MEETING MINUTES

20th Street & Factor Avenue
Water Quality Assurance Revolving Fund (WQARF) Site
Community Advisory Board (CAB) Meeting

January 29, 2014, 6 – 7 p.m.
Yuma County Main Library, Meeting Room A
2951 S. 21st Dr., Yuma, AZ 85364

MINUTES

CAB Members Present: Greg Ferguson, Silvia Gunderman, Richard Loebig, Miriam Thornton

CAB Members Absent: Karl Enockson, Kyle Smith, David Villarreal, Russell McCloud

ADEQ Staff Present: Scott Goodwin, Project Manager; Delfina Olivarez, Community Involvement Coordinator

Members of Public Present: Earnest Alfarue, business owner; Dick Fisher, community member

1. Welcome and Introductions

The meeting began at 6 p.m. Ms. Olivarez conducted introductions.

2. Update Site Activities (see attached presentation)

Mr. Goodwin discussed the Draft Remedial Investigation (RI) Report. Mr. Goodwin then gave a site update. Mr. Ferguson asked who gets a copy of the Draft RI Report for review. Mr. Goodwin and Ms. Olivarez replied the City, County, water providers, Arizona Department of Water Resources (ADWR), the CAB, and interested parties; a copy also is placed in the site information repository. Mr. Alfarue asked about site restrictions. Mr. Goodwin replied there will be a Declaration of Environmental Use Restriction for the capped area. ADEQ will maintain the cap but Mr. Houston will be asked to take care of it.

3. Vote on May 15, 2013 and August 14, 2013 Meeting Minutes

No quorum, no vote.

4. CAB Business, Discussion of the Community Involvement Plan (CIP) and the Draft Charter

Ms. Olivarez gave the CAB draft copies of the CIP and asked them to review the plan. At the next meeting they can discuss any questions or changes.

5. *Call to Public

No further comments or questions.

6. Future Meeting Plans/Agenda Discussion

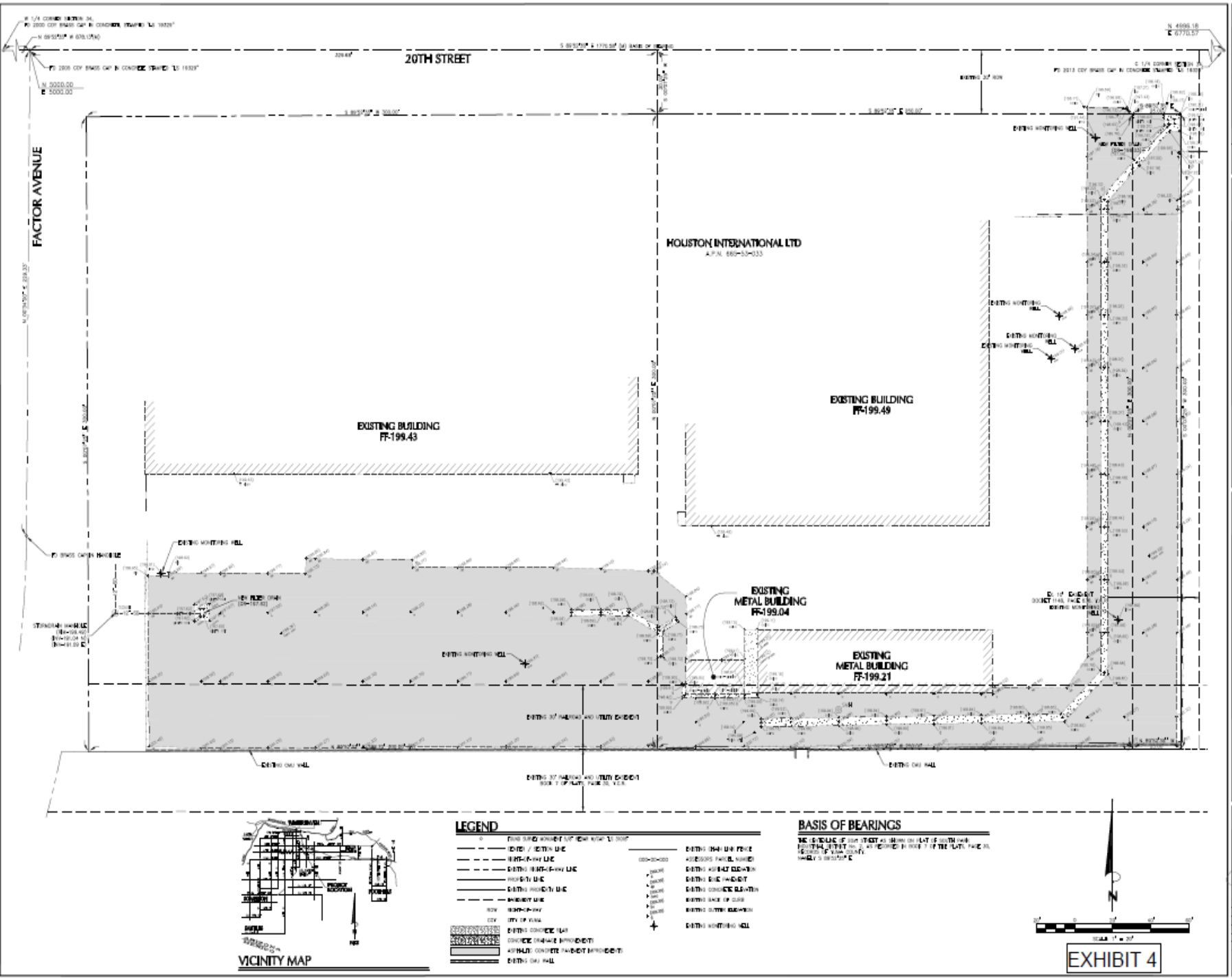
Ms. Olivarez reminded everyone that the next CAB meeting is March 26, 2014.

7. Adjournment

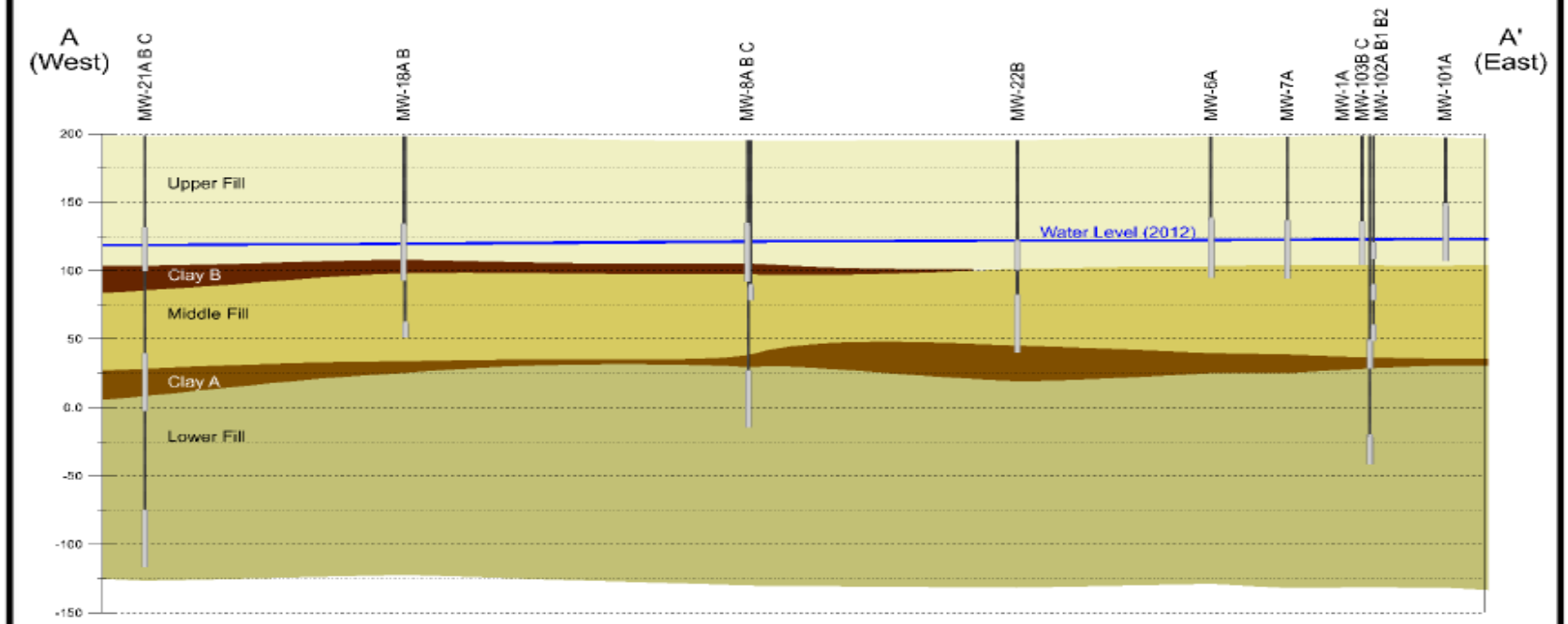
CAB Adjourned at 7:04 p.m.

This meeting was recorded on a digital device as a record of the proceedings. To listen to a recording, or for additional information about the content of this meeting, contact:
ADEQ: Caroline Oppleman at 602-771-6890.

20th Street & Factor Avenue
Water Quality Assurance Revolving Fund Site
January 29, 2014


20TH STREET
FACTOR AVENUE
HOUSTON INTERNATIONAL LTD
A.P.N. 666-53-033
EXISTING BUILDING
FF-199.43
EXISTING BUILDING
FF-199.49
EXISTING METAL BUILDING
FF-199.04
EXISTING METAL BUILDING
FF-199.21
EXISTING MONITORING WELL
EXISTING CMU WALL
EXISTING 30' RAILROAD AND UTILITY EASEMENT
LEGEND
BASIS OF BEARINGS
VICINITY MAP
EXHIBIT 4
DAHL, ROBINS & ASSOCIATES, INC.
HOUSTON INTERNATIONAL LTD
AS-BUILT SURVEY OF DRAINAGE IMPROVEMENTS
655 E 20TH STREET
YUMA, AZ 85364
DATE: NOV 2013
SURVEYED BY: M.A.C.
DRAWN BY: J.D.L.
CHECKED BY: C.D.R.
PROJECT NO.: 13187
FILE NO.:
SHEET 1 OF 1

Site Cross Section



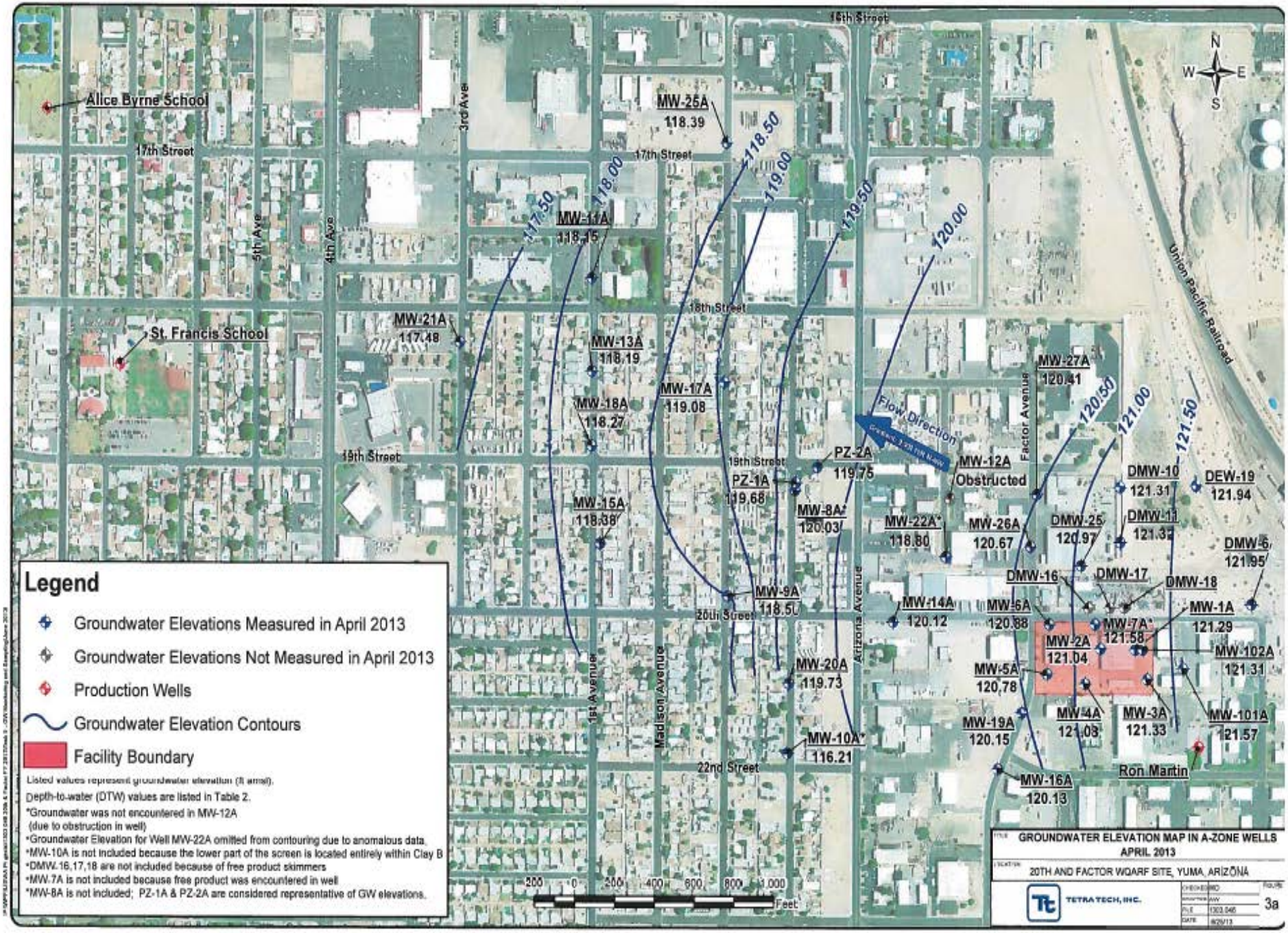
TITLE: GEOLOGIC CROSS-SECTION FROM A – A'

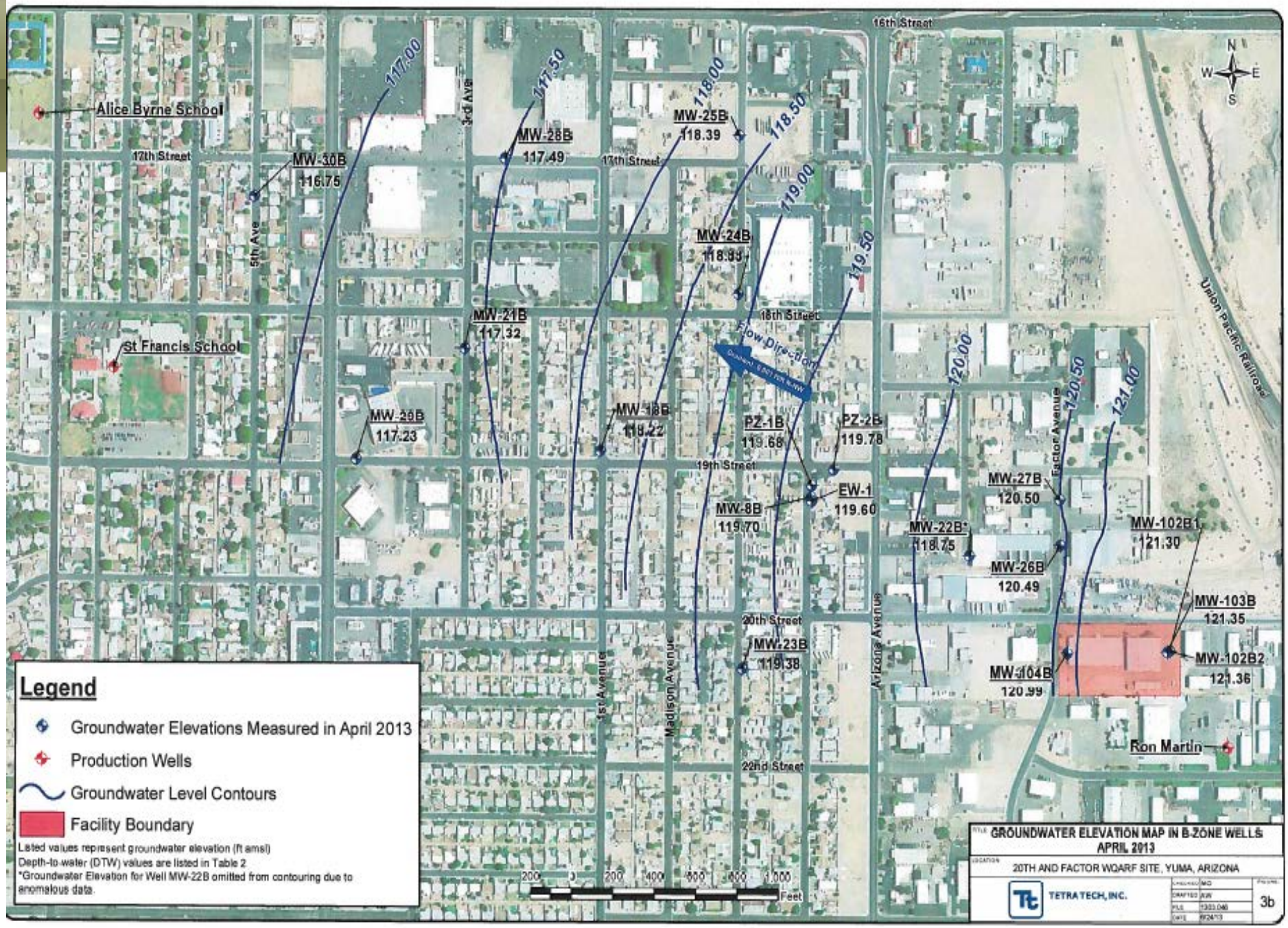
LOCATION: 20TH AND FACTOR WQARF SITE, YUMA, ARIZONA

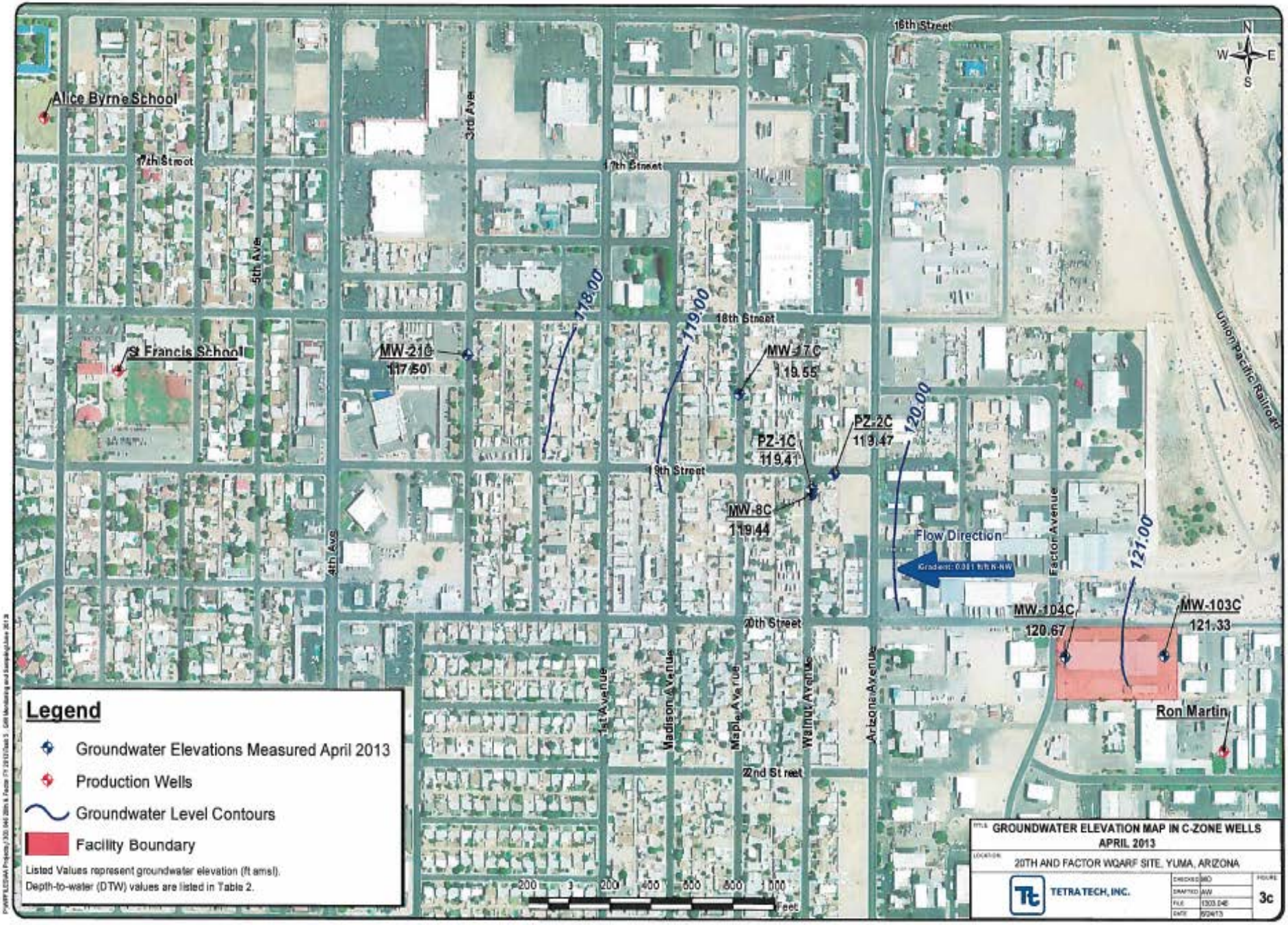
TETRA TECH

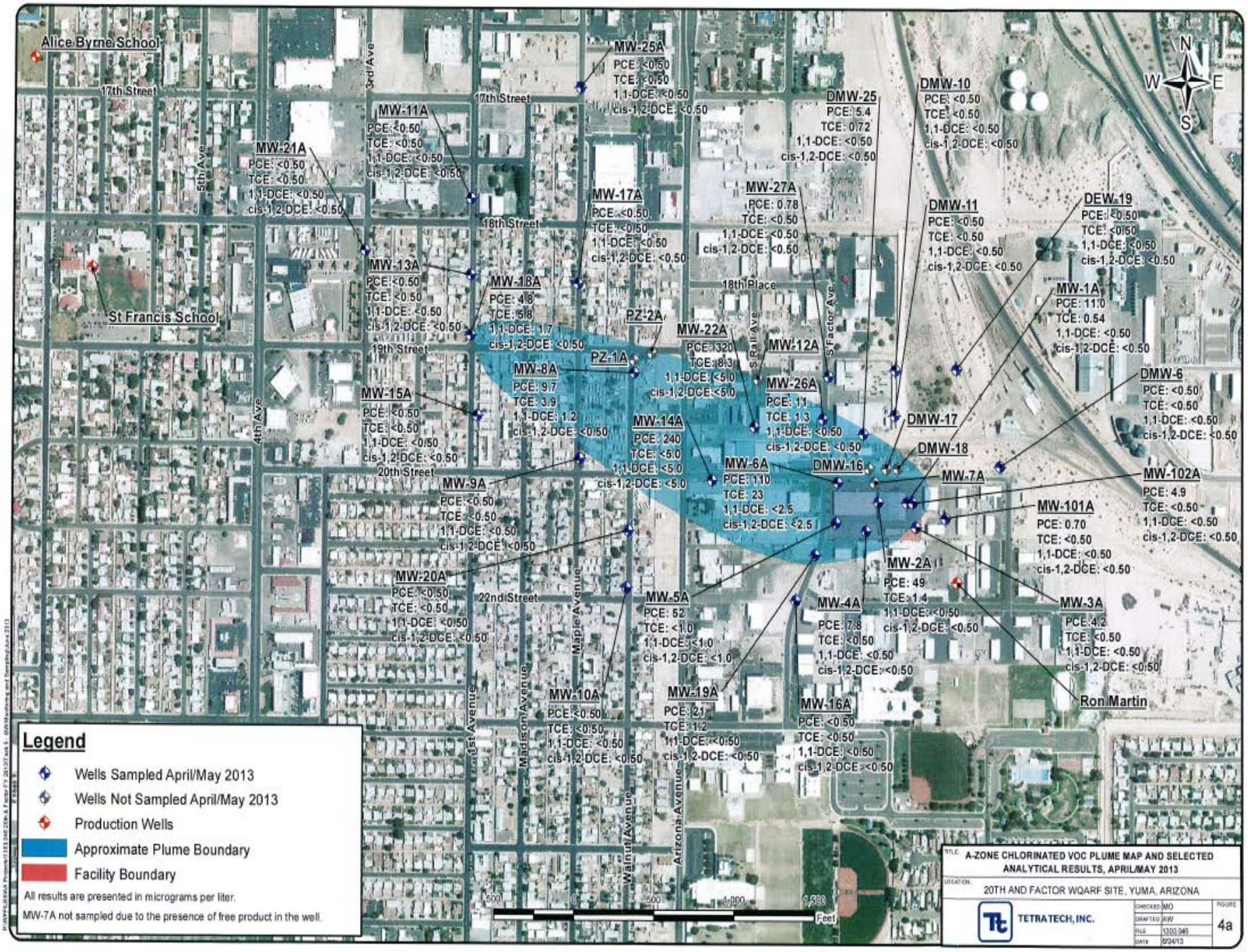
APPROVED	MO
DRAFTED	AW
PROJECT#	1303.046
DATE	03/05/13

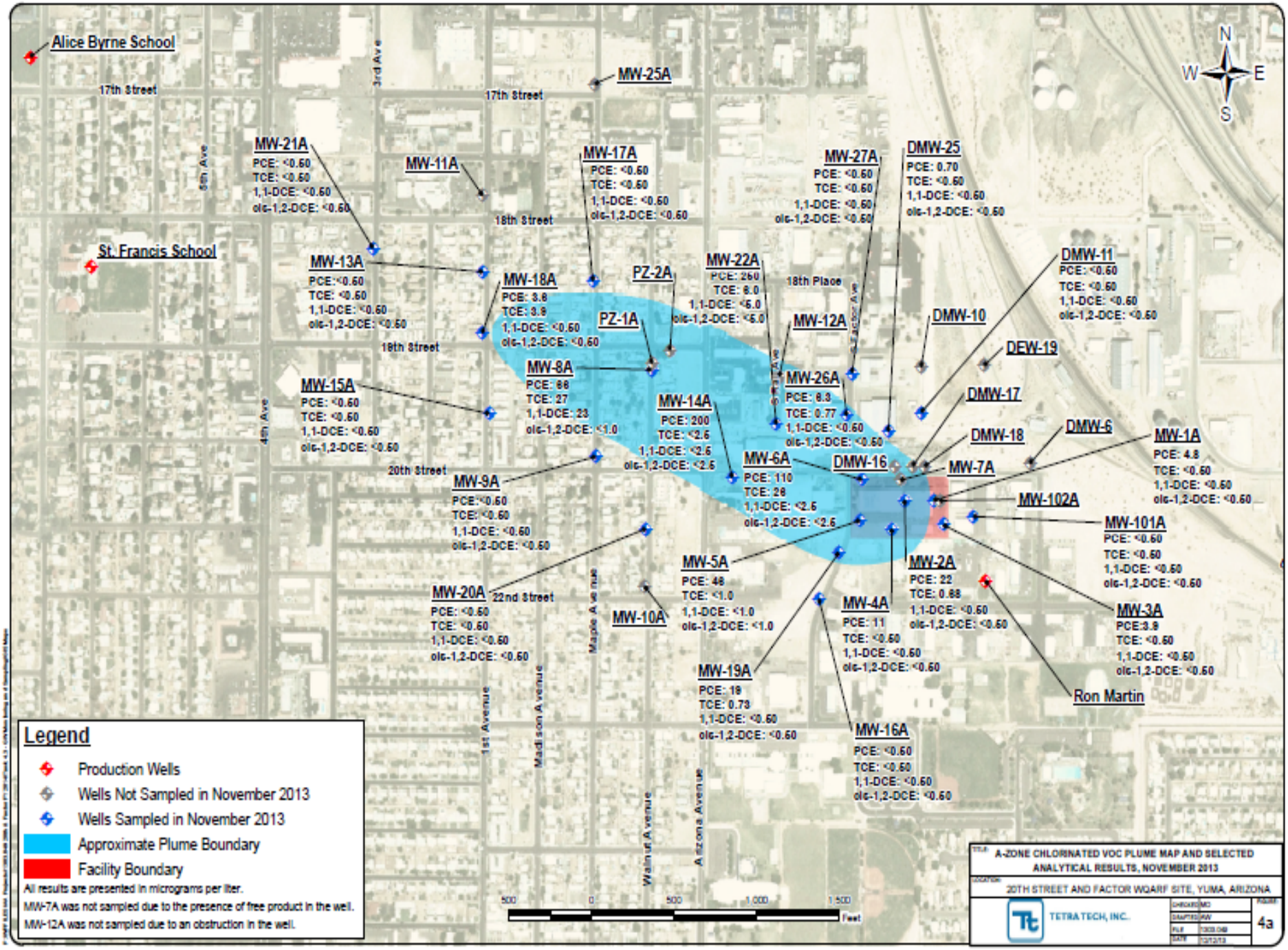
FIGURE 4-4


Alice Byrne School
St. Francis School
17th Street
18th Street
19th Street
20th Street
22nd Street
3rd Ave
4th Ave
5th Ave
1st Avenue
Madison Avenue
Arizona Avenue
Factor Avenue
Union Pacific Railroad
Flow Direction
MW-25A 118.39
MW-11A 118.15
MW-21A 117.48
MW-13A 118.19
MW-17A 119.08
MW-18A 118.27
MW-15A 118.38
MW-9A 118.50
MW-20A 119.73
MW-10A* 116.21
PZ-1A 119.68
PZ-2A 119.75
MW-8A* 120.03
MW-12A Obstructed
MW-27A 120.41
MW-22A* 118.80
MW-26A 120.67
DMW-25 120.97
DMW-10 121.31
DMW-11 121.32
DEW-19 121.94
DMW-6 121.95
DMW-16
DMW-17
DMW-18
MW-14A 120.12
MW-6A 120.88
MW-7A* 121.58
MW-1A 121.29
MW-2A 121.04
MW-102A 121.31
MW-5A 120.78
MW-19A 120.15
MW-4A 121.03
MW-3A 121.33
MW-101A 121.57
MW-16A 120.13
Ron Martin
117.50
118.00
118.50
119.00
119.50
120.00
120.50
121.00
121.50
N
S
E
W
200 0 200 400 600 800 1,000
Feet
Legend
Groundwater Elevations Measured in April 2013
Groundwater Elevations Not Measured in April 2013
Production Wells
Groundwater Elevation Contours
Facility Boundary
Listed values represent groundwater elevation (ft amsl).
Depth-to-water (DTW) values are listed in Table 2.
*Groundwater was not encountered in MW-12A (due to obstruction in well)
*Groundwater Elevation for Well MW-22A omitted from contouring due to anomalous data.
*MW-10A is not included because the lower part of the screen is located entirely within Clay B
*DMW-16,17,18 are not included because of free product skimmers
*MW-7A is not included because free product was encountered in well
*MW-8A is not included; PZ-1A & PZ-2A are considered representative of GW elevations.
GROUNDWATER ELEVATION MAP IN A-ZONE WELLS
APRIL 2013
20TH AND FACTOR WQARF SITE, YUMA, ARIZONA
TETRA TECH, INC.
3a

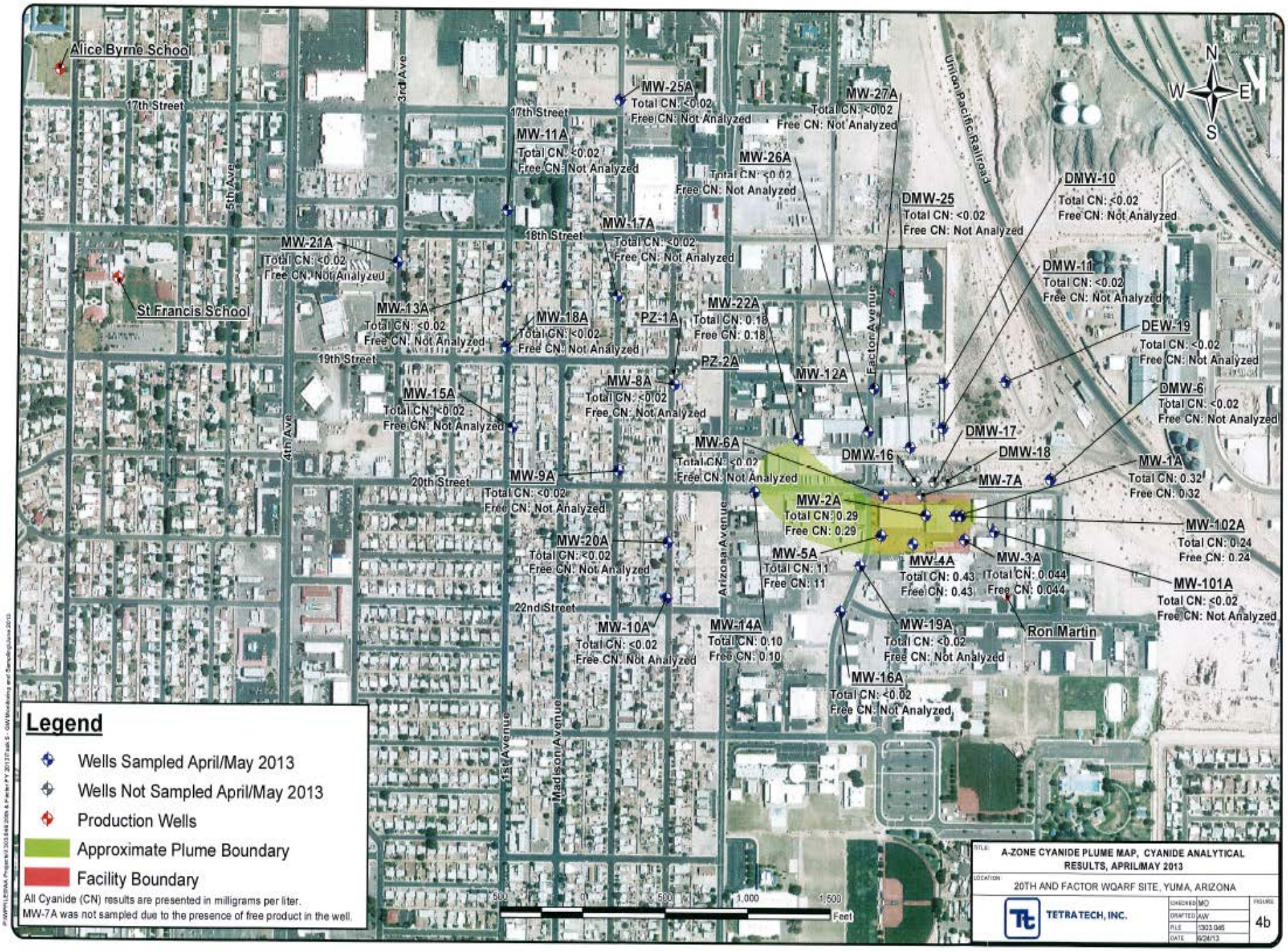

Alice Byrne School
St Francis School
17th Street
16th Street
18th Street
19th Street
20th Street
22nd Street
5th Ave
3rd Ave
1st Avenue
Madison Avenue
Arizona Avenue
Factor Avenue
Union Pacific Railroad
Flow Direction
117.00
117.50
118.00
118.50
119.00
119.50
120.00
120.50
121.00
MW-30B 116.75
MW-28B 117.49
MW-25B 118.39
MW-24B 118.83
MW-21B 117.32
MW-20B 117.23
MW-18B 118.22
PZ-1B 119.68
PZ-2B 119.78
EW-1 119.60
MW-8B 119.70
MW-23B 119.38
MW-22B* 118.75
MW-27B 120.50
MW-26B 120.49
MW-104B 120.99
MW-102B1 121.30
MW-103B 121.35
MW-102B2 121.36
Ron Martin
Legend
Groundwater Elevations Measured in April 2013
Production Wells
Groundwater Level Contours
Facility Boundary
Listed values represent groundwater elevation (ft amsl)
Depth-to-water (DTW) values are listed in Table 2
*Groundwater Elevation for Well MW-22B omitted from contouring due to anomalous data.
200 0 200 400 600 800 1,000
Feet
GROUNDWATER ELEVATION MAP IN B-ZONE WELLS
APRIL 2013
20TH AND FACTOR WQARF SITE, YUMA, ARIZONA
TETRA TECH, INC.
3b

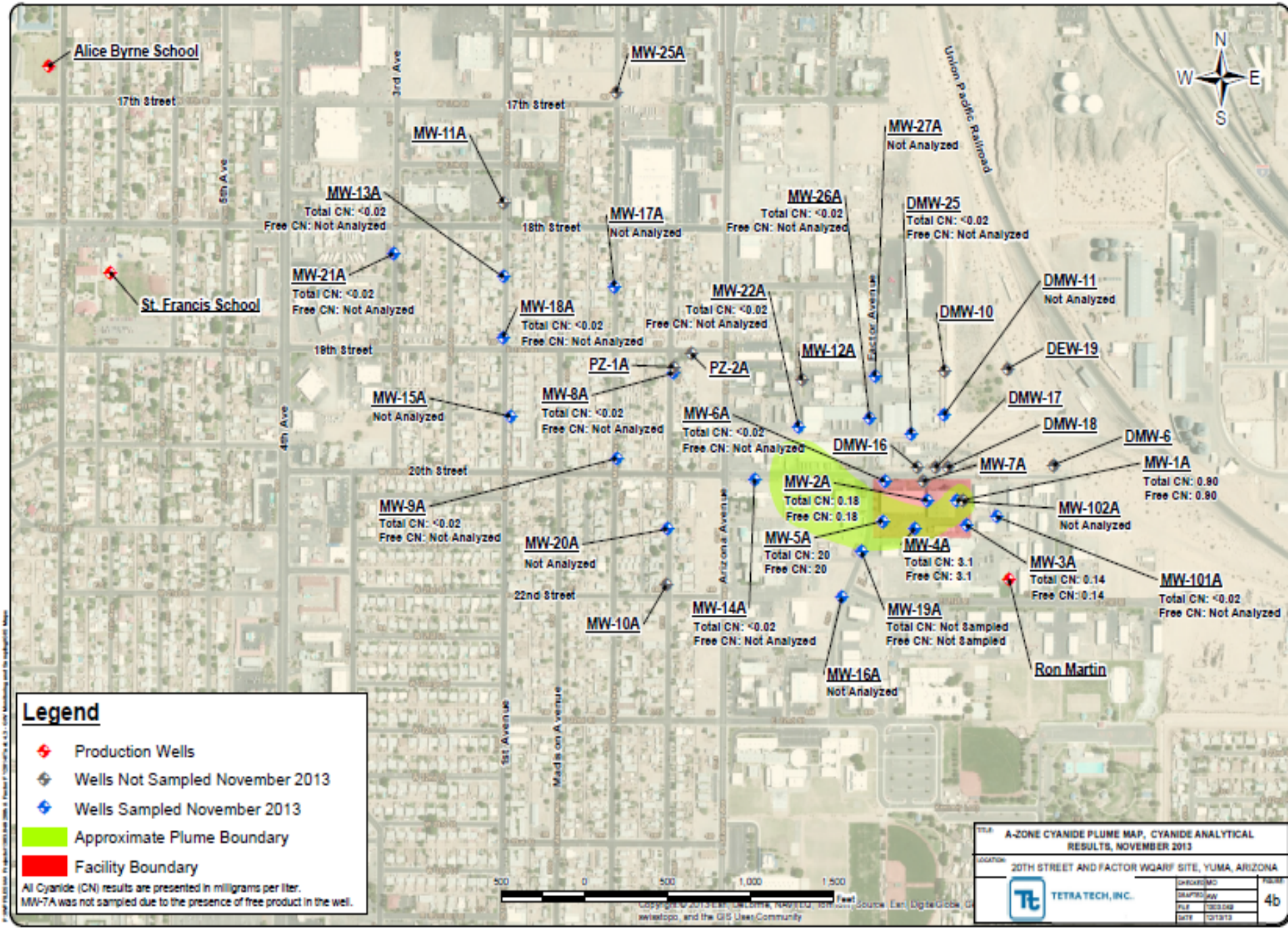

Alice Byrne School
St Francis School
17th Street
16th Street
18th Street
19th Street
20th Street
22nd Street
3rd Ave
5th Ave
4th Ave
1st Avenue
Madison Avenue
Maple Avenue
Walnut Avenue
Arizona Avenue
Factor Avenue
Union Pacific Railroad
MW-21C
117.50
MW-17C
119.55
PZ-2C
119.47
PZ-1C
119.41
MW-8C
119.44
MW-104C
120.67
MW-103C
121.33
Ron Martin
118.00
119.00
120.00
121.00
Flow Direction
Gradient: 0.001 ft/ft N-NW
N
S
E
W
Legend
Groundwater Elevations Measured April 2013
Production Wells
Groundwater Level Contours
Facility Boundary
Listed Values represent groundwater elevation (ft amsl).
Depth-to-water (DTW) values are listed in Table 2.
200 0 200 400 600 800 1000
Feet
GROUNDWATER ELEVATION MAP IN C-ZONE WELLS
APRIL 2013
20TH AND FACTOR WQARF SITE, YUMA, ARIZONA
TETRA TECH, INC.
3c

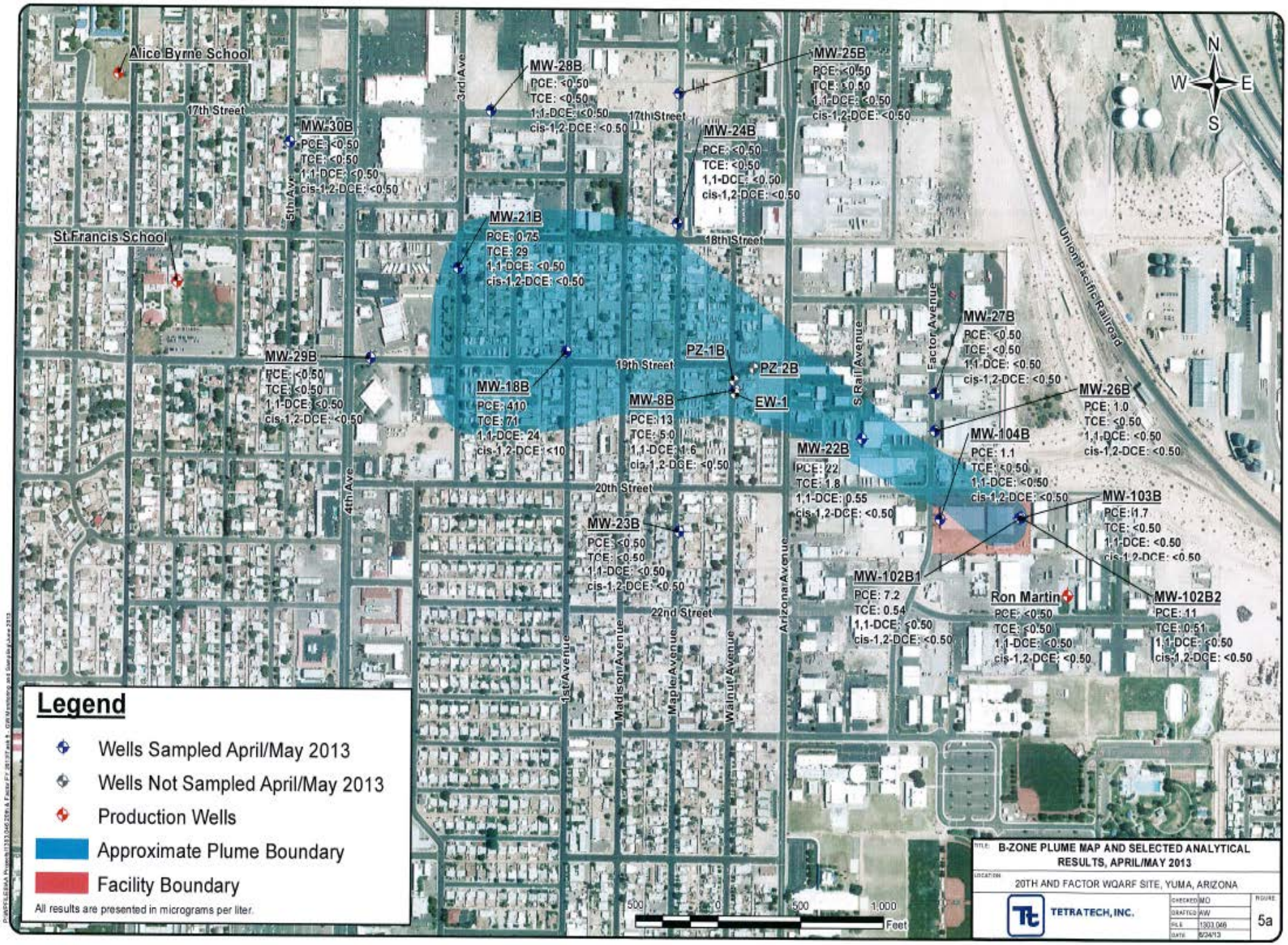

Alice Byrne School
17th Street
3rd Ave
5th Ave
4th Ave
St Francis School
MW-21A
PCE: <0.50
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
MW-11A
PCE: <0.50
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
MW-13A
PCE: <0.50
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
MW-15A
PCE: <0.50
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
MW-9A
PCE: <0.50
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
MW-20A
PCE: <0.50
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
MW-10A
PCE: <0.50
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
MW-25A
PCE: <0.50
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
17th Street
18th Street
MW-17A
PCE: <0.50
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
MW-18A
PCE: 4.8
TCE: 5.8
1,1-DCE: 1.7
cis-1,2-DCE: <0.50
19th Street
PZ-2A
PZ-1A
MW-8A
PCE: 9.7
TCE: 3.9
1,1-DCE: 1.2
cis-1,2-DCE: <0.50
20th Street
MW-14A
PCE: 240
TCE: <5.0
1,1-DCE: <5.0
cis-1,2-DCE: <5.0
MW-22A
PCE: 320
TCE: 8.3
1,1-DCE: <5.0
cis-1,2-DCE: <5.0
MW-6A
PCE: 110
TCE: 23
1,1-DCE: <2.5
cis-1,2-DCE: <2.5
MW-5A
PCE: 52
TCE: <1.0
1,1-DCE: <1.0
cis-1,2-DCE: <1.0
MW-19A
PCE: 21
TCE: 1.2
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
22nd Street
Maple Avenue
Madison Avenue
1st Avenue
Main Avenue
Arizona Avenue
S Rail Ave
S Factor Ave
18th Place
MW-27A
PCE: 0.78
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
MW-12A
MW-26A
PCE: 11
TCE: 1.3
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
DMW-25
PCE: 5.4
TCE: 0.72
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
DMW-10
PCE: <0.50
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
DMW-11
PCE: <0.50
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
DMW-17
DMW-18
DMW-16
MW-7A
MW-4A
PCE: 7.8
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
MW-16A
PCE: <0.50
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
MW-2A
PCE: 49
TCE: 1.4
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
MW-3A
PCE: 4.2
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
Ron Martin
MW-101A
PCE: 0.70
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
MW-102A
PCE: 4.9
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
DMW-6
PCE: <0.50
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
MW-1A
PCE: 11.0
TCE: 0.54
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
DEW-19
PCE: <0.50
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
N
W
E
S
500
0
500
1,000
1,500
Feet
Legend
Wells Sampled April/May 2013
Wells Not Sampled April/May 2013
Production Wells
Approximate Plume Boundary
Facility Boundary
All results are presented in micrograms per liter.
MW-7A not sampled due to the presence of free product in the well.
TITLE A-ZONE CHLORINATED VOC PLUME MAP AND SELECTED ANALYTICAL RESULTS, APRIL/MAY 2013
LOCATION 20TH AND FACTOR WQARF SITE, YUMA, ARIZONA
TETRA TECH, INC.
CHECKED MO
DRAWN AW
FIGURE 4a

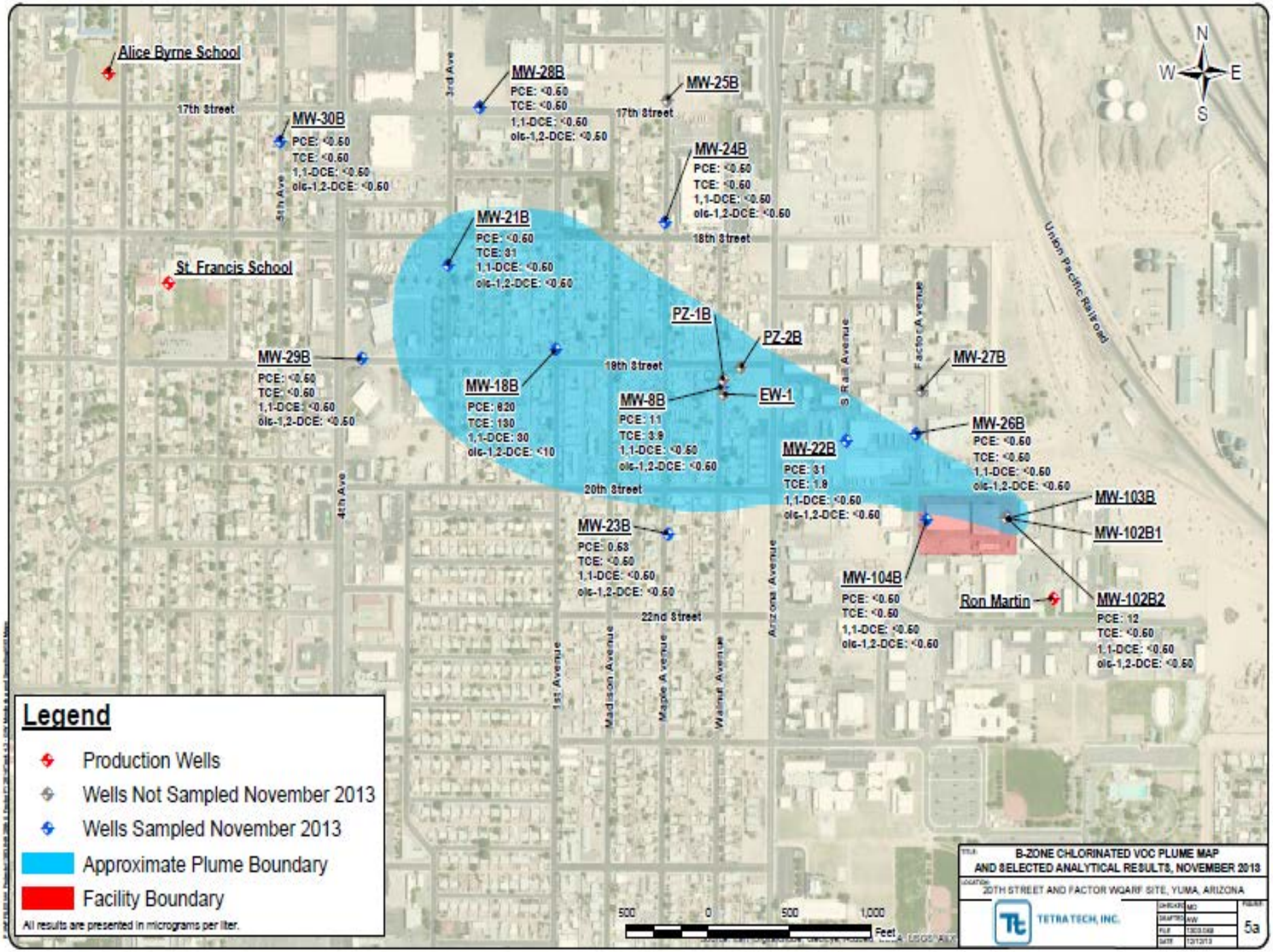


Alice Byrne School
17th Street
3rd Ave
MW-25A
17th Street
5th Ave
MW-21A
PCE: <0.50
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
MW-11A
MW-17A
PCE: <0.50
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
MW-27A
PCE: <0.50
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
DMW-25
PCE: 0.70
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
18th Street
St. Francis School
MW-13A
PCE: <0.50
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
MW-18A
PCE: 3.8
TCE: 3.9
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
PZ-2A
MW-22A
PCE: 250
TCE: 6.0
1,1-DCE: <5.0
cis-1,2-DCE: <5.0
18th Place
DMW-11
PCE: <0.50
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
PZ-1A
MW-12A
DMW-10
DEW-19
19th Street
MW-8A
PCE: 66
TCE: 27
1,1-DCE: 23
cis-1,2-DCE: <1.0
MW-26A
PCE: 6.3
TCE: 0.77
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
MW-15A
PCE: <0.50
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
4th Ave
MW-14A
PCE: 200
TCE: <2.5
1,1-DCE: <2.5
cis-1,2-DCE: <2.5
DMW-17
DMW-18
DMW-6
MW-1A
PCE: 4.8
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
20th Street
MW-9A
PCE: <0.50
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
MW-6A
PCE: 110
TCE: 26
1,1-DCE: <2.5
cis-1,2-DCE: <2.5
DMW-16
MW-7A
MW-102A
MW-101A
PCE: <0.50
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
MW-5A
PCE: 46
TCE: <1.0
1,1-DCE: <1.0
cis-1,2-DCE: <1.0
MW-2A
PCE: 22
TCE: 0.68
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
MW-20A
PCE: <0.50
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
22nd Street
MW-10A
Maple Avenue
MW-4A
PCE: 11
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
MW-3A
PCE: 3.9
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
MW-19A
PCE: 19
TCE: 0.73
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
Ron Martin
1st Avenue
Madison Avenue
MW-16A
PCE: <0.50
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
Walnut Avenue
Arizona Avenue
N
W
E
S
Legend
Production Wells
Wells Not Sampled in November 2013
Wells Sampled in November 2013
Approximate Plume Boundary
Facility Boundary
All results are presented in micrograms per liter.
MW-7A was not sampled due to the presence of free product in the well.
MW-12A was not sampled due to an obstruction in the well.
500 0 500 1,000 1,500
Feet
TITLE: A-ZONE CHLORINATED VOC PLUME MAP AND SELECTED ANALYTICAL RESULTS, NOVEMBER 2013
LOCATION: 20TH STREET AND FACTOR WQARF SITE, YUMA, ARIZONA
TETRA TECH, INC.
CHECKED MO
DRAFTED AW
FILE 7303.049
DATE 12/12/13
FIGURE: 4a

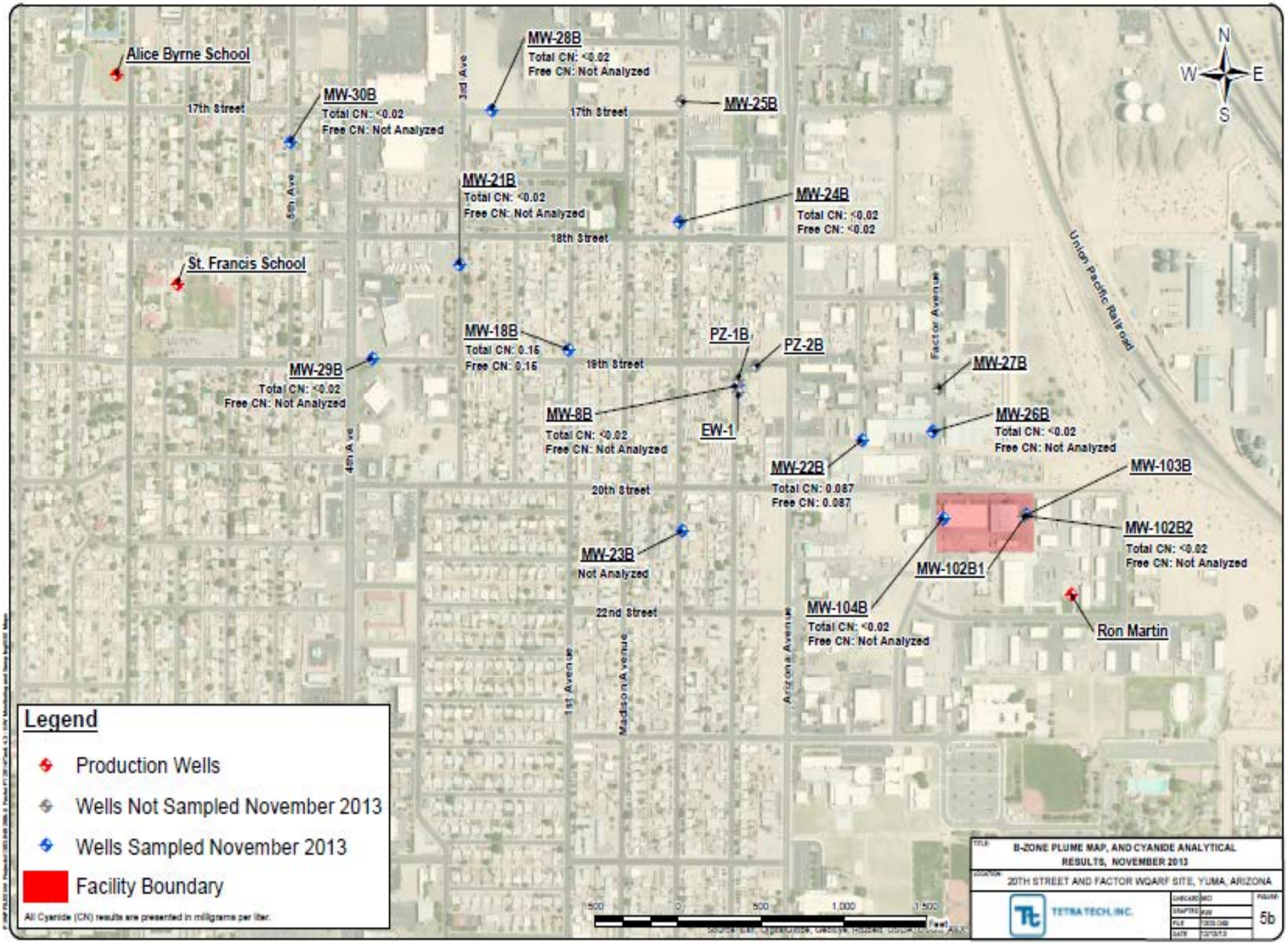

Alice Byrne School
St Francis School
17th Street
18th Street
19th Street
20th Street
22nd Street
3rd Ave
4th Ave
5th Ave
1st Avenue
Madison Avenue
Arizona Avenue
Factor Avenue
Union Pacific Railroad
N
S
E
W
MW-25A
Total CN: <0.02
Free CN: Not Analyzed
MW-27A
Total CN: <0.02
Free CN: Not Analyzed
MW-11A
Total CN: <0.02
Free CN: Not Analyzed
MW-26A
Total CN: <0.02
Free CN: Not Analyzed
DMW-25
Total CN: <0.02
Free CN: Not Analyzed
DMW-10
Total CN: <0.02
Free CN: Not Analyzed
MW-17A
Total CN: <0.02
Free CN: Not Analyzed
MW-21A
Total CN: <0.02
Free CN: Not Analyzed
DMW-11
Total CN: <0.02
Free CN: Not Analyzed
MW-13A
Total CN: <0.02
Free CN: Not Analyzed
MW-18A
Total CN: <0.02
Free CN: Not Analyzed
PZ-1A
MW-22A
Total CN: 0.18
Free CN: 0.18
DEW-19
Total CN: <0.02
Free CN: Not Analyzed
PZ-2A
MW-12A
MW-8A
Total CN: <0.02
Free CN: Not Analyzed
MW-15A
Total CN: <0.02
Free CN: Not Analyzed
DMW-6
Total CN: <0.02
Free CN: Not Analyzed
DMW-17
DMW-18
DMW-16
MW-6A
Total CN: <0.02
Free CN: Not Analyzed
MW-1A
Total CN: 0.32
Free CN: 0.32
MW-7A
MW-9A
Total CN: <0.02
Free CN: Not Analyzed
MW-2A
Total CN: 0.29
Free CN: 0.29
MW-102A
Total CN: 0.24
Free CN: 0.24
MW-20A
Total CN: <0.02
Free CN: Not Analyzed
MW-5A
Total CN: 11
Free CN: 11
MW-4A
Total CN: 0.43
Free CN: 0.43
MW-3A
Total CN: 0.044
Free CN: 0.044
MW-101A
Total CN: <0.02
Free CN: Not Analyzed
MW-10A
Total CN: <0.02
Free CN: Not Analyzed
MW-14A
Total CN: 0.10
Free CN: 0.10
MW-19A
Total CN: <0.02
Free CN: Not Analyzed
Ron Martin
MW-16A
Total CN: <0.02
Free CN: Not Analyzed
Legend
Wells Sampled April/May 2013
Wells Not Sampled April/May 2013
Production Wells
Approximate Plume Boundary
Facility Boundary
All Cyanide (CN) results are presented in milligrams per liter.
MW-7A was not sampled due to the presence of free product in the well.
500
0
500
1,000
1,500
Feet
TITLE: A-ZONE CYANIDE PLUME MAP, CYANIDE ANALYTICAL RESULTS, APRIL/MAY 2013
LOCATION: 20TH AND FACTOR WQARF SITE, YUMA, ARIZONA
TETRA TECH, INC.
CHECKED MO
DRAFTED AW
FILE 1303.045
DATE 6/24/13
FIGURE 4b

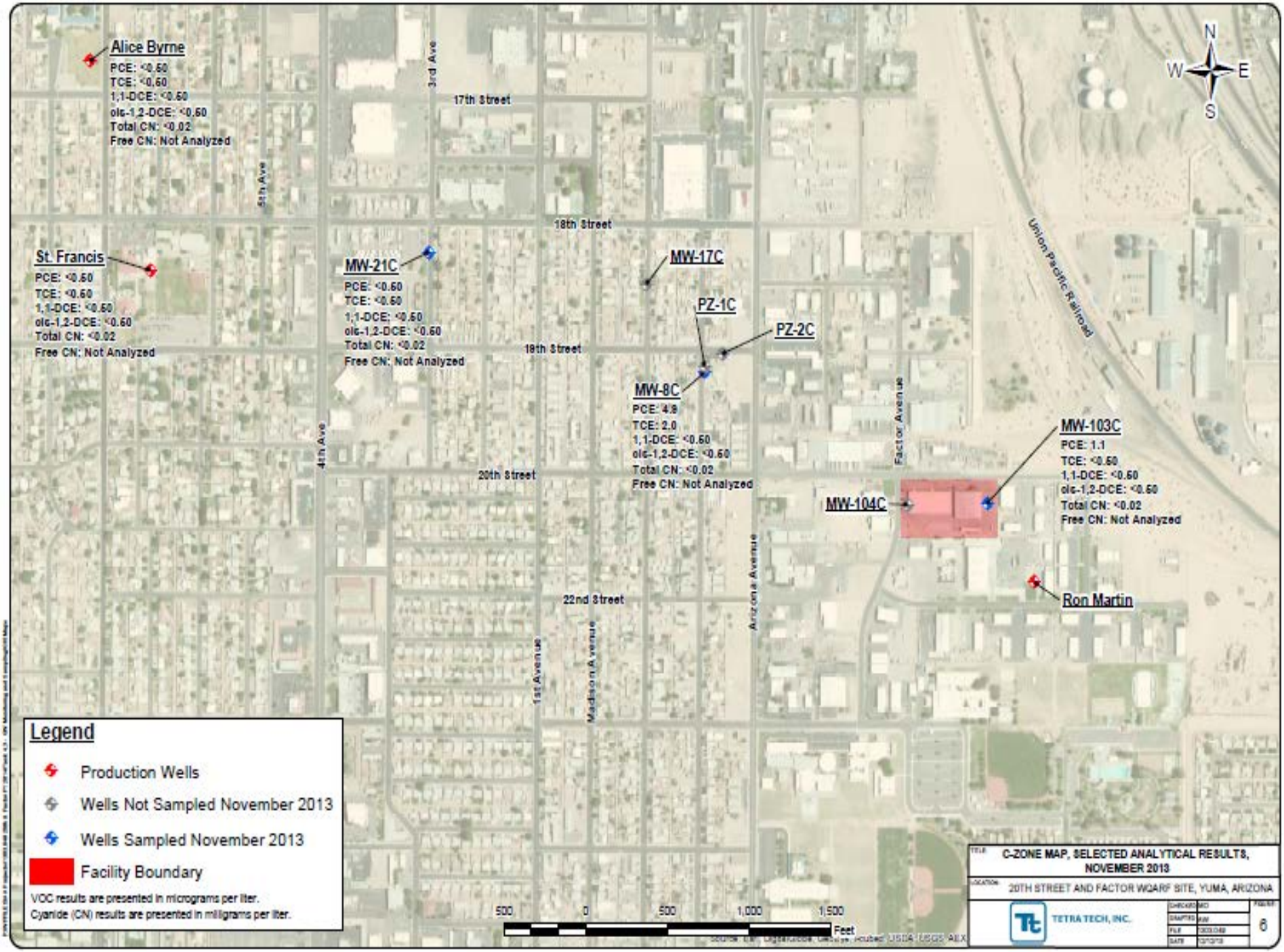

Alice Byrne School
17th Street
3rd Ave
MW-25A
17th Street
Union Pacific Railroad
N
W
E
S
MW-11A
MW-27A
Not Analyzed
5th Ave
MW-13A
Total CN: <0.02
Free CN: Not Analyzed
18th Street
MW-17A
Not Analyzed
MW-26A
Total CN: <0.02
Free CN: Not Analyzed
DMW-25
Total CN: <0.02
Free CN: Not Analyzed
MW-21A
Total CN: <0.02
Free CN: Not Analyzed
St. Francis School
MW-18A
Total CN: <0.02
Free CN: Not Analyzed
MW-22A
Total CN: <0.02
Free CN: Not Analyzed
Factor Avenue
DMW-11
Not Analyzed
DMW-10
18th Street
MW-12A
DEW-19
PZ-1A
PZ-2A
MW-15A
Not Analyzed
MW-8A
Total CN: <0.02
Free CN: Not Analyzed
MW-6A
Total CN: <0.02
Free CN: Not Analyzed
DMW-17
DMW-18
DMW-16
DMW-6
MW-7A
MW-1A
Total CN: 0.80
Free CN: 0.80
4th Ave
20th Street
MW-2A
Total CN: 0.18
Free CN: 0.18
MW-9A
Total CN: <0.02
Free CN: Not Analyzed
MW-102A
Not Analyzed
MW-20A
Not Analyzed
Arizona Avenue
MW-5A
Total CN: 20
Free CN: 20
MW-4A
Total CN: 3.1
Free CN: 3.1
MW-3A
Total CN: 0.14
Free CN: 0.14
MW-101A
Total CN: <0.02
Free CN: Not Analyzed
22nd Street
MW-10A
MW-14A
Total CN: <0.02
Free CN: Not Analyzed
MW-19A
Total CN: Not Sampled
Free CN: Not Sampled
Ron Martin
MW-16A
Not Analyzed
1st Avenue
Madison Avenue
Legend
Production Wells
Wells Not Sampled November 2013
Wells Sampled November 2013
Approximate Plume Boundary
Facility Boundary
All Cyanide (CN) results are presented in milligrams per liter.
MW-7A was not sampled due to the presence of free product in the well.
500
0
500
1,000
1,500
Feet
A-ZONE CYANIDE PLUME MAP, CYANIDE ANALYTICAL RESULTS, NOVEMBER 2013
20TH STREET AND FACTOR WQARF SITE, YUMA, ARIZONA
TETRA TECH, INC.
4b

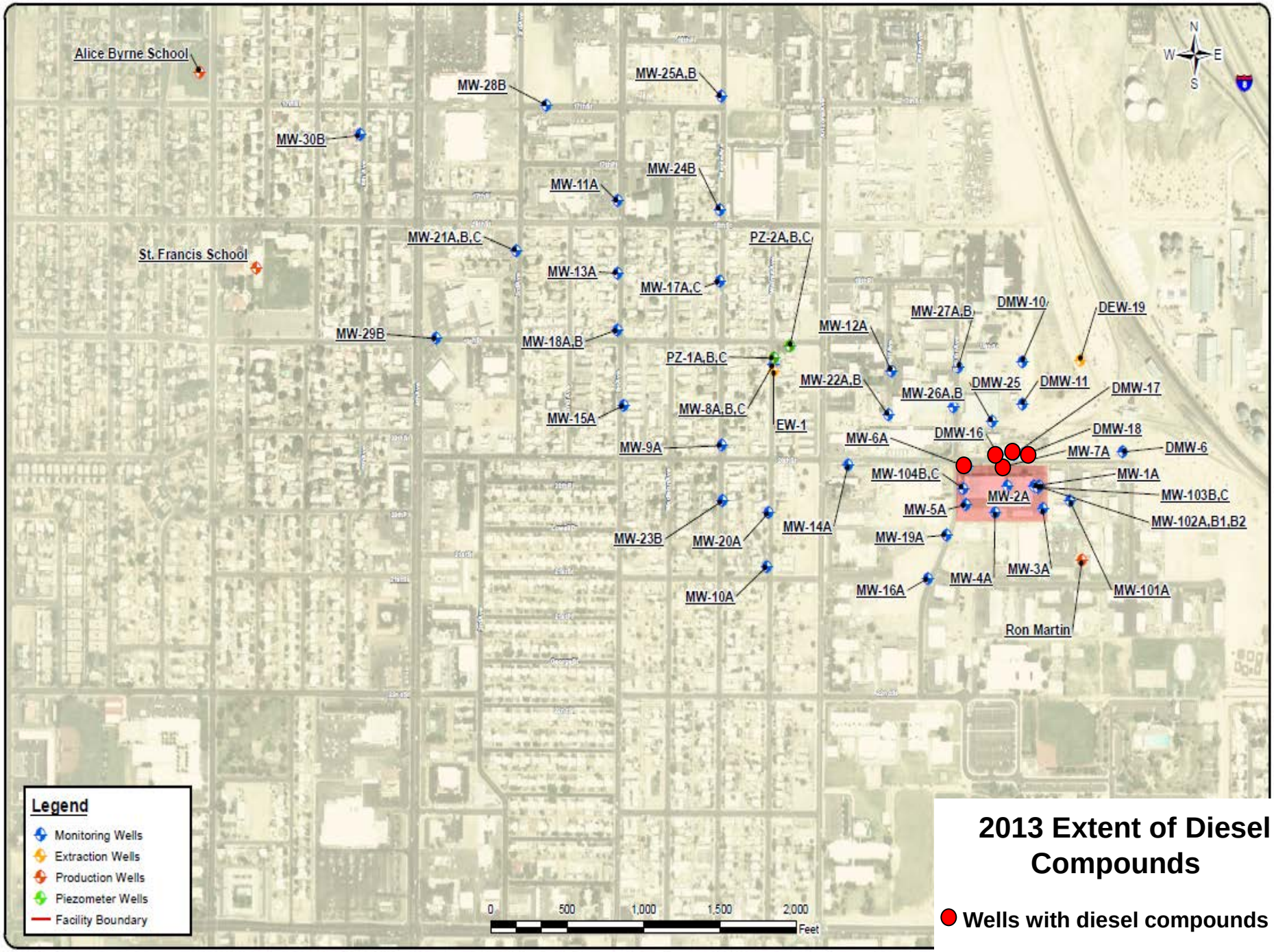

Alice Byrne School
St Francis School
17th Street
18th Street
19th Street
20th Street
22nd Street
3rd Ave
5th Ave
4th Ave
1st Avenue
Madison Avenue
Maple Avenue
Walnut Avenue
Arizona Avenue
S Rail Avenue
Factor Avenue
Union Pacific Railroad
MW-28B
PCE: <0.50
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
MW-25B
PCE: <0.50
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
MW-30B
PCE: <0.50
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
MW-24B
PCE: <0.50
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
MW-21B
PCE: 0.75
TCE: 29
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
MW-27B
PCE: <0.50
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
MW-29B
PCE: <0.50
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
PZ-1B
PZ-2B
MW-18B
PCE: 410
TCE: 71
1,1-DCE: 24
cis-1,2-DCE: <10
MW-8B
PCE: 13
TCE: 5.0
1,1-DCE: 1.6
cis-1,2-DCE: <0.50
EW-1
MW-26B
PCE: 1.0
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
MW-104B
PCE: 1.1
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
MW-22B
PCE: 22
TCE: 1.8
1,1-DCE: 0.55
cis-1,2-DCE: <0.50
MW-103B
PCE: 1.7
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
MW-23B
PCE: <0.50
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
MW-102B1
PCE: 7.2
TCE: 0.54
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
Ron Martin
PCE: <0.50
TCE: <0.50
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
MW-102B2
PCE: 11
TCE: 0.51
1,1-DCE: <0.50
cis-1,2-DCE: <0.50
N
W
E
S
Legend
Wells Sampled April/May 2013
Wells Not Sampled April/May 2013
Production Wells
Approximate Plume Boundary
Facility Boundary
All results are presented in micrograms per liter.
500
0
500
1,000
Feet
TITLE: B-ZONE PLUME MAP AND SELECTED ANALYTICAL RESULTS, APRIL/MAY 2013
LOCATION: 20TH AND FACTOR WQARF SITE, YUMA, ARIZONA
TETRA TECH, INC.
CHECKED MO
DRAFTED AW
FILE 1303.066
DATE 6/24/13
FIGURE 5a


Alice Byrne School
17th Street
MW-30B
PCE: <0.60
TCE: <0.60
1,1-DCE: <0.60
cis-1,2-DCE: <0.60
3rd Ave
MW-28B
PCE: <0.60
TCE: <0.60
1,1-DCE: <0.60
cis-1,2-DCE: <0.60
MW-25B
17th Street
MW-24B
PCE: <0.60
TCE: <0.60
1,1-DCE: <0.60
cis-1,2-DCE: <0.60
18th Street
MW-21B
PCE: <0.60
TCE: 31
1,1-DCE: <0.60
cis-1,2-DCE: <0.60
St. Francis School
5th Ave
PZ-1B
PZ-2B
MW-29B
PCE: <0.60
TCE: <0.60
1,1-DCE: <0.60
cis-1,2-DCE: <0.60
19th Street
MW-18B
PCE: 820
TCE: 130
1,1-DCE: 30
cis-1,2-DCE: <10
MW-8B
PCE: 11
TCE: 3.9
1,1-DCE: <0.60
cis-1,2-DCE: <0.60
EW-1
S Rail Avenue
Factor Avenue
MW-27B
Union Pacific Railroad
MW-26B
PCE: <0.60
TCE: <0.60
1,1-DCE: <0.60
cis-1,2-DCE: <0.60
MW-22B
PCE: 31
TCE: 1.8
1,1-DCE: <0.60
cis-1,2-DCE: <0.60
20th Street
4th Ave
MW-103B
MW-102B1
MW-23B
PCE: 0.63
TCE: <0.60
1,1-DCE: <0.60
cis-1,2-DCE: <0.60
Arizona Avenue
MW-104B
PCE: <0.60
TCE: <0.60
1,1-DCE: <0.60
cis-1,2-DCE: <0.60
Ron Martin
MW-102B2
PCE: 12
TCE: <0.60
1,1-DCE: <0.60
cis-1,2-DCE: <0.60
22nd Street
1st Avenue
Madison Avenue
Maple Avenue
Walnut Avenue
N
W
E
S
Legend
Production Wells
Wells Not Sampled November 2013
Wells Sampled November 2013
Approximate Plume Boundary
Facility Boundary
All results are presented in micrograms per liter.
500
0
500
1,000
Feet
B-ZONE CHLORINATED VOC PLUME MAP
AND SELECTED ANALYTICAL RESULTS, NOVEMBER 2013
20TH STREET AND FACTOR WQARF SITE, YUMA, ARIZONA
TETRA TECH, INC.
5a

Alice Byrne School
St Francis School
MW-28B
Total CN: <0.02
Free CN: Not Analyzed
MW-25B
Total CN: <0.02
Free CN: Not Analyzed
MW-30B
Total CN: <0.02
Free CN: Not Analyzed
MW-21B
Total CN: <0.02
Free CN: Not Analyzed
MW-24B
Total CN: 0.075
Free CN: 0.075
MW-18B
Total CN: 0.39
Free CN: 0.39
MW-29B
Total CN: <0.02
Free CN: Not Analyzed
PZ-2B
PZ-1B
EW-1
MW-8B
Total CN: <0.02
Free CN: Not Analyzed
MW-27B
Total CN: <0.02
Free CN: Not Analyzed
MW-26B
Total CN: <0.02
Free CN: Not Analyzed
MW-22B
Total CN: 0.12
Free CN: 0.12
MW-103B
Total CN: <0.02
Free CN: Not Analyzed
MW-102B2
Total CN: <0.02
Free CN: Not Analyzed
MW-23B
Total CN: <0.02
Free CN: Not Analyzed
MW-102B1
Total CN: <0.02
Free CN: Not Analyzed
MW-104B
Total CN: <0.02
Free CN: Not Analyzed
Ron Martin
Total CN: <0.02
Free CN: Not Analyzed
17th Street
18th Street
19th Street
20th Street
22nd Street
3rd Ave
5th Ave
4th Ave
1st Avenue
Madison Avenue
Arizona Avenue
Factor Avenue
Union Pacific Railroad
N
S
E
W
Legend
Wells Sampled April/May 2013
Wells Not Sampled April/May 2013
Production Wells
Approximate Plume Boundary
Facility Boundary
500
0
500
1,000
1,500
Feet
TITLE
B-ZONE PLUME MAP, AND CYANIDE ANALYTICAL RESULTS, APRIL/MAY 2013
LOCATION
20TH AND FACTOR WQARF SITE, YUMA, ARIZONA
TETRA TECH, INC.
CHECKED MO
DRAFTED AW
FILE 1303 046
DATE 6/24/13
FIGURE
5b

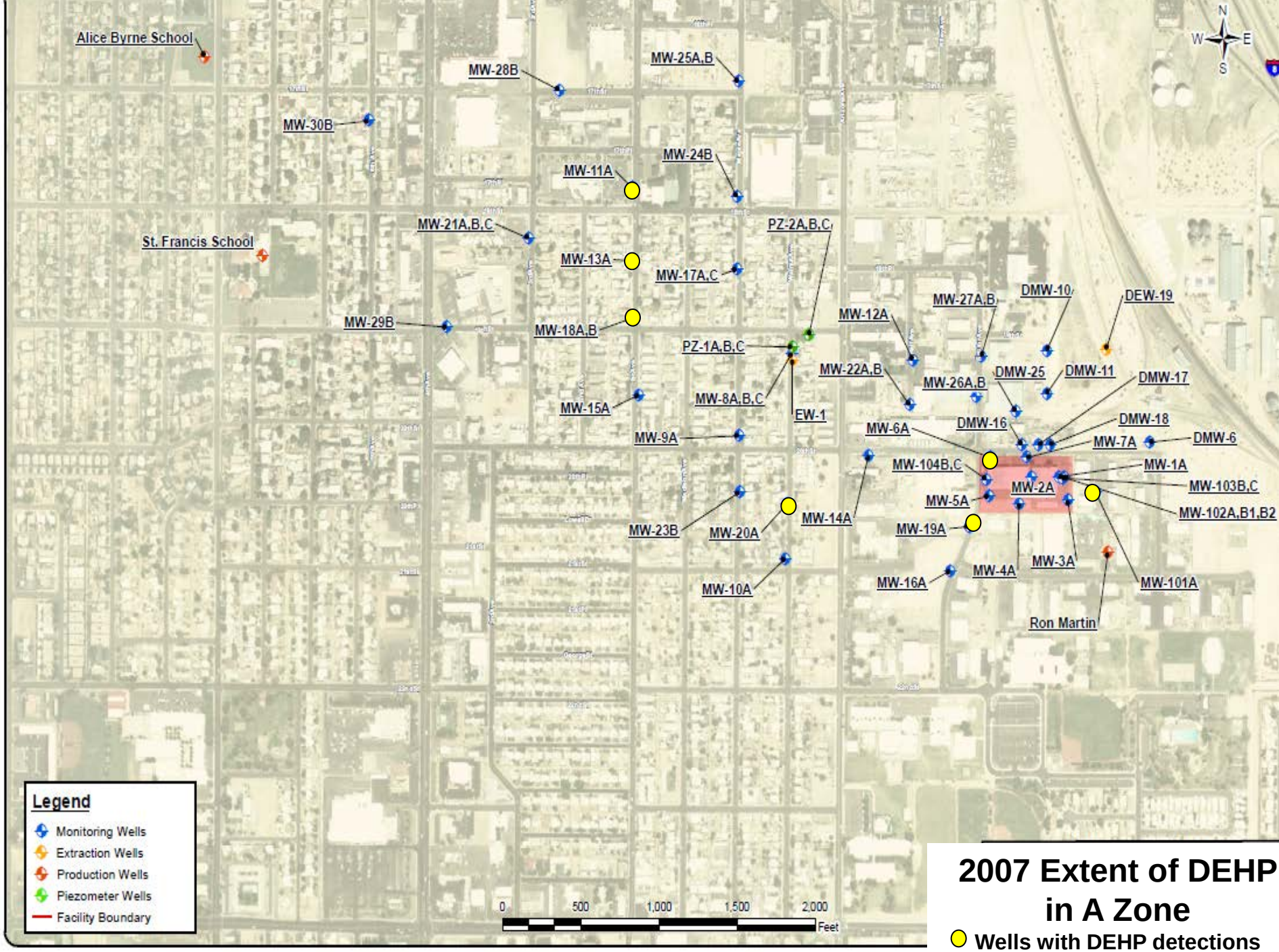

Alice Byrne School
MW-28B
Total CN: <0.02
Free CN: Not Analyzed
MW-30B
Total CN: <0.02
Free CN: Not Analyzed
MW-25B
MW-21B
Total CN: <0.02
Free CN: Not Analyzed
MW-24B
Total CN: <0.02
Free CN: <0.02
St. Francis School
MW-18B
Total CN: 0.15
Free CN: 0.15
PZ-1B
PZ-2B
MW-29B
Total CN: <0.02
Free CN: Not Analyzed
MW-27B
MW-8B
Total CN: <0.02
Free CN: Not Analyzed
EW-1
MW-26B
Total CN: <0.02
Free CN: Not Analyzed
MW-22B
Total CN: 0.087
Free CN: 0.087
MW-103B
MW-102B2
Total CN: <0.02
Free CN: Not Analyzed
MW-23B
Not Analyzed
MW-102B1
MW-104B
Total CN: <0.02
Free CN: Not Analyzed
Ron Martin
17th Street
18th Street
19th Street
20th Street
22nd Street
3rd Ave
5th Ave
4th Ave
1st Avenue
Madison Avenue
Arizona Avenue
Factor Avenue
Union Pacific Railroad
N
W
E
S
Legend
Production Wells
Wells Not Sampled November 2013
Wells Sampled November 2013
Facility Boundary
All Cyanide (CN) results are presented in milligrams per liter.
500
0
500
1,000
1,500
Feet
B-ZONE PLUME MAP, AND CYANIDE ANALYTICAL RESULTS, NOVEMBER 2013
20TH STREET AND FACTOR WQARF SITE, YUMA, ARIZONA
TETRA TECH, INC.
5b


Alice Byrne
PCE: <0.60
TCE: <0.60
1,1-DCE: <0.60
cis-1,2-DCE: <0.60
Total CN: <0.02
Free CN: Not Analyzed
St. Francis
PCE: <0.60
TCE: <0.60
1,1-DCE: <0.60
cis-1,2-DCE: <0.60
Total CN: <0.02
Free CN: Not Analyzed
MW-21C
PCE: <0.60
TCE: <0.60
1,1-DCE: <0.60
cis-1,2-DCE: <0.60
Total CN: <0.02
Free CN: Not Analyzed
MW-17C
PZ-1C
PZ-2C
MW-8C
PCE: 4.9
TCE: 2.0
1,1-DCE: <0.60
cis-1,2-DCE: <0.60
Total CN: <0.02
Free CN: Not Analyzed
MW-103C
PCE: 1.1
TCE: <0.60
1,1-DCE: <0.60
cis-1,2-DCE: <0.60
Total CN: <0.02
Free CN: Not Analyzed
MW-104C
Ron Martin
17th Street
18th Street
19th Street
20th Street
22nd Street
3rd Ave
5th Ave
4th Ave
1st Avenue
Madison Avenue
Arizona Avenue
Factor Avenue
Union Pacific Railroad
N
W
E
S
Legend
Production Wells
Wells Not Sampled November 2013
Wells Sampled November 2013
Facility Boundary
VOC results are presented in micrograms per liter.
Cyanide (CN) results are presented in milligrams per liter.
500
0
500
1,000
1,500
Feet
TITLE
C-ZONE MAP, SELECTED ANALYTICAL RESULTS, NOVEMBER 2013
LOCATION
20TH STREET AND FACTOR WQARF SITE, YUMA, ARIZONA
TETRA TECH, INC.
CHECKED
DRAFTED
FILE
DATE
FIGURE
6



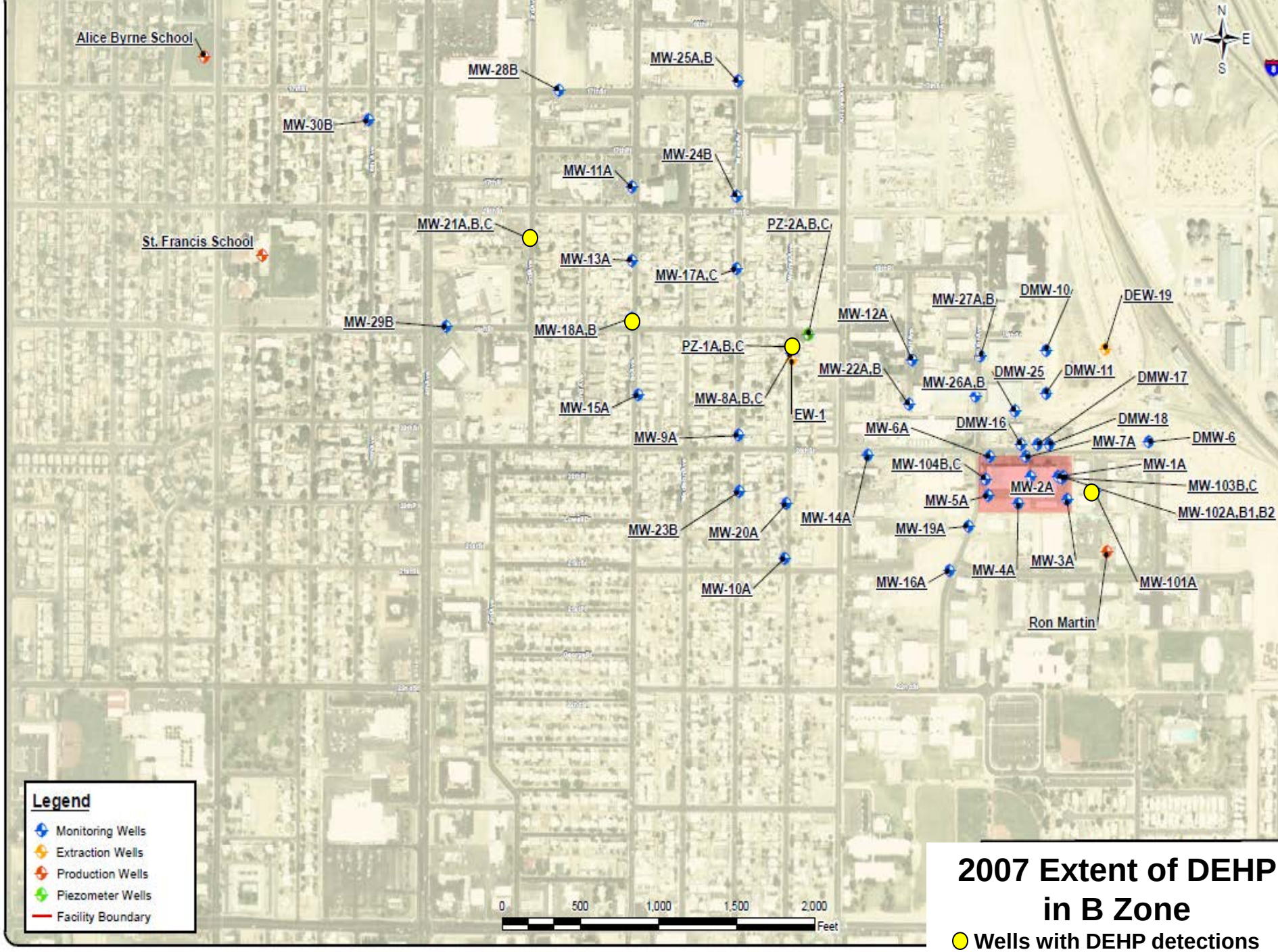
2013 Extent of Diesel Compounds

● Wells with diesel compounds



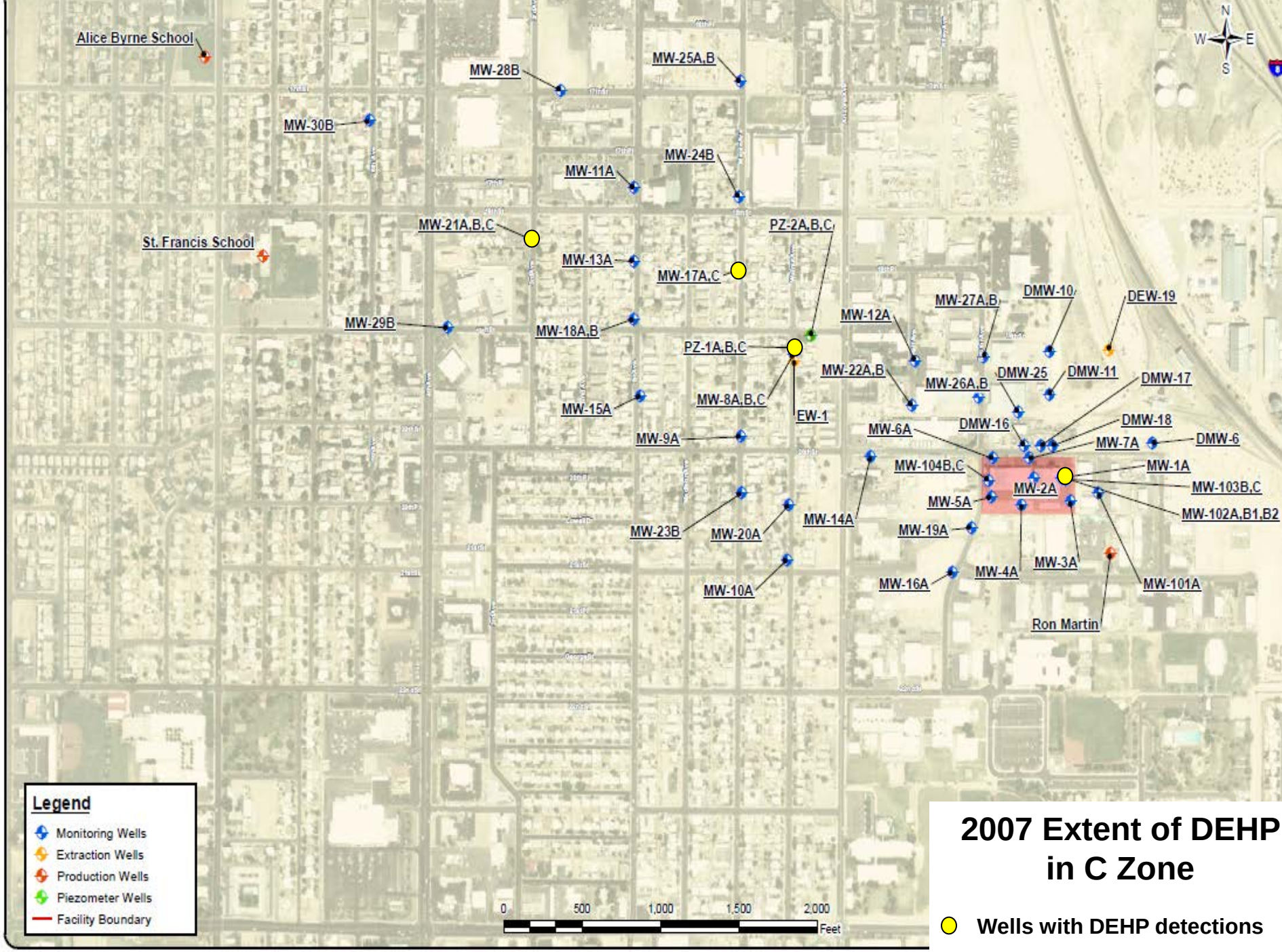
2007 Extent of DEHP in A Zone

Wells with DEHP detections



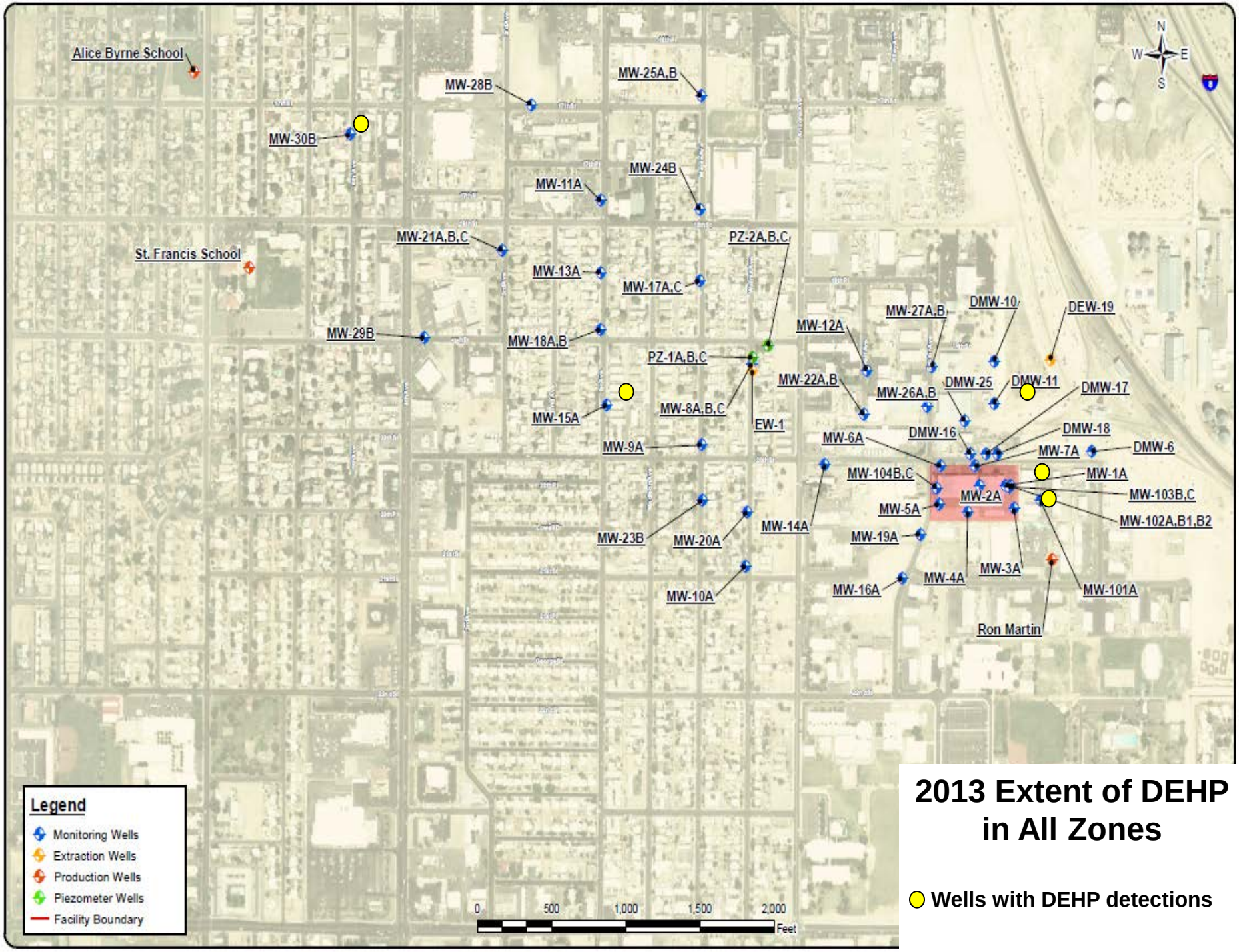
2007 Extent of DEHP in B Zone

Wells with DEHP detections



2007 Extent of DEHP in C Zone

Wells with DEHP detections



2013 Extent of DEHP in All Zones

Wells with DEHP detections

Questions?

Questions

Contact Information

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