

Honeywell

Health, Safety, Environment and Remediation
101 Columbia Turnpike MEY-3
Morristown, NJ 07962
(973) 455-4279

August 26, 2008

By FedEx

Mark W. Lucas
Case Manager - LUST Enforcement Unit
TPD/Corrective Action Section
Arizona Department of Environmental Quality
1110 W. Washington Street, #4415A-3
Phoenix, AZ 85007

Re: *Second Quarter Status Report for 2008*
LUST File #0393.02-.10, .15-.17
Facility ID #0-002227

Dear Mr. Lucas:

Honeywell is submitting this *Second Quarter Status Report for 2008* in accordance with requirements in the Arizona Department of Environmental Quality's Corrective Action Plan Final Approval letter dated October 7, 2005, and Corrective Action Plan modification approval letters dated December 20, 2005, March 7, 2006, September 28, 2006, March 27, 2007, and February 29, 2008.

If you should have any questions or require discussion, please contact me at 973-455-4279 or Jeff Mieth at 480-377-6265. For your convenience, my e-mail address is troy.j.meyer@honeywell.com and Jeff's is jeffrey.mieth@ch2m.com.

Sincerely,



Troy J. Kennedy
Honeywell - Health, Safety, Environment and Remediation
Remediation Portfolio Director

Mr. Lucas
August 26, 2008
Page 2 of 2

Copies w/ attachment:

Leah Butler, USEPA
Sherri Zendri, ADEQ (electronic copy)
Wayne Miller, ADEQ
Rebecca Godley, City of Phoenix Aviation
Donn Stoltzfus, City of Phoenix
Joe Francis, City of Phoenix Aviation (electronic copy)
Mark Kuhn, Hydro Geo Chem, Inc. (electronic copy)
Peter Mock, Peter Mock Groundwater Consulting (electronic copy)
Mary Moore, Lindon Park Neighborhood Association
Mario Castaneda, Gateway Community College
Rick Loewen, Honeywell

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
 Tank Programs Division
 Underground Storage Tank (UST) Program

ADEQ use only

DOCUMENT SUBMITTAL FORM

[use as **COVER SHEET** when submitting the documents listed below]

UST FACILITY INFORMATION:

Honeywell Engines Product Center Facility Name 0-002227 Facility ID
 111 South 34th Street Street Address 0393.02 - .10, .15-.17 LUST Number(s)
 Phoenix City 85034 Zip Code Maricopa County

PERSON RESPONSIBLE FOR SUBMITTING DOCUMENT:

Troy Kennedy Name
 101 Columbia Turnpike Street Address Morristown, NJ City 07962 Zip Code
(973) 455-4297 Telephone (daytime)

PERSON CATEGORY

ADEQ ID #

- UST owner 4875
- UST operator _____
- UST volunteer _____
- Property owner _____

LUST, RELEASE OR CORRECTIVE ACTION DOCUMENT: (check all that apply; * indicates document requires signed certification statement)

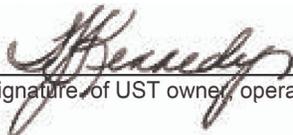
- * 14 day report (suspected release)
- * 90 day report (suspected release)
- * 14 day report (confirmed release)
- * 90 day report (confirmed release)
- * LUST site classification form
- * Site characterization report (SCR)
- * Free Product Report
- * Tier 2 risk evaluation
- * Tier 3 risk evaluation
- * Corrective action plan (CAP)
- * Periodic site status report (includes groundwater monitoring reports)
- * LUST case closure request w/corrective action completion report
- * Addendum (check related document type)
- Other: (please specify)

UST DOCUMENT: **SAF DOCUMENT:** Application #: _____

INFORMAL APPEAL: LUST SAF UST

CERTIFICATION STATEMENT OF UST OWNER, OPERATOR OR VOLUNTEER: (for only documents designated above by *)

"I hereby certify, under penalty of law, which this submittal and all attachments are, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are penalties for submitting false information, including the possibility of a fine and imprisonment for knowing violations."


 Signature of UST owner, operator or volunteer

08/26/08
 Date

Troy J. Kennedy
 Name of UST owner, operator or volunteer (printed)

Remediation Portfolio Director
 Title

Final Report

Second Quarter Status Report for 2008

Honeywell 34th Street Facility
Facility ID No. 0-002227
LUST File Nos. 0393.02-.10, .15-.17

Prepared for

Honeywell International Inc.

August 2008



Expires 6-30-2009

Prepared by



CH2MHILL

Contents

Section	Page
Acronyms and Abbreviations	v
1.0 Introduction	1-1
1.1 Scope and Purpose	1-1
1.2 Background	1-1
1.3 Summary of Activities	1-2
2.0 Site Characterization Activities.....	2-1
2.1 Groundwater Elevations.....	2-1
2.2 Free Product	2-2
2.2.1 June 2008 Free-product Thicknesses.....	2-3
2.2.2 Historical Free-product Thicknesses and Extent	2-4
2.2.3 Corrective Action Plan Metric Exceedances.....	2-4
2.3 Groundwater Quality.....	2-5
3.0 Site Remediation Activities	3-1
3.1 Free-product Recovery.....	3-1
3.2 Biologically-enhanced Soil-vapor Extraction.....	3-1
3.2.1 BSVE Construction Activities - Honeywell Facility.....	3-1
3.2.2 BSVE Construction Activities - PSHIA	3-2
3.2.3 BSVE Permitting.....	3-3
3.2.4 BSVE Monitoring Activities.....	3-3
4.0 Summary of Planned Work.....	4-1
5.0 Summary of Problems and Delays	5-1
6.0 Status of Deliverables	6-1
7.0 References.....	7-1

Tables

2-1	Comparison between March 2008 and June 2008 Water-level Elevations, Second Quarter 2008
2-2	Summary of Free-product Thickness Measurements, Second Quarter 2008
2-3	Summary of Free-product Thickness Measurements for Monitoring Well ASE-67A, Second Quarter 2008
2-4	Comparison of Historical Maximum Free-product Thickness Measurements to June 2008 Free-product Thickness Measurements, Second Quarter 2008
3-1	Summary of Free-product Recovery, Second Quarter 2008
3-2	Phoenix Sky Harbor International Airport Soil-vapor Monitoring Well Field Parameter Results, Second Quarter 2008

Figures

- 1-1 Facility Location and Layout
- 2-1 Water Level Contours, June 2008, Sub-unit A
- 2-2 Free-product Thickness, June 2008
- 2-3 Free-product Thickness (Maximum)
- 3-1 Existing BSVE Wells and Existing and Proposed Process/Sentinel Wells as of June 30, 2008
- 3-2 New Soil Vapor and Groundwater Monitoring Well Locations at PSHIA as of June 30, 2008
- 3-3 Locations of Wells Used for Soil Vapor Monitoring and Locations of Subsurface Utility Vaults

Appendix

- A Hydrographs

Acronyms and Abbreviations

%LEL	percent of lower explosive limit
ADEQ	Arizona Department of Environmental Quality
BSVE	biologically-enhanced soil-vapor extraction
CAP	Corrective Action Plan
CO ₂	carbon dioxide
COP	City of Phoenix
DBR	Design Basis Report
DSD	Development Services Department
Facility	Honeywell 34 th Street Facility
Honeywell	Honeywell International Inc.
LUST	leaking understand storage tank
LUST FSP	Leaking Underground Storage Tank Field Sampling Plan
O ₂	oxygen
O&M	operation and maintenance
OU	Operable Unit
PSHIA	Phoenix Sky Harbor International Airport
USEPA	United States Environmental Protection Agency
UST	underground storage tank
VOC	volatile organic compound

Introduction

1.1 Scope and Purpose

This quarterly status report summarizes the ongoing contaminant characterization and remediation activities conducted during the second quarter 2008 for Leaking Underground Storage Tank (LUST) File Nos. 0393.02-10, .15-17, Facility ID No. 0-002227 at the Honeywell International Inc. (Honeywell) 34th Street Facility (Facility or Honeywell facility).

This report is being submitted pursuant to reporting requirements in the Arizona Department of Environmental Quality (ADEQ) letter, dated October 7, 2005 (ADEQ, 2005a), issuing final approval of Honeywell's Corrective Action Plan (CAP) (CH2M HILL, 2004a-b) and in accordance with ADEQ's CAP modification approval letters dated December 20, 2005 (ADEQ, 2005b); March 7, 2006 (ADEQ, 2006a); September 28, 2006 (ADEQ, 2006b); March 27, 2007 (ADEQ, 2007); and February 29, 2008 (ADEQ, 2008a).

1.2 Background

The Honeywell facility is located within Operable Unit (OU) 2 at 111 South 34th Street in Phoenix, Arizona. Figure 1-1 illustrates the Facility location and layout. (All figures are provided at the end of this report.) The Honeywell facility has been used as a manufacturing and testing facility for the production of aircraft engines and auxiliary equipment since 1951.

The United States Environmental Protection Agency (USEPA) and ADEQ's Superfund Programs Section are currently overseeing the characterization and remediation of soil and groundwater contaminated with chlorinated volatile organic compounds (VOCs) within the Motorola 52nd Street Superfund Site. ADEQ has been delegated the lead for facility investigations within OU2, including the Honeywell facility. During the Superfund investigation, petroleum hydrocarbons were detected at the Honeywell facility, and a parallel investigation was initiated under ADEQ's Underground Storage Tank (UST) Corrective Action Section. Since that time, Honeywell has investigated the extent of contamination, initiated corrective actions to recover free product, and developed a CAP. The approved CAP (CH2M HILL, 2004a-b) recommends the following remedial actions:

- Remediate soil contamination in the vadose zone, the petroleum hydrocarbon smear zone, and the free-phase petroleum hydrocarbon pool using biologically-enhanced soil-vapor extraction (BSVE).
- Supplement BSVE remediation by selectively removing free product from existing groundwater monitoring wells.
- Treat the remaining dissolved-phase groundwater contamination with monitored natural attenuation after aggressive source removal is complete. ADEQ is withholding

approval of this remediation technology pending completion of free-product removal to the maximum extent practicable (ADEQ, 2005a).

1.3 Summary of Activities

This quarterly status report summarizes the activities conducted or completed as part of the UST corrective action from April 2008 through June 2008:

- Honeywell began mobilizing the BSVE construction team on April 14, 2008. During the second quarter 2008 (through June 30, 2008), Honeywell installed 24 BSVE injection/extraction wells, nine BSVE process monitoring wells, and seven sentinel soil-vapor monitoring wells on the Honeywell facility. The remaining BSVE wells are scheduled for completion in July 2008.
- Following discussions with the City of Phoenix (COP), Honeywell installed three BSVE process monitoring wells and five sentinel soil-vapor monitoring wells on Phoenix Sky Harbor International Airport (PSHIA) property. The discussions with the COP led to the addition of two sentinel soil-vapor monitoring wells (from the originally-planned five sentinel soil-vapor monitoring wells), for a total of seven sentinel soil-vapor monitoring wells on PSHIA property. The remaining two sentinel soil-vapor monitoring wells are scheduled for completion in July 2008. These BSVE process and sentinel soil-vapor monitoring wells are being installed using the Rotosonic drilling method so that soil samples can be collected to confirm assumptions on the extent of petroleum-hydrocarbon contamination in soil and groundwater.
- As a result of the discussions with the COP, Honeywell also installed one groundwater monitoring well (ASE-129A) on PSHIA property between June 13 and June 20, 2008. This monitoring well was also installed using the Rotosonic drilling method so that soil samples could be collected.
- Honeywell collected soil-vapor field parameter measurements from nine groundwater monitoring wells with exposed well screens and five nested soil-vapor monitoring wells located on PSHIA property. Soil-vapor samples for VOC analysis (TO-15) were also collected from each port of the five nested soil-vapor monitoring wells as part of the BSVE baseline monitoring event. Data from the BSVE baseline monitoring event that occurred primarily in July 2008 will be reported in the third quarter 2008 status report.
- Honeywell continued design efforts for the BSVE system on PSHIA property, focusing on the area between Runway 8-26 and the Honeywell/PSHIA fence line (the area south of Runway 8-26 will be addressed as part of a future phase). A draft Design Basis Report (DBR) was provided to the COP Aviation Department for review on April 14, 2008, and the COP provided their comments to Honeywell on May 15, 2008. After incorporating COP's comments, the DBR was finalized and submitted to ADEQ on June 17, 2008. As part of the 60 percent design phase for the area north of Runway 8-26, it will be necessary to perform potholing and surveying in this area to identify underground utilities and to finalize the piping alignment. A package was submitted to the COP Aviation Department's Tenant Improvement group on June 4, 2008 for review of the potholing plan. In addition, the Tenant Improvement package included proposed field activities to evaluate the feasibility of using abandoned storm drains that cross below the

runway as part of a future system to remediate the soils south of the runway. Tenant Improvement comments were received on June 24, 2008. These comments will be addressed, and a preconstruction planning meeting with COP Aviation Department staff will be held, prior to implementing the field work.

- Honeywell conducted three monthly water-level measurements and three additional rounds of manual free-product-specific monitoring/recovery during the second quarter 2008. As described in Section 2.2, the free-product monitoring/recovery schedule is based on the measured free-product thicknesses in individual monitoring wells in accordance with the *LUST Field Sampling Plan – Groundwater Sampling, Free Product Monitoring and Recovery Plan* (LUST FSP) (CH2M HILL, 2005).
- Honeywell continued operation of an automated free-product skimming system, with weekly maintenance checks, in monitoring well ASE-67A.

The second quarter 2008 groundwater sampling event scheduled for June 2008 was postponed until July 2008 due to the substantial drilling effort that was conducted for the BSVE system during that month. Specifically, PSHIA personnel requested that the quarterly water-quality sampling event be postponed until July because of the drilling activities at PSHIA. Because no water-quality sampling occurred during the second quarter 2008, this quarterly status report does not contain any groundwater data. As discussed with ADEQ's UST Corrective Action Section during a phone conversation on June 6, 2008, and confirmed by e-mail on the same date (ADEQ, 2008b), the third quarter status report for 2008 (due on December 1, 2008) will include the results from both the second quarter 2008 (scheduled for July 2008) and third quarter 2008 (scheduled for September 2008) groundwater sampling events. The third quarter 2008 status report will also include all soil data and boring logs associated with the BSVE well installation event, and soil-vapor data associated with the BSVE baseline soil-vapor monitoring event.

SECTION 2.0

Site Characterization Activities

This section describes groundwater and free-product data collected as part of Honeywell's ongoing UST monitoring program. Additional monitoring wells were installed and soil samples were collected (for new wells located on PSHIA) during the reporting period (April 1, 2008 to June 30, 2008). However, because not all the wells were completed by the end of the reporting period, ADEQ and Honeywell agreed, via telephone and e-mail communication on June 6, 2008 (ADEQ, 2008b), that all soil data from the newly-installed wells on PSHIA would be reported and discussed in the third quarter 2008 status report. Therefore, this section does not include a discussion of soil data. A discussion of historical soil data (prior to June 2008) is included in the *First Quarter Status Report for 2006, Honeywell 34th Street Facility, Facility ID No. 0-002227, LUST File Nos. 0393.02-.10, .15* (CH2M HILL, 2006a); the *Site Characterization Report, LUST Case File #0393.16, Honeywell 34th Street Facility, Facility ID No. 0-002227* (CH2M HILL, 2006b); and the *Site Characterization Report Addendum, LUST Case File #0393.16, Honeywell 34th Street Facility, Facility ID No. 0-002227* (CH2M HILL, 2006c). Groundwater data presented in this section are limited to water-level and free-product thickness measurements. The regularly scheduled quarterly groundwater sampling event for June 2008 was postponed to July 2008 to accommodate the installation and sampling of additional wells on the airport property. As a result, data associated with the June 2008 quarterly groundwater sampling event (conducted in July 2008) will be included and discussed in the third quarter 2008 status report.

In addition to groundwater elevations, this section discusses free-product thickness measurements collected between June 3 and June 5, 2008 and the historical maximum free-product thicknesses measured in Honeywell's UST monitoring wells since free product was first encountered in a monitoring well at the Facility in 1999. Data regarding Honeywell's free-product recovery efforts and recovered free-product volumes through second quarter 2008 are presented in Section 3.0.

2.1 Groundwater Elevations

Honeywell collects monthly water-level measurements in monitoring wells associated with the CAP (CH2M HILL, 2005). As part of the overall groundwater monitoring program for the Honeywell facility, water levels are also measured quarterly in all other Honeywell groundwater monitoring wells. Due to the postponement of the June 2008 quarterly groundwater sampling event, however, the quarterly sitewide water-level monitoring event scheduled for June 2008 was postponed until July 2008; water levels were only collected from the existing UST monitoring wells in June 2008. As such, this section presents the results of the June 2008 evaluation of the groundwater levels and related groundwater flow directions in the area associated with the CAP using data collected from the existing UST monitoring wells in June 2008. Hydrographs illustrating water-level elevations over time for each of Honeywell's UST monitoring wells are included in Appendix A.

Groundwater elevations for all existing non-dry UST monitoring wells at and near the Honeywell facility were measured between June 3 and June 5, 2008. A water-level measurement was not obtained from monitoring well BC-18 during the June water-level round; see Section 5.0 for details. The June 2008 groundwater elevations and associated water-level contours are presented in Figure 2-1 for the eastern portion of the Honeywell facility and PSHIA property. Similar to previous time periods, the direction of groundwater flow in this area was to the south-southwest, as shown in Figure 2-1.

A comparison of water-level elevations collected in March 2008 and June 2008 shows that water levels rose in all monitoring wells associated with the CAP during that time, as shown in Table 2-1 (all tables are provided at the end of this report). Water-level increases ranged from 1.39 feet (PL-2102) to 5.19 feet (ASE-98A), with an average rise of approximately 3.42 feet over the 3-month period across the monitored area. The changes were generally greatest in monitoring wells located in the southern portion of the area associated with the CAP. These wells are located closest to the Salt River which, as reported in previous quarterly status reports, has been the primary source of the localized rising and fluctuating water levels that have occurred since 2005. Groundwater elevations at and close to the Honeywell facility are generally influenced by discharges to, and flow within, the Salt River, which is located approximately 1 mile south of the Facility.

Water levels in the vicinity of the Honeywell facility rose through the first quarter of 2008 (CH2M HILL, 2008a). Water levels continued to rise in every monitoring well associated with the CAP during the second quarter of 2008, averaging increases of 1.64 feet (March to April), 1.07 feet (April to May), and 0.73 foot (May to June) in the subsequent months. As explained above, these changes resulted in water levels increasing in all monitoring wells associated with Honeywell's CAP between the first and second quarters of 2008. Hydrographs presented in Appendix A illustrate these water-level elevation changes in Honeywell's UST monitoring wells.

As reported in previous quarterly reports, water levels at the Honeywell facility and the northern portion of PSHIA in recent years have not followed the long-term trend of regional decline. Honeywell's evaluation of water-level changes since 2005 has indicated that the general water-level trend in the vicinity of the Honeywell facility is relatively stable, with fluctuating water levels occurring throughout the year as a result of periodic discharges by the City of Mesa and City of Tempe to the Salt River, and occasionally large precipitation events. These fluctuations are evident in the hydrographs included in Appendix A and are expected to continue, resulting in a relatively stable water table in the area associated with Honeywell's CAP for the foreseeable future.

2.2 Free Product

Historically, free product has been observed in 30 monitoring wells located on the Honeywell facility and PSHIA property. As discussed below, during this reporting period, free product was observed for the first time in monitoring well ASE-58A at the minimum measurable thickness of 0.01 foot. Honeywell monitors the thickness of free product in these and other monitoring wells near the free-product pool either monthly or biweekly. The monitoring schedule is based on the measured free-product thicknesses and is in accordance with the LUST FSP (CH2M HILL, 2005). In general, any monitoring well with a free-product

thickness less than 0.1 foot is measured monthly, and any monitoring well with a free-product thickness greater than 0.1 foot is measured biweekly.

During the reporting period, monitoring wells ASE-107A, ASE-111A, and ASE-115A were measured approximately biweekly, as indicated in Table 2-2. The free-product thickness in monitoring well ASE-67A was measured approximately weekly, as indicated in Table 2-3, because this well contains an automated free-product recovery system that requires weekly inspections. By design, the automated free-product skimmer system in monitoring well ASE-67A controlled the free-product thickness in the well, so the reported free-product thicknesses for monitoring well ASE-67A are not representative of equilibrium conditions.

Free-product thicknesses are illustrated in this quarterly status report for measurements collected between June 3 and June 5, 2008 (the last complete monitoring round of the reporting period) and for historical maximum thicknesses, as shown in Figure 2-2 and Figure 2-3. Table 2-2 and Table 2-3 provide free-product thickness measurements collected during the reporting period for all monitoring wells where free product has been observed historically.

2.2.1 June 2008 Free-product Thicknesses

Between June 3 and June 5, 2008, Honeywell observed free product in 10 monitoring wells located on its property and PSHIA property, as shown in Figure 2-2. Nine of the 10 monitoring wells containing free product between June 3 and June 5, 2008 also contained free product during the previous quarter's measurements, obtained on March 5, 2008. Monitoring well ASE-90A, which did not contain free product during the previous quarter's measurement, contained free product on June 4, 2008 at a thickness of 0.01 foot. The maximum free-product thickness observed in any monitoring well between June 3 and June 5, 2008 was 0.42 foot in monitoring well ASE-107A, as shown in Figure 2-2. The free-product thickness in monitoring well ASE-107A on June 4, 2008 was less than the maximum free-product thickness observed in this well prior to that date. All of the monitoring wells containing free product between June 3 and June 5, 2008 previously contained free product at thicknesses greater than those measured in June 2008.

A comparison to the previous quarter's free-product thickness measurements (collected on March 5, 2008) shows that changes in free-product thicknesses were variable between March 2008 and June 2008 (CH2M HILL, 2008a). Of the monitoring wells containing free product in one or both of the March 2008 and June 2008 full monitoring rounds, the thickness of product increased in five monitoring wells (ASE-90A, ASE-91A, ASE-102A, ASE-107A, and ASE-115A), decreased in seven monitoring wells (ASE-19A, ASE-52A, ASE-51A, ASE-55A, ASE-64A, ASE-67A, and ASE-111A), and remained the same in one monitoring well (ASE-89A).

The June 2008 free-product thickness measurements indicate that the free product was limited to three separate areas, similar to previous reporting periods, as shown in Figure 2-2. North of Air Lane on the Honeywell facility, free product was detected in monitoring wells ASE-51A, ASE-67A, ASE-111A, and ASE-115A. South of Air Lane, at the southern boundary of the Honeywell facility, free product was detected in monitoring wells ASE-55A and ASE-91A. On PSHIA property, free product was detected in monitoring wells ASE-89A,

ASE-90A, ASE-102A, and ASE-107A. Each of these free-product areas is delineated further by monitoring wells that did not contain free product, as shown in Figure 2-2.

2.2.2 Historical Free-product Thicknesses and Extent

On May 7, 2008, free product was observed for the first time in monitoring well ASE-58A at the minimum measurable thickness of 0.01 foot. Monitoring well ASE-58A was installed in June 2002 and is located downgradient of monitoring well ASE-56A, a well that historically contained free product at a maximum thickness of 1.90 feet, as shown in Figure 2-3. Because of this detection, the maximum historical free-product extent boundary depicted in Figure 2-3 was extended slightly to the southwest to encompass monitoring well ASE-58A. With the May 2008 detection of free product in monitoring well ASE-58A, free product has now been observed historically in 31 different monitoring wells located on the Honeywell facility and PSHIA property. Free product was not observed in monitoring well ASE-58A during the following monthly round in June.

The maximum free-product thickness measured in any of Honeywell's monitoring wells since April 1999 – when free product was first encountered in a monitoring well at the Honeywell facility – was 4.52 feet in monitoring well ASE-67A on July 26, 2005, as shown in Figure 2-3. For monitoring wells that historically contained free product prior to May 2008, none of the free-product thickness measurements during the second quarter 2008 reporting period exceeded the maximum historical thicknesses for any monitoring well. This is indicated in Table 2-4, which compares the maximum historical free-product thicknesses in each monitoring well to the free-product thickness measurements collected in June 2008.

The historical free-product thickness measurements show that the cross-gradient extent of the free-product pool can be defined historically by groundwater monitoring wells ASE-54A and ASE-66A to the northwest and by monitoring wells BC-7A and ASE-127A to the southeast. The upgradient (northeast) extent of the free-product pool can be delineated by monitoring wells ASE-59A, ASE-60A, and ASE-61A. According to the historical thickness measurements, the downgradient (south-southwest) extent of the free-product pool can be defined by monitoring wells ASE-46A, PL-201A, ASE-62A, ASE-65A, ASE-126A, ASE-97A, BC-8B, ASE-95A, ASE-124A, ASE-106A, ASE-100A, ASE-101A, ASE-128A, ASE-98A, ASE-99A, ASE-110A, ASE-109A, ASE-123A, ASE-122A, ASE-112A, and ASE-105A, as shown in Figure 2-3.

Monitoring wells ASE-108A (installed in March 2005) and ASE-116A (installed in December 2005) have never contained free product but, given their locations either very near a monitoring well containing free product (ASE-108A) or between sets of monitoring wells containing free product (ASE-116A), these wells remain within the historical extent of free-product delineation illustrated in Figure 2-3 and as part of the target treatment area for the approved remedy.

2.2.3 Corrective Action Plan Metric Exceedances

During the second quarter 2008, there were no confirmed exceedances of the 0.75-foot metric established in the CAP (CH2M HILL, 2004a-b) and the LUST FSP (CH2M HILL, 2005) (Table 2-2 and Table 2-3). Free-product was measured above 0.75 foot in one monitoring well (ASE-107A, 0.87 foot) on April 23, 2008; however, none of the subsequent

measurements during the subsequent 6-week period exceeded that metric. Therefore, in accordance with the CAP and LUST FSP, the April 23, 2008 measurement was considered anomalous, and the metric was not considered to have been exceeded.

2.3 Groundwater Quality

In accordance with Honeywell's LUST FSP (CH2M HILL, 2005), Honeywell performs quarterly evaluations of the groundwater quality in the area associated with the CAP. As previously stated, the second quarter 2008 groundwater sampling event scheduled for June 2008 was postponed until July 2008 due to the substantial drilling effort that was conducted for the BSVE system during that month. As discussed with ADEQ's UST Corrective Action Section, the third quarter status report for 2008 (due on December 1, 2008) will include the results from both the second quarter 2008 (scheduled for July 2008) and third quarter 2008 (scheduled for September 2008) groundwater sampling events.

Site Remediation Activities

This section summarizes the scope and results of activities associated with remediation of the Honeywell facility that were conducted during the second quarter 2008.

3.1 Free-product Recovery

During the second quarter 2008, Honeywell continued biweekly manual recovery of free product from monitoring wells with free-product thicknesses greater than 0.1 foot. A portable free-product pump, the Spill Buddy Pro™ from Clean Earth Technology, was used to manually recover the free product.

Free product was also recovered from monitoring well ASE-67A using an automatic free-product skimming pump that is installed in the well. The pump, the Magnum Spill Buster™ from Clean Earth Technology, was installed in monitoring well ASE-67A on December 24, 2005 in conformance with the CAP free-product monitoring and recovery requirements. Honeywell will continue weekly monitoring of this system and will continue to provide operation updates in future quarterly status reports.

As reported in the First Quarter Status Report for 2008 (CH2M HILL, 2008a), the automatic dedicated free-product pump that was installed in monitoring well ASE-111A was shut down on March 28, 2008 because it met the minimum recovery rate metric that allows the cessation of the automated system. This monitoring well was incorporated back into the biweekly monitoring/manual recovery program on April 10, 2008 and since that time, free-product thicknesses have not exceeded 0.1 foot.

Approximately 8.1 gallons of free product, including 5.5 gallons from monitoring well ASE-67A, were recovered during the second quarter 2008, as indicated in Table 3-1. This compares to the approximate 5.0 gallons recovered during the first quarter 2008, 13.7 gallons recovered during the fourth quarter 2007, 11.5 gallons recovered during the third quarter 2007, and 15 gallons recovered during the second quarter 2007 (CH2M HILL, 2008a). Approximately 7,262 gallons have been recovered using skimming technologies since free-product recovery efforts began on June 1, 1999. Table 3-1 summarizes the amount of free product recovered at each monitoring well that historically has had measurable free product.

3.2 Biologically-enhanced Soil-vapor Extraction

3.2.1 BSVE Construction Activities – Honeywell Facility

On April 14, 2008, the CH2M HILL BSVE Construction team began mobilizing to a trailer located in the parking lot south of Air Lane and west of Building 140. CH2M HILL's mechanical subcontractor, Kinetic Systems, subsequently mobilized to an immediately-adjacent trailer. Between April 17, 2008 and June 30, 2008, CH2M HILL's

drilling subcontractor, Layne Christensen, completed 40 of 41 injection/extraction, process monitoring, and sentinel soil-vapor monitoring wells on the Honeywell facility. Two of the sentinel soil-vapor monitoring wells, SMW-1 and SMW-5, were located in COP streets and required special approval by the Development Services Department (DSD) and the COP Streets Department. Figure 3-1 shows the completed BSVE wells as of June 30, 2008, along with the remaining proposed BSVE wells. Field monitoring and analytical results of these wells as part of the BSVE baseline monitoring event will be reported in the third quarter 2008 status report.

During second quarter 2008, the installation of above ground and below ground piping was initiated, and the process equipment was fabricated and tested off-site. The BSVE equipment is scheduled for delivery to the Honeywell facility in mid-July and, once placed, process piping interconnecting the equipment will be installed and a canopy over the equipment will be erected.

3.2.2 BSVE Construction Activities - PSHIA

Following discussion with personnel from the COP Aviation Department, CH2M HILL submitted, on behalf of Honeywell, an update to the *Non-process Soil Vapor Monitoring Program* report (CH2M HILL, 2008b) on April 18, 2008. The *Non-process Soil Vapor Monitoring Program* report was updated to increase the number of monitoring points at PSHIA to provide additional information in support of the design for the southern portion (south of Runway 8-26) of the BSVE system. Initially, the Non-process Soil Vapor Monitoring Program included the installation of five sentinel soil-vapor monitoring wells with a total of 11 monitoring ports. Based on discussion with the COP, the updated *Non-process Soil Vapor Monitoring Program* report included the installation of seven sentinel soil-vapor monitoring wells with a total of 19 monitoring ports. In addition, the submittal of the updated report described plans to install three BSVE process monitoring wells and one new groundwater monitoring well (ASE-129A) on PSHIA property as part of the field mobilization for the sentinel soil-vapor monitoring well installation. Figure 3-2 shows the new soil-vapor and monitoring well locations at PSHIA as of June 30, 2008.

As part of the BSVE soil-vapor monitoring well installation project on PSHIA property, subcontractors for potholing and drilling were identified, Honeywell's access agreement with COP was updated, plans were submitted to the COP Aviation Department's Tenant Improvement group for review and approval, and Tenant Improvement preconstruction planning meetings were held on May 16 and May 22, 2008. Potholing began on May 19, 2008, and mobilization of the first drill rig occurred on May 27, 2008. At the request of COP, the Rotasonic drilling method was used to drill the new monitoring wells on PSHIA property, and soil samples were collected from the boreholes beginning at 50 feet below ground surface during the drilling. Soil samples were not collected from sentinel soil-vapor monitoring wells SMW-8 and SMW-12 because they were planned for a total depth of only 27 feet below ground surface. As of June 30, 2008, all but two of the soil-vapor monitoring wells (SMW-8 and SMW-14) had been completed. Soil-vapor field parameters and soil-vapor samples had been collected from all of the sentinel and process monitoring wells at PSHIA by June 30, 2008, except for soil-vapor monitoring wells PMW-11, PMW-12, SMW-8, SMW-11, and SMW-14. By early July, all monitoring wells on PSHIA property will

have been completed and samples will have been collected. Field monitoring and analytical results will be reported in the third quarter 2008 status report.

3.2.3 BSVE Permitting

The Maricopa County Air Quality Department finalized the significant Title V permit modification for the BSVE process on December 27, 2007, and Honeywell received the permit on January 8, 2008. This permit, when combined with the COP Aviation Department's Tenant Improvement job-site permit and DSD's building permits, allowed the BSVE construction team to mobilize to the field on April 14, 2008. Other permits, such as right-of-way permits and the wastewater discharge permit, are in the approval process but were not required to be finalized prior to mobilization of the construction team.

3.2.4 BSVE Monitoring Activities

Quarterly subsurface utility vault monitoring for oxygen (O₂), carbon dioxide (CO₂), methane, and percent of lower explosive limit (%LEL) was not conducted during the second quarter 2008. As indicated in the First Quarter Status Report for 2008 (CH2M HILL, 2008a), the next quarterly field measurement monitoring event for O₂, CO₂, methane, and %LEL at PSHIA and Honeywell subsurface utility vaults is scheduled for July 2008. This date was chosen to coincide with the BSVE baseline vault monitoring event also scheduled for July 2008. Figure 3-3 presents the location of the utility vaults and monitoring wells included in the quarterly monitoring program.

Soil-vapor field parameters, including O₂, CO₂, methane, and %LEL, were collected during the second quarter 2008 from nine groundwater monitoring wells with exposed well screens (ASE-112A, ASE-113A, ASE-114A, ASE-122A, ASE-123A, ASE-124A, ASE-125A, ASE-128A, and BC-8B) and five nested soil-vapor monitoring wells (PMW-13, SMW-9, SMW-10, SMW-11, and SMW-13) located on PSHIA property. The five nested soil-vapor monitoring wells were installed on PSHIA property during the second quarter 2008 and the field parameters were obtained at least 3 days after the wells were installed to allow vapors in the wells to equilibrate. Table 3-2 presents the soil-vapor field parameter measurements collected from the five nested soil-vapor monitoring wells and nine groundwater monitoring wells with exposed well screens. Soil-vapor samples for VOC analysis (TO-15) were also collected from each port of the five nested soil-vapor monitoring wells as part of the BSVE baseline monitoring event. Data from the BSVE baseline monitoring event that occurred primarily in July 2008 will be reported in the third quarter 2008 status report.

The next quarterly field measurement monitoring event for O₂, CO₂, methane, and %LEL at the PSHIA monitoring wells and subsurface utility vaults used for soil-vapor monitoring is anticipated to be in July 2008 as part of the BSVE baseline monitoring event. The BSVE baseline monitoring event will include the collection of soil-vapor samples from the new PSHIA and Honeywell monitoring wells, as well as the collection of soil-vapor samples from the PSHIA and Honeywell subsurface utility vaults, as described in the *Non-process Soil Vapor Monitoring Program* report (CH2M HILL, 2008b).

SECTION 4.0

Summary of Planned Work

Activities planned between July 2008 and September 2008 include:

- Continuing to implement the BSVE construction project, including installation of underground and aboveground piping to the injection/extraction wells, installation of process equipment, and erection of a canopy over the process equipment.
- Completing the drilling, installation, monitoring, and sampling of the remaining monitoring wells at PSHIA as described in the updated *Non-Process Soil Vapor Monitoring Program* report (CH2M HILL, 2008b).
- Continuing to work with the COP Aviation Department to gain approval of the potholing proposal. The results of the potholing and surveying work will allow CH2M HILL to prepare a 60 percent design package in the fourth quarter 2008.
- The continued development of an Operation and Maintenance (O&M) Plan. The O&M Plan will be submitted to ADEQ prior to initial BSVE startup, which is currently planned for mid-fourth quarter 2008. Startup will occur in a phased manner with completion of the BSVE piping network at the Honeywell facility in late fourth quarter 2008 or early first quarter 2009.
- Obtaining the BSVE Wastewater Discharge Permit from the COP Water Services Department.
- Conducting the postponed second quarter groundwater sampling event for 2008 (tentatively scheduled for July 14 through July 24, 2008) and the third quarter groundwater sampling event for 2008 (tentatively scheduled for September 8 through September 19 2008), monthly water-level measurements, and biweekly and monthly free-product monitoring and recovery in accordance with the LUST FSP (CH2M HILL, 2005).
- Conducting the postponed quarterly monitoring of 13 PSHIA subsurface utility vaults and 47 Honeywell subsurface utility vaults for O₂, CO₂, methane, and %LEL to coincide with the BSVE baseline vault monitoring round as indicated in the First Quarter Status Report for 2008 (CH2M HILL, 2008a). The subsurface utility vault monitoring results will be presented in the third quarter 2008 status report. Note that the planned quarterly vault monitoring event scheduled for September 2008 will be postponed until October 2008 to coincide with the next BSVE baseline vault monitoring round. Results from the October 2008 vault monitoring round will be presented in the fourth quarter 2008 status report.
- Conducting weekly free-product monitoring and equipment inspections of the automated free-product skimming system installed in monitoring well ASE-67A.

SECTION 5.0

Summary of Problems and Delays

A water-level measurement was not collected from monitoring well BC-18 during the June 2008 water-level round because this well was dry (monitoring well BC-18 has been dry since December 2001).

As previously stated, the second quarter 2008 groundwater sampling event was postponed one month, from June 2008 to July 2008, due to the substantial drilling effort that was conducted for the BSVE system during June 2008. As a result, water-quality data associated with the second quarter 2008 groundwater sampling event will be included and discussed in the third quarter 2008 status report.

During trenching activities associated with underground pipe installation on June 12, 2008, the excavation subcontractor encountered four railroad ties in the subsurface along with a thin lens of charcoal-like material. In accordance with the Soil Observation Plan (CH2M HILL, 2008c), work was stopped so that an evaluation of the excavated area could be performed. Troy Kennedy of Honeywell notified Christopher Gamache of ADEQ on June 13, 2008 of the finding. The railroad ties and charcoal-like material were segregated from the other BSVE-excavated soils for separate management and disposal.

Installation of underground piping to the injection/extraction wells has not progressed as quickly as the installation of aboveground piping. Honeywell and CH2M HILL will explore options for increasing the rate at which underground piping is installed, including adding more excavation crews to the construction team. This will not impact initial startup of the BSVE system during mid-fourth quarter 2008; however, it may impact the final completion date (late fourth quarter 2008/early first quarter 2009) of the BSVE construction project at the Honeywell facility.

SECTION 6.0

Status of Deliverables

The following is a list of deliverables submitted through second quarter 2008 since the *Site Characterization Report*, dated August 23, 2002:

- On June 17, 2008, CH2M HILL, on behalf of Honeywell, submitted to ADEQ the *Honeywell 34th Street Facility, BSVE North of Runway 8-26 Phase Design Basis Report (PSHIA side), Facility ID #0-002227, LUST File #0393.02-.10, .15-.17.*
- On May 23, 2008, CH2M HILL, on behalf of Honeywell, submitted to ADEQ the *First Quarter Status Report for 2008, Honeywell 34th Street Facility, Facility ID #0-002227, LUST File #0393.02-.10, .15-.17.*
- On April 18, 2008, CH2M HILL, on behalf of Honeywell, submitted to ADEQ an update to the *Non-Process Soil Vapor Monitoring Program, Honeywell 34th Street Facility, Facility ID #0-002227, LUST File #0393.02-.10, .15-.17.*
- On February 26, 2008, CH2M HILL, on behalf of Honeywell, submitted to ADEQ the *Fourth Quarter Status Report for 2007, Honeywell 34th Street Facility, Facility ID No. 0-002227, LUST File Nos. 0393.02-.10, .15-.17.*
- On February 20, 2008, CH2M HILL, on behalf of Honeywell, submitted to ADEQ the *Biologically-Enhanced Soil Vapor Extraction Underground Process Pipeline Installation – Soil Observation Plan.*
- On February 19, 2008, Honeywell submitted a letter to ADEQ requesting approval for modification to the approved CAP to revise the BSVE remediation project schedule based on receipt of Maricopa County's approval of Honeywell's air permit modification.
- On November 21, 2007, CH2M HILL, on behalf of Honeywell, submitted to ADEQ the *Third Quarter Status Report for 2007, Honeywell 34th Street Facility, Facility ID No. 0-002227, LUST File Nos. 0393.02-.10, .15-.17.*
- On August 22, 2007, CH2M HILL, on behalf of Honeywell, submitted to ADEQ the *Second Quarter Status Report for 2007, Honeywell 34th Street Facility, Facility ID No. 0-002227, LUST File Nos. 0393.02-.10, .15-.17.*
- On August 17, 2007, CH2M HILL, on behalf of Honeywell, submitted to ADEQ the *Non-Process Soil Vapor Monitoring Program, Honeywell 34th Street Facility, Facility ID No. 0-002227, LUST File Nos. 0393.02-.10, .15-.17.*
- On August 17, 2007, CH2M HILL, on behalf of Honeywell, submitted to ADEQ a courtesy copy of the revised BSVE design package that was submitted to the City of Phoenix's DSD on August 9, 2007 and the Aviation Department's Tenant Improvement group on August 10, 2007. This package was composed of design drawings, specifications, and a Tenant Improvement Plan.

- On May 23, 2007, CH2M HILL, on behalf of Honeywell, submitted to ADEQ the *First Quarter Status Report for 2007, Honeywell 34th Street Facility, Facility ID No. 0-002227, LUST File Nos. 0393.02-.10, .15-.17.*
- On May 15, 2007, Honeywell submitted to ADEQ a technical memorandum titled, *Evaluation of Well Dilution Effects, Honeywell 34th Street Facility and Phoenix Sky Harbor International Airport, Phoenix, Arizona.*
- On April 30, 2007, CH2M HILL, on behalf of Honeywell, submitted to ADEQ a courtesy copy of the BSVE design package that was submitted to the City of Phoenix DSD and the Aviation Department's Tenant Improvement group. This package was composed of design drawings, specifications, and a Tenant Improvement Plan.
- On March 19, 2007, CH2M HILL, on behalf of Honeywell, submitted to ADEQ the *Biologically Enhanced SVE with Product Recovery System Design Basis Report Honeywell International 34th Street Facility, Facility ID No. 0-002227, LUST File Nos. 0393.02-.10, .15-.17.*
- On February 27, 2007, Honeywell submitted a letter to ADEQ requesting approval for modification to the approved CAP to reflect delays in obtaining the BSVE air permit and adjust the frequency of manual free-product monitoring and recovery.
- On February 27, 2007, CH2M HILL, on behalf of Honeywell, submitted to ADEQ the *Fourth Quarter Status Report for 2006, Honeywell 34th Street Facility, Facility ID No. 0-002227, LUST File Nos. 0393.02-.10, .15-.17.*
- On November 29, 2006, CH2M HILL, on behalf of Honeywell, submitted to ADEQ the *Third Quarter Status Report for 2006, Honeywell 34th Street Facility, Facility ID No. 0-002227, LUST File Nos. 0393.02-.10, .15.*
- On November 29, 2006, CH2M HILL, on behalf of Honeywell, submitted to ADEQ the *Field Sampling Plan for PSHIA Subsurface Utility Vaults for Baseline Air Sampling Using EPA Method TO-15, Honeywell 34th Street Facility, Facility ID No. 0-002227, LUST File Nos. 0393.02-.10, .15.*
- On October 20, 2006, CH2M HILL, on behalf of Honeywell, submitted to ADEQ the *Air Injection Pilot Test Report Honeywell 34th Street Facility, Facility ID No. 0-002227, LUST File Nos. 0393.02-.10, .15.*
- On September 15, 2006, Honeywell submitted a letter to ADEQ proposing to modify the scheduled submittal dates of quarterly status reports such that future reports are submitted to ADEQ no later than 60 days following the end of each calendar quarter.
- On August 3, 2006, Honeywell submitted to ADEQ a letter "RE: Modification to Final Air Injection Pilot Test Work Plan, dated October 4, 2005," that explained the method for conducting a short-term pilot test and the plan for implementation on PSHIA Property.
- On July 20, 2006, Honeywell submitted to ADEQ a letter that explained the status of the pilot test, Honeywell's agreement with the City of Phoenix to evaluate the BSVE design (assuming 8 percent oxygen utilization rate) and the status of the air permit applications.

- On July 14, 2006, CH2M HILL, on behalf of Honeywell, submitted to ADEQ the *Second Quarter Status Report for 2006, Honeywell 34th Street Facility, Facility ID No. 0-002227, LUST File Nos. 0393.02-.10, .15.*
- On April 14, 2006, CH2M HILL, on behalf of Honeywell, submitted to ADEQ the *First Quarter Status Report for 2006, Honeywell 34th Street Facility, Facility ID No. 0-002227, LUST File Nos. 0393.02-.10, .15.*
- On March 2, 2006, Honeywell submitted to ADEQ the *Proposed Modification to Honeywell's Groundwater Sampling, Free Product Monitoring and Recovery Plan – Total Recoverable Petroleum Hydrocarbons Analytical Method, LUST File #0393.02-.10, .15, Facility ID #0-002227.*
- On January 16, 2006, CH2M HILL, on behalf of Honeywell, submitted to ADEQ the *Quarterly Status Report, Quarter 1 (October 17, 2005 to January 15, 2006), Honeywell 34th Street Facility, Facility ID No. 0-002227, LUST File No. 0393.02-.10, .15.*
- On January 13, 2006, CH2M HILL, on behalf of Honeywell, submitted to ADEQ the *Soil Vapor Field Sampling Report, Honeywell 34th Street Facility, 111 S. 34th Street, Phoenix, Arizona.*
- On December 9, 2005, CH2M HILL, on behalf of Honeywell, submitted to ADEQ the *LUST Field Sampling Plan – Groundwater Sampling, Free Product Monitoring and Recovery Plan.*
- On December 7, 2005, CH2M HILL, on behalf of Honeywell, submitted to Maricopa County (1) the Revised Air Permit Application for BSVE and (2) the Air Permitting Evaluation for Air Injection Pilot Study. On December 19, 2005, copies of the Revised Air Permit Application for BSVE were sent to ADEQ, City of Phoenix Aviation Department, and USEPA.
- On November 17, 2005, CH2M HILL, on behalf of Honeywell, submitted to ADEQ's LUST Enforcement Unit a letter that explained the reasons for the differences in the timeline for "Startup and Initial Testing" presented in the revised schedule (Revised Figure 32, attachment to the November 2, 2005 letter) and the original schedule in the CAP.
- On November 2, 2005, CH2M HILL, on behalf of Honeywell, submitted to ADEQ's LUST Enforcement Unit a letter that provided a status update on several aspects of the CAP implementation and on the conditions established in ADEQ's October 7, 2005 CAP approval letter. Attachments to this letter included (1) revised Figure 32 – Remedial Alternative 3 Implementation Schedule, (2) free-product thickness map, October 2005, (3) list of site characterization activities since submittal of the *Site Characterization Report*, (4) updated site characterization figures and tables, (5) boring logs, and (6) a CD containing analytical and monitoring well measurement data.
- On October 20, 2005, CH2M HILL, on behalf of Honeywell, submitted to ADEQ the *Work Plan for Additional Characterization of LUST File #0393.15 – JP-4 Fuel Pipeline Release at the Honeywell 34th Street Facility.*

- On October 4, 2005, Honeywell submitted to ADEQ the *Final Air Injection Pilot Test Work Plan, Honeywell 34th Street Facility and Phoenix Sky Harbor International Airport North Airfield, Phoenix, Arizona.*
- On September 19, 2005, CH2M HILL, on behalf of Honeywell, submitted to ADEQ the *Quality Assurance Project Plan, Honeywell 34th Street Facility.*
- On September 7, 2005, CH2M HILL, on behalf of Honeywell, submitted to ADEQ the *Work Plan for Phase III Monitoring Well Installation on Honeywell Leasehold and Phoenix Sky Harbor International Airport, Honeywell 34th Street Facility.*
- On August 22, 2005, CH2M HILL, on behalf of Honeywell, submitted to ADEQ the *Work Plan for Installation of Multi Level Soil Vapor Monitoring Wells and Shallow/Sub-slab Soil Vapor Monitoring Points, Honeywell 34th Street Facility.*
- On July 11, 2005, CH2M HILL, on behalf of Honeywell, submitted to ADEQ the *Soil Vapor Baseline Sampling and Analysis Plan, Honeywell 34th Street Facility.*
- On July 1, 2005, Honeywell submitted to ADEQ's Tank Programs Division the *Free Product Report – LUST File #0393.15 – JP-4 Fuel Line from UST #203.*
- On June 13, 2005, Honeywell submitted to ADEQ's Tank Programs Division the *Initial Site Characterization Report – LUST File #0393.15 – JP-4 Fuel Line from UST #203.*
- On March 29, 2005, Honeywell submitted to ADEQ's Tank Programs Division the *14-day Report – LUST File #0393.15 – JP-4 Fuel Line from UST #203.*
- On November 15, 2004, CH2M HILL, on behalf of Honeywell, submitted to ADEQ's UST Corrective Action Section responses to ADEQ's September 30, 2004 comments on Honeywell's July 30, 2004 *Revised Corrective Action Plan.* The corresponding replacement pages of the revised text, tables, and figures of the Revised CAP were also submitted.
- On July 30, 2004, CH2M HILL, on behalf of Honeywell, submitted the *Revised Corrective Action Plan* to ADEQ's UST Corrective Action Section. The revised CAP supersedes and replaces the original July 18, 2003, CAP.
- On May 27, 2004, Honeywell submitted a three-ring binder to ADEQ's UST Corrective Action Section titled *Supporting Material, UST Informal Settlement Conference, May 28, 2004.*
- On May 7, 2003, CH2M HILL, on behalf of Honeywell, submitted to ADEQ a technical memorandum titled *Summary of Results from the Bioventing/SVE Pilot Study February 24 through March 1, 2003.*
- On May 1, 2003, Honeywell submitted to ADEQ's UST Corrective Action Section the *Free-product Report, Honeywell International Inc., 34th Street Facility, Phoenix, Arizona, Facility ID# 0-002227, LUST File Nos. 0393.02 -.10.*
- On December 18, 2002, Honeywell submitted to ADEQ's UST Corrective Action Section *Supplemental Site Characterization Information for the Honeywell International Inc., 34th Street Facility, Phoenix, Arizona, Facility ID# 0-002227, LUST File Nos. 0393.02 -.10.*

- On August 23, 2002, CH2M HILL, on behalf of Honeywell, submitted to ADEQ's UST Corrective Action Section the *Site Characterization Report*.

The following are deliverables planned for submittal after the end of the second quarter of 2008:

- *Third Quarter Status Report for 2008, Honeywell 34th Street Facility, Facility ID No. 0-002227, LUST File Nos. 0393.02-.10, .15-.17.* This report is currently scheduled for submittal to ADEQ on or before December 1, 2008.
- As discussed with ADEQ's UST Corrective Action Section, a revision to the LUST FSP is in process and is currently scheduled for submittal to ADEQ in late-August or early September 2008.
- The BSVE O&M Plan is under development and will be submitted to ADEQ prior to initial BSVE startup, which is currently planned for mid-fourth quarter 2008.

SECTION 7.0

References

- Arizona Department of Environmental Quality (ADEQ). 2005a. Letter from Mr. Mark W. Lucas and Mr. Joseph Karl Drosendahl/ADEQ to Ms. Troy Meyer/Honeywell. "Corrective Action Plan Final Approval, LUST File No. #0393.02-.10, .15, Facility ID #0-002227; Honeywell, 111 South 34th Street, Phoenix, Arizona." October 7.
- _____. 2005b. Letter from Mr. Mark W. Lucas and Mr. Joseph Karl Drosendahl/ADEQ to Ms. Troy Meyer/Honeywell. "Corrective Action Plan Modification Approval, LUST File #0393.02-.10, .15, Facility ID #0-002227; Honeywell, 111 South 34th Street, Phoenix, Arizona." December 20.
- _____. 2006a. Letter from Mr. Mark W. Lucas and Mr. Joseph Karl Drosendahl/ADEQ to Ms. Troy Meyer/Honeywell. "Corrective Action Plan Modification Approval, LUST File No. #0393.02-.10, .15, Facility ID #0-002227; Honeywell, 111 South 34th Street, Phoenix, Arizona." March 7.
- _____. 2006b. Letter from Mr. Mark W. Lucas and Mr. Michael J. Traubert/ADEQ to Ms. Troy Meyer/Honeywell. "Corrective Action Plan Modification Approval, LUST File No. #0393.02-.10, .15, Facility ID #0-002227; Honeywell, 111 South 34th Street, Phoenix, Arizona." September 28.
- _____. 2007. Letter from Mr. Mark W. Lucas and Mr. Henry R. Darwin/ADEQ to Ms. Troy Kennedy/Honeywell. "Corrective Action Plan Modification Approval, LUST File No. #0393.02-.10, .15-.17, Facility ID #0-002227; Honeywell, 111 South 34th Street, Phoenix, Arizona." March 27.
- _____. 2008a. Letter from Mr. Mark W. Lucas and Mr. Eric M. Wilson/ADEQ to Ms. Troy Kennedy/Honeywell. "BSVE Remediation Project Schedule Modification Approval, LUST File No. #0393.02-.10, .15-.20, Facility ID #0-002227; Honeywell, 111 South 34th Street, Phoenix, Arizona." February 29.
- _____. 2008b. E-mail from Mr. Mark W. Lucas to Mr. Robert Frank/CH2M HILL. "Re: Honeywell UST Quarterly Status Reports" June 6.
- CH2M HILL. 2004a. *Revised Corrective Action Plan, Honeywell 34th Street Facility, Phoenix, Arizona. ADEQ Facility No 0-002227, LUST File Nos. 0393.02 through 0393.10.* July.
- _____. 2004b. Letter from Thomas J. Mooney/CH2M HILL, on behalf of Honeywell, to Mr. Mark Lucas/ADEQ. "Response to ADEQ comments dated September 30, 2004 on Honeywell's Revised Corrective Action Plan, dated July 30, 2004, Honeywell 34th Street Facility, Phoenix, Arizona." November 15.
- _____. 2005. *LUST Field Sampling Plan – Groundwater Sampling, Free Product Monitoring and Recovery Plan, Honeywell 34th Street Facility, Facility ID No. 0-002227, LUST File No. 0393.02-.10, .15.* December 8.

- _____. 2006a. *First Quarter Status Report for 2006, Honeywell 34th Street Facility, Facility ID No. 0-002227, LUST File Nos. 0393.02-.10, .15.* April 14.
- _____. 2006b. *Site Characterization Report, LUST Case File #0393.16, Honeywell 34th Street Facility, Facility ID No. 0-002227.* May 19.
- _____. 2006c. *Site Characterization Report Addendum, LUST Case File #0393.16, Honeywell 34th Street Facility, Facility ID No. 0-002227.* October 25.
- _____. 2008a. *First Quarter Status Report for 2008, Honeywell 34th Street Facility, Facility ID No. 0-002227, LUST File Nos. 0393.02-.10, .15-.17.* May 23.
- _____. 2008b. *Non-Process Soil Vapor Monitoring Program, Honeywell 34th Street Facility, Facility ID #0-002227, LUST File #0393.02-.10, .15-.17.* April 18.
- _____. 2008c. *Biologically-Enhanced Soil Vapor Extraction Underground Process Pipeline Installation – Soil Observation Plan.* February 20.

Tables

TABLE 2-1
 Comparison between March 2008 and June 2008 Water-level Elevations, Second Quarter 2008
Honeywell 34th Street Facility, Phoenix, Arizona

Location ID	Groundwater Elevation		Difference ^b (feet)
	3/5/2008 (ft amsl)	6/4/2008 ^a (ft amsl)	
ASE-19A	1052.14	1053.97	1.83
ASE-20A	1050.72	1052.54	1.82
ASE-37A	1054.93	1057.49	2.56
ASE-38A	1055.34	1057.83	2.49
ASE-39A	1054.61	1057.09	2.48
ASE-41A	1049.45	1052.07	2.62
ASE-46A	1048.40	1050.70	2.30
ASE-51A	1052.87	1055.07	2.20
ASE-52A	1054.86	1056.91	2.05
ASE-53A	1055.31	1057.57	2.26
ASE-54A	1050.43	1052.00	1.57
ASE-55A	1045.66	1048.34	2.68
ASE-56A	1049.59	1051.59	2.00
ASE-57A	1050.73	1053.11	2.38
ASE-58A	1048.62	1050.51	1.89
ASE-59A	1055.36	1057.22	1.86
ASE-60A	1056.15	1058.28	2.13
ASE-61A	1056.53	1058.75	2.22
ASE-62A	1046.33	1048.66	2.33
ASE-63A	1053.29	1056.08	2.79
ASE-64A	1047.90	1051.99	4.09
ASE-65A	1033.72	1038.36	4.64
ASE-66A	1051.44	1053.07	1.63
ASE-67A	1054.90	1057.01	2.11
ASE-68A	1050.86	1052.90	2.04
ASE-89A	1046.67	1051.02	4.35
ASE-90A	1045.57	1049.93	4.36
ASE-91A	1046.82	1050.25	3.43
ASE-92A	1047.11	1050.76	3.65
ASE-95A	1035.47	1040.28	4.81
ASE-96A	1044.63	1049.22	4.59
ASE-97A	1035.28	1039.84	4.56
ASE-98A	1039.66	1044.85	5.19
ASE-99A	1041.65	1046.72	5.07
ASE-100A	1036.37	1041.32	4.95
ASE-101A	1039.75	1044.60	4.85
ASE-102A	1043.24	1048.10	4.86
ASE-103A	1034.60	1039.47	4.87
ASE-105A	1046.64	1051.44	4.80
ASE-106A	1044.55	1049.32	4.77
ASE-107A	1045.81	1050.69	4.88
ASE-108A	1045.87	1049.00	3.13

TABLE 2-1
 Comparison between March 2008 and June 2008 Water-level Elevations, Second Quarter 2008
 Honeywell 34th Street Facility, Phoenix, Arizona

Location ID	Groundwater Elevation		Difference ^b (feet)
	3/5/2008 (ft amsl)	6/4/2008 ^a (ft amsl)	
ASE-109A	1047.00	1051.91	4.91
ASE-110A	1045.37	1050.36	4.99
ASE-111A	1055.60	1057.85	2.25
ASE-112A	1046.63	1051.64	5.01
ASE-113A	1047.06	1052.18	5.12
ASE-114A	1046.70	1051.55	4.85
ASE-115A	1055.66	1058.00	2.34
ASE-116A	1055.37	1057.70	2.33
ASE-122A	1048.11	1053.02	4.91
ASE-123A	1048.42	1053.34	4.92
ASE-124A	1035.96	1040.80	4.84
ASE-125A	1032.00	1036.72	4.72
ASE-126A	1033.72	1038.42	4.70
ASE-127A	1051.99	1056.03	4.04
ASE-128A	1039.75	1044.88	5.13
BC-7A	1053.52	1056.78	3.26
BC-8B	1045.29	1049.09	3.80
PL-101A	1055.46	1057.95	2.49
PL-105A	1046.11	1049.34	3.23
PL-201A	1047.60	1049.64	2.04
PL-2101	1050.74	1052.43	1.69
PL-2102	1050.71	1052.10	1.39

Notes:

^a Water levels in monitoring wells ASE-41A, ASE-46A, ASE-54A, ASE-55A, ASE-58A, ASE-62A, ASE-91A, ASE-92A, ASE-108A, PL-105A, PL-2101, and PL-2102 were measured on June 3, 2008. The water level in monitoring well ASE-67A was measured on June 5, 2008.

^b Difference column calculated by subtracting March 2008 water-level elevations from June 2008 water-level elevations. Positive results indicate higher water-level elevations in June signifying a rising water table over the reporting period.

ft amsl = feet above mean sea level.

TABLE 2-2
Summary of Free-product Thickness Measurements, Second Quarter 2008
Honeywell 34th Street Facility, Phoenix, Arizona

Well	2-Apr	23-Apr	7-May	21-May	4-Jun	18-Jun
ASE-19A	0.04	NM	0.01	NM	0	NM
ASE-20A	0	NM	0	NM	0	NM
ASE-37A	0	NM	0	NM	0	NM
ASE-38A	0	NM	0	NM	0	NM
ASE-39A	0	NM	0	NM	0	NM
ASE-41A	0	NM	0	NM	0 ^b	NM
ASE-51A	0.18	NM	0.08	NM	0.02	0.02
ASE-52A	0	NM	0	NM	0	NM
ASE-53A	0	NM	0	NM	0	NM
ASE-55A	0.01	NM	0	NM	0.01 ^b	NM
ASE-56A	0	NM	0	NM	0	NM
ASE-57A	0	NM	0	NM	0	NM
ASE-58A	0	NM	0.01	NM	0 ^b	NM
ASE-63A	0	NM	0	NM	0	NM
ASE-64A	0	0.01	0	0.01	0	NM
ASE-68A	0	NM	0	NM	0	NM
ASE-89A	0.03	NM	0.02	NM	0.02	NM
ASE-90A	0	NM	0.01	NM	0.01	NM
ASE-91A	0.02	NM	0.01	NM	0.03 ^b	NM
ASE-92A	0	NM	0	NM	0 ^b	NM
ASE-96A	0	NM	0	NM	0	NM
ASE-102A	0.01	NM	0.04	NM	0.04	NM
ASE-107A	0.37	0.87	0.46	0.42	0.42	0.38
ASE-111A	0.06 ^a	0.04	0.08	0.08	0.05	0.02
ASE-113A	0	NM	0	NM	0	NM
ASE-114A	0	NM	0	NM	0	NM
ASE-115A	0.26	0.16	0.09	0.12	0.13	0.12
PL-101A	0	NM	0	NM	0	NM
PL-105A	0	NM	0	NM	0 ^b	NM
PL-2101	0	NM	0	NM	0 ^b	NM

Notes:

This table includes all monitoring wells that have historically had measurable free product, except monitoring well ASE-67A. Free-product thickness measurements for monitoring well ASE-67A are presented in Table 2-3.

Monitoring wells with a free-product thickness less than 0.1 foot are measured monthly. Monitoring wells with a free-product thickness greater than 0.1 foot are measured biweekly.

NM = free-product thickness not measured.

^a Measurement collected on April 10, 2008.

^b Measurement collected on June 3, 2008.

TABLE 2-3
Summary of Free-product Thickness Measurements for
Monitoring Well ASE-67A, Second Quarter 2008
Honeywell 34th Street Facility, Phoenix, Arizona

Date	ASE-67A Free-product Thickness (feet)
04/10/2008	0.14
04/17/2008	0.25
04/21/2008	0.28
04/28/2008	0.12
05/08/2008	0.21
05/16/2008	0.14
05/22/2008	0.12
05/28/2008	0.05
06/05/2008	0.10
06/11/2008	0.08
06/19/2008	0.14
06/27/2008	0.13

TABLE 2-4
 Comparison of Historical Maximum Free-product Thickness Measurements to June 2008 Free-product Thickness Measurements, Second Quarter 2008
 Honeywell 34th Street Facility, Phoenix, Arizona

Well	Historical Maximum Free-Product Thickness		June 2008 Free-Product Thickness Measurements			
	Date	Thickness	4-Jun	11-Jun	18-Jun	27-Jun
Monitoring Wells Located on Honeywell Property North of Air Lane						
ASE-19A	02/10/2000	3.00	0	NM	NM	NM
ASE-20A	01/07/2003	2.20	0	NM	NM	NM
ASE-37A	01/20/2005	0.53	0	NM	NM	NM
ASE-38A	07/21/2004	1.73	0	NM	NM	NM
ASE-39A	11/28/2001	1.33	0	NM	NM	NM
ASE-51A	12/19/2001	3.42	0.02	NM	0.02	NM
ASE-52A	02/22/2002 ^a	1.80	0	NM	NM	NM
ASE-53A	11/28/2001	1.79	0	NM	NM	NM
ASE-56A	03/21/2002 ^a	1.90	0	NM	NM	NM
ASE-57A	03/20/2002	3.07	0	NM	NM	NM
ASE-67A	07/26/2005	4.52	0.10 ^b	0.08	0.14 ^d	0.13
ASE-68A	06/27/2002	3.13	0	NM	NM	NM
ASE-111A	10/03/2007	2.25	0.05	NM	0.02	NM
ASE-115A	11/28/2007	0.41	0.13	NM	0.12	NM
PL-101A	03/06/2002	1.41	0	NM	NM	NM
PL-2101	06/14/2000	0.44	0	NM	NM	NM
Monitoring Wells Located on Honeywell Property South of Air Lane						
ASE-41A	07/09/2003	3.50	0	NM	NM	NM
ASE-55A	10/19/2005	0.81	0.01 ^c	NM	NM	NM
ASE-58A	05/07/2008	0.01	0	NM	NM	NM
ASE-63A	09/09/2004	0.02	0	NM	NM	NM
ASE-64A	07/09/2003	1.95	0	NM	NM	NM
ASE-91A	10/03/2007	0.05	0.03 ^c	NM	NM	NM
ASE-92A	11/03/2004 ^a	0.24	0	NM	NM	NM
PL-105A	04/30/2003	1.07	0	NM	NM	NM
Monitoring Wells Located on PSHIA Property						
ASE-89A	08/02/2004	1.60	0.02	NM	NM	NM
ASE-90A	10/06/2004	1.23	0.01	NM	NM	NM
ASE-96A	11/03/2004	0.48	0	NM	NM	NM
ASE-102A	01/26/2005	4.27	0.04	NM	NM	NM
ASE-107A	07/04/2007	1.87	0.42	NM	0.38	NM
ASE-113A	05/18/2005	0.01	0	NM	NM	NM
ASE-114A	09/07/2005	0.01	0	NM	NM	NM

Notes:

This table includes all monitoring wells that have historically had measurable free product.

Monitoring wells with a free-product thickness less than 0.1 foot are measured monthly. Monitoring wells with a free-product thickness greater than 0.1 foot are measured biweekly.

NM = free-product thickness not measured.

^a Date listed is the most recent date on which the historical maximum free-product thickness was measured. The same free-product thickness was also measured on one or more previous dates.

^b Measurement collected on June 5, 2008.

^c Measurement collected on June 3, 2008.

^d Measurement collected on June 19, 2008.

TABLE 3-1
 Summary of Free-product Recovery, Second Quarter 2008
 Honeywell 34th Street Facility, Phoenix, Arizona

Well	Gallons Recovered during Second Quarter 2008	Total Gallons Recovered via Skimming through Second Quarter 2008
ASE-19A	0	49.6
ASE-20A	0	4103.8
ASE-37A	0	1.8
ASE-38A	0	46.9
ASE-39A	0	0.7
ASE-41A	0	27.3
ASE-51A	0.1	105.3
ASE-52A	0	19.5
ASE-53A	0	481.1
ASE-55A	0	3.1
ASE-56A	0	663
ASE-57A	0	685.2
ASE-58A	0	0
ASE-63A	0	0
ASE-64A	0	31.7
ASE-67A	5.5	345.5
ASE-68A	0	74.7
ASE-89A	0	139.3
ASE-90A	0	6.7
ASE-91A	0	0
ASE-92A	0	0
ASE-96A	0	1
ASE-102A	0	146.6
ASE-107A	2.15	17.25
ASE-111A	0	13.25
ASE-113A	0	0
ASE-114A	0	0
ASE-115A	0.3	2
PL-101A	0	291
PL-105A	0	5.5
PL-2101	0	0.02
Total	8.1	7261.82

Notes:

This table includes all wells that have historically had measurable free product.
 Rounding may affect totals shown in far right column and totals at bottom of table.

TABLE 3-2
Phoenix Sky Harbor International Airport Soil-vapor Monitoring Well Field Parameter Results, Second Quarter 2008
Honeywell 34th Street Facility, Phoenix, Arizona

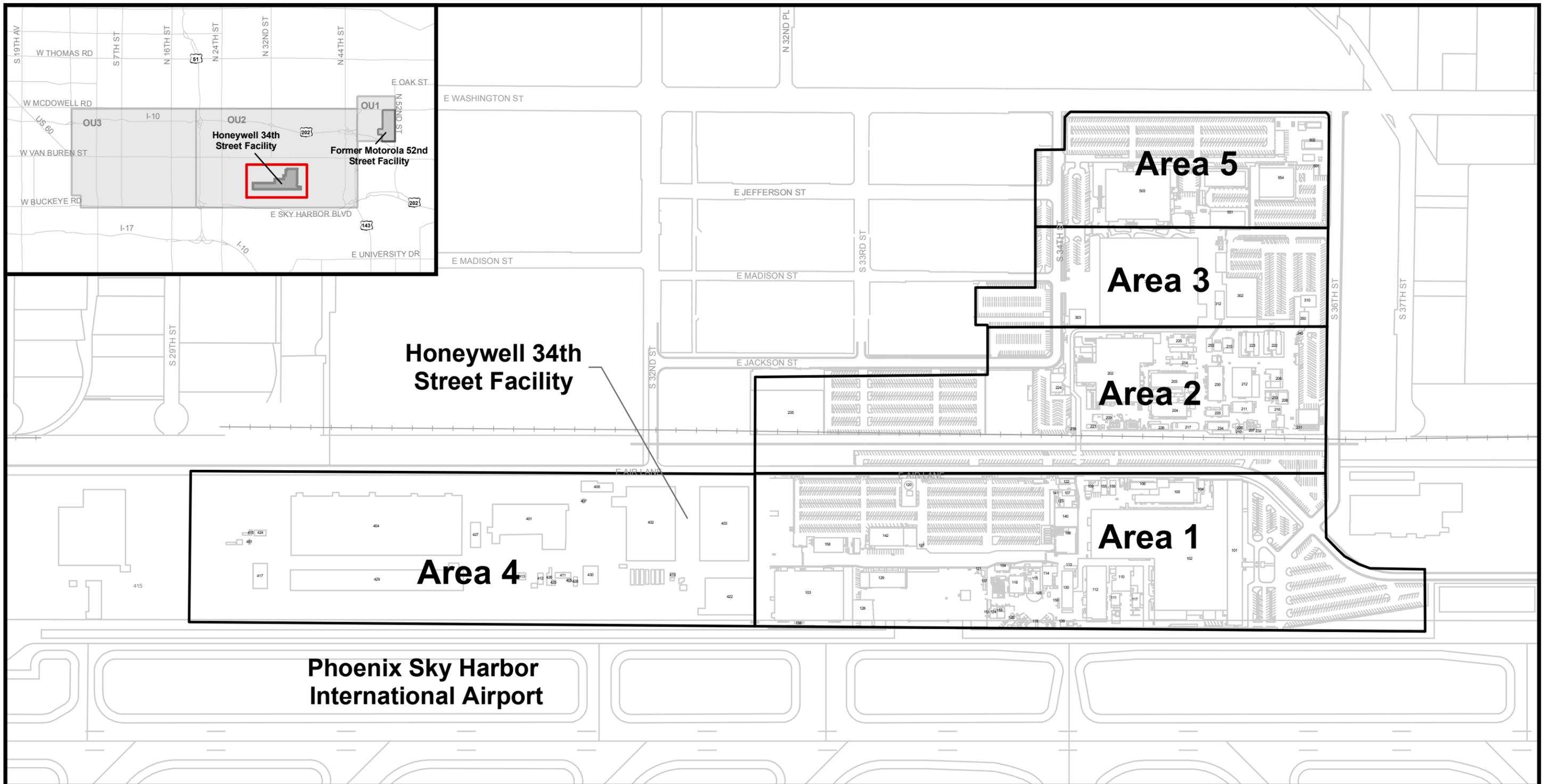
Location ID	Date	Time	DTW (ft bmp)	Top of Screen (ft bmp)	Exposed Screen (ft)	O ₂ -WO (% V/V)	CO ₂ -WO (% V/V)	METHANE-W ^a (%V/V)	METHANE-WO (%V/V)	LEL-W ^a (%V/V)	LEL-WO (%V/V)	FID-W ^a (ppm)	FID-WO (ppm)	Comments
ASE-89A	04/23/08	00:00	--	--	--	--	--	--	--	--	--	--	--	Well Screen Submerged
ASE-90A	04/23/08	00:00	--	--	--	--	--	--	--	--	--	--	--	Well Screen Submerged
ASE-95A	04/30/08	00:00	77.44	81	0	--	--	--	--	--	--	--	--	Well Screen Submerged
ASE-96A	04/23/08	00:00	--	--	--	--	--	--	--	--	--	--	--	Well Screen Submerged
ASE-101A	04/23/08	00:00	--	--	--	--	--	--	--	--	--	--	--	Well Screen Submerged
ASE-102A	04/23/08	00:00	--	--	--	--	--	--	--	--	--	--	--	Well Screen Submerged
ASE-105A	04/23/08	04:23	69.81	70	0	--	--	--	--	--	--	--	--	Well Screen Submerged
ASE-106A	04/23/08	00:00	--	--	--	--	--	--	--	--	--	--	--	Well Screen Submerged
ASE-109A	04/23/08	00:00	--	--	--	--	--	--	--	--	--	--	--	Well Screen Submerged
ASE-112A	04/23/08	04:04	70.74	68	2.74	<0.1	6.9	NR	2.4	NR	48	>10,369.6	NR	
ASE-113A	04/23/08	03:25	70.71	66	4.71	11.5	3.0	<0.1	<0.1	0	0	<0.5	<0.5	
ASE-114A	04/23/08	02:57	70.41	66	4.41	6.4	3.8	<0.1	<0.1	0	0	NR	46.1	
ASE-122A	05/02/08	07:38	70.88	63	7.88	11.9	2.7	<0.1	<0.1	0	0	NR	68.3	Background FID-WO measurement was 43.2 ppm.
ASE-123A	05/02/08	08:03	69.08	62	7.08	18.0	1.0	<0.1	<0.1	0	0	NR	49.1	Background FID-WO measurement was 49.7 ppm.
ASE-124A	04/30/08	04:44	78.72	69	9.72	9.6	5.6	<0.1	<0.1	0	0	<1.2	<1.2	
ASE-125A	04/30/08	03:43	78.25	69	9.25	10.5	3.3	<0.1	<0.1	0	0	<0.9	<0.9	
ASE-128A	04/30/08	04:15	76.36	68	8.36	10.9	4.5	<0.1	<0.1	0	0	<1.4	<1.4	
BC-8B	04/23/08	05:07	70.04	51	19.04	2.7	10.7	<0.1	<0.1	0	0	NR	179.0	
PMW-13-U	06/26/08	00:35	-- ^b	5	4	9.1	1.4	<0.1	<0.1	0	0	43.0	43.0	
PMW-13-M	06/26/08	01:35	-- ^b	20	5	6.1	3.3	<0.1	<0.1	0	0	16.0	20.0	
PMW-13-L	06/26/08	02:50	70.55	54.7	15.85	0.3	3.8	1.3	2.0	26	40	8,500.0	12,395.0	
SMW-9-U	06/18/08	23:50	-- ^b	5	5	15.0	1.5	<0.1	<0.1	0	0	<0.5	<0.5	
SMW-9-M	06/19/08	00:55	-- ^b	20	5	15.5	1.6	<0.1	<0.1	0	0	<0.5	<0.5	
SMW-9-L	06/19/08	01:50	76.1	55	21.1	11.8	3.2	<0.1	<0.1	0	0	<1.1	<1.1	
SMW-10-U	06/11/08	02:50	-- ^b	5	4	12.3	2.4	<0.1	<0.1	0	0	<0.8	<0.8	
SMW-10-M	06/11/08	03:22	-- ^b	20	5	12.5	3.8	<0.1	<0.1	0	0	<0.7	<0.7	
SMW-10-L	06/11/08	04:10	75 ^c	55	20	10.9	4.9	<0.1	<0.1	0	0	<0.9	<0.9	
SMW-11-U	06/19/08	03:45	-- ^b	5	4	8.6	2.8	<0.1	<0.1	0	0	<1.1	<1.1	
SMW-11-M	06/19/08	04:27	-- ^b	20	5	13.1	2.0	<0.1	<0.1	0	0	<0.7	<0.7	
SMW-11-L	06/20/08	00:00	73.12	55.2	17.92	13.2	3.1	0.1	0.1	2	2	43.1	71.7	

TABLE 3-2
 Phoenix Sky Harbor International Airport Soil-vapor Monitoring Well Field Parameter Results, Second Quarter 2008
 Honeywell 34th Street Facility, Phoenix, Arizona

Location ID	Date	Time	DTW (ft bmp)	Top of Screen (ft bmp)	Exposed Screen (ft)	O ₂ -WO (% V/V)	CO ₂ -WO (% V/V)	METHANE-W ^a (%V/V)	METHANE-WO (%V/V)	LEL-W ^a (%V/V)	LEL-WO (%V/V)	FID-W ^a (ppm)	FID-WO (ppm)	Comments
SMW-13-U	06/10/08	23:35	-- ^b	5	4	8.8	4.8	<0.1	<0.1	0	0	<1.4	<1.4	
SMW-13-M	06/11/08	01:20	-- ^b	19.1	4.9	10.0	3.7	<0.1	<0.1	0	0	<1.4	<1.4	
SMW-13-L	06/11/08	02:12	75 ^c	54.9	20.1	6.8	3.2	<0.1	<0.1	0	0	<1.2	<1.2	

- Notes:
- ^a Field parameters for with filter readings are assumed to be non-detect when the corresponding field parameter without filter reading is non-detect.
 - ^b Water level below the bottom of the well
 - ^c Depth to water is approximate
 - W = measurement taken with a carbon filter.
 - WO = measurement taken without a carbon filter.
 - %V/V = percent volume per volume.
 - CO₂ = carbon dioxide.
 - DTW = depth to water.
 - FID = flame ionization detector.
 - ft bmp = feet below measuring point.
 - LEL = lower explosive limit.
 - NR = not recorded.
 - O₂ = oxygen.
 - ppm = parts per million.
 - U = upper port.
 - M = middle port.
 - L = lower port.

Figures



Legend

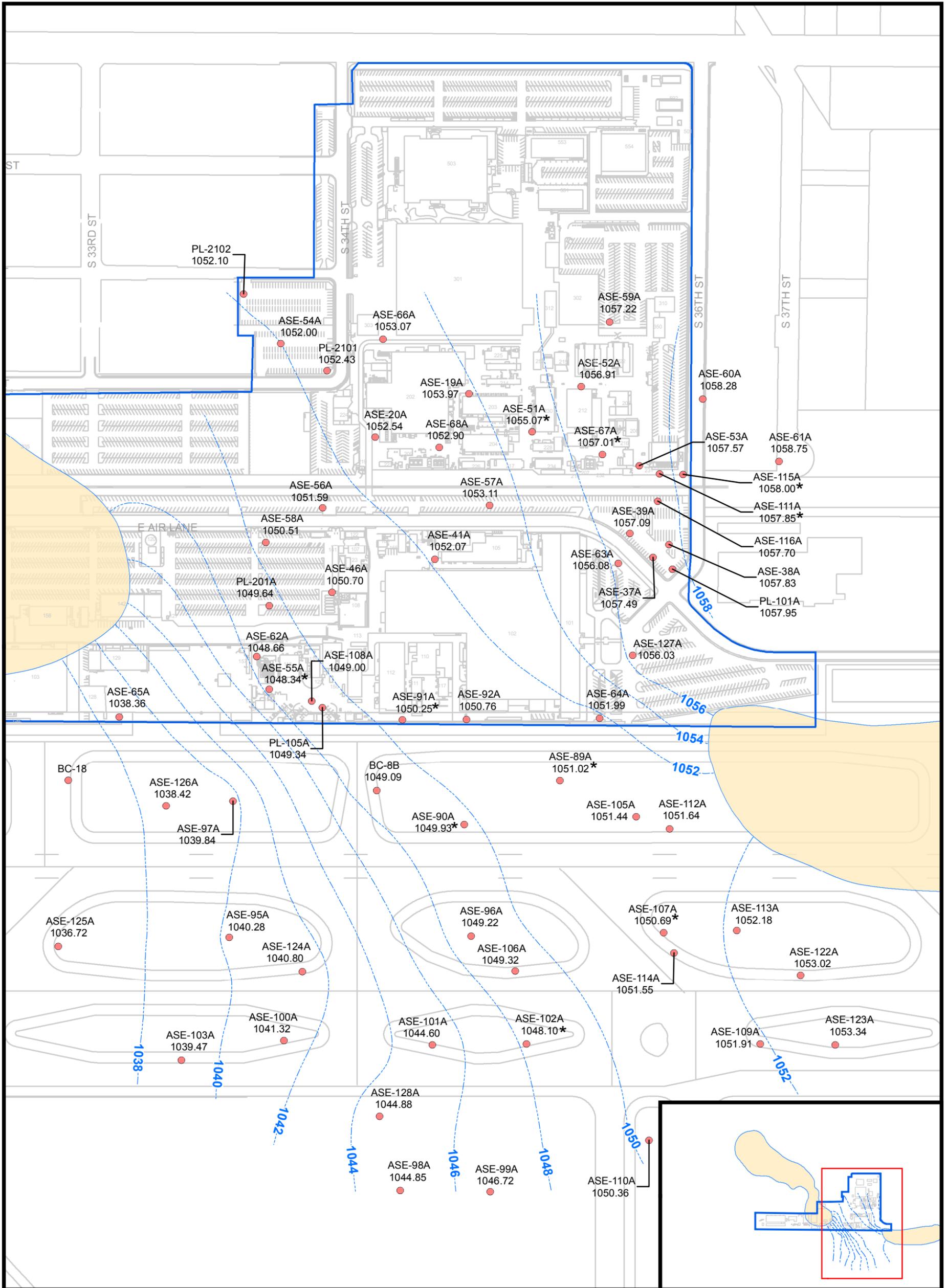
- Street and Airport Features
- Railroad
- ▭ Operational Area Boundaries
- ▭ Honeywell Buildings



0 200 400 800 Feet

**FIGURE 1-1
FACILITY LOCATION AND LAYOUT**

*Honeywell 34th Street Facility
Phoenix, Arizona*



Legend

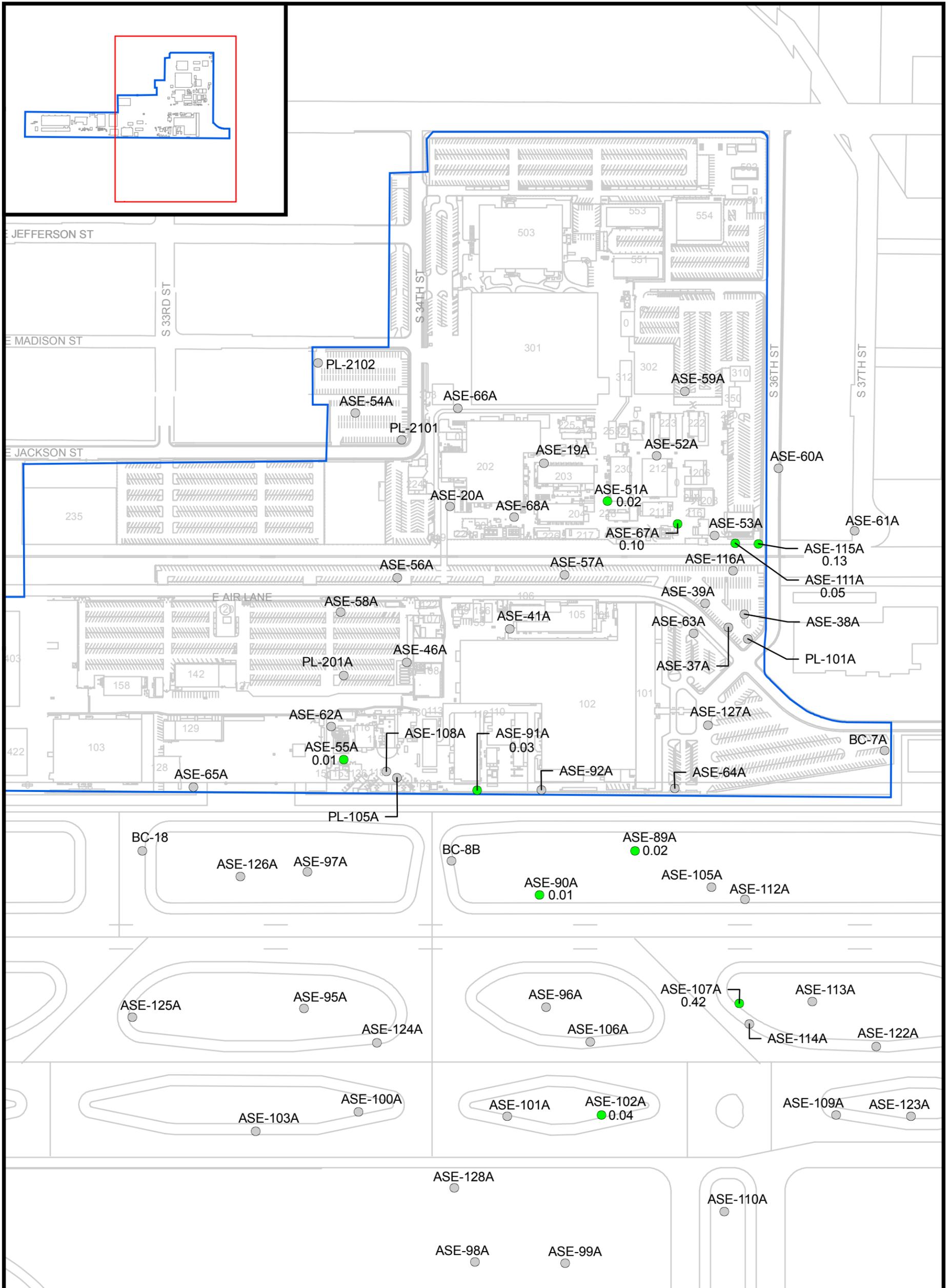
- ASE-124A Well Identifier
● 1040.80 Water Level Elevation, in feet above mean sea level
- Water Level Contours (ft amsl) - Sub-unit A
- Honeywell Facility
- Honeywell Bedrock Rise



0 150 300 600 Feet

Notes:
 1. All measurements recorded between June 3-5, 2008.
 2. Water level contours based only on the June water level measurements for the UST wells. The full quarterly Honeywell water level round was postponed to July 2008 to coincide with the postponed quarterly groundwater sampling event.
 3. Monitoring well BC-18 dry on day of measurement.
 * Monitoring well contained free product. Value represents corrected water level elevation based on a free-product specific gravity of 0.81. Value not used to produce contours.

FIGURE 2-1
WATER LEVEL CONTOURS
JUNE 2008
SUB-UNIT A
Honeywell 34th Street Facility
Phoenix, Arizona



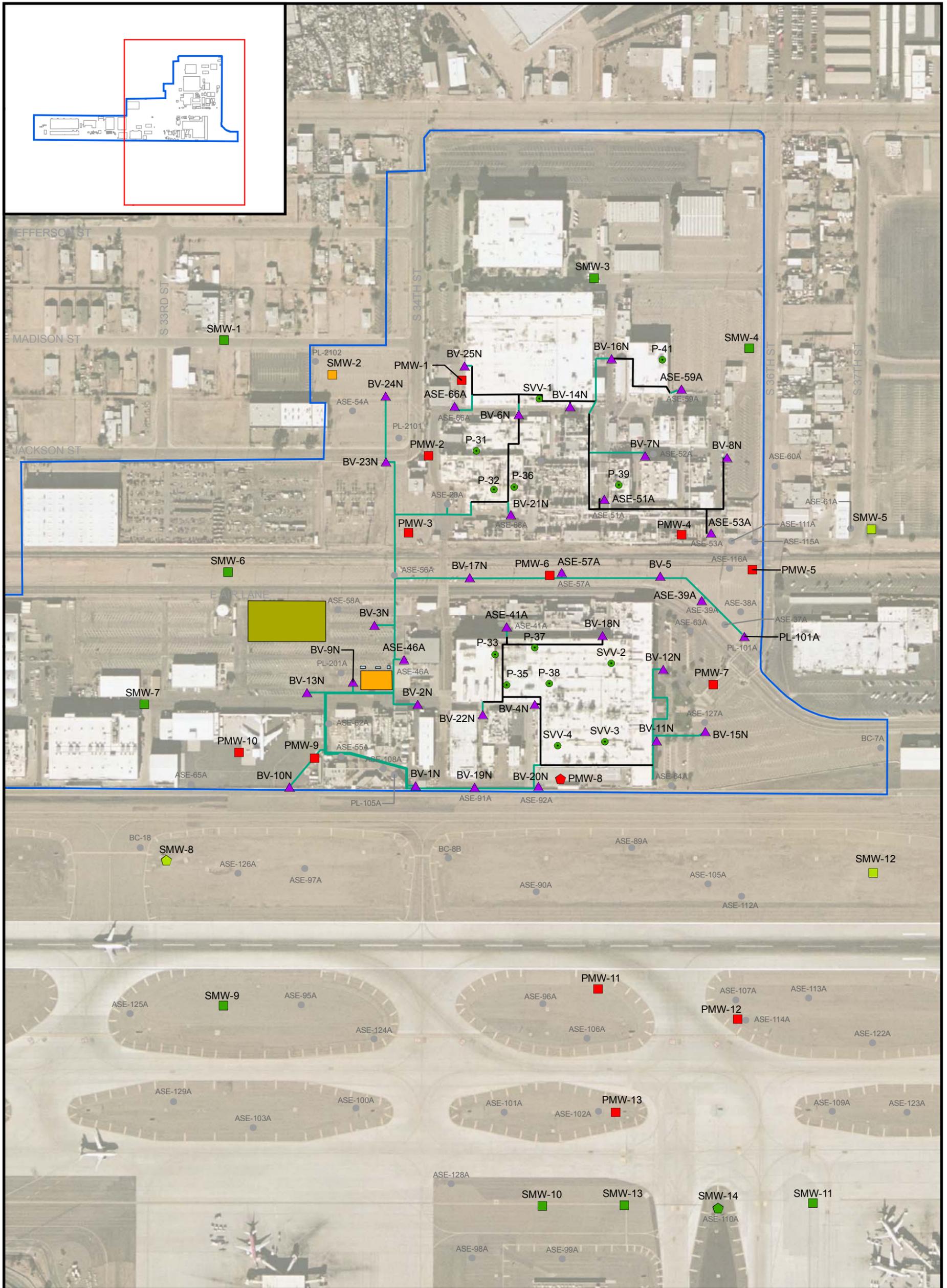
Legend

- Free Product Detected (thickness provided in feet)
- Free Product Not Detected
- Street and Airport Features
- Honeywell Facility



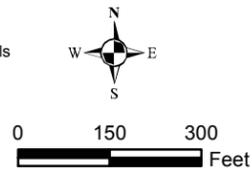
Notes:
 1. All measurements recorded between June 3-5, 2008.

FIGURE 2-2
FREE-PRODUCT THICKNESS
JUNE 2008
Honeywell 34th Street Facility
Phoenix, Arizona



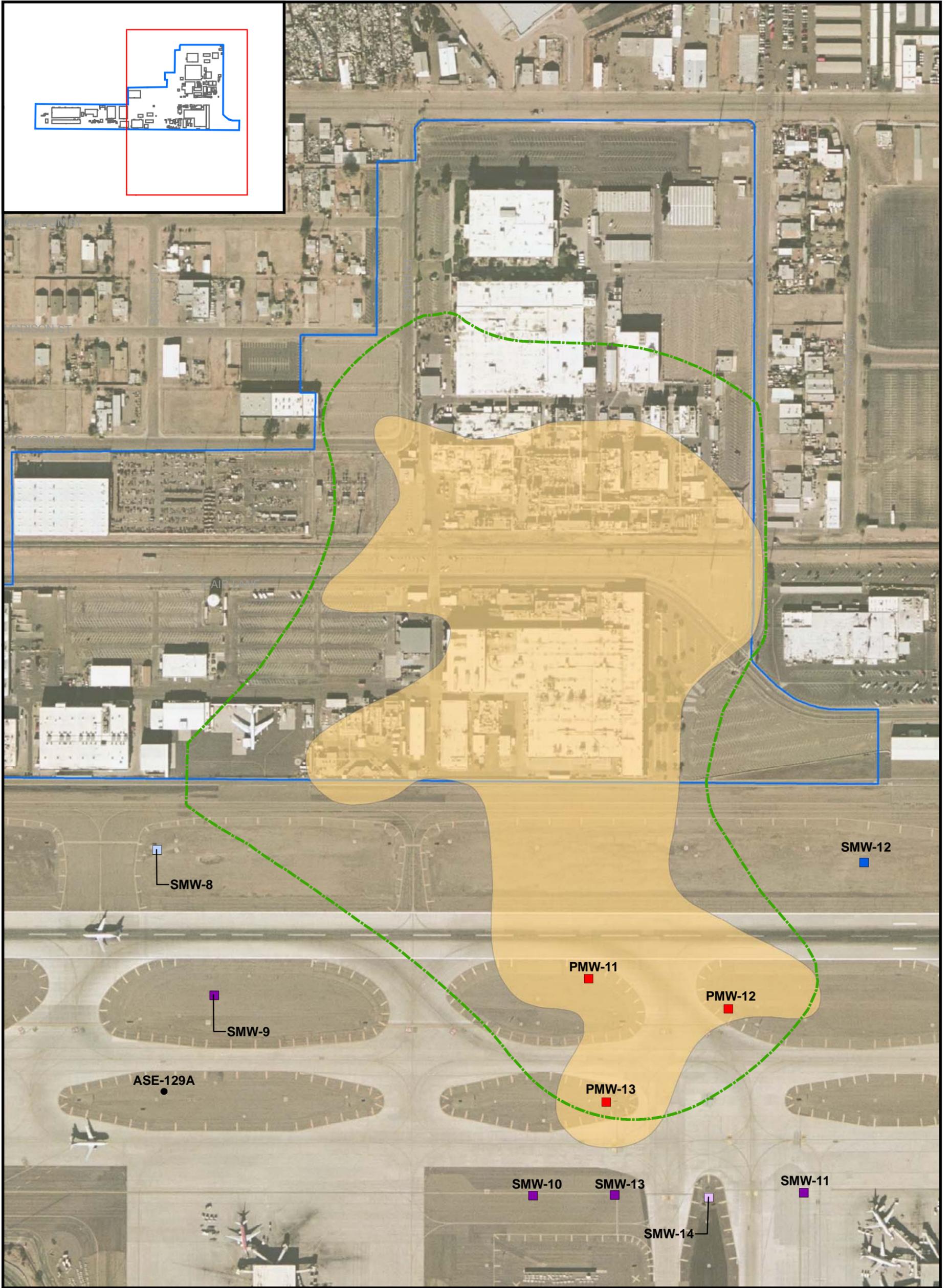
Legend

- ▲ Existing BSVE Wells – Injection/Extraction
- Existing Groundwater Monitoring Wells
- Existing Monitoring Wells**
 - Existing Sentinel Monitoring Wells (Shallow, Intermediate, and Deep Ports)
 - Existing Sentinel Monitoring Wells (Shallow and Intermediate Ports)
 - Existing Sentinel Monitoring Wells (Intermediate Ports Only)
 - Existing Process Monitoring wells (i.e. convertible)
 - Existing Sub-Slab Monitoring Wells
- Proposed Monitoring Wells**
 - ◆ Proposed Sentinel Monitoring Wells (Shallow, Intermediate, and Deep Ports)
 - ◆ Proposed Sentinel Monitoring Wells (Shallow and Intermediate Ports)
 - ◆ Proposed Process Monitoring wells (i.e. convertible)
- Honeywell Facility
- BSVE Pipeline System**
 - Above Ground Pipeline
 - Below Ground Pipeline
 - Field Trailer Area
 - Transformers
 - BSVE Equipment Canopy



- Notes:**
1. Installation of BSVE pipeline system not complete as of June 30, 2008.
 2. Aerial Image provided by: Landiscor Inc.
 3. Flight Date: January 2007.

FIGURE 3-1
EXISTING BSVE WELLS
AND EXISTING AND PROPOSED
PROCESS/SENTINEL WELLS
AS OF JUNE 30, 2008
Honeywell 34th Street Facility
Phoenix, Arizona



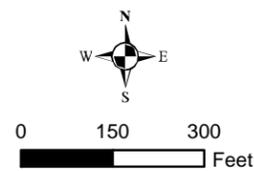
Legend

Existing Multi-port Sentinel Monitoring Wells

- Multi-Port Sentinel Monitoring Well - Shallow, Intermediate, and Deep Ports
- Multi-Port Sentinel Monitoring Well - Shallow and Intermediate Ports
- Multi-Port Process Monitoring Well - Shallow, Intermediate, and Deep Ports
- Existing Groundwater Monitoring Well

Proposed Multi-port Sentinel Monitoring Wells

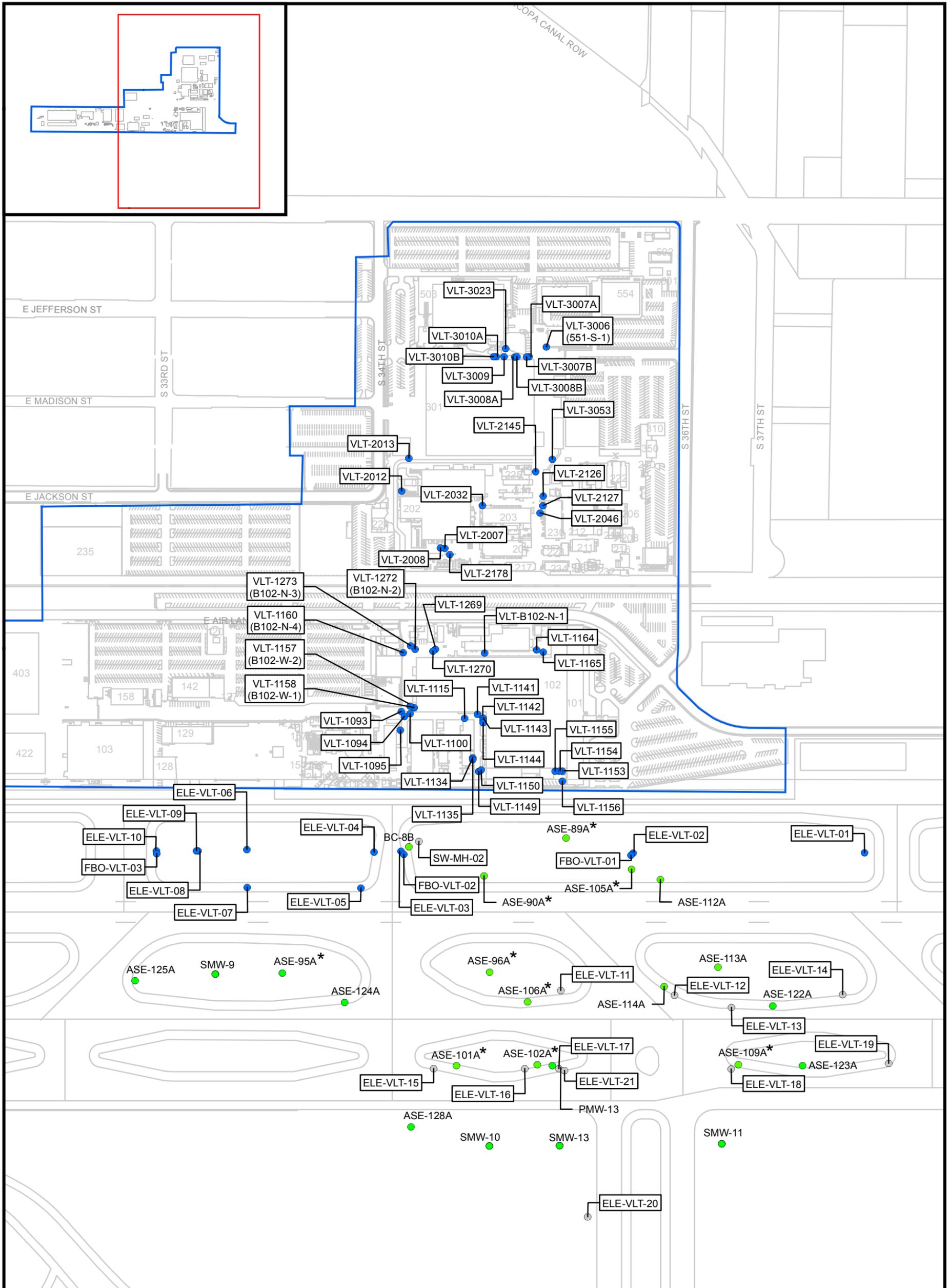
- Multi-Port Sentinel Monitoring Well - Shallow, Intermediate, and Deep Ports
- Multi-Port Sentinel Monitoring Well - Shallow and Intermediate Ports
- Honeywell Facility
- Historical Free Product Extent (as of June 27, 2008)
- Target Treatment Zone



Aerial Image provided by: Landiscor Inc.
Flight Date: January 2007

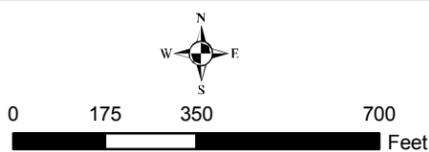
**FIGURE 3-2
NEW SOIL VAPOR
AND GROUNDWATER
MONITORING WELL
LOCATIONS AT PSHIA
AS OF JUNE 30, 2008**

*Honeywell 34th Street Facility
Phoenix, Arizona*



Legend

- Wells Used for Soil Vapor Monitoring
- Subsurface Utility Vaults Used for Soil Vapor Monitoring
- Subsurface Utility Vaults Not Currently Monitored as Part of the Quarterly Monitoring Program
- Street and Airport Features
- Honeywell Facility



Notes:
 1. CH₄ = Methane
 2. CO₂ = Carbon Dioxide
 3. O₂ = Oxygen
 4. LEL = Lower Explosive Limit
 * Field Measurements (CH₄, CO₂, O₂, and Percent-LEL) were not recorded for this monitoring well due to the submergence of the well screen below the water table during Second Quarter 2008.

**FIGURE 3-3
 LOCATIONS OF WELLS USED
 FOR SOIL VAPOR MONITORING
 AND LOCATIONS OF SUBSURFACE
 UTILITY VAULTS**

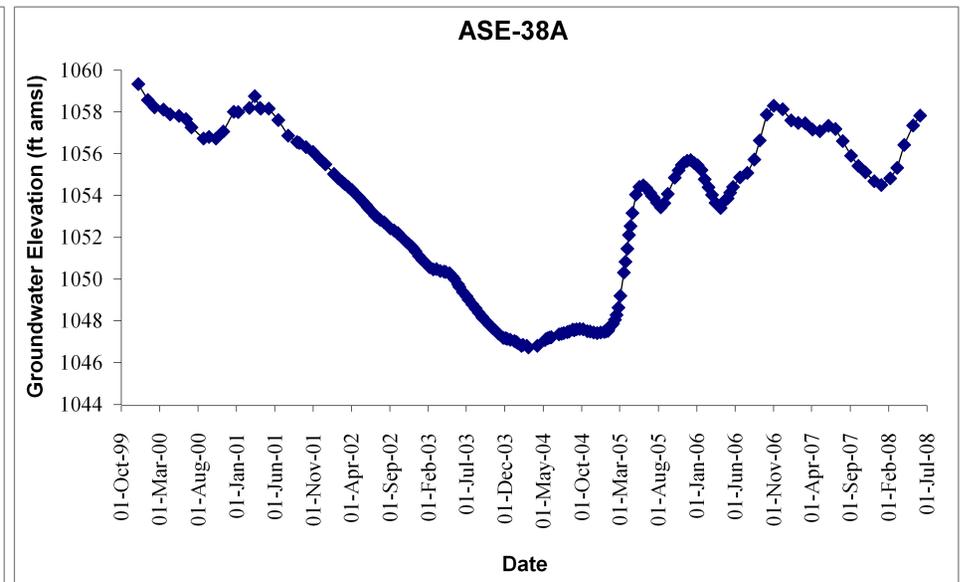
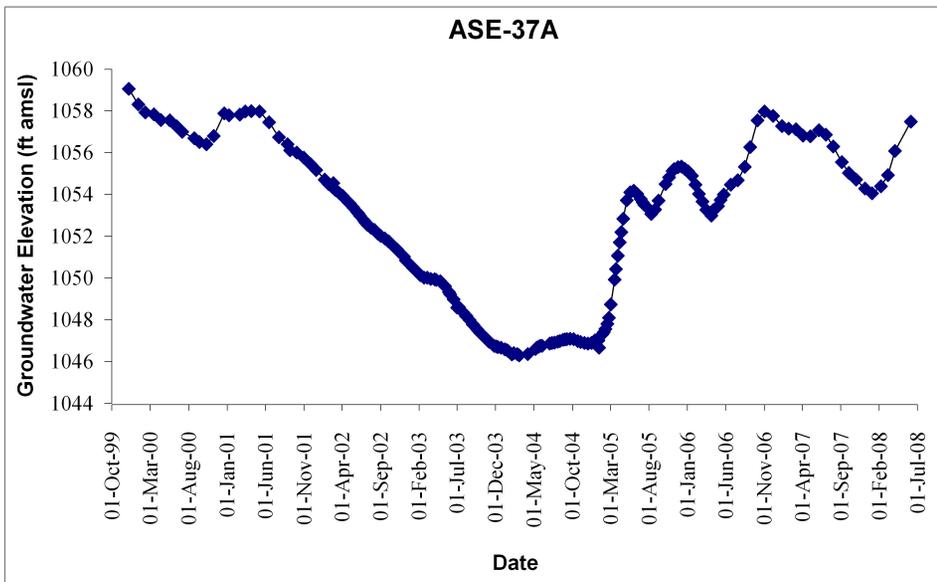
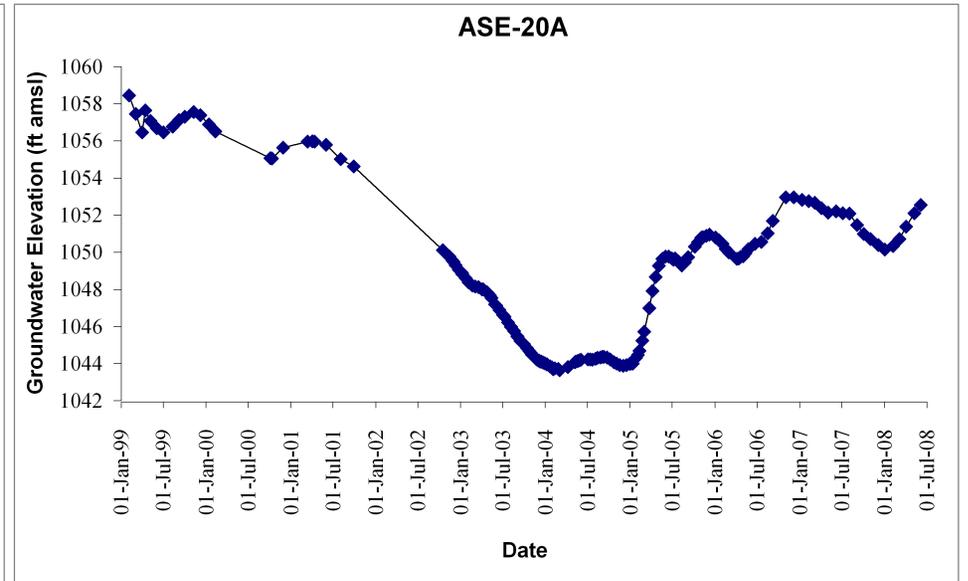
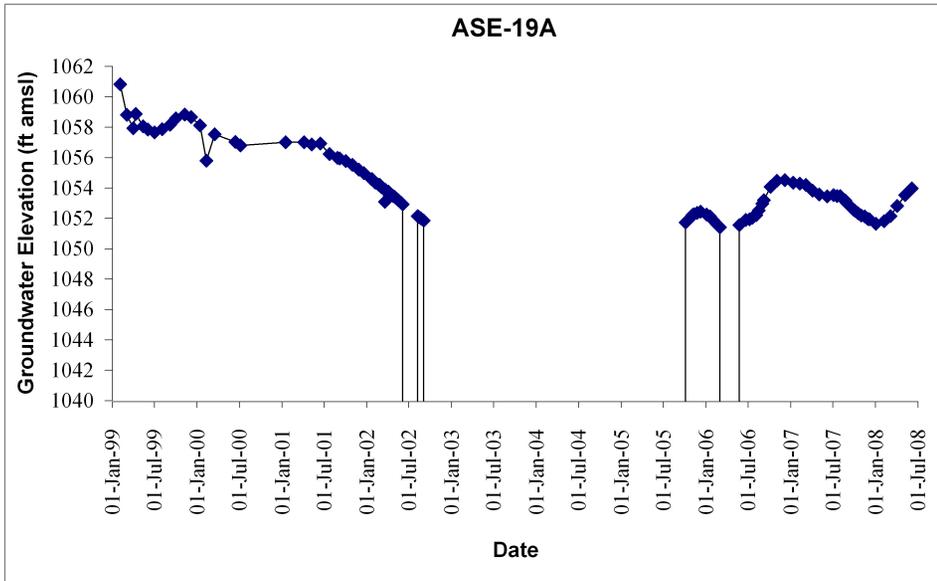
*Honeywell 34th Street Facility
 Phoenix, Arizona*



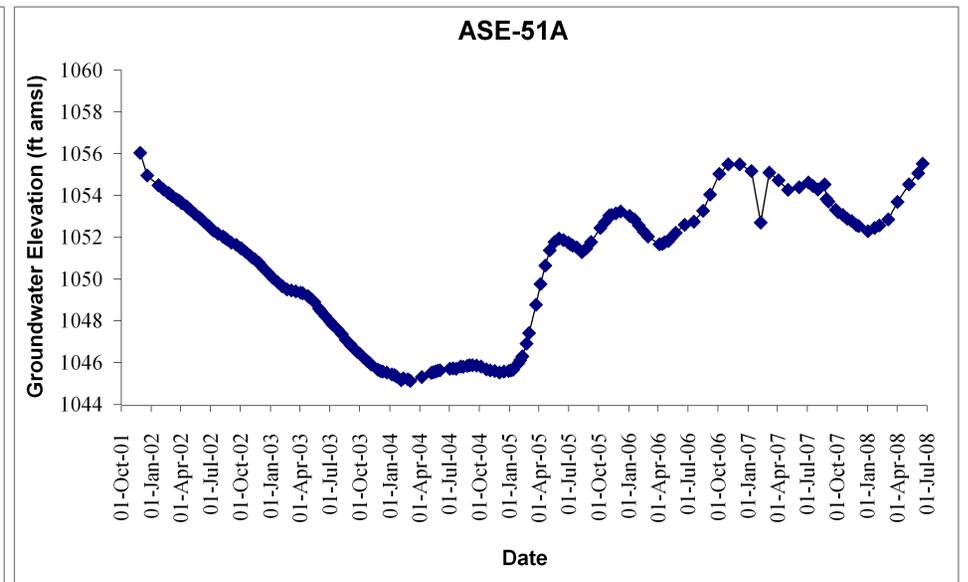
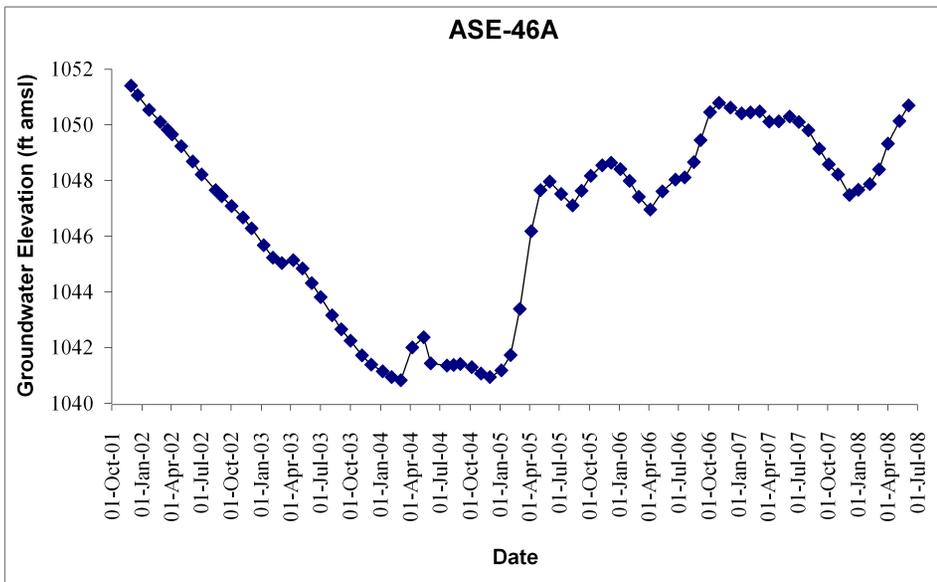
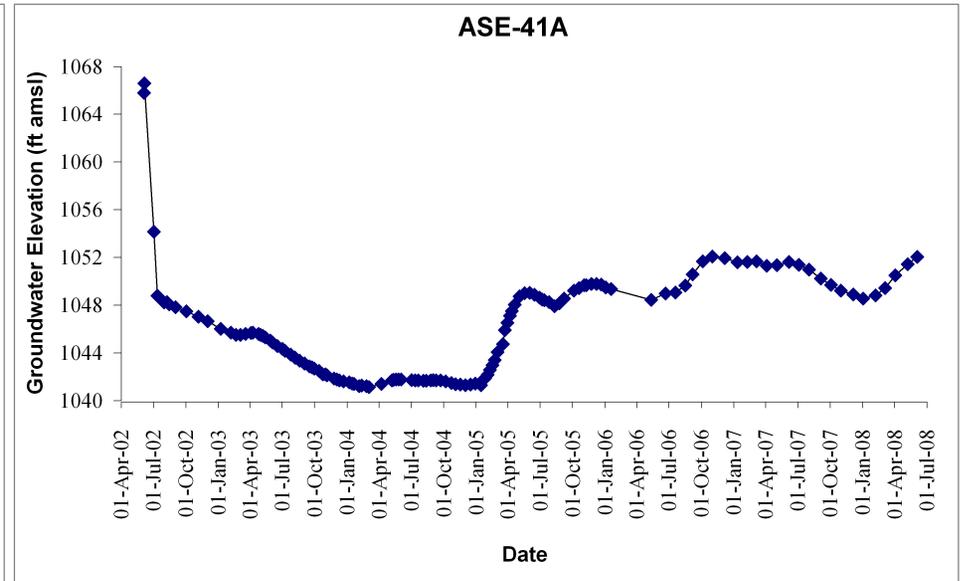
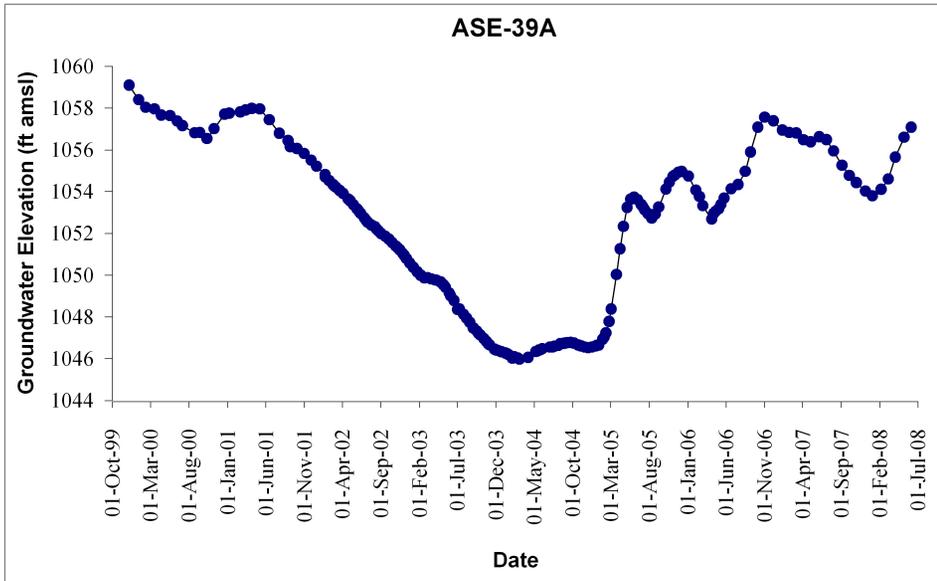
Appendix A

Hydrographs

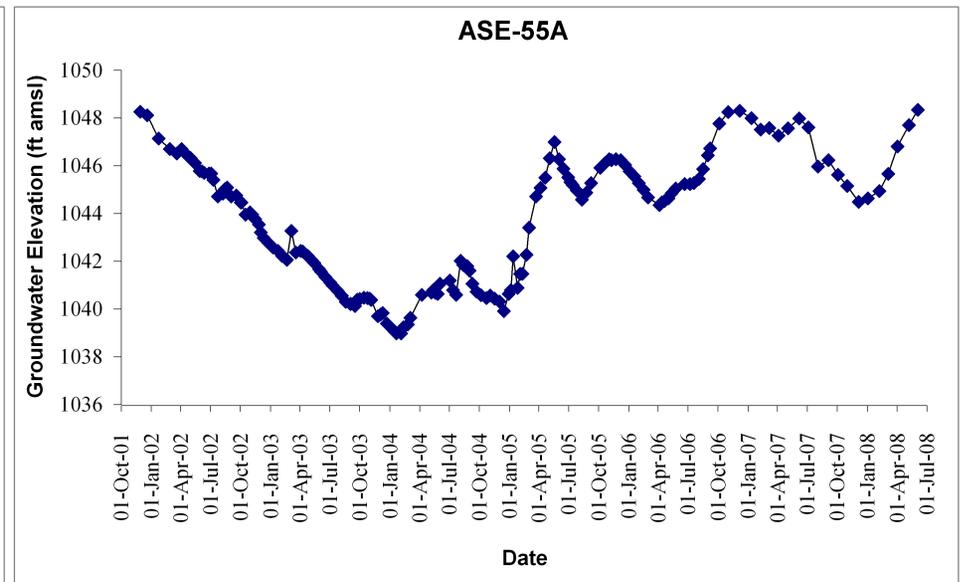
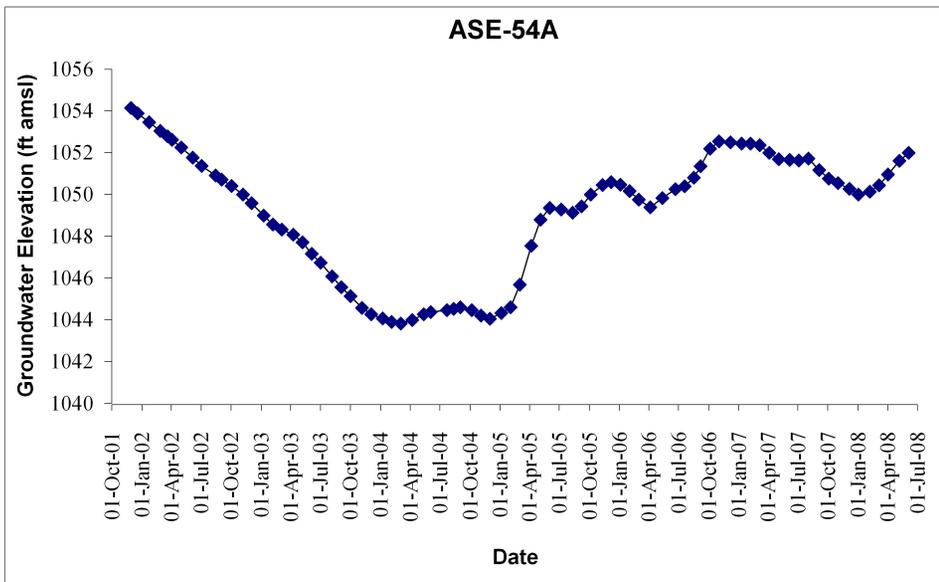
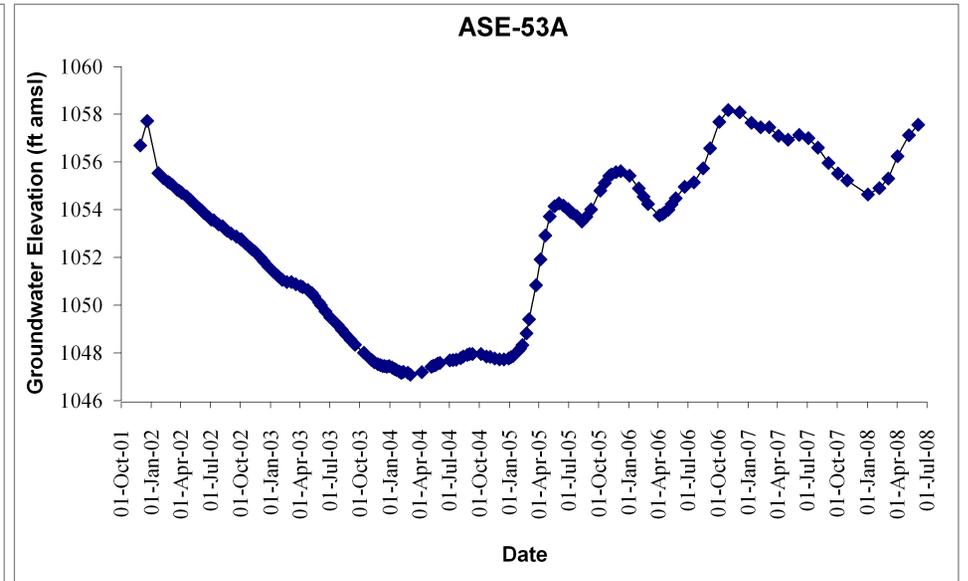
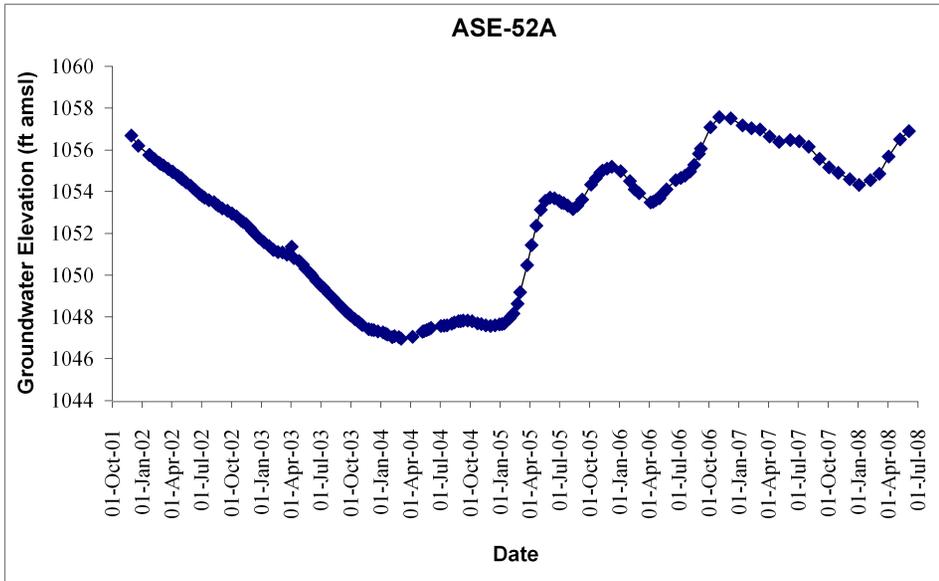
HYDROGRAPHS



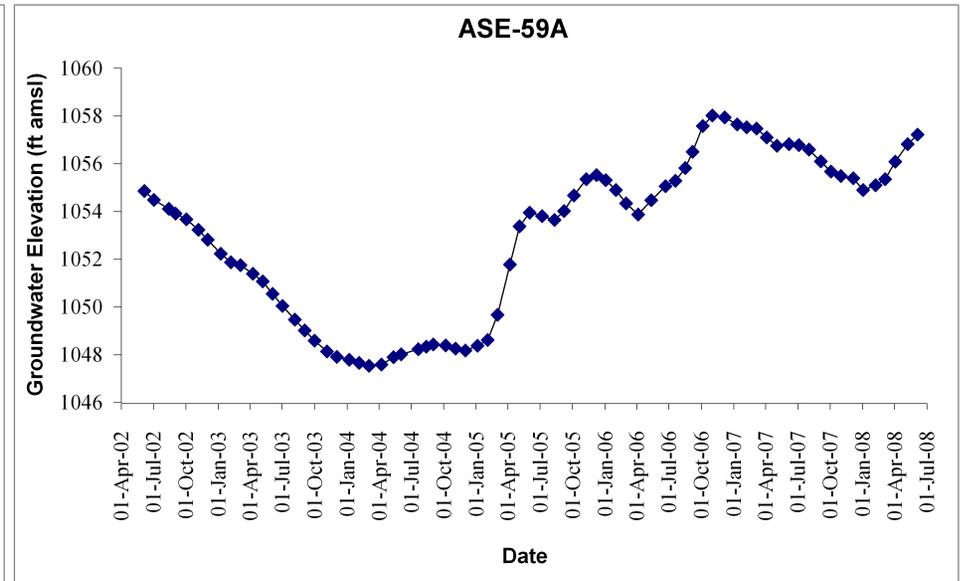
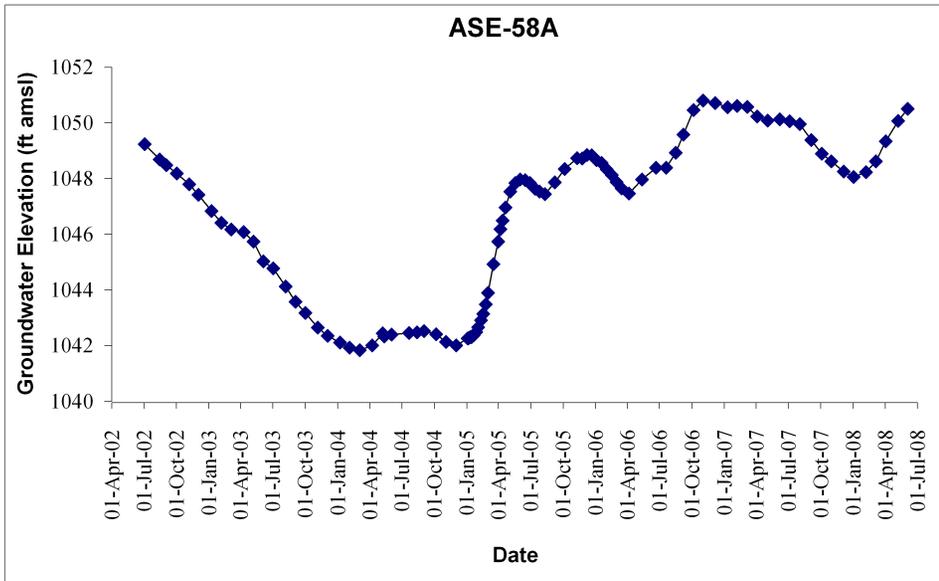
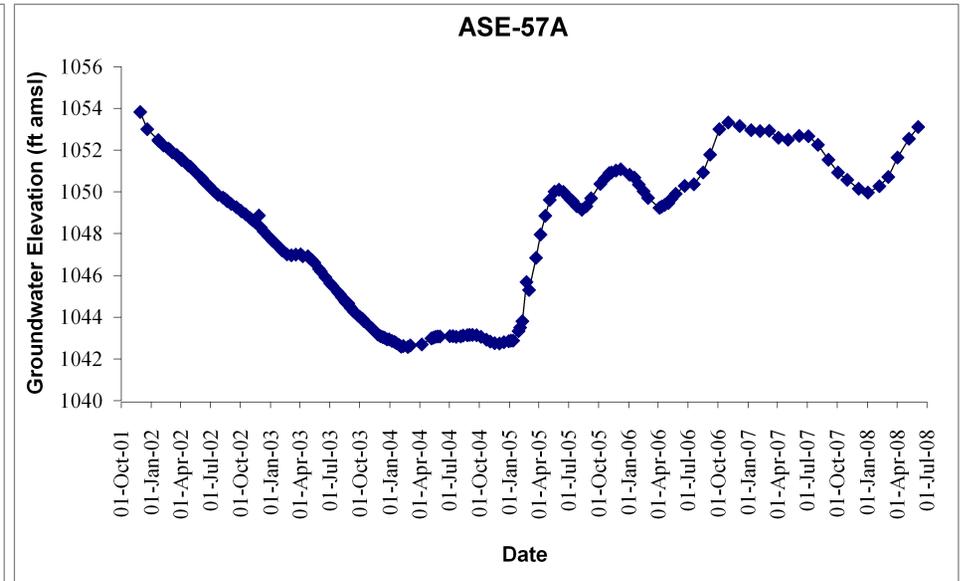
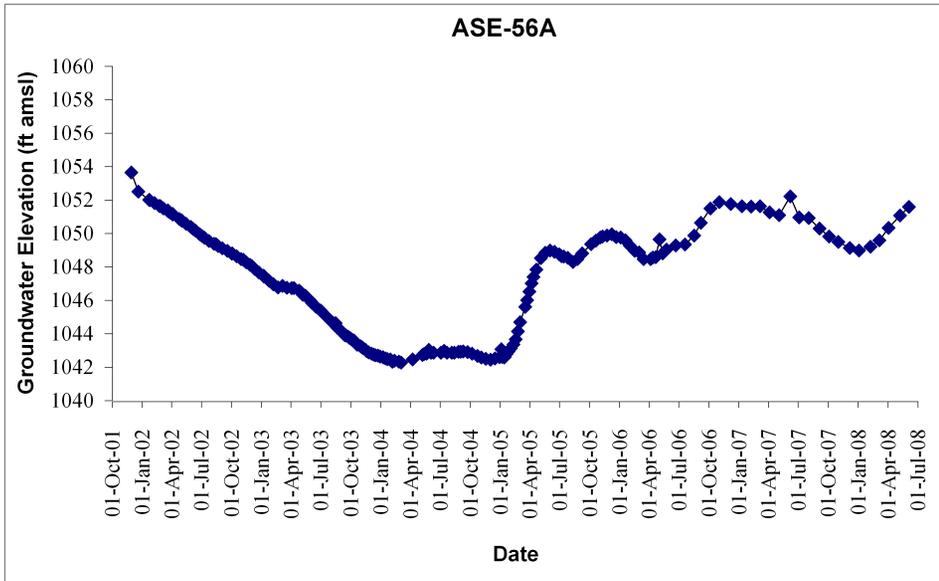
HYDROGRAPHS



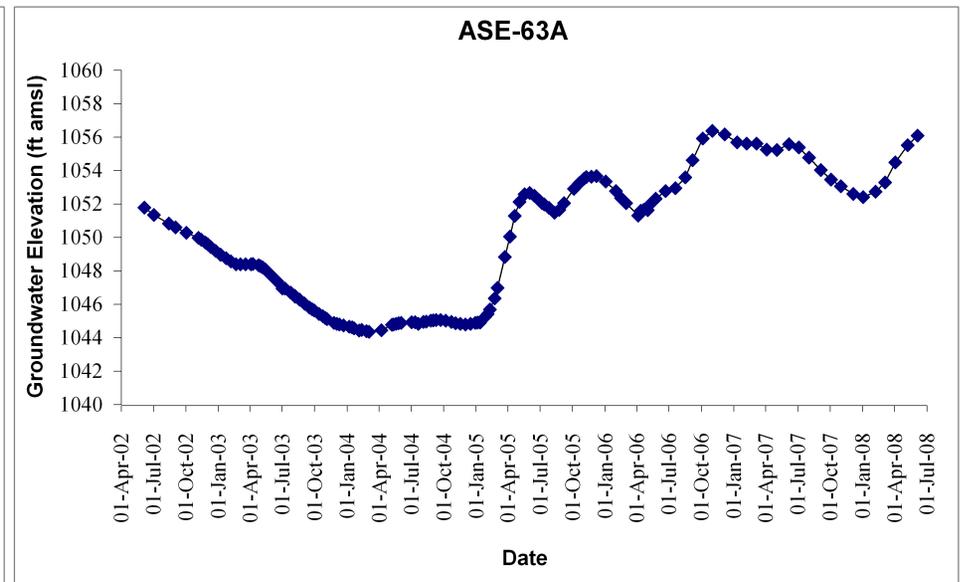
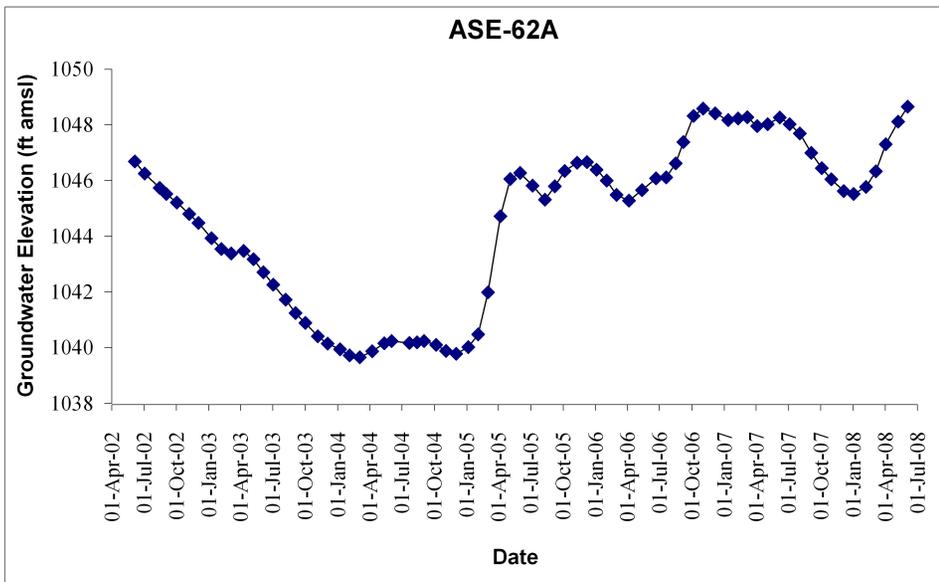
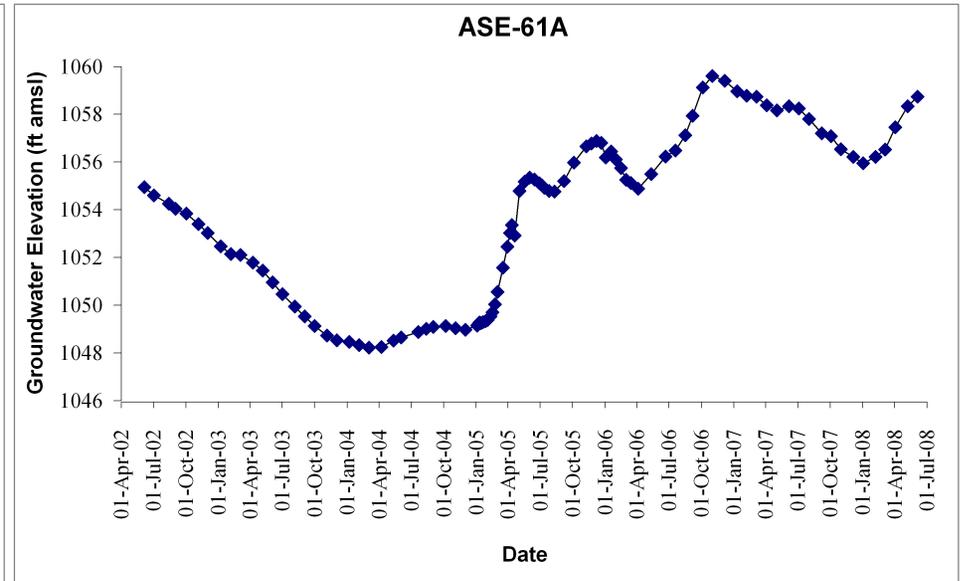
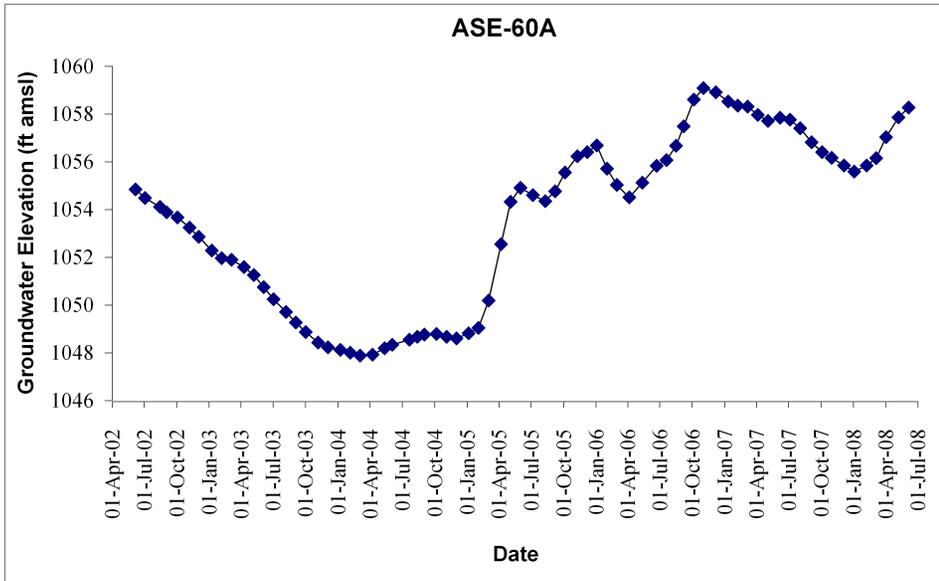
HYDROGRAPHS



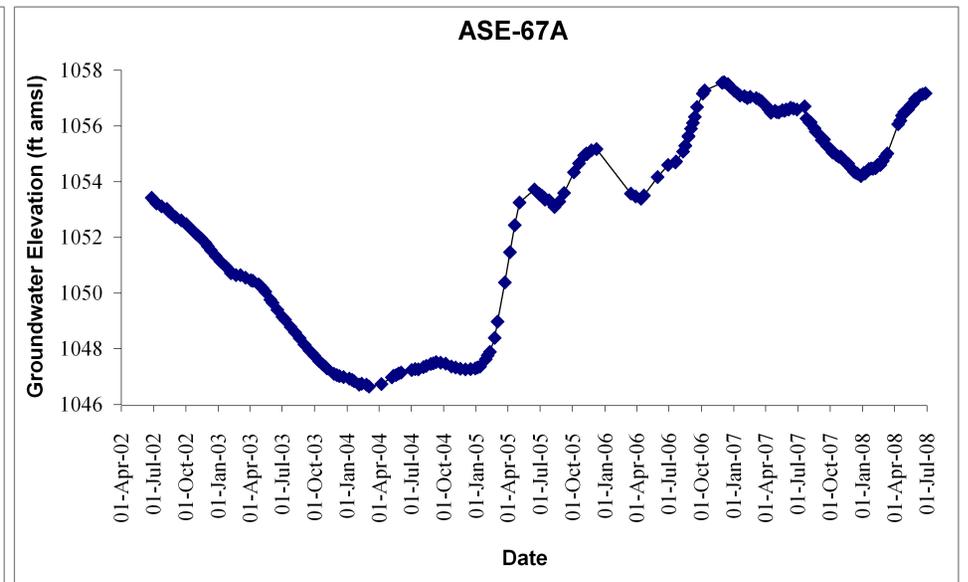
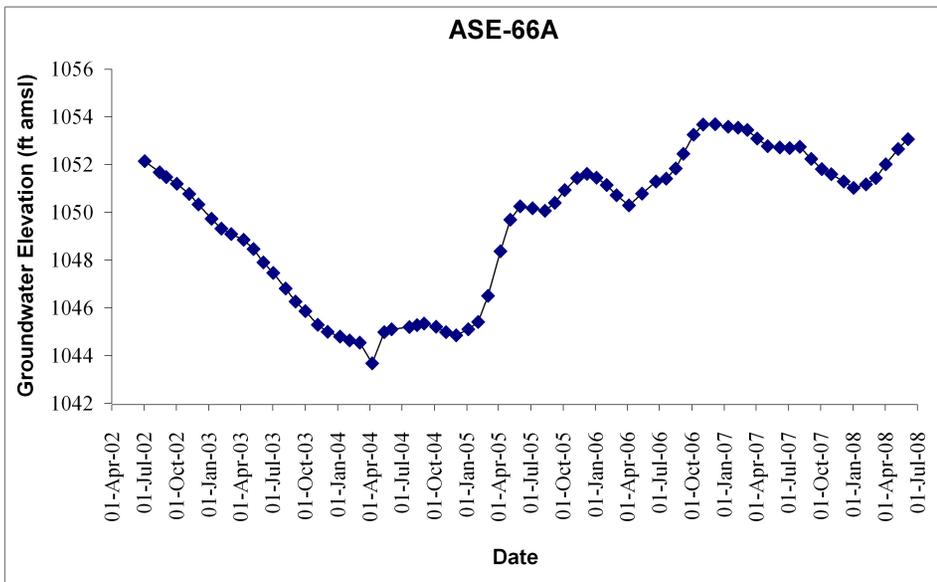
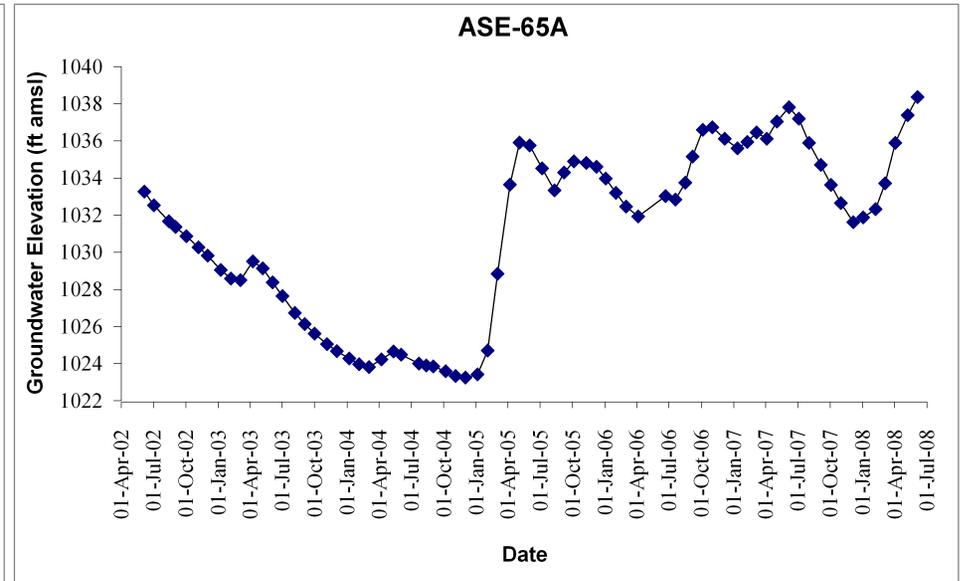
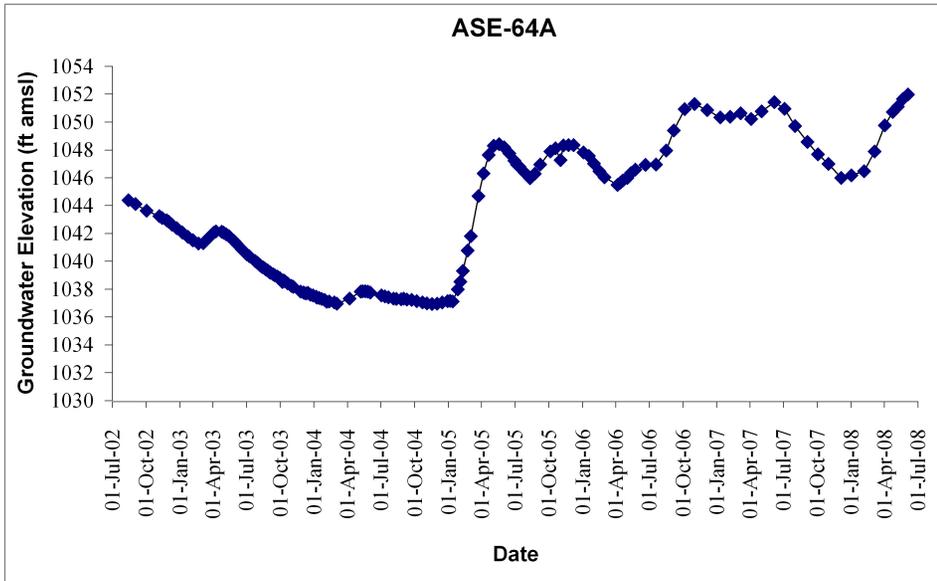
HYDROGRAPHS



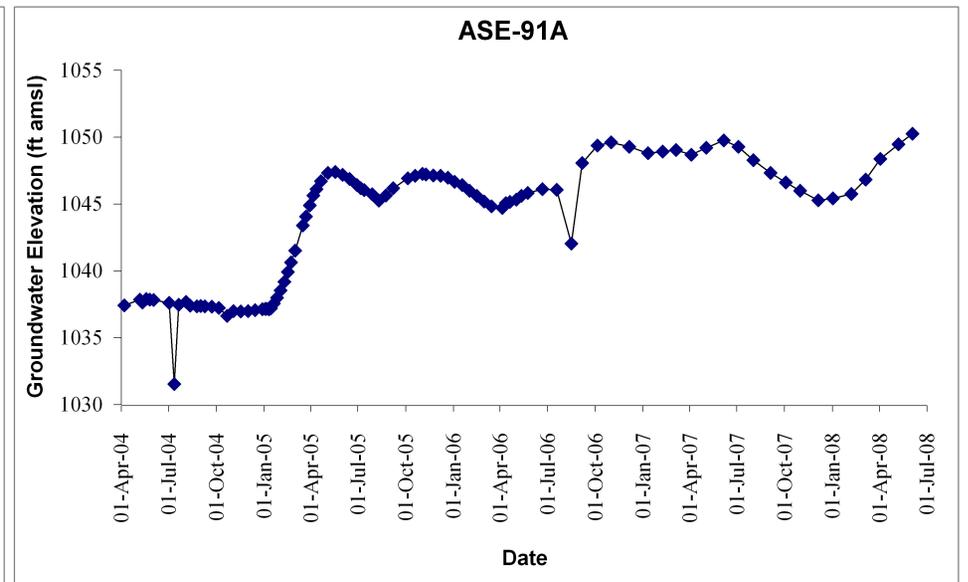
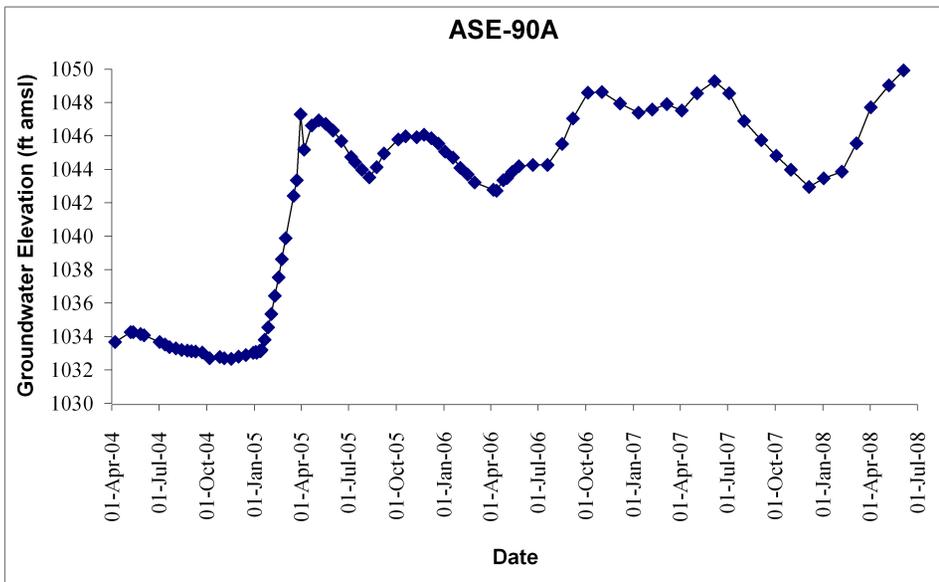
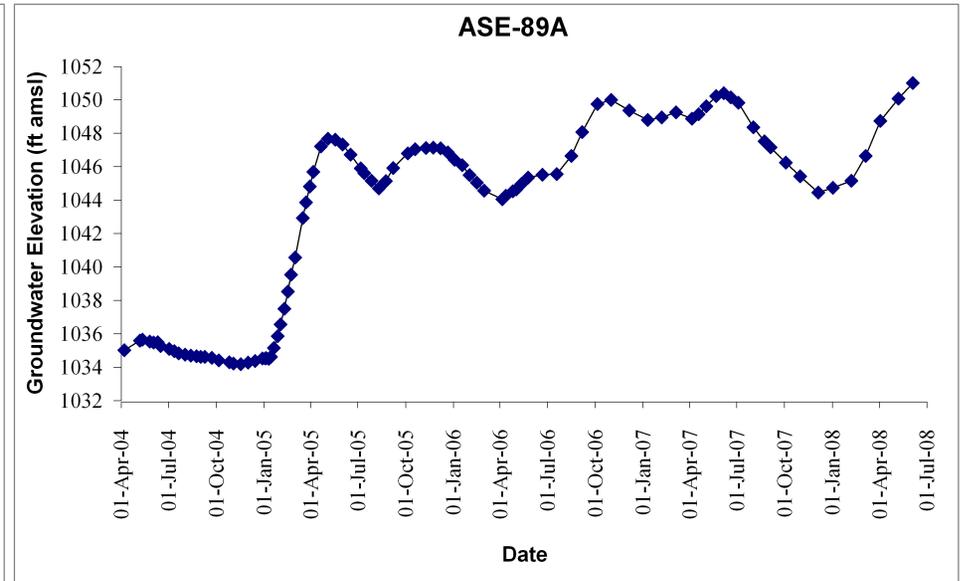
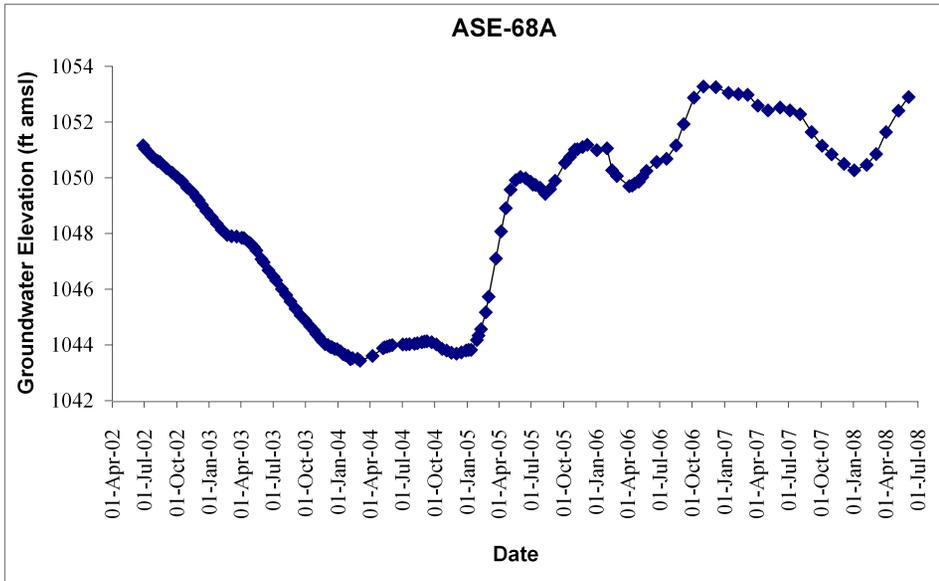
HYDROGRAPHS



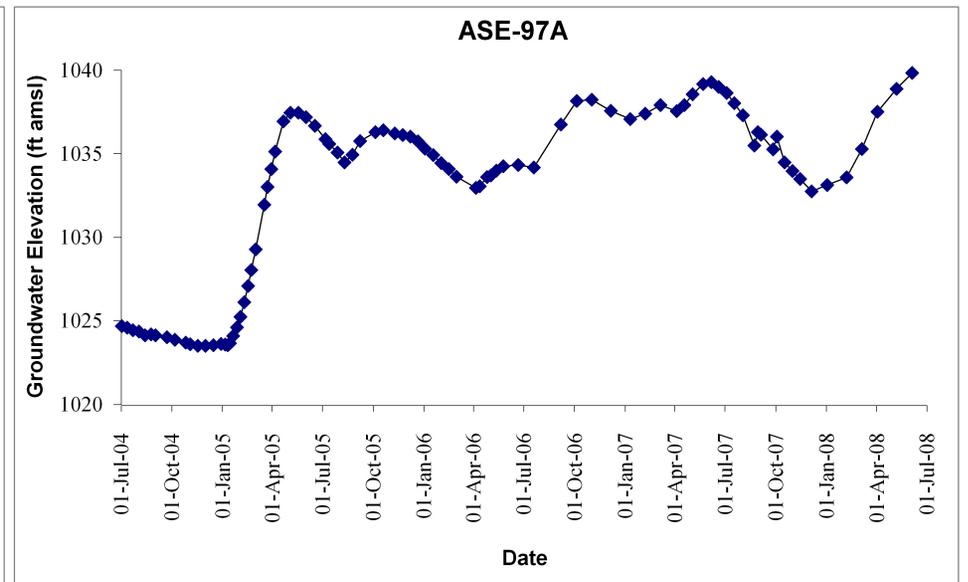
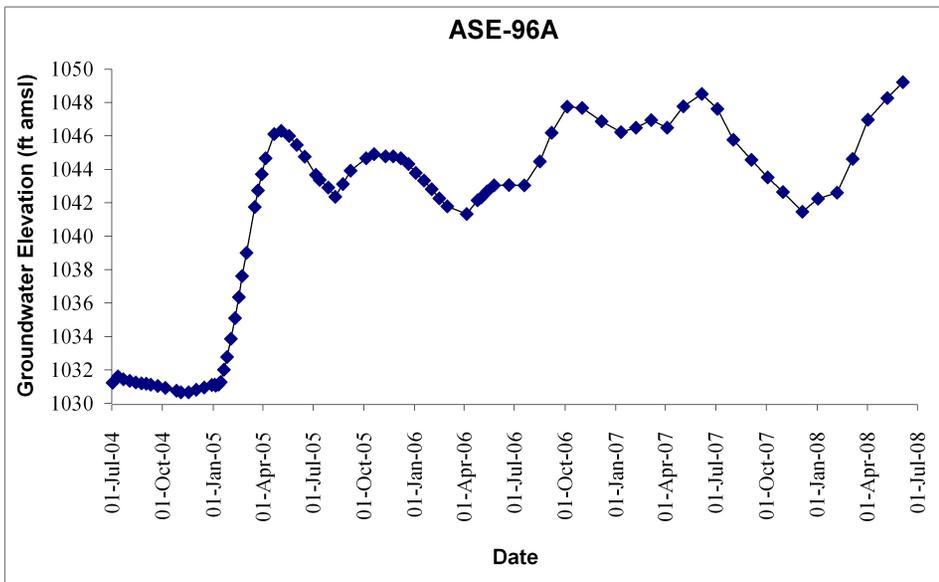
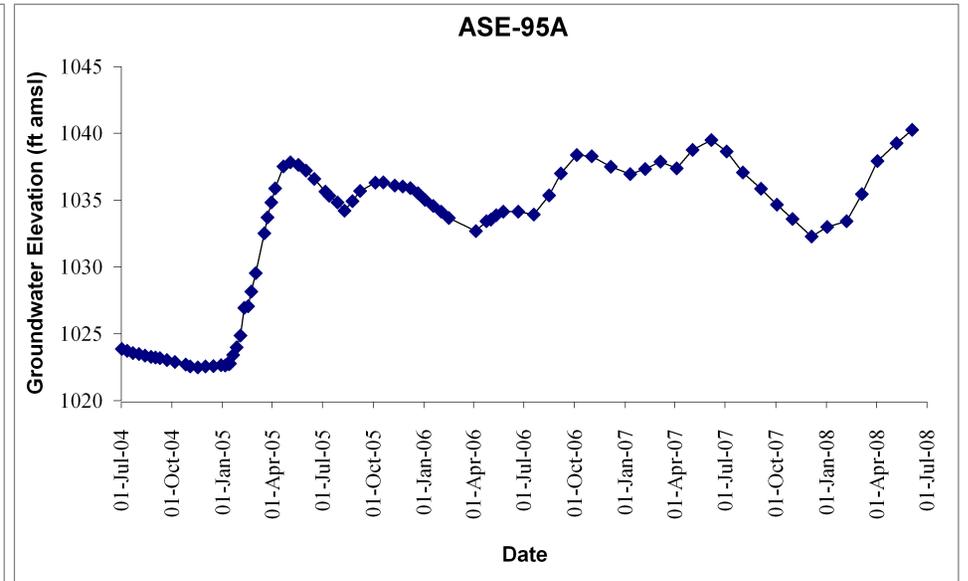
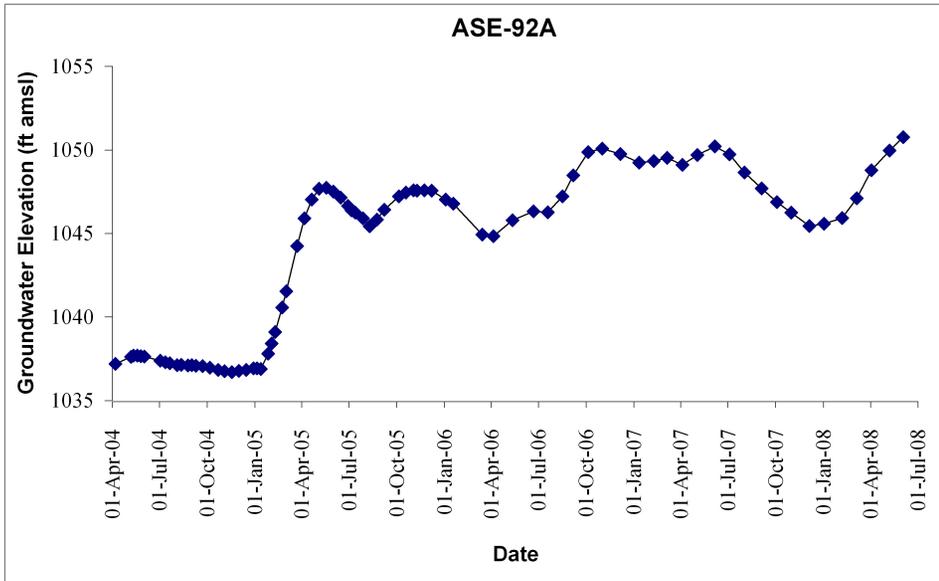
HYDROGRAPHS



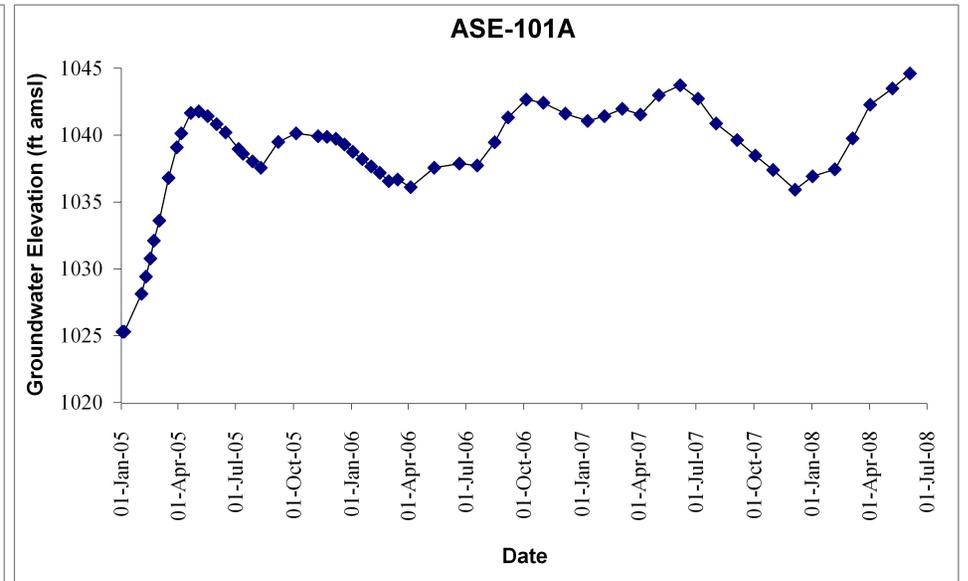
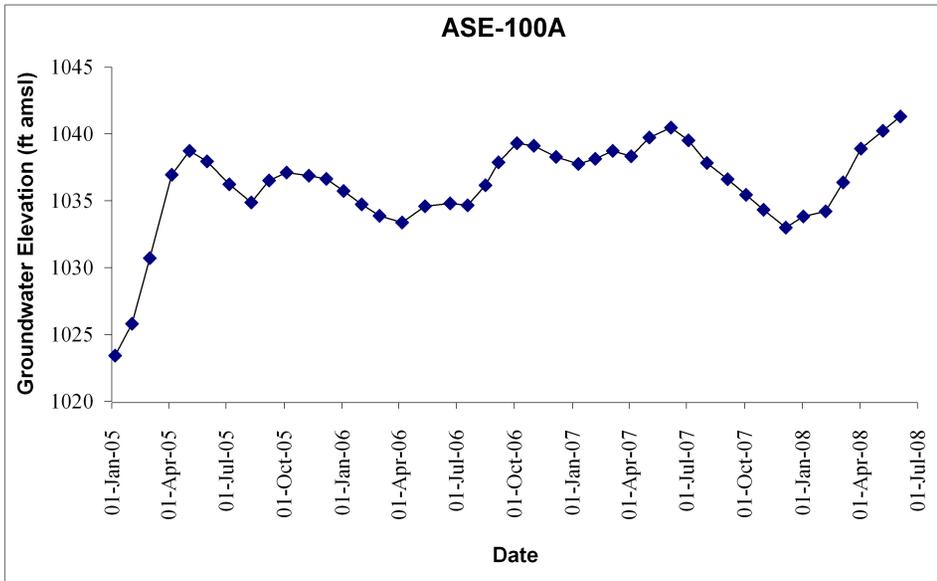
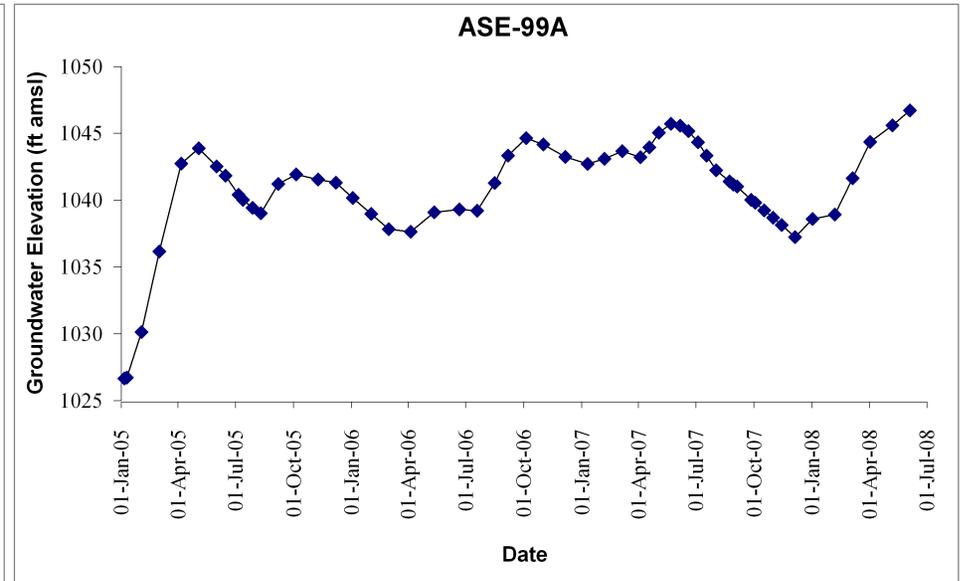
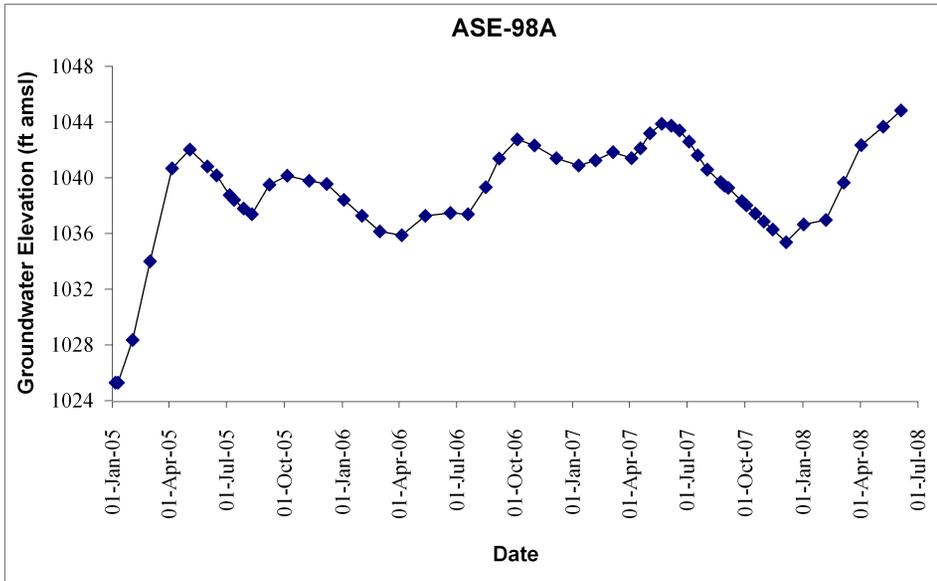
HYDROGRAPHS



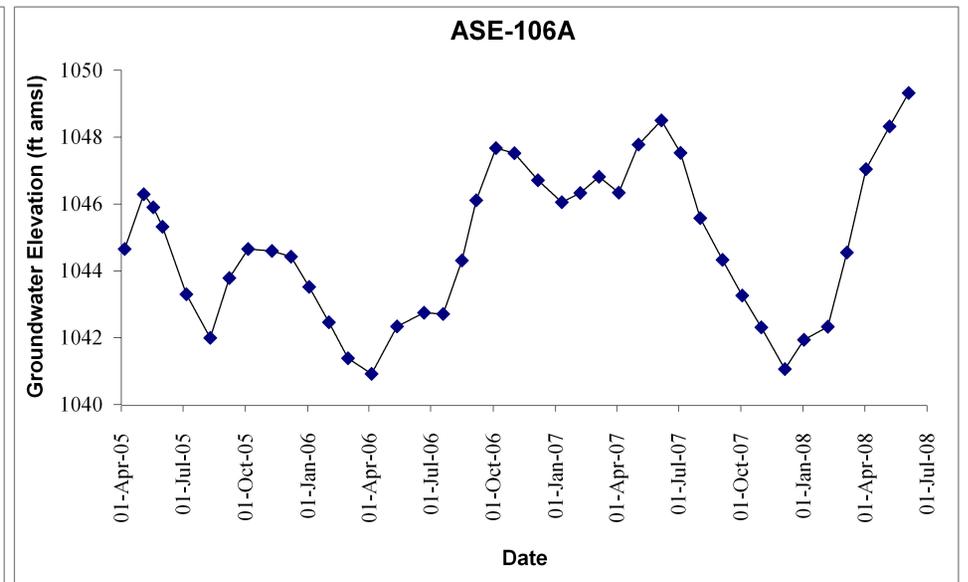
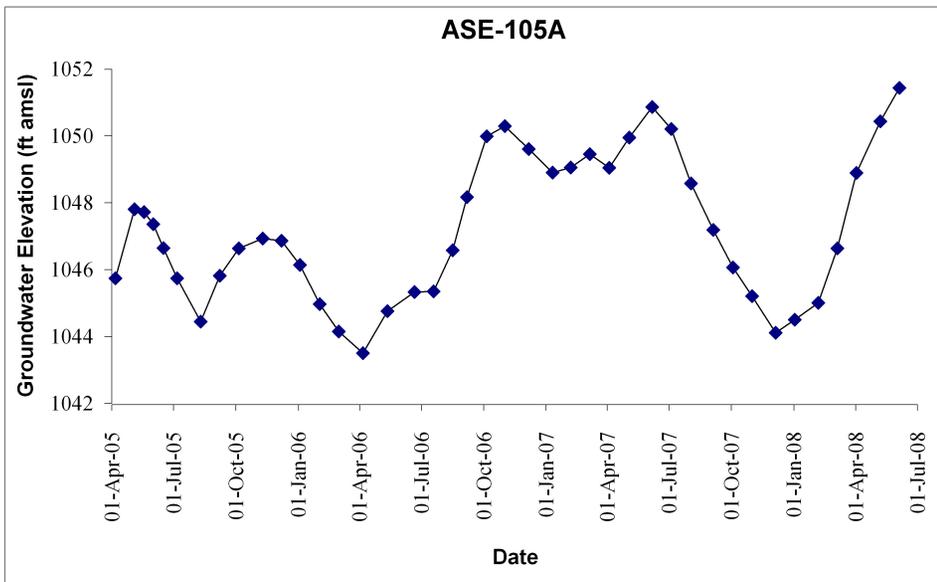
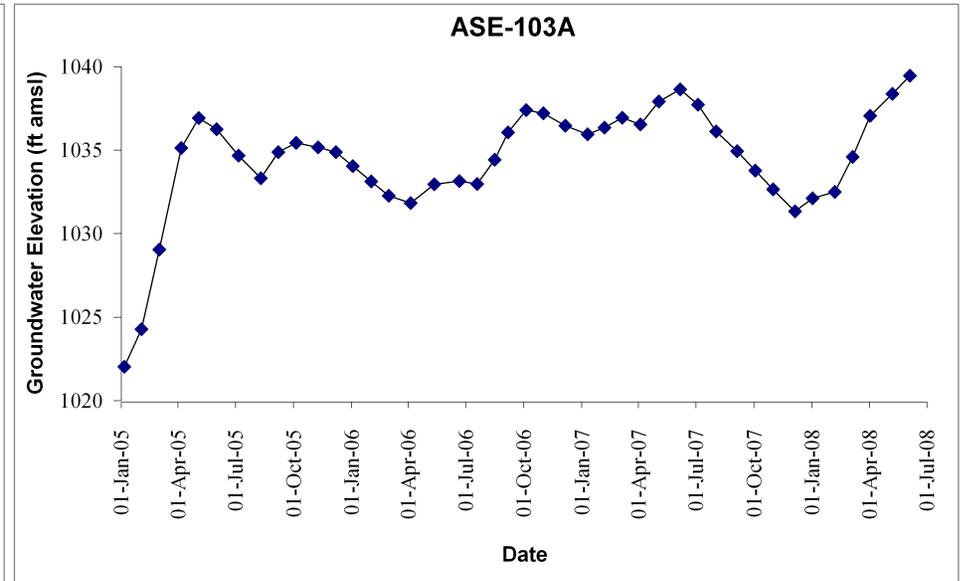
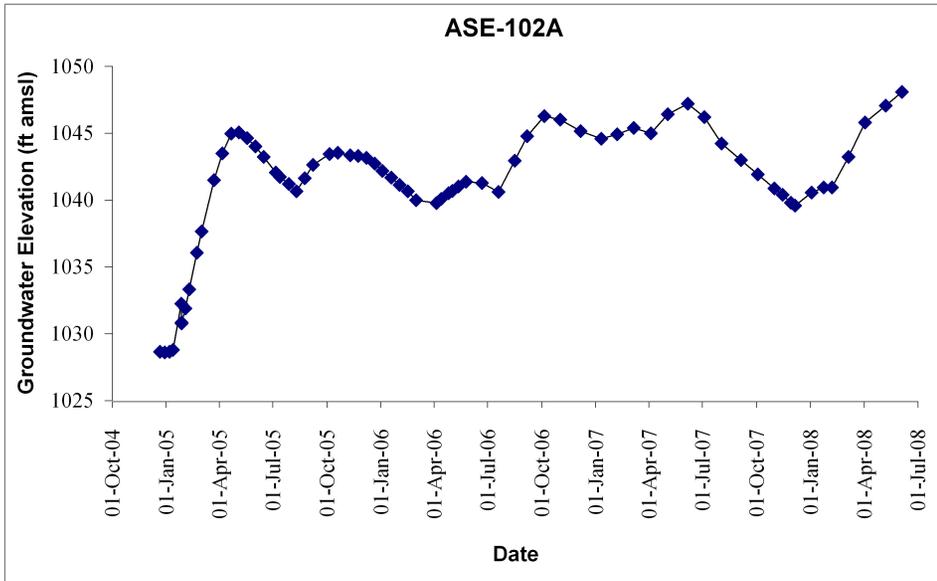
HYDROGRAPHS



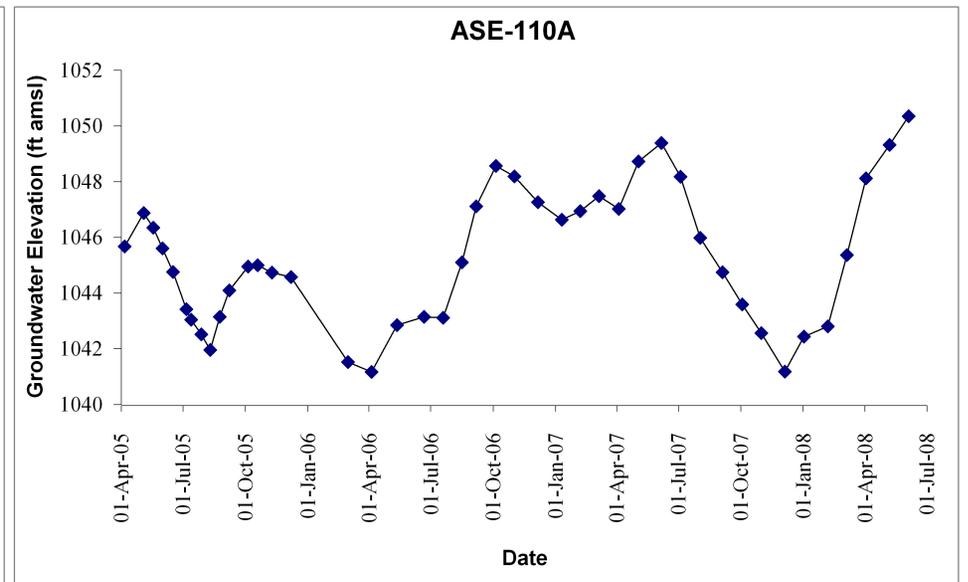
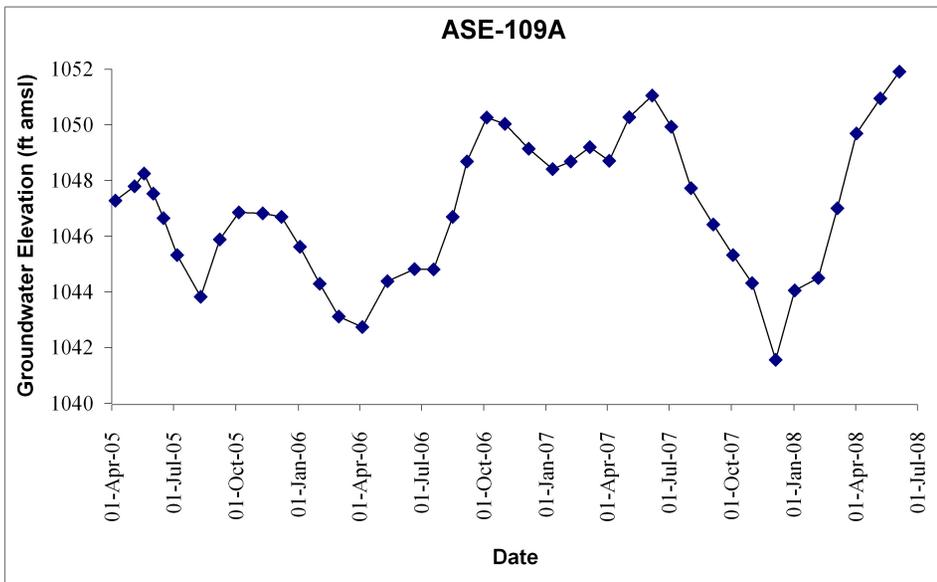
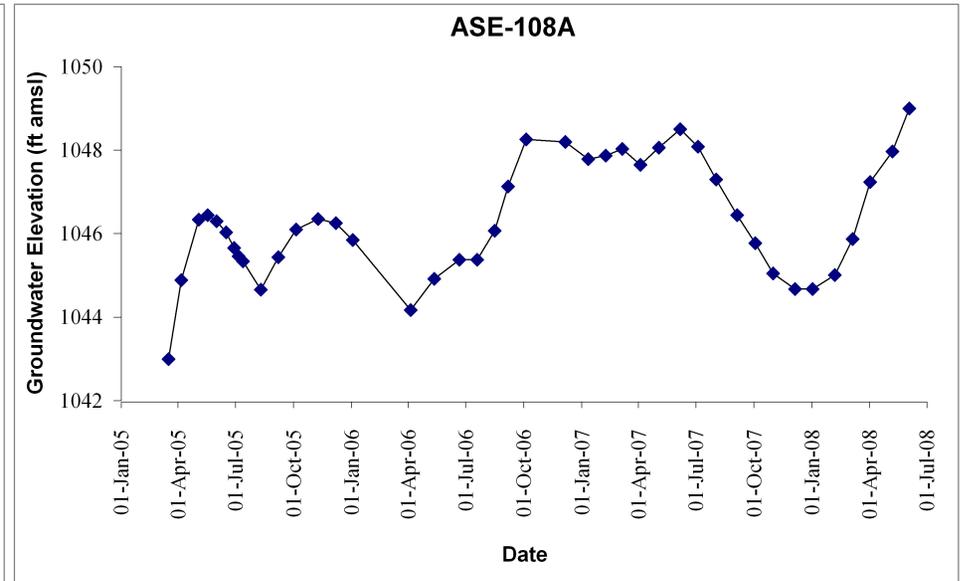
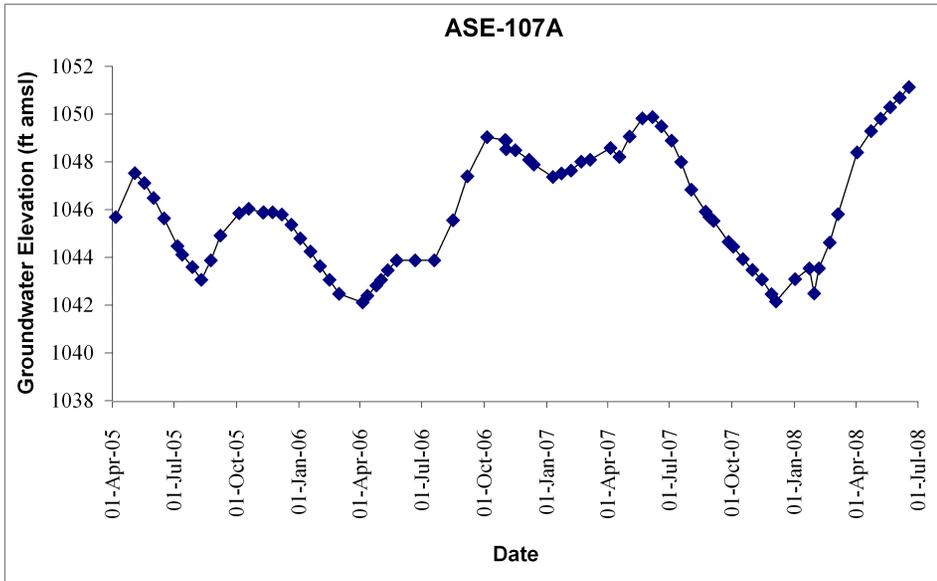
HYDROGRAPHS



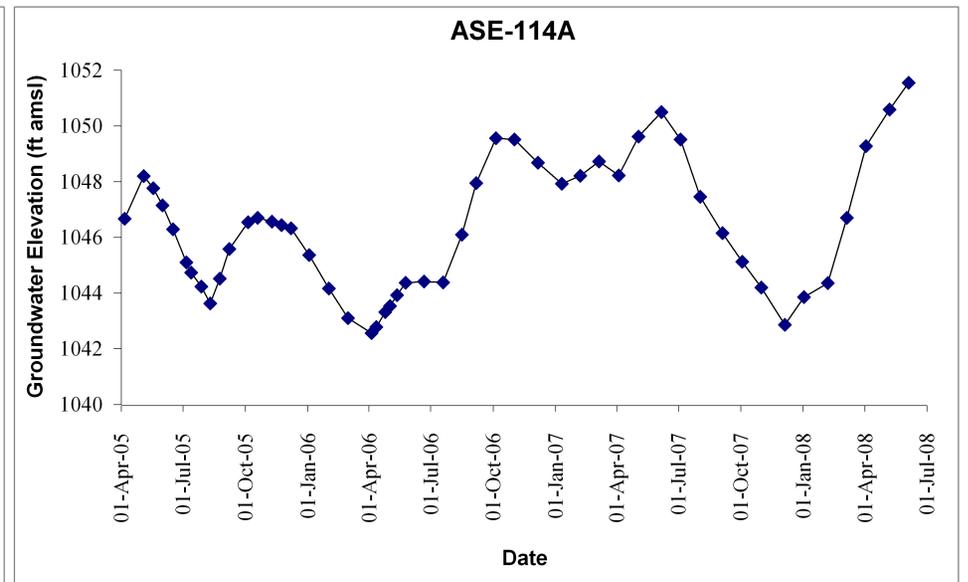
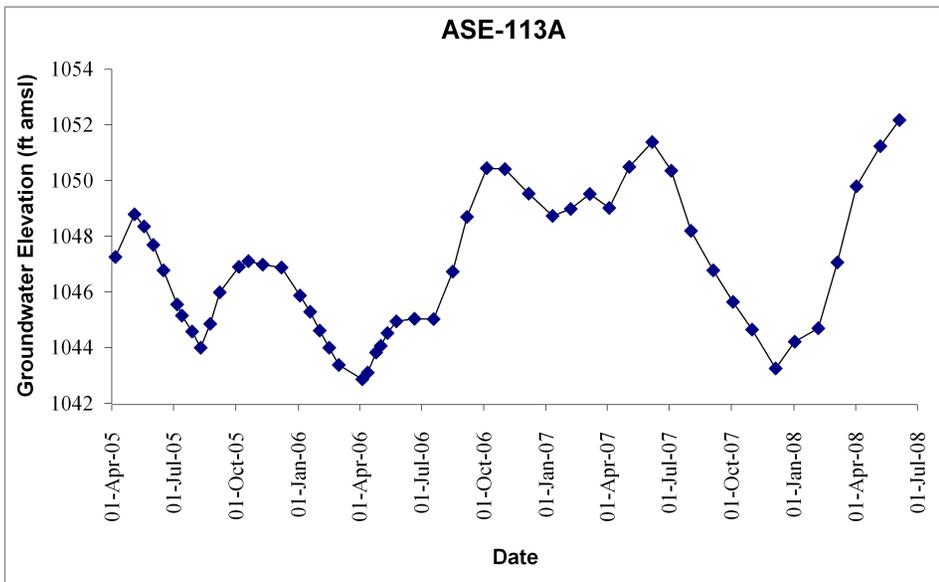
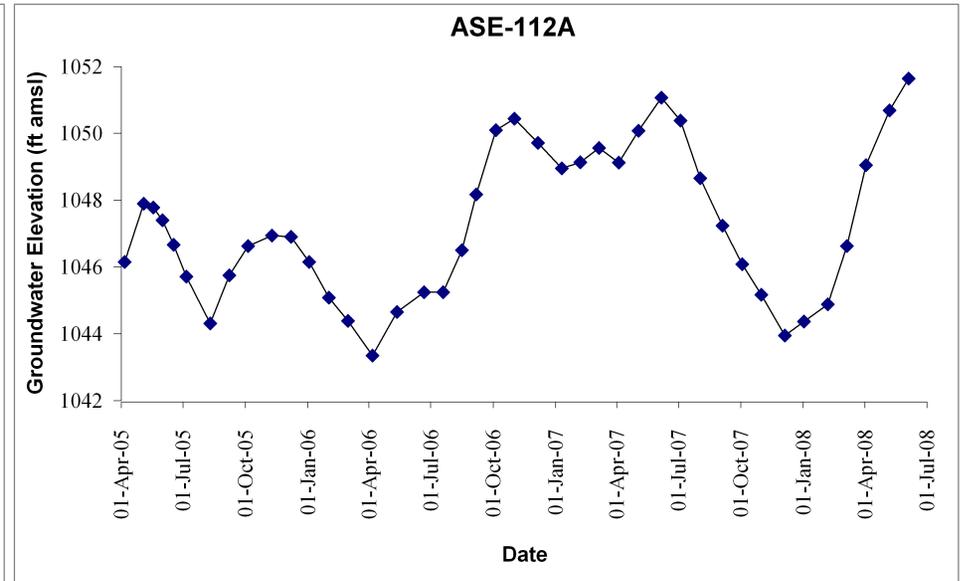
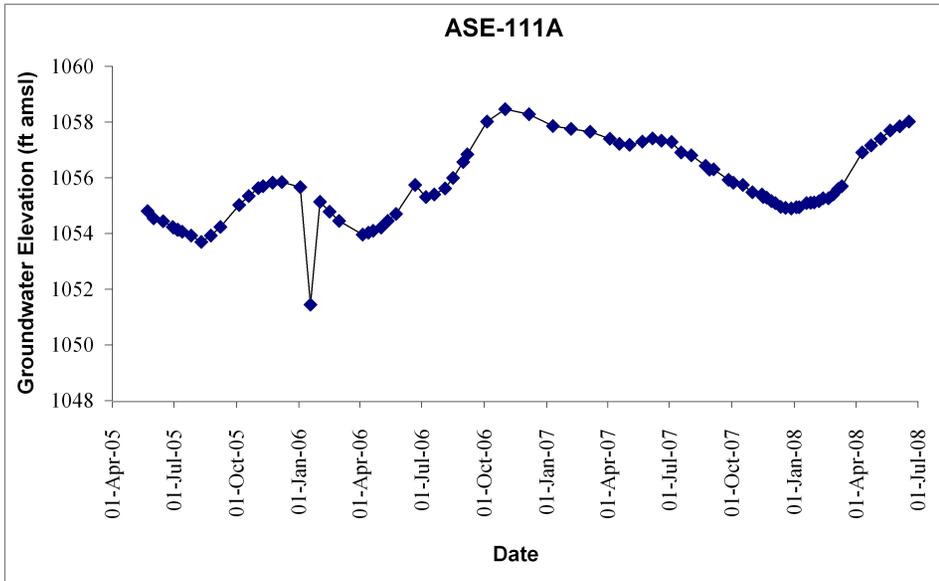
HYDROGRAPHS



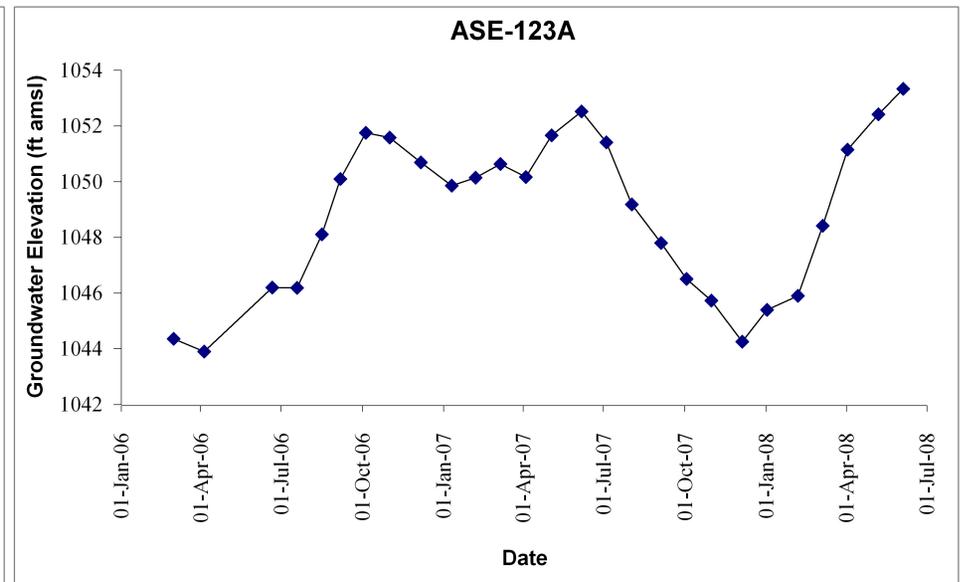
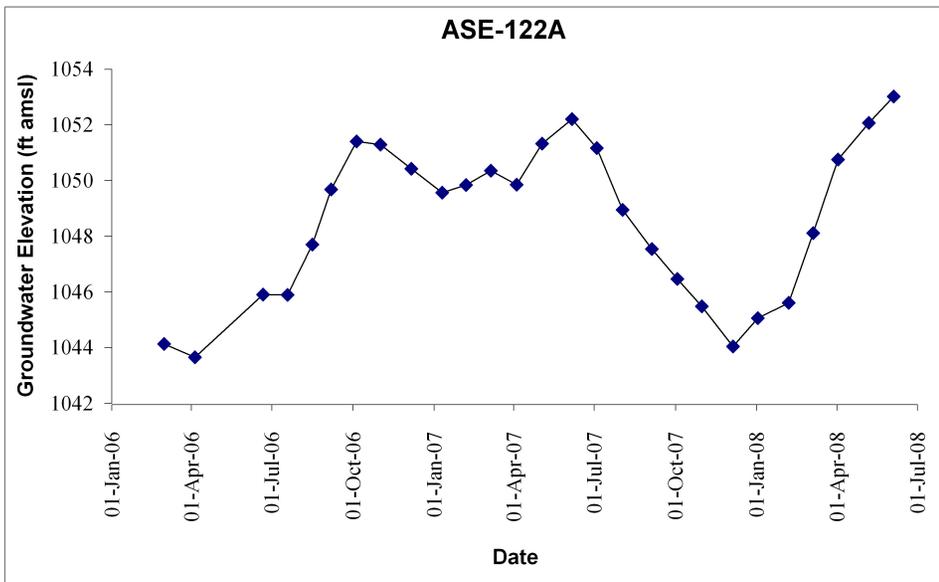
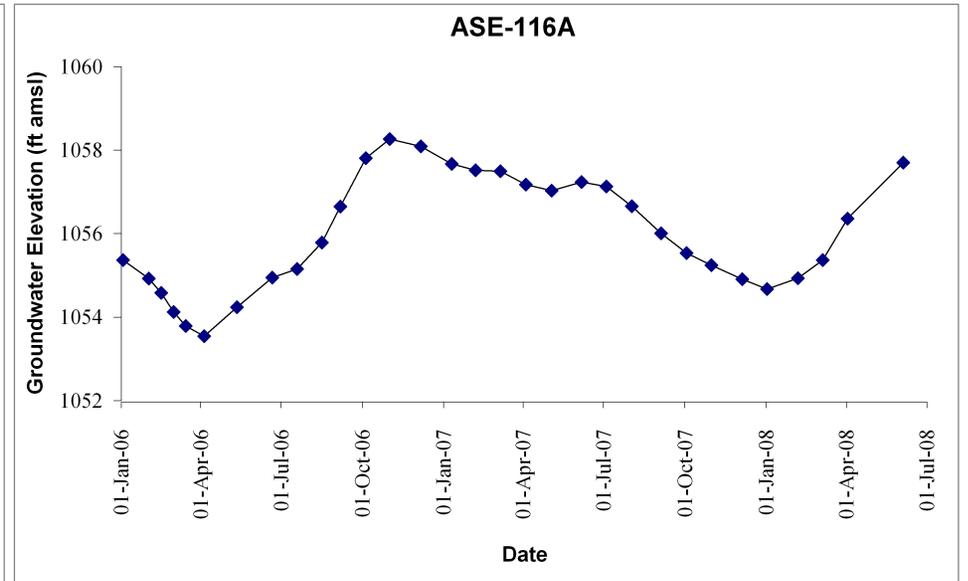
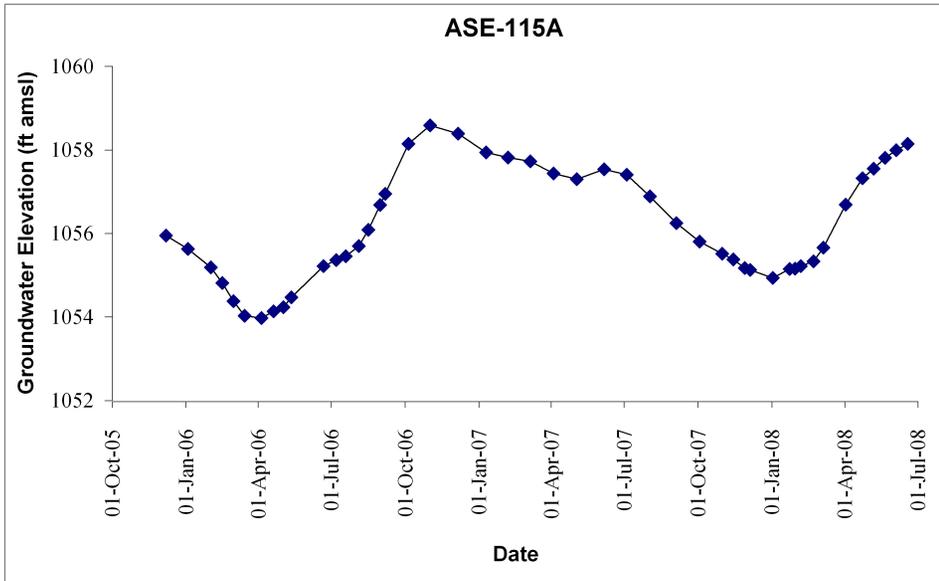
HYDROGRAPHS



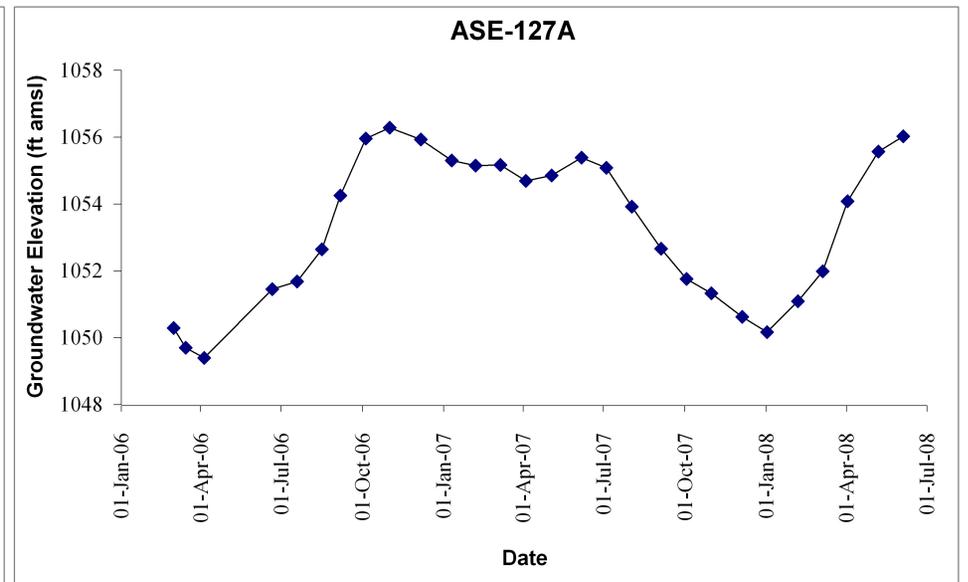
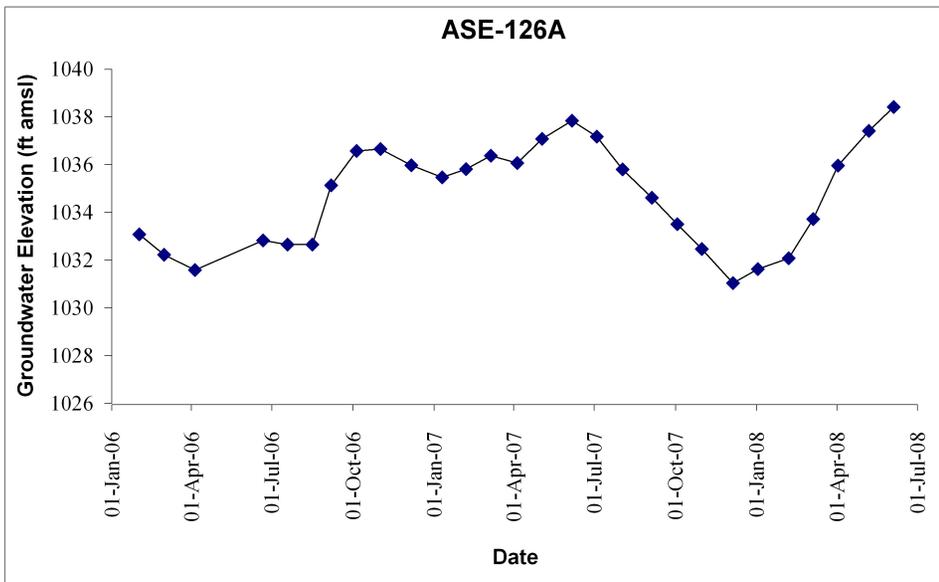
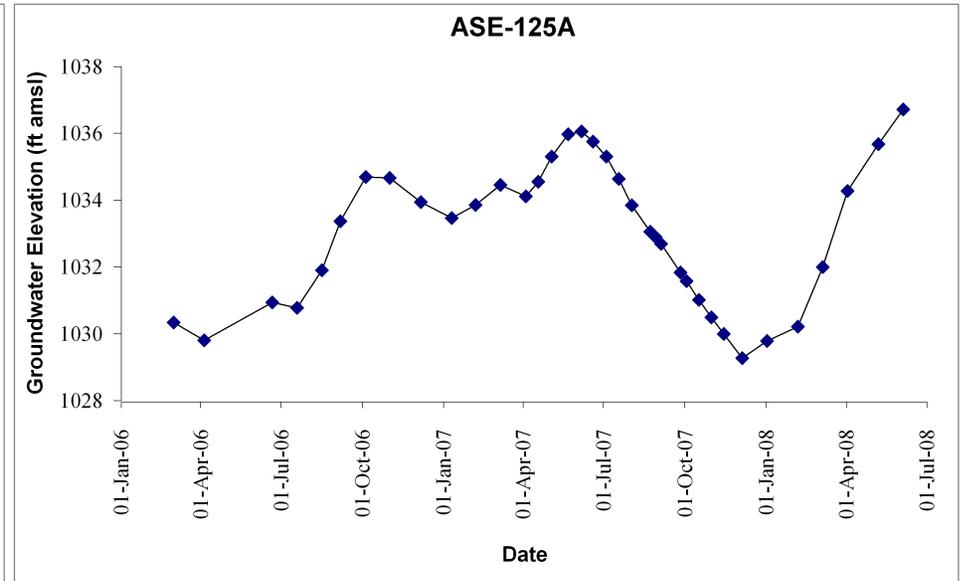
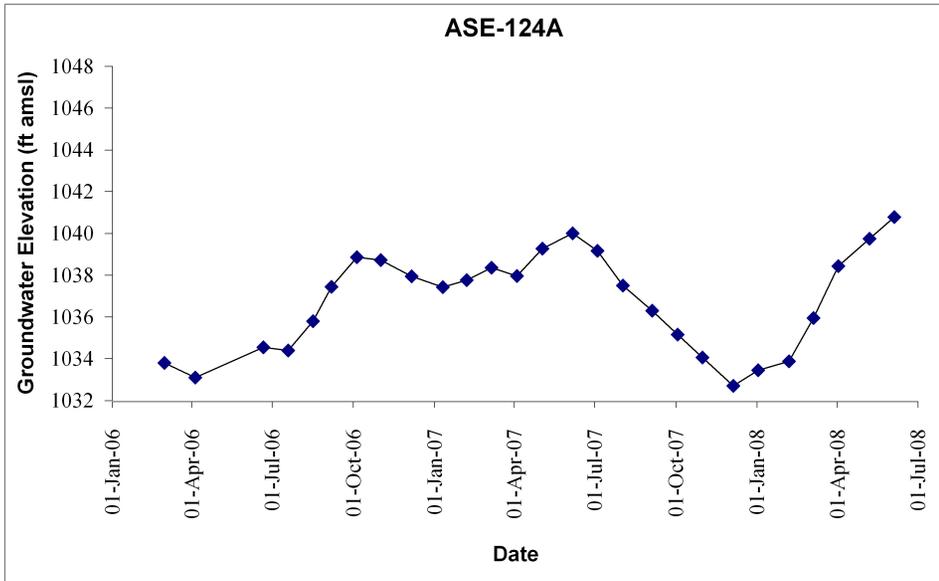
HYDROGRAPHS



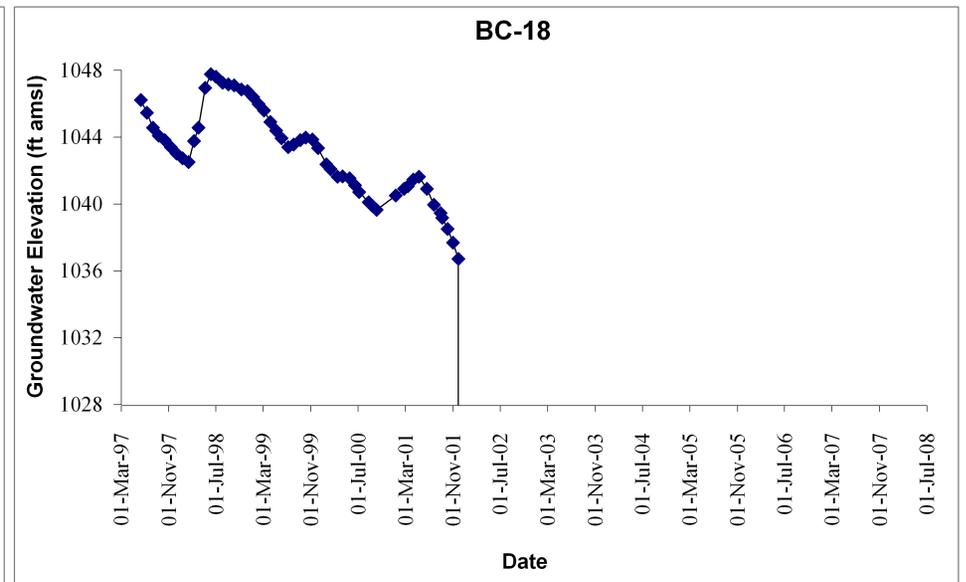
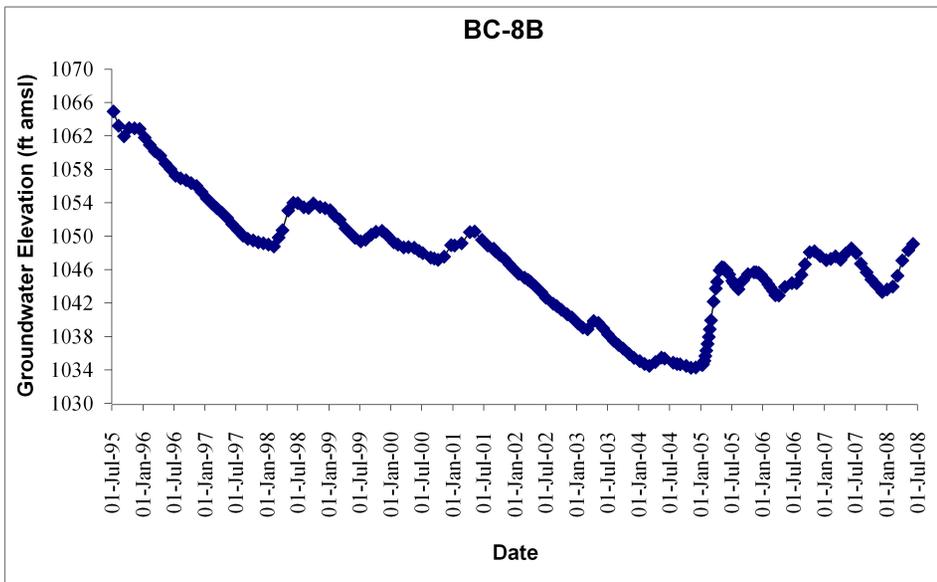
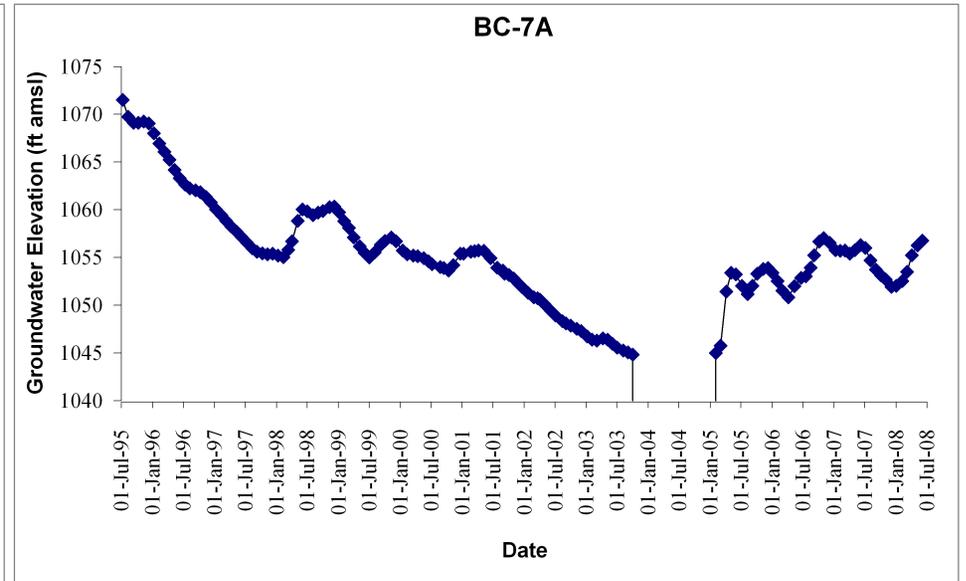
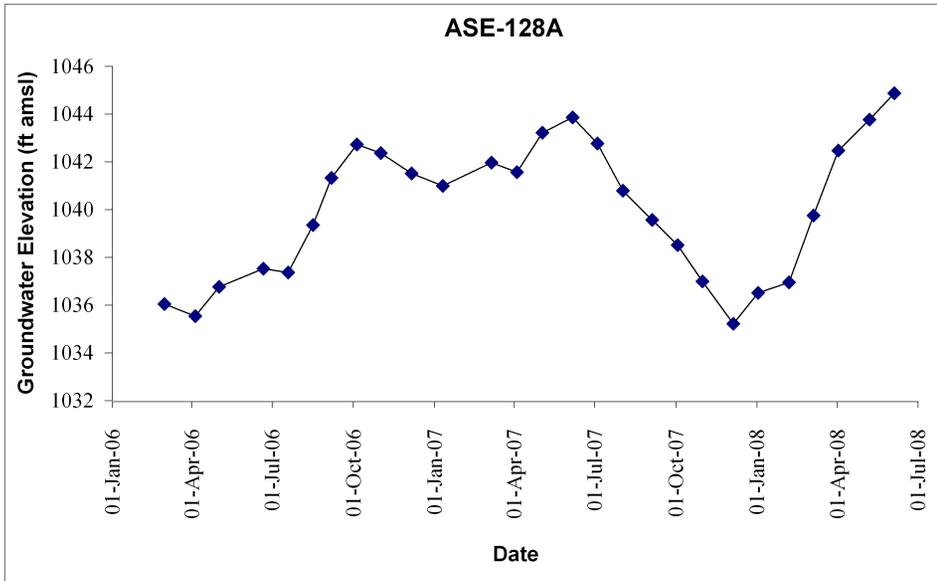
HYDROGRAPHS



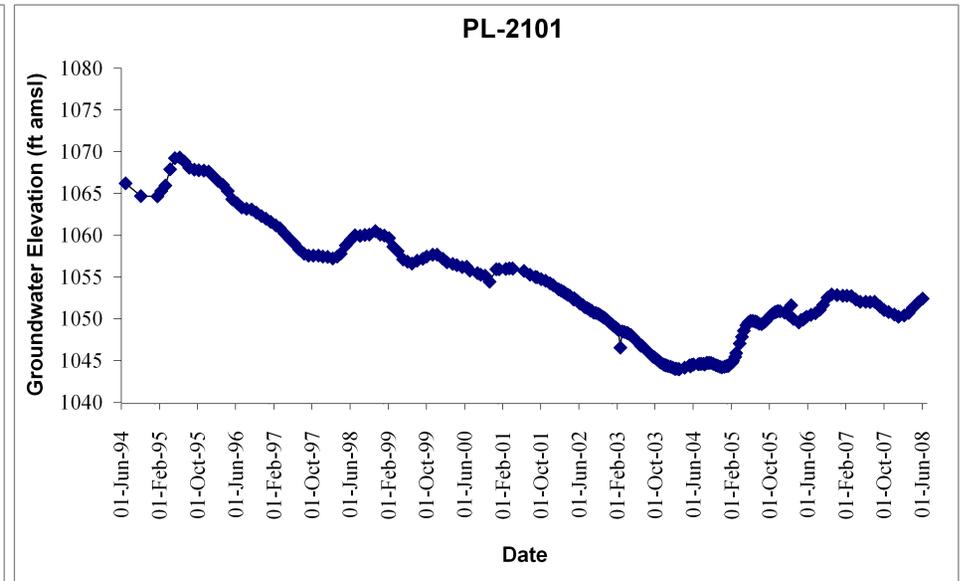
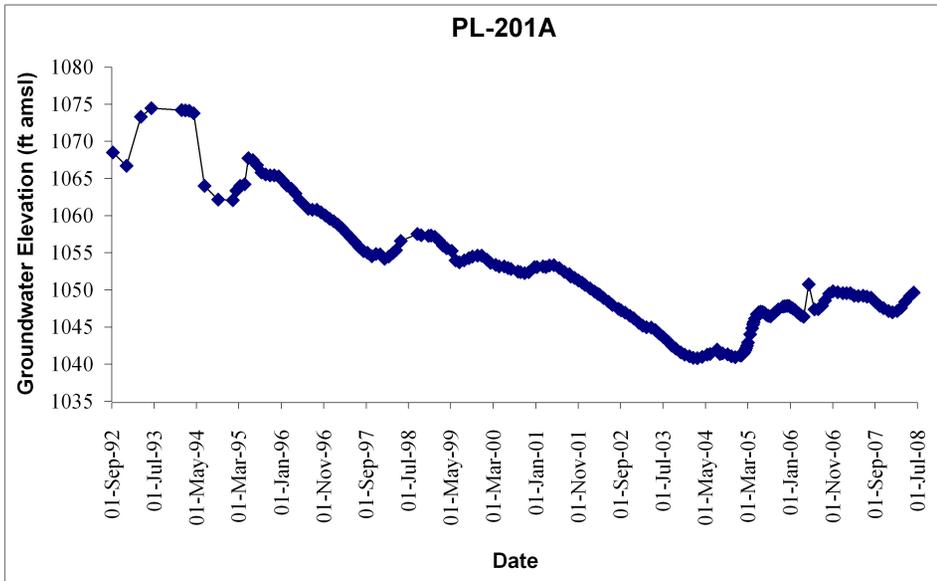
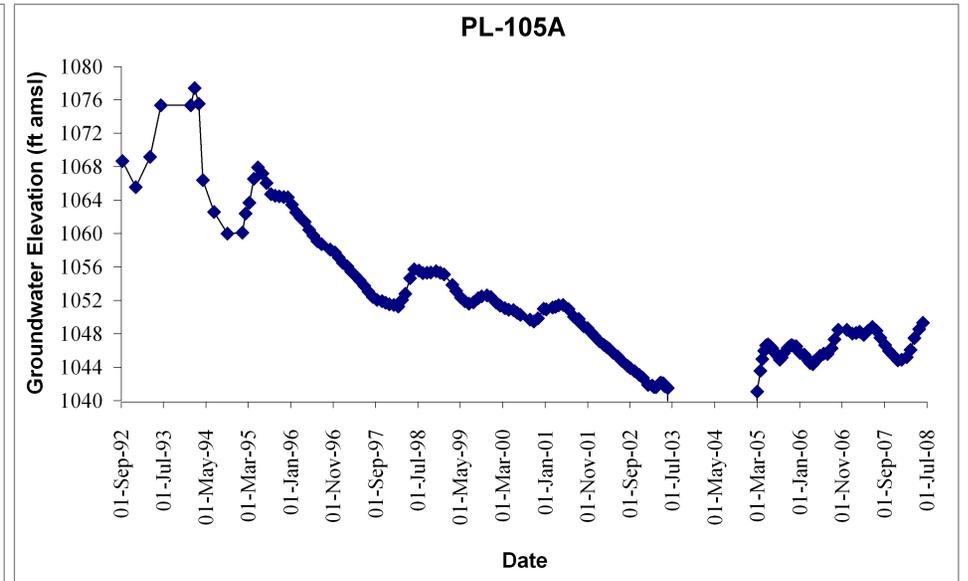
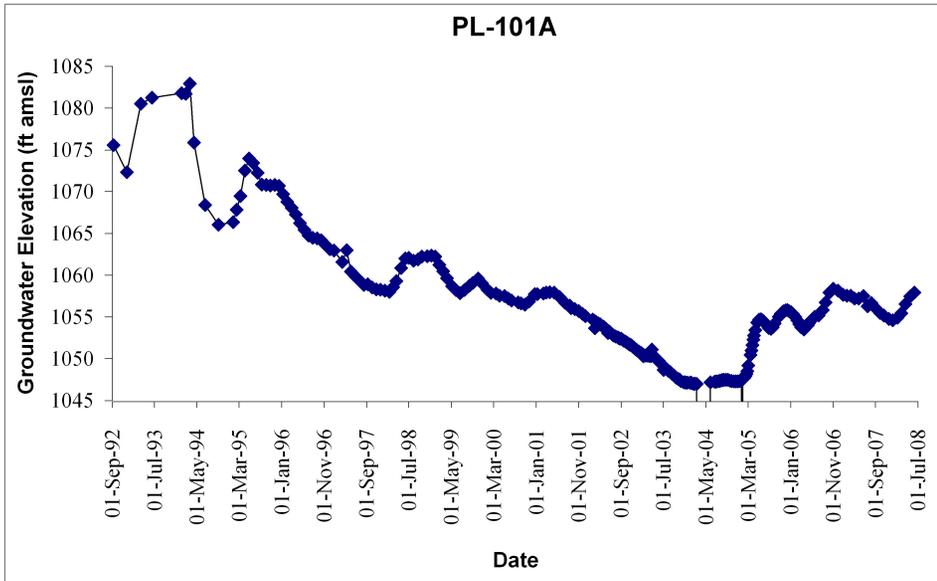
HYDROGRAPHS



HYDROGRAPHS



HYDROGRAPHS



HYDROGRAPHS

