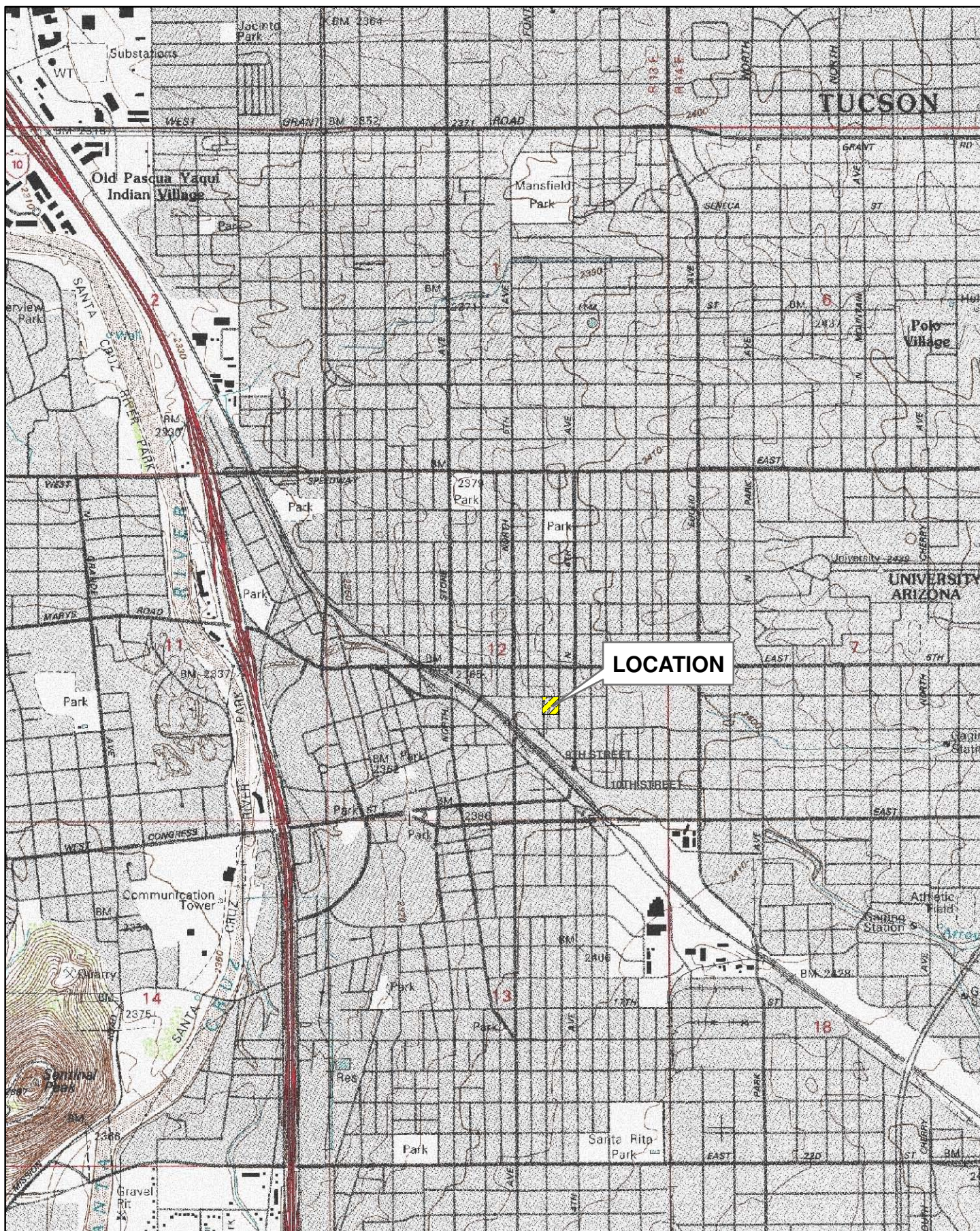
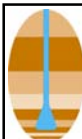
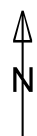


FIGURES



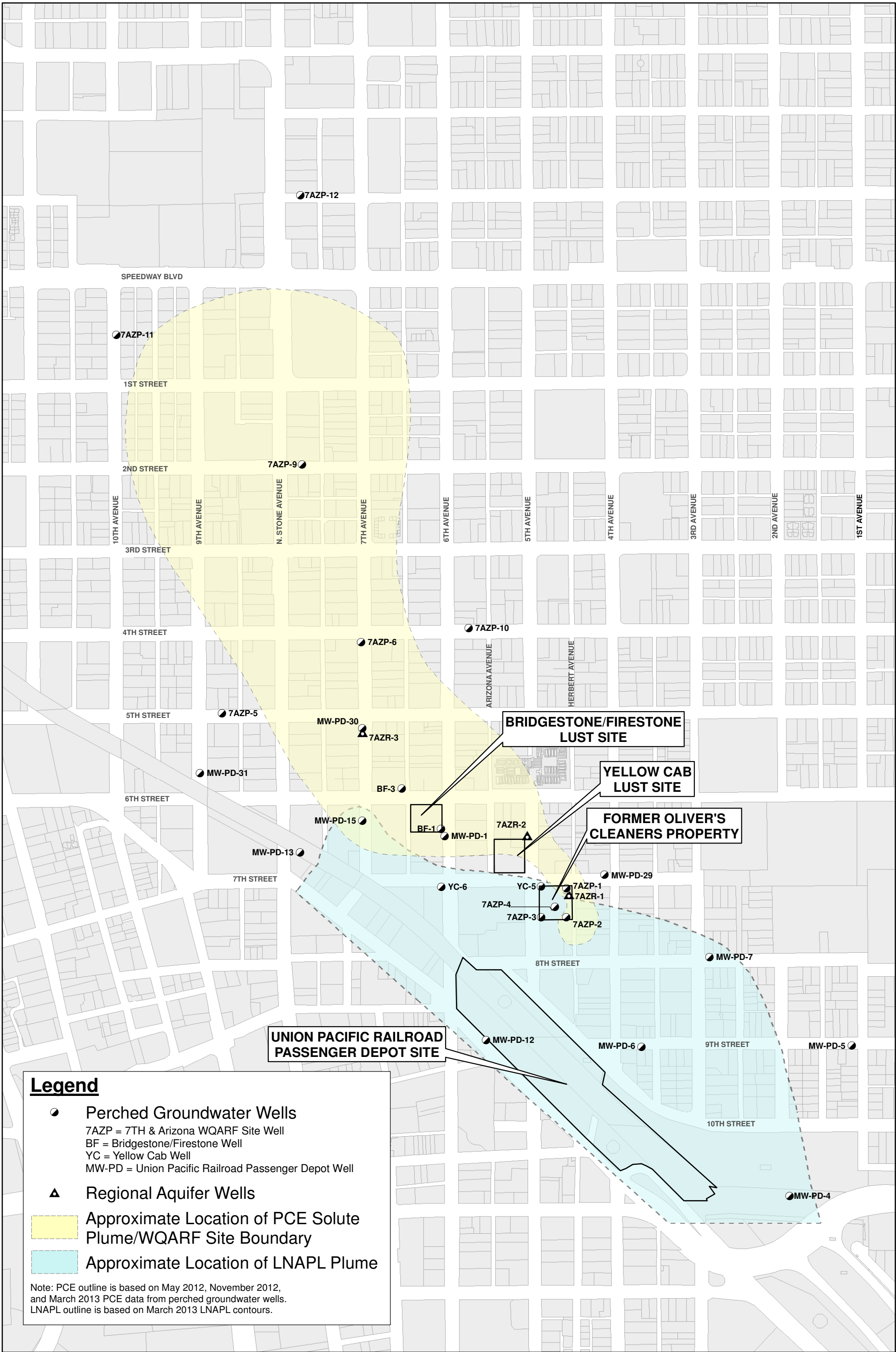
Spatial Reference: NAD 1983, UTM Zone 12N



**HYDRO
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CHEM, INC.**

**LOCATION MAP
7TH STREET AND ARIZONA AVENUE WQARF SITE
TUCSON, ARIZONA**

Approved	Date	File	Figure
MJB	02/15/13	7AZ Site Location Map	1



Legend

- Perched Groundwater Wells
7AZP = 7TH & Arizona WQARF Site Well
BF = Bridgestone/Firestone Well
YC = Yellow Cab Well
MW-PD = Union Pacific Railroad Passenger Depot Well
- ▲ Regional Aquifer Wells
- Approximate Location of PCE Solute Plume/WQARF Site Boundary
- Approximate Location of LNAPL Plume

Note: PCE outline is based on May 2012, November 2012, and March 2013 PCE data from perched groundwater wells. LNAPL outline is based on March 2013 LNAPL contours.

Spatial Reference: NAD 1983, UTM Zone 12N



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**SITE PLAN
7TH STREET AND ARIZONA AVENUE WQARF SITE
TUCSON, ARIZONA**

Approved	Date	File
MJB	02/04/14	K:\2016\7AZ Site Plan_20130213



Imagery Source: <http://services.arcgisonline.com>

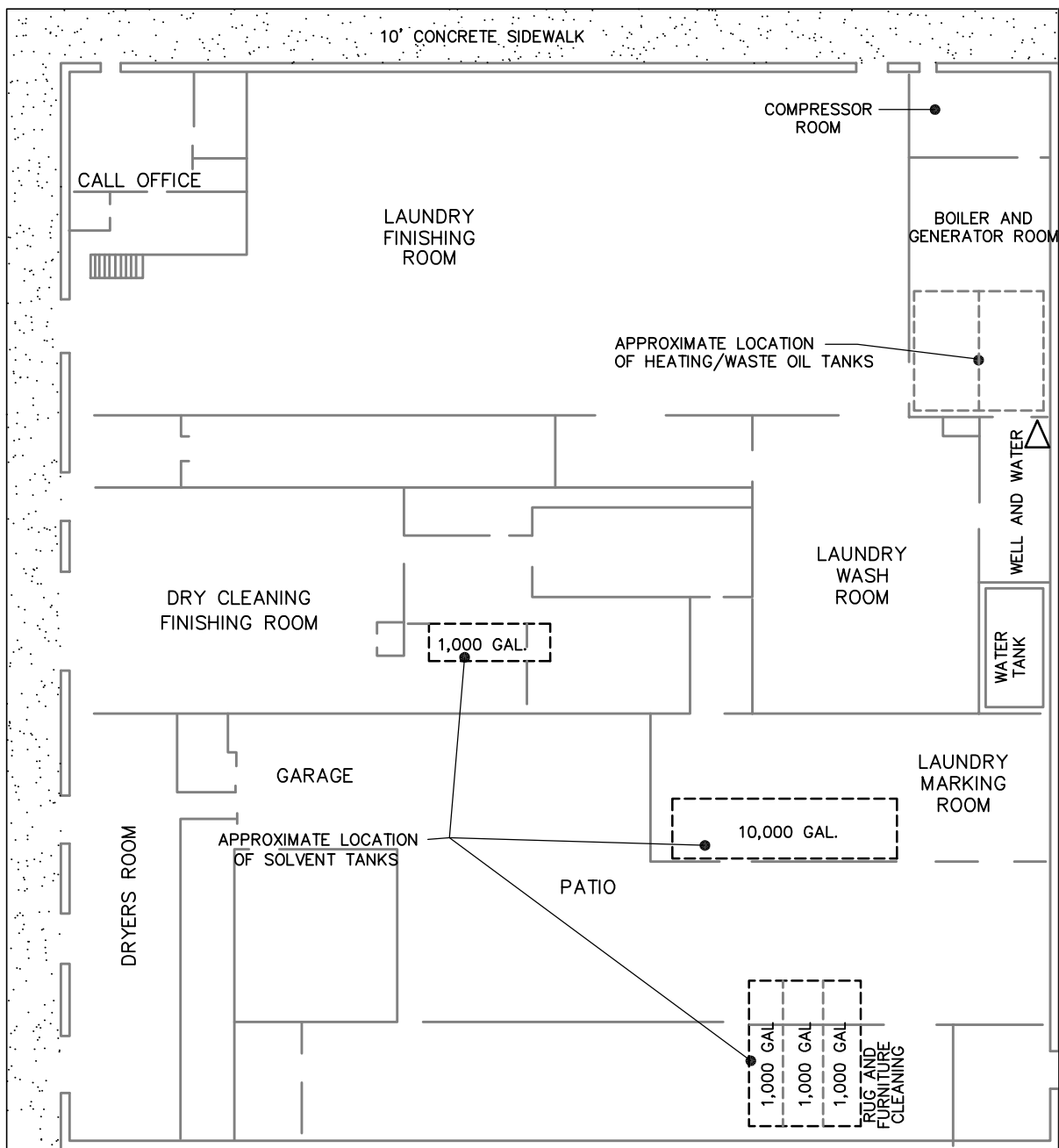
100 0 200
Feet



**HYDRO
GEO
CHEM, INC.**

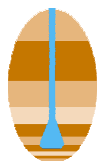
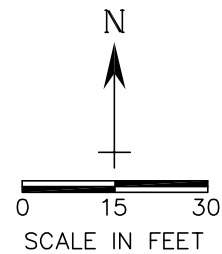
**FORMER OLIVER'S CLEANERS PROPERTY
7TH STREET AND ARIZONA AVENUE WQARF SITE
TUCSON, ARIZONA**

Approved MJB	Date 01/17/14	File Name K:\2012016\7AZ AerialPhoto	Figure 3
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EXPLANATION

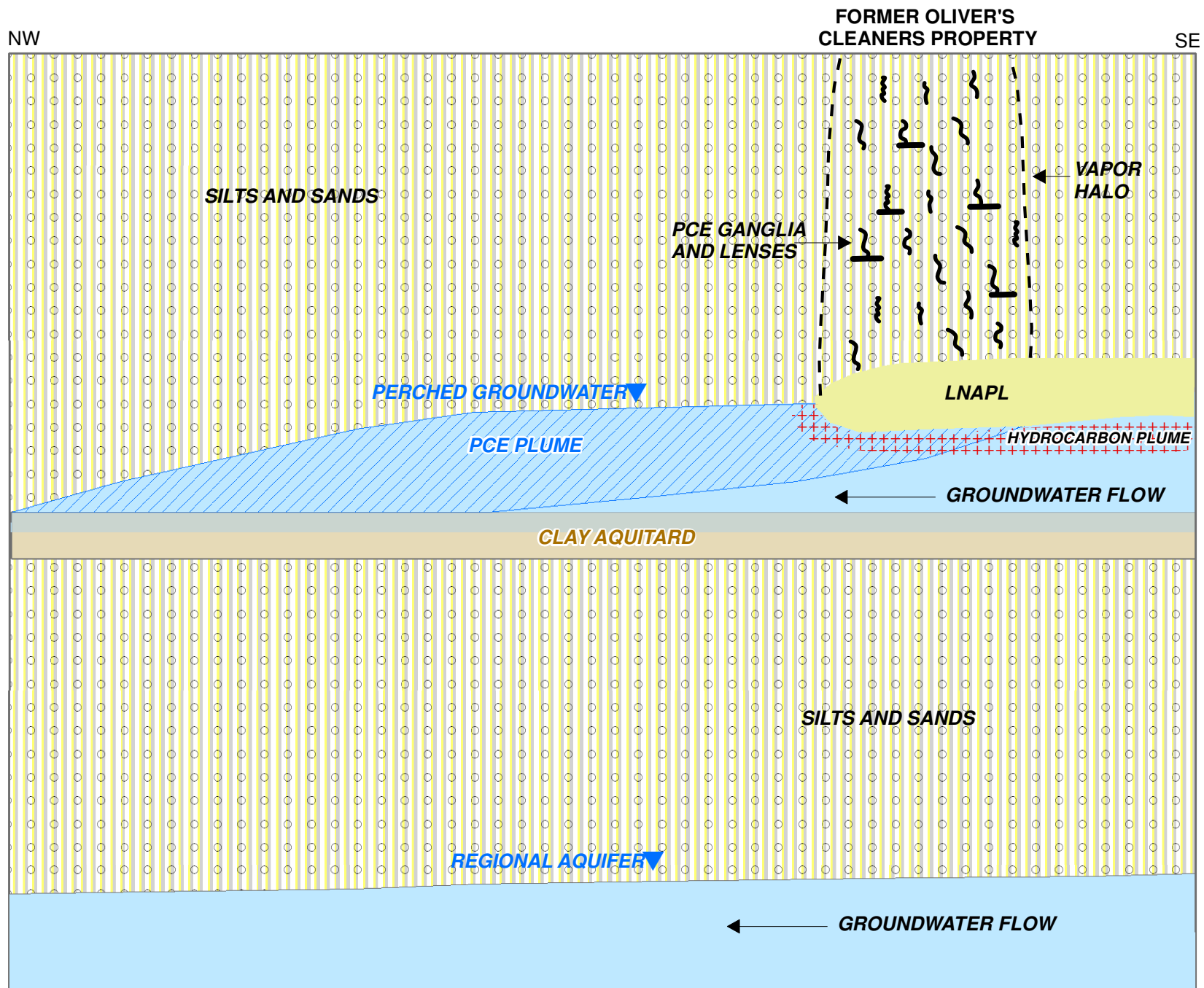
△ ABANDONED REGIONAL AQUIFER WELL



**HYDRO
GEO
CHEM, INC.**

FORMER OLIVER'S CLEANERS PROPERTY SCHEMATIC DIAGRAM OF FACILITIES AND USTs

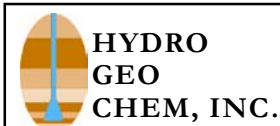
Approved MJB	Date 02/08/13	Author CAD	Date 02/08/13	File No 2012016003a	Fig 4
-----------------	------------------	---------------	------------------	------------------------	----------



Not to Scale

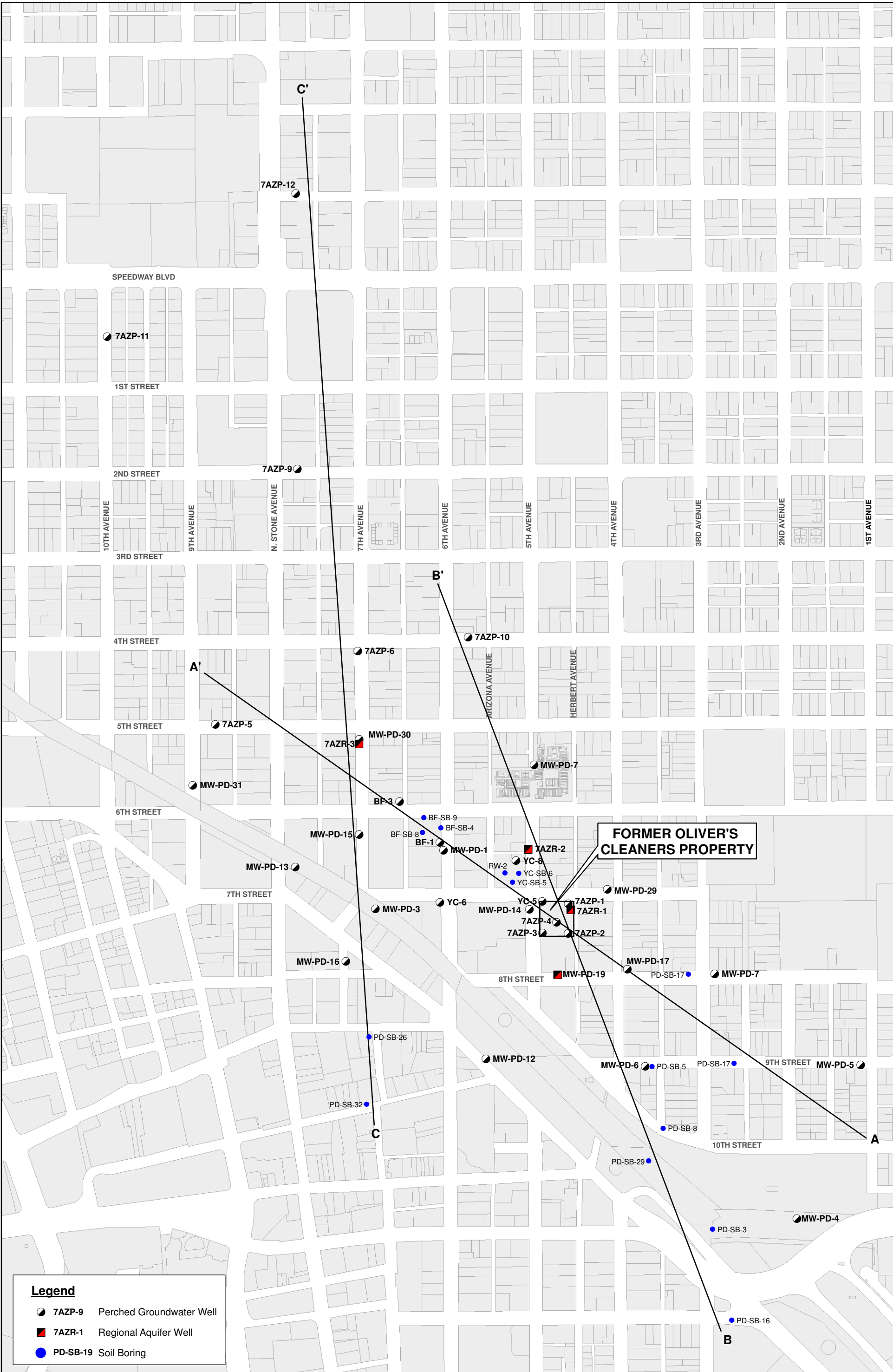
PCE = TETRACHLOROETHENE

LNAPL = LIGHT NON-AQUEOUS PHASE LIQUID



CONCEPTUAL CROSS SECTION
7TH STREET AND ARIZONA AVENUE WQARF SITE
TUCSON, ARIZONA

Approved	Date	File	Figure
MJB	01/17/14	7AZ ConceptualXSec_051013.mxd	5



Spatial Reference: NAD 1983, UTM Zone 12N



**HYDRO
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CHEM, INC.**

**LOCATION OF CROSS SECTIONS A-A', B-B', AND C-C'
7TH STREET AND ARIZONA AVENUE WQARF SITE
TUCSON, ARIZONA**

Approved	Date	File	Figure
AJB	01/17/14	7AZ Xsec Basemap_20130426	6

A'

A

7AZP-5

7AZR-3

BF-SB-9

BF-SB-8

BF-SB-4

MW-PD-1

RW-2

YC-SB-5

MW-PD-14

7AZP-4

7AZP-2

MW-PD-17

PD-SB-17

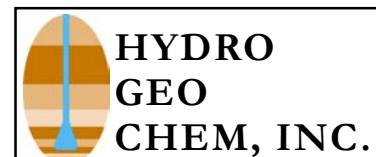
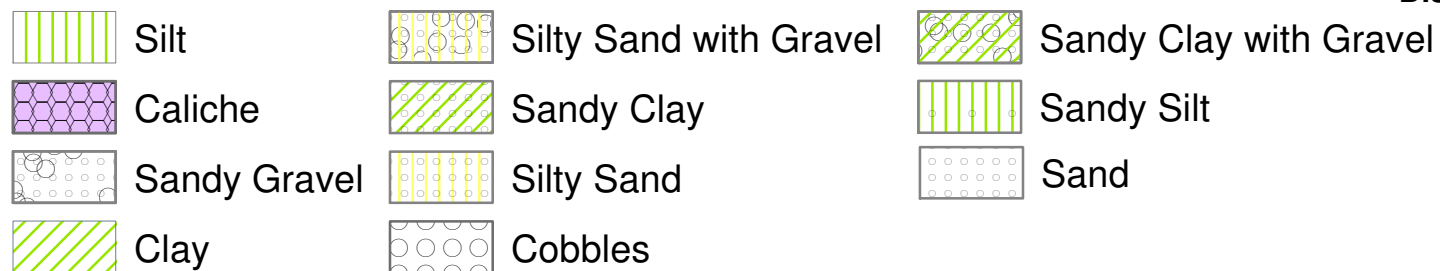
PD-SB-14

PD-SB-19

MW-PD-5

Depth (Feet Below Land Surface)

Distance (Feet)

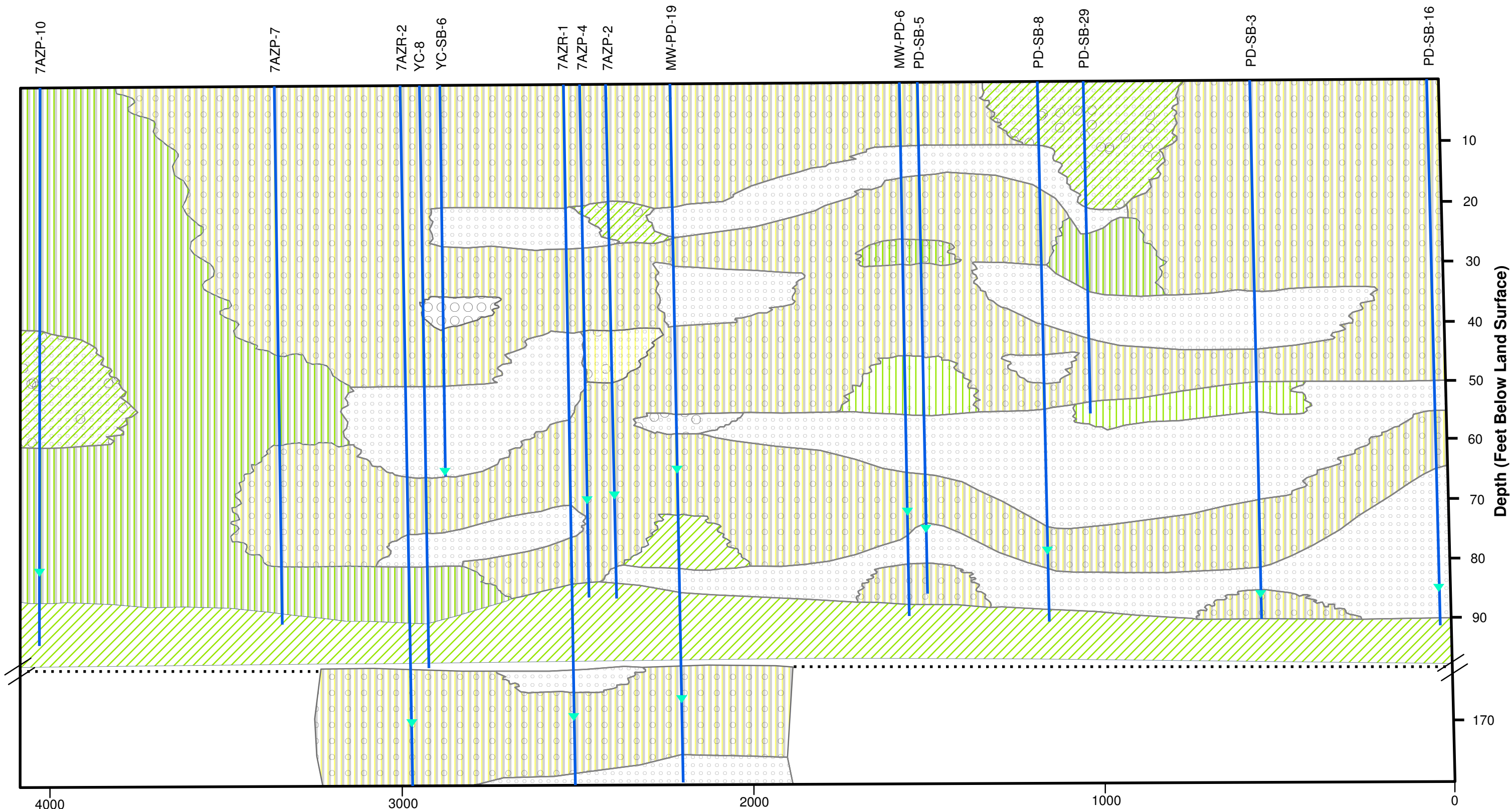



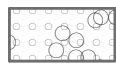
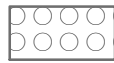
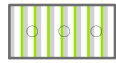
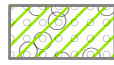


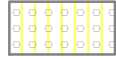
CROSS SECTION A-A'
7TH STREET AND ARIZONA AVENUE WQARF SITE
TUCSON, ARIZONA

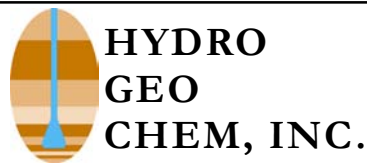
Approved	Date	File	Figure
MJB	01/17/14	7AZ XsecA_20130206.mxd	7

B'

B



- | | |
|--|--|
|  Clay |  Sandy Gravel |
|  Cobbles |  Sandy Silt |
|  Silty Sand with Gravel |  Silty Clay |
|  Sand |  Silty Sand |

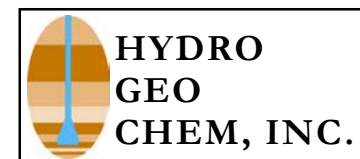
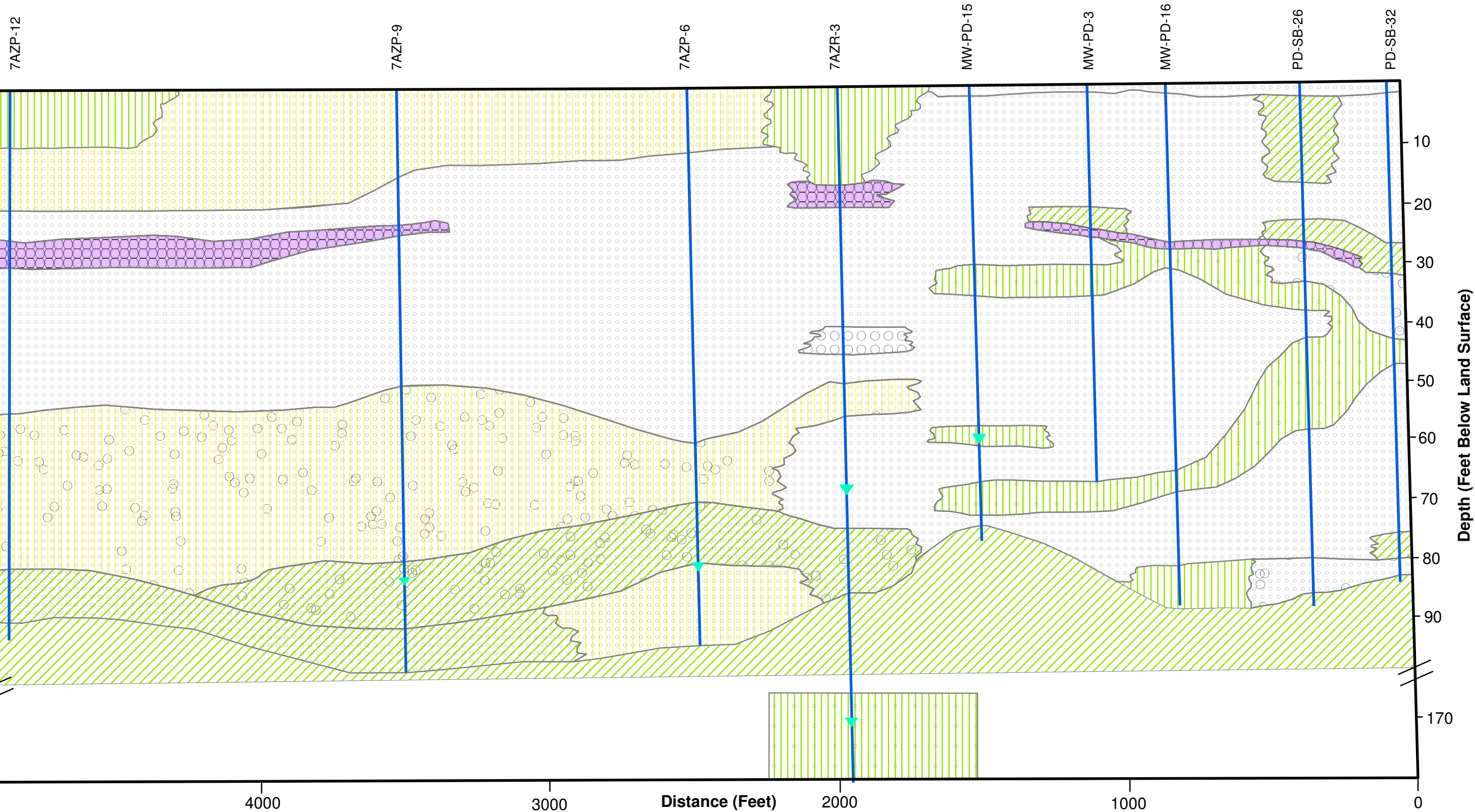


CROSS SECTION B-B'
7TH STREET AND ARIZONA AVENUE WQARF SITE
TUCSON, ARIZONA

Approved MJB	Date 01/17/14	File 7AZ XsecB_20130507.mxd	Figure 8
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C'

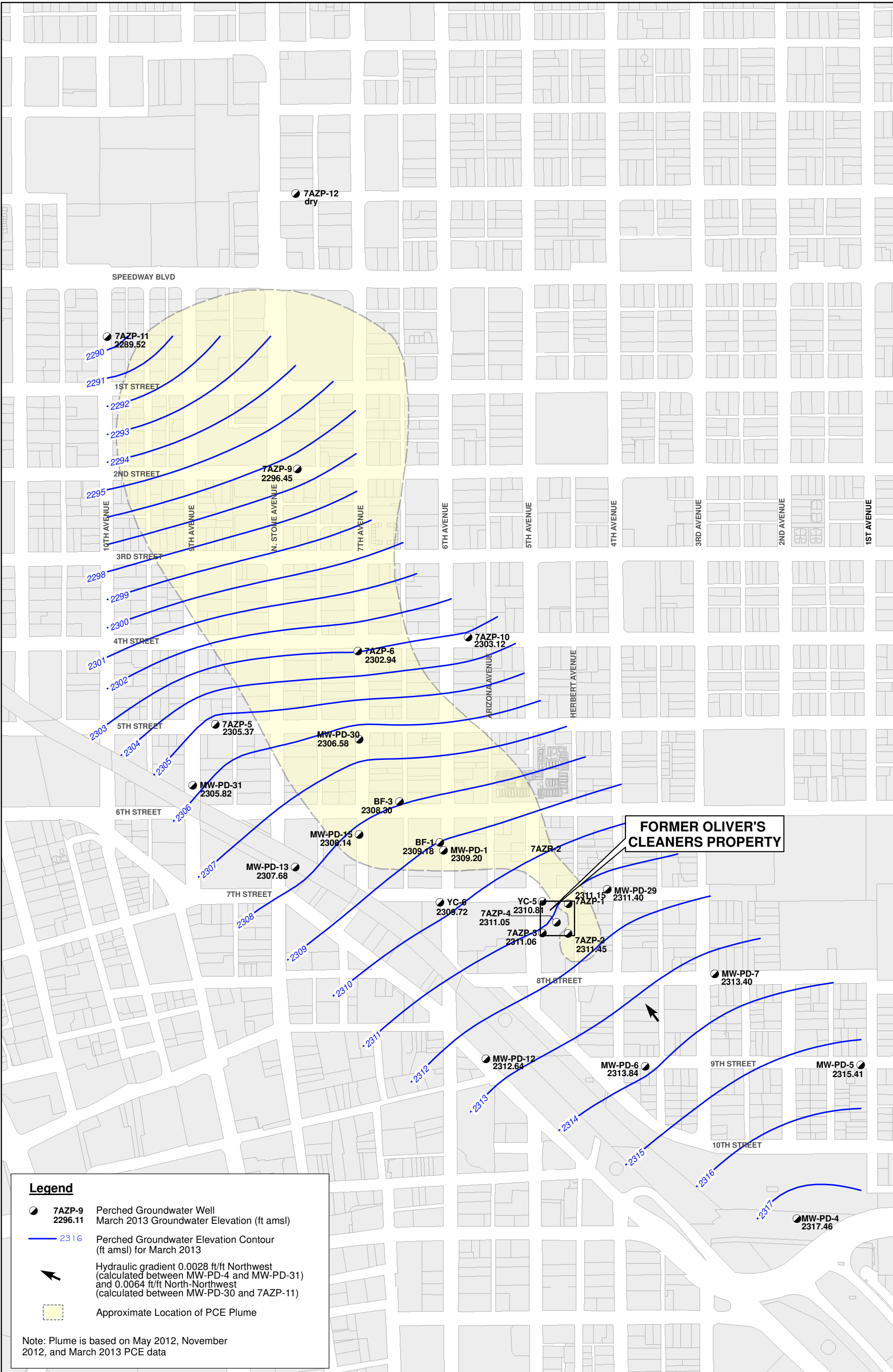
C



CROSS SECTION C-C'
7TH STREET AND ARIZONA AVENUE WQARF SITE
TUCSON, ARIZONA

Approved MJB	Date 01/17/14	File 7AZ XsecC_20130130.mxd
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Figure
9



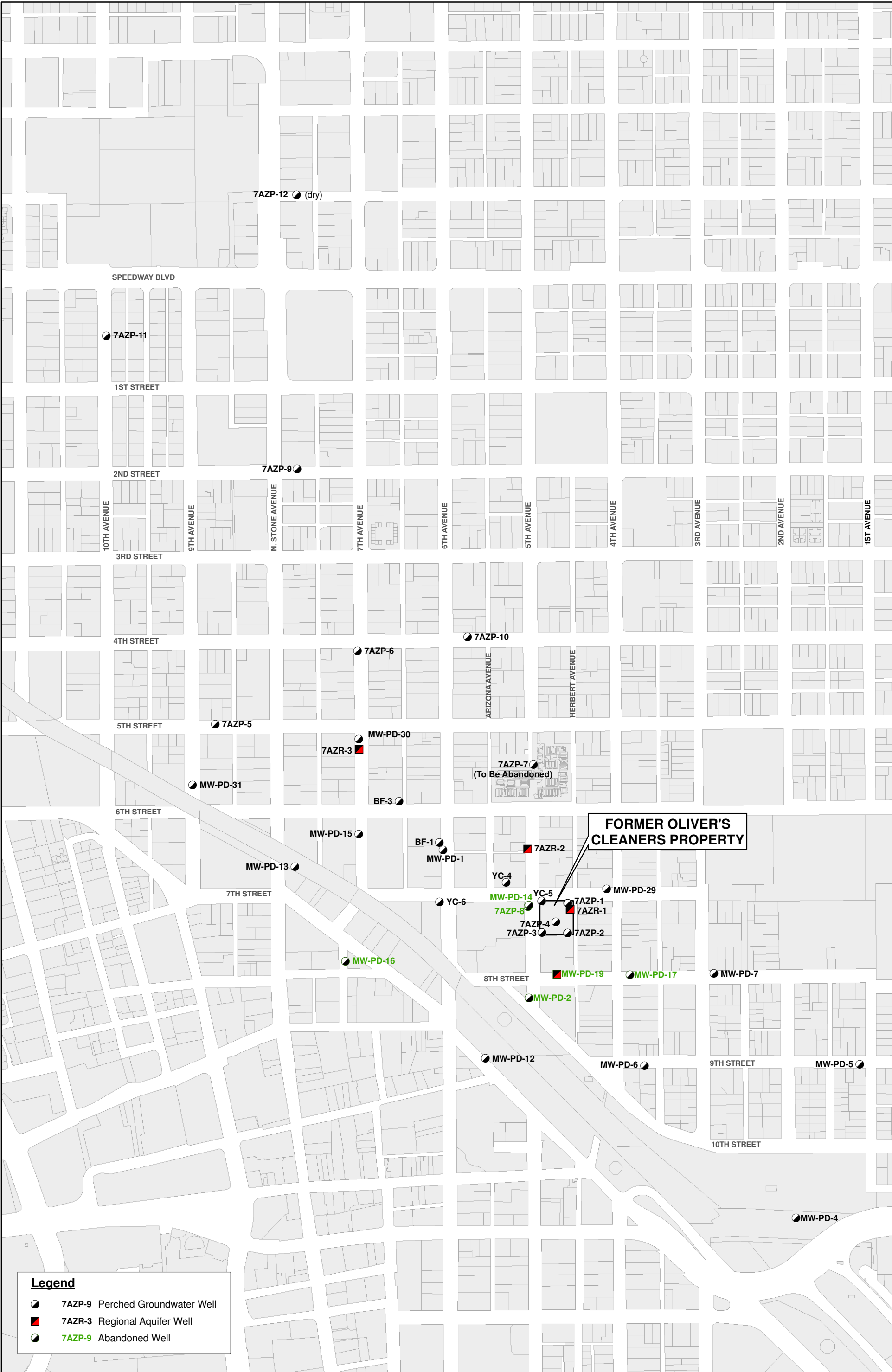
Spatial Reference: NAD 1983, UTM Zone 12N



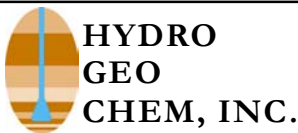
**HYDRO
GEO
CHEM, INC.**

**MARCH 2013
PERCHED GROUNDWATER ELEVATION CONTOURS
7TH STREET AND ARIZONA AVENUE WQARF SITE
TUCSON, ARIZONA**

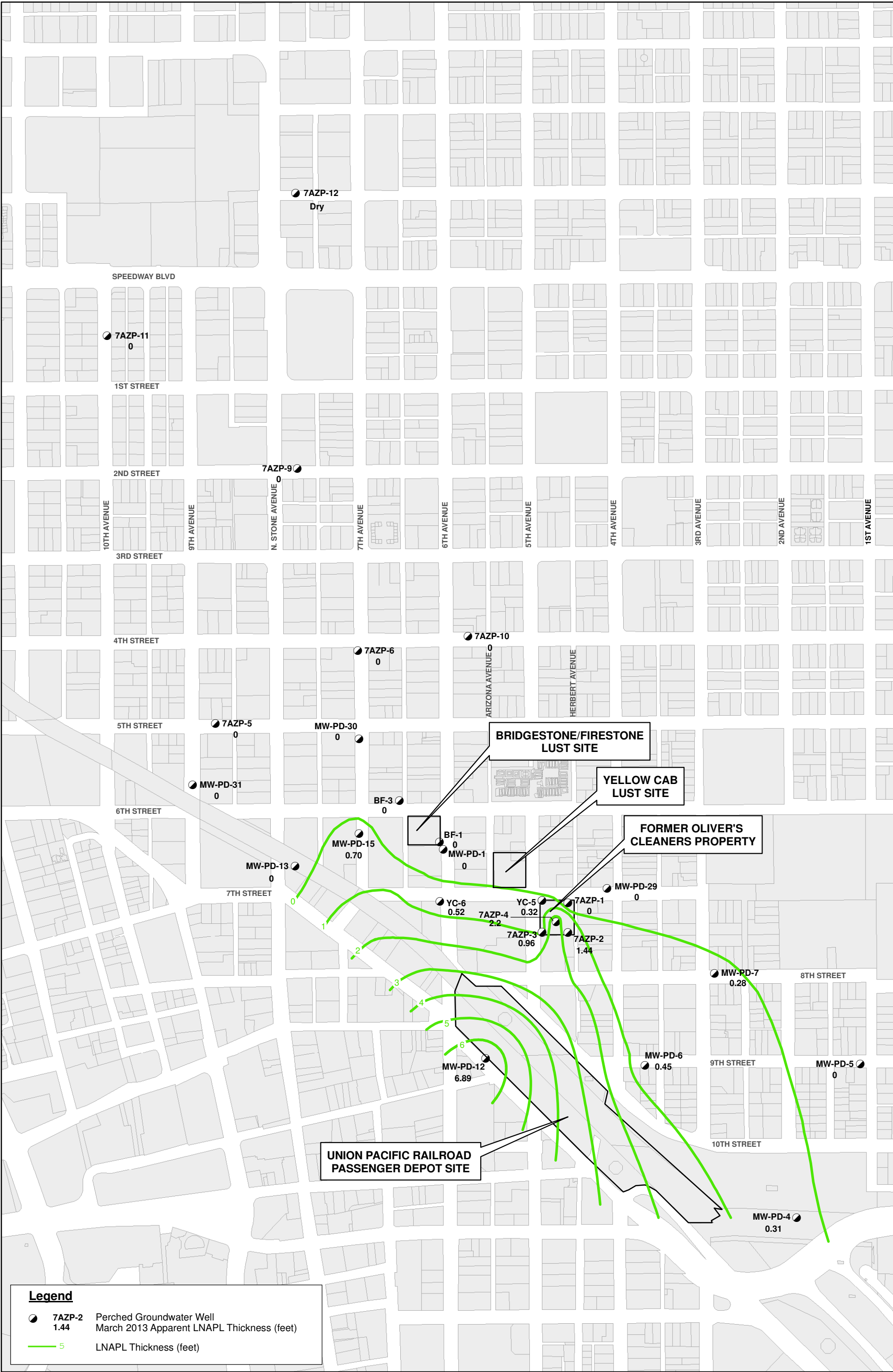
Approved AJB	Date 01/17/14	File K:\2012016\7AZ WaterCont_Mar2013.mxd
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Spatial Reference: NAD 1983, UTM Zone 12N



SITE WELL LOCATIONS 7TH STREET AND ARIZONA AVENUE WQARF SITE TUCSON, ARIZONA			
Approved	Date	File	Figure
AJB	02/03/14	7AZ Site Well Locations.mxd	11



Legend

- 7AZP-2 1.44 Perched Groundwater Well
March 2013 Apparent LNAPL Thickness (feet)
- 5 LNAPL Thickness (feet)

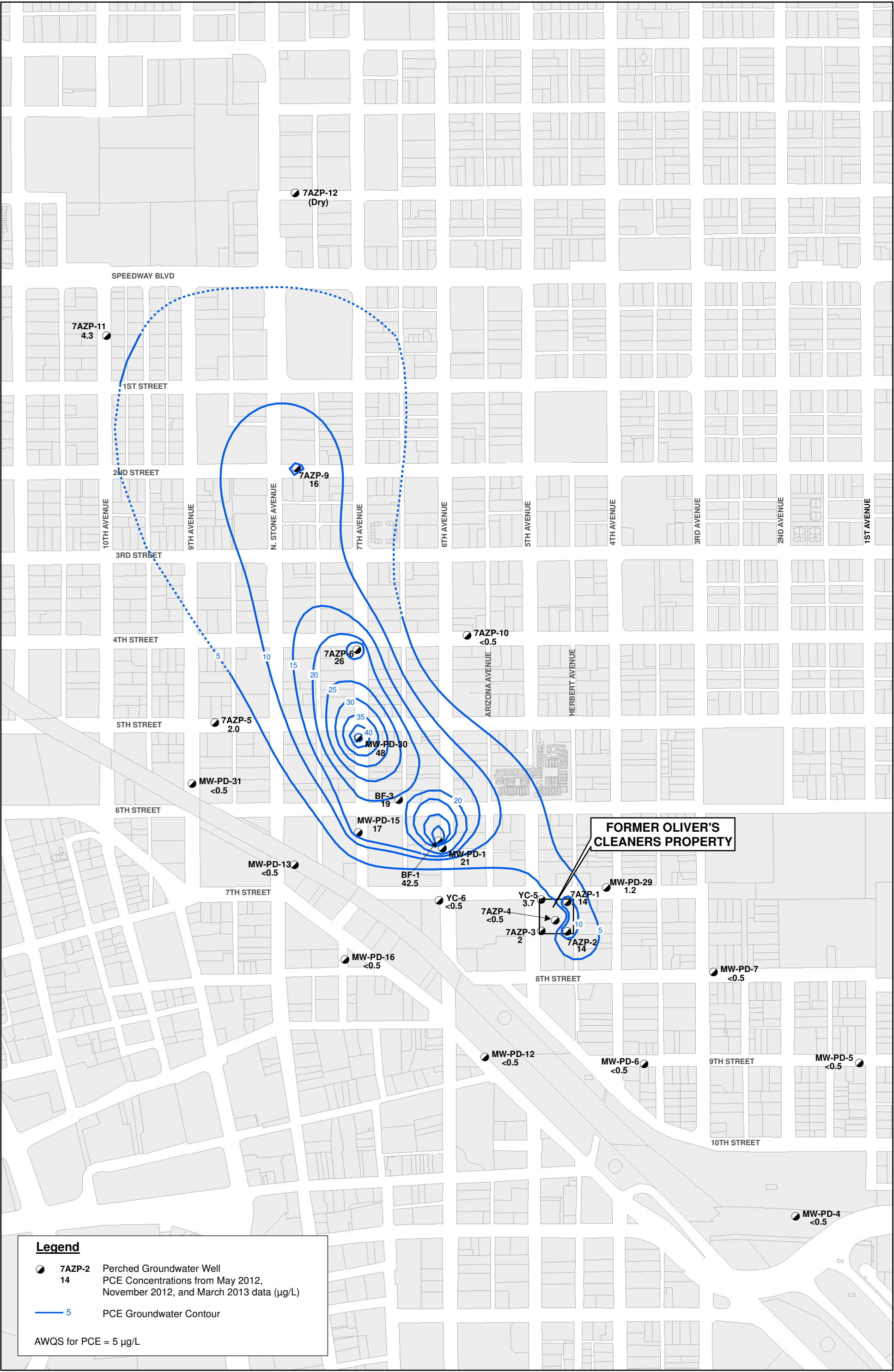
Spatial Reference: NAD 1983, UTM Zone 12N



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CHEM, INC.**

**MARCH 2013 LNAPL THICKNESS
7TH STREET AND ARIZONA AVENUE WQARF SITE
TUCSON, ARIZONA**

Approved AJB	Date 01/24/14	File K:\2012016\7AZ LNAPL Mar2013 contours_RI	Figure 12
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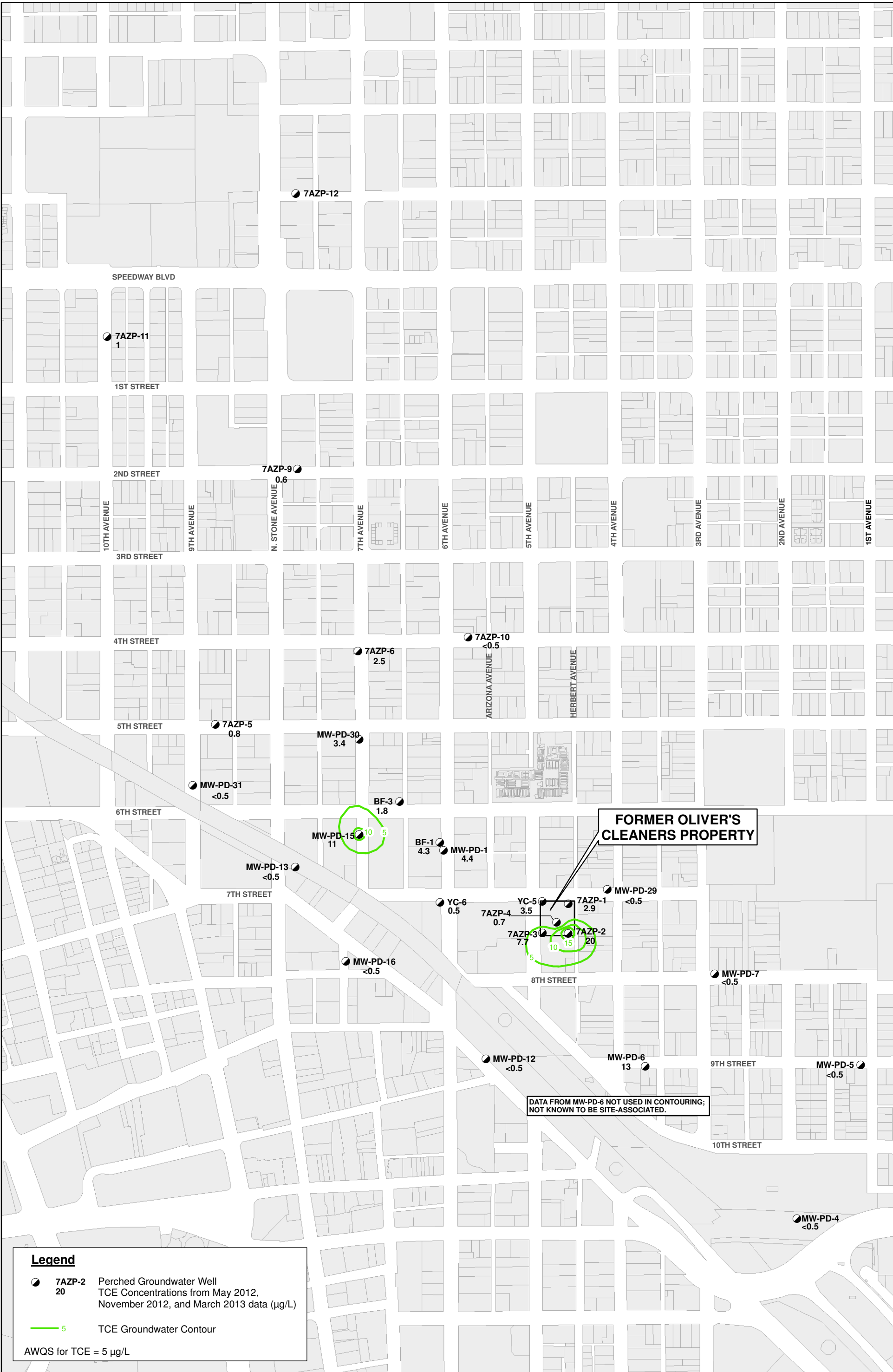
Spatial Reference: NAD 1983, UTM Zone 12N



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**GROUNDWATER PCE CONTOURS
7TH STREET AND ARIZONA AVENUE WQARF SITE
TUCSON, ARIZONA**

Approved AJB	Date 01/17/14	File K:\2012016\7AZP PCE Mar2013 contours
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Spatial Reference: NAD 1983, UTM Zone 12N

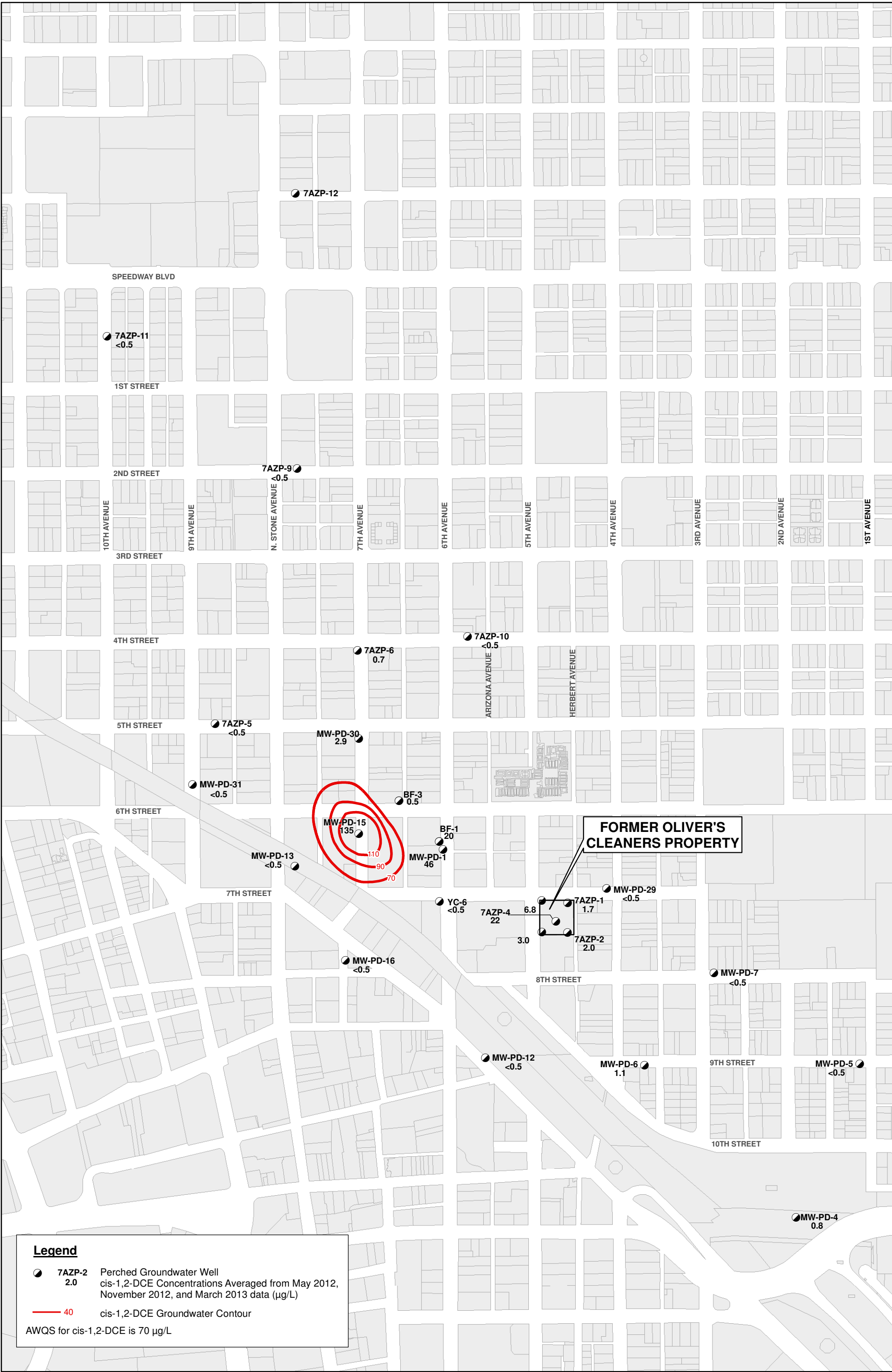


**HYDRO
GEO
CHEM, INC.**

**GROUNDWATER TCE CONTOURS
7TH STREET AND ARIZONA AVENUE WQARF SITE
TUCSON, ARIZONA**

Approved	Date	File
AJB	01/20/14	K:\2012016\7AZ TCE Mar2013 contours.mxd

Figure
14



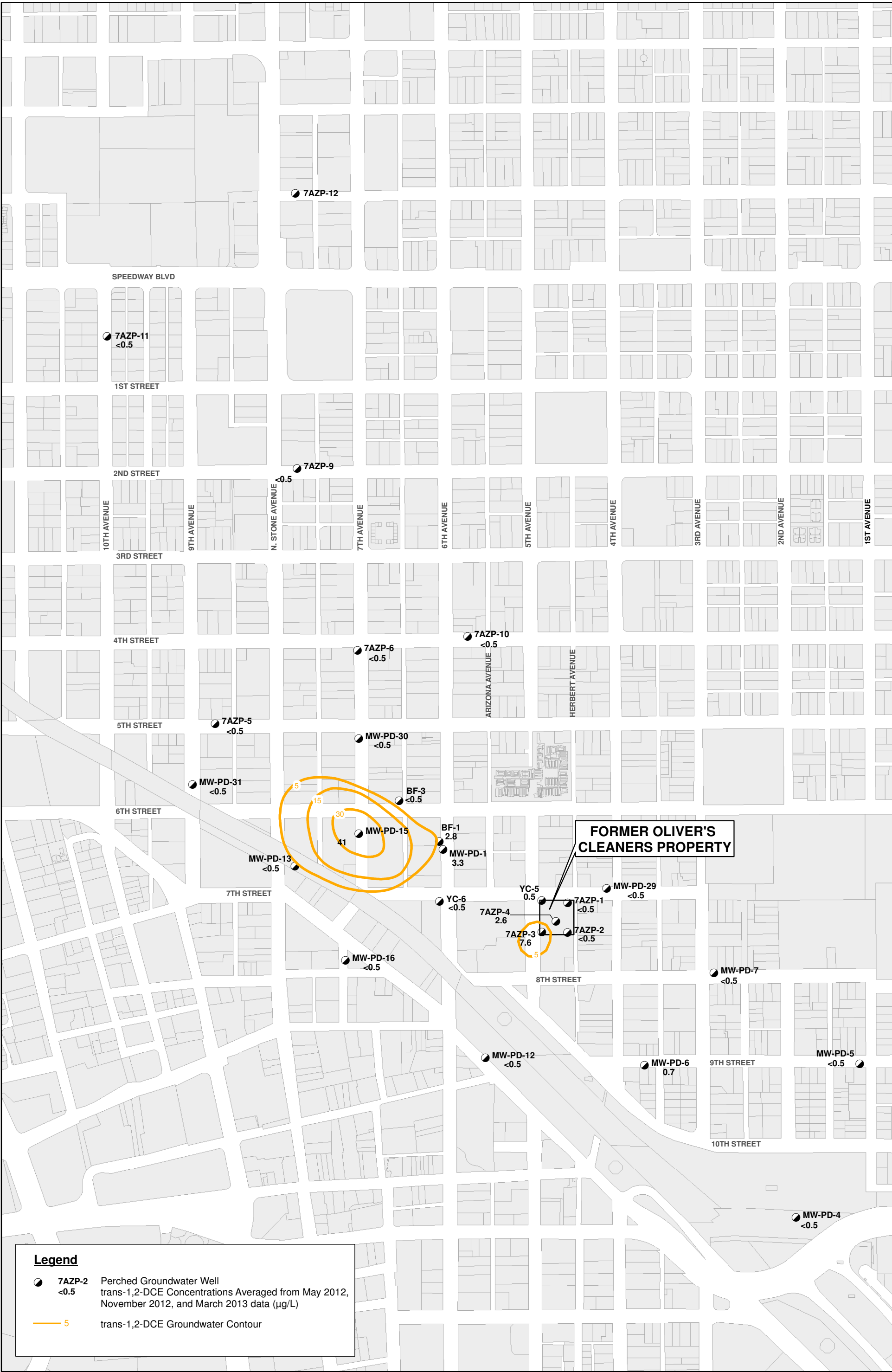
Spatial Reference: NAD 1983, UTM Zone 12N




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CHEM, INC.**

**GROUNDWATER cis-1,2-DCE CONTOURS
7TH STREET AND ARIZONA AVENUE WQARF SITE
TUCSON, ARIZONA**


Approved AJB	Date 01/17/14	File 7AZ cisDCE Mar2013 contours
------------------------	-------------------------	-------------------------------------



Legend

 **7AZP-2**
<0.5

Perched Groundwater Well
trans-1,2-DCE Concentrations Averaged from May 2012,
November 2012, and March 2013 data (µg/L)

 5

trans-1,2-DCE Groundwater Contour

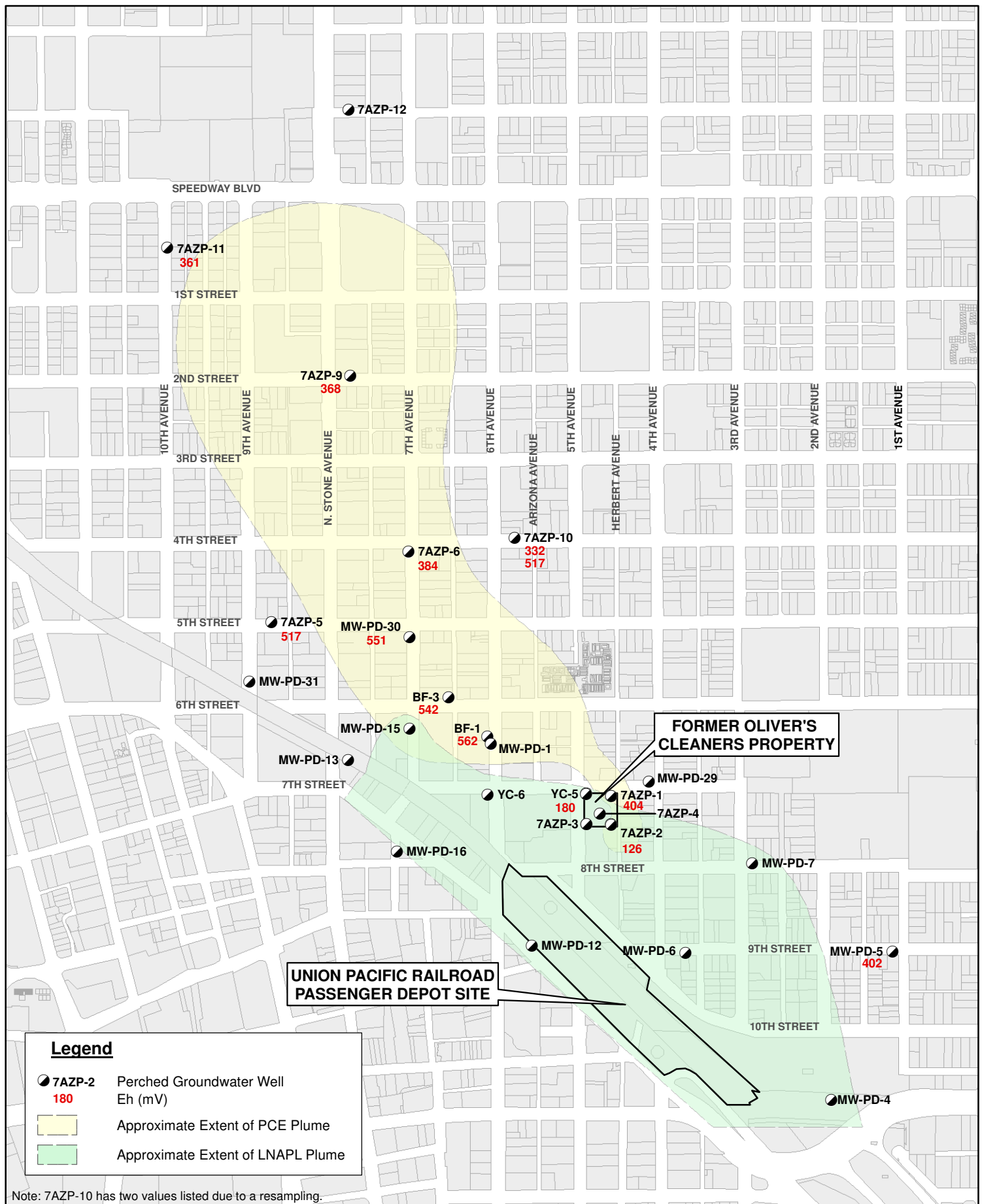
Spatial Reference: NAD 1983, UTM Zone 12N



**HYDRO
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CHEM, INC.**

**GROUNDWATER trans-1,2-DCE CONTOURS
7TH STREET AND ARIZONA AVENUE WQARF SITE
TUCSON, ARIZONA**

Approved	Date	File	Figure
AJB	01/17/14	7AZ transDCE Mar2013 contours.mxd	16



500 0 1,000 Feet



**HYDRO
GEO
CHEM, INC.**

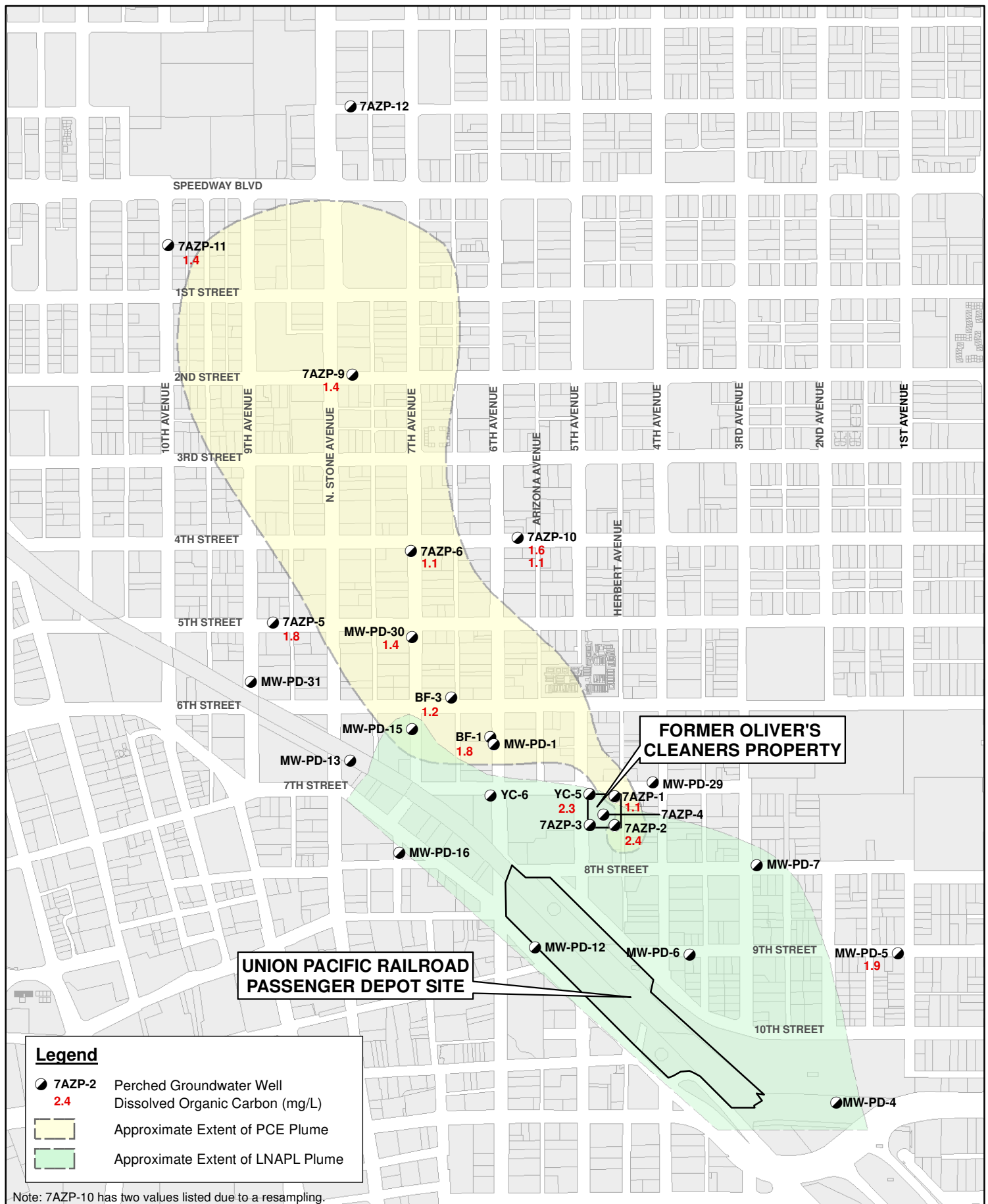
**OXIDATION REDUCTION POTENTIAL - Eh
7TH STREET AND ARIZONA AVENUE WQARF SITE
TUCSON, ARIZONA**

Approved
MJB

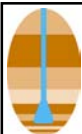
Date
01/24/14

File
K:\2012016\7AZ PostMap_Eh_mV.mxd

Figure
17



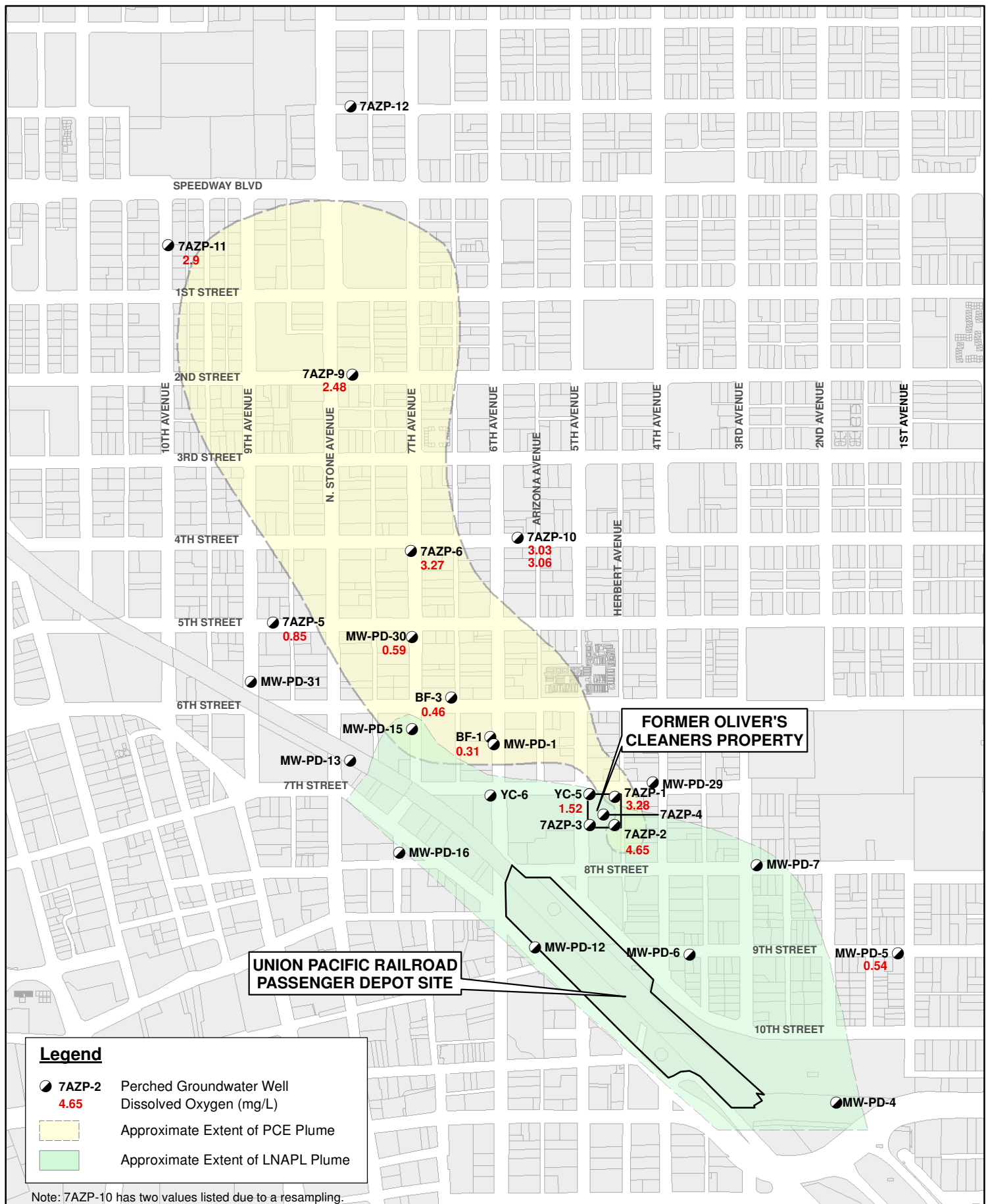
500 0 1,000 Feet



**HYDRO
GEO
CHEM, INC.**

**DISSOLVED ORGANIC CARBON
7TH STREET AND ARIZONA AVENUE WQARF SITE
TUCSON, ARIZONA**

Approved	Date	File	Figure
MJB	02/03/14	K:\2012016\7AZ PostMap_OrganicCarbon.mxd	18



Spatial Reference: NAD 1983, UTM Zone 12N

500 0 1,000 Feet

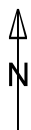
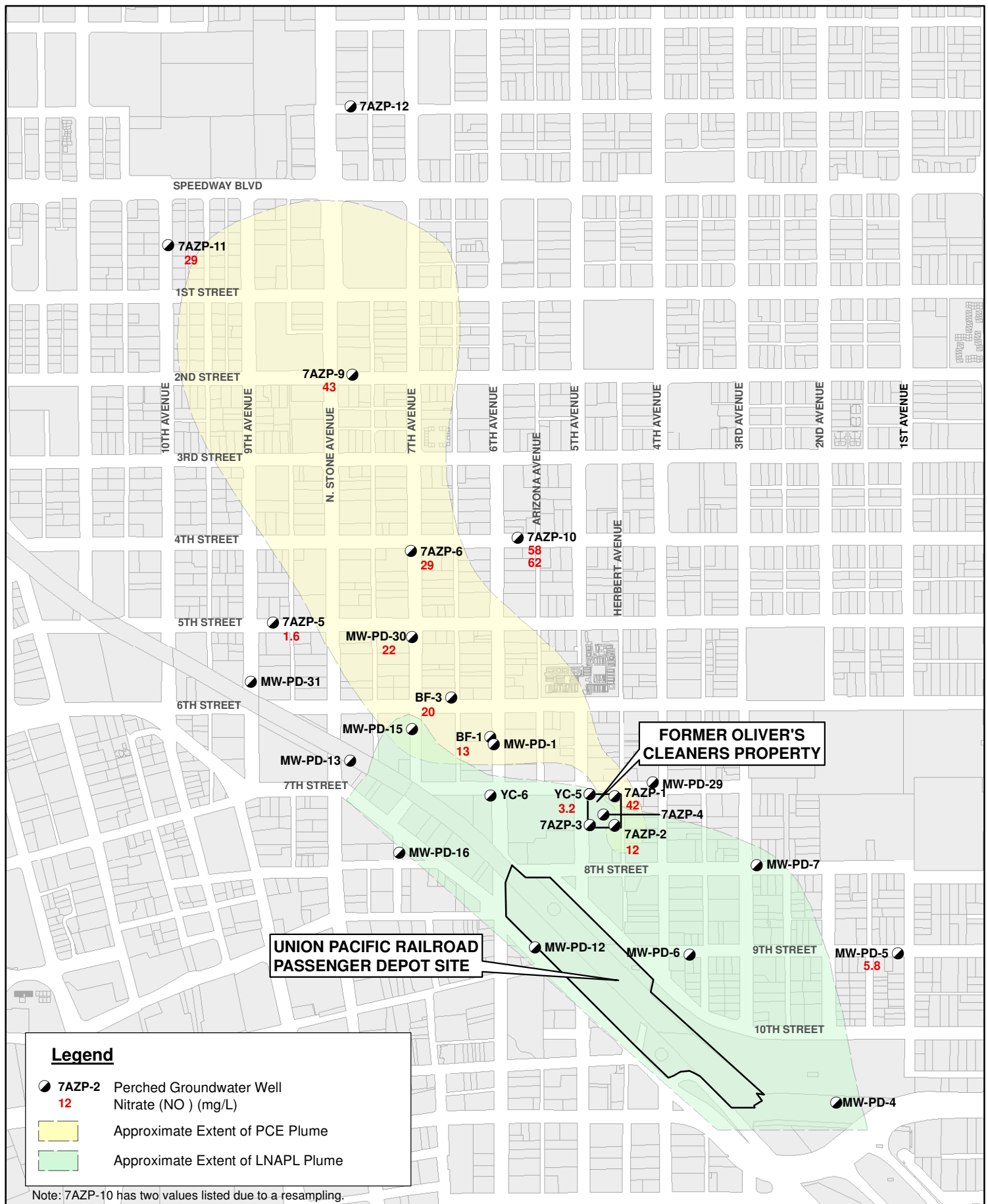


**HYDRO
GEO
CHEM, INC.**

**DISSOLVED OXYGEN
7TH STREET AND ARIZONA AVENUE WQARF SITE
TUCSON, ARIZONA**

Approved MJB	Date 01/24/14	File K:\2012016\7AZ PostMap_DO.mxd
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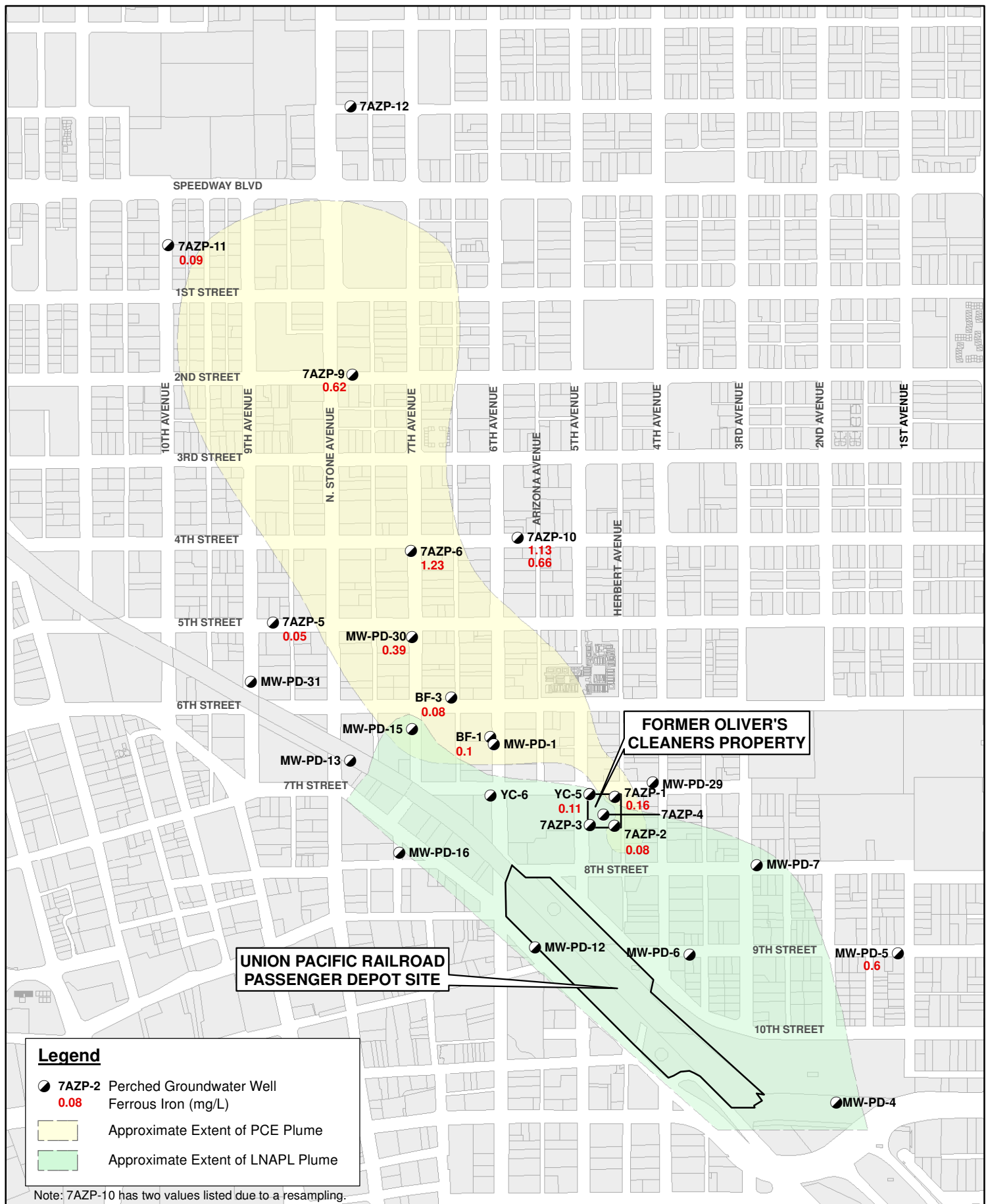
Figure
19

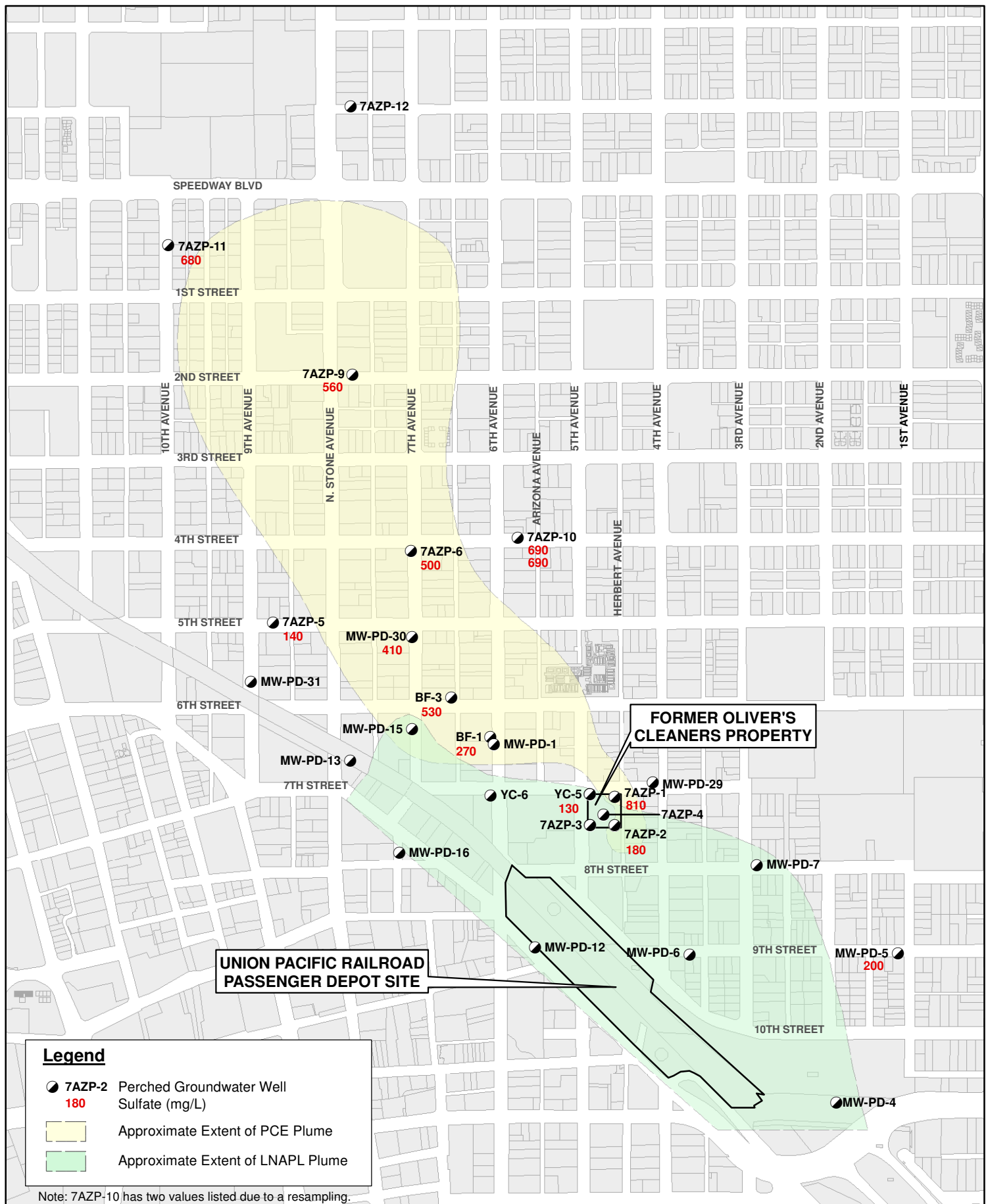


**HYDRO
GEO
CHEM, INC.**

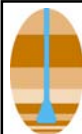
**NITRATE
7TH STREET AND ARIZONA AVENUE WQARF SITE
TUCSON, ARIZONA**

Approved	Date	File	Figure
MJB	01/24/14	K:\2012016\7AZ PostMap_Nitrate.mxd	20





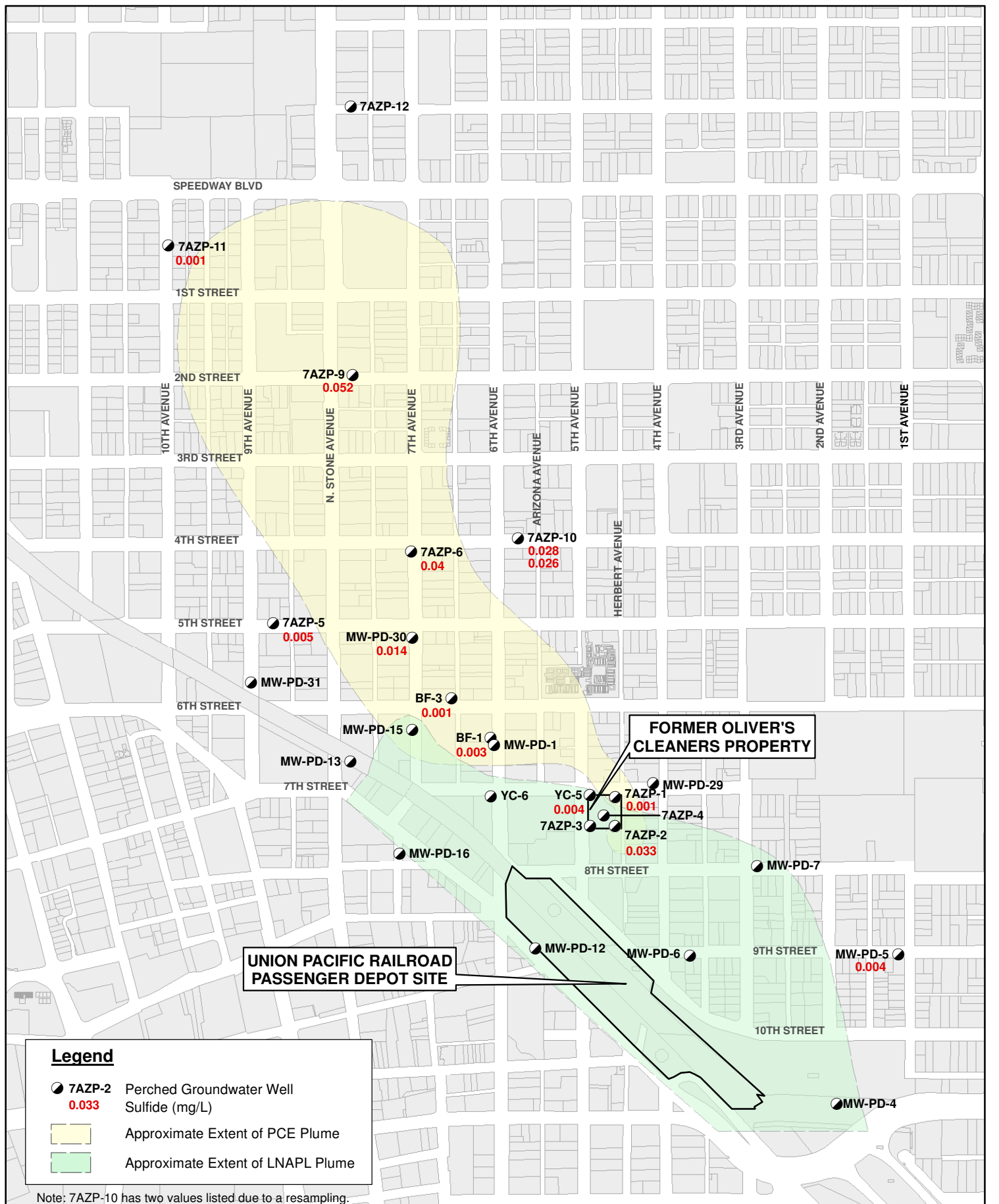
500 0 1,000 Feet



**HYDRO
GEO
CHEM, INC.**

**SULFATE
7TH STREET AND ARIZONA AVENUE WQARF SITE
TUCSON, ARIZONA**

Approved MJB	Date 01/24/14	File K:\2012016\7AZ PostMap_Sulfate.mxd	Figure 22
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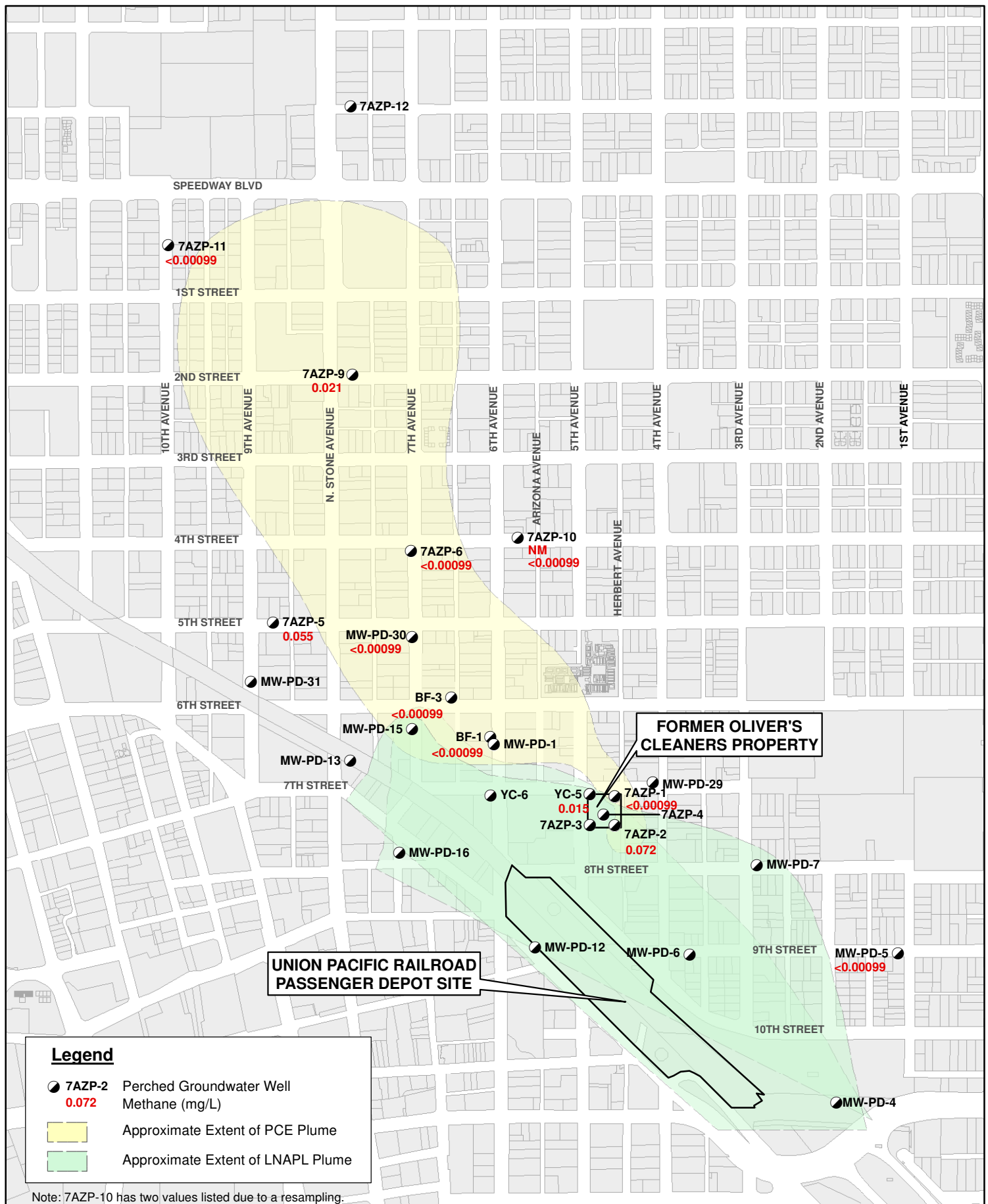
500 0 1,000 Feet



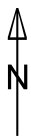
**HYDRO
GEO
CHEM, INC.**

**SULFIDE
7TH STREET AND ARIZONA AVENUE WQARF SITE
TUCSON, ARIZONA**

Approved MJB	Date 01/24/14	File K:\2012016\7AZ PostMap_Sulfide.mxd	Figure 23
------------------------	-------------------------	---	---------------------



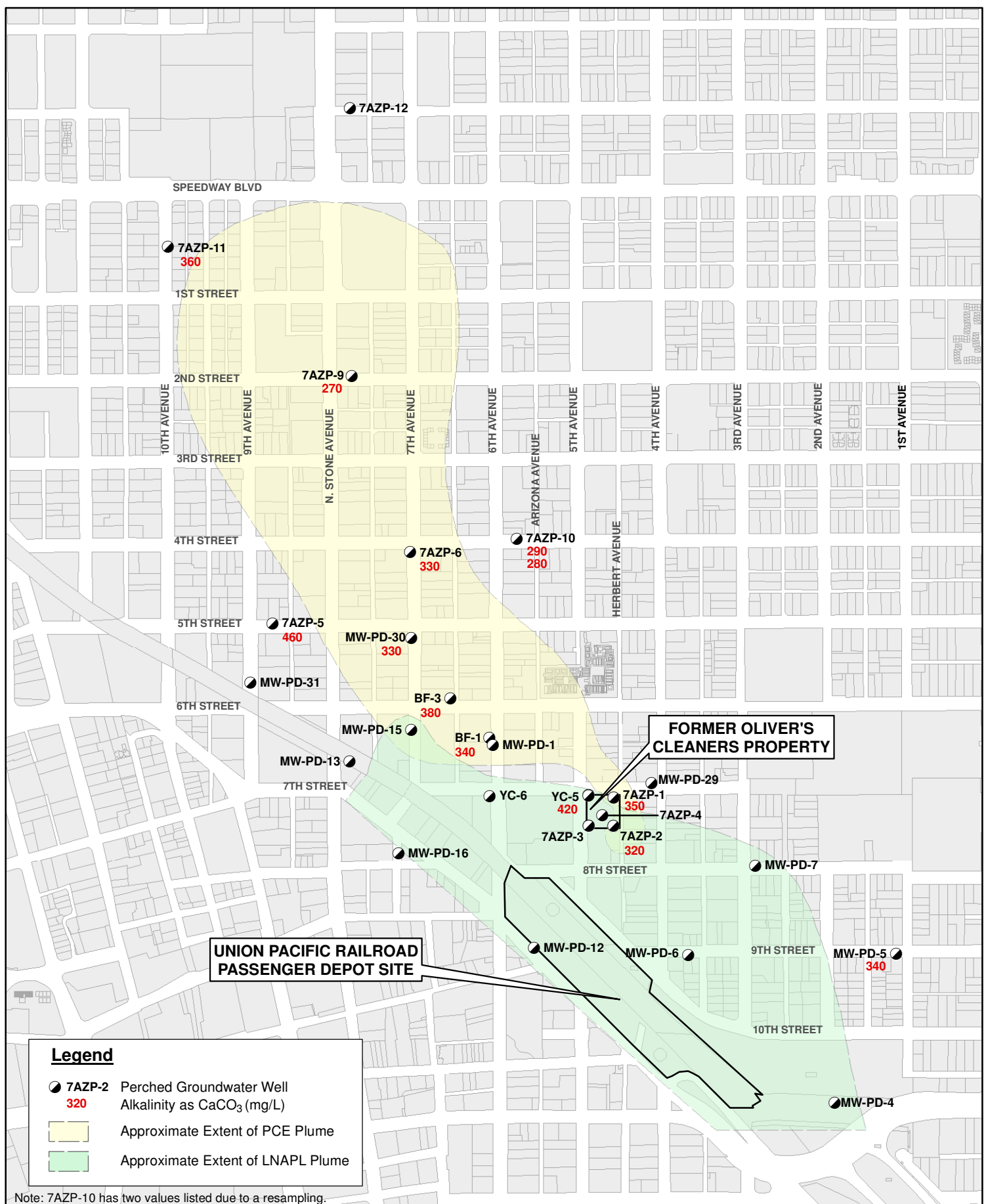
500 0 1,000 Feet



**HYDRO
GEO
CHEM, INC.**

**METHANE
7TH STREET AND ARIZONA AVENUE WQARF SITE
TUCSON, ARIZONA**

Approved MJB	Date 01/24/14	File K:\2012016\7AZ PostMap_Methane.mxd	Figure 24
------------------------	-------------------------	---	---------------------



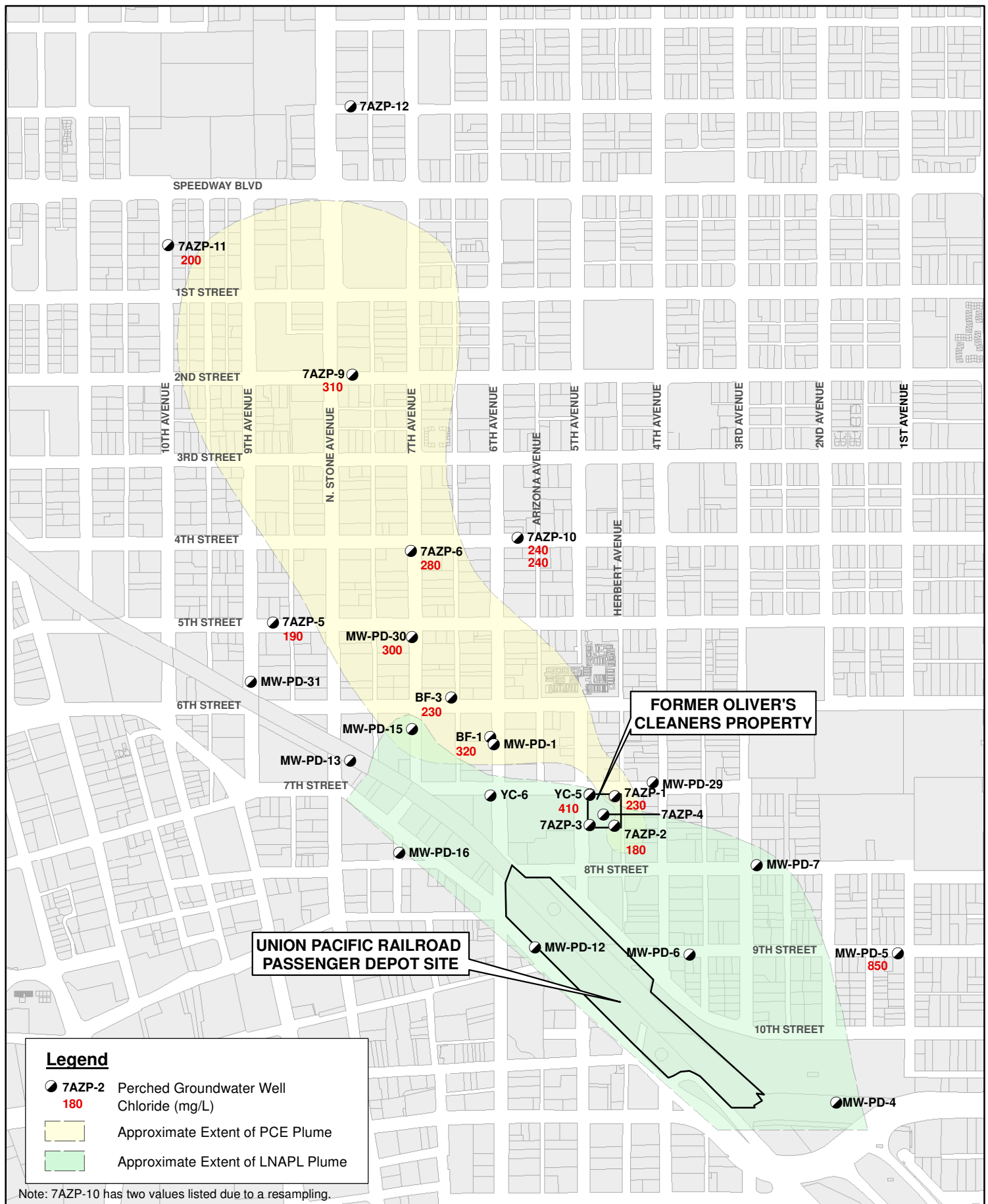
500 0 1,000 Feet



**HYDRO
GEO
CHEM, INC.**

**ALKALINITY
7TH STREET AND ARIZONA AVENUE WQARF SITE
TUCSON, ARIZONA**

Approved MJB	Date 01/24/14	File K:\2012016\7AZ PostMap_Alk.mxd	Figure 25
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500 0 1,000 Feet

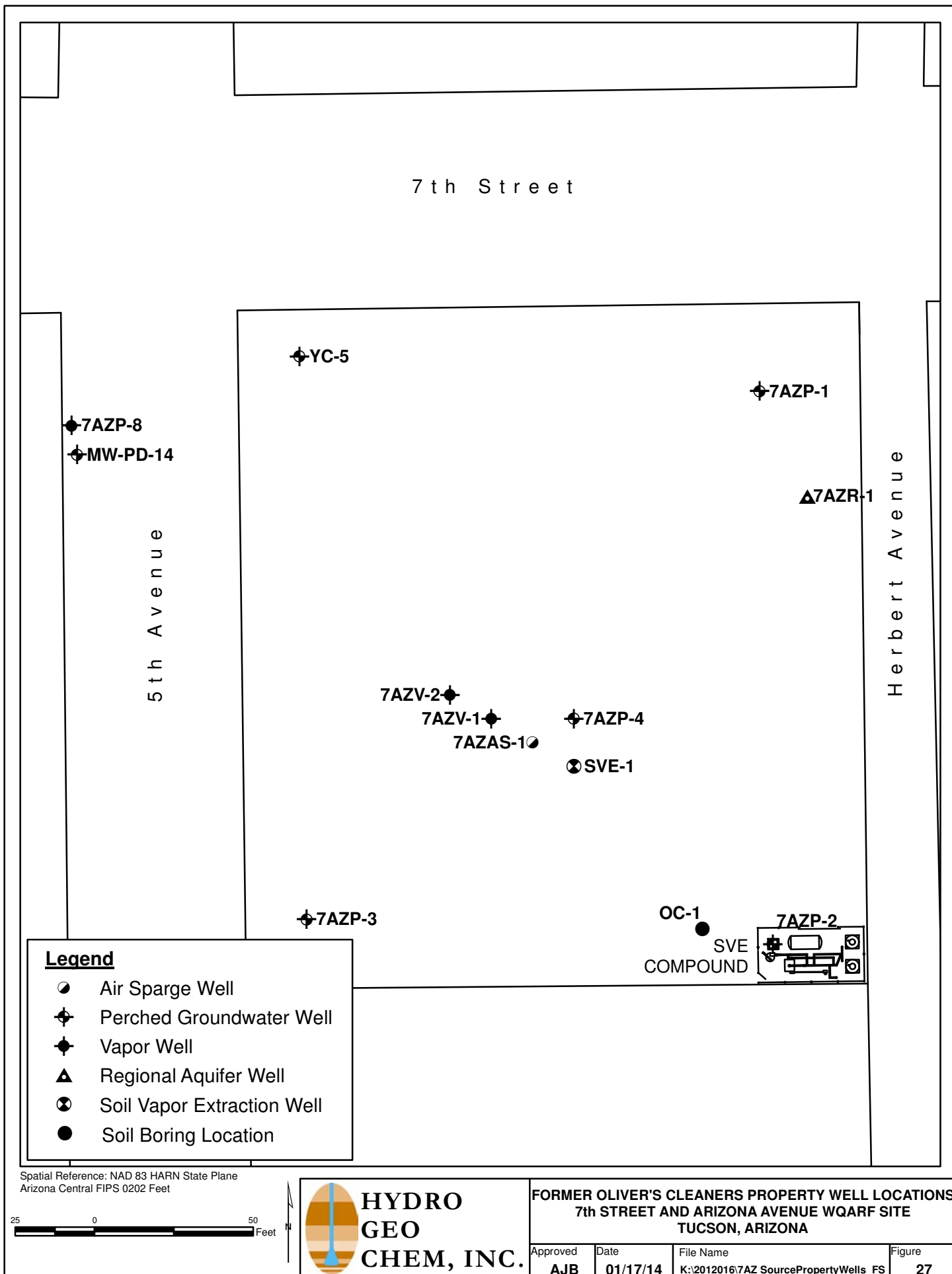


**HYDRO
GEO
CHEM, INC.**

**CHLORIDE
7TH STREET AND ARIZONA AVENUE WQARF SITE
TUCSON, ARIZONA**

Approved MJB	Date 01/24/14	File K:\2012016\7AZ PostMap_Chloride.mxd
------------------------	-------------------------	--

Figure
26



7th Street

5th Avenue

Herbert Avenue

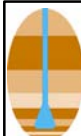


SVE
COMPOUND

Legend

- SG-120-44 Soil Gas Sample Location
- 266.69 PCE Level (µg)
- 7.42 TCE Level (µg)

Spatial Reference: NAD 83 HARN State Plane
Arizona Central FIPS 0202 Feet



**HYDRO
GEO
CHEM, INC.**

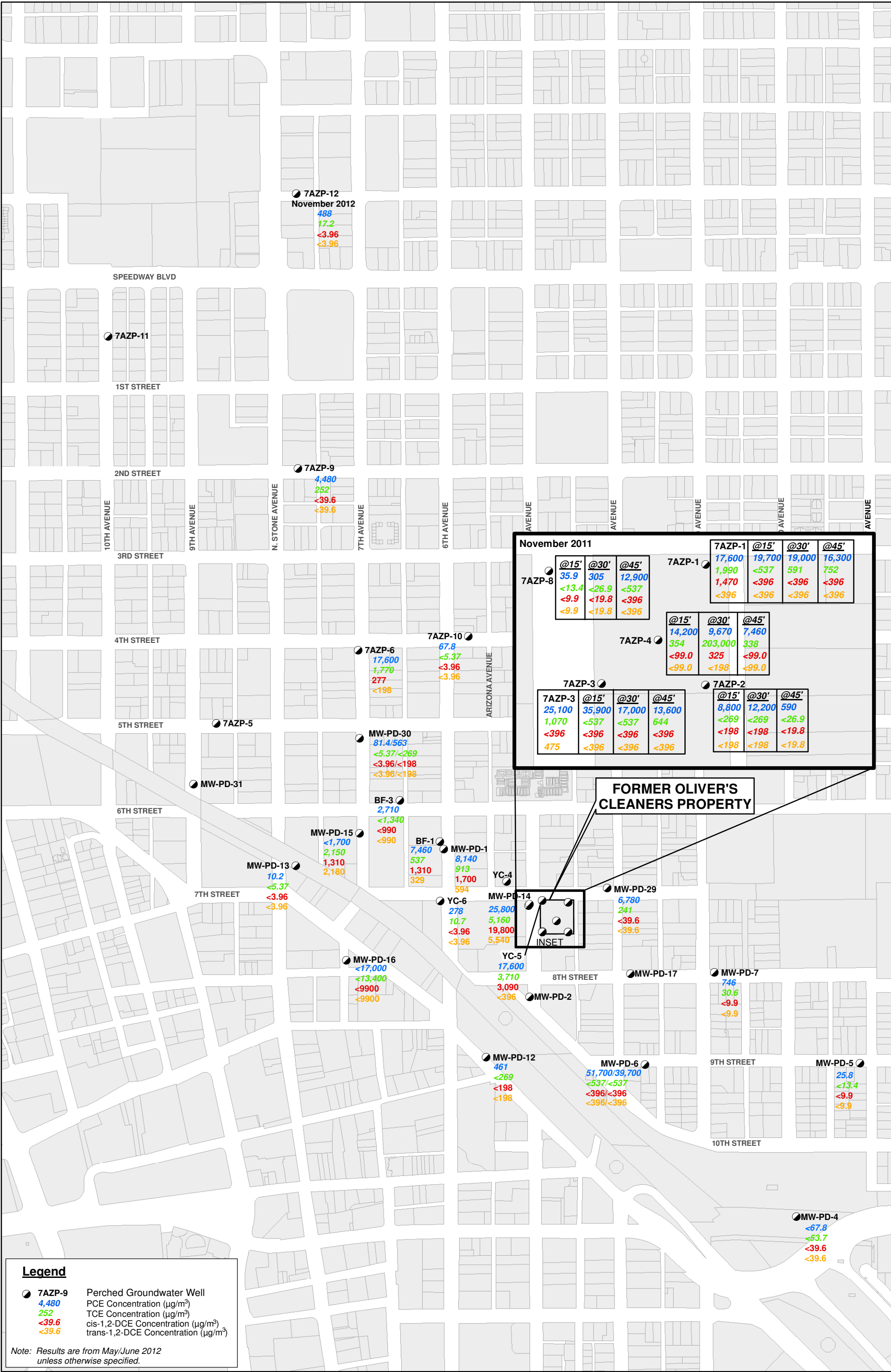
**PASSIVE SOIL GAS SAMPLE
LOCATIONS AND PCE AND TCE RESULTS, 2002
7th STREET AND ARIZONA AVENUE WQARF SITE
TUCSON, ARIZONA**

Approved
MJB

Date
7/30/13


File Name
K:\2012016\7AZ_SoilGasSampleLocations

Figure
28






Legend

 7AZP-9 Perched Groundwater Well

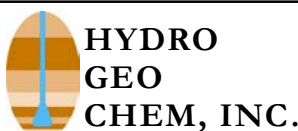
4,480

PCE Soil Vapor Concentration (µg/m³)

 8000

PCE Soil Vapor Contour

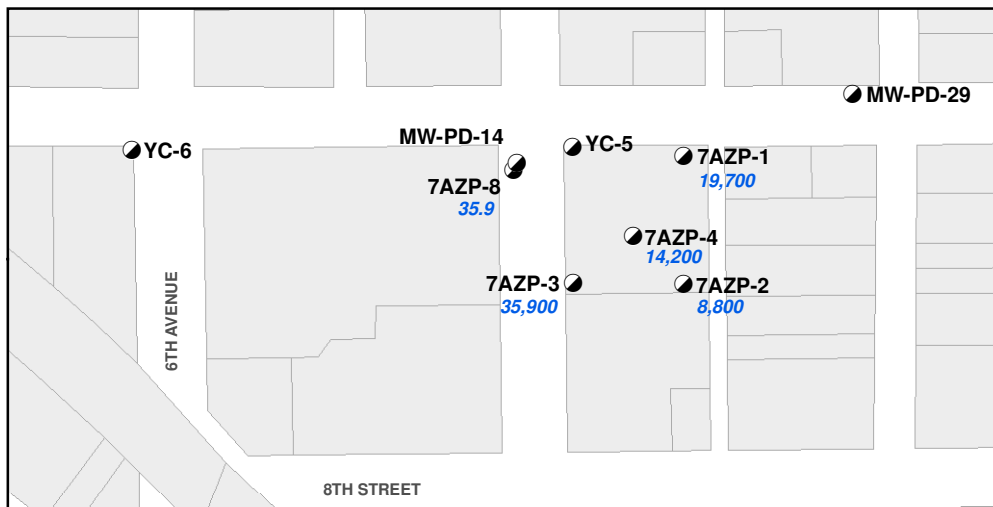
Spatial Reference: NAD 1983, UTM Zone 12N



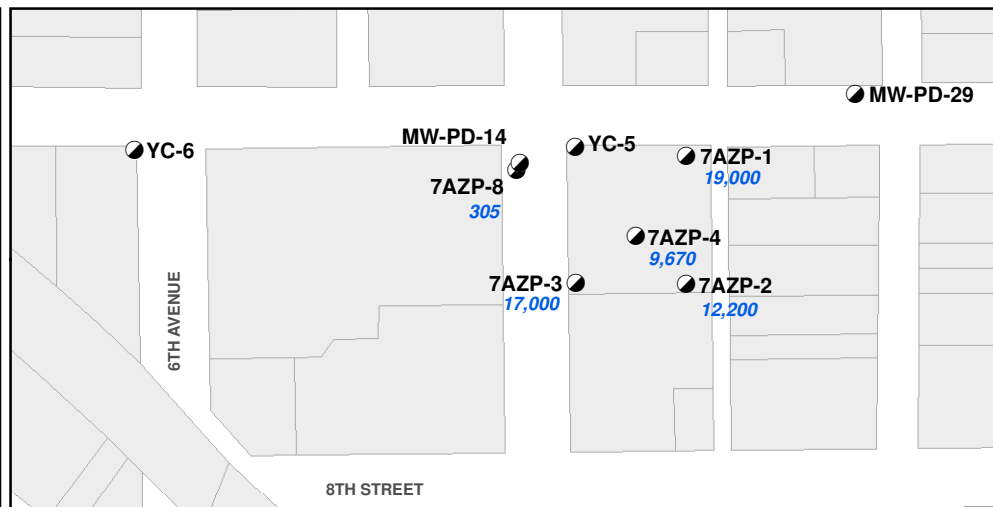
2011/2012 PCE SOIL VAPOR CONTOURS
7TH STREET AND ARIZONA AVENUE WQARF SITE
TUCSON, ARIZONA

Approved	Date	File	Figure
AJB	01/17/14	K:2012016\7AZ-PCEcontours2012_FS	30

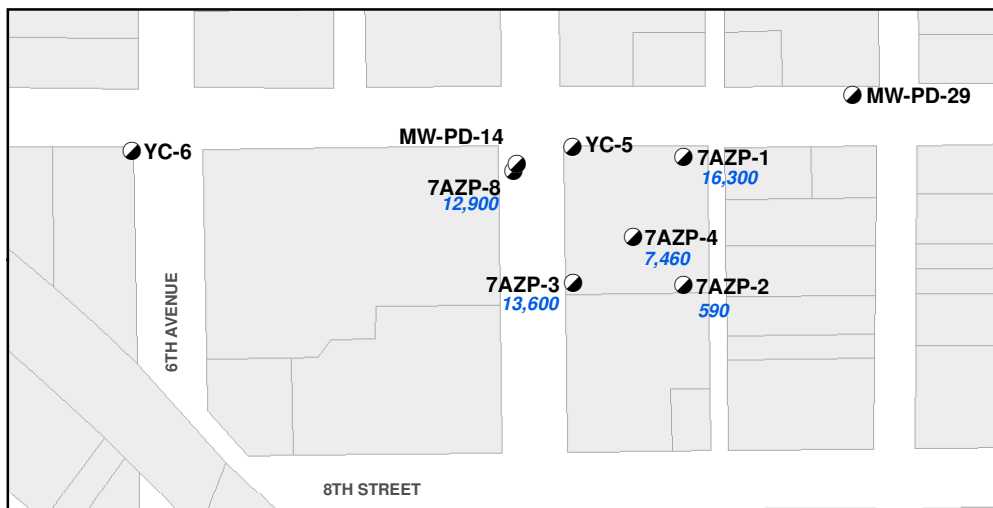
PCE CONCENTRATIONS ($\mu\text{g}/\text{m}^3$) AT 15' BLS



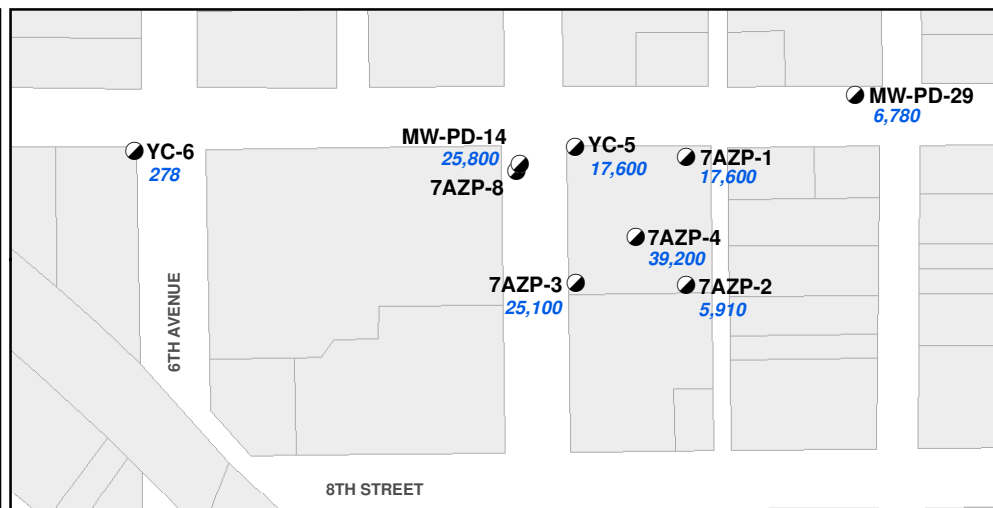
PCE CONCENTRATIONS ($\mu\text{g}/\text{m}^3$) AT 30' BLS



PCE CONCENTRATIONS ($\mu\text{g}/\text{m}^3$) AT 45' BLS



PCE CONCENTRATIONS ($\mu\text{g}/\text{m}^3$) ABOVE WATER TABLE

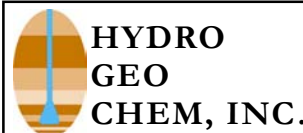


Legend

- 7AZP-1
19,700
- Perched Groundwater Well
PCE Concentration ($\mu\text{g}/\text{m}^3$)



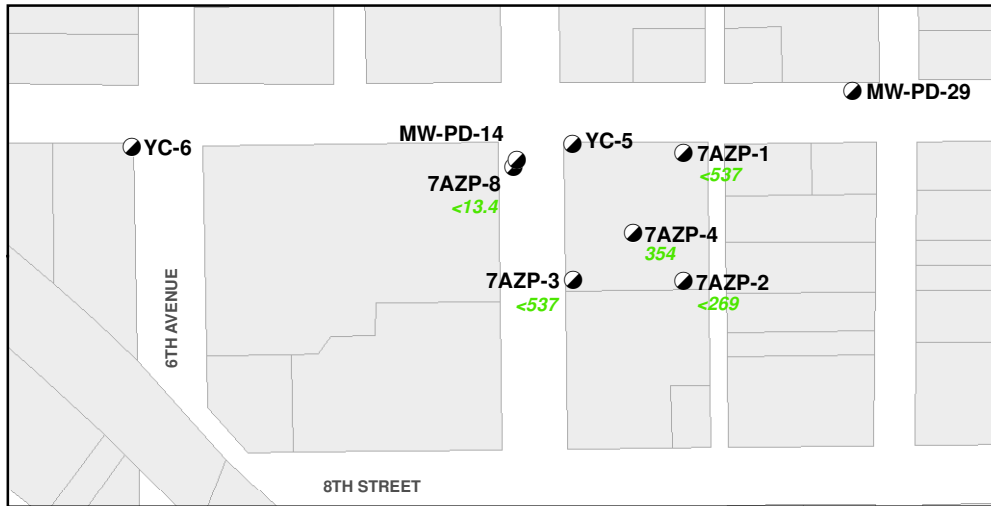
Spatial Reference: NAD 1983, UTM Zone 12N



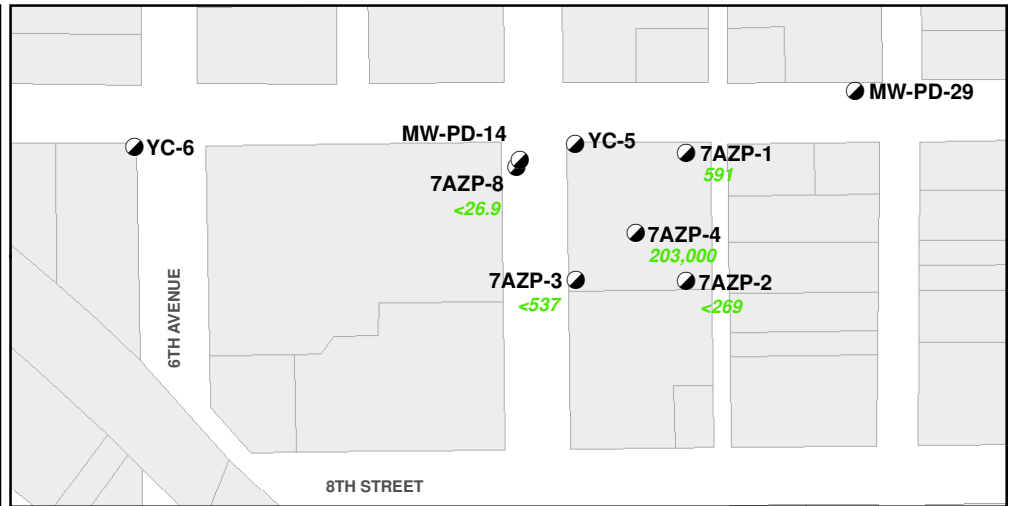
**PCE SOIL VAPOR CONCENTRATIONS
OCTOBER/NOVEMBER 2011 AND MAY 2012
7TH STREET AND ARIZONA AVENUE WQARF SITE
TUCSON, ARIZONA**

Approved	Date	File	Figure
MJB	05/10/13	7AZ PCE SVC.mxd	31

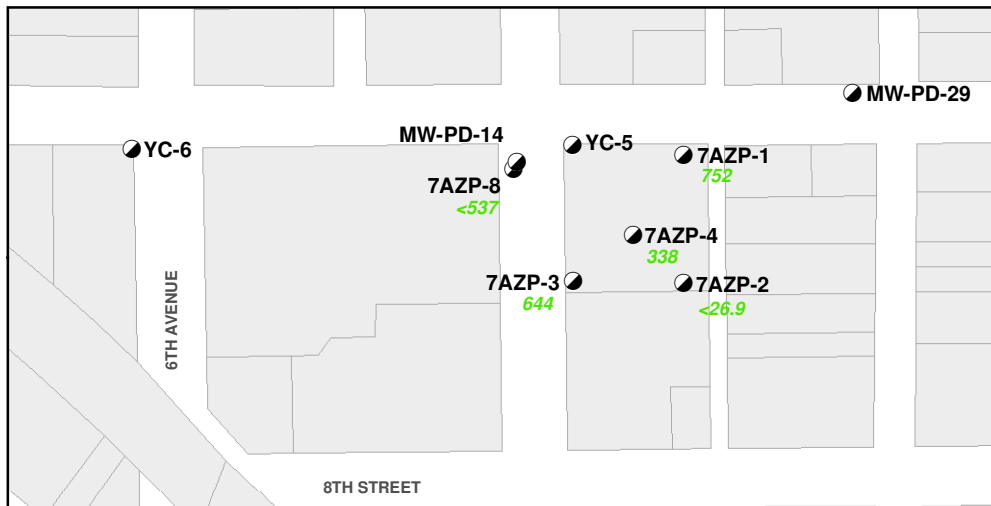
TCE CONCENTRATIONS ($\mu\text{g}/\text{m}^3$) AT 15' BLS



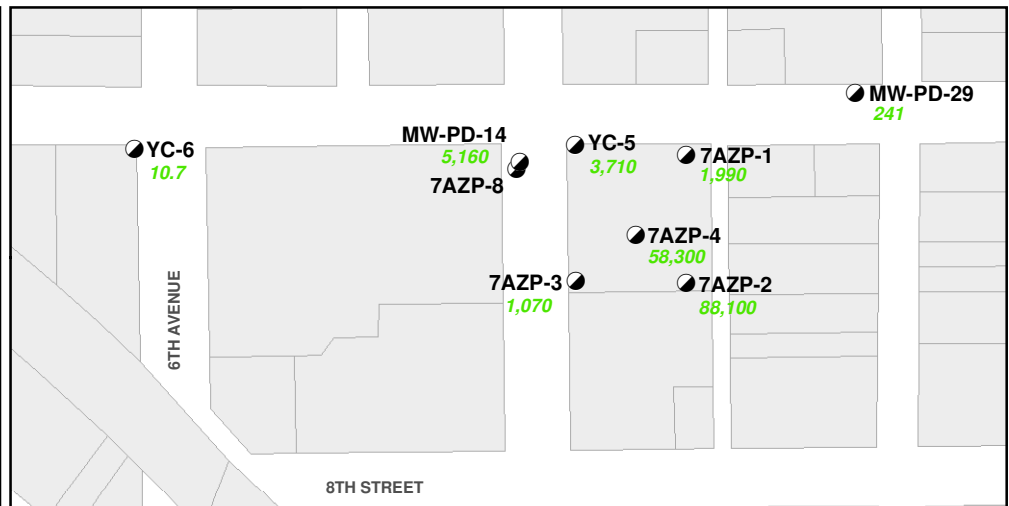
TCE CONCENTRATIONS ($\mu\text{g}/\text{m}^3$) AT 30' BLS



TCE CONCENTRATIONS ($\mu\text{g}/\text{m}^3$) AT 45' BLS



TCE CONCENTRATIONS ($\mu\text{g}/\text{m}^3$) ABOVE WATER TABLE

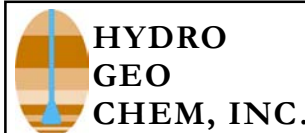


Legend

● 7AZP-1 Perched Groundwater Well
 <537 TCE Concentration ($\mu\text{g}/\text{m}^3$)



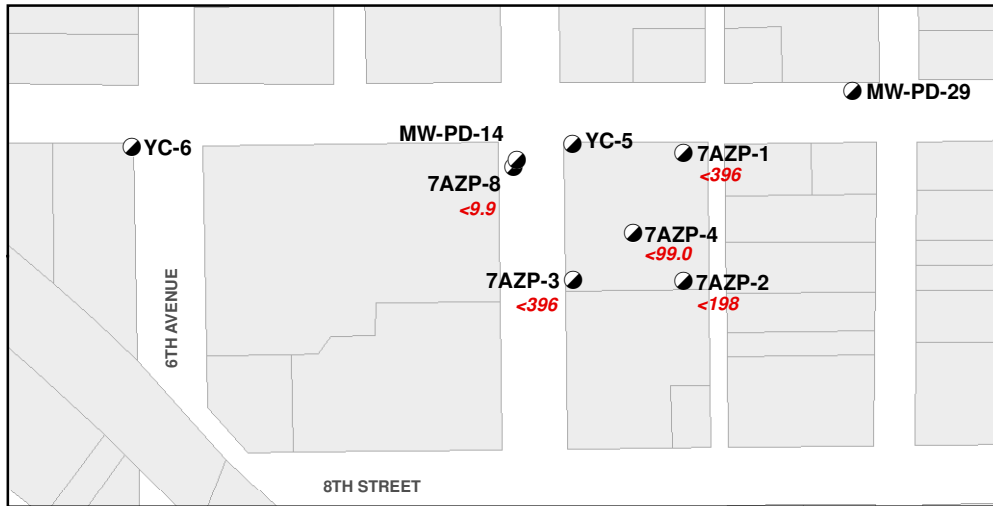
Spatial Reference: NAD 1983, UTM Zone 12N



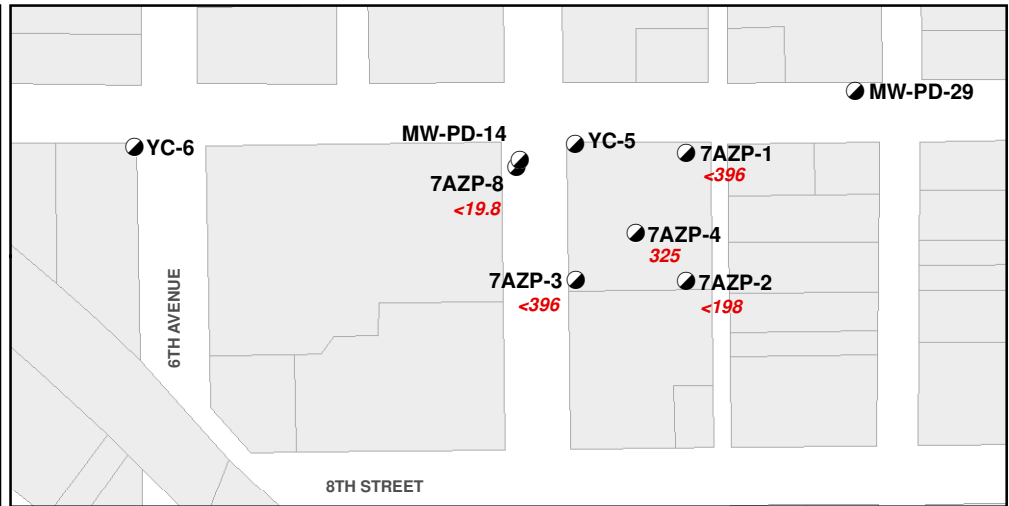
**TCE SOIL VAPOR CONCENTRATIONS
 OCTOBER/NOVEMBER 2011 AND MAY 2012
 7TH STREET AND ARIZONA AVENUE WQARF SITE
 TUCSON, ARIZONA**

Approved	Date	File	Figure
MJB	05/10/13	7AZ TCE SVC.mxd	32

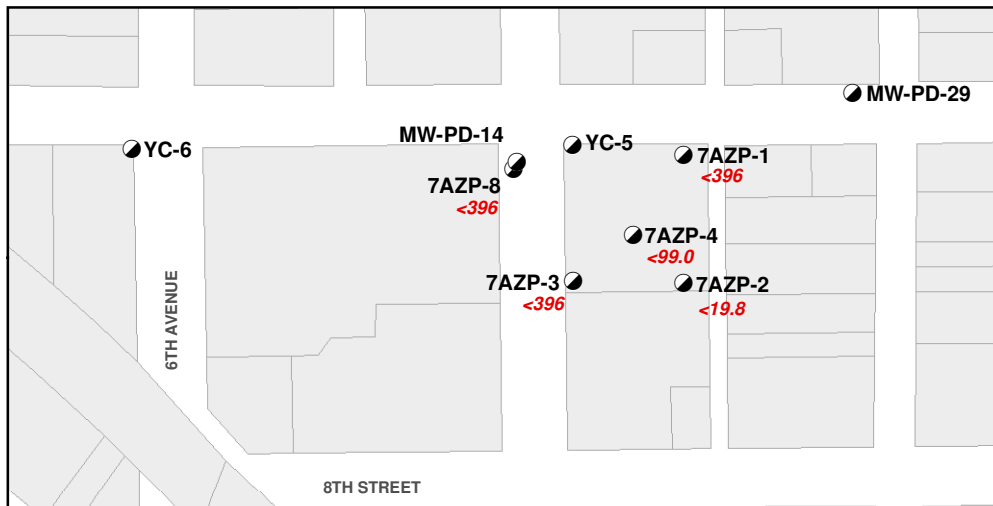
cis-1,2-DCE CONCENTRATIONS ($\mu\text{g}/\text{m}^3$) AT 15' BLS



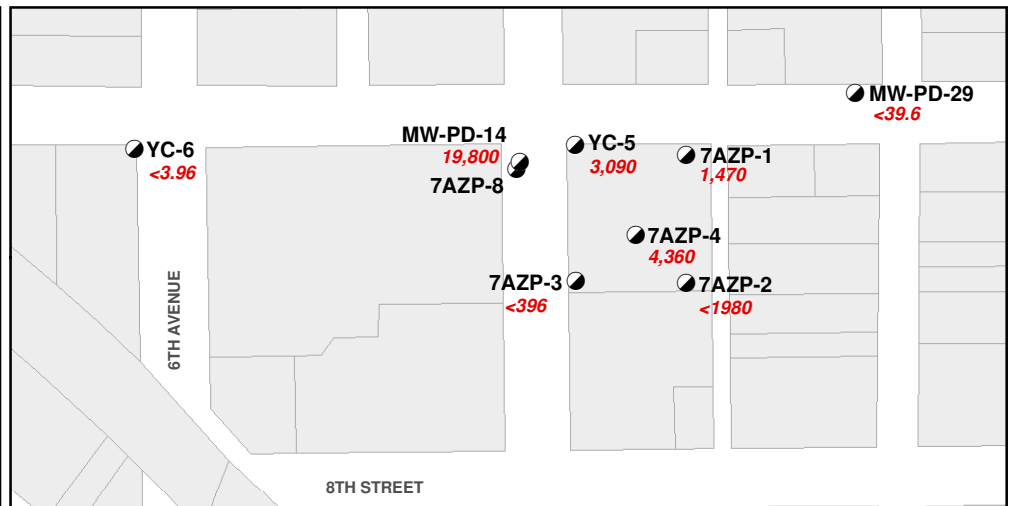
cis-1,2-DCE CONCENTRATIONS ($\mu\text{g}/\text{m}^3$) AT 30' BLS



cis-1,2-DCE CONCENTRATIONS ($\mu\text{g}/\text{m}^3$) AT 45' BLS



cis-1,2-DCE CONCENTRATIONS ($\mu\text{g}/\text{m}^3$) ABOVE WATER TABLE

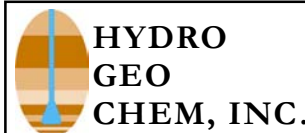


Legend

● 7AZP-1 Perched Groundwater Well
 <537 cis-1,2-DCE Concentration ($\mu\text{g}/\text{m}^3$)



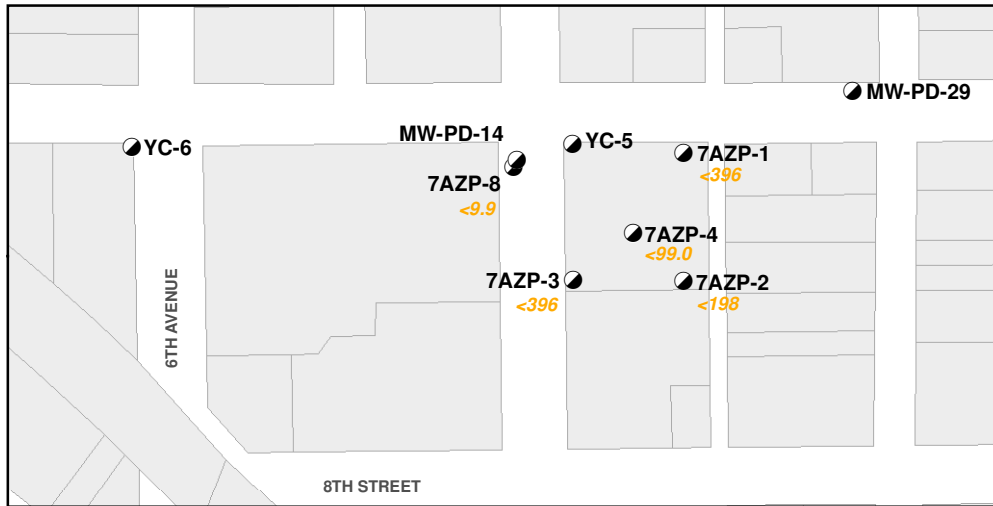
Spatial Reference: NAD 1983, UTM Zone 12N



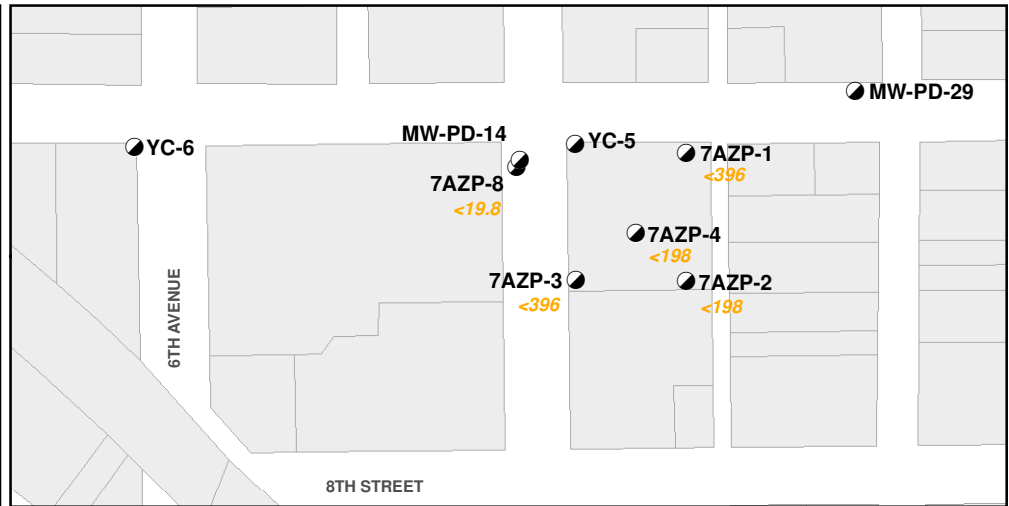
cis-1,2-DCE SOIL VAPOR CONCENTRATIONS
 OCTOBER/NOVEMBER 2011 AND MAY 2012
 7TH STREET AND ARIZONA AVENUE WQARF SITE
 TUCSON, ARIZONA

Approved	Date	File	Figure
MJB	05/10/13	7AZ cisDCE SVC.mxd	33

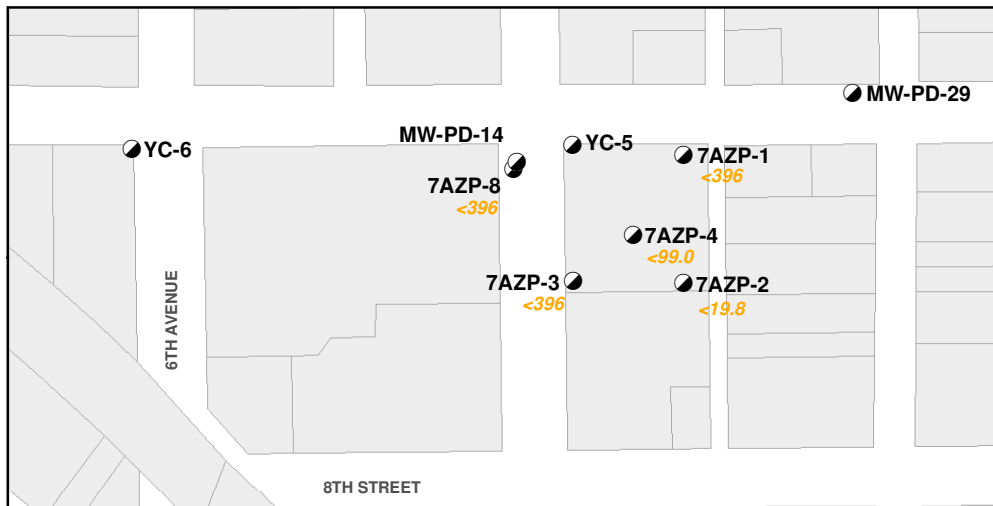
trans-1,2-DCE CONCENTRATIONS ($\mu\text{g}/\text{m}^3$) AT 15' BLS



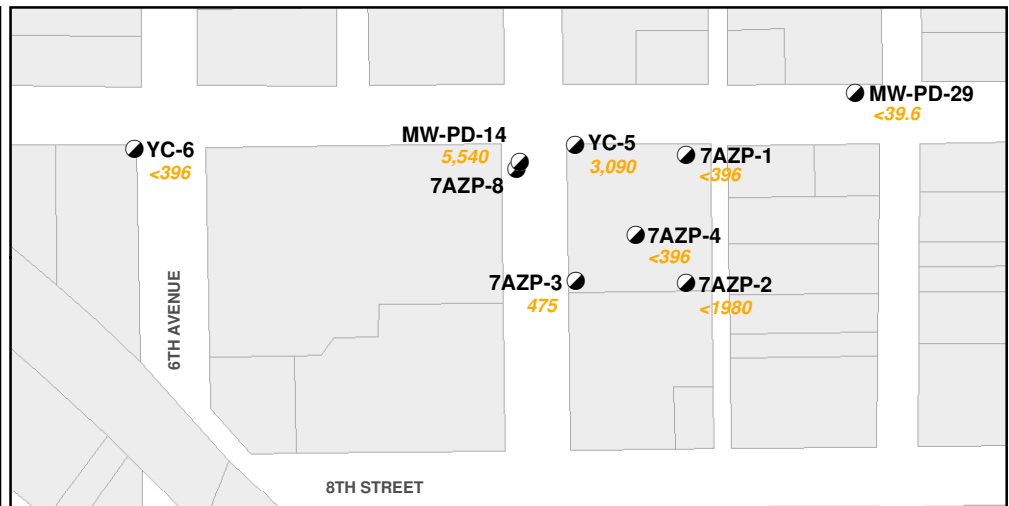
trans-1,2-DCE CONCENTRATIONS ($\mu\text{g}/\text{m}^3$) AT 30' BLS



trans-1,2-DCE CONCENTRATIONS ($\mu\text{g}/\text{m}^3$) AT 45' BLS



trans-1,2-DCE CONCENTRATIONS ($\mu\text{g}/\text{m}^3$) ABOVE WATER TABLE

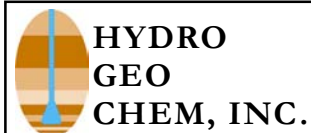


Legend

- 7AZP-1 Perched Groundwater Well
 <537 trans-1,2-DCE Concentration ($\mu\text{g}/\text{m}^3$)



Spatial Reference: NAD 1983, UTM Zone 12N



trans-1,2-DCE SOIL VAPOR CONCENTRATIONS
 OCTOBER/NOVEMBER 2011 AND MAY 2012
 7TH STREET AND ARIZONA AVENUE WQARF SITE
 TUCSON, ARIZONA

Approved	Date	File
MJB	05/10/13	7AZ transDCE SVC.mxd

Figure
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