Accreditation Program (NELAP) accreditation for all appropriate fields of testing. Laboratories will also meet NMED and USEPA standards, as required. Laboratories will submit self-declarations forms (including supporting documentation as well as information related to NELAP accreditation to the USACE Technical Manager.

- Data reporting and electronic data deliverable (EDD) will be required to be compatible with the EIMS being developed for FWDA; because the EIMS has not been finalized, additional details will be provided in the ground water sampling Statement of Work (SOW).

- Analytical results will be validated in accordance with the most current versions of USEPA Contract Laboratory Program (CLP) National Functional Guidelines for Organic Data Review and USEPA CLP National Functional Guidelines for Inorganic Data Review to ensure the data are of sufficient quality for the intended use.

- Sample results will be compared to cleanup levels specified in the Permit to determine if action levels are exceeded.

In going through this DQO process the questions of why this investigation is being conducted and what decisions are to be supported have been answered. In addition, conduct of the DQO process ensures that the data collected will have a quantifiable degree of certainty.

6.2 *INTERIM GROUND WATER MONITORING ANALYTICAL PROGRAM*

6.2.1 *OB/OD Unit*

Ground water samples collected from wells in and around the OB/OD Unit (Section 4.2) will be analyzed for constituent groups based on the Waste Characteristics section of Permit Attachment 1 (NMED, 2005); the following constituent groups will be analyzed for all wells initially (Table 2):

- Explosives;
- Nitrate/nitrite (non-specific);
- Perchlorate;
- TAL metals (total and dissolved);
- TCL VOCs (see Appendix F for list);
- TCL SVOCs (see Appendix F for list);
- Dioxins and Furans;
- Pesticides (see Appendix F for list).

Additionally, ground water qu ity p arameters (including dissolved oxygen, pH, specific conductance, turbidit an temperature) will be collected and recorded as described in Sections 5.2 nd 5 3. QA samples will oe collected as summarized in Table 4. Anal e ta get reporting limits are presented in Appendix G.

During preparation of the anr al r vision of this plan in accordance with Section V.A.4 of the Permit, the cons uen s detected during previous sampling events will be used to re-evaluate th con tituent groups to be analyzed at each well. Sample constituents collecte duri g subsequent sampling events will be proposed for only the list of c nsti ents detected in any well. In other words, if a constituent is detected in one well, hat constituent will remain on the list of analytes for all wells, to allow eval ation of constituent migration. Consequently, if a constituent is not detecte in a y well, it will be proposed to drop the constituent from analyte list f sul sequent sampling events.

6.2.2 Northern FWDA

Ground water samples collec ed f m wells in the northern portion of FWDA will be analyzed for constituent g ups as summarized in Table 3. Samples from wells installed prior to Octob 20 9 will be analyzed for:

- Explosives;
- Nitrate/nitrite;
- Perchlorate;
- TAL metals (total and dis olve);
- TCL VOCs (see Appendi F fo list);
- TCL SVOCs (see Appen x F or list);
- Dioxins and Furans

Samples from selected wells see able 3) where historical ground water data has detected pesticides (e.g wel s in and around the Administration Area) will be analyzed for pesticides.

Samples from selected wells MW -18S, MW-18D, MW-20, MW-22S, and MW-22D; see Table 3) installed t mo itor releases from SWMU 45 will be analyzed for Total Petroleum Hydroca ons (TPH) Gasoline Range Organics (GRO) and Diesel Range Organics (DR).

New monitoring wells (TMW) th ough TMW37) were installed in October, November, and December 2 09, efer to Figures 7 and 8. Samples from wells TMW30, TMW31D and S, T W3 TMW36, and TMW37 will be analyzed for in April 2010:

- Explosives;
- Nitrate/nitrite;
- Perchlorate;
- Dioxins/Furans;
- Pesticide;
- TAL metals (total and dis lvec);
- TCL VOCs (see Appendi F fo list); and
- TCL SVOCs (see Appenc F f r list)

Samples collected from mon ring well TMW33 will be analyzed for:

- TAL metals (total);
- TPH – GRO and DRO; a
- TCL VOCs (see Appendi F fo list)

Samples collected from mon ring well TMW34 will be analyzed for:

- Nitrate;
- Perchlorate;
- TPH – DRO and GRO; a l
- TCL VOCs (see Appendi F fo r list)

Samples collected from mon ring well TMW34 will be analyzed for:

- TAL metals (total);
- Perchlorate;
- TPH – DRO, GRO, and Range Organics (ORO);
- Herbicides;
- Pesticides;
- TCL VOCs (see Appendi F fo r list);
- TCL SVOCs (see Appen x F r list); and
- PCBs

An amendment to this monito ng p an shall be made fo the October sampling event to include additional an yse s of samples collected for monitoring wells recently installed in Parcel 21 nd 22. This amendment shall include the addition of cyanide, herbicides, PCBs nd white phosphorous. Other parameters may be required as identified and app ove by NMED.

Additionally, ground water qu ity p arameters (including dissolved oxygen, pH, specific conductance, turbidit an temperature) will be collected and recorded as described in Sections 5.2 nd 5 3. QA samples will be collected as summarized in Table 5. Anal e ta get reporting limits are presented in Appendix G.

During preparation of the anr al r vision of this plan in accordance with Section V.A.4 of the Permit, the cons uen s detected during previous sampling events will be used to re-evaluate th con tituent groups to be analyzed at each well. Sample constituents collecte duri g subsequent sampling events will be proposed for only the list of c nsti ents detected in any well. In other words, if a constituent is detected in one vell, that constituent will remain on the list of analytes for all wells, to allow eval ation of constituent migration. Consequently, if a constituent is not detecte in a y well, it will be proposed to drop the constituent from analyte list f sul sequent sampling events.

6.3 *DATA VALIDATION*

Independent data validation the results of all chemical analyses performed by the laboratory will be perform d. This effort will consist of the following:

- Verification that the amou t of ata requested matches the amount of data received (i.e., completene s ch ck);
- Verification of the proced es/ ethods used;
- Verification that documer tior deliverables are complete;
- Verification that hard cop and electronic versions of the data are identical;
- Verification that the data eem reasonable based o analytical methodologies;
- Evaluation and qualificati n of esults based on sample receipt (sample temperature and preserv ion) and holding time compliance;
- Qualification of results ba ed o n method, field and rinse blank results;
- Evaluation and qualificati n of esults based on MS/MSD analyses;
- Evaluation and qualificati n of esults based on surrogate recoveries;
- Evaluation and qualificati n of esults based on internal standard performance;

- Verification that the analytical instrument was calibrated in accordance with required instrument and method criteria;
- Evaluation and qualification of results based on initial and continuing instrument calibration verification check sample analyses, and initial and continuing instrument calibration blank results;
- Evaluation and qualification of results based on LCS analyses;
- Evaluation and qualification of results based on laboratory and field duplicate precision;
- Verification that the instrument was properly tuned before sample analyses; and,
- Verification that the analytical sequence included pertinent information required to track the analyses of all QA/QC and environmental samples.

For new data, the Army has specified Functional Guideline equivalent validation procedures, with 100% validation for blanks, duplicates, and holding times for all sample data generated for FTDA with a lesser number (typically 10%) receiving full validation.

Standard USEPA data qualifiers shall be used to indicate: (1) blank contamination, (2) sample-analytical anomalies associated with a constituent, (3) analytical results which fall between the MDL and the PQL, (4) data qualified because of an exceedance of method-specific holding times, high cooler temperatures, or other significant QA/QC data deficiencies, and (5) data results which exceed the upper calibration curve limit for that constituent and associated analytical instrument.

A Data Validation Report will be prepared that will discuss the performance of the laboratory with respect to the factors presented above. As much as possible, data will be presented in tabular form. In addition, the Data Validation Report will discuss the following:

- Actual MDLs and/or PQLs as applicable;
- Adequacy of the detection limit for the intended purpose;
- The possible influence(s) of matrix interferences, dilution factors, unusual shipping conditions, and any variance from the reference analytical methods;
- Usability of the data with respect to the project objectives; and
- Attainment of DQO process–derived decision statements with respect to chemical data quality.

An electronic data deliverable will be provided in an Excel format compatible with USACE Fort Worth District and FTDA EIMS standards.

6.4 ENVIRONMENTAL DATA MANAGEMENT

Following review and approval, the data will be loaded into the EIMS being developed for FWDA. At this time, the EIMS is under development, and additional details regarding availability and access to data are not available. As noted in Section 6.1.2, the ground water sampling SOW will contain the required information to ensure that the data generated during efforts described in this Interim Facility-Wide GWMP are compatible with the FWDA EIMS.

6.5 DATA EVALUATION

As described in Section 6.1.2, ground water data generated during ground water monitoring will be evaluated with respect to cleanup levels described in Permit Attachment 7 (NMED, 2005).

6.6 REPORTING

Analytical results will be submitted in a report prepared in accordance with NMED guidance entitled *General Reporting Requirements for Routine Ground Water Monitoring at RCRA Sites* (NMED, 2003, included in Appendix H). The report will be submitted to NMED not more than 60 days subsequent to the receipt of final laboratory reports.