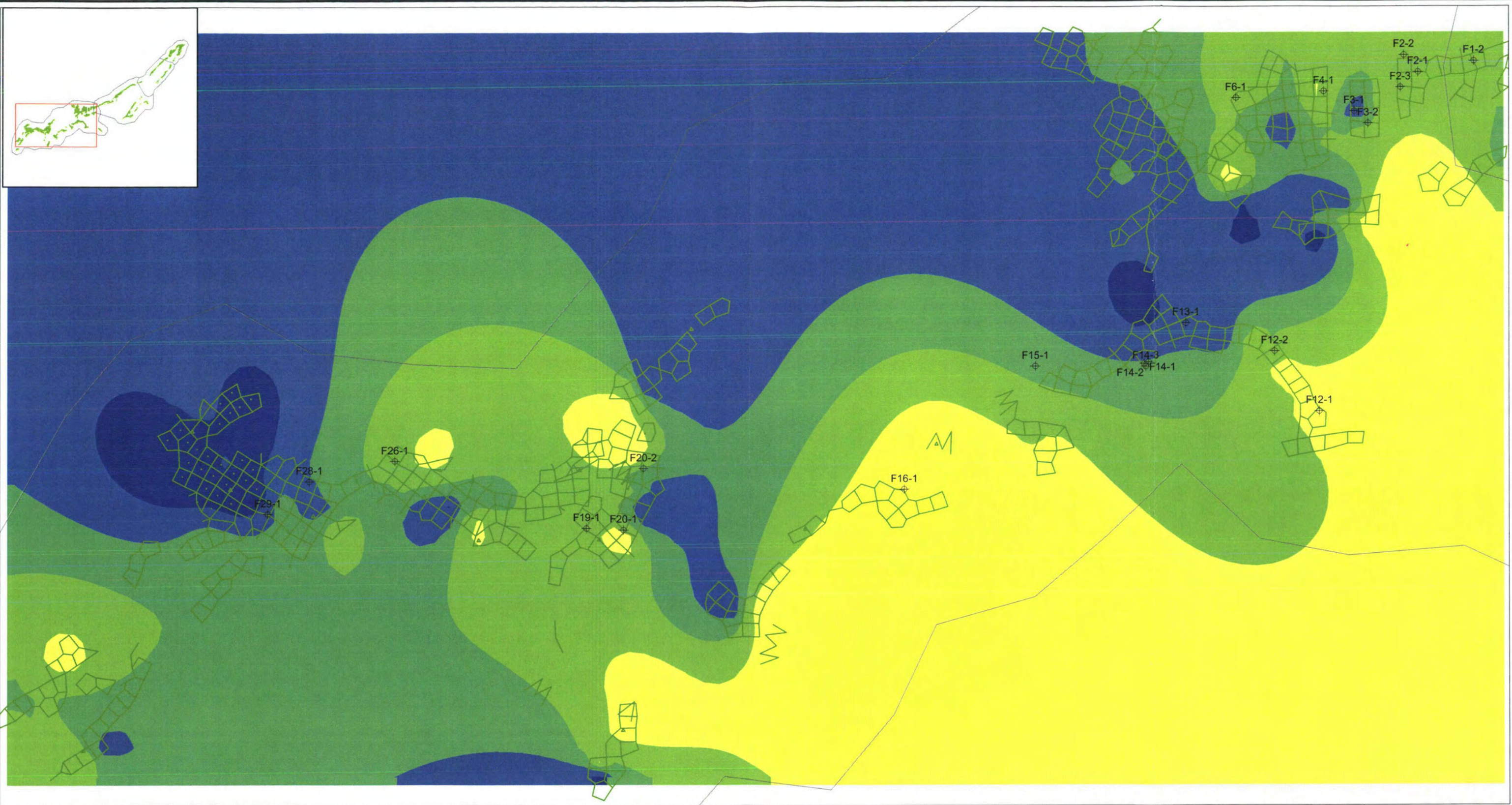
TASK

11

PREPARED BY

PREPARED FOR





0 160320 640 Feet

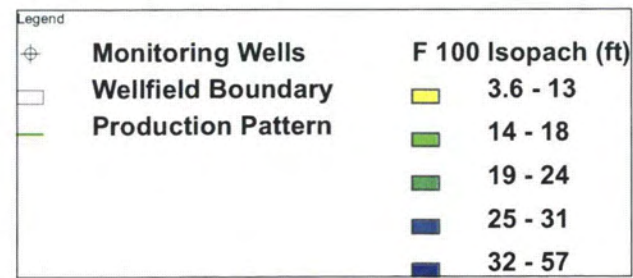
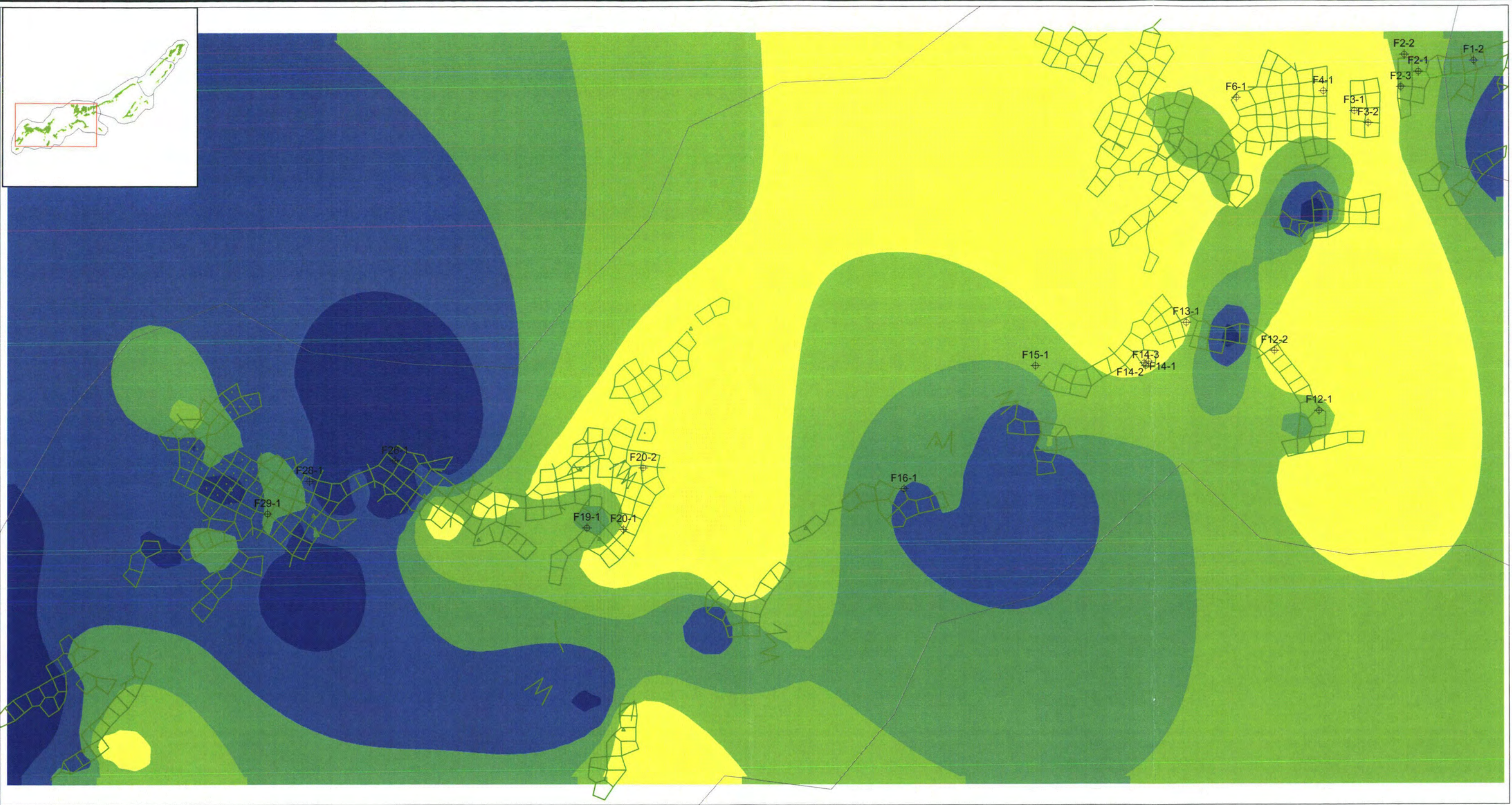


**FIGURE 17**  
**F-WELLFIELD 110 ISOPACH**

PROJECT 386200 TASK 11  
PREPARED BY **Wright**  
Environmental Services, Inc.

PREPARED FOR  
**Cameco**  
Cameco Resources





0 160320 640 Feet



**FIGURE 18**  
**F-WELLFIELD 100 ISOPACH**

|                 |          |
|-----------------|----------|
| PROJECT: 386200 | TASK: 11 |
| PREPARED BY:    |          |

|               |
|---------------|
| PREPARED FOR: |
|---------------|

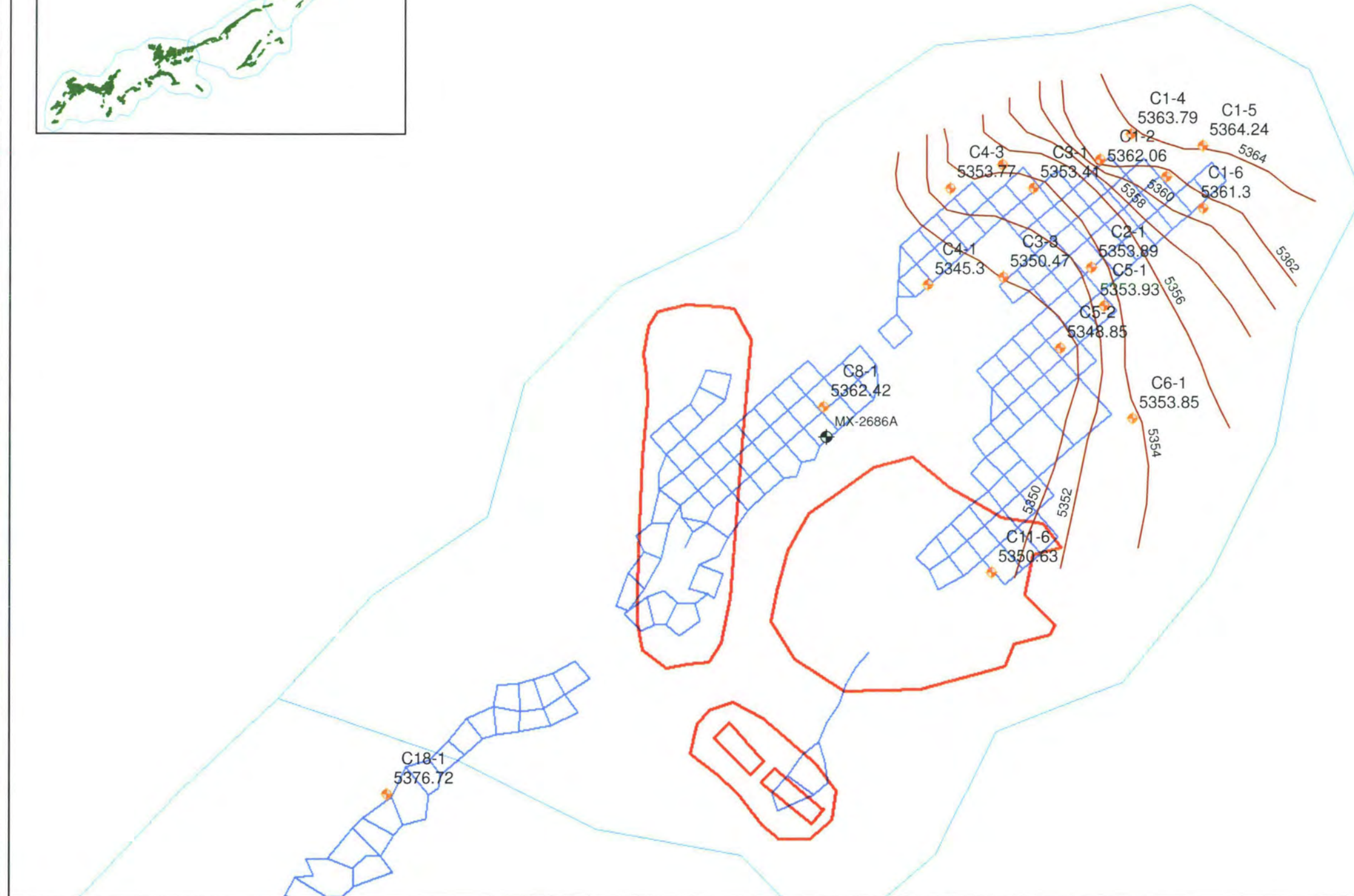




## Legend

### Shallow Monitoring Wells

- 160 Sand
- 150 Sand
- 146 Sand
- 140 Sand
- 130 Sand
- 120 Sand
- 110 Sand
- 100 Sand
- 80 Sand
- 60 Sand
- MX-2686A
- Monitor Well Pattern
- Monitor Well Ring
- North Morton Ponds
- 140 Sand Potentiometric Surface



0 365 730 Feet

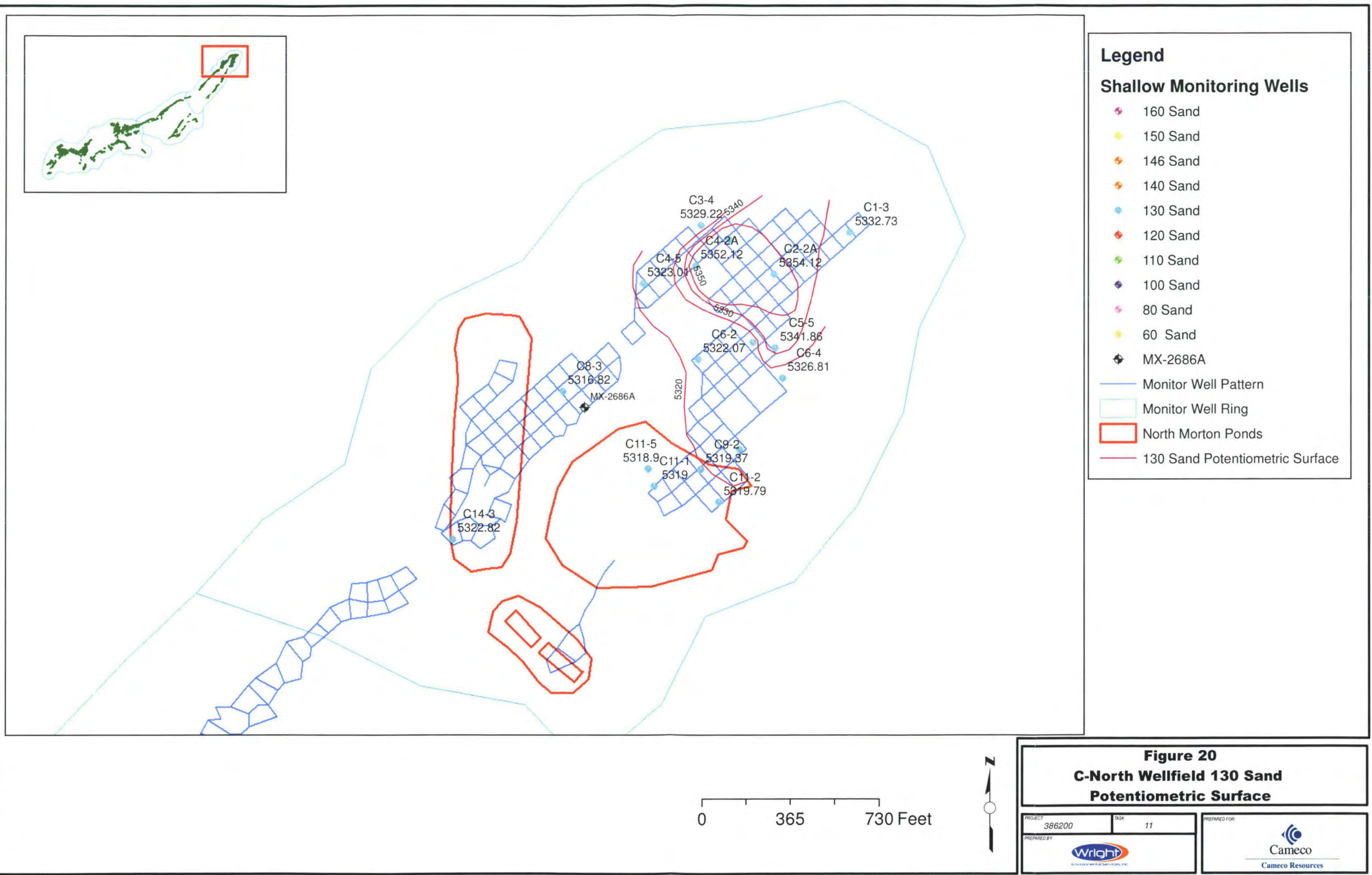


**Figure 19**  
**C-North Wellfield 140 Sand**  
**Potentiometric Surface**

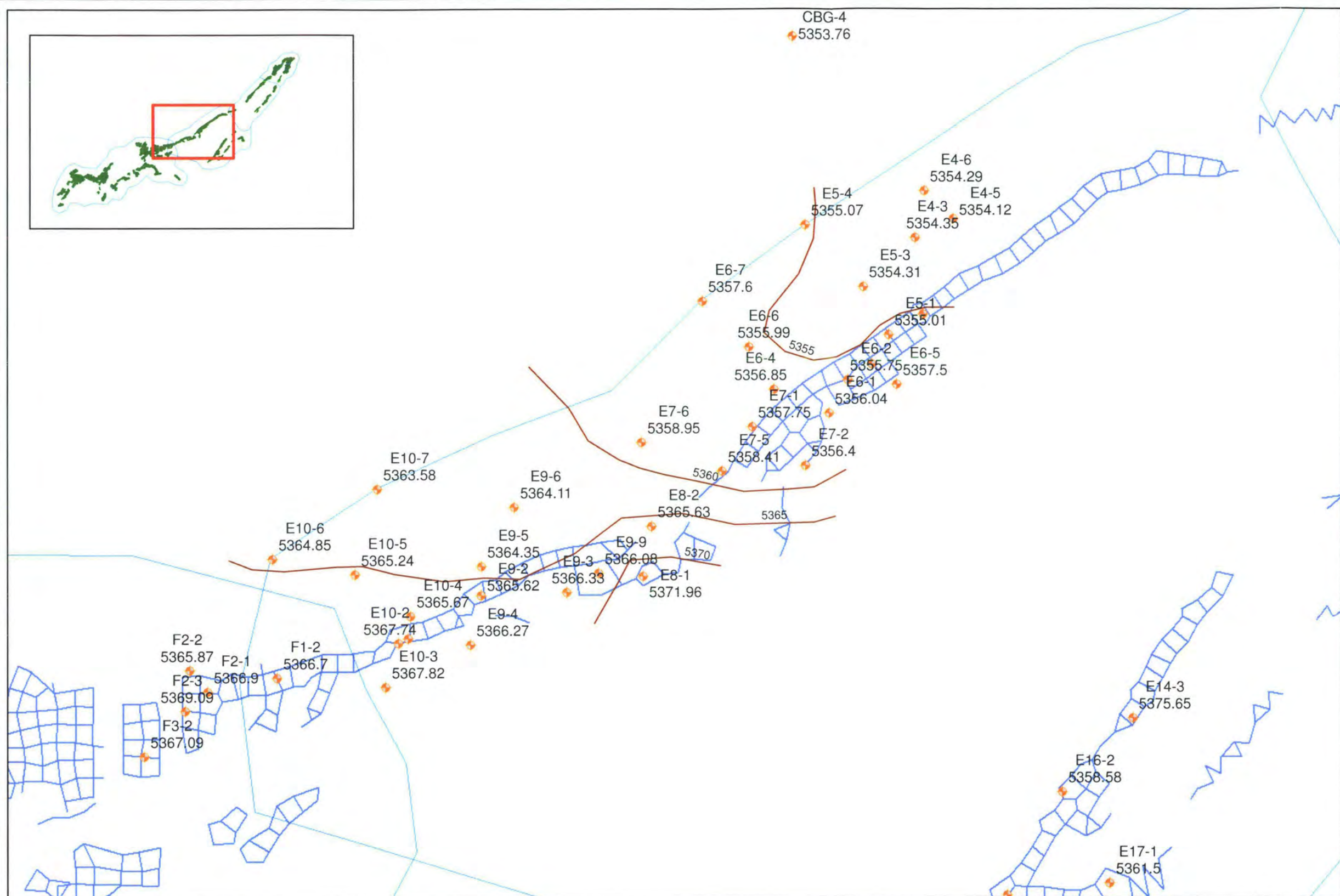
PROJECT: 386200 TASK: 11  
PREPARED BY:

PREPARED FOR:   
Cameco Resources









**Legend**

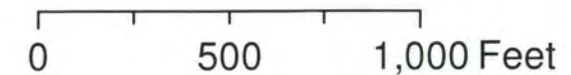
**Shallow Monitoring Wells**

- 160 Sand
- 150 Sand
- 146 Sand
- 140 Sand
- 130 Sand
- 120 Sand
- 110 Sand
- 100 Sand
- 80 Sand
- 60 Sand

Monitor Well Pattern

Monitor Well Ring

140 Sand Potentiometric Surface



**Figure 21**  
**E-Wellfield 140 Sand**  
**Potentiometric Surface**

|                   |            |                      |
|-------------------|------------|----------------------|
| PROJECT<br>386200 | TASK<br>11 | PREPARED FOR         |
| PREPARED BY<br>   |            | <br>Cameco Resources |

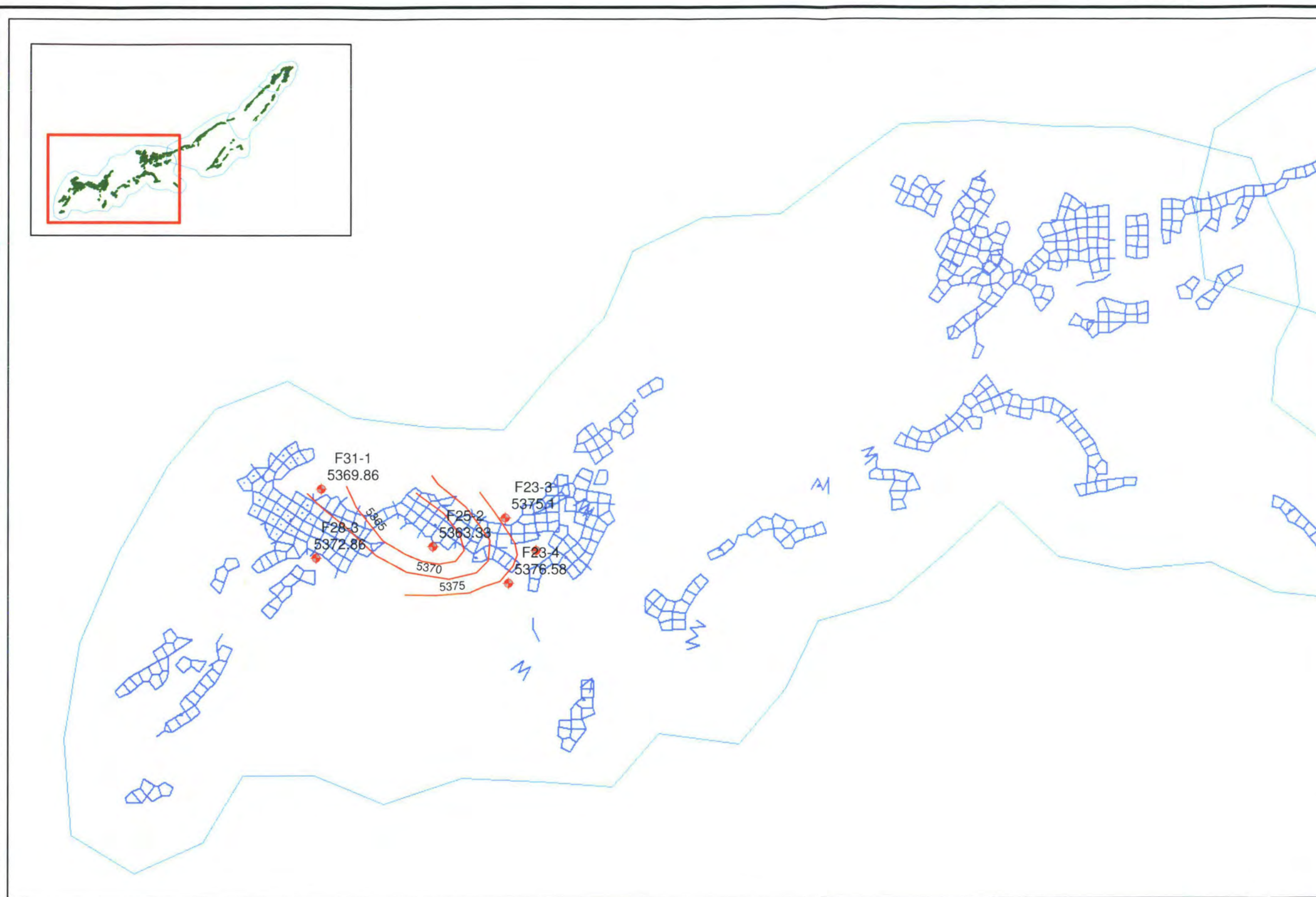




## Legend

### Shallow Monitoring Wells

- 160 Sand
- 150 Sand
- 146 Sand
- 140 Sand
- 130 Sand
- 120 Sand
- 110 Sand
- 100 Sand
- 80 Sand
- 60 Sand
- Monitor Well Pattern
- Monitor Well Ring
- 120 Sand Potentiometric Surface



0 800 1,600 Feet

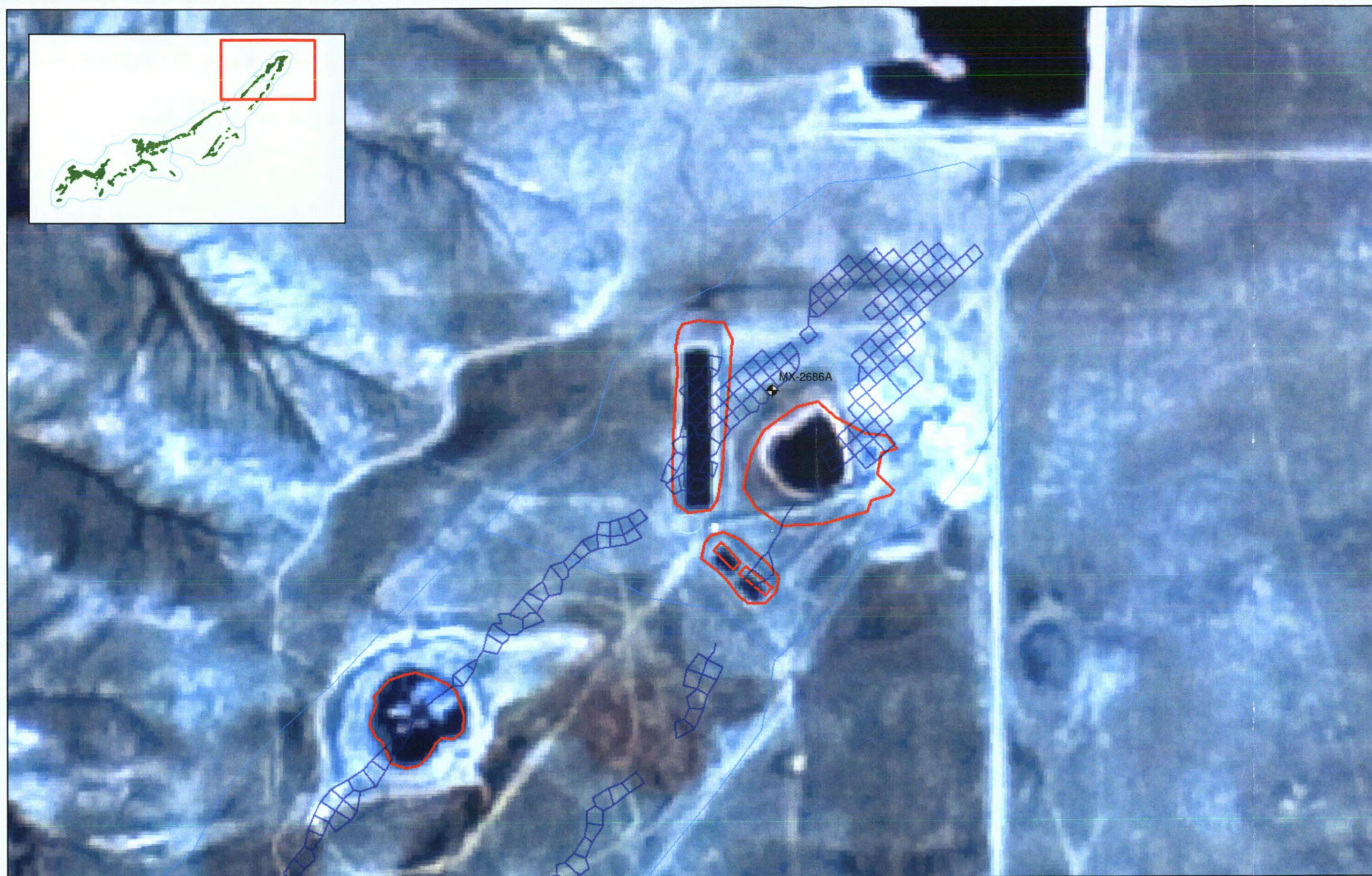


**Figure 22**  
**F-Wellfield 120 Sand**  
**Potentiometric Surface**

|                   |            |
|-------------------|------------|
| PROJECT<br>386200 | TASK<br>11 |
| PREPARED BY<br>   |            |

|                                      |
|--------------------------------------|
| PREPARED FOR<br><br>Cameco Resources |
|--------------------------------------|





**Legend**

- MX-2686A
- Monitor Well Pattern
- Monitor Well Ring
- North Morton Ponds

0 550 1,100 Feet



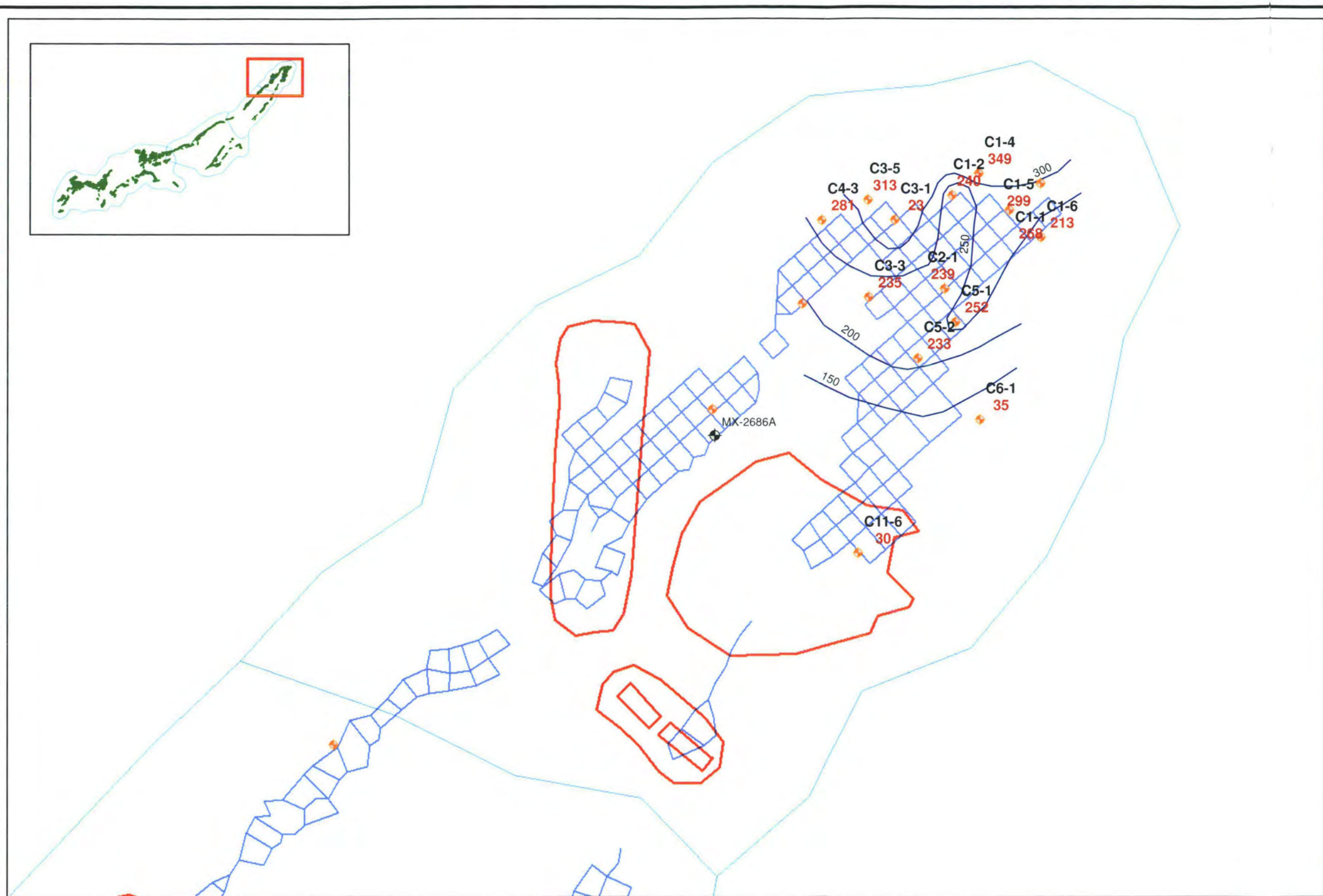
**Figure 23**

**North Morton Facilities**

**circa 1980**

|                   |            |                      |
|-------------------|------------|----------------------|
| PROJECT<br>386200 | TASK<br>11 | PREPARED FOR:        |
| PREPARED BY:<br>  |            | <br>Cameco Resources |





**Legend**

**Shallow Monitoring Wells**

- 160 Sand
- 150 Sand
- 146 Sand
- 140 Sand
- 130 Sand
- 120 Sand
- 110 Sand
- 100 Sand
- 80 Sand
- 60 Sand
- MX-2686A
- Monitor Well Pattern
- Monitor Well Ring
- North Morton Ponds
- 140 Sand Chloride Isoconcentrations

**Figure 24**

**C-North Wellfield 140 Sand Chloride Concentrations**

|                   |            |                      |
|-------------------|------------|----------------------|
| PROJECT<br>386200 | TASK<br>11 | PREPARED FOR         |
| PREPARED BY<br>   |            | <br>Cameco Resources |

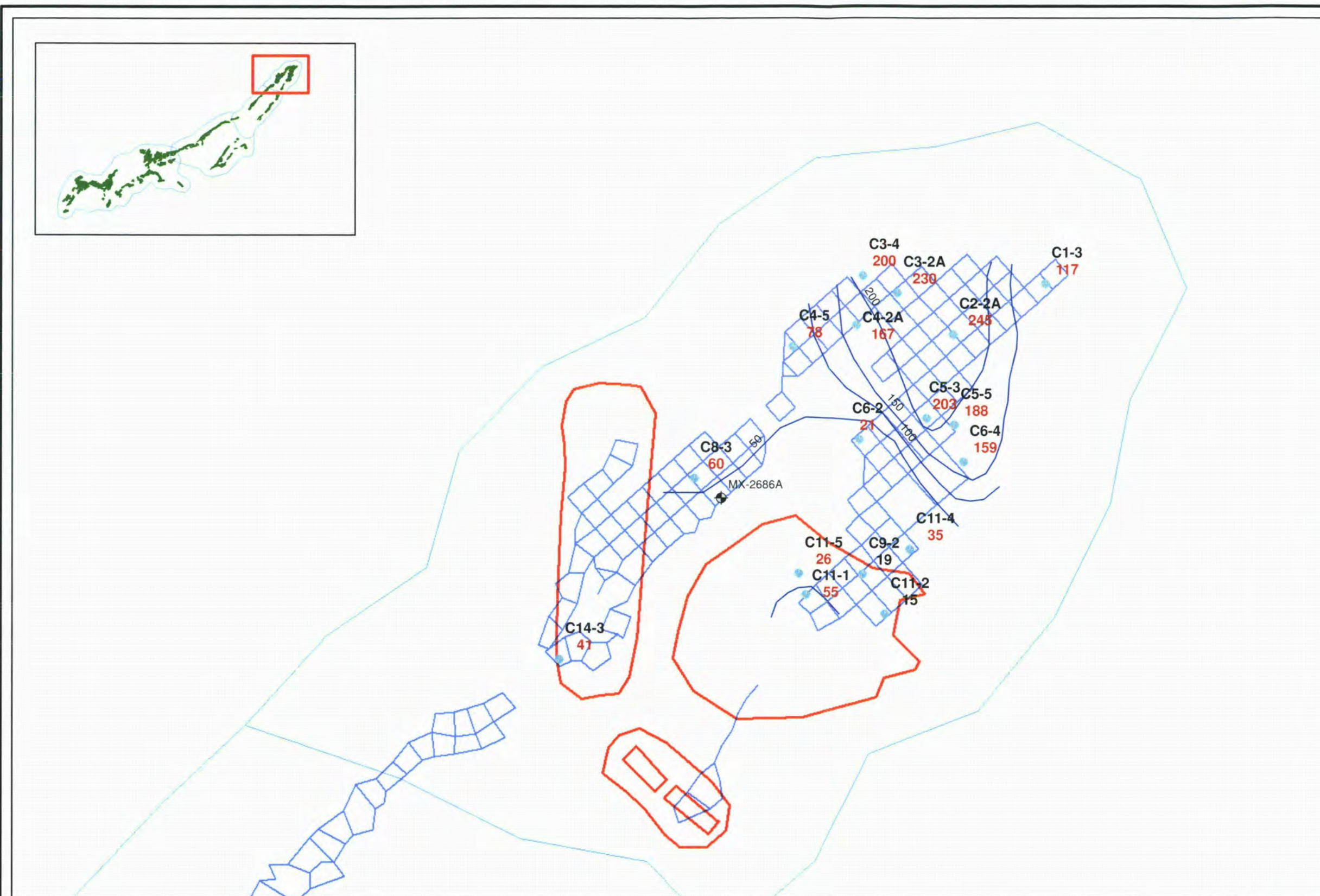




## Legend

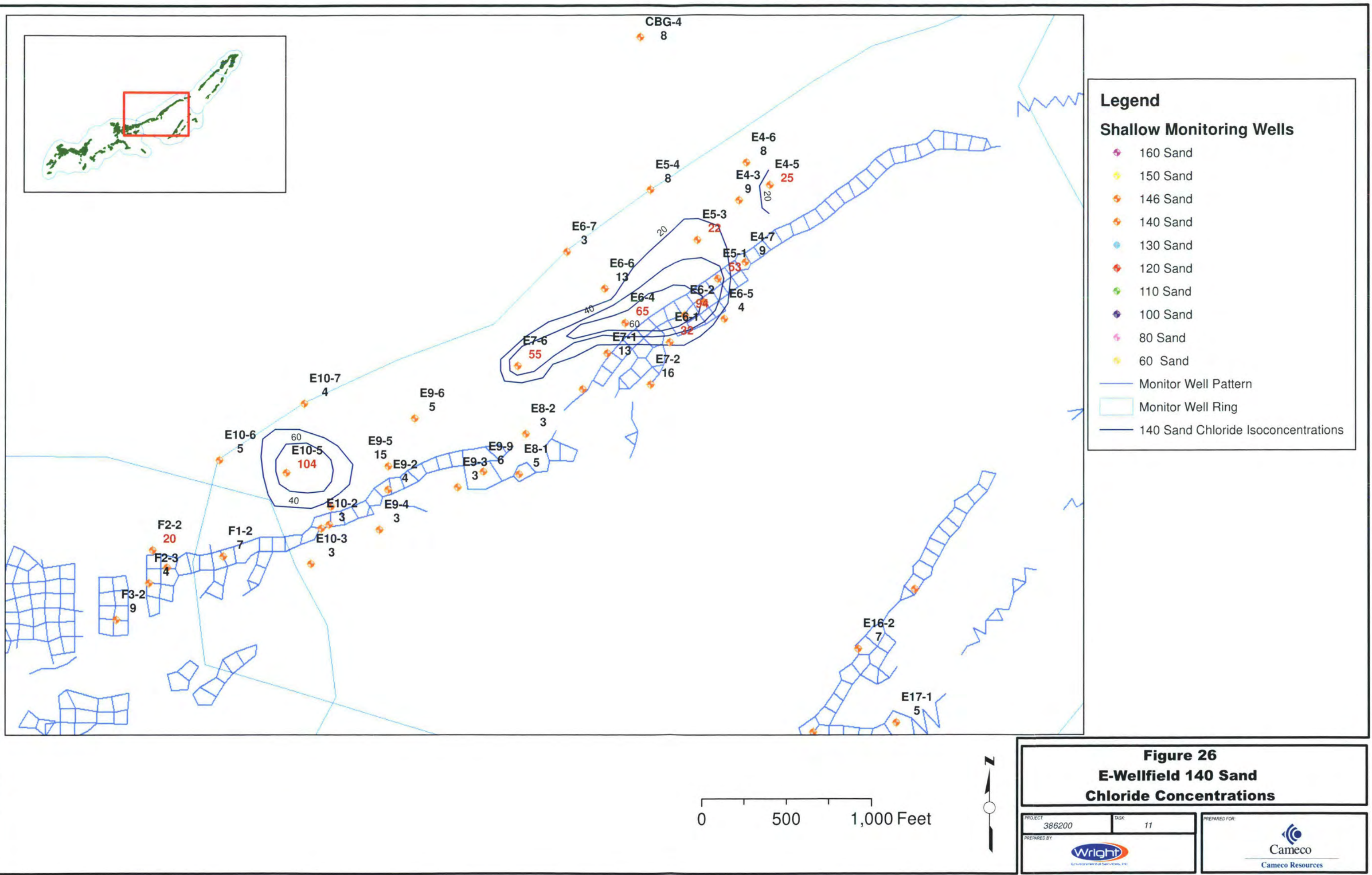
### Shallow Monitoring Wells

- 160 Sand
- 150 Sand
- 146 Sand
- 140 Sand
- 130 Sand
- 120 Sand
- 110 Sand
- 100 Sand
- 80 Sand
- 60 Sand
- MX-2686A
- 130 Sand Chloride Isoconcentrations
- Monitor Well Pattern
- Monitor Well Ring
- North Morton Ponds



**Figure 25**  
**C-North Wellfield 130 Sand**  
**Chloride Concentrations**









**Legend**

**Shallow Monitoring Wells**

160 Sand

150 Sand

146 Sand

140 Sand

130 Sand

120 Sand

110 Sand

100 Sand

80 Sand

60 Sand



Monitor Well Pattern

Monitor Well Ring

0 800 1,600 Feet



**Figure 27**  
**F-Wellfield 120 Sand**  
**Chloride Concentrations**

|  |            |   |
|--|------------|---|
| PROJECT<br>386200  | TASK<br>11 | PREPARED FOR  |
| PREPARED BY<br><br>Wright<br>Environmental Services, Inc. |            | <br>Cameco<br>Cameco Resources |

## **TABLES**

**Table 1 C-Wellfield Shallow Monitoring Wells**

| Well  | Drilled TD (ft) | Measured TD From TOC (ft) | DTW from TOC (ft) | Pump Type  | Comments                                |
|-------|-----------------|---------------------------|-------------------|------------|---|
| C1-1  | 80.0            | 79.8                      | 48.8              | Redi Flow2 |   |
| C1-2  | 85.0            | 84.6                      | 51.72             | Redi Flow2 |   |
| C1-3  | 110.0           | 111.5                     | 79.45             | Redi Flow2 |   |
| C1-4  | 75.0            | 79.25                     | 46.72             | Redi Flow2 |   |
| C1-5  | 79.5            | 79.47                     | 47.47             | Redi Flow2 |   |
| C1-6  | 85.0            | 85.75                     | 52.44             | Redi Flow2 |   |
| C2-1  | 70.0            | 72.88                     | 60.36             | Redi Flow2 |   |
| C2-2A | 112.0           | 108.5                     | 57.98             | Redi Flow2 |   |
| C3-1  | 70.0            | 71.93                     | 58.5              | Redi Flow2 |   |
| C3-2A | 120.0           | 112.57                    | 57.21             | Redi Flow2 |   |
| C3-3  | 70.0            | 71.9                      | 63.15             | Redi Flow2 |   |
| C3-4  | 125.0           | 128.2                     | 82.09             | Redi Flow2 |   |
| C3-5  | 60.0            | 62.72                     | 57.41             | Bailed     |   |
| C4-1  | 70.0            | 71.7                      | 70.02             | --         | Unsampleable (recharge 0.06ft in 24hrs) |
| C4-2A | 120.0           | 113.5                     | 59.54             | Redi Flow2 |   |
| C4-3  | 65.0            | 66.8                      | 57.39             | Redi Flow2 |   |
| C4-5  | 120.0           | 121.94                    | 90.85             | Redi Flow2 | Sample after 1 porevolume               |
| C5-1  | 70.0            | 71.8                      | 64.1              | Redi Flow2 |   |
| C5-2  | 75.0            | 76.9                      | 73.15             | Bailed     |   |
| C5-3  | 130.0           | 131.75                    | 91.96             | Redi Flow2 |   |
| C5-4  | 25.0            | 20.25                     | Dry               | --         | Dry                                     |
| C5-5  | 130.0           | 128.5                     | 77.4              | Redi Flow2 |   |
| C5-6  | 265.0           | 257.68                    | 106.44            | Redi Flow2 |   |
| C6-1  | 75.0            | 76.81                     | 72.22             | Bailed     |   |
| C6-2  | 125.0           | 126.75                    | 99.62             | Redi Flow2 |   |
| C6-3  | 350.0           | 335.5                     | 133.81            | Redi Flow2 |   |
| C6-4  | 130.0           | 133.15                    | 94.41             | Redi Flow2 |   |
| C8-1  | 60.0            | 61.4                      | 60.99             | --         | Dry                                     |
| C8-2  | 25.0            | 15.7                      | dry               | --         | Dry                                     |
| C8-3  | 160.0           | 160.4                     | 107.11            | Redi Flow2 |   |
| C9-1  | 25.0            | 19.98                     | Dry               | --         | Dry                                     |
| C9-2  | 145.0           | 146.2                     | 104.61            | Redi Flow2 |   |
| C11-1 | 140.0           | 135.6                     | 95.91             | Redi Flow2 |   |
| C11-2 | 145.0           | 146.5                     | 107.27            | Redi Flow2 |   |
| C11-4 | 140.0           | 141.05                    | 104.48            | Redi Flow2 |   |

**Table 1 C-Wellfield Shallow Monitoring Wells**

| Well   | Drilled TD (ft) | Measured TD From TOC (ft) | DTW from TOC (ft) | Pump Type     | Comments                  |
|--------|-----------------|---------------------------|-------------------|---------------|---------------------------|
| C11-5  | 145.0           | 146.02                    | 65.15             | Redi Flow2    |                           |
| C11-6  | 80.0            | 84.02                     | 72.88             | Redi Flow2    | Sample after 1 porevolume |
| C12-1  | 525.0           | 525                       | 347.61            | Dedicate Pump |                           |
| C14-3  | 150.0           | 154.69                    | 123.98            | Redi Flow2    |                           |
| C16-1  | 20.0            | 22.6                      | Dry               | --            | Dry                       |
| C17-1  | 108.0           | 109.75                    | 97.63             | Redi Flow2    |                           |
| C18-1  | 60.0            | 63.81                     | 62.97             | --            | Dry                       |
| C20-1  | 45.0            | 47.5                      | 44.51             | Bailed        |                           |
| C22-1  | 265.0           | 268.75                    | 97.05             | Redi Flow2    |                           |
| C22-2  | 224.0           | 222.5                     | 99.4              | Dedicate Pump |                           |
| C22-3  | 191.0           | 186.3                     | 99.81             | Dedicate Pump |                           |
| C22-4  | 259.0           | 254.3                     | 102.4             | Dedicate Pump |                           |
| CBG-01 | 303.0           | 299.8                     | 111.75            | Dedicate Pump |                           |
| CBG-02 | 250.0           | 245.3                     | 109.91            | Dedicate Pump |                           |
| CBG-03 | 164.0           | 160                       | 107.55            | Dedicate Pump |                           |
| CBG-04 | 105.0           | 103.1                     | 86.34             | Dedicate Pump |                           |

Notes: SWL measured during the 4th Quarter of 2012



**Table 2 E-Wellfield Shallow Monitoring Wells**

| Well | Drilled TD (ft) | Measured TD From TOC (ft) | DTW from TOC (ft) | Pump Type  | Comments                               |
|------|-----------------|---------------------------|-------------------|------------|--|
| E4-1 | 90.0            | 26.51                     | Dry               | --         | Dry                                    |
| E4-3 | 125.0           | 127                       | 108.04            | Redi Flow2 |  |
| E4-5 | 115.0           | 116.57                    | 101.26            | Redi Flow2 |  |
| E4-6 | 115.0           | 116.5                     | 95.71             | Redi Flow2 |  |
| E4-7 | 145.0           | 151.25                    | 121.42            | Redi Flow2 |  |
| E5-1 | 135.0           | 135.75                    | 123.16            | Redi Flow2 |  |
| E5-2 | 140.0           | 140                       | 126.4             | Redi Flow2 |  |
| E5-3 | 140.0           | 139.85                    | 119.9             | Redi Flow2 |  |
| E5-4 | 120.0           | 120.1                     | 101.8             | Redi Flow2 |  |
| E6-1 | 140.0           | 142.02                    | 126.96            | Redi Flow2 |  |
| E6-2 | 140.0           | 142.07                    | 128.41            | Redi Flow2 |  |
| E6-4 | 130.0           | 130.3                     | 122.53            | Redi Flow2 |  |
| E6-5 | 135.0           | 134.75                    | 123.8             | Redi Flow2 |  |
| E6-6 | 130.0           | 128.4                     | 117.9             | Redi Flow2 |  |
| E6-7 | 115.0           | 116.62                    | 104.5             | Redi Flow2 |  |
| E6-8 | 285.0           | 284.6                     | 144.81            | Redi Flow2 |  |
| E7-1 | 135.0           | 133.31                    | 121.68            | Redi Flow2 |  |
| E7-2 | 145.0           | 146.58                    | 126.89            | Redi Flow2 |  |
| E7-3 | 35.0            | 21.54                     | Dry               | --         | Dry                                    |
| E7-5 | 120.0           | 121.8                     | 120.55            | --         | Unsampleable (<1.5ft of water in well) |
| E7-6 | 120.0           | 122.95                    | 115.2             | Redi Flow2 | Sample after 1 porevolume              |
| E8-1 | 100.0           | 103.17                    | 91.38             | Redi Flow2 |  |
| E8-2 | 110.0           | 111.98                    | 108.91            | Bailed     |  |

**Table 2 E-Wellfield Shallow Monitoring Wells**

| Well  | Drilled TD (ft) | Measured TD From TOC (ft) | DTW from TOC (ft) | Pump Type     | Comments |
|-------|-----------------|---------------------------|-------------------|---------------|----------|
| E9-2  | 75.0            | 77.46                     | 67.83             | Redi Flow2    |          |
| E9-3  | 80.0            | 81.54                     | 73.12             | Redi Flow2    |          |
| E9-4  | 75.0            | 76.89                     | 66.61             | Redi Flow2    |          |
| E9-5  | 85.0            | 87.23                     | 82.7              | Bailed        |          |
| E9-6  | 85.0            | 87.75                     | 82.25             | Bailed        |          |
| E9-7  | 395.0           | 398.9                     | 204.84            | Dedicate Pump |          |
| E9-8  | 253.0           | 248.5                     | 107.96            | Dedicate Pump |          |
| E9-9  | 84.1            | 84.1                      | 81.66             | Bailed        |          |
| E10-1 | 95.0            | 96.92                     | 63.73             | Redi Flow2    |          |
| E10-2 | 70.0            | 71.47                     | 65.02             | Redi Flow2    |          |
| E10-3 | 90.0            | 91.91                     | 82.38             | Redi Flow2    |          |
| E10-4 | 65.0            | 66.86                     | 57.51             | Redi Flow2    |          |
| E10-5 | 105.0           | 107.81                    | 76.97             | Redi Flow2    |          |
| E10-6 | 105.0           | 106.22                    | 88.92             | Redi Flow2    |          |
| E10-7 | 65.0            | 66.89                     | 57.22             | Redi Flow2    |          |
| E14-2 | 75.0            | 76.84                     | 72.15             | Bailed        |          |
| E14-3 | 120.0           | 122.97                    | 122.87            | --            | Dry      |
| E16-2 | 130.0           | 132.15                    | 116.84            | Redi Flow2    |          |
| E17-1 | 130.0           | 138.18                    | 118.57            | Redi Flow2    |          |
| E18-1 | 50.0            | 52                        | Dry               | --            | Dry      |
| E18-2 | 50.0            | 51.8                      | Dry               | --            | Dry      |
| E18-7 | 50.0            | 50.55                     | Dry               | --            | Dry      |
| E18-9 | 100.0           | 103.4                     | Dry               | --            | Dry      |

Notes: Initial SWL measured during the 4th Quarter of 2012

**Table 3 F-Wellfield Shallow Monitoring Wells**

| Well  | Drilled TD (ft) | Measured TD From TOC (ft) | DTW from TOC (ft) | Pump Type     | Comments                               |
|-------|-----------------|---------------------------|-------------------|---------------|--|
| F1-2  | 90.0            | 90.18                     | 72.26             | Redi Flow2    |  |
| F2-1  | 80.0            | 81.12                     | 68.42             | Redi Flow2    |  |
| F2-2  | 95.0            | 96.75                     | 73.8              | Redi Flow2    |  |
| F2-3  | 85.0            | 86.75                     | 72.26             | Redi Flow2    |  |
| F3-1  | 140.0           | 141.75                    | 75.91             | Redi Flow2    |  |
| F3-2  | 95.0            | 96.6                      | 81.51             | Redi Flow2    |  |
| F4-1  | 45.0            | 46.52                     | 45.91             | --            | Dry                                    |
| F12-2 | 142.0           | 143.48                    | 141.51            | Bailed        |  |
| F13-1 | 180.0           | 180.44                    | 164.55            | Redi Flow2    |  |
| F14-1 | 165.0           | 165.8                     | 148.25            | Redi Flow2    |  |
| F14-2 | 208.0           | 208.25                    | 152.37            | --            | Unsampleable                           |
| F14-3 | 285.0           | 279.38                    | 124.05            | --            | Unsampleable                           |
| F15-1 | 130.0           | 131                       | 125.85            | Bailed        |  |
| F16-1 | 60.0            | 61.19                     | 58.41             | Bailed        |  |
| F23-1 | 320.0           | 301.3                     | 171.84            | Dedicate Pump |  |
| F23-2 | 245.0           | 248.8                     | 167.85            | Dedicate Pump |  |
| F23-3 | 260.0           | 249.4                     | 166.05            | Dedicate Pump |  |
| F23-4 | 275.0           | 236.6                     | 170.33            | Dedicate Pump |  |
| F25-1 | 145.0           | 142.4                     | 142.3             | --            | Dry                                    |
| F25-2 | 245.0           | 239.2                     | 183.4             | Dedicate Pump |  |
| F25-3 | 359.0           | 343.5                     | 187.1             | Dedicate Pump |  |
| F26-1 | 75.0            | 78.6                      | 75.06             | --            | Unsampleable (0.54ft of water in well) |
| F28-1 | 260.0           | 258.75                    | 181.14            | Redi Flow2    |  |
| F28-2 | 317.0           | 319.8                     | 198.67            | Dedicate Pump |  |
| F28-3 | 254.0           | 256.9                     | 184.59            | Dedicate Pump |  |
| F29-1 | 265.0           | 256.9                     | 183.35            | Redi Flow2    |  |
| F31-1 | 251.0           | 248.8                     | 188.35            | Dedicate Pump |  |
| F31-2 | 330.0           | 328.2                     | 200.67            | Dedicate Pump |  |
| FBG-1 | 209.0           | 195.5                     | 146.6             | Dedicate Pump |  |
| FBG-2 | 320.0           | 316.9                     | 153.7             | Dedicate Pump |  |

Note: SWL measured during the 4th Quarter of 2012



**Table 4 Specific Capacity Values**

| Well  | Sand Unit | Pumping Analysis       |                        | Recovery Analysis      |                        | Specific Capacity |                        | Pumping Rate |
|-------|-----------|------------------------|------------------------|------------------------|------------------------|-------------------|------------------------|--------------|
|       |           | Transmissivity         | Hydraulic Conductivity | Transmissivity         | Hydraulic Conductivity | (gpm/ft)          | (ft <sup>2</sup> /day) | (gpm)        |
|       |           | (ft <sup>2</sup> /day) | (cm/sec)               | (ft <sup>2</sup> /day) | (cm/sec)               |                   |                        |              |
| C22-2 | 110       | 3.5                    | 2.44E-04               | 1.4                    | 9.70E-05               | 0.02              | 3.3                    | 1.3          |
| C22-3 | 120       | 74.0                   | 5.22E-03               | 21.0                   | 1.48E-03               | 0.22              | 42.3                   | 1            |
| C22-4 | 100       | -                      | -                      | 0.37                   | 6.51E-06               | -                 | -                      | 0.8          |
| CBG-1 | 100       | 61.4                   | 2.17E-03               | 52.4                   | 1.85E-03               | 0.19              | 36.6                   | 9.7          |
| CBG-2 | 110       | 119.0                  | 2.10E-03               | 115.2                  | 2.03E-03               | 1.32              | 254                    | 15.5         |
| CBG-3 | 120       | 14.2                   | 1.00E-03               | 4.1                    | 2.87E-04               | 0.03              | 5.2                    | 0.78         |
| CBG-4 | 140       | 641.0                  | 2.26E-02               | 780.0                  | 2.75E-02               | 2.80              | 539                    | 2.2          |
| E9-7  | 80        | 21.1                   | 7.42E-04               | 17.6                   | 6.21E-04               | 0.11              | 21.2                   | 6            |
| E9-8  | 110       | 81.2                   | 2.87E-03               | 111.3                  | 3.93E-03               | 0.60              | 115                    | 14.2         |
| F23-1 | 110       | -                      | -                      | 0.1                    | 5.17E-06               | -                 | -                      | 0.8          |
| F23-2 | 120       | 58.9                   | 1.04E-03               | 119.4                  | 2.11E-03               | 0.18              | 34.6                   | 4.4          |
| F23-4 | 120       | 77.6                   | 1.37E-03               | -                      | -                      | 0.15              | 29                     | 2.2          |
| F25-2 | 120       | 82.4                   | 2.91E-03               | 103.5                  | 3.65E-03               | 0.22              | 42.3                   | 4.4          |
| F31-1 | 120       | -                      | -                      | 54.8                   | 1.93E-03               | -                 | -                      | 4.3          |
| F31-2 | 110       | 60.2                   | 2.12E-03               | 62.1                   | 2.20E-03               | 0.07              | 13.5                   | 6.2          |
| FBG-1 | 120       | -                      | -                      | 5.8                    | 1.02E-04               | -                 | -                      | 1.9          |
| FBG-2 | 100       | 91.7                   | 1.62E-03               | 53.6                   | 9.46E-04               | 0.65              | 125                    | 14.9         |

R:\Highland\_Smith\_Ranch\MTI\_Investigation\Products\Reports\2012\_CLI\_Report\Appendix\Appendix\_B\Tables

Table 5  
C-Wellfield pre-2011  
Well Water Quality Data

| Well ID   |          | WYDEQ     | C1-1          | C1-1          | C1-1          | C1-2          | C1-2*         | C1-2          | C1-2          | C1-2          | C1-3          | C1-3          | C1-3          |
|---|----------|-----------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Sample Date/Time                                      |          | Class III | 6/21/12       | 8/27/2012     | 10/4/2012     | 6/21/12       | 6/21/12       | 8/27/2012     | 10/5/2012     | 10/5/2012     | 6/26/12       | 8/30/2012     | 10/3/2012     |
| Job Number  |          | Livestock | C12060984-002 | C12081112-003 | C12100251-001 | C12060984-003 | C12060984-004 | C12081112-005 | C12100311-003 | C12100311-004 | C12061096-002 | C12081293-002 | C12100209-002 |
| HSU   |          | Standard  | 140           | 140           |               | 140           | 140           | 140           | 140           | 140           | 130           | 130           | 130           |
| Alkalinity, Total as CaCO3                            | mg/L     | --        | 218           | 219           | 221           | 230           | 230           | 236           |               |               | 107           | 108           | 117           |
| Carbonate as CO3                                      | mg/L     | --        | <5            | <5            | <5            | <5            | <5            | <5            |               |               | <5            | <5            | <5            |
| Bicarbonate as HCO3                                   | mg/L     | --        | 266           | 267           | 270           | 281           | 281           | 288           | 287           | 315           | 131           | 132           | 142           |
| Calcium   | mg/L     | --        | 423           | 408           | 428           | 467           | 472           | 450           |               |               | 192           | 187           | 190           |
| Chloride  | mg/L     | 2000      | 229           | 267           | 268           | 218           | 217           | 239           | 240           | 154           | 110           | 95            | 117           |
| Fluoride  | mg/L     | --        | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |               |               | 0.2           | 0.2           | 0.2           |
| Magnesium   | mg/L     | --        | 100           | 106           | 104           | 102           | 102           | 96            |               |               | 34            | 33            | 34            |
| Nitrogen, Ammonia as N                                | mg/L     | --        | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         |               |               | <0.05         | <0.05         | <0.05         |
| Nitrogen, Nitrate+Nitrite as N                        | mg/L     | 100       | 3.9           | 3.9           | 3.5           | 0.1           | 0.2           | <0.1          |               |               | <0.1          | 0.3           | <0.1          |
| Potassium   | mg/L     | --        | 12            | 12            | 12            | 12            | 12            | 13            |               |               | 8             | 9             | 7             |
| Silica  | mg/L     | --        | 10            | 10.1          | 10.3          | 15.2          | 15            | 15.3          |               |               | 7.6           | 7.7           | 7.3           |
| Sodium  | mg/L     | --        | 188           | 188           | 181           | 240           | 248           | 230           |               |               | 220           | 210           | 203           |
| Sulfate   | mg/L     | 3000      | 1230          | 1340          | 1320          | 1540          | 1530          | 1580          |               |               | 837           | 784           | 858           |
| Conductivity @ 25 C                                   | mmhos/cm | --        | 3.1           | 3.12          | 2.98          | 3.13          | 3.42          | 3.4           | 3.38          |               | 2.07          | 1.89          | 1.98          |
| pH  | s.u.     | 6.5-8.5   | 7.34          | 7.43          | 7.24          | 7.27          | 7.27          | 7.3           |               |               | 7.94          | 8.15          | 7.96          |
| Solids, Total Dissolved TDS @ 180 C                   | mg/L     | 5000      | 2680          | 2630          | 2650          | 3620          | 2970          | 2960          | 2930          | 2020          | 1540          | 1430          | 1570          |
| Aluminum-D  | mg/L     | 5         | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |               |               | <0.1          | <0.1          | <0.1          |
| Antimony-D  | mg/L     | --        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |               |               | <0.001        | <0.001        | <0.001        |
| Arsenic-D   | mg/L     | 0.2       | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |               |               | <0.001        | <0.001        | <0.001        |
| Barium-D  | mg/L     | --        | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |               |               | <0.1          | <0.1          | <0.1          |
| Beryllium-D   | mg/L     | --        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |               |               | <0.001        | <0.001        | <0.001        |
| Boron-D   | mg/L     | 5         | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |               |               | <0.1          | <0.1          | <0.1          |
| Cadmium-D   | mg/L     | 0.05      | <0.005        | <0.005        | <0.005        | <0.005        | <0.005        | <0.005        |               |               | <0.005        | <0.005        | <0.005        |
| Chromium-D  | mg/L     | 0.05      | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         |               |               | <0.05         | <0.05         | <0.05         |
| Copper-D  | mg/L     | 0.5       | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         |               |               | <0.01         | <0.01         | <0.01         |
| Iron-D  | mg/L     | --        | 0.05          | <0.03         | <0.03         | 1.3           | 1.32          | 1.13          |               |               | <0.03         | <0.03         | <0.03         |
| Lead-D  | mg/L     | 0.1       | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |               |               | <0.001        | <0.001        | <0.001        |
| Manganese-D   | mg/L     | --        | 0.04          | 0.03          | 0.03          | 0.18          | 0.18          | 0.17          |               |               | 0.08          | 0.04          | 0.05          |
| Mercury-D   | mg/L     | 0.00005   | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |               |               | <0.001        | <0.001        | <0.001        |
| Molybdenum-D  | mg/L     | --        | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |               |               | <0.1          | <0.1          | <0.1          |
| Nickel-D  | mg/L     | --        | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         |               |               | <0.05         | <0.05         | <0.05         |
| Selenium-D  | mg/L     | 0.05      | 0.417         | 0.432         | 0.46          | <0.001        | <0.001        | <0.001        | 0.002         | 0.232         | <0.001        | 0.002         | 0.001         |
| Thallium-D  | mg/L     | --        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |               |               | <0.001        | <0.001        | <0.001        |
| Uranium-D   | mg/L     | --        | 0.353         | 0.354         | 0.383         | 0.051         | 0.0555        | 0.058         | 0.0604        | 0.338         | 0.0037        | 0.0006        | 0.0007        |
| Vanadium-D  | mg/L     | 0.1       | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |               |               | <0.1          | <0.1          | <0.1          |
| Zinc-D  | mg/L     | 25        | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         |               |               | <0.01         | <0.01         | <0.01         |
| Antimony-T  | mg/L     | --        | <0.001        |               |               | <0.001        | <0.001        |               |               |               |               |               |               |
| Beryllium-T   | mg/L     | --        | <0.001        |               |               | <0.001        | <0.001        |               |               |               |               |               |               |
| Iron-T  | mg/L     | --        | 0.07          | 0.03          | <0.03         | 1.31          | 1.32          | 1.39          |               |               | 0.04          | 0.05          | 0.04          |
| Manganese-T   | mg/L     | --        | 0.04          | 0.04          | 0.03          | 0.18          | 0.18          | 0.18          |               |               | 0.08          | 0.04          | 0.05          |
| Thallium-T  | mg/L     | --        | <0.001        |               |               | <0.001        | <0.001        |               |               |               |               |               |               |
| Gross Alpha - minus U - Calculated                    | pCi/L    | 15        | 26.02         | 40.34         | -18.29        | 60.77         | 83.43         | 31.73         |               |               | -0.40         | <-5           | -0.4          |
| Gross Alpha - Unadjusted                              | pCi/L    | --        | 265           | 280           | 241           | 95.3          | 121           | 71            |               |               | 2.1           | <-5           | -0.4          |
| Gross Alpha precision (±)                             | pCi/L    | --        | 20.4          | 25.4          | 16            | 10.9          | 11.7          | 18.2          |               |               | 3.8           | 6             | 0.8           |
| Gross Alpha MDC                                       | pCi/L    | --        | 18.2          | 25.9          | 12.6          | 12.1          | 12            | 25.5          |               |               | 6.2           | 10.5          | 1.4           |
| Gross Beta  | pCi/L    | --        | 77.3          | 39.2          | 46.7          | 24.4          | 32.1          | 24.3          |               |               | 2.8           | <-6           | 0.7           |
| Gross Beta precision (±)                              | pCi/L    | --        | 21.2          | 27            | 14.3          | 10.5          | 10.1          | 26            |               |               | 4.5           | 13.4          | 1.5           |
| Gross Beta MDC  | pCi/L    | --        | 32.6          | 43.3          | 21.9          | 16.6          | 15.7          | 42.6          |               |               | 7.5           | 22.7          | 2.6           |
| Radium 226  | pCi/L    | --        | 5.4           | 1.1           | 1.1           | 14            | 15            | 20            |               |               | 1.3           | 0.64          | 0.74          |
| Radium 226 precision (±)                              | pCi/L    | --        | 0.47          | 0.24          | 0.26          | 0.73          | 0.76          | 0.95          |               |               | 0.22          | 0.16          | 0.2           |
| Radium 226 MDC  | pCi/L    | --        | 0.17          | 0.17          | 0.2           | 0.17          | 0.17          | 0.18          |               |               | 0.13          | 0.14          | 0.17          |
| Radium 228  | pCi/L    | --        | 2.2           | 2.2           | 2.2           | 3.3           | 4             | 2.7           |               |               | 0.5           | <0.9          | 1             |
| Radium 228 precision (±)                              | pCi/L    | --        | 0.8           | 0.7           | 1.1           | 0.8           | 0.8           | 0.9           |               |               | 0.6           | 0.7           | 1.4           |
| Radium 228 MDC  | pCi/L    | --        | 1.2           | 1             | 1.7           | 1.1           | 1.1           | 1.3           |               |               | 0.9           | 1.1           | 2.3           |
| Combined Total Radium 226 and Radium 228 (Calculated) | pCi/L    | 5         | 7.6           | 3.3           | 3.3           | 17.3          | 19            | 22.7          |               |               | 1.8           | 0.64          | 1.74          |

\* Duplicate sample

Table 5  
C-Wellfield pre-2011  
Well Water Quality Data

| Well ID   |          | WYDEQ     | C1-4          | C1-4          | C1-5          | C1-5          | C1-6          | C1-6          | C2-1          | C2-1*         | C2-1          | C2-2A         | C2-2A         |
|---|----------|-----------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Sample Date/Time                                      |          | Class III | 6/29/12       | 10/2/2012     | 6/28/12       | 10/2/2012     | 6/29/12       | 10/1/2012     | 7/2/2012      | 7/2/12        | 10/2/2012     | 6/20/12       | 10/8/2012     |
| Job Number  |          | Livestock | C12070005-003 | C12100115-003 | C12070005-002 | C12100115-004 | C12070005-003 | C12100057-001 | C12070082-001 | C12070082-002 | C12100115-002 | C12060854-003 | C12100347-003 |
| HSU   |          | Standard  | 140           | 140           | 140           | 140           | 140           | 140           | 140           | 140           | 140           | 130           | 130           |
| Alkalinity, Total as CaCO3                            | mg/L     | --        | 240           | 247           | 240           | 256           | 249           | 277           | 266           | 262           | 272           | 227           |               |
| Carbonate as CO3                                      | mg/L     | --        | <5            | <5            | <5            | <5            | <5            | <5            | <5            | <5            | <5            | <5            |               |
| Bicarbonate as HCO3                                   | mg/L     | --        | 293           | 301           | 293           | 312           | 303           | 338           | 325           | 319           | 332           | 277           | 279           |
| Calcium   | mg/L     | --        | 475           | 482           | 424           | 452           | 318           | 328           | 336           | 315           | 371           | 425           |               |
| Chloride  | mg/L     | 2000      | 336           | 349           | 300           | 299           | 204           | 213           | 216           | 216           | 239           | 227           | 245           |
| Fluoride  | mg/L     | --        | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | 0.1           | <0.1          | <0.1          |               |
| Magnesium   | mg/L     | --        | 137           | 127           | 98            | 103           | 65            | 64            | 68            | 62            | 66            | 85.7          |               |
| Nitrogen, Ammonia as N                                | mg/L     | --        | 0.06          | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         |               |
| Nitrogen, Nitrate+Nitrite as N                        | mg/L     | 100       | <0.1          | <0.1          | 2             | 1.8           | 1.3           | 0.8           | 1.6           | 1.5           | 1.4           | 3.1           |               |
| Potassium   | mg/L     | --        | 13            | 12            | 11            | 12            | 11            | 10            | 11            | 10            | 11            | 12.4          |               |
| Silica  | mg/L     | --        | 11.9          | 12.7          | 9             | 10.3          | 11.9          | 12.1          | 14.4          | 13.2          | 15.4          | 14.9          |               |
| Sodium  | mg/L     | --        | 254           | 226           | 186           | 187           | 187           | 180           | 193           | 182           | 171           | 223           |               |
| Sulfate   | mg/L     | 3000      | 1580          | 1560          | 1320          | 1280          | 1020          | 1000          | 897           | 902           | 914           | 1210          |               |
| Conductivity @ 25 C                                   | mmhos/cm | --        | 3.68          | 3.62          | 3.23          | 3.15          | 2.68          | 2.69          | 2.53          | 2.53          | 2.59          | 3.01          | 2.62          |
| pH  | s.u.     | 6.5-8.5   | 7.16          | 7.2           | 7.27          | 7.35          | 7.32          | 7.31          | 7.33          | 7.28          | 7.4           | 7.25          |               |
| Solids, Total Dissolved TDS @ 180 C                   | mg/L     | 5000      | 3190          | 3160          | 2670          | 2690          | 2180          | 2150          | 2080          | 2090          | 2030          | 2510          | 2460          |
| Aluminum-D  | mg/L     | 5         | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |               |
| Antimony-D  | mg/L     | --        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |               |
| Arsenic-D   | mg/L     | 0.2       | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | 0.001         |               |
| Barium-D  | mg/L     | --        | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |               |
| Beryllium-D   | mg/L     | --        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.01         |               |
| Boron-D   | mg/L     | 5         | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |               |
| Cadmium-D   | mg/L     | 0.05      | <0.005        | <0.005        | <0.005        | <0.005        | <0.005        | <0.005        | <0.005        | <0.005        | <0.005        | <0.01         |               |
| Chromium-D  | mg/L     | 0.05      | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         |               |
| Copper-D  | mg/L     | 0.5       | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         |               |
| Iron-D  | mg/L     | --        | <0.03         | <0.03         | <0.03         | <0.03         | 0.96          | 0.93          | <0.03         | <0.03         | <0.03         | <0.03         |               |
| Lead-D  | mg/L     | 0.1       | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | 0.003         |               |
| Manganese-D   | mg/L     | --        | 0.68          | 0.7           | 0.14          | 0.15          | 0.15          | 0.19          | <0.01         | <0.01         | <0.01         | <0.01         |               |
| Mercury-D   | mg/L     | 0.00005   | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |               |
| Molybdenum-D  | mg/L     | --        | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |               |
| Nickel-D  | mg/L     | --        | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         |               |
| Selenium-D  | mg/L     | 0.05      | 0.02          | 0.018         | 0.361         | 0.362         | 0.109         | 0.077         | 0.138         | 0.141         | 0.142         | 0.383         | 0.383         |
| Thallium-D  | mg/L     | --        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |               |
| Uranium-D   | mg/L     | --        | 0.167         | 0.166         | 0.374         | 0.38          | 0.167         | 0.144         | 0.166         | 0.172         | 0.189         | 0.303         | 0.288         |
| Vanadium-D  | mg/L     | 0.1       | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |               |
| Zinc-D  | mg/L     | 25        | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | 0.01          |               |
| Antimony-T  | mg/L     | --        |               |               |               |               |               |               |               |               |               |               |               |
| Beryllium-T   | mg/L     | --        |               |               |               |               |               |               |               |               |               |               |               |
| Iron-T  | mg/L     | --        | <0.03         | <0.03         | <0.03         | <0.03         | 1.2           | 1.22          | <0.03         | <0.03         | 0.04          | 3.64          |               |
| Manganese-T   | mg/L     | --        | 0.69          | 0.79          | 0.15          | 0.16          | 0.15          | 0.2           | <0.01         | <0.01         | <0.01         | 0.04          |               |
| Thallium-T  | mg/L     | --        |               |               |               |               |               |               |               |               |               |               |               |
| Gross Alpha - minus U - Calculated                    | pCi/L    | 15        | -17.06        | -28.48        | -4.20         | -1.26         | 38.94         | 23.51         | 17.62         | -23.84        | -14.95        | 41.87         |               |
| Gross Alpha - Unadjusted                              | pCi/L    | --        | 96            | 83.9          | 249           | 256           | 152           | 121           | 130           | 92.6          | 113           | 247           |               |
| Gross Alpha precision (±)                             | pCi/L    | --        | 25.1          | 12.3          | 24.1          | 16.9          | 10            | 12.9          | 9.6           | 15.2          | 12.5          | 13.6          |               |
| Gross Alpha MDC                                       | pCi/L    | --        | 35.3          | 14.4          | 23.3          | 13            | 8             | 13.3          | 8.5           | 18.7          | 13.6          | 10.1          |               |
| Gross Beta  | pCi/L    | --        | -10           | 18.9          | 46.5          | 49.9          | 32.2          | 32.7          | 31.4          | <-10          | 30.2          | 35.9          |               |
| Gross Beta precision (±)                              | pCi/L    | --        | 38.3          | 14.6          | 34.4          | 15.3          | 8             | 14.3          | 8.4           | 24.1          | 14.2          | 8.9           |               |
| Gross Beta MDC  | pCi/L    | --        | 64.2          | 23.7          | 55            | 23.3          | 12.1          | 22.5          | 12.8          | 40.4          | 22.6          | 13.3          |               |
| Radium 226  | pCi/L    | --        | 2.2           | 2.1           | 0.68          | 1             | 1.2           | 1.5           | 0.59          | 0.6           | 1.2           | 0.85          |               |
| Radium 226 precision (±)                              | pCi/L    | --        | 0.37          | 0.29          | 0.23          | 0.21          | 0.28          | 0.25          | 0.21          | 0.24          | 0.23          | 0.2           |               |
| Radium 226 MDC  | pCi/L    | --        | 0.22          | 0.14          | 0.22          | 0.14          | 0.21          | 0.15          | 0.21          | 0.24          | 0.15          | 0.16          |               |
| Radium 228  | pCi/L    | --        | 1.8           | 1.7           | 2.3           | 2.2           | 2.3           | 3             | 1.8           | 1.9           | 2.3           | 2.2           |               |
| Radium 228 precision (±)                              | pCi/L    | --        | 0.8           | 0.8           | 0.8           | 0.8           | 0.8           | 0.9           | 0.8           | 1             | 0.9           | 0.7           |               |
| Radium 228 MDC  | pCi/L    | --        | 1.2           | 1.2           | 1.2           | 1.2           | 1.2           | 1.2           | 1.2           | 1.6           | 1.3           | 1             |               |
| Combined Total Radium 226 and Radium 228 (Calculated) | pCi/L    | 5         | 4             | 3.8           | 2.98          | 3.2           | 3.5           | 4.5           | 2.39          | 2.5           | 3.5           | 3.05          |               |

\* Duplicate sample



Table 5  
C-Wellfield pre-2011  
Well Water Quality Data

| Well ID   |          | WYDEQ     | C3-1          | C3-1          | C3-1          | C3-2A         | C3-2A         | C3-2A         | C3-3          | C3-3          | C3-4          | C3-4          | C3-5          |
|---|----------|-----------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Sample Date/Time                                      |          | Class III | 6/20/12       | 8/27/2012     | 10/9/2012     | 6/20/12       | 8/28/2012     | 10/10/2012    | 7/3/2012      | 10/3/2012     | 7/2/2012      | 10/3/2012     | 8/7/12        |
| Job Number  |          | Livestock | C12060854-002 | C12081112-004 | C12100498-003 | C12060854-001 | C12081183-002 | C12100498-001 | C12070082-003 | C12100209-004 | C12070082-004 | C12100209-006 | C12080263-001 |
| HSU   |          | Standard  | 140           | 140           | 140           | 130           | 130           | 130           | 140           | 140           | 130           | 130           | 140           |
| Alkalinity, Total as CaCO3                            | mg/L     | --        | 390           | 403           |               | 277           | 287           |               | 245           | 256           | 230           | 252           | 429           |
| Carbonate as CO3                                      | mg/L     | --        | <5            | <5            |               | <5            | <5            |               | <5            | <5            | <5            | <5            | <5            |
| Bicarbonate as HCO3                                   | mg/L     | --        | 476           | 492           | 493           | 337           | 350           | 360           | 299           | 312           | 280           | 308           | 523           |
| Calcium   | mg/L     | --        | 409           | 384           |               | 413           | 386           |               | 346           | 324           | 269           | 290           | 415           |
| Chloride  | mg/L     | 2000      | 299           | 324           | 23            | 208           | 221           | 230           | 223           | 235           | 172           | 200           | 315           |
| Fluoride  | mg/L     | --        | <0.1          | <0.1          |               | <0.1          | <0.1          |               | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| Magnesium   | mg/L     | --        | 85.8          | 77            |               | 81.5          | 77            |               | 73            | 69            | 50            | 53            | 90            |
| Nitrogen, Ammonia as N                                | mg/L     | --        | <0.05         | <0.05         |               | <0.05         | <0.05         |               | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         |
| Nitrogen, Nitrate+Nitrite as N                        | mg/L     | 100       | 0.2           | 0.1           |               | 1             | 0.3           |               | 6             | 7.2           | <0.1          | <0.1          | 0.8           |
| Potassium   | mg/L     | --        | 11.9          | 12            |               | 11.8          | 11            |               | 11            | 10            | 9             | 9             | 13            |
| Silica  | mg/L     | --        | 13.1          | 12.4          |               | 14.9          | 12.3          |               | 13            | 12.2          | 12.7          | 13            | 12.3          |
| Sodium  | mg/L     | --        | 258           | 219           |               | 256           | 219           |               | 258           | 227           | 221           | 216           | 197           |
| Sulfate   | mg/L     | 3000      | 994           | 1040          |               | 1170          | 1270          |               | 1020          | 1080          | 890           | 952           | 902           |
| Conductivity @ 25 C                                   | mmhos/cm | --        | 3.08          | 3.09          | 2.65          | 2.98          | 3.05          | 2.65          | 2.76          | 2.67          | 2.38          | 2.4           | 2.98          |
| pH  | s.u.     | 6.5-8.5   | 7.32          | 7.44          |               | 7.35          | 7.44          |               | 7.21          | 7.25          | 7.63          | 7.52          | 7.31          |
| Solids, Total Dissolved TDS @ 180 C                   | mg/L     | 5000      | 2410          | 2380          | 2410          | 2490          | 2510          | 2560          | 2280          | 2250          | 1930          | 1960          | 2260          |
| Aluminum-D  | mg/L     | 5         | <0.1          | <0.1          |               | <0.1          | <0.1          |               | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| Antimony-D  | mg/L     | --        | <0.001        | <0.001        |               | <0.001        | <0.001        |               | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |
| Arsenic-D   | mg/L     | 0.2       | <0.001        | <0.001        |               | <0.001        | <0.001        |               | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |
| Barium-D  | mg/L     | --        | <0.1          | <0.1          |               | <0.1          | <0.1          |               | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| Beryllium-D   | mg/L     | --        | <0.01         | <0.001        |               | <0.01         | <0.001        |               | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |
| Boron-D   | mg/L     | 5         | <0.1          | <0.1          |               | <0.1          | <0.1          |               | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| Cadmium-D   | mg/L     | 0.05      | <0.01         | <0.005        |               | <0.01         | <0.005        |               | <0.005        | <0.005        | <0.005        | <0.005        | <0.005        |
| Chromium-D  | mg/L     | 0.05      | <0.05         | <0.05         |               | <0.05         | <0.05         |               | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         |
| Copper-D  | mg/L     | 0.5       | <0.01         | <0.01         |               | <0.01         | <0.01         |               | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         |
| Iron-D  | mg/L     | --        | <0.03         | <0.03         |               | <0.03         | <0.03         |               | <0.03         | <0.03         | 0.47          | 0.49          | 0.09          |
| Lead-D  | mg/L     | 0.1       | <0.001        | <0.001        |               | <0.001        | <0.001        |               | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |
| Manganese-D   | mg/L     | --        | <0.01         | <0.01         |               | <0.01         | <0.01         |               | <0.01         | <0.01         | 0.12          | 0.12          | 0.03          |
| Mercury-D   | mg/L     | 0.00005   | <0.001        | <0.001        |               | <0.001        | <0.001        |               | <0.001        | <0.001        | <0.001        | <0.001        | 0.001         |
| Molybdenum-D  | mg/L     | --        | <0.1          | <0.1          |               | <0.1          | <0.1          |               | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| Nickel-D  | mg/L     | --        | <0.05         | <0.05         |               | <0.05         | <0.05         |               | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         |
| Selenium-D  | mg/L     | 0.05      | 0.07          | 0.068         | 0.079         | 0.138         | 0.068         | 0.065         | 0.538         | 0.603         | <0.001        | <0.001        | 0.258         |
| Thallium-D  | mg/L     | --        | <0.001        | <0.001        |               | <0.001        | <0.001        |               | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |
| Uranium-D   | mg/L     | --        | 0.545         | 0.598         | 0.637         | 0.543         | 0.313         | 0.313         | 0.246         | 0.265         | 0.0137        | 0.0151        | 0.808         |
| Vanadium-D  | mg/L     | 0.1       | <0.1          | <0.1          |               | <0.1          | <0.1          |               | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| Zinc-D  | mg/L     | 25        | 0.01          | <0.01         |               | 0.01          | <0.01         |               | <0.01         | <0.01         | <0.01         | <0.01         | 0.02          |
| Antimony-T  | mg/L     | --        |               |               |               |               |               |               |               |               |               |               |               |
| Beryllium-T   | mg/L     | --        |               |               |               |               |               |               |               |               |               |               |               |
| Iron-T  | mg/L     | --        | <0.03         | 0.04          |               | 0.05          | 0.08          |               | <0.03         | 0.45          | 0.5           | 0.53          | 8.49          |
| Manganese-T   | mg/L     | --        | <0.01         | <0.01         |               | <0.01         | <0.01         |               | <0.01         | <0.01         | 0.13          | 0.12          | 0.1           |
| Thallium-T  | mg/L     | --        |               |               |               |               |               |               |               |               |               |               |               |
| Gross Alpha - minus U - Calculated                    | pCi/L    | 15        | 70.04         | -12.85        |               | 176.39        | -4.90         |               | 27.46         | 7.60          | 1.13          | -2.22         | 9.98          |
| Gross Alpha - Unadjusted                              | pCi/L    | --        | 439           | 392           |               | 544           | 207           |               | 194           | 187           | 10.4          | 8             | 557           |
| Gross Alpha precision (±)                             | pCi/L    | --        | 17.8          | 25            |               | 18.9          | 20.4          |               | 11.6          | 14.2          | 4.4           | 7             | 21            |
| Gross Alpha MDC                                       | pCi/L    | --        | 9.7           | 20            |               | 9.9           | 21.3          |               | 9             | 12            | 6.5           | 11            | 11.7          |
| Gross Beta  | pCi/L    | --        | 54.1          | 91.7          |               | 62            | 40.2          |               | 28.4          | 29.8          | <3            | 1.8           | 95.9          |
| Gross Beta precision (±)                              | pCi/L    | --        | 10.3          | 24.1          |               | 9.5           | 22.9          |               | 8.7           | 13.8          | 6.8           | 11.8          | 13.9          |
| Gross Beta MDC  | pCi/L    | --        | 14.5          | 36.4          |               | 13            | 36.6          |               | 13.3          | 21.7          | 11.3          | 19.8          | 18.9          |
| Radium 226  | pCi/L    | --        | 0.49          | 0.86          |               | 29            | 1.6           |               | 0.59          | 0.6           | 0.38          | 0.61          | 2.7           |
| Radium 226 precision (±)                              | pCi/L    | --        | 0.17          | 0.22          |               | 1.1           | 0.29          |               | 0.22          | 0.19          | 0.19          | 0.19          | 0.37          |
| Radium 226 MDC  | pCi/L    | --        | 0.16          | 0.17          |               | 0.17          | 0.18          |               | 0.23          | 0.18          | 0.22          | 0.18          | 0.21          |
| Radium 228  | pCi/L    | --        | 2.3           | 2.7           |               | 1.8           | 2.1           |               | <1            | 2.2           | 1.6           | 2.9           | 1             |
| Radium 228 precision (±)                              | pCi/L    | --        | 0.7           | 0.8           |               | 0.7           | 0.9           |               | 0.9           | 1.5           | 0.9           | 1.5           | 0.8           |
| Radium 228 MDC  | pCi/L    | --        | 1             | 1             |               | 1             | 1.3           |               | 1.5           | 2.4           | 1.4           | 2.4           | 1.3           |
| Combined Total Radium 226 and Radium 228 (Calculated) | pCi/L    | 5         | 2.79          | 3.56          |               | 30.8          | 3.7           |               | 0.59          | 2.8           | 1.98          | 3.51          | 3.7           |

\* Duplicate sample

**Table 5**  
**C-Wellfield pre-2011**  
**Well Water Quality Data**

| Well ID<br>Sample Date/Time<br>Job Number<br>HSU      |          | WYDEQ<br>Class III<br>Livestock<br>Standard | C3-5<br>10/3/2012<br>C12100209-003<br>140 | C4-2A<br>6/19/12<br>C12060817-001<br>130 | C4-2A<br>8/29/2012<br>C12081233-001<br>130 | C4-2A<br>10/11/2012<br>C12100554-001<br>130 | C4-3<br>7/24/2012<br>C12070840-001<br>140 | C4-3<br>10/1/2012<br>C12100057-002<br>140 | C4-5<br>7/9/2012<br>C12070295-001<br>130 | C4-5<br>10/5/2012<br>C12100311-007<br>130 | C5-1<br>8/3/12<br>C12080142-001<br>140 | C5-1<br>10/9/2012<br>C12100393-004<br>140 |
|---|----------|---|---|--|--|---|---|---|--|---|--|---|
| Alkalinity, Total as CaCO3                            | mg/L     | --  |   | 232                                      | 235  | 236   | 294                                       | 305                                       | 146                                      | 163                                       | 280                                    | 291                                       |
| Carbonate as CO3                                      | mg/L     | --  |   | <5                                       | <5   | <5  | <5  | <5  | <5                                       | <5  | <5                                     | <5  |
| Bicarbonate as HCO3                                   | mg/L     | --  | 538                                       | 282                                      | 287  | 288   | 359                                       | 372                                       | 178                                      | 199                                       | 342                                    | 355                                       |
| Calcium   | mg/L     | --  |   | 275                                      | 309  | 310   | 374                                       | 356                                       | 136                                      | 135                                       | 324                                    | 304                                       |
| Chloride  | mg/L     | 2000  | 313                                       | 160                                      | 168  | 167   | 267                                       | 281                                       | 73                                       | 78  | 260                                    | 252                                       |
| Fluoride  | mg/L     | --  |   | <0.1                                     | <0.1                                       | <0.1  | <0.1                                      | <0.1                                      | 0.1                                      | 0.1                                       | <0.1                                   | <0.1                                      |
| Magnesium   | mg/L     | --  |   | 57                                       | 59   | 57  | 71  | 70  | 23                                       | 24  | 64                                     | 58  |
| Nitrogen, Ammonia as N                                | mg/L     | --  |   | <0.05                                    | <0.05                                      | <0.05                                       | <0.05                                     | <0.05                                     | <0.05                                    | <0.05                                     | <0.05                                  | <0.05                                     |
| Nitrogen, Nitrate+Nitrite as N                        | mg/L     | 100   |   | 4.7                                      | 4.6  | 4.7   | 3.7                                       | 3.7                                       | <0.1                                     | <0.1                                      | 0.2                                    | 0.2                                       |
| Potassium   | mg/L     | --  |   | 9  | 9  | 9   | 11  | 10  | 6  | 6   | 12                                     | 10  |
| Silica  | mg/L     | --  |   | 12.2                                     | 12.7                                       | 11.6  | 13.8                                      | 12.9                                      | 9.8                                      | 11.6                                      | 11.2                                   | 12.5                                      |
| Sodium  | mg/L     | --  |   | 211                                      | 213  | 210   | 234                                       | 221                                       | 181                                      | 177                                       | 174                                    | 147                                       |
| Sulfate   | mg/L     | 3000  |   | 1010                                     | 1030                                       | 1030  | 1000                                      | 1020                                      | 574                                      | 597                                       | 777                                    | 732                                       |
| Conductivity @ 25 C                                   | mmhos/cm | --  | 1.512                                     | 2.61                                     | 2.57                                       | 2.49  | 2.8                                       | 2.95                                      | 1.62                                     | 1.59                                      | 2.42                                   | 2.4                                       |
| pH  | s.u.     | 6.5-8.5                                     |   | 7.33                                     | 7.35                                       | 7.26  | 7.25                                      | 7.23                                      | 7.8                                      | 7.78                                      | 7.35                                   | 7.43                                      |
| Solids, Total Dissolved TDS @ 180 C                   | mg/L     | 5000  | 2310                                      | 2070                                     | 2040                                       | 2100  | 2310                                      | 2260                                      | 1160                                     | 1170                                      | 1820                                   | 1840                                      |
| Aluminum-D  | mg/L     | 5   |   | <0.1                                     | <0.1                                       | <0.1  | <0.1                                      | <0.1                                      | <0.1                                     | <0.1                                      | <0.1                                   | <0.1                                      |
| Antimony-D  | mg/L     | --  |   | <0.001                                   | <0.001                                     | <0.001                                      | <0.001                                    | <0.001                                    | <0.001                                   | <0.001                                    | <0.001                                 | <0.001                                    |
| Arsenic-D   | mg/L     | 0.2   |   | <0.001                                   | <0.001                                     | <0.001                                      | <0.001                                    | <0.001                                    | <0.001                                   | <0.001                                    | <0.001                                 | <0.001                                    |
| Barium-D  | mg/L     | --  |   | <0.1                                     | <0.1                                       | <0.1  | <0.1                                      | <0.1                                      | <0.1                                     | <0.1                                      | <0.1                                   | <0.1                                      |
| Beryllium-D   | mg/L     | --  |   | <0.001                                   | <0.001                                     | <0.001                                      | <0.001                                    | <0.001                                    | <0.001                                   | <0.001                                    | <0.001                                 | <0.001                                    |
| Boron-D   | mg/L     | 5   |   | <0.1                                     | <0.1                                       | <0.1  | <0.1                                      | <0.1                                      | <0.1                                     | <0.1                                      | <0.1                                   | <0.1                                      |
| Cadmium-D   | mg/L     | 0.05  |   | <0.005                                   | <0.005                                     | <0.005                                      | <0.005                                    | <0.005                                    | <0.005                                   | <0.005                                    | <0.005                                 | <0.005                                    |
| Chromium-D  | mg/L     | 0.05  |   | <0.05                                    | <0.05                                      | <0.05                                       | <0.05                                     | <0.05                                     | <0.05                                    | <0.05                                     | <0.05                                  | <0.05                                     |
| Copper-D  | mg/L     | 0.5   |   | <0.01                                    | <0.01                                      | <0.01                                       | <0.01                                     | <0.01                                     | <0.01                                    | <0.01                                     | <0.01                                  | <0.01                                     |
| Iron-D  | mg/L     | --  |   | <0.03                                    | <0.03                                      | <0.03                                       | <0.03                                     | <0.03                                     | <0.03                                    | <0.03                                     | <0.03                                  | <0.03                                     |
| Lead-D  | mg/L     | 0.1   |   | 0.002                                    | <0.001                                     | <0.001                                      | <0.001                                    | <0.001                                    | <0.001                                   | <0.001                                    | <0.001                                 | <0.001                                    |
| Manganese-D   | mg/L     | --  |   | <0.01                                    | <0.01                                      | <0.01                                       | <0.01                                     | <0.01                                     | 0.06                                     | 0.12                                      | <0.01                                  | <0.01                                     |
| Mercury-D   | mg/L     | 0.00005                                     |   | <0.001                                   | <0.001                                     | <0.001                                      | <0.001                                    | <0.001                                    | <0.001                                   | <0.001                                    | <0.001                                 | <0.001                                    |
| Molybdenum-D  | mg/L     | --  |   | <0.1                                     | <0.1                                       | <0.1  | <0.1                                      | <0.1                                      | <0.1                                     | <0.1                                      | <0.1                                   | <0.1                                      |
| Nickel-D  | mg/L     | --  |   | <0.05                                    | <0.05                                      | <0.05                                       | <0.05                                     | <0.05                                     | <0.05                                    | <0.05                                     | <0.05                                  | <0.05                                     |
| Selenium-D  | mg/L     | 0.05  | 0.272                                     | 0.432                                    | 0.433                                      | 0.406                                       | 0.415                                     | 0.381                                     | <0.001                                   | <0.001                                    | 0.038                                  | 0.035                                     |
| Thallium-D  | mg/L     | --  |   | <0.001                                   | <0.001                                     | <0.001                                      | <0.001                                    | <0.001                                    | <0.001                                   | <0.001                                    | <0.001                                 | <0.001                                    |
| Uranium-D   | mg/L     | --  | 0.93                                      | 0.09                                     | 0.0956                                     | 0.0971                                      | 0.428                                     | 0.384                                     | <0.0003                                  | <0.0003                                   | 0.204                                  | 0.21                                      |
| Vanadium-D  | mg/L     | 0.1   |   | <0.1                                     | <0.1                                       | <0.1  | <0.1                                      | <0.1                                      | <0.1                                     | <0.1                                      | <0.1                                   | <0.1                                      |
| Zinc-D  | mg/L     | 25  |   | 0.02                                     | <0.01                                      | <0.01                                       | <0.01                                     | <0.01                                     | 0.01                                     | <0.01                                     | <0.01                                  | <0.01                                     |
| Antimony-T  | mg/L     | --  |   |  |  |   |   |   |  |   |  |   |
| Beryllium-T   | mg/L     | --  |   |  |  |   |   |   |  |   |  |   |
| Iron-T  | mg/L     | --  |   | <0.03                                    | 0.04                                       | <0.03                                       | 0.18                                      | 0.15                                      | 0.11                                     | 0.22                                      | 0.08                                   | <0.03                                     |
| Manganese-T   | mg/L     | --  |   | <0.01                                    | <0.01                                      | <0.01                                       | <0.01                                     | <0.01                                     | 0.08                                     | 0.15                                      | <0.01                                  | <0.01                                     |
| Thallium-T  | mg/L     | --  |   |  |  |   |   |   |  |   |  |   |
| Gross Alpha - minus U - Calculated                    | pCi/L    | 15  |   | -16.93                                   | -10.92                                     | 16.36                                       | 15.24                                     | -11.97                                    | 2.5                                      | -5  | 8.89                                   | -23.17                                    |
| Gross Alpha - Unadjusted                              | pCi/L    | --  |   | 44                                       | 53.8                                       | 82.1  | 305                                       | 248                                       | 2.5                                      | -5  | 147                                    | 119                                       |
| Gross Alpha precision (±)                             | pCi/L    | --  |   | 14                                       | 13.5                                       | 13.4  | 13.8                                      | 16.4                                      | 2.9                                      | 3.6                                       | 9.1                                    | 13  |
| Gross Alpha MDC                                       | pCi/L    | --  |   | 20.1                                     | 18.3                                       | 17.9  | 8.9                                       | 13.8                                      | 4.7                                      | 6.6                                       | 7                                      | 15.6                                      |
| Gross Beta  | pCi/L    | --  |   | -4                                       | <2   | -8  | 43.9                                      | 70.5                                      | 3.8                                      | 8.6                                       | 21.8                                   | 16.2                                      |
| Gross Beta precision (±)                              | pCi/L    | --  |   | 22.1                                     | 22.2                                       | 15.3  | 8.8                                       | 14.5                                      | 3.3                                      | 7.1                                       | 7.4                                    | 13.6                                      |
| Gross Beta MDC  | pCi/L    | --  |   | 37                                       | 37   | 25.6  | 12.7                                      | 21.6                                      | 5.5                                      | 11.7                                      | 11.4                                   | 22  |
| Radium 226  | pCi/L    | --  |   | 1.1                                      | 1  | 0.64  | 0.58                                      | 0.88                                      | 0.67                                     | 0.41                                      | 0.58                                   | 0.55                                      |
| Radium 226 precision (±)                              | pCi/L    | --  |   | 0.22                                     | 0.2  | 0.18  | 0.19                                      | 0.2                                       | 0.22                                     | 0.18                                      | 0.14                                   | 0.28                                      |
| Radium 226 MDC  | pCi/L    | --  |   | 0.16                                     | 0.13                                       | 0.15  | 0.17                                      | 0.14                                      | 0.21                                     | 0.2                                       | 0.12                                   | 0.33                                      |
| Radium 228  | pCi/L    | --  |   | 1.3                                      | 3.4  | 3.6   | 3.6                                       | 3.6                                       | 0.5                                      | 0.3                                       | 2                                      | 0.2                                       |
| Radium 228 precision (±)                              | pCi/L    | --  |   | 0.7                                      | 1.5  | 0.9   | 0.9                                       | 0.9                                       | 0.9                                      | 1.2                                       | 0.7                                    | 1.6                                       |
| Radium 228 MDC  | pCi/L    | --  |   | 1.1                                      | 2.3  | 1.4   | 1.2                                       | 1.2                                       | 1.4                                      | 2   | 1.1                                    | 2.7                                       |
| Combined Total Radium 226 and Radium 228 (Calculated) | pCi/L    | 5   |   | 2.4                                      | 4.4  | 2.24  | 4.18                                      | 4.48                                      | 1.17                                     | 0.71                                      | 2.58                                   | 0.75                                      |

\* Duplicate sample

**Table 5**  
**C-Wellfield pre-2011**  
**Well Water Quality Data**

| Well ID<br>Sample Date/Time<br>Job Number<br>HSU      |          | WYDEQ<br>Class III<br>Livestock<br>Standard | C5-2<br>8/9/2012<br>C12080442-002 | C5-2<br>10/5/2012<br>C12100311-005 | C5-3<br>7/10/2012<br>C12070295-003 | C5-3<br>10/3/2012<br>C12100209-001 | C5-5<br>7/10/2012<br>C12070295-004 | C5-5<br>10/9/2012<br>C12100393-005 | C5-6<br>7/9/2012<br>C12070295-002 | C5-6<br>10/8/2012<br>C12100347-001 | C6-1<br>8/9/2012<br>C12080442-001 | C6-1<br>10/4/2012<br>C12100251-005 |
|---|----------|---|-----------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|-----------------------------------|------------------------------------|-----------------------------------|------------------------------------|
|   |          |   | 140                               | 140                                | 130                                | 130                                | 130                                | 130                                | 100                               | 100                                | 140                               | 140                                |
| Alkalinity, Total as CaCO3                            | mg/L     | --  | 266                               | 236                                | 281                                | 301                                | 255                                | 259                                | 183                               | 184                                | 299                               | 304                                |
| Carbonate as CO3                                      | mg/L     | --  | <5                                | <5                                 | <5                                 | <5                                 | <5                                 | <5                                 | <5                                | <5                                 | <5                                | <5                                 |
| Bicarbonate as HCO3                                   | mg/L     | --  | 324                               | 288                                | 342                                | 368                                | 311                                | 315                                | 224                               | 224                                | 365                               | 371                                |
| Calcium   | mg/L     | --  | 311                               | 443                                | 311                                | 322                                | 295                                | 328                                | 145                               | 143                                | 270                               | 257                                |
| Chloride  | mg/L     | 2000  | 156                               | 233                                | 186                                | 203                                | 184                                | 188                                | 60                                | 54                                 | 36                                | 35                                 |
| Fluoride  | mg/L     | --  | <0.1                              | <0.1                               | <0.1                               | <0.1                               | <0.1                               | <0.1                               | 0.2                               | 0.2                                | <0.1                              | <0.1                               |
| Magnesium   | mg/L     | --  | 59                                | 96                                 | 65                                 | 65                                 | 63                                 | 69                                 | 26                                | 26                                 | 61                                | 64                                 |
| Nitrogen, Ammonia as N                                | mg/L     | --  | <0.05                             | <0.05                              | <0.05                              | <0.05                              | <0.05                              | <0.05                              | <0.05                             | <0.05                              | <0.05                             | <0.05                              |
| Nitrogen, Nitrate+Nitrite as N                        | mg/L     | 100   | 1.9                               | <0.1                               | <0.1                               | 0.2                                | 1.4                                | 2.2                                | <0.1                              | <0.1                               | 1.7                               | 1.7                                |
| Potassium   | mg/L     | --  | 10                                | 11                                 | 10                                 | 10                                 | 9                                  | 10                                 | 6                                 | 6                                  | 9                                 | 9                                  |
| Silica  | mg/L     | --  | 11.2                              | 14.8                               | 12.9                               | 12.4                               | 10.5                               | 10.2                               | 12.5                              | 13.3                               | 8.8                               | 11.4                               |
| Sodium  | mg/L     | --  | 225                               | 218                                | 228                                | 221                                | 207                                | 204                                | 178                               | 183                                | 204                               | 195                                |
| Sulfate   | mg/L     | 3000  | 1030                              | 1570                               | 1000                               | 1060                               | 1030                               | 1050                               | 542                               | 546                                | 1010                              | 981                                |
| Conductivity @ 25 C                                   | mmhos/cm | --  | 2.58                              | 3.32                               | 2.73                               | 2.56                               | 2.71                               | 2.64                               | 1.6                               | 1.48                               | 2.26                              | 2.16                               |
| pH  | s.u.     | 6.5-8.5                                     | 7.38                              | 7.27                               | 7.46                               | 7.37                               | 7.34                               | 7.32                               | 7.76                              | 7.71                               | 7.47                              | 7.39                               |
| Solids, Total Dissolved TDS @ 180 C                   | mg/L     | 5000  | 2050                              | 2940                               | 2150                               | 2150                               | 2110                               | 2140                               | 1150                              | 1110                               | 1820                              | 1830                               |
| Aluminum-D  | mg/L     | 5   | <0.1                              | <0.1                               | <0.1                               | <0.1                               | <0.1                               | <0.1                               | <0.1                              | <0.1                               | <0.1                              | <0.1                               |
| Antimony-D  | mg/L     | --  | <0.001                            | <0.001                             | <0.001                             | <0.001                             | <0.001                             | <0.001                             | <0.001                            | <0.001                             | <0.001                            | <0.001                             |
| Arsenic-D   | mg/L     | 0.2   | <0.001                            | <0.001                             | <0.001                             | <0.001                             | <0.001                             | <0.001                             | <0.001                            | <0.001                             | <0.001                            | <0.001                             |
| Barium-D  | mg/L     | --  | <0.1                              | <0.1                               | <0.1                               | <0.1                               | <0.1                               | <0.1                               | <0.1                              | <0.1                               | <0.1                              | <0.1                               |
| Beryllium-D   | mg/L     | --  | <0.001                            | <0.001                             | <0.001                             | <0.001                             | <0.001                             | <0.001                             | <0.001                            | <0.001                             | <0.001                            | <0.001                             |
| Boron-D   | mg/L     | 5   | <0.1                              | <0.1                               | <0.1                               | <0.1                               | <0.1                               | <0.1                               | <0.1                              | <0.1                               | <0.1                              | <0.1                               |
| Cadmium-D   | mg/L     | 0.05  | <0.005                            | <0.005                             | <0.005                             | <0.005                             | <0.005                             | <0.005                             | <0.005                            | <0.005                             | <0.005                            | <0.005                             |
| Chromium-D  | mg/L     | 0.05  | <0.05                             | <0.05                              | <0.05                              | <0.05                              | <0.05                              | <0.05                              | <0.05                             | <0.05                              | <0.05                             | <0.05                              |
| Copper-D  | mg/L     | 0.5   | <0.01                             | <0.01                              | <0.01                              | <0.01                              | <0.01                              | <0.01                              | <0.01                             | <0.01                              | <0.01                             | <0.01                              |
| Iron-D  | mg/L     | --  | <0.03                             | 1.18                               | 0.77                               | 0.74                               | <0.03                              | <0.03                              | 0.3                               | 0.26                               | <0.03                             | <0.03                              |
| Lead-D  | mg/L     | 0.1   | <0.001                            | <0.001                             | <0.001                             | <0.001                             | <0.001                             | <0.001                             | <0.001                            | <0.001                             | <0.001                            | <0.001                             |
| Manganese-D   | mg/L     | --  | 0.28                              | 0.17                               | 0.21                               | 0.21                               | 0.02                               | <0.01                              | 0.18                              | 0.18                               | <0.01                             | <0.01                              |
| Mercury-D   | mg/L     | 0.00005                                     | <0.001                            | <0.001                             | <0.001                             | <0.001                             | <0.001                             | <0.001                             | <0.001                            | <0.001                             | <0.001                            | <0.001                             |
| Molybdenum-D  | mg/L     | --  | <0.1                              | <0.1                               | <0.1                               | <0.1                               | <0.1                               | <0.1                               | <0.1                              | <0.1                               | <0.1                              | <0.1                               |
| Nickel-D  | mg/L     | --  | <0.05                             | <0.05                              | <0.05                              | <0.05                              | <0.05                              | <0.05                              | <0.05                             | <0.05                              | <0.05                             | <0.05                              |
| Selenium-D  | mg/L     | 0.05  | 0.225                             | <0.001                             | <0.001                             | <0.001                             | 0.107                              | 0.177                              | <0.001                            | <0.001                             | 0.105                             | 0.117                              |
| Thallium-D  | mg/L     | --  | <0.001                            | <0.001                             | <0.001                             | <0.001                             | <0.001                             | <0.001                             | <0.001                            | <0.001                             | <0.001                            | <0.001                             |
| Uranium-D   | mg/L     | --  | 0.264                             | 0.0637                             | 0.137                              | 0.138                              | 0.135                              | 0.159                              | <0.0003                           | <0.0003                            | 0.0412                            | 0.0422                             |
| Vanadium-D  | mg/L     | 0.1   | <0.1                              | <0.1                               | <0.1                               | <0.1                               | <0.1                               | <0.1                               | <0.1                              | <0.1                               | <0.1                              | <0.1                               |
| Zinc-D  | mg/L     | 25  | <0.01                             | <0.01                              | <0.01                              | <0.01                              | <0.01                              | <0.01                              | 0.01                              | <0.01                              | <0.01                             | <0.01                              |
| Antimony-T  | mg/L     | --  |                                   |                                    |                                    |                                    |                                    |                                    |                                   |                                    |                                   |                                    |
| Beryllium-T   | mg/L     | --  |                                   |                                    |                                    |                                    |                                    |                                    |                                   |                                    |                                   |                                    |
| Iron-T  | mg/L     | --  | 2.42                              | 1.37                               | 0.79                               | 0.85                               | 0.83                               | 1.92                               | 0.3                               | 0.31                               | 6.82                              | 3.53                               |
| Manganese-T   | mg/L     | --  | 0.51                              | 0.18                               | 0.21                               | 0.24                               | 0.03                               | 0.03                               | 0.18                              | 0.18                               | 0.06                              | 0.02                               |
| Thallium-T  | mg/L     | --  |                                   |                                    |                                    |                                    |                                    |                                    |                                   |                                    |                                   |                                    |
| Gross Alpha - minus U - Calculated                    | pCi/L    | 15  | 0.27                              | 23.58                              | 18.25                              | 2.67                               | 14.61                              | 3.36                               | 3.5                               | 4.9                                | 0.01                              | 3.93                               |
| Gross Alpha - Unadjusted                              | pCi/L    | --  | 179                               | 66.7                               | 111                                | 96.1                               | 106                                | 111                                | 3.5                               | 4.9                                | 27.9                              | 32.5                               |
| Gross Alpha precision (±)                             | pCi/L    | --  | 16.8                              | 11.3                               | 8.6                                | 10.9                               | 8.8                                | 11.9                               | 4.8                               | 3                                  | 12.5                              | 6.8                                |
| Gross Alpha MDC                                       | pCi/L    | --  | 16.7                              | 13.8                               | 7.6                                | 11.8                               | 8.5                                | 13.4                               | 7.8                               | 4.6                                | 19.1                              | 8.9                                |
| Gross Beta  | pCi/L    | --  | -7                                | 26                                 | 21.2                               | 12.3                               | 13.5                               | 30.2                               | <-4                               | 5.7                                | 8.9                               | 16.2                               |
| Gross Beta precision (±)                              | pCi/L    | --  | 28.8                              | 14.7                               | 7                                  | 12.4                               | 7.2                                | 12.9                               | 7.1                               | 3.4                                | 17                                | 8.6                                |
| Gross Beta MDC  | pCi/L    | --  | 47.3                              | 23.8                               | 10.8                               | 20                                 | 11.4                               | 20.4                               | 12                                | 5.5                                | 28.2                              | 13.9                               |
| Radium 226  | pCi/L    | --  | 1.2                               | 18                                 | 1.5                                | 1.1                                | 0.87                               | 1.6                                | 0.61                              | 0.6                                | 0.71                              | 0.55                               |
| Radium 226 precision (±)                              | pCi/L    | --  | 0.28                              | 0.9                                | 0.29                               | 0.24                               | 0.24                               | 0.35                               | 0.21                              | 0.18                               | 0.24                              | 0.2                                |
| Radium 226 MDC  | pCi/L    | --  | 0.22                              | 0.19                               | 0.21                               | 0.18                               | 0.21                               | 0.25                               | 0.21                              | 0.17                               | 0.25                              | 0.21                               |
| Radium 228  | pCi/L    | --  | 0.8                               | 4.2                                | 1.6                                | 3.5                                | 2.5                                | 2.3                                | 1.7                               | 0.5                                | 1.3                               | 0.3                                |
| Radium 228 precision (±)                              | pCi/L    | --  | 0.8                               | 1.1                                | 0.9                                | 1.3                                | 1                                  | 1.1                                | 0.8                               | 1                                  | 0.9                               | 1.1                                |
| Radium 228 MDC  | pCi/L    | --  | 1.2                               | 1.6                                | 1.4                                | 1.9                                | 1.4                                | 1.6                                | 1.2                               | 1.7                                | 1.4                               | 1.8                                |
| Combined Total Radium 226 and Radium 228 (Calculated) | pCi/L    | 5   | 2                                 | 22.2                               | 3.1                                | 4.6                                | 3.37                               | 3.9                                | 2.31                              | 1.1                                | 2.01                              | 0.85                               |

\* Duplicate sample



Table 5  
C-Wellfield pre-2011  
Well Water Quality Data

| Well ID<br>Sample Date/Time<br>Job Number<br>HSU      |          | WYDEQ<br>Class III<br>Livestock<br>Standard | C6-2<br>7/13/2012<br>C12070482-001 | C6-2<br>10/17/2012<br>C12100755-004 | C6-3<br>7/17/2012<br>C12070564-001 | C6-3<br>10/12/2012<br>C12100579-004 | C6-4<br>7/11/2012<br>C12070385-001 | C6-4<br>10/4/2012<br>C12100251-003 | C8-3<br>7/12/2012<br>C12070433-001 | C8-3 *<br>7/12/2012<br>C12070433-002 | C8-3<br>10/10/2012<br>C12100498-002 | C9-2<br>7/13/2012<br>C12070482-002 |
|---|----------|---|------------------------------------|-------------------------------------|------------------------------------|-------------------------------------|------------------------------------|------------------------------------|------------------------------------|--------------------------------------|-------------------------------------|------------------------------------|
|   |          |   | 130                                | 130                                 | 80                                 | 80                                  | 130                                | 130                                | 130                                | 130                                  | 130                                 | 130                                |
| Alkalinity, Total as CaCO3                            | mg/L     | --  | 131                                | 140                                 | 144                                | 161                                 | 253                                | 260                                | 346                                | 348                                  | 359                                 | 238                                |
| Carbonate as CO3                                      | mg/L     | --  | <5                                 | <5                                  | <5                                 | <5                                  | <5                                 | <5                                 | <5                                 | <5                                   | <5                                  | <5                                 |
| Bicarbonate as HCO3                                   | mg/L     | --  | 159                                | 171                                 | 175                                | 197                                 | 308                                | 318                                | 422                                | 425                                  | 438                                 | 291                                |
| Calcium   | mg/L     | --  | 51                                 | 53                                  | 52                                 | 53                                  | 281                                | 270                                | 164                                | 161                                  | 165                                 | 83                                 |
| Chloride  | mg/L     | 2000  | 21                                 | 21                                  | 22                                 | 15                                  | 144                                | 159                                | 56                                 | 56                                   | 60                                  | 24                                 |
| Fluoride  | mg/L     | --  | 0.2                                | 0.2                                 | 0.2                                | 0.2                                 | <0.1                               | <0.1                               | <0.1                               | <0.1                                 | <0.1                                | 0.1                                |
| Magnesium   | mg/L     | --  | 9                                  | 9                                   | 9                                  | 9                                   | 54                                 | 53                                 | 30                                 | 30                                   | 29                                  | 16                                 |
| Nitrogen, Ammonia as N                                | mg/L     | --  | <0.05                              | <0.05                               | 0.24                               | 0.17                                | <0.05                              | <0.05                              | 0.06                               | 0.06                                 | 0.06                                | <0.05                              |
| Nitrogen, Nitrate+Nitrite as N                        | mg/L     | 100   | <0.1                               | <0.1                                | <0.1                               | <0.1                                | <0.1                               | <0.1                               | <0.1                               | <0.1                                 | 0.1                                 | <0.1                               |
| Potassium   | mg/L     | --  | 4                                  | 4                                   | 5                                  | 5                                   | 10                                 | 9                                  | 8                                  | 7                                    | 7                                   | 4                                  |
| Silica  | mg/L     | --  | 7.6                                | 9.3                                 | 11.7                               | 11.4                                | 15.2                               | 14.6                               | 17.3                               | 16.5                                 | 16.5                                | 12.3                               |
| Sodium  | mg/L     | --  | 113                                | 119                                 | 141                                | 147                                 | 246                                | 220                                | 160                                | 149                                  | 140                                 | 96                                 |
| Sulfate   | mg/L     | 3000  | 264                                | 255                                 | 318                                | 282                                 | 907                                | 940                                | 398                                | 398                                  | 418                                 | 225                                |
| Conductivity @ 25 C                                   | mmhos/cm | --  | 0.891                              | 0.857                               | 0.981                              | 0.945                               | 2.46                               | 2.36                               | 1.54                               | 1.54                                 | 1.48                                | 0.962                              |
| pH  | s.u.     | 6.5-8.5                                     | 8.12                               | 7.95                                | 8.17                               | 8.16                                | 7.62                               | 7.5                                | 7.59                               | 7.61                                 | 7.49                                | 7.7                                |
| Solids, Total Dissolved TDS @ 180 C                   | mg/L     | 5000  | 601                                | 566                                 | 648                                | 641                                 | 1870                               | 1920                               | 1060                               | 1070                                 | 1080                                | 654                                |
| Aluminum-D  | mg/L     | 5   | <0.1                               | <0.1                                | <0.1                               | <0.1                                | <0.1                               | <0.1                               | <0.1                               | <0.1                                 | <0.1                                | <0.1                               |
| Antimony-D  | mg/L     | --  | <0.001                             | <0.001                              | <0.001                             | <0.001                              | <0.001                             | <0.001                             | <0.001                             | <0.001                               | <0.001                              | <0.001                             |
| Arsenic-D   | mg/L     | 0.2   | <0.001                             | <0.001                              | <0.001                             | <0.001                              | <0.001                             | <0.001                             | <0.001                             | <0.001                               | <0.001                              | <0.001                             |
| Barium-D  | mg/L     | --  | <0.1                               | <0.1                                | <0.1                               | <0.1                                | <0.1                               | <0.1                               | <0.1                               | <0.1                                 | <0.1                                | <0.1                               |
| Beryllium-D   | mg/L     | --  | <0.001                             | <0.001                              | <0.001                             | <0.001                              | <0.001                             | <0.001                             | <0.001                             | <0.001                               | <0.001                              | <0.001                             |
| Boron-D   | mg/L     | 5   | <0.1                               | <0.1                                | <0.1                               | <0.1                                | <0.1                               | <0.1                               | <0.1                               | <0.1                                 | <0.1                                | <0.1                               |
| Cadmium-D   | mg/L     | 0.05  | <0.005                             | <0.005                              | <0.005                             | <0.005                              | <0.005                             | <0.005                             | <0.005                             | <0.005                               | <0.005                              | <0.005                             |
| Chromium-D  | mg/L     | 0.05  | <0.05                              | <0.05                               | <0.05                              | <0.05                               | <0.05                              | <0.05                              | <0.05                              | <0.05                                | <0.05                               | <0.05                              |
| Copper-D  | mg/L     | 0.5   | <0.01                              | <0.01                               | <0.01                              | <0.01                               | <0.01                              | <0.01                              | <0.01                              | <0.01                                | <0.01                               | <0.01                              |
| Iron-D  | mg/L     | --  | <0.03                              | <0.03                               | <0.03                              | <0.03                               | 0.48                               | 0.51                               | 0.12                               | 0.12                                 | 0.11                                | <0.03                              |
| Lead-D  | mg/L     | 0.1   | <0.001                             | <0.001                              | <0.001                             | <0.001                              | <0.001                             | <0.001                             | <0.001                             | <0.001                               | <0.001                              | <0.001                             |
| Manganese-D   | mg/L     | --  | <0.01                              | <0.01                               | 0.03                               | 0.04                                | 0.18                               | 0.18                               | 0.46                               | 0.45                                 | 0.44                                | <0.01                              |
| Mercury-D   | mg/L     | 0.00005                                     | <0.001                             | <0.001                              | <0.001                             | <0.001                              | <0.001                             | <0.001                             | <0.001                             | <0.001                               | <0.001                              | <0.001                             |
| Molybdenum-D  | mg/L     | --  | <0.1                               | <0.1                                | <0.1                               | <0.1                                | <0.1                               | <0.1                               | <0.1                               | <0.1                                 | <0.1                                | <0.1                               |
| Nickel-D  | mg/L     | --  | <0.05                              | <0.05                               | <0.05                              | <0.05                               | <0.05                              | <0.05                              | <0.05                              | <0.05                                | <0.05                               | <0.05                              |
| Selenium-D  | mg/L     | 0.05  | 0.002                              | 0.002                               | <0.001                             | <0.001                              | <0.001                             | <0.001                             | 0.003                              | 0.003                                | 0.003                               | 0.062                              |
| Thallium-D  | mg/L     | --  | <0.001                             | <0.001                              | <0.001                             | <0.001                              | <0.001                             | <0.001                             | <0.001                             | <0.001                               | <0.001                              | <0.001                             |
| Uranium-D   | mg/L     | --  | 0.0013                             | 0.0011                              | <0.0003                            | <0.0003                             | 0.0156                             | 0.0175                             | 0.104                              | 0.102                                | 0.114                               | 0.0687                             |
| Vanadium-D  | mg/L     | 0.1   | <0.1                               | <0.1                                | <0.1                               | <0.1                                | <0.1                               | <0.1                               | <0.1                               | <0.1                                 | <0.1                                | <0.1                               |
| Zinc-D  | mg/L     | 25  | 0.01                               | <0.01                               | <0.01                              | <0.01                               | 0.02                               | <0.01                              | 0.01                               | <0.01                                | <0.01                               | 0.02                               |
| Antimony-T  | mg/L     | --  |                                    |                                     |                                    |                                     |                                    |                                    |                                    |                                      |                                     |                                    |
| Beryllium-T   | mg/L     | --  |                                    |                                     |                                    |                                     |                                    |                                    |                                    |                                      |                                     |                                    |
| Iron-T  | mg/L     | --  | 0.03                               | <0.03                               | <0.03                              | 0.04                                | 0.51                               | 0.53                               | 0.13                               | 0.14                                 | 0.14                                | <0.03                              |
| Manganese-T   | mg/L     | --  | 0.03                               | 0.02                                | 0.03                               | 0.03                                | 0.17                               | 0.18                               | 0.46                               | 0.45                                 | 0.48                                | <0.01                              |
| Thallium-T  | mg/L     | --  |                                    |                                     |                                    |                                     |                                    |                                    |                                    |                                      |                                     |                                    |
| Gross Alpha - minus U - Calculated                    | pCi/L    | 15  | 2.12                               | 0.96                                | 1                                  | -2                                  | 12.44                              | 9.65                               | 60.59                              | 17.85                                | 33.82                               | 22.59                              |
| Gross Alpha - Unadjusted                              | pCi/L    | --  | 3                                  | 1.7                                 | 1                                  | -2                                  | 23                                 | 21.5                               | 131                                | 86.9                                 | 111                                 | 69.1                               |
| Gross Alpha precision (±)                             | pCi/L    | --  | 1.5                                | 1.5                                 | 1.5                                | 1.2                                 | 5.3                                | 6.8                                | 6.8                                | 8.6                                  | 6.3                                 | 3.7                                |
| Gross Alpha MDC                                       | pCi/L    | --  | 2.4                                | 2.4                                 | 2.5                                | 2.2                                 | 7                                  | 9.5                                | 4.8                                | 8.8                                  | 5.4                                 | 2.5                                |
| Gross Beta  | pCi/L    | --  | 3.7                                | 2                                   | 3.2                                | 0.6                                 | <0.5                               | -4                                 | 8.7                                | 0.2                                  | 22.1                                | 21                                 |
| Gross Beta precision (±)                              | pCi/L    | --  | 1.8                                | 1.7                                 | 2.1                                | 2.6                                 | 6                                  | 10.5                               | 4.1                                | 9.4                                  | 4                                   | 2.5                                |
| Gross Beta MDC  | pCi/L    | --  | 2.9                                | 2.7                                 | 3.3                                | 4.4                                 | 10                                 | 17.7                               | 6.2                                | 15.4                                 | 5.8                                 | 3.4                                |
| Radium 226  | pCi/L    | --  | 0.2                                | 0.32                                | 0.27                               | 0.56                                | 1.3                                | 1.6                                | 0.7                                | 0.6                                  | 0.45                                | 0.25                               |
| Radium 226 precision (±)                              | pCi/L    | --  | 0.12                               | 0.17                                | 0.14                               | 0.19                                | 0.22                               | 0.31                               | 0.18                               | 0.16                                 | 0.16                                | 0.13                               |
| Radium 226 MDC  | pCi/L    | --  | 0.16                               | 0.21                                | 0.18                               | 0.17                                | 0.16                               | 0.21                               | 0.15                               | 0.15                                 | 0.15                                | 0.16                               |
| Radium 228  | pCi/L    | --  | <0.4                               | 0.2                                 | 0.5                                | 1.6                                 | 1.3                                | 0.8                                | 0.9                                | 0.7                                  | 0.8                                 | <0.3                               |
| Radium 228 precision (±)                              | pCi/L    | --  | 1                                  | 0.9                                 | 0.7                                | 1.1                                 | 0.7                                | 1.1                                | 0.7                                | 0.7                                  | 0.9                                 | 1                                  |
| Radium 228 MDC  | pCi/L    | --  | 1.6                                | 1.5                                 | 1.1                                | 1.7                                 | 1                                  | 1.8                                | 1.2                                | 1.1                                  | 1.4                                 | 1.6                                |
| Combined Total Radium 226 and Radium 228 (Calculated) | pCi/L    | 5   | 0.2                                | 0.52                                | 0.77                               | 2.16                                | 2.6                                | 2.4                                | 1.6                                | 1.3                                  | 1.25                                | 0.25                               |

\* Duplicate sample

**Table 5**  
**C-Wellfield pre-2011**  
**Well Water Quality Data**

| Well ID<br>Sample Date/Time<br>Job Number<br>HSU      |          | WYDEQ<br>Class III<br>Livestock<br>Standard | C9-2<br>10/11/2012<br>C12100554-004<br>130 | C11-1<br>7/18/2012<br>C12070620-002<br>130 | C11-1<br>10/2/2012<br>C12100115-001<br>130 | C11-2<br>7/19/2012<br>C12070681-001<br>130 | C11-2<br>10/4/2012<br>C12100251-002<br>130 | C11-4<br>7/19/2012<br>C12070681-002<br>130 | C11-4<br>10/3/2012<br>C12100209-005<br>130 | C11-5<br>7/20/12<br>C12070743-001<br>130 | C11-5<br>10/4/2012<br>C12100251-004<br>130 | C11-6<br>7/24/2012<br>C12070840-003<br>140 |
|---|----------|---|--|--|--|--|--|--|--|--|--|--|
| Alkalinity, Total as CaCO3                            | mg/L     | --  | 241  | 339  | 353  | 165  | 191  | 224  | 238  | 268                                      | 281  | 206  |
| Carbonate as CO3                                      | mg/L     | --  | <5   | <5   | <5   | <5   | <5   | <5   | <5   | <5                                       | <5   | <5   |
| Bicarbonate as HCO3                                   | mg/L     | --  | 294  | 413  | 431  | 202  | 233  | 274  | 282  | 328                                      | 343  | 252  |
| Calcium   | mg/L     | --  | 78   | 164  | 148  | 63   | 63   | 76   | 78   | 132                                      | 138  | 127  |
| Chloride  | mg/L     | 2000  | 19   | 51   | 55   | 14   | 15   | 34   | 35   | 26                                       | 26   | 30   |
| Fluoride  | mg/L     | --  | 0.1  | 0.1  | 0.1  | 0.2  | 0.2  | 0.1  | 0.1  | 0.2                                      | 0.1  | 0.1  |
| Magnesium   | mg/L     | --  | 16   | 34   | 32   | 11   | 12   | 14   | 14   | 34                                       | 36   | 26   |
| Nitrogen, Ammonia as N                                | mg/L     | --  | <0.05                                      | 2.67                                       | 2.19                                       | <0.05                                      | <0.05                                      | 0.08                                       | <0.05                                      | 0.16                                     | 0.14                                       | <0.05                                      |
| Nitrogen, Nitrate+Nitrite as N                        | mg/L     | 100   | <0.1                                       | 0.4  | 0.1  | <0.1                                       | <0.1                                       | <0.1                                       | <0.1                                       | 0.2                                      | <0.1                                       | <0.1                                       |
| Potassium   | mg/L     | --  | 5  | 12   | 11   | 5  | 5  | 6  | 5  | 8  | 8  | 6  |
| Silica  | mg/L     | --  | 11.5                                       | 22.5                                       | 22.9                                       | 10.8                                       | 12.2                                       | 13.6                                       | 13.1                                       | 17                                       | 17.6                                       | 11.9                                       |
| Sodium  | mg/L     | --  | 100  | 66   | 70   | 121  | 133  | 122  | 125  | 82                                       | 79   | 175  |
| Sulfate   | mg/L     | 3000  | 221  | 237  | 271  | 316  | 260  | 261  | 251  | 331                                      | 338  | 528  |
| Conductivity @ 25 C                                   | mmhos/cm | --  | 0.902                                      | 1.21                                       | 1.25                                       | 0.958                                      | 0.904                                      | 0.989                                      | 0.987                                      | 1.12                                     | 1.12                                       | 1.5  |
| pH  | s.u.     | 6.5-8.5                                     | 7.55                                       | 6.95                                       | 7.05                                       | 7.94                                       | 7.82                                       | 7.91                                       | 7.82                                       | 7.33                                     | 7.27                                       | 7.67                                       |
| Solids, Total Dissolved TDS @ 180 C                   | mg/L     | 5000  | 611  | 813  | 853  | 668  | 604  | 676  | 670  | 811                                      | 812  | 1090                                       |
| Aluminum-D  | mg/L     | 5   | <0.1                                       | <0.1                                       | <0.1                                       | <0.1                                       | <0.1                                       | <0.1                                       | <0.1                                       | <0.1                                     | <0.1                                       | <0.1                                       |
| Antimony-D  | mg/L     | --  | <0.001                                     | <0.001                                     | <0.001                                     | <0.001                                     | <0.001                                     | <0.001                                     | <0.001                                     | <0.001                                   | <0.001                                     | <0.001                                     |
| Arsenic-D   | mg/L     | 0.2   | <0.001                                     | 0.005                                      | 0.005                                      | <0.001                                     | 0.001                                      | <0.001                                     | <0.001                                     | 0.002                                    | 0.001                                      | <0.001                                     |
| Barium-D  | mg/L     | --  | <0.1                                       | 0.2  | 0.2  | <0.1                                       | <0.1                                       | <0.1                                       | <0.1                                       | <0.1                                     | <0.1                                       | <0.1                                       |
| Beryllium-D   | mg/L     | --  | <0.001                                     | <0.001                                     | <0.001                                     | <0.001                                     | <0.001                                     | <0.001                                     | <0.001                                     | <0.001                                   | <0.001                                     | <0.001                                     |
| Boron-D   | mg/L     | 5   | <0.1                                       | <0.1                                       | <0.1                                       | <0.1                                       | <0.1                                       | <0.1                                       | <0.1                                       | <0.1                                     | <0.1                                       | <0.1                                       |
| Cadmium-D   | mg/L     | 0.05  | <0.005                                     | <0.005                                     | <0.005                                     | <0.005                                     | <0.005                                     | <0.005                                     | <0.005                                     | <0.005                                   | <0.005                                     | <0.005                                     |
| Chromium-D  | mg/L     | 0.05  | <0.05                                      | <0.05                                      | <0.05                                      | <0.05                                      | <0.05                                      | <0.05                                      | <0.05                                      | <0.05                                    | <0.05                                      | <0.05                                      |
| Copper-D  | mg/L     | 0.5   | <0.01                                      | <0.01                                      | <0.01                                      | <0.01                                      | <0.01                                      | <0.01                                      | <0.01                                      | <0.01                                    | <0.01                                      | <0.01                                      |
| Iron-D  | mg/L     | --  | <0.03                                      | 8.81                                       | 6  | <0.03                                      | 0.05                                       | 0.03                                       | <0.03                                      | 1.28                                     | 1.28                                       | <0.03                                      |
| Lead-D  | mg/L     | 0.1   | <0.001                                     | <0.001                                     | <0.001                                     | <0.001                                     | <0.001                                     | <0.001                                     | <0.001                                     | <0.001                                   | <0.001                                     | <0.001                                     |
| Manganese-D   | mg/L     | --  | <0.01                                      | 1.27                                       | 1.06                                       | 0.06                                       | 0.07                                       | 0.17                                       | 0.18                                       | 0.3                                      | 0.3  | 0.11                                       |
| Mercury-D   | mg/L     | 0.00005                                     | <0.001                                     | <0.001                                     | <0.001                                     | <0.001                                     | <0.001                                     | <0.001                                     | <0.001                                     | <0.001                                   | <0.001                                     | <0.001                                     |
| Molybdenum-D  | mg/L     | --  | <0.1                                       | <0.1                                       | <0.1                                       | <0.1                                       | <0.1                                       | <0.1                                       | <0.1                                       | <0.1                                     | <0.1                                       | <0.1                                       |
| Nickel-D  | mg/L     | --  | <0.05                                      | <0.05                                      | <0.05                                      | <0.05                                      | <0.05                                      | <0.05                                      | <0.05                                      | <0.05                                    | <0.05                                      | <0.05                                      |
| Selenium-D  | mg/L     | 0.05  | 0.034                                      | 0.422                                      | 0.305                                      | <0.001                                     | <0.001                                     | 0.018                                      | 0.024                                      | 0.003                                    | 0.005                                      | <0.001                                     |
| Thallium-D  | mg/L     | --  | <0.001                                     | <0.001                                     | <0.001                                     | <0.001                                     | <0.001                                     | <0.001                                     | <0.001                                     | <0.001                                   | <0.001                                     | <0.001                                     |
| Uranium-D   | mg/L     | --  | 0.0639                                     | 0.466                                      | 0.357                                      | 0.0081                                     | 0.0096                                     | 0.0633                                     | 0.0619                                     | 0.0152                                   | 0.0089                                     | 0.0003                                     |
| Vanadium-D  | mg/L     | 0.1   | <0.1                                       | <0.1                                       | <0.1                                       | <0.1                                       | <0.1                                       | <0.1                                       | <0.1                                       | <0.1                                     | <0.1                                       | <0.1                                       |
| Zinc-D  | mg/L     | 25  | <0.01                                      | <0.01                                      | <0.01                                      | 0.01                                       | <0.01                                      | 0.01                                       | <0.01                                      | <0.01                                    | <0.01                                      | <0.01                                      |
| Antimony-T  | mg/L     | --  |  |  |  |  |  |  |  |  |  |  |
| Beryllium-T   | mg/L     | --  |  |  |  |  |  |  |  |  |  |  |
| Iron-T  | mg/L     | --  | <0.03                                      | 15.7                                       | 8.58                                       | <0.03                                      | 0.07                                       | 0.04                                       | 0.04                                       | 1.54                                     | 1.41                                       | 0.18                                       |
| Manganese-T   | mg/L     | --  | <0.01                                      | 1.25                                       | 1.08                                       | 0.06                                       | 0.07                                       | 0.17                                       | 0.17                                       | 0.31                                     | 0.3  | 0.13                                       |
| Thallium-T  | mg/L     | --  |  |  |  |  |  |  |  |  |  |  |
| Gross Alpha - minus U - Calculated                    | pCi/L    | 15  | 23.24                                      | 66.52                                      | -33.69                                     | 5.42                                       | 4.80                                       | 46.95                                      | 22.59                                      | 1.11                                     | 1.07                                       | <-2  |
| Gross Alpha - Unadjusted                              | pCi/L    | --  | 66.5                                       | 382  | 208  | 10.9                                       | 11.3                                       | 89.8                                       | 64.5                                       | 11.4                                     | 7.1  | <-2  |
| Gross Alpha precision (±)                             | pCi/L    | --  | 3.4  | 10.3                                       | 7.5  | 2.1  | 1.8  | 4.4  | 3.7  | 2.9                                      | 2.1  | 2.2  |
| Gross Alpha MDC                                       | pCi/L    | --  | 2.5  | 4.2  | 3.8  | 2.8  | 2.2  | 3.4  | 3.2  | 4.1                                      | 3  | 3.9  |
| Gross Beta  | pCi/L    | --  | 12.5                                       | 46.5                                       | 59.7                                       | <3.1                                       | 4.2  | 5.7  | 17.3                                       | 4.8                                      | 8  | <1.6                                       |
| Gross Beta precision (±)                              | pCi/L    | --  | 2.1  | 5.3  | 4  | 2.1  | 1.8  | 2.3  | 2.3  | 3.6                                      | 2.6  | 3.2  |
| Gross Beta MDC  | pCi/L    | --  | 2.9  | 6.6  | 4.8  | 3.4  | 2.9  | 3.5  | 3.2  | 5.8                                      | 4.1  | 5.2  |
| Radium 226  | pCi/L    | --  | 0.3  | 2.3  | 1.7  | 0.39                                       | 0.16                                       | 0.39                                       | 0.35                                       | 0.78                                     | 0.96                                       | 0.35                                       |
| Radium 226 precision (±)                              | pCi/L    | --  | 0.12                                       | 0.28                                       | 0.27                                       | 0.12                                       | 0.15                                       | 0.11                                       | 0.18                                       | 0.2                                      | 0.28                                       | 0.14                                       |
| Radium 226 MDC  | pCi/L    | --  | 0.13                                       | 0.13                                       | 0.15                                       | 0.1  | 0.22                                       | 0.1  | 0.22                                       | 0.16                                     | 0.25                                       | 0.14                                       |
| Radium 228  | pCi/L    | --  | 1.2  | 1.4  | 2  | <0.6                                       | 0.5  | <0.4                                       | -0.6                                       | 2.1                                      | 1.1  | <0.9                                       |
| Radium 228 precision (±)                              | pCi/L    | --  | 0.8  | 0.7  | 0.9  | 0.7  | 1.1  | 0.7  | 1.7  | 0.9                                      | 1.3  | 0.6  |
| Radium 228 MDC  | pCi/L    | --  | 1.3  | 1  | 1.3  | 1.1  | 1.9  | 1.1  | 2.9  | 1.4                                      | 2.2  | 1  |
| Combined Total Radium 226 and Radium 228 (Calculated) | pCi/L    | 5   | 1.5  | 3.7  | 3.7  | 0.39                                       | 0.66                                       | 0.39                                       | 0.35                                       | 2.88                                     | 2.06                                       | 0.35                                       |

\* Duplicate sample

**Table 5**  
**C-Wellfield pre-2011**  
**Well Water Quality Data**

| Well ID<br>Sample Date/Time<br>Job Number<br>HSU      |          | WYDEQ<br>Class III<br>Livestock<br>Standard | C11-6<br>10/17/2012<br>C12100755-003 | C12-1<br>8/8/2012<br>C12080353-001 | C12-1<br>10/17/2012<br>C12100755-005 | C14-3<br>7/23/2012<br>C12070781-001 | C14-3<br>10/17/2012<br>C12100755-001 | C17-1<br>7/23/2012<br>C12070781-002 | C17-1<br>10/5/2012<br>C12100311-006 | C20-1<br>8/8/2012<br>C12080353-002 | C20-1<br>10/9/2012<br>C12100393-003 | C22-1<br>8/2/2012<br>C12080089-001 |
|---|----------|---|--------------------------------------|------------------------------------|--------------------------------------|-------------------------------------|--------------------------------------|-------------------------------------|-------------------------------------|------------------------------------|-------------------------------------|------------------------------------|
|   |          |   | 140                                  | 60                                 | 60                                   | 130                                 | 130                                  | 130                                 | 130                                 | 150                                | 150                                 | 100                                |
| Alkalinity, Total as CaCO3                            | mg/L     | --  | 214                                  | 125                                | 130                                  | 143                                 | 127                                  | 177                                 | 186                                 | 183                                | 191                                 | 126                                |
| Carbonate as CO3                                      | mg/L     | --  | <5                                   | <5                                 | <5                                   | <5                                  | <5                                   | <5                                  | <5                                  | <5                                 | <5                                  | <5                                 |
| Bicarbonate as HCO3                                   | mg/L     | --  | 262                                  | 153                                | 158                                  | 175                                 | 155                                  | 216                                 | 227                                 | 223                                | 233                                 | 154                                |
| Calcium   | mg/L     | --  | 130                                  | 31                                 | 34                                   | 113                                 | 105                                  | 79                                  | 86                                  | 98                                 | 95                                  | 33                                 |
| Chloride  | mg/L     | 2000  | 30                                   | 7                                  | 7                                    | 42                                  | 41                                   | 6                                   | 6                                   | 15                                 | 14                                  | 6                                  |
| Fluoride  | mg/L     | --  | 0.1                                  | 0.3                                | 0.3                                  | 0.2                                 | 0.2                                  | 0.2                                 | 0.2                                 | 0.2                                | 0.2                                 | 0.3                                |
| Magnesium   | mg/L     | --  | 26                                   | 6                                  | 6                                    | 20                                  | 18                                   | 14                                  | 15                                  | 22                                 | 21                                  | 6                                  |
| Nitrogen, Ammonia as N                                | mg/L     | --  | <0.05                                | 0.35                               | 0.18                                 | <0.05                               | <0.05                                | <0.05                               | <0.05                               | <0.05                              | <0.05                               | 0.26                               |
| Nitrogen, Nitrate+Nitrite as N                        | mg/L     | 100   | <0.1                                 | 0.7                                | <0.1                                 | <0.1                                | <0.1                                 | 0.3                                 | 1.1                                 | 1                                  | 1.3                                 | <0.1                               |
| Potassium   | mg/L     | --  | 6                                    | 4                                  | 5                                    | 5                                   | 5                                    | 4                                   | 5                                   | 7                                  | 7                                   | 4                                  |
| Silica  | mg/L     | --  | 12.4                                 | 12.9                               | 14.4                                 | 8.6                                 | 7.4                                  | 11.4                                | 13.7                                | 29.9                               | 15.6                                | 10.9                               |
| Sodium  | mg/L     | --  | 178                                  | 61                                 | 62                                   | 184                                 | 172                                  | 136                                 | 136                                 | 25                                 | 21                                  | 115                                |
| Sulfate   | mg/L     | 3000  | 525                                  | 113                                | 111                                  | 558                                 | 504                                  | 385                                 | 378                                 | 148                                | 141                                 | 194                                |
| Conductivity @ 25 C                                   | mmhos/cm | --  | 1.45                                 | 0.495                              | 0.494                                | 1.42                                | 1.34                                 | 1.07                                | 1.05                                | 0.672                              | 0.674                               | 0.662                              |
| pH  | s.u.     | 6.5-8.5                                     | 7.71                                 | 7.9                                | 7.95                                 | 7.94                                | 7.91                                 | 7.91                                | 7.96                                | 7.61                               | 7.95                                | 8.12                               |
| Solids, Total Dissolved TDS @ 180 C                   | mg/L     | 5000  | 1070                                 | 302                                | 313                                  | 1020                                | 963                                  | 737                                 | 745                                 | 437                                | 454                                 | 449                                |
| Aluminum-D  | mg/L     | 5   | <0.1                                 | <0.1                               | <0.1                                 | <0.1                                | <0.1                                 | <0.1                                | <0.1                                | 3.1                                | <0.1                                | <0.1                               |
| Antimony-D  | mg/L     | --  | <0.001                               | <0.001                             | <0.001                               | <0.001                              | <0.001                               | <0.001                              | <0.001                              | <0.001                             | <0.001                              | <0.001                             |
| Arsenic-D   | mg/L     | 0.2   | <0.001                               | <0.001                             | <0.001                               | <0.001                              | <0.001                               | <0.001                              | <0.001                              | 0.004                              | <0.001                              | <0.001                             |
| Barium-D  | mg/L     | --  | <0.1                                 | <0.1                               | <0.1                                 | <0.1                                | <0.1                                 | <0.1                                | <0.1                                | 0.2                                | <0.1                                | <0.1                               |
| Beryllium-D   | mg/L     | --  | <0.001                               | <0.001                             | <0.001                               | <0.001                              | <0.001                               | <0.001                              | <0.001                              | 0.001                              | <0.001                              | <0.001                             |
| Boron-D   | mg/L     | 5   | <0.1                                 | <0.1                               | <0.1                                 | <0.1                                | <0.1                                 | <0.1                                | <0.1                                | <0.1                               | <0.1                                | <0.1                               |
| Cadmium-D   | mg/L     | 0.05  | <0.005                               | <0.005                             | <0.005                               | <0.005                              | <0.005                               | <0.005                              | <0.005                              | <0.005                             | <0.005                              | <0.005                             |
| Chromium-D  | mg/L     | 0.05  | <0.05                                | <0.05                              | <0.05                                | <0.05                               | <0.05                                | <0.05                               | <0.05                               | <0.05                              | <0.05                               | <0.05                              |
| Copper-D  | mg/L     | 0.5   | <0.01                                | <0.01                              | <0.01                                | <0.01                               | <0.01                                | <0.01                               | <0.01                               | <0.01                              | <0.01                               | <0.01                              |
| Iron-D  | mg/L     | --  | <0.03                                | 0.04                               | 0.03                                 | 0.1                                 | <0.03                                | 0.13                                | 0.11                                | 2.83                               | <0.03                               | 0.04                               |
| Lead-D  | mg/L     | 0.1   | <0.001                               | <0.001                             | <0.001                               | <0.001                              | <0.001                               | <0.001                              | <0.001                              | 0.026                              | <0.001                              | <0.001                             |
| Manganese-D   | mg/L     | --  | 0.08                                 | 0.02                               | 0.02                                 | 0.17                                | 0.14                                 | 0.08                                | 0.08                                | 0.24                               | 0.08                                | 0.03                               |
| Mercury-D   | mg/L     | 0.00005                                     | <0.001                               | <0.001                             | <0.001                               | <0.001                              | <0.001                               | <0.001                              | <0.001                              | <0.001                             | <0.001                              | <0.001                             |
| Molybdenum-D  | mg/L     | --  | <0.1                                 | <0.1                               | <0.1                                 | <0.1                                | <0.1                                 | <0.1                                | <0.1                                | <0.1                               | <0.1                                | <0.1                               |
| Nickel-D  | mg/L     | --  | <0.05                                | <0.05                              | <0.05                                | <0.05                               | <0.05                                | <0.05                               | <0.05                               | <0.05                              | <0.05                               | <0.05                              |
| Selenium-D  | mg/L     | 0.05  | <0.001                               | <0.001                             | <0.001                               | <0.001                              | <0.001                               | <0.001                              | <0.001                              | 0.055                              | 0.058                               | <0.001                             |
| Thallium-D  | mg/L     | --  | <0.001                               | <0.001                             | <0.001                               | <0.001                              | <0.001                               | <0.001                              | <0.001                              | <0.001                             | <0.001                              | <0.001                             |
| Uranium-D   | mg/L     | --  | 0.0005                               | 0.0006                             | <0.0003                              | 0.0004                              | 0.0004                               | <0.0003                             | <0.0003                             | 0.0231                             | 0.0135                              | <0.0003                            |
| Vanadium-D  | mg/L     | 0.1   | <0.1                                 | <0.1                               | <0.1                                 | <0.1                                | <0.1                                 | <0.1                                | <0.1                                | <0.1                               | <0.1                                | <0.1                               |
| Zinc-D  | mg/L     | 25  | <0.01                                | <0.01                              | <0.01                                | <0.01                               | <0.01                                | <0.01                               | <0.01                               | 0.05                               | <0.01                               | <0.01                              |
| Antimony-T  | mg/L     | --  |                                      |                                    |                                      |                                     |                                      |                                     |                                     |                                    |                                     |                                    |
| Beryllium-T   | mg/L     | --  |                                      |                                    |                                      |                                     |                                      |                                     |                                     |                                    |                                     |                                    |
| Iron-T  | mg/L     | --  | 0.16                                 | 0.12                               | 0.04                                 | 0.56                                | 0.49                                 | 0.14                                | 0.15                                | 158                                | 12.4                                | 0.19                               |
| Manganese-T   | mg/L     | --  | 0.09                                 | 0.02                               | 0.02                                 | 0.19                                | 0.15                                 | 0.08                                | 0.08                                | 3.78                               | 0.2                                 | 0.03                               |
| Thallium-T  | mg/L     | --  |                                      |                                    |                                      |                                     |                                      |                                     |                                     |                                    |                                     |                                    |
| Gross Alpha - minus U - Calculated                    | pCi/L    | 15  | -2.34                                | -0.01                              | 0.9                                  | <-0.5                               | -3.27                                | <0.8                                | -0.5                                | 16.56                              | 25.86                               | -0.1                               |
| Gross Alpha - Unadjusted                              | pCi/L    | --  | -2                                   | 0.4                                | 0.9                                  | <-0.5                               | -3                                   | <0.8                                | -0.5                                | 32.2                               | 35                                  | -0.07                              |
| Gross Alpha precision (±)                             | pCi/L    | --  | 2.2                                  | 1                                  | 1                                    | 2                                   | 2                                    | 1.6                                 | 1.5                                 | 2.8                                | 2.7                                 | 1.2                                |
| Gross Alpha MDC                                       | pCi/L    | --  | 3.9                                  | 1.6                                | 1.6                                  | 3.4                                 | 3.6                                  | 2.7                                 | 2.5                                 | 2.7                                | 2.4                                 | 2                                  |
| Gross Beta  | pCi/L    | --  | 1.8                                  | 2.3                                | 2                                    | <1.6                                | 1.2                                  | 3.6                                 | 3.3                                 | 119                                | 29.5                                | 2.2                                |
| Gross Beta precision (±)                              | pCi/L    | --  | 2.9                                  | 1.6                                | 1.6                                  | 3.1                                 | 2.6                                  | 2.2                                 | 2.2                                 | 3.7                                | 3.9                                 | 1.7                                |
| Gross Beta MDC  | pCi/L    | --  | 4.8                                  | 2.6                                | 2.6                                  | 5.2                                 | 4.3                                  | 3.6                                 | 3.6                                 | 3.4                                | 5.6                                 | 2.7                                |
| Radium 226  | pCi/L    | --  | 0.35                                 | 0.27                               | 0.31                                 | 0.42                                | 0.1                                  | 0.26                                | 0.15                                | 0.24                               | 3.3                                 | 0.24                               |
| Radium 226 precision (±)                              | pCi/L    | --  | 0.17                                 | 0.14                               | 0.17                                 | 0.18                                | 0.13                                 | 0.15                                | 0.13                                | 0.14                               | 0.36                                | 0.16                               |
| Radium 226 MDC  | pCi/L    | --  | 0.2                                  | 0.16                               | 0.21                                 | 0.19                                | 0.21                                 | 0.19                                | 0.18                                | 0.18                               | 0.15                                | 0.21                               |
| Radium 228  | pCi/L    | --  | 1.7                                  | 0.5                                | 0.2                                  | <0.6                                | 0.5                                  | <0.5                                | 1.7                                 | 1.1                                | -0.5                                | 0.9                                |
| Radium 228 precision (±)                              | pCi/L    | --  | 1                                    | 0.7                                | 0.9                                  | 0.9                                 | 0.8                                  | 0.9                                 | 1                                   | 0.8                                | 0.7                                 | 0.7                                |
| Radium 228 MDC  | pCi/L    | --  | 1.5                                  | 1.1                                | 1.6                                  | 1.5                                 | 1.2                                  | 1.4                                 | 1.5                                 | 1.2                                | 1.2                                 | 1.1                                |
| Combined Total Radium 226 and Radium 228 (Calculated) | pCi/L    | 5   | 2.05                                 | 0.77                               | 0.51                                 | 0.42                                | 0.6                                  | 0.26                                | 1.85                                | 1.34                               | 2.8                                 | 1.14                               |

\* Duplicate sample



Table 5  
C-Wellfield pre-2011  
Well Water Quality Data

| Well ID<br>Sample Date/Time<br>Job Number<br>HSU      |          | WYDEQ<br>Class III<br>Livestock<br>Standard | C22-1<br>10/5/2012<br>C12100311-001<br>100 | C22-1*<br>10/5/2012<br>C12100311-002<br>100 |
|---|----------|---|--|---|
| Alkalinity, Total as CaCO3                            | mg/L     | --  | 128  | 129   |
| Carbonate as CO3                                      | mg/L     | --  | <5   | <5  |
| Bicarbonate as HCO3                                   | mg/L     | --  | 156  | 157   |
| Calcium   | mg/L     | --  | 29   | 29  |
| Chloride  | mg/L     | 2000  | 7  | 7   |
| Fluoride  | mg/L     | --  | 0.3  | 0.2   |
| Magnesium   | mg/L     | --  | 5  | 5   |
| Nitrogen, Ammonia as N                                | mg/L     | --  | 0.18                                       | 0.17  |
| Nitrogen, Nitrate+Nitrite as N                        | mg/L     | 100   | <0.1                                       | <0.1  |
| Potassium   | mg/L     | --  | 3  | 3   |
| Silica  | mg/L     | --  | 10.8                                       | 10.7  |
| Sodium  | mg/L     | --  | 104  | 103   |
| Sulfate   | mg/L     | 3000  | 195  | 192   |
| Conductivity @ 25 C                                   | mmhos/cm | --  | 0.676                                      | 0.674                                       |
| pH  | s.u.     | 6.5-8.5                                     | 8.15                                       | 8.17  |
| Solids, Total Dissolved TDS @ 180 C                   | mg/L     | 5000  | 443  | 431   |
| Aluminum-D  | mg/L     | 5   | <0.1                                       | <0.1  |
| Antimony-D  | mg/L     | --  | <0.001                                     | <0.001                                      |
| Arsenic-D   | mg/L     | 0.2   | <0.001                                     | <0.001                                      |
| Barium-D  | mg/L     | --  | <0.1                                       | <0.1  |
| Beryllium-D   | mg/L     | --  | <0.001                                     | <0.001                                      |
| Boron-D   | mg/L     | 5   | <0.1                                       | <0.1  |
| Cadmium-D   | mg/L     | 0.05  | <0.005                                     | <0.005                                      |
| Chromium-D  | mg/L     | 0.05  | <0.05                                      | <0.05                                       |
| Copper-D  | mg/L     | 0.5   | <0.01                                      | <0.01                                       |
| Iron-D  | mg/L     | --  | 0.03                                       | <0.03                                       |
| Lead-D  | mg/L     | 0.1   | <0.001                                     | <0.001                                      |
| Manganese-D   | mg/L     | --  | 0.03                                       | 0.03  |
| Mercury-D   | mg/L     | 0.00005                                     | <0.001                                     | <0.001                                      |
| Molybdenum-D  | mg/L     | --  | <0.1                                       | <0.1  |
| Nickel-D  | mg/L     | --  | <0.05                                      | <0.05                                       |
| Selenium-D  | mg/L     | 0.05  | <0.001                                     | <0.001                                      |
| Thallium-D  | mg/L     | --  | <0.001                                     | <0.001                                      |
| Uranium-D   | mg/L     | --  | <0.0003                                    | <0.0003                                     |
| Vanadium-D  | mg/L     | 0.1   | <0.1                                       | <0.1  |
| Zinc-D  | mg/L     | 25  | <0.01                                      | <0.01                                       |
| Antimony-T  | mg/L     | --  |  |   |
| Beryllium-T   | mg/L     | --  |  |   |
| Iron-T  | mg/L     | --  | 0.04                                       | 0.04  |
| Manganese-T   | mg/L     | --  | 0.03                                       | 0.04  |
| Thallium-T  | mg/L     | --  |  |   |
| Gross Alpha - minus U - Calculated                    | pCi/L    | 15  | 0.07                                       | 0.04  |
| Gross Alpha - Unadjusted                              | pCi/L    | --  | 0.07                                       | 0.04  |
| Gross Alpha precision (±)                             | pCi/L    | --  | 1.1  | 1.1   |
| Gross Alpha MDC                                       | pCi/L    | --  | 1.8  | 1.8   |
| Gross Beta  | pCi/L    | --  | 2.5  | 2.2   |
| Gross Beta precision (±)                              | pCi/L    | --  | 1.7  | 1.6   |
| Gross Beta MDC  | pCi/L    | --  | 2.7  | 2.6   |
| Radium 226  | pCi/L    | --  | 0.15                                       | 0.26  |
| Radium 226 precision (±)                              | pCi/L    | --  | 0.13                                       | 0.16  |
| Radium 226 MDC  | pCi/L    | --  | 0.19                                       | 0.2   |
| Radium 228  | pCi/L    | --  | 1.2  | 1.1   |
| Radium 228 precision (±)                              | pCi/L    | --  | 1  | 1   |
| Radium 228 MDC  | pCi/L    | --  | 1.5  | 1.6   |
| Combined Total Radium 226 and Radium 228 (Calculated) | pCi/L    | 5   | 1.35                                       | 1.36  |

\* Duplicate sample

**Table 6**  
**C-Wellfield New**  
**Well Water Quality Data**

| Well ID<br>Sample Date/Time<br>Job Number<br>HSU      |          | WYDEQ<br>Class III<br>Livestock<br>Standard | C22-2<br>6/11/12<br>C12060482-004<br>110 | C22-2<br>8/27/2012<br>C12081112-001<br>110 | C22-2*<br>8/27/12<br>C12081112-002<br>110 | C22-2<br>10/9/2012<br>C12100393-001<br>110 | C22-3<br>6/11/12<br>C12060482-005<br>120 | C22-3<br>8/28/2012<br>C12081183-003<br>120 | C22-3<br>10/9/2012<br>C12100393-002<br>120 | C22-4<br>6/18/12<br>C12060737-001<br>100 | C22-4<br>10/12/2012<br>C12100579-007<br>100 | CBG-1<br>6/12/12<br>C12060482-002<br>100 |
|---|----------|---|--|--|---|--|--|--|--|--|---|--|
| Alkalinity, Total as CaCO3                            | mg/L     | --  | 0  | 142  | 141                                       |  | 0  | 143  |  | 127                                      |   | 0  |
| Carbonate as CO3                                      | mg/L     | --  | <5                                       | <5   | <5  |  | <5                                       | <5   |  | <5                                       |   | <5                                       |
| Bicarbonate as HCO3                                   | mg/L     | --  | 169                                      | 173  | 173                                       | 173  | 165                                      | 166  | 171  | 151                                      | 153   | 190                                      |
| Calcium   | mg/L     | --  | 35                                       | 37   | 41  |  | 28                                       | 31   |  | 32                                       |   | 50                                       |
| Chloride  | mg/L     | 2000  | 7  | 8  | 7   | 7  | 9  | 9  | 10   | 4  | 4   | 4  |
| Fluoride  | mg/L     | --  | 0.2                                      | 0.2  | 0.2                                       |  | 0.2                                      | 0.2  |  | 0.3                                      |   | 0.2                                      |
| Magnesium   | mg/L     | --  | 6  | 6  | 7   |  | 4  | 4  |  | 5  |   | 10                                       |
| Nitrogen, Ammonia as N                                | mg/L     | --  | <0.05                                    | <0.05                                      | <0.05                                     |  | <0.05                                    | <0.05                                      |  | <0.05                                    |   | <0.05                                    |
| Nitrogen, Nitrate+Nitrite as N                        | mg/L     | 100   | <0.1                                     | <0.1                                       | <0.1                                      |  | <0.1                                     | <0.1                                       |  | <0.1                                     |   | <0.1                                     |
| Potassium   | mg/L     | --  | 4  | 4  | 4   |  | 3  | 3  |  | 3  |   | 5  |
| Silica  | mg/L     | --  | 11                                       | 13.7                                       | 13.5                                      |  | 9.4                                      | 10.3                                       |  | 12.2                                     |   | 13.4                                     |
| Sodium  | mg/L     | --  | 107                                      | 108  | 116                                       |  | 108                                      | 109  |  | 134                                      |   | 97                                       |
| Sulfate   | mg/L     | 3000  | 211                                      | 229  | 229                                       |  | 174                                      | 177  |  | 239                                      |   | 237                                      |
| Conductivity @ 25 C                                   | mmhos/cm | --  | 0.759                                    | 0.768                                      | 0.769                                     | 0.729                                      | 0.676                                    | 0.674                                      | 0.634                                      | 0.807                                    | 0.685                                       | 0.801                                    |
| pH  | s.u.     | 6.5-8.5                                     | 8.27                                     | 8.23                                       | 8.22                                      |  | 8.56                                     | 8.51                                       |  | 8.52                                     |   | 8  |
| Solids, Total Dissolved TDS @ 180 C                   | mg/L     | 5000  | 501                                      | 494  | 501                                       | 502  | 442                                      | 433  | 438  | 577                                      | 464   | 539                                      |
| Aluminum-D  | mg/L     | 5   | <0.008                                   | <0.1                                       | <0.1                                      |  | 0.018                                    | <0.1                                       |  | <0.1                                     |   | <0.1                                     |
| Antimony-D  | mg/L     | --  | <0.001                                   | <0.001                                     | <0.001                                    |  | <0.001                                   | <0.001                                     |  | <0.05                                    |   | <0.001                                   |
| Arsenic-D   | mg/L     | 0.2   | <0.001                                   | <0.001                                     | <0.001                                    |  | <0.001                                   | <0.001                                     |  | <0.001                                   |   | <0.001                                   |
| Barium-D  | mg/L     | --  | <0.1                                     | <0.1                                       | <0.1                                      |  | <0.1                                     | <0.1                                       |  | <0.1                                     |   | <0.1                                     |
| Beryllium-D   | mg/L     | --  | <0.01                                    | <0.001                                     | <0.001                                    |  | <0.01                                    | <0.001                                     |  | <0.01                                    |   | <0.001                                   |
| Boron-D   | mg/L     | 5   | <0.1                                     | <0.1                                       | <0.1                                      |  | <0.1                                     | <0.1                                       |  | <0.1                                     |   | <0.1                                     |
| Cadmium-D   | mg/L     | 0.05  | <0.005                                   | <0.005                                     | <0.005                                    |  | <0.005                                   | <0.005                                     |  | <0.005                                   |   | <0.005                                   |
| Chromium-D  | mg/L     | 0.05  | <0.05                                    | <0.05                                      | <0.05                                     |  | <0.05                                    | <0.05                                      |  | <0.05                                    |   | <0.05                                    |
| Copper-D  | mg/L     | 0.5   | <0.01                                    | <0.01                                      | <0.01                                     |  | <0.01                                    | <0.01                                      |  | <0.01                                    |   | <0.01                                    |
| Iron-D  | mg/L     | --  | <0.03                                    | <0.03                                      | <0.03                                     |  | <0.03                                    | <0.03                                      |  | 0.03                                     |   | 0.04                                     |
| Lead-D  | mg/L     | 0.1   | <0.001                                   | <0.001                                     | <0.001                                    |  | <0.001                                   | <0.001                                     |  | <0.001                                   |   | <0.001                                   |
| Manganese-D   | mg/L     | --  | 0.03                                     | 0.05                                       | 0.04                                      |  | <0.01                                    | 0.02                                       |  | 0.02                                     |   | 0.02                                     |
| Mercury-D   | mg/L     | 0.00005                                     | <0.001                                   | <0.001                                     | <0.001                                    |  | <0.001                                   | <0.001                                     |  | <0.001                                   |   | <0.001                                   |
| Molybdenum-D  | mg/L     | --  | <0.1                                     | <0.1                                       | <0.1                                      |  | <0.1                                     | <0.1                                       |  | <0.1                                     |   | <0.1                                     |
| Nickel-D  | mg/L     | --  | <0.05                                    | <0.05                                      | <0.05                                     |  | <0.05                                    | <0.05                                      |  | <0.05                                    |   | <0.05                                    |
| Selenium-D  | mg/L     | 0.05  | <0.001                                   | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                   | <0.001                                     | <0.001                                     | 0.006                                    | <0.001                                      | <0.001                                   |
| Thallium-D  | mg/L     | --  | <0.001                                   | <0.001                                     | <0.001                                    |  | <0.001                                   | <0.001                                     |  | <0.1                                     |   | <0.001                                   |
| Uranium-D   | mg/L     | --  | <0.0003                                  | <0.0003                                    | <0.0003                                   | <0.0003                                    | <0.0003                                  | 0.0003                                     | <0.0003                                    | 0.0005                                   | <0.0003                                     | 0.0112                                   |
| Vanadium-D  | mg/L     | 0.1   | <0.1                                     | <0.1                                       | <0.1                                      |  | <0.1                                     | <0.1                                       |  | <0.1                                     |   | <0.1                                     |
| Zinc-D  | mg/L     | 25  | <0.01                                    | <0.01                                      | <0.01                                     |  | <0.01                                    | <0.01                                      |  | 0.01                                     |   | <0.01                                    |
| Antimony-T  | mg/L     | --  | 0  |  |   |  | 0  |  |  | 0  |   | 0  |
| Beryllium-T   | mg/L     | --  | 0  |  |   |  | 0  |  |  | 0  |   | 0  |
| Iron-T  | mg/L     | --  | 0.15                                     | 0.31                                       | 0.31                                      |  | 1.11                                     | 1.06                                       |  | 6.33                                     |   | 0.05                                     |
| Manganese-T   | mg/L     | --  | 0.04                                     | 0.05                                       | 0.05                                      |  | 0.02                                     | 0.03                                       |  | 0.1                                      |   | 0.03                                     |
| Thallium-T  | mg/L     |   |  |  |   |  |  |  |  |  |   |  |
| Gross Alpha - minus U - Calculated                    | mg/L     | 15  | 1.3                                      | -1.0                                       | 0.1                                       |  | 0.5                                      | <-0.3                                      |  | -1.14                                    |   | 73.02                                    |
| Gross Alpha - Unadjusted                              | pCi/L    | --  | 1.3                                      | -1   | 0.1                                       |  | 0.5                                      | <-0.3                                      |  | -0.8                                     |   | 80.6                                     |
| Gross Alpha precision (±)                             | pCi/L    | --  | 1.1                                      | 1.2  | 1.3                                       |  | 1.2                                      | 1.1  |  | 1.4                                      |   | 3.4                                      |
| Gross Alpha MDC                                       | pCi/L    | --  | 1.8                                      | 2.1  | 2.1                                       |  | 2  | 1.8  |  | 2.4                                      |   | 2.3                                      |
| Gross Beta  | pCi/L    | --  | 3.2                                      | 2.4  | 1.8                                       |  | 2.3                                      | <1.2                                       |  | 1.4                                      |   | 16.9                                     |
| Gross Beta precision (±)                              | pCi/L    | --  | 1.6                                      | 1.6  | 1.6                                       |  | 1.6                                      | 1.6  |  | 1.9                                      |   | 2  |
| Gross Beta MDC  | pCi/L    | --  | 2.5                                      | 2.7  | 2.6                                       |  | 2.6                                      | 2.7  |  | 3.1                                      |   | 2.7                                      |
| Radium 226  | pCi/L    | --  | 0.37                                     | 0.04                                       | 0.06                                      |  | 0.39                                     | 0.2  |  | -0.1                                     |   | 21                                       |
| Radium 226 precision (±)                              | pCi/L    | --  | 0.12                                     | 0.1  | 0.11                                      |  | 0.14                                     | 0.13                                       |  | 0.1                                      |   | 0.85                                     |
| Radium 226 MDC  | pCi/L    | --  | 0.11                                     | 0.17                                       | 0.18                                      |  | 0.13                                     | 0.17                                       |  | 0.22                                     |   | 0.13                                     |
| Radium 228  | pCi/L    | --  | -0.04                                    | 0.2  | 0.7                                       |  | 0.6                                      | <0.5                                       |  | 4.9                                      |   | 0.9                                      |
| Radium 228 precision (±)                              | pCi/L    | --  | 0.5                                      | 0.6  | 0.7                                       |  | 0.7                                      | 0.8  |  | 1.1                                      |   | 0.7                                      |
| Radium 228 MDC  | pCi/L    | --  | 0.9                                      | 1  | 1.1                                       |  | 1.1                                      | 1.3  |  | 1.5                                      |   | 1  |
| Combined Total Radium 226 and Radium 228 (Calculated) | pCi/L    | 5   | 0.41                                     | 0.24                                       | 0.76                                      |  | 0.99                                     | 0.2  |  | 5  |   | 21.9                                     |

\* Duplicate sample



Table 6  
C-Wellfield New  
Well Water Quality Data

| CBG-1-2*<br>6/12/12<br>C12060482-003<br>100 | CBG-1<br>8/28/2012<br>C12081183-004<br>100 | CBG-1<br>10/10/2012<br>C12100498-005<br>100 | CBG-2<br>6/12/12<br>C12060482-001<br>110 | CBG-2<br>8/29/2012<br>C12081233-002<br>110 | CBG-2<br>10/10/2012<br>C12100498-006<br>110 | CBG-2*<br>10/10/2012<br>C12100498-007<br>110 | CBG-3<br>6/13/12<br>C12060643-001<br>120 | CBG-3<br>8/29/2012<br>C12081233-003<br>120 | CBG-3<br>10/9/2012<br>C12100498-004<br>130 | CBG-4<br>6/13/12<br>C12060643-002<br>140 | CBG-4<br>8/29/2012<br>C12081233-004<br>140 |
|---|--|---|--|--|---|--|--|--|--|--|--|
| 0   | 164  |   | 0  | 137  |   |  | 115                                      | 155  |  | 234                                      | 239  |
| <5  | <5   |   | <5                                       | <5   |   |  | <5                                       | <5   |  | <5                                       | <5   |
| 191   | 198  | 198   | 162                                      | 167  | 168   | 166  | 140                                      | 182  | 210  | 285                                      | 291  |
| 51  | 60   |   | 34                                       | 36   |   |  | 36                                       | 42   |  | 63                                       | 59   |
| 4   | 5  | 4   | 4  | 4  | 4   | 6  | 5  | 5  | 4  | 4  | 4  |
| 0.2   | 0.2  |   | 0.3                                      | 0.3  |   |  | 0.3                                      | 0.3  |  | 0.3                                      | 0.3  |
| 10  | 10   |   | 6  | 6  |   |  | 5  | 6  |  | 12                                       | 11   |
| <0.05                                       | <0.05                                      |   | <0.05                                    | <0.05                                      |   |  | <0.05                                    | <0.05                                      |  | <0.05                                    | <0.05                                      |
| <0.1  | <0.1                                       |   | <0.1                                     | <0.1                                       |   |  | <0.1                                     | <0.1                                       |  | 1.7                                      | 1.8  |
| 5   | 6  |   | 4  | 4  |   |  | 5  | 5  |  | 6  | 6  |
| 13.4  | 14.8                                       |   | 11.6                                     | 11.4                                       |   |  | 10.7                                     | 9.2  |  | 18.3                                     | 16.5                                       |
| 98  | 106  |   | 82                                       | 86   |   |  | 74                                       | 94   |  | 56                                       | 55   |
| 234   | 244  |   | 167                                      | 169  |   |  | 142                                      | 181  |  | 82                                       | 81   |
| 0.802                                       | 0.818                                      | 0.776                                       | 0.632                                    | 0.622                                      | 0.585                                       |  | 0.543                                    | 0.683                                      | 0.61                                       | 0.603                                    | 0.595                                      |
| 7.99  | 8.07                                       |   | 8.1                                      | 8.09                                       |   |  | 8.44                                     | 8.37                                       |  | 7.73                                     | 7.75                                       |
| 542   | 557  | 546   | 410                                      | 406  | 415   | 401  | 358                                      | 455  | 413  | 375                                      | 385  |
| <0.008                                      | <0.1                                       |   | <0.1                                     | <0.1                                       |   |  | <0.1                                     | <0.1                                       |  | <0.1                                     | <0.1                                       |
| <0.001                                      | <0.001                                     |   | <0.001                                   | <0.001                                     |   |  | <0.001                                   | <0.001                                     |  | <0.001                                   | <0.001                                     |
| <0.001                                      | 0.001                                      |   | <0.001                                   | <0.001                                     |   |  | <0.001                                   | <0.001                                     |  | <0.001                                   | <0.001                                     |
| <0.1  | <0.1                                       |   | <0.1                                     | <0.1                                       |   |  | <0.1                                     | <0.1                                       |  | <0.1                                     | <0.1                                       |
| <0.01                                       | <0.001                                     |   | <0.001                                   | <0.001                                     |   |  | <0.01                                    | <0.001                                     |  | <0.001                                   | <0.001                                     |
| <0.1  | <0.1                                       |   | <0.1                                     | <0.1                                       |   |  | <0.1                                     | <0.1                                       |  | <0.1                                     | <0.1                                       |
| <0.005                                      | <0.005                                     |   | <0.005                                   | <0.005                                     |   |  | <0.005                                   | <0.005                                     |  | <0.005                                   | <0.005                                     |
| <0.05                                       | <0.05                                      |   | <0.05                                    | <0.05                                      |   |  | <0.05                                    | <0.05                                      |  | <0.05                                    | <0.05                                      |
| <0.01                                       | <0.01                                      |   | <0.01                                    | <0.01                                      |   |  | <0.01                                    | <0.01                                      |  | <0.01                                    | <0.01                                      |
| 0.04  | 0.03                                       |   | <0.03                                    | <0.03                                      |   |  | <0.03                                    | <0.03                                      |  | <0.03                                    | <0.03                                      |
| <0.001                                      | <0.001                                     |   | <0.001                                   | <0.001                                     |   |  | <0.001                                   | <0.001                                     |  | <0.001                                   | <0.001                                     |
| 0.02  | 0.02                                       |   | 0.04                                     | 0.04                                       |   |  | 0.01                                     | 0.01                                       |  | 0.02                                     | <0.01                                      |
| <0.001                                      | <0.001                                     |   | <0.001                                   | <0.001                                     |   |  | <0.001                                   | <0.001                                     |  | <0.001                                   | <0.001                                     |
| <0.1  | <0.1                                       |   | <0.1                                     | <0.1                                       |   |  | <0.1                                     | <0.1                                       |  | <0.1                                     | <0.1                                       |
| <0.05                                       | <0.05                                      |   | <0.05                                    | <0.05                                      |   |  | <0.05                                    | <0.05                                      |  | <0.05                                    | <0.05                                      |
| <0.001                                      | <0.001                                     | <0.001                                      | <0.001                                   | <0.001                                     | <0.001                                      | <0.001                                       | <0.001                                   | <0.001                                     | <0.001                                     | 0.025                                    | 0.024                                      |
| <0.001                                      | <0.001                                     |   | <0.001                                   | <0.001                                     |   |  | <0.001                                   | <0.001                                     |  | <0.001                                   | <0.001                                     |
| 0.0111                                      | 0.0143                                     | 0.0124                                      | 0.0003                                   | 0.0004                                     | 0.0003                                      | 0.0003                                       | <0.0003                                  | 0.0003                                     | 0.0008                                     | 0.0347                                   | 0.0357                                     |
| <0.1  | <0.1                                       |   | <0.1                                     | <0.1                                       |   |  | <0.1                                     | <0.1                                       |  | <0.1                                     | <0.1                                       |
| <0.01                                       | <0.01                                      |   | <0.01                                    | <0.01                                      |   |  | 0.01                                     | <0.01                                      |  | <0.01                                    | <0.01                                      |
| 0   |  |   | 0  |  |   |  | 0  |  |  | 0  |  |
| 0   |  |   | 0  |  |   |  | 0  |  |  | 0  |  |
| 0.05  | 0.48                                       |   | 0.03                                     | <0.03                                      |   |  | <0.03                                    | 0.06                                       |  | <0.03                                    | <0.03                                      |
| 0.02  | 0.03                                       |   | 0.04                                     | 0.04                                       |   |  | 0.01                                     | 0.02                                       |  | 0.02                                     | <0.01                                      |
|   |  |   |  |  |   |  |  |  |  |  |  |
| 64.89                                       | 109.32                                     |   | 2.10                                     | <0.5                                       |   |  | 1.00                                     | <0.9                                       |  | -0.69                                    | 3.23                                       |
| 72.4  | 119  |   | 2.3                                      | <0.5                                       |   |  | 1  | <0.9                                       |  | 22.8                                     | 27.4                                       |
| 3.2   | 4.1  |   | 1.6                                      | 1  |   |  | 1  | 1.1  |  | 2  | 2.1  |
| 2.1   | 2  |   | 2.5                                      | 1.7  |   |  | 1.7                                      | 1.8  |  | 1.9                                      | 1.8  |
| 17.4  | 40.6                                       |   | 4.6                                      | <0.4                                       |   |  | 2.8                                      | 3.6  |  | 9.5                                      | 8.8  |
| 1.9   | 2.3  |   | 1.7                                      | 1.7  |   |  | 1.6                                      | 1.6  |  | 1.8                                      | 1.8  |
| 2.5   | 2.6  |   | 2.8                                      | 2.9  |   |  | 2.7                                      | 2.7  |  | 2.7                                      | 2.7  |
| 19  | 20   |   | 0.45                                     | 0.68                                       |   |  | 0.06                                     | 0.28                                       |  | 0.13                                     | 0.48                                       |
| 0.81  | 0.94                                       |   | 0.13                                     | 0.18                                       |   |  | 0.09                                     | 0.12                                       |  | 0.1                                      | 0.17                                       |
| 0.12  | 0.17                                       |   | 0.11                                     | 0.16                                       |   |  | 0.13                                     | 0.13                                       |  | 0.13                                     | 0.18                                       |
| 0.9   | <0.6                                       |   | <0.05                                    | <2.4                                       |   |  | 0.2                                      | <0.08                                      |  | 0.8                                      | <0.9                                       |
| 0.6   | 0.8  |   | 0.5                                      | 1.8  |   |  | 0.6                                      | 1.4  |  | 0.6                                      | 1.9  |
| 1   | 1.2  |   | 0.9                                      | 2.7  |   |  | 1.1                                      | 2.3  |  | 1  | 3.1  |
| 19.9  | 20   |   | 0.5                                      | 0.68                                       |   |  | 0.26                                     | 0.28                                       |  | 0.93                                     | 0.48                                       |



Table 7  
E-Wellfield pre-2011  
Well Water Quality Data

| Well ID   |          | WYDEQ     | E4-3          | E4-3          | E4-5          | E4-5          | E4-6          | E4-6          | E4-7          | E4-7          | E4-7          |
|---|----------|-----------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Sample Date/Time                                      |          | Class III | 7/27/2012     | 10/22/2012    | 7/27/2012     | 10/22/2012    | 7/24/2012     | 10/22/2012    | 6/22/12 11:20 | 8/30/2012     | 10/12/2012    |
| Job Number  |          | Livestock | C12070995-006 | C12100906-001 | C12070995-005 | C12100906-002 | C12070840-004 | C12100906-003 | C12060984-005 | C12081293-003 | C12100579-003 |
| HSU   |          | Standard  | 140           | 140           | 140           | 140           | 140           | 140           | 140           | 140           | 140           |
| Alkalinity, Total as CaCO3                            | mg/L     | --        | 255           | 270           | 243           | 249           | 233           | 239           | 246           | 250           |               |
| Carbonate as CO3                                      | mg/L     | --        | <5            | <5            | <5            | <5            | <5            | <5            | <5            | <5            |               |
| Bicarbonate as HCO3                                   | mg/L     | --        | 311           | 329           | 296           | 304           | 284           | 292           | 300           | 305           | 308           |
| Calcium   | mg/L     | --        | 78            | 74            | 78            | 79            | 64            | 68            | 73            | 75            |               |
| Chloride  | mg/L     | 2000      | 9             | 9             | 25            | 25            | 8             | 8             | 9             | 9             | 9             |
| Fluoride  | mg/L     | --        | 0.2           | 0.3           | 0.2           | 0.3           | 0.2           | 0.3           | 0.2           | 0.2           |               |
| Magnesium   | mg/L     | --        | 16            | 16            | 16            | 15            | 13            | 14            | 15            | 15            |               |
| Nitrogen, Ammonia as N                                | mg/L     | --        | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         |               |
| Nitrogen, Nitrate+Nitrite as N                        | mg/L     | 100       | 1.8           | 1.8           | 1.9           | 1.9           | 1.5           | 1.5           | 2.2           | 2.1           |               |
| Potassium   | mg/L     | --        | 6             | 6             | 6             | 6             | 5             | 6             | 6             | 7             |               |
| Silica  | mg/L     | --        | 20            | 19.6          | 19.2          | 18.4          | 16.9          | 19            | 16.9          | 19.6          |               |
| Sodium  | mg/L     | --        | 61            | 59            | 68            | 69            | 62            | 64            | 60            | 56            |               |
| Sulfate   | mg/L     | 3000      | 98            | 93            | 111           | 105           | 98            | 97            | 100           | 100           |               |
| Conductivity @ 25 C                                   | mmhos/cm | --        | 0.695         | 0.68          | 0.72          | 0.742         | 0.658         | 0.656         | 0.69          | 0.676         | 0.587         |
| pH  | s.u.     | 6.5-8.5   | 7.63          | 7.56          | 7.6           | 7.64          | 7.56          | 7.67          | 7.63          | 7.69          |               |
| Solids, Total Dissolved TDS @ 180 C                   | mg/L     | 5000      | 430           | 411           | 496           | 465           | 418           | 406           | 445           | 428           | 424           |
| Aluminum-D  | mg/L     | 5         | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |               |
| Antimony-D  | mg/L     | --        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |               |
| Arsenic-D   | mg/L     | 0.2       | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |               |
| Barium-D  | mg/L     | --        | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |               |
| Beryllium-D   | mg/L     | --        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |               |
| Boron-D   | mg/L     | 5         | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |               |
| Cadmium-D   | mg/L     | 0.05      | <0.005        | <0.005        | <0.005        | <0.005        | <0.005        | <0.005        | <0.005        | <0.005        |               |
| Chromium-D  | mg/L     | 0.05      | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         |               |
| Copper-D  | mg/L     | 0.5       | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         |               |
| Iron-D  | mg/L     | --        | <0.03         | <0.03         | <0.03         | <0.03         | <0.03         | <0.03         | <0.03         | <0.03         |               |
| Lead-D  | mg/L     | 0.1       | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |               |
| Manganese-D   | mg/L     | --        | <0.01         | <0.01         | 0.04          | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         |               |
| Mercury-D   | mg/L     | 0.00005   | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |               |
| Molybdenum-D  | mg/L     | --        | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |               |
| Nickel-D  | mg/L     | --        | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         |               |
| Selenium-D  | mg/L     | 0.05      | 0.089         | 0.075         | 0.169         | 0.16          | 0.076         | 0.064         | 0.088         | 0.088         | 0.083         |
| Thallium-D  | mg/L     | --        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |               |
| Uranium-D   | mg/L     | --        | 0.0693        | 0.0635        | --            | 0.122         | 0.0531        | 0.0504        | 0.0832        | 0.0858        | 0.0785        |
| Vanadium-D  | mg/L     | 0.1       | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |               |
| Zinc-D  | mg/L     | 25        | 0.01          | <0.01         | 0.02          | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         |               |
| Antimony-T  | mg/L     | --        |               |               |               |               |               |               | <0.001        |               |               |
| Beryllium-T   | mg/L     | --        |               |               |               |               |               |               | <0.001        |               |               |
| Iron-T  | mg/L     | --        | 0.03          | 0.05          | 15.1          | 1.39          | <0.03         | <0.03         | <0.03         | 0.06          |               |
| Manganese-T   | mg/L     | --        | <0.01         | <0.01         | 0.13          | 0.01          | <0.01         | <0.01         | <0.01         | <0.01         |               |
| Thallium-T  | mg/L     | --        |               |               |               |               |               |               | <0.001        |               |               |
| Gross Alpha - minus U - Calculated                    | pCi/L    | 15        | -0.22         | -6.99         | 22.41         | -15.20        | -7.05         | -4.82         | 7.67          | -8.19         |               |
| Gross Alpha - Unadjusted                              | pCi/L    | --        | 46.7          | 36            | 105           | 70.1          | 28.9          | 29.3          | 64            | 49.9          |               |
| Gross Alpha precision (±)                             | pCi/L    | --        | 3             | 2.5           | 4.6           | 3.5           | 2.1           | 2.3           | 3.3           | 2.9           |               |
| Gross Alpha MDC                                       | pCi/L    | --        | 1.5           | 2             | 1.9           | 2.1           | 1.7           | 2             | 2.3           | 2             |               |
| Gross Beta  | pCi/L    | --        | 17.4          | 12.6          | 30.4          | 20.2          | 7.2           | 11.6          | 14.7          | 19.7          |               |
| Gross Beta precision (±)                              | pCi/L    | --        | 1.9           | 1.9           | 2.7           | 2.3           | 1.9           | 1.8           | 2             | 2.1           |               |
| Gross Beta MDC  | pCi/L    | --        | 2.6           | 2.7           | 3.5           | 3.2           | 2.8           | 2.7           | 2.8           | 2.9           |               |
| Radium 226  | pCi/L    | --        | 0.3           | 0.39          | 0.32          | 0.2           | 0.46          | 0.5           | 0.14          | 0.41          |               |
| Radium 226 precision (±)                              | pCi/L    | --        | 0.15          | 0.2           | 0.14          | 0.15          | 0.15          | 0.22          | 0.13          | 0.14          |               |
| Radium 226 MDC  | pCi/L    | --        | 0.17          | 0.24          | 0.16          | 0.2           | 0.14          | 0.25          | 0.18          | 0.14          |               |
| Radium 228  | pCi/L    | --        | <1            | 2.9           | <1.1          | 2.3           | 1.2           | 1.6           | 1.2           | <0.6          |               |
| Radium 228 precision (±)                              | pCi/L    | --        | 0.8           | 1.4           | 0.8           | 1.2           | 0.7           | 1.4           | 0.8           | 0.7           |               |
| Radium 228 MDC  | pCi/L    | --        | 1.3           | 2.1           | 1.2           | 1.8           | 1             | 2.2           | 1.2           | 1.2           |               |
| Combined Total Radium 226 and Radium 228 (Calculated) | pCi/L    | 5         | 0.3           | 3.29          | 0.32          | 2.5           | 1.66          | 2.1           | 1.34          | 0.41          |               |

\* Duplicate sample



Table 7  
E-Wellfield pre-2011  
Well Water Quality Data

| Well ID   |          | WYDEQ     | E5-1          | E5-1          | E5-2          | E5-2          | E5-3          | E5-3          | E5-3          | E5-4          | E5-4          |
|---|----------|-----------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Sample Date/Time                                      |          | Class III | 8/1/2012      | 10/23/2012    | 8/3/2012      | 10/25/2012    | 6/22/12 14:00 | 8/30/2012     | 10/25/2012    | 7/25/2012     | 10/22/2012    |
| Job Number  |          | Livestock | C12080049-001 | C12100957-001 | C12080142-002 | C12101066-001 | C12060984-006 | C12081293-007 | C12101066-002 | C12070893-001 | C12100906-005 |
| HSU   |          | Standard  | 140           | 140           | 140           | 140           | 140           | 140           | 140           | 140           | 140           |
| Alkalinity, Total as CaCO3                            | mg/L     | --        | 310           | 314           | 266           | 283           | 238           | 241           |               | 208           | 214           |
| Carbonate as CO3                                      | mg/L     | --        | <5            | <5            | <5            | <5            | <5            | <5            |               | <5            | <5            |
| Bicarbonate as HCO3                                   | mg/L     | --        | 378           | 383           | 325           | 345           | 290           | 294           | 293           | 254           | 261           |
| Calcium   | mg/L     | --        | 139           | 136           | 127           | 130           | 68            | 75            |               | 51            | 56            |
| Chloride  | mg/L     | 2000      | 49            | 53            | 46            | 45            | 20            | 22            | 22            | 8             | 8             |
| Fluoride  | mg/L     | --        | 0.2           | 0.2           | 0.2           | 0.2           | 0.3           | 0.3           |               | 0.3           | 0.3           |
| Magnesium   | mg/L     | --        | 27            | 25            | 23            | 24            | 13            | 14            |               | 9             | 10            |
| Nitrogen, Ammonia as N                                | mg/L     | --        | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         |               | <0.05         | <0.05         |
| Nitrogen, Nitrate+Nitrite as N                        | mg/L     | 100       | 1.8           | 1.7           | 2             | 2             | 1.8           | 1.6           |               | 3.3           | 1.7           |
| Potassium   | mg/L     | --        | 8             | 8             | 8             | 8             | 6             | 6             |               | 5             | 6             |
| Silica  | mg/L     | --        | 18.5          | 17.8          | 17.3          | 16.6          | 15.8          | 18.1          |               | 15.2          | 18.2          |
| Sodium  | mg/L     | --        | 75            | 65            | 70            | 65            | 60            | 57            |               | 53            | 54            |
| Sulfate   | mg/L     | 3000      | 228           | 214           | 249           | 241           | 83            | 92            |               | 61            | 61            |
| Conductivity @ 25 C                                   | mmhos/cm | --        | 1.09          | 1.12          | 1.07          | 1.06          | 0.678         | 0.68          |               | 0.567         | 0.546         |
| pH  | s.u.     | 6.5-8.5   | 7.44          | 7.37          | 7.49          | 7.43          | 7.68          | 7.8           |               | 7.74          | 7.76          |
| Solids, Total Dissolved TDS @ 180 C                   | mg/L     | 5000      | 725           | 747           | 747           | 722           | 415           | 415           | 416           | 328           | 325           |
| Aluminum-D  | mg/L     | 5         | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |               | <0.1          | <0.1          |
| Antimony-D  | mg/L     | --        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |               | <0.001        | <0.001        |
| Arsenic-D   | mg/L     | 0.2       | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |               | <0.001        | <0.001        |
| Barium-D  | mg/L     | --        | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |               | <0.1          | <0.1          |
| Beryllium-D   | mg/L     | --        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |               | <0.001        | <0.001        |
| Boron-D   | mg/L     | 5         | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |               | <0.1          | <0.1          |
| Cadmium-D   | mg/L     | 0.05      | <0.005        | <0.005        | <0.005        | <0.005        | <0.005        | <0.005        |               | <0.005        | <0.005        |
| Chromium-D  | mg/L     | 0.05      | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         |               | <0.05         | <0.05         |
| Copper-D  | mg/L     | 0.5       | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         |               | <0.01         | <0.01         |
| Iron-D  | mg/L     | --        | 0.04          | <0.03         | <0.03         | 0.03          | <0.03         | <0.03         |               | <0.03         | <0.03         |
| Lead-D  | mg/L     | 0.1       | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |               | <0.001        | <0.001        |
| Manganese-D   | mg/L     | --        | 0.02          | 0.02          | <0.01         | <0.01         | <0.01         | <0.01         |               | <0.01         | <0.01         |
| Mercury-D   | mg/L     | 0.00005   | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |               | <0.001        | <0.001        |
| Molybdenum-D  | mg/L     | --        | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |               | <0.1          | <0.1          |
| Nickel-D  | mg/L     | --        | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         |               | <0.05         | <0.05         |
| Selenium-D  | mg/L     | 0.05      | 1.13          | 1.15          | 0.6           | 0.665         | 0.149         | 0.148         | 0.144         | 0.047         | 0.039         |
| Thallium-D  | mg/L     | --        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |               | <0.001        | <0.001        |
| Uranium-D   | mg/L     | --        | 0.434         | 0.353         | 0.319         | 0.296         | 0.0439        | 0.0473        | 0.0475        | 0.0266        | 0.0284        |
| Vanadium-D  | mg/L     | 0.1       | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |               | <0.1          | <0.1          |
| Zinc-D  | mg/L     | 25        | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         |               | <0.01         | <0.01         |
| Antimony-T  | mg/L     | --        |               |               |               |               | <0.001        |               |               |               |               |
| Beryllium-T   | mg/L     | --        |               |               |               |               | <0.001        |               |               |               |               |
| Iron-T  | mg/L     | --        | 0.09          | 3.72          | <0.03         | 0.04          | <0.03         | 0.13          |               | <0.03         | <0.03         |
| Manganese-T   | mg/L     | --        | 0.02          | 0.05          | <0.01         | <0.01         | <0.01         | 0.01          |               | <0.01         | <0.01         |
| Thallium-T  | mg/L     | --        |               |               |               |               | <0.001        |               |               |               |               |
| Gross Alpha - minus U - Calculated                    | pCi/L    | 15        | -48.82        | -35.98        | 10.04         | -39.39        | 1.28          | 12.18         |               | 5.79          | 0.37          |
| Gross Alpha - Unadjusted                              | pCi/L    | --        | 245           | 203           | 226           | 161           | 31            | 44.2          |               | 23.8          | 19.6          |
| Gross Alpha precision (±)                             | pCi/L    | --        | 7.4           | 9.4           | 6.8           | 5.7           | 2.4           | 2.8           |               | 2.2           | 1.9           |
| Gross Alpha MDC                                       | pCi/L    | --        | 3.4           | 6.4           | 3.1           | 2.9           | 2.2           | 2             |               | 2.4           | 1.8           |
| Gross Beta  | pCi/L    | --        | 69            | 89.2          | 51.9          | 60.7          | 9.8           | 13            |               | 10.6          | 5.9           |
| Gross Beta precision (±)                              | pCi/L    | --        | 4.2           | 7.7           | 3.8           | 3.5           | 1.8           | 2.2           |               | 1.8           | 1.7           |
| Gross Beta MDC  | pCi/L    | --        | 4.9           | 10            | 4.5           | 4             | 2.7           | 3.2           |               | 2.6           | 2.7           |
| Radium 226  | pCi/L    | --        | 10            | 7.3           | 0.73          | 0.48          | 0.44          | 0.64          |               | 0.15          | 0.14          |
| Radium 226 precision (±)                              | pCi/L    | --        | 0.63          | 0.62          | 0.25          | 0.16          | 0.17          | 0.19          |               | 0.11          | 0.16          |
| Radium 226 MDC  | pCi/L    | --        | 0.15          | 0.21          | 0.25          | 0.16          | 0.19          | 0.18          |               | 0.14          | 0.24          |
| Radium 228  | pCi/L    | --        | 1.2           | 0.9           | 1.1           | 1.7           | 1.5           | <-0.5         |               | <0.7          | 1.5           |
| Radium 228 precision (±)                              | pCi/L    | --        | 0.7           | 1.4           | 1             | 0.8           | 0.8           | 1.1           |               | 0.8           | 1.4           |
| Radium 228 MDC  | pCi/L    | --        | 1             | 2.3           | 1.6           | 1.2           | 1.3           | 1.8           |               | 1.2           | 2.1           |
| Combined Total Radium 226 and Radium 228 (Calculated) | pCi/L    | 5         | 11.2          | 8.2           | 1.83          | 2.18          | 1.94          | 0.64          | 0             | 0.15          | 1.64          |

\* Duplicate sample



Table 7  
E-Wellfield pre-2011  
Well Water Quality Data

| Well ID   |          | WYDEQ     | E6-1          | E6-1          | E6-2          | E6-2          | E6-4          | E6-4          | E6-5          | E6-5          | E6-6          |
|---|----------|-----------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Sample Date/Time                                      |          | Class III | 7/25/2012     | 10/26/2012    | 7/17/2012     | 10/11/2012    | 7/17/2012     | 10/11/2012    | 7/25/2012     | 10/23/2012    | 7/27/2012     |
| Job Number  |          | Livestock | C12070893-004 | C12101137-003 | C12070564-002 | C12100554-005 | C12070564-003 | C12100554-009 | C12070893-002 | C12100957-003 | C12070995-001 |
| HSU   |          | Standard  | 140           | 140           | 140           | 140           | 140           | 140           | 140           | 140           | 140           |
| Alkalinity, Total as CaCO3                            | mg/L     | --        | 232           | 244           | 394           | 406           | 300           | 315           | 206           | 220           | 135           |
| Carbonate as CO3                                      | mg/L     | --        | <5            | <5            | <5            | <5            | <5            | <5            | <5            | <5            | <5            |
| Bicarbonate as HCO3                                   | mg/L     | --        | 283           | 297           | 481           | 495           | 366           | 384           | 252           | 268           | 164           |
| Calcium   | mg/L     | --        | 106           | 128           | 228           | 232           | 140           | 146           | 58            | 58            | 102           |
| Chloride  | mg/L     | 2000      | 27            | 32            | 98            | 94            | 65            | 65            | 4             | 4             | 13            |
| Fluoride  | mg/L     | --        | 0.2           | 0.3           | 0.2           | 0.2           | 0.2           | 0.2           | 0.3           | 0.3           | 0.3           |
| Magnesium   | mg/L     | --        | 20            | 23            | 42            | 43            | 25            | 26            | 11            | 11            | 17            |
| Nitrogen, Ammonia as N                                | mg/L     | --        | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         |
| Nitrogen, Nitrate+Nitrite as N                        | mg/L     | 100       | 1.2           | 2.3           | 2             | 1.8           | 2.4           | 2.3           | 3.2           | 1.6           | 0.6           |
| Potassium   | mg/L     | --        | 7             | 7             | 11            | 10            | 9             | 8             | 5             | 5             | 8             |
| Silica  | mg/L     | --        | 16.9          | 15.9          | 19.6          | 19            | 17.9          | 17.2          | 16.2          | 15.4          | 13.4          |
| Sodium  | mg/L     | --        | 62            | 66            | 65            | 67            | 64            | 70            | 55            | 52            | 86            |
| Sulfate   | mg/L     | 3000      | 189           | 216           | 384           | 371           | 227           | 218           | 92            | 93            | 330           |
| Conductivity @ 25 C                                   | mmhos/cm | --        | 0.933         | 0.968         | 1.42          | 1.55          | 1.14          | 1.1           | 0.614         | 0.591         | 0.89          |
| pH  | s.u.     | 6.5-8.5   | 7.56          | 7.61          | 7.15          | 7.11          | 7.37          | 7.2           | 7.74          | 7.7           | 7.8           |
| Solids, Total Dissolved TDS @ 180 C                   | mg/L     | 5000      | 592           | 656           | 1140          | 1160          | 782           | 789           | 368           | 371           | 670           |
| Aluminum-D  | mg/L     | 5         | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | 0.6           |
| Antimony-D  | mg/L     | --        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |
| Arsenic-D   | mg/L     | 0.2       | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |
| Barium-D  | mg/L     | --        | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| Beryllium-D   | mg/L     | --        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |
| Boron-D   | mg/L     | 5         | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| Cadmium-D   | mg/L     | 0.05      | <0.005        | <0.005        | <0.005        | <0.005        | <0.005        | <0.005        | <0.005        | <0.005        | <0.005        |
| Chromium-D  | mg/L     | 0.05      | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         |
| Copper-D  | mg/L     | 0.5       | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         |
| Iron-D  | mg/L     | --        | <0.03         | <0.03         | <0.03         | 0.05          | <0.03         | <0.03         | <0.03         | <0.03         | 0.38          |
| Lead-D  | mg/L     | 0.1       | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | 0.001         |
| Manganese-D   | mg/L     | --        | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | 0.01          |
| Mercury-D   | mg/L     | 0.00005   | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |
| Molybdenum-D  | mg/L     | --        | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| Nickel-D  | mg/L     | --        | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         |
| Selenium-D  | mg/L     | 0.05      | 0.276         | 0.294         | 3.24          | 3.26          | 0.624         | 0.663         | 0.03          | 0.026         | 0.022         |
| Thallium-D  | mg/L     | --        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |
| Uranium-D   | mg/L     | --        | 0.141         | 0.164         | 1.16          | 1.15          | 0.269         | 0.272         | 0.0514        | 0.05          | 0.0157        |
| Vanadium-D  | mg/L     | 0.1       | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| Zinc-D  | mg/L     | 25        | <0.01         | <0.01         | 0.01          | <0.01         | 0.06          | 0.09          | <0.01         | <0.01         | 0.01          |
| Antimony-T  | mg/L     | --        |               |               |               |               |               |               |               |               |               |
| Beryllium-T   | mg/L     | --        |               |               |               |               |               |               |               |               |               |
| Iron-T  | mg/L     | --        | <0.03         | <0.03         | 0.12          | 0.18          | <0.03         | 0.07          | 0.15          | 0.05          | 3.37          |
| Manganese-T   | mg/L     | --        | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | 0.03          |
| Thallium-T  | mg/L     | --        |               |               |               |               |               |               |               |               |               |
| Gross Alpha - minus U - Calculated                    | pCi/L    | 15        | 0.34          | -6.03         | -43.32        | 29.45         | 15.89         | -36.14        | 0.00          | -7.65         | 12.27         |
| Gross Alpha - Unadjusted                              | pCi/L    | --        | 95.8          | 105           | 742           | 808           | 198           | 148           | 34.8          | 26.2          | 22.9          |
| Gross Alpha precision (±)                             | pCi/L    | --        | 4.6           | 4.9           | 20.4          | 22            | 7.1           | 8.8           | 2.2           | 2.1           | 2.5           |
| Gross Alpha MDC                                       | pCi/L    | --        | 3.7           | 2             | 7.7           | 9             | 4.3           | 6.6           | 1.7           | 1.8           | 2.7           |
| Gross Beta  | pCi/L    | --        | 27.3          | 56.4          | 85.5          | 169           | 27.3          | 34.9          | 9.9           | 15            | 7.2           |
| Gross Beta precision (±)                              | pCi/L    | --        | 2.8           | 2.9           | 12.7          | 13.7          | 3.7           | 8.4           | 1.9           | 1.9           | 2.1           |
| Gross Beta MDC  | pCi/L    | --        | 3.7           | 3.3           | 16.4          | 16            | 5             | 12.5          | 2.8           | 2.6           | 3.2           |
| Radium 226  | pCi/L    | --        | 0.51          | 0.33          | 1.4           | 0.97          | 0.98          | 1.3           | 0.38          | 0.35          | 0.34          |
| Radium 226 precision (±)                              | pCi/L    | --        | 0.16          | 0.18          | 0.26          | 0.2           | 0.23          | 0.25          | 0.14          | 0.19          | 0.15          |
| Radium 226 MDC  | pCi/L    | --        | 0.14          | 0.21          | 0.19          | 0.14          | 0.19          | 0.16          | 0.15          | 0.23          | 0.17          |
| Radium 228  | pCi/L    | --        | <0.3          | 1.7           | 0.5           | 2.4           | 1.5           | 3.3           | <0.4          | 0.03          | 2.5           |
| Radium 228 precision (±)                              | pCi/L    | --        | 0.7           | 1.3           | 0.7           | 0.9           | 0.8           | 1.1           | 0.8           | 1.5           | 0.9           |
| Radium 228 MDC  | pCi/L    | --        | 1.2           | 2.1           | 1.2           | 1.3           | 1.2           | 1.5           | 1.2           | 2.5           | 1.3           |
| Combined Total Radium 226 and Radium 228 (Calculated) | pCi/L    | 5         | 0.51          | 2.03          | 1.9           | 3.37          | 2.48          | 4.6           | 0.38          | 0.38          | 2.84          |

\* Duplicate sample

Table 7  
E-Wellfield pre-2011  
Well Water Quality Data

| Well ID   |          | WYDEQ     | E6-6*         | E6-6          | E6-7          | E6-7          | E6-7*         | E6-8          | E6-8          | E6-8*         | E7-1          |
|---|----------|-----------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Sample Date/Time                                      |          | Class III | 7/27/2012     | 10/23/2012    | 7/27/2012     | 10/23/2012    | 10/23/2012    | 8/1/2012      | 10/26/2012    | 10/26/2012    | 7/17/2012     |
| Job Number  |          | Livestock | C12070995-003 | C12100957-002 | C12070995-002 | C12100957-004 | C12100957-005 | C12080049-002 | C12101137-001 | C12101137-002 | C12070564-004 |
| HSU   |          | Standard  | 140           | 140           | 140           | 140           | 140           | 120           | 120           | 120           | 140           |
| Alkalinity, Total as CaCO3                            | mg/L     | --        | 134           | 133           | 197           | 203           | 203           | 171           | 180           | 172           | 289           |
| Carbonate as CO3                                      | mg/L     | --        | <5            | <5            | <5            | <5            | <5            | <5            | <5            | <5            | <5            |
| Bicarbonate as HCO3                                   | mg/L     | --        | 164           | 163           | 241           | 248           | 247           | 209           | 220           | 210           | 352           |
| Calcium   | mg/L     | --        | 102           | 99            | 56            | 57            | 59            | 57            | 64            | 65            | 114           |
| Chloride  | mg/L     | 2000      | 13            | 13            | 3             | 3             | 3             | 32            | 31            | 31            | 13            |
| Fluoride  | mg/L     | --        | 0.3           | 0.3           | 0.2           | 0.3           | 0.3           | 0.3           | 0.4           | 0.4           | 0.2           |
| Magnesium   | mg/L     | --        | 17            | 16            | 10            | 10            | 10            | 8             | 9             | 9             | 20            |
| Nitrogen, Ammonia as N                                | mg/L     | --        | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         |
| Nitrogen, Nitrate+Nitrite as N                        | mg/L     | 100       | 0.6           | 0.5           | 1.7           | 1.7           | 1.7           | <0.1          | <0.1          | <0.1          | 2.3           |
| Potassium   | mg/L     | --        | 8             | 7             | 6             | 6             | 6             | 6             | 6             | 6             | 8             |
| Silica  | mg/L     | --        | 12            | 9.3           | 15.2          | 15.1          | 15.1          | 10.7          | 10.5          | 10.1          | 18.8          |
| Sodium  | mg/L     | --        | 86            | 80            | 36            | 36            | 37            | 91            | 96            | 95            | 61            |
| Sulfate   | mg/L     | 3000      | 329           | 334           | 68            | 66            | 67            | 181           | 166           | 162           | 187           |
| Conductivity @ 25 C                                   | mmhos/cm | --        | 0.9           | 0.948         | 0.5           | 0.52          | 0.521         | 0.761         | 0.753         | 0.753         | 0.913         |
| pH  | s.u.     | 6.5-8.5   | 7.8           | 7.61          | 7.8           | 7.7           | 7.67          | 8.03          | 8.05          | 8.04          | 7.43          |
| Solids, Total Dissolved TDS @ 180 C                   | mg/L     | 5000      | 685           | 673           | 316           | 318           | 313           | 494           | 483           | 481           | 617           |
| Aluminum-D  | mg/L     | 5         | 0.3           | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| Antimony-D  | mg/L     | --        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |
| Arsenic-D   | mg/L     | 0.2       | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |
| Barium-D  | mg/L     | --        | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| Beryllium-D   | mg/L     | --        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |
| Boron-D   | mg/L     | 5         | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| Cadmium-D   | mg/L     | 0.05      | <0.005        | <0.005        | <0.005        | <0.005        | <0.005        | <0.005        | <0.005        | <0.005        | <0.005        |
| Chromium-D  | mg/L     | 0.05      | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         |
| Copper-D  | mg/L     | 0.5       | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         |
| Iron-D  | mg/L     | --        | 0.15          | <0.03         | <0.03         | <0.03         | <0.03         | 0.16          | 0.16          | 0.15          | <0.03         |
| Lead-D  | mg/L     | 0.1       | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |
| Manganese-D   | mg/L     | --        | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | 0.05          | 0.06          | 0.06          | 0.04          |
| Mercury-D   | mg/L     | 0.00005   | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |
| Molybdenum-D  | mg/L     | --        | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| Nickel-D  | mg/L     | --        | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         |
| Selenium-D  | mg/L     | 0.05      | 0.024         | 0.027         | 0.01          | 0.01          | 0.01          | 0.001         | <0.001        | <0.001        | 0.412         |
| Thallium-D  | mg/L     | --        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |
| Uranium-D   | mg/L     | --        | 0.0155        | 0.0197        | 0.0276        | 0.0278        | 0.0283        | 0.0005        | <0.0003       | <0.0003       | 0.128         |
| Vanadium-D  | mg/L     | 0.1       | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| Zinc-D  | mg/L     | 25        | 0.02          | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | 0.01          |
| Antimony-T  | mg/L     | --        |               |               |               |               |               |               |               |               |               |
| Beryllium-T   | mg/L     | --        |               |               |               |               |               |               |               |               |               |
| Iron-T  | mg/L     | --        | 22.6          | 3.74          | <0.03         | <0.03         | <0.03         | 0.45          | 0.23          | 0.23          | <0.03         |
| Manganese-T   | mg/L     | --        | 0.27          | 0.05          | <0.01         | <0.01         | <0.01         | 0.06          | 0.06          | 0.06          | 0.04          |
| Thallium-T  | mg/L     | --        |               |               |               |               |               |               |               |               |               |
| Gross Alpha - minus U - Calculated                    | pCi/L    | 15        | 10.31         | 6.66          | 8.71          | -4.22         | -1.76         | -0.29         | 9.60          | 7.70          | 28.34         |
| Gross Alpha - Unadjusted                              | pCi/L    | --        | 20.8          | 20            | 27.4          | 14.6          | 17.4          | 0.05          | 9.6           | 7.7           | 115           |
| Gross Alpha precision (±)                             | pCi/L    | --        | 2.2           | 2.2           | 2.2           | 1.7           | 1.7           | 1.4           | 1.7           | 1.6           | 5.2           |
| Gross Alpha MDC                                       | pCi/L    | --        | 1.8           | 2.2           | 2             | 1.7           | 1.7           | 2.3           | 1.7           | 1.8           | 4.1           |
| Gross Beta  | pCi/L    | --        | 8.2           | 8.7           | 8.4           | 9.7           | 11.9          | 3.7           | 7.1           | 7.1           | 16.2          |
| Gross Beta precision (±)                              | pCi/L    | --        | 1.9           | 2             | 1.8           | 1.8           | 1.8           | 1.7           | 1.6           | 1.6           | 2.9           |
| Gross Beta MDC  | pCi/L    | --        | 2.8           | 3.1           | 2.7           | 2.7           | 2.7           | 2.5           | 2.5           | 2.5           | 4.1           |
| Radium 226  | pCi/L    | --        | <0.15         | 0.49          | 0.2           | 0.48          | 0.46          | 0.73          | 0.61          | 0.55          | 2.1           |
| Radium 226 precision (±)                              | pCi/L    | --        | 0.12          | 0.2           | 0.13          | 0.21          | 0.24          | 0.18          | 0.22          | 0.24          | 0.29          |
| Radium 226 MDC  | pCi/L    | --        | 0.16          | 0.22          | 0.17          | 0.24          | 0.29          | 0.15          | 0.22          | 0.27          | 0.17          |
| Radium 228  | pCi/L    | --        | <1            | 1             | 2.6           | 0.9           | 1.9           | 0.7           | 1.8           | 2.6           | 1.3           |
| Radium 228 precision (±)                              | pCi/L    | --        | 0.8           | 1.4           | 0.9           | 1.6           | 1.9           | 0.6           | 1.4           | 1.7           | 0.7           |
| Radium 228 MDC  | pCi/L    | --        | 1.2           | 2.3           | 1.3           | 2.6           | 3.1           | 1             | 2.2           | 2.6           | 1.1           |
| Combined Total Radium 226 and Radium 228 (Calculated) | pCi/L    | 5         | <1            | 1.49          | 2.8           | 1.38          | 2.36          | 1.43          | 2.41          | 3.15          | 3.4           |

\* Duplicate sample



Table 7  
E-Wellfield pre-2011  
Well Water Quality Data

| Well ID<br>Sample Date/Time<br>Job Number<br>HSU      |          | WYDEQ<br>Class III<br>Livestock<br>Standard | E7-1<br>10/11/2012<br>C12100554-010<br>140 | E7-2<br>7/25/2012<br>C12070893-003<br>140 | E7-2<br>10/30/2012<br>C12101202-001<br>140 | E7-6<br>7/30/2012<br>C12071021-001<br>140 | E7-6<br>10/24/2012<br>C12101013-003<br>140 | E8-1<br>7/30/2012<br>C12071021-002<br>140 | E8-1<br>10/24/2012<br>C12101013-002<br>140 | E8-2<br>8/10/2012<br>C12080505-002<br>140 | E8-2<br>10/10/2012<br>C12100498-009<br>140 |
|---|----------|---|--|---|--|---|--|---|--|---|--|
| Alkalinity, Total as CaCO3                            | mg/L     | --  | 296  | 214                                       | 228  | 297                                       | 281  | 204                                       | 210  | 203                                       | 213  |
| Carbonate as CO3                                      | mg/L     | --  | <5   | <5  | <5   | <5  | <5   | <5  | <5   | <5  | <5   |
| Bicarbonate as HCO3                                   | mg/L     | --  | 361  | 261                                       | 278  | 363                                       | 342  | 249                                       | 256  | 248                                       | 260  |
| Calcium   | mg/L     | --  | 107  | 64  | 71   | 162                                       | 148  | 62  | 61   | 54  | 55   |
| Chloride  | mg/L     | 2000  | 13   | 15  | 16   | 59  | 55   | 5   | 5  | 3   | 3  |
| Fluoride  | mg/L     | --  | 0.2  | 0.3                                       | 0.3  | 0.3                                       | 0.3  | 0.3                                       | 0.3  | 0.3                                       | 0.3  |
| Magnesium   | mg/L     | --  | 19   | 12  | 12   | 26  | 23   | 11  | 10   | 10  | 11   |
| Nitrogen, Ammonia as N                                | mg/L     | --  | <0.05                                      | <0.05                                     | <0.05                                      | 0.45                                      | 0.4  | <0.05                                     | <0.05                                      | <0.05                                     | <0.05                                      |
| Nitrogen, Nitrate+Nitrite as N                        | mg/L     | 100   | 2.2  | 1.7                                       | 3.3  | 1.6                                       | 1.2  | 1.2                                       | 1.1  | 1.2                                       | 1.3  |
| Potassium   | mg/L     | --  | 7  | 6   | 6  | 9   | 8  | 8   | 7  | 6   | 6  |
| Silica  | mg/L     | --  | 16.7                                       | 16.7                                      | 16.3                                       | 14.7                                      | 13.8                                       | 16.2                                      | 16   | 15.1                                      | 15.7                                       |
| Sodium  | mg/L     | --  | 59   | 53  | 55   | 64  | 62   | 41  | 38   | 30  | 32   |
| Sulfate   | mg/L     | 3000  | 171  | 75  | 77   | 284                                       | 274  | 80  | 76   | 42  | 41   |
| Conductivity @ 25 C                                   | mmhos/cm | --  | 0.88                                       | 0.644                                     | 0.62                                       | 1.23                                      | 1.15                                       | 0.563                                     | 0.554                                      | 0.481                                     | 0.471                                      |
| pH  | s.u.     | 6.5-8.5                                     | 7.4  | 7.68                                      | 7.7  | 7.46                                      | 7.57                                       | 7.63                                      | 7.67                                       | 7.76                                      | 7.86                                       |
| Solids, Total Dissolved TDS @ 180 C                   | mg/L     | 5000  | 618  | 379                                       | 385  | 833                                       | 790  | 351                                       | 345  | 301                                       | 295  |
| Aluminum-D  | mg/L     | 5   | <0.1                                       | <0.1                                      | <0.1                                       | <0.1                                      | <0.1                                       | <0.1                                      | <0.1                                       | <0.1                                      | <0.1                                       |
| Antimony-D  | mg/L     | --  | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                    | <0.001                                     |
| Arsenic-D   | mg/L     | 0.2   | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                    | <0.001                                     |
| Barium-D  | mg/L     | --  | <0.1                                       | <0.1                                      | <0.1                                       | 0.1                                       | 0.1  | <0.1                                      | <0.1                                       | <0.1                                      | <0.1                                       |
| Beryllium-D   | mg/L     | --  | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                    | <0.001                                     |
| Boron-D   | mg/L     | 5   | <0.1                                       | <0.1                                      | <0.1                                       | <0.1                                      | <0.1                                       | <0.1                                      | <0.1                                       | <0.1                                      | <0.1                                       |
| Cadmium-D   | mg/L     | 0.05  | <0.005                                     | <0.005                                    | <0.005                                     | <0.005                                    | <0.005                                     | <0.005                                    | <0.005                                     | <0.005                                    | <0.005                                     |
| Chromium-D  | mg/L     | 0.05  | <0.05                                      | <0.05                                     | <0.05                                      | <0.05                                     | <0.05                                      | <0.05                                     | <0.05                                      | <0.05                                     | <0.05                                      |
| Copper-D  | mg/L     | 0.5   | <0.01                                      | <0.01                                     | <0.01                                      | <0.01                                     | <0.01                                      | <0.01                                     | <0.01                                      | <0.01                                     | <0.01                                      |
| Iron-D  | mg/L     | --  | <0.03                                      | <0.03                                     | <0.03                                      | 0.1                                       | 0.08                                       | <0.03                                     | <0.03                                      | <0.03                                     | <0.03                                      |
| Lead-D  | mg/L     | 0.1   | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                    | <0.001                                     |
| Manganese-D   | mg/L     | --  | 0.02                                       | <0.01                                     | <0.01                                      | 0.79                                      | 0.72                                       | <0.01                                     | <0.01                                      | 0.01                                      | <0.01                                      |
| Mercury-D   | mg/L     | 0.00005                                     | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                    | <0.001                                     |
| Molybdenum-D  | mg/L     | --  | <0.1                                       | <0.1                                      | <0.1                                       | <0.1                                      | <0.1                                       | <0.1                                      | <0.1                                       | <0.1                                      | <0.1                                       |
| Nickel-D  | mg/L     | --  | <0.05                                      | <0.05                                     | <0.05                                      | <0.05                                     | <0.05                                      | <0.05                                     | <0.05                                      | <0.05                                     | <0.05                                      |
| Selenium-D  | mg/L     | 0.05  | 0.408                                      | 0.098                                     | 0.095                                      | 0.732                                     | 0.557                                      | 0.119                                     | 0.144                                      | 0.016                                     | 0.012                                      |
| Thallium-D  | mg/L     | --  | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                    | <0.001                                     |
| Uranium-D   | mg/L     | --  | 0.127                                      | 0.0482                                    | 0.0489                                     | 0.115                                     | 0.0915                                     | 0.0686                                    | 0.0623                                     | 0.0284                                    | 0.0279                                     |
| Vanadium-D  | mg/L     | 0.1   | <0.1                                       | <0.1                                      | <0.1                                       | <0.1                                      | <0.1                                       | <0.1                                      | <0.1                                       | <0.1                                      | <0.1                                       |
| Zinc-D  | mg/L     | 25  | <0.01                                      | <0.01                                     | <0.01                                      | <0.01                                     | <0.01                                      | 0.02                                      | <0.01                                      | <0.01                                     | <0.01                                      |
| Antimony-T  | mg/L     | --  |  |   |  |   |  |   |  |   |  |
| Beryllium-T   | mg/L     | --  |  |   |  |   |  |   |  |   |  |
| Iron-T  | mg/L     | --  | <0.03                                      | <0.03                                     | <0.03                                      | 0.28                                      | 0.66                                       | 0.08                                      | 0.04                                       | 3.48                                      | 0.68                                       |
| Manganese-T   | mg/L     | --  | 0.02                                       | <0.01                                     | <0.01                                      | 0.87                                      | 0.72                                       | <0.01                                     | <0.01                                      | 0.08                                      | 0.02                                       |
| Thallium-T  | mg/L     | --  |  |   |  |   |  |   |  |   |  |
| Gross Alpha - minus U - Calculated                    | pCi/L    | 15  | -24.08                                     | 5.67                                      | 9.49                                       | 47.15                                     | 19.25                                      | 7.96                                      | -5.58                                      | -4.03                                     | 3.51                                       |
| Gross Alpha - Unadjusted                              | pCi/L    | --  | 61.9                                       | 38.3                                      | 42.6                                       | 125                                       | 81.2                                       | 54.4                                      | 36.6                                       | 15.2                                      | 22.4                                       |
| Gross Alpha precision (±)                             | pCi/L    | --  | 3.4  | 2.6                                       | 2.6  | 6.1                                       | 7.1  | 2.9                                       | 2.5  | 1.7                                       | 1.8  |
| Gross Alpha MDC                                       | pCi/L    | --  | 2.3  | 2.3                                       | 1.5  | 3.2                                       | 5.5  | 1.2                                       | 1.6  | 1.9                                       | 1.6  |
| Gross Beta  | pCi/L    | --  | 21.9                                       | 13.8                                      | 17.5                                       | 20.4                                      | 28.8                                       | 14.4                                      | 18.1                                       | 7.8                                       | 7.8  |
| Gross Beta precision (±)                              | pCi/L    | --  | 2.8  | 1.9                                       | 1.8  | 3.7                                       | 7  | 1.8                                       | 1.8  | 1.7                                       | 2.5  |
| Gross Beta MDC  | pCi/L    | --  | 3.9  | 2.7                                       | 2.5  | 5.2                                       | 10.7                                       | 2.5                                       | 2.5  | 2.6                                       | 3.9  |
| Radium 226  | pCi/L    | --  | 2  | 0.43                                      | 0.22                                       | 0.88                                      | 1.6  | 0.41                                      | 0.66                                       | 0.78                                      | 0.49                                       |
| Radium 226 precision (±)                              | pCi/L    | --  | 0.29                                       | 0.15                                      | 0.12                                       | 0.21                                      | 0.28                                       | 0.16                                      | 0.21                                       | 0.28                                      | 0.15                                       |
| Radium 226 MDC  | pCi/L    | --  | 0.16                                       | 0.15                                      | 0.15                                       | 0.16                                      | 0.19                                       | 0.16                                      | 0.2  | 0.29                                      | 0.14                                       |
| Radium 228  | pCi/L    | --  | 1.7  | 1.4                                       | 1.8  | 2   | 1.5  | 0.5                                       | 2.4  | 0.2                                       | -0.4                                       |
| Radium 228 precision (±)                              | pCi/L    | --  | 1  | 0.8                                       | 0.7  | 0.9                                       | 1  | 0.8                                       | 1.1  | 1.2                                       | 0.8  |
| Radium 228 MDC  | pCi/L    | --  | 1.5  | 1.2                                       | 1  | 1.3                                       | 1.5  | 1.3                                       | 1.6  | 1.9                                       | 1.3  |
| Combined Total Radium 226 and Radium 228 (Calculated) | pCi/L    | 5   | 3.7  | 1.83                                      | 2.02                                       | 2.88                                      | 3.1  | 0.91                                      | 3.06                                       | 0.98                                      | 0.09                                       |

\* Duplicate sample

Table 7  
E-Wellfield pre-2011  
Well Water Quality Data

| Well ID<br>Sample Date/Time<br>Job Number<br>HSU      |          | WYDEQ<br>Class III<br>Livestock<br>Standard | E9-2<br>7/26/2012<br>C12070944-002<br>140 | E9-2<br>10/18/2012<br>C12100826-002<br>140 | E9-3<br>7/26/2012<br>C12070944-001<br>140 | E9-3<br>10/30/2012<br>C12101202-002<br>140 | E9-4<br>7/27/2012<br>C12070995-004<br>140 | E9-4<br>10/18/2012<br>C12100826-003<br>140 | E9-5<br>8/10/2012<br>C12080505-001<br>140 | E9-5<br>10/11/2012<br>C12100554-008<br>140 | E9-6<br>8/13/2012<br>C12080546-001<br>140 |
|---|----------|---|---|--|---|--|---|--|---|--|---|
| Alkalinity, Total as CaCO3                            | mg/L     | --  | 208                                       | 203  | 201                                       | 205  | 182                                       | 182  | 244                                       | 257  | 230                                       |
| Carbonate as CO3                                      | mg/L     | --  | <5  | <5   | <5  | <5   | <5  | <5   | <5  | <5   | 13  |
| Bicarbonate as HCO3                                   | mg/L     | --  | 254                                       | 248  | 245                                       | 250  | 222                                       | 222  | 298                                       | 313  | 254                                       |
| Calcium   | mg/L     | --  | 73  | 74   | 64  | 71   | 60  | 56   | 112                                       | 113  | 77  |
| Chloride  | mg/L     | 2000  | 5   | 4  | 3   | 3  | 3   | 3  | 16  | 15   | 5   |
| Fluoride  | mg/L     | --  | 0.2                                       | 0.2  | 0.2                                       | 0.3  | 0.2                                       | 0.3  | 0.2                                       | 0.2  | 0.3                                       |
| Magnesium   | mg/L     | --  | 13  | 13   | 11  | 12   | 10  | 10   | 19  | 20   | 13  |
| Nitrogen, Ammonia as N                                | mg/L     | --  | <0.05                                     | <0.05                                      | <0.05                                     | <0.05                                      | <0.05                                     | <0.05                                      | <0.05                                     | <0.05                                      | <0.05                                     |
| Nitrogen, Nitrate+Nitrite as N                        | mg/L     | 100   | 1   | 1  | 1.4                                       | 1.3  | 1.4                                       | 1.4  | 0.9                                       | 1.2  | 1.8                                       |
| Potassium   | mg/L     | --  | 7   | 7  | 6   | 6  | 6   | 6  | 8   | 8  | 7   |
| Silica  | mg/L     | --  | 15.2                                      | 15.8                                       | 16  | 16.4                                       | 17.2                                      | 16.8                                       | 16.4                                      | 16.8                                       | 16.4                                      |
| Sodium  | mg/L     | --  | 33  | 29   | 27  | 27   | 33  | 31   | 31  | 34   | 31  |
| Sulfate   | mg/L     | 3000  | 94  | 93   | 62  | 61   | 68  | 64   | 163                                       | 155  | 87  |
| Conductivity @ 25 C                                   | mmhos/cm | --  | 0.578                                     | 0.567                                      | 0.509                                     | 0.5  | 0.46                                      | 0.47                                       | 0.815                                     | 0.78                                       | 0.6                                       |
| pH  | s.u.     | 6.5-8.5                                     | 7.67                                      | 7.71                                       | 7.81                                      | 7.8  | 7.8                                       | 7.87                                       | 7.62                                      | 7.6  | 7.7                                       |
| Solids, Total Dissolved TDS @ 180 C                   | mg/L     | 5000  | 361                                       | 358  | 311                                       | 319  | 291                                       | 285  | 557                                       | 523  | 405                                       |
| Aluminum-D  | mg/L     | 5   | <0.1                                      | <0.1                                       | <0.1                                      | <0.1                                       | <0.1                                      | <0.1                                       | <0.1                                      | <0.1                                       | <0.1                                      |
| Antimony-D  | mg/L     | --  | <0.001                                    | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                    |
| Arsenic-D   | mg/L     | 0.2   | <0.001                                    | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                    | <0.001                                     | 0.005                                     | 0.011                                      | <0.001                                    |
| Barium-D  | mg/L     | --  | <0.1                                      | <0.1                                       | <0.1                                      | <0.1                                       | <0.1                                      | <0.1                                       | <0.1                                      | <0.1                                       | <0.1                                      |
| Beryllium-D   | mg/L     | --  | <0.001                                    | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                    |
| Boron-D   | mg/L     | 5   | <0.1                                      | <0.1                                       | <0.1                                      | <0.1                                       | <0.1                                      | <0.1                                       | <0.1                                      | <0.1                                       | <0.1                                      |
| Cadmium-D   | mg/L     | 0.05  | <0.005                                    | <0.005                                     | <0.005                                    | <0.005                                     | <0.005                                    | <0.005                                     | <0.005                                    | <0.005                                     | <0.005                                    |
| Chromium-D  | mg/L     | 0.05  | <0.05                                     | <0.05                                      | <0.05                                     | <0.05                                      | <0.05                                     | <0.05                                      | <0.05                                     | <0.05                                      | <0.05                                     |
| Copper-D  | mg/L     | 0.5   | <0.01                                     | <0.01                                      | <0.01                                     | <0.01                                      | <0.01                                     | <0.01                                      | <0.01                                     | 0.02                                       | <0.01                                     |
| Iron-D  | mg/L     | --  | <0.03                                     | <0.03                                      | <0.03                                     | <0.03                                      | <0.03                                     | <0.03                                      | 0.04                                      | <0.03                                      | <0.03                                     |
| Lead-D  | mg/L     | 0.1   | <0.001                                    | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                    |
| Manganese-D   | mg/L     | --  | 0.02                                      | 0.03                                       | <0.01                                     | <0.01                                      | <0.01                                     | <0.01                                      | <0.01                                     | 0.03                                       | 0.01                                      |
| Mercury-D   | mg/L     | 0.00005                                     | <0.001                                    | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                    |
| Molybdenum-D  | mg/L     | --  | <0.1                                      | <0.1                                       | <0.1                                      | <0.1                                       | <0.1                                      | <0.1                                       | <0.1                                      | <0.1                                       | <0.1                                      |
| Nickel-D  | mg/L     | --  | <0.05                                     | <0.05                                      | <0.05                                     | <0.05                                      | <0.05                                     | <0.05                                      | <0.05                                     | <0.05                                      | <0.05                                     |
| Selenium-D  | mg/L     | 0.05  | 0.02                                      | 0.014                                      | 0.006                                     | 0.006                                      | 0.007                                     | 0.007                                      | 0.557                                     | 0.367                                      | 0.046                                     |
| Thallium-D  | mg/L     | --  | <0.001                                    | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                    |
| Uranium-D   | mg/L     | --  | 0.0412                                    | 0.0405                                     | 0.0292                                    | 0.0294                                     | 0.0165                                    | 0.0179                                     | 0.647                                     | 0.844                                      | 0.0529                                    |
| Vanadium-D  | mg/L     | 0.1   | <0.1                                      | <0.1                                       | <0.1                                      | <0.1                                       | <0.1                                      | <0.1                                       | <0.1                                      | <0.1                                       | <0.1                                      |
| Zinc-D  | mg/L     | 25  | <0.01                                     | <0.01                                      | <0.01                                     | <0.01                                      | 0.02                                      | <0.01                                      | <0.01                                     | <0.01                                      | <0.01                                     |
| Antimony-T  | mg/L     | --  |   |  |   |  |   |  |   |  |   |
| Beryllium-T   | mg/L     | --  |   |  |   |  |   |  |   |  |   |
| Iron-T  | mg/L     | --  | 0.04                                      | <0.03                                      | <0.03                                     | <0.03                                      | 0.19                                      | 0.04                                       | 2.29                                      | 89.8                                       | 31.7                                      |
| Manganese-T   | mg/L     | --  | 0.02                                      | 0.03                                       | <0.01                                     | <0.01                                      | <0.01                                     | <0.01                                      | 0.02                                      | 0.63                                       | 0.23                                      |
| Thallium-T  | mg/L     | --  |   |  |   |  |   |  |   |  |   |
| Gross Alpha - minus U - Calculated                    | pCi/L    | 15  | 16.91                                     | -4.92                                      | 4.03                                      | 2.50                                       | 4.83                                      | -1.52                                      | 260.98                                    | 148.61                                     | 10.09                                     |
| Gross Alpha - Unadjusted                              | pCi/L    | --  | 44.8                                      | 22.5                                       | 23.8                                      | 22.4                                       | 16  | 10.6                                       | 699                                       | 720  | 45.9                                      |
| Gross Alpha precision (±)                             | pCi/L    | --  | 2.6                                       | 1.9  | 2.1                                       | 2  | 1.6                                       | 1.5  | 10.4                                      | 10.2                                       | 2.9                                       |
| Gross Alpha MDC                                       | pCi/L    | --  | 1.9                                       | 1.7  | 2   | 1.7  | 1.3                                       | 1.6  | 2.3                                       | 2.7  | 2.2                                       |
| Gross Beta  | pCi/L    | --  | 12.2                                      | 11.7                                       | 8.8                                       | 13.5                                       | 5.8                                       | 6.6  | 105                                       | 167  | 16.9                                      |
| Gross Beta precision (±)                              | pCi/L    | --  | 1.9                                       | 1.8  | 1.7                                       | 1.7  | 1.6                                       | 1.7  | 4   | 4.6  | 2.3                                       |
| Gross Beta MDC  | pCi/L    | --  | 2.6                                       | 2.6  | 2.6                                       | 2.4  | 2.5                                       | 2.7  | 3.2                                       | 3.3  | 3.2                                       |
| Radium 226  | pCi/L    | --  | 2.4                                       | 3.9  | 0.32                                      | 0.39                                       | <-0.005                                   | 0.22                                       | 198                                       | 134  | 1.1                                       |
| Radium 226 precision (±)                              | pCi/L    | --  | 0.34                                      | 0.5  | 0.16                                      | 0.16                                       | 0.1                                       | 0.18                                       | 3   | 2.2  | 0.24                                      |
| Radium 226 MDC  | pCi/L    | --  | 0.19                                      | 0.25                                       | 0.2                                       | 0.16                                       | 0.18                                      | 0.24                                       | 0.2                                       | 0.14                                       | 0.18                                      |
| Radium 228  | pCi/L    | --  | 1.9                                       | 1.3  | <1  | 1.5  | 3.2                                       | -1   | 0.8                                       | 2.3  | 0.7                                       |
| Radium 228 precision (±)                              | pCi/L    | --  | 0.8                                       | 1.1  | 0.8                                       | 0.8  | 1   | 0.9  | 0.9                                       | 0.9  | 0.9                                       |
| Radium 228 MDC  | pCi/L    | --  | 1.2                                       | 1.8  | 1.2                                       | 1.2  | 1.3                                       | 1.7  | 1.4                                       | 1.3  | 1.4                                       |
| Combined Total Radium 226 and Radium 228 (Calculated) | pCi/L    | 5   | 4.3                                       | 5.2  | 0.32                                      | 1.89                                       | 3.2                                       | -0.78                                      | 198.8                                     | 136.3                                      | 1.8                                       |

\* Duplicate sample



Table 7  
E-Wellfield pre-2011  
Well Water Quality Data

| Well ID<br>Sample Date/Time<br>Job Number<br>HSU      |          | WYDEQ<br>Class III<br>Livestock<br>Standard | E9-6<br>10/23/2012<br>C12100957-006<br>140 | E10-1<br>7/26/2012<br>C12070944-003<br>140 | E10-1<br>10/18/2012<br>C12100826-001<br>140 | E10-2<br>7/18/2012<br>C12070620-001<br>140 | E10-2<br>10/18/2012<br>C12100826-004<br>140 | E10-3<br>7/30/2012<br>C12071021-003<br>140 | E10-3*<br>10/19/2012<br>C12100864-001<br>140 | E10-4<br>7/19/2012<br>C12070681-003<br>140 | E10-4<br>10/19/2012<br>C12100864-009<br>140 |
|---|----------|---|--|--|---|--|---|--|--|--|---|
| Alkalinity, Total as CaCO3                            | mg/L     | --  | 219  | 175  | 178   | 176  | 182   | 183  | 182  | 291  | 293   |
| Carbonate as CO3                                      | mg/L     | --  | <5   | <5   | <5  | <5   | <5  | <5   | <5   | <5   | <5  |
| Bicarbonate as HCO3                                   | mg/L     | --  | 267  | 213  | 217   | 215  | 222   | 224  | 222  | 354  | 357   |
| Calcium   | mg/L     | --  | 76   | 57   | 59  | 67   | 66  | 57   | 55   | 156  | 145   |
| Chloride  | mg/L     | 2000  | 5  | 3  | 3   | 4  | 3   | 3  | 3  | 43   | 39  |
| Fluoride  | mg/L     | --  | 0.2  | 0.3  | 0.3   | 0.2  | 0.2   | 0.3  | 0.3  | 0.1  | 0.2   |
| Magnesium   | mg/L     | --  | 13   | 10   | 10  | 11   | 11  | 9  | 9  | 27   | 26  |
| Nitrogen, Ammonia as N                                | mg/L     | --  | <0.05                                      | <0.05                                      | <0.05                                       | <0.05                                      | <0.05                                       | <0.05                                      | <0.05  | 0.23                                       | 0.1   |
| Nitrogen, Nitrate+Nitrite as N                        | mg/L     | 100   | 1.8  | 2.4  | 4   | 2.5  | 2.4   | 2.4  | 2.5  | 1  | 1   |
| Potassium   | mg/L     | --  | 7  | 6  | 6   | 7  | 6   | 7  | 5  | 10   | 8   |
| Silica  | mg/L     | --  | 17.2                                       | 16.4                                       | 17.5  | 17.2                                       | 15.7  | 15.7                                       | 15.5   | 17.5                                       | 16.9  |
| Sodium  | mg/L     | --  | 32   | 32   | 30  | 44   | 37  | 44   | 40   | 50   | 47  |
| Sulfate   | mg/L     | 3000  | 82   | 70   | 66  | 99   | 98  | 81   | 81   | 288  | 268   |
| Conductivity @ 25 C                                   | mmhos/cm | --  | 0.586                                      | 0.492                                      | 0.482                                       | 0.556                                      | 0.553                                       | 0.521                                      | 0.513  | 1.12                                       | 1.08  |
| pH  | s.u.     | 6.5-8.5                                     | 7.62                                       | 7.7  | 7.7   | 7.71                                       | 7.61  | 7.82                                       | 7.92   | 7.41                                       | 7.44  |
| Solids, Total Dissolved TDS @ 180 C                   | mg/L     | 5000  | 369  | 311  | 302   | 356  | 353   | 322  | 312  | 792  | 767   |
| Aluminum-D  | mg/L     | 5   | <0.1                                       | <0.1                                       | <0.1  | <0.1                                       | <0.1  | <0.1                                       | <0.1   | <0.1                                       | <0.1  |
| Antimony-D  | mg/L     | --  | <0.001                                     | <0.001                                     | <0.001                                      | <0.001                                     | <0.001                                      | <0.001                                     | <0.001                                       | <0.001                                     | <0.001                                      |
| Arsenic-D   | mg/L     | 0.2   | <0.001                                     | <0.001                                     | <0.001                                      | <0.001                                     | <0.001                                      | <0.001                                     | <0.001                                       | <0.001                                     | <0.001                                      |
| Barium-D  | mg/L     | --  | <0.1                                       | <0.1                                       | <0.1  | <0.1                                       | <0.1  | <0.1                                       | <0.1   | <0.1                                       | <0.1  |
| Beryllium-D   | mg/L     | --  | <0.001                                     | <0.001                                     | <0.001                                      | <0.001                                     | <0.001                                      | <0.001                                     | <0.001                                       | <0.001                                     | <0.001                                      |
| Boron-D   | mg/L     | 5   | <0.1                                       | <0.1                                       | <0.1  | <0.1                                       | <0.1  | <0.1                                       | <0.1   | <0.1                                       | <0.1  |
| Cadmium-D   | mg/L     | 0.05  | <0.005                                     | <0.005                                     | <0.005                                      | <0.005                                     | <0.005                                      | <0.005                                     | <0.005                                       | <0.005                                     | <0.005                                      |
| Chromium-D  | mg/L     | 0.05  | <0.05                                      | <0.05                                      | <0.05                                       | <0.05                                      | <0.05                                       | <0.05                                      | <0.05  | <0.05                                      | <0.05                                       |
| Copper-D  | mg/L     | 0.5   | <0.01                                      | <0.01                                      | <0.01                                       | <0.01                                      | <0.01                                       | <0.01                                      | <0.01  | <0.01                                      | <0.01                                       |
| Iron-D  | mg/L     | --  | <0.03                                      | <0.03                                      | <0.03                                       | <0.03                                      | 0.1   | <0.03                                      | <0.03  | 0.65                                       | 0.39  |
| Lead-D  | mg/L     | 0.1   | <0.001                                     | <0.001                                     | <0.001                                      | <0.001                                     | <0.001                                      | <0.001                                     | <0.001                                       | <0.001                                     | <0.001                                      |
| Manganese-D   | mg/L     | --  | 0.01                                       | <0.01                                      | <0.01                                       | 0.03                                       | 0.02  | <0.01                                      | <0.01  | 0.68                                       | 0.37  |
| Mercury-D   | mg/L     | 0.00005                                     | <0.001                                     | <0.001                                     | <0.001                                      | <0.001                                     | <0.001                                      | <0.001                                     | <0.001                                       | <0.001                                     | <0.001                                      |
| Molybdenum-D  | mg/L     | --  | <0.1                                       | <0.1                                       | <0.1  | <0.1                                       | <0.1  | <0.1                                       | <0.1   | <0.1                                       | <0.1  |
| Nickel-D  | mg/L     | --  | <0.05                                      | <0.05                                      | <0.05                                       | <0.05                                      | <0.05                                       | <0.05                                      | <0.05  | <0.05                                      | <0.05                                       |
| Selenium-D  | mg/L     | 0.05  | 0.043                                      | 0.048                                      | 0.034                                       | 0.034                                      | 0.035                                       | 0.022                                      | 0.024  | 0.273                                      | 0.29  |
| Thallium-D  | mg/L     | --  | <0.001                                     | <0.001                                     | <0.001                                      | <0.001                                     | <0.001                                      | <0.001                                     | <0.001                                       | <0.001                                     | <0.001                                      |
| Uranium-D   | mg/L     | --  | 0.0603                                     | 0.0406                                     | 0.0363                                      | 0.0424                                     | 0.0439                                      | 0.0258                                     | 0.0263                                       | 0.388                                      | 0.43  |
| Vanadium-D  | mg/L     | 0.1   | <0.1                                       | <0.1                                       | <0.1  | <0.1                                       | <0.1  | <0.1                                       | <0.1   | <0.1                                       | <0.1  |
| Zinc-D  | mg/L     | 25  | 0.02                                       | <0.01                                      | <0.01                                       | <0.01                                      | <0.01                                       | 0.01                                       | <0.01  | <0.01                                      | <0.01                                       |
| Antimony-T  | mg/L     | --  |  |  |   |  |   |  |  |  |   |
| Beryllium-T   | mg/L     | --  |  |  |   |  |   |  |  |  |   |
| Iron-T  | mg/L     | --  | 0.31                                       | <0.03                                      | <0.03                                       | 3.04                                       | 6.56  | <0.03                                      | 0.22   | 2.63                                       | 1.5   |
| Manganese-T   | mg/L     | --  | <0.01                                      | <0.01                                      | <0.01                                       | 0.03                                       | 0.03  | <0.01                                      | <0.01  | 0.74                                       | 0.42  |
| Thallium-T  | mg/L     | --  |  |  |   |  |   |  |  |  |   |
| Gross Alpha - minus U - Calculated                    | pCi/L    | 15  | -11.12                                     | -2.59                                      | -4.38                                       | 0.10                                       | -7.82                                       | 4.33                                       | -6.01  | -49.68                                     | -51.11                                      |
| Gross Alpha - Unadjusted                              | pCi/L    | --  | 29.7                                       | 24.9                                       | 20.2  | 28.8                                       | 21.9  | 21.8                                       | 11.8   | 213  | 240   |
| Gross Alpha precision (±)                             | pCi/L    | --  | 2.3  | 2.1  | 1.9   | 2.1  | 1.9   | 1.9  | 1.5  | 9.4  | 7.2   |
| Gross Alpha MDC                                       | pCi/L    | --  | 1.9  | 1.9  | 1.9   | 1.9  | 1.7   | 1.3  | 1.6  | 5.9  | 3.7   |
| Gross Beta  | pCi/L    | --  | 17.2                                       | 9.8  | 9.3   | 9.5  | 11.8  | 8.2  | 6.6  | 32.7                                       | 93.1  |
| Gross Beta precision (±)                              | pCi/L    | --  | 1.9  | 1.8  | 1.8   | 1.8  | 2   | 1.6  | 1.8  | 10.5                                       | 4.1   |
| Gross Beta MDC  | pCi/L    | --  | 2.6  | 2.7  | 2.6   | 2.7  | 2.9   | 2.5  | 2.9  | 15.4                                       | 4.3   |
| Radium 226  | pCi/L    | --  | 0.67                                       | 0.49                                       | 0.93  | 1.3  | 1.2   | 0.35                                       | 0.09   | 1.5  | 0.82  |
| Radium 226 precision (±)                              | pCi/L    | --  | 0.18                                       | 0.17                                       | 0.27  | 0.22                                       | 0.3   | 0.15                                       | 0.1  | 0.21                                       | 0.12  |
| Radium 226 MDC  | pCi/L    | --  | 0.16                                       | 0.18                                       | 0.25  | 0.13                                       | 0.25  | 0.17                                       | 0.16   | 0.1  | 0.1   |
| Radium 228  | pCi/L    | --  | 1.1  | <0.9                                       | 0.2   | 1.4  | 2.6   | 0.3  | 0.4  | 1.4  | 1.5   |
| Radium 228 precision (±)                              | pCi/L    | --  | 1.1  | 0.7  | 0.9   | 0.8  | 1   | 0.9  | 1.4  | 0.7  | 0.9   |
| Radium 228 MDC  | pCi/L    | --  | 1.7  | 1.1  | 1.4   | 1.2  | 1.5   | 1.6  | 2.3  | 1.1  | 1.4   |
| Combined Total Radium 226 and Radium 228 (Calculated) | pCi/L    | 5   | 1.77                                       | 0.49                                       | 1.13  | 2.7  | 3.8   | 0.65                                       | 0.49   | 2.9  | 2.32  |

\* Duplicate sample

Table 7  
E-Wellfield pre-2011  
Well Water Quality Data

| Well ID<br>Sample Date/Time<br>Job Number<br>HSU      |          | WYDEQ<br>Class III<br>Livestock<br>Standard | E10-5<br>7/30/2012<br>C12071021-004<br>140 | E10-5<br>10/19/2012<br>C12100864-007<br>140 | E10-6<br>7/31/2012<br>C12080001-005<br>140 | E10-6*<br>10/19/2012<br>C12100864-002<br>140 | E10-6<br>10/19/2012<br>C12100864-003<br>140 | E10-7<br>7/31/2012<br>C12080001-003<br>140 | E10-7<br>10/30/2012<br>C12101202-003<br>140 | E14-2<br>8/23/2012<br>C12081030-003<br>146 | E14-2<br>10/17/2012<br>C12100755-002<br>146 |
|---|----------|---|--|---|--|--|---|--|---|--|---|
| Alkalinity, Total as CaCO3                            | mg/L     | --  | 407  | 442   | 199  | 206  | 206   | 228  | 234   | 275  | 277   |
| Carbonate as CO3                                      | mg/L     | --  | <5   | <5  | <5   | <5   | <5  | <5   | <5  | <5   | <5  |
| Bicarbonate as HCO3                                   | mg/L     | --  | 497  | 540   | 243  | 251  | 252   | 278  | 285   | 336  | 337   |
| Calcium   | mg/L     | --  | 210  | 208   | 78   | 85   | 86  | 83   | 91  | 235  | 247   |
| Chloride  | mg/L     | 2000  | 107  | 104   | 5  | 5  | 5   | 4  | 4   | 85   | 91  |
| Fluoride  | mg/L     | --  | 0.1  | 0.2   | 0.2  | 0.2  | 0.2   | 0.2  | 0.2   | 0.2  | 0.1   |
| Magnesium   | mg/L     | --  | 34   | 34  | 14   | 15   | 15  | 16   | 16  | 42   | 42  |
| Nitrogen, Ammonia as N                                | mg/L     | --  | <0.05                                      | <0.05                                       | <0.05                                      | <0.05  | <0.05                                       | <0.05                                      | <0.05                                       | 0.11                                       | <0.05                                       |
| Nitrogen, Nitrate+Nitrite as N                        | mg/L     | 100   | 0.8  | 1.1   | 2  | 1.9  | 1.5   | 1.3  | 1.2   | 18   | 21  |
| Potassium   | mg/L     | --  | 11   | 10  | 7  | 7  | 7   | 6  | 6   | 12   | 11  |
| Silica  | mg/L     | --  | 20.6                                       | 20.2  | 14.7                                       | 16.2   | 15.9  | 12.1                                       | 12.5  | 7.9  | 8.9   |
| Sodium  | mg/L     | --  | 76   | 68  | 44   | 41   | 41  | 31   | 32  | 170  | 152   |
| Sulfate   | mg/L     | 3000  | 277  | 259   | 139  | 131  | 129   | 112  | 105   | 627  | 653   |
| Conductivity @ 25 C                                   | mmhos/cm | --  | 1.48                                       | 1.48  | 0.654                                      | 0.642  | 0.645                                       | 0.644                                      | 0.63  | 1.98                                       | 2.01  |
| pH  | s.u.     | 6.5-8.5                                     | 7.08                                       | 7.15  | 7.71                                       | 7.81   | 7.77  | 7.57                                       | 7.5   | 7.72                                       | 7.66  |
| Solids, Total Dissolved TDS @ 180 C                   | mg/L     | 5000  | 994  | 1040  | 411  | 417  | 422   | 396  | 404   | 1490                                       | 1530  |
| Aluminum-D  | mg/L     | 5   | <0.1                                       | <0.1  | <0.1                                       | <0.1   | <0.1  | <0.1                                       | <0.1  | <0.1                                       | <0.1  |
| Antimony-D  | mg/L     | --  | <0.001                                     | <0.001                                      | <0.001                                     | <0.001                                       | <0.001                                      | <0.001                                     | <0.001                                      | <0.001                                     | <0.001                                      |
| Arsenic-D   | mg/L     | 0.2   | <0.001                                     | <0.001                                      | <0.001                                     | <0.001                                       | <0.001                                      | <0.001                                     | <0.001                                      | <0.001                                     | 0.002                                       |
| Barium-D  | mg/L     | --  | <0.1                                       | <0.1  | <0.1                                       | <0.1   | <0.1  | <0.1                                       | <0.1  | <0.1                                       | <0.1  |
| Beryllium-D   | mg/L     | --  | <0.001                                     | <0.001                                      | <0.001                                     | <0.001                                       | <0.001                                      | <0.001                                     | <0.001                                      | <0.001                                     | <0.001                                      |
| Boron-D   | mg/L     | 5   | <0.1                                       | <0.1  | <0.1                                       | <0.1   | <0.1  | <0.1                                       | <0.1  | <0.1                                       | <0.1  |
| Cadmium-D   | mg/L     | 0.05  | <0.005                                     | <0.005                                      | <0.005                                     | <0.005                                       | <0.005                                      | <0.005                                     | <0.005                                      | <0.005                                     | <0.005                                      |
| Chromium-D  | mg/L     | 0.05  | <0.05                                      | <0.05                                       | <0.05                                      | <0.05  | <0.05                                       | <0.05                                      | <0.05                                       | <0.05                                      | <0.05                                       |
| Copper-D  | mg/L     | 0.5   | <0.01                                      | <0.01                                       | <0.01                                      | <0.01  | <0.01                                       | <0.01                                      | <0.01                                       | <0.01                                      | 0.02  |
| Iron-D  | mg/L     | --  | <0.03                                      | <0.03                                       | <0.03                                      | <0.03  | <0.03                                       | <0.03                                      | <0.03                                       | <0.03                                      | <0.03                                       |
| Lead-D  | mg/L     | 0.1   | <0.001                                     | <0.001                                      | <0.001                                     | <0.001                                       | <0.001                                      | <0.001                                     | <0.001                                      | <0.001                                     | <0.001                                      |
| Manganese-D   | mg/L     | --  | <0.01                                      | <0.01                                       | <0.01                                      | <0.01  | <0.01                                       | <0.01                                      | <0.01                                       | <0.01                                      | <0.01                                       |
| Mercury-D   | mg/L     | 0.00005                                     | <0.001                                     | <0.001                                      | <0.001                                     | <0.001                                       | <0.001                                      | <0.001                                     | <0.001                                      | <0.001                                     | <0.001                                      |
| Molybdenum-D  | mg/L     | --  | <0.1                                       | <0.1  | <0.1                                       | <0.1   | <0.1  | <0.1                                       | <0.1  | <0.1                                       | <0.1  |
| Nickel-D  | mg/L     | --  | <0.05                                      | <0.05                                       | <0.05                                      | <0.05  | <0.05                                       | <0.05                                      | <0.05                                       | <0.05                                      | <0.05                                       |
| Selenium-D  | mg/L     | 0.05  | 0.996                                      | 1.12  | 0.046                                      | 0.048  | 0.045                                       | 0.01                                       | 0.01  | 0.525                                      | 0.614                                       |
| Thallium-D  | mg/L     | --  | <0.001                                     | <0.001                                      | <0.001                                     | <0.001                                       | <0.001                                      | <0.001                                     | <0.001                                      | <0.001                                     | <0.001                                      |
| Uranium-D   | mg/L     | --  | 0.185                                      | 0.207                                       | 0.0306                                     | 0.0291                                       | 0.0276                                      | 0.0426                                     | 0.0416                                      | 0.207                                      | 0.214                                       |
| Vanadium-D  | mg/L     | 0.1   | <0.1                                       | <0.1  | <0.1                                       | <0.1   | <0.1  | <0.1                                       | <0.1  | <0.1                                       | <0.1  |
| Zinc-D  | mg/L     | 25  | 0.02                                       | <0.01                                       | <0.01                                      | <0.01  | <0.01                                       | <0.01                                      | <0.01                                       | <0.01                                      | <0.01                                       |
| Antimony-T  | mg/L     | --  |  |   |  |  |   |  |   |  |   |
| Beryllium-T   | mg/L     | --  |  |   |  |  |   |  |   |  |   |
| Iron-T  | mg/L     | --  | <0.03                                      | <0.03                                       | <0.03                                      | <0.03  | 0.04  | <0.03                                      | 0.03  | 0.11                                       | 41.5  |
| Manganese-T   | mg/L     | --  | <0.01                                      | <0.01                                       | <0.01                                      | <0.01  | <0.01                                       | <0.01                                      | <0.01                                       | <0.01                                      | 0.78  |
| Thallium-T  | mg/L     | --  |  |   |  |  |   |  |   |  |   |
| Gross Alpha - minus U - Calculated                    | pCi/L    | 15  | 30.76                                      | -0.14                                       | 4.48                                       | 5.50   | -2.29                                       | 5.96                                       | -0.86                                       | 33.86                                      | 58.12                                       |
| Gross Alpha - Unadjusted                              | pCi/L    | --  | 156  | 140   | 25.2                                       | 25.2   | 16.4  | 34.8                                       | 27.3  | 174  | 203   |
| Gross Alpha precision (±)                             | pCi/L    | --  | 9.8  | 10.1  | 2.3  | 2.1  | 1.7   | 2.4  | 2.2   | 19.2                                       | 9.9   |
| Gross Alpha MDC                                       | pCi/L    | --  | 5.9  | 9.4   | 1.7  | 1.9  | 1.7   | 1.4  | 1.6   | 20.4                                       | 7   |
| Gross Beta  | pCi/L    | --  | 34.5                                       | 29.8  | 11.2                                       | 6.7  | 8.8   | 9.3  | 16.3  | <34.1                                      | 33.7  |
| Gross Beta precision (±)                              | pCi/L    | --  | 7.2  | 9.6   | 1.7  | 1.8  | 1.9   | 1.8  | 1.7   | 24.5                                       | 5.9   |
| Gross Beta MDC  | pCi/L    | --  | 10.8                                       | 14.8  | 2.5  | 2.8  | 2.8   | 2.6  | 2.4   | 39.4                                       | 8.6   |
| Radium 226  | pCi/L    | --  | 0.46                                       | 0.48  | 0.37                                       | 0.17   | 0.22  | 0.28                                       | 0.41  | 1.3  | 4.5   |
| Radium 226 precision (±)                              | pCi/L    | --  | 0.16                                       | 0.11  | 0.17                                       | 0.12   | 0.13  | 0.16                                       | 0.14  | 0.15                                       | 0.41  |
| Radium 226 MDC  | pCi/L    | --  | 0.16                                       | 0.11  | 0.19                                       | 0.17   | 0.17  | 0.2  | 0.14  | 0.1  | 0.17  |
| Radium 228  | pCi/L    | --  | 0.8  | 1.7   | 0.5  | 2.8  | 1.8   | 0.8  | 1.2   | 2.5  | 2   |
| Radium 228 precision (±)                              | pCi/L    | --  | 1  | 1.1   | 1  | 1.6  | 1.6   | 1  | 0.6   | 1  | 0.7   |
| Radium 228 MDC  | pCi/L    | --  | 1.5  | 1.6   | 1.6  | 2.4  | 2.5   | 1.7  | 1   | 1.5  | 1   |
| Combined Total Radium 226 and Radium 228 (Calculated) | pCi/L    | 5   | 1.26                                       | 2.18  | 0.87                                       | 2.97   | 2.02  | 1.08                                       | 1.61  | 3.8  | 6.5   |

\* Duplicate sample



Table 7  
E-Wellfield pre-2011  
Well Water Quality Data

| Well ID   |          | WYDEQ     | E16-2         | E16-2*        | E16-2         | E17-1         | E17-1         |
|---|----------|-----------|---------------|---------------|---------------|---------------|---------------|
| Sample Date/Time                                      |          | Class III | 7/31/2012     | 7/31/2012     | 10/26/2012    | 7/31/2012     | 10/19/2012    |
| Job Number  |          | Livestock | C12080001-001 | C12080001-002 | C12101137-004 | C12080001-004 | C12100864-008 |
| HSU   |          | Standard  | 140           | 140           | 140           | 140           | 140           |
| Alkalinity, Total as CaCO3                            | mg/L     | --        | 192           | 191           | 197           | 168           | 168           |
| Carbonate as CO3                                      | mg/L     | --        | <5            | <5            | <5            | <5            | <5            |
| Bicarbonate as HCO3                                   | mg/L     | --        | 234           | 233           | 241           | 204           | 206           |
| Calcium   | mg/L     | --        | 68            | 65            | 73            | 56            | 52            |
| Chloride  | mg/L     | 2000      | 8             | 8             | 7             | 5             | 5             |
| Fluoride  | mg/L     | --        | 0.2           | 0.2           | 0.2           | 0.3           | 0.3           |
| Magnesium   | mg/L     | --        | 14            | 14            | 15            | 10            | 10            |
| Nitrogen, Ammonia as N                                | mg/L     | --        | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         |
| Nitrogen, Nitrate+Nitrite as N                        | mg/L     | 100       | 1             | 1             | 1             | 0.6           | 0.6           |
| Potassium   | mg/L     | --        | 5             | 5             | 6             | 6             | 5             |
| Silica  | mg/L     | --        | 17.1          | 16.2          | 15.5          | 14.8          | 14.2          |
| Sodium  | mg/L     | --        | 58            | 55            | 60            | 49            | 43            |
| Sulfate   | mg/L     | 3000      | 152           | 152           | 141           | 116           | 109           |
| Conductivity @ 25 C                                   | mmhos/cm | --        | 0.681         | 0.678         | 0.675         | 0.536         | 0.539         |
| pH  | s.u.     | 6.5-8.5   | 7.66          | 7.64          | 7.7           | 7.78          | 7.79          |
| Solids, Total Dissolved TDS @ 180 C                   | mg/L     | 5000      | 422           | 434           | 439           | 339           | 344           |
| Aluminum-D  | mg/L     | 5         | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| Antimony-D  | mg/L     | --        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |
| Arsenic-D   | mg/L     | 0.2       | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |
| Barium-D  | mg/L     | --        | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| Beryllium-D   | mg/L     | --        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |
| Boron-D   | mg/L     | 5         | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| Cadmium-D   | mg/L     | 0.05      | <0.005        | <0.005        | <0.005        | <0.005        | <0.005        |
| Chromium-D  | mg/L     | 0.05      | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         |
| Copper-D  | mg/L     | 0.5       | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         |
| Iron-D  | mg/L     | --        | <0.03         | <0.03         | <0.03         | <0.03         | <0.03         |
| Lead-D  | mg/L     | 0.1       | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |
| Manganese-D   | mg/L     | --        | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         |
| Mercury-D   | mg/L     | 0.00005   | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |
| Molybdenum-D  | mg/L     | --        | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| Nickel-D  | mg/L     | --        | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         |
| Selenium-D  | mg/L     | 0.05      | 0.052         | 0.052         | 0.055         | 0.028         | 0.031         |
| Thallium-D  | mg/L     | --        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |
| Uranium-D   | mg/L     | --        | 0.0778        | 0.0786        | 0.0757        | 0.0539        | 0.0567        |
| Vanadium-D  | mg/L     | 0.1       | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |
| Zinc-D  | mg/L     | 25        | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         |
| Antimony-T  | mg/L     | --        |               |               |               |               |               |
| Beryllium-T   | mg/L     | --        |               |               |               |               |               |
| Iron-T  | mg/L     | --        | <0.03         | <0.03         | <0.03         | <0.03         | <0.03         |
| Manganese-T   | mg/L     | --        | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         |
| Thallium-T  | mg/L     | --        |               |               |               |               |               |
| Gross Alpha - minus U - Calculated                    | pCi/L    | 15        | 14.53         | 3.59          | -10.55        | 2.61          | -10.49        |
| Gross Alpha - Unadjusted                              | pCi/L    | --        | 67.2          | 56.8          | 40.7          | 39.1          | 27.9          |
| Gross Alpha precision (±)                             | pCi/L    | --        | 3.2           | 3             | 2.8           | 2.4           | 2             |
| Gross Alpha MDC                                       | pCi/L    | --        | 1.4           | 1.5           | 1.6           | 1.3           | 1.8           |
| Gross Beta  | pCi/L    | --        | 16.3          | 15            | 29.1          | 11.3          | 9             |
| Gross Beta precision (±)                              | pCi/L    | --        | 1.7           | 1.8           | 1.9           | 1.7           | 1.7           |
| Gross Beta MDC  | pCi/L    | --        | 2.3           | 2.5           | 2.4           | 2.5           | 2.4           |
| Radium 226  | pCi/L    | --        | 0.23          | 0.05          | 0.23          | 0.15          | 0.23          |
| Radium 226 precision (±)                              | pCi/L    | --        | 0.15          | 0.11          | 0.17          | 0.14          | 0.09          |
| Radium 226 MDC  | pCi/L    | --        | 0.2           | 0.19          | 0.22          | 0.2           | 0.11          |
| Radium 228  | pCi/L    | --        | 1.1           | 2.2           | 3.2           | 0.7           | 0.9           |
| Radium 228 precision (±)                              | pCi/L    | --        | 1.1           | 1.1           | 1.5           | 1.1           | 1             |
| Radium 228 MDC  | pCi/L    | --        | 1.7           | 1.6           | 2.2           | 1.8           | 1.6           |
| Combined Total Radium 226 and Radium 228 (Calculated) | pCi/L    | 5         | 1.33          | 2.25          | 3.43          | 0.85          | 1.13          |

\* Duplicate sample

**Table 8**  
**E-Wellfield New**  
**Well Water Quality Data**

| Well ID   |          | WYDEQ     | E9-7          | E9-7-2*       | E9-7          | E9-7          | E9-8          | E9-8          | E9-8          | E9-9          | E9-9          | E9-9          |
|---|----------|-----------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Sample Date/Time                                      |          | Class III | 6/7/2012      | 6/7/2012      | 8/24/2012     | 10/11/2012    | 6/7/12 13:45  | 8/24/2012     | 10/11/2012    | 9/4/2012      | 10/11/2012    | 10/25/2012    |
| Job Number  |          | Livestock | C12060299-001 | C12060299-002 | C12081078-003 | C12100554-006 | C12060299-003 | C12081078-004 | C12100554-007 | C12090046-001 | C12100554-003 | C12101066-004 |
| HSU   |          | Standard  | 110           | 110           | 110           | 110           | 120           | 120           | 120           | 140           | 140           | 140           |
| Alkalinity, Total as CaCO3                            | mg/L     | --        | 113           | 115           | 125           |               | 165           | 164           |               | 206           |               | 208           |
| Carbonate as CO3                                      | mg/L     | --        | <5            | <5            | <5            |               | <5            | <5            |               | <5            |               | <5            |
| Bicarbonate as HCO3                                   | mg/L     | --        | 138           | 140           | 150           | 149           | 201           | 194           | 179           | 251           | 253           | 254           |
| Calcium   | mg/L     | --        | 26            | 26            | 26            |               | 26            | 24            |               | 82            |               | 79            |
| Chloride  | mg/L     | 2000      | 4             | 4             | 5             | 5             | 5             | 5             | 5             | 6             | 6             | 6             |
| Fluoride  | mg/L     | --        | 0.3           | 0.3           | 0.3           |               | 0.3           | 0.3           |               | 0.3           |               | 0.2           |
| Magnesium   | mg/L     | --        | 4             | 5             | 4             |               | 4             | 4             |               | 14            |               | 13            |
| Nitrogen, Ammonia as N                                | mg/L     | --        | 0.05          | 0.05          | <0.05         |               | <0.05         | <0.05         |               | <0.05         |               | <0.05         |
| Nitrogen, Nitrate+Nitrite as N                        | mg/L     | 100       | <0.1          | <0.1          | <0.1          |               | <0.1          | <0.1          |               | 1.6           |               | 1.6           |
| Potassium   | mg/L     | --        | 4             | 4             | 4             |               | 4             | 4             |               | 7             |               | 6             |
| Silica  | mg/L     | --        | 13.2          | 13.5          | 13.7          |               | 13.5          | 14            |               | 16.9          |               | 15.2          |
| Sodium  | mg/L     | --        | 88            | 89            | 81            |               | 91            | 82            |               | 32            |               | 27            |
| Sulfate   | mg/L     | 3000      | 141           | 137           | 135           |               | 97            | 105           |               | 123           |               | 119           |
| Conductivity @ 25 C                                   | mmhos/cm | --        | 0.545         | 0.546         | 0.547         | 0.507         | 0.538         | 0.526         | 0.506         | 0.633         | 0.321         | 0.634         |
| pH  | s.u.     | 6.5-8.5   | 8.55          | 8.55          | 8.29          |               | 8.15          | 8.19          |               | 7.81          |               | 7.8           |
| Solids, Total Dissolved TDS @ 180 C                   | mg/L     | 5000      | 343           | 338           | 355           | 350           | 327           | 335           | 336           | 417           | 416           | 416           |
| Aluminum-D  | mg/L     | 5         | <0.1          | <0.1          | <0.1          |               | <0.1          | <0.1          |               | <0.1          |               | <0.1          |
| Antimony-D  | mg/L     | --        | 0             | 0             | <0.001        |               | 0             | <0.001        |               | <0.001        |               | <0.001        |
| Arsenic-D   | mg/L     | 0.2       | <0.001        | <0.001        | <0.001        |               | <0.001        | <0.001        |               | 0.001         |               | <0.001        |
| Barium-D  | mg/L     | --        | <0.1          | <0.1          | <0.1          |               | <0.1          | <0.1          |               | <0.1          |               | <0.1          |
| Beryllium-D   | mg/L     | --        | 0             | 0             | <0.001        |               | 0             | <0.001        |               | <0.001        |               | <0.001        |
| Boron-D   | mg/L     | 5         | <0.1          | <0.1          | <0.1          |               | <0.1          | <0.1          |               | <0.1          |               | <0.1          |
| Cadmium-D   | mg/L     | 0.05      | <0.005        | <0.005        | <0.005        |               | <0.005        | <0.005        |               | <0.005        |               | <0.005        |
| Chromium-D  | mg/L     | 0.05      | <0.05         | <0.05         | <0.05         |               | <0.05         | <0.05         |               | <0.05         |               | <0.05         |
| Copper-D  | mg/L     | 0.5       | <0.01         | <0.01         | <0.01         |               | <0.01         | <0.01         |               | <0.01         |               | <0.01         |
| Iron-D  | mg/L     | --        | <0.03         | <0.03         | <0.03         |               | <0.03         | <0.03         |               | <0.03         |               | <0.03         |
| Lead-D  | mg/L     | 0.1       | <0.001        | <0.001        | <0.001        |               | <0.001        | <0.001        |               | <0.001        |               | <0.001        |
| Manganese-D   | mg/L     | --        | 0.01          | 0.01          | 0.02          |               | 0.02          | 0.02          |               | 0.02          |               | <0.01         |
| Mercury-D   | mg/L     | 0.00005   | <0.001        | <0.001        | <0.001        |               | <0.001        | <0.001        |               | <0.001        |               | <0.001        |
| Molybdenum-D  | mg/L     | --        | <0.1          | <0.1          | <0.1          |               | <0.1          | <0.1          |               | <0.1          |               | <0.1          |
| Nickel-D  | mg/L     | --        | <0.05         | <0.05         | <0.05         |               | <0.05         | <0.05         |               | <0.05         |               | <0.05         |
| Selenium-D  | mg/L     | 0.05      | <0.001        | <0.001        | <0.001        | 0.003         | <0.001        | <0.001        | <0.001        | 0.013         | 0.012         | 0.011         |
| Thallium-D  | mg/L     | --        | 0             | 0             | <0.001        |               | 0             | <0.001        |               | <0.001        |               | <0.001        |
| Uranium-D   | mg/L     | --        | 0.0029        | <0.0003       | 0.0003        | 0.0007        | <0.0003       | <0.0003       | <0.0003       | 0.0307        | 0.0325        | 0.0298        |
| Vanadium-D  | mg/L     | 0.1       | <0.1          | <0.1          | <0.1          |               | <0.1          | <0.1          |               | <0.1          |               | <0.1          |
| Zinc-D  | mg/L     | 25        | <0.01         | <0.01         | <0.01         |               | <0.01         | <0.01         |               | <0.01         |               | <0.01         |
| Antimony-T  | mg/L     | --        |               |               |               |               |               |               |               |               |               |               |
| Beryllium-T   | mg/L     | --        |               |               |               |               |               |               |               |               |               |               |
| Iron-T  | mg/L     | --        | 0.36          | 0.39          | 0.04          |               | <0.03         | <0.03         |               | 2.68          |               | 0.1           |
| Manganese-T   | mg/L     | --        | 0.01          | 0.01          | 0.02          |               | 0.02          | 0.03          |               | 0.07          |               | <0.01         |
| Thallium-T  | mg/L     | --        |               |               |               |               |               |               |               |               |               |               |
| Gross Alpha - minus U - Calculated                    | pCi/L    | 15        | -1.06         | 0.9           | <-0.5         |               | 1             | <-1           |               | -2.48         |               | 1.73          |
| Gross Alpha - Unadjusted                              | pCi/L    | --        | 0.9           | 0.9           | <-0.5         |               | 1             | <-1           |               | 18.3          |               | 21.9          |
| Gross Alpha precision (±)                             | pCi/L    | --        | 1.7           | 1.6           | 1             |               | 1.8           | 1             |               | 1.8           |               | 2             |
| Gross Alpha MDC                                       | pCi/L    | --        | 2             | 0.9           | 1.8           |               | 0.5           | 1.8           |               | 1.8           |               | 1.9           |
| Gross Beta  | pCi/L    | --        | 1.6           | 1.5           | <1.4          |               | 1.6           | <1            |               | 9.4           |               | 10.5          |
| Gross Beta precision (±)                              | pCi/L    | --        | 2.6           | 2.5           | 1.5           |               | 2.7           | 1.6           |               | 1.9           |               | 1.8           |
| Gross Beta MDC  | pCi/L    | --        | 0.07          | 0.09          | 2.6           |               | 0.2           | 2.6           |               | 2.9           |               | 2.8           |
| Radium 226  | pCi/L    | --        | 0.13          | 0.13          | 0.19          |               | 0.15          | <0.12         |               | 0.28          |               | 0.16          |
| Radium 226 precision (±)                              | pCi/L    | --        | 0.21          | 0.2           | 0.14          |               | 0.21          | 0.12          |               | 0.15          |               | 0.15          |
| Radium 226 MDC  | pCi/L    | --        | 1.6           | 0.2           | 0.18          |               | 1.4           | 0.17          |               | 0.18          |               | 0.21          |
| Radium 228  | pCi/L    | --        | 1.3           | 1.2           | <0.7          |               | 1.3           | <0.5          |               | 0.6           |               | 1.8           |
| Radium 228 precision (±)                              | pCi/L    | --        | 2             | 2             | 0.7           |               | 2             | 0.6           |               | 0.7           |               | 1             |
| Radium 228 MDC  | pCi/L    | --        | 1.67          | 0.29          | 1.1           |               | 1.6           | 1             |               | 1.2           |               | 1.6           |
| Combined Total Radium 226 and Radium 228 (Calculated) | pCi/L    | 5         | 1.43          | 1.33          | 0.19          |               | 1.45          | <0.5          |               | 0.88          |               | 1.96          |

\* Duplicate sample



**Table 9**  
**F-Wellfield pre-2011**  
**Well Water Quality Data**

| Well ID<br>Sample Date/Time<br>Job Number<br>HSU      |          | WYDEQ<br>Class III<br>Livestock<br>Standard | F1-2<br>6/26/2012<br>C12061096-005<br>140 | F1-2<br>10/31/2012<br>C12110001-001<br>140 | F1-2*<br>10/31/2012<br>C12110001-002<br>140 | F2-1<br>6/28/2012<br>C12070005-001<br>140 | F2-1<br>10/29/2012<br>C12101163-002<br>140 | F2-2<br>8/29/2012<br>C12081233-005<br>140 | F2-2<br>10/24/2012<br>C12101013-001<br>140 | F2-3<br>6/25/2012<br>C12061096-003<br>140 |
|---|----------|---|---|--|---|---|--|---|--|---|
| Alkalinity, Total as CaCO3                            | mg/L     | --  | 0   | 208  | 208   | 202                                       | 214  | 251                                       |  | 204                                       |
| Carbonate as CO3                                      | mg/L     | --  | <5  | <5   | <5  | <5  | <5   | <5  |  | <5  |
| Bicarbonate as HCO3                                   | mg/L     | --  | 248                                       | 253  | 254   | 246                                       | 261  | 307                                       | 322  | 249                                       |
| Calcium   | mg/L     | --  | 74  | 82   | 81  | 56  | 60   | 126                                       |  | 55  |
| Chloride  | mg/L     | 2000  | 5   | 7  | 6   | 4   | 4  | 18  | 20   | 3   |
| Fluoride  | mg/L     | --  | 0.2                                       | 0.2  | 0.2   | 0.2                                       | 0.2  | 0.2                                       |  | 0.2                                       |
| Magnesium   | mg/L     | --  | 13  | 14   | 14  | 9   | 10   | 21  |  | 9   |
| Nitrogen, Ammonia as N                                | mg/L     | --  | <0.05                                     | <0.05                                      | <0.05                                       | <0.05                                     | <0.05                                      | <0.05                                     |  | <0.05                                     |
| Nitrogen, Nitrate+Nitrite as N                        | mg/L     | 100   | 2.3                                       | 2.3  | 2.3   | 1.5                                       | 1.5  | 4.2                                       |  | 1.6                                       |
| Potassium   | mg/L     | --  | 7   | 7  | 7   | 6   | 6  | 9   |  | 6   |
| Silica  | mg/L     | --  | 13.9                                      | 14.6                                       | 15  | 15.4                                      | 16   | 16.9                                      |  | 16.6                                      |
| Sodium  | mg/L     | --  | 48  | 52   | 52  | 55  | 54   | 31  |  | 57  |
| Sulfate   | mg/L     | 3000  | 128                                       | 133  | 133   | 78  | 79   | 179                                       |  | 82  |
| Conductivity @ 25 C                                   | mmhos/cm | --  | 0.666                                     | 0.663                                      | 0.66  | 0.554                                     | 0.553                                      | 0.867                                     | 0.791                                      | 0.569                                     |
| pH  | s.u.     | 6.5-8.5                                     | 7.73                                      | 7.64                                       | 7.67  | 7.6                                       | 7.62                                       | 7.47                                      |  | 7.63                                      |
| Solids, Total Dissolved TDS @ 180 C                   | mg/L     | 5000  | 456                                       | 436  | 441   | 366                                       | 347  | 595                                       |  | 372                                       |
| Aluminum-D  | mg/L     | 5   | <0.1                                      | <0.1                                       | <0.1  | <0.1                                      | <0.1                                       | <0.1                                      |  | <0.1                                      |
| Antimony-D  | mg/L     | --  | <0.001                                    | <0.001                                     | <0.001                                      | <0.001                                    | <0.001                                     | <0.001                                    |  | <0.001                                    |
| Arsenic-D   | mg/L     | 0.2   | <0.001                                    | <0.001                                     | <0.001                                      | <0.001                                    | <0.001                                     | <0.001                                    |  | <0.001                                    |
| Barium-D  | mg/L     | --  | <0.1                                      | <0.1                                       | <0.1  | <0.1                                      | <0.1                                       | <0.1                                      |  | <0.1                                      |
| Beryllium-D   | mg/L     | --  | <0.001                                    | <0.001                                     | <0.001                                      | <0.001                                    | <0.001                                     | <0.001                                    |  | <0.001                                    |
| Boron-D   | mg/L     | 5   | <0.1                                      | <0.1                                       | <0.1  | <0.1                                      | <0.1                                       | <0.1                                      |  | <0.1                                      |
| Cadmium-D   | mg/L     | 0.05  | <0.005                                    | <0.005                                     | <0.005                                      | <0.005                                    | <0.005                                     | <0.005                                    |  | <0.005                                    |
| Chromium-D  | mg/L     | 0.05  | <0.05                                     | <0.05                                      | <0.05                                       | <0.05                                     | <0.05                                      | <0.05                                     |  | <0.05                                     |
| Copper-D  | mg/L     | 0.5   | <0.01                                     | <0.01                                      | <0.01                                       | <0.01                                     | <0.01                                      | <0.01                                     |  | <0.01                                     |
| Iron-D  | mg/L     | --  | <0.03                                     | <0.03                                      | <0.03                                       | <0.03                                     | <0.03                                      | <0.03                                     |  | <0.03                                     |
| Lead-D  | mg/L     | 0.1   | <0.001                                    | <0.001                                     | <0.001                                      | <0.001                                    | <0.001                                     | <0.001                                    |  | <0.001                                    |
| Manganese-D   | mg/L     | --  | <0.01                                     | <0.01                                      | <0.01                                       | <0.01                                     | <0.01                                      | <0.01                                     |  | <0.01                                     |
| Mercury-D   | mg/L     | 0.00005                                     | <0.001                                    | <0.001                                     | <0.001                                      | <0.001                                    | <0.001                                     | <0.001                                    |  | <0.001                                    |
| Molybdenum-D  | mg/L     | --  | <0.1                                      | <0.1                                       | <0.1  | <0.1                                      | <0.1                                       | <0.1                                      |  | <0.1                                      |
| Nickel-D  | mg/L     | --  | <0.05                                     | <0.05                                      | <0.05                                       | <0.05                                     | <0.05                                      | <0.05                                     |  | <0.05                                     |
| Selenium-D  | mg/L     | 0.05  | 0.037                                     | 0.047                                      | 0.044                                       | 0.022                                     | 0.024                                      | 0.317                                     | 0.281                                      | 0.029                                     |
| Thallium-D  | mg/L     | --  | <0.001                                    | <0.001                                     | <0.001                                      | <0.001                                    | <0.001                                     | <0.001                                    |  | <0.001                                    |
| Uranium-D   | mg/L     | --  | 0.027                                     | 0.0374                                     | 0.0355                                      | 0.0826                                    | 0.0863                                     | 0.0935                                    | 0.0921                                     | 0.0633                                    |
| Vanadium-D  | mg/L     | 0.1   | <0.1                                      | <0.1                                       | <0.1  | <0.1                                      | <0.1                                       | <0.1                                      |  | <0.1                                      |
| Zinc-D  | mg/L     | 25  | <0.01                                     | <0.01                                      | <0.01                                       | <0.01                                     | <0.01                                      | <0.01                                     |  | <0.01                                     |
| Antimony-T  | mg/L     | --  |   |  |   |   |  | 0.17                                      |  |   |
| Beryllium-T   | mg/L     | --  |   |  |   |   |  |   |  |   |
| Iron-T  | mg/L     | --  | 0.08                                      | 0.56                                       | 0.52  | <0.03                                     | <0.03                                      |   |  | <0.03                                     |
| Manganese-T   | mg/L     | --  | <0.01                                     | <0.01                                      | <0.01                                       | <0.01                                     | <0.01                                      | <0.01                                     |  | <0.01                                     |
| Thallium-T  | mg/L     | --  |   |  |   |   |  |   |  |   |
| Gross Alpha - minus U - Calculated                    | pCi/L    | 15  | 4.82                                      | -1.92                                      | -4.93                                       | -3.82                                     | -11.73                                     | 10.80                                     |  | 9.35                                      |
| Gross Alpha - Unadjusted                              | pCi/L    | --  | 23.1                                      | 23.4                                       | 19.1  | 52.1                                      | 46.7                                       | 74.1                                      |  | 52.2                                      |
| Gross Alpha precision (±)                             | pCi/L    | --  | 2.2                                       | 2.2  | 2   | 2.7                                       | 2.8  | 4   |  | 2.9                                       |
| Gross Alpha MDC                                       | pCi/L    | --  | 2.1                                       | 2.2  | 2.1   | 1.9                                       | 1.7  | 2.7                                       |  | 2.1                                       |
| Gross Beta  | pCi/L    | --  | 10  | 11.4                                       | 12.4  | 11.8                                      | 26.2                                       | 25.3                                      |  | 12.1                                      |
| Gross Beta precision (±)                              | pCi/L    | --  | 1.8                                       | 1.8  | 1.8   | 1.9                                       | 1.9  | 2.7                                       |  | 1.8                                       |
| Gross Beta MDC  | pCi/L    | --  | 2.7                                       | 2.7  | 2.6   | 2.6                                       | 2.4  | 3.7                                       |  | 2.6                                       |
| Radium 226  | pCi/L    | --  | 0.59                                      | 0.71                                       | 0.57  | 0.55                                      | 0.47                                       | 1   |  | 0.46                                      |
| Radium 226 precision (±)                              | pCi/L    | --  | 0.16                                      | 0.21                                       | 0.19  | 0.15                                      | 0.17                                       | 0.23                                      |  | 0.15                                      |
| Radium 226 MDC  | pCi/L    | --  | 0.14                                      | 0.2  | 0.2   | 0.14                                      | 0.18                                       | 0.18                                      |  | 0.14                                      |
| Radium 228  | pCi/L    | --  | 0.6                                       | 1.7  | 1.6   | 0.5                                       | -0.1                                       | <2.4                                      |  | 0.3                                       |
| Radium 228 precision (±)                              | pCi/L    | --  | 0.6                                       | 0.7  | 0.7   | 0.6                                       | 1.1  | 1.9                                       |  | 0.6                                       |
| Radium 228 MDC  | pCi/L    | --  | 1   | 1.1  | 1.1   | 0.9                                       | 1.9  | 3   |  | 1   |
| Combined Total Radium 226 and Radium 228 (Calculated) | pCi/L    | 5   | 1.19                                      | 2.41                                       | 2.17  | 1.05                                      | 0.37                                       | 1   |  | 0.76                                      |

\* Duplicate sample

**Table 9**  
**F-Wellfield pre-2011**  
**Well Water Quality Data**

| Well ID<br>Sample Date/Time<br>Job Number<br>HSU      |          | WYDEQ<br>Class III<br>Livestock<br>Standard | F2-3<br>10/31/2012<br>C12110001-003<br>140 | F3-1<br>6/27/2012<br>C12070005-004<br>130 | F3-1<br>10/29/2012<br>C12101163-001<br>130 | F3-2<br>8/1/2012<br>C12080049-003<br>140 | F3-2<br>11/2/2012<br>C12110118-001<br>140 | F12-2<br>8/23/2012<br>C12081030-004<br>140 | F12-2<br>10/26/2012<br>C12101137-005<br>140 | F13-1<br>8/2/2012<br>C12080089-002<br>140 |
|---|----------|---|--|---|--|--|---|--|---|---|
| Alkalinity, Total as CaCO3                            | mg/L     | --  | 211  | 227                                       | 230  | 227                                      | 229                                       | 525  | 571   | 214                                       |
| Carbonate as CO3                                      | mg/L     | --  | <5   | <5  | <5   | <5                                       | <5  | <5   | <5  | <5  |
| Bicarbonate as HCO3                                   | mg/L     | --  | 258  | 277                                       | 281  | 278                                      | 279                                       | 640  | 697   | 261                                       |
| Calcium   | mg/L     | --  | 59   | 82  | 95   | 67                                       | 66  | 238  | 286   | 100                                       |
| Chloride  | mg/L     | 2000  | 4  | 6   | 6  | 12                                       | 9   | 112  | 124   | 7   |
| Fluoride  | mg/L     | --  | 0.2  | 0.2                                       | 0.2  | 0.2                                      | 0.2                                       | 0.1  | 0.1   | 0.1                                       |
| Magnesium   | mg/L     | --  | 10   | 13  | 14   | 11                                       | 11  | 39   | 45  | 16  |
| Nitrogen, Ammonia as N                                | mg/L     | --  | <0.05                                      | <0.05                                     | <0.05                                      | 0.36                                     | <0.05                                     | <0.1                                       | <0.05                                       | <0.05                                     |
| Nitrogen, Nitrate+Nitrite as N                        | mg/L     | 100   | 1.6  | 1.2                                       | 1.2  | 1.1                                      | 1   | <0.1                                       | 0.1   | 0.8                                       |
| Potassium   | mg/L     | --  | 6  | 7   | 8  | 6  | 6   | 12   | 13  | 8   |
| Silica  | mg/L     | --  | 16.9                                       | 16.7                                      | 17.2                                       | 15.5                                     | 18.2                                      | 13.4                                       | 13.1  | 19.1                                      |
| Sodium  | mg/L     | --  | 58   | 81  | 91   | 56                                       | 57  | 151  | 164   | 109                                       |
| Sulfate   | mg/L     | 3000  | 82   | 219                                       | 221  | 115                                      | 109                                       | 463  | 488   | 281                                       |
| Conductivity @ 25 C                                   | mmhos/cm | --  | 0.558                                      | 0.87                                      | 0.876                                      | 0.674                                    | 0.638                                     | 2.01                                       | 2.14  | 0.961                                     |
| pH  | s.u.     | 6.5-8.5                                     | 7.68                                       | 7.73                                      | 7.58                                       | 7.49                                     | 7.58                                      | 7.37                                       | 7.47  | 7.65                                      |
| Solids, Total Dissolved TDS @ 180 C                   | mg/L     | 5000  | 350  | 616                                       | 589  | 430                                      | 414                                       | 1460                                       | 1520  | 669                                       |
| Aluminum-D  | mg/L     | 5   | <0.1                                       | <0.1                                      | <0.1                                       | <0.1                                     | <0.1                                      | <0.1                                       | <0.1  | <0.1                                      |
| Antimony-D  | mg/L     | --  | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                   | <0.001                                    | <0.001                                     | <0.001                                      | <0.001                                    |
| Arsenic-D   | mg/L     | 0.2   | <0.001                                     | <0.001                                    | <0.001                                     | 0.002                                    | <0.001                                    | <0.001                                     | <0.001                                      | <0.001                                    |
| Barium-D  | mg/L     | --  | <0.1                                       | <0.1                                      | <0.1                                       | <0.1                                     | <0.1                                      | <0.1                                       | 0.3   | <0.1                                      |
| Beryllium-D   | mg/L     | --  | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                   | <0.001                                    | <0.001                                     | <0.001                                      | <0.001                                    |
| Boron-D   | mg/L     | 5   | <0.1                                       | <0.1                                      | <0.1                                       | <0.1                                     | <0.1                                      | 0.2  | 0.1   | <0.1                                      |
| Cadmium-D   | mg/L     | 0.05  | <0.005                                     | <0.005                                    | <0.005                                     | <0.005                                   | <0.005                                    | <0.005                                     | <0.005                                      | <0.005                                    |
| Chromium-D  | mg/L     | 0.05  | <0.05                                      | <0.05                                     | <0.05                                      | <0.05                                    | <0.05                                     | <0.05                                      | <0.05                                       | <0.05                                     |
| Copper-D  | mg/L     | 0.5   | <0.01                                      | <0.01                                     | <0.01                                      | <0.01                                    | <0.01                                     | <0.01                                      | <0.01                                       | <0.01                                     |
| Iron-D  | mg/L     | --  | <0.03                                      | <0.03                                     | <0.03                                      | 0.13                                     | <0.03                                     | <0.03                                      | 0.03  | <0.03                                     |
| Lead-D  | mg/L     | 0.1   | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                   | <0.001                                    | <0.001                                     | <0.001                                      | <0.001                                    |
| Manganese-D   | mg/L     | --  | <0.01                                      | <0.01                                     | <0.01                                      | 0.06                                     | 0.02                                      | 0.06                                       | 0.08  | 0.04                                      |
| Mercury-D   | mg/L     | 0.00005                                     | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                   | <0.001                                    | <0.001                                     | <0.001                                      | <0.001                                    |
| Molybdenum-D  | mg/L     | --  | <0.1                                       | <0.1                                      | <0.1                                       | <0.1                                     | <0.1                                      | <0.1                                       | <0.1  | <0.1                                      |
| Nickel-D  | mg/L     | --  | <0.05                                      | <0.05                                     | <0.05                                      | <0.05                                    | <0.05                                     | <0.05                                      | <0.05                                       | <0.05                                     |
| Selenium-D  | mg/L     | 0.05  | 0.027                                      | 0.056                                     | 0.067                                      | 0.022                                    | 0.066                                     | 0.358                                      | 0.383                                       | 0.033                                     |
| Thallium-D  | mg/L     | --  | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                   | <0.001                                    | <0.001                                     | <0.001                                      | <0.001                                    |
| Uranium-D   | mg/L     | --  | 0.0656                                     | 0.0375                                    | 0.0463                                     | 0.0772                                   | 0.0786                                    | 0.137                                      | 0.164                                       | 0.0504                                    |
| Vanadium-D  | mg/L     | 0.1   | <0.1                                       | <0.1                                      | <0.1                                       | <0.1                                     | <0.1                                      | <0.1                                       | <0.1  | <0.1                                      |
| Zinc-D  | mg/L     | 25  | <0.01                                      | <0.01                                     | <0.01                                      | <0.01                                    | <0.01                                     | <0.01                                      | <0.01                                       | 0.01                                      |
| Antimony-T  | mg/L     | --  |  |   |  | 0.17                                     |   | 0.26                                       |   | <0.03                                     |
| Beryllium-T   | mg/L     | --  |  |   |  |  |   |  |   |   |
| Iron-T  | mg/L     | --  | <0.03                                      | <0.03                                     | <0.03                                      |  | <0.03                                     |  | 1.47  |   |
| Manganese-T   | mg/L     | --  | <0.01                                      | <0.01                                     | <0.01                                      | 0.07                                     | 0.02                                      | 0.07                                       | 0.08  | 0.05                                      |
| Thallium-T  | mg/L     | --  |  | 0   |  |  |   |  |   |   |
| Gross Alpha - minus U - Calculated                    | pCi/L    | 15  | -12.71                                     | 13.31                                     | 24.65                                      | -0.16                                    | 1.19                                      | 51.25                                      | 26.97                                       | 26.68                                     |
| Gross Alpha - Unadjusted                              | pCi/L    | --  | 31.7                                       | 38.7                                      | 56   | 52.1                                     | 54.4                                      | 144  | 138   | 60.8                                      |
| Gross Alpha precision (±)                             | pCi/L    | --  | 2.2  | 2.9                                       | 3.4  | 3  | 2.9                                       | 9.3  | 9.7   | 3.6                                       |
| Gross Alpha MDC                                       | pCi/L    | --  | 1.8  | 2.6                                       | 2  | 2.7                                      | 2   | 8.3  | 6.7   | 2.9                                       |
| Gross Beta  | pCi/L    | --  | 17   | 10  | 17.6                                       | 16.3                                     | 18.9                                      | 31.1                                       | 57.7  | 10.9                                      |
| Gross Beta precision (±)                              | pCi/L    | --  | 1.9  | 2.5                                       | 2  | 2  | 1.9                                       | 7.3  | 6.5   | 2.2                                       |
| Gross Beta MDC  | pCi/L    | --  | 2.7  | 3.9                                       | 2.7  | 2.8                                      | 2.6                                       | 10.9                                       | 9   | 3.3                                       |
| Radium 226  | pCi/L    | --  | 0.64                                       | -0.05                                     | 0.46                                       | 0.15                                     | 0.54                                      | 1.7  | 0.15  | 0.44                                      |
| Radium 226 precision (±)                              | pCi/L    | --  | 0.21                                       | 0.11                                      | 0.22                                       | 0.11                                     | 0.17                                      | 0.17                                       | 0.19  | 0.18                                      |
| Radium 226 MDC  | pCi/L    | --  | 0.21                                       | 0.22                                      | 0.25                                       | 0.15                                     | 0.17                                      | 0.1  | 0.28  | 0.2                                       |
| Radium 228  | pCi/L    | --  | 1.9  | 1.3                                       | 1.3  | 1.6                                      | 1.1                                       | 2.1  | 2.3   | 1.5                                       |
| Radium 228 precision (±)                              | pCi/L    | --  | 0.8  | 0.8                                       | 1.6  | 0.7                                      | 0.7                                       | 1  | 1.4   | 0.7                                       |
| Radium 228 MDC  | pCi/L    | --  | 1.2  | 1.2                                       | 2.6  | 1  | 1.1                                       | 1.5  | 2.1   | 1   |
| Combined Total Radium 226 and Radium 228 (Calculated) | pCi/L    | 5   | 2.54                                       | 1.35                                      | 1.76                                       | 1.75                                     | 1.64                                      | 3.8  | 2.45  | 1.94                                      |

\* Duplicate sample



**Table 9**  
**F-Wellfield pre-2011**  
**Well Water Quality Data**

| Well ID<br>Sample Date/Time<br>Job Number<br>HSU      |          | WYDEQ<br>Class III<br>Livestock<br>Standard | F13-1<br>11/1/2012<br>C12110079-002<br>140 | F14-1<br>8/2/2012<br>C12080089-003<br>140 | F14-1*<br>08/02/12<br>C12080089-004<br>140 | F14-1<br>11/1/2012<br>C12110079-001<br>140 | F14-3<br>8/13/2012<br>C12080546-002<br>110 | F14-3*<br>4/13/4<br>C12080546-003<br>110 | F15-1<br>8/24/2012<br>C12081078-001<br>140 | F15-1<br>10/25/2012<br>C12101066-003<br>140 |
|---|----------|---|--|---|--|--|--|--|--|---|
| Alkalinity, Total as CaCO3                            | mg/L     | --  | 215  | 219                                       | 221  | 225  | 118  | 118                                      | 244  | 254   |
| Carbonate as CO3                                      | mg/L     | --  | <5   | <5  | <5   | <5   | <5   | <5                                       | <5   | <5  |
| Bicarbonate as HCO3                                   | mg/L     | --  | 262  | 267                                       | 269  | 274  | 142  | 144                                      | 298  | 310   |
| Calcium   | mg/L     | --  | 92   | 98  | 98   | 92   | 38   | 38                                       | 113  | 107   |
| Chloride  | mg/L     | 2000  | 6  | 9   | 9  | 9  | 6  | 6  | 16   | 16  |
| Fluoride  | mg/L     | --  | 0.2  | 0.2                                       | 0.2  | 0.2  | 0.4  | 0.4                                      | 0.2  | <0.2  |
| Magnesium   | mg/L     | --  | 14   | 16  | 16   | 14   | 6  | 5  | 21   | 20  |
| Nitrogen, Ammonia as N                                | mg/L     | --  |  | <0.05                                     | <0.05                                      |  | 0.22                                       | 0.22                                     | 0.06                                       | <0.05                                       |
| Nitrogen, Nitrate+Nitrite as N                        | mg/L     | 100   | 0.9  | 4.5                                       | 4.4  | 4.4  | <0.1                                       | <0.1                                     | 0.9  | 0.8   |
| Potassium   | mg/L     | --  | 8  | 8   | 8  | 7  | 5  | 5  | 6  | 6   |
| Silica  | mg/L     | --  | 18.7                                       | 17.4                                      | 17.5                                       | 16.7                                       | 11.1                                       | 11                                       | 13.9                                       | 11.4  |
| Sodium  | mg/L     | --  | 100  | 23  | 23   | 21   | 74   | 70                                       | 14   | 14  |
| Sulfate   | mg/L     | 3000  | 279  | 89  | 90   | 88   | 150  | 149                                      | 126  | 127   |
| Conductivity @ 25 C                                   | mmhos/cm | --  | 0.948                                      | 0.638                                     | 0.637                                      | 0.622                                      | 0.57                                       | 0.57                                     | 0.742                                      | 0.736                                       |
| pH  | s.u.     | 6.5-8.5                                     | 7.79                                       | 7.58                                      | 7.58                                       | 7.69                                       | 7.9  | 7.9                                      | 8.06                                       | 7.82  |
| Solids, Total Dissolved TDS @ 180 C                   | mg/L     | 5000  | 671  | 410                                       | 411  | 412  | 368  | 367                                      | 468  | 484   |
| Aluminum-D  | mg/L     | 5   | <0.1                                       | <0.1                                      | <0.1                                       | <0.1                                       | <0.1                                       | <0.1                                     | <0.1                                       | <0.1  |
| Antimony-D  | mg/L     | --  | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                     | <0.001                                     | <0.001                                   | <0.001                                     | <0.001                                      |
| Arsenic-D   | mg/L     | 0.2   | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                     | <0.001                                     | <0.001                                   | <0.001                                     | <0.001                                      |
| Barium-D  | mg/L     | --  | <0.1                                       | <0.1                                      | <0.1                                       | <0.1                                       | <0.1                                       | <0.1                                     | <0.1                                       | <0.1  |
| Beryllium-D   | mg/L     | --  | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                     | <0.001                                     | <0.001                                   | <0.001                                     | <0.001                                      |
| Boron-D   | mg/L     | 5   | <0.1                                       | <0.1                                      | <0.1                                       | <0.1                                       | <0.1                                       | <0.1                                     | <0.1                                       | <0.1  |
| Cadmium-D   | mg/L     | 0.05  | <0.005                                     | <0.005                                    | <0.005                                     | <0.005                                     | <0.005                                     | <0.005                                   | <0.005                                     | <0.005                                      |
| Chromium-D  | mg/L     | 0.05  | <0.05                                      | <0.05                                     | <0.05                                      | <0.05                                      | <0.05                                      | <0.05                                    | <0.05                                      | <0.05                                       |
| Copper-D  | mg/L     | 0.5   | <0.01                                      | <0.01                                     | <0.01                                      | <0.01                                      | <0.01                                      | <0.01                                    | <0.01                                      | <0.01                                       |
| Iron-D  | mg/L     | --  | <0.03                                      | <0.03                                     | <0.03                                      | <0.03                                      | <0.03                                      | <0.03                                    | <0.03                                      | <0.03                                       |
| Lead-D  | mg/L     | 0.1   | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                     | <0.001                                     | <0.001                                   | <0.001                                     | <0.001                                      |
| Manganese-D   | mg/L     | --  | 0.06                                       | 0.01                                      | 0.01                                       | <0.01                                      | 0.01                                       | 0.01                                     | <0.01                                      | 0.04  |
| Mercury-D   | mg/L     | 0.00005                                     | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                     | <0.001                                     | <0.001                                   | <0.001                                     | <0.001                                      |
| Molybdenum-D  | mg/L     | --  | <0.1                                       | <0.1                                      | <0.1                                       | <0.1                                       | <0.1                                       | <0.1                                     | <0.1                                       | <0.1  |
| Nickel-D  | mg/L     | --  | <0.05                                      | <0.05                                     | <0.05                                      | <0.05                                      | <0.05                                      | <0.05                                    | <0.05                                      | <0.05                                       |
| Selenium-D  | mg/L     | 0.05  | 0.034                                      | 0.02                                      | 0.02                                       | 0.019                                      | <0.001                                     | <0.001                                   | 0.034                                      | 0.034                                       |
| Thallium-D  | mg/L     | --  | <0.001                                     | <0.001                                    | <0.001                                     | <0.001                                     | <0.001                                     | <0.001                                   | <0.001                                     | <0.001                                      |
| Uranium-D   | mg/L     | --  | 0.0465                                     | 0.02                                      | 0.0195                                     | 0.0184                                     | <0.0003                                    | <0.0003                                  | 0.0244                                     | 0.0243                                      |
| Vanadium-D  | mg/L     | 0.1   | <0.1                                       | <0.1                                      | <0.1                                       | <0.1                                       | <0.1                                       | <0.1                                     | <0.1                                       | <0.1  |
| Zinc-D  | mg/L     | 25  | <0.01                                      | 0.02                                      | <0.01                                      | <0.01                                      | <0.01                                      | <0.01                                    | <0.01                                      | <0.01                                       |
| Antimony-T  | mg/L     | --  |  | <0.03                                     | <0.03                                      |  | <0.03                                      | <0.03                                    | 0.26                                       |   |
| Beryllium-T   | mg/L     | --  |  |   |  |  |  |  |  |   |
| Iron-T  | mg/L     | --  | 0.28                                       |   |  | <0.03                                      |  |  |  | 7.14  |
| Manganese-T   | mg/L     | --  | 0.07                                       | 0.01                                      | 0.01                                       | <0.01                                      | 0.01                                       | 0.01                                     | <0.01                                      | 0.1   |
| Thallium-T  | mg/L     | --  |  |   |  |  |  |  |  |   |
| Gross Alpha - minus U - Calculated                    | pCi/L    | 15  | 22.32                                      | 1.06                                      | 5.10                                       | 1.64                                       | -0.20                                      | -1                                       | 8.88                                       | 10.25                                       |
| Gross Alpha - Unadjusted                              | pCi/L    | --  | 53.8                                       | 14.6                                      | 18.3                                       | 14.1                                       | -0.2                                       | -1                                       | 25.4                                       | 26.7  |
| Gross Alpha precision (±)                             | pCi/L    | --  | 3.2  | 1.9                                       | 2  | 1.7  | 1  | 1.1                                      | 2.4  | 2.6   |
| Gross Alpha MDC                                       | pCi/L    | --  | 2.4  | 2.2                                       | 2.1  | 2  | 1.7  | 1.9                                      | 2.2  | 2.7   |
| Gross Beta  | pCi/L    | --  | 21.1                                       | 9.1                                       | 7.5  | 13.2                                       | 5  | 2.5                                      | 13.4                                       | 12.7  |
| Gross Beta precision (±)                              | pCi/L    | --  | 2.2  | 1.9                                       | 2  | 1.8  | 1.7  | 1.8                                      | 2.2  | 2.1   |
| Gross Beta MDC  | pCi/L    | --  | 3  | 2.9                                       | 3.1  | 2.6  | 2.7  | 3  | 3.3  | 3.2   |
| Radium 226  | pCi/L    | --  | 0.62                                       | 0.54                                      | 0.62                                       | 0.67                                       | 0.43                                       | 0.4                                      | 0.93                                       | 2.2   |
| Radium 226 precision (±)                              | pCi/L    | --  | 0.2  | 0.2                                       | 0.21                                       | 0.19                                       | 0.17                                       | 0.16                                     | 0.22                                       | 0.55  |
| Radium 226 MDC  | pCi/L    | --  | 0.2  | 0.22                                      | 0.22                                       | 0.17                                       | 0.18                                       | 0.18                                     | 0.17                                       | 0.45  |
| Radium 228  | pCi/L    | --  | 2.3  | 1.1                                       | 2  | 1.5  | 0.7  | 1.1                                      | 1  | 1.6   |
| Radium 228 precision (±)                              | pCi/L    | --  | 0.8  | 0.7                                       | 0.8  | 0.6  | 0.9  | 0.9                                      | 0.7  | 1.7   |
| Radium 228 MDC  | pCi/L    | --  | 1.1  | 1.1                                       | 1.1  | 0.9  | 1.5  | 1.4                                      | 1  | 2.8   |
| Combined Total Radium 226 and Radium 228 (Calculated) | pCi/L    | 5   | 2.92                                       | 1.64                                      | 2.62                                       | 2.17                                       | 1.13                                       | 1.5                                      | 1.93                                       | 3.8   |

\* Duplicate sample

**Table 9**  
**F-Wellfield pre-2011**  
**Well Water Quality Data**

| Well ID<br>Sample Date/Time<br>Job Number<br>HSU      |          | WYDEQ<br>Class III<br>Livestock<br>Standard | F16-1<br>8/24/2012<br>C12081078-002<br>160 | F16-1<br>10/19/2012<br>C12100864-006<br>160 | F28-1<br>8/3/12<br>C12080142-003<br>130 | F28-1<br>11/1/2012<br>C12110079-003<br>130 |
|---|----------|---|--|---|---|--|
| Alkalinity, Total as CaCO3                            | mg/L     | --  | 455  | 423   | 227                                     | 242  |
| Carbonate as CO3                                      | mg/L     | --  | <5   | <5  | <5                                      | <5   |
| Bicarbonate as HCO3                                   | mg/L     | --  | 555  | 516   | 276                                     | 295  |
| Calcium   | mg/L     | --  | 391  | 314   | 216                                     | 223  |
| Chloride  | mg/L     | 2000  | 182  | 168   | 14                                      | 13   |
| Fluoride  | mg/L     | --  | 0.1  | 0.2   | 0.2                                     | 0.2  |
| Magnesium   | mg/L     | --  | 84   | 85  | 38                                      | 37   |
| Nitrogen, Ammonia as N                                | mg/L     | --  | 0.08                                       | <0.05                                       | <0.05                                   |  |
| Nitrogen, Nitrate+Nitrite as N                        | mg/L     | 100   | <0.1                                       | 0.1   | 0.3                                     | <0.5                                       |
| Potassium   | mg/L     | --  | 17   | 16  | 12                                      | 12   |
| Silica  | mg/L     | --  | 14.2                                       | 11.1  | 19.7                                    | 19.3                                       |
| Sodium  | mg/L     | --  | 45   | 44  | 83                                      | 79   |
| Sulfate   | mg/L     | 3000  | 730  | 686   | 631                                     | 609  |
| Conductivity @ 25 C                                   | mmhos/cm | --  | 2.38                                       | 2.23  | 1.45                                    | 1.49                                       |
| pH  | s.u.     | 6.5-8.5                                     | 7.61                                       | 7.76  | 7.49                                    | 7.59                                       |
| Solids, Total Dissolved TDS @ 180 C                   | mg/L     | 5000  | 1850                                       | 1660  | 1190                                    | 1190                                       |
| Aluminum-D  | mg/L     | 5   | <0.1                                       | <0.1  | <0.1                                    | <0.1                                       |
| Antimony-D  | mg/L     | --  | <0.001                                     | <0.001                                      | <0.001                                  | <0.001                                     |
| Arsenic-D   | mg/L     | 0.2   | <0.001                                     | <0.001                                      | <0.001                                  | 0.001                                      |
| Barium-D  | mg/L     | --  | <0.1                                       | <0.1  | <0.1                                    | <0.1                                       |
| Beryllium-D   | mg/L     | --  | <0.001                                     | <0.001                                      | <0.001                                  | <0.001                                     |
| Boron-D   | mg/L     | 5   | <0.1                                       | <0.1  | <0.1                                    | <0.1                                       |
| Cadmium-D   | mg/L     | 0.05  | <0.005                                     | <0.005                                      | <0.005                                  | <0.005                                     |
| Chromium-D  | mg/L     | 0.05  | <0.05                                      | <0.05                                       | <0.05                                   | <0.05                                      |
| Copper-D  | mg/L     | 0.5   | <0.01                                      | <0.01                                       | <0.01                                   | <0.01                                      |
| Iron-D  | mg/L     | --  | <0.03                                      | <0.03                                       | 0.81                                    | 0.51                                       |
| Lead-D  | mg/L     | 0.1   | <0.001                                     | <0.001                                      | <0.001                                  | <0.001                                     |
| Manganese-D   | mg/L     | --  | 0.02                                       | <0.01                                       | 0.26                                    | 0.22                                       |
| Mercury-D   | mg/L     | 0.00005                                     | <0.001                                     | <0.001                                      | <0.001                                  | <0.001                                     |
| Molybdenum-D  | mg/L     | --  | <0.1                                       | <0.1  | <0.1                                    | <0.1                                       |
| Nickel-D  | mg/L     | --  | <0.05                                      | <0.05                                       | <0.05                                   | <0.05                                      |
| Selenium-D  | mg/L     | 0.05  | 0.138                                      | 0.406                                       | 0.133                                   | 0.132                                      |
| Thallium-D  | mg/L     | --  | <0.001                                     | <0.001                                      | <0.001                                  | <0.001                                     |
| Uranium-D   | mg/L     | --  | 1.4  | 1.89  | 0.0651                                  | 0.0731                                     |
| Vanadium-D  | mg/L     | 0.1   | <0.1                                       | <0.1  | <0.1                                    | <0.1                                       |
| Zinc-D  | mg/L     | 25  | <0.01                                      | <0.01                                       | 0.01                                    | <0.01                                      |
| Antimony-T  | mg/L     | --  | 1.23                                       |   | 0.92                                    |  |
| Beryllium-T   | mg/L     | --  |  |   |   |  |
| Iron-T  | mg/L     | --  |  | 20.8  |   | 0.62                                       |
| Manganese-T   | mg/L     | --  | <0.01                                      | 0.11  | 0.26                                    | 0.23                                       |
| Thallium-T  | mg/L     | --  |  |   |   |  |
| Gross Alpha - minus U - Calculated                    | pCi/L    | 15  | -12.80                                     | 210.47                                      | 31.13                                   | 31.01                                      |
| Gross Alpha - Unadjusted                              | pCi/L    | --  | 935  | 1490  | 75.2                                    | 80.5                                       |
| Gross Alpha precision (±)                             | pCi/L    | --  | 25.9                                       | 26.9  | 5.3                                     | 5  |
| Gross Alpha MDC                                       | pCi/L    | --  | 10.2                                       | 10.2  | 5                                       | 3.8  |
| Gross Beta  | pCi/L    | --  | 358  | 296   | 22.8                                    | 31.6                                       |
| Gross Beta precision (±)                              | pCi/L    | --  | 16.4                                       | 12.1  | 4.1                                     | 3.6  |
| Gross Beta MDC  | pCi/L    | --  | 16.5                                       | 11.2  | 6                                       | 5  |
| Radium 226  | pCi/L    | --  | 64   | 59  | 1.4                                     | 1.6  |
| Radium 226 precision (±)                              | pCi/L    | --  | 1.7  | 0.99  | 0.27                                    | 0.29                                       |
| Radium 226 MDC  | pCi/L    | --  | 0.17                                       | 0.11  | 0.2                                     | 0.2  |
| Radium 228  | pCi/L    | --  | 1.6  | 0.4   | 4.1                                     | 4.8  |
| Radium 228 precision (±)                              | pCi/L    | --  | 0.7  | 0.9   | 0.9                                     | 0.9  |
| Radium 228 MDC  | pCi/L    | --  | 1  | 1.5   | 1.3                                     | 1.1  |
| Combined Total Radium 226 and Radium 228 (Calculated) | pCi/L    | 5   | 65.6                                       | 59.4  | 1.4                                     | 6.4  |

\* Duplicate sample



Table 10  
F-Wellfield New  
Well Water Quality Data

| Well ID   |          | WYDEQ     | F23-1         | F23-1         | F23-1         | F23-2         | F23-2         | F23-2*        | F23-3         | F23-3         | F23-4         | F23-4         |
|---|----------|-----------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Sample Date/Time                                      |          | Class III | 6/18/2012     | 8/30/2012     | 10/26/2012    | 6/5/2012      | 8/23/2012     | 10/22/2012    | 9/18/2012     | 10/15/2012    | 9/18/2012     | 10/19/2012    |
| Job Number  |          | Livestock | C12060737-002 | C12081293-001 | C12101137-006 | C12060299-006 | C12081030-005 | C12100906-004 | C12090654-002 | C12100662-003 | C12090654-001 | C12100864-004 |
| HSU   |          | Standard  | 110           | 110           | 110           | 120           | 120           | 120           | 120           | 120           | 120           | 120           |
| Alkalinity, Total as CaCO3                            | mg/L     | --        | 118           | 120           |               | 274           | 290           |               | 244           | 234           | 216           | 225           |
| Carbonate as CO3                                      | mg/L     | --        | <5            | <5            |               | <5            | <5            |               | <5            | <5            | <5            | <5            |
| Bicarbonate as HCO3                                   | mg/L     | --        | 142           | 144           | 147           | 334           | 354           | 346           | 298           | 285           | 264           | 275           |
| Calcium   | mg/L     | --        | 45            | 51            |               | 442           | 418           |               | 376           | 344           | 195           | 174           |
| Chloride  | mg/L     | 2000      | 9             | 10            | 10            | 62            | 58            | 56            | 23            | 23            | 7             | 7             |
| Fluoride  | mg/L     | --        | 0.5           | 0.4           |               | 0.1           | 0.2           |               | 0.2           | 0.2           | 0.2           | 0.2           |
| Magnesium   | mg/L     | --        | 7             | 8             |               | 95            | 85            |               | 62            | 57            | 32            | 29            |
| Nitrogen, Ammonia as N                                | mg/L     | --        | <0.05         | <0.05         |               | <0.05         | <0.05         |               | <0.05         | <0.05         | 0.08          | <0.05         |
| Nitrogen, Nitrate+Nitrite as N                        | mg/L     | 100       | <0.1          | <0.1          |               | 0.2           | 0.2           |               | 0.2           | 0.1           | 0.4           | 0.4           |
| Potassium   | mg/L     | --        | 4             | 5             |               | 16            | 14            |               | 15            | 13            | 11            | 10            |
| Silica  | mg/L     | --        | 12.6          | 8.9           |               | 18.6          | 14.5          |               | 20.5          | 17            | 21.6          | 17.5          |
| Sodium  | mg/L     | --        | 111           | 96            |               | 91            | 77            |               | 105           | 97            | 94            | 87            |
| Sulfate   | mg/L     | 3000      | 236           | 242           | 234           | 1300          | 1280          |               | 1150          | 1140          | 530           | 525           |
| Conductivity @ 25 C                                   | umhos/cm | --        | 0.783         | 0.756         | 0.761         | 2.69          | 2.58          | 2.26          | 2.23          | 2.23          | 1.34          | 1.32          |
| pH  | s.u.     | 6.5-8.5   | 8.56          | 8.36          |               | 7.28          | 7.25          |               | 7.35          | 7.4           | 7.65          | 7.65          |
| Solids, Total Dissolved TDS @ 180 C                   | mg/L     | 5000      | 533           | 510           | 517           | 2320          | 2380          | 2300          | 1960          | 1940          | 1030          | 1030          |
| Aluminum-D  | mg/L     | 5         | <0.1          | <0.1          |               | 0.6           | <0.1          |               | <0.1          | <0.1          | <0.1          | <0.1          |
| Antimony-D  | mg/L     | --        | 0.002         | <0.001        |               | 0             | <0.001        |               | <0.001        | <0.001        | <0.001        | <0.001        |
| Arsenic-D   | mg/L     | 0.2       | 0.002         | <0.001        |               | 0.001         | <0.001        |               | <0.001        | <0.001        | 0.001         | 0.001         |
| Barium-D  | mg/L     | --        | <0.1          | <0.1          |               | <0.1          | <0.1          |               | <0.1          | <0.1          | <0.1          | <0.1          |
| Beryllium-D   | mg/L     | --        | <0.01         | <0.001        |               | 0             | <0.001        |               | <0.001        | <0.001        | <0.001        | <0.001        |
| Boron-D   | mg/L     | 5         | <0.1          | <0.1          |               | <0.1          | 0.1           |               | <0.1          | <0.1          | <0.1          | <0.1          |
| Cadmium-D   | mg/L     | 0.05      | <0.005        | <0.005        |               | <0.005        | <0.005        |               | <0.005        | <0.005        | <0.005        | <0.005        |
| Chromium-D  | mg/L     | 0.05      | <0.05         | <0.05         |               | <0.05         | <0.05         |               | <0.05         | <0.05         | <0.05         | <0.05         |
| Copper-D  | mg/L     | 0.5       | <0.01         | <0.01         |               | <0.01         | <0.01         |               | <0.01         | <0.01         | <0.01         | <0.01         |
| Iron-D  | mg/L     | --        | <0.03         | <0.03         |               | 0.26          | <0.03         |               | <0.03         | <0.03         | <0.03         | <0.03         |
| Lead-D  | mg/L     | 0.1       | <0.001        | <0.001        |               | 0.002         | <0.001        |               | <0.001        | <0.001        | <0.001        | <0.001        |
| Manganese-D   | mg/L     | --        | <0.01         | <0.01         |               | 1.23          | 1.26          |               | 0.47          | 0.44          | 0.16          | 0.17          |
| Mercury-D   | mg/L     | 0.00005   | <0.001        | <0.001        |               | <0.001        | <0.001        |               | <0.001        | <0.001        | <0.001        | <0.001        |
| Molybdenum-D  | mg/L     | --        | <0.1          | <0.1          |               | <0.1          | <0.1          |               | <0.1          | <0.1          | <0.1          | <0.1          |
| Nickel-D  | mg/L     | --        | <0.05         | <0.05         |               | <0.05         | <0.05         |               | <0.05         | <0.05         | <0.05         | <0.05         |
| Selenium-D  | mg/L     | 0.05      | 0.004         | <0.001        | <0.001        | 0.003         | 0.003         | 0.004         | 0.003         | 0.003         | 0.012         | 0.013         |
| Thallium-D  | mg/L     | --        | <0.001        | <0.001        |               | 0             | <0.001        |               | <0.001        | <0.001        | <0.001        | <0.001        |
| Uranium-D   | mg/L     | --        | 0.0007        | <0.0003       | <0.0003       | 0.21          | 0.22          | 0.219         | 0.0921        | 0.097         | 0.0366        | 0.0383        |
| Vanadium-D  | mg/L     | 0.1       | <0.1          | <0.1          |               | <0.1          | <0.1          |               | <0.1          | <0.1          | <0.1          | <0.1          |
| Zinc-D  | mg/L     | 25        | <0.01         | <0.01         |               | <0.01         | <0.01         |               | <0.01         | <0.01         | <0.01         | <0.01         |
| Antimony-T  | mg/L     | --        |               |               |               |               |               |               |               |               |               |               |
| Beryllium-T   | mg/L     | --        |               |               |               |               |               |               |               |               |               |               |
| Iron-T  | mg/L     | --        | 1.3           | 0.69          |               | 5.36          | 1.54          |               | 0.71          | 0.18          | 6.64          | 0.24          |
| Manganese-T   | mg/L     | --        | 0.01          | 0.01          |               | 1.3           | 1.49          |               | 0.49          | 0.54          | 0.24          | 0.19          |
| Thallium-T  | mg/L     | --        |               |               |               |               |               |               |               |               |               |               |
| Gross Alpha - minus U - Calculated                    | pCi/L    | 15        | -1.27         | <0.6          |               | 84.83         | 58.06         |               | 23.85         | 64.33         | 35.92         | 12.27         |
| Gross Alpha - Unadjusted                              | pCi/L    | --        | -0.8          | <0.6          |               | 227           | 207           |               | 86.2          | 130           | 60.7          | 38.2          |
| Gross Alpha precision (±)                             | pCi/L    | --        | 1.2           | 1.4           |               | 12.1          | 11.5          |               | 6.7           | 8.3           | 4.2           | 3.7           |
| Gross Alpha MDC                                       | pCi/L    | --        | 2.1           | 2.2           |               | 9             | 8.2           |               | 5.9           | 6.1           | 3.5           | 4.1           |
| Gross Beta  | pCi/L    | --        | 3.5           | 2.7           |               | 54.1          | 62.3          |               | 25            | 31.2          | 17.7          | 14.5          |
| Gross Beta precision (±)                              | pCi/L    | --        | 1.6           | 1.7           |               | 9.3           | 8.6           |               | 5.6           | 5.8           | 3.1           | 3.1           |
| Gross Beta MDC  | pCi/L    | --        | 2.6           | 2.7           |               | 13.4          | 12.1          |               | 8.4           | 8.6           | 4.6           | 4.6           |
| Radium 226  | pCi/L    | --        | -0.1          | 0.26          |               | 2.8           | 1.4           |               | 2.4           | 2.2           | 0.59          | 0.49          |
| Radium 226 precision (±)                              | pCi/L    | --        | 0.08          | 0.12          |               | 0.39          | 0.16          |               | 0.33          | 0.27          | 0.21          | 0.14          |
| Radium 226 MDC  | pCi/L    | --        | 0.19          | 0.15          |               | 0.2           | 0.11          |               | 0.19          | 0.14          | 0.22          | 0.15          |
| Radium 228  | pCi/L    | --        | 0.07          | <-0.02        |               | 12.3          | 6.7           |               | 6.9           | 6.1           | 1.9           | 3.1           |
| Radium 228 precision (±)                              | pCi/L    | --        | 0.7           | 0.7           |               | 1.7           | 1.3           |               | 1.1           | 0.9           | 1             | 1.4           |
| Radium 228 MDC  | pCi/L    | --        | 1.1           | 1.2           |               | 1.9           | 1.6           |               | 1.3           | 1             | 1.6           | 2.2           |
| Combined Total Radium 226 and Radium 228 (Calculated) | pCi/L    | 5         | 0.17          | 0.26          |               | 15.1          | 8.1           |               | 9.3           | 8.3           | 2.49          | 3.59          |

\* Duplicate sample

Table 10  
F-Wellfield New  
Well Water Quality Data

| Well ID   |          | WYDEQ     | F25-2         | F25-2         | F25-2         | F25-2*        | F25-3         | F25-3         | F25-3         | F28-2         | F28-2         | F28-3         |
|---|----------|-----------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Sample Date/Time                                      |          | Class III | 6/5/2012      | 8/21/2012     | 10/11/2012    | 10/11/2012    | 6/5/2012      | 8/21/2012     | 10/19/2012    | 9/12/2012     | 10/17/2012    | 9/13/2012     |
| Job Number  |          | Livestock | C12060177-004 | C12080946-001 | C12100579-001 | C12100579-002 | C12060177-003 | C12080946-002 | C12100864-005 | C12090390-001 | C12100755-007 | C12090449-001 |
| HSU   |          | Standard  | 120           | 120           | 120           | 120           | 110           | 110           | 110           | 110           | 110           | 120           |
| Alkalinity, Total as CaCO3                            | mg/L     | --        | 252           | 259           |               |               | 124           | 120           |               | 149           | 137           | 221           |
| Carbonate as CO3                                      | mg/L     | --        | <5            | <5            |               |               | <5            | <5            |               | <5            | <5            | <5            |
| Bicarbonate as HCO3                                   | mg/L     | --        | 308           | 316           | 313           | 312           | 151           | 146           | 149           | 181           | 168           | 269           |
| Calcium   | mg/L     | --        | 299           | 302           |               |               | 70            | 75            |               | 103           | 100           | 187           |
| Chloride  | mg/L     | 2000      | 7             | 7             | 7             | 7             | 4             | 4             | 5             | 7             | 7             | 8             |
| Fluoride  | mg/L     | --        | 0.2           | 0.1           |               |               | 0.3           | 0.2           |               | 0.2           | 0.2           | 0.2           |
| Magnesium   | mg/L     | --        | 52            | 51            |               |               | 12            | 13            |               | 17            | 16            | 31            |
| Nitrogen, Ammonia as N                                | mg/L     | --        | <0.05         | <0.05         |               |               | <0.05         | <0.05         |               | <0.05         | <0.05         | <0.05         |
| Nitrogen, Nitrate+Nitrite as N                        | mg/L     | 100       | 0.1           | 0.1           |               |               | <0.1          | <0.1          |               | <0.1          | <0.1          | 0.3           |
| Potassium   | mg/L     | --        | 14            | 14            |               |               | 7             | 7             |               | 8             | 8             | 9             |
| Silica  | mg/L     | --        | 21.1          | 19.9          |               |               | 14.3          | 13.7          |               | 17.9          | 16.3          | 22.3          |
| Sodium  | mg/L     | --        | 93            | 89            |               |               | 87            | 87            |               | 96            | 90            | 85            |
| Sulfate   | mg/L     | 3000      | 886           | 864           |               |               | 284           | 282           |               | 336           | 332           | 485           |
| Conductivity @ 25 C                                   | umhos/cm | --        | 1.89          | 1.86          | 1.748         | 1.748         | 0.838         | 0.83          | 0.75          | 0.939         | 0.927         | 1.26          |
| pH  | s.u.     | 6.5-8.5   | 7.39          | 7.43          |               |               | 7.97          | 7.9           |               | 8.17          | 8.09          | 7.66          |
| Solids, Total Dissolved TDS @ 180 C                   | mg/L     | 5000      | 1590          | 1550          | 1570          | 1580          | 600           | 582           | 597           | 678           | 670           | 965           |
| Aluminum-D  | mg/L     | 5         | <0.1          | <0.1          |               |               | <0.1          | <0.1          |               | <0.1          | <0.1          | <0.1          |
| Antimony-D  | mg/L     | --        | 0             | <0.001        |               |               | 0             | <0.001        |               | <0.001        | <0.001        | <0.001        |
| Arsenic-D   | mg/L     | 0.2       | 0.007         | 0.004         |               |               | 0.002         | 0.005         |               | 0.002         | 0.002         | 0.003         |
| Barium-D  | mg/L     | --        | <0.1          | <0.1          |               |               | <0.1          | <0.1          |               | <0.1          | <0.1          | <0.1          |
| Beryllium-D   | mg/L     | --        | 0             | <0.001        |               |               | 0             | <0.001        |               | <0.001        | <0.001        | <0.001        |
| Boron-D   | mg/L     | 5         | <0.1          | <0.1          |               |               | <0.1          | <0.1          |               | <0.1          | <0.1          | <0.1          |
| Cadmium-D   | mg/L     | 0.05      | <0.005        | <0.005        |               |               | <0.005        | <0.005        |               | <0.005        | <0.005        | <0.005        |
| Chromium-D  | mg/L     | 0.05      | <0.05         | <0.05         |               |               | <0.05         | <0.05         |               | <0.05         | <0.05         | <0.05         |
| Copper-D  | mg/L     | 0.5       | <0.01         | <0.01         |               |               | <0.01         | <0.01         |               | <0.01         | <0.01         | <0.01         |
| Iron-D  | mg/L     | --        | 0.47          | 0.08          |               |               | <0.03         | 0.05          |               | <0.03         | <0.03         | <0.03         |
| Lead-D  | mg/L     | 0.1       | <0.001        | <0.001        |               |               | <0.001        | <0.001        |               | <0.001        | <0.001        | <0.001        |
| Manganese-D   | mg/L     | --        | 0.93          | 0.23          |               |               | 0.06          | 0.07          |               | 0.02          | 0.02          | 0.05          |
| Mercury-D   | mg/L     | 0.00005   | <0.001        | <0.001        |               |               | <0.001        | <0.001        |               | <0.001        | <0.001        | <0.001        |
| Molybdenum-D  | mg/L     | --        | <0.1          | <0.1          |               |               | <0.1          | <0.1          |               | <0.1          | <0.1          | <0.1          |
| Nickel-D  | mg/L     | --        | <0.05         | <0.05         |               |               | <0.05         | <0.05         |               | <0.05         | <0.05         | <0.05         |
| Selenium-D  | mg/L     | 0.05      | <0.001        | 0.001         | <0.001        | 0.001         | <0.001        | <0.001        | <0.001        | 0.002         | <0.001        | 0.002         |
| Thallium-D  | mg/L     | --        | 0             | <0.001        |               |               | 0             | <0.001        |               | <0.001        | <0.001        | <0.001        |
| Uranium-D   | mg/L     | --        | 0.0388        | 0.039         | 0.0355        | 0.035         | 0.0101        | 0.0106        | 0.0109        | 0.0372        | 0.0338        | 0.0365        |
| Vanadium-D  | mg/L     | 0.1       | <0.1          | <0.1          |               |               | <0.1          | <0.1          |               | <0.1          | <0.1          | <0.1          |
| Zinc-D  | mg/L     | 25        | <0.01         | <0.01         |               |               | <0.01         | <0.01         |               | <0.01         | <0.01         | <0.01         |
| Antimony-T  | mg/L     | --        |               |               |               |               |               |               |               |               |               |               |
| Beryllium-T   | mg/L     | --        |               |               |               |               |               |               |               |               |               |               |
| Iron-T  | mg/L     | --        | 2.07          | 1.07          |               |               | 0.84          | 0.16          |               | 0.54          | 1.52          | 5.25          |
| Manganese-T   | mg/L     | --        | 0.96          | 0.25          |               |               | 0.08          | 0.08          |               | 0.02          | 0.04          | 0.14          |
| Thallium-T  | mg/L     | --        |               |               |               |               |               |               |               |               |               |               |
| Gross Alpha - minus U - Calculated                    | pCi/L    | 15        | 27.83         | 18.50         |               |               | 14.96         | 7.72          |               | 23.12         | 31.62         | 21.49         |
| Gross Alpha - Unadjusted                              | pCi/L    | --        | 54.1          | 44.9          |               |               | 21.8          | 14.9          |               | 48.3          | 54.5          | 46.2          |
| Gross Alpha precision (±)                             | pCi/L    | --        | 5.5           | 6.2           |               |               | 2.1           | 2             |               | 3.1           | 3.1           | 3.8           |
| Gross Alpha MDC                                       | pCi/L    | --        | 5.5           | 7.9           |               |               | 2             | 2.4           |               | 2.9           | 2.3           | 3.7           |
| Gross Beta  | pCi/L    | --        | 17.8          | 14.4          |               |               | 6.5           | 5.9           |               | 14            | 9.2           | 15.4          |
| Gross Beta precision (±)                              | pCi/L    | --        | 4.9           | 5.5           |               |               | 1.8           | 1.8           |               | 2.1           | 2             | 3             |
| Gross Beta MDC  | pCi/L    | --        | 7.6           | 8.6           |               |               | 2.7           | 2.9           |               | 3             | 2.9           | 4.5           |
| Radium 226  | pCi/L    | --        | 1.6           | 1.2           |               |               | 0.38          | 0.39          |               | 0.44          | 0.51          | 1.1           |
| Radium 226 precision (±)                              | pCi/L    | --        | 0.22          | 0.22          |               |               | 0.12          | 0.14          |               | 0.18          | 0.19          | 0.24          |
| Radium 226 MDC  | pCi/L    | --        | 0.1           | 0.14          |               |               | 0.1           | 0.14          |               | 0.19          | 0.21          | 0.17          |
| Radium 228  | pCi/L    | --        | 3.8           | 4             |               |               | 0.2           | <0.4          |               | 0.9           | 1.1           | 3.3           |
| Radium 228 precision (±)                              | pCi/L    | --        | 0.8           | 0.8           |               |               | 0.7           | 0.6           |               | 1             | 1             | 1.2           |
| Radium 228 MDC  | pCi/L    | --        | 1             | 1             |               |               | 1.1           | 1             |               | 1.6           | 1.5           | 1.8           |
| Combined Total Radium 226 and Radium 228 (Calculated) | pCi/L    | 5         | 5.4           | 5.2           |               |               | 0.58          | 0.39          |               | 1.34          | 1.61          | 4.4           |

\* Duplicate sample



Table 10  
F-Wellfield New  
Well Water Quality Data

| Well ID   |          | WYDEQ     | F28-3*        | F28-3         | F29-1         | F31-1         | F31-1         | F31-1         | F31-1         | F31-2         | F31-2         | F31-2         | FBG-1 |
|---|----------|-----------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-------|
| Sample Date/Time                                      |          | Class III | 10/17/2012    | 10/17/2012    | 11/1/2012     | 6/4/2012      | 8/22/2012     | 10/15/2012    | 6/4/2012      | 8/23/2012     | 10/17/2012    | 6/6/2012      |       |
| Job Number  |          | Livestock | C12100755-008 | C12100755-009 | C12110079-004 | C12060177-001 | C12080977-001 | C12100696-001 | C12060177-002 | C12081030-001 | C12100755-006 | C12060299-004 |       |
| HSU   |          | Standard  | 120           | 120           |               | 120           | 120           | 120           | 110           | 110           | 110           | 120           |       |
| Alkalinity, Total as CaCO3                            | mg/L     | --        | 234           | 232           | 253           | 206           | 211           | 212           | 140           | 139           |               | 213           |       |
| Carbonate as CO3                                      | mg/L     | --        | <5            | <5            | <5            | <5            | <5            | <5            | <5            | <5            |               | <5            |       |
| Bicarbonate as HCO3                                   | mg/L     | --        | 286           | 283           | 309           | 251           | 258           | 259           | 170           | 170           | 175           | 260           |       |
| Calcium   | mg/L     | --        | 197           | 205           | 205           | 195           | 197           | 206           | 104           | 109           |               | 65            |       |
| Chloride  | mg/L     | 2000      | 7             | 7             | 9             | 14            | 15            | 37            | 7             | 7             | 7             | 5             |       |
| Fluoride  | mg/L     | --        | 0.2           | 0.2           | 0.2           | 0.2           | 0.2           | 0.2           | 0.3           | 0.3           |               | 0.2           |       |
| Magnesium   | mg/L     | --        | 36            | 36            | 35            | 35            | 34            | 38            | 18            | 18            |               | 12            |       |
| Nitrogen, Ammonia as N                                | mg/L     | --        | <0.05         | <0.05         |               | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         |               | <0.05         |       |
| Nitrogen, Nitrate+Nitrite as N                        | mg/L     | 100       | 0.2           | 0.2           | <1            | 0.1           | <0.1          | <0.1          | <0.1          | <0.1          |               | 1.4           |       |
| Potassium   | mg/L     | --        | 9             | 10            | 12            | 12            | 11            | 12            | 9             | 10            |               | 7             |       |
| Silica  | mg/L     | --        | 21.8          | 20.6          | 21.5          | 20.9          | 19.6          | 18.9          | 16.8          | 15.3          |               | 18.2          |       |
| Sodium  | mg/L     | --        | 86            | 81            | 65            | 94            | 109           | 99            | 67            | 76            |               | 79            |       |
| Sulfate   | mg/L     | 3000      | 544           | 543           | 533           | 612           | 633           | 643           | 330           | 338           |               | 154           |       |
| Conductivity @ 25 C                                   | umhos/cm | --        | 1.36          | 1.35          | 1.38          | 1.49          | 1.5           | 1.51          | 0.934         | 0.925         | 0.4           | 0.729         |       |
| pH  | s.u.     | 6.5-8.5   | 7.57          | 7.54          | 7.49          | 7.58          | 7.62          | 7.55          | 7.9           | 7.85          |               | 7.79          |       |
| Solids, Total Dissolved TDS @ 180 C                   | mg/L     | 5000      | 1060          | 1070          | 1070          | 1170          | 1190          | 1170          | 674           | 661           | 670           | 85            |       |
| Aluminum-D  | mg/L     | 5         | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |               | <0.1          |       |
| Antimony-D  | mg/L     | --        | <0.001        | <0.001        | <0.001        | 0             | <0.001        | <0.001        | 0             | <0.001        |               | 0             |       |
| Arsenic-D   | mg/L     | 0.2       | 0.004         | 0.003         | 0.002         | 0.001         | 0.002         | 0.002         | <0.001        | 0.001         |               | 0.001         |       |
| Barium-D  | mg/L     | --        | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |               | <0.1          |       |
| Beryllium-D   | mg/L     | --        | <0.001        | <0.001        | <0.001        | 0             | <0.001        | <0.001        | 0             | <0.001        |               | 0             |       |
| Boron-D   | mg/L     | 5         | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |               | <0.1          |       |
| Cadmium-D   | mg/L     | 0.05      | <0.005        | <0.005        | <0.005        | <0.005        | <0.005        | <0.005        | <0.005        | <0.005        |               | <0.005        |       |
| Chromium-D  | mg/L     | 0.05      | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         |               | <0.05         |       |
| Copper-D  | mg/L     | 0.5       | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         |               | <0.01         |       |
| Iron-D  | mg/L     | --        | <0.03         | <0.03         | 0.18          | <0.03         | <0.03         | <0.03         | <0.03         | <0.03         |               | <0.03         |       |
| Lead-D  | mg/L     | 0.1       | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |               | <0.001        |       |
| Manganese-D   | mg/L     | --        | 0.09          | 0.1           | 0.26          | 0.14          | 0.25          | 0.28          | 0.04          | 0.05          |               | 0.05          |       |
| Mercury-D   | mg/L     | 0.00005   | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        | <0.001        |               | <0.001        |       |
| Molybdenum-D  | mg/L     | --        | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |               | <0.1          |       |
| Nickel-D  | mg/L     | --        | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         | <0.05         |               | <0.05         |       |
| Selenium-D  | mg/L     | 0.05      | 0.002         | 0.002         | 0.017         | 0.034         | 0.027         | 0.03          | <0.001        | <0.001        | 0.001         | 0.031         |       |
| Thallium-D  | mg/L     | --        | <0.001        | <0.001        | <0.001        | 0             | <0.001        | <0.001        | 0             | <0.001        |               | 0             |       |
| Uranium-D   | mg/L     | --        | 0.0433        | 0.043         | 0.0479        | 0.0431        | 0.0431        | 0.0509        | 0.036         | 0.0355        | 0.0325        | 0.0505        |       |
| Vanadium-D  | mg/L     | 0.1       | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          | <0.1          |               | <0.1          |       |
| Zinc-D  | mg/L     | 25        | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         | <0.01         |               | <0.01         |       |
| Antimony-T  | mg/L     | --        |               |               |               |               |               |               |               |               |               |               |       |
| Beryllium-T   | mg/L     | --        |               |               |               |               |               |               |               |               |               |               |       |
| Iron-T  | mg/L     | --        | 0.62          | 1.3           | 7.62          | 0.24          | 0.07          | 0.18          | 3.82          | 0.62          |               | 1.66          |       |
| Manganese-T   | mg/L     | --        | 0.09          | 0.11          | 0.31          | 0.15          | 0.25          | 0.27          | 0.07          | 0.06          |               | 0.06          |       |
| Thallium-T  | mg/L     | --        |               |               |               |               |               |               |               |               |               |               |       |
| Gross Alpha - minus U - Calculated                    | pCi/L    | 15        | 40.29         | 28.49         | 34.57         | 35.62         | 20.82         | 29.54         | 45.63         | 21.17         |               | 19.31         |       |
| Gross Alpha - Unadjusted                              | pCi/L    | --        | 69.6          | 57.6          | 67            | 64.8          | 50            | 64            | 70            | 45.2          |               | 53.5          |       |
| Gross Alpha precision (±)                             | pCi/L    | --        | 4.6           | 4.3           | 4.6           | 4.9           | 4.7           | 4.8           | 3.7           | 3.1           |               | 2.9           |       |
| Gross Alpha MDC                                       | pCi/L    | --        | 3.6           | 3.5           | 3.5           | 4.3           | 5             | 4             | 2.4           | 2.5           |               | 2.5           |       |
| Gross Beta  | pCi/L    | --        | 12            | 14.2          | 29.4          | 18.3          | 15.3          | 22.9          | 11.5          | 13.9          |               | 16            |       |
| Gross Beta precision (±)                              | pCi/L    | --        | 3.1           | 3.4           | 3.7           | 3.8           | 3.8           | 3.9           | 2.3           | 2.3           |               | 1.9           |       |
| Gross Beta MDC  | pCi/L    | --        | 4.7           | 5.1           | 5.2           | 5.7           | 5.9           | 5.7           | 3.4           | 3.3           |               | 2.6           |       |
| Radium 226  | pCi/L    | --        | 1.5           | 1.6           | 1.9           | 0.99          | 0.92          | 1.4           | 0.78          | 0.63          |               | 0.42          |       |
| Radium 226 precision (±)                              | pCi/L    | --        | 0.28          | 0.29          | 0.32          | 0.17          | 0.14          | 0.22          | 0.16          | 0.13          |               | 0.18          |       |
| Radium 226 MDC  | pCi/L    | --        | 0.2           | 0.21          | 0.22          | 0.09          | 0.1           | 0.14          | 0.1           | 0.12          |               | 0.19          |       |
| Radium 228  | pCi/L    | --        | 3.3           | 5.2           | 3.2           | 4.2           | 3.9           | 2.8           | 1             | <1.3          |               | 1.6           |       |
| Radium 228 precision (±)                              | pCi/L    | --        | 1             | 1             | 1             | 0.8           | 1             | 0.9           | 0.7           | 1             |               | 1.2           |       |
| Radium 228 MDC  | pCi/L    | --        | 1.5           | 1.3           | 1.5           | 0.9           | 1.3           | 1.3           | 1             | 1.5           |               | 1.9           |       |
| Combined Total Radium 226 and Radium 228 (Calculated) | pCi/L    | 5         | 4.8           | 6.8           | 5.1           | 5.19          | 4.82          | 4.2           | 1.78          | 0.63          |               | 2.02          |       |

\* Duplicate sample

**Table 10**  
**F-Wellfield New**  
**Well Water Quality Data**

| Well ID   |          | WYDEQ     | FBG-1         | FBG-1*        | FBG-1         | FBG-2         | FBG-2         | FBG-2         |
|---|----------|-----------|---------------|---------------|---------------|---------------|---------------|---------------|
| Sample Date/Time                                      |          | Class III | 8/30/2012     | 8/30/12       | 10/12/2012    | 6/6/2012      | 8/30/2012     | 10/12/2012    |
| Job Number  |          | Livestock | C12081293-004 | C12081293-005 | C12100579-005 | C12060299-005 | C12081293-006 | C12100579-006 |
| HSU   |          | Standard  | 120           | 120           | 120           | 100           | 100           | 110           |
| Alkalinity, Total as CaCO3                            | mg/L     | --        | 229           | 230           |               | 101           | 105           |               |
| Carbonate as CO3                                      | mg/L     | --        | <5            | <5            |               | <5            | <5            |               |
| Bicarbonate as HCO3                                   | mg/L     | --        | 279           | 280           | 274           | 123           | 128           | 120           |
| Calcium   | mg/L     | --        | 72            | 70            |               | 41            | 44            |               |
| Chloride  | mg/L     | 2000      | 4             | 4             | 4             | 5             | 5             | 5             |
| Fluoride  | mg/L     | --        | 0.3           | 0.3           |               | 0.4           | 0.3           |               |
| Magnesium   | mg/L     | --        | 13            | 13            |               | 7             | 7             |               |
| Nitrogen, Ammonia as N                                | mg/L     | --        | <0.05         | <0.05         |               | <0.05         | <0.05         |               |
| Nitrogen, Nitrate+Nitrite as N                        | mg/L     | 100       | 1.7           | 1.7           |               | <0.1          | <0.1          |               |
| Potassium   | mg/L     | --        | 7             | 7             |               | 5             | 5             |               |
| Silica  | mg/L     | --        | 19.4          | 19.2          |               | 12.2          | 13.3          |               |
| Sodium  | mg/L     | --        | 104           | 104           |               | 69            | 61            |               |
| Sulfate   | mg/L     | 3000      | 213           | 214           |               | 165           | 170           |               |
| Conductivity @ 25 C                                   | umhos/cm | --        | 0.854         | 0.854         | 0.8           | 0.563         | 0.556         | 0.512         |
| pH  | s.u.     | 6.5-8.5   | 7.86          | 7.88          |               | 8.14          | 8.2           |               |
| Solids, Total Dissolved TDS @ 180 C                   | mg/L     | 5000      | 577           | 572           | 536           | 367           | 369           | 371           |
| Aluminum-D  | mg/L     | 5         | <0.1          | <0.1          |               | <0.1          | <0.1          |               |
| Antimony-D  | mg/L     | --        | <0.001        | <0.001        |               | 0             | <0.001        |               |
| Arsenic-D   | mg/L     | 0.2       | 0.003         | 0.003         |               | <0.001        | <0.001        |               |
| Barium-D  | mg/L     | --        | <0.1          | <0.1          |               | <0.1          | <0.1          |               |
| Beryllium-D   | mg/L     | --        | <0.001        | <0.001        |               | 0             | <0.001        |               |
| Boron-D   | mg/L     | 5         | <0.1          | <0.1          |               | <0.1          | <0.1          |               |
| Cadmium-D   | mg/L     | 0.05      | <0.005        | <0.005        |               | <0.005        | <0.005        |               |
| Chromium-D  | mg/L     | 0.05      | <0.05         | <0.05         |               | <0.05         | <0.05         |               |
| Copper-D  | mg/L     | 0.5       | <0.01         | <0.01         |               | <0.01         | <0.01         |               |
| Iron-D  | mg/L     | --        | <0.03         | <0.03         |               | <0.03         | <0.03         |               |
| Lead-D  | mg/L     | 0.1       | <0.001        | <0.001        |               | <0.001        | <0.001        |               |
| Manganese-D   | mg/L     | --        | 0.02          | 0.02          |               | 0.04          | 0.15          |               |
| Mercury-D   | mg/L     | 0.00005   | <0.001        | <0.001        |               | <0.001        | <0.001        |               |
| Molybdenum-D  | mg/L     | --        | <0.1          | <0.1          |               | <0.1          | <0.1          |               |
| Nickel-D  | mg/L     | --        | <0.05         | <0.05         |               | <0.05         | <0.05         |               |
| Selenium-D  | mg/L     | 0.05      | 0.042         | 0.041         | 0.033         | <0.001        | <0.001        | <0.001        |
| Thallium-D  | mg/L     | --        | <0.001        | <0.001        |               | 0             | <0.001        |               |
| Uranium-D   | mg/L     | --        | 0.0672        | 0.0663        | 0.0527        | 0.0006        | 0.0009        | 0.0008        |
| Vanadium-D  | mg/L     | 0.1       | <0.1          | <0.1          |               | <0.1          | <0.1          |               |
| Zinc-D  | mg/L     | 25        | <0.01         | <0.01         |               | <0.01         | <0.01         |               |
| Antimony-T  | mg/L     | --        |               |               |               |               |               |               |
| Beryllium-T   | mg/L     | --        |               |               |               |               |               |               |
| Iron-T  | mg/L     | --        | 0.49          | 0.48          |               | 0.05          | 0.06          |               |
| Manganese-T   | mg/L     | --        | 0.02          | 0.03          |               | 0.06          | 0.15          |               |
| Thallium-T  | mg/L     | --        |               |               |               |               |               |               |
| Gross Alpha - minus U - Calculated                    | pCi/L    | 15        | 15.91         | 20.21         |               | 0.49          | 1.09          |               |
| Gross Alpha - Unadjusted                              | pCi/L    | --        | 61.4          | 65.1          |               | 0.9           | 1.7           |               |
| Gross Alpha precision (±)                             | pCi/L    | --        | 3.2           | 3.3           |               | 1             | 1.1           |               |
| Gross Alpha MDC                                       | pCi/L    | --        | 2.1           | 2.3           |               | 1.7           | 1.6           |               |
| Gross Beta  | pCi/L    | --        | 18.8          | 16.9          |               | 0.5           | 4.3           |               |
| Gross Beta precision (±)                              | pCi/L    | --        | 2.1           | 2.1           |               | 2.3           | 1.6           |               |
| Gross Beta MDC  | pCi/L    | --        | 2.9           | 3             |               | 3.9           | 2.6           |               |
| Radium 226  | pCi/L    | --        | 0.5           | 0.46          |               | 0.28          | 0.57          |               |
| Radium 226 precision (±)                              | pCi/L    | --        | 0.16          | 0.17          |               | 0.14          | 0.17          |               |
| Radium 226 MDC  | pCi/L    | --        | 0.15          | 0.18          |               | 0.16          | 0.16          |               |
| Radium 228  | pCi/L    | --        | <0.3          | <0.2          |               | 0.7           | <0.5          |               |
| Radium 228 precision (±)                              | pCi/L    | --        | 0.8           | 0.9           |               | 1             | 0.9           |               |
| Radium 228 MDC  | pCi/L    | --        | 1.3           | 1.5           |               | 1.6           | 1.6           |               |
| Combined Total Radium 226 and Radium 228 (Calculated) | pCi/L    | 5         | 0.5           | 9.29          |               | 0.98          | 0.57          |               |

\* Duplicate sample



**Table 11 MX-2686A Water Quality**

| Analyte                   | Units      | MX-2686A 9/30/1981 |
|---------------------------|------------|--------------------|
| Ammonia as N              | mg/L       | <0.2               |
| Bicarbonate               | mg/L       | 22                 |
| Boron                     | mg/L       | 0.2                |
| Carbonate                 | mg/L       | 0                  |
| Chloride                  | mg/L       | 190                |
| Conductivity              | umhos      | 2200               |
| Depth to Water            | ft         | 100.38             |
| Dissolved Aluminum        | mg/L       | <0.5               |
| Dissolved Arsenic         | mg/L       | <0.005             |
| Dissolved Barium          | mg/L       | <0.2               |
| Dissolved Cadmium         | mg/L       | <0.005             |
| Dissolved Calcium         | mg/L       | 370                |
| Dissolved Chromium        | mg/L       | 0.01               |
| Dissolved Cobalt          | mg/L       | 0.02               |
| Dissolved Copper          | mg/L       | 0.024              |
| Dissolved Iron            | mg/L       | 0.08               |
| Dissolved Lead            | mg/L       | <0.005             |
| Dissolved Lead 210        | PCI/L      | 1.7                |
| Dissolved Magnesium       | mg/L       | 0.014              |
| Dissolved Manganese       | mg/L       | 120                |
| Dissolved Mercury         | mg/L       | <0.0001            |
| Dissolved Molybdenum      | mg/L       | <0.005             |
| Dissolved Natural Uranium | PCI/L      | 75                 |
| Dissolved Nickel          | mg/L       | <0.02              |
| Dissolved Oxygen          |            | 3.4                |
| Dissolved Polonium 210    | PCI/L      | -0.2               |
| Dissolved Radium 226      | PCI/L      | 2.5                |
| Dissolved Selenium        | mg/L       | 0.645              |
| Dissolved Silver          | mg/L       | <0.005             |
| Dissolved Thorium 230     | PCI/L      | 15                 |
| Dissolved Vanadium        | mg/L       | 0.005              |
| Dissolved Zinc            | mg/L       | 0.18               |
| Fluoride                  | mg/L       | 0.7                |
| Groundwater Elevation     | ft         | 5323.37            |
| NO3 as N                  | mg/L       | 12                 |
| pH                        | std. units | 7.4                |
| Potassium                 | mg/L       | 6.7                |
| Sodium                    | mg/L       | 260                |
| Sulfate                   | mg/L       | 1370               |
| Total Dissolved Solids    | mg/L       | 2678               |
| Total Gross Alpha         | PCI/L      | 62                 |
| Total Suspended Solids    | mg/L       | 21                 |

**Table 12 Proposed Wells to Discontinue Sampling**

| Well  | Total Depth (ft) | Water in Casing (ft) | Sand Unit | Comments   | CI  | Notes      |
|-------|------------------|----------------------|-----------|--|-----|------------|
| C3-5  | 61.8             | 5.31                 | 140       | Multiple Day Bailing Well; Recovers in 24 hrs. fully after bailing well empty; rate of ~ 0.26 gal/hr | 313 | bail       |
| C4-1  | 71.7             | 1.68                 | 140       | Came back .06ft in 24hrs   |     | bailed dry |
| C4-5  | 122.1            | 31.09                | 130       | slow recharge of < 0.3 gpm   | 78  |            |
| C5-2  | 76.0             | 3.75                 | 140       | Multiple Day Bailing Well; low recharge rate of ~0.15gal/hr  | 233 | bail       |
| C5-4  | 27.2             | DRY                  | 150       |  |     |            |
| C6-1  | 76.7             | 4.59                 | 140       | Multiple Day Bailing Well; low recharge rate of ~ 0.15gal/hr   | 35  | bail       |
| C6-2  | 126.9            | 27.13                | 130       | low recharge rate < 0.3gpm   | 21  |            |
| C8-1  | 61.4             | 0.41                 | 140       | Unsampleable / Dry   |     |            |
| C8-2  | 26.3             | DRY                  | 150       | DRY  |     |            |
| C9-1  | 26.4             | DRY                  | 150       | DRY  |     |            |
| C11-6 | 84.0             | 11.14                | 140       | Slow recharge rate of < 0.15gpm  | 30  |            |
| C16-1 | 22.6             | DRY                  | 150       | DRY  |     |            |
| C18-1 | 63.2             | 0.84                 | 150       | no recharge  |     | bailed dry |
| C20-1 | 48.8             | 2.99                 | 150       | Multiple Day Bailing Well; recharge rate of < 0.8gal/min   | 14  | bail       |
| C22-4 | 254.3            | 151.9                | 100       | Slow recharge rate of < 1.0 gal/hr, takes 4-5 days to get a 3V sample                                | 4   |            |
| E4-1  |                  | DRY                  | 140       |  |     |            |
| E6-5  | 136.8            | 10.95                | 140       | broken casing  | 4   |            |
| E7-3  |                  | DRY                  | 150       |  |     |            |
| E7-5  | 120.6            | 1.25                 | 140       | unsampleable / dry   |     |            |
| E9-6  | 86.3             | 5.5                  | 110       | Multiple day bailer well for Low volume sample;slow recharge of < 0.3 gpm                            | 5   | bail       |
| E10-2 | 71.8             | 6.45                 | 140       | Multiple day pumping well, slow recharge <0.3GPM, pump in place                                      | 3   |            |
| E10-4 | 66.8             | 9.35                 | 140       | Multiple day pumping well, slow recharge <0.3gpm, pump in place                                      | 39  |            |
| E14-2 | 76.7             | 4.69                 | 146       | Multiple day bailer slow recharge ~0.02gal/hr  | 9   | bail       |
| E14-3 | 121.6            | 0.1                  | 140       | unsampleable / DRY   |     |            |
| E18-1 | 51.9             | DRY                  | 150       | DRY  |     |            |
| E18-2 | 51.9             | DRY                  | 150       |  |     |            |
| E18-7 | 50.5             | DRY                  | 150       |  |     |            |
| E18-9 | 103.4            | DRY                  | 140       |  |     |            |
| F3-2  | 97.4             | 15.09                | 140       | slow recharge < 0.45gpm  | 9   |            |
| F4-1  | 46.5             | 0.61                 | 150       | extremely slow recharge, Dry   |     |            |
| F13-1 | 182.3            | 15.89                | 140       | slow recharge  | 6   |            |
| F14-2 | 208.1            | 208.25               | 130       | Unsampleable   |     |            |
| F14-3 | 286.2            | 105.65               | 110       | Unsampleable   |     |            |
| F15-1 | 131.1            | 5.15                 | 140       | Multiple day bailing well, Low Volume Sample Collected; recharge rate < 0.13gal/hr                   | 16  | bail       |
| F23-1 | 301.3            |                      | 110       | WL indicator frequently gets stuck; slow recharge  | 10  |            |
| F25-1 | 142.4            | 142.3                | 150       | DRY  |     |            |
| F26-1 | 75.6             | 0.54                 | 160       | Unsampleable (0.54ft of water in well)   |     |            |