**Laboratory Data Review Checklist**

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| Completed By: | | | | | | |
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| Title: | | | | | | |
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| Date: | | | | | | |
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| CS Report Name: | | | | | | |
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| Report Date: | | | | | | |
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| Consultant Firm: | | | | | | |
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| Laboratory Name: | | | | | | |
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| Laboratory Report Number: | | | | | | |
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| ADEC File Number: | | | | | | |
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| Hazard Identification Number: | | | | | | |
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| 1. Laboratory | | | | | |
| * 1. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses? | | | |
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| * 1. If the samples were transferred to another “network” laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved? | | | |
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| 1. Chain of Custody (CoC) | | | | | |
| * 1. CoC information completed, signed, and dated (including released/received by)? | | | |
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| * 1. Correct Analyses requested? | | | |
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| 1. Laboratory Sample Receipt Documentation | | | | | |
| * 1. Sample/cooler temperature documented and within range at receipt (0° to 6° C)? | | | |
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| * 1. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)? | | | |
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| * 1. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)? | | | |
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| * 1. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.? | | | |
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| * 1. Data quality or usability affected?  Comments: | | | |
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| 1. Case Narrative | | | | |
| * 1. Present and understandable? | | |
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| * 1. Discrepancies, errors, or QC failures identified by the lab? | | |
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| * 1. Were all corrective actions documented? | | |
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| * 1. What is the effect on data quality/usability according to the case narrative?  Comments: | | |
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| 1. Samples Results | | | | | |
| * 1. Correct analyses performed/reported as requested on COC? | | |
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| * 1. All applicable holding times met? | | |
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| * 1. All soils reported on a dry weight basis? | | |
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| * 1. Are the reported LOQs less than the Cleanup Level or the minimum required detection level for the project? | | |
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| * 1. Data quality or usability affected? | | |
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| 1. QC Samples | | | | | |
| * 1. Method Blank | | |
| * + 1. One method blank reported per matrix, analysis and 20 samples? | | |
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| * + 1. All method blank results less than limit of quantitation (LOQ)? | | |
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| * + 1. If above LOQ, what samples are affected?  Comments: | | |
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| * + 1. Do the affected sample(s) have data flags? If so, are the data flags clearly defined? | | |
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| * + 1. Data quality or usability affected?  Comments: | | |
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| * 1. Laboratory Control Sample/Duplicate (LCS/LCSD) | | |
| * + 1. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846) | | |
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| * + 1. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples? | | |
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| * + 1. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages) | | |
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| * + 1. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages) | | |
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| * + 1. If %R or RPD is outside of acceptable limits, what samples are affected?  Comments: | | |
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| * + 1. Do the affected sample(s) have data flags? If so, are the data flags clearly defined? | | |
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| * + 1. Data quality or usability affected? (Use comment box to explain.)  Comments: | | |
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| * 1. Surrogates – Organics Only | | |
| * + 1. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples? | | |
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| * + 1. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages) | | |
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| * + 1. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined? | | |
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| * + 1. Data quality or usability affected? Comments: | | |
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| * 1. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil | | |
| * + 1. One trip blank reported per matrix, analysis and for each cooler containing volatile samples?  (If not, enter explanation below.) | | |
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| * + 1. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below) | | |
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| * + 1. All results less than LOQ? | | |
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| * + 1. If above LOQ, what samples are affected?  Comments: | | |
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| * + 1. Data quality or usability affected?  Comments: | | |
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| * 1. Field Duplicate | | |
| * + 1. One field duplicate submitted per matrix, analysis and 10 project samples? | | |
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| * + 1. Submitted blind to lab? | | |
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| * + 1. Precision – All relative percent differences (RPD) less than specified DQOs?  (Recommended: 30% water, 50% soil)   x 100  RPD (%) = Absolute value of: (R1-R2)  ((R1+R2)/2)  Where R1 = Sample Concentration  R2 = Field Duplicate Concentration | | |
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| * + 1. Data quality or usability affected? (Use the comment box to explain why or why not.)  Comments: | | |
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| * 1. Decontamination or Equipment Blank (If not applicable, a comment stating why must be entered below). | | |
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| * + 1. All results less than LOQ? | | |
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| * + 1. If above LOQ, what samples are affected?  Comments: | | |
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| * + 1. Data quality or usability affected?  Comments: | | |
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| 1. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.) | | | | | |
| * 1. Defined and appropriate? | | |
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