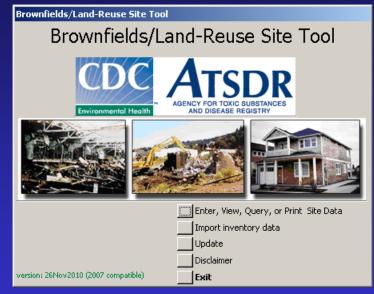
## Tour Guide for the ATSDR Brownfields/Land Reuse Site Tool



## June 23, 2014



## Who We Are - ATSDR

Slide 2

- ATSDR is a federal public health agency of the U.S. Department of Health and Human Services.
- Our goal is to prevent harmful exposures and diseases related to toxic substances.
- Our Brownfields/Land Reuse Initiative integrates public health principles into redevelopment.



### Land Reuse Screening Tool

- Can be used for Brownfields inventory
- Rapid site assessment
- Easy to use
- Uses site information to assess public health involvement.
- Includes an integrated Dose Calculator module
- Requires Microsoft® Access®



Select the Route for Dose Calculations



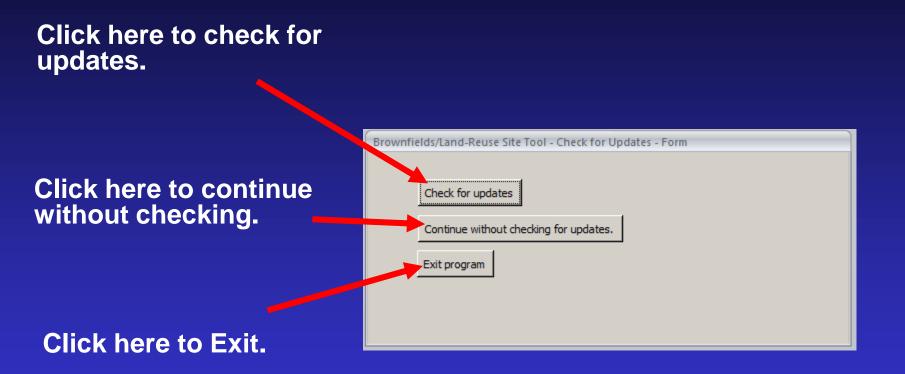
 This Tool is an inventory, rapid site screening, and multiple chemical exposure dose calculating tool that allows users to assess sites by past/future use, institutional controls, sensitive populations, and suspected or confirmed contamination.





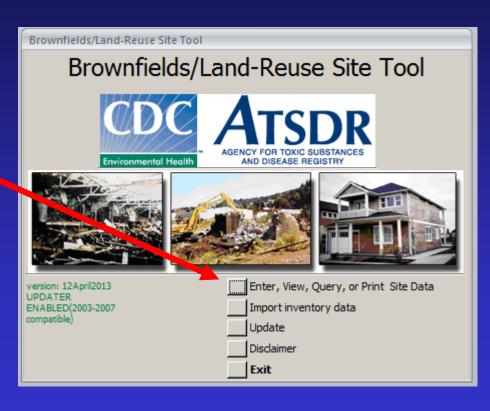
- Evaluate exposures by defining exposed populations and subgroups, multiple exposure pathways, user specific ingestion rates for population groups or use defaults
- Calculate doses using ranges of exposure parameters, 95% confidence intervals, geometric mean, and other statistical parameters.
- Test the data for Normal/Log Normal distributions Import and process laboratory data (10,000 data points per minute throughput)
- Import site data from Excel.
- Export data.
- Query data.
- Troubleshoot analytical problems.
- Set up quality-assurance or quality-control programs.
- Compare various laboratory methods.



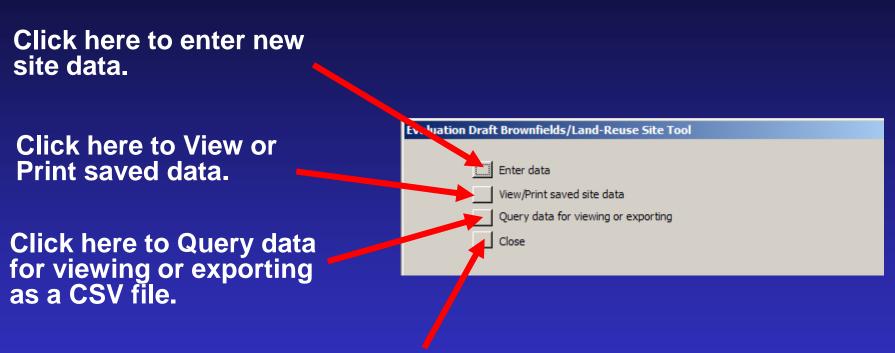




Start by clicking on the button labeled "Enter, View, Query, or Print Site Data."







Click here to close the dialog box.



The information for each site is entered on a series of 13 screens. The screens are also known as "pages." The first page contains information related to "Site Information." Enter the site information, then click on the name of the next "page."

Evaluation Draft	Brownfields/Land-	Reuse Site Too	l - Data Entry	Form			
Close	Save	Scenario	o Name			ID	:
Info Type D	ata Involvement	Future Use Pro	oximity Chems	Concerns	Hazards Exposure	es Attach Log S	Site Visit
Site Name:							
Site Address:							
Site City:			Site State	:	•	Site Zip:	
Site County:							
Site Latitud	le (LAT):		Size of Site:		_	Knowledge of Pro	
Site Longitude	(LONG):		Units:		-		Tribal
Site Con	tact Name:					County	
Site Contact	Affiliation:				_	City/Town	
Site Conta	act Phone:					Brownfield Status	: <b>T</b>
Site Con	tact Email:					Owner	
Institutional (	Controls (description)					Site Code	
Insututional C	Start Date					Date Accepted	1:
	End Date					Soil removal (tons)	):
	Stewardship					Site Status	
		· )				Site Owner Name	
Catalog	gue of Violations:				Test	File Number	
Ca	talogue of Spills:				Inst	itutional_controls_type	
Catalog	gue of Emergency Re	sponse(s):				GW Removed (gals)	Restricted land Use
							Restricted land use

# Enter "Past type(s)." Select from the list and add to the box to the right.

Evaluation Draft Brownfields/Land-Reuse Site Tool - Data Entry Form								
Close Save	Scenario Name	ID:						
Info Type Data Involvement Futu	ure Use Proximity Chems Concerns Hazards	Exposures Attach Log Site Visit						
Past Use(s, Site Type lookup l	list (press enter after you enter a new type)	Past Use(s)						
Former Industrial Hospital Illegal Dumping Incinerator Lagoon/Ponds/Im Landfill/Junkyard, Leaking Undergro Light Bulb Mfg	npoundments /Dump bund Storage Tank (LUST / U ement Operations (CAFO) add >>	Coal Gasification Commercial ter a new value then press ente. Current Use(s) Dry Cleaners						
Adjacent Site(s)  Adjacent Site(s)  Mining Mixed Use (Reside Municipal Municipal Offices Municipal Wells Munitions	■ add >>	Adjacent Site(s) Hospital						

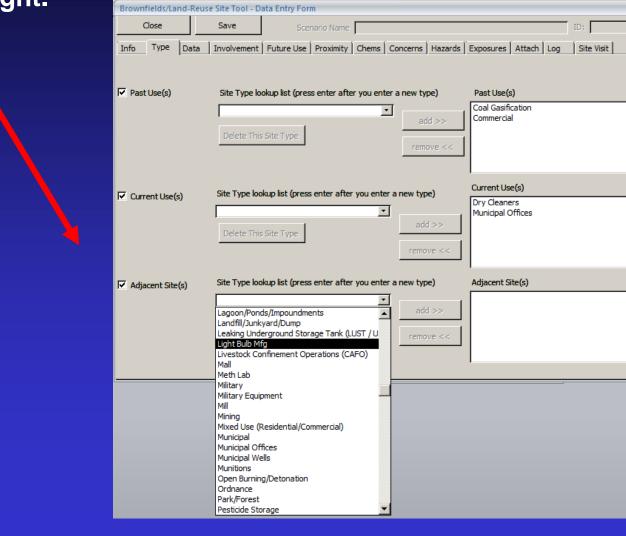
TSDR

## Enter "Current Use(s)." Select from the list and add to the box to the right.

Brownfields/Land-Reuse Site Tool - Data Entry Form												
	Close		Save	Scer	nario Name					II	);	
Info	Туре	Data	Involvement	Future Use	Proximity	Chems	Concerns	Hazards	Exposures Attach	Log	Site Visit	
₽ Past	t Use(s)		Site Type loo	okup list (pres	s enter afte	r you ente		pe) id >> ove <<	Past Use(s) Coal Gasification Commercial			
Curr	rent Use(s	)	Landfill/Junk Leaking Unde Light Bulb Mf	erground Stora	age Tank (Ll	UST / U	ad	e) d >> ve <<	Current Use(s) Dry Cleaners			-
C Adja	acent Site	(s)	Meth Lab Military Equip Mili Mining Mixed Use (R Municipal Municipal Off Municipal We Municipal We	Residential/Con	nmercial)	-		e) d >> ve <<	Adjacent Site(s)			-
			Ordnance Park/Forest Pesticide Sto Pharmaceuti	rage		•						

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## Enter "Adjacent Site(s)." Select from the list and add to the box to the right.





### Enter information related to data available for this site.

Brownfields/Land-Reuse S	Site Tool - Data Entry F	Form					
Close	Save	Scenario Name	ID;				
Info Type Data I	nvolvement   Future U	se Proximity Chems Concerns Hazards Exposures Atta	ach Log Site Visit				
Data From Various Media Air Biota Soil Well Data Vapor Intrusion (soil ga	as)	Reports Available         ✓ City Historical Reports         ✓ Emergency Response         ✓ Phase One Environmental Site Assessment         ✓ Phase Two (sampling data) Environmental Site Assessment         ✓ Removal Action Memo	Add Data To Scenario Contains Linked Air Data Contains Linked Soil Data Contains Linked Water Data Contains Linked Fish Data				
Sediment data  Product Container	Data Available (oth	Pollution Report (POLREP) eer):	Contains Linked Shower Data				
Animals Attracted to Site Animals Attracted to Site Animals Attracted to Site Construction Date of the Bulding(s): Subsistence Activities Observed on Site							
🔲 Community Plan Ava	Subsistence Resources Affected       Local Resources Available to Assist:         Community Plan Available       Community Plan (year):         Name of Interviewer:       Name of People Interviewed:						



### Enter information on this page labeled "Data" then click the next "page." If you will be importing analytical data, save the site data first and provide a "scenario name."

<b>Evaluation Draft B</b>	rown, 'Is/Land-Reu	se Site Tool - Data Entry Form		
Close	Save	Scenario Name	ID:	
Info Type Da	ata Involvement Fut	ure Use Proximity Chems Concerns Hazards Exposu	ures Attach Log Site Visit	
Data From Various I Air Biota Soil Well Data Vapor Intrusion Food data Sediment data	n (soil gas)	Reports Available  City Historical Reports  Emergency Response  Phase One Environmental Site Assessment  Phase Two (sampling data) Environmental Site Ass  Removal Action Memo Pollution Report (POLREP)	Add Data To Scenario Contains Linked Air Data Evaluation Draft Brownfields/Land-Ree Seesson Please save the scenario before adding da OK	
Product Contai  Inventory Co Buildings on S	iner onducted Date Invento	ry Conducted: Local R	Children Attracted to Site Animals Attracted to Site Resources Available to Assist:	
	Resources Affected			
Community P Name of Inte		ty Plan (year): Name of People Interviewed:		Ats

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## Enter information on this page labeled "Involvement" then click the next "page."

Evaluation Draft Brown, elds/Land-Reus	se Site Tool - Data Entry Form
Close S	Scenario Name
Info Type Data Involvement Futur	re Use Proximity Chems Concerns Hazards Exposures Attach Log Site Visit
Prior ATSDR Involvement	by Whom, Date(s):
	by whom, Date(s):
Prior State Involvement	by Whom, Date(s):
Prior County Involvement	by Whom, Date(s):
Prior City/Town Involvement	by Whom, Date(s):
Prior Tribal Involvement	by Whom, Date(s):

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# Enter "future Use" information. Select from the list and add to the box to the right.

Close     Save     Scenario Name     ID;       Info     Type     Data     Involvement     Future Use     Proximity     Chems     Concerns     Hazards     Exposures     Attach     Log     Site Visit	
Future Use Lookup List (press enter after 2 u enter a new use) Future Use(s)	
Daycare Center	
Agricultural add >> School	
Commercial	
Government remove <<	
Housing	
Industrial Manufacturing	
Mixed Use	
Open Office Park	
Recreational Park	
Sidewalk	
Skating Park	



# Enter information on this page labeled "Proximity" then click the next "page."

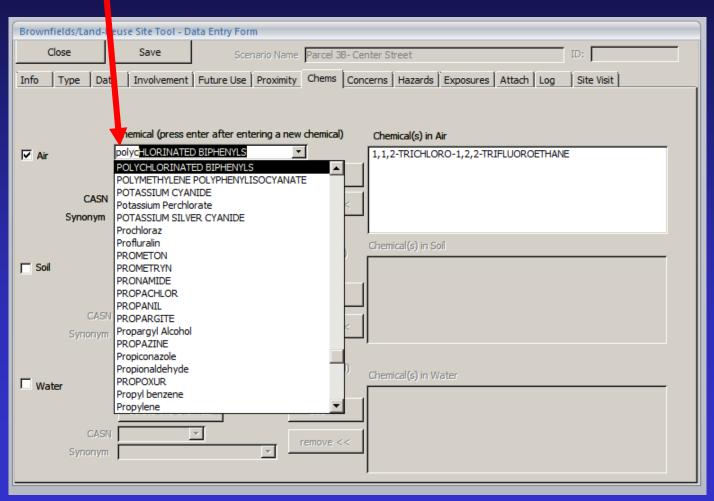
Evaluation Draft Brownfields	s/La. d-Reuse Site Tool - D	ata Entry Form		
Close Save	e Scenario Na	ne		ID;
Info Type Data Invol	vement Future Use Proximi	ty Chems Concerns Ha	azards Exposures Attach Lo	g Site Visit
	earest Residence:			
Distance to Nearest	t Daycare Center:			
Distance to	o Nearest School:			
Distance to Neare	st Nursing Home:			
	,			



The information on this page is descriptive. Only chemical names will be saved. Select the chemical name then click "add>>" to add it to the site information to be saved. Analytical data can only be imported on the Data page.

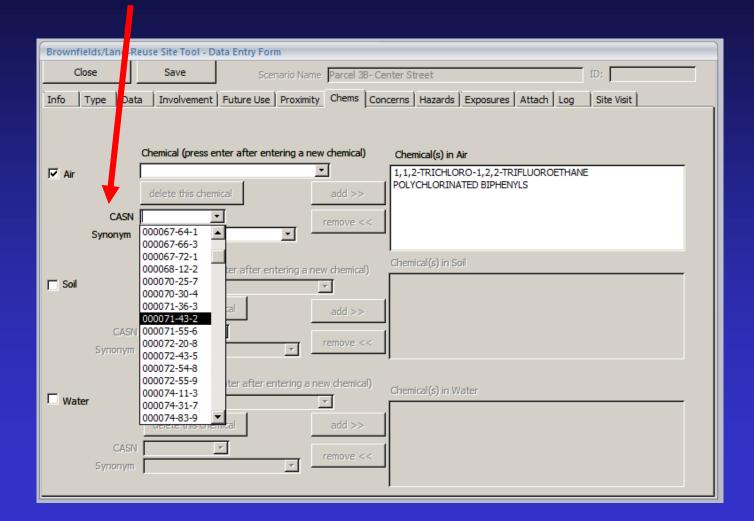
Evaluation Draft Brownfields/Land-Reuse Site Tool - Data Entry Form								
Close	Save	Scenario Na	me			ID:		
Info Type Da	ta Involvement	Future Use Proxim	ity Chems Con	cerns Hazards Ex	posures Attach Log	Site Visit		
	Chemical (press enter after entering a new chemical) Chemical(s) in Air							
Air Air			-	1,1,2-TRICHLORO	1,2,2-TRIFLUOROETHA	NE		
	delete this chem	ical	add >>					
CASN		<u>.</u>	remove <<					
Synonym		<b>*</b>	1200272 5 5					
				Chemical(s) in Soil				
🔽 Soil	Chemical (press (	enter after entering a	new chemical)	FORMALDEHYDE				
1•	delete this che	nical	add >>					
CAS	000050-00-0	<u>-</u>						
Synonym		•	remove <<					
Water		enter after entering a	-	Chemical(s) in Wate	r			
	delete this che	mical	add >>					
CAS		<u>-</u>	remove <<					
Synonym	1,1002							

#### Select the chemical by name...



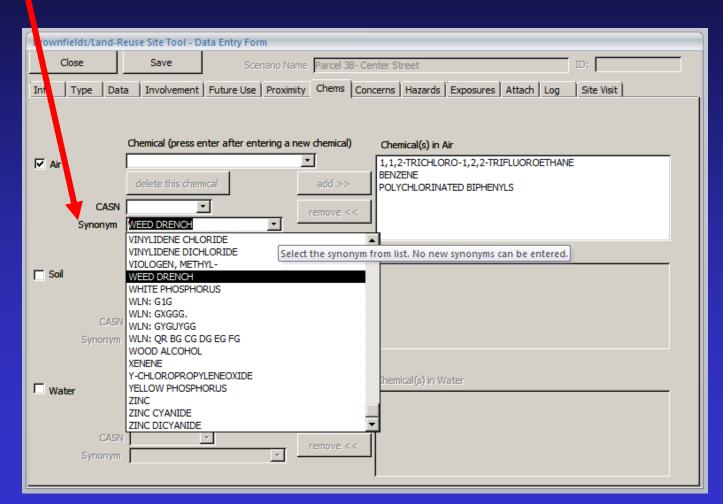


### Select the chemical by CASN...





### Select the chemical by Synonym...





## Enter health and other concerns by selecting from the list and clicking "add>>."

Evaluation Draft Brownfields/Land-Reuse Site Tool - Data Entry Form								
Close Si	ave Scenario Name	ID;						
Info Type Data Inv	volvement Future Use Proximity Chems C	oncerns Hazards Exposures Attach Log Site Visit						
	Health Concern Lookup List (press enter after you	enter a new concern) Health Concern(s)						
_	real of Concern Lookup List (press enter after you							
Health Concerns		eye irritation						
	cancer cardiovascular	add >>						
	death							
	dermal	remove <<						
	endocrine							
	eye gastrointestinal							
	genitourinary							
	genotoxic							
	hematological	Other Concern(s)						
C	Dthe hepatic immunological	r a new concern)						
Other Concerns	kidney	air quality noise						
	lymphoreticular	add >>						
	metabolic							
	musculoskeletal nausea	remove <<						
	neurological							
	non distinct aches pain							
	non distinct anxiety							



# Enter information on this page labeled "Hazards" then click the next "page." The hazards are entered by selecting from the list and clicking "add>>."

Evaluation Draft Brownfields/Land-Reuse Site Tool - Data Entry Form	
Close Save Scenario Natie	ID;
Info Type Data Involvement Future Use Proxim y Chems Concerns Hazards Exposures Attach Lo	og Site Visit
Hito       Type       Data       Involvement       Public Use       Provincy       Concerns       Public Use       Exposures       Attach       Lit         Hazards Lookup List (press enter after entering a new haza 1)       Image: Attach       Hazards on Site       S5-gallon drums         asbestos containing materials       Image: Attach       Image: Attach       Image: Attach       Hazards on Site         biohazards       Image: Attach       Image: Attach       Image: Attach       Hazards on Site         compressed gas cylinders       Image: Attach       Image: Attach       Image: Attach       Hazards on Site         lagoons       Ight fixtures (Hg)       Image: Attach       Image: Attach       Image: Attach       Image: Attach         paint       pesticides       Image: Attach       Image: Attach       Image: Attach       Image: Attach         polycyclic aromatic hydrocarbons (PAH)       Image: Attach       Image: Attach       Image: Attach       Image: Attach       Image: Attach         underground storage tank (UST)       Image: Attach       Image: Attach	



# Enter information on this page labeled "Exposure." Then click on the tab labeled "Attach."

Evaluation Draft Brownfields/Land-Reuse Site Tool - Data Entry Form							
Close Save	Scenario Name	ID;					
Info Type Data Involvement Futu	re Use Proximity Chems Concerns Hazards	Exposures Attach Log Site Visit					
Potential Exposure Routes Air Exposure Route Soil Exposure Route Water Exposure Route Sediment Exposure Route Soil Gas Exposure Route	Potential Exposured Populations          Adults         Children         Ederly	Brief description of who is accessing site: Frequency of Site Access:					
	Exposure scenarios						
	Secure Perimeter Fence						
	Biking						
	Skiing						
	Playing						
	Swimming						
	Other:						

# You may attach up to 5 files (documents, spreadsheets, image files or PDF files).

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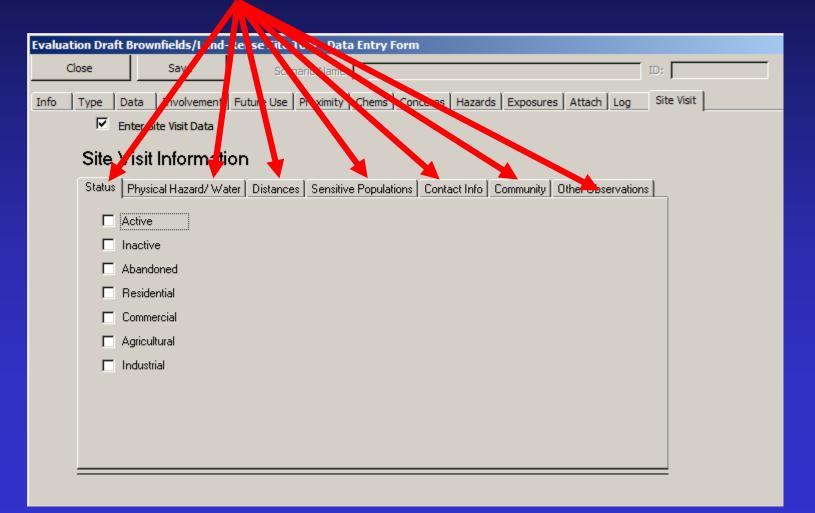
<b>Evaluation Draf</b>	t Brow	nfields/Land-	Reuse Site	Fool - Dat	a Entry Form	1				
Close		Save	Scer	nario Name				ID:		
	Data	Involvement	Future Use	Proximity	Chems Cor	ncerns Hazards E	xposures Attach	Log Site Visi	t]]	
Import file				Sele	ct file to imp	oort				<u>?</u> ×
Remove file file info					Look in:	ipdate7Aug2	009	•	🗧 🗈 💣 🎟 •	
Open					My Recent	testDataSoilOr	lyArsenicOnly10Sar	mplesOnly.xls		
Import file				-	Documents					
Remove file					Desktop					
file info Open				M	v Documents					
Import file					-					
Remove file										
file info				M	y Computer					
Open					<b></b>	File name:			•	Open
				N	ly Network Places	Files of type:	doc, xls, jpg, gif, b		•	Cancel
	_		_		Haces		Open as read-	only		

### Enter additional information about the site here.

<b>Evaluation Draft</b>	Brown	fields/Land-	Reuse Site 1	ĩool - Data	Entry F	orm						
Close		Save	Scen	ario Name							ID:	
Info Type I	Data	Involvement	Future Use	Proximity	Chems	Concerns	Hazards	Exposu	ires Attac	th Log	Site Vi	isit
Inquiries About S	ite:											
								l	Enter addi	tional infor	mation a	bout this site here.



## Site visit information (if available) can be entered on this page and sub-pages.



### Site Visit sub-pages: Physical Hazard/Water

Evaluation Draft Brownfields/Land-R/ use Sit	e Tool - Data Entry Form	
Close Save S	cenario Name ID:	
Enter Site Visit Data	e Proximity Chems Concerns Hazards Exposures Attach Log Sit	te Visit

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### Site Visit sub-pages: Distances

Evalua	tion Dra	aft Brow	nfields/Land-	Reuse Site T	ool - Data	1 / ntry	Form							
	Close		Save	Scen	ario Nam							ID:		
Info	Туре	Data	Involvement	Future Use	Provinity	Chems	Concerns	Hazards	Exposur	es Atta	h Log	Site	Visit	
	<b>N</b>	Enter S	ite Visit Data											
	Site	Visit	Informati	on										
	Statu	s Physi	cal Hazard/ Wa	ter Distances	Sensitive	e Populai	tions   Conta	ict Info 🗍	Community	Other O	bservations	s		
		ſ	Distance	e to Residence			units (feet, m	iles, mete	rs, etc					
			Distance	e to Day Care (	Center		units (feet, m	iles, mete	rs, etc)					
			Distance	e to School	Γ		units (feet, m	iles, mete	rs,					
			Distance	e to Nursing Ho	ime		units (feet, m	iles, mete	rs, etc)					
												_		

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### Site Visit sub-pages: Sensitive Populations

Evaluation Draft B	Brownfields/Land-	Reuse Site Tool - Data Entry Form
Close	Save	Scenario Name ID:
Info Type Da	ata Involvement	Future Use Proximity Chem Concerns Hazards Exposures Attach Log Site Visit
🗹 En	ter Site Visit Data	
Site V	'isit Informati	on
Status F	Physical Hazard/ Wa	ter Distances Sensitive Populations Contact Info Community Other Observations
		Sensitive Populations
	Childbearing Wome	n Elderly
	Pregnant Women Fetus	Low Nutritional
	Infants	Compromised Organ Systems
	Children Men	Altered Metabolic Function     On Medication
	Women	Ethanol User
		Chemical Sensitivity

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### Site Visit sub-pages: Contact Info

Evaluation	Draft Brownfields/Lar	nd-Reuse Site Tool - Data Entry Form	
Close	save Save	Scenario Name ID;	
Info Ty	pe Data Involveme	nt Future Use Proximity Chems Concerns Hazard, Exposures Attach Log Site Vis	sit
	Enter Site Visit Data		
s	Site Visit Informa	ation	
S	itatus   Physical Hazard/ \	Water Distances Sensitive Populations Contact Info Community Other Observations	
1	EPA Brownfield Contact		
	Site Owner		
	State Health		
	City, Local Official		
	Government Entities		
	Private Citizens		
_			

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### Site Visit sub-pages: Community

Evalua	tion Dra	ft Brov	wnfields/Land-	Reuse Site	Tool - Data E	Entry Form			
(	Close		Save	Scer	nario Name				ID:
Info	Туре	Data	Involvement	Future Use	Proximity C	hems Concerns Hazar	ds Exposure	er Attach Log	Site Visit
	•	Enter	Site Visit Data						
	Site	Visi	t Informati	on					
	Status	Phys	sical Hazard/ Wa	ter Distance	s Sensitive F	Populations Contact Info	Community	Other Observation	ons
	Appr	rox Nur	nber of People A	ccessing Site		Community Health Conc	erns		
	Freq	uency	of Site Access						
				_		J			
						Data Gaps			
						1			

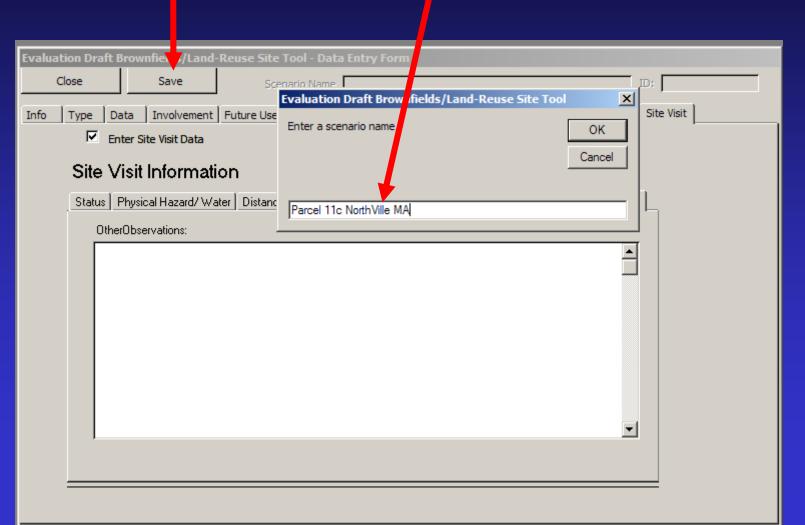
ATSDR

### Site Visit sub-pages: Other Observations

Evalua	tion Dra	ft Brow	nfields/Land-	Reuse Site	Fool - Data Entry	Form			
	Close		Save	Scer	nario Name			/	ID;
Info	Туре	Data	Involvement	Future Use	Proximity Chems	Concerns Hazar	ds Exposure	es Attach J g	Site Visit
		Enter S	ite Visit Data						
	Site	Visit	Informati	on					
	Status	s Physi	ical Hazard/ Wa	ter Distance	s Sensitive Popul	ations   Contact Info	Community	Other Observations	
	0	therObs	ervations:						
	ſ								
								<b>•</b>	
									—



### Click on Save, then enter a scenario name.



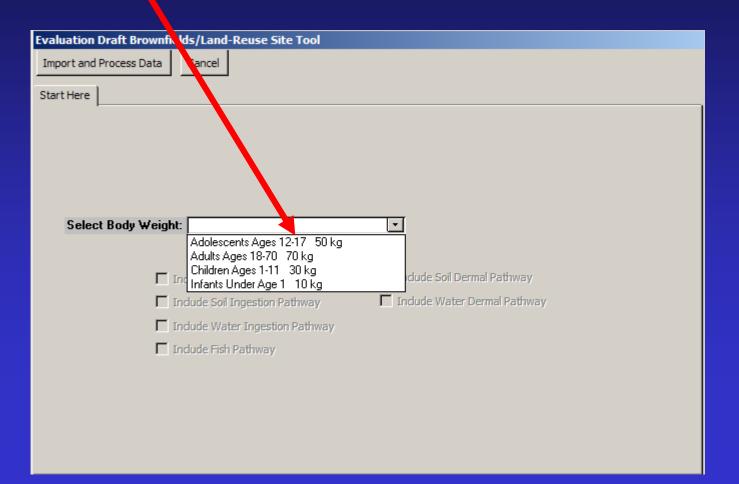


## Importing analytical data. Click on the "Data" page, then click on "Add Data To Scenario."

ID;
Attach Log Site Visit
Add Data To Scenario

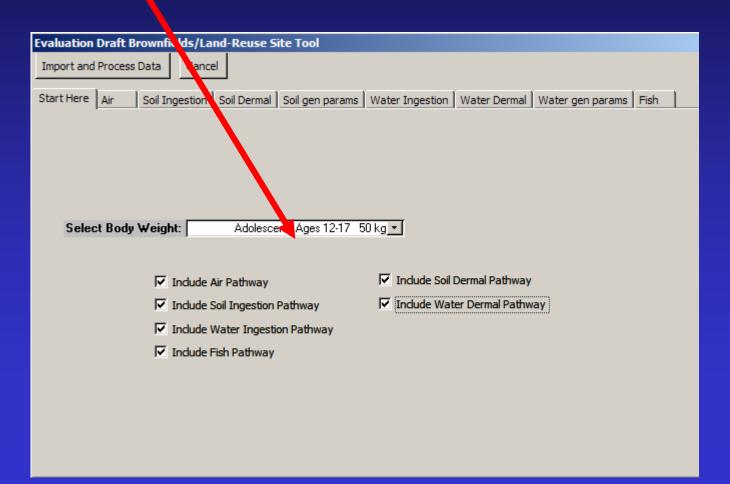
**TSDR** 

# Select body weight for the dose calculations that will be conducted on the imported data.





# Then select the pathways to analyze. The database will check for each pathway in the datafile.



## Enter the pathway-specific parameters.

Evaluation Draft Brown lelds/Land-Reuse Site Tool	
Import and Process Plata Cancel	
Start Here Air Soil Ingestion Soil Dermal Soil gen params Water Ingestion Water Dermal Water gen p	arams Fish
Exposure Duration (in years): 5	

**TSDR** 

## Enter the pathway-specific parameters.

Evaluation Draft	Brownfields/L	nd-Reuse S	ite Tool					
Import and Proces	s Data 🖉 and	el						
Start Here Air	Soil Ingestion	Soil Dermal	Soil gen params	Water Ingestion	Water Dermal	Water gen params	Fish	
Soil Intake:	C Enter S	oil Intake R	ate/day	mg/da	u			
		andard Intal		) mg/day - Child av				



# Enter the pathway-specific parameters. (Select areas exposed to contaminants).

valuation Draft Brownfields/Land-Reuse Sit / Tool
Import and Process Data Cancel
Start Here Air Soil Ingestion Soil Dermal Coll geneparamer Water In estion Water Dermal Water gen params Fish
A = Total Soil Adheted (mg) = Expressed Skin Area x Soil Adderence Column         □ Head       ☑ Torso       ☑ Arms       ☑ Hands       ☑ Legs       ☑ Feet         A = Exposed Skin Area:       1.38E+04       x Soil Adherence Concentration       0.2         A =       2.76E+03
Total Surface Area (SA) (cm2): 15235
Head (% of total SA) 9.30%
Torso (% of total SA) 32.70%
Arms (% of total SA) 12.43%
Hands (% of total SA) 5.30%
Legs (% of total SA) 32.53%
Feet (% of total SA) 7.66%



## Enter the pathway-specific parameters.

Evaluation Draft Brownfields/Land-Reuse Site Tool
Import and Process Data Cancel
Start Here Air Soil Ingestion Soil Dermal Soil gen params Water Ingestion Water Dermal Water gen params Fish
BF = Bioavailability Factor:
AF = Absorption Factor: 0.1
Soil Exposure Time:



## Enter the pathway-specific parameters.

Evaluation Draft Brownfields/L	and-Reuse Site Tool	
Import and Process Data Can	cel	
Start Here Air Soil Ingestion	Soil Dermal Soil gen params Water Ingestion W	/ater Dermal   Water gen params   Fish
	<ul> <li>Specify Water Ingested</li> <li>Standard Intake Rate</li> <li>1 L/day - Child ▼</li> <li>xposure Factor (usually 1): 1</li> </ul>	

S

**DR** 

## Enter the pathway-specific parameters.

Evaluati	on Draft B	Brownfie	lds/Land-	Reuse S	ite Tool				
Import a	nd Process	Data	Cancel						
Start Her	e Air	Soil Ing	estion So	il Dermal	Soil gen params	Water Ingestion	Water Dermal	Water gen params	Fish
	SA = Exp	posed B	ody Surfa	ce Area	to Water (cm2):				
	□ Hea	ad F	V Torso	M AI	rms 🔽 Har	ids 🔽 Legs	✓ Feet		
		<b>SA</b> = 1	Fotal Skin	Area Ex	posed to Water	: 1.38E+04			
			Total Su	rface Ar	ea (SA) (cm2):	15235			
				Head	(% of total SA)	9.30%			
				Torso	(% of total SA)	32.70%			
					(% of total SA)	12.43%			
					(% of total SA)	5.30%			
					(% of total SA)	32.53%			
				Feet	(% of total SA)	7.66%			



## Enter the pathway-specific parameters.

Evaluation Draft Brownfields/Land-Reuse Site Tool	
Import and Process Data Cancel	
Start Here Air Soil Ingestion Soil Dermal Soil gen params Water Ingestion Water Dermal Water gen params Fis	h
ET = Water Exposure Time	
T ★ mins/day     12 ★ hours/day     45 ★ days/year     10 ★ years     years	



## Enter the pathway-specific parameters.

valuation Draft Brownfields/Land-Reuse Site Tool
Import and Process Data Cancel
Start Here Air Soil Ingestion Soil Dermal Soil gen params Water Ingestion Water Dermal Water gen params Fish
Intake Rate of Contaminated Fish:
C Calculate Rate Based on Amount of Fish Per Day Consumed Over Time
▼ for 1 days/year over 1 vyears
Calculate Rate Based on Fish Meals Per Week Consumed Over Time
for 0 meals/week and 0 weeks/year for 1 years
Use Standard Intake Rate:
25,000 mg/day - Recreational fishers (freshwater fish), 95th percentile n. 🗾 5 🚔 years
AF = Absorption Factor: 0.1

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Click on "Import and Process Data." The data will be imported from a previously formatted file. The data must be formatted using the companion tool "Data Conversion Tool" (see next 12 slides).

Evaluation Draft Brownfields/Land-Reuse Site Tool
Import and Process Data Cancel
Import and Process Data Cancer
Start Here Air Soil Ingestion Soil Dermal Soil gen params Water Ingestion Water Dermal Water gen params Fish
Intake Rate of Contaminated Fish:
Calculate Rate Based on Amount of Fish Per Day Consumed Over Time
for 1 days/year over 1 years
Calculate Rate Based on Fish Meals Per Week Consumed Over Time
r for 0 meals/week and 0 weeks/year for 1 years
Use Standard Intake Rate:
25,000 mg/day - Recreational fishers (freshwater fish), 95th percentile n 🗾 5 📮 years
AF = Absorption Factor: 0.1

If there are no errors in the exposure parameters the following dialog will be displayed, otherwise the error(s) will be identified.

Evaluation Draft Brownfields/Land-Reuse Site Tool	×
No errors detected.	
ОК	

Evaluation C t Brownfields/Land-Reuse Site Tool	×
Errors detected: "(soil ingestion) soil intake rate (entered)"	
(OK]	



# Locate the spreadsheet then click save. This system is only able to import xls files.

Locate the Excel	data file		? ×
Save in:	Current version	▼ ⇔ 🗈 💣 ⊞-	
My Recent Documents	copyright     posterPresentation     SiteToolWithExcelImport     tool_programmers GuideFiles	interpolate-h.xls 헬myNewData.xls 헬newQuery_table_names.xls 환ProvBarrelAirData08050040.xls	Better Better Better Better
Desktop	환 06040030.xls 환 08050036REV.xls 환 08050036REV_justDat_2.XLS	1 bl_import2.xls 1 bl_import-12000.xls 1 bl_import-36000.xls	tes tes tes
My Documents	08050036REV_justData_LS 08050036REV_JustDataJuly1.xls 08050040.xls 08050040_provB_justData.xls	<ul> <li>tbl_import.xls</li> <li>tbl_import_allMediaBrit_fakeWAF.xls</li> <li>tbl_import_asbestos.xls</li> <li>tbl_import_Brit_RealSoil.xls</li> </ul>	শ্ব
My Computer	ConvertStringToValWhileSaving.xls dataGenerator.xls DataImportTemplate.xls dataTablesFromLeann14April2008.xls	백 tbl_import_ugm3.xls 햄 tbl_import-bkup_with_rand150.xls 팩 tbl_import-bkupWith_ones.xls 팩 tbl_import-fish.xls	
My Network	File name: 08050036REV_JustDa	ataJuly1xls Sa	▶ ave
Places	Save as type: Excel (*xls)	Ca	ncel



# The number of records will be displayed along with the percentage of all records read.

Evaluation	Draft B	row field	ls/Lan	d-Reuse Si	ite Tool				
Import and	Process	Data	Cancel		ecords=2463 s read:2463	100% complete			
Start Here	Air	Soil Ing	stion	Soil Dermal	Soil gen params	Water Ingestion	Water Dermal	Water gen params	Fish
			P a	ase standt	γy				
Soil	ntake:		_	Diana	م مام مراجع				
3011	ntake.	C En		Pleas	e standby				
		O Us	:e						

**Atsdr** 

If there are any errors in the data (missing heading file, incorrect media, etc) they will be displayed. Otherwise, the dialog listed below will be displayed.

Svaluation Draft Brownfields/Land-Reuse Site Tool	×
The data processing is complete.	
OK	

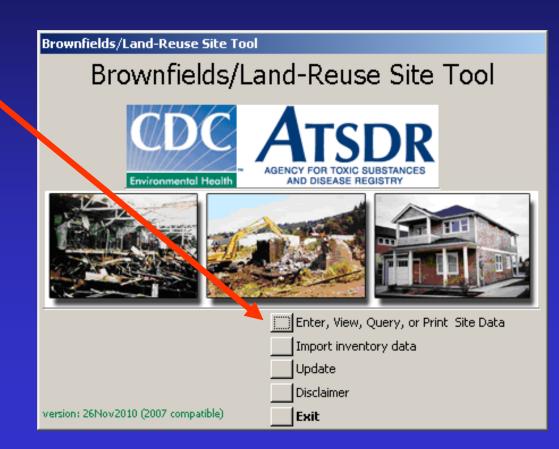


## Save the data, then click on Close.

Evaluation Draft Broadeneeds/Land-	Reuse Site Tool - Data Entry Form	
Close Save	Scenario Name Parcel 11c NorthVille MA	ID:
Info Type Data Involvement	Future Use Proximity Chems Concerns Hazards Exposures	Attach Log Site Visit
Data From Various Media Air Biota	Reports Available City Historical Reports Emergency Response	Add Data To Scenario
Soil	Phase One Environmental Site Assessment	Click this to import data from an Excel file.
<ul> <li>Well Data</li> <li>Vapor Intrusion (soil gas)</li> <li>Food data</li> <li>Sediment data</li> <li>Product Container</li> </ul>	<ul> <li>Phase Two (sampling data) Environmental Site Assessment</li> <li>Removal Action Memo</li> <li>Pollution Report (POLREP)</li> <li>Data Available (other):</li> </ul>	Contains Linked Water Data

**TSDR** 

## To view and print the processed data, click on the top button.





## **Click on View/Print site data**

 Enter data

 View/Print saved site data

 Query data for viewing or exporting

 Close



# The most recent site will be the last record. Use the query function to search for a specific record.

A checkboxes indicates there are site visit data and linked imported analytical data for viewing

The data from these (287) records can be exported to a CSV file. Use the Query function to select specific records.

The record displayed can be edited or deleted.

View and print the site data and site visit data (if available).

📰 Evaluation (	Draft Brownfields/Land-Reuse Site Tool	2
Site Name	Parcel 11c	
Address		
City	Northville State MASSACHUSE	
Scenario Name	Parcel 11c NorthVille MA	
Export Re comma	Data 🛕 Air Data 🙇 Soil Data	
	Maximum Values     Maximum Values     Average Values     Geometric Mean Values     SUCL (Log     transformed data     with normality test)     Close	
Record: 1414		



# The most recent site will be the last record. Use the query function to search for a specific record.

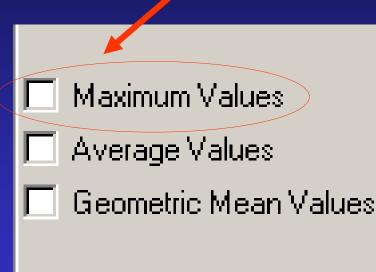
📰 Evaluation	Draft Brown	fields/	Land-Reuse	Site T	ool	×
Site Name	Parcel 11c				* *	
Address						
City	Northville			Stat	te MASSACHUSE	
Scenario Name	Parcel 11c N	lorthVille	e MA			
Export	Linked Site Visit Record(s) as a a delimited file	t Data	Contains	s Linked s Linked	l Air Data I Soil Data I Water Data I Fish Data	
Ed	it Record leports — — E		Delete Rec	ord		
	e Data	Q.	Air Data	Q	Soil Data	
Sit	e Visit	<u>à</u>	Fish Data	à	Water Data	
		Avera	num Value. ge Values etric Mean Va		<ul> <li>95UCL (untransformed data with normality test)</li> <li>95UCL (Log transformed data with normality test)</li> </ul>	
Records 14	d <u></u>	7 51		27		
Record: 14	287	7 🕨	▶I ▶* of 28	87		

View and print the analytical dose calculations report for available media

View and print various reports. The dose calculation in each report is based on the statistical parameter in the report name (e.g., view the dose calculation based on the Maximum).



## **Reports – Maximum Values**



95UCL

(untransformed data with normality test)

 95UCL (Log transformed data with normality test)



## **Reports – Maximum values used in the calculations**

Soil-Results based on the maximum values.								2.00E+02 A: 0 1.23E-01 ED 1		BF: 1.00E+00	0 <u>SA:</u> 0.00E+00
Chemical	CASN	Units	CV name	CV value	>CV	N	#ND	# non ND>CV	MXConc	Ing Dose DermalD	ose IngestCa DermCa
Actual data are abov	<i>l</i> e a CV value.										
Arsenic	007440- 38-2	ppm	Soil CREG	5E-01	Y	11	0	11	1.9E +01	7.6E-05	8.1E-06
									acute MR	L: 5.E-03	
									int MRL: r	n/a	
									chr MRL:	3.E-04	
					Q3.			0, Q3=1.0E+1, m		МХ	



### **Reports- Expanded View**

	based on the 9: formed values		L of	
Chemical	CASN	Units	CV name	CV value
Actual data are ab	ove a CV value			
Arsenic	007440- 38-2	ppm	Soil CREG	5E-01



**Reports- Expanded View** 

bw: 5.00E+01	IR: 2	2.00E+02 AL: 0	.00E +00	BF	1.00E+00	SA: 0.	00E+00
AF: 1.00E-0	1 EF:	1.23E -01 ED_y	rs: 5.00E +	00 <i>lim</i> i	bs:		
>CV N	#ND	# non ND>CV	UCL_log	Ing Dose	<b>DermalDose</b>	IngestCa	Derm Ca
Y 1	1 0	11	1.2E +01	4.6E-05		5.0E-06	



**Reports- Expanded View** 

acute MRL: 5.E-03 int MRL: n/a chr MRL: 3.E-04



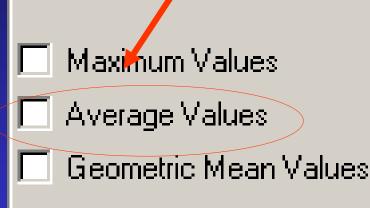
#### **Reports- Expanded View**

min=2.7E+0, Q1=4.5E+0, median=6.5E+0,	arithmetic mean=7.8E+0,	Q3=1.0E+1, max=1.9E+1,	range=1.6E+1
MNQ1Q2	Q3		МХ
cv			

## W-Stat=9.7e-1 p-value=8.4e-1 These data are Log- normally distributed.



### **Reports – Average Values**



95UCL

(untransformed data with normality test)

 95UCL (Log transformed data with normality test)

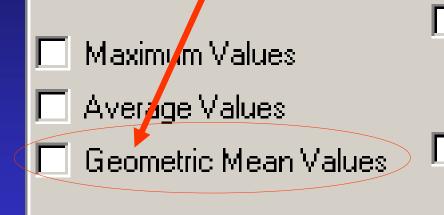


#### **Reports – Average (arithmetic mean) values used in the calculations**

Soil-Results ba	sed on the ari	thmeti	c mean.					2.00E +02 A: 1.23E -01 ED		BF: 1.00E++00 limbs:	+00 <b>SA:</b> 0.00E+00
Chemical	CASN	Units	CV name	CV value				_	-		Dose IngestCa DermCa
<u>Actual data are abov</u>	<u>e a CV value.</u>										
Arsenic	007440- 38-2	ppm	Soil CREG	5E-01	Y	11	0	11	7.8E +00	3.1E-05	3.3E-06
									acute MR		
									int MRL: n chr MRL:		
								0, Q3=1.0E+1, m:		range=1.6E+1 MX	



### **Reports – Geometric Mean Values**



95UCL

(untransformed data with normality test)

95UCL (Log transformed data with normality test)

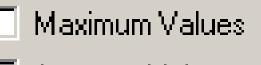


## **Reports – Geometric Mean values used in the calculations**

Soil-Results based	on the ge	ometri	ic mean.					2.00E +02 A: ( 1.23E -01 ED		BF: 1.00E	+00 <i>S.A</i> : 0.00E+00
Chemical	CASN	Units	CV name	CV value					-		llDose IngestCa DermCa
Actual data are above a CV	/ value										
Arsenic	007440- 38-2	ppm	Soil CREG	5E-01	Y	11	0	11	6.8E +00	2.7E-05	2.9E-06
									acute MRL	.: 5.E-03	
									int MRL: n	/a	
									chr MRL: 3	3.E-04	
								0, Q3=1.0E+1, m		range=1.6E+1 MX	I.



## **Reports – 95 UCL (untransformed data)**



- Average Values
- Geometric Mean Values

95UCL (untransformed data with normality test)

 95UCL (Log transformed data with normality test)



#### **Reports –95 UCL (untransformed data) values used in the calculations**

Soil-Results base arithmetic mean		5% UC	L of the				<i>IR</i> : 2.00E+02 <i>A</i> : 0 <i>EF</i> : 1.23E-01 <i>ED</i>					BF: 1.00E+00 SA: 0.00E+0 imbs:		
Chemical	CASN	Units	CV name	CV value	>CV	N	#ND	# non N	D>CV	UCL 1	Ing Dose	<b>DermalDose</b>	IngestC	'a DermCa
Actual data are above a	a CV value.													
Benzo(a)anthracene	000056- 55-3	ppm	PRG ResSoil	1E-01	Y	12	0	1	12	2.0E +01	8.1E-05			
										acute MRL:				
										int MRL: n/a chr MRL: n/	-			
			2.1E+0, medi											
	cv													

W-Stat=4.5e-1 p-value=8.2e-6 \* p-value is < 0.05, These data are not normally distributed.



## **Reports – 95 UCL (Log transformed data)**



- Average Values
- Geometric Mean Values

95UCL (untransformed data with normality test)

95UCL (Log transformed data with normality test)



### Reports –95 UCL (Log transformed data) values used in the calculations

Soil-Results based of the Log transforme			L of					2.00E +02 A: 1.23E -01 ED_		BF: 1.00E+00 limbs:	SA: 0.00E+00
Chemical	CASN	Units	CV name	CV value	>CV	Ν	#ND	# non ND>CV	UCL_log In	ıg Dose DermalDos	e IngestCa DermCa
<u>Actual data are above a CV</u>	value.										
Arsenic	007440- 38-2	ppm	Soil CREG	5E-01	Y	11	0	11	1.2E +01 4	4.6E-05	5.0E-06
	002								acute MRL: 5	5.E-03	
									int MRL: n/a		
									chr MRL: 3.E	-04	
								0, Q3=1.0E+1, 1			

W-Stat=9.7e-1 p-value=8.4e-1 These data are Log- normally distributed.



## **Dose report - interpretation Key 1 of 5**

"CV"= comparison value

">CV"= Number of data points above the comparison value

"N"= Number of data points

"#ND"= Number of data points that are non detect

"#non ND>CV"= Number of data points that contained a value that was above the CV

"MXConc" = Maximum concentration

"Ing Dose"= Ingestion dose based on the Maximum Concentration

"DermalDose"= Dermal dose based on the Maximum Concentration

"IngestCa"= Ingestion cancer risk based on exposure parameters using the Maximum Concentration

"DermCa"= Dermal cancer risk based on exposure parameters using the Maximum Concentration

Soil-Results base	d on the m	aximu	m values.		<i>bw:</i> 5.008 <i>AF:</i> 1.0			00E +02 A: 2 23E -01 ED 1			1.00E+00 bs: torso,arms	SA: 1.3 s,hands,leg	
Chemical	CASN	Units	CV name	CV value		N		# non ND>CV			DermalDose	IngestCa	Derm Ca
<u>Actual data are above a</u>	CV value												
Arsenic	007440- 38-2	ppm	Soil CREG	5E-01	Y	16	0	16	3.1E +01	1.2E-04	2.1E-05	1.3E-05	2.3E-06
									acute MR	L: 5.E-03			
									int MRL: n	/a			
									chr MRL:	3.E-04			
	MNQ1Q2.							, Q3=8.7E+0, m					
Benzo(a)anthracene	000056- 55-3	ppm	PRG ResSoil	1E-01	Y	16	14	2	8.3E -01	3.3E-06	5.7E-07		
									acute MR	_: n/a			
									int MRL: n				
									chr MRL:	n/a			



## **Dose report - interpretation Key 2 of 5**

"bw"= Body weight (kg)
"AF"= Absorption fraction (unitless)
"IR"= Ingestion rate (mg/day)
"EF"=Exposure factor (unitless)
"ED\_yrs"=Exposure duration (yrs)
"BF"=Bioavailability factor (unitless)
"SA"=Surface Area (cm^2)
"A"= Total soil adhered (exposed skin \* soil adherence concentration) (mg)
"limbs"=Areas of the body that were selected for the exposure scenario

Soil-Results base	d on the m	aximu	ım values.		<i>bw:</i> 5.00				4: 2.76E +03 ED γ/s: 5.00E +		: 1.00E+00 bs: torso,arms	SA: 1.3 s,hands,led	
Chemical	CASN	Units	CV name	CV value					CV MXConc				
Actual data are above a	CV value												
Arsenic	MNQ1Q2.			an=5.1E+0,		ic mea			3.1E +01 acute MR int MRL: n chr MRL: 0, max=3.1E+1,	1/a 3.E-04 range=2.	7E+1	1.3E-05	2.3E-06
Benzo(a)anthracene	000056- 55-3	ppm	PRG ResSoil	1E-01	Y	16	14	2	8.3E -01 acute MRI int MRL: n chr MRL:	ı/a	5.7E-07		



## **Dose report - interpretation Key 3 of 5**

"acute MRL"= Acute MRL
"int MRL"= Intermediate MRL
"chr MRL"= Chronic MRL
"n/a"= not available
"5E-01"= Scientific notation for 0.5
"Y"=yes, used to indicate that at least one data point was above the CV
"min"= Minimum value
"Q1"= First quartile (25% of the data)
"Q2"= Second quartile (50% of the data)
"median"=Middle value, half of the data points are above this value, also known as the Q2
"arithmetic mean"= average value of the raw (non-transformed) data
"Q3"= Third quartile (75% of the data)
"max"= Maximum value

The two lines below graphically depict the spread (distribution of the data relative to the comparison value (see next slide for an enlarged version).

Actual data are above a CV value.           Arsenic         007440- ppm         Soil CREG         SE-01         Y         16         0         16         3.1E +01         1.2E-04         2.1E-05         1.3E-05           38-2         acute MRL: 5.E-03         int MRL: 5.E-03         int MRL: 5.04         1.3E-05			Cr nume	Cr value	>CV	IN	#ND	# non ND≻CV	MXConc	Ing Dose	DermalDose	IngestCa	Derm(
38-2 acute MRL: 5.E-03	Actual data are ac	ove a CV value.	 										
	rsenic		Soil CREG	5E-01	Y	16	0	16	3.1E +01	1.2E-04	2.1E-05	1.3E-05	2.3E-
int MDL: n/n													
chr MRL: 3.E-04									int MRL: n				

AIS

#### **Dose report - interpretation Key 4 of 5**

There are 100 dots from the minimum to the maximum. Each dot represents the range/100. This is an arbitrary depiction of the data , and is used to provide a general visual picture of how the data are distributed.

min=3.7E+0, Q1=4.6E+0,	median=5.1E+0,	arithmetic mean=	7.5E+0, Q3=8.7E+0,	max=3.1E+1,	range=2.7E+1
MNQ1Q2Q3					МХ
CV					



## **Dose report - interpretation Key 5 of 5**

The <u>95% UCL of the Log transformed</u> data and the <u>95% UCL of the un transformed</u> reports contain an additional line of information.

"WL"= shapiro-wilk W statistic for normality

"p-value"= the probability that the data are normally (or log-normally) distributed. If this value is less than 0.05 than the data are data are considered to NOT be normally (or log-normally) distributed)



On the main screen, click "enter, View, Query, or Print Site Data." Then click on "Query data for viewing or exporting."



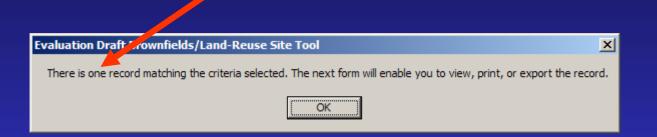


Select the criteria of the record(s) you are trying to locate then click "Run Query."

Evaluation Draft Bro	ownfields/Land-Reuse Site Tool - Data Query Form
Please select at least	one criterion from the lists and check boxes on all tabs, then click "Run Query". Run Query Close Reset Query Fields
Info Type Data	Involvement Future Use Proximity Chems Concerns Hazards Exposures Site Visit
Site Name;	<b>•</b>
Site Address:	
Site City	Northville
Site County:	
	Nogales Northville Knowledge of Property
Site Latitude	
Site Longitude (	Paloma
Site Contact	
Site Contact Affi	
Site Contact F	
Site Contact	t email:
Institutional Con	trols (description):
	Start Date: Date Accepted:
	End Date: Soil removal (tons):
	Stewardship: Site Status:
	Site Owner Name:
Catalogue of V	/iolations:
Catalogue	e of Spills:
Catalogue of E	mergency Response(s):
_	Restricted land Use



The number of record(s) matching the criteria are listed in the dialog box.





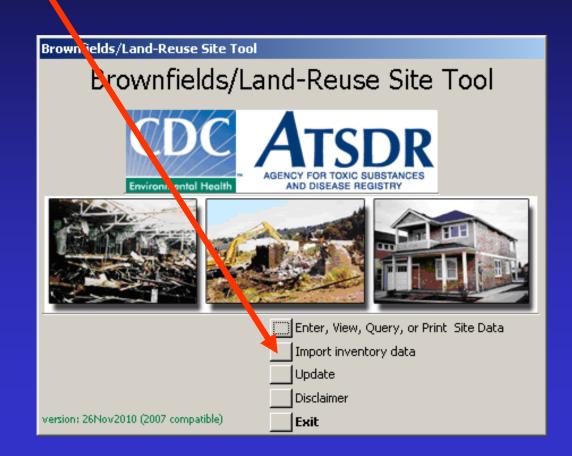
The record(s) matching the criteria are listed in the form below. (note the queried data are filtered and represent a subset of the entire data.)

Evaluation Draft Brownfields/Land-Reuse 5 te Tool
Site Name Parcel 11c
Address
City Northville State MASSACHUSE
Scenario Name Parcel 11c NorthVille MA
🗹 Contains Linked Site Visit Data 🛛 🗖 Contains Linked Air Data
Export Record(s) as a
comma delimited file
Contains Linked Fish Data
Edit Record 🗊 Delete Record
Site Data ReportsEnvironmental Sampling Reports
🖧 Site Data 🛕 Air Data 🚺 Soil Data
Site Visit 🛕 Fish Data 🔽 Water Data
Maximum Values     Untransformed data     with normality test)
Geometric Mean Values 95UCL (Log
transformed data with normality test)
Close
Record: II I I I I I I Record: II I I I I I I I I I I I I I I I I I



## **Import Inventory Data Function**

Existing site data (not analytical data) can be imported by clicking on "Import inventory data."





## **Import Inventory Data Function**

Click on "1) Import data."

Evaluation Vaft Brownfields/Land-Reuse Site Tool - Data Importation Form
1) Import Data 2) Save and Close Cancel
Field Mapping
Fields In Data File
Map to this field
Fields In tbl_site_data



## **Import Inventory Data Function**

Locate the data file containing Inventory Data, then click Save.

Locate the Sxce	l data file				<u>? ×</u>
Save in	🗀 update11Au	ıg2011	· ·	È 💣 🃰•	
My Recent Documents Desktop My Documents My Computer	BrownfieldList	entation tingDataBase.xls			
My Network Places	File name:	BrownfieldListingDataBa	ise.xls	•	ave
	Save as type:	Excel (*.xls)		▼	Cancel



## **Import Inventory Data Function**

Match fields in the imported data to the fields in the tool.

	Brownfields/Land-Reuse Site Tool - Data Importation Form
	1) Import Data 2) Save and Close Cancel
	Field Mapping
	Fields In Data File
2	Site Name
	Map to this field
	Fields In tbl_site_data
	site_name
	site_city
	site_state site_zip
	site_lat
	site_long
	size_of_site



#### **Import Inventory Data Function**

Match each field in the data file to the fields in the table containing site data.

- Select the field from the top list (which contain the fields in the data file) 1)
- Select the matching field from the second list
- Click on the Large Black Down Arrow.
- 2) 3) 4) 5) When finished, click on Save and Close
- Note: each record must contain a unique field that must be matched up with "scenario" in the bottom list.

Brownfields/Land-Reuse Site Tool - Data Importation Form
1) Import Data 2) Save and Close Cancel
Field Mapping
Fields In Data File
tbl_import.[Site Name] as site_name,       Map to this field
site_name,
Fields In tbl_site_data



# For more information

ATSDR Brownfields/ Land Reuse Team: atsdr.landreuse@cdc.gov

