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William Honker to: Stacey Dwyer, Dellinger.Philip, Ray Leissner, Ann Codrington 07/12/2012 05:07 PM

Cc: Scott Ellinger

From: William Honker/R6/USEPA/US

To: Stacey Dwyer/R6/USEPA/US@EPA, Dellinger.Philip@epamail.epa.gov, Ray Leissner/R6/USEPA/US@EPA, Ann Codrington/DC/USEPA/US@EPA

Cc: Scott Ellinger/R6/USEPA/US@EPA

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UEC technical info for review.

Bill

William K. (Bill) Honker, P.E.
Acting Director, Water Quality Protection Division
Senior Policy Advisor for Coastal Restoration
EPA Region 6 - Dallas, TX
Phone 214-665-3187
Fax 214-665-7373
Cell 214-551-3619

----- Forwarded by William Honker/R6/USEPA/US on 07/12/2012 05:03 PM -----

From: Harry Anthony <hanthony@uraniumenergy.com>
To: William Honker/R6/USEPA/US@EPA, Sam Coleman/R6/USEPA/US@EPA, Charles Maguire <charles.maguire@tceq.texas.gov>
Cc: Andy Barrett <andy@thebarrettfirm.com>, Ben Klein <klein@heatherpodesta.com>

Date: 07/12/2012 05:00 PM

Subject: First of Two Emails - JUly 12, 2012 Production Area Authorization documents

Dear Bill,
This email contains an introduction memo that summarizes the contents of this email and the one following. For simplicity this email contains documents and x-sections that are included in the Production Area Authorization application which was submitted to TCEQ in August, 2008. The second email with contain information contained within the Mine Permit Application that references and answers questions posed by EPA. We have made the documents concise and have highlighted the areas of interest for quick review.

The information pertaining to the graben will be forwarded tomorrow afternoon..

Thank-you

Harry L. Anthony, IV PE | Chief Operating Officer - Director

Uranium Energy Corp.

Direct: 361-888-8235 ext 224
Fax: 361-888-5041
Cell: 361-522-8880

NYSE MKT: UEC | www.uraniumenergy.com

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UEC July 12, 2012

To: William Honker

Attached are pertinent excerpts, maps and geologic cross-sections from UEC's Mine Permit Application (MPA) and Production Area Authorization Application (PAAA) that provide information specific to a request for additional information on a few points. Additional information will follow tomorrow afternoon. UEC believes the information is fully responsive to the request made by Region 6 for some additional information regarding (1) the hydraulic isolation between the production sands (Sands A, B, C, and D); (2) the direction of local (graben) groundwater flow between the two faults; and (3) the fact that up-gradient wells within ¼ mile of the aquifer exemption (AE) boundary will not draw water from the production area. Because the attached excerpts, cross-sections and maps are for the most part self-explanatory, a detailed account of what they convey will not be offered in this cover letter. Although the information is self explanatory, a very brief summary is given below that highlights the important points.

Summary

- Pertinent sections of the MPA and the PAAA have been highlighted in red and yellow to guide the reader to those parts that describe all four production sands within the permit area as being hydraulically isolated from each other.
- The enclosed cross-sections from both the MPA and the PAAA graphically show the thick aquitards that exist between the production sands. Highlights in the MPA and PAAA state that the aquitards are pervasive across the permit area. In brief, the project site has ample vertical confinement.
- The pump test that was conducted for PAA-1 provides additional proof that vertical confinement is in place. The test also concluded that the monitor well ring effectively communicates with the production sand.
- Key information from UEC's groundwater model (to be provided tomorrow) shows that groundwater movement within the graben is from west to east.
- Additional information garnered from on-site evaluations, including modeling will show that up-gradient wells within a quarter mile of the AE boundary will not draw water from the production area. This information will be provided via email tomorrow.

UEC appreciates your prompt attention to this matter. Please let us know if you have any questions.

Sincerely,

Harry L. Anthony

Chief Operating Officer

cc: TCEQ

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Phone 214-665-3187
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Uranium Energy Corp (UEC)

Goliad Project

Production Area Authorization Application for:

Production Area-1 (PA-1)

August 27, 2008

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3.0 Production Area Geology and Hydrology

3.1 Geology

The permit area is located within the outcrop of the Goliad Sand. The Goliad Sand generally consists of up to 500 feet of light colored sand and sandstone (typically impregnated with caliche) interbedded with clay and gravel. In Goliad County, the subsurface strata generally strike from southwest to northeast and dip to the southeast at approximately 20 feet/mile near the outcrop, and up to 70 feet/mile away from the outcrop (Dale, et al., 1957).

As will be seen in the sections to follow, the descriptive surface and subsurface geology will mirror that given in UEC's Mine Permit Application (MPA), and the same can be said for site-specific hydrology. Because of the expanded database (e.g., the completion of a significant number of monitoring and baseline wells; additional baseline water quality testing; additional exploration/delineation holes; and the completion of hydrologic testing), the subsequent discussions provide a higher level of information and a refinement of the Production Area (PA-1).

As described in Chapter 1.0, the Mine Area (the area encompassed by the Monitor Well Ring) in PA-1 is approximately 94 acres and the Production Area is a little over 36 acres. In preparing a detailed geologic study of PA-1, four dip and strike cross-sections were constructed. The locations where the cross-sections transect PA-1 are shown on Figure 3-1 Cross-section Index Map (see Appendix B). Figure 3-1 also identifies the exploration holes and wells that were used in constructing the cross-sections.

3.1.1 Stratigraphy and Lithology

Within the permit area, the Goliad Formation consists predominantly of fluvial facies, having a relatively high sand content. The up dip parts of the sand axes contain abundant amounts of coarse grained sand and gravel deposited by braided streams and grade down dip into meanderbelt deposits. Farther down dip, the fluvial system grades into deposits of a wave-dominated deltaic system. Generally, the relict river systems to the north of the San Antonio River carried higher sand loads than the relict river systems to the south (Solis, 1981).

The Goliad Formation is approximately 400 feet thick in the permit area, and it is divided into four discrete sand units: Sand A, Sand B, Sand C, and Sand D. Each of the sand units, with the exception of a portion of Sand A across the Northwest Fault, is overlain and underlain by a relatively thick clay/shale layer throughout the permit area. Each of these sand units appears to constitute a discrete individual aquifer unit within the permit area. Figures 3-2 through 3-5 are detailed strike and dip oriented cross-sections through PA-1 which show the stratigraphical, lithological, and structural relationships of the individual sand units. Individually, each of the sand units is confined above and below by a clay/shale layer. Continuity of the confining zones establishes the basis for sand unit definition. The confinement discussed above was thoroughly evaluated by hydrologic pump tests, and the results confirm the effectiveness of the extensive confining layers across PA-1 (see Chapter 4.0, Hydrologic Testing).

Sand A is the upper-most sand in the permit area. In the MPA it was shown that Sand A is overlain by a clay/shale confining layer which has a thickness ranging from about 50 to 70 feet. With the exception of where it outcrops across the Northwest Fault, the clay/shale confining layer is persistent throughout the permit area on the down thrown of the Northwest Fault where production is being planned.

The approximate thickness of Sand A in PA-1 ranges from about 45 to 70 feet (see cross-sections).The upper and lower boundaries of Sand A are discernible on electric logs, and generally quite clear in drill cutting samples. As indicated on the cross-sections the unit is pervasive throughout PA-1. The average depth to the base of Sand A is 99 feet below ground level (BGL) and the average thickness is 65 feet.

Sand B is the next lower sand unit below Sand A. The average depth to the top of Sand B is approximately 152 feet BGL. Sand B, the production zone of PA-1, ranges in thickness from 30 to 50 feet across PA-1 (see Figure 3-6 Net Sand Map in Appendix B). The confining layer between Sand A and Sand B is shown on Figure 3-7 Isopach Map – Thickness of Overlying Confining Layer (see Appendix B). From this figure, it can be seen that the two sands are isolated from each other by a substantially thick clay/shale barrier ranging between 40 and 50 feet in thickness.

Referring again to the cross-sections, it can be seen that Sand C is the third unit, and a proposed production zone, encountered below the surface. The average depth to the top of Sand C is 233 feet BGL and the average depth to the base of Sand C is 269 feet BGL, resulting in an average thickness of 36 feet. Sand C is isolated from overlying Sand B by approximately 20 to 30 feet of clay/shale (see Figure 3-8 in Appendix B).

Sand D is the second underlying sand unit below Sand B. As demonstrated in the MPA, Sand D is isolated from the overlying Sand C and the underlying Lagaro Formation by shale/clay confining layers. A number of the logs in the cross-sections show the Lagarto Clay at the base of Sand D. The average depth to the base of Sand D is 385 feet BGL and its average thickness is 80 feet.

The Lagarto Formation (aka Lagarto Clay) of the Fleming Group (Miocene) underlies the Goliad in the permit area and extends from the base of the Goliad to a depth of approximately 1600 feet BGL. The upper Lagarto looks very similar lithologically to the Goliad. In general, the upper part of the Lagarto is sandier than the middle and lower portions. The sands in the upper portion of the Lagarto are considered part of the Evangeline Aquifer System; however the sands are separated from the overlying Goliad by relatively thick clay layers and probably constitute a discrete aquifer system comprising the first underlying aquifer. In general, the Lagarto is described as clay and sandy clay with intercalated beds of sand and sandstone (Dale, et al., 1957).

The Lagarto is underlain by the Oakville Sandstone (Fleming Group-Miocene). The Oakville unconformably overlies the Catahoula Tuff and crops out to the west and northwest of Goliad County. The Oakville consists of up to 700 feet of crossbedded sand and sandstone interbedded with lesser amounts of sandy, ashy, bentonitic clay.

3.1.2 Structural Geology

As indicated on previously referenced cross-sections and project maps, two strike oriented (southwest to northeast) normal faults are present in the permit area. Based on limited discernable fault intercepts on geophysical logs from exploration holes drilled near the faults, both faults have been determined to be high angle with dips of 65 to 70 degrees. Consequently, the faults are mapped primarily based on stratigraphic offset of correlative beds as indicated on the cross-sections. The fault in the northwest portion of the project area is downthrown on the south side of the fault and demonstrates variable offset but generally indicates approximately 75-80 of the Sand A structural surface.

The fault in the southeast portion of the project area is downthrown to the north side, thus forming a graben structure with the northwest fault through the middle of the mine permit area. Displacement along this fault is approximately 35 feet.

The proposed PA-1 production area is situated entirely within the graben and there are no identified structural features associated with the proposed PA-1 area. Both faults completely traverse the mine permit area and thus their extent in the north-south direction has not been delineated.

3.2 Production Area Hydrology

The following is a brief overview of site hydrology along with an identification of the various sands and confining layers. The purpose of the overview is to provide a general background to site-specific conditions. Because hydrologic pump testing was completed for PA-1, considerably more detail of the site's hydrologic properties is given in Section 4.0 Hydrologic Testing.

It was discussed in the MPA that groundwater movement across the site is generally to the southeast and that the hydraulic gradient is approximately 5.5 feet per mile. It was also estimated in the MPA that groundwater flow is approximately 6.7 feet per year. Additional information from the pump tests show that groundwater flow is approximately 7.9 feet per year.

It was stated in the section on geology herein and in the MPA that on a regional basis the Goliad may be viewed as a single, large aquifer system. It was also noted in the MPA that on a site-specific level (i.e., the permit area) each of the four sands functions as an isolated aquifer; the results of the hydrologic pump test clearly show the isolation of the four sands from each other. Following is a summary description of the aquifers present within the project area.

4.0 Hydrologic Testing

The hydrologic testing was performed to comply with TCEQ requirements to obtain a Production Area Authorization (PAA) for in-situ uranium recovery. These requirements stipulate that hydrologic testing must be used to quantify the response of the aquifer that will be mined. PAA-1 is located in Goliad County, near Weesatche, Texas. Hydrologic testing was performed at the PAA-1 site on July 8 through July 15, 2008.

4.1 Test Methodology, Procedures and Goals

The goals, test location, methodology and procedures are discussed in the sections that follow.

The first goal was to confirm that there is hydraulic communication between the monitoring well ring and the wells within the production zone sand (Sand B). This was accomplished by pumping the interior wells completed in the production zone and recording the water levels in the monitoring well ring to show that the production zone monitor wells will in fact be able to detect fluid movement from where uranium recovery is occurring (the production zone). During recovery operations, a net drawdown or "bleed" is maintained in the ore zone by producing (i.e., removing) approximately 1% more water than the amount being injected. This means that there will be a hydraulic barrier to prevent fluid from moving out of the production zone. As an added measure of safety, water quality in the monitor wells must be monitored throughout the recovery and restoration phases of the operation.

The second goal was to analyze the pumping test results. This was done to obtain data on the aquifer's hydraulic characteristics such as transmissivity, storativity, and hydraulic conductivity.

Also, if the data can be analyzed using standard hydrologic techniques, it demonstrates that the drawdown was indeed induced by the testing and not some incidental activity. Both the drawdown phase and the recovery phase of the test were recorded and analyzed.

The third goal was to determine if there is hydraulic communication between the ore sand and the overlying water-bearing zone. The area in Production Area-1 (PA-1) has only one overlying aquifer; Sand A. It is necessary to establish that there is no communication between the fluids in the ore zone and water in overlying aquifers.

4.1.1 Test Area

The PA-1 test area is shown in Figure 4-1. Figure 4-1 also shows the location of the various wells used in the test.

The pumping test wells (PTW) are completed in the Sand B which is the ore zone. This was the primary sand tested. The baseline monitoring wells (BMW) are the production zone baseline wells discussed above and are also completed in sand B. Overlying monitoring wells (OMW) are completed in Sand A which is located above Sand B and isolated from it by a confining clay/shale layer. The objective of monitoring Sand A was to confirm the presence of an effective geologic barrier to flow between the ore zone and any overlying aquifers. Regional baseline wells (RBL) are designated for each sand. Therefore, there are RBLA (Sand A) wells, RBLB (Sand B) wells, etc.

4.1.2 Overview of the PA-1 Pumping Tests

Background water levels and barometric pressure were monitored from 17:00 hours on 7/8/2008 to 11:05 hours on 7/9/2008. Following this, two separate constant rate drawdown and recovery tests were performed at the PAA-1 location. A constant rate test stresses the aquifer through time and gives a good indication of how the aquifer will respond to long term pumping.

4.2 Test Results

4.2.1 Barometric Pressure Measurements

Barometric pressure was measured during the entire PA-1 field test including both the PTW-6 and PTW-1 tests and a background measurement period prior to the PTW-6 test. Figure 4-2 shows the barometric pressure in pounds per square inch (psi) during the test. The barometric pressure was measured using an In-Situ Inc. barometer that was linked to the Hermit recording device.

From the data, the normal diurnal fluctuation in barometric pressure can be seen. Although there was a slight increase in barometric pressure early in PTW-6 test, the atmospheric pressure remained relatively constant thereafter. A weak low pressure system moved into the area just after the start of the PTW-1 pumping phase.

4.2.2 Background Water Level Measurements

PTW-6 Test Background Water Level Measurements

Prior to the start of the first test at PTW-6, background water levels were recorded at 5 minute intervals starting on 7/8/2008 at 17:00 hours and ending at 7/9/2008 at 11:05 hours. Background water levels were recorded in BMW wells 1 through 22, in PTW-5, and overlying Sand A monitoring wells OMW-8 and OMW-9. The change in the water level relative to the initial measurement is shown in Figure 4-3.

From this figure, it can be concluded that there was a small but definite trend of water level decline in all but two of the wells over the 18 hour monitoring period. There was a small rise in water levels in BMW-3 and BMW-19. The maximum change in water levels was approximately 0.05 feet (0.6 inches) with most values in the 0.02 feet (0.24 inch) range. This small amount of change is considered to be negligible and to have an insignificant effect on the interpretation of the test results. The background water level changes are attributed to small changes in barometric pressure as discussed below.

PTW-1 Test Background Water Level Measurements

Background water levels were also obtained prior to the PTW-1 pumping and recovery tests. This information was not used in the analysis that follows because water levels were perturbed due to the prior PTW-6 test and therefore, they may not be representative of true background conditions in the Sand B aquifer.

4.2.6 Hydraulic Communication between Pumped Wells and Observation Wells

The drawdown response to pumping is a measure of the amount of hydraulic communication between wells. Excellent communication between the pumped wells and the observations wells in the baseline monitoring well ring was observed in both tests. This means that the production zone baseline monitoring wells will communicate effectively with the PA-1 production area and therefore serve their intended function as monitor wells to protect water quality.

As discussed in the previous sections, the water level response to pumping was significantly greater than what could be attributed to barometric pressure changes. Also, as discussed below, the drawdown response in the monitoring ring wells was analyzable for aquifer parameters. This provides evidence that the observation well response to pumping is not simply the result of background fluctuations that could be caused by long term or seasonal water level fluctuations due to natural recharge or discharge. Furthermore, the water level changes are clearly induced by the pumpage at PTW-1 and PTW-6.

4.2.7 Hydrologic Communication between Aquifers

The pumping tests in PTW-1 and PTW-6 demonstrate that there is no communication between the overlying Sand A aquifer and B sand aquifers. This is based on the water level response in the OMW series wells. Sand A is in the depth range of approximately

50 to 120 feet below ground level and the OMW wells are completed within this interval. Sand B wells are deeper, with typical completions in the 160 to 200 feet depth range.

In Figure 4-7, there is no discernable response in OMW-8 and OMW-9 to the pumping in PTW-6. The trace of the responses in OMW-8 and OMW-9 are superposed and fluctuate slightly around the 0 water level point. The response in the other wells to the pumpage is quite clear in Figure 4-7. Figure 4-10 shows that there was a very slight increase in water levels in OMW-1 during the PTW-1 test. If there were hydraulic communication between the pumped Sand B and Sand A, there would be an obvious decline in the water level of OMW-1.

Manual water level measurements in the OMW wells given in Tables 4.3 and 4.6 have a similar pattern. There is no detectable response in the overlying Sand A to the Sand B pumpage in either the PTW-1 or the PTW-6 test.

Well Test Analysis Results

The data were analyzable using the standard techniques described above. The expected Theis response was clearly displayed in the data. This means that the tests were properly conducted and that results can be used to characterize the Sand B aquifer.

The results are summarized in Table 4.7. The results between the two tests are similar. The transmissivity appears to be somewhat higher in the region near BMW-12 to BMW-22. The storativity is relatively constant. The analysis show that the transmissivity range is from approximately 377 to 1521 ft^2/day. The storativity ranges from approximately 0.00001 to 0.001. The storativity was anomalously low in PTW-6 from the first test. This may be an artifact of perturbations in the data from the pumping well.

4.3 Hydrologic Boundaries and Recharge Areas

4.3.1 Recharge Boundaries and Recharge Areas

No indications of recharge boundaries were found in the test data. Recharge areas for the A and B sands are located in outcropping areas to the west of the proposed mine. Recharge is by direct precipitation on the outcrop. No indication of any major regional recharge boundaries to the northwest where found in the pumping test data.

4.4 Summary of Conclusions

The first goal of the test was to confirm that there is hydraulic communication between the monitoring well ring and the wells within the production zone sand (Sand B). This was clearly achieved in both tests. This indicates that the production zone monitor wells will be able to detect fluid movement from where uranium recovery is occurring (the production zone). Measures will be taken to prevent such an occurrence. During recovery operations, a net drawdown or "bleed" will be maintained in the ore zone by producing (i.e., removing) approximately 1% more water than the amount being injected. This means that there will be a hydraulic barrier to prevent fluid from moving out of the production zone. As an added measure of safety, water quality in the monitor wells must be monitored throughout the recovery and restoration phases of the operation.

The second goal was to analyze the pumping test results. This was done to characterize the aquifer and obtain data on the aquifer's hydraulic characteristics such as transmissivity, storativity, and hydraulic conductivity. The data were of good quality and were analyzed using standard hydrologic techniques. The analysis shows that the transmissivity range is from approximately 377 to 1521 ft^2/day. The storativity ranges from approximately 0.00001 to 0.001. Finally, no communication was observed between Sand B and the overlying Sand A.

4.5 References

Duffield, G. M., 2007, Aqtesolv for Windows, Version 4.50 Professional, Hydrosolv Inc., Reston, VA.

Domenico, P. A. and F. W. Schwartz, 1990, Physical and Chemical Hydrogeology, John Wiley and Sons, New York, 824 p.

Freeze, R. A. and J. A. Cherry, 1979, Groundwater, Prentice Hall, New Jersey, 604 p.

Todd, D. K., 1980, Groundwater Hydrology, John Wiley and Sons, New York, 535 p.

{In Archive} Fw: First of Two Emails - JUly 12, 2012 Production Area Authorization documents

William Honker to: Stacey Dwyer, Dellinger.Philip, Ray Leissner, Ann Codrington 07/12/2012 05:07 PM

Cc: Scott Ellinger

From: William Honker/R6/USEPA/US

To: Stacey Dwyer/R6/USEPA/US@EPA, Dellinger.Philip@epamail.epa.gov, Ray Leissner/R6/USEPA/US@EPA, Ann Codrington/DC/USEPA/US@EPA

Cc: Scott Ellinger/R6/USEPA/US@EPA

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UEC technical info for review.

Bill

William K. (Bill) Honker, P.E.
Acting Director, Water Quality Protection Division
Senior Policy Advisor for Coastal Restoration
EPA Region 6 - Dallas, TX
Phone 214-665-3187
Fax 214-665-7373
Cell 214-551-3619

----- Forwarded by William Honker/R6/USEPA/US on 07/12/2012 05:03 PM -----

From: Harry Anthony <hanthony@uraniumenergy.com>
To: William Honker/R6/USEPA/US@EPA, Sam Coleman/R6/USEPA/US@EPA, Charles Maguire <charles.maguire@tceq.texas.gov>
Cc: Andy Barrett <andy@thebarrettfirm.com>, Ben Klein <klein@heatherpodesta.com>

Date: 07/12/2012 05:00 PM

Subject: First of Two Emails - JUly 12, 2012 Production Area Authorization documents

Dear Bill,
This email contains an introduction memo that summarizes the contents of this email and the one following. For simplicity this email contains documents and x-sections that are included in the Production Area Authorization application which was submitted to TCEQ in August, 2008. The second email with contain information contained within the Mine Permit Application that references and answers questions posed by EPA. We have made the documents concise and have highlighted the areas of interest for quick review.

The information pertaining to the graben will be forwarded tomorrow afternoon..

Thank-you

Harry L. Anthony, IV PE | Chief Operating Officer - Director

Uranium Energy Corp.

Direct: 361-888-8235 ext 224
Fax: 361-888-5041
Cell: 361-522-8880

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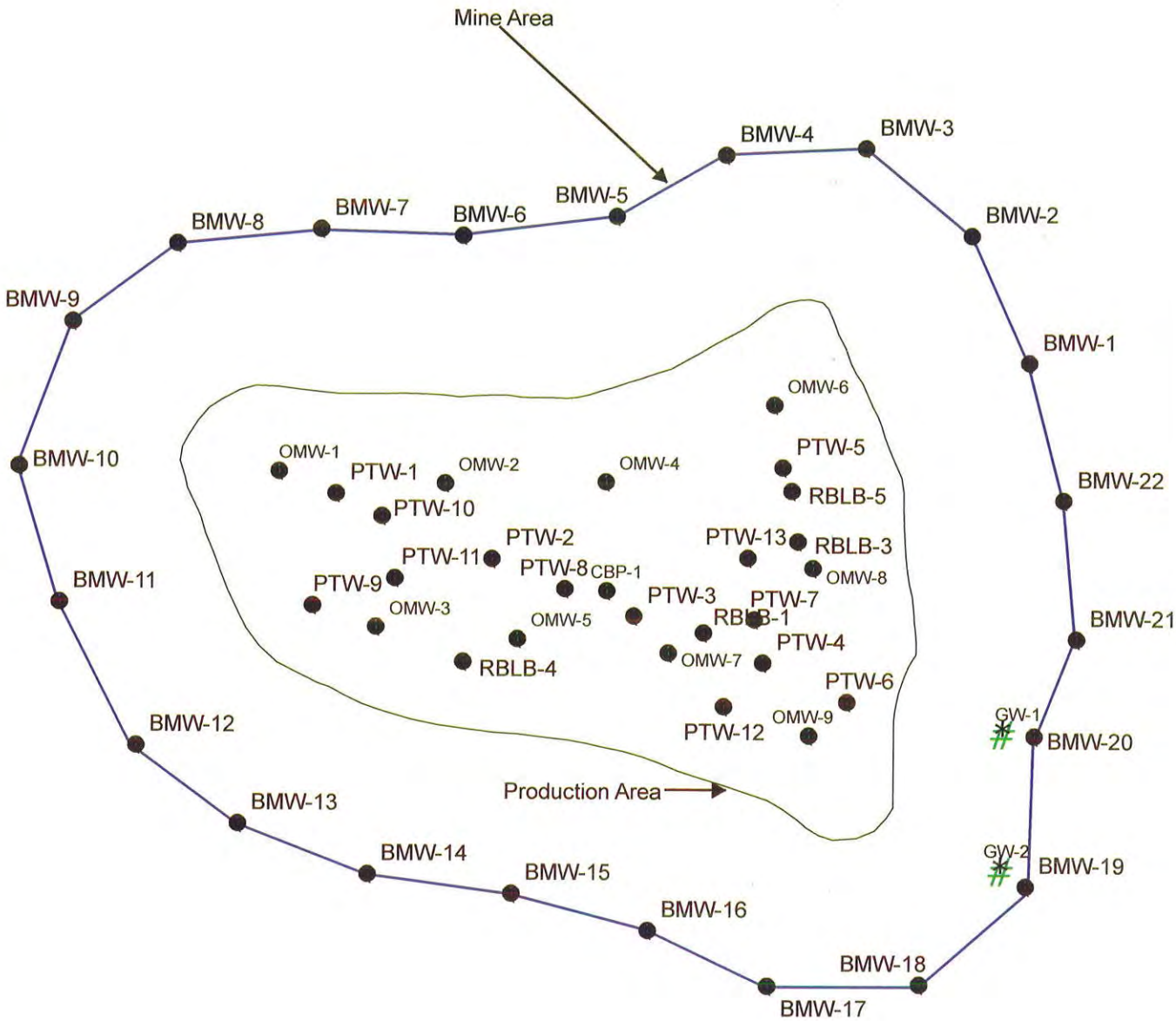

Mine Area Acreage: 94.2 acres
Production Area Acreage: 36.1 acres
Average Depth to Production Zone: 152'
Production Zone Elevation: 86' above mean sea level (MSL) to 49' above MSL

Figure 1-4
Production Area Map
1 inch equals 400 feet

0 100 200 400 600 800 1,000 Feet

Legend
Proposed Location of Production Zone Guard Well
Monitor Well
OMW Well
CBP-1

UEC Uranium Energy Corp

Figure 1-4
Drawn By: M. Bell
Checked by: C.H. & J.L.
Date: March 12, 2009

{In Archive} Fw: First of Two Emails - JUly 12, 2012 Production Area Authorization documents

William Honker to: Stacey Dwyer, Dellinger.Philip, Ray Leissner, Ann Codrington 07/12/2012 05:07 PM

Cc: Scott Ellinger

From: William Honker/R6/USEPA/US

To: Stacey Dwyer/R6/USEPA/US@EPA, Dellinger.Philip@epamail.epa.gov, Ray Leissner/R6/USEPA/US@EPA, Ann Codrington/DC/USEPA/US@EPA

Cc: Scott Ellinger/R6/USEPA/US@EPA

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William K. (Bill) Honker, P.E.
Acting Director, Water Quality Protection Division
Senior Policy Advisor for Coastal Restoration
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----- Forwarded by William Honker/R6/USEPA/US on 07/12/2012 05:03 PM -----

From: Harry Anthony <hanthony@uraniumenergy.com>
To: William Honker/R6/USEPA/US@EPA, Sam Coleman/R6/USEPA/US@EPA, Charles Maguire <charles.maguire@tceq.texas.gov>
Cc: Andy Barrett <andy@thebarrettfirm.com>, Ben Klein <klein@heatherpodesta.com>

Date: 07/12/2012 05:00 PM

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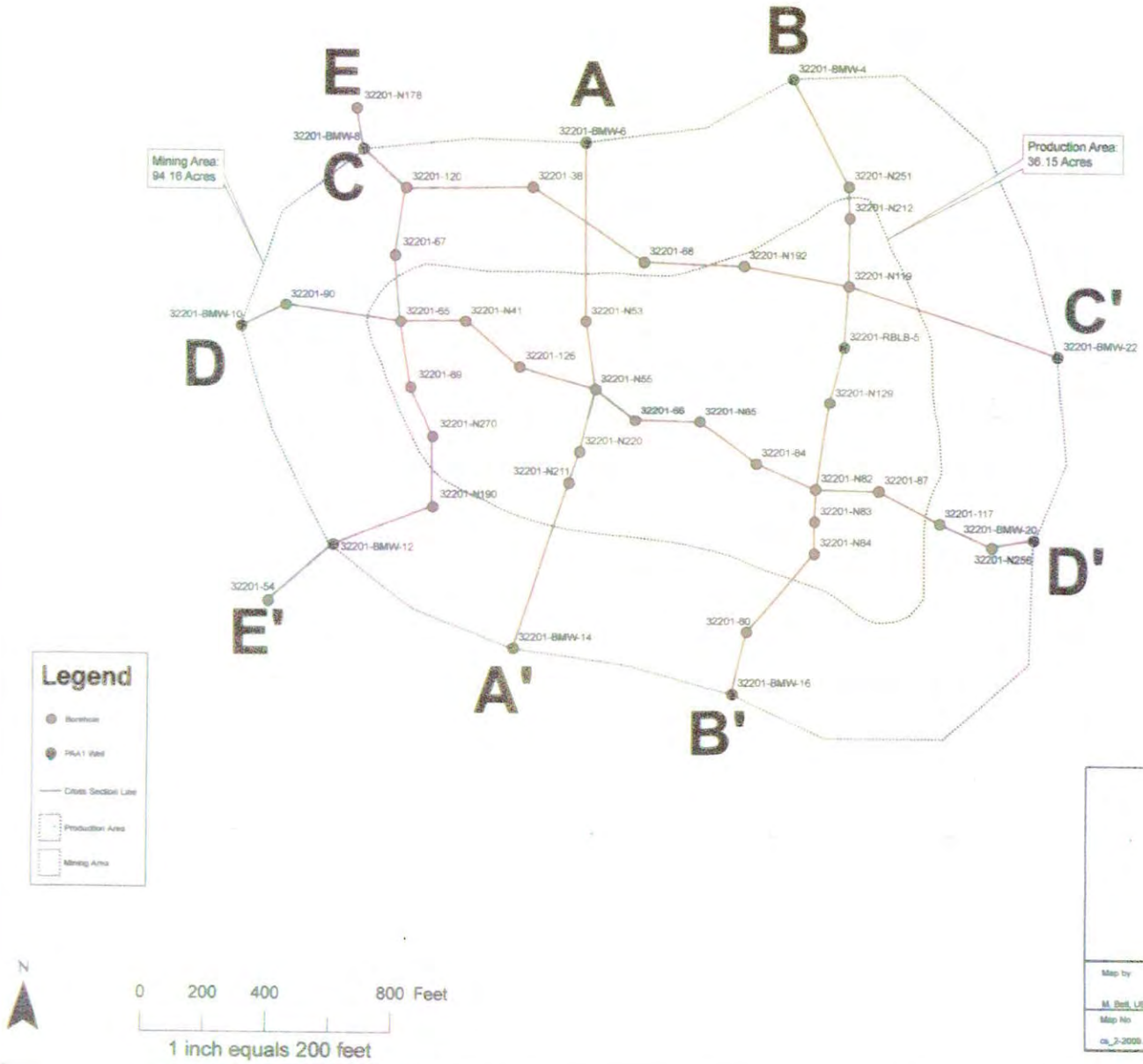

Figure 3-1

Cross Section Index Map

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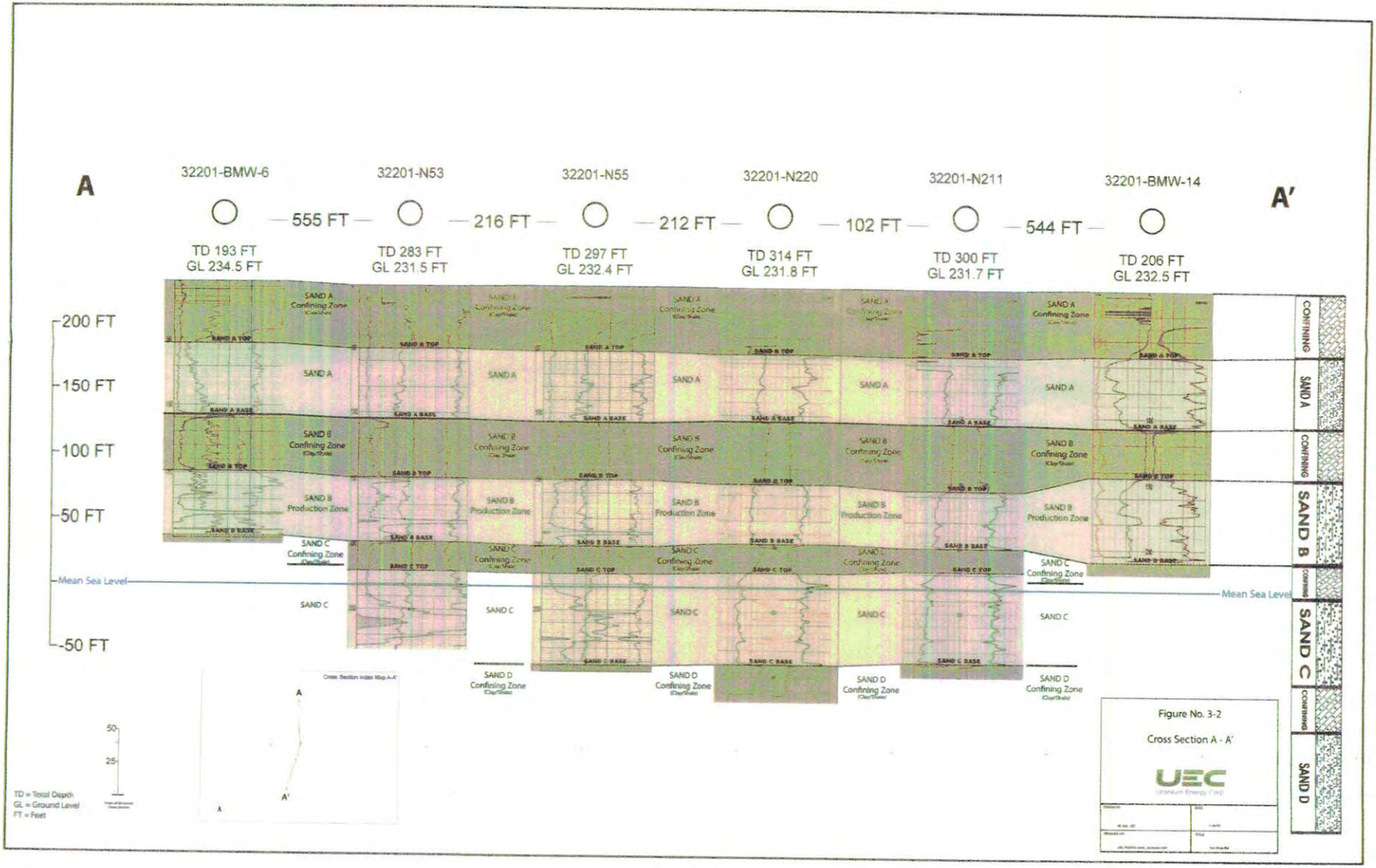
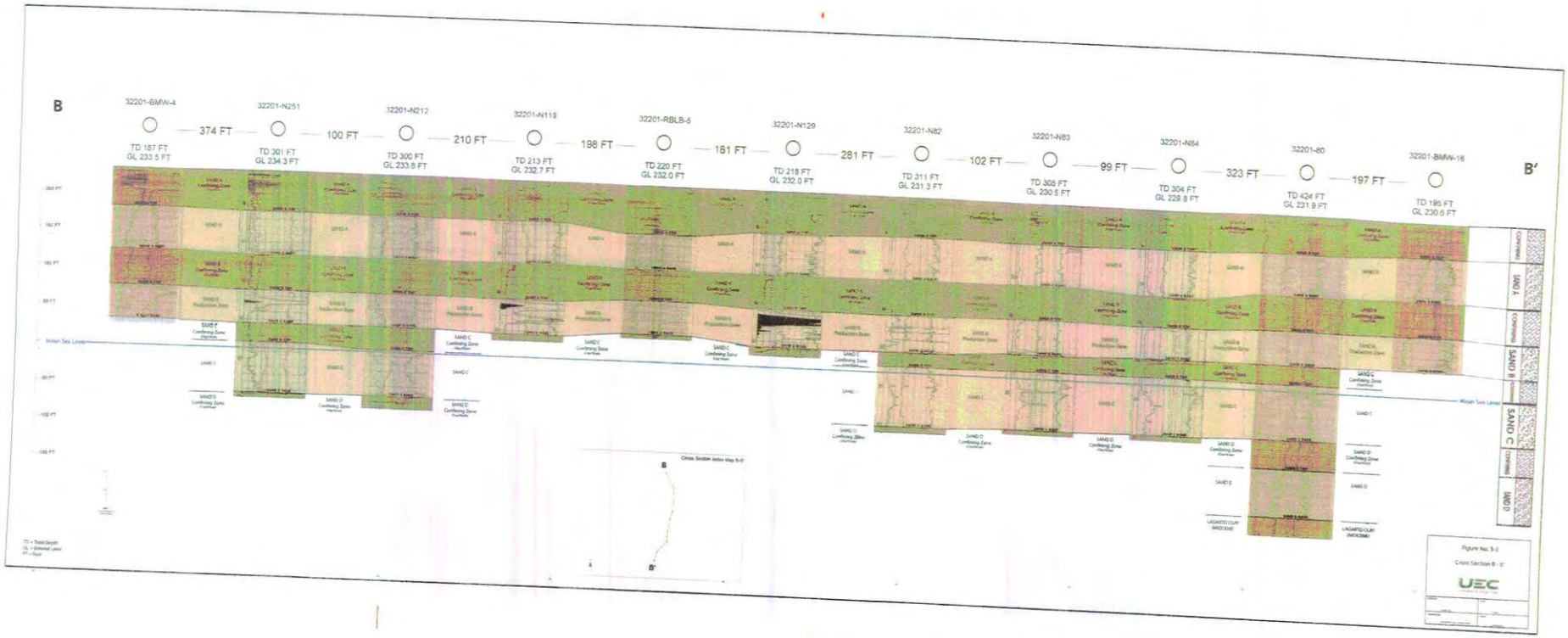
Map by	Date
M. Bell, UEC	2-17-2009
Map No	Scale: See Scale Bar
cs_2-2009.mxd	Original Dimensions: 24" W x 18" H


A
A'
32201-BMW-6
32201-N53
32201-N55
32201-N220
32201-N211
32201-BMW-14
555 FT
216 FT
212 FT
102 FT
544 FT
TD 193 FT
GL 234.5 FT
TD 283 FT
GL 231.5 FT
TD 297 FT
GL 232.4 FT
TD 314 FT
GL 231.8 FT
TD 300 FT
GL 231.7 FT
TD 206 FT
GL 232.5 FT
200 FT
150 FT
100 FT
50 FT
Mean Sea Level
-50 FT
SAND A Confining Zone
SAND A
SAND B Confining Zone
SAND B Production Zone
SAND C Confining Zone
SAND C
SAND D Confining Zone
CONFINING
SAND A
CONFINING
SAND B
CONFINING
SAND C
CONFINING
SAND D
TD = Total Depth
GL = Ground Level
FT = Feet
Figure No. 3-2
Cross Section A - A'
UEC
Uranium Energy Corp


B
B'
32201-BMW-4
TD 187 FT
GL 233.5 FT
374 FT
32201-N251
TD 301 FT
GL 234.3 FT
100 FT
32201-N212
TD 300 FT
GL 233.8 FT
210 FT
32201-N119
TD 213 FT
GL 232.7 FT
198 FT
32201-RBLB-5
TD 220 FT
GL 232.0 FT
181 FT
32201-N129
TD 218 FT
GL 232.0 FT
281 FT
32201-N82
TD 311 FT
GL 231.3 FT
102 FT
32201-N83
TD 306 FT
GL 230.5 FT
99 FT
32201-N84
TD 304 FT
GL 229.8 FT
323 FT
32201-80
TD 424 FT
GL 231.9 FT
197 FT
32201-BMW-16
TD 195 FT
GL 230.6 FT
Mean Sea Level
SAND A
SAND B
SAND C
SAND D
Figure No. 3-2
Cross Section B - B'
UEC

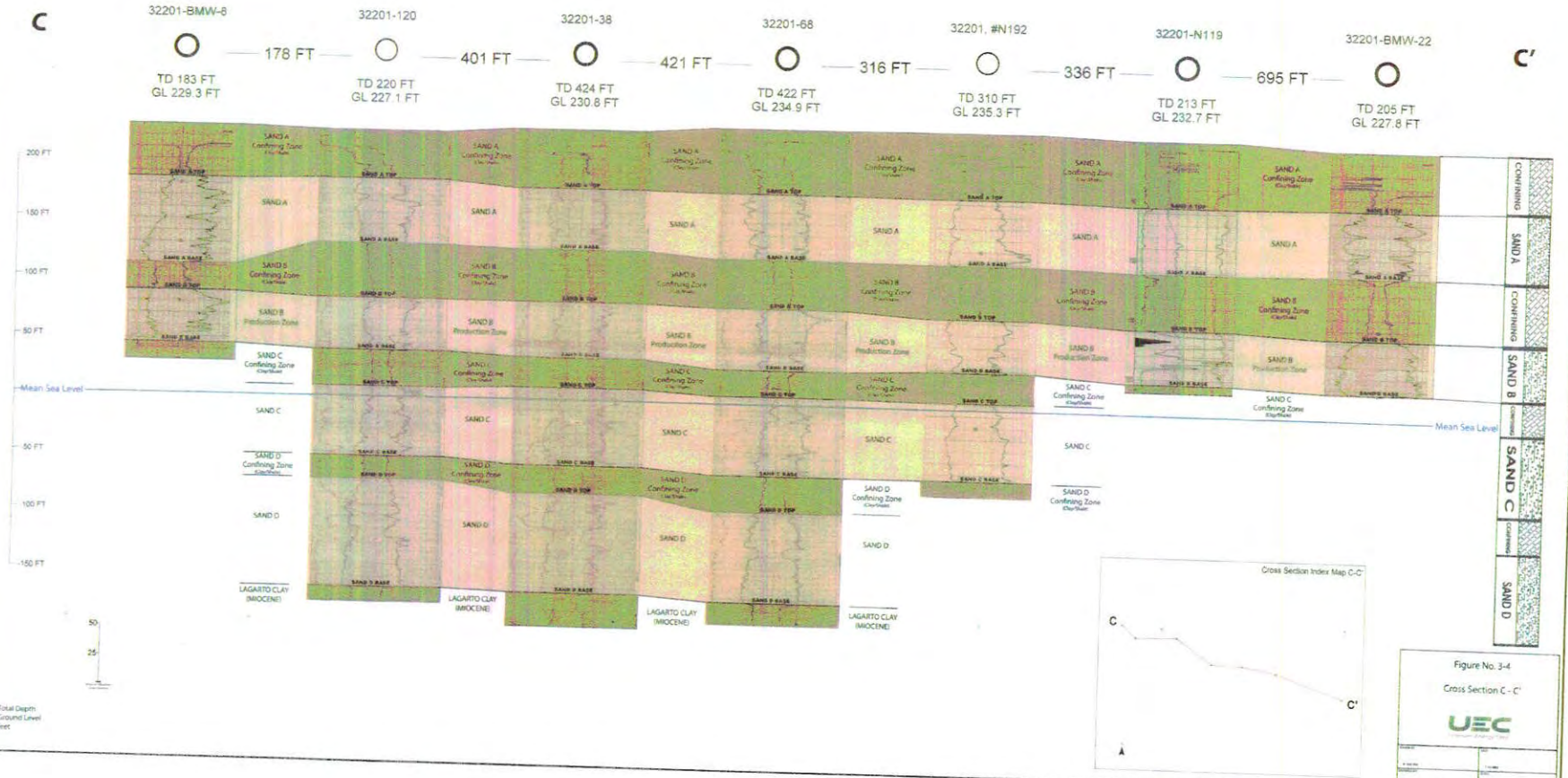


Figure No. 3-4

Cross Section C - C'

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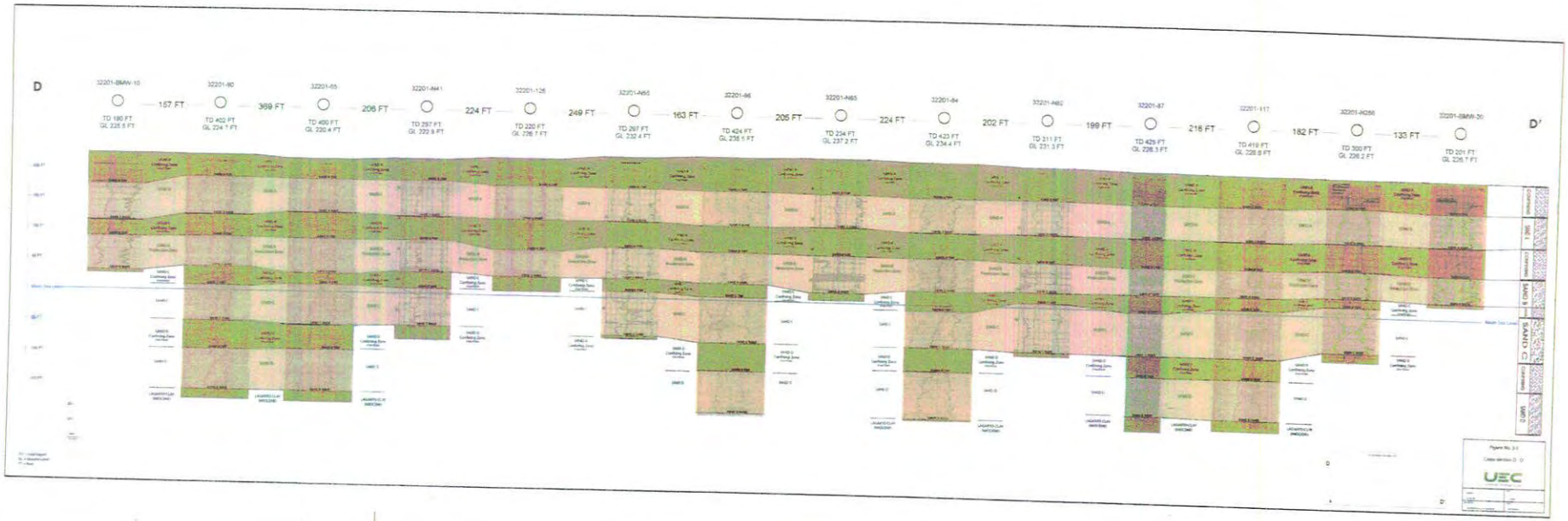
D
D'
32201-BMW-10
TD 180 FT
GL 228.5 FT
157 FT
32201-80
TD 402 FT
GL 224.7 FT
369 FT
32201-65
TD 400 FT
GL 220.4 FT
206 FT
32201-M41
TD 297 FT
GL 222.9 FT
224 FT
32201-126
TD 220 FT
GL 226.7 FT
249 FT
32201-M55
TD 297 FT
GL 232.4 FT
163 FT
32201-96
TD 424 FT
GL 236.1 FT
205 FT
32201-M65
TD 234 FT
GL 237.2 FT
224 FT
32201-84
TD 423 FT
GL 234.4 FT
202 FT
32201-M82
TD 311 FT
GL 231.3 FT
199 FT
32201-87
TD 429 FT
GL 228.3 FT
216 FT
32201-117
TD 419 FT
GL 228.9 FT
182 FT
32201-M256
TD 300 FT
GL 226.2 FT
135 FT
32201-BMW-20
TD 201 FT
GL 226.7 FT
SAND C
UEC