


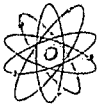
**POWERTECH (USA) Inc.**

APP-021-GG

United States Nuclear Regulatory Commission Official Hearing Exhibit	
POWERTECH USA, INC. In the Matter of: (Dewey-Burdock In Situ Uranium Recovery Facility)	
	<b>ASLBP #:</b> 10-898-02-MLA-BD01
	<b>Docket #:</b> 04009075
	<b>Exhibit #:</b> APP-021-GG-00-BD01
	<b>Admitted:</b> 8/19/2014
	<b>Rejected:</b>
	<b>Identified:</b> 8/19/2014
	<b>Withdrawn:</b>
	<b>Stricken:</b>
	<b>Other:</b>

## APPENDIX 4.2-A

### SPAW MODEL RESULTS



**POWERTECH (USA) INC.**

## **SPAW MODEL RESULTS**

### **DEWEY FIELD**

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--80-94\Dew 15yr--80-94.spw  
File Creation Date : Sep 15, 2008 17:26:13  
File Last Modified Date : Sep 16, 2008 08:28:28  
Description : Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--80-94  
Simulation Start Date : Jan 01, 1980  
Simulation End Date : Dec 31, 1994  
Simulation Run Date : Sep 16, 2008 08:28  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--80-94  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--80-94\Dew 15yr--80-94.fld (Sep 16, 2008 00:00)  
Climate : Dewey Burdock 81-94 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\80-94.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD8094 - Jan 01, 1980 to Dec 31, 1994  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\80-94.txt (Sep 15, 2008 00:00)  
Air Temperature : SD8094 - Jan 01, 1980 to Dec 31, 1994  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\80-94.txt (Sep 15, 2008 00:00)  
Management : 0.6 in every 5 days  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DBM--5 day.mgmt (Aug 28, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC--2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Dewey TP1, TP2, TP5 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\Dev 1-2-5.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 9

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 4.00 12.00 24.00 4.00 23.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
	in	in	in	in	in	in	in	in	in	in	in	in		
1980	44.04	28.76	10.32	11.41	7.03	16.33	16.32	0.74	24.88	0.13	0	3.03	8.1	0
1981	44	28.66	10.98	11.22	6.45	13.46	16.32	1.28	22.04	0.08	0	-0.24	7.32	0
1982	44	32.6	14.27	9.8	8.53	21.88	16.32	0.65	29.02	1.11	0	3.84	5.23	0
1983	44	31.24	13.14	10.61	7.48	16.16	16.32	1.18	23.82	-0.02	0	0.08	3.64	0
1984	44.04	32.69	14.15	10.47	8.07	16.89	16.32	1.13	24	0	0	-0.62	3.42	0
1985	44	28.86	11.09	11.28	6.49	11.75	16.32	1.03	20.55	-0.41	0	-1.42	3.94	0
1986	44	34.76	16.74	9.67	8.34	23.59	16.32	2.19	29.38	0.44	0	2.52	3.46	0
1987	44	31.02	13.52	11.13	6.38	12.36	16.32	0.19	22.12	-0.24	0	-2.29	4.3	0
1988	44.04	28.89	11.61	10.88	6.4	13.79	16.32	0.9	22.8	0.11	0	0.21	4.05	0
1989	44	30.48	12.53	10.59	7.36	15.58	16.32	0.07	24.48	0.11	0	1.25	3.76	0
1990	44	33.49	15.74	10.18	7.57	19.14	16.32	1.94	25.95	0.01	0	0.03	3.55	0
1991	44	30.42	12.17	10.96	7.29	15.03	16.32	1.4	22.66	-0.03	0	-0.45	3.61	0
1992	44.04	29.87	12.21	10.55	7.11	14.08	16.32	0.41	22.88	0.02	0	0.1	3.72	0
1993	44	35.3	16.84	9.44	9.01	22.31	16.32	2.17	27.45	0.02	0	1.14	3.4	0
1994	44	30.4	12.4	11.21	6.79	12.01	16.32	0.19	21.35	-0.29	0	-1.96	4.45	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
in	in	in	in	in	in	in	in	in	in	in	in		
44.04	31.17	13.19	10.63	7.35	16.29	16.32	1.03	24.23	0.07	0	0.34	4.4	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--81-95\Dew 15 yr--81-95.spw  
File Creation Date : Sep 16, 2008 08:35:03  
File Last Modified Date : Sep 16, 2008 08:35:03  
Description : Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--81-95  
Simulation Start Date : Jan 01, 1981  
Simulation End Date : Dec 31, 1995  
Simulation Run Date : Sep 16, 2008 08:35  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--81-95  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--81-95\Dew 15 yr--81-95.fld (Sep 16, 2008 00:00)  
Climate : Dewey Burdock 81-95 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\81-95.dcl (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD8195 - Jan 01, 1981 to Dec 31, 1995  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\81-95.bxt (Sep 16, 2008 00:00)  
Air Temperature : SD8195 - Jan 01, 1981 to Dec 31, 1995  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\81-95.bxt (Sep 16, 2008 00:00)  
Management : 0.6 in every 5 days  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DBM--5 day.mgmt (Aug 28, 2008 00:00)  
Crop ( 1) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC--2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Dewey TP1, TP2, TP5 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\DR1-2-5.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 9

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 4.00 12.00 24.00 4.00 23.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
	in	in	in	in	in	in	in	in	in	in	in	in		
1981	44	27.39	9.7	11.23	6.45	13.46	16.32	1.01	22.31	-0.27	0	1.65	21.62	0
1982	44	31.37	12.92	9.93	8.53	21.88	16.32	0.63	29.04	1.56	0	4.63	7.16	0
1983	44	30.93	12.79	10.66	7.48	18.16	16.32	1.18	23.82	0	0	0.37	3.7	0
1984	44.04	32.64	14.1	10.48	8.07	16.89	16.32	1.13	24	0	0	-0.57	3.42	0
1985	44	28.86	11.1	11.28	6.49	11.75	16.32	1.03	20.55	-0.41	0	-1.42	3.94	0
1986	44	34.76	16.74	9.67	8.34	23.59	16.32	2.19	29.38	0.44	0	2.52	3.46	0
1987	44	31.02	13.52	11.13	6.38	12.36	16.32	0.19	22.12	-0.24	0	-2.29	4.3	0
1988	44.04	28.89	11.61	10.88	6.4	13.79	16.32	0.9	22.8	0.11	0	0.21	4.05	0
1989	44	30.48	12.53	10.59	7.36	15.58	16.32	0.07	24.48	0.11	0	1.25	3.76	0
1990	44	33.49	15.74	10.18	7.57	19.14	16.32	1.94	25.95	0.01	0	0.03	3.55	0
1991	44	30.42	12.17	10.96	7.29	15.03	16.32	1.4	22.66	-0.03	0	-0.45	3.61	0
1992	44.04	29.87	12.21	10.55	7.11	14.08	16.32	0.41	22.88	0.02	0	0.1	3.72	0
1993	44	35.3	16.84	9.44	9.01	22.31	16.32	2.17	27.45	0.02	0	1.14	3.4	0
1994	44	30.4	12.4	11.21	6.79	12.01	16.32	0.19	21.35	-0.29	0	-1.96	4.45	0
1995	44	32.83	13.93	10.02	8.87	18.32	16.32	0.82	24.95	0.19	0	0.8	3.66	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
in	in	in	in	in	in	in	in	in	in	in	in		
44.04	31.25	13.23	10.55	7.48	16.42	16.32	1.02	24.25	0.08	0	0.39	5.19	0



# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--82-96\Dew 15 yr--82-96.spw  
File Creation Date : Sep 16, 2008 08:36:39  
File Last Modified Date : Sep 16, 2008 08:36:39  
Description : Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--82-96  
Simulation Start Date : Jan 01, 1982  
Simulation End Date : Dec 31, 1996  
Simulation Run Date : Sep 16, 2008 08:36  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--82-96  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--82-96\Dew 15 yr--82-96.fld (Sep 16, 2008 00:00)  
Climate : Dewey Burdock 82-96 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\82-96.cim (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD8296 - Jan 01, 1982 to Dec 31, 1996  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\82-96.bt (Sep 16, 2008 00:00)  
Air Temperature : SD8296 - Jan 01, 1982 to Dec 31, 1996  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\82-96.bt (Sep 16, 2008 00:00)  
Management : 0.6 in every 5 days  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DBM--5 day.mgmt (Aug 28, 2008 00:00)  
Crop ( 1) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC--2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Dewey TP1, TP2, TP5 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\IDRev 1-2-5.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 9

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 4.00 12.00 24.00 4.00 23.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPO	RNDLT-SM	STRESS	YLDRED
	in	in	in	in	in	in	in	in	in	in	in	in		
1982	44	30.79	12.4	9.91	8.48	21.83	16.32	0.63	29.04	1.06	0	5.66	16.24	0
1983	44	30.5	12.28	10.74	7.48	16.16	16.32	0.96	24.04	0.23	0	0.8	3.83	0
1984	44.04	32.45	13.88	10.5	8.07	16.89	16.32	1.13	24	0.01	0	-0.39	3.43	0
1985	44	28.85	11.09	11.28	6.49	11.75	16.32	1.03	20.55	-0.41	0	-1.41	3.94	0
1986	44	34.76	16.75	9.67	8.34	23.59	16.32	2.19	29.38	0.44	0	2.52	3.46	0
1987	44	31.02	13.52	11.13	6.38	12.36	16.32	0.19	22.12	-0.24	0	-2.29	4.3	0
1988	44.04	28.89	11.61	10.88	6.4	13.79	16.32	0.9	22.8	0.11	0	0.21	4.05	0
1989	44	30.48	12.53	10.59	7.36	15.58	16.32	0.07	24.48	0.11	0	1.25	3.76	0
1990	44	33.49	15.74	10.18	7.57	19.14	16.32	1.94	25.95	0.01	0	0.03	3.55	0
1991	44	30.42	12.17	10.96	7.29	15.03	16.32	1.4	22.66	-0.03	0	-0.45	3.61	0
1992	44.04	29.87	12.21	10.55	7.11	14.08	16.32	0.41	22.88	0.02	0	0.1	3.72	0
1993	44	35.3	16.84	9.44	9.01	22.31	16.32	2.17	27.45	0.02	0	1.14	3.4	0
1994	44	30.4	12.4	11.21	6.79	12.01	16.32	0.19	21.35	-0.29	0	-1.96	4.45	0
1995	44	32.83	13.93	10.02	8.87	18.32	16.32	0.82	24.95	0.19	0	0.8	3.66	0
1996	44.04	32.46	14.47	10.16	7.82	17.6	16.32	0.69	25.41	0.08	0	0.69	3.53	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPO	RNDLT-SM	STRESS	YLDRED
in	in	in	in	in	in	in	in	in	in	in	in		
44.04	31.51	13.46	10.49	7.56	16.7	16.32	0.98	24.47	0.09	0	0.44	4.6	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--83-97\Dew 15 yr--83-97.spw  
File Creation Date : Sep 16, 2008 08:38:04  
File Last Modified Date : Sep 16, 2008 08:38:04  
Description : Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--83-97  
Simulation Start Date : Jan 01, 1983  
Simulation End Date : Dec 31, 1997  
Simulation Run Date : Sep 16, 2008 08:38  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--83-97  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--83-97\fld (Sep 16, 2008 00:00)  
Climate : Dewey Burdock 83-97 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\83-97.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD8397 - Jan 01, 1983 to Dec 31, 1997  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\83-97.bt (Sep 16, 2008 00:00)  
Air Temperature : SD8397 - Jan 01, 1983 to Dec 31, 1997  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\83-97.bt (Sep 16, 2008 00:00)  
Management : 0.6 in every 5 days  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DBM--5 day.mgmt (Aug 28, 2008 00:00)  
Crop ( 1) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC--2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Dewey TP1, TP2, TP5 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\DRew 1-2-5.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 9

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 4.00 12.00 24.00 4.00 23.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET in	AET in	EVAP in	TRAN in	INT in	PRECIP in	IRRIG in	RUNOFF in	INFIL in	PERC in	DEEPOPN in	DLT-SM in	STRESS	YLDRED
1983	44	29.2	9.74	11.06	7.4	16.06	16.32	0.82	24.18	0.01	0	3.37	21.27	0
1984	44.04	30.99	12.11	10.81	8.07	16.89	16.32	0.79	24.35	0.71	0	0.72	4.48	0
1985	44	27.93	9.99	11.46	6.49	11.75	16.32	1.03	20.55	-0.28	0	-0.62	5.07	0
1986	44	33.7	15.48	9.88	8.34	23.59	16.32	2.08	29.49	0.85	0	3.29	3.6	0
1987	44	30.65	13.1	11.18	6.38	12.36	16.32	0.12	22.19	-0.21	0	-1.89	4.34	0
1988	44.04	28.88	11.59	10.88	6.4	13.79	16.32	0.8	22.8	0.11	0	0.22	4.06	0
1989	44	30.47	12.51	10.59	7.36	15.58	16.32	0.07	24.48	0.11	0	1.26	3.76	0
1990	44	33.49	15.74	10.18	7.57	19.14	16.32	1.94	25.95	0.01	0	0.03	3.55	0
1991	44	30.42	12.17	10.96	7.29	15.03	16.32	1.4	22.86	-0.03	0	-0.45	3.61	0
1992	44.04	29.87	12.21	10.55	7.11	14.08	16.32	0.41	22.88	0.02	0	0.1	3.72	0
1993	44	35.3	16.84	9.44	9.01	22.31	16.32	2.17	27.45	0.02	0	1.14	3.4	0
1994	44	30.4	12.4	11.21	6.79	12.01	16.32	0.19	21.35	-0.29	0	-1.96	4.45	0
1995	44	32.83	13.93	10.02	8.87	18.32	16.32	0.82	24.95	0.19	0	0.8	3.66	0
1996	44.04	32.46	14.47	10.16	7.82	17.6	16.32	0.69	25.41	0.08	0	0.69	3.53	0
1997	44	32.55	14.73	10.09	7.73	17.73	16.32	1.67	24.66	0.01	0	-0.18	3.54	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET in	AET in	EVAP in	TRAN in	INT in	PRECIP in	IRRIG in	RUNOFF in	INFIL in	PERC in	DEEPOPN in	DLT-SM in	STRESS	YLDRED
44.04	31.22	13.14	10.57	7.51	16.42	16.32	1	24.22	0.09	0	0.43	5.08	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Plesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15-yr-84-98\Dew 15-yr-84-98.spw  
File Creation Date : Sep 16, 2008 08:39:34  
File Last Modified Date : Sep 16, 2008 08:39:35  
Description : Dewey TP1, TP2, TP5 Revised Soils-0.6 in/5th day-84-98  
Simulation Start Date : Jan 01, 1984  
Simulation End Date : Dec 31, 1998  
Simulation Run Date : Sep 16, 2008 08:39  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Dewey TP1, TP2, TP5 Revised Soils-0.6 in/5th day-84-98  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15-yr-84-98\Dew 15-yr-84-98.fld (Sep 16, 2008 00:00)  
Climate : Dewey Burdock 84-98 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\84-98.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD8498 - Jan 01, 1984 to Dec 31, 1998  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\84-98.txt (Sep 16, 2008 00:00)  
Air Temperature : SD8498 - Jan 01, 1984 to Dec 31, 1998  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\84-98.txt (Sep 16, 2008 00:00)  
Management : 0.6 in every 5 days  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DBM-5 day.mgmt (Aug 28, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC-2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Dewey TP1, TP2, TP5 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\DRV 1-2-5.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 9

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 4.00 12.00 24.00 4.00 23.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET in	AET in	EVAP in	TRAN in	INT in	PRECIP in	IRRIG in	RUNOFF in	INFIL in	PERC in	DEEPRN in	DLT-SM in	STRESS	YLDRED
1984	44.04	29.51	10.86	10.83	7.82	15.65	16.32	0.44	23.71	-0.1	0	2.12	15.85	0
1985	44	26.91	8.8	11.62	6.49	11.75	16.32	1.02	20.56	0.08	0	0.06	8.98	0
1986	44	33.01	14.7	9.97	8.34	23.59	16.32	2.08	29.49	1	0	3.82	3.84	0
1987	44	29.82	12.05	11.4	6.38	12.36	16.32	0.12	22.19	0.06	0	-1.31	4.67	0
1988	44.04	28.76	11.45	10.91	6.4	13.79	16.32	-0.9	22.8	0.14	0	0.3	4.2	0
1989	44	30.39	12.42	10.61	7.36	15.58	16.32	0.04	24.5	0.13	0	1.35	3.78	0
1990	44	33.48	15.72	10.18	7.57	19.14	16.32	1.94	25.95	0.01	0	0.04	3.55	0
1991	44	30.42	12.17	10.96	7.29	15.03	16.32	1.4	22.66	-0.03	0	-0.45	3.61	0
1992	44.04	29.87	12.21	10.55	7.11	14.08	16.32	0.41	22.88	0.02	0	0.1	3.72	0
1993	44	35.3	16.84	9.44	9.01	22.31	16.32	2.17	27.45	0.02	0	1.14	3.4	0
1994	44	30.4	12.4	11.21	6.79	12.01	16.32	0.19	21.35	-0.29	0	-1.96	4.45	0
1995	44	32.83	13.93	10.02	8.87	18.32	16.32	0.82	24.95	0.19	0	0.8	3.66	0
1996	44.04	32.46	14.47	10.16	7.82	17.6	16.32	0.69	25.41	0.08	0	0.69	3.53	0
1997	44	32.55	14.73	10.09	7.73	17.73	16.32	1.67	24.66	0.01	0	-0.18	3.54	0
1998	44	34.73	16.59	9.94	8.2	24.28	16.32	3.6	28.8	0.33	0	1.94	3.45	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET in	AET in	EVAP in	TRAN in	INT in	PRECIP in	IRRIG in	RUNOFF in	INFIL in	PERC in	DEEPRN in	DLT-SM in	STRESS	YLDRED
44.04	31.37	13.29	10.53	7.55	16.88	16.32	1.16	24.49	0.11	0	0.56	4.96	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr-85-99\Dew 15 yr-85-99.spw  
File Creation Date : Sep 16, 2008 08:41:06  
File Last Modified Date : Sep 16, 2008 08:41:07  
Description : Dewey TP1, TP2, TP5 Revised Soils-0.6 in/5th day-85-99  
Simulation Start Date : Jan 01, 1985  
Simulation End Date : Dec 31, 1999  
Simulation Run Date : Sep 16, 2008 08:41  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Dewey TP1, TP2, TP5 Revised Soils-0.6 in/5th day-85-99  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr-85-99\Dew 15 yr-85-99.fld (Sep 16, 2008 00:00)  
Climate : Dewey Burdock 85-99 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr85-99.clim (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evdp (Aug 23, 2008 00:00)  
Precipitation : SD8599 - Jan 01, 1985 to Dec 31, 1999  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr85-99.txt (Sep 16, 2008 00:00)  
Air Temperature : SD8599 - Jan 01, 1985 to Dec 31, 1999  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr85-99.txt (Sep 16, 2008 00:00)  
Management : 0.6 in every 5 days  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DBM-5 day.mgmt (Aug 28, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC-2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Dewey TP1, TP2, TP5 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\DRev 1-2-5.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 9

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 4.00 12.00 24.00 4.00 23.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET in	AET in	EVAP in	TRAN in	INT in	PRECIP in	IRRIG in	RUNOFF in	INFIL in	PERC in	DEEPRN in	DLT-SM in	STRESS	YLDRED
1985	44	25.89	7.78	11.62	6.49	11.75	16.32	1.02	20.56	-0.29	0	1.45	20.09	0
1986	44	32.7	14.33	10.02	8.34	23.59	16.32	2.08	29.49	1.05	0	4.09	4.09	0
1987	44	29.45	11.57	11.51	6.38	12.36	16.32	0.12	22.19	0.2	0	-1.09	5	0
1988	44.04	28.64	11.27	10.97	6.4	13.79	16.32	0.9	22.8	0.18	0	0.37	4.45	0
1989	44	30.23	12.23	10.63	7.36	15.58	16.32	0.04	24.5	0.16	0	1.48	3.83	0
1990	44	33.45	15.69	10.19	7.57	19.14	16.32	1.94	25.95	0.01	0	0.07	3.55	0
1991	44	30.42	12.17	10.96	7.29	15.03	16.32	1.4	22.66	-0.03	0	-0.45	3.61	0
1992	44.04	29.87	12.21	10.55	7.11	14.08	16.32	0.41	22.88	0.02	0	0.1	3.72	0
1993	44	35.3	16.84	9.44	9.01	22.31	16.32	2.17	27.45	0.02	0	1.14	3.4	0
1994	44	30.4	12.4	11.21	6.79	12.01	16.32	0.19	21.35	-0.29	0	-1.96	4.45	0
1995	44	32.83	13.93	10.02	8.87	18.32	16.32	0.82	24.95	0.19	0	0.8	3.66	0
1996	44.04	32.46	14.47	10.16	7.82	17.8	16.32	0.69	25.41	0.08	0	0.69	3.53	0
1997	44	32.55	14.73	10.09	7.73	17.73	16.32	1.87	24.66	0.01	0	-0.18	3.54	0
1998	44	34.73	16.59	9.94	8.2	24.28	16.32	3.6	28.8	0.33	0	1.94	3.45	0
1999	44	33.86	16.16	10.16	7.54	17.17	16.32	2.53	23.41	-0.34	0	-2.56	3.48	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET in	AET in	EVAP in	TRAN in	INT in	PRECIP in	IRRIG in	RUNOFF in	INFIL in	PERC in	DEEPRN in	DLT-SM in	STRESS	YLDRED
44.04	31.53	13.5	10.5	7.53	16.98	16.32	1.3	24.47	0.09	0	0.38	4.93	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--86-00\Dew 15 yr--86-00.spw  
File Creation Date : Sep 16, 2008 08:42:52  
File Last Modified Date : Sep 16, 2008 08:42:52  
Description : Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--86-00  
Simulation Start Date : Jan 01, 1986  
Simulation End Date : Dec 31, 2000  
Simulation Run Date : Sep 16, 2008 08:42  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--86-00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--86-00\Dew 15 yr--86-00.fld (Sep 16, 2008 00:00)  
Climate : Dewey Burdock 86-00 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\86-00.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD8600 - Jan 01, 1986 to Dec 31, 2000  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\86-00.txt (Sep 16, 2008 00:00)  
Air Temperature : SD8600 - Jan 01, 1986 to Dec 31, 2000  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\86-00.txt (Sep 16, 2008 00:00)  
Management : 0.6 in every 5 days  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DBM--5 day.mgmt (Aug 28, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC--2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Dewey TP1, TP2, TP5 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\DRew 1-2-5.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 9

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 4.00 12.00 24.00 4.00 23.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPPORN	DLT-SM	STRESS	YLDRED
	in	in	in	in	in	in	in	in	in	in	in	in		
1986	44	31.28	12.98	10.19	8.11	22.03	16.32	2.08	28.16	0.3	0	4.69	8.52	0
1987	44	29.16	11.24	11.54	6.38	12.36	16.32	0.12	22.19	0.36	0	-0.96	5.35	0
1988	44.04	28.28	10.7	11.18	6.4	13.79	16.32	0.9	22.8	0.33	0	0.59	5.42	0
1989	44	29.75	11.65	10.73	7.36	15.58	16.32	0.04	24.5	0.3	0	1.82	4.07	0
1990	44	33.35	15.58	10.19	7.57	19.14	16.32	1.86	26.02	0.02	0	0.23	3.56	0
1991	44	30.42	12.17	10.96	7.29	15.03	16.32	1.4	22.66	-0.03	0	-0.45	3.81	0
1992	44.04	29.87	12.21	10.55	7.11	14.08	16.32	0.41	22.88	0.02	0	0.1	3.72	0
1993	44	35.3	16.84	9.44	9.01	22.31	16.32	2.17	27.45	0.02	0	1.14	3.4	0
1994	44	30.4	12.4	11.21	6.79	12.01	16.32	0.19	21.35	-0.29	0	-1.96	4.45	0
1995	44	32.83	13.93	10.02	8.87	18.32	16.32	0.82	24.95	0.19	0	0.8	3.66	0
1996	44.04	32.46	14.47	10.16	7.82	17.6	16.32	0.69	25.41	0.08	0	0.69	3.53	0
1997	44	32.55	14.73	10.09	7.73	17.73	16.32	1.67	24.66	0.01	0	-0.18	3.54	0
1998	44	34.73	16.59	9.94	8.2	24.28	16.32	3.6	28.8	0.33	0	1.94	3.45	0
1999	44	33.86	16.16	10.16	7.54	17.17	16.32	2.53	23.41	-0.34	0	-2.56	3.48	0
2000	44.04	31.23	13.09	10.8	7.35	14.51	16.32	1.72	21.76	-0.5	0	-1.62	4.39	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPPORN	DLT-SM	STRESS	YLDRED
in	in	in	in	in	in	in	in	in	in	in	in		
44.04	31.71	13.66	10.48	7.57	17.06	16.32	1.35	24.47	0.05	0	0.27	4.28	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--89-03\Dew 15 yr--89-03.spw  
File Creation Date : Sep 16, 2008 08:47:32  
File Last Modified Date : Sep 16, 2008 08:47:33  
Description : Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--89-03  
Simulation Start Date : Jan 01, 1989  
Simulation End Date : Dec 31, 2003  
Simulation Run Date : Sep 16, 2008 08:47  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--89-03  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--89-03\Dew 15 yr--89-03.fld (Sep 16, 2008 00:00)  
Climate : Dewey Burdock 89-03 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\89-03.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD8903 - Jan 01, 1989 to Dec 31, 2003  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\89-03.txt (Sep 16, 2008 00:00)  
Air Temperature : SD8903 - Jan 01, 1989 to Dec 31, 2003  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\89-03.txt (Sep 16, 2008 00:00)  
Management : 0.6 in every 5 days  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DBM--5 day.mgmt (Aug 28, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC--2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Dewey TP1, TP2, TP5 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\Dev 1-2-5.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 9

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 4.00 12.00 24.00 4.00 23.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPDRN	DLT-SM	STRESS	YLDRED
	in	in	in	in	in	in	in	in	in	in	in	in		
1989	44	27.54	9.1	11.15	7.29	15.49	16.32	0.04	24.47	0.28	0	3.95	15.08	0
1990	44	30.99	12.73	10.68	7.57	19.14	16.32	1.6	26.29	0.95	0	1.92	3.95	0
1991	44	30.09	11.77	11.03	7.29	15.03	16.32	1.4	22.66	0.02	0	-0.16	3.7	0
1992	44.04	29.68	11.97	10.59	7.11	14.08	16.32	0.41	22.88	0.04	0	0.27	3.75	0
1993	44	35.28	16.83	9.44	9.01	22.31	16.32	2.14	27.48	0.02	0	1.19	3.4	0
1994	44	30.4	12.4	11.21	6.79	12.01	16.32	0.19	21.35	-0.29	0	-1.96	4.45	0
1995	44	32.83	13.93	10.02	8.87	18.32	16.32	0.82	24.95	0.19	0	0.8	3.66	0
1996	44.04	32.46	14.47	10.16	7.82	17.6	16.32	0.69	25.41	0.08	0	0.69	3.53	0
1997	44	32.55	14.73	10.09	7.73	17.73	16.32	1.67	24.66	0.01	0	-0.18	3.54	0
1998	44	34.73	16.59	9.94	8.2	24.28	16.32	3.6	28.8	0.33	0	1.94	3.45	0
1999	44	33.86	16.16	10.16	7.54	17.17	16.32	2.53	23.41	-0.34	0	-2.56	3.48	0
2000	44.04	31.23	13.09	10.8	7.35	14.51	16.32	1.72	21.76	-0.5	0	-1.62	4.39	0
2001	44	30.51	12.52	10.7	7.29	18.1	16.32	1.32	25.81	0.49	0	2.1	3.73	0
2002	44	29.78	12.18	10.9	6.7	13.11	16.32	0.35	22.38	-0.01	0	-0.69	3.71	0
2003	44	30.07	11.59	11.07	7.41	14.69	16.32	0.56	23.05	0.01	0	0.38	3.57	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPDRN	DLT-SM	STRESS	YLDRED
in	in	in	in	in	in	in	in	in	in	in	in		
44.04	31.48	13.35	10.53	7.6	16.9	16.32	1.27	24.36	0.09	0	0.39	4.5	0

SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr-90-04\Dew 15 yr-90-04.spw  
File Creation Date : Sep 16, 2008 08:48:54  
File Last Modified Date : Sep 16, 2008 08:48:55  
Description : Dewey TP1, TP2, TP5 Revised Soils-0.6 in/5th day-90-04  
Simulation Start Date : Jan 01, 1990  
Simulation End Date : Dec 31, 2004  
Simulation Run Date : Sep 16, 2008 08:48  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Dewey TP1, TP2, TP5 Revised Soils-0.6 in/5th day-90-04  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr-90-04\Dew 15 yr-90-04.fld (Sep 16, 2008 00:00)  
Climate : Dewey Burdock 90-04 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr90-04.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.avpd (Aug 23, 2008 00:00)  
Precipitation : SD9004 - Jan 01, 1990 to Dec 31, 2004  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr90-04.txt (Sep 16, 2008 00:00)  
Air Temperature : SD9004 - Jan 01, 1990 to Dec 31, 2004  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr90-04.txt (Sep 16, 2008 00:00)  
Management : 0.6 in every 5 days  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DBM-5 day.mgmt (Aug 28, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC-2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Dewey TP1, TP2, TP5 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\Dev 1-2-5.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 9

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 4.00 12.00 24.00 4.00 23.00

ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET in	AET in	EVAP in	TRAN in	INT in	PRECIP in	IRRIG in	RUNOFF in	INFIL in	PERC in	DEEPDRN in	DLT-SM in	STRESS	YLDRED
1990	44	30.25	12.04	10.67	7.54	19.11	16.32	1.45	26.44	0.11	0	3.63	12.13	0
1991	44	28.56	9.86	11.41	7.29	15.03	16.32	1.23	22.83	0.78	0	0.78	5.59	0
1992	44.04	28.9	10.99	10.8	7.11	14.08	16.32	0.37	22.92	0.32	0	0.81	4.49	0
1993	44	35.09	16.62	9.46	9.01	22.31	16.32	1.44	28.18	0.11	0	1.99	3.42	0
1994	44	30.43	12.43	11.21	6.79	12.01	16.32	0.19	21.35	-0.3	0	-1.99	4.44	0
1995	44	32.83	13.94	10.02	8.87	18.32	16.32	0.82	24.95	0.19	0	0.8	3.66	0
1996	44.04	32.46	14.48	10.16	7.82	17.6	16.32	0.69	25.41	0.08	0	0.69	3.53	0
1997	44	32.55	14.73	10.09	7.73	17.73	16.32	1.67	24.66	0.01	0	-0.18	3.54	0
1998	44	34.73	16.59	9.94	8.2	24.28	16.32	3.6	28.8	0.33	0	1.94	3.45	0
1999	44	33.86	16.16	10.16	7.54	17.17	16.32	2.53	23.41	-0.34	0	-2.56	3.48	0
2000	44.04	31.23	13.09	10.8	7.35	14.51	16.32	1.72	21.76	-0.5	0	-1.62	4.39	0
2001	44	30.51	12.52	10.7	7.29	18.1	16.32	1.32	25.81	0.49	0	2.1	3.73	0
2002	44	29.78	12.18	10.9	6.7	13.11	16.32	0.35	22.38	-0.01	0	-0.69	3.71	0
2003	44	30.07	11.59	11.07	7.41	14.69	16.32	0.56	23.05	0.01	0	0.38	3.57	0
2004	44.04	29.14	11.37	10.8	6.96	12.18	16.32	0.29	21.24	-0.26	0	-0.68	4.01	0

AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET in	AET in	EVAP in	TRAN in	INT in	PRECIP in	IRRIG in	RUNOFF in	INFIL in	PERC in	DEEPDRN in	DLT-SM in	STRESS	YLDRED
44.04	31.38	13.25	10.55	7.58	16.84	16.32	1.21	24.36	0.07	0	0.49	4.48	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15-yr-91-05\Dew 15-yr-91-05.spw  
File Creation Date : Sep 16, 2008 09:05:32  
File Last Modified Date : Sep 16, 2008 09:05:33  
Description : Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--91-05  
Simulation Start Date : Jan 01, 1991  
Simulation End Date : Dec 31, 2005  
Simulation Run Date : Sep 16, 2008 09:05  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--91-05  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15-yr-91-05\Dew 15-yr-91-05.fld (Sep 16, 2008 00:00)  
Climate : Dewey Burdock 91-05 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\91-05.cim (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD9105 - Jan 01, 1991 to Dec 31, 2005  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\91-05.txt (Sep 16, 2008 00:00)  
Air Temperature : SD9105 - Jan 01, 1991 to Dec 31, 2005  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\91-05.txt (Sep 16, 2008 00:00)  
Management : 0.6 in every 5 days  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DBM-5 day.mgmt (Aug 28, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC-2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Dewey TP1, TP2, TP5 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\Dev 1-2-5.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 9

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 4.00 12.00 24.00 4.00 23.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET in	AET in	EVAP in	TRAN in	INT in	PRECIP in	IRRIG in	RUNOFF in	INFIL in	PERC in	DEEPRN in	DLT-SM in	STRESS	YLDRED
1991	44	27.98	9.4	11.33	7.25	14.99	16.32	0.53	23.53	0.2	0	2.6	16.09	0
1992	44.04	28.54	10.58	10.85	7.11	14.08	16.32	0.37	22.92	0.42	0	1.08	6.39	0
1993	44	33.4	14.67	9.71	9.01	22.31	16.32	1.34	28.27	0.69	0	3.2	3.47	0
1994	44	30.11	12.08	11.24	6.79	12.01	16.32	0.19	21.35	-0.28	0	-1.68	4.47	0
1995	44	32.81	13.9	10.04	8.87	18.32	16.32	0.82	24.95	0.19	0	0.82	3.66	0
1996	44.04	32.45	14.47	10.16	7.82	17.6	16.32	0.69	25.41	0.09	0	0.7	3.53	0
1997	44	32.55	14.73	10.09	7.73	17.73	16.32	1.67	24.66	0.01	0	-0.18	3.54	0
1998	44	34.73	16.59	9.94	8.2	24.28	16.32	3.6	28.8	0.33	0	1.94	3.45	0
1999	44	33.86	16.16	10.16	7.54	17.17	16.32	2.53	23.41	-0.34	0	-2.56	3.48	0
2000	44.04	31.23	13.09	10.8	7.35	14.51	16.32	1.72	21.76	-0.5	0	-1.62	4.39	0
2001	44	30.51	12.52	10.7	7.29	18.1	16.32	1.32	25.81	0.49	0	2.1	3.73	0
2002	44	29.78	12.18	10.9	6.7	13.11	16.32	0.35	22.38	-0.01	0	-0.69	3.71	0
2003	44	30.07	11.59	11.07	7.41	14.69	16.32	0.56	23.05	0.01	0	0.38	3.57	0
2004	44.04	29.14	11.37	10.8	6.96	12.18	16.32	0.29	21.24	-0.26	0	-0.68	4.01	0
2005	44	31.81	14.06	10.62	7.14	20.16	16.32	3.81	25.53	0.26	0	0.59	3.53	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET in	AET in	EVAP in	TRAN in	INT in	PRECIP in	IRRIG in	RUNOFF in	INFIL in	PERC in	DEEPRN in	DLT-SM in	STRESS	YLDRED
44.04	31.28	13.17	10.56	7.55	16.9	16.32	1.32	24.35	0.09	0	0.53	4.74	0



# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr-92-06\Dew 15 yr-92-06.spw  
File Creation Date : Sep 16, 2008 09:06:49  
File Last Modified Date : Sep 16, 2008 09:06:50  
Description : Dewey TP1, TP2, TP5 Revised Soils-0.6 in/5th day-92-06  
Simulation Start Date : Jan 01, 1992  
Simulation End Date : Dec 31, 2006  
Simulation Run Date : Sep 16, 2008 09:06  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Dewey TP1, TP2, TP5 Revised Soils-0.6 in/5th day-92-06  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr-92-06\Dew 15 yr-92-06.fld (Sep 16, 2008 00:00)  
Climate : Dewey Burdock 92-06 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\92-06.clim (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD9206 - Jan 01, 1992 to Dec 31, 2006  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\92-06.txt (Sep 16, 2008 00:00)  
Air Temperature : SD9206 - Jan 01, 1992 to Dec 31, 2006  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\92-06.txt (Sep 16, 2008 00:00)  
Management : 0.6 in every 5 days  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DBM-5 day.mgmt (Aug 28, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC-2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Dewey TP1, TP2, TP5 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\OREv 1-2-5.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 9

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 4.00 12.00 24.00 4.00 23.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPPDRN	DLT-SM	STRESS	YLDRED
	in	in	in	in	in	in	in	in	in	in	in	in		
1992	44.04	28.01	10.12	10.78	7.11	14.08	16.32	0.37	22.92	-0.07	0	2.09	15.31	0
1993	44	31.96	12.92	10.02	9.01	22.31	16.32	1.08	28.53	1.31	0	4.28	3.76	0
1994	44	29.71	11.61	11.31	6.79	12.01	16.32	0.19	21.35	-0.27	0	-1.29	4.63	0
1995	44	32.81	13.9	10.03	8.87	18.32	16.32	0.66	25.11	0.24	0	0.94	3.68	0
1996	44.04	32.45	14.47	10.16	7.82	17.6	16.32	0.69	25.41	0.08	0	0.7	3.53	0
1997	44	32.55	14.73	10.09	7.73	17.73	16.32	1.67	24.66	0.01	0	-0.18	3.54	0
1998	44	34.73	16.59	9.94	8.2	24.28	16.32	3.6	28.8	0.33	0	1.94	3.45	0
1999	44	33.86	16.16	10.16	7.54	17.17	16.32	2.53	23.41	-0.34	0	-2.56	3.48	0
2000	44.04	31.23	13.09	10.8	7.35	14.51	16.32	1.72	21.76	-0.5	0	-1.62	4.39	0
2001	44	30.51	12.52	10.7	7.29	18.1	16.32	1.32	25.81	0.49	0	2.1	3.73	0
2002	44	29.78	12.18	10.9	6.7	13.11	16.32	0.35	22.38	-0.01	0	-0.69	3.71	0
2003	44	30.07	11.59	11.07	7.41	14.69	16.32	0.56	23.05	0.01	0	0.38	3.57	0
2004	44.04	29.14	11.37	10.8	6.96	12.18	16.32	0.29	21.24	-0.26	0	-0.68	4.01	0
2005	44	31.81	14.06	10.62	7.14	20.16	16.32	3.81	25.53	0.26	0	0.59	3.53	0
2006	44	29.66	12.02	10.97	6.67	13.22	16.32	0.48	22.39	-0.12	0	-0.47	3.67	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPPDRN	DLT-SM	STRESS	YLDRED
in	in	in	in	in	in	in	in	in	in	in	in		
44.04	31.24	13.16	10.56	7.52	16.79	16.32	1.29	24.3	0.08	0	0.5	4.54	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\15 yr--93-07\Dew 15 yr--93-07.spw  
File Creation Date : Sep 16, 2008 09:39:44  
File Last Modified Date : Sep 16, 2008 09:39:45  
Description : Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--93-07  
Simulation Start Date : Jan 01, 1993  
Simulation End Date : Dec 31, 2007  
Simulation Run Date : Sep 16, 2008 09:39  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--93-07  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\15 yr--93-07\Dew 15 yr--93-07.fld (Sep 16, 2008 00:00)  
Climate : Dewey Burdock 93-07 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\93-07.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evdpd (Aug 23, 2008 00:00)  
Precipitation : SD9307 - Jan 01, 1993 to Dec 31, 2007  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\93-07.txt (Sep 16, 2008 00:00)  
Air Temperature : SD9307 - Jan 01, 1993 to Dec 31, 2007  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\93-07.txt (Sep 16, 2008 00:00)  
Management : 0.6 in every 5 days  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DBM--5 day.mgmt (Aug 28, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC--2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Dewey TP1, TP2, TP5 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\DRV 1-2-5.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 9

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 4.00 12.00 24.00 4.00 23.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPPDRN	DLT-SM	STRESS	YLDRED
	in	in	in	in	in	in	in	in	in	in	in	in		
1993	44	30.45	11.29	10.26	8.91	21.44	16.32	1.06	27.8	0.84	0	5.42	7.24	0
1994	44	29.48	11.34	11.33	6.79	12.01	16.32	0.19	21.35	-0.18	0	-1.13	5	0
1995	44	31.87	12.65	10.35	8.87	18.32	16.32	0.66	25.11	0.51	0	1.6	3.93	0
1996	44.04	32.29	14.27	10.19	7.82	17.6	16.32	0.69	25.41	0.14	0	0.81	3.54	0
1997	44	32.54	14.71	10.1	7.73	17.73	16.32	1.67	24.66	0.01	0	-0.17	3.54	0
1998	44	34.73	16.59	9.94	8.2	24.28	16.32	3.6	28.8	0.33	0	1.94	3.45	0
1999	44	33.86	16.16	10.16	7.54	17.17	16.32	2.53	23.41	-0.34	0	-2.56	3.48	0
2000	44.04	31.23	13.09	10.8	7.35	14.51	16.32	1.72	21.76	-0.5	0	-1.62	4.39	0
2001	44	30.51	12.52	10.7	7.29	18.1	16.32	1.32	25.81	0.49	0	2.1	3.73	0
2002	44	29.78	12.18	10.9	6.7	13.11	16.32	0.35	22.38	-0.01	0	-0.69	3.71	0
2003	44	30.07	11.59	11.07	7.41	14.69	16.32	0.56	23.05	0.01	0	0.38	3.57	0
2004	44.04	29.14	11.37	10.8	6.96	12.18	16.32	0.29	21.24	-0.26	0	-0.68	4.01	0
2005	44	31.81	14.06	10.62	7.14	20.16	16.32	3.81	25.53	0.26	0	0.59	3.53	0
2006	44	29.66	12.02	10.97	6.67	13.22	16.32	0.48	22.39	-0.12	0	-0.47	3.67	0
2007	44	30.07	12.31	10.94	6.82	14.33	16.32	1.04	22.79	-0.13	0	-0.32	3.85	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPPDRN	DLT-SM	STRESS	YLDRED
in	in	in	in	in	in	in	in	in	in	in	in		
44.04	31.19	13.09	10.61	7.49	16.82	16.32	1.33	24.31	0.07	0	0.54	4.05	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--94-80\Dew 15 yr--94-80.spw  
File Creation Date : Sep 16, 2008 09:41:28  
File Last Modified Date : Sep 16, 2008 09:41:29  
Description : Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--94-80  
Simulation Start Date : Jan 01, 1994  
Simulation End Date : Dec 31, 2008  
Simulation Run Date : Sep 16, 2008 09:41  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--94-80  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--94-80\Dew 15 yr--94-80.fld (Sep 16, 2008 00:00)  
Climate : Dewey Burdock 94-80 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\94-80.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD9480 - Jan 01, 1994 to Dec 31, 2008  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\94-80.txt (Sep 16, 2008 00:00)  
Air Temperature : SD9480 - Jan 01, 1994 to Dec 31, 2008  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\94-80.txt (Sep 16, 2008 00:00)  
Management : 0.6 in every 5 days  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DBM--5 day.mgmt (Aug 28, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC--2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Dewey TP1, TP2, TP5 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\DRew 1-2-5.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 9

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 4.00 12.00 24.00 4.00 23.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLORED
	in	in	in	in	in	in	in	in	in	in	in	in		
1994	44	26.64	8.27	11.58	6.79	12.01	16.32	0.19	21.35	-0.3	0	1.81	21.39	0
1995	44	30.88	11.46	10.54	8.87	18.32	16.32	0.58	25.18	0.72	0	2.46	6.38	0
1996	44.04	30.39	11.97	10.59	7.82	17.6	16.32	0.68	25.41	0.83	0	2.02	3.77	0
1997	44	32.17	14.31	10.13	7.73	17.73	16.32	1.59	24.74	0.06	0	0.23	3.55	0
1998	44	34.72	16.57	9.94	8.2	24.28	16.32	3.6	28.8	0.33	0	1.96	3.45	0
1999	44	33.86	16.16	10.16	7.54	17.17	16.32	2.53	23.41	-0.34	0	-2.56	3.48	0
2000	44.04	31.23	13.09	10.8	7.35	14.51	16.32	1.72	21.76	-0.5	0	-1.62	4.39	0
2001	44	30.51	12.52	10.7	7.29	18.1	16.32	1.32	25.81	0.49	0	2.1	3.73	0
2002	44	29.78	12.18	10.9	6.7	13.11	16.32	0.35	22.38	-0.01	0	-0.69	3.71	0
2003	44	30.07	11.59	11.07	7.41	14.69	16.32	0.56	23.05	0.01	0	0.38	3.57	0
2004	44.04	29.14	11.37	10.8	6.96	12.18	16.32	0.29	21.24	-0.26	0	-0.68	4.01	0
2005	44	31.81	14.06	10.62	7.14	20.16	16.32	3.81	25.53	0.26	0	0.59	3.53	0
2006	44	29.66	12.02	10.97	6.67	13.22	16.32	0.48	22.39	-0.12	0	-0.47	3.67	0
2007	44	30.07	12.31	10.94	6.82	14.33	16.32	1.04	22.79	-0.13	0	-0.32	3.85	0
2008	44.04	31.48	13.33	11.02	7.13	16.74	16.32	1.12	24.81	0.11	0	0.36	3.57	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLORED
in	in	in	in	in	in	in	in	in	in	in	in		
44.04	30.84	12.75	10.72	7.37	16.43	16.32	1.32	24.05	0.08	0	0.5	5.08	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--95-81\Dew 15 yr--95-81.spw  
File Creation Date : Sep 16, 2008 09:42:54  
File Last Modified Date : Sep 16, 2008 09:42:55  
Description : Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--95-81  
Simulation Start Date : Jan 01, 1995  
Simulation End Date : Dec 31, 2009  
Simulation Run Date : Sep 16, 2008 09:42  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--95-81  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--95-81\Dew 15 yr--95-81.fld (Sep 16, 2008 00:00)  
Climate : Dewey Burdock 95-81 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr95-81.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD9581 - Jan 01, 1995 to Dec 31, 2009  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr95-81.bt (Sep 16, 2008 00:00)  
Air Temperature : SD9581 - Jan 01, 1995 to Dec 31, 2009  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr95-81.bt (Sep 16, 2008 00:00)  
Management : 0.6 in every 5 days  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DBM-5 day.mgmt (Aug 28, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC-2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Dewey TP1, TP2, TP5 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\Rev 1-2-5.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 9

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 4.00 12.00 24.00 4.00 23.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRND	DLT-SM	STRESS	YLDRED
	in	in	in	in	in	in	in	in	in	in	in	in		
1995	44	30.45	11.12	10.5	8.83	18.14	16.32	0.51	25.12	0.01	0	3.49	15.1	0
1996	44.04	30.14	11.68	10.63	7.82	17.6	16.32	0.68	25.41	0.94	0	2.15	4.05	0
1997	44	31.65	13.72	10.21	7.73	17.73	16.32	1.27	25.05	0.36	0	0.77	3.57	0
1998	44	34.65	16.5	9.95	8.2	24.28	16.32	3.57	28.82	0.33	0	2.05	3.46	0
1999	44	33.84	16.14	10.16	7.54	17.17	16.32	2.53	23.41	-0.33	0	-2.56	3.48	0
2000	44.04	31.23	13.08	10.8	7.35	14.51	16.32	1.72	21.76	-0.5	0	-1.62	4.39	0
2001	44	30.51	12.52	10.69	7.29	18.1	16.32	1.32	25.81	0.49	0	2.1	3.72	0
2002	44	29.78	12.19	10.9	6.7	13.11	16.32	0.35	22.38	-0.01	0	-0.69	3.71	0
2003	44	30.07	11.59	11.07	7.41	14.69	16.32	0.56	23.05	0.01	0	0.38	3.57	0
2004	44.04	29.14	11.37	10.8	6.96	12.18	16.32	0.29	21.24	-0.26	0	-0.68	4.01	0
2005	44	31.81	14.06	10.62	7.14	20.16	16.32	3.81	25.53	0.26	0	0.59	3.53	0
2006	44	29.66	12.02	10.97	6.67	13.22	16.32	0.48	22.39	-0.12	0	-0.47	3.67	0
2007	44	30.07	12.31	10.94	6.82	14.33	16.32	1.04	22.79	-0.13	0	-0.32	3.85	0
2008	44.04	31.48	13.33	11.02	7.13	16.74	16.32	1.12	24.81	0.11	0	0.36	3.57	0
2009	44	29.42	11.8	11.17	6.45	13.46	16.32	1.39	21.93	-0.19	0	-0.85	4.68	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRND	DLT-SM	STRESS	YLDRED
in	in	in	in	in	in	in	in	in	in	in	in		
44.04	30.94	12.9	10.7	7.35	16.52	16.32	1.38	24.11	0.06	0	0.45	4.56	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr-96-82\Dew 15 yr-96-82.spw  
File Creation Date : Sep 16, 2008 09:44:20  
File Last Modified Date : Sep 16, 2008 09:44:20  
Description : Dewey TP1, TP2, TP5 Revised Soils-0.6 in/5th day-96-82  
Simulation Start Date : Jan 01, 1996  
Simulation End Date : Dec 31, 2010  
Simulation Run Date : Sep 16, 2008 09:44  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Dewey TP1, TP2, TP5 Revised Soils-0.6 in/5th day-96-82  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr-96-82\Dew 15 yr-96-82.fld (Sep 16, 2008 00:00)  
Climate : Dewey Burdock 96-82 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr96-82.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD9682 - Jan 01, 1996 to Dec 31, 2010  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr96-82.btd (Sep 16, 2008 00:00)  
Air Temperature : SD9682 - Jan 01, 1996 to Dec 31, 2010  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr96-82.txt (Sep 16, 2008 00:00)  
Management : 0.6 in every 5 days  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DBM-5 day.mgmt (Aug 28, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC-2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Dewey TP1, TP2, TP5 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\DRV 1-2-5.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 9

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 4.00 12.00 24.00 4.00 23.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPPORN	DLT-SM	STRESS	YLDRED
	in	in	in	in	in	in	in	in	in	in	in	in		
1996	44.04	29.28	10.78	10.68	7.82	17.6	16.32	0.51	25.59	0.13	0	4	10.8	0
1997	44	30.23	11.97	10.54	7.73	17.73	16.32	0.96	25.36	1.13	0	1.73	3.78	0
1998	44	34.31	16.13	9.98	8.2	24.28	16.32	3.5	28.9	0.25	0	2.55	3.48	0
1999	44	33.78	16.09	10.15	7.54	17.17	16.32	2.28	23.67	-0.21	0	-2.37	3.48	0
2000	44.04	31.24	13.09	10.79	7.35	14.51	16.32	1.72	21.76	-0.5	0	-1.63	4.39	0
2001	44	30.51	12.52	10.69	7.29	18.1	16.32	1.32	25.81	0.49	0	2.1	3.72	0
2002	44	29.78	12.19	10.9	6.7	13.11	16.32	0.35	22.38	-0.01	0	-0.69	3.71	0
2003	44	30.07	11.59	11.07	7.41	14.69	16.32	0.56	23.05	0.01	0	0.38	3.57	0
2004	44.04	29.14	11.37	10.8	6.96	12.18	16.32	0.29	21.24	-0.26	0	-0.68	4.01	0
2005	44	31.81	14.06	10.62	7.14	20.16	16.32	3.81	25.53	0.26	0	0.59	3.53	0
2006	44	29.66	12.02	10.97	6.67	13.22	16.32	0.48	22.39	-0.12	0	-0.47	3.67	0
2007	44	30.07	12.31	10.94	6.82	14.33	16.32	1.04	22.79	-0.13	0	-0.32	3.85	0
2008	44.04	31.48	13.33	11.02	7.13	16.74	16.32	1.12	24.81	0.11	0	0.36	3.57	0
2009	44	29.42	11.8	11.17	6.45	13.46	16.32	1.39	21.93	-0.19	0	-0.85	4.68	0
2010	44	33.31	15.07	9.71	8.53	21.88	16.32	1.72	27.95	0.41	0	2.76	3.97	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPPORN	DLT-SM	STRESS	YLDRED
in	in	in	in	in	in	in	in	in	in	in	in		
44.04	30.96	12.96	10.67	7.32	16.77	16.32	1.4	24.35	0.09	0	0.63	4.29	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--97-83\Dew 15 yr--97-83.spw  
File Creation Date : Sep 16, 2008 09:45:40  
File Last Modified Date : Sep 16, 2008 09:45:41  
Description : Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--97-83  
Simulation Start Date : Jan 01, 1997  
Simulation End Date : Dec 31, 2011  
Simulation Run Date : Sep 16, 2008 09:45  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--97-83  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--97-83\Dew 15 yr--97-83.fld (Sep 16, 2008 00:00)  
Climate : Dewey Burdock 97-83 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\97-83.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD9783 - Jan 01, 1997 to Dec 31, 2011  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\97-83.txt (Sep 16, 2008 00:00)  
Air Temperature : SD9783 - Jan 01, 1997 to Dec 31, 2011  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\97-83.txt (Sep 16, 2008 00:00)  
Management : 0.6 in every 5 days  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DBM--5 day.mgmt (Aug 28, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC--2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Dewey TP1, TP2, TP5 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\DR1-2-5.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 9

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 4.00 12.00 24.00 4.00 23.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPPDRN	DLT-SM	STRESS	YLDRED
	in	in	in	in	in	in	in	in	in	in	in	in		
1997	44	29.17	10.8	10.65	7.73	17.73	16.32	0.93	25.39	0.45	0	3.49	10.48	0
1998	44	33.54	15.26	10.09	8.2	24.28	16.32	2.35	30.05	0.91	0	3.79	3.73	0
1999	44	32.67	14.85	10.28	7.54	17.17	16.32	2.28	23.67	-0.06	0	-1.39	3.49	0
2000	44.04	31.23	13.08	10.79	7.35	14.51	16.32	1.72	21.76	-0.5	0	-1.62	4.4	0
2001	44	30.51	12.52	10.7	7.29	18.1	16.32	1.32	25.81	0.49	0	2.11	3.73	0
2002	44	29.78	12.18	10.9	6.7	13.11	16.32	0.35	22.38	-0.01	0	-0.69	3.71	0
2003	44	30.07	11.59	11.07	7.41	14.69	16.32	0.56	23.05	0.01	0	0.38	3.57	0
2004	44.04	29.14	11.37	10.8	6.96	12.18	16.32	0.29	21.24	-0.26	0	-0.68	4.01	0
2005	44	31.81	14.06	10.62	7.14	20.16	16.32	3.81	25.53	0.26	0	0.59	3.53	0
2006	44	29.66	12.02	10.97	6.67	13.22	16.32	0.48	22.39	-0.12	0	-0.47	3.67	0
2007	44	30.07	12.31	10.94	6.82	14.33	16.32	1.04	22.79	-0.13	0	-0.32	3.85	0
2008	44.04	31.48	13.33	11.02	7.13	16.74	16.32	1.12	24.81	0.11	0	0.36	3.57	0
2009	44	29.42	11.79	11.17	6.45	13.46	16.32	1.39	21.93	-0.19	0	-0.84	4.68	0
2010	44	33.31	15.07	9.71	8.53	21.88	16.32	1.72	27.95	0.41	0	2.76	3.97	0
2011	44	31.99	13.96	10.55	7.48	16.16	16.32	1.33	23.67	-0.07	0	-0.77	3.61	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPPDRN	DLT-SM	STRESS	YLDRED
in	in	in	in	in	in	in	in	in	in	in	in		
44.04	30.95	12.96	10.68	7.31	16.74	16.32	1.38	24.37	0.09	0	0.64	4.27	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--98-84\Dew 15 yr--98-84.spw  
File Creation Date : Sep 16, 2008 09:47:14  
File Last Modified Date : Sep 16, 2008 09:47:14  
Description : Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--98-84  
Simulation Start Date : Jan 01, 1998  
Simulation End Date : Dec 31, 2012  
Simulation Run Date : Sep 16, 2008 09:47  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--98-84  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--98-84\Dew 15 yr--98-84.fld (Sep 16, 2008 00:00)  
Climate : Dewey Burdock 98-84 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr98-84.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD9884 - Jan 01, 1998 to Dec 31, 2012  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr98-84.bt (Sep 16, 2008 00:00)  
Air Temperature : SD9884 - Jan 01, 1998 to Dec 31, 2012  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr98-84.bt (Sep 16, 2008 00:00)  
Management : 0.6 in every 5 days  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DBM--5 day.mgmt (Aug 28, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC--2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Dewey TP1, TP2, TP5 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\IDRev 1-2-5.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 9

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 4.00 12.00 24.00 4.00 23.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPDRN	DLT-SM	STRESS	YLDRED
	in	in	in	in	in	in	in	in	in	in	in	in		
1998	44	32.32	13.91	10.21	8.2	24.28	16.32	1.8	30.6	0.86	0	5.61	8.88	0
1999	44	31.13	13.06	10.53	7.54	17.17	16.32	1.91	24.03	0.42	0	0.02	3.57	0
2000	44.04	31.06	12.88	10.82	7.35	14.51	16.32	1.72	21.76	-0.52	0	-1.43	4.45	0
2001	44	30.49	12.51	10.69	7.29	18.1	16.32	1.23	25.9	0.52	0	2.18	3.74	0
2002	44	29.77	12.18	10.9	6.7	13.11	16.32	0.35	22.38	-0.01	0	-0.69	3.71	0
2003	44	30.07	11.59	11.07	7.41	14.69	16.32	0.56	23.05	0.01	0	0.38	3.57	0
2004	44.04	29.14	11.37	10.8	6.96	12.18	16.32	0.29	21.24	-0.26	0	-0.68	4.01	0
2005	44	31.81	14.06	10.62	7.14	20.16	16.32	3.81	25.53	0.26	0	0.59	3.53	0
2006	44	29.66	12.02	10.97	6.67	13.22	16.32	0.48	22.39	-0.12	0	-0.47	3.67	0
2007	44	30.07	12.31	10.94	6.82	14.33	16.32	1.04	22.79	-0.13	0	-0.32	3.85	0
2008	44.04	31.48	13.33	11.02	7.13	16.74	16.32	1.12	24.81	0.11	0	0.36	3.57	0
2009	44	29.42	11.8	11.17	6.45	13.46	16.32	1.39	21.93	-0.19	0	-0.84	4.68	0
2010	44	33.31	15.07	9.71	8.53	21.88	16.32	1.72	27.95	0.41	0	2.76	3.97	0
2011	44	31.99	13.96	10.55	7.48	16.16	16.32	1.33	23.67	-0.07	0	-0.77	3.61	0
2012	44.04	32.69	14.15	10.47	8.07	16.89	16.32	1.13	24	0	0	-0.62	3.42	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPDRN	DLT-SM	STRESS	YLDRED
in	in	in	in	in	in	in	in	in	in	in	in		
44.04	30.98	12.95	10.7	7.32	16.61	16.32	1.33	24.28	0.09	0	0.54	4.15	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--99-85\Dew 15 yr--99-85.spw  
File Creation Date : Sep 16, 2008 09:48:36  
File Last Modified Date : Sep 16, 2008 09:48:37  
Description : Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--99-85  
Simulation Start Date : Jan 01, 1999  
Simulation End Date : Dec 31, 2013  
Simulation Run Date : Sep 16, 2008 09:48  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--99-85  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--99-85\Dew 15 yr--99-85.fld (Sep 16, 2008 00:00)  
Climate : Dewey Burdock 99-85 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr99-85.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD9985 - Jan 01, 1999 to Dec 31, 2013  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr99-85.txt (Sep 16, 2008 00:00)  
Air Temperature : SD9985 - Jan 01, 1999 to Dec 31, 2013  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr99-85.txt (Sep 16, 2008 00:00)  
Management : 0.6 in every 5 days  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DBM--5 day.mgmt (Aug 28, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC--2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Dewey TP1, TP2, TP5 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\DRV 1-2-5.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 9

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 4.00 12.00 24.00 4.00 23.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
	in	in	in	in	in	in	in	in	in	in	in	in		
1999	44	28.66	10.14	10.98	7.54	17.17	16.32	0.8	25.14	0.5	0	3.52	10.95	0
2000	44.04	29.89	11.52	11.02	7.35	14.51	16.32	1.72	21.76	-0.2	0	-0.59	5.86	0
2001	44	29.79	11.57	10.92	7.29	18.1	16.32	1.23	25.9	0.81	0	2.59	4.61	0
2002	44	29.35	11.66	10.99	6.7	13.11	16.32	0.35	22.38	0.02	0	-0.29	3.84	0
2003	44	29.6	11	11.19	7.41	14.69	16.32	0.56	23.05	0.16	0	0.7	3.65	0
2004	44.04	29.07	11.29	10.82	6.96	12.18	16.32	0.29	21.24	-0.27	0	-0.59	4.05	0
2005	44	31.76	13.98	10.64	7.14	20.16	16.32	3.81	25.53	0.28	0	0.63	3.54	0
2006	44	29.65	12.01	10.97	6.67	13.22	16.32	0.48	22.39	-0.12	0	-0.46	3.67	0
2007	44	30.07	12.31	10.94	6.82	14.33	16.32	1.04	22.79	-0.13	0	-0.32	3.85	0
2008	44.04	31.47	13.32	11.02	7.13	16.74	16.32	1.12	24.81	0.11	0	0.36	3.57	0
2009	44	29.42	11.79	11.17	6.45	13.46	16.32	1.39	21.93	-0.19	0	-0.84	4.68	0
2010	44	33.31	15.07	9.71	8.53	21.88	16.32	1.72	27.95	0.41	0	2.76	3.97	0
2011	44	31.99	13.96	10.55	7.48	16.16	16.32	1.33	23.67	-0.07	0	-0.77	3.61	0
2012	44.04	32.69	14.15	10.47	8.07	16.89	16.32	1.13	24	0	0	-0.62	3.42	0
2013	44	28.86	11.09	11.28	6.49	11.75	16.32	1.03	20.55	-0.41	0	-1.42	3.94	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
in	in	in	in	in	in	in	in	in	in	in	in		
44.04	30.39	12.33	10.85	7.21	15.78	16.32	1.2	23.68	0.06	0	0.44	4.49	0



# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--00-86\Dew 15 yr--00-86.spw  
File Creation Date : Sep 16, 2008 09:49:51  
File Last Modified Date : Sep 16, 2008 09:49:52  
Description : Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--00-86  
Simulation Start Date : Jan 01, 2000  
Simulation End Date : Dec 31, 2014  
Simulation Run Date : Sep 16, 2008 09:49  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--00-86  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--00-86\Dew 15 yr--00-86.fld (Sep 16, 2008 00:00)  
Climate : Dewey Burdock 00-86 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\00-86.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD0086 - Jan 01, 2000 to Dec 31, 2014  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\00-86.bt (Sep 16, 2008 00:00)  
Air Temperature : SD0086 - Jan 01, 2000 to Dec 31, 2014  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\00-86.bt (Sep 16, 2008 00:00)  
Management : 0.6 in every 5 days  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DBM--5 day.mgmt (Aug 28, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC--2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Dewey TP1, TP2, TP5 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\DRev 1-2-5.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 9

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 4.00 12.00 24.00 4.00 23.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
	in	in	in	in	in	in	in	in	in	in	in	in		
2000	44.04	27.77	9.12	11.3	7.35	14.51	16.32	1.72	21.76	-0.22	0	1.56	12.77	0
2001	44	29.06	10.73	11.04	7.29	18.1	16.32	1.13	26	1.03	0	3.2	6.26	0
2002	44	29.16	11.46	11.01	6.7	13.11	16.32	0.35	22.38	0.04	0	-0.13	4.01	0
2003	44	29.23	10.56	11.26	7.41	14.69	16.32	0.55	23.05	0.34	0	0.89	3.9	0
2004	44.04	28.9	11.08	10.85	6.96	12.18	16.32	0.21	21.32	-0.26	0	-0.36	4.15	0
2005	44	31.86	14.11	10.61	7.14	20.16	16.32	3.43	25.9	0.37	0	0.82	3.54	0
2006	44	29.66	12.02	10.97	6.67	13.22	16.32	0.48	22.39	-0.12	0	-0.47	3.67	0
2007	44	30.07	12.31	10.94	6.82	14.33	16.32	1.04	22.79	-0.13	0	-0.32	3.85	0
2008	44.04	31.5	13.37	11.01	7.13	16.74	16.32	0.96	24.97	0.15	0	0.46	3.54	0
2009	44	29.44	11.82	11.17	6.45	13.46	16.32	1.39	21.93	-0.19	0	-0.86	4.63	0
2010	44	33.25	15.02	9.71	8.53	21.88	16.32	2.06	27.61	0.36	0	2.53	3.94	0
2011	44	31.83	13.78	10.56	7.48	16.16	16.32	1.33	23.67	-0.06	0	-0.62	3.61	0
2012	44.04	32.69	14.15	10.47	8.07	16.89	16.32	1.13	24	0	0	-0.62	3.42	0
2013	44	28.86	11.09	11.28	6.49	11.75	16.32	1.03	20.55	-0.41	0	-1.42	3.94	0
2014	44	34.76	16.74	9.67	8.34	23.59	16.32	2.19	29.38	0.44	0	2.52	3.46	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
in	in	in	in	in	in	in	in	in	in	in	in		
44.04	30.55	12.49	10.79	7.26	16.21	16.32	1.27	23.99	0.09	0	0.62	4.59	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--01-87\Dew 15 yr--01-87.spw  
File Creation Date : Sep 16, 2008 09:51:19  
File Last Modified Date : Sep 16, 2008 09:51:20  
Description : Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--01-87  
Simulation Start Date : Jan 01, 2001  
Simulation End Date : Dec 31, 2015  
Simulation Run Date : Sep 16, 2008 09:51  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--01-87  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--01-87\Dew 15 yr--01-87.fld (Sep 16, 2008 00:00)  
Climate : Dewey Burdock 01-87 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr01-87.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD0187 - Jan 01, 2001 to Dec 31, 2015  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr01-87.txt (Sep 16, 2008 00:00)  
Air Temperature : SD0187 - Jan 01, 2001 to Dec 31, 2015  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr01-87.txt (Sep 16, 2008 00:00)  
Management : 0.6 in every 5 days  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DBM--5 day.mgmt (Aug 28, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC--2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Dewey TP1, TP2, TP5 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\DRev 1-2-5.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 9

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 4.00 12.00 24.00 4.00 23.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRNDLT-SM	STRESS	YLORED
	in	in	in	in	in	in	in	in	in	in	in	in	
2001	44	28.73	10.42	11.02	7.29	18.1	16.32	1.04	26.09	0.55	0	4.1	11.88
2002	44	28.96	11.24	11.02	6.7	13.11	16.32	0.35	22.38	0.07	0	0.05	4.46
2003	44	29.09	10.41	11.27	7.41	14.69	16.32	0.55	23.05	0.39	0	0.99	4.02
2004	44.04	28.77	10.92	10.89	6.96	12.18	16.32	0.21	21.32	-0.22	0	-0.27	4.27
2005	44	31.48	13.63	10.71	7.14	20.16	16.32	3.43	25.9	0.5	0	1.06	3.55
2006	44	29.62	11.97	10.98	6.67	13.22	16.32	0.48	22.39	-0.13	0	-0.42	3.68
2007	44	30.06	12.3	10.94	6.82	14.33	16.32	1.04	22.79	-0.13	0	-0.32	3.85
2008	44.04	31.46	13.3	11.02	7.13	16.74	16.32	1.12	24.81	0.11	0	0.37	3.58
2009	44	29.42	11.79	11.17	6.45	13.46	16.32	1.39	21.93	-0.19	0	-0.84	4.69
2010	44	33.31	15.06	9.71	8.53	21.88	16.32	1.72	27.95	0.41	0	2.76	3.97
2011	44	31.99	13.96	10.55	7.48	16.16	16.32	1.33	23.67	-0.07	0	-0.77	3.61
2012	44.04	32.69	14.15	10.47	8.07	16.89	16.32	1.13	24	0	0	-0.62	3.42
2013	44	28.86	11.09	11.28	6.49	11.75	16.32	1.03	20.55	-0.41	0	-1.42	3.94
2014	44	34.76	16.74	9.67	8.34	23.59	16.32	2.19	29.38	0.44	0	2.52	3.46
2015	44	31.02	13.52	11.13	6.38	12.36	16.32	0.19	22.12	-0.24	0	-2.29	4.3

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRNDLT-SM	STRESS	YLORED
in	in	in	in	in	in	in	in	in	in	in	in	
44.04	30.7	12.7	10.79	7.2	16.13	16.32	1.15	24.1	0.07	0	0.53	4.45

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--02-88\Dew 15 yr--02-88.spw  
File Creation Date : Sep 16, 2008 09:52:50  
File Last Modified Date : Sep 16, 2008 09:52:51  
Description : Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--02-88  
Simulation Start Date : Jan 01, 2002  
Simulation End Date : Dec 31, 2016  
Simulation Run Date : Sep 16, 2008 09:52  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--02-88  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--02-88\Dew 15 yr--02-88.fld (Sep 16, 2008 00:00)  
Climate : Dewey Burdock 02-88 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\02-88.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD0288 - Jan 01, 2002 to Dec 31, 2016  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\02-88.txt (Sep 16, 2008 00:00)  
Air Temperature : SD0288 - Jan 01, 2002 to Dec 31, 2016  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\02-88.txt (Sep 16, 2008 00:00)  
Management : 0.6 in every 5 days  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DBM--5 day.mgmt (Aug 28, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC--2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Dewey TP1, TP2, TP5 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\DRv 1-2-5.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 9

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 4.00 12.00 24.00 4.00 23.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
	in	in	in	in	in	in	in	in	in	in	in	in		
2002	44	27.02	8.92	11.39	6.7	13.11	16.32	0.31	22.42	-0.22	0	2.33	18.49	0
2003	44	28.54	9.82	11.32	7.41	14.69	16.32	0.55	23.05	0.59	0	1.33	5	0
2004	44.04	28.03	9.99	11.08	6.96	12.18	16.32	0.21	21.32	0	0	0.25	5.73	0
2005	44	30.51	12.49	10.88	7.14	20.16	16.32	3.24	26.1	0.91	0	1.81	3.66	0
2006	44	29.47	11.76	11.03	6.67	13.22	16.32	0.48	22.39	-0.13	0	-0.28	3.74	0
2007	44	30.05	12.29	10.94	6.82	14.33	16.32	1.04	22.79	-0.14	0	-0.3	3.86	0
2008	44.04	31.44	13.28	11.02	7.13	16.74	16.32	0.96	24.97	0.17	0	0.5	3.55	0
2009	44	29.44	11.81	11.17	6.45	13.46	16.32	1.39	21.93	-0.19	0	-0.86	4.64	0
2010	44	33.24	15	9.71	8.53	21.88	16.32	2.06	27.61	0.37	0	2.53	3.95	0
2011	44	31.82	13.78	10.57	7.48	16.16	16.32	1.33	23.67	-0.06	0	-0.61	3.61	0
2012	44.04	32.69	14.15	10.47	8.07	16.89	16.32	1.13	24	0	0	-0.62	3.42	0
2013	44	28.86	11.09	11.28	6.49	11.75	16.32	1.03	20.55	-0.41	0	-1.42	3.94	0
2014	44	34.76	16.74	9.67	8.34	23.59	16.32	2.19	29.38	0.44	0	2.52	3.46	0
2015	44	31.02	13.52	11.13	6.38	12.96	16.32	0.19	22.12	-0.24	0	-2.29	4.3	0
2016	44.04	28.89	11.61	10.88	6.4	13.79	16.32	0.9	22.8	0.11	0	0.21	4.05	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
in	in	in	in	in	in	in	in	in	in	in	in		
44.04	30.4	12.42	10.84	7.14	15.78	16.32	1.13	23.82	0.08	0	0.48	5.03	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--03-89\Dew 15 yr--03-89.spw  
File Creation Date : Sep 16, 2008 09:54:17  
File Last Modified Date : Sep 16, 2008 09:54:17  
Description : Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--03-89  
Simulation Start Date : Jan 01, 2003  
Simulation End Date : Dec 31, 2017  
Simulation Run Date : Sep 16, 2008 09:54  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--03-89  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--03-89\Dew 15 yr--03-89.fld (Sep 16, 2008 00:00)  
Climate : Dewey Burdock 03-89 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\03-89.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD0289 - Jan 01, 2003 to Dec 31, 2017  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\03-89.txt (Sep 16, 2008 00:00)  
Air Temperature : SD0289 - Jan 01, 2003 to Dec 31, 2017  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\03-89.txt (Sep 16, 2008 00:00)  
Management : 0.6 in every 5 days  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DBM--5 day.mgmt (Aug 28, 2008 00:00)  
Crop ( 1) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC--2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Dewey TP1, TP2, TP5 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\DR1-2-5.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 9

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 4.00 12.00 24.00 4.00 23.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
	in	in	in	in	in	in	in	in	in	in	in	in		
2003	44	27.99	9.27	11.31	7.41	14.69	16.32	0.33	23.27	-0.06	0	2.75	9.98	0
2004	44.04	27.44	9.27	11.21	6.96	12.18	16.32	0.21	21.32	0.2	0	0.85	7.33	0
2005	44	30.29	12.19	10.97	7.14	20.16	16.32	3.01	26.33	1.1	0	2.07	3.81	0
2006	44	29.25	11.48	11.1	6.67	13.22	16.32	0.48	22.39	-0.1	0	-0.09	3.82	0
2007	44	30.03	12.27	10.94	6.82	14.33	16.32	1.04	22.79	-0.14	0	-0.28	3.87	0
2008	44.04	31.37	13.2	11.04	7.13	16.74	16.32	1.12	24.81	0.14	0	0.43	3.58	0
2009	44	29.41	11.79	11.17	6.45	13.46	16.32	1.39	21.93	-0.19	0	-0.84	4.7	0
2010	44	33.3	15.05	9.72	8.53	21.88	16.32	1.72	27.95	0.41	0	2.77	3.97	0
2011	44	31.98	13.95	10.55	7.48	16.16	16.32	1.33	23.67	-0.07	0	-0.76	3.61	0
2012	44.04	32.69	14.15	10.47	8.07	16.89	16.32	1.13	24	0	0	-0.62	3.42	0
2013	44	28.86	11.09	11.28	6.49	11.75	16.32	1.03	20.55	-0.41	0	-1.42	3.94	0
2014	44	34.76	16.74	9.67	8.34	23.59	16.32	2.19	29.38	0.44	0	2.52	3.46	0
2015	44	31.02	13.52	11.13	6.38	12.36	16.32	0.19	22.12	-0.24	0	-2.29	4.3	0
2016	44.04	28.89	11.61	10.88	6.4	13.79	16.32	0.9	22.8	0.11	0	0.21	4.05	0
2017	44	30.48	12.53	10.59	7.36	15.58	16.32	0.07	24.48	0.11	0	1.25	3.76	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
in	in	in	in	in	in	in	in	in	in	in	in		
44.04	30.53	12.54	10.8	7.18	15.94	16.32	1.08	24	0.09	0	0.56	4.51	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--04-90\Dew 15 yr--04-90.spw  
File Creation Date : Sep 16, 2008 09:55:46  
File Last Modified Date : Sep 16, 2008 09:55:47  
Description : Dewey TP1, TP2, TP5 Soils--0.6 in/5th day--04-90  
Simulation Start Date : Jan 01, 2004  
Simulation End Date : Dec 31, 2018  
Simulation Run Date : Sep 16, 2008 09:55  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Dewey TP1, TP2, TP5 Soils--0.6 in/5th day--04-90  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--04-90\Dew 15 yr--04-90.fid (Sep 16, 2008 00:00)  
Climate : Dewey Burdock 04-90 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\04-90.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD0490 - Jan 01, 2004 to Dec 31, 2018  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\04-90.txt (Sep 16, 2008 00:00)  
Air Temperature : SD0490 - Jan 01, 2004 to Dec 31, 2018  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\04-90.txt (Sep 16, 2008 00:00)  
Management : 0.6 in every 5 days  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DBM--5 day.mgmt (Aug 28, 2008 00:00)  
Crop ( 1) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC--2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Dewey TP1, TP2, TP5 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\DRev 1-2-5.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 9

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 4.00 12.00 24.00 4.00 23.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET in	AET in	EVAP in	TRAN in	INT in	PRECIP in	IRRIG in	RUNOFF in	INFIL in	PERC in	DEEPPDRN in	DLT-SM in	STRESS	YLDRED
2004	44.04	25.97	7.77	11.25	6.95	12.16	16.32	0.21	21.32	-0.24	0	2.54	21.75	0
2005	44	29.79	11.58	11.07	7.14	20.16	16.32	3.01	26.33	1.28	0	2.4	4.23	0
2006	44	28.67	10.73	11.27	6.67	13.22	16.32	0.48	22.39	0.07	0	0.33	4.03	0
2007	44	30	12.23	10.95	6.82	14.33	16.32	1.04	22.79	-0.14	0	-0.24	3.9	0
2008	44.04	31.3	13.11	11.06	7.13	16.74	16.32	0.96	24.97	0.21	0	0.59	3.56	0
2009	44	29.43	11.8	11.17	6.45	13.46	16.32	1.39	21.93	-0.19	0	-0.85	4.65	0
2010	44	33.23	14.98	9.72	8.53	21.88	16.32	2.06	27.61	0.37	0	2.54	3.95	0
2011	44	31.82	13.77	10.57	7.48	16.16	16.32	1.33	23.67	-0.06	0	-0.61	3.61	0
2012	44.04	32.69	14.15	10.47	8.07	16.89	16.32	1.13	24	0	0	-0.62	3.42	0
2013	44	28.86	11.09	11.28	6.49	11.75	16.32	1.03	20.55	-0.41	0	-1.42	3.94	0
2014	44	34.76	16.74	9.67	8.34	23.59	16.32	2.19	29.38	0.44	0	2.52	3.46	0
2015	44	31.02	13.52	11.13	6.38	12.36	16.32	0.19	22.12	-0.24	0	-2.29	4.3	0
2016	44.04	28.89	11.61	10.88	6.4	13.79	16.32	0.9	22.8	0.11	0	0.21	4.05	0
2017	44	30.48	12.53	10.59	7.36	15.58	16.32	0.07	24.48	0.11	0	1.25	3.76	0
2018	44	33.49	15.74	10.18	7.57	19.14	16.32	1.94	25.95	0.01	0	0.03	3.55	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET in	AET in	EVAP in	TRAN in	INT in	PRECIP in	IRRIG in	RUNOFF in	INFIL in	PERC in	DEEPPDRN in	DLT-SM in	STRESS	YLDRED
44.04	30.71	12.76	10.75	7.19	16.24	16.32	1.19	24.16	0.09	0	0.57	5.08	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--05-91\Dew 15 yr--05-91.spw  
File Creation Date : Sep 16, 2008 09:57:03  
File Last Modified Date : Sep 16, 2008 09:57:04  
Description : Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--05-91  
Simulation Start Date : Jan 01, 2005  
Simulation End Date : Dec 31, 2019  
Simulation Run Date : Sep 16, 2008 09:57  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--05-91  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--05-91\Dew 15 yr--05-91.fld (Sep 16, 2008 00:00)  
Climate : Dewey Burdock 05-91 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\05-91.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD0591 - Jan 01, 2005 to Dec 31, 2019  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\05-91.bt (Sep 16, 2008 00:00)  
Air Temperature : SD0591 - Jan 01, 2005 to Dec 31, 2019  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\05-91.bt (Sep 16, 2008 00:00)  
Management : 0.6 in every 5 days  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DBM--5 day.mgmt (Aug 28, 2008 00:00)  
Crop ( 1) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC--2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Dewey TP1, TP2, TP5 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\DR1-2-5.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 9

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 4.00 12.00 24.00 4.00 23.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
	in	in	in	in	in	in	in	in	in	in	in	in		
2005	44	29.08	10.83	11.11	7.14	20.16	16.32	3.01	26.33	0.57	0	3.81	8.67	0
2006	44	28.21	10.15	11.39	6.67	13.22	16.32	0.26	22.61	0.28	0	0.79	4.81	0
2007	44	29.84	12.06	10.96	6.82	14.33	16.32	1.04	22.79	-0.12	0	-0.11	4.09	0
2008	44.04	30.8	12.48	11.19	7.13	16.74	16.32	0.96	24.97	0.36	0	0.94	3.66	0
2009	44	29.37	11.74	11.18	6.45	13.46	16.32	1.39	21.93	-0.17	0	-0.82	4.75	0
2010	44	33.25	15	9.72	8.53	21.88	16.32	1.72	27.95	0.44	0	2.79	4	0
2011	44	31.93	13.89	10.56	7.48	16.16	16.32	1.33	23.67	-0.06	0	-0.71	3.61	0
2012	44.04	32.69	14.15	10.47	8.07	16.89	16.32	1.13	24	0	0	-0.62	3.42	0
2013	44	28.86	11.09	11.28	6.49	11.75	16.32	1.03	20.55	-0.41	0	-1.42	3.94	0
2014	44	34.76	16.74	9.67	8.34	23.59	16.32	2.19	29.38	0.44	0	2.52	3.46	0
2015	44	31.02	13.52	11.13	6.38	12.36	16.32	0.19	22.12	-0.24	0	-2.29	4.3	0
2016	44.04	28.89	11.61	10.88	6.4	13.79	16.32	0.9	22.8	0.11	0	0.21	4.05	0
2017	44	30.48	12.53	10.59	7.36	15.58	16.32	0.07	24.48	0.11	0	1.25	3.76	0
2018	44	33.49	15.74	10.18	7.57	19.14	16.32	1.94	25.95	0.01	0	0.03	3.55	0
2019	44	30.42	12.17	10.96	7.29	15.03	16.32	1.4	22.66	-0.03	0	-0.45	3.61	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
in	in	in	in	in	in	in	in	in	in	in	in		
44.04	30.88	12.92	10.75	7.21	16.27	16.32	1.24	24.15	0.09	0	0.39	4.25	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--06-92\Dew 15 yr--06-92.spw  
File Creation Date : Sep 16, 2008 09:58:16  
File Last Modified Date : Sep 16, 2008 09:58:17  
Description : Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--06-92  
Simulation Start Date : Jan 01, 2006  
Simulation End Date : Dec 31, 2020  
Simulation Run Date : Sep 16, 2008 09:58  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--06-92  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr--06-92\Dew 15 yr--06-92.fld (Sep 16, 2008 00:00)  
Climate : Dewey Burdock 06-92 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\06-92.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD0692 - Jan 01, 2006 to Dec 31, 2020  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\06-92.txt (Sep 16, 2008 00:00)  
Air Temperature : SD0692 - Jan 01, 2006 to Dec 31, 2020  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\06-92.txt (Sep 16, 2008 00:00)  
Management : 0.6 in every 5 days  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DBM--5 day.mgmt (Aug 28, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC--2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Dewey TP1, TP2, TP5 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\DR1-2-5.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 9

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 4.00 12.00 24.00 4.00 23.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
	in	in	in	in	in	in	in	in	in	in	in	in		
2006	44	27.24	9.22	11.4	6.61	13.13	16.32	0.25	22.58	-0.17	0	2.13	19.79	0
2007	44	28.74	10.82	11.1	6.82	14.33	16.32	1.04	22.79	0.18	0	0.69	7.66	0
2008	44.04	30.15	11.71	11.31	7.13	16.74	16.32	0.91	25.02	0.6	0	1.4	4.28	0
2009	44	29.02	11.35	11.22	6.45	13.46	16.32	1.33	21.99	-0.05	0	-0.53	5.62	0
2010	44	33.05	14.77	9.76	8.53	21.88	16.32	1.01	28.66	0.78	0	3.36	4.52	0
2011	44	31.67	13.63	10.58	7.48	16.16	16.32	1.18	23.82	-0.04	0	-0.33	3.61	0
2012	44.04	32.71	14.17	10.47	8.07	16.89	16.32	1.13	24	0	0	-0.64	3.42	0
2013	44	28.87	11.1	11.28	6.49	11.75	16.32	1.03	20.55	-0.41	0	-1.42	3.94	0
2014	44	34.76	16.74	9.67	8.34	23.59	16.32	2.19	29.38	0.44	0	2.52	3.46	0
2015	44	31.02	13.52	11.13	6.38	12.36	16.32	0.19	22.12	-0.24	0	-2.29	4.3	0
2016	44.04	28.89	11.61	10.88	6.4	13.79	16.32	0.9	22.8	0.11	0	0.21	4.05	0
2017	44	30.48	12.53	10.59	7.36	15.58	16.32	0.07	24.48	0.11	0	1.25	3.76	0
2018	44	33.49	15.74	10.18	7.57	19.14	16.32	1.94	25.95	0.01	0	0.03	3.55	0
2019	44	30.42	12.17	10.96	7.29	15.03	16.32	1.4	22.66	-0.03	0	-0.45	3.61	0
2020	44.04	29.87	12.21	10.55	7.11	14.08	16.32	0.41	22.88	0.02	0	0.1	3.72	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
in	in	in	in	in	in	in	in	in	in	in	in		
44.04	30.7	12.76	10.74	7.2	15.86	16.32	1	23.98	0.09	0	0.39	5.29	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--07-93\Dew 15 yr--07-93.spw  
File Creation Date : Sep 16, 2008 09:59:44  
File Last Modified Date : Sep 16, 2008 09:59:45  
Description : Dewey TP1, TP2, TP5 revised Soils--0.6 in/5th day--07-93  
Simulation Start Date : Jan 01, 2007  
Simulation End Date : Dec 31, 2021  
Simulation Run Date : Sep 16, 2008 09:59  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Dewey TP1, TP2, TP5 revised Soils--0.6 in/5th day--07-93  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--07-93\Dew 15 yr--07-93.fld (Sep 16, 2008 00:00)  
Climate : Dewey Burdock 07-93 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\07-93.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD0793 - Jan 01, 2007 to Dec 31, 2021  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\07-93.txt (Sep 16, 2008 00:00)  
Air Temperature : SD0793 - Jan 01, 2007 to Dec 31, 2021  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\07-93.txt (Sep 16, 2008 00:00)  
Management : 0.6 in every 5 days  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DBM--5 day.mgmt (Aug 28, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC--2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Dewey TP1, TP2, TP5 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\DRev 1-2-5.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 9

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 4.00 12.00 24.00 4.00 23.00

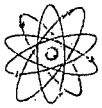
## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
	in	in	in	in	in	in	in	in	in	in	in	in		
2007	44	27.64	9.58	11.23	6.82	14.33	16.32	1.04	22.79	-0.23	0	2.21	17.35	0
2008	44.04	29.94	11.48	11.33	7.13	16.74	16.32	0.53	25.4	0.77	0	1.83	4.49	0
2009	44	28.99	11.32	11.22	6.45	13.46	16.32	1.28	22.04	-0.03	0	-0.47	5.84	0
2010	44	32.97	14.68	9.76	8.53	21.88	16.32	1.15	28.52	0.82	0	3.27	4.61	0
2011	44	31.45	13.38	10.58	7.48	16.16	16.32	1.18	23.82	-0.03	0	-0.12	3.62	0
2012	44.04	32.7	14.16	10.47	8.07	16.89	16.32	1.13	24	0	0	-0.63	3.42	0
2013	44	28.87	11.1	11.28	6.49	11.75	16.32	1.03	20.55	-0.41	0	-1.42	3.94	0
2014	44	34.76	16.74	9.67	8.34	23.59	16.32	2.19	29.38	0.44	0	2.52	3.46	0
2015	44	31.02	13.52	11.13	6.38	12.36	16.32	0.19	22.12	-0.24	0	-2.29	4.3	0
2016	44.04	28.89	11.61	10.88	6.4	13.79	16.32	0.9	22.8	0.11	0	0.21	4.05	0
2017	44	30.48	12.53	10.59	7.36	15.58	16.32	0.07	24.48	0.11	0	1.25	3.76	0
2018	44	33.49	15.74	10.18	7.57	19.14	16.32	1.94	25.95	0.01	0	0.03	3.55	0
2019	44	30.42	12.17	10.96	7.29	15.03	16.32	1.4	22.66	-0.03	0	-0.45	3.61	0
2020	44.04	29.87	12.21	10.55	7.11	14.08	16.32	0.41	22.88	0.02	0	0.1	3.72	0
2021	44	35.3	16.84	9.44	9.01	22.31	16.32	2.17	27.45	0.02	0	1.14	3.4	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
in	in	in	in	in	in	in	in	in	in	in	in		
44.04	31.13	13.14	10.62	7.36	16.47	16.32	1.11	24.32	0.09	0	0.47	4.88	0





**POWERTECH (USA) INC.**

## **SPAW MODEL RESULTS**

### **DEWEY POND**

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Dew 15 yr\Dew--00-86\Dew--00-86.pnd  
File Creation Date : Sep 16, 2008 15:02:04  
File Last Modified Date : Sep 16, 2008 15:02:04  
Description : 510 AF Pond using TP1, TP2, TP5 Dewey soils, 0.6 in/5th da, 375 ac, 2000-1986  
Simulation Start Date : Jan 01, 2000  
Simulation End Date : Dec 31, 2014  
Simulation Run Date : Sep 16, 2008 15:02  
SPAW Interface Version : Sep 16, 2008 15:02:04  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--00-86 375.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--00-86\Dew 15 yr--00-86.fpin Dec 30, 1899 00:00

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--00-86 375.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--00-86\Dew 15 yr--00-86.fpin Dec 30, 1899 00:00

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	14.05	0.00
5.00	14.96	72.53
10.00	15.90	149.68
15.00	16.87	231.60
20.00	17.87	318.45
25.00	18.90	410.38
30.00	19.95	507.50
33.00	20.60	568.33

## POND PROFILE

MAX AREA (AC) = 20.49  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 558.19  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac ft	Outflow ac ft	Change ac ft	Precip in	Precip Vol ac ft	WS Runoff ac ft	Bank Runc ac ft	Interflow ac ft	Ext Input ac ft	Seep In ac ft	Supply In ac ft	Drwdwn In ac ft	Pipe In ac ft	Spill In ac ft	Vol Evap ac ft	Vol Infil ac ft	Vol Seep ac ft	Irrig ac ft	Irrig Def ac ft	Sup Pump ac ft	Sup Pump ac ft
2000	577.62	431.87	145.74	14.51	18.6	54.06	3.48	0	501.47	0	0	0	0	0	54.91	0	0	376.96	133.04	0	0
2001	563.73	562.6	1.13	18.1	24.88	35	3.74	0	500.1	0	0	0	0	0	58.32	0	0	504.28	5.72	0	0
2002	530.67	533.16	-2.5	13.1	17.47	10.63	2.46	0	500.1	0	0	0	0	0	57.62	0	0	475.54	34.46	0	0
2003	540.2	540.2	0	14.69	20.09	17.19	2.63	0	500.1	0	0	0	0	0	57.99	0	0	482.21	27.79	0	0
2004	526.08	517.77	8.31	12.19	15.87	6.56	2.17	0	501.47	0	0	0	0	0	57.55	0	0	460.21	49.79	0	0
2005	639.43	570.78	68.65	20.16	28.79	106.88	3.66	0	500.1	0	0	0	0	0	60.78	0	0	510	0	0	0
2006	536.02	570.66	-34.65	13.22	18.79	15	2.12	0	500.1	0	0	0	0	0	60.66	0	0	510	0	0	0
2007	555.41	569.76	-14.35	14.34	19.83	32.81	2.66	0	500.1	0	0	0	0	0	59.76	0	0	510	0	0	0
2008	557.86	569.52	-11.66	16.74	23.56	29.69	3.14	0	501.47	0	0	0	0	0	59.52	0	0	510	0	0	0
2009	564.4	559.34	5.05	13.46	18.5	43.13	2.67	0	500.1	0	0	0	0	0	58.65	0	0	500.69	9.31	0	0
2010	597.29	569.35	27.94	21.88	30.1	63.13	3.96	0	500.1	0	0	0	0	0	59.35	0	0	510	0	0	0
2011	567.03	570.14	-3.11	16.16	22.48	41.56	2.89	0	500.1	0	0	0	0	0	60.14	0	0	510	0	0	0
2012	563.55	570.44	-6.89	16.9	24.27	35.63	2.19	0	501.47	0	0	0	0	0	60.44	0	0	510	0	0	0
2013	550.11	569.81	-19.7	11.75	16.44	31.88	1.69	0	500.1	0	0	0	0	0	59.81	0	0	510	0	0	0
2014	605.56	569.57	35.99	23.59	32.21	68.13	5.13	0	500.1	0	0	0	0	0	59.57	0	0	510	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac ft	Outflow ac ft	Change ac ft	Precip in	Precip Vol ac ft	WS Runoff ac ft	Bank Runc ac ft	Interflow ac ft	Ext Input ac ft	Seep In ac ft	Supply In ac ft	Drwdwn In ac ft	Pipe In ac ft	Spill In ac ft	Vol Evap ac ft	Vol Infil ac ft	Vol Seep ac ft	Irrig ac ft	Irrig Def ac ft	Sup Pump ac ft	Sup Pump ac ft
566.26	551.71	14.56	16.21	22.34	39.42	3.03	0	501.47	0	0	0	0	0	59.05	0	0	492.66	17.34	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Dew 15 yr\Dew--01-87\Dew--01-87.pnd  
File Creation Date : Sep 16, 2008 15:03:53  
File Last Modified Date : Sep 16, 2008 15:03:53  
Description : 510 AF Pond using TP1, TP2, TP5 Dewey soils, 0.6 in/5th da, 375 ac, 2001-1987  
Simulation Start Date : Jan 01, 2001  
Simulation End Date : Dec 31, 2015  
Simulation Run Date : Sep 16, 2008 15:03  
SPAW Interface Version : Sep 16, 2008 15:03:53  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--01-87 375.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--01-87.fpin Dec 30, 1899 00:00

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--01-87 375.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--01-87.fpin Dec 30, 1899 00:00

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	14.05	0.00
5.00	14.96	72.53
10.00	15.90	149.68
15.00	16.87	231.60
20.00	17.87	318.45
25.00	18.90	410.38
30.00	19.95	507.50
33.00	20.60	568.33

## POND PROFILE

MAX AREA (AC) = 20.49  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 558.19  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
2001	560.17	413.3	146.87	18.1	22.74	32.19	5.14	0	500.1	0	0	0	0	0	54.1	0	0	359.2	150.8	0	0
2002	530.67	533.16	-2.5	13.1	17.47	10.63	2.46	0	500.1	0	0	0	0	0	57.62	0	0	475.54	34.46	0	0
2003	540.2	540.2	0	14.69	20.09	17.19	2.83	0	500.1	0	0	0	0	0	57.99	0	0	482.21	27.79	0	0
2004	526.08	517.77	8.31	12.19	15.87	6.56	2.17	0	501.47	0	0	0	0	0	57.55	0	0	460.21	49.79	0	0
2005	639.43	570.78	68.65	20.16	28.79	106.88	3.66	0	500.1	0	0	0	0	0	60.78	0	0	510	0	0	0
2006	536.02	570.66	-34.65	13.22	18.79	15	2.12	0	500.1	0	0	0	0	0	60.66	0	0	510	0	0	0
2007	555.41	569.76	-14.35	14.34	19.83	32.81	2.66	0	500.1	0	0	0	0	0	59.76	0	0	510	0	0	0
2008	562.87	569.61	-6.74	16.74	23.58	34.69	3.13	0	501.47	0	0	0	0	0	59.61	0	0	510	0	0	0
2009	564.42	564.29	0.13	13.46	18.55	43.13	2.64	0	500.1	0	0	0	0	0	58.81	0	0	505.48	4.52	0	0
2010	586.97	569.31	17.66	21.88	30.09	52.81	3.96	0	500.1	0	0	0	0	0	59.31	0	0	510	0	0	0
2011	566.96	569.7	-2.74	16.16	22.32	41.56	2.98	0	500.1	0	0	0	0	0	59.7	0	0	510	0	0	0
2012	563.48	570.02	-6.54	16.9	24.11	35.63	2.27	0	501.47	0	0	0	0	0	60.02	0	0	510	0	0	0
2013	550.06	569.41	-19.35	11.75	16.34	31.88	1.74	0	500.1	0	0	0	0	0	59.41	0	0	510	0	0	0
2014	605.49	569.18	36.31	23.59	31.99	68.13	5.27	0	500.1	0	0	0	0	0	59.18	0	0	510	0	0	0
2015	525.05	569.2	-44.15	12.37	17.4	5.63	1.93	0	500.1	0	0	0	0	0	59.2	0	0	510	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
562.36	551.14	11.23	16.14	22.18	35.65	3.06	0	501.47	0	0	0	0	0	58.96	0	0	492.18	17.82	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Owyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Dew 15 yr\Dew-02-88\Dew-02-88.pnd  
File Creation Date : Sep 16, 2008 15:06:17  
File Last Modified Date : Sep 16, 2008 15:06:17  
Description : 510 AF Pond using TP1, TP2, TP5 Dewey soils, 0.6 in/5th da, 375 ac, 2002-1988  
Simulation Start Date : Jan 01, 2002  
Simulation End Date : Dec 31, 2016  
Simulation Run Date : Sep 16, 2008 15:06  
SPAW Interface Version : Sep 16, 2008 15:06:17  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Dewey TP1, TP2, TP5 Revised Soils-0.6 in/5th day-02-88 375.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr-02-88\Dew 15 yr-02-88.fpin Dec 30, 1899 00:00

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Dewey TP1, TP2, TP5 Revised Soils-0.6 in/5th day-02-88 375.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr-02-88\Dew 15 yr-02-88.fpin Dec 30, 1899 00:00

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	14.05	0.00
5.00	14.96	72.53
10.00	15.90	149.68
15.00	16.87	231.60
20.00	17.87	318.45
25.00	18.90	410.38
30.00	19.95	507.50
33.00	20.60	568.33

## POND PROFILE

MAX AREA (AC) = 20.49  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 558.19  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
2002	528.83	384.46	144.37	13.1	16.31	9.38	3.04	0	500.1	0	0	0	0	0	53.87	0	0	330.59	179.41	0	0
2003	540.2	540.2	0	14.69	20.09	17.19	2.83	0	500.1	0	0	0	0	0	57.99	0	0	482.21	27.79	0	0
2004	526.08	517.77	8.31	12.19	15.87	6.56	2.17	0	501.47	0	0	0	0	0	57.55	0	0	460.21	49.79	0	0
2005	633.48	570.88	62.8	20.16	28.77	100.94	3.67	0	500.1	0	0	0	0	0	60.68	0	0	510	0	0	0
2006	535.98	570.42	-34.43	13.22	18.72	15	2.16	0	500.1	0	0	0	0	0	60.42	0	0	510	0	0	0
2007	555.37	569.52	-14.14	14.34	19.75	32.81	2.71	0	500.1	0	0	0	0	0	59.52	0	0	510	0	0	0
2008	557.83	569.29	-11.46	16.74	23.47	29.69	3.19	0	501.47	0	0	0	0	0	59.29	0	0	510	0	0	0
2009	564.38	554.09	10.28	13.46	18.45	43.13	2.7	0	500.1	0	0	0	0	0	58.48	0	0	495.62	14.38	0	0
2010	597.29	569.35	27.94	21.88	30.1	63.13	3.96	0	500.1	0	0	0	0	0	59.35	0	0	510	0	0	0
2011	567.03	570.14	-3.11	16.16	22.48	41.56	2.89	0	500.1	0	0	0	0	0	60.14	0	0	510	0	0	0
2012	563.55	570.44	-6.89	16.9	24.27	35.63	2.19	0	501.47	0	0	0	0	0	60.44	0	0	510	0	0	0
2013	550.11	569.81	-19.7	11.75	16.44	31.88	1.69	0	500.1	0	0	0	0	0	59.81	0	0	510	0	0	0
2014	605.56	569.57	35.99	23.59	32.21	68.13	5.13	0	500.1	0	0	0	0	0	59.57	0	0	510	0	0	0
2015	525.1	569.58	-44.48	12.37	17.5	5.63	1.87	0	500.1	0	0	0	0	0	58.58	0	0	510	0	0	0
2016	551.39	563.45	-12.07	13.79	19.01	28.13	2.77	0	501.47	0	0	0	0	0	58.49	0	0	504.97	5.03	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
561.41	550.63	10.79	15.78	21.78	35.25	2.91	0	501.47	0	0	0	0	0	59.05	0	0	491.57	18.43	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAWProjects\Ponds\Dew 15 yr\Dew-03-89\Dew-03-89.pnd  
File Creation Date : Sep 16, 2008 15:08:09  
File Last Modified Date : Sep 16, 2008 15:08:09  
Description : 510 AF Pond using TP1, TP2, TP5 Dewey soils, 0.6 in/5th da, 375 ac, 2003-1989  
Simulation Start Date : Jan 01, 2003  
Simulation End Date : Dec 31, 2017  
Simulation Run Date : Sep 16, 2008 15:08  
SPAW Interface Version : Sep 16, 2008 15:08:09  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--03-89	375.00
C:\Program Files\SPAW Hydrology\SPAWProjects\Fields\Dew 15-yr\Dew 15 yr--03-89\Dew 15 yr--03-89.fpin Dec 30, 1899 00:00	

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--03-89	375.00
C:\Program Files\SPAW Hydrology\SPAWProjects\Fields\Dew 15-yr\Dew 15 yr--03-89\Dew 15 yr--03-89.fpin Dec 30, 1899 00:00	

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	14.05	0.00
5.00	14.96	72.53
10.00	15.90	149.68
15.00	16.87	231.60
20.00	17.87	318.45
25.00	18.90	410.38
30.00	19.95	507.50
33.00	20.60	568.33

## POND PROFILE

MAX AREA (AC) = 20.49  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 558.19  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
2003	532.69	388.32	144.38	14.69	18.58	10.31	3.7	0	500.1	0	0	0	0	0	54.02	0	0	334.3	175.7	0	0
2004	526.08	517.77	8.31	12.19	15.87	6.56	2.17	0	501.47	0	0	0	0	0	57.55	0	0	460.21	49.79	0	0
2005	626.25	570.42	55.83	20.16	28.66	93.75	3.74	0	500.1	0	0	0	0	0	60.42	0	0	510	0	0	0
2006	535.95	570.12	-34.18	13.22	18.63	15	2.21	0	500.1	0	0	0	0	0	60.12	0	0	510	0	0	0
2007	555.34	569.23	-13.9	14.34	19.66	32.81	2.76	0	500.1	0	0	0	0	0	59.23	0	0	510	0	0	0
2008	562.8	569.1	-6.3	16.74	23.39	34.69	3.25	0	501.47	0	0	0	0	0	59.1	0	0	510	0	0	0
2009	564.37	552.79	11.59	13.46	18.44	43.13	2.7	0	500.1	0	0	0	0	0	58.43	0	0	494.35	15.65	0	0
2010	566.97	569.31	-2.34	17.66	21.88	30.09	3.96	0	500.1	0	0	0	0	0	59.31	0	0	510	0	0	0
2011	566.96	569.7	-2.74	16.16	22.32	41.56	2.98	0	500.1	0	0	0	0	0	59.7	0	0	510	0	0	0
2012	563.48	570.02	-6.54	16.9	24.11	35.63	2.27	0	501.47	0	0	0	0	0	60.02	0	0	510	0	0	0
2013	550.06	569.41	-19.35	11.75	16.34	31.88	1.74	0	500.1	0	0	0	0	0	59.41	0	0	510	0	0	0
2014	605.49	569.18	36.31	23.59	31.99	68.13	5.27	0	500.1	0	0	0	0	0	59.18	0	0	510	0	0	0
2015	525.05	569.2	-44.15	12.37	17.4	5.63	1.93	0	500.1	0	0	0	0	0	59.2	0	0	510	0	0	0
2016	551.35	554.84	-3.49	13.79	18.91	28.13	2.84	0	501.47	0	0	0	0	0	58.2	0	0	496.64	13.36	0	0
2017	525.8	521.37	4.43	15.58	20.46	1.56	3.67	0	500.1	0	0	0	0	0	57.52	0	0	463.85	46.15	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
559.84	548.76	11.08	15.94	21.87	33.44	3.06	0	501.47	0	0	0	0	0	58.8	0	0	489.96	20.04	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Pondst\Dew 15 yr\Dew-04-90\Dew-04-90.pnd  
File Creation Date : Sep 16, 2008 15:10:21  
File Last Modified Date : Sep 16, 2008 15:10:21  
Description : 510 AF Pond using TP1, TP2, TP5 Dewey soils, 0.6 in/5th da, 375 ac, 2004-1990  
Simulation Start Date : Jan 01, 2004  
Simulation End Date : Dec 31, 2018  
Simulation Run Date : Sep 16, 2008 15:10  
SPAW Interface Version : Sep 16, 2008 15:10:21  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Dewey TP1, TP2, TP5 Soils-0.6 in/5th day-04-90	375.00

C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15 yr-04-90\Dew 15 yr-04-90.fpin Dec 30, 1899 00:00

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Dewey TP1, TP2, TP5 Soils-0.6 in/5th day-04-90	375.00

C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15 yr-04-90\Dew 15 yr-04-90.fpin Dec 30, 1899 00:00

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	14.05	0.00
5.00	14.96	72.53
10.00	15.90	149.68
15.00	16.87	231.60
20.00	17.87	318.45
25.00	18.90	410.38
30.00	19.95	507.50
33.00	20.60	568.33

## POND PROFILE

MAX AREA (AC) = 20.49  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 558.19  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
2004	525.45	372.76	152.69	12.17	14.9	6.56	2.51	0	501.47	0	0	0	0	0	53.93	0	0	318.83	191.17	0	0
2005	626.25	570.42	55.83	20.16	28.66	93.75	3.74	0	500.1	0	0	0	0	0	60.42	0	0	510	0	0	0
2006	535.95	570.12	-34.18	13.22	18.63	15	2.21	0	500.1	0	0	0	0	0	60.12	0	0	510	0	0	0
2007	555.34	569.23	-13.9	14.34	19.66	32.81	2.76	0	500.1	0	0	0	0	0	59.23	0	0	510	0	0	0
2008	557.79	569.02	-11.22	18.74	23.37	29.69	3.26	0	501.47	0	0	0	0	0	59.02	0	0	510	0	0	0
2009	564.35	547.84	16.51	13.46	18.39	43.13	2.73	0	500.1	0	0	0	0	0	58.27	0	0	489.56	20.44	0	0
2010	597.29	569.35	27.94	21.88	30.1	63.13	3.96	0	500.1	0	0	0	0	0	59.35	0	0	510	0	0	0
2011	567.03	570.14	-3.11	16.16	22.48	41.56	2.89	0	500.1	0	0	0	0	0	60.14	0	0	510	0	0	0
2012	563.55	570.44	-6.89	16.9	24.27	35.63	2.19	0	501.47	0	0	0	0	0	60.44	0	0	510	0	0	0
2013	550.11	569.81	-19.7	11.75	16.44	31.88	1.69	0	500.1	0	0	0	0	0	59.81	0	0	510	0	0	0
2014	605.56	569.57	35.99	23.59	32.21	68.13	5.13	0	500.1	0	0	0	0	0	59.57	0	0	510	0	0	0
2015	525.1	569.58	-44.48	12.37	17.5	5.63	1.87	0	500.1	0	0	0	0	0	59.58	0	0	510	0	0	0
2016	551.39	563.45	-12.07	13.79	19.01	28.13	2.77	0	501.47	0	0	0	0	0	58.49	0	0	504.97	5.03	0	0
2017	525.8	521.37	4.43	15.58	20.46	1.56	3.67	0	500.1	0	0	0	0	0	57.52	0	0	463.85	46.15	0	0
2018	590.73	568.8	21.93	19.14	25.23	60.31	4.09	0	500.1	0	0	0	0	0	58.8	0	0	510	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
564.05	551.5	12.55	16.24	22.35	37.13	3.1	0	501.47	0	0	0	0	0	59.02	0	0	492.48	17.52	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Dew 15 yr\Dew--05-91\Dew--05-91.pnd  
File Creation Date : Sep 16, 2008 15:13:27  
File Last Modified Date : Sep 16, 2008 15:13:27  
Description : 510 AF Pond using TP1, TP2, TP5 Dewey soils, 0.6 in/5th da, 375 ac, 2005-1991  
Simulation Start Date : Jan 01, 2005  
Simulation End Date : Dec 31, 2019  
Simulation Run Date : Sep 16, 2008 15:13  
SPAW Interface Version : Sep 16, 2008 15:13:27  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--05-91	375.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--05-91\pin Dec 30, 1899 00:00	

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--05-91	375.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--05-91\pin Dec 30, 1899 00:00	

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	14.05	0.00
5.00	14.98	72.53
10.00	15.90	149.68
15.00	16.87	231.60
20.00	17.87	318.45
25.00	18.90	410.38
30.00	19.95	507.50
33.00	20.60	568.33

## POND PROFILE

MAX AREA (AC) = 20.49  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 568.19  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Dwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
2005	625.34	476.85	148.49	20.16	25.86	93.75	5.62	0	500.1	0	0	0	0	0	54.93	0	0	421.91	88.09	0	0
2006	529.08	532.51	-3.44	13.22	17.91	8.44	2.62	0	500.1	0	0	0	0	0	57.79	0	0	474.72	35.28	0	0
2007	555.18	551.09	4.09	14.34	19.29	32.81	2.98	0	500.1	0	0	0	0	0	58.15	0	0	492.94	17.06	0	0
2008	557.74	560.46	-2.72	16.74	23.21	29.69	3.37	0	501.47	0	0	0	0	0	58.61	0	0	501.85	8.15	0	0
2009	564.34	545.03	19.31	13.46	18.36	43.13	2.75	0	500.1	0	0	0	0	0	58.18	0	0	486.85	23.15	0	0
2010	588.97	569.31	17.66	21.88	30.09	52.81	3.96	0	500.1	0	0	0	0	0	59.31	0	0	510	0	0	0
2011	566.96	569.7	-2.74	16.16	22.32	41.56	2.98	0	500.1	0	0	0	0	0	59.7	0	0	510	0	0	0
2012	563.48	570.02	-6.54	16.9	24.11	35.63	2.27	0	501.47	0	0	0	0	0	60.02	0	0	510	0	0	0
2013	550.06	569.41	-19.35	11.75	16.34	31.88	-1.74	0	500.1	0	0	0	0	0	59.41	0	0	510	0	0	0
2014	605.49	569.18	36.31	23.59	31.99	68.13	5.27	0	500.1	0	0	0	0	0	59.18	0	0	510	0	0	0
2015	525.05	569.2	-44.15	12.37	17.4	5.63	1.93	0	500.1	0	0	0	0	0	59.2	0	0	510	0	0	0
2016	551.35	554.84	-3.49	13.79	18.91	28.13	2.84	0	501.47	0	0	0	0	0	58.2	0	0	496.64	13.36	0	0
2017	525.8	521.37	4.43	15.58	20.46	1.56	3.67	0	500.1	0	0	0	0	0	57.52	0	0	463.85	46.15	0	0
2018	590.73	568.8	21.93	19.14	26.23	60.31	4.09	0	500.1	0	0	0	0	0	58.8	0	0	510	0	0	0
2019	567.6	569.57	-1.97	15.03	21.4	43.75	2.34	0	500.1	0	0	0	0	0	59.57	0	0	510	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Dwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
565.44	553.2	12.24	16.27	22.26	38.48	3.23	0	501.47	0	0	0	0	0	58.62	0	0	494.58	15.42	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Dew 15 yr\Dew-06-92\Dew-06-92.pnd  
File Creation Date : Sep 16, 2008 15:36:47  
File Last Modified Date : Sep 16, 2008 15:36:47  
Description : 510 AF Pond using TP1, TP2, TP5 Dewey soils, 0.6 in/5th da, 375 ac, 2006-1992  
Simulation Start Date : Jan 01, 2006  
Simulation End Date : Dec 31, 2020  
Simulation Run Date : Sep 16, 2008 15:36  
SPAW Interface Version : Sep 16, 2008 15:36:47  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Dewey TP1, TP2, TP5 Revised Soils-0.6 in/5th day-06-92 375.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr-06-92\Dew 15 yr-06-92.fpin Dec 30, 1899 00:00

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Dewey TP1, TP2, TP5 Revised Soils-0.6 in/5th day-06-92 375.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr-06-92\Dew 15 yr-06-92.fpin Dec 30, 1899 00:00

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	14.05	0.00
5.00	14.96	72.53
10.00	15.90	149.68
15.00	16.87	231.60
20.00	17.87	318.45
25.00	18.90	410.38
30.00	19.95	507.50
33.00	20.60	568.33

## POND PROFILE

MAX AREA (AC) = 20.49  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 558.19  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
2006	528.05	382.99	145.06	13.13	16.35	8.13	3.47	0	500.1	0	0	0	0	0	53.9	0	0	329.09	180.91	0	0
2007	555.18	551.09	4.09	14.34	19.29	32.81	2.98	0	500.1	0	0	0	0	0	58.15	0	0	492.94	17.06	0	0
2008	556.17	558.89	-2.72	16.74	23.19	28.13	3.37	0	501.47	0	0	0	0	0	58.57	0	0	500.32	9.68	0	0
2009	562.46	543.15	19.31	13.46	18.35	41.25	2.75	0	500.1	0	0	0	0	0	58.14	0	0	485.01	24.99	0	0
2010	564.35	568.14	-3.8	21.88	29.82	30.31	4.11	0	500.1	0	0	0	0	0	58.72	0	0	509.42	0.58	0	0
2011	562.1	568.63	-6.53	16.16	21.92	36.88	3.2	0	500.1	0	0	0	0	0	58.63	0	0	510	0	0	0
2012	563.27	568.95	-5.67	16.9	23.7	35.63	2.48	0	501.47	0	0	0	0	0	58.95	0	0	510	0	0	0
2013	549.94	554.58	-4.64	11.75	16.09	31.88	1.87	0	500.1	0	0	0	0	0	58.5	0	0	496.08	13.92	0	0
2014	605.41	567.2	38.21	23.59	31.78	68.13	5.4	0	500.1	0	0	0	0	0	58.99	0	0	508.42	1.58	0	0
2015	525.02	563.39	-38.38	12.37	17.31	5.63	1.97	0	500.1	0	0	0	0	0	58.92	0	0	504.47	5.53	0	0
2016	551.34	552.84	-1.5	13.79	18.88	28.13	2.86	0	501.47	0	0	0	0	0	58.13	0	0	494.71	15.29	0	0
2017	525.8	521.37	4.43	15.58	20.46	1.56	3.67	0	500.1	0	0	0	0	0	57.52	0	0	463.85	46.15	0	0
2018	590.73	568.8	21.93	19.14	26.23	60.31	4.09	0	500.1	0	0	0	0	0	58.8	0	0	510	0	0	0
2019	567.6	569.57	-1.97	15.03	21.4	43.75	2.34	0	500.1	0	0	0	0	0	59.57	0	0	510	0	0	0
2020	535.83	560.12	-24.29	14.07	19.45	12.81	2.09	0	501.47	0	0	0	0	0	58.63	0	0	501.49	8.51	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
557.22	546.69	10.53	15.86	21.62	31.02	3.11	0	501.47	0	0	0	0	0	58.3	0	0	488.39	21.81	0	0



# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Dew 15 yr\Dew-07-93\Dew-07-93.pnd  
File Creation Date : Sep 16, 2008 15:38:55  
File Last Modified Date : Sep 16, 2008 15:38:55  
Description : 510 AF Pond using TP1, TP2, TP5 Dewey soils, 0.6 in/5th da, 375 ac, 2007-1993  
Simulation Start Date : Jan 01, 2007  
Simulation End Date : Dec 31, 2021  
Simulation Run Date : Sep 16, 2008 15:38  
SPAW Interface Version : Sep 16, 2008 15:38:55  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Dewey TP1, TP2, TP5 revised Soils-0.6 in/5th day-07-93	375.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr-07-93\Dew 15 yr-07-93.fpin Dec 30, 1899 00:00	

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Dewey TP1, TP2, TP5 revised Soils-0.6 in/5th day-07-93	375.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr-07-93\Dew 15 yr-07-93.fpin Dec 30, 1899 00:00	

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	14.05	0.00
5.00	14.96	72.53
10.00	15.90	149.68
15.00	16.87	231.60
20.00	17.87	318.45
25.00	18.90	410.38
30.00	19.95	507.50
33.00	20.60	568.33

## POND PROFILE

MAX AREA (AC) = 20.49  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 558.19  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
2007	554.63	405.49	149.15	14.34	17.86	32.81	3.86	0	500.1	0	0	0	0	0	54.18	0	0	351.31	158.69	0	0
2008	544.26	546.99	-2.72	16.74	23.13	16.25	3.41	0	501.47	0	0	0	0	0	58.3	0	0	488.68	21.32	0	0
2009	560.89	541.58	19.31	13.46	18.34	39.69	2.76	0	500.1	0	0	0	0	0	58.1	0	0	483.48	26.52	0	0
2010	568.08	568.93	0.15	21.88	29.93	35	4.05	0	500.1	0	0	0	0	0	58.93	0	0	510	0	0	0
2011	562.13	568.8	-6.67	16.16	21.98	36.88	3.17	0	500.1	0	0	0	0	0	58.8	0	0	510	0	0	0
2012	563.3	569.11	-5.81	16.9	23.76	35.63	2.45	0	501.47	0	0	0	0	0	59.11	0	0	510	0	0	0
2013	549.96	558.28	-8.32	11.75	16.13	31.88	1.85	0	500.1	0	0	0	0	0	58.62	0	0	499.65	10.35	0	0
2014	605.41	567.2	38.21	23.59	31.78	68.13	5.4	0	500.1	0	0	0	0	0	58.79	0	0	508.42	1.58	0	0
2015	525.02	563.39	-38.38	12.37	17.31	5.63	1.97	0	500.1	0	0	0	0	0	58.92	0	0	504.47	5.53	0	0
2016	551.34	552.84	-1.5	13.79	18.88	28.13	2.86	0	501.47	0	0	0	0	0	58.13	0	0	494.71	15.29	0	0
2017	525.8	521.37	4.43	15.58	20.46	1.56	3.87	0	500.1	0	0	0	0	0	57.52	0	0	463.85	46.15	0	0
2018	590.73	568.8	21.93	19.14	26.23	60.31	4.09	0	500.1	0	0	0	0	0	58.8	0	0	510	0	0	0
2019	567.6	569.57	-1.97	15.03	21.4	43.75	2.34	0	500.1	0	0	0	0	0	59.57	0	0	510	0	0	0
2020	535.83	560.12	-24.29	14.07	19.45	12.81	2.09	0	501.47	0	0	0	0	0	58.63	0	0	501.49	8.51	0	0
2021	602.75	568.98	33.77	22.3	30.88	67.5	4.27	0	500.1	0	0	0	0	0	58.98	0	0	510	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
561.59	548.8	12.78	16.47	22.5	34.4	3.22	0	501.47	0	0	0	0	0	58.4	0	0	490.4	19.6	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Dew 15 yr\Dew-80-94\Dew-80-94.pnd  
File Creation Date : Sep 16, 2008 11:04:20  
File Last Modified Date : Sep 16, 2008 13:05:46  
Description : 510 AF Pond using TP1, TP2, TP5 Dewey soils, 0.6 in/5th da, 375 ac, 1980-1994  
Simulation Start Date : Jan 01, 1980  
Simulation End Date : Dec 31, 1994  
Simulation Run Date : Sep 16, 2008 13:05  
SPAW Interface Version : Sep 16, 2008 13:05:45  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Dewey TP1, TP2, TP5 Revised Soils-0.6 in/5th day-80-94	375.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr-80-94\Dew 15yr-80-94.fpin Dec 30, 1899 00:00	

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Dewey TP1, TP2, TP5 Revised Soils-0.6 in/5th day-80-94	375.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr-80-94\Dew 15yr-80-94.fpin Dec 30, 1899 00:00	

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	14.05	0.00
5.00	14.96	72.53
10.00	15.90	149.68
15.00	16.87	231.60
20.00	17.87	318.45
25.00	18.90	410.38
30.00	19.95	507.50
33.00	20.60	568.33

## POND PROFILE

MAX AREA (AC) = 20.49  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 558.19  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1980	549.55	403.13	146.42	16.33	20.8	22.81	4.46	0	501.47	0	0	0	0	0	54.34	0	0	348.79	161.21	0	0
1981	560.89	541.58	19.31	13.46	18.34	39.69	2.76	0	500.1	0	0	0	0	0	58.1	0	0	483.48	26.52	0	0
1982	553.4	565.59	-12.19	21.88	29.8	19.38	4.12	0	500.1	0	0	0	0	0	58.66	0	0	506.93	3.07	0	0
1983	562.05	566.19	-4.14	16.16	21.8	36.88	3.27	0	500.1	0	0	0	0	0	58.29	0	0	507.89	2.11	0	0
1984	563.23	567.58	-4.36	16.9	23.6	35.63	2.53	0	501.47	0	0	0	0	0	58.7	0	0	508.88	1.12	0	0
1985	549.92	549.88	0.04	11.75	16.05	31.88	1.89	0	500.1	0	0	0	0	0	58.35	0	0	491.53	18.47	0	0
1986	605.41	567.2	38.21	23.59	31.78	68.13	5.4	0	500.1	0	0	0	0	0	58.79	0	0	508.42	1.58	0	0
1987	525.02	563.39	-38.38	12.37	17.31	5.63	1.97	0	500.1	0	0	0	0	0	58.92	0	0	504.47	5.53	0	0
1988	551.34	552.84	-1.5	13.79	18.88	28.13	2.86	0	501.47	0	0	0	0	0	58.13	0	0	494.71	15.29	0	0
1989	525.8	521.37	4.43	15.56	20.46	1.56	3.67	0	500.1	0	0	0	0	0	57.52	0	0	463.85	46.15	0	0
1990	590.73	568.8	21.93	19.14	26.23	60.31	4.09	0	500.1	0	0	0	0	0	58.8	0	0	510	0	0	0
1991	587.6	569.57	-1.97	15.03	21.4	43.75	2.34	0	500.1	0	0	0	0	0	59.57	0	0	510	0	0	0
1992	535.83	560.12	-24.29	14.07	19.45	12.81	2.09	0	501.47	0	0	0	0	0	58.63	0	0	501.49	8.51	0	0
1993	602.75	568.98	33.77	22.3	30.88	67.5	4.27	0	500.1	0	0	0	0	0	58.98	0	0	510	0	0	0
1994	524.33	554.08	-29.75	12	16.44	5.63	2.16	0	500.1	0	0	0	0	0	58.66	0	0	495.41	14.59	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
558.66	548.06	10.8	16.29	22.22	31.98	3.19	0	501.47	0	0	0	0	0	58.34	0	0	489.72	20.28	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Dew 15 yr\Dew-81-95\Dew-81-95.pnd  
File Creation Date : Sep 16, 2008 13:32:11  
File Last Modified Date : Sep 16, 2008 13:42:23  
Description : 510 AF Pond using TP1, TP2, TP5 Dewey soils, 0.6 in/5th da, 375 ac, 1981-1995  
Simulation Start Date : Jan 01, 1981  
Simulation End Date : Dec 31, 1995  
Simulation Run Date : Sep 16, 2008 13:42  
SPAW Interface Version : Sep 16, 2008 13:42:23  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Dewey TP1, TP2, TP5 Revised Soils-0.6 in/5th day-81-95 375.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr-81-95\Dew 15 yr-81-95.fpin Dec 30, 1899 00:00

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Dewey TP1, TP2, TP5 Revised Soils-0.6 in/5th day-81-95 375.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr-81-95\Dew 15 yr-81-95.fpin Dec 30, 1899 00:00

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	14.05	0.00
5.00	14.96	72.53
10.00	15.90	149.68
15.00	16.87	231.60
20.00	17.87	318.45
25.00	18.90	410.38
30.00	19.95	507.50
33.00	20.60	568.33

## POND PROFILE

MAX AREA (AC) = 20.49  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 558.19  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1981	552.18	386.45	165.73	13.46	16.94	31.56	3.57	0	500.1	0	0	0	0	0	54.13	0	0	332.31	177.69	0	0
1982	553.09	565.59	-12.5	21.88	29.79	19.06	4.12	0	500.1	0	0	0	0	0	58.66	0	0	506.93	3.07	0	0
1983	562.05	565.87	-3.83	16.16	21.79	36.88	3.28	0	500.1	0	0	0	0	0	58.28	0	0	507.59	2.41	0	0
1984	563.23	567.58	-4.36	16.9	23.6	35.63	2.53	0	501.47	0	0	0	0	0	58.7	0	0	508.88	1.12	0	0
1985	549.92	549.88	0.04	11.75	16.05	31.88	1.89	0	500.1	0	0	0	0	0	58.35	0	0	491.53	18.47	0	0
1986	605.41	567.2	38.21	23.59	31.78	68.13	5.4	0	500.1	0	0	0	0	0	58.79	0	0	508.42	1.58	0	0
1987	525.02	563.39	-38.38	12.37	17.31	5.63	1.97	0	500.1	0	0	0	0	0	58.92	0	0	504.47	5.53	0	0
1988	551.34	552.84	-1.5	13.79	18.88	28.13	2.86	0	501.47	0	0	0	0	0	58.13	0	0	494.71	15.29	0	0
1989	525.8	521.37	4.43	15.58	20.46	1.56	3.67	0	500.1	0	0	0	0	0	57.52	0	0	463.85	46.15	0	0
1990	590.73	568.8	21.93	19.14	26.23	60.31	4.09	0	500.1	0	0	0	0	0	58.8	0	0	510	0	0	0
1991	567.6	569.57	-1.97	15.03	21.4	43.75	2.34	0	500.1	0	0	0	0	0	59.57	0	0	510	0	0	0
1992	535.83	560.12	-24.29	14.07	19.45	12.81	2.09	0	501.47	0	0	0	0	0	58.63	0	0	501.49	8.51	0	0
1993	602.75	568.98	33.77	22.3	30.88	67.5	4.27	0	500.1	0	0	0	0	0	58.98	0	0	510	0	0	0
1994	524.33	554.08	-29.75	12	16.44	5.63	2.16	0	500.1	0	0	0	0	0	58.66	0	0	495.41	14.59	0	0
1995	553.64	535.54	18.1	18.32	24.86	25.31	3.37	0	500.1	0	0	0	0	0	58.09	0	0	477.46	32.54	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
558.62	546.53	12.09	16.42	22.39	31.58	3.17	0	501.47	0	0	0	0	0	58.33	0	0	488.2	21.8	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Dew 15 yr\Dew--82-96\Dew--82-96.pnd  
File Creation Date : Sep 16, 2008 11:07:40  
File Last Modified Date : Sep 16, 2008 13:55:06  
Description : 450 AF Pond using TP1, TP2, TP5 Dewey soils, 0.6 in/5th da, 375 ac, 1982-1996  
Simulation Start Date : Jan 01, 1982  
Simulation End Date : Dec 31, 1996  
Simulation Run Date : Sep 16, 2008 13:55  
SPAW Interface Version : Sep 16, 2008 13:55:05  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--82-96 375.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--82-96\Dew 15 yr--82-96.fpin Dec 30, 1899 00:00

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--82-96 375.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--82-96\Dew 15 yr--82-96.fpin Dec 30, 1899 00:00

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	14.05	0.00
5.00	14.96	72.53
10.00	15.90	149.68
15.00	16.87	231.60
20.00	17.87	318.45
25.00	18.90	410.38
30.00	19.95	507.50
33.00	20.60	568.33

## POND PROFILE

MAX AREA (AC) = 20.49  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 558.19  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1982	551.94	398.71	153.23	21.83	27.32	19.06	5.45	0	500.1	0	0	0	0	0	54.06	0	0	344.65	165.35	0	0
1983	555.15	558.98	-3.83	16.16	21.75	30	3.3	0	500.1	0	0	0	0	0	58.15	0	0	500.83	9.17	0	0
1984	563.23	567.58	-4.36	16.9	23.6	35.63	2.53	0	501.47	0	0	0	0	0	58.7	0	0	508.88	1.12	0	0
1985	549.92	549.88	0.04	11.75	16.05	31.88	1.89	0	500.1	0	0	0	0	0	58.35	0	0	491.53	18.47	0	0
1986	605.41	567.2	38.21	23.59	31.78	68.13	5.4	0	500.1	0	0	0	0	0	58.79	0	0	508.42	1.58	0	0
1987	525.02	563.39	-38.38	12.37	17.31	5.83	1.97	0	500.1	0	0	0	0	0	58.92	0	0	504.47	5.53	0	0
1988	551.34	552.84	-1.5	13.79	18.88	28.13	2.86	0	501.47	0	0	0	0	0	58.13	0	0	494.71	15.29	0	0
1989	525.8	521.37	4.43	15.58	20.46	1.56	3.67	0	500.1	0	0	0	0	0	57.52	0	0	463.85	46.15	0	0
1990	590.73	568.8	21.93	19.14	26.23	60.31	4.09	0	500.1	0	0	0	0	0	58.8	0	0	510	0	0	0
1991	567.6	569.57	-1.97	15.03	21.4	43.75	2.34	0	500.1	0	0	0	0	0	59.57	0	0	510	0	0	0
1992	535.83	560.12	-24.29	14.07	19.45	12.81	2.09	0	501.47	0	0	0	0	0	58.63	0	0	501.49	8.51	0	0
1993	602.75	568.98	33.77	22.3	30.88	67.5	4.27	0	500.1	0	0	0	0	0	58.98	0	0	510	0	0	0
1994	524.33	554.08	-29.75	12	16.44	5.63	2.16	0	500.1	0	0	0	0	0	58.66	0	0	495.41	14.59	0	0
1995	553.64	535.54	18.1	18.32	24.86	25.31	3.37	0	500.1	0	0	0	0	0	58.09	0	0	477.46	32.54	0	0
1996	549.88	568.06	-18.19	17.59	24.17	20.94	3.29	0	501.47	0	0	0	0	0	58.89	0	0	509.18	0.82	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
557.84	547.05	10.79	16.69	22.71	30.42	3.25	0	501.47	0	0	0	0	0	58.32	0	0	488.73	21.27	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Dew 15 yr\Dew-83-97\Dew-83-97.pnd  
File Creation Date : Sep 16, 2008 11:09:10  
File Last Modified Date : Sep 16, 2008 13:56:41  
Description : 450 AF Pond using TP1, TP2, TP5 Dewey soils, 0.6 in/5th da, 375 ac, 1983-1997  
Simulation Start Date : Jan 01, 1983  
Simulation End Date : Dec 31, 1997  
Simulation Run Date : Sep 16, 2008 13:56  
SPAW Interface Version : Sep 16, 2008 13:56:41  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Dewey TP1, TP2, TP5 Revised Soils-0.6 in/5th day-83-97 375.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr-83-97\Dew 15 yr-83-97.fpin Dec 30, 1899 00:00

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Dewey TP1, TP2, TP5 Revised Soils-0.6 in/5th day-83-97 375.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr-83-97\Dew 15 yr-83-97.fpin Dec 30, 1899 00:00

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	14.05	0.00
5.00	14.96	72.53
10.00	15.90	149.68
15.00	16.87	231.60
20.00	17.87	318.45
25.00	18.90	410.38
30.00	19.95	507.50
33.00	20.60	568.33

## POND PROFILE

MAX AREA (AC) = 20.49  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 558.19  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1983	549.95	400.55	149.4	16.08	19.96	25.63	4.26	0	500.1	0	0	0	0	0	53.93	0	0	346.61	163.39	0	0
1984	552.25	556.61	-4.36	16.9	23.55	24.69	2.55	0	501.47	0	0	0	0	0	58.52	0	0	498.1	11.9	0	0
1985	549.92	549.88	0.04	11.75	16.05	31.88	1.89	0	500.1	0	0	0	0	0	58.35	0	0	491.53	18.47	0	0
1986	601.66	563.45	38.21	23.59	31.77	64.38	5.41	0	500.1	0	0	0	0	0	58.75	0	0	504.7	5.3	0	0
1987	523.13	561.51	-38.38	12.37	17.3	3.75	1.98	0	500.1	0	0	0	0	0	58.87	0	0	502.64	7.38	0	0
1988	551.34	552.84	-1.5	13.79	18.88	28.13	2.86	0	501.47	0	0	0	0	0	58.13	0	0	494.71	15.29	0	0
1989	525.8	521.37	4.43	15.58	20.46	1.56	3.67	0	500.1	0	0	0	0	0	57.52	0	0	463.85	46.15	0	0
1990	590.73	568.8	21.93	19.14	26.23	60.31	4.09	0	500.1	0	0	0	0	0	58.8	0	0	510	0	0	0
1991	567.6	569.57	-1.97	15.03	21.4	43.75	2.34	0	500.1	0	0	0	0	0	59.57	0	0	510	0	0	0
1992	535.83	560.12	-24.29	14.07	19.45	12.81	2.09	0	501.47	0	0	0	0	0	58.63	0	0	501.49	8.51	0	0
1993	602.75	568.98	33.77	22.3	30.88	67.5	4.27	0	500.1	0	0	0	0	0	58.98	0	0	510	0	0	0
1994	524.33	554.08	-29.75	12	16.44	5.63	2.16	0	500.1	0	0	0	0	0	58.66	0	0	495.41	14.59	0	0
1995	553.64	535.54	18.1	18.32	24.86	25.31	3.37	0	500.1	0	0	0	0	0	58.09	0	0	477.46	32.54	0	0
1996	549.88	568.06	-18.19	17.59	24.17	20.94	3.29	0	501.47	0	0	0	0	0	58.89	0	0	508.18	0.82	0	0
1997	579.21	568.72	10.49	17.73	24.5	51.56	3.04	0	500.1	0	0	0	0	0	58.72	0	0	510	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
558.21	546.71	11.49	16.42	22.39	31.19	3.15	0	501.47	0	0	0	0	0	58.34	0	0	488.38	21.62	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Dew 15 yr\Dew-84-98\Dew-84-98.pnd  
File Creation Date : Sep 16, 2008 11:11:14  
File Last Modified Date : Sep 16, 2008 14:00:19  
Description : 510 AF Pond using TP1, TP2, TP5 Dewey soils, 0.6 in/5th da, 375 ac, 1984-1998  
Simulation Start Date : Jan 01, 1984  
Simulation End Date : Dec 31, 1998  
Simulation Run Date : Sep 16, 2008 14:00  
SPAW Interface Version : Sep 16, 2008 14:00:19  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Dewey TP1, TP2, TP5 Revised Soils-0.6 in/5th day-84-98 375.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr-84-98\Dew 15 yr-84-98.fpin Dec 30, 1899 00:00

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Dewey TP1, TP2, TP5 Revised Soils-0.6 in/5th day-84-98 375.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr-84-98\Dew 15 yr-84-98.fpin Dec 30, 1899 00:00

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	14.05	0.00
5.00	14.96	72.53
10.00	15.90	149.68
15.00	16.87	231.60
20.00	17.87	318.45
25.00	18.90	410.38
30.00	19.95	507.50
33.00	20.60	568.33

## POND PROFILE

MAX AREA (AC) = 20.49  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 558.19  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runoff ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1984	538.28	393.23	145.05	15.65	19.92	13.75	3.14	0	501.47	0	0	0	0	0	54.16	0	0	339.07	170.93	0	0
1985	549.61	549.57	0.04	11.75	16.05	31.58	1.89	0	500.1	0	0	0	0	0	58.34	0	0	491.23	18.77	0	0
1986	601.66	563.45	38.21	23.59	31.77	64.38	5.41	0	500.1	0	0	0	0	0	58.75	0	0	504.7	5.3	0	0
1987	523.13	561.51	-38.38	12.37	17.3	3.75	1.98	0	500.1	0	0	0	0	0	58.87	0	0	502.64	7.36	0	0
1988	551.34	552.84	-1.5	13.79	18.88	28.13	2.86	0	501.47	0	0	0	0	0	58.13	0	0	494.71	15.29	0	0
1989	525.17	520.74	4.43	15.58	20.46	0.94	3.67	0	500.1	0	0	0	0	0	57.51	0	0	463.23	46.77	0	0
1990	590.73	568.8	21.93	19.14	26.23	60.31	4.09	0	500.1	0	0	0	0	0	58.8	0	0	510	0	0	0
1991	567.6	569.57	-1.97	15.03	21.4	43.75	2.34	0	500.1	0	0	0	0	0	59.57	0	0	510	0	0	0
1992	535.83	580.12	-24.29	14.07	19.45	12.81	2.09	0	501.47	0	0	0	0	0	58.63	0	0	501.49	8.51	0	0
1993	602.75	568.98	33.77	22.3	30.88	67.5	4.27	0	500.1	0	0	0	0	0	58.98	0	0	510	0	0	0
1994	524.33	554.08	-29.75	12	16.44	5.63	2.16	0	500.1	0	0	0	0	0	58.66	0	0	495.41	14.59	0	0
1995	553.64	535.54	18.1	18.32	24.86	25.31	3.37	0	500.1	0	0	0	0	0	58.09	0	0	477.46	32.54	0	0
1996	549.88	568.06	-18.19	17.59	24.17	20.94	3.29	0	501.47	0	0	0	0	0	58.89	0	0	509.18	0.82	0	0
1997	579.21	568.72	10.49	17.73	24.5	51.56	3.04	0	500.1	0	0	0	0	0	58.72	0	0	510	0	0	0
1998	651.25	569.81	81.44	24.29	33.37	112.5	5.27	0	500.1	0	0	0	0	0	59.81	0	0	510	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runoff ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
563.97	547.04	16.92	16.88	23.05	36.19	3.26	0	501.47	0	0	0	0	0	58.43	0	0	488.61	21.39	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Dew 15 yr\Dew-85-99\Dew-85-99.pnd  
File Creation Date : Sep 16, 2008 11:12:39  
File Last Modified Date : Sep 16, 2008 14:06:17  
Description : 510 AF Pond using TP1, TP2, TP5 Dewey soils, 0.6 in/5th da, 375 ac, 1985-1999  
Simulation Start Date : Jan 01, 1985  
Simulation End Date : Dec 31, 1999  
Simulation Run Date : Sep 16, 2008 14:06  
SPAW Interface Version : Sep 16, 2008 14:06:16  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Dewey TP1, TP2, TP5 Revised Soils-0.6 in/5th day-85-99 375.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr-85-99\Dew 15 yr-85-99.fpin Dec 30, 1899 00:00

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Dewey TP1, TP2, TP5 Revised Soils-0.6 in/5th day-85-99 375.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr-85-99\Dew 15 yr-85-99.fpin Dec 30, 1899 00:00

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	14.05	0.00
5.00	14.96	72.53
10.00	15.90	149.68
15.00	16.87	231.60
20.00	17.87	318.45
25.00	18.90	410.38
30.00	19.95	507.50
33.00	20.60	558.33

## POND PROFILE

MAX AREA (AC) = 20.49  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 558.19  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1985	549.09	404	145.09	11.75	14.89	31.56	2.54	0	500.1	0	0	0	0	0	54.34	0	0	349.66	160.34	0	0
1986	601.66	563.45	38.21	23.59	31.77	64.38	5.41	0	500.1	0	0	0	0	0	58.75	0	0	504.7	5.3	0	0
1987	523.13	561.51	-38.38	12.37	17.3	3.75	1.98	0	500.1	0	0	0	0	0	58.87	0	0	502.64	7.36	0	0
1988	551.34	552.84	-1.5	13.79	18.88	28.13	2.86	0	501.47	0	0	0	0	0	58.13	0	0	494.71	15.29	0	0
1989	525.17	520.74	4.43	15.58	20.46	0.94	3.67	0	500.1	0	0	0	0	0	57.51	0	0	463.23	46.77	0	0
1990	590.73	568.8	21.93	19.14	26.23	60.31	4.09	0	500.1	0	0	0	0	0	58.8	0	0	510	0	0	0
1991	567.6	569.57	-1.97	15.03	21.4	43.75	2.34	0	500.1	0	0	0	0	0	59.57	0	0	510	0	0	0
1992	535.83	560.12	-24.29	14.07	19.45	12.81	2.09	0	501.47	0	0	0	0	0	58.63	0	0	501.49	8.51	0	0
1993	602.75	568.98	33.77	22.3	30.88	67.5	4.27	0	500.1	0	0	0	0	0	58.98	0	0	510	0	0	0
1994	524.33	554.08	-29.75	12	16.44	5.63	2.16	0	500.1	0	0	0	0	0	58.66	0	0	495.41	14.59	0	0
1995	553.64	535.54	18.1	18.32	24.86	25.31	3.37	0	500.1	0	0	0	0	0	58.09	0	0	477.46	32.54	0	0
1996	549.88	568.06	-18.19	17.59	24.17	20.94	3.29	0	501.47	0	0	0	0	0	58.89	0	0	509.18	0.82	0	0
1997	579.21	568.72	10.49	17.73	24.5	51.56	3.04	0	500.1	0	0	0	0	0	58.72	0	0	510	0	0	0
1998	651.25	569.81	81.44	24.29	33.37	112.5	5.27	0	500.1	0	0	0	0	0	59.81	0	0	510	0	0	0
1999	606.67	573.4	33.28	17.17	25.67	78.75	2.15	0	500.1	0	0	0	0	0	63.4	0	0	510	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
568.58	549.35	19.23	16.98	23.35	40.52	3.24	0	501.47	0	0	0	0	0	58.79	0	0	490.57	19.43	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Dew 15 yr\Dew--86-00\Dew--86-00.pnd  
File Creation Date : Sep 16, 2008 11:16:27  
File Last Modified Date : Sep 16, 2008 14:07:42  
Description : 510 AF Pond using TP1, TP2, TP5 Dewey soils, 0.6 in/5th da, 375 ac, 1986-2000  
Simulation Start Date : Jan 01, 1986  
Simulation End Date : Dec 31, 2000  
Simulation Run Date : Sep 16, 2008 14:07  
SPAW Interface Version : Sep 16, 2008 14:07:42  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--86-00 375.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--86-00\Dew 15 yr--86-00.fpin Dec 30, 1899 00:00

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--86-00 375.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--86-00\Dew 15 yr--86-00.fpin Dec 30, 1899 00:00

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	14.05	0.00
5.00	14.96	72.53
10.00	15.90	149.68
15.00	16.87	231.60
20.00	17.87	318.45
25.00	18.90	410.38
30.00	19.95	507.50
33.00	20.60	568.33

## POND PROFILE

MAX AREA (AC) = 20.49  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 558.19  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1986	598.32	415.02	183.3	22.02	27.67	64.38	6.16	0	500.1	0	0	0	0	0	54.54	0	0	360.48	149.52	0	0
1987	523.13	561.51	-38.38	12.37	17.3	3.75	1.98	0	500.1	0	0	0	0	0	58.87	0	0	502.64	7.36	0	0
1988	551.34	552.84	-1.5	13.79	18.88	28.13	2.86	0	501.47	0	0	0	0	0	58.13	0	0	494.71	15.29	0	0
1989	525.17	520.74	4.43	15.58	20.46	0.94	3.67	0	500.1	0	0	0	0	0	57.51	0	0	463.23	46.77	0	0
1990	588.54	568.75	19.79	19.14	26.21	58.13	4.1	0	500.1	0	0	0	0	0	58.75	0	0	510	0	0	0
1991	567.58	569.48	-1.89	15.03	21.37	43.75	2.36	0	500.1	0	0	0	0	0	59.48	0	0	510	0	0	0
1992	535.82	558.04	-22.22	14.07	19.43	12.81	2.11	0	501.47	0	0	0	0	0	58.56	0	0	499.48	10.52	0	0
1993	602.75	568.98	33.77	22.3	30.88	67.5	4.27	0	500.1	0	0	0	0	0	58.98	0	0	510	0	0	0
1994	524.33	554.08	-29.75	12	16.44	5.63	2.16	0	500.1	0	0	0	0	0	58.66	0	0	495.41	14.59	0	0
1995	553.64	535.54	18.1	18.32	24.86	25.31	3.37	0	500.1	0	0	0	0	0	58.09	0	0	477.46	32.54	0	0
1996	549.88	568.06	-18.19	17.59	24.17	20.94	3.29	0	501.47	0	0	0	0	0	58.89	0	0	509.18	0.82	0	0
1997	579.21	568.72	10.49	17.73	24.5	51.56	3.04	0	500.1	0	0	0	0	0	58.72	0	0	510	0	0	0
1998	651.25	569.81	81.44	24.29	33.37	112.5	5.27	0	500.1	0	0	0	0	0	59.81	0	0	510	0	0	0
1999	606.67	573.4	33.28	17.17	25.67	78.75	2.15	0	500.1	0	0	0	0	0	63.4	0	0	510	0	0	0
2000	578.95	574.6	4.34	14.51	22	54.06	1.41	0	501.47	0	0	0	0	0	64.6	0	0	510	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
570.11	550.68	19.43	17.06	23.55	41.88	3.21	0	501.47	0	0	0	0	0	59.18	0	0	491.51	18.49	0	0



# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Dew 15 yr\Dew--87-01\Dew--87-01.pnd  
File Creation Date : Sep 16, 2008 12:34:17  
File Last Modified Date : Sep 16, 2008 14:09:04  
Description : 510 AF Pond using TP1, TP2, TP5 Dewey soils, 0.6 in/5th da, 375 ac, 1987-2001  
Simulation Start Date : Jan 01, 1987  
Simulation End Date : Dec 31, 2001  
Simulation Run Date : Sep 16, 2008 14:09  
SPAW Interface Version : Sep 16, 2008 14:09:03  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--87-01 375.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--87-01\Dew 15 yr--87-01.fpin Dec 30, 1899 00:00

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--87-01 375.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--87-01\Dew 15 yr--87-01.fpin Dec 30, 1899 00:00

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	14.05	0.00
5.00	14.96	72.53
10.00	15.90	149.68
15.00	16.87	231.60
20.00	17.87	318.45
25.00	18.90	410.38
30.00	19.95	507.50
33.00	20.60	568.33

## POND PROFILE

MAX AREA (AC) = 20.49  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 558.19  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runoff ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1987	521.15	376.23	144.92	12.37	15.52	2.5	3.03	0	500.1	0	0	0	0	0	53.91	0	0	322.32	187.68	0	0
1988	536.63	538.13	-1.5	13.79	18.8	13.44	2.92	0	501.47	0	0	0	0	0	57.84	0	0	480.28	29.72	0	0
1989	525.17	520.74	4.43	15.58	20.46	0.94	3.87	0	500.1	0	0	0	0	0	57.51	0	0	463.23	46.77	0	0
1990	581.34	568.67	12.67	19.14	26.18	50.94	4.12	0	500.1	0	0	0	0	0	58.67	0	0	510	0	0	0
1991	567.54	569.17	-1.64	15.03	21.27	43.75	2.42	0	500.1	0	0	0	0	0	59.17	0	0	510	0	0	0
1992	535.78	551.15	-15.37	14.07	19.34	12.81	2.15	0	501.47	0	0	0	0	0	58.34	0	0	492.81	17.19	0	0
1993	602.44	568.97	33.47	22.3	30.88	67.19	4.27	0	500.1	0	0	0	0	0	58.97	0	0	510	0	0	0
1994	524.33	553.77	-29.44	12	16.44	5.63	2.16	0	500.1	0	0	0	0	0	58.65	0	0	495.12	14.88	0	0
1995	553.64	535.54	18.1	18.32	24.86	25.31	3.37	0	500.1	0	0	0	0	0	58.09	0	0	477.46	32.54	0	0
1996	549.88	568.06	-18.19	17.59	24.17	20.94	3.29	0	501.47	0	0	0	0	0	58.89	0	0	509.18	0.82	0	0
1997	579.21	568.72	10.49	17.73	24.5	51.56	3.04	0	500.1	0	0	0	0	0	58.72	0	0	510	0	0	0
1998	651.25	569.81	81.44	24.29	33.37	112.5	5.27	0	500.1	0	0	0	0	0	59.81	0	0	510	0	0	0
1999	606.67	573.4	33.28	17.17	25.67	78.75	2.15	0	500.1	0	0	0	0	0	63.4	0	0	510	0	0	0
2000	578.95	574.6	4.34	14.51	22	54.06	1.41	0	501.47	0	0	0	0	0	64.6	0	0	510	0	0	0
2001	570.5	573.87	-3.38	18.1	27.15	40.94	2.31	0	500.1	0	0	0	0	0	63.87	0	0	510	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runoff ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
566.64	547.43	19.2	16.8	23.37	38.75	3.04	0	501.47	0	0	0	0	0	59.41	0	0	488.03	21.97	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Dew 15 yr\Dew--88-02\Dew--88-02.pnd  
File Creation Date : Sep 16, 2008 12:36:02  
File Last Modified Date : Sep 16, 2008 14:10:46  
Description : 510 AF Pond using TP1, TP2, TP5 Dewey soils, 0.6 in/5th da, 375 ac, 1988-2002  
Simulation Start Date : Jan 01, 1988  
Simulation End Date : Dec 31, 2002  
Simulation Run Date : Sep 16, 2008 14:10  
SPAW Interface Version : Sep 16, 2008 14:10:45  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--88-02	375.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--88-02\Dew 15 yr--88-02.fpin Dec 30, 1899 00:00	

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--88-02	375.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--88-02\Dew 15 yr--88-02.fpin Dec 30, 1899 00:00	

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	14.05	0.00
5.00	14.96	72.53
10.00	15.90	149.68
15.00	16.87	231.60
20.00	17.87	318.45
25.00	18.90	410.38
30.00	19.95	507.50
33.00	20.60	558.33

## POND PROFILE

MAX AREA (AC) = 20.49  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 558.19  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1988	535.47	392.05	143.42	13.4	16.71	13.44	3.84	0	501.47	0	0	0	0	0	53.98	0	0	338.07	171.93	0	0
1989	525.17	520.74	4.43	15.58	20.46	0.94	3.67	0	500.1	0	0	0	0	0	57.51	0	0	463.23	46.77	0	0
1990	581.34	568.67	12.67	19.14	26.18	50.94	4.12	0	500.1	0	0	0	0	0	58.67	0	0	510	0	0	0
1991	567.54	569.17	-1.64	15.03	21.27	43.75	2.42	0	500.1	0	0	0	0	0	59.17	0	0	510	0	0	0
1992	535.78	551.15	-15.37	14.07	19.34	12.81	2.15	0	501.47	0	0	0	0	0	58.34	0	0	492.81	17.19	0	0
1993	602.44	568.97	33.47	22.3	30.88	67.19	4.27	0	500.1	0	0	0	0	0	58.97	0	0	510	0	0	0
1994	524.33	553.77	-29.44	12	16.44	5.63	2.16	0	500.1	0	0	0	0	0	58.65	0	0	495.12	14.88	0	0
1995	553.64	535.54	18.1	18.32	24.86	25.31	3.37	0	500.1	0	0	0	0	0	58.09	0	0	477.46	32.54	0	0
1996	549.88	568.06	-18.19	17.59	24.17	20.94	3.29	0	501.47	0	0	0	0	0	58.89	0	0	509.18	0.82	0	0
1997	579.21	568.72	10.49	17.73	24.5	51.56	3.04	0	500.1	0	0	0	0	0	58.72	0	0	510	0	0	0
1998	651.25	569.81	81.44	24.29	33.37	112.5	5.27	0	500.1	0	0	0	0	0	59.81	0	0	510	0	0	0
1999	606.67	573.4	33.28	17.17	25.67	78.75	2.15	0	500.1	0	0	0	0	0	63.4	0	0	510	0	0	0
2000	578.95	574.6	4.34	14.51	22	54.08	1.41	0	501.47	0	0	0	0	0	64.5	0	0	510	0	0	0
2001	570.5	573.87	-3.38	18.1	27.15	40.94	2.31	0	500.1	0	0	0	0	0	63.87	0	0	510	0	0	0
2002	531.41	572.62	-41.21	13.1	18.99	10.63	1.7	0	500.1	0	0	0	0	0	62.62	0	0	510	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
567.24	550.79	16.46	16.82	23.46	39.29	3.01	0	501.47	0	0	0	0	0	59.73	0	0	491.06	18.94	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Dew 15 yr\Dew--89-03\Dew--89-03.pnd  
File Creation Date : Sep 16, 2008 12:38:15  
File Last Modified Date : Sep 16, 2008 14:12:11  
Description : 510 AF Pond using TP1, TP2, TP5 Dewey soils, 0.6 in/5th da, 375 ac, 1989-2003  
Simulation Start Date : Jan 01, 1989  
Simulation End Date : Dec 31, 2003  
Simulation Run Date : Sep 16, 2008 14:12  
SPAW Interface Version : Sep 16, 2008 14:12:10  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--89-03 375.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--89-03\Dew 15 yr--89-03.fpin Dec 30, 1899 00:00

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--89-03 375.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--89-03\Dew 15 yr--89-03.fpin Dec 30, 1899 00:00

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	14.05	0.00
5.00	14.96	72.53
10.00	15.90	149.68
15.00	16.87	231.60
20.00	17.87	318.45
25.00	18.90	410.38
30.00	19.95	507.50
33.00	20.60	568.33

## POND PROFILE

MAX AREA (AC) = 20.49  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 558.19  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1989	524.44	376.59	147.85	15.49	19.17	0.94	4.23	0	500.1	0	0	0	0	0	53.89	0	0	322.7	187.3	0	0
1990	580.4	568.64	11.76	19.14	26.17	50	4.13	0	500.1	0	0	0	0	0	58.64	0	0	510	0	0	0
1991	567.53	569.13	-1.6	15.03	21.25	43.75	2.42	0	500.1	0	0	0	0	0	59.13	0	0	510	0	0	0
1992	535.46	549.95	-14.49	14.07	19.33	12.5	2.16	0	501.47	0	0	0	0	0	58.3	0	0	491.65	18.35	0	0
1993	601.81	568.95	32.85	22.3	30.88	66.56	4.27	0	500.1	0	0	0	0	0	58.96	0	0	510	0	0	0
1994	524.33	553.16	-28.83	12	16.43	5.63	2.16	0	500.1	0	0	0	0	0	58.63	0	0	494.52	15.48	0	0
1995	553.64	535.54	18.1	18.32	24.86	25.31	3.37	0	500.1	0	0	0	0	0	58.09	0	0	477.46	32.54	0	0
1996	549.88	568.05	-18.19	17.59	24.17	20.94	3.29	0	501.47	0	0	0	0	0	58.89	0	0	509.18	0.82	0	0
1997	579.21	568.72	10.49	17.73	24.5	51.56	3.04	0	500.1	0	0	0	0	0	58.72	0	0	510	0	0	0
1998	651.25	569.81	81.44	24.29	33.37	112.5	5.27	0	500.1	0	0	0	0	0	59.81	0	0	510	0	0	0
1999	606.67	573.4	33.28	17.17	25.67	78.75	2.15	0	500.1	0	0	0	0	0	63.4	0	0	510	0	0	0
2000	578.95	574.6	4.34	14.51	22	54.06	1.41	0	501.47	0	0	0	0	0	64.6	0	0	510	0	0	0
2001	570.5	573.87	-3.38	18.1	27.15	40.94	2.31	0	500.1	0	0	0	0	0	63.97	0	0	510	0	0	0
2002	531.41	572.62	-41.21	13.1	18.99	10.63	1.7	0	500.1	0	0	0	0	0	62.62	0	0	510	0	0	0
2003	541.02	571.45	-30.43	14.69	21.27	17.5	2.14	0	500.1	0	0	0	0	0	61.45	0	0	510	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
567.53	553.01	14.52	16.9	23.68	39.44	2.94	0	501.47	0	0	0	0	0	59.98	0	0	493.03	16.97	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Dew 15 yr\Dew-90-04\Dew-90-04.pnd  
File Creation Date : Sep 16, 2008 14:22:34  
File Last Modified Date : Sep 16, 2008 14:22:34  
Description : 510 AF Pond using TP1, TP2, TP5 Dewey soils, 0.6 in/5th da, 375 ac, 1990-2004  
Simulation Start Date : Jan 01, 1990  
Simulation End Date : Dec 31, 2004  
Simulation Run Date : Sep 16, 2008 14:22  
SPAW Interface Version : Sep 16, 2008 14:22:34  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Dewey TP1, TP2, TP5 Revised Soils-0.6 in/5th day-90-04 375.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr-90-04\Dew 15 yr-90-04.fpin Dec 30, 1899 00:00

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Dewey TP1, TP2, TP5 Revised Soils-0.6 in/5th day-90-04 375.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr-90-04\Dew 15 yr-90-04.fpin Dec 30, 1899 00:00

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	14.05	0.00
5.00	14.96	72.53
10.00	15.90	149.68
15.00	16.87	231.60
20.00	17.87	318.45
25.00	18.90	410.38
30.00	19.95	507.50
33.00	20.60	568.33

## POND PROFILE

MAX AREA (AC) = 20.49  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 558.19  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1990	574.82	425.57	149.25	19.11	23.99	45.31	5.4	0	500.1	0	0	0	0	0	54.12	0	0	371.44	138.56	0	0
1991	562.15	566.79	-4.64	15.03	21.09	38.44	2.52	0	500.1	0	0	0	0	0	58.61	0	0	509.18	1.82	0	0
1992	534.12	535.2	-1.08	14.07	19.16	11.25	2.24	0	501.47	0	0	0	0	0	57.86	0	0	477.35	32.65	0	0
1993	579.88	568.59	11.29	22.3	30.76	44.69	4.33	0	500.1	0	0	0	0	0	58.59	0	0	510	0	0	0
1994	524.24	531.51	-7.27	12	16.26	5.63	2.25	0	500.1	0	0	0	0	0	57.94	0	0	473.57	36.43	0	0
1995	553.64	535.54	18.1	18.32	24.86	25.31	3.37	0	500.1	0	0	0	0	0	58.09	0	0	477.46	32.54	0	0
1996	549.88	568.06	-18.19	17.59	24.17	20.94	3.29	0	501.47	0	0	0	0	0	58.89	0	0	509.18	0.82	0	0
1997	579.21	568.72	10.49	17.73	24.5	51.56	3.04	0	500.1	0	0	0	0	0	58.72	0	0	510	0	0	0
1998	651.25	569.81	81.44	24.29	33.37	112.5	5.27	0	500.1	0	0	0	0	0	59.81	0	0	510	0	0	0
1999	606.67	573.4	33.28	17.17	25.67	78.75	2.15	0	500.1	0	0	0	0	0	63.4	0	0	510	0	0	0
2000	578.95	574.6	4.34	14.51	22	54.06	1.41	0	501.47	0	0	0	0	0	64.6	0	0	510	0	0	0
2001	570.5	573.87	-3.38	18.1	27.15	40.94	2.31	0	500.1	0	0	0	0	0	63.87	0	0	510	0	0	0
2002	531.41	572.62	-41.21	13.1	18.99	10.63	1.7	0	500.1	0	0	0	0	0	62.62	0	0	510	0	0	0
2003	541.02	571.45	-30.43	14.69	21.27	17.5	2.14	0	500.1	0	0	0	0	0	61.45	0	0	510	0	0	0
2004	528.9	569.5	-40.6	12.19	16.39	9.06	1.97	0	501.47	0	0	0	0	0	59.5	0	0	510	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
565.71	553.73	11.99	16.84	23.53	37.77	2.93	0	501.47	0	0	0	0	0	59.91	0	0	493.81	15.19	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Dew 15 yr\Dew-91-05\Dew-91-05.pnd  
File Creation Date : Sep 16, 2008 14:29:45  
File Last Modified Date : Sep 16, 2008 14:29:45  
Description : 510 AF Pond using TP1, TP2, TP5 Dewey soils, 0.6 in/5th da, 375 ac, 1991-2005  
Simulation Start Date : Jan 01, 1991  
Simulation End Date : Dec 31, 2005  
Simulation Run Date : Sep 16, 2008 14:29  
SPAW Interface Version : Sep 16, 2008 14:29:45  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--91-05 375.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--91-05\Dew 15 yr--91-05.fpin Dec 30, 1899 00:00

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--91-05 375.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--91-05\Dew 15 yr--91-05.fpin Dec 30, 1899 00:00

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	14.05	0.00
5.00	14.96	72.53
10.00	15.90	149.68
15.00	16.87	231.60
20.00	17.87	318.45
25.00	18.90	410.38
30.00	19.95	507.50
33.00	20.60	568.33

## POND PROFILE

MAX AREA (AC) = 20.49  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 558.19  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runoff ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1991	539.4	394.8	144.6	14.99	19.1	16.56	3.63	0	500.1	0	0	0	0	0	54.07	0	0	340.72	169.28	0	0
1992	534.12	535.2	-1.08	14.07	19.16	11.25	2.24	0	501.47	0	0	0	0	0	57.86	0	0	477.35	32.65	0	0
1993	577.05	568.49	8.56	22.3	30.72	41.88	4.35	0	500.1	0	0	0	0	0	58.49	0	0	510	0	0	0
1994	524.23	528.77	-4.54	12	16.23	5.63	2.26	0	500.1	0	0	0	0	0	57.85	0	0	470.91	39.09	0	0
1995	553.64	535.54	18.1	18.32	24.86	25.31	3.37	0	500.1	0	0	0	0	0	58.09	0	0	477.46	32.54	0	0
1996	549.88	568.08	-18.19	17.59	24.17	20.94	3.29	0	501.47	0	0	0	0	0	58.89	0	0	509.18	0.82	0	0
1997	579.21	568.72	10.49	17.73	24.5	51.56	3.04	0	500.1	0	0	0	0	0	58.72	0	0	510	0	0	0
1998	651.25	569.81	81.44	24.29	33.37	112.5	5.27	0	500.1	0	0	0	0	0	59.81	0	0	510	0	0	0
1999	606.67	573.4	33.28	17.17	25.67	78.75	2.15	0	500.1	0	0	0	0	0	63.4	0	0	510	0	0	0
2000	578.95	574.6	4.34	14.51	22	54.06	1.41	0	501.47	0	0	0	0	0	64.6	0	0	510	0	0	0
2001	570.5	573.87	-3.38	18.1	27.15	40.94	2.31	0	500.1	0	0	0	0	0	63.87	0	0	510	0	0	0
2002	531.41	572.62	-41.21	13.1	18.99	10.63	1.7	0	500.1	0	0	0	0	0	62.62	0	0	510	0	0	0
2003	541.02	571.45	-30.43	14.69	21.27	17.5	2.14	0	500.1	0	0	0	0	0	61.45	0	0	510	0	0	0
2004	528.9	569.5	-40.6	12.19	16.39	9.06	1.97	0	501.47	0	0	0	0	0	59.5	0	0	510	0	0	0
2005	651.39	571.39	80	20.16	29.02	118.75	3.51	0	500.1	0	0	0	0	0	61.39	0	0	510	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runoff ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
569.11	551.79	17.32	16.9	23.73	41.02	2.88	0	501.47	0	0	0	0	0	60.08	0	0	491.71	18.29	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Dew 15 yr\Dew--92-06\Dew--92-06.pnd  
File Creation Date : Sep 16, 2008 14:31:28  
File Last Modified Date : Sep 16, 2008 14:31:28  
Description : 510 AF Pond using TP1, TP2, TP5 Dewey soils, 0.6 in/5th da, 375 ac, 1992-2006  
Simulation Start Date : Jan 01, 1992  
Simulation End Date : Dec 31, 2006  
Simulation Run Date : Sep 16, 2008 14:31  
SPAW Interface Version : Sep 16, 2008 14:31:28  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--92-06	375.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--92-06\Dew 15 yr--92-06.fpin Dec 30, 1899 00:00	

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--92-06	375.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--92-06\Dew 15 yr--92-06.fpin Dec 30, 1899 00:00	

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	14.05	0.00
5.00	14.96	72.53
10.00	15.90	149.68
15.00	16.87	231.60
20.00	17.87	318.45
25.00	18.90	410.38
30.00	19.95	507.50
33.00	20.50	568.33

## POND PROFILE

MAX AREA (AC) = 20.49  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 558.19  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1992	533.34	389.82	143.52	14.07	17.52	11.25	3.09	0	501.47	0	0	0	0	0	54.03	0	0	335.79	174.21	0	0
1993	568.91	561.03	7.88	22.3	30.69	33.75	4.36	0	500.1	0	0	0	0	0	58.38	0	0	502.65	7.35	0	0
1994	524.22	528.08	-3.85	12	16.23	5.63	2.27	0	500.1	0	0	0	0	0	57.83	0	0	470.24	39.76	0	0
1995	548.63	530.53	18.1	18.32	24.84	20.31	3.37	0	500.1	0	0	0	0	0	57.99	0	0	472.54	37.46	0	0
1996	549.88	568.06	-18.19	17.59	24.17	20.94	3.29	0	501.47	0	0	0	0	0	58.89	0	0	509.18	0.82	0	0
1997	579.21	568.72	10.49	17.73	24.5	51.56	3.04	0	500.1	0	0	0	0	0	58.72	0	0	510	0	0	0
1998	651.25	569.81	81.44	24.29	33.37	112.5	5.27	0	500.1	0	0	0	0	0	59.81	0	0	510	0	0	0
1999	606.67	573.4	33.28	17.17	25.67	78.75	2.15	0	500.1	0	0	0	0	0	63.4	0	0	510	0	0	0
2000	578.95	574.6	4.34	14.51	22	54.06	1.41	0	501.47	0	0	0	0	0	64.6	0	0	510	0	0	0
2001	570.5	573.87	-3.38	18.1	27.15	40.94	2.31	0	500.1	0	0	0	0	0	63.87	0	0	510	0	0	0
2002	531.41	572.62	-41.21	13.1	18.99	10.63	1.7	0	500.1	0	0	0	0	0	62.62	0	0	510	0	0	0
2003	541.02	571.45	-30.43	14.69	21.27	17.5	2.14	0	500.1	0	0	0	0	0	61.45	0	0	510	0	0	0
2004	528.9	569.5	-40.6	12.19	16.39	9.06	1.97	0	501.47	0	0	0	0	0	59.5	0	0	510	0	0	0
2005	651.39	571.39	80	20.16	29.02	118.75	3.51	0	500.1	0	0	0	0	0	61.39	0	0	510	0	0	0
2006	536.12	571.5	-35.38	13.22	19.04	15	1.98	0	500.1	0	0	0	0	0	61.5	0	0	510	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft	
567.96	553	14.96	16.79	23.62	40.04	2.83	2.83	0	501.47	0	0	0	0	0	60.31	0	0	492.69	17.31	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Dew 15 yr\Dew--93-07\Dew--93-07.pnd  
File Creation Date : Sep 16, 2008 14:44:30  
File Last Modified Date : Sep 16, 2008 14:44:30  
Description : 510 AF Pond using TP1, TP2, TP5 Dewey soils, 0.6 in/5th da, 375 ac, 1993-2007  
Simulation Start Date : Jan 01, 1993  
Simulation End Date : Dec 31, 2007  
Simulation Run Date : Sep 16, 2008 14:44  
SPAW Interface Version : Sep 16, 2008 14:44:30  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--93-07	375.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--93-07\Dew 15 yr--93-07.fpin Dec 30, 1899 00:00	

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--93-07	375.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--93-07\Dew 15 yr--93-07.fpin Dec 30, 1899 00:00	

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	14.05	0.00
5.00	14.96	72.53
10.00	15.90	149.68
15.00	16.87	231.60
20.00	17.87	318.45
25.00	18.90	410.38
30.00	19.95	507.50
33.00	20.50	568.33

## POND PROFILE

MAX AREA (AC) = 20.49  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 558.19  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1993	565.56	414.16	151.4	21.42	27.05	32.81	5.59	0	500.1	0	0	0	0	0	54.23	0	0	359.93	150.07	0	0
1994	524.22	528.08	-3.85	12	16.23	5.63	2.27	0	500.1	0	0	0	0	0	57.83	0	0	470.24	39.76	0	0
1995	548.63	530.53	18.1	18.32	24.84	20.31	3.37	0	500.1	0	0	0	0	0	57.99	0	0	472.54	37.46	0	0
1996	549.88	568.06	-18.19	17.59	24.17	20.94	3.29	0	501.47	0	0	0	0	0	58.89	0	0	509.18	0.82	0	0
1997	579.21	568.72	10.49	17.73	24.5	51.56	3.04	0	500.1	0	0	0	0	0	58.72	0	0	510	0	0	0
1998	651.25	569.81	81.44	24.29	33.37	112.5	5.27	0	500.1	0	0	0	0	0	59.81	0	0	510	0	0	0
1999	606.67	573.4	33.28	17.17	25.67	78.75	2.15	0	500.1	0	0	0	0	0	63.4	0	0	510	0	0	0
2000	578.95	574.6	4.34	14.51	22	54.06	1.41	0	501.47	0	0	0	0	0	64.6	0	0	510	0	0	0
2001	570.5	573.87	-3.38	18.1	27.15	40.94	2.31	0	500.1	0	0	0	0	0	63.87	0	0	510	0	0	0
2002	531.41	572.62	-41.21	13.1	18.99	10.63	1.7	0	500.1	0	0	0	0	0	62.62	0	0	510	0	0	0
2003	541.02	571.45	-30.43	14.69	21.27	17.5	2.14	0	500.1	0	0	0	0	0	61.45	0	0	510	0	0	0
2004	528.9	569.5	-40.6	12.19	16.39	9.06	1.97	0	501.47	0	0	0	0	0	59.5	0	0	510	0	0	0
2005	651.39	571.39	80	20.16	29.02	118.75	3.51	0	500.1	0	0	0	0	0	61.39	0	0	510	0	0	0
2006	536.12	571.5	-35.38	13.22	19.04	15	1.98	0	500.1	0	0	0	0	0	61.5	0	0	510	0	0	0
2007	555.52	570.57	-15.05	14.34	20.1	32.81	2.51	0	500.1	0	0	0	0	0	60.57	0	0	510	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
569.43	555.27	14.16	16.82	23.65	41.42	2.89	0	501.47	0	0	0	0	0	60.47	0	0	494.79	15.21	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Dew 15 yr\Dew--94-80\Dew--94-80.pnd  
File Creation Date : Sep 16, 2008 14:46:58  
File Last Modified Date : Sep 16, 2008 14:46:58  
Description : 510 AF Pond using TP1, TP2, TP5 Dewey soils, 0.6 in/5th da, 375 ac, 1994-1980  
Simulation Start Date : Jan 01, 1994  
Simulation End Date : Dec 31, 2008  
Simulation Run Date : Sep 16, 2008 14:46  
SPAW Interface Version : Sep 16, 2008 14:46:58  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--94-80	375.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--94-80\Dew 15 yr--94-80.fpin Dec 30, 1899 00:00	

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--94-80	375.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--94-80\Dew 15 yr--94-80.fpin Dec 30, 1899 00:00	

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	14.05	0.00
5.00	14.96	72.53
10.00	15.90	149.68
15.00	16.87	231.60
20.00	17.87	318.45
25.00	18.90	410.38
30.00	19.95	507.50
33.00	20.60	568.33

## POND PROFILE

MAX AREA (AC) = 20.49  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 558.19  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1994	523.64	376.1	147.54	12	15.01	5.63	2.91	0	500.1	0	0	0	0	0	53.93	0	0	322.17	187.83	0	0
1995	546.43	528.33	18.1	18.32	24.83	18.13	3.37	0	500.1	0	0	0	0	0	57.94	0	0	470.39	39.61	0	0
1996	549.88	568.06	-18.19	17.59	24.17	20.94	3.29	0	501.47	0	0	0	0	0	58.89	0	0	509.18	0.82	0	0
1997	576.7	568.67	8.03	17.73	24.48	49.06	3.05	0	500.1	0	0	0	0	0	58.67	0	0	510	0	0	0
1998	650.91	569.7	81.21	24.29	33.31	112.19	5.31	0	500.1	0	0	0	0	0	59.7	0	0	510	0	0	0
1999	606.66	573.29	33.37	17.17	25.62	78.75	2.18	0	500.1	0	0	0	0	0	63.29	0	0	510	0	0	0
2000	578.93	574.5	4.44	14.51	21.96	54.06	1.43	0	501.47	0	0	0	0	0	64.5	0	0	510	0	0	0
2001	570.48	573.77	-3.29	18.1	27.11	40.94	2.34	0	500.1	0	0	0	0	0	63.77	0	0	510	0	0	0
2002	531.4	572.52	-41.12	13.1	18.96	10.63	1.71	0	500.1	0	0	0	0	0	62.52	0	0	510	0	0	0
2003	541.01	571.35	-30.34	14.69	21.24	17.5	2.16	0	500.1	0	0	0	0	0	61.35	0	0	510	0	0	0
2004	528.88	569.41	-40.53	12.19	16.36	9.06	1.98	0	501.47	0	0	0	0	0	59.41	0	0	510	0	0	0
2005	651.38	571.3	80.08	20.16	28.98	118.75	3.54	0	500.1	0	0	0	0	0	61.3	0	0	510	0	0	0
2006	536.11	571.41	-35.3	13.22	19.02	15	1.99	0	500.1	0	0	0	0	0	61.41	0	0	510	0	0	0
2007	555.51	570.49	-14.98	14.34	20.07	32.81	2.52	0	500.1	0	0	0	0	0	60.49	0	0	510	0	0	0
2008	562.97	570.31	-7.35	16.74	23.85	34.69	2.95	0	501.47	0	0	0	0	0	60.31	0	0	510	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
568.66	555.32	13.34	16.43	23.22	41.21	2.75	0	501.47	0	0	0	0	0	60.54	0	0	494.78	15.22	0	0



# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAWProjects\Ponds\Dew 15 yr\Dew-95-81\Dew-95-81.pnd  
File Creation Date : Sep 16, 2008 14:49:40  
File Last Modified Date : Sep 16, 2008 14:49:41  
Description : 510 AF Pond using TP1, TP2, TP5 Dewey soils, 0.6 in/5th da, 375 ac, 1995-1981  
Simulation Start Date : Jan 01, 1995  
Simulation End Date : Dec 31, 2009  
Simulation Run Date : Sep 16, 2008 14:49  
SPAW Interface Version : Sep 16, 2008 14:49:40  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Dewey TP1, TP2, TP5 Revised Soils-0.6 in/5th day-95-81	375.00
C:\Program Files\SPAW Hydrology\SPAWProjects\Fields\Dew 15-yr\Dew 15 yr-95-81\Dew 15 yr-95-81.fpin Dec 30, 1899 00:00	

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Dewey TP1, TP2, TP5 Revised Soils-0.6 in/5th day-95-81	375.00
C:\Program Files\SPAW Hydrology\SPAWProjects\Fields\Dew 15-yr\Dew 15 yr-95-81\Dew 15 yr-95-81.fpin Dec 30, 1899 00:00	

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	14.05	0.00
5.00	14.96	72.53
10.00	15.90	149.68
15.00	16.87	231.60
20.00	17.87	318.45
25.00	18.90	410.38
30.00	19.95	507.50
33.00	20.60	568.33

## POND PROFILE

MAX AREA (AC) = 20.49  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 558.19  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1995	542.95	377.31	165.64	18.14	22.89	15.94	4.02	0	500.1	0	0	0	0	0	54.08	0	0	323.23	185.77	0	0
1996	549.88	568.06	-18.19	17.59	24.17	20.94	3.29	0	501.47	0	0	0	0	0	58.89	0	0	509.18	0.82	0	0
1997	566.95	568.35	-1.39	17.73	24.37	39.38	3.11	0	500.1	0	0	0	0	0	58.35	0	0	510	0	0	0
1998	650.21	569.29	80.92	24.29	33.08	111.56	5.46	0	500.1	0	0	0	0	0	59.29	0	0	510	0	0	0
1999	606.59	572.89	33.71	17.17	25.47	78.75	2.27	0	500.1	0	0	0	0	0	62.89	0	0	510	0	0	0
2000	578.88	574.12	4.77	14.51	21.84	54.06	1.51	0	501.47	0	0	0	0	0	64.12	0	0	510	0	0	0
2001	570.43	573.4	-2.97	18.1	26.95	40.94	2.43	0	500.1	0	0	0	0	0	63.4	0	0	510	0	0	0
2002	531.34	572.16	-40.81	13.1	18.85	10.63	1.77	0	500.1	0	0	0	0	0	62.16	0	0	510	0	0	0
2003	540.96	571	-30.04	14.69	21.12	17.5	2.23	0	500.1	0	0	0	0	0	61	0	0	510	0	0	0
2004	528.83	567.76	-38.94	12.19	16.27	9.06	2.02	0	501.47	0	0	0	0	0	59.07	0	0	508.69	1.31	0	0
2005	651.33	571.02	80.31	20.16	28.86	118.75	3.62	0	500.1	0	0	0	0	0	61.02	0	0	510	0	0	0
2006	536.08	571.15	-35.07	13.22	18.94	15	2.04	0	500.1	0	0	0	0	0	61.15	0	0	510	0	0	0
2007	555.47	570.23	-14.76	14.34	19.98	32.81	2.57	0	500.1	0	0	0	0	0	60.23	0	0	510	0	0	0
2008	562.93	570.07	-7.13	16.74	23.76	34.69	3.01	0	501.47	0	0	0	0	0	60.07	0	0	510	0	0	0
2009	564.47	569.22	-4.74	13.46	18.67	43.13	2.57	0	500.1	0	0	0	0	0	59.22	0	0	510	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
570.42	557.78	12.65	16.52	23.24	42.88	2.83	0	501.47	0	0	0	0	0	60.37	0	0	497.41	12.59	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Dew 15 yr\Dew-96-82\Dew-96-82.pnd  
File Creation Date : Sep 16, 2008 14:51:02  
File Last Modified Date : Sep 16, 2008 14:51:03  
Description : 510 AF Pond using TP1, TP2, TP5 Dewey soils, 0.6 in/5th da, 375 ac, 1996-1982  
Simulation Start Date : Jan 01, 1996  
Simulation End Date : Dec 31, 2010  
Simulation Run Date : Sep 16, 2008 14:51  
SPAW Interface Version : Sep 16, 2008 14:51:02  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Dewey TP1, TP2, TP5 Revised Soils-0.6 in/5th day-96-82 375.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr-96-82\Dew 15 yr-96-82.fpin Dec 30, 1899 00:00

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Dewey TP1, TP2, TP5 Revised Soils-0.6 in/5th day-96-82 375.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr-96-82\Dew 15 yr-96-82.fpin Dec 30, 1899 00:00

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	14.05	0.00
5.00	14.96	72.53
10.00	15.90	149.68
15.00	16.87	231.60
20.00	17.87	318.45
25.00	18.90	410.38
30.00	19.95	507.50
33.00	20.60	568.33

## POND PROFILE

MAX AREA (AC) = 20.49  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 558.19  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1996	543.74	396.28	147.46	17.59	22.24	15.63	4.4	0	501.47	0	0	0	0	0	54.2	0	0	342.08	167.92	0	0
1997	557.25	559.86	-2.61	17.73	24.34	29.69	3.12	0	500.1	0	0	0	0	0	58.22	0	0	501.63	8.37	0	0
1998	647.69	569.2	78.49	24.29	33.03	109.06	5.49	0	500.1	0	0	0	0	0	59.2	0	0	510	0	0	0
1999	598.4	572.44	25.96	17.17	25.3	70.63	2.37	0	500.1	0	0	0	0	0	62.44	0	0	510	0	0	0
2000	578.82	573.65	5.17	14.51	21.68	54.06	1.6	0	501.47	0	0	0	0	0	63.65	0	0	510	0	0	0
2001	570.36	572.95	-2.59	18.1	26.77	40.94	2.55	0	500.1	0	0	0	0	0	62.95	0	0	510	0	0	0
2002	531.28	571.72	-40.44	13.1	18.72	10.63	1.83	0	500.1	0	0	0	0	0	61.72	0	0	510	0	0	0
2003	540.9	570.57	-29.67	14.69	20.98	17.5	2.31	0	500.1	0	0	0	0	0	60.57	0	0	510	0	0	0
2004	528.77	557.86	-29.08	12.19	16.18	9.06	2.06	0	501.47	0	0	0	0	0	58.74	0	0	499.11	10.89	0	0
2005	651.33	571.02	80.31	20.16	28.86	118.75	3.62	0	500.1	0	0	0	0	0	61.02	0	0	510	0	0	0
2006	536.08	571.15	-35.07	13.22	18.94	15	2.04	0	500.1	0	0	0	0	0	61.15	0	0	510	0	0	0
2007	555.47	570.23	-14.76	14.34	19.98	32.81	2.57	0	500.1	0	0	0	0	0	60.23	0	0	510	0	0	0
2008	562.93	570.07	-7.13	16.74	23.76	34.69	3.01	0	501.47	0	0	0	0	0	60.07	0	0	510	0	0	0
2009	564.47	569.22	-4.74	13.46	18.67	43.13	2.57	0	500.1	0	0	0	0	0	59.22	0	0	510	0	0	0
2010	587.02	569.55	17.47	21.88	30.21	52.81	3.9	0	500.1	0	0	0	0	0	58.55	0	0	510	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
571.57	557.76	13.81	16.77	23.53	43.63	2.94	0	501.47	0	0	0	0	0	60.24	0	0	497.52	12.48	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Dew 15 yr\Dew-97-83\Dew-97-83.pnd  
File Creation Date : Sep 16, 2008 14:52:47  
File Last Modified Date : Sep 16, 2008 14:52:48  
Description : 510 AF Pond using TP1, TP2, TP5 Dewey soils, 0.6 in/5th da, 375 ac, 1997-1983  
Simulation Start Date : Jan 01, 1997  
Simulation End Date : Dec 31, 2011  
Simulation Run Date : Sep 16, 2008 14:52  
SPAW Interface Version : Sep 16, 2008 14:52:47  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Dewey TP1, TP2, TP5 Revised Soils-0.6 in/5th day-97-83	375.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--97-83\Dew 15 yr--97-83.fpin Dec 30, 1899 00:00	

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Dewey TP1, TP2, TP5 Revised Soils-0.6 in/5th day-97-83	375.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--97-83\Dew 15 yr--97-83.fpin Dec 30, 1899 00:00	

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	14.05	0.00
5.00	14.96	72.53
10.00	15.90	149.68
15.00	16.87	231.60
20.00	17.87	318.45
25.00	18.90	410.38
30.00	19.95	507.50
33.00	20.60	568.33

## POND PROFILE

MAX AREA (AC) = 20.49  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 558.19  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1997	555.36	410.51	144.85	17.73	22.18	28.75	4.32	0	500.1	0	0	0	0	0	54.06	0	0	356.45	153.55	0	0
1998	612	568.91	43.09	24.29	32.84	73.44	5.62	0	500.1	0	0	0	0	0	58.91	0	0	510	0	0	0
1999	598.17	570.96	27.2	17.17	24.73	70.63	2.71	0	500.1	0	0	0	0	0	60.96	0	0	510	0	0	0
2000	578.62	572.24	6.38	14.51	21.22	54.06	1.87	0	501.47	0	0	0	0	0	62.24	0	0	510	0	0	0
2001	570.15	571.58	-1.43	18.1	26.2	40.94	2.91	0	500.1	0	0	0	0	0	61.58	0	0	510	0	0	0
2002	531.08	570.38	-39.3	13.1	18.32	10.63	2.03	0	500.1	0	0	0	0	0	60.38	0	0	510	0	0	0
2003	540.71	569.27	-28.56	14.69	20.55	17.5	2.56	0	500.1	0	0	0	0	0	59.27	0	0	510	0	0	0
2004	528.61	528.16	0.45	12.19	15.93	9.06	2.15	0	501.47	0	0	0	0	0	57.8	0	0	470.37	39.63	0	0
2005	651.33	571.02	80.31	20.16	28.86	118.75	3.62	0	500.1	0	0	0	0	0	61.02	0	0	510	0	0	0
2006	536.08	571.15	-35.07	13.22	18.94	15	2.04	0	500.1	0	0	0	0	0	61.15	0	0	510	0	0	0
2007	555.47	570.23	-14.76	14.34	19.98	32.81	2.57	0	500.1	0	0	0	0	0	60.23	0	0	510	0	0	0
2008	562.93	570.07	-7.13	16.74	23.76	34.69	3.01	0	501.47	0	0	0	0	0	59.22	0	0	510	0	0	0
2009	564.47	569.22	-4.74	13.46	18.67	43.13	2.57	0	500.1	0	0	0	0	0	59.22	0	0	510	0	0	0
2010	587.02	569.55	17.47	21.88	30.21	52.81	3.9	0	500.1	0	0	0	0	0	59.55	0	0	510	0	0	0
2011	567	569.93	-2.93	16.16	22.4	41.56	2.93	0	500.1	0	0	0	0	0	59.93	0	0	510	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
570.75	556.93	13.82	16.74	23.3	42.92	3.05	0	501.47	0	0	0	0	0	59.8	0	0	497.12	12.88	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Dew 15 yr\Dew-98-84\Dew-98-84.pnd  
File Creation Date : Sep 16, 2008 14:58:35  
File Last Modified Date : Sep 16, 2008 14:58:35  
Description : 510 AF Pond using TP1, TP2, TP5 Dewey soils, 0.6 in/5th da, 375 ac, 1998-1984  
Simulation Start Date : Jan 01, 1998  
Simulation End Date : Dec 31, 2012  
Simulation Run Date : Sep 16, 2008 14:58  
SPAW Interface Version : Sep 16, 2008 14:58:35  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--98-84 375.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--98-84\Dew 15 yr--98-84.fpin Dec 30, 1899 00:00

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Dewey TP1, TP2, TP5 Revised Soils--0.6 in/5th day--98-84 375.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr--98-84\Dew 15 yr--98-84.fpin Dec 30, 1899 00:00

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	14.05	0.00
5.00	14.98	72.53
10.00	15.90	149.68
15.00	16.87	231.60
20.00	17.87	318.45
25.00	18.90	410.98
30.00	19.95	507.50
33.00	20.60	558.33

## POND PROFILE

MAX AREA (AC) = 20.49  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 558.19  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1998	593.88	419.31	174.56	24.29	30.47	56.25	7.06	0	500.1	0	0	0	0	0	54.41	0	0	364.91	145.09	0	0
1999	586.47	570.05	16.42	17.17	24.42	59.06	2.89	0	500.1	0	0	0	0	0	60.05	0	0	510	0	0	0
2000	578.48	571.23	7.25	14.51	20.89	54.06	2.06	0	501.47	0	0	0	0	0	61.23	0	0	510	0	0	0
2001	567.19	570.56	-3.37	18.1	25.79	38.13	3.16	0	500.1	0	0	0	0	0	60.56	0	0	510	0	0	0
2002	530.92	569.32	-38.4	13.1	18	10.63	2.19	0	500.1	0	0	0	0	0	59.32	0	0	510	0	0	0
2003	540.58	552.67	-12.09	14.69	20.23	17.5	2.74	0	500.1	0	0	0	0	0	58.39	0	0	494.28	15.72	0	0
2004	528.58	520.27	8.31	12.19	15.87	9.06	2.17	0	501.47	0	0	0	0	0	57.55	0	0	462.71	47.29	0	0
2005	651.33	571.02	80.31	20.16	28.86	118.75	3.62	0	500.1	0	0	0	0	0	61.02	0	0	510	0	0	0
2006	536.08	571.15	-35.07	13.22	18.94	15	2.04	0	500.1	0	0	0	0	0	61.15	0	0	510	0	0	0
2007	555.47	570.23	-14.76	14.34	19.98	32.81	2.57	0	500.1	0	0	0	0	0	60.23	0	0	510	0	0	0
2008	562.93	570.07	-7.13	16.74	23.76	34.69	3.01	0	501.47	0	0	0	0	0	60.07	0	0	510	0	0	0
2009	564.47	569.22	-4.74	13.46	18.67	43.13	2.57	0	500.1	0	0	0	0	0	59.22	0	0	510	0	0	0
2010	587.02	569.55	17.47	21.88	30.21	52.81	3.9	0	500.1	0	0	0	0	0	59.55	0	0	510	0	0	0
2011	567	569.93	-2.93	18.16	22.4	41.56	2.93	0	500.1	0	0	0	0	0	59.93	0	0	510	0	0	0
2012	563.52	570.24	-6.72	16.9	24.19	35.63	2.23	0	501.47	0	0	0	0	0	60.24	0	0	510	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
568.86	555.7	13.17	16.62	23.06	41.27	3.06	0	501.47	0	0	0	0	0	59.57	0	0	496.13	13.87	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Dew 15 yr\Dew-99-85\Dew-99-85.pnd  
File Creation Date : Sep 16, 2008 15:00:42  
File Last Modified Date : Sep 16, 2008 15:00:42  
Description : 510 AF Pond using TP1, TP2, TP5 Dewey soils, 0.6 in/5th da, 375 ac, 1999-1985  
Simulation Start Date : Jan 01, 1999  
Simulation End Date : Dec 31, 2013  
Simulation Run Date : Sep 16, 2008 15:00  
SPAW Interface Version : Sep 16, 2008 15:00:42  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Dewey TP1, TP2, TP5 Revised Soils-0.6 in/5th day-99-85	375.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr-99-85\pin Dec 30, 1899 00:00	

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Dewey TP1, TP2, TP5 Revised Soils-0.6 in/5th day-99-85	375.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Dew 15-yr\Dew 15 yr-99-85\pin Dec 30, 1899 00:00	

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	14.05	0.00
5.00	14.96	72.53
10.00	15.90	149.68
15.00	16.87	231.60
20.00	17.87	318.45
25.00	18.90	410.38
30.00	19.95	507.50
33.00	20.60	568.33

## POND PROFILE

MAX AREA (AC) = 20.49  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 558.19  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1999	550.68	407.06	143.62	17.17	21.69	24.38	4.52	0	500.1	0	0	0	0	0	54.08	0	0	352.98	157.02	0	0
2000	578.21	569.23	8.98	14.51	20.23	54.06	2.44	0	501.47	0	0	0	0	0	59.23	0	0	510	0	0	0
2001	566.9	568.62	-1.73	18.1	25	38.13	3.67	0	500.1	0	0	0	0	0	58.62	0	0	510	0	0	0
2002	530.68	537.18	-6.5	13.1	17.51	10.63	2.45	0	500.1	0	0	0	0	0	57.75	0	0	479.43	30.57	0	0
2003	540.52	540.51	0	14.69	20.09	17.5	2.83	0	500.1	0	0	0	0	0	58	0	0	482.52	27.48	0	0
2004	528.58	520.27	8.31	12.19	15.87	9.06	2.17	0	501.47	0	0	0	0	0	57.55	0	0	462.71	47.29	0	0
2005	651.33	571.02	80.31	20.16	28.86	118.75	3.62	0	500.1	0	0	0	0	0	61.02	0	0	510	0	0	0
2006	536.08	571.15	-35.07	13.22	18.94	15	2.04	0	500.1	0	0	0	0	0	61.15	0	0	510	0	0	0
2007	555.47	570.23	-14.76	14.34	19.98	32.81	2.57	0	500.1	0	0	0	0	0	60.23	0	0	510	0	0	0
2008	562.93	570.07	-7.13	16.74	23.76	34.69	3.01	0	501.47	0	0	0	0	0	60.07	0	0	510	0	0	0
2009	564.47	569.22	-4.74	13.46	18.67	43.13	2.57	0	500.1	0	0	0	0	0	59.22	0	0	510	0	0	0
2010	587.02	569.55	17.47	21.88	30.21	52.81	3.9	0	500.1	0	0	0	0	0	59.55	0	0	510	0	0	0
2011	567	569.93	-2.93	16.16	22.4	41.56	2.93	0	500.1	0	0	0	0	0	59.93	0	0	510	0	0	0
2012	563.52	570.24	-6.72	16.9	24.19	35.63	2.23	0	501.47	0	0	0	0	0	60.24	0	0	510	0	0	0
2013	550.08	569.62	-19.53	11.75	16.39	31.88	1.71	0	500.1	0	0	0	0	0	59.62	0	0	510	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
	563.5	551.64	11.87	15.78	21.8	37.33	2.89	0	501.47	0	0	0	0	0	59.13	0	0	492.51	17.49	0	0



**POWERTECH (USA) INC.**

## **SPAW MODEL RESULTS**

### **BURDOCK FIELD**

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15-yr-80-94\Bur 15-yr-80-94.spw  
File Creation Date : Sep 17, 2008 09:25:56  
File Last Modified Date : Sep 17, 2008 09:25:56  
Description : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--80-94  
Simulation Start Date : Jan 01, 1980  
Simulation End Date : Dec 31, 1994  
Simulation Run Date : Sep 17, 2008 09:25  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--80-94  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15-yr-80-94\Bur 15-yr-80-94 fld (Sep 16, 2008 00:00)  
Climate : Dewey Burdock 81-94 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\80-94.cim (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD8094 - Jan 01, 1980 to Dec 31, 1994  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\80-94.txt (Sep 15, 2008 00:00)  
Air Temperature : SD8094 - Jan 01, 1980 to Dec 31, 1994  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\80-94.txt (Sep 15, 2008 00:00)  
Management : 0.45 in every 5 days--assumes 500 acres total irrigated area  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DBM-0\_45.mgmt (Aug 29, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC-2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Burdock TP8, TP9, TP10 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\BRev 8-9-10.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 7

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 8.00 12.00 24.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
	in	in	in	in	in	in	in	in	in	in	in	in		
1980	44.04	26.22	6.93	12.26	7.03	16.33	12.27	0.27	21.3	0.49	0	1.61	17.5	0
1981	44	25.29	7.05	11.78	6.45	13.46	12.27	1.01	18.26	-0.17	0	-0.4	19.62	0
1982	44	28.2	8.4	11.27	8.53	21.88	12.27	0.3	25.33	1.45	0	4.21	8.57	0
1983	44	27.8	8.21	12.11	7.48	16.16	12.27	2.11	18.84	-0.46	0	-1.02	4.23	0
1984	44.04	29.09	9.24	11.78	8.07	16.89	12.27	1.07	20.02	-0.12	0	-0.87	4.52	0
1985	44	25.63	7.08	12.06	6.49	11.75	12.27	1.02	16.51	-0.62	0	-2.01	12.27	0
1986	44	28.86	8.98	11.54	8.34	23.59	12.27	1.38	26.14	1.31	0	4.31	3.65	0
1987	44	27.75	8.83	12.54	6.38	12.36	12.27	0.94	17.32	-0.9	0	-3.15	6.41	0
1988	44.04	25.79	6.88	12.52	6.4	13.79	12.27	0.42	19.23	0.01	0	-0.17	6.67	0
1989	44	26.4	6.85	12.18	7.36	15.58	12.27	0.04	20.45	0.15	0	1.27	6.3	0
1990	44	29.03	9.46	12	7.57	19.14	12.27	0.96	22.88	0.4	0	1.02	3.68	0
1991	44	27.63	8.1	12.24	7.29	15.03	12.27	2.19	17.82	-0.54	0	-1.98	6.6	0
1992	44.04	26.43	7.25	12.07	7.11	14.08	12.27	0.28	18.96	-0.02	0	-0.34	7.85	0
1993	44	28.93	8.83	11.09	9.01	22.31	12.27	2.63	22.94	0.46	0	2.56	3.58	0
1994	44	26.74	7.57	12.39	6.79	12.01	12.27	0.19	17.3	-0.55	0	-2.1	7	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
in	in	in	in	in	in	in	in	in	in	in	in		
44.04	27.33	7.98	11.99	7.35	16.29	12.27	0.99	20.22	0.06	0	0.19	7.9	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15-yr--81-95\Bur 15-yr--81-95.spw  
File Creation Date : Sep 17, 2008 09:27:28  
File Last Modified Date : Sep 17, 2008 09:27:29  
Description : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--81-95  
Simulation Start Date : Jan 01, 1981  
Simulation End Date : Dec 31, 1995  
Simulation Run Date : Sep 17, 2008 09:27  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--81-95  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15-yr--81-95\Bur 15-yr--81-95.fld (Sep 17, 2008 00:00)  
Climate : Dewey Burdock 81-95 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\81-95.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evdpd (Aug 23, 2008 00:00)  
Precipitation : SD8195 - Jan 01, 1981 to Dec 31, 1995  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\81-95.txt (Sep 16, 2008 00:00)  
Air Temperature : SD8195 - Jan 01, 1981 to Dec 31, 1995  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\81-95.txt (Sep 16, 2008 00:00)  
Management : 0.45 in every 5 days--assumes 500 acres total irrigated area  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DBM--0.45.mgmt (Aug 29, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC--2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Burdock TP8, TP9, TP10 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\BRev 8-9-10.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 7

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 8.00 12.00 24.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
	in	in	in	in	in	in	in	in	in	in	in	in		
1981	44	24.09	6.92	10.71	6.45	13.46	12.27	1.01	18.26	0.05	0	0.58	49.16	0
1982	44	27.9	8.07	11.3	8.53	21.88	12.27	0.3	25.33	1.56	0	4.4	13.69	0
1983	44	27.59	7.96	12.15	7.48	16.16	12.27	1.75	19.2	-0.3	0	-0.61	4.3	0
1984	44.04	29.08	9.23	11.78	8.07	16.89	12.27	1.04	20.04	-0.12	0	-0.85	4.52	0
1985	44	25.63	7.08	12.06	6.49	11.75	12.27	1.02	16.51	-0.62	0	-2.01	12.28	0
1986	44	28.86	8.97	11.54	8.34	23.59	12.27	1.38	26.14	1.31	0	4.31	3.65	0
1987	44	27.75	8.83	12.54	6.38	12.36	12.27	0.94	17.32	-0.9	0	-3.15	6.41	0
1988	44.04	25.79	6.88	12.52	6.4	13.79	12.27	0.42	19.23	0.01	0	-0.17	6.67	0
1989	44	26.4	6.85	12.18	7.36	15.58	12.27	0.04	20.45	0.15	0	1.27	6.3	0
1990	44	29.03	9.46	12	7.57	19.14	12.27	0.96	22.88	0.4	0	1.02	3.68	0
1991	44	27.63	8.1	12.24	7.29	15.03	12.27	2.19	17.82	-0.54	0	-1.98	6.6	0
1992	44.04	26.43	7.25	12.07	7.11	14.08	12.27	0.28	18.96	-0.02	0	-0.34	7.85	0
1993	44	28.93	8.83	11.09	9.01	22.31	12.27	2.63	22.94	0.46	0	2.56	3.58	0
1994	44	26.74	7.57	12.39	6.79	12.01	12.27	0.19	17.3	-0.55	0	-2.1	7	0
1995	44	28.88	8.52	11.48	8.87	18.32	12.27	0.51	21.21	0.26	0	0.94	5.7	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
in	in	in	in	in	in	in	in	in	in	in	in		
44.04	27.39	8.04	11.87	7.48	16.42	12.27	0.98	20.24	0.08	0	0.25	9.43	0



# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15-yr-82-96\Bur 15-yr-82-96.spw  
File Creation Date : Sep 17, 2008 09:28:51  
File Last Modified Date : Sep 17, 2008 09:28:52  
Description : Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-82-96  
Simulation Start Date : Jan 01, 1982  
Simulation End Date : Dec 31, 1996  
Simulation Run Date : Sep 17, 2008 09:28  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-82-96  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15-yr-82-96\Bur 15-yr-82-96 fld (Sep 17, 2008 00:00)  
Climate : Dewey Burdock 82-96 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\82-96.clim (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD8296 - Jan 01, 1982 to Dec 31, 1996  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\82-96.bt (Sep 16, 2008 00:00)  
Air Temperature : SD8296 - Jan 01, 1982 to Dec 31, 1996  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\82-96.bt (Sep 16, 2008 00:00)  
Management : 0.45 in every 5 days--assumes 500 acres total irrigated area  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\IDBM-0\_45.mgmt (Aug 29, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\IDBC-2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Burdock TP8, TP9, TP10 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\BRev 8-9-10.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 7

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 8.00 12.00 24.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPPORN	DLT-SM	STRESS	YLDRED
	in	in	in	in	in	in	in	in	in	in	in	in		
1982	44	27.65	7.93	11.24	8.48	21.83	12.27	0.3	25.33	1.49	0	4.67	26.36	0
1983	44	27.46	7.8	12.18	7.48	16.16	12.27	1.47	19.48	-0.18	0	-0.32	4.35	0
1984	44.04	29.07	9.22	11.78	8.07	16.89	12.27	1.02	20.06	-0.11	0	-0.83	4.52	0
1985	44	25.63	7.08	12.06	6.49	11.75	12.27	1.02	16.51	-0.62	0	-2.01	12.29	0
1986	44	28.86	8.97	11.54	8.34	23.59	12.27	1.38	26.14	1.31	0	4.31	3.65	0
1987	44	27.75	8.83	12.54	6.38	12.36	12.27	0.94	17.32	-0.9	0	-3.15	6.41	0
1988	44.04	25.79	6.88	12.52	6.4	13.79	12.27	0.42	19.23	0.01	0	-0.17	6.67	0
1989	44	26.4	6.85	12.18	7.36	15.58	12.27	0.04	20.45	0.15	0	1.27	6.3	0
1990	44	29.03	9.46	12	7.57	19.14	12.27	0.96	22.88	0.4	0	1.02	3.68	0
1991	44	27.63	8.1	12.24	7.29	15.03	12.27	2.19	17.82	-0.54	0	-1.98	6.6	0
1992	44.04	26.43	7.25	12.07	7.11	14.08	12.27	0.28	18.96	-0.02	0	-0.34	7.85	0
1993	44	28.93	8.83	11.09	9.01	22.31	12.27	2.63	22.94	0.46	0	2.56	3.58	0
1994	44	26.74	7.57	12.39	6.79	12.01	12.27	0.19	17.3	-0.55	0	-2.1	7	0
1995	44	28.88	8.52	11.48	8.87	18.32	12.27	0.51	21.21	0.28	0	0.94	5.7	0
1996	44.04	27.98	8.31	11.85	7.82	17.6	12.27	0.76	21.29	0.26	0	0.87	3.73	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPPORN	DLT-SM	STRESS	YLDRED
in	in	in	in	in	in	in	in	in	in	in	in		
44.04	27.62	8.11	11.95	7.56	16.7	12.27	0.94	20.46	0.09	0	0.31	7.25	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr-83-97\Bur 15 yr-83-97.spw  
File Creation Date : Sep 17, 2008 09:29:54  
File Last Modified Date : Sep 17, 2008 09:29:55  
Description : Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-83-97  
Simulation Start Date : Jan 01, 1983  
Simulation End Date : Dec 31, 1997  
Simulation Run Date : Sep 17, 2008 09:29  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-83-97  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr-83-97\Bur 15 yr-83-97.fld (Sep 17, 2008 00:00)  
Climate : Dewey Burdock 83-97 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\83-97.cim (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evdp (Aug 23, 2008 00:00)  
Precipitation : SD8397 - Jan 01, 1983 to Dec 31, 1997  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\83-97.txt (Sep 16, 2008 00:00)  
Air Temperature : SD8397 - Jan 01, 1983 to Dec 31, 1997  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\83-97.txt (Sep 16, 2008 00:00)  
Management : 0.45 in every 5 days--assumes 500 acres total irrigated area  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DBM-0\_45.mgmt (Aug 29, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC-2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Burdock TP8, TP9, TP10 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\BRev 8-9-10.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 7

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 8.00 12.00 24.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET in	AET in	EVAP in	TRAN in	INT in	PRECIP in	IRRIG in	RUNOFF in	INFIL in	PERC in	DEEPRN in	DLT-SM in	STRESS	YLDRED
1983	44	25.59	6.69	11.5	7.4	16.08	12.27	0.32	20.64	0.45	0	1.99	41.39	0
1984	44.04	28.1	8.09	11.94	8.07	16.89	12.27	0.44	20.65	0.4	0	0.22	8.14	0
1985	44	24.87	6.91	11.47	6.49	11.75	12.27	1.02	16.51	-0.58	0	-1.29	21.57	0
1986	44	28.53	8.59	11.6	8.34	23.59	12.27	1.23	26.29	1.5	0	4.6	4.15	0
1987	44	27.45	8.51	12.57	6.38	12.36	12.27	0.84	17.41	-0.8	0	-2.86	6.45	0
1988	44.04	25.79	6.87	12.52	6.4	13.79	12.27	0.42	19.23	0.01	0	-0.17	6.72	0
1989	44	26.39	6.85	12.18	7.36	15.58	12.27	0.04	20.45	0.15	0	1.27	6.34	0
1990	44	29.03	9.45	12	7.57	19.14	12.27	0.95	22.88	0.4	0	1.03	3.68	0
1991	44	27.63	8.1	12.24	7.29	15.03	12.27	2.19	17.82	-0.54	0	-1.98	6.6	0
1992	44.04	26.43	7.25	12.07	7.11	14.08	12.27	0.28	18.96	-0.02	0	-0.34	7.85	0
1993	44	28.93	8.83	11.09	9.01	22.31	12.27	2.63	22.94	0.46	0	2.56	3.58	0
1994	44	26.74	7.57	12.39	6.79	12.01	12.27	0.19	17.3	-0.55	0	-2.1	7	0
1995	44	28.88	8.52	11.48	8.87	18.32	12.27	0.51	21.21	0.26	0	0.94	5.7	0
1996	44.04	27.98	8.31	11.85	7.82	17.6	12.27	0.76	21.29	0.26	0	0.87	3.73	0
1997	44	28.65	9.42	11.5	7.73	17.73	12.27	2.3	19.98	-0.12	0	-0.83	4	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET in	AET in	EVAP in	TRAN in	INT in	PRECIP in	IRRIG in	RUNOFF in	INFIL in	PERC in	DEEPRN in	DLT-SM in	STRESS	YLDRED
44.04	27.41	8	11.9	7.51	16.42	12.27	0.94	20.24	0.09	0	0.26	9.13	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr-84-98\Bur 15 yr-84-98.spw  
File Creation Date : Sep 17, 2008 09:31:18  
File Last Modified Date : Sep 17, 2008 09:31:19  
Description : Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-84-98  
Simulation Start Date : Jan 01, 1984  
Simulation End Date : Dec 31, 1998  
Simulation Run Date : Sep 17, 2008 09:31  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-84-98  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr-84-98\Bur 15 yr-84-98.fld (Sep 17, 2008 00:00)  
Climate : Dewey Burdock 84-98 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\84-98.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD8498 - Jan 01, 1984 to Dec 31, 1998  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\84-98.txt (Sep 16, 2008 00:00)  
Air Temperature : SD8498 - Jan 01, 1984 to Dec 31, 1998  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\84-98.txt (Sep 16, 2008 00:00)  
Management : 0.45 in every 5 days--assumes 500 acres total irrigated area  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\IDBM-0.45.mgmt (Aug 29, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\IDC-2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Burdock TP8, TP9, TP10 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\BRev 8-9-10.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 7

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 8.00 12.00 24.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
	in	in	in	in	in	in	in	in	in	in	in	in		
1984	44.04	26.52	7.35	11.36	7.82	15.65	12.27	0.44	19.66	0.2	0	0.75	34.5	0
1985	44	23.68	6.7	10.48	6.49	11.75	12.27	1.02	16.51	-0.22	0	-0.46	39.21	0
1986	44	28.31	8.35	11.62	8.34	23.59	12.27	1.23	26.29	1.6	0	4.73	5.43	0
1987	44	27.11	8.12	12.61	6.38	12.36	12.27	0.58	17.67	-0.62	0	-2.44	6.65	0
1988	44.04	25.76	6.85	12.51	6.4	13.79	12.27	0.42	19.23	0.01	0	-0.15	6.96	0
1989	44	26.38	6.84	12.17	7.36	15.58	12.27	0.04	20.45	0.15	0	1.29	6.52	0
1990	44	29.02	9.44	12.01	7.57	19.14	12.27	0.93	22.91	0.41	0	1.06	3.68	0
1991	44	27.63	8.09	12.25	7.29	15.03	12.27	2.18	17.83	-0.54	0	-1.97	6.6	0
1992	44.04	26.43	7.25	12.07	7.11	14.08	12.27	0.28	18.96	-0.02	0	-0.34	7.85	0
1993	44	28.93	8.83	11.09	9.01	22.31	12.27	2.63	22.94	0.46	0	2.56	3.58	0
1994	44	26.74	7.57	12.39	6.79	12.01	12.27	0.19	17.3	-0.55	0	-2.1	7	0
1995	44	28.88	8.52	11.48	8.87	18.32	12.27	0.51	21.21	0.26	0	0.94	5.7	0
1996	44.04	27.98	8.31	11.85	7.82	17.6	12.27	0.76	21.29	0.26	0	0.87	3.73	0
1997	44	28.65	9.42	11.5	7.73	17.73	12.27	2.3	19.98	-0.12	0	-0.83	4	0
1998	44	30.98	11.59	11.19	8.2	24.28	12.27	2.63	25.72	0.71	0	2.22	3.48	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
in	in	in	in	in	in	in	in	in	in	in	in		
44.04	27.54	8.22	11.78	7.55	16.88	12.27	1.08	20.53	0.13	0	0.4	9.67	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--85-99\Bur 15 yr--85-99.spw  
File Creation Date : Sep 17, 2008 09:32:43  
File Last Modified Date : Sep 17, 2008 09:32:43  
Description : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--85-99  
Simulation Start Date : Jan 01, 1985  
Simulation End Date : Dec 31, 1999  
Simulation Run Date : Sep 17, 2008 09:32  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--85-99  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--85-99\Bur 15 yr--85-99.fid (Sep 17, 2008 00:00)  
Climate : Dewey Burdock 85-99 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\85-99.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evdpd (Aug 23, 2008 00:00)  
Precipitation : SD8599 - Jan 01, 1985 to Dec 31, 1999  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\85-99.txt (Sep 16, 2008 00:00)  
Air Temperature : SD8599 - Jan 01, 1985 to Dec 31, 1999  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\85-99.txt (Sep 16, 2008 00:00)  
Management : 0.45 in every 5 days--assumes 500 acres total irrigated area  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DBM--0.45.mgmt (Aug 29, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC--2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Burdock TP8, TP9, TP10 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\BRev 8-9-10.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 7

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 8.00 12.00 24.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET in	AET in	EVAP in	TRAN in	INT in	PRECIP in	IRRIG in	RUNOFF in	INFIL in	PERC in	DEEPPDRN in	DLT-SM in	STRESS	YLDRED
1985	44	22.95	6.62	9.84	6.49	11.75	12.27	1.02	16.51	-0.08	0	0.13	56.26	0
1986	44	28.25	8.3	11.61	8.34	23.59	12.27	1.23	26.29	1.61	0	4.77	5.95	0
1987	44	27.04	8.05	12.62	6.38	12.36	12.27	0.5	17.75	-0.58	0	-2.34	6.73	0
1988	44.04	25.75	6.84	12.51	6.4	13.79	12.27	0.42	19.23	0.01	0	-0.14	7.05	0
1989	44	26.37	6.84	12.17	7.36	15.58	12.27	0.04	20.45	0.15	0	1.3	6.58	0
1990	44	29.01	9.43	12.01	7.57	19.14	12.27	0.92	22.92	0.41	0	1.07	3.69	0
1991	44	27.63	8.09	12.25	7.29	15.03	12.27	2.17	17.84	-0.54	0	-1.96	6.6	0
1992	44.04	26.43	7.25	12.07	7.11	14.08	12.27	0.28	18.96	-0.02	0	-0.34	7.85	0
1993	44	28.93	8.83	11.09	9.01	22.31	12.27	2.63	22.94	0.46	0	2.56	3.58	0
1994	44	26.74	7.57	12.39	6.79	12.01	12.27	0.19	17.3	-0.55	0	-2.1	7	0
1995	44	28.88	8.52	11.48	8.87	18.32	12.27	0.51	21.21	0.26	0	0.94	5.7	0
1996	44.04	27.98	8.31	11.85	7.82	17.6	12.27	0.76	21.29	0.26	0	0.87	3.73	0
1997	44	28.65	9.42	11.5	7.73	17.73	12.27	2.3	19.98	-0.12	0	-0.83	4	0
1998	44	30.98	11.59	11.19	8.2	24.28	12.27	2.63	25.72	0.71	0	2.22	3.48	0
1999	44	28.98	9.71	11.73	7.54	17.17	12.27	3.81	18.09	-0.76	0	-2.59	4.21	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET in	AET in	EVAP in	TRAN in	INT in	PRECIP in	IRRIG in	RUNOFF in	INFIL in	PERC in	DEEPPDRN in	DLT-SM in	STRESS	YLDRED
44.04	27.65	8.36	11.76	7.53	16.98	12.27	1.29	20.43	0.08	0	0.23	8.84	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--86-00\Bur 15 yr--86-00.spw  
File Creation Date : Sep 17, 2008 09:33:55  
File Last Modified Date : Sep 17, 2008 09:33:56  
Description : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--86-00  
Simulation Start Date : Jan 01, 1986  
Simulation End Date : Dec 31, 2000  
Simulation Run Date : Sep 17, 2008 09:33  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--86-00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--86-00\Bur 15 yr--86-00.fld (Sep 17, 2008 00:00)  
Climate : Dewey Burdock 86-00 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\86-00.clim (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD8600 - Jan 01, 1986 to Dec 31, 2000  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\86-00.txt (Sep 16, 2008 00:00)  
Air Temperature : SD8600 - Jan 01, 1986 to Dec 31, 2000  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\86-00.txt (Sep 16, 2008 00:00)  
Management : 0.45 in every 5 days--assumes 500 acres total irrigated area  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DBM--0.45.mgmt (Aug 29, 2008 00:00)  
Crop ( 1) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC--2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Burdock TP8, TP9, TP10 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\BRev 8-9-10.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 7

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 8.00 12.00 24.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPPORN	DLT-SM	STRESS	YLDRED
	in	in	in	in	in	in	in	in	in	in	in	in		
1986	44	27.5	7.85	11.53	8.11	22.03	12.27	1.23	24.96	1.26	0	4.31	13.67	0
1987	44	26.79	7.76	12.66	6.38	12.36	12.27	0.1	18.16	-0.34	0	-1.91	7.27	0
1988	44.04	25.7	6.79	12.51	6.4	13.79	12.27	0.42	19.23	0.03	0	-0.1	7.57	0
1989	44	26.33	6.82	12.14	7.36	15.58	12.27	0.04	20.45	0.15	0	1.34	7	0
1990	44	28.98	9.39	12.02	7.57	19.14	12.27	0.87	22.97	0.43	0	1.12	3.7	0
1991	44	27.63	8.09	12.25	7.29	15.03	12.27	2.15	17.86	-0.53	0	-1.95	6.6	0
1992	44.04	26.43	7.25	12.07	7.11	14.08	12.27	0.28	18.96	-0.02	0	-0.34	7.85	0
1993	44	28.93	8.83	11.09	9.01	22.31	12.27	2.63	22.94	0.46	0	2.56	3.58	0
1994	44	26.74	7.57	12.39	6.79	12.01	12.27	0.19	17.3	-0.55	0	-2.1	7	0
1995	44	28.88	8.52	11.48	8.87	18.32	12.27	0.51	21.21	0.26	0	0.94	5.7	0
1996	44.04	27.98	8.31	11.85	7.82	17.6	12.27	0.76	21.29	0.26	0	0.87	3.73	0
1997	44	28.65	9.42	11.5	7.73	17.73	12.27	2.3	19.98	-0.12	0	-0.83	4	0
1998	44	30.98	11.59	11.19	8.2	24.28	12.27	2.63	25.72	0.71	0	2.22	3.48	0
1999	44	28.98	9.71	11.73	7.54	17.17	12.27	3.81	18.09	-0.76	0	-2.59	4.21	0
2000	44.04	27.3	7.93	12.02	7.35	14.51	12.27	1.45	17.97	-0.47	0	-1.5	7.8	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPPORN	DLT-SM	STRESS	YLDRED
in	in	in	in	in	in	in	in	in	in	in	in		
44.04	27.87	8.4	11.9	7.57	17.06	12.27	1.29	20.47	0.05	0	0.13	6.22	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--87-01\Bur 15 yr--87-01.spw  
File Creation Date : Sep 17, 2008 09:35:25  
File Last Modified Date : Sep 17, 2008 09:35:26  
Description : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--87-01  
Simulation Start Date : Jan 01, 1987  
Simulation End Date : Dec 31, 2001  
Simulation Run Date : Sep 17, 2008 09:35  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--87-01  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--87-01\Bur 15 yr--87-01.fld (Sep 17, 2008 00:00)  
Climate : Dewey Burdock 87-01 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\87-01.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD8701 - Jan 01, 1987 to Dec 31, 2001  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\87-01.txt (Sep 16, 2008 00:00)  
Air Temperature : SD8701 - Jan 01, 1987 to Dec 31, 2001  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\87-01.txt (Sep 16, 2008 00:00)  
Management : 0.45 in every 5 days--assumes 500 acres total irrigated area  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DSM--0\_45.mgmt (Aug 29, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC--2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Burdock TP8, TP9, TP10 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\BRev 8-9-10.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 7

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 8.00 12.00 24.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPPDRN	DLT-SM	STRESS	YLDRED
	in	in	in	in	in	in	in	in	in	in	in	in		
1987	44	24.33	6.68	11.27	6.38	12.36	12.27	0.08	18.17	-0.02	0	0.24	40.16	0
1988	44.04	24.74	6.45	11.89	6.4	13.79	12.27	0.42	19.23	0.37	0	0.52	27.01	0
1989	44	25.53	6.64	11.52	7.36	15.58	12.27	0.04	20.45	0.33	0	1.96	18.54	0
1990	44	28.47	8.73	12.17	7.57	19.14	12.27	0.64	23.19	0.68	0	1.61	4.37	0
1991	44	27.53	7.98	12.26	7.29	15.03	12.27	1.65	18.36	-0.37	0	-1.51	6.66	0
1992	44.04	26.42	7.24	12.07	7.11	14.08	12.27	0.28	18.96	-0.02	0	-0.33	7.89	0
1993	44	28.93	8.82	11.09	9.01	22.31	12.27	2.62	22.95	0.46	0	2.57	3.58	0
1994	44	26.74	7.57	12.39	6.79	12.01	12.27	0.19	17.3	-0.55	0	-2.1	7	0
1995	44	28.88	8.52	11.48	8.87	18.32	12.27	0.51	21.21	0.26	0	0.94	5.7	0
1996	44.04	27.98	8.31	11.85	7.82	17.6	12.27	0.76	21.29	0.26	0	0.87	3.73	0
1997	44	28.65	9.42	11.5	7.73	17.73	12.27	2.3	19.98	-0.12	0	-0.83	4	0
1998	44	30.98	11.59	11.19	8.2	24.28	12.27	2.63	25.72	0.71	0	2.22	3.48	0
1999	44	28.98	9.71	11.73	7.54	17.17	12.27	3.81	18.09	-0.76	0	-2.59	4.21	0
2000	44.04	27.3	7.93	12.02	7.35	14.51	12.27	1.45	17.97	-0.47	0	-1.5	7.8	0
2001	44	27.18	7.69	12.2	7.29	18.1	12.27	1.23	21.85	0.34	0	1.62	5.85	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPPDRN	DLT-SM	STRESS	YLDRED
in	in	in	in	in	in	in	in	in	in	in	in		
44.04	27.52	8.23	11.78	7.52	16.8	12.27	1.24	20.31	0.07	0	0.23	10.01	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--88-02\Bur 15 yr--88-02.spw  
File Creation Date : Sep 17, 2008 09:36:26  
File Last Modified Date : Sep 17, 2008 09:36:26  
Description : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--88-02  
Simulation Start Date : Jan 01, 1988  
Simulation End Date : Dec 31, 2002  
Simulation Run Date : Sep 17, 2008 09:36  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--88-02  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--88-02\Bur 15 yr--88-02.fld (Sep 17, 2008 00:00)  
Climate : Dewey Burdock 88-02 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\88-02.cim (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD8802 - Jan 01, 1988 to Dec 31, 2002  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\88-02.txt (Sep 16, 2008 00:00)  
Air Temperature : SD8802 - Jan 01, 1988 to Dec 31, 2002  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\88-02.txt (Sep 16, 2008 00:00)  
Management : 0.45 in every 5 days--assumes 500 acres total irrigated area  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\IDBM--0\_45.mgmt (Aug 29, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\IDC--2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Burdock TP8, TP9, TP10 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\BRev 8-9-10.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 7

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 8.00 12.00 24.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
	in	in	in	in	in	in	in	in	in	in	in	in		
1988	44.04	24.38	6.3	11.69	6.39	13.4	12.27	0.42	18.85	0.25	0	0.61	37.37	0
1989	44	25.4	6.61	11.42	7.36	15.58	12.27	0.04	20.45	0.39	0	2.03	20.73	0
1990	44	28.43	8.68	12.18	7.57	19.14	12.27	0.64	23.19	0.7	0	1.63	4.46	0
1991	44	27.52	7.96	12.26	7.29	15.03	12.27	1.6	18.42	-0.35	0	-1.46	6.67	0
1992	44.04	26.42	7.24	12.07	7.11	14.08	12.27	0.28	18.96	-0.02	0	-0.33	7.89	0
1993	44	28.93	8.82	11.09	9.01	22.31	12.27	2.62	22.95	0.46	0	2.57	3.58	0
1994	44	26.74	7.57	12.39	6.79	12.01	12.27	0.19	17.3	-0.55	0	-2.1	7	0
1995	44	28.88	8.52	11.48	8.87	18.32	12.27	0.51	21.21	0.26	0	0.94	5.7	0
1996	44.04	27.98	8.31	11.85	7.82	17.6	12.27	0.76	21.29	0.26	0	0.87	3.73	0
1997	44	28.65	9.42	11.5	7.73	17.73	12.27	2.3	19.98	-0.12	0	-0.83	4	0
1998	44	30.98	11.59	11.19	8.2	24.28	12.27	2.63	25.72	0.71	0	2.22	3.48	0
1999	44	28.98	9.71	11.73	7.54	17.17	12.27	3.81	18.09	-0.76	0	-2.59	4.21	0
2000	44.04	27.3	7.93	12.02	7.35	14.51	12.27	1.45	17.97	-0.47	0	-1.5	7.8	0
2001	44	27.18	7.69	12.2	7.29	18.1	12.27	1.23	21.85	0.34	0	1.62	5.85	0
2002	44	26.34	7.05	12.6	6.7	13.11	12.27	0.31	18.37	-0.2	0	-1.07	6.62	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
in	in	in	in	in	in	in	in	in	in	in	in		
44.04	27.62	8.24	11.85	7.54	16.82	12.27	1.25	20.31	0.06	0	0.16	8.61	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--89-03\Bur 15 yr--89-03.spw  
File Creation Date : Sep 17, 2008 09:37:40  
File Last Modified Date : Sep 17, 2008 09:37:41  
Description : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--89-03  
Simulation Start Date : Jan 01, 1989  
Simulation End Date : Dec 31, 2003  
Simulation Run Date : Sep 17, 2008 09:37  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--89-03  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--89-03\fld (Sep 17, 2008 00:00)  
Climate : Dewey Burdock 89-03 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\89-03.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD8903 - Jan 01, 1989 to Dec 31, 2003  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\89-03.bt (Sep 16, 2008 00:00)  
Air Temperature : SD8903 - Jan 01, 1989 to Dec 31, 2003  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\89-03.bt (Sep 16, 2008 00:00)  
Management : 0.45 in every 5 days--assumes 500 acres total irrigated area  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\IDBM--0\_45.mgmt (Aug 29, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\IDBC--2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Burdock TP8, TP9, TP10 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\BRev 8-9-10.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 7

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 8.00 12.00 24.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPPDRN	DLT-SM	STRESS	YLDRED
	in	in	in	in	in	in	in	in	in	in	in	in		
1989	44	24.78	6.49	11	7.29	15.49	12.27	0.04	20.42	0.52	0	2.41	33.15	0
1990	44	28.33	8.56	12.2	7.57	19.14	12.27	0.64	23.19	0.76	0	1.68	4.8	0
1991	44	27.48	7.92	12.27	7.29	15.03	12.27	1.4	18.61	-0.29	0	-1.3	6.69	0
1992	44.04	26.42	7.24	12.07	7.11	14.08	12.27	0.28	18.96	-0.02	0	-0.33	7.92	0
1993	44	28.93	8.82	11.09	9.01	22.31	12.27	2.61	22.95	0.46	0	2.57	3.58	0
1994	44	26.74	7.57	12.39	6.79	12.01	12.27	0.19	17.3	-0.55	0	-2.1	7	0
1995	44	28.88	8.52	11.48	8.87	18.32	12.27	0.51	21.21	0.26	0	0.94	5.7	0
1996	44.04	27.98	8.31	11.85	7.82	17.6	12.27	0.76	21.29	0.26	0	0.87	3.73	0
1997	44	28.65	9.42	11.5	7.73	17.73	12.27	2.3	19.98	-0.12	0	-0.83	4	0
1998	44	30.98	11.59	11.19	8.2	24.28	12.27	2.63	25.72	0.71	0	2.22	3.48	0
1999	44	28.98	9.71	11.73	7.54	17.17	12.27	3.81	18.09	-0.76	0	-2.59	4.21	0
2000	44.04	27.3	7.93	12.02	7.35	14.51	12.27	1.45	17.97	-0.47	0	-1.5	7.8	0
2001	44	27.18	7.69	12.2	7.29	18.1	12.27	1.23	21.85	0.34	0	1.62	5.85	0
2002	44	26.34	7.05	12.6	6.7	13.11	12.27	0.31	18.37	-0.2	0	-1.07	6.62	0
2003	44	26.92	7.25	12.26	7.41	14.69	12.27	0.25	19.31	-0.06	0	-0.15	7.73	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPPDRN	DLT-SM	STRESS	YLDRED
in	in	in	in	in	in	in	in	in	in	in	in		
44.04	27.74	8.28	11.86	7.6	16.9	12.27	1.23	20.35	0.06	0	0.15	7.49	0



# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--90-04\Bur 15 yr--90-04.spw  
File Creation Date : Sep 17, 2008 09:38:37  
File Last Modified Date : Sep 17, 2008 09:38:37  
Description : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--90-04  
Simulation Start Date : Jan 01, 1990  
Simulation End Date : Dec 31, 2004  
Simulation Run Date : Sep 17, 2008 09:38  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--90-04  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--90-04\Bur 15 yr--90-04.fld (Sep 17, 2008 00:00)  
Climate : Dewey Burdock 90-04 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\90-04.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD9004 - Jan 01, 1990 to Dec 31, 2004  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\90-04.txt (Sep 16, 2008 00:00)  
Air Temperature : SD9004 - Jan 01, 1990 to Dec 31, 2004  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\90-04.txt (Sep 16, 2008 00:00)  
Management : 0.45 in every 5 days--assumes 500 acres total irrigated area  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\IDBM--0\_45.mgmt (Aug 29, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\IDC--2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Burdock TP8, TP9, TP10 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\BRev 8-9-10.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 7

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 8.00 12.00 24.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
	in	in	in	in	in	in	in	in	in	in	in	in		
1990	44	27.45	7.94	11.97	7.54	19.11	12.27	0.64	23.19	0.67	0	2.62	19.51	0
1991	44	27.1	7.54	12.28	7.29	15.03	12.27	0.25	19.76	0.21	0	-0.26	9.16	0
1992	44.04	26.25	7.1	12.05	7.11	14.08	12.27	0.28	18.96	0.01	0	-0.2	9.69	0
1993	44	28.88	8.76	11.11	9.01	22.31	12.27	2.3	23.26	0.53	0	2.87	3.61	0
1994	44	26.74	7.56	12.39	6.79	12.01	12.27	0.19	17.3	-0.55	0	-2.1	7.03	0
1995	44	28.87	8.52	11.48	8.87	18.32	12.27	0.51	21.21	0.26	0	0.95	5.73	0
1996	44.04	27.98	8.31	11.85	7.82	17.6	12.27	0.75	21.29	0.27	0	0.87	3.73	0
1997	44	28.65	9.42	11.5	7.73	17.73	12.27	2.29	19.98	-0.12	0	-0.82	4	0
1998	44	30.98	11.59	11.19	8.2	24.28	12.27	2.63	25.72	0.71	0	2.22	3.48	0
1999	44	28.98	9.71	11.73	7.54	17.17	12.27	3.81	18.09	-0.76	0	-2.59	4.21	0
2000	44.04	27.3	7.93	12.02	7.35	14.51	12.27	1.45	17.97	-0.47	0	-1.5	7.8	0
2001	44	27.18	7.69	12.2	7.29	18.1	12.27	1.23	21.85	0.34	0	1.62	5.85	0
2002	44	26.34	7.05	12.6	6.7	13.11	12.27	0.31	18.37	-0.2	0	-1.07	6.62	0
2003	44	26.92	7.25	12.26	7.41	14.69	12.27	0.25	19.31	-0.06	0	-0.15	7.73	0
2004	44.04	25.25	6.59	11.7	6.96	12.18	12.27	0.21	17.27	-0.41	0	-0.6	13.6	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
in	in	in	in	in	in	in	in	in	in	in	in		
44.04	27.68	8.2	11.89	7.58	16.84	12.27	1.14	20.38	0.03	0	0.26	7.45	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--91-05\Bur 15 yr--91-05.spw  
File Creation Date : Sep 17, 2008 09:39:36  
File Last Modified Date : Sep 17, 2008 09:39:36  
Description : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--91-05  
Simulation Start Date : Jan 01, 1991  
Simulation End Date : Dec 31, 2005  
Simulation Run Date : Sep 17, 2008 09:39  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--91-05  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--91-05\Bur 15 yr--91-05.fld (Sep 17, 2008 00:00)  
Climate : Dewey Burdock 91-05 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\91-05.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD9105 - Jan 01, 1991 to Dec 31, 2005  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\91-05.txt (Sep 16, 2008 00:00)  
Air Temperature : SD9105 - Jan 01, 1991 to Dec 31, 2005  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\91-05.txt (Sep 16, 2008 00:00)  
Management : 0.45 in every 5 days--assumes 500 acres total irrigated area  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DBM--0\_45.mgmt (Aug 29, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC--2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Burdock TP8, TP9, TP10 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\BRev 8-9-10.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 7

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 8.00 12.00 24.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPPDRN	DLT-SM	STRESS	YLDRED
	in	in	in	in	in	in	in	in	in	in	in	in		
1991	44	25.78	6.99	11.53	7.25	14.99	12.27	0.25	19.76	0.29	0	0.95	37.14	0
1992	44.04	25.77	6.9	11.76	7.11	14.08	12.27	0.28	18.96	0.18	0	0.13	19.71	0
1993	44	28.72	8.54	11.17	9.01	22.31	12.27	1.11	24.46	0.92	0	3.84	4	0
1994	44	26.67	7.51	12.37	6.79	12.01	12.27	0.19	17.3	-0.53	0	-2.05	7.32	0
1995	44	28.84	8.49	11.48	8.87	18.32	12.27	0.51	21.21	0.26	0	0.98	5.93	0
1996	44.04	27.97	8.29	11.86	7.82	17.6	12.27	0.72	21.33	0.28	0	0.9	3.74	0
1997	44	28.65	9.42	11.5	7.73	17.73	12.27	2.27	20	-0.11	0	-0.81	4	0
1998	44	30.98	11.59	11.19	8.2	24.28	12.27	2.63	25.72	0.71	0	2.22	3.48	0
1999	44	28.98	9.71	11.73	7.54	17.17	12.27	3.81	18.09	-0.76	0	-2.59	4.21	0
2000	44.04	27.3	7.93	12.02	7.35	14.51	12.27	1.45	17.97	-0.47	0	-1.5	7.8	0
2001	44	27.18	7.69	12.2	7.29	18.1	12.27	1.23	21.85	0.34	0	1.62	5.85	0
2002	44	26.34	7.05	12.6	6.7	13.11	12.27	0.31	18.37	-0.2	0	-1.07	6.62	0
2003	44	26.92	7.25	12.26	7.41	14.69	12.27	0.25	19.31	-0.06	0	-0.15	7.73	0
2004	44.04	25.25	6.59	11.7	6.96	12.18	12.27	0.21	17.27	-0.41	0	-0.6	13.6	0
2005	44	27.26	7.83	12.3	7.14	20.16	12.27	2.67	22.61	0.77	0	1.72	4.87	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPPDRN	DLT-SM	STRESS	YLDRED
in	in	in	in	in	in	in	in	in	in	in	in		
44.04	27.52	8.13	11.85	7.55	16.9	12.27	1.19	20.42	0.08	0	0.37	9.07	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--92-06\Bur 15 yr--92-06.spw  
File Creation Date : Sep 17, 2008 09:43:11  
File Last Modified Date : Sep 17, 2008 09:43:12  
Description : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--92-06  
Simulation Start Date : Jan 01, 1992  
Simulation End Date : Dec 31, 2006  
Simulation Run Date : Sep 17, 2008 09:43  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--92-06  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--92-06\Bur 15 yr--92-06.fld (Sep 17, 2008 00:00)  
Climate : Dewey Burdock 92-06 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\92-06.cim (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD9206 - Jan 01, 1992 to Dec 31, 2006  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\92-06.txt (Sep 16, 2008 00:00)  
Air Temperature : SD9206 - Jan 01, 1992 to Dec 31, 2006  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\92-06.txt (Sep 16, 2008 00:00)  
Management : 0.45 in every 5 days--assumes 500 acres total irrigated area  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\IDBM--0\_45.mgmt (Aug 29, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC--2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Burdock TP8, TP9, TP10 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\BRev 8-9-10.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 7

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 8.00 12.00 24.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET in	AET in	EVAP in	TRAN in	INT in	PRECIP in	IRRIG in	RUNOFF in	INFIL in	PERC in	DEEPPDRN in	DLT-SM in	STRESS	YLDRED
1992	44.04	25.29	6.81	11.36	7.11	14.08	12.27	0.28	18.96	0.18	0	0.61	35.09	0
1993	44	28.62	8.4	11.2	9.01	22.31	12.27	0.62	24.95	1.16	0	4.18	4.63	0
1994	44	26.61	7.46	12.36	6.79	12.01	12.27	0.19	17.3	-0.51	0	-2	7.65	0
1995	44	28.81	8.47	11.47	8.87	18.32	12.27	0.51	21.21	0.26	0	1.01	6.16	0
1996	44.04	27.96	8.27	11.86	7.82	17.6	12.27	0.68	21.36	0.3	0	0.93	3.76	0
1997	44	28.64	9.41	11.5	7.73	17.73	12.27	2.25	20.02	-0.11	0	-0.79	4	0
1998	44	30.98	11.59	11.19	8.2	24.28	12.27	2.63	25.72	0.71	0	2.22	3.48	0
1999	44	28.98	9.71	11.73	7.54	17.17	12.27	3.81	18.09	-0.76	0	-2.59	4.21	0
2000	44.04	27.3	7.93	12.02	7.35	14.51	12.27	1.45	17.97	-0.47	0	-1.5	7.8	0
2001	44	27.18	7.69	12.2	7.29	18.1	12.27	1.23	21.85	0.34	0	1.62	5.85	0
2002	44	26.34	7.05	12.6	6.7	13.11	12.27	0.31	18.37	-0.2	0	-1.07	6.62	0
2003	44	26.92	7.25	12.26	7.41	14.69	12.27	0.25	19.31	-0.06	0	-0.15	7.73	0
2004	44.04	25.25	6.59	11.7	6.96	12.18	12.27	0.21	17.27	-0.41	0	-0.6	13.6	0
2005	44	27.26	7.83	12.3	7.14	20.16	12.27	2.67	22.61	0.77	0	1.72	4.87	0
2006	44	26.39	7.22	12.5	6.67	13.22	12.27	0.13	18.69	-0.25	0	-0.77	5.24	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET in	AET in	EVAP in	TRAN in	INT in	PRECIP in	IRRIG in	RUNOFF in	INFIL in	PERC in	DEEPPDRN in	DLT-SM in	STRESS	YLDRED
44.04	27.52	8.12	11.89	7.52	16.79	12.27	1.15	20.39	0.06	0	0.32	8.05	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr-93-07\Bur 15 yr-93-07.spw  
File Creation Date : Sep 17, 2008 09:44:46  
File Last Modified Date : Sep 17, 2008 09:44:47  
Description : Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-93-07  
Simulation Start Date : Jan 01, 1993  
Simulation End Date : Dec 31, 2007  
Simulation Run Date : Sep 17, 2008 09:44  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-93-07  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr-93-07\Bur 15 yr-93-07.fld (Sep 17, 2008 00:00)  
Climate : Dewey Burdock 93-07 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\93-07.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evdpd (Aug 23, 2008 00:00)  
Precipitation : SD9307 - Jan 01, 1993 to Dec 31, 2007  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\93-07.txt (Sep 16, 2008 00:00)  
Air Temperature : SD9307 - Jan 01, 1993 to Dec 31, 2007  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\93-07.txt (Sep 16, 2008 00:00)  
Management : 0.45 in every 5 days--assumes 500 acres total irrigated area  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DBM-0\_45.mgmt (Aug 29, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC-2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Burdock TP8, TP9, TP10 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\BRev 8-9-10.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 7

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 8.00 12.00 24.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
	in	in	in	in	in	in	in	in	in	in	in	in		
1993	44	28.17	8.01	11.25	8.91	21.44	12.27	0.33	24.47	1.12	0	4.09	10.53	0
1994	44	26.25	7.24	12.22	6.79	12.01	12.27	0.19	17.3	-0.42	0	-1.74	9.78	0
1995	44	28.61	8.33	11.41	8.87	18.32	12.27	0.51	21.21	0.28	0	1.19	7.63	0
1996	44.04	27.92	8.21	11.88	7.82	17.6	12.27	0.5	21.55	0.38	0	1.08	3.84	0
1997	44	28.63	9.4	11.5	7.73	17.73	12.27	2.13	20.15	-0.07	0	-0.69	4	0
1998	44	30.98	11.59	11.19	8.2	24.28	12.27	2.63	25.72	0.71	0	2.22	3.48	0
1999	44	28.98	9.71	11.73	7.54	17.17	12.27	3.81	18.09	-0.76	0	-2.59	4.21	0
2000	44.04	27.3	7.93	12.02	7.35	14.51	12.27	1.45	17.97	-0.47	0	-1.5	7.8	0
2001	44	27.18	7.69	12.2	7.29	18.1	12.27	1.23	21.85	0.34	0	1.62	5.85	0
2002	44	26.34	7.05	12.6	6.7	13.11	12.27	0.31	18.37	-0.2	0	-1.07	6.62	0
2003	44	26.92	7.25	12.26	7.41	14.69	12.27	0.25	19.31	-0.06	0	-0.15	7.73	0
2004	44.04	25.25	6.59	11.7	6.96	12.18	12.27	0.21	17.27	-0.41	0	-0.6	13.6	0
2005	44	27.26	7.83	12.3	7.14	20.16	12.27	2.67	22.61	0.77	0	1.72	4.87	0
2006	44	26.39	7.22	12.5	6.67	13.22	12.27	0.13	18.69	-0.25	0	-0.77	5.24	0
2007	44	26.53	7.56	12.15	6.82	14.33	12.27	0.99	18.79	-0.24	0	-0.68	9.21	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
in	in	in	in	in	in	in	in	in	in	in	in		
44.04	27.54	8.12	11.93	7.49	16.82	12.27	1.16	20.43	0.05	0	0.34	6.96	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--94-80\Bur 15 yr--94-80.spw  
File Creation Date : Sep 17, 2008 09:46:20  
File Last Modified Date : Sep 17, 2008 09:46:20  
Description : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--94-80  
Simulation Start Date : Jan 01, 1994  
Simulation End Date : Dec 31, 2008  
Simulation Run Date : Sep 17, 2008 09:46  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--94-80  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--94-80\Bur 15 yr--94-80.fld (Sep 17, 2008 00:00)  
Climate : Dewey Burdock 94-80 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\94-80.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD9480 - Jan 01, 1994 to Dec 31, 2008  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\94-80.txt (Sep 16, 2008 00:00)  
Air Temperature : SD9480 - Jan 01, 1994 to Dec 31, 2008  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\94-80.txt (Sep 16, 2008 00:00)  
Management : 0.45 in every 5 days--assumes 500 acres total irrigated area  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DBM--0\_45.mgmt (Aug 29, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC--2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Burdock TP8, TP9, TP10 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\BRev 8-9-10.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 7

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 8.00 12.00 24.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET in	AET in	EVAP in	TRAN in	INT in	PRECIP in	IRRIG in	RUNOFF in	INFIL in	PERC in	DEEPRN in	DLT-SM in	STRESS	YLDRED
1994	44	23.37	6.59	9.99	6.79	12.01	12.27	0.19	17.3	-0.02	0	0.74	53.84	0
1995	44	27.74	8	10.86	8.87	18.32	12.27	0.51	21.21	0.51	0	1.84	20.83	0
1996	44.04	27.6	7.81	11.97	7.82	17.6	12.27	0.49	21.56	0.57	0	1.2	5.16	0
1997	44	28.5	9.2	11.57	7.73	17.73	12.27	1.14	21.13	0.22	0	0.13	4.05	0
1998	44	30.98	11.59	11.19	8.2	24.28	12.27	2.62	25.73	0.72	0	2.24	3.49	0
1999	44	28.98	9.71	11.73	7.54	17.17	12.27	3.81	18.09	-0.76	0	-2.59	4.21	0
2000	44.04	27.3	7.93	12.02	7.35	14.51	12.27	1.45	17.97	-0.47	0	-1.5	7.8	0
2001	44	27.18	7.69	12.2	7.29	18.1	12.27	1.23	21.85	0.34	0	1.62	5.85	0
2002	44	26.34	7.05	12.6	6.7	13.11	12.27	0.31	18.37	-0.2	0	-1.07	6.62	0
2003	44	26.92	7.25	12.26	7.41	14.69	12.27	0.25	19.31	-0.06	0	-0.15	7.73	0
2004	44.04	25.25	6.59	11.7	6.96	12.18	12.27	0.21	17.27	-0.41	0	-0.6	13.6	0
2005	44	27.26	7.83	12.3	7.14	20.16	12.27	2.67	22.61	0.77	0	1.72	4.87	0
2006	44	26.39	7.22	12.5	6.67	13.22	12.27	0.13	18.69	-0.25	0	-0.77	5.24	0
2007	44	26.53	7.56	12.15	6.82	14.33	12.27	0.99	18.79	-0.24	0	-0.68	9.21	0
2008	44.04	27.4	7.64	12.63	7.13	16.74	12.27	0.23	21.65	0.32	0	1.06	5.35	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET in	AET in	EVAP in	TRAN in	INT in	PRECIP in	IRRIG in	RUNOFF in	INFIL in	PERC in	DEEPRN in	DLT-SM in	STRESS	YLDRED
44.04	27.2	7.98	11.85	7.37	16.43	12.27	1.08	20.25	0.07	0	0.35	10.53	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--95-81\Bur 15 yr--95-81.spw  
File Creation Date : Sep 17, 2008 09:47:57  
File Last Modified Date : Sep 17, 2008 09:47:58  
Description : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--95-81  
Simulation Start Date : Jan 01, 1995  
Simulation End Date : Dec 31, 2009  
Simulation Run Date : Sep 17, 2008 09:47  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--95-81  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--95-81\Bur 15 yr--95-81.fld (Sep 17, 2008 00:00)  
Climate : Dewey Burdock 95-81 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\95-81.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock evpd (Aug 23, 2008 00:00)  
Precipitation : SD9581 - Jan 01, 1995 to Dec 31, 2009  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\95-81.txt (Sep 16, 2008 00:00)  
Air Temperature : SD9581 - Jan 01, 1995 to Dec 31, 2009  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\95-81.txt (Sep 16, 2008 00:00)  
Management : 0.45 in every 5 days--assumes 500 acres total irrigated area  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\IDBM--0\_45.mgmt (Aug 29, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\IDBC--2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Burdock TP8, TP9, TP10 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\BRev 8-9-10.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 7

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 8.00 12.00 24.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
	in	in	in	in	in	in	in	in	in	in	in	in		
1995	44	27.24	7.8	10.6	8.83	18.14	12.27	0.51	21.07	0.36	0	2.31	33.57	0
1996	44.04	27.51	7.72	11.97	7.82	17.6	12.27	0.49	21.56	0.62	0	1.25	5.98	0
1997	44	28.45	9.13	11.6	7.73	17.73	12.27	0.91	21.36	0.3	0	0.34	4.08	0
1998	44	30.97	11.58	11.19	8.2	24.28	12.27	2.6	25.75	0.72	0	2.26	3.49	0
1999	44	28.98	9.71	11.73	7.54	17.17	12.27	3.81	18.09	-0.76	0	-2.59	4.21	0
2000	44.04	27.3	7.93	12.02	7.35	14.51	12.27	1.45	17.97	-0.47	0	-1.5	7.8	0
2001	44	27.18	7.69	12.2	7.29	18.1	12.27	1.23	21.85	0.34	0	1.62	5.85	0
2002	44	26.34	7.05	12.6	6.7	13.11	12.27	0.31	18.37	-0.2	0	-1.07	6.62	0
2003	44	26.92	7.25	12.26	7.41	14.69	12.27	0.25	19.31	-0.06	0	-0.15	7.73	0
2004	44.04	25.25	6.59	11.7	6.96	12.18	12.27	0.21	17.27	-0.41	0	-0.6	13.6	0
2005	44	27.26	7.83	12.3	7.14	20.16	12.27	2.67	22.61	0.77	0	1.72	4.87	0
2006	44	26.39	7.22	12.5	6.67	13.22	12.27	0.13	18.69	-0.25	0	-0.77	5.24	0
2007	44	26.53	7.56	12.15	6.82	14.33	12.27	0.99	18.79	-0.24	0	-0.68	9.21	0
2008	44.04	27.4	7.64	12.63	7.13	16.74	12.27	0.23	21.65	0.32	0	1.06	5.35	0
2009	44	26	7.23	12.31	6.45	13.46	12.27	1.01	18.26	-0.27	0	-1.02	9.73	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
in	in	in	in	in	in	in	in	in	in	in	in		
44.04	27.33	8	11.99	7.35	16.52	12.27	1.12	20.32	0.05	0	0.28	8.49	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15-yr-96-82\Bur 15-yr-96-82.spw  
File Creation Date : Sep 17, 2008 09:49:12  
File Last Modified Date : Sep 17, 2008 09:49:12  
Description : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--96-82  
Simulation Start Date : Jan 01, 1996  
Simulation End Date : Dec 31, 2010  
Simulation Run Date : Sep 17, 2008 09:49  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--96-82  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15-yr-96-82\Bur 15-yr-96-82.fld (Sep 17, 2008 00:00)  
Climate : Dewey Burdock 96-82 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr96-82.dcm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD9682 - Jan 01, 1996 to Dec 31, 2010  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr96-82.bd (Sep 16, 2008 00:00)  
Air Temperature : SD9682 - Jan 01, 1996 to Dec 31, 2010  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr96-82.txt (Sep 16, 2008 00:00)  
Management : 0.45 in every 5 days--assumes 500 acres total irrigated area  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DBM--0.45.mgmt (Aug 29, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC--2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Burdock TP8, TP9, TP10 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\BRev 8-9-10.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 7

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 8.00 12.00 24.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
	in	in	in	in	in	in	in	in	in	in	in	in		
1996	44.04	26.67	7.32	11.53	7.82	17.6	12.27	0.49	21.56	0.45	0	2.26	22.56	0
1997	44	27.83	8.28	11.83	7.73	17.73	12.27	0.43	21.85	0.68	0	1.06	5.45	0
1998	44	30.83	11.39	11.24	8.2	24.28	12.27	2.02	26.33	0.87	0	2.83	3.51	0
1999	44	28.98	9.71	11.73	7.54	17.17	12.27	3.81	18.09	-0.76	0	-2.59	4.21	0
2000	44.04	27.3	7.93	12.02	7.35	14.51	12.27	1.45	17.97	-0.47	0	-1.5	7.8	0
2001	44	27.18	7.69	12.2	7.29	18.1	12.27	1.23	21.85	0.34	0	1.62	5.85	0
2002	44	26.34	7.05	12.6	6.7	13.11	12.27	0.31	18.37	-0.2	0	-1.07	6.62	0
2003	44	26.92	7.25	12.26	7.41	14.69	12.27	0.25	19.31	-0.06	0	-0.15	7.73	0
2004	44.04	25.25	6.59	11.7	6.96	12.18	12.27	0.21	17.27	-0.41	0	-0.6	13.6	0
2005	44	27.26	7.83	12.3	7.14	20.16	12.27	2.67	22.61	0.77	0	1.72	4.87	0
2006	44	26.39	7.22	12.5	6.67	13.22	12.27	0.13	18.69	-0.25	0	-0.77	5.24	0
2007	44	26.53	7.56	12.15	6.82	14.33	12.27	0.99	18.79	-0.24	0	-0.68	9.21	0
2008	44.04	27.4	7.64	12.63	7.13	16.74	12.27	0.23	21.65	0.32	0	1.06	5.35	0
2009	44	26	7.23	12.31	6.45	13.46	12.27	1.01	18.26	-0.27	0	-1.02	9.73	0
2010	44	28.73	9.08	11.12	8.53	21.88	12.27	0.82	24.81	1.11	0	3.5	5.4	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
in	in	in	in	in	in	in	in	in	in	in	in		
44.04	27.32	7.99	12.01	7.32	16.77	12.27	1.07	20.64	0.12	0	0.51	7.81	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--97-83\Bur 15 yr--97-83.spw  
File Creation Date : Sep 17, 2008 09:50:57  
File Last Modified Date : Sep 17, 2008 09:50:58  
Description : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--97-83  
Simulation Start Date : Jan 01, 1997  
Simulation End Date : Dec 31, 2011  
Simulation Run Date : Sep 17, 2008 09:50  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--97-83  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--97-83\Bur 15 yr--97-83.fld (Sep 17, 2008 00:00)  
Climate : Dewey Burdock 97-83 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr97-83.clim (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD9783 - Jan 01, 1997 to Dec 31, 2011  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr97-83.txt (Sep 16, 2008 00:00)  
Air Temperature : SD9783 - Jan 01, 1997 to Dec 31, 2011  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr97-83.txt (Sep 16, 2008 00:00)  
Management : 0.45 in every 5 days--assumes 500 acres total irrigated area  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\IDBM--0.45.mgmt (Aug 29, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC--2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Burdock TP8, TP9, TP10 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\BRev 8-9-10.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 7

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 8.00 12.00 24.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPDRN	DLT-SM	STRESS	YLDRED
	in	in	in	in	in	in	in	in	in	in	in	in		
1997	44	26.85	7.4	11.72	7.73	17.73	12.27	0.43	21.85	0.76	0	1.97	17.9	0
1998	44	30.2	10.55	11.45	8.2	24.28	12.27	0.99	27.36	1.23	0	4.14	4.12	0
1999	44	28.93	9.66	11.73	7.54	17.17	12.27	3.8	18.1	-0.74	0	-2.55	4.21	0
2000	44.04	27.3	7.93	12.02	7.35	14.51	12.27	1.45	17.97	-0.47	0	-1.5	7.8	0
2001	44	27.18	7.69	12.2	7.29	18.1	12.27	1.23	21.85	0.34	0	1.62	5.85	0
2002	44	26.34	7.05	12.6	6.7	13.11	12.27	0.31	18.37	-0.2	0	-1.07	6.62	0
2003	44	26.92	7.25	12.26	7.41	14.89	12.27	0.25	19.31	-0.06	0	-0.15	7.73	0
2004	44.04	25.25	6.59	11.7	6.96	12.18	12.27	0.21	17.27	-0.41	0	-0.6	13.6	0
2005	44	27.26	7.83	12.3	7.14	20.16	12.27	2.67	22.61	0.77	0	1.72	4.87	0
2006	44	26.39	7.22	12.5	6.67	13.22	12.27	0.13	18.69	-0.25	0	-0.77	5.24	0
2007	44	26.53	7.56	12.15	6.82	14.33	12.27	0.99	18.79	-0.24	0	-0.68	9.21	0
2008	44.04	27.4	7.64	12.63	7.13	16.74	12.27	0.23	21.65	0.32	0	1.06	5.35	0
2009	44	26	7.23	12.31	6.45	13.46	12.27	1.01	18.26	-0.27	0	-1.02	9.73	0
2010	44	28.73	9.08	11.12	8.53	21.88	12.27	0.82	24.81	1.11	0	3.5	5.4	0
2011	44	27.95	8.39	12.08	7.48	16.16	12.27	2.29	18.66	-0.54	0	-1.26	4.19	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPDRN	DLT-SM	STRESS	YLDRED
in	in	in	in	in	in	in	in	in	in	in	in		
44.04	27.3	7.95	12.05	7.31	16.74	12.27	1.12	20.58	0.09	0	0.49	7.46	0



# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--98-84\Bur 15 yr--98-84.spw  
File Creation Date : Sep 17, 2008 09:52:18  
File Last Modified Date : Sep 17, 2008 09:52:19  
Description : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--98-84  
Simulation Start Date : Jan 01, 1998  
Simulation End Date : Dec 31, 2012  
Simulation Run Date : Sep 17, 2008 09:52  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--98-84  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--98-84\Bur 15 yr--98-84.fld (Sep 17, 2008 00:00)  
Climate : Dewey Burdock 98-84 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\98-84.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evdp (Aug 23, 2008 00:00)  
Precipitation : SD9884 - Jan 01, 1998 to Dec 31, 2012  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\98-84.bd (Sep 16, 2008 00:00)  
Air Temperature : SD9884 - Jan 01, 1998 to Dec 31, 2012  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\98-84.bt (Sep 16, 2008 00:00)  
Management : 0.45 in every 5 days--assumes 500 acres total irrigated area  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\IDBM--0.45.mgmt (Aug 29, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\IDBC--2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Burdock TP8, TP9, TP10 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\BRev 8-9-10.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 7

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 8.00 12.00 24.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET in	AET in	EVAP in	TRAN in	INT in	PRECIP in	IRRIG in	RUNOFF in	INFIL in	PERC in	DEEPRN in	DLT-SM in	STRESS	YLDRED
1998	44	28.53	8.58	11.75	8.2	24.28	12.27	0.99	27.36	1.7	0	5.33	11.8	0
1999	44	28.2	8.84	11.81	7.54	17.17	12.27	3.47	18.43	-0.46	0	-1.77	4.21	0
2000	44.04	27.3	7.93	12.02	7.35	14.51	12.27	1.45	17.97	-0.47	0	-1.5	7.8	0
2001	44	27.18	7.69	12.2	7.29	18.1	12.27	1.23	21.85	0.34	0	1.62	5.85	0
2002	44	26.34	7.05	12.6	6.7	13.11	12.27	0.31	18.37	-0.2	0	-1.07	6.62	0
2003	44	26.92	7.25	12.26	7.41	14.69	12.27	0.25	19.31	-0.06	0	-0.15	7.73	0
2004	44.04	25.25	6.59	11.7	6.96	12.18	12.27	0.21	17.27	-0.41	0	-0.6	13.6	0
2005	44	27.25	7.83	12.3	7.14	20.16	12.27	2.67	22.61	0.77	0	1.72	4.87	0
2006	44	26.39	7.22	12.5	6.67	13.22	12.27	0.13	18.69	-0.25	0	-0.77	5.24	0
2007	44	26.53	7.56	12.15	6.82	14.33	12.27	0.99	18.79	-0.24	0	-0.68	9.21	0
2008	44.04	27.4	7.64	12.63	7.13	16.74	12.27	0.23	21.65	0.32	0	1.06	5.35	0
2009	44	26	7.23	12.31	6.45	13.46	12.27	1.01	18.26	-0.27	0	-1.02	9.73	0
2010	44	28.73	9.08	11.12	8.53	21.88	12.27	0.82	24.81	1.11	0	3.5	5.4	0
2011	44	27.95	8.39	12.08	7.48	16.16	12.27	2.29	18.66	-0.54	0	-1.26	4.19	0
2012	44.04	29.1	9.24	11.78	8.07	16.89	12.27	1.08	20.01	-0.13	0	-0.88	4.52	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET in	AET in	EVAP in	TRAN in	INT in	PRECIP in	IRRIG in	RUNOFF in	INFIL in	PERC in	DEEPRN in	DLT-SM in	STRESS	YLDRED
44.04	27.29	7.88	12.08	7.32	16.81	12.27	1.14	20.41	0.08	0	0.37	7.08	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15-yr-99-85\Bur 15-yr-99-85.spw  
File Creation Date : Sep 17, 2008 09:53:23  
File Last Modified Date : Sep 17, 2008 09:53:24  
Description : Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-99-85  
Simulation Start Date : Jan 01, 1999  
Simulation End Date : Dec 31, 2013  
Simulation Run Date : Sep 17, 2008 09:53  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-99-85  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15-yr-99-85\Bur 15-yr-99-85.fld (Sep 17, 2008 00:00)  
Climate : Dewey Burdock 99-85 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\99-85.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD9985 - Jan 01, 1999 to Dec 31, 2013  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\99-85.brd (Sep 16, 2008 00:00)  
Air Temperature : SD9985 - Jan 01, 1999 to Dec 31, 2013  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\99-85.brd (Sep 16, 2008 00:00)  
Management : 0.45 in every 5 days--assumes 500 acres total irrigated area  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DBM-0\_45.mgmt (Aug 29, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC-2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Burdock TP8, TP9, TP10 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\BRev 8-9-10.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 7

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 8.00 12.00 24.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET in	AET in	EVAP in	TRAN in	INT in	PRECIP in	IRRIG in	RUNOFF in	INFIL in	PERC in	DEEPORN in	DLT-SM in	STRESS	YLDRED
1999	44	26.42	6.92	11.95	7.54	17.17	12.27	0.77	21.13	0.68	0	1.57	20.3	0
2000	44.04	26.17	7.41	11.41	7.35	14.51	12.27	1.45	17.97	-0.33	0	-0.52	17.26	0
2001	44	26.94	7.45	12.2	7.29	18.1	12.27	0.48	22.59	0.66	0	2.28	8.81	0
2002	44	26.23	6.98	12.55	6.7	13.11	12.27	0.31	18.37	-0.19	0	-0.97	7.65	0
2003	44	26.83	7.19	12.23	7.41	14.69	12.27	0.25	19.31	-0.03	0	-0.08	8.67	0
2004	44.04	25.14	6.56	11.62	6.96	12.18	12.27	0.21	17.27	-0.4	0	-0.51	14.95	0
2005	44	27.24	7.8	12.3	7.14	20.16	12.27	2.59	22.69	0.81	0	1.78	4.97	0
2006	44	26.38	7.21	12.5	6.67	13.22	12.27	0.13	18.69	-0.25	0	-0.76	5.28	0
2007	44	26.53	7.56	12.15	6.82	14.33	12.27	0.99	18.79	-0.24	0	-0.68	9.27	0
2008	44.04	27.4	7.64	12.63	7.13	16.74	12.27	0.23	21.65	0.32	0	1.07	5.36	0
2009	44	26	7.23	12.31	6.45	13.46	12.27	1.01	18.26	-0.27	0	-1.02	9.75	0
2010	44	28.72	9.08	11.12	8.53	21.88	12.27	0.81	24.81	1.11	0	3.5	5.41	0
2011	44	27.95	8.39	12.08	7.48	16.16	12.27	2.29	18.66	-0.54	0	-1.26	4.19	0
2012	44.04	29.1	9.24	11.78	8.07	16.89	12.27	1.08	20.01	-0.13	0	-0.88	4.52	0
2013	44	25.63	7.08	12.06	6.49	11.75	12.27	1.02	16.51	-0.62	0	-2.01	12.26	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET in	AET in	EVAP in	TRAN in	INT in	PRECIP in	IRRIG in	RUNOFF in	INFIL in	PERC in	DEEPORN in	DLT-SM in	STRESS	YLDRED
44.04	26.86	7.59	12.06	7.21	15.78	12.27	0.91	19.92	0.04	0	0.24	9.25	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--00-86\Bur 15 yr--00-86.spw  
File Creation Date : Sep 17, 2008 09:55:31  
File Last Modified Date : Sep 17, 2008 09:55:32  
Description : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--00-86  
Simulation Start Date : Jan 01, 2000  
Simulation End Date : Dec 31, 2014  
Simulation Run Date : Sep 17, 2008 09:55  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--00-86  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--00-86\Bur 15 yr--00-86.fld (Sep 17, 2008 00:00)  
Climate : Dewey Burdock 00-86 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\00-86.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD0086 - Jan 01, 2000 to Dec 31, 2014  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\00-86.txt (Sep 16, 2008 00:00)  
Air Temperature : SD0086 - Jan 01, 2000 to Dec 31, 2014  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\00-86.txt (Sep 16, 2008 00:00)  
Management : 0.45 in every 5 days--assumes 500 acres total irrigated area  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\IDBM--0\_45.mgmt (Aug 29, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC--2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Burdock TP8, TP9, TP10 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\BRev 8-9-10.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 7

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 8.00 12.00 24.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET in	AET in	EVAP in	TRAN in	INT in	PRECIP in	IRRIG in	RUNOFF in	INFIL in	PERC in	DEEPRN in	DLT-SM in	STRESS	YLDRED
2000	44.04	24.98	7.19	10.44	7.35	14.51	12.27	1.45	17.97	0.01	0	0.34	35.42	0
2001	44	26.66	7.29	12.08	7.29	18.1	12.27	0.43	22.64	0.85	0	2.42	14.95	0
2002	44	26.03	6.91	12.43	6.7	13.11	12.27	0.31	18.37	-0.18	0	-0.78	10.01	0
2003	44	26.66	7.11	12.15	7.41	14.69	12.27	0.25	19.31	0.02	0	0.03	10.55	0
2004	44.04	24.97	6.52	11.49	6.96	12.18	12.27	0.21	17.27	-0.37	0	-0.37	17.33	0
2005	44	27.21	7.77	12.31	7.14	20.16	12.27	2.48	22.81	0.86	0	1.88	5.13	0
2006	44	26.37	7.21	12.49	6.67	13.22	12.27	0.13	18.69	-0.25	0	-0.76	5.34	0
2007	44	26.52	7.56	12.14	6.82	14.33	12.27	0.99	18.79	-0.24	0	-0.67	9.36	0
2008	44.04	27.39	7.63	12.63	7.13	16.74	12.27	0.23	21.65	0.32	0	1.07	5.39	0
2009	44	26	7.23	12.31	6.45	13.46	12.27	1.01	18.26	-0.27	0	-1.01	9.79	0
2010	44	28.72	9.07	11.12	8.53	21.88	12.27	0.81	24.82	1.11	0	3.51	5.42	0
2011	44	27.95	8.39	12.08	7.48	16.16	12.27	2.29	18.66	-0.54	0	-1.26	4.19	0
2012	44.04	29.1	9.24	11.78	8.07	16.89	12.27	1.08	20.01	-0.13	0	-0.88	4.52	0
2013	44	25.63	7.08	12.06	6.49	11.75	12.27	1.02	16.51	-0.62	0	-2.01	12.26	0
2014	44	28.86	8.98	11.54	8.34	23.59	12.27	1.38	26.14	1.31	0	4.31	3.65	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET in	AET in	EVAP in	TRAN in	INT in	PRECIP in	IRRIG in	RUNOFF in	INFIL in	PERC in	DEEPRN in	DLT-SM in	STRESS	YLDRED
44.04	26.88	7.68	11.94	7.26	16.21	12.27	0.94	20.27	0.13	0	0.53	10.23	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr-01-87\Bur 15 yr-01-87.spw  
File Creation Date : Sep 17, 2008 10:04:17  
File Last Modified Date : Sep 17, 2008 10:04:17  
Description : Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-01-87  
Simulation Start Date : Jan 01, 2001  
Simulation End Date : Dec 31, 2015  
Simulation Run Date : Sep 17, 2008 10:04  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-01-87  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr-01-87\Bur 15 yr-01-87.fld (Sep 17, 2008 00:00)  
Climate : Dewey Burdock 01-87 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\01-87.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evapd (Aug 23, 2008 00:00)  
Precipitation : SD0187 - Jan 01, 2001 to Dec 31, 2015  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\01-87.txt (Sep 16, 2008 00:00)  
Air Temperature : SD0187 - Jan 01, 2001 to Dec 31, 2015  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\01-87.txt (Sep 16, 2008 00:00)  
Management : 0.45 in every 5 days--assumes 500 acres total irrigated area  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\IDBM-0\_45.mgmt (Aug 29, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\IDBC-2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Burdock TP8, TP9, TP10 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\BRev 8-9-10.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 7

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 8.00 12.00 24.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
	in	in	in	in	in	in	in	in	in	in	in	in		
2001	44	26.56	7.27	12	7.29	18.1	12.27	0.43	22.64	0.8	0	2.57	19.95	0
2002	44	25.96	8.89	12.37	6.7	13.11	12.27	0.31	18.37	-0.17	0	-0.72	10.94	0
2003	44	26.6	7.08	12.11	7.41	14.69	12.27	0.25	19.31	0.04	0	0.07	11.24	0
2004	44.04	24.9	6.5	11.44	6.96	12.18	12.27	0.21	17.27	-0.35	0	-0.32	18.2	0
2005	44	27.2	7.75	12.31	7.14	20.16	12.27	2.45	22.84	0.87	0	1.91	5.2	0
2006	44	26.37	7.2	12.49	6.67	13.22	12.27	0.13	18.69	-0.25	0	-0.75	5.37	0
2007	44	26.51	7.56	12.14	6.82	14.33	12.27	0.99	18.79	-0.24	0	-0.66	9.4	0
2008	44.04	27.39	7.62	12.63	7.13	16.74	12.27	0.23	21.65	0.32	0	1.08	5.4	0
2009	44	25.99	7.23	12.31	6.45	13.46	12.27	1.01	18.26	-0.27	0	-1.01	9.81	0
2010	44	28.72	9.07	11.12	8.53	21.88	12.27	0.8	24.82	1.11	0	3.51	5.42	0
2011	44	27.95	8.39	12.08	7.48	16.16	12.27	2.29	18.66	-0.54	0	-1.26	4.19	0
2012	44.04	29.1	9.24	11.78	8.07	18.89	12.27	1.08	20.01	-0.13	0	-0.88	4.52	0
2013	44	25.83	7.08	12.06	6.49	11.75	12.27	1.02	16.51	-0.62	0	-2.01	12.25	0
2014	44	28.86	8.98	11.54	8.34	23.59	12.27	1.38	26.14	1.31	0	4.31	3.65	0
2015	44	27.75	8.83	12.54	6.38	12.36	12.27	0.94	17.32	-0.9	0	-3.15	6.41	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
in	in	in	in	in	in	in	in	in	in	in	in		
44.04	27.05	7.78	12.06	7.2	16.13	12.27	0.9	20.29	0.07	0	0.38	8.8	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr-02-88\Bur 15 yr-02-88.spw  
File Creation Date : Sep 17, 2008 10:06:57  
File Last Modified Date : Sep 17, 2008 10:06:57  
Description : Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-02-88  
Simulation Start Date : Jan 01, 2002  
Simulation End Date : Dec 31, 2016  
Simulation Run Date : Sep 17, 2008 10:06  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-02-88  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr-02-88\Bur 15 yr-02-88.fld (Sep 17, 2008 00:00)  
Climate : Dewey Burdock 02-88 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\02-88.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evdpd (Aug 23, 2008 00:00)  
Precipitation : SD0288 - Jan 01, 2002 to Dec 31, 2016  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\02-88.txt (Sep 16, 2008 00:00)  
Air Temperature : SD0288 - Jan 01, 2002 to Dec 31, 2016  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\02-88.txt (Sep 16, 2008 00:00)  
Management : 0.45 in every 5 days--assumes 500 acres total irrigated area  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\IDBM-0\_45.mgmt (Aug 29, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\IDC-2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Burdock TP8, TP9, TP10 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\BRev 8-9-10.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 7

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 8.00 12.00 24.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLORED
	in	in	in	in	in	in	in	in	in	in	in	in		
2002	44	24.22	6.57	10.95	6.7	13.11	12.27	0.31	18.37	0.12	0	0.73	43.83	0
2003	44	26	6.89	11.71	7.41	14.69	12.27	0.25	19.31	0.21	0	0.5	19.56	0
2004	44.04	24.32	6.38	10.98	6.96	12.18	12.27	0.21	17.27	-0.13	0	0.05	27.1	0
2005	44	27.13	7.66	12.32	7.14	20.16	12.27	2.21	23.08	0.97	0	2.13	5.8	0
2006	44	26.34	7.18	12.49	6.67	13.22	12.27	0.13	18.69	-0.24	0	-0.73	5.62	0
2007	44	26.48	7.54	12.12	6.82	14.33	12.27	0.99	18.79	-0.24	0	-0.63	9.74	0
2008	44.04	27.36	7.6	12.63	7.13	16.74	12.27	0.23	21.65	0.33	0	1.09	5.49	0
2009	44	25.98	7.23	12.3	6.45	13.46	12.27	1.01	18.26	-0.26	0	-1	9.97	0
2010	44	28.71	9.06	11.13	8.53	21.88	12.27	0.78	24.84	1.12	0	3.54	5.47	0
2011	44	27.95	8.39	12.08	7.48	16.16	12.27	2.29	18.66	-0.54	0	-1.26	4.19	0
2012	44.04	29.1	9.24	11.78	8.07	16.89	12.27	1.08	20.01	-0.13	0	-0.88	4.52	0
2013	44	25.63	7.08	12.06	6.49	11.75	12.27	1.02	16.51	-0.62	0	-2.01	12.26	0
2014	44	28.86	8.98	11.54	8.34	23.59	12.27	1.38	26.14	1.31	0	4.31	3.65	0
2015	44	27.75	8.83	12.54	6.38	12.36	12.27	0.94	17.32	-0.9	0	-3.15	6.41	0
2016	44.04	25.79	6.88	12.52	6.4	13.79	12.27	0.42	19.23	0.01	0	-0.17	6.67	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLORED
in	in	in	in	in	in	in	in	in	in	in	in		
44.04	26.78	7.7	11.95	7.14	15.78	12.27	0.88	20.02	0.07	0	0.31	11.36	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15-yr-03-89\Bur 15-yr-03-89.spw  
File Creation Date : Sep 17, 2008 10:08:04  
File Last Modified Date : Sep 17, 2008 10:08:04  
Description : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--03-89  
Simulation Start Date : Jan 01, 2003  
Simulation End Date : Dec 31, 2017  
Simulation Run Date : Sep 17, 2008 10:08  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--03-89  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15-yr-03-89\Bur 15-yr-03-89.fld (Sep 17, 2008 00:00)  
Climate : Dewey Burdock 03-89 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\03-89.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD0289 - Jan 01, 2003 to Dec 31, 2017  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\03-89.bt (Sep 16, 2008 00:00)  
Air Temperature : SD0289 - Jan 01, 2003 to Dec 31, 2017  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\03-89.tx (Sep 16, 2008 00:00)  
Management : 0.45 in every 5 days--assumes 500 acres total irrigated area  
C:\Program Files\SPAW Hydrology\SPAW\Database\Management\DBM--0\_45.mgmt (Aug 29, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC--2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Burdock TP8, TP9, TP10 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\BRev 8-9-10.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 7

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 8.00 12.00 24.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET in	AET in	EVAP in	TRAN in	INT in	PRECIP in	IRRIG in	RUNOFF in	INFIL in	PERC in	DEEPRN in	DLT-SM in	STRESS	YLORED
2003	44	25.56	6.81	11.34	7.41	14.89	12.27	0.37	19.19	0.15	0	0.88	29.95	0
2004	44.04	23.99	6.31	10.71	6.96	12.18	12.27	0.21	17.27	-0.01	0	0.25	32.73	0
2005	44	27.09	7.63	12.33	7.14	20.16	12.27	2.1	23.18	1	0	2.23	6.14	0
2006	44	26.33	7.17	12.48	6.67	13.22	12.27	0.13	18.69	-0.24	0	-0.72	5.75	0
2007	44	26.46	7.54	12.11	6.82	14.33	12.27	0.99	18.79	-0.24	0	-0.62	9.89	0
2008	44.04	27.35	7.59	12.63	7.13	16.74	12.27	0.23	21.65	0.34	0	1.1	5.53	0
2009	44	25.97	7.22	12.3	6.45	13.46	12.27	1.01	18.26	-0.26	0	-0.99	10.03	0
2010	44	28.71	9.05	11.13	8.53	21.88	12.27	0.77	24.85	1.12	0	3.55	5.49	0
2011	44	27.95	8.39	12.08	7.48	16.16	12.27	2.29	18.66	-0.54	0	-1.26	4.19	0
2012	44.04	29.1	9.24	11.78	8.07	16.89	12.27	1.08	20.01	-0.13	0	-0.88	4.52	0
2013	44	25.63	7.08	12.06	6.49	11.75	12.27	1.02	16.51	-0.62	0	-2.01	12.26	0
2014	44	28.86	8.98	11.54	8.34	23.59	12.27	1.38	26.14	1.31	0	4.31	3.65	0
2015	44	27.75	8.83	12.54	6.38	12.36	12.27	0.94	17.32	-0.9	0	-3.15	6.41	0
2016	44.04	25.79	6.88	12.52	6.4	13.79	12.27	0.42	19.23	0.01	0	-0.17	6.67	0
2017	44	26.4	6.85	12.18	7.38	15.58	12.27	0.04	20.45	0.15	0	1.27	6.3	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET in	AET in	EVAP in	TRAN in	INT in	PRECIP in	IRRIG in	RUNOFF in	INFIL in	PERC in	DEEPRN in	DLT-SM in	STRESS	YLORED
44.04	26.87	7.7	11.98	7.18	15.94	12.27	0.87	20.16	0.08	0	0.39	9.97	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--04-90\Bur 15 yr--04-90.spw  
File Creation Date : Sep 17, 2008 10:09:17  
File Last Modified Date : Sep 17, 2008 10:09:17  
Description : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--04-90  
Simulation Start Date : Jan 01, 2004  
Simulation End Date : Dec 31, 2018  
Simulation Run Date : Sep 17, 2008 10:09  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--04-90  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--04-90\Bur 15 yr--04-90.fld (Sep 17, 2008 00:00)  
Climate : Dewey Burdock 04-90 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\04-90.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SDO490 - Jan 01, 2004 to Dec 31, 2018  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\04-90.txt (Sep 16, 2008 00:00)  
Air Temperature : SDO490 - Jan 01, 2004 to Dec 31, 2018  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\04-90.txt (Sep 16, 2008 00:00)  
Management : 0.45 in every 5 days--assumes 500 acres total irrigated area  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DBM--0.45.mgmt (Aug 29, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC--2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Burdock TP8, TP9, TP10 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\BRev 8-9-10.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 7

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 8.00 12.00 24.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET in	AET in	EVAP in	TRAN in	INT in	PRECIP in	IRRIG in	RUNOFF in	INFIL in	PERC in	DEEPRN in	DLT-SM in	STRESS	YLDRED
2004	44.04	23.22	6.22	10.06	6.95	12.16	12.27	0.21	17.27	0.08	0	0.92	51.85	0
2005	44	27.04	7.58	12.33	7.14	20.16	12.27	1.95	23.33	1.05	0	2.38	6.76	0
2006	44	26.31	7.16	12.48	6.67	13.22	12.27	0.13	18.69	-0.24	0	-0.71	5.94	0
2007	44	26.44	7.53	12.09	6.82	14.33	12.27	0.99	18.79	-0.24	0	-0.8	10.12	0
2008	44.04	27.33	7.57	12.63	7.13	16.74	12.27	0.23	21.65	0.34	0	1.11	5.59	0
2009	44	25.97	7.22	12.29	6.45	13.46	12.27	1.01	18.26	-0.26	0	-0.99	10.13	0
2010	44	28.7	9.05	11.13	8.53	21.88	12.27	0.76	24.86	1.13	0	3.56	5.52	0
2011	44	27.95	8.39	12.08	7.48	16.16	12.27	2.29	18.66	-0.54	0	-1.26	4.19	0
2012	44.04	29.1	9.24	11.78	8.07	16.89	12.27	1.08	20.01	-0.13	0	-0.88	4.52	0
2013	44	25.63	7.08	12.06	6.49	11.75	12.27	1.02	16.51	-0.62	0	-2.01	12.26	0
2014	44	28.86	8.98	11.54	8.34	23.59	12.27	1.38	26.14	1.31	0	4.31	3.65	0
2015	44	27.75	8.83	12.54	6.38	12.36	12.27	0.94	17.32	-0.9	0	-3.15	6.41	0
2016	44.04	25.79	6.88	12.52	6.4	13.79	12.27	0.42	19.23	0.01	0	-0.17	6.67	0
2017	44	26.4	6.85	12.18	7.36	15.58	12.27	0.04	20.45	0.15	0	1.27	6.3	0
2018	44	29.03	9.46	12	7.57	19.14	12.27	0.96	22.88	0.4	0	1.02	3.68	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET in	AET in	EVAP in	TRAN in	INT in	PRECIP in	IRRIG in	RUNOFF in	INFIL in	PERC in	DEEPRN in	DLT-SM in	STRESS	YLDRED
44.04	27.05	7.87	11.98	7.19	16.24	12.27	0.89	20.41	0.1	0	0.46	9.58	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--05-91\Bur 15 yr--05-91.spw  
File Creation Date : Sep 17, 2008 10:10:49  
File Last Modified Date : Sep 17, 2008 10:10:50  
Description : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--05-91  
Simulation Start Date : Jan 01, 2005  
Simulation End Date : Dec 31, 2019  
Simulation Run Date : Sep 17, 2008 10:10  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--05-91  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--05-91\Bur 15 yr--05-91.fld (Sep 17, 2008 00:00)  
Climate : Dewey Burdock 05-91 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\05-91.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD0591 - Jan 01, 2005 to Dec 31, 2019  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\05-91.txt (Sep 16, 2008 00:00)  
Air Temperature : SD0591 - Jan 01, 2005 to Dec 31, 2019  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\05-91.txt (Sep 16, 2008 00:00)  
Management : 0.45 in every 5 days--assumes 500 acres total irrigated area  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\IDBM--0.45.mgmt (Aug 29, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\IDBC--2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Burdock TP8, TP9, TP10 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\BRev 8-9-10.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 7

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 8.00 12.00 24.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
	in	in	in	in	in	in	in	in	in	in	in	in		
2005	44	26.85	7.41	12.3	7.14	20.16	12.27	1.58	23.7	1.04	0	2.96	13.1	0
2006	44	26.21	7.08	12.45	6.67	13.22	12.27	0.13	18.69	-0.21	0	-0.63	7.03	0
2007	44	26.32	7.49	12.02	6.82	14.33	12.27	0.99	18.79	-0.23	0	-0.49	11.37	0
2008	44.04	27.26	7.49	12.64	7.13	16.74	12.27	0.23	21.65	0.38	0	1.15	5.9	0
2009	44	25.92	7.2	12.27	6.45	13.46	12.27	1.01	18.26	-0.25	0	-0.95	10.62	0
2010	44	28.68	9.01	11.14	8.53	21.88	12.27	0.69	24.93	1.15	0	3.63	5.67	0
2011	44	27.94	8.39	12.08	7.48	16.16	12.27	2.29	18.66	-0.54	0	-1.26	4.19	0
2012	44.04	29.1	9.24	11.78	8.07	16.89	12.27	1.08	20.01	-0.13	0	-0.88	4.52	0
2013	44	25.63	7.08	12.06	6.49	11.75	12.27	1.02	16.51	-0.62	0	-2.01	12.26	0
2014	44	28.86	8.98	11.54	8.34	23.59	12.27	1.38	26.14	1.31	0	4.31	3.65	0
2015	44	27.75	8.83	12.54	6.38	12.36	12.27	0.94	17.32	-0.9	0	-3.15	6.41	0
2016	44.04	25.79	6.88	12.52	6.4	13.79	12.27	0.42	19.23	0.01	0	-0.17	6.67	0
2017	44	26.4	6.85	12.18	7.36	15.58	12.27	0.04	20.45	0.15	0	1.27	6.3	0
2018	44	29.03	9.46	12	7.57	19.14	12.27	0.96	22.88	0.4	0	1.02	3.68	0
2019	44	27.63	8.1	12.24	7.29	15.03	12.27	2.19	17.82	-0.54	0	-1.98	6.6	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
in	in	in	in	in	in	in	in	in	in	in	in		
44.04	27.3	7.97	12.12	7.21	16.27	12.27	1	20.34	0.07	0	0.18	7.21	0



# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--06-92\Bur 15 yr--06-92.spw  
File Creation Date : Sep 17, 2008 10:11:54  
File Last Modified Date : Sep 17, 2008 10:11:55  
Description : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--06-92  
Simulation Start Date : Jan 01, 2006  
Simulation End Date : Dec 31, 2020  
Simulation Run Date : Sep 17, 2008 10:11  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--06-92  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--06-92\Bur 15 yr--06-92.fld (Sep 17, 2008 00:00)  
Climate : Dewey Burdock 06-92 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\06-92.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD0692 - Jan 01, 2006 to Dec 31, 2020  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\06-92.txt (Sep 16, 2008 00:00)  
Air Temperature : SD0692 - Jan 01, 2006 to Dec 31, 2020  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\06-92.txt (Sep 16, 2008 00:00)  
Management : 0.45 in every 5 days--assumes 500 acres total irrigated area  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DBM--0\_45.mgmt (Aug 29, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC--2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Burdock TP8, TP9, TP10 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\BRev 8-9-10.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 7

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 8.00 12.00 24.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
	in	in	in	in	in	in	in	in	in	in	in	in		
2006	44	24.64	6.78	11.25	6.61	13.13	12.27	0.13	18.66	0.05	0	0.58	44.59	0
2007	44	25.11	7.22	11.07	6.82	14.33	12.27	0.99	18.79	0.12	0	0.38	28.93	0
2008	44.04	25.89	7.21	12.55	7.13	16.74	12.27	0.23	21.65	0.58	0	1.31	8.83	0
2009	44	25.62	7.12	12.05	6.45	13.46	12.27	1.01	18.26	-0.23	0	-0.68	14.47	0
2010	44	28.44	8.7	11.21	8.53	21.88	12.27	0.38	25.24	1.31	0	4.01	6.89	0
2011	44	27.9	8.33	12.09	7.48	16.16	12.27	2.24	18.71	-0.52	0	-1.19	4.2	0
2012	44.04	29.09	9.24	11.78	8.07	16.89	12.27	1.07	20.01	-0.13	0	-0.88	4.52	0
2013	44	25.63	7.08	12.06	6.49	11.75	12.27	1.02	16.51	-0.62	0	-2.01	12.26	0
2014	44	28.86	8.98	11.54	8.34	23.59	12.27	1.38	26.14	1.31	0	4.31	3.65	0
2015	44	27.75	8.83	12.54	6.38	12.36	12.27	0.94	17.32	-0.9	0	-3.15	6.41	0
2016	44.04	25.79	6.88	12.52	6.4	13.79	12.27	0.42	19.23	0.01	0	-0.17	6.67	0
2017	44	26.4	6.85	12.18	7.36	15.58	12.27	0.04	20.45	0.15	0	1.27	6.3	0
2018	44	29.03	9.46	12	7.57	19.14	12.27	0.96	22.88	0.4	0	1.02	3.68	0
2019	44	27.63	8.1	12.24	7.29	15.03	12.27	2.19	17.82	-0.54	0	-1.98	6.6	0
2020	44.04	26.43	7.25	12.07	7.11	14.08	12.27	0.28	18.96	-0.02	0	-0.34	7.85	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
in	in	in	in	in	in	in	in	in	in	in	in		
44.04	27.02	7.87	11.95	7.2	15.86	12.27	0.89	20.04	0.06	0	0.16	11.06	0

# SUMMARY OF ANNUAL VALUES FROM SPAW SIMULATION

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--07-93\Bur 15 yr--07-93.spw  
File Creation Date : Sep 17, 2008 10:13:01  
File Last Modified Date : Sep 17, 2008 10:13:01  
Description : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--07-93  
Simulation Start Date : Jan 01, 2007  
Simulation End Date : Dec 31, 2021  
Simulation Run Date : Sep 17, 2008 10:13  
SPAW Interface Version : 6.02.75  
Field Model Version : 6.02.71  
Soil Equations : Saxton et al. 2005

## DATABASE FILES USED: DESCRIPTION/FILE (DATE)

Field : Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--07-93  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--07-93\Bur 15 yr--07-93.fld (Sep 17, 2008 00:00)  
Climate : Dewey Burdock 07-93 climatic data  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\07-93.clm (Sep 16, 2008 00:00)  
Evaporation Defaults: Dewey-Burdock Evap. Defaults  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\Defaults\Dewey-Burdock.evpd (Aug 23, 2008 00:00)  
Precipitation : SD0793 - Jan 01, 2007 to Dec 31, 2021  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\07-93.bt (Sep 16, 2008 00:00)  
Air Temperature : SD0793 - Jan 01, 2007 to Dec 31, 2021  
C:\Program Files\SPAW Hydrology\SPAW\Database\Climates\15-yr\07-93.bt (Sep 16, 2008 00:00)  
Management : 0.45 in every 5 days--assumes 500 acres total irrigated area  
C:\Program Files\SPAW Hydrology\SPAW\Database\Managements\DBM--0\_45.mgmt (Aug 29, 2008 00:00)  
Crop ( 1 ) : Irrigated alfalfa, two cuttings per year  
C:\Program Files\SPAW Hydrology\SPAW\Database\Crops\DBC--2 cuts.crop (Aug 20, 2008 00:00)  
Soil : Burdock TP8, TP9, TP10 Revised Soils Composite  
C:\Program Files\SPAW Hydrology\SPAW\Database\Soils\BRev 8-9-10.soil (Sep 16, 2008 00:00)

NUMBER OF SOIL LAYERS: 7

THICKNESS OF SOIL LAYERS: (IN) 1.00 5.00 11.00 11.00 8.00 12.00 24.00

## ACCUMULATIVE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

YEAR	PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
	in	in	in	in	in	in	in	in	in	in	in	in		
2007	44	24.65	7.09	10.74	6.82	14.33	12.27	0.99	18.79	0.13	0	0.83	38.98	0
2008	44.04	26.84	7.18	12.53	7.13	16.74	12.27	0.23	21.65	0.6	0	1.34	9.43	0
2009	44	25.58	7.11	12.02	6.45	13.46	12.27	1.01	18.26	-0.22	0	-0.64	15.06	0
2010	44	28.42	8.67	11.22	8.53	21.88	12.27	0.35	25.27	1.33	0	4.05	7.11	0
2011	44	27.89	8.32	12.09	7.48	16.16	12.27	2.24	18.72	-0.52	0	-1.18	4.2	0
2012	44.04	29.09	9.24	11.78	8.07	16.89	12.27	1.07	20.01	-0.13	0	-0.88	4.52	0
2013	44	25.63	7.08	12.06	6.49	11.75	12.27	1.02	16.51	-0.62	0	-2.01	12.26	0
2014	44	28.86	8.98	11.54	8.34	23.59	12.27	1.38	26.14	1.31	0	4.31	3.65	0
2015	44	27.75	8.83	12.54	6.38	12.36	12.27	0.94	17.32	-0.9	0	-3.15	6.41	0
2016	44.04	25.79	6.88	12.52	6.4	13.79	12.27	0.42	19.23	0.01	0	-0.17	6.87	0
2017	44	26.4	6.85	12.18	7.36	15.58	12.27	0.04	20.45	0.15	0	1.27	6.3	0
2018	44	29.03	9.46	12	7.57	19.14	12.27	0.96	22.88	0.4	0	1.02	3.68	0
2019	44	27.63	8.1	12.24	7.29	15.03	12.27	2.19	17.82	-0.54	0	-1.98	6.6	0
2020	44.04	26.43	7.25	12.07	7.11	14.08	12.27	0.28	18.96	-0.02	0	-0.34	7.85	0
2021	44	28.93	8.83	11.09	9.01	22.31	12.27	2.63	22.94	0.46	0	2.56	3.58	0

## AVERAGE ANNUAL VALUES OF SOIL HYDROLOGIC BUDGET

PET	AET	EVAP	TRAN	INT	PRECIP	IRRIG	RUNOFF	INFIL	PERC	DEEPRN	DLT-SM	STRESS	YLDRED
in	in	in	in	in	in	in	in	in	in	in	in		
44.04	27.27	7.99	11.91	7.36	16.47	12.27	1.05	20.33	0.1	0	0.33	9.09	0



**POWERTECH (USA) INC.**

**SPAW MODEL RESULTS**  
**BURDOCK POND**

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAWProjects\Ponds\Bur 15 yr\Burd-80-94\Burd 80-94.pnd  
File Creation Date : Sep 17, 2008 11:52:36  
File Last Modified Date : Sep 17, 2008 11:52:36  
Description : 665 AF Pond using TP8, TP9, TP10 Burd soils, 0.45 in/5th da, 500 ac, 1980-1994  
Simulation Start Date : Jan 01, 1980  
Simulation End Date : Dec 31, 1994  
Simulation Run Date : Sep 17, 2008 11:52  
SPAW Interface Version : Sep 17, 2008 11:52:36  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-80-94	500.00
C:\Program Files\SPAW Hydrology\SPAWProjects\Fields\Bur 15-yr\Bur 15 yr-80-94\Bur 15 yr-80-94.fpin Dec 30, 1699 00:00	

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-80-94	500.00
C:\Program Files\SPAW Hydrology\SPAWProjects\Fields\Bur 15-yr\Bur 15 yr-80-94\Bur 15 yr-80-94.fpin Dec 30, 1699 00:00	

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	18.79	0.00
5.00	19.85	96.60
10.00	20.93	198.55
15.00	22.04	305.98
20.00	23.18	419.03
25.00	24.34	537.83
30.00	25.54	662.53
33.00	26.27	740.24

## POND PROFILE

MAX AREA (AC) = 26.15  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 727.29  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1980	544.74	397.01	147.73	16.33	26.99	10.83	5.45	0	501.47	0	0	0	0	0	71.1	0	0	325.91	185.34	0	0
1981	569.09	543.38	25.71	13.46	23.36	42.08	3.54	0	500.1	0	0	0	0	0	74.51	0	0	468.87	42.38	0	0
1982	555.05	571.78	-16.73	21.88	37.96	11.67	5.32	0	500.1	0	0	0	0	0	75.03	0	0	496.75	14.5	0	0
1983	620.19	587.11	33.08	16.16	28.21	87.92	3.96	0	500.1	0	0	0	0	0	75.86	0	0	511.25	0	0	0
1984	579.21	587.99	-8.78	16.9	30.45	44.17	3.12	0	501.47	0	0	0	0	0	76.74	0	0	511.25	0	0	0
1985	565.29	587.31	-22.02	11.75	20.78	42.08	2.32	0	500.1	0	0	0	0	0	76.06	0	0	511.25	0	0	0
1986	605.18	584.11	21.07	23.59	40.81	57.5	6.77	0	500.1	0	0	0	0	0	75.46	0	0	508.65	2.6	0	0
1987	563.48	587.08	-23.59	12.37	21.96	38.75	2.66	0	500.1	0	0	0	0	0	75.83	0	0	511.25	0	0	0
1988	546.74	559.35	-12.62	13.79	24.04	17.5	3.73	0	501.47	0	0	0	0	0	74.62	0	0	484.73	26.52	0	0
1989	532.19	528.52	3.68	15.58	26.35	1.25	4.49	0	500.1	0	0	0	0	0	73.96	0	0	452.56	58.69	0	0
1990	578.68	576.82	1.86	19.14	33.23	40	5.35	0	500.1	0	0	0	0	0	74.79	0	0	502.03	9.22	0	0
1991	621.51	587.55	33.96	15.03	26.88	91.25	3.28	0	500.1	0	0	0	0	0	76.3	0	0	511.25	0	0	0
1992	540.28	581.66	-41.37	14.07	24.84	11.25	2.72	0	501.47	0	0	0	0	0	75.47	0	0	506.19	5.06	0	0
1993	654.67	587.73	66.94	22.3	39.53	109.58	5.45	0	500.1	0	0	0	0	0	76.48	0	0	511.25	0	0	0
1994	531.44	587.25	-55.81	12	21.16	7.5	2.67	0	500.1	0	0	0	0	0	76	0	0	511.25	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
574.85	563.56	11.29	16.29	28.44	40.89	4.06	0	501.47	0	0	0	0	0	75.27	0	0	488.3	22.95	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Bur 15 yr\Burd-81-95\Burd 81-95.pnd  
File Creation Date : Sep 17, 2008 11:54:21  
File Last Modified Date : Sep 17, 2008 11:54:21  
Description : 665 AF Pond using TP8, TP9, TP10 Burd soils, 0.45 in/5th da, 500 ac, 1981-1995  
Simulation Start Date : Jan 01, 1981  
Simulation End Date : Dec 31, 1995  
Simulation Run Date : Sep 17, 2008 11:54  
SPAW Interface Version : Sep 17, 2008 11:54:21  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-81-95	500.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr-81-95\Bur 15 yr-81-95.fpin Dec 30, 1899 00:00	

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-81-95	500.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr-81-95\Bur 15 yr-81-95.fpin Dec 30, 1899 00:00	

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	18.79	0.00
5.00	19.85	96.60
10.00	20.93	198.55
15.00	22.04	305.98
20.00	23.18	419.03
25.00	24.34	537.83
30.00	25.54	662.53
33.00	26.27	740.24

## POND PROFILE

MAX AREA (AC) = 26.15  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 727.29  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1981	568.58	395.15	173.44	13.46	22.15	42.08	4.25	0	500.1	0	0	0	0	0	71.13	0	0	324.01	187.24	0	0
1982	555.05	571.78	-16.73	21.88	37.96	11.67	5.32	0	500.1	0	0	0	0	0	75.03	0	0	496.75	14.5	0	0
1983	605.14	586.77	18.37	16.16	28.1	72.92	4.02	0	500.1	0	0	0	0	0	75.52	0	0	511.25	0	0	0
1984	578.27	587.41	-9.14	16.9	30.23	43.33	3.23	0	501.47	0	0	0	0	0	76.16	0	0	511.25	0	0	0
1985	565.22	585.14	-19.92	11.75	20.63	42.08	2.4	0	500.1	0	0	0	0	0	75.51	0	0	509.64	1.61	0	0
1986	605.12	571.06	34.06	23.59	40.62	57.5	6.9	0	500.1	0	0	0	0	0	75.07	0	0	485.99	15.26	0	0
1987	563.48	587.08	-23.59	12.37	21.96	38.75	2.66	0	500.1	0	0	0	0	0	75.83	0	0	511.25	0	0	0
1988	546.74	559.35	-12.62	13.79	24.04	17.5	3.73	0	501.47	0	0	0	0	0	74.62	0	0	484.73	26.52	0	0
1989	532.19	526.52	5.68	15.58	26.35	1.25	4.49	0	500.1	0	0	0	0	0	73.96	0	0	452.56	58.69	0	0
1990	578.68	576.82	1.86	19.14	33.23	40	5.35	0	500.1	0	0	0	0	0	74.79	0	0	502.03	9.22	0	0
1991	621.51	587.55	33.96	15.03	26.88	91.25	3.28	0	500.1	0	0	0	0	0	76.3	0	0	511.25	0	0	0
1992	540.28	581.66	-41.37	14.07	24.84	11.25	2.72	0	501.47	0	0	0	0	0	75.47	0	0	506.19	5.06	0	0
1993	654.67	587.73	66.94	22.3	39.53	109.58	5.45	0	500.1	0	0	0	0	0	76.48	0	0	511.25	0	0	0
1994	531.44	587.25	-55.81	12	21.16	7.5	2.67	0	500.1	0	0	0	0	0	76	0	0	511.25	0	0	0
1995	557.33	539.3	18.03	18.32	31.76	21.25	4.21	0	500.1	0	0	0	0	0	74.55	0	0	464.75	46.5	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
574.68	562.1	12.58	16.42	28.63	40.53	4.04	0	501.47	0	0	0	0	0	75.15	0	0	486.94	24.31	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Bur 15-yr\Burd-82-96\Burd 82-96.pnd  
File Creation Date : Sep 17, 2008 11:56:58  
File Last Modified Date : Sep 17, 2008 11:56:59  
Description : 665 AF Pond using TP8, TP9, TP10 Burd soils, 0.45 in/5th da, 500 ac, 1982-1996  
Simulation Start Date : Jan 01, 1982  
Simulation End Date : Dec 31, 1996  
Simulation Run Date : Sep 17, 2008 11:56  
SPAW Interface Version : Sep 17, 2008 11:56:59  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-82-96	500.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15-yr-82-96\Bur 15-yr-82-96.fpin Dec 30, 1899 00:00	

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-82-96	500.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15-yr-82-96\Bur 15-yr-82-96.fpin Dec 30, 1899 00:00	

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	18.79	0.00
5.00	19.85	96.60
10.00	20.93	198.55
15.00	22.04	305.98
20.00	23.18	419.03
25.00	24.34	537.83
30.00	25.54	662.53
33.00	26.27	740.24

## POND PROFILE

MAX AREA (AC) = 26.15  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 727.29  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1982	554	397.29	156.71	21.83	35.72	11.67	6.51	0	500.1	0	0	0	0	0	70.95	0	0	326.35	184.9	0	0
1983	593.44	586.51	6.93	16.16	28.02	61.25	4.07	0	500.1	0	0	0	0	0	75.26	0	0	511.25	0	0	0
1984	577.35	586.95	-9.6	16.9	30.06	42.5	3.31	0	501.47	0	0	0	0	0	75.7	0	0	511.25	0	0	0
1985	565.17	573.2	-8.02	11.75	20.54	42.08	2.45	0	500.1	0	0	0	0	0	75.16	0	0	498.04	13.21	0	0
1986	605.12	571.06	34.05	23.59	40.62	57.5	6.9	0	500.1	0	0	0	0	0	75.07	0	0	495.99	15.26	0	0
1987	563.48	587.08	-23.59	12.37	21.96	38.75	2.66	0	500.1	0	0	0	0	0	75.83	0	0	511.25	0	0	0
1988	546.74	559.35	-12.62	13.79	24.04	17.5	3.73	0	501.47	0	0	0	0	0	74.62	0	0	484.73	26.52	0	0
1989	532.19	526.52	5.68	15.58	26.35	1.25	4.49	0	500.1	0	0	0	0	0	73.96	0	0	452.56	58.69	0	0
1990	578.68	576.82	1.86	19.14	33.23	40	5.35	0	500.1	0	0	0	0	0	74.79	0	0	502.03	9.22	0	0
1991	621.51	587.55	33.96	15.03	26.88	91.25	3.28	0	500.1	0	0	0	0	0	76.3	0	0	511.25	0	0	0
1992	540.28	581.66	-41.37	14.07	24.84	11.25	2.72	0	501.47	0	0	0	0	0	75.47	0	0	506.19	5.06	0	0
1993	654.67	587.73	66.94	22.3	39.53	109.58	5.45	0	500.1	0	0	0	0	0	76.48	0	0	511.25	0	0	0
1994	531.44	587.25	-55.81	12	21.16	7.5	2.67	0	500.1	0	0	0	0	0	76	0	0	511.25	0	0	0
1995	557.33	539.3	18.03	18.32	31.76	21.25	4.21	0	500.1	0	0	0	0	0	74.55	0	0	464.75	46.5	0	0
1996	567.39	586.89	-19.5	17.59	30.86	30.83	4.22	0	501.47	0	0	0	0	0	75.64	0	0	511.25	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
573.59	562.4	11.19	16.69	29.04	38.94	4.14	0	501.47	0	0	0	0	0	75.1	0	0	487.29	23.96	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Bur 15 yr\Burd-83-97\Burd 83-97.pnd  
File Creation Date : Sep 17, 2008 11:58:19  
File Last Modified Date : Sep 17, 2008 11:58:19  
Description : 665 AF Pond using TP8, TP9, TP10 Burd soils, 0.45 in/5th da, 500 ac, 1983-1997  
Simulation Start Date : Jan 01, 1983  
Simulation End Date : Dec 31, 1997  
Simulation Run Date : Sep 17, 2008 11:58  
SPAW Interface Version : Sep 17, 2008 11:58:19  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--83-97 500.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--83-97\Bur 15 yr--83-97.fpin Dec 30, 1899 00:00

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--83-97 500.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--83-97\Bur 15 yr--83-97.fpin Dec 30, 1899 00:00

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	18.79	0.00
5.00	19.85	96.60
10.00	20.93	198.55
15.00	22.04	305.98
20.00	23.18	419.03
25.00	24.34	537.83
30.00	25.54	662.53
33.00	26.27	740.24

## POND PROFILE

MAX AREA (AC) = 26.15  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 727.29  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1983	544.65	392.99	151.66	16.08	26.18	13.33	5.04	0	500.1	0	0	0	0	0	70.87	0	0	322.12	189.13	0	0
1984	553.01	558.71	-5.69	16.9	29.77	18.33	3.44	0	501.47	0	0	0	0	0	74.81	0	0	483.9	27.35	0	0
1985	565.14	565.1	0.04	11.75	20.47	42.08	2.49	0	500.1	0	0	0	0	0	74.92	0	0	490.18	21.07	0	0
1986	598.85	564.8	34.05	23.59	40.58	51.25	6.91	0	500.1	0	0	0	0	0	74.96	0	0	489.83	21.42	0	0
1987	559.72	586.97	-27.25	12.37	21.94	35	2.67	0	500.1	0	0	0	0	0	75.72	0	0	511.25	0	0	0
1988	546.73	555.69	-8.96	13.79	24	17.5	3.75	0	501.47	0	0	0	0	0	74.52	0	0	481.17	30.08	0	0
1989	532.19	526.52	5.68	15.58	26.35	1.25	4.49	0	500.1	0	0	0	0	0	73.96	0	0	452.56	58.69	0	0
1990	578.68	576.82	1.86	19.14	33.23	40	5.35	0	500.1	0	0	0	0	0	74.79	0	0	502.03	9.22	0	0
1991	621.51	587.55	33.96	15.03	26.88	91.25	3.28	0	500.1	0	0	0	0	0	76.3	0	0	511.25	0	0	0
1992	540.28	581.66	-41.37	14.07	24.84	11.25	2.72	0	501.47	0	0	0	0	0	75.47	0	0	506.19	5.06	0	0
1993	654.67	587.73	66.94	22.3	39.53	109.58	5.45	0	500.1	0	0	0	0	0	76.48	0	0	511.25	0	0	0
1994	531.44	587.25	-55.81	12	21.16	7.5	2.67	0	500.1	0	0	0	0	0	76	0	0	511.25	0	0	0
1995	557.33	539.3	18.03	18.32	31.76	21.25	4.21	0	500.1	0	0	0	0	0	74.55	0	0	464.75	46.5	0	0
1996	567.39	586.99	-19.5	17.59	30.86	30.83	4.22	0	501.47	0	0	0	0	0	75.64	0	0	511.25	0	0	0
1997	631.18	587.4	43.78	17.73	31.38	95.83	3.87	0	500.1	0	0	0	0	0	76.15	0	0	511.25	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
573.19	559.08	14.11	16.42	28.59	39.08	4.04	0	501.47	0	0	0	0	0	75.06	0	0	484.02	27.23	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Bur 15 yr\Bur-84-98\Bur-84-98.pnd  
File Creation Date : Sep 17, 2008 11:59:48  
File Last Modified Date : Sep 17, 2008 11:59:49  
Description : 665 AF Pond using TP8, TP9, TP10 Burd soils, 0.45 in/5th da, 500 ac, 1984-1998  
Simulation Start Date : Jan 01, 1984  
Simulation End Date : Dec 31, 1998  
Simulation Run Date : Sep 17, 2008 11:59  
SPAW Interface Version : Sep 17, 2008 11:59:48  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-84-98 500.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr-84-98\Bur 15 yr-84-98.fpin Dec 30, 1899 00:00

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-84-98 500.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr-84-98\Bur 15 yr-84-98.fpin Dec 30, 1899 00:00

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	18.79	0.00
5.00	19.85	96.60
10.00	20.93	198.55
15.00	22.04	305.98
20.00	23.18	419.03
25.00	24.34	537.83
30.00	25.54	662.53
33.00	26.27	740.24

## POND PROFILE

MAX AREA (AC) = 26.15  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 727.29  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1984	549.55	403.58	145.97	15.65	25.94	18.33	3.81	0	501.47	0	0	0	0	0	71.16	0	0	332.42	178.83	0	0
1985	565.14	565.1	0.04	11.75	20.47	42.08	2.49	0	500.1	0	0	0	0	0	74.92	0	0	490.18	21.07	0	0
1986	598.85	564.8	34.05	23.59	40.58	51.25	6.91	0	500.1	0	0	0	0	0	74.96	0	0	489.83	21.42	0	0
1987	548.85	583.1	-34.25	12.37	21.89	24.17	2.7	0	500.1	0	0	0	0	0	75.43	0	0	507.67	3.58	0	0
1988	546.7	548.66	-1.96	13.79	23.93	17.5	3.8	0	501.47	0	0	0	0	0	74.32	0	0	474.34	38.91	0	0
1989	532.19	526.52	5.68	15.58	26.35	1.25	4.49	0	500.1	0	0	0	0	0	73.96	0	0	452.56	58.69	0	0
1990	577.84	575.99	-1.86	19.14	33.22	39.17	5.35	0	500.1	0	0	0	0	0	74.78	0	0	501.21	10.04	0	0
1991	621.09	587.54	33.55	15.03	26.87	90.83	3.28	0	500.1	0	0	0	0	0	76.29	0	0	511.25	0	0	0
1992	540.28	581.25	-40.97	14.07	24.83	11.25	2.72	0	501.47	0	0	0	0	0	75.45	0	0	505.79	5.46	0	0
1993	654.67	587.73	66.94	22.3	39.53	109.58	5.45	0	500.1	0	0	0	0	0	76.48	0	0	511.25	0	0	0
1994	531.44	587.25	-55.81	12	21.16	7.5	2.67	0	500.1	0	0	0	0	0	76	0	0	511.25	0	0	0
1995	557.33	539.3	18.03	18.32	31.76	21.25	4.21	0	500.1	0	0	0	0	0	74.55	0	0	464.75	46.5	0	0
1996	567.39	586.89	-19.5	30.86	30.86	4.22	0	501.47	0	0	0	0	0	0	75.64	0	0	511.25	0	0	0
1997	631.18	587.4	43.78	17.73	31.38	95.83	3.87	0	500.1	0	0	0	0	0	76.15	0	0	511.25	0	0	0
1998	658.42	589.29	69.13	24.29	43.4	108.75	6.17	0	500.1	0	0	0	0	0	78.04	0	0	511.25	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
579.73	561.01	18.72	16.88	29.48	44.64	4.14	0	501.47	0	0	0	0	0	75.26	0	0	485.75	25.5	0	0



# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Bur 15 yr\Burd--85-99\Burd 85-99.pnd  
File Creation Date : Sep 17, 2008 14:35:30  
File Last Modified Date : Sep 17, 2008 14:35:30  
Description : 665 AF Pond using TP8, TP9, TP10 Burd soils, 0.45 in/5th da, 500 ac, 1985-1999  
Simulation Start Date : Jan 01, 1985  
Simulation End Date : Dec 31, 1999  
Simulation Run Date : Sep 17, 2008 14:35  
SPAW Interface Version : Sep 17, 2008 14:35:30  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--85-99	500.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--85-99\Bur 15 yr--85-99.fpin Dec 30, 1899 00:00	

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--85-99	500.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--85-99\Bur 15 yr--85-99.fpin Dec 30, 1899 00:00	

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	18.79	0.00
5.00	19.85	96.60
10.00	20.93	198.55
15.00	22.04	305.98
20.00	23.18	419.03
25.00	24.34	537.83
30.00	25.54	662.53
33.00	26.27	740.24

## POND PROFILE

MAX AREA (AC) = 26.15  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 727.29  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1985	564.68	418.67	146.01	11.75	19.44	42.08	3.06	0	500.1	0	0	0	0	0	71.38	0	0	347.3	163.95	0	0
1986	598.85	564.8	34.05	23.59	40.58	51.25	6.91	0	500.1	0	0	0	0	0	74.96	0	0	489.63	21.42	0	0
1987	545.51	579.76	-34.25	12.37	21.87	20.83	2.7	0	500.1	0	0	0	0	0	75.36	0	0	504.4	6.85	0	0
1988	546.7	548.66	-1.96	13.79	23.93	17.5	3.8	0	501.47	0	0	0	0	0	74.32	0	0	474.34	36.91	0	0
1989	532.19	526.52	5.68	15.58	26.35	1.25	4.49	0	500.1	0	0	0	0	0	73.96	0	0	452.56	58.69	0	0
1990	577.43	575.57	1.86	19.14	33.22	38.75	5.35	0	500.1	0	0	0	0	0	74.77	0	0	500.8	10.45	0	0
1991	621.09	587.54	33.55	15.03	26.87	90.83	3.28	0	500.1	0	0	0	0	0	76.29	0	0	511.25	0	0	0
1992	540.28	581.25	-40.97	14.07	24.83	11.25	2.72	0	501.47	0	0	0	0	0	75.45	0	0	505.79	5.46	0	0
1993	654.67	587.73	66.94	22.3	39.53	109.58	5.45	0	500.1	0	0	0	0	0	76.48	0	0	511.25	0	0	0
1994	531.44	587.25	-55.81	12	21.16	7.5	2.67	0	500.1	0	0	0	0	0	76	0	0	511.25	0	0	0
1995	557.33	539.3	18.03	18.32	31.76	21.25	4.21	0	500.1	0	0	0	0	0	74.55	0	0	464.75	46.5	0	0
1996	567.39	586.89	-19.5	17.59	30.86	30.83	4.22	0	501.47	0	0	0	0	0	75.64	0	0	511.25	0	0	0
1997	631.18	587.4	43.78	17.73	31.38	95.83	3.87	0	500.1	0	0	0	0	0	76.15	0	0	511.25	0	0	0
1998	658.42	589.29	69.13	24.29	43.4	108.75	6.17	0	500.1	0	0	0	0	0	78.04	0	0	511.25	0	0	0
1999	693.95	593.46	100.5	17.17	32.73	158.33	2.79	0	500.1	0	0	0	0	0	82.21	0	0	511.25	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
589.17	563.66	25.51	16.98	29.86	53.72	4.11	0	501.47	0	0	0	0	0	75.76	0	0	487.9	23.35	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Bur 15 yr\Bur-86-00\Bur 86-00.pnd  
File Creation Date : Sep 17, 2008 14:37:09  
File Last Modified Date : Sep 17, 2008 14:37:09  
Description : 665 AF Pond using TP8, TP9, TP10 Burd soils, 0.45 in/5th da, 500 ac, 1986-2000  
Simulation Start Date : Jan 01, 1986  
Simulation End Date : Dec 31, 2000  
Simulation Run Date : Sep 17, 2008 14:37  
SPAW Interface Version : Sep 17, 2008 14:37:09  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-86-00	500.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr-86-00\Bur 15 yr-86-00.fpin Dec 30, 1899 00:00	

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-86-00	500.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr-86-00\Bur 15 yr-86-00.fpin Dec 30, 1899 00:00	

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	18.79	0.00
5.00	19.85	96.60
10.00	20.93	198.55
15.00	22.04	305.98
20.00	23.18	419.03
25.00	24.34	537.83
30.00	25.54	662.53
33.00	26.27	740.24

## POND PROFILE

MAX AREA (AC) = 26.15  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 727.29  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runoff ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1986	594.88	414.81	180.07	22.02	36.14	51.25	7.38	0	500.1	0	0	0	0	0	71.36	0	0	343.45	167.8	0	0
1987	528.8	563.05	-34.25	12.37	21.81	4.17	2.72	0	500.1	0	0	0	0	0	75.03	0	0	488.02	23.23	0	0
1988	546.7	548.66	-1.96	13.79	23.93	17.5	3.8	0	501.47	0	0	0	0	0	74.32	0	0	474.34	36.91	0	0
1989	532.19	526.52	5.68	15.58	26.35	1.25	4.49	0	500.1	0	0	0	0	0	73.96	0	0	452.56	58.69	0	0
1990	574.92	573.06	1.86	19.14	33.2	36.25	5.36	0	500.1	0	0	0	0	0	74.72	0	0	498.35	12.9	0	0
1991	619.42	587.49	31.93	15.03	26.86	89.17	3.29	0	500.1	0	0	0	0	0	76.24	0	0	511.25	0	0	0
1992	540.27	579.62	-39.34	14.07	24.81	11.25	2.73	0	501.47	0	0	0	0	0	75.41	0	0	504.21	7.04	0	0
1993	654.67	587.73	66.94	22.3	39.53	109.58	5.45	0	500.1	0	0	0	0	0	76.48	0	0	511.25	0	0	0
1994	531.44	587.25	-55.81	12	21.16	7.5	2.67	0	500.1	0	0	0	0	0	76	0	0	511.25	0	0	0
1995	557.33	539.3	18.03	18.32	31.76	21.25	4.21	0	500.1	0	0	0	0	0	74.55	0	0	464.75	46.5	0	0
1996	567.39	586.89	-19.5	17.59	30.86	30.83	4.22	0	501.47	0	0	0	0	0	75.64	0	0	511.25	0	0	0
1997	631.18	587.4	43.78	17.73	31.38	95.83	3.87	0	500.1	0	0	0	0	0	76.15	0	0	511.25	0	0	0
1998	658.42	589.29	69.13	24.29	43.4	108.75	6.17	0	500.1	0	0	0	0	0	78.04	0	0	511.25	0	0	0
1999	693.95	593.46	100.5	17.17	32.73	158.33	2.79	0	500.1	0	0	0	0	0	82.21	0	0	511.25	0	0	0
2000	592.36	595.05	-2.69	14.51	28.32	60.83	1.73	0	501.47	0	0	0	0	0	83.8	0	0	511.25	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runoff ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
589.27	564.03	25.24	17.06	30.15	53.58	4.06	0	501.47	0	0	0	0	0	76.31	0	0	487.71	23.54	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Bur 15 yr\Burd-87-01\Burd 87-01.pnd  
File Creation Date : Sep 17, 2008 14:38:50  
File Last Modified Date : Sep 17, 2008 14:38:50  
Description : 665 AF Pond using TP8, TP9, TP10 Burd soils, 0.45 in/5th da, 500 ac, 1987-2001  
Simulation Start Date : Jan 01, 1987  
Simulation End Date : Dec 31, 2001  
Simulation Run Date : Sep 17, 2008 14:38  
SPAW Interface Version : Sep 17, 2008 14:38:50  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--87-01 500.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--87-01\Bur 15 yr--87-01.fpin Dec 30, 1899 00:00

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--87-01 500.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--87-01\Bur 15 yr--87-01.fpin Dec 30, 1899 00:00

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	18.79	0.00
5.00	19.85	98.60
10.00	20.93	198.55
15.00	22.04	305.98
20.00	23.18	419.03
25.00	24.34	537.83
30.00	25.54	662.53
33.00	26.27	740.24

## POND PROFILE

MAX AREA (AC) = 26.15  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 727.29  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1987	527.35	381.54	145.81	12.37	20.28	3.33	3.63	0	500.1	0	0	0	0	0	70.88	0	0	310.66	200.59	0	0
1988	546.7	548.66	-1.96	13.79	23.93	17.5	3.8	0	501.47	0	0	0	0	0	74.32	0	0	474.34	36.91	0	0
1989	532.19	526.52	5.68	15.58	26.35	1.25	4.49	0	500.1	0	0	0	0	0	73.96	0	0	452.56	58.69	0	0
1990	565.73	563.87	1.86	19.14	33.15	27.08	5.39	0	500.1	0	0	0	0	0	74.54	0	0	489.33	21.92	0	0
1991	598.94	586.92	12.02	15.03	26.73	68.75	3.36	0	500.1	0	0	0	0	0	75.67	0	0	511.25	0	0	0
1992	540.16	559.5	-19.44	14.07	24.59	11.25	2.84	0	501.47	0	0	0	0	0	74.83	0	0	484.77	26.48	0	0
1993	654.25	587.72	66.53	22.3	39.53	109.17	5.45	0	500.1	0	0	0	0	0	76.47	0	0	511.25	0	0	0
1994	531.43	587.23	-55.8	12	21.16	7.5	2.67	0	500.1	0	0	0	0	0	75.98	0	0	511.25	0	0	0
1995	557.32	538.9	18.42	18.32	31.76	21.25	4.21	0	500.1	0	0	0	0	0	74.54	0	0	464.36	46.89	0	0
1996	567.39	586.89	-19.5	17.59	30.86	30.83	4.22	0	501.47	0	0	0	0	0	75.64	0	0	511.25	0	0	0
1997	631.18	597.4	43.78	17.73	31.38	95.83	3.87	0	500.1	0	0	0	0	0	76.15	0	0	511.25	0	0	0
1998	658.42	589.29	69.13	24.29	43.4	108.75	6.17	0	500.1	0	0	0	0	0	78.04	0	0	511.25	0	0	0
1999	693.95	593.46	100.5	17.17	32.73	158.33	2.79	0	500.1	0	0	0	0	0	82.21	0	0	511.25	0	0	0
2000	592.36	595.05	-2.69	14.51	28.32	60.83	1.73	0	501.47	0	0	0	0	0	83.8	0	0	511.25	0	0	0
2001	588.67	594.18	-5.51	18.1	34.92	50.83	2.81	0	500.1	0	0	0	0	0	82.93	0	0	511.25	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
586.74	561.87	24.87	16.8	29.94	51.5	3.83	0	501.47	0	0	0	0	0	76.72	0	0	485.15	26.1	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAWProjects\Ponds\Bur 15-yr\Burd-88-02\Burd 88-02.pnd  
File Creation Date : Sep 17, 2008 14:41:30  
File Last Modified Date : Sep 17, 2008 14:41:30  
Description : 665 AF Pond using TP8, TP9, TP10 Burd soils, 0.45 in/5th da, 500 ac, 1988-2002  
Simulation Start Date : Jan 01, 1988  
Simulation End Date : Dec 31, 2002  
Simulation Run Date : Sep 17, 2008 14:41  
SPAW Interface Version : Sep 17, 2008 14:41:30  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--88-02	500.00
C:\Program Files\SPAW Hydrology\SPAWProjects\Fields\Bur 15-yr\Bur 15-yr--88-02\Bur 15-yr--88-02.fpin Dec 30, 1899 00:00	

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--88-02	500.00
C:\Program Files\SPAW Hydrology\SPAWProjects\Fields\Bur 15-yr\Bur 15-yr--88-02\Bur 15-yr--88-02.fpin Dec 30, 1899 00:00	

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	18.79	0.00
5.00	19.85	96.60
10.00	20.93	198.55
15.00	22.04	305.98
20.00	23.18	419.03
25.00	24.34	537.83
30.00	25.54	662.53
33.00	26.27	740.24

## POND PROFILE

MAX AREA (AC) = 26.15  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 727.29  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1988	545.43	401.57	143.86	13.4	21.89	17.5	4.56	0	501.47	0	0	0	0	0	70.95	0	0	330.62	180.63	0	0
1989	532.19	526.52	5.68	15.58	26.35	1.25	4.49	0	500.1	0	0	0	0	0	73.96	0	0	452.56	58.69	0	0
1990	565.73	563.87	1.86	19.14	33.15	27.08	5.39	0	500.1	0	0	0	0	0	74.54	0	0	489.33	21.92	0	0
1991	596.43	586.85	9.58	15.03	26.71	66.25	3.36	0	500.1	0	0	0	0	0	75.6	0	0	511.25	0	0	0
1992	540.15	557.14	-17	14.07	24.57	11.25	2.86	0	501.47	0	0	0	0	0	74.76	0	0	482.39	28.86	0	0
1993	654.25	587.72	66.53	22.3	39.53	109.17	5.45	0	500.1	0	0	0	0	0	76.47	0	0	511.25	0	0	0
1994	531.43	587.23	-55.8	12	21.16	7.5	2.67	0	500.1	0	0	0	0	0	75.98	0	0	511.25	0	0	0
1995	557.32	538.9	18.42	18.32	31.76	21.25	4.21	0	500.1	0	0	0	0	0	74.54	0	0	464.36	46.89	0	0
1996	567.39	586.89	-19.5	17.59	30.86	30.83	4.22	0	501.47	0	0	0	0	0	75.64	0	0	511.25	0	0	0
1997	631.18	587.4	43.78	17.73	31.38	95.83	3.87	0	500.1	0	0	0	0	0	76.15	0	0	511.25	0	0	0
1998	658.42	589.29	69.13	24.29	43.4	108.75	6.17	0	500.1	0	0	0	0	0	78.04	0	0	511.25	0	0	0
1999	693.95	593.46	100.5	17.17	32.73	158.33	2.79	0	500.1	0	0	0	0	0	82.21	0	0	511.25	0	0	0
2000	592.36	595.05	-2.69	14.51	28.32	60.83	1.73	0	501.47	0	0	0	0	0	83.8	0	0	511.25	0	0	0
2001	588.67	594.18	-5.51	18.1	34.92	50.83	2.81	0	500.1	0	0	0	0	0	82.93	0	0	511.25	0	0	0
2002	539.2	592.74	-53.54	13.1	24.63	12.5	1.96	0	500.1	0	0	0	0	0	81.49	0	0	511.25	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
587.28	565.97	21.31	16.82	30.09	51.94	3.77	0	501.47	0	0	0	0	0	77.19	0	0	488.78	22.47	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Bur 15 yr\Bur-89-03\Bur 89-03.pnd  
File Creation Date : Sep 17, 2008 14:43:40  
File Last Modified Date : Sep 17, 2008 14:43:41  
Description : 665 AF Pond using TP8, TP9, TP10 Burd soils, 0.45 in/5th da, 500 ac, 1989-2003  
Simulation Start Date : Jan 01, 1989  
Simulation End Date : Dec 31, 2003  
Simulation Run Date : Sep 17, 2008 14:43  
SPAW Interface Version : Sep 17, 2008 14:43:40  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--89-03	500.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--89-03\Bur 15 yr--89-03.fpin Dec 30, 1899 00:00	

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--89-03	500.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--89-03\Bur 15 yr--89-03.fpin Dec 30, 1899 00:00	

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	18.79	0.00
5.00	19.85	96.60
10.00	20.93	198.55
15.00	22.04	305.98
20.00	23.18	419.03
25.00	24.34	537.83
30.00	25.54	662.53
33.00	26.27	740.24

## POND PROFILE

MAX AREA (AC) = 26.15  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 727.29  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1989	531.5	381.97	149.53	15.49	25.19	1.25	4.96	0	500.1	0	0	0	0	0	70.86	0	0	311.11	200.14	0	0
1990	565.73	563.87	1.86	19.14	33.15	27.08	5.39	0	500.1	0	0	0	0	0	74.54	0	0	489.33	21.92	0	0
1991	588.49	586.63	1.86	15.03	26.66	58.33	3.39	0	500.1	0	0	0	0	0	75.38	0	0	511.25	0	0	0
1992	540.1	548.38	-8.28	14.07	24.48	11.25	2.9	0	501.47	0	0	0	0	0	74.54	0	0	474.84	36.41	0	0
1993	653.83	587.71	66.12	22.3	39.52	108.75	5.46	0	500.1	0	0	0	0	0	76.46	0	0	511.25	0	0	0
1994	531.43	587.22	-55.79	12	21.15	7.5	2.67	0	500.1	0	0	0	0	0	75.97	0	0	511.25	0	0	0
1995	557.32	538.51	18.82	18.32	31.75	21.25	4.21	0	500.1	0	0	0	0	0	74.53	0	0	463.97	47.28	0	0
1996	567.39	586.89	-19.5	17.59	30.86	30.83	4.22	0	501.47	0	0	0	0	0	75.64	0	0	511.25	0	0	0
1997	631.18	587.4	43.78	17.73	31.38	95.83	3.87	0	500.1	0	0	0	0	0	76.15	0	0	511.25	0	0	0
1998	658.42	589.29	69.13	24.29	43.4	108.75	6.17	0	500.1	0	0	0	0	0	78.04	0	0	511.25	0	0	0
1999	693.95	593.46	100.5	17.17	32.73	158.33	2.79	0	500.1	0	0	0	0	0	82.21	0	0	511.25	0	0	0
2000	592.36	595.05	-2.69	14.51	28.32	60.83	1.73	0	501.47	0	0	0	0	0	83.8	0	0	511.25	0	0	0
2001	588.67	594.18	-5.51	18.1	34.92	50.83	2.81	0	500.1	0	0	0	0	0	82.93	0	0	511.25	0	0	0
2002	539.2	592.74	-53.54	13.1	24.63	12.5	1.96	0	500.1	0	0	0	0	0	81.49	0	0	511.25	0	0	0
2003	540.1	591.03	-50.92	14.69	27.39	10	2.6	0	500.1	0	0	0	0	0	79.78	0	0	511.25	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
586.41	568.41	18	16.9	30.37	50.89	3.68	0	501.47	0	0	0	0	0	77.55	0	0	490.87	20.38	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Bur 15 yr\Burd-90-04\Burd 90-04.pnd  
File Creation Date : Sep 17, 2008 14:46:05  
File Last Modified Date : Sep 17, 2008 14:46:06  
Description : 665 AF Pond using TP8, TP9, TP10 Burd soils, 0.45 in/5th da, 500 ac, 1990-2004  
Simulation Start Date : Jan 01, 1990  
Simulation End Date : Dec 31, 2004  
Simulation Run Date : Sep 17, 2008 14:46  
SPAW Interface Version : Sep 17, 2008 14:46:05  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--90-04 500.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--90-04\Bur 15 yr--90-04.fpin Dec 30, 1899 00:00

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--90-04 500.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--90-04\Bur 15 yr--90-04.fpin Dec 30, 1899 00:00

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	18.79	0.00
5.00	19.85	96.60
10.00	20.93	198.55
15.00	22.04	305.98
20.00	23.18	419.03
25.00	24.34	537.83
30.00	25.54	662.53
33.00	26.27	740.24

## POND PROFILE

MAX AREA (AC) = 26.15  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 727.29  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1990	564.96	413.58	151.39	19.11	31.34	27.08	6.43	0	500.1	0	0	0	0	0	70.98	0	0	342.59	168.66	0	0
1991	540.05	546.08	-6.03	15.03	26.47	10	3.48	0	500.1	0	0	0	0	0	74.43	0	0	471.65	39.6	0	0
1992	540.06	541.45	-1.39	14.07	24.39	11.25	2.94	0	501.47	0	0	0	0	0	74.32	0	0	467.13	44.12	0	0
1993	640.86	587.39	53.47	22.3	39.41	95.83	5.52	0	500.1	0	0	0	0	0	76.14	0	0	511.25	0	0	0
1994	531.38	579.65	-48.27	12	21.05	7.5	2.73	0	500.1	0	0	0	0	0	75.55	0	0	504.1	7.15	0	0
1995	557.29	533.34	23.95	18.32	31.7	21.25	4.24	0	500.1	0	0	0	0	0	74.39	0	0	458.95	52.3	0	0
1996	567.39	586.89	-19.5	17.59	30.86	30.83	4.22	0	501.47	0	0	0	0	0	75.64	0	0	511.25	0	0	0
1997	631.18	587.4	43.78	17.73	31.38	95.83	3.87	0	500.1	0	0	0	0	0	76.15	0	0	511.25	0	0	0
1998	658.42	589.29	69.13	24.29	43.4	108.75	6.17	0	500.1	0	0	0	0	0	78.04	0	0	511.25	0	0	0
1999	693.95	593.46	100.5	17.17	32.73	158.33	2.79	0	500.1	0	0	0	0	0	82.21	0	0	511.25	0	0	0
2000	592.36	595.05	-2.69	14.51	28.32	60.83	1.73	0	501.47	0	0	0	0	0	83.8	0	0	511.25	0	0	0
2001	588.67	594.18	-5.51	18.1	34.92	50.83	2.81	0	500.1	0	0	0	0	0	82.93	0	0	511.25	0	0	0
2002	539.2	592.74	-53.54	13.1	24.63	12.5	1.96	0	500.1	0	0	0	0	0	81.49	0	0	511.25	0	0	0
2003	540.1	591.03	-50.92	14.69	27.39	10	2.6	0	500.1	0	0	0	0	0	79.78	0	0	511.25	0	0	0
2004	533.92	588.75	-54.84	12.19	21.43	8.75	2.26	0	501.47	0	0	0	0	0	77.5	0	0	511.25	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
582.66	568.07	14.59	16.84	30.25	47.31	3.63	0	501.47	0	0	0	0	0	77.61	0	0	490.46	20.79	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Bur 15 yr\Bur-91-05\Bur 91-05.pnd  
File Creation Date : Sep 17, 2008 14:47:30  
File Last Modified Date : Sep 17, 2008 14:47:31  
Description : 665 AF Pond using TP8, TP9, TP10 Burd soils, 0.45 in/5th da, 500 ac, 1991-2005  
Simulation Start Date : Jan 01, 1991  
Simulation End Date : Dec 31, 2005  
Simulation Run Date : Sep 17, 2008 14:47  
SPAW Interface Version : Sep 17, 2008 14:47:30  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-91-05	500.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr-91-05\Bur 15 yr-91-05.fpin Dec 30, 1899 00:00	

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-91-05	500.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr-91-05\Bur 15 yr-91-05.fpin Dec 30, 1899 00:00	

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	18.79	0.00
5.00	19.85	96.60
10.00	20.93	198.55
15.00	22.04	305.98
20.00	23.18	419.03
25.00	24.34	537.83
30.00	25.54	662.53
33.00	26.27	740.24

## POND PROFILE

MAX AREA (AC) = 26.15  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 727.29  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1991	539.32	393.96	145.36	14.99	24.82	10	4.4	0	500.1	0	0	0	0	0	70.96	0	0	323	188.25	0	0
1992	540.06	541.45	-1.39	14.07	24.39	11.25	2.94	0	501.47	0	0	0	0	0	74.32	0	0	467.13	44.12	0	0
1993	590.66	580.34	10.33	22.3	39.01	45.83	5.72	0	500.1	0	0	0	0	0	74.94	0	0	505.39	5.86	0	0
1994	531.22	536.35	-5.13	12	20.73	7.5	2.89	0	500.1	0	0	0	0	0	74.33	0	0	462.02	49.23	0	0
1995	557.29	533.34	23.95	18.32	31.7	21.25	4.24	0	500.1	0	0	0	0	0	74.39	0	0	458.95	52.3	0	0
1996	566.13	586.86	-20.72	17.59	30.84	29.58	4.23	0	501.47	0	0	0	0	0	75.61	0	0	511.25	0	0	0
1997	630.75	587.34	43.41	17.73	31.35	95.42	3.68	0	500.1	0	0	0	0	0	76.09	0	0	511.25	0	0	0
1998	658.41	589.23	69.18	24.29	43.36	108.75	6.19	0	500.1	0	0	0	0	0	77.98	0	0	511.25	0	0	0
1999	693.94	593.4	100.54	17.17	32.71	158.33	2.8	0	500.1	0	0	0	0	0	82.15	0	0	511.25	0	0	0
2000	592.36	595	-2.64	14.51	28.31	60.83	1.74	0	501.47	0	0	0	0	0	83.75	0	0	511.25	0	0	0
2001	588.66	594.12	-5.47	18.1	34.9	50.83	2.82	0	500.1	0	0	0	0	0	82.87	0	0	511.25	0	0	0
2002	539.19	592.69	-53.5	13.1	24.62	12.5	1.97	0	500.1	0	0	0	0	0	81.44	0	0	511.25	0	0	0
2003	540.1	590.98	-50.88	14.69	27.38	10	2.61	0	500.1	0	0	0	0	0	79.73	0	0	511.25	0	0	0
2004	533.91	588.7	-54.79	12.19	21.42	8.75	2.27	0	501.47	0	0	0	0	0	77.45	0	0	511.25	0	0	0
2005	652.85	589.89	62.96	20.16	36.94	111.25	4.56	0	500.1	0	0	0	0	0	78.64	0	0	511.25	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
585	566.3	18.7	15.9	30.45	49.47	3.6	0	501.47	0	0	0	0	0	77.7	0	0	488.6	22.65	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Bur 15 yr\Burd-92-06\Burd 92-06.pnd  
File Creation Date : Sep 17, 2008 14:52:08  
File Last Modified Date : Sep 17, 2008 14:52:09  
Description : 665 AF Pond using TP8, TP9, TP10 Burd soils, 0.45 in/5th da, 500 ac, 1992-2006  
Simulation Start Date : Jan 01, 1992  
Simulation End Date : Dec 31, 2006  
Simulation Run Date : Sep 17, 2008 14:52  
SPAW Interface Version : Sep 17, 2008 14:52:08  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--92-06 500.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--92-06\Bur 15 yr--92-06.fpin Dec 30, 1899 00:00

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--92-06 500.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--92-06\Bur 15 yr--92-06.fpin Dec 30, 1899 00:00

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	18.79	0.00
5.00	19.85	96.60
10.00	20.93	198.55
15.00	22.04	305.98
20.00	23.18	419.03
25.00	24.34	537.83
30.00	25.54	662.53
33.00	26.27	740.24

## POND PROFILE

MAX AREA (AC) = 26.15  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 727.29  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1992	539.38	395.41	143.97	14.07	22.97	11.25	3.69	0	501.47	0	0	0	0	0	71.01	0	0	324.4	186.85	0	0
1993	570.19	559.86	10.33	22.3	38.89	25.42	5.77	0	500.1	0	0	0	0	0	74.6	0	0	485.26	25.99	0	0
1994	531.22	536.35	-5.13	12	20.73	7.5	2.89	0	500.1	0	0	0	0	0	74.33	0	0	462.02	49.23	0	0
1995	557.29	533.34	23.95	18.32	31.7	21.25	4.24	0	500.1	0	0	0	0	0	74.39	0	0	458.95	52.3	0	0
1996	564.46	586.81	-22.35	17.59	30.83	27.92	4.24	0	501.47	0	0	0	0	0	75.56	0	0	511.25	0	0	0
1997	629.07	587.24	41.83	17.73	31.31	93.75	3.9	0	500.1	0	0	0	0	0	75.99	0	0	511.25	0	0	0
1998	658.39	589.11	69.28	24.29	43.3	108.75	6.23	0	500.1	0	0	0	0	0	77.86	0	0	511.25	0	0	0
1999	693.92	593.29	100.64	17.17	32.66	158.33	2.83	0	500.1	0	0	0	0	0	82.04	0	0	511.25	0	0	0
2000	592.34	594.89	-2.55	14.51	28.27	60.83	1.76	0	501.47	0	0	0	0	0	83.64	0	0	511.25	0	0	0
2001	588.64	594.02	-5.38	18.1	34.86	50.83	2.85	0	500.1	0	0	0	0	0	82.77	0	0	511.25	0	0	0
2002	539.18	592.59	-53.41	13.1	24.59	12.5	1.99	0	500.1	0	0	0	0	0	81.34	0	0	511.25	0	0	0
2003	540.08	590.87	-50.79	14.69	27.34	10	2.63	0	500.1	0	0	0	0	0	79.62	0	0	511.25	0	0	0
2004	533.89	588.6	-54.71	12.19	21.39	8.75	2.28	0	501.47	0	0	0	0	0	77.35	0	0	511.25	0	0	0
2005	652.84	589.79	63.05	20.16	36.9	111.25	4.59	0	500.1	0	0	0	0	0	78.54	0	0	511.25	0	0	0
2006	532.22	589.06	-56.84	13.22	23.97	5.42	2.73	0	500.1	0	0	0	0	0	77.81	0	0	511.25	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
582.88	568.13	14.75	16.79	30.27	47.58	3.56	0	501.47	0	0	0	0	0	77.84	0	0	490.29	20.96	0	0



# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Bur 15-yr\Bur15-93-07\Bur15-93-07.pnd  
File Creation Date : Sep 17, 2008 14:53:47  
File Last Modified Date : Sep 17, 2008 14:53:47  
Description : 665 AF Pond using TP8, TP9, TP10 Burd soils, 0.45 in/5th da, 500 ac, 1993-2007  
Simulation Start Date : Jan 01, 1993  
Simulation End Date : Dec 31, 2007  
Simulation Run Date : Sep 17, 2008 14:53  
SPAW Interface Version : Sep 17, 2008 14:53:47  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--93-07	500.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur15-93-07\Bur15-93-07.fpin Dec 30, 1899 00:00	

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--93-07	500.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur15-93-07\Bur15-93-07.fpin Dec 30, 1899 00:00	

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	18.79	0.00
5.00	19.85	96.60
10.00	20.93	196.55
15.00	22.04	305.98
20.00	23.18	419.03
25.00	24.34	537.83
30.00	25.54	662.53
33.00	26.27	740.24

## POND PROFILE

MAX AREA (AC) = 26.15  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 727.29  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1993	555.41	401.11	154.3	21.42	35.2	13.33	6.77	0	500.1	0	0	0	0	0	71.04	0	0	330.07	181.18	0	0
1994	531.22	536.35	-5.13	12	20.73	7.5	2.89	0	500.1	0	0	0	0	0	74.33	0	0	462.02	49.23	0	0
1995	557.29	533.34	23.95	18.32	31.7	21.25	4.24	0	500.1	0	0	0	0	0	74.39	0	0	458.95	52.3	0	0
1996	556.93	581	-24.06	17.59	30.78	20.42	4.26	0	501.47	0	0	0	0	0	75.39	0	0	505.61	5.64	0	0
1997	623.61	587.02	36.59	17.73	31.24	88.33	3.94	0	500.1	0	0	0	0	0	75.77	0	0	511.25	0	0	0
1998	658.33	588.85	69.48	24.29	43.15	108.75	6.33	0	500.1	0	0	0	0	0	77.6	0	0	511.25	0	0	0
1999	693.89	593.04	100.84	17.17	32.57	158.33	2.88	0	500.1	0	0	0	0	0	81.79	0	0	511.25	0	0	0
2000	592.31	594.65	-2.35	14.51	28.19	60.83	1.81	0	501.47	0	0	0	0	0	83.4	0	0	511.25	0	0	0
2001	588.61	593.79	-5.18	18.1	34.76	50.83	2.91	0	500.1	0	0	0	0	0	82.54	0	0	511.25	0	0	0
2002	539.14	592.36	-53.22	13.1	24.52	12.5	2.02	0	500.1	0	0	0	0	0	81.11	0	0	511.25	0	0	0
2003	540.05	590.66	-50.61	14.69	27.27	10	2.67	0	500.1	0	0	0	0	0	79.41	0	0	511.25	0	0	0
2004	533.86	588.39	-54.53	12.19	21.33	8.75	2.3	0	501.47	0	0	0	0	0	77.14	0	0	511.25	0	0	0
2005	652.81	589.59	63.22	20.18	36.8	111.25	4.65	0	500.1	0	0	0	0	0	78.34	0	0	511.25	0	0	0
2006	532.19	588.86	-56.67	13.22	23.91	5.42	2.76	0	500.1	0	0	0	0	0	77.61	0	0	511.25	0	0	0
2007	570.49	587.66	-17.18	14.34	25.28	41.67	3.44	0	500.1	0	0	0	0	0	76.41	0	0	511.25	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
583.33	569.84	13.49	16.82	30.25	47.94	3.66	0	501.47	0	0	0	0	0	77.81	0	0	492.03	19.22	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAWProjects\Ponds\Bur 15 yr\Bur-94-80\Bur 94-80.pnd  
File Creation Date : Sep 17, 2008 14:55:27  
File Last Modified Date : Sep 17, 2008 14:55:27  
Description : 665 AF Pond using TP8, TP9, TP10 Burd soils, 0.45 in/5th da, 500 ac, 1994-1980  
Simulation Start Date : Jan 01, 1994  
Simulation End Date : Dec 31, 2008  
Simulation Run Date : Sep 17, 2008 14:55  
SPAW Interface Version : Sep 17, 2008 14:55:27  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-94-80 500.00  
C:\Program Files\SPAW Hydrology\SPAWProjects\Fields\Bur 15-yr\Bur 15 yr-94-80\Bur 15 yr-94-80.fpin Dec 30, 1899 00:00

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-94-80 500.00  
C:\Program Files\SPAW Hydrology\SPAWProjects\Fields\Bur 15-yr\Bur 15 yr-94-80\Bur 15 yr-94-80.fpin Dec 30, 1899 00:00

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	18.79	0.00
5.00	19.85	96.60
10.00	20.93	198.55
15.00	22.04	305.98
20.00	23.18	419.03
25.00	24.34	537.83
30.00	25.54	662.53
33.00	26.27	740.24

## POND PROFILE

MAX AREA (AC) = 26.15  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 727.29  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1994	530.71	381.54	149.17	12	19.64	7.5	3.47	0	500.1	0	0	0	0	0	70.9	0	0	310.64	200.61	0	0
1995	557.29	533.34	23.95	18.32	31.7	21.25	4.24	0	500.1	0	0	0	0	0	74.39	0	0	458.95	52.3	0	0
1996	556.51	580.58	-24.06	17.59	30.78	20	4.26	0	501.47	0	0	0	0	0	75.38	0	0	505.2	6.05	0	0
1997	582.21	585.57	-3.35	17.73	30.95	47.08	4.08	0	500.1	0	0	0	0	0	74.79	0	0	510.78	0.47	0	0
1998	657.2	587.34	69.86	24.29	42.31	107.92	6.87	0	500.1	0	0	0	0	0	76.09	0	0	511.25	0	0	0
1999	693.66	591.6	102.05	17.17	32	158.33	3.22	0	500.1	0	0	0	0	0	80.35	0	0	511.25	0	0	0
2000	592.12	593.27	-1.16	14.51	27.74	60.83	2.07	0	501.47	0	0	0	0	0	82.02	0	0	511.25	0	0	0
2001	588.4	592.45	-4.04	18.1	34.21	50.83	3.26	0	500.1	0	0	0	0	0	81.2	0	0	511.25	0	0	0
2002	538.95	591.05	-52.1	13.1	24.13	12.5	2.22	0	500.1	0	0	0	0	0	79.8	0	0	511.25	0	0	0
2003	539.87	589.37	-49.5	14.69	26.84	10	2.92	0	500.1	0	0	0	0	0	78.12	0	0	511.25	0	0	0
2004	533.65	587.12	-53.46	12.19	20.97	8.75	2.46	0	501.47	0	0	0	0	0	75.87	0	0	511.25	0	0	0
2005	652.62	588.37	64.25	20.16	36.25	111.25	5.02	0	500.1	0	0	0	0	0	77.12	0	0	511.25	0	0	0
2006	532.04	587.67	-55.64	13.22	23.55	5.42	2.97	0	500.1	0	0	0	0	0	76.42	0	0	511.25	0	0	0
2007	570.33	584.91	-14.57	14.34	24.9	41.67	3.66	0	500.1	0	0	0	0	0	75.27	0	0	509.63	1.62	0	0
2008	544.47	548.12	-3.65	16.74	29.29	9.17	4.54	0	501.47	0	0	0	0	0	74.57	0	0	473.55	37.7	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
579.34	568.21	11.14	16.43	29.3	44.83	3.74	0	501.47	0	0	0	0	0	76.87	0	0	491.33	19.92	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Bur 15 yr\Bur--95-81\Bur 95-81.pnd  
File Creation Date : Sep 17, 2008 15:05:41  
File Last Modified Date : Sep 17, 2008 15:05:41  
Description : 665 AF Pond using TP8, TP9, TP10 Burd soils, 0.45 in/5th da, 500 ac, 1995-1981  
Simulation Start Date : Jan 01, 1995  
Simulation End Date : Dec 31, 2009  
Simulation Run Date : Sep 17, 2008 15:05  
SPAW Interface Version : Sep 17, 2008 15:05:41  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--95-81	500.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--95-81\Bur 15 yr--95-81.fpin Dec 30, 1899 00:00	

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--95-81	500.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--95-81\Bur 15 yr--95-81.fpin Dec 30, 1899 00:00	

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	18.79	0.00
5.00	19.85	96.60
10.00	20.93	198.55
15.00	22.04	305.98
20.00	23.18	419.03
25.00	24.34	537.83
30.00	25.54	662.53
33.00	26.27	740.24

## POND PROFILE

MAX AREA (AC) = 26.15  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 727.29  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1995	556.04	382.91	173.12	18.14	29.89	21.25	4.8	0	500.1	0	0	0	0	0	71.07	0	0	311.84	199.41	0	0
1996	556.51	580.58	-24.06	17.59	30.78	20	4.26	0	501.47	0	0	0	0	0	75.38	0	0	505.2	6.05	0	0
1997	573.03	576.39	-3.35	17.73	30.92	37.92	4.09	0	500.1	0	0	0	0	0	74.69	0	0	501.7	9.55	0	0
1998	657.2	587.34	69.86	24.29	42.31	107.92	6.87	0	500.1	0	0	0	0	0	76.09	0	0	511.25	0	0	0
1999	693.66	591.6	102.05	17.17	32	158.33	3.22	0	500.1	0	0	0	0	0	80.35	0	0	511.25	0	0	0
2000	592.12	593.27	-1.16	14.51	27.74	60.83	2.07	0	501.47	0	0	0	0	0	82.02	0	0	511.25	0	0	0
2001	588.4	592.45	-4.04	18.1	34.21	50.83	3.26	0	500.1	0	0	0	0	0	81.2	0	0	511.25	0	0	0
2002	538.95	591.05	-52.1	13.1	24.13	12.5	2.22	0	500.1	0	0	0	0	0	79.8	0	0	511.25	0	0	0
2003	539.87	589.37	-49.5	14.69	26.84	10	2.92	0	500.1	0	0	0	0	0	78.12	0	0	511.25	0	0	0
2004	533.65	587.12	-53.46	12.19	20.97	8.75	2.46	0	501.47	0	0	0	0	0	75.87	0	0	511.25	0	0	0
2005	652.62	588.37	64.25	20.16	36.25	111.25	5.02	0	500.1	0	0	0	0	0	77.12	0	0	511.25	0	0	0
2006	532.04	587.67	-55.64	13.22	23.55	5.42	2.97	0	500.1	0	0	0	0	0	76.42	0	0	511.25	0	0	0
2007	570.33	584.91	-14.57	14.34	24.9	41.67	3.66	0	500.1	0	0	0	0	0	75.27	0	0	509.63	1.62	0	0
2008	544.47	548.12	-3.65	16.74	29.29	9.17	4.54	0	501.47	0	0	0	0	0	74.57	0	0	473.55	37.7	0	0
2009	569.09	543.38	25.71	13.46	23.36	42.08	3.54	0	500.1	0	0	0	0	0	74.51	0	0	468.87	42.38	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
581.21	568.36	12.85	16.52	29.43	46.53	3.78	0	501.47	0	0	0	0	0	76.89	0	0	491.47	19.78	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Bur 15 yr\Bur--96-82\Bur 96-82.pnd  
File Creation Date : Sep 17, 2008 15:07:33  
File Last Modified Date : Sep 17, 2008 15:07:33  
Description : 665 AF Pond using TP8, TP9, TP10 Burd soils, 0.45 in/5th da, 500 ac, 1996-1982  
Simulation Start Date : Jan 01, 1996  
Simulation End Date : Dec 31, 2010  
Simulation Run Date : Sep 17, 2008 15:07  
SPAW Interface Version : Sep 17, 2008 15:07:33  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--96-82 500.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--96-82\Bur 15 yr--96-82.fpin Dec 30, 1899 00:00

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--96-82 500.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--96-82\Bur 15 yr--96-82.fpin Dec 30, 1899 00:00

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	18.79	0.00
5.00	19.85	96.60
10.00	20.93	198.55
15.00	22.04	305.98
20.00	23.18	419.03
25.00	24.34	537.83
30.00	25.54	662.53
33.00	26.27	740.24

## POND PROFILE

MAX AREA (AC) = 26.15  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 727.29  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runoff ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1996	555.77	406.71	149.06	17.59	29.02	20	5.27	0	501.47	0	0	0	0	0	71.2	0	0	335.51	175.74	0	0
1997	553.02	556.37	-3.35	17.73	30.9	17.92	4.1	0	500.1	0	0	0	0	0	74.51	0	0	481.86	29.39	0	0
1998	632.5	586.73	45.77	24.29	42	83.33	7.07	0	500.1	0	0	0	0	0	75.46	0	0	511.25	0	0	0
1999	693.51	590.72	102.79	17.17	31.65	158.33	3.42	0	500.1	0	0	0	0	0	79.47	0	0	511.25	0	0	0
2000	592	592.43	-0.43	14.51	27.46	60.83	2.24	0	501.47	0	0	0	0	0	81.18	0	0	511.25	0	0	0
2001	588.28	591.62	-3.34	18.1	33.87	50.83	3.47	0	500.1	0	0	0	0	0	80.37	0	0	511.25	0	0	0
2002	538.83	590.24	-51.42	13.1	23.89	12.5	2.34	0	500.1	0	0	0	0	0	78.99	0	0	511.25	0	0	0
2003	539.75	588.58	-48.83	14.69	26.58	10	3.07	0	500.1	0	0	0	0	0	77.33	0	0	511.25	0	0	0
2004	533.55	567.72	-34.17	12.19	20.81	8.75	2.52	0	501.47	0	0	0	0	0	75.25	0	0	492.47	18.78	0	0
2005	652.61	588.33	64.29	20.16	36.22	111.25	5.03	0	500.1	0	0	0	0	0	77.08	0	0	511.25	0	0	0
2006	532.03	587.63	-55.6	13.22	23.54	5.42	2.98	0	500.1	0	0	0	0	0	76.38	0	0	511.25	0	0	0
2007	570.33	583.72	-13.39	14.34	24.89	41.67	3.67	0	500.1	0	0	0	0	0	75.24	0	0	508.48	2.77	0	0
2008	544.47	548.12	-3.65	16.74	29.29	9.17	4.54	0	501.47	0	0	0	0	0	74.57	0	0	473.55	37.7	0	0
2009	569.09	543.38	25.71	13.46	23.36	42.08	3.54	0	500.1	0	0	0	0	0	74.51	0	0	468.87	42.38	0	0
2010	576.76	586.51	-9.74	21.88	38.05	33.33	5.27	0	500.1	0	0	0	0	0	75.26	0	0	511.25	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runoff ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
579.51	567.31	12.2	16.77	29.72	44.36	3.96	0	501.47	0	0	0	0	0	76.51	0	0	490.8	20.45	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Bur 15 yr\Burd-97-83\Burd 97-83.pnd  
File Creation Date : Sep 17, 2008 15:09:06  
File Last Modified Date : Sep 17, 2008 15:09:06  
Description : 665 AF Pond using TP8, TP9, TP10 Burd soils, 0.45 in/5th da, 500 ac, 1997-1983  
Simulation Start Date : Jan 01, 1997  
Simulation End Date : Dec 31, 2011  
Simulation Run Date : Sep 17, 2008 15:09  
SPAW Interface Version : Sep 17, 2008 15:09:06  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-97-83 500.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr-97-83\Bur 15 yr-97-83.fpin Dec 30, 1899 00:00

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-97-83 500.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr-97-83\Bur 15 yr-97-83.fpin Dec 30, 1899 00:00

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	18.79	0.00
5.00	19.85	96.60
10.00	20.93	198.55
15.00	22.04	305.98
20.00	23.18	419.03
25.00	24.34	537.83
30.00	25.54	662.53
33.00	26.27	740.24

## POND PROFILE

MAX AREA (AC) = 26.15  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 727.29  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1997	552.19	405.49	145.7	17.73	29.02	17.92	5.15	0	500.1	0	0	0	0	0	70.99	0	0	335.49	175.76	0	0
1998	589.89	559.46	30.44	24.29	41.72	40.83	7.24	0	500.1	0	0	0	0	0	74.77	0	0	484.69	26.56	0	0
1999	692.59	590.13	102.45	17.17	31.43	157.5	3.56	0	500.1	0	0	0	0	0	78.88	0	0	511.25	0	0	0
2000	591.92	591.86	0.07	14.51	27.27	60.83	2.35	0	501.47	0	0	0	0	0	80.61	0	0	511.25	0	0	0
2001	588.2	591.07	-2.87	18.1	33.64	50.83	3.62	0	500.1	0	0	0	0	0	79.82	0	0	511.25	0	0	0
2002	538.75	589.7	-50.96	13.1	23.72	12.5	2.42	0	500.1	0	0	0	0	0	78.45	0	0	511.25	0	0	0
2003	539.68	588.05	-48.37	14.69	26.4	10	3.17	0	500.1	0	0	0	0	0	76.8	0	0	511.25	0	0	0
2004	533.49	553.86	-20.38	12.19	20.7	8.75	2.56	0	501.47	0	0	0	0	0	74.86	0	0	479	32.25	0	0
2005	652.61	588.33	64.29	20.16	36.22	111.25	5.03	0	500.1	0	0	0	0	0	77.08	0	0	511.25	0	0	0
2006	532.03	587.63	-55.6	13.22	23.54	5.42	2.98	0	500.1	0	0	0	0	0	76.38	0	0	511.25	0	0	0
2007	570.33	583.72	-13.39	14.34	24.89	41.67	3.67	0	500.1	0	0	0	0	0	75.24	0	0	508.48	2.77	0	0
2008	544.47	548.12	-3.65	16.74	29.29	9.17	4.54	0	501.47	0	0	0	0	0	74.57	0	0	473.55	37.7	0	0
2009	569.09	543.38	25.71	13.46	23.36	42.08	3.54	0	500.1	0	0	0	0	0	74.51	0	0	468.87	42.38	0	0
2010	576.76	586.51	-9.74	21.88	38.05	33.33	5.27	0	500.1	0	0	0	0	0	75.26	0	0	511.25	0	0	0
2011	627.76	587.54	40.22	16.16	28.36	95.42	3.87	0	500.1	0	0	0	0	0	76.29	0	0	511.25	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
581.57	566.45	15.12	16.74	29.58	46.5	4.01	0	501.47	0	0	0	0	0	76.36	0	0	490.09	21.16	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Bur 15 yr\Burd-98-84\Burd 98-84.pnd  
File Creation Date : Sep 17, 2008 15:13:03  
File Last Modified Date : Sep 17, 2008 15:13:03  
Description : 665 AF Pond using TP8, TP9, TP10 Burd soils, 0.45 in/5th da, 500 ac, 1998-1984  
Simulation Start Date : Jan 01, 1998  
Simulation End Date : Dec 31, 2012  
Simulation Run Date : Sep 17, 2008 15:13  
SPAW Interface Version : Sep 17, 2008 15:13:03  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-98-84 500.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr-98-84\Bur 15 yr-98-84.fpin Dec 30, 1899 00:00

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-98-84 500.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr-98-84\Bur 15 yr-98-84.fpin Dec 30, 1899 00:00

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	18.79	0.00
5.00	19.85	96.60
10.00	20.93	198.55
15.00	22.04	305.98
20.00	23.18	419.03
25.00	24.34	537.83
30.00	25.54	662.53
33.00	26.27	740.24

## POND PROFILE

MAX AREA (AC) = 26.15  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 727.29  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1998	589.16	413.02	176.14	24.29	39.83	40.83	8.39	0	500.1	0	0	0	0	0	71.29	0	0	341.73	169.52	0	0
1999	679.21	589.78	89.43	17.17	31.32	144.17	3.62	0	500.1	0	0	0	0	0	78.53	0	0	511.25	0	0	0
2000	591.86	591.38	0.48	14.51	27.11	60.83	2.44	0	501.47	0	0	0	0	0	80.13	0	0	511.25	0	0	0
2001	588.13	590.6	-2.48	18.1	33.45	50.83	3.74	0	500.1	0	0	0	0	0	79.35	0	0	511.25	0	0	0
2002	538.68	589.25	-50.57	13.1	23.59	12.5	2.49	0	500.1	0	0	0	0	0	78	0	0	511.25	0	0	0
2003	539.61	587.6	-47.99	14.69	26.25	10	3.26	0	500.1	0	0	0	0	0	76.35	0	0	511.25	0	0	0
2004	533.43	542.36	-8.92	12.19	20.62	8.75	2.59	0	501.47	0	0	0	0	0	74.54	0	0	467.81	43.44	0	0
2005	652.61	588.33	64.29	20.16	36.22	111.25	5.03	0	500.1	0	0	0	0	0	77.08	0	0	511.25	0	0	0
2006	532.03	587.83	-55.6	13.22	23.54	5.42	2.98	0	500.1	0	0	0	0	0	76.38	0	0	511.25	0	0	0
2007	570.33	583.72	-13.39	14.34	24.89	41.67	3.67	0	500.1	0	0	0	0	0	75.24	0	0	508.48	2.77	0	0
2008	544.47	548.12	-3.65	16.74	29.29	9.17	4.54	0	501.47	0	0	0	0	0	74.57	0	0	473.55	37.7	0	0
2009	569.09	543.38	25.71	13.46	23.36	42.08	3.54	0	500.1	0	0	0	0	0	74.51	0	0	468.87	42.38	0	0
2010	576.76	586.51	-9.74	21.88	38.05	33.33	5.27	0	500.1	0	0	0	0	0	75.26	0	0	511.25	0	0	0
2011	627.76	587.54	40.22	16.16	28.36	95.42	3.87	0	500.1	0	0	0	0	0	76.29	0	0	511.25	0	0	0
2012	579.73	588.53	-8.8	16.9	30.66	44.58	3.02	0	501.47	0	0	0	0	0	77.28	0	0	511.25	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
582.2	567.9	14.3	16.62	29.38	47.39	3.95	0	501.47	0	0	0	0	0	76.37	0	0	491.53	19.72	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Bur 15 yr\Burd-99-85\Burd 99-85.pnd  
File Creation Date : Sep 17, 2008 15:14:35  
File Last Modified Date : Sep 17, 2008 15:14:35  
Description : 665 AF Pond using TP8, TP9, TP10 Burd soils, 0.45 in/5th da, 500 ac, 1999-1985  
Simulation Start Date : Jan 01, 1999  
Simulation End Date : Dec 31, 2013  
Simulation Run Date : Sep 17, 2008 15:14  
SPAW Interface Version : Sep 17, 2008 15:14:35  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--99-85	500.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--99-85\Bur 15 yr--99-85.fpin Dec 30, 1899 00:00	

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--99-85	500.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--99-85\Bur 15 yr--99-85.fpin Dec 30, 1899 00:00	

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	18.79	0.00
5.00	19.85	96.60
10.00	20.93	198.55
15.00	22.04	305.98
20.00	23.18	419.03
25.00	24.34	537.83
30.00	25.54	662.53
33.00	26.27	740.24

## POND PROFILE

MAX AREA (AC) = 26.15  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 727.29  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
1999	565.05	420.85	144.1	17.17	28.31	31.25	5.39	0	500.1	0	0	0	0	0	71.06	0	0	349.89	161.36	0	0
2000	591.23	586.87	4.37	14.51	25.62	60.83	3.31	0	501.47	0	0	0	0	0	75.62	0	0	511.25	0	0	0
2001	556.59	556.74	-0.15	18.1	31.56	20	4.92	0	500.1	0	0	0	0	0	74.56	0	0	482.18	29.07	0	0
2002	538.09	541.31	-3.22	13.1	22.4	12.5	3.09	0	500.1	0	0	0	0	0	74.08	0	0	467.23	44.02	0	0
2003	539.3	539.32	-0.03	14.69	25.5	10	3.7	0	500.1	0	0	0	0	0	74.23	0	0	465.1	46.15	0	0
2004	533.35	522.33	11.01	12.19	20.49	8.75	2.63	0	501.47	0	0	0	0	0	74.01	0	0	448.33	62.92	0	0
2005	648.85	598.23	60.62	20.16	36.2	107.5	5.05	0	500.1	0	0	0	0	0	76.98	0	0	511.25	0	0	0
2006	532.01	587.49	-55.48	13.22	23.49	5.42	3	0	500.1	0	0	0	0	0	76.24	0	0	511.25	0	0	0
2007	570.31	580.16	-9.85	14.34	24.85	41.67	3.69	0	500.1	0	0	0	0	0	75.13	0	0	505.02	6.23	0	0
2008	544.47	548.12	-3.65	16.74	29.29	9.17	4.54	0	501.47	0	0	0	0	0	74.57	0	0	473.55	37.7	0	0
2009	569.09	543.38	25.71	13.46	23.36	42.08	3.54	0	500.1	0	0	0	0	0	74.51	0	0	468.87	42.38	0	0
2010	576.76	586.51	-9.74	21.88	38.05	33.33	5.27	0	500.1	0	0	0	0	0	75.26	0	0	511.25	0	0	0
2011	627.76	587.54	40.22	16.16	28.36	96.42	3.87	0	500.1	0	0	0	0	0	76.29	0	0	511.25	0	0	0
2012	579.73	588.53	-8.8	16.9	30.66	44.58	3.02	0	501.47	0	0	0	0	0	77.28	0	0	511.25	0	0	0
2013	565.36	587.84	-22.48	11.75	20.92	42.08	2.25	0	500.1	0	0	0	0	0	76.59	0	0	511.25	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
570.54	557.74	12.8	15.78	27.55	37.64	3.88	0	501.47	0	0	0	0	0	75.15	0	0	482.59	28.66	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAWProjects\Ponds\Bur 15 yr\Bur-00-86\Bur 00-86.pnd  
File Creation Date : Sep 17, 2008 15:16:36  
File Last Modified Date : Sep 17, 2008 15:16:36  
Description : 665 AF Pond using TP8, TP9, TP10 Burd soils, 0.45 in/5th da, 500 ac, 2000-1986  
Simulation Start Date : Jan 01, 2000  
Simulation End Date : Dec 31, 2014  
Simulation Run Date : Sep 17, 2008 15:16  
SPAW Interface Version : Sep 17, 2008 15:16:36  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--00-86 500.00  
C:\Program Files\SPAW Hydrology\SPAWProjects\Fields\Bur 15-yr\Bur 15 yr--00-86\Bur 15 yr--00-86.fpin Dec 30, 1899 00:00

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--00-86 500.00  
C:\Program Files\SPAW Hydrology\SPAWProjects\Fields\Bur 15-yr\Bur 15 yr--00-86\Bur 15 yr--00-86.fpin Dec 30, 1899 00:00

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	18.79	0.00
5.00	19.85	96.60
10.00	20.93	198.55
15.00	22.04	305.98
20.00	23.18	419.03
25.00	24.34	537.83
30.00	25.54	662.53
33.00	26.27	740.24

## POND PROFILE

MAX AREA (AC) = 26.15  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 727.29  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
2000	590.72	443.86	146.86	14.51	24.19	60.83	4.22	0	501.47	0	0	0	0	0	71.88	0	0	372	139.25	0	0
2001	554.49	553.03	1.46	18.1	31.54	17.92	4.93	0	500.1	0	0	0	0	0	74.49	0	0	478.54	32.71	0	0
2002	538.09	541.31	-3.22	13.1	22.4	12.5	3.09	0	500.1	0	0	0	0	0	74.08	0	0	467.23	44.02	0	0
2003	539.3	539.32	-0.03	14.69	25.5	10	3.7	0	500.1	0	0	0	0	0	74.23	0	0	465.1	46.15	0	0
2004	533.35	522.33	11.01	12.19	20.49	8.75	2.63	0	501.47	0	0	0	0	0	74.01	0	0	448.33	62.92	0	0
2005	644.25	588.11	56.14	20.16	36.16	102.92	5.07	0	500.1	0	0	0	0	0	78.86	0	0	511.25	0	0	0
2006	531.99	587.32	-55.33	13.22	23.44	5.42	3.03	0	500.1	0	0	0	0	0	76.07	0	0	511.25	0	0	0
2007	570.29	575.81	-5.51	14.34	24.81	41.67	3.71	0	500.1	0	0	0	0	0	75	0	0	500.8	10.45	0	0
2008	544.47	548.12	-3.65	16.74	29.29	9.17	4.54	0	501.47	0	0	0	0	0	74.57	0	0	473.55	37.7	0	0
2009	569.09	543.38	25.71	13.46	23.36	42.08	3.54	0	500.1	0	0	0	0	0	74.51	0	0	468.87	42.38	0	0
2010	576.35	586.5	-10.15	21.88	38.05	32.92	5.27	0	500.1	0	0	0	0	0	75.25	0	0	511.25	0	0	0
2011	627.76	587.53	40.23	16.16	28.36	95.42	3.88	0	500.1	0	0	0	0	0	76.28	0	0	511.25	0	0	0
2012	579.73	588.51	-8.79	16.9	30.65	44.58	3.02	0	501.47	0	0	0	0	0	77.26	0	0	511.25	0	0	0
2013	565.36	587.83	-22.47	11.75	20.92	42.08	2.25	0	500.1	0	0	0	0	0	76.58	0	0	511.25	0	0	0
2014	605.27	587.19	18.09	23.59	41.06	57.5	6.61	0	500.1	0	0	0	0	0	75.94	0	0	511.25	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
572.71	558.73	13.98	16.21	28.29	38.92	4.03	0	501.47	0	0	0	0	0	75.18	0	0	483.54	27.71	0	0



# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Bur 15-yr\Bur-01-87\Bur-01-87.pnd  
File Creation Date : Sep 17, 2008 15:19:00  
File Last Modified Date : Sep 17, 2008 15:19:00  
Description : 665 AF Pond using TP8, TP9, TP10 Burd soils, 0.45 in/5th da, 500 ac, 2001-1987  
Simulation Start Date : Jan 01, 2001  
Simulation End Date : Dec 31, 2015  
Simulation Run Date : Sep 17, 2008 15:19  
SPAW Interface Version : Sep 17, 2008 15:19:00  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-01-87	500.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15-yr-01-87\Bur 15-yr-01-87.fpin Dec 30, 1899 00:00	

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-01-87	500.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15-yr-01-87\Bur 15-yr-01-87.fpin Dec 30, 1899 00:00	

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	18.79	0.00
5.00	19.85	96.60
10.00	20.93	196.55
15.00	22.04	305.98
20.00	23.18	419.03
25.00	24.34	537.83
30.00	25.54	662.53
33.00	26.27	740.24

## POND PROFILE

MAX AREA (AC) = 26.15  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 727.29  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
2001	553.86	405.55	148.32	18.1	29.69	17.92	6.15	0	500.1	0	0	0	0	0	71.02	0	0	334.52	176.73	0	0
2002	538.09	541.31	-3.22	13.1	22.4	12.5	3.09	0	500.1	0	0	0	0	0	74.08	0	0	467.23	44.02	0	0
2003	539.3	539.32	-0.03	14.89	25.5	10	3.7	0	500.1	0	0	0	0	0	74.23	0	0	485.1	46.15	0	0
2004	533.35	522.33	11.01	12.19	20.49	8.75	2.63	0	501.47	0	0	0	0	0	74.01	0	0	448.33	62.92	0	0
2005	643	588.08	54.92	20.16	36.15	101.67	5.08	0	500.1	0	0	0	0	0	76.83	0	0	511.25	0	0	0
2006	531.99	587.28	-55.29	13.22	23.43	5.42	3.04	0	500.1	0	0	0	0	0	76.03	0	0	511.25	0	0	0
2007	570.29	574.62	-4.33	14.34	24.8	41.67	3.72	0	500.1	0	0	0	0	0	74.97	0	0	498.65	11.6	0	0
2008	544.47	548.12	-3.65	16.74	29.29	9.17	4.54	0	501.47	0	0	0	0	0	74.57	0	0	473.55	37.7	0	0
2009	569.09	543.38	25.71	13.46	23.36	42.08	3.54	0	500.1	0	0	0	0	0	74.51	0	0	468.87	42.38	0	0
2010	576.35	586.5	-10.15	21.88	38.05	32.92	5.27	0	500.1	0	0	0	0	0	75.25	0	0	511.25	0	0	0
2011	627.76	587.53	40.23	16.16	28.36	95.42	3.88	0	500.1	0	0	0	0	0	76.28	0	0	511.25	0	0	0
2012	579.73	588.51	-8.79	16.9	30.65	44.58	3.02	0	501.47	0	0	0	0	0	77.26	0	0	511.25	0	0	0
2013	565.36	587.83	-22.47	11.75	20.92	42.08	2.25	0	500.1	0	0	0	0	0	76.58	0	0	511.25	0	0	0
2014	605.27	587.19	18.09	23.59	41.06	57.5	6.61	0	500.1	0	0	0	0	0	75.94	0	0	511.25	0	0	0
2015	563.53	587.46	-23.93	12.37	22.07	38.75	2.6	0	500.1	0	0	0	0	0	76.21	0	0	511.25	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
571.01	558.39	12.62	16.14	28.15	37.36	4.03	0	501.47	0	0	0	0	0	75.24	0	0	483.15	28.1	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Bur 15 yr\Burd-02-88\Burd 02-88.pnd  
File Creation Date : Sep 17, 2008 15:20:55  
File Last Modified Date : Sep 17, 2008 15:20:55  
Description : 665 AF Pond using TP8, TP9, TP10 Burd soils, 0.45 in/5th da, 500 ac, 2002-1988  
Simulation Start Date : Jan 01, 2002  
Simulation End Date : Dec 31, 2016  
Simulation Run Date : Sep 17, 2008 15:20  
SPAW Interface Version : Sep 17, 2008 15:20:55  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-02-88	500.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr-02-88\Bur 15 yr-02-88.fpin Dec 30, 1899 00:00	

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-02-88	500.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr-02-88\Bur 15 yr-02-88.fpin Dec 30, 1899 00:00	

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	18.79	0.00
5.00	19.85	96.60
10.00	20.93	198.55
15.00	22.04	305.98
20.00	23.18	419.03
25.00	24.34	537.83
30.00	25.54	662.53
33.00	26.27	740.24

## POND PROFILE

MAX AREA (AC) = 26.15  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 727.29  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
2002	537.58	392.49	145.1	13.1	21.39	12.5	3.59	0	500.1	0	0	0	0	0	70.83	0	0	321.65	189.6	0	0
2003	539.3	539.32	-0.03	14.69	25.5	10	3.7	0	500.1	0	0	0	0	0	74.23	0	0	465.1	46.15	0	0
2004	533.35	522.33	11.01	12.19	20.49	8.75	2.63	0	501.47	0	0	0	0	0	74.01	0	0	448.33	62.92	0	0
2005	632.97	587.82	45.14	20.16	36.07	91.67	5.13	0	500.1	0	0	0	0	0	76.57	0	0	511.25	0	0	0
2006	531.94	586.91	-54.97	13.22	23.32	5.42	3.1	0	500.1	0	0	0	0	0	75.66	0	0	511.25	0	0	0
2007	570.25	565.12	5.12	14.34	24.7	41.67	3.78	0	500.1	0	0	0	0	0	74.7	0	0	490.43	20.82	0	0
2008	544.47	548.12	-3.65	16.74	29.29	9.17	4.54	0	501.47	0	0	0	0	0	74.57	0	0	473.55	37.7	0	0
2009	569.09	543.38	25.71	13.46	23.36	42.08	3.54	0	500.1	0	0	0	0	0	74.51	0	0	468.87	42.38	0	0
2010	575.51	586.48	-10.97	21.88	38.04	32.08	5.28	0	500.1	0	0	0	0	0	75.23	0	0	511.25	0	0	0
2011	627.75	587.5	40.26	16.16	28.35	95.42	3.88	0	500.1	0	0	0	0	0	76.25	0	0	511.25	0	0	0
2012	579.72	588.48	-8.76	16.9	30.64	44.58	3.02	0	501.47	0	0	0	0	0	77.23	0	0	511.25	0	0	0
2013	565.36	587.8	-22.44	11.75	20.91	42.08	2.26	0	500.1	0	0	0	0	0	78.55	0	0	511.25	0	0	0
2014	605.27	587.18	18.11	23.59	41.05	57.5	6.62	0	500.1	0	0	0	0	0	75.91	0	0	511.25	0	0	0
2015	563.53	587.44	-23.91	12.37	22.07	38.75	2.61	0	500.1	0	0	0	0	0	76.19	0	0	511.25	0	0	0
2016	546.77	568.63	-21.86	13.79	24.14	17.5	3.66	0	501.47	0	0	0	0	0	74.89	0	0	493.74	17.51	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
569.53	558.65	10.88	15.78	27.56	36.61	3.88	0	501.47	0	0	0	0	0	75.21	0	0	483.44	27.81	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Bur 15 yr\Burd-03-89\Burd 03-89.pnd  
File Creation Date : Sep 17, 2008 15:22:40  
File Last Modified Date : Sep 17, 2008 15:22:40  
Description : 665 AF Pond using TP8, TP9, TP10 Burd soils, 0.45 in/5th da, 500 ac, 2003-1989  
Simulation Start Date : Jan 01, 2003  
Simulation End Date : Dec 31, 2017  
Simulation Run Date : Sep 17, 2008 15:22  
SPAW Interface Version : Sep 17, 2008 15:22:40  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-03-89 500.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr-03-89\Bur 15 yr-03-89.fpin Dec 30, 1899 00:00

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-03-89 500.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr-03-89\Bur 15 yr-03-89.fpin Dec 30, 1899 00:00

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	18.79	0.00
5.00	19.85	96.60
10.00	20.93	198.55
15.00	22.04	305.98
20.00	23.18	419.03
25.00	24.34	537.83
30.00	25.54	662.53
33.00	26.27	740.24

## POND PROFILE

MAX AREA (AC) = 26.15  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 727.29  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
2003	543.78	398.71	145.07	14.69	24.26	15	4.41	0	500.1	0	0	0	0	0	71.05	0	0	327.66	183.59	0	0
2004	533.35	522.33	11.01	12.19	20.49	8.75	2.63	0	501.47	0	0	0	0	0	74.01	0	0	448.33	62.92	0	0
2005	628.37	587.7	40.67	20.16	36.03	87.08	5.15	0	500.1	0	0	0	0	0	76.45	0	0	511.25	0	0	0
2006	531.92	582.72	-50.8	13.22	23.28	5.42	3.12	0	500.1	0	0	0	0	0	75.52	0	0	507.19	4.06	0	0
2007	570.25	564.82	5.43	14.34	24.7	41.67	3.78	0	500.1	0	0	0	0	0	74.69	0	0	490.13	21.12	0	0
2008	544.47	548.12	-3.65	16.74	29.29	9.17	4.54	0	501.47	0	0	0	0	0	74.57	0	0	473.55	37.7	0	0
2009	569.09	543.38	25.71	13.46	23.36	42.08	3.54	0	500.1	0	0	0	0	0	74.51	0	0	468.87	42.38	0	0
2010	574.67	586.47	-11.79	21.88	38.04	31.25	5.28	0	500.1	0	0	0	0	0	75.22	0	0	511.25	0	0	0
2011	627.75	587.46	40.28	16.16	28.34	95.42	3.89	0	500.1	0	0	0	0	0	76.21	0	0	511.25	0	0	0
2012	579.72	588.45	-8.74	16.9	30.63	44.58	3.03	0	501.47	0	0	0	0	0	77.2	0	0	511.25	0	0	0
2013	565.35	587.77	-22.42	11.75	20.9	42.08	2.26	0	500.1	0	0	0	0	0	76.52	0	0	511.25	0	0	0
2014	605.26	587.13	18.13	23.59	41.03	57.5	6.63	0	500.1	0	0	0	0	0	75.88	0	0	511.25	0	0	0
2015	563.52	587.41	-23.88	12.37	22.06	38.75	2.61	0	500.1	0	0	0	0	0	76.16	0	0	511.25	0	0	0
2016	546.77	567.93	-21.16	13.79	24.13	17.5	3.66	0	501.47	0	0	0	0	0	74.87	0	0	493.06	18.19	0	0
2017	532.19	526.52	5.68	15.58	26.35	1.25	4.49	0	500.1	0	0	0	0	0	73.96	0	0	452.56	58.69	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
569.1	557.85	11.26	15.94	27.8	35.83	4	0	501.47	0	0	0	0	0	75.17	0	0	482.67	28.58	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Bur 15 yr\Burd-04-90\Burd 04-90.pnd  
File Creation Date : Sep 17, 2008 15:24:44  
File Last Modified Date : Sep 17, 2008 15:24:44  
Description : 665 AF Pond using TP8, TP9, TP10 Burd soils, 0.45 in/5th da, 500 ac, 2004-1990  
Simulation Start Date : Jan 01, 2004  
Simulation End Date : Dec 31, 2018  
Simulation Run Date : Sep 17, 2008 15:24  
SPAW Interface Version : Sep 17, 2008 15:24:44  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-04-90	500.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr-04-90\Bur 15 yr-04-90.fpin Dec 30, 1899 00:00	

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE)	AREA (AC)
Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-04-90	500.00
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr-04-90\Bur 15 yr-04-90.fpin Dec 30, 1899 00:00	

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	18.79	0.00
5.00	19.85	96.60
10.00	20.93	198.55
15.00	22.04	305.98
20.00	23.18	419.03
25.00	24.34	537.83
30.00	25.54	662.53
33.00	26.27	740.24

## POND PROFILE

MAX AREA (AC) = 26.15  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 727.29  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
2004	532.8	375.71	156.09	12.17	19.64	8.75	2.93	0	501.47	0	0	0	0	0	70.91	0	0	305.8	205.45	0	0
2005	622.52	587.55	34.96	20.16	35.99	81.25	5.18	0	500.1	0	0	0	0	0	76.3	0	0	511.25	0	0	0
2006	531.9	576.99	-45.09	13.22	23.22	5.42	3.16	0	500.1	0	0	0	0	0	75.35	0	0	501.64	9.61	0	0
2007	570.25	564.82	5.43	14.34	24.7	41.67	3.78	0	500.1	0	0	0	0	0	74.69	0	0	490.13	21.12	0	0
2008	544.47	548.12	-3.65	16.74	29.29	9.17	4.54	0	501.47	0	0	0	0	0	74.57	0	0	473.55	37.7	0	0
2009	569.09	543.98	25.71	13.46	23.36	42.08	3.54	0	500.1	0	0	0	0	0	74.51	0	0	468.87	42.38	0	0
2010	574.25	586.46	-12.2	21.88	38.03	30.83	5.28	0	500.1	0	0	0	0	0	75.21	0	0	511.25	0	0	0
2011	627.74	587.45	40.29	16.16	28.33	95.42	3.89	0	500.1	0	0	0	0	0	76.2	0	0	511.25	0	0	0
2012	579.71	588.44	-8.73	16.9	30.62	44.58	3.03	0	501.47	0	0	0	0	0	77.19	0	0	511.25	0	0	0
2013	565.35	587.75	-22.4	11.75	20.9	42.08	2.26	0	500.1	0	0	0	0	0	76.5	0	0	511.25	0	0	0
2014	605.26	587.12	18.14	23.59	41.02	57.5	6.63	0	500.1	0	0	0	0	0	75.87	0	0	511.25	0	0	0
2015	563.52	587.4	-23.87	12.37	22.05	38.75	2.61	0	500.1	0	0	0	0	0	76.15	0	0	511.25	0	0	0
2016	548.77	567.58	-20.82	13.79	24.13	17.5	3.67	0	501.47	0	0	0	0	0	74.86	0	0	492.72	18.53	0	0
2017	532.19	526.52	5.68	15.58	26.35	1.25	4.49	0	500.1	0	0	0	0	0	73.96	0	0	452.56	58.69	0	0
2018	578.68	576.82	1.86	19.14	33.23	40	5.35	0	500.1	0	0	0	0	0	74.79	0	0	502.03	9.22	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
570.97	559.59	11.38	16.24	28.31	37.08	4.1	0	501.47	0	0	0	0	0	75.19	0	0	484.4	26.85	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Bur 15 yr\Burd-05-91\Burd 05-91.pnd  
File Creation Date : Sep 17, 2008 15:26:41  
File Last Modified Date : Sep 17, 2008 15:26:41  
Description : 665 AF Pond using TP8, TP9, TP10 Burd soils, 0.45 in/5th da, 500 ac, 2005-1991  
Simulation Start Date : Jan 01, 2005  
Simulation End Date : Dec 31, 2019  
Simulation Run Date : Sep 17, 2008 15:26  
SPAW Interface Version : Sep 17, 2008 15:26:41  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--05-91 500.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--05-91\Bur 15 yr--05-91.fpin Dec 30, 1899 00:00

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--05-91 500.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr--05-91\Bur 15 yr--05-91.fpin Dec 30, 1899 00:00

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	18.79	0.00
5.00	19.85	96.60
10.00	20.93	198.55
15.00	22.04	305.98
20.00	23.18	419.03
25.00	24.34	537.83
30.00	25.54	662.53
33.00	26.27	740.24

## POND PROFILE

MAX AREA (AC) = 26.15  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 727.29  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
2005	605.87	455.34	150.53	20.16	33.44	65.42	6.91	0	500.1	0	0	0	0	0	71.48	0	0	383.86	127.39	0	0
2006	531.74	536.31	-4.58	13.22	22.84	5.42	3.38	0	500.1	0	0	0	0	0	74.21	0	0	462.11	49.14	0	0
2007	570.25	564.82	5.43	14.34	24.7	41.67	3.78	0	500.1	0	0	0	0	0	74.69	0	0	490.13	21.12	0	0
2008	544.47	548.12	-3.65	16.74	29.29	9.17	4.54	0	501.47	0	0	0	0	0	74.57	0	0	473.55	37.7	0	0
2009	569.09	543.38	25.71	13.46	23.36	42.08	3.54	0	500.1	0	0	0	0	0	74.51	0	0	468.87	42.38	0	0
2010	571.33	586.39	-15.07	21.88	38.01	27.92	5.3	0	500.1	0	0	0	0	0	75.14	0	0	511.25	0	0	0
2011	627.73	587.34	40.38	16.16	28.29	95.42	3.91	0	500.1	0	0	0	0	0	76.09	0	0	511.25	0	0	0
2012	579.69	588.33	-8.64	16.9	30.58	44.58	3.05	0	501.47	0	0	0	0	0	77.08	0	0	511.25	0	0	0
2013	565.34	587.65	-22.32	11.75	20.87	42.08	2.28	0	500.1	0	0	0	0	0	76.4	0	0	511.25	0	0	0
2014	605.24	587.02	18.22	23.59	40.97	57.5	6.67	0	500.1	0	0	0	0	0	75.77	0	0	511.25	0	0	0
2015	563.51	587.3	-23.79	12.37	22.03	38.75	2.63	0	500.1	0	0	0	0	0	76.05	0	0	511.25	0	0	0
2016	546.76	565.13	-18.37	13.79	24.1	17.5	3.68	0	501.47	0	0	0	0	0	74.79	0	0	490.34	20.91	0	0
2017	532.19	526.52	5.68	15.58	26.35	1.25	4.49	0	500.1	0	0	0	0	0	73.96	0	0	452.56	58.69	0	0
2018	578.68	576.82	1.86	19.14	33.23	40	5.35	0	500.1	0	0	0	0	0	74.79	0	0	502.03	9.22	0	0
2019	621.51	587.55	33.96	15.03	26.88	91.25	3.28	0	500.1	0	0	0	0	0	76.3	0	0	511.25	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
575.32	561.93	13.4	16.27	28.33	41.33	4.19	0	501.47	0	0	0	0	0	75.11	0	0	486.81	24.44	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAW\Projects\Ponds\Bur 15 yr\Bur-06-92\Bur 06-92.pnd  
File Creation Date : Sep 17, 2008 15:28:07  
File Last Modified Date : Sep 17, 2008 15:28:07  
Description : 685 AF Pond using TP8, TP9, TP10 Burd soils, 0.45 in/5th da, 500 ac, 2006-1992  
Simulation Start Date : Jan 01, 2006  
Simulation End Date : Dec 31, 2020  
Simulation Run Date : Sep 17, 2008 15:28  
SPAW Interface Version : Sep 17, 2008 15:28:07  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-06-92 500.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr-06-92\Bur 15 yr-06-92.fpin Dec 30, 1899 00:00

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Burdock TP8, TP9, TP10 Revised Soils-0.45 in/5th day-06-92 500.00  
C:\Program Files\SPAW Hydrology\SPAW\Projects\Fields\Bur 15-yr\Bur 15 yr-06-92\Bur 15 yr-06-92.fpin Dec 30, 1899 00:00

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	18.79	0.00
5.00	19.85	96.60
10.00	20.93	198.55
15.00	22.04	305.98
20.00	23.18	419.03
25.00	24.34	537.83
30.00	25.54	662.53
33.00	26.27	740.24

## POND PROFILE

MAX AREA (AC) = 26.15  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 727.29  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
2006	531.05	385.1	145.96	13.13	21.42	5.42	4.11	0	500.1	0	0	0	0	0	70.85	0	0	314.24	197.01	0	0
2007	570.25	564.82	5.43	14.34	24.7	41.67	3.78	0	500.1	0	0	0	0	0	74.69	0	0	490.13	21.12	0	0
2008	544.47	548.12	-3.65	16.74	29.29	9.17	4.54	0	501.47	0	0	0	0	0	74.57	0	0	473.55	37.7	0	0
2009	569.09	543.38	25.71	13.46	23.36	42.08	3.54	0	500.1	0	0	0	0	0	74.51	0	0	468.87	42.38	0	0
2010	558.8	575.53	-16.73	21.88	37.97	15.42	5.31	0	500.1	0	0	0	0	0	75.04	0	0	500.49	10.76	0	0
2011	626.04	587.24	38.8	16.16	28.25	93.75	3.93	0	500.1	0	0	0	0	0	75.99	0	0	511.25	0	0	0
2012	579.67	588.21	-8.54	16.9	30.54	44.58	3.08	0	501.47	0	0	0	0	0	76.96	0	0	511.25	0	0	0
2013	565.32	587.54	-22.21	11.75	20.84	42.08	2.29	0	500.1	0	0	0	0	0	76.29	0	0	511.25	0	0	0
2014	605.22	586.9	18.31	23.59	40.91	57.5	6.71	0	500.1	0	0	0	0	0	75.65	0	0	511.25	0	0	0
2015	563.5	587.19	-23.69	12.37	22	38.75	2.65	0	500.1	0	0	0	0	0	75.94	0	0	511.25	0	0	0
2016	546.75	562.27	-15.52	13.79	24.07	17.5	3.7	0	501.47	0	0	0	0	0	74.71	0	0	487.56	23.69	0	0
2017	532.19	526.52	5.68	15.58	26.35	1.25	4.49	0	500.1	0	0	0	0	0	73.96	0	0	452.56	58.69	0	0
2018	578.68	576.82	1.86	19.14	33.23	40	5.35	0	500.1	0	0	0	0	0	74.79	0	0	502.03	9.22	0	0
2019	621.51	587.55	33.96	15.03	26.88	91.25	3.28	0	500.1	0	0	0	0	0	76.3	0	0	511.25	0	0	0
2020	540.28	581.66	-41.37	14.07	24.84	11.25	2.72	0	501.47	0	0	0	0	0	75.47	0	0	506.19	5.06	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
569.86	559.31	10.55	15.86	27.64	36.78	3.97	0	501.47	0	0	0	0	0	75.1	0	0	484.21	27.04	0	0

# A SUMMARY OF ACCUMULATIVE ANNUAL POND VOLUMES

## SIMULATION BY:

John Dwyer  
Project Engineer  
Knight Piesold

## SIMULATION FOR:

File : C:\Program Files\SPAW Hydrology\SPAWProjects\Ponds\Bur 15-yr\Burd-07-93\Burd 07-93.pnd  
File Creation Date : Sep 17, 2008 15:29:28  
File Last Modified Date : Sep 17, 2008 15:29:28  
Description : 665 AF Pond using TP8, TP9, TP10 Burd soils, 0.45 in/5th da, 500 ac, 2007-1993  
Simulation Start Date : Jan 01, 2007  
Simulation End Date : Dec 31, 2021  
Simulation Run Date : Sep 17, 2008 15:29  
SPAW Interface Version : Sep 17, 2008 15:29:28  
Pond Model Version : 6.02.71

## WATERSHED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--07-93 500.00  
C:\Program Files\SPAW Hydrology\SPAWProjects\Fields\Bur 15-yr\Bur 15 yr--07-93\Bur 15 yr--07-93.fpin Dec 30, 1899 00:00

## IRRIGATED FIELDS:

DESCRIPTION/FILE (DATE) AREA (AC)  
Burdock TP8, TP9, TP10 Revised Soils--0.45 in/5th day--07-93 500.00  
C:\Program Files\SPAW Hydrology\SPAWProjects\Fields\Bur 15-yr\Bur 15 yr--07-93\Bur 15 yr--07-93.fpin Dec 30, 1899 00:00

## POND PROFILE:

DEPTH (FT)	AREA (AC)	VOLUME (AC-FT)
0.00	18.79	0.00
5.00	19.85	96.60
10.00	20.93	198.55
15.00	22.04	305.98
20.00	23.18	419.03
25.00	24.34	537.83
30.00	25.54	662.53
33.00	26.27	740.24

## POND PROFILE

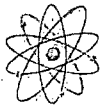
MAX AREA (AC) = 26.15  
MAX DEPTH (FT) = 32.50  
MAX VOLUME (AC-FT) = 727.29  
IRRIGATION LIMIT (FT) = 1.00

## ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Year	Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
2007	569.76	418.38	151.38	14.34	23.44	41.67	4.55	0	500.1	0	0	0	0	0	71.18	0	0	347.2	164.05	0	0
2008	544.47	548.12	-3.65	16.74	29.29	9.17	4.54	0	501.47	0	0	0	0	0	74.57	0	0	473.55	37.7	0	0
2009	569.09	543.38	25.71	13.46	23.36	42.08	3.54	0	500.1	0	0	0	0	0	74.51	0	0	468.87	42.38	0	0
2010	557.13	573.87	-16.73	21.88	37.96	13.75	5.32	0	500.1	0	0	0	0	0	75.03	0	0	498.83	12.42	0	0
2011	625.21	587.22	37.98	16.16	28.25	92.92	3.94	0	500.1	0	0	0	0	0	75.97	0	0	511.25	0	0	0
2012	579.66	588.18	-8.52	16.9	30.52	44.58	3.08	0	501.47	0	0	0	0	0	76.93	0	0	511.25	0	0	0
2013	565.32	587.51	-22.19	11.75	20.83	42.08	2.3	0	500.1	0	0	0	0	0	76.26	0	0	511.25	0	0	0
2014	605.21	586.87	18.34	23.59	40.89	57.5	6.72	0	500.1	0	0	0	0	0	75.62	0	0	511.25	0	0	0
2015	563.49	587.16	-23.67	12.37	21.99	38.75	2.65	0	500.1	0	0	0	0	0	75.91	0	0	511.25	0	0	0
2016	546.75	561.54	-14.8	13.79	24.06	17.5	3.71	0	501.47	0	0	0	0	0	74.69	0	0	486.86	24.39	0	0
2017	532.19	526.52	5.68	15.58	26.35	1.25	4.49	0	500.1	0	0	0	0	0	73.96	0	0	452.56	58.69	0	0
2018	578.68	576.82	1.86	19.14	33.23	40	5.35	0	500.1	0	0	0	0	0	74.79	0	0	502.03	9.22	0	0
2019	621.51	587.55	33.96	15.03	26.88	91.25	3.28	0	500.1	0	0	0	0	0	76.3	0	0	511.25	0	0	0
2020	540.28	581.66	-41.37	14.07	24.84	11.25	2.72	0	501.47	0	0	0	0	0	75.47	0	0	506.19	5.06	0	0
2021	654.67	587.73	66.94	22.3	39.53	109.58	5.45	0	500.1	0	0	0	0	0	76.48	0	0	511.25	0	0	0

## AVERAGE ANNUAL VOLUMES BY MAJOR IMPOUNDMENT PROCESSES

Inflow ac-ft	Outflow ac-ft	Change ac-ft	Precip in	Precip Vol ac-ft	WS Runoff ac-ft	Bank Runc ac-ft	Interflow ac-ft	Ext Input ac-ft	Seep In ac-ft	Supply In ac-ft	Drwdwn In ac-ft	Pipe In ac-ft	Spill In ac-ft	Vol Evap ac-ft	Vol Infil ac-ft	Vol Seep ac-ft	Irrig ac-ft	Irrig Def ac-ft	Sup Pump ac-ft	Sup Pump ac-ft
577.9	562.89	15.01	16.47	28.76	43.56	4.11	0	501.47	0	0	0	0	0	75.23	0	0	487.66	23.59	0	0

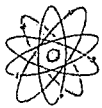


**POWERTECH (USA) INC.**

## **APPENDIX 6.4-A**

### **RADIUM BENCHMARK DOSE ASSESSMENT**





**POWERTECH (USA) INC.**

**Radium Benchmark Dose Assessment  
For  
Dewey-Burdock Uranium In-situ Recovery Facility**

**Prepared for:  
Powertech USA  
5575 DTC Parkway, Suite 140  
Greenwood Village, CO 80111**

**Prepared by:  
Environmental Restoration Group, Inc.  
8809 Washington St. NE, Suite 150  
Albuquerque, NM 87113**

**October 1, 2008**



## **Radium Benchmark Dose Assessment**

### **1.0 Introduction**

On April 12, 1999, the U.S. Nuclear Regulatory Commission (NRC) issued a Final Rule (64 FR 17506) that requires the use of the existing soil radium standard to derive a dose criterion for the cleanup of byproduct material. The amendment to Criterion 6(6) of 10 CFR Part 40, Appendix A was effective on June 11, 1999. This "benchmark approach" requires that NRC licensees model the site-specific dose from the existing radium standard and then use that dose to determine the allowable quantity of other radionuclides that would result in a similar dose to the average member of the critical group. These determinations must then be submitted to NRC with the site reclamation plan or included in license applications. This report documents the modeling and assumptions made by Powertech USA (Powertech) to derive a standard for U-nat in soil for the proposed Dewey Burdock in-situ uranium recovery (DBISR) facility.

Concurrent with publication of the Final Rule, NRC published draft guidance (64 FR 17690) for performing the benchmark dose modeling required to implement the final rule. Final guidance (NRC, 2003) was published as Appendix E to the Standard Review Plan for In Situ Leach License Applications (NUREG-1569). This guidance discusses acceptable models and input parameters. This guidance, guidance from the RESRAD Users Manual (ANL, 2001), the Data Collection Handbook (ANL, 1993) and site-specific parameters were used in the modeling as discussed in the following sections.

### **2.0 Determination of Radium Benchmark Dose**

RESRAD Version 6.4 computer code (RESRAD) was used to model the DBISR site and calculate the maximum annual dose rate from the current radium cleanup standard.

The following supporting documentation for determination of the radium benchmark dose and the natural uranium soil standard (explained in Section 3.0) is attached:



- The RESRAD Data Input Basis (Attachment 1) provides a summary of the modeling performed with RESRAD and the values that were used for the input parameters. A sensitivity analysis was performed for parameters which are important to the major component dose pathways and for which no site specific data was available.
- Selected graphs produced with RESRAD that present the results of the sensitivity analysis performed on the input parameters are attached (Attachment 2).
- A full printout of the final RESRAD modeling results for the resident farmer scenario with the chosen input values is attached (Attachments 3.0 and 3.1). The printout provides the modeled maximum annual dose for calculated times for the 1,000-year time span and provides a breakdown of the fraction of dose due to each pathway.
- Graphs produced with RESRAD that present the modeling results for the maximum dose during the 1,000 year time span for radium-226, natural uranium, and the land application. A series of graphs depicting the summed dose for all pathways and the component pathways that contributes to the total dose are attached (Attachments 4.0 and 4.1).

The maximum dose from Ra-226 contaminated soil at the 5 pCi/g above background cleanup standard, as determined by RESRAD, for the residential farmer scenario was 38.1 mrem/yr. This dose was based upon the 5 pCi/g surface (0 to 6-inch) Ra-226 standard and was noted at time,  $t = 0$  years. The two major dose pathways were external exposure and plant ingestion (water independent). For these two pathways, a sensitivity analysis was performed for important parameters for which no site specific information was available. The 38.1 mrem/yr dose from radium is the level at which the natural uranium radiological end point soil standard will be based as described in the following section.



### **3.0 Determination of Natural Uranium Soil Standard**

RESRAD was used to determine the concentration of natural uranium (U-nat) in soil distinguishable from background that would result in a maximum dose of 38.1mrem/yr. The method involved modeling the dose from a set concentration of U-nat in soil. This dose was then compared to the radium benchmark dose and scaled to arrive at the maximum allowable U-nat concentration in soil.

For ease of calculations, a preset concentration of 100 pCi/g U-nat was used for modeling the dose. The fractions used were 49.2 percent (or pCi/g) U-234, 48.6 percent (or pCi/g) U-238 and 2.2 percent (or pCi/g) U-235. The distribution coefficients that were selected for each radionuclide were RESRAD default values. A sensitivity analysis was performed using a range of distribution coefficients to evaluate potential effects of not using site specific data. All other input parameters were the same as those used in the Ra-226 benchmark modeling.

Using a U-nat concentration in soil of 100 pCi/g, RESRAD determined a maximum dose of 7.1 mrem/yr. at time,  $t = 0$  years. The printout of the RESRAD data summary is provided in Attachment 3.1 and the dose figures generated with RESRAD are provided in Attachment 4.1.

To determine the uranium soil standard, the following formula was used:

$$\text{Uranium Limit} = \left( \frac{100 \text{ pCi/g U - nat}}{7.1 \text{ mrem/yr U - nat dose}} \right) \times 38.1 \text{ mrem/yr radium benchmark dose}$$

$$\text{Uranium Limit} = 537 \text{ pCi/g U - nat}$$

The U-nat limit is applied to soil cleanup with the Ra-226 limit using the unity rule. To determine whether an area exceeds the cleanup standards, the standards are applied according to the following formula:



$$\left( \frac{\text{Soil Uranium Concentration}}{\text{Soil Uranium Limit}} \right) + \left( \frac{\text{Soil Radium Concentration}}{\text{Soil Radium Limit}} \right) < 1$$

This approach will be used at the DBISR site to determine the radiological impact on the environment from releases of source and byproduct materials.

### **3.1 Uranium Chemical Toxicity Assessment**

The chemical toxicity effects from uranium exposure are evaluated by assuming the same exposure scenario as that used for the radiation dose assessment. In the benchmark dose assessment for the resident farmer scenario, it was assumed that the diet consisted of 25 percent of the meat, fruits, and vegetables grown at the site. No intake of contaminated food through the aquatic or milk pathways was considered probable since it is unlikely the Dewey-Burdock area could support this activity with local vegetation. Also, the model showed that the contamination would not affect the groundwater quality. Therefore, the same model will be used in assessing the chemical toxicity. The intake from eating meat was shown to be negligible compared to the plant pathway and therefore is not shown here. This is confirmed by the results of the RESRAD calculations shown in Attachment 3.1 and the figures generated with RESRAD shown in Attachment 4.1.

The method and parameters for estimating the human intake of uranium from ingestion are taken from NUREG/CR-5512 Vol. 1 (NRC, 1992). The uptake of uranium in food is a product of the uranium concentration in soil and the soil-to-plant conversion factor. The annual intake in humans is then calculated by multiplying the annual consumption by the uranium concentration in the food. Since the soil-plant conversion factor is based on a dry weight, the annual consumption must be adjusted to a dry-weight basis by multiplying by the dry-weight to wet-weight ratio. Parameters for these calculations are given in Section 6.5.9 of the NUREG/CR-5512 Vol. 1 (NRC, 1992). Table 3-1 provides the parameters used in these calculation and results for leafy vegetables, other vegetables, and fruit. Annual intakes of 14 kg/year and 97 kg/year were assumed for leafy vegetables



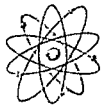
and other vegetables and fruit, respectively. Consistent with Attachment 3.1 dose calculations, it was assumed that 25 percent of the food was grown on the site. It was also assumed that the uranium concentration in the garden or orchard was 537 pCi/g. This corresponds to the uranium Benchmark Concentration for surface soils. Using a conversion factor for U-nat of 1 mg = 677 pCi, then 537 pCi/g is equivalent to 793 mg/kg. The human intake shown in the first column of Table 3-1 is equal to the product of the parameters given in the subsequent columns. Table 3-1 shows that the total annual uranium intake from all food sources from the site is 46 mg/yr.

The two-compartment model of uranium toxicity in the kidney from oral ingestion was used (ICRP, 1995) to predict the burden of uranium in the kidney following chronic uranium ingestion. This model allows for the distribution of the two forms of uranium in the blood, and consists of a kidney with two compartments, as well as several other compartments for uranium distribution, storage and elimination including the skeleton, liver, red blood cells (macrophages) and other soft tissues.

**Table 3-1 Annual Intake of Uranium from Ingestion**

Human Intake (mg/yr)	Soil Concentration (mg/kg)	Soil to Plant Ratio (mg/kg plant to mg/kg soil)	Annual Consumption (kg)	Dry Weight Wet Weight Ratio	Food Source
9.4	793	1.7E-2	3.5	0.2	Leafy Vegetables
36.1	793	1.4E-2	13	0.25	Other Vegetables
6.9	793	4.0E-3	12	0.18	Fruit
52.4					Total

The total burden to the kidney is the sum of the two compartments. The mathematical representation for the kidney burden of uranium at steady state can be derived as follows (ICRP, 1995):



$$Q_P = \frac{IR \times f_l}{\lambda_P \left( 1 - f_{ps} - f_{pr} - f_{pl} - f_{pk} - f_{pk1} \right)}$$

Where:

$Q_P$  = uranium burden in the plasma,  $\mu\text{g}$

$IR$  = dietary consumption rate,  $\text{mg U/d}$

$f_l$  = fractional transfer of uranium from GI tract to blood, unit less

$f_{ps}$  = fractional transfer of uranium from plasma to skeleton, unit less

$f_{pr}$  = fractional transfer of uranium from plasma to red blood cells, unit less

$f_{pl}$  = fractional transfer of uranium from plasma to liver, unit less

$f_{pt}$  = fractional transfer of uranium from plasma to soft tissue, unit less

$f_{pk1}$  = fractional transfer of uranium from plasma to kidney, compartment 1, unit less

$\lambda_P$  = biological retention constant in the plasma,  $\text{d}^{-1}$

The burden in kidney compartment 1 is:

$$Q_{k1} = \lambda_P \times Q_P \times \frac{f_{pk1}}{\lambda_{k1}}$$

Where:

$Q_{k1}$  = uranium burden in kidney compartment 1,  $\text{mg}$

$\lambda_{k1}$  = biological retention constant of uranium in kidney compartment 1,  $\text{d}^{-1}$

Similarly, for compartment 2 in the kidney, the burden is:

$$Q_{k2} = \lambda_P \times Q_P \times \frac{f_{pk2}}{\lambda_{k2}}$$

Where:

$Q_{k2}$  = uranium burden in kidney compartment 2,  $\mu\text{g}$ ;



$\lambda_{k2}$  = biological retention constant of uranium in kidney compartment 2,  $d^{-1}$ ;

$f_{pk2}$  = fractional transfer of uranium from plasma to kidney compartment 2, unit less.

The total burden to the kidney is then the sum of the two compartments is:

$$Q_{k1} + Q_{k2} = \frac{IR \times f_1}{\left(1 - f_{ps} - f_{pr} - f_{pl} - f_{pt} - f_{pk1}\right)} \times \left( \frac{f_{pk1}}{\lambda_{k1}} + \frac{f_{pk2}}{\lambda_{k2}} \right)$$

The parameter input values for the two-compartment kidney model include the daily intake of uranium estimated for residents at this site, and the ICRP69 values recommended by the ICRP as listed below (ICRP, 1995). The daily uranium intake rate was estimated to be 0.14 mg/day (52.4 mg/year) from ingestion while residing at this site.

$IR = 0.14 \text{ mg/day}$

$f_1 = 0.02$

$f_{ps} = 0.105$

$f_{pr} = 0.007$

$f_{pl} = 0.0105$

$f_{pt} = 0.347$

$f_{pk1} = 0.00035$

$f_{pk2} = 0.084$

$\lambda_{k1} = \ln(2)/(5 \text{ yrs} \times 365 \text{ days/yr})$

$\lambda_{k2} = \ln(2)/7 \text{ days}$

where  $\ln(2) = 0.693\dots$

Given a daily uranium intake of 0.14 mg/day at this site and the above equation, the calculated uranium in the kidneys is 0.0093 mg U, or a concentration of 0.032  $\mu\text{g U/g}$  kidney. This is 3.2 percent of the 1.0  $\mu\text{g U/g}$  value that has generally been understood to protect the kidney from the toxic effects of uranium. Some researchers have suggested that mild effects may be observable at levels as low as 0.1  $\mu\text{g U/g}$  of kidney tissue.





Using 0.1  $\mu\text{g}$  U/g as a criterion, then the intake is 32 percent of the level where mild effects may be observable.

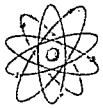
The EPA evaluated the chemical toxicity data and found that mild proteinuria has been observed at drinking water levels between 20 and 100  $\mu\text{g}/\text{liter}$ . Assuming water intake of 2 liters/day, this corresponds to an intake of 0.04 to 0.2 mg/day. Using animal data and a conservative factor of 100, the EPA arrived at a 30  $\mu\text{g}/\text{liter}$  limit for use as a National Primary Drinking Water Standard (Federal Register/Vol.65, No.236/ December 7, 2000). This is equivalent to an intake of 0.06 mg/day for the average individual. Naturally, since large diverse populations are potentially exposed to drinking water sources regulated using these standards, the EPA is very conservative in developing limits.

This analysis indicates that a soil limit of 537 pCi/g of U-nat would result in an intake of approximately 0.14 mg/day. Using the most conservative daily limit corresponding to the National Primary Drinking Water standard, a soil limit of 230 pCi/g corresponds to the EPA intake limit from drinking water with a uranium concentration of 0.06 mg/day. Therefore exposure to soils containing 230 pCi/g of natural uranium should not result in chemical toxicity effects. Since the roots of a fruit tree would penetrate to a considerable depth, limiting subsurface uranium concentrations to 230 pCi/g will be considered appropriate as well.

#### **4.0 References**

ANL, 1993, "Data Collection Handbook to Support Modeling the Impacts of Radioactive Material in Soil", Environmental Assessment Division, Argonne National Laboratory, ANL/EAIS-8, Argonne, Illinois.

ICRP, 1995, *ICRP Publication 69 - Age-dependent Doses to Members of the Public from Intake of Radionuclides: Part 3 Ingestion Dose Coefficients*, International Commission on Radiation Protection, Tarrytown, New York.



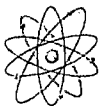
NRC, 1992, "*Residual Radioactive Contamination from Decommissioning*," U.S. Nuclear Regulatory Commission, NUREG/CRR-5512 (PNL-7994) Vol. 1, Washington, DC.

NRC, 2003, "Standard Review Plan for In situ Leach Uranium Extraction License Applications", Division of Fuel Cycle Safety and Safeguards, Office of Nuclear Material Safety and Safeguards, U. S. Nuclear Regulatory Commission, NUREG-1569, Washington, DC.

NRCS, 2007, "2003 Annual National Resources Inventory", Natural Resources Conservation Service, U.S. Department of Agriculture, Washington, DC.

TVA, *Environmental Impact Statement – Edgemont Uranium Mine*, Tennessee Valley Authority, Knoxville, Tennessee.

USGS, 2004, *Estimated Use of Water in the United States in 2000*, U.S. Geological Survey, U.S. Department of the Interior, USGS Circular 1268, Reston, Virginia.



**POWERTECH (USA) INC.**

## **Radium Benchmark Dose Assessment**

### **Attachment 1**

#### **RESRAD Data Input Basis Parameters**



## **RESRAD Data Input Basis Parameters**

This document summarizes the data input and modeling scenario that was used to determine the radium benchmark dose for the DBISR Project. The modeling was performed using RESRAD for Windows Version 6.4 developed by the Environmental Assessment Division at Argonne National Laboratory.

The resident farmer scenario was used since this is the most likely land use near the site. The following sections describe the data parameters that were used to model site-specific conditions:

The data input was based upon four principal sources:

1. The Data Collection Handbook to Support Modeling Impacts of Radioactive Material in Soil (Data Collection Handbook) (ANL, 1993)
2. The NUREG-1569 (NRC, 2003)
3. Site specific information to be included in the DBISR license application
4. The Natural Resources Conservation Service (NRCS) 2003 Annual Natural Resources Inventory, State Report (NRCS, 2007)
5. The Tennessee Valley Authority (TVA) Environmental Impact Statement – Edgemont Uranium Mine (EIS)
6. The US Geological Survey (USGS) Circular 1268 (USGS, 2004)



### ***Soil Concentration***

1. Lead-210: Used 5.0 pCi/g per the NUREG-1569 (NRC, 2003).

*No sensitivity analysis on this parameter was performed based on the guidance.*

2. Radium-226: Used 5.0 pCi/g regulatory limit as basis for determining benchmark.

*No sensitivity analysis on this parameter was performed based on the regulatory limit.*

### ***Distribution Coefficient ( $K_d$ )***

All values found in the Data Collection Handbook (ANL, 1993).

1. Lead-210: Used the value for sand, 270 cm<sup>3</sup>/g, for the contaminated zone and the saturated zone. Used the value for clay, 550 cm<sup>3</sup>/g, for the unsaturated zone. The Data Collection Handbook specifies the following values (ANL, 1993):

- Sand = 270
- Loam = 16,000

*Sensitivity analyses were performed on the external and plant (water independent) pathways with a multiple of 100 on the value for the contaminated zone (i.e. 2.7, 270, 27,000). No appreciable impacts on maximum dose were found for both the external and plant (water independent) pathways when using the higher or lower  $K_d$ . The range of values covers the range of potential values at the site based upon sandy and loamy soil types. Graphs attached.*

2. Radium 226: Used the value for sand, 500 cm<sup>3</sup>/g, for the contaminated zone and the saturated zone. Used the value for clay, 9,100 cm<sup>3</sup>/g, for the unsaturated zone. The Data Collection Handbook specifies the following values (ANL, 1993):



- Sand = 500
- Loam = 36,000

*Sensitivity analyses were performed on the external and plant (water independent) pathways with a multiple of 100 on the value for the contaminated zone (i.e. 5, 500, 50,000). No appreciable impacts on maximum dose were found for both the external and plant (water independent) pathways when using the higher or lower  $K_d$ . The range of values covers the range of potential values at the site based upon sandy and loamy soil types. Graphs attached.*

#### **Contaminated Zone**

1. Area: Used the default value of 10,000 square meters.

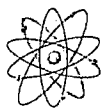
*Sensitivity analysis was performed on the external pathway with a multiple of 2 (i.e. 5,000, 10,000, and 20,000). There was no impact on maximum dose rate for the external dose pathway when using the larger value. There was a small decrease in maximum dose rate for the external dose pathway when using the smaller value. Therefore the use of the mid-range value for the area is conservative. Graph attached.*

2. Thickness: Used 0.15 m (6 inches) based on regulatory requirement.

*No sensitivity analysis on this parameter was performed based on the guidance.*

3. Length parallel to aquifer flow: Used the default value of 100 meters, based on the square root of a 10,000 square meter contaminated zone.

*No sensitivity analysis was performed since water dependent pathways were not significant contributors to dose.*



### ***Cover and Contaminated Zone***

The topsoil of the area (the contaminated zone) is described as alluvial sand, gravel, and clay in the EIS (TVA.).

1. Cover depth: Used 0 meters in accordance with NUREG-1569 (NRC, 2003).

*No sensitivity analysis on this parameter was performed based on the guidance.*

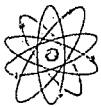
2. Density of contaminated zone: Used the average density of the contaminated zone, 1.26 g/cm<sup>3</sup>, based on site specific data.

*No sensitivity analysis was performed because the value is site specific.*

3. Contaminated zone erosion rate: Used the erosion rates for South Dakota listed in the NRCS 2003 National Resources Inventory, State Report (NCRS, 2007) to calculate the erosion rate. The erosion rates listed for South Dakota are 1.8 tons/acre-year from water erosion and 2.0 tons/acre-year from wind erosion (3.8 tons/acre-year total). Using the contaminated zone soil density (1.26 g/cm<sup>3</sup>), the total erosion rate was calculated as shown below and used in RESRAD.

$$\text{Erosion Rate (m/yr)} = \frac{3.8 \text{ ton}}{\text{acre} \cdot \text{yr}} \times \frac{9.07 \times 10^5 \text{ g}}{\text{ton}} \times \frac{\text{acre}}{4.047 \times 10^7 \text{ cm}^2} \times \frac{\text{cm}^3}{1.26 \text{ g}} \times \frac{\text{m}}{100 \text{ cm}} = 0.0007$$

*Sensitivity analyses of the external and plant (water independent) pathways were performed with a multiple of 2 (i.e. 0.0014, 0.0007, and 0.00035). The maximum dose rate from the external pathway did not change when the value was changed. The maximum dose rate from the plant (water independent) pathway decreased slightly when using the smaller value. Also, the mid-range value is based on information specific to South Dakota. Therefore the mid-range value is both adequate for the model and conservative. Graph attached.*



4. Contaminated zone total porosity: Used the average porosity of the contaminated zone, 0.5384, based on site specific data.

*No sensitivity analysis was performed because the value is site specific.*

5. Contaminated zone field capacity: Used the minimum field capacity value for the contaminated zone,  $1 \times 10^{-34}$ , based on site specific data.

*No sensitivity analysis was performed because the value is site specific.*

6. Contaminated zone hydraulic conductivity: Used the representative hydraulic conductivity value for sandy clay loam listed in the Data Collection Handbook,  $1.99 \times 10^2$  m/yr (ANL, 1993).

*No sensitivity analysis was performed since water dependent pathways were not significant contributors to dose.*

7. Contaminated zone b parameter: Used the b parameter value for sandy clay loam listed in the Data Collection Handbook, 7.12 (ANL, 1993).

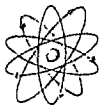
*No sensitivity analysis was performed since water dependent pathways were not significant contributors to dose.*

8. Evapotranspiration Coefficient: Used the maximum evapotranspiration coefficient, 0.999, based on site specific data.

*No sensitivity analysis was performed because the value is site specific.*

9. Wind Speed: Used the average wind speed, 3 m/s, based on site specific data.





*No sensitivity analysis was performed because the value is site specific.*

10. Precipitation: Used the precipitation rate, 0.32 m/yr, based on site specific data.

*No sensitivity analysis was performed because the value is site specific.*

11. Irrigation Rate: Used the average irrigation rate for South Dakota listed in the USGS Circular 1268, 0.360 m/yr (1.18 ft/yr) (USGS, 2004).

*No sensitivity analysis was performed since water dependent pathways were not significant contributors to dose.*

12. Runoff Coefficient: From the Data Collection Handbook, the equation for runoff coefficient for an agricultural environment is shown below (ANL, 1993).

$$\text{Runoff Coefficient} = 1 - c_1 - c_2 - c_3$$

The values of  $c_1$ ,  $c_2$ , and  $c_3$  used were 0.2 (rolling land), 0.2 (intermediate combinations of clay and loam), and 0.1 (cultivated lands), respectively. The resulting runoff coefficient used is 0.5.

*No sensitivity analysis was performed since water dependent pathways were not significant contributors to dose.*

13. Watershed Area for Nearby Stream or Pond: Used the watershed area,  $1.3 \times 10^6 \text{ m}^2$  (0.5 square miles), based on site specific data.

*No sensitivity analysis was performed since water dependent pathways were not significant contributors to dose.*



14. Accuracy: Used the default value of 0.001.

*No sensitivity analysis was performed since water dependent pathways were not significant contributors to dose.*

***Saturated Zone***

1. Density of saturated zone: Used the average density of the saturated zone,  $2.64 \text{ g/cm}^3$ , based on site specific data.

*No sensitivity analysis was performed since water dependent pathways were not significant contributors to dose.*

2. Saturated zone total porosity: Used the value of 0.34, which is the mean total porosity for sandstone (medium) listed in the Data Collection Handbook (ANL, 1993).

*No sensitivity analysis was performed since water dependent pathways were not significant contributors to dose.*

3. Saturated zone effective porosity: Used the average porosity of the saturated zone, 0.2974, based on site specific data.

*No sensitivity analysis was performed because the value is site specific.*

4. Saturated zone field capacity: Used the value obtained from subtracting the effective porosity of the saturated zone from the total porosity of the saturated zone, 0.0426.

*No sensitivity analysis was performed since water dependent pathways were not significant contributors to dose.*



5. Saturated zone hydraulic conductivity: Used the hydraulic conductivity of the saturated zone, 703 m/yr ( $2.23 \times 10^{-3}$  cm/s), based on site specific data.

*No sensitivity analysis was performed because the value is site specific.*

6. Saturated zone hydraulic gradient: Used the hydraulic gradient of the saturated zone, 0.01, based on site specific data.

*No sensitivity analysis was performed because the value is site specific.*

6. Saturated zone b parameter: Used the b parameter value for sand listed in the Data Collection Handbook, 4.05.

*No sensitivity analysis was performed since water dependent pathways were not significant contributors to dose.*

7. Water Table Drop Rate: Used the default value of 0.001 m/yr.

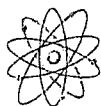
*No sensitivity analysis was performed since water dependent pathways were not significant contributors to dose.*

8. Well Pump Intake Depth: Used the default value of 10 m.

*No sensitivity analysis was performed since water dependent pathways were not significant contributors to dose.*

10. Model for Water Transport Parameters: Used non-dispersion per NUREG-1569 (NRC, 2003).

*No sensitivity analysis on this parameter was performed based on the guidance.*



11. Well Pumping Rate: The USGS Circular 1268 lists the uses of ground water in South Dakota (in million gallons per day) as public supply (54.2), domestic (9.52), irrigation (137), livestock (16.9), industrial (3.16), and thermoelectric power (1.23) (USGS, 2004). Since the aquifer containing the ore will be not used for drinking water, the public supply and domestic uses were ignored. Since the site is located in a rural area, the industrial and thermoelectric power uses were ignored as well. The Circular lists the rate of groundwater used for livestock in South Dakota as  $18.9 \times 10^3$  acre-feet/yr (USGS, 2004). The Circular also lists the total rate of water (both groundwater and surface water) used for irrigation in South Dakota as 1.18 feet/yr and the fraction from groundwater as 153 thousand acre-feet per year (from ground water) / 418 thousand acre-feet per year (total) = 0.366. The 2003 Natural Resources Inventory by the NRCS lists the amount of land used in South Dakota for livestock is  $1985 \times 10^3$  acres (for pasture) +  $22054 \times 10^3$  acres (for range) =  $2.40 \times 10^7$  acres (NRCS, 2007). Since the area of the contaminated zone is  $10,000 \text{ m}^2$  (2.47 acres), the rate of well pumping used in RESRAD was calculated as shown below.

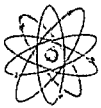
$$\text{Rate (m/yr)} = 2.47 \text{ ac} \times \left( \frac{18.9 \times 10^3 \text{ ac} \cdot \text{ft/yr}}{2.40 \times 10^7 \text{ ac}} + 1.18 \text{ ft/yr} \times 0.366 \right) \times \frac{1233 \text{ m}^3}{\text{ac} \cdot \text{ft}} = 1322$$

*No sensitivity analysis was performed since water dependent pathways were not significant contributors to dose.*

### ***Unsaturated Zone***

1. Unsaturated zone thickness: Used the conservative thickness of the Skull Creek shale formation, 15.2 meters (50 ft), based on site specific data.

*No sensitivity analysis was performed because the value is site specific.*



2. Density of unsaturated zone: Used the average density for the Skull Creek shale formation,  $2.61 \text{ g/cm}^3$ , based on site specific data.

*No sensitivity analysis was performed because the value is site specific.*

3. Unsaturated zone total porosity: Used the representative total porosity value for clay, 0.42, listed in the Data Collection Handbook (ANL, 2003).

*No sensitivity analysis was performed since water dependent pathways were not significant contributors to dose.*

4. Unsaturated zone effective porosity: Used the average porosity for the Skull Creek shale formation, 0.092, based on site specific data.

*No sensitivity analysis was performed because the value is site specific.*

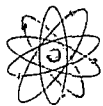
5. Unsaturated zone field capacity: Used the value obtained by subtracting the effective porosity of the unsaturated zone from the total porosity of the unsaturated zone, 0.328.

*No sensitivity analysis was performed since water dependent pathways were not significant contributors to dose.*

6. Unsaturated zone hydraulic conductivity: Used the average hydraulic conductivity for the Skull Creek shale formation,  $3.27 \times 10^{-8} \text{ cm/s}$  ( $0.0103 \text{ m/yr}$ ), based on site specific data.

*No sensitivity analysis was performed because the value is site specific.*

7. Unsaturated zone b parameter: Used the b parameter value for clay, 11.4, listed in the Data Collection Handbook (ANL, 1993).



*No sensitivity analysis was performed since water dependent pathways were not significant contributors to dose.*

***Occupancy***

1. Inhalation Rate: Used the default value of 8,400 m<sup>3</sup>/yr.

*No sensitivity analysis was performed since inhalation pathways were not significant contributors to dose.*

2. Mass Loading for Inhalation: Used the default value of 0.0001 g/m<sup>3</sup>.

*No sensitivity analysis was performed since inhalation pathways were not significant contributors to dose.*

3. Exposure Duration: Used the default value of 30 years.

4. Indoor dust filtration factor: Used the default value of 0.4.

*No sensitivity analysis was performed since inhalation pathways were not significant contributors to dose.*

5. External gamma shielding factor: Used the value of 0.55. The NUREG-1569 requires that a value between 0.33 and 0.55 be used.

*Sensitivity analysis of the external pathway was performed using a multiple of 1.5 (i.e., 0.367, 0.55 and 0.825). Using the lower value resulted in a decrease in the maximum dose rate for the external exposure pathway. Using the higher value resulted in an*



*increase in the maximum dose rate for the external exposure pathway. The value 0.55 is the most conservative value in the range specified by the NUREG-1569. Graph attached.*

6. Indoor/Outdoor Fractions: Used the defaults of 0.5 indoors and 0.25 outdoors for farmer scenario in the NUREG-1569 (NRC, 2003).

*No sensitivity analyses on these parameters were performed based on the guidance.*

7. Shape of contaminated zone: A circular shape was used.

### ***Ingestion: Dietary***

#### **1. Consumption Rates:**

- A. Fruit, vegetable and grain: Used the default value of 160 kg/yr. This value was used based upon EPA estimated consumption. NRC Reg. Guide 1.109 has an estimated consumption for an adult of 190 kg/yr. RESRAD adjusts for contaminated and uncontaminated fractions based upon the size of the contaminated area (ANL, 1993).
- B. Leafy vegetable: Used the default value of 14 kg/yr. NRC Reg. Guide 1.109 has an estimated consumption for an adult of 64 kg/yr, while NRC estimates for dose from nuclear power plants uses a consumption rate of 30 kg/yr. RESRAD adjusts for contaminated and uncontaminated fractions based upon the size of the contaminated area (ANL, 1993).
- C. Milk: Used the default value of 92 L/yr.
- D. Meat and poultry: Used the default value of 63 kg/yr.



- E. Fish/Seafood: Used the default values of 5.4 kg/yr for fish and 0.9 kg/yr for other seafood.
- F. Soil ingestion: Used the default value of 36.5 g/yr.
- G. Drinking water intake: Used the default value of 510 L/yr (1.4 L/d).

## **2. Contaminated Fractions:**

NUREG-1569 states that for sites with over 25 acres (approximately 10,000 square meters) of contamination, the fraction of diet from contaminated area should be assumed to be 25% (0.25) (NRC, 2003).

*No sensitivity analyses on these parameters were not performed based on the guidance.*

- A. Water: Used the default value of 1 (i.e., 100% of consumption is from contaminated well water). All current water use in rural areas around the site is from private wells and will likely continue to be in the foreseeable future.
- B. Livestock Water: Used default value of 1 (i.e., 100% is from contaminated water). All current water use in rural areas around the site is from private wells and will likely continue to be in the foreseeable future.
- C. Irrigation Water: Used the default value of 1 (i.e., 100% is from contaminated water). All current water use in rural areas around the site is from private wells and will likely continue to be in the foreseeable future.
- D. Plant food: Used 0.25 as percentage of plant food that is contaminated.
- E. Meat: Used 0.25 as percentage of meat that is contaminated.





- F. Aquatic food: Used the value of 0 due to the semiarid environment of the site.
- G. Milk: Used the value of 0 due to no consumption of locally produced and consumed milk per NUREG-1569 (NRC, 2003).

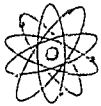
***Ingestion: Nondietary***

**1. Consumption Rates:**

- A. Livestock fodder intake for meat: Used the default value of 68 kg/day.
- B. Livestock water intake for meat: Used the default value of 50 L/day. According to NRC Regulatory Guide 1.109 (NRC, 1977), the water ingestion rate for beef cattle is 50 L/d.
- C. Livestock intake of soil for meat: Used the default value of 0.5 g/day.
- D. Mass loading for foliar deposition: Used the default value of 0.0001 g/m<sup>3</sup>.

*Sensitivity analysis on the plant (water independent) pathway was run with a multiple of 100 (i.e., 0.000001, 0.0001, and 0.01 g/m<sup>3</sup>). Using the higher value resulted in a small increase in the maximum dose rate. Using the lower value did not result in a change in the maximum dose rate. According to the Data Collection Handbook, the mid-range value has been used by the EPA for screening calculations. Therefore the mid-range value is justified for use in the model. Graph attached.*

- E. Depth of soil mixing layer: Used the default value of 0.15 meters.
- F. Depth of roots: Used 0.3 meters as a screening level based upon NUREG-1569. The root depth varies for different plants. For some plants, such as beets, carrots,



lettuce, and so forth, it does not extend below about 0.3 m, which is the basis of the NRC guidance. For others, such as fruit trees, the roots may extend 2 or 3 m below the surface. Tap roots for some crops (e.g., alfalfa) can extend to 5 m. Most of the plant roots from which nutrients are obtained, however, usually extend to less than 1 m below the surface.

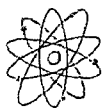
*Sensitivity analysis on the plant (water independent) pathway was run with a multiple of 2 (i.e., 0.15, 0.3, and 0.6). There was a significant impact on the maximum dose. Assumption of a shallow root system increased the dose significantly. The NRC guidance is based on the shallow-rooted plants used for consumption. Therefore, the use of the root depth recommended in the NUREG-1569 in the model is conservative. Graph attached.*

**G. Groundwater fractional usage:**

- Drinking water: Used the value of 0 due to the aquifer being exempt from being used for drinking water.
- Livestock water: Used the value of 0.401. In the USGS Circular 1268, the fraction of irrigation water used in South Dakota is 18.9 thousand acre-feet/yr (from ground water) / 47.1 thousand acre-feet/yr (total) = 0.401.
- Irrigation water: Used the value of 0.366 described previously in the well pumping rate parameter.

***Storage Times***

Used the default values for all storage times (vegetables, meats, fodder, etc.).



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## **Radium Benchmark Dose Assessment**

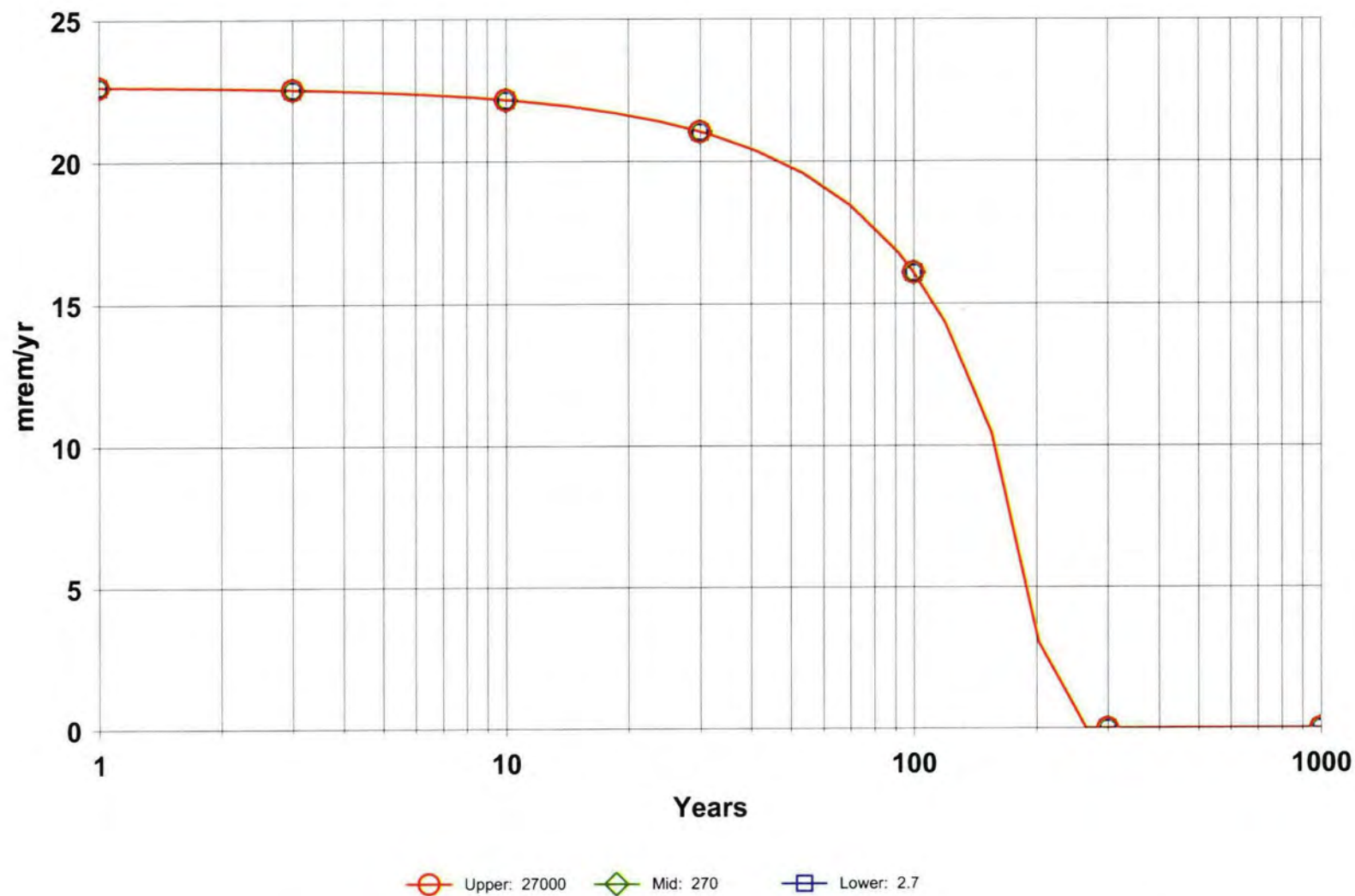
### **Attachment 2**

#### **RESRAD Input Parameter Sensitivity Analysis**



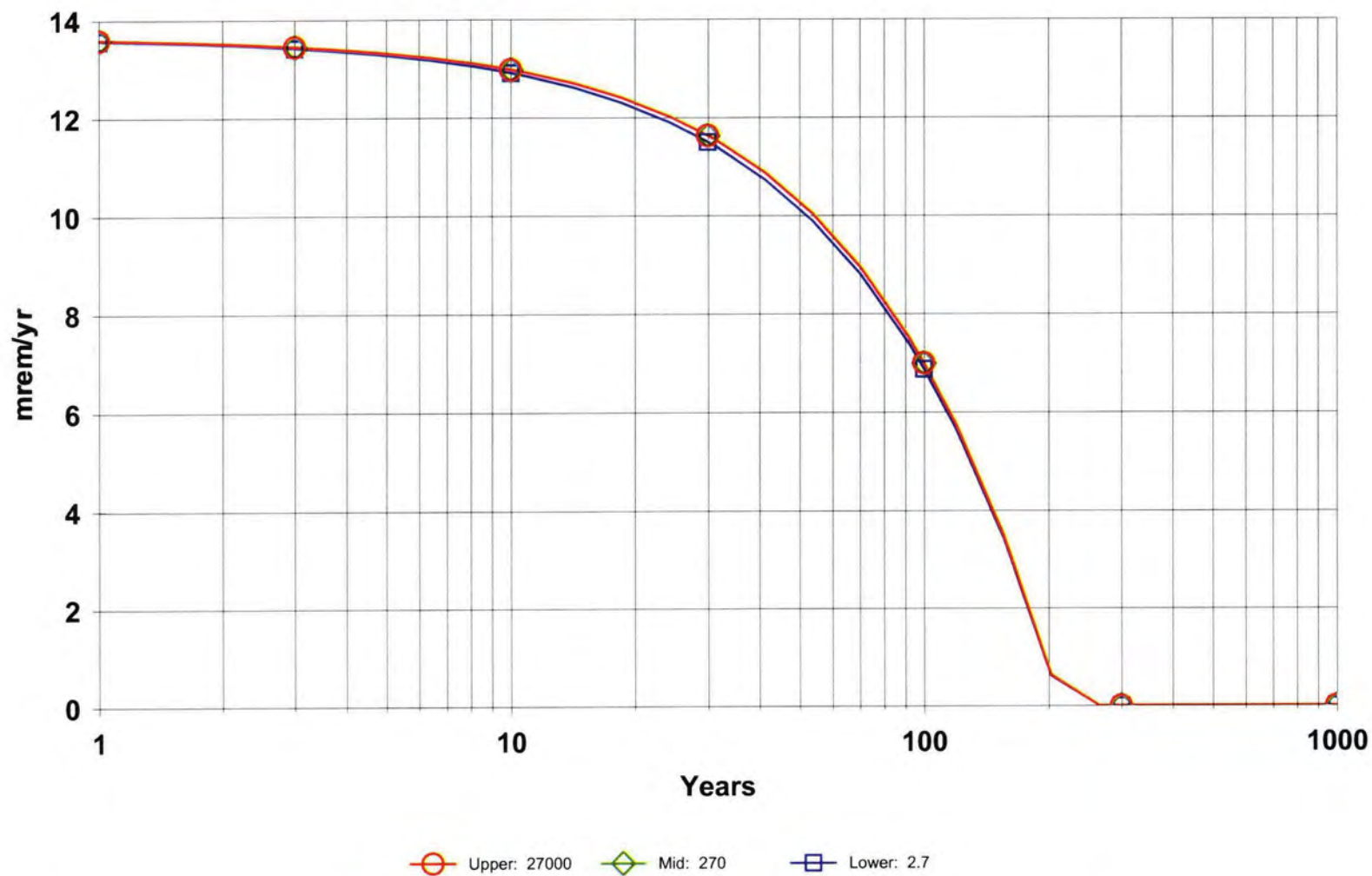
POWERTECH (USA) INC.

### DOSE: All Nuclides Summed, External With SA on Pb-210 Contaminated Zone Distribution Coefficient



C:\RESRAD\_FAMILY\RESRAD\USERFILES\DBRADIUMBENCHMARK.RAD 09/24/2008 10:52 GRAPHICS.ASC Pathways: External

**DOSE: All Nuclides Summed, Plant (Water Independent) With SA on Pb-210 Contaminated Zone  
Distribution Coefficient**

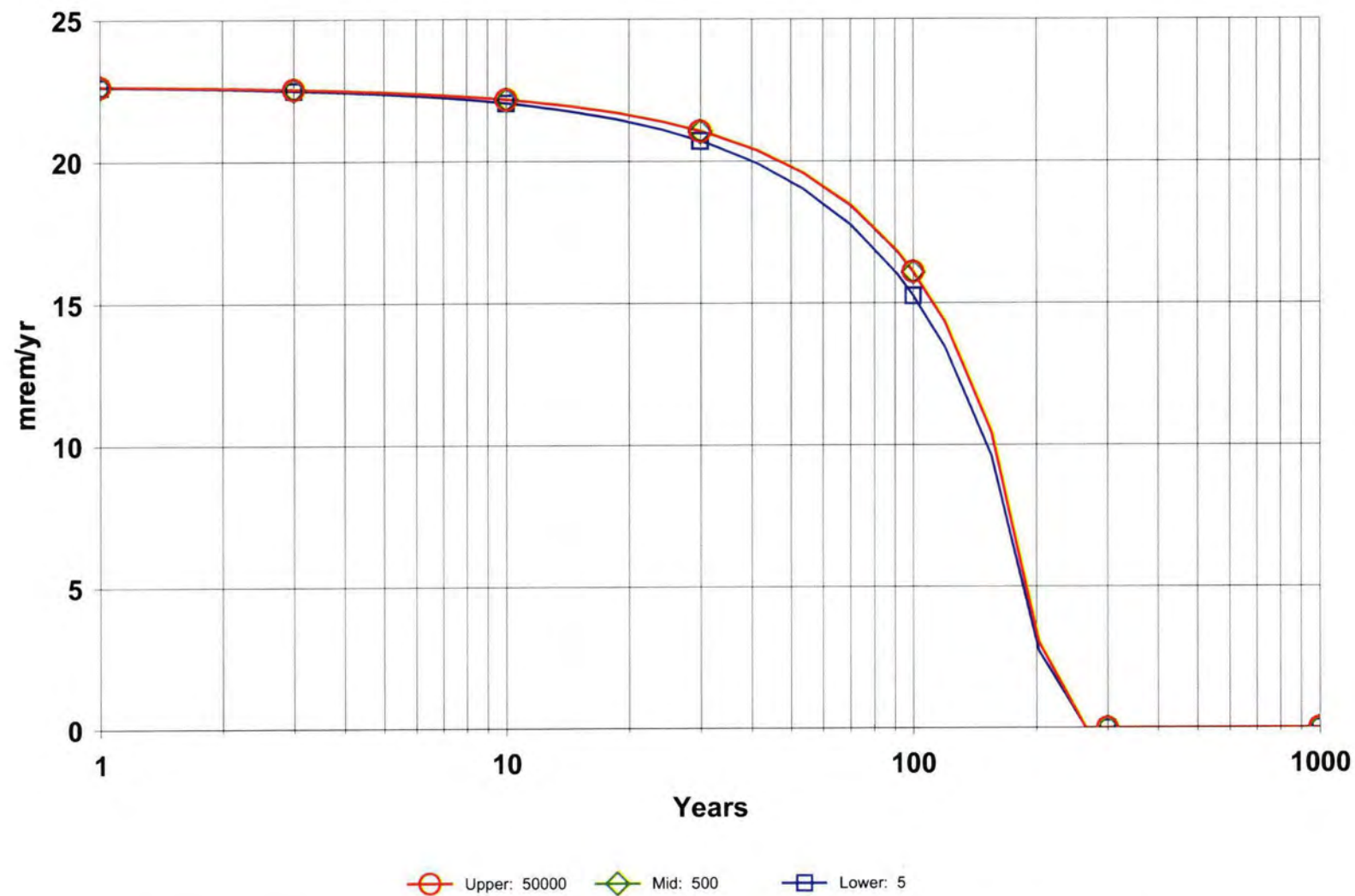


C:\RESRAD\_FAMILY\RESRAD\USERFILES\DBRADIUMBENCHMARK.RAD 09/24/2008 10:52 GRAPHICS.ASC Pathways: Plant (Water Independent)



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DOSE: All Nuclides Summed, External With SA on Ra-226 Contaminated Zone Distribution Coefficient

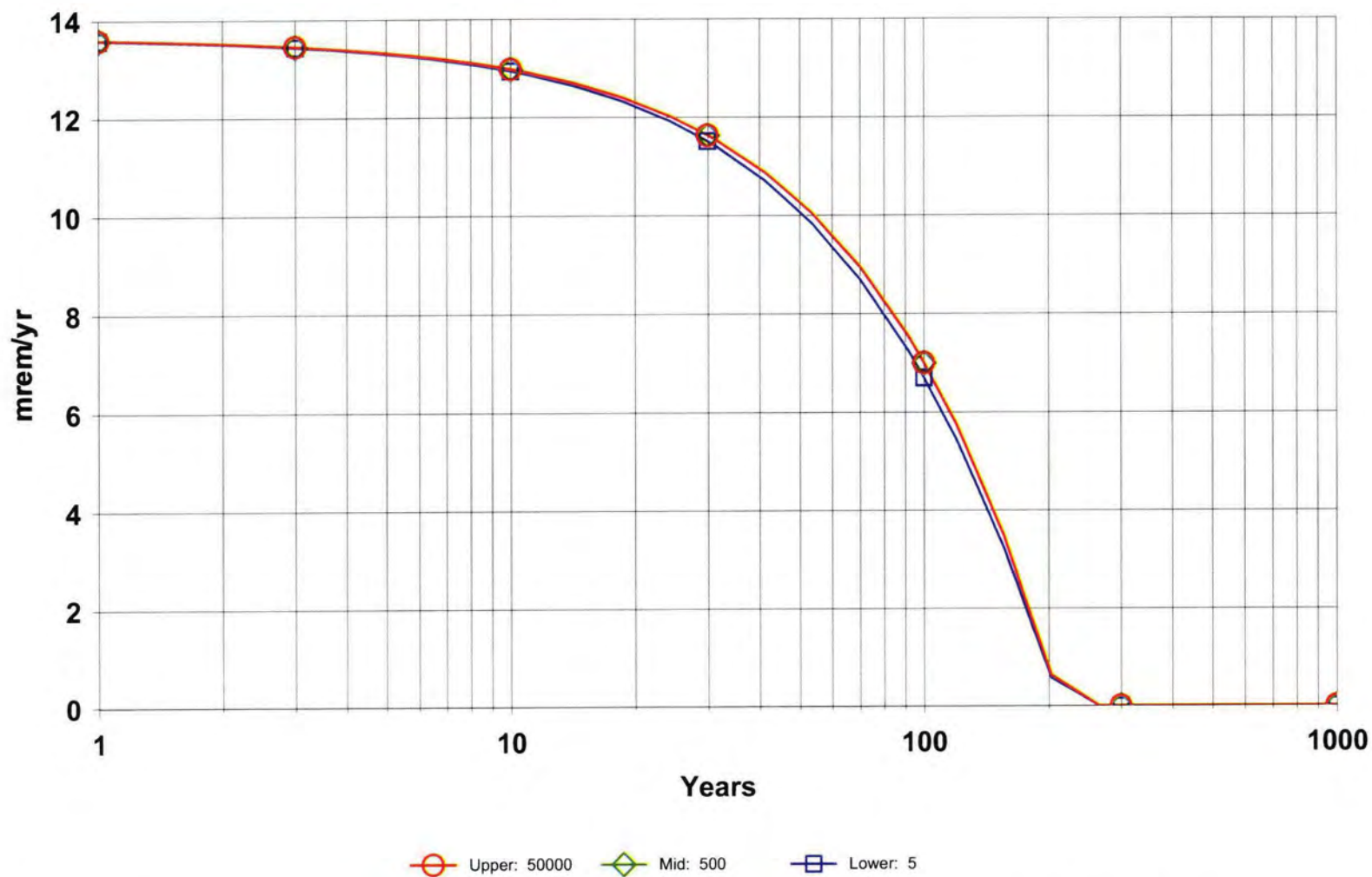


C:\RESRAD\_FAMILY\RESRAD\USERFILES\IDBRADIUMBENCHMARK.RAD 09/24/2008 10:52 GRAPHICS.ASC Pathways: External



POWERTECH (USA) INC.

DOSE: All Nuclides Summed, Plant (Water Independent) With SA on Ra-226 Contaminated Zone  
Distribution Coefficient



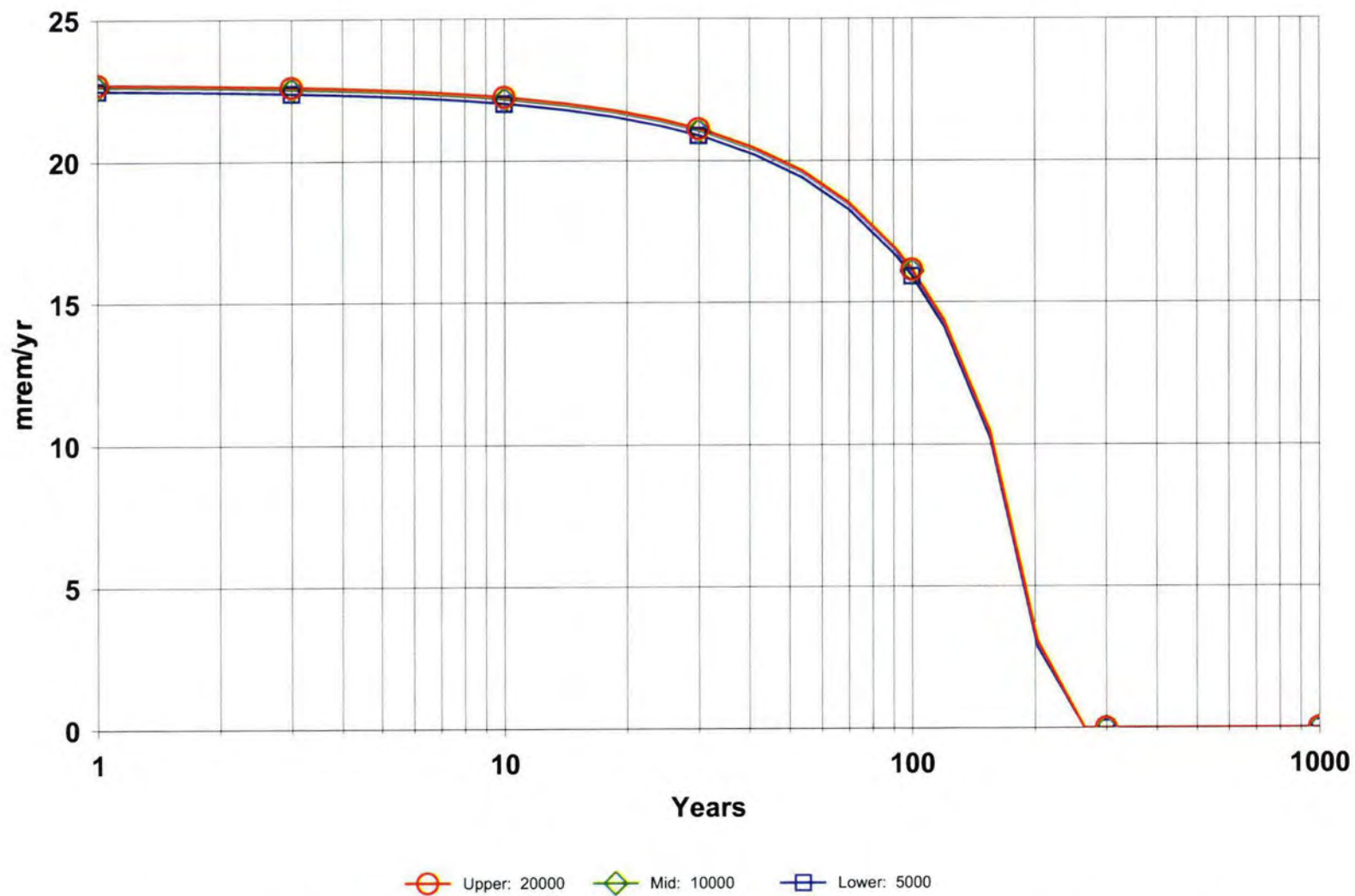
C:\RESRAD\_FAMILY\RESRAD\USERFILES\DBRADIUMBENCHMARK.RAD 09/24/2008 10:52 GRAPHICS.ASC Pathways: Plant (Water Independent)





POWERTECH (USA) INC.

DOSE: All Nuclides Summed, External With SA on Area of contaminated zone



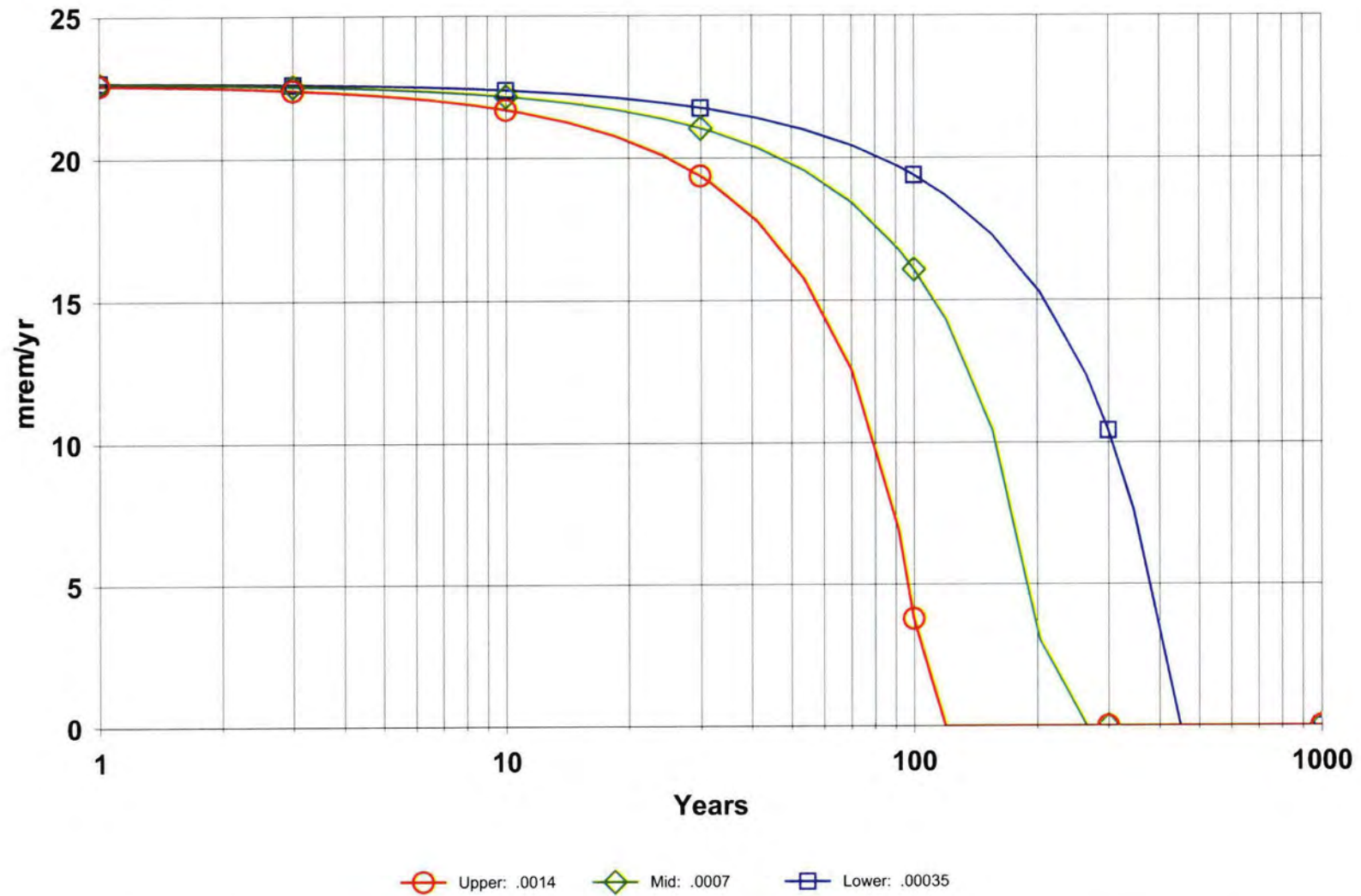
C:\RESRAD\_FAMILY\RESRAD\USERFILES\DBRADIUMBENCHMARK.RAD 09/24/2008 10:52 GRAPHICS.ASC Pathways: External





POWERTECH (USA) INC.

DOSE: All Nuclides Summed, External With SA on Contaminated zone erosion rate

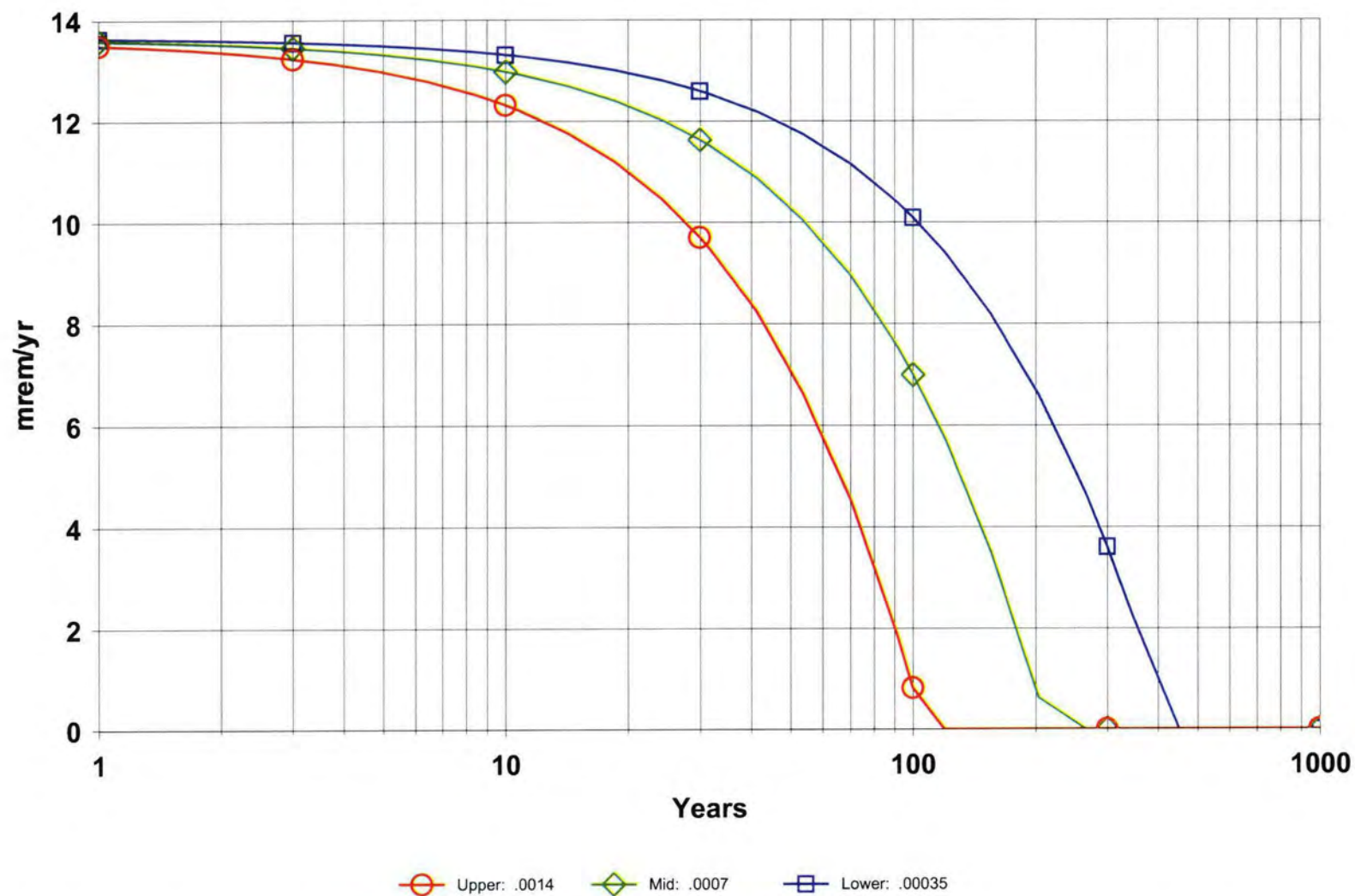


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POWERTECH (USA) INC.

DOSE: All Nuclides Summed, Plant (Water Independent) With SA on Contaminated zone erosion rate

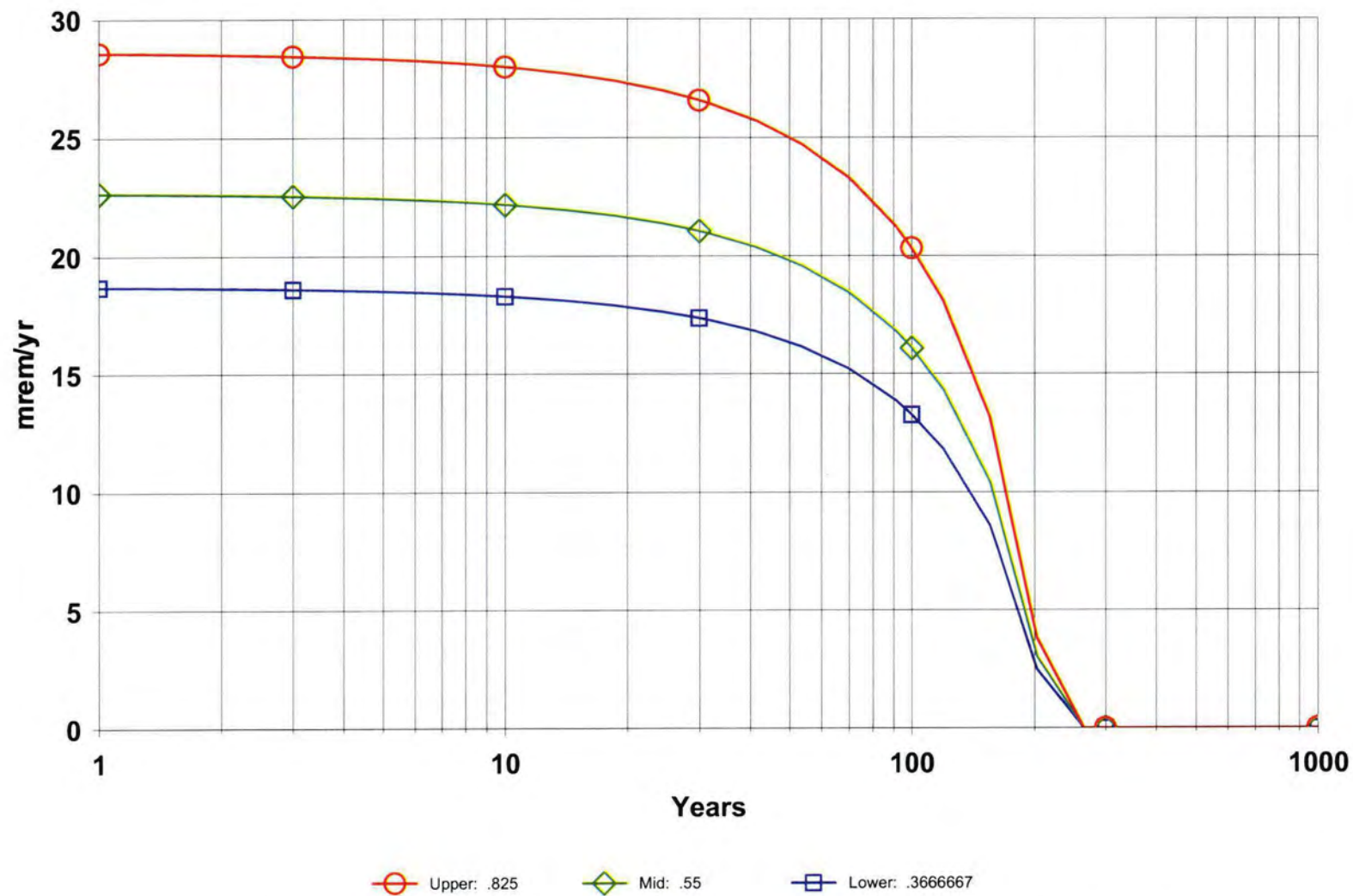


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POWERTECH (USA) INC.

DOSE: All Nuclides Summed, External With SA on External Gamma Shielding factor

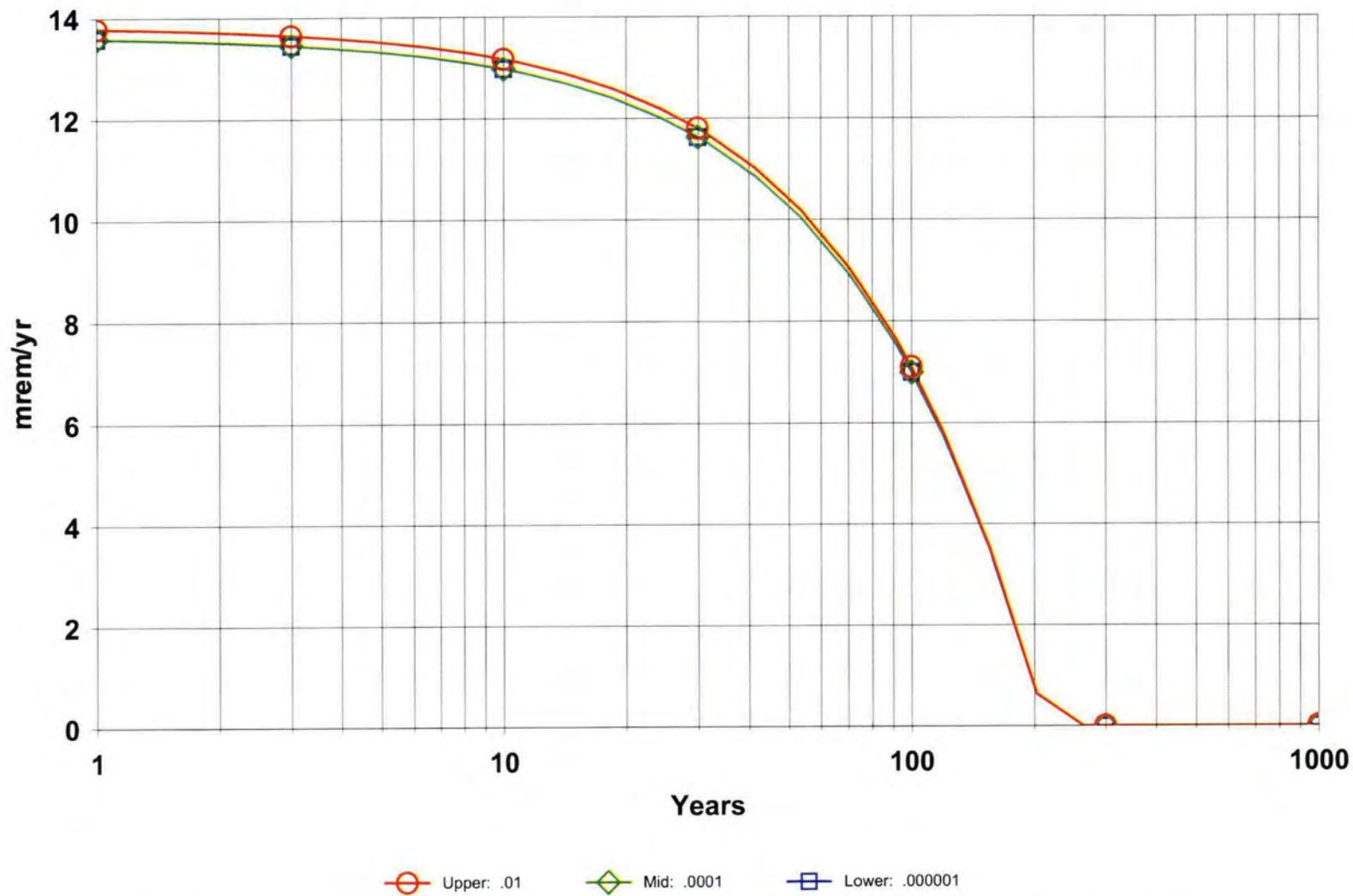


C:\RESRAD\_FAMILY\RESRAD\USERFILES\DBRADIUMBENCHMARK.RAD 09/24/2008 10:52 GRAPHICS.ASC Pathways: External



POWERTECH (USA) INC.

DOSE: All Nuclides Summed, Plant (Water Independent) With SA on Mass loading for foliar deposition



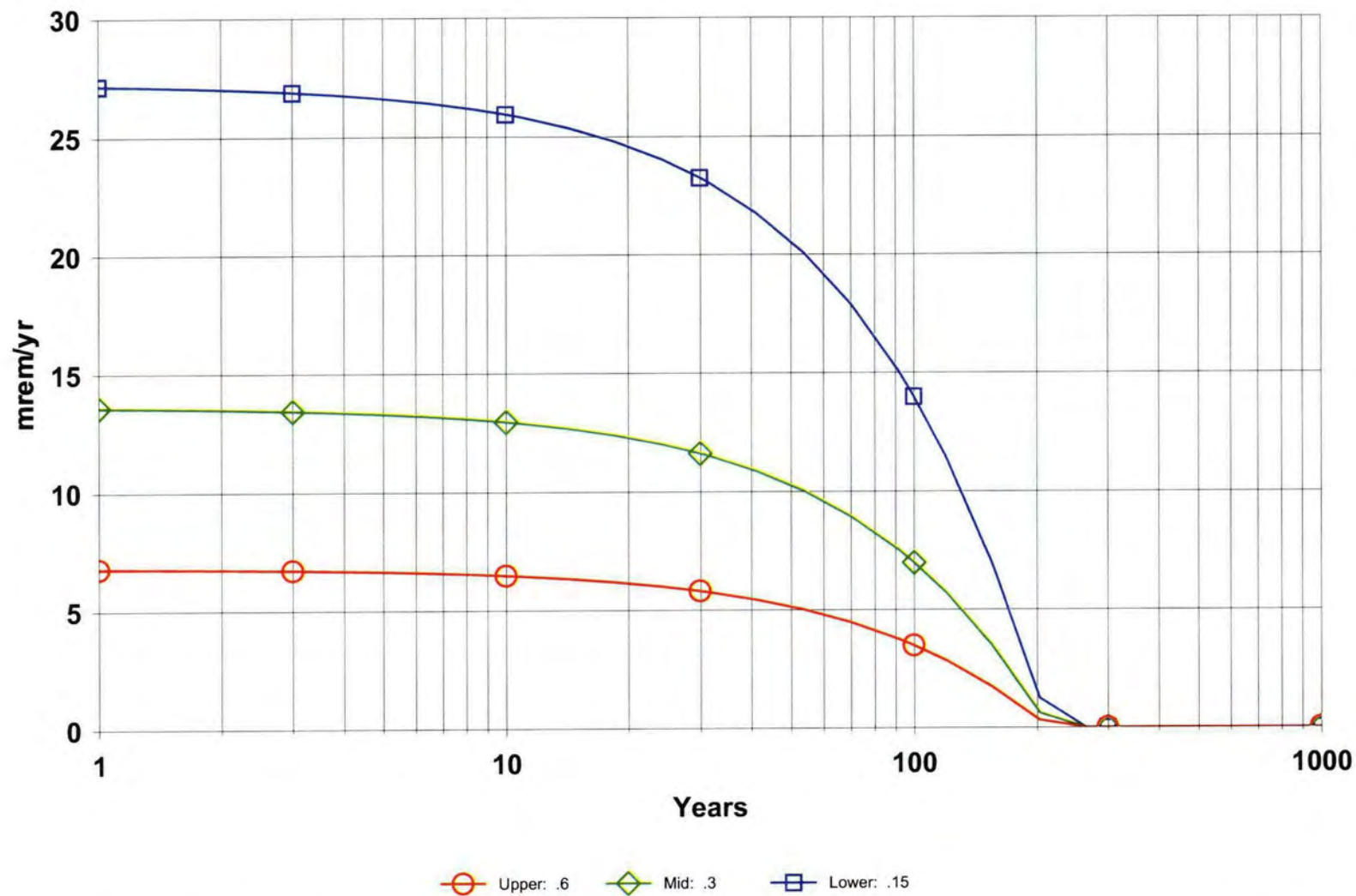
C:\RESRAD\_FAMILY\RESRAD\USERFILES\DBRADIUMBENCHMARK.RAD 09/24/2008 12:04 GRAPHICS.ASC Pathways: Plant (Water Independent)





POWERTECH (USA) INC.

DOSE: All Nuclides Summed, Plant (Water Independent) With SA on Depth of roots

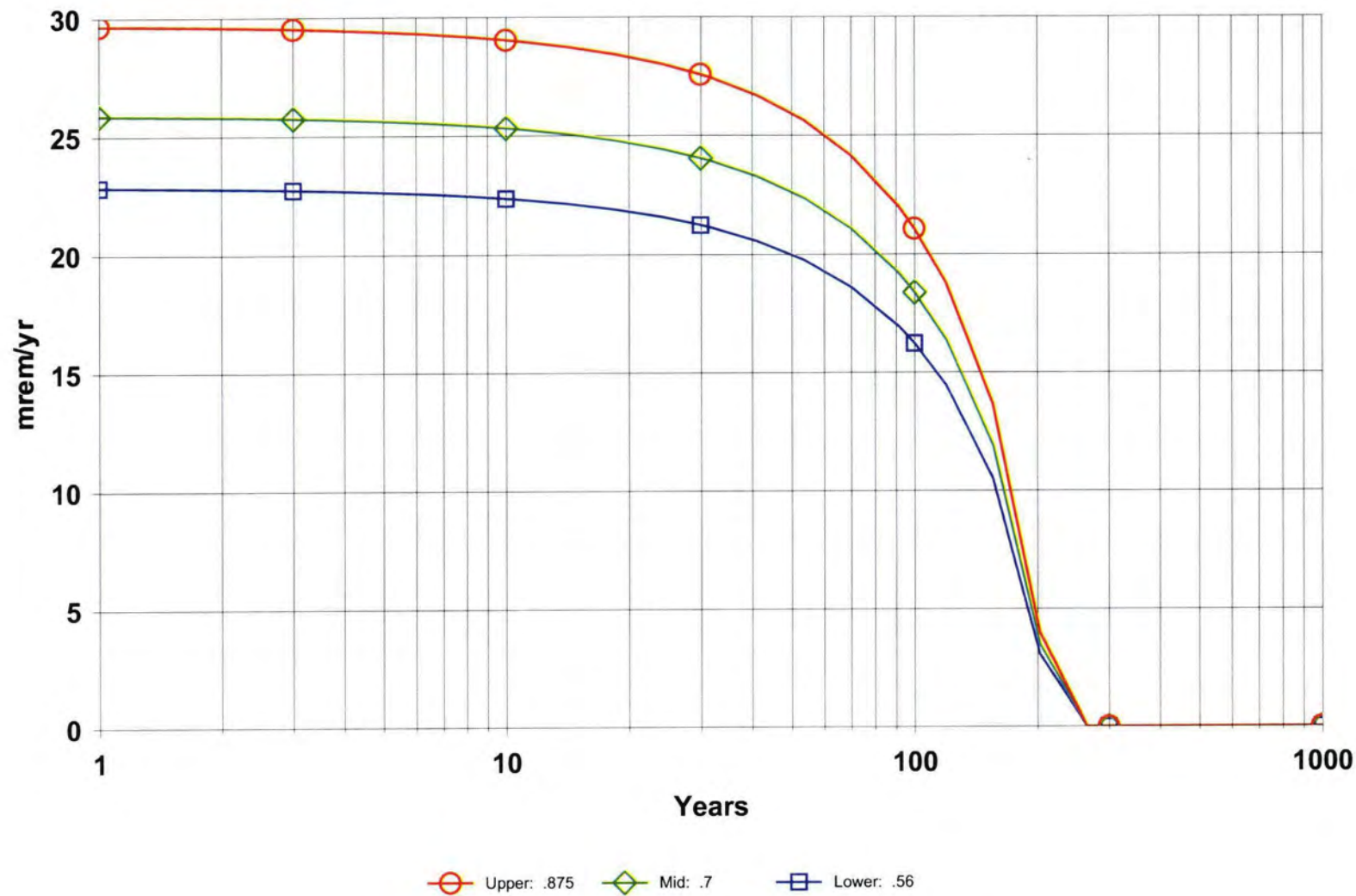


C:\RESRAD\_FAMILY\RESRAD\USERFILES\DBRADIUMBENCHMARK.RAD 09/24/2008 12:04 GRAPHICS.ASC Pathways: Plant (Water Independent)



POWERTECH (USA) INC.

DOSE: All Nuclides Summed, External With SA on External Gamma Shielding factor



Radium Benchmark 09/22/2008 08:41 GRAPHICS.ASC Pathways: External



**POWERTECH (USA) INC.**

## **Radium Benchmark Dose Assessment**

### **Attachment 3.0**

#### **RESRAD Model Output**

##### **Radium**

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Dose Conversion Factor (and Related) Parameter Summary

Dose Library: FGR 11

0 Menu	Parameter	Current Value#	Base Case*	Parameter Name
A-1	DCF's for external ground radiation, (mrem/yr)/(pCi/g)			
A-1	At-218 (Source: FGR 12)	5.847E-03	5.847E-03	DCF1( 1)
A-1	Bi-210 (Source: FGR 12)	3.606E-03	3.606E-03	DCF1( 2)
A-1	Bi-214 (Source: FGR 12)	9.808E+00	9.808E+00	DCF1( 3)
A-1	Pb-210 (Source: FGR 12)	2.447E-03	2.447E-03	DCF1( 4)
A-1	Pb-214 (Source: FGR 12)	1.341E+00	1.341E+00	DCF1( 5)
A-1	Po-210 (Source: FGR 12)	5.231E-05	5.231E-05	DCF1( 6)
A-1	Po-214 (Source: FGR 12)	5.138E-04	5.138E-04	DCF1( 7)
A-1	Po-218 (Source: FGR 12)	5.642E-05	5.642E-05	DCF1( 8)
A-1	Ra-226 (Source: FGR 12)	3.176E-02	3.176E-02	DCF1( 9)
A-1	Rn-222 (Source: FGR 12)	2.354E-03	2.354E-03	DCF1( 10)
A-1	Tl-210 (Source: no data)	0.000E+00	-2.000E+00	DCF1( 11)
B-1	Dose conversion factors for inhalation, mrem/pCi:			
B-1	Pb-210+D	2.320E-02	1.360E-02	DCF2( 1)
B-1	Ra-226+D	8.594E-03	8.580E-03	DCF2( 2)
D-1	Dose conversion factors for ingestion, mrem/pCi:			
D-1	Pb-210+D	7.276E-03	5.370E-03	DCF3( 1)
D-1	Ra-226+D	1.321E-03	1.320E-03	DCF3( 2)
D-34	Food transfer factors:			
D-34	Pb-210+D , plant/soil concentration ratio, dimensionless	1.000E-02	1.000E-02	RTF( 1,1)
D-34	Pb-210+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	8.000E-04	8.000E-04	RTF( 1,2)
D-34	Pb-210+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.000E-04	3.000E-04	RTF( 1,3)
D-34	Ra-226+D , plant/soil concentration ratio, dimensionless	4.000E-02	4.000E-02	RTF( 2,1)
D-34	Ra-226+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-03	1.000E-03	RTF( 2,2)
D-34	Ra-226+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-03	1.000E-03	RTF( 2,3)
D-5	Bioaccumulation factors, fresh water, L/kg:			
D-5	Pb-210+D , fish	3.000E+02	3.000E+02	BIOFAC( 1,1)
D-5	Pb-210+D , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 1,2)
D-5	Ra-226+D , fish	5.000E+01	5.000E+01	BIOFAC( 2,1)
D-5	Ra-226+D , crustacea and mollusks	2.500E+02	2.500E+02	BIOFAC( 2,2)

#For DCF1(xxx) only, factors are for infinite depth & area. See ETEG table in Ground Pathway of Detailed Report.

\*Base Case means Default.Lib w/o Associate Nuclide contributions.

Site-Specific Parameter Summary

0 Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R011	Area of contaminated zone (m**2)	1.000E+04	1.000E+04	---	AREA
R011	Thickness of contaminated zone (m)	1.500E-01	2.000E+00	---	THICK0
R011	Length parallel to aquifer flow (m)	1.000E+02	1.000E+02	---	LCZPAQ
R011	Basic radiation dose limit (mrem/yr)	2.500E+01	3.000E+01	---	BRDL
R011	Time since placement of material (yr)	0.000E+00	0.000E+00	---	TI
R011	Times for calculations (yr)	1.000E+00	1.000E+00	---	T( 2)
R011	Times for calculations (yr)	3.000E+00	3.000E+00	---	T( 3)
R011	Times for calculations (yr)	1.000E+01	1.000E+01	---	T( 4)
R011	Times for calculations (yr)	3.000E+01	3.000E+01	---	T( 5)
R011	Times for calculations (yr)	1.000E+02	1.000E+02	---	T( 6)
R011	Times for calculations (yr)	3.000E+02	3.000E+02	---	T( 7)
R011	Times for calculations (yr)	1.000E+03	1.000E+03	---	T( 8)
R011	Times for calculations (yr)	not used	0.000E+00	---	T( 9)
R011	Times for calculations (yr)	not used	0.000E+00	---	T(10)
R012	Initial principal radionuclide (pCi/g): Pb-210	5.000E+00	0.000E+00	---	S1(1)
R012	Initial principal radionuclide (pCi/g): Ra-226	5.000E+00	0.000E+00	---	S1(2)
R012	Concentration in groundwater (pCi/L): Pb-210	not used	0.000E+00	---	W1( 1)
R012	Concentration in groundwater (pCi/L): Ra-226	not used	0.000E+00	---	W1( 2)
R013	Cover depth (m)	0.000E+00	0.000E+00	---	COVER0
R013	Density of cover material (g/cm**3)	not used	1.500E+00	---	DENSCV
R013	Cover depth erosion rate (m/yr)	not used	1.000E-03	---	VCV
R013	Density of contaminated zone (g/cm**3)	1.260E+00	1.500E+00	---	DENSCZ
R013	Contaminated zone erosion rate (m/yr)	7.000E-04	1.000E-03	---	VCZ
R013	Contaminated zone total porosity	5.384E-01	4.000E-01	---	TPCZ
R013	Contaminated zone field capacity	1.000E-34	2.000E-01	---	FCCZ
R013	Contaminated zone hydraulic conductivity (m/yr)	1.990E+02	1.000E+01	---	HCCZ
R013	Contaminated zone b parameter	7.120E+00	5.300E+00	---	BCZ
R013	Average annual wind speed (m/sec)	3.000E+00	2.000E+00	---	WIND
R013	Humidity in air (g/m**3)	not used	8.000E+00	---	HUMID
R013	Evapotranspiration coefficient	9.990E-01	5.000E-01	---	EVAPTR
R013	Precipitation (m/yr)	3.200E-01	1.000E+00	---	PRECIP
R013	Irrigation (m/yr)	3.600E-01	2.000E-01	---	RI
R013	Irrigation mode	overhead	overhead	---	IDITCH
R013	Runoff coefficient	5.000E-01	2.000E-01	---	RUNOFF
R013	Watershed area for nearby stream or pond (m**2)	1.300E+06	1.000E+06	---	WAREA
R013	Accuracy for water/soil computations	1.000E-03	1.000E-03	---	EPS
R014	Density of saturated zone (g/cm**3)	2.640E+00	1.500E+00	---	DENSAQ
R014	Saturated zone total porosity	3.400E-01	4.000E-01	---	TPSZ
R014	Saturated zone effective porosity	2.974E-01	2.000E-01	---	EPSZ
R014	Saturated zone field capacity	4.260E-02	2.000E-01	---	FCSZ
R014	Saturated zone hydraulic conductivity (m/yr)	7.030E+02	1.000E+02	---	HCSZ
R014	Saturated zone hydraulic gradient	1.000E-02	2.000E-02	---	HGWT
R014	Saturated zone b parameter	4.050E+00	5.300E+00	---	BSZ
R014	Water table drop rate (m/yr)	1.000E-03	1.000E-03	---	VWT
R014	Well pump intake depth (m below water table)	1.000E+01	1.000E+01	---	DWIBWT
R014	Model: Nondispersion (ND) or Mass-Balance (MB)	ND	ND	---	MODEL
R014	Well pumping rate (m**3/yr)	1.322E+03	2.500E+02	---	UW

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R015	Number of unsaturated zone strata	1	1	---	NS
R015	Unsat. zone 1, thickness (m)	1.520E+01	4.000E+00	---	H(1)
R015	Unsat. zone 1, soil density (g/cm**3)	2.610E+00	1.500E+00	---	DENSUZ(1)
R015	Unsat. zone 1, total porosity	4.200E-01	4.000E-01	---	TPUZ(1)
R015	Unsat. zone 1, effective porosity	9.200E-02	2.000E-01	---	EPUZ(1)
R015	Unsat. zone 1, field capacity	3.280E-01	2.000E-01	---	FCUZ(1)
R015	Unsat. zone 1, soil-specific b parameter	1.140E+01	5.300E+00	---	BUZ(1)
R015	Unsat. zone 1, hydraulic conductivity (m/yr)	1.030E-02	1.000E+01	---	HCUZ(1)
R016	Distribution coefficients for Pb-210				
R016	Contaminated zone (cm**3/g)	2.700E+02	1.000E+02	---	DCNUCC( 1)
R016	Unsaturated zone 1 (cm**3/g)	5.500E+02	1.000E+02	---	DCNUCU( 1,1)
R016	Saturated zone (cm**3/g)	2.700E+02	1.000E+02	---	DCNUCS( 1)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.018E-05	ALEACH( 1)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 1)
R016	Distribution coefficients for Ra-226				
R016	Contaminated zone (cm**3/g)	5.000E+02	7.000E+01	---	DCNUCC( 2)
R016	Unsaturated zone 1 (cm**3/g)	9.100E+03	7.000E+01	---	DCNUCU( 2,1)
R016	Saturated zone (cm**3/g)	5.000E+02	7.000E+01	---	DCNUCS( 2)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.500E-06	ALEACH( 2)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 2)
R017	Inhalation rate (m**3/yr)	8.400E+03	8.400E+03	---	INHALR
R017	Mass loading for inhalation (g/m**3)	1.000E-04	1.000E-04	---	MLINH
R017	Exposure duration	3.000E+01	3.000E+01	---	ED
R017	Shielding factor, inhalation	4.000E-01	4.000E-01	---	SHF3
R017	Shielding factor, external gamma	5.500E-01	7.000E-01	---	SHF1
R017	Fraction of time spent indoors	5.000E-01	5.000E-01	---	FIND
R017	Fraction of time spent outdoors (on site)	2.500E-01	2.500E-01	---	FOTD
R017	Shape factor flag, external gamma	1.000E+00	1.000E+00	>0 shows circular AREA.	FS
R017	Radii of shape factor array (used if FS = -1):				
R017	Outer annular radius (m), ring 1:	not used	5.000E+01	---	RAD_SHAPE( 1)
R017	Outer annular radius (m), ring 2:	not used	7.071E+01	---	RAD_SHAPE( 2)
R017	Outer annular radius (m), ring 3:	not used	0.000E+00	---	RAD_SHAPE( 3)
R017	Outer annular radius (m), ring 4:	not used	0.000E+00	---	RAD_SHAPE( 4)
R017	Outer annular radius (m), ring 5:	not used	0.000E+00	---	RAD_SHAPE( 5)
R017	Outer annular radius (m), ring 6:	not used	0.000E+00	---	RAD_SHAPE( 6)
R017	Outer annular radius (m), ring 7:	not used	0.000E+00	---	RAD_SHAPE( 7)
R017	Outer annular radius (m), ring 8:	not used	0.000E+00	---	RAD_SHAPE( 8)
R017	Outer annular radius (m), ring 9:	not used	0.000E+00	---	RAD_SHAPE( 9)
R017	Outer annular radius (m), ring 10:	not used	0.000E+00	---	RAD_SHAPE(10)
R017	Outer annular radius (m), ring 11:	not used	0.000E+00	---	RAD_SHAPE(11)
R017	Outer annular radius (m), ring 12:	not used	0.000E+00	---	RAD_SHAPE(12)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R017	Fractions of annular areas within AREA:				
R017	Ring 1	not used	1.000E+00	---	FRACA ( 1)
R017	Ring 2	not used	2.732E-01	---	FRACA ( 2)
R017	Ring 3	not used	0.000E+00	---	FRACA ( 3)
R017	Ring 4	not used	0.000E+00	---	FRACA ( 4)
R017	Ring 5	not used	0.000E+00	---	FRACA ( 5)
R017	Ring 6	not used	0.000E+00	---	FRACA ( 6)
R017	Ring 7	not used	0.000E+00	---	FRACA ( 7)
R017	Ring 8	not used	0.000E+00	---	FRACA ( 8)
R017	Ring 9	not used	0.000E+00	---	FRACA ( 9)
R017	Ring 10	not used	0.000E+00	---	FRACA (10)
R017	Ring 11	not used	0.000E+00	---	FRACA (11)
R017	Ring 12	not used	0.000E+00	---	FRACA (12)
R018	Fruits, vegetables and grain consumption (kg/yr)	1.600E+02	1.600E+02	---	DIET (1)
R018	Leafy vegetable consumption (kg/yr)	1.400E+01	1.400E+01	---	DIET (2)
R018	Milk consumption (L/yr)	9.200E+01	9.200E+01	---	DIET (3)
R018	Meat and poultry consumption (kg/yr)	6.300E+01	6.300E+01	---	DIET (4)
R018	Fish consumption (kg/yr)	5.400E+00	5.400E+00	---	DIET (5)
R018	Other seafood consumption (kg/yr)	9.000E-01	9.000E-01	---	DIET (6)
R018	Soil ingestion rate (g/yr)	3.650E+01	3.650E+01	---	SOIL
R018	Drinking water intake (L/yr)	5.100E+02	5.100E+02	---	DWI
R018	Contamination fraction of drinking water	1.000E+00	1.000E+00	---	FDW
R018	Contamination fraction of household water	not used	1.000E+00	---	FHHW
R018	Contamination fraction of livestock water	1.000E+00	1.000E+00	---	FLW
R018	Contamination fraction of irrigation water	1.000E+00	1.000E+00	---	FIRW
R018	Contamination fraction of aquatic food	0.000E+00	5.000E-01	---	FR9
R018	Contamination fraction of plant food	2.500E-01	-1	---	FPLANT
R018	Contamination fraction of meat	2.500E-01	-1	---	FMEAT
R018	Contamination fraction of milk	0.000E+00	-1	---	FMILK
R019	Livestock fodder intake for meat (kg/day)	6.800E+01	6.800E+01	---	LFI5
R019	Livestock fodder intake for milk (kg/day)	5.500E+01	5.500E+01	---	LFI6
R019	Livestock water intake for meat (L/day)	5.000E+01	5.000E+01	---	LWI5
R019	Livestock water intake for milk (L/day)	1.600E+02	1.600E+02	---	LWI6
R019	Livestock soil intake (kg/day)	5.000E-01	5.000E-01	---	LSI
R019	Mass loading for foliar deposition (g/m**3)	1.000E-04	1.000E-04	---	MLFD
R019	Depth of soil mixing layer (m)	1.500E-01	1.500E-01	---	DM
R019	Depth of roots (m)	3.000E-01	9.000E-01	---	DROOT
R019	Drinking water fraction from ground water	0.000E+00	1.000E+00	---	FGWDW
R019	Household water fraction from ground water	not used	1.000E+00	---	FGWHH
R019	Livestock water fraction from ground water	4.020E-01	1.000E+00	---	FGWLW
R019	Irrigation fraction from ground water	3.660E-01	1.000E+00	---	EGWIR
R19B	Wet weight crop yield for Non-Leafy (kg/m**2)	7.000E-01	7.000E-01	---	YV (1)
R19B	Wet weight crop yield for Leafy (kg/m**2)	1.500E+00	1.500E+00	---	YV (2)
R19B	Wet weight crop yield for Fodder (kg/m**2)	1.100E+00	1.100E+00	---	YV (3)
R19B	Growing Season for Non-Leafy (years)	1.700E-01	1.700E-01	---	TE (1)
R19B	Growing Season for Leafy (years)	2.500E-01	2.500E-01	---	TE (2)
R19B	Growing Season for Fodder (years)	8.000E-02	8.000E-02	---	TE (3)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R19B	Translocation Factor for Non-Leafy	1.000E-01	1.000E-01	---	TIV(1)
R19B	Translocation Factor for Leafy	1.000E+00	1.000E+00	---	TIV(2)
R19B	Translocation Factor for Fodder	1.000E+00	1.000E+00	---	TIV(3)
R19B	Dry Foliar Interception Fraction for Non-Leafy	2.500E-01	2.500E-01	---	RDRY(1)
R19B	Dry Foliar Interception Fraction for Leafy	2.500E-01	2.500E-01	---	RDRY(2)
R19B	Dry Foliar Interception Fraction for Fodder	2.500E-01	2.500E-01	---	RDRY(3)
R19B	Wet Foliar Interception Fraction for Non-Leafy	2.500E-01	2.500E-01	---	RWET(1)
R19B	Wet Foliar Interception Fraction for Leafy	2.500E-01	2.500E-01	---	RWET(2)
R19B	Wet Foliar Interception Fraction for Fodder	2.500E-01	2.500E-01	---	RWET(3)
R19B	Weathering Removal Constant for Vegetation	2.000E+01	2.000E+01	---	WLAM
C14	C-12 concentration in water (g/cm**3)	not used	2.000E-05	---	C12WTR
C14	C-12 concentration in contaminated soil (g/g)	not used	3.000E-02	---	C12CZ
C14	Fraction of vegetation carbon from soil	not used	2.000E-02	---	CSOIL
C14	Fraction of vegetation carbon from air	not used	9.800E-01	---	CAIR
C14	C-14 evasion layer thickness in soil (m)	not used	3.000E-01	---	DMC
C14	C-14 evasion flux rate from soil (1/sec)	not used	7.000E-07	---	EVSX
C14	C-12 evasion flux rate from soil (1/sec)	not used	1.000E-10	---	REVSX
C14	Fraction of grain in beef cattle feed	not used	8.000E-01	---	AVFG4
C14	Fraction of grain in milk cow feed	not used	2.000E-01	---	AVFG5
STOR	Storage times of contaminated foodstuffs (days):				
STOR	Fruits, non-leafy vegetables, and grain	1.400E+01	1.400E+01	---	STOR_T(1)
STOR	Leafy vegetables	1.000E+00	1.000E+00	---	STOR_T(2)
STOR	Milk	1.000E+00	1.000E+00	---	STOR_T(3)
STOR	Meat and poultry	2.000E+01	2.000E+01	---	STOR_T(4)
STOR	Fish	7.000E+00	7.000E+00	---	STOR_T(5)
STOR	Crustacea and mollusks	7.000E+00	7.000E+00	---	STOR_T(6)
STOR	Well water	1.000E+00	1.000E+00	---	STOR_T(7)
STOR	Surface water	1.000E+00	1.000E+00	---	STOR_T(8)
STOR	Livestock fodder	4.500E+01	4.500E+01	---	STOR_T(9)
R021	Thickness of building foundation (m)	not used	1.500E-01	---	FLOOR1
R021	Bulk density of building foundation (g/cm**3)	not used	2.400E+00	---	DENSFL
R021	Total porosity of the cover material	not used	4.000E-01	---	TPCV
R021	Total porosity of the building foundation	not used	1.000E-01	---	TPFL
R021	Volumetric water content of the cover material	not used	5.000E-02	---	PH2OCV
R021	Volumetric water content of the foundation	not used	3.000E-02	---	PH2OFL
R021	Diffusion coefficient for radon gas (m/sec):				
R021	in cover material	not used	2.000E-06	---	DIFCV
R021	in foundation material	not used	3.000E-07	---	DIFFL
R021	in contaminated zone soil	not used	2.000E-06	---	DIFCZ
R021	Radon vertical dimension of mixing (m)	not used	2.000E+00	---	HMX
R021	Average building air exchange rate (1/hr)	not used	5.000E-01	---	REXG
R021	Height of the building (room) (m)	not used	2.500E+00	---	HRM
R021	Building interior area factor	not used	0.000E+00	---	FAI
R021	Building depth below ground surface (m)	not used	-1.000E+00	---	DMFL
R021	Emanating power of Rn-222 gas	not used	2.500E-01	---	EMANA(1)
R021	Emanating power of Rn-220 gas	not used	1.500E-01	---	EMANA(2)
TITL	Number of graphical time points	32	---	---	NPTS

Site-Specific Parameter Summary (continued)					
0 Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
TITL	Maximum number of integration points for dose	17	---	---	LYMAX
TITL	Maximum number of integration points for risk	257	---	---	KYMAX

Summary of Pathway Selections

Pathway	User Selection
1 -- external gamma	active
2 -- inhalation (w/o radon)	active
3 -- plant ingestion	active
4 -- meat ingestion	active
5 -- milk ingestion	active
6 -- aquatic foods	active
7 -- drinking water	active
8 -- soil ingestion	active
9 -- radon	suppressed
Find peak pathway doses	active

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 Summary : Dewey Burdock  
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Contaminated Zone Dimensions

Initial Soil Concentrations, pCi/g

Area:	10000.00 square meters	Pb-210	5.000E+00
Thickness:	0.15 meters	Ra-226	5.000E+00
Cover Depth:	0.00 meters		

Total Dose TDOSE(t), mrem/yr

Basic Radiation Dose Limit = 2.500E+01 mrem/yr

Total Mixture Sum M(t) = Fraction of Basic Dose Limit Received at Time (t)

t (years):	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
TDOSE(t):	3.812E+01	3.800E+01	3.775E+01	3.685E+01	3.422E+01	2.402E+01	0.000E+00	0.000E+00
M(t):	1.525E+00	1.520E+00	1.510E+00	1.474E+00	1.369E+00	9.609E-01	0.000E+00	0.000E+00

0Maximum TDOSE(t): 3.812E+01 mrem/yr at t = 0.000E+00 years

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)  
 As mrem/yr and Fraction of Total Dose At t = 0.000E+00 years

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Pb-210	1.478E-02	0.0004	6.341E-03	0.0002	0.000E+00	0.0000	7.776E+00	0.2040	3.785E-01	0.0099	0.000E+00	0.0000	9.784E-01	0.0257
Ra-226	2.269E+01	0.5952	2.485E-03	0.0001	0.000E+00	0.0000	5.876E+00	0.1541	2.015E-01	0.0053	0.000E+00	0.0000	1.956E-01	0.0051
Total	2.270E+01	0.5956	8.826E-03	0.0002	0.000E+00	0.0000	1.365E+01	0.3581	5.801E-01	0.0152	0.000E+00	0.0000	1.174E+00	0.0308

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)  
 As mrem/yr and Fraction of Total Dose At t = 0.000E+00 years

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Pb-210	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.154E+00	0.2401
Ra-226	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.897E+01	0.7599
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.812E+01	1.0000

0\*Sum of all water independent and dependent pathways.



Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+00 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Pb-210	1.432E-02	0.0004	6.118E-03	0.0002	0.000E+00	0.0000	7.503E+00	0.1974	3.653E-01	0.0096	0.000E+00	0.0000	9.440E-01	0.0248
Ra-226	2.264E+01	0.5958	2.665E-03	0.0001	0.000E+00	0.0000	6.087E+00	0.1602	2.125E-01	0.0056	0.000E+00	0.0000	2.244E-01	0.0059
Total	2.265E+01	0.5962	8.783E-03	0.0002	0.000E+00	0.0000	1.359E+01	0.3576	5.778E-01	0.0152	0.000E+00	0.0000	1.168E+00	0.0307

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+00 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Pb-210	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.833E+00	0.2324
Ra-226	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.917E+01	0.7676
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.800E+01	1.0000

0\*Sum of all water independent and dependent pathways.

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)  
As mrem/yr and Fraction of Total Dose At t = 3.000E+00 years

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Pb-210	1.344E-02	0.0004	5.695E-03	0.0002	0.000E+00	0.0000	6.984E+00	0.1850	3.400E-01	0.0090	0.000E+00	0.0000	8.787E-01	0.0233
Ra-226	2.254E+01	0.5971	3.003E-03	0.0001	0.000E+00	0.0000	6.472E+00	0.1715	2.321E-01	0.0061	0.000E+00	0.0000	2.784E-01	0.0074
Total	2.255E+01	0.5975	8.698E-03	0.0002	0.000E+00	0.0000	1.346E+01	0.3565	5.721E-01	0.0152	0.000E+00	0.0000	1.157E+00	0.0307

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)  
As mrem/yr and Fraction of Total Dose At t = 3.000E+00 years

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Pb-210	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.222E+00	0.2178
Ra-226	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.952E+01	0.7822
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.775E+01	1.0000

0\*Sum of all water independent and dependent pathways.

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+01 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Pb-210	1.077E-02	0.0003	4.429E-03	0.0001	0.000E+00	0.0000	5.432E+00	0.1474	2.644E-01	0.0072	0.000E+00	0.0000	6.834E-01	0.0185
Ra-226	2.218E+01	0.6017	3.969E-03	0.0001	0.000E+00	0.0000	7.556E+00	0.2050	2.879E-01	0.0078	0.000E+00	0.0000	4.342E-01	0.0118
Total	2.219E+01	0.6020	8.398E-03	0.0002	0.000E+00	0.0000	1.299E+01	0.3524	5.523E-01	0.0150	0.000E+00	0.0000	1.118E+00	0.0303

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+01 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Pb-210	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.395E+00	0.1735
Ra-226	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.046E+01	0.8265
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.685E+01	1.0000

0\*Sum of all water independent and dependent pathways.

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Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)  
 As mrem/yr and Fraction of Total Dose At t = 3.000E+01 years

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Pb-210	5.712E-03	0.0002	2.145E-03	0.0001	0.000E+00	0.0000	2.630E+00	0.0769	1.281E-01	0.0037	0.000E+00	0.0000	3.309E-01	0.0097
Ra-226	2.107E+01	0.6156	5.388E-03	0.0002	0.000E+00	0.0000	9.012E+00	0.2634	3.673E-01	0.0107	0.000E+00	0.0000	6.721E-01	0.0196
Total	2.107E+01	0.6158	7.533E-03	0.0002	0.000E+00	0.0000	1.164E+01	0.3402	4.953E-01	0.0145	0.000E+00	0.0000	1.003E+00	0.0293

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)  
 As mrem/yr and Fraction of Total Dose At t = 3.000E+01 years

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Pb-210	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.097E+00	0.0905
Ra-226	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.112E+01	0.9095
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.422E+01	1.0000

0\*Sum of all water independent and dependent pathways.

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Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)  
 As mrem/yr and Fraction of Total Dose At t = 1.000E+02 years

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Pb-210	5.952E-04	0.0000	1.506E-04	0.0000	0.000E+00	0.0000	1.848E-01	0.0077	8.997E-03	0.0004	0.000E+00	0.0000	2.324E-02	0.0010
Ra-226	1.610E+01	0.6704	4.388E-03	0.0002	0.000E+00	0.0000	6.825E+00	0.2841	2.895E-01	0.0120	0.000E+00	0.0000	5.814E-01	0.0242
Total	1.610E+01	0.6704	4.539E-03	0.0002	0.000E+00	0.0000	7.010E+00	0.2918	2.985E-01	0.0124	0.000E+00	0.0000	6.047E-01	0.0252

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)  
 As mrem/yr and Fraction of Total Dose At t = 1.000E+02 years

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Pb-210	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.177E-01	0.0091
Ra-226	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.380E+01	0.9909
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.402E+01	1.0000

0\*Sum of all water independent and dependent pathways.

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)  
 As mrem/yr and Fraction of Total Dose At t = 3.000E+02 years

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Pb-210	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Ra-226	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)  
 As mrem/yr and Fraction of Total Dose At t = 3.000E+02 years

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Pb-210	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Ra-226	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000

0\*Sum of all water independent and dependent pathways.

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)  
 As mrem/yr and Fraction of Total Dose At t = 1.000E+03 years

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Pb-210	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Ra-226	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)  
 As mrem/yr and Fraction of Total Dose At t = 1.000E+03 years

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Pb-210	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Ra-226	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000

0\*Sum of all water independent and dependent pathways.

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Dose/Source Ratios Summed Over All Pathways										
Parent and Progeny Principal Radionuclide Contributions Indicated										
0 Parent	Product	Thread	DSR(j,t) At Time in Years (mrem/yr)/(pCi/g)							
(i)	(j)	Fraction	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
Pb-210+D	Pb-210+D	1.000E+00	1.831E+00	1.767E+00	1.644E+00	1.279E+00	6.194E-01	4.355E-02	0.000E+00	0.000E+00
0Ra-226+D	Ra-226+D	1.000E+00	5.760E+00	5.743E+00	5.710E+00	5.594E+00	5.248E+00	3.841E+00	0.000E+00	0.000E+00
Ra-226+D	Pb-210+D	1.000E+00	3.353E-02	8.996E-02	1.945E-01	4.978E-01	9.766E-01	9.202E-01	0.000E+00	0.000E+00
Ra-226+D	ΣDSR(j)		5.793E+00	5.833E+00	5.905E+00	6.092E+00	6.224E+00	4.761E+00	0.000E+00	0.000E+00

The DSR includes contributions from associated (half-life ≤ 180 days) daughters.

Single Radionuclide Soil Guidelines G(i,t) in pCi/g								
Basic Radiation Dose Limit = 2.500E+01 mrem/yr								
0Nuclide	t=	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02
(i)								1.000E+03
Pb-210	1.366E+01	1.415E+01	1.520E+01	1.955E+01	4.036E+01	5.741E+02	*7.634E+13	*7.634E+13
Ra-226	4.315E+00	4.286E+00	4.234E+00	4.104E+00	4.016E+00	5.251E+00	*9.885E+11	*9.885E+11

\*At specific activity limit

Summed Dose/Source Ratios DSR(i,t) in (mrem/yr)/(pCi/g)						
and Single Radionuclide Soil Guidelines G(i,t) in pCi/g						
at tmin = time of minimum single radionuclide soil guideline						
and at tmax = time of maximum total dose = 0.000E+00 years						
0Nuclide	Initial	tmin	DSR(i,tmin)	G(i,tmin)	DSR(i,tmax)	G(i,tmax)
(i)	(pCi/g)	(years)		(pCi/g)		(pCi/g)
Pb-210	5.000E+00	0.000E+00	1.831E+00	1.366E+01	1.831E+00	1.366E+01
Ra-226	5.000E+00	25.40 ± 0.05	6.235E+00	4.010E+00	5.793E+00	4.315E+00



Individual Nuclide Dose Summed Over All Pathways

		Parent Nuclide and Branch Fraction Indicated								
ONuclide (j)	Parent (i)	THF(i)	DOSE(j,t), mrem/yr							
			t=	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02 1.000E+03
Pb-210	Pb-210	1.000E+00	9.154E+00	8.833E+00	8.222E+00	6.395E+00	3.097E+00	2.177E-01	0.000E+00	0.000E+00
Pb-210	Ra-226	1.000E+00	1.677E-01	4.498E-01	9.723E-01	2.489E+00	4.883E+00	4.601E+00	0.000E+00	0.000E+00
Pb-210	ΣDOSE(j)		9.322E+00	9.282E+00	9.194E+00	8.884E+00	7.980E+00	4.819E+00	0.000E+00	0.000E+00
ORa-226	Ra-226	1.000E+00	2.880E+01	2.872E+01	2.855E+01	2.797E+01	2.624E+01	1.920E+01	0.000E+00	0.000E+00

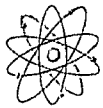
THF(i) is the thread fraction of the parent nuclide.

Individual Nuclide Soil Concentration  
Parent Nuclide and Branch Fraction Indicated

		S(j,t), pCi/g								
ONuclide (j)	Parent (i)	THF(i)	S(j,t), pCi/g							
			t=	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02 1.000E+03
Pb-210	Pb-210	1.000E+00	5.000E+00	4.847E+00	4.555E+00	3.664E+00	1.967E+00	2.232E-01	4.445E-04	1.568E-13
Pb-210	Ra-226	1.000E+00	0.000E+00	1.530E-01	4.449E-01	1.333E+00	3.009E+00	4.626E+00	4.444E+00	3.269E+00
Pb-210	ΣS(j):		5.000E+00	5.000E+00	5.000E+00	4.996E+00	4.976E+00	4.849E+00	4.445E+00	3.269E+00
ORa-226	Ra-226	1.000E+00	5.000E+00	4.998E+00	4.993E+00	4.978E+00	4.935E+00	4.785E+00	4.383E+00	3.224E+00

THF(i) is the thread fraction of the parent nuclide.

ORESCALC.EXE execution time = 1.35 seconds



**POWERTECH (USA) INC.**

## **Radium Benchmark Dose Assessment**

### **Attachment 3.1**

#### **RESRAD Model Output Uranium**

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Dose Conversion Factor (and Related) Parameter Summary  
 Dose Library: FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
A-1	DCF's for external ground radiation, (mrem/yr)/(pCi/g)			
A-1	Ac-227 (Source: FGR 12)	4.951E-04	4.951E-04	DCF1( 1)
A-1	At-218 (Source: FGR 12)	5.847E-03	5.847E-03	DCF1( 2)
A-1	Bi-210 (Source: FGR 12)	3.606E-03	3.606E-03	DCF1( 3)
A-1	Bi-211 (Source: FGR 12)	2.559E-01	2.559E-01	DCF1( 4)
A-1	Bi-214 (Source: FGR 12)	9.808E+00	9.808E+00	DCF1( 5)
A-1	Fr-223 (Source: FGR 12)	1.980E-01	1.980E-01	DCF1( 6)
A-1	Pa-231 (Source: FGR 12)	1.906E-01	1.906E-01	DCF1( 7)
A-1	Pa-234 (Source: FGR 12)	1.155E+01	1.155E+01	DCF1( 8)
A-1	Pa-234m (Source: FGR 12)	8.967E-02	8.967E-02	DCF1( 9)
A-1	Pb-210 (Source: FGR 12)	2.447E-03	2.447E-03	DCF1( 10)
A-1	Pb-211 (Source: FGR 12)	3.064E-01	3.064E-01	DCF1( 11)
A-1	Pb-214 (Source: FGR 12)	1.341E+00	1.341E+00	DCF1( 12)
A-1	Po-210 (Source: FGR 12)	5.231E-05	5.231E-05	DCF1( 13)
A-1	Po-211 (Source: FGR 12)	4.764E-02	4.764E-02	DCF1( 14)
A-1	Po-214 (Source: FGR 12)	5.138E-04	5.138E-04	DCF1( 15)
A-1	Po-215 (Source: FGR 12)	1.016E-03	1.016E-03	DCF1( 16)
A-1	Po-218 (Source: FGR 12)	5.642E-05	5.642E-05	DCF1( 17)
A-1	Ra-223 (Source: FGR 12)	6.034E-01	6.034E-01	DCF1( 18)
A-1	Ra-226 (Source: FGR 12)	3.176E-02	3.176E-02	DCF1( 19)
A-1	Rn-219 (Source: FGR 12)	3.083E-01	3.083E-01	DCF1( 20)
A-1	Rn-222 (Source: FGR 12)	2.354E-03	2.354E-03	DCF1( 21)
A-1	Th-227 (Source: FGR 12)	5.212E-01	5.212E-01	DCF1( 22)
A-1	Th-230 (Source: FGR 12)	1.209E-03	1.209E-03	DCF1( 23)
A-1	Th-231 (Source: FGR 12)	3.643E-02	3.643E-02	DCF1( 24)
A-1	Th-234 (Source: FGR 12)	2.410E-02	2.410E-02	DCF1( 25)
A-1	Tl-207 (Source: FGR 12)	1.980E-02	1.980E-02	DCF1( 26)
A-1	Tl-210 (Source: no data)	0.000E+00	-2.000E+00	DCF1( 27)
A-1	U-234 (Source: FGR 12)	4.017E-04	4.017E-04	DCF1( 28)
A-1	U-235 (Source: FGR 12)	7.211E-01	7.211E-01	DCF1( 29)
A-1	U-238 (Source: FGR 12)	1.031E-04	1.031E-04	DCF1( 30)
B-1	Dose conversion factors for inhalation, mrem/pCi:			
B-1	Ac-227+D	6.724E+00	6.700E+00	DCF2( 1)
B-1	Pa-231	1.280E+00	1.280E+00	DCF2( 2)
B-1	Pb-210+D	2.320E-02	1.360E-02	DCF2( 3)
B-1	Ra-226+D	8.594E-03	8.580E-03	DCF2( 4)
B-1	Th-230	3.260E-01	3.260E-01	DCF2( 5)
B-1	U-234	1.320E-01	1.320E-01	DCF2( 6)
B-1	U-235+D	1.230E-01	1.230E-01	DCF2( 7)
B-1	U-238	1.180E-01	1.180E-01	DCF2( 8)
B-1	U-238+D	1.180E-01	1.180E-01	DCF2( 9)
D-1	Dose conversion factors for ingestion, mrem/pCi:			
D-1	Ac-227+D	1.480E-02	1.410E-02	DCF3( 1)
D-1	Pa-231	1.060E-02	1.060E-02	DCF3( 2)
D-1	Pb-210+D	7.276E-03	5.370E-03	DCF3( 3)
D-1	Ra-226+D	1.321E-03	1.320E-03	DCF3( 4)
D-1	Th-230	5.480E-04	5.480E-04	DCF3( 5)
D-1	U-234	2.830E-04	2.830E-04	DCF3( 6)

Dose Conversion Factor (and Related) Parameter Summary (continued)

Dose Library: FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
D-1	U-235+D	2.673E-04	2.660E-04	DCF3( 7)
D-1	U-238	2.550E-04	2.550E-04	DCF3( 8)
D-1	U-238+D	2.687E-04	2.550E-04	DCF3( 9)
D-34	Food transfer factors:			
D-34	Ac-227+D , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF( 1,1)
D-34	Ac-227+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-05	2.000E-05	RTF( 1,2)
D-34	Ac-227+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-05	2.000E-05	RTF( 1,3)
D-34	Pa-231 , plant/soil concentration ratio, dimensionless	1.000E-02	1.000E-02	RTF( 2,1)
D-34	Pa-231 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.000E-03	5.000E-03	RTF( 2,2)
D-34	Pa-231 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	RTF( 2,3)
D-34	Pb-210+D , plant/soil concentration ratio, dimensionless	1.000E-02	1.000E-02	RTF( 3,1)
D-34	Pb-210+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	8.000E-04	8.000E-04	RTF( 3,2)
D-34	Pb-210+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.000E-04	3.000E-04	RTF( 3,3)
D-34	Ra-226+D , plant/soil concentration ratio, dimensionless	4.000E-02	4.000E-02	RTF( 4,1)
D-34	Ra-226+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-03	1.000E-03	RTF( 4,2)
D-34	Ra-226+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-03	1.000E-03	RTF( 4,3)
D-34	Th-230 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 5,1)
D-34	Th-230 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF( 5,2)
D-34	Th-230 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	RTF( 5,3)
D-34	U-234 , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF( 6,1)
D-34	U-234 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF( 6,2)
D-34	U-234 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF( 6,3)
D-34	U-235+D , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF( 7,1)
D-34	U-235+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF( 7,2)
D-34	U-235+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF( 7,3)
D-34	U-238 , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF( 8,1)
D-34	U-238 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF( 8,2)
D-34	U-238 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF( 8,3)
D-34	U-238+D , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF( 9,1)
D-34	U-238+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF( 9,2)
D-34	U-238+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF( 9,3)
D-5	Bioaccumulation factors, fresh water, L/kg:			
D-5	Ac-227+D , fish	1.500E+01	1.500E+01	BIOFAC( 1,1)
D-5	Ac-227+D , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC( 1,2)
D-5	Pa-231 , fish	1.000E+01	1.000E+01	BIOFAC( 2,1)
D-5	Pa-231 , crustacea and mollusks	1.100E+02	1.100E+02	BIOFAC( 2,2)
D-5	Pb-210+D , fish	3.000E+02	3.000E+02	BIOFAC( 3,1)
D-5	Pb-210+D , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 3,2)

Dose Conversion Factor (and Related) Parameter Summary (continued)

Dose Library: FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
D-5	Ra-226+D , fish	5.000E+01	5.000E+01	BIOFAC( 4,1)
D-5	Ra-226+D , crustacea and mollusks	2.500E+02	2.500E+02	BIOFAC( 4,2)
D-5				
D-5	Th-230 , fish	1.000E+02	1.000E+02	BIOFAC( 5,1)
D-5	Th-230 , crustacea and mollusks	5.000E+02	5.000E+02	BIOFAC( 5,2)
D-5				
D-5	U-234 , fish	1.000E+01	1.000E+01	BIOFAC( 6,1)
D-5	U-234 , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC( 6,2)
D-5				
D-5	U-235+D , fish	1.000E+01	1.000E+01	BIOFAC( 7,1)
D-5	U-235+D , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC( 7,2)
D-5				
D-5	U-238 , fish	1.000E+01	1.000E+01	BIOFAC( 8,1)
D-5	U-238 , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC( 8,2)
D-5				
D-5	U-238+D , fish	1.000E+01	1.000E+01	BIOFAC( 9,1)
D-5	U-238+D , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC( 9,2)

#For DCF1(xxx) only, factors are for infinite depth & area. See ETEG table in Ground Pathway of Detailed Report.

\*Base Case means Default.Lib w/o Associate Nuclide contributions.

Site-Specific Parameter Summary

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R011	Area of contaminated zone (m**2)	1.000E+04	1.000E+04	---	AREA
R011	Thickness of contaminated zone (m)	1.500E-01	2.000E+00	---	THICKO
R011	Length parallel to aquifer flow (m)	1.000E+02	1.000E+02	---	LCZPAQ
R011	Basic radiation dose limit (mrem/yr)	2.500E+01	3.000E+01	---	BRDL
R011	Time since placement of material (yr)	0.000E+00	0.000E+00	---	TI
R011	Times for calculations (yr)	1.000E+00	1.000E+00	---	T( 2)
R011	Times for calculations (yr)	3.000E+00	3.000E+00	---	T( 3)
R011	Times for calculations (yr)	1.000E+01	1.000E+01	---	T( 4)
R011	Times for calculations (yr)	3.000E+01	3.000E+01	---	T( 5)
R011	Times for calculations (yr)	1.000E+02	1.000E+02	---	T( 6)
R011	Times for calculations (yr)	3.000E+02	3.000E+02	---	T( 7)
R011	Times for calculations (yr)	1.000E+03	1.000E+03	---	T( 8)
R011	Times for calculations (yr)	not used	0.000E+00	---	T( 9)
R011	Times for calculations (yr)	not used	0.000E+00	---	T(10)
R012	Initial principal radionuclide (pCi/g): U-234	4.920E+01	0.000E+00	---	S1(6)
R012	Initial principal radionuclide (pCi/g): U-235	2.200E+00	0.000E+00	---	S1(7)
R012	Initial principal radionuclide (pCi/g): U-238	4.860E+01	0.000E+00	---	S1(8)
R012	Concentration in groundwater (pCi/L): U-234	not used	0.000E+00	---	W1( 6)
R012	Concentration in groundwater (pCi/L): U-235	not used	0.000E+00	---	W1( 7)
R012	Concentration in groundwater (pCi/L): U-238	not used	0.000E+00	---	W1( 8)
R013	Cover depth (m)	0.000E+00	0.000E+00	---	COVERO
R013	Density of cover material (g/cm**3)	not used	1.500E+00	---	DENSCV
R013	Cover depth erosion rate (m/yr)	not used	1.000E-03	---	VCV
R013	Density of contaminated zone (g/cm**3)	1.260E+00	1.500E+00	---	DENSCZ
R013	Contaminated zone erosion rate (m/yr)	7.000E-04	1.000E-03	---	VCZ
R013	Contaminated zone total porosity	5.384E-01	4.000E-01	---	TPCZ
R013	Contaminated zone field capacity	1.000E-34	2.000E-01	---	FCCZ
R013	Contaminated zone hydraulic conductivity (m/yr)	1.990E+02	1.000E+01	---	HCCZ
R013	Contaminated zone b parameter	7.120E+00	5.300E+00	---	BCZ
R013	Average annual wind speed (m/sec)	3.000E+00	2.000E+00	---	WIND
R013	Humidity in air (g/m**3)	not used	8.000E+00	---	HUMID
R013	Evapotranspiration coefficient	9.990E-01	5.000E-01	---	EVAPTR
R013	Precipitation (m/yr)	3.200E-01	1.000E+00	---	PRECIP
R013	Irrigation (m/yr)	3.600E-01	2.000E-01	---	RI
R013	Irrigation mode	overhead	overhead	---	IDITCH
R013	Runoff coefficient	5.000E-01	2.000E-01	---	RUNOFF
R013	Watershed area for nearby stream or pond (m**2)	1.300E+06	1.000E+06	---	WAREA
R013	Accuracy for water/soil computations	1.000E-03	1.000E-03	---	EPS
R014	Density of saturated zone (g/cm**3)	2.640E+00	1.500E+00	---	DENSAQ
R014	Saturated zone total porosity	3.400E-01	4.000E-01	---	TPSZ
R014	Saturated zone effective porosity	2.974E-01	2.000E-01	---	EPSZ
R014	Saturated zone field capacity	4.260E-02	2.000E-01	---	FCSZ
R014	Saturated zone hydraulic conductivity (m/yr)	7.030E+02	1.000E+02	---	HCSZ
R014	Saturated zone hydraulic gradient	1.000E-02	2.000E-02	---	HGWT
R014	Saturated zone b parameter	4.050E+00	5.300E+00	---	BSZ
R014	Water table drop rate (m/yr)	1.000E-03	1.000E-03	---	VWT
R014	Well pump intake depth (m below water table)	1.000E+01	1.000E+01	---	DWIBWT

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R014	Model: Nondispersion (ND) or Mass-Balance (MB)	ND	ND	---	MODEL
R014	Well pumping rate (m**3/yr)	1.322E+03	2.500E+02	---	UW
R015	Number of unsaturated zone strata	1	1	---	NS
R015	Unsat. zone 1, thickness (m)	1.520E+01	4.000E+00	---	H(1)
R015	Unsat. zone 1, soil density (g/cm**3)	2.610E+00	1.500E+00	---	DENSUZ(1)
R015	Unsat. zone 1, total porosity	4.200E-01	4.000E-01	---	TPUZ(1)
R015	Unsat. zone 1, effective porosity	9.200E-02	2.000E-01	---	EPUZ(1)
R015	Unsat. zone 1, field capacity	3.280E-01	2.000E-01	---	FCUZ(1)
R015	Unsat. zone 1, soil-specific b parameter	1.140E+01	5.300E+00	---	BUZ(1)
R015	Unsat. zone 1, hydraulic conductivity (m/yr)	1.030E-02	1.000E+01	---	HCUZ(1)
R016	Distribution coefficients for U-234				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC( 6)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU( 6,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS( 6)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.480E-05	ALEACH( 6)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 6)
R016	Distribution coefficients for U-235				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC( 7)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU( 7,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS( 7)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.480E-05	ALEACH( 7)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 7)
R016	Distribution coefficients for U-238				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC( 8)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU( 8,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS( 8)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.480E-05	ALEACH( 8)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 8)
R016	Distribution coefficients for daughter Ac-227				
R016	Contaminated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCC( 1)
R016	Unsaturated zone 1 (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCU( 1,1)
R016	Saturated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCS( 1)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.362E-04	ALEACH( 1)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 1)
R016	Distribution coefficients for daughter Pa-231				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC( 2)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU( 2,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS( 2)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.480E-05	ALEACH( 2)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 2)



Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for daughter Pb-210				
R016	Contaminated zone (cm**3/g)	1.000E+02	1.000E+02	---	DCNUCC ( 3)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+02	1.000E+02	---	DCNUCU ( 3,1)
R016	Saturated zone (cm**3/g)	1.000E+02	1.000E+02	---	DCNUCS ( 3)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.746E-05	ALEACH ( 3)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK ( 3)
R016	Distribution coefficients for daughter Ra-226				
R016	Contaminated zone (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCC ( 4)
R016	Unsaturated zone 1 (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCU ( 4,1)
R016	Saturated zone (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCS ( 4)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.919E-05	ALEACH ( 4)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK ( 4)
R016	Distribution coefficients for daughter Th-230				
R016	Contaminated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCC ( 5)
R016	Unsaturated zone 1 (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCU ( 5,1)
R016	Saturated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCS ( 5)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	4.585E-08	ALEACH ( 5)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK ( 5)
R017	Inhalation rate (m**3/yr)	8.400E+03	8.400E+03	---	INHALR
R017	Mass loading for inhalation (g/m**3)	1.000E-04	1.000E-04	---	MLINH
R017	Exposure duration	3.000E+01	3.000E+01	---	ED
R017	Shielding factor, inhalation	4.000E-01	4.000E-01	---	SHF3
R017	Shielding factor, external gamma	5.500E-01	7.000E-01	---	SHF1
R017	Fraction of time spent indoors	5.000E-01	5.000E-01	---	FIND
R017	Fraction of time spent outdoors (on site)	2.500E-01	2.500E-01	---	FOTD
R017	Shape factor flag, external gamma	1.000E+00	1.000E+00	>0 shows circular AREA.	FS
R017	Radii of shape factor array (used if FS = -1):				
R017	Outer annular radius (m), ring 1:	not used	5.000E+01	---	RAD_SHAPE ( 1)
R017	Outer annular radius (m), ring 2:	not used	7.071E+01	---	RAD_SHAPE ( 2)
R017	Outer annular radius (m), ring 3:	not used	0.000E+00	---	RAD_SHAPE ( 3)
R017	Outer annular radius (m), ring 4:	not used	0.000E+00	---	RAD_SHAPE ( 4)
R017	Outer annular radius (m), ring 5:	not used	0.000E+00	---	RAD_SHAPE ( 5)
R017	Outer annular radius (m), ring 6:	not used	0.000E+00	---	RAD_SHAPE ( 6)
R017	Outer annular radius (m), ring 7:	not used	0.000E+00	---	RAD_SHAPE ( 7)
R017	Outer annular radius (m), ring 8:	not used	0.000E+00	---	RAD_SHAPE ( 8)
R017	Outer annular radius (m), ring 9:	not used	0.000E+00	---	RAD_SHAPE ( 9)
R017	Outer annular radius (m), ring 10:	not used	0.000E+00	---	RAD_SHAPE (10)
R017	Outer annular radius (m), ring 11:	not used	0.000E+00	---	RAD_SHAPE (11)
R017	Outer annular radius (m), ring 12:	not used	0.000E+00	---	RAD_SHAPE (12)

Site-Specific Parameter Summary (continued)

0 Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R017	Fractions of annular areas within AREA:				
R017	Ring 1	not used	1.000E+00	---	FRACA( 1)
R017	Ring 2	not used	2.732E-01	---	FRACA( 2)
R017	Ring 3	not used	0.000E+00	---	FRACA( 3)
R017	Ring 4	not used	0.000E+00	---	FRACA( 4)
R017	Ring 5	not used	0.000E+00	---	FRACA( 5)
R017	Ring 6	not used	0.000E+00	---	FRACA( 6)
R017	Ring 7	not used	0.000E+00	---	FRACA( 7)
R017	Ring 8	not used	0.000E+00	---	FRACA( 8)
R017	Ring 9	not used	0.000E+00	---	FRACA( 9)
R017	Ring 10	not used	0.000E+00	---	FRACA(10)
R017	Ring 11	not used	0.000E+00	---	FRACA(11)
R017	Ring 12	not used	0.000E+00	---	FRACA(12)
R018	Fruits, vegetables and grain consumption (kg/yr)	1.600E+02	1.600E+02	---	DIET(1)
R018	Leafy vegetable consumption (kg/yr)	1.400E+01	1.400E+01	---	DIET(2)
R018	Milk consumption (L/yr)	9.200E+01	9.200E+01	---	DIET(3)
R018	Meat and poultry consumption (kg/yr)	6.300E+01	6.300E+01	---	DIET(4)
R018	Fish consumption (kg/yr)	5.400E+00	5.400E+00	---	DIET(5)
R018	Other seafood consumption (kg/yr)	9.000E-01	9.000E-01	---	DIET(6)
R018	Soil ingestion rate (g/yr)	3.650E+01	3.650E+01	---	SOIL
R018	Drinking water intake (L/yr)	5.100E+02	5.100E+02	---	DWI
R018	Contamination fraction of drinking water	1.000E+00	1.000E+00	---	FDW
R018	Contamination fraction of household water	not used	1.000E+00	---	FHHW
R018	Contamination fraction of livestock water	1.000E+00	1.000E+00	---	FLW
R018	Contamination fraction of irrigation water	1.000E+00	1.000E+00	---	FIRW
R018	Contamination fraction of aquatic food	0.000E+00	5.000E-01	---	FR9
R018	Contamination fraction of plant food	2.500E-01	-1	---	FPLANT
R018	Contamination fraction of meat	2.500E-01	-1	---	FMEAT
R018	Contamination fraction of milk	0.000E+00	-1	---	FMILK
R019	Livestock fodder intake for meat (kg/day)	6.800E+01	6.800E+01	---	LF15
R019	Livestock fodder intake for milk (kg/day)	5.500E+01	5.500E+01	---	LF16
R019	Livestock water intake for meat (L/day)	5.000E+01	5.000E+01	---	LWI5
R019	Livestock water intake for milk (L/day)	1.600E+02	1.600E+02	---	LWI6
R019	Livestock soil intake (kg/day)	5.000E-01	5.000E-01	---	LSI
R019	Mass loading for foliar deposition (g/m**3)	1.000E-04	1.000E-04	---	MLFD
R019	Depth of soil mixing layer (m)	1.500E-01	1.500E-01	---	DM
R019	Depth of roots (m)	3.000E-01	9.000E-01	---	DROOT
R019	Drinking water fraction from ground water	0.000E+00	1.000E+00	---	FGWDW
R019	Household water fraction from ground water	not used	1.000E+00	---	FGWHH
R019	Livestock water fraction from ground water	4.020E-01	1.000E+00	---	FGWLW
R019	Irrigation fraction from ground water	3.660E-01	1.000E+00	---	FGWIR
R19B	Wet weight crop yield for Non-Leafy (kg/m**2)	7.000E-01	7.000E-01	---	YV(1)
R19B	Wet weight crop yield for Leafy (kg/m**2)	1.500E+00	1.500E+00	---	YV(2)
R19B	Wet weight crop yield for Fodder (kg/m**2)	1.100E+00	1.100E+00	---	YV(3)
R19B	Growing Season for Non-Leafy (years)	1.700E-01	1.700E-01	---	TE(1)
R19B	Growing Season for Leafy (years)	2.500E-01	2.500E-01	---	TE(2)
R19B	Growing Season for Fodder (years)	8.000E-02	8.000E-02	---	TE(3)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R19B	Translocation Factor for Non-Leafy	1.000E-01	1.000E-01	---	TIV(1)
R19B	Translocation Factor for Leafy	1.000E+00	1.000E+00	---	TIV(2)
R19B	Translocation Factor for Fodder	1.000E+00	1.000E+00	---	TIV(3)
R19B	Dry Foliar Interception Fraction for Non-Leafy	2.500E-01	2.500E-01	---	RDRY(1)
R19B	Dry Foliar Interception Fraction for Leafy	2.500E-01	2.500E-01	---	RDRY(2)
R19B	Dry Foliar Interception Fraction for Fodder	2.500E-01	2.500E-01	---	RDRY(3)
R19B	Wet Foliar Interception Fraction for Non-Leafy	2.500E-01	2.500E-01	---	RWET(1)
R19B	Wet Foliar Interception Fraction for Leafy	2.500E-01	2.500E-01	---	RWET(2)
R19B	Wet Foliar Interception Fraction for Fodder	2.500E-01	2.500E-01	---	RWET(3)
R19B	Weathering Removal Constant for Vegetation	2.000E+01	2.000E+01	---	WLAM
C14	C-12 concentration in water (g/cm*3)	not used	2.000E-05	---	C12WTR
C14	C-12 concentration in contaminated soil (g/g)	not used	3.000E-02	---	C12CZ
C14	Fraction of vegetation carbon from soil	not used	2.000E-02	---	CSOIL
C14	Fraction of vegetation carbon from air	not used	9.800E-01	---	CAIR
C14	C-14 evasion layer thickness in soil (m)	not used	3.000E-01	---	DMC
C14	C-14 evasion flux rate from soil (1/sec)	not used	7.000E-07	---	EVSN
C14	C-12 evasion flux rate from soil (1/sec)	not used	1.000E-10	---	REVSN
C14	Fraction of grain in beef cattle feed	not used	8.000E-01	---	AVFG4
C14	Fraction of grain in milk cow feed	not used	2.000E-01	---	AVFG5
STOR	Storage times of contaminated foodstuffs (days):				
STOR	Fruits, non-leafy vegetables, and grain	1.400E+01	1.400E+01	---	STOR_T(1)
STOR	Leafy vegetables	1.000E+00	1.000E+00	---	STOR_T(2)
STOR	Milk	1.000E+00	1.000E+00	---	STOR_T(3)
STOR	Meat and poultry	2.000E+01	2.000E+01	---	STOR_T(4)
STOR	Fish	7.000E+00	7.000E+00	---	STOR_T(5)
STOR	Crustacea and mollusks	7.000E+00	7.000E+00	---	STOR_T(6)
STOR	Well water	1.000E+00	1.000E+00	---	STOR_T(7)
STOR	Surface water	1.000E+00	1.000E+00	---	STOR_T(8)
STOR	Livestock fodder	4.500E+01	4.500E+01	---	STOR_T(9)
R021	Thickness of building foundation (m)	not used	1.500E-01	---	FLOOR1
R021	Bulk density of building foundation (g/cm*3)	not used	2.400E+00	---	DENSFL
R021	Total porosity of the cover material	not used	4.000E-01	---	TPCV
R021	Total porosity of the building foundation	not used	1.000E-01	---	TPFL
R021	Volumetric water content of the cover material	not used	5.000E-02	---	PH2OCV
R021	Volumetric water content of the foundation	not used	3.000E-02	---	PH2OFL
R021	Diffusion coefficient for radon gas (m/sec):				
R021	in cover material	not used	2.000E-06	---	DIFCV
R021	in foundation material	not used	3.000E-07	---	DIFFL
R021	in contaminated zone soil	not used	2.000E-06	---	DIFCZ
R021	Radon vertical dimension of mixing (m)	not used	2.000E+00	---	HMLX
R021	Average building air exchange rate (1/hr)	not used	5.000E-01	---	REXG
R021	Height of the building (room) (m)	not used	2.500E+00	---	HRM
R021	Building interior area factor	not used	0.000E+00	---	FAI
R021	Building depth below ground surface (m)	not used	-1.000E+00	---	DMFL
R021	Emanating power of Rn-222 gas	not used	2.500E-01	---	EMANA(1)
R021	Emanating power of Rn-220 gas	not used	1.500E-01	---	EMANA(2)
TITL	Number of graphical time points	32	---	---	NPTS

Site-Specific Parameter Summary (continued)					
0 Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
TITL	Maximum number of integration points for dose	17	---	---	LYMAX
TITL	Maximum number of integration points for risk	257	---	---	KYMAX

Summary of Pathway Selections

Pathway	User Selection
1 -- external gamma	active
2 -- inhalation (w/o radon)	active
3 -- plant ingestion	active
4 -- meat ingestion	active
5 -- milk ingestion	active
6 -- aquatic foods	active
7 -- drinking water	active
8 -- soil ingestion	active
9 -- radon	suppressed
Find peak pathway doses	active

1RESRAD, Version 6.4      T½ Limit = 180 days      09/23/2008 17:18 Page 11  
 Summary : Dewey Burdock  
 File : C:\RESRAD\_FAMILY\RESRAD\USERFILES\DBURANIUMBENCHMARK.RAD

Contaminated Zone Dimensions		Initial Soil Concentrations, pCi/g	
Area:	10000.00 square meters	U-234	4.920E+01
Thickness:	0.15 meters	U-235	2.200E+00
Cover Depth:	0.00 meters	U-238	4.860E+01

0

Total Dose TDOSE(t), mrem/yr

Basic Radiation Dose Limit = 2.500E+01 mrem/yr

Total Mixture Sum M(t) = Fraction of Basic Dose Limit Received at Time (t)

t (years):	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
TDOSE(t):	7.073E+00	7.054E+00	7.015E+00	6.878E+00	6.472E+00	4.824E+00	0.000E+00	0.000E+00
M(t):	2.829E-01	2.821E-01	2.806E-01	2.751E-01	2.589E-01	1.930E-01	0.000E+00	0.000E+00

0Maximum TDOSE(t): 7.073E+00 mrem/yr at t = 0.000E+00 years

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 0.000E+00 years

Water Independent Pathways (Inhalation excludes radon)

	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
Radio- Nuclide	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
U-234	9.939E-03	0.0014	3.606E-01	0.0510	0.000E+00	0.0000	7.561E-01	0.1069	4.355E-02	0.0062	0.000E+00	0.0000	3.803E-01	0.0538
U-235	7.959E-01	0.1125	1.503E-02	0.0021	0.000E+00	0.0000	3.199E-02	0.0045	1.853E-03	0.0003	0.000E+00	0.0000	1.607E-02	0.0023
U-238	3.236E+00	0.4576	3.185E-01	0.0450	0.000E+00	0.0000	7.091E-01	0.1003	4.085E-02	0.0058	0.000E+00	0.0000	3.567E-01	0.0504
Total	4.042E+00	0.5715	6.942E-01	0.0981	0.000E+00	0.0000	1.497E+00	0.2117	8.625E-02	0.0122	0.000E+00	0.0000	7.530E-01	0.1065

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 0.000E+00 years

Water Dependent Pathways

	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
Radio- Nuclide	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
U-234	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.550E+00	0.2192
U-235	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.609E-01	0.1217
U-238	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.661E+00	0.6591
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.073E+00	1.0000

0\*Sum of all water independent and dependent pathways.

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+00 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
U-234	9.937E-03	0.0014	3.589E-01	0.0509	0.000E+00	0.0000	7.525E-01	0.1067	4.335E-02	0.0061	0.000E+00	0.0000	3.785E-01	0.0537
U-235	7.953E-01	0.1127	1.496E-02	0.0021	0.000E+00	0.0000	3.195E-02	0.0045	1.877E-03	0.0003	0.000E+00	0.0000	1.601E-02	0.0023
U-238	3.232E+00	0.4582	3.170E-01	0.0449	0.000E+00	0.0000	7.058E-01	0.1001	4.065E-02	0.0058	0.000E+00	0.0000	3.550E-01	0.0503
Total	4.037E+00	0.5723	6.909E-01	0.0980	0.000E+00	0.0000	1.490E+00	0.2113	8.588E-02	0.0122	0.000E+00	0.0000	7.494E-01	0.1063

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+00 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
U-234	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.543E+00	0.2188
U-235	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.601E-01	0.1219
U-238	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.650E+00	0.6593
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.054E+00	1.0000

0\*Sum of all water independent and dependent pathways.

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 3.000E+00 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
U-234	9.936E-03	0.0014	3.555E-01	0.0507	0.000E+00	0.0000	7.454E-01	0.1063	4.293E-02	0.0061	0.000E+00	0.0000	3.749E-01	0.0534
U-235	7.939E-01	0.1132	1.483E-02	0.0021	0.000E+00	0.0000	3.186E-02	0.0045	1.923E-03	0.0003	0.000E+00	0.0000	1.589E-02	0.0023
U-238	3.223E+00	0.4594	3.140E-01	0.0448	0.000E+00	0.0000	6.991E-01	0.0997	4.027E-02	0.0057	0.000E+00	0.0000	3.516E-01	0.0501
Total	4.027E+00	0.5740	6.844E-01	0.0976	0.000E+00	0.0000	1.476E+00	0.2105	8.513E-02	0.0121	0.000E+00	0.0000	7.424E-01	0.1058

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 3.000E+00 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
U-234	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.529E+00	0.2179
U-235	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.584E-01	0.1224
U-238	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.628E+00	0.6597
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.015E+00	1.0000

0\*Sum of all water independent and dependent pathways.



Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+01 years

Water Independent Pathways (Inhalation excludes radon)

0	Water Independent Pathways (Inhalation excludes radon)													
0	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
Radio-														
Nuclide	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
U-234	9.956E-03	0.0014	3.436E-01	0.0500	0.000E+00	0.0000	7.204E-01	0.1047	4.149E-02	0.0060	0.000E+00	0.0000	3.623E-01	0.0527
U-235	7.888E-01	0.1147	1.437E-02	0.0021	0.000E+00	0.0000	3.155E-02	0.0046	2.077E-03	0.0003	0.000E+00	0.0000	1.547E-02	0.0022
U-238	3.190E+00	0.4638	3.035E-01	0.0441	0.000E+00	0.0000	6.756E-01	0.0982	3.892E-02	0.0057	0.000E+00	0.0000	3.398E-01	0.0494
Total	3.989E+00	0.5799	6.615E-01	0.0962	0.000E+00	0.0000	1.428E+00	0.2076	8.249E-02	0.0120	0.000E+00	0.0000	7.176E-01	0.1043

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+01 years

Water Dependent Pathways

		Water Dependent Pathways													
0		Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
Radio- Nuclide		mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
	U-234	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.478E+00	0.2149
	U-235	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.523E-01	0.1239
	U-238	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.548E+00	0.6612
	Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.878E+00	1.0000

0\*Sum of all water independent and dependent pathways.

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)  
As mrem/yr and Fraction of Total Dose At t = 3.000E+01 years

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
U-234	1.021E-02	0.0016	3.097E-01	0.0478	0.000E+00	0.0000	6.491E-01	0.1003	3.739E-02	0.0058	0.000E+00	0.0000	3.265E-01	0.0504
U-235	7.717E-01	0.1192	1.315E-02	0.0020	0.000E+00	0.0000	3.057E-02	0.0047	2.433E-03	0.0004	0.000E+00	0.0000	1.432E-02	0.0022
U-238	3.084E+00	0.4765	2.734E-01	0.0422	0.000E+00	0.0000	6.087E-01	0.0940	3.506E-02	0.0054	0.000E+00	0.0000	3.061E-01	0.0473
Total	3.866E+00	0.5973	5.962E-01	0.0921	0.000E+00	0.0000	1.288E+00	0.1991	7.488E-02	0.0116	0.000E+00	0.0000	6.470E-01	0.1000

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)  
As mrem/yr and Fraction of Total Dose At t = 3.000E+01 years

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
U-234	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.333E+00	0.2059
U-235	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.322E-01	0.1286
U-238	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.307E+00	0.6655
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.472E+00	1.0000

0\*Sum of all water independent and dependent pathways.

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Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)  
 As mrem/yr and Fraction of Total Dose At t = 1.000E+02 years

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
U-234	1.234E-02	0.0026	1.913E-01	0.0396	0.000E+00	0.0000	4.015E-01	0.0832	2.311E-02	0.0048	0.000E+00	0.0000	2.017E-01	0.0418
U-235	6.627E-01	0.1374	8.775E-03	0.0018	0.000E+00	0.0000	2.400E-02	0.0050	2.714E-03	0.0006	0.000E+00	0.0000	9.918E-03	0.0021
U-238	2.532E+00	0.5248	1.687E-01	0.0350	0.000E+00	0.0000	3.755E-01	0.0778	2.163E-02	0.0045	0.000E+00	0.0000	1.888E-01	0.0391
Total	3.207E+00	0.6647	3.687E-01	0.0764	0.000E+00	0.0000	8.010E-01	0.1660	4.745E-02	0.0098	0.000E+00	0.0000	4.004E-01	0.0830

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)  
 As mrem/yr and Fraction of Total Dose At t = 1.000E+02 years

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
U-234	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.298E-01	0.1720
U-235	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.081E-01	0.1468
U-238	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.287E+00	0.6812
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.824E+00	1.0000

0\*Sum of all water independent and dependent pathways.

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 3.000E+02 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
U-234	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
U-235	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
U-238	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 3.000E+02 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
U-234	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
U-235	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
U-238	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000

0\*Sum of all water independent and dependent pathways.

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+03 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
U-234	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
U-235	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
U-238	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 1.000E+03 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
U-234	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
U-235	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
U-238	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000

0\*Sum of all water independent and dependent pathways.

Dose/Source Ratios Summed Over All Pathways											
Parent and Progeny Principal Radionuclide Contributions Indicated											
0 Parent	Product	Thread	DSR(j,t) At Time in Years (mrem/yr)/(pCi/g)								
(i)	(j)	Fraction	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03	
U-234	U-234	1.000E+00	3.151E-02	3.136E-02	3.107E-02	3.003E-02	2.707E-02	1.676E-02	0.000E+00	0.000E+00	
U-234	Th-230	1.000E+00	2.125E-07	6.250E-07	1.437E-06	4.156E-06	1.088E-05	2.230E-05	0.000E+00	0.000E+00	
U-234	Ra-226+D	1.000E+00	3.660E-09	2.588E-08	1.368E-07	1.205E-06	9.591E-06	7.763E-05	0.000E+00	0.000E+00	
U-234	Pb-210+D	1.000E+00	1.248E-11	1.627E-10	1.708E-09	3.948E-08	7.406E-07	1.074E-05	0.000E+00	0.000E+00	
U-234	EDSR(j)		3.151E-02	3.137E-02	3.107E-02	3.004E-02	2.709E-02	1.687E-02	0.000E+00	0.000E+00	
OU-235+D	U-235+D	1.000E+00	3.913E-01	3.908E-01	3.899E-01	3.866E-01	3.758E-01	3.156E-01	0.000E+00	0.000E+00	
U-235+D	Pa-231	1.000E+00	3.422E-05	1.063E-04	2.492E-04	7.281E-04	1.913E-03	3.926E-03	0.000E+00	0.000E+00	
U-235+D	Ac-227+D	1.000E+00	3.202E-07	2.065E-06	1.025E-05	8.164E-05	5.240E-04	2.345E-03	0.000E+00	0.000E+00	
U-235+D	EDSR(j)		3.913E-01	3.909E-01	3.902E-01	3.874E-01	3.783E-01	3.219E-01	0.000E+00	0.000E+00	
OU-238	U-238	5.400E-05	1.524E-06	1.516E-06	1.502E-06	1.452E-06	1.308E-06	8.079E-07	0.000E+00	0.000E+00	
OU-238+D	U-238+D	9.999E-01	9.591E-02	9.568E-02	9.522E-02	9.357E-02	8.862E-02	6.762E-02	0.000E+00	0.000E+00	
U-238+D	U-234	9.999E-01	4.463E-08	1.333E-07	3.082E-07	8.939E-07	2.341E-06	4.774E-06	0.000E+00	0.000E+00	
U-238+D	Th-230	9.999E-01	2.042E-13	1.390E-12	7.205E-12	6.198E-11	4.707E-10	3.175E-09	0.000E+00	0.000E+00	
U-238+D	Ra-226+D	9.999E-01	2.576E-15	3.913E-14	4.577E-13	1.197E-11	2.767E-10	7.395E-09	0.000E+00	0.000E+00	
U-238+D	Pb-210+D	9.999E-01	7.414E-18	1.982E-16	4.446E-15	3.018E-13	1.678E-11	8.586E-10	0.000E+00	0.000E+00	
U-238+D	EDSR(j)		9.591E-02	9.568E-02	9.522E-02	9.357E-02	8.863E-02	6.762E-02	0.000E+00	0.000E+00	

The DSR includes contributions from associated (half-life ≤ 180 days) daughters.

Single Radionuclide Soil Guidelines G(i,t) in pCi/g								
Basic Radiation Dose Limit = 2.500E+01 mrem/yr								
0Nuclide	t=	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02
(i)								1.000E+03
U-234	7.933E+02	7.971E+02	8.046E+02	8.323E+02	9.228E+02	1.482E+03	*6.247E+09	*6.247E+09
U-235	6.389E+01	6.395E+01	6.407E+01	6.453E+01	6.609E+01	7.767E+01	*2.161E+06	*2.161E+06
U-238	2.606E+02	2.613E+02	2.625E+02	2.672E+02	2.821E+02	3.697E+02	*3.361E+05	*3.361E+05

\*At specific activity limit

Summed Dose/Source Ratios DSR(i,t) in (mrem/yr)/(pCi/g)						
and Single Radionuclide Soil Guidelines G(i,t) in pCi/g						
at tmin = time of minimum single radionuclide soil guideline						
and at tmax = time of maximum total dose = 0.000E+00 years						
0Nuclide	Initial	tmin	DSR(i,tmin)	G(i,tmin)	DSR(i,tmax)	G(i,tmax)
(i)	(pCi/g)	(years)		(pCi/g)		(pCi/g)
U-234	4.920E+01	0.000E+00	3.151E-02	7.933E+02	3.151E-02	7.933E+02
U-235	2.200E+00	0.000E+00	3.913E-01	6.389E+01	3.913E-01	6.389E+01
U-238	4.860E+01	0.000E+00	9.592E-02	2.606E+02	9.592E-02	2.606E+02

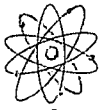
Individual Nuclide Dose Summed Over All Pathways Parent Nuclide and Branch Fraction Indicated										
ONuclide (j)	Parent (i)	THF(i)	DOSE(j,t), mrem/yr							
			t= 0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
U-234	U-234	1.000E+00	1.550E+00	1.543E+00	1.529E+00	1.478E+00	1.332E+00	8.244E-01	0.000E+00	0.000E+00
U-234	U-238	9.999E-01	2.169E-06	6.480E-06	1.498E-05	4.344E-05	1.138E-04	2.320E-04	0.000E+00	0.000E+00
U-234	ΣDOSE(j)		1.550E+00	1.543E+00	1.529E+00	1.478E+00	1.332E+00	8.244E-01	0.000E+00	0.000E+00
0Th-230	U-234	1.000E+00	1.046E-05	3.075E-05	7.068E-05	2.045E-04	5.355E-04	1.097E-03	0.000E+00	0.000E+00
Th-230	U-238	9.999E-01	9.922E-12	6.757E-11	3.502E-10	3.012E-09	2.288E-08	1.543E-07	0.000E+00	0.000E+00
Th-230	ΣDOSE(j)		1.046E-05	3.075E-05	7.068E-05	2.045E-04	5.355E-04	1.097E-03	0.000E+00	0.000E+00
ORa-226	U-234	1.000E+00	1.801E-07	1.273E-06	6.732E-06	5.928E-05	4.719E-04	3.819E-03	0.000E+00	0.000E+00
Ra-226	U-238	9.999E-01	1.252E-13	1.902E-12	2.225E-11	5.817E-10	1.345E-08	3.594E-07	0.000E+00	0.000E+00
Ra-226	ΣDOSE(j)		1.801E-07	1.273E-06	6.732E-06	5.928E-05	4.719E-04	3.820E-03	0.000E+00	0.000E+00
OPb-210	U-234	1.000E+00	6.141E-10	8.003E-09	8.404E-08	1.942E-06	3.644E-05	5.283E-04	0.000E+00	0.000E+00
Pb-210	U-238	9.999E-01	3.603E-16	9.632E-15	2.161E-13	1.467E-11	8.154E-10	4.173E-08	0.000E+00	0.000E+00
Pb-210	ΣDOSE(j)		6.141E-10	8.003E-09	8.404E-08	1.942E-06	3.644E-05	5.283E-04	0.000E+00	0.000E+00
OU-235	U-235	1.000E+00	8.608E-01	8.598E-01	8.578E-01	8.505E-01	8.268E-01	6.943E-01	0.000E+00	0.000E+00
OPa-231	U-235	1.000E+00	7.529E-05	2.339E-04	5.483E-04	1.602E-03	4.209E-03	8.638E-03	0.000E+00	0.000E+00
OAc-227	U-235	1.000E+00	7.045E-07	4.542E-06	2.255E-05	1.796E-04	1.153E-03	5.160E-03	0.000E+00	0.000E+00
OU-238	U-238	5.400E-05	7.404E-05	7.370E-05	7.300E-05	7.055E-05	6.357E-05	3.926E-05	0.000E+00	0.000E+00
U-238	U-238	9.999E-01	4.661E+00	4.650E+00	4.628E+00	4.547E+00	4.307E+00	3.286E+00	0.000E+00	0.000E+00
U-238	ΣDOSE(j)		4.661E+00	4.650E+00	4.628E+00	4.548E+00	4.307E+00	3.286E+00	0.000E+00	0.000E+00

THF(i) is the thread fraction of the parent nuclide.

Individual Nuclide Soil Concentration										
Parent Nuclide and Branch Fraction Indicated										
ONuclide (j)	Parent (i)	THF(i)	S(j,t), pCi/g							
			t= 0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
U-234	U-234	1.000E+00	4.920E+01	4.920E+01	4.919E+01	4.917E+01	4.912E+01	4.892E+01	4.836E+01	4.644E+01
U-234	U-238	9.999E-01	0.000E+00	1.378E-04	4.132E-04	1.377E-03	4.126E-03	1.370E-02	4.064E-02	1.302E-01
U-234	ΣS(j):		4.920E+01	4.920E+01	4.919E+01	4.917E+01	4.912E+01	4.893E+01	4.840E+01	4.657E+01
0Th-230	U-234	1.000E+00	0.000E+00	4.429E-04	1.329E-03	4.427E-03	1.327E-02	4.414E-02	1.315E-01	4.284E-01
Th-230	U-238	9.999E-01	0.000E+00	6.201E-10	5.580E-09	6.199E-08	5.574E-07	6.176E-06	5.514E-05	5.955E-04
Th-230	ΣS(j):		0.000E+00	4.429E-04	1.329E-03	4.428E-03	1.327E-02	4.415E-02	1.316E-01	4.290E-01
0Ra-226	U-234	1.000E+00	0.000E+00	9.592E-08	8.629E-07	9.576E-06	8.588E-05	9.423E-04	8.185E-03	8.058E-02
Ra-226	U-238	9.999E-01	0.000E+00	8.953E-14	2.417E-12	8.941E-11	2.407E-09	8.823E-08	2.313E-06	7.746E-05
Ra-226	ΣS(j):		0.000E+00	9.592E-08	8.629E-07	9.576E-06	8.588E-05	9.424E-04	8.187E-03	8.066E-02
0Pb-210	U-234	1.000E+00	0.000E+00	9.862E-10	2.621E-08	9.200E-07	2.149E-05	5.236E-04	6.643E-03	7.589E-02
Pb-210	U-238	9.999E-01	0.000E+00	6.914E-16	5.531E-14	6.539E-12	4.711E-10	4.109E-08	1.716E-06	7.068E-05
Pb-210	ΣS(j):		0.000E+00	9.862E-10	2.621E-08	9.200E-07	2.149E-05	5.237E-04	6.645E-03	7.596E-02
0U-235	U-235	1.000E+00	2.200E+00	2.200E+00	2.200E+00	2.199E+00	2.196E+00	2.188E+00	2.164E+00	2.083E+00
0Pa-231	U-235	1.000E+00	0.000E+00	4.655E-05	1.396E-04	4.652E-04	1.394E-03	4.624E-03	1.369E-02	4.360E-02
0Ac-227	U-235	1.000E+00	0.000E+00	7.331E-07	6.459E-06	6.676E-05	4.956E-04	3.228E-03	1.224E-02	4.214E-02
0U-238	U-238	5.400E-05	2.624E-03	2.624E-03	2.624E-03	2.623E-03	2.620E-03	2.610E-03	2.582E-03	2.484E-03
U-238	U-238	9.999E-01	4.860E+01	4.859E+01	4.859E+01	4.857E+01	4.852E+01	4.833E+01	4.780E+01	4.601E+01
U-238	ΣS(j):		4.860E+01	4.860E+01	4.859E+01	4.857E+01	4.852E+01	4.833E+01	4.781E+01	4.601E+01

THF(i) is the thread fraction of the parent nuclide.  
 ORESALC.EXE execution time = 1.27 seconds





**POWERTECH (USA) INC.**

## **Radium Benchmark Dose Assessment**

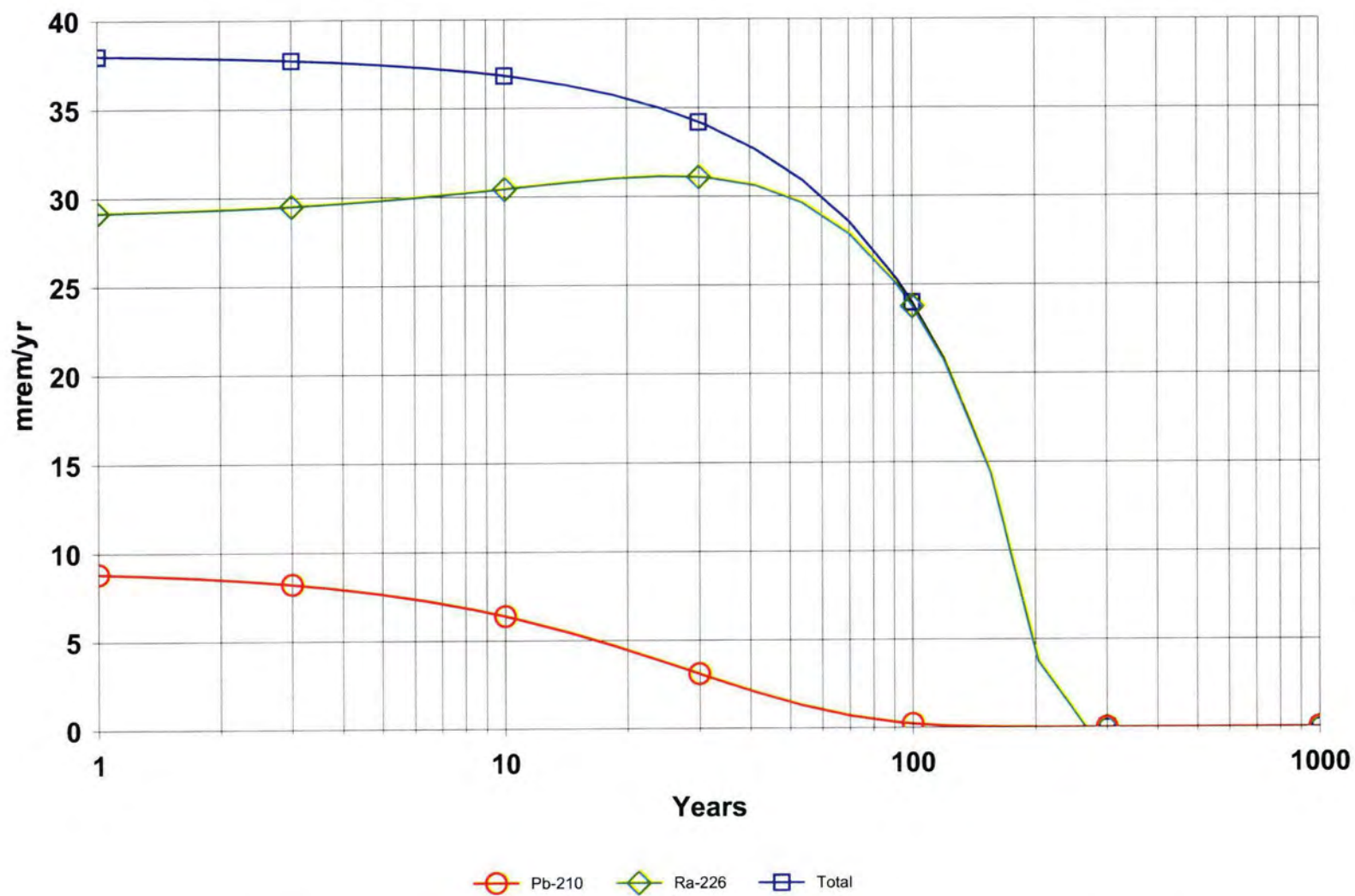
### **Attachment 4.0**

#### **RESRAD Radium Dose Figures**



POWERTECH (USA) INC.

### DOSE: All Nuclides Summed, All Pathways Summed

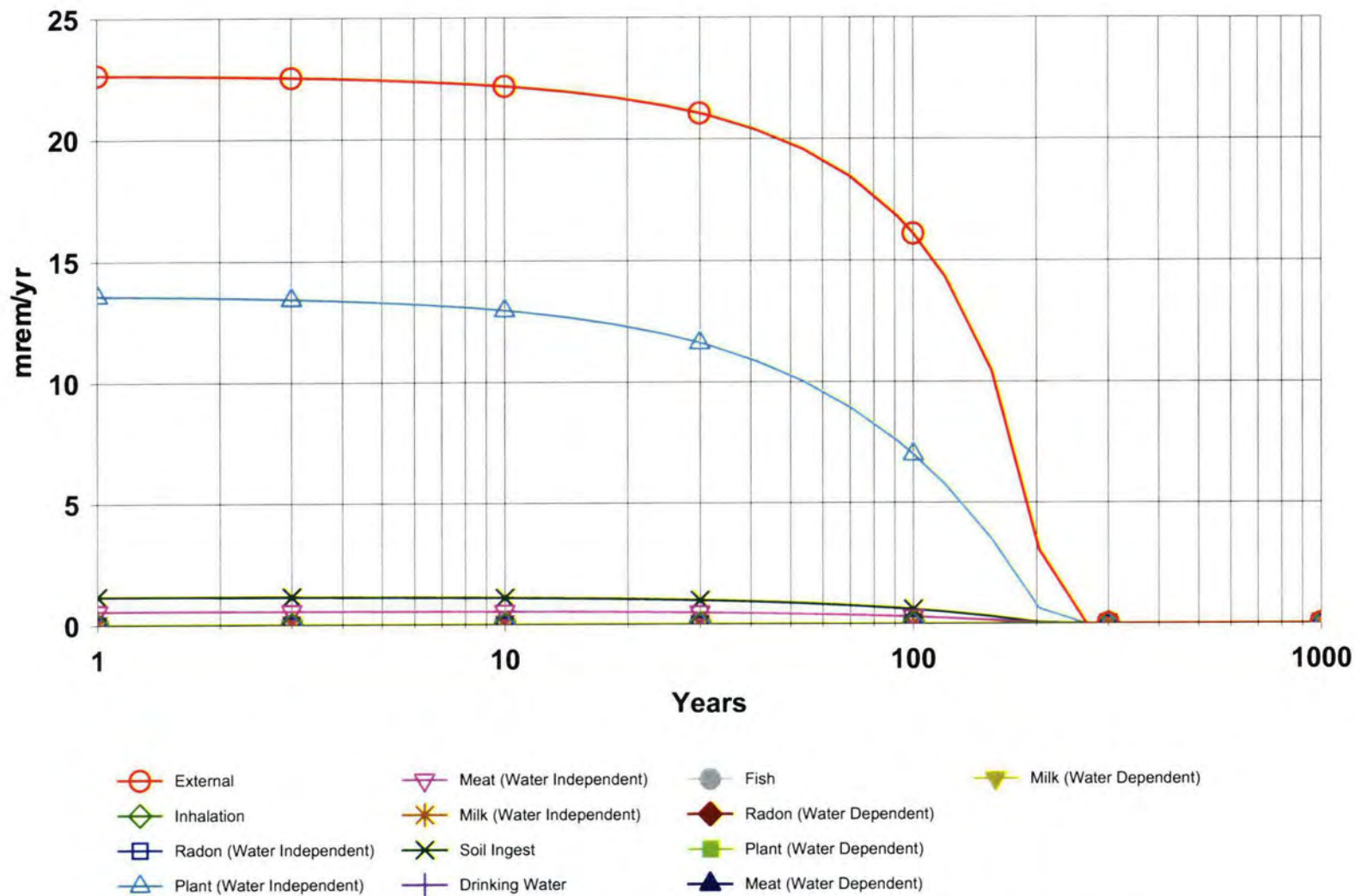


C:\RESRAD\_FAMILY\RESRAD\USERFILES\DBRADIUMBENCHMARK.RAD 09/24/2008 10:16 GRAPHICS.ASC Includes All Pathways

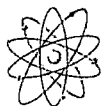


POWERTECH (USA) INC.

### DOSE: All Nuclides Summed, Component Pathways



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**POWERTECH (USA) INC.**

## **Radium Benchmark Dose Assessment**

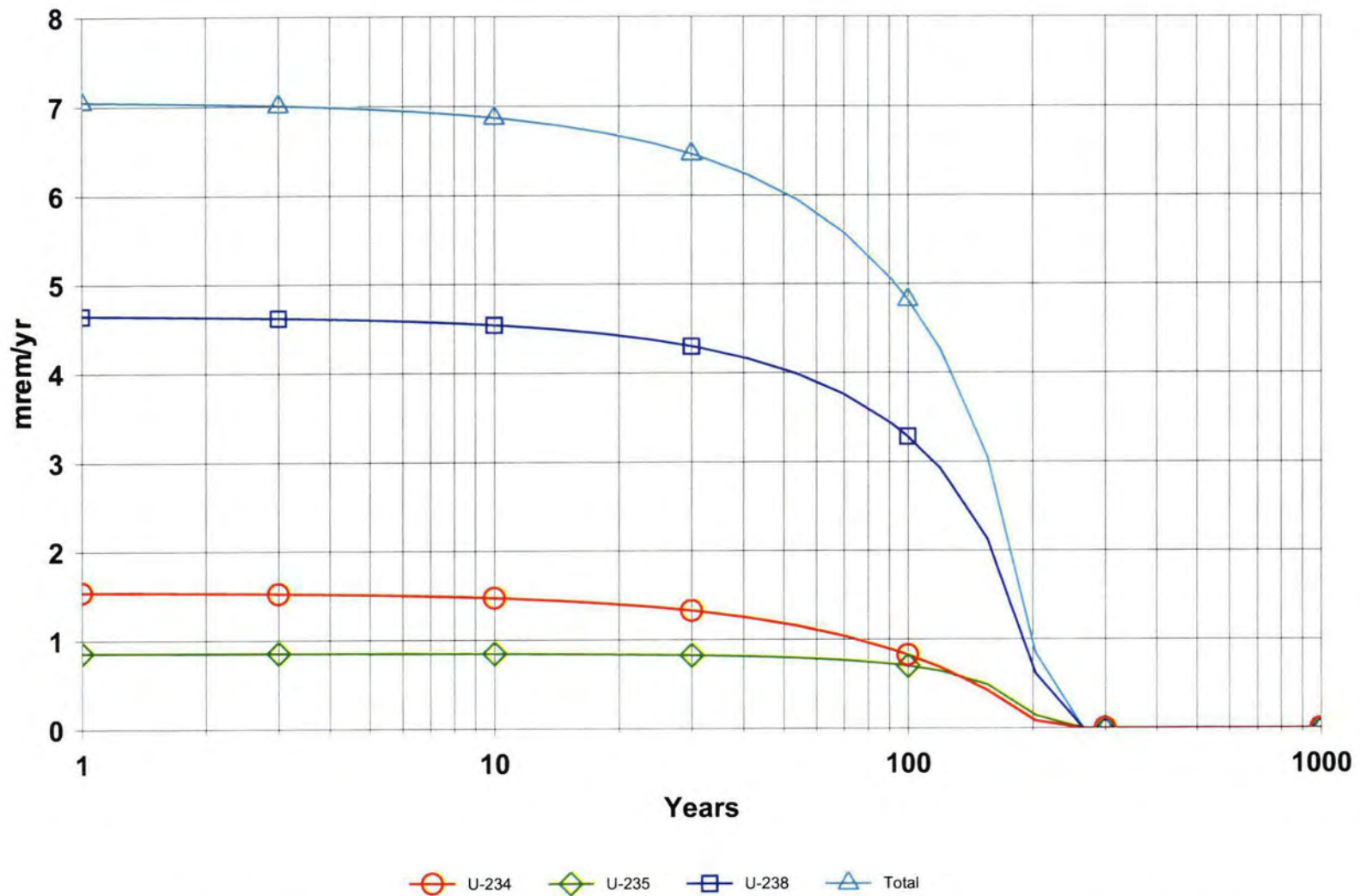
### **Attachment 4.1**

#### **RESRAD Uranium Dose Graphics**



POWERTECH (USA) INC.

### DOSE: All Nuclides Summed, All Pathways Summed

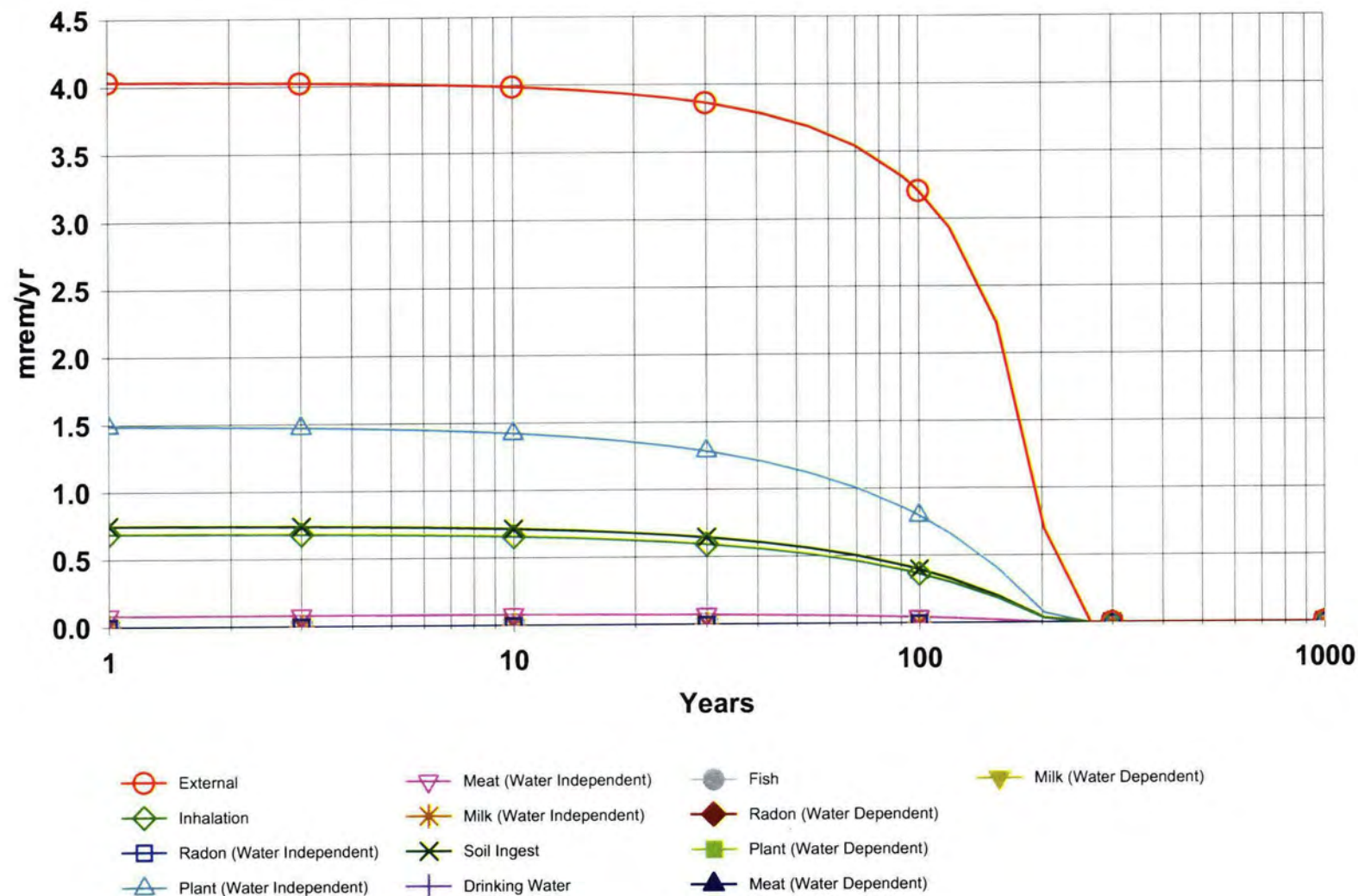


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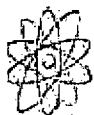


POWERTECH (USA) INC.

# DOSE: All Nuclides Summed, Component Pathways



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**POWERTECH (USA) INC.**

## **APPENDIX 6.6-A**

### **FINANCIAL ASSURANCE CALCULATIONS**



**POWERTECH (USA) INC.**

## **LAND APPLICATION**



**Restoration Costs by Year  
Dewey-Burdock Project  
Powertech (USA), Inc.**

<b>Powertech (USA), Inc.</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>Total</b>
<b>Production (lbs U3O8)</b>		<b>500,000</b>	<b>8,411</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	
Restoration Flow - Dewey (gpm)			250					
Restoration Flow - Burdock (gpm)			250					
<b>Capital Cost</b>								
Restoration Equipment	1,330,000	1,330,000						2,660,000
								<b>2,660,000</b>
<b>Operations</b>								
Labor	-	81,000	811,000	189,000	81,000			1,162,000
Electricity			574,320					574,000
Chemicals	-	-	8,500	-	-	-	-	9,000
Maintenance			297,471					297,000
Byproduct Disposal			14,690					15,000
Monitoring	-	-	157,986	183,292				341,000
								<b>2,398,000</b>
<b>Decommissioning</b>								
Labor (included above)								
Well Closure					-	353,000	353,000	706,000
Mob/Site Preparation						25,000		25,000
Demo and Disposal - 11 e(2)						744,500	744,500	1,489,000
Equipment Transferred						121,500	121,500	243,000
Demo and Disposal - Landfill						1,395,000	1,395,000	2,790,000
Other Reclamation						1,057,000	1,057,000	2,114,000
								<b>7,367,000</b>
<b>Contingency</b>								
Contingency at 15%	199,500	211,650	279,595	55,844	12,150	554,400	550,650	1,664,000
								<b>1,664,000</b>
<b>Total Costs</b>	<b>1,529,500</b>	<b>1,622,650</b>	<b>2,143,562</b>	<b>428,135</b>	<b>93,150</b>	<b>4,250,400</b>	<b>4,221,650</b>	<b>14,089,000</b>

**Restoration Costs**  
**Dewey-Burdock Project**  
**Powertech (USA), Inc.**  
**Preliminary Capital Cost Estimate - CPP Restoration Equipment**

Description	Equipment List Number	No./Size	Quantity	Units	Unit Cost	Purchase Cost	Shipping Cost	Estimated Capital Cost
<b>Restoration System</b>								
Restoration IX Vessel (118,600 ea + 15k distributor + 8k delivery)	300-IX-001A, B		2	each	141,600	283,000	16,000	299,000
IX resin - Dowex 21K XLT	NA	2	500	cu ft	221	221,000	4,420	225,000
PC Booster Pump (250 gpm; 90' TDH)	300-P-001 A, B, C		2	each	5,318	11,000	550	12,000
IC Booster Pump	300-P-002 A, B, C		2	each	4,993	10,000	500	11,000
RO Sump Pump	300-P-011, spare		0	each	1,915	0	0	0
RO Skid (Incl pretrmt, filtration and feed pump) 500 gpm	300-RO-001		0	each	413,689	0	0	0
<b>Estimated Restoration Equipment - Subtotal:</b>								<b>547,000</b>
	Other Materials	Subcontracts	Direct Labor					
	(% of Delivered Equipment Cost)	(% of Delivered Equipment Cost)	(% of Delivered Equipment Cost)	(% of Delivered Equipment Cost)				
Process Equipment	100	15	5		120.0			656,000
Site Preparation	0	0	0		0.0			0
Site Improvements	0	0	0		0.0			0
Concrete	0	0	0		0.0			0
Structural Steel	0	0	0		0.0			0
Buildings	0	0	0		0.0			0
Underground Piping	0	0	0		0.0			0
Above-ground Piping	17	3	14		34.0			186,000
Underground Electric	0	0	0		0.0			0
Above-ground Electric	10		7.5		17.5			96,000
Instrumentation	7	0.5	3.9		11.4			62,000
Insulation	0	0	0		0.0			0
Painting	0.4		0.4		0.8			4,000
Paving	0	0	0		0.0			0
Proratables	1.5		2.25		3.8			21,000
Totals	135.9	18.5	33.05		187.5			
Discipline Costs	\$743,000	\$101,000	\$181,000		1,025,000			
<b>Estimated Restoration Direct Costs - Subtotal:</b>								<b>1,025,000</b>

Restoration Costs  
Dewey-Burdock Project  
Powertech (USA), Inc.  
Preliminary Capital Cost Estimate - CPP Restoration Equipment

Description	Equipment List Number	No./Size	Quantity	Units	Unit Cost	Purchase Cost	Shipping Cost	Estimated Capital Cost
<b>Field Indirect Costs</b>	<u>(% of Direct Labor)</u>							
Construction Equipment	31							56,000
Overhead and Indirects								
Indirect Labor	10							
Temporary Construction Facilities	15							
Burdens and Benefits	20							
Small Tools and Consumables	5							
Other Indirects	5							
Total Overhead and Indirects	55							100,000
<b>Estimated Restoration Field Indirect Costs - Subtotal:</b>								<b>156,000</b>
<b>Direct and Indirect Costs - Subtotal:</b>								<b>1,181,000</b>
<b>Estimated Restoration Direct and Indirect Costs - Subtotal:</b>								<b>1,181,000</b>
Engineering	7	%						83,000
Fee (Excluding Delivered Equipment)	5	%						32,000
Spares (% of Delivered Equipment)	5	%						27,350
<b>Estimated Restoration Fixed Capital Investment (Per Site)- Total:</b>								<b>1,330,000</b>
<b>Estimated Restoration Fixed Capital Investment (Project)- Total:</b>								<b>2,660,000</b>

Restoration Costs by Year  
Dewey-Burdock Project  
Powertech (USA), Inc.

Color Legend

Site Management
Capital Labor
Central Plant
Satellite/WF
Restoration/Decom

		2009	2010	2011	2012	2013	2014	2015	2016
<b>Labor</b>	Geology								
	Senior Project Geologist	1	1	1					
	Project Geologists	2	4	4					
	Drafting Technicians	1	3	3					
	<b>Subtotal</b>								
	Construction/Drilling								
	Construction Superintendent		1	1				0	0
	Drilling Foreman		1	1					
	Drilling Services Leadman		1	1			0	0	0
	Drilling Services Technicians		6	6			0	0	0
	Logging and MIT Technicians		7	7					
	Drilling Supervisor		1	1					
	Wellfield Construction Foreman		1	1					
	General Construction Technicians		8	4		0	0	4	4
	Electrical/Instrumentation		2	2					
	Heavy Equipment		4	2			0	2	2
	Construction Engineer		1	1			0	1	1
	<b>Subtotal</b>								
	Production								
	Production Superintendent			1					
	Wellfield Operations Supervisor			1					
	Wellfield Engineer			1					
	Wellfield/Satellite Operations Leadman			1					
	Wellfield/Satellite Operators			12	4	0			
	Restoration Engineer			1	1	1	1		
	Restoration Operator				1	0	0		
	Groundwater Sampling Technician	1	2	2	0	0	0		
	Groundwater Sampling Technician				2	2	0		
	Central Plant Operations Supervisor			1	1	0	0		
	Central Plant Operations Leadman			1					
	Central Plant Operators			4	1	0	0		
	Central Plant Operators - Day			4					
	Dryer Operators			2					
	Chemist/Lab Supervisor			1					
	Lab Technicians			4	1	0	0		
	Maintenance Supervisor			1					
	General Maintenance Techs			4	1	0	0		
	Mechanics			3					
	Electrical/Instrumentation			2	1	0	0		
	<b>Subtotal</b>								



Restoration Costs by Year  
Dewey-Burdock Project  
Powertech (USA), Inc.

Color Legend

Site Management
Capital Labor
Central Plant
Satellite/WF
Restoration/Decom

			2009	2010	2011	2012	2013	2014	2015	2016
<b>Unit Labor Costs</b>										
Geology					0	0	0	0	0	0
Senior Project Geologist	135,000		135000	135000	135000	0	0	0	0	0
Project Geologists	95,000		190000	380000	380000	0	0	0	0	0
Drafting Technicians	54,000		54000	162000	162000	0	0	0	0	0
<b>Subtotal</b>					0	0	0	0	0	0
Construction/Drilling					0	0	0	0	0	0
Construction Superintendent	135,000		0	135000	135000	0	0	0	0	0
Drilling Foreman	95,000		0	95000	95000	0	0	0	0	0
Drilling Services Leadman	81,000		0	81000	81000	0	0	0	0	0
Drilling Services Technicians	54,000		0	324000	324000	0	0	0	0	0
Logging and MIT Technicians	54,000		0	378000	378000	0	0	0	0	0
Drilling Supervisor	68,000		0	68000	68000	0	0	0	0	0
Wellfield Construction Foreman	68,000		0	68000	68000	0	0	0	0	0
General Construction Technicia	41,000		0	328000	164000	0	0	0	164000	164000
Electrical/Instrumentation	81,000		0	162000	162000	0	0	0	0	0
Heavy Equipment	54,000		0	216000	108000	0	0	0	108000	108000
Construction Engineer	81,000		0	81000	81000	0	0	0	81000	81000
<b>Subtotal</b>					0	0	0	0	0	0
Production					0	0	0	0	0	0
Production Superintendent	135,000		0	0	135000	0	0	0	0	0
Wellfield Operations Supervisor	95,000		0	0	95000	0	0	0	0	0
Wellfield Engineer	81,000		0	0	81000	0	0	0	0	0
Wellfield/Satellite Operations Le	68,000		0	0	68000	0	0	0	0	0
Wellfield/Satellite Operators	54,000		0	0	648000	216000	0	0	0	0
Restoration Engineer	81,000		0	0	81000	81000	81000	81000	0	0
Restoration Operator	68,000		0	0	0	68000	0	0	0	0
Groundwater Sampling Tech	54,000		54000	108000	108000	0	0	0	0	0
Groundwater Sampling Tech	54,000		0	0	0	108000	108000	0	0	0
Central Plant Operations Super	122,000		0	0	122000	122000	0	0	0	0
Central Plant Operations Leadn	81,000		0	0	81000	0	0	0	0	0
Central Plant Operators	54,000		0	0	216000	54000	0	0	0	0
Central Plant Operators - Day	54,000		0	0	216000	0	0	0	0	0
Dryer Operators	54,000		0	0	108000	0	0	0	0	0
Chemist/Lab Supervisor	95,000		0	0	95000	0	0	0	0	0
Lab Technicians	47,000		0	0	188000	47000	0	0	0	0
Maintenance Supervisor	61,000		0	0	61000	0	0	0	0	0
General Maintenance Techs	41,000		0	0	164000	41000	0	0	0	0
Mechanics	61,000		0	0	183000	0	0	0	0	0
Electrical/Instrumentation	74,000		0	0	148000	74000	0	0	0	0
<b>Subtotal</b>										
<b>Restoration and Reclamation Labor Cost</b>			2009	2010	2011	2012	2013	2014	2015	2016
					81000	811000	189000	81000	353000	353000

**Restoration Costs  
Dewey-Burdock Project  
Powertech (USA), Inc.  
Restoration Operating Assumptions**

Description	Quantity	Units
<b>General Operating Assumptions</b>		
1 Production objective	1,000,000	# of U3O8 per year
2 Ave. wellfield design based on # yellowcake per sq ft of ore reserve, equals:	1.60	lb/sq ft
3 ISR recovery efficiency of:	0.75	recovery efficiency
4 First Year production rate	0.91	pounds/yr/sq ft
Average grade of produced water (ppm U3O8)		
5 Area required to meet production objective (online all the time)	911,458	sq ft
	21	acres
6 Area per pattern	10,000	sq ft/pattern
7 Number of online patterns required to meet production objective	91	patterns
8 Number of online Production Wells required to meet production objective	91	production wells
Assuming 20 gpm/production well, total production flow rate equals:	1,823	gpm
Assuming 350 days/yr pumping, average U3O8 grade to meet production objective equals:	130	ppm U3O8
If total flowrate limited to 4,000 gpm, average grade to meet production objective equals:	59	ppm U3O8
9 I/R Ratio	1.6	inj wells/prod wells
10 Number of online Injection Wells required to meet objective	146	injection wells
11 Number of online Production Wells per Header House	18	production wells/HH
12 Number of HH required to meet production objective	5.1	HH
13 Number of Perimeter Monitoring Wells per Header House	2.0	monit wells/HH
14 Number of Internal Monitoring Wells per HH (1 upper +1 lower)	2.0	monit wells/HH
15 Number of Compliance Wells per HH (1300 LF spacing)	0.6	comp wells/HH
16 Subtotal # Monitor wells per HH during production	4.6	total mw/HH
17 Total # Monitoring wells per 1MM # produced during production	23.4	total MW
	Number	Quantity
Assumed electricity rate incl demand charge (\$/kwh)	0.07	
<b>Wellfields</b>		
<b>Wells (per well)</b>		
Electric utilities:		
Production well pumps - 20 gpm @ 400 ft TDH	1	20,000 kwh
Wellhead heaters (0.5 kw, 180 days/yr)	1	2,000 kwh
<b>Subtotal Power</b>		<b>1,500</b>
<b>Header House (per HH)</b>		
Replacement flow meters (x%/yr)	10	1 ea
Replacement pressure gauges/switches	20	1 ea
Equip maintenance (@ 10% of new equipment capital)	1	80,000 %
<b>Subtotal Maintenance</b>		<b>9,500</b>

**Restoration Costs  
Dewey-Burdock Project  
Powertech (USA), Inc.  
Restoration Operating Assumptions**

Description	Quantity	Units			
Electric utilities:					
Bldg heating (5 kw, 180 days/yr)	1	22,000	kwh	0.070	1,500
Instrumentation (1 kw)	1	9,000	kwh	0.070	600
<b>Subtotal Power</b>					<b>2,100</b>
<b>General well field area</b>					
Pipelines		1	lump sum	50,000	50,000
Road maintenance materials (gravel/culverts)		1	lump sum	10,000	10,000
Wireless telemetry and security systems maintenance		1	lump sum	2,000	2,000
<b>Subtotal Maintenance</b>					<b>62,000</b>
<b>Oxygen/Carbon Dioxide Injection</b>					
Oxygen gas per year		0	tons/yr	1,100	0
Carbon dioxide gas per year		0	tons/yr	1,160	0
<b>Subtotal Chemicals</b>					<b>0</b>
<b>Satellite Plant</b>					
Ion exchange resin replacement - DOWEX 21K XLT		0	cu ft	221	0
Electric utilities:					
PC Booster Pump	2	605,491	kwh	0.070	42,400
IC Booster Pump	2	605,491	kwh	0.070	42,400
Resin Transfer Pump	1	8,830	kwh	0.070	600
Utility Water Pump	1	11,773	kwh	0.070	800
HVAC		105,120	kwh	0.070	7,400
Lighting (0.8 W/ft <sup>2</sup> )	10000	52,560	kwh	0.070	3,700
Instrumentation (2 kw)	1	18,000	kwh	0.070	1,300
<b>Subtotal Power</b>					<b>12,400</b>
Resin Transport to CPP		6	R/T per yr	50	300
<b>Land Application (assume 20% to wellfield production)</b>					
Electric utilities 136 days/year (growing season May 11 - Sept 24):					
Land app pumps Dewey (849 gpm at assume 200' TDH)	1	207,509	kwh	0.07	14,500
Land app pumps Dewey (849 gpm at assume 200' TDH)	1	207,509	kwh	0.07	14,500
Center pivot hydraulic pump; 10 hp for 25 ac areas (use 8 RHP)	7	137,000	kwh	0.07	67,100
Center pivot hydraulic pump; 15 hp for 50 ac areas (use 13 RHP)	14	444,000	kwh	0.07	435,100
Sump pump at 25 ac land app site (return irrigation tailwater/runoff)	7	3,000	kwh	0.07	1,500
Sump pump at 50 ac land app site (return irrigation tailwater/runoff)	14	10,000	kwh	0.07	9,800
<b>Subtotal Power</b>					<b>543,000</b>
<b>Assume 81% to Well Field Restoration</b>					<b>439,830</b>
<b>Equipment Maintenance:</b>					
Center pivot machines	26	1	year	500	13,000
Equip Maintenance (@ 3% of new equipment capital) - pumps only		78,000	%	3	2,300
Equipment Replacement (@ 3% of new equipment capital)		1,464,000	%	3	43,900
<b>Subtotal Maintenance</b>					<b>59,000</b>
<b>Assume 81% to Well Field Restoration</b>					<b>47,790</b>

**Restoration Costs  
Dewey-Burdock Project  
Powertech (USA), Inc.  
Restoration Operating Assumptions**

Description	Quantity	Units			
<b>Water Supply Power @65 gpm</b>					
Groundwater extraction (65 gpm; 400 TDH; 24 hr/day)	1	64,000	kwh	0.070	<b>4,000</b>
<b>Offsite Deep Disposal Well(s) @ 12 gpm</b>					
Trucking to Burns, WY (214 gal/day = 6 trips/year)	2	412	miles/RT	3.50	<b>17,000</b>
Injection pump maintenance and repair (assume 6% of cap cost)	1	150,000	Cap cost	0.06	<b>9,000</b>
Electric utilities:					
Deep disposal well PD pump (4, but only one operating)	1	1,000	kwh	0.070	100
12 gpm@300 psi = 130 gpm @1000 TDH	1	4,000	kwh	0.070	300
Bldg heating (1 kw, 180 days/yr)					
<b>Subtotal</b>					<b>0</b>
<b>Storage and Radium Settling Ponds</b>					
Electrical for transfer pumps (120 gpm @ 300" TDH)	1	88,000	kwh	0.07	<b>6,160</b>
Pond Maintenance (\$2,800/pond/yr)	1	11	year	2,800	<b>30,800</b>
<b>Subtotal</b>					<b>36,960</b>
<b>Equipment When Restoration Operations are underway (in addition to production)</b>					
<b>Header Houses</b>					
Equip maintenance (@ 3 % of new equipment capital)		0	%	0.03	0
<b>Subtotal</b>					<b>0</b>
Electric utilities:					
Bldg heating (5 kw, 180 days/yr)	5.0	108,000	kwh	0.070	7,600
Instrumentation (1 kw)	5.0	44,000	kwh	0.070	3,100
<b>Subtotal</b>					<b>10,700</b>
<b>Restoration</b>					
<b>Restoration Assumptions</b>					
Reclamation consists of 10 PV of activity		10	PVs		
Assume PV = area/1M pounds U3O8 recovered (see operating assumptions above) x 10			gallons/M#		
ft thick x 20% porosity x 1.5 flare factor x 7.48 gal/cu ft		20,453,125	recovered		
Unit volume required per 1M # recovered per year		1.14			
Volume of flush water required per year		233,165,625	gallons/yr		
Nomical restoration design flow rate (both sites)		500	gpm		
Years to Reclaim 1M pounds of U3O8 recovered		0.89	years		
<b>Treatment Chemicals</b>	<b>Number</b>	<b>Quantity</b>	<b>Units</b>	<b>Rate</b>	<b>Cost (\$/yr)</b>
IX Cost (see KC Restoration Treatment Cost 10_9_08)			LS	1.000	8,500
<b>Subtotal</b>					<b>8,500</b>
<b>Treatment Maintenance</b>					
IX Resin Replacement - assume 4% of cap cost		225,000	cap cost	0.040	9,000
Process hardware maintenance + replmt @ 4% of Capital		994,000	cap cost	0.040	39,760
<b>Subtotal</b>					<b>49,000</b>



**Restoration Costs  
Dewey-Burdock Project  
Powertech (USA), Inc.  
Restoration Operating Assumptions**

Description	Quantity	Units			
<b>Booster Pumps from CPP to Storage Ponds</b>					
Booster Pumps (2 - 250 gpm; 200 TDH; 24 hr/day)	2	245,000	kwh	0.070	17,000
<b>Water Supply Power</b>					
Groundwater extraction (500 gpm; 500 TDH; 24 hr/day)	1	612,000	kwh	0.070	43,000
<b>Well Field Power</b>					
Groundwater extraction (500 gpm; 400 TDH; 24 hr/day)	1	489,000	kwh	0.070	34,000
Treated water reinjection (500 gpm; 200 TDH; 24 hr/day)	1	245,000	kwh	0.070	17,000
<b>Subtotal</b>					<b>51,000</b>
<b>SubTotal Treatment and Power Cost</b>					<b>168,500</b>
<b>Land Application</b> (see RTJ Estimate 10_19_08) (assume 81% to Restoration)					
- Land Application design 620 gpm of annual flow (restoration = 500 gpm or 81% of design)					
Electric utilities 136 days/year (growing season May 11 - Sept 24):					
Land app pumps Dewey (849 gpm at assume 200' TDH)	1	415,000	kwh	0.07	29,100
Land app pumps Dewey (849 gpm at assume 200' TDH)	1	415,000	kwh	0.07	29,100
Center pivot hydraulic pump; 10 hp for 25 ac areas (use 8 RHP)	7	137,000	kwh	0.07	67,100
Center pivot hydraulic pump; 15 hp for 50 ac areas (use 13 RHP)	14	444,000	kwh	0.07	435,100
Sump pump at 25 ac land app site (return irrigation tailwater/runoff)	7	3,000	kwh	0.07	1,500
Sump pump at 50 ac land app site (return irrigation tailwater/runoff)	14	10,000	kwh	0.07	9,800
<b>Subtotal Power</b>					<b>572,000</b>
<b>Assume 81% to Well Field Restoration</b>					<b>463,320</b>
<b>Equipment Maintenance:</b>					
Center pivot machines	26	1	year	500	13,000
Equip Maintenance (@ 3% of new equipment capital) - pumps only		78,000	%	3	2,300
Equipment Replacement (@ 3% of new equipment capital)		1,464,000	%	3	43,900
<b>Subtotal Maintenance</b>					<b>59,000</b>
<b>Assume 81% to Well Field Restoration</b>					<b>47,790</b>

**Restoration Costs  
Dewey-Burdock Project  
Powertech (USA), Inc.**

			100x100 Grid	
Wellfield Maintenance (per MM # produced)				
# Production wells			91 prod wells	
# Injection wells			146 inj wells	
Well maintenance (assume \$500/well)			119,000	\$/yr
Replacement of submersible pumps (say 10%/yr @ 2,000 each)			18,000	\$/yr
# Header houses (per MM # produced)			5.1 #HH/yr	
Header House maintenance	9,500 per HH		48,450	\$/yr
<b>Restoration Assumptions and Cost</b>				
Years to Reclaim wellfields per 1M pounds of U3O8 recovered (see Operating Cost)			0.89	years
Well Field and Treatment Operating Cost				
Treatment Chemicals (see Operating Cost)			8,500	\$/yr
Treatment Maintenance (see Operating Cost)			49,000	\$/yr
Treatment Power (see Operating Cost)			17,000	\$/yr
Water Supply Power (see Operating Cost)			43,000	\$/yr
Water Supply pump replacement (10% of supply pump costs)	75000		7,500	\$/yr
Well Field Power (extraction and injection) (see Operating Cost)			51,000	\$/yr
Well maintenance (\$300/well)	300		71,000	\$/yr
Submersible pump replacement (10% of well field pump costs)			18,000	\$/yr
Well Field Piping Maintenance (assume 50,000/yr)			50,000	\$/yr
Header House				
Replacement meters, gages, and equip (see Operating Cost)	10,700 /HH		54,181	\$/yr
Land Application				
Power Cost (see Operating Cost)			463,320	\$/yr
Maintenance Cost (see Operating Cost)			47,790	\$/yr
<b>Restoration Operating Cost</b>			<b>511,110</b>	<b>\$/yr</b>
<b>Stability Monitoring/Decommissioning</b>				
Equipment Decommissioning (see Decommissioning worksheet)				
Wellfield Decommissioning				
Unit cost per well (assume ave depth of 650 feet)				
5" diameter casing =			0.136	CF/LF
Average well depth =			650	LF
Cubic ft per well =			88.4	CF
Cement grout cost =			9.00	\$/CF
Cement grout cost/well			795.60	\$/well
contractor labor w/ equipment = 4 crew-hr/well @ \$125/hr = \$500.			500	\$/well
Total abandonment cost/well (rounded) =			1,300	\$/well
Monitoring wells	#wells = 140		182,000	\$LS
Production and Injection wells	#wells = 1422		1,848,600	\$LS
Piping, power, and HH (see Decommissioning worksheet)			-	\$LS
<b>Total Wellfield Decommissioning</b>			<b>2,031,000</b>	<b>\$LS</b>
<b>Well Decomm Cost per 1M# U</b>			<b>338,500</b>	<b>\$/M# U</b>

Electricity	574,320
Chem	8,500
Maint	297,471

Expend	338,500
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**Restoration Costs  
Dewey-Burdock Project  
Powertech (USA), Inc.**

**Chemicals:**

Hydrogen peroxide - 50% solution	lb	0.30 \$/lb
Sulfuric acid - 98%	lb	0.135 \$/lb
Sodium hydroxide - 50% solution	lb	0.145 \$/lb
Sodium chloride - all purpose food grade granular	lb	0.09 \$/lb
Sodium carbonate	lb	0.135 \$/lb
Barium chloride - dry powder	lb dihydrate	0.67 \$/lb
Flocculant	gal	1 \$/lb
O2	ton of gas	1,100 \$/ton
CO2	ton of gas	1,160 \$/ton

**Restoration Assumptions:**

Flowrate:	500 gpm
Uranium Concentration	5 ppm
Uranium Concentration in IX tails	1 ppm
Annual Production of Restoration Activities	8411 lb U3O8

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Cost of Chemicals										
Hydrogen peroxide - 50% solution			900							
Sulfuric acid - 98%			1100							
Sodium hydroxide - 50% solution			1100							
Sodium chloride			3400							
Sodium carbonate			1,000							
Barium chloride - dry powder			1,000							
Flocculant			0							
<b>Subtotal</b>			<b>8,500</b>	-	-	-	-	-	-	-

**Restoration Costs  
Dewey-Burdock Project  
Powertech (USA), Inc.  
Byproduct Waste During Operations**

Restoration							
RO waste and IX waste	Assume costs included in CPP	0			-		
Well Field waste	Assume 1 drum/wk = 7.5 CF/wk	390	CF/yr	7.00	2,730	2,167	4,897
PPE	Assume 1 drum/wk = 7.5 CF/wk	390	CF/yr	7.00	2,730	2,167	4,897
Decon waste	Assume 1 drum/wk = 7.5 CF/wk	390	CF/yr	7.00	2,730	2,167	4,897
					-	<b>Subtotal</b>	<b>14,690</b>
<p>* Assume Transport to Andrews, Texas @ 710 miles from Site. Assume \$3.50/loaded mile with 20 CY load, and \$1.85 /unloaded mile. Thus, \$2,485 per 20 CY. Therefore, use \$5.35 * 710 = \$3,000 per 20 CY.</p>							

**Restoration Costs  
Dewey-Burdock Project  
Powertech (USA), Inc.  
Environmental Monitoring**

		Number	Quantity	Units	Rate (\$)	Cost (\$/yr)
<b>Met Station</b>	Assume 1 met station for Site	1	12 visits/yr		200	2400
<b>Water Qual</b>	20 metals, mercury, alk, Cl, SO <sub>4</sub> , NO <sub>3</sub> , F <sub>i</sub> , EC, pH, and TDS (Test America) @ \$350 (w/shipping) spec, Th, U, and gross A/B (Test America) @ \$550 (w/ shipping)					
	<b>Baseline:</b> Six quarterly samples from each perimeter + interior well + 1 production well per 8 acres for 1 year. Add 20% for QA/QC. Assume full analyte list (see above) at \$900/sample, plus \$100/sample for data packages, shipping, and expendibles - \$1,000/sample.	6	24 wells/yr		1000	145,833 \$/MM#
	<b>Production A: Sem-Annual</b> sampling from each perimeter + interior well during production. Add 20% for QA/QC. Assume 50% of full analyte list = \$500/sample.	2	24 wells/yr		500	24,306 \$/yr-production
	<b>Production B:</b> Bi-weekly sampling from all perimeter + interior wells, plus 20% for QA/QC. Analytes are parameters that can be tested in CPP lab, so only cost is for expendible supplies - say \$10/sample.	26	24 wells/yr		10	6,319 \$/yr-production
	<b>Period between end of production and start of restoration:</b> Assume same as Production A and Production B.					30,625 \$/yr-transition
	<b>Restoration A:</b> Same and Production A. <b>Restoration B:</b> At end of restoration, production, perimeter, and interior wells, plus 20% for QA/QC, are sampled for full analyte list.	2	24 wells/yr		500	24,306 \$/yr-restoration
	<b>Stability A:</b> Same as Restoration A for one year.	1	134 wells		1000	133,681 \$/MM#
	<b>Stability B:</b> Same as Restoration B following Stability monitoring.	2	24 wells/yr		1000	48,611 \$/yr-stability
		1	134 wells		1000	133,681 \$/MM#

**Restoration Costs  
Dewey-Burdock Project  
Powertech (USA), Inc.  
Environmental Monitoring**

		Number	Quantity	Units	Rate (\$)	Cost (\$/yr)							
<b>Compliance: Assume</b> annual sampling from all compliance wells in mined areas until closure is certified. Use 6 wells per 1M# recovered. Assume analytical cost is \$800/sample.													
<b>Radon</b>		1	6 wells/yr/M#		800	4,800 \$/yr-cumulative							
	CPP (10 dose buttons quarterly)	4	10 buttons/qtr		50	2,000 \$/year							
	Satell/Well Field (5 dose buttons/quarter)	4	5 buttons/qtr		50	1,000 \$/year							
	Restor/Decom (5 buttons quarterly)	4	5 buttons/qtr		50	1,000 \$/year							
		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>Restoration/Stability</b>													
Restoration A						24,306							
Restoration B						133,681							
Stability A						48,611							
Stability B						133,681							
Radon						1,000							
<b>TOTAL</b>						157,986	183,292	-	-	-	-	-	-

**Restoration Costs**  
**Dewey-Burdock Project**  
**Powertech (USA), Inc.**  
**Dewey-Burdock Project**

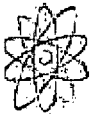
Description	cf, gals, dimensions	No./Size	Quantity	Units	Unit Cost	Estimated Demo Cost	Volume (cf) to Load on Trucks	Notes:
<b>Misc Upfront Demo Costs</b>								
Mobilization/demobilization for project demo			1	LS	25,000	25,000		
			<b>Subtotal Misc Upfront Demo:</b>			<b>25,000</b>		0
						<b>Mob/Site Prep</b>	<b>25,000</b>	
<b>Materials to Demo and Send to 11e(2) Disposal Site</b>								
CPP Pond (liner and leak detection system)								
80 mil HDPE primary liner			166,295	sq ft	0.05	8,300	6,396	
Radium Settling Ponds (liner and leak detection system)								
80 mil HDPE primary liner			2,772,480	sq ft	0.05	138,600	106,634	
			<b>Subtotal Materials to Demo and Send to Rad Waste Disposal Site:</b>			<b>146,900</b>	<b>113,000</b>	cu ft
			<b>Subtotal - Volume of Material to be Disposed in Rad Waste Landfill:</b>				<b>113,000</b>	cu ft
<b>Transportation/Disposal of 11e(2) Waste</b>								
Load 30 cy rollofs at site w/ FE loader			4,185	cy	2	8,400		
30 cy rolloff haul (710 mi one-way to Andrews, TX)	\$3.50/mi x \$710 mi RT+\$1.98/mi x \$1.98		140	30 cy	3,891	542,800		
Disposal at Waste Control Specialists Andrews, TX			113,000	cf	7	791,000		
			<b>Subtotal Transportation/Disposal Rad Waste:</b>			<b>1,342,200</b>		
						<b>By-Product Disposal</b>	<b>1,489,000</b>	
<b>Equipment/Materials to be Sold or Recycled (demolition and transport to recycling facility)</b>								
Pad or pole-mounted transformers (one per Header Hse) - 10 per truckload		31	3	LS	500	1,600		
Haul transformers to Rapid City (100 mi one-way)		3	200	mile	3.50	2,200		
Wire in OHE lines - 47,000' of OHE at Dewey; 54,000' at Burdock - 4 wires			404,000	lf	0	0		
Valve vaults: cut off lid and dispose of lid	200	31	0.5	hrs	50	775		
Valve vaults: truck haul to recycler			200	mile	3.50	700		
Chain-link fencing								
Around CPP site			2,240	lf	3.43	7,700		
Around Satellite site			1,440	lf	3.43	4,900		
Around CPP pond (380' sq)		440' per side	1,760	lf	3.43	6,000		
Around radium settling ponds; CPP			9,700	lf	3.43	33,300		
Around radium settling ponds; Satellite			8,200	lf	3.43	28,100		
Barbed wire fencing in wellfields - 3 strand			87,000	lf	1.75	152,300		
Support steel in Drying area	4,500	1	1	LS	5,000	5,000	4,500	
Equipment at DDW		0	0	LS	1,000	0	0	
			<b>Subtotal Demolition and Transportation/Disposal Equip/Mat'ls to be Sold or Recycled</b>			<b>243,000</b>		
						<b>Equipment sold/recycled</b>	<b>243,000</b>	
<b>Equipment to other use (Powertech operation)</b>								
Ion Exchange columns, incl resin: assume 12' dia x 15'H	1,700	12	12	LS	1,000	12,000	20,400	6
Process Pumps in buildings	16	60	60	LS	200	12,000	960	1
Shaker screens: 10'x7'x5'H	400	2	2	LS	2,000	4,000	800	1
Elution columns: 7' dia x 15'H	600	4	4	LS	1,000	4,000	2,400	2
13 ft diameter tanks x 16'H	2,100	22	22	LS	500	11,000	46,200	11
11 ft diameter tanks x 16'H	1,500	2	2	LS	1,000	2,000	3,000	1
10 ft diameter tanks x 16'H	1,300	1	1	LS	1,000	1,000	1,300	1
RO units	400	4	4	LS	1,000	4,000	1,600	1
Thickeners	10,600	2	2	LS	10,000	20,000	21,200	5
Screw conveyors	100	2	2	LS	1,000	2,000	200	6
Filter Presses	2000	2	2	LS	5,000	10,000	4,000	1
Vacuum Dryers and Appurtenances								
Dryers	1071	2	2	LS	10,000	20,000	2,142	2
Vacuum pump/condensor skids, hot oil boiler skids, cooling tow	480	2	2	LS	2,000	4,000	960	1
Chemical storage tanks outside CPP - assume 20,000 gal	2674	3	3	LS	500	1,500	8,021	3
Drum conveying system	2,900	1	1	LS	1,000	1,000	2,900	0.5
Drum washer and drying system	1,200	1	1	LS	1,000	1,000	1,200	0.5
Paint booth	400	1	1	LS	500	500	400	0
Resin transfer truck and trailers (1 truck; 2 trailers)			1	LS	0	0		2
Fire suppression pump system	512	1	1	LS	500	500	512	0.5
Land application center pivot machines	4,000	5	5	LS	1,000	5,000	20,000	5
Standby generator	512	1	1	each	500	500	512	0.5
Diesel fuel tank - above ground, assume 15,000 gal	2005	1	1	each	500	500	2,005	1
Gasoline fuel tank - above ground, assume 15,000 gal	2005	1	1	each	500	500	2,005	1
			<b>Subtotal Equipment to Demo and Transport to other Powertech mine site:</b>			<b>117,000</b>	<b>142,718</b>	<b>53</b>
<b>Bldgs/Equipment/Materials to Demo and Dispose at Construction and Demolition Landfill</b>								
Building Structures								
Office bldg	60x90x20+roof		148,500	cu ft	0.15	22,300	18,600	
Maintenance/Warehouse	140x120x20		462,000	cu ft	0.15	69,300	33,800	
Fire suppression tank	240,000 gal		30,968	cu ft	0.15	4,600		
CPP Pond (liner and leak detection system)								



**Restoration Costs  
Dewey-Burdock Project  
Powertech (USA), Inc.  
Dewey-Burdock Project**

Description	cf, gals, dimensions	No./Size	Quantity	Units	Unit Cost	Estimated Demo Cost	Volume (cf) to Load on Trucks	Notes:
60 mil HDPE secondary liner			166,295	sq ft	0.05	8,300	4,751	
Geonet			166,295	sq ft	0.05	8,300	4,751	
Radium Settling Ponds (liner and leak detection system)								
60 mil HDPE secondary liner			11,089,920	sq ft	0.05	554,500	316,855	
Geonet			11,089,920	sq ft	0.05	554,500	316,855	
Power poles: one every 200' (40'H buried 5' in grnd); pull + cut in 1/2 and place pole and cross arms in roll-off	47+54K' OHE	505	505	each	297	150,000	27,874	
Pumps/wellhead appurtenances/cover from prod/inj wells	64	1,404	1,404	LS	200	280,800	89,856	
<b>Subtotal Bldgs/Equipment/Materials to Demo and Dispose in Landfill:</b>						<b>1,652,600</b>	<b>846,820</b>	
<b>Buildings Demo to Dispose of at Subtitle D Construction and Demolition Landfill</b>								
Building Structure								
CPP, includes loading dock area	392'x130'x20'+roof		1,486,840	cu ft	0.15	223,000	77,560	
Lab/control rm/break rm/showers/restrooms w/in CPP	30x90x20'		54,000	cu ft	0.15	8,100	10,200	
Rad container bldg	30x24x15		10,800	cu ft	0.15	1,600	2,340	
Header houses - assume equip/piping inside demo'd w/ bldg	10x40x8	31	3,200	cu ft	0.15	14,880	24,800	
Satellite bldg, incl interior wall	124x156x20		396,552	cu ft	0.15	59,500	39,448	
Lab/control rm/break rm/showers/restrooms w/in Satellite	45x45x20		40,500	cu ft	0.15	6,100	4,950	
<b>Subtotal Bldgs Demo:</b>						<b>313,180</b>	<b>278,700</b>	
<b>Transportation/Disposal</b>								
Loading 30 cy rolloffs at site w/ FE loader			41,686	cy	2	83,400		
Loading process equipment				53 semi load	1,000	53,000		
Transportation to Custer, WY	\$3.50/mi x 16 mi + \$1.98/mi x 16 mi		1,390	semi-load	88	121,800		
Transportation to Aladdin, WY	\$3.50/mi x 111 mi + \$1.98/mi x 111 m			53 semi load	608	32,200		
Disposal fee at Custer Subtitle D landfill			41,686	cy	10	416,900		
<b>Subtotal Transportation/Disposal - Subtitle D Material:</b>						<b>707,300</b>		
							<b>2,790,000</b>	
<b>Other Misc Demo Activities</b>								
Rinse piping and treat rinsewater - assume 3 piping volumes	2,263,486 x .6 gal/pipe vol		4,074	1,000 gal	3	12,200		
Valve vaults at mining units - leave in place fill with soil		31	11	cu yd	20	6,900		
Septic tank - CPP: 15,000 gal (fill with soil and leave in place)	15,000 gal	1	2,005	cu yd	10	20,100		
Septic tank - Satellite: 10,000 gal (fill with soil and leave in place)	10,000 gal	1	1,337	cu yd	10	13,400		
Backfill excavation and compact CPP pond volume			41,704	cu yd	1	41,700		
Backfill excavation and compact Radium settling ponds volume (Dewey)			401,165	cu yd	1	401,200		
Backfill excavation and compact Radium settling ponds volume (Burdock)			1,275,263	cu yd	1	1,275,300		
Reseed wellfield areas (fertilize, seeding, mulching)			116	acre	1,500	174,000		
Reseed CPP site and CPP pond area			11	acre	1,500	16,600		
Reseed CPP radium settling ponds			48	acre	1,500	71,300		
Reseed Satellite Plant area and radium settling ponds at Satellite			35	acre	1,500	52,300		
Reseed access road to CPP			11	acre	1,500	16,500		
Reseed access road to Satellite			8	acre	1,500	12,000		
<b>Subtotal Other Misc Demo Activities:</b>						<b>2,113,500</b>		
							<b>2,114,000</b>	
<b>Total - Estimated Demo, Transportation, and Disposal Costs:</b>						<b>6,661,000</b>		





**POWERTECH (USA) INC.**

## **WASTE DISPOSAL WELL**



POWERTECH (USA) INC.

**Restoration Costs by Year  
Dewey-Burdock Project  
Powertech (USA), Inc.  
Restoration and Reclamation Costs**

	2010	2011	2012	2013	2014	2015	2016	Total
<b>Production (lbs U3O8)</b>		1,000,000	8,411	-	-	-	-	
Restoration Flow - Dewey (gpm)			250					
Restoration Flow - Burdock (gpm)			250					
<b>Capital Cost</b>								
Restoration Equipment	-	-						-
								-
<b>Operations</b>								
Labor	-	81,000	811,000	189,000	81,000			1,162,000
Electricity			111,000					111,000
Chemicals	-	-	8,500	-	-	-	-	9,000
Maintenance			249,681					250,000
Byproduct Disposal			4,206					4,000
Monitoring	-	-	157,986	183,292				341,000
								<b>1,877,000</b>
<b>Decommissioning</b>								
Well Closure					-	245,000	245,000	490,000
Labor					-	353,000	353,000	706,000
Mob/Site Preparation						25,000		25,000
Demo and Disposal - 11 e(2)						351,000	351,000	702,000
Equipment Transferred						119,500	119,500	239,000
Demo and Disposal - Landfill						614,000	614,000	1,228,000
Other Reclamation						457,500	457,500	915,000
								<b>4,305,000</b>
<b>Contingency</b>								
Contingency at 15%	-	12,150	201,356	55,844	12,150	324,750	321,000	927,000
								<b>927,000</b>
<b>Total Costs</b>	-	93,150	1,543,729	428,135	93,150	2,489,750	2,461,000	7,109,000



POWERTECH (USA) INC.

**Restoration Costs**  
**Dewey-Burdock Project**  
**Powertech (USA), Inc.**  
**Preliminary Capital Cost Estimate - CPP Restoration Equipment**

Description	Equipment List Number	No./Size	Quantity	Units	Unit Cost	Purchase Cost	Shipping Cost	Capital Cost
<b>Restoration System</b>								
Restoration IX Vessel (118,600 ea + 15k distributor + 8k delivery)	300-IX-001A, B		2	each	0	0	0	0
IX resin - Dowex 21K XLT	NA	2	500	cu ft	0	0	0	0
PC Booster Pump (250 gpm; 90' TDH)	300-P-001 A, B, C		2	each	0	0	0	0
IC Booster Pump	300-P-002 A, B, C		2	each	0	0	0	0
RO Sump Pump	300-P-011, spare		1	each	0	0	0	0
RO Skid (Incl pretrmt, filtration and feed pump) 500 gpm	300-RO-001		1	each	0	0	0	0
<b>Estimated Restoration Equipment - Subtotal:</b>								<b>0</b>

Restoration Costs by Year  
Dewey-Burdock Project  
Powertech (USA), Inc.

Color Legend

Site Management
Capital Labor
Central Plant
Satellite/WF
Restoration/Decom

Labor		2009	2010	2011	2012	2013	2014	2015	2016
Geology									
	Senior Project Geologist	1	1	1					
	Project Geologists	2	4	4					
	Drafting Technicians	1	3	3					
	<b>Subtotal</b>								
Construction/Drilling									
	Construction Superintendent		1	1				0	0
	Drilling Foreman		1	1					
	Drilling Services Leadman		1	1			0	0	0
	Drilling Services Technicians		6	6			0	0	0
	Logging and MIT Technicians		7	7					
	Drilling Supervisor		1	1					
	Wellfield Construction Foreman		1	1					
	General Construction Technicians		8	4		0	0	4	4
	Electrical/Instrumentation		2	2					
	Heavy Equipment		4	2			0	2	2
	Construction Engineer		1	1			0	1	1
	<b>Subtotal</b>								
Production									
	Production Superintendent			1					
	Wellfield Operations Supervisor			1					
	Wellfield Engineer			1					
	Wellfield/Satellite Operations Leadman			1					
	Wellfield/Satellite Operators			12	4	0			
	Restoration Engineer			1	1	1	1		
	Restoration Operator				1	0	0		
	Groundwater Sampling Technician	1	2	2	0	0	0		
	Groundwater Sampling Technician				2	2	0		
	Central Plant Operations Supervisor			1	1	0	0		
	Central Plant Operations Leadman			1					
	Central Plant Operators			4	1	0	0		
	Central Plant Operators - Day			4					
	Dryer Operators			2					
	Chemist/Lab Supervisor			1					
	Lab Technicians			4	1	0	0		
	Maintenance Supervisor			1					
	General Maintenance Techs			4	1	0	0		
	Mechanics			3					
	Electrical/Instrumentation			2	1	0	0		
	<b>Subtotal</b>								

Restoration Costs by Year  
Dewey-Burdock Project  
Powertech (USA), Inc.

Color Legend

Site Management
Capital Labor
Central Plant
Satellite/WF
Restoration/Decom

Unit Labor Costs			2009	2010	2011	2012	2013	2014	2015	2016
Geology			0	0	0	0	0	0	0	0
Senior Project Geologist	135,000		135000	135000	135000	0	0	0	0	0
Project Geologists	95,000		190000	380000	380000	0	0	0	0	0
Drafting Technicians	54,000		54000	162000	162000	0	0	0	0	0
<b>Subtotal</b>			0	0	0	0	0	0	0	0
Construction/Drilling			0	0	0	0	0	0	0	0
Construction Superintendent	135,000		0	135000	135000	0	0	0	0	0
Drilling Foreman	95,000		0	95000	95000	0	0	0	0	0
Drilling Services Leadman	81,000		0	81000	81000	0	0	0	0	0
Drilling Services Technicians	54,000		0	324000	324000	0	0	0	0	0
Logging and MIT Technicians	54,000		0	378000	378000	0	0	0	0	0
Drilling Supervisor	68,000		0	68000	68000	0	0	0	0	0
Wellfield Construction Foreman	68,000		0	68000	68000	0	0	0	0	0
General Construction Technicia	41,000		0	328000	164000	0	0	0	164000	164000
Electrical/Instrumentation	81,000		0	162000	162000	0	0	0	0	0
Heavy Equipment	54,000		0	216000	108000	0	0	0	108000	108000
Construction Engineer	81,000		0	81000	81000	0	0	0	81000	81000
<b>Subtotal</b>			0	0	0	0	0	0	0	0
Production			0	0	0	0	0	0	0	0
Production Superintendent	135,000		0	0	135000	0	0	0	0	0
Wellfield Operations Supervisor	95,000		0	0	95000	0	0	0	0	0
Wellfield Engineer	81,000		0	0	81000	0	0	0	0	0
Wellfield/Satellite Operations Le	68,000		0	0	68000	0	0	0	0	0
Wellfield/Satellite Operators	54,000		0	0	648000	216000	0	0	0	0
Restoration Engineer	81,000		0	0	81000	81000	81000	81000	0	0
Restoration Operator	68,000		0	0	0	68000	0	0	0	0
Groundwater Sampling Tech	54,000		54000	108000	108000	0	0	0	0	0
Groundwater Sampling Tech	54,000		0	0	0	108000	108000	0	0	0
Central Plant Operations Super	122,000		0	0	122000	122000	0	0	0	0
Central Plant Operations Leadrr	81,000		0	0	81000	0	0	0	0	0
Central Plant Operators	54,000		0	0	216000	54000	0	0	0	0
Central Plant Operators - Day	54,000		0	0	216000	0	0	0	0	0
Dryer Operators	54,000		0	0	108000	0	0	0	0	0
Chemist/Lab Supervisor	95,000		0	0	95000	0	0	0	0	0
Lab Technicians	47,000		0	0	188000	47000	0	0	0	0
Maintenance Supervisor	61,000		0	0	61000	0	0	0	0	0
General Maintenance Techs	41,000		0	0	164000	41000	0	0	0	0
Mechanics	61,000		0	0	183000	0	0	0	0	0
Electrical/Instrumentation	74,000		0	0	148000	74000	0	0	0	0
<b>Subtotal</b>			0	0	0	0	0	0	0	0
<b>Restoration and Reclamation Labor Cost</b>					81000	811000	189000	81000	353000	353000



**Restoration Costs  
Dewey-Burdock Project  
Powertech (USA), Inc.  
Restoration Operating Assumptions**

Description	Quantity	Units			
<b>General Operating Assumptions</b>					
1 Production objective	1,000,000	# of U3O8 per year			
2 Ave. wellfield design based on # yellowcake per sq ft of ore reserve, equals:	1.60	lb/sq ft			
3 ISR recovery efficiency of:	0.75	recovery efficiency			
4 First Year production rate	0.91	pounds/yr/sq ft			
Average grade of produced water (ppm U3O8)					
5 Area required to meet production objective (online all the time)	911,458	sq ft			
	21	acres			
6 Area per pattern	10,000	sq ft/pattern			
7 Number of online patterns required to meet production objective	91	patterns			
8 Number of online Production Wells required to meet production objective	91	production wells			
Assuming 20 gpm/production well, total production flow rate equals:	1,823	gpm			
Assuming 350 days/yr pumping, average U3O8 grade to meet production objective equals:	130	ppm U3O8			
If total flowrate limited to 4,000 gpm, average grade to meet production objective equals:	59	ppm U3O8			
9 I/R Ratio	1.6	inj wells/prod wells			
10 Number of online Injection Wells required to meet objective	146	injection wells			
11 Number of online Production Wells per Header House	18	production wells/HH			
12 Number of HH required to meet production objective	5.1	HH			
13 Number of Perimeter Monitoring Wells per Header House	2.0	monit wells/HH			
14 Number of Internal Monitoring Wells per HH (1 upper +1 lower)	2.0	monit wells/HH			
15 Number of Compliance Wells per HH (1300 LF spacing)	0.6	comp wells/HH			
16 Subtotal # Monitor wells per HH during production	4.6	total mw/HH			
17 Total # Monitoring wells per IMM # produced during production	23.4	total MW			
	<b>Number</b>	<b>Quantity</b>	<b>Units</b>	<b>Rate</b>	<b>Cost (\$/yr)</b>
Assumed electricity rate incl demand charge (\$/kwh) 0.07					
<b>Wellfields</b>					
<b>Wells (per well)</b>					
Electric utilities:					
Production well pumps - 20 gpm @ 400 ft TDH	1	20,000	kwh	0.070	1,400
Wellhead heaters (0.5 kw, 180 days/yr)	1	2,000	kwh	0.070	100
<b>Subtotal Power</b>					<b>1,500</b>
<b>Header House (per HH)</b>					
Replacement flow meters (x%/yr)	10	1	ea	50	500
Replacement pressure gauges/switches	20	1	ea	50	1,000
Equip maintenance (@ 10% of new equipment capital)	1	80,000	%	0.10	8,000
<b>Subtotal Maintenance</b>					<b>9,500</b>
Electric utilities:					
Bldg heating (5 kw, 180 days/yr)	1	22,000	kwh	0.070	1,500
Instrumentation (1 kw)	1	9,000	kwh	0.070	600
<b>Subtotal Power</b>					<b>2,100</b>
<b>General well field area</b>					
Pipelines		1	lump sum	50,000	50,000
Road maintenance materials (gravel/culverts)		1	lump sum	10,000	10,000
Wireless telemetry and security systems maintenance		1	lump sum	2,000	2,000
<b>Subtotal Maintenance</b>					<b>62,000</b>
<b>Oxygen/Carbon Dioxide Injection</b>					
Oxygen gas per year		0	tons/yr	1,100	0
Carbon dioxide gas per year		0	tons/yr	1,160	0
<b>Subtotal Chemicals</b>					<b>0</b>

**Restoration Costs**  
**Dewey-Burdock Project**  
**Powertech (USA), Inc.**  
**Restoration Operating Assumptions**

Description	Quantity	Units			
<b>Satellite Plant</b>					
Ion exchange resin replacement - DOWEX 21K XLT		0 cu ft	221		0
Electric utilities:					
PC Booster Pump	2	605,491 kwh	0.070		42,400
IC Booster Pump	2	605,491 kwh	0.070		42,400
Resin Transfer Pump	1	8,830 kwh	0.070		600
Utility Water Pump	1	11,773 kwh	0.070		800
HVAC		105,120 kwh	0.070		7,400
Lighting (0.8 W/ft <sup>2</sup> )	10000	52,560 kwh	0.070		3,700
Instrumentation (2 kw)	1	18,000 kwh	0.070		1,300
<b>Subtotal Power</b>					<b>12,400</b>
Resin Transport to CPP		6 R/T per yr	50		300
<b>Land Application (assume 20% to wellfield production)</b>					
Electric utilities 136 days/year (growing season May 11 - Sept 24):					
Land app pumps Dewey (849 gpm at assume 200' TDH)	0	207,509 kwh	0.07		0
Land app pumps Dewey (849 gpm at assume 200' TDH)	0	207,509 kwh	0.07		0
Center pivot hydraulic pump; 10 hp for 25 ac areas (use 8 RHP)	0	137,000 kwh	0.07		0
Center pivot hydraulic pump; 15 hp for 50 ac areas (use 13 RHP)	0	444,000 kwh	0.07		0
Sump pump at 25 ac land app site (return irrigation tailwater/runoff)	0	3,000 kwh	0.07		0
Sump pump at 50 ac land app site (return irrigation tailwater/runoff)	0	10,000 kwh	0.07		0
<b>Subtotal Power</b>					<b>0</b>
<b>Assume 81% to Well Field Restoration</b>					<b>0</b>
Equipment Maintenance:					
Center pivot machines	0	1 year	500		0
Equip Maintenance (@ 3% of new equipment capital) - pumps only		0 %	3		0
Equipment Replacement (@ 3% of new equipment capital)		0 %	3		0
<b>Subtotal Maintenance</b>					<b>0</b>
<b>Assume 81% to Well Field Restoration</b>					<b>0</b>
<b>Water Supply Power @65 gpm</b>					
Groundwater extraction (65 gpm; 400 TDH; 24 hr/day)	1	64,000 kwh	0.070		4,000
<b>Offsite Deep Disposal Well(s) @ 12 gpm</b>					
Trucking to Burns, WY (214 gal/day = 6 trips/year)	2	412 miles/RT	3.50		0
Injection pump maintenance and repair (assume 6% of cap cost)	4	150,000 Cap cost	0.06		9,000
Electric utilities:					
Deep disposal well PD pump (4, but only one operating)	4	1,957,400 kwh	0.070		137,000
50 gpm@300 psi = 200 gpm @1000 TDH					
Bldg heating (1 kw, 180 days/yr)	1	4,000 kwh	0.070		300
<b>Subtotal</b>					<b>137,000</b>
<b>Surge Pond</b>					
Electrical for transfer pumps (120 gpm @ 300" TDH)	1	88,000 kwh	0.07		6,160
Pond Maintenance (\$2,800/pond/yr)	1	1 year	2,800		2,800
<b>Subtotal</b>					<b>8,960</b>
<b>Equipment When Restoration Operations are underway (in addition to production)</b>					
<b>Header Houses</b>					
Equip maintenance (@ 3 % of new equipment capital)		0 %	0.03		0
<b>Subtotal</b>					<b>0</b>
Electric utilities:					
Bldg heating (5 kw, 180 days/yr)	5.0	108,000 kwh	0.070		7,600

**Restoration Costs  
Dewey-Burdock Project  
Powertech (USA), Inc.  
Restoration Operating Assumptions**

Description	Quantity	Units			
Instrumentation (1 kw)	5.0	44,000	kwh	0.070	3,100
<b>Subtotal</b>					<b>10,700</b>
<b>Restoration</b>					
<b>Restoration Assumptions</b>					
Reclamation consists of 10 PV of activity		10	PVs		
Assume PV = area/1M pounds U3O8 recovered (see operating assumptions above) x			gallons/M#		
10 ft thick x 20% porosity x 1.5 flare factor x 7.48 gal/cu ft		20,453,125	recovered		
Unit volume required per 1M # recovered per year		1.14			
Volume of flush water required per year		233,165,625	gallons/yr		
Nominal restoration design flow rate (both sites)		500	gpm		
Years to Reclaim 1M pounds of U3O8 recovered		0.89	years		
<b>Treatment Chemicals</b>					
IX Cost (see KC Restoration Treatment Cost 10_9_08)			LS	1.000	8,500
<b>Subtotal</b>					<b>8,500</b>
<b>Treatment Maintenance</b>					
IX Resin Replacement - assume 4% of cap cost		225,000	cap cost	0.040	9,000
Process hardware maintenance + replmt @ 4% of Capital		994,000	cap cost	0.040	39,760
<b>Subtotal</b>					<b>49,000</b>
<b>Booster Pumps from CPP to Surge Ponds</b>					
Booster Pumps (2 - 250 gpm; 200 TDH; 24 hr/day)	2	245,000	kwh	0.070	17,000
<b>Water Supply Power</b>					
Groundwater extraction (500 gpm; 500 TDH; 24 hr/day)	1	612,000	kwh	0.070	43,000
<b>Well Field Power</b>					
Groundwater extraction (500 gpm; 400 TDH; 24 hr/day)	1	489,000	kwh	0.070	34,000
Treated water reinjection (500 gpm; 200 TDH; 24 hr/day)	1	245,000	kwh	0.070	17,000
<b>Subtotal</b>					<b>51,000</b>
<b>SubTotal Treatment and Power Cost</b>					<b>168,500</b>
<b>Land Application (assume 81% to Restoration)</b>					
- Land Application design 620 gpm of annual flow (restoration = 500 gpm or 81% of design)					
Electric utilities 136 days/year (growing season May 11 - Sept 24):					
Land app pumps Dewey (849 gpm at assume 200' TDH)	0	0	kwh	0.07	0
Land app pumps Dewey (849 gpm at assume 200' TDH)	0	0	kwh	0.07	0
Center pivot hydraulic pump; 10 hp for 25 ac areas (use 8 RHP)	0	0	kwh	0.07	0
Center pivot hydraulic pump; 15 hp for 50 ac areas (use 13 RHP)	0	0	kwh	0.07	0
Sump pump at 25 ac land app site (return irrigation tailwater/runoff)	0	0	kwh	0.07	0
Sump pump at 50 ac land app site (return irrigation tailwater/runoff)	0	0	kwh	0.07	0
<b>Subtotal Power</b>					<b>0</b>
<b>Assume 81% to Well Field Restoration</b>					<b>0</b>
<b>Equipment Maintenance:</b>					
Center pivot machines	0	0	year	500	0
Equip Maintenance (@ 3% of new equipment capital) - pumps only		0	%	3	0
Equipment Replacement (@ 3% of new equipment capital)		0	%	3	0
<b>Subtotal Maintenance</b>					<b>0</b>
<b>Assume 81% to Well Field Restoration</b>					<b>0</b>



**Restoration Costs  
Dewey-Burdock Project  
Powertech (USA), Inc.**

		100x100 Grid	
Wellfield Maintenance (per MM # produced)			
# Production wells		91 prod wells	
# Injection wells		146 inj wells	
Well maintenance (assume \$500/well)		119,000	\$/yr
Replacement of submersible pumps (say 10%/yr @ 2,000 each)		18,000	\$/yr
# Header houses (per MM # produced)		5.1 #HH/yr	
Header House maintenance	9,500 per HH	48,450	\$/yr
<b>Restoration Assumptions and Cost</b>			
Years to Reclaim wellfields per 1M pounds of U3O8 recovered (see Operating Cost)		0.89	years
Well Field and Treatment Operating Cost			
Treatment Chemicals (see Operating Cost)		8,500	\$/yr
Treatment Maintenance (see Operating Cost)		49,000	\$/yr
Treatment Power (see Operating Cost)		17,000	\$/yr
Water Supply Power (see Operating Cost)		43,000	\$/yr
Water Supply pump replacement (10% of supply pump costs)	75000	7,500	\$/yr
Well Field Power (extraction and injection) (see Operating Cost)		51,000	\$/yr
Well maintenance (\$300/well)	300	71,000	\$/yr
Submersible pump replacement (10% of well field pump costs)		18,000	\$/yr
Well Field Piping Maintenance (assume 50,000/yr)		50,000	\$/yr
Header House			
Replacement meters, gages, and equip (see Operating Cost)	10,700 /HH	54,181	\$/yr
Land Application			
Power Cost (see Operating Cost)		-	\$/yr
Maintenance Cost (see Operating Cost)		0	\$/yr
<b>Restoration Operating Cost</b>		-	\$/yr
<b>Stability Monitoring/Decommissioning</b>			
Equipment Decommissioning (see Decommissioning worksheet)			
Wellfield Decommissioning			
Unit cost per well (assume ave depth of 650 feet)			
5" diameter casing =		0.136	CF/LF
Average well depth =		650	LF
Cubic ft per well =		88.4	CF
Cement grout cost =		9.00	\$/CF
Cement grout cost/well		795.60	\$/well
contractor labor w/ equipment = 4 crew-hr/well @ \$125/hr = \$500.		500	\$/well
Total abandonment cost/well (rounded) =		1,300	\$/well
Monitoring wells	#wells = 140	182,000	\$LS
Production and Injection wells	#wells = 237	308,100	\$LS
Piping, power, and HH (see Decommissioning worksheet)		-	\$LS
<b>Total Wellfield Decommissioning</b>		490,000	\$LS
<b>Well Decomm Cost per 1M# U</b>		81,667	\$/M# U

Electricity	111,000
Chem	8,500
Maint	249,681

Expend	81,667
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**Restoration Costs by Year  
Dewey-Burdock Project  
Powertech (USA), Inc.**

**Chemicals:**

Hydrogen peroxide - 50% solution	lb	0.30 \$/lb
Sulfuric acid - 98%	lb	0.135 \$/lb
Sodium hydroxide - 50% solution	lb	0.145 \$/lb
Sodium chloride - all purpose food grade granular	lb	0.09 \$/lb
Sodium carbonate	lb	0.135 \$/lb
Barium chloride - dry powder	lb dihydrate	0.67 \$/lb
Flocculant	gal	1 \$/lb
O2	ton of gas	1,100 \$/ton
CO2	ton of gas	1,160 \$/ton

**Restoration Assumptions:**

Flowrate:	500 gpm
Uranium Concentration	5 ppm
Uranium Concentration in IX tails	1 ppm
Annual Production of Restoration Activities	8411 lb U3O8

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Cost of Chemicals										
Hydrogen peroxide - 50% solution			900							
Sulfuric acid - 98%			1100							
Sodium hydroxide - 50% solution			1100							
Sodium chloride			3400							
Sodium carbonate			1,000							
Barium chloride - dry powder			1,000							
Flocculant			0							
<b>Subtotal</b>			<b>8,500</b>	-	-	-	-	-	-	-



POWERTECH (USA) INC.

**Restoration Costs  
Dewey-Burdock Project  
Powertech (USA), Inc.**

Byproduct Waste During Operations							
Restoration							
RO waste and IX waste	Assume costs included in CPP	0			-		
Well Field waste	Assume 1 drum/4 weeks = 2 CF/wk	104	CF/yr	7.00	728	674	1,402
PPE	Assume 1 drum/4 weeks = 2 CF/wk	104	CF/yr	7.00	728	674	1,402
Decon waste	Assume 1 drum/4 weeks = 2 CF/wk	104	CF/yr	7.00	728	674	1,402
					-	<b>Subtotal</b>	<b>4,206</b>
* Assume Transport to Andrews, Texas @ 710 miles from Site. Assume \$3.50/loaded mile with 20 CY load, and \$1.85 /unloaded mile. Thus, \$2,485 per 20 CY. Therefore, use $5.35 * 710 = \$3,000$ per 20 CY. Decon truck cost = \$500/20 CY							

Restoration Costs by Year  
Dewey-Burdock Project  
Powertech (USA), Inc.

	Environmental Monitoring	Number	Quantity	Units	Rate (\$)	Cost (\$/yr)												
Met Station	Assume 1 met station for Site	1	12 visits/yr		200	2400												
Water Qual	20 metals, mercury, alk, Cl, SO4, NO3, FI, EC, pH, and TDS (Test America) @ \$350 (w/shipping) spec, Th, U, and gross A/B (Test America) @ \$550 (w/ shipping)  <b>Baseline:</b> Six quarterly samples from each perimeter + interior well + 1 production well per 8 acres for 1 year. Add 20% for QA/QC. Assume full analyte list (see above) at \$900/sample, plus \$100/sample for data packages, shipping, and expendables - \$1,000/sample.  <b>Production A: Sem-Annual</b> sampling from each perimeter + interior well during production. Add 20% for QA/QC. Assume 50% of full analyte list = \$500/sample.  <b>Production B:</b> Bi-weekly sampling from all perimeter + interior wells, plus 20% for QA/QC. Analytes are parameters that can be tested in CPP lab, so only cost is for expendable supplies - say \$10/sample.  <b>Period between end of production and start of restoration:</b> Assume same as Production A and Production B.  <b>Restoration A:</b> Same as Production A. <b>Restoration B:</b> At end of restoration, production, perimeter, and interior wells, plus 20% for QA/QC, are sampled for full analyte list. <b>Stability A:</b> Same as Restoration A for one year. <b>Stability B:</b> Same as Restoration B following Stability monitoring. <b>Compliance:</b> Assume annual sampling from all compliance wells in mined areas until closure is certified. Use 6 wells per 1M# recovered. Assume analytical cost is \$800/sample.  CPP (10 dose buttons quarterly) Satell/Well Field (5 dose buttons/quarter) Restor/Decom (5 buttons quarterly)	6	24 wells/yr		1000	145,833 \$/MM#												
		2	24 wells/yr		500	24,306 \$/yr-production												
		26	24 wells/yr		10	6,319 \$/yr-production												
						30,625 \$/yr-transition												
		2	24 wells/yr		500	24,306 \$/yr-restoration												
		1	134 wells		1000	133,681 \$/MM#												
		2	24 wells/yr		1000	48,611 \$/yr-stability												
		1	134 wells		1000	133,681 \$/MM#												
Radon		1	6 wells/yr/M#		800	4,800 \$/yr-cumulative												
		4	10 buttons/qtr		50	2,000 \$/year												
		4	5 buttons/qtr		50	1,000 \$/year												
		4	5 buttons/qtr		50	1,000 \$/year												
							2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Restoration/Stability																		
Restoration A										24,306								
Restoration B										133,681								
Stability A											48,611							
Stability B											133,681							
Radon											1,000							
TOTAL										157,986	183,292	-	-	-	-	-	-	-

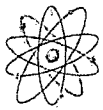
**Restoration Costs by Year**  
**Dewey-Burdock Project**  
**Powertech (USA), Inc.**  
**Preliminary Demolition Cost Estimate**

Description	cf, gals, dimensions	No./Size	Quantity	Units	Unit Cost	Estimated Demo Cost	Volume (cf) to Load on Trucks	Notes:
<b>Misc Upfront Demo Costs</b>								
Mobilization/demobilization for project demo			1	LS	25,000	25,000		
			<b>Subtotal Misc Upfront Demo:</b>			<b>25,000</b>	<b>0</b>	
						<b>Mob/Site Prep 25,000</b>		
<b>Materials to Demo and Send to 11e(2) Disposal Site</b>								
CPP Pond (liner and leak detection system)			0	sq ft	0.05	0	0	
80 mil HDPE primary liner								
Radium Settling Ponds (liner and leak detection system)			1,386,240	sq ft	0.05	69,300	53,317	
80 mil HDPE primary liner								
			<b>Subtotal Materials to Demo and Send to Rad Waste Disposal Site:</b>			<b>69,300</b>	<b>53,300</b>	cu ft
			<b>Subtotal - Volume of Material to be Disposed in Rad Waste Landfill:</b>				<b>53,300</b>	cu ft
<b>Transportation/Disposal of 11e(2) Waste</b>								
Load 30 cy rollofs at site w/ FE loader			1,974	cy	2	3,900		
30 cy rolloff haul (710 mi one-way to Andrews, TX)	\$3.50/mi x \$710 mi RT+\$1.98/mi x \$1.98		66	30 cy	3,891	256,000		
Disposal at Waste Control Specialists Andrews, TX			53,300	cf	7	373,100		
			<b>Subtotal Transportation/Disposal Rad Waste:</b>			<b>633,000</b>		
						<b>By-Product Disposal 702,000</b>		
<b>Equipment/Materials to be Sold or Recycled (demolition and transport to recycling facility)</b>								
Pad or pole-mounted transformers (one per Header Hse) - 10 per truckload		5	1	LS	500	300		
Haul transformers to Rapid City (100 mi one-way)		1	200	mile	3.50	400		
Wire in OHE lines - 47,000' of OHE at Dewey; 54,000' at Burdock - 4 wires			404,000	lf	0	0		
Valve vaults: cut off lid and dispose of lid	200	5	0.5	hrs	50	125		
Valve vaults: truck haul to recycler			200	mile	3.50	700		
Chain-link fencing								
Around CPP site			2,240	lf	3.43	7,700		
Around Satellite site			1,440	lf	3.43	4,900		
Around CPP pond (380' sq)	440' per side		1,760	lf	3.43	6,000		
Around radium settling ponds, CPP			9,700	lf	3.43	33,300		
Around radium settling ponds; Satellite			8,200	lf	3.43	28,100		
Barbed wire fencing in wellfields - 3 strand			87,000	lf	1.75	152,300		
Support steel in Drying area	4,500	1	1	LS	5,000	5,000	4,500	
Equipment at DDW		0	0	LS	1,000	0	0	
			<b>Subtotal Demolition and Transportation/Disposal Equip/Mat's to be Sold or Recycled</b>			<b>239,000</b>		
						<b>Equipment sold/recycled 239,000</b>		
<b>Equipment to other use (Powertech operation)</b>								
								<b>Semi-loads</b>
Ion Exchange columns, incl resin: assume 12' dia x 15'H	1,700	12	12	LS	1,000	12,000	20,400	6
Process Pumps in buildings	16	60	60	LS	200	12,000	960	1
Shaker screens: 10'x7'x5'H	400	2	2	LS	2,000	4,000	800	1
Elution columns: 7' dia x 15'H	600	4	4	LS	1,000	4,000	2,400	2
13 ft diameter tanks x 16'H	2,100	22	22	LS	500	11,000	46,200	11
11 ft diameter tanks x 16'H	1,500	2	2	LS	1,000	2,000	3,000	1
10 ft diameter tanks x 16'H	1,300	1	1	LS	1,000	1,000	1,300	1
RO units	400	4	4	LS	1,000	4,000	1,600	1
Thickeners	10,600	2	2	LS	10,000	20,000	21,200	5
Screw conveyors	100	2	2	LS	1,000	2,000	200	6
Filter Presses	2000	2	2	LS	5,000	10,000	4,000	1
Vacuum Dryers and Appurtenances								
Dryers	1071	2	2	LS	10,000	20,000	2,142	2
Vacuum pump/condensor skids, hot oil boiler skids, cooling tower sy:	480	2	2	LS	2,000	4,000	960	1
Chemical storage tanks outside CPP - assume 20,000 gal	2674	3	3	LS	500	1,500	8,021	3
Drum conveying system	2,900	1	1	LS	1,000	1,000	2,900	0.5
Drum washer and drying system	1,200	1	1	LS	1,000	1,000	1,200	0.5
Paint booth	400	1	1	LS	500	500	400	0
Resin transfer truck and trailers (1 truck; 2 trailers)			1	LS	0	0		2
Fire suppression pump system	512	1	1	LS	500	500	512	0.5
Land application center pivot machines	4,000	5	5	LS	1,000	5,000	20,000	5
Standby generator	512	1	1	each	500	500	512	0.5
Diesel fuel tank - above ground, assume 15,000 gal	2005	1	1	each	500	500	2,005	1
Gasoline fuel tank - above ground, assume 15,000 gal	2005	1	1	each	500	500	2,005	1
			<b>Subtotal Equipment to Demo and Transport to other Powertech mine site:</b>			<b>117,000</b>	<b>142,718</b>	<b>53</b>
<b>Bldgs/Equipment/Materials to Demo and Dispose at Construction and Demolition Landfill</b>								
Building Structures								
Office bldg	60x90x20+roof		148,500	cu ft	0.15	22,300	18,600	
Maintenance/Warehouse	140x120x20		462,000	cu ft	0.15	69,300	33,800	
Fire suppression tank	240,000 gal		30,968	cu ft	0.15	4,600		
CPP Pond (liner and leak detection system)								
60 mil HDPE secondary liner			0	sq ft	0.05	0	0	
Geonet			0	sq ft	0.05	0	0	
Radium Settling Ponds (liner and leak detection system)								



Restoration Costs by Year  
Dewey-Burdock Project  
Powertech (USA), Inc.  
Preliminary Demolition Cost Estimate

Description	cf, gals, dimensions	No./Size	Quantity	Units	Unit Cost	Estimated Demo Cost	Volume (cf) to Load on Trucks	Notes:
60 mil HDPE secondary liner			1,386,240	sq ft	0.05	69,300	39,607	
Geonet			1,386,240	sq ft	0.05	69,300	39,607	
Power poles: one every 200' (40'H buried 5' in grnd); pull + cut in 1/2 and place pole and cross arms in roll-off	47+54K' OHE	505	505	each	297	150,000	27,874	
Pumps/wellhead appurtenances/cover from prod/inj wells	64	377	377	LS	200	75,400	24,128	
Subtotal Bldgs/Equipment/Materials to Demo and Dispose in Landfill:						460,200	217,093	
<b>Buildings Demo to Dispose of at Subtitle D Construction and Demolition Landfill</b>								
Building Structure								
CPP, includes loading dock area	392'x130'x20'+roof		1,486,840	cu ft	0.15	223,000	77,560	
Lab/control rm/break rm/showers/restrooms w/in CPP	30'x90'x20'		54,000	cu ft	0.15	8,100	10,200	
Rad container bldg	30'x24'x15		10,800	cu ft	0.15	1,600	2,340	
Header houses - assume equip/piping inside demo'd w/ bldg	10'x40'x8	11	3,200	cu ft	0.15	5,280	8,800	
Satellite bldg, incl interior wall	124'x156'x20		396,552	cu ft	0.15	59,500	39,448	
Lab/control rm/break rm/showers/restrooms w/in Satellite	45'x45'x20		40,500	cu ft	0.15	6,100	4,950	
Subtotal Bldgs Demo:						303,580	256,700	
<b>Transportation/Disposal</b>								
Loading 30 cy rolloffs at site w/ FE loader			17,548	cy	2	35,100		
Loading process equipment			53	semi load	1,000	53,000		
Transportation to Custer, WY	\$3.50/mi x 16 mi + \$1.98/mi x 16 mi		585	semi-load	88	51,300		
Transportation to Aladdin, WY	\$3.50/mi x 111 mi + \$1.98/mi x 111 mi		53	semi load	608	32,200		
Disposal fee at Custer landfill			17,548	cy	10	175,500		
Subtotal Transportation/Disposal - Subtitle D Material:						347,100		
						Transportation/Disposal in Landfill	1,228,000	
<b>Other Misc Demo Activities</b>								
Rinse piping and treat rinsewater - assume 3 piping volumes	2,263,486 gal/pipeline vol		6,790	1,000 gal	3	20,400		
Valve vaults at mining units - leave in place fill with soil		5	11	cu yd	20	1,100		
Septic tank - CPP: 15,000 gal (fill with soil and leave in place)	15,000 gal	1	2,005	cu yd	10	20,100		
Septic tank - Satellite: 10,000 gal (fill with soil and leave in place)	10,000 gal	1	1,337	cu yd	10	13,400		
Backfill excavation and compact Surge Pond (Dewey)			59,259	cu yd	1	59,300		
Backfill excavation and compact Radium settling ponds volume (Dewey)			185,185	cu yd	1	185,200		
Abandon Deep Injection Wells			4	wells	100,000	400,000		
Reseed wellfield areas (fertilize, seeding, mulching)			31	acre	1,500	47,000		
Reseed CPP site			11	acre	1,500	16,600		
Reseed CPP radium settling ponds			48	acre	1,500	71,300		
Reseed Satellite Plant area			35	acre	1,500	52,300		
Reseed access road to CPP			11	acre	1,500	16,500		
Reseed access road to Satellite			8	acre	1,500	12,000		
Subtotal Other Misc Demo Activities:						915,200		
						Other Reclamation:	915,000	
Total - Estimated Demo, Transportation, and Disposal Costs:						3,109,000		



**POWERTECH (USA) INC.**

## **APPENDIX 7.1-A**

### **APPROVED JURISDICTIONAL DETERMINATIONS**



REPLY TO  
ATTENTION OF :

**DEPARTMENT OF THE ARMY**  
CORPS OF ENGINEERS, OMAHA DISTRICT  
SOUTH DAKOTA REGULATORY OFFICE  
28563 POWERHOUSE ROAD, ROOM 118  
PIERRE SD 57501-6174

January 14, 2009

*DM*  
*1/14/09*

South Dakota Regulatory Office  
28563 Powerhouse Road, Room 118  
Pierre, South Dakota 57501

Powertech (USA) Inc.  
ATTN: Mr. Richard Blubaugh  
5575 DTC Parkway, Suite 140  
Greenwood Village, Colorado 80111

Dear Mr. Blubaugh:

Reference is made to Powertech's November 18, 2008, request for approved jurisdictional determinations (JDs) for sites 1 through 17, located within proposed disturbance areas of the Dewey-Burdock In Situ Uranium Project. The project is located in portions of southern Custer County and northern Fall River Counties, South Dakota.

We have completed Approved JDs, for the requested sites, as well as sites 18 through 20. The Approved JDs (Enclosed) are valid for 5 years from the date of this letter. If you are not in agreement with the JDs, you may request an administrative appeal under Corps of Engineers regulations found at 33 C.F.R. 331. Enclosed you will also find a Notification of Administrative Appeal Options and Process and Request for Appeal form (RFA). Should you decide to submit an RFA form, it must be received by the Corps of Engineers Northwestern Division Office within 60 days from the date of this correspondence (March 15, 2009). If you request to appeal this determination you must submit a completed RFA form to the Northwest Division Office at the following address:

US Army Corps of Engineers  
Northwestern Division  
Attn: David Gesl  
Regulatory Program Manager  
PO Box 2870  
Portland, OR 97208-2870  
(503) 808-3888

It is not necessary to submit a RFA if you do not object to the JD.

Should your proposed project require work in any of the jurisdictional waterbodies identified in the JDs, prior Department of the Army (DA) authorization may be required and you should contact this office for a permit determination. In addition, should your project plans change or should the project require work in any other waters of the United

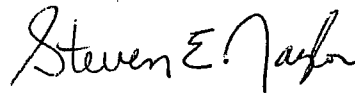


States, including wetlands, not previously identified in your August 21, 2008, JD request, you should notify this office and seek additional jurisdictional and permit determinations prior to the commencement of work in these waterbodies.

You can obtain additional information about the Regulatory Program and download forms from our website: <https://www.nwo.usace.army.mil/html/od-rsd/frame.html>.

If you have any questions concerning this determination, please feel free to contact this office at the above Regulatory Office address, or telephone Mr. Matthew Mikulecky at (605) 224-8531 and reference action ID NWO-2008-2206.

Sincerely,



Steven E. Naylor  
Regulatory Program Manager,  
South Dakota

Enclosures



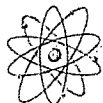
**POWERTECH (USA) INC.**

**USACOE Approved Jurisdictional Determination of Wetlands at  
Dewey-Burdock, Action IS: NOW-2008-2206<sup>1</sup>**

<b>Site #</b>	<b>Latitude: Northing (GPS)</b>	<b>Longitude: Westing (GPS)</b>	<b>Description</b>	<b>COE Determination</b>
1	43.50106	104.02757	Upland Swale	Nonjurisdictional
2	43.49590	104.02211	Upland Swale	Nonjurisdictional
3	43.48897	104.02025	Ephemeral Tributary to Beaver Creek	Jurisdictional WOUS
4	43.48654	104.01299	Upland Swale	Nonjurisdictional
5	43.48819	104.01023	Upland Swale	Nonjurisdictional
6	43.46919	103.98704	Upland Swale	Nonjurisdictional
7	43.46591	103.98474	Ephemeral Tributary to Pass Creek	Jurisdictional WOUS
8	43.45801	103.97643	Upland Swale	Nonjurisdictional
9	43.45117	103.98366	Upland Swale	Nonjurisdictional
10	43.47719	103.99297	Pass Creek (NonRPW)	Jurisdictional WOUS
11	43.48869	103.96516	Upland Swale	Nonjurisdictional
12	43.48794	103.96532	Upland Swale	Nonjurisdictional
13	43.45098	103.96838	Upland Swale	Nonjurisdictional
14	43.45080	103.96185	Upland Vegetated Drainage lacking a downstream connection to WOUS	Nonjurisdictional
15	43.47863	103.95662	Upland Swale	Nonjurisdictional
16	43.46359	103.94818	Upland Hillside Gully	Nonjurisdictional
17	NA	NA	Artificial Pond created by diking uplands	Nonjurisdictional
18	NA	NA	Beaver Creek (Perennial RPW)	Jurisdictional WOUS
19	NA	NA	Isolated Wetland	Nonjurisdictional
20	NA	NA	Isolated Wetland	Nonjurisdictional

<sup>1</sup>Completion date for Approved Jurisdictional Determination (JD): January 13, 2009

District Office, File Name, and Number: Omaha – Powertech (USA) Inc.- NOW-2008-2206-3-PIE



**POWERTECH (USA) INC.**

## **APPENDIX 7.3-A**

### **MILDOS AREA STIMULATION FOR LAND APPLICATION**



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MPH	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW
TOTALS															

[illegible][illegible]



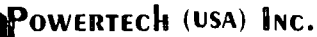
STABILITY CLASS 3

STABILITY CLASS 4

STABILITY CLASS 5

STABILITY CLASS 6

[illegible]



ALL 10.7750 4.5600 2.9340 3.1700 4.1940 2.9880 3.4850 4.0090 3.5370 2.3330 2.4090 2.7250  
5.057011.689021.618014.5180 100.0010

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--INDIVIDUAL RECEPTOR LOCATION DATA, 41 LOCATIONS INPUT THIS RUN-

MISCELLANEOUS INPUTABLE PARAMETER VALUES

[illegible]



# POWERTECH (USA) Inc.

100.0 100.0 2008.00 0.50 0.50 0.50 0.50 0.00 0.00 0.00  
2.50

IPACT EQUALS 0, 0, 0, 0, 0, 0, 0, 1,

JC EQUALS 1, 1, 1, 1, 0, 0, 1, 0, 1, 0

TIME STEP DATA....	STEP NAMES	LENGTH, YRS	IFTODO
1		5.00	1
2		100.00	1

XRHO EQUALS 1.5, 2.5, 3.5, 4.5, 7.5, 15.0, 25.0, 35.0, 45.0, 55.0, 65.0, 75.0,

HDP EQUALS 50.0

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL

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## POPULATION DISTRIBUTION

		N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW
NW	NNW														
KILOMETERS		0.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0	202.5	225.0	247.5	270.0	292.5
315.0	337.5														
-----															
1.0- 2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.0- 3.0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
3.0- 4.0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0
4.0- 5.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.0-10.0	6	0	0	0	0	0	0	0	2	11	3	0	0	0	8
10.0-20.0	2	26	12	10	0	24	21	12	18	0	7	0	19	0	6
20.0-30.0	0	165	8	15	154	47	26	342	649	7	0	0	14	0	2
30.0-40.0	10	54	59	494	282	501	76	18	52	6	2	29	15	2	2
40.0-50.0	22	25	64	3852	21	4651	329	32	7	18	2	18	4	10	18
50.0-60.0	30	25	229	391	73	278	183	12	30	2	25	21	28	0	57
60.0-70.0	50	39	780	1825	268	70	143	13	20	17	21	23	8	22	58
70.0-80.0	72	58	386	3427	539	95	136	34	30	44	48	61	9	18	33
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1.0-80.0	192	392	1538	10014	1337	5666	914	463	808	106	108	152	103	52	184

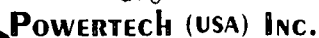
TOTAL 1-80 KM POPULATION IS 26943 PERSONS



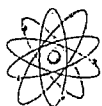
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1	1.000E+00	1.000E+00	1.000E+00	1.000E+00	1.000E+00	1.000E+00	1.000E+00	1.000E+00
1.000E+00	1.000E+00							





		GROUND SURFACE CONCENTRATIONS, PCI/M2							
Pb-210	XRHO, KM	U-238	Th-230	Ra-226	Pb-210	Rn-222	Po-218	Pb-214	Bi-214
4.636E+01	1.5	4.120E+05	1.429E+05	8.439E+04	8.439E+04	0.000E+00	8.440E+04	8.440E+04	8.440E+04
4.426E+01	2.5	4.830E+04	1.679E+04	9.912E+03	9.912E+03	0.000E+00	9.923E+03	9.923E+03	9.923E+03
4.793E+01	3.5	3.153E+04	1.097E+04	6.475E+03	6.475E+03	0.000E+00	6.484E+03	6.484E+03	6.484E+03
4.741E+01	4.5	2.080E+04	7.237E+03	4.273E+03	4.273E+03	0.000E+00	4.280E+03	4.280E+03	4.280E+03
5.636E+01	7.5	8.284E+03	2.882E+03	1.702E+03	1.702E+03	0.000E+00	1.706E+03	1.706E+03	1.706E+03
7.145E+01	15.0	2.249E+03	7.825E+02	4.621E+02	4.621E+02	0.000E+00	4.638E+02	4.638E+02	4.638E+02



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25.0	6.589E+02	2.293E+02	1.354E+02	1.354E+02	0.000E+00	1.364E+02	1.364E+02	1.364E+02
7.760E+01								
35.0	2.720E+02	9.467E+01	5.590E+01	5.590E+01	0.000E+00	5.658E+01	5.658E+01	5.658E+01
7.801E+01								
45.0	1.370E+02	4.766E+01	2.815E+01	2.815E+01	0.000E+00	2.864E+01	2.864E+01	2.864E+01
7.698E+01								
55.0	7.749E+01	2.696E+01	1.592E+01	1.592E+01	0.000E+00	1.631E+01	1.631E+01	1.631E+01
7.554E+01								
65.0	4.684E+01	1.630E+01	9.625E+00	9.625E+00	0.000E+00	9.934E+00	9.934E+00	9.934E+00
7.401E+01								
75.0	2.947E+01	1.026E+01	6.056E+00	6.056E+00	0.000E+00	6.312E+00	6.312E+00	6.312E+00
7.248E+01								

XRHO, KM	TOTAL DEPOSITION RATES, PCI/M2-SEC			
	U-238	Th-230	Ra-226	Pb-210
1.5	3.953E-04	1.372E-04	8.231E-05	8.237E-05
2.5	4.633E-05	1.611E-05	9.667E-06	9.731E-06
3.5	3.025E-05	1.052E-05	6.315E-06	6.384E-06
4.5	1.996E-05	6.945E-06	4.168E-06	4.236E-06
7.5	7.947E-06	2.766E-06	1.660E-06	1.741E-06
15.0	2.157E-06	7.509E-07	4.507E-07	5.536E-07
25.0	6.321E-07	2.201E-07	1.321E-07	2.438E-07
35.0	2.610E-07	9.085E-08	5.453E-08	1.669E-07
45.0	1.314E-07	4.574E-08	2.745E-08	1.383E-07
55.0	7.434E-08	2.588E-08	1.553E-08	1.243E-07
65.0	4.493E-08	1.564E-08	9.388E-09	1.160E-07
75.0	2.827E-08	9.842E-09	5.907E-09	1.103E-07

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL

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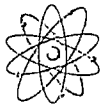
TIME STEP NUMBER 1,

DURATION IN YRS IS... 5.0

CONCENTRATION DATA FOR THE E DIRECTION, THETA EQUALS 90.0 DEGREES

XRHO, KM	TOTAL AIR CONCENTRATIONS, PCI/M3, AND WL								
	U-238	Th-230	Ra-226	Pb-210	Rn-222	Po-218	Pb-214	Bi-214	Pb-210
210	WL								
1.5	7.481E-03	2.599E-03	1.560E-03	1.560E-03	2.830E+01	2.724E+01	1.267E+01	6.790E+00	
2.446E-05	1.176E-04								
2.5	4.745E-03	1.649E-03	9.897E-04	9.897E-04	2.122E+01	2.080E+01	1.106E+01	6.519E+00	
2.552E-05	1.018E-04								
3.5	3.134E-03	1.089E-03	6.538E-04	6.538E-04	1.381E+01	1.365E+01	9.630E+00	6.729E+00	
2.855E-05	8.799E-05								
4.5	2.159E-03	7.508E-04	4.506E-04	4.506E-04	1.010E+01	1.006E+01	8.132E+00	6.430E+00	
3.137E-05	7.557E-05								
7.5	1.128E-03	3.923E-04	2.354E-04	2.354E-04	5.018E+00	5.017E+00	4.634E+00	4.260E+00	3.430E-05
4.455E-05									
15.0	4.277E-04	1.488E-04	8.933E-05	8.933E-05	2.292E+00	2.294E+00	2.237E+00	2.163E+00	
3.760E-05	2.177E-05								
25.0	1.753E-04	6.103E-05	3.663E-05	3.663E-05	1.270E+00	1.271E+00	1.262E+00	1.246E+00	
3.722E-05	1.236E-05								
35.0	8.995E-05	3.131E-05	1.879E-05	1.879E-05	8.527E-01	8.531E-01	8.530E-01	8.490E-01	
3.629E-05	8.370E-06								
45.0	5.216E-05	1.816E-05	1.090E-05	1.090E-05	6.287E-01	6.290E-01	6.305E-01	6.299E-01	
3.530E-05	6.194E-06								
55.0	3.260E-05	1.135E-05	6.810E-06	6.810E-06	4.904E-01	4.907E-01	4.924E-01	4.929E-01	
3.437E-05	4.841E-06								
65.0	2.142E-05	7.457E-06	4.476E-06	4.476E-06	3.973E-01	3.976E-01	3.992E-01	4.000E-01	
3.351E-05	3.925E-06								
75.0	1.461E-05	5.087E-06	3.053E-06	3.053E-06	3.307E-01	3.309E-01	3.324E-01	3.333E-01	
3.271E-05	3.269E-06								

XRHO, KM	GROUND SURFACE CONCENTRATIONS, PCI/M2						Pb-214	Bi-214
	U-238	Th-230	Ra-226	Pb-210	Rn-222	Po-218		
Pb-210								



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5.096E+01	1.5	7.798E+04	2.708E+04	1.599E+04	1.599E+04	0.000E+00	1.601E+04	1.601E+04	1.601E+04
5.316E+01	2.5	4.946E+04	1.718E+04	1.015E+04	1.015E+04	0.000E+00	1.016E+04	1.016E+04	1.016E+04
5.948E+01	3.5	3.266E+04	1.135E+04	6.704E+03	6.704E+03	0.000E+00	6.714E+03	6.714E+03	6.714E+03
6.534E+01	4.5	2.250E+04	7.823E+03	4.620E+03	4.620E+03	0.000E+00	4.628E+03	4.628E+03	4.628E+03
7.144E+01	7.5	1.176E+04	4.088E+03	2.414E+03	2.414E+03	0.000E+00	2.418E+03	2.418E+03	2.418E+03
7.832E+01	15.0	4.458E+03	1.551E+03	9.159E+02	9.159E+02	0.000E+00	9.177E+02	9.177E+02	9.177E+02
7.753E+01	25.0	1.828E+03	6.359E+02	3.755E+02	3.755E+02	0.000E+00	3.765E+02	3.765E+02	3.765E+02
7.558E+01	35.0	9.377E+02	3.263E+02	1.927E+02	1.927E+02	0.000E+00	1.934E+02	1.934E+02	1.934E+02
7.353E+01	45.0	5.437E+02	1.892E+02	1.117E+02	1.117E+02	0.000E+00	1.122E+02	1.122E+02	1.122E+02
7.159E+01	55.0	3.398E+02	1.182E+02	6.982E+01	6.982E+01	0.000E+00	7.021E+01	7.021E+01	7.021E+01
6.979E+01	65.0	2.233E+02	7.770E+01	4.589E+01	4.589E+01	0.000E+00	4.620E+01	4.620E+01	4.620E+01
6.813E+01	75.0	1.523E+02	5.301E+01	3.130E+01	3.130E+01	0.000E+00	3.157E+01	3.157E+01	3.157E+01

XRHO, KM	TOTAL DEPOSITION RATES, PCI/M2-SEC			
	U-238	Th-230	Ra-226	Pb-210
1.5	7.481E-05	2.599E-05	1.560E-05	1.567E-05
2.5	4.745E-05	1.649E-05	9.897E-06	9.973E-06
3.5	3.134E-05	1.089E-05	6.538E-06	6.624E-06
4.5	2.159E-05	7.508E-06	4.506E-06	4.600E-06
7.5	1.128E-05	3.923E-06	2.354E-06	2.457E-06
15.0	4.277E-06	1.488E-06	8.933E-07	1.006E-06
25.0	1.753E-06	6.103E-07	3.663E-07	4.779E-07
35.0	8.995E-07	3.131E-07	1.879E-07	2.968E-07
45.0	5.216E-07	1.816E-07	1.090E-07	2.149E-07
55.0	3.260E-07	1.135E-07	6.810E-08	1.712E-07
65.0	2.142E-07	7.457E-08	4.476E-08	1.453E-07
75.0	1.461E-07	5.087E-08	3.053E-08	1.287E-07

1REGION: Dewey Burdock .  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL

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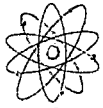
TIME STEP NUMBER 1,

DURATION IN YRS IS... 5.0

CONCENTRATION DATA FOR THE S DIRECTION, THETA EQUALS 180.0 DEGREES

XRHO, KM	TOTAL AIR CONCENTRATIONS, PCI/M3, AND WL								
	U-238	Th-230	Ra-226	Pb-210	Rn-222	Po-218	Pb-214	Bi-214	Pb-210
1.5	1.210E-02	4.205E-03	2.526E-03	2.526E-03	4.362E+01	4.322E+01	2.664E+01	1.562E+01	
4.300E-05	2.379E-04								
2.5	1.407E-02	4.890E-03	2.939E-03	2.939E-03	3.222E+01	3.215E+01	2.503E+01	1.819E+01	
5.851E-05	2.278E-04								
3.5	8.991E-03	3.125E-03	1.878E-03	1.878E-03	2.512E+01	2.512E+01	2.170E+01	1.783E+01	
7.268E-05	2.024E-04								
4.5	4.164E-03	1.448E-03	8.697E-04	8.697E-04	2.131E+01	2.131E+01	1.951E+01	1.725E+01	
8.752E-05	1.852E-04								
7.5	1.536E-03	5.345E-04	3.209E-04	3.209E-04	1.313E+01	1.313E+01	1.279E+01	1.232E+01	
1.092E-04	1.243E-04								
15.0	4.213E-04	1.466E-04	8.802E-05	8.802E-05	6.424E+00	6.428E+00	6.405E+00	6.346E+00	
1.206E-04	6.276E-05								
25.0	1.520E-04	5.293E-05	3.177E-05	3.177E-05	3.569E+00	3.571E+00	3.581E+00	3.579E+00	
1.183E-04	3.518E-05								





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2.5	4.706E-03	1.639E-03	9.839E-04	9.839E-04	2.583E+01	2.568E+01	2.061E+01	1.608E+01
4.191E-05	1.909E-04							
3.5	4.211E-03	1.468E-03	8.808E-04	8.808E-04	2.714E+01	2.710E+01	2.248E+01	1.763E+01
4.461E-05	2.077E-04							
4.5	3.330E-03	1.161E-03	6.966E-04	6.966E-04	2.397E+01	2.395E+01	2.016E+01	1.586E+01
4.069E-05	1.860E-04							
7.5	9.519E-04	3.316E-04	1.990E-04	1.990E-04	8.250E+00	8.252E+00	7.601E+00	6.713E+00
2.843E-05	7.208E-05							
15.0	3.075E-04	1.071E-04	6.425E-05	6.425E-05	1.829E+00	1.830E+00	1.756E+00	1.678E+00
2.200E-05	1.705E-05							
25.0	1.395E-04	4.857E-05	2.915E-05	2.915E-05	8.966E-01	8.971E-01	8.823E-01	8.591E-01
2.097E-05	8.602E-06							
35.0	7.893E-05	2.748E-05	1.649E-05	1.649E-05	5.670E-01	5.673E-01	5.644E-01	5.571E-01
1.978E-05	5.524E-06							
45.0	4.941E-05	1.720E-05	1.032E-05	1.032E-05	4.045E-01	4.047E-01	4.048E-01	4.026E-01
1.880E-05	3.971E-06							
55.0	3.289E-05	1.145E-05	6.872E-06	6.872E-06	3.093E-01	3.095E-01	3.102E-01	3.098E-01
1.799E-05	3.047E-06							
65.0	2.282E-05	7.943E-06	4.768E-06	4.768E-06	2.473E-01	2.475E-01	2.484E-01	2.486E-01
1.729E-05	2.441E-06							
75.0	1.632E-05	5.682E-06	3.411E-06	3.411E-06	2.041E-01	2.042E-01	2.050E-01	2.055E-01
1.669E-05	2.016E-06							

GROUND SURFACE CONCENTRATIONS, PCI/M2									
	XRHO, KM	U-238	Th-230	Ra-226	Pb-210	Rn-222	Po-218	Pb-214	Bi-214
Pb-210									
	1.5	7.470E+04	2.598E+04	1.535E+04	1.535E+04	0.000E+00	1.537E+04	1.537E+04	1.537E+04
6.776E+01	2.5	4.906E+04	1.708E+04	1.009E+04	1.009E+04	0.000E+00	1.011E+04	1.011E+04	1.011E+04
8.730E+01	3.5	4.390E+04	1.530E+04	9.031E+03	9.031E+03	0.000E+00	9.052E+03	9.052E+03	9.052E+03
9.292E+01	4.5	3.471E+04	1.210E+04	7.142E+03	7.142E+03	0.000E+00	7.161E+03	7.161E+03	7.161E+03
8.476E+01	7.5	9.922E+03	3.455E+03	2.040E+03	2.040E+03	0.000E+00	2.047E+03	2.047E+03	2.047E+03
5.923E+01	15.0	3.205E+03	1.115E+03	6.587E+02	6.587E+02	0.000E+00	6.602E+02	6.602E+02	6.602E+02
4.583E+01	25.0	1.454E+03	5.062E+02	2.989E+02	2.989E+02	0.000E+00	2.996E+02	2.996E+02	2.996E+02
4.368E+01	35.0	8.228E+02	2.863E+02	1.691E+02	1.691E+02	0.000E+00	1.696E+02	1.696E+02	1.696E+02
4.121E+01	45.0	5.150E+02	1.792E+02	1.059E+02	1.059E+02	0.000E+00	1.062E+02	1.062E+02	1.062E+02
3.916E+01	55.0	3.428E+02	1.193E+02	7.046E+01	7.046E+01	0.000E+00	7.070E+01	7.070E+01	7.070E+01
3.746E+01	65.0	2.378E+02	8.277E+01	4.888E+01	4.888E+01	0.000E+00	4.908E+01	4.908E+01	4.908E+01
3.602E+01	75.0	1.701E+02	5.921E+01	3.497E+01	3.497E+01	0.000E+00	3.513E+01	3.513E+01	3.513E+01
3.476E+01									

TOTAL DEPOSITION RATES, PCI/M2-SEC				
XRHO, KM	U-238	Th-230	Ra-226	Pb-210
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1.5	7.166E-05	2.493E-05	1.497E-05	1.507E-05
2.5	4.706E-05	1.639E-05	9.839E-06	9.964E-06
3.5	4.211E-05	1.468E-05	8.808E-06	8.942E-06
4.5	3.330E-05	1.161E-05	6.966E-06	7.088E-06
7.5	9.519E-06	3.316E-06	1.990E-06	2.075E-06
15.0	3.075E-06	1.071E-06	6.425E-07	7.085E-07
25.0	1.395E-06	4.857E-07	2.915E-07	3.545E-07
35.0	7.893E-07	2.748E-07	1.649E-07	2.243E-07
45.0	4.941E-07	1.720E-07	1.032E-07	1.596E-07
55.0	3.289E-07	1.145E-07	6.872E-08	1.227E-07
65.0	2.282E-07	7.943E-08	4.768E-08	9.955E-08
75.0	1.632E-07	5.682E-08	3.411E-08	8.417E-08

**POWERTECH (USA) INC.**1REGION: Dewey Burdock  
METSET:CODE: MILDOS-AREA (02/97)  
DATA: DB.MILPAGE 10  
08/21/08

TIME STEP NUMBER 1,

DURATION IN YRS IS... 5.0

CONCENTRATION DATA FOR THE WNW DIRECTION, THETA EQUALS 292.5 DEGREES

XRHO, KM		TOTAL AIR CONCENTRATIONS, PCI/M3, AND WL								
210	WL	U-238	Th-230	Ra-226	Pb-210	Rn-222	Po-218	Pb-214	Bi-214	Pb-
-----										
1.5	7.576E-03	2.635E-03	1.582E-03	1.582E-03	2.260E+01	2.229E+01	1.594E+01	1.162E+01		
2.945E-05	1.471E-04									
2.5	6.107E-03	2.127E-03	1.277E-03	1.277E-03	2.739E+01	2.711E+01	2.000E+01	1.423E+01		
2.940E-05	1.824E-04									
3.5	6.589E-03	2.297E-03	1.378E-03	1.378E-03	3.990E+01	3.942E+01	2.705E+01	1.718E+01		
2.839E-05	2.418E-04									
4.5	7.683E-03	2.680E-03	1.608E-03	1.608E-03	4.933E+01	4.887E+01	3.041E+01	1.674E+01		
2.361E-05	2.670E-04									
7.5	2.281E-03	7.955E-04	4.773E-04	4.773E-04	9.239E+00	9.140E+00	6.617E+00	4.617E+00		
1.525E-05	6.019E-05									
15.0	3.802E-04	1.325E-04	7.950E-05	7.950E-05	1.907E+00	1.908E+00	1.813E+00	1.714E+00		
2.026E-05	1.755E-05									
25.0	1.243E-04	4.330E-05	2.598E-05	2.598E-05	8.602E-01	8.606E-01	8.515E-01	8.348E-01		
2.012E-05	8.318E-06									
35.0	5.860E-05	2.041E-05	1.225E-05	1.225E-05	5.303E-01	5.306E-01	5.303E-01	5.272E-01		
1.923E-05	5.202E-06									
45.0	3.255E-05	1.134E-05	6.803E-06	6.803E-06	3.740E-01	3.742E-01	3.753E-01	3.751E-01		
1.845E-05	3.687E-06									
55.0	1.980E-05	6.895E-06	4.138E-06	4.138E-06	2.837E-01	2.839E-01	2.850E-01	2.855E-01		
1.775E-05	2.802E-06									
65.0	1.275E-05	4.441E-06	2.666E-06	2.666E-06	2.259E-01	2.260E-01	2.270E-01	2.276E-01		
1.716E-05	2.233E-06									
75.0	8.550E-06	2.977E-06	1.787E-06	1.787E-06	1.856E-01	1.857E-01	1.866E-01	1.872E-01		
1.664E-05	1.836E-06									

XRHO, KM		GROUND SURFACE CONCENTRATIONS, PCI/M2							
Pb-210		U-238	Th-230	Ra-226	Pb-210	Rn-222	Po-218	Pb-214	Bi-214
1.5		7.896E+04	2.746E+04	1.622E+04	1.622E+04	0.000E+00	1.623E+04	1.623E+04	1.623E+04
6.134E+01									
2.5		6.366E+04	2.217E+04	1.309E+04	1.309E+04	0.000E+00	1.311E+04	1.311E+04	1.311E+04
6.124E+01									
3.5		6.868E+04	2.394E+04	1.413E+04	1.413E+04	0.000E+00	1.416E+04	1.416E+04	1.416E+04
5.913E+01									
4.5		8.009E+04	2.793E+04	1.649E+04	1.649E+04	0.000E+00	1.652E+04	1.652E+04	1.652E+04
4.918E+01									
7.5		2.378E+04	8.290E+03	4.894E+03	4.894E+03	0.000E+00	4.901E+03	4.901E+03	4.901E+03
3.176E+01									
15.0		3.963E+03	1.381E+03	8.151E+02	8.151E+02	0.000E+00	8.166E+02	8.166E+02	8.166E+02
4.219E+01									
25.0		1.296E+03	4.512E+02	2.664E+02	2.664E+02	0.000E+00	2.671E+02	2.671E+02	2.671E+02
4.191E+01									
35.0		6.108E+02	2.127E+02	1.256E+02	1.256E+02	0.000E+00	1.260E+02	1.260E+02	1.260E+02
4.006E+01									
45.0		3.393E+02	1.181E+02	6.975E+01	6.975E+01	0.000E+00	7.005E+01	7.005E+01	7.005E+01
3.842E+01									
55.0		2.064E+02	7.185E+01	4.243E+01	4.243E+01	0.000E+00	4.265E+01	4.265E+01	4.265E+01
3.697E+01									
65.0		1.330E+02	4.628E+01	2.733E+01	2.733E+01	0.000E+00	2.751E+01	2.751E+01	2.751E+01
3.575E+01									
75.0		8.912E+01	3.102E+01	1.832E+01	1.832E+01	0.000E+00	1.847E+01	1.847E+01	1.847E+01
3.466E+01									

TOTAL DEPOSITION RATES, PCI/M2-SEC				
XRHO, KM	U-238	Th-230	Ra-226	Pb-210
1.5	7.576E-05	2.635E-05	1.582E-05	1.590E-05



POWERTECH (USA) INC.

2.5	6.107E-05	2.127E-05	1.277E-05	1.285E-05
3.5	6.589E-05	2.297E-05	1.378E-05	1.387E-05
4.5	7.683E-05	2.680E-05	1.608E-05	1.615E-05
7.5	2.281E-05	7.955E-06	4.773E-06	4.819E-06
15.0	3.802E-06	1.325E-06	7.950E-07	8.558E-07
25.0	1.243E-06	4.330E-07	2.598E-07	3.202E-07
35.0	5.860E-07	2.041E-07	1.225E-07	1.802E-07
45.0	3.255E-07	1.134E-07	6.803E-08	1.234E-07
55.0	1.980E-07	6.895E-08	4.138E-08	9.463E-08
65.0	1.275E-07	4.441E-08	2.666E-08	7.815E-08
75.0	8.550E-08	2.977E-08	1.787E-08	6.778E-08

1REGION: Dewey Burdock  
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TIME STEP NUMBER 1,

DURATION IN YRS IS... 5.0

EXPOSURE PATHWAY IS INHAL.

EXPOSED ORGAN IS EFFECTIV

DOSES SHOWN BELOW ARE 100-YEAR ENVIRONMENTAL DOSE COMMITMENTS, PERSON-REM/YEAR

XRHO	XRHO	XRHO	XRHO	XRHO	XRHO	XRHO	XRHO	XRHO	XRHO	XRHO	XRHO
DIRECTION	1.5	2.5	3.5	4.5	7.5	15.0	25.0	35.0	45.0	55.0	75.0
N	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.465E-03	1.421E-02	2.007E-03	5.010E-04	3.115E-04	3.326E-04
NNE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.459E-03	4.572E-04	1.370E-03	7.768E-04	1.727E-03	4.097E-03
NE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.141E-03	9.846E-04	1.509E-02	6.777E-02	4.528E-03	1.514E-02
ENE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.601E-02	1.438E-02	6.176E-04	1.370E-03	3.443E-03
E	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.361E-02	1.100E-02	6.079E-02	3.321E-01	1.265E-02	2.150E-03
ESE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.209E-02	1.305E-02	2.197E-02	6.049E-02	2.276E-02	1.255E-02
SE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.783E-02	2.644E-01	8.568E-03	1.024E-02	2.724E-03	2.176E-03
SSE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.844E-03	1.927E-02	2.973E-01	1.281E-02	1.053E-03	2.968E-03	1.372E-03
S	0.000E+00	1.856E-02	0.000E+00	0.000E+00	2.238E-02	0.000E+00	1.465E-03	6.149E-04	1.058E-03	7.495E-05	4.408E-04
SSW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.213E-03	1.791E-03	0.000E+00	6.529E-05	3.650E-05	2.973E-04	1.814E-04
SW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.460E-04	2.077E-04	1.670E-04	1.362E-04
WSW	0.000E+00	0.000E+00	2.493E-02	0.000E+00	0.000E+00	3.487E-03	1.216E-03	7.678E-04	1.336E-04	6.508E-04	1.351E-04
W	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.112E-04	6.657E-04	0.000E+00	6.901E-04
WNW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.410E-02	3.020E-03	3.310E-04	1.575E-04	7.974E-04	1.563E-03	1.049E-03
NW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.210E-02	1.112E-03	0.000E+00	9.263E-04	1.187E-03	1.029E-03	1.153E-03
NNW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.585E-03	0.000E+00	5.365E-03	1.687E-02	1.694E-01	3.136E-03	5.546E-03

TOTAL DOSE COMMITMENT IS 1.815E+00 PERSON-REM/YR

1REGION: Dewey Burdock  
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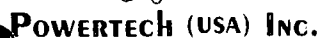
TIME STEP NUMBER 1,

DURATION IN YRS IS... 5.0

EXPOSURE PATHWAY IS INHAL.

EXPOSED ORGAN IS BONE

DOSES SHOWN BELOW ARE 100-YEAR ENVIRONMENTAL DOSE COMMITMENTS, PERSON-REM/YEAR



TOTAL DOSE COMMITMENT IS 7.395E+00 PERSON-REM/YR

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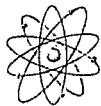
DURATION IN YRS IS... 5.0

EXPOSED ORGAN IS AVG.LUNG

DOSES SHOWN BELOW ARE 100-YEAR ENVIRONMENTAL DOSE COMMITMENTS, PERSON-REM/YEAR

[illegible]





POWERTECH (USA) Inc.

SE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.235E-01	1.826E+00	5.894E-02	7.011E-02	1.855E-02
1.472E-02	2.896E-02									
SSE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.053E-02	1.329E-01	2.030E+00	8.624E-02	6.954E-03	1.913E-02
8.573E-03	8.939E-03									
S	0.000E+00	1.290E-01	0.000E+00	0.000E+00	1.550E-01	0.000E+00	9.768E-03	3.934E-03	6.377E-03	4.165E-04
2.208E-03	3.745E-03									
SSW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.220E-02	1.214E-02	0.000E+00	3.831E-04	1.886E-04	1.308E-03
6.607E-04	9.594E-04									
SW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.199E-03	1.103E-03	7.902E-04
5.647E-04	1.018E-03									
WSW	0.000E+00	0.000E+00	1.731E-01	0.000E+00	0.000E+00	2.394E-02	8.255E-03	5.147E-03	8.820E-04	4.217E-03
8.561E-04	7.040E-04									
W	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.448E-03	4.534E-03	0.000E+00
4.608E-03	2.698E-03									
WNW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.674E-01	2.093E-02	2.281E-03	1.075E-03	5.377E-03	1.036E-02
6.795E-03	2.593E-03									
NW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.230E-01	7.706E-03	0.000E+00	6.334E-03	8.031E-03	6.863E-03
7.551E-03	7.442E-03									
NNW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.490E-02	0.000E+00	3.669E-02	1.134E-01	1.111E+00	1.992E-02
3.381E-02	5.556E-03									

TOTAL DOSE COMMITMENT IS 1.217E+01 PERSON-REM/YR

1REGION: Dewey Burdock  
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TIME STEP NUMBER 1,

DURATION IN YRS IS... 5.0

EXPOSURE PATHWAY IS INHAL.

EXPOSED ORGAN IS BRONCHI

DOSES SHOWN BELOW ARE 100-YEAR ENVIRONMENTAL DOSE COMMITMENTS, PERSON-REM/YEAR

XRHO	XRHO	XRHO	XRHO	XRHO	XRHO	XRHO	XRHO	XRHO	XRHO	XRHO
DIRECTION	1.5	2.5	3.5	4.5	7.5	15.0	25.0	35.0	45.0	55.0
65.0	75.0									
N	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.281E-02	2.626E-01	5.744E-02	1.948E-02	1.510E-02
1.898E-02	2.337E-02									
NNE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.527E-02	9.404E-03	4.607E-02	3.644E-02	1.007E-01
2.755E-01	1.126E-01									
NE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.821E-02	1.550E-02	3.436E-01	1.974E+00	1.561E-01
5.893E-01	9.189E-01									
ENE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.718E-01	2.083E-01	1.132E-02	3.043E-02
8.990E-02	1.496E-01									
E	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.877E-02	7.460E-02	5.340E-01	3.655E+00	1.704E-01
3.477E-02	3.927E-02									
ESE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.029E-02	6.049E-02	1.179E-01	3.764E-01	1.639E-01
1.045E-01	8.354E-02									
SE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.672E-02	1.205E+00	4.296E-02	5.692E-02	1.684E-02
1.495E-02	3.291E-02									
SSE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.612E-02	1.486E-01	2.947E+00	1.571E-01	1.547E-02	5.134E-02
2.754E-02	3.416E-02									
S	0.000E+00	4.027E-02	0.000E+00	0.000E+00	1.805E-01	0.000E+00	3.123E-02	1.774E-02	3.868E-02	3.307E-03
2.248E-02	4.784E-02									
SSW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.805E-02	4.011E-02	0.000E+00	3.603E-03	2.505E-03	2.330E-02
1.525E-02	2.804E-02									
SW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.141E-02	1.348E-02	1.168E-02
9.948E-03	2.122E-02									
WSW	0.000E+00	0.000E+00	1.439E-01	0.000E+00	0.000E+00	4.933E-02	1.733E-02	1.139E-02	2.111E-03	1.105E-02
2.477E-03	2.261E-03									
W	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.417E-03	5.057E-03	0.000E+00
6.802E-03	4.591E-03									
WNW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	9.239E-02	1.430E-02	2.150E-03	1.326E-03	8.415E-03	2.022E-02
1.638E-02	7.657E-03									
NW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.047E-01	5.588E-03	0.000E+00	7.317E-03	1.133E-02	1.172E-02
1.555E-02	1.849E-02									
NNW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.729E-02	0.000E+00	5.843E-02	2.455E-01	3.075E+00	6.859E-02
1.425E-01	2.851E-02									

TOTAL DOSE COMMITMENT IS 2.104E+01 PERSON-REM/YR



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1REGION: Dewey Burdock
METSET:
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CODE: MILDOS-AREA (02/97)  
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TIME STEP NUMBER 1.

DURATION IN YRS IS... 5.0

EXPOSURE PATHWAY IS GROUND

EXPOSED ORGAN IS EFFECTIV

DOSES SHOWN BELOW ARE 100-YEAR ENVIRONMENTAL DOSE COMMITMENTS, PERSON-REM/YEAR

XRHO	XRHO	XRHO	XRHO	XRHO	XRHO	XRHO	XRHO	XRHO	XRHO	XRHO	XRHO
DIRECTION	1.5	2.5	3.5	4.5	7.5	15.0	25.0	35.0	45.0	55.0	
65.0	75.0										
-----											
N	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.379E-03	4.457E-03	6.093E-04	1.445E-04	8.370E-05	
8.153E-05	7.974E-05										
NNE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.831E-04	1.428E-04	4.102E-04	2.174E-04	4.409E-04	
9.329E-04	3.048E-04										
NE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.819E-04	3.091E-04	4.616E-03	1.999E-02	1.275E-03	
4.038E-03	5.410E-03										
ENE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.059E-03	4.477E-03	1.882E-04	4.058E-04	
9.834E-04	1.366E-03										
E	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	4.343E-03	3.493E-03	1.916E-02	1.035E-01	3.882E-03	
6.461E-04	6.026E-04										
ESE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.055E-03	4.157E-03	6.974E-03	1.912E-02	7.149E-03	
3.914E-03	2.690E-03										
SE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.694E-03	8.424E-02	2.722E-03	3.240E-03	8.583E-04	
6.817E-04	1.344E-03										
SSE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.870E-03	6.143E-03	9.404E-02	4.007E-03	3.244E-04	8.968E-04	
4.044E-04	4.249E-04										
S	0.000E+00	5.942E-03	0.000E+00	0.000E+00	7.157E-03	0.000E+00	4.561E-04	1.855E-04	3.048E-04	2.027E-05	
1.101E-04	1.926E-04										
SSW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.027E-03	5.657E-04	0.000E+00	1.854E-05	9.423E-06	6.812E-05	
3.630E-05	5.631E-05										
SW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.549E-04	5.467E-05	4.026E-05	
2.976E-05	5.588E-05										
WSW	0.000E+00	0.000E+00	7.990E-03	0.000E+00	0.000E+00	1.109E-03	3.832E-04	2.395E-04	4.116E-05	1.975E-04	
4.025E-05	3.327E-05										
W	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.696E-05	2.099E-04	0.000E+00	
2.142E-04	1.257E-04										
WNW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.725E-03	9.659E-04	1.054E-04	4.979E-05	2.497E-04	4.828E-04	
3.181E-04	1.221E-04										
NW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.029E-02	3.557E-04	0.000E+00	2.931E-04	3.725E-04	3.193E-04	
3.526E-04	3.491E-04										
NNW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.148E-03	0.000E+00	1.700E-03	5.274E-03	5.196E-02	9.378E-04	
1.605E-03	2.667E-04										

TOTAL DOSE COMMITMENT IS 5.658E-01 PERSON-REM/YR

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL

PAGE 16  
08/21/08

TIME STEP NUMBER 1,

DURATION IN YRS IS... 5.0

EXPOSURE PATHWAY IS CLOUD

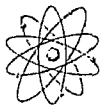
EXPOSED ORGAN IS EFFECTIV

DOSES SHOWN BELOW ARE 100-YEAR ENVIRONMENTAL DOSE COMMITMENTS, PERSON-REM/YEAR

[illegible]



[illegible]



**POWERTECH (USA) Inc.**

NW 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00  
0.000E+00 0.000E+00  
NNW 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00  
0.000E+00 0.000E+00

TOTAL DOSE COMMITMENT IS 0.000E+00 PERSON-REM/YR

WARNING--POPULATION FOOD INGESTION DOSES SHOWN  
ABOVE HAVE NOT BEEN CORRECTED TO REFLECT POTENTIAL  
FOOD EXPORT AND MAY EXCEED DOSES ACTUALLY RECEIVED  
BY THE POPULATION OF THIS REGION. SEE SUMMARY  
TABLE FOR THIS INFORMATION.

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL

PAGE 19  
08/21/08

TIME STEP NUMBER 1,

DURATION IN YRS IS... 5.0

EXPOSURE PATHWAY IS MEAT ING

EXPOSED ORGAN IS EFFECTIV

DOSES SHOWN BELOW ARE 100-YEAR ENVIRONMENTAL DOSE COMMITMENTS, PERSON-REM/YEAR

XRHO	XRHO	XRHO	XRHO	XRHO	XRHO	XRHO	XRHO	XRHO	XRHO	XRHO	XRHO
DIRECTION	1.5	2.5	3.5	4.5	7.5	15.0	25.0	35.0	45.0	55.0	
65.0	75.0										

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N	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00										
NNE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00										
NE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00										
ENE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00										
E	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00										
ESE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00										
SE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00										
SSE	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00										
S	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00										
SSW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00										
SW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00										
WSW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00										
W	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00										
WNW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00										
NW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00										
NNW	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00										

TOTAL DOSE COMMITMENT IS 0.000E+00 PERSON-REM/YR

WARNING--POPULATION FOOD INGESTION DOSES SHOWN  
ABOVE HAVE NOT BEEN CORRECTED TO REFLECT POTENTIAL  
FOOD EXPORT AND MAY EXCEED DOSES ACTUALLY RECEIVED  
BY THE POPULATION OF THIS REGION. SEE SUMMARY  
TABLE FOR THIS INFORMATION.



[illegible]



POWERTech (USA) Inc.

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E      0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
0.000E+00 0.000E+00
ESE    0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
0.000E+00 0.000E+00
SE     0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
0.000E+00 0.000E+00
SSE    0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
0.000E+00 0.000E+00
S      0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
0.000E+00 0.000E+00
SSW    0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
0.000E+00 0.000E+00
SW     0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
0.000E+00 0.000E+00
WSW    0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
0.000E+00 0.000E+00
W      0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
0.000E+00 0.000E+00
WNW    0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
0.000E+00 0.000E+00
NW     0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
0.000E+00 0.000E+00
NNW    0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
0.000E+00 0.000E+00

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TOTAL DOSE COMMITMENT IS 0.000E+00 PERSON-REM/YR

WARNING--POPULATION FOOD INGESTION DOSES SHOWN  
ABOVE HAVE NOT BEEN CORRECTED TO REFLECT POTENTIAL  
FOOD EXPORT AND MAY EXCEED DOSES ACTUALLY RECEIVED  
BY THE POPULATION OF THIS REGION. SEE SUMMARY  
TABLE FOR THIS INFORMATION.

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL

PAGE 23  
08/21/08

TIME STEP NUMBER 1,

DURATION IN YRS IS... 5.0

SUMMARY PRINT OF POPULATION DOSES COMPUTED FOR TSTEP 1--DOSES SHOWN ARE 100-YEAR ENVIRONMENTAL DOSE COMMITMENTS,  
PERSON-REM/YEAR

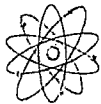
DOSES RECEIVED BY PEOPLE WITHIN 80 KILOMETERS

PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
2.104E+01	INHAL.	1.815E+00	7.395E+00	1.217E+01	5.410E-01	3.086E-01
01	GROUND	5.658E-01	5.658E-01	5.658E-01	5.658E-01	5.658E-01
01	CLOUD	1.821E-01	1.821E-01	1.821E-01	1.821E-01	1.821E-01
0.000E+00	VEG. ING	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	MEAT ING	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	MILK ING	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	RNPLUS50	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.179E+01	TOTALS	2.563E+00	8.143E+00	1.292E+01	1.289E+00	1.057E+00

DOSES RECEIVED BY PEOPLE BEYOND 80 KILOMETERS

PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
0.000E+00	INHAL.	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	GROUND	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00





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0.000E+00	CLOUD	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	VEG. ING	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	MEAT ING	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	MILK ING	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
5.116E+01	RNPLUS50	8.039E+00	1.096E+02	1.827E+00	8.039E+00	8.039E+00

5.116E+01	TOTALS	8.039E+00	1.096E+02	1.827E+00	8.039E+00	8.039E+00
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TOTAL DOSES COMPUTED OVER ALL POPULATIONS

	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY	BRONCHI
2.104E+01	INHAL.	1.815E+00	7.395E+00	1.217E+01	5.410E-01	3.086E-01	
01	GROUND	5.658E-01	5.658E-01	5.658E-01	5.658E-01	5.658E-01	5.658E-
01	CLOUD	1.821E-01	1.821E-01	1.821E-01	1.821E-01	1.821E-01	1.821E-
0.000E+00	VEG. ING	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
0.000E+00	MEAT ING	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
0.000E+00	MILK ING	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
5.116E+01	RNPLUS50	8.039E+00	1.096E+02	1.827E+00	8.039E+00	8.039E+00	
	TOTALS	1.060E+01	1.178E+02	1.475E+01	9.328E+00	9.095E+00	

7.295E+01

1REGION: Dewey Burdock  
METSET:

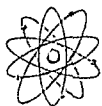
CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 24  
08/21/08

DURATION IN YRS IS... 5.0

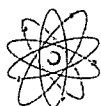
INDIVIDUAL RECEPTOR PARTICULATE CONCENTRATIONS  
AIRBORNE CONCENTRATIONS, PCI/M3

CONCENTRATIONS, PCI/M2	NAME	PTSZ	U-238	Th-230	Ra-226	Pb-210	U-238	Th-230
Ra-226	Pb-210							
1 CPP N	0.000E+00	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00	2	3.598E-03	1.251E-03	7.510E-04	1.248E-04	3.381E+03	1.176E+03
7.049E+02	7.049E+02	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
1 CPP N	0.000E+00	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00		3.598E-03	1.251E-03	7.510E-04	1.248E-04	3.381E+03	1.176E+03
CONCENTRATION TOTALS	7.049E+02							
7.049E+02	7.049E+02							
2 CPP NNE	0.000E+00	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00	2	2.485E-03	8.643E-04	5.188E-04	8.623E-05	2.335E+03	8.121E+02
2 CPP NNE	4.870E+02	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00							



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2 CPP NNE	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
CONCENTRATION TOTALS		2.485E-03	8.643E-04	5.188E-04	8.623E-05	2.335E+03	8.121E+02
4.870E+02 4.870E+02							
-----							
3 CPP NE	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
3 CPP NE	2	6.488E-03	2.254E-03	1.353E-03	2.249E-04	6.096E+03	2.118E+03
1.270E+03 1.270E+03							
3 CPP NE	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
3 CPP NE	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
CONCENTRATION TOTALS		6.488E-03	2.254E-03	1.353E-03	2.249E-04	6.096E+03	2.118E+03
1.270E+03 1.270E+03							
-----							
4 CPP ENE	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
4 CPP ENE	2	2.934E-03	1.020E-03	6.123E-04	1.018E-04	2.757E+03	9.585E+02
5.748E+02 5.748E+02							
4 CPP ENE	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
4 CPP ENE	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
CONCENTRATION TOTALS		2.934E-03	1.020E-03	6.123E-04	1.018E-04	2.757E+03	9.585E+02
5.748E+02 5.748E+02							
-----							
5 CPP E	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
5 CPP E	2	4.175E-03	1.451E-03	8.709E-04	1.447E-04	3.923E+03	1.363E+03
8.174E+02 8.174E+02							
5 CPP E	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
5 CPP E	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
CONCENTRATION TOTALS		4.175E-03	1.451E-03	8.709E-04	1.447E-04	3.923E+03	1.363E+03
8.174E+02 8.174E+02							
-----							
6 CPP ESE	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
6 CPP ESE	2	4.177E-03	1.452E-03	8.717E-04	1.448E-04	3.925E+03	1.364E+03
8.182E+02 8.182E+02							
6 CPP ESE	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
6 CPP ESE	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
CONCENTRATION TOTALS		4.177E-03	1.452E-03	8.717E-04	1.448E-04	3.925E+03	1.364E+03
8.182E+02 8.182E+02							
-----							
7 CPP SSE	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
7 CPP SSE	2	7.375E-03	2.564E-03	1.540E-03	2.558E-04	6.930E+03	2.409E+03
1.446E+03 1.446E+03							
7 CPP SSE	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
7 CPP SSE	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
CONCENTRATION TOTALS		7.375E-03	2.564E-03	1.540E-03	2.558E-04	6.930E+03	2.409E+03
1.446E+03 1.446E+03							
-----							
8 CPP SE	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							



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8 CPP SE	2	4.915E-03	1.709E-03	1.026E-03	1.704E-04	4.618E+03	1.605E+03
9.630E+02							
8 CPP SE	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00							
8 CPP SE	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00							
CONCENTRATION TOTALS		4.915E-03	1.709E-03	1.026E-03	1.704E-04	4.618E+03	1.605E+03
9.630E+02							

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 25  
08/21/08

DURATION IN YRS IS... 5.0

## INDIVIDUAL RECEPTOR PARTICULATE CONCENTRATIONS AIRBORNE CONCENTRATIONS, PCI/M3

CONCENTRATIONS, PCI/M2

GROUND

NO.	NAME	PTSZ	U-238	Th-230	Ra-226	Pb-210	U-238	Th-230
Ra-226	Pb-210							
9 CPP S	0.000E+00	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00							
9 CPP S	0.000E+00	2	1.633E-02	5.676E-03	3.412E-03	5.663E-04	1.535E+04	5.333E+03
3.203E+03	3.203E+03							
9 CPP S	0.000E+00	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00							
9 CPP S	0.000E+00	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00							
CONCENTRATION TOTALS			1.633E-02	5.676E-03	3.412E-03	5.663E-04	1.535E+04	5.333E+03
3.203E+03	3.203E+03							
10 CPP SSW	0.000E+00	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00							
10 CPP SSW	0.000E+00	2	4.991E-03	1.736E-03	1.043E-03	1.732E-04	4.690E+03	1.631E+03
9.790E+02	9.790E+02							
10 CPP SSW	0.000E+00	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00							
10 CPP SSW	0.000E+00	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00							
CONCENTRATION TOTALS			4.991E-03	1.736E-03	1.043E-03	1.732E-04	4.690E+03	1.631E+03
9.790E+02	9.790E+02							
11 CPP SW	0.000E+00	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00							
11 CPP SW	0.000E+00	2	3.546E-03	1.234E-03	7.413E-04	1.232E-04	3.332E+03	1.160E+03
6.959E+02	6.959E+02							
11 CPP SW	0.000E+00	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00							
11 CPP SW	0.000E+00	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00							
CONCENTRATION TOTALS			3.546E-03	1.234E-03	7.413E-04	1.232E-04	3.332E+03	1.160E+03
6.959E+02	6.959E+02							
12 CPP WSW	0.000E+00	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00							
12 CPP WSW	0.000E+00	2	9.320E-03	3.241E-03	1.947E-03	3.233E-04	8.758E+03	3.045E+03
1.828E+03	1.828E+03							
12 CPP WSW	0.000E+00	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00							
12 CPP WSW	0.000E+00	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00							
CONCENTRATION TOTALS			9.320E-03	3.241E-03	1.947E-03	3.233E-04	8.758E+03	3.045E+03
1.828E+03	1.828E+03							

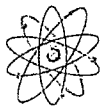


16 CPP NW	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00						
16 CPP NW	2	4.579E-03	1.593E-03	9.563E-04	1.590E-04	4.303E+03	1.497E+03
8.977E+02	8.977E+02						
16 CPP NW	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00						
16 CPP NW	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00						
CONCENTRATION TOTALS		4.579E-03	1.593E-03	9.563E-04	1.590E-04	4.303E+03	1.497E+03
8.977E+02	8.977E+02						

DURATION IN YRS IS... 5.0

## INDIVIDUAL RECEPTOR PARTICULATE CONCENTRATIONS

CONCENTRATIONS, PCI/M2			AIRBORNE CONCENTRATIONS, PCI/M3				GROUND	
NO.	NAME	PTSZ	U-238	Th-230	Ra-226	Pb-210	U-238	Th-230
Ra-226	Pb-210							
17 SF N		1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00							
17 SF N		2	4.344E-03	1.515E-03	9.093E-04	1.512E-04	4.081E+03	1.424E+03
8.535E+02	8.535E+02							
17 SF N		3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00							
17 SF N		4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00							
CONCENTRATION TOTALS			4.344E-03	1.515E-03	9.093E-04	1.512E-04	4.081E+03	1.424E+03
8.535E+02	8.535E+02							



**POWERTECH (USA) INC.**

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18 SF NNE	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00						
18 SF NNE	2	4.870E-03	1.699E-03	1.020E-03	1.695E-04	4.576E+03	1.596E+03
9.570E+02	9.570E+02						
18 SF NNE	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00						
18 SF NNE	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00						
CONCENTRATION TOTALS		4.870E-03	1.699E-03	1.020E-03	1.695E-04	4.576E+03	1.596E+03
9.570E+02	9.570E+02						
-----		-----		-----		-----	
19 SF NE	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00						
19 SF NE	2	4.651E-03	1.622E-03	9.734E-04	1.618E-04	4.370E+03	1.524E+03
9.137E+02	9.137E+02						
19 SF NE	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00						
19 SF NE	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00						
CONCENTRATION TOTALS		4.651E-03	1.622E-03	9.734E-04	1.618E-04	4.370E+03	1.524E+03
9.137E+02	9.137E+02						
-----		-----		-----		-----	
20 SF ENE	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00						
20 SF ENE	2	3.961E-03	1.381E-03	8.288E-04	1.378E-04	3.722E+03	1.298E+03
7.779E+02	7.779E+02						
20 SF ENE	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00						
20 SF ENE	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00						
CONCENTRATION TOTALS		3.961E-03	1.381E-03	8.288E-04	1.378E-04	3.722E+03	1.298E+03
7.779E+02	7.779E+02						
-----		-----		-----		-----	
21 SF E	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00						
21 SF E	2	5.309E-03	1.851E-03	1.111E-03	1.847E-04	4.989E+03	1.739E+03
1.043E+03	1.043E+03						
21 SF E	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00						
21 SF E	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00						
CONCENTRATION TOTALS		5.309E-03	1.851E-03	1.111E-03	1.847E-04	4.989E+03	1.739E+03
1.043E+03	1.043E+03						
-----		-----		-----		-----	
22 SF SSE	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00						
22 SF SSE	2	4.467E-03	1.557E-03	9.347E-04	1.554E-04	4.198E+03	1.463E+03
8.774E+02	8.774E+02						
22 SF SSE	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00						
22 SF SSE	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00						
CONCENTRATION TOTALS		4.467E-03	1.557E-03	9.347E-04	1.554E-04	4.198E+03	1.463E+03
8.774E+02	8.774E+02						
-----		-----		-----		-----	
23 SF SE	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00						
23 SF SE	2	6.510E-03	2.269E-03	1.362E-03	2.264E-04	6.117E+03	2.132E+03
1.278E+03	1.278E+03						
23 SF SE	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00						
23 SF SE	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00						



**POWERTECH (USA) Inc.**

CONCENTRATION TOTALS	6.510E-03	2.269E-03	1.362E-03	2.264E-04	6.117E+03	2.132E+03
1.278E+03    1.278E+03						

24 SF S	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00    0.000E+00							
24 SF S	2	2.502E-03	8.724E-04	5.236E-04	8.703E-05	2.351E+03	8.197E+02
4.914E+02    4.914E+02							
24 SF S	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00    0.000E+00							
24 SF S	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00    0.000E+00							
CONCENTRATION TOTALS		2.502E-03	8.724E-04	5.236E-04	8.703E-05	2.351E+03	8.197E+02
4.914E+02    4.914E+02							

1REGION: Dewey Burdock  
METSET:

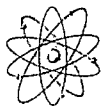
CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 27  
08/21/08

DURATION IN YRS IS... 5.0

INDIVIDUAL RECEPTOR PARTICULATE CONCENTRATIONS

CONCENTRATIONS, PCI/M2			AIRBORNE CONCENTRATIONS, PCI/M3				GROUND	
NO.	NAME	PTSZ	U-238	Th-230	Ra-226	Pb-210	U-238	Th-230
Ra-226	Pb-210							
25 SF SSW	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00    0.000E+00								
25 SF SSW	2	3.258E-03	1.136E-03	6.817E-04	1.133E-04	3.061E+03	1.067E+03	
6.399E+02    6.399E+02								
25 SF SSW	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00    0.000E+00								
25 SF SSW	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00    0.000E+00								
CONCENTRATION TOTALS		3.258E-03	1.136E-03	6.817E-04	1.133E-04	3.061E+03	1.067E+03	
6.399E+02    6.399E+02								
26 SF SW	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00    0.000E+00								
26 SF SW	2	5.429E-03	1.894E-03	1.137E-03	1.890E-04	5.102E+03	1.780E+03	
1.067E+03    1.067E+03								
26 SF SW	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00    0.000E+00								
26 SF SW	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00    0.000E+00								
CONCENTRATION TOTALS		5.429E-03	1.894E-03	1.137E-03	1.890E-04	5.102E+03	1.780E+03	
1.067E+03    1.067E+03								
27 SF WSW	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00    0.000E+00								
27 SF WSW	2	6.451E-03	2.251E-03	1.351E-03	2.246E-04	6.062E+03	2.115E+03	
1.268E+03    1.268E+03								
27 SF WSW	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00    0.000E+00								
27 SF WSW	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00    0.000E+00								
CONCENTRATION TOTALS		6.451E-03	2.251E-03	1.351E-03	2.246E-04	6.062E+03	2.115E+03	
1.268E+03    1.268E+03								
28 SF W	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00    0.000E+00								
28 SF W	2	1.066E-02	3.719E-03	2.231E-03	3.710E-04	1.001E+04	3.494E+03	
2.094E+03    2.094E+03								



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28 SF W	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
28 SF W	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
CONCENTRATION TOTALS		1.066E-02	3.719E-03	2.231E-03	3.710E-04	1.001E+04	3.494E+03
2.094E+03 2.094E+03							

29 SF WNW	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
29 SF WNW	2	3.903E-02	1.362E-02	8.173E-03	1.359E-03	3.667E+04	1.280E+04
7.672E+03 7.672E+03							
29 SF WNW	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
29 SF WNW	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
CONCENTRATION TOTALS		3.903E-02	1.362E-02	8.173E-03	1.359E-03	3.667E+04	1.280E+04
7.672E+03 7.672E+03							

30 SF NW	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
30 SF NW	2	4.013E-02	1.400E-02	8.403E-03	1.397E-03	3.770E+04	1.316E+04
7.887E+03 7.887E+03							
30 SF NW	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
30 SF NW	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
CONCENTRATION TOTALS		4.013E-02	1.400E-02	8.403E-03	1.397E-03	3.770E+04	1.316E+04
7.887E+03 7.887E+03							

31 SF NNW	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
31 SF NNW	2	3.917E-02	1.367E-02	8.202E-03	1.364E-03	3.680E+04	1.284E+04
7.699E+03 7.699E+03							
31 SF NNW	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
31 SF NNW	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
CONCENTRATION TOTALS		3.917E-02	1.367E-02	8.202E-03	1.364E-03	3.680E+04	1.284E+04
7.699E+03 7.699E+03							

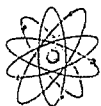
32 SF ESE	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
32 SF ESE	2	6.571E-03	2.291E-03	1.375E-03	2.286E-04	6.174E+03	2.153E+03
1.291E+03 1.291E+03							
32 SF ESE	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
32 SF ESE	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
CONCENTRATION TOTALS		6.571E-03	2.291E-03	1.375E-03	2.286E-04	6.174E+03	2.153E+03
1.291E+03 1.291E+03							

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 28  
08/21/08  
DURATION IN YRS IS... 5.0

CONCENTRATIONS, PCI/M2			INDIVIDUAL RECEPTOR PARTICULATE CONCENTRATIONS				GROUND	
			AIRBORNE CONCENTRATIONS, PCI/M3					
NO.	NAME	PTSZ	U-238	Th-230	Ra-226	Pb-210	U-238	Th-230
Ra-226	Pb-210							
33 Daniels Ranch		1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00							



**POWERTECH (USA) Inc.**

33 Daniels Ranch	2	5.421E-03	1.883E-03	1.131E-03	1.879E-04	5.093E+03	1.770E+03
1.061E+03 1.061E+03							
33 Daniels Ranch	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
33 Daniels Ranch	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
CONCENTRATION TOTALS		5.421E-03	1.883E-03	1.131E-03	1.879E-04	5.093E+03	1.770E+03
1.061E+03 1.061E+03							

34 Spencer Ranch	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
34 Spencer Ranch	2	6.126E-03	2.133E-03	1.280E-03	2.128E-04	5.756E+03	2.004E+03
1.202E+03 1.202E+03							
34 Spencer Ranch	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
34 Spencer Ranch	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
CONCENTRATION TOTALS		6.126E-03	2.133E-03	1.280E-03	2.128E-04	5.756E+03	2.004E+03
1.202E+03 1.202E+03							

35 BC Ranch	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
35 BC Ranch	2	4.235E-03	1.478E-03	8.866E-04	1.474E-04	3.980E+03	1.388E+03
8.322E+02 8.322E+02							
35 BC Ranch	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
35 BC Ranch	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
CONCENTRATION TOTALS		4.235E-03	1.478E-03	8.866E-04	1.474E-04	3.980E+03	1.388E+03
8.322E+02 8.322E+02							

36 Puttman Ranch	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
36 Puttman Ranch	2	1.675E-03	5.840E-04	3.505E-04	5.826E-05	1.574E+03	5.488E+02
3.290E+02 3.290E+02							
36 Puttman Ranch	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
36 Puttman Ranch	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
CONCENTRATION TOTALS		1.675E-03	5.840E-04	3.505E-04	5.826E-05	1.574E+03	5.488E+02
3.290E+02 3.290E+02							

37 Englebert Ranch	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
37 Englebert Ranch	2	3.672E-03	1.277E-03	7.672E-04	1.274E-04	3.450E+03	1.200E+03
7.201E+02 7.201E+02							
37 Englebert Ranch	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
37 Englebert Ranch	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
CONCENTRATION TOTALS		3.672E-03	1.277E-03	7.672E-04	1.274E-04	3.450E+03	1.200E+03
7.201E+02 7.201E+02							

38 Burdock School	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
38 Burdock School	2	3.359E-03	1.170E-03	7.023E-04	1.167E-04	3.156E+03	1.099E+03
6.593E+02 6.593E+02							
38 Burdock School	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
38 Burdock School	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
CONCENTRATION TOTALS		3.359E-03	1.170E-03	7.023E-04	1.167E-04	3.156E+03	1.099E+03
6.593E+02 6.593E+02							





40 Edgemont	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
40 Edgemont	2	5.689E-04	1.979E-04	1.188E-04	1.975E-05	5.345E+02	1.860E+02
1.116E+02 1.116E+02							
40 Edgemont	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
40 Edgemont	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00 0.000E+00							
CONCENTRATION TOTALS		5.689E-04	1.979E-04	1.188E-04	1.975E-05	5.345E+02	1.860E+02
1.116E+02 1.116E+02							

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TIME STEP NUMBER 1,                                DURATION IN YRS IS... 5.0
      INDIVIDUAL RECEPTOR PARTICULATE CONCENTRATIONS
AIRBORNE CONCENTRATIONS, PCI/M3                                GROUND

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CONCENTRATIONS, PCI/M2		PTSZ	U-238	Th-230	Ra-226	Pb-210	U-238	Th-230
NO.	NAME							
Ra-226	Pb-210							
41	Background	1	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00							
41	Background	2	1.215E-03	4.234E-04	2.541E-04	4.224E-05	1.141E+03	3.979E+02
2.386E+02	2.386E+02							
41	Background	3	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00							
41	Background	4	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
0.000E+00	0.000E+00							
CONCENTRATION TOTALS			1.215E-03	4.234E-04	2.541E-04	4.224E-05	1.141E+03	3.979E+02
2.386E+02	2.386E+02							

INDIVIDUAL RECEPTOR RADON AND RADON DAUGHTER CONCENTRATIONS

AIRBORNE CONCENTRATIONS, PCI/M3										GROUND		
CONCENTRATIONS, PCI/M2												
NO.	Rn-222	Po-218	Pb-214	Bi-214	Pb-210	Bi-210	Po-210	WL	Po-218	Pb-214	Bi-214	
1	1.279E+01	1.277E+01	1.037E+01	8.044E+00	2.128E-05	6.198E-08	5.088E-12	9.570E-05	1.011E+01	1.011E+01		
2	1.050E+01	1.050E+01	8.838E+00	7.092E+00	2.235E-05	8.076E-08	8.457E-12	8.207E-05	8.313E+00	8.313E+00		
3	1.774E+01	1.761E+01	1.199E+01	7.841E+00	2.317E-05	9.676E-08	1.183E-11	1.082E-04	1.395E+01	1.395E+01		
4	1.171E+01	1.168E+01	8.757E+00	6.270E+00	2.417E-05	1.309E-07	2.061E-11	7.982E-05	9.249E+00	9.249E+00		



**POWERTECH (USA) Inc.**

5 1.985E+01 1.935E+01 1.089E+01 6.586E+00 2.617E-05 1.551E-07 2.627E-11 9.971E-05 1.532E+01 1.532E+01  
1.532E+01 1.110E+01  
6 4.158E+01 3.988E+01 1.970E+01 1.020E+01 3.339E-05 2.030E-07 3.667E-11 1.790E-04 3.159E+01 3.159E+01  
3.159E+01 1.416E+01  
7 3.771E+01 3.759E+01 2.757E+01 1.876E+01 5.589E-05 2.778E-07 4.444E-11 2.485E-04 2.977E+01 2.977E+01  
2.977E+01 2.370E+01  
8 4.922E+01 4.840E+01 2.912E+01 1.671E+01 4.677E-05 2.554E-07 4.434E-11 2.598E-04 3.833E+01 3.833E+01  
3.833E+01 1.983E+01  
9 2.796E+01 2.791E+01 2.282E+01 1.763E+01 6.335E-05 3.136E-07 4.731E-11 2.102E-04 2.211E+01 2.211E+01  
2.211E+01 2.686E+01  
10 2.010E+01 2.010E+01 1.782E+01 1.522E+01 6.789E-05 3.418E-07 4.817E-11 1.678E-04 1.592E+01 1.592E+01  
1.592E+01 2.878E+01  
11 1.911E+01 1.910E+01 1.692E+01 1.456E+01 5.958E-05 2.574E-07 3.032E-11 1.598E-04 1.512E+01 1.512E+01  
1.512E+01 2.526E+01  
12 2.142E+01 2.108E+01 1.519E+01 1.133E+01 3.562E-05 1.268E-07 1.251E-11 1.409E-04 1.670E+01 1.670E+01  
1.670E+01 1.510E+01  
13 2.352E+01 2.332E+01 1.816E+01 1.401E+01 3.733E-05 1.071E-07 8.437E-12 1.683E-04 1.847E+01 1.847E+01  
1.847E+01 1.583E+01  
14 2.475E+01 2.450E+01 1.815E+01 1.313E+01 2.860E-05 6.902E-08 4.668E-12 1.662E-04 1.940E+01 1.940E+01  
1.940E+01 1.213E+01  
15 2.841E+01 2.761E+01 1.656E+01 9.609E+00 1.570E-05 3.589E-08 2.695E-12 1.482E-04 2.187E+01 2.187E+01  
2.187E+01 6.657E+00  
16 1.584E+01 1.569E+01 1.174E+01 8.515E+00 1.899E-05 4.766E-08 3.404E-12 1.074E-04 1.242E+01 1.242E+01  
1.242E+01 8.049E+00  
  
17 2.109E+01 2.067E+01 1.003E+01 4.668E+00 1.171E-05 6.336E-08 1.046E-11 8.957E-05 1.637E+01 1.637E+01  
1.637E+01 4.965E+00  
18 2.017E+01 1.982E+01 9.654E+00 4.445E+00 1.134E-05 6.001E-08 9.505E-12 8.594E-05 1.570E+01 1.570E+01  
1.570E+01 4.806E+00  
  
19 2.118E+01 2.077E+01 1.010E+01 4.720E+00 1.179E-05 5.779E-08 8.489E-12 9.022E-05 1.645E+01 1.645E+01  
1.645E+01 4.998E+00  
20 1.810E+01 1.780E+01 9.266E+00 4.881E+00 1.271E-05 5.396E-08 6.846E-12 8.352E-05 1.410E+01 1.410E+01  
1.410E+01 5.387E+00  
21 2.620E+01 2.490E+01 1.223E+01 6.224E+00 1.259E-05 4.187E-08 4.399E-12 1.109E-04 1.972E+01 1.972E+01  
1.972E+01 5.339E+00  
22 2.937E+01 2.932E+01 2.388E+01 1.818E+01 4.228E-05 1.075E-07 7.768E-12 2.191E-04 2.322E+01 2.322E+01  
2.322E+01 1.793E+01  
23 3.458E+01 3.415E+01 2.403E+01 1.595E+01 2.844E-05 6.041E-08 3.896E-12 2.165E-04 2.705E+01 2.705E+01  
2.705E+01 1.206E+01  
24 1.982E+01 1.982E+01 1.738E+01 1.437E+01 4.313E-05 1.393E-07 1.289E-11 1.621E-04 1.570E+01 1.570E+01  
1.570E+01 1.828E+01  
25 1.716E+01 1.715E+01 1.358E+01 9.642E+00 2.239E-05 7.637E-08 9.284E-12 1.225E-04 1.358E+01 1.358E+01  
1.358E+01 9.493E+00  
26 1.626E+01 1.615E+01 1.035E+01 6.095E+00 1.482E-05 6.873E-08 1.066E-11 9.184E-05 1.279E+01 1.279E+01  
1.279E+01 6.285E+00  
27 1.464E+01 1.409E+01 7.815E+00 4.407E+00 1.260E-05 6.663E-08 1.099E-11 7.058E-05 1.116E+01 1.116E+01  
1.116E+01 5.343E+00  
28 1.466E+01 1.362E+01 6.918E+00 3.894E+00 1.203E-05 6.672E-08 1.132E-11 6.363E-05 1.079E+01 1.079E+01  
1.079E+01 5.100E+00  
29 1.965E+01 1.597E+01 6.255E+00 3.248E+00 1.069E-05 5.957E-08 9.638E-12 6.028E-05 1.265E+01 1.265E+01  
1.265E+01 4.532E+00  
30 2.435E+01 1.782E+01 6.274E+00 3.144E+00 1.044E-05 5.810E-08 9.283E-12 6.189E-05 1.411E+01 1.411E+01  
1.411E+01 4.425E+00  
31 2.470E+01 2.198E+01 7.945E+00 3.565E+00 1.080E-05 6.063E-08 9.897E-12 7.622E-05 1.741E+01 1.741E+01  
1.741E+01 4.580E+00  
32 4.020E+01 3.868E+01 1.976E+01 9.736E+00 1.421E-05 3.506E-08 3.038E-12 1.763E-04 3.064E+01 3.064E+01  
3.064E+01 6.023E+00  
  
33 2.198E+01 2.153E+01 1.093E+01 6.370E+00 2.489E-05 1.377E-07 2.131E-11 1.013E-04 1.705E+01 1.705E+01  
1.705E+01 1.055E+01  
34 2.533E+01 2.501E+01 1.806E+01 1.272E+01 2.604E-05 5.987E-08 3.899E-12 1.648E-04 1.981E+01 1.981E+01  
1.981E+01 1.104E+01  
35 1.024E+01 1.000E+01 6.369E+00 4.098E+00 1.347E-05 7.748E-08 1.406E-11 5.788E-05 7.924E+00 7.924E+00  
7.924E+00 5.711E+00  
36 7.573E+00 7.573E+00 6.621E+00 5.521E+00 2.323E-05 1.340E-07 2.492E-11 6.196E-05 5.998E+00 5.998E+00  
5.998E+00 9.847E+00  
37 2.022E+01 2.022E+01 1.863E+01 1.664E+01 8.878E-05 5.541E-07 1.021E-10 1.773E-04 1.602E+01 1.602E+01  
1.602E+01 3.764E+01



POWERTECH (USA) Inc.

38 1.892E+01 1.890E+01 1.678E+01 1.448E+01 5.890E-05 2.511E-07 2.911E-11 1.586E-04 1.497E+01 1.497E+01  
1.497E+01 2.497E+01  
39 1.707E+01 1.708E+01 1.611E+01 1.499E+01 1.036E-04 7.856E-07 1.732E-10 1.552E-04 1.353E+01 1.353E+01  
1.353E+01 4.393E+01  
40 4.033E+00 4.035E+00 3.967E+00 3.873E+00 9.921E-05 2.362E-06 1.446E-09 3.872E-05 3.196E+00 3.196E+00  
3.196E+00 4.206E+01  
41 1.155E+01 1.155E+01 1.106E+01 1.042E+01 5.927E-05 3.173E-07 4.421E-11 1.069E-04 9.150E+00 9.150E+00  
9.150E+00 2.513E+01

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 31  
08/21/08

DURATION IN YRS IS... 5.0

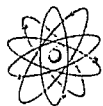
NUMBER 1 NAME=CPP N X= 0.1KM, Y= 2.8KM, Z= 0.0M, DIST= 2.8KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
0.00E+00	INFANT	INHAL.	2.01E+01	2.05E+01	1.58E+02	5.64E-01	6.24E-01
1.28E-02	INFANT	GROUND	1.28E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02
4.01E-07	INFANT	CLOUD	4.01E-07	4.01E-07	4.01E-07	4.01E-07	4.01E-07
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.28E-02	INFANT	TOTALS	2.02E+01	2.05E+01	1.58E+02	5.77E-01	6.37E-01

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
0.00E+00	CHILD	INHAL.	9.83E+00	1.77E+01	7.58E+01	2.36E-01	2.39E-01
1.28E-02	CHILD	GROUND	1.28E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02
4.01E-07	CHILD	CLOUD	4.01E-07	4.01E-07	4.01E-07	4.01E-07	4.01E-07
0.00E+00	CHILD	VEG. ING	7.96E-02	1.04E+00	6.35E-02	6.35E-02	2.51E-01
0.00E+00	CHILD	MEAT ING	7.84E-03	1.08E-01	1.06E-02	1.06E-02	2.32E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.28E-02	CHILD	TOTALS	9.93E+00	1.89E+01	7.59E+01	3.23E-01	5.27E-01

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
0.00E+00	TEENAGE	INHAL.	5.49E+00	1.88E+01	3.95E+01	1.12E-01	1.31E-01
1.28E-02	TEENAGE	GROUND	1.28E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02



PowerTech (USA) Inc.

4.01E-07	TEENAGE	CLOUD	4.01E-07	4.01E-07	4.01E-07	4.01E-07	4.01E-07
0.00E+00	TEENAGE	VEG. ING	1.32E-01	1.72E+00	1.05E-01	1.05E-01	4.16E-01
0.00E+00	TEENAGE	MEAT ING	1.27E-02	1.75E-01	1.72E-02	1.72E-02	3.77E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1.28E-02	TEENAGE	TOTALS	5.64E+00	2.07E+01	3.96E+01	2.46E-01	5.98E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
---------	-----	---------	----------	------	----------	-------	--------

0.00E+00	ADULT	INHAL.	4.67E+00	1.82E+01	3.29E+01	9.37E-02	1.04E-01
1.28E-02	ADULT	GROUND	1.28E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02
4.01E-07	ADULT	CLOUD	4.01E-07	4.01E-07	4.01E-07	4.01E-07	4.01E-07
0.00E+00	ADULT	VEG. ING	1.82E-01	2.37E+00	1.45E-01	1.45E-01	5.74E-01
0.00E+00	ADULT	MEAT ING	2.22E-02	3.06E-01	3.01E-02	3.01E-02	6.59E-02
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1.28E-02	ADULT	TOTALS	4.88E+00	2.09E+01	3.31E+01	2.81E-01	7.57E-01
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1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 32  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 1 NAME=CPP N X= 0.1KM, Y= 2.8KM, Z= 0.0M, DIST= 2.8KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
1.60E+01	INFANT	INHAL.	2.11E+01	2.05E+01	1.58E+02	6.24E-01	6.47E-01
1.41E-01	INFANT	GROUND	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01
9.13E-02	INFANT	CLOUD	9.13E-02	9.13E-02	9.13E-02	9.13E-02	9.13E-02
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1.62E+01	INFANT	TOTALS	2.13E+01	2.07E+01	1.58E+02	8.56E-01	8.79E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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POWERTech (USA) Inc.

1.60E+01	CHILD	INHAL.	1.08E+01	1.77E+01	7.58E+01	2.63E-01	2.50E-01
1.41E-01	CHILD	GROUND	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01
9.13E-02	CHILD	CLOUD	9.13E-02	9.13E-02	9.13E-02	9.13E-02	9.13E-02
0.00E+00	CHILD	VEG. ING	8.04E-02	1.05E+00	6.62E-02	6.62E-02	2.54E-01
0.00E+00	CHILD	MEAT ING	7.97E-03	1.09E-01	1.10E-02	1.10E-02	2.36E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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1.62E+01	CHILD	TOTALS	1.11E+01	1.91E+01	7.61E+01	5.72E-01	7.59E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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1.60E+01	TEENAGE	INHAL.	6.45E+00	1.88E+01	3.95E+01	1.23E-01	1.37E-01
1.41E-01	TEENAGE	GROUND	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01
9.13E-02	TEENAGE	CLOUD	9.13E-02	9.13E-02	9.13E-02	9.13E-02	9.13E-02
0.00E+00	TEENAGE	VEG. ING	1.33E-01	1.73E+00	1.09E-01	1.09E-01	4.20E-01
0.00E+00	TEENAGE	MEAT ING	1.29E-02	1.77E-01	1.79E-02	1.79E-02	3.83E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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1.62E+01	TEENAGE	TOTALS	6.83E+00	2.10E+01	3.99E+01	4.82E-01	8.26E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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1.60E+01	ADULT	INHAL.	5.63E+00	1.82E+01	3.29E+01	1.03E-01	1.09E-01
1.41E-01	ADULT	GROUND	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01
9.13E-02	ADULT	CLOUD	9.13E-02	9.13E-02	9.13E-02	9.13E-02	9.13E-02
0.00E+00	ADULT	VEG. ING	1.84E-01	2.39E+00	1.51E-01	1.51E-01	5.79E-01
0.00E+00	ADULT	MEAT ING	2.26E-02	3.10E-01	3.13E-02	3.13E-02	6.69E-02
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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1.62E+01	ADULT	TOTALS	6.07E+00	2.12E+01	3.33E+01	5.17E-01	9.87E-01
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1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

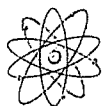
PAGE 33  
08/21/08

DURATION IN YRS IS... 5.0

NUMBER 2 NAME=CPP NNE X= 1.3KM, Y= 2.8KM, Z= 0.0M, DIST= 3.1KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

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**POWERTECH (USA) Inc.**

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
-----							
0.00E+00	INFANT	INHAL.	1.39E+01	1.42E+01	1.09E+02	3.90E-01	4.31E-01
8.83E-03	INFANT	GROUND	8.83E-03	8.83E-03	8.83E-03	8.83E-03	8.83E-03
2.77E-07	INFANT	CLOUD	2.77E-07	2.77E-07	2.77E-07	2.77E-07	2.77E-07
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

-----							
8.83E-03	INFANT	TOTALS	1.39E+01	1.42E+01	1.09E+02	3.99E-01	4.40E-01

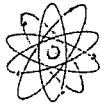
	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
-----							
0.00E+00	CHILD	INHAL.	6.79E+00	1.22E+01	5.24E+01	1.63E-01	1.65E-01
8.83E-03	CHILD	GROUND	8.83E-03	8.83E-03	8.83E-03	8.83E-03	8.83E-03
2.77E-07	CHILD	CLOUD	2.77E-07	2.77E-07	2.77E-07	2.77E-07	2.77E-07
0.00E+00	CHILD	VEG. ING	5.50E-02	7.18E-01	4.39E-02	4.39E-02	1.74E-01
0.00E+00	CHILD	MEAT ING	5.42E-03	7.45E-02	7.33E-03	7.33E-03	1.60E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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8.83E-03	CHILD	TOTALS	6.86E+00	1.30E+01	5.24E+01	2.23E-01	3.64E-01

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
-----							
0.00E+00	TEENAGE	INHAL.	3.79E+00	1.30E+01	2.73E+01	7.71E-02	9.05E-02
8.83E-03	TEENAGE	GROUND	8.83E-03	8.83E-03	8.83E-03	8.83E-03	8.83E-03
2.77E-07	TEENAGE	CLOUD	2.77E-07	2.77E-07	2.77E-07	2.77E-07	2.77E-07
0.00E+00	TEENAGE	VEG. ING	9.10E-02	1.19E+00	7.24E-02	7.24E-02	2.87E-01
0.00E+00	TEENAGE	MEAT ING	8.79E-03	1.21E-01	1.19E-02	1.19E-02	2.60E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

-----							
8.83E-03	TEENAGE	TOTALS	3.90E+00	1.43E+01	2.74E+01	1.70E-01	4.13E-01

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
-----							
0.00E+00	ADULT	INHAL.	3.22E+00	1.26E+01	2.27E+01	6.47E-02	7.18E-02



**POWERTECH (USA) Inc.**

8.83E-03	ADULT	GROUND	8.83E-03	8.83E-03	8.83E-03	8.83E-03	8.83E-03
2.77E-07	ADULT	CLOUD	2.77E-07	2.77E-07	2.77E-07	2.77E-07	2.77E-07
0.00E+00	ADULT	VEG. ING	1.26E-01	1.64E+00	9.99E-02	9.99E-02	3.97E-01
0.00E+00	ADULT	MEAT ING	1.54E-02	2.11E-01	2.08E-02	2.08E-02	4.55E-02
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
8.83E-03	ADULT	TOTALS	3.37E+00	1.44E+01	2.28E+01	1.94E-01	5.23E-01

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 34  
08/21/08

DURATION IN YRS IS... 5.0

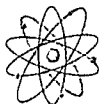
NUMBER 2 NAME=CPP NNE X= 1.3KM, Y= 2.8KM, Z= 0.0M, DIST= 3.1KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
1.31E+01	INFANT	INHAL.	1.47E+01	1.42E+01	1.09E+02	4.52E-01	4.55E-01
9.74E-02	INFANT	GROUND	9.74E-02	9.74E-02	9.74E-02	9.74E-02	9.74E-02
8.01E-02	INFANT	CLOUD	8.01E-02	8.01E-02	8.01E-02	8.01E-02	8.01E-02
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
1.33E+01	INFANT	TOTALS	1.49E+01	1.43E+01	1.09E+02	6.30E-01	6.33E-01

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
1.31E+01	CHILD	INHAL.	7.58E+00	1.22E+01	5.24E+01	1.91E-01	1.77E-01
9.74E-02	CHILD	GROUND	9.74E-02	9.74E-02	9.74E-02	9.74E-02	9.74E-02

8.01E-02	CHILD	CLOUD	8.01E-02	8.01E-02	8.01E-02	8.01E-02	8.01E-02
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**POWERTECH (USA) INC.**

0.00E+00	CHILD	VEG. ING	5.58E-02	7.27E-01	4.67E-02	4.67E-02	1.76E-01
0.00E+00	CHILD	MEAT ING	5.55E-03	7.60E-02	7.78E-03	7.78E-03	1.64E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1.33E+01	CHILD	TOTALS	7.82E+00	1.32E+01	5.26E+01	4.23E-01	5.47E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG. LUNG	LIVER	KIDNEY
1.31E+01	TEENAGE	INHAL.	4.58E+00	1.30E+01	2.73E+01	8.90E-02	9.63E-02
9.74E-02	TEENAGE	GROUND	9.74E-02	9.74E-02	9.74E-02	9.74E-02	9.74E-02
8.01E-02	TEENAGE	CLOUD	8.01E-02	8.01E-02	8.01E-02	8.01E-02	8.01E-02
0.00E+00	TEENAGE	VEG. ING	9.23E-02	1.20E+00	7.70E-02	7.70E-02	2.91E-01
0.00E+00	TEENAGE	MEAT ING	9.00E-03	1.23E-01	1.26E-02	1.26E-02	2.66E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.33E+01	TEENAGE	TOTALS	4.86E+00	1.45E+01	2.76E+01	3.56E-01	5.91E-01

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG. LUNG	LIVER	KIDNEY
1.31E+01	ADULT	INHAL.	4.01E+00	1.26E+01	2.27E+01	7.47E-02	7.66E-02
9.74E-02	ADULT	GROUND	9.74E-02	9.74E-02	9.74E-02	9.74E-02	9.74E-02
8.01E-02	ADULT	CLOUD	8.01E-02	8.01E-02	8.01E-02	8.01E-02	8.01E-02
0.00E+00	ADULT	VEG. ING	1.27E-01	1.66E+00	1.06E-01	1.06E-01	4.02E-01
0.00E+00	ADULT	MEAT ING	1.57E-02	2.16E-01	2.21E-02	2.21E-02	4.65E-02
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.33E+01	ADULT	TOTALS	4.33E+00	1.47E+01	2.30E+01	3.81E-01	7.03E-01

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

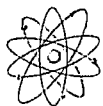
PAGE 35  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 3 NAME=CPP NE

X= 1.3KM, Y= 1.2KM, Z= 0.0M, DIST= 1.7KM, IRTYPE=10

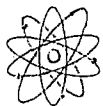
40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR





PowerTech (USA) Inc.

-----							
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG. LUNG	LIVER	KIDNEY
-----							
0.00E+00	INFANT	INHAL.	3.63E+01	3.69E+01	2.85E+02	1.02E+00	1.12E+00
2.30E-02	INFANT	GROUND	2.30E-02	2.30E-02	2.30E-02	2.30E-02	2.30E-02
7.22E-07	INFANT	CLOUD	7.22E-07	7.22E-07	7.22E-07	7.22E-07	7.22E-07
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
2.31E-02	INFANT	TOTALS	3.64E+01	3.69E+01	2.85E+02	1.04E+00	1.15E+00
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG. LUNG	LIVER	KIDNEY
-----							
0.00E+00	CHILD	INHAL.	1.77E+01	3.19E+01	1.37E+02	4.26E-01	4.31E-01
2.30E-02	CHILD	GROUND	2.30E-02	2.30E-02	2.30E-02	2.30E-02	2.30E-02
7.22E-07	CHILD	CLOUD	7.22E-07	7.22E-07	7.22E-07	7.22E-07	7.22E-07
0.00E+00	CHILD	VEG. ING	1.44E-01	1.87E+00	1.14E-01	1.14E-01	4.53E-01
0.00E+00	CHILD	MEAT ING	1.41E-02	1.94E-01	1.91E-02	1.91E-02	4.19E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
2.31E-02	CHILD	TOTALS	1.79E+01	3.40E+01	1.37E+02	5.82E-01	9.50E-01
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG. LUNG	LIVER	KIDNEY
-----							
0.00E+00	TEENAGE	INHAL.	9.89E+00	3.38E+01	7.12E+01	2.01E-01	2.36E-01
2.30E-02	TEENAGE	GROUND	2.30E-02	2.30E-02	2.30E-02	2.30E-02	2.30E-02
7.22E-07	TEENAGE	CLOUD	7.22E-07	7.22E-07	7.22E-07	7.22E-07	7.22E-07
0.00E+00	TEENAGE	VEG. ING	2.37E-01	3.10E+00	1.89E-01	1.89E-01	7.50E-01
0.00E+00	TEENAGE	MEAT ING	2.29E-02	3.16E-01	3.10E-02	3.10E-02	6.79E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							



PowerTech (USA) Inc.

2.31E-02	TEENAGE	TOTALS	1.02E+01	3.73E+01	7.15E+01	4.44E-01	1.08E+00
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
0.00E+00	ADULT	INHAL.	8.41E+00	3.28E+01	5.93E+01	1.69E-01	1.87E-01
2.30E-02	ADULT	GROUND	2.30E-02	2.30E-02	2.30E-02	2.30E-02	2.30E-02
7.22E-07	ADULT	CLOUD	7.22E-07	7.22E-07	7.22E-07	7.22E-07	7.22E-07
0.00E+00	ADULT	VEG. ING	3.28E-01	4.28E+00	2.61E-01	2.61E-01	1.04E+00
0.00E+00	ADULT	MEAT ING	4.01E-02	5.52E-01	5.42E-02	5.42E-02	1.19E-01
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
2.31E-02	ADULT	TOTALS	8.80E+00	3.77E+01	5.96E+01	5.07E-01	1.36E+00

1REGION: Dewey Burdock  
METSET:

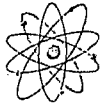
CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 36  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 3 NAME=CPP NE X= 1.3KM, Y= 1.2KM, Z= 0.0M, DIST= 1.7KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
2.22E+01	INFANT	INHAL.	3.77E+01	3.69E+01	2.85E+02	1.08E+00	1.15E+00
2.53E-01	INFANT	GROUND	2.53E-01	2.53E-01	2.53E-01	2.53E-01	2.53E-01
9.16E-02	INFANT	CLOUD	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
2.25E+01	INFANT	TOTALS	3.80E+01	3.73E+01	2.85E+02	1.43E+00	1.49E+00



POWERTECH (USA) Inc.

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
2.22E+01	CHILD	INHAL.	1.91E+01	3.19E+01	1.37E+02	4.55E-01	4.43E-01
2.53E-01	CHILD	GROUND	2.53E-01	2.53E-01	2.53E-01	2.53E-01	2.53E-01
9.16E-02	CHILD	CLOUD	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02
0.00E+00	CHILD	VEG. ING	1.44E-01	1.88E+00	1.17E-01	1.17E-01	4.56E-01
0.00E+00	CHILD	MEAT ING	1.43E-02	1.96E-01	1.96E-02	1.96E-02	4.22E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

2.25E+01	CHILD	TOTALS	1.96E+01	3.43E+01	1.37E+02	9.36E-01	1.29E+00
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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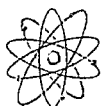
2.22E+01	TEENAGE	INHAL.	1.12E+01	3.39E+01	7.12E+01	2.13E-01	2.42E-01
2.53E-01	TEENAGE	GROUND	2.53E-01	2.53E-01	2.53E-01	2.53E-01	2.53E-01
9.16E-02	TEENAGE	CLOUD	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02
0.00E+00	TEENAGE	VEG. ING	2.39E-01	3.11E+00	1.94E-01	1.94E-01	7.54E-01
0.00E+00	TEENAGE	MEAT ING	2.32E-02	3.18E-01	3.18E-02	3.18E-02	6.86E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

2.25E+01	TEENAGE	TOTALS	1.18E+01	3.76E+01	7.18E+01	7.83E-01	1.41E+00
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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2.22E+01	ADULT	INHAL.	9.75E+00	3.28E+01	5.93E+01	1.79E-01	1.92E-01
2.53E-01	ADULT	GROUND	2.53E-01	2.53E-01	2.53E-01	2.53E-01	2.53E-01
9.16E-02	ADULT	CLOUD	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02
0.00E+00	ADULT	VEG. ING	3.30E-01	4.30E+00	2.67E-01	2.67E-01	1.04E+00
0.00E+00	ADULT	MEAT ING	4.05E-02	5.56E-01	5.56E-02	5.56E-02	1.20E-01
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

2.25E+01	ADULT	TOTALS	1.05E+01	3.80E+01	5.99E+01	8.46E-01	1.70E+00
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**POWERTECH (USA) Inc.**

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 37  
08/21/08

DURATION IN YRS IS... 5.0

NUMBER 4 NAME=CPP ENE

X= 2.9KM, Y= 1.1KM, Z= 0.0M, DIST= 3.1KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

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BRONCHI

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
0.00E+00	INFANT	INHAL.	1.64E+01	1.67E+01	1.29E+02	4.60E-01	5.09E-01
1.04E-02	INFANT	GROUND	1.04E-02	1.04E-02	1.04E-02	1.04E-02	1.04E-02
3.27E-07	INFANT	CLOUD	3.27E-07	3.27E-07	3.27E-07	3.27E-07	3.27E-07
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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1.04E-02

INFANT	TOTALS	1.64E+01	1.67E+01	1.29E+02	4.71E-01	5.19E-01
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BRONCHI

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
0.00E+00	CHILD	INHAL.	8.02E+00	1.44E+01	6.18E+01	1.93E-01	1.95E-01
1.04E-02	CHILD	GROUND	1.04E-02	1.04E-02	1.04E-02	1.04E-02	1.04E-02
3.27E-07	CHILD	CLOUD	3.27E-07	3.27E-07	3.27E-07	3.27E-07	3.27E-07
0.00E+00	CHILD	VEG. ING	6.49E-02	8.47E-01	5.18E-02	5.18E-02	2.05E-01
0.00E+00	CHILD	MEAT ING	6.39E-03	8.80E-02	8.65E-03	8.65E-03	1.89E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

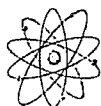
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1.04E-02

CHILD	TOTALS	8.10E+00	1.54E+01	6.19E+01	2.64E-01	4.30E-01
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BRONCHI

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
0.00E+00	TEENAGE	INHAL.	4.47E+00	1.53E+01	3.22E+01	9.10E-02	1.07E-01
1.04E-02	TEENAGE	GROUND	1.04E-02	1.04E-02	1.04E-02	1.04E-02	1.04E-02



# POWERTECH (USA) Inc.

3.27E-07	TEENAGE	CLOUD	3.27E-07	3.27E-07	3.27E-07	3.27E-07	3.27E-07
0.00E+00	TEENAGE	VEG. ING	1.07E-01	1.40E+00	8.54E-02	8.54E-02	3.39E-01
0.00E+00	TEENAGE	MEAT ING	1.04E-02	1.43E-01	1.40E-02	1.40E-02	3.07E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1.04E-02	TEENAGE	TOTALS	4.60E+00	1.69E+01	3.23E+01	2.01E-01	4.87E-01
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	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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0.00E+00	ADULT	INHAL.	3.81E+00	1.49E+01	2.68E+01	7.64E-02	8.48E-02
1.04E-02	ADULT	GROUND	1.04E-02	1.04E-02	1.04E-02	1.04E-02	1.04E-02
3.27E-07	ADULT	CLOUD	3.27E-07	3.27E-07	3.27E-07	3.27E-07	3.27E-07

0.00E+00	ADULT	VEG. ING	1.48E-01	1.93E+00	1.18E-01	1.18E-01	4.68E-01
0.00E+00	ADULT	MEAT ING	1.81E-02	2.50E-01	2.45E-02	2.45E-02	5.37E-02
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1.04E-02	ADULT	TOTALS	3.98E+00	1.71E+01	2.70E+01	2.29E-01	6.17E-01
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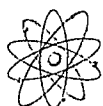
1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 38  
08/21/08  
DURATION IN YRS IS... 5.0

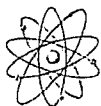
NUMBER 4 NAME=CPP ENE X= 2.9KM, Y= 1.1KM, Z= 0.0M, DIST= 3.1KM, IRTYPE=10  
TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
1.46E+01	INFANT	INHAL.	1.73E+01	1.67E+01	1.29E+02	5.28E-01	5.35E-01
1.15E-01	INFANT	GROUND	1.15E-01	1.15E-01	1.15E-01	1.15E-01	1.15E-01
7.21E-02	INFANT	CLOUD	7.21E-02	7.21E-02	7.21E-02	7.21E-02	7.21E-02
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.48E+01	INFANT	TOTALS	1.75E+01	1.69E+01	1.29E+02	7.15E-01	7.22E-01



**POWERTECH (USA) Inc.**

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
1.46E+01	CHILD	INHAL.	8.90E+00	1.44E+01	6.18E+01	2.23E-01	2.08E-01
1.15E-01	CHILD	GROUND	1.15E-01	1.15E-01	1.15E-01	1.15E-01	1.15E-01
7.21E-02	CHILD	CLOUD	7.21E-02	7.21E-02	7.21E-02	7.21E-02	7.21E-02
0.00E+00	CHILD	VEG. ING	6.58E-02	8.58E-01	5.48E-02	5.48E-02	2.08E-01
0.00E+00	CHILD	MEAT ING	6.54E-03	8.96E-02	9.14E-03	9.14E-03	1.93E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
1.48E+01	CHILD	TOTALS	9.16E+00	1.56E+01	6.21E+01	4.74E-01	6.21E-01
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
1.46E+01	TEENAGE	INHAL.	5.35E+00	1.53E+01	3.22E+01	1.04E-01	1.13E-01
1.15E-01	TEENAGE	GROUND	1.15E-01	1.15E-01	1.15E-01	1.15E-01	1.15E-01
7.21E-02	TEENAGE	CLOUD	7.21E-02	7.21E-02	7.21E-02	7.21E-02	7.21E-02
0.00E+00	TEENAGE	VEG. ING	1.09E-01	1.42E+00	9.04E-02	9.04E-02	3.43E-01
0.00E+00	TEENAGE	MEAT ING	1.06E-02	1.45E-01	1.48E-02	1.48E-02	3.14E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
1.48E+01	TEENAGE	TOTALS	5.66E+00	1.71E+01	3.25E+01	3.96E-01	6.75E-01
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
1.46E+01	ADULT	INHAL.	4.69E+00	1.49E+01	2.68E+01	8.71E-02	9.00E-02
1.15E-01	ADULT	GROUND	1.15E-01	1.15E-01	1.15E-01	1.15E-01	1.15E-01
7.21E-02	ADULT	CLOUD	7.21E-02	7.21E-02	7.21E-02	7.21E-02	7.21E-02
0.00E+00	ADULT	VEG. ING	1.50E-01	1.96E+00	1.25E-01	1.25E-01	4.74E-01
0.00E+00	ADULT	MEAT ING	1.85E-02	2.54E-01	2.59E-02	2.59E-02	5.48E-02
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
1.48E+01	ADULT	TOTALS	5.04E+00	1.73E+01	2.71E+01	4.25E-01	8.06E-01



**POWERTECH (USA) Inc.**

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 39  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 5 NAME=CPP E

X= 2.8KM, Y= -0.1KM, Z= 0.0M, DIST= 2.8KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

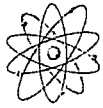
	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
0.00E+00	INFANT	INHAL.	2.34E+01	2.38E+01	1.83E+02	6.54E-01	7.24E-01
1.48E-02	INFANT	GROUND	1.48E-02	1.48E-02	1.48E-02	1.48E-02	1.48E-02
4.65E-07	INFANT	CLOUD	4.65E-07	4.65E-07	4.65E-07	4.65E-07	4.65E-07
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1.48E-02	INFANT	TOTALS	2.34E+01	2.38E+01	1.83E+02	6.69E-01	7.39E-01
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	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
0.00E+00	CHILD	INHAL.	1.14E+01	2.05E+01	8.80E+01	2.74E-01	2.78E-01
1.48E-02	CHILD	GROUND	1.48E-02	1.48E-02	1.48E-02	1.48E-02	1.48E-02
4.65E-07	CHILD	CLOUD	4.65E-07	4.65E-07	4.65E-07	4.65E-07	4.65E-07
0.00E+00	CHILD	VEG. ING	9.24E-02	1.21E+00	7.36E-02	7.36E-02	2.92E-01
0.00E+00	CHILD	MEAT ING	9.10E-03	1.25E-01	1.23E-02	1.23E-02	2.69E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1.48E-02	CHILD	TOTALS	1.15E+01	2.19E+01	8.81E+01	3.75E-01	6.11E-01
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	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
0.00E+00	TEENAGE	INHAL.	6.36E+00	2.18E+01	4.58E+01	1.29E-01	1.52E-01
1.48E-02	TEENAGE	GROUND	1.48E-02	1.48E-02	1.48E-02	1.48E-02	1.48E-02



**POWERTECH (USA) Inc.**

4.65E-07	TEENAGE	CLOUD	4.65E-07	4.65E-07	4.65E-07	4.65E-07	4.65E-07
0.00E+00	TEENAGE	VEG. ING	1.53E-01	1.99E+00	1.21E-01	1.21E-01	4.83E-01
0.00E+00	TEENAGE	MEAT ING	1.48E-02	2.03E-01	2.00E-02	2.00E-02	4.37E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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1.48E-02      TEENAGE      TOTALS      6.55E+00      2.40E+01      4.60E+01      2.86E-01      6.93E-01

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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BRONCHI

0.00E+00	ADULT	INHAL.	5.41E+00	2.11E+01	3.81E+01	1.09E-01	1.21E-01
1.48E-02	ADULT	GROUND	1.48E-02	1.48E-02	1.48E-02	1.48E-02	1.48E-02
4.65E-07	ADULT	CLOUD	4.65E-07	4.65E-07	4.65E-07	4.65E-07	4.65E-07
0.00E+00	ADULT	VEG. ING	2.11E-01	2.75E+00	1.68E-01	1.68E-01	6.66E-01
0.00E+00	ADULT	MEAT ING	2.58E-02	3.55E-01	3.49E-02	3.49E-02	7.64E-02
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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1.48E-02      ADULT      TOTALS      5.67E+00      2.43E+01      3.84E+01      3.26E-01      8.78E-01

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 40  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 5 NAME=CPP E      X= 2.8KM, Y= -0.1KM, Z= 0.0M, DIST= 2.8KM, IRTYPE=10

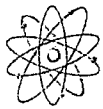
TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

-----  
BRONCHI

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
2.48E+01	INFANT	INHAL.	2.49E+01	2.38E+01	1.83E+02	7.28E-01	7.52E-01
1.64E-01	INFANT	GROUND	1.64E-01	1.64E-01	1.64E-01	1.64E-01	1.64E-01
7.81E-02	INFANT	CLOUD	7.81E-02	7.81E-02	7.81E-02	7.81E-02	7.81E-02
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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**POWERTECH (USA) INC.**

2.51E+01      INFANT      TOTALS      2.51E+01      2.40E+01      1.83E+02      9.69E-01      9.94E-01

BRONCHI      AGE      PATHWAY      EFFECTIV      BONE      AVG.LUNG      LIVER      KIDNEY

-----  
2.48E+01      CHILD      INHAL.      1.29E+01      2.05E+01      8.80E+01      3.07E-01      2.91E-01  
1.64E-01      CHILD      GROUND      1.64E-01      1.64E-01      1.64E-01      1.64E-01      1.64E-01  
7.81E-02      CHILD      CLOUD      7.81E-02      7.81E-02      7.81E-02      7.81E-02      7.81E-02  
0.00E+00      CHILD      VEG. ING      9.33E-02      1.22E+00      7.69E-02      7.69E-02      2.94E-01  
0.00E+00      CHILD      MEAT ING      9.25E-03      1.27E-01      1.28E-02      1.28E-02      2.74E-02  
0.00E+00      CHILD      MILK ING      0.00E+00      0.00E+00      0.00E+00      0.00E+00      0.00E+00  
-----

2.51E+01      CHILD      TOTALS      1.32E+01      2.21E+01      8.83E+01      6.38E-01      8.55E-01

BRONCHI      AGE      PATHWAY      EFFECTIV      BONE      AVG.LUNG      LIVER      KIDNEY

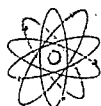
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2.48E+01      TEENAGE      INHAL.      7.86E+00      2.18E+01      4.58E+01      1.43E-01      1.59E-01  
1.64E-01      TEENAGE      GROUND      1.64E-01      1.64E-01      1.64E-01      1.64E-01      1.64E-01  
7.81E-02      TEENAGE      CLOUD      7.81E-02      7.81E-02      7.81E-02      7.81E-02      7.81E-02  
0.00E+00      TEENAGE      VEG. ING      1.54E-01      2.01E+00      1.27E-01      1.27E-01      4.87E-01  
0.00E+00      TEENAGE      MEAT ING      1.50E-02      2.06E-01      2.08E-02      2.08E-02      4.44E-02  
0.00E+00      TEENAGE      MILK ING      0.00E+00      0.00E+00      0.00E+00      0.00E+00      0.00E+00  
-----

2.51E+01      TEENAGE      TOTALS      8.27E+00      2.43E+01      4.62E+01      5.33E-01      9.32E-01

BRONCHI      AGE      PATHWAY      EFFECTIV      BONE      AVG.LUNG      LIVER      KIDNEY

-----  
2.48E+01      ADULT      INHAL.      6.90E+00      2.11E+01      3.81E+01      1.20E-01      1.26E-01  
1.64E-01      ADULT      GROUND      1.64E-01      1.64E-01      1.64E-01      1.64E-01      1.64E-01  
7.81E-02      ADULT      CLOUD      7.81E-02      7.81E-02      7.81E-02      7.81E-02      7.81E-02  
0.00E+00      ADULT      VEG. ING      2.13E-01      2.78E+00      1.75E-01      1.75E-01      6.73E-01  
0.00E+00      ADULT      MEAT ING      2.62E-02      3.60E-01      3.64E-02      3.64E-02      7.76E-02  
0.00E+00      ADULT      MILK ING      0.00E+00      0.00E+00      0.00E+00      0.00E+00      0.00E+00  
-----

2.51E+01      ADULT      TOTALS      7.39E+00      2.45E+01      3.86E+01      5.74E-01      1.12E+00



# POWERTECH (USA) Inc.

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 41  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 6 NAME=CPP ESE X= 2.8KM, Y= -1.3KM, Z= 0.0M, DIST= 3.1KM, IRTYPE=10

## 40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

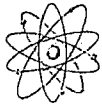
	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
0.00E+00	INFANT	INHAL.	2.34E+01	2.38E+01	1.83E+02	6.55E-01	7.24E-01
1.48E-02	INFANT	GROUND	1.48E-02	1.48E-02	1.48E-02	1.48E-02	1.48E-02
4.65E-07	INFANT	CLOUD	4.65E-07	4.65E-07	4.65E-07	4.65E-07	4.65E-07
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1.48E-02	INFANT	TOTALS	2.34E+01	2.38E+01	1.83E+02	6.70E-01	7.39E-01
----------	--------	--------	----------	----------	----------	----------	----------

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
0.00E+00	CHILD	INHAL.	1.14E+01	2.05E+01	8.80E+01	2.74E-01	2.78E-01
1.48E-02	CHILD	GROUND	1.48E-02	1.48E-02	1.48E-02	1.48E-02	1.48E-02
4.65E-07	CHILD	CLOUD	4.65E-07	4.65E-07	4.65E-07	4.65E-07	4.65E-07
0.00E+00	CHILD	VEG. ING	9.24E-02	1.21E+00	7.37E-02	7.37E-02	2.92E-01
0.00E+00	CHILD	MEAT ING	9.10E-03	1.25E-01	1.23E-02	1.23E-02	2.70E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1.48E-02	CHILD	TOTALS	1.15E+01	2.19E+01	8.81E+01	3.75E-01	6.12E-01
----------	-------	--------	----------	----------	----------	----------	----------

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
0.00E+00	TEENAGE	INHAL.	6.37E+00	2.18E+01	4.59E+01	1.29E-01	1.52E-01
1.48E-02	TEENAGE	GROUND	1.48E-02	1.48E-02	1.48E-02	1.48E-02	1.48E-02
4.65E-07	TEENAGE	CLOUD	4.65E-07	4.65E-07	4.65E-07	4.65E-07	4.65E-07
0.00E+00	TEENAGE	VEG. ING	1.53E-01	2.00E+00	1.22E-01	1.22E-01	4.83E-01
0.00E+00	TEENAGE	MEAT ING	1.48E-02	2.03E-01	2.00E-02	2.00E-02	4.37E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00



PowerTech (USA) Inc.

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-----
1.48E-02  TEENAGE  TOTALS  6.55E+00  2.40E+01  4.60E+01  2.86E-01  6.94E-01
BRONCHI  AGE  PATHWAY  EFFECTIV  BONE  AVG.LUNG  LIVER  KIDNEY
-----
0.00E+00  ADULT  INHAL.  5.42E+00  2.11E+01  3.82E+01  1.09E-01  1.21E-01
1.48E-02  ADULT  GROUND  1.48E-02  1.48E-02  1.48E-02  1.48E-02  1.48E-02
4.65E-07  ADULT  CLOUD  4.65E-07  4.65E-07  4.65E-07  4.65E-07  4.65E-07
0.00E+00  ADULT  VEG. ING  2.11E-01  2.75E+00  1.68E-01  1.68E-01  6.67E-01
0.00E+00  ADULT  MEAT ING  2.58E-02  3.55E-01  3.49E-02  3.49E-02  7.65E-02
0.00E+00  ADULT  MILK ING  0.00E+00  0.00E+00  0.00E+00  0.00E+00  0.00E+00
-----
1.48E-02  ADULT  TOTALS  5.67E+00  2.43E+01  3.84E+01  3.26E-01  8.79E-01
```

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL

PAGE 42  
08/21/08

TIME STEP NUMBER 1,

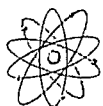
DURATION IN YRS IS... 5.0

NUMBER 6 NAME=CPP ESE

X= 2.8KM, Y= -1.3KM, Z= 0.0M, DIST= 3.1KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

```
-----
BRONCHI  AGE  PATHWAY  EFFECTIV  BONE  AVG.LUNG  LIVER  KIDNEY
-----
5.20E+01  INFANT  INHAL.  2.65E+01  2.38E+01  1.83E+02  7.48E-01  7.61E-01
1.67E-01  INFANT  GROUND  1.67E-01  1.67E-01  1.67E-01  1.67E-01  1.67E-01
1.25E-01  INFANT  CLOUD  1.25E-01  1.25E-01  1.25E-01  1.25E-01  1.25E-01
0.00E+00  INFANT  VEG. ING  0.00E+00  0.00E+00  0.00E+00  0.00E+00  0.00E+00
0.00E+00  INFANT  MEAT ING  0.00E+00  0.00E+00  0.00E+00  0.00E+00  0.00E+00
0.00E+00  INFANT  MILK ING  0.00E+00  0.00E+00  0.00E+00  0.00E+00  0.00E+00
-----
5.23E+01  INFANT  TOTALS  2.68E+01  2.41E+01  1.84E+02  1.04E+00  1.05E+00
BRONCHI  AGE  PATHWAY  EFFECTIV  BONE  AVG.LUNG  LIVER  KIDNEY
-----
5.20E+01  CHILD  INHAL.  1.45E+01  2.05E+01  8.80E+01  3.16E-01  2.95E-01
```



**POWERTECH (USA) Inc.**

1.67E-01	CHILD	GROUND	1.67E-01	1.67E-01	1.67E-01	1.67E-01	1.67E-01
1.25E-01	CHILD	CLOUD	1.25E-01	1.25E-01	1.25E-01	1.25E-01	1.25E-01
0.00E+00	CHILD	VEG. ING	9.37E-02	1.22E+00	7.79E-02	7.79E-02	2.95E-01
0.00E+00	CHILD	MEAT ING	9.30E-03	1.27E-01	1.30E-02	1.30E-02	2.75E-02

0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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5.23E+01	CHILD	TOTALS	1.49E+01	2.22E+01	8.84E+01	6.98E-01	9.09E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
---------	-----	---------	----------	------	----------	-------	--------

5.20E+01	TEENAGE	INHAL.	9.49E+00	2.18E+01	4.59E+01	1.47E-01	1.61E-01
1.67E-01	TEENAGE	GROUND	1.67E-01	1.67E-01	1.67E-01	1.67E-01	1.67E-01
1.25E-01	TEENAGE	CLOUD	1.25E-01	1.25E-01	1.25E-01	1.25E-01	1.25E-01
0.00E+00	TEENAGE	VEG. ING	1.55E-01	2.02E+00	1.29E-01	1.29E-01	4.89E-01
0.00E+00	TEENAGE	MEAT ING	1.51E-02	2.07E-01	2.11E-02	2.11E-02	4.46E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

5.23E+01	TEENAGE	TOTALS	9.95E+00	2.44E+01	4.63E+01	5.88E-01	9.86E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
---------	-----	---------	----------	------	----------	-------	--------

5.20E+01	ADULT	INHAL.	8.54E+00	2.12E+01	3.82E+01	1.24E-01	1.28E-01
1.67E-01	ADULT	GROUND	1.67E-01	1.67E-01	1.67E-01	1.67E-01	1.67E-01
1.25E-01	ADULT	CLOUD	1.25E-01	1.25E-01	1.25E-01	1.25E-01	1.25E-01
0.00E+00	ADULT	VEG. ING	2.14E-01	2.79E+00	1.77E-01	1.77E-01	6.75E-01
0.00E+00	ADULT	MEAT ING	2.64E-02	3.62E-01	3.68E-02	3.68E-02	7.80E-02
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

5.23E+01	ADULT	TOTALS	9.07E+00	2.46E+01	3.87E+01	6.29E-01	1.17E+00
----------	-------	--------	----------	----------	----------	----------	----------

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 43  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 7 NAME=CPP SSE

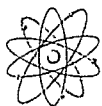
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40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR



**POWERTECH (USA) Inc.**

-----							
-----							
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
0.00E+00	INFANT	INHAL.	4.13E+01	4.20E+01	3.24E+02	1.16E+00	1.28E+00
2.62E-02	INFANT	GROUND	2.62E-02	2.62E-02	2.62E-02	2.62E-02	2.62E-02
8.21E-07	INFANT	CLOUD	8.21E-07	8.21E-07	8.21E-07	8.21E-07	8.21E-07
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
2.62E-02	INFANT	TOTALS	4.13E+01	4.20E+01	3.24E+02	1.18E+00	1.31E+00
-----							
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
0.00E+00	CHILD	INHAL.	2.01E+01	3.63E+01	1.55E+02	4.84E-01	4.91E-01
2.62E-02	CHILD	GROUND	2.62E-02	2.62E-02	2.62E-02	2.62E-02	2.62E-02
8.21E-07	CHILD	CLOUD	8.21E-07	8.21E-07	8.21E-07	8.21E-07	8.21E-07
0.00E+00	CHILD	VEG. ING	1.63E-01	2.13E+00	1.30E-01	1.30E-01	5.15E-01
0.00E+00	CHILD	MEAT ING	1.61E-02	2.21E-01	2.18E-02	2.18E-02	4.76E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
2.62E-02	CHILD	TOTALS	2.04E+01	3.86E+01	1.56E+02	6.62E-01	1.08E+00
-----							
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
0.00E+00	TEENAGE	INHAL.	1.12E+01	3.85E+01	8.10E+01	2.29E-01	2.69E-01
2.62E-02	TEENAGE	GROUND	2.62E-02	2.62E-02	2.62E-02	2.62E-02	2.62E-02
8.21E-07	TEENAGE	CLOUD	8.21E-07	8.21E-07	8.21E-07	8.21E-07	8.21E-07
0.00E+00	TEENAGE	VEG. ING	2.70E-01	3.52E+00	2.15E-01	2.15E-01	8.53E-01
0.00E+00	TEENAGE	MEAT ING	2.61E-02	3.59E-01	3.53E-02	3.53E-02	7.72E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
2.62E-02	TEENAGE	TOTALS	1.16E+01	4.24E+01	8.13E+01	5.05E-01	1.22E+00



POWERTECH (USA) INC.

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
0.00E+00	ADULT	INHAL.	9.56E+00	3.73E+01	6.74E+01	1.92E-01	2.13E-01
2.62E-02	ADULT	GROUND	2.62E-02	2.62E-02	2.62E-02	2.62E-02	2.62E-02
8.21E-07	ADULT	CLOUD	8.21E-07	8.21E-07	8.21E-07	8.21E-07	8.21E-07
0.00E+00	ADULT	VEG. ING	3.73E-01	4.86E+00	2.96E-01	2.96E-01	1.18E+00
0.00E+00	ADULT	MEAT ING	4.56E-02	6.28E-01	6.17E-02	6.17E-02	1.35E-01
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							

2.62E-02	ADULT	TOTALS	1.00E+01	4.29E+01	6.78E+01	5.76E-01	1.55E+00
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1REGION: Dewey Burdock  
METSET: \*

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

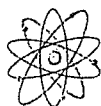
PAGE 44  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 7 NAME=CPP SSE

X= 1.0KM, Y= -2.5KM, Z= 0.0M, DIST= 2.7KM, IRTYPE=10  
TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
4.71E+01	INFANT	INHAL.	4.41E+01	4.20E+01	3.24E+02	1.31E+00	1.34E+00
2.90E-01	INFANT	GROUND	2.90E-01	2.90E-01	2.90E-01	2.90E-01	2.90E-01
2.18E-01	INFANT	CLOUD	2.18E-01	2.18E-01	2.18E-01	2.18E-01	2.18E-01
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
4.76E+01	INFANT	TOTALS	4.46E+01	4.25E+01	3.24E+02	1.82E+00	1.85E+00

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
4.71E+01	CHILD	INHAL.	2.30E+01	3.63E+01	1.55E+02	5.54E-01	5.19E-01
2.90E-01	CHILD	GROUND	2.90E-01	2.90E-01	2.90E-01	2.90E-01	2.90E-01
2.18E-01	CHILD	CLOUD	2.18E-01	2.18E-01	2.18E-01	2.18E-01	2.18E-01



**POWERTECH (USA) INC.**

0.00E+00	CHILD	VEG. ING	1.65E-01	2.15E+00	1.37E-01	1.37E-01	5.21E-01
0.00E+00	CHILD	MEAT ING	1.64E-02	2.25E-01	2.29E-02	2.29E-02	4.85E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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4.76E+01	CHILD	TOTALS	2.37E+01	3.92E+01	1.56E+02	1.22E+00	1.60E+00
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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4.71E+01	TEENAGE	INHAL.	1.41E+01	3.86E+01	8.10E+01	2.58E-01	2.83E-01
2.90E-01	TEENAGE	GROUND	2.90E-01	2.90E-01	2.90E-01	2.90E-01	2.90E-01
2.18E-01	TEENAGE	CLOUD	2.18E-01	2.18E-01	2.18E-01	2.18E-01	2.18E-01
0.00E+00	TEENAGE	VEG. ING	2.73E-01	3.56E+00	2.26E-01	2.26E-01	8.62E-01
0.00E+00	TEENAGE	MEAT ING	2.66E-02	3.65E-01	3.71E-02	3.71E-02	7.87E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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4.76E+01	TEENAGE	TOTALS	1.49E+01	4.30E+01	8.17E+01	1.03E+00	1.73E+00
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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4.71E+01	ADULT	INHAL.	1.24E+01	3.74E+01	6.74E+01	2.17E-01	2.25E-01
2.90E-01	ADULT	GROUND	2.90E-01	2.90E-01	2.90E-01	2.90E-01	2.90E-01
2.18E-01	ADULT	CLOUD	2.18E-01	2.18E-01	2.18E-01	2.18E-01	2.18E-01
0.00E+00	ADULT	VEG. ING	3.77E-01	4.92E+00	3.13E-01	3.13E-01	1.19E+00
0.00E+00	ADULT	MEAT ING	4.65E-02	6.38E-01	6.49E-02	6.49E-02	1.38E-01
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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4.76E+01	ADULT	TOTALS	1.33E+01	4.34E+01	6.83E+01	1.10E+00	2.06E+00
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1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

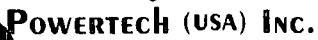
PAGE 45  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 8 NAME=CPP SE

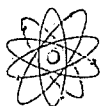
X= 2.0KM, Y= -2.1KM, Z= 0.0M, DIST= 2.9KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

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BRONCHI





PowerTech (USA) Inc.

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
-----							
0.00E+00	ADULT	INHAL.	6.37E+00	2.49E+01	4.49E+01	1.28E-01	1.42E-01
1.75E-02	ADULT	GROUND	1.75E-02	1.75E-02	1.75E-02	1.75E-02	1.75E-02
5.47E-07	ADULT	CLOUD	5.47E-07	5.47E-07	5.47E-07	5.47E-07	5.47E-07
0.00E+00	ADULT	VEG. ING	2.48E-01	3.24E+00	1.98E-01	1.98E-01	7.85E-01
0.00E+00	ADULT	MEAT ING	3.04E-02	4.18E-01	4.11E-02	4.11E-02	9.00E-02
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
1.75E-02	ADULT	TOTALS	6.67E+00	2.86E+01	4.52E+01	3.84E-01	1.03E+00

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 46  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 8 NAME=CPP SE X= 2.0KM, Y= -2.1KM, Z= 0.0M, DIST= 2.9KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
-----							
6.15E+01	INFANT	INHAL.	3.12E+01	2.80E+01	2.16E+02	9.02E-01	9.03E-01
1.96E-01	INFANT	GROUND	1.96E-01	1.96E-01	1.96E-01	1.96E-01	1.96E-01
2.00E-01	INFANT	CLOUD	2.00E-01	2.00E-01	2.00E-01	2.00E-01	2.00E-01
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
6.19E+01	INFANT	TOTALS	3.16E+01	2.84E+01	2.16E+02	1.30E+00	1.30E+00

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
-----							
6.15E+01	CHILD	INHAL.	1.71E+01	2.42E+01	1.04E+02	3.81E-01	3.51E-01
1.96E-01	CHILD	GROUND	1.96E-01	1.96E-01	1.96E-01	1.96E-01	1.96E-01
2.00E-01	CHILD	CLOUD	2.00E-01	2.00E-01	2.00E-01	2.00E-01	2.00E-01
0.00E+00	CHILD	VEG. ING	1.10E-01	1.44E+00	9.26E-02	9.26E-02	3.48E-01



**POWERTECH (USA) Inc.**

0.00E+00	CHILD	MEAT ING	1.10E-02	1.51E-01	1.54E-02	1.54E-02	3.25E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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6.19E+01	CHILD	TOTALS	1.76E+01	2.62E+01	1.04E+02	8.86E-01	1.13E+00
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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6.15E+01	TEENAGE	INHAL.	1.12E+01	2.57E+01	5.40E+01	1.77E-01	1.91E-01
1.96E-01	TEENAGE	GROUND	1.96E-01	1.96E-01	1.96E-01	1.96E-01	1.96E-01
2.00E-01	TEENAGE	CLOUD	2.00E-01	2.00E-01	2.00E-01	2.00E-01	2.00E-01
0.00E+00	TEENAGE	VEG. ING	1.83E-01	2.38E+00	1.53E-01	1.53E-01	5.76E-01
0.00E+00	TEENAGE	MEAT ING	1.78E-02	2.44E-01	2.50E-02	2.50E-02	5.27E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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6.19E+01	TEENAGE	TOTALS	1.18E+01	2.87E+01	5.45E+01	7.52E-01	1.22E+00
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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6.15E+01	ADULT	INHAL.	1.01E+01	2.49E+01	4.49E+01	1.49E-01	1.52E-01
1.96E-01	ADULT	GROUND	1.96E-01	1.96E-01	1.96E-01	1.96E-01	1.96E-01
2.00E-01	ADULT	CLOUD	2.00E-01	2.00E-01	2.00E-01	2.00E-01	2.00E-01
0.00E+00	ADULT	VEG. ING	2.52E-01	3.29E+00	2.11E-01	2.11E-01	7.96E-01
0.00E+00	ADULT	MEAT ING	3.12E-02	4.27E-01	4.38E-02	4.38E-02	9.21E-02
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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6.19E+01	ADULT	TOTALS	1.07E+01	2.90E+01	4.56E+01	8.00E-01	1.44E+00
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1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 47  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 9 NAME=CPP S X= -0.1KM, Y= -2.9KM, Z= 0.0M, DIST= 2.9KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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POWERTECH (USA) INC.

-----							
0.00E+00	INFANT	INHAL.	9.15E+01	9.30E+01	7.17E+02	2.56E+00	2.83E+00
5.80E-02	INFANT	GROUND	5.80E-02	5.80E-02	5.80E-02	5.80E-02	5.80E-02
1.82E-06	INFANT	CLOUD	1.82E-06	1.82E-06	1.82E-06	1.82E-06	1.82E-06
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
5.80E-02	INFANT	TOTALS	9.15E+01	9.30E+01	7.17E+02	2.62E+00	2.89E+00
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG. LUNG	LIVER	KIDNEY
-----							
0.00E+00	CHILD	INHAL.	4.46E+01	8.03E+01	3.44E+02	1.07E+00	1.09E+00
5.80E-02	CHILD	GROUND	5.80E-02	5.80E-02	5.80E-02	5.80E-02	5.80E-02
1.82E-06	CHILD	CLOUD	1.82E-06	1.82E-06	1.82E-06	1.82E-06	1.82E-06
0.00E+00	CHILD	VEG. ING	3.62E-01	4.72E+00	2.88E-01	2.88E-01	1.14E+00
0.00E+00	CHILD	MEAT ING	3.56E-02	4.90E-01	4.82E-02	4.82E-02	1.05E-01
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
5.80E-02	CHILD	TOTALS	4.51E+01	8.55E+01	3.45E+02	1.47E+00	2.39E+00
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG. LUNG	LIVER	KIDNEY
-----							
0.00E+00	TEENAGE	INHAL.	2.49E+01	8.52E+01	1.79E+02	5.06E-01	5.95E-01
5.80E-02	TEENAGE	GROUND	5.80E-02	5.80E-02	5.80E-02	5.80E-02	5.80E-02
1.82E-06	TEENAGE	CLOUD	1.82E-06	1.82E-06	1.82E-06	1.82E-06	1.82E-06
0.00E+00	TEENAGE	VEG. ING	5.98E-01	7.80E+00	4.75E-01	4.75E-01	1.89E+00
0.00E+00	TEENAGE	MEAT ING	5.78E-02	7.95E-01	7.82E-02	7.82E-02	1.71E-01
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
5.80E-02	TEENAGE	TOTALS	2.56E+01	9.39E+01	1.80E+02	1.12E+00	2.71E+00



POWERTECH (USA) INC.

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
0.00E+00	ADULT	INHAL.	2.12E+01	8.27E+01	1.49E+02	4.25E-01	4.72E-01
5.80E-02	ADULT	GROUND	5.80E-02	5.80E-02	5.80E-02	5.80E-02	5.80E-02
1.82E-06	ADULT	CLOUD	1.82E-06	1.82E-06	1.82E-06	1.82E-06	1.82E-06
0.00E+00	ADULT	VEG. ING	8.25E-01	1.08E+01	6.56E-01	6.56E-01	2.61E+00
0.00E+00	ADULT	MEAT ING	1.01E-01	1.39E+00	1.37E-01	1.37E-01	2.99E-01
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
5.80E-02	ADULT	TOTALS	2.22E+01	9.49E+01	1.50E+02	1.28E+00	3.44E+00

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 48  
08/21/08  
DURATION IN YRS IS... 5.0

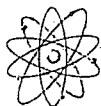
NUMBER 9 NAME=CPP S

X= -0.1KM, Y= -2.9KM, Z= 0.0M, DIST= 2.9KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
3.50E+01	INFANT	INHAL.	9.36E+01	9.30E+01	7.17E+02	2.74E+00	2.90E+00
6.35E-01	INFANT	GROUND	6.35E-01	6.35E-01	6.35E-01	6.35E-01	6.35E-01
2.00E-01	INFANT	CLOUD	2.00E-01	2.00E-01	2.00E-01	2.00E-01	2.00E-01
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
3.58E+01	INFANT	TOTALS	9.44E+01	9.38E+01	7.17E+02	3.57E+00	3.74E+00

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
3.50E+01	CHILD	INHAL.	4.67E+01	8.03E+01	3.44E+02	1.15E+00	1.12E+00
6.35E-01	CHILD	GROUND	6.35E-01	6.35E-01	6.35E-01	6.35E-01	6.35E-01



POWERTECH (USA) INC.

2.00E-01	CHILD	CLOUD	2.00E-01	2.00E-01	2.00E-01	2.00E-01	2.00E-01
0.00E+00	CHILD	VEG. ING	3.64E-01	4.75E+00	2.96E-01	2.96E-01	1.15E+00
0.00E+00	CHILD	MEAT ING	3.60E-02	4.94E-01	4.94E-02	4.94E-02	1.06E-01
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

3.58E+01	CHILD	TOTALS	4.80E+01	8.64E+01	3.45E+02	2.33E+00	3.21E+00
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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3.50E+01	TEENAGE	INHAL.	2.70E+01	8.53E+01	1.79E+02	5.40E-01	6.11E-01
6.35E-01	TEENAGE	GROUND	6.35E-01	6.35E-01	6.35E-01	6.35E-01	6.35E-01
2.00E-01	TEENAGE	CLOUD	2.00E-01	2.00E-01	2.00E-01	2.00E-01	2.00E-01
0.00E+00	TEENAGE	VEG. ING	6.02E-01	7.85E+00	4.89E-01	4.89E-01	1.90E+00
0.00E+00	TEENAGE	MEAT ING	5.84E-02	8.02E-01	8.02E-02	8.02E-02	1.73E-01
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

3.58E+01	TEENAGE	TOTALS	2.85E+01	9.48E+01	1.81E+02	1.94E+00	3.52E+00
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
---------	-----	---------	----------	------	----------	-------	--------

3.50E+01	ADULT	INHAL.	2.33E+01	8.27E+01	1.49E+02	4.53E-01	4.86E-01
6.35E-01	ADULT	GROUND	6.35E-01	6.35E-01	6.35E-01	6.35E-01	6.35E-01
2.00E-01	ADULT	CLOUD	2.00E-01	2.00E-01	2.00E-01	2.00E-01	2.00E-01
0.00E+00	ADULT	VEG. ING	8.31E-01	1.08E+01	6.75E-01	6.75E-01	2.62E+00
0.00E+00	ADULT	MEAT ING	1.02E-01	1.40E+00	1.40E-01	1.40E-01	3.02E-01
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

3.58E+01	ADULT	TOTALS	2.51E+01	9.58E+01	1.51E+02	2.10E+00	4.24E+00
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1REGION: Dewey Burdock  
METSET:

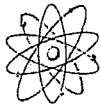
CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 49  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 10 NAME=CPP SSW X= -1.3KM, Y= -2.9KM, Z= 0.0M, DIST= 3.1KM, IRTYPE=10

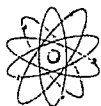
40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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POWERTECH (USA) Inc.

-----							
0.00E+00	INFANT	INHAL.	2.80E+01	2.84E+01	2.19E+02	7.83E-01	8.66E-01
1.77E-02	INFANT	GROUND	1.77E-02	1.77E-02	1.77E-02	1.77E-02	1.77E-02
5.56E-07	INFANT	CLOUD	5.56E-07	5.56E-07	5.56E-07	5.56E-07	5.56E-07
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
1.77E-02	INFANT	TOTALS	2.80E+01	2.84E+01	2.19E+02	8.01E-01	8.83E-01
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
0.00E+00	CHILD	INHAL.	1.36E+01	2.45E+01	1.05E+02	3.28E-01	3.32E-01
1.77E-02	CHILD	GROUND	1.77E-02	1.77E-02	1.77E-02	1.77E-02	1.77E-02
5.56E-07	CHILD	CLOUD	5.56E-07	5.56E-07	5.56E-07	5.56E-07	5.56E-07
0.00E+00	CHILD	VEG. ING	1.11E-01	1.44E+00	8.81E-02	8.81E-02	3.49E-01
0.00E+00	CHILD	MEAT ING	1.09E-02	1.50E-01	1.47E-02	1.47E-02	3.22E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
1.77E-02	CHILD	TOTALS	1.38E+01	2.62E+01	1.05E+02	4.49E-01	7.31E-01
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
0.00E+00	TEENAGE	INHAL.	7.61E+00	2.61E+01	5.48E+01	1.55E-01	1.82E-01
1.77E-02	TEENAGE	GROUND	1.77E-02	1.77E-02	1.77E-02	1.77E-02	1.77E-02
5.56E-07	TEENAGE	CLOUD	5.56E-07	5.56E-07	5.56E-07	5.56E-07	5.56E-07
0.00E+00	TEENAGE	VEG. ING	1.83E-01	2.39E+00	1.45E-01	1.45E-01	5.77E-01
0.00E+00	TEENAGE	MEAT ING	1.77E-02	2.43E-01	2.39E-02	2.39E-02	5.23E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
1.77E-02	TEENAGE	TOTALS	7.83E+00	2.87E+01	5.50E+01	3.42E-01	8.29E-01
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
0.00E+00	ADULT	INHAL.	6.47E+00	2.53E+01	4.56E+01	1.30E-01	1.44E-01
1.77E-02	ADULT	GROUND	1.77E-02	1.77E-02	1.77E-02	1.77E-02	1.77E-02



**POWERTECH (USA) Inc.**

5.56E-07	ADULT	CLOUD	5.56E-07	5.56E-07	5.56E-07	5.56E-07	5.56E-07
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0.00E+00	ADULT	VEG. ING	2.52E-01	3.29E+00	2.01E-01	2.01E-01	7.97E-01
0.00E+00	ADULT	MEAT ING	3.09E-02	4.25E-01	4.18E-02	4.18E-02	9.14E-02
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
1.77E-02	ADULT	TOTALS	6.77E+00	2.90E+01	4.59E+01	3.90E-01	1.05E+00

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

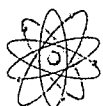
PAGE 50  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 10 NAME=CPP SSW X= -1.3KM, Y= -2.9KM, Z= 0.0M, DIST= 3.1KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

-----							
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
2.51E+01	INFANT	INHAL.	2.95E+01	2.85E+01	2.19E+02	9.73E-01	9.40E-01
1.96E-01	INFANT	GROUND	1.96E-01	1.96E-01	1.96E-01	1.96E-01	1.96E-01
1.70E-01	INFANT	CLOUD	1.70E-01	1.70E-01	1.70E-01	1.70E-01	1.70E-01
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
2.55E+01	INFANT	TOTALS	2.98E+01	2.88E+01	2.19E+02	1.34E+00	1.31E+00

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
2.51E+01	CHILD	INHAL.	1.51E+01	2.46E+01	1.05E+02	4.12E-01	3.67E-01
1.96E-01	CHILD	GROUND	1.96E-01	1.96E-01	1.96E-01	1.96E-01	1.96E-01
1.70E-01	CHILD	CLOUD	1.70E-01	1.70E-01	1.70E-01	1.70E-01	1.70E-01
0.00E+00	CHILD	VEG. ING	1.13E-01	1.47E+00	9.67E-02	9.67E-02	3.56E-01
0.00E+00	CHILD	MEAT ING	1.13E-02	1.54E-01	1.61E-02	1.61E-02	3.33E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							



POWERTECH (USA) Inc.

2.55E+01	CHILD	TOTALS	1.56E+01	2.66E+01	1.06E+02	8.91E-01	1.12E+00
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
---------	-----	---------	----------	------	----------	-------	--------

2.51E+01	TEENAGE	INHAL.	9.12E+00	2.61E+01	5.48E+01	1.91E-01	1.99E-01
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1.96E-01	TEENAGE	GROUND	1.96E-01	1.96E-01	1.96E-01	1.96E-01	1.96E-01
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1.70E-01	TEENAGE	CLOUD	1.70E-01	1.70E-01	1.70E-01	1.70E-01	1.70E-01
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0.00E+00	TEENAGE	VEG. ING	1.87E-01	2.43E+00	1.59E-01	1.59E-01	5.89E-01
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0.00E+00	TEENAGE	MEAT ING	1.83E-02	2.50E-01	2.61E-02	2.61E-02	5.41E-02
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0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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2.55E+01	TEENAGE	TOTALS	9.70E+00	2.92E+01	5.54E+01	7.43E-01	1.21E+00
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
---------	-----	---------	----------	------	----------	-------	--------

2.51E+01	ADULT	INHAL.	7.99E+00	2.53E+01	4.56E+01	1.60E-01	1.59E-01
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1.96E-01	ADULT	GROUND	1.96E-01	1.96E-01	1.96E-01	1.96E-01	1.96E-01
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1.70E-01	ADULT	CLOUD	1.70E-01	1.70E-01	1.70E-01	1.70E-01	1.70E-01
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0.00E+00	ADULT	VEG. ING	2.58E-01	3.36E+00	2.20E-01	2.20E-01	8.13E-01
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0.00E+00	ADULT	MEAT ING	3.20E-02	4.38E-01	4.56E-02	4.56E-02	9.45E-02
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0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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2.55E+01	ADULT	TOTALS	8.64E+00	2.95E+01	4.62E+01	7.92E-01	1.43E+00
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1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 51  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 11 NAME=CPP SW X= -2.1KM, Y= -2.0KM, Z= 0.0M, DIST= 2.9KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

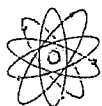
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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0.00E+00	INFANT	INHAL.	1.99E+01	2.02E+01	1.56E+02	5.57E-01	6.15E-01
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1.26E-02	INFANT	GROUND	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02
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3.95E-07	INFANT	CLOUD	3.95E-07	3.95E-07	3.95E-07	3.95E-07	3.95E-07
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**POWERTECH (USA) Inc.**

0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1.26E-02	INFANT	TOTALS	1.99E+01	2.02E+01	1.56E+02	5.69E-01	6.28E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
---------	-----	---------	----------	------	----------	-------	--------

0.00E+00	CHILD	INHAL.	9.69E+00	1.75E+01	7.47E+01	2.33E-01	2.36E-01
1.26E-02	CHILD	GROUND	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02
3.95E-07	CHILD	CLOUD	3.95E-07	3.95E-07	3.95E-07	3.95E-07	3.95E-07
0.00E+00	CHILD	VEG. ING	7.85E-02	1.03E+00	6.27E-02	6.27E-02	2.48E-01
0.00E+00	CHILD	MEAT ING	7.74E-03	1.06E-01	1.05E-02	1.05E-02	2.29E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1.26E-02	CHILD	TOTALS	9.79E+00	1.86E+01	7.48E+01	3.19E-01	5.19E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
---------	-----	---------	----------	------	----------	-------	--------

0.00E+00	TEENAGE	INHAL.	5.41E+00	1.85E+01	3.89E+01	1.10E-01	1.29E-01
1.26E-02	TEENAGE	GROUND	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02
3.95E-07	TEENAGE	CLOUD	3.95E-07	3.95E-07	3.95E-07	3.95E-07	3.95E-07
0.00E+00	TEENAGE	VEG. ING	1.30E-01	1.70E+00	1.03E-01	1.03E-01	4.10E-01
0.00E+00	TEENAGE	MEAT ING	1.26E-02	1.73E-01	1.70E-02	1.70E-02	3.72E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1.26E-02	TEENAGE	TOTALS	5.56E+00	2.04E+01	3.91E+01	2.43E-01	5.89E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
---------	-----	---------	----------	------	----------	-------	--------

0.00E+00	ADULT	INHAL.	4.60E+00	1.80E+01	3.24E+01	9.24E-02	1.03E-01
1.26E-02	ADULT	GROUND	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02
3.95E-07	ADULT	CLOUD	3.95E-07	3.95E-07	3.95E-07	3.95E-07	3.95E-07
0.00E+00	ADULT	VEG. ING	1.79E-01	2.34E+00	1.43E-01	1.43E-01	5.66E-01



**PowerTech (USA) Inc.**

0.00E+00	ADULT	MEAT ING	2.19E-02	3.02E-01	2.97E-02	2.97E-02	6.49E-02
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
1.26E-02	ADULT	TOTALS	4.81E+00	2.06E+01	3.26E+01	2.77E-01	7.46E-01

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

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08/21/08

DURATION IN YRS IS... 5.0

NUMBER 11 NAME=CPP SW

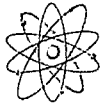
X= -2.1KM, Y= -2.0KM, Z= 0.0M, DIST= 2.9KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI	-----						
2.39E+01	INFANT	INHAL.	2.13E+01	2.02E+01	1.56E+02	7.24E-01	6.80E-01
1.40E-01	INFANT	GROUND	1.40E-01	1.40E-01	1.40E-01	1.40E-01	1.40E-01
1.63E-01	INFANT	CLOUD	1.63E-01	1.63E-01	1.63E-01	1.63E-01	1.63E-01
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
2.42E+01	INFANT	TOTALS	2.16E+01	2.05E+01	1.56E+02	1.03E+00	9.83E-01

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI	-----						
2.39E+01	CHILD	INHAL.	1.11E+01	1.75E+01	7.47E+01	3.07E-01	2.67E-01
1.40E-01	CHILD	GROUND	1.40E-01	1.40E-01	1.40E-01	1.40E-01	1.40E-01
1.63E-01	CHILD	CLOUD	1.63E-01	1.63E-01	1.63E-01	1.63E-01	1.63E-01
0.00E+00	CHILD	VEG. ING	8.07E-02	1.05E+00	7.02E-02	7.02E-02	2.54E-01
0.00E+00	CHILD	MEAT ING	8.08E-03	1.10E-01	1.17E-02	1.17E-02	2.39E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
2.42E+01	CHILD	TOTALS	1.15E+01	1.89E+01	7.51E+01	6.92E-01	8.47E-01

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI	-----						



POWERTECH (USA) Inc.

-----							
2.39E+01	TEENAGE	INHAL.	6.85E+00	1.86E+01	3.89E+01	1.42E-01	1.45E-01
1.40E-01	TEENAGE	GROUND	1.40E-01	1.40E-01	1.40E-01	1.40E-01	1.40E-01
1.63E-01	TEENAGE	CLOUD	1.63E-01	1.63E-01	1.63E-01	1.63E-01	1.63E-01
0.00E+00	TEENAGE	VEG. ING	1.34E-01	1.74E+00	1.16E-01	1.16E-01	4.20E-01
0.00E+00	TEENAGE	MEAT ING	1.31E-02	1.79E-01	1.89E-02	1.89E-02	3.87E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

-----							
2.42E+01	TEENAGE	TOTALS	7.30E+00	2.08E+01	3.94E+01	5.79E-01	9.06E-01
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY

-----							
2.39E+01	ADULT	INHAL.	6.04E+00	1.80E+01	3.24E+01	1.19E-01	1.15E-01
1.40E-01	ADULT	GROUND	1.40E-01	1.40E-01	1.40E-01	1.40E-01	1.40E-01

1.63E-01	ADULT	CLOUD	1.63E-01	1.63E-01	1.63E-01	1.63E-01	1.63E-01
0.00E+00	ADULT	VEG. ING	1.84E-01	2.40E+00	1.60E-01	1.60E-01	5.80E-01
0.00E+00	ADULT	MEAT ING	2.29E-02	3.13E-01	3.31E-02	3.31E-02	6.77E-02
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

-----							
2.42E+01	ADULT	TOTALS	6.55E+00	2.10E+01	3.29E+01	6.14E-01	1.07E+00

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

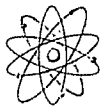
PAGE 53  
08/21/08

DURATION IN YRS IS... 5.0

NUMBER 12 NAME=CPP WSW X= -1.3KM; Y= -0.5KM, Z= 0.0M, DIST= 1.4KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

-----							
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
0.00E+00	INFANT	INHAL.	5.22E+01	5.31E+01	4.09E+02	1.46E+00	1.62E+00
3.31E-02	INFANT	GROUND	3.31E-02	3.31E-02	3.31E-02	3.31E-02	3.31E-02
1.04E-06	INFANT	CLOUD	1.04E-06	1.04E-06	1.04E-06	1.04E-06	1.04E-06
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00



**POWERTECH (USA) Inc.**

0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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3.31E-02	INFANT	TOTALS	5.22E+01	5.31E+01	4.09E+02	1.50E+00	1.65E+00
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG. LUNG	LIVER	KIDNEY
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0.00E+00	CHILD	INHAL.	2.55E+01	4.58E+01	1.96E+02	6.12E-01	6.20E-01
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3.31E-02	CHILD	GROUND	3.31E-02	3.31E-02	3.31E-02	3.31E-02	3.31E-02
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1.04E-06	CHILD	CLOUD	1.04E-06	1.04E-06	1.04E-06	1.04E-06	1.04E-06
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0.00E+00	CHILD	VEG. ING	2.06E-01	2.69E+00	1.65E-01	1.65E-01	6.51E-01
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0.00E+00	CHILD	MEAT ING	2.03E-02	2.80E-01	2.75E-02	2.75E-02	6.01E-02
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0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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3.31E-02	CHILD	TOTALS	2.57E+01	4.88E+01	1.97E+02	8.37E-01	1.36E+00
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG. LUNG	LIVER	KIDNEY
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0.00E+00	TEENAGE	INHAL.	1.42E+01	4.87E+01	1.02E+02	2.89E-01	3.40E-01
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3.31E-02	TEENAGE	GROUND	3.31E-02	3.31E-02	3.31E-02	3.31E-02	3.31E-02
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1.04E-06	TEENAGE	CLOUD	1.04E-06	1.04E-06	1.04E-06	1.04E-06	1.04E-06
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0.00E+00	TEENAGE	VEG. ING	3.41E-01	4.45E+00	2.71E-01	2.71E-01	1.08E+00
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0.00E+00	TEENAGE	MEAT ING	3.30E-02	4.54E-01	4.46E-02	4.46E-02	9.76E-02
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0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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3.31E-02	TEENAGE	TOTALS	1.46E+01	5.36E+01	1.03E+02	6.38E-01	1.55E+00
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG. LUNG	LIVER	KIDNEY
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0.00E+00	ADULT	INHAL.	1.21E+01	4.72E+01	8.52E+01	2.43E-01	2.69E-01
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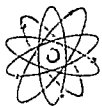
3.31E-02	ADULT	GROUND	3.31E-02	3.31E-02	3.31E-02	3.31E-02	3.31E-02
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1.04E-06	ADULT	CLOUD	1.04E-06	1.04E-06	1.04E-06	1.04E-06	1.04E-06
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0.00E+00	ADULT	VEG. ING	4.71E-01	6.15E+00	3.75E-01	3.75E-01	1.49E+00
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0.00E+00	ADULT	MEAT ING	5.76E-02	7.93E-01	7.80E-02	7.80E-02	1.71E-01
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0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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POWERTECH (USA) INC.

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-----  
3.31E-02 ADULT TOTALS 1.27E+01 5.42E+01 8.56E+01 7.29E-01 1.96E+00

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 54  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 12 NAME=CPP WSW

X= -1.3KM, Y= -0.5KM, Z= 0.0M, DIST= 1.4KM, IRTYPE=10

-----  
TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR  
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-----  
BRONCHI  
-----  
AGE PATHWAY EFFECTIV BONE AVG.LUNG LIVER KIDNEY  
-----  
2.68E+01 INFANT INHAL. 5.38E+01 5.31E+01 4.09E+02 1.56E+00 1.66E+00  
3.63E-01 INFANT GROUND 3.63E-01 3.63E-01 3.63E-01 3.63E-01 3.63E-01  
1.29E-01 INFANT CLOUD 1.29E-01 1.29E-01 1.29E-01 1.29E-01 1.29E-01  
0.00E+00 INFANT VEG. ING 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00  
0.00E+00 INFANT MEAT ING 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00  
0.00E+00 INFANT MILK ING 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00  
-----  
2.73E+01 INFANT TOTALS 5.43E+01 5.36E+01 4.09E+02 2.05E+00 2.15E+00

-----  
BRONCHI  
-----  
AGE PATHWAY EFFECTIV BONE AVG.LUNG LIVER KIDNEY  
-----  
2.68E+01 CHILD INHAL. 2.71E+01 4.58E+01 1.96E+02 6.57E-01 6.38E-01  
3.63E-01 CHILD GROUND 3.63E-01 3.63E-01 3.63E-01 3.63E-01 3.63E-01  
1.29E-01 CHILD CLOUD 1.29E-01 1.29E-01 1.29E-01 1.29E-01 1.29E-01  
0.00E+00 CHILD VEG. ING 2.08E-01 2.71E+00 1.69E-01 1.69E-01 6.55E-01  
0.00E+00 CHILD MEAT ING 2.05E-02 2.82E-01 2.82E-02 2.82E-02 6.07E-02  
0.00E+00 CHILD MILK ING 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00  
-----  
2.73E+01 CHILD TOTALS 2.78E+01 4.93E+01 1.97E+02 1.35E+00 1.85E+00

-----  
BRONCHI  
-----  
AGE PATHWAY EFFECTIV BONE AVG.LUNG LIVER KIDNEY  
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**POWERTECH (USA) INC.**

2.68E+01	TEENAGE	INHAL.	1.58E+01	4.87E+01	1.02E+02	3.08E-01	3.49E-01
3.63E-01	TEENAGE	GROUND	3.63E-01	3.63E-01	3.63E-01	3.63E-01	3.63E-01
1.29E-01	TEENAGE	CLOUD	1.29E-01	1.29E-01	1.29E-01	1.29E-01	1.29E-01
0.00E+00	TEENAGE	VEG. ING	3.43E-01	4.48E+00	2.79E-01	2.79E-01	1.08E+00
0.00E+00	TEENAGE	MEAT ING	3.33E-02	4.58E-01	4.58E-02	4.58E-02	9.86E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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2.73E+01	TEENAGE	TOTALS	1.67E+01	5.41E+01	1.03E+02	1.12E+00	2.02E+00
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	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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2.68E+01	ADULT	INHAL.	1.37E+01	4.72E+01	8.52E+01	2.59E-01	2.77E-01
3.63E-01	ADULT	GROUND	3.63E-01	3.63E-01	3.63E-01	3.63E-01	3.63E-01
1.29E-01	ADULT	CLOUD	1.29E-01	1.29E-01	1.29E-01	1.29E-01	1.29E-01
0.00E+00	ADULT	VEG. ING	4.74E-01	6.18E+00	3.85E-01	3.85E-01	1.50E+00
0.00E+00	ADULT	MEAT ING	5.82E-02	8.00E-01	8.00E-02	8.00E-02	1.72E-01
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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2.73E+01	ADULT	TOTALS	1.47E+01	5.47E+01	8.61E+01	1.22E+00	2.44E+00
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1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 55  
08/21/08

DURATION IN YRS IS... 5.0

NUMBER 13 NAME=CPP W X= -2.1KM, Y= 0.0KM, Z= 0.0M, DIST= 2.1KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

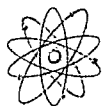
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	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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0.00E+00	INFANT	INHAL.	2.98E+01	3.04E+01	2.34E+02	8.36E-01	9.24E-01
1.89E-02	INFANT	GROUND	1.89E-02	1.89E-02	1.89E-02	1.89E-02	1.89E-02
5.93E-07	INFANT	CLOUD	5.93E-07	5.93E-07	5.93E-07	5.93E-07	5.93E-07
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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**POWERTECH (USA) Inc.**

1.89E-02	INFANT	TOTALS	2.98E+01	3.04E+01	2.34E+02	8.55E-01	9.43E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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0.00E+00	CHILD	INHAL.	1.46E+01	2.62E+01	1.12E+02	3.50E-01	3.55E-01
1.89E-02	CHILD	GROUND	1.89E-02	1.89E-02	1.89E-02	1.89E-02	1.89E-02
5.93E-07	CHILD	CLOUD	5.93E-07	5.93E-07	5.93E-07	5.93E-07	5.93E-07
0.00E+00	CHILD	VEG. ING	1.18E-01	1.54E+00	9.41E-02	9.41E-02	3.72E-01
0.00E+00	CHILD	MEAT ING	1.16E-02	1.60E-01	1.57E-02	1.57E-02	3.44E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1.89E-02	CHILD	TOTALS	1.47E+01	2.79E+01	1.12E+02	4.79E-01	7.80E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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0.00E+00	TEENAGE	INHAL.	8.12E+00	2.78E+01	5.85E+01	1.65E-01	1.94E-01
1.89E-02	TEENAGE	GROUND	1.89E-02	1.89E-02	1.89E-02	1.89E-02	1.89E-02
5.93E-07	TEENAGE	CLOUD	5.93E-07	5.93E-07	5.93E-07	5.93E-07	5.93E-07
0.00E+00	TEENAGE	VEG. ING	1.95E-01	2.55E+00	1.55E-01	1.55E-01	6.16E-01
0.00E+00	TEENAGE	MEAT ING	1.89E-02	2.59E-01	2.55E-02	2.55E-02	5.58E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1.89E-02	TEENAGE	TOTALS	8.36E+00	3.07E+01	5.87E+01	3.65E-01	8.85E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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0.00E+00	ADULT	INHAL.	6.91E+00	2.70E+01	4.87E+01	1.39E-01	1.54E-01
1.89E-02	ADULT	GROUND	1.89E-02	1.89E-02	1.89E-02	1.89E-02	1.89E-02

5.93E-07	ADULT	CLOUD	5.93E-07	5.93E-07	5.93E-07	5.93E-07	5.93E-07
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0.00E+00	ADULT	VEG. ING	2.69E-01	3.51E+00	2.14E-01	2.14E-01	8.50E-01
0.00E+00	ADULT	MEAT ING	3.30E-02	4.53E-01	4.46E-02	4.46E-02	9.75E-02
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00



# POWERTech (USA) Inc.

1.89E-02 ADULT TOTALS 7.23E+00 3.10E+01 4.89E+01 4.17E-01 1.12E+00

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 56  
08/21/08

DURATION IN YRS IS... 5.0

NUMBER 13 NAME=CPP W

X= -2.1KM, Y= 0.0KM, Z= 0.0M, DIST= 2.1KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

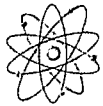
	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
2.94E+01	INFANT	INHAL.	3.16E+01	3.04E+01	2.34E+02	9.41E-01	9.65E-01
2.09E-01	INFANT	GROUND	2.09E-01	2.09E-01	2.09E-01	2.09E-01	2.09E-01
1.59E-01	INFANT	CLOUD	1.59E-01	1.59E-01	1.59E-01	1.59E-01	1.59E-01
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

2.98E+01	INFANT	TOTALS	3.20E+01	3.08E+01	2.34E+02	1.31E+00	1.33E+00
	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
2.94E+01	CHILD	INHAL.	1.63E+01	2.62E+01	1.12E+02	3.97E-01	3.74E-01
2.09E-01	CHILD	GROUND	2.09E-01	2.09E-01	2.09E-01	2.09E-01	2.09E-01
1.59E-01	CHILD	CLOUD	1.59E-01	1.59E-01	1.59E-01	1.59E-01	1.59E-01
0.00E+00	CHILD	VEG. ING	1.19E-01	1.56E+00	9.88E-02	9.88E-02	3.76E-01
0.00E+00	CHILD	MEAT ING	1.18E-02	1.62E-01	1.65E-02	1.65E-02	3.50E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

2.98E+01	CHILD	TOTALS	1.68E+01	2.83E+01	1.13E+02	8.80E-01	1.15E+00
	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							

2.94E+01	TEENAGE	INHAL.	9.89E+00	2.79E+01	5.85E+01	1.85E-01	2.04E-01
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**POWERTECH (USA) Inc.**

2.09E-01	TEENAGE	GROUND	2.09E-01	2.09E-01	2.09E-01	2.09E-01	2.09E-01
1.59E-01	TEENAGE	CLOUD	1.59E-01	1.59E-01	1.59E-01	1.59E-01	1.59E-01
0.00E+00	TEENAGE	VEG. ING	1.97E-01	2.57E+00	1.63E-01	1.63E-01	6.22E-01
0.00E+00	TEENAGE	MEAT ING	1.92E-02	2.64E-01	2.67E-02	2.67E-02	5.68E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

2.98E+01	TEENAGE	TOTALS	1.05E+01	3.11E+01	5.90E+01	7.43E-01	1.25E+00
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	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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2.94E+01	ADULT	INHAL.	8.68E+00	2.70E+01	4.87E+01	1.55E-01	1.62E-01
2.09E-01	ADULT	GROUND	2.09E-01	2.09E-01	2.09E-01	2.09E-01	2.09E-01
1.59E-01	ADULT	CLOUD	1.59E-01	1.59E-01	1.59E-01	1.59E-01	1.59E-01
0.00E+00	ADULT	VEG. ING	2.72E-01	3.55E+00	2.25E-01	2.25E-01	8.59E-01
0.00E+00	ADULT	MEAT ING	3.36E-02	4.61E-01	4.67E-02	4.67E-02	9.93E-02
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

2.98E+01	ADULT	TOTALS	9.35E+00	3.14E+01	4.93E+01	7.95E-01	1.49E+00
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1REGION: Dewey Burdock  
METSET:

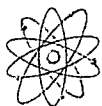
CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 57  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 14 NAME=CPP WNW X= -2.1KM, Y= 0.9KM, Z= 0.0M, DIST= 2.2KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
0.00E+00	INFANT	INHAL.	3.38E+01	3.44E+01	2.64E+02	9.47E-01	1.05E+00
2.14E-02	INFANT	GROUND	2.14E-02	2.14E-02	2.14E-02	2.14E-02	2.14E-02
6.71E-07	INFANT	CLOUD	6.71E-07	6.71E-07	6.71E-07	6.71E-07	6.71E-07
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00



POWERTECH (USA) INC.

2.14E-02	INFANT	TOTALS	3.38E+01	3.44E+01	2.65E+02	9.68E-01	1.07E+00
0.00E+00	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
-----							
0.00E+00	CHILD	INHAL.	1.65E+01	2.97E+01	1.27E+02	3.96E-01	4.01E-01
2.14E-02	CHILD	GROUND	2.14E-02	2.14E-02	2.14E-02	2.14E-02	2.14E-02
6.71E-07	CHILD	CLOUD	6.71E-07	6.71E-07	6.71E-07	6.71E-07	6.71E-07
0.00E+00	CHILD	VEG. ING	1.34E-01	1.74E+00	1.07E-01	1.07E-01	4.21E-01
0.00E+00	CHILD	MEAT ING	1.31E-02	1.81E-01	1.78E-02	1.78E-02	3.89E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
2.14E-02	CHILD	TOTALS	1.66E+01	3.16E+01	1.27E+02	5.42E-01	8.83E-01
0.00E+00	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
-----							
0.00E+00	TEENAGE	INHAL.	9.19E+00	3.15E+01	6.62E+01	1.87E-01	2.20E-01
2.14E-02	TEENAGE	GROUND	2.14E-02	2.14E-02	2.14E-02	2.14E-02	2.14E-02
6.71E-07	TEENAGE	CLOUD	6.71E-07	6.71E-07	6.71E-07	6.71E-07	6.71E-07
0.00E+00	TEENAGE	VEG. ING	2.21E-01	2.88E+00	1.76E-01	1.76E-01	6.97E-01
0.00E+00	TEENAGE	MEAT ING	2.13E-02	2.94E-01	2.89E-02	2.89E-02	6.32E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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2.14E-02	TEENAGE	TOTALS	9.46E+00	3.47E+01	6.64E+01	4.13E-01	1.00E+00
0.00E+00	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
-----							
0.00E+00	ADULT	INHAL.	7.82E+00	3.06E+01	5.51E+01	1.57E-01	1.74E-01
2.14E-02	ADULT	GROUND	2.14E-02	2.14E-02	2.14E-02	2.14E-02	2.14E-02
6.71E-07	ADULT	CLOUD	6.71E-07	6.71E-07	6.71E-07	6.71E-07	6.71E-07
0.00E+00	ADULT	VEG. ING	3.05E-01	3.98E+00	2.43E-01	2.43E-01	9.63E-01
0.00E+00	ADULT	MEAT ING	3.73E-02	5.13E-01	5.05E-02	5.05E-02	1.10E-01
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
2.14E-02	ADULT	TOTALS	8.18E+00	3.51E+01	5.54E+01	4.72E-01	1.27E+00



**POWERTECH (USA) INC.**

METSET:

DATA: DB.MIL  
TIME STEP NUMBER 1,

08/21/08

DURATION IN YRS IS... 5.0

NUMBER 14 NAME=CPP WNW X= -2.1KM, Y= 0.9KM, Z= 0.0M, DIST= 2.2KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

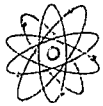
	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
-----							
	INFANT	INHAL.	3.56E+01	3.44E+01	2.64E+02	1.03E+00	1.08E+00
3.09E+01	INFANT	GROUND	2.36E-01	2.36E-01	2.36E-01	2.36E-01	2.36E-01
2.36E-01	INFANT	CLOUD	1.51E-01	1.51E-01	1.51E-01	1.51E-01	1.51E-01
1.51E-01	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00							

-----							
	INFANT	TOTALS	3.60E+01	3.48E+01	2.65E+02	1.41E+00	1.46E+00
3.13E+01							

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
-----							
	CHILD	INHAL.	1.83E+01	2.97E+01	1.27E+02	4.32E-01	4.16E-01
3.09E+01	CHILD	GROUND	2.36E-01	2.36E-01	2.36E-01	2.36E-01	2.36E-01
2.36E-01	CHILD	CLOUD	1.51E-01	1.51E-01	1.51E-01	1.51E-01	1.51E-01
1.51E-01	CHILD	VEG. ING	1.35E-01	1.75E+00	1.10E-01	1.10E-01	4.24E-01
0.00E+00	CHILD	MEAT ING	1.33E-02	1.83E-01	1.84E-02	1.84E-02	3.94E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00							

-----							
	CHILD	TOTALS	1.89E+01	3.20E+01	1.28E+02	9.48E-01	1.27E+00
3.13E+01							

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
-----							
	TEENAGE	INHAL.	1.11E+01	3.15E+01	6.62E+01	2.02E-01	2.27E-01
3.09E+01	TEENAGE	GROUND	2.36E-01	2.36E-01	2.36E-01	2.36E-01	2.36E-01
2.36E-01	TEENAGE	CLOUD	1.51E-01	1.51E-01	1.51E-01	1.51E-01	1.51E-01
1.51E-01	TEENAGE	VEG. ING	2.23E-01	2.90E+00	1.82E-01	1.82E-01	7.02E-01
0.00E+00	TEENAGE	MEAT ING	2.16E-02	2.97E-01	2.98E-02	2.98E-02	6.39E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00							



POWERTECH (USA) INC.

```
-----
3.13E+01  TEENAGE  TOTALS  1.17E+01  3.51E+01  6.68E+01  8.01E-01  1.38E+00
BRONCHI  AGE  PATHWAY  EFFECTIV  BONE  AVG.LUNG  LIVER  KIDNEY
-----
```

```
-----
3.09E+01  ADULT  INHAL.  9.68E+00  3.06E+01  5.51E+01  1.70E-01  1.80E-01
2.36E-01  ADULT  GROUND  2.36E-01  2.36E-01  2.36E-01  2.36E-01  2.36E-01
1.51E-01  ADULT  CLOUD  1.51E-01  1.51E-01  1.51E-01  1.51E-01  1.51E-01
0.00E+00  ADULT  VEG. ING  3.07E-01  4.01E+00  2.51E-01  2.51E-01  9.69E-01
0.00E+00  ADULT  MEAT ING  3.78E-02  5.19E-01  5.21E-02  5.21E-02  1.12E-01
0.00E+00  ADULT  MILK ING  0.00E+00  0.00E+00  0.00E+00  0.00E+00  0.00E+00
-----
```

```
-----
3.13E+01  ADULT  TOTALS  1.04E+01  3.55E+01  5.58E+01  8.60E-01  1.65E+00
-----
```

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 59  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 15 NAME=CPP NW

X= -2.4KM, Y= 2.5KM, Z= 0.0M, DIST= 3.4KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

```
-----
BRONCHI  AGE  PATHWAY  EFFECTIV  BONE  AVG.LUNG  LIVER  KIDNEY
-----
0.00E+00  INFANT  INHAL.  3.41E+01  3.48E+01  2.67E+02  9.58E-01  1.06E+00
2.17E-02  INFANT  GROUND  2.17E-02  2.17E-02  2.17E-02  2.17E-02  2.17E-02
6.79E-07  INFANT  CLOUD  6.79E-07  6.79E-07  6.79E-07  6.79E-07  6.79E-07
0.00E+00  INFANT  VEG. ING  0.00E+00  0.00E+00  0.00E+00  0.00E+00  0.00E+00
0.00E+00  INFANT  MEAT ING  0.00E+00  0.00E+00  0.00E+00  0.00E+00  0.00E+00
0.00E+00  INFANT  MILK ING  0.00E+00  0.00E+00  0.00E+00  0.00E+00  0.00E+00
-----
```

```
-----
2.17E-02  INFANT  TOTALS  3.42E+01  3.48E+01  2.67E+02  9.80E-01  1.08E+00
BRONCHI  AGE  PATHWAY  EFFECTIV  BONE  AVG.LUNG  LIVER  KIDNEY
-----
```



PowerTECH (USA) Inc.

0.00E+00	CHILD	INHAL.	1.67E+01	3.00E+01	1.28E+02	4.01E-01	4.06E-01
2.17E-02	CHILD	GROUND	2.17E-02	2.17E-02	2.17E-02	2.17E-02	2.17E-02
6.79E-07	CHILD	CLOUD	6.79E-07	6.79E-07	6.79E-07	6.79E-07	6.79E-07
0.00E+00	CHILD	VEG. ING	1.35E-01	1.76E+00	1.08E-01	1.08E-01	4.26E-01
0.00E+00	CHILD	MEAT ING	1.33E-02	1.83E-01	1.80E-02	1.80E-02	3.94E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

2.17E-02	CHILD	TOTALS	1.68E+01	3.20E+01	1.29E+02	5.49E-01	8.93E-01
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG. LUNG	LIVER	KIDNEY
0.00E+00	TEENAGE	INHAL.	9.30E+00	3.19E+01	6.69E+01	1.89E-01	2.22E-01
2.17E-02	TEENAGE	GROUND	2.17E-02	2.17E-02	2.17E-02	2.17E-02	2.17E-02
6.79E-07	TEENAGE	CLOUD	6.79E-07	6.79E-07	6.79E-07	6.79E-07	6.79E-07
0.00E+00	TEENAGE	VEG. ING	2.23E-01	2.91E+00	1.78E-01	1.78E-01	7.05E-01
0.00E+00	TEENAGE	MEAT ING	2.16E-02	2.97E-01	2.92E-02	2.92E-02	6.39E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

2.17E-02	TEENAGE	TOTALS	9.57E+00	3.51E+01	6.72E+01	4.18E-01	1.01E+00
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG. LUNG	LIVER	KIDNEY
0.00E+00	ADULT	INHAL.	7.91E+00	3.09E+01	5.57E+01	1.59E-01	1.76E-01
2.17E-02	ADULT	GROUND	2.17E-02	2.17E-02	2.17E-02	2.17E-02	2.17E-02
6.79E-07	ADULT	CLOUD	6.79E-07	6.79E-07	6.79E-07	6.79E-07	6.79E-07
0.00E+00	ADULT	VEG. ING	3.08E-01	4.02E+00	2.46E-01	2.46E-01	9.73E-01
0.00E+00	ADULT	MEAT ING	3.77E-02	5.19E-01	5.11E-02	5.11E-02	1.12E-01
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2.17E-02	ADULT	TOTALS	8.28E+00	3.55E+01	5.60E+01	4.77E-01	1.28E+00

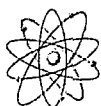
1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 60  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 15 NAME=CPP NW

X= -2.4KM, Y= 2.5KM, Z= 0.0M, DIST= 3.4KM, IRTYPE=10



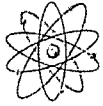
**POWERTECH (USA) Inc.**

-----  
TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR  
-----

-----	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
-----							
3.55E+01	INFANT	INHAL.	3.63E+01	3.48E+01	2.67E+02	1.00E+00	1.08E+00
2.39E-01	INFANT	GROUND	2.39E-01	2.39E-01	2.39E-01	2.39E-01	2.39E-01
1.15E-01	INFANT	CLOUD	1.15E-01	1.15E-01	1.15E-01	1.15E-01	1.15E-01
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

3.59E+01	INFANT	TOTALS	3.66E+01	3.51E+01	2.68E+02	1.36E+00	1.43E+00
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
3.55E+01	CHILD	INHAL.	1.88E+01	3.00E+01	1.28E+02	4.21E-01	4.14E-01
2.39E-01	CHILD	GROUND	2.39E-01	2.39E-01	2.39E-01	2.39E-01	2.39E-01
1.15E-01	CHILD	CLOUD	1.15E-01	1.15E-01	1.15E-01	1.15E-01	1.15E-01
0.00E+00	CHILD	VEG. ING	1.36E-01	1.77E+00	1.10E-01	1.10E-01	4.28E-01
0.00E+00	CHILD	MEAT ING	1.34E-02	1.84E-01	1.83E-02	1.83E-02	3.96E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

3.59E+01	CHILD	TOTALS	1.93E+01	3.23E+01	1.29E+02	9.03E-01	1.24E+00
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
3.55E+01	TEENAGE	INHAL.	1.14E+01	3.19E+01	6.69E+01	1.98E-01	2.26E-01
2.39E-01	TEENAGE	GROUND	2.39E-01	2.39E-01	2.39E-01	2.39E-01	2.39E-01
1.15E-01	TEENAGE	CLOUD	1.15E-01	1.15E-01	1.15E-01	1.15E-01	1.15E-01
0.00E+00	TEENAGE	VEG. ING	2.24E-01	2.93E+00	1.81E-01	1.81E-01	7.08E-01
0.00E+00	TEENAGE	MEAT ING	2.17E-02	2.99E-01	2.98E-02	2.98E-02	6.43E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00



POWERTECH (USA) INC.

```
-----
3.59E+01  TEENAGE  TOTALS  1.20E+01  3.55E+01  6.75E+01  7.63E-01  1.35E+00
BRONCHI
AGE  PATHWAY  EFFECTIV  BONE  AVG.LUNG  LIVER  KIDNEY
-----
3.55E+01  ADULT  INHAL.  1.00E+01  3.09E+01  5.57E+01  1.66E-01  1.80E-01
2.39E-01  ADULT  GROUND  2.39E-01  2.39E-01  2.39E-01  2.39E-01  2.39E-01
1.15E-01  ADULT  CLOUD  1.15E-01  1.15E-01  1.15E-01  1.15E-01  1.15E-01
0.00E+00  ADULT  VEG. ING  3.10E-01  4.04E+00  2.50E-01  2.50E-01  9.77E-01
0.00E+00  ADULT  MEAT ING  3.80E-02  5.22E-01  5.20E-02  5.20E-02  1.12E-01
0.00E+00  ADULT  MILK ING  0.00E+00  0.00E+00  0.00E+00  0.00E+00  0.00E+00
-----
3.59E+01  ADULT  TOTALS  1.07E+01  3.59E+01  5.64E+01  8.22E-01  1.62E+00
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1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

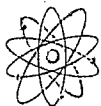
PAGE 61  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 16 NAME=CPP NNW

X= -1.1KM, Y= 2.9KM, Z= 0.0M, DIST= 3.1KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

```
-----
BRONCHI
AGE  PATHWAY  EFFECTIV  BONE  AVG.LUNG  LIVER  KIDNEY
-----
0.00E+00  INFANT  INHAL.  2.56E+01  2.61E+01  2.01E+02  7.19E-01  7.94E-01
1.63E-02  INFANT  GROUND  1.63E-02  1.63E-02  1.63E-02  1.63E-02  1.63E-02
5.10E-07  INFANT  CLOUD  5.10E-07  5.10E-07  5.10E-07  5.10E-07  5.10E-07
0.00E+00  INFANT  VEG. ING  0.00E+00  0.00E+00  0.00E+00  0.00E+00  0.00E+00
0.00E+00  INFANT  MEAT ING  0.00E+00  0.00E+00  0.00E+00  0.00E+00  0.00E+00
0.00E+00  INFANT  MILK ING  0.00E+00  0.00E+00  0.00E+00  0.00E+00  0.00E+00
-----
1.63E-02  INFANT  TOTALS  2.57E+01  2.61E+01  2.01E+02  7.35E-01  8.11E-01
BRONCHI
AGE  PATHWAY  EFFECTIV  BONE  AVG.LUNG  LIVER  KIDNEY
-----
0.00E+00  CHILD  INHAL.  1.25E+01  2.25E+01  9.65E+01  3.01E-01  3.05E-01
```



**POWERTECH (USA) INC.**

1.63E-02	CHILD	GROUND	1.63E-02	1.63E-02	1.63E-02	1.63E-02	1.63E-02
5.10E-07	CHILD	CLOUD	5.10E-07	5.10E-07	5.10E-07	5.10E-07	5.10E-07
0.00E+00	CHILD	VEG. ING	1.01E-01	1.32E+00	8.09E-02	8.09E-02	3.20E-01
0.00E+00	CHILD	MEAT ING	9.99E-03	1.37E-01	1.35E-02	1.35E-02	2.96E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1.63E-02	CHILD	TOTALS	1.26E+01	2.40E+01	9.66E+01	4.12E-01	6.71E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG. LUNG	LIVER	KIDNEY
---------	-----	---------	----------	------	-----------	-------	--------

0.00E+00	TEENAGE	INHAL.	6.98E+00	2.39E+01	5.03E+01	1.42E-01	1.67E-01
1.63E-02	TEENAGE	GROUND	1.63E-02	1.63E-02	1.63E-02	1.63E-02	1.63E-02
5.10E-07	TEENAGE	CLOUD	5.10E-07	5.10E-07	5.10E-07	5.10E-07	5.10E-07
0.00E+00	TEENAGE	VEG. ING	1.68E-01	2.19E+00	1.33E-01	1.33E-01	5.29E-01
0.00E+00	TEENAGE	MEAT ING	1.62E-02	2.23E-01	2.19E-02	2.19E-02	4.80E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1.63E-02	TEENAGE	TOTALS	7.18E+00	2.64E+01	5.05E+01	3.14E-01	7.61E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG. LUNG	LIVER	KIDNEY
---------	-----	---------	----------	------	-----------	-------	--------

0.00E+00	ADULT	INHAL.	5.94E+00	2.32E+01	4.18E+01	1.19E-01	1.32E-01
1.63E-02	ADULT	GROUND	1.63E-02	1.63E-02	1.63E-02	1.63E-02	1.63E-02
5.10E-07	ADULT	CLOUD	5.10E-07	5.10E-07	5.10E-07	5.10E-07	5.10E-07
0.00E+00	ADULT	VEG. ING	2.32E-01	3.02E+00	1.84E-01	1.84E-01	7.31E-01
0.00E+00	ADULT	MEAT ING	2.83E-02	3.90E-01	3.83E-02	3.83E-02	8.39E-02
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1.63E-02	ADULT	TOTALS	6.22E+00	2.66E+01	4.21E+01	3.58E-01	9.64E-01
----------	-------	--------	----------	----------	----------	----------	----------

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

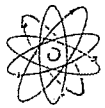
PAGE 62  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 16 NAME=CPP NNW

X= -1.1KM, Y= 2.9KM, Z= 0.0M, DIST= 3.1KM, IRTYPE=10



[illegible]



POWERTECH (USA) Inc.

2.01E+01	TEENAGE	TOTALS	8.64E+00	2.66E+01	5.07E+01	5.89E-01	1.03E+00
	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
-----							
1.98E+01	ADULT	INHAL.	7.13E+00	2.32E+01	4.18E+01	1.28E-01	1.36E-01
1.79E-01	ADULT	GROUND	1.79E-01	1.79E-01	1.79E-01	1.79E-01	1.79E-01
9.77E-02	ADULT	CLOUD	9.77E-02	9.77E-02	9.77E-02	9.77E-02	9.77E-02
0.00E+00	ADULT	VEG. ING	2.33E-01	3.04E+00	1.90E-01	1.90E-01	7.36E-01
0.00E+00	ADULT	MEAT ING	2.86E-02	3.93E-01	3.94E-02	3.94E-02	8.47E-02
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
2.01E+01	ADULT	TOTALS	7.67E+00	2.69E+01	4.24E+01	6.34E-01	1.23E+00

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)

PAGE 63

DATA: DB.MIL

08/21/08

TIME STEP NUMBER 1,

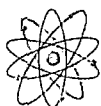
DURATION IN YRS IS... 5.0

NUMBER 17 NAME=SF N

X= -5.0KM, Y= 4.6KM, Z= 0.0M, DIST= 6.8KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
-----							
0.00E+00	INFANT	INHAL.	2.43E+01	2.48E+01	1.91E+02	6.83E-01	7.55E-01
1.54E-02	INFANT	GROUND	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02
4.84E-07	INFANT	CLOUD	4.84E-07	4.84E-07	4.84E-07	4.84E-07	4.84E-07
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
1.54E-02	INFANT	TOTALS	2.44E+01	2.48E+01	1.91E+02	6.99E-01	7.70E-01
	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
-----							
0.00E+00	CHILD	INHAL.	1.19E+01	2.14E+01	9.16E+01	2.86E-01	2.89E-01
1.54E-02	CHILD	GROUND	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02



**POWERTECH (USA) Inc.**

4.84E-07	CHILD	CLOUD	4.84E-07	4.84E-07	4.84E-07	4.84E-07	4.84E-07
0.00E+00	CHILD	VEG. ING	9.63E-02	1.26E+00	7.69E-02	7.69E-02	3.04E-01
0.00E+00	CHILD	MEAT ING	9.49E-03	1.31E-01	1.29E-02	1.29E-02	2.81E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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1.54E-02	CHILD	TOTALS	1.20E+01	2.28E+01	9.17E+01	3.91E-01	6.37E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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0.00E+00	TEENAGE	INHAL.	6.63E+00	2.28E+01	4.77E+01	1.35E-01	1.59E-01
1.54E-02	TEENAGE	GROUND	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02
4.84E-07	TEENAGE	CLOUD	4.84E-07	4.84E-07	4.84E-07	4.84E-07	4.84E-07
0.00E+00	TEENAGE	VEG. ING	1.59E-01	2.08E+00	1.27E-01	1.27E-01	5.02E-01
0.00E+00	TEENAGE	MEAT ING	1.54E-02	2.12E-01	2.09E-02	2.09E-02	4.56E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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1.54E-02	TEENAGE	TOTALS	6.82E+00	2.51E+01	4.79E+01	2.98E-01	7.22E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
---------	-----	---------	----------	------	----------	-------	--------

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0.00E+00	ADULT	INHAL.	5.64E+00	2.21E+01	3.97E+01	1.13E-01	1.26E-01
1.54E-02	ADULT	GROUND	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02
4.84E-07	ADULT	CLOUD	4.84E-07	4.84E-07	4.84E-07	4.84E-07	4.84E-07
0.00E+00	ADULT	VEG. ING	2.20E-01	2.87E+00	1.75E-01	1.75E-01	6.94E-01
0.00E+00	ADULT	MEAT ING	2.69E-02	3.70E-01	3.65E-02	3.65E-02	7.96E-02
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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1.54E-02	ADULT	TOTALS	5.90E+00	2.53E+01	3.99E+01	3.41E-01	9.15E-01
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1REGION: Dewey Burdock  
METSET:

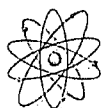
CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 64  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 17 NAME=SF N

X= -5.0KM, Y= 4.6KM, Z= 0.0M, DIST= 6.8KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR



POWERTECH (USA) INC.

-----							
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG. LUNG	LIVER	KIDNEY
-----							
2.64E+01	INFANT	INHAL.	2.59E+01	2.48E+01	1.91E+02	7.16E-01	7.67E-01
1.71E-01	INFANT	GROUND	1.71E-01	1.71E-01	1.71E-01	1.71E-01	1.71E-01
5.86E-02	INFANT	CLOUD	5.86E-02	5.86E-02	5.86E-02	5.86E-02	5.86E-02
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
2.66E+01	INFANT	TOTALS	2.62E+01	2.50E+01	1.91E+02	9.46E-01	9.97E-01
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG. LUNG	LIVER	KIDNEY
-----							
2.64E+01	CHILD	INHAL.	1.35E+01	2.14E+01	9.16E+01	3.01E-01	2.95E-01
1.71E-01	CHILD	GROUND	1.71E-01	1.71E-01	1.71E-01	1.71E-01	1.71E-01
5.86E-02	CHILD	CLOUD	5.86E-02	5.86E-02	5.86E-02	5.86E-02	5.86E-02
0.00E+00	CHILD	VEG. ING	9.67E-02	1.26E+00	7.84E-02	7.84E-02	3.05E-01
0.00E+00	CHILD	MEAT ING	9.56E-03	1.31E-01	1.31E-02	1.31E-02	2.83E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
2.66E+01	CHILD	TOTALS	1.38E+01	2.31E+01	9.19E+01	6.22E-01	8.58E-01
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG. LUNG	LIVER	KIDNEY
-----							
2.64E+01	TEENAGE	INHAL.	8.21E+00	2.28E+01	4.77E+01	1.41E-01	1.62E-01
1.71E-01	TEENAGE	GROUND	1.71E-01	1.71E-01	1.71E-01	1.71E-01	1.71E-01
5.86E-02	TEENAGE	CLOUD	5.86E-02	5.86E-02	5.86E-02	5.86E-02	5.86E-02
0.00E+00	TEENAGE	VEG. ING	1.60E-01	2.09E+00	1.29E-01	1.29E-01	5.04E-01
0.00E+00	TEENAGE	MEAT ING	1.55E-02	2.13E-01	2.12E-02	2.12E-02	4.59E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
2.66E+01	TEENAGE	TOTALS	8.62E+00	2.53E+01	4.81E+01	5.21E-01	9.41E-01



POWERTECH (USA) INC.

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
-----							
2.64E+01	ADULT	INHAL.	7.22E+00	2.21E+01	3.97E+01	1.19E-01	1.28E-01
1.71E-01	ADULT	GROUND	1.71E-01	1.71E-01	1.71E-01	1.71E-01	1.71E-01
5.86E-02	ADULT	CLOUD	5.86E-02	5.86E-02	5.86E-02	5.86E-02	5.86E-02
0.00E+00	ADULT	VEG. ING	2.21E-01	2.88E+00	1.79E-01	1.79E-01	6.97E-01
0.00E+00	ADULT	MEAT ING	2.71E-02	3.73E-01	3.71E-02	3.71E-02	8.02E-02
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
2.66E+01	ADULT	TOTALS	7.70E+00	2.56E+01	4.02E+01	5.64E-01	1.13E+00

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 65  
08/21/08  
DURATION IN YRS IS... 5.0

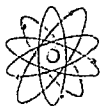
NUMBER 18 NAME=SF NNE

X= -4.6KM, Y= 4.6KM, Z= 0.0M, DIST= 6.4KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
-----							
0.00E+00	INFANT	INHAL.	2.73E+01	2.78E+01	2.14E+02	7.66E-01	8.46E-01
1.73E-02	INFANT	GROUND	1.73E-02	1.73E-02	1.73E-02	1.73E-02	1.73E-02
5.42E-07	INFANT	CLOUD	5.42E-07	5.42E-07	5.42E-07	5.42E-07	5.42E-07
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
1.73E-02	INFANT	TOTALS	2.73E+01	2.78E+01	2.14E+02	7.84E-01	8.64E-01

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
-----							
0.00E+00	CHILD	INHAL.	1.33E+01	2.40E+01	1.03E+02	3.21E-01	3.25E-01
1.73E-02	CHILD	GROUND	1.73E-02	1.73E-02	1.73E-02	1.73E-02	1.73E-02
5.42E-07	CHILD	CLOUD	5.42E-07	5.42E-07	5.42E-07	5.42E-07	5.42E-07



**POWERTECH (USA) Inc.**

0.00E+00	CHILD	VEG. ING	1.08E-01	1.41E+00	8.62E-02	8.62E-02	3.41E-01
0.00E+00	CHILD	MEAT ING	1.06E-02	1.46E-01	1.44E-02	1.44E-02	3.15E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1.73E-02	CHILD	TOTALS	1.35E+01	2.56E+01	1.03E+02	4.39E-01	7.14E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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0.00E+00	TEENAGE	INHAL.	7.43E+00	2.55E+01	5.35E+01	1.52E-01	1.78E-01
1.73E-02	TEENAGE	GROUND	1.73E-02	1.73E-02	1.73E-02	1.73E-02	1.73E-02
5.42E-07	TEENAGE	CLOUD	5.42E-07	5.42E-07	5.42E-07	5.42E-07	5.42E-07
0.00E+00	TEENAGE	VEG. ING	1.79E-01	2.33E+00	1.42E-01	1.42E-01	5.63E-01
0.00E+00	TEENAGE	MEAT ING	1.73E-02	2.38E-01	2.34E-02	2.34E-02	5.11E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1.73E-02	TEENAGE	TOTALS	7.65E+00	2.81E+01	5.37E+01	3.34E-01	8.10E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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0.00E+00	ADULT	INHAL.	6.32E+00	2.47E+01	4.45E+01	1.27E-01	1.41E-01
1.73E-02	ADULT	GROUND	1.73E-02	1.73E-02	1.73E-02	1.73E-02	1.73E-02
5.42E-07	ADULT	CLOUD	5.42E-07	5.42E-07	5.42E-07	5.42E-07	5.42E-07
0.00E+00	ADULT	VEG. ING	2.47E-01	3.22E+00	1.96E-01	1.96E-01	7.78E-01
0.00E+00	ADULT	MEAT ING	3.02E-02	4.15E-01	4.09E-02	4.09E-02	8.93E-02
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1.73E-02	ADULT	TOTALS	6.62E+00	2.84E+01	4.48E+01	3.82E-01	1.03E+00
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1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 66  
08/21/08

DURATION IN YRS IS... 5.0

NUMBER 18 NAME=SF NNE

X= -4.6KM, Y= 4.6KM, Z= 0.0M, DIST= 6.4KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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**POWERTECH (USA) Inc.**

2.52E+01	INFANT	INHAL.	2.88E+01	2.78E+01	2.14E+02	7.98E-01	8.59E-01
1.91E-01	INFANT	GROUND	1.91E-01	1.91E-01	1.91E-01	1.91E-01	1.91E-01
5.59E-02	INFANT	CLOUD	5.59E-02	5.59E-02	5.59E-02	5.59E-02	5.59E-02
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

2.55E+01	INFANT	TOTALS	2.91E+01	2.81E+01	2.14E+02	1.05E+00	1.11E+00
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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2.52E+01	CHILD	INHAL.	1.48E+01	2.40E+01	1.03E+02	3.35E-01	3.30E-01
1.91E-01	CHILD	GROUND	1.91E-01	1.91E-01	1.91E-01	1.91E-01	1.91E-01
5.59E-02	CHILD	CLOUD	5.59E-02	5.59E-02	5.59E-02	5.59E-02	5.59E-02
0.00E+00	CHILD	VEG. ING	1.08E-01	1.41E+00	8.77E-02	8.77E-02	3.42E-01
0.00E+00	CHILD	MEAT ING	1.07E-02	1.47E-01	1.46E-02	1.46E-02	3.17E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

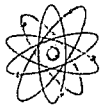
2.55E+01	CHILD	TOTALS	1.52E+01	2.58E+01	1.03E+02	6.84E-01	9.51E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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2.52E+01	TEENAGE	INHAL.	8.95E+00	2.55E+01	5.35E+01	1.58E-01	1.81E-01
1.91E-01	TEENAGE	GROUND	1.91E-01	1.91E-01	1.91E-01	1.91E-01	1.91E-01
5.59E-02	TEENAGE	CLOUD	5.59E-02	5.59E-02	5.59E-02	5.59E-02	5.59E-02
0.00E+00	TEENAGE	VEG. ING	1.79E-01	2.34E+00	1.45E-01	1.45E-01	5.65E-01
0.00E+00	TEENAGE	MEAT ING	1.74E-02	2.39E-01	2.38E-02	2.38E-02	5.14E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

2.55E+01	TEENAGE	TOTALS	9.39E+00	2.83E+01	5.39E+01	5.73E-01	1.04E+00
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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**POWERTECH (USA) Inc.**

2.52E+01	ADULT	INHAL.	7.84E+00	2.48E+01	4.45E+01	1.32E-01	1.43E-01
1.91E-01	ADULT	GROUND	1.91E-01	1.91E-01	1.91E-01	1.91E-01	1.91E-01
5.59E-02	ADULT	CLOUD	5.59E-02	5.59E-02	5.59E-02	5.59E-02	5.59E-02
0.00E+00	ADULT	VEG. ING	2.48E-01	3.23E+00	2.00E-01	2.00E-01	7.81E-01

0.00E+00	ADULT	MEAT ING	3.04E-02	4.17E-01	4.15E-02	4.15E-02	8.98E-02
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

2.55E+01	ADULT	TOTALS	8.36E+00	2.86E+01	4.50E+01	6.21E-01	1.26E+00
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1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 67  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 19 NAME=SF NE

X= -4.0KM, Y= 4.5KM, Z= 0.0M, DIST= 6.0KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

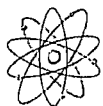
	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
0.00E+00	INFANT	INHAL.	2.61E+01	2.66E+01	2.04E+02	7.32E-01	8.08E-01
1.65E-02	INFANT	GROUND	1.65E-02	1.65E-02	1.65E-02	1.65E-02	1.65E-02
5.18E-07	INFANT	CLOUD	5.18E-07	5.18E-07	5.18E-07	5.18E-07	5.18E-07
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1.65E-02	INFANT	TOTALS	2.61E+01	2.66E+01	2.04E+02	7.48E-01	8.25E-01
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	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
0.00E+00	CHILD	INHAL.	1.27E+01	2.29E+01	9.81E+01	3.06E-01	3.10E-01
1.65E-02	CHILD	GROUND	1.65E-02	1.65E-02	1.65E-02	1.65E-02	1.65E-02
5.18E-07	CHILD	CLOUD	5.18E-07	5.18E-07	5.18E-07	5.18E-07	5.18E-07
0.00E+00	CHILD	VEG. ING	1.03E-01	1.35E+00	8.23E-02	8.23E-02	3.25E-01
0.00E+00	CHILD	MEAT ING	1.02E-02	1.40E-01	1.38E-02	1.38E-02	3.00E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00







**POWERTECH (USA) Inc.**

2.65E+01	INFANT	INHAL.	2.77E+01	2.66E+01	2.04E+02	7.65E-01	8.21E-01
1.83E-01	INFANT	GROUND	1.83E-01	1.83E-01	1.83E-01	1.83E-01	1.83E-01
5.91E-02	INFANT	CLOUD	5.91E-02	5.91E-02	5.91E-02	5.91E-02	5.91E-02
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

-----  
2.67E+01      INFANT      TOTALS      2.79E+01      2.68E+01      2.04E+02      1.01E+00      1.06E+00

BRONCHI      AGE      PATHWAY      EFFECTIV      BONE      AVG.LUNG      LIVER      KIDNEY  
-----

2.65E+01	CHILD	INHAL.	1.43E+01	2.29E+01	9.81E+01	3.21E-01	3.16E-01
1.83E-01	CHILD	GROUND	1.83E-01	1.83E-01	1.83E-01	1.83E-01	1.83E-01
5.91E-02	CHILD	CLOUD	5.91E-02	5.91E-02	5.91E-02	5.91E-02	5.91E-02
0.00E+00	CHILD	VEG. ING	1.04E-01	1.35E+00	8.38E-02	8.38E-02	3.26E-01
0.00E+00	CHILD	MEAT ING	1.02E-02	1.41E-01	1.40E-02	1.40E-02	3.02E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

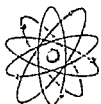
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2.67E+01      CHILD      TOTALS      1.47E+01      2.47E+01      9.84E+01      6.61E-01      9.15E-01

BRONCHI      AGE      PATHWAY      EFFECTIV      BONE      AVG.LUNG      LIVER      KIDNEY  
-----

2.65E+01	TEENAGE	INHAL.	8.69E+00	2.44E+01	5.11E+01	1.51E-01	1.73E-01
1.83E-01	TEENAGE	GROUND	1.83E-01	1.83E-01	1.83E-01	1.83E-01	1.83E-01
5.91E-02	TEENAGE	CLOUD	5.91E-02	5.91E-02	5.91E-02	5.91E-02	5.91E-02
0.00E+00	TEENAGE	VEG. ING	1.71E-01	2.23E+00	1.38E-01	1.38E-01	5.40E-01
0.00E+00	TEENAGE	MEAT ING	1.66E-02	2.28E-01	2.27E-02	2.27E-02	4.91E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

-----  
2.67E+01      TEENAGE      TOTALS      9.12E+00      2.71E+01      5.15E+01      5.54E-01      1.00E+00

BRONCHI      AGE      PATHWAY      EFFECTIV      BONE      AVG.LUNG      LIVER      KIDNEY  
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**POWERTECH (USA) Inc.**

2.65E+01	ADULT	INHAL.	7.63E+00	2.36E+01	4.25E+01	1.27E-01	1.37E-01
1.83E-01	ADULT	GROUND	1.83E-01	1.83E-01	1.83E-01	1.83E-01	1.83E-01
5.91E-02	ADULT	CLOUD	5.91E-02	5.91E-02	5.91E-02	5.91E-02	5.91E-02
0.00E+00	ADULT	VEG. ING	2.36E-01	3.08E+00	1.91E-01	1.91E-01	7.46E-01
0.00E+00	ADULT	MEAT ING	2.90E-02	3.99E-01	3.97E-02	3.97E-02	8.58E-02
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

2.67E+01	ADULT	TOTALS	8.13E+00	2.74E+01	4.30E+01	5.99E-01	1.21E+00
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1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 69  
08/21/08

DURATION IN YRS IS... 5.0

NUMBER 20 NAME=SF ENE X= -3.2KM, Y= 4.2KM, Z= 0.0M, DIST= 5.3KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
0.00E+00	INFANT	INHAL.	2.22E+01	2.26E+01	1.74E+02	6.23E-01	6.88E-01
1.41E-02	INFANT	GROUND	1.41E-02	1.41E-02	1.41E-02	1.41E-02	1.41E-02
4.41E-07	INFANT	CLOUD	4.41E-07	4.41E-07	4.41E-07	4.41E-07	4.41E-07
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1.41E-02	INFANT	TOTALS	2.22E+01	2.26E+01	1.74E+02	6.37E-01	7.02E-01
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	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
0.00E+00	CHILD	INHAL.	1.08E+01	1.95E+01	8.35E+01	2.61E-01	2.64E-01
1.41E-02	CHILD	GROUND	1.41E-02	1.41E-02	1.41E-02	1.41E-02	1.41E-02
4.41E-07	CHILD	CLOUD	4.41E-07	4.41E-07	4.41E-07	4.41E-07	4.41E-07
0.00E+00	CHILD	VEG. ING	8.78E-02	1.15E+00	7.01E-02	7.01E-02	2.77E-01
0.00E+00	CHILD	MEAT ING	8.65E-03	1.19E-01	1.17E-02	1.17E-02	2.56E-02



POWERTECH (USA) INC.

0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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1.41E-02	CHILD	TOTALS	1.09E+01	2.08E+01	8.36E+01	3.57E-01	5.81E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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0.00E+00	TEENAGE	INHAL.	6.04E+00	2.07E+01	4.35E+01	1.23E-01	1.45E-01
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1.41E-02	TEENAGE	GROUND	1.41E-02	1.41E-02	1.41E-02	1.41E-02	1.41E-02
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4.41E-07	TEENAGE	CLOUD	4.41E-07	4.41E-07	4.41E-07	4.41E-07	4.41E-07
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0.00E+00	TEENAGE	VEG. ING	1.45E-01	1.89E+00	1.16E-01	1.16E-01	4.58E-01
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0.00E+00	TEENAGE	MEAT ING	1.40E-02	1.93E-01	1.90E-02	1.90E-02	4.15E-02
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0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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1.41E-02	TEENAGE	TOTALS	6.22E+00	2.28E+01	4.37E+01	2.72E-01	6.58E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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0.00E+00	ADULT	INHAL.	5.14E+00	2.01E+01	3.62E+01	1.03E-01	1.15E-01
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1.41E-02	ADULT	GROUND	1.41E-02	1.41E-02	1.41E-02	1.41E-02	1.41E-02
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4.41E-07	ADULT	CLOUD	4.41E-07	4.41E-07	4.41E-07	4.41E-07	4.41E-07
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0.00E+00	ADULT	VEG. ING	2.00E-01	2.62E+00	1.60E-01	1.60E-01	6.33E-01
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0.00E+00	ADULT	MEAT ING	2.45E-02	3.38E-01	3.32E-02	3.32E-02	7.26E-02
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0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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1.41E-02	ADULT	TOTALS	5.38E+00	2.31E+01	3.64E+01	3.10E-01	8.34E-01
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1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

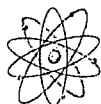
PAGE 70  
08/21/08

DURATION IN YRS IS... 5.0

NUMBER 20 NAME=SF ENE

X= -3.2KM, Y= 4.2KM, Z= 0.0M, DIST= 5.3KM, IRTYPE=10  
TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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**POWERTECH (USA) INC.**

2.26E+01	INFANT	INHAL.	2.36E+01	2.26E+01	1.74E+02	6.59E-01	7.02E-01
1.56E-01	INFANT	GROUND	1.56E-01	1.56E-01	1.56E-01	1.56E-01	1.56E-01
5.95E-02	INFANT	CLOUD	5.95E-02	5.95E-02	5.95E-02	5.95E-02	5.95E-02
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

2.28E+01	INFANT	TOTALS	2.38E+01	2.28E+01	1.74E+02	8.74E-01	9.17E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG. LUNG	LIVER	KIDNEY
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2.26E+01	CHILD	INHAL.	1.22E+01	1.95E+01	8.35E+01	2.77E-01	2.70E-01
1.56E-01	CHILD	GROUND	1.56E-01	1.56E-01	1.56E-01	1.56E-01	1.56E-01
5.95E-02	CHILD	CLOUD	5.95E-02	5.95E-02	5.95E-02	5.95E-02	5.95E-02
0.00E+00	CHILD	VEG. ING	8.83E-02	1.15E+00	7.17E-02	7.17E-02	2.78E-01
0.00E+00	CHILD	MEAT ING	8.72E-03	1.20E-01	1.20E-02	1.20E-02	2.58E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

2.28E+01	CHILD	TOTALS	1.25E+01	2.10E+01	8.38E+01	5.76E-01	7.90E-01
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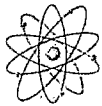
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG. LUNG	LIVER	KIDNEY
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2.26E+01	TEENAGE	INHAL.	7.40E+00	2.08E+01	4.35E+01	1.30E-01	1.48E-01
1.56E-01	TEENAGE	GROUND	1.56E-01	1.56E-01	1.56E-01	1.56E-01	1.56E-01
5.95E-02	TEENAGE	CLOUD	5.95E-02	5.95E-02	5.95E-02	5.95E-02	5.95E-02

0.00E+00	TEENAGE	VEG. ING	1.46E-01	1.90E+00	1.18E-01	1.18E-01	4.60E-01
0.00E+00	TEENAGE	MEAT ING	1.42E-02	1.95E-01	1.94E-02	1.94E-02	4.19E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

2.28E+01	TEENAGE	TOTALS	7.78E+00	2.31E+01	4.39E+01	4.83E-01	8.65E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG. LUNG	LIVER	KIDNEY
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**POWERTECH (USA) INC.**

2.26E+01	ADULT	INHAL.	6.50E+00	2.01E+01	3.62E+01	1.09E-01	1.17E-01
1.56E-01	ADULT	GROUND	1.56E-01	1.56E-01	1.56E-01	1.56E-01	1.56E-01
5.95E-02	ADULT	CLOUD	5.95E-02	5.95E-02	5.95E-02	5.95E-02	5.95E-02
0.00E+00	ADULT	VEG. ING	2.02E-01	2.63E+00	1.63E-01	1.63E-01	6.36E-01
0.00E+00	ADULT	MEAT ING	2.47E-02	3.40E-01	3.40E-02	3.40E-02	7.32E-02
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
2.28E+01	ADULT	TOTALS	6.94E+00	2.33E+01	3.66E+01	5.22E-01	1.04E+00

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 71  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 21 NAME=SF E X= -2.8KM, Y= 3.5KM, Z= 0.0M, DIST= 4.5KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
-----							
0.00E+00	INFANT	INHAL.	2.97E+01	3.03E+01	2.33E+02	8.35E-01	9.22E-01
1.89E-02	INFANT	GROUND	1.89E-02	1.89E-02	1.89E-02	1.89E-02	1.89E-02
5.91E-07	INFANT	CLOUD	5.91E-07	5.91E-07	5.91E-07	5.91E-07	5.91E-07
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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1.89E-02	INFANT	TOTALS	2.98E+01	3.03E+01	2.33E+02	8.54E-01	9.41E-01

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
-----							
0.00E+00	CHILD	INHAL.	1.45E+01	2.62E+01	1.12E+02	3.50E-01	3.54E-01
1.89E-02	CHILD	GROUND	1.89E-02	1.89E-02	1.89E-02	1.89E-02	1.89E-02
5.91E-07	CHILD	CLOUD	5.91E-07	5.91E-07	5.91E-07	5.91E-07	5.91E-07
0.00E+00	CHILD	VEG. ING	1.18E-01	1.54E+00	9.40E-02	9.40E-02	3.71E-01
0.00E+00	CHILD	MEAT ING	1.16E-02	1.59E-01	1.57E-02	1.57E-02	3.43E-02



POWERTECH (USA) Inc.

0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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1.89E-02	CHILD	TOTALS	1.47E+01	2.79E+01	1.12E+02	4.78E-01	7.78E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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0.00E+00	TEENAGE	INHAL.	8.10E+00	2.78E+01	5.83E+01	1.65E-01	1.94E-01
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1.89E-02	TEENAGE	GROUND	1.89E-02	1.89E-02	1.89E-02	1.89E-02	1.89E-02
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5.91E-07	TEENAGE	CLOUD	5.91E-07	5.91E-07	5.91E-07	5.91E-07	5.91E-07
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0.00E+00	TEENAGE	VEG. ING	1.95E-01	2.54E+00	1.55E-01	1.55E-01	6.14E-01
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0.00E+00	TEENAGE	MEAT ING	1.88E-02	2.59E-01	2.55E-02	2.55E-02	5.57E-02
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0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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1.89E-02	TEENAGE	TOTALS	8.33E+00	3.06E+01	5.85E+01	3.64E-01	8.82E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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0.00E+00	ADULT	INHAL.	6.89E+00	2.70E+01	4.85E+01	1.39E-01	1.54E-01
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1.89E-02	ADULT	GROUND	1.89E-02	1.89E-02	1.89E-02	1.89E-02	1.89E-02
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5.91E-07	ADULT	CLOUD	5.91E-07	5.91E-07	5.91E-07	5.91E-07	5.91E-07
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0.00E+00	ADULT	VEG. ING	2.69E-01	3.51E+00	2.14E-01	2.14E-01	8.48E-01
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0.00E+00	ADULT	MEAT ING	3.29E-02	4.52E-01	4.45E-02	4.45E-02	9.73E-02
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0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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1.89E-02	ADULT	TOTALS	7.21E+00	3.09E+01	4.88E+01	4.16E-01	1.12E+00
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1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)

PAGE 72

DATA: DB.MIL

08/21/08

TIME STEP NUMBER 1,

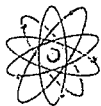
DURATION IN YRS IS... 5.0

NUMBER 21 NAME=SF E

X= -2.8KM, Y= 3.5KM, Z= 0.0M, DIST= 4.5KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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**POWERTECH (USA) Inc.**

3.28E+01	INFANT	INHAL.	3.17E+01	3.03E+01	2.33E+02	8.70E-01	9.36E-01
2.09E-01	INFANT	GROUND	2.09E-01	2.09E-01	2.09E-01	2.09E-01	2.09E-01
7.65E-02	INFANT	CLOUD	7.65E-02	7.65E-02	7.65E-02	7.65E-02	7.65E-02
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

-----  
3.30E+01      INFANT      TOTALS      3.20E+01      3.06E+01      2.33E+02      1.16E+00      1.22E+00

BRONCHI      AGE      PATHWAY      EFFECTIV      BONE      AVG. LUNG      LIVER      KIDNEY  
-----

3.28E+01	CHILD	INHAL.	1.65E+01	2.62E+01	1.12E+02	3.65E-01	3.60E-01
2.09E-01	CHILD	GROUND	2.09E-01	2.09E-01	2.09E-01	2.09E-01	2.09E-01
7.65E-02	CHILD	CLOUD	7.65E-02	7.65E-02	7.65E-02	7.65E-02	7.65E-02
0.00E+00	CHILD	VEG. ING	1.18E-01	1.54E+00	9.55E-02	9.55E-02	3.73E-01
0.00E+00	CHILD	MEAT ING	1.17E-02	1.60E-01	1.60E-02	1.60E-02	3.45E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

-----  
3.30E+01      CHILD      TOTALS      1.69E+01      2.82E+01      1.12E+02      7.62E-01      1.05E+00

BRONCHI      AGE      PATHWAY      EFFECTIV      BONE      AVG. LUNG      LIVER      KIDNEY  
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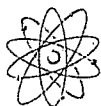
3.28E+01	TEENAGE	INHAL.	1.01E+01	2.78E+01	5.83E+01	1.72E-01	1.97E-01
2.09E-01	TEENAGE	GROUND	2.09E-01	2.09E-01	2.09E-01	2.09E-01	2.09E-01
7.65E-02	TEENAGE	CLOUD	7.65E-02	7.65E-02	7.65E-02	7.65E-02	7.65E-02
0.00E+00	TEENAGE	VEG. ING	1.95E-01	2.55E+00	1.58E-01	1.58E-01	6.16E-01
0.00E+00	TEENAGE	MEAT ING	1.89E-02	2.60E-01	2.59E-02	2.59E-02	5.60E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

-----  
3.30E+01      TEENAGE      TOTALS      1.06E+01      3.09E+01      5.88E+01      6.41E-01      1.15E+00

BRONCHI      AGE      PATHWAY      EFFECTIV      BONE      AVG. LUNG      LIVER      KIDNEY  
-----

-----  
3.28E+01      ADULT      INHAL.      8.86E+00      2.70E+01      4.85E+01      1.44E-01      1.56E-01





**POWERTECH (USA) Inc.**

2.09E-01	ADULT	GROUND	2.09E-01	2.09E-01	2.09E-01	2.09E-01	2.09E-01
7.65E-02	ADULT	CLOUD	7.65E-02	7.65E-02	7.65E-02	7.65E-02	7.65E-02
0.00E+00	ADULT	VEG. ING	2.70E-01	3.52E+00	2.18E-01	2.18E-01	8.51E-01
0.00E+00	ADULT	MEAT ING	3.31E-02	4.55E-01	4.53E-02	4.53E-02	9.79E-02
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

3.30E+01	ADULT	TOTALS	9.45E+00	3.12E+01	4.91E+01	6.92E-01	1.39E+00
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1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 73  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 22 NAME=SF SSE X= -3.7KM, Y= 0.2KM, Z= 0.0M, DIST= 3.7KM, IRTYPE=10

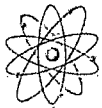
40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
0.00E+00	INFANT	INHAL.	2.50E+01	2.55E+01	1.96E+02	7.02E-01	7.76E-01
1.59E-02	INFANT	GROUND	1.59E-02	1.59E-02	1.59E-02	1.59E-02	1.59E-02
4.98E-07	INFANT	CLOUD	4.98E-07	4.98E-07	4.98E-07	4.98E-07	4.98E-07
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1.59E-02	INFANT	TOTALS	2.50E+01	2.55E+01	1.96E+02	7.18E-01	7.92E-01
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	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
0.00E+00	CHILD	INHAL.	1.22E+01	2.20E+01	9.42E+01	2.94E-01	2.98E-01
1.59E-02	CHILD	GROUND	1.59E-02	1.59E-02	1.59E-02	1.59E-02	1.59E-02
4.98E-07	CHILD	CLOUD	4.98E-07	4.98E-07	4.98E-07	4.98E-07	4.98E-07
0.00E+00	CHILD	VEG. ING	9.90E-02	1.29E+00	7.91E-02	7.91E-02	3.12E-01
0.00E+00	CHILD	MEAT ING	9.75E-03	1.34E-01	1.32E-02	1.32E-02	2.89E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1.59E-02	CHILD	TOTALS	1.23E+01	2.35E+01	9.43E+01	4.02E-01	6.55E-01
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POWERTECH (USA) Inc.

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
0.00E+00	TEENAGE	INHAL.	6.82E+00	2.34E+01	4.91E+01	1.39E-01	1.63E-01
1.59E-02	TEENAGE	GROUND	1.59E-02	1.59E-02	1.59E-02	1.59E-02	1.59E-02
4.98E-07	TEENAGE	CLOUD	4.98E-07	4.98E-07	4.98E-07	4.98E-07	4.98E-07
0.00E+00	TEENAGE	VEG. ING	1.64E-01	2.14E+00	1.30E-01	1.30E-01	5.17E-01
0.00E+00	TEENAGE	MEAT ING	1.58E-02	2.18E-01	2.14E-02	2.14E-02	4.68E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1.59E-02	TEENAGE	TOTALS	7.01E+00	2.58E+01	4.92E+01	3.07E-01	7.42E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
0.00E+00	ADULT	INHAL.	5.80E+00	2.27E+01	4.08E+01	1.17E-01	1.29E-01
1.59E-02	ADULT	GROUND	1.59E-02	1.59E-02	1.59E-02	1.59E-02	1.59E-02
4.98E-07	ADULT	CLOUD	4.98E-07	4.98E-07	4.98E-07	4.98E-07	4.98E-07
0.00E+00	ADULT	VEG. ING	2.26E-01	2.95E+00	1.80E-01	1.80E-01	7.14E-01
0.00E+00	ADULT	MEAT ING	2.77E-02	3.81E-01	3.75E-02	3.75E-02	8.19E-02
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
1.59E-02	ADULT	TOTALS	6.07E+00	2.60E+01	4.11E+01	3.50E-01	9.41E-01

1REGION: Dewey Burdock  
METSET:

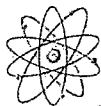
CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 74  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 22 NAME=SF SSE X= -3.7KM, Y= 0.2KM, Z= 0.0M, DIST= 3.7KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
3.67E+01	INFANT	INHAL.	2.72E+01	2.55E+01	1.96E+02	8.21E-01	8.22E-01
1.77E-01	INFANT	GROUND	1.77E-01	1.77E-01	1.77E-01	1.77E-01	1.77E-01
2.07E-01	INFANT	CLOUD	2.07E-01	2.07E-01	2.07E-01	2.07E-01	2.07E-01
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00



**POWERTECH (USA) INC.**

0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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3.71E+01	INFANT	TOTALS	2.76E+01	2.59E+01	1.96E+02	1.20E+00	1.21E+00
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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3.67E+01	CHILD	INHAL.	1.44E+01	2.20E+01	9.42E+01	3.47E-01	3.19E-01
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1.77E-01	CHILD	GROUND	1.77E-01	1.77E-01	1.77E-01	1.77E-01	1.77E-01
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2.07E-01	CHILD	CLOUD	2.07E-01	2.07E-01	2.07E-01	2.07E-01	2.07E-01
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0.00E+00	CHILD	VEG. ING	1.01E-01	1.31E+00	8.44E-02	8.44E-02	3.17E-01
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0.00E+00	CHILD	MEAT ING	1.00E-02	1.37E-01	1.41E-02	1.41E-02	2.95E-02
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0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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3.71E+01	CHILD	TOTALS	1.49E+01	2.39E+01	9.47E+01	8.29E-01	1.05E+00
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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3.67E+01	TEENAGE	INHAL.	9.02E+00	2.34E+01	4.91E+01	1.61E-01	1.74E-01
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1.77E-01	TEENAGE	GROUND	1.77E-01	1.77E-01	1.77E-01	1.77E-01	1.77E-01
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2.07E-01	TEENAGE	CLOUD	2.07E-01	2.07E-01	2.07E-01	2.07E-01	2.07E-01
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0.00E+00	TEENAGE	VEG. ING	1.66E-01	2.17E+00	1.39E-01	1.39E-01	5.24E-01
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0.00E+00	TEENAGE	MEAT ING	1.62E-02	2.22E-01	2.28E-02	2.28E-02	4.80E-02
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0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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3.71E+01	TEENAGE	TOTALS	9.59E+00	2.62E+01	4.96E+01	7.07E-01	1.13E+00
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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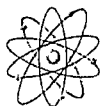
3.67E+01	ADULT	INHAL.	8.00E+00	2.27E+01	4.08E+01	1.35E-01	1.38E-01
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1.77E-01	ADULT	GROUND	1.77E-01	1.77E-01	1.77E-01	1.77E-01	1.77E-01
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2.07E-01	ADULT	CLOUD	2.07E-01	2.07E-01	2.07E-01	2.07E-01	2.07E-01
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0.00E+00	ADULT	VEG. ING	2.30E-01	2.99E+00	1.92E-01	1.92E-01	7.23E-01
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0.00E+00	ADULT	MEAT ING	2.84E-02	3.89E-01	3.99E-02	3.99E-02	8.38E-02
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**POWERTECH (USA) INC.**

0.00E+00      ADULT      MILK ING      0.00E+00      0.00E+00      0.00E+00      0.00E+00      0.00E+00

3.71E+01      ADULT      TOTALS      8.65E+00      2.65E+01      4.15E+01      7.51E-01      1.33E+00

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 75  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 23 NAME=SF SE

X= -2.8KM, Y= 1.3KM, Z= 0.0M, DIST= 3.1KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
0.00E+00	INFANT	INHAL.	3.65E+01	3.72E+01	2.86E+02	1.02E+00	1.13E+00
2.31E-02	INFANT	GROUND	2.31E-02	2.31E-02	2.31E-02	2.31E-02	2.31E-02
7.25E-07	INFANT	CLOUD	7.25E-07	7.25E-07	7.25E-07	7.25E-07	7.25E-07
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

2.31E-02      INFANT      TOTALS      3.65E+01      3.72E+01      2.86E+02      1.05E+00      1.15E+00

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
0.00E+00	CHILD	INHAL.	1.78E+01	3.21E+01	1.37E+02	4.29E-01	4.34E-01
2.31E-02	CHILD	GROUND	2.31E-02	2.31E-02	2.31E-02	2.31E-02	2.31E-02
7.25E-07	CHILD	CLOUD	7.25E-07	7.25E-07	7.25E-07	7.25E-07	7.25E-07
0.00E+00	CHILD	VEG. ING	1.44E-01	1.88E+00	1.15E-01	1.15E-01	4.55E-01
0.00E+00	CHILD	MEAT ING	1.42E-02	1.96E-01	1.92E-02	1.92E-02	4.20E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

2.31E-02      CHILD      TOTALS      1.80E+01      3.42E+01      1.37E+02      5.86E-01      9.54E-01

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
0.00E+00	TEENAGE	INHAL.	9.93E+00	3.41E+01	7.15E+01	2.02E-01	2.37E-01



**POWERTECH (USA) Inc.**

2.31E-02	TEENAGE	GROUND	2.31E-02	2.31E-02	2.31E-02	2.31E-02	2.31E-02
7.25E-07	TEENAGE	CLOUD	7.25E-07	7.25E-07	7.25E-07	7.25E-07	7.25E-07
0.00E+00	TEENAGE	VEG. ING	2.39E-01	3.11E+00	1.90E-01	1.90E-01	7.53E-01
0.00E+00	TEENAGE	MEAT ING	2.31E-02	3.17E-01	3.12E-02	3.12E-02	6.82E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

2.31E-02	TEENAGE	TOTALS	1.02E+01	3.75E+01	7.18E+01	4.47E-01	1.08E+00
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY

0.00E+00	ADULT	INHAL.	8.45E+00	3.30E+01	5.95E+01	1.70E-01	1.88E-01
2.31E-02	ADULT	GROUND	2.31E-02	2.31E-02	2.31E-02	2.31E-02	2.31E-02
7.25E-07	ADULT	CLOUD	7.25E-07	7.25E-07	7.25E-07	7.25E-07	7.25E-07
0.00E+00	ADULT	VEG. ING	3.29E-01	4.30E+00	2.62E-01	2.62E-01	1.04E+00
0.00E+00	ADULT	MEAT ING	4.03E-02	5.55E-01	5.46E-02	5.46E-02	1.19E-01
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

2.31E-02	ADULT	TOTALS	8.84E+00	3.79E+01	5.98E+01	5.10E-01	1.37E+00
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1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 76  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 23 NAME=SF SE X= -2.8KM, Y= 1.3KM, Z= 0.0M, DIST= 3.1KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
4.32E+01	INFANT	INHAL.	3.91E+01	3.72E+01	2.86E+02	1.10E+00	1.16E+00
2.56E-01	INFANT	GROUND	2.56E-01	2.56E-01	2.56E-01	2.56E-01	2.56E-01
1.86E-01	INFANT	CLOUD	1.86E-01	1.86E-01	1.86E-01	1.86E-01	1.86E-01
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00



POWERTECH (USA) INC.

-----  
4.37E+01      INFANT      TOTALS      3.95E+01      3.76E+01      2.86E+02      1.55E+00      1.60E+00

BRONCHI      AGE      PATHWAY      EFFECTIV      BONE      AVG.LUNG      LIVER      KIDNEY  
-----

4.32E+01      CHILD      INHAL.      2.04E+01      3.21E+01      1.37E+02      4.64E-01      4.48E-01

2.56E-01      CHILD      GROUND      2.56E-01      2.56E-01      2.56E-01      2.56E-01      2.56E-01

1.86E-01      CHILD      CLOUD      1.86E-01      1.86E-01      1.86E-01      1.86E-01      1.86E-01

0.00E+00      CHILD      VEG. ING      1.45E-01      1.89E+00      1.19E-01      1.19E-01      4.58E-01

0.00E+00      CHILD      MEAT ING      1.44E-02      1.97E-01      1.98E-02      1.98E-02      4.25E-02

0.00E+00      CHILD      MILK ING      0.00E+00      0.00E+00      0.00E+00      0.00E+00      0.00E+00  
-----

4.37E+01      CHILD      TOTALS      2.10E+01      3.46E+01      1.38E+02      1.04E+00      1.39E+00

BRONCHI      AGE      PATHWAY      EFFECTIV      BONE      AVG.LUNG      LIVER      KIDNEY  
-----

4.32E+01      TEENAGE      INHAL.      1.25E+01      3.41E+01      7.15E+01      2.18E-01      2.45E-01

2.56E-01      TEENAGE      GROUND      2.56E-01      2.56E-01      2.56E-01      2.56E-01      2.56E-01

1.86E-01      TEENAGE      CLOUD      1.86E-01      1.86E-01      1.86E-01      1.86E-01      1.86E-01

0.00E+00      TEENAGE      VEG. ING      2.40E-01      3.13E+00      1.96E-01      1.96E-01      7.58E-01

0.00E+00      TEENAGE      MEAT ING      2.33E-02      3.20E-01      3.22E-02      3.22E-02      6.90E-02

0.00E+00      TEENAGE      MILK ING      0.00E+00      0.00E+00      0.00E+00      0.00E+00      0.00E+00  
-----

4.37E+01      TEENAGE      TOTALS      1.32E+01      3.80E+01      7.22E+01      8.88E-01      1.51E+00

BRONCHI      AGE      PATHWAY      EFFECTIV      BONE      AVG.LUNG      LIVER      KIDNEY  
-----

4.32E+01      ADULT      INHAL.      1.10E+01      3.31E+01      5.95E+01      1.83E-01      1.94E-01

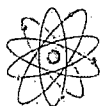
2.56E-01      ADULT      GROUND      2.56E-01      2.56E-01      2.56E-01      2.56E-01      2.56E-01

1.86E-01      ADULT      CLOUD      1.86E-01      1.86E-01      1.86E-01      1.86E-01      1.86E-01

0.00E+00      ADULT      VEG. ING      3.32E-01      4.33E+00      2.70E-01      2.70E-01      1.05E+00

0.00E+00      ADULT      MEAT ING      4.08E-02      5.60E-01      5.62E-02      5.62E-02      1.21E-01

0.00E+00      ADULT      MILK ING      0.00E+00      0.00E+00      0.00E+00      0.00E+00      0.00E+00  
-----



POWERTECH (USA) INC.

4.37E+01 ADULT TOTALS 1.19E+01 3.84E+01 6.03E+01 9.52E-01 1.80E+00

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

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08/21/08

DURATION IN YRS IS... 5.0

NUMBER 24 NAME=SF S

X= -5.1KM, Y= -0.3KM, Z= 0.0M, DIST= 5.1KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
0.00E+00	INFANT	INHAL.	1.40E+01	1.43E+01	1.10E+02	3.93E-01	4.35E-01
8.90E-03	INFANT	GROUND	8.90E-03	8.90E-03	8.90E-03	8.90E-03	8.90E-03
2.79E-07	INFANT	CLOUD	2.79E-07	2.79E-07	2.79E-07	2.79E-07	2.79E-07
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

8.90E-03	INFANT	TOTALS	1.40E+01	1.43E+01	1.10E+02	4.02E-01	4.44E-01
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	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
0.00E+00	CHILD	INHAL.	6.84E+00	1.23E+01	5.28E+01	1.65E-01	1.67E-01
8.90E-03	CHILD	GROUND	8.90E-03	8.90E-03	8.90E-03	8.90E-03	8.90E-03
2.79E-07	CHILD	CLOUD	2.79E-07	2.79E-07	2.79E-07	2.79E-07	2.79E-07
0.00E+00	CHILD	VEG. ING	5.55E-02	7.24E-01	4.43E-02	4.43E-02	1.75E-01
0.00E+00	CHILD	MEAT ING	5.46E-03	7.52E-02	7.40E-03	7.40E-03	1.62E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

8.90E-03	CHILD	TOTALS	6.91E+00	1.31E+01	5.28E+01	2.25E-01	3.67E-01
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	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
0.00E+00	TEENAGE	INHAL.	3.82E+00	1.31E+01	2.75E+01	7.78E-02	9.13E-02
8.90E-03	TEENAGE	GROUND	8.90E-03	8.90E-03	8.90E-03	8.90E-03	8.90E-03



**POWERTECH (USA) INC.**

2.79E-07	TEENAGE	CLOUD	2.79E-07	2.79E-07	2.79E-07	2.79E-07	2.79E-07
0.00E+00	TEENAGE	VEG. ING	9.17E-02	1.20E+00	7.30E-02	7.30E-02	2.89E-01
0.00E+00	TEENAGE	MEAT ING	8.87E-03	1.22E-01	1.20E-02	1.20E-02	2.62E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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8.90E-03      TEENAGE      TOTALS      3.93E+00      1.44E+01      2.76E+01      1.72E-01      4.16E-01

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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0.00E+00      ADULT      INHAL.      3.25E+00      1.27E+01      2.29E+01      6.53E-02      7.24E-02  
8.90E-03      ADULT      GROUND      8.90E-03      8.90E-03      8.90E-03      8.90E-03      8.90E-03  
2.79E-07      ADULT      CLOUD      2.79E-07      2.79E-07      2.79E-07      2.79E-07      2.79E-07  
0.00E+00      ADULT      VEG. ING      1.27E-01      1.65E+00      1.01E-01      1.01E-01      4.00E-01  
0.00E+00      ADULT      MEAT ING      1.55E-02      2.13E-01      2.10E-02      2.10E-02      4.59E-02  
0.00E+00      ADULT      MILK ING      0.00E+00      0.00E+00      0.00E+00      0.00E+00      0.00E+00

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8.90E-03      ADULT      TOTALS      3.40E+00      1.46E+01      2.30E+01      1.96E-01      5.27E-01

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

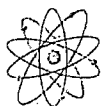
PAGE 78  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 24    NAME=SF S                      X= -5.1KM, Y= -0.3KM, Z= 0.0M, DIST= 5.1KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

-----  
BRONCHI      AGE      PATHWAY      EFFECTIV      BONE      AVG.LUNG      LIVER      KIDNEY  
-----  
2.48E+01      INFANT      INHAL.      1.55E+01      1.43E+01      1.10E+02      5.14E-01      4.82E-01  
9.96E-02      INFANT      GROUND      9.96E-02      9.96E-02      9.96E-02      9.96E-02      9.96E-02  
1.62E-01      INFANT      CLOUD      1.62E-01      1.62E-01      1.62E-01      1.62E-01      1.62E-01  
0.00E+00      INFANT      VEG. ING      0.00E+00      0.00E+00      0.00E+00      0.00E+00      0.00E+00  
0.00E+00      INFANT      MEAT ING      0.00E+00      0.00E+00      0.00E+00      0.00E+00      0.00E+00





POWERTECH (USA) INC.

0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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2.50E+01	INFANT	TOTALS	1.58E+01	1.46E+01	1.10E+02	7.75E-01	7.43E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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2.48E+01	CHILD	INHAL.	8.33E+00	1.24E+01	5.28E+01	2.18E-01	1.89E-01
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9.96E-02	CHILD	GROUND	9.96E-02	9.96E-02	9.96E-02	9.96E-02	9.96E-02
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1.62E-01	CHILD	CLOUD	1.62E-01	1.62E-01	1.62E-01	1.62E-01	1.62E-01
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0.00E+00	CHILD	VEG. ING	5.70E-02	7.42E-01	4.97E-02	4.97E-02	1.79E-01
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0.00E+00	CHILD	MEAT ING	5.71E-03	7.81E-02	8.26E-03	8.26E-03	1.69E-02
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0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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2.50E+01	CHILD	TOTALS	8.65E+00	1.34E+01	5.31E+01	5.38E-01	6.46E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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2.48E+01	TEENAGE	INHAL.	5.31E+00	1.31E+01	2.75E+01	1.01E-01	1.02E-01
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9.96E-02	TEENAGE	GROUND	9.96E-02	9.96E-02	9.96E-02	9.96E-02	9.96E-02
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1.62E-01	TEENAGE	CLOUD	1.62E-01	1.62E-01	1.62E-01	1.62E-01	1.62E-01
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0.00E+00	TEENAGE	VEG. ING	9.43E-02	1.23E+00	8.20E-02	8.20E-02	2.97E-01
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0.00E+00	TEENAGE	MEAT ING	9.28E-03	1.27E-01	1.34E-02	1.34E-02	2.74E-02
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0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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2.50E+01	TEENAGE	TOTALS	5.67E+00	1.48E+01	2.78E+01	4.57E-01	6.88E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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2.48E+01	ADULT	INHAL.	4.74E+00	1.27E+01	2.29E+01	8.45E-02	8.16E-02
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9.96E-02	ADULT	GROUND	9.96E-02	9.96E-02	9.96E-02	9.96E-02	9.96E-02
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1.62E-01	ADULT	CLOUD	1.62E-01	1.62E-01	1.62E-01	1.62E-01	1.62E-01
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**POWERTECH (USA) Inc.**

0.00E+00	ADULT	VEG. ING	1.30E-01	1.69E+00	1.13E-01	1.13E-01	4.10E-01
0.00E+00	ADULT	MEAT ING	1.62E-02	2.21E-01	2.34E-02	2.34E-02	4.79E-02
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

2.50E+01	ADULT	TOTALS	5.15E+00	1.49E+01	2.33E+01	4.82E-01	8.00E-01
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1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 79  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 25 NAME=SF SSW X= -6.0KM, Y= 1.3KM, Z= 0.0M, DIST= 6.1KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
0.00E+00	INFANT	INHAL.	1.83E+01	1.86E+01	1.43E+02	5.12E-01	5.66E-01
1.16E-02	INFANT	GROUND	1.16E-02	1.16E-02	1.16E-02	1.16E-02	1.16E-02
3.63E-07	INFANT	CLOUD	3.63E-07	3.63E-07	3.63E-07	3.63E-07	3.63E-07
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1.16E-02	INFANT	TOTALS	1.83E+01	1.86E+01	1.43E+02	5.24E-01	5.77E-01
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	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
0.00E+00	CHILD	INHAL.	8.91E+00	1.61E+01	6.87E+01	2.15E-01	2.17E-01
1.16E-02	CHILD	GROUND	1.16E-02	1.16E-02	1.16E-02	1.16E-02	1.16E-02
3.63E-07	CHILD	CLOUD	3.63E-07	3.63E-07	3.63E-07	3.63E-07	3.63E-07

0.00E+00	CHILD	VEG. ING	7.22E-02	9.42E-01	5.77E-02	5.77E-02	2.28E-01
0.00E+00	CHILD	MEAT ING	7.11E-03	9.79E-02	9.63E-03	9.63E-03	2.10E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1.16E-02	CHILD	TOTALS	9.00E+00	1.71E+01	6.88E+01	2.93E-01	4.77E-01
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	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							



POWERTECH (USA) Inc.

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0.00E+00	TEENAGE	INHAL.	4.97E+00	1.71E+01	3.58E+01	1.01E-01	1.19E-01
1.16E-02	TEENAGE	GROUND	1.16E-02	1.16E-02	1.16E-02	1.16E-02	1.16E-02
3.63E-07	TEENAGE	CLOUD	3.63E-07	3.63E-07	3.63E-07	3.63E-07	3.63E-07
0.00E+00	TEENAGE	VEG. ING	1.19E-01	1.56E+00	9.51E-02	9.51E-02	3.77E-01
0.00E+00	TEENAGE	MEAT ING	1.15E-02	1.59E-01	1.56E-02	1.56E-02	3.42E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

-----							
1.16E-02	TEENAGE	TOTALS	5.11E+00	1.88E+01	3.59E+01	2.24E-01	5.41E-01

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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0.00E+00	ADULT	INHAL.	4.23E+00	1.65E+01	2.98E+01	8.51E-02	9.43E-02
1.16E-02	ADULT	GROUND	1.16E-02	1.16E-02	1.16E-02	1.16E-02	1.16E-02
3.63E-07	ADULT	CLOUD	3.63E-07	3.63E-07	3.63E-07	3.63E-07	3.63E-07
0.00E+00	ADULT	VEG. ING	1.65E-01	2.15E+00	1.31E-01	1.31E-01	5.20E-01
0.00E+00	ADULT	MEAT ING	2.02E-02	2.78E-01	2.73E-02	2.73E-02	5.97E-02
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

-----							
1.16E-02	ADULT	TOTALS	4.43E+00	1.90E+01	2.99E+01	2.55E-01	6.86E-01

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 80  
08/21/08

DURATION IN YRS IS... 5.0

NUMBER 25 NAME=SF SSW X= -6.0KM, Y= 1.3KM, Z= 0.0M, DIST= 6.1KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

-----							
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
2.14E+01	INFANT	INHAL.	1.95E+01	1.86E+01	1.43E+02	5.75E-01	5.90E-01
1.28E-01	INFANT	GROUND	1.28E-01	1.28E-01	1.28E-01	1.28E-01	1.28E-01
1.11E-01	INFANT	CLOUD	1.11E-01	1.11E-01	1.11E-01	1.11E-01	1.11E-01
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00



**POWERTECH (USA) INC.**

0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
2.17E+01	INFANT	TOTALS	1.98E+01	1.89E+01	1.43E+02	8.15E-01	8.30E-01
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
2.14E+01	CHILD	INHAL.	1.02E+01	1.61E+01	6.87E+01	2.42E-01	2.29E-01
1.28E-01	CHILD	GROUND	1.28E-01	1.28E-01	1.28E-01	1.28E-01	1.28E-01
1.11E-01	CHILD	CLOUD	1.11E-01	1.11E-01	1.11E-01	1.11E-01	1.11E-01
0.00E+00	CHILD	VEG. ING	7.30E-02	9.52E-01	6.05E-02	6.05E-02	2.30E-01
0.00E+00	CHILD	MEAT ING	7.24E-03	9.94E-02	1.01E-02	1.01E-02	2.14E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
2.17E+01	CHILD	TOTALS	1.05E+01	1.74E+01	6.90E+01	5.52E-01	7.19E-01
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
2.14E+01	TEENAGE	INHAL.	6.26E+00	1.71E+01	3.58E+01	1.13E-01	1.25E-01
1.28E-01	TEENAGE	GROUND	1.28E-01	1.28E-01	1.28E-01	1.28E-01	1.28E-01
1.11E-01	TEENAGE	CLOUD	1.11E-01	1.11E-01	1.11E-01	1.11E-01	1.11E-01
0.00E+00	TEENAGE	VEG. ING	1.21E-01	1.57E+00	9.98E-02	9.98E-02	3.81E-01
0.00E+00	TEENAGE	MEAT ING	1.18E-02	1.61E-01	1.64E-02	1.64E-02	3.48E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
2.17E+01	TEENAGE	TOTALS	6.63E+00	1.91E+01	3.61E+01	4.69E-01	7.79E-01
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
2.14E+01	ADULT	INHAL.	5.52E+00	1.66E+01	2.98E+01	9.50E-02	9.91E-02
1.28E-01	ADULT	GROUND	1.28E-01	1.28E-01	1.28E-01	1.28E-01	1.28E-01
1.11E-01	ADULT	CLOUD	1.11E-01	1.11E-01	1.11E-01	1.11E-01	1.11E-01
0.00E+00	ADULT	VEG. ING	1.67E-01	2.17E+00	1.38E-01	1.38E-01	5.26E-01
0.00E+00	ADULT	MEAT ING	2.06E-02	2.82E-01	2.86E-02	2.86E-02	6.07E-02



POWERTECH (USA) INC.

0.00E+00 ADULT MILK ING 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00  
-----

2.17E+01 ADULT TOTALS 5.94E+00 1.93E+01 3.02E+01 5.01E-01 9.25E-01

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)

PAGE 81

DATA: DB.MIL

08/21/08

TIME STEP NUMBER 1,

DURATION IN YRS IS... 5.0

NUMBER 26 NAME=SF SW

X= -6.1KM, Y= 2.5KM, Z= 0.0M, DIST= 6.6KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

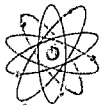
-----  
BRONCHI AGE PATHWAY EFFECTIV BONE AVG.LUNG LIVER KIDNEY  
-----  
0.00E+00 INFANT INHAL. 3.04E+01 3.10E+01 2.38E+02 8.54E-01 9.43E-01  
1.93E-02 INFANT GROUND 1.93E-02 1.93E-02 1.93E-02 1.93E-02 1.93E-02  
6.05E-07 INFANT CLOUD 6.05E-07 6.05E-07 6.05E-07 6.05E-07 6.05E-07  
0.00E+00 INFANT VEG. ING 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00  
0.00E+00 INFANT MEAT ING 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00  
0.00E+00 INFANT MILK ING 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00  
-----

1.93E-02 INFANT TOTALS 3.04E+01 3.10E+01 2.38E+02 8.74E-01 9.63E-01

-----  
BRONCHI AGE PATHWAY EFFECTIV BONE AVG.LUNG LIVER KIDNEY  
-----  
0.00E+00 CHILD INHAL. 1.48E+01 2.68E+01 1.14E+02 3.58E-01 3.62E-01  
1.93E-02 CHILD GROUND 1.93E-02 1.93E-02 1.93E-02 1.93E-02 1.93E-02  
6.05E-07 CHILD CLOUD 6.05E-07 6.05E-07 6.05E-07 6.05E-07 6.05E-07  
0.00E+00 CHILD VEG. ING 1.20E-01 1.57E+00 9.61E-02 9.61E-02 3.80E-01  
0.00E+00 CHILD MEAT ING 1.19E-02 1.63E-01 1.61E-02 1.61E-02 3.51E-02  
0.00E+00 CHILD MILK ING 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00  
-----

1.93E-02 CHILD TOTALS 1.50E+01 2.85E+01 1.15E+02 4.89E-01 7.96E-01

-----  
BRONCHI AGE PATHWAY EFFECTIV BONE AVG.LUNG LIVER KIDNEY  
-----  
0.00E+00 TEENAGE INHAL. 8.29E+00 2.84E+01 5.96E+01 1.69E-01 1.98E-01  
1.93E-02 TEENAGE GROUND 1.93E-02 1.93E-02 1.93E-02 1.93E-02 1.93E-02  
6.05E-07 TEENAGE CLOUD 6.05E-07 6.05E-07 6.05E-07 6.05E-07 6.05E-07



**POWERTECH (USA) Inc.**

0.00E+00	TEENAGE	VEG. ING	1.99E-01	2.60E+00	1.59E-01	1.59E-01	6.28E-01
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0.00E+00	TEENAGE	MEAT ING	1.93E-02	2.65E-01	2.61E-02	2.61E-02	5.69E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1.93E-02	TEENAGE	TOTALS	8.52E+00	3.13E+01	5.99E+01	3.73E-01	9.02E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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0.00E+00	ADULT	INHAL.	7.05E+00	2.76E+01	4.96E+01	1.42E-01	1.57E-01
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1.93E-02	ADULT	GROUND	1.93E-02	1.93E-02	1.93E-02	1.93E-02	1.93E-02
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6.05E-07	ADULT	CLOUD	6.05E-07	6.05E-07	6.05E-07	6.05E-07	6.05E-07
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0.00E+00	ADULT	VEG. ING	2.75E-01	3.59E+00	2.19E-01	2.19E-01	8.67E-01
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0.00E+00	ADULT	MEAT ING	3.36E-02	4.63E-01	4.56E-02	4.56E-02	9.95E-02
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0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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1.93E-02	ADULT	TOTALS	7.38E+00	3.17E+01	4.99E+01	4.26E-01	1.14E+00
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1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)

DATA: DB.MIL

PAGE 82

08/21/08

TIME STEP NUMBER 1,

DURATION IN YRS IS... 5.0

NUMBER 26 NAME=SF SW

X= -6.1KM, Y= 2.5KM, Z= 0.0M, DIST= 6.6KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
---------	-----	---------	----------	------	----------	-------	--------

2.03E+01	INFANT	INHAL.	3.16E+01	3.10E+01	2.38E+02	8.96E-01	9.60E-01
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2.12E-01	INFANT	GROUND	2.12E-01	2.12E-01	2.12E-01	2.12E-01	2.12E-01
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7.26E-02	INFANT	CLOUD	7.26E-02	7.26E-02	7.26E-02	7.26E-02	7.26E-02
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0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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2.06E+01	INFANT	TOTALS	3.19E+01	3.13E+01	2.39E+02	1.18E+00	1.24E+00
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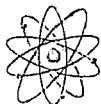
**POWERTECH (USA) Inc.**

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
-----							
2.03E+01	CHILD	INHAL.	1.61E+01	2.68E+01	1.14E+02	3.76E-01	3.69E-01
2.12E-01	CHILD	GROUND	2.12E-01	2.12E-01	2.12E-01	2.12E-01	2.12E-01

7.26E-02	CHILD	CLOUD	7.26E-02	7.26E-02	7.26E-02	7.26E-02	7.26E-02
0.00E+00	CHILD	VEG. ING	1.21E-01	1.58E+00	9.80E-02	9.80E-02	3.81E-01
0.00E+00	CHILD	MEAT ING	1.19E-02	1.64E-01	1.64E-02	1.64E-02	3.53E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
2.06E+01	CHILD	TOTALS	1.65E+01	2.88E+01	1.15E+02	7.76E-01	1.07E+00

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
-----							
2.03E+01	TEENAGE	INHAL.	9.51E+00	2.85E+01	5.96E+01	1.77E-01	2.02E-01
2.12E-01	TEENAGE	GROUND	2.12E-01	2.12E-01	2.12E-01	2.12E-01	2.12E-01
7.26E-02	TEENAGE	CLOUD	7.26E-02	7.26E-02	7.26E-02	7.26E-02	7.26E-02
0.00E+00	TEENAGE	VEG. ING	2.00E-01	2.61E+00	1.62E-01	1.62E-01	6.31E-01
0.00E+00	TEENAGE	MEAT ING	1.94E-02	2.66E-01	2.66E-02	2.66E-02	5.73E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
2.06E+01	TEENAGE	TOTALS	1.00E+01	3.16E+01	6.01E+01	6.50E-01	1.17E+00

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
-----							
2.03E+01	ADULT	INHAL.	8.27E+00	2.76E+01	4.96E+01	1.48E-01	1.60E-01
2.12E-01	ADULT	GROUND	2.12E-01	2.12E-01	2.12E-01	2.12E-01	2.12E-01
7.26E-02	ADULT	CLOUD	7.26E-02	7.26E-02	7.26E-02	7.26E-02	7.26E-02
0.00E+00	ADULT	VEG. ING	2.76E-01	3.60E+00	2.23E-01	2.23E-01	8.71E-01
0.00E+00	ADULT	MEAT ING	3.39E-02	4.66E-01	4.64E-02	4.64E-02	1.00E-01
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
2.06E+01	ADULT	TOTALS	8.86E+00	3.19E+01	5.02E+01	7.03E-01	1.42E+00



**PowerTech (USA) Inc.**

METSET:

DATA: DB.MIL  
TIME STEP NUMBER 1,

08/21/08

DURATION IN YRS IS... 5.0

NUMBER 27 NAME=SF WSW

X= -6.0KM, Y= 3.2KM, Z= 0.0M, DIST= 6.8KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

-----  
BRONCHI

-----  
0.00E+00

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
INFANT	INHAL.	3.62E+01	3.69E+01	2.83E+02	1.02E+00	1.12E+00

2.29E-02

INFANT	GROUND	2.29E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02
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7.19E-07

INFANT	CLOUD	7.19E-07	7.19E-07	7.19E-07	7.19E-07	7.19E-07
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0.00E+00

INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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0.00E+00

INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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0.00E+00

INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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-----  
2.29E-02

INFANT	TOTALS	3.62E+01	3.69E+01	2.83E+02	1.04E+00	1.14E+00
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BRONCHI

-----  
0.00E+00

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
CHILD	INHAL.	1.76E+01	3.18E+01	1.36E+02	4.25E-01	4.30E-01

2.29E-02

CHILD	GROUND	2.29E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02
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7.19E-07

CHILD	CLOUD	7.19E-07	7.19E-07	7.19E-07	7.19E-07	7.19E-07
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0.00E+00

CHILD	VEG. ING	1.43E-01	1.87E+00	1.14E-01	1.14E-01	4.51E-01
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0.00E+00

CHILD	MEAT ING	1.41E-02	1.94E-01	1.91E-02	1.91E-02	4.17E-02
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0.00E+00

CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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2.29E-02

CHILD	TOTALS	1.78E+01	3.39E+01	1.36E+02	5.82E-01	9.46E-01
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BRONCHI

-----  
0.00E+00

AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
TEENAGE	INHAL.	9.85E+00	3.38E+01	7.09E+01	2.01E-01	2.35E-01

2.29E-02

TEENAGE	GROUND	2.29E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02
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7.19E-07

TEENAGE	CLOUD	7.19E-07	7.19E-07	7.19E-07	7.19E-07	7.19E-07
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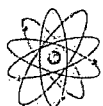
0.00E+00

TEENAGE	VEG. ING	2.37E-01	3.09E+00	1.88E-01	1.88E-01	7.46E-01
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0.00E+00

TEENAGE	MEAT ING	2.29E-02	3.15E-01	3.10E-02	3.10E-02	6.77E-02
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**POWERTECH (USA) Inc.**

0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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2.29E-02	TEENAGE	TOTALS	1.01E+01	3.72E+01	7.11E+01	4.43E-01	1.07E+00
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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0.00E+00	ADULT	INHAL.	8.38E+00	3.28E+01	5.90E+01	1.69E-01	1.87E-01
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2.29E-02	ADULT	GROUND	2.29E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02
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7.19E-07	ADULT	CLOUD	7.19E-07	7.19E-07	7.19E-07	7.19E-07	7.19E-07
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0.00E+00	ADULT	VEG. ING	3.27E-01	4.26E+00	2.60E-01	2.60E-01	1.03E+00
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0.00E+00	ADULT	MEAT ING	4.00E-02	5.50E-01	5.42E-02	5.42E-02	1.18E-01
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0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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2.29E-02	ADULT	TOTALS	8.77E+00	3.76E+01	5.93E+01	5.06E-01	1.36E+00
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1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 84  
08/21/08

DURATION IN YRS IS... 5.0

NUMBER 27 NAME=SF WSW X= -6.0KM, Y= 3.2KM, Z= 0.0M, DIST= 6.8KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
---------	-----	---------	----------	------	----------	-------	--------

1.83E+01	INFANT	INHAL.	3.73E+01	3.69E+01	2.83E+02	1.05E+00	1.13E+00
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2.52E-01	INFANT	GROUND	2.52E-01	2.52E-01	2.52E-01	2.52E-01	2.52E-01
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5.30E-02	INFANT	CLOUD	5.30E-02	5.30E-02	5.30E-02	5.30E-02	5.30E-02
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0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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1.86E+01	INFANT	TOTALS	3.76E+01	3.72E+01	2.83E+02	1.36E+00	1.44E+00
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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**POWERTECH (USA) INC.**

1.83E+01	CHILD	INHAL.	1.87E+01	3.18E+01	1.36E+02	4.41E-01	4.36E-01
2.52E-01	CHILD	GROUND	2.52E-01	2.52E-01	2.52E-01	2.52E-01	2.52E-01
5.30E-02	CHILD	CLOUD	5.30E-02	5.30E-02	5.30E-02	5.30E-02	5.30E-02
0.00E+00	CHILD	VEG. ING	1.44E-01	1.87E+00	1.16E-01	1.16E-01	4.53E-01
0.00E+00	CHILD	MEAT ING	1.42E-02	1.95E-01	1.93E-02	1.93E-02	4.19E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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1.86E+01	CHILD	TOTALS	1.92E+01	3.42E+01	1.36E+02	8.81E-01	1.24E+00
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	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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BRONCHI

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1.83E+01	TEENAGE	INHAL.	1.09E+01	3.38E+01	7.09E+01	2.07E-01	2.39E-01
2.52E-01	TEENAGE	GROUND	2.52E-01	2.52E-01	2.52E-01	2.52E-01	2.52E-01
5.30E-02	TEENAGE	CLOUD	5.30E-02	5.30E-02	5.30E-02	5.30E-02	5.30E-02

0.00E+00	TEENAGE	VEG. ING	2.37E-01	3.10E+00	1.91E-01	1.91E-01	7.48E-01
0.00E+00	TEENAGE	MEAT ING	2.30E-02	3.16E-01	3.14E-02	3.14E-02	6.80E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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1.86E+01	TEENAGE	TOTALS	1.15E+01	3.75E+01	7.14E+01	7.34E-01	1.36E+00
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	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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BRONCHI

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1.83E+01	ADULT	INHAL.	9.47E+00	3.28E+01	5.90E+01	1.74E-01	1.89E-01
2.52E-01	ADULT	GROUND	2.52E-01	2.52E-01	2.52E-01	2.52E-01	2.52E-01
5.30E-02	ADULT	CLOUD	5.30E-02	5.30E-02	5.30E-02	5.30E-02	5.30E-02
0.00E+00	ADULT	VEG. ING	3.28E-01	4.27E+00	2.64E-01	2.64E-01	1.03E+00
0.00E+00	ADULT	MEAT ING	4.02E-02	5.52E-01	5.49E-02	5.49E-02	1.19E-01
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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1.86E+01	ADULT	TOTALS	1.01E+01	3.79E+01	5.96E+01	7.97E-01	1.65E+00
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1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 85  
08/21/08

DURATION IN YRS IS... 5.0



**POWERTECH (USA) INC.**

NUMBER 28 NAME=SF W

X= -6.0KM, Y= 3.6KM, Z= 0.0M, DIST= 7.0KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

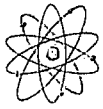
	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
0.00E+00	INFANT	INHAL.	5.97E+01	6.09E+01	4.68E+02	1.68E+00	1.85E+00
3.79E-02	INFANT	GROUND	3.79E-02	3.79E-02	3.79E-02	3.79E-02	3.79E-02
1.19E-06	INFANT	CLOUD	1.19E-06	1.19E-06	1.19E-06	1.19E-06	1.19E-06
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

3.79E-02	INFANT	TOTALS	5.98E+01	6.09E+01	4.68E+02	1.72E+00	1.89E+00
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	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
0.00E+00	CHILD	INHAL.	2.91E+01	5.26E+01	2.25E+02	7.02E-01	7.10E-01
3.79E-02	CHILD	GROUND	3.79E-02	3.79E-02	3.79E-02	3.79E-02	3.79E-02
1.19E-06	CHILD	CLOUD	1.19E-06	1.19E-06	1.19E-06	1.19E-06	1.19E-06
0.00E+00	CHILD	VEG. ING	2.36E-01	3.08E+00	1.89E-01	1.89E-01	7.45E-01
0.00E+00	CHILD	MEAT ING	2.33E-02	3.20E-01	3.15E-02	3.15E-02	6.88E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

3.79E-02	CHILD	TOTALS	2.94E+01	5.60E+01	2.25E+02	9.61E-01	1.56E+00
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	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
0.00E+00	TEENAGE	INHAL.	1.63E+01	5.58E+01	1.17E+02	3.32E-01	3.89E-01
3.79E-02	TEENAGE	GROUND	3.79E-02	3.79E-02	3.79E-02	3.79E-02	3.79E-02
1.19E-06	TEENAGE	CLOUD	1.19E-06	1.19E-06	1.19E-06	1.19E-06	1.19E-06
0.00E+00	TEENAGE	VEG. ING	3.91E-01	5.10E+00	3.11E-01	3.11E-01	1.23E+00
0.00E+00	TEENAGE	MEAT ING	3.78E-02	5.20E-01	5.12E-02	5.12E-02	1.12E-01



POWERTECH (USA) INC.

0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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3.79E-02	TEENAGE	TOTALS	1.67E+01	6.15E+01	1.17E+02	7.32E-01	1.77E+00
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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0.00E+00	ADULT	INHAL.	1.38E+01	5.42E+01	9.74E+01	2.78E-01	3.09E-01
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3.79E-02	ADULT	GROUND	3.79E-02	3.79E-02	3.79E-02	3.79E-02	3.79E-02
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1.19E-06	ADULT	CLOUD	1.19E-06	1.19E-06	1.19E-06	1.19E-06	1.19E-06
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0.00E+00	ADULT	VEG. ING	5.40E-01	7.04E+00	4.30E-01	4.30E-01	1.70E+00
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0.00E+00	ADULT	MEAT ING	6.60E-02	9.09E-01	8.95E-02	8.95E-02	1.95E-01
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0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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3.79E-02	ADULT	TOTALS	1.45E+01	6.21E+01	9.80E+01	8.36E-01	2.24E+00
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1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 86  
08/21/08

DURATION IN YRS IS... 5.0

NUMBER 28 NAME=SF W

X= -6.0KM, Y= 3.6KM, Z= 0.0M, DIST= 7.0KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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1.83E+01	INFANT	INHAL.	6.08E+01	6.09E+01	4.68E+02	1.71E+00	1.86E+00
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4.14E-01	INFANT	GROUND	4.14E-01	4.14E-01	4.14E-01	4.14E-01	4.14E-01
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4.68E-02	INFANT	CLOUD	4.68E-02	4.68E-02	4.68E-02	4.68E-02	4.68E-02
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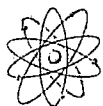
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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1.88E+01	INFANT	TOTALS	6.13E+01	6.14E+01	4.68E+02	2.17E+00	2.33E+00
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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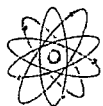
POWERTECH (USA) Inc.

-----							
1.83E+01	CHILD	INHAL.	3.02E+01	5.26E+01	2.25E+02	7.17E-01	7.16E-01
4.14E-01	CHILD	GROUND	4.14E-01	4.14E-01	4.14E-01	4.14E-01	4.14E-01
4.68E-02	CHILD	CLOUD	4.68E-02	4.68E-02	4.68E-02	4.68E-02	4.68E-02
0.00E+00	CHILD	VEG. ING	2.37E-01	3.09E+00	1.90E-01	1.90E-01	7.46E-01
0.00E+00	CHILD	MEAT ING	2.33E-02	3.21E-01	3.18E-02	3.18E-02	6.90E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
1.88E+01	CHILD	TOTALS	3.10E+01	5.65E+01	2.25E+02	1.40E+00	1.99E+00
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
1.83E+01	TEENAGE	INHAL.	1.74E+01	5.58E+01	1.17E+02	3.38E-01	3.92E-01
4.14E-01	TEENAGE	GROUND	4.14E-01	4.14E-01	4.14E-01	4.14E-01	4.14E-01
4.68E-02	TEENAGE	CLOUD	4.68E-02	4.68E-02	4.68E-02	4.68E-02	4.68E-02
0.00E+00	TEENAGE	VEG. ING	3.92E-01	5.11E+00	3.14E-01	3.14E-01	1.23E+00
0.00E+00	TEENAGE	MEAT ING	3.79E-02	5.21E-01	5.16E-02	5.16E-02	1.12E-01
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
1.88E+01	TEENAGE	TOTALS	1.83E+01	6.19E+01	1.18E+02	1.16E+00	2.20E+00
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
1.83E+01	ADULT	INHAL.	1.49E+01	5.42E+01	9.74E+01	2.84E-01	3.11E-01
4.14E-01	ADULT	GROUND	4.14E-01	4.14E-01	4.14E-01	4.14E-01	4.14E-01
4.68E-02	ADULT	CLOUD	4.68E-02	4.68E-02	4.68E-02	4.68E-02	4.68E-02
0.00E+00	ADULT	VEG. ING	5.41E-01	7.05E+00	4.33E-01	4.33E-01	1.71E+00
0.00E+00	ADULT	MEAT ING	6.62E-02	9.11E-01	9.02E-02	9.02E-02	1.96E-01
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
1.88E+01	ADULT	TOTALS	1.60E+01	6.26E+01	9.84E+01	1.27E+00	2.67E+00

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 87  
08/21/08  
DURATION IN YRS IS... 5.0



**POWERTech (USA) Inc.**

NUMBER 29 NAME=SF WNW

X= -5.4KM, Y= 3.7KM, Z= 0.0M, DIST= 6.5KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

-----  
BRONCHI

AGE PATHWAY EFFECTIV BONE AVG.LUNG LIVER KIDNEY

-----  
0.00E+00 INFANT INHAL. 2.19E+02 2.23E+02 1.71E+03 6.14E+00 6.78E+00  
1.39E-01 INFANT GROUND 1.39E-01 1.39E-01 1.39E-01 1.39E-01 1.39E-01  
4.35E-06 INFANT CLOUD 4.35E-06 4.35E-06 4.35E-06 4.35E-06 4.35E-06  
0.00E+00 INFANT VEG. ING 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00  
0.00E+00 INFANT MEAT ING 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00  
0.00E+00 INFANT MILK ING 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00  
0.00E+00

-----  
1.39E-01 INFANT TOTALS 2.19E+02 2.23E+02 1.71E+03 6.28E+00 6.92E+00

BRONCHI

AGE PATHWAY EFFECTIV BONE AVG.LUNG LIVER KIDNEY

-----  
0.00E+00 CHILD INHAL. 1.07E+02 1.93E+02 8.23E+02 2.57E+00 2.60E+00  
1.39E-01 CHILD GROUND 1.39E-01 1.39E-01 1.39E-01 1.39E-01 1.39E-01  
4.35E-06 CHILD CLOUD 4.35E-06 4.35E-06 4.35E-06 4.35E-06 4.35E-06  
0.00E+00 CHILD VEG. ING 8.66E-01 1.13E+01 6.91E-01 6.91E-01 2.73E+00  
0.00E+00 CHILD MEAT ING 8.53E-02 1.17E+00 1.16E-01 1.16E-01 2.52E-01  
0.00E+00 CHILD MILK ING 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00  
0.00E+00

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1.39E-01 CHILD TOTALS 1.08E+02 2.05E+02 8.24E+02 3.52E+00 5.72E+00

BRONCHI

AGE PATHWAY EFFECTIV BONE AVG.LUNG LIVER KIDNEY

-----  
0.00E+00 TEENAGE INHAL. 5.96E+01 2.05E+02 4.29E+02 1.21E+00 1.42E+00  
1.39E-01 TEENAGE GROUND 1.39E-01 1.39E-01 1.39E-01 1.39E-01 1.39E-01  
4.35E-06 TEENAGE CLOUD 4.35E-06 4.35E-06 4.35E-06 4.35E-06 4.35E-06  
0.00E+00 TEENAGE VEG. ING 1.43E+00 1.87E+01 1.14E+00 1.14E+00 4.52E+00  
0.00E+00 TEENAGE MEAT ING 1.38E-01 1.90E+00 1.88E-01 1.88E-01 4.09E-01  
0.00E+00 TEENAGE MILK ING 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00  
0.00E+00



**POWERTECH (USA) INC.**

-----							
1.39E-01	TEENAGE	TOTALS	6.13E+01	2.25E+02	4.30E+02	2.68E+00	6.49E+00
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
0.00E+00	ADULT	INHAL.	5.07E+01	1.98E+02	3.57E+02	1.02E+00	1.13E+00
1.39E-01	ADULT	GROUND	1.39E-01	1.39E-01	1.39E-01	1.39E-01	1.39E-01
4.35E-06	ADULT	CLOUD	4.35E-06	4.35E-06	4.35E-06	4.35E-06	4.35E-06
0.00E+00	ADULT	VEG. ING	1.98E+00	2.58E+01	1.57E+00	1.57E+00	6.24E+00
0.00E+00	ADULT	MEAT ING	2.42E-01	3.33E+00	3.28E-01	3.28E-01	7.15E-01
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
1.39E-01	ADULT	TOTALS	5.30E+01	2.28E+02	3.59E+02	3.06E+00	8.22E+00

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 88  
08/21/08  
DURATION IN YRS IS... 5.0

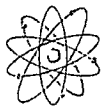
NUMBER 29 NAME=SF WNW

X= -5.4KM, Y= 3.7KM, Z= 0.0M, DIST= 6.5KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

-----							
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
2.46E+01	INFANT	INHAL.	2.20E+02	2.23E+02	1.71E+03	6.17E+00	6.79E+00
1.51E+00	INFANT	GROUND	1.51E+00	1.51E+00	1.51E+00	1.51E+00	1.51E+00
3.98E-02	INFANT	CLOUD	3.98E-02	3.98E-02	3.98E-02	3.98E-02	3.98E-02
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
2.61E+01	INFANT	TOTALS	2.22E+02	2.25E+02	1.71E+03	7.73E+00	8.35E+00

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
2.46E+01	CHILD	INHAL.	1.08E+02	1.93E+02	8.23E+02	2.59E+00	2.61E+00



# POWERTECH (USA) INC.

1.51E+00	CHILD	GROUND	1.51E+00	1.51E+00	1.51E+00	1.51E+00	1.51E+00
3.98E-02	CHILD	CLOUD	3.98E-02	3.98E-02	3.98E-02	3.98E-02	3.98E-02
0.00E+00	CHILD	VEG. ING	8.66E-01	1.13E+01	6.93E-01	6.93E-01	2.73E+00
0.00E+00	CHILD	MEAT ING	8.53E-02	1.17E+00	1.16E-01	1.16E-01	2.52E-01
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

2.61E+01	CHILD	TOTALS	1.11E+02	2.07E+02	8.25E+02	4.95E+00	7.14E+00
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG. LUNG	LIVER	KIDNEY
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2.46E+01	TEENAGE	INHAL.	6.10E+01	2.05E+02	4.29E+02	1.22E+00	1.43E+00
1.51E+00	TEENAGE	GROUND	1.51E+00	1.51E+00	1.51E+00	1.51E+00	1.51E+00
3.98E-02	TEENAGE	CLOUD	3.98E-02	3.98E-02	3.98E-02	3.98E-02	3.98E-02
0.00E+00	TEENAGE	VEG. ING	1.43E+00	1.87E+01	1.14E+00	1.14E+00	4.52E+00
0.00E+00	TEENAGE	MEAT ING	1.39E-01	1.91E+00	1.88E-01	1.88E-01	4.10E-01
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

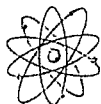
2.61E+01	TEENAGE	TOTALS	6.42E+01	2.27E+02	4.32E+02	4.10E+00	7.91E+00
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG. LUNG	LIVER	KIDNEY
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2.46E+01	ADULT	INHAL.	5.21E+01	1.98E+02	3.57E+02	1.02E+00	1.13E+00
1.51E+00	ADULT	GROUND	1.51E+00	1.51E+00	1.51E+00	1.51E+00	1.51E+00
3.98E-02	ADULT	CLOUD	3.98E-02	3.98E-02	3.98E-02	3.98E-02	3.98E-02
0.00E+00	ADULT	VEG. ING	1.98E+00	2.58E+01	1.58E+00	1.58E+00	6.24E+00
0.00E+00	ADULT	MEAT ING	2.42E-01	3.33E+00	3.28E-01	3.28E-01	7.16E-01
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

2.61E+01	ADULT	TOTALS	5.59E+01	2.29E+02	3.60E+02	4.48E+00	9.64E+00
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**PowerTech (USA) Inc.**

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 89  
08/21/08

DURATION IN YRS IS... 5.0

NUMBER 30 NAME=SF NW

X= -5.2KM, Y= 3.8KM, Z= 0.0M, DIST= 6.4KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
0.00E+00	INFANT	INHAL.	2.25E+02	2.29E+02	1.76E+03	6.32E+00	6.97E+00
1.43E-01	INFANT	GROUND	1.43E-01	1.43E-01	1.43E-01	1.43E-01	1.43E-01
4.47E-06	INFANT	CLOUD	4.47E-06	4.47E-06	4.47E-06	4.47E-06	4.47E-06
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.43E-01	INFANT	TOTALS	2.25E+02	2.29E+02	1.76E+03	6.46E+00	7.12E+00

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
0.00E+00	CHILD	INHAL.	1.10E+02	1.98E+02	8.46E+02	2.65E+00	2.67E+00
1.43E-01	CHILD	GROUND	1.43E-01	1.43E-01	1.43E-01	1.43E-01	1.43E-01
4.47E-06	CHILD	CLOUD	4.47E-06	4.47E-06	4.47E-06	4.47E-06	4.47E-06
0.00E+00	CHILD	VEG. ING	8.90E-01	1.16E+01	7.11E-01	7.11E-01	2.81E+00
0.00E+00	CHILD	MEAT ING	8.77E-02	1.21E+00	1.19E-01	1.19E-01	2.59E-01
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.43E-01	CHILD	TOTALS	1.11E+02	2.11E+02	8.47E+02	3.62E+00	5.88E+00

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
0.00E+00	TEENAGE	INHAL.	6.12E+01	2.10E+02	4.41E+02	1.25E+00	1.46E+00
1.43E-01	TEENAGE	GROUND	1.43E-01	1.43E-01	1.43E-01	1.43E-01	1.43E-01
4.47E-06	TEENAGE	CLOUD	4.47E-06	4.47E-06	4.47E-06	4.47E-06	4.47E-06
0.00E+00	TEENAGE	VEG. ING	1.47E+00	1.92E+01	1.17E+00	1.17E+00	4.64E+00
0.00E+00	TEENAGE	MEAT ING	1.42E-01	1.96E+00	1.93E-01	1.93E-01	4.21E-01
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00



POWERTECH (USA) Inc.

1.43E-01      TEENAGE      TOTALS      6.30E+01      2.32E+02      4.42E+02      2.76E+00      6.67E+00

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
-----							
0.00E+00	ADULT	INHAL.	5.21E+01	2.04E+02	3.67E+02	1.05E+00	1.16E+00
1.43E-01	ADULT	GROUND	1.43E-01	1.43E-01	1.43E-01	1.43E-01	1.43E-01
4.47E-06	ADULT	CLOUD	4.47E-06	4.47E-06	4.47E-06	4.47E-06	4.47E-06
0.00E+00	ADULT	VEG. ING	2.03E+00	2.65E+01	1.62E+00	1.62E+00	6.41E+00
0.00E+00	ADULT	MEAT ING	2.49E-01	3.42E+00	3.37E-01	3.37E-01	7.36E-01
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
1.43E-01	ADULT	TOTALS	5.45E+01	2.34E+02	3.69E+02	3.15E+00	8.45E+00

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

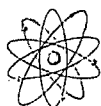
PAGE 90  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 30 NAME=SF NW

X= -5.2KM, Y= 3.8KM, Z= 0.0M, DIST= 6.4KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
-----							
3.04E+01	INFANT	INHAL.	2.27E+02	2.29E+02	1.76E+03	6.35E+00	6.98E+00
1.56E+00	INFANT	GROUND	1.56E+00	1.56E+00	1.56E+00	1.56E+00	1.56E+00
3.88E-02	INFANT	CLOUD	3.88E-02	3.88E-02	3.88E-02	3.88E-02	3.88E-02
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
3.20E+01	INFANT	TOTALS	2.28E+02	2.31E+02	1.76E+03	7.94E+00	8.58E+00
BRONCHI							
-----							
3.04E+01	CHILD	INHAL.	1.12E+02	1.98E+02	8.46E+02	2.66E+00	2.68E+00
1.56E+00	CHILD	GROUND	1.56E+00	1.56E+00	1.56E+00	1.56E+00	1.56E+00



POWERTECH (USA) Inc.

3.88E-02	CHILD	CLOUD	3.88E-02	3.88E-02	3.88E-02	3.88E-02	3.88E-02
0.00E+00	CHILD	VEG. ING	8.90E-01	1.16E+01	7.12E-01	7.12E-01	2.81E+00
0.00E+00	CHILD	MEAT ING	8.77E-02	1.21E+00	1.19E-01	1.19E-01	2.59E-01
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

3.20E+01	CHILD	TOTALS	1.14E+02	2.12E+02	8.48E+02	5.08E+00	7.34E+00
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY

3.04E+01	TEENAGE	INHAL.	6.31E+01	2.10E+02	4.41E+02	1.25E+00	1.47E+00
1.56E+00	TEENAGE	GROUND	1.56E+00	1.56E+00	1.56E+00	1.56E+00	1.56E+00
3.88E-02	TEENAGE	CLOUD	3.88E-02	3.88E-02	3.88E-02	3.88E-02	3.88E-02
0.00E+00	TEENAGE	VEG. ING	1.47E+00	1.92E+01	1.17E+00	1.17E+00	4.64E+00
0.00E+00	TEENAGE	MEAT ING	1.42E-01	1.96E+00	1.93E-01	1.93E-01	4.21E-01
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

3.20E+01	TEENAGE	TOTALS	6.63E+01	2.33E+02	4.44E+02	4.22E+00	8.13E+00
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY

3.04E+01	ADULT	INHAL.	5.39E+01	2.04E+02	3.67E+02	1.05E+00	1.16E+00
1.56E+00	ADULT	GROUND	1.56E+00	1.56E+00	1.56E+00	1.56E+00	1.56E+00
3.88E-02	ADULT	CLOUD	3.88E-02	3.88E-02	3.88E-02	3.88E-02	3.88E-02
0.00E+00	ADULT	VEG. ING	2.03E+00	2.65E+01	1.62E+00	1.62E+00	6.41E+00
0.00E+00	ADULT	MEAT ING	2.49E-01	3.42E+00	3.38E-01	3.38E-01	7.36E-01
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

3.20E+01	ADULT	TOTALS	5.78E+01	2.36E+02	3.70E+02	4.61E+00	9.91E+00
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1REGION: Dewey Burdock  
METSET:

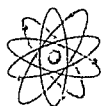
CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 91  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 31 NAME=SF NNW

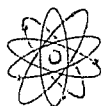
X= -5.2KM, Y= 4.1KM, Z= 0.0M, DIST= 6.6KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR



**POWERTECH (USA) INC.**

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG. LUNG	LIVER	KIDNEY
-----							
0.00E+00	INFANT	INHAL.	2.20E+02	2.24E+02	1.72E+03	6.17E+00	6.81E+00
1.39E-01	INFANT	GROUND	1.39E-01	1.39E-01	1.39E-01	1.39E-01	1.39E-01
4.36E-06	INFANT	CLOUD	4.36E-06	4.36E-06	4.36E-06	4.36E-06	4.36E-06
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
1.39E-01	INFANT	TOTALS	2.20E+02	2.24E+02	1.72E+03	6.31E+00	6.95E+00
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG. LUNG	LIVER	KIDNEY
-----							
0.00E+00	CHILD	INHAL.	1.07E+02	1.93E+02	8.26E+02	2.58E+00	2.61E+00
1.39E-01	CHILD	GROUND	1.39E-01	1.39E-01	1.39E-01	1.39E-01	1.39E-01
4.36E-06	CHILD	CLOUD	4.36E-06	4.36E-06	4.36E-06	4.36E-06	4.36E-06
0.00E+00	CHILD	VEG. ING	8.69E-01	1.13E+01	6.94E-01	6.94E-01	2.74E+00
0.00E+00	CHILD	MEAT ING	8.56E-02	1.18E+00	1.16E-01	1.16E-01	2.53E-01
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
1.39E-01	CHILD	TOTALS	1.08E+02	2.06E+02	8.27E+02	3.53E+00	5.74E+00
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG. LUNG	LIVER	KIDNEY
-----							
0.00E+00	TEENAGE	INHAL.	5.98E+01	2.05E+02	4.30E+02	1.22E+00	1.43E+00
1.39E-01	TEENAGE	GROUND	1.39E-01	1.39E-01	1.39E-01	1.39E-01	1.39E-01
4.36E-06	TEENAGE	CLOUD	4.36E-06	4.36E-06	4.36E-06	4.36E-06	4.36E-06
0.00E+00	TEENAGE	VEG. ING	1.44E+00	1.87E+01	1.14E+00	1.14E+00	4.53E+00
0.00E+00	TEENAGE	MEAT ING	1.39E-01	1.91E+00	1.88E-01	1.88E-01	4.11E-01
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
1.39E-01	TEENAGE	TOTALS	6.15E+01	2.26E+02	4.32E+02	2.69E+00	6.51E+00



**POWERTECH (USA) Inc.**

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
0.00E+00	ADULT	INHAL.	5.09E+01	1.99E+02	3.58E+02	1.02E+00	1.13E+00
1.39E-01	ADULT	GROUND	1.39E-01	1.39E-01	1.39E-01	1.39E-01	1.39E-01
4.36E-06	ADULT	CLOUD	4.36E-06	4.36E-06	4.36E-06	4.36E-06	4.36E-06
0.00E+00	ADULT	VEG. ING	1.98E+00	2.59E+01	1.58E+00	1.58E+00	6.26E+00
0.00E+00	ADULT	MEAT ING	2.43E-01	3.34E+00	3.29E-01	3.29E-01	7.18E-01
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.39E-01	ADULT	TOTALS	5.32E+01	2.28E+02	3.60E+02	3.07E+00	8.25E+00

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 92  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 31 NAME=SF NNW X= -5.2KM, Y= 4.1KM, Z= 0.0M, DIST= 6.6KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
3.09E+01	INFANT	INHAL.	2.21E+02	2.24E+02	1.72E+03	6.20E+00	6.82E+00
1.52E+00	INFANT	GROUND	1.52E+00	1.52E+00	1.52E+00	1.52E+00	1.52E+00
4.51E-02	INFANT	CLOUD	4.51E-02	4.51E-02	4.51E-02	4.51E-02	4.51E-02
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3.24E+01	INFANT	TOTALS	2.23E+02	2.25E+02	1.72E+03	7.76E+00	8.38E+00

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
3.09E+01	CHILD	INHAL.	1.09E+02	1.93E+02	8.26E+02	2.60E+00	2.62E+00
1.52E+00	CHILD	GROUND	1.52E+00	1.52E+00	1.52E+00	1.52E+00	1.52E+00
4.51E-02	CHILD	CLOUD	4.51E-02	4.51E-02	4.51E-02	4.51E-02	4.51E-02
0.00E+00	CHILD	VEG. ING	8.69E-01	1.13E+01	6.95E-01	6.95E-01	2.74E+00



**POWERTECH (USA) Inc.**

0.00E+00	CHILD	MEAT ING	8.56E-02	1.18E+00	1.16E-01	1.16E-01	2.53E-01
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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3.24E+01	CHILD	TOTALS	1.11E+02	2.07E+02	8.28E+02	4.97E+00	7.17E+00
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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3.09E+01	TEENAGE	INHAL.	6.16E+01	2.05E+02	4.30E+02	1.22E+00	1.43E+00
1.52E+00	TEENAGE	GROUND	1.52E+00	1.52E+00	1.52E+00	1.52E+00	1.52E+00
4.51E-02	TEENAGE	CLOUD	4.51E-02	4.51E-02	4.51E-02	4.51E-02	4.51E-02
0.00E+00	TEENAGE	VEG. ING	1.44E+00	1.88E+01	1.15E+00	1.15E+00	4.53E+00
0.00E+00	TEENAGE	MEAT ING	1.39E-01	1.91E+00	1.89E-01	1.89E-01	4.11E-01
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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3.24E+01	TEENAGE	TOTALS	6.48E+01	2.27E+02	4.33E+02	4.12E+00	7.94E+00
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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3.09E+01	ADULT	INHAL.	5.27E+01	1.99E+02	3.58E+02	1.03E+00	1.14E+00
1.52E+00	ADULT	GROUND	1.52E+00	1.52E+00	1.52E+00	1.52E+00	1.52E+00
4.51E-02	ADULT	CLOUD	4.51E-02	4.51E-02	4.51E-02	4.51E-02	4.51E-02
0.00E+00	ADULT	VEG. ING	1.98E+00	2.59E+01	1.58E+00	1.58E+00	6.26E+00
0.00E+00	ADULT	MEAT ING	2.43E-01	3.34E+00	3.30E-01	3.30E-01	7.18E-01
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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3.24E+01	ADULT	TOTALS	5.65E+01	2.30E+02	3.62E+02	4.51E+00	9.68E+00
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1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

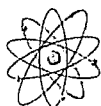
PAGE 93  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 32 NAME=SF ESE X= -2.8KM, Y= 2.6KM, Z= 0.0M, DIST= 3.8KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

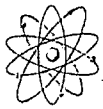
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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PowerTech (USA) Inc.

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0.00E+00	INFANT	INHAL.	3.68E+01	3.75E+01	2.88E+02	1.03E+00	1.14E+00
2.34E-02	INFANT	GROUND	2.34E-02	2.34E-02	2.34E-02	2.34E-02	2.34E-02
7.32E-07	INFANT	CLOUD	7.32E-07	7.32E-07	7.32E-07	7.32E-07	7.32E-07
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
2.34E-02	INFANT	TOTALS	3.68E+01	3.75E+01	2.88E+02	1.06E+00	1.16E+00
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
0.00E+00	CHILD	INHAL.	1.80E+01	3.24E+01	1.39E+02	4.33E-01	4.38E-01
2.34E-02	CHILD	GROUND	2.34E-02	2.34E-02	2.34E-02	2.34E-02	2.34E-02
7.32E-07	CHILD	CLOUD	7.32E-07	7.32E-07	7.32E-07	7.32E-07	7.32E-07
0.00E+00	CHILD	VEG. ING	1.46E-01	1.90E+00	1.16E-01	1.16E-01	4.59E-01
0.00E+00	CHILD	MEAT ING	1.43E-02	1.97E-01	1.94E-02	1.94E-02	4.24E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
2.34E-02	CHILD	TOTALS	1.81E+01	3.45E+01	1.39E+02	5.92E-01	9.63E-01
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
0.00E+00	TEENAGE	INHAL.	1.00E+01	3.44E+01	7.22E+01	2.04E-01	2.40E-01
2.34E-02	TEENAGE	GROUND	2.34E-02	2.34E-02	2.34E-02	2.34E-02	2.34E-02
7.32E-07	TEENAGE	CLOUD	7.32E-07	7.32E-07	7.32E-07	7.32E-07	7.32E-07
0.00E+00	TEENAGE	VEG. ING	2.41E-01	3.14E+00	1.92E-01	1.92E-01	7.60E-01
0.00E+00	TEENAGE	MEAT ING	2.33E-02	3.20E-01	3.15E-02	3.15E-02	6.89E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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2.34E-02	TEENAGE	TOTALS	1.03E+01	3.79E+01	7.24E+01	4.51E-01	1.09E+00
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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**POWERTECH (USA) Inc.**

0.00E+00	ADULT	INHAL.	8.53E+00	3.34E+01	6.01E+01	1.72E-01	1.90E-01
2.34E-02	ADULT	GROUND	2.34E-02	2.34E-02	2.34E-02	2.34E-02	2.34E-02
7.32E-07	ADULT	CLOUD	7.32E-07	7.32E-07	7.32E-07	7.32E-07	7.32E-07
0.00E+00	ADULT	VEG. ING	3.33E-01	4.34E+00	2.65E-01	2.65E-01	1.05E+00
0.00E+00	ADULT	MEAT ING	4.07E-02	5.60E-01	5.51E-02	5.51E-02	1.20E-01
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

2.34E-02	ADULT	TOTALS	8.93E+00	3.83E+01	6.04E+01	5.15E-01	1.38E+00
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1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 94  
08/21/08

DURATION IN YRS IS... 5.0

NUMBER 32 NAME=SF ESE

X= -2.8KM, Y= 2.6KM, Z= 0.0M, DIST= 3.8KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

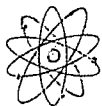
	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
5.03E+01	INFANT	INHAL.	3.98E+01	3.75E+01	2.88E+02	1.07E+00	1.16E+00
2.60E-01	INFANT	GROUND	2.60E-01	2.60E-01	2.60E-01	2.60E-01	2.60E-01
1.21E-01	INFANT	CLOUD	1.21E-01	1.21E-01	1.21E-01	1.21E-01	1.21E-01

0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

5.06E+01	INFANT	TOTALS	4.02E+01	3.79E+01	2.89E+02	1.45E+00	1.54E+00
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	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
5.03E+01	CHILD	INHAL.	2.10E+01	3.24E+01	1.39E+02	4.50E-01	4.45E-01
2.60E-01	CHILD	GROUND	2.60E-01	2.60E-01	2.60E-01	2.60E-01	2.60E-01
1.21E-01	CHILD	CLOUD	1.21E-01	1.21E-01	1.21E-01	1.21E-01	1.21E-01
0.00E+00	CHILD	VEG. ING	1.46E-01	1.91E+00	1.18E-01	1.18E-01	4.61E-01
0.00E+00	CHILD	MEAT ING	1.44E-02	1.98E-01	1.97E-02	1.97E-02	4.27E-02





POWERTECH (USA) INC.

0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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5.06E+01	CHILD	TOTALS	2.15E+01	3.49E+01	1.39E+02	9.68E-01	1.33E+00
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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5.03E+01	TEENAGE	INHAL.	1.30E+01	3.44E+01	7.22E+01	2.12E-01	2.43E-01
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2.60E-01	TEENAGE	GROUND	2.60E-01	2.60E-01	2.60E-01	2.60E-01	2.60E-01
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1.21E-01	TEENAGE	CLOUD	1.21E-01	1.21E-01	1.21E-01	1.21E-01	1.21E-01
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0.00E+00	TEENAGE	VEG. ING	2.42E-01	3.15E+00	1.95E-01	1.95E-01	7.62E-01
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0.00E+00	TEENAGE	MEAT ING	2.34E-02	3.22E-01	3.20E-02	3.20E-02	6.93E-02
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0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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5.06E+01	TEENAGE	TOTALS	1.37E+01	3.83E+01	7.28E+01	8.19E-01	1.46E+00
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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5.03E+01	ADULT	INHAL.	1.15E+01	3.34E+01	6.01E+01	1.78E-01	1.93E-01
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2.60E-01	ADULT	GROUND	2.60E-01	2.60E-01	2.60E-01	2.60E-01	2.60E-01
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1.21E-01	ADULT	CLOUD	1.21E-01	1.21E-01	1.21E-01	1.21E-01	1.21E-01
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0.00E+00	ADULT	VEG. ING	3.34E-01	4.35E+00	2.69E-01	2.69E-01	1.05E+00
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0.00E+00	ADULT	MEAT ING	4.09E-02	5.63E-01	5.59E-02	5.59E-02	1.21E-01
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0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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5.06E+01	ADULT	TOTALS	1.23E+01	3.87E+01	6.08E+01	8.83E-01	1.75E+00
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1REGION: Dewey Burdock  
METSET:

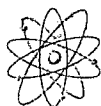
CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 95  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 33 NAME=Daniels Ranch X= 2.1KM, Y= 0.0KM, Z= 0.0M, DIST= 2.1KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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**POWERTECH (USA) INC.**

0.00E+00	INFANT	INHAL.	3.04E+01	3.08E+01	2.38E+02	8.50E-01	9.40E-01
1.93E-02	INFANT	GROUND	1.93E-02	1.93E-02	1.93E-02	1.93E-02	1.93E-02
6.04E-07	INFANT	CLOUD	6.04E-07	6.04E-07	6.04E-07	6.04E-07	6.04E-07
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1.93E-02	INFANT	TOTALS	3.04E+01	3.09E+01	2.38E+02	8.69E-01	9.59E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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0.00E+00	CHILD	INHAL.	1.48E+01	2.66E+01	1.14E+02	3.56E-01	3.60E-01
1.93E-02	CHILD	GROUND	1.93E-02	1.93E-02	1.93E-02	1.93E-02	1.93E-02
6.04E-07	CHILD	CLOUD	6.04E-07	6.04E-07	6.04E-07	6.04E-07	6.04E-07
0.00E+00	CHILD	VEG. ING	1.20E-01	1.57E+00	9.56E-02	9.56E-02	3.79E-01
0.00E+00	CHILD	MEAT ING	1.18E-02	1.62E-01	1.60E-02	1.60E-02	3.50E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1.93E-02	CHILD	TOTALS	1.50E+01	2.84E+01	1.14E+02	4.87E-01	7.94E-01
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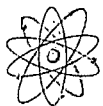
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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0.00E+00	TEENAGE	INHAL.	8.26E+00	2.83E+01	5.95E+01	1.68E-01	1.97E-01
1.93E-02	TEENAGE	GROUND	1.93E-02	1.93E-02	1.93E-02	1.93E-02	1.93E-02
6.04E-07	TEENAGE	CLOUD	6.04E-07	6.04E-07	6.04E-07	6.04E-07	6.04E-07
0.00E+00	TEENAGE	VEG. ING	1.98E-01	2.59E+00	1.58E-01	1.58E-01	6.27E-01
0.00E+00	TEENAGE	MEAT ING	1.92E-02	2.64E-01	2.59E-02	2.59E-02	5.68E-02

0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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1.93E-02	TEENAGE	TOTALS	8.50E+00	3.12E+01	5.97E+01	3.71E-01	9.00E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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**POWERTECH (USA) Inc.**

0.00E+00	ADULT	INHAL.	7.03E+00	2.74E+01	4.95E+01	1.41E-01	1.57E-01
1.93E-02	ADULT	GROUND	1.93E-02	1.93E-02	1.93E-02	1.93E-02	1.93E-02
6.04E-07	ADULT	CLOUD	6.04E-07	6.04E-07	6.04E-07	6.04E-07	6.04E-07
0.00E+00	ADULT	VEG. ING	2.74E-01	3.57E+00	2.18E-01	2.18E-01	8.65E-01
0.00E+00	ADULT	MEAT ING	3.35E-02	4.61E-01	4.53E-02	4.53E-02	9.92E-02
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1.93E-02	ADULT	TOTALS	7.36E+00	3.15E+01	4.98E+01	4.23E-01	1.14E+00
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1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 96  
08/21/08

DURATION IN YRS IS... 5.0

NUMBER 33 NAME=Daniels Ranch X= 2.1KM, Y= 0.0KM, Z= 0.0M, DIST= 2.1KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
2.75E+01	INFANT	INHAL.	3.20E+01	3.09E+01	2.38E+02	9.19E-01	9.67E-01
2.12E-01	INFANT	GROUND	2.12E-01	2.12E-01	2.12E-01	2.12E-01	2.12E-01
7.61E-02	INFANT	CLOUD	7.61E-02	7.61E-02	7.61E-02	7.61E-02	7.61E-02
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

2.78E+01	INFANT	TOTALS	3.23E+01	3.11E+01	2.38E+02	1.21E+00	1.25E+00
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	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
2.75E+01	CHILD	INHAL.	1.65E+01	2.66E+01	1.14E+02	3.87E-01	3.73E-01
2.12E-01	CHILD	GROUND	2.12E-01	2.12E-01	2.12E-01	2.12E-01	2.12E-01
7.61E-02	CHILD	CLOUD	7.61E-02	7.61E-02	7.61E-02	7.61E-02	7.61E-02

0.00E+00	CHILD	VEG. ING	1.21E-01	1.58E+00	9.87E-02	9.87E-02	3.81E-01
0.00E+00	CHILD	MEAT ING	1.20E-02	1.64E-01	1.65E-02	1.65E-02	3.54E-02



**POWERTech (USA) Inc.**

0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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2.78E+01	CHILD	TOTALS	1.69E+01	2.87E+01	1.15E+02	7.90E-01	1.08E+00
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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2.75E+01	TEENAGE	INHAL.	9.91E+00	2.83E+01	5.95E+01	1.81E-01	2.04E-01
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2.12E-01	TEENAGE	GROUND	2.12E-01	2.12E-01	2.12E-01	2.12E-01	2.12E-01
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7.61E-02	TEENAGE	CLOUD	7.61E-02	7.61E-02	7.61E-02	7.61E-02	7.61E-02
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0.00E+00	TEENAGE	VEG. ING	2.00E-01	2.61E+00	1.63E-01	1.63E-01	6.31E-01
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0.00E+00	TEENAGE	MEAT ING	1.94E-02	2.66E-01	2.67E-02	2.67E-02	5.74E-02
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0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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2.78E+01	TEENAGE	TOTALS	1.04E+01	3.15E+01	6.00E+01	6.59E-01	1.18E+00
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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2.75E+01	ADULT	INHAL.	8.68E+00	2.74E+01	4.95E+01	1.52E-01	1.62E-01
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2.12E-01	ADULT	GROUND	2.12E-01	2.12E-01	2.12E-01	2.12E-01	2.12E-01
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7.61E-02	ADULT	CLOUD	7.61E-02	7.61E-02	7.61E-02	7.61E-02	7.61E-02
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0.00E+00	ADULT	VEG. ING	2.76E-01	3.60E+00	2.25E-01	2.25E-01	8.71E-01
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0.00E+00	ADULT	MEAT ING	3.39E-02	4.66E-01	4.67E-02	4.67E-02	1.00E-01
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0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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2.78E+01	ADULT	TOTALS	9.28E+00	3.18E+01	5.01E+01	7.12E-01	1.42E+00
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1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

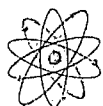
PAGE 97  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 34 NAME=Spencer Ranch X= -2.0KM, Y= 1.2KM, Z= 0.0M, DIST= 2.3KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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0.00E+00	INFANT	INHAL.	3.43E+01	3.49E+01	2.69E+02	9.62E-01	1.06E+00
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**POWERTECH (USA) Inc.**

2.18E-02	INFANT	GROUND	2.18E-02	2.18E-02	2.18E-02	2.18E-02	2.18E-02
6.82E-07	INFANT	CLOUD	6.82E-07	6.82E-07	6.82E-07	6.82E-07	6.82E-07
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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2.18E-02      INFANT      TOTALS      3.43E+01      3.49E+01      2.69E+02      9.84E-01      1.08E+00

BRONCHI      AGE      PATHWAY      EFFECTIV      BONE      AVG. LUNG      LIVER      KIDNEY  
-----

0.00E+00	CHILD	INHAL.	1.67E+01	3.02E+01	1.29E+02	4.03E-01	4.08E-01
2.18E-02	CHILD	GROUND	2.18E-02	2.18E-02	2.18E-02	2.18E-02	2.18E-02
6.82E-07	CHILD	CLOUD	6.82E-07	6.82E-07	6.82E-07	6.82E-07	6.82E-07
0.00E+00	CHILD	VEG. ING	1.36E-01	1.77E+00	1.08E-01	1.08E-01	4.28E-01
0.00E+00	CHILD	MEAT ING	1.34E-02	1.84E-01	1.81E-02	1.81E-02	3.95E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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2.18E-02      CHILD      TOTALS      1.69E+01      3.21E+01      1.29E+02      5.51E-01      8.97E-01

BRONCHI      AGE      PATHWAY      EFFECTIV      BONE      AVG. LUNG      LIVER      KIDNEY  
-----

0.00E+00	TEENAGE	INHAL.	9.34E+00	3.20E+01	6.73E+01	1.90E-01	2.23E-01
2.18E-02	TEENAGE	GROUND	2.18E-02	2.18E-02	2.18E-02	2.18E-02	2.18E-02
6.82E-07	TEENAGE	CLOUD	6.82E-07	6.82E-07	6.82E-07	6.82E-07	6.82E-07
0.00E+00	TEENAGE	VEG. ING	2.24E-01	2.93E+00	1.79E-01	1.79E-01	7.08E-01
0.00E+00	TEENAGE	MEAT ING	2.17E-02	2.98E-01	2.94E-02	2.94E-02	6.42E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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2.18E-02      TEENAGE      TOTALS      9.61E+00      3.53E+01      6.75E+01      4.20E-01      1.02E+00

BRONCHI      AGE      PATHWAY      EFFECTIV      BONE      AVG. LUNG      LIVER      KIDNEY  
-----

0.00E+00	ADULT	INHAL.	7.95E+00	3.11E+01	5.60E+01	1.60E-01	1.77E-01
2.18E-02	ADULT	GROUND	2.18E-02	2.18E-02	2.18E-02	2.18E-02	2.18E-02
6.82E-07	ADULT	CLOUD	6.82E-07	6.82E-07	6.82E-07	6.82E-07	6.82E-07



**POWERTECH (USA) INC.**

0.00E+00	ADULT	VEG. ING	3.10E-01	4.04E+00	2.47E-01	2.47E-01	9.78E-01
0.00E+00	ADULT	MEAT ING	3.79E-02	5.22E-01	5.13E-02	5.13E-02	1.12E-01

0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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2.18E-02	ADULT	TOTALS	8.32E+00	3.56E+01	5.63E+01	4.79E-01	1.29E+00
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1REGION: Dewey Burdock	CODE: MILDOS-AREA (02/97)	PAGE 98
METSET:	DATA: DB.MIL	08/21/08
	TIME STEP NUMBER 1,	DURATION IN YRS IS... 5.0

NUMBER 34 NAME=Spencer Ranch X= -2.0KM, Y= 1.2KM, Z= 0.0M, DIST= 2.3KM, IRTYPE=10

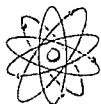
TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
3.17E+01	INFANT	INHAL.	3.62E+01	3.49E+01	2.69E+02	1.03E+00	1.09E+00
2.40E-01	INFANT	GROUND	2.40E-01	2.40E-01	2.40E-01	2.40E-01	2.40E-01
1.47E-01	INFANT	CLOUD	1.47E-01	1.47E-01	1.47E-01	1.47E-01	1.47E-01
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

3.20E+01	INFANT	TOTALS	3.66E+01	3.53E+01	2.69E+02	1.42E+00	1.48E+00
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
3.17E+01	CHILD	INHAL.	1.86E+01	3.02E+01	1.29E+02	4.35E-01	4.21E-01
2.40E-01	CHILD	GROUND	2.40E-01	2.40E-01	2.40E-01	2.40E-01	2.40E-01
1.47E-01	CHILD	CLOUD	1.47E-01	1.47E-01	1.47E-01	1.47E-01	1.47E-01
0.00E+00	CHILD	VEG. ING	1.37E-01	1.78E+00	1.12E-01	1.12E-01	4.31E-01
0.00E+00	CHILD	MEAT ING	1.35E-02	1.86E-01	1.86E-02	1.86E-02	4.00E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

3.20E+01	CHILD	TOTALS	1.92E+01	3.25E+01	1.30E+02	9.52E-01	1.28E+00
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**POWERTECH (USA) INC.**

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
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3.17E+01	TEENAGE	INHAL.	1.12E+01	3.21E+01	6.73E+01	2.04E-01	2.30E-01
2.40E-01	TEENAGE	GROUND	2.40E-01	2.40E-01	2.40E-01	2.40E-01	2.40E-01
1.47E-01	TEENAGE	CLOUD	1.47E-01	1.47E-01	1.47E-01	1.47E-01	1.47E-01

0.00E+00	TEENAGE	VEG. ING	2.26E-01	2.95E+00	1.84E-01	1.84E-01	7.13E-01
0.00E+00	TEENAGE	MEAT ING	2.19E-02	3.01E-01	3.02E-02	3.02E-02	6.49E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

3.20E+01	TEENAGE	TOTALS	1.19E+01	3.57E+01	6.79E+01	8.05E-01	1.39E+00
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	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
-----							
3.17E+01	ADULT	INHAL.	9.85E+00	3.11E+01	5.60E+01	1.71E-01	1.83E-01
2.40E-01	ADULT	GROUND	2.40E-01	2.40E-01	2.40E-01	2.40E-01	2.40E-01
1.47E-01	ADULT	CLOUD	1.47E-01	1.47E-01	1.47E-01	1.47E-01	1.47E-01
0.00E+00	ADULT	VEG. ING	3.12E-01	4.07E+00	2.54E-01	2.54E-01	9.84E-01
0.00E+00	ADULT	MEAT ING	3.83E-02	5.27E-01	5.28E-02	5.28E-02	1.13E-01
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

3.20E+01	ADULT	TOTALS	1.06E+01	3.61E+01	5.67E+01	8.65E-01	1.67E+00
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1REGION: Dewey Burdock  
METSET:

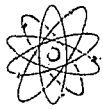
CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 99  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 35 NAME=BC Ranch X= -6.6KM, Y= 3.8KM, Z= 0.0M, DIST= 7.7KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
-----							
0.00E+00	INFANT	INHAL.	2.37E+01	2.42E+01	1.86E+02	6.66E-01	7.36E-01
1.51E-02	INFANT	GROUND	1.51E-02	1.51E-02	1.51E-02	1.51E-02	1.51E-02
4.72E-07	INFANT	CLOUD	4.72E-07	4.72E-07	4.72E-07	4.72E-07	4.72E-07
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00



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0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1.51E-02	INFANT	TOTALS	2.38E+01	2.42E+01	1.86E+02	6.82E-01	7.51E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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0.00E+00	CHILD	INHAL.	1.16E+01	2.09E+01	8.93E+01	2.79E-01	2.82E-01
1.51E-02	CHILD	GROUND	1.51E-02	1.51E-02	1.51E-02	1.51E-02	1.51E-02

4.72E-07	CHILD	CLOUD	4.72E-07	4.72E-07	4.72E-07	4.72E-07	4.72E-07
0.00E+00	CHILD	VEG. ING	9.39E-02	1.23E+00	7.50E-02	7.50E-02	2.96E-01
0.00E+00	CHILD	MEAT ING	9.25E-03	1.27E-01	1.25E-02	1.25E-02	2.74E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1.51E-02	CHILD	TOTALS	1.17E+01	2.23E+01	8.94E+01	3.82E-01	6.21E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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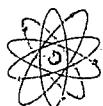
0.00E+00	TEENAGE	INHAL.	6.46E+00	2.22E+01	4.65E+01	1.32E-01	1.55E-01
1.51E-02	TEENAGE	GROUND	1.51E-02	1.51E-02	1.51E-02	1.51E-02	1.51E-02
4.72E-07	TEENAGE	CLOUD	4.72E-07	4.72E-07	4.72E-07	4.72E-07	4.72E-07
0.00E+00	TEENAGE	VEG. ING	1.55E-01	2.03E+00	1.24E-01	1.24E-01	4.90E-01
0.00E+00	TEENAGE	MEAT ING	1.50E-02	2.07E-01	2.03E-02	2.03E-02	4.44E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1.51E-02	TEENAGE	TOTALS	6.65E+00	2.44E+01	4.67E+01	2.91E-01	7.04E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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0.00E+00	ADULT	INHAL.	5.50E+00	2.15E+01	3.87E+01	1.11E-01	1.23E-01
1.51E-02	ADULT	GROUND	1.51E-02	1.51E-02	1.51E-02	1.51E-02	1.51E-02
4.72E-07	ADULT	CLOUD	4.72E-07	4.72E-07	4.72E-07	4.72E-07	4.72E-07
0.00E+00	ADULT	VEG. ING	2.14E-01	2.80E+00	1.71E-01	1.71E-01	6.77E-01
0.00E+00	ADULT	MEAT ING	2.62E-02	3.61E-01	3.56E-02	3.56E-02	7.76E-02





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0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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1.51E-02	ADULT	TOTALS	5.75E+00	2.47E+01	3.89E+01	3.32E-01	8.92E-01
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1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 100  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 35 NAME=BC Ranch X= -6.6KM, Y= 3.8KM, Z= 0.0M, DIST= 7.7KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

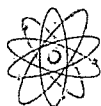
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
1.28E+01	INFANT	INHAL.	2.45E+01	2.42E+01	1.86E+02	7.04E-01	7.51E-01
1.65E-01	INFANT	GROUND	1.65E-01	1.65E-01	1.65E-01	1.65E-01	1.65E-01
4.80E-02	INFANT	CLOUD	4.80E-02	4.80E-02	4.80E-02	4.80E-02	4.80E-02
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1.30E+01	INFANT	TOTALS	2.47E+01	2.44E+01	1.86E+02	9.17E-01	9.64E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
1.28E+01	CHILD	INHAL.	1.23E+01	2.09E+01	8.93E+01	2.96E-01	2.89E-01
1.65E-01	CHILD	GROUND	1.65E-01	1.65E-01	1.65E-01	1.65E-01	1.65E-01
4.80E-02	CHILD	CLOUD	4.80E-02	4.80E-02	4.80E-02	4.80E-02	4.80E-02
0.00E+00	CHILD	VEG. ING	9.44E-02	1.23E+00	7.67E-02	7.67E-02	2.98E-01
0.00E+00	CHILD	MEAT ING	9.33E-03	1.28E-01	1.28E-02	1.28E-02	2.76E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1.30E+01	CHILD	TOTALS	1.27E+01	2.25E+01	8.96E+01	5.99E-01	8.28E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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**POWERTECH (USA) Inc.**

1.28E+01	TEENAGE	INHAL.	7.23E+00	2.22E+01	4.65E+01	1.39E-01	1.58E-01
1.65E-01	TEENAGE	GROUND	1.65E-01	1.65E-01	1.65E-01	1.65E-01	1.65E-01
4.80E-02	TEENAGE	CLOUD	4.80E-02	4.80E-02	4.80E-02	4.80E-02	4.80E-02
0.00E+00	TEENAGE	VEG. ING	1.56E-01	2.04E+00	1.26E-01	1.26E-01	4.92E-01
0.00E+00	TEENAGE	MEAT ING	1.51E-02	2.08E-01	2.08E-02	2.08E-02	4.48E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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1.30E+01	TEENAGE	TOTALS	7.62E+00	2.47E+01	4.69E+01	5.00E-01	9.08E-01
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	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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1.28E+01	ADULT	INHAL.	6.27E+00	2.15E+01	3.87E+01	1.17E-01	1.25E-01
1.65E-01	ADULT	GROUND	1.65E-01	1.65E-01	1.65E-01	1.65E-01	1.65E-01
4.80E-02	ADULT	CLOUD	4.80E-02	4.80E-02	4.80E-02	4.80E-02	4.80E-02
0.00E+00	ADULT	VEG. ING	2.16E-01	2.81E+00	1.75E-01	1.75E-01	6.80E-01

0.00E+00	ADULT	MEAT ING	2.65E-02	3.64E-01	3.63E-02	3.63E-02	7.83E-02
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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1.30E+01	ADULT	TOTALS	6.72E+00	2.49E+01	3.91E+01	5.41E-01	1.10E+00
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1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)

DATA: DB.MIL

PAGE 101

08/21/08

TIME STEP NUMBER 1,

DURATION IN YRS IS... 5.0

NUMBER 36 NAME=Puttman Ranch X= -5.2KM, Y= 7.2KM, Z= 0.0M, DIST= 8.9KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

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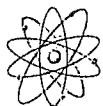
	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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BRONCHI

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0.00E+00	INFANT	INHAL.	9.39E+00	9.56E+00	7.35E+01	2.63E-01	2.91E-01
5.95E-03	INFANT	GROUND	5.95E-03	5.95E-03	5.95E-03	5.95E-03	5.95E-03
1.87E-07	INFANT	CLOUD	1.87E-07	1.87E-07	1.87E-07	1.87E-07	1.87E-07
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00



**POWERTECH (USA) INC.**

0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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5.95E-03	INFANT	TOTALS	9.39E+00	9.57E+00	7.35E+01	2.69E-01	2.97E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG. LUNG	LIVER	KIDNEY
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0.00E+00	CHILD	INHAL.	4.58E+00	8.26E+00	3.53E+01	1.10E-01	1.12E-01
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5.95E-03	CHILD	GROUND	5.95E-03	5.95E-03	5.95E-03	5.95E-03	5.95E-03
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1.87E-07	CHILD	CLOUD	1.87E-07	1.87E-07	1.87E-07	1.87E-07	1.87E-07
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0.00E+00	CHILD	VEG. ING	3.71E-02	4.84E-01	2.96E-02	2.96E-02	1.17E-01
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0.00E+00	CHILD	MEAT ING	3.66E-03	5.03E-02	4.95E-03	4.95E-03	1.08E-02
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0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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5.95E-03	CHILD	TOTALS	4.63E+00	8.80E+00	3.54E+01	1.51E-01	2.45E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG. LUNG	LIVER	KIDNEY
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0.00E+00	TEENAGE	INHAL.	2.56E+00	8.77E+00	1.84E+01	5.21E-02	6.11E-02
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5.95E-03	TEENAGE	GROUND	5.95E-03	5.95E-03	5.95E-03	5.95E-03	5.95E-03
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1.87E-07	TEENAGE	CLOUD	1.87E-07	1.87E-07	1.87E-07	1.87E-07	1.87E-07
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0.00E+00	TEENAGE	VEG. ING	6.14E-02	8.01E-01	4.89E-02	4.89E-02	1.94E-01
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0.00E+00	TEENAGE	MEAT ING	5.94E-03	8.17E-02	8.04E-03	8.04E-03	1.76E-02
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0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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5.95E-03	TEENAGE	TOTALS	2.63E+00	9.66E+00	1.85E+01	1.15E-01	2.78E-01
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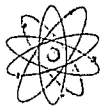
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG. LUNG	LIVER	KIDNEY
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0.00E+00	ADULT	INHAL.	2.17E+00	8.51E+00	1.53E+01	4.37E-02	4.85E-02
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5.95E-03	ADULT	GROUND	5.95E-03	5.95E-03	5.95E-03	5.95E-03	5.95E-03
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1.87E-07	ADULT	CLOUD	1.87E-07	1.87E-07	1.87E-07	1.87E-07	1.87E-07
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0.00E+00	ADULT	VEG. ING	8.48E-02	1.11E+00	6.75E-02	6.75E-02	2.68E-01
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**POWERTECH (USA) Inc.**

0.00E+00	ADULT	MEAT ING	1.04E-02	1.43E-01	1.41E-02	1.41E-02	3.07E-02
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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5.95E-03	ADULT	TOTALS	2.28E+00	9.76E+00	1.54E+01	1.31E-01	3.53E-01

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL

PAGE 102  
08/21/08

TIME STEP NUMBER 1,

DURATION IN YRS IS... 5.0

NUMBER 36 NAME=Puttman Ranch X= -5.2KM, Y= 7.2KM, Z= 0.0M, DIST= 8.9KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
-----							
9.47E+00	INFANT	INHAL.	9.96E+00	9.58E+00	7.35E+01	3.28E-01	3.16E-01
6.58E-02	INFANT	GROUND	6.58E-02	6.58E-02	6.58E-02	6.58E-02	6.58E-02
6.20E-02	INFANT	CLOUD	6.20E-02	6.20E-02	6.20E-02	6.20E-02	6.20E-02
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
9.59E+00	INFANT	TOTALS	1.01E+01	9.70E+00	7.36E+01	4.56E-01	4.44E-01

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
BRONCHI							
-----							
9.47E+00	CHILD	INHAL.	5.15E+00	8.27E+00	3.53E+01	1.39E-01	1.23E-01
6.58E-02	CHILD	GROUND	6.58E-02	6.58E-02	6.58E-02	6.58E-02	6.58E-02
6.20E-02	CHILD	CLOUD	6.20E-02	6.20E-02	6.20E-02	6.20E-02	6.20E-02
0.00E+00	CHILD	VEG. ING	3.80E-02	4.94E-01	3.26E-02	3.26E-02	1.20E-01
0.00E+00	CHILD	MEAT ING	3.79E-03	5.19E-02	5.42E-03	5.42E-03	1.12E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
9.59E+00	CHILD	TOTALS	5.32E+00	8.94E+00	3.55E+01	3.05E-01	3.82E-01



PowerTech (USA) Inc.

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
9.47E+00	TEENAGE	INHAL.	3.13E+00	8.79E+00	1.84E+01	6.45E-02	6.71E-02
6.58E-02	TEENAGE	GROUND	6.58E-02	6.58E-02	6.58E-02	6.58E-02	6.58E-02
6.20E-02	TEENAGE	CLOUD	6.20E-02	6.20E-02	6.20E-02	6.20E-02	6.20E-02
0.00E+00	TEENAGE	VEG. ING	6.28E-02	8.18E-01	5.37E-02	5.37E-02	1.98E-01
0.00E+00	TEENAGE	MEAT ING	6.16E-03	8.42E-02	8.80E-03	8.80E-03	1.82E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
9.59E+00	TEENAGE	TOTALS	3.32E+00	9.82E+00	1.86E+01	2.55E-01	4.11E-01

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
9.47E+00	ADULT	INHAL.	2.74E+00	8.52E+00	1.53E+01	5.41E-02	5.34E-02
6.58E-02	ADULT	GROUND	6.58E-02	6.58E-02	6.58E-02	6.58E-02	6.58E-02
6.20E-02	ADULT	CLOUD	6.20E-02	6.20E-02	6.20E-02	6.20E-02	6.20E-02
0.00E+00	ADULT	VEG. ING	8.67E-02	1.13E+00	7.42E-02	7.42E-02	2.73E-01
0.00E+00	ADULT	MEAT ING	1.08E-02	1.47E-01	1.54E-02	1.54E-02	3.18E-02
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
9.59E+00	ADULT	TOTALS	2.97E+00	9.92E+00	1.55E+01	2.71E-01	4.86E-01

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 103  
08/21/08

DURATION IN YRS IS... 5.0

NUMBER 37 NAME=Englebert Ranch X= 0.3KM, Y= -4.8KM, Z= 0.0M, DIST= 4.8KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
0.00E+00	INFANT	INHAL.	2.06E+01	2.09E+01	1.61E+02	5.76E-01	6.37E-01
1.30E-02	INFANT	GROUND	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02



**POWERTECH (USA) Inc.**

4.09E-07	INFANT	CLOUD	4.09E-07	4.09E-07	4.09E-07	4.09E-07	4.09E-07
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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1.30E-02	INFANT	TOTALS	2.06E+01	2.09E+01	1.61E+02	5.89E-01	6.50E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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0.00E+00	CHILD	INHAL.	1.00E+01	1.81E+01	7.74E+01	2.41E-01	2.44E-01
1.30E-02	CHILD	GROUND	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02
4.09E-07	CHILD	CLOUD	4.09E-07	4.09E-07	4.09E-07	4.09E-07	4.09E-07
0.00E+00	CHILD	VEG. ING	8.13E-02	1.06E+00	6.48E-02	6.48E-02	2.57E-01
0.00E+00	CHILD	MEAT ING	8.01E-03	1.10E-01	1.08E-02	1.08E-02	2.37E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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1.30E-02	CHILD	TOTALS	1.01E+01	1.92E+01	7.75E+01	3.30E-01	5.38E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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0.00E+00	TEENAGE	INHAL.	5.60E+00	1.92E+01	4.03E+01	1.14E-01	1.34E-01
1.30E-02	TEENAGE	GROUND	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02
4.09E-07	TEENAGE	CLOUD	4.09E-07	4.09E-07	4.09E-07	4.09E-07	4.09E-07
0.00E+00	TEENAGE	VEG. ING	1.34E-01	1.75E+00	1.07E-01	1.07E-01	4.25E-01
0.00E+00	TEENAGE	MEAT ING	1.30E-02	1.79E-01	1.76E-02	1.76E-02	3.85E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

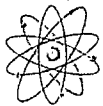
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1.30E-02	TEENAGE	TOTALS	5.76E+00	2.11E+01	4.05E+01	2.51E-01	6.10E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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0.00E+00	ADULT	INHAL.	4.76E+00	1.86E+01	3.36E+01	9.56E-02	1.06E-01
1.30E-02	ADULT	GROUND	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02
4.09E-07	ADULT	CLOUD	4.09E-07	4.09E-07	4.09E-07	4.09E-07	4.09E-07



POWERTECH (USA) Inc.

0.00E+00	ADULT	VEG. ING	1.86E-01	2.42E+00	1.48E-01	1.48E-01	5.86E-01
0.00E+00	ADULT	MEAT ING	2.27E-02	3.13E-01	3.07E-02	3.07E-02	6.72E-02
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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1.30E-02      ADULT      TOTALS      4.98E+00      2.13E+01      3.37E+01      2.87E-01      7.73E-01

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)

PAGE 104

DATA: DB.MIL

08/21/08

TIME STEP NUMBER 1,

DURATION IN YRS IS... 5.0

NUMBER 37 NAME=Englebert Ranch      X= 0.3KM, Y= -4.8KM, Z= 0.0M, DIST= 4.8KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

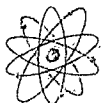
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BRONCHI

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
2.53E+01	INFANT	INHAL.	2.21E+01	2.10E+01	1.61E+02	8.25E-01	7.33E-01
1.45E-01	INFANT	GROUND	1.45E-01	1.45E-01	1.45E-01	1.45E-01	1.45E-01
1.85E-01	INFANT	CLOUD	1.85E-01	1.85E-01	1.85E-01	1.85E-01	1.85E-01
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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2.56E+01      INFANT      TOTALS      2.24E+01      2.13E+01      1.61E+02      1.15E+00      1.06E+00

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BRONCHI

	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
2.53E+01	CHILD	INHAL.	1.16E+01	1.81E+01	7.74E+01	3.52E-01	2.90E-01
1.45E-01	CHILD	GROUND	1.45E-01	1.45E-01	1.45E-01	1.45E-01	1.45E-01
1.85E-01	CHILD	CLOUD	1.85E-01	1.85E-01	1.85E-01	1.85E-01	1.85E-01
0.00E+00	CHILD	VEG. ING	8.46E-02	1.10E+00	7.60E-02	7.60E-02	2.66E-01
0.00E+00	CHILD	MEAT ING	8.52E-03	1.16E-01	1.26E-02	1.26E-02	2.51E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00



POWERTECH (USA) Inc.

2.56E+01	CHILD	TOTALS	1.20E+01	1.96E+01	7.78E+01	7.70E-01	9.10E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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2.53E+01	TEENAGE	INHAL.	7.12E+00	1.93E+01	4.03E+01	1.61E-01	1.57E-01
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1.45E-01	TEENAGE	GROUND	1.45E-01	1.45E-01	1.45E-01	1.45E-01	1.45E-01
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1.85E-01	TEENAGE	CLOUD	1.85E-01	1.85E-01	1.85E-01	1.85E-01	1.85E-01
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0.00E+00	TEENAGE	VEG. ING	1.40E-01	1.82E+00	1.25E-01	1.25E-01	4.40E-01
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0.00E+00	TEENAGE	MEAT ING	1.38E-02	1.89E-01	2.05E-02	2.05E-02	4.08E-02
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0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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2.56E+01	TEENAGE	TOTALS	7.61E+00	2.16E+01	4.08E+01	6.37E-01	9.67E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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2.53E+01	ADULT	INHAL.	6.29E+00	1.87E+01	3.36E+01	1.35E-01	1.25E-01
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1.45E-01	ADULT	GROUND	1.45E-01	1.45E-01	1.45E-01	1.45E-01	1.45E-01
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1.85E-01	ADULT	CLOUD	1.85E-01	1.85E-01	1.85E-01	1.85E-01	1.85E-01
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0.00E+00	ADULT	VEG. ING	1.93E-01	2.51E+00	1.73E-01	1.73E-01	6.07E-01
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0.00E+00	ADULT	MEAT ING	2.42E-02	3.30E-01	3.58E-02	3.58E-02	7.13E-02
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0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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2.56E+01	ADULT	TOTALS	6.83E+00	2.18E+01	3.41E+01	6.74E-01	1.13E+00
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1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 105  
08/21/08

DURATION IN YRS IS... 5.0

NUMBER 38 NAME=Burdock School X= -2.3KM, Y= -2.0KM, Z= -0.0M, DIST= 3.0KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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0.00E+00	INFANT	INHAL.	1.88E+01	1.92E+01	1.47E+02	5.28E-01	5.83E-01
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1.19E-02	INFANT	GROUND	1.19E-02	1.19E-02	1.19E-02	1.19E-02	1.19E-02
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3.74E-07	INFANT	CLOUD	3.74E-07	3.74E-07	3.74E-07	3.74E-07	3.74E-07
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	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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POWERTECH (USA) INC.

0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00							

1.19E-02	INFANT	TOTALS	1.88E+01	1.92E+01	1.47E+02	5.40E-01	5.95E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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0.00E+00	CHILD	INHAL.	9.18E+00	1.65E+01	7.08E+01	2.21E-01	2.24E-01
1.19E-02	CHILD	GROUND	1.19E-02	1.19E-02	1.19E-02	1.19E-02	1.19E-02
3.74E-07	CHILD	CLOUD	3.74E-07	3.74E-07	3.74E-07	3.74E-07	3.74E-07
0.00E+00	CHILD	VEG. ING	7.44E-02	9.71E-01	5.94E-02	5.94E-02	2.35E-01
0.00E+00	CHILD	MEAT ING	7.33E-03	1.01E-01	9.92E-03	9.92E-03	2.17E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1.19E-02	CHILD	TOTALS	9.27E+00	1.76E+01	7.09E+01	3.02E-01	4.92E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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0.00E+00	TEENAGE	INHAL.	5.12E+00	1.76E+01	3.69E+01	1.04E-01	1.22E-01
1.19E-02	TEENAGE	GROUND	1.19E-02	1.19E-02	1.19E-02	1.19E-02	1.19E-02
3.74E-07	TEENAGE	CLOUD	3.74E-07	3.74E-07	3.74E-07	3.74E-07	3.74E-07
0.00E+00	TEENAGE	VEG. ING	1.23E-01	1.61E+00	9.79E-02	9.79E-02	3.88E-01
0.00E+00	TEENAGE	MEAT ING	1.19E-02	1.64E-01	1.61E-02	1.61E-02	3.52E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

1.19E-02	TEENAGE	TOTALS	5.27E+00	1.93E+01	3.70E+01	2.30E-01	5.58E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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0.00E+00	ADULT	INHAL.	4.36E+00	1.70E+01	3.07E+01	8.76E-02	9.72E-02
1.19E-02	ADULT	GROUND	1.19E-02	1.19E-02	1.19E-02	1.19E-02	1.19E-02
3.74E-07	ADULT	CLOUD	3.74E-07	3.74E-07	3.74E-07	3.74E-07	3.74E-07
0.00E+00	ADULT	VEG. ING	1.70E-01	2.22E+00	1.35E-01	1.35E-01	5.36E-01
0.00E+00	ADULT	MEAT ING	2.08E-02	2.86E-01	2.81E-02	2.81E-02	6.15E-02



PowerTech (USA) Inc.

0.00E+00      ADULT      MILK ING      0.00E+00      0.00E+00      0.00E+00      0.00E+00      0.00E+00

-----  
1.19E-02      ADULT      TOTALS      4.56E+00      1.96E+01      3.09E+01      2.63E-01      7.07E-01

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 106  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 38 NAME=Burdock School      X= -2.3KM, Y= -2.0KM, Z= 0.0M, DIST= 3.0KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

-----  
BRONCHI      AGE      PATHWAY      EFFECTIV      BONE      AVG.LUNG      LIVER      KIDNEY  
-----  
2.36E+01      INFANT      INHAL.      2.02E+01      1.92E+01      1.47E+02      6.92E-01      6.47E-01  
1.33E-01      INFANT      GROUND      1.33E-01      1.33E-01      1.33E-01      1.33E-01      1.33E-01  
1.62E-01      INFANT      CLOUD      1.62E-01      1.62E-01      1.62E-01      1.62E-01      1.62E-01  
0.00E+00      INFANT      VEG. ING      0.00E+00      0.00E+00      0.00E+00      0.00E+00      0.00E+00  
0.00E+00      INFANT      MEAT ING      0.00E+00      0.00E+00      0.00E+00      0.00E+00      0.00E+00  
0.00E+00      INFANT      MILK ING      0.00E+00      0.00E+00      0.00E+00      0.00E+00      0.00E+00  
-----

2.39E+01      INFANT      TOTALS      2.05E+01      1.95E+01      1.48E+02      9.87E-01      9.41E-01

-----  
BRONCHI      AGE      PATHWAY      EFFECTIV      BONE      AVG.LUNG      LIVER      KIDNEY  
-----  
2.36E+01      CHILD      INHAL.      1.06E+01      1.66E+01      7.08E+01      2.94E-01      2.54E-01  
1.33E-01      CHILD      GROUND      1.33E-01      1.33E-01      1.33E-01      1.33E-01      1.33E-01  
1.62E-01      CHILD      CLOUD      1.62E-01      1.62E-01      1.62E-01      1.62E-01      1.62E-01  
0.00E+00      CHILD      VEG. ING      7.66E-02      9.96E-01      6.68E-02      6.68E-02      2.41E-01  
0.00E+00      CHILD      MEAT ING      7.67E-03      1.05E-01      1.11E-02      1.11E-02      2.26E-02  
0.00E+00      CHILD      MILK ING      0.00E+00      0.00E+00      0.00E+00      0.00E+00      0.00E+00  
-----

2.39E+01      CHILD      TOTALS      1.10E+01      1.80E+01      7.12E+01      6.66E-01      8.12E-01

-----  
BRONCHI      AGE      PATHWAY      EFFECTIV      BONE      AVG.LUNG      LIVER      KIDNEY



PowerTech (USA) Inc.

-----							
2.36E+01	TEENAGE	INHAL.	6.55E+00	1.76E+01	3.69E+01	1.36E-01	1.38E-01
1.33E-01	TEENAGE	GROUND	1.33E-01	1.33E-01	1.33E-01	1.33E-01	1.33E-01
1.62E-01	TEENAGE	CLOUD	1.62E-01	1.62E-01	1.62E-01	1.62E-01	1.62E-01
	TEENAGE	VEG. ING	1.27E-01	1.65E+00	1.10E-01	1.10E-01	3.98E-01

0.00E+00	TEENAGE	MEAT ING	1.25E-02	1.70E-01	1.80E-02	1.80E-02	3.68E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00							

-----							
2.39E+01	TEENAGE	TOTALS	6.98E+00	1.97E+01	3.73E+01	5.58E-01	8.67E-01
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							

2.36E+01	ADULT	INHAL.	5.78E+00	1.71E+01	3.07E+01	1.14E-01	1.10E-01
1.33E-01	ADULT	GROUND	1.33E-01	1.33E-01	1.33E-01	1.33E-01	1.33E-01

1.62E-01	ADULT	CLOUD	1.62E-01	1.62E-01	1.62E-01	1.62E-01	1.62E-01
0.00E+00	ADULT	VEG. ING	1.75E-01	2.27E+00	1.52E-01	1.52E-01	5.50E-01
0.00E+00	ADULT	MEAT ING	2.18E-02	2.97E-01	3.15E-02	3.15E-02	6.43E-02
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

-----							
2.39E+01	ADULT	TOTALS	6.27E+00	1.99E+01	3.12E+01	5.92E-01	1.02E+00

1REGION: Dewey Burdock  
METSET:

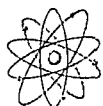
CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 107  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 39 NAME=Heck Ranch X= 1.7KM, Y= -6.4KM, Z= 0.0M, DIST= 6.6KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

-----							
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
0.00E+00	INFANT	INHAL.	1.28E+01	1.31E+01	1.01E+02	3.60E-01	3.97E-01
8.14E-03	INFANT	GROUND	8.14E-03	8.14E-03	8.14E-03	8.14E-03	8.14E-03



# POWERTECH (USA) Inc.

2.55E-07	INFANT	CLOUD	2.55E-07	2.55E-07	2.55E-07	2.55E-07	2.55E-07
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8.14E-03	INFANT	TOTALS	1.28E+01	1.31E+01	1.01E+02	3.68E-01	4.06E-01

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
0.00E+00	CHILD	INHAL.	6.26E+00	1.13E+01	4.83E+01	1.51E-01	1.52E-01
8.14E-03	CHILD	GROUND	8.14E-03	8.14E-03	8.14E-03	8.14E-03	8.14E-03
2.55E-07	CHILD	CLOUD	2.55E-07	2.55E-07	2.55E-07	2.55E-07	2.55E-07
0.00E+00	CHILD	VEG. ING	5.07E-02	6.62E-01	4.05E-02	4.05E-02	1.60E-01
0.00E+00	CHILD	MEAT ING	5.00E-03	6.88E-02	6.76E-03	6.76E-03	1.48E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8.14E-03	CHILD	TOTALS	6.32E+00	1.20E+01	4.83E+01	2.06E-01	3.36E-01

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
0.00E+00	TEENAGE	INHAL.	3.49E+00	1.20E+01	2.52E+01	7.11E-02	8.35E-02
8.14E-03	TEENAGE	GROUND	8.14E-03	8.14E-03	8.14E-03	8.14E-03	8.14E-03
2.55E-07	TEENAGE	CLOUD	2.55E-07	2.55E-07	2.55E-07	2.55E-07	2.55E-07
0.00E+00	TEENAGE	VEG. ING	8.39E-02	1.10E+00	6.67E-02	6.67E-02	2.65E-01
0.00E+00	TEENAGE	MEAT ING	8.11E-03	1.12E-01	1.10E-02	1.10E-02	2.40E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8.14E-03	TEENAGE	TOTALS	3.59E+00	1.32E+01	2.52E+01	1.57E-01	3.81E-01

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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POWERTECH (USA) INC.

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0.00E+00	ADULT	INHAL.	2.97E+00	1.16E+01	2.09E+01	5.97E-02	6.62E-02
8.14E-03	ADULT	GROUND	8.14E-03	8.14E-03	8.14E-03	8.14E-03	8.14E-03
2.55E-07	ADULT	CLOUD	2.55E-07	2.55E-07	2.55E-07	2.55E-07	2.55E-07
0.00E+00	ADULT	VEG. ING	1.16E-01	1.51E+00	9.22E-02	9.22E-02	3.66E-01
0.00E+00	ADULT	MEAT ING	1.42E-02	1.95E-01	1.92E-02	1.92E-02	4.20E-02
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
8.14E-03	ADULT	TOTALS	3.11E+00	1.33E+01	2.11E+01	1.79E-01	4.82E-01

1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL

PAGE 108  
08/21/08

TIME STEP NUMBER 1,

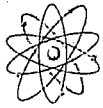
DURATION IN YRS IS... 5.0

NUMBER 39 NAME=Heck Ranch

X= 1.7KM, Y= -6.4KM, Z= 0.0M, DIST= 6.6KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

-----							
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
2.13E+01	INFANT	INHAL.	1.41E+01	1.31E+01	1.01E+02	6.50E-01	5.10E-01
9.10E-02	INFANT	GROUND	9.10E-02	9.10E-02	9.10E-02	9.10E-02	9.10E-02
1.66E-01	INFANT	CLOUD	1.66E-01	1.66E-01	1.66E-01	1.66E-01	1.66E-01
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
2.16E+01	INFANT	TOTALS	1.44E+01	1.34E+01	1.01E+02	9.06E-01	7.67E-01
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
2.13E+01	CHILD	INHAL.	7.55E+00	1.13E+01	4.83E+01	2.80E-01	2.06E-01
9.10E-02	CHILD	GROUND	9.10E-02	9.10E-02	9.10E-02	9.10E-02	9.10E-02
1.66E-01	CHILD	CLOUD	1.66E-01	1.66E-01	1.66E-01	1.66E-01	1.66E-01



POWERTECH (USA) INC.

0.00E+00	CHILD	VEG. ING	5.45E-02	7.06E-01	5.35E-02	5.35E-02	1.71E-01
0.00E+00	CHILD	MEAT ING	5.60E-03	7.57E-02	8.84E-03	8.84E-03	1.65E-02
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

2.16E+01	CHILD	TOTALS	7.87E+00	1.24E+01	4.86E+01	5.99E-01	6.50E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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2.13E+01	TEENAGE	INHAL.	4.78E+00	1.21E+01	2.52E+01	1.26E-01	1.10E-01
9.10E-02	TEENAGE	GROUND	9.10E-02	9.10E-02	9.10E-02	9.10E-02	9.10E-02
1.66E-01	TEENAGE	CLOUD	1.66E-01	1.66E-01	1.66E-01	1.66E-01	1.66E-01
0.00E+00	TEENAGE	VEG. ING	9.02E-02	1.17E+00	8.83E-02	8.83E-02	2.83E-01
0.00E+00	TEENAGE	MEAT ING	9.09E-03	1.23E-01	1.43E-02	1.43E-02	2.68E-02
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

2.16E+01	TEENAGE	TOTALS	5.14E+00	1.36E+01	2.55E+01	4.86E-01	6.76E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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2.13E+01	ADULT	INHAL.	4.26E+00	1.17E+01	2.09E+01	1.06E-01	8.84E-02
9.10E-02	ADULT	GROUND	9.10E-02	9.10E-02	9.10E-02	9.10E-02	9.10E-02
1.66E-01	ADULT	CLOUD	1.66E-01	1.66E-01	1.66E-01	1.66E-01	1.66E-01
0.00E+00	ADULT	VEG. ING	1.25E-01	1.61E+00	1.22E-01	1.22E-01	3.90E-01
0.00E+00	ADULT	MEAT ING	1.59E-02	2.15E-01	2.51E-02	2.51E-02	4.68E-02
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

2.16E+01	ADULT	TOTALS	4.66E+00	1.38E+01	2.13E+01	5.09E-01	7.82E-01
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1REGION: Dewey Burdock  
METSET:

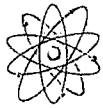
CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 109  
08/21/08.  
DURATION IN YRS IS... 5.0

NUMBER 40 NAME=Edgemont

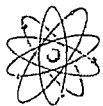
X= 11.0KM, Y= -18.6KM, Z= 0.0M, DIST= 21.6KM, IRTYPE=10

40CFR190 ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR



PowerTech (USA) Inc.

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
0.00E+00	INFANT	INHAL.	3.19E+00	3.24E+00	2.50E+01	8.93E-02	9.87E-02
2.02E-03	INFANT	GROUND	2.02E-03	2.02E-03	2.02E-03	2.02E-03	2.02E-03
6.33E-08	INFANT	CLOUD	6.33E-08	6.33E-08	6.33E-08	6.33E-08	6.33E-08
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
2.02E-03	INFANT	TOTALS	3.19E+00	3.24E+00	2.50E+01	9.13E-02	1.01E-01
-----							
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
0.00E+00	CHILD	INHAL.	1.55E+00	2.80E+00	1.20E+01	3.74E-02	3.79E-02
2.02E-03	CHILD	GROUND	2.02E-03	2.02E-03	2.02E-03	2.02E-03	2.02E-03
6.33E-08	CHILD	CLOUD	6.33E-08	6.33E-08	6.33E-08	6.33E-08	6.33E-08
0.00E+00	CHILD	VEG. ING	1.26E-02	1.64E-01	1.00E-02	1.00E-02	3.98E-02
0.00E+00	CHILD	MEAT ING	1.24E-03	1.71E-02	1.68E-03	1.68E-03	3.67E-03
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
2.02E-03	CHILD	TOTALS	1.57E+00	2.98E+00	1.20E+01	5.11E-02	8.33E-02
-----							
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
0.00E+00	TEENAGE	INHAL.	8.68E-01	2.97E+00	6.25E+00	1.77E-02	2.07E-02
2.02E-03	TEENAGE	GROUND	2.02E-03	2.02E-03	2.02E-03	2.02E-03	2.02E-03
6.33E-08	TEENAGE	CLOUD	6.33E-08	6.33E-08	6.33E-08	6.33E-08	6.33E-08
0.00E+00	TEENAGE	VEG. ING	2.08E-02	2.72E-01	1.66E-02	1.66E-02	6.58E-02
0.00E+00	TEENAGE	MEAT ING	2.01E-03	2.77E-02	2.73E-03	2.73E-03	5.96E-03
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							



POWERTECH (USA) Inc.

2.02E-03	TEENAGE	TOTALS	8.92E-01	3.27E+00	6.27E+00	3.90E-02	9.45E-02
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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0.00E+00	ADULT	INHAL.	7.38E-01	2.88E+00	5.20E+00	1.48E-02	1.64E-02
2.02E-03	ADULT	GROUND	2.02E-03	2.02E-03	2.02E-03	2.02E-03	2.02E-03

6.33E-08	ADULT	CLOUD	6.33E-08	6.33E-08	6.33E-08	6.33E-08	6.33E-08
0.00E+00	ADULT	VEG. ING	2.88E-02	3.75E-01	2.29E-02	2.29E-02	9.08E-02
0.00E+00	ADULT	MEAT ING	3.52E-03	4.84E-02	4.76E-03	4.76E-03	1.04E-02
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

2.02E-03	ADULT	TOTALS	7.72E-01	3.31E+00	5.23E+00	4.45E-02	1.20E-01
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1REGION: Dewey Burdock  
METSET:

CODE: MILDOS-AREA (02/97)  
DATA: DB.MIL  
TIME STEP NUMBER 1,

PAGE 110  
08/21/08  
DURATION IN YRS IS... 5.0

NUMBER 40 NAME=Edgemont X= 11.0KM, Y= -18.6KM, Z= 0.0M, DIST= 21.6KM, IRTYPE=10

TOTAL ANNUAL DOSE COMMITMENTS COMPUTED FOR THIS LOCATION, MREM/YR

BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
5.04E+00	INFANT	INHAL.	3.51E+00	3.29E+00	2.50E+01	3.67E-01	2.07E-01
2.26E-02	INFANT	GROUND	2.26E-02	2.26E-02	2.26E-02	2.26E-02	2.26E-02
4.25E-02	INFANT	CLOUD	4.25E-02	4.25E-02	4.25E-02	4.25E-02	4.25E-02
0.00E+00	INFANT	VEG. ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MEAT ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

5.11E+00	INFANT	TOTALS	3.57E+00	3.36E+00	2.50E+01	4.32E-01	2.72E-01
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BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
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POWERTECH (USA) INC.

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5.04E+00	CHILD	INHAL:	1.87E+00	2.84E+00	1.20E+01	1.61E-01	8.87E-02
2.26E-02	CHILD	GROUND	2.26E-02	2.26E-02	2.26E-02	2.26E-02	2.26E-02
4.25E-02	CHILD	CLOUD	4.25E-02	4.25E-02	4.25E-02	4.25E-02	4.25E-02
0.00E+00	CHILD	VEG. ING	1.62E-02	2.06E-01	2.25E-02	2.25E-02	4.99E-02
0.00E+00	CHILD	MEAT ING	1.82E-03	2.38E-02	3.67E-03	3.67E-03	5.29E-03
0.00E+00	CHILD	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
5.11E+00	CHILD	TOTALS	1.95E+00	3.13E+00	1.21E+01	2.52E-01	2.09E-01
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
5.04E+00	TEENAGE	INHAL.	1.18E+00	3.07E+00	6.25E+00	7.06E-02	4.61E-02
2.26E-02	TEENAGE	GROUND	2.26E-02	2.26E-02	2.26E-02	2.26E-02	2.26E-02
4.25E-02	TEENAGE	CLOUD	4.25E-02	4.25E-02	4.25E-02	4.25E-02	4.25E-02
0.00E+00	TEENAGE	VEG. ING	2.68E-02	3.41E-01	3.72E-02	3.72E-02	8.26E-02
0.00E+00	TEENAGE	MEAT ING	2.95E-03	3.86E-02	5.95E-03	5.95E-03	8.59E-03
0.00E+00	TEENAGE	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
5.11E+00	TEENAGE	TOTALS	1.27E+00	3.52E+00	6.36E+00	1.79E-01	2.02E-01
BRONCHI	AGE	PATHWAY	EFFECTIV	BONE	AVG.LUNG	LIVER	KIDNEY
-----							
5.04E+00	ADULT	INHAL.	1.05E+00	2.94E+00	5.20E+00	5.89E-02	3.76E-02
2.26E-02	ADULT	GROUND	2.26E-02	2.26E-02	2.26E-02	2.26E-02	2.26E-02
4.25E-02	ADULT	CLOUD	4.25E-02	4.25E-02	4.25E-02	4.25E-02	4.25E-02
0.00E+00	ADULT	VEG. ING	3.71E-02	4.71E-01	5.14E-02	5.14E-02	1.14E-01
0.00E+00	ADULT	MEAT ING	5.16E-03	6.74E-02	1.04E-02	1.04E-02	1.50E-02
0.00E+00	ADULT	MILK ING	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
-----							
5.11E+00	ADULT	TOTALS	1.16E+00	3.55E+00	5.33E+00	1.86E-01	2.32E-01