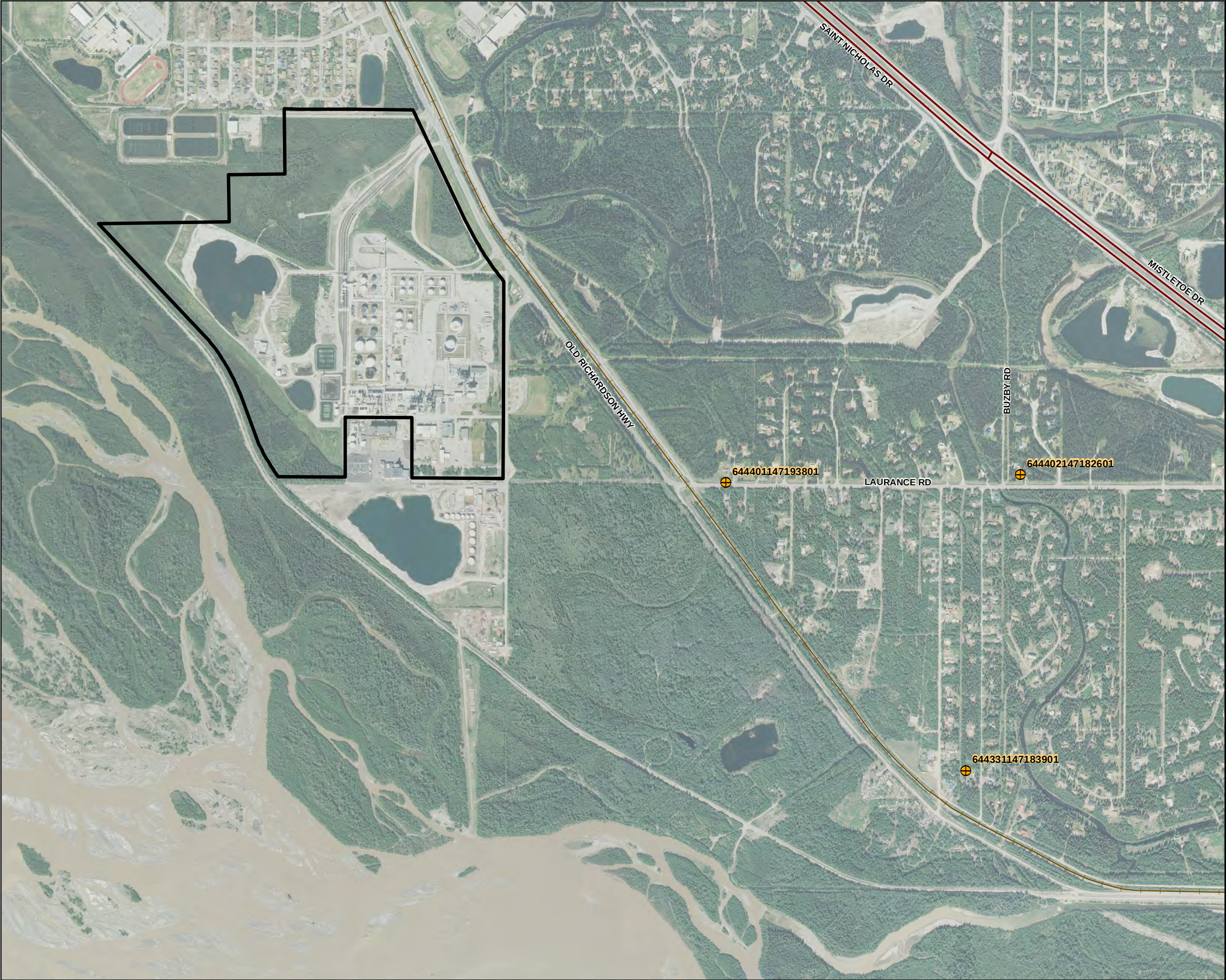




⊕ USGS Water Table Wells
□ FHRA Property Boundary

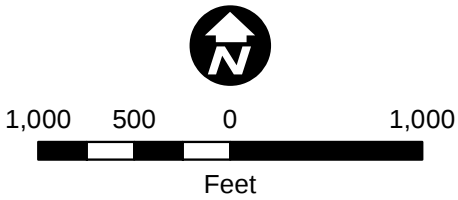


Figure 50
LOCATIONS OF USGS
WATER TABLE WELLS
North Pole Refinery
Flint Hills Resources Alaska, LLC



Figure 51
GROUNDWATER ELEVATIONS
AT THE WATER TABLE
MARCH 25, 2011
MANUAL MEASUREMENTS
North Pole Refinery
Flint Hills Resources Alaska, LLC



Figure 52
GROUNDWATER ELEVATIONS
AT THE WATER TABLE
MARCH 11, 2011
DATA LOGGER MEASUREMENTS
North Pole Refinery
Flint Hills Resources Alaska, LLC



-  Monitoring Well
-  Groundwater Elevation Contours (Dashed Where Approximate)
-  FHRA Property Boundary
-  481 Groundwater Elevation (feet msl)

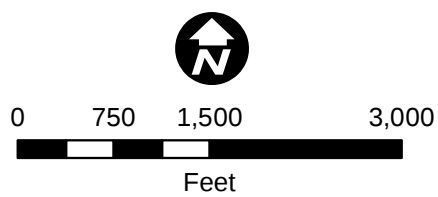
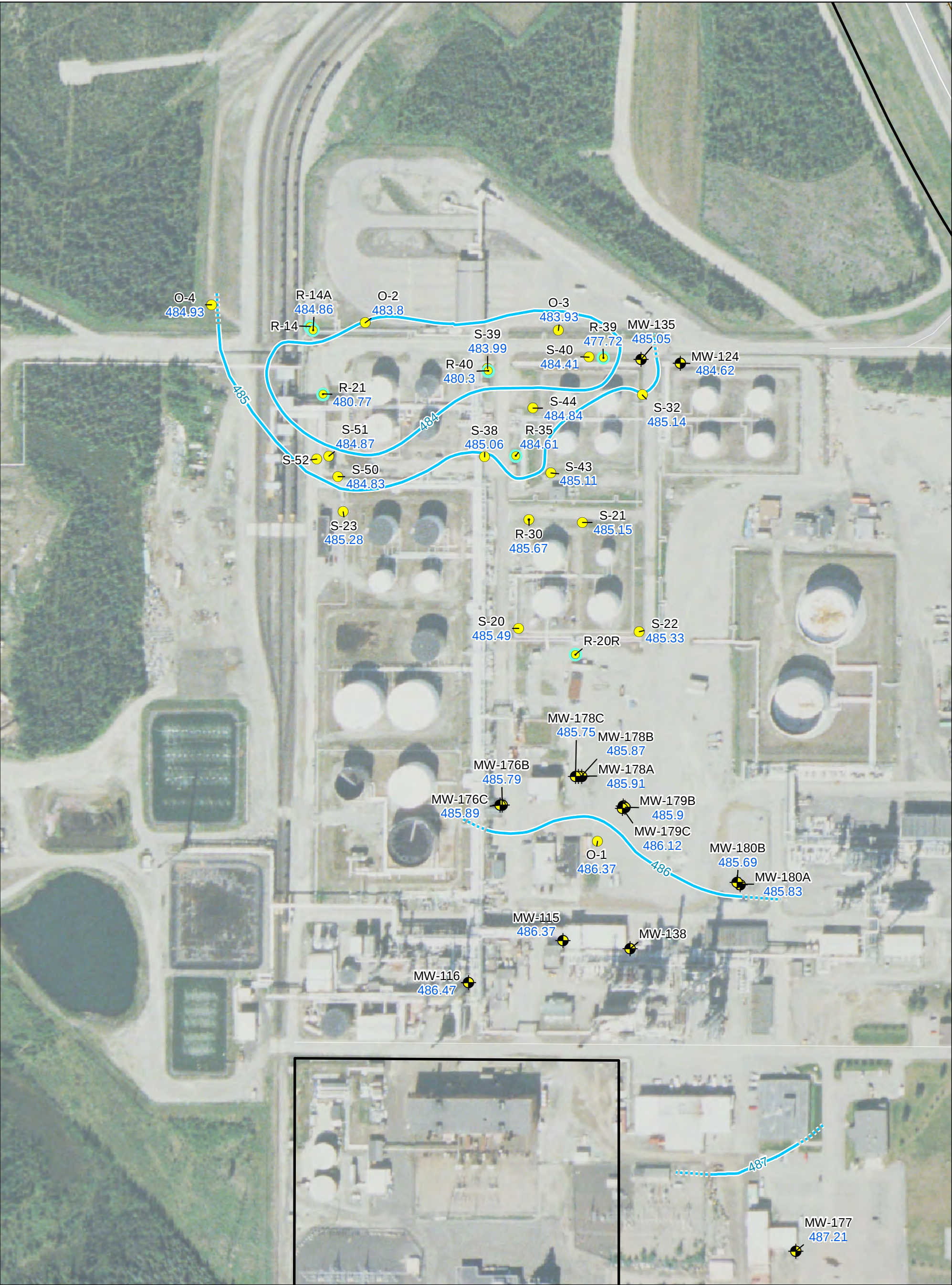
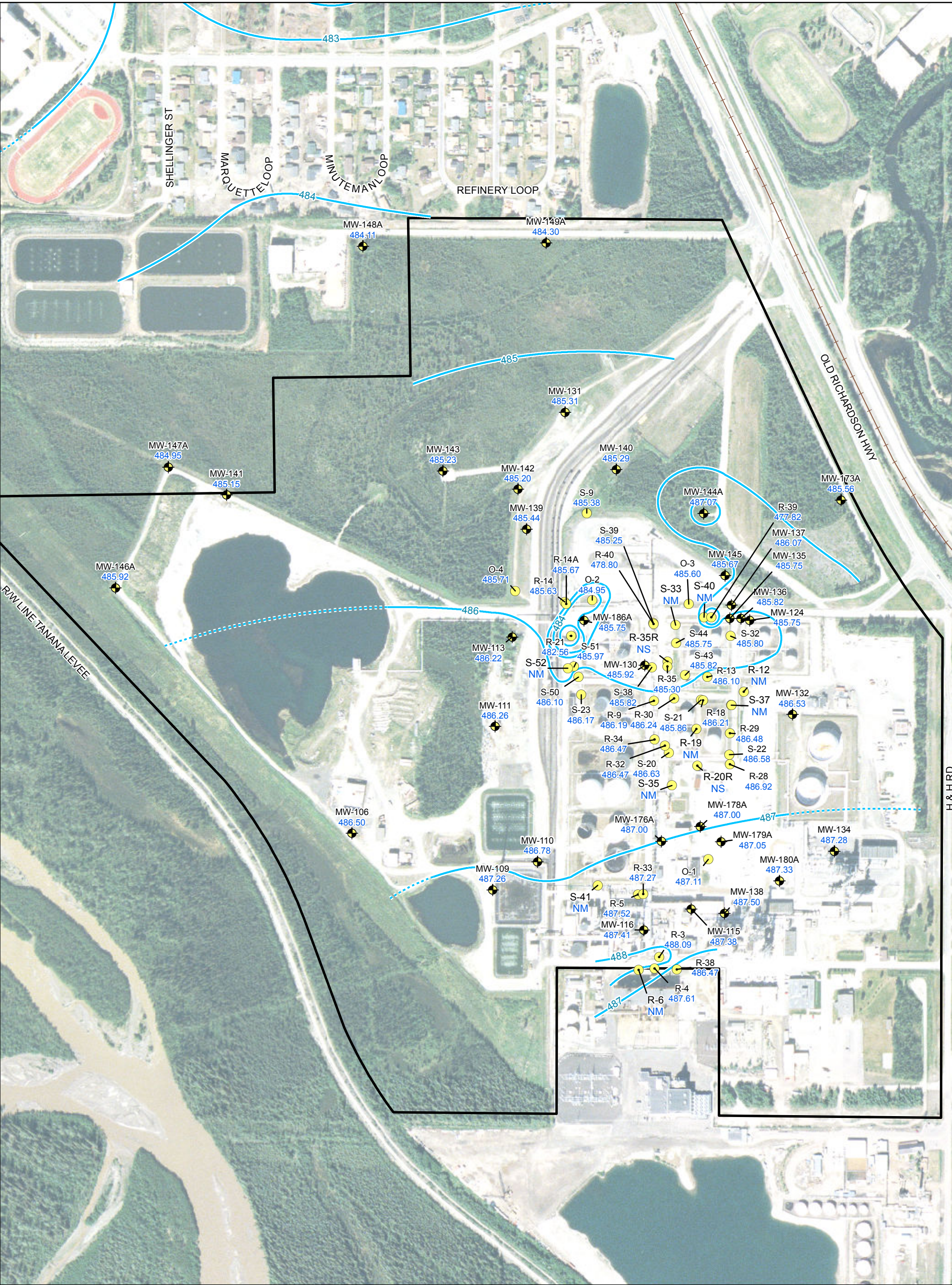


Figure 53
GROUNDWATER ELEVATIONS
10-55' BELOW THE WATER TABLE
MARCH 11, 2011
DATA LOGGER MEASUREMENTS
North Pole Refinery
Flint Hills Resources Alaska, LLC





- 

Monitoring Well
- 

Observation Well
- 

Recovery Well
- 

Groundwater Elevation Contours
(Dashed Where Approximate)
- 

FHRA Property Boundary
- 

Groundwater Elevation (feet msl)
- 

Not Measured
- 

Not Surveyed

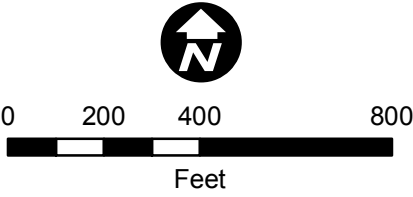
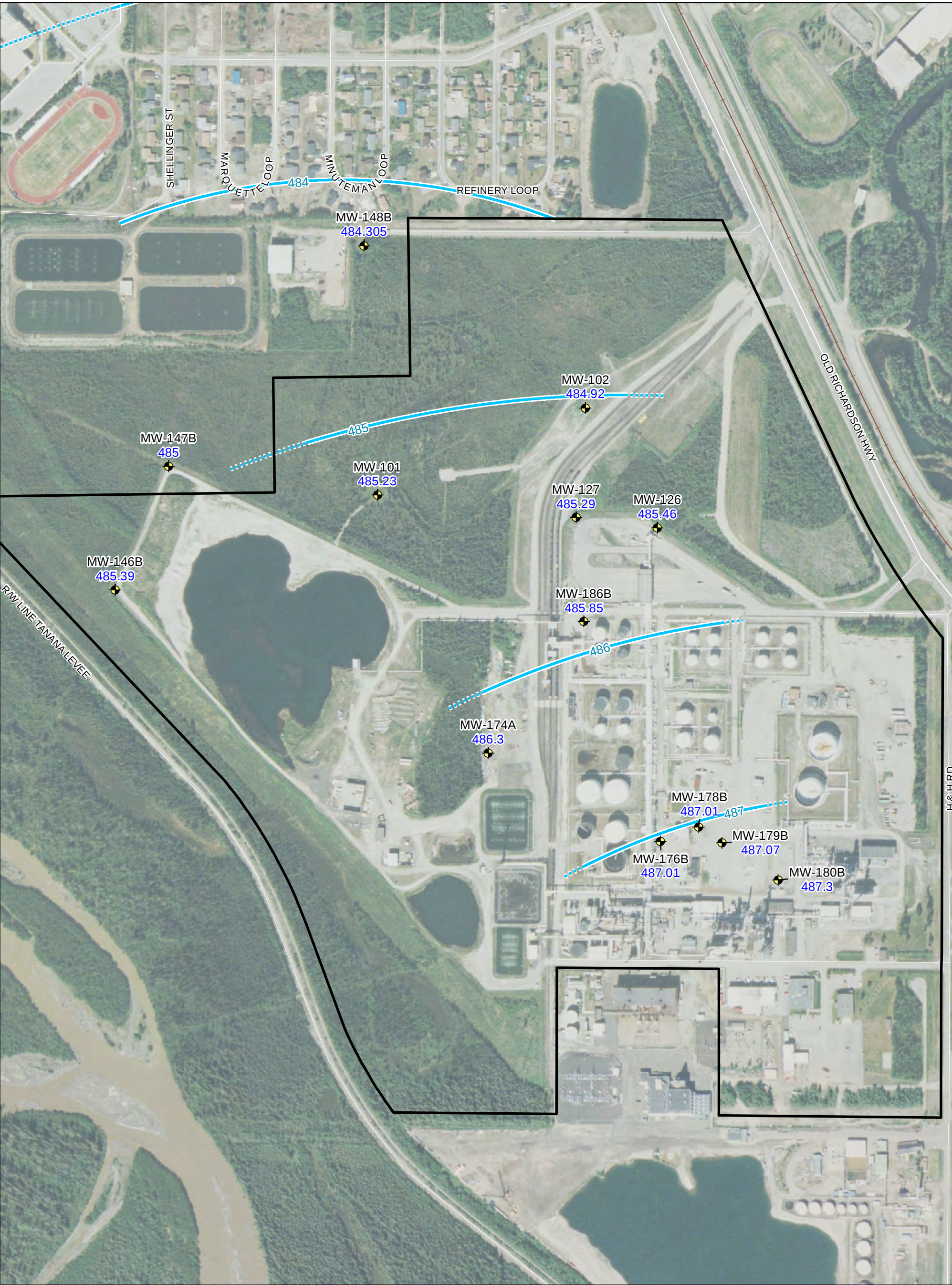


Figure 55
GROUNDWATER ELEVATIONS
AT THE WATER TABLE
THIRD QUARTER 2011
ONSITE
North Pole Refinery
Flint Hills Resources Alaska, LLC



- Monitoring Well
- Observation Well
- Recovery Well
- Groundwater Elevation Contours (Dashed Where Approximate)
- FHRA Property Boundary
- 481 Groundwater Elevation (feet msl)

Figure 57
GROUNDWATER ELEVATIONS
10 to 55' BELOW THE WATER TABLE
THIRD QUARTER 2011
ONSITE
North Pole Refinery
Flint Hills Resources Alaska, LLC



- Monitoring Well
- Observation Well
- Recovery Well
- Groundwater Elevation Contours
(Dashed Where Approximate)
- FHRA Property Boundary
- 181 Groundwater Elevation (feet msl)
- FJ Frost Jacked (Required Resurvey)

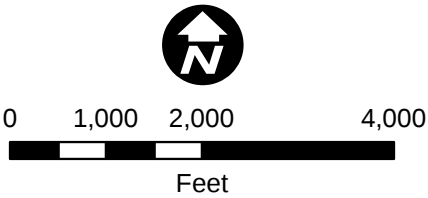
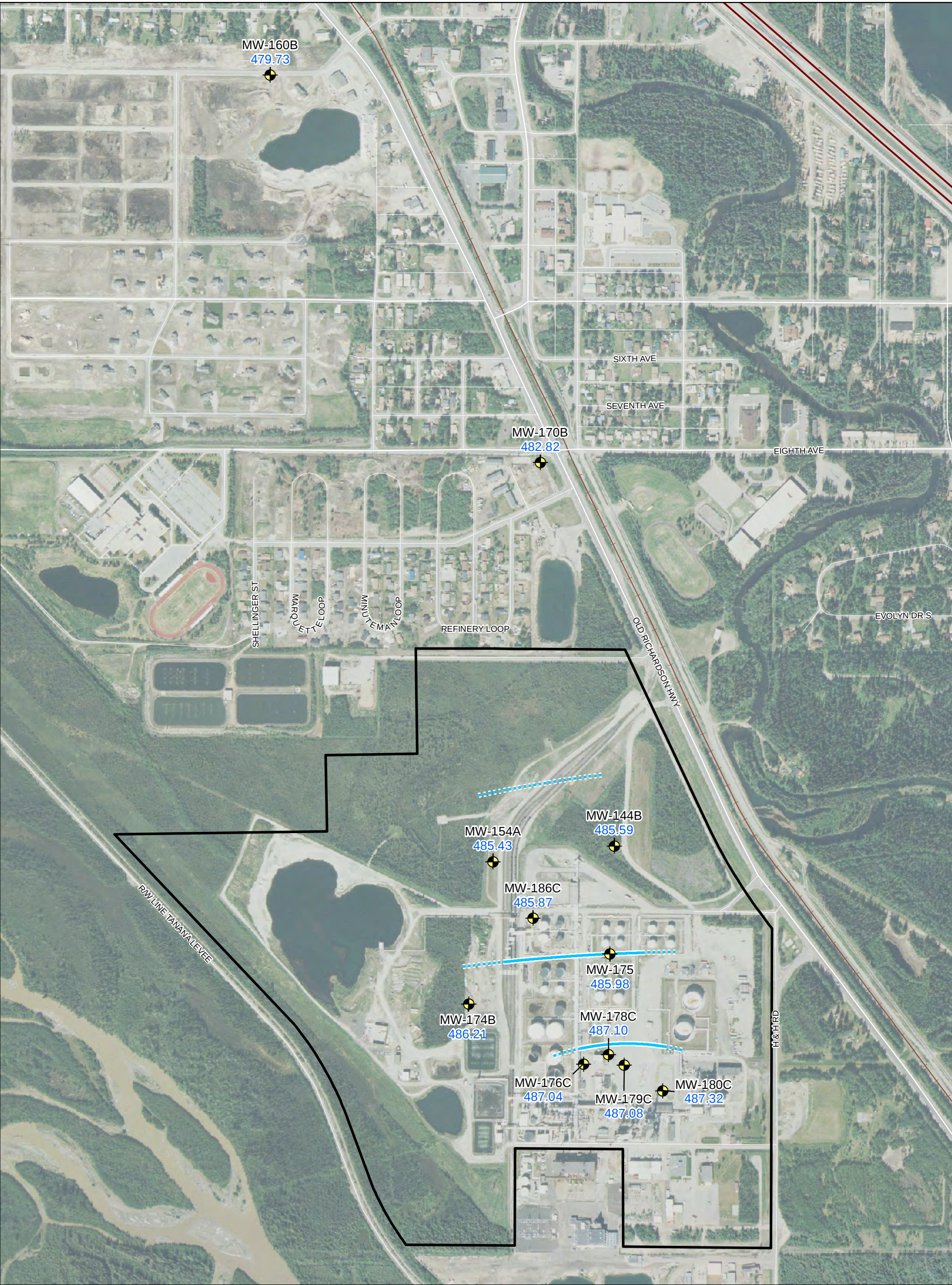


Figure 58
GROUNDWATER ELEVATIONS
10 to 55' BELOW THE WATER TABLE
THIRD QUARTER 2011
OFFSITE
North Pole Refinery
Flint Hills Resources Alaska, LLC



-  Monitoring Well
-  Observation Well
-  Recovery Well
-  Groundwater Elevation Contours
(Dashed Where Approximate)
-  FHRA Property Boundary
-  481 Groundwater Elevation (feet msl)

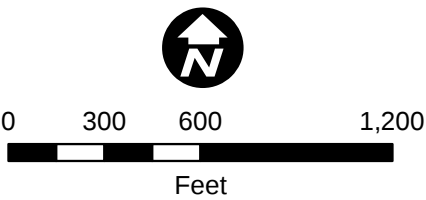
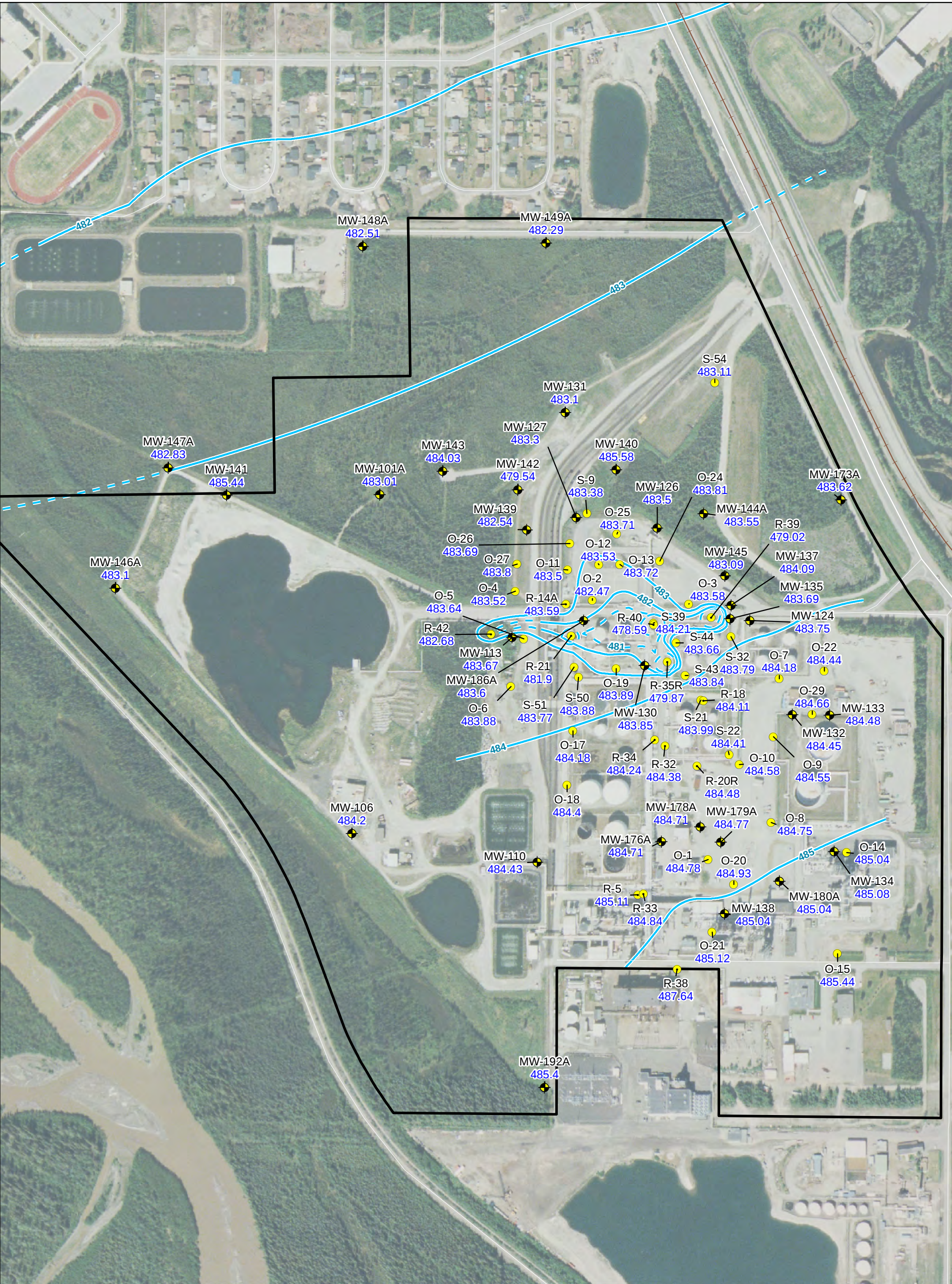


Figure 59
GROUNDWATER ELEVATIONS
55 to 90' BELOW THE WATER TABLE
THIRD QUARTER 2011
North Pole Refinery
Flint Hills Resources Alaska, LLC



- Monitoring Well
- Observation Well
- Recovery Well
- Groundwater Elevation Contours
(Dashed Where Approximate)
- FHRA Property Boundary
- 481 Groundwater Elevation (feet msl)

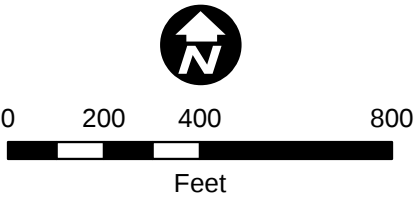
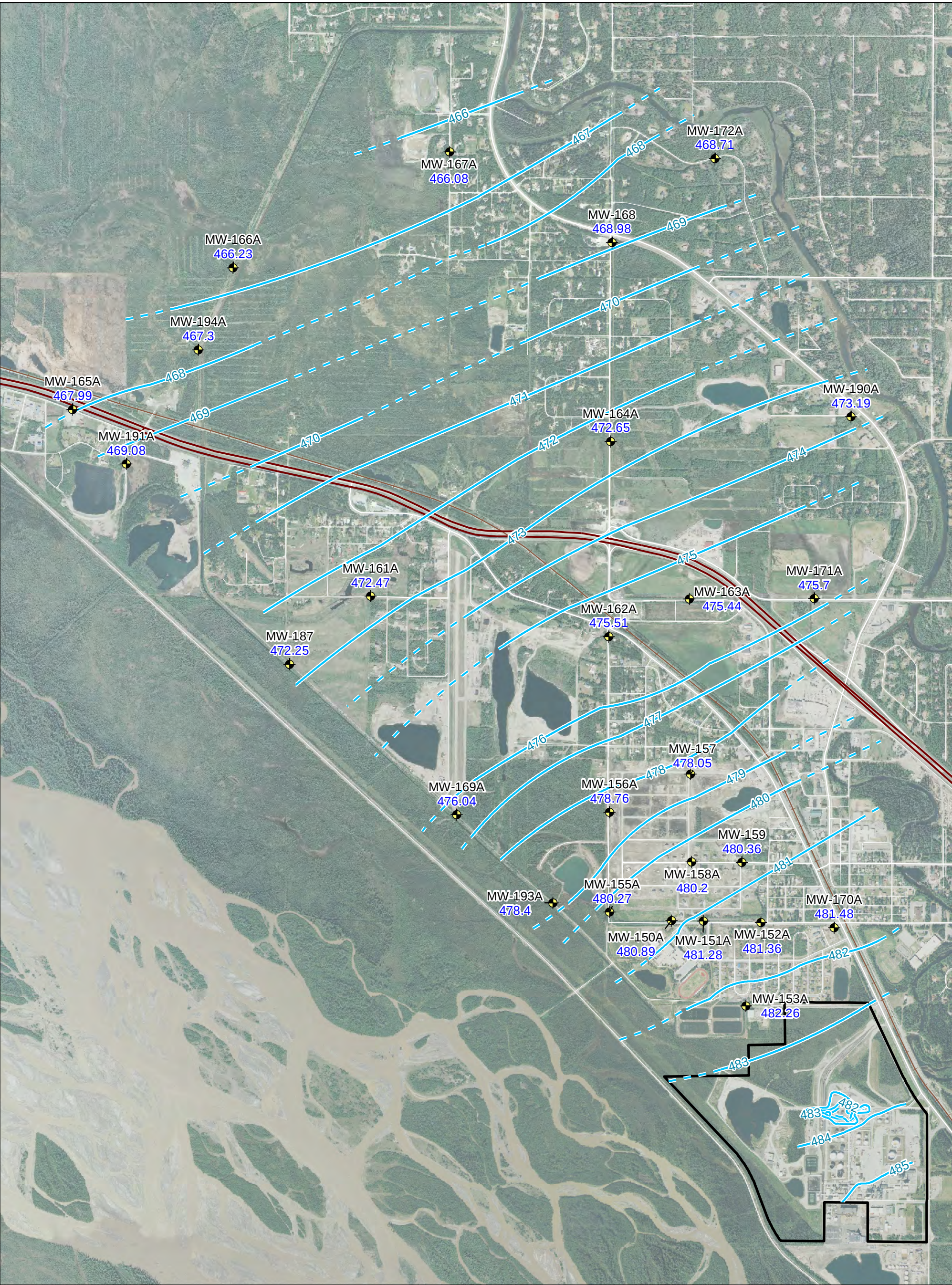


Figure 60
GROUNDWATER ELEVATIONS
AT THE WATER TABLE
FOURTH QUARTER 2011
ONSITE
North Pole Refinery
Flint Hills Resources Alaska, LLC



- Monitoring Well
- Groundwater Elevation Contours
(Dashed Where Approximate)
- FHRA Property Boundary
- 481 Groundwater Elevation (feet msl)

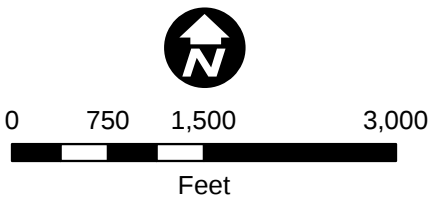
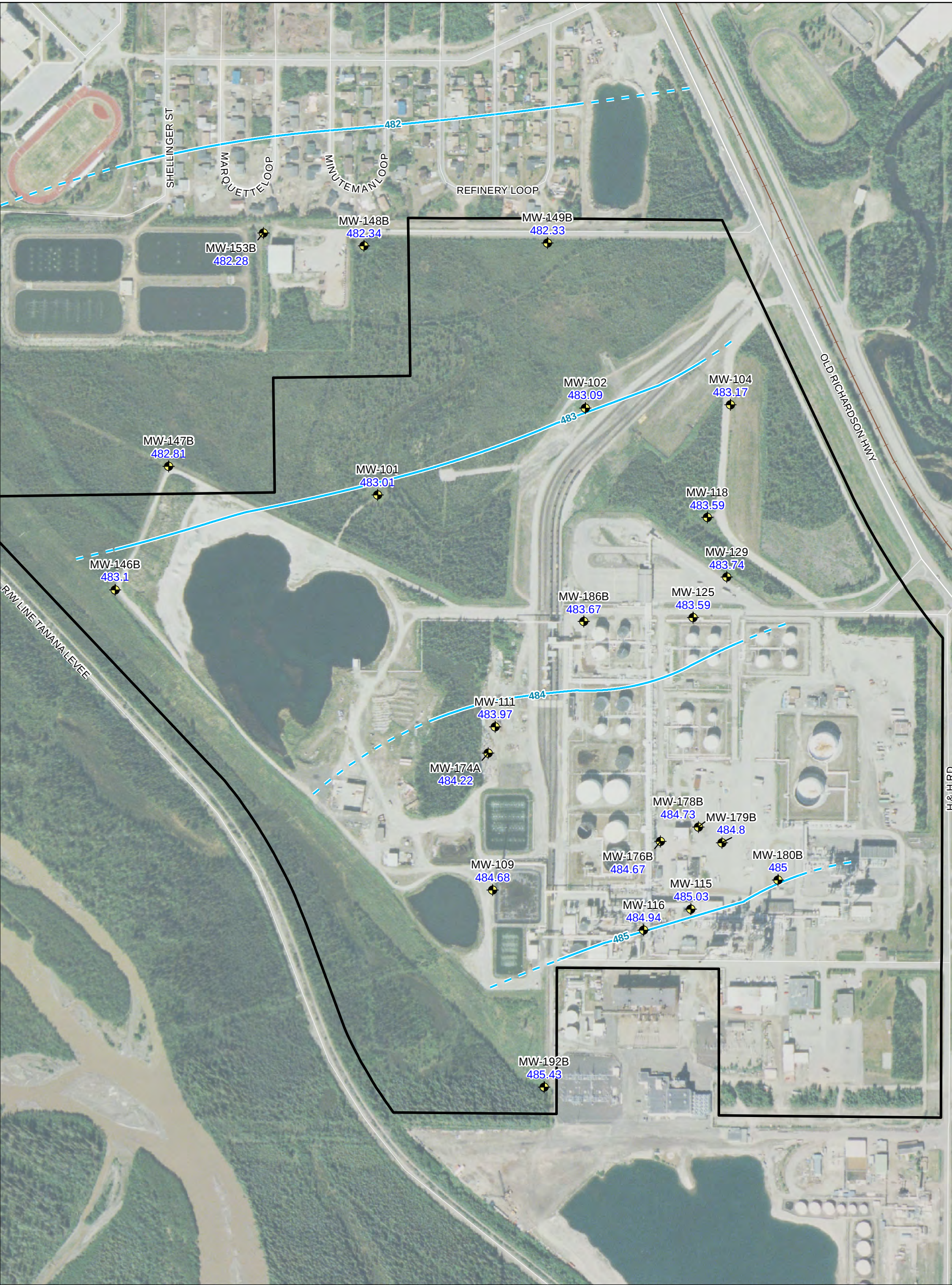


Figure 61
GROUNDWATER ELEVATIONS
AT THE WATER TABLE
FOURTH QUARTER 2011
OFFSITE
North Pole Refinery
Flint Hills Resources Alaska, LLC



- Monitoring Well
- Observation Well
- Recovery Well
- FHRA Property Boundary
- Groundwater Elevation (feet msl)

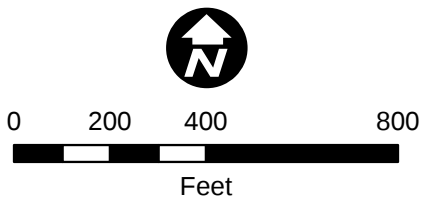


Figure 62
GROUNDWATER ELEVATIONS
10 to 55' BELOW THE WATER TABLE
FOURTH QUARTER 2011
ONSITE
North Pole Refinery
Flint Hills Resources Alaska, LLC



- Monitoring Well
- Groundwater Elevation Contour
(Dashed where approximate)
- FHRA Property Boundary
- 481 Groundwater Elevation (feet msl)

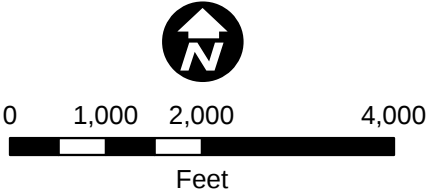
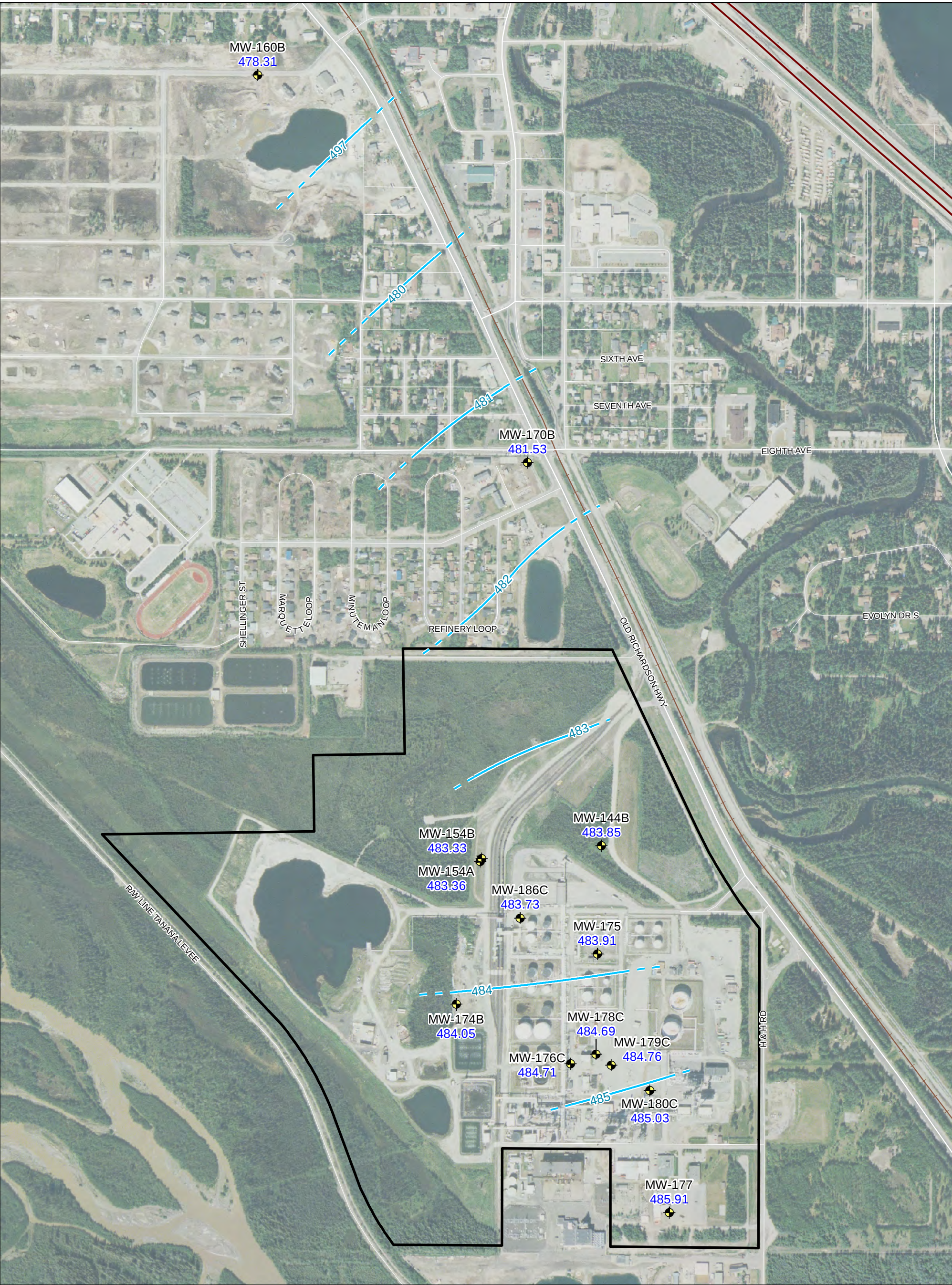


Figure 63
GROUNDWATER ELEVATIONS
10 to 55' BELOW THE WATER TABLE
FOURTH QUARTER 2011
OFFSITE
North Pole Refinery
Flint Hills Resources Alaska, LLC



- Monitoring Well
- Groundwater Elevation Contour
(Dashed where approximate)
- FHRA Property Boundary
- 481 Groundwater Elevation (feet msl)

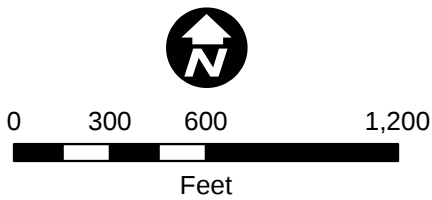
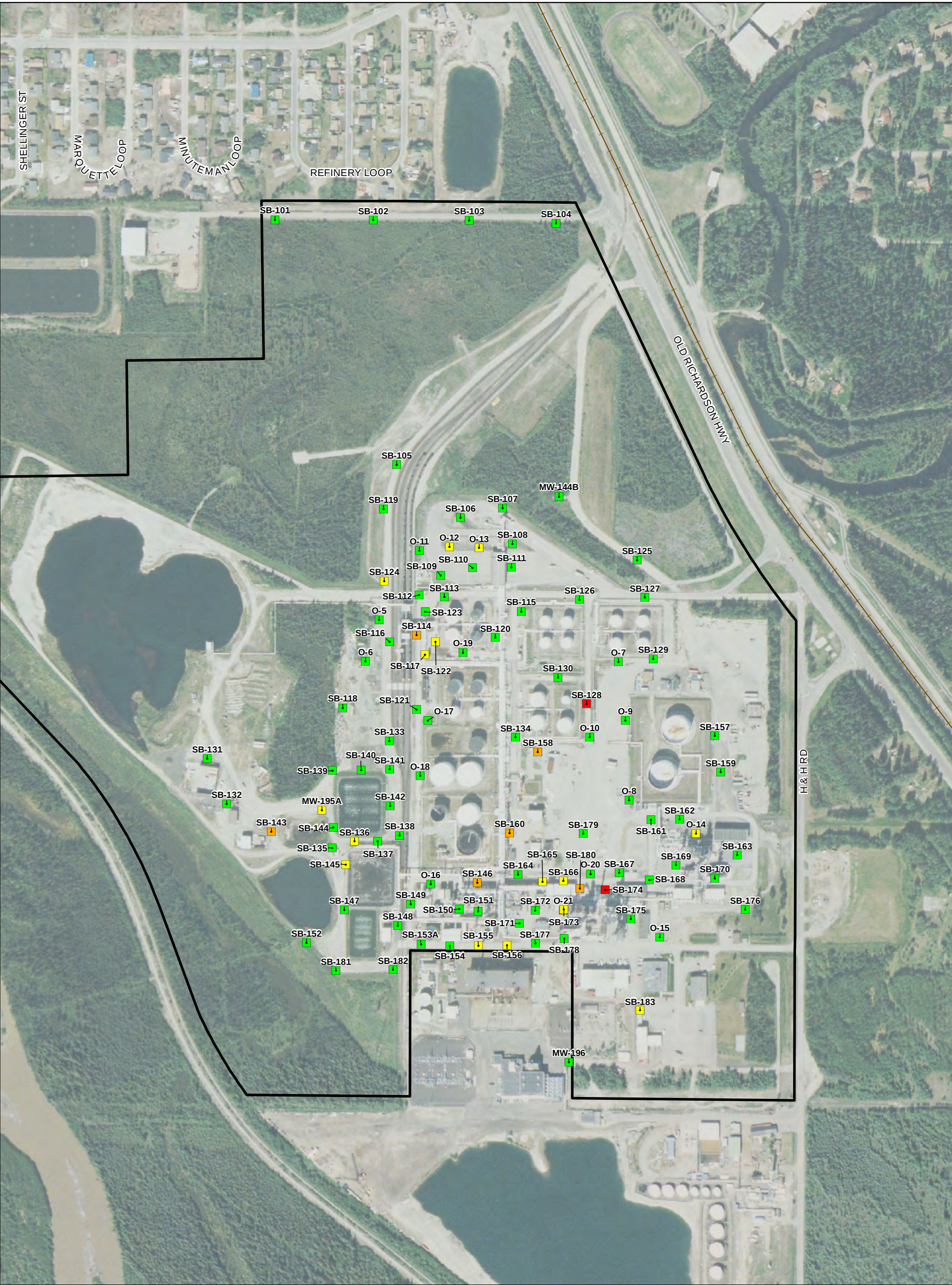


Figure 64
GROUNDWATER ELEVATIONS
55 to 90' BELOW THE WATER TABLE
FOURTH QUARTER 2011
North Pole Refinery
Flint Hills Resources Alaska, LLC



Benzene Concentration

- Not Detected
- <0.025 mg/kg
- 0.025 - 0.25 mg/kg
- 0.25 - 2.5 mg/kg

FHRA Property Boundary

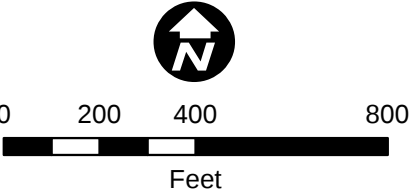
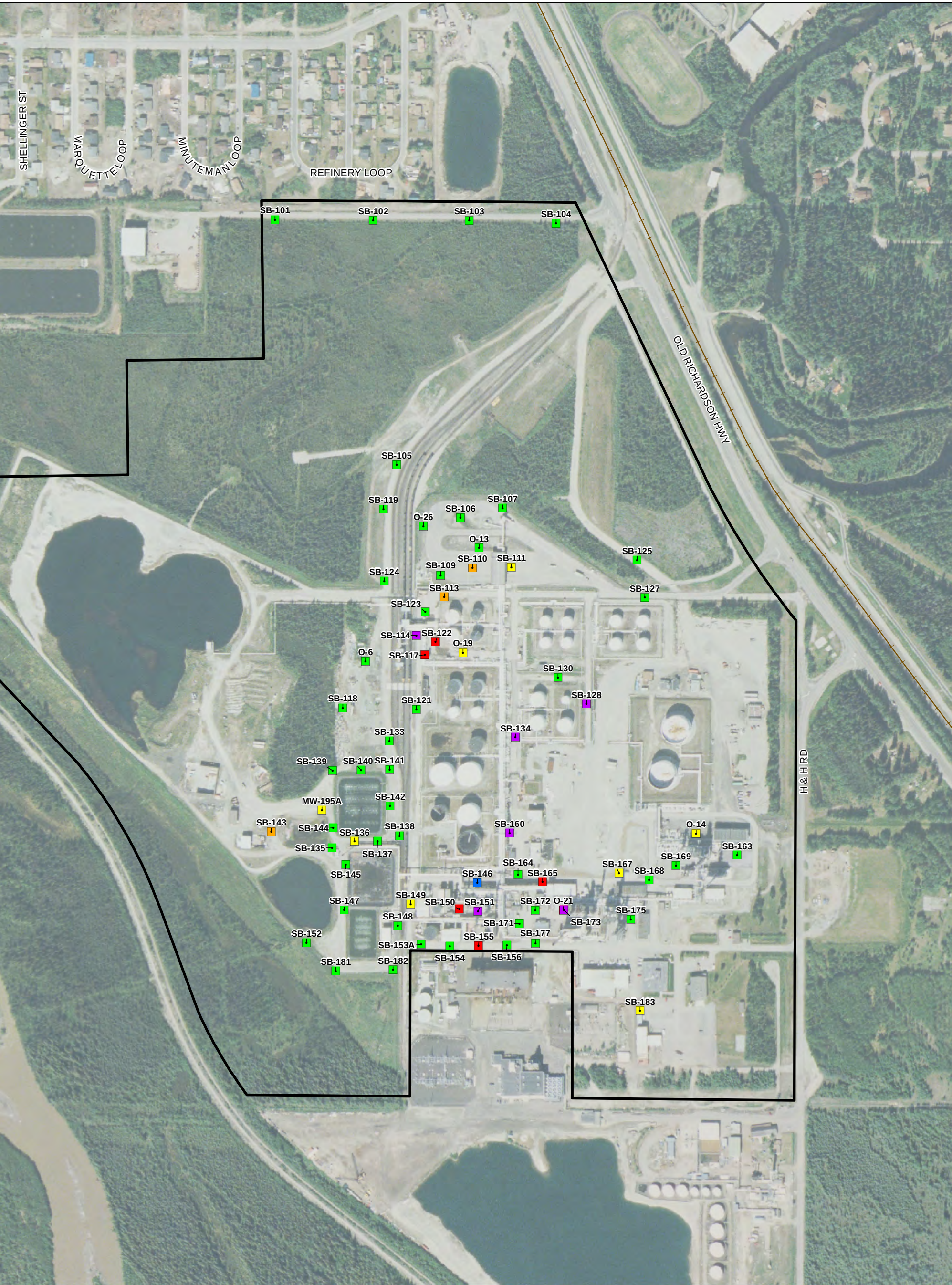


Figure 65
BENZENE CONCENTRATIONS
IN SOIL 0-2 FT BGS
North Pole Refinery
Flint Hills Resources Alaska, LLC



Benzene Concentration

- Not Detected
- <0.025 mg/kg
- 0.025 - 0.25 mg/kg
- 0.25 - 2.5 mg/kg
- 2.5 - 25 mg/kg
- 25 - 250 mg/kg

FHRA Property Boundary

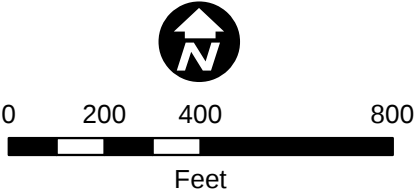
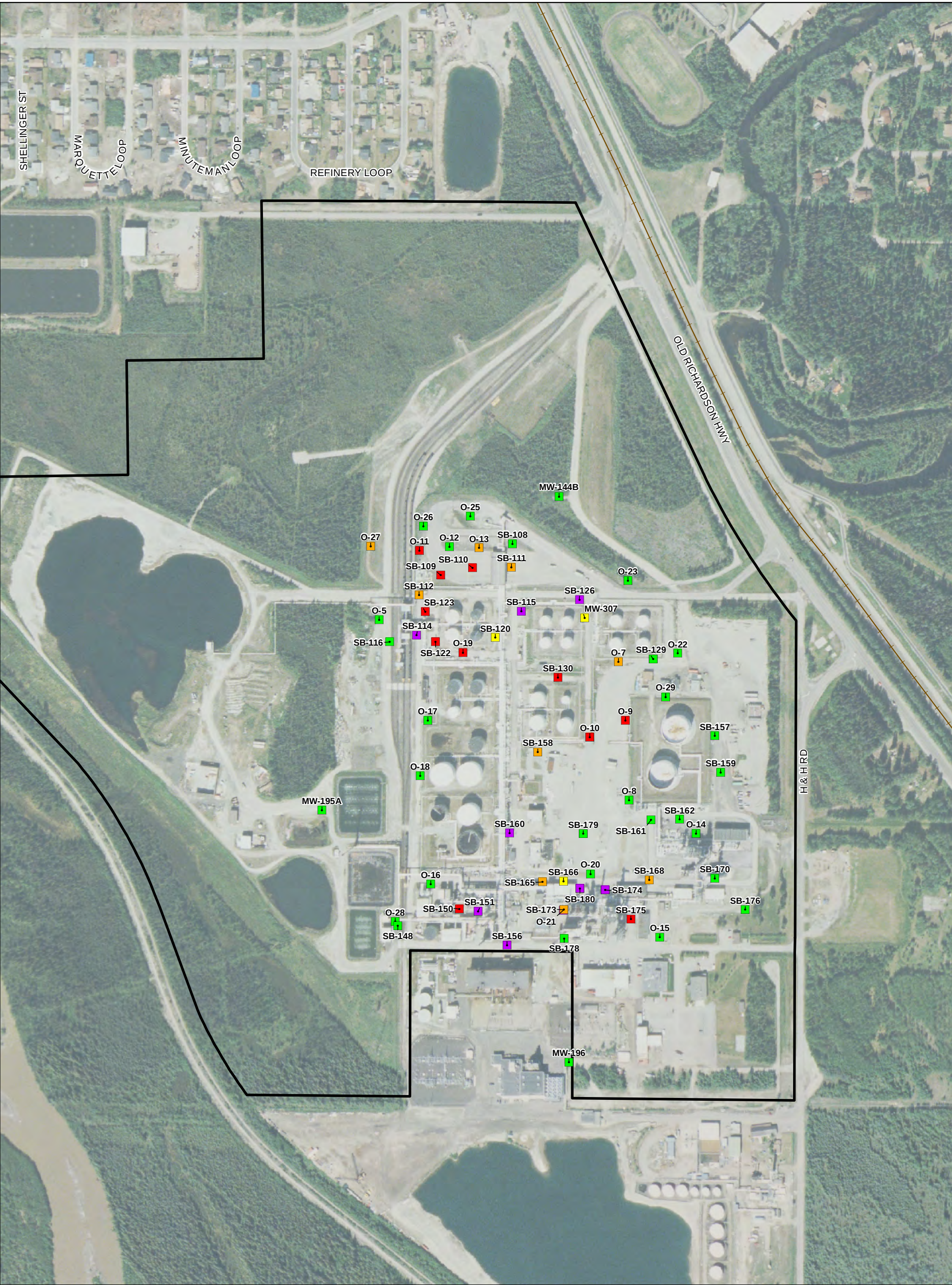


Figure 66
BENZENE CONCENTRATIONS
IN SOIL 2-7 FT BGS
North Pole Refinery
Flint Hills Resources Alaska, LLC



Benzene Concentration

- Not Detected
- <0.025 mg/kg
- 0.025 - 0.25 mg/kg
- 0.25 - 2.5 mg/kg
- 2.5 - 25 mg/kg
- 25 - 250 mg/kg

FHRA Property Boundary

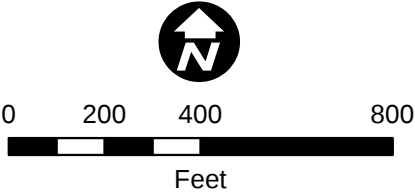
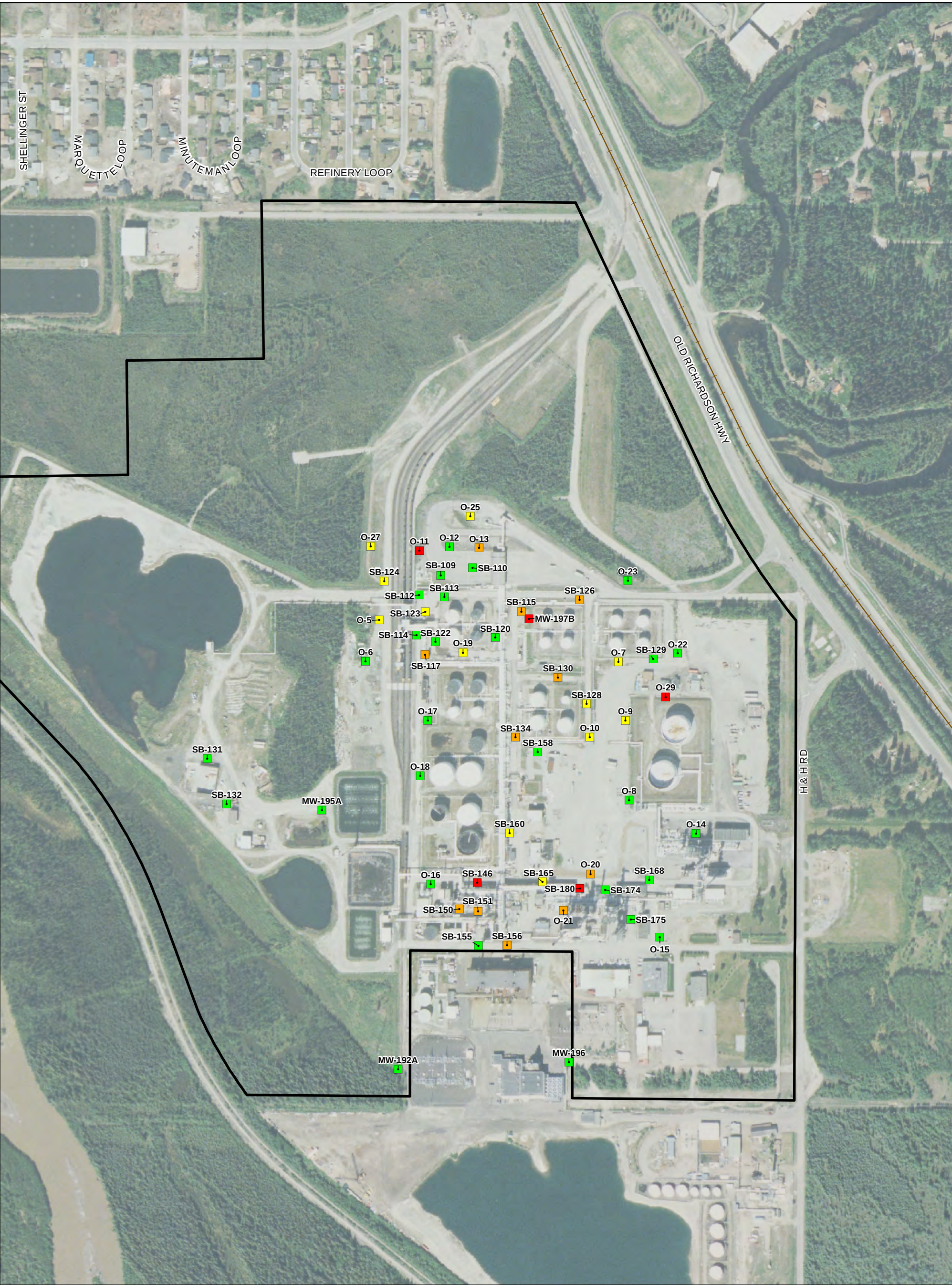


Figure 67
BENZENE CONCENTRATIONS
IN SOIL 7-10 FT BGS
North Pole Refinery
Flint Hills Resources Alaska, LLC



Benzene Concentration

- Not Detected
 - <0.025 mg/kg
 - 0.025 - 0.25 mg/kg
 - 0.25 - 2.5 mg/kg
 - 2.5 - 25 mg/kg
 - 25 - 250 mg/kg
-  FHRA Property Boundary

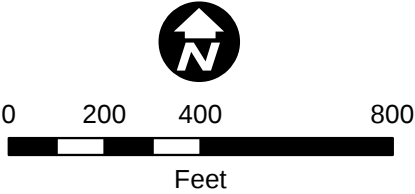
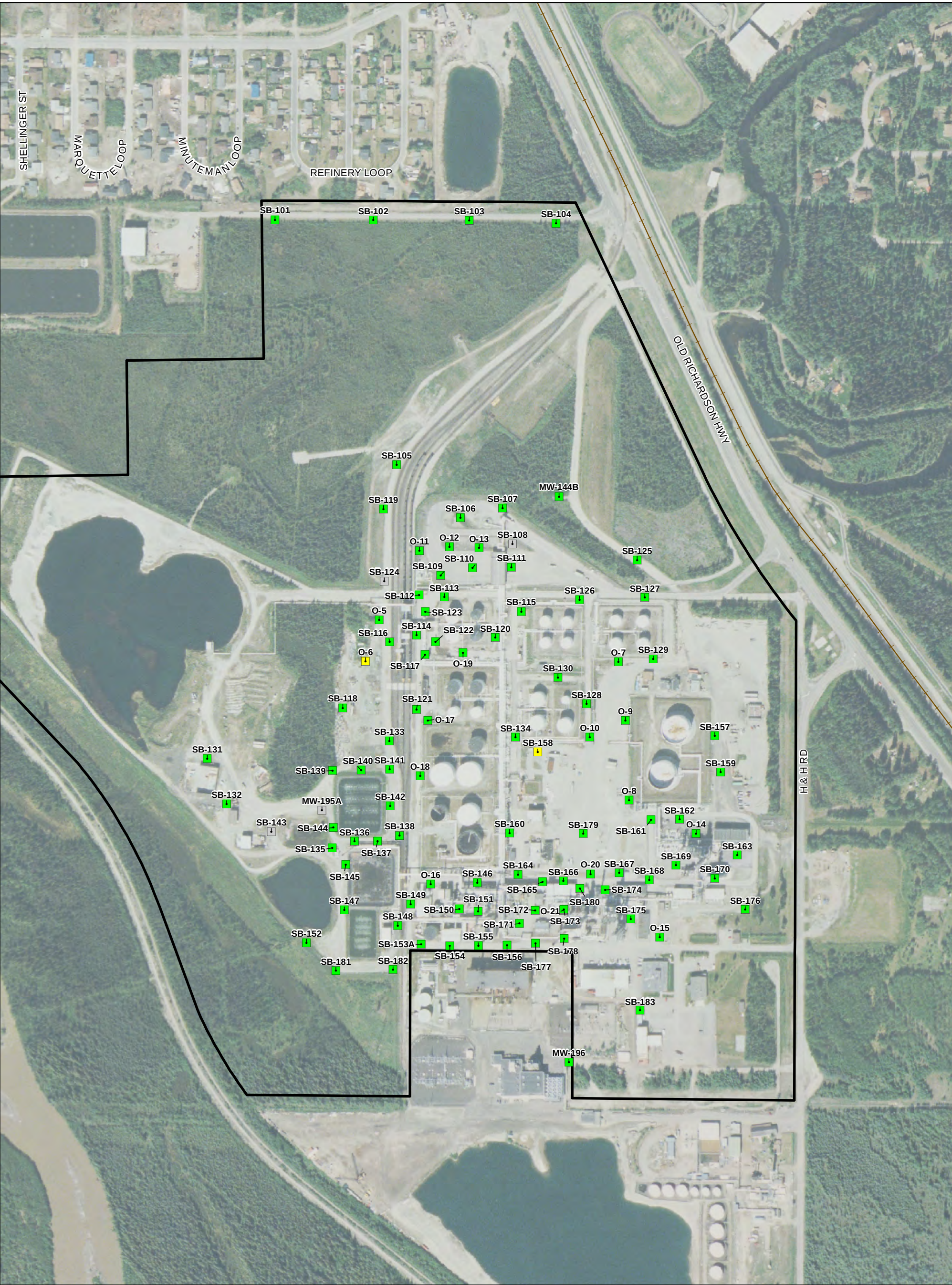


Figure 68
BENZENE CONCENTRATIONS
IN SOIL 10-18 FT BGS
North Pole Refinery
Flint Hills Resources Alaska, LLC



Sulfolane Concentration

- Matrix Interference/No Data
- Not Detected
- <0.073 mg/kg
- 0.073 - 0.73 mg/kg
- 0.73 - 7.3 mg/kg

FHRA Property Boundary

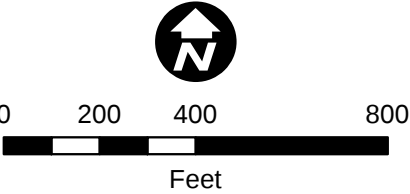
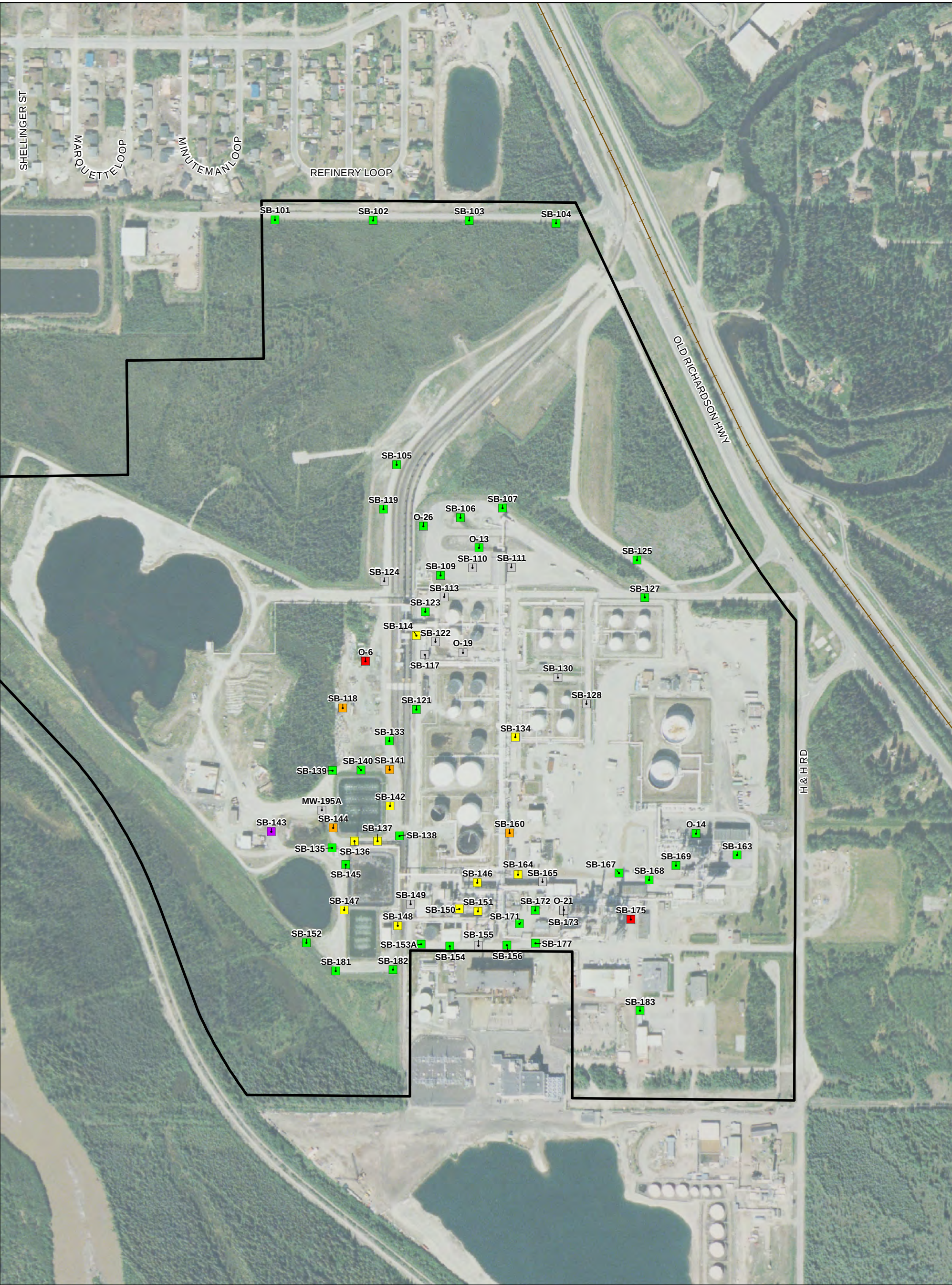


Figure 69
SULFOLANE CONCENTRATIONS
IN SOIL 0-2 FT BGS
North Pole Refinery
Flint Hills Resources Alaska, LLC



Sulfolane Concentration

- Matrix Interference/No Data
- Not Detected
- <0.073 mg/kg
- 0.073 - 0.73 mg/kg
- 0.73 - 7.3 mg/kg
- 7.3 - 73 mg/kg

FHRA Property Boundary

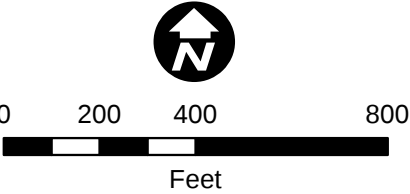
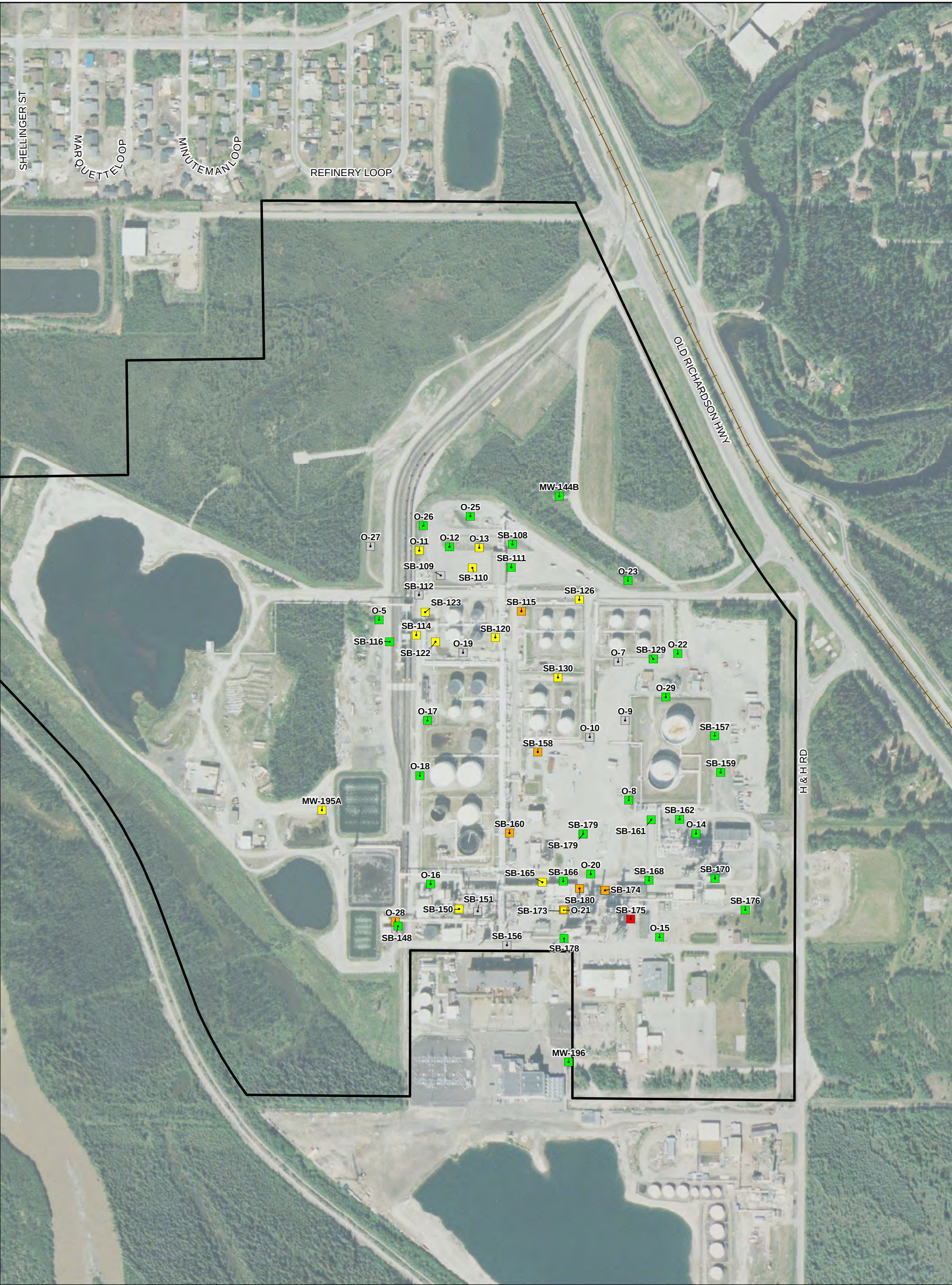


Figure 70
SULFOLANE CONCENTRATIONS
IN SOIL 2-7 FT BGS
North Pole Refinery
Flint Hills Resources Alaska, LLC



Sulfolane Concentration

- Matrix Interference/No Data
- Not Detected
- <0.073 mg/kg
- 0.073 - 0.73 mg/kg
- 0.73 - 7.3 mg/kg

FHRA Property Boundary

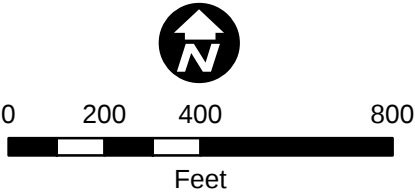
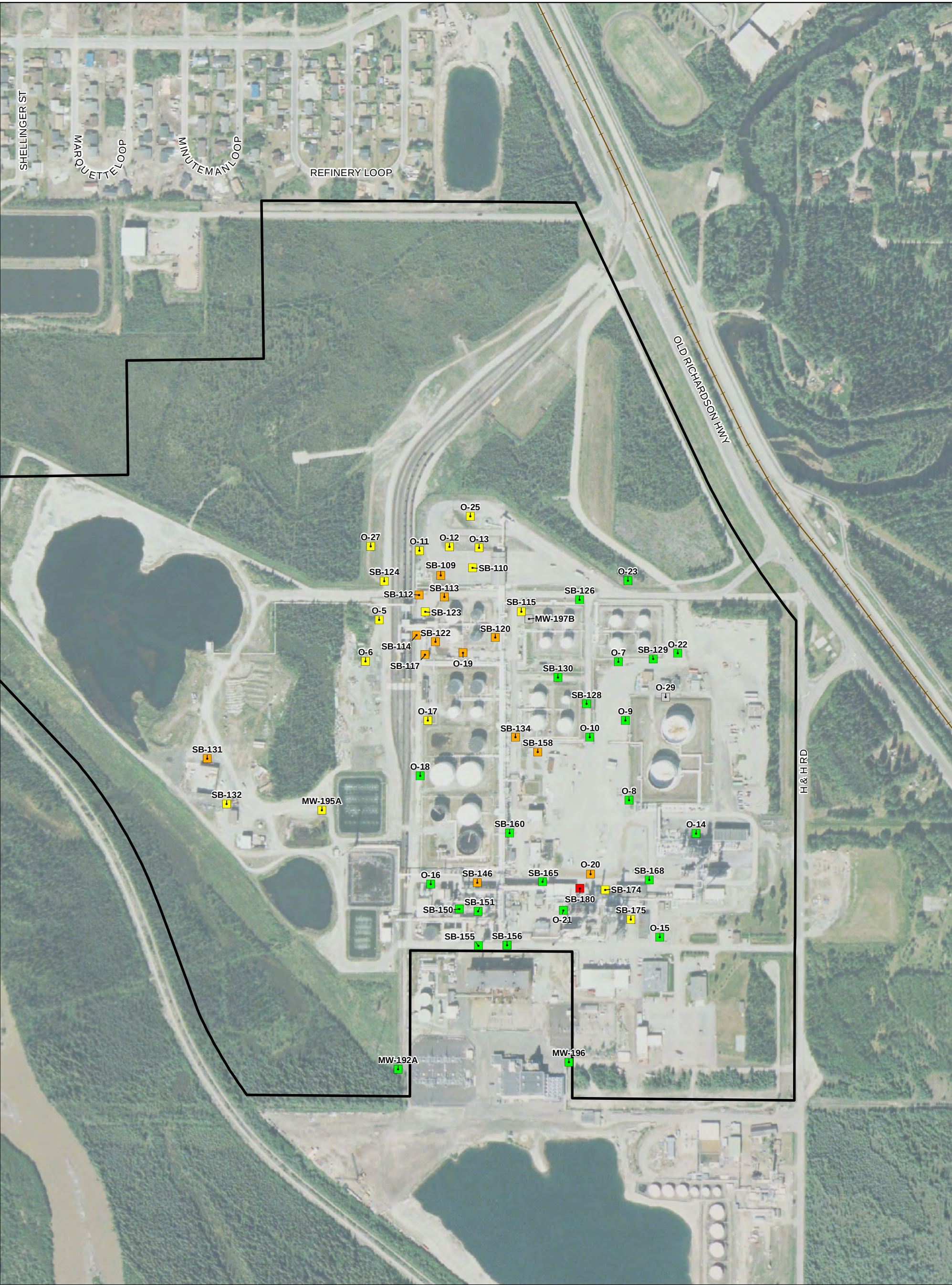


Figure 71
SULFOLANE CONCENTRATIONS
IN SOIL 7-10 FT BGS
North Pole Refinery
Flint Hills Resources Alaska, LLC



- Sulfolane Concentration**
- Matrix Interference/No Data
 - Not Detected
 - <0.073 mg/kg
 - 0.073 - 0.73 mg/kg
 - 0.73 - 7.3 mg/kg
 - FHRA Property Boundary

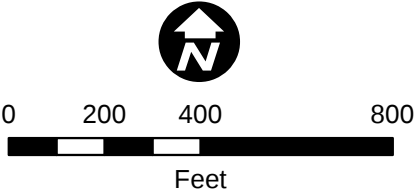


Figure 72
SULFOLANE CONCENTRATIONS
IN SOIL 10-18 FT BGS
North Pole Refinery
Flint Hills Resources Alaska, LLC