DECEMBER 5, 2014

2014 COMPREHENSIVE GROUNDWATER DATA EVALUATION REPORT

FORMER MONTROSE AND STAUFFER FACILITIES AND CURRENT OLIN FACILITY HENDERSON, NEVADA

HARGIS + ASSOCIATES, INC.
HYDROGEOLOGY • ENGINEERING

2014 COMPREHENSIVE GROUNDWATER DATA EVALUATION REPORT

FORMER MONTROSE AND STAUFFER FACILITIES AND CURRENT OLIN FACILITY
HENDERSON, NEVADA

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ACRONYMS AND ABBREVIATIONS

1,2-DCB	1,2-dichlorobenzene
1,4-DCB	1,4-dichlorobenzene
BCL	Basic Comparison Level
BRC	Basic Remediation Company
BHC	Benzene Hexachloride
BHT	Boulder Highway Transect
DAQEM	Clark County Department of Air Quality and Environmental Management
DNAPL	Dense Non-aqueous Phase Liquid
ft/ft	Feet Per Foot
gpm	Gallons Per Minute
GWTS	Companies' Groundwater Treatment System
H+A	Hargis + Associates, Inc.
LGAC	Liquid Granular Activated Carbon
MCL	Maximum Contaminant Level
µg/l	Micrograms Per liter
The Companies	Montrose, SMC/Syngenta, and Pioneer
Montrose	Montrose Chemical Corporation of California
NDEP	Nevada Division of Environmental Protection
NERT	Nevada Environmental Response Trust
OCPs	Organochlorine Pesticides
Pioneer	Pioneer Americas LLC d/b/a Olin Chlor Akali Products
SOPs	Standard Operating Procedures
Standardized Plan	Standardized Groundwater Monitoring Plan
SMC	Stauffer Management Company, LLC

ACRONYMS AND ABBREVIATIONS, continued

Syngenta	Syngenta Crop Protection, LLC
TDS	Total Dissolved Solids
TIN	Triangular Irregular Network
EPA	U.S. Environmental Protection Agency
USGS	U.S. Geological Survey
UMCf	Upper Muddy Creek formation
VOCs	Volatile Organic Compounds

FOREWORD

As discussed in the body of this report, this annual report is the first to be based on a data set generated by the scope of the newly adopted standardized annual groundwater monitoring program approved by Nevada Division of Environmental Protection (NDEP) on June 2, 2014. In future years, the report format will need to be optimized to use the annual monitoring data set that places emphasis on perimeter monitoring of the chemical plumes.

However, for this report, which has been compiled during the development of the Groundwater Remedial Alternative Study which utilizes detailed plume maps to help evaluate various remedial alternatives, continuing to display chemical contour maps as they have been shown in previous reports will assists in continuity. Hence, the chemical contour maps for this report utilize a combination of 2013 and 2014 data to provide an enhanced level of detail. The 2013 data has only been used for the purpose of the contour mapping, thus the discussion of chemical concentration, distribution and stability rely solely on the 2014 data.

2014 COMPREHENSIVE GROUNDWATER DATA EVALUATION REPORT

FORMER MONTROSE AND STAUFFER FACILITIES AND CURRENT OLIN FACILITY HENDERSON, NEVADA

1.0 INTRODUCTION

This report was compiled by Hargis + Associates, Inc. (H+A) on behalf of Montrose Chemical Corporation of California (Montrose), Stauffer Management Company, LLC/Syngenta Crop Protection, LLC (SMC/Syngenta), and Pioneer Americas LLC d/b/a Olin Chlor-Alkali Products (Pioneer) (collectively the Companies) to present and evaluate the 2014 annual groundwater monitoring data collected at the Companies' Henderson, Nevada study area (Figure 1). The 2014 annual groundwater monitoring event represents the first event conducted in accordance with the new standardized groundwater monitoring plan (standardized plan) for the study area. The elements of the standardized plan were detailed in a proposal letter from the Companies to the Nevada Division of Environmental Protection (NDEP) dated April 16, 2014 (H+A, 2014a). NDEP approved the standardized plan in a letter to the Companies dated June 2, 2014 (NDEP, 2014b).

Groundwater monitoring activities for the 2014 sampling event presented in this report were conducted during the second quarter 2014 and the beginning of the third quarter 2014 throughout the Companies' plant site areas and the area downgradient of the groundwater treatment system (GWTS). These areas are collectively referred to as the study area in this report. All groundwater monitoring was performed in accordance with the standardized plan. Similar to previous years, the 2014 data were supplemented by data available from monitoring programs conducted by others in the BMI area. All groundwater data, obtained by the Companies, were collected using methods and procedures in accordance with the field sampling and Standard Operating Procedures (SOPs) developed for the study area (H+A, 2007) and with SOPs developed by Basic Remediation Company (BRC) (BRC, 2008).

2.0 GROUNDWATER CONDITIONS

The following sections discuss groundwater flow and quality conditions, observed in the three hydrostratigraphic zones beneath the study area during the 2014 sampling event: the Shallow Zone; the Middle Zone; and the Deep Zone. The Shallow Zone is a water table aquifer comprised of the Quaternary alluvium fan deposits, the uppermost portion of the underlying lacustrine Upper Muddy Creek formation (UMCf), and the transitional Muddy Creek Formation that occurs between these two lithologies. The Middle Zone is comprised of the typically fine-grained upper portion of the UMCf underlying the Shallow Zone where groundwater occurs under semi-confined to confined conditions. The Deep Zone is comprised of the slightly coarser-grained portions within the UMCf underlying both the Shallow and Middle Zones where groundwater is under confined conditions.

2.1 GROUNDWATER FLOW

Directions and Gradients – Shallow Zone

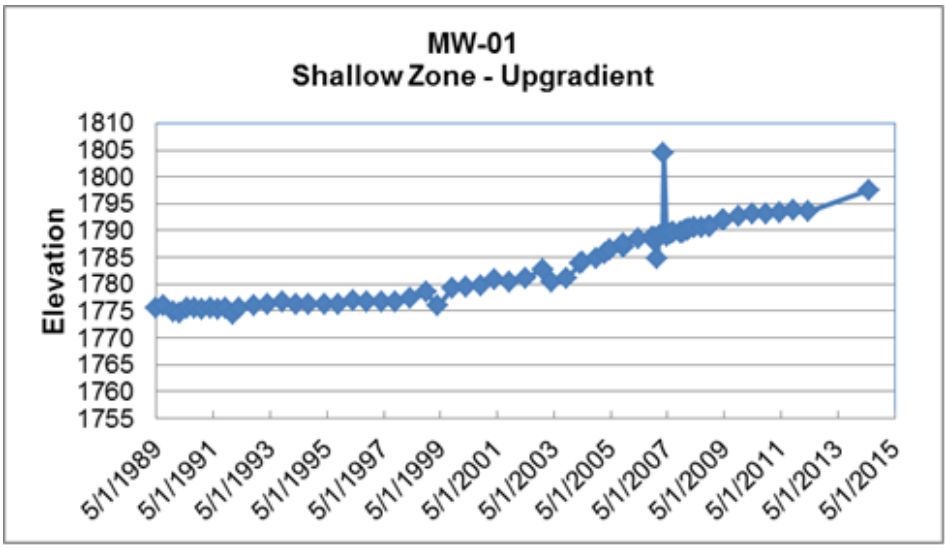
Water levels from each of the three hydrostratigraphic zones were measured at monitor wells located throughout the study area (Table 1). The direction of groundwater flow in the Shallow Zone was to the north-northeast during the second quarter 2014 (Figure 2). The hydraulic gradient in the southern portion of the study area to the former Montrose and Stauffer facilities was approximately 0.02 feet per foot (ft/ft). The gradient decreased to approximately 0.01 ft/ft north of the former facilities (Figure 2).

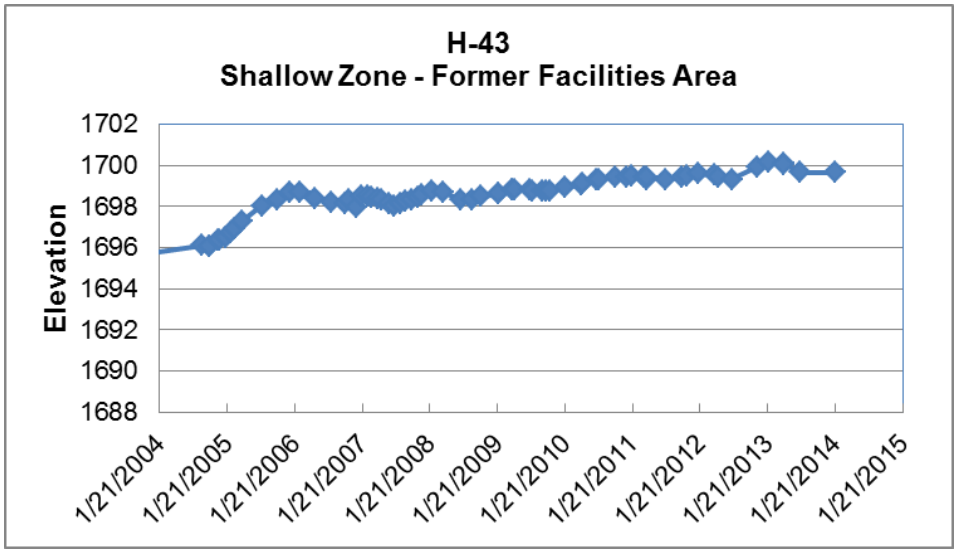
The direction of groundwater flow and the flow gradients in the Shallow Zone during the second quarter 2014 were very consistent with previous Shallow Zone conditions measured since 2006 (H+A, 2008, 2010b, 2010c, 2011, 2012a, and 2013). Recent Shallow Zone flow and gradients were also consistent with previous work completed from 1980 and 1982 (Geraghty & Miller, 1980 and Stauffer Chemical Company, 1983).

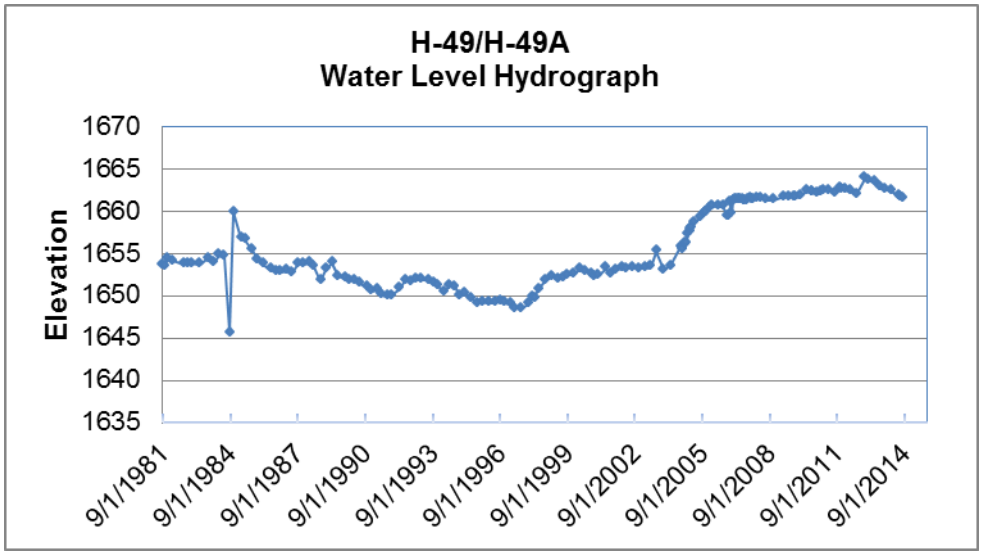
The direction of groundwater flow and flow gradients for all three hydrostratigraphic zones are strongly influenced by the slope of the study area land surface. Review of study area topographic maps indicates that the slope of the land surface is to the north in the southern portion of the study area and to the northeast from near Warm Springs Road to the Las Vegas Wash. Land surface gradients range from 0.02 to 0.03 ft/ft in the southern portion of the study area and from 0.01 to 0.02 ft/ft in the northern portion of the study area. These land slope

conditions are very similar to groundwater gradients in these areas. Therefore, the consistency of groundwater flow direction and flow gradients over the years is reflective of this relationship to the land surface and would not be expected to vary significantly from year to year.

The directions of groundwater flow and gradients have remained consistent as Shallow Zone water levels have risen across the study area in recent years. Shallow Zone water level hydrographs for monitor wells located in various monitoring locations in the study area are provided to illustrate this rise.





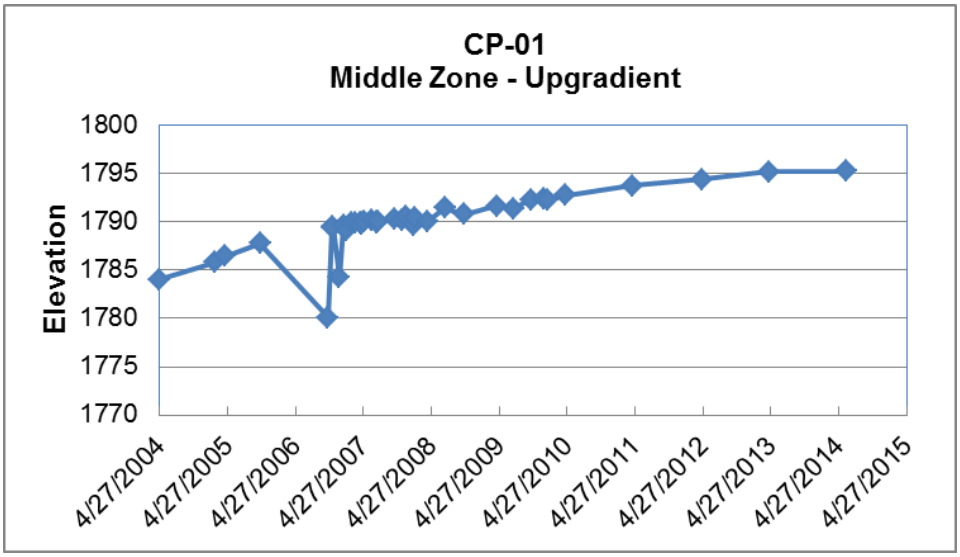


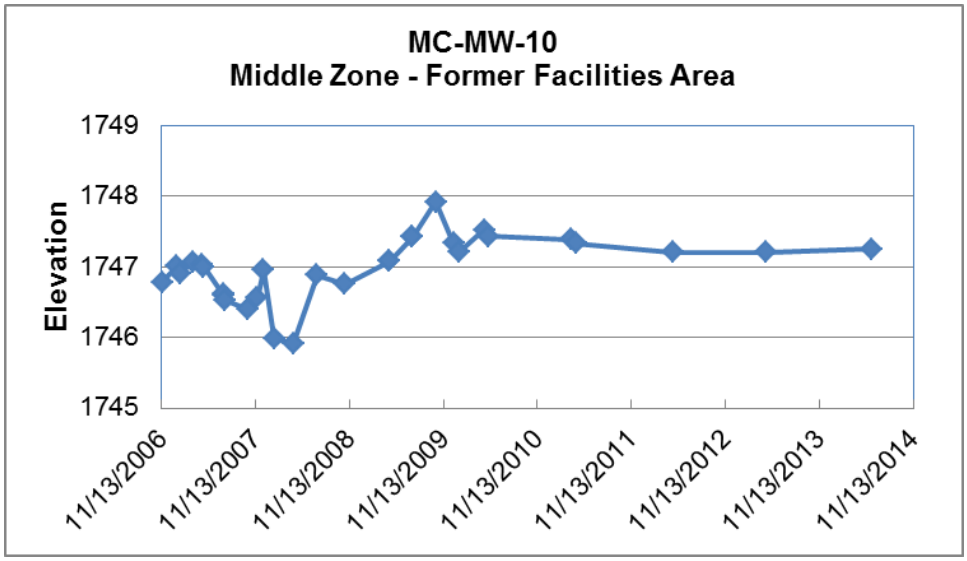
Direction and Gradients – Middle Zone

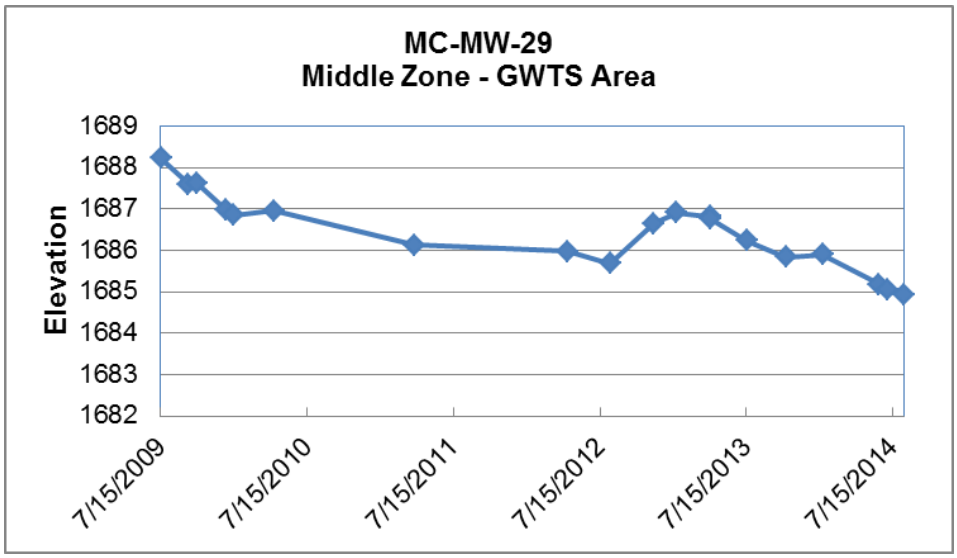
The direction of groundwater flow in the Middle Zone was to the north during the second quarter 2014 (Figure 3). The hydraulic gradient in the Middle Zone ranged between approximately 0.01 ft/ft and 0.02 ft/ft.

The direction of groundwater flow and the flow gradients in the Middle Zone during the second quarter 2014 are consistent with previous Middle Zone conditions measured since 2006 (H+A, 2008, 2010b, 2010c, 2011, 2012a, and 2013). Similar to the Shallow Zone, the direction of groundwater flow and flow gradients in the Middle Zone are very similar to slope of the land surface. Middle Zone water level conditions are not expected to vary significantly based on this relationship.

Water levels in the Middle Zone have fluctuated somewhat over time. However, the direction of groundwater flow and flow gradients have remained consistent as Middle Zone water levels have risen, remained stable, or have decreased in portions of the study area. Middle Zone water level hydrographs for monitor wells located in various locations in the study area are provided to illustrate changes over time.


CP-01
Middle Zone - Upgradient
Elevation
1800
1795
1790
1785
1780
1775
1770
4/27/2004
4/27/2005
4/27/2006
4/27/2007
4/27/2008
4/27/2009
4/27/2010
4/27/2011
4/27/2012
4/27/2013
4/27/2014
4/27/2015


MC-MW-10
Middle Zone - Former Facilities Area
Elevation
1749
1748
1747
1746
1745
11/13/2006
11/13/2007
11/13/2008
11/13/2009
11/13/2010
11/13/2011
11/13/2012
11/13/2013
11/13/2014


MC-MW-29
Middle Zone - GWTS Area
Elevation
1689
1688
1687
1686
1685
1684
1683
1682
7/15/2009
7/15/2010
7/15/2011
7/15/2012
7/15/2013
7/15/2014

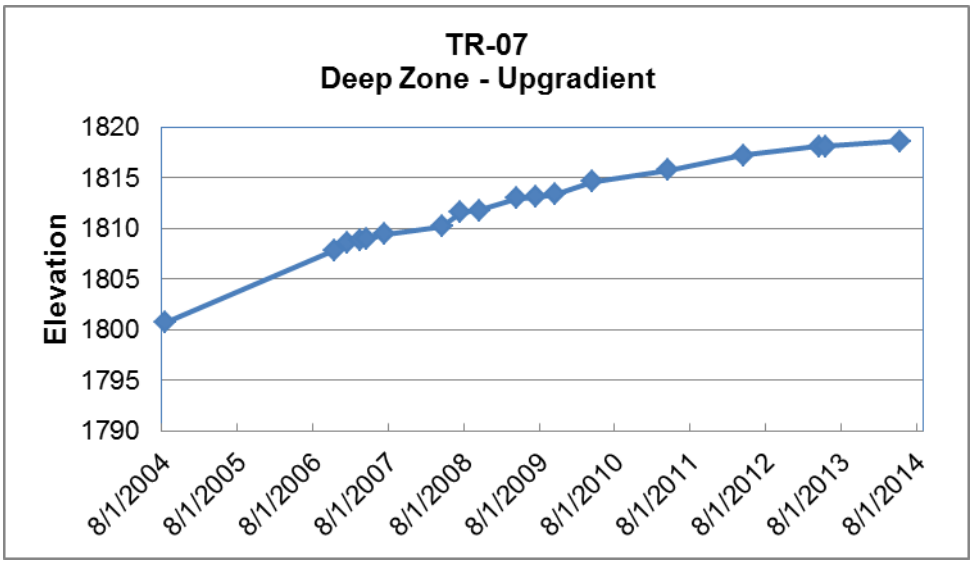
Most Middle Zone wells indicate either stable or increasing water levels. However, water levels have generally decreased at well MC-MW-29. Monitor well MC-MW-29 is located near the Companies' Shallow Zone GWTS area (Figure 3). The decrease in water levels at this well may be in response to GWTS pumping.

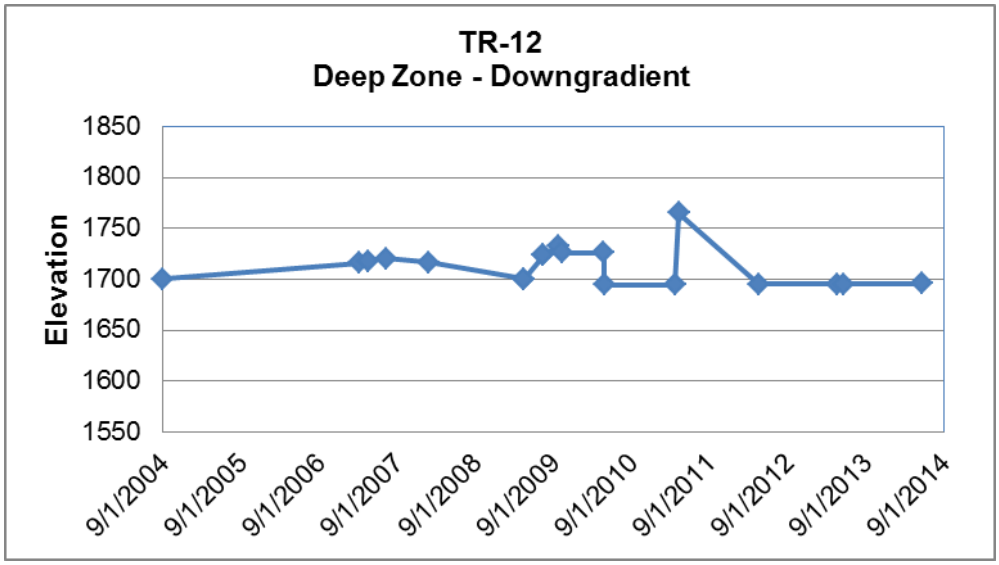
Direction and Gradient – Deep Zone

The direction of groundwater flow in the Deep Zone was predominately north during the second quarter 2014 (Figure 4). The hydraulic gradient across the study area was approximately 0.02 ft/ft.

The direction of groundwater flow and the flow gradient in the Deep Zone during the second quarter 2014 was consistent with previous Deep Zone conditions measured since 2009 (H+A, 2010b, 2010c, 2011, 2012a, and 2013). Similar to the Shallow and Middle Zones, the direction of groundwater flow and flow gradients in the Deep Zone are very similar to slope of the land surface and are not expected to vary significantly based on this relationship.

Deep Zone water level (piezometric) hydrographs for monitor wells located in various locations in the study area are provided to illustrate changes over time. Water levels have remained either stable or have risen over time.





Vertical Head Differences

Vertical head differences are calculated from measurements taken from a series of five well clusters arrayed in a south-north direction across the study area located as shown in Figure 5.

Shallow and Middle Zone Differences

Groundwater elevations determined at monitor wells completed in the Middle Zone ranged from approximately 0.5 to 13.5 feet higher in elevation compared to groundwater elevations at nearby Shallow Zone monitor wells during the second quarter 2014 (Table 2 and Figure 5). These differences in elevation indicated that an upward vertical groundwater flow gradient existed in vertical delineation well sets between the Middle Zone (upper portion of the UMCf) and the overlying Shallow Zone.

The predominant upward vertical gradient observed during the second quarter 2014 was consistent with previous vertical head calculations since measurements began after the construction of the vertical delineation wells in 2009 (H+A, 2010a, 2010b, 2010c, 2011, 2012a, and 2013).

Middle and Deep Zone Differences

Groundwater elevations measured from monitor wells completed in the Deep Zone were higher than groundwater elevations measured from both Middle and Shallow Zone monitor wells (Table 2 and Figure 5). Groundwater elevations at Deep Zone monitor wells ranged from approximately 37 to 60 feet higher in elevation compared to nearby Shallow Zone monitor wells, and approximately 24 to 59 feet higher in elevation compared to nearby Middle Zone monitor

wells during the second quarter 2014. These differences in elevation indicated that an upward vertical groundwater flow gradient existed between the Deep Zone (deeper portions of the UMCf) and both the overlying Middle and Shallow Zones. These conditions were consistent with previous vertical head conditions measured since 2009 (H+A, 2010b, 2010c, 2011, 2012a, and 2013). These data combined with lithologic data indicates that the upper portions of the UMCf act as a confining unit (or aquitard) between the Deep and Shallow Zones.

2.2 GROUNDWATER QUALITY DATA EVALUATED FOR THIS REPORT

The standardized plan includes the collection of groundwater samples from each of the three hydrostratigraphic zones. The standardized plan now formally includes other groundwater monitoring programs that were conducted separately by the Companies within the study area (H+A, 2014a). These other programs included:

- The Montrose annual closed ponds area post-closure monitoring program;
- The Companies' quarterly GWTS downgradient transect monitoring program, and
- The Companies' 2014 annual GWTS extraction well monitoring program.

With the exception of the groundwater samples collected from the GWTS extraction wells, all groundwater samples were analyzed for the following chemical groups as indicated in the standardized plan:

- Volatile organic compounds (VOCs) analyzed by U.S. Environmental Protection Agency (EPA) method 8260B,
- Organochlorine pesticides (OCPs) analyzed by EPA method 8081A,
- Selected metals analyzed by EPA methods 6010B, 6020 and 7470A,
- Total dissolved solids (TDS) using standard method SM2540C, and
- Perchlorate using EPA method 6850.

GWTS extraction well samples were analyzed using a slightly different analytical suite (metals, TDS, and perchlorate were not analyzed). This was done to avoid redundancy in the data because these chemicals are analyzed in groundwater samples collected at the adjacent downgradient transect monitor wells which are within 400 to 700 feet from the extraction wells.

Similar to previous years, data generated by the Companies in 2014 were supplemented with available data generated by others from within the BMI area. Water level, perchlorate and TDS data from the adjacent Nevada Environmental Response Trust (NERT; formerly Tronox LLC) monitoring program were incorporated into the appropriate figures of this report.

Additionally, data from two specialized groundwater sampling programs/events conducted by the Companies are also included in this report: 1) extraction well C shutdown groundwater sampling, and 2) Boulder Highway Transect (BHT) verification groundwater sampling.

- Well C shutdown monitoring began during the second quarter 2014 and is scheduled to continue for four consecutive quarters. The scope of the well C shutdown monitoring includes measuring water levels and collecting groundwater samples from extraction well C and nearby wells MC-128 and MC-129 (Figure 6; *de maximis, inc.;* 2012a). The purpose of the groundwater monitoring is to measure any impacts to GWTS area Shallow Zone groundwater conditions potentially created by the deactivation of well C. Groundwater sampling data from the first extraction well C shutdown monitoring event is included in this report.
- BHT verification groundwater sampling was conducted during the third quarter 2014 (early July 2014). The scope of the BHT included collecting groundwater samples from four monitor wells located downgradient of the Companies' and NERT groundwater treatment systems. The purpose of the groundwater sampling was to verify VOC data from 2011. A summary of the scope and results of the BHT verification groundwater sampling was submitted to NDEP in a letter dated August 22, 2014 (H+A, 2014b).

Analytical data for all locations sampled by the Companies during the 2014 sampling event are provided in Table 3. Chemicals and constituents that were detected at concentrations greater than their applicable maximum contaminant level (MCL) or basic comparison level (BCL) are denoted on the table. Field parameter data measured during groundwater sampling are provided in Table 4. Chemical prevalence for each hydrostratigraphic zone is provided in Tables 5 through 7. Analytical laboratory reports are provided in Appendix A. The data validation summary report for data generated by the Companies is provided in Appendix B.

2.3 DISTRIBUTION OF CHEMICALS

The most prevalent VOCs, pesticides, metals, and inorganic constituents analyzed in the study area are discussed in the following sections. The distributions of the prevalent chemicals in the Shallow Zone are illustrated in Figures 6 through 17. Concentrations of these same chemicals

in the Middle Zone are posted on Figures 18 through 29. The data are posted for the Middle Zone because of the different depths and screened intervals among the study area Middle Zone wells; contouring may not accurately represent conditions. Field parameters for monitor wells completed in each zone are posted on Figures 30 through 32. No maps or figures were prepared for the Deep Zone because the chemicals and constituents listed above are not prevalent. Note, as discussed in the foreword to this report, some 2013 monitoring data was used in the development of the chemical contour maps presented in this report to provide continuity with previous annual reports being used in the evaluations being conducted as part of the ongoing Groundwater Remedial Alternative Study. This practice will only be used for this year's report and the report format will be optimized in future years to rely only on the data set generated for the current year.

For the purposes of this evaluation, the distributions of the prevalent chemicals were compared to data from 2009 through 2013 (H+A, 2010b, 2010c, 2011, 2012a, and 2013). Comparisons of the distributions of chemicals over periods of time are useful in evaluating the effectiveness of remedial measures and in determining whether chemical plumes are stable or are undergoing changes in geometry. Data from 2009 are used since that was the year that annual groundwater monitoring was initiated by the Companies. Chemical distribution maps prepared by the Companies with data from 2009 through 2013, which were previously submitted to NDEP, are included in Appendix C.

2.3.1 Volatile Organic Compounds

The VOCs that are most consistently detected in the Shallow and Middle Zones above their respective MCL and/or BCL are benzene, chlorobenzene, chloroform, 1,2-dichlorobenzene (1,2-DCB), and 1,4-dichlorobenzene (1,4-DCB) (Tables 5 and 6). Data from 2009 have consistently indicated that elevated concentrations of these VOCs are present in and immediately downgradient of the former facilities areas. VOCs in upgradient wells to the south of the former facilities are consistently not detected or detected at concentrations less than MCLs and BCLs and the extent of VOCs are well defined to the east and west by monitor wells located on adjacent properties. VOC concentrations gradually decrease downgradient of the former facilities toward the GWTS.

The GWTS is effective in removing the VOCs from Shallow Zone groundwater and limits their migration beyond the GWTS to the downgradient area. Typically VOCs are either not detected or detected sporadically at low-level concentrations in the downgradient area. The following sections provide brief overviews of the results for each of these prevalent VOCs across the study area. Discussions of the effectiveness of the GWTS in capturing and controlling VOC-impacted groundwater and VOC concentrations in the downgradient area are discussed further in Section 2.4.

2.3.1.1 Shallow Zone

Benzene

The distribution of benzene for 2014 is illustrated on Figure 6. Comparison of benzene distribution in 2014 to 2013 indicates there are no significant changes in the distribution, shape, or extent of benzene at areas where benzene is quantified greater than the MCL of 5 micrograms per liter (µg/l) (Appendix C). Furthermore, comparisons of benzene distribution during the period 2009 to 2014 also indicate that the extent of benzene is stable from year to year, providing further evidence that the benzene plume is stable.

Some small changes in the distribution of benzene did occur between 2013 and 2014. Benzene was detected at a concentration of 120 µg/l at monitor well MC-129 (Table 3). This monitor well is being monitored as part of the well C shutdown task and will continue to be sampled through the first quarter 2015 (Section 2.2). This concentration has resulted in a small isolated area of benzene exceeding the MCL that is detached from the benzene plume (Figure 6). However, the area is not extensive as benzene concentrations at wells surrounding well MC-129 are either less than the MCL or is non-detect. Chlorobenzene was also detected at a concentration greater than the MCL at monitor well MC-129 and is discussed below. However, no other VOCs were detected at any of the well C shutdown wells at concentrations greater than MCLs.

Review of benzene data for the western extraction wells indicates a continued slight overall decreasing trend in concentrations. This decrease has shifted the western extent of benzene concentrations greater than the MCL to the east compared to previous years. Benzene has increased in some extraction wells in the central and eastern portion of the well field, however these and other changes in concentrations were not significant enough to substantively change the distribution of benzene depicted for 2014.

Benzene was detected at a concentration of 520 µg/l at downgradient transect well MC-50 in 2013. Subsequently, benzene was detected at a concentration of 4.7 µg/l in 2014 (Table 3 and Figure 6). This reduction in benzene concentration was in response to the Companies' ongoing extraction well redevelopment program and the resulting increase in extraction well pumping rates upgradient of well MC-50 (*de maximis, inc.,* 2014b). Benzene concentrations remained stable at, less than the MCL, or were not detected in the other downgradient transect wells in 2014.

Chlorobenzene

The distribution of chlorobenzene for 2014 is illustrated on Figure 7. Similar to benzene, comparison of chlorobenzene distribution in 2014 and 2013 indicates there are no significant changes in the distribution, shape, or extent of chlorobenzene where quantified greater than the MCL of 5 µg/l (Appendix C). Furthermore, comparisons of chlorobenzene distribution during the period 2009 to 2014 also indicate that the extent of chlorobenzene is stable from year to year, providing further evidence that the chlorobenzene plume is stable.

Some small changes in the distribution of chlorobenzene did occur between 2013 and 2014. Chlorobenzene was detected at a concentration of 220 µg/l at monitor well MC-129 (Table 3). Similar to benzene, this concentration has resulted in a small isolated area of chlorobenzene exceeding the MCL that is detached from the chlorobenzene plume (Figure 7). However, the area is not extensive as chlorobenzene concentrations at wells surrounding well MC-129 are either less than the MCL or non-detect.

Chlorobenzene was detected at a concentration of 140 µg/l at downgradient transect well MC-50 in 2013. Chlorobenzene was detected at a concentration of 51 µg/l in 2014 (Table 3 and Figure 7). Similar to benzene, this reduction in chlorobenzene concentration was in response to an increase in extraction well pumping rates upgradient of well MC-50 during 2014 (see above). Chlorobenzene concentrations remained stable less than the MCL or were not detected in the other downgradient transect wells in 2014.

Chloroform

The distribution of chloroform for 2014 is illustrated on Figure 8. Similar to other VOCs, comparison of chloroform distribution in 2014 to 2013 indicates there are no significant changes in the distribution, shape, or extent of chloroform at areas where chloroform is quantified greater than the MCL of 80 µg/l (Appendix C).

Furthermore, comparisons of chloroform distribution during the period 2009 to 2014 also indicate that the extent of chloroform is stable from year to year, providing further evidence that the chloroform plume is stable.

Chloroform distribution and other related groundwater migration issues were further discussed with NDEP during an Eastside Workshop conducted in June 2014. Based on the information presented to and discussed with NDEP during the workshop, the chloroform figure has been revised to reflect a separation of chloroform between the Companies' study area and the NERT property (Figure 8).

Chloroform concentrations remained consistent compared to 2013 specifically in those areas where chloroform is typically not detected or detected below the MCL. These areas include: 1) the upgradient area south of the former facilities, 2) areas east and west of the former facilities; and 3) the downgradient transect north of the GWTS. Chloroform was detected at concentrations ranging from 28 µg/l to 450 µg/l at NERT monitor wells M-057A, M-092, and M-142 sampled by the Companies to the east of the Companies' study area (Table 3 and Figure 8). These concentrations are consistent with previous chloroform concentrations detected in these wells since 2009 (Appendix C).

<u>1,2-Dichlorobenzene</u>

The distribution of 1,2-DCB for 2014 is illustrated on Figure 9. Similar to other VOCs, comparison of 1,2-DCB distribution in 2014 to 2013 indicates there are no significant changes in the distribution, shape, or extent of benzene at areas where 1,2-DCB is quantified greater than the MCL of 600 µg/l (Appendix C). Furthermore, comparisons of 1,2-DCB distribution during the period 2009 to 2014 also indicate that the extent of 1,2-DCB is stable from year to year, providing further evidence that the benzene plume is stable.

1,2-DCB did increase in concentration at extraction well N to equal the MCL of 600 µg/l in 2014 (Table 3 and Figure 9). However, this area of elevated 1,2-DCB is not extensive as 1,2-DCB concentrations at wells surrounding well N are either less than the MCL or non-detect. 1,2-DCB concentrations remained consistent compared to 2013 specifically in those areas where 1,2-DCB is typically not detected or detected below the MCL. These areas include: 1) the upgradient area south of the former facilities, 2) areas east and west of the former facilities; 3) the downgradient transect north of the GWTS, and 4) the downgradient area.

1,4-Dichlorobenzene

The distribution of 1,4-DCB for 2014 is illustrated on Figure 10. Similar to other VOCs, comparison of 1,4-DCB distribution in 2014 to 2013 indicates there are no significant changes in the distribution, shape, or extent of benzene at areas where 1,4-DCB is quantified greater than the MCL of 75 µg/l (Appendix C). Furthermore, comparisons of 1,4-DCB distribution during the period 2009 to 2014 also indicate that the extent of 1,4-DCB is stable from year to year, providing further evidence that the benzene plume is stable.

1,4-DCB concentrations remained consistent compared to 2013 specifically in those areas where 1,4-DCB is typically not detected or detected below the MCL. These areas include: 1) the upgradient area south of the former facilities, 2) areas east and west of the former facilities; 3) the downgradient transect north of the GWTS, and 4) the downgradient area.

2.3.1.2 Middle Zone

The distributions of benzene, chlorobenzene, chloroform, 1,2-DCB, and 1,4-DCB are posted on Figures 18 through 22. Similar to the Shallow Zone, comparisons of the distributions of these VOCs in 2014 to 2013 do not identify any significant changes in distribution or extent. Comparisons of these VOCs during the period 2009 to 2014 also indicate that the extents of these VOCs are stable from year to year (Appendix C).

Review of the 2014 data indicates that Middle Zone VOC concentrations fluctuated somewhat at most wells since 2013. Some VOCs, specifically benzene, have decreased significantly in concentration in the GWTS area since 2009. However, benzene concentrations remained relatively stable in 2014.

2.3.2 Organochlorine Pesticides

The OCPs most consistently detected in the Shallow Zone above their respective MCL or BCL are alpha-, beta-, and gamma-benzene hexachloride (BHC) (Table 5). Alpha- and gamma-BHC are the most prevalent OCPs in the Middle Zone (Table 6). Similar to VOCs, data from 2009 have consistently indicated that concentrations of these BHCs are present in and immediately downgradient of the former facilities areas. BHCs in upgradient wells to the south of the former facilities are consistently not detected or detected at low-level concentrations.

The extents of BHCs are well defined to the east and west by wells located on adjacent properties. BHC concentrations gradually decrease downgradient of the former facilities toward the GWTS. Concentrations of BHCs are reduced by the GWTS which limits their migration to the downgradient area. Typically BHCs are detected sporadically at low-level concentrations in the downgradient area.

2.3.2.1 Shallow Zone

Alpha-BHC

The distribution of alpha-BHC is illustrated on Figure 11. Comparison of alpha-BHC distribution in 2014 to 2013 does not identify any significant changes in the distribution, shape, or extent of alpha-BHC where greater than the BCL (Appendix C). This is evidence that the alpha-BHC plume is stable. Comparisons of alpha-BHC distributions during the period 2009 to 2014 also indicate that the extent of alpha-BHC is stable from year to year, considering the change in the BCL prior to preparing the 2012 figures. Alpha-BHC has not been detected in Shallow Zone groundwater in the downgradient area at a concentration greater than the current BCL since 2009.

Review of the 2014 data indicates that alpha-BHC fluctuated slightly in concentration in wells since 2013. The fluctuations were observed at monitor wells located throughout the study area. However these changes in concentrations were not significant enough to substantively change the distribution of alpha-BHC depicted for 2014.

Beta-BHC

The distribution of beta-BHC is illustrated on Figure 12. Comparison of beta-BHC distribution in 2014 to 2013 does not identify any significant changes in the distribution, shape, or extent of beta-BHC where greater than the BCL (Appendix C). This is evidence that the beta-BHC plume is stable. Comparisons of beta-BHC distributions during the period 2009 to 2014 also indicate that the extent of beta-BHC is stable from year to year, considering the change in the BCL prior to preparing the 2012 figures.

Review of the 2014 data indicates that beta-BHC fluctuated slightly in concentration in wells since 2013. The fluctuations were observed at monitor wells located throughout the study area. Note, Beta-BHC was detected at a concentration of 6.0 µg/l at well PC-031 in 2014 (Table 3). Well PC-031 is located in the downgradient area (Figure 12). This is a slight decrease in concentration compared to 2013 (6.3 µg/l) (Appendix C). However, beta-BHC at other

downgradient area wells located near well PC-031 was either not detected or detected at concentrations less than the BCL.

Gamma BHC

The distribution of gamma-BHC is illustrated on Figure 13. Comparison of gamma-BHC distribution in 2014 to 2013 does not identify any significant changes in the distribution, shape, or extent of gamma-BHC where greater than the MCL (Appendix C). This is evidence that the gamma-BHC plume is stable. Comparisons of gamma-BHC distributions during the period 2009 to 2014 also indicate that the extent of gamma-BHC is stable from year to year. Gamma-BHC has not been detected in Shallow Zone groundwater in the downgradient area at a concentration greater than the MCL since 2010.

Review of the 2014 data indicates that gamma-BHC fluctuated slightly in concentration in wells since 2013. The fluctuations were observed at monitor wells located throughout the study area. However these changes in concentrations were not significant enough to substantively change the distribution of gamma-BHC depicted for 2014.

2.3.2.2 Middle Zone

The distributions of alpha-, beta-, and gamma-BHC in the Middle Zone are posted on Figures 23 through 25, respectively. Similar to the Shallow Zone, comparisons of the distributions of these BHCs in 2014 to 2013 do not identify any significant changes in distribution or extent. Comparisons of these BHCs during the period 2009 to 2014 also indicate that the extents of these BHCs are stable from year to year (Appendix C).

Review of the 2014 data indicates that Middle Zone BHC concentrations fluctuated slightly in wells since 2013. Alpha- and beta-BHC were not detected at concentrations greater than BCLs in the study area. Gamma-BHC is present at concentrations greater than the MCL of 0.2 µg/l at wells DPT-01 and MC-MW-10 located in the former facilities area. Concentrations of gamma-BHC surrounding this area and downgradient of the former facilities are either not detected or detected at concentrations less than the MCL. These conditions are similar to previous years. and the observed concentrations at monitor wells DPT-01 and MC-MW-10 have decreased compared to 2013.

2.3.3 Metals

Arsenic and uranium are the metals most consistently detected in the Shallow and Middle Zones above their respective MCL or BCL (Tables 5 and 6). The following sections provide brief overviews of the results for these metals in the study area.

2.3.3.1 Shallow Zone

Arsenic

The distribution of arsenic is illustrated in Figure 14. Arsenic is a naturally occurring constituent in Shallow Zone groundwater and the regional area (H+A, 2008; U.S. Geological Survey [USGS], 1998). As such, the footprint of the arsenic "plume" at concentrations greater than the MCL has included all wells within the study area except upgradient monitor well H-11 and monitor well H-55 located along the western boundary of the study area. The arsenic footprint has also included upgradient well AA-MW-05 since 2009. Comparison of arsenic distribution in 2014 to 2013 does not identify any significant changes in the distribution, shape, or extent of arsenic where greater than the MCL of 10 µg/l (Appendix C). This is evidence that the arsenic concentrations are stable.

Comparisons of arsenic distributions during the period 2009 to 2014 also indicate that the extent of arsenic is stable from year to year. In 2012, the arsenic concentration in upgradient well AA-MW-24 also exceeded the MCL and remained there in 2013. In 2013, the arsenic concentration in upgradient well AA-MW-05 also exceeded the MCL and remained there in 2014. Further, arsenic concentrations detected across the study area during the 2014 sampling event were in generally lower than the 2013 concentrations.

Uranium

The distribution of uranium is illustrated in Figure 15. Uranium is also a naturally occurring constituent in Shallow Zone groundwater and the regional area (H+A, 2008; USGS, 1998). The footprint of uranium present at concentrations greater than the MCL is minimal. Comparison of uranium distribution in 2014 to 2013 does not identify any significant changes in the distribution, shape, or extent of uranium greater than the MCL.

Uranium was detected at a number of downgradient area wells at concentrations greater than the MCL of 30 µg/l. These exceedences may be isolated, low-level natural occurrences and not considered to be part of a continuous plume from the Companies' GWTS area to the downgradient area. This condition is based on the fact that exceedences of uranium in the Companies' GWTS area are limited to the easternmost portion of the wellfield.

Based on the direction of Shallow Zone groundwater flow, flow from this portion of the GWTS area would not be expected to impact monitor wells located to the west (monitor wells MW-R and MW-A-J) or to the southeast (monitor wells PC-054 and PC-021A) (Figure 15). Other changes in concentrations were not significant enough to substantively change the distribution of uranium depicted for 2014. Comparisons of uranium distributions during the period 2009 to 2014 also indicate that the extent of uranium is stable from year to year (Appendix C).

2.3.3.2 Middle Zone

The distributions of arsenic and uranium in the Middle Zone are posted on Figures 26 and 27. Both constituents are naturally occurring in the Middle Zone as well (H+A, 2008; USGS, 1998). Similar to the Shallow Zone, comparisons of the distributions of arsenic and uranium in 2014 to 2013 do not identify any significant changes in distribution or extent (Appendix C). Comparisons of arsenic and uranium during the period 2009 to 2014 similarly indicate that the extents of these constituents are stable from year to year.

2.3.4 General Chemistry

The inorganic constituents, perchlorate and TDS, are discussed below based on their relevancy to the study area. The results of groundwater sampling for all inorganic chemicals are summarized in Table 3. The following sections provide brief overviews of the results for these constituents in the study area.

2.3.4.1 Shallow Zone

Perchlorate

The distribution of perchlorate is illustrated in Figure 16. The distribution of perchlorate is controlled by source areas known to exist to the west (AMPAC site) and to the east (NERT site) of the study area. Perchlorate detected in the former facilities areas continues to be orders-of-magnitude less than concentrations to the east, west, and downgradient of the study area. Therefore, perchlorate is not an OSSM chemical of concern.

Comparison of perchlorate distribution in 2014 to 2013 does not identify any significant changes in the distribution, shape, or extent of perchlorate where greater than the BCL (Appendix C). This is evidence that the perchlorate plume is stable. Comparisons of perchlorate distributions during the period 2009 to 2014 also indicate that the extent of perchlorate is stable from year to year.

Total Dissolved Solids

The distribution of TDS is illustrated in Figure 17. Comparison of TDS distribution in 2014 to 2013 does not identify any significant changes in the distribution, shape, or extent of TDS (Appendix C). This is evidence that the TDS plume is stable. Comparisons of TDS distributions during the period 2009 to 2014 also indicate that the extent of TDS is stable from year to year.

2.3.4.2 Middle Zone

The distributions of perchlorate and TDS in the Middle Zone are posted on Figures 28 and 29. Similar to the Shallow Zone, comparisons of the distributions of perchlorate and TDS in 2014 to 2013 do not identify any significant changes in distribution or extent (Appendix C). Comparisons of perchlorate and TDS during the period 2009 to 2014 similarly indicate that the extents of these constituents are stable from year to year.

2.3.5 Deep Zone

As previously indicated, figures illustrating the distributions of chemicals in the Deep Zone are not prepared because review of the data over the years has consistently indicated that: 1) the organic compounds typically present in the Shallow and Middle Zones are not present in the Deep Zone, or if present, are present only sporadically at low level concentrations and may have resulted in field sampling equipment or laboratory contamination, and 2) with the exception of arsenic which is a naturally occurring constituent in the study area, inorganic constituents are only sporadically detected at concentrations greater than MCLs and/or BCLs.

Based on the conceptual understanding of the study area hydrogeology; the differences in the groundwater chemistry between the Deep Zone and the Shallow and Middle Zones are a function of: 1) the depth of the Deep Zone, 2) the presence of the fine-grained UMCf separating the Deep Zone from the overlying zones, and 3) the consistent upward vertical gradients that exist between the Deep Zone and the overlying zones. These conditions prevent the downward migration of impacted Shallow and Middle Zone groundwater to the Deep Zone and result in the highest concentrations of most chemicals detected sporadically in the Deep Zone being orders

of magnitude less than the concentrations detected in the Shallow and/or Middle Zones. These conditions indicate that the Deep Zone has not been impacted by historic study area operations.

Comparisons of Deep Zone water quality between 2013 and 2014 and from 2009 to 2014 indicate that the conditions described above are consistent from year to year (H+A, 2010b, 2010c, 2011, 2012a, and 2013).

No significant changes in chemical concentrations or persistent occurrences of previously undetected compounds or constituents have occurred in the Deep Zone since 2009. The following provide brief overviews of the recent results by analytical group compared to previous data:

- **Volatile Organic Compounds** – Methylene chloride was detected at a concentration of 1.9 µg/l at well TR-11 (Table 3). The BCL and MCL for methylene chloride is 5 µg/l. The detection of methylene chloride is anomalous since historically the compound has not been typically detected in this or other Deep Zone monitor wells. Methylene chloride is a common analytical laboratory contaminant and the detection of this chemical in the groundwater sample may be reflective of minor laboratory contamination. No further investigation into their source is considered necessary. No other VOCs were detected in the Deep Zone wells in 2014.
- **Organochlorine Pesticides** – Low level concentrations of alpha- and beta-BHC were detected in Deep Zone wells DMC-MW-27R (original and field duplicate sample) and MW-08. Concentrations of alpha-BHC ranged from 0.0029 µg/l to 0.0030 µg/l, and beta-BHC was detected at a concentration of 0.011 µg/l (Table 3), the BCLs for these chemicals of 11 µg/l and 2.19 µg/l, respectively. OCPs are not detected in Deep Zone groundwater samples. The detection of these OCPs is anomalous since historically these compounds has not been detected in this or other Deep Zone monitor wells. The source of these detections is not known, but may have been introduced to the samples through sampling equipment or laboratory contamination. However, due to the low level concentrations of these chemicals, no further investigation into their source is considered necessary. No other OCPs were detected in the Deep Zone wells in 2014.

- **Metals** - Arsenic was detected at concentrations greater than the MCL in all Deep Zone monitor wells sampled in 2014 (Table 3). This is consistent with data collected from 2009 to 2013. The widespread distribution of arsenic is a result of the fact that arsenic is naturally occurring in the Deep Zone. Chromium was detected at a concentration greater than the MCL in Deep Zone monitor well MW-08 in 2014 (Table 3). Chromium has been detected at concentrations exceeding its MCL previously in well MW-08. The elevated concentrations of chromium may be due to leaching of the stainless steel screen used to construct the well (Nielsen, 1991).
- **General Chemistry** - Perchlorate was detected in two wells above the MCL and TDS was detected in Deep Zone wells at varying concentrations consistent with previous data (Table 3).

2.3.6 Dense Non-Aqueous Phase Liquids

Monitoring for the presence of dense non-aqueous phase liquids (DNAPL) in wells with an interface probe was conducted as outlined in the standardized plan. The monitoring indicated that no wells exhibited a potential presence of DNAPL during the 2014 sampling event except for monitor wells AA-MW-13R and AA-BW-09A. However, past experience with DNAPL monitoring has shown a tendency toward false positives caused by variations in groundwater density when relying solely upon an interface probe for monitoring. Therefore, when standard interface probe monitoring indicates the possible presence of DNAPL, a follow-up monitoring is conducted using a clear bailer to visually check for DNAPL. Aecom, Montrose's DNAPL investigation consultant with considerable experience with identifying DNAPL in the study area, was dispatched to perform the follow-up monitoring of these two wells. A report of this follow-up monitoring is presented as Appendix D. The monitoring confirmed that no DNAPL was present in either well.

The Montrose DNAPL monitoring and purge program is also ongoing in the study area at selected wells. The DNAPL program routinely monitors every well in the DNAPL well field that has had any indication of the presence of DNAPL (during well construction or routine monitoring) and purges DNAPL from any well where DNAPL is observed.

The findings of the Montrose DNAPL Monitoring and Purge program through week 100 as well as the results of a DNAPL migration study conducted at well MC-MW-12 were conveyed to NDEP in an Aecom report dated December 31, 2013. The report concluded that continuing the monitoring and purge program was worthwhile and that a second DNAPL migration study should be conducted at monitoring well MC-MW-18 on the NERT property immediately east of

the study area. Monitoring and purging has continued throughout 2014 and the second migration study is underway as of the date of this report.

2.4 GROUNDWATER TREATMENT SYSTEM

2.4.1 Operations

The sixteen active extraction wells were operational during the time period covered by this report. The only change in the operation of the GWTS during 2014 was the shutdown of extraction well C on March 21, 2014. The Companies had requested the shutdown because extraction well C had been pumping groundwater with low to non-detectable concentrations of VOCs for an extended time. Extraction well C was no longer contributing to GWTS contaminant mass control and removal (*de maximis, inc.,* 2012a). NDEP approved the request on March 18, 2014 (NDEP, 2014a).

The extraction wells are completed in the Shallow Zone and are used to extract impacted Shallow Zone groundwater for treatment using air stripping and liquid granular activated carbon (LGAC). Treated groundwater is returned to the Shallow Zone in underground recharge trenches located north (downgradient) of the extraction well field (H+A, 2008).

Some extraction wells were off-line for limited periods of time due to the maintenance of well components, extraction well pump cleaning, extraction well redevelopment, and/or routine short-term system shutdowns related to air stripper maintenance. The GWTS system was shut down for approximately 72 hours during the period March 25 through 27, 2014 for annual maintenance of the electrical system. There was no extended GWTS downtime during the period covered by this report.

The overall GWTS flow rate averaged approximately 138 gallons per minute (gpm) during the past year. The total volume of groundwater processed during this period was approximately 73,051,000 gallons. Air stripper efficiency exceeded 99 percent. All treated effluent was discharged to the east, center, and west recharge trenches. Average flow rates, volumes processed, and air stripper efficiency from 2009 are summarized below:

Year[1]	Average Flow Rate (gpm)	Volume of Groundwater Processed (gallons)	Air Stripper Efficiency
2009	191	84,760,000[2]	99.0
2010	191	99,600,000[2]	98.8
2011	133	71,000,000	99.9
2012	128	70,900,000	99.8
2013	133	71,650,000	97.7
2014	138	73,051,000[3]	99.7

(1) Time period April of previous year to April of year noted.

(2) Includes pumpage from extraction wells A and B before they were shut down on July 7, 2010.

(3) Include pumpage from extraction well C before it was shut down on March 21, 2014.

The Companies' performed its annual GWTS extraction well monitoring during the 2014 sampling event. This monitoring is conducted voluntarily by the Companies to generate data used in the operation of the GWTS. The monitoring includes collecting groundwater samples from each operational extraction well.

The groundwater samples are collected from sampling ports located on each individual extraction wellhead; prior to mixing with discharges from other extraction wells en route to the air stripper and LGAC. Groundwater samples were collected from the active extraction wells on June 5, 2014. The groundwater samples were analyzed for:

- VOCs analyzed by EPA method 8260B, and
- OCPs analyzed by EPA method 8081A.

The results of the extraction well sampling are summarized in Table 3. A review of the results indicates that concentrations of chemicals and constituents fluctuated slightly between 2013 and 2014 with slight decreases of some VOCs in the western portion of the GWTS well field. However, some fluctuations are present in the data from year to year and overall the 2014 concentrations are consistent with the results from 2009 to 2013.

Discussions of the distributions of these chemicals in Shallow Zone groundwater, including the GWTS area, are presented in Section 2.2.

2.4.2 Capture Analysis

The Companies evaluate GWTS capture on a quarterly basis using a multiple lines of evidence approach. The results of these evaluations are submitted to NDEP as part of the quarterly

GWTS operations reports. The multiple lines of evidence include downgradient chemical concentrations, mass removal calculations, and water level measurements collected from all GWTS area Shallow Zone monitor wells, extraction wells, and piezometers. The water level data are used to prepare triangular irregular network (TIN) and particle tracking maps to identify areas where capture is complete or uncertain.

The results of the capture evaluations consistently indicate that the GWTS is effective in capturing impacted Shallow Zone groundwater. Mass removal rates for the past year averages greater than 99 percent as estimated by comparisons of the mass of VOCs removed by the GWTS to the mass of VOCs located along the downgradient transect (H+A, 2009; *de maximis, inc.*, 2014c). VOC concentrations in wells located downgradient of the GWTS have decreased. TIN and particle tracking analyses indicate complete capture across a majority of the extraction well field. However, an area of uncertain capture has been identified between extraction wells C and P (*de maximis, inc.*, 2013, 2014a, 2014b, and 2014c).

Presently, the Companies are addressing the area of uncertain capture between extraction wells C and P. A plan that included the shutdown of well C and subsequent monitoring in the area between wells C and P to assess the effect of the shut down on groundwater flow patterns was submitted to NDEP by the Companies in August 2012 (*de maximis*, *inc.,* 2012a). The combined result of this monitoring and the routine quarterly capture evaluation will determine if a capture deficiency still exists after the shutdown of well C and, if it remains, provide the necessary information for optimum siting of one or more new additional extraction wells between C and P.

This work was initiated upon shutdown of extraction well C on March 21, 2014 and is continuing as of the preparation of this report. The results of this work are provided to NDEP in the regularly scheduled quarterly data submittals.

2.4.3 Influent/Effluent Trends

Influent and effluent samples were collected and analyzed weekly during the past year pursuant to the Consent Order and the requirements of the Clark County Department of Air Quality and Environmental Management (DAQEM). All influent and effluent samples were analyzed for VOCs including benzene, chlorobenzene, chloroform, dimethyl disulfide, 1,2-DCB, 1,4-DCB, 1,3-DCB, and 1,2,4-trichlorobenzene using EPA Method 8260B and for semi-VOCs using EPA Method 8270C.

Total VOC concentrations ranged from approximately 11,600 µg/l to approximately 27,200 µg/l in influent samples during the past year. Among the two most prevalent VOCs, benzene ranged from 3,700 µg/l to 12,000 µg/l and chlorobenzene ranged from 4,800 µg/l to 14,000 µg/l. Influent concentrations fluctuated during the year and did not trend upward or downward. This variability is consistent with influent monitoring during previous years and is the result of collecting discrete samples from the combined flow of the individual extraction wells that vary significantly in total VOC concentration.

Concentrations of VOCs and semi-VOCs in effluent samples were routinely non-detect during the past year. The maximum concentration of any VOC or semi-VOC in an effluent sample was benzene at a concentration of 622 µg/l on July 5, 2013.

All concentrations detected in effluent samples were well below the monthly average discharge limits and weekly maximum discharge limits established by the Consent Order. All concentrations were also less than MCLs, with the exception of benzene in July 2013. These conditions are consistent with the results from the past five years.

2.4.4 Summary of GWTS Performance

The results of the multiple lines of evidence approach to GWTS evaluation and routine system treatment monitoring indicate that the GWTS is effective in capturing, controlling, and treating impacted Shallow Zone groundwater. Data indicate that VOC mass removal rates are greater than 99 percent, VOCs are decreasing or are typically not detected in wells located downgradient of the GWTS, and capture is complete across a majority of the extraction well field. An area of uncertain capture has been identified between extraction wells C and P. However, the Companies are currently addressing this issue by the shutdown of extraction well C and subsequent monitoring of the extraction well zone (Section 2.4.2). Data also indicate that all effluent concentrations over the past 6 years have been below the monthly average discharge limits and weekly maximum discharge limits of the Consent Order (State of Nevada, 1983).

2.4.5 Downgradient Area

The downgradient area is located immediately north of the GWTS and extends to the Las Vegas Wash (Figure 1). The downgradient area is of critical importance to the Companies since it helps to evaluate the effectiveness of GWTS operations.

Accordingly, the Companies have conducted groundwater monitoring in the downgradient area pursuant to the Consent Order since 1983 and expanded monitoring in 2004 by including a downgradient transect of seven wells located immediately north of the GWTS well field. Additionally, beginning in 2010, the Companies expanded downgradient area monitoring to include six additional monitor wells north of the Consent Order and downgradient transect monitor wells (Appendix C). The operation of the GWTS has been effective in capturing Shallow Zone groundwater since startup and VOC concentrations have decreased significantly over time in the downgradient area to either non-detect or sporadic low level concentrations (H+A, 2008). The Companies have continued downgradient area monitoring as part of this annual groundwater monitoring program to confirm that VOCs and OCPs are not prevalent.

The distributions of Shallow Zone VOCs and OCPs in the downgradient area for 2014 are illustrated on Figures 6 through 13 and are discussed in Section 2.2. A review of the data confirms that VOCs and OCPs at most wells were either not detected or were detected at low levels in the downgradient area. Chlorobenzene, chloroform, and beta-BHC were the only VOCs or OCPs detected at concentrations greater than their respective MCL or BCL in the southern portion of the downgradient area in 2014. These exceedences are limited to a small number of wells, are disconnected, and of limited extent.

Comparisons of VOC and OCP distributions during the period 2009 to 2014 also confirm that these organic compounds are not prevalent in the downgradient area. VOCs and OCPs have only been detected sporadically at concentrations greater than MCLs or BCLs. These data indicate that the GWTS has been effective in capturing and removing VOCs from Shallow Zone groundwater.

Although the treatment system was originally designed to remove VOCs from groundwater, the GWTS has also been effective in removing OCPs. Alpha-BHC and gamma-BHC were not detected at concentrations greater than their BCLs in the downgradient area in 2014. Gamma-BHC was detected once in 2009 at a concentration greater than the MCL in the downgradient area. Beta-BHC has been detected in the downgradient area greater than the BCL from 2009 to 2014. However, the beta-BHC concentrations in the downgradient area have decreased since 2012 (Table 3; Appendix C).

3.0 SUMMARY AND FUTURE MONITORING

The NDEP-approved standardized plan was successfully implemented by the Companies during the second quarter and the beginning of the third quarter 2014. The results of the 2014 sampling event confirmed that the scope of the new standardized monitoring plan provides an appropriate level of monitoring for groundwater conditions in the study area. The results of the 2014 event were overall consistent with past data and did not identify any significantly unusual or unexpected conditions or occurrences.

Monitoring data from 2009 to 2013 were compared to the 2014 data in this report. The comparison of these data indicate that:

- The direction of groundwater flow in each zone is consistently to the north or northeast;
- Groundwater gradients in each zone are consistently between 0.01 and 0.02 ft/ft and approximate land surface gradients;
- Vertical groundwater flow gradients are consistently upward from the Deep Zone;
- The horizontal extents of chemicals at concentrations greater than their respective MCL or BCL in the Shallow and Middle Zones are stable and consistent from year to year;
- The concentrations of these chemicals within the plumes are consistent from year to year. Although some variations occur; these changes are not considered significant;
- The organic compounds present at elevated concentrations in the Shallow and Middle Zones are not present in the Deep Zone. Inorganic constituents are naturally occurring in the Deep Zone;
- Site-wide DNAPL monitoring confirmed that no changes have occurred regarding DNAPL presence and extent from that previously defined. Investigation work by Montrose is ongoing;
- The GWTS is effective in capturing, controlling, and removing organic compounds from impacted Shallow Zone groundwater. One area of incomplete capture exists; however, the Companies are presently implementing the tasks outlined in the GWTS Extraction Well C Modification proposal to address this area;

- Organic compounds are in general not prevalent in the downgradient area. If present, organic compounds are typically detected sporadically at low level concentrations.
- The 2014 data reinforces the Companies conceptual understanding of the hydrogeologic processes occurring in the study area (H+A, 2008).

The Companies plan to continue the use of the standardized plan for 2015. The Companies will contact NDEP with a schedule to implement the 2015 monitoring event during the first quarter 2015.

4.0 REFERENCES CITED

Basic Remediation Company (BRC), 2008. BRC Field Sampling and Standard Operating Procedures, BMI Common Areas, Clark County, Nevada. December 2008.

de maximis, inc. 2012a. GWTS System Modification Proposal, Extraction Well C, Henderson, Nevada, NDEP Facility ID #'s H-000536 and H-000540. August 29, 2012.

_____ 2013. Quarterly Operations Report, Third Quarter 2013, Groundwater Treatment System, Henderson, Nevada. November 15, 2013.

_____, 2014a. Quarterly Operations Report, Fourth Quarter 2013, Groundwater Treatment System, Henderson, Nevada. February 15, 2014.

_____, 2014b. Quarterly Operations Report, First Quarter 2014, Groundwater Treatment System, Henderson, Nevada. May 15, 2014.

_____, 2014c. Quarterly Operations Report, Second Quarter 2014, Groundwater Treatment System, Henderson, Nevada. August 15, 2014.

Geosyntec Consultants, 2007. Downgradient Sampling Report, Henderson, Nevada. May 25, 2007.

Geraghty & Miller, 1980. Groundwater Investigation, Stauffer Chemical Company, Henderson, Nevada. October 1980.

Hargis + Associates, Inc. (H+A), 2007. Field Sampling and Standard Operating Procedures, Site-Wide Soil and Groundwater Investigations, Former Montrose and Stauffer Sites, Henderson, Nevada; Revision 2.0. May 11, 2007.

_____, 2008. Revision 1.0 Conceptual Site Model, Former Montrose and Stauffer Facilities and Downgradient Areas to Las Vegas Wash, Henderson, Clark County, Nevada. July 25, 2008.

_____, 2010a. Vertical Delineation Investigation, Data Submittal Report, Henderson, Nevada. February 2, 2010.

_____, 2010b. 2009 Comprehensive Groundwater Data Evaluation Report, Former Montrose and Stauffer Facilities, Henderson, Nevada. February 12, 2010.

_____, 2010c. 2010 Comprehensive Groundwater Data Evaluation Report, Former Montrose and Stauffer Facilities, Henderson, Nevada. September 2, 2010.

_____, 2011. 2011 Comprehensive Groundwater Data Evaluation Report, Former Montrose and Stauffer Facilities and Current Olin Facility, Henderson, Nevada. August 18, 2011.

_____, 2012a. 2012 Comprehensive Groundwater Data Evaluation Report, Former Montrose and Stauffer Facilities and Current Olin Facility, Henderson, Nevada. August 16, 2012.

_____, 2013. 2013 Comprehensive Groundwater Data Evaluation Report, Former Montrose and Stauffer Facilities and Current Olin Facility, Henderson, Nevada. October 18, 2013.

_____, 2014a. Standardized Joint Site-Wide Annual Groundwater Monitoring Program Plan, NDEP Facility ID #s H-000536 and H-000540, Henderson, Nevada. April 16, 2014.

_____, 2014b. Verification Groundwater Sampling Event, Boulder Highway Transect, Downgradient Area, Henderson, Nevada. August 22, 2014.

Nevada Division of Environmental Protection (NDEP), 2014a. Nevada Division of Environmental Protection Response to: GWTS System Modification Proposal, Extraction Well C. March 18, 2014.

_____, 2014b. Nevada Division of Environmental Protection Response to: Standardized Joint Site-Wide Annual Groundwater Monitoring Plan. June 2, 2014.

Nielsen, David M., 1991. Practical Handbook of Ground-Water Monitoring. March 1991.

State of Nevada, 1983. Consent Order by and between the State of Nevada, Department of Conservation and Natural Resources, Division of Environmental Protection; and Stauffer Chemical Company and Montrose Chemical Company of California. April 4, 1983.

Stauffer Chemical Company, 1983. 1982 Hydrogeologic Investigation in Support of the Ground-Water Intercept System at Stauffer Chemical Company, Henderson, Nevada. March 1983.

U.S. Geological Survey, 1998. Water Quality in the Las Vegas Valley Area and the Carson and Truckee River Basins, Nevada and California, 1992-96. USGS Circular 1170.

TABLES

HARGIS + ASSOCIATES, INC.

TABLE 1

WATER LEVEL DATA

SECOND QUARTER 2014

WELL IDENTIFIER	WATER BEARING ZONE	DATE MEASURED	MEASURING POINT ELEVATION FEET AMSL	DEPTH TO WATER (FEET)	GROUNDWATER ELEVATION FEET AMSL	TOP OF NAPL (FEET)	NAPL THICKNESS FEET
AA-BW-09A	Shallow	6/6/2014	1763.12	46.80	1716.32	50.80 (a)	3.20 (a)
AA-MW-05	Shallow	6/6/2014	1843.06	46.03	1797.03		
AA-MW-13R	Shallow	6/6/2014	1808.74	38.31	1770.43	41.28 (a)	13.72 (a)
AA-MW-25	Shallow	6/6/2014	1803.87	56.44	1747.43		
B-01	Shallow	6/6/2014	1807.14	40.05	1767.09		
EC-04	Shallow	6/6/2014	1811.48	45.27	1766.21		
EC-10	Shallow	6/9/2014	1792.08	42.18	1749.90		
H-11	Shallow	6/6/2014	1868.47	68.54	1799.93		
H-49A	Shallow	6/11/2014	1687.96	26.17	1661.79		
H-55	Shallow	6/6/2014	1752.15	41.25	1710.90		
M-007B	Shallow	6/11/2014	1732.83	36.24	1696.59		
M-057A	Shallow	6/6/2014	1753.44	29.27	1724.17		
M-092	Shallow	6/6/2014	1800.76	36.27	1764.49		
M-142	Shallow	6/6/2014	1773.55	30.57	1742.98		
MC-09R	Shallow	6/10/2014	1717.88	32.94	1684.94		
MC-111	Shallow	6/9/2014	1726.50	38.84	1687.66		
MC-113	Shallow	6/11/2014	1705.34	25.61	1679.73		
MC-114	Shallow	6/11/2014	1706.92	28.18	1678.74		
MC-47	Shallow	6/11/2014	1710.42	33.38	1677.04		
MC-48	Shallow	6/10/2014	1709.90	30.44	1679.46		
MC-49	Shallow	6/10/2014	1710.08	29.62	1680.46		
MC-50	Shallow	6/10/2014	1713.32	30.60	1682.72		
MC-53	Shallow	6/10/2014	1715.27	32.40	1682.87		
MW-01	Shallow	6/6/2014	1851.18	53.60	1797.58		
MW-02	Shallow	6/6/2014	1825.26	43.41	1781.85		
MW-03	Shallow	6/6/2014	1826.31	44.84	1781.47		
MW-04	Shallow	6/6/2014	1826.20	44.17	1782.03		
MW-A-J	Shallow	6/6/2014	1649.64	8.18	1641.46		
MW-R	Shallow	6/6/2014	1667.90	12.12	1655.78		
PC-028	Shallow	6/6/2014	1650.80	11.61	1639.19		
PC-031	Shallow	6/6/2014	1657.91	11.10	1646.81		
PC-064	Shallow	6/6/2014	1675.25	10.57	1664.68		
AGX-90	Middle	6/6/2014	1750.01	31.13	1718.88	NE	NE
CP-01	Middle	6/6/2014	1827.62	32.41	1795.21	NE	NE
DPT-01	Middle	6/6/2014	1807.57	37.48	1770.09	NE	NE
EC-14	Middle	6/6/2014	1791.92	38.20	1753.72	NE	NE
M-136	Middle	6/6/2014	1751.87	28.58	1723.29	NE	NE
M-149	Middle	6/6/2014	1796.82	44.57	1752.25	NE	NE
M-150	Middle	6/6/2014	1759.11	22.40	1736.71	NE	NE
MCF-BW-10A	Middle	6/6/2014	1779.36	43.13	1736.23	NE	NE
MC-MW-10	Middle	6/6/2014	1803.91	56.66	1747.25	NE	NE
MC-MW-29	Middle	6/10/2014	1717.55	32.37	1685.18	NE	NE
MC-MW-32	Middle	6/10/2014	1723.25	31.76	1691.49	NE	NE
MC-MW-35	Middle	6/11/2014	1712.66	19.40	1693.26	NE	NE
MC-MW-36	Middle	6/11/2014	1702.38	28.45	1673.93	NE	NE
MC-MW-38	Middle	6/11/2014	1709.41	29.12	1680.29	NE	NE
DMC-MW-26	Deep	6/6/2014	1807.96	-11.55	1819.51		
DMC-MW-27R	Deep	6/6/2014	1827.80	8.22	1819.58		
DMC-MW-28	Deep	6/9/2014	1763.03	0.00	1763.03		
MW-08	Deep	6/9/2014	1803.63	-4.52	1808.15		

HARGIS + ASSOCIATES, INC.

TABLE 1

WATER LEVEL DATA

SECOND QUARTER 2014

WELL IDENTIFIER	WATER BEARING ZONE	DATE MEASURED	MEASURING POINT ELEVATION FEET AMSL	DEPTH TO WATER (FEET)	GROUNDWATER ELEVATION FEET AMSL	TOP OF NAPL (FEET)	NAPL THICKNESS FEET
TR-01*	Deep	5/15/2014	1752.18	-9.46	1761.64		
TR-03	Deep	5/15/2014	1772.84	0.00	1772.84		
TR-05*	Deep	5/15/2014	1800.27	0.00	1800.27		
TR-07*	Deep	5/14/2014	1829.03	10.40	1818.63		
TR-09*	Deep	5/13/2014	1854.29	35.81	1818.48		
TR-11	Deep	6/9/2014	1717.12	-12.71	1729.83		
TR-12*	Deep	5/19/2014	1696.06	0.35	1695.71		

Footnotes:

NE = Not encountered
AMSL = above mean sea level
(a) = Field reported; upon subsequent field investigation, no DNAPL present (see Appendix D)
* = Groundwater measurement provided by NERT

TABLE 2
VERTICAL HEAD DIFFERENCES
SECOND QUARTER 2014

Well Cluster	Screened Formation	Location ID	Date	Screen Midpoint Elevation	Static Ground water Elevation	TDS (mg/l[a])	Water Density (kg/m^3 [b])	Corrected Groundwater Elevations	Hydraulic Head Difference (in feet with respect to overlying unit [Shallow Zone/Middle Zone])	Hydraulic Gradient (ft/ft)
1	Shallow	B-01	6/6/2014	1,757.39	1,767.09	19,000	1,010.44	1,767.19		
	Middle	DPT-01	6/6/2014	1,686.45	1,770.09	730	996.81	1,769.82	+2.63	+0.037
	Deep	DMC-MW-26	6/6/2014	1,530.96	1,819.51	750	996.83	1,818.60	+51.40/+48.77	+0.227/+0.314
2	Shallow	AA-MW-25	6/6/2014	1,749.87	1,747.43	13,000	1,005.97	1,747.42		
	Middle	MC-MW-10	6/6/2014	1,701.21	1,747.25	24,000	1,014.18	1,747.90	+0.49	+0.010
	Deep	MW-08	6/9/2014	1,515.95	1,808.15	830	996.89	1,807.24	+59.83/+59.34	+0.255/+0.320
3	Shallow	MW-03	6/6/2014	1,774.01	1,781.47	9,800	1,003.58	1,781.50		
	Middle	CP-01	6/6/2014	1,705.75	1,795.21	760	996.84	1,794.93	+13.43	+0.197
	Deep	DMC-MW-27R	6/6/2014	1,580.71	1,819.58	840	996.90	1,818.84	+37.34/+23.91	+0.193/+0.191
4	Shallow	MC-09R	6/10/2014	1,684.57	1,684.94	15,000	1,007.46	1,684.94		
	Middle	MC-MW-29	6/10/2014	1,646.84	1,685.18	10,000	1,003.73	1,685.32	+0.38	+0.0101
	Deep	TR-11	6/9/2014	1,497.12	1,729.83	740	996.82	1,729.09	+44.15/+43.77	+0.236/+0.292
5	Shallow	AA-BW-09A	6/6/2014	1,718.59	1,716.32	60,000	1,041.38	1,716.23		
	Middle	MCF-BW-09B[c]	--	1,693.63	--	--	--	--	--	--
	Deep	DMC-MW-28	6/9/2014	1,488.03	1,763.03	670	996.77	1,762.14	+45.92	+0.199

Note: All groundwater elevations are in units of feet above mean sea level

TDS = total dissolved solids
mg/l = milligrams per liter
kg/m^3 = kilograms per cubic meter
ft/ft = feet per foot
+ = indicates upward gradient

a = 2014 analytical results
b = Calculated based on estimated groundwater temperature of 28 degrees celsius based on Sitewide groundwater monitoring round field notes
c = Monitor well destroyed

Water density as function of temperature and concentration

McCutcheon, S.C., Martin, J.L, Barnwell, T.O. Jr. 1993. Water Quality in Maidment, D.R. (Editor). Handbood of Hydrology, McGraw-Hill, New York, NY (p. 11.3)

Water density as a function of temperature only
rho = density in kg/m^3 as a function of temperature
T = temperature in C
rho = 1000(1 - (T+288.9414)/(508929.2*(T+68.12963))*(T-3.9863)^2)

Water density as a function of temperature and salinity
rhos = density in kg/m^3 as a function of temperature and salinity

S = salinity in g/kg
rhos = rho + AS + BS^(3/2) + CS^2
A = 8.24493E-1 - 4.0899E-3*T + 7.6438E-5*T^2 -8.2467E-7*T^3 + 5.3675E-9*T^4
B = -5.724E-3 + 1.0227E-4*T - 1.6546E-6*T^2
C = 4.8314E-4
Web reference: www.earthwardconsulting.com/density_calculator.htm

Enter temperature (T) and concentration (Rho)		
T	20	(Deg. C)
Rho	998.234	(kg/m^3)
S	100	(gm/kg)
Rhos	1,075.478	(kg/m^3)
A	0.7675316	
B	-0.00434	

HARGIS + ASSOCIATES, INC.

TABLE 3
WATER QUALITY DATA
SECOND QUARTER 2014

	EXCEEDS MCL	Aquifer	Primary Maximum Contaminant Level	NDEP Basic Comparison Levels for Residential Water[a]	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW
	EXCEEDS BCL	Location			AA-BW-03A	AA-BW-03A	AA-BW-09A	AA-MW-05	AA-MW-13R	AA-MW-25	B-01	EC-04	EC-10	H-11	H-55
	Detections **BOLDED**	Date			6/19/2014	6/19/2014	6/25/2014	6/19/2014	25/2014 & 6/27/20	6/24/2014	6/25/2014	6/17/2014	6/17/2014	6/16/2014	6/20/2014
		Sample Purpose			FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
		Sampling Event			SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE
		Samplers			CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE
Parameter Group	Parameter	Units													
GENERAL CHARACTERIZATION	PERCHLORATE	ug/L		18	<0.50	<0.50	**2.3**	**100**	**230J**	**3.0**	**70**	**160**	**48000**	**7.5**	**1.2**
	TOTAL DISSOLVED SOLIDS	mg/L			**8400**	**8900**	**60000**	**2500**	**100000**	**13000**	**19000**	**3100**	**1800**	**1100**	**1500**
TRACE METALS	ARSENIC	ug/L	10	10	**93**	**86**	**410**	**47**	**370J**	**330**	**140**	**82**	**60**	<0.50	<0.50
	BARIUM	mg/l	2	2	**0.041**	**0.041**	**0.055**	**0.014**	**0.51J+**	**0.050**	**0.075**	**0.026**	**0.018**	**0.082**	**0.018**
	CADMIUM	mg/l	0.005	0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	<0.0001UJ	<0.0001UJ	<0.0005	<0.0005
	CHROMIUM	mg/l	0.1	0.1	<0.0025	<0.0025	**0.0033**	**0.0075**	**0.0056J**	**0.0027**	**0.0010**	**0.0036**	**0.0074**	<0.0025	**0.0062**
	LEAD	mg/l	0.015	0.015	<0.0005	<0.0005	**0.00066**	<0.0005	**0.0076**	**0.00042**	**0.00065**	**0.00015**	**0.00012**	<0.0005	<0.0005
	MANGANESE	mg/l		0.020											
	MERCURY	mg/L	0.002	0.002	<0.00020R	**0.00010J**	<0.00020	**0.00011**	**0.00035**	<0.00020R	<0.00020	**0.00019J**	**0.00015J**	**0.00015**	<0.00020R
	SELENIUM	mg/l	0.05	0.05	<0.0025	<0.0025	**0.0029**	**0.0046**	<0.013	<0.0025	**0.0023**	**0.0060**	**0.0036**	<0.0025	<0.0025
	SILVER	mg/l		0.1	<0.0005	<0.0005	<0.0005	**0.00073**	<0.0025	<0.0005	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005
	URANIUM	mg/l	0.03	0.03	**0.052**	**0.058**	**0.49**	**0.0067**	**0.0045J**	**0.13**	**0.12**	**0.0062**	**0.0035**	<0.0005	<0.0005
PESTICIDES	2,4'-DDD	ug/L			<0.095	<0.095	<0.093	<0.098	<0.089	<0.094	<0.094	<0.099	<0.10	<0.099	<0.10
	2,4'-DDE	ug/L			<0.095	<0.095	<0.093	<0.098	<0.089	<0.094	<0.094	<0.099	<0.10	<0.099	<0.10
	2,4'-DDT	ug/L			<0.095	<0.095	<0.093	<0.098	<0.089	<0.094	<0.094	<0.099	<0.10	<0.099	<0.10
	4,4'-DDD	ug/L		0.280	<0.095	<0.095	<0.093	<0.098	<0.089	<0.094	<0.094	<0.099	<0.10	<0.099	<0.10
	4,4'-DDE	ug/L		0.198	<0.095	<0.095	<0.093	<0.098	<0.089	<0.094	**0.0042**	<0.099	<0.10	<0.099	<0.10
	4,4'-DDT	ug/L		0.198	<0.095	<0.095	<0.093	<0.098	<0.089	<0.094	<0.094	<0.099	<0.10	<0.099	<0.10
	ALDRIN	ug/L		0.00395	<0.0048	<0.0047	<0.0047	<0.0049	<0.0044	<0.0047	<0.0047	<0.0049	<0.0050	<0.0050	<0.0050
	ALPHA-BHC	ug/L		10.95	**0.24**	**0.22**	**4.4**	<0.0049	**0.0049J**	**1.6**	**46**	<0.0049	**0.02**	<0.0050	**0.015**
	BETA-BHC	ug/L		2.19	<0.0095	<0.0095	<0.0093	<0.0098	**0.048**	**0.14**	**5.8**	<0.0099	**0.10**	<0.0099	**0.10**
	CHLORDANE	ug/L	2	2	<0.095	<0.095	<0.093	<0.098	<0.089	<0.094	<0.094	<0.099	<0.10	<0.099	<0.10
	DELTA-BHC	ug/L		11	**0.034J**	**0.035J**	**2.4**	<0.20	<0.18	**0.28**	**4.7**	<0.20	<0.20	<0.20	**0.16**
	DIELDRIN	ug/L		0.00420	<0.0048	<0.0047	<0.0047	<0.0049	<0.0044	<0.0047	<0.0047	<0.0049	<0.0050	<0.0050	<0.0050
	ENDOSULFAN I	ug/L		219	<0.095	<0.095	<0.093	<0.098	<0.089	<0.094	<0.094	<0.099	<0.10	<0.099	<0.10
	ENDOSULFAN II	ug/L		219	<0.095	<0.095	<0.093	<0.098	<0.089	<0.094	<0.094	<0.099	<0.10	<0.099	<0.10
	ENDOSULFAN SULFATE	ug/L			<0.19	<0.19	<0.19	<0.20	<0.18	<0.19	<0.19	<0.20	<0.20	<0.20	<0.20
	ENDRIN	ug/L	2	2	<0.095	<0.095	<0.093	<0.098	<0.089	<0.094	<0.094	<0.099	<0.10	<0.099	<0.10
	ENDRIN ALDEHYDE	ug/L			<0.095	<0.095	<0.093	<0.098	<0.089	<0.094	<0.094	<0.099	<0.10	<0.099	<0.10
	ENDRIN KETONE	ug/L			<0.095	<0.095	<0.093	<0.098	<0.089	<0.094	<0.094	<0.099	<0.10	<0.099	<0.10
	GAMMA-BHC (LINDANE)	ug/L	0.2	0.2	<0.095	<0.095	**5.1**	<0.098	<0.089	**0.84**	**16**	<0.099	<0.10	<0.099	<0.10
	HEPTACHLOR	ug/L	0.4	0.4	<0.0095	<0.0095	<0.0093	<0.0098	<0.0089	<0.0094	<0.0094	<0.0099	<0.010	<0.0099	<0.010
	HEPTACHLOR EPOXIDE	ug/L	0.2	0.2	<0.0048	<0.0047	<0.0047	<0.0049	<0.0044	<0.0047	<0.0047	<0.0049	<0.0050	<0.0050	<0.0050
	METHOXYCHLOR	ug/L	40	40	<0.095	<0.095	<0.093	<0.098	<0.089	<0.094	<0.094	<0.099	<0.10	<0.099	<0.10
	TOXAPHENE	ug/L	3	3	<4.8	<4.7	<4.7	<4.9	<4.4	<4.7	<4.7	<4.9	<5.0	<5.0	<5.0
VOLATILE ORGANIC COMPOUNDS	1,1,1,2-TETRACHLOROETHANE	ug/L		0.524	<5.0	<5.0	<100	<5.0	<100UJ	<1000	<2000	<5.0	<5.0	<5.0	<5.0
	1,1,1-TRICHLOROETHANE	ug/L	200	200	<2.0	<2.0	<40	<2.0	<40UJ	<400	<800	<2.0	<2.0	<2.0	<2.0
	1,1,2,2-TETRACHLOROETHANE	ug/L		0.0671	<2.0	<2.0	<40	<2.0	<40UJ	<400	<800	<2.0	<2.0	<2.0	<2.0
	1,1,2-TRICHLOROETHANE	ug/L	5	5	<2.0	<2.0	<40	<2.0	<40UJ	<400	<800	<2.0	<2.0	<2.0	<2.0
	1,1-DICHLOROETHANE	ug/L		2.42	**6.5**	**6.4**	**46**	<2.0	<40UJ	<400	<800	<2.0	<2.0	<2.0	**0.34**
	1,1-DICHLOROETHENE	ug/L	7	7	<5.0	<5.0	<100	<5.0	<100UJ	<1000	<2000	<5.0	<5.0	<5.0	<5.0
	1,1-DICHLOROPROPENE	ug/L			<2.0	<2.0	<40	<2.0	<40UJ	<400	<800	<2.0	<2.0	<2.0	<2.0
	1,2,3-TRICHLOROBENZENE	ug/L			<5.0	<5.0	<100	<5.0	**12J-**	<1000	<2000	<5.0	**2.4**	<5.0	<5.0

See last page for definitions of abbreviations and footnotes

HARGIS + ASSOCIATES, INC.

TABLE 3
WATER QUALITY DATA
SECOND QUARTER 2014

	EXCEEDS MCL														
	EXCEEDS BCL	Aquifer	Primary Maximum Contaminant Level	NDEP Basic Comparison Levels for Residential Water[a]	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW
	Detections **BOLDED**	Location			AA-BW-03A	AA-BW-03A	AA-BW-09A	AA-MW-05	AA-MW-13R	AA-MW-25	B-01	EC-04	EC-10	H-11	H-55
		Date			6/19/2014	6/19/2014	6/25/2014	6/19/2014	25/2014 & 6/27/20	6/24/2014	6/25/2014	6/17/2014	6/17/2014	6/16/2014	6/20/2014
		Sample Purpose			FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
		Sampling Event			SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE
		Samplers			CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE
Parameter Group	Parameter	Units													
VOLATILE ORGANIC COMPOUNDS	1,2,3-TRICHLOROPROPANE	ug/L		0.00224	<10	<10	<200	<10	<200UJ	<2000	<4000	<10	<10	<10	<10
	1,2,4-TRICHLOROBENZENE	ug/L	70	70	<5.0	<5.0	<100	<5.0	**64J-**	<1000	<2000	<5.0	**16**	<5.0	<5.0
	1,2,4-TRIMETHYLBENZENE	ug/L		14.6	<2.0	<2.0	<40	<2.0	<40UJ	<400	<800	<2.0	<2.0	<2.0	<2.0
	1,2-DIBROMO-3-CHLOROPROPANE	ug/L		0.2	<5.0	<5.0	<100	<5.0	<100UJ	<1000	<2000	<5.0	<5.0	<5.0	<5.0
	1,2-DIBROMOETHANE	ug/L		0.05	<2.0	<2.0	<40	<2.0	<40UJ	<400	<800	<2.0	<2.0	<2.0	<2.0
	1,2-DICHLOROBENZENE	ug/L	600	600	**5.2**	**5.3**	**41**	<2.0	**3100J-**	**4800**	**6800**	<2.0	<2.0	<2.0	<2.0
	1,2-DICHLOROETHANE	ug/L	5	5	**4.6**	**4.6**	**28**	<2.0	<40UJ	<400	<800	<2.0	<2.0	<2.0	<2.0
	1,2-DICHLOROPROPANE	ug/L	5	5	<2.0	<2.0	<40	<2.0	<40UJ	<400	<800	<2.0	<2.0	<2.0	<2.0
	1,3,5-TRIMETHYLBENZENE	ug/L		14.5	<2.0	<2.0	<40	<2.0	<40UJ	<400	<800	<2.0	<2.0	<2.0	<2.0
	1,3-DICHLOROBENZENE	ug/L		86.7	<2.0	<2.0	<40	<2.0	**120J-**	**190**	**300**	<2.0	<2.0	<2.0	<2.0
	1,3-DICHLOROPROPANE	ug/L		8.25	<2.0	<2.0	<40	<2.0	<40UJ	<400	<800	<2.0	<2.0	<2.0	<2.0
	1,4-DICHLOROBENZENE	ug/L	75	75	**6.0**	**5.6**	**38**	<2.0	**5400J-**	**6200**	**9600**	<2.0	<2.0	<2.0	<2.0
	2,2-DICHLOROPROPANE	ug/L			<2.0	<2.0	<40	<2.0	<40UJ	<400	<800	<2.0	<2.0	<2.0	<2.0
	2-CHLOROTOLUENE	ug/L		91.3	<5.0	<5.0	<100	<5.0	**12J-**	<1000	<2000	<5.0	<5.0	<5.0	<5.0
	4-CHLOROTOLUENE	ug/L			<5.0	<5.0	<100	<5.0	**10J-**	<1000	<2000	<5.0	<5.0	<5.0	<5.0
	BENZENE	ug/L	5	5	**1.7**	**1.7**	**750**	<2.0	**98000J-**	**32000**	**14000**	<2.0	<2.0	**0.41**	<2.0
	BROMOBENZENE	ug/L		87.6	<5.0	<5.0	<100	<5.0	<100UJ	<1000	<2000	<5.0	<5.0	<5.0	<5.0
	BROMOCHLOROMETHANE	ug/L			<5.0	<5.0	<100	<5.0	<100UJ	<1000	<2000	<5.0	<5.0	<5.0	<5.0
	BROMODICHLOROMETHANE	ug/L	80	0.117	<2.0	<2.0	<40	<2.0	<40UJ	<400	<800	<2.0	<2.0	<2.0	<2.0
	BROMOFORM	ug/L	80	8.51	<5.0	<5.0	<100	<5.0	<100UJ	<1000	<2000	<5.0	<5.0	<5.0	<5.0
	BROMOMETHANE	ug/L		8.66	<5.0	<5.0	<100	<5.0	<100UJ	<1000	<2000	<5.0	<5.0	<5.0	<5.0
	CARBON TETRACHLORIDE	ug/L	5	5	<1.0	<1.0	<20	<1.0	<20UJ	<200	<400	**0.37**	<1.0	<1.0	<1.0
	CHLOROBENZENE	ug/L	100	100	**540**	**610**	**2100**	<2.0	**31000J-**	**77000**	**54000**	<2.0	<2.0	**0.70**	<2.0
	CHLOROETHANE	ug/L		23.2	<5.0	<5.0	<100	<5.0	<100UJ	<1000	<2000	<5.0	<5.0	<5.0	<5.0
	CHLOROFORM	ug/L	80	0.193	**1.1**	**1.1**	**3700**	<2.0	<40UJ	**26000**	**11000**	**32**	**0.43**	<2.0	<2.0
	CHLOROMETHANE	ug/L		2.70	<5.0	<5.0	<100	<5.0	<100UJ	<1000	<2000	<5.0	<5.0	<5.0	<5.0
	CIS-1,2-DICHLOROETHENE	ug/L	70	70	<2.0	<2.0	<40	<2.0	<40UJ	<400	<800	<2.0	<2.0	<2.0	<2.0
	CIS-1,3-DICHLOROPROPENE	ug/L		0.433	<2.0	<2.0	<40	<2.0	<40UJ	<400	<800	<2.0	<2.0	<2.0	<2.0
	DIBROMOCHLOROMETHANE	ug/L	80	0.147	<2.0	<2.0	<40	<2.0	<40UJ	<400	<800	<2.0	<2.0	<2.0	<2.0
	DIBROMOMETHANE	ug/L		8.16	<2.0	<2.0	<40	<2.0	<40UJ	<400	<800	<2.0	<2.0	<2.0	<2.0
	DICHLORODIFLUOROMETHANE	ug/L		395	<5.0UJ	<5.0UJ	<100UJ	<5.0	<100UJ	<1000UJ	<2000UJ	<5.0UJ	<5.0UJ	<5.0	<5.0
	DIMETHYL DISULFIDE	ug/L			<2.0	<2.0	<40	<2.0	<40UJ	<400	<800	<2.0	<2.0	<2.0	<2.0
	ETHYLBENZENE	ug/L	700	700	<2.0	<2.0	<40	<2.0	<40UJ	<400	<800	<2.0	<2.0	<2.0	<2.0
	HEXACHLOROBUTADIENE	ug/L		0.862	<5.0	<5.0	<100	<5.0	<100UJ	<1000	<2000	<5.0	<5.0	<5.0	<5.0
	ISOPROPYLBENZENE	ug/L		679	<2.0	<2.0	<40	<2.0	<40UJ	<400	<800	<2.0	<2.0	<2.0	<2.0
	M,P-XYLENES	ug/L	10000	1220	<2.0	<2.0	<40	<2.0	<40UJ	<400	<800	<2.0	<2.0	<2.0	<2.0
	METHYLENE CHLORIDE	ug/L	5	5	<2.0	<2.0	**480**	<2.0	**24J-**	**890**	<800	<2.0	<2.0	<2.0	<2.0
	NAPHTHALENE	ug/L		0.143	<5.0	<5.0	<100	<5.0	**10J-**	**87**	<2000	<5.0	<5.0	<5.0	<5.0
	N-BUTYLBENZENE	ug/L		254	<5.0	<5.0	<100	<5.0	<100UJ	<1000	<2000	<5.0	<5.0	<5.0	<5.0
	N-PROPYLBENZENE	ug/L		254	<2.0	<2.0	<40	<2.0	<40UJ	<400	<800	<2.0	<2.0	<2.0	<2.0

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TABLE 3
WATER QUALITY DATA
SECOND QUARTER 2014

EXCEEDS MCL
EXCEEDS BCL
Detections **BOLDED**

Parameter Group	Parameter	Units	Primary Maximum Contaminant Level	NDEP Basic Comparison Levels for Residential Water[a]												
		Aquifer			SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW
		Location			AA-BW-03A	AA-BW-03A	AA-BW-09A	AA-MW-05	AA-MW-13R	AA-MW-25	B-01	EC-04	EC-10	H-11	H-55
		Date			6/19/2014	6/19/2014	6/25/2014	6/19/2014	25/2014 & 6/27/20	6/24/2014	6/25/2014	6/17/2014	6/17/2014	6/16/2014	6/20/2014
		Sample Purpose			FD	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
		Sampling Event			SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE
		Samplers			CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE
VOLATILE ORGANIC COMPOUNDS	O-XYLENE	ug/L	10000	1217	<2.0	<2.0	<40	<2.0	<40UJ	<400	<800	<2.0	<2.0	<2.0	<2.0
	P-ISOPROPYL TOLUENE	ug/L		834	<2.0	<2.0	<40	<2.0	<40UJ	<400	<800	<2.0	<2.0	<2.0	<2.0
	SEC-BUTYLBENZENE	ug/L		254	<5.0	<5.0	<100	<5.0	<100UJ	<1000	<2000	<5.0	<5.0	<5.0	<5.0
	STYRENE	ug/L	100	100	<2.0	<2.0	<40	<2.0	<40UJ	<400	<800	<2.0	<2.0	<2.0	<2.0
	TERT- BUTYLBENZENE	ug/L		254	<5.0	<5.0	<100	<5.0	<100UJ	<1000	<2000	<5.0	<5.0	<5.0	<5.0
	TETRACHLOROETHENE	ug/L	5	5	**0.57**	**0.64**	<40	<2.0	**5.4J-**	<400	<800	<2.0	**0.34**	<2.0	<2.0
	TOLUENE	ug/L	1000	1000	<2.0	<2.0	<40	<2.0	**20J-**	<400	<800	<2.0	<2.0	**0.5**	<2.0
	TRANS-1,2-DICHLOROETHENE	ug/L	100	100	<2.0	<2.0	<40	<2.0	<40UJ	<400	<800	<2.0	<2.0	<2.0	<2.0
	TRANS-1,3-DICHLOROPROPENE	ug/L		0.433	<2.0	<2.0	<40	<2.0	<40UJ	<400	<800	<2.0	<2.0	<2.0	<2.0
	TRICHLOROETHENE	ug/L	5	5	**0.27J**	<2.0UJ	<40	<2.0	<40UJ	<400	<800	<2.0	<2.0	<2.0	<2.0
	TRICHLOROFLUOROMETHANE	ug/L		1288	<5.0	<5.0	<100	<5.0	<100UJ	<1000	<2000	<5.0	<5.0	<5.0	<5.0
	VINYL CHLORIDE	ug/L	2	2	<5.0	<5.0	<100	<5.0	<100UJ	<1000	<2000	<5.0	<5.0	<5.0	<5.0

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WATER QUALITY DATA
SECOND QUARTER 2014

EXCEEDS MCL
EXCEEDS BCL
Detections **BOLDED**

Parameter Group	Parameter	Units	Primary Maximum Contaminant Level	NDEP Basic Comparison Levels for Residential Water[a]											
		Aquifer			SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW
		Location			M-007B	M-044	M-057A	M-092	M-142	MC-09R	MC-111	MC-113	MC-114	MC-128*	MC-129*
		Date			6/18/2014	7/10/2014	6/18/2014	6/16/2014	6/20/2014	6/17/2014	6/16/2014	6/10/2014	6/10/2014	6/12/2014	6/12/2014
		Sample Purpose			REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
		Sampling Event			SITEWIDE	BHT	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	WELL C	WELL C
		Samplers			CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE		
GENERAL CHARACTERIZATION	PERCHLORATE	ug/L		18	**22000J-**		**26000J-**	**1800J-**	**7400J-**	**84J**	**14000J-**	**0.23**	**1700J**		
	TOTAL DISSOLVED SOLIDS	mg/L			**9000**		**3500**	**2000**	**2700**	**15000**	**7300**	**16000**	**15000**		
TRACE METALS	ARSENIC	ug/L	10	10	**70**	**150**	**130**	**89**	**60**	**130**	**40**	**110**	**180**		
	BARIUM	mg/l	2	2	**0.036**	**0.025**	**0.021**	**0.028**	**0.12**	**0.043**	**0.040**	**0.053**	**0.038**		
	CADMIUM	mg/l	0.005	0.005	<0.0001UJ	<0.001	<0.0001UJ	<0.0005	<0.0005	**0.00011J-**	<0.0005	<0.0005	<0.0005		
	CHROMIUM	mg/l	0.1	0.1	**0.0038**	**0.81**	**0.047**	**0.019**	**0.050**	**0.0017**	**0.0018J**	<0.0025	**0.0056**		
	LEAD	mg/l	0.015	0.015	**0.0004**	<0.001	**0.00043**	**0.00032**	**0.0029**	**0.00023**	<0.0005	<0.0005	<0.0005		
	MANGANESE	mg/l		0.020		**0.011**									
	MERCURY	mg/L	0.002	0.002	<0.00020R	<0.00020	**0.00014J**	<0.00020	<0.00020	<0.00020R	<0.00020	<0.0002R	<0.0002R		
	SELENIUM	mg/l	0.05	0.05	**0.0071**	**0.0046**	**0.0043**	**0.0018**	**0.0039**	**0.0027**	<0.0025	<0.0025	**0.0017**		
	SILVER	mg/l		0.1	<0.0001	<0.001	<0.0001	<0.0005	<0.0005	<0.001	<0.0005	<0.0005	<0.0005		
	URANIUM	mg/l	0.03	0.03	**0.041**	**0.028**	**0.0069**	**0.0051**	**0.0089**	**0.026**	**0.042**	**0.027**	**0.033**		
PESTICIDES	2,4'-DDD	ug/L			<0.094		<0.095	<0.10	<0.095	<0.095	<0.095	<0.097	<0.11		
	2,4'-DDE	ug/L			<0.094		<0.095	<0.10	<0.095	<0.095	<0.095	<0.097	<0.11		
	2,4'-DDT	ug/L			<0.094		<0.095	<0.10	<0.095	<0.095	<0.095	<0.097	<0.11		
	4,4'-DDD	ug/L		0.280	<0.094		<0.095	<0.10	<0.095	<0.095	<0.095	<0.097	<0.11		
	4,4'-DDE	ug/L		0.198	<0.094		<0.095	<0.10	<0.095	<0.095	<0.095	<0.097	<0.11		
	4,4'-DDT	ug/L		0.198	<0.094		<0.095	<0.10	<0.095	<0.095	<0.095	<0.097	<0.11		
	ALDRIN	ug/L		0.00395	<0.0047		<0.0048	<0.0051	<0.0048	<0.0047	**0.043**	<0.0029	<0.0033		
	ALPHA-BHC	ug/L		10.95	**0.013**		<0.0048	<0.0051	<0.0048	**0.16**	**0.0081**	**1.3**	**0.56**		
	BETA-BHC	ug/L		2.19	<0.0094		<0.0095	<0.010	<0.0095	**5.3**	**0.010**	**6.2**	**3.4**		
	CHLORDANE	ug/L	2	2	<0.094		<0.095	<0.10	<0.095	<0.095	<0.095	<0.097	<0.11		
	DELTA-BHC	ug/L		11	<0.19		<0.19	<0.20	<0.19	**1.2**	**0.056**	**0.33**	**0.74**		
	DIELDRIN	ug/L		0.00420	<0.0047		<0.0048	<0.0051	<0.0048	<0.0047	<0.0048	<0.0039	<0.0043		
	ENDOSULFAN I	ug/L		219	<0.094		<0.095	<0.10	<0.095	<0.095	<0.095	<0.097	<0.11		
	ENDOSULFAN II	ug/L		219	<0.094		<0.095	<0.10	<0.095	<0.095	<0.095	<0.097	<0.11		
	ENDOSULFAN SULFATE	ug/L			<0.19		<0.19	<0.20	<0.19	<0.19	<0.19	<0.19	<0.22		
	ENDRIN	ug/L	2	2	<0.094		<0.095	<0.10	<0.095	<0.095	<0.095	<0.097	<0.11		
	ENDRIN ALDEHYDE	ug/L			<0.094		<0.095	<0.10	<0.095	<0.095	<0.095	<0.097	<0.11		
	ENDRIN KETONE	ug/L			<0.094		<0.095	<0.10	<0.095	<0.095	<0.095	<0.097	<0.11		
	GAMMA-BHC (LINDANE)	ug/L	0.2	0.2	**0.13**		<0.095	<0.10	<0.095	**0.027J**	<0.095	**0.028**	**0.017**		
	HEPTACHLOR	ug/L	0.4	0.4	<0.0094		<0.0095	<0.010	<0.0095	<0.0095	<0.0095	<0.0097	<0.011		
	HEPTACHLOR EPOXIDE	ug/L	0.2	0.2	<0.0047		<0.0048	<0.0051	<0.0048	<0.0047	<0.0048	<0.0048	<0.0054		
	METHOXYCHLOR	ug/L	40	40	<0.094		<0.095	<0.10	<0.095	<0.095	<0.095	<0.097UJ	<0.11UJ		
	TOXAPHENE	ug/L	3	3	<4.7		<4.8	<5.1	<4.8	<4.7	<4.8	<2.9	<3.3		
VOLATILE ORGANIC COMPOUNDS	1,1,1,2-TETRACHLOROETHANE	ug/L		0.524	<5.0	<0.50	<5.0	<5.0	<5.0	<5.0	<5.0	<0.5	<0.5	<5.0	<20
	1,1,1-TRICHLOROETHANE	ug/L	200	200	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2.0	<8.0
	1,1,2,2-TETRACHLOROETHANE	ug/L		0.0671	<2.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<1	<1	<2.0	<8.0
	1,1,2-TRICHLOROETHANE	ug/L	5	5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2.0	<8.0
	1,1-DICHLOROETHANE	ug/L		2.42	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	**0.84**	<2	**4.4**	**2.1**	**6.1**
	1,1-DICHLOROETHENE	ug/L	7	7	<5.0	<5.0	<5.0	**9.0**	**0.87**	<5.0	<5.0	<5	<5	<5.0	<20
	1,1-DICHLOROPROPENE	ug/L			<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2.0	<8.0
	1,2,3-TRICHLOROBENZENE	ug/L			<5.0	<5.0	<5.0	<5.0	<5.0	**1.1**	<5.0	**1.6**	**1.1**	**1.0**	**1.6**

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SECOND QUARTER 2014

EXCEEDS MCL

EXCEEDS BCL

Detections **BOLDED**

Parameter Group	Parameter	Units	Primary Maximum Contaminant Level	NDEP Basic Comparison Levels for Residential Water[a]											
		Aquifer			SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW
		Location			M-007B	M-044	M-057A	M-092	M-142	MC-09R	MC-111	MC-113	MC-114	MC-128*	MC-129*
		Date			6/18/2014	7/10/2014	6/18/2014	6/16/2014	6/20/2014	6/17/2014	6/16/2014	6/10/2014	6/10/2014	6/12/2014	6/12/2014
		Sample Purpose			REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
		Sampling Event			SITEWIDE	BHT	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	WELL C	WELL C
		Samplers			CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE		
VOLATILE ORGANIC COMPOUNDS	1,2,3-TRICHLOROPROPANE	ug/L		0.00224	<10	<1.0	<10	<10	<10	<10	<10	<1	<1	<10	<40
	1,2,4-TRICHLOROBENZENE	ug/L	70	70	<5.0	<5.0	<5.0	<5.0	<5.0	**0.35**	<5.0	**4.9**	**1.6**	**5.2**	**10**
	1,2,4-TRIMETHYLBENZENE	ug/L		14.6	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2.0	<8.0
	1,2-DIBROMO-3-CHLOROPROPANE	ug/L		0.2	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1	<1	<5.0	<20
	1,2-DIBROMOETHANE	ug/L		0.05	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2.0	<8.0
	1,2-DICHLOROBENZENE	ug/L	600	600	<2.0	**0.55**	<2.0	<2.0	<2.0	<2.0	<2.0	**3**	<2	**5.7**	**46**
	1,2-DICHLOROETHANE	ug/L	5	5	**1.4**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	**1.7**	<2.0	**4.0**
	1,2-DICHLOROPROPANE	ug/L	5	5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2.0	<8.0
	1,3,5-TRIMETHYLBENZENE	ug/L		14.5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2.0	<8.0
	1,3-DICHLOROBENZENE	ug/L		86.7	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	**0.82**	**3.1**
	1,3-DICHLOROPROPANE	ug/L		8.25	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2.0	<8.0
	1,4-DICHLOROBENZENE	ug/L	75	75	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	**4.4**	**0.52**	**8.1**	**64**
	2,2-DICHLOROPROPANE	ug/L			<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2.0	<8.0
	2-CHLOROTOLUENE	ug/L		91.3	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5	<5	<5.0	<20
	4-CHLOROTOLUENE	ug/L			<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5	<5	<5.0	<20
	BENZENE	ug/L	5	5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	**0.35**	**120**
	BROMOBENZENE	ug/L		87.6	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5	<5	<5.0	<20
	BROMOCHLOROMETHANE	ug/L			<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5	<5	<5.0	<20
	BROMODICHLOROMETHANE	ug/L	80	0.117	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2.0	<8.0
	BROMOFORM	ug/L	80	8.51	<5.0	**1.8**	<5.0	<5.0	<5.0	<5.0	<5.0	<5	<5	<5.0	<20
	BROMOMETHANE	ug/L		8.66	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5	<5	<5.0	<20
	CARBON TETRACHLORIDE	ug/L	5	5	<1.0	**3.3**	**2.7**	**0.55J+**	**0.77**	<1.0	<1.0	<1	<1	<1.0	<4.0
	CHLOROBENZENE	ug/L	100	100	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	**13**	<2	**45**	**220**
	CHLOROETHANE	ug/L		23.2	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5	<5	<5.0	<20
	CHLOROFORM	ug/L	80	0.193	**2.0**	**17**	**450**	**28**	**51**	**0.66**	**0.74**	**0.34**	**1.4**	**0.99**	**2.9**
	CHLOROMETHANE	ug/L		2.70	<5.0	<2.5	<5.0	<5.0	<5.0	<5.0	<5.0	<2.5	<2.5	<5.0	<20
	CIS-1,2-DICHLOROETHENE	ug/L	70	70	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2.0	<8.0
	CIS-1,3-DICHLOROPROPENE	ug/L		0.433	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2.0	<8.0
	DIBROMOCHLOROMETHANE	ug/L	80	0.147	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2.0	<8.0
	DIBROMOMETHANE	ug/L		8.16	<2.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<1	<1	<2.0	<8.0
	DICHLORODIFLUOROMETHANE	ug/L		395	<5.0UJ	<5.0	<5.0UJ	<5.0	<5.0	<5.0UJ	<5.0	<5	<5	<5.0	<20
	DIMETHYL DISULFIDE	ug/L			<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2.0	<8.0
	ETHYLBENZENE	ug/L	700	700	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2.0	<8.0
	HEXACHLOROBUTADIENE	ug/L		0.862	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5	<5	<5.0	<20
	ISOPROPYLBENZENE	ug/L		679	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2.0	<8.0
	M,P-XYLENES	ug/L	10000	1220	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2.0	<8.0
	METHYLENE CHLORIDE	ug/L	5	5	<2.0	<2.0	<2.0	**1.8J**	<2.0	<2.0	<2.0	<2	<2	<2.0	<8.0
	NAPHTHALENE	ug/L		0.143	<5.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1	<1	<5.0	<20
	N-BUTYLBENZENE	ug/L		254	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5	<5	<5.0	<20
	N-PROPYLBENZENE	ug/L		254	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2.0	<8.0

See last page for definitions of abbreviations and footnotes

HARGIS + ASSOCIATES, INC.

TABLE 3
WATER QUALITY DATA
SECOND QUARTER 2014

	EXCEEDS MCL	Aquifer	Primary Maximum Contaminant Level	NDEP Basic Comparison Levels for Residential Water[a]	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW
	EXCEEDS BCL	Location			M-007B	M-044	M-057A	M-092	M-142	MC-09R	MC-111	MC-113	MC-114	MC-128*	MC-129*
	Detections **BOLDED**	Date			6/18/2014	7/10/2014	6/18/2014	6/16/2014	6/20/2014	6/17/2014	6/16/2014	6/10/2014	6/10/2014	6/12/2014	6/12/2014
		Sample Purpose			REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
		Sampling Event			SITEWIDE	BHT	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	WELL C	WELL C
		Samplers			CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE		
Parameter Group	Parameter	Units													
VOLATILE ORGANIC COMPOUNDS	O-XYLENE	ug/L	10000	1217	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2.0	<8.0
	P-ISOPROPYL TOLUENE	ug/L		834	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2.0	<8.0
	SEC-BUTYLBENZENE	ug/L		254	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5	<5	<5.0	<20
	STYRENE	ug/L	100	100	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0UJ	<2.0	<2	<2	<2.0	<8.0
	TERT- BUTYLBENZENE	ug/L		254	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5	<5	<5.0	<20
	TETRACHLOROETHENE	ug/L	5	5	<2.0	**0.56**	**0.44**	<2.0	<2.0	<2.0	<2.0	<2	**1.8**	<2.0	**1.0**
	TOLUENE	ug/L	1000	1000	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2.0	<8.0
	TRANS-1,2-DICHLOROETHENE	ug/L	100	100	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2.0	<8.0
	TRANS-1,3-DICHLOROPROPENE	ug/L		0.433	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2.0	<8.0
	TRICHLOROETHENE	ug/L	5	5	<2.0	**0.55**	**0.84**	**4.0**	**2.2**	<2.0	<2.0	<2	**2.0**	<2.0	**1.0**
	TRICHLOROFLUOROMETHANE	ug/L		1288	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5	<5	<5.0	<20
	VINYL CHLORIDE	ug/L	2	2	<5.0	<2.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2	<2	<5.0	<20

See last page for definitions of abbreviations and footnotes

HARGIS + ASSOCIATES, INC.

TABLE 3
WATER QUALITY DATA
SECOND QUARTER 2014

EXCEEDS MCL
EXCEEDS BCL
Detections **BOLDED**

Parameter Group	Parameter	Units	Primary Maximum Contaminant Level	NDEP Basic Comparison Levels for Residential Water[a]											
		Aquifer			SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW
		Location			MC-47	MC-48	MC-49	MC-50	MC-53	MW-01	MW-02	MW-03	MW-04	MW-A-J	MW-R
		Date			6/10/2014	6/10/2014	6/11/2014	6/11/2014	6/11/2014	6/20/2014	6/23/2014	6/23/2014	6/23/2014	6/16/2014	6/16/2014
		Sample Purpose			REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
		Sampling Event			SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE
		Samplers			CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE
GENERAL CHARACTERIZATION	PERCHLORATE	ug/L		18	**12000J**	**3.0**	<0.5	**0.41**	**6100**	**0.47**	**4.1**	**230**	**91**	**34000J-**	**51000J-**
	TOTAL DISSOLVED SOLIDS	mg/L			**4500**	**17000**	**17000**	**15000**	**14000**	**780**	**8000**	**9800**	**3400**	**4800**	**4500**
TRACE METALS	ARSENIC	ug/L	10	10	**87**	**110**	**130J+**	**120J+**	**150J+**	**58**	**62**	**56**	**82**	**74**	**88**
	BARIUM	mg/l	2	2	**0.033**	**0.078**	**0.049J+**	**0.03J+**	**0.06J+**	**0.023**	**0.052**	**0.049**	**0.024**	**0.029**	**0.027**
	CADMIUM	mg/l	0.005	0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	CHROMIUM	mg/l	0.1	0.1	**0.003**	<0.0025	<0.0025	<0.0025	**0.012**	**0.012**	**0.0014**	**0.0022**	**0.0066**	<0.0025	<0.0025
	LEAD	mg/l	0.015	0.015	**0.00087**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	**0.00026**	<0.0005	**0.0019**	<0.0005
	MANGANESE	mg/l		0.020											
	MERCURY	mg/L	0.002	0.002	<0.0002R	<0.0002R	<0.0002R	<0.0002R	<0.0002R	<0.00020R	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	SELENIUM	mg/l	0.05	0.05	**0.0059**	<0.0025	<0.0025	<0.0025	<0.0025	**0.0020**	<0.0025	**0.017**	**0.0097**	**0.0034**	**0.0078**
	SILVER	mg/l		0.1	**0.00062**	**0.00033**	<0.0005	<0.0005	**0.00029**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	URANIUM	mg/l	0.03	0.03	**0.017**	**0.027**	**0.023**	**0.022**	**0.044**	**0.0018**	**0.096**	**0.31**	**0.018**	**0.041**	**0.036**
PESTICIDES	2,4'-DDD	ug/L			<0.097	<0.1	<0.094	<0.097	<0.099	<0.10	<0.10	<0.099	<0.099	<0.096	<0.095
	2,4'-DDE	ug/L			<0.097	<0.1	<0.094	<0.097	<0.099	<0.10	<0.10	<0.099	<0.099	<0.096	<0.095
	2,4'-DDT	ug/L			<0.097	<0.1	<0.094	<0.097	<0.099	<0.10	<0.10	<0.099	<0.099	<0.096	<0.095
	4,4'-DDD	ug/L		0.280	<0.097	<0.1	<0.094	<0.097	<0.099	<0.10	<0.10	<0.099	<0.099	<0.096	<0.095
	4,4'-DDE	ug/L		0.198	<0.097	<0.1	<0.094	<0.097	<0.099	<0.10	**0.005**	<0.099	<0.099	<0.096	<0.095
	4,4'-DDT	ug/L		0.198	<0.097	<0.1	<0.094	<0.097	<0.099	<0.10	<0.10	<0.099	<0.099	<0.096	<0.095
	ALDRIN	ug/L		0.00395	<0.0029	<0.003	<0.0028	<0.0029	<0.003	<0.0050	<0.0051	<0.0049	<0.0050	<0.0048	<0.0047
	ALPHA-BHC	ug/L		10.95	**0.19**	**0.56**	**2.6**	**1.4**	**0.33**	<0.0050	**0.070**	**0.29**	**0.0030**	**0.42**	**0.19**
	BETA-BHC	ug/L		2.19	**1.3**	**2.8**	**4.1**	**11**	**1.1**	<0.010	<0.010	<0.0099	<0.0099	**1.2**	**0.89**
	CHLORDANE	ug/L	2	2	<0.097	<0.1	<0.094	<0.097	<0.099	<0.10	<0.10	<0.099	<0.099	<0.096	<0.095
	DELTA-BHC	ug/L		11	**0.57**	**0.29**	**0.58**	**0.34**	**0.28**	<0.20	<0.21	<0.20	<0.20	<0.19	**0.99**
	DIELDRIN	ug/L		0.00420	<0.0039	<0.0041	<0.0038	<0.0039	<0.004	<0.0050	<0.0051	<0.0049	<0.0050	<0.0048	<0.0047
	ENDOSULFAN I	ug/L		219	<0.097	<0.1	<0.094	<0.097	<0.099	<0.10	<0.10	<0.099	<0.099	<0.096	<0.095
	ENDOSULFAN II	ug/L		219	<0.097	<0.1	<0.094	<0.097	<0.099	<0.10	<0.10	<0.099	<0.099	<0.096	<0.095
	ENDOSULFAN SULFATE	ug/L			<0.19	<0.2	<0.19	<0.19	<0.2	<0.20	<0.21	<0.20	<0.20	<0.19	<0.19
	ENDRIN	ug/L	2	2	<0.097	<0.1	<0.094	<0.097	<0.099	<0.10	<0.10	<0.099	<0.099	<0.096	<0.095
	ENDRIN ALDEHYDE	ug/L			<0.097	<0.1	<0.094	<0.097	<0.099	<0.10	<0.10	<0.099	<0.099	<0.096	<0.095
	ENDRIN KETONE	ug/L			<0.097	<0.1	<0.094	<0.097	<0.099	<0.10	<0.10	<0.099	<0.099	<0.096	<0.095
	GAMMA-BHC (LINDANE)	ug/L	0.2	0.2	**0.0045**	<0.1	<0.094	**0.10**	**0.021**	<0.10	**0.029**	**0.29**	<0.099	<0.096	<0.095
	HEPTACHLOR	ug/L	0.4	0.4	<0.0097	<0.01	<0.0094	<0.0097	<0.0099	<0.010	<0.010	<0.0099	<0.0099	<0.0096	<0.0095
	HEPTACHLOR EPOXIDE	ug/L	0.2	0.2	<0.0049	<0.0051	<0.0047	<0.0048	<0.005	<0.0050	<0.0051	<0.0049	<0.0050	<0.0048	<0.0047
	METHOXYCHLOR	ug/L	40	40	<0.097UJ	<0.1UJ	<0.094	<0.097	<0.099	<0.10	<0.10	<0.099	<0.099	<0.096	<0.095
	TOXAPHENE	ug/L	3	3	<2.9	<3	<2.8	<2.9	<3	<5.0	<5.1	<4.9	<5.0	<4.8	<4.7
VOLATILE ORGANIC COMPOUNDS	1,1,1,2-TETRACHLOROETHANE	ug/L		0.524	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<2000	<1000	<50	<5.0	<5.0
	1,1,1-TRICHLOROETHANE	ug/L	200	200	<2	<2	<2	<2	<2	<2.0	<800	<400	<20	<2.0	<2.0
	1,1,2,2-TETRACHLOROETHANE	ug/L		0.0671	<1	<1	<1	<1	<1	<2.0	<800	<400	<20	<2.0	<2.0
	1,1,2-TRICHLOROETHANE	ug/L	5	5	<2	<2	<2	<2	<2	<2.0	<800	<400	<20	<2.0	<2.0
	1,1-DICHLOROETHANE	ug/L		2.42	<2	<2	**2.2**	<2	**0.65**	<2.0	<800	<400	<20	**0.72**	<2.0
	1,1-DICHLOROETHENE	ug/L	7	7	<5	<5	<5	<5	<5	<5.0	<2000	<1000	<50	<5.0	<5.0
	1,1-DICHLOROPROPENE	ug/L			<2	<2	<2	<2	<2	<2.0	<800	<400	<20	<2.0	<2.0
	1,2,3-TRICHLOROBENZENE	ug/L			<5	<5	**1.4**	**1.3**	<5	<5.0	<2000	<1000	<50	**1.0**	**0.39**

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WATER QUALITY DATA
SECOND QUARTER 2014

EXCEEDS MCL
EXCEEDS BCL
Detections **BOLDED**

Parameter Group	Parameter	Units	Primary Maximum Contaminant Level	NDEP Basic Comparison Levels for Residential Water[a]											
		Aquifer			SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW
		Location			MC-47	MC-48	MC-49	MC-50	MC-53	MW-01	MW-02	MW-03	MW-04	MW-A-J	MW-R
		Date			6/10/2014	6/10/2014	6/11/2014	6/11/2014	6/11/2014	6/20/2014	6/23/2014	6/23/2014	6/23/2014	6/16/2014	6/16/2014
		Sample Purpose			REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
		Sampling Event			SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE
		Samplers			CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE
VOLATILE ORGANIC COMPOUNDS	1,2,3-TRICHLOROPROPANE	ug/L		0.00224	<1	<1	<1	<1	<1	<10	<4000	<2000	<100	<10	<10
	1,2,4-TRICHLOROBENZENE	ug/L	70	70	<5	**0.70**	**7.8**	**4.5**	<5	<5.0	<2000	<1000	<50	**3.9**	**0.51**
	1,2,4-TRIMETHYLBENZENE	ug/L		14.6	<2	<2	<2	<2	<2	<2.0	<800	<400	<20	<2.0	<2.0
	1,2-DIBROMO-3-CHLOROPROPANE	ug/L		0.2	<1	<1	<1	<1	<1	<5.0	<2000	<1000	<50	<5.0	<5.0
	1,2-DIBROMOETHANE	ug/L		0.05	<2	<2	<2	<2	<2	<2.0	<800	<400	<20	<2.0	<2.0
	1,2-DICHLOROBENZENE	ug/L	600	600	<2	<2	**22**	**2.1**	<2	<2.0	<800	**24000**	<20	**3.8**	<2.0
	1,2-DICHLOROETHANE	ug/L	5	5	<2	<2	**0.66**	<2	<2	<2.0	<800	<400	<20	<2.0	<2.0
	1,2-DICHLOROPROPANE	ug/L	5	5	<2	<2	<2	<2	<2	<2.0	<800	<400	<20	<2.0	<2.0
	1,3,5-TRIMETHYLBENZENE	ug/L		14.5	<2	<2	<2	<2	<2	<2.0	<800	<400	<20	<2.0	<2.0
	1,3-DICHLOROBENZENE	ug/L		86.7	<2	<2	**1.1**	<2	<2	<2.0	<800	**960**	<20	<2.0	<2.0
	1,3-DICHLOROPROPANE	ug/L		8.25	<2	<2	<2	<2	<2	<2.0	<800	<400	<20	<2.0	<2.0
	1,4-DICHLOROBENZENE	ug/L	75	75	<2	**0.95**	**32**	**3.6**	**0.34**	**0.50**	<800	**25000**	<20	**5.1**	<2.0
	2,2-DICHLOROPROPANE	ug/L			<2	<2	<2	<2	<2	<2.0	<800	<400	<20	<2.0	<2.0
	2-CHLOROTOLUENE	ug/L		91.3	<5	<5	**0.26**	<5	<5	<5.0	<2000	<1000	<50	<5.0	<5.0
	4-CHLOROTOLUENE	ug/L			<5	<5	<5	<5	<5	<5.0	<2000	<1000	<50	<5.0	<5.0
	BENZENE	ug/L	5	5	<2	<2	**0.84**	**4.7**	<2	<2.0	**1900**	**910**	<20	<2.0	<2.0
	BROMOBENZENE	ug/L		87.6	<5	<5	<5	<5	<5	<5.0	<2000	<1000	<50	<5.0	<5.0
	BROMOCHLOROMETHANE	ug/L			<5	<5	<5	<5	<5	<5.0	<2000	<1000	<50	<5.0	<5.0
	BROMODICHLOROMETHANE	ug/L	80	0.117	<2	<2	<2	<2	<2	<2.0	<800	<400	<20	<2.0	<2.0
	BROMOFORM	ug/L	80	8.51	<5	<5	<5	<5	<5	<5.0	<2000	<1000	<50	<5.0	<5.0
	BROMOMETHANE	ug/L		8.66	<5	<5	<5	<5	<5	<5.0	<2000	<1000	<50	<5.0	<5.0
	CARBON TETRACHLORIDE	ug/L	5	5	<1	<1	<1	<1	<1	<1.0	**180**	<200	**3.4**	<1.0	<1.0
	CHLOROBENZENE	ug/L	100	100	<2	**5.0**	**280**	**51**	<2	**1.6**	**2700**	**24000**	**5.9**	<2.0	<2.0
	CHLOROETHANE	ug/L		23.2	<5	<5	<5	<5	<5	<5.0	<2000	<1000	<50	<5.0	<5.0
	CHLOROFORM	ug/L	80	0.193	**7.9**	<2	<2	**1.2**	**2.9**	**2.8**	**120000**	**37000**	**1900**	**0.8**	**0.8**
	CHLOROMETHANE	ug/L		2.70	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<2000	<1000	<50	<5.0	<5.0
	CIS-1,2-DICHLOROETHENE	ug/L	70	70	<2	<2	<2	<2	<2	<2.0	<800	<400	<20	<2.0	<2.0
	CIS-1,3-DICHLOROPROPENE	ug/L		0.433	<2	<2	<2	<2	<2	<2.0	<800	<400	<20	<2.0	<2.0
	DIBROMOCHLOROMETHANE	ug/L	80	0.147	<2	<2	<2	<2	<2	<2.0	<800	<400	<20	<2.0	<2.0
	DIBROMOMETHANE	ug/L		8.16	<1	<1	<1	<1	<1	<2.0	<800	<400	<20	<2.0	<2.0
	DICHLORODIFLUOROMETHANE	ug/L		395	<5	<5	<5	<5	<5	<5.0	<2000	<1000	<50	<5.0	<5.0
	DIMETHYL DISULFIDE	ug/L			<2	<2	**2**	**2.5**	<2	<2.0	<800	<400	<20	<2.0	<2.0
	ETHYLBENZENE	ug/L	700	700	<2	<2	<2	<2	<2	<2.0	<800	<400	<20	<2.0	<2.0
	HEXACHLOROBUTADIENE	ug/L		0.862	<5	<5	<5	<5	<5	<5.0	<2000	<1000	<50	<5.0	<5.0
	ISOPROPYLBENZENE	ug/L		679	<2	<2	<2	<2	<2	<2.0	<800	<400	<20	<2.0	<2.0
	M,P-XYLENES	ug/L	10000	1220	<2	<2	<2	<2	<2	<2.0	<800	<400	<20	<2.0	<2.0
	METHYLENE CHLORIDE	ug/L	5	5	<2	<2	<2	<2	<2	<2.0	**440**	**230**	**12**	<2.0	<2.0
	NAPHTHALENE	ug/L		0.143	<1	<1	<1	<1	<1	<5.0	<2000	<1000	<50	<5.0	<5.0
	N-BUTYLBENZENE	ug/L		254	<5	<5	<5	<5	<5	<5.0	<2000	<1000	<50	<5.0	<5.0
	N-PROPYLBENZENE	ug/L		254	<2	<2	<2	<2	<2	<2.0	<800	<400	<20	<2.0	<2.0

See last page for definitions of abbreviations and footnotes

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TABLE 3
WATER QUALITY DATA
SECOND QUARTER 2014

	EXCEEDS MCL	Aquifer	Primary Maximum Contaminant Level	NDEP Basic Comparison Levels for Residential Water[a]	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW
	EXCEEDS BCL	Location			MC-47	MC-48	MC-49	MC-50	MC-53	MW-01	MW-02	MW-03	MW-04	MW-A-J	MW-R
	Detections **BOLDED**	Date			6/10/2014	6/10/2014	6/11/2014	6/11/2014	6/11/2014	6/20/2014	6/23/2014	6/23/2014	6/23/2014	6/16/2014	6/16/2014
		Sample Purpose			REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
		Sampling Event			SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE
		Samplers			CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE
Parameter Group	Parameter	Units													
VOLATILE ORGANIC COMPOUNDS	O-XYLENE	ug/L	10000	1217	<2	<2	<2	<2	<2	<2.0	<800	<400	<20	<2.0	<2.0
	P-ISOPROPYL TOLUENE	ug/L		834	<2	<2	<2	<2	<2	<2.0	<800	<400	<20	<2.0	<2.0
	SEC-BUTYLBENZENE	ug/L		254	<5	<5	<5	<5	<5	<5.0	<2000	<1000	<50	<5.0	<5.0
	STYRENE	ug/L	100	100	<2	<2	<2	<2	<2	<2.0	<800	<400	<20	<2.0	<2.0
	TERT- BUTYLBENZENE	ug/L		254	<5	<5	**0.53**	<5	<5	<5.0	<2000	<1000	<50	<5.0	<5.0
	TETRACHLOROETHENE	ug/L	5	5	<2	<2	<2	**0.25**	**1.1**	<2.0	<800	<400	<20	<2.0	<2.0
	TOLUENE	ug/L	1000	1000	<2	<2	**0.25**	<2	<2	<2.0	<800	<400	<20	<2.0	<2.0
	TRANS-1,2-DICHLOROETHENE	ug/L	100	100	<2	<2	<2	<2	<2	<2.0	<800	<400	<20	<2.0	<2.0
	TRANS-1,3-DICHLOROPROPENE	ug/L		0.433	<2	<2	<2	<2	<2	<2.0	<800	<400	<20	<2.0	<2.0
	TRICHLOROETHENE	ug/L	5	5	<2	<2	**0.91**	<2	<2	<2.0	<800	<400	<20	<2.0	<2.0
	TRICHLOROFLUOROMETHANE	ug/L		1288	<5	<5	<5	<5	<5	<5.0	<2000	<1000	<50	<5.0	<5.0
	VINYL CHLORIDE	ug/L	2	2	<2	<2	<2	<2	<2	<5.0	<2000	<1000	<50	<5.0	<5.0

See last page for definitions of abbreviations and footnotes

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TABLE 3
WATER QUALITY DATA
SECOND QUARTER 2014

	EXCEEDS MCL														
	EXCEEDS BCL	Aquifer	Primary Maximum Contaminant Level	NDEP Basic Comparison Levels for Residential Water[a]	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW
	Detections **BOLDED**	Location			PC-021A	PC-028	PC-031	PC-040	PC-054	PC-064	WELL-C*	WELL-D2	WELL-E3	WELL-F	WELL-G
		Date			7/9/2014	6/13/2014	6/13/2014	7/9/2014	7/9/2014	6/13/2014	6/12/2014	6/5/2014	6/5/2014	6/5/2014	6/5/2014
		Sample Purpose			REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
		Sampling Event			BHT	SITEWIDE	SITEWIDE	BHT	BHT	SITEWIDE	WELL C	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE
		Samplers			CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE		CONVERSE	CONVERSE	CONVERSE	CONVERSE
Parameter Group	Parameter	Units													
GENERAL CHARACTERIZATION	PERCHLORATE	ug/L		18		**170000J-**	**6300J-**			**250000J-**					
	TOTAL DISSOLVED SOLIDS	mg/L				**5500**	**4400**			**6800**					
TRACE METALS	ARSENIC	ug/L	10	10	**97**	**230**	**120**	**210**	**140**	**230**					
	BARIUM	mg/l	2	2	**0.045**	**0.025**	**0.65**	**0.053**	**0.025**	**0.014**					
	CADMIUM	mg/l	0.005	0.005	<0.005	<0.0005	**0.0011**	<0.005	<0.005	<0.0005					
	CHROMIUM	mg/l	0.1	0.1	**0.18**	**0.63**	**0.068**	<0.025	**1.5**	**0.98**					
	LEAD	mg/l	0.015	0.015	<0.005	**0.00048**	**0.019**	<0.005	<0.005	<0.0005					
	MANGANESE	mg/l		0.020	**0.025**			**2.0**	**0.051**						
	MERCURY	mg/L	0.002	0.002	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020					
	SELENIUM	mg/l	0.05	0.05	<0.025	**0.0067**	**0.009**	<0.025	<0.025	**0.0094**					
	SILVER	mg/l		0.1	<0.005	<0.0005	**0.00072**	<0.005	<0.005	<0.0005					
	URANIUM	mg/l	0.03	0.03	**0.042**	**0.15**	**0.034**	**0.06**	**0.078**	**0.067**					
PESTICIDES	2,4'-DDD	ug/L				<0.097	<0.097			<0.095		<0.096	<0.096	<0.097	<0.096
	2,4'-DDE	ug/L				<0.097	<0.097			<0.095		<0.096	<0.096	<0.097	<0.096
	2,4'-DDT	ug/L				<0.097	<0.097			<0.095		<0.096	<0.096	<0.097	<0.096
	4,4'-DDD	ug/L		0.280		<0.097	<0.097			<0.095		<0.096	<0.096	<0.097	<0.096
	4,4'-DDE	ug/L		0.198		<0.097	<0.097			<0.095		<0.096	<0.096	<0.097	<0.096
	4,4'-DDT	ug/L		0.198		<0.097	<0.097			<0.095		<0.096	<0.096	<0.097	<0.096
	ALDRIN	ug/L		0.00395		<0.0049	<0.0049			<0.0047		<0.0048	<0.0048	<0.0048	<0.0048
	ALPHA-BHC	ug/L		10.95		<0.0049	**0.29**			**0.015**		**5.4**	**6.7**	**7.7**	**26**
	BETA-BHC	ug/L		2.19		<0.0097	**6.0**			<0.0095		**16**	**16**	**30**	**39**
	CHLORDANE	ug/L	2	2		<0.097	<0.097			<0.095		<0.096	<0.096	<0.097	<0.096
	DELTA-BHC	ug/L		11		**0.030**	**0.97**			<0.19		**2.6**	**2.3**	**2.0**	**2.9**
	DIELDRIN	ug/L		0.00420		<0.0049	<0.0049			<0.0047		<0.0048	<0.0048	<0.0048	<0.0048
	ENDOSULFAN I	ug/L		219		<0.097	<0.097			<0.095		<0.096	<0.096	<0.097	<0.096
	ENDOSULFAN II	ug/L		219		<0.097	<0.097			<0.095		<0.096	<0.096	<0.097	<0.096
	ENDOSULFAN SULFATE	ug/L				<0.19	<0.19			<0.19		<0.19	<0.19	<0.19	<0.19
	ENDRIN	ug/L	2	2		<0.097	<0.097			<0.095		<0.096	<0.096	<0.097	<0.096
	ENDRIN ALDEHYDE	ug/L				<0.097	<0.097			<0.095		<0.096	<0.096	<0.097	<0.096
	ENDRIN KETONE	ug/L				<0.097	<0.097			<0.095		<0.096	<0.096	<0.097	<0.096
	GAMMA-BHC (LINDANE)	ug/L	0.2	0.2		<0.097	<0.097			<0.095		<0.096	<0.096	<0.097	**0.56**
	HEPTACHLOR	ug/L	0.4	0.4		<0.0097	<0.0097			<0.0095		<0.0096	<0.0096	<0.0097	<0.0096
	HEPTACHLOR EPOXIDE	ug/L	0.2	0.2		<0.0049	<0.0049			<0.0047		<0.0048	<0.0048	<0.0048	<0.0048
	METHOXYCHLOR	ug/L	40	40		<0.097	<0.097			<0.095		<0.096	<0.096	<0.097	<0.096
	TOXAPHENE	ug/L	3	3		<4.9	<4.9			<4.7		<4.8	<4.8	<4.8	<4.8
VOLATILE ORGANIC COMPOUNDS	1,1,1,2-TETRACHLOROETHANE	ug/L		0.524	<0.50	<5.0	<5.0	<0.50	<0.50	<5.0	<5.0	<10	<25	<200	<2000
	1,1,1-TRICHLOROETHANE	ug/L	200	200	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4	<10	<80	<800
	1,1,2,2-TETRACHLOROETHANE	ug/L		0.0671	<1.0	<2.0	<2.0	<1.0	<1.0	<2.0	<2.0	<4	<10	<80	<800
	1,1,2-TRICHLOROETHANE	ug/L	5	5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4	<10	<80	<800
	1,1-DICHLOROETHANE	ug/L		2.42	**0.47**	<2.0	**1.4**	**6.0**	<2.0	<2.0	**1.6**	**14**	**8.2**	<80	<800
	1,1-DICHLOROETHENE	ug/L	7	7	**3.3**	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	**1.2**	<25	<200	<2000
	1,1-DICHLOROPROPENE	ug/L			<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4	<10	<80	<800
	1,2,3-TRICHLOROBENZENE	ug/L			<5.0	<5.0	**1.2**	**3.4**	<5.0	<5.0	**0.58**	**21**	**17**	**36**	<2000

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WATER QUALITY DATA
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	EXCEEDS MCL	Aquifer	Primary Maximum Contaminant Level	NDEP Basic Comparison Levels for Residential Water[a]	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW
	EXCEEDS BCL	Location			PC-021A	PC-028	PC-031	PC-040	PC-054	PC-064	WELL-C*	WELL-D2	WELL-E3	WELL-F	WELL-G
	Detections **BOLDED**	Date			7/9/2014	6/13/2014	6/13/2014	7/9/2014	7/9/2014	6/13/2014	6/12/2014	6/5/2014	6/5/2014	6/5/2014	6/5/2014
		Sample Purpose			REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
		Sampling Event			BHT	SITEWIDE	SITEWIDE	BHT	BHT	SITEWIDE	WELL C	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE
		Samplers			CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE		CONVERSE	CONVERSE	CONVERSE	CONVERSE
Parameter Group	Parameter	Units													
VOLATILE ORGANIC COMPOUNDS	1,2,3-TRICHLOROPROPANE	ug/L		0.00224	<1.0	<10	<10	<1.0	<1.0	<10	<10	<20	<50	<400	<4000
	1,2,4-TRICHLOROBENZENE	ug/L	70	70	<5.0	<5.0	**14**	**15**	<5.0	<5.0	**1.1**	**84**	**86**	**150**	**180**
	1,2,4-TRIMETHYLBENZENE	ug/L		14.6	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4	<10	<80	<800
	1,2-DIBROMO-3-CHLOROPROPANE	ug/L		0.2	<1.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<10	<25	<200	<2000
	1,2-DIBROMOETHANE	ug/L		0.05	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4	<10	<80	<800
	1,2-DICHLOROBENZENE	ug/L	600	600	<2.0	<2.0	**7.8**	**16**	**1.6**	**1.3**	<2.0	**320**	**120**	**150**	**1300**
	1,2-DICHLOROETHANE	ug/L	5	5	<2.0	<2.0	**0.43**	<2.0	<2.0	<2.0	<2.0	**4.5**	**4.9**	**19**	<800
	1,2-DICHLOROPROPANE	ug/L	5	5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4	<10	<80	<800
	1,3,5-TRIMETHYLBENZENE	ug/L		14.5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4	<10	<80	<800
	1,3-DICHLOROBENZENE	ug/L		86.7	<2.0	<2.0	**0.69**	**1.4**	**2.2**	**1.7**	<2.0	**15**	**7.1**	**19**	<800
	1,3-DICHLOROPROPANE	ug/L		8.25	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4	<10	<80	**160**
	1,4-DICHLOROBENZENE	ug/L	75	75	<2.0	<2.0	**11**	**23**	**1.4**	**0.87**	**0.97**	**420**	**160**	**210**	**2200**
	2,2-DICHLOROPROPANE	ug/L			<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4	<10	<80	<800
	2-CHLOROTOLUENE	ug/L		91.3	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<25	<200	<2000
	4-CHLOROTOLUENE	ug/L			<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<25	<200	<2000
	BENZENE	ug/L	5	5	<2.0	<2.0	<2.0	**0.92**	<2.0	<2.0	<2.0	**16**	**60**	**2100**	**41000**
	BROMOBENZENE	ug/L		87.6	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<25	<200	**160**
	BROMOCHLOROMETHANE	ug/L			<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<25	<200	<2000
	BROMODICHLOROMETHANE	ug/L	80	0.117	<2.0	**0.44**	<2.0	<2.0	<2.0	<2.0	<2.0	<4	<10	<80	<800
	BROMOFORM	ug/L	80	8.51	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<25	<200	<2000
	BROMOMETHANE	ug/L		8.66	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<25	<200	<2000
	CARBON TETRACHLORIDE	ug/L	5	5	**1.8**	**2.1J+**	<1.0	<1.0	<1.0	<1.0	<1.0	<2	<5	<40	<400
	CHLOROBENZENE	ug/L	100	100	<2.0	<2.0	**0.29**	**91**	<2.0	<2.0	<2.0	**720**	**2000**	**5900**	**38000**
	CHLOROETHANE	ug/L		23.2	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<25	<200	<2000
	CHLOROFORM	ug/L	80	0.193	**330**	**64**	**0.99**	**1.1**	**6.9**	**2.9**	**3.0**	**1.8**	<10	<80	**340**
	CHLOROMETHANE	ug/L		2.70	<2.5	<5.0	<5.0	<2.5	<2.5	<5.0	<5.0	<10	<25	<200	<2000
	CIS-1,2-DICHLOROETHENE	ug/L	70	70	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	**0.95**	<10	<80	<800
	CIS-1,3-DICHLOROPROPENE	ug/L		0.433	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4	<10	<80	<800
	DIBROMOCHLOROMETHANE	ug/L	80	0.147	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4	<10	<80	<800
	DIBROMOMETHANE	ug/L		8.16	<1.0	<2.0	<2.0	<1.0	<1.0	<2.0	<2.0	<4	<10	<80	<800
	DICHLORODIFLUOROMETHANE	ug/L		395	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<25	<200	<2000
	DIMETHYL DISULFIDE	ug/L			<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4	**7.7**	<80	<800
	ETHYLBENZENE	ug/L	700	700	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4	<10	<80	<800
	HEXACHLOROBUTADIENE	ug/L		0.862	<5.0	<5.0	<5.0	<5.0	**0.25**	<5.0	<5.0	<10	<25	<200	<2000
	ISOPROPYLBENZENE	ug/L		679	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4	<10	<80	<800
	M,P-XYLENES	ug/L	10000	1220	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4	<10	<80	<800
	METHYLENE CHLORIDE	ug/L	5	5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4	<10	<80	<800
	NAPHTHALENE	ug/L		0.143	<1.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<10	<25	<200	<2000
	N-BUTYLBENZENE	ug/L		254	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<25	<200	<2000
	N-PROPYLBENZENE	ug/L		254	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4	<10	<80	<800

See last page for definitions of abbreviations and footnotes

HARGIS + ASSOCIATES, INC.

TABLE 3
WATER QUALITY DATA
SECOND QUARTER 2014

	EXCEEDS MCL	Aquifer	Primary Maximum Contaminant Level	NDEP Basic Comparison Levels for Residential Water[a]	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW
	EXCEEDS BCL	Location			PC-021A	PC-028	PC-031	PC-040	PC-054	PC-064	WELL-C*	WELL-D2	WELL-E3	WELL-F	WELL-G
	Detections **BOLDED**	Date			7/9/2014	6/13/2014	6/13/2014	7/9/2014	7/9/2014	6/13/2014	6/12/2014	6/5/2014	6/5/2014	6/5/2014	6/5/2014
		Sample Purpose			REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
		Sampling Event			BHT	SITEWIDE	SITEWIDE	BHT	BHT	SITEWIDE	WELL C	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE
		Samplers			CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE		CONVERSE	CONVERSE	CONVERSE	CONVERSE
Parameter Group	Parameter	Units													
VOLATILE ORGANIC COMPOUNDS	O-XYLENE	ug/L	10000	1217	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4	<10	<80	<800
	P-ISOPROPYL TOLUENE	ug/L		834	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4	<10	<80	<800
	SEC-BUTYLBENZENE	ug/L		254	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<25	<200	<2000
	STYRENE	ug/L	100	100	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4	<10	<80	<800
	TERT- BUTYLBENZENE	ug/L		254	<5.0	<5.0	<5.0	**0.25**	<5.0	<5.0	<5.0	<10	<25	<200	<2000
	TETRACHLOROETHENE	ug/L	5	5	**72**	**0.48**	<2.0	**1.2**	**1.3**	**1.5**	<2.0	<4	<10	<80	<800
	TOLUENE	ug/L	1000	1000	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4	<10	<80	<800
	TRANS-1,2-DICHLOROETHENE	ug/L	100	100	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4	<10	<80	<800
	TRANS-1,3-DICHLOROPROPENE	ug/L		0.433	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4	<10	<80	<800
	TRICHLOROETHENE	ug/L	5	5	**3.6**	**0.32**	<2.0	**2.6**	<2.0	**1.1**	<2.0	**90**	**37**	**19**	<800
	TRICHLOROFLUOROMETHANE	ug/L		1288	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<25	<200	<2000
	VINYL CHLORIDE	ug/L	2	2	<2.0	<5.0	<5.0	<2.0	<2.0	<5.0	<5.0	<10	<25	<200	<2000

HARGIS + ASSOCIATES, INC.

TABLE 3
WATER QUALITY DATA
SECOND QUARTER 2014

EXCEEDS MCL
EXCEEDS BCL
Detections **BOLDED**

Parameter Group	Parameter	Units	Primary Maximum Contaminant Level	NDEP Basic Comparison Levels for Residential Water[a]	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW
		Location			WELL-H2	WELL-I	WELL-J	WELL-K2	WELL-L	WELL-M2	WELL-N	WELL-O	WELL-P	WELL-Q	WELL-R
		Date			6/5/2014	6/5/2014	6/5/2014	6/5/2014	6/5/2014	6/5/2014	6/5/2014	6/5/2014	6/5/2014	6/5/2014	6/5/2014
		Sample Purpose			REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
		Sampling Event			SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE
		Samplers			CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE
GENERAL CHARACTERIZATION	PERCHLORATE	ug/L		18											
	TOTAL DISSOLVED SOLIDS	mg/L													
TRACE METALS	ARSENIC	ug/L	10	10											
	BARIUM	mg/l	2	2											
	CADMIUM	mg/l	0.005	0.005											
	CHROMIUM	mg/l	0.1	0.1											
	LEAD	mg/l	0.015	0.015											
	MANGANESE	mg/l		0.020											
	MERCURY	mg/L	0.002	0.002											
	SELENIUM	mg/l	0.05	0.05											
	SILVER	mg/l		0.1											
	URANIUM	mg/l	0.03	0.03											
PESTICIDES	2,4'-DDD	ug/L			<0.1	<0.096	<0.096	<0.096	<0.097	<0.095	<0.1	**0.037**	<0.099	<0.1	<0.096
	2,4'-DDE	ug/L			<0.1	<0.096	<0.096	<0.096	<0.097	<0.095	<0.1	<0.1	<0.099	<0.1	<0.096
	2,4'-DDT	ug/L			<0.1	<0.096	<0.096	<0.096	<0.097	<0.095	<0.1	<0.1	<0.099	<0.1	<0.096
	4,4'-DDD	ug/L		0.280	<0.1	<0.096	<0.096	<0.096	<0.097	<0.095	<0.1	<0.1	<0.099	<0.1	<0.096
	4,4'-DDE	ug/L		0.198	<0.1	<0.096	<0.096	<0.096	<0.097	<0.095	<0.1	<0.1	<0.099	<0.1	<0.096
	4,4'-DDT	ug/L		0.198	<0.1	<0.096	<0.096	<0.096	<0.097	<0.095	<0.1	<0.1	<0.099	<0.1	<0.096
	ALDRIN	ug/L		0.00395	<0.0051	<0.0048	<0.0048	<0.0048	<0.0049	<0.0048	<0.005	<0.0051	<0.0049	<0.0051	<0.0048
	ALPHA-BHC	ug/L		10.95	**160**	**1.2**	**4.3**	**170**	**4.5**	**3.1**	**4.2**	**11**	**2.4**	**3.5**	**3.5**
	BETA-BHC	ug/L		2.19	**47**	**0.31**	**17**	**28**	**26**	**3.3**	**17**	**34**	**9.1**	**11**	**15**
	CHLORDANE	ug/L	2	2	<0.1	<0.096	<0.096	<0.096	<0.097	<0.095	<0.1	<0.1	<0.099	<0.1	<0.096
	DELTA-BHC	ug/L		11	**3.8**	**2.0**	**2.5**	**4.9**	**1.6**	**3.2**	**1.5**	**2.7**	**4.3**	**3.3**	**2.6**
	DIELDRIN	ug/L		0.00420	<0.0051	<0.0048	<0.0048	<0.0048	<0.0049	<0.0048	<0.005	**0.017**	<0.0049	<0.0051	<0.0048
	ENDOSULFAN I	ug/L		219	<0.1	<0.096	<0.096	<0.096	<0.097	<0.095	<0.1	<0.1	<0.099	<0.1	<0.096
	ENDOSULFAN II	ug/L		219	<0.1	<0.096	<0.096	<0.096	<0.097	<0.095	<0.1	<0.1	<0.099	<0.1	<0.096
	ENDOSULFAN SULFATE	ug/L			<0.2	<0.19	<0.19	<0.19	<0.19	<0.19	<0.2	<0.2	<0.2	<0.2	<0.19
	ENDRIN	ug/L	2	2	<0.1	<0.096	<0.096	<0.096	<0.097	<0.095	<0.1	<0.1	<0.099	<0.1	<0.096
	ENDRIN ALDEHYDE	ug/L			<0.1	<0.096	<0.096	<0.096	<0.097	<0.095	<0.1	<0.1	<0.099	<0.1	<0.096
	ENDRIN KETONE	ug/L			<0.1	<0.096	<0.096	<0.096	<0.097	<0.095	<0.1	<0.1	<0.099	<0.1	<0.096
	GAMMA-BHC (LINDANE)	ug/L	0.2	0.2	**1.7**	<0.096	<0.096	**1.3**	<0.097	<0.095	<0.1	**0.17**	<0.099	<0.1	<0.096
	HEPTACHLOR	ug/L	0.4	0.4	<0.01	<0.0096	<0.0096	<0.0096	<0.0097	<0.0095	<0.01	<0.01	<0.0099	<0.01	<0.0096
	HEPTACHLOR EPOXIDE	ug/L	0.2	0.2	<0.0051	<0.0048	<0.0048	<0.0048	<0.0049	<0.0048	<0.005	<0.0051	<0.0049	<0.0051	<0.0048
	METHOXYCHLOR	ug/L	40	40	<0.1	<0.096	<0.096	<0.096	<0.097	<0.095	<0.1	**0.037**	<0.099	<0.1	<0.096
	TOXAPHENE	ug/L	3	3	<5.1	<4.8	<4.8	<4.8	<4.9	<4.8	<5	<5.1	<4.9	<5.1	<4.8
VOLATILE ORGANIC COMPOUNDS	1,1,1,2-TETRACHLOROETHANE	ug/L		0.524	<1000	<50	<20	<200	<200	<200	<10	<500	<5	<5	<5
	1,1,1-TRICHLOROETHANE	ug/L	200	200	<400	<20	<8	<80	<80	<80	<4	<200	<2	<2	<2
	1,1,2,2-TETRACHLOROETHANE	ug/L		0.0671	<400	<20	<8	<80	<80	<80	<4	<200	<2	<2	<2
	1,1,2-TRICHLOROETHANE	ug/L	5	5	<400	<20	<8	<80	<80	<80	<4	<200	<2	<2	<2
	1,1-DICHLOROETHANE	ug/L		2.42	**110**	**43**	**14**	**190**	<80	**140**	**11**	<200	**2.1**	**5.3**	**8.9**
	1,1-DICHLOROETHENE	ug/L	7	7	<1000	<50	**1.4**	<200	<200	<200	**1.3**	<500	<5	**0.3**	**0.68**
	1,1-DICHLOROPROPENE	ug/L			<400	<20	<8	<80	<80	<80	<4	<200	<2	<2	<2
	1,2,3-TRICHLOROBENZENE	ug/L			<1000	<50	**21**	**25**	**21**	**10**	**21**	**39**	**2.2**	**8.0**	**15**

See last page for definitions of abbreviations and footnotes

HARGIS + ASSOCIATES, INC.

TABLE 3
WATER QUALITY DATA
SECOND QUARTER 2014

EXCEEDS MCL
EXCEEDS BCL
Detections **BOLDED**

Parameter Group	Parameter	Units	Primary Maximum Contaminant Level	NDEP Basic Comparison Levels for Residential Water[a]											
		Aquifer			SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW
		Location			WELL-H2	WELL-I	WELL-J	WELL-K2	WELL-L	WELL-M2	WELL-N	WELL-O	WELL-P	WELL-Q	WELL-R
		Date			6/5/2014	6/5/2014	6/5/2014	6/5/2014	6/5/2014	6/5/2014	6/5/2014	6/5/2014	6/5/2014	6/5/2014	6/5/2014
		Sample Purpose			REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
		Sampling Event			SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE
		Samplers			CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE
VOLATILE ORGANIC COMPOUNDS	1,2,3-TRICHLOROPROPANE	ug/L		0.00224	<2000	<100	<40	<400	<400	<400	<20	<1000	<10	<10	<10
	1,2,4-TRICHLOROBENZENE	ug/L	70	70	**240**	**2.6**	**100**	**140**	**140**	**50**	**95**	**200**	**15**	**34**	**64**
	1,2,4-TRIMETHYLBENZENE	ug/L		14.6	<400	<20	<8	<80	<80	<80	<4	<200	<2	<2	<2
	1,2-DIBROMO-3-CHLOROPROPANE	ug/L		0.2	<1000	<50	<20	<200	<200	<200	<10	<500	<5	<5	<5
	1,2-DIBROMOETHANE	ug/L		0.05	<400	<20	<8	<80	<80	<80	<4	<200	<2	<2	<2
	1,2-DICHLOROBENZENE	ug/L	600	600	**910**	**29**	**150**	**520**	**79**	**320**	**600**	**910**	**11**	**30**	**49**
	1,2-DICHLOROETHANE	ug/L	5	5	<400	**21**	**4**	**11**	**16**	<80	**3.3**	<200	**0.66**	**1.6**	**2.3**
	1,2-DICHLOROPROPANE	ug/L	5	5	<400	<20	<8	<80	<80	<80	<4	<200	<2	<2	<2
	1,3,5-TRIMETHYLBENZENE	ug/L		14.5	<400	<20	<8	<80	<80	<80	<4	<200	<2	<2	<2
	1,3-DICHLOROBENZENE	ug/L		86.7	**53**	<20	**7.1**	**27**	**19**	**16**	**22**	**60**	**3.6**	**6.7**	**5.8**
	1,3-DICHLOROPROPANE	ug/L		8.25	<400	<20	<8	<80	<80	<80	<4	<200	<2	<2	<2
	1,4-DICHLOROBENZENE	ug/L	75	75	**1600**	**41**	**190**	**830**	**130**	**530**	**730**	**1500**	**14**	**42**	**71**
	2,2-DICHLOROPROPANE	ug/L			<400	<20	<8	<80	<80	<80	<4	<200	<2	<2	<2
	2-CHLOROTOLUENE	ug/L		91.3	<1000	<50	<20	<200	<200	<200	<10	<500	<5	<5	<5
	4-CHLOROTOLUENE	ug/L			<1000	<50	<20	<200	<200	<200	<10	<500	<5	<5	<5
	BENZENE	ug/L	5	5	**46000**	**15**	**17**	**9400**	**470**	**5700**	**7.5**	**13000**	**0.29**	**2.7**	**4.3**
	BROMOBENZENE	ug/L		87.6	<1000	<50	<20	<200	<200	<200	<10	<500	<5	<5	<5
	BROMOCHLOROMETHANE	ug/L			<1000	<50	<20	<200	<200	<200	<10	<500	<5	<5	<5
	BROMODICHLOROMETHANE	ug/L	80	0.117	<400	<20	<8	<80	<80	<80	<4	<200	<2	<2	<2
	BROMOFORM	ug/L	80	8.51	<1000	<50	<20	<200	<200	<200	<10	<500	<5	<5	<5
	BROMOMETHANE	ug/L		8.66	<1000	<50	<20	<200	<200	<200	<10	<500	<5	<5	<5
	CARBON TETRACHLORIDE	ug/L	5	5	<200	<10	<4	<40	<40	<40	<2	<100	<1	<1	<1
	CHLOROBENZENE	ug/L	100	100	**52000**	**2100**	**730**	**13000**	**9300**	**11000**	**440**	**20000**	**48**	**240**	**360**
	CHLOROETHANE	ug/L		23.2	<1000	<50	<20	<200	<200	<200	<10	<500	<5	<5	<5
	CHLOROFORM	ug/L	80	0.193	**160**	<20	<8	**30**	<80	<80	**1.1**	**400**	<2	**0.28**	**0.31**
	CHLOROMETHANE	ug/L		2.70	<1000	<50	<20	<200	<200	<200	<10	<500	<5	<5	<5
	CIS-1,2-DICHLOROETHENE	ug/L	70	70	<400	<20	<8	<80	<80	<80	**1.4**	<200	<2	**0.25**	**0.49**
	CIS-1,3-DICHLOROPROPENE	ug/L		0.433	<400	<20	<8	<80	<80	<80	<4	<200	<2	<2	<2
	DIBROMOCHLOROMETHANE	ug/L	80	0.147	<400	<20	<8	<80	<80	<80	<4	<200	<2	<2	<2
	DIBROMOMETHANE	ug/L		8.16	<400	<20	<8	<80	<80	<80	<4	<200	<2	<2	<2
	DICHLORODIFLUOROMETHANE	ug/L		395	<1000	<50	<20	<200	<200	<200	<10	<500	<5	<5	<5
	DIMETHYL DISULFIDE	ug/L			<400	<20	<8	<80	<80	<80	<4	<200	<2	<2	<2
	ETHYLBENZENE	ug/L	700	700	<400	<20	<8	<80	<80	<80	<4	<200	<2	<2	<2
	HEXACHLOROBUTADIENE	ug/L		0.862	<1000	<50	<20	<200	<200	<200	<10	<500	<5	<5	<5
	ISOPROPYLBENZENE	ug/L		679	<400	<20	<8	<80	<80	<80	<4	<200	<2	<2	<2
	M,P-XYLENES	ug/L	10000	1220	<400	<20	<8	<80	<80	<80	<4	<200	<2	<2	<2
	METHYLENE CHLORIDE	ug/L	5	5	<400	<20	<8	<80	**78**	<80	<4	<200	<2	<2	<2
	NAPHTHALENE	ug/L		0.143	<1000	<50	<20	<200	<200	<200	<10	<500	<5	<5	<5
	N-BUTYLBENZENE	ug/L		254	<1000	<50	<20	<200	<200	<200	<10	<500	<5	<5	<5
	N-PROPYLBENZENE	ug/L		254	<400	<20	<8	<80	<80	<80	<4	<200	<2	<2	<2

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TABLE 3
WATER QUALITY DATA
SECOND QUARTER 2014

EXCEEDS MCL
EXCEEDS BCL
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Parameter Group	Parameter	Units	Primary Maximum Contaminant Level	NDEP Basic Comparison Levels for Residential Water[a]												
		Aquifer			SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW	SHALLOW
		Location			WELL-H2	WELL-I	WELL-J	WELL-K2	WELL-L	WELL-M2	WELL-N	WELL-O	WELL-P	WELL-Q	WELL-R
		Date			6/5/2014	6/5/2014	6/5/2014	6/5/2014	6/5/2014	6/5/2014	6/5/2014	6/5/2014	6/5/2014	6/5/2014	6/5/2014
		Sample Purpose			REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
		Sampling Event			SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE
		Samplers			CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE
VOLATILE ORGANIC COMPOUNDS	O-XYLENE	ug/L	10000	1217	<400	<20	<8	<80	<80	<80	<4	<200	<2	<2	<2
	P-ISOPROPYL TOLUENE	ug/L		834	<400	<20	<8	<80	<80	<80	<4	<200	<2	<2	<2
	SEC-BUTYLBENZENE	ug/L		254	<1000	<50	<20	<200	<200	<200	<10	<500	<5	<5	<5
	STYRENE	ug/L	100	100	<400	<20	<8	<80	<80	<80	<4	<200	<2	<2	<2
	TERT- BUTYLBENZENE	ug/L		254	<1000	<50	<20	<200	<200	<200	<10	<500	<5	<5	<5
	TETRACHLOROETHENE	ug/L	5	5	**87**	<20	<8	**22**	<80	<80	<4	<200	<2	<2	<2
	TOLUENE	ug/L	1000	1000	<400	<20	<8	**12**	<80	<80	<4	<200	<2	<2	<2
	TRANS-1,2-DICHLOROETHENE	ug/L	100	100	<400	<20	<8	<80	<80	<80	<4	<200	<2	<2	<2
	TRANS-1,3-DICHLOROPROPENE	ug/L		0.433	<400	<20	<8	<80	<80	<80	<4	<200	<2	<2	<2
	TRICHLOROETHENE	ug/L	5	5	<400	**39**	**68**	**44**	**31**	**64**	**110**	<200	**0.39**	**2.2**	**9.3**
	TRICHLOROFLUOROMETHANE	ug/L		1288	<1000	<50	<20	<200	<200	<200	<10	<500	<5	<5	<5
	VINYL CHLORIDE	ug/L	2	2	<1000	<50	<20	<200	<200	<200	<10	<500	<5	<5	<5

HARGIS + ASSOCIATES, INC.

TABLE 3
WATER QUALITY DATA
SECOND QUARTER 2014

EXCEEDS MCL
EXCEEDS BCL
Detections **BOLDED**

Parameter Group	Parameter	Units	Primary Maximum Contaminant Level	NDEP Basic Comparison Levels for Residential Water[a]	MIDDLE	MIDDLE	MIDDLE	MIDDLE	MIDDLE	MIDDLE	MIDDLE	MIDDLE	MIDDLE	MIDDLE	MIDDLE
		Location			AGX-90	CP-01	DPT-01	EC-14	M-136	M-149	M-150	MCF-BW-10A	MC-MW-10	MC-MW-29	MC-MW-32
		Date			6/19/2014	6/20/2014	6/24/2014	6/17/2014	6/18/2014	6/20/2014	6/19/2014	6/24/2014	6/24/2014	6/23/2014	6/18/2014
		Sample Purpose			REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
		Sampling Event			SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE
		Samplers			CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE
GENERAL CHARACTERIZATION	PERCHLORATE	ug/L		18	**0.52**	**7.2**	**0.6**	**5.2**	**70000J-**	**170000J-**	**76**	**2300J-**	**1.1**	<0.50	**9800J-**
	TOTAL DISSOLVED SOLIDS	mg/L			**810**	**760**	**730**	**740**	**1400**	**1900**	**500**	**1500**	**24000**	**10000**	**7000**
TRACE METALS	ARSENIC	ug/L	10	10	**24**	**53**	**27**	**27**	**30**	**29**	**34**	**47**	**48**	**26**	**22**
	BARIUM	mg/l	2	2	**0.032**	**0.029**	**0.028**	**0.04**	**0.044**	**0.045**	**0.026**	**0.023**	**0.085**	**0.075**	**0.032**
	CADMIUM	mg/l	0.005	0.005	<0.0005	<0.0005	<0.0005	**0.000078J-**	**0.000057J-**	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	**0.00011J-**
	CHROMIUM	mg/l	0.1	0.1	**0.013**	**0.013**	**0.0052**	**0.017**	**0.068**	**1.6**	**0.031**	**0.01**	**0.0011**	**0.0052**	**0.0010**
	LEAD	mg/l	0.015	0.015	**0.00092**	<0.0005	**0.00034**	**0.0011**	**0.00075**	<0.0005	<0.0005	<0.0005	**0.00041**	**0.0011**	**0.00051**
	MANGANESE	mg/l		0.020											
	MERCURY	mg/L	0.002	0.002	<0.00020R	**0.00049J**	<0.00020R	<0.00020	<0.00020R	<0.00020R	**0.00057J**	<0.00020R	<0.00020R	<0.00020R	**0.00026J**
	SELENIUM	mg/l	0.05	0.05	**0.0022**	**0.0020**	**0.0026**	**0.0021**	**0.0025**	**0.0028**	**0.0017**	**0.004**	<0.0025	**0.0035**	**0.0011**
	SILVER	mg/l		0.1	**0.00046**	<0.0005	<0.0005	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	**0.00096**	<0.0001
	URANIUM	mg/l	0.03	0.03	**0.0027**	**0.0023**	**0.0031**	**0.0027**	**0.0041**	**0.0055**	**0.0049**	**0.0048**	**0.037**	**0.065**	**0.014**
PESTICIDES	2,4'-DDD	ug/L			<0.10	<0.095	<0.11	<0.10	<0.095	<0.096	<0.095	<0.096	<0.099UJ	<0.049UJ	<0.098
	2,4'-DDE	ug/L			<0.10	<0.095	**0.058J**	<0.10	<0.095	<0.096	<0.095	<0.096	<0.099UJ	<0.049UJ	<0.098
	2,4'-DDT	ug/L			<0.10	<0.095	<0.11	<0.10	<0.095	<0.096	<0.095	<0.096	<0.099UJ	<0.049	<0.098
	4,4'-DDD	ug/L		0.280	<0.10	<0.095	<0.11	<0.10	<0.095	<0.096	<0.095	<0.096	<0.099UJ	<0.049UJ	<0.098
	4,4'-DDE	ug/L		0.198	<0.10	<0.095	<0.11	<0.10	<0.095	<0.096	<0.095	<0.096	<0.099UJ	<0.049UJ	<0.098
	4,4'-DDT	ug/L		0.198	<0.10	<0.095	<0.11	<0.10	<0.095	<0.096	<0.095	<0.096	<0.099UJ	<0.049UJ	<0.098
	ALDRIN	ug/L		0.00395	<0.0051	<0.0048	<0.0053	<0.0051	<0.0048	<0.0048	<0.0048	<0.0048	<0.0049UJ	<0.0024	<0.0049
	ALPHA-BHC	ug/L		10.95	**0.0030**	**0.050**	**4.3**	**0.019**	<0.0048	<0.0048	<0.0048	<0.0048	**0.67J-**	**3.1**	<0.0049
	BETA-BHC	ug/L		2.19	<0.010	**0.044**	**0.99**	**0.0071**	<0.0095	<0.0096	<0.0095	<0.0096	<0.0099UJ	<0.0049UJ	<0.0098
	CHLORDANE	ug/L	2	2	<0.10	<0.095	<0.11	<0.10	<0.095	<0.096	<0.095	<0.096	<0.099UJ	<0.049	<0.098
	DELTA-BHC	ug/L		11	<0.20	**0.015**	**0.032J**	<0.20	<0.19	<0.19	<0.19	<0.19	**0.040J**	**0.21J**	<0.20
	DIELDRIN	ug/L		0.00420	<0.0051	<0.0048	<0.0053	<0.0051	<0.0048	<0.0048	<0.0048	<0.0048	<0.0049UJ	<0.0024UJ	<0.0049
	ENDOSULFAN I	ug/L		219	<0.10	<0.095	<0.11	<0.10	<0.095	<0.096	<0.095	<0.096	<0.099UJ	<0.049UJ	<0.098
	ENDOSULFAN II	ug/L		219	<0.10	<0.095	<0.11	<0.10	<0.095	<0.096	<0.095	<0.096	<0.099UJ	<0.049UJ	<0.098
	ENDOSULFAN SULFATE	ug/L			<0.20	<0.19	<0.21	<0.20	<0.19	<0.19	<0.19	<0.19	<0.20UJ	<0.097UJ	<0.20
	ENDRIN	ug/L	2	2	<0.10	<0.095	<0.11	<0.10	<0.095	<0.096	<0.095	<0.096	<0.099UJ	<0.049UJ	<0.098
	ENDRIN ALDEHYDE	ug/L			<0.10	<0.095	<0.11	<0.10	<0.095	<0.096	<0.095	<0.096	<0.099UJ	<0.049	<0.098
	ENDRIN KETONE	ug/L			<0.10	<0.095	<0.11	<0.10	<0.095	<0.096	<0.095	<0.096	<0.099UJ	<0.049UJ	<0.098
	GAMMA-BHC (LINDANE)	ug/L	0.2	0.2	<0.10	**0.0089**	**0.59**	<0.10	<0.095	<0.096	<0.095	<0.096	**0.23J**	<0.049UJ	<0.098
	HEPTACHLOR	ug/L	0.4	0.4	<0.010	<0.0095	<0.011	<0.010	<0.0095	<0.0096	<0.0095	<0.0096	<0.0099UJ	<0.0049	<0.0098
	HEPTACHLOR EPOXIDE	ug/L	0.2	0.2	<0.0051	<0.0048	<0.0053	<0.0051	<0.0048	<0.0048	<0.0048	<0.0048	<0.0049UJ	<0.0024	<0.0049
	METHOXYCHLOR	ug/L	40	40	<0.10	<0.095	<0.11	<0.10	<0.095	<0.096	<0.095	<0.096	<0.099UJ	<0.049	<0.098
	TOXAPHENE	ug/L	3	3	<5.1	<4.8	<5.3	<5.1	<4.8	<4.8	<4.8	<4.8	<4.9UJ	<2.4	<4.9
VOLATILE ORGANIC COMPOUNDS	1,1,1,2-TETRACHLOROETHANE	ug/L		0.524	<5.0	<5.0	<1000	<5.0	<5.0	<5.0	<5.0	<5.0	<2000	<50	<5.0
	1,1,1-TRICHLOROETHANE	ug/L	200	200	<2.0	<2.0	<400	<2.0	<2.0	<2.0	<2.0	<2.0	<800	<20	<2.0
	1,1,2,2-TETRACHLOROETHANE	ug/L		0.0671	<2.0	<2.0	<400	<2.0	<2.0	<2.0	<2.0	<2.0	<800	<20	<2.0
	1,1,2-TRICHLOROETHANE	ug/L	5	5	<2.0	<2.0	<400	<2.0	<2.0	<2.0	<2.0	<2.0	<800	<20	<2.0
	1,1-DICHLOROETHANE	ug/L		2.42	<2.0	<2.0	<400	<2.0	<2.0	<2.0	<2.0	<2.0	**160**	**38**	**1.8**
	1,1-DICHLOROETHENE	ug/L	7	7	<5.0	<5.0	<1000	<5.0	<5.0	<5.0	<5.0	<5.0	<2000	<50	<5.0
	1,1-DICHLOROPROPENE	ug/L			<2.0	<2.0	<400	<2.0	<2.0	<2.0	<2.0	<2.0	<800	<20	<2.0
	1,2,3-TRICHLOROBENZENE	ug/L			<5.0	<5.0	<1000	<5.0	<5.0	<5.0	<5.0	<5.0	<2000	<50	<5.0

See last page for definitions of abbreviations and footnotes

HARGIS + ASSOCIATES, INC.

TABLE 3
WATER QUALITY DATA
SECOND QUARTER 2014

EXCEEDS MCL
EXCEEDS BCL
Detections **BOLDED**

Parameter Group	Parameter	Aquifer	Primary Maximum Contaminant Level	NDEP Basic Comparison Levels for Residential Water[a]	MIDDLE	MIDDLE	MIDDLE	MIDDLE	MIDDLE	MIDDLE	MIDDLE	MIDDLE	MIDDLE	MIDDLE	MIDDLE
		Location			AGX-90	CP-01	DPT-01	EC-14	M-136	M-149	M-150	MCF-BW-10A	MC-MW-10	MC-MW-29	MC-MW-32
		Date			6/19/2014	6/20/2014	6/24/2014	6/17/2014	6/18/2014	6/20/2014	6/19/2014	6/24/2014	6/24/2014	6/23/2014	6/18/2014
		Sample Purpose			REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
		Sampling Event			SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE
		Samplers			CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE
		Units													
VOLATILE ORGANIC COMPOUNDS	1,2,3-TRICHLOROPROPANE	ug/L		0.00224	<10	<10	<2000	<10	<10	<10	<10	<10	<4000	<100	<10
	1,2,4-TRICHLOROBENZENE	ug/L	70	70	<5.0	<5.0	<1000	<5.0	<5.0	<5.0	<5.0	<5.0	<2000	**4.0**	<5.0
	1,2,4-TRIMETHYLBENZENE	ug/L		14.6	<2.0	<2.0	<400	<2.0	<2.0	<2.0	<2.0	<2.0	<800	<20	<2.0
	1,2-DIBROMO-3-CHLOROPROPANE	ug/L		0.2	<5.0	<5.0	<1000	<5.0	<5.0	<5.0	<5.0	<5.0	<2000	<50	<5.0
	1,2-DIBROMOETHANE	ug/L		0.05	<2.0	<2.0	<400	<2.0	<2.0	<2.0	<2.0	<2.0	<800	<20	<2.0
	1,2-DICHLOROBENZENE	ug/L	600	600	<2.0	**2.2**	**6500**	**0.34**	<2.0	<2.0	<2.0	**0.52**	**880**	**210**	<2.0
	1,2-DICHLOROETHANE	ug/L	5	5	<2.0	<2.0	<400	<2.0	<2.0	<2.0	<2.0	<2.0	**100**	**12**	**1.7**
	1,2-DICHLOROPROPANE	ug/L	5	5	<2.0	<2.0	<400	<2.0	<2.0	<2.0	<2.0	<2.0	<800	<20	<2.0
	1,3,5-TRIMETHYLBENZENE	ug/L		14.5	<2.0	<2.0	<400	<2.0	<2.0	<2.0	<2.0	<2.0	<800	<20	<2.0
	1,3-DICHLOROBENZENE	ug/L		86.7	<2.0	**0.66**	**260**	<2.0	<2.0	<2.0	<2.0	<2.0	<800	**9.5**	<2.0
	1,3-DICHLOROPROPANE	ug/L		8.25	<2.0	<2.0	<400	<2.0	<2.0	<2.0	<2.0	<2.0	<800	<20	<2.0
	1,4-DICHLOROBENZENE	ug/L	75	75	<2.0	**1.5**	**12000**	<2.0	<2.0	<2.0	<2.0	<2.0	**1700**	**310**	<2.0
	2,2-DICHLOROPROPANE	ug/L			<2.0	<2.0	<400	<2.0	<2.0	<2.0	<2.0	<2.0	<800	<20	<2.0
	2-CHLOROTOLUENE	ug/L		91.3	<5.0	<5.0	<1000	<5.0	<5.0	<5.0	<5.0	<5.0	<2000	<50	<5.0
	4-CHLOROTOLUENE	ug/L			<5.0	<5.0	<1000	<5.0	<5.0	<5.0	<5.0	<5.0	<2000	<50	<5.0
	BENZENE	ug/L	5	5	<2.0	<2.0	**11000**	<2.0	<2.0	<2.0	<2.0	<2.0	**100000**	**24**	<2.0
	BROMOBENZENE	ug/L		87.6	<5.0	<5.0	<1000	<5.0	<5.0	<5.0	<5.0	<5.0	<2000	<50	<5.0
	BROMOCHLOROMETHANE	ug/L			<5.0	<5.0	<1000	<5.0	<5.0	<5.0	<5.0	<5.0	<2000	<50	<5.0
	BROMODICHLOROMETHANE	ug/L	80	0.117	<2.0	<2.0	<400	<2.0	<2.0	<2.0	<2.0	<2.0	<800	<20	<2.0
	BROMOFORM	ug/L	80	8.51	<5.0	<5.0	<1000	<5.0	<5.0	<5.0	<5.0	<5.0	<2000	<50	<5.0
	BROMOMETHANE	ug/L		8.66	<5.0	<5.0	<1000	<5.0	<5.0	<5.0	<5.0	<5.0	<2000	<50	<5.0
	CARBON TETRACHLORIDE	ug/L	5	5	<1.0	**0.25**	**740**	<1.0	<1.0	<1.0	<1.0	<1.0	<400	<10	<1.0
	CHLOROBENZENE	ug/L	100	100	<2.0	<2.0	**98000**	**0.52**	<2.0	<2.0	<2.0	<2.0	**71000**	**3200**	**0.37**
	CHLOROETHANE	ug/L		23.2	<5.0	<5.0	<1000	<5.0	<5.0	<5.0	<5.0	<5.0	<2000	<50	<5.0
	CHLOROFORM	ug/L	80	0.193	<2.0	<2.0	**640**	<2.0	**15**	**48**	<2.0	**2.1**	**150000**	**2.9**	**1.8**
	CHLOROMETHANE	ug/L		2.70	<5.0	<5.0	<1000	<5.0	<5.0	<5.0	<5.0	<5.0	<2000	<50	<5.0
	CIS-1,2-DICHLOROETHENE	ug/L	70	70	<2.0	<2.0	<400	<2.0	<2.0	<2.0	<2.0	<2.0	<800	<20	<2.0
	CIS-1,3-DICHLOROPROPENE	ug/L		0.433	<2.0	<2.0	<400	<2.0	<2.0	<2.0	<2.0	<2.0	<800	<20	<2.0
	DIBROMOCHLOROMETHANE	ug/L	80	0.147	<2.0	<2.0	<400	<2.0	<2.0	<2.0	<2.0	<2.0	<800	<20	<2.0
	DIBROMOMETHANE	ug/L		8.16	<2.0	<2.0	<400	<2.0	<2.0	<2.0	<2.0	<2.0	<800	<20	<2.0
	DICHLORODIFLUOROMETHANE	ug/L		395	<5.0	<5.0	<1000UJ	<5.0UJ	<5.0UJ	<5.0	<5.0UJ	<5.0UJ	<2000UJ	<50	<5.0UJ
	DIMETHYL DISULFIDE	ug/L			<2.0	<2.0	<400	<2.0	<2.0	<2.0	<2.0	<2.0	<800	<20	<2.0
	ETHYLBENZENE	ug/L	700	700	<2.0	<2.0	<400	<2.0	<2.0	<2.0	<2.0	<2.0	<800	<20	<2.0
	HEXACHLOROBUTADIENE	ug/L		0.862	<5.0	<5.0	<1000	<5.0	<5.0	<5.0	<5.0	<5.0	<2000	<50	<5.0
	ISOPROPYLBENZENE	ug/L		679	<2.0	<2.0	<400	<2.0	<2.0	<2.0	<2.0	<2.0	<800	<20	<2.0
	M,P-XYLENES	ug/L	10000	1220	<2.0	<2.0	<400	<2.0	<2.0	<2.0	<2.0	<2.0	<800	<20	<2.0
	METHYLENE CHLORIDE	ug/L	5	5	<2.0	<2.0	**220**	<2.0	<2.0	<2.0	<2.0	<2.0	**5400**	**12**	<2.0
	NAPHTHALENE	ug/L		0.143	<5.0	<5.0	<1000	<5.0	<5.0	<5.0	<5.0	<5.0	<2000	<50	<5.0
	N-BUTYLBENZENE	ug/L		254	<5.0	<5.0	<1000	<5.0	<5.0	<5.0	<5.0	<5.0	<2000	<50	<5.0
	N-PROPYLBENZENE	ug/L		254	<2.0	<2.0	<400	<2.0	<2.0	<2.0	<2.0	<2.0	<800	<20	<2.0

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HARGIS + ASSOCIATES, INC.

TABLE 3
WATER QUALITY DATA
SECOND QUARTER 2014

EXCEEDS MCL
EXCEEDS BCL
Detections **BOLDED**

Parameter Group	Parameter	Aquifer	Primary Maximum Contaminant Level	NDEP Basic Comparison Levels for Residential Water[a]	MIDDLE	MIDDLE	MIDDLE	MIDDLE	MIDDLE	MIDDLE	MIDDLE	MIDDLE	MIDDLE	MIDDLE	MIDDLE
		Location			AGX-90	CP-01	DPT-01	EC-14	M-136	M-149	M-150	MCF-BW-10A	MC-MW-10	MC-MW-29	MC-MW-32
		Date			6/19/2014	6/20/2014	6/24/2014	6/17/2014	6/18/2014	6/20/2014	6/19/2014	6/24/2014	6/24/2014	6/23/2014	6/18/2014
		Sample Purpose			REG	REG	REG	REG	REG	REG	REG	REG	REG	REG	REG
		Sampling Event			SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE
		Samplers			CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE
		Units													
VOLATILE ORGANIC COMPOUNDS	O-XYLENE	ug/L	10000	1217	<2.0	<2.0	<400	<2.0	<2.0	<2.0	<2.0	<2.0	<800	<20	<2.0
	P-ISOPROPYL TOLUENE	ug/L		834	<2.0	<2.0	<400	<2.0	<2.0	<2.0	<2.0	<2.0	<800	<20	<2.0
	SEC-BUTYLBENZENE	ug/L		254	<5.0	<5.0	<1000	<5.0	<5.0	<5.0	<5.0	<5.0	<2000	<50	<5.0
	STYRENE	ug/L	100	100	<2.0	<2.0	<400	<2.0	<2.0	<2.0	<2.0	<2.0	<800	<20	<2.0
	TERT- BUTYLBENZENE	ug/L		254	<5.0	<5.0	<1000	<5.0	<5.0	<5.0	<5.0	<5.0	<2000	<50	<5.0
	TETRACHLOROETHENE	ug/L	5	5	<2.0	<2.0	<400	<2.0	<2.0	<2.0	<2.0	<2.0	<800	<20	<2.0
	TOLUENE	ug/L	1000	1000	<2.0	<2.0	<400	<2.0	<2.0	<2.0	<2.0	<2.0	<800	**3.3**	<2.0
	TRANS-1,2-DICHLOROETHENE	ug/L	100	100	<2.0	<2.0	<400	<2.0	<2.0	<2.0	<2.0	<2.0	<800	<20	<2.0
	TRANS-1,3-DICHLOROPROPENE	ug/L		0.433	<2.0	<2.0	<400	<2.0	<2.0	<2.0	<2.0	<2.0	<800	<20	<2.0
	TRICHLOROETHENE	ug/L	5	5	<2.0	<2.0	<400	<2.0	<2.0	<2.0	<2.0	<2.0	<800	**27**	<2.0
	TRICHLOROFLUOROMETHANE	ug/L		1288	<5.0	<5.0	<1000	<5.0	<5.0	<5.0	<5.0	<5.0	<2000	<50	<5.0
	VINYL CHLORIDE	ug/L	2	2	<5.0	<5.0	<1000	<5.0	<5.0	<5.0	<5.0	<5.0	<2000	<50	<5.0

See last page for definitions of abbreviations and footnotes

HARGIS + ASSOCIATES, INC.

TABLE 3
WATER QUALITY DATA
SECOND QUARTER 2014

	EXCEEDS MCL	Aquifer	Primary Maximum Contaminant Level	NDEP Basic Comparison Levels for Residential Water[a]	MIDDLE	MIDDLE	MIDDLE	DEEP	DEEP	DEEP	DEEP	DEEP	DEEP	DEEP
	EXCEEDS BCL	Location			MC-MW-35	MC-MW-36	MC-MW-38	DMC-MW-26	DMC-MW-27R	DMC-MW-27R	DMC-MW-28	MW-08	TR-11	TR-11
	Detections **BOLDED**	Date			6/17/2014	6/18/2014	6/23/2014	7/2/2014	6/27/2014	6/27/2014	7/7/2014	6/26/2014	7/1/2014	7/1/2014
		Sample Purpose			REG	REG	REG	REG	FD	REG	REG	REG	FD	REG
		Sampling Event			SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE
		Samplers			CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE
Parameter Group	Parameter	Units												
GENERAL CHARACTERIZATION	PERCHLORATE	ug/L		18	**0.57**	**0.21**	<0.50	**73**	**12000**	**11000**	**0.19**	**1.2**	**0.44**	**0.45**
	TOTAL DISSOLVED SOLIDS	mg/L			**710**	**2000**	**5300**	**750**	**850**	**840**	**670**	**830**	**770**	**740**
TRACE METALS	ARSENIC	ug/L	10	10	**32**	**24**	**40**	**200**	**40**	**38**	**17**	**370J**	**42**	**41**
	BARIUM	mg/l	2	2	**0.034**	**0.056**	**0.052**	**0.076**	**0.077**	**0.071**	**0.031**	**0.10J+**	**0.031**	**0.031**
	CADMIUM	mg/l	0.005	0.005	**0.00012J-**	**0.00021J-**	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	CHROMIUM	mg/l	0.1	0.1	**0.015**	**0.0019**	**0.0037**	**0.081**	**0.051**	**0.047**	**0.0031**	**6.9J**	**0.014**	**0.014**
	LEAD	mg/l	0.015	0.015	**0.00063**	**0.00043**	**0.0012**	**0.00034J**	**0.0034**	**0.0032**	**0.00028J**	**0.0013**	<0.0005	<0.0005
	MANGANESE	mg/l		0.020										
	MERCURY	mg/L	0.002	0.002	<0.00020R	<0.00020R	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
	SELENIUM	mg/l	0.05	0.05	**0.002**	**0.00061**	<0.005	**0.0020**	**0.0033**	**0.0026**	**0.0023**	**0.0028**	**0.0022**	**0.0027**
	SILVER	mg/l		0.1	<0.0001	**0.000088**	**0.0005**	<0.0005	**0.00061**	<0.0005	**0.00062J**	**0.00057**	**0.00031**	**0.00055**
	URANIUM	mg/l	0.03	0.03	**0.0054**	**0.0043**	**0.028**	**0.0031**	**0.0037**	**0.0033**	**0.0014J**	**0.006**	**0.0029**	**0.0033**
PESTICIDES	2,4'-DDD	ug/L			<0.096	<0.10UJ	<0.047	<0.096	<0.11	<0.099R	<0.099	<0.095	<0.094	<0.094
	2,4'-DDE	ug/L			<0.096	<0.10UJ	<0.047	<0.096	<0.11	<0.099R	<0.099	<0.095UJ	<0.094	<0.094
	2,4'-DDT	ug/L			<0.096	<0.10UJ	<0.047	<0.096	<0.11	<0.099R	<0.099	<0.095	<0.094	<0.094
	4,4'-DDD	ug/L		0.280	<0.096	<0.10UJ	<0.047	<0.096	<0.11	<0.099R	<0.099	<0.095UJ	<0.094	<0.094
	4,4'-DDE	ug/L		0.198	<0.096	<0.10UJ	<0.047	<0.096	<0.11	<0.099R	<0.099	<0.095	<0.094	<0.094
	4,4'-DDT	ug/L		0.198	<0.096	<0.10UJ	<0.047	<0.096	<0.11	<0.099R	<0.099	<0.095	<0.094	<0.094
	ALDRIN	ug/L		0.00395	<0.0048	<0.0051UJ	<0.0024	<0.0048	<0.0055	<0.0049R	<0.0049	<0.0048	<0.0047	<0.0047
	ALPHA-BHC	ug/L		10.95	<0.0048	**0.0027J-**	**0.0084**	<0.0048	**0.0029**	<0.0049R	<0.0049	**0.0030**	<0.0047	<0.0047
	BETA-BHC	ug/L		2.19	<0.0096	<0.010UJ	<0.0047	<0.0096	**0.011**	**0.0095J-**	<0.0099	<0.0095	<0.0094	<0.0094
	CHLORDANE	ug/L	2	2	<0.096	<0.10UJ	<0.047	<0.096	<0.11	<0.099R	<0.099	<0.095	<0.094	<0.094
	DELTA-BHC	ug/L		11	<0.19	**0.019J**	<0.095	<0.19	<0.22	<0.20R	<0.20	<0.19	<0.19	<0.19
	DIELDRIN	ug/L		0.00420	<0.0048	<0.0051UJ	<0.0024	<0.0048	<0.0055	<0.0049R	<0.0049	<0.0048	<0.0047	<0.0047
	ENDOSULFAN I	ug/L		219	<0.096	<0.10UJ	<0.047	<0.096	<0.11	<0.099R	<0.099	<0.095	<0.094	<0.094
	ENDOSULFAN II	ug/L		219	<0.096	<0.10UJ	<0.047	<0.096	<0.11	<0.099R	<0.099	<0.095UJ	<0.094	<0.094
	ENDOSULFAN SULFATE	ug/L			<0.19	<0.20UJ	<0.095	<0.19	<0.22	<0.20R	<0.20	<0.19	<0.19	<0.19
	ENDRIN	ug/L	2	2	<0.096	<0.10UJ	<0.047	<0.096	<0.11	<0.099R	<0.099	<0.095	<0.094	<0.094
	ENDRIN ALDEHYDE	ug/L			<0.096	<0.10UJ	<0.047	<0.096	<0.11	<0.099R	<0.099	<0.095	<0.094	<0.094
	ENDRIN KETONE	ug/L			<0.096	<0.10UJ	<0.047	<0.096UJ	<0.11	<0.099R	<0.099UJ	<0.095	<0.094	<0.094
	GAMMA-BHC (LINDANE)	ug/L	0.2	0.2	<0.096	<0.10UJ	**0.0066**	<0.096	<0.11	<0.099R	<0.099	<0.095	<0.094	<0.094
	HEPTACHLOR	ug/L	0.4	0.4	<0.0096	**0.0038J**	<0.0047	<0.0096	<0.011	<0.0099R	<0.0099	<0.0095	<0.0094	<0.0094
	HEPTACHLOR EPOXIDE	ug/L	0.2	0.2	<0.0048	<0.0051UJ	<0.0024	<0.0048	<0.0055	<0.0049R	<0.0049	<0.0048	<0.0047	<0.0047
	METHOXYCHLOR	ug/L	40	40	<0.096	<0.10UJ	<0.047	<0.096	<0.11	<0.099R	<0.099	<0.095	<0.094	<0.094
	TOXAPHENE	ug/L	3	3	<4.8	<5.1UJ	<2.4	<4.8	<5.5	<4.9R	<4.9	<4.8	<4.7	<4.7
VOLATILE ORGANIC COMPOUNDS	1,1,1,2-TETRACHLOROETHANE	ug/L		0.524	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	1,1,1-TRICHLOROETHANE	ug/L	200	200	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	1,1,2,2-TETRACHLOROETHANE	ug/L		0.0671	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	1,1,2-TRICHLOROETHANE	ug/L	5	5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	1,1-DICHLOROETHANE	ug/L		2.42	<2.0	**2.8**	**1.8**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	1,1-DICHLOROETHENE	ug/L	7	7	<5.0	**0.28**	**1.0**	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	1,1-DICHLOROPROPENE	ug/L			<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	1,2,3-TRICHLOROBENZENE	ug/L			<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

See last page for definitions of abbreviations and footnotes

HARGIS + ASSOCIATES, INC.

TABLE 3
WATER QUALITY DATA
SECOND QUARTER 2014

	EXCEEDS MCL	Aquifer	Primary Maximum Contaminant Level	NDEP Basic Comparison Levels for Residential Water[a]	MIDDLE	MIDDLE	MIDDLE	DEEP	DEEP	DEEP	DEEP	DEEP	DEEP	DEEP
	EXCEEDS BCL	Location			MC-MW-35	MC-MW-36	MC-MW-38	DMC-MW-26	DMC-MW-27R	DMC-MW-27R	DMC-MW-28	MW-08	TR-11	TR-11
	Detections **BOLDED**	Date			6/17/2014	6/18/2014	6/23/2014	7/2/2014	6/27/2014	6/27/2014	7/7/2014	6/26/2014	7/1/2014	7/1/2014
		Sample Purpose			REG	REG	REG	REG	FD	REG	REG	REG	FD	REG
		Sampling Event			SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE
		Samplers			CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE
Parameter Group	Parameter	Units												
VOLATILE ORGANIC COMPOUNDS	1,2,3-TRICHLOROPROPANE	ug/L		0.00224	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	1,2,4-TRICHLOROBENZENE	ug/L	70	70	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	1,2,4-TRIMETHYLBENZENE	ug/L		14.6	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	1,2-DIBROMO-3-CHLOROPROPANE	ug/L		0.2	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	1,2-DIBROMOETHANE	ug/L		0.05	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	1,2-DICHLOROBENZENE	ug/L	600	600	<2.0	<2.0	**3.8**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	1,2-DICHLOROETHANE	ug/L	5	5	<2.0	**1.2**	**0.91**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	1,2-DICHLOROPROPANE	ug/L	5	5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	1,3,5-TRIMETHYLBENZENE	ug/L		14.5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	1,3-DICHLOROBENZENE	ug/L		86.7	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	1,3-DICHLOROPROPANE	ug/L		8.25	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	1,4-DICHLOROBENZENE	ug/L	75	75	<2.0	<2.0	**7.5**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	2,2-DICHLOROPROPANE	ug/L			<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	2-CHLOROTOLUENE	ug/L		91.3	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	4-CHLOROTOLUENE	ug/L			<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	BENZENE	ug/L	5	5	<2.0	**33**	**340**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	BROMOBENZENE	ug/L		87.6	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	BROMOCHLOROMETHANE	ug/L			<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	BROMODICHLOROMETHANE	ug/L	80	0.117	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	BROMOFORM	ug/L	80	8.51	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	BROMOMETHANE	ug/L		8.66	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	CARBON TETRACHLORIDE	ug/L	5	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	CHLOROBENZENE	ug/L	100	100	<2.0	**43**	**300**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	CHLOROETHANE	ug/L		23.2	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	CHLOROFORM	ug/L	80	0.193	<2.0	**48**	**0.77**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	CHLOROMETHANE	ug/L		2.70	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0UJ	<5.0	<5.0	<5.0
	CIS-1,2-DICHLOROETHENE	ug/L	70	70	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	CIS-1,3-DICHLOROPROPENE	ug/L		0.433	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	DIBROMOCHLOROMETHANE	ug/L	80	0.147	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	DIBROMOMETHANE	ug/L		8.16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	DICHLORODIFLUOROMETHANE	ug/L		395	<5.0UJ	<5.0UJ	<5.0	<5.0	<5.0UJ	<5.0	<5.0UJ	<5.0UJ	<5.0	<5.0
	DIMETHYL DISULFIDE	ug/L			<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	ETHYLBENZENE	ug/L	700	700	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	HEXACHLOROBUTADIENE	ug/L		0.862	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	ISOPROPYLBENZENE	ug/L		679	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	M,P-XYLENES	ug/L	10000	1220	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	METHYLENE CHLORIDE	ug/L	5	5	<2.0	**2.2**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	**1.9**	<2.0
	NAPHTHALENE	ug/L		0.143	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	N-BUTYLBENZENE	ug/L		254	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	N-PROPYLBENZENE	ug/L		254	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0

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SECOND QUARTER 2014

	EXCEEDS MCL	Aquifer	Primary Maximum Contaminant Level	NDEP Basic Comparison Levels for Residential Water[a]	MIDDLE	MIDDLE	MIDDLE	DEEP	DEEP	DEEP	DEEP	DEEP	DEEP	DEEP
	EXCEEDS BCL	Location			MC-MW-35	MC-MW-36	MC-MW-38	DMC-MW-26	DMC-MW-27R	DMC-MW-27R	DMC-MW-28	MW-08	TR-11	TR-11
	Detections **BOLDED**	Date			6/17/2014	6/18/2014	6/23/2014	7/2/2014	6/27/2014	6/27/2014	7/7/2014	6/26/2014	7/1/2014	7/1/2014
		Sample Purpose			REG	REG	REG	REG	FD	REG	REG	REG	FD	REG
		Sampling Event			SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE	SITEWIDE
		Samplers			CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE	CONVERSE
Parameter Group	Parameter	Units												
VOLATILE ORGANIC COMPOUNDS	O-XYLENE	ug/L	10000	1217	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	P-ISOPROPYL TOLUENE	ug/L		834	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	SEC-BUTYLBENZENE	ug/L		254	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	STYRENE	ug/L	100	100	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	TERT- BUTYLBENZENE	ug/L		254	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	TETRACHLOROETHENE	ug/L	5	5	<2.0	<2.0	**0.43**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	TOLUENE	ug/L	1000	1000	<2.0	<2.0	**0.68**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	TRANS-1,2-DICHLOROETHENE	ug/L	100	100	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	TRANS-1,3-DICHLOROPROPENE	ug/L		0.433	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	TRICHLOROETHENE	ug/L	5	5	<2.0	<2.0	**0.36**	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	TRICHLOROFLUOROMETHANE	ug/L		1288	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	VINYL CHLORIDE	ug/L	2	2	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

See last page for definitions of abbreviations and footnotes

TABLE 3
WATER QUALITY DATA
SECOND QUARTER 2014

FOOTNOTES:

a = NDEP Basic Comparison Levels, revision August 5, 2013

ABBREVIATIONS AND QUALIFIERS:

*	Samples also analyzed for carbophenthion, phosmet, and 4-chlorophenyl methyl sulfide. Full results for Well C sampling to be reported to NDEP under separate cover.
WELL C	Well C Shutdown sampling
SITEWIDE	Sitewide Monitoring Round
BHT	Boulder Highway Transect sampling
REG	Regular Sample
FD	Duplicate Sample
J	The associated value is an estimated quantity.
J-	The associated numerical value is an estimated quantity with a negative bias.
J+	The associated numerical value is an estimated quantity with a positive bias.
UJ	The sample was analyzed for, but was not detected. The associated quantitation or detection limit is an estimate.
R	The result is unuseable.
--	Not analyzed

HARGIS + ASSOCIATES, INC.

TABLE 4
FIELD PARAMETER DATA
SECOND QUARTER 2014

LOCATION ID	WBZ	SAMPLE DATE	SAMPLING PROGRAM	NORTHING	EASTING	pH	D.O. (mg/l)	ORP (mV)
AA-BW-03A	Shallow	06/19/14	SITEWIDE	26720585.58	825971.02	6.56	0.90	-36
AA-BW-09A	Shallow	06/25/14	SITEWIDE	26719450.97	825696.17	7.22	1.01	41
AA-MW-05	Shallow	06/19/14	SITEWIDE	26715530.78	824351.37	7.96	6.37	88
AA-MW-13R	Shallow	06/25/14	SITEWIDE	26717045.47	825265.78	>14.15	1.31	-162
AA-MW-25	Shallow	06/24/14	SITEWIDE	26717917.91	825508.33	6.11	1.26	-13
AGX-90	Middle	06/19/14	SITEWIDE	26719984.41	822797.72	6.75	5.90	72
B-01	Shallow	06/25/14	SITEWIDE	26717341.36	825676.63	6.99	3.55	74
CP-01	Middle	06/20/14	SITEWIDE	26716403.47	825287.67	6.81	5.31	127
DMC-MW-26	Deep	07/02/14	SITEWIDE	26717360.62	825692.03	8.52	3.43	-60
DMC-MW-27R	Deep	06/27/14	SITEWIDE	26716407.16	825211.51	8.57	8.10	114
DMC-MW-28	Deep	07/07/14	SITEWIDE	26719450.04	825775.48	9.18	3.24	-24
DPT-01	Middle	06/24/14	SITEWIDE	26717349.85	825680.22	8.61	2.50	14
EC-04	Shallow	06/17/14	SITEWIDE	26717035.31	824135.84	8.02	3.49	69
EC-10	Shallow	06/17/14	SITEWIDE	26717752.81	823570.10	8.19	6.92	66
EC-14	Middle	06/17/14	SITEWIDE	26718049.25	824258.28	8.35	4.27	1
H-11	Shallow	06/16/14	SITEWIDE	26714839.94	826574.18	6.15	1.73	-136
H-55	Shallow	06/20/14	SITEWIDE	26720010.2	823645.49	8.66	2.18	-319
M-007B	Shallow	06/18/14	SITEWIDE	26720979.66	826106.50	6.68	1.69	110
M-057A	Shallow	06/18/14	SITEWIDE	26719782.7	826992.8	7.12	7.27	78
M-092	Shallow	06/16/14	SITEWIDE	26717531.9	827138.1	8.22	7.64	32
M-136	Middle	06/18/14	SITEWIDE	26719889.77	827165.34	7.50	5.43	97
M-142	Shallow	06/20/14	SITEWIDE	26718713.09	827191.75	7.36	8.48	171
M-149	Middle	06/20/14	SITEWIDE	26718285.82	828373.09	7.55	4.74	155
M-150	Middle	06/19/14	SITEWIDE	26719569.84	828058.96	6.56	2.31	89
MC-09R	Shallow	06/17/14	SITEWIDE	26721902.48	825450.32	6.87	2.27	148
MC-111	Shallow	06/16/14	SITEWIDE	26721355.46	825942.13	6.89	1.42	-34
MC-113	Shallow	06/10/14	SITEWIDE	26722279.41	825538.88	6.97	2.35	-25
MC-114	Shallow	06/10/14	SITEWIDE	26722158.53	825835.01	6.74	2.33	119
MC-47	Shallow	06/10/14	SITEWIDE	26722506.05	824640.34	6.95	3.11	113
MC-48	Shallow	06/10/14	SITEWIDE	26722431.11	824952.84	6.81	2.03	27
MC-49	Shallow	06/11/14	SITEWIDE	26722360.49	825182.72	6.94	1.15	-95
MC-50	Shallow	06/11/14	SITEWIDE	26722076.15	825534.87	6.92	1.30	109
MC-53	Shallow	06/11/14	SITEWIDE	26721920.01	825942.24	6.73	1.35	146
MCF-BW-10A	Middle	06/24/14	SITEWIDE	26718620.39	823621.72	6.67	9.22	145
MC-MW-10	Middle	06/24/14	SITEWIDE	26717919.06	825523.88	7.43	3.62	-72
MC-MW-29	Middle	06/23/14	SITEWIDE	26721910.09	825436.29	6.46	1.27	-165
MC-MW-32	Middle	06/18/14	SITEWIDE	26721325.15	826314.47	7.80	4.02	-193
MC-MW-35	Middle	06/17/14	SITEWIDE	26722328.38	824348.15	7.85	0.94	-228
MC-MW-36	Middle	06/18/14	SITEWIDE	26722678.55	825497.46	6.41	2.56	-106
MC-MW-38	Middle	06/23/14	SITEWIDE	26722040.65	826484.48	6.59	1.00	-192

HARGIS + ASSOCIATES, INC.

TABLE 4
FIELD PARAMETER DATA
SECOND QUARTER 2014

LOCATION ID	WBZ	SAMPLE DATE	SAMPLING PROGRAM	NORTHING	EASTING	pH	D.O. (mg/l)	ORP (mV)
MW-01	Shallow	06/20/14	SITEWIDE	26715187.41	825536.01	8.28	7.17	103
MW-02	Shallow	06/23/14	SITEWIDE	26716364.2	825639.84	7.48	1.84	28
MW-03	Shallow	06/23/14	SITEWIDE	26716390.46	825354.12	7.14	1.86	-153
MW-04	Shallow	06/23/14	SITEWIDE	26716415.06	825073.9	7.94	4.05	21
MW-08	Deep	06/26/14	SITEWIDE	26717925.04	825564.56	8.41	8.52	118
MW-A-J	Shallow	06/16/14	SITEWIDE	26726031.22	826455.22	6.95	0.66	123
MW-R	Shallow	06/16/14	SITEWIDE	26725018.3	825423.72	6.85	0.72	124
PC-028	Shallow	06/13/14	SITEWIDE	26725375.9	828530.32	5.48	2.20	185
PC-031	Shallow	06/13/14	SITEWIDE	26725195.94	826781.35	7.05	1.21	98
PC-064	Shallow	06/13/14	SITEWIDE	26723702.69	827916.07	7.32	1.32	83
TR-11	Deep	07/01/14	SITEWIDE	26721918	825423	8.64	7.94	81
WELL-D2	Shallow	06/05/14	SITEWIDE	26721801.90	825124.06	6.24	--	--
WELL-E3	Shallow	06/05/14	SITEWIDE	26721705.66	825263.64	6.70	--	--
WELL-F	Shallow	06/05/14	SITEWIDE	26721607.4	825407.5	6.57	--	--
WELL-G	Shallow	06/05/14	SITEWIDE	26721526.56	825525.13	6.25	--	--
WELL-H2	Shallow	06/05/14	SITEWIDE	26721467.01	825614.58	6.48	--	--
WELL-I	Shallow	06/05/14	SITEWIDE	26721329.16	825814.25	5.73	--	--
WELL-J	Shallow	06/05/14	SITEWIDE	26721983.74	824858.85	6.76	--	--
WELL-K2	Shallow	06/05/14	SITEWIDE	26721397.81	825712.42	6.27	--	--
WELL-L	Shallow	06/05/14	SITEWIDE	26721664.3	825323.72	6.35	--	--
WELL-M2	Shallow	06/05/14	SITEWIDE	26721358.75	825769.74	6.38	--	--
WELL-N	Shallow	06/05/14	SITEWIDE	26721893.86	824991.64	6.55	--	--
WELL-O	Shallow	06/05/14	SITEWIDE	26721566.82	825467.25	6.84	--	--
Well-P	Shallow	06/05/14	SITEWIDE	26722082.08	824714.38	7.00	--	--
Well-Q	Shallow	06/05/14	SITEWIDE	26722047.17	824764.38	6.94	--	--
Well-R	Shallow	06/05/14	SITEWIDE	26722013.11	824809.93	6.65	--	--

-- = not measured

> = greater than

TABLE 5

SHALLOW ZONE WATER QUALITY DATA - 2014 COMPOUND PREVALENCE*

Analyte Group	Parameter	Units	EPA Maximum Contaminent Limit	NDEP Basic Comparison Level	Minimum Detection	Mean Detection	Median Detection	Maximum Detection	Standard Deviation of Detections	Minimum Non Detected Value (SQL)	Maximum Non Detected Value (SQL)	Number of Detects greater than MCL	Number of Detects greater than BCL	Total Number of Analyses	Number of Detects	Number of Non-Detects
GENERAL CHARACTERIZATION	PERCHLORATE	ug/L		18	0.23	21700	230	250000	54100	0.082	0.082	0	21	32	30	2
	TOTAL DISSOLVED SOLIDS	mg/L			780	12400	7050	100000	19300	n/a	n/a	n/a	n/a	32	32	0
TRACE METALS	ARSENIC	ug/L	10	10	40	131	99.5	410	94.4	0.25	0.25	30	30	32	30	2
	CHROMIUM	mg/l	0.1	0.1	0.001	0.0784	0.0059	0.98	0.23	0.0002	0.001	2	2	32	24	8
	LEAD	mg/l	0.015	0.015	0.00012	0.00227	0.000455	0.019	0.00483	0.00005	0.00025	1	1	32	16	16
	URANIUM	mg/l	0.03	0.03	0.0018	0.0632	0.03	0.49	0.102	0.00025	0.00025	15	15	32	30	2
PESTICIDES	ALDRIN	ug/L		0.00395	0.043	0.043	0.043	0.043	n/a	0.0013	0.0015	0	1	47	1	46
	ALPHA-BHC	ug/L		10.95	0.003	12.2	1.3	170	37	0.0024	0.0025	0	5	47	39	8
	BETA-BHC	ug/L		2.19	0.01	11.2	5.9	47	12.8	0.0037	0.0041	0	22	47	32	15
	DIELDRIN	ug/L		0.00420	0.017	0.017	0.017	0.017	n/a	0.0018	0.0021	0	1	47	1	46
	GAMMA-BHC (LINDANE)	ug/L	0.2	0.2	0.0045	1.64	0.15	16	4.04	0.0027	0.003	7	7	47	16	31
VOLATILE ORGANIC COMPOUNDS	1,1-DICHLOROETHANE	ug/L		2.418	0.34	30.5	7.3	190	53.3	0.25	100	0	13	47	20	27
	1,1-DICHLOROETHENE	ug/L	7	7	0.3	2.11	1.2	9	3.06	0.25	100	1	1	47	7	40
	1,2,4-TRICHLOROBENZENE	ug/L	70	70	0.35	65.3	42	240	71.2	0.25	100	10	10	47	26	21
	1,2-DICHLOROBENZENE	ug/L	600	600	1.3	1640	120	24000	4750	0.25	100	7	7	47	27	20
	1,2-DICHLOROETHANE	ug/L	5	5	0.43	7.36	4	28	8.48	0.25	100	5	5	47	17	30
	1,3-DICHLOROBENZENE	ug/L		86.7	0.69	91.7	17.5	960	218	0.25	100	0	4	47	20	27
	1,3-DICHLOROPROPANE	ug/L		8.25	160	160	160	160	n/a	0.25	100	0	1	47	1	46
	1,4-DICHLOROBENZENE	ug/L	75	75	0.34	1770	71	25000	4830	0.25	100	15	15	47	31	16
	BENZENE	ug/L	5	5	0.29	10600	470	98000	22500	0.25	2.5	18	18	47	25	22
	BROMOBENZENE	ug/L		87.6	160	160	160	160	n/a	0.25	100	0	1	47	1	46
	BROMODICHLOROMETHANE	ug/L	80	0.117	0.44	0.44	0.44	0.44	n/a	0.25	100	0	1	47	1	46
	CARBON TETRACHLORIDE	ug/L	5	5	0.37	27.1	2.1	180	67.4	0.25	100	1	1	47	7	40
	CHLOROBENZENE	ug/L	100	100	0.29	11600	1365	77000	19800	0.25	0.25	22	22	47	30	17
	CHLOROFORM	ug/L	80	0.193	0.28	5920	2.9	120000	21600	0.25	5	10	34	47	34	13
	METHYLENE CHLORIDE	ug/L	5	5	1.8	269	154	890	315	1.1	440	7	7	47	8	39
	NAPHTHALENE	ug/L		0.143	10	48.5	48.5	87	54.4	0.25	100	0	2	47	2	45
	TETRACHLOROETHENE	ug/L	5	5	0.25	11	1.1	87	26	0.25	100	3	3	47	11	36
	TRICHLOROETHENE	ug/L	5	5	0.32	27.6	9.3	110	33.9	0.25	100	10	10	47	19	28

* Prevalence table do not include statistics from NERT monitored wells

n/a = not applicable

Sample quantitation limit (SQL) value exceeds MCL and/or BCL

HARGIS + ASSOCIATES, INC.

TABLE 6

MIDDLE ZONE WATER QUALITY DATA

2014 COMPOUND PREVALENCE*

Analyte Group	Parameter	Units	EPA Maximum Contaminent Limit	NDEP Basic Comparison Level	Minimum Detection	Mean Detection	Median Detection	Maximum Detection	Standard Deviation of Detections	Minimum Non Detected Value (SQL)	Maximum Non Detected Value (SQL)	Number of Detects greater than MCL	Number of Detects greater than BCL	Total Number of Analyses	Number of Detects	Number of Non-Detects
GENERAL CHARACTERIZATION	PERCHLORATE	ug/L		18	0.21	21000	6.2	170000	51000	0.082	0.082	0	5	14	12	2
	TOTAL DISSOLVED SOLIDS	mg/L			500	4100	1450	24000	6400	n/a	n/a	n/a	n/a	14	14	0
TRACE METALS	ARSENIC	ug/L	10	10	22	33.1	29.5	53	10	n/a	n/a	14	14	14	14	0
	CHROMIUM	mg/l	0.1	0.1	0.001	0.128	0.0115	1.6	0.424	n/a	n/a	1	1	14	14	0
	URANIUM	mg/l	0.03	0.030	0.0023	0.0131	0.00485	0.065	0.0183	n/a	n/a	2	2	14	14	0
PESTICIDES	GAMMA-BHC (LINDANE)	ug/L	0.2	0.2	0.0066	0.209	0.119	0.59	0.275	0.0015	0.003	2	2	14	4	10
VOLATILE ORGANIC COMPOUNDS	1,1-DICHLOROETHANE	ug/L		2.42	1.8	40.9	2.8	160	68.4	0.25	50	0	3	14	5	9
	1,2-DICHLOROBENZENE	ug/L	600	600	0.34	1090	3.8	6500	2410	0.25	0.25	2	2	14	7	7
	1,2-DICHLOROETHANE	ug/L	5	5	0.91	23.2	1.7	100	43.2	0.25	50	2	2	14	5	9
	1,3-DICHLOROBENZENE	ug/L		86.7	0.66	90.1	9.5	260	147	0.25	100	0	1	14	3	11
	1,4-DICHLOROBENZENE	ug/L	75	75	1.5	2800	310	12000	5190	0.25	0.25	3	3	14	5	9
	BENZENE	ug/L	5	5	24	22300	340	100000	43700	0.25	0.25	5	5	14	5	9
	CARBON TETRACHLORIDE	ug/L	5	5	0.25	370	370	740	523	0.25	100	1	1	14	2	12
	CHLOROBENZENE	ug/L	100	100	0.37	24600	300	98000	41600	0.25	0.25	4	4	14	7	7
	CHLOROFORM	ug/L	80	0.193	0.77	16800	15	150000	50000	0.25	0.25	2	9	14	9	5
	METHYLENE CHLORIDE	ug/L	5	5	2.2	1410	116	5400	2660	1.1	1.1	3	3	14	4	10
	TRICHLOROETHENE	ug/L	5	5	0.36	13.7	13.7	27	18.8	0.25	100	1	1	14	2	12

* Prevalence table does not include statistics from NERT monitored wells

n/a = not applicable

Sample quantitation limit (SQL) value exceeds MCL and/or BCL

HARGIS + ASSOCIATES, INC.

TABLE 7

DEEP ZONE WATER QUALITY DATA

2014 COMPOUND PREVALENCE*

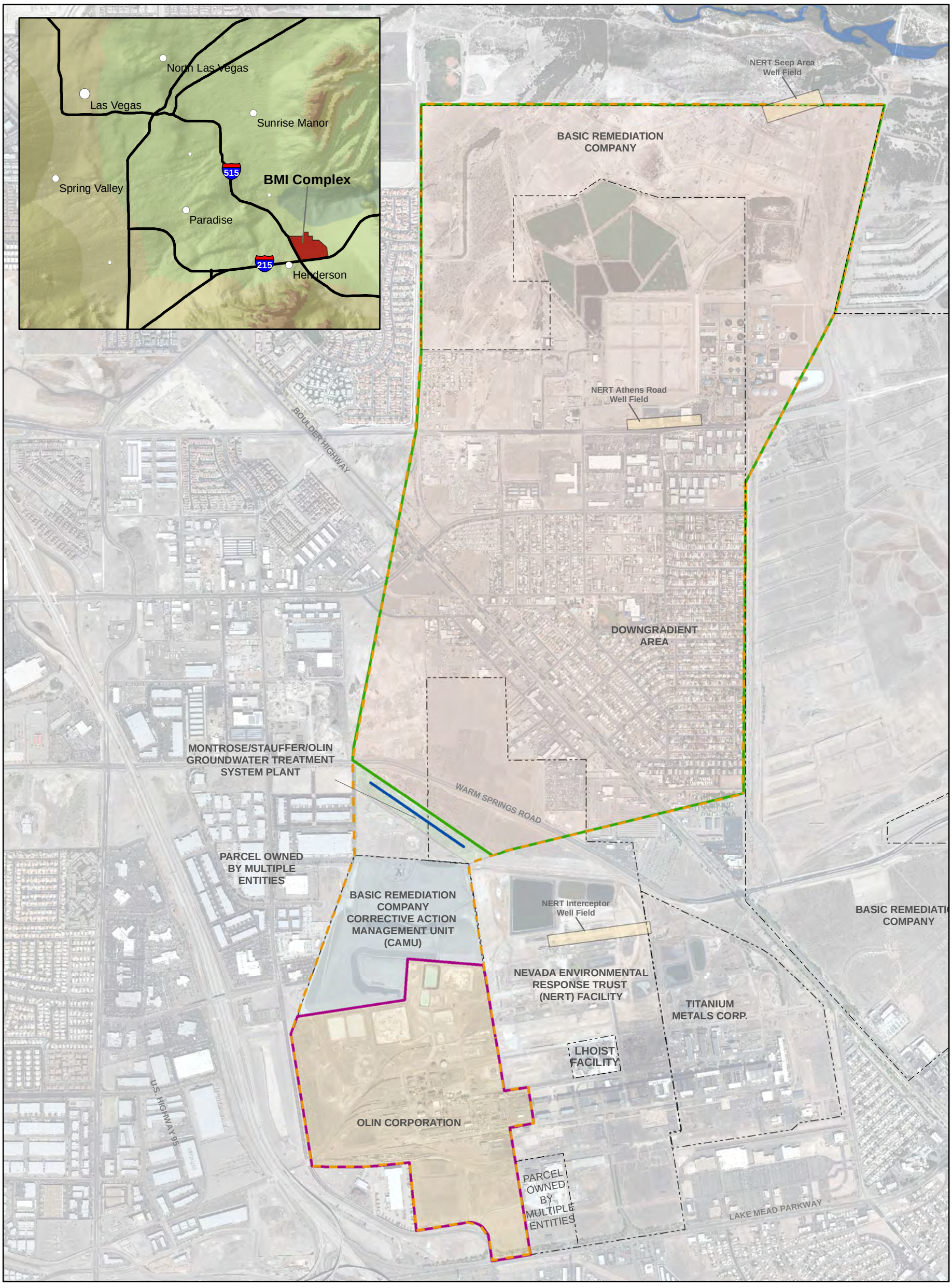
Analyte Group	Parameter	Units	EPA Maximum Contaminent Limit	NDEP Basic Comparison Level	Minimum Detection	Mean Detection	Median Detection	Maximum Detection	Standard Deviation of Detections	Minimum Non Detected Value (SQL)	Maximum Non Detected Value (SQL)	Number of Detects greater than MCL	Number of Detects greater than BCL	Total Number of Analyses	Number of Detects	Number of Non-Detects
GENERAL CHARACTERIZATION	PERCHLORATE	ug/L		18	0.19	2210	1.2	11000	4910	n/a	n/a	0	2	5	5	0
	TOTAL DISSOLVED SOLIDS	mg/L			670	766	750	840	70.2	n/a	n/a	n/a	n/a	5	5	0
TRACE METALS	ARSENIC	ug/L	10	10	17	133	41	370	151	n/a	n/a	5	5	5	5	0
	CHROMIUM	mg/l	0.1	0.1	0.0031	1.41	0.047	6.9	3.07	n/a	n/a	1	1	5	5	0

* Prevalence table does not include statistics from NERT monitored wells

n/a = not applicable

SQL = Sample quantitation limit

FIGURES



EXPLANATION

- OSSM GWTS Extraction Well Line
- Study Area Boundary
- Olin Site Boundary
- Downgradient Area
- Property Boundaries
- Las Vegas Wash

N

0 800 1,600 Feet

2014 COMPREHENSIVE DATA EVALUATION
MONTROSE, STAUFFER AND OLIN SITES
HENDERSON, NEVADA

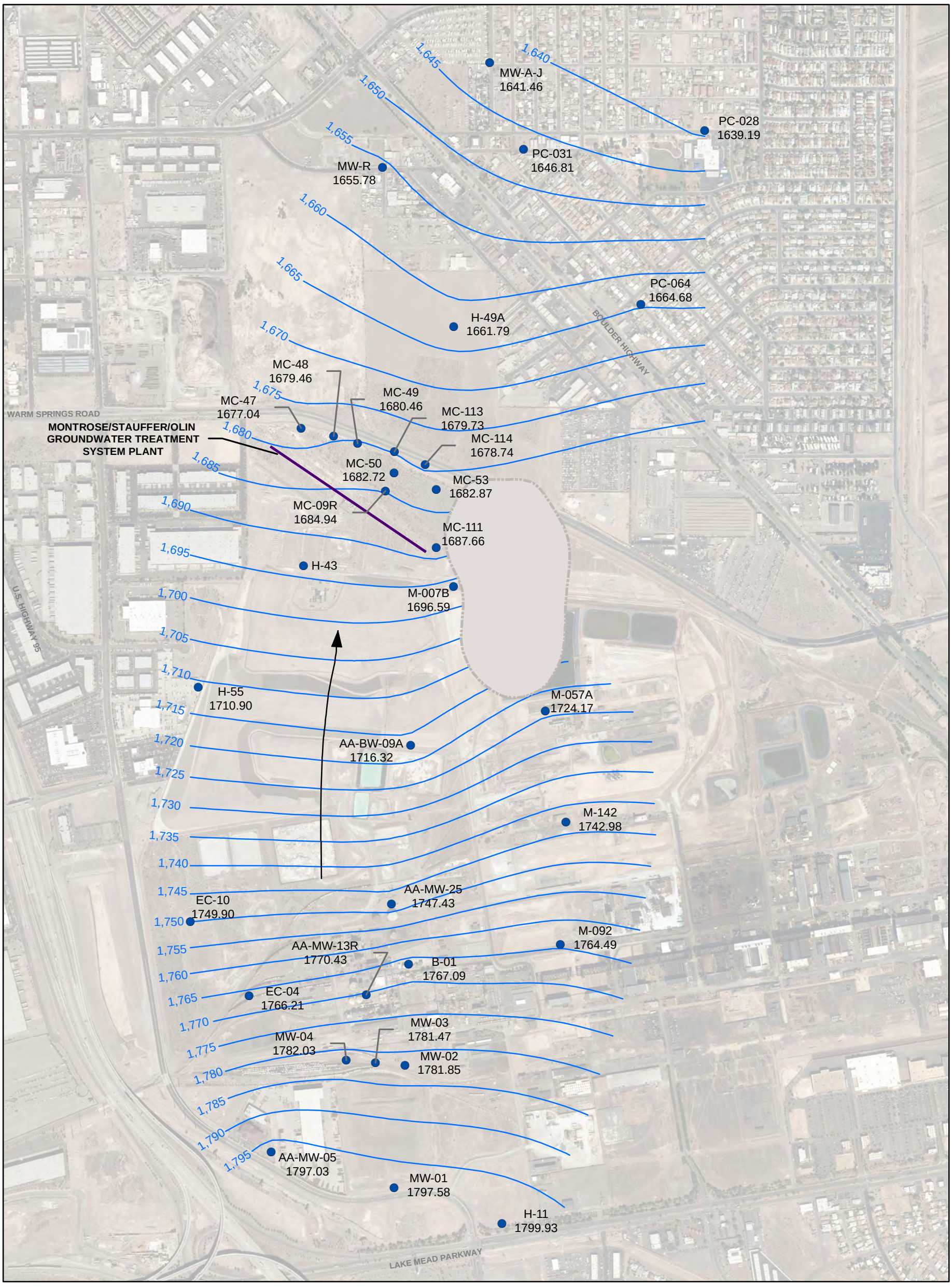
STUDY AREA

HARGIS + ASSOCIATES, INC.
HYDROGEOLOGY • ENGINEERING

10/9/2014

FIGURE 1

PREP BY DAT REV BY BRW RPT NO 754.91



EXPLANATION

- AA-MW-05 1797.03 — Monitor Well Identifier; Groundwater Elevation - Second Quarter 2014
- 1,745 — Approximate contour line of equal Water level elevation in feet Above mean sea level
- Groundwater Flow Direction
- Area of uncertain shallow zone saturation

N

0 500 1,000 Feet

2014 COMPREHENSIVE DATA EVALUATION
MONTROSE, STAUFFER AND OLIN SITES
HENDERSON, NEVADA

SHALLOW ZONE GROUNDWATER GRADIENT AND FLOW DIRECTION

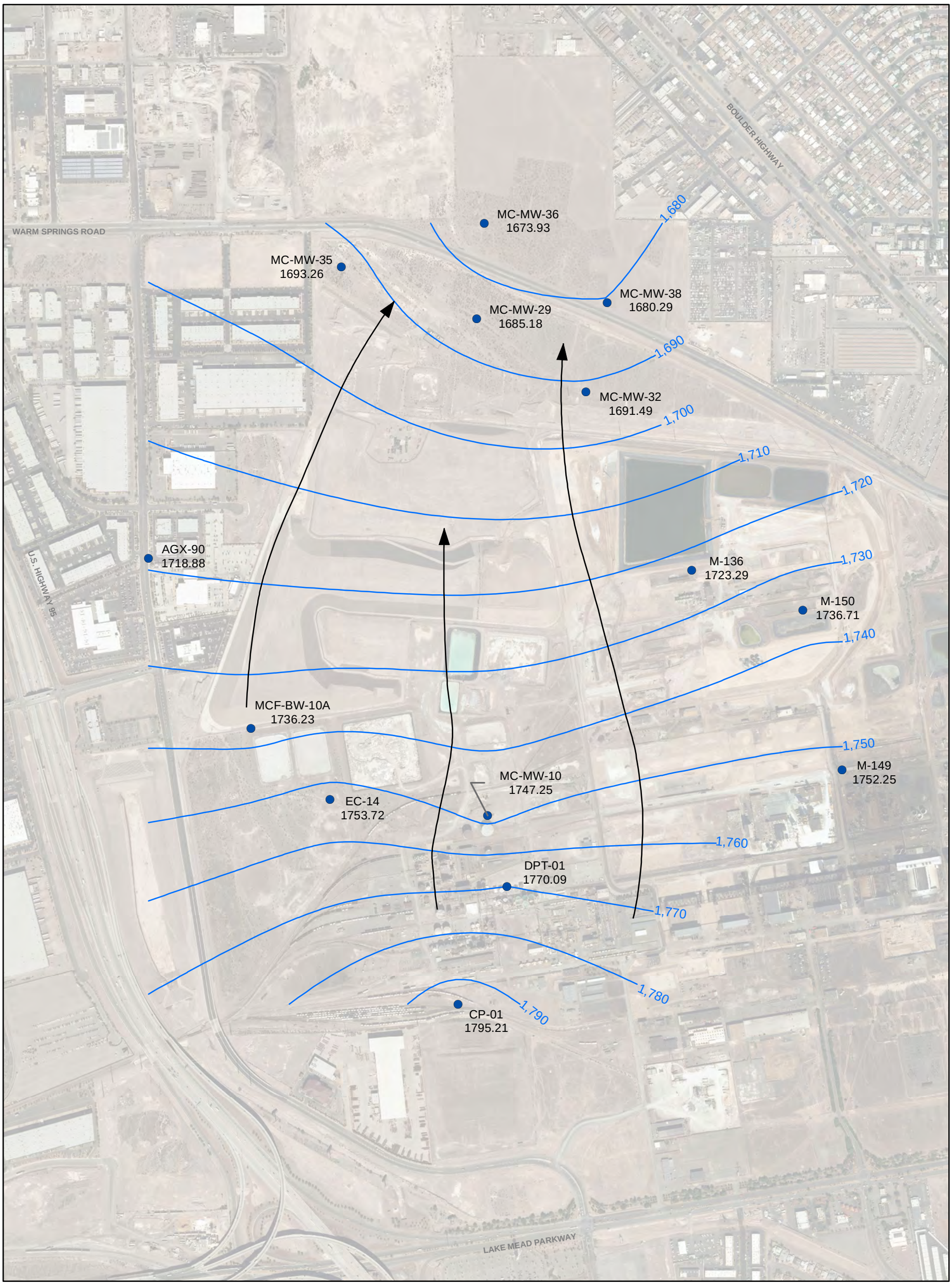
HARGIS+ASSOCIATES, INC.
HYDROGEOLOGY • ENGINEERING

DATE: 11/4/2014

FIGURE 2

PREP BY RGW REV BY BRW RPT NO 754.91

Name: SZ WLs_2014



EXPLANATION

CP-01 1795.21 — Monitor Well Identifier
Groundwater Elevation - Second Quarter 2014

1,790 — Approximate contour line of equal
Water level elevation in feet
Above mean sea level

Groundwater Flow Direction

N

0 400 800 Feet

2014 COMPREHENSIVE DATA EVALUATION
MONTROSE, STAUFFER AND OLIN SITES
HENDERSON, NEVADA

MIDDLE ZONE
GROUNDWATER GRADIENT
AND FLOW DIRECTION

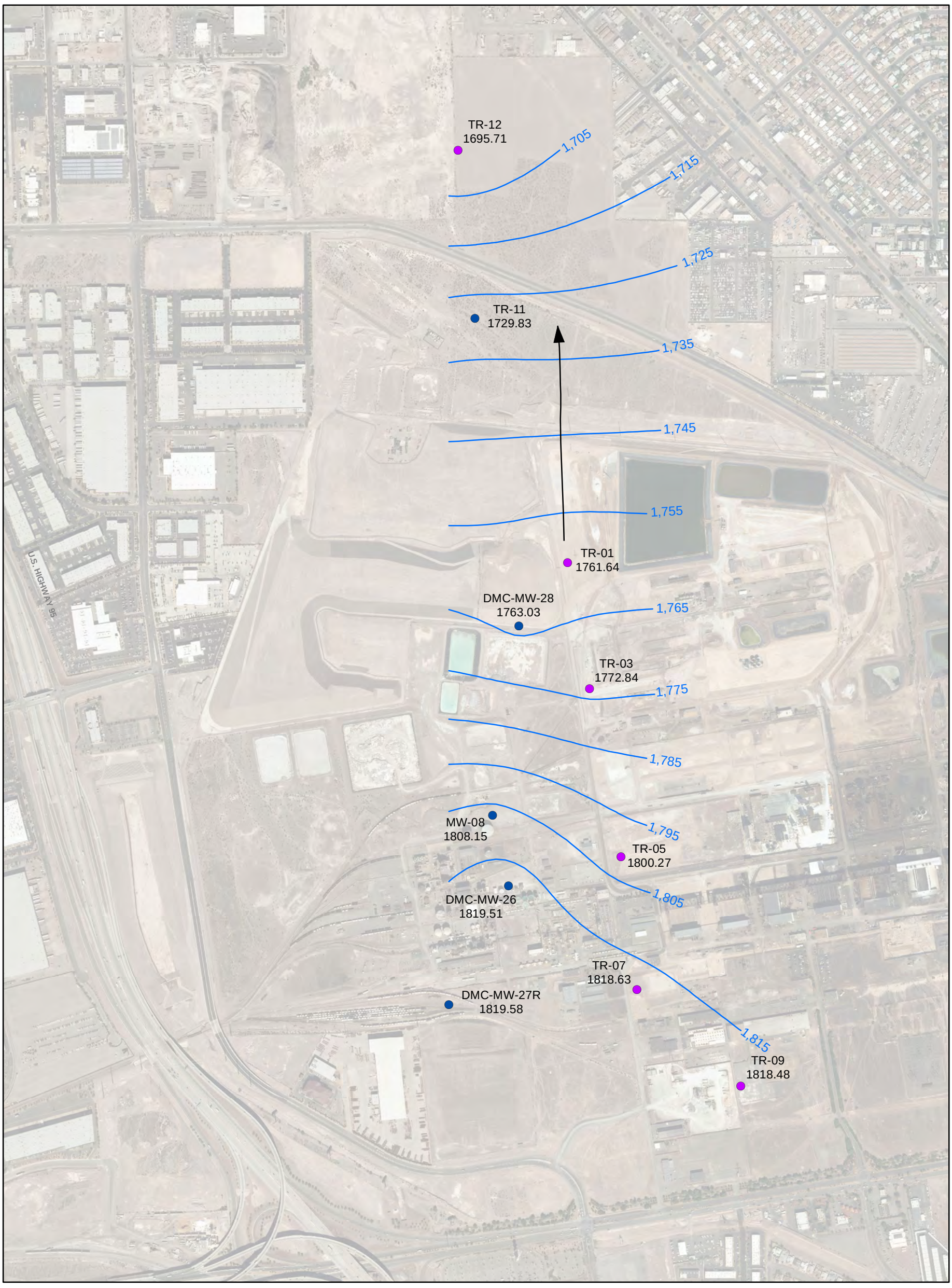
HARGIS+ASSOCIATES, INC.
HYDROGEOLOGY • ENGINEERING

DATE: 9/30/2014

FIGURE 3

PREP BY RGW REV BY BRW RPT NO 754.91

Name: MZ WLs_2014



EXPLANATION

TR-11 1729.83 — Monitor Well Identifier
Groundwater Elevation - Second Quarter 2014

TR-07 1818.63 — Monitor Well Identifier (NERT data)
Groundwater Elevation - Second Quarter 2014

1,805 — Approximate contour line of equal
Water level elevation in feet
Above mean sea level

Groundwater Flow Direction

N

0 400 800 Feet

2014 COMPREHENSIVE DATA EVALUATION
MONTROSE, STAUFFER AND OLIN SITES
HENDERSON, NEVADA

DEEP ZONE
GROUNDWATER GRADIENT
AND FLOW DIRECTION

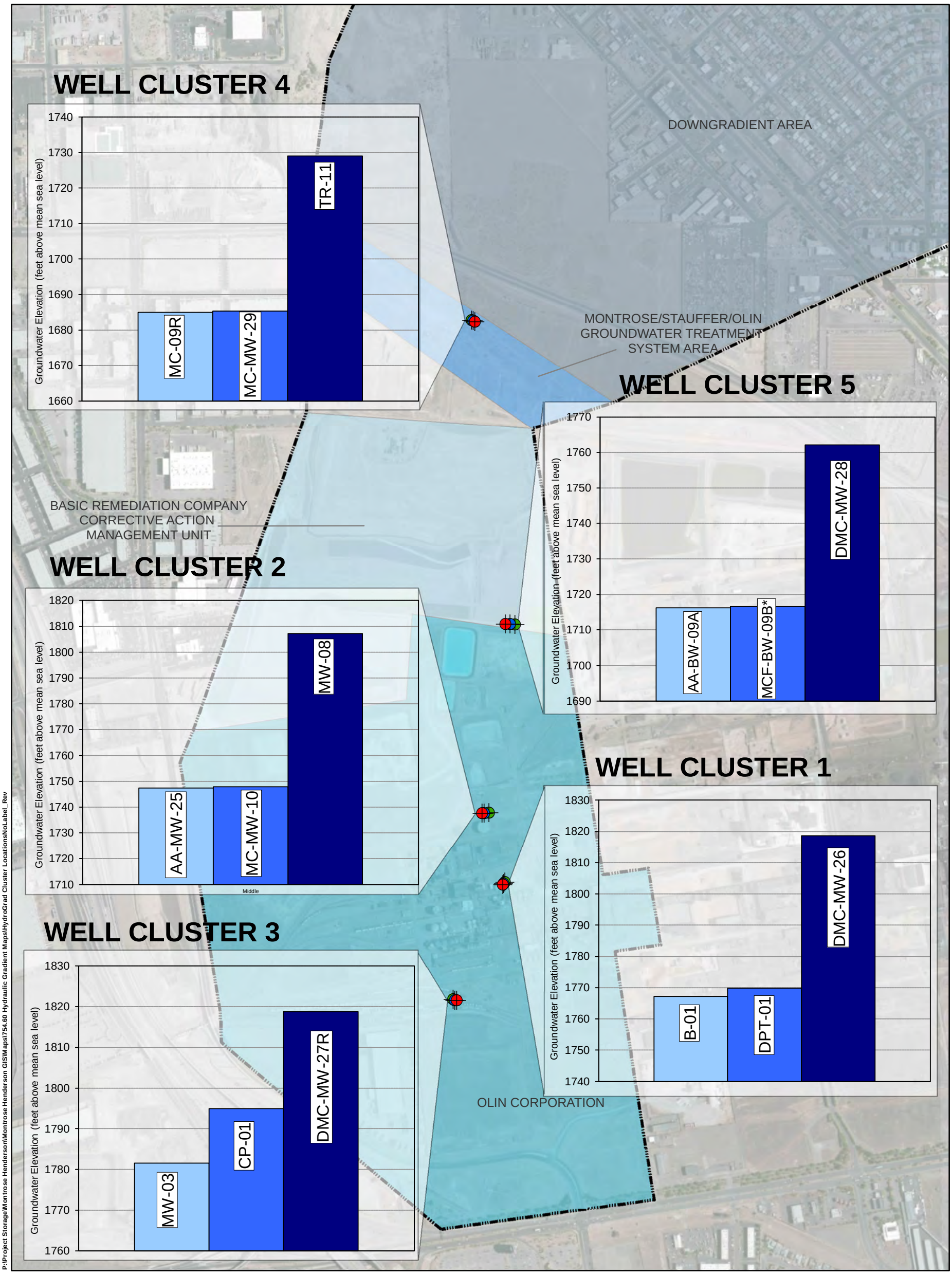
HARGIS+ASSOCIATES, INC.
HYDROGEOLOGY • ENGINEERING

DATE: 9/30/2014

FIGURE 4

PREP BY RGW REV BY BRW RPT NO 754.91

Name: DZ WLs_2014



EXPLANATION

- Shallow Zone
- Middle Zone
- Deep Zone
- Study Area

*MCF-BW-09B was destroyed, water level represented is from 2009

N

0 400 800 Feet

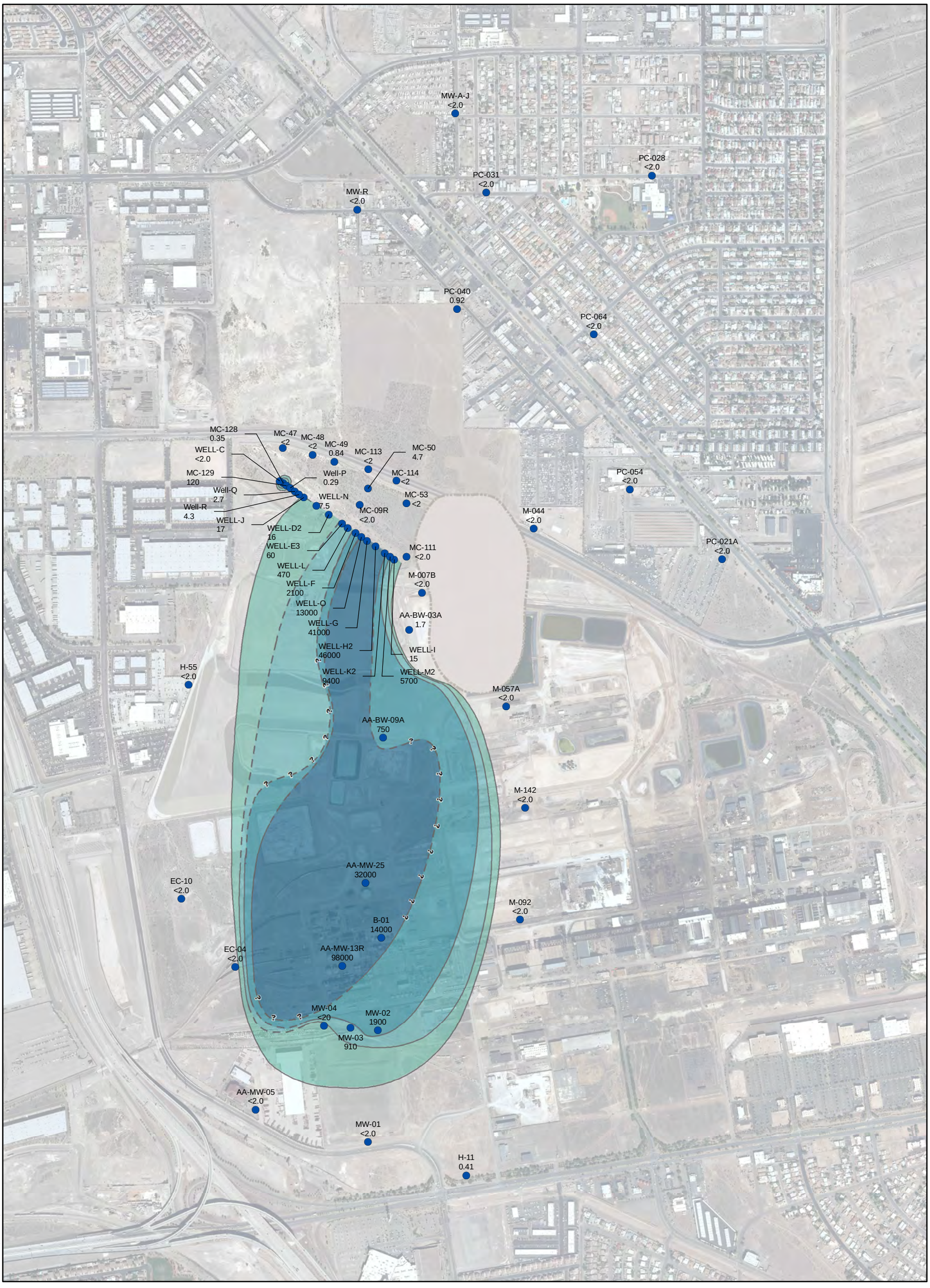
2014 COMPREHENSIVE DATA EVALUATION
MONTROSE, STAUFFER, AND OLIN SITES
HENDERSON, NEVADA

WELL CLUSTER LOCATIONS AND HEAD DIFFERENCES JUNE 2014

HARGIS + ASSOCIATES, INC.
HYDROGEOLOGY • ENGINEERING

FIGURE 5

PREP BY: DAT REV BY: BRW	09/18/09	PROJECT: 754.60



Path: P:\Project Storage\Montrose Henderson\Montrose Henderson GIS\Maps\754.95 2014 Site-Wide Annual Report\Benzene\Benzene-Shallow.mxd

2011 AERIAL PHOTO

EXPLANATION

BENZENE CONCENTRATION (ug/l)
EPA METHOD: 8260B

- 5 (BCL, MCL) - 99
- 100 - 999
- 1,000 - 9,999
- 10,000 - 99,999
- 100,000 - 999,999

Boundary of concentration zone is dashed where inferred, queried where uncertain

H-11 MONITOR WELL IDENTIFIER
0.41 CONCENTRATION IN MICROGRAMS PER LITER SECOND QUARTER 2014
< LESS THAN; COMPOUND WAS NOT DETECTED AT OR ABOVE THE REPORTED DETECTION LIMIT
ug/l MICROGRAMS PER LITER
AREA OF UNCERTAIN SHALLOW ZONE SATURATION
J- THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED QUANTITY WITH A NEGATIVE BIAS.

N

0 500 1,000
Feet

Note:
Isoconcentration Contours Incorporate Data from Second Quarter 2013

2014 COMPREHENSIVE DATA EVALUATION
MONTROSE, STAUFFER AND OLIN SITES
HENDERSON, NEVADA

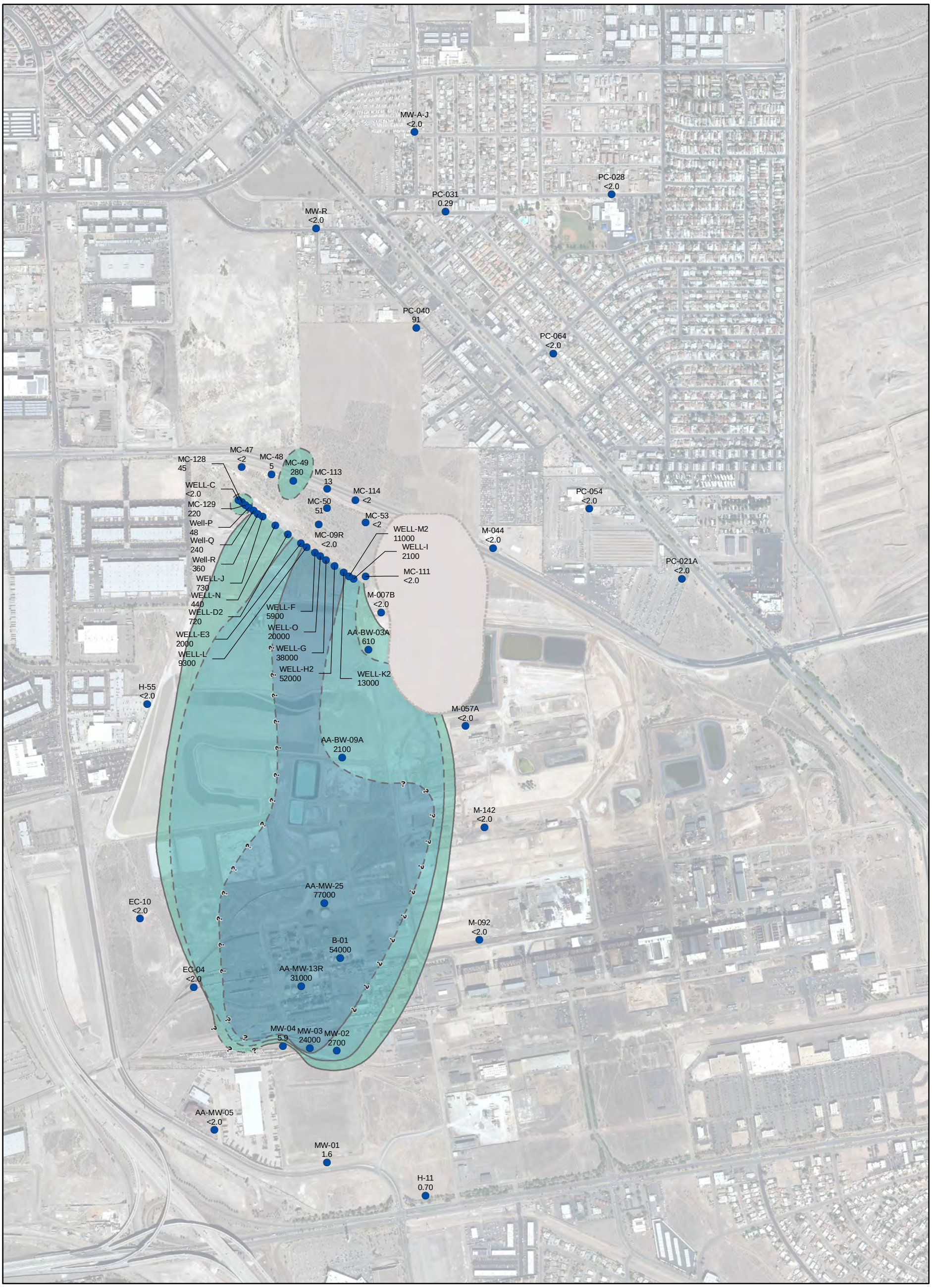
BENZENE
SHALLOW ZONE
SECOND QUARTER 2014

HARGIS + ASSOCIATES, INC
HYDROGEOLOGY / ENGINEERING

10/31/2014

FIGURE 6

PREP BY NKR REV BY BRW RPT NO 754.95



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EXPLANATION

CHLOROBENZENE CONCENTRATION (ug/l)
EPA METHOD: 8260B

- 100 (BCL, MCL) - 999
- 1,000 - 9,999
- 10,000 - 99,999
- 100,000 - 999,999

Boundary of concentration zone is dashed where inferred, queried where uncertain

H-11 MONITOR WELL IDENTIFIER
0.70 CONCENTRATION IN MICROGRAMS PER LITER SECOND QUARTER 2014

< LESS THAN; COMPOUND WAS NOT DETECTED AT OR ABOVE THE REPORTED DETECTION LIMIT

ug/l MICROGRAMS PER LITER

AREA OF UNCERTAIN SHALLOW ZONE SATURATION

J- THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED QUANTITY WITH A NEGATIVE BIAS.

N

0 500 1,000
Feet

Note:
Isoconcentration Contours Incorporate Data from Second Quarter 2013

2014 COMPREHENSIVE DATA EVALUATION
MONTROSE, STAUFFER AND OLIN SITES
HENDERSON, NEVADA

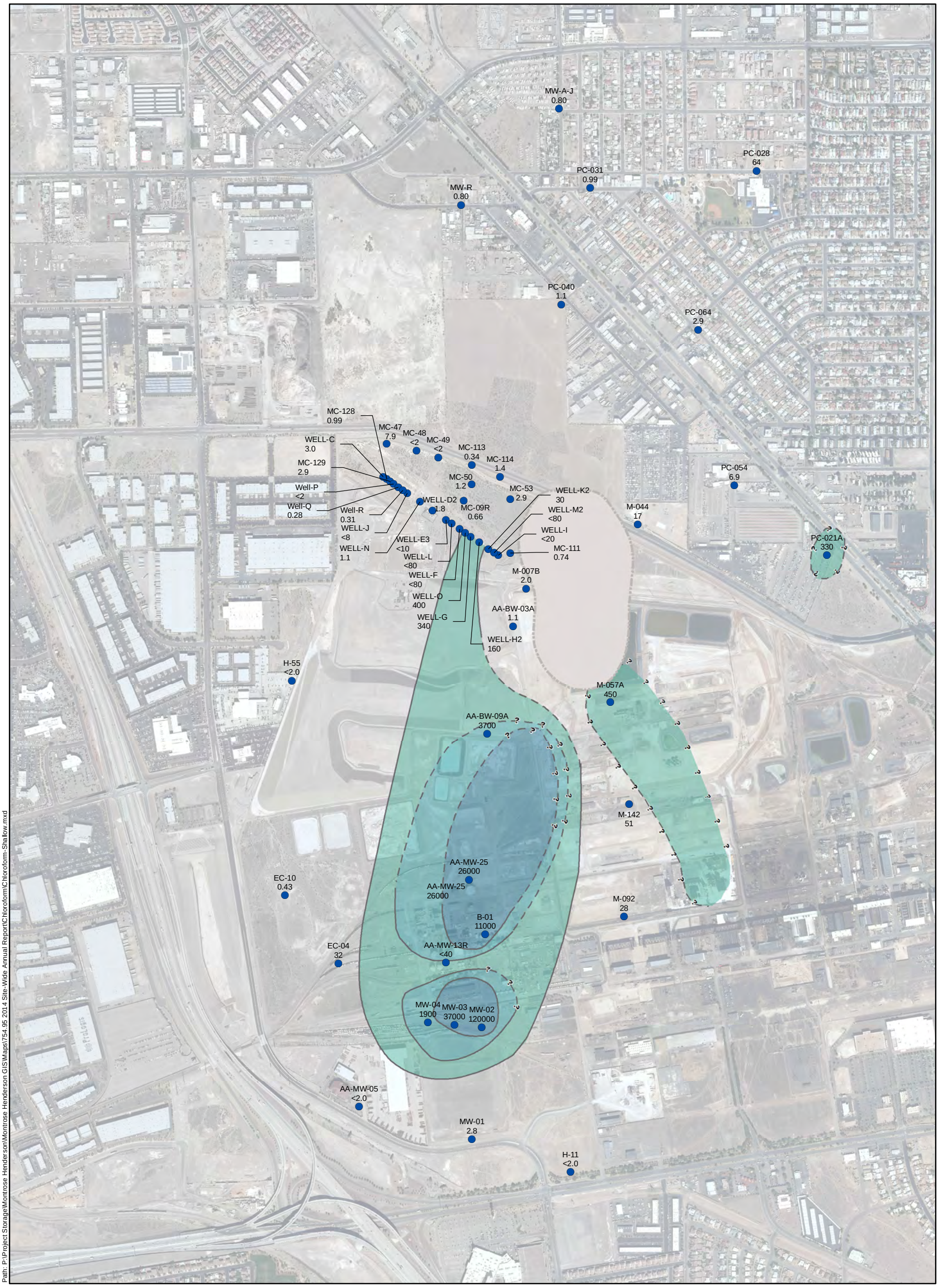
CHLOROBENZENE
SHALLOW ZONE
SECOND QUARTER 2014

HARGIS + ASSOCIATES, INC.
HYDROGEOLOGY / ENGINEERING

10/31/2014

FIGURE 7

PREP BY NKR REV BY BRW RPT NO 754.95



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2011 AERIAL PHOTO

EXPLANATION

CHLOROFORM CONCENTRATION (ug/l)
EPA METHOD: 8260B

- 80 (TTHM MCL) - 999
- 1,000 - 9,999
- 10,000 - 99,999

Boundary of concentration zone is dashed where inferred, queried where uncertain.

H-11 MONITOR WELL IDENTIFIER
<2.0 CONCENTRATION IN MICROGRAMS PER LITER SECOND QUARTER 2014

<	LESS THAN; COMPOUND WAS NOT DETECTED AT OR ABOVE THE REPORTED DETECTION LIMIT
ug/l	MICROGRAMS PER LITER
TTHM	TOTAL TRIHALOMETHANES (BROMODICHLOROMETHANE + BROMOFORM + CHLOROFORM + DIBROMOCHLOROMETHANE)
J	THE ASSOCIATED VALUE IS AN ESTIMATED QUANTITY.
J+	THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED QUANTITY WITH A POSITIVE BIAS.
UJ	THE ASSOCIATED DETECTION LIMIT VALUE IS AN ESTIMATED QUANTITY.
	AREA OF UNCERTAIN SHALLOW ZONE SATURATION

N

0 500 1,000
Feet

Notes:
BCL = 0.193 ug/l
Isoconcentration Contours Incorporate Data from Second Quarter 2013

2014 COMPREHENSIVE DATA EVALUATION
MONTROSE, STAUFFER AND OLIN SITES
HENDERSON, NEVADA

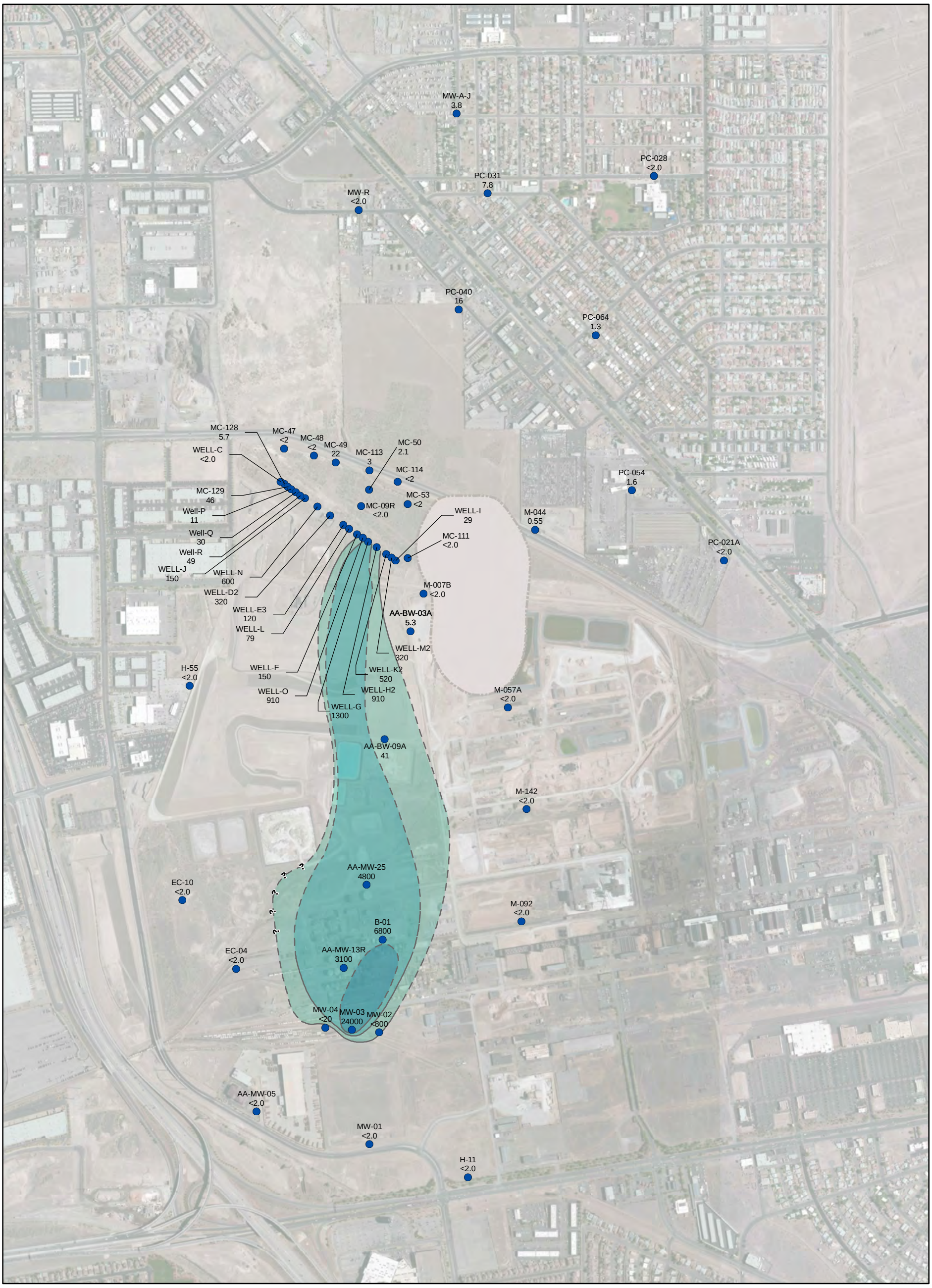
CHLOROFORM
SHALLOW ZONE
SECOND QUARTER 2014

HARGIS + ASSOCIATES, INC.
HYDROGEOLOGY / ENGINEERING

11/10/2014

FIGURE 8

PREP BY NKR REV BY BRW RPT NO 754.95



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EXPLANATION

1,2-DICHLOROBENZENE CONCENTRATION (ug/l)
EPA METHOD: 8260B

- 600 (BCL, MCL) - 999
- 1,000 - 9,999
- 10,000 - 99,999

Boundary of concentration zone is dashed where inferred, queried where uncertain

H-11 <2.0	MONITOR WELL IDENTIFIER CONCENTRATION IN MICROGRAMS PER LITER SECOND QUARTER 2014
<	LESS THAN; COMPOUND WAS NOT DETECTED AT OR ABOVE THE REPORTED DETECTION LIMIT
ug/l	MICROGRAMS PER LITER
	AREA OF UNCERTAIN SHALLOW ZONE SATURATION
J	THE ASSOCIATED VALUE IS AN ESTIMATED QUANTITY.
J-	THE ASSOCIATED VALUE IS AN ESTIMATED QUANTITY WITH A NEGATIVE BIAS.

N

0 500 1,000
Feet

Note:
Isoconcentration Contours Incorporate Data from Second Quarter 2013

2014 COMPREHENSIVE DATA EVALUATION
MONTROSE, STAUFFER AND OLIN SITES
HENDERSON, NEVADA

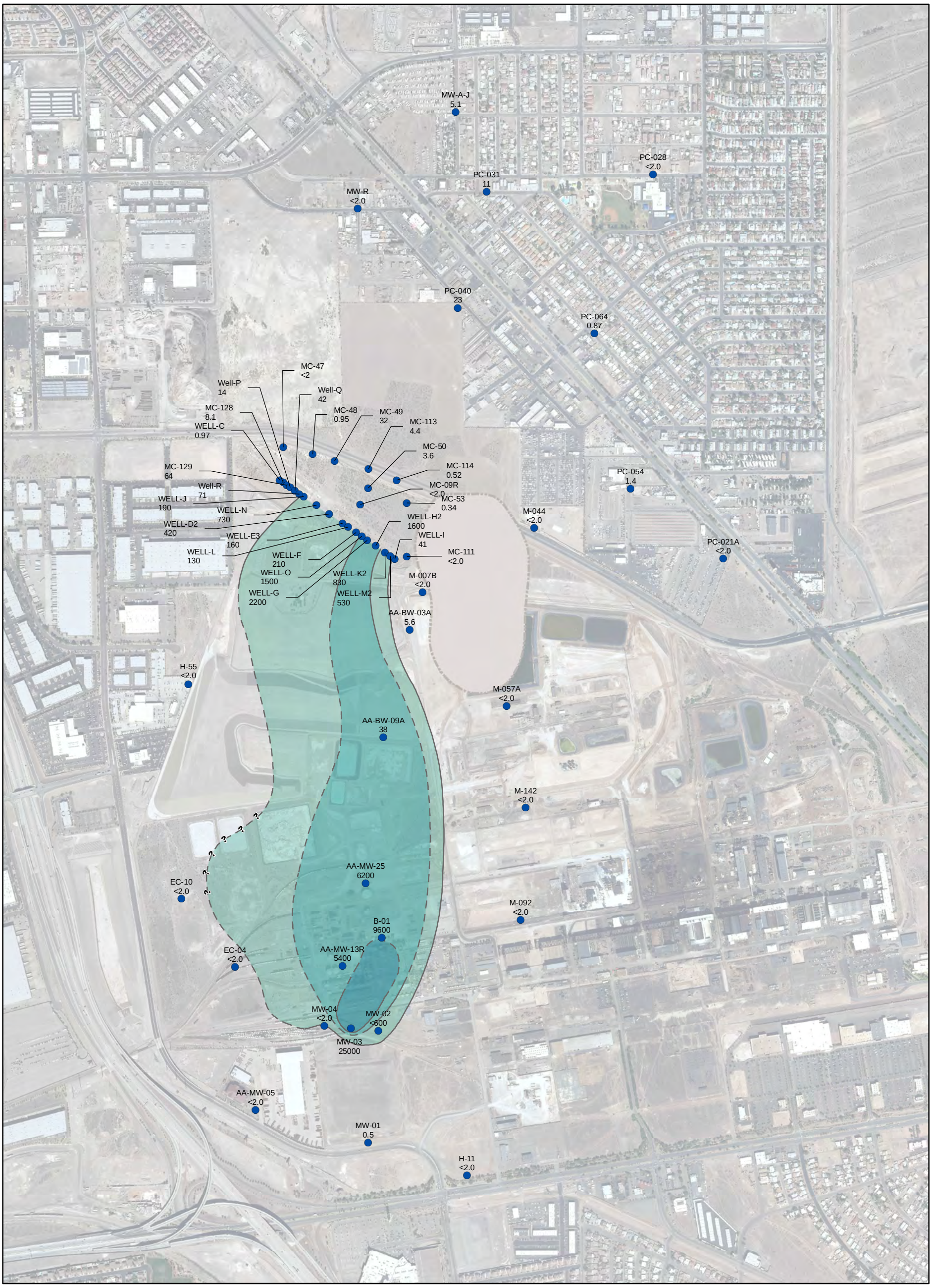
1,2-DICHLOROBENZENE
SHALLOW ZONE
SECOND QUARTER 2014

HARGIS + ASSOCIATES, INC
HYDROGEOLOGY / ENGINEERING

10/31/2014

FIGURE 9

PREP BY NKR REV BY BRW RPT NO 754.95



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2011 AERIAL PHOTO

EXPLANATION

1,4-DICHLOROBENZENE CONCENTRATION (ug/l)
EPA METHOD: 8260B

- 75 (BCL, MCL) - 999
- 1,000 - 9,999
- 10,000 - 99,999

Boundary of concentration zone is dashed where inferred, queried where uncertain

H-11 <2.0 — MONITOR WELL IDENTIFIER CONCENTRATION IN MICROGRAMS PER LITER SECOND QUARTER 2014

< — LESS THAN; COMPOUND WAS NOT DETECTED AT OR ABOVE THE REPORTED DETECTION LIMIT

ug/l — MICROGRAMS PER LITER

AREA OF UNCERTAIN SHALLOW ZONE SATURATION

J- — THE ASSOCIATED VALUE IS AN ESTIMATED QUANTITY WITH A NEGATIVE BIAS.

N

0 500 1,000
Feet

Note:
Isoconcentration Contours Incorporate Data from Second Quarter 2013

2014 COMPREHENSIVE DATA EVALUATION
MONTROSE, STAUFFER AND OLIN SITES
HENDERSON, NEVADA

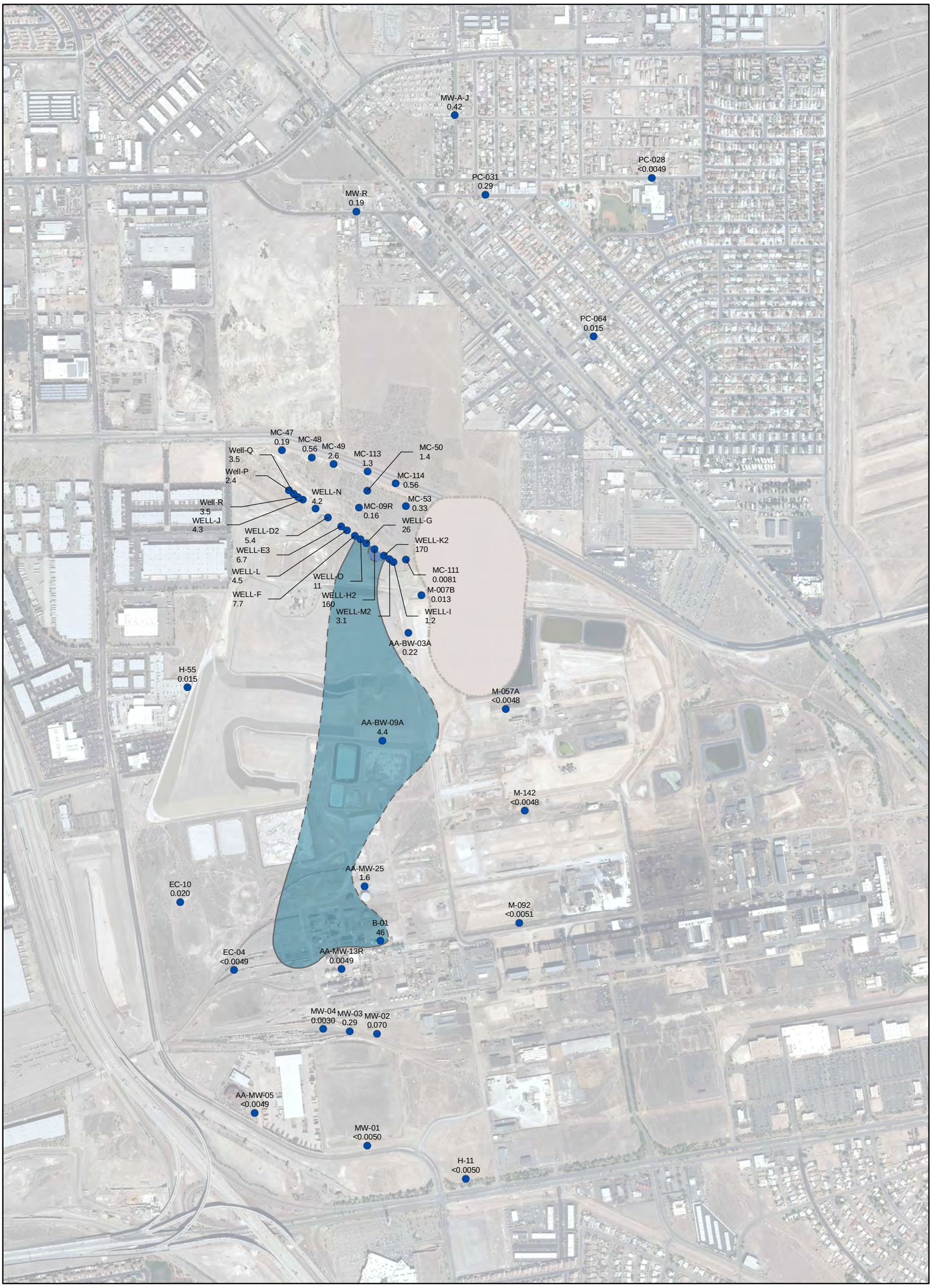
1,4-DICHLOROBENZENE
SHALLOW ZONE
SECOND QUARTER 2014

HARGIS + ASSOCIATES, INC.
HYDROGEOLOGY / ENGINEERING

10/31/2014

FIGURE 10

PREP BY NKR REV BY BRW RPT NO 754.95



Path: P:\Project Storage\Montrose Henderson\Montrose Henderson GIS\Maps\754.95 2014 Site-Wide Annual Report\alpha BHCVABHC-Shallow.mxd

EXPLANATION

ALPHA-BHC CONCENTRATION (ug/l)
EPA METHOD: 8081A

11 (BCL) - 99

100 - 999

Boundary of concentration zone is dashed where inferred, queried where uncertain

H-11 <0.0050 MONITOR WELL IDENTIFIER CONCENTRATION IN MICROGRAMS PER LITER SECOND QUARTER 2014

< LESS THAN; COMPOUND WAS NOT DETECTED AT OR ABOVE THE REPORTED DETECTION LIMIT

ug/L MICROGRAMS PER LITER

J THE ASSOCIATED VALUE IS AN ESTIMATED QUANTITY

J+ THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED QUANTITY WITH A POSITIVE BIAS.

J- THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED QUANTITY WITH A NEGATIVE BIAS.

UJ THE ASSOCIATED DETECTION LIMIT VALUE IS AN ESTIMATED QUANTITY.

AREA OF UNCERTAIN SHALLOW ZONE SATURATION

N

0 500 1,000
Feet

Notes:
There is no EPA guidance level defined for alpha BHC.
Isoconcentration Contours Incorporate Data from Second Quarter 2013

2014 COMPREHENSIVE DATA EVALUATION
MONTROSE, STAUFFER AND OLIN SITES
HENDERSON, NEVADA

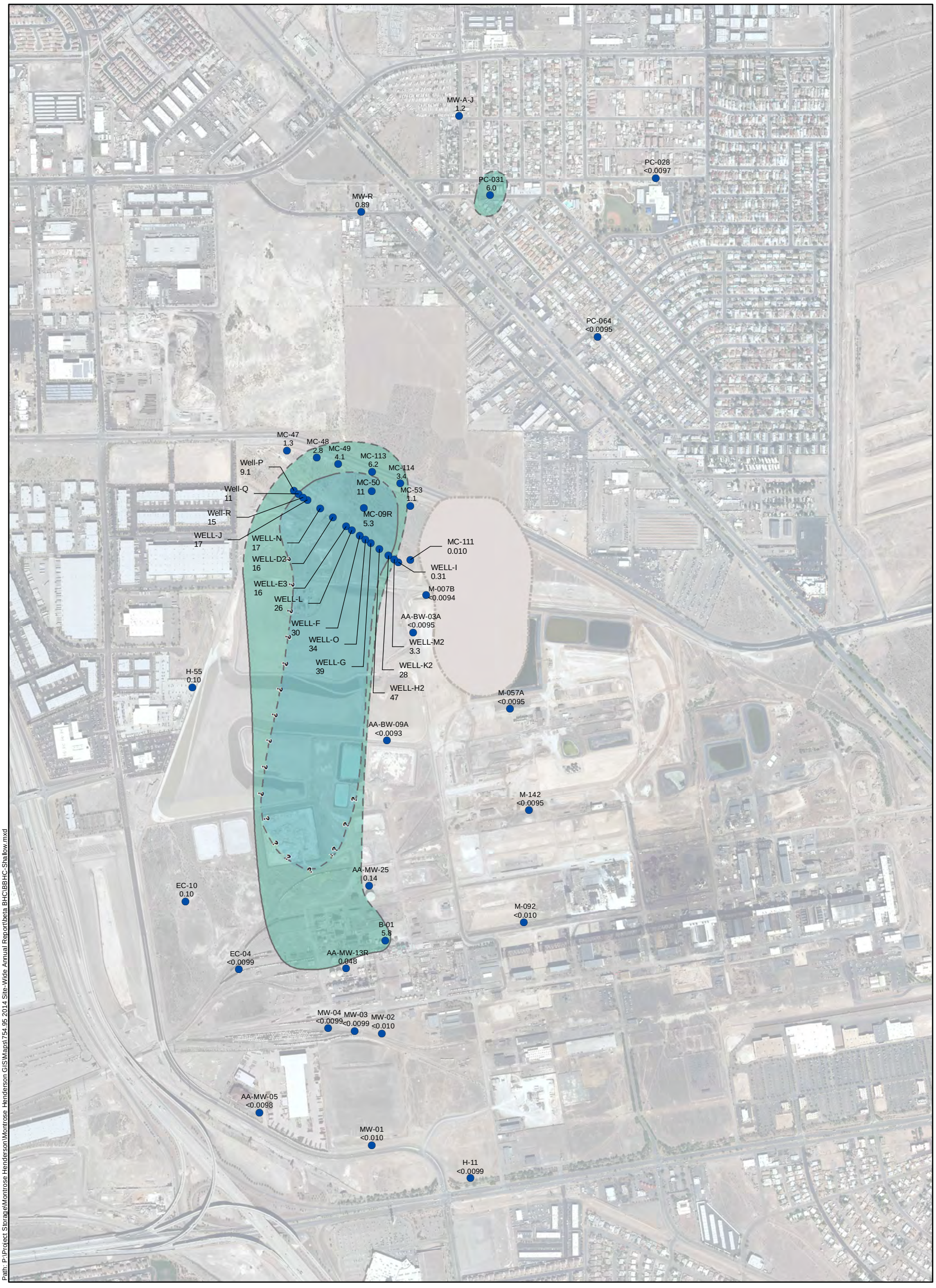
ALPHA-BHC
SHALLOW ZONE
SECOND QUARTER 2014

HARGIS + ASSOCIATES, INC.
HYDROGEOLOGY / ENGINEERING

11/10/2014

FIGURE 11

PREP BY NKR REV BY BRW RPT NO 754.95



Path: P:\Project Storage\Montrose Henderson\Montrose_Henderson GIS\Maps\754.95 2014 Site-Wide Annual Report\beta BHC\BBHC-Shallow.mxd

2011 AERIAL PHOTO

EXPLANATION

BETA-BHC CONCENTRATION (ug/l)
EPA METHOD: 8081A

2.19 (BCL) - 9.9

10 - 99

Boundary of concentration zone is dashed where inferred, queried where uncertain

H-11 MONITOR WELL IDENTIFIER
<0.0099 CONCENTRATION IN MICROGRAMS PER LITER SECOND QUARTER 2014

ug/L MICROGRAMS PER LITER

AREA OF UNCERTAIN SHALLOW ZONE SATURATION

J+ THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED QUANTITY WITH A POSITIVE BIAS.

J- THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED QUANTITY WITH A NEGATIVE BIAS.

UJ THE ASSOCIATED DETECTION LIMIT VALUE IS AN ESTIMATED QUANTITY.

N

0 500 1,000
Feet

Notes:
There is no EPA guidance level defined for beta BHC.
Isoconcentration Contours Incorporate Data from Second Quarter 2013

2014 COMPREHENSIVE DATA EVALUATION
MONTROSE, STAUFFER AND OLIN SITES
HENDERSON, NEVADA

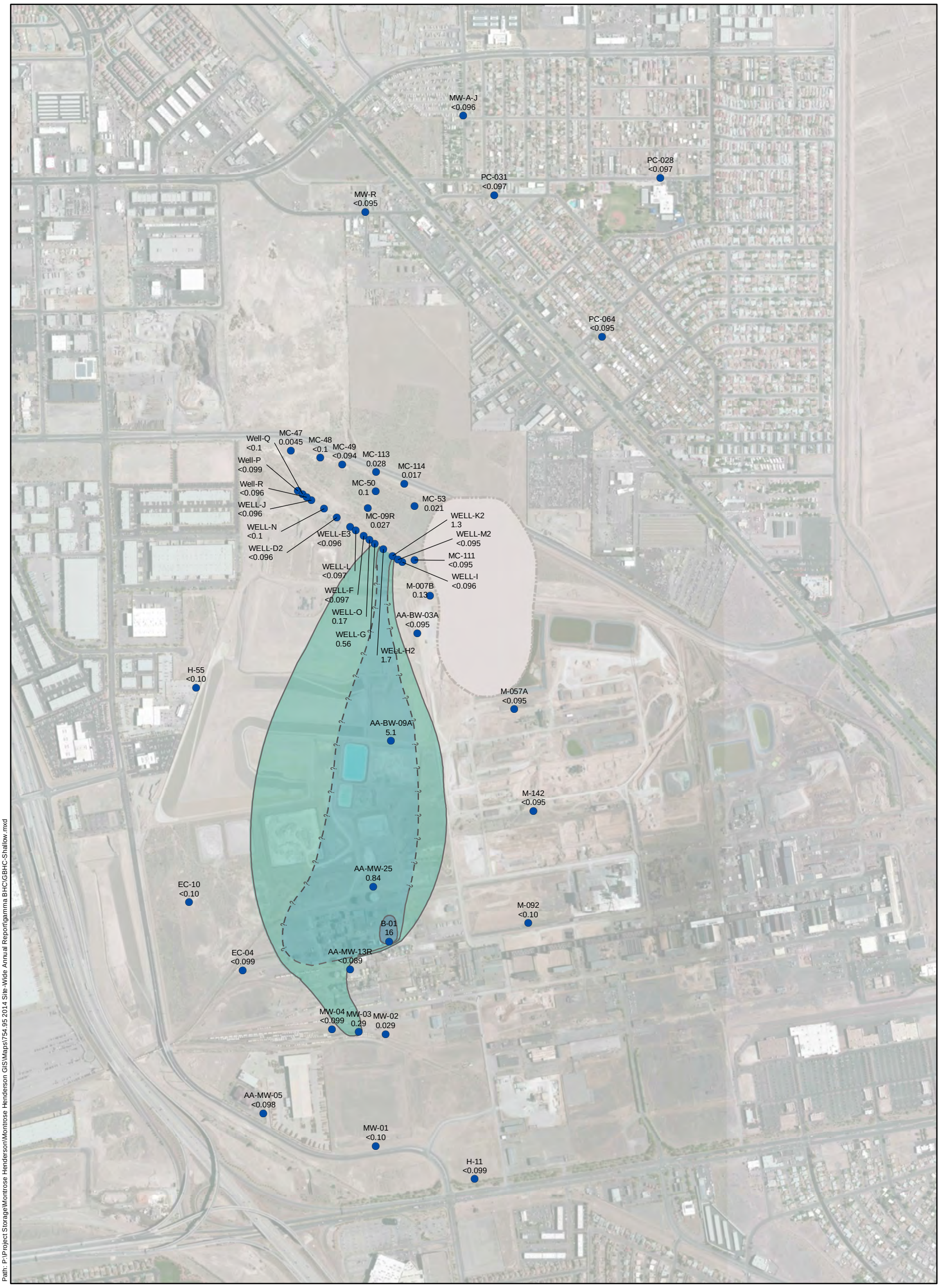
BETA-BHC
SHALLOW ZONE
SECOND QUARTER 2014

HARGIS + ASSOCIATES, INC.
HYDROGEOLOGY / ENGINEERING

10/31/2014

FIGURE 12

PREP BY NKR REV BY BRW RPT NO 754.95



Path: P:\Project Storage\Montrose Henderson\Montrose Henderson GIS\Maps\754.95 2014 Site-Wide Annual Report\gamma BHC\GBHC-Shallow.mxd

2011 AERIAL PHOTO

EXPLANATION

GAMMA-BHC CONCENTRATION (ug/l)
EPA METHOD: 8081A

- 0.2 (BCL, MCL) - 0.99
- 1 - 9.9
- 10 - 99
- 100 - 999

Boundary of concentration zone is dashed where inferred, queried where uncertain

H-11 <0.099 — MONITOR WELL IDENTIFIER CONCENTRATION IN MICROGRAMS PER LITER SECOND QUARTER 2014

< — LESS THAN; COMPOUND WAS NOT DETECTED AT OR ABOVE THE REPORTED DETECTION LIMIT

ug/L — MICROGRAMS PER LITER

J — THE ASSOCIATED VALUE IS AN ESTIMATED QUANTITY.

AREA OF UNCERTAIN SHALLOW ZONE SATURATION

J+ — THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED QUANTITY WITH A POSITIVE BIAS.

J- — THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED QUANTITY WITH A NEGATIVE BIAS.

UJ — THE ASSOCIATED DETECTION LIMIT VALUE IS AN ESTIMATED QUANTITY.

N

0 500 1,000
Feet

Note:
Isoconcentration Contours Incorporate Data from Second Quarter 2013

2014 COMPREHENSIVE DATA EVALUATION
MONTROSE, STAUFFER AND OLIN SITES
HENDERSON, NEVADA

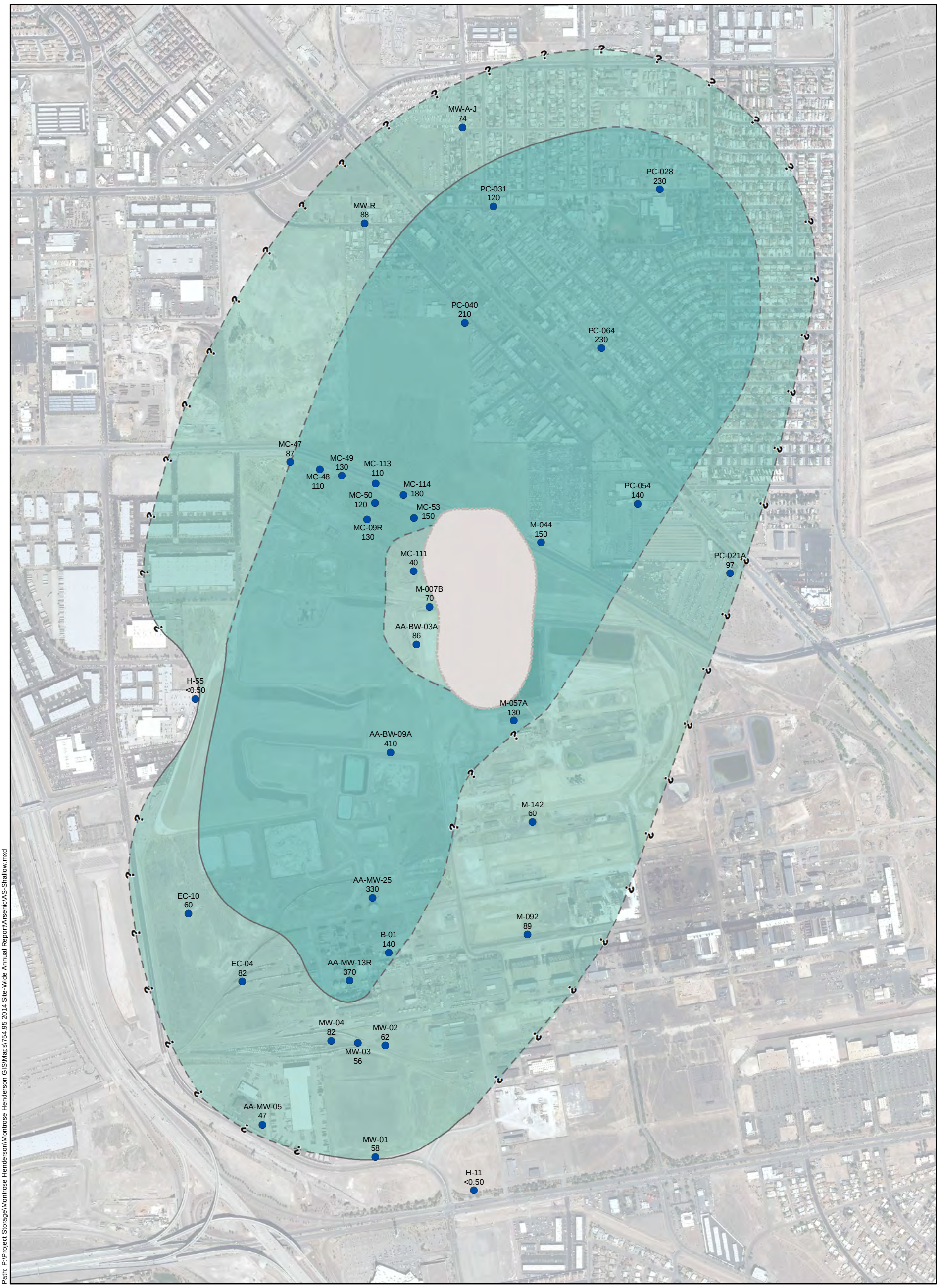
GAMMA-BHC
SHALLOW ZONE
SECOND QUARTER 2014

HARGIS + ASSOCIATES, INC.
HYDROGEOLOGY / ENGINEERING

10/31/2014

FIGURE 13

PREP BY NKR REV BY BRW RPT NO 754.95



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2011 AERIAL PHOTO

EXPLANATION

ARSENIC CONCENTRATION (ug/l)
EPA METHOD: 6020

- 10 (BCL, MCL) - 99
- 100 - 999
- 1,000 - 9,999

Boundary of concentration zone is dashed where inferred, queried where uncertain

H-11 <0.50	MONITOR WELL IDENTIFIER CONCENTRATION IN MICROGRAMS PER LITER SECOND QUARTER 2014
<	LESS THAN; COMPOUND WAS NOT DETECTED AT OR ABOVE THE REPORTED DETECTION LIMIT
ug/l	MICROGRAMS PER LITER
J	THE ASSOCIATED VALUE IS AN ESTIMATED QUANTITY.
J+	THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED QUANTITY WITH A POSITIVE BIAS.
	AREA OF UNCERTAIN SHALLOW ZONE SATURATION

N

0 500 1,000
Feet

Note:
Isoconcentration Contours Incorporate Data from Second Quarter 2013

2014 COMPREHENSIVE DATA EVALUATION
MONTROSE, STAUFFER AND OLIN SITES
HENDERSON, NEVADA

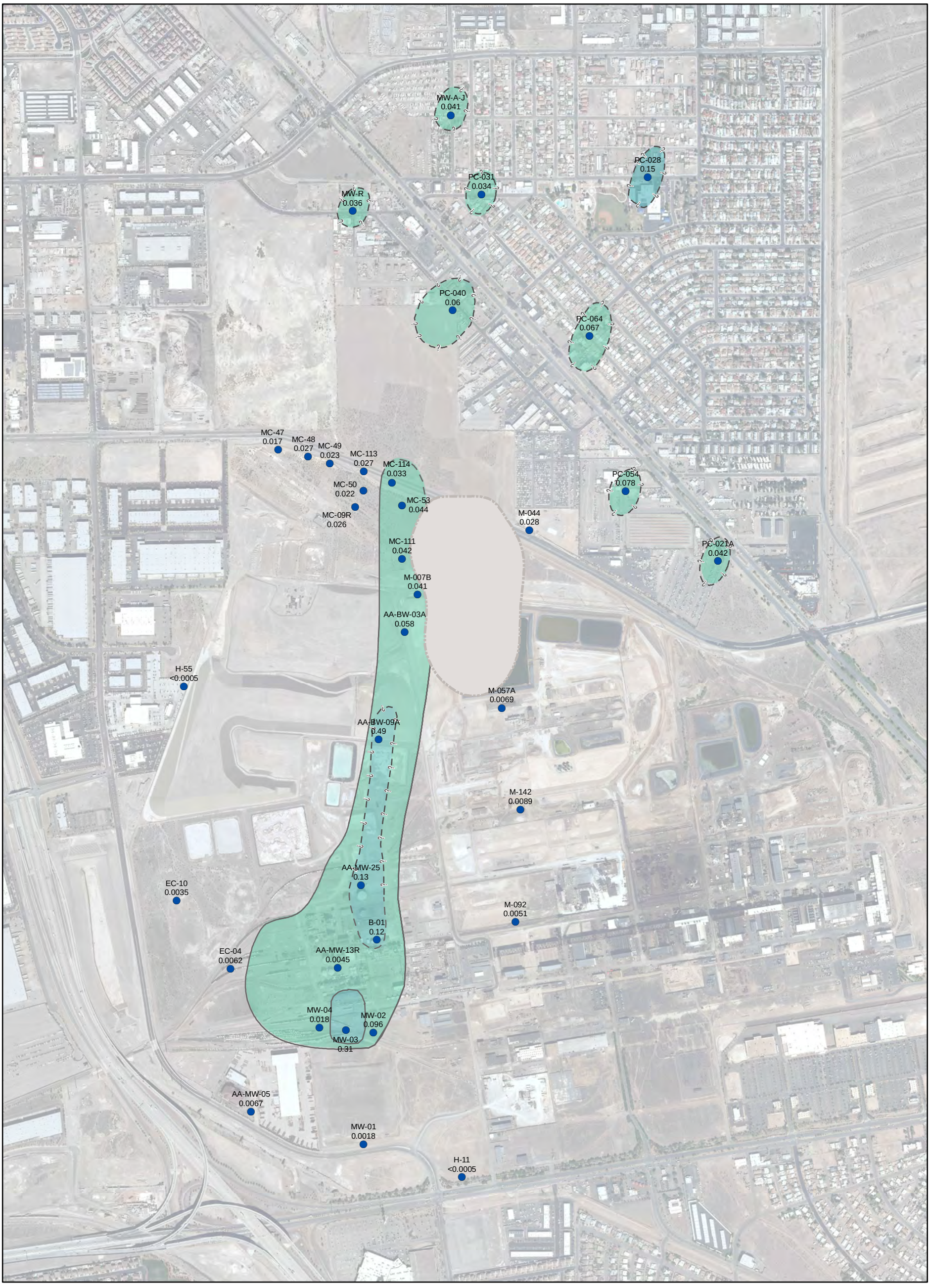
ARSENIC
SHALLOW ZONE
SECOND QUARTER 2014

HARGIS + ASSOCIATES, INC
HYDROGEOLOGY / ENGINEERING

10/31/2014

FIGURE 14

PREP BY NKR REV BY BRW RPT NO 754.95



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EXPLANATION

URANIUM CONCENTRATION (mg/l)
EPA METHOD: 6020

- 0.030 (BCL, MCL) - 0.09
- 0.1 - 0.9
- >1.0

Boundary of concentration zone is dashed where inferred, queried where uncertain

H-11 MONITOR WELL IDENTIFIER
<0.0005 CONCENTRATION IN MILLIGRAMS PER LITER SECOND QUARTER 2014

J — THE ASSOCIATED VALUE IS AN ESTIMATED QUANTITY
J+ — THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED QUANTITY WITH A POSITIVE BIAS.
< — LESS THAN; COMPOUND WAS NOT DETECTED AT OR ABOVE THE REPORTED DETECTION LIMIT
mg/l — MILLIGRAMS PER LITER
AREA OF UNCERTAIN SHALLOW ZONE SATURATION

N

0 500 1,000
Feet

Note:
Isoconcetration Contours Incorporate Data from Second Quarter 2013

2014 COMPREHENSIVE DATA EVALUATION
MONTROSE, STAUFFER AND OLIN SITES
HENDERSON, NEVADA

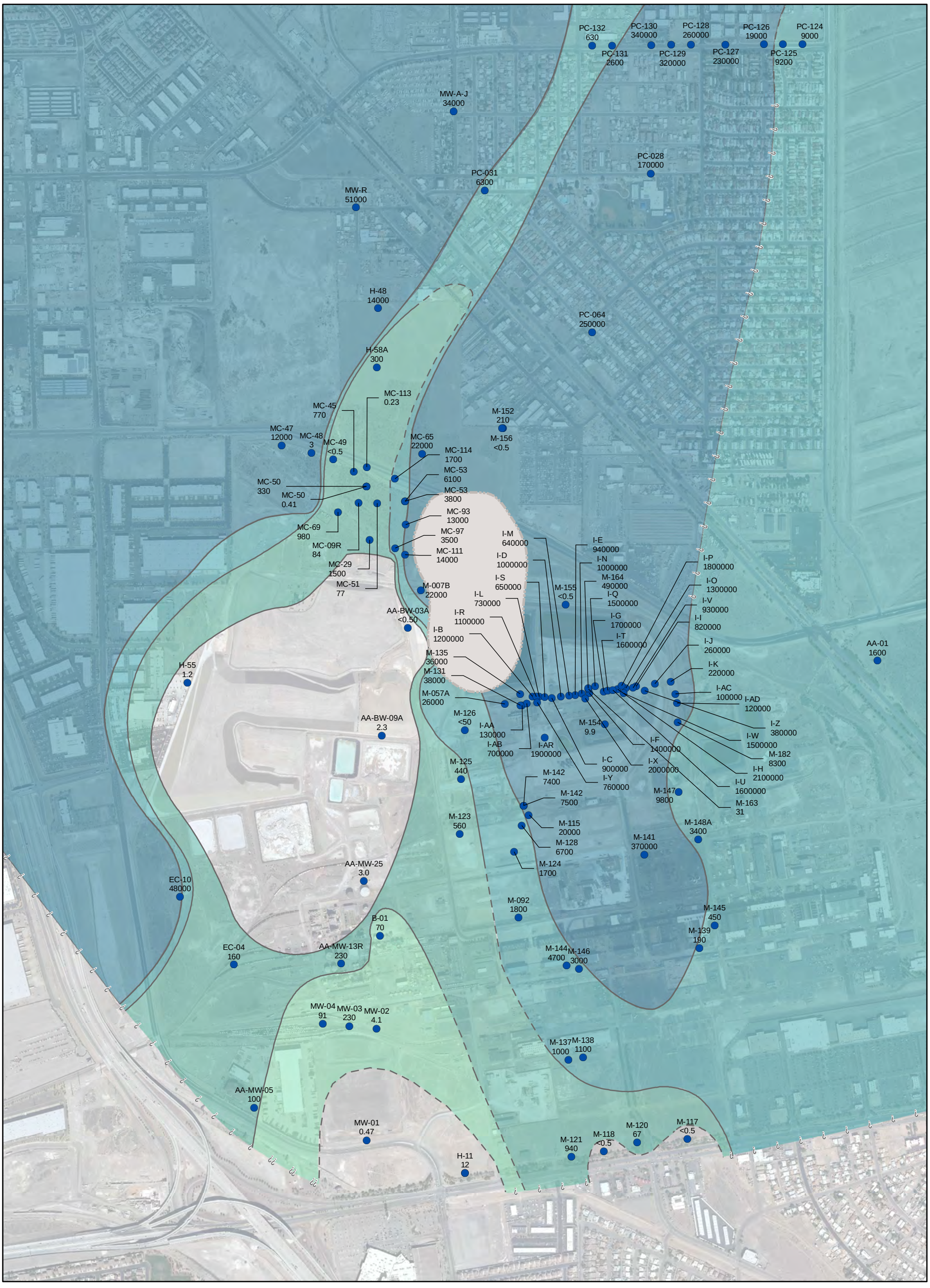
URANIUM
SHALLOW ZONE
SECOND QUARTER 2014

HARGIS + ASSOCIATES, INC
HYDROGEOLOGY / ENGINEERING

10/31/2014

FIGURE 15

PREP BY NKR REV BY BRW RPT NO 754.95



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2011 AERIAL PHOTO

EXPLANATION

PERCHLORATE CONCENTRATION (ug/l)
EPA METHOD: 6850

- 18 (BCL) - 99
- 100 - 999
- 1,000 - 9,999
- >10,000

Boundary of concentration zone is dashed where inferred, queried where uncertain.

H-11 MONITOR WELL IDENTIFIER
12 CONCENTRATION IN MICROGRAMS PER LITER SECOND QUARTER 2014

< LESS THAN; COMPOUND WAS NOT DETECTED AT OR ABOVE THE REPORTED DETECTION LIMIT

ug/L MICROGRAMS PER LITER

J THE ASSOCIATED VALUE IS AN ESTIMATED QUANTITY

AREA OF UNCERTAIN SHALLOW ZONE SATURATION

N

0 500 1,000
Feet

Note:
Isoconcentration Contours Incorporate Data from Second Quarter 2013

2014 COMPREHENSIVE DATA EVALUATION
MONTROSE, STAUFFER AND OLIN SITES

HENDERSON, NEVADA

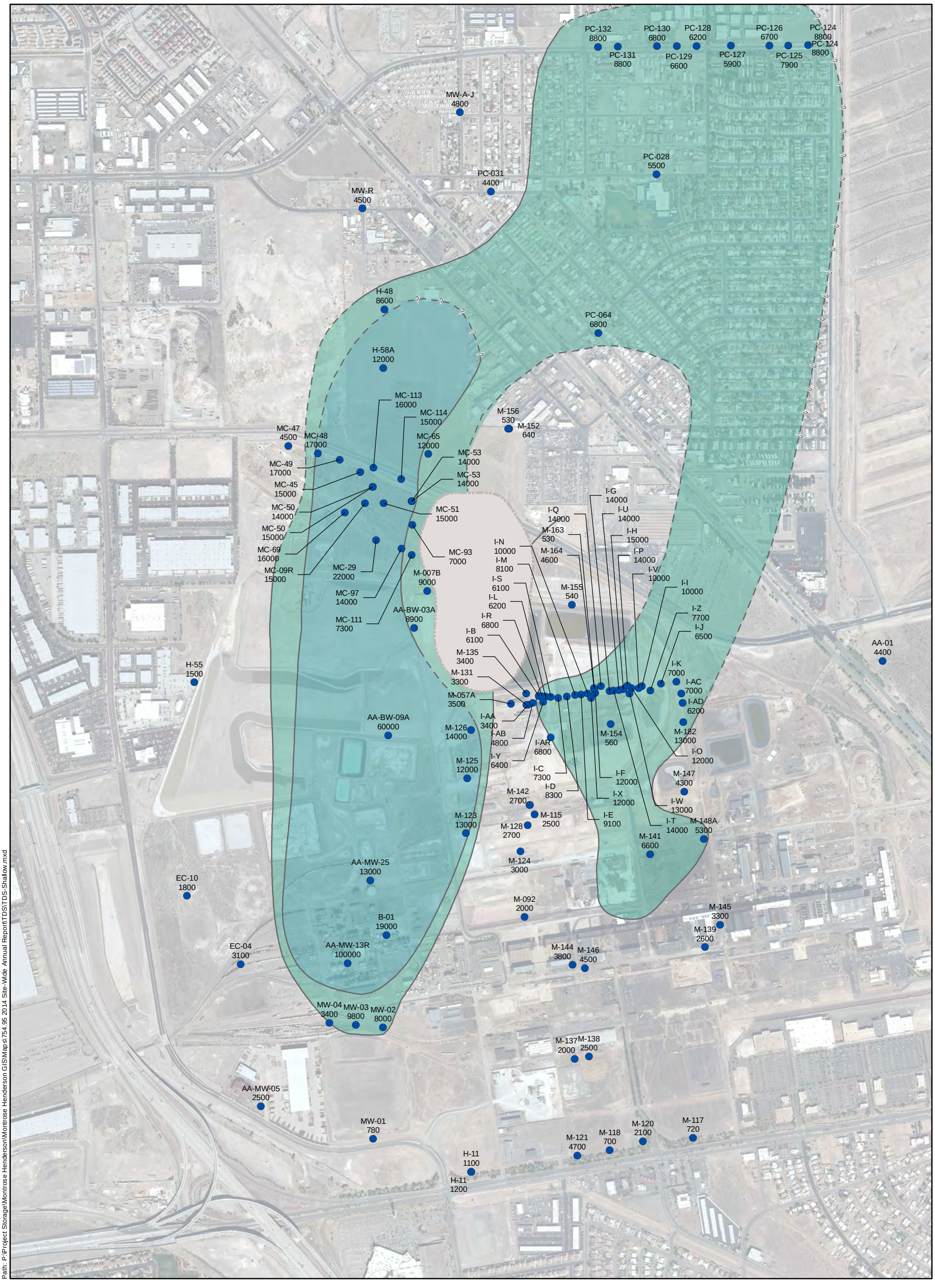
PERCHLORATE
SHALLOW ZONE
SECOND QUARTER 2014

HARGIS + ASSOCIATES, INC
HYDROGEOLOGY / ENGINEERING

10/31/2014

FIGURE 16

PREP BY NKR REV BY BRW RPT NO 754.95



Path: P:\Project Storage\Montrose Henderson\Montrose Henderson GIS\Maps\754.95 2014 Site-Wide Annual Report\TDS\TDS-Shallow.mxd

2011 AERIAL PHOTO

EXPLANATION

TOTAL DISSOLVED SOLIDS CONCENTRATION (mg/l)
EPA METHOD: 160.1

- 5,000 - 9,999
- 10,000 - 99,999

Boundary of concentration zone is dashed where inferred, queried where uncertain

H-11 1200 — MONITOR WELL IDENTIFIER CONCENTRATION IN MILLIGRAMS PER LITER SECOND QUARTER 2014

mg/L — MILLIGRAMS PER LITER

AREA OF UNCERTAIN SHALLOW ZONE SATURATION

J-TDS — INORGANIC ANALYSIS: THE ANALYTICAL RESULT IS ESTIMATED BASED ON TDS CORRECTNESS CHECKS PERFORMED IN ACCORDANCE WITH STANDARD METHODS.

J-CAB — INORGANIC ANALYSIS: THE ANALYTICAL RESULT IS ESTIMATED BASED ON CATION/ANION CORRECTNESS CHECKS PERFORMED IN ACCORDANCE WITH STANDARD METHODS.

N

0 500 1,000
Feet

Note:
There are no primary EPA or NDEP guidance levels defined for TDS.
The secondary EPA MCL is 500 mg/l
Isoconcentration Contours Incorporate Data from Second Quarter 2013

2014 COMPREHENSIVE DATA EVALUATION
MONTROSE, STAUFFER AND OLIN SITES
HENDERSON, NEVADA

TOTAL DISSOLVED SOLIDS
SHALLOW ZONE
SECOND QUARTER 2014

HARGIS + ASSOCIATES, INC
HYDROGEOLOGY / ENGINEERING

10/31/2014

FIGURE 17

PREP BY NKR REV BY BRW RPT NO 754.95

2011 AERIAL PHOTO

Path: \\PHOENIX03\D-Drive\Project Storage\Montrose Henderson\Montrose Henderson GIS\Maps\754.95 2014 Site-Wide Annual Report\Benzene\Benzene-Middle.mxd

EXPLANATION

BENZENE CONCENTRATION (ug/l)
EPA METHOD: 8260B

CP-01 **<2.0**	MONITOR WELL CONCENTRATION IN MICROGRAMS PER LITER SECOND QUARTER 2014
J-	THE ASSOCIATED VALUE IS AN ESTIMATED QUANITIY WITH A NEGATIVE BIAS.
J	THE ASSOCIATED VALUE IS AN ESTIMATED QUANITIY.
<	LESS THAN; COMPOUND WAS NOT DETECTED AT OR ABOVE THE REPORTED DETECTION LIMIT
ug/l	MICROGRAMS PER LITER
MCL	= 5 ug/l
BCL	= 5 ug/l

N

0 400 800
Feet

2014 COMPREHENSIVE DATA EVALUATION
MONTROSE, STAUFFER AND OLIN SITES
HENDERSON, NEVADA

BENZENE
MIDDLE ZONE
SECOND QUARTER 2014

HARGIS + ASSOCIATES, INC
HYDROGEOLOGY / ENGINEERING

9/29/2014

FIGURE 18

PREP BY NKR REV BY BRW RPT NO 754.95

2011 AERIAL PHOTO

Path: \\PHOENIX03\D-Drive\Project Storage\Montrose Henderson\Montrose Henderson GIS\Maps\754.95 2014 Site-Wide Annual Report\CBz\CBz-Middle.mxd

EXPLANATION

CHLOROBENZENE CONCENTRATION (ug/l)
EPA METHOD: 8260B

CP-01	MONITOR WELL IDENTIFIER
<2.0	CONCENTRATION IN MICROGRAMS PER LITER SECOND QUARTER 2014
<	LESS THAN; COMPOUND WAS NOT DETECTED AT OR ABOVE THE REPORTED DETECTION LIMIT
ug/l	MICROGRAMS PER LITER
MCL	= 100 ug/l
BCL	= 100 ug/l

N

0 400 800
Feet

2014 COMPREHENSIVE DATA EVALUATION
MONTROSE, STAUFFER AND OLIN SITES
HENDERSON, NEVADA

CHLOROBENZENE
MIDDLE ZONE
SECOND QUARTER 2014

HARGIS + ASSOCIATES, INC.
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FIGURE 19

PREP BY NKR REV BY BRW RPT NO 754.95

2011 AERIAL PHOTO

Path: P:\Project Storage\Montrose Henderson\Montrose Henderson GIS\Maps\754.95 2014 Site-Wide Annual Report\Chloroform\Chloroform-Middle.mxd

EXPLANATION

CHLOROFORM CONCENTRATION (ug/l)
EPA METHOD: 8260B

● **CP-01**	MONITOR WELL IDENTIFIER
<2.0	CONCENTRATION IN MICROGRAMS PER LITER SECOND QUARTER 2014
<	LESS THAN; COMPOUND WAS NOT DETECTED AT OR ABOVE THE REPORTED DETECTION LIMIT
ug/l	MICROGRAMS PER LITER
MCL	= 80 TTHM ug/l
BCL	= 0.193 ug/l
TTHM	TOTAL TRIHALOMETHANES (BROMODICHLOROMETHANE + BROMOFORM + CHLOROFORM + DIBROMOCHLOROMETHANE)

N

0 400 800
Feet

2014 COMPREHENSIVE DATA EVALUATION
MONTROSE, STAUFFER AND OLIN SITES
HENDERSON, NEVADA

CHLOROFORM
MIDDLE ZONE
SECOND QUARTER 2014

HARGIS + ASSOCIATES, INC.
HYDROGEOLOGY / ENGINEERING

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FIGURE 20

PREP BY NKR REV BY BRW RPT NO 754.95

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2011 AERIAL PHOTO

EXPLANATION

1,2-DICHLOROBENZENE CONCENTRATION (ug/l)
EPA METHOD: 8260B

CP-01 MONITOR WELL IDENTIFIER
2.2 CONCENTRATION IN MICROGRAMS PER LITER SECOND QUARTER 2014
< LESS THAN; COMPOUND WAS NOT DETECTED AT OR ABOVE THE REPORTED DETECTION LIMIT
ug/l MICROGRAMS PER LITER

N

0 500 1,000
Feet

2014 COMPREHENSIVE DATA EVALUATION
MONTROSE, STAUFFER AND OLIN SITES
HENDERSON, NEVADA

1,2-DICHLOROBENZENE
MIDDLE ZONE
SECOND QUARTER 2014

HARGIS + ASSOCIATES, INC
HYDROGEOLOGY / ENGINEERING

10/13/2014

FIGURE 21

PREP BY NKR REV BY BRW RPT NO 754.95

2011 AERIAL PHOTO

Path: \\PHOENIX03\D-Drive\Project Storage\Montrose Henderson\Montrose Henderson GIS\Maps\754.95 2014 Site-Wide Annual Report\14DCB\14DCB-Middle.mxd

EXPLANATION

1,4-DICHLOROBENZENE CONCENTRATION (ug/l)
EPA METHOD: 8260B

● **CP-01** **1.5**	MONITOR WELL IDENTIFIER CONCENTRATION IN MICROGRAMS PER LITER SECOND QUARTER 2014
<	LESS THAN; COMPOUND WAS NOT DETECTED AT OR ABOVE THE REPORTED DETECTION LIMIT
MCL	= 75 ug/l
BCL	= 75 ug/l
ug/l	MICROGRAMS PER LITER

N

0 400 800
Feet

2014 COMPREHENSIVE DATA EVALUATION
MONTROSE, STAUFFER AND OLIN SITES
HENDERSON, NEVADA

1,4-DICHLOROBENZENE
MIDDLE ZONE
SECOND QUARTER 2014

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FIGURE 22

PREP BY NKR REV BY BRW RPT NO 754.95

Path: \\PHOENIX03\D-Drive\Project Storage\Montrose Henderson\Montrose Henderson GIS\Maps\754.95 2014 Site-Wide Annual Report\alpha BHC\ABHC-Middle.mxd

2011 AERIAL PHOTO

EXPLANATION

ALPHA-BHC CONCENTRATION (ug/l)
EPA METHOD: 8081A

● **CP-01** **0.050**	MONITOR WELL IDENTIFIER CONCENTRATION IN MICROGRAMS PER LITER SECOND QUARTER 2014
ug/l	MICROGRAMS PER LITER
<	LESS THAN; COMPOUND WAS NOT DETECTED AT OR ABOVE THE REPORTED DETECTION LIMIT
MCL	= None established
BCL	= 11 ug/l

N

0 400 800
Feet

2014 COMPREHENSIVE DATA EVALUATION
MONTROSE, STAUFFER AND OLIN SITES
HENDERSON, NEVADA

ALPHA-BHC
MIDDLE ZONE
SECOND QUARTER 2014

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FIGURE 23

PREP BY NKR REV BY BRW RPT NO 754.95

Path: \\PHOENIX03\D-Drive\Project Storage\Montrose Henderson\Montrose Henderson GIS\Maps\754.95 2014 Site-Wide Annual Report\beta BHC\BBHC-Middle.mxd

2011 AERIAL PHOTO

EXPLANATION

BETA-BHC CONCENTRATION (ug/l)
EPA METHOD: 8081A

CP-01 **0.044**	MONITOR WELL IDENTIFIER CONCENTRATION IN MICROGRAMS PER LITER SECOND QUARTER 2014
<	LESS THAN; COMPOUND WAS NOT DETECTED AT OR ABOVE THE REPORTED DETECTION LIMIT
ug/l	MICROGRAMS PER LITER
MCL BCL	= None established = 2.19 ug/l
J-	THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED QUANTITY WITH A NEGATIVE BIAS.
UJ	THE ASSOCIATED DETECTION LIMIT VALUE IS AN ESTIMATED QUANTITY.

N

0 400 800
Feet

2014 COMPREHENSIVE DATA EVALUATION
MONTROSE, STAUFFER AND OLIN SITES
HENDERSON, NEVADA

BETA-BHC
MIDDLE ZONE
SECOND QUARTER 2014

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FIGURE 24

PREP BY NKR REV BY BRW RPT NO 754.95

Path: \\PHOENIX03\D-Drive\Project Storage\Montrose Henderson\Montrose Henderson GIS\Maps\754.95 2014 Site-Wide Annual Report\gamma BHC\GBHC-Middle.mxd

2011 AERIAL PHOTO

EXPLANATION

GAMMA-BHC CONCENTRATION (ug/l)
EPA METHOD: 8081A

CP-01	MONITOR WELL IDENTIFIER
0.0089	CONCENTRATION IN MICROGRAMS PER LITER SECOND QUARTER 2014
<	LESS THAN; COMPOUND WAS NOT DETECTED AT OR ABOVE THE REPORTED DETECTION LIMIT
ug/l	MICROGRAMS PER LITER
MCL	= 0.2 ug/l
BCL	= 0.2 ug/l

N

0 400 800
Feet

2014 COMPREHENSIVE DATA EVALUATION
MONTROSE, STAUFFER AND OLIN SITES
HENDERSON, NEVADA

GAMMA-BHC
MIDDLE ZONE
SECOND QUARTER 2014

HARGIS + ASSOCIATES, INC
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FIGURE 25

PREP BY NKR REV BY BRW RPT NO 754.95

Path: \\PHOENIX03\D-Drive\Project Storage\Montrose Henderson\Montrose Henderson GIS\Maps\754.95 2014 Site-Wide Annual Report\Arsenic\AS-Middle.mxd

2011 AERIAL PHOTO

EXPLANATION

ARSENIC CONCENTRATION (ug/l)
EPA METHOD: 6020

● **CP-01** **53**	MONITOR WELL IDENTIFIER CONCENTRATION IN MILLIGRAMS PER LITER SECOND QUARTER 2014
<	LESS THAN; COMPOUND WAS NOT DETECTED AT OR ABOVE THE REPORTED DETECTION LIMIT
ug/l	MICROGRAMS PER LITER
MCL	= 10 ug/l
BCL	= 10 ug/l

N

0 400 800
Feet

2014 COMPREHENSIVE DATA EVALUATION
MONTROSE, STAUFFER AND OLIN SITES
HENDERSON, NEVADA

ARSENIC
MIDDLE ZONE
SECOND QUARTER 2014

HARGIS + ASSOCIATES, INC
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FIGURE 26

PREP BY NKR REV BY BRW RPT NO 754.95

Path: \\PHOENIX03\D-Drive\Project Storage\Montrose Henderson\Montrose Henderson GIS\Maps\754.95 2014 Site-Wide Annual Report\Uranium\Uranium-Middle.mxd

2011 AERIAL PHOTO

EXPLANATION

URANIUM CONCENTRATION (mg/l)
EPA METHOD: 6020

● **CP-01**	MONITOR WELL IDENTIFIER
0.0023	CONCENTRATION IN MILLIGRAMS PER LITER SECOND QUARTER 2014
<	LESS THAN; COMPOUND WAS NOT DETECTED AT OR ABOVE THE REPORTED DETECTION LIMIT
mg/l	MILLIGRAMS PER LITER
MCL	= 0.030 mg/l
BCL	= 0.030 mg/l

N

0 400 800
Feet

2014 COMPREHENSIVE DATA EVALUATION
MONTROSE, STAUFFER AND OLIN SITES
HENDERSON, NEVADA

URANIUM
MIDDLE ZONE
SECOND QUARTER 2014

HARGIS + ASSOCIATES, INC.
HYDROGEOLOGY / ENGINEERING

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FIGURE 27

PREP BY NKR REV BY BRW RPT NO 754.95

Path: P:\Project Storage\Montrose Henderson\Montrose Henderson GIS\Maps\754.95 2014 Site-Wide Annual Report\Perchlorate\Perc-Middle.mxd

2011 AERIAL PHOTO

EXPLANATION

PERCHLORATE CONCENTRATION (ug/l)
EPA METHOD: 6850

CP-01 **7.2**	MONITOR WELL IDENTIFIER CONCENTRATION IN MICROGRAMS PER LITER SECOND QUARTER 2014
ug/L	MICROGRAMS PER LITER
MCL	NOT ESTABLISHED
BCL	= 18 ug/l

N

0 500 1,000
Feet

2014 COMPREHENSIVE DATA EVALUATION
MONTROSE, STAUFFER AND OLIN SITES

HENDERSON, NEVADA

PERCHLORATE
MIDDLE ZONE
SECOND QUARTER 2014

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FIGURE 28

PREP BY NKR REV BY BRW RPT NO 754.95

Path: P:\Project Storage\Montrose Henderson\Montrose Henderson GIS\Maps\754.95 2014 Site-Wide Annual Report\TDS\TDS-Middle.mxd

2011 AERIAL PHOTO

EXPLANATION

TOTAL DISSOLVED SOLIDS CONCENTRATION (mg/l)
STANDARD METHOD: 2540C

● CP-01 760	MONITOR WELL IDENTIFIER CONCENTRATION IN MILLIGRAMS PER LITER SECOND QUARTER 2014
mg/l	MILLIGRAMS PER LITER
MCL	NOT ESTABLISHED
BCL	NOT ESTABLISHED

N

0 500 1,000
Feet

2014 COMPREHENSIVE DATA EVALUATION
MONTROSE, STAUFFER AND OLIN SITES
HENDERSON, NEVADA

TOTAL DISSOLVED SOLIDS
MIDDLE ZONE
SECOND QUARTER 2014

HARGIS + ASSOCIATES, INC.
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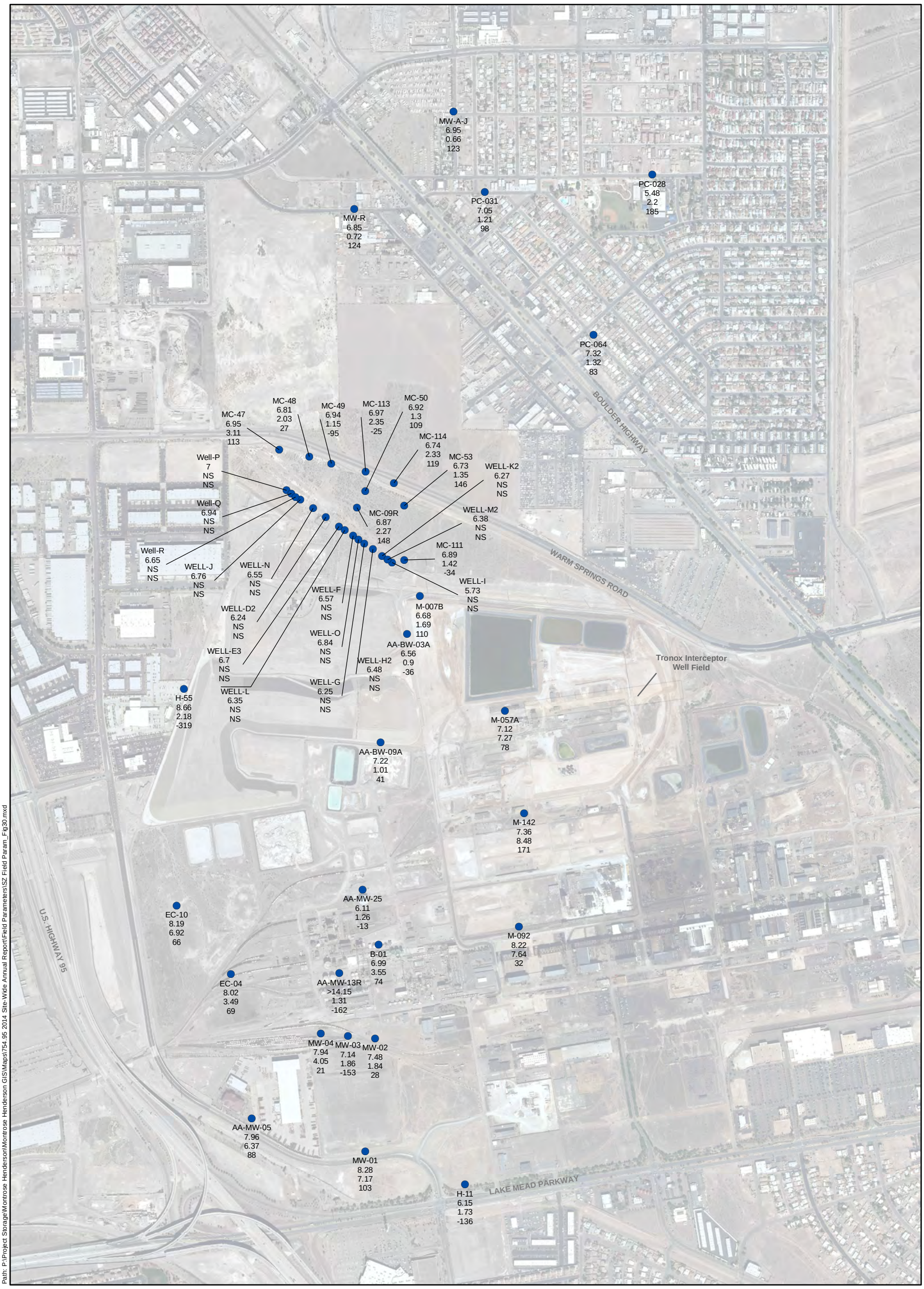
9/30/2014

FIGURE 29

PREP BY NKR REV BY BRW RPT NO 754.95



Path: P:\Project Storage\Montrose Henderson\Montrose Henderson GIS\Maps\754.95 2014 Site-Wide Annual Report\Field Parameters\SZ Field Param_Fig30.mxd

EXPLANATION

AA-MW-05	Shallow Zone Location
● 7.96	pH
6.37	D.O. (mg/L)
88	ORP (mV)

N

0 500 1,000 Feet

NOTE:
D.O. = Dissolved Oxygen in milligrams per liter (mg/l)
ORP = Oxidation-reduction potential in millivolts (mV)

2014 COMPREHENSIVE DATA EVALUATION
MONTROSE, STAUFFER AND OLIN SITES
HENDERSON, NEVADA

SHALLOW ZONE FIELD PARAMETERS
SECOND QUARTER 2014

HARGIS + ASSOCIATES, INC
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10/31/2014

FIGURE 30

PREP BY NKR REV BY BRW RPT NO 754.95

Path: P:\Project Storage\Montrose Henderson\Montrose Henderson GIS\Maps\754.95 2014 Site-Wide Annual Report\Field Parameters\MZ Field Param_Fig31.mxd

2011 AERIAL PHOTO

EXPLANATION

CP-01	Middle Zone Location
6.81	pH
5.31	D.O. (mg/L)
127	ORP (mV)

N

0 500 1,000 Feet

NOTE:
D.O. = Dissolved Oxygen in milligrams per liter (mg/l)
ORP = Oxidation-reduction potential in millivolts (mV)

2014 COMPREHENSIVE DATA EVALUATION
MONTROSE, STAUFFER AND OLIN SITES
HENDERSON, NEVADA

MIDDLE ZONE FIELD PARAMETERS
SECOND QUARTER 2014

HARGIS + ASSOCIATES, INC.
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FIGURE 31

PREP BY NKR REV BY BRW RPT NO 754.95

Path: P:\Project Storage\Montrose Henderson\Montrose Henderson GIS\Maps\754.95 2014 Site-Wide Annual Report\Field Parameters\DZ Field Param_Fig32.mxd

EXPLANATION

MW-08	Deep Zone Location
8.41	pH
8.52	D.O. (mg/L)
118	ORP (mV)

N

0 500 1,000 Feet

NOTE:
D.O. = Dissolved Oxygen in milligrams per liter (mg/l)
ORP = Oxidation-reduction potential in millivolts (mV)

2014 COMPREHENSIVE DATA EVALUATION
MONTROSE, STAUFFER AND OLIN SITES
HENDERSON, NEVADA

DEEP ZONE FIELD PARAMETERS
SECOND QUARTER 2014

HARGIS + ASSOCIATES, INC.
HYDROGEOLOGY / ENGINEERING

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FIGURE 32

PREP BY NKR REV BY BRW RPT NO 754.95

APPENDIX A

ANALYTICAL LABORATORY REPORTS

(PLEASE SEE ENCLOSED CD)

APPENDIX B

DATA VALIDATION SUMMARY REPORT No. 46

(PLEASE SEE ENCLOSED CD)

APPENDIX C

CHEMICAL DISTRIBUTIONS

2009 THROUGH 2013

(PLEASE SEE ENCLOSED CD)

APPENDIX D

FOLLOW-UP INVESTIGATION REPORT OF MONITORING WELLS AA-BW-09A AND AA-MW-13R

Investigation Report
For Presence of DNAPL at Shallow Zone
Monitoring Wells AA-BW-09A and AA-MW-13R

Introduction and Background

At the request of Montrose Chemical Corporation of California (Montrose), AECOM Technical Services, Inc. (AECOM) evaluated two Shallow Zone monitoring wells in June 2014 for the presence of dense non-aqueous phase liquid (DNAPL) in the vicinity of the former Montrose facility in Henderson, Nevada. During groundwater monitoring activities in early June 2014, Converse Consultants reported the possible presence of DNAPL at Shallow Zone monitoring wells AA-BW-09A and AA-MW-13R using field interface probe screening methods used for the annual site-wide groundwater monitoring program. However, use of single line of evidence (e.g., interface probe) can lead to a false positive identification of DNAPL. A definitive conclusion regarding the presence of DNAPL typically requires multiple lines of evidence. Therefore, on June 24, 2014, AECOM further evaluated these two Shallow Zone monitoring wells for the presence of DNAPL using more precise standardized gauging and purging procedures developed for the Montrose's DNAPL Purge and Monitoring program initiated in September 2011. Montrose developed these procedures to assure that any suspected presence of DNAPL in the site monitoring wells is conclusively confirmed.

Description of Shallow Zone Wells AA-BW-09A and AA-MW-13R

Wells AA-BW-09A and AA-MW-13R are screened within the Shallow Zone (the water-bearing unit above the Middle Zone), and the locations of these wells in relation to the DNAPL monitoring program wells are shown in **Figure 1**. Shallow Zone monitoring well AA-BW-09A is located at the southern boundary of the Basic Remediation Company (BRC) Corrective Action Management Unit (CAMU) and north of the Middle Zone DNAPL monitoring program wells. Well AA-BW-09A is screened from 33 to 53 feet bgs, and dissolved concentrations of 2,200 micrograms per liter (ug/L) benzene and 8,800 ug/L chlorobenzene were detected at this well in March 2011.

Shallow Zone monitoring well AA-MW-13R is located west of the Montrose Former Plant Site and within the area containing the Middle Zone DNAPL monitoring program wells. Well AA-MW-13R is screened from 31.5 to 61.5 feet bgs, and dissolved concentrations of 81,000 ug/L benzene and 26,000 ug/L chlorobenzene were detected at this well in May 2013. A high total dissolved solids (TDS) concentration of 110,000 mg/L was also detected at this well in May 2013.

DNAPL Gauging and Purging Procedures

DNAPL gauging and purging procedures were previously established in the interim *DNAPL Purge and Monitoring Program Workplan*, dated September 16, 2011. These procedures are briefly summarized as follows:

<u>Gauging Procedures:</u> Shallow Zone monitoring wells AA-BW-09A and AA-MW-13R were gauged for the presence of DNAPL using a Solinst Model 122 interface probe (IP) and a product-detecting paste (Kolor Kut). The IP detects DNAPL through changes in electrical conductivity. The Kolor Kut paste is applied to a water measuring tape and changes color in the presence of DNAPL.

<u>Purging Procedures:</u> Shallow Zone monitoring wells AA-BW-09A and AA-MW-13R were purged using a stainless steel QED bladder pump with a new Teflon bladder and discharge tubing. The bottom-filling pump was lowered to the bottom of the well and raised approximately 2 inches (to pump off the bottom), and total fluids were extracted at a rate of approximately 400 to 600 milliliters per minute. Total fluids were pumped into a clear graduated container for volumetric measurement of

recovered fluids. The pump was operated using compressed nitrogen and was decontaminated before and after use.

DNAPL Gauging and Purging Results

On June 24, 2014, monitoring wells AA-BW-09A and AA-MW-13R were evaluated for the presence of DNAPL using the above gauging and purging procedures. Results of this evaluation are provided in **Table 1** and summarized below:

AA-BW-09A

Shallow Zone monitoring well AA-BW-09A was gauged and purged on June 24, 2014. A total of 5 gallon of liquid, all groundwater, was recovered during purging. Results are summarized as follows:

- No DNAPL was detected by the interface probe or the Kolor Kut paste (no color change).
- No DNAPL was recovered during purging from the bottom of the well.
- The purged groundwater was not discolored and exhibited no chemical odor.
- There was no chemical sheen on the groundwater.

Given the results of the visual field evaluation and the low chemical concentrations detected in the well in the past, no samples were submitted for chemical analysis. This well is located in an area where no DNAPL has previously been detected in any water-bearing zone, and this well is screened in the Shallow Zone where no DNAPL has previously been detected. The dissolved concentrations previously detected at this well are substantially lower than those exhibited by the Middle Zone wells containing DNAPL. Based on the multiple lines of evidence, there is no DNAPL present at monitoring well AA-BW-09A.

AA-MW-13R

Shallow Zone monitoring well AA-MW-13R was gauged and purged on June 24, 2014. A total of 6.5 gallons of liquid, all groundwater, was recovered during purging. Photographs of the purged groundwater from the bottom of AA-MW-13R are provided in **Attachment A**. Results are summarized as follows:

- No DNAPL was detected by the interface probe or the Kolor Kut paste (no color change).
- No DNAPL was recovered during purging from the bottom of the well.
- The purged groundwater was discolored yellow and exhibited a slight chemical odor.
- There was no chemical sheen on the groundwater.
- There was no phase separation when mixed with deionized water.

Given the results of the visual field evaluation, no samples were submitted for chemical analysis. This well is screened in the Shallow Zone where no DNAPL has previously been detected. The dissolved concentrations previously detected at this well are lower than those exhibited by the Middle Zone wells containing DNAPL. Based on the multiple lines of evidence listed above, there is no DNAPL present at monitoring well AA-MW-13R.

FIGURE

Legend:

- OLIN CORPORATION SITE PROPERTY BOUNDARY
- NEVADA ENVIRONMENTAL RESPONSE TRUST (NERT) FACILITY PROPERTY BOUNDARY
- BASIC REMEDIATION COMPANY CORRECTIVE ACTION MANAGEMENT UNIT (CAMU)
- AA-BW-09A — SHALLOW ZONE WELLS CHECKED FOR PRESENCE OF DNAPL
- MC-MW-36 — EXISTING DNAPL MONITORING WELLS (MIDDLE ZONE)
- M-123 — EXISTING MONITORING WELLS (MIDDLE ZONE)

References:

1. GROUNDWATER MONITORING WELLS SURVEY BY HARGIS & ASSOCIATES, DATED MAY 26, 2004.
2. PARCEL BOUNDARY INFORMATION FROM CLARK COUNTY, NEVADA'S ONLINE ARCINFO GIS DATA SET. 2004. PROPERTY BOUNDARIES APPROXIMATE.
3. SATELLITE/AERIAL PHOTOS REFERENCED:
   USGS GEOREFERENCED SATELLITE IMAGERY, JUNE 1994.
   CONTINENTAL AERIAL, APRIL 1982.
   CONTINENTAL AERIAL, 1988.
   TERRASERVER IMAGERY, 2002.
4. FORMER PLANT SITE FEATURES BASED FROM SECOR INTERNATIONAL INC., MAP DATED FEBRUARY 26, 2001, WITH THE ADDITION OF ABOVE REFERENCED IMAGERY.
5. UMCF WELLS CP-02 AND MC-MW-43 WERE SURVEYED BY ATKINS SURVEYORS ON DECEMBER 17, 2012.

NORTH

0 200 400 FEET

SCALE: 1"= 400'

AA-BW-09A and AA-MW-13R Well Location Map

Date: 07-14	Former Montrose Facility, Henderson, NV	Figure
Project No. 60287143	AECOM	1

FILE NAME: Z:\ETY\MONTROSE\HENDERSON\SITEMAPS\2014\SITEMAPS.0714\60287143.12 WLM SITE MAP FIGURE 1.0714.DWG (1:1)

TABLE

Table 1
AA-MW-13R and AA-BW-09A
Henderson, Nevada

Well I.D.	Date	Depth to Water *(feet)*	Depth to DNAPL, Interface Probe *(feet)*	Depth to Bottom *(feet)*	Apparent DNAPL Thickness *(feet)*		Volume DNAPL Recovered *(gallons)*	Volume of Water Recovered *(gallons)*	Comments
					Interface Probe	Kolor Kut Paste			
Wells Gauged and Purged									
AA-MW-13R	6/24/2014	38.62	NR	64.80	0.0	0.0	0.00	6.50	Clear groundwater with yellow tint; slight chemical odor No DNAPL and no phase separation
AA-BW-09A	6/24/2014	46.91	NR	54.20	0.0	0.0	0.00	5.00	Clear groundwater with no odor; no DNAPL
TOTAL VOLUME RECOVERED							**0.00**	**11.50**	

Notes
NR = No reading as indicated by the Interface Probe

Attachment A

Photographs of the purged groundwater removed from the bottom of well AA-MW-13R.

Photo A-1
Groundwater Recovered from Bottom of Well AA-MW-13R
Henderson, Nevada

Photo A-2
Groundwater Recovered from Bottom of Well AA-MW-13R
Henderson, Nevada

Photo A-3
AA-MW-13R Groundwater Mixed with Deionized Water
(No Phase Separation)
Henderson, Nevada