

Chemical Summary Table-Special Internet features

Background Information

Contaminants at waste sites include hazardous organic compounds, metals, and radionuclides covering a wide spectrum of individual substances, matrices, and complex mixtures. Listed below are key highlights of our approach, capabilities, and proposed plan.

- Internet data extraction and processing is highly complex. The Internet-based technologies have to meet stringent requirements for security, administration, and maintenance. EnviroDataAccess successful executions of VBScript and Javascripts provide us with unlimited capabilities to develop custom-designed tools to perform environmental data processing functions on the Internet. EnviroDataAccess scripts can perform complex data processing on the Internet without impacting security.
- We bring to project more than two decades of environmental and groundwater system technology experience. Our goal is to develop innovative systematic, comprehensive, and efficient display of massive environmental data for routine uses by project team.

Our procedures also generate chemical summary tables for the entire database. For Quality Assurance/Quality Control (QA/QC), any discrepancies in chemical names (e.g.: erroneous uses of lower/upper case, blank spaces, hyphen, and others) or concentration units are listed as separate entries. Site workers and data users will be able to acquaint themselves with the [list of all chemicals monitored at the site](#). **The Hanford site database contains several hundred chemicals.** User will be able to sort this table on the Internet by total data points, sampling durations, number of stations, and maximum concentration. Column 4 (Detects Column) identifies that out of 10,833 samples only 44 samples were above the detection limit. Column 9 (Last Sampling Date) identifies the last monitoring date of a given chemical. Similarly, the number of stations (column 5) and maximum concentration (column 7) provide useful information to select chemicals for detailed evaluations.

Table 2-3: Chemical Summary Table Generated By EnviroDataAccess With Each Data Upload

Chemical Name	Unit	Data	Number of		Concentration Range		Sampling Date	
			Detects	Nstations	Minimum	Maximum	First	Last
1-(o-Chlorophenyl)thiourea	ug/L	373	0	231	200	200	06/19/85	05/24/90
1,1,1,2-Tetrachloroethane	ug/L	1252	9	494	0	10	06/19/85	08/23/95
1,1,1-Trichloroethane	ug/L	10833	44	1035	0	13000	06/17/85	12/30/95
1,1,2,2-Tetrachloroethane	ug/L	3997	15	820	0	13000	06/19/85	12/28/95
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	23	11	11	3	57	08/07/89	06/07/90
1,1,2-Trichloroethane	ug/L	9891	11	1007	0	13000	06/17/85	12/30/95
1,1'-Biphenyl, 2,2',3,4'-tetrachloro-	ug/kg	1	1	1	2500	2500	01/25/90	01/25/90

For the selected area of interest, EnviroDataAccess procedures efficiently extract and generate chemical summary tables using Active Server Pages (ASP). EnviroDataAccess procedures also perform sorting of summary tables by the following fields: total data, total numbers of detect samples, maximum concentration, and sampling durations. The utility of sorting data by different columns is discussed below. Following summary tables of volatiles is Internet generated.

Volatile Summary Table Generated on The Internet

Voa Chemical Summary for '100 BC AREA' Site
 Sorted on 'Chemical' in ascending order.
[Click on column headings to re-sort results.](#)
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Volatile summary for 100 BC area on Internet sorted by chemicals

Chemical	Unit	Date Min	Date Max	Total Data	Total Detect	Total Wells	Conc Min	Conc Max
1,1,1,2-Tetrachloroethane	ug/L	1/12/1987	3/12/1990	16	16	9	0.00000	10.00000
1,1,1-Trichloroethane	ug/L	1/12/1987	1/15/1998	155	155	21	0.00000	50.00000
1,1,2,2-Tetrachloroethane	ug/L	1/12/1987	11/14/1994	67	67	20	0.00000	100.00000
1,1,2-Trichloroethane	ug/L	1/12/1987	1/15/1998	133	133	21	0.00000	100.00000
1,1-Dichloroethane	ug/L	1/12/1987	1/15/1998	138	138	21	0.00000	100.00000
1,1-Dichloroethene	ug/L	1/12/1987	2/17/1995	75	75	20	0.00000	100.00000
1,2,3-Trichlorobenzene	ug/L	1/12/1987	3/12/1990	24	24	10	0.00000	10.00000
1,2,3-Trichloropropane	ug/L	1/12/1987	3/12/1990	15	15	9	0.00000	10.00000

Voa Chemical Summary for '100 BC AREA' Site
 Sorted on 'Conc Max' in descending order.
[Click on column headings to re-sort results.](#)
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Volatile summary for 100 BC area sorted by maximum concentration

Chemical	Unit	Date Min	Date Max	Total Data	Total Detect	Total Wells	Conc Min	Conc Max
Isobutyl alcohol	ug/L	1/12/87	3/12/90	11	11	7	3,000.00000	10,000.00000
Ethylene glycol	ug/L	5/30/89	3/12/90	12	12	5	10,000.00000	10,000.00000
Ethyl cyanide	ug/L	1/12/87	1/19/98	18	18	10	0.96000	10,000.00000
Ethanol	ug/L	3/12/90	3/12/90	3	3	3	10,000.00000	10,000.00000
1-Butanol	ug/L	3/12/90	1/15/98	8	8	6	2.50000	10,000.00000
Carbon tetrachloride	ug/L	1/12/87	1/15/98	157	157	21	0.00000	3,100.00000
Acetonitrile	ug/L	1/12/87	3/12/90	14	14	8	10.00000	3,000.00000
Acetone	ug/L	4/8/87	1/15/98	88	88	20	1.90000	2,000.00000
4-Methyl-2-Pentanone	ug/L	10/19/87	1/15/98	85	85	21	0.19000	1,000.00000
2-Hexanone	ug/L	3/12/90	11/14/94	59	59	19	10.00000	1,000.00000

By clicking on a row of above table, EnviroDataAccess displays statistical information (e.g.: total data, maximum concentration, sampling dates) for each well within the selected area (see Table below) for a given chemical.

Copy Of A Dynamically Generated Summary of Well Data for A Selected Chemical

'Cesium-134' Summary by Well for '100 BC AREA' Site
 Sorted on 'Well' in ascending order.
[Click on column headings to re-sort results.](#)
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**Well summary acquaints user total data for selected chemical at well.
 Only one well has 24 points. Sampling duration and concentration ranges
 identify sampling time and likely severity of high concentration.**

Well	Unit	Date Min	Date Max	Total Data	Total Detect	Conc Min	Conc Max
199-B2-12	pCi/L	4/17/1993	4/17/1993	1	1	10.00000	10.00000
199-B2-13	pCi/L	7/18/1992	4/17/1993	5	5	10.00000	20.00000
199-B3-1	pCi/L	7/25/1992	4/16/1993	3	3	8.00000	15.00000
199-B3-2P	pCi/L	3/24/1997	3/25/1997	2	2	0.63000	0.70000
199-B3-46	pCi/L	7/18/1992	4/28/1993	2	2	10.00000	14.00000
199-B3-47	pCi/L	7/18/1992	4/16/1993	2	2	9.50000	10.00000
199-B4-1	pCi/L	7/25/1992	4/17/1993	4	4	-2.90000	12.00000
199-B4-4	pCi/L	7/25/1992	7/25/1992	1	1	12.00000	12.00000
199-B4-5	pCi/L	9/18/1991	4/20/1993	4	4	1.49000	20.00000
199-B4-6	pCi/L	9/18/1991	9/18/1991	1	1	-7.63000	-7.63000
199-B4-7	pCi/L	8/16/1990	4/20/1993	4	4	-0.84000	10.00000
199-B4-8	pCi/L	7/18/1992	4/19/1993	3	3	10.00000	20.00000
199-B4-9	pCi/L	4/19/1993	4/19/1993	2	2	10.00000	10.00000
199-B5-1	pCi/L	7/22/1992	4/21/1993	4	4	10.00000	14.00000
199-B5-2	pCi/L	10/23/1992	9/29/1997	24	24	-1.78000	20.00000