

**POSTED: 5/2/2019**

## **RBCA Online Application Demonstration and Roundtable**

**UST Section, Iowa DNR  
March 29 and April 12, 2019**

In March of 2017, DNR began supporting use of the newly developed online risk-based corrective action (RBCA) application as a more modern alternative to version 3.0 of the RBCA software. At the end of 2018, DNR began mandating use of the application for all RBCA projects going forward.

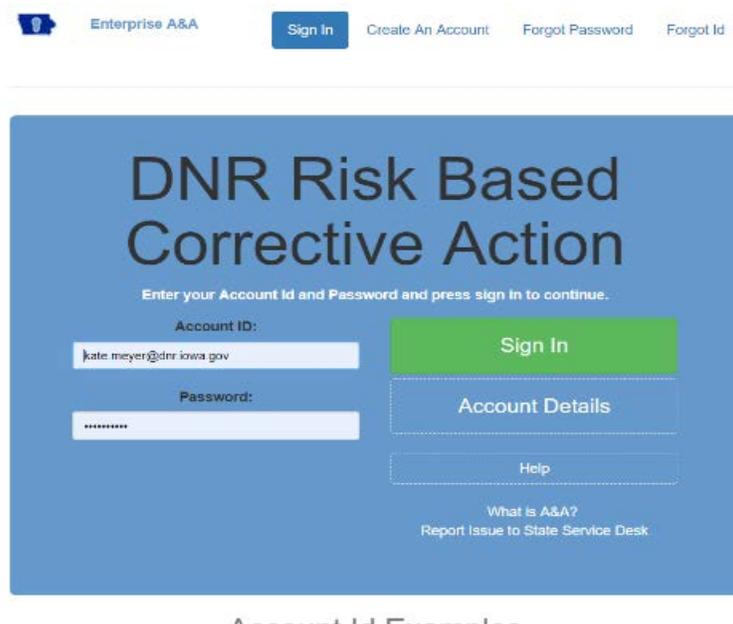
While the essential functions and nomenclature of the “new” application have been preserved from the software, several key differences were necessitated by the simple fact that the application is a web-based product employing a common database for all sites rather than a stand-alone software and file architecture. The database/online structure of the application was mandated to DNR by the Office of the Chief Information Officer for the State of Iowa. This format has both benefits and weaknesses, though we hope that it will be largely beneficial in the end.

Thank you for attending the demonstration and roundtable discussion. Below you will see a number of key points and concepts that will be discussed today. We have developed this list based on email and phone questions we have received from users. If you have additional questions about the application, please feel free to ask them. If you have site-specific questions, please handle them with your DNR project manager.

- ❖ **Log-In Troubles, Credentials, and Your Iowa A&A Account:** Some people have experienced trouble logging in successfully and not being granted the proper credentials (such as CGP rights). In most cases, this can be fixed by making sure that the email address associated with your Iowa A&A account is the same as the email address on file with the UST Section at DNR.

Sometimes people have changed companies or companies have changed names and the two emails no longer match. If the Iowa A&A email address is not your current correct email address, contact Matthew Graesch or Kate Meyer to make sure that the RBCA application is updated with your current address.

Before starting application work for a site, make sure that a CGP from your company is assigned in the Storage Tanks Database under GWP/Assessment. Contact DNR project manager for the change if necessary.



Affiliates	Initial Release	Cost Admin	AOs	ATP	Contract	28e	Certification	UST Site	<b>GWP</b>
Tracking	Tier 1	Tier 2	Tier 3	Free Product	Bedrock	Classification	SMR	Remediation	CA/Tier 3

**Certified Groundwater Professionals**

Assessment	CADR/Monitoring
GWP: <span style="border: 2px solid red; border-radius: 50%; padding: 2px;">--GWPs--</span>	CADR: <span style="border: 2px solid red; border-radius: 50%; padding: 2px;">--CADRs--</span>
Due Date: <input type="text"/>	Due Date: <input type="text"/>
Rec'd Date: <input type="text"/>	Rec'd Date: <input type="text"/>
<a href="#">Update</a>	<a href="#">Update</a>

❖ **Order of Report Submission:** An artifact of the database structure of the application is that report ordering is important. Each subsequent report (regardless of type) takes a virtual “snapshot” of the previous report to use as a base upon which to build the new report.

This means, for example, that if you are tasked with completing a revised T2 and SMR in a given year, you must complete the revised Tier 2 (RT2) before creating the new SMR. Any SMR created before the new RT2 is submitted will not “see” changes made to the T2 model, since the changes did not exist at the time when the SMR was created. If an extraneous report is created by accident, delete it before moving on.

Action	Report Type	Description	Received Date	Approved Date	Rejected Date	Status
View Revise Play	Tier2		5/6/2017	5/6/2017		Approved
View Edit Delete	SMR	low risk				Saved
View Play	Revised Tier2		2/14/2019			Submitted
View Edit Delete	SMR	Post OE SMR	2/15/2019			Saved

❖ **Adding Rows to Data Tables:** There are two ways to add new data to the groundwater and soil data tables.

1. You can simply add a new row and type in the required data for the well or soil sample (the new row will be entirely blank and all data will need to be re-entered).

MW-14	11/21/2016	97	73	<2.00	<2.00	<2.00	<6.00			1142.49	1142.49	1137.49	1130.27				<input checked="" type="checkbox"/>
MW-14	01/08/2018	97	73	<2.00	<2.00	<2.00	<6.00			1142.49	1142.49	1137.49	1128.50				<input checked="" type="checkbox"/>
MW-14	01/08/2019	97.5	73.5	<2.00	<2.00	5.00	10.00			1143.00	1142.49	1137.49	1129.00				<input checked="" type="checkbox"/>
																	<input checked="" type="checkbox"/>

Add

Save

2. If you are adding a new sample for a well that already exists in the table (Example: MW-9 has pre-existing samples in the data table and you have collected another from the same well), you can click on the well in question and it will highlight in yellow (click on the space in the row outside the data entry window in order to make the highlight feature work. Clicking the “Add” button with a highlighted row will yield a copy of said row without data that will be necessarily new for the sample (date, BTEX, D, WO, SWL). The caveat for using copy-and-add is that the pre-populated fields are fixed. They cannot be changed. If you have a replacement well, or wish to update a parameter such as TOC or XY, you should not use copy-and-add.

MW-14	11/21/2016	97	73	<2.00	<2.00	<2.00	<6.00			1142.49	1142.49	1137.49	1130.27				<input checked="" type="checkbox"/>
MW-14	01/08/2018	97	73	<2.00	<2.00	<2.00	<6.00			1142.49	1142.49	1137.49	1128.50				<input checked="" type="checkbox"/>
MW-14		97	73							1142.49	1142.49	1137.49					<input checked="" type="checkbox"/>

Add

Save

3. If you accidentally add an extraneous row, you can leave it completely blank and it will disappear when the data table is saved. If you have a row that you want to delete, the best option is to simply re-use it for another sample. Rows are difficult to delete in the database structure, so ignoring it by unchecking the “Use in Model” box and then overwriting it with a new sample in the future is the best way to get rid of an unwanted row (note: this strategy will not work with rows that have been added using copy-and-add since the given row is linked to the others of the same well name).

- ❖ **Inserting Defaults:** When inserting default values (depth to foundation and volume to area) for actual confined space receptors, you need to highlight the row where the defaults will be inserted (similar to groundwater data entry) and then click “Insert Default” button.

Receptors - Vapor to Enclosed Space

ACSR: Actual Confined Space Residential Insert Default

Map Label	Description/Location	X1 (ft)	Y1 (ft)	X2 (ft)	Y2 (ft)	Depth to GW (ft)	Depth to Foundation (ft)	Volume to Area (ft)	
acsr-1	528 S. 4th	144.1	80.0	144.1	105.1	6.00	9.84	6.56	Delete
ACSR2	540 S. 4th	200	100	220	100	6	9.84	6.56	
ACSR3	560 S. 4th	300	150	320	150	6			

Add
Save

- ❖ **X and Y Values for Monitoring Wells:** Monitoring wells with different names cannot have identical XY values. For example, if MW-3 is destroyed and replaced with MW-3R, the replacement well cannot have the exact same XY as the original well. If you note an error message when saving the groundwater data table saying that “Rows must be unique”, examine the highlighted rows to see if they share a common XY, but have different names. You will have to adjust XY values with a minimal offset (suggest <1 ft). Also, a similar situation can arise if a row of groundwater data is accidentally entered twice resulting in two identical rows of data.

MW-18	09/07/1994	187	253	<2.00	<2.00	<2.00	<6.00			1140.70	1140.70	1135.70	1130.07	
MW-19	09/07/1994	115	297	<2.00	<2.00	<2.00	<6.00			1140.18	1140.18	1135.18	1129.90	
MW-19R		115	297											
MW-19R	_/ _/ _/	115.5	297.5											

- ❖ **It Looks Like Excel, But It Isn't:** The groundwater and soil data tables in the application may resemble Excel, but they do not operate in the same manner. It is not possible to copy and paste multiple boxes at one time. This is a requirement related to security and not something we could change. The data displayed are drawn from many different database tables and assembled for the on-screen table display.

- ❖ **Decimals and Legacy Percent Reduction:** The on-line application accepts fewer decimal places than the software. Sufficient decimal places are available for correct risk analysis, but extraneous decimal places are no longer possible.

For example, all soil data that were less than 0.01 mg/kg in the RBCA software will now display as <0.01 mg/kg in the new application. For most sites, this will only affect soil samples that had percent reduction applied in the past.

57	S-24	06/12/2012	156	110	10.2	85.8	26.5	143	N	N	N	N	N	N	12	N
58	S-9	06/11/2012	183	109	0.413	<0.500	<0.500	1.08	N	N	N	N	N	N	12	N
59	S-1	06/11/2012	192	103	<0.250	<0.500	<0.500	<0.500	N	N	N	N	N	N	3	N
60	S-20	06/12/2012	148	89	0.776	30.3	18.9	97.3	N	N	N	N	N	N	6	N
61	S-21	06/12/2012	148	100	6.37	6.28	16.6	82.9	N	N	N	N	N	N	6	N
62	S-19	06/12/2012	149	77	0.273	0.650	4.31	20.7	N	N	N	N	N	N	6	N
63	S-21	06/12/2012	148	100	44.2	202	50.7	236	N	N	N	N	N	N	12	N
64	S-18	06/12/2012	157	71	0.585	<0.500	<0.500	2.66	N	N	N	N	N	N	12	N

S-24	06/12/2012	156	110	10.20	85.80	26.50	143.00									12.00
S-9	06/11/2012	183	109	0.41	<0.50	<0.50	1.08									12.00
S-19	06/12/2012	149	77	0.27	0.65	4.31	20.70									6.00
S-18	06/12/2012	157	71	0.59	<0.50	<0.50	2.66									12.00

- ❖ **Choosing Receptors for Evaluation in the Application:** All possible receptors in the area of the contaminant plumes must be investigated, but not all of them have to be entered into the data tables as receptors.

Water Lines: You must identify the locations of all water lines within the largest relevant receptor ID plume. If a water line is not considered a receptor, such as iron pipe with petroleum-resistant gaskets, you must include the water lines as Water Line D (WLD) in the Tier 2 application at Receptors/Water Lines/WLD. This includes copper service lines and iron pipes with leaded joints.

Other Receptors: Include all water wells and all vapor receptors within the largest applicable plumes and the next nearest receptors; and all designated surface waters within 500' and any surface water within 200'.

- ❖ **Renaming Receptors with Unique Names:** Since the application uses a database architecture, each row you enter must have a unique name or the database will not be able to differentiate between them. In the old software it was common to have multiple receptors with the same name (such as all four sides of a square defining the property boundaries labeled “PGWS”). Now each receptor or boundary must have a unique name.

## Receptors - Vapor to Enclosed Space

PCSNR: Potential Confined Space Non-Residential ▼

Map Label	Description/Location	X1 (ft)	Y1 (ft)	X2 (ft)	Y2 (ft)	Depth to GW (ft)
pcsnr-1	N property	60.0	284.0	226.0	284.0	10.00
pcsnr-2	E property	226.0	284.0	226.0	20.0	10.00
pcsnr-3	S right of way	0.0	-60.0	226.0	-60.0	10.00
pcsnr-4	W property	20.0	20.0	60.0	284.0	10.00

Some of the Tier 2 (T2) files DNR uploaded to the on-line application in 2017 have receptors with identical names. These will function properly as long as no new receptors are added.

## Receptors - Vapor to Enclosed Space

PCSNR: Potential Confined Space Non-Residential ▼

Map Label	Description/Location	X1 (ft)	Y1 (ft)	X2 (ft)	Y2 (ft)	Depth to GW (ft)
pcsnr	N property	60.0	284.0	226.0	284.0	10.00
pcsnr	E property	226.0	284.0	226.0	20.0	10.00
pcsnr	S right of way	0.0	-60.0	226.0	-60.0	10.00
pcsnr	W property	20.0	20.0	60.0	284.0	10.00

Once a new receptor is added and the receptor data table is saved, an error message may appear indicating that a duplicate name exists.

## Receptors - Vapor to Enclosed Space

- Error: Receptor Label must be unique.

PCSNR: Potential Confined Space Non-Residential

Map Label	Description/Location	X1 (ft)	Y1 (ft)	X2 (ft)	Y2 (ft)	Depth to GW (ft)
pcsnr	N property	60.0	284.0	226.0	284.0	10.00
pcsnr	E property	226.0	284.0	226.0	20.0	10.00
pcsnr	S right of way	0.0	-60.0	226.0	-60.0	10.00
pcsnr	W property	20.0	20.0	60.0	284.0	10.00
PCSNR2	new	111	11	222	22	10

This duplicate name may not be of the particular receptor type in the category you are viewing. For example, if you are adding drinking water wells in the groundwater ingestion category and see the error message, the error may exist in the non-drinking water wells or PGWS receptor table. The offending receptors will be highlighted in red. Simply pull down the drop-down menu until you see the identical receptors and amend them with unique names. Then “Save” and you will not lose whatever new data was entered.

## Receptors - Groundwater Ingestion

8LTO8

- Error: Receptor Label must be unique.
- Error: Receptor Label must be unique.

DWW: Drinking Water Wells

Map Label	Description/Location	X1 (ft)	Y1 (ft)
DWW1	new	111	111

Add

Save

PGWS: Protected Groundwater Source

Map Label	Description/Location	X1 (ft)	Y1 (ft)	X2 (ft)	Y2 (ft)
PGWS		111.0	111.0	222.0	222.0
PGWS		11.0	11.0	22.0	22.0

❖ **Grid Spacing and XY Map Size Selection:** Choosing an appropriate grid spacing is essential to ensure timely plotting of maps. For each “square” of a grid, the application must calculate five concentrations for each analyte/receptor pair or for each chemical when contouring. Small grid spacing (such as 5 feet) and/or unnecessarily large XY map size can require the system to calculate (and transmit over the internet) hundreds of thousands of point concentrations. You will “time out” of the application before the model produces the map.

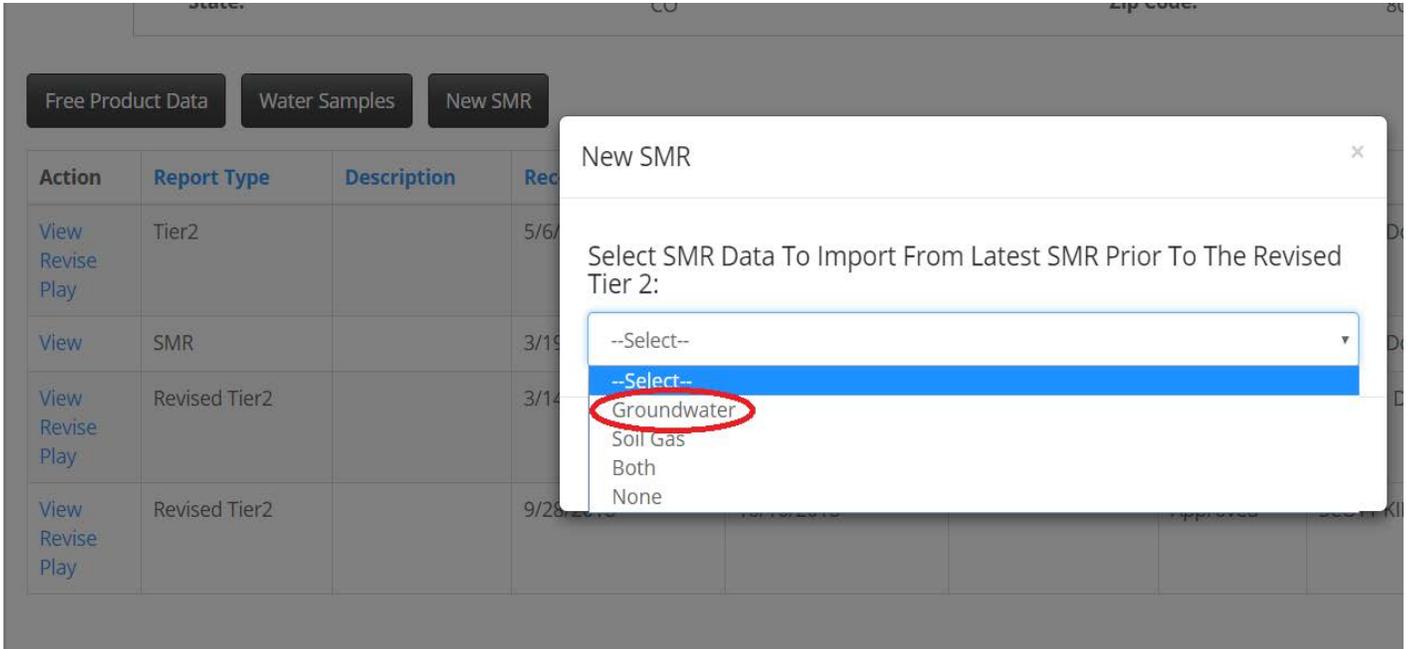
It is extremely important to select an XY map size and a grid spacing that will encourage the system to make only those calculations that are truly required. Examples:

1. On a large site, set the grid spacing to 20’ rather than 10’ or 5’.
2. On a small corner gas station, set the min and max XY for a 100’ x 100’ box rather than a 300’ x 300’ box.
3. If you have a tiny plume (often a soil plume) around a single well/boring, zoom in and plot your map using only a very small XY box. Use appropriately reduced grid spacing (5’ or sometimes as small as 1’) rather than requiring the system to make a huge number of calculations that do not affect the area of interest.

The screenshot shows the 'Interpolation Range' dialog box. On the left, the 'Interpolation Range' section has input fields for: Minimum X (ft) at -42, Maximum X (ft) at 267, X Grid Spacing (ft) at 10, Minimum Y (ft) at 25, Maximum Y (ft) at 297, and Y Grid Spacing (ft) at 10. On the right, a summary section shows: Minimum X (ft) -42.0, Maximum X (ft) 267.0, Minimum Y (ft) 25.0, Maximum Y (ft) 297.0, and Minimum distance between data (ft) 20. At the bottom are 'Update' and 'Close' buttons.

The screenshot shows the 'Interpolation Range' dialog box with a zoomed-in view. The 'Interpolation Range' section on the left has input fields for: Minimum X (ft) at -1000, Maximum X (ft) at 1000, X Grid Spacing (ft) at 5, Minimum Y (ft) at -1500, Maximum Y (ft) at 1500, and Y Grid Spacing (ft) at 5. The summary section on the right shows: Minimum X (ft) -42.0, Maximum X (ft) 267.0, Minimum Y (ft) 25.0, Maximum Y (ft) 297.0, and Minimum distance between data (ft) 20. At the bottom are 'Update' and 'Close' buttons. Red circles highlight the X range and grid spacing, and green circles highlight the X and Y coordinates and distance.

- ❖ **Avoiding Double Soil Gas Data:** When creating a new SMR (especially after a RT2), you may be asked the question, “Select SMR data to import from latest SMR prior to the revised Tier 2?” Options are “Groundwater”, “Soil Gas”, “Both”, and “None”. In almost all situations, the answer should be “Groundwater” and not “Both”.



Since soil gas data are automatically transferred to all subsequent SMRs, if “Both” is the selection, there will be a double set of soil gas data in the new SMR. This does not cause any concern as far as risk analysis, but is an unnecessary distraction when printing and reviewing the reports.

## Soil Gas Data

Well or Vapor Sample ID Label	Sample Date	X (ft)	Y (ft)	B (µg/m3)	T (µg/m3)	Pathway	Chemicals Of Concern	Purpose of Well or Sample	Receptor Types	Name of Source or Receptor	Ground Level Elevation (ft)
SV-1	08/19/1997	367	252	5,000,000	1,600,000	S	B,T,E	Source	PCS,PSS,ACS,AS	SVES:BTE	711.60
SV-1	08/19/1997	367	252	5,000,000	1,600,000	S	B,T,E	Source	PCS,PSS,ACS,AS	SVES:BTE	711.60
SV-1	09/18/1997	367	252	700,000	2,450,000	S	B,T,E	Source	PCS,PSS,ACS,AS	SVES:BTE	711.60
SV-1	09/18/1997	367	252	700,000	2,450,000	S	B,T,E	Source	PCS,PSS,ACS,AS	SVES:BTE	711.60
SV-1	03/19/1999	367	252	<43,500	<43,500	S	B,T,E	Source	PCS,PSS,ACS,AS	SVES:BTE	711.60
SV-1	03/19/1999	367	252	<43,500	<43,500	S	B,T,E	Source	PCS,PSS,ACS,AS	SVES:BTE	711.60
SV-1	11/13/2001	367	252	<93,800	<93,800	S	B,T,E	Source	PCS,PSS,ACS,AS	SVES:BTE	711.60

❖ **Soil Gas Contouring for the SMR:** New soil gas monitoring data is entered into the SMR portion of the application, but there is no soil gas contouring option. The best way to generate new soil gas plumes utilizing new soil gas data is to enter the new soil gas data into the SMR as well as into a Play Tier 2, as you would for a new soil sample. Then generate the soil gas plume from the Play Tier 2. Using Play function of the application for soil gas plume generation will help to avoid doubling soil gas data in the next SMR.

Be sure to provide justification and explanation. Do not delete the Play Tier 2. Leave it for the DNR to use in evaluation of the SMR.

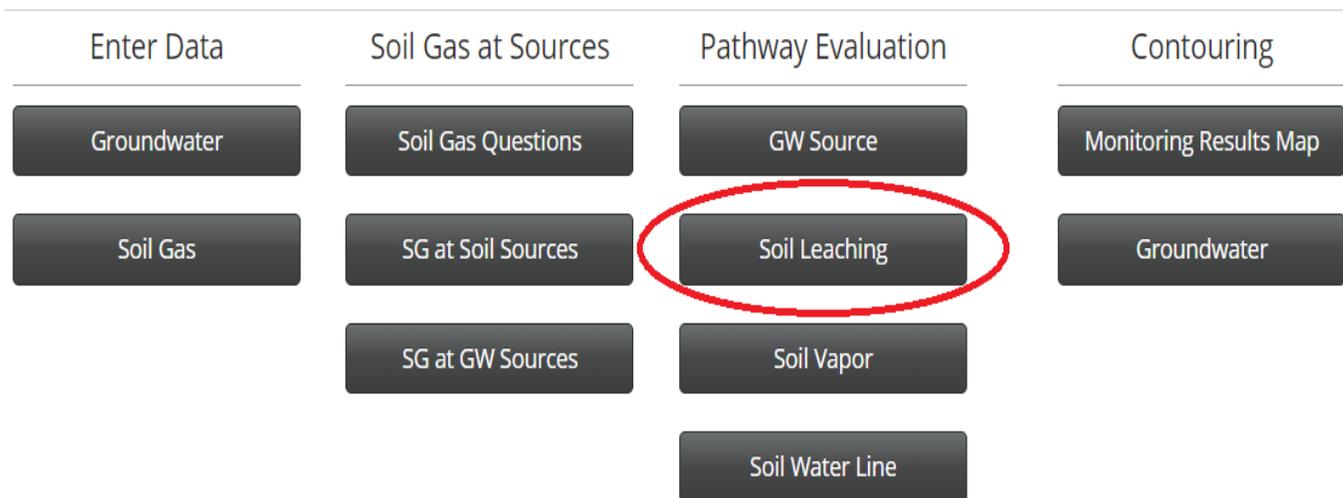
❖ **Risk and Monitoring Plan for All Receptors in the “Evaluation Requirements” Table:** A monitoring well(s) must be selected for all actual receptors with an “Eval” in the Evaluation Requirements table. In the absence of selected well(s), the calculated risk will be blank in the Receptor Summary Table.

Similarly, use the dropdown menu to select a Current Risk for each receptor in the Actual and Potential Receptor Summary Table. Once the SMR stage has been reached, leaving the risk set to “None” will not allow computation of a monitoring plan. This step **MUST** be done in the Tier 2.

Receptor Type	Receptor	Benzene	Toluene	Ethylb.	Xylene	TEH-D	TEH-WO	CorrectiveAction	Current Risk
PCS	IC	N	N	N (PE)	N (PE)	N (PE)	N (PE)		NFA
PSS	No-IC	L	N (PE)	N (PE)	N (PE)	N (PE)	N (PE)	5	Low Risk
PSS	IC	N	N (PE)	N (PE)	N (PE)	N (PE)	N (PE)	5	NFA
ASSNR	ASSNR4	N	N (PE)	N/A	N/A	N (PE)	N/A		NFA
WLA	WLA1			N (PE)	N (PE)	N (PE)	N (PE)		
WLB	WLB1	H	H	N (PE)	N (PE)	N (PE)	N/A		High Risk
WLB	WLB2	N	H	N (PE)	N (PE)	N (PE)	N/A		High Risk
WLB	WLB3		H	N (PE)	N (PE)	N (PE)	N/A		
(GU)	ditch	N (PE)	N (PE)	N (PE)	N/A	N (PE)	N/A		NFA

- ❖ **Re-Selection of Soil Leaching Wells:** In several recent cases, CGPs have had trouble with soil-leaching receptors that would not display as No Action Required despite meeting all requirements. In each case, the soil leaching well had not been updated after an excavation.

It is often necessary to select a new soil leaching well after remediation and this is particularly evident now that the new RBCA application tracks actual soil leaching receptors during the SMR stage.



- ❖ **Free Product Table:** A table for recording free product data is available as part of the application. It can be found on the site information and report selection page for each site. This table will automatically send an email to the DNR project manager when the “Save” button is used.

If you are going to enter information for several wells, it is best to enter them all and then save rather than saving after each well. Only one auto-generated email is necessary.

Action	Report Type	Description	Received Date	Approved Date	Rejected Date	Status
View Revise Play	Tier2		5/6/2017	5/6/2017		Approved
View Edit Delete	SMR	low risk				Saved

- ❖ **Water Data Table:** As noted above, the application includes a special data table for recording non-RBCA water samples such as tap water, remediation samples, and surface water samples. This table is located on the site information and report selection page for each site.

Please note: You are required to include the Water Data Table in a paper report if new water samples have been added to the Water Data Table.



Action	Report Type	Description	Received Date	Approved Date	Rejected Date	Status
View Revise Play	Tier2		5/6/2017	5/6/2017		Approved
View Edit Delete	SMR	low risk				Saved

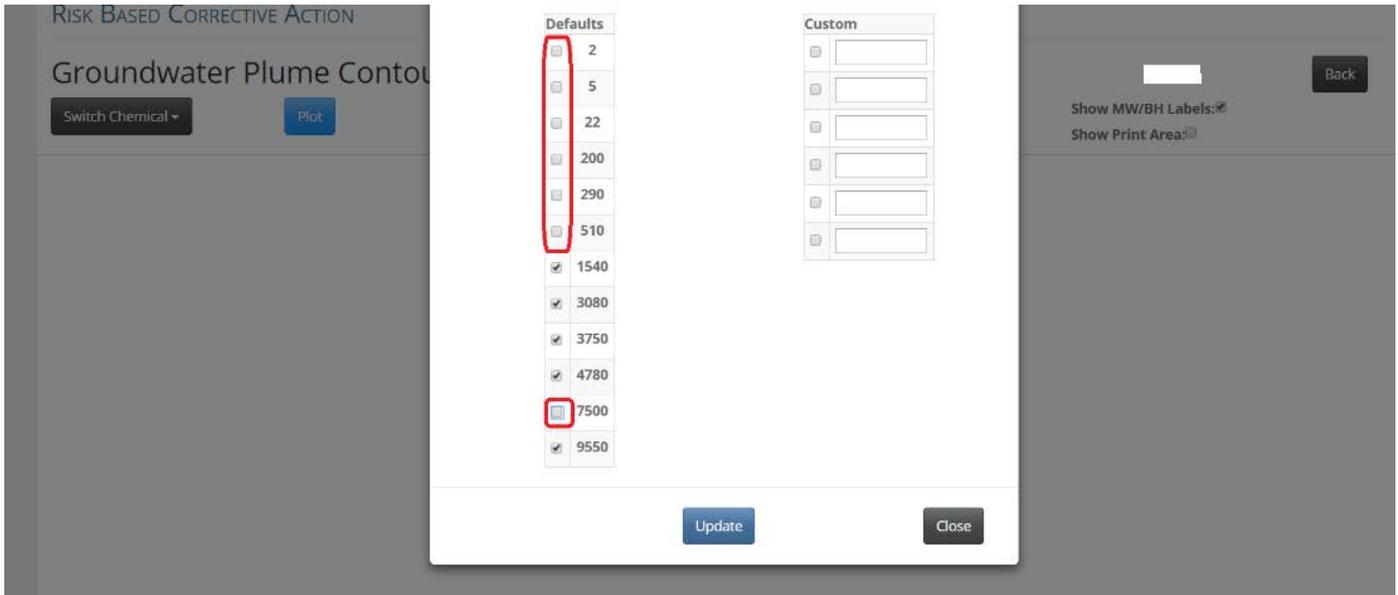
- ❖ **Slow Loading 1:** Slow page loads when contouring or generating monitoring plans can be traced to data tables that include many hundreds of rows. The vast majority of these rows (remediation groundwater monitoring samples or drinking water well samples) may not be used to assess site risk.

Only add groundwater and soil data to the tables if the data are viable and may be used for calculating plumes and/or risk. Water samples that were taken for purposes such as remediation monitoring and tap water should be kept in the “Water Samples” data table.



Action	Report Type	Description	Received Date	Approved Date	Rejected Date	Status
View Revise Play	Tier2		5/6/2017	5/6/2017		Approved
View Edit Delete	SMR	low risk				Saved

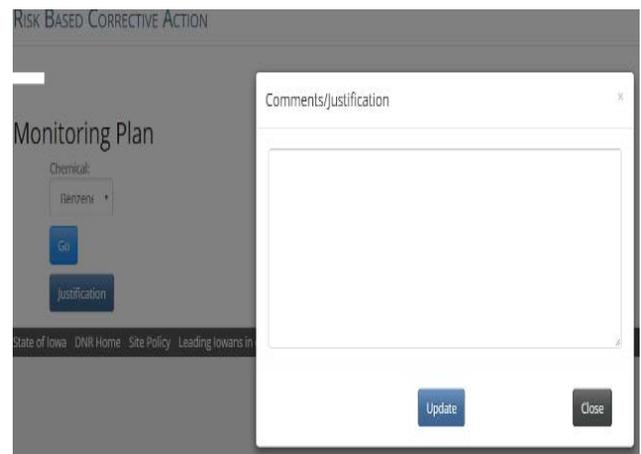
- ❖ **Slow Loading 2:** When contouring, make sure to de-select target levels that are not relevant to map that you are producing. Having extra contours selected will slow down map plotting. For example, if you are contouring the map for groundwater vapor, de-select the target levels for non-vapor receptors.



- ❖ **Note Boxes/Justification Fields:** Use the provided justification fields for recording or justifying any pertinent information or lack of information about a site or about a given submission. This can be very useful to both reviewers and to future readers of the report or submission. It can be a simple and effective way of communicating what you are trying to show with a given piece of data.

### Tier 2 Data Before Modeling Justification

Date	Justification
05/06/2017	According to a site map by Clay's Pump and Equipment Company, sa



- ❖ **Printing-Best Practices (Use View Mode):** All printouts included in the paper copy of a submission should be printed using the “View” mode of the application. All required prints appear best using the View mode and printing in Edit will not yield satisfactory results.

Free Product Data    Water Samples    New SMR

Action	Report Type	Description	Received Date	Approved Date	Rejected Date	Status
<a href="#">View</a> <a href="#">Revise</a> <a href="#">Play</a>	Tier2		5/6/2017	5/6/2017		Approved
<a href="#">View</a> <a href="#">Edit</a> <a href="#">Delete</a>	SMR	low risk				Saved

- ❖ **Printing-Best Practices 2 (Landscape and Portrait):** Make sure to use both landscape and portrait modes for printing as applicable. Example: Data tables are best printed in landscape and many maps are best printed in portrait.

Print

Total: 2 sheets of paper

**Print** Cancel

Destination: DNR\_WALS\_PRINTER 43...  
165.206.24.16 PCL6 S/N C...

Change...

Pages:  All  
 e.g. 1-5, 8, 11-13

Copies: 1

**Layout: Landscape**

More settings

Print using system dialog... (Ctrl+Shift+P)

Iowa DNR Risk Based Corrective Action

### Groundwater Data

Well/BH Label	Sample Date	X (ft)	Y (ft)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	TEH-D (µg/L)	TEH-WD (µg/L)	Ground Surface Elevation (ft)	Top of Casing Elevation (ft)	Top of Screen Elevation (ft)	Static Water Level (ft)	K (m/day)	TDS (mg/L)	MIBE (µg/L)	Use In Model
#1	07/18/1990	160	89	29,750.00	65,400.00		19,300.00				1142.27	1142.27	1132.25				
MW-3	08/10/1992	160	89	24,271.00	55,311.00	3,448.00	22,626.00				1142.27	1142.27	1131.50				
MW-3	08/11/1998	160	89	22,000.00	66,000.00	7,700.00	62,800.00	420,000.00	-80,000.00		1142.27	1142.27					
MW-3	05/06/1999	160	89	14,650.00	49,700.00	6,080.00	64,200.00	62,000.00	-23,000.00		1142.27	1142.27					
MW-3R	02/02/2000	160	89	7,780.00	24,100.00	3,130.00	16,600.00	67,000.00	<-7,600.00		1142.54	1142.21	1133.50	1124.71			
MW-3R	10/03/2001	160	89	25,200.00	50,400.00	7,110.00	41,500.00				1142.54	1142.21	1133.50	1126.84			
MW-3R	05/24/2002	160	89	18,900.00	23,500.00	2,580.00	13,900.00				1142.54	1142.21	1133.50	1130.95			
MW-3R	05/24/2002	160	89	21,500.00	28,600.00	2,930.00	15,600.00				1142.54	1142.21	1133.50	1130.95			
MW-3R	04/09/2007	160	89	17,500.00	37,450.00	3,045.00	15,840.00				1142.54	1142.21	1133.50	1131.68			
MW-3R	07/02/2008	160	89	13,700.00	26,200.00	2,140.00	24,100.00				1142.54	1142.21	1133.50	1132.02			
MW-3R	09/25/2009	160	89	5,880.00	5,890.00	495.00	4,130.00				1142.54	1142.21	1133.50	1129.84			
MW-3R	11/04/2010	160	89	9,800.00	22,000.00	2,020.00	11,500.00				1142.54	1142.21	1133.50	1130.00			
MW-3R	09/28/2011	160	89	6,920.00	20,900.00	2,040.00	12,400.00				1142.54	1142.21	1133.50	1129.76			
#2	07/18/1990	160	113	10,800.00	8,000.00		5,820.00				1142.71	1142.71	1132.45				
MW-4	08/10/1992	160	113	15,364.00	725.00	276.00	7,851.00				1142.71	1142.71	1130.73				
MW-4	09/20/1996	160	113	6,500.00	220.00	170.00	1,500.00				1142.71	1142.71	1131.76				
MW-4	08/11/1998	160	113	4,900.00	340.00	400.00	2,200.00	<-2,000.00	12,000.00		1142.71	1142.71	1130.81				
MW-4	09/01/1999	160	113	6,930.00	1,050.00	1,250.00	6,500.00				1142.71	1142.71	1130.81				
MW-4	08/08/2001	160	113								1142.71	1142.71					
MW-4	05/24/2002	160	113								1142.71	1142.71					
MW-4	04/09/2007	160	113	15,500.00	3,620.00	519.00	4,810.00				1142.71	1142.71	1132.30				
MW-4	07/02/2008	160	113	14,000.00	11,800.00	686.00	7,700.00				1142.71	1142.71	1132.33				
MW-4	11/04/2010	160	113								1142.71	1142.71	1130.47				
MW-1	08/10/1992	124	25	<-2.00	<-2.00	<-2.00	4.00				1142.13	1142.13	1132.59				
MW-1	09/07/1994	124	25	<-2.00	<-2.00	<-2.00	-6.00				1142.13	1142.13	1130.26				
MW-2	07/01/1991	144	25	<-2.00	<-2.00	<-2.00	<-2.00				1142.01	1142.01	1131.36				
MW-2	08/10/1992	144	25	<-2.00	<-2.00	<-2.00	4.00				1142.01	1142.01	1132.54				
MW-2	09/07/1994	144	25	<-2.00	5.00	5.00	19.00				1142.01	1142.01	1130.22				
MW-2	08/11/1998	144	25	<-2.00	<-2.00	<-2.00	<-3.00	<-1,000.00	<-400.00		1142.01	1142.01	1131.82				

**Pages to Print**

All  
 Current page  
 Pages: 1  
More Options

**Page Sizing & Handling**

Size:

Fit  
 Actual size  
 Shrink oversized pages  
 Custom Scale: 100 %  
 Choose paper source by PDF page size

Print on both sides of paper

Orientation:  
 Auto portrait/landscape  
 Portrait  
 Landscape

Page Setup...

**Comments & Forms**

Document and Markups

Summarize Comments

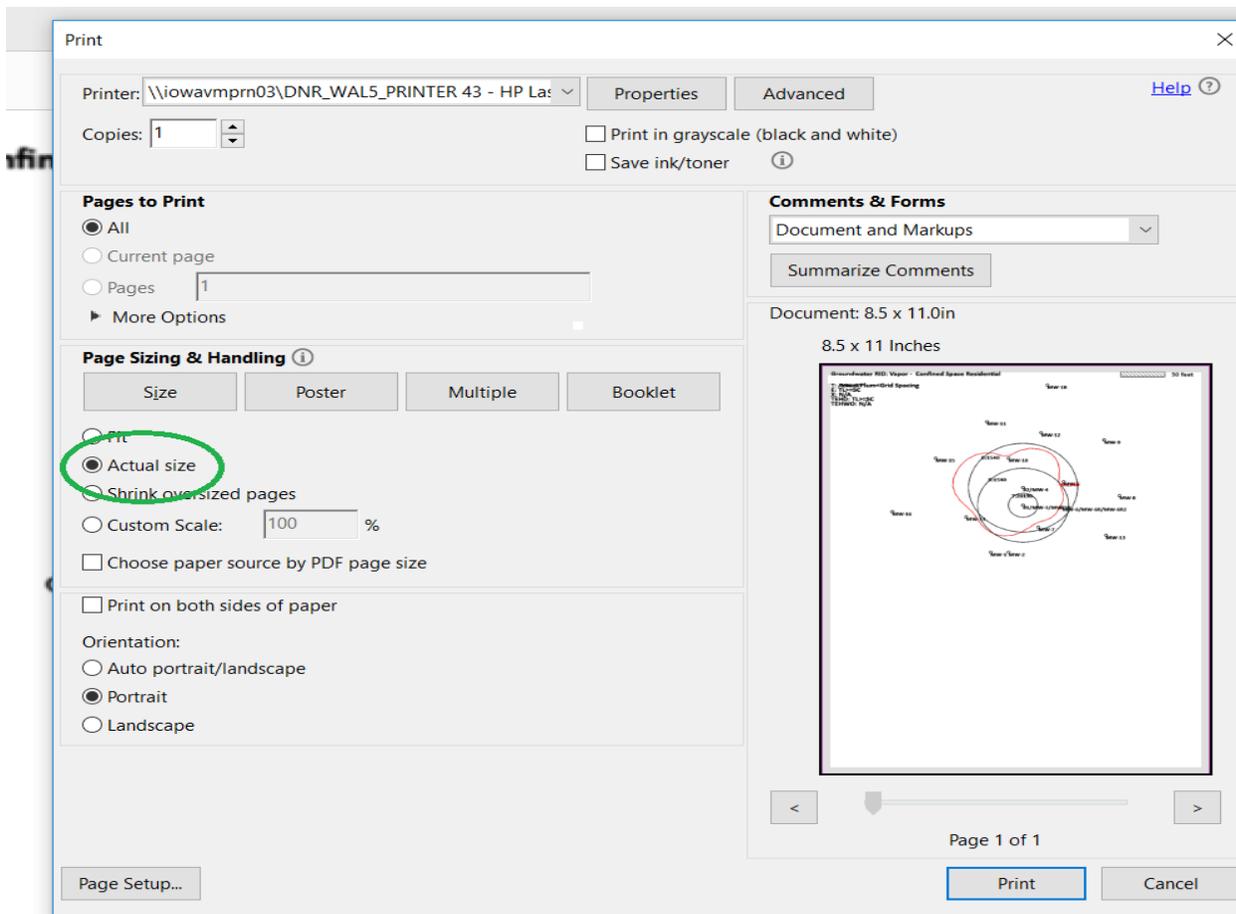
Document: 8.5 x 11.0in

8.5 x 11 Inches

Page 1 of 1

**Print** Cancel

- ❖ **Printing-Best Practices 3 (pdf and Autosizing):** When printing pdf maps, ensure that the “Actual Size” selection is made in print preferences. If the printer is allowed to auto-size the maps, the one-inch scale bar included may not be one inch long on the printed copy.



- ❖ **Printing-Best Practices 4 (Sizing Maps):** Before generating a pdf map from the application, use the “Zoom” and the “Show Print Area” features to give the map an appropriate scale for the size of the printed page. The Show Print Area button will place a box overlay on the map that indicates what will be included in the pdf file, allowing you to best use the space.

## Groundwater RID

Zoom ft/in:

Plot : CSR

Receptor Type Plotted:  
Confined Space Residential

Interpolation Range Export...

Show MW/BH Labels:

Show Potent. Recept.:  Show Act. Recept.:

Show Print Area:

Back

(287.1,271.1)

Groundwater RID: Vapor - Confined Space Residential

T: Actual Plume<Grid Spacing  
E: TL>=SC  
X: N/A  
TEHD: TL>=SC  
TEHWO: N/A

50 feet

box overlay

- ❖ **Maximum Scale Size for Maps:** The maximum scale size for maps in the Application is 1" = 380ft. This means that all plumes of at less than ~3000' in greatest dimension can be fit onto a page.

## Groundwater RID

Zoom ft/in:

Plot : CSR

Receptor Type Plotted:  
Confined Space Residential

Interpolation Range

Groundwater RID: Vapor - Confined Space Residential

T: Actual Plume<Grid Spacing  
E: TL>=SC  
X: N/A  
TEHD: TL>=SC  
TEHWO: N/A

380 feet

- ❖ **Printed/Submitted Paper Maps Must Match Submitted Application File:** Maps submitted with the paper copy of a report must match the maps that are plotted by the corresponding application submission. If the data in the application are changed after the maps are printed for a given submission and new maps aren't printed before submitting the paper copy, the data are inconsistent and the report will be rejected.
- ❖ **The Update Button:** The “Update” button is located in the center of the screen next to the “Submit” button when the user is on the main page of a report (either SMR or Tier 2). The Update button is a new addition to the Application (wasn't present in the software) and is designed to ensure that all equations and algorithms are operating with the most current information. For example, if a user adds soil or groundwater data and saves the data table, the monitoring plan may not “see” the new data unless the user activates one of the interim steps such as pathway evaluation. The user can make sure that risks and SSTLs are always up to date by clicking “Update” at any point. There is no downside to using the Update button at any time. In many cases (but not all), the App will automatically update when saving or opening a module.

## Report Information

[Back](#)

Report Type: SMR	Received Date:
SMR Type: <input type="text" value="High Risk/Interim"/>	
Description: <input style="width: 100%;" type="text"/>	
Report Status: <input type="text" value="Saved"/>	Status Date:
Groundwater Professional:	
Reclassification Request: <input type="checkbox"/>	PLAY Report: <input type="checkbox"/>
Latitude: <input style="width: 150px;" type="text"/>	Longitude: <input style="width: 150px;" type="text"/>
<input type="button" value="Update"/>	<input type="button" value="Submit"/>

Enter Data

Soil Gas at Sources

Pathway Evaluation

Contouring

Soil Gas Monitoring Plan

Potential Receptor

- ❖ **Contact Info:** If you have problems with the application file you are working on – contact DNR project manager. In most cases DNR project manager can resolve them.  
If you submitted a report via RBCA application and need to make changes to the submitted report – contact Kate Meyer or Matthew Graesch for unlocking a submitted report.