NJDEP TECHNICAL GUIDANCE
Draft Document Review Form

TECHNICAL GUIDANCE COMMITTEE: Analytical Technical Guidance Committee

TECHNICAL GUIDANCE DOCUMENTS FOR REVIEW (4):

1. *Analytical Laboratory Data Generation, Assessment and Usability Technical Guidance*
2. *Data of Known Quality Protocols Technical Guidance*
3. *Quality Assurance Project Plan Technical Guidance*
4. *Data Quality Assessment and Data Usability Evaluation Technical Guidance*

Start of Comment Period: Monday March 18, 2013
End of Comment Period: Monday, April 29, 2013

Commentor Name:	*Combined Comments*
Affiliation:	

Email this comment form directly to Committee Chairperson Greg Toffoli by close of Business 4/29/2013
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(Insert additional comment rows as needed)

Page	Chapter	Section	Subsection	COMMENTS	RESPONSES
Document 1: Analytical Laboratory Data Generation, Assessment and Usability Technical Guidance					
4	1			1st paragraph, 1st word in next to last sentence should be "who".	The sentence has been corrected.
5	2			2nd paragraph, Recommend rewording start of 1st sentence to "Usable data result from…", adding ";" after 1st instance of "processes"	The sentence has been corrected.
7	4			The document insinuates that historically any qualified data were "unusable". Traditionally only data that was rejected was considered unusable. This document should quantify that any data flag (except "R" data) count toward the 90% DQOs and more detail is needed to apply the data and conclusions to the site and any remedial objectives.	The document does not insinuate this.
8	4	1	NA	The QAPP should be completed before data collection begins - it should be clarified if this relates only to remedial investigations or site characterizations as well.	This is addressed in the QAPP Guidance document, section 2.
9	4	1		Typo - "Applying a graded approach means that the level of detail for different projects will vary according to the specific objectives, and needs and goals of that remediation"	The sentence has been corrected.
9	4	4.1		Reference to eco evaluation should be 7:26E-1.16 (not 1.19 as stated). 7:26E-3.11 applies to SI of landfills. Last reference should be 7:26E-4.8.	The sentence has been corrected.
10	4	2	NA	Typically presented as QA/QC, not QC/QA.	The sentence has been corrected.

10	4	4.2		The section fails to incorporate data validation criteria that already exists in the Department (perhaps in the form of an SOP) that may set a different or conflicting rule on data usability. Examples are conflicts in criteria that cause the rejection of a result.	This is a guidance document. Site/project specific requirements should be considered when developing a QAPP (e.g. requiring specific SOPs for validation).
10	4	2	NA	The manner in which DKQPs will be developed and the new requirements imposed on laboratories, incorporated into existing QAPPs, etc. for "other methods in the future" should be discussed.	Language has been added.
11	4	4.2		Should laboratories be expected to complete and include a DKQ Conformance/Nonconformance Summary in laboratory deliverables when using non-routine (non-DKQP) analytical methods? It should be stated that this Conformance/Nonconformance summary is for DKQP analytical methods only.	This form could be modified, used as a tool and incorporated into reports. It is not required for non-DKQPs.
11	4	2	NA	DKQPs do not address the adequacy of sample preparation methods.	Issues related to sample preparation methods such as extraction efficiency and appropriateness of techniques would be noted with indicators such as surrogate recoveries, performance of LCS / LCSD and MS/MSD.
12	4	4.2		“Achieving DKQ status should be considered minimum requirement… investigators have an obligation….” This is regulating through guidance. The language must be changed to something less rigid, like “Achieving DQO substantiates data validity”.	It is not the intent to regulate through guidance. This statement stresses the point that all users of data should always have an understanding as to how an analytical result was generated and in what context the result may be used.
12	4	4.2		4th paragraph - "investigators who elect not to utilize the DKQP…" DKQP were developed for a limited number of analytical methods. This paragraph indicates data validation should be conducted for analytical methods that do not have a DKQP. Please clarify.	DKQP have associated QA/QC such that if met, the data would be considered usable. Many analytical methods have QA/QC protocol that are laboratory specific and as such, the usability decisions that are based on specific criteria (as described in the "Corrective Action" column of the QAPP Worksheet Tables) would not likely be able to be made. As such, when DKQP are not followed, then the more traditional data assessment and usability procedures should be followed.
12	4	4.2		If an investigator elects not to follow protocols (DKQP) then does the data need a full validation? This is not clear.	See above.
12	4	4.2		The allowance that low surrogate recoveries may be consistent with a matrix effect is reasonable, but is not the sentiment echoed when low surrogate recoveries result in a systematic rejection of data with no mitigating explanation - such as in the case of Cr(VI).	Interpretation of the data should be addressed in the QAPP.
12	4	4.2		4th paragraph, 2nd line, next to last word should be "are" (instead of "is").	The sentence has been corrected.
12	4	2	4.2	Last sentence in last full paragraph on page 12: 'addition' should be 'additional'.	The sentence has been corrected.
13				Also, statements like "it will cost a lot more to do a different way" are infmamatory (even if they are 100% true) and should be removed.	The committee was unable to find the statement.

13	4	3		"*The first step of the process is a data quality assessment (DQA) to identify and summarize any quality control problems that occurred during laboratory analysis (QC nonconformances)"* - should also reference case narratives. These are commonly used to report nonconformances.	The paragraph has been modified to include "case narratives".
13	4	3		2nd paragraph - This guidance document describes a "NJDEP accepted", two step process for data evaluation. should be changed to read "NJDEP preferred" as this is guidance and the language should be less rigid.	The fact that the process is accepted by DEP does not imply exclusivity over other procedures. Using the term "preferred" could give the wrong connotation.
13	4	4.3		2nd paragraph, 5th line from bottom, recommend changing 1st word to "Alternative" (instead of "Alternate")	The sentence has been corrected.
13	4	4.3		2nd paragraph, next to last line, change "is" to "are"	The sentence has been corrected.
13	4	4.3		2nd paragraph, last line, change "is" to "are" and "its" to "their"	The sentence has been corrected.
14	4	4.4		This section provides for a shorter list of analytes based on a preliminary assessment or other information or a full list (if contaminants are unknown). The remainder of the tables in the additional documents appear to insist on a full analyte list. This section is more appropriate.	The tables are designed to address scenarios for all the analytes. The other documents are not meant to insist full analyte lists unless it has been determined to be so.
16-19			Tables 1-3	Specifying CRQL will be helpful in bringing uniform reporting limit across laboratories.	CRQL has to do with contract requirements for those laboratories perfuming analyses pursuant to the USEPA Contract Laboratory Program Statement of Works. The tables in question have been provided for purposes of compound identification and not for purposes or analytical sensitivity. CRQLs will not be added to the tables as project-specific detection limit concerns will be addressed via reporting limits.
16	4	4	n/a	Target Compounds/Analytes: /*Please provide web link to the current USEPA Contract Lab Program TCL/TAL analyte list (last updated in 2011): http://www.epa.gov/superfund/programs/clp/target.htm	The link has been added to the document.
17				Page is blank	Blank page removed.
20			Table 4	Table 4 Header says "…TAL and Corresponding CRQL" but CRQL is not listed.	The Table 4 header has been revised to include "CAS Number" and "CRQLs" has been deleted.
20	4	4.5	Table 4	Says there are corresponding CRQLs for this table, none are present. I think it is supposed to say "corresponding CAS Numbers", like the tables on previous pages have	Corrected as noted above.
20	4	5		*"In addition, when vapor intrusion samples (sub-slab, indoor air or ambient air) are taken due to petroleum contamination other than all gasolines or light petroleum distillates, the samples shall be analyzed for naphthalene and 2-methyl naphthalene in addition to any other site specific contaminant that may be present.* " - The 2-methylnaphthalene requirement has been removed - March 2013	2-Methyl naphthalene has been removed from the sentence.
20	4	4.5		n-Butane should be mentioned for tracer gas analysis purposes	This is a method specific comment which is not addressed in this document.
20	4	4.5		2-methyl naphtalene is no longer required as per "NJDEP Implementation Strategy for Revised Vapor Intrusion Screening Levels (Revised March 2013)"	Corrected as above.

20	4	4.5		A full list of analytes for vapor intrusion (or drinking water) is appropriate as these media are normally clean and any intrusion of any analyte must be measured, but this is a distinct scenario from remediation sites with known and fully evaluated contamination and from which a more applicable list can be developed.	The committee thanks the commentor for the comment.
21	4	5		The table heading states that the RLs can be routinely attained. It should also be noted that RLs lower than listed are attainable, down to 0.20ppbv for all compounds except m&p-xylenes at 0.40ppbv. Also, If this table is in this section WITH RLs, people will think they need to use these RLs. Another note should be added that higher RLs are acceptable as long as they meet the NJDEP VISLs	This has been addressed in various sections of the guidance documents.
21	4	5		Ethanol has no RL is ug/m3. To me, this makes no sense. Does this mean that labs are not reporting values in ug/m3 for ethanol? Also, isopropanol follows the same footnote as ethanol, but this compound has a RL in ug/m3. This is inconsistent.	The document has been changed.
22	4	5		*"Note 1:: E"* - typo, two colons are used.	The additional colon has been removed.
22	4	5		Extra blank line on table should be removed	The blank line has been removed.
23	4	5		Footnote for item 10 is on p24, should be on p23	The footnotes have been corrected.
23	4	5		Ibid reference is used, but the previous item is NOT exactly the same location (you are not brought to the VISL tables)… perhaps that is what my issue #12 is???	The page layout has been modified to eliminate any possible confusion.
23	4	5		"All at http://www.nj.gov/dep/srp/guidance/vaporintrusion/vig_tables.pdf" What is this in reference to? Seems unnecessary since the same link is listed numerous other times.	The page layout has been modified to eliminate any possible confusion.
23	4	6	n/a	Footnotes 8-9-10: /*Please update reference with March 2013 VI Screening Levels	The footnotes have been corrected
23	4	4.6		3rd reference, "water" should be "Water"	The text has been changed.
24	4	5		Link for HDNLs is given, yet no HDNLs have been issued.	HDNLs have been established and are described in the NJDEP Vapor Intrusion Technical Guidance.
Document 2: Data of Known Quality Protocols Technical Guidance					
iv	0	0	0	List of Acronyms: ICV, MS/MSD not listed	These acronyms have been defined.
multi	multi	multi	multi	Please clarify the acceptable sample receipt/storage temperature. The Conformance/Nonconformance Questionnaire lists <6 but other sections state 4+/-2 and some of the method tables have </=6. Can these be </= 6 across the board as long as the sample is intact (i.e. not frozen)?	The questionnaire has been changed.
2	2	NA	NA	QA/QC criteria are specified as guidance because the methods themselves permit statistically derived control limits.	The statement is true. However the DKQP establishes limits that can be used when developing a QAPP.
3	2	NA	NA	"The investigator should evaluate the associated laboratory report to ascertain whether the data is of sufficient quality to meet the project-specific DQOs and support the environmental decisions to be made." - This is an ambiguous directive.	This is guidance, not a directive.
6	4	NA	NA	"acidic organic compounds" should be replaced with "acid extractable organic compounds," as they are amenable to analysis by extraction with a pH acidid organic solvent.	The text has ben changed.

7		Definitions		the footer on this page overwrites the bottom of the table	Formatting has been adjusted.
7	4			Not everything fits in the "Applicable Standard/Screening Level" box. Also, HDNLs for air are referenced again, but they do not exist.	Format + ..HDNLs may be found in Table 2 of the reference given.
7	4	0	0	Footnotes 8,9,10,11,12 should ideally bring the user directly to the tables, not just the VI page (Item #12 above link)	Footnotes have not been changed.
7	4	0	0	Definition of Terms: *Please update Footnotes #8-12 date reference for Vapor Intrusion Technical Guidance to March 2013.	The reference was updated.
8	4			"Check Standard" is a vague term. To a lab, if you say "check standard", they would ask which one (Is it the LCS, ICV, CCV, etc?)? This does not follow what you define it as. It would be better to define a "Continuting Calibration Standard (CCV)", "Laboratory Control Sample (LCS)" (which is already there), and "Initial Calibration Verification Standard (ICV)". I don't think "Check Standard" should be a commonly used definition, as it can become confusing to both the lab and the end user.	The text has not been changed.
8	4			Base Neutral Semivolatile Organic Compound Surrogates - Base neutral semivolatile organic compounds exhibit similar chemical behavior to the acidic semivolatile organics. Base-neutral should be replaced with acidic in the definition.	The definition has been changed.
8	4	NA	NA	"base-neutral semivolatile organics" should be replaced with "base-neutral extractable organic compounds," as they are amenable to analysis by extraction of the sample with a pH neutral/basic organic solvent.	The definition has been changed.
10	4			GC/MS is defined, but no other isntruments are - like GC-ECD, GC-FID, GC-TCD, ICP/MS, AA, HPLC, IC, etc.	Thank you for your comment.
10	4			Instrument Blank - air method blanks not explained, but other blank types are.	Thank you for your comment.
10				Definitions section: Field Duplicates: remove "replicates" and replace with "are two separate samples collected…"	The definition has been changed.
11				Definitions section: Matrix Duplicates: remove "refer to the replicate analyses" and replace with "...are two separate samples…"	The definition has been changed.
11	4			LCS definition is confusing - "*A LCS is a sample matrix…* " Some may read that as it is the same thing as a MS/MSD, rather than really being a "blank spike"	The definition has been changed.
11	4			Matrix Interference - "*Co-eluting peaks in a GC chromatogram may result in a high bias for an analyte of concern.* " - Need to specify that Matrix Interference is not exclusive to GC analysis OR cite this as an example.	The GC analysis was cited as an example.
11	4			"Media" is often a term for sampling media - jars, EnCores, Summa Canisters, etc. - I more often hear "Media" used in terms of "sample media" than referring to the matrix	"Media" has been replaced with "matrix" in the documents.
11	4			Typo - Petroleum (or Petroleum Product) - missing initial " on Petroleum	The sentence has been corrected.
11	4	0	0	LCS may also be from 2nd source standard	The definition has been changed to reflect this fact.
12	4			Relative Percent Difference (RPD) - no real definition given. Should either have a definition or reference to "Precision" on p11.	The definition has been changed.
12	4			Typo - Reporting Limit - missing initial " on Reporting	The sentence has been corrected.
13	4			Standards - "*Examples include stock standards and calibration standards* " - these are not defined anywhere else and they should be.	The definition has been modified.

15	5	1	0	Field and trip blanks must arrive onsite within a day of laboratory preparation - can be difficult for Alpha	We appreciate your concern. However, this remains NJDEP policy.
15	5	1	0	Should be noted that field blanks and trip blanks not required for TO-15	The paragraph has been revised to reflect this fact.
15	5	5.1	NA	There should be a discussion of extraction holding time, which is not captured by the definition, "amount of time a sample may be stored between collection and analysis."	This issue is addressed in the method specific DKQPs.
15	5	5.1		Re: Handling Times: The handling time requirement as written creates serious bottleware tracking issues for the labs. Trip blanks must travel with VOA containers in both directions (outbound to the field and inbound to the lab). The wording of the requirement presumes that labs have the ability to link each set of lab trip blanks to specific sets of sample containers provided to the LSRPs by the lab. This is generally not the case. While the lab can track the date that a trip blank is prepared, shipped and returned to the lab they cannot ensure that the VOA containers shipped back to the lab with the trip blank are the same containers that accompanied the bottle order outbound to the LSRP. Additionally, LSRPs will frequently return sample containers to a lab which originated from either a different lab or from the LSRPs own bottleware stock. Additional guidance on this issue should be provided to both the labs and the LSRPs.	If trip and field blanks are to have the intended utility, it is important that they travel to and from the site as described. It is the investigator's responsibility, not the laboratory's, to maintain the blanks with their associated samples if blanks are to have any use. And, as the data evaluation and usability decision process is to be performed by the investigator and not the laboratory, it would behoove them to maintain that integrity. No changes have been made with regard to this comment.
15	5	5.1		Some laboratories are starting to use third party prepared trip blanks (see [http://www.essvial.com/Product/ultra_pure_blank_water/di/reagent_water.aspx] for an example). Guidance states - NJDEP requires that field and trip blanks travel with the sample containers to the field and must arrive on-site within a day of their preparation in the laboratory. Please comment on the use of third party prepared trip blanks versus lab prepared trip blanks.	Third party water would be considered acceptable for use, assuming it meets the laboratory's requirements with regard to "being clean". However, it would still be necessary for that water to travel to and from the field in the appropriate containers if they are to be completely useful.
15	5.1			In line 6. Word "invalid" should be removed. In some cases data flagged and deemed usable?	The committee recognizes that flagged data are not always invalid, thus the wording of the sentence which states "may" and "depending on…the intended use of the data". The word "invalid" remains.
16	5.2			2ND paragraph after TCL/TAL, ADD: " +30, EPH, Cr+6", as required in Tech Regs (May 2012)	The paragraph has been revised to reflect this fact.
16	5	2		unknown source investigations - only says that the TCL/TAL list must be run. Air is not referenced - that you must run the full LLTO-15 list.	The paragraph has been revised to reflect this fact.
16	5	5.2		This section provides for a shorter list of analytes with justification in the report. Remaining sections here and in other parts of these documents appear to make the full list mandatory. All four documents should be made consistent with regard to required analyte lists based on the above (Line 7).	Analyzing for the full list of compounds/parameters is only required per the situation defined in N.J.A.C. 7:26E-2.1(c)1.ii. The documents are consistent such that they are made to address all scenarios should they be required, with the repeated caveat that the analyte lists are ultimately defined in the sit/project specific QAPP under the DQOs.
16	5	5.2		Regarding the TCL list: It is our understanding that analysis is support of the NJ GWQS requires the reporting of Technical Chlordane (57-74-9) which is not on the TCL list. It is our further understanding that the NJ SRS requires the TCL compounds alpha-chlordane (5103-71-9) and gamma-chlordane (5103-71-9). Unfortunately the SRS table lumps these together as "Chlordane (alpha and gamma)" with the CAS # 57-74-9 (which is the Technical Chlordane). Additional guidance with respect to the analysis and reporting of chlordane would be helpful.	Alpha and gamma chlordane are to be targeted during analysis and, for purposes of the SRS, summed when reported.
16	5	5.2	NA	There should be a discussion of the IDOC requirements, including MDL studies.	The paragraph has been revised.

16	5	5.3	NA	It should be clarified as to whether data reported between the MDL and RL is considered sufficiently valid to permit screening against applicable remediation standards.	There are issues where, using professional judgment and the scientific information available, that data reported below a RL yet above a MDL could be used to address compliance issues against a standard. These issues would be addressed on a case-by-case basis.
16	5	3	0	RL is not defined correctly. There may be std below the RL	The RL must be supported by the calibration curve. Per N.J.A.C. 7:26E-2.1(a)3, the operational definition of the RL is as it appears in this section. The definition has not been changed.
16	5	3		*"Reporting limits are not to be artificially raised by the laboratory nor is the laboratory permitted to report their Method Detection Limits (MDLs) or a multiple of the MDLs as reporting limits."* This is impractical for some regulatory criteria that cannot practically be met using only RLs. If samples are reported below the RL and above the MDL, they should be qualified, but this option should not be eliminated. This is contradicted in Section 5.9.5 and all of Appendix B.	Sample results are allowed to be reported below the reporting limit but above the MDL. The sentence in the guidance document states MDLs are not to used interchangeably with reporting limits as the MDLs are statistically derived values. The usability of the data is a separate issue and, as the guidance documents reiterate frequently, is to be addressed on a case-by-case basis using the existing information and professional judgment.
16	5	2	0	Target Compounds/Analytes: /*Please provide the web link to the current USEPA CLP TCL/TAL analyte list (last updated in 2011): http://www.epa.gov/superfund/programs/clp/target.htm	The link has been added to the document.
		5	1	Provide clarification on requirement for Trip Blanks for soil samples	Clarification has been provided.
17	5	3		Redundant having the links here, they can refer to the "Applicable Standard/Screening Level" definition, which contains EXACTLY the same information.	The links are provided here for ease of use. Document unchanged.
18	5	5.5	NA	"Every laboratory anlytical report should consist of the same deliverables .." - this requires further explanation as reduced and full deliverables are still acceptable formats.	Clarification has been provided.
18	5	5.6	NA	"…investigator to request that the laboratory use the SIM option when necessary." - It is the responsibility of the laboratory to communicate their reporting limits and evaluate when SIM is required to meet screening levels.	Investigators and their laboratories should be in contact during the development of the QAPP and DQOs. The intent of the statement was to reiterate that it is the investigators responsibility to bring forth critical information such that the laboratory can provide the appropriate analytical technique. Clarification has been provided.
18	5	6	0	SIM analyses should be allowed as an option for all GC/MS methods. There may be sample-specific reasons where SIM analysis can be employed, particularly when dilutions are performed for non-target analytes, matrix, or elevated target analytes. SIM is indicated for only 8260 and 8270 analysis.	This section mentions the current DKQPs for which SIM options have been included. Other methods that have SIM options may be used.
19	5	5.7	NA	"Project-specific QA/QC samples …" - The document should reference the 2005 FSPM if applicable.	A reference has been added to the section.
19	5	8	0	More guidance needs to be provided to the data user as to interpreting TIC data. What exactly is the data user supposed to do with this data? Also, there are significant costs associated with positively identifying, calibrating, and applying appropriate QC for any particular TIC that is not stated in this paragraph.	We appreciate your concern. The Department is still assessing this issue.

19	5	5.8		Up to 15 TICs for volatiles should be exceptioned for TO-15 as stated in Appendix B- "Report a minimum of 30 non-alkane and non-alkene tentatively identified compounds (TICs); if more than 15 TICs are present, identify the 15 TICs that have the highest estimated concentration."	This issue has been addressed in the amended N.J.A.C. 7:26E and is pending publication in the New Jersey Register.
19	5	5.8	NA	"…TICs using a five-point, analyte specific calibration and appropriate quality control …" - This should discuss the IDOC, which would be necessary if this is a requirement.	The implication here is that once a TIC is identified and determined to be significant, then the compound is treated as a target compound and becomes subject to all relative method specific development and routine analytical procedures.
19	5.8			2nd paragraph What triggers needs to cailbrate for TIC's on subsequent investigations or remedial decisions?	The assumption here is that the TIC has been identified (or nearly identified [e.g. a TIC was determined to be a trimethyl naphthalene but the isomer is not known]) and calibration standards may be used to verify the identity. At this stage, the compound is included in the routine analytical testing procedures. It is up to the investigator to determine if the TIC should become a contaminant of concern.
20	5	5.9	5.9.4	Is conformance/Nonconformance Questionaire a requirement for all projects? For reduced deliverables? Full deliverables? Does this replace Full Deliverables Checklist Section F?	As this form is listed as guidance it is not a requirement. However, the Conformance/Non-Conformance Summary Questionnaire is a valuable tool in the data assessment and usability process and as such, would be beneficial to be completed.
20	5	5.9	5.9.5	MDLs must also be adjusted for dilutions, sample weight, sample volume, percent solids, etc.	The sentence has been corrected.
21	5	9	5	No units given for SPLP.	The units of ug/L have been added.
21	5	9	5	*"When the result for an analyte is below a reporting limit, but greater than the method detection limit (MDL), the value is to be reported with a "J" qualifier."* This contradicts what was found on p16, in section 5.3 (above). Appendix B follows this standard. This is very confusing	The presumed contradiction has been addressed above.
21	5	9	5	Reporting of Analytical Results: *Please clarify wet chem results for water samples reported in mg/L / *Tech Regs (N.J.A.C. 7:26E-1.6.iii; May 2012) directs reporting of water sample data in ug/L units. What units are to be used or can either be reported?	Results are to be reported in units consistent with that which is specified in N.J.A.C. 7:26E. Generally, aqueous samples are reported in ug/L and solid samples are reported in mg/Kg.
21	5	9	5	*"The results for aqueous samples should be reported in micrograms per liter (µg/L) as required by N.J.A.C. 7:26E"*. However, all throughout appendix B, it states aqueous samples may be reported in ug/L or mg/L - examples on pB-17, SW-846 6020 Metals; pB-31, SW-846 8081A&B; pB-38, SW-4846 8082; pB-57, SW-846 7471B/7470A; etc)	Results are to be reported in units consistent with that which is specified in N.J.A.C. 7:26E. Generally, aqueous samples are reported in ug/L and solid samples are reported in mg/Kg.
21	5	5.9	5.9.6	It is not appropriate to expect laboratories to apply DKQP method requirements to non-DKQP methods. This is a difficult and onerous requirement that will result in the generation of data that does not meet criteria.	Laboratories are not expected to apply DKQP requirements to non-DKP methods. However, DKQP criteria were developed using reasonable and relatively easily achievable QC acceptance limits, also paying particular attention to "problematic compounds", such that, if a laboratory were to use them for non-DKQP methods, it would make practical and technical sense to do so.

22	5	5.1	5.10.2	4th sentence. If answer is NO on Questionaire to #1, 1A, 1B data does not meet requirement for Dala of Known Quality. THis doesn't sound correct? In some scenarios couldn't some data be qualified and deemed usable?	The package does not outright meet Data of Known Quality status. However, based on specific DQOs, the data may still be usable.
22	5	5.10	5.10.1	Project-specific QA/QC as specified in the FSPM?	Project-specific QA/QC should be defined in the project/site-specific QAPP.
23	5	5.10	5.10.2	Unclear if "all non-conformances" includes instrument calibration RRFs, RSD, %Ds, manual integrations, etc.	All QA/QC outliers with significance to the DQOs should be listed.
23	5	11		*"Surrogate recoveries would only be appropriate for organic analytes"* - NOT air/TO-15	The sentence has been corrected.
24	5	5.11	NA	The requirement to report non-DKQP results in a DKQP-similar format will be difficult for the investigator who is required to determine that the DKQP criteria are met for appropriate QC data.	The non-DKQP methods are expected to have similarly acceptable QA/QC content. There is no such requirement to follow a particular format in the DKQP.
A-2	Example PCF			Add 6020A. Typo for second Total CN Method? Should be TCN 9013	6020A has been added. The method cited has been corrected.
A-2	app.A	0	0	Sample Matrix: "air" should be split into two categories, "ambient" and "soil vapor"	The form has been modified.
A-3	Appendix A			Vapor Intrusion NJ Department of Health Notification Levels referenced, but do not exist.	HDNLs have been established and are described in the NJDEP Vapor Intrusion Technical Guidance.
A-4	App A	NA	NA	Data deliverable requirements permit full and reduced deliverables; earlier in the document it states that all laboratory reports should consist of the same deliverables.	Clarification has been provided.
A-4	Appendix A			Quality Control Requirements - Sample Duplicate should be stated - this is a very common type of field QC, common enough to be stated.	This has been added to the table.
A-4	Appendix A			Data Deliverables Requirements - TO-15 Unit Conversion Tables should be included	This has been added to the table.
A-4	App.A			Appendix A - Example Project Communication Form: *Please ADD check-boxes to "Special Instructions" section for: (a) project-specific analyte list, (b) project-specific criteria, (c) historically elevated concentrations of target analytes, (d) multi-day sampling event	Check boxes have been added to include these.
A-5	App A	A-1		Is form mandatory for all projects? Can you answer questions on form using LCS/LCSD? Note on form regarding answering NO. Is this correct? See question on line 97. Example: if PCB analysis out by 1 day data should be qualified and deemed usable?	The form is not mandatory. The forms are included in the guidance to help with the data assessment and usability processes. Answering "No" tells the end user of data that the data package does not meet the requirements of "data of Known Quality". This implies that the data may require additional scrutiny with regard to usability issues. It does not automatically imply data cannot be used. Any "No" should be explained in the narrative and it is up to the investigator to determine usability.
Global	App B	NA	NA	ICB/CCB, etc. - (Global comment) there should be an analysis of whether the failing blank brackets the project sample results. Is this level of detail going to be provided in the NC?	The specificity of the non-conformance summary is to be determined by the investigator and the laboratory.

Global	App B	NA	NA	Many of the method-specific criteria are not requirements set forth by SW-846 - will the Department be certifying laboratories for modified methodology (e.g., 6010B-Mod)?	Laboratories will continue to establish their own method-specific analytical acceptance criteria as they currently do. The caveat to this is, if a laboratory is going to be performing the DKQPs, then they will subscribe to the DKQP acceptance limits established. There will be no separate certification at this time.
All	Appendix B			General comment - these QAPPs seem to be adding a lot more runs to the laboratory analytical sequences. Potential equipment blanks, numerous duplicates, extra QC… this may ultimately affect laboratory TATs and is shortening batches	The tables are provided to assist the investigator with the development of a QAPP that will ultimately result in DKQ. The investigator and laboratory should determine which QC samples are relevant to achieve DKQ. We haven't deviated from the regulation.. These have always been part of a requirement.
Select Methods	Appendix B			Surrogates and MS/MSD criteria are maintained by Shewhart charts in many labs. Because of this, the ranges listed in the QAPPs may be extremely difficult to meet (e.g.surrogates for 8260B may not pass under a 70-130% criteria; surrogates, particularly phenols, have poor/low recovery (with instruments in top working order), may not pass QAPP criteria - however, demonstrating this low recovery of surrogates shows the recovery of the compounds in samples)	The criteria listed, while not considered 100% attainable under all circumstance, was determined to be reasonable and readily achievable for most situations. It is recognized that there are situations where criteria will not be met. Problematic compounds have been identified in these documents on a DKQP-specific basis.
	Appendix B			All Analyses-If site specific QC sample is not selected by client, is the lab responsibility to QC batch or client/project?	It is the investigators responsibility to specify the type and number of QC samples required for his/her project.
	Appendix B			All Analyses-Hold time is extended to 1 year if samples are frozen. This needs to be a lab option otherwise frozen storage becomes a major cost and logistical burden on the lab community.	It is up to the laboratory to determine how long samples will be retained within regulatory requirements and the needs of their clients.
N/A	App B			There is no table for update 3 mercury method 7471A - can this method be used?	7471A may be used although the criteria specified in the DKQP Method 7471B would have to be followed.
N/A	App B	table 15		There is no ICAL or LCS information listed for TO-15. Should this be detailed in the table?	The table has been modified to include these QC Samples
multi	App B	tables 1, 2, & 4	sample duplicate	States if the Dup is out then reanalyze. Table 3 allows for qualifying the result. Can an oos dup be qualified in all these cases instead of reanalysis?	It is always preferred to have samples reanalyzed when outliers are encountered. However, it is recognized that due to issues of cost and time it is not always practical to do so. Qualifying is an acceptable option; however the data user has to recognize there is potentially diminished utility with regard to the qualified QC sample data.
B-1	App B			Throughout section references to Soil/Sediment samples can be frozen for 1 year (SVOCs, Hg, Metals, Cn,etc). This does not appear correct. What data to support the extention of holding time for a year for these parameters?	Freezing & thawing primarily impacts the solids content of samples. Every time an analysis is performed, a new %solids should be done and data reported on a dry-weight basis which will minimize impact of freezing/thawing on results for non-volatile constituents. Any time for which a sample is thawed should be considered against the HT clock. Extension of HT by freezing is not appropriate for certain constituents (e.g., VOCs).

B-2	App B	NA	NA	Are corrective actions reported in the non-conformance summary to indicate problems that were resolved?	Addressing the resolution of a non-conformance issue is beneficial and may be included in the non-conformance summary. However, it is not required.
B-2		Table 1	CRDL accuracy	As the laboratory must demonstrate accuracy at the reporting limit and the RL standard is not a requirement as a point in the calibration curve (due to possible instrument limiitations) should the CRDL standard analysis with control limits of 70-130 be included in this table?	No, A low level check standard should be attempted to be included as part of the initial calibration. If not possible, the low level check standard should be run after the initial calibration to demonstrate RL. The control limits should be the same as calibration check standards.
B-3	App B	NA	NA	Data review should be defined.	The data reviewer referred to in this instance is an employee of the laboratory.
B-3		Table 1 (and other inorganic tables)	Sample Duplicate	Based on current Region II inorganic validation guidance, the laboratory duplicate RPDs for soils are allowed the larger control limit of 35% without qualification, while these inorganic tables specify 20% RPD for both aqueous and soil samples. Will the larger control limit of 35% RPD for soils be allowed for the inorganic laboratory duplicate analyses?	The metals tables have been changed to note acceptance criteria of 20% for aqueous and 35% for solids.
B-4	App B	NA	NA	Appears to indicate that MS/SD must be collected, "must be performed on a Site field sample."	The statement is designed to note that MS/MSDs are to be performed on samples from "your" site. If not, the results of these two QC samples have little usefulness with regard to the investigation.
B-4	Appendix B	Table 1	Lines 1 & 2	These entries suggest a site/sample specific MS/MSD while other parts of the collective works suggest this is optional and that a matrix relevant sample can be selected as "batch" QC. This and many table entries appear inconsistent with the "batch" QC approach.	While at first glance, the entries may seem inconsistent, when compared to one another, their use is defined by each method. Batch QC is used conventionally with inorganic analyses and, where their application is specified, is appropriate. Other QC samples, especially for organic analyses, need to be site specific; otherwise their usability is questionable.
B-4		Table 1 (and other inorganic tables)	MSD Precision	In the MSD QC Acceptance Limits section of the tables for all inorganic methods, is it appropriate to note "results <5xRL: absolute difference between results < RL" ? This is an evaluation of the laboratory duplicate only. Also, it is typical for soils to have a greater acceptance limit (35%RPD) than waters (20%). Will the soil MS/MSD RPD limit be allowed this greater window of acceptance?	The metals tables have been changed to note acceptance criteria of 20% for aqueous and 35% for solids.
B-4	Appendix B	Table 1	Line 4	The results of the serial dilution should and can only be used if both diluted and undiluted samples are on the calibration curve - if not there can be no quantitative conclusions drawn.	We have never seen data where the lab didn't have both results within the range of the calibration curve.. If not, then the data should not used.
B-4	Appendix B	Table 1	Line 6	There should be an option for the lab to split field duplicates (but retain their collection by field samplers). This requirement could produce more errors and mistakes if done by field samplers rather than laboratory analysts.	There has always been the option to have the laboratory perform replicate sample analysis, thereby removing the variability associated with the sampling/homogeneous aspect from the generated result. However, field duplicates can give insight to just the sort or error that is introduced by the sampling aspects associated with a given project. For replicate results, one could use the Field Duplicate Sample QC Acceptance Limits as the performance criteria.

B-5	Appendix B	Table 1	Line 1	Filtration on site will add considerable uncertainty in the final results. Use of the proper bottles should prevent bias that may occur when a sample for total metals is sent to the lab. The proper bottles should be used and the sample should be allowed filtration at the lab.	In those rare instances where dissolved metals analyses are requested, filtration can be performed at the laboratory and the table has been revised to reflect the change. However, total metals results are to be used for regulatory compliance and dissolved metals results are not.
B-5	Appendix B	Table 1	Line 2	The document is not clear but it appears to measure data completeness (typically ≥90%) but is not clear as to which flags reduce data completeness. Typically only "R" or rejected data are deemed unusable. Other qualifiers can be considered usable. This should be stated clearly in the document and in the tables. This document and the other documents are unclear on the number of results needed before the 90% criteria applies. What is the criteria if only 5 samples are collected - 100%?	The document was never designed to be prescriptive. It is designed to provide a level of flexibility, the magnitude of which is, in part, determined by the project-specific DQOs. On a case-specific basis, acceptance criteria should be specified in the QAPP, delineating “how good” the data will need to be for use, Completeness is the fraction of planned data that must be collected in order to be sufficient for the intended use of the data. While ≥ 90% completeness is the target level noted in the document, the "flags" that would contribute to this number would have to be defined by the investigator on a case-by-case basis.
B-9	Appendix B	Table 2	Line 4	The requirement that the LCS and LCSD contain all target analytes will lead to data qualifications for more difficult analytes - especially if they are not viable analytes (i.e., Se in incinerator residues). If Se is then ND in the sample and recovers low, it will flag Se when in fact Se may not be an issue in the sample based on operator knowledge in this hypothetical example.	Preliminary use of a LCS and LCSD should include all analytes such that the laboratory has compound specific data with regard to a method's accuracy. At such time during a remedial phase where site-specific compounds of concern have been identified, then it would be acceptable to fortify the LCS and LCSD with only those compounds. And as stated in other responses, these tables are designed to be "all-inclusive" with options to truncate where appropriate.
B-9	Table 2		LCS	[Re-analyze, if still out Re-digest (soil/sed)...]; no reference to aqueous LCS corrective action	Soil/sediment has been removed and now addresses all matrices. (Also corrected 6010B)
B-9; B-21	Table 2		CCB	Corrective action: re-calibrate, if out recalibrate; no re-analyze provision initially.; this apparent oversight is repeated in 6020C, B-21 table 2, ICB/CCB	The table has been corrected and the CCB and ICB have the same corrective action.
B-8; B-21	Table 2		LLICV, LLCCV	No corrective action for failing LLCCV at end of run, LLICV listed in criteria as recalibrate/reanalyze and repeated in LLCCV corrective action. Are these check standards required if RL standard is part of calibration curve, see p. 13, Reporting Limit definition for inorganics and p.16, 5.3	The table has been corrected to include LLCCV and the associated corrective action. The LLCCV and LLICV should be run if the RL standard is part of the calibration curve.
B-9; B-22	Table 2		ICSA/AB	Corrective action reads, [recalibrate and all reanalyze all field samples since last complaint ICSA & ICSB]; this is a check run daily after calibration. What field samples are being referenced in the corrective action? Is it truely daily or is the ICSA/AB to be run after re-calibrations in the course of the run? Why is this only in reference to soils?	All field samples are referenced in the corrective action. The ICSA & ICSB are to be run daily. The table states "associated samples" and does not only reference soils with regard to this issue.
B-10	Appendix B	Table 2	Lines 2 & 3	Is the intent a site/sample specific MS/MSD or is a batch MS/MSD satisfactory based on the discretion of the investigator.	The intent is to have a site specific sample. However, batch could be used at the discretion of the investigator.
B-10	Table 2		MSD	No directive to asses recovery which is contridictory to sec 4-Definition of Terms. No accuracy criterial listed.	The recovery should be assessed for accuracy purposes. However the main purpose of the MSD component of the MS/MSD is to measure precision.

B-11	App B	NA	NA	Serial dilutions are not a method requirement for 6010 or 6020.	Serial dilutions are referenced in the methods for those instances where QC difficulties are observed. It is highly recommended that serial dilutions be performed for methods 6010 and 6020 where appropriate.
B-12,	Appendix B	Table 2	Line 2	Same comment regarding data completeness as described above.	The document was never designed to be prescriptive. It is designed to provide a level of flexibility, the magnitude of which is, in part, determined by the project-specific DQOs. On a case-specific basis, acceptance criteria should be specified in the QAPP, delineating “how good” the data will need to be for use, Completeness is the fraction of planned data that must be collected in order to be sufficient for the intended use of the data. While ≥ 90% completeness is the target level noted in the document, the "flags" that would contribute to this number would have to be defined by the investigator on a case-by-case basis.
B-12	App B	NA	NA	Laboratories use HCl and HF instead of HNO3 as acid-preservation for metals on occasion. Is this prohibited?	According to Table 3-1, Section 3 of USEPA SW-846, HNO3 should be used. Use of other acids would be noted in the non-conformance summary.
B-14	Appendix B	Table 3	Line 3	It should be satisfactory that only the necessary element be reported. For metals a TCLP need only report 8 metals, the inclusion of all metals on a particular analyte list imposes more overhead and the potential for data flags while contributing little to the overall results.	The number of analytes can be reduced based on that which has been determined during the investigation as per N.J.A.C. 7:26E2-1(c)4. If TCLP is being performed, the commentor is correct in that only the data for the 8 TCLP metals need to be reported.
B-15	Appendix B	Table 3	Line 3	Ensure that the 95% confidence interval established using vendor limits are done using the same method as the one in question.	As long as the vender has certified the 95% CI, the vendor's method does not need to match the laboratory's method.
B-18	Appendix B	Table 3	Line 2	Impact of freezing, thawing and refreezing is a possibility not discussed. It is unclear how this will impact the holding times.	Freezing & thawing primarily impacts the solids content of samples. Every time an analysis is performed, a new %solids should be done and data reported on a dry-weight basis which will minimize impact of freezing/thawing on results for non-volatile constituents. Any time for which a sample is thawed should be considered against the HT clock. Extension of HT by freezing is not appropriate for certain constituents (e.g., VOCs).
B-20	Appendix B	Table 4	Line 2	The 6020 ICAL does not contain a reference to include "all analytes" but the ICV has such a requirement. This is inconsistent. In addition, if there is a particular program, the QC and calibration should contain all analytes in the particular program or permit, but not necessarily all the target analyes in the method list.	The number of analytes is determined based on the phase of the remediation and the number specified in the site specific DQOs as defined in the associated QAPP.

B-21	Appendix B	Table 4	Lines 1, 2 & 4	Same concern with requiring all analytes in the LLICV, CCV, LLCCV as discussed above.	The number of analytes is determined based on the phase of the remediation and the number specified in the site specific DQOs as defined in the associated QAPP.
B-21	Table 4	Row 4		Typo: Should be "Low Level Continuing Calibration Check Standard"	The table has been corrected.
	App B			Please provide clarification on reporting of TICs for VOAs and SVOC / *LSRPs and Investigators remain confused on how to address TIC results	TICs are regulated in ground water, potentially in soil. They need to be addressed like any other compound. The investigator needs to review the TIC data and may have to generate a site specific clean up value.
	Appendix B			All Analyses-If site specific QC sample is not selected by client, is the lab responsibility to QC batch or client/project?	The lab is responsible for running a QC sample; however they have the discretion to run whichever sample they choose unless told otherwise by their client.
	Appendix B			All Analyses-Hold time is extended to 1 year if samples are frozen. This needs to be a lab option otherwise frozen storage becomes a major cost and logistical burden on the lab community.	Freezing & thawing primarily impacts the solids content of samples. Every time an analysis is performed, a new %solids should be done and data reported on a dry-weight basis which will minimize impact of freezing/thawing on results for non-volatile constituents. Any time for which a sample is thawed should be considered against the HT clock. Extension of HT by freezing is not appropriate for certain constituents (e.g., VOCs).
B-22	Appendix B	Table 4		Metals-6020 ICSA limits should be 80-120%. Does this over rule the method which does not have ICSA limits?	Yes.
Global	App B	NA	NA	Many of the method-specific criteria are not requirements set forth by SW-846 - will the Department be certifying laboratories for modified methodology (e.g., 6010B-Mod)?	Laboratories will continue to establish their own method-specific analytical acceptance criteria as they currently do. The caveat to this is, if a laboratory is going to be performing the DKQPs, then they will subscribe to the DKQP acceptance limits established. There will be no separate certification at this time.
B-23	Appendix B	Table 4	Line 1	Same issue with LCS containing "all target analytes" as discussed above.	Preliminary use of a LCS and LCSD should include all analytes such that the laboratory has compound specific data with regard to a method's accuracy. At such time during a remedial phase where site-specific compounds of concern have been identified, then it would be acceptable to fortify the LCS and LCSD with only those compounds. And as stated in other responses, these tables are designed to be "all-inclusive" with options to truncate where appropriate.

B-23 & B-24	Appendix B	Table 4	B-23 Line 3; B-24 Line 1	Recovery and RPD of the MS/MSD can be realistically impacted by in-situ treatment and may not recovery (an indication of a successful stabilization). However, the criteria listed here could be used to reject data from a successful treatment process. There remains also the requirement that it be site/sample specific rather than "batch" MS/MSD.	Data are seldom if ever rejected due to MS/MSD outliers. In this particular example, if in-situ treatment is designed to make the analytes unavailable and the investigator is trying to demonstrate that, then these results could be a tool to demonstrate the efficiency of the process. However, while it is always beneficial to perform MS/MSD analyses on site specific samples, if an investigator wishes to use MS/MSD as an indication of a method's accuracy, then in this instance using a sample from another site would be beneficial
B-24	Appendix B	Table 4	Line 3	The results of the serial dilution should and can only be used if both diluted and undiluted samples are on the calibration curve - if not there can be no quantitative conclusions drawn.	We have never seen data where the lab didn't have both results within the range of the calibration curve.. If not, then the data should not used.
B-25	Appendix B	Table 4	Line 3	Filtration on site will add considerable uncertainty in the final results. Use of the proper bottles should prevent bias that may occur when a sample for total metals is sent to the lab. The proper bottles should be used and the sample should be allowed filtration at the lab.	In those rare instances where dissolved metals analyses are requested, filtration can be performed at the laboratory and the table has been revised to reflect the change. However, total metals results are to be used for regulatory compliance and dissolved metals results are not.
B-25	Table 4	Row 3		Should this read: Perform dilution to bring analyte within *calibration* range ?	The Table has been corrected.
B-26	Appendix B	Table 4	Line 1	Impact of freezing, thawing and refreezing is a possibility not discussed. It is unclear how this will impact the holding times.	Freezing & thawing primarily impacts the solids content of samples. Every time an analysis is performed, a new %solids should be done and data reported on a dry-weight basis which will minimize impact of freezing/thawing on results for non-volatile constituents. Any time for which a sample is thawed should be considered against the HT clock. Extension of HT by freezing is not appropriate for certain constituents (e.g., VOCs).
B-26	Appendix B	Table 4	Line 3	Same comment regarding data completeness as described above.	The document was never designed to be prescriptive. It is designed to provide a level of flexibility, the magnitude of which is, in part, determined by the project-specific DQOs. On a case-specific basis, acceptance criteria should be specified in the QAPP, delineating “how good” the data will need to be for use, Completeness is the fraction of planned data that must be collected in order to be sufficient for the intended use of the data. While ≥ 90% completeness is the target level noted in the document, the "flags" that would contribute to this number would have to be defined by the investigator on a case-by-case basis.
B-28	Appendix B	Table 4	Lines 2 & 3	Is the intent a site/sample specific MS/MSD or is a batch MS/MSD satisfactory based on the discretion of the investigator. Same issues regarding inclusion of all target analytes as discussed above.	The intent is to have a site specific sample. However, batch could be used at the discretion of the investigator.
B-28	Appendix B	Table 1		Metals-Linear Dynamic Range should be checked every six months. Where is this requirement from? It is not in SW-846.	SW-846 Method 6010B Section 7.2.5.4 states this recommendation. It is not a requirement.

B-28	Appendix B	Table 5		Pesticides-for endrin aldehyde MS/MSD/LCS lab recoveries are wider than the standard 30-150%. Is this a lab requirement?	These are parameters that laboratories should be able to achieve when following the DKQPs. Should a laboratory choose to follow tighter "acceptance" ranges, they are permitted to do so.
B-28	Appendix B	Table 5		Pesticide-RPD lab values are wider than the standard 30% for solids and 20% for waters. Is this a lab requirement?	The criteria associated with DKQPs were developed such that that laboratories should be able to achieve them on a routine basis. Should a laboratory choose to follow tighter "acceptance" ranges for these criteria, they are permitted to do so.
B-29	Table 5			8081A and B, Sample Dup, 1 per 20 if MS/MD not performed	The statement is correct. Additionally, even if MS/MSD are performed, should the investigator wish to obtain additionally information with regard to precision, it is recommended a duplicate samples/analyses be performed.
B-29	App B	NA	NA	Will the non-conformance include a discussion of which chromatography column displayed an anomaly and evaluate from which column the data was reported?	Information such as that represented in the comment should always be addressed by the laboratory. If it was not included in a non-conformance summary then it should be addressed elsewhere in a summary as part of a deliverable.
B-31	Appendix B	Table 5		Pesticides-If % difference is >100 between both GC columns must lab reanalyze?	If the %D between two columns is >100%, it is usually necessary to reanalyze the sample. However, there may be circumstances where the data still meet the DQOs established in the QAPP (e.g. both numbers are significantly above an "action level" at the site)and as such, reanalysis would not be required. In such instances, it is imperative that the laboratory and investigator have well established lines of communication for the process to work.
B-31	Appendix B	Table 5	Line 1	For a dual column pesticide run, there is a requirement to report the highest of the two results. Other protocols require reporting the lowest result. The result that should be reported is the higher of the two columns where there are clear absences of interference.	The higher of the two results is to be reported. However, if it can be demonstrated that the interfering compounds have affected the chromatography/integration of peak area and subsequently reported result, then the lower number could be reported. However, proper documentation should be included in the deliverables.
B-31, B-38		Table 5 and 6	Precision and Accuracy for quantitation	Typically, laboratories report the higher of the two column results for compounds which exhibit acceptable dual coumn RPDs and the lower of the results for those with RPDs greater than 40%. Under Region II validation guidelines, the lower (rather than the higher as stated in this table) of the two concentrations from the two GC columns is reported (unless the higher can be determined acceptable) and qualified based on the dual column RPDs which exceed the specified control limits. This is due to extreme differences in dual column results typically found in samples which exhibit matrix interference which would result in the reporting of high-biased results or the reporting of presumptively present compounds at much higher concentrations.	The higher of the two results is to be reported. However, if it can be demonstrated that the interfering compounds have affected the chromatography/integration of peak area and subsequently reported result, then the lower number could be reported. However, proper documentation should be included in the deliverables.

B-32	Appendix B	Table 5	Line 1	What is meant by the sample-specific RL. Does this infer that an RL must be established for each sample or was the intent matrix-specific (i.e., aqueous, soil) which is a more reasonable and broader practice.	Reporting limits are compound and matrix specific. When non-aqueous samples are analyzed and results are corrected for percent solids, similarly, the "effective" reporting limit is also corrected. As an example a reporting limit for compound X is10 ppb but when corrected for 50% solids, the "sample-specific adjusted RL" for that compound becomes 20 ppb.
B-32	Appendix B	Table 5	Line 3	Impact of freezing, thawing and refreezing is a possibility not discussed. It is unclear how this will impact the holding times.	Freezing & thawing primarily impacts the solids content of samples. Every time an analysis is performed, a new %solids should be done and data reported on a dry-weight basis which will minimize impact of freezing/thawing on results for non-volatile constituents. Any time for which a sample is thawed should be considered against the HT clock. Extension of HT by freezing is not appropriate for certain constituents (e.g., VOCs).
B-33	Appendix B	Table 5	Line 2	Same comment regarding data completeness as described above.	The document was never designed to be prescriptive. It is designed to provide a level of flexibility, the magnitude of which is, in part, determined by the project-specific DQOs. On a case-specific basis, acceptance criteria should be specified in the QAPP, delineating “how good” the data will need to be for use, Completeness is the fraction of planned data that must be collected in order to be sufficient for the intended use of the data. While ≥ 90% completeness is the target level noted in the document, the "flags" that would contribute to this number would have to be defined by the investigator on a case-by-case basis.
B-34	Appendix B	Table 6		PCB-MS/MSD/LCS lab recoveries are wider than the standard 40-140%. Is this a lab requirement?	The criteria associated with DKQPs were developed such that that laboratories should be able to achieve them on a routine basis. Should a laboratory choose to follow tighter "acceptance" ranges for these criteria, they are permitted to do so.
B-34	Appendix B	Table 6		PCB-RPD lab values are wider than the standard 30% for solids and 20% for waters. Is this a lab requirement?	The criteria associated with DKQPs were developed such that that laboratories should be able to achieve them on a routine basis. Should a laboratory choose to follow tighter "acceptance" ranges for these criteria, they are permitted to do so.

B-35	Table 6			Closing CCAL PCB and Pest shoud not be required for Internal Standard analysis, Verification to verify Aroclor other than 1660 within 12 hours should not be necessary if there is a 6 point curve.	Most of the PCB analyses are performed as aroclors and not congeners and as such, the internal standard method is seldom used. However, per 11.6.8, the commenter is correct and as such, the table has been modified. If a multi-point calibration is used with non-1016/1260 aroclors then Section 11.6.2 of the method would apply: 'A calibration standard must also be injected at intervals of not less than once every twenty samples (after every 10 samples is recommended to minimize the number of samples requiring reinjection when QC limits are exceeded) and at the end of the analysis sequence." If the typical 1016/1260 calibration procedure is used, then per 11.6.2, "The calibration verification process does not require analysis of the other Aroclor standards used for pattern recognition, but the analyst may wish to include a standard for one of these Aroclors after the 1016/1260 mixture used for calibration verification throughout the analytical sequence." It was determined to be beneficial to include the verification of the Aroclor to provide qualitative certainty to the best extent possible.
B-36	Appendix B	Table 6	Line 1	Quantitation 1016, 1260 and other aroclors is reasonable using a midpoint for non 1016 & 1260 aroclors.	The average calibration factor is used for the aroclors that are included in the mufti-point calibration (typically 1016/1260) and the minimum of three calibration factors (one from each identifying peak) for the single point aroclors is used for the quantitations.
B-37	App B	table 6	CCAL	states that "Aroclors other than 1016 and 1260 must be verified within 12 hourts of being detected in a sample" and to "recalibrate as required by the method" The method does not require a CCV in this manner since the 1016/1260 standard covers the peaks in the other aroclors. Can this requirement be removed?	It was determined to be beneficial to include the verification of the Aroclor to provide qualitative certainty to the best extent possible. The criteria remains in the DKQP.
B-38	Appendix B	Table 6		PCB-If % difference is >500 between both GC columns must lab reanalyze?	If the %D between two columns is >500%, the sample should be reanalyzed, possibly after dilution should the circumstances dictate it. However, there may be circumstances where the data still meet the DQOs established in the QAPP (e.g. both numbers are significantly above an "action level" at the site) and as such, reanalysis would not be required. In such instances, it is imperative that the laboratory and investigator have well established lines of communication for the process to work.
B-39	Table 6	Row 3		Typo: QC Acceptance Limits, should read: Cool to less than or equals 6 degrees C.	The table has been corrected.
B-39	App B			Throughout section reference in 3RD line "Cool to 6 degrees allow for <2 degrees C. Should this read "+ or - 2 degrees if samples in tact".	The statement stands as is. It is designed to address those situations where temperatures are less than 2 degrees C.

B-40	Appendix B	Table 6	Line 2	Impact of freezing, thawing and refreezing is a possibility not discussed. It is unclear how this will impact the holding times.	Freezing & thawing primarily impacts the solids content of samples. Every time an analysis is performed, a new %solids should be done and data reported on a dry-weight basis which will minimize impact of freezing/thawing on results for non-volatile constituents. Any time for which a sample is thawed should be considered against the HT clock. Extension of HT by freezing is not appropriate for certain constituents (e.g., VOCs).
B-41	Appendix B	Table 6	Line 1	Same comment regarding data completeness as described above.	The document was never designed to be prescriptive. It is designed to provide a level of flexibility, the magnitude of which is, in part, determined by the project-specific DQOs. On a case-specific basis, acceptance criteria should be specified in the QAPP, delineating “how good” the data will need to be for use, Completeness is the fraction of planned data that must be collected in order to be sufficient for the intended use of the data. While ≥ 90% completeness is the target level noted in the document, the "flags" that would contribute to this number would have to be defined by the investigator on a case-by-case basis.
B-41	Appendix B	Table 6		For both the soluble & insoluble Matrix Spike, the corrective action is potentially impossible and may lead to a lot of qualified data. Currently, as per the method (7196A/3060 digestion), IAL follows the rule that if an oxidizing matrix fails 2x, then the data are qualified (because an oxidizing matrix SHOULD NOT fail). However, if a reducing matrix fails 2x, it is because it is reducing - it is an inhertent issue with the matrix. Data are not qualified in this situation, but it is narrated in the conformance/non-conformace summary/case narrative. Some MSs may never pass the 50-150% criteria, which is going to cause a lot of problems around the state.	(Note: The reference should be to Table 8, not Table 6). There are some instances where MSs will be below 50% for both soluble and insoluble spike recoveries which could cause the rejection of data. (Rarely if ever will MSs be above 150%.). This is where data usability plays a role in that additional data/supporting analyses such as TOCs, Eh/pH, sulfides, ferrous iron concentration comes into play.
B-43	Appendix B	Table 7	Line 4	These entries suggest a site/sample specific MS/MSD while other parts of the collective works suggest this is optional and that a matrix relevant sample can be selected as "batch" QC. This and many table entries appear inconsistent with the "batch" QC approach.	While at first glance, the entries in total may seem inconsistent, their use is defined by each method. Batch QC is used conventionally with inorganic analyses and, where their application is specified, is appropriate. Other QC samples need to be site specific otherwise their utility is lost.
B-45	Appendix B	Table 7	Line 3	Same comment regarding data completeness as described above.	The document was never designed to be prescriptive. It is designed to provide a level of flexibility, the magnitude of which is, in part, determined by the project-specific DQOs. On a case-specific basis, acceptance criteria should be specified in the QAPP, delineating “how good” the data will need to be for use, Completeness is the fraction of planned data that must be collected in order to be sufficient for the intended use of the data. While ≥ 90% completeness is the target level noted in the document, the "flags" that would contribute to this number would have to be defined by the investigator on a case-by-case basis.

B-45	App B	table 7	sample preservation	preservation "pH is > to 12…" -- should this be >/= 12?	The table has been corrected.
B-45	Tabl;e 7	Row 1		Typo: Remove "to" in: "adding sodium hydroxide until pH is > to 12..."	The table has been corrected.
B-46	Appendix B	Table 7	Line 1	"P" in Potential should not be capitalized; "=" should be changed to "-".	The table has been corrected.
B-47	Table 8			HexCr- calibration cc is 0.998; labs typically use 0.995 for Inorganics	The table has been corrected.
B-48	Appendix B	Table 8	Line 2	NIST SRM 2701 confidence intervals should be established using the method at issue or a gravimetric measurement, but not an independent method such as SW 846 Method 6800.	There are limits for this particular standard from NIST for all 3 methods: 6800, 7196A and 7199. The laboratory can use a solid LCS from whichever vender they use. Or, the lab can make up their own.
B-48	Table 8	Row 2		Specifies a particular Soil SRM to use, "NIST 2701". Should be generic	The only reference material currently available is the NIST 2701 (eventually to be replaced by 2700).
B-48	Appendix B	Table 8	Line 3	The RPD for Cr(VI) for the sample matrix duplicate (aqueous) is 20% and the same 20% is used for soils. In other methods, soils are afforded 30%.	Method 3060A require 20% for soils.
B 48	Table 8			HexCr: Soil LCS-NIST Standard Reference Material (SRM) 2701 is qouted and should be generic; Should include the alternate use of a CRM.	The only reference material currently available is the NIST 2701 (eventually to be replaced by 2700).
B-49	Appendix B	Table 8		Typo in NOTES. Item #1 is "1. 1."	Item 1 remains unchanged.
B-49	App B	table 8	matrix spike	the corrective action for <50% MS is to reject the data, this is not in compliance with 3060A. The evaluation of the eH/pH described on p. B-52 is what should be done per 3060A. If a sample is heavily reducing, 0% recovery may be the recovery, and the chemistry would indicate this is expected.	This criteria was established as program policy and remains in tact today. However, even though data may be rejected, usability issues still come into play. Depending on the site/project specific DQOs, data might be salvageable. And as noted above, There are some instances where MSs will be below 50% for both soluble and insoluble spike recoveries which could cause the rejection of data. (Rarely if ever will MSs be above 150%.). This is where data usability plays a role in that additional data/supporting analyses such as TOCs, Eh/pH, sulfides, ferrous iron concentration comes into play.
B-49	Table 8			HexCr:MS- rejection criteria: "If MS (soluble and insoluble) <50% or >150% reject data". There is no evaluation of pH and ORP- it should be added to this section. Also criteria should be <30%	Data usability needs to be addressed when data are rejected. The rejection criteria has been established by the DEP. The usability of rejected data should be evaluated using multiple lines of evidence including pH, ORP and other field data.
B-49	Appendix B	Table 8	Lines 1 - 3	Rejecting results for Cr(VI) where the matrix spike is not recovered within the 50 - 150% window ignores reducing samples or reductive treatment options. This approach rejects data that in fact may show an incompatibility with Cr(VI) or an effective in-situ treatment. It rejects the data from a process that may be highly successful. The approach at Method 3060A should be followed to explain the MS/MSD less than 75% or more than 125% and avoid data flags all together in instance of reducing matrices.	There are some instances where MSs will be below 50% for both soluble and insoluble spike recoveries which could cause the rejection of data. (Rarely if ever will MSs be above 150%.). This is where data usability plays a role in that additional data/supporting analyses such as TOCs, Eh/pH, sulfides, ferrous iron concentration comes into play.

B-49	Appendix B	Table 8		Cr6(soil)-If insoluble spike recovery fails then reanalyze. If reanalysis fails then qualify data. The lab currently re-preps and re-runs all batches if any initial spike recovery fails. The lab also provides ORP/pH raw and graph data for all production samples. The data from the lab after these procedures is as far as we can go under the method. Is further evaluation in the end user's hands?	Yes. While data may fail criteria, further evaluation is in the hands of the end user. However, discussions should be had between the laboratory and the end user to determined issues that may caused the failure and if the additional analyses performed (such as Eh/ph., sulfide, TOC) support their conclusions.
B-51	Appendix B	Table 8	Line 1	Same comment regarding data completeness as described above.	The document was never designed to be prescriptive. It is designed to provide a level of flexibility, the magnitude of which is, in part, determined by the project-specific DQOs. On a case-specific basis, acceptance criteria should be specified in the QAPP, delineating “how good” the data will need to be for use, Completeness is the fraction of planned data that must be collected in order to be sufficient for the intended use of the data. While ≥ 90% completeness is the target level noted in the document, the "flags" that would contribute to this number would have to be defined by the investigator on a case-by-case basis.
B-52	App B	table 8	preparation of samples…	the pH range listed is just for 7196A, the pH range for 7199 must be 9 +/- 0.5 pH.	The table has been corrected.
B-52	Appendix B	Table 8	Line 1	This is the protocol in Method 3060A along with additional approaches such as a mass balance, etc. Other table entries calling for the rejection of results associated with an MS/MSD recovery of < 50% is inconsistent with this entry and the approach at Method 3060A.	There are some instances where MSs will be below 50% for both soluble and insoluble spike recoveries which could cause the rejection of data. (Rarely if ever will MSs be above 150%.). This is where data usability plays a role in that additional data/supporting analyses such as TOCs, Eh/pH, sulfides, ferrous iron concentration comes into play.
B-54	App B	table 9	CCV	The ICV and CCV list criteria of +/- 10%. The method states CCV at 20%. Can this be changed to the method criteria?	The table has been corrected.
B-57	Appendix B	Table 9	Line 1	Hg results should have the flexibility to use ug/kg instead of mg/kg as many of the results will likely be in fractions of a ppm.	Thank you for the comment. The table remains unchanged with regard to this issue.
B-58	Appendix B	Table 9	Line 1	Filtration on site will add considerable uncertainty in the final results. Use of the proper bottles should prevent bias that may occur when a sample for total metals is sent to the lab. The proper bottles should be used and the sample should be allowed filtration at the lab.	In those rare instances where dissolved metals analyses are requested, filtration can be performed at the laboratory and the table has been revised to reflect the change. However, <u>total</u> metals results are to be used for regulatory compliance and dissolved metals results are not.

B-58	Appendix B	Table 9	Line 2	See comments on freezing, thawing and refreezing above.	Freezing & thawing primarily impacts the solids content of samples. Every time an analysis is performed, a new %solids should be done and data reported on a dry-weight basis which will minimize impact of freezing/thawing on results for non-volatile constituents. Any time for which a sample is thawed should be considered against the HT clock. Extension of HT by freezing is not appropriate for certain constituents (e.g., VOCs).
B-59	Appendix B	Table 9	Line 1	Typographical errors: "P" in potential should not be capitalized and "=" should be changed to a "-".	The table has been corrected.
B-60 & B-61	Appendix B	Table 10		LFM & LFB are described as the same thing (and they are not). Site Sample Matrix is **not** used for the LFB - an **LFB** is "*Laboratory Fortified Blank (LFB) -- An aliquot of reagent water or other blank matrix to which known quantities of the method analytes are added in the laboratory. The LFB is analyzed exactly like a sample, and its purpose is to determine whether the methodology is in control, and whether the laboratory is capable of making accurate and precise measurements."* **LFM** is *"Laboratory Fortified Sample Matrix (LFM) -- An aliquot of an environmental sample to which known quantities of the method analytes are added in the laboratory. The LFM is analyzed exactly like a sample, and its purpose is to determine whether the sample matrix contributes bias to the analytical results. The background concentrations of the analytes in the sample matrix must be determined in a separate aliquot and the measured values in the LFM corrected for background concentrations"*	Description of LFB QC Acceptance Limits changed from "Must contain all target analytes performed on Site field sample" to "Must contain all target analytes spiked into a blank matrix".
B-62	App B	NA	NA	Most of the quality criteria (e.g., response factors, curve statistics) are not currently presented in the NC summary - this represents an enormous change from current practice.	The non-compliant quality criteria that ultimately affect data usability should be made available to the investigators. Key components such as target analytes of concern and RLs should be addressed early on in the QAPP process, discussed as part of the DQOs and reporting requirements addressed and agreed to y the investigators and laboratory. It is not the intent in the DKQPs to have every outlier addressed in a non-conformance summary.
B-63	Appendix B	Table 10		Holding time for unpreserved samples is 24 hours. This should be notated, as not all samplers preseve and the labs will need guidelines to go on if we must follow this QAPP. We are told to follow preservation instructions in Section 8.0 of Method 524.2, and this is section 8.1.5 - "*If a sample foams vigorously when HCl is added, discard that sample. Collect a set of duplicate samples but do not acidify them. These samples must be flagged as "not acidified" and must be stored at 4°C or below. These samples must be analyzed within 24 hours of collection time.*" The QC acceptance limit for this is not 14 days.	The table has been modified to reflect this issue.
B-63	App B	NA	NA	There are different requirements for field duplicate precision, (e.g., 50%, 30%) depending on the parameter. This should be made consistent across methodology so that the evaluation of field duplicate performce is meaningful.	Some methods depending on the matrix are inherently more precise and as such, it is appropriate to have different acceptance criteria. However, the tables have been modified to assure their accuracy.

B-63		Table 10		DQI- Sensitivity, Reporting of Non-detects: QC Acceptance Limits(Measurement Performance Criteria) should be something about RLs not TICS, TICs should be in separate entry.	The table has been modified to address the issue.
B-64	Appendix B	Table 10	Line 2	Same comment regarding data completeness as described above.	The document was never designed to be prescriptive. It is designed to provide a level of flexibility, the magnitude of which is, in part, determined by the project-specific DQOs. On a case-specific basis, acceptance criteria should be specified in the QAPP, delineating “how good” the data will need to be for use, Completeness is the fraction of planned data that must be collected in order to be sufficient for the intended use of the data. While ≥ 90% completeness is the target level noted in the document, the "flags" that would contribute to this number would have to be defined by the investigator on a case-by-case basis.
B-64	Appendix B	Table 10		1,4-Dioxane, methyl ethyl ketone, 2-hexanone are not 524.2 compounds	These compounds have been analyzed using this method and as such, have been included in the footnote addressing "difficult compounds".
B-65	Appendix B	Table 11	Line 2	In this and other organic methods, there is no direct reference to second and third order curves assuming the requisite criteria in Method 8000 are met.	These tables were developed using the most commonly used options included in the methods. It would be difficult to address all options of all methods. Albeit very rarely observed in routine analyses, second and third order curves could be used if all relative acceptance criteria are met.
B-66	Appendix B	Table 11	Lines 3 & 4	Same comment regarding all target analytes as discussed above. Permits, programs or extensive conceptual site models may be useful in reducing the analyte list.	The number of analytes is determined based on the phase of the remediation and the number specified in the site specific DQOs as defined in the associated QAPP. The number of analytes can be reduced based on that which has been determined during the investigation as per N.J.A.C. 7:26E-2.1(c)4.
B-66	Appendix B	Table 11		MS/MSD criteria for waters may be too strict. IAL currently uses 30%. 20% may lead to many more failures being reported.	The committee believes that 20% and 30% are appropriate for aqueous and non-aqueous respectively.
B-67	Appendix B	Table 11		VO-Surrogate recoveries for poor purgers are frequently outside 70-130% range. Is this a lab requirement?	Surrogate recoveries should be able to meet the 70 - 130% recovery criteria and laboratories should follow this they are to follow the DKQP.
B-67	Appendix B	Table 11	Line 1	Same comment regarding all target analytes as discussed above. Permits, programs or extensive conceptual site models may be useful in reducing the analyte list.	The number of analytes is determined based on the phase of the remediation and the number specified in the site specific DQOs as defined in the associated QAPP. The number of analytes can be reduced based on that which has been determined during the investigation as per N.J.A.C. 7:26E-2.1(c)4.

B-67		Table 11		DQI- Accuracy, QC Sample or Activity: Internal Standards(IS). The frequency/number entry should be 3 per sample including QC.	The table has been corrected.
				DQI- Sensitivity, Reporting of Non-detects: QC Acceptance Limits(Measurement Performance Criteria) should be something about RLs not TICS, TICs should be in separate entry.	The table has ben modified to address this issue.
B-69	Appendix B	Table 11		No holding time for unpreserved samples, even though the method allows/requires this in certain situations.	The table has been modified to reflect this issue.
B-69	Appendix B	Table 11	Line 4	Are there any provisions for shorter holding times for unpreserved samples?	Unpreserved field samples should be analyzed within 7 days of sampling. For specific scenarios,SW-846 Chapter 4, Table 4-1 should be used.
B-70	Appendix B	Table 11	Line 2	Same comment regarding data completeness as described above.	The document was never designed to be prescriptive. It is designed to provide a level of flexibility, the magnitude of which is, in part, determined by the project-specific DQOs. On a case-specific basis, acceptance criteria should be specified in the QAPP, delineating “how good” the data will need to be for use, Completeness is the fraction of planned data that must be collected in order to be sufficient for the intended use of the data. While ≥ 90% completeness is the target level noted in the document, the "flags" that would contribute to this number would have to be defined by the investigator on a case-by-case basis.
B-71	Appendix B	Table 11	Lines 3 & 4	Same comment regarding all target analytes as discussed above. Permits, programs or extensive conceptual site models may be useful in reducing the analyte list.	The number of analytes is determined based on the phase of the remediation and the number specified in the site specific DQOs as defined in the associated QAPP. The number of analytes can be reduced based on that which has been determined during the investigation as per N.J.A.C. 7:26E-2.1(c)4.
B-67 and B-73	Table 11 and 12			IS section confusing - states need 6 IS but states a minimum of 3	The tables have been corrected.
B-73		Table 12		DQI- Accuracy, QC Sample or Activity: Internal Standards(IS). The frequency/number entry should be 3 per sample including QC.	The table has been corrected.
				DQI- Sensitivity, Reporting of Non-detects: QC Acceptance Limits(Measurement Performance Criteria) should be something about RLs not TICS, TICs should be in separate entry.	The table has been modified to reflect this issue.
B-69	Appendix B	Table 11		No holding time for unpreserved samples, even though the method allows/requires this in certain situations.	The table has been modified to reflect this issue.

B-73	App B	NA	NA	The document should indicate how laboratories will qualify data.	The exact means by which data are qualified tend to be contract specific or, in the case of the USEPA SLP SOWs, method specific. Without being overly prescriptive, how to qualify data is somewhat addressed in the definition of "Qualified Data" in the associated Data of Known Quality Protocols Technical Guidance document.
B-74	Appendix B	Table 12	Line 2	Quantitation on a "sample specific" or "matrix specific" basis.	Because sample results are adjusted for percent solids, the "effective" RL changes based on sample-specific characteristics and as such, this language was included in the tables to reflect this scenario.
B-76	App B	NA	NA	A responsible person is not indicated for Data Completeness.	The table has been changed and Investigator has been added.
B-76	Appendix B	Table 12	Line 2	Same comment regarding data completeness as described above.	The document was never designed to be prescriptive. It is designed to provide a level of flexibility, the magnitude of which is, in part, determined by the project-specific DQOs. On a case-specific basis, acceptance criteria should be specified in the QAPP, delineating “how good” the data will need to be for use, Completeness is the fraction of planned data that must be collected in order to be sufficient for the intended use of the data. While ≥ 90% completeness is the target level noted in the document, the "flags" that would contribute to this number would have to be defined by the investigator on a case-by-case basis.
B-78	Appendix B	Table 13	Lines 2 & 3	Same comment regarding all target analytes as discussed above. Permits, programs or extensive conceptual site models may be useful in reducing the analyte list.	The number of analytes is determined based on the phase of the remediation and the number specified in the site specific DQOs as defined in the associated QAPP. The number of analytes can be reduced based on that which has been determined during the investigation as per N.J.A.C. 7:26E-2.1(c)4.
B-78	Appendix B	Table 13		Semivolatiles-for MS/MSD/LCS lab recoveries are wider than the standard 70-130%. Is this a lab requirement?	These are parameters that laboratories should be able to achieve when following the DKQPs. Should a laboratory choose to follow tighter "acceptance" ranges, they are permitted to do so.
B-78	Appendix B	Table 13		Semivolatiles-RPD lab values are wider than the standard 30% for solids and 20% for waters. Is this a lab requirement?	These are criteria that laboratories should be able to achieve when following the DKQPs. It was decided that there are compounds which have always demonstrated difficulty with regard to meeting the standard criteria and as such, their accompanying acceptance criteria was widened. However, should a laboratory choose to follow tighter acceptance" ranges, they are permitted to do so.

B-79	Appendix B	Table 13		Semivolatiles-Surrogate recoveries vary from the listed standard. Is this a lab requirement?	These are criteria that laboratories should be able to achieve when following the DKQPs. It was decided that there are compounds which have always demonstrated difficulty with regard to meeting the standard criteria and as such, their accompanying acceptance criteria was widened. However, should a laboratory choose to follow tighter acceptance" ranges, they are permitted to do so
B-79 & B-82	Appendix B	Table 13		Surrogate criteria set at 30-130% for most compounds (15-110% for AE surrogates), yet on p B-82, it is stated "*Please note that many of the surrogates fall outside* ***or (TYPO: OF)*** *the 30-150% range for…"* This is contradictory.	The footnote in the table has been corrected.
B-80	Appendix B	Table 13	Line 1	Quantitation on a "sample specific" or "matrix specific" basis.	Because sample results are adjusted for percent solids, the "effective" RL changes based on sample-specific characteristics and as such, this language was included in the tables to reflect this scenario.
B-80		Table 13		DQI- Sensitivity, Reporting of Non-detects: QC Acceptance Limits(Measurement Performance Criteria) should be something about RLs not TICS, TICs should be in separate entry.	The table has been modified to reflect this issue.
B-81	Appendix B	Table 13	Line 2	Impact of freezing, thawing and refreezing is a possibility not discussed. It is unclear how this will impact the holding times.	Freezing & thawing primarily impacts the solids content of samples. Every time an analysis is performed, a new %solids should be done and data reported on a dry-weight basis which will minimize impact of freezing/thawing on results for non-volatile constituents. Any time for which a sample is thawed should be considered against the HT clock. Extension of HT by freezing is not appropriate for certain constituents (e.g., VOCs).
B-82	Appendix B	Table 13	Line 2	Same comment regarding data completeness as described above.	The document was never designed to be prescriptive. It is designed to provide a level of flexibility, the magnitude of which is, in part, determined by the project-specific DQOs. On a case-specific basis, acceptance criteria should be specified in the QAPP, delineating “how good” the data will need to be for use, Completeness is the fraction of planned data that must be collected in order to be sufficient for the intended use of the data. While ≥ 90% completeness is the target level noted in the document, the "flags" that would contribute to this number would have to be defined by the investigator on a case-by-case basis.
B-83	Appendix B	Table 14	Line 2	In this and other organic methods, there is no direct reference to second and third order curves assuming the requisite criteria in Method 8000 are met.	These tables were developed using the most commonly used options included in the methods. It would be difficult to address all options of all methods. Albeit very rarely observed in routine analyses, second and third order curves could be used if all relative acceptance criteria are met.

B-83	Appendix B	Table 14	Line 4	Same comment regarding all target analytes as discussed above. Permits, programs or extensive conceptual site models may be useful in reducing the analyte list.	The number of analytes is determined based on the phase of the remediation and the number specified in the site specific DQOs as defined in the associated QAPP. The number of analytes can be reduced based on that which has been determined during the investigation as per N.J.A.C. 7:26E-2.1(c)4.
B-85	Appendix B	Table 14	Line 4	Quantitation on a "sample specific" or "matrix specific" basis.	Because sample results are adjusted for percent solids, the "effective" RL changes based on sample-specific characteristics and as such, this language was included in the tables to reflect this scenario.
B-85	App B	table 14	CCV	states full scan CCV criteria of </=30% for "all other cmpds" but there is no alternate statement to correspond with the "all other", please clarify.	The table has been corrected.
B-86		Table 14		DQI- Sensitivity, Reporting of Non-detects: QC Acceptance Limits(Measurement Performance Criteria) should be something about RLs not TICS, TICs should be in separate entry.	The table has been modified to reflect this issue.
B-87	Appendix B	Table 14	Line 1	Impact of freezing, thawing and refreezing is a possibility not discussed. It is unclear how this will impact the holding times.	Freezing & thawing primarily impacts the solids content of samples. Every time an analysis is performed, a new %solids should be done and data reported on a dry-weight basis which will minimize impact of freezing/thawing on results for non-volatile constituents. Any time for which a sample is thawed should be considered against the HT clock. Extension of HT by freezing is not appropriate for certain constituents (e.g., VOCs).
B-89	Appendix B	Entire Table 15		TO-15 is a GCMS method and there are no items regarding GCMS tune, calibration, etc. as are found in 8260, 8270, etc.	Tune, ICAL, CCV, LCS requirements were added to the table.
B-89	Appendix B	Table 15		NJDEP has stated that air analyses are not to be reported to the MDL, but this table says we can and also how to report it. No good air lab should even need the MDLs to meet the NJDEP VISLs. RLs are always utilized for TO-15 in NJ	The table has been corrected. The statement "Results reported between the MDL and RL qualified "J" has been removed.
B-90		Table 15		DQI- Sensitivity, Reporting of Non-detects: QC Acceptance Limits(Measurement Performance Criteria) should be something about RLs not TICS, TICs should be in separate entry.	The table has been modified to reflect this issue.
B-90	Table 15	Row 1		Frequency / number should be "upon request" when reporting TICs. Also the "more than 15 TICs" should be "30" to be consistent with previous statement.	The table has been modified to note that up to 15 TICs are to be reported. Should it be determined that TICS are no longer necessary to be reported, then they may excluded from the report.
B-90	Appendix B	Table 15		Please clarify "Report a minimum of 30 non-alkane and non-alkene tentatively identified compounds (TICs); if more than 15 TICs are present, identify the 15 TICs that have the highest estimated concentration."	The table has been modified to note that up to 15 TICs are to be reported.

B-91	Appendix B	Table 15		Please clairify "Sampler must check vacuum prior to taking samples. If the vacuum is -27 to -30 inches of Hg when it left the lab, then the vacuum should be -24 to -27 inches of Hg for samples to be taken." Sounds like a -3"Hg is an assumed loss of vacuum with acceptable field measuring -24 to -27" Hg.	Differences in vacuum from when it leaves the laboratory to when it arrives is the field is frequently observed. The intent of the table is to provide guidelines as to when to use a canister when ∆ vacuum occurs . It was decided that if the vacuum of the canister drops from 30 to 25 inches Hg, then a canister could still be used. However, change grater than would indicate a potential mechanical problem with the canister and the canister should not be used. However, it is always up the discretion of the field personnel in consult with the investigator as to whether or not a canister should be used. The table has been modified to clarify this issue.
B-91	Table 15	Row 1		(CA): define "significantly". MADEP uses 5 in. Hg.	6 inches Hg has been incorporated into the table.
B-91 & B-92	Appendix B	Table 15		Makes no sense. Labs can send out cans between -27"Hg & -30"Hg. If canister is between -27"Hg & -30"Hg on-site, the canister can be used (so it is assumed below -27"Hg is bad). However, as per NJDEP VITG (3/2013), section 3.5.7: *"The investigator should verify the vacuum in the stainless steel canister before and after the sample collection. The laboratory is required to record the vacuum in the canister upon shipment. In turn, the investigator should verify the canister's initial vacuum at the site prior to collecting a sample. If the initial vacuum at the site is in excess of 10% lower than the lab reading, the canister should not be utilized for sampling. The potential for pressure loss during transit negates the usability of the data generated from the defective canister or regulator."* This allows for the canister to drop to -24"Hg & -27"Hg, based on the allowable starting range, but this page is confusing. As you move on to pB-92, this is stated. The items on pB-91 and B-92 are contradictory.	The table has been modified to address these concerns and the apparent contradiction corrected. Ranges of -24 to -30 inches Hg are used consistently in the tables.
B-92	Appendix B	Table 15	Line 3	Same comment regarding data completeness as described above.	The document was never designed to be prescriptive. It is designed to provide a level of flexibility, the magnitude of which is, in part, determined by the project-specific DQOs. On a case-specific basis, acceptance criteria should be specified in the QAPP, delineating "how good" the data will need to be for use, Completeness is the fraction of planned data that must be collected in order to be sufficient for the intended use of the data. While ≥ 90% completeness is the target level noted in the document, the "flags" that would contribute to this number would have to be defined by the investigator on a case-by-case basis.
B-92	Appendix B	Table 15		Method Blank, Target analytes < RL is GREAT (I love this), but is contradicts the stricter provisions set in USEPA TO-15, where the method blanks must be reported to the PQL (MDLx3). The PQL is very often (most of the time) lower than the RL.	Due to the specific reporting requirements for TO-15 data for the SRP, no sample results are currently reported less than the RL. As such, in order to maintain consistency, it was determined that target compounds found in a Method Blank need only to be less that the RL.

B-93	Appendix B	Table 15		Footnote 1 (which is confusing when you also have NOTE 1): "Please note that trip blanks, field blanks, and sample duplicates are not usually included in sampling activities associated with canister based air sampling" - MS/MSDs should also be specified here. This is a question asked on the full data deliverable form and is N/A for air.	The note has been modified to remove any confusion, The committee agrees that trip blanks, field blanks, MS/MSDs are not usually used with TO-15 and as such criteria have not been included in the table.
B-92	Table 15	Row 1		QC Acceptance: "then the vacuum should be -24 to -27 in of Hg" seems to be incorrect. Should be -27 to -30 in. Hg. If a client is allowed to use a canister that has a starting vacuum of -24 in. Hg, then the sample will be diluted by 20%.	Canisters should optimally be used with vacuum in the -27 to -30 inches Hg range. However, should the investigator decide that using a canister received at -24 inches Hg meets the DQOs of the sampling effort, then it is their discretion to do so. However, this should be noted in a data report.
B-93	Note 3			Not clear what section of the table this note is in reference to. There appears to be a table missing from the TO-15 sect., such as Table 16 on page B-94. Maybe the title of the table should also reference TO-15?.	The table has been revised to include additional QC Samples. Note 3 refers generally to those compounds whose associated QC criteria could be difficult to meet
General	Appendix B	Table 15		No provisions for ICALs, CCALs, ICVs, LCSs, RLLCSs. BFB criteria in the EPA method has been found to be incorrect. The criteria in the method for 174 is 50-120, but the real range should be 50-100. If the range provided by the EPA was used, 174 would be the base peak.	The table has been revised to include additional QS Samples. The committee thanks the commentor for the comment.
B-94	Table 16	Row 3		"IS %Recovery 50-200%". % Recovery to what, the ICAL? This is not in the method.	The committee feels that the IS in the CCV should have a response within 50-200% of the IS response in the ICAL.
B-94	Table 16	Row 4		QC sample: Audit Standard not defined in definition of terms.	Audit accuracy is defined as the relative difference between the audit measurement result and its nominal value divided by the nominal value. (This is from TABLE 5 of the method.)
B-94	Appendix B	Table 16		BFB criteria in the EPA method has been found to be incorrect. The criteria in the method for 174 is 50-120, but the real range should be 50-100. If the range provided by the EPA was used, 174 would be the base peak.	The committee thanks the commentor for the comment.
B-94	Table 16	Row 4		Should be noted that the LCS and CCV can be the same sample, since they go through the same analytical process (also the case for TO-15).	While operationally, a LCS and a CCV could be the same sample, the department prefers that they are tow distinct samples. The CCV and LCS should be from different suppliers. IS THIS OK???
B-95	Appendix B	Table 16	Line 3	Is the before or after pressurization of the canister?	The question is confusing as the Table in question (Table 16) deals with sorbent tubes and not canisters.
B-95	Appendix B	Table 15 and 16	Add Line	Add an ICV from second source injected neat (no static or dynamic dilutions) to verify calculations for dilutions are correctly applied.	If a CCAL is from a second source, then an ICV would not be needed.
B-95	Appendix B	Table 16		Flow Rate checking - Whose responsibility is this? Sampler? Lab? Rental company?	The table has been revised. The sampler is responsible to check the flow rate for the sorbent.
B-95	Table 16	Row 3		QC acceptance limits: units are incorrect; should be "ng/tube", not "ppb".	"ppb" was cited to give the laboratory and investigator guidance as to what an "equivalent concentration" reporting limit should be after the mass (ng) captured on the sorbent tube has been converted to a concentration based on volume of air sampled. ppb remains in the table.
B-96	Table 16	Row 1		Corrective Action: should be "sampling pump" not "flow controller". Flow controllers are what is typically used for canister sampling.	The table has been corrected.

B-97	Table 16	Row 1		QC sample or activity: Method Blank should be "Analytical", not "Sampling".	The table has been corrected.
General	Appendix B	Table 16		No requirement for clean tube certification? I believe this may tie into the Conditioning of Sorbent Tubes, but criteria should be provided (should be Target Analytes < RL)	A RL criteria has been added to the table under the "Conditioning of Sorbent Tube" activity.
B-98	Appendix B	Table 17		Blank criteria as <10x sample concentration… seems too vague. Method says *"Each day before calibration and after the calibration, the analyst shall analyze a reagent blank (instrument blank) to demonstrate that interferences from the analytical system are under control. Peaks should not be detected above the quantitation limit within the retention time window of any carbon range of interest. If so, re-extraction of all associated samples may be warranted."* So, blanks should really be <RL. IAL has no problem with this, nor should any other lab. If a sample or group of samples are run with high concentrations (e.g. 50000mg/kg), the blank can be 5000mg/kg?	The table has been modified to clarify this issue. Method blanks are to have concentrations less than 5X MDL without qualifications/re-analysis options described in EPH method section 9.1.4 having to be exercised.
B-99	Table 17			LCS/D needs to be fuel #2 - Labs do use alkane/aro mix; This section implies you have to run two sets of LCS/Ds, one of fuel#2 and one of ali/aro. COD iis usually found in the aro fraction. CCAL should be 25% of ICAl curve not 50%.	LCS and LCSD are to be #2 fuel oil when #2 fuel is the contaminant of concern. However, for those scenarios where heavier petroleum products are of concern, then the composition of the LCS/LCSD is to be as defined in the method. The CCAL %D from the table is listed as, "%D ≤ 25% for each carbon range, ≤ 30% any single compound in a range." 50% is not noted for the CCAL.
B-100	Table 17			EPH- Sample Duplicate- "5% of samples for each matrix from site"	The table has been modified to clarify this issue.
B-102	Appendix B	Table 17	Line 2	Quantitation on a "sample specific" or "matrix specific" basis.	The committee wishes to keep "sample specific" as reporting limits could effectively change due to corrections for %solids and dilutions.
B-104	Appendix B	Table 17	Line 1	Same comment regarding data completeness as described above.	The document was never designed to be prescriptive. It is designed to provide a level of flexibility, the magnitude of which is, in part, determined by the project-specific DQOs. On a case-specific basis, acceptance criteria should be specified in the QAPP, delineating “how good” the data will need to be for use, Completeness is the fraction of planned data that must be collected in order to be sufficient for the intended use of the data. While ≥ 90% completeness is the target level noted in the document, the "flags" that would contribute to this number would have to be defined by the investigator on a case-by-case basis.
Document 3: Quality Assurance Project Plan Technical Guidance					

General				All of these documents are redundant, where many items overlapping or verbatim from other documents. Perhaps a preface should be written for ALL FOUR documents, this way the user is not re-reading the same thing 4 times. The documents could really all be combined, if broken out appropriately into sections. It is time consuming to keep re-reading everything.	Much discussion occurred among the committee members with regard to the format of the documents. It was determined that due to the breadth and scope of the information, having one document had the potential to be intimidating to the point of it not being used at all. As such, several documents were created. Although there are redundancies, each document in the main can stand alone. So, for instance, an investigator wishing to create a QAPP has the necessary information available in one document.
Multiple pages		Tables 1-14		Is NJDEP requiring all projects to have site-specific MS/MSD QC sample analysis?	NJDEP is not requiring all projects to have site-specific MS/MSD analyses. However, if one is to gain any utility from the MS/MSDs, then they should come from a site specific sample. Without it, MS/MSD results loose most of their functionality. In fact, if MS/MSDs are not performed on samples from "your" site, the results of these two QC samples have little usefulness with regard to the investigation. The use and origin of the MSDs are to be defined in the site-specific QAPPs.
1	1			1st paragraph, 6th line, 3rd word from end, change "that' to "who"	The sentence has been corrected.
3	2	NA	NA	Departures from the QAPP Guidance should be characterized - what constitutes a departure?	This phrase was deliberately left non-specific. It is meant to note that QAPPS are essential to effective and efficient remediations and this guidance document was developed to promote those efforts. As such, any deviations from an existing QAPP need to be justified and/or explained
6	5	5.0	NA	"The investigator should include an evaluation of the DQIs …." Is this a document under separate cover or is this included in the submittal (e.g., RIW).	DQIs are performance acceptance criteria, the principal of which are precision, accuracy (bias), representativeness, comparability, completeness, and sensitivity. They are the criteria that are included in the DKQP tables and should be worked into any QAPP, either through discussion points or by reverence. The DQIs are not to be included as a document under separate cover.
6	5	5.1		The guidance discusses the CSM in this section, but then does not include the CSM in the required elements of a QAPP discussed in Section 5.5. Please clarify if the CSM is to be included in the QAPP, or if the CSM is a separate document that is to be referenced.	The CSM should be used during the developmental phase of a QAPP. The representation of the conditions and the physical, chemical and biological processes that control the transport, migration and potential impacts of contamination that the CSM provides is a useful tool for the developers of QAPPS. However, even though the CSM can greatly assist in explaining results of an investigation, it is not a required deliverable for documents submitted to the NJDEP. Subsequently, CSMs are not a required deliverable in the QAPP itself.
7	5	5.1		3rd paragraph, 5th line, 4th word should be "become"	The sentence has been corrected.
8	5	5.2		Footnote 3, NJAC 7:26E-6.2(a)4 does not exist in the current TRSR	The footnote has been corrected.

8	5	2	n/a	Footnote 4: *Please update web links in Compendium of Standards	Any incorrect web link in the Compendium of Standards will be corrected at a future date.
8	5	2	n/a	Footnotes 12-13-14-15 /*Please refer to Reporting Limits listed in NJ-TO-15-LL Method	The footnotes are correct. They are the screening levels.
9	5	2		The Reporting Limit (RL) is a change from the standard Method Detection Limit and Practical Quantitation Limit approach. Utilizing the RL will require laboratories to change their lowest calibration standard concentration in order to meet the applicable criteria. The labs will also have to report differently, possibly requiring changes to their LIMS. We question whether these changes are worth the potential reduction in capable labs if some chose not to continue servicing New Jersey projects.	Laboratories should have been incorporating a standard in their calibrations to prove they can meet a reporting limit
9	5	2		Health Department Notification Levels are referenced, yet they do not exist.	The tables that open when the link is clicked may currently contain "NJDEP" in the title. The issue will have to be revisited at such time when changes are made to the tables.
9	5	2	0	RL definition is not accurate. May have standards below the reporting limit	For purposes of this document and to remain consistent with N.J.A.C. 7:26E, the definitions shall remain. In the scenario given, if a standard for a compound for a particular method is run "below" a cited reporting limit, then that low standard now becomes the compound/method-specific reporting limit.
10	5	5.3		last paragraph, next to last line, 4th word should be "meet"	In the fourth paragraph (last paragraph on the page, not section) the word has been corrected.
10	5	3	n/a	Last Paragraph refers to the Lab using a Non-Conformance Summary to "certify" that data meets guidelines / *Please remove the term "certify"as Labs do not "certify" data	The sentence has been edited. Certify has been removed and demonstrate has been added.
11	5	5.3		last paragraph, 2nd line, word after "data" should be "are"	The sentence has been corrected.
11	5	5.3	NA	Unclear if data that fails DKQ Protocols can be used if the investigator performs additional review (validation) and it is deemed adequate (surrogate example provided in text).	The commentor is correct in that if data does not meet all the DKQ criteria, through additional review, the data may still be used on a site/case=specific basis.
12	5	5.4		Footnotes 20 & 21, these citations do not exist in the current TRSR	The two paragraphs and corresponding footnotes have been corrected to be current with the rule.
12	5	5.4	NA	NELAP rather than NELAC in this context.	The sentence has been changed to note NELAP.
12	5	5.4		If the Department does not provide for certification of a method the sampler is required to obtain site specific certification for the field analytical method. This will slow or impede sampling awaiting Department approval. How is this to be expedited? It would be better to provide a generalized certification and allow approved, competent samplers some minor allowances in the field. An alternative would be to certify consulting companies of laboratories and have them train analysts/samplers as is done now for many programs.	The paragraph in question has been corrected. The new language removes the commenter's concern. However, as an aside, there are existing "analyze immediately" parameters performed in the field for which the Office of Quality Assurance provides certification. Those certifications are given to the organization and not the individual and as such, companies are given a certain degree of freedom with regard to managing their certification issues.

13	5	5.4		There is a discussion of correlating field results with those obtained in the lab (at least as corroboration). There is similar approach for 15 minute and 24 hour hold times such as pH and ORP needed for Cr(VI) evaluations. Can the pH be done out of holding time? More time was permitted before the MUR for some of these parameters.	The usability of pH data generated outside of holding time parameters should be determined by the investigator following the requirements in the QAPP.
13	5	5.4		Is it satisfactory that a laboratory certified in NJ be permitted overall certification and the certification covers all trained analysts. The lab would retain training and certification records as is now done, but have more flexibility and rapid TAT on training samplers. Could this also apply to consulting companies under an LSP to "certify" samplers more quickly?	As noted above, certification would apply to the company, not the individual. However, companies that are subcontracted by a LSRP (company) that holds certification would be required to maintain their own certifications.
13	5	5.5		1st paragraph, RIW & RAW references obsolete. Should cite 7:26E-2.2	The paragraph has been corrected.
13	5	5.5		1st bullet, 8th line, word after "SI" should be "do"	The sentence has been corrected.
13	5	5.5		Footnote 22, citation in current TRSR does not referance QA/OC	The footnote has been corrected.
13	5	5.5	NA	Will NFA/RAO be denied on this basis despite no QAPP requirement during SI? This language is confusing.	It is beyond the realm of this committee to address a site-specific disposition of a RAO. However, the RAO presumes the site has been addressed according to NJDEP standards and guidance.
16				Footnote 23 appears unnecessary	The footnote has been removed.
16	5	5.5	NA	Can Requirement #20 be satisfied by appending the laboratory QAM?	Requirement 20 (A detailed description of the laboratories quality assurance/quality control procedures) can be referenced in the QAPP and does not have to be specifically included. However, that information should be made available to the investigator during the QAPP-writing process.
16	5	5	n/a	NJDEP Requirements: Footnote 23 / * Please clarify - Does "draft language" refer to proposed changes/clarifications to the Tech Regs ? Please provide date and web link to document where/when these changes were posted/published	This footnote has been deleted.
19	6	6.4	6.4.1-6.4.6	Can this requirement be met by attaching the DKQ Worksheets?	Some of the requirements can me met by attaching the DKQP tables. However, other site specific information shall have to be separately addressed such as what compounds are required and at what levels of analytical sensitivity.
20	6	4	0	Last Paragraph: refers to typical certified laboratory methods in Appendix D / *Please discuss NJDEP offers accreditation for both SW-846 Methods and EPA 600-series Methods, but NJDEP-SRP is based on SW-846 Methods which are listed in Appendix D / *Appendix D - please use generic Method numbers to allow for future updates.	Language has been added to the paragraph to address this issue. The committee thanks the commentor for the last comment but it was decided the Method numbers would remain as is.
20	6	6.4	6.4.1	It is important to emphasize that a field duplicate is not a collocated sample. Providing for an RPD control on a field duplicate, split under field conditions will likely impart more flags than if done at the laboratory. The advantage of a field duplicate precision over a laboratory sample duplicate is unclear. The lab is in a better position to split a field duplicate. The advantage of a prescriptive (vs. advisory) precision statement is not clear.	The committee thanks you for your comment. The following distinction must be made. A field duplicate sample is a field split sample but may be a field co-located sample. A lab split = matrix duplicate/lab duplicate and not a field duplicate.

20	6	6.4.1		Section discusses dups or matrix dups tp measure precsion not LCS/LCSD?	LCSs are predominantly used as a measure of accuracy. Rarely will LCS/LCSDs be run. However, if they were analyzed, then that too could be an indication of precision.
22	6	6.4	6.4.2	There is a typographical error in the first sentence.	No typographical error was found in the referenced sentence.
22	6	4	2	For additional information on bias, refer to John Taylor…….. Typo? Something missing?	The paragraph has been corrected.
21	6	6.4.2		Section discusses matrix spikes to measure accuracy not LCS/LCSD?	The section has been revised to include LCSs.
22	6	4	2	"*Acceptance criteria for matrix spike measurements are usually expressed as a percent recovery and are usually specified in the analytical method.*" - draft QAPPs do not follow the methods for this	The committee is not sure what the commentor is trying to note. However, with regard to QAPPs, the percent recoveries of matrix spikes and how that could affect data usability should be discussed and noted in any QAPP that has a matrix spike as a component.
22	6	6.4	6.4.2	last sentence in section, reference to Section 3.4.3 appears incorrect	The reference to the section was incorrect and has been removed.
22	6	6.4	6.4.3	last paragraph, reference made to Section 2.9.1 which doesn't exist	The reference to the section was incorrect and has been removed.
22	6	4	2	Top of the page: "...refer to John Taylor....." is something missing here?	The paragraph has been corrected.
23	6	6.4	6.4.5	The document is not clear but it appears to measure data completeness (typically ≥90%) but is not clear as to which flags reduce data completeness. Typically only "R" or rejected data are deemed not usable. Other qualifiers can be considered usable. This should be stated clearly in the document and in the tables. This document and the other documents are unclear on the number of results needed before the 90% criteria applies. What is the criteria if only 5 samples are collected - 100%?	It is exceedingly difficult to describe those flags that would reduce data completeness without removing flexibility from the investigators' domain. As such, the document was never designed to be prescriptive. It is designed to provide a level of flexibility, the magnitude of which is, in part, determined by the project-specific DQOs. On a case-specific basis, acceptance criteria should be specified in the QAPP, delineating “how good” the data will need to be for use, Completeness is the fraction of planned data that must be collected in order to be sufficient for the intended use of the data. While ≥ 90% completeness is the target level noted in the document, the "flags" that would contribute to this number would have to be defined by the investigator on a case-by-case basis. In the last question given, as an example, if 5 samples are taken for purposes of obtaining a RAO, then it may very well be the case that the investigator wants to attain 100% completeness whereas if the samples are being used to delineate, 100% may not be required.
23	6	6.4.5		100 % data completeness is not practical. Should be 90-95%?	As noted above, 100% may not be required based on the project-specific DQOs. However, having 100% as a starting point, especially for "critical samples", is reasonable.

24	6	4	6	Sensitivity - talks about the RLs but not MDLs… an ongoing inconsistency with these documents. What is allowed? What is appropriate? When is it appropriate?	If practical analytical sensitivity is to be discussed, it is important to focus on RLs. MDLs are statistically derived and, whereas they can give an indication as to the level of detection on a "best-case" scenario, they may not reflect the true analytical sensitivity with regard to actual environmental samples. As to inconsistency, the same theme is throughout all documents: MDLs can be useful but RLs are used as the measure of practical analytical sensitivity.
25	6	6.4	6.4.7	It is unreasonable to not allow the use of secondary data for current project objectives. If previous site data has been submitted and accepted (perhaps even validated) by the Department, it should be deemed data of acceptable quality. Likewise peer reviewed data and approaches have been thoroughly vetted by peer (third party) reviewers whose scrutiny equals or exceeds those of the Department. These types of data should be permitted and prior reviews such as these be deemed sufficient for use on current projects.	The section is not meant to imply secondary data should not be used. On the contrary, it is acceptable. However, what the section does wish to denote is, if secondary data are used, then the investigator should verify those data are acceptable before use. The level of scrutiny that will be applied in that verification process is up to the investigator to decide.
25	6	4	6	RL definition is not accurate. May have std below the reporting limit	For purposes of this document and to remain consistent with N.J.A.C. 7:26E, the definitions shall remain. In the scenario given, if a standard for a compound for a particular method is run "below" a cited reporting limit, then that low standard now becomes the compound/method-specific reporting limit.
26	6	6.4	6.4.8	Inconsistent punctuation in the bullet list.	The committee thanks the commentor for the comment.
26	6	6.4	6.4.8	Correct link for footnote 26 is http://www.nj.gov/dep/srp/gis/index.html	The link in the footnote has been changed per the comment.
27	6	6.4	6.4.10	This seems redundant as each of the field QC criteria is specified in the DKQ Worksheets. Can this requirement be met by attaching the Worksheets?	If the needs of the investigator can be met by using the forms, then that would be acceptable. However, there may be modifications required to the worksheets to address specific requirements associated with a particular remedial effort. As an example, a specific concern was used as an example in this section; however, criteria for a trip blank might not be offered in the Worksheet.
27-28	6	4	10	Field QC: *Please define "field matrix spikes" / *Please discuss selection of and planning for collection of sufficient sample volume to support project-specific MS/MSD rather than defaulting to laboratory batch QC samples	The reference to the filed matrix spike has been removed. The section has been modified to include language addressing the commenter's concern.
28	6	4	10	Clarify that Narration of "J" detections in Trip Blanks not necessary	The committee disagrees. If there are compounds of concern found in a sample that are also found in a trip blank, it may be required to quantitatively qualify the results in the sample.
28	6	4	10	Table has an extra, blank line	The blank row has been deleted.

29	6	6.4	6.4.13	This seems redundant as each of the sample handling and holding time requirements is specified in the DKQ Worksheets. Can this requirement be met by attaching the Worksheets?	If the needs of the investigator can be met by using the forms, then that would be acceptable. However, there may be modifications required to the Worksheets to address specific requirements associated with a particular remedial effort. In the example given, there is more detailed information provided than there is in the current Worksheets. The example given is addressing the actual requirements for a specific sampling activity that is not present in a Worksheet..
29	6	6.4	6.4.13	Handling time in the field should be extended from 2 days to 3 days to permit drop shipments on Friday for lab delivery on Monday - this will allow weekend sampling which often is favorable in commercial establishments or on or near roadways. Weekends are less busy and intrusive.	Handling time in the field will remain at two days. However, the time could be extended based on professional judgment with regard to the critical nature and type of sample.
29	6	4	13	Table has an extra, blank line	The blank row has been deleted.
30	6	5	0	Analytical Lab Requirements: *Please discuss selection of analytical methods to meet project DQOs (e.g., Does the project require VOA-LL Methods to meet NJ-GWQS for 1,4-dioxane, EDB, DBCP? / Does the project require PAHs by SVOC-SIM to meet NJ-GWQS? / Does the Lab need to report data to the MDL to meet project-specific limits? / etc)	The section has been modified to contain the components described by the commentor. However, laboratories should not be reporting data down to their MDL for purposes of meeting a regulatory standard. If analytical sensitivity is to be correctly used, the lowest value that a laboratory can reliably report down to is the RL.
30	6	5	1	Project Compounds: *Please discuss the responsibility of the Investigator to determine the project-specific compound list, using the TCL/TAL lists as a starting point / *Please clearly indicate that the Investigator should provide the project-specific analyte list with applicable regulatory criteria (indicating sensitivity requirements) to the laboratory before the start of the field program.	The section has been modified to contain the components described by the commentor.
30	6	5	1	Project Compounds: *Please clearly discuss use of Drinking Water Methods 524 and 525 with TCL Reporting Lists / *This remains a continuous source of confusion	The section has been modified to contain the components described by the commentor.
30	6	6.5	6.5.1	Citations on 1st & 2nd lines are incomplete. Believe "-2.1" is missing.	The citations have been corrected.
30	6	6.5	6.5.2	This seems redundant as each of the analytical quality control requirements is specified in the DKQ Worksheets. Can this requirement be met by attaching the Worksheets?	If the needs of the investigator can be met by using the forms, then that would be acceptable. However, there may be modifications required to the Worksheets to address specific requirements associated with a particular remedial effort. In the example given, there is more detailed information provided than there is in the current Worksheets. The example given is addressing the actual requirements for a specific sampling activity that may not be present in a Worksheet..
30	6	5	1	Table has an extra, blank line	The blank row has been deleted.
31	6	5	2	Table has an extra, blank line	The blank row has been deleted.
31	6	6.5	6.5.3	2nd word should be "investigator" (not "investigatory")	The word has been changed.
31	6	6.5	6.5.3	Footnote 29 - current TRSR citation is NJAC 7:26E-2.1(a)15	The footnote has been corrected.

31	6	6.5	6.5.3	Footnote 30 - current TRSR citation is NJAC 7:26E-1.6(a)5	The footnote has been corrected.
31	6	5	2	Analytical QC: references Lab DUP, Lab MS/MSD, LSC / *Please discuss the difference between project-specific vs. batch QC for MS/MSD / *Please discuss the difference between MS/MSD and LCS/LCSD	The section has been modified to address these issues.
31	6	6.5	6.5.3	Bullet I suggests that a full set of deliverables is needed for Cr(VI) soil sample results. This also applies to other analytes. Does this imply a level 4 package and an full EDD? Why is this needed if data are not going to be third party validated? Level 2 packages should suffice in instances where there is no level 4 or third party validation. Level 2 reports can be produced consistent with rush TAT whereas level 4 reports can take up to an additional week and delays decisions regarding ongoing remediation excavation/in-situ treatments.	Per N.J.A.C.7:26E-Appendix A-I, full laboratory deliverables are to be provided for the types of analytical data cited.
31	6	5	3	Lab Deliverables: *Please clarify that NJDEP developed Methods, including NJ-EPH and NJ-TO-15-LL, that contain method-specific data reporting formats	The deliverables for these two methods have been clarified.
31	6	5	3	*"The format for the full and reduced laboratory deliverables is also specified in Appendix A of the Technical Rule."* Need to elaborate what "the Technical Rule" is - NJDEP has many technical rules and guidances. Later on this page, there is a footnote reference as to which one, but not in this paragraph.	The section has been modified to clarify the issue.
31	6	5	3	*"It should be noted that deliverable requirements for Extractable Petroleum Hydrocarbons (EPH) are specified by the method/guidance document."* - isn't it regulatory? Why not just state it? Is this subject to change?	The section has been modified to clarify the deliverable requirement.
32	6	6.6		Footnote 32 - this is the old TRSR citation	The footnote has been deleted and the corresponding sentence changed.
33				Last paragraph says, "Data usability is the responsibility..." may be reworded as "Data usability assessment is the responsibility…"	The sentence has been modified.
33	6	6.6	6.6.2	First bullet list - the expectation of which entity performs these checks is unclear, investigator or lab. Also,some of these checks are not included in the referenced Data Quality Assessment and Data Usability Guidance Document. Please clarify or revise for clarity.	The first check is traditionally performed by the laboratory as part of their internal review process. If outliers exist, it is ultimately the responsibility of the investigator to determine if the magnitude of the non-conformance allows the data to be used.
34	6	6	3	Examples Box: First example on MS/MSD recoveries / *Please also discuss LCS/LCSD recoveries as many investigators do not request project-specific MS/MSD and many labs do not perform batch MS/MSD but perform an LCS/LCDS instead	The example has been modified to include LCSs.
	Appendix B			Significant Figures: Towards this end, rounding rule, second rule conflicts with the third rule. The second rule may be removed.	The appendix and discussion of significant figures and rounding has been removed from this technical guidance and will be addressed at a future date.
39	App B			Footnote 36 - citation should be 7:26D (not 7:27D)	The citation has been corrected.
40	App C			Last link should be http://www.nj.gov/dep/srp/gis/index.html	The link in the footnote has been changed per the comment.
40	App C			Appendix C - References: #11 / *Please indicate when NJDEP plans to update the FSPM (Third Edition, Aug 2005) to be consistent with the Tech Regs and ARRCS rule amendments May 2012	The committee is uncertain as to when the FSPM will be updated.
40	App C			Appendix C - References: #12 / *Please update EDI Manual reference from Nov 2012 to February 2013	The reference has been corrected.

Appendix D	All			Why are the QAPPs in this document too? All of my comments from document 2, Appendix B apply here for the QAPPs. The QAPPs need to be in document 2 OR 3, not both.	Much discussion occurred among the committee members with regard to the format of the documents. It was determined that due to the breadth and scope of the information, having one document had the potential to be intimidating to the point of it not being used at all. As such, several documents were created. Although there are redundancies, each document in the main can stand alone. So, for instance, an investigator wishing to create a QAPP has the necessary information available in one document. This is especially true of the Tables for the DKQPs.

D-2	Row 4			"B" qualifier is set at 10x MB level	The table implies that data are qualified if the sample result is less than 10X the corresponding method blank result.
D-4	Appendix D	Table 1	Line 2	Matrix spike: here and throughout the documents there is an apparent directive that all matrix spikes be site specific. As laboratories charge for client specific QC, this will increase costs and reduce laboratory throughput by substantially increasing the number of QC samples. In many cases, this could be left to discretion of the investigator as there are cases when site specific QC are important (soils) but other cases where it adds little (groundwater or storm water).	NJDEP is not requiring all projects to have site-specific MS/MSD analyses. However, if one is to gain any utility from the MS/MSDs, then they should come from a site specific sample. Without it, MS/MSD results loose most of their functionality. In fact, if MS/MSDs are not performed on samples from "your" site, the results of these two QC samples have little usefulness with regard to the investigation. The use and origin of the MSDs are to be defined in the site-specific QAPPs.
D-4 and D-5		Table 1		Page D-4 states MS recovery 75-125%, page D-5 suggests 80-120%, please clarify.	The 75-125% refers to percent recovery while the 80-120 refers to RPD.
D-6	Appendix D	Table 1	Line 2	Filtration on site will add considerable uncertainty in the final results. Use of the proper bottles should prevent bias that may occur when a sample for total metals is sent to the lab. The proper bottles should be used and the sample should be allowed to be filtered in the lab.	In those rare instances where dissolved metals analyses are requested, filtration can be performed at the laboratory and the table has been revised to reflect the change. However, <u>total</u> metals results are to be used for regulatory compliance and dissolved metals results are not.
D-12	Appendix D	Table 2	Lines 1 & 2	The corrective action is vague in some cases. Readers will likely interpret "qualify data" to mean that data is usable. It is difficult to determine what actions will render data as "rejected" and unusable from a reading of the tables.	The tables are designed to act as a starting point whereupon data usability decisions are made. However, the actual determinations have to be made on a case-by-case basis and are tied to the data quality objectives associated with the site.
D-14	Appendix D	Table 2	Line 1	Same issues with filtration on site as above.	In those rare instances where dissolved metals analyses are requested, filtration can be performed at the laboratory and the table has been revised to reflect the change. However, <u>total</u> metals results are to be used for regulatory compliance and dissolved metals results are not.

D-14	Appendix D	Table 2	Line 2	Same issues with data completeness and the number of samples as above.	It is exceedingly difficult to describe those flags that would reduce data completeness without removing flexibility from the investigators' domain. As such, the document was never designed to be prescriptive. It is designed to provide a level of flexibility, the magnitude of which is, in part, determined by the project-specific DQOs. On a case-specific basis, acceptance criteria should be specified in the QAPP, delineating “how good” the data will need to be for use, Completeness is the fraction of planned data that must be collected in order to be sufficient for the intended use of the data. While ≥ 90% completeness is the target level noted in the document, the "flags" that would contribute to this number would have to be defined by the investigator on a case-by-case basis. In the last question given, as an example, if 5 samples are taken for purposes of obtaining a RAO, then it may very well be the case that the investigator wants to attain 100% completeness whereas if the samples are being used to delineate, 100% may not be required.
D-18	Appendix D	Table 3	Lines 1 & 3	Document indicates MS and MSD to contain all "target" analytes. It is unclear if this means target analytes that are addressed in the site conceptual model or the full list of target analytes in the method. The latter interpretation would create potential analytical and QC problems for compounds that may have no relevance to the site or its remediation.	The tables are designed to include all the analytes as the starting point . As an investigation proceeds and it has been determined that the list of target analytes has been reduced, then the list of compounds used in the MS/MSDs may be reduced accordingly.
D-18	Appendix D	Table 3	Lines 1 & 3	The document also appears to give approximately equal weight to the MS/MSD pair as it does to the LCS/LCSD pair. The MS/MSD pair can be significantly biased by matrix effects but the LCS/LCSD pair is under the complete control of the laboratory and should be afforded a much greater weight. The impact of the MS/MSD pair should be left to the professional judgment of the validator, LSP or investigator.	The document does not intend to give equal weight to MS/MSDs and LCS/LCSDs. The committee agrees with the commentor with regard to MS/MSDs being subject to bias while LCSs are more under control of the laboratory and may bear "more weight" Additional language has been added to section 6.5.2 of this guidance document.
D-21	Appendix D	Table 3	Line 1	The full impact of freezing the sample is unclear. If the sample is frozen, the HT extends to 1 year from collection. What is the case if the sample is thawed (and perhaps sampled) and refrozen? Is the total HT calculated by a summation of the total time the sample is unfrozen, but not to exceed the one year period? Such an interpretation would aid in retaining samples for unexpected analyses (i.e., forensics) at a later date and retain the integrity of the HT.	Freezing & thawing primarily impacts the solids content of samples. Every time an analysis is performed, a new %solids should be done and data reported on a dry-weight basis which will minimize impact of freezing/thawing on results for non-volatile constituents. Any time for which a sample is thawed should be considered against the HT clock. Extension of HT by freezing is not appropriate for certain constituents (e.g., VOCs).
D-26	Appendix D	Table 4	Line 2	The language regarding "Corrective Action" for the method blank gives the impression that method blank contamination cannot be flagged for 6010 or 6020. The corrective action implies that the extraction is to begin again unless the analytes are 10x that found in the blank. The application and evaluation of data flags in this instance should be left to the discretion of the validator or LSP. The ultimate action (flag) to take is unclear from the table. Does this "reject" the data? Other methods allow for flagging when there is blank contamination. Why not raise the RL to the MB concentration and place a "U" flag on the result.	The table represents the requirements that are specified in the methods/SOPs. The QAPP should identify those scenarios where re-analysis and/or qualification is appropriate.

D-28	Appendix D	Table 4	Line 3	The 5x dilution on the MS sample and requiring ≤ 10% difference is reasonable, but the requirement that the results be >50x RL may be restrictive. It may be that a 5x dilution may not bring the MS sample onto the curve and a 10% requirement will not likely be met. It should be required that both the diluted and undiluted sample fall on the calibration curve for the 10% criteria to apply.	The table (under the Serial Dilution activity) has been reworded to clarify this issue.
D-30	Appendix D	Table 4	Line 1	Same issues with filtration on site as above.	In those rare instances where dissolved metals analyses are requested, filtration can be performed at the laboratory and the table has been revised to reflect the change. However, total metals results are to be used for regulatory compliance and dissolved metals results are not.
D-30	Appendix D	Table 4	Line 2	Same issue with freezing the sample and its impact on HT as above.	Freezing & thawing primarily impacts the solids content of samples. Every time an analysis is performed, a new %solids should be done and data reported on a dry-weight basis which will minimize impact of freezing/thawing on results for non-volatile constituents. Any time for which a sample is thawed should be considered against the HT clock. Extension of HT by freezing is not appropriate for certain constituents (e.g., VOCs).
D-32	Appendix D	Table 5	Line 3	Placement of prescriptive recovery and RPD limits on MS/MSD pairs will result in an undue number of data qualifiers without the opportunity of the data validator or LSP to render a site-specific opinion. The MS/MSD recovery and RPD should be advisable as regards the MS/MSD, but prescriptive as regards the LCS/LCSD.	One is always able to render one's own opinion. if data for particular c0mpounds are qualified due to outliers, then those data are to be given the appropriate level of scrutiny based on the site-specific DQOs. However, those data do need to be brought forth via qualification in a data package. The committee agrees that limits for LCS/LCSDs should be prescriptive.
D-33	Appendix D	Table 5	Line 4	IS recovery (50 - 200%) is based on the CCAL. In other sections it is based on the ICAL. Is the reference to the CCAL correct?	The table has been changed to note ICAL.
D-34	Appendix D	Table 5	Line 1	If the Endrin/DDT breakdown exceeds 15%, does the corrective action indicate the data is flagged or is the data to be rejected.	When breakdown exceeds 15%, this in an indication of a contaminated injection port liner and, in theory, no samples should have been run until after the issue was resolved. However, it is ultimately the judgment of the investigator whether or not to use associated sample data but, the committee would strongly recommend that it not be used.

D-34	Appendix D	Table 5	Line 2	Same issue relative to defining "target analytes" as the full method list of a target list developed from the site conceptual model?	It is necessary for the investigator to determine the project-specific compound list. It may be necessary to use the complete TCL/TAL lists as a starting point per N.J.A.C. 7:26E-2.1(c)1.ii Or, the remediation may be at a phase where only a subset of the TCL/TAL lists needs to and can be analyzed per N.J.A.C. 7:26E-2.1(c)4. In either case, the investigator will provide a list of the project-specific analyte list with applicable regulatory criteria (indicating sensitivity requirements) to the laboratory before the start of the field program. The use of the CSM to generate this information is at the discretion of the investigator.
D-36	Appendix D	Table 5	Line 1	Reporting the highest concentration for a pesticide from a 2-column GC-ECD may be improper and biased high if the highest result can be shown to be due to an interference - this is particularly problematic with multicomponent pesticides in the presence of high concentration PCBs. Further exacerbating this is the continual move toward shorter and shorter run times in the laboratory.	The higher of the two results is to be reported. However, if it can be demonstrated that the interfering compounds have affected the chromatography/integration of peak area and subsequently reported result, then the lower number could be reported. However, proper documentation should be included in the deliverables.
D-37	Appendix D	Table 5		says, Cool to ≤ 6 deg C; allow for <2 deg C if samples intact. Would like some clarity in this statement. Not sure what is meant by "allow for <2 deg C if samples intact".	This statement refers to those scenarios where, if the sample arrives frozen but the bottle is in tact, the sample is suitable for analysis. Samples from broken sample containers are not to be used.
D-38	Appendix D	Table 5	Line 1	Same issue with freezing the sample and its impact on HT as above.	Freezing & thawing primarily impacts the solids content of samples. Every time an analysis is performed, a new %solids should be done and data reported on a dry-weight basis which will minimize impact of freezing/thawing on results for non-volatile constituents. Any time for which a sample is thawed should be considered against the HT clock. Extension of HT by freezing is not appropriate for certain constituents (e.g., VOCs).

D-39	Appendix D	Table 5	Line 1	Same issue with data completeness and the number of results collected as described above.	It is exceedingly difficult to describe those flags that would reduce data completeness without removing flexibility from the investigators' domain. As such, the document was never designed to be prescriptive. It is designed to provide a level of flexibility, the magnitude of which is, in part, determined by the project-specific DQOs. On a case-specific basis, acceptance criteria should be specified in the QAPP, delineating “how good” the data will need to be for use, Completeness is the fraction of planned data that must be collected in order to be sufficient for the intended use of the data. While ≥ 90% completeness is the target level noted in the document, the "flags" that would contribute to this number would have to be defined by the investigator on a case-by-case basis. In the last question given, as an example, if 5 samples are taken for purposes of obtaining a RAO, then it may very well be the case that the investigator wants to attain 100% completeness whereas if the samples are being used to delineate, 100% may not be required.
41	App D			Appendix D - Method-Specific DQI Tables / QAPP Worksheets: *Please discuss the applicability of SW-846 Methods to the NJDEP-SRP / *Please use generic Method numbers to allow for future updates / *Please provide a List or Index to Methods contained in Appendix D (pages 1-125)	The committee thanks the commentor for the last comment but it was decided the Method numbers would remain as is.
D-41	Appendix D	Table 6	Line 1	The RPD for sample duplicates is ≤ 20% for results > 2x RL. In other analyses, it is 5x RL (metals). The matrix and interferences are greater for PCB analyses than for metals and it seems the 2x factor should be raised to 5x.	The criteria will remain as listed in the table. This is consistent with the criteria for the other organic analyses.
41	App D			This section discusses DUPs, MS/MSDs. Many Labs runs LCS/LCSD (not batch QC) for precision and accuracy. Does this comply with Program requirements ?	Where required by the method, MS/MSDs are to be collected and analyzed. However, if it is determined by the investigator that MS/MSDs are not required for a particular sampling episode, then the use of LCS (/LCSDs) would meet the program requirements. It should be noted that LCSs should always be analyzed by the laboratory.
D-42	Appendix D	Table 6	Line 1	There appears to be no provision for a higher order calibration curve. Only order 1 is described for 5 points.	These tables were developed using the most commonly used options included in the methods. It would be difficult to address all options of all methods. Albeit very rarely observed in routine analyses, second and third order curves could be used if all relative acceptance criteria are met.
D-45	Appendix D	Table 6	Line 1	The acceptance range to apply a flag (8081 - pesticides) was 40 - 80% difference between the result of two columns (with the higher result being reported). For PCBs (8082) this extends to 40 - 500%. The wider limits could be applied to pesticides as well. Is the 500% correct?	The QC acceptance limit is the same for both pesticides and aroclors (RPD or %D < 40% between two dissimilar GC Columns).The correction action has been revised to 100% for both.

D-46	Appendix D	Table 6	Line 1	Same issue with freezing the sample and its impact on HT as above.	Freezing & thawing primarily impacts the solids content of samples. Every time an analysis is performed, a new %solids should be done and data reported on a dry-weight basis which will minimize impact of freezing/thawing on results for non-volatile constituents. Any time for which a sample is thawed should be considered against the HT clock. Extension of HT by freezing is not appropriate for certain constituents (e.g., VOCs).
D-47	Appendix D	Table 6	Line 2	Same issue with data completeness and the number of results collected as described above.	It is exceedingly difficult to describe those flags that would reduce data completeness without removing flexibility from the investigators' domain. As such, the document was never designed to be prescriptive. It is designed to provide a level of flexibility, the magnitude of which is, in part, determined by the project-specific DQOs. On a case-specific basis, acceptance criteria should be specified in the QAPP, delineating “how good” the data will need to be for use, Completeness is the fraction of planned data that must be collected in order to be sufficient for the intended use of the data. While ≥ 90% completeness is the target level noted in the document, the "flags" that would contribute to this number would have to be defined by the investigator on a case-by-case basis. In the last question given, as an example, if 5 samples are taken for purposes of obtaining a RAO, then it may very well be the case that the investigator wants to attain 100% completeness whereas if the samples are being used to delineate, 100% may not be required.
D-49		Table 7		Cyanide analysis should not require daily calibration if continuing calibration passes 90-110 precent recovery.	The table has been changed to reflect your comment.
D-51	Appendix D	Table 7	Line 1	Same issue with respect to MS limits as above. For reactive samples, this is of particular importance as constituents can exist in the sample that reacts with the analyte making the MS recovery biased low. This type of situation should be narrated without flagging the data. The flag should not compromise the data quality in these instances.	if data for particular compounds are qualified due to outliers, then those data are to be given the appropriate level of scrutiny based on the site-specific DQOs. However, those data do need to be brought forth via qualification in a data package. Qualifying the data does not necessarily mean the data are compromised with regard to data usability. The qualification is drawing attention to just the type of scenario where it is warranted.
D-53	Appendix D	Table 7	Line 1	Same issue with freezing the sample and its impact on HT as above.	Freezing & thawing primarily impacts the solids content of samples. Every time an analysis is performed, a new %solids should be done and data reported on a dry-weight basis which will minimize impact of freezing/thawing on results for non-volatile constituents. Any time for which a sample is thawed should be considered against the HT clock. Extension of HT by freezing is not appropriate for certain constituents (e.g., VOCs).

D-53	Appendix D	Table 7	Line 2	Same issue with data completeness and the number of results collected as described above.	It is exceedingly difficult to describe those flags that would reduce data completeness without removing flexibility from the investigators' domain. As such, the document was never designed to be prescriptive. It is designed to provide a level of flexibility, the magnitude of which is, in part, determined by the project-specific DQOs. On a case-specific basis, acceptance criteria should be specified in the QAPP, delineating “how good” the data will need to be for use, Completeness is the fraction of planned data that must be collected in order to be sufficient for the intended use of the data. While ≥ 90% completeness is the target level noted in the document, the "flags" that would contribute to this number would have to be defined by the investigator on a case-by-case basis. In the last question given, as an example, if 5 samples are taken for purposes of obtaining a RAO, then it may very well be the case that the investigator wants to attain 100% completeness whereas if the samples are being used to delineate, 100% may not be required.
D-55	App D			Appendix D: Hex Chrom Methods 7196 and 7199 / *Please clarify that both methods are available for selection by the Investigator / *Recent comments made about the Department's preference for Method 7199 have confused many Investigators and LSRPs	Both methods (7196A and 7199) are acceptable.
D-55		Table 8		Hexavalent chromium analysis should not require daily calibration if continuing calibration passes 90-110 percent recovery	The multi-point calibration shall be run for hexavalent chromium on every day analyses are performed.
D-56	Appendix D	Table 8	Line 2	The LCS for sediment/soil for Cr(VI) indicates use of NIST SRM 2701 and that the lab must be within control limits. Based on other method entries, this presumably means the 95% confidence interval of the results generated by application of Method 7196A or 7199 and not Method 6800.	The QC limit should be used from the determinative method used for the samples.
D-56	Appendix D	Table 8	Line 3	The RPD for Cr(VI) in soils is restricted to ≤20%, but in other areas ≤ 30% is permitted. Given the reactive nature of Cr(VI) the 30% criteria would reduced data flags and anticipate the reactive nature of Cr(VI) toward many matrices. Document 4 page 89 Line 1 allows 35% MSD for Cr(VI) by Method 7196.	Method 3060A requires a duplicate recovery of <20% if the concentration is 4x the RL. If the concentration is less than 8 ppm for both sample and duplicate, then the QC limit will be +/- the QC limit or 2ppm.
D-57	Appendix D	Table 8	Lines 1 - 3	Rejecting results for Cr(VI) where the matrix spike is not recovered within the 50 - 150% window ignores reducing samples or reductive treatment options. This approach rejects data that in fact may show an incompatibility with Cr(VI) or an effective in-situ treatment. It rejects the data from a process that may be highly successful.	It is policy that if both the soluble and insoluble spike recovery results are less than 50% or greater than 150% for both the original analysis and re-analysis, then the hex chrome data associated with those spikes are rejected. It is up to the investigator to use the ancillary parameters (such as pH, Eh, sulfides) when making data usability decisions such that if the ancillary parameters point to a highly reducing matrix, then an argument may be made as to why the data may still be used.
D-58	Appendix D	Table 8	Line 2	The RPD limits on Cr(VI) RPD could be problematic for sample matrices reducing toward Cr(VI). These limits are more aligned with those often seen for sample duplicates. Higher RPDs should be applied to accommodate a wider array of samples exhibiting a more varied ORP.	RPDs are method requirements.

D-59	Appendix D	Table 8	Line 2	Same issue with data completeness and the number of results collected as described above.	It is exceedingly difficult to describe those flags that would reduce data completeness without removing flexibility from the investigators' domain. As such, the document was never designed to be prescriptive. It is designed to provide a level of flexibility, the magnitude of which is, in part, determined by the project-specific DQOs. On a case-specific basis, acceptance criteria should be specified in the QAPP, delineating “how good” the data will need to be for use, Completeness is the fraction of planned data that must be collected in order to be sufficient for the intended use of the data. While ≥ 90% completeness is the target level noted in the document, the "flags" that would contribute to this number would have to be defined by the investigator on a case-by-case basis. In the last question given, as an example, if 5 samples are taken for purposes of obtaining a RAO, then it may very well be the case that the investigator wants to attain 100% completeness whereas if the samples are being used to delineate, 100% may not be required.
D-60	Appendix D	Table 8	Line 1	This section concerns the application of ancillary parameters (pH, ORP) in Method 3060A to interpret MS/MSD results. All sections that discuss rejection of MS/MSD for recoveries outside the 50 - 150% range should be changed and made consistent with the approach at 3060A to explain the apparent failure of the MS/MSD using a chemically sound rational to explain recovery.	It is policy that if both the soluble and insoluble spike recovery results are less than 50% or greater than 150% for both the original analysis and re-analysis, then the hex chrome data associated with those spikes are rejected. It is up to the investigator to use the ancillary parameters (such as pH, Eh, sulfides) when making data usability decisions such that if the ancillary parameters point to a highly reducing matrix, then an argument may be made as to why the data may still be used.
D-65	Appendix D	Table 9	Line 1	Throughout the document sections on Quantitation state the result is expressed on a sample-specific basis. This should state a "matrix-specific" basis (soil, water). It does not look like the Department intends to run a calibration curve on individual samples (i.e. as would be done by the method of standard addition on a client's matrix).	For purposes of quality control issues, the use of "sample-specific" language is well established.
D-66	Appendix D	Table 9	Line 1	Same issue with filtration on site as discussed above.	In those rare instances where dissolved metals analyses are requested, filtration can be performed at the laboratory and the table has been revised to reflect the change. However, total metals results are to be used for regulatory compliance and dissolved metals results are not.
D-66	Appendix D	Table 9	Line 2	Same issue with freezing the sample and its impact on HT as above.	Freezing & thawing primarily impacts the solids content of samples. Every time an analysis is performed, a new %solids should be done and data reported on a dry-weight basis which will minimize impact of freezing/thawing on results for non-volatile constituents. Any time for which a sample is thawed should be considered against the HT clock. Extension of HT by freezing is not appropriate for certain constituents (e.g., VOCs).

D-67	Appendix D	Table 9	Line 2	Same issue with data completeness and the number of results collected as described above.	It is exceedingly difficult to describe those flags that would reduce data completeness without removing flexibility from the investigators' domain. As such, the document was never designed to be prescriptive. It is designed to provide a level of flexibility, the magnitude of which is, in part, determined by the project-specific DQOs. On a case-specific basis, acceptance criteria should be specified in the QAPP, delineating “how good” the data will need to be for use, Completeness is the fraction of planned data that must be collected in order to be sufficient for the intended use of the data. While ≥ 90% completeness is the target level noted in the document, the "flags" that would contribute to this number would have to be defined by the investigator on a case-by-case basis. In the last question given, as an example, if 5 samples are taken for purposes of obtaining a RAO, then it may very well be the case that the investigator wants to attain 100% completeness whereas if the samples are being used to delineate, 100% may not be required.
D-70	Appendix D	Table 10	Lines 1 & 2	Method 524.2 for drinking water should have a full list of all target analtyes as stipulated in the method as these types of samples are generally uncontaminated and must be more broadly screened for unknowns than sites with extensively studied histories, site conceptual models and known contamination.	As a starting point, the full list of analytes can be expected to be required. However, based on the remedial phase, it may have ben demonstrated that a subset of the list is all that would be required.
D-73		Table 10		DQI- Sensitivity, Reporting of Non-detects: QC Acceptance Limits(Measurement Performance Criteria) should be something about RLs not TICS, TICs should be in separate entry.	The table has been modified to reflect this issue.
D-74	Appendix D	Table 10	Line 2	Same issue with data completeness and the number of results collected as described above.	It is exceedingly difficult to describe those flags that would reduce data completeness without removing flexibility from the investigators' domain. As such, the document was never designed to be prescriptive. It is designed to provide a level of flexibility, the magnitude of which is, in part, determined by the project-specific DQOs. On a case-specific basis, acceptance criteria should be specified in the QAPP, delineating “how good” the data will need to be for use, Completeness is the fraction of planned data that must be collected in order to be sufficient for the intended use of the data. While ≥ 90% completeness is the target level noted in the document, the "flags" that would contribute to this number would have to be defined by the investigator on a case-by-case basis. In the last question given, as an example, if 5 samples are taken for purposes of obtaining a RAO, then it may very well be the case that the investigator wants to attain 100% completeness whereas if the samples are being used to delineate, 100% may not be required.

D-76	Appendix D	Table 11	Line 2	Same issue with the definition of "target list" as noted above.	It is necessary for the investigator to determine the project-specific compound list. It may be necessary to use the complete TCL/TAL lists as a starting point per N.J.A.C. 7:26E-2.1(c)1.ii Or, the remediation may be at a phase where only a subset of the TCL/TAL lists needs to and can be analyzed per N.J.A.C. 7:26E-2.1(c)4. In either case, the investigator will provide a list of the project-specific analyte list with applicable regulatory criteria (indicating sensitivity requirements) to the laboratory before the start of the field program. The use of the CSM to generate this information is at the discretion of the investigator.
D-77	Appendix D	Table 11	Line 2	Same issue with the definition of "target list" as noted above.	It is necessary for the investigator to determine the project-specific compound list. It may be necessary to use the complete TCL/TAL lists as a starting point per N.J.A.C. 7:26E-2.1(c)1.ii Or, the remediation may be at a phase where only a subset of the TCL/TAL lists needs to and can be analyzed per N.J.A.C. 7:26E-2.1(c)4. In either case, the investigator will provide a list of the project-specific analyte list with applicable regulatory criteria (indicating sensitivity requirements) to the laboratory before the start of the field program. The use of the CSM to generate this information is at the discretion of the investigator.
D-78	App D			Is a full compound spike list required for Method 8260 ?	Depending on the phase of the remediation, it may or may not ne required to run a full list of compounds for the spikes. It is for the investigator to determine the project-specific compound list. It may be necessary to use the complete TCL/TAL lists as a starting point per N.J.A.C. 7:26E-2.1(c)1.ii Or, the remediation may be at a phase where only a subset of the TCL/TAL lists needs to and can be analyzed per N.J.A.C. 7:26E-2.1(c)4. In either case, the investigator will provide a list of the project-specific analyte list with applicable regulatory criteria (indicating sensitivity requirements) to the laboratory before the start of the field program.
D-78	App D			Is a full compound spike list required for Method 8270 ?	Depending on the phase of the remediation, it may or may not ne required to run a full list of compounds for the spikes. It is for the investigator to determine the project-specific compound list. It may be necessary to use the complete TCL/TAL lists as a starting point per N.J.A.C. 7:26E-2.1(c)1.ii Or, the remediation may be at a phase where only a subset of the TCL/TAL lists needs to and can be analyzed per N.J.A.C. 7:26E-2.1(c)4. In either case, the investigator will provide a list of the project-specific analyte list with applicable regulatory criteria (indicating sensitivity requirements) to the laboratory before the start of the field program.

D-79	Appendix D	Table 11	Line 2	Same issue with the definition of "target list" as noted above.	It is necessary for the investigator to determine the project-specific compound list. It may be necessary to use the complete TCL/TAL lists as a starting point per N.J.A.C. 7:26E-2.1(c)1.ii Or, the remediation may be at a phase where only a subset of the TCL/TAL lists needs to and can be analyzed per N.J.A.C. 7:26E-2.1(c)4. In either case, the investigator will provide a list of the project-specific analyte list with applicable regulatory criteria (indicating sensitivity requirements) to the laboratory before the start of the field program. The use of the CSM to generate this information is at the discretion of the investigator.
D-79		Table 11		DQI- Accuracy, QC Sample or Activity: Internal Standards(IS). The frequency/number entry should be 3 per sample including QC.	The table has been corrected.
				DQI- Sensitivity, Reporting of Non-detects: QC Acceptance Limits(Measurement Performance Criteria) should be something about RLs not TICS, TICs should be in separate entry.	The table has been modified to reflect this issue.
D-82	Appendix D	Table 11	Line 2	Same issue with data completeness and the number of results collected as described above.	It is exceedingly difficult to describe those flags that would reduce data completeness without removing flexibility from the investigators' domain. As such, the document was never designed to be prescriptive. It is designed to provide a level of flexibility, the magnitude of which is, in part, determined by the project-specific DQOs. On a case-specific basis, acceptance criteria should be specified in the QAPP, delineating “how good” the data will need to be for use, Completeness is the fraction of planned data that must be collected in order to be sufficient for the intended use of the data. While ≥ 90% completeness is the target level noted in the document, the "flags" that would contribute to this number would have to be defined by the investigator on a case-by-case basis. In the last question given, as an example, if 5 samples are taken for purposes of obtaining a RAO, then it may very well be the case that the investigator wants to attain 100% completeness whereas if the samples are being used to delineate, 100% may not be required.
D-84	Appendix D	Table 12	Line 2	Same issue with the definition of "target list" as noted above.	It is necessary for the investigator to determine the project-specific compound list. It may be necessary to use the complete TCL/TAL lists as a starting point per N.J.A.C. 7:26E-2.1(c)1.ii Or, the remediation may be at a phase where only a subset of the TCL/TAL lists needs to and can be analyzed per N.J.A.C. 7:26E-2.1(c)4. In either case, the investigator will provide a list of the project-specific analyte list with applicable regulatory criteria (indicating sensitivity requirements) to the laboratory before the start of the field program. The use of the CSM to generate this information is at the discretion of the investigator.

D-87		Table 12		DQI- Accuracy, QC Sample or Activity: Internal Standards(IS). The frequency/number entry should be 3 per sample including QC.	The table has been corrected.
				DQI- Sensitivity, Reporting of Non-detects: QC Acceptance Limits(Measurement Performance Criteria) should be something about RLs not TICS, TICs should be in separate entry.	The table has been modified to reflect this issue.
D-88	Appendix D	Table 12	Line 1	Throughout the document sections on Quantitation state the result is expressed on a sample-specific basis. This should state a "matrix-specific" basis (soil, water). It does not look like the Department intends to run a calibration curve on individual samples (i.e. as would be done by the method of standard addition on a client's matrix).	For purposes of quality control issues, the use of "sample-specific" language is well established.
D-90	Appendix D	Table 12	Line 2	Same issue with data completeness and the number of results collected as described above.	It is exceedingly difficult to describe those flags that would reduce data completeness without removing flexibility from the investigators' domain. As such, the document was never designed to be prescriptive. It is designed to provide a level of flexibility, the magnitude of which is, in part, determined by the project-specific DQOs. On a case-specific basis, acceptance criteria should be specified in the QAPP, delineating “how good” the data will need to be for use, Completeness is the fraction of planned data that must be collected in order to be sufficient for the intended use of the data. While ≥ 90% completeness is the target level noted in the document, the "flags" that would contribute to this number would have to be defined by the investigator on a case-by-case basis. In the last question given, as an example, if 5 samples are taken for purposes of obtaining a RAO, then it may very well be the case that the investigator wants to attain 100% completeness whereas if the samples are being used to delineate, 100% may not be required.
D-93	Appendix D	Table 13	Lines 1, 2 & 3	Same issue with the definition of "target list" as noted above.	It is necessary for the investigator to determine the project-specific compound list. It may be necessary to use the complete TCL/TAL lists as a starting point per N.J.A.C. 7:26E-2.1(c)1.ii Or, the remediation may be at a phase where only a subset of the TCL/TAL lists needs to and can be analyzed per N.J.A.C. 7:26E-2.1(c)4. In either case, the investigator will provide a list of the project-specific analyte list with applicable regulatory criteria (indicating sensitivity requirements) to the laboratory before the start of the field program. The use of the CSM to generate this information is at the discretion of the investigator.
D-96		Table 13		DQI- Sensitivity, Reporting of Non-detects: QC Acceptance Limits(Measurement Performance Criteria) should be something about RLs not TICS, TICs should be in separate entry.	The table has been modified to reflect this issue.

D-97	Appendix D	Table 13	Line 1	Same issue with freezing the sample and its impact on HT as above.	Freezing & thawing primarily impacts the solids content of samples. Every time an analysis is performed, a new %solids should be done and data reported on a dry-weight basis which will minimize impact of freezing/thawing on results for non-volatile constituents. Any time for which a sample is thawed should be considered against the HT clock. Extension of HT by freezing is not appropriate for certain constituents (e.g., VOCs).
D-98	Appendix D	Table 13	Line 1	Same issue with data completeness and the number of results collected as described above.	It is exceedingly difficult to describe those flags that would reduce data completeness without removing flexibility from the investigators' domain. As such, the document was never designed to be prescriptive. It is designed to provide a level of flexibility, the magnitude of which is, in part, determined by the project-specific DQOs. On a case-specific basis, acceptance criteria should be specified in the QAPP, delineating “how good” the data will need to be for use, Completeness is the fraction of planned data that must be collected in order to be sufficient for the intended use of the data. While ≥ 90% completeness is the target level noted in the document, the "flags" that would contribute to this number would have to be defined by the investigator on a case-by-case basis. In the last question given, as an example, if 5 samples are taken for purposes of obtaining a RAO, then it may very well be the case that the investigator wants to attain 100% completeness whereas if the samples are being used to delineate, 100% may not be required.
D-98	Appendix D	Table 13	Footnote 2	Title references 8270C, while footnote references 8270D. Please clarify.	The footnote has been corrected.
D-100	Appendix D	Table 14	Line 2	Same issue with the definition of "target list" as noted above.	It is necessary for the investigator to determine the project-specific compound list. It may be necessary to use the complete TCL/TAL lists as a starting point per N.J.A.C. 7:26E-2.1(c)1.ii Or, the remediation may be at a phase where only a subset of the TCL/TAL lists needs to and can be analyzed per N.J.A.C. 7:26E-2.1(c)4. In either case, the investigator will provide a list of the project-specific analyte list with applicable regulatory criteria (indicating sensitivity requirements) to the laboratory before the start of the field program. The use of the CSM to generate this information is at the discretion of the investigator.
D-103	Appendix D	Table 14	Line 2	Throughout the document sections on Quantitation state the result is expressed on a sample-specific basis. This should state a "matrix-specific" basis (soil, water). It does not look like the Department intends to run a calibration curve on individual samples (i.e. as would be done by the method of standard addition on a client's matrix).	For purposes of quality control issues, the use of "sample-specific" language is well established.

D-104		Table 14		DQI- Sensitivity, Reporting of Non-detects: QC Acceptance Limits(Measurement Performance Criteria) should be something about RLs not TICS, TICs should be in separate entry.	The table has been modified to reflect this issue.
D-105	Appendix D	Table 14	Line 1	Same issue with freezing/refreezing the sample and its impact on HT as described above.	Freezing & thawing primarily impacts the solids content of samples. Every time an analysis is performed, a new %solids should be done and data reported on a dry-weight basis which will minimize impact of freezing/thawing on results for non-volatile constituents. Any time for which a sample is thawed should be considered against the HT clock. Extension of HT by freezing is not appropriate for certain constituents (e.g., VOCs).
D-106	Appendix D	Table 14	Line 1	Same issue with data completeness and the number of results collected as described above.	It is exceedingly difficult to describe those flags that would reduce data completeness without removing flexibility from the investigators' domain. As such, the document was never designed to be prescriptive. It is designed to provide a level of flexibility, the magnitude of which is, in part, determined by the project-specific DQOs. On a case-specific basis, acceptance criteria should be specified in the QAPP, delineating “how good” the data will need to be for use, Completeness is the fraction of planned data that must be collected in order to be sufficient for the intended use of the data. While ≥ 90% completeness is the target level noted in the document, the "flags" that would contribute to this number would have to be defined by the investigator on a case-by-case basis. In the last question given, as an example, if 5 samples are taken for purposes of obtaining a RAO, then it may very well be the case that the investigator wants to attain 100% completeness whereas if the samples are being used to delineate, 100% may not be required.
D-108	Appendix D	Table 15	Line 1	TO-15 indicates a minimum of 30 non-alkane and non-alkene compounds; should this be 15 or is it 15 non-alkene + 15 non-alkane compounds.	The table has been modified to note that up to 15 TICs are to be reported.
D-108	Appendix D	Table 15	All entries	There is an extensive discussion on flow meters, canisters, etc. but no discussion concerning GCMS criteria as there is in the TO-17 section.	The table has been modified to include the appropriate information.
D-112	Appendix D	Table 16	Lines 2 & 3	Same issue with the definition of "target list" as noted above.	It is necessary for the investigator to determine the project-specific compound list. It may be necessary to use the complete TCL/TAL lists as a starting point per N.J.A.C. 7:26E-2.1(c)1.ii Or, the remediation may be at a phase where only a subset of the TCL/TAL lists needs to and can be analyzed per N.J.A.C. 7:26E-2.1(c)4. In either case, the investigator will provide a list of the project-specific analyte list with applicable regulatory criteria (indicating sensitivity requirements) to the laboratory before the start of the field program. The use of the CSM to generate this information is at the discretion of the investigator.

D-112	Appendix D	Table 16	Line 4	Entry for QC or sample activity is unclear - is this meant to be a second source and should this also be included in the TO-15 Method. The second source should be examine directly and not be subject to static or dynamic dilutions.	LCSs are usually from a source other than that used to make the calibration standards. The TO-15 Method table has been modified to contain the necessary criteria.
D-113	Appendix D	Table 16	Line 3	Units are not clearly elucidated. Choices are ug/m^3 or ppbv.	Data are to be reported based on the needs of the investigator. However, if data are to be compared to VI screening levels, then it is recommended that data be reported in ug/m3.
D-115	Appendix D	Table 16	Line 3	Same issue with data completeness and the number of results collected as described above.	It is exceedingly difficult to describe those flags that would reduce data completeness without removing flexibility from the investigators' domain. As such, the document was never designed to be prescriptive. It is designed to provide a level of flexibility, the magnitude of which is, in part, determined by the project-specific DQOs. On a case-specific basis, acceptance criteria should be specified in the QAPP, delineating “how good” the data will need to be for use, Completeness is the fraction of planned data that must be collected in order to be sufficient for the intended use of the data. While ≥ 90% completeness is the target level noted in the document, the "flags" that would contribute to this number would have to be defined by the investigator on a case-by-case basis. In the last question given, as an example, if 5 samples are taken for purposes of obtaining a RAO, then it may very well be the case that the investigator wants to attain 100% completeness whereas if the samples are being used to delineate, 100% may not be required.
D-123	Appendix D	Table 17	Line 1	Sample specific should be matrix specific - see notes above.	For purposes of quality control issues, the use of "sample-specific" language is well established.
D-124	Appendix D	Table 17	Line 5	Same issue with data completeness and the number of results collected as described above.	It is exceedingly difficult to describe those flags that would reduce data completeness without removing flexibility from the investigators' domain. As such, the document was never designed to be prescriptive. It is designed to provide a level of flexibility, the magnitude of which is, in part, determined by the project-specific DQOs. On a case-specific basis, acceptance criteria should be specified in the QAPP, delineating “how good” the data will need to be for use, Completeness is the fraction of planned data that must be collected in order to be sufficient for the intended use of the data. While ≥ 90% completeness is the target level noted in the document, the "flags" that would contribute to this number would have to be defined by the investigator on a case-by-case basis. In the last question given, as an example, if 5 samples are taken for purposes of obtaining a RAO, then it may very well be the case that the investigator wants to attain 100% completeness whereas if the samples are being used to delineate, 100% may not be required.

	Appendix D	Table 11, Table 12, Table 13, & Table 14	Matrix spike	Table 11, Table 12, Table 13, and Table 14 calls for full target compound matrix spikes. The method requires a minimum of five specific compounds. This will require laboratories to potentially have to procure additional standards to match the target compound list. We question whether the information gained is worth the additional cost of the standards. Additionally, if a site has a non-standard target compound (not on the TAL), the lab will be required to develop control limits for the spike recovery. And there is no guarantee the recovery will be within the prescribed limits. Please comment.	If one wans to get any true utility from MS/MSD data, then, first, the MS/MSD should be performed on a sample from "your" site and second, all the compounds of concern should be included in the fortification. It is up the investigator to determine if a MS/MSD are to be performed. If the laboratory is required to analyze samples for "non-routine" compounds and their subsequent control limits are not within the prescribed limits, then it is up to the investigator to decide how the data are to be used. There will be certain types of compounds for which acceptance criteria will have to be expanded beyond routine values simply due to the nature and behavior of the compound. That is something the investigator may just have to accept.
Document 4: Data Quality Assessment and Dat Usability Evaluation Technical Guidance					
3	2	NA	NA	The investigator is responsible for the usability of the data or the determination of data usability?	All components of data usability are the responsibility of the investigator.
4	2			Can full data validation be performed on laboratory data packages in place of the DKQP? Some agreements may already be in place requiring full data validation when the guidance becomes promulgated.	DKQPs specify QC criteria whereas validation addresses whether the data are in compliance and meet the intended purposes defined in a QAPP. One can always perform full data validation, even with regard to DKQPs. If the investigator has agreements when methods other than DKQPs are to be used, that is acceptable as DKQPs are not regulatory requirements. Performing full data validation on such data would be acceptable and recommended.
4	2	NA	NA	No trigger for formal data validation is identified, although it is allowed that it may be "necessary." This should be discussed further to elaborate.	The necessity of formal validation processes are to be determined by the investigator based on the site specific concerns and complexities. An example has been included in the section.
6-15	4			Confused as to why all the same definitions appear in this document & Document 2. The only difference I found was "Reasonable Confidence" found in this document, but not document 2. Seems unnecessary.	Much discussion occurred among the committee members with regard to the format of the documents. It was determined that due to the breadth and scope of the information, having one document had the potential to be intimidating to the point of it not being used at all. As such, several documents were created. Although there are redundancies, each document in the main can stand alone. So, for instance, an investigator wishing to create a QAPP has the necessary information available in one document.
8	4	0	0	Definition of Terms: *Please update Footnotes #8-12 with date reference for Vapor Intrusion Technical Guidance to March 2013.	The footnotes have been corrected.
14	4	NA	NA	Sample extraction holding time requirements should be addressed throughout the document and in the definitions.	Sample extraction holding time requirements are included in the Tables/Worksheets. Additionally, a discussion of sample extraction holding time requirements is included in section 5.6.2.2 of this document.

20	5	3	NA	Is there an approval process when DKQP equivalencies are developed?	There are no formal approval processes. Such information should be addressed in the site specific QAPP. However, the investigator could contact the Office of Data Quality in SRP to discuss the proposed equivalencies prior to their use.
21	5	4	1	Include discussion of using absolute difference (e.g., ±RL) when evaluating low-level and non-detect duplicate sample results. RPD will not be appropriate in all cases.	Absolutes are referenced in the DKQPs.
23	5	5.4	5.4.5	Definition of completeness does not include specifications that only rejected data is not counted in total data counts. Also the percent is given, but it is not referenced to the total number of samples. If only 5 samples are collected, there could be one outlier and DQO would total 80%.	It is exceedingly difficult to describe those flags that would reduce data completeness without removing flexibility from the investigators' domain. As such, the document was never designed to be prescriptive. It is designed to provide a level of flexibility, the magnitude of which is, in part, determined by the project-specific DQOs. On a case-specific basis, acceptance criteria should be specified in the QAPP, delineating “how good” the data will need to be for use, Completeness is the fraction of planned data that must be collected in order to be sufficient for the intended use of the data. While ≥ 90% completeness is the target level noted in the document, the "flags" that would contribute to this number would have to be defined by the investigator on a case-by-case basis. In the last question given, as an example, if 5 samples are taken for purposes of obtaining a RAO, then it may very well be the case that the investigator wants to attain 100% completeness whereas if the samples are being used to delineate, 100% may not be required.
25	5	5	1	Batch QC vs. Site-Specific QC: *Please discuss use of LCS/LCSD vs batch QC, as some Labs provide LCS/LCDS instead of batch MS/MSD.	The section has been revised to include information concerning LCS/LCSD.
25	5	5.5	5.5.1	Throughout many of the documents - especially in the tables, there is what appears to be a mandatory site-specific QC sample (MS/MSD), but on this page it indicates these are optional as implied by the phrase: "may be appropriate". If these are optional, then it is not appropriate to impose criteria that would apply to the entire batch unless the QC is site/sample specific.	NJDEP is not requiring all projects to have site-specific MS/MSD analyses. However, if one is to gain any utility from the MS/MSDs, then they should come from a site specific sample. Without it, MS/MSD results loose most of their functionality. In fact, if MS/MSDs are not performed on samples from "your" site, the results of these two QC samples have little usefulness with regard to the investigation. The use and origin of the MSDs are to be defined in the site-specific QAPPS.
25	5	5	1	Rejection or qualification of data on the basis of MS/SD originating from other sites may not be appropriate, particularly for soil and solid waste.	The committee agrees with the commentor and the issue is addressed in this section.
26	5	5	3	There should be an exception noted that data with significant QC variances could be used if non-detect or below screening levels and the variance indicate positive biases.	As this guidance is not designed to address every scenario and allows for flexibility with regard to the investigator's decision making process, specific exceptions are always a possibility with the identify not necessarily included in the guidance.

32	5	6	1	Indeterminate bias for non-detects below or equal to the screening level should be "Further" in the table to assess the magnitude of each contributing bias.	The table has been modified.
33	5	6	2.1	Suggest making an exception to allow the laboratory to correct the COC in cases when a sample (e.g., trip blank) has been left off of the chain entirely. This will allow consistent documentation of samples collected.	The section has been updated.
33	5	6	2.2	Extraction/digestion holding times should be included in the definitions.	The definition has been modified.
33	5	6	2.2	Handling time is not discussed or mentioned	Handling time has been added to this section and is discussed in the definition section.
35	5	6	2.2	Sample Preservation Hold Times and Handling Times: *Please indicate when the Department plans to update the Field Sampling Procedures Manual (2005).	This committee does not have any information as to when the Field Sampling Procedures Manual will be updated.
36	5	6	2.3	"Trip and field blanks...must be received at the site within one day of preparation in the laboratory." This will be very difficult to comply with and to track.	While difficult, every attempt should be made to comply with this recommendation.
37	5	6	2	Clarify section - B qualfication based on lab analytical Method Blank - Not Equipment/ Trip/Field Blanks	The section was modified to provide clarification.
37	5	6	2	Please confirm: "B" Qualfication when detections in Method Blank above RL, not MDL	There may be instances when a laboratory reports a method blank concentration below a RL with a qualification.
37	5	6	2.3	3X rule: If unlikely that a compound is actually present, then a "U" qualification (as indicated in Region II SOPs) is preferable to "B."	The committee prefers the naming protocol as described in this section..
37	5	6	2.3	Should the lab or the investigator B qualify data? This is unclear and is important to know	The program routinely sees that, when data have a "B" qualifier, it is put there by the laboratory for water and soil samples. However, that responsibility should be determined at the time of laboratory engagement and prior to the analysis of samples.
38	5	5.6	5.6.2.3	Example 5 end of paragraph one: there is missing text.	The example has been corrected.
38	5	6	2.3	Typo - Example 5 is broken up and it shouldn't be at " Therefore the result is considered real and…"	The example has been corrected.
38	5	6	2.4	RPDs are not appropriate for low-level results. For example if a parent sample is ND and the FD is a detection below the RL, the RPD is not calculable. Suggest adding evaluation of absolute difference in cases where the results are less than a factor of the RL.	The DKQPs address situations such as this.
General	5	6	3	The examples provided throughout this section are great. These will answer a lot of questions consultants have, that we get currently.	The committee thanks the commentor for its comment.
40	5	6	3.1	Missing calibration information.	Calibration information would be covered under the QA/QC performance criteria questions in the Data of Known Quality conformance/Nonconformance Summary Questionnaire.
41	5	6	3.2	RL is not correctly defined. Standards in ICAL may be below RL.	The definitions of RLs are defined in N.J.A.C. 7:26E2.1(a)3. If a standard is run "below" the RL, then that standard would then become the RL.

41-43	5	6	3.2	Unreasonable requirement to expect labs to meet the reporting limit of one compound, even with a high target hit of another. Well tuned, well maintained, highly sensitive analytical instruments will not tolerate this practice. Example used is with a hit of 800,000 ppb of Xylene, lab still has to hit Benzene limit.	The necessity to meet a RL for a compound will depend on the site specific DQOs defined in the QAPP. There may be scenarios when it is not necessary to report values down to the RL. Conversely, there may be scenarios where it is required. In such instances where it is not possible to achieve a necessary RL due to instrumentation issues, alternative procedures (such as lesser dilutions, additional clean-up or different instrumental techniques) will be required to be employed.
42	5	6	3.2	Suggest adding language that laboraties be required to report ht elowest possible dilution for each analyte that is protective of instrumentation.	Language has been added to the section.
44	5	6	3.4	Suggest adding discussion if low-level samples are selected as the laboratory duplicate to address current conventional reporting of RPDs at 200%, etc.	The committee thanks the commentor for their suggestion.
45	5	6	3.5	Include a discussion of the effect of sample dilution on surrogate recovery.	A discussion was added to the section.
45	5	5.6	5.6.3.5	The last bullet on the page (Example 10) had a typographical error (mg/K should be mg/kg).	The bullet has been corrected.
48	5	5.6	5.6.3.7	MS/MSD requirement that these spikes contain all target analytes is reasonable upon initial investigation, however when more intensive investigations indicate only a more limited list of constituents, this abbreviated list should be considered.	The section has been modified to address the scenario of reducing the number of target analytes/compounds required to be used in the MS/MSD.
48	5	5.6	5.6.3.7	This section indicates that the MS/MSD pair results should be used with discretion (the historical approach), but the tables indicate a hard acceptance rule for MS/MSD criteria which is inconsistent with this section. The tables should then be changed to make the MS/MSD advisory as batch QC, but specific for applicable samples.	The tables are not designed to be hard rules. They are guidance and are designed to be the starting point for such issues.
48	5	5.6	5.6.3.7	This section indicates that the MS/MSD pair can be taken from "other sites" as long as the matrix is similar. This is not what the tables in the remainder of the document imply. They imply a site specific sample is required. The sections in the tables that imply requirements should be changed to advisory to be consistent with this section.	To get the most utility from a MS/MSD, samples should be taken from the site under investigation. However, there may be circumstances where that is not possible and the use of non-site specific samples are employed.
48	5	5.6	5.6.3.7	It should not be appropriate to systematically reject data owing to the failure of an MS/MSD pair if a satisfactory technical explanation can be provided. It is particularly inappropriate to reject a result based on an MS/MSD result from "other sites" samples.	The investigator needs to determine usability of data.
48	5	6	3.7	Please clarify that spiking of *all* target analytes required for MS/MSD (an exception is Air).	All target analytes are to be used in the MS/MSD. However, it is possible that the target analyte list has fewer analytes that a "total" list due to site specific concerns.
48	5	6	3.7	Not appropriate to evaluate non-Site MS/SD recoveries for a project for organic or inorganic anlayses.	Whereas not optimal, there may be circumstances when an investigator is interested in acquiring some precision and/or accuracy data with regard to method performance. As such, if circumstances don't allow, the only option might be to analyze non-site-specific MS/MSDs. Additionally, metals analyses frequently employ non-site specific batch QA/QC per method requirements.

48-49	5	6	3.7	The last paragraph on p48 and first paragraph on p49 should be combined	The paragraphs have been merged.
49	5	5.6	5.6.3.7	This section indicates that the MS/MSD pair is used to evaluate precision. The LCS/LCSD is a better indication of laboratory precision. Sample anomalies in the MS/MSD pair can impact recovery (and indirectly precision) and provide no indication of laboratory precision alone. Hypothetically, a reductnat in a sample can reduce Cr(VI) from 3000 ug/kg to 10 mg/kg and 4 mg/kg (85% RPD) while the LCS/LCSD (Teflon chips) can be well within 10% RPD. The former represents the impact of the matrix and a reductant superimposed on precision.	MS/MSD and LCS/LCSD pairs both provide precision data. The real issue is the number of variables the investigator wishes to include in the calculation based on which issue(s) he/she is trying to address. Those decisions are made on a site-specific basis based on project specific DQOs.
49	5	5.6	5.6.3.7	The third paragraph indicates that the MS/MSD for inorganics can be used to assess the entire batch. This is more applicable for metals (where an exhaustive and rigorous acid digestion at elevated temperatures is conducted), but is not applicable to inorganic wet chemistry tests (i.e., Cr(VI)). There is a difference between extraction (remove or isolate the analyte from the matrix) and digestion (destroy or reduce the matrix to CO2, water and salts).	The word "inorganics" has been removed, substituted with "metals"
49	5	6	3.7	It's not clear why an organic MS/SD does not affect the entire associated batch.	It has been recognized that, strictly speaking, one can use organic MS/MSD results to draw conclusions concerning only that sample upon which the MS/MSD has been performed as the potential exists for each sample to behave differently with regard to extractions efficiencies and subsequent analysis. As such, only inferences can be loosely applied on a batch-specific basis.
51	5	5.6	5.6.3.8	Internal standards: it would be helpful to define when the 50 - 200% criteria is applied to the ICAL or the last daily CCV.	The DKQPS have been modified.
51	5	6	3.8	Samples are quantitated via internal standard, but it is not included in the list of critical DKQPs (section 5.6.3.1)	I.S. information would be covered under the QA/QC performance criteria questions in the Data of Known Quality conformance/Nonconformance Summary Questionnaire.
52	5	6	3.9	Need to clarify section header to include "ICP"	The header has been modified.
52	5	6	3.9	Indicates 10X RL for serial dilutions when tables indicate 50X RL / *Please clarify	The Tables for 6010B and C have been modified.
52	5	6	3.1	Need to clarify section header to include "ICP"	Section 5.6.3.1 addresses the DKQ Conformance/Nonconformance Summary Questionnaire.
52	5	6	3.9	PLEASE specify Serial Dilutions are for metals only. I get this question CONSTANTLY, since this is one of the questions on the full data deliverables form. Just saying ICP or ICPMS may not make it clear enough to the reader that this is only done for metals.	The section has been modified to include note serial dilutions are for metals.
53	5	5.6	5.6.3.11	A paragraph should be added that it is possible to dilute the MS/MSD out if a large dilution is to be made. In these case the MS/MSD is "diluted out" and provides no information if it is below the laboratory reporting limit.	The committee thanks the commentor for their comment.
53	5	6	3.11	Section seems redundant. How is it different than 5.6.3.7	This section addresses sample fortifications (without the fortification duplicate pair) and sample duplicates whereas the other section address solely MS/MSDs.

53	5	6	3.11	Should specify metals analyses	This section can apply to both metals and organics.
54	5	6	3.12	Should specify metals analyses	The section heading has been modified.
60	5	6	7	Typo on second to last bullet - need period between basis and If.	The section has been corrected.
61	5	5.6	5.6.7	There is reference to a low recovery of the MS/MSD and that it would be inappropriate to assume that the analyte is bound in the sample matrix. This is in fact exactly what happens in many cases. One well known example is Pb treatment with phosphate to create insoluble apatites - the Pb is specifically bound in the matrix as is shown by XRD analyses in a plethora of peer-reviewed publications.	The section has been modified.
61	5	5.6	5.6.7	In the event of Cr(VI), Method 3060A provides more than adequate approaches to determine the impact of the matrix. A proper reference to this method would address many of the recovery issues of the MS/MSD for Cr(VI).	The commentor is correct and the committee thanks the commentor for their comment.
68	Appendix B-1			Appendix B-1 Summary of QC Checks and Samples: *Please fix page layout / *Please ADD footnote on acceptability of LCS/LCSD instead of batch MD/MSD	LCS/LCSD has been added to the table.
68	B-1	NA	NA	Unclear if the frequency prescribed for all QA/QC samples is project-specific. If not. This guidance differs from the FSPM.	The frequency of the QA/QC samples that appears in the Table Worksheets should be followed if following the DKQPs.
69	Appendix B-2	Precision	Lines 1 - 4	LCS does not provide information on precision unless coupled with the LCSD. The last column in this section is missing text.	The Table has been corrected.
69	Appendix B-2	Accuracy	Lines 1 - 2	The MSD does not provide information on accuracy - the MS does this. The last column in this section is missing text.	The Table has been corrected.
71-72	Appendix B-3			Performance Evaluation Sample-Ampulated Single Blind, Performance Evaluation Sample-Full Volume Single Blind, Performance Evaluation Sample Double Blind all need to be defined	The committee thanks you for your comment.
79	C	NA	NA	"Other QC results and information provided in the laboratory report." This sentence is ambiguous.	This sentence is designed to capture any additional QC that may have been included in a data report and not noted specifically in this section (such as the results from a performance evaluation sample).
80	Appendix C			• Verify that results for aqueous samples are reported in ug/L - see notes above from Appendix B. This is contradictory between the text and the QAPPs	The DKQPs have been corrected for consistency.
80	Appendix C			Typo - • Check dilution factor to see if a dilution was performed and if so, the RL adjusted accordingly;; (2 semi colons)	The extra semi colon was removed.
84	Appendix D-1			NJDEP appears to be requiring a full set of laboratory deliverables for potable water, vapor intrusion, PCB/dioxins/furans and Cr(VI). What is the purpose for including Cr(VI). The common elements for the remainder are either high toxicity (dioxins/furans), complex chromatography (PCBs) or direct human contact (vapor intrusion, potable water) in normally clean samples. However, Cr(VI) is typically associated with remediation sites and workers with adequate training and protective gear. Why is a full set of deliverables required for Cr(VI) - a reduced package should be adequate.	First, The Department does not require full deliverables for PCBs in all instances. As to Cr(VI) this requirement appears in N.J.A.C. &:26E. A determination was made that Cr(IV) data are to undergo a thorough validation and as such, it is necessary to have the data submitted in a full deliverables format. A reduced deliverables format would be insufficient.
85	Appendix C			Page is blank	The formatting issues in the document have been corrected .

86	Appendix D-2	Data Quality Assessmen t Worksheet		An adequate section for Cr(VI) is lacking. It appears that the intent may be to include Cr(VI) as a class of metals (similar to 6010 and 6020) which is not appropriate. The remaining documents include a number of important attributes and criteria associated with Cr(VI) QC and none of it is reflected in this mandatory worksheet. A section containing all of the supporting data and testing found in Method 3060A (Alkaline Digestion) should be incorporated into this Worksheet.	The table has been modified to include Hex Chrome. Also, it must be noted that the use of this table is guidance and it is not mandatory.
86	Appendix D-2			EPH Method Blank criteria contradicts the QAPP	The DKQP has been modified.
88	Appendix D-4			Appendix D-4 Summary of DKQ Acceptance Criteria: *Please determine if cover sheet or page is missing	No page is missing. The heading has been corrected.
89	Appendix D-4	DKQ Criteria	Method 7196	Specified recovery limits of 75 - 125% are inconsistent with the preparation method: 3060A which provides for a more thorough assessment of the MS/MSD recovery and apparent "failures". This section should reference the approach and ancillary parameters already in the preparation method.	The target acceptance limits of 75% - 125% are consistent with method 3060A
89	Appendix D-4	DKQ Criteria	Method 7196	The LCS (for solids) is typically NIST 2701. Any comparisons should be made to the manufacture or vendor controls using the same method (Method 7196) to construct the 95% confidence intervals.	the table has been modified.
89	App D-4			HexCr holding time: "High concentration waste samples Digest within 30 days. Analyze digestate within 24 hours of preparation." Line before states: Analyze digestate within 7 days of preparation. *Who and How is making evaluation? Also:"Soil/sediment,ferrous iron and sulfide 7 days". Labs do not routinely evaluate/run sulfide and Ferrous with HexCr analysis.	The table has been modified.
89	Appendix D-4			Method 7196 criteria stricter here than in the QAPP for MS/MSD	The Worksheet Tables are consistent with this Appendix.
All	Appendix D-4			What is the purpose of these tables? They are too vague, do not provide applicable exceptions - the QAPPs should be referenced or used for DKQ acceptance. Also, the QAPPs differ from the DKQ which both differ from the methods… this is VERY VERY confusing	Appendix D-4 is designed to provide highlights whereas the Worksheet Tables contained the detailed information associated with the DKQPs. Any inconsistencies between the two have been corrected.
90	D	Global	NA	Requirements in the DKQ Acceptance Criteria are not method requirements.	The committee agrees with the commentor.
90	Appendix D-4			8081 Pesticides - *"Labs must develop own in-house limits, which fall within 30-150% limits"* - So if our Shewharts bring us out of this range, it is technically unacceptable. Why not just say we should use 30-150?? (This is a comment for many methods, I just chose 8081 as my example.)	Laboratories are required to develop limits per the certification process. If DKQPs are followed, then the limits established by the laboratory must be within the ranges established in those DKQPs.
91	Appendix D-4	DKQ Criteria	Method 8082	Same issue with freezing the sample and its impact on HT as above.	Freezing & thawing primarily impacts the solids content of samples. Every time an analysis is performed, a new %solids should be done and data reported on a dry-weight basis which will minimize impact of freezing/thawing on results for non-volatile constituents. Any time for which a sample is thawed should be considered against the HT clock. Extension of HT by freezing is not appropriate for certain constituents (e.g., VOCs).
91	G	Global	NA	Unclear how the results of DUA will be tracked with data (particularly large data sets collected over time) if the investigator is not applying qualifiers.	The logistics of tracking information is up to the individual investigator.
93	Appendix D-4	DKQ Criteria	Method 8270	The LCS recovery limits should be mandatory as they are listed. However, the MS/MSD should be advisory as the matrix can impact the recovery and RPD - this is beyond the control of the laboratory or investigator.	It is up to the investigator to determine the usability of the MS/MSD.

93	Appendix D-4	DKQ Criteria	Method 9010/9012/9014 Total Cyanide	There is a reference to Hg: "Mercury 28 days". Why is Hg included in the cyanide section?	The Table has been corrected.
94	Appendix D-4	DKQ Criteria	EPH	This section as do many others has inconsistent use of periods in the table entries and in this case two periods following an entry.	The tables have been revised.
95	Appendix D-4	DKQ Criteria	Footnote 4	Freeze and refreezing should be addressed in this footnote if it is to be permitted.	Freezing & thawing primarily impacts the solids content of samples. Every time an analysis is performed, a new %solids should be done and data reported on a dry-weight basis which will minimize impact of freezing/thawing on results for non-volatile constituents. Any time for which a sample is thawed should be considered against the HT clock. Extension of HT by freezing is not appropriate for certain constituents (e.g., VOCs).
97	Appendix D-5	Common Laboratory Data Qualifiers	N	There is a "$" before 85% - not certain why this symbol is here.	The symbol has been corrected to "≥".
97	Appendix D-5			P Qualifier - 25% RPD; Alpha uses 40% per method. (ALPHA-NOTE; Manual process)	The RPD criteria has been changed to 40% to be consistent with SW-846.
98	Appendix D-5	Common Laboratory Data Qualifiers	S	This flag essentially requires a 5-point calibration curve for all detected aroclors to avoid the use of this flag. To prevent rework in the laboratory, most labs will opt to establish these curves initially increasing costs and TAT on many samples. Some previous entries allow a 1-point calibration for aroclors other than 1016 and 1260.	This is correct. The investigator should communicate with the laboratory during the development of the QAPP when Aroclors other than 1016 and 1260 are expected.
101	Appendix E			Unreasonable requirement for Blanks used 1 day from prep and 2 days on site / This will be hard for labs to track and document and meet.	This has been a long standing SRP policy. The investigator should evaluate this during the data usability review.
102	Appendix E	Evaluating Significant QA/QC Variances	Sample Containers	It is unclear if it is mandatory to have custody seals.	Custody seals are recommended but site specific requirements are to be addressed in the QAPP.
103	Appendix E	Evaluating Significant QA/QC Variances	Specific Analytes - Inorganic Compounds	The trend is to evaluate the MS/MSD pair with equal weight to the LCS/LCSD pair. I would suggest that an LCS/LCSD pair that is out of criteria represents more of an issue than an MS/MSD pair that is out of criteria. The LCS/LCSD should be more strictly enforced as it is under the total control of the laboratory and usually in a clean matrix. There should be options to narrate excursions of the MS/MSD exceedences without automatic application of data flags.	The committee thanks you for your comment.

103	Appendix E	Evaluating Significant QA/QC Variances	Specific Analytes - Inorganic Compounds	The last paragraph describes exactly the scenario for Cr(VI) in a reducing environment (as determined by pH and ORP). The remainder of the program and documents should be made consistent with this paragraph. This paragraph also recites the approach in Method 3060A.	The committee thanks you for your comment.
103	Appendix E			Reporting Issues & Issues of suspected data fraud should be forwarded to the appropriate authorities - Sections have no content	The section has been updated.
103	Appendix E		Calibration Issues	Can specific guidance be given for the technical justification of low compound RRFs for the estimation (rather than rejection) of affected nondetect results? For example, lower "acceptable" RF criteria for poor performing compounds or the evaluation of the low calibration standard (at the reporting limit level) to assess the accuracy at the QL regardless of the low response factor exhibited.	It is up to the investigator to determine the usability of the data.
103	Appendix E			"MS recovery is less than 30 percent for all affected analytes in a batch, with the exception of hexavalent chromium if supported by Oxidation Reduction Potential (ORP) and pH data which indicates reducing conditions - Hexavalent chromium readily reduces to trivalent chromium in a reducing environment." - YES!! This is NOT allowed as per the QAPP	It is policy that if <u>both</u> the soluble and insoluble spike recovery results are less than 50% or greater that 150% for <u>both</u> the original analysis and re-analysis, then the hex chrome data associated with those spikes are rejected. It is up to the investigator to use the ancillary parameters (such as pH, Eh, sulfides) when making data usability decisions such that if the ancillary parameters point to a highly reducing matrix, then an argument may be made as to why the data may still be used.
104	Apendix E		Significant QC issues - dual column precision	Based on Region II guidelines the lower of the column results is reported (to minimize high biased results due to possible sample matrix) and compounds with dual column %Ds greater than 100 are rejected only if there is no evidence of matrix interference present in the samples. In many cases of heavily contaminated soils, PCBs present severely impact the sample chromatography and may lead to high pesticide dual column %Ds. The dual column %D allowance of <200% for samples exhibiting matrix interference would result in the rejection of fewer presumptively identified pesticide compounds.	NJDEP SRP prefers reporting the higher of the two values to be protective of human health and the environment; however, if an interference is known, the lower of the two values may be reported.
106	Appendix F			VO-Analysis of 1,4-Dioxane by 8260 SIM is certified by NJDEP. A low initial cal standard is run at the NJGWQS level to confirm the lab's ability to quantify at this level. Is analysis by 8270 SIM really the only acceptable 1,4-Dioxane method to the OSR?	NJDEP SRP prefers the Method 8270 modified using isotopic dilution to meet the sensitivity DQO. NJDEP OQA offers certification for this method.
106	Appendix F	Poorly Performing Compounds		When analyzed using 8260- Selected Ion Mode (SIM), we have found that the detection limits for 1,4-dioxane are often lower, and the reproducibility better than with 8270. Is this an acceptable analytical alternative?	NJDEP SRP prefers the Method 8270 modified using isotopic dilution to meet the sensitivity DQO. NJDEP OQA offers certification for this method.
106	Appendix F			Appendix F Poorly Performing Compounds: *Please comment on analysis of 1,4-dioxane by 8260-full scan and 8260-SIM (for which NJDEP offers NJ-cert)	NJDEP SRP prefers the Method 8270 modified using isotopic dilution to meet the sensitivity DQO. NJDEP OQA offers certification for this method.
106	Appendix F			"1,4-dioxane should not be analyzed by Method 8260; a modified version of Method 8270 is to be used." - Then why is certification offered?	NJDEP SRP prefers the Method 8270 modified using isotopic dilution to meet the sensitivity DQO. NJDEP OQA offers certification for this method.

117	Appendix G	Range of Data Usability Outcomes	Note (8)	This entry indicated the MS/MSD are performed at the request of the investigator but the remaining documents and tables make this QC sample set mandatory.	The laboratory is required to run the MS/MSD as part of their batch QA/QC; however, the investigator may not require site specific MS/MSD samples.
Gen eral	Appendix F			Only 2 methods have poor performing compounds? There's a list in LLTO-15 of them, why not include these? Other methods have them too!	The DKQP tables for all of the methods have included poor performing compounds. For example, the DKQPs' reference to Potentially "difficult" analytes include: hexachlorobutadiene, 1, 2, 4-trichlorobenzene, naphthalene, acetone and 1, 4-dioxane."
				2 comments from a collague, I don't know the reference.	
				1. Matrix. Allowable matrices (soil, GW, air, surface water etc.) are set forth in the guidance. To avoid lasting confusion and need for ongoing reconciliation, concerted effort must be made to harmonize these allowable matrix definitions with the allowable matrix definitions required by SRP data (EDD) department	The NJDEP SRP EDD guidance is out of this workgroup's scope. Thank you for your comment.
				2. Use of SIM is allowed as a tool which labs may employ to attain low RL/DL and thus approach “scientifically” derived guidance values for Surface Water. Use of SIM is restricted to SW 846 methodology. However, Surface Water is governed in NJ by EPA Clean Water Act which does not recognize the existence of SW analytical methodology. How does DEP propose to resolve this dilemma?	This is out this workgroup's scope. Thank you for your comment.