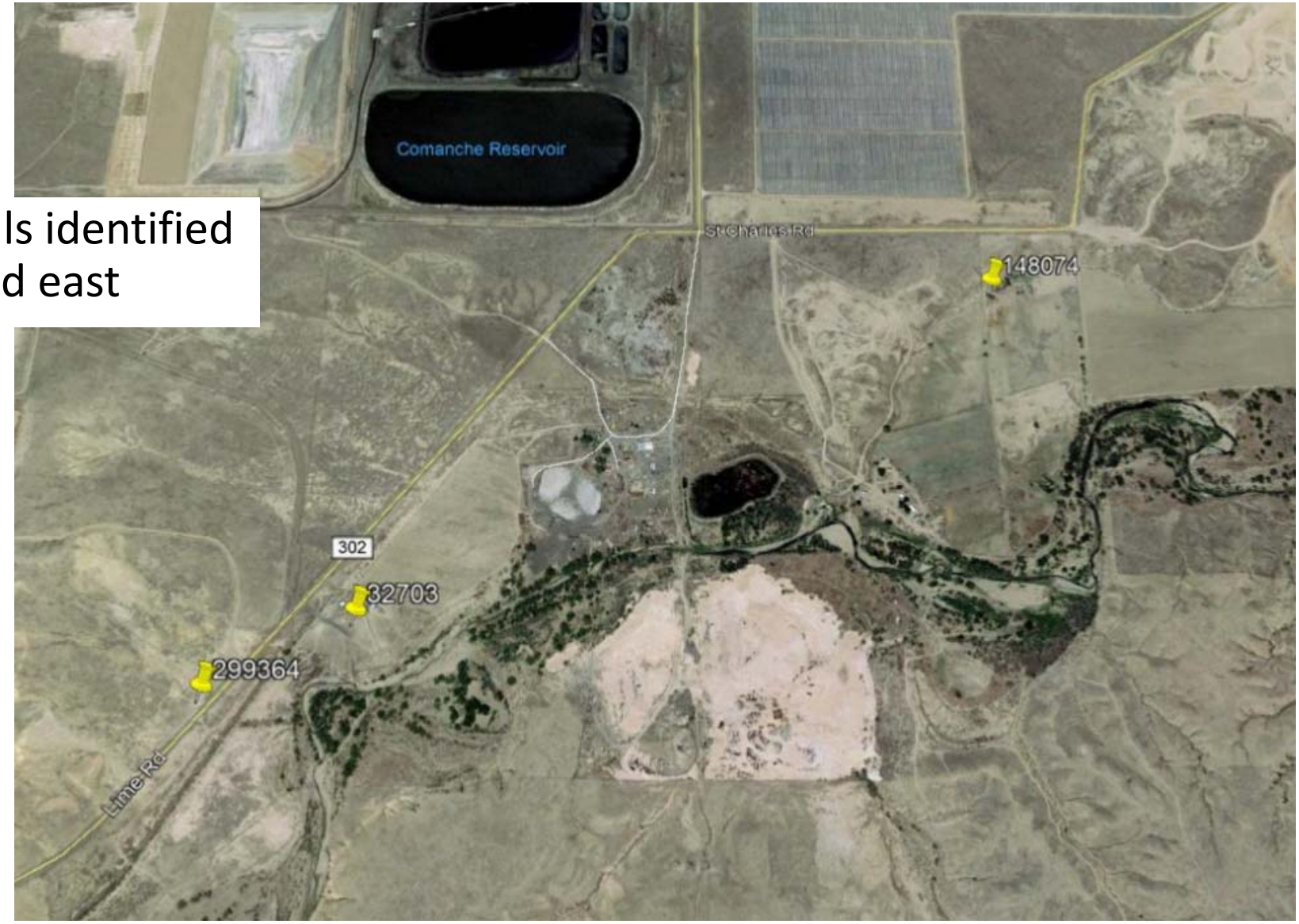
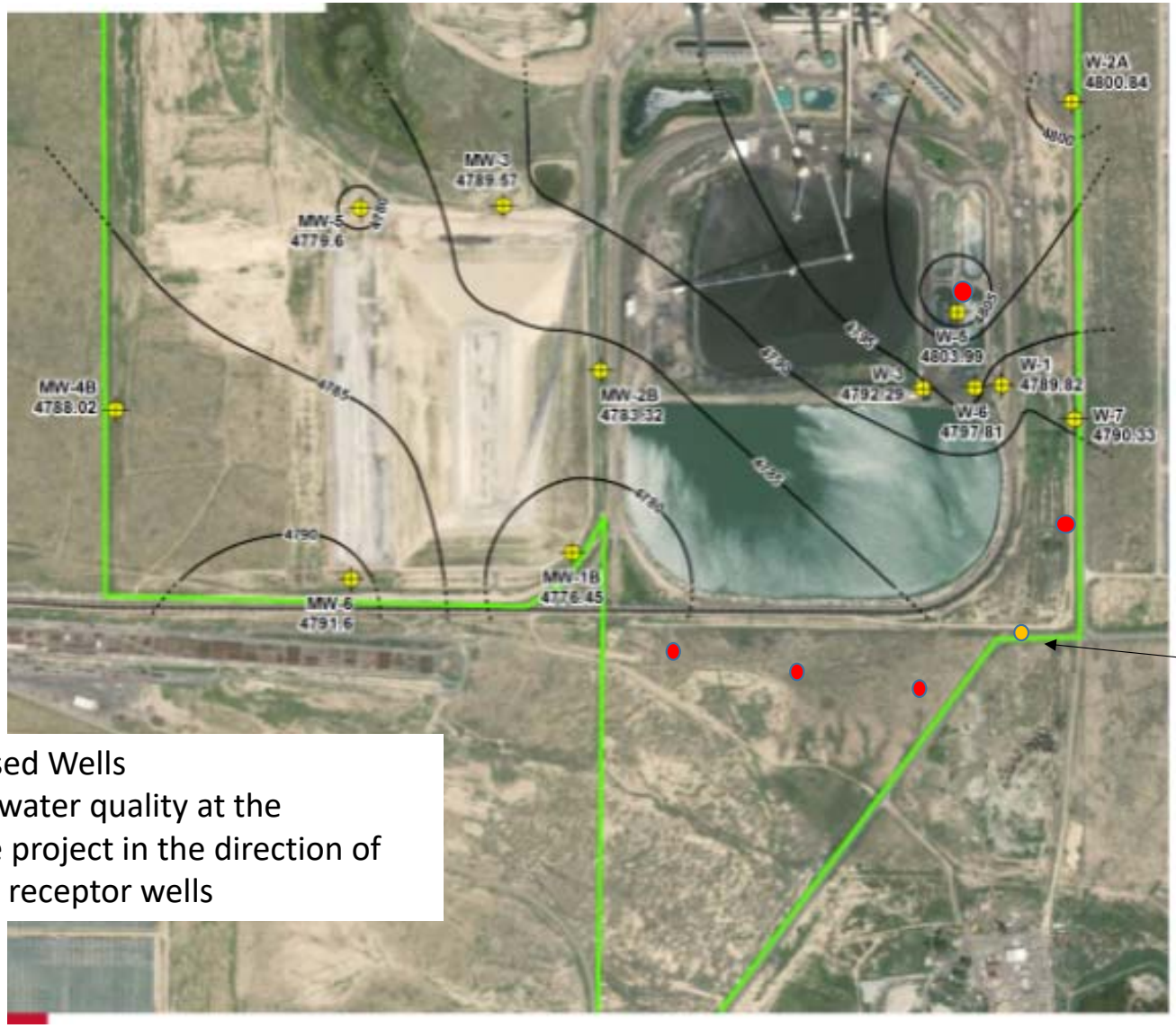
Comanche Station EPA Meeting

11/24/2020

- Off-site wells identified to south and east





dry

Objective of Proposed Wells

- Evaluate groundwater quality at the perimeter of the project in the direction of existing possible receptor wells

- Woodward and Clyde 1987
  - TH-73, TH-184, TH-185, TH-186

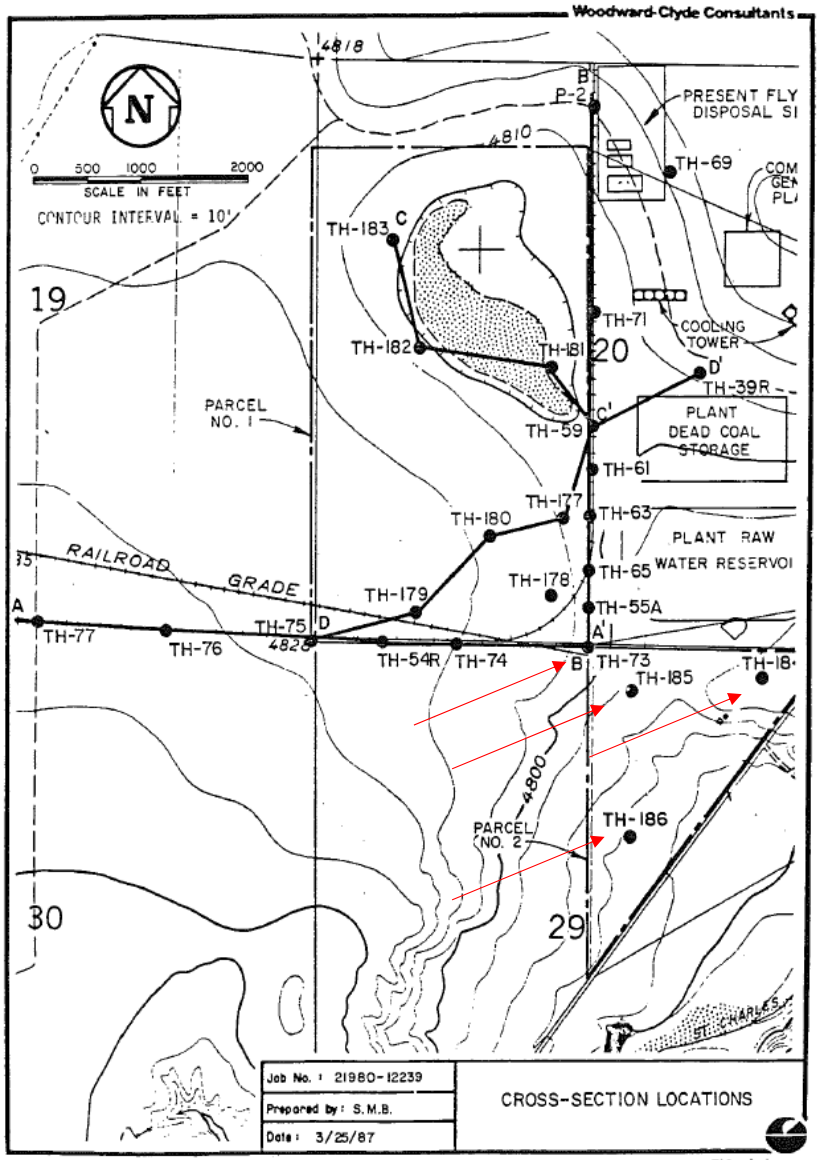
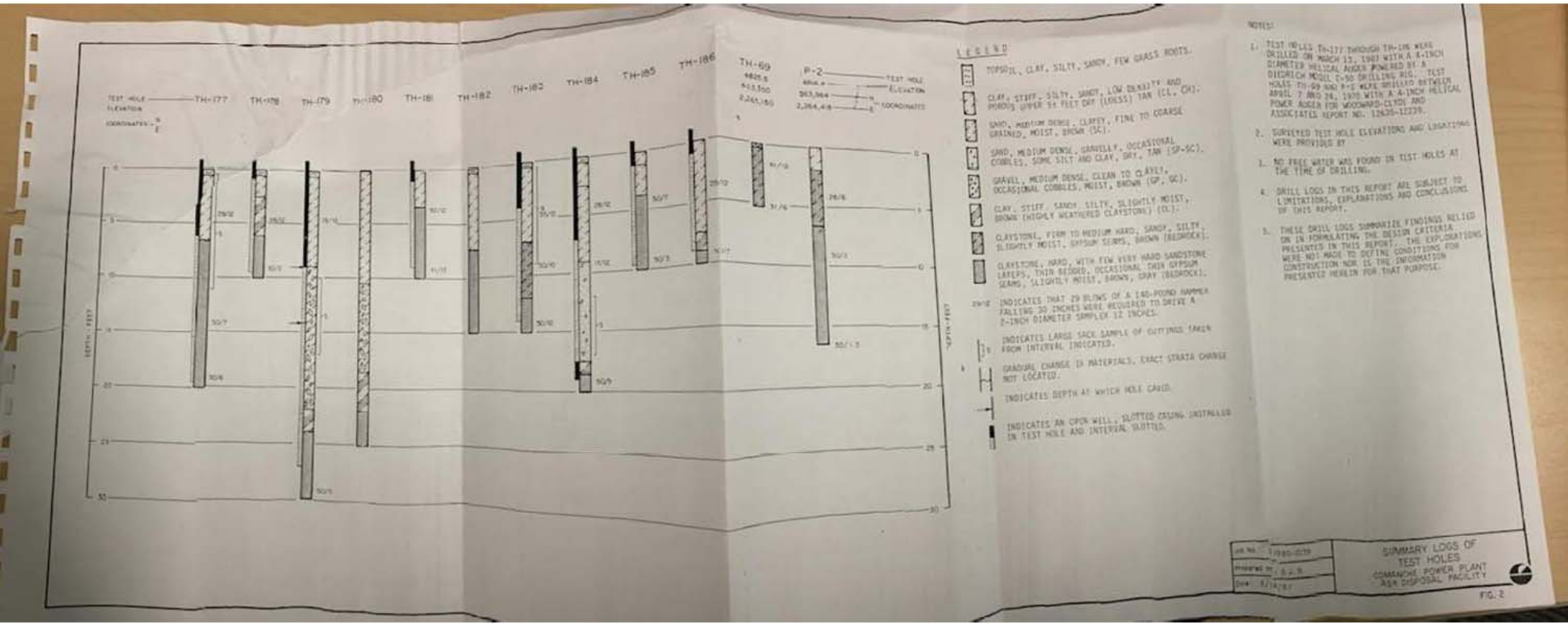


FIG. A-1

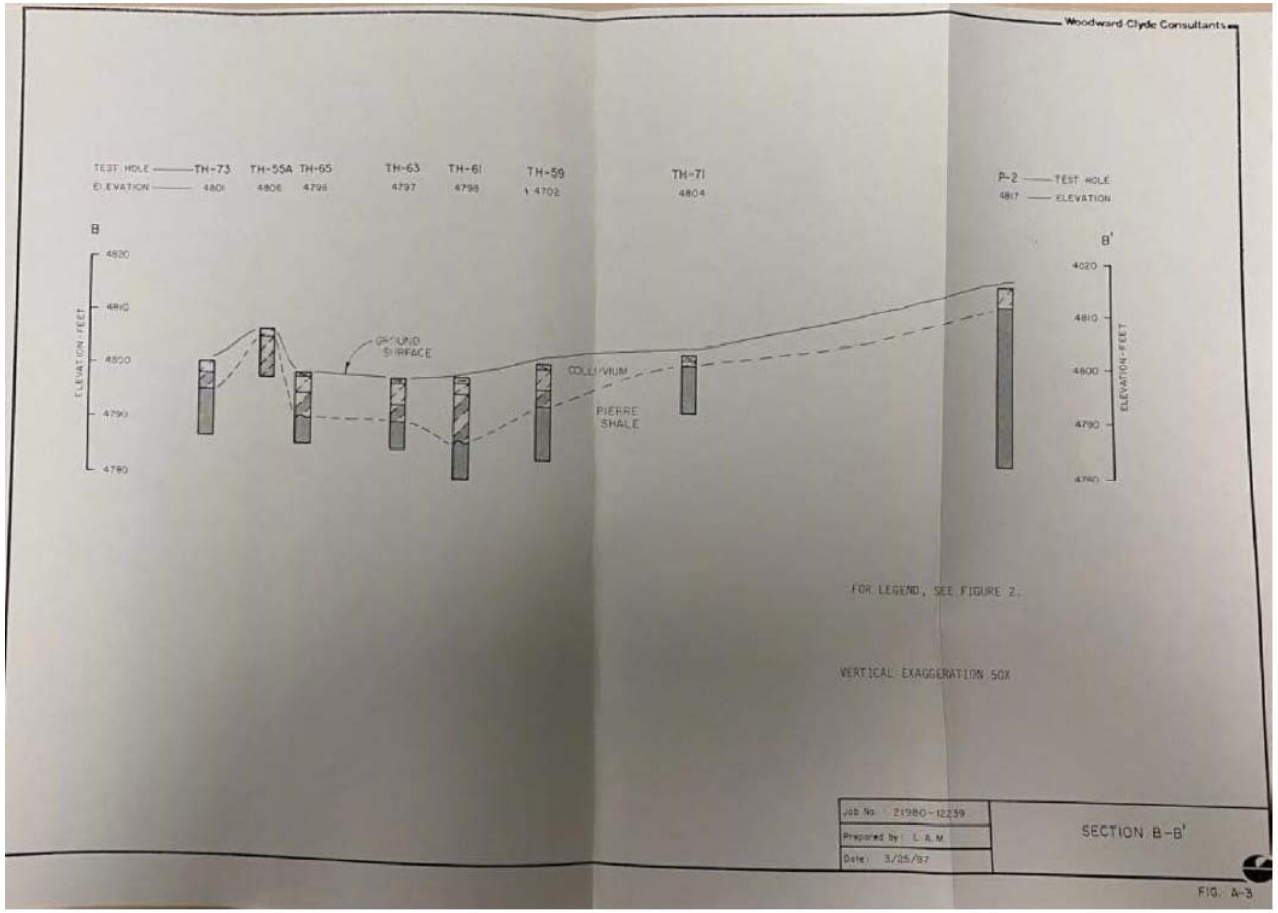


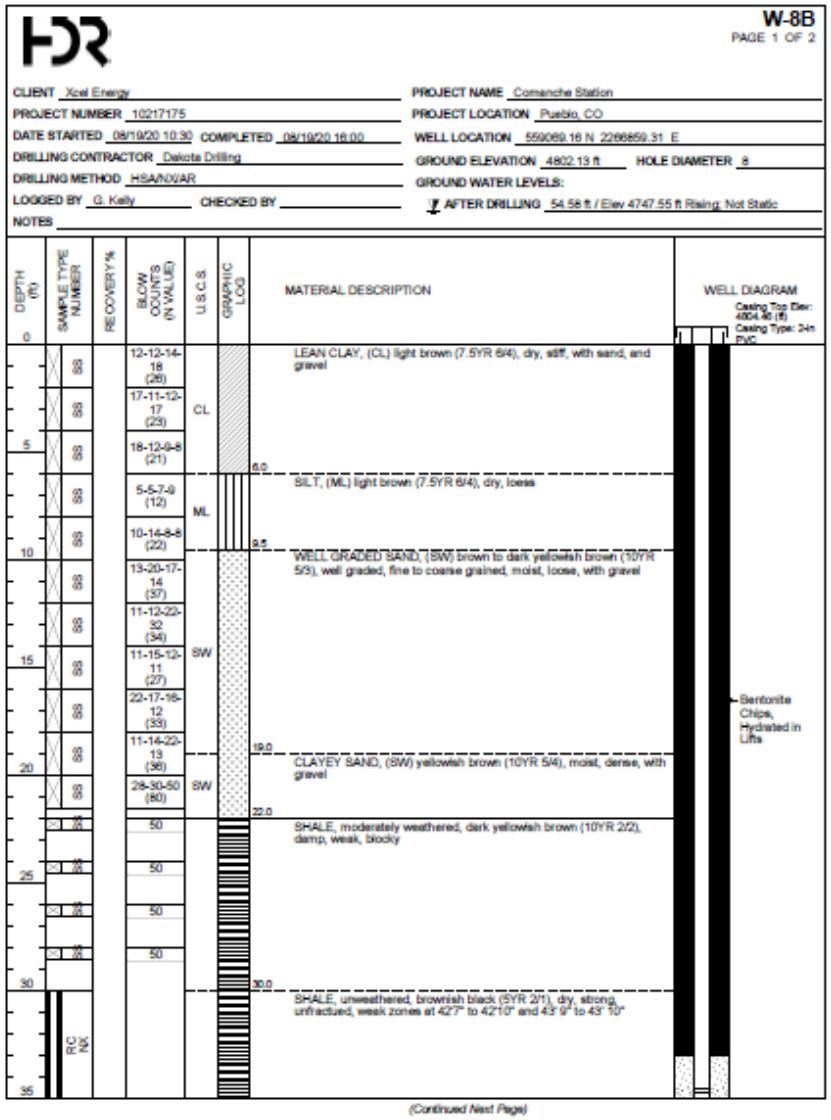
- TH-184 – 20’ deep -clay to 5’, sand to 9’, sand w occasional cobbles to 16’ (doesn’t say “alluvium”), shale at 18’ – looks pretty similar to W-8
- TH-185 -10’ deep - clay to 4’, above shale - no alluvium, shallower shale
- TH-186 – 10’ deep - ?clay to 9’, above shale

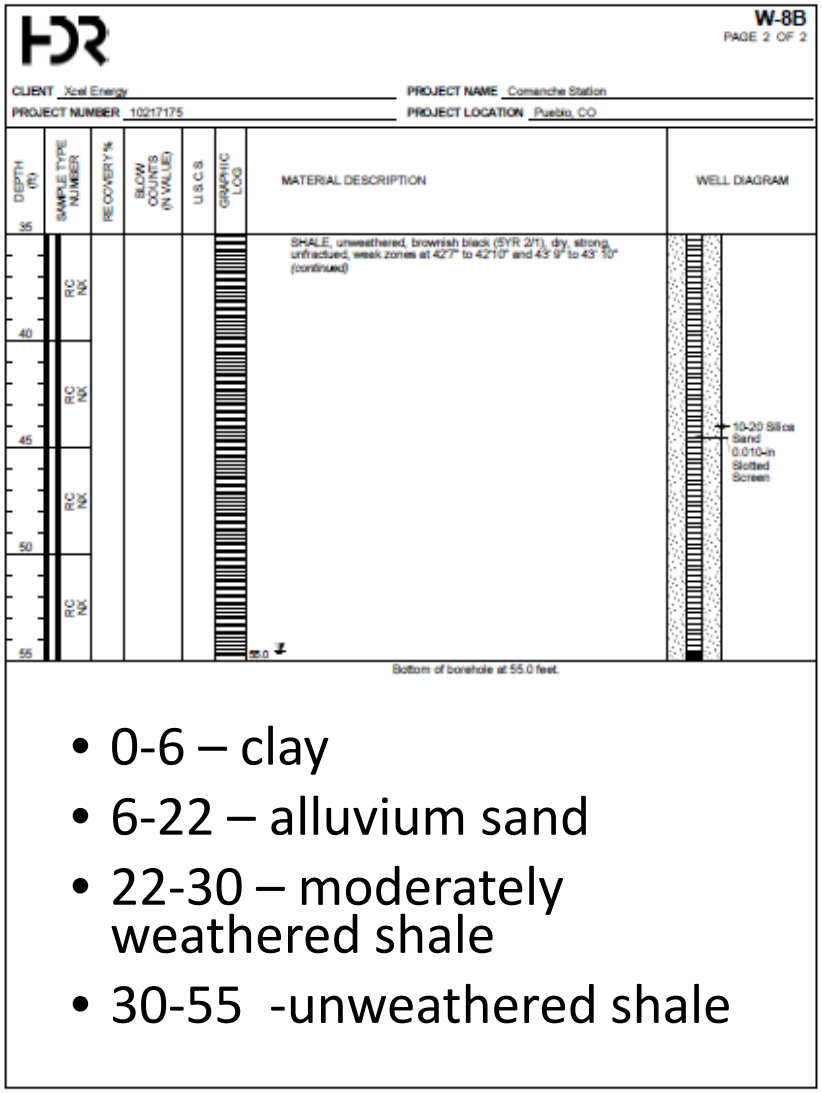
- TH-73 -12’ deep –

clay to 4’, above shale

– no alluvium shallow shale

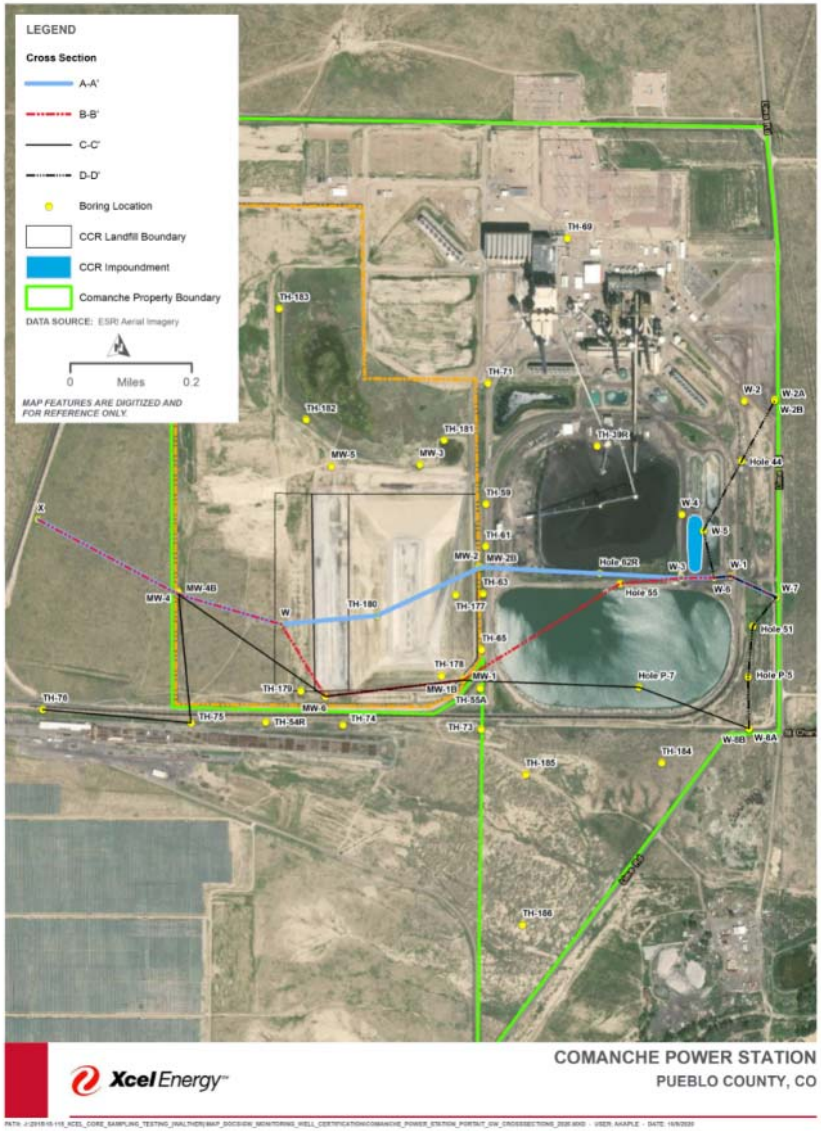






- 0-6 – clay
- 6-22 – alluvium sand
- 22-30 – moderately weathered shale
- 30-55 -unweathered shale

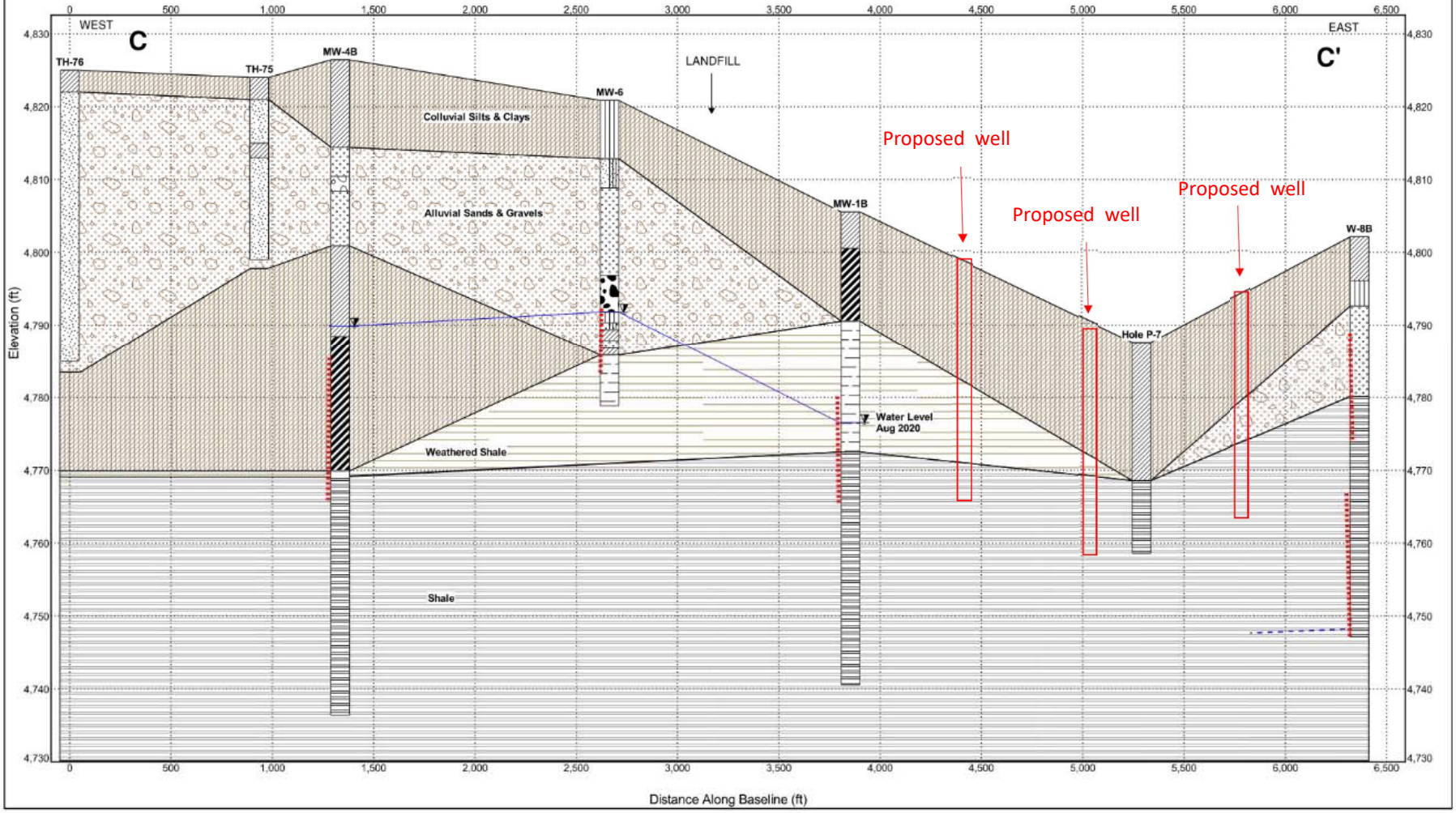
- Map of cross section lines



SUBSURFACE DIAGRAM
Comanche Southern East-West Cross Section

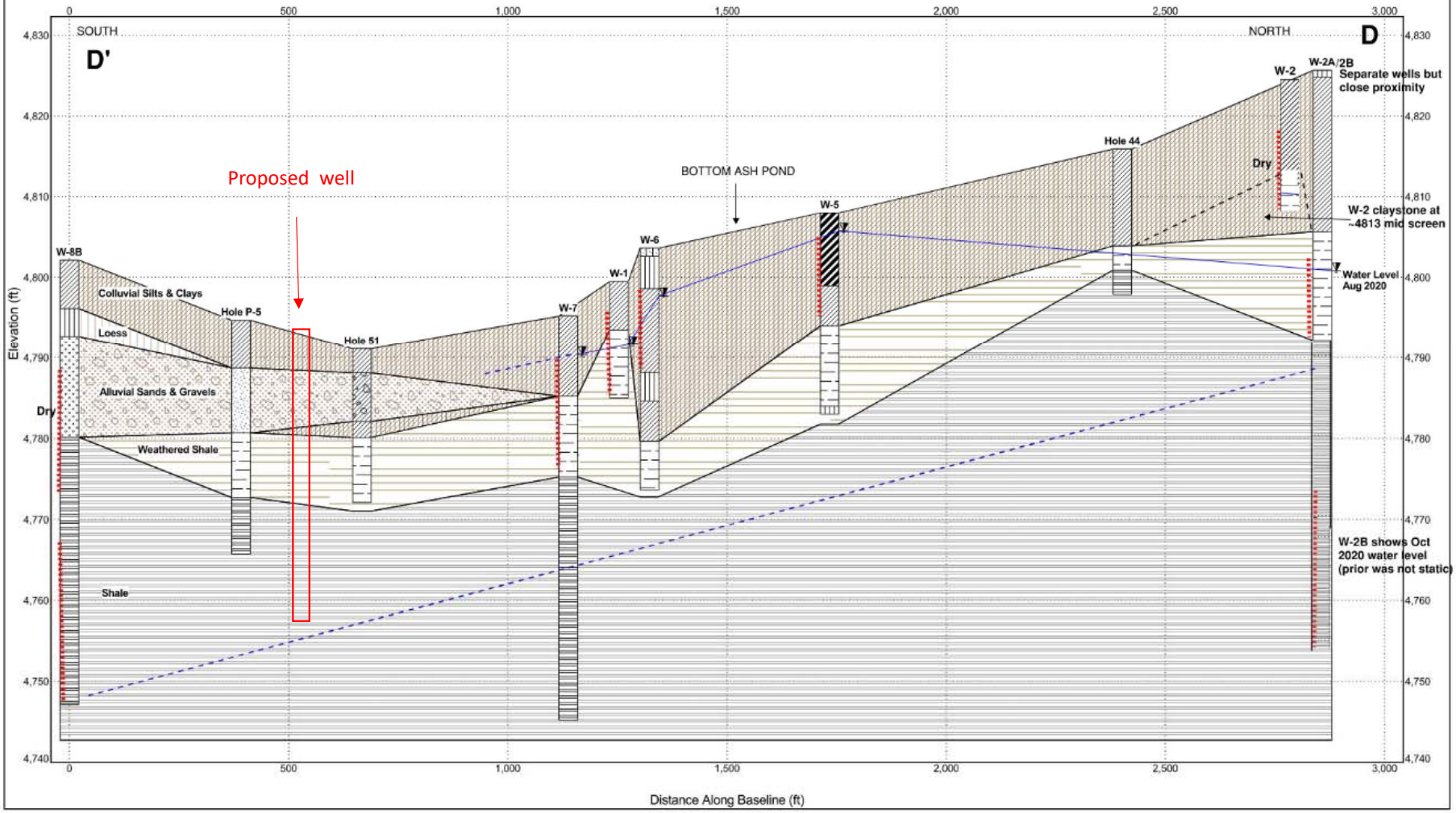
CLIENT Xcel Energy
PROJECT NUMBER 10217175

PROJECT NAME Comanche Station
PROJECT LOCATION Pueblo, CO



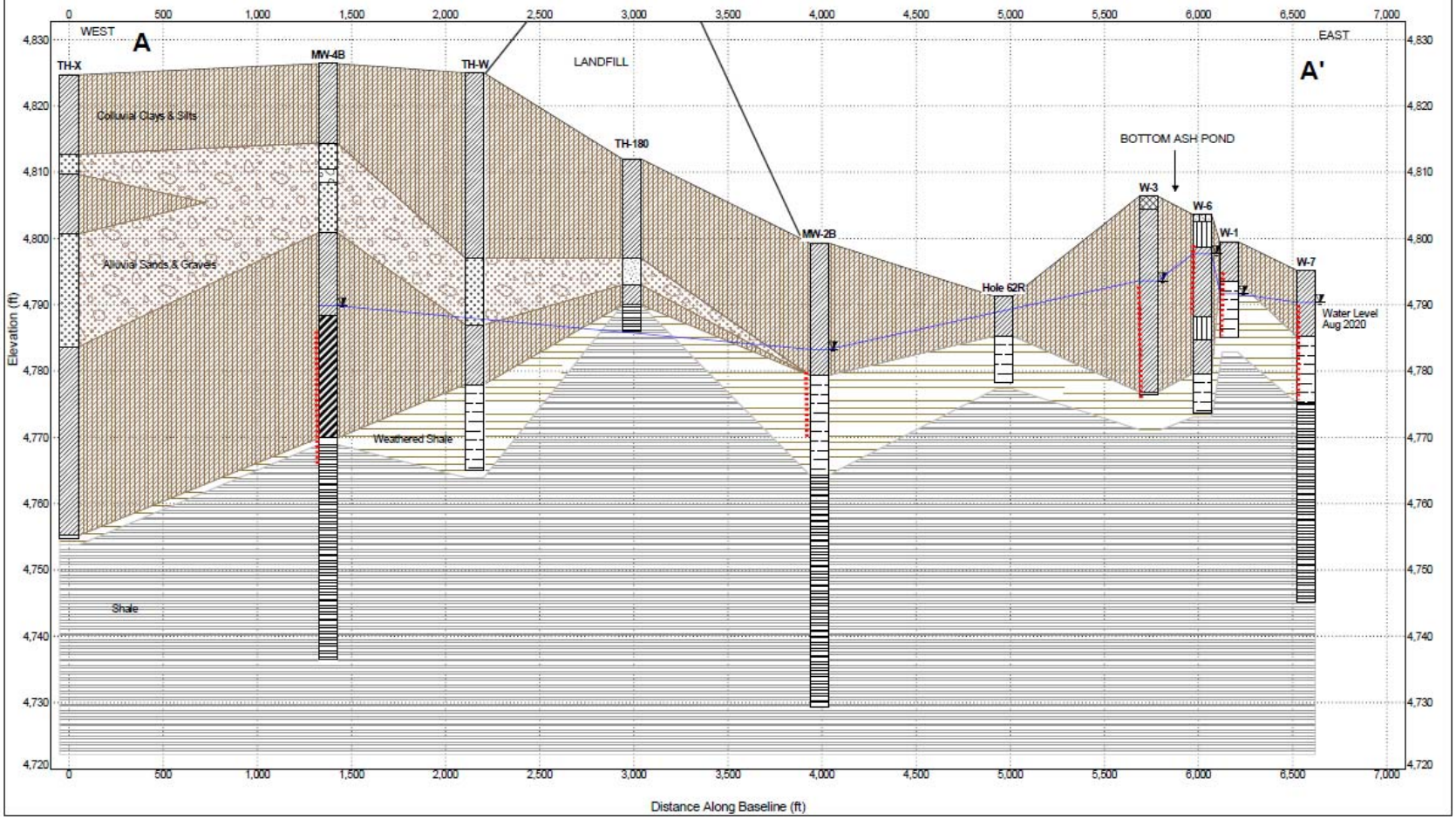
SUBSURFACE DIAGRAM
Comanche Ponds Cross Section North-South

CLIENT Xcel Energy
PROJECT NUMBER 10217175
PROJECT NAME Comanche Station
PROJECT LOCATION Pueblo, CO



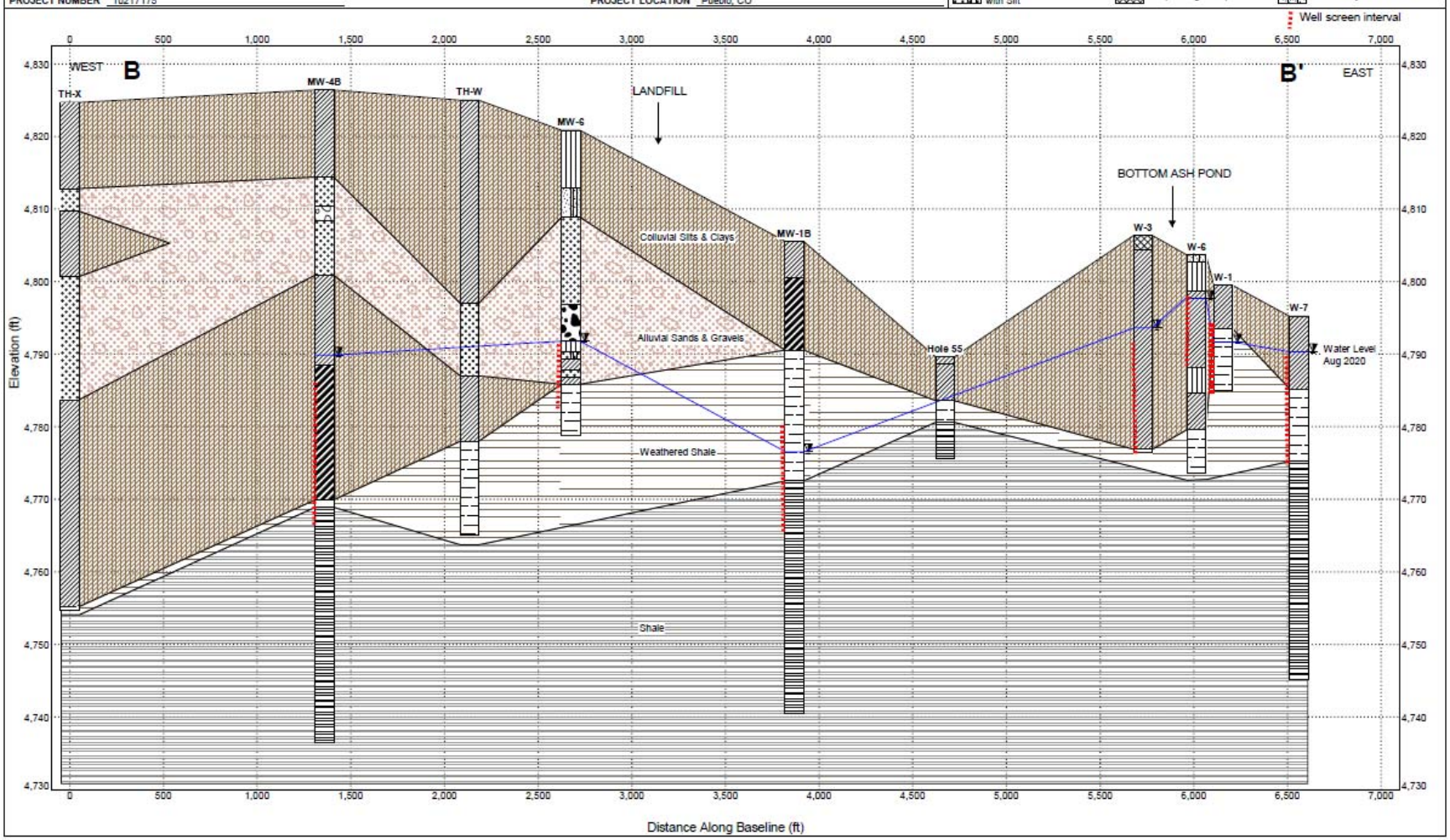
SUBSURFACE DIAGRAM
Comanche Cross Section, West-East

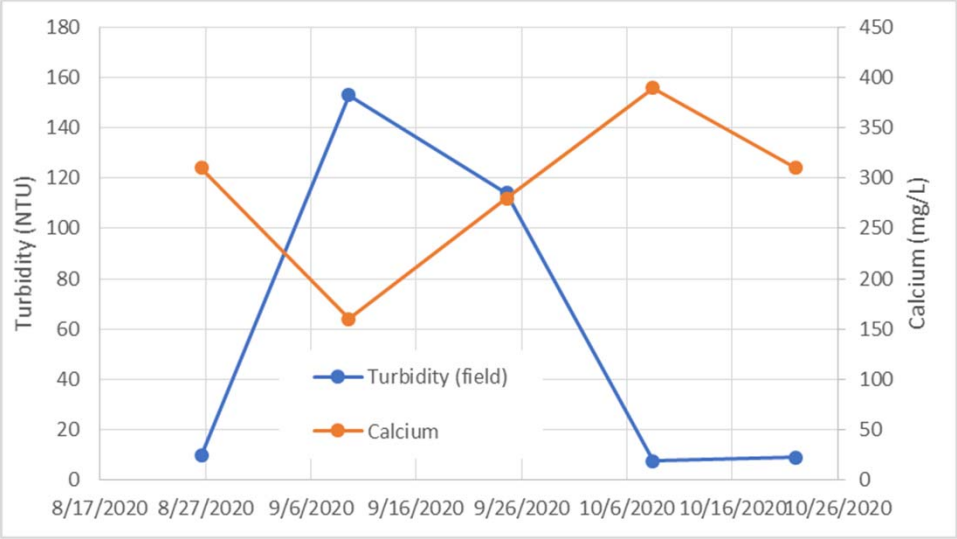
CLIENT Xcel Energy
PROJECT NUMBER 10217175
PROJECT NAME Comanche Station
PROJECT LOCATION Pueblo, CO

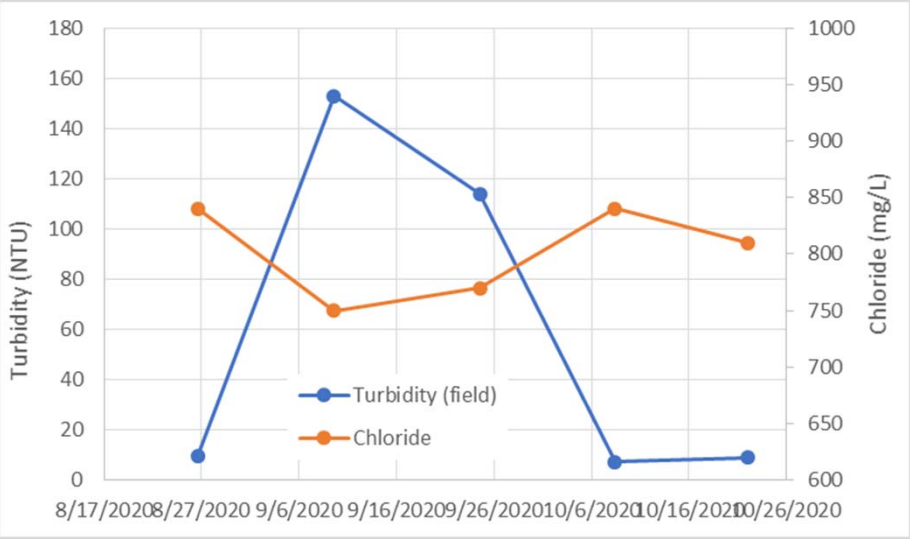


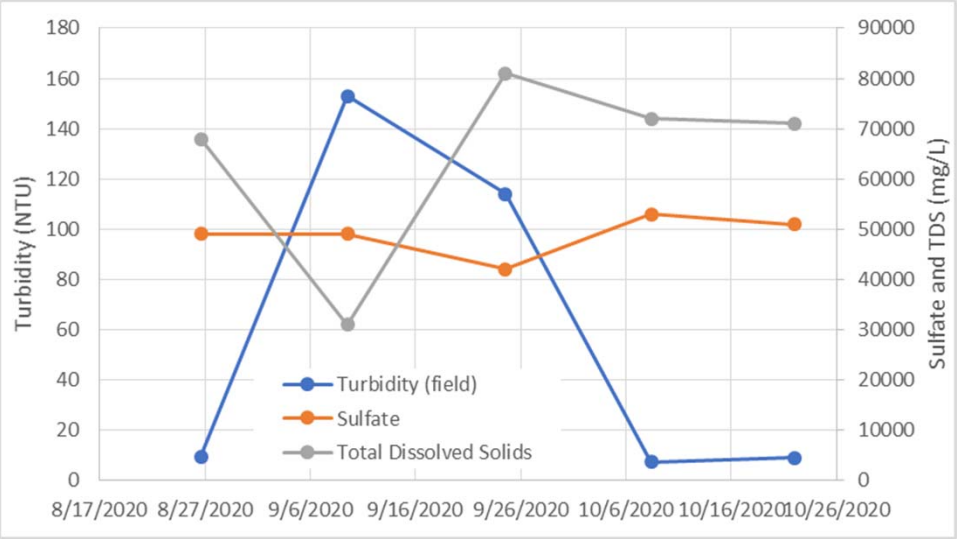
SUBSURFACE DIAGRAM
Comanche Cross-Section, West to East

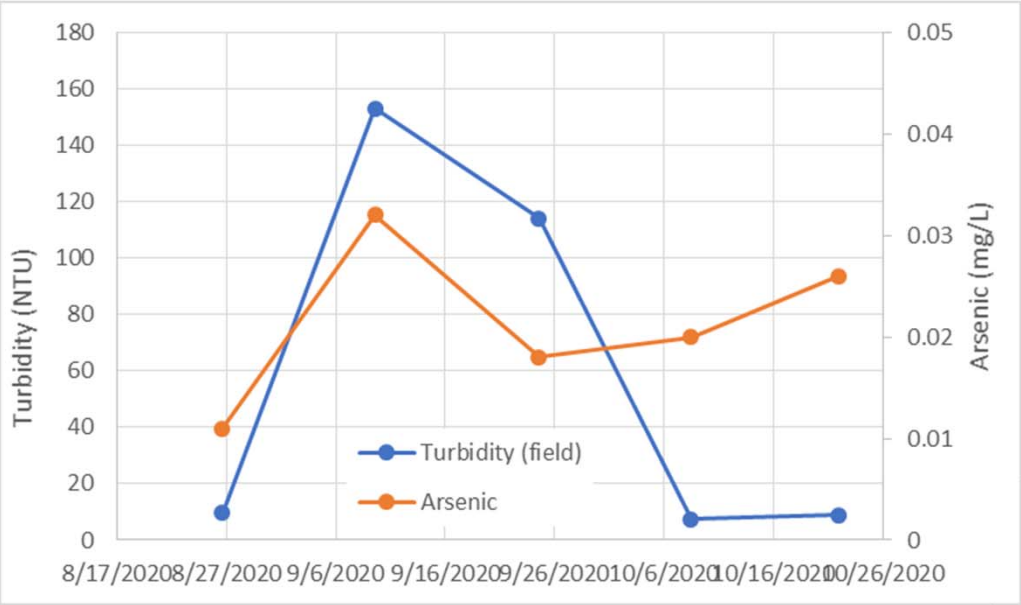
CLIENT Xcel Energy
PROJECT NUMBER 10217175
PROJECT NAME Comanche Station
PROJECT LOCATION Pueblo, CO

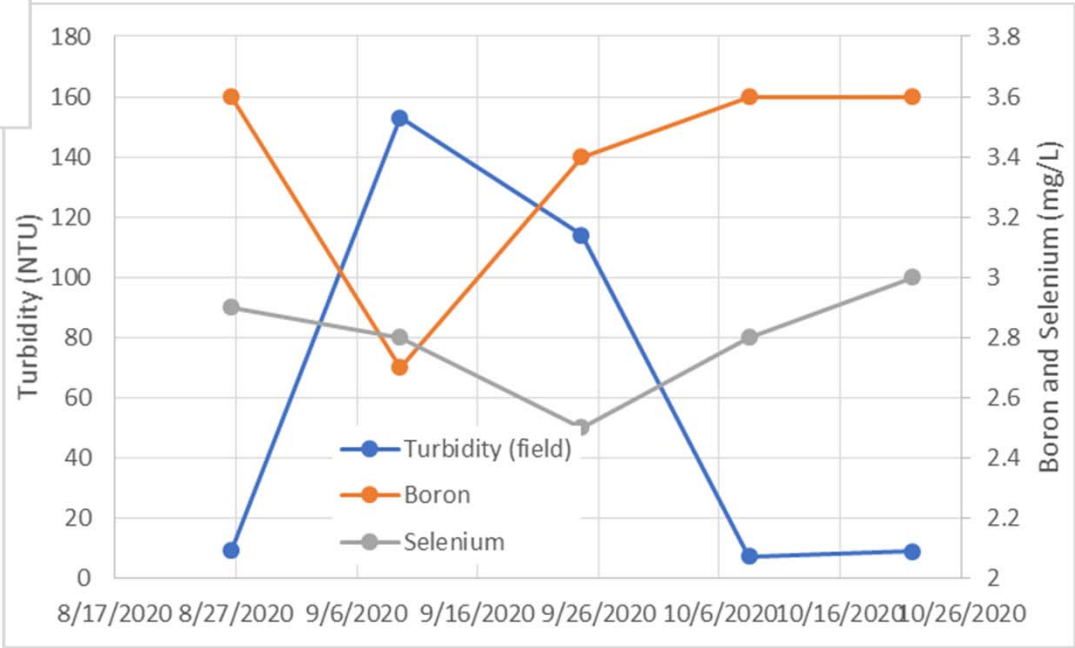



Turbidity (NTU)
Calcium (mg/L)
Turbidity (field)
Calcium
180
160
140
120
100
80
60
40
20
0
450
400
350
300
250
200
150
100
50
0
8/17/2020
8/27/2020
9/6/2020
9/16/2020
9/26/2020
10/6/2020
10/16/2020
10/26/2020


Turbidity (NTU)
Chloride (mg/L)
Turbidity (field)
Chloride
180
160
140
120
100
80
60
40
20
0
1000
950
900
850
800
750
700
650
600
8/17/2020
8/27/2020
9/6/2020
9/16/2020
9/26/2020
10/6/2020
10/16/2020
10/26/2020


Turbidity (NTU)
Sulfate and TDS (mg/L)
Turbidity (field)
Sulfate
Total Dissolved Solids
180
160
140
120
100
80
60
40
20
0
90000
80000
70000
60000
50000
40000
30000
20000
10000
0
8/17/2020
8/27/2020
9/6/2020
9/16/2020
9/26/2020
10/6/2020
10/16/2020
10/26/2020


Turbidity (NTU)
Arsenic (mg/L)
Turbidity (field)
Arsenic
180
160
140
120
100
80
60
40
20
0
0.05
0.04
0.03
0.02
0.01
0
8/17/2020
8/27/2020
9/6/2020
9/16/2020
9/26/2020
10/6/2020
10/16/2020
10/26/2020


Turbidity (NTU)
Boron and Selenium (mg/L)
Turbidity (field)
Boron
Selenium
180
160
140
120
100
80
60
40
20
0
3.8
3.6
3.4
3.2
3
2.8
2.6
2.4
2.2
2
8/17/2020
8/27/2020
9/6/2020
9/16/2020
9/26/2020
10/6/2020
10/16/2020
10/26/2020