

- ▲ Point-of-Entry Treatment System
- ▲ In-Home Testing Locations
- North Pole City Boundary
- FHRA Property Boundary
- road\_centerline

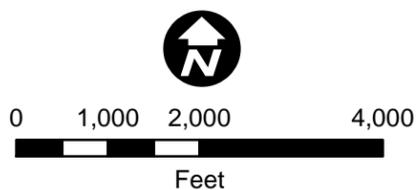
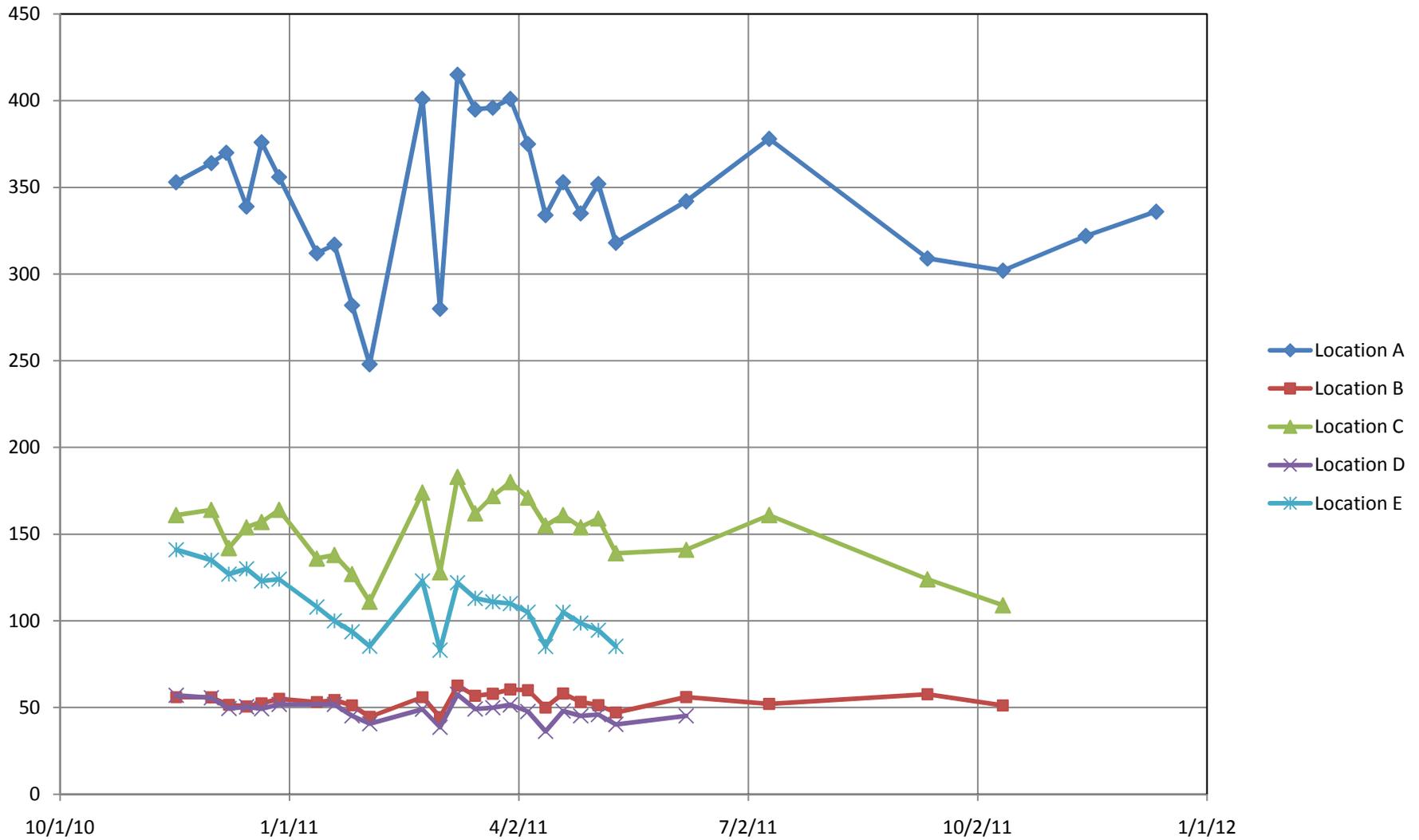
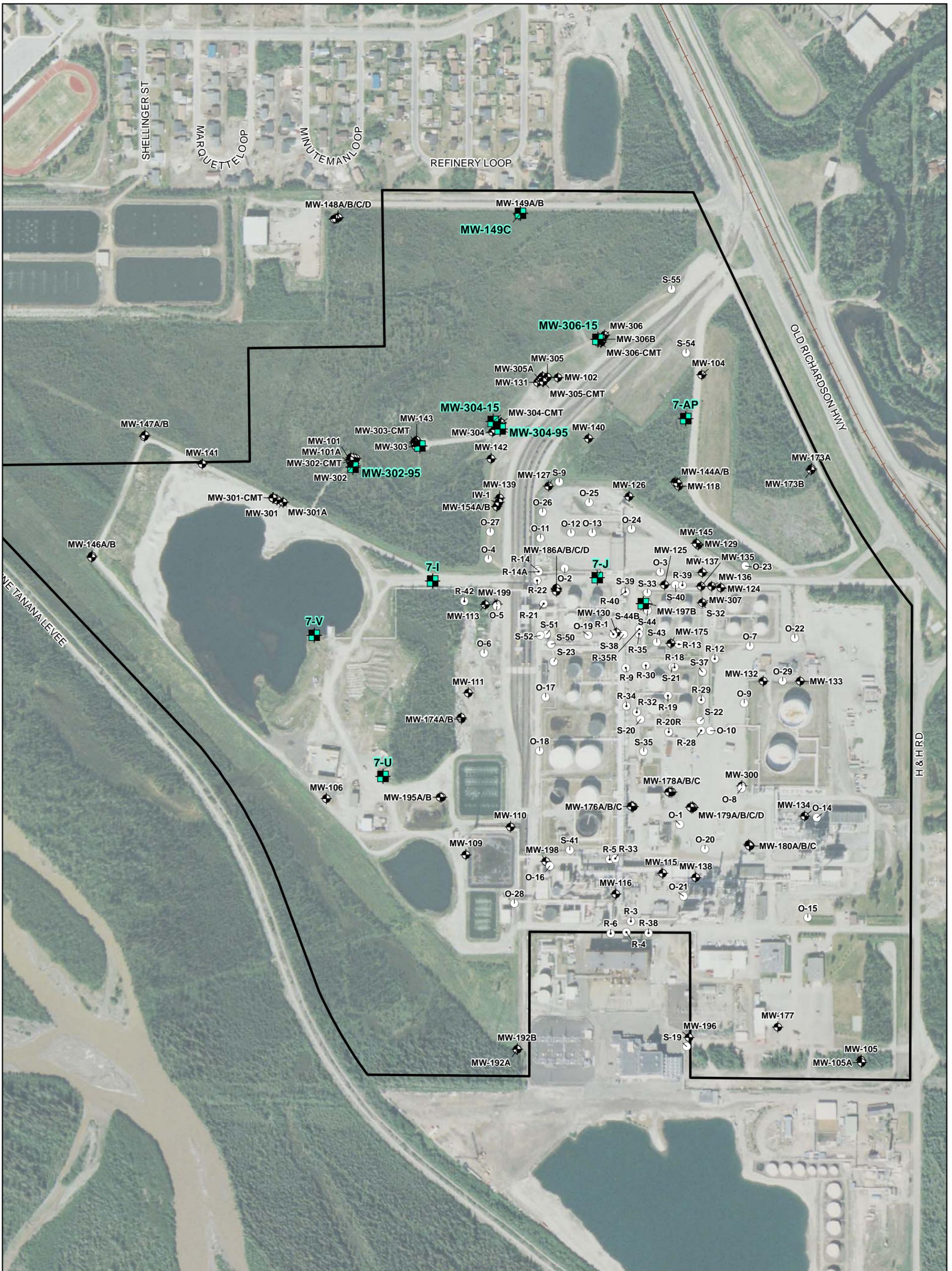


Figure 146  
**POINT-OF-ENTRY TREATMENT SYSTEM**  
**IN-HOME TESTING LOCATIONS**  
 North Pole Refinery  
 Flint Hills Resources Alaska, LLC

**Figure 147**  
**POINT-OF-ENTRY TREATMENT SYSTEM**  
**IN-HOME TESTING RAW WATER**  
**North Pole Refinery**  
**Flint Hills Resources Alaska, LLC**





-  Proposed Phase 7 Well
-  Monitoring Well
-  Observation Well
-  Recovery Well
-  FHRA Property Boundary

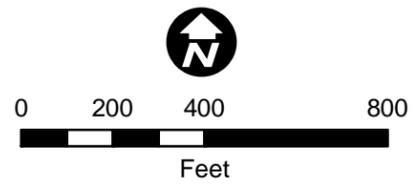
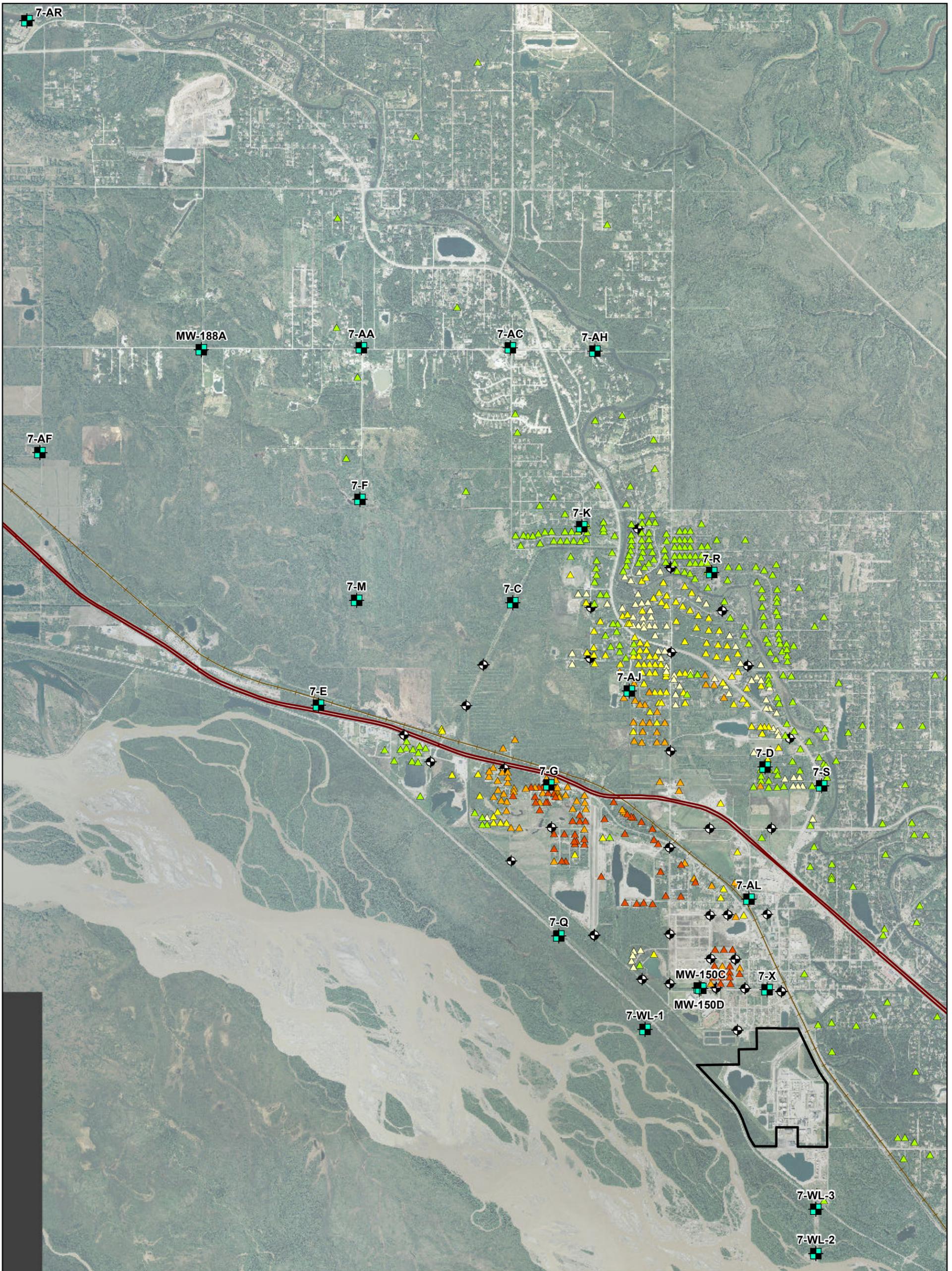


Figure 148  
 PROPOSED PHASE 7 WELLS,  
 ONSITE  
 North Pole Refinery  
 Flint Hills Resources Alaska, LLC



-  Proposed Phase 7 Well
-  Monitoring Well
-  Observation Well
-  Recovery Well
- Private Wells
-  Not Detected
-  3.2 µg/L - 10 µg/L (J-flagged)
-  10 µg/L - 25 µg/L
-  25 µg/L - 100 µg/L
-  Greater than 100 µg/L

 FHRA Property Boundary

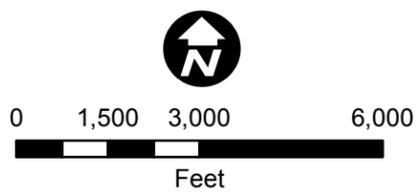
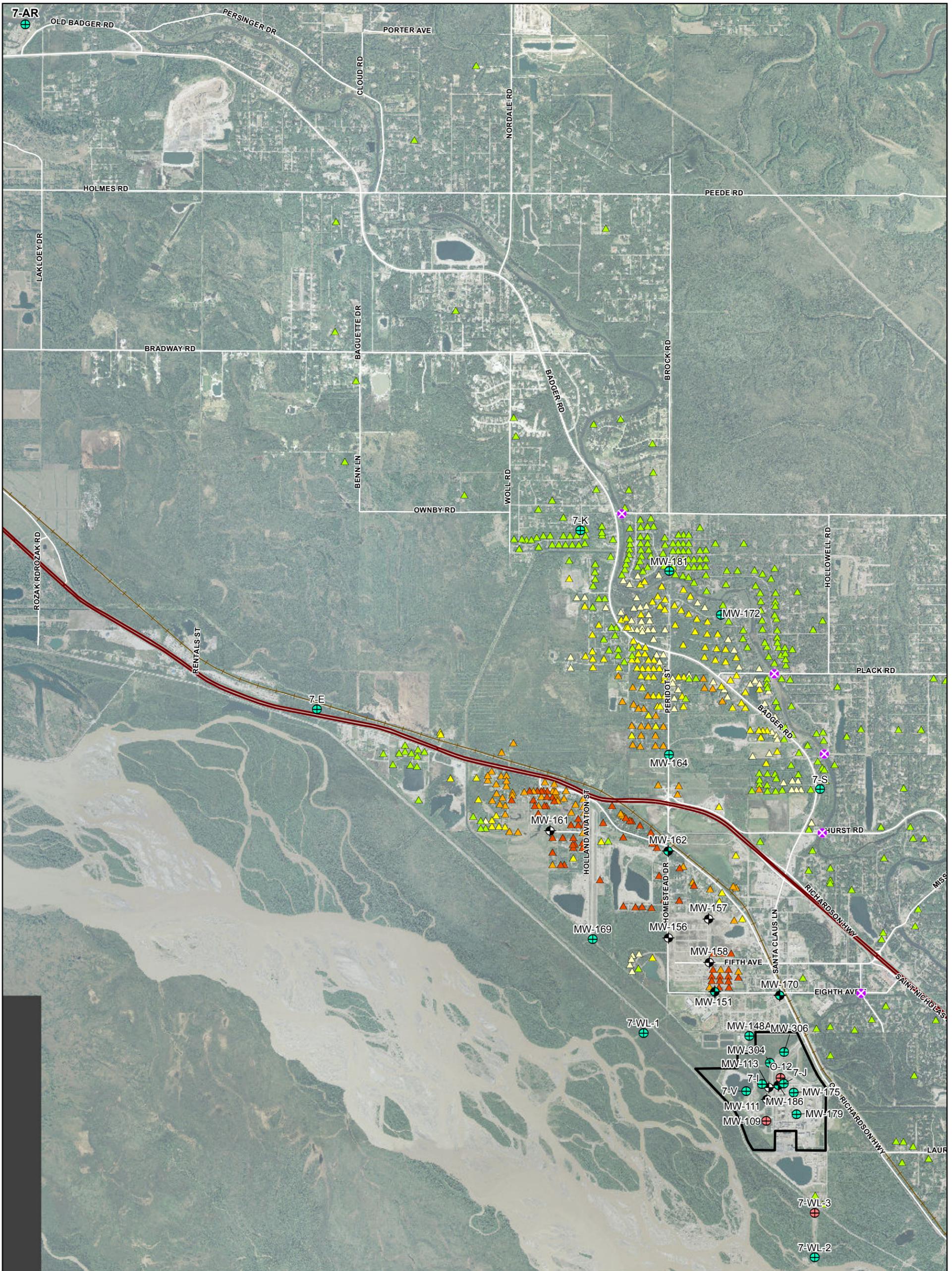


Figure 149  
 PROPOSED PHASE 7 WELLS,  
 OFFSITE  
 North Pole Refinery  
 Flint Hills Resources Alaska, LLC



Pressure Transducer Locations

- Proposed Single
- Proposed Nest
- Existing Single
- Existing Nest
- Culverts - Manual Gauging
- FHRA Property Boundary

Private Wells

- Not Detected
- 3.2 µg/L - 10 µg/L (J-flagged)
- 10 µg/L - 25 µg/L
- 25 µg/L - 100 µg/L
- Greater than 100 µg/L

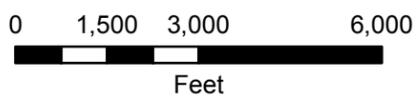
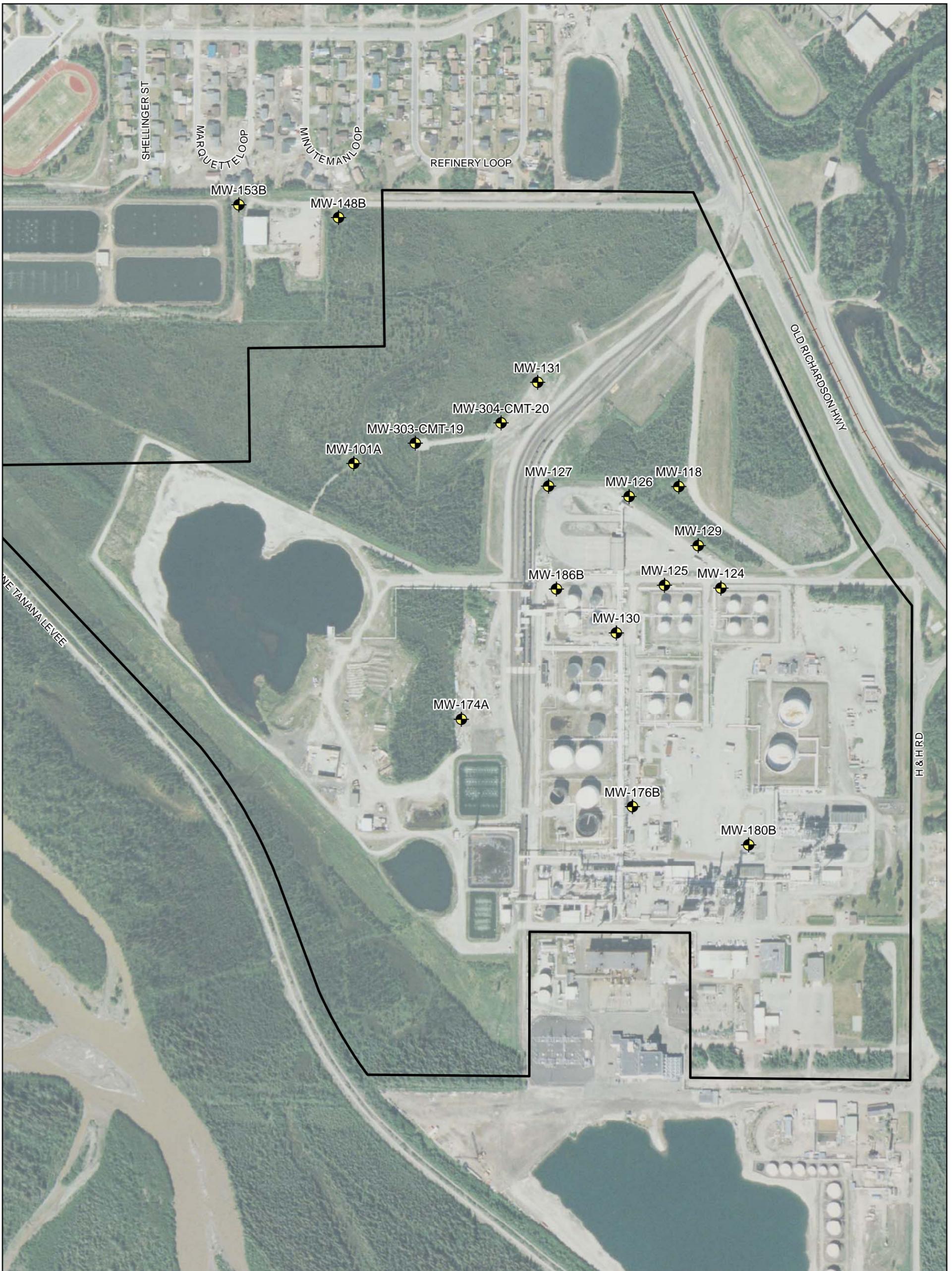


Figure 150  
**PROPOSED PRESSURE TRANSDUCER  
 NETWORK AND CULVERTS  
 GAUGING LOCATIONS**  
 North Pole Refinery  
 Flint Hills Resources Alaska, LLC



 Well Locations  
 FHRA Property Boundary

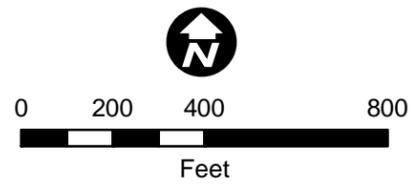
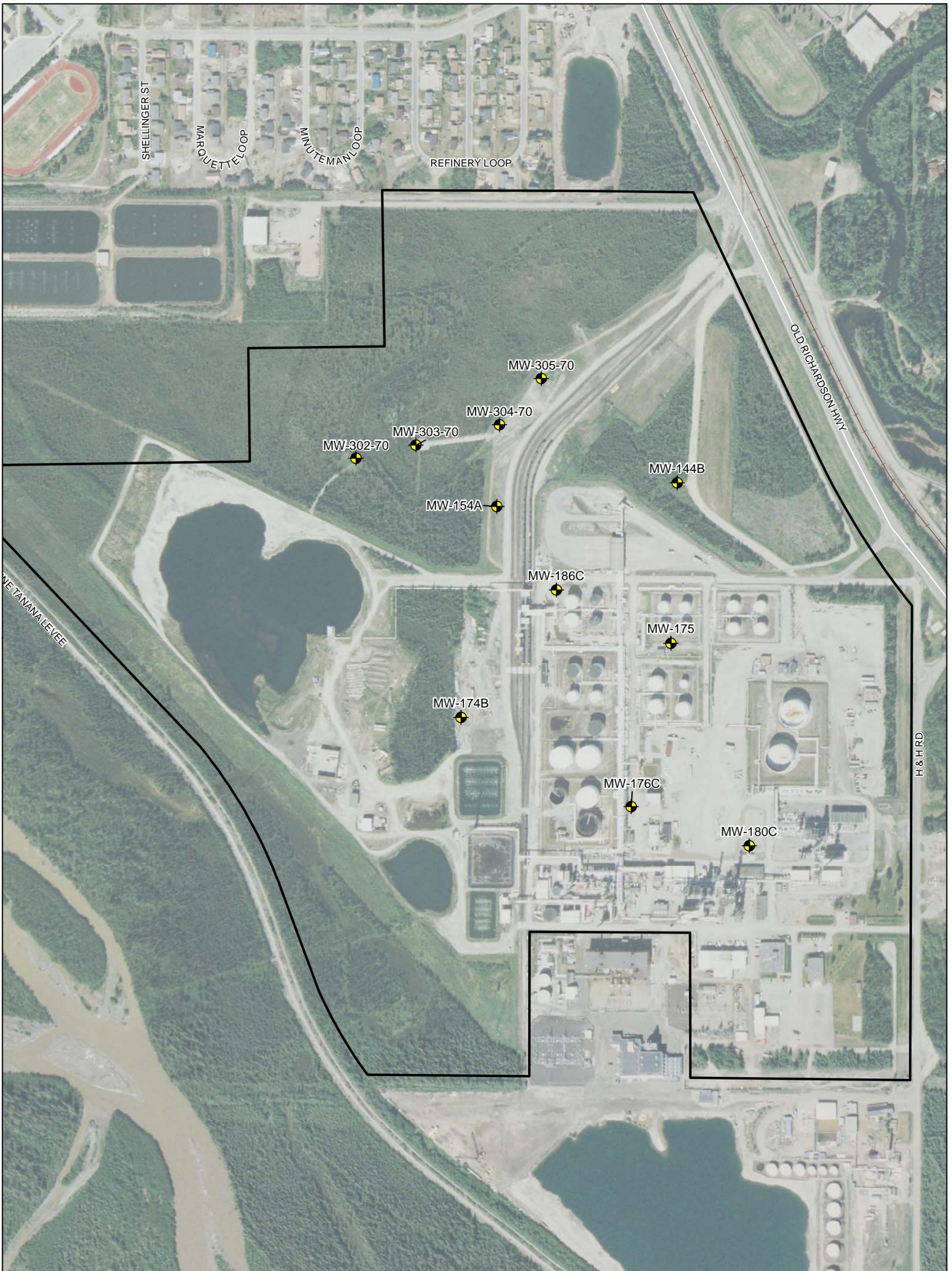


Figure 151  
 PROPOSED BTEX  
 MONITORING LOCATIONS  
 10 to 55' BELOW THE WATER TABLE  
 North Pole Refinery  
 Flint Hills Resources Alaska, LLC



 Monitoring Well  
 FHRA Property Boundary

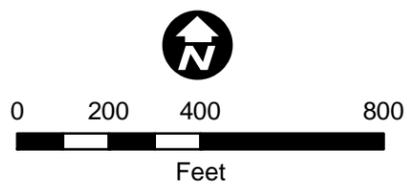
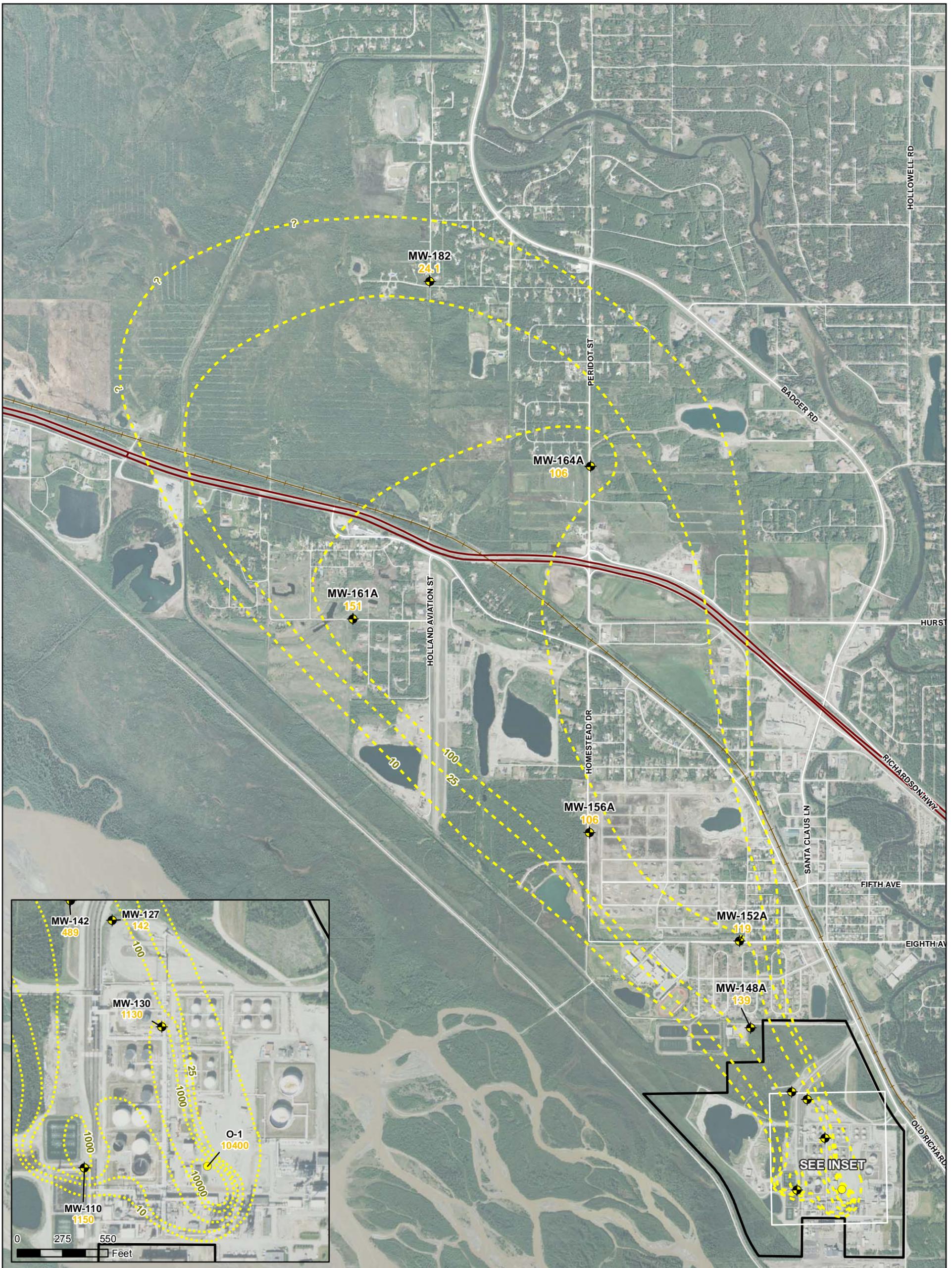


Figure 152  
 PROPOSED BTEX  
 MONITORING LOCATIONS  
 55 to 90' BELOW THE WATER TABLE  
 North Pole Refinery  
 Flint Hills Resources Alaska, LLC



- Monitoring Well
- Observation Well
- Approximate Sulfolane Isopleth in  $\mu\text{g/L}$
- FHRA Property Boundary
- 118** Sulfolane Concentration ( $\mu\text{g/L}$ )
- J** Estimated value
- NS** Not Sampled
- JH** Estimated results biased high due to sulfolane-d8 surrogate failure

Notes:  
 Samples with duplicate data are represented by the greater of the two results.  
 Sulfolane was analyzed by EPA Method 1625B with Iso-dilution.  
 Wells were gauged for LNAPL July 14<sup>th</sup> & 15<sup>th</sup>, 2011.  
 Plume delineation is based on historical data.

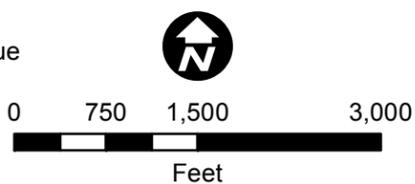


Figure 153  
 PROPOSED STABLE ISOTOPE  
 INVESTIGATION MONITORING WELL  
 NETWORK - WATER TABLE  
 North Pole Refinery  
 Flint Hills Resources Alaska, LLC



Figure 154  
 PROPOSED STABLE ISOTOPE  
 INVESTIGATION MONITORING WELL  
 NETWORK - ZONE B  
 North Pole Refinery  
 Flint Hills Resources Alaska, LLC

Notes:  
 Samples with duplicate data are represented by the greater of the two results.  
 Sulfolane was analyzed by EPA Method 1625B with Iso-dilution.  
 Wells were gauged for LNAPL July 14<sup>th</sup> & 15<sup>th</sup>, 2011.  
 Plume delineation is based on historical data.



 FHRA Property Boundary

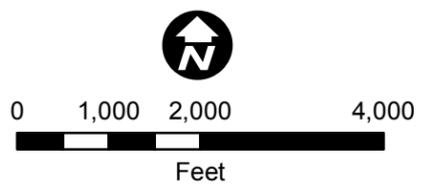


Figure 155  
AIR PHOTO  
North Pole Refinery  
Flint Hills Resources Alaska, LLC