

OU #11-010

**Phoenix-Goodyear Airport (PGA) Area/Western Avenue Plume
Community Advisory Group (CAG) Meeting**

**Thursday, August 5, 2010 at 6:00 p.m. to 8:30 p.m.
Goodyear City Hall, Room 117
190 N. Litchfield Rd., Goodyear, AZ 85338**

FINAL MINUTES

CAG Members in Attendance:

Diane Krone
Brenda Holland
Susan Kagan
Lisa Amos
Jeff Raible
David Ellis

EPA Staff in Attendance:

Catherine Brown, PGA-North Project Manager
Viola Cooper, Community Involvement Coordinator

ADEQ Staff in Attendance:

Harry Hendler, Federal Projects Unit Manager
André Chiaradia, PGA-South and Western Avenue Project Manager
Nicole Coronado, PGA-North Project Manager
Wayne Miller, ADEQ Hydrologist
Robert Peebles, ADEQ Hydrologist
Felicia Calderon, Community Involvement Coordinator

Others in Attendance:

Stephanie Lyn Koehne, AMEC Geomatrix; David Iwanski, City of Goodyear; Leanne Austrins, CH2M Hill; Tom Suriano, Clear Creek Associates; Jeff Sussman, Goodyear Tire; Dennis Maslonkowski, TRC; Wayne Janis, City of Avondale; Phil Witmore, CH2M Hill; Nadine Johnson, Arizona Association for Environmental Education; Mike B.; Wes Rhodes; Mike Campbell; David Madrid, Arizona Republic; Tom Matheson; Dennis Shirley; Harry Brenton, AMEC Geomatrix; Angela B.; Marilyn DeRosa, City of Avondale; and Jennie Conger, Tierra Dynamic Co.

1. Call to Order / Introductions – Brenda Holland, CAG Co-Chair

Ms. Holland, CAG Co-chair, facilitated the meeting. CAG members and all meeting attendees introduced themselves. Ms. Holland explained the new starting time of 6:00 p.m. was to allow additional time for the conduction of CAG business and to still provide presenters and contractors additional travel time.

2. Acceptance and/or changes to minutes of May 6, 2010

Ms. Kagan requested that on page two of the minutes under agenda item number three, last paragraph that Dyson Road be changed to Dysart Road. Ms. Krone commented that Mr. Dave Iwanski be removed from the attendance record, since he was not present at this CAG meeting.

Ms. Holland moved to have the meeting minutes approved with the two requested changes. The minutes were approved unanimously by the CAG.

3. Site outreach approaches to be discussed by CAG

Ms. Cooper introduced Nadine Johnson from the Arizona Association for Environmental Education who had submitted an application for an EPA Technical Assistance Grant (TAG) for the PGA/WA site. Ms. Johnson advised the CAG that under this grant they would provide various public awareness activities. Ms. Johnson expressed her hopes for future collaboration with the CAG. Ms. Cooper and Ms. Calderon agreed that future outreach collaboration between the CAG and TAG would be beneficial. Ms. Calderon stated that once Ms. Johnson's organization was awarded the grant that she would work with her to coordinate joint outreach efforts between both groups.

4. Technical Assistant Grant (TAG) discussion and vote-Diane Krone, Co-Chair

Ms. Krone stated that since the 30-day letter of intent for a TAG application had expired that there was no need for the CAG to take any action on this item.

5. CAG applicant discussion and vote-Brenda Holland, Co-Chair

The CAG applicant, Mr. Raible introduced himself to the CAG and gave a brief professional background and stated that he was an extended resident of the City of Litchfield Park. Ms. Krone moved to accept Mr. Riabile as a new CAG member and Mr. Ellis seconded. Mr. Riabile was voted onto the Group unanimously by the CAG.

6. Update on community engagement efforts-Viola Cooper, EPA Community Involvement Coordinator

Ms. Cooper gave background details of the TAG and the Technical Assistance Services for Communities (TASC) recipients, application processes, and roles. Ms. Cooper mentioned that Ms. Krone and Ms. Johnson had met to discuss TAG outreach efforts. Ms. Cooper added that funds were made available from EPA's TASC services to the Arizona Association for Environmental Education to conduct an initial needs assessment to examine outreach approaches relative to the site. Ms. Cooper advised that a Technical Assistance Needs Assessment (TANA) report and workplan would be submitted, by a contractor to Ms. Johnson with the results of the assessment conducted. Ms. Cooper advised that once the needs assessment was completed that the CAG could request future TASC funding. Ms. Johnson shared her hopes for the function of the TAG, which centered on community's awareness and their comprehension of remediation activities at the site. Ms. Cooper reviewed additional details of the operations of the TAG with Mr. Ellis. Ms. Krone expressed her future interest for the CAG to apply for a TASC to have an independent resource for the Group, to add clarity to the many points of views that go along with the cleanup efforts for the site; in order to become better community advisors.

Ms. Krone and Ms. Holland expressed their interest in future collaboration with the TAG regarding increasing community outreach and awareness efforts. Ms. Kagan stated her contentment regarding EPA's presence and presentation at the monthly Southwest Valley Chamber of Commerce breakfast in July. Ms. Cooper mentioned a future town hall Webinar that EPA will host to discuss their new Community Engagement Initiative (CEI) plan. Ms. Calderon advised the CAG that once she knew the Web address information for this event she would share it with the CAG.

The CAG took a 5-minute break.

7. Update of PGA-South activities- Jeff Sussman, Goodyear Tire & Rubber Company

Mr. Sussman discussed current activities, status on ongoing cleanup, and upcoming activities to include: southern subunit C monitoring update, extraction well and injection well workover; and Goodyear Aircraft Corporation (GAC) 04 well investigation and sampling results.

See slide presentation below

Mr. Sussman discussed with Mr. Ellis the mathematical calculations that were used to calculate the amount of Trichloroethylene (TCE) removed from PGA-South to date. Ms. Krone advised Mr. Ellis that a report was presented by the former EPA project manager for the site, Mary Aycock, which contained such historic contaminant removal details for both PGA-North and South. Ms. Calderon stated that she would locate this report and Ms. Brown asked that it be forwarded to her first to be reviewed and updated, before distribution to the CAG.

8. Update of PGA-North activities –Stephanie Lyn Koehne, AMEC Geomatrix Project Manager

Ms. Koehne introduced herself and began the discussion of impacts to the groundwater, northeast regional treatment of groundwater, and on-site revegetation. Mr. Brenton, with AMEC Geomatrix concluded the PGA-North update with a report on the City of Goodyear (COG) 3 well.

See slide presentation below

Ms. Brown and Ms. Cooper advised the CAG of the outreach approaches AMEC Geomatrix implemented before the installation of the conveyance pipeline within the surrounding neighborhoods of the project. Ms. Cooper advised the notification process included the distribution of approximately four hundred flyers.

Ms. Amos suggested to Ms. Koehne that future PowerPoint diagrams and maps be presented in a larger readable layout for future CAG meetings.

Mr. Raible inquired of the types of crops planted for the revegetation pilot project. Ms. Koehne stated that approximately two acres have been planted with rye grass, barley, and oats.

Mr. Ellis reiterated to both Ms. Koehne and Ms. Brown his interest to have a representative from Crane Co. attend a future CAG meeting to answer questions. Ms. Brown stated that she has shared this request to Crane Co., but has not received a response to date. Ms. Koehne advised that she would pass along the request of Mr. Ellis to Crane Co. Ms. Krone stated that Crane Co. representatives had previously attended two CAG meetings in the onset of their formation.

Ms. Brown reviewed with Ms. Amos some of the historic origins and remedial activities specific to PGA-North and South. Ms. Amos expressed her concern over plume capture in the southwest area of the site.

Ms. Kagan inquired if there was a method to confirm that the TCE currently being removed is definitely from the site. Ms. Austrins replied that a fingerprint method did exist. Ms. Austrins stated that you would need to have the original TCE source material from the site and not see a break in the source. Ms. Austrins elaborated that with this plume it is pretty clear that the TCE source is located on the Unidynamics facility and that there is not a break with that source.

Ms. Koehne stated that additional data for the northeast portion of the plume should be available to report at the next CAG meeting in November 2010.

Ms. Brown discussed with the CAG that with regards to plume containment that Crane Co. has been advised that what is planned is not enough and that EPA is suggesting a more protective and controlled system be implemented, with the immediate installation of more injection wells. Ms. Brown stated that EPA was in an Informal Dispute with Crane Co., over this plume containment action, and added that this step was a legal process for both parties that would conclude at the end of August 2010. Ms. Koehne stated that Crane Co. would add necessary injection wells, if warranted based on data evaluation. Ms. Brenton added that they feel confident that current data is suggesting capture zones from monitoring wells EA-06 and EA-05. Mr. Brenton stated that he was confident that the right steps were being taken for plume containment and migration control. Ms. Brown briefly discussed with Ms. Amos extraction and injection system performance measures.

Ms. Koehne discussed with Ms. Krone the status of conduit well 34B which is scheduled to begin modification on Monday, August 9, 2010 and that access was granted to operate the 33A compound which will take about two weeks to become a subunit A well.

Mr. Brenton initiated his presentation on the COG 3 well.

See slide presentation below

Ms. Krone inquired about the Tetrachloroethylene (PCE) detected in this well. Mr. Brenton stated that the PCE concentration levels were very low, but he believed that COG 3 always had low levels of PCE which were relatively stable. Ms. Krone expressed her appreciation to the detailed information presented for the COG 3 well.

9. EPA update of PGA-North and South activities – Catherine Brown, EPA Remedial Project Manager

Ms. Brown informed the CAG of an upcoming EPA hosted open house scheduled for the month of October 2010, which will provide a question and answer forum for the public and include a status update on the Five-Year Review results. Ms. Brown was considering the week of the 18th. and hosting this event at the Estrella Mountain Community College. Ms. Brown received CAG input that the best day for this event would be Thursday, October 21, 2010. Ms. Brown also announced that an EPA toxicologist would be in attendance at the open house. Ms. Brown reported that work is still being done on creating a Wikipedia, page for the site. Ms. Brown also stated that in response to the May, EA-05 treatment system incident that assurances are now in place with the Maricopa Flood Control District where external entities will not have free access to the treatment system. Ms. Brown discussed scheduling with the CAG a PGA-North site tour in the upcoming year for February.

In response to Mr. Ellis's inquiry regarding the status of the nZVI treatment, Ms. Brown stated that EPA has engaged outside experts to get an objective analysis for the data results received. Ms. Brown mentioned that a meeting will be scheduled for sometime in September 2010 between ADEQ and EPA to review the analysis for the nZVI treatment.

10. Update on Western Avenue WQARF site activities - André Chiaradia, ADEQ Project Manager

Mr. Chiaradia initiated his presentation with a brief background of the site. Mr. Chiaradia stated that the fiscal year 2011 budget for the site had increased from last fiscal year's budget. Mr. Chiaradia stated that this site does have areas where the PCE contaminant levels are above the drinking water standards, particularly in monitoring well #1. Mr. Chiaradia added that future groundwater monitoring will be done and the results would be reported at the next CAG meeting.

See slide presentation below

11. City of Goodyear (COG) report and Brownfields Supplemental Environmental Project update – David Iwanski, COG Water Department

Mr. Iwanski gave a brief history of the settlement details with Crane Co., and how it related to the present Brownfields Supplemental Environmental Project. Mr. Iwanski stated that currently, the project is in its second phase. At the last council meeting in July 2010, out of the nine properties recommended by the Citizens Advisory Committee, four were selected for actual remediation. These four sites selected in no particular order were, the city center where the old aquifer treatment system was previously located, city Center Park, Duncan Farms, and the city's old public works operation center. Mr. Iwanski stated that a scope of work has been drafted and that the next step is to go out to bid to request for qualifications to have these sites remediated. Mr. Iwanski stated that of the original one million dollars from the settlement that approximately \$670,000 of funding remains for remediation. Mr. Iwanski mentioned a historic perspective that he co-authored for the PGA/WA site that was prepared for a briefing workshop; in which he wanted to provide to the CAG. Mr. Iwanski stated the City's support for Crane Co.'s landscape beautification and dust control project. Mr. Iwanski mentioned that they are going to encourage Crane Co. to apply for a special use permit for this property, under the City's reclamation ordinance provisions.

12. Call to the Public-None

13. Future meeting and agenda items discussion

The next meeting was scheduled for Thursday, November 4, 2010 at the Avondale City Hall, 11465 W. Civic Center Drive, Avondale, AZ. Suggested agenda topics for the next CAG meeting included updates on PGA-North, PGA-South, and Western Avenue activities.

14. Adjournment

Ms. Holland adjourned the meeting.

Phoenix Goodyear Airport-South Project Site Status Report

Community Advisory Group
Meeting August 5, 2010



Agenda

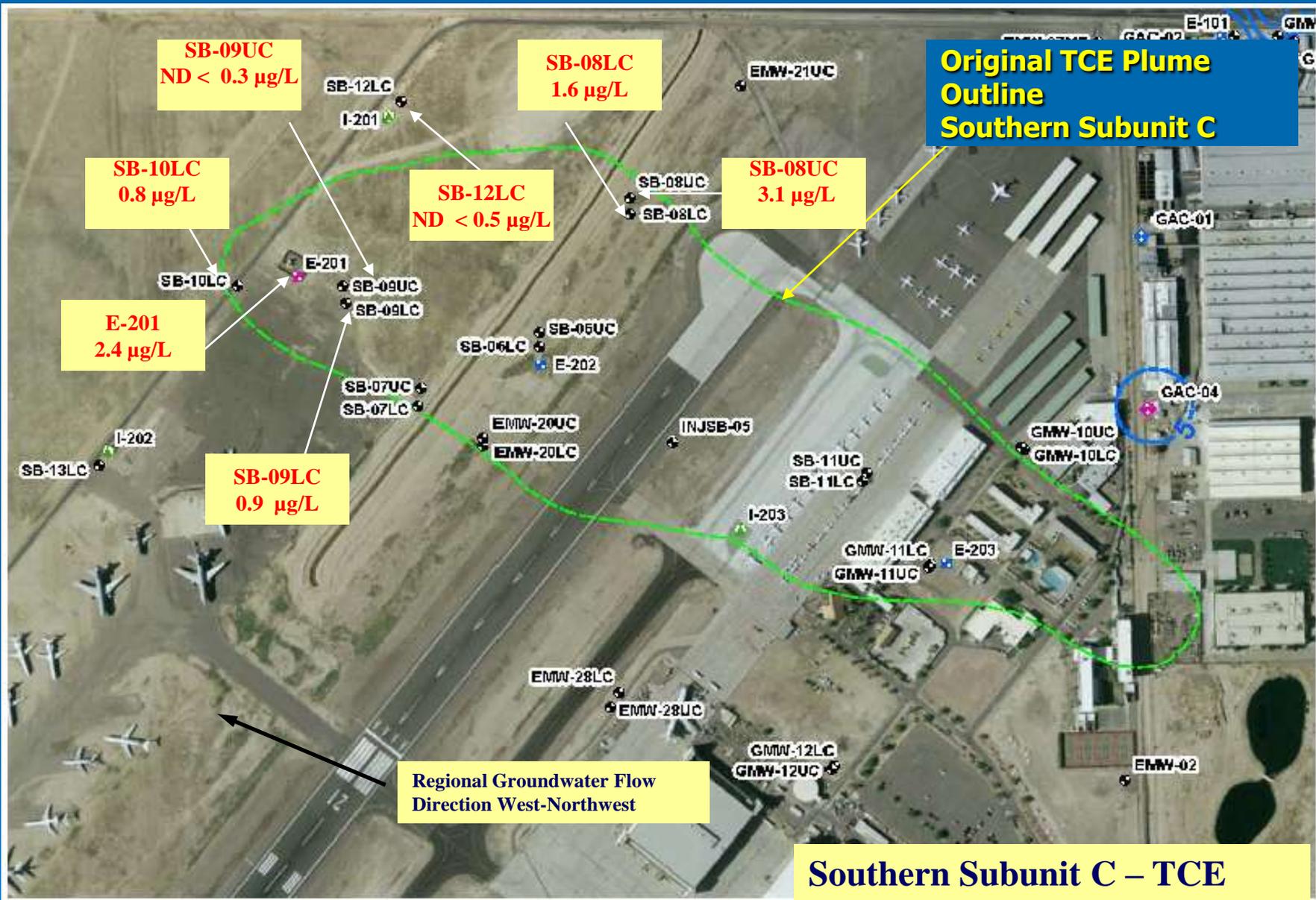
- **Review Current Activities**
- **Update Status of Ongoing Cleanup**
- **Upcoming Activities**

Review of Current Activities

- Southern Subunit C Monitoring Update
- Extraction Well & Injection Well Workover
- GAC – 04 Investigation and Sampling Results

Southern Subunit C Monitoring Update

- Southern Subunit C TCE plume originally covered 60 acres
- ADEQ/EPA approved shutdown of the last active extraction well (E-201) in Sept 2009
- Monitoring wells are being sampled for one year (through August 2010) to evaluate potential rebound in TCE concentrations



Extraction Well and Injection Well Workover

- Routine maintenance was completed in June to address reduced pumping capacity of 3 Subunit A extraction wells
- Routine maintenance was completed in June to address reduced injection capacity of 2 Subunit C injection wells
- The extraction and injection wells are back on line and are performing within their normal operating capacity

Subunit A Extraction Well Workover



E-12

E-07R

NE-05



200 100 0 200 Feet

Subunit C Injection Well Workover



GAC-04 Investigation Update



GAC-04 Investigation and Sampling Results

- Continued operation of GAC-04 and monthly sampling
- TCE results from last 6 months $< 5.3 \mu\text{g/L}$
- Completed rebound test in April
- Monitoring well installations completed in June 2010

GAC-04 Investigation Well Locations

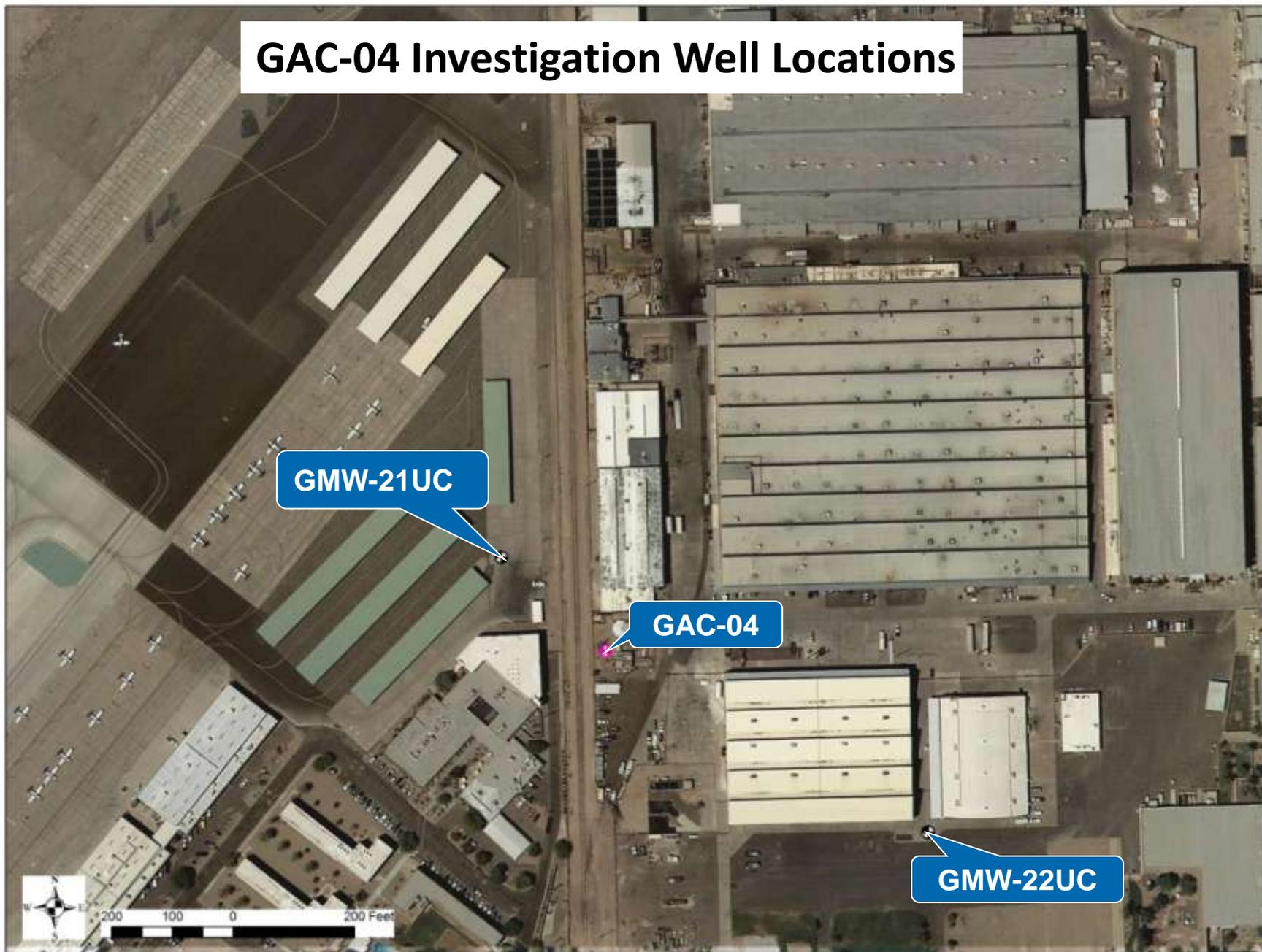
GMW-21UC

GAC-04

GMW-22UC



200 100 0 200 Feet



GAC-04 Investigation and Sampling Results

- Monitoring well GMW-21UC
 - Installed on Phoenix-Goodyear Airport property between June 7 and 14, 2010
 - Located downgradient of GAC-4
 - Well screened within Upper portion of Subunit C
 - Developed and sampled on June 21, 2010
 - Initial TCE result of 140 µg/l
 - Well re-sampled on July 30, 2010

GAC-04 Investigation and Sampling Results

- Monitoring well GMW-22UC
 - Installed on JRC Goodyear property between June 14 and 21, 2010
 - Located upgradient of GAC-4
 - Well screened within upper portion of Subunit C Developed and sampled on June 22, 2010
 - Initial TCE result was Non Detect

Status of Ongoing Cleanup

Subunit A Aquifer

- Peak TCE concentrations in monitoring wells have declined from 2,600 µg/L in 1990 to 120 µg/L in May 2010
- Treatment System Uptime during Q2 was 100%

Subunit C Aquifer

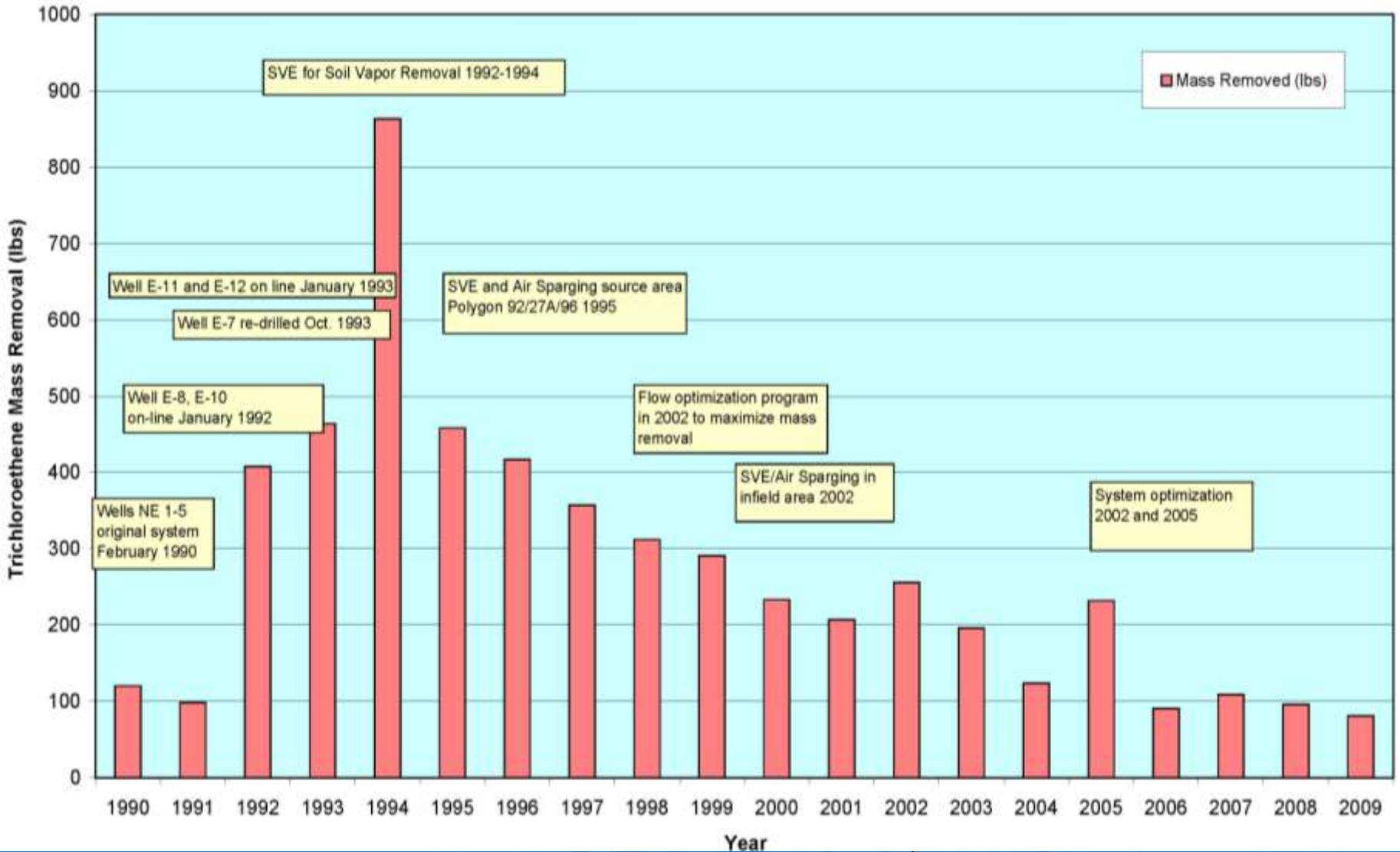
- Peak TCE concentrations in Northern Subunit C monitoring wells have declined from 180 µg/L in 1990 to 83 µg/L in May 2010 - Treatment System Uptime during Q2 was 99%
- The Southern Subunit C extraction system was shut off in Sept 2009 and will be monitored for 1 year to evaluate TCE concentrations

Groundwater TCE Cleanup Progress

Subunit	Max TCE (µg/L) 1990	Max TCE (µg/L) May 2010	Volume Pumped (Mgal)	TCE removed (Lbs)
Subunit A	2,600	120 (E-12)	5,103	5,452
Southern Subunit C	150	12 (INJSB-05)	1,826	171
Northern Subunit C	180	96 (GMW-13UC)	2,043	59
		TOTAL	8,972	5,682

Subunit A TCE Mass Removal vs. Time

Subunit A Trichloroethene Mass Removal vs. Time Including History of Major Removal Efforts



Upcoming Activities

- Quarterly Groundwater Sampling Event scheduled to begin Aug 23
- Continued Evaluation of GAC-04 (additional sampling of GMW-21UC)



Phoenix-Goodyear Airport-North (PGA-North) Superfund Site

Stephanie Koehne

AMEC Geomatrix, Inc., Scottsdale, AZ

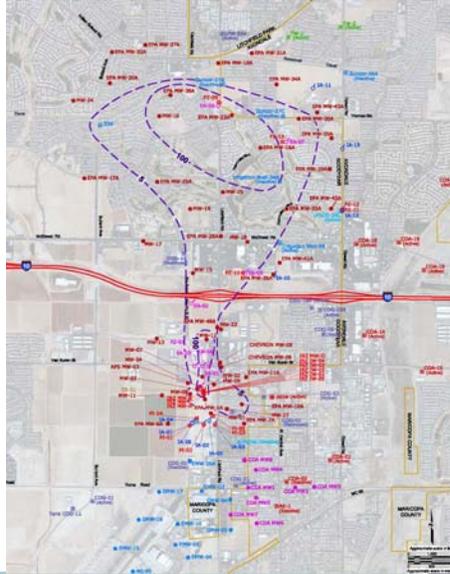


Update for PGA-North



- Impacts to Groundwater
- Northeast Regional Treatment of Groundwater
- On-Site Revegetation
- City of Goodyear Well COG-03

Impacts to Groundwater – Subunit A Second Quarter 2010



Phased Regional Approach to Northeast Subunit A Plume



Phased Regional Approach to Northeast Subunit A Plume



Current NE Groundwater Extraction and Injection

- Two Extraction Wells
 - EA-05 and EA-06 (~1,000 gallons total)
- One Injection Well
 - IA-10 (500 gallons total)

Proposed Future NE Groundwater Extraction and Injection

- Minimum of One New Extraction Well (EA-07)
 - Min of ~500 gallons addition GW extraction
 - Infrastructure for up 1,000 additional gallons
- Min of Two New Injection Wells (IA-11 & IA-12)
 - Up to 500 gallons each
 - Infrastructure for up to 5 injection wells



Phased Regional Approach to Northeast Subunit A Plume

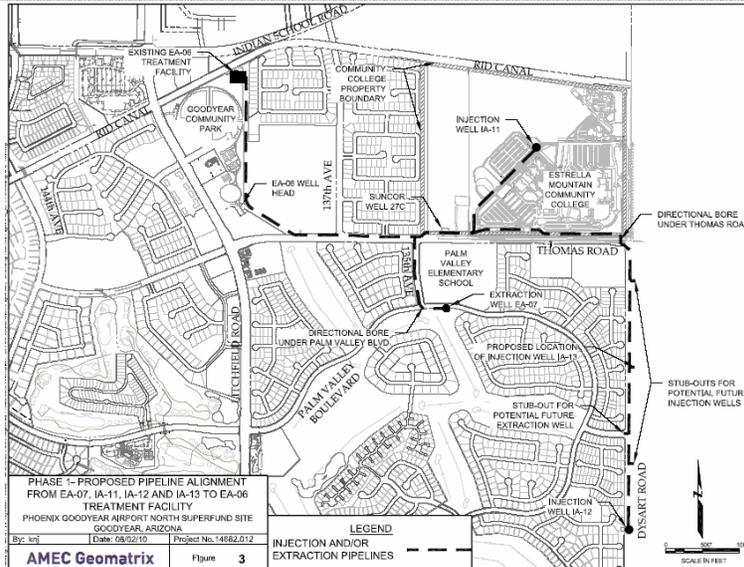


Discussion Overview:

- Final Installation and Startup Schedule
- Installation Photos



Primary Pipeline Path for EA-06 Treatment Facility Expansion



Phased Regional Approach to Northeast Subunit A Plume



Anticipated Schedule of Remaining Activities

- Week of August 2nd, 2010
 - Completion of all conveyance piping tie-ins Aug. 2nd, 2010.
 - Finalize electrical connections and telemetry.
 - Completion of asphalt repairs in 135 Ave.
 - Begin startup/shakedown activities.
- Week of August 9th, 2010
 - Completion of asphalt repairs in Thomas Rd.
 - Continued startup/shakedown activities.
 - Begin re-injection testing at IA-11 and IA-12.
- Weeks of August 16th and 23rd, 2010
 - Anticipated installation of EA-07 transformer by APS.
 - Begin extraction testing at EA-07.
 - Misc. landscaping and curb/gutter repairs.

Phased Regional Approach to Northeast Subunit A Plume



Conveyance Piping Installation – Asphalt



Phased Regional Approach to Northeast Subunit A Plume



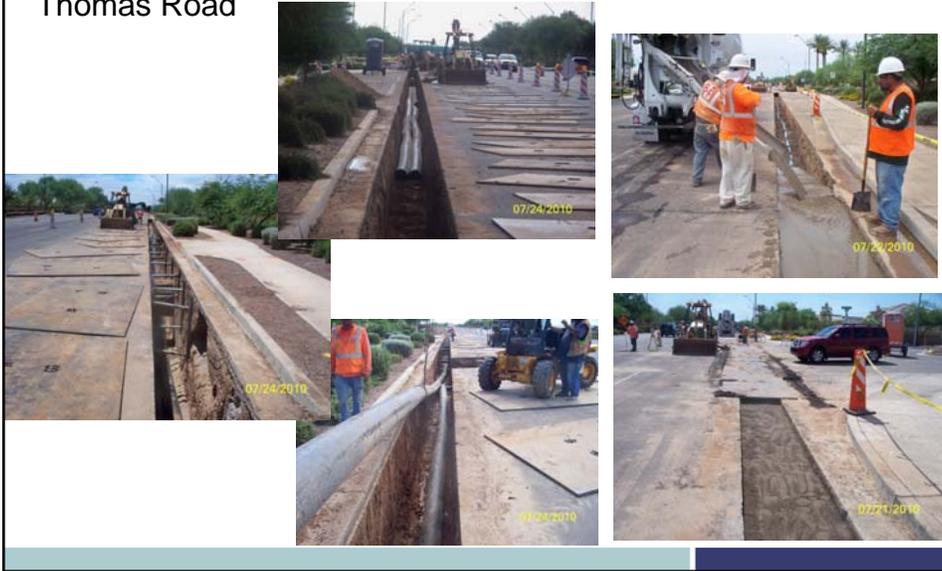
Conveyance Piping Installation – Slurry Operations



Phased Regional Approach to Northeast Subunit A Plume



Thomas Road



Phased Regional Approach to Northeast Subunit A Plume



135th
Avenue
& Palm
Valley Blvd



Status of On-Site Interim Revegetation Pilots

Pilot Project Objectives/Status

- Revegetation Objectives
 - ✓ Dust Control for Site
 - ✓ Beneficially Reuse Treated Groundwater
 - ✓ Aesthetics/Green Remediation

Revegetation Accomplishments



- ~ All Three 'Cover' Crops Well Established & Excellent Growth
 - Rye Grass
 - Barley
 - Oats

- ~ Cover Crops have Been 'Tilled In'
 - Add Organic Matter to Soils

Pilot Project Status



- Three Test Plots Installed – Sept. 24 – Oct. 3
 - ✓ Work Completed By Local Farmer

- Piping Network Installed
 - ✓ MTS Phase I Treated Water Diversion

- Cover Crops Planted – October 7th

- Cover Crops Tilled In – April 9th

Irrigation Piping



September 25, 2009



Test Plot Preparation



October 3, 2009



Initial Growth - Before & After



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October 3, 2009

October 21, 2009



Three Month Progress



January 21, 2010

January 21, 2010



Six Month Status



April 5, 2010

April 5, 2010



Six Month Status



April 5, 2010



Tilling Work



April 9, 2010

April 9, 2010



Tilling Work



April 9, 2010



Ready for New Crops



April 28, 2010



Pilot Project Status



- Initial Pilot Plots – Still Operating
- Interim Biofilter/Native Plant Nursery Demonstration
 - October 2010
- Additional Interim Bermuda Grass Plots
 - Leveling – Ongoing
 - Planting – August 2010
- Litchfield Road Native Plant Buffer
 - October 2010 – Pending COG Approval
- COG Green Waste Pilot Area
 - TBD

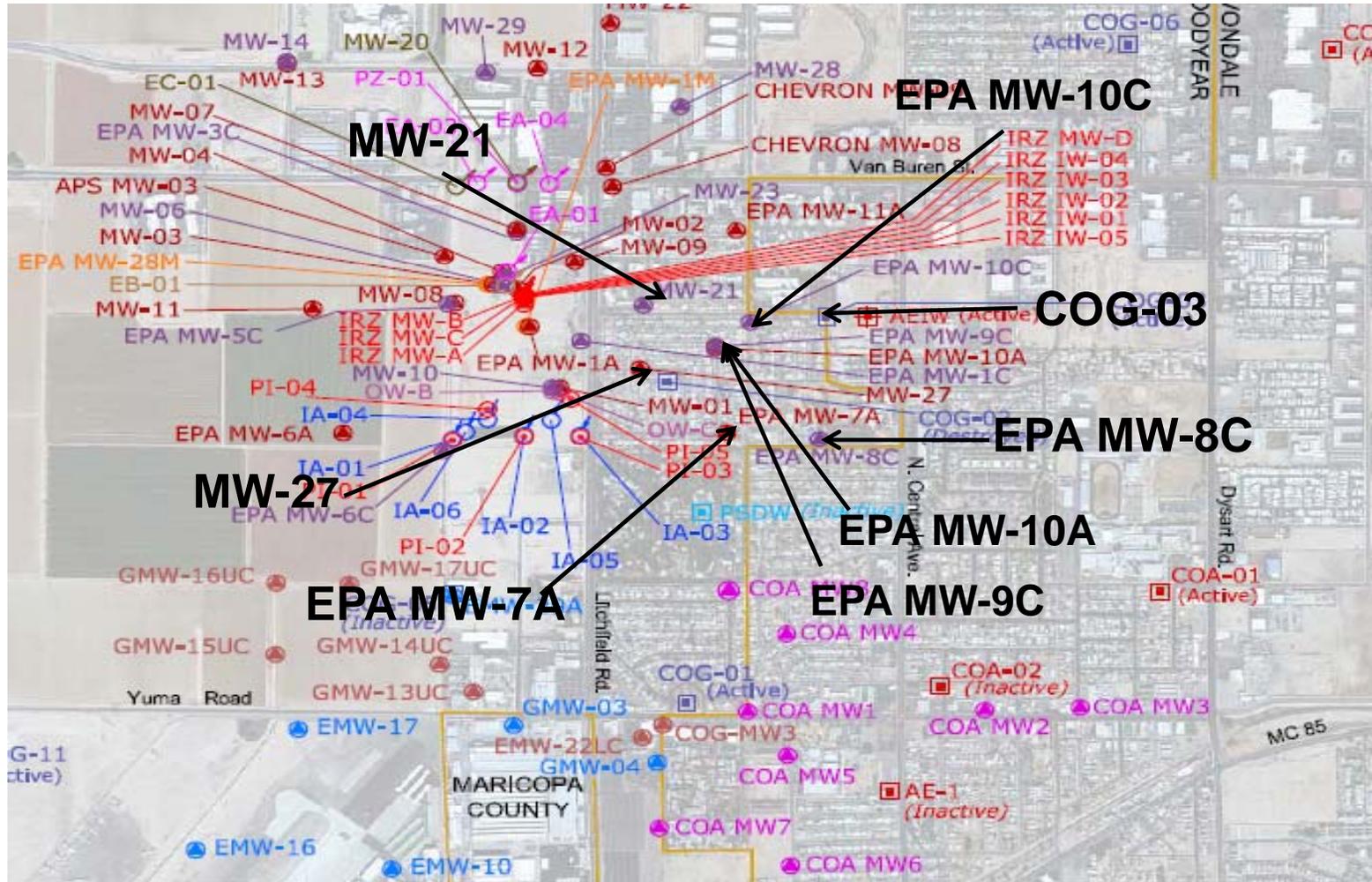


Interim Vegetation Plans for Dust Control, Beneficial Reuse of Remediated Groundwater and Site Beautification, June 2010

Questions?



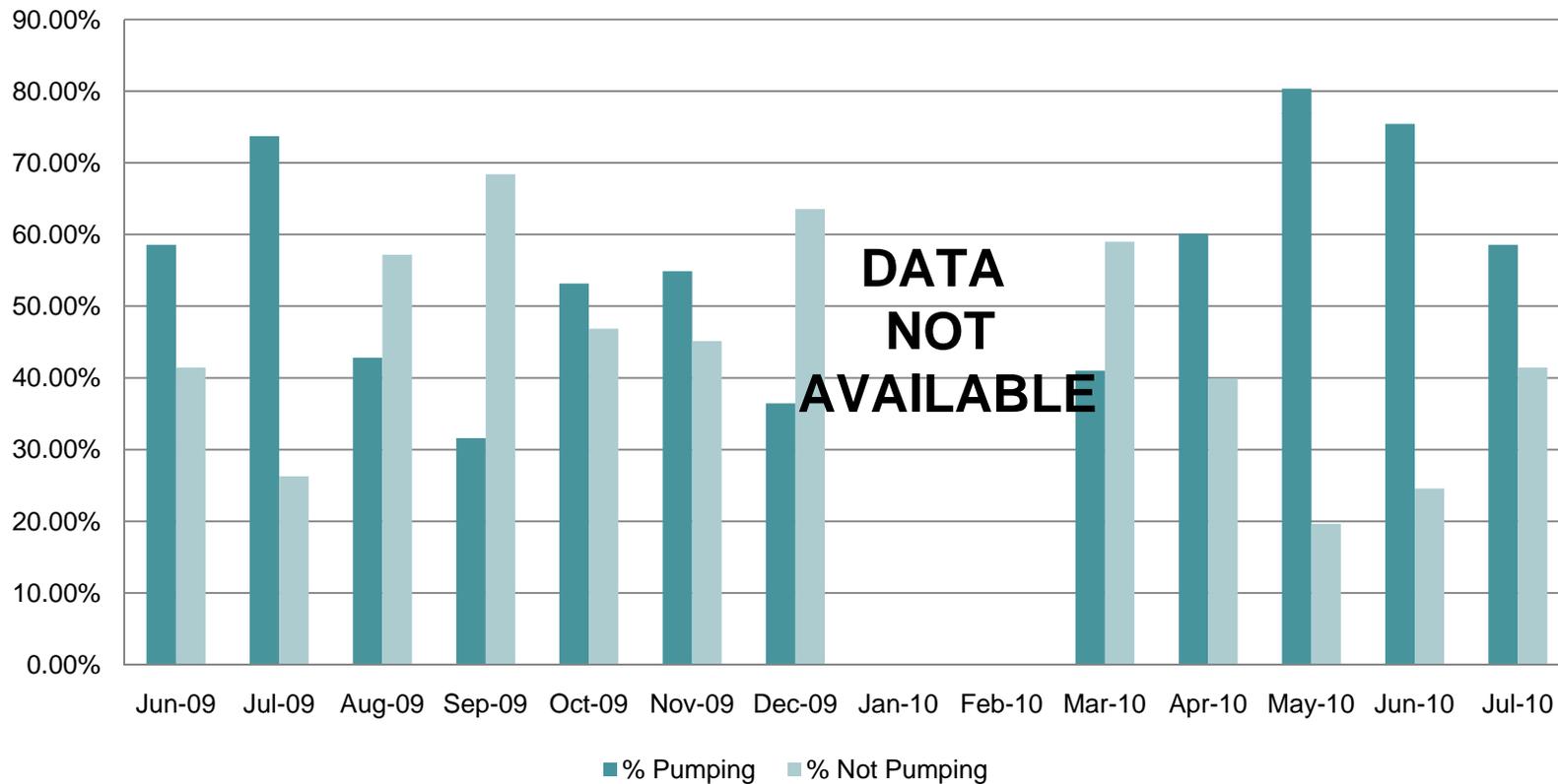
COG-3 Vicinity



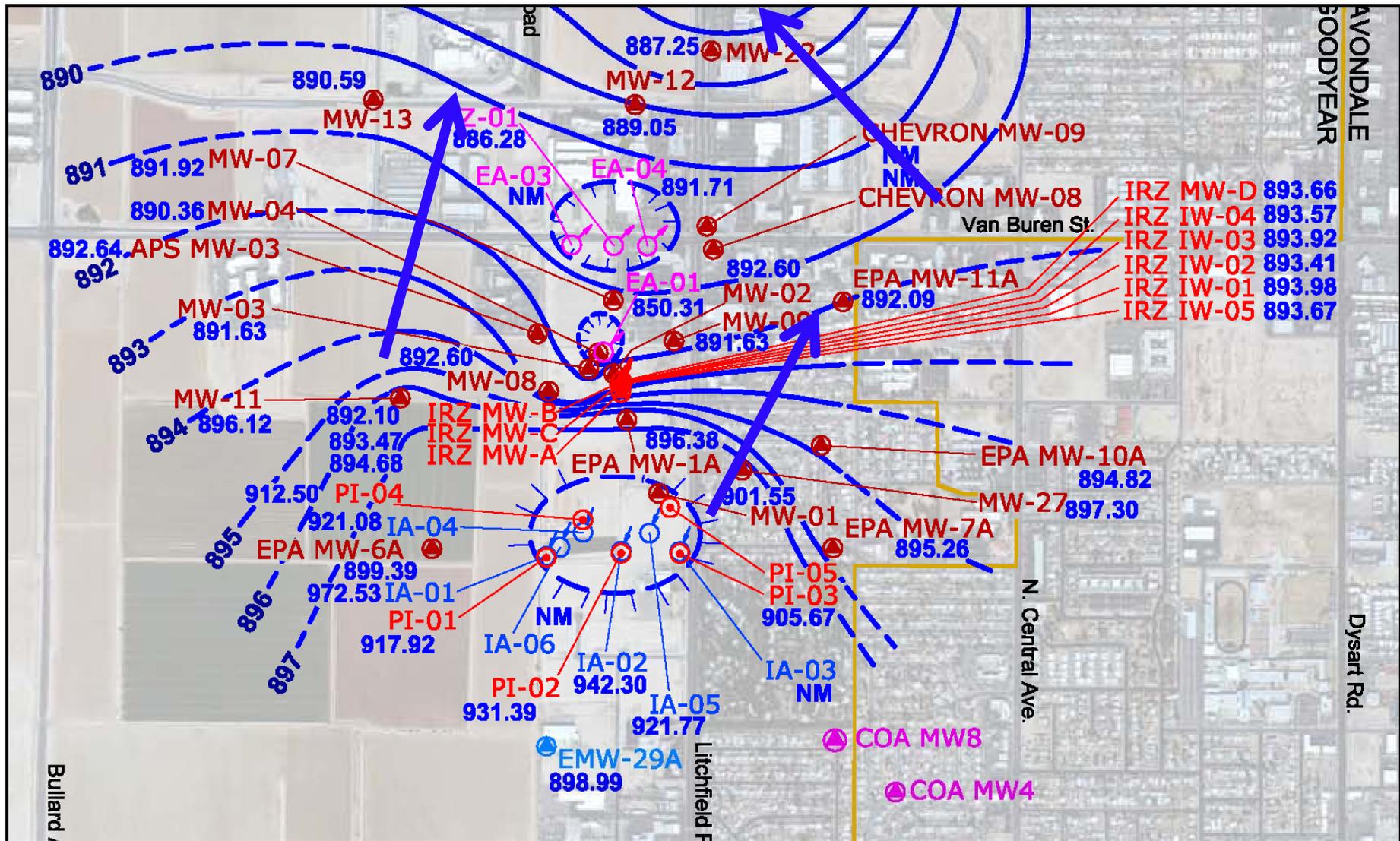
Operational History June 2009 thru July 2010



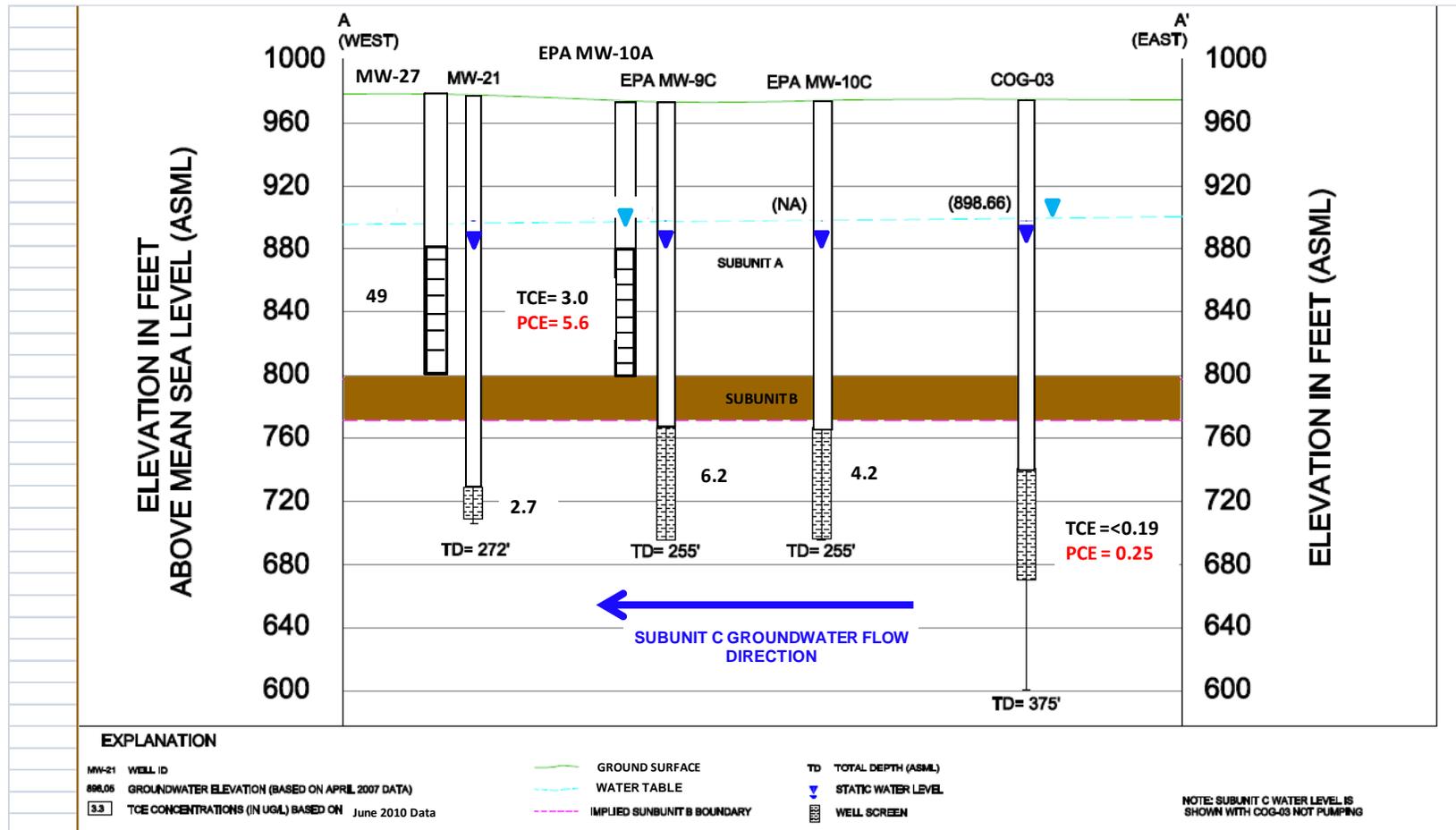
COG-03 Runtime June 2009 - July 2010



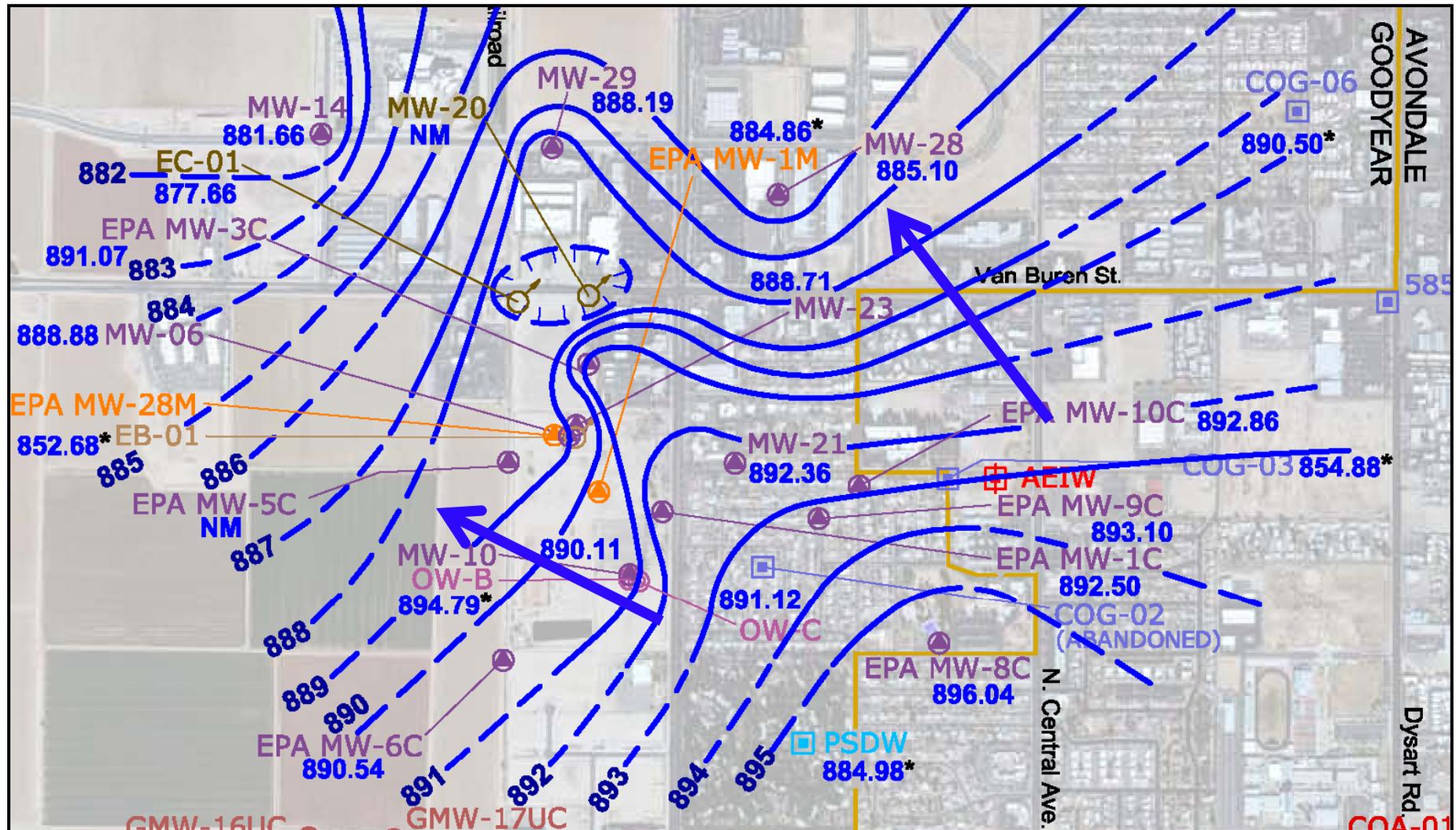
Subunit A Groundwater Flow 2nd Quarter 2010



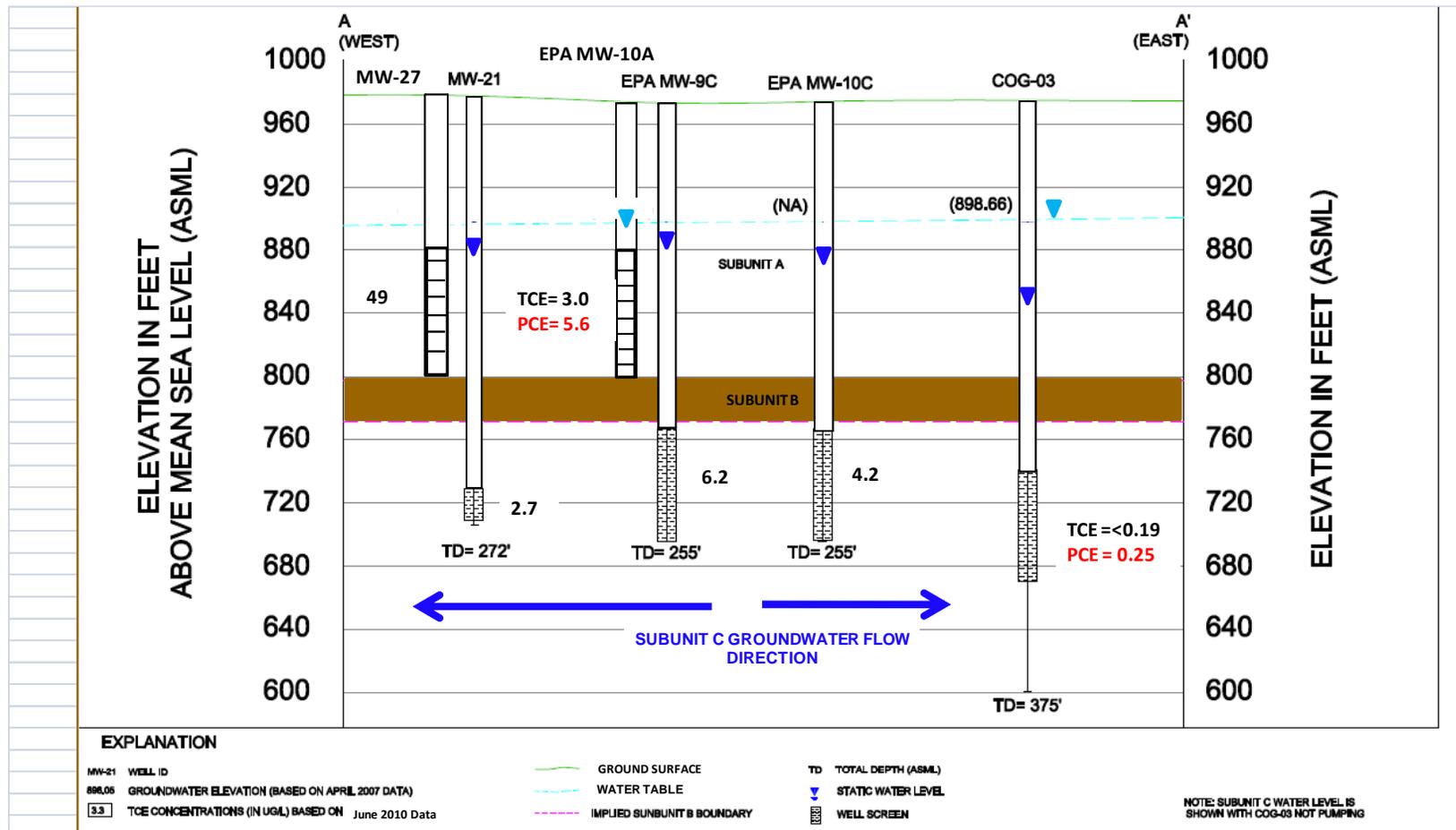
Generalized Hydrogeologic X-Section COG-03 Not Pumping



Subunit C Groundwater Flow COG-03 Pumping (2nd Quarter 2010)



Generalized Hydrogeologic X-Section COG-03 Pumping



Current Analytical Results April - June 2010



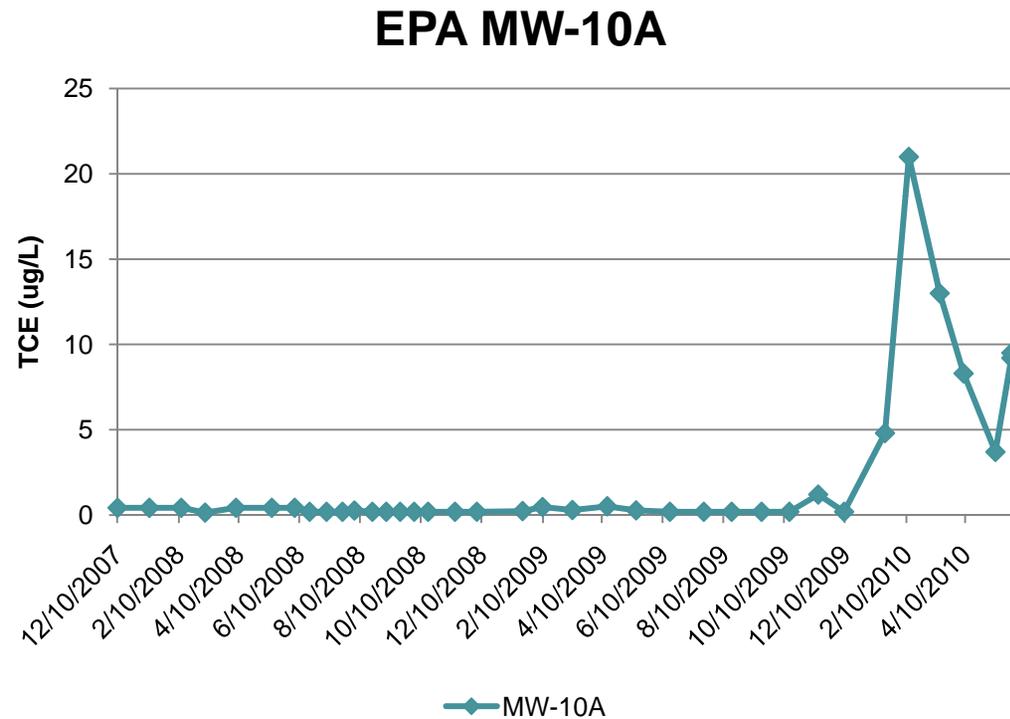
EPA MW-10A (Subunit A)

■ TCE

- Apr -8.3 ug/L
- May 3.7 ug/L
- May 9.2 ug/L
- Jun 1.8 ug/L
- Jun 3.0 ug/L

■ PCE

- Apr -4.5 ug/L
- May 5.4 ug/L
- Jun 5.6 ug/L



Current Analytical Results

April - June 2010



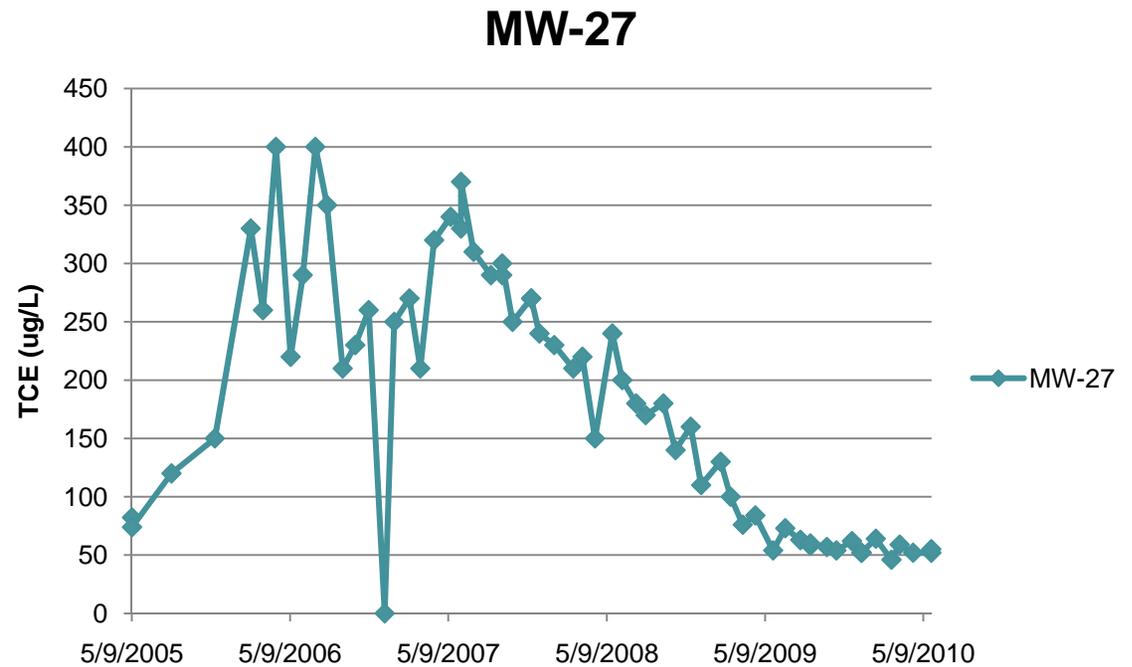
EPA MW-27 (Subunit A)

■ TCE

- Apr -52 ug/L
- May 52 ug/L
- Jun 49 ug/L

■ PCE

- Apr -ND
- May ND
- Jun ND



Current Analytical Results April - June 2010



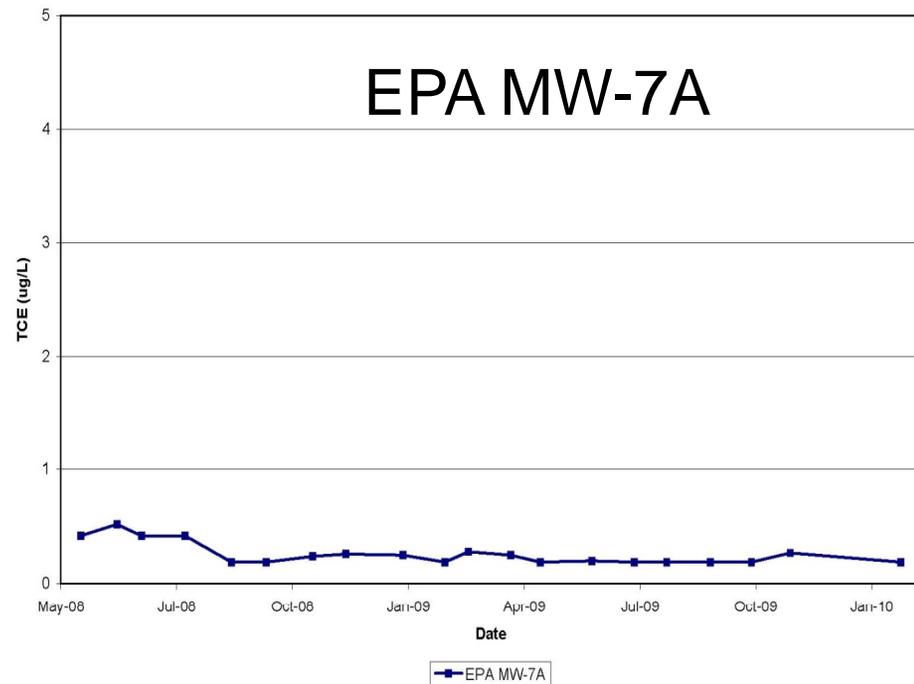
EPA MW-7A (Subunit A)

■ TCE

- Apr -0.27 J ug/L
- May <0.19 ug/L
- Jun 0.39 J ug/L

■ PCE

- Apr 6.1 ug/L
- May 3.1 ug/L
- Jun 5.4 ug/L



Current Analytical Results

April - June 2010



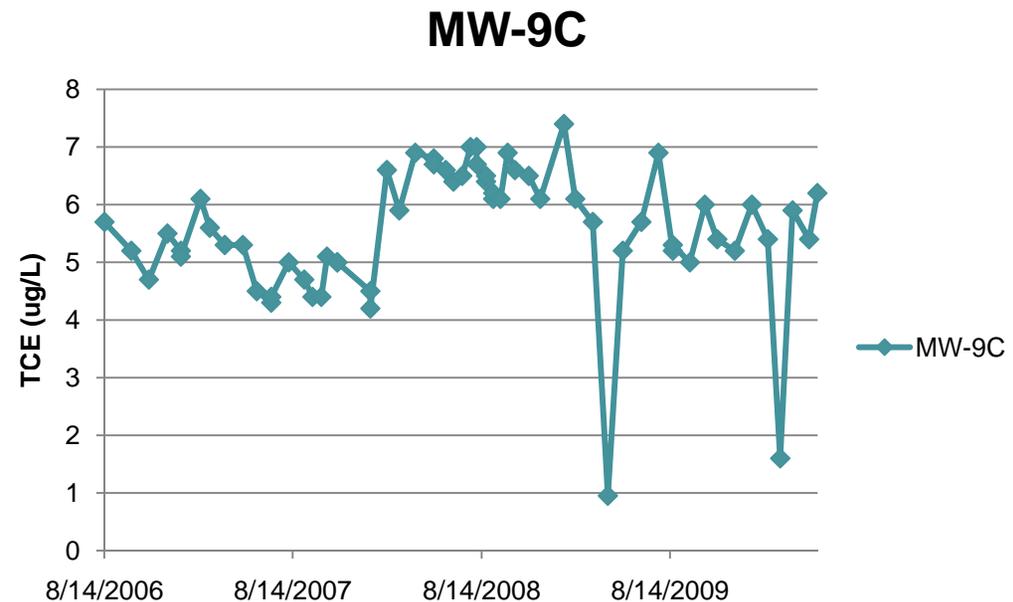
EPA MW-9C (Subunit C)

■ TCE

- Apr -5.9 ug/L
- May 5.4 ug/L
- May 6.2 ug/L
- Jun 5.9 ug/L
- Jun 6.2 ug/L

■ PCE

- Apr -ND
- May ND
- Jun ND



Current Analytical Results

April - June 2010



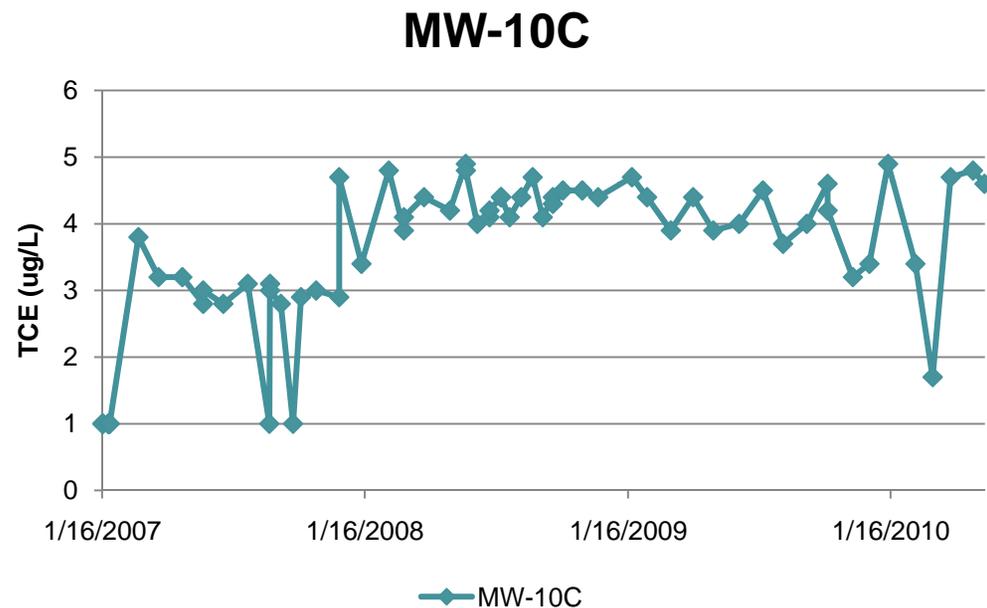
EPA MW-10C (Subunit C)

■ TCE

- Apr -4.7 ug/L
- May 4.8 ug/L
- May 4.6 ug/L
- Jun 4.4 ug/L
- Jun 4.2 ug/L

■ PCE

- Apr -ND
- May ND
- Jun ND



Current Analytical Results

April - June 2010



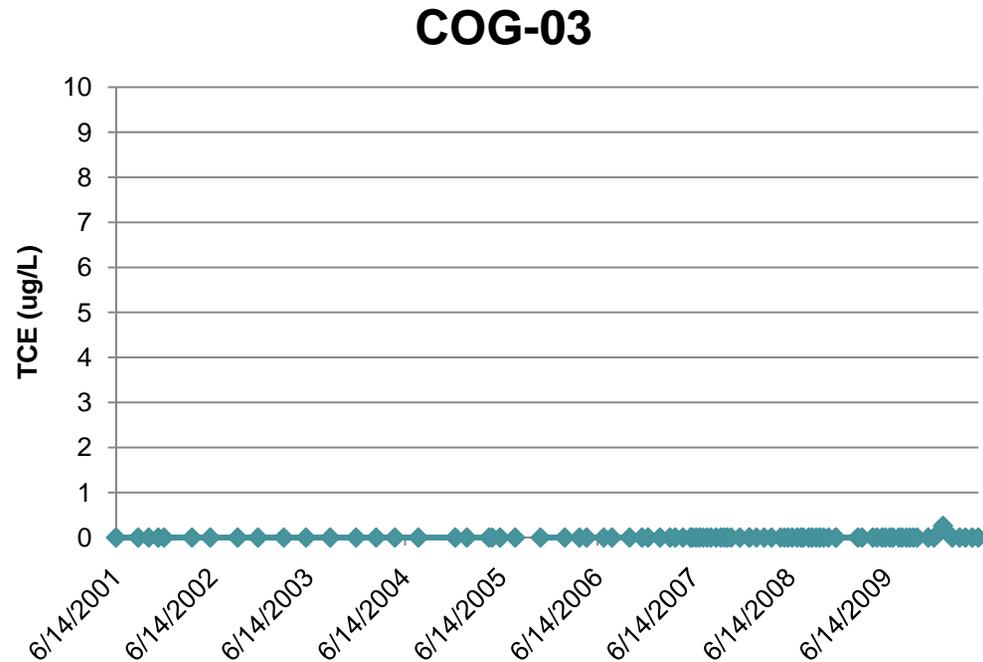
COG-03

■ TCE

- Apr -ND
- May ND
- May ND
- Jun ND
- Jun ND

■ PCE

- Apr -0.24 J ug/L
- May – 0.35 J ug/L
- May - 0.23 ug/L
- Jun – 0.27J ug/L
- Jun- 0.25J ug/L



Protection of COG-03



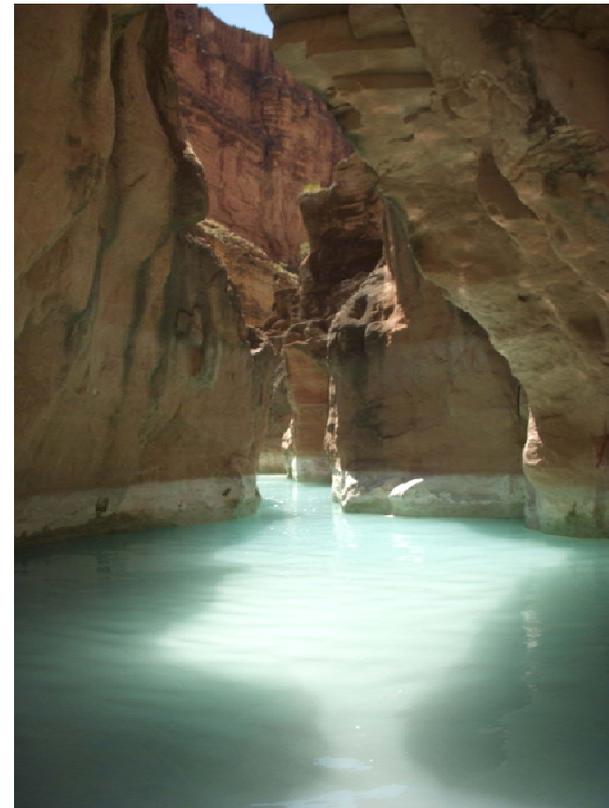
- COG-03 Wellhead Treatment Contingency Work Plan Approved by EPA in 2008
- Increased sampling frequency
 - May thru October – 2X per month
 - Oct thru Apr 1X per month
- Evaluation of hydraulic connection between Subunit A and Subunit C
 - Pressure Transducers installed in COG-03 and vicinity monitor wells
 - Geochemical evaluation of Subunit A wells, Subunit C wells and COG-03



Protection of COG-03



- Increase the Capacity of Main Treatment System
- Converted monitoring well MW-29 into a Subunit C extraction well.
- Installed new low profile airstripper to add an additional 250 gpm treatment capacity, which began full time operation on June 7.
- Upgraded the SCADA system to ensure no spill events
- Rehabilitation and replacing pumps installed to optimize extraction rates



Protection of COG-03



- Installing larger pumps in existing extraction wells to increase mass removal and hydraulic control
- Adjusting pump levels to maximize extraction rates
- Segregation of influent and effluent piping to further increase extraction capacity



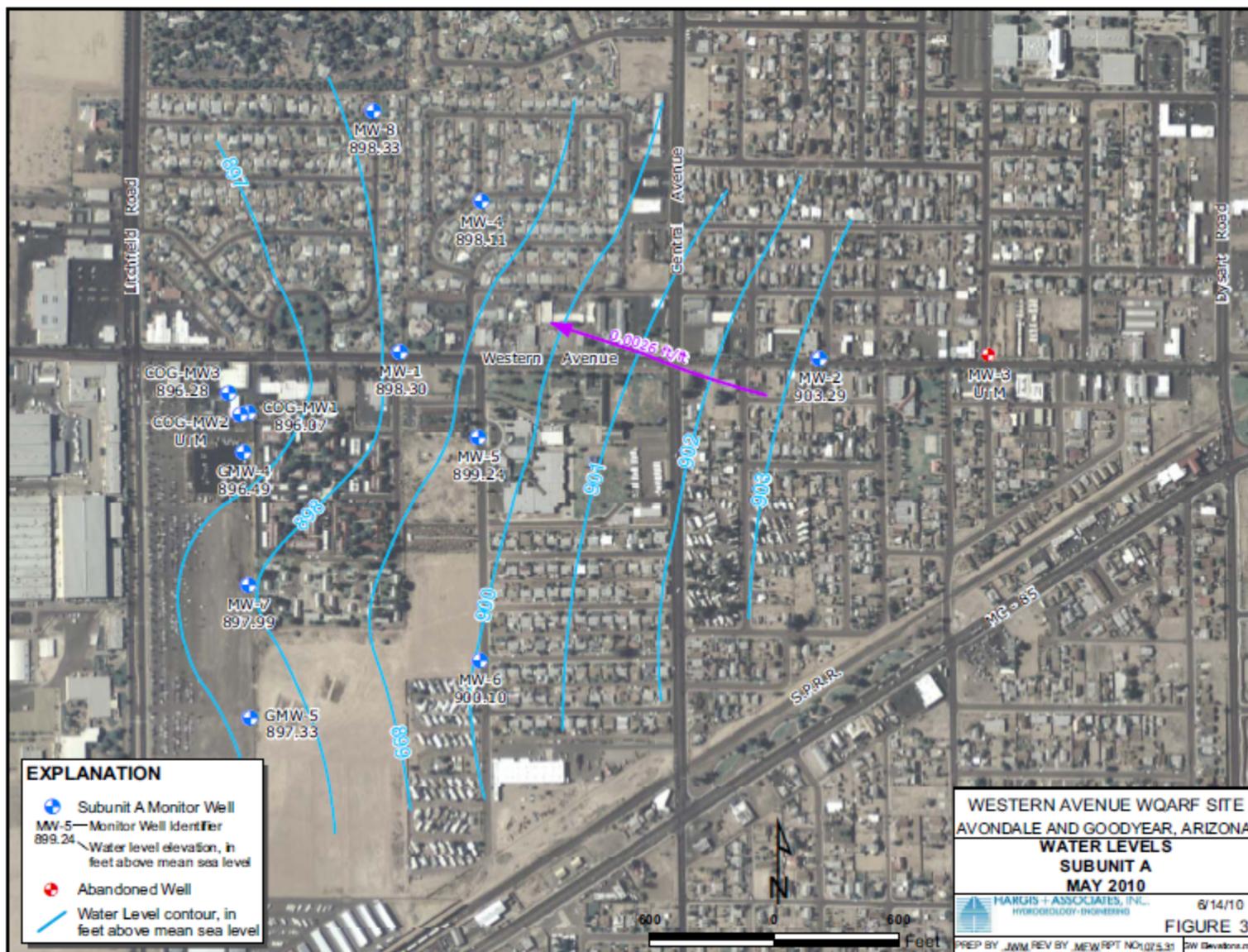
Questions?



Western Avenue WQARF Site



Western Avenue WQARF Site







Western Avenue WQARF Site

Well	Date Sampled	(ug/L) Results
MW-1	1/9/2009	3.5
	5/25/2010	6.8
MW-2	1/9/2009	6.5
	5/25/2010	4.3
MW-4	1/9/2009	1.6
	5/25/2010	2.5
MW-8	1/9/2009	0.94
	5/25/2010	2.6
COG MW-3	2/13/2008	<0.50
	5/25/2010	0.72
COG 1	11/11/2008	0.74
	5/25/2010	0.99