7/26/96
A.2

BLACK & VEATCH
SPECIAL PROJECTS CORP.

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# FAX COVER SHEET

**Project No.:** 71670 **Date:** 7/26/96

**To:** Sheri Bianchin **Co. Name:** USEPA

**Fax No.:** 886-4071 **Telephone No.:**

**Senders Name:** Steve Markvicka **Telephone No.:** 683-7849

**This transmittal consists of** 7 **pages, including this cover sheet. A copy of this transmittal (will), (will not) be sent by mail.**

**Comments:**

Enclosed are the TAL and TCL CRDLs for Low Concentration Water Samples.

Have not heard back from CRL on status of July 17 samples.

**Transmitted By:** **Date/Time:**

US EPA RECORDS CENTER REGION 5
464678

Low Concentration Water for Inorganic Analysis 10/91"

Residential Wells

TABLE I
INORGANIC TARGET ANALYTE LIST (TAL)

| Analyte | Contract Required Detection Limit (1,2) (ug/L) |
|---|---|
| Aluminum | 100 |
| Antimony | 5 |
| Arsenic | 2 |
| Barium | 20 |
| Beryllium | 1 |
| Cadmium | 1 |
| Calcium | 500 |
| Chromium | 10 |
| Cobalt | 10 |
| Copper | 10 |
| Iron | 100 |
| Lead | 2 |
| Magnesium | 500 |
| Manganese | 10 |
| Mercury | 0.2 |
| Nickel | 20 |
| Potassium | 750 |
| Selenium | 3 |
| Silver | 10 |
| Sodium | 500 |
| Thallium | 10 |
| Vanadium | 10 |
| Zinc | 20 |
| Cyanide | 10 |
| Fluoride | 200 |
| $NO_2/NO_3$-N | 100 |

(1) Any analytical method specified in Exhibit D may be utilized-, except for the ICP/MS method (see Table II) and the IC method for Fluoride, provided the documented instrument detection limits meet the Contract Required Detection Limit (CRDL) requirements. Higher detection limits may only be used in the following circumstance:

# TARGET COMPOUND LIST (TCL) AND CONTRACT REQUIRED QUANTITATION LIMITS (CRQL)

| Volatiles | CAS Number | Quantitation Limits Water µg/L |
|---|---|---|
| 1. Chloromethane | 74-87-3 | 1 |
| 2. Bromomethane | 74-83-9 | 1 |
| 3. Vinyl Chloride | 75-01-4 | 1 |
| 4. Chloroethane | 75-00-3 | 1 |
| 5. Methylene Chloride | 75-09-2 | 2 |
| 6. Acetone | 67-64-1 | 5 |
| 7. Carbon Disulfide | 75-15-0 | 1 |
| 8. 1,1-Dichloroethene | 75-35-4 | 1 |
| 9. 1,1-Dichloroethane | 75-34-3 | 1 |
| 10. cis-1,2-Dichloroethene | 156-59-4 | 1 |
| 11. trans-1,2-Dichloroethene | 156-60-5 | 1 |
| 12. Chloroform | 67-66-3 | 1 |
| 13. 1,2-Dichloroethane | 107-06-2 | 1 |
| 14. 2-Butanone | 78-93-3 | 5 |
| 15. Bromochloromethane | 74-97-5 | 1 |
| 16. 1,1,1-Trichloroethane | 71-55-6 | 1 |
| 17. Carbon Tetrachloride | 56-23-5 | 1 |
| 18. Bromodichloromethane | 75-27-4 | 1 |
| 19. 1,2-Dichloropropane | 78-87-5 | 1 |
| 20. cis-1,3-Dichloropropene | 10061-01-5 | 1 |
| 21. Trichloroethene | 79-01-6 | 1 |
| 22. Dibromochloromethane | 124-48-1 | 1 |
| 23. 1,1,2-Trichloroethane | 79-00-5 | 1 |
| 24. Benzene | 71-43-2 | 1 |
| 25. trans-1,3-Dichloropropene | 10061-02-6 | 1 |
| 26. Bromoform | 75-25-2 | 1 |
| 27. 4-Methyl-2-pentanone | 108-10-1 | 5 |
| 28. 2-Hexanone | 591-78-6 | 5 |
| 29. Tetrachloroethene | 127-18-4 | 1 |

TARGET COMPOUND LIST (TCL) AND
CONTRACT REQUIRED QUANTITATION LIMITS (CRQL)
(CONT'D.)

| Volatiles | CAS Number | Quantitation Limits Water µg/L |
|---|---|---|
| 30. 1,1,2,2-Tetrachloroethane | 79-34-5 | 1 |
| 31. 1,2-Dibromoethane | 106-93-4 | 1 |
| 32. Toluene | 108-88-3 | 1 |
| 33. Chlorobenzene | 108-90-7 | 1 |
| 34. Ethylbenzene | 100-41-4 | 1 |
| 35. Styrene | 100-42-5 | 1 |
| 36. Xylenes (total) | 1330-20-7 | 1 |
| 37. 1,3-Dichlorobenzene | 541-73-1 | 1 |
| 38. 1,4-Dichlorobenzene | 106-46-7 | 1 |
| 39. 1,2-Dichlorobenzene | 95-50-1 | 1 |
| 40. 1,2-Dibromo-3-chloropropane | 96-12-8 | 1 |

## TARGET COMPOUND LIST (TCL) AND CONTRACT REQUIRED QUANTITATION LIMITS (CRQL) (CONT'D.)

| Semivolatiles | CAS Number | Quantitation Limits Water µg/L |
|---|---|---|
| 1. Phenol | 108-95-2 | 5 |
| 2. bis-(2-Chloroethyl)ether | 111-44-4 | 5 |
| 3. 2-Chlorophenol | 95-57-8 | 5 |
| 4. 2-Methylphenol | 95-48-7 | 5 |
| 5. 2,2'-oxybis(1-Chloropropane) | 108-60-1 | 5 |
| 6. 4-Methylphenol | 106-44-5 | 5 |
| 7. N-Nitroso-di-n-propylamine | 621-64-7 | 5 |
| 8. Hexachloroethane | 67-72-1 | 5 |
| 9. Nitrobenzene | 98-95-3 | 5 |
| 10. Isophorone | 78-59-1 | 5 |
| 11. 2-Nitrophenol | 88-75-5 | 5 |
| 12. 2,4-Dimethylphenol | 105-67-9 | 5 |
| 13. bis-(2-Chloroethoxy)methane | 11-91-1 | 5 |
| 14. 2,4-Dichlorophenol | 120-83-2 | 5 |
| 15. 1,2,4-Trichlorobenzene | 120-82-1 | 5 |
| 16. Naphthalene | 91-20-3 | 5 |
| 17. 4-Chloroaniline | 106-47-8 | 5 |
| 18. Hexachlorobutadiene | 87-68-3 | 5 |
| 19. 4-Chloro-3-methylphenol | 59-50-7 | 5 |
| 20. 2-Methylnaphthalene | 91-57-6 | 5 |
| 21. Hexachlorocyclopentadiene | 77-47-4 | 5 |
| 22. 2,4,6-Trichlorophenol | 88-06-2 | 5 |
| 23. 2,4,5-Trichlorophenol | 95-95-4 | 20 |
| 24. 2-Chloronaphthalene | 91-58-7 | 5 |
| 25. 2-Nitroaniline | 88-74-4 | 20 |
| 26. Dimethylphthalate | 131-11-3 | 5 |
| 27. Acenaphthylene | 208-96-8 | 5 |
| 28. 2,6-Dinitrotoluene | 606-20-2 | 5 |
| 29. 3-Nitroaniline | 99-09-2 | 20 |
| 30. Acenaphthene | 83-32-9 | 5 |
| 31. 2,4-Dinitrophenol | 51-28-5 | 20 |
| 32. 4-Nitrophenol | 100-02-7 | 20 |
| 33. Dibenzofuran | 132-64-9 | 5 |

TARGET COMPOUND LIST (TCL) AND
CONTRACT REQUIRED QUANTITATION LIMITS (CRQL)
(CONT'D.)

| Semivolatiles | CAS Number | Quantitation Limits Water µg/L |
|---|---|---|
| 34. 2,4-Dinitrotoluene | 121-14-2 | 5 |
| 35. Diethylphthalate | 84-66-2 | 5 |
| 36. 4-Chlorophenyl-phenylether | 7005-72-3 | 5 |
| 37. Fluorene | 86-73-7 | 5 |
| 38. 4-Nitroaniline | 100-01-6 | 20 |
| 39. 4,6-Dinitro-2-methylphenol | 534-52-1 | 20 |
| 40. N-Nitrosodiphenylamine | 86-30-6 | 5 |
| 41. 4-Bromophenyl-phenylether | 101-55-3 | 5 |
| 42. Hexachlorobenzene | 118-74-1 | 5 |
| 43. Pentachlorophenol | 87-86-5 | 20 |
| 44. Phenanthrene | 85-01-8 | 5 |
| 45. Anthracene | 120-12-7 | 5 |
| 46. Di-n-butylphthalate | 84-74-2 | 5 |
| 47. Fluoranthene | 206-44-0 | 5 |
| 48. Pyrene | 129-00-0 | 5 |
| 49. Butylbenzylphthalate | 85-68-7 | 5 |
| 50. 3,3'-Dichlorobenzidine | 91-94-1 | 5 |
| 51. Benzo(a)anthracene | 56-55-3 | 5 |
| 52. Chrysene | 218-01-9 | 5 |
| 53. bis-(2-Ethylhexyl)phthalate | 117-81-7 | 5 |
| 54. Di-n-octylphthalate | 117-84-0 | 5 |
| 55. Benzo(b)fluoranthene | 205-99-2 | 5 |
| 56. Benzo(k)fluoranthene | 207-08-9 | 5 |
| 57. Benzo(a)pyrene | 50-32-8 | 5 |
| 58. Indeno(1,2,3-cd)pyrene | 193-39-5 | 5 |
| 59. Dibenz(a,h)anthracene | 53-70-3 | 5 |
| 60. Benzo(g,h,i)perylene | 191-24-2 | 5 |

# TARGET COMPOUND LIST (TCL) AND CONTRACT REQUIRED QUANTITATION LIMITS (CRQL) (CONT'D.)

| Pesticides/PCBs | CAS Number | Quantitation Limits Water µg/L |
|---|---|---|
| 1. alpha-BHC | 319-84-6 | 0.01 |
| 2. beta-BHC | 319-85-7 | 0.01 |
| 3. delta-BHC | 319-36-8 | 0.01 |
| 4. gamma-BHC (Lindane) | 58-89-9 | 0.01 |
| 5. Heptachlor | 76-44-8 | 0.01 |
| 6. Aldrin | 309-00-2 | 0.01 |
| 7. Heptachlor epoxide | 1024-57-3 | 0.01 |
| 8. Endosulfan I | 959-98-8 | 0.01 |
| 9. Dieldrin | 60-57-1 | 0.02 |
| 10. 4,4'-DDE | 72-55-9 | 0.02 |
| 11. Endrin | 72-20-8 | 0.02 |
| 12. Endosulfan II | 33213-65-9 | 0.02 |
| 13. 4,4'-DDD | 72-54-8 | 0.02 |
| 14. Endosulfan sulfate | 1031-07-8 | 0.02 |
| 15. 4,4'-DDT | 50-29-3 | 0.02 |
| 16. Methoxychlor | 72-43-5 | 0.10 |
| 17. Endrin ketone | 53494-70-5 | 0.02 |
| 18. Endrin aldehyde | 7421-36-3 | 0.02 |
| 19. alpha-Chlordane | 5103-71-9 | 0.01 |
| 20 gamma-Chlordane | 5103-74-2 | 0.01 |
| 21. Toxaphene | 8001-35-2 | 1.0 |
| 22. Aroclor-1016 | 12674-11-2 | 0.20 |
| 23. Aroclor-1221 | 11104-28-2 | 0.20 |
| 24. Aroclor-1232 | 11141-16-5 | 0.40 |
| 25. Aroclor-1242 | 53469-21-9 | 0.20 |
| 26. Aroclor-1248 | 12672-29-6 | 0.20 |
| 27. Aroclor-1254 | 11097-69-1 | 0.20 |
| 28. Aroclor-1260 | 11096-82-5 | 0.20 |