EPA REGION 6 END-OF-YEAR EVALUATION OF THE ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY (ADEQ) UNDERGROUND INJECTION CONTROL (UIC) PROGRAM
Fiscal Year 2012 (FY2012)
October 1, 2011 - September 30, 2012

Executive Summary

This EOY review of the ADEQ's UIC program examines the current state of the program. The report summarizes the state's UIC activities during FY2012 and discusses each of the well operators and their facilities at length. Specific, achievable goals the state can attain during the FY 2012 grant year are listed and areas needing improvement are identified as issues the EPA wants addressed in the near future.

Program Summary

To increase ground water (GW) protection, a federal UIC program was established under the provisions of the Safe Drinking Water Act of 1974. Delegation of the federal program to the State of Arkansas can be found in 40 CFR 147, Subpart LL; the program was delegated to Arkansas effective July 6, 1982. The delegation was later amended on October 25, 1988 to clarify the EPA retains authority over any Indian land in Arkansas effective November 25, 1988. The ADEQ has jurisdiction over Class I, Class III, Class IV and Class V wells; excluding bromine related injection wells under the jurisdiction of the Arkansas Oil and Gas Commission (AOGC). (In Arkansas, the AOGC has jurisdiction over all Class II wells and Class V bromine related wells. See APCEC, Regulation No. 17, 17.301 (B)) At the end of FY12, the ADEQ's UIC inventory consisted of four Class I hazardous wells, one of them temporarily shut-in, and nine Class I non-hazardous wells, four of them shut-in. ADEQ has 207 Class V wells on inventory, 133 active and permitted by the agency with the remainder under the jurisdiction of the AOGC. There were no Class III solution mining sites in operation in Arkansas at the end of FY2012. Class IV wells are banned with the exception of remediation wells.

FY2011 Grant Funding

ADEQ was awarded $81,000 in UIC programmatic funds in FY2012. The $81,000 is Arkansas's share of UIC implementation funds awarded according to the formula EPA employs to ensure fair distribution of federal funds under this program. This year the state made use of all of their grant allocation.

FY2011 Work Plan

Deliverables: Attachment I, at the end of this report, details items the state committed to providing as part of their work plan for FY2012 and the dates on which those items were made available to EPA Region 6's Water Quality Protection Division, along with comments to expand on some points when necessary. Below is a summary of the main categories of activities addressed in the work plan.

Enforcement and Compliance

ADEQ successfully completed their compliance and monitoring commitments for FY2012. The state's inventories of UIC wells were maintained or updated to improve their overall accuracy. They were able to adequately address detected violations in a prompt manner.

Permitting

All known injection wells in the state have been permitted. The state's inspection and monitoring efforts have assured the Class I wells are in compliance with permitting requirements, including requirements to limit injection rates and volumes, perform mechanical integrity testing and incorporate the required elements into the state issued permits. In previous years the state struggled to process permit renewals requests from some of their sources, but in FY 2012 that issue was resolved after a concerted effort on the part of the ADEQ's staff. The state is to be commended for properly processing these requests over the past year.

Technical Services and Quality Assurance

ADEQ has been able to assure pressure fall-off testing for each formation was performed adequately. They have maintained their risk management data base. The ADEQ laboratory has supplied support to both the ADEQ and AOGC's UIC programs. The state's Quality Assurance Project Plan (QAPP) was submitted and the Quality Assurance (QA) plan was approved by the EPA.

Reporting

ADEQ submitted the work plans and quality assurance programs for the upcoming fiscal year on time. Specific reporting requirements and the times on which the agency submitted them to the EPA are listed in Attachment I, Appendix IV at the end of this report. All financial expenditure requirements were followed by the agency in FY2012. The agency appropriately reviewed and required owner/operators (O/O) to maintain the required financial assurances.

Public Participation and Training

ADEQ participated in two public meetings held to address surface storage facilities in the state. The state reported providing compliance assistance to O/O upon request. The agency provided opportunity for staff to attend OSHA 8-hour safety refresher training in September, 2012.

Program Administration

ADEQ appropriately performed their program administration duties as detailed in Attachment I, Element F below.

ADEQ FY2011 UIC Program Activity: ADEQ has met the basic needs of administering its UIC program for FY2011. A summary of accomplishments are detailed in Tables 1 through 4 below.

Table 1: ADEQ FY11 Class I UIC Activity Summary

ADEQ UIC Program Activity Summary October 1, 2011 to September 30, 2012	
Class I One Part Mechanical Integrity / Annular Pressure Testing events witnessed: Great Lakes South: (WDW-5 tested 21-May-2012), (WDW-6 tested 23-May-2012), (WDW-7 tested 21-May-2012); Great Lakes Newell (WDW-7N tested 17-May-2012), (WDW-8N tested 17-May-2012); Great Lakes West (WDW-1M tested 22-May-2012), (WDW-14-M tested 22-May-2012); Albemarle South: (WDW#3 tested 12-June-2012) and (WDW#13 tested 14-June-2012)	9
Class I well inspections conducted: All fourteen Class I wells and their well sites were visited and inspected every two months.	56
Notices of Violation Issued:	0
Notices of Deficiency (NOD) Issued:	0
Two Part Mechanical Integrity Tests Reviewed (5-year MITs): Great Lakes Central, (WDW-6 tested 18-May-2012) and (WDW-5 tested23-May-2012), Dow (DWD-1 tested19- July-2012) Albemarle South (WDW #2 tested 12-June-2012)	4
Fall off Pressure Tests Reviewed (Site Based): Great Lakes, Albemarle, and Dow. No indications of formation pressure rise over historical values were noted.	9
New Permits Issued	0
Permit Renewals Issued:	4
Permit Modifications Issued	0
Permit Extensions Issued:	0
Permit Applications canceled or withdrawn	0
Class III Solution Mining Well Site Inspections: (no sites in Arkansas)	0

Class I Injection Wells:

Tables 2 and 3, below, detail the Class I UIC well sites and milestone dates in the state's administration of the UIC program for Class I injection wells in the state. Table 4 summarizes the closed, but not yet plugged, Class I UIC wells.

Table 2: Class I Non-hazardous Mechanical Integrity Tests, Fall-Off Pressure Tests, and Inspections

ADEQ Class I Non-hazardous Mechanical Integrity Tests (MITs), Fall-Off Pressure (FOP) Tests, and Inspections October 1, 2011 to September 30, 2012				
Operator	**Injection Well**	**FOP Test Performed**	**Inspection and 1-Part MIT**	**Last 2-part (5 year, external) MIT**
GREAT LAKES SOUTH	WDW-5[1]	No-well TA	21-May-2012	27-Aug-2010
	WDW-6	21-May-2012	21-May-2012	27-Apr-2010
	WDW-7	27-May-2012	23-May-2012	27-Apr-2010
GREAT LAKES NEWELL	WDW-7N	Not Tested	17-May-2012	13-Jul-2008
	WDW-8N[2]	Not Tested	17-May-2012	30-Jul-2008[2]
GREAT LAKES WEST	SWD-1M[3]	Not Tested	22-May-2012	19-Sept-2012
	SWD-14M	24-May-2012	22-May-2012	30-Jul-2008
ALBEMARLE CORPORATION	WDW #3[4]	21-July-2012	12-June-2012	9-Jun-2008
	WDW #13	14-June-2012	14-June-2012	12-Jun-2008
RED RIVER ALUMINUM	WDW #15	Not Tested	Not Tested	9-Dec-1997*

[1]Temporarily abandoned 2-June-2011

[2] Temporarily abandoned 8-July-2011, differential temperature survey conducted on 28-Mar-2012

[3] Plugged and abandoned 24-Sept-2012

[4] FOP delayed due to power line damage from storm

[5]"Shut In" – Permanently Abandoned and not Plugged

* record not found

Table 3: Class I Hazardous Mechanical Integrity Tests, Fall-Off Pressure Tests, and Inspections

ADEQ Class I Hazardous Mechanical Integrity Tests (MIT), Fall-Off Pressure (FOP) Tests, and Inspections October 1, 2011 to September 30, 2012				
Operator	**Injection Well**	**FOP Test Submitted**	**Inspection and Semi-Annual MIT**	**Last 2-part (5 year, external) MIT**
GREAT LAKES CENTRAL	WDW-5	23-May-2012	NA, see 2-Part MIT	23-May-2012
	WDW-6	18-May-2012	NA, see 2-Part MIT	18-May-2012
ALBEMARLE CORPORATION	WDW #2*	12-June-2012	NA, see 2-Part MIT	12-Jun-12
DOW CHEMICAL COMPANY	DWD-1	19-July-2012	NA, see 2-Part MIT	19-Jul-2012

* Temporally abandoned January 30, 2012 pending completion of 2-part MIT, note: *Per §144.52(6), after two years cessation of operations, an O/O must plug or test a well for integrity and notify RA*

Table 4: Class I Abandoned Class I UIC Wells

ADEQ Abandoned Class I UIC Wells October 1, 2011 to September 30, 2012					
Operator	**Injection Well Designation**	**Hazardous or Non-Hazardous**	**Status**	**Plugging Status**	**Notification to State**
GREAT LAKES South	WDW-5	Non-Hazardous	Temporary	No	Status Letter June 2, 2011
GREAT LAKES Newell	WDW-8N	Non-Hazardous	Temporary	No	Status Letter July 8, 2011
GREAT LAKES West	SWD-1M	Non-Hazardous	P & A	Yes	P & A activities completed 24-Sept-2012

ADEQ Abandoned Class I UIC Wells October 1, 2011 to September 30, 2012					
Operator	**Injection Well Designation**	**Hazardous or Non-Hazardous**	**Status**	**Plugging Status**	**Notification to State**
ALBEMARLE CORPORATION	WDW #2	Hazardous	Temporary	No	Status Letter January 30, 2012 pending completion of 2-part MIT (completed 12-June-12)
RED RIVER ALUMINUM	WDW #1	Non-Hazardous	Appears to be permanent.	No	Late 1990's
Note: *Per §144.52(6), after two years cessation of operations, an O/O must plug or test a well for integrity and notify RA.*					

Class II Salt Water Disposal (SWD) Injection Well Surface Facilities:

Under an agreement with the Arkansas Oil and Gas Commission, the ADEQ is responsible for the permitting and inspection of surface facilities associated with Class II SWD injection wells in Arkansas. During FY2012, the ADEQ performed 77 inspections of these surface facilities. During these inspections, ADEQ identified 77 violations or non-compliance issues, all of which were resolved in FY2012.

Class III Injection Wells:

ADEQ states there are no Class III injection well operations within Arkansas.

Class IV Injection Wells:

ADEQ states there are no active Class IV injection wells in Arkansas at this time. Federal and state law bans Class IV wells that are not purposed exclusively for remediation of contaminated ground water.

Class V Injection Wells:

The ADEQ UIC Program regulates injection 152 permitted Class V wells. No new Class V permit applications for UIC staff review were received during FY2012. It should be noted that the ADEQ's 2011 UIC inventory report to Region 6 states there are 207 Class V wells in Arkansas. The difference in the well count means there are 55 identified Class V wells that do not meet ADEQ's permitting threshold, or are permitted by Arkansas Oil and Gas Commission as Class V brine injection wells. The majority of regulated Class V wells in Arkansas receive their permits through the ADEQ's Water Division, Permits Branch. These systems are typically industrial and large capacity domestic waste septic systems with a capacity of 5000 gallons per day (gpd) or greater. Examples include car and truck wash facilities, laundromats, veterinary clinics, pet kennels, campgrounds, mobile home parks, apartment buildings, schools, and large scale septic treatment units with drip irrigation systems. Systems with a capacity of 5000 gpd

and below are regulated by the Arkansas Department of Health (ADH). The ADEQ works with the ADH under the auspices of a Memorandum of Agreement. It is ADEQ's policy to investigate complaints of possible Class V well violations promptly. No complaints on Class V wells were received in FY2012. ADEQ indicates that inspections or site visits are conducted on a routine basis to determine compliance with the permit conditions. No permit violations or other action that may have resulted in the potential endangerment of USDWs from Class V well operations were identified during FY2012. ADEQ reported five remediation projects employing Class V UIC wells underway in Arkansas during FY12.

PROGRAM HIGHLIGHTS

Dow Chemical Company (DOW)

Dow operates one Class I Hazardous Waste Injection well at the Dow facility located near Magnolia, Arkansas. The well, originally permitted as a non-hazardous injection well in October of 2002, was converted to a hazardous injection well. The company submitted a request for the modification in October 2004. ADEQ's review was completed in January of 2006. The company received approval of their No Migration Petition from Region 6 in September, 2010. ADEQ's authorization to inject letter was issued December 30, 2010. The well, designated as DWD No. 1 began injection operations in January, 2011. The company's permit for this well, 0017-UR-1, originally issued for a non-hazardous injection operation, was reissued on September 1, 2012. As of this time, the company appears to be operating the well in accordance with their permit.

Great Lakes Solutions, A Chemtura Company (Great Lakes)

West Plant (Marysville)

One of the Great Lakes wells at the West Plant, SDW-1M, was plugged and abandoned in September, 2012. It had been shut-in for several years and the company decided to end its operation and request the termination of permit 00016-UR. As of this review, ADEQ has received the closure report for this well and will terminate 0016-UR once they have verified the well has been properly closed. Great Lakes also operates well number SWD-14M under authority of Permit No. 0009-UR-1, issued February 28, 2010. SWD-14M is currently operating within the terms and conditions set out by the permit.

Newell Plant

Great Lakes operates two Class I hazardous injection wells under authority of Permit No. 0015-U at the Central Plant, Newell facility near El Dorado, Arkansas. ADEQ issued a renewal for the permit, now designated 0015-U-2 on July 1, 2012. The wells, WDW-7N and WDW-8N, are operating within the terms of the existing permit at the time of this review.

Central Plant

Great Lakes operates two Class I hazardous injection wells under authority of Permit No. 0011-U at their Central Plant, near El Dorado, Arkansas. ADEQ issued a renewal for the permit, now designated 0011-UR-1 on July 1, 2012. The wells, WDW-5 and WDW-6, are operating within the conditions of the permit.

South Plant

Great Lakes operates three Class I non-hazardous injection wells under authority of Permit No. 0010-UR-3 at their South Plant, near El Dorado, Arkansas. The permit was renewed August 30. 2007. Two of the wells covered by the permit, WDW-6 and WDW-7, continue to operate within the limits of the permit as of the time of this review. It should be noted that ADEQ approved the company's request to place WDW-5 at the South plant on a temporarily shut-in status. The well remained temporarily shut-in during FY12, but the company did maintain the testing schedule for the well. A one part MIT and inspection was performed May 1, 2012 and the last two part MIT was performed August 27, 2010, within the time limit required by the regulation.

Albemarle Corporation

Albemarle has the authority to operate one Class I hazardous injection well, WDW #2, and two Class I non-hazardous injection well, WDW #13 and WDW#3, under authority of Permit No. 0004-UR-3. The permit also allows the construction of two additional non-hazardous injection wells. (The company closed another hazardous waste injection well, WDW #1 in December, 2003.) WDW #2 has been shut in since April 2006, when the company closed their "DECPT" plant and no longer generated hazardous waste at the site. A formal letter granting shut in status for the well was issued to the company April, 2010. During FY11, Albemarle stated their desire to keep WDW #2 available to receive a liquid leachate expected to be produced during cleanup of a hazardous waste site. As of the end of FY12, Albemarle had not begun the cleanup project. ADEQ issued a renewal and modification for permit 0004-UR-3 on April 1, 2012. That permitting action combined prior authority to operate WDW #3, which was operating under Permit No. 0012-UR-1, and granted new authority to construct two more non-hazardous Class I injection wells, WDW #4 and WDW #5, into 0004-UR-3.

Red River Aluminum

Red River Aluminum operated a secondary aluminum smelter from 1985 to 1997 at a plant site adjacent to Stamps, Arkansas. The company used a dross smelting process and produced large amounts of sodium chloride, potassium chloride and copper waste that accumulated at the site. The company left those byproducts exposed to the elements. Rain and erosion began to move the byproducts off property, contaminating the surrounding neighborhood and wetlands, as well as surface and ground water resources. The ADEQ required Red River to contain the runoff from the byproduct piles. Part of the company's solution was to construct a non hazardous injection well on the property to dispose of part of the run off generated by rain water. The well is 3000' in depth, well below the existing useable sources of drinking water in the area. The company stopped operation in 1997 and declared bankruptcy in 1998. They left the well abandoned but unplugged as operations ceased. The bond the company established to cover the costs of well closure was not adequate to cover plugging costs and the well remains unplugged at this time. The well, designated WDW-1, originally operated under authority of Permit No. 0008-U. That permit expired in February, 2000. At the present time the site is owned and controlled by the City of Stamps, Arkansas.

The site required clean-up under the EPA and ADEQ hazardous waste regulations, but the well was not plugged as part of the cleanup activities. EPA Region 6, the City of Stamps, AR and ADEQ's Water and Hazardous Waste Divisions formed a workgroup in an attempt to find a way

to properly plug the well, and an on-site water production well, given the lack of funds at the local level to accomplish this task in calendar years 2011 and 2012. That workgroup was unable to settle on a satisfactory resolution to the problem. In November of 2012, ADEQ and EPA Region 6 representatives met with the mayor of Stamps in order to emphasize the need to resolve the issue. The mayor was receptive to suggestions that included transfer of the well to commercial operators and plugging the injection well. In the interim the well remains shut-in and ADEQ continues to conduct inspections of the site quarterly in order to monitor conditions.

Inspections

The ADEQ UIC staff conducted inspections every two months on each hazardous and non-hazardous Class I well. A total of 56 inspections were conducted during FY2012. On all inspections, the wellhead and monitoring devices were checked and well records were reviewed for compliance, completeness, and accuracy. The 56 inspections performed in FY2012 represent a decrease compared to previous several previous years' total of 84. This reduction is the result of a decision on ADEQ's part to move from a bi-monthly inspection schedule for UIC wells and well sites to a quarterly schedule. The inspection schedule still meets federal requirements for operation of the program.

Enforcement/Compliance

During FY2011, no formal enforcement action was taken and no complaints concerning Class I injection well operations were received. No significant non-compliance incidents were reported. Three companies reported permit violations were noted by the state in their report to the region, however, each occurrence was immediately corrected and the state determined further enforcement action was not necessary.

Plugging and Abandonment

As mentioned earlier in this review Great Lakes plugged and abandoned the SDW-1M non-hazardous UIC well in September of 2012. This was the only Class I UIC well closed in FY2012.

Mechanical Integrity Tests (MIT)

The ADEQ UIC staff witnessed mechanical integrity tests (MITs) for UIC wells at all of the active facilities in Arkansas, including the three Great Lakes/Chemtura plants, the Albemarle plant, and the Dow facility. Four two-part MITs, consisting of an annulus pressure test (APT) and a radioactive tracer survey, were performed on the active hazardous waste injection wells. Seven of the ten Class I non-hazardous injection wells were given one-part MITs. All tests demonstrated the integrity of the casing, tubing and packer and no indications of upward movement of fluids were detected at any of the tested wells.

One two-part MIT was performed on Great Lakes West plant's SWD-1M as part of its closure. No other Class I non-hazardous injection wells had two-part MITs this fiscal year.

Fall-off Pressure Testing

Pressure fall-off tests were performed on all active Class I non-hazardous and hazardous wells in conjunction with the MITs. No pressure build up in the target formations was detected.

FY2012 ISSUES REVISITED

Red River Aluminum WDW#1 Closure

The Red River Aluminum WDW#1 well continues to be shut-in and abandoned without plugging. The workgroup formed by EPA Region 6, ADEQ and the City of Stamps has not made progress in closing this well.

Clear Permitting Backlog

During last year's review of ADEQ's program it became apparent that several of the existing UIC permits had significantly exceeded their renewal dates, although the companies had submitted applications for renewal. Specifically, Great Lakes permits 0016-U (West Plant), 0015-U (Newell Plant), 0011-U (Central Plant) and Albemarle permit 0004-UR-3 had not been renewed on schedule. ADEQ was able to focus on clearing this backlog over the past year and has been very successful in resolving this problem. The Great Lakes permit 0016-U will be terminated once the plugging and abandonment report for the closure is approved. Great Lakes permits 0011-U, and 0015-U, as well as Albemarle's permit 0004-UR-3 have been renewed and properly issued during this past year. The state and staff should be complemented for this success.

Review and Inspection of Sites

ADEQ changed inspection schedule during the past fiscal year from bi-monthly to quarterly. This has reduced the overall inspections from 84 per year to 56 this past fiscal year. This schedule falls well within the federal regulatory framework for the UIC program.

Address Closure Requirements for Temporarily Shut-in Wells

As mentioned earlier in this report, the Great Lakes SWD-1M was plugged and abandoned in September of 2012. This represents a significant step in resolving this issue.

FY2013 ISSUES

Red River Aluminum WDW#1 Closure

It is in the best interests of the state to work toward bringing about a quick plugging and abandonment of the UIC well and the nearby water wells or otherwise resolve this situation. In their present state, these wells represent potentially open conduits between the surface and sources of useable drinking water. Currently, the property is owned by the City of Stamps, AR. On November 27, 2012, representatives of EPA Region 6 and ADEQ met with the mayor of Stamps to stress the need to resolve this issue. We encourage the ADEQ to focus on the plugging the injection and drinking water wells in the coming year

Review and Inspection of Sites

ADEQ needs to remain focused on inspections during FY2013. It is important the agency continue to work hard to maintain its field presence during the next fiscal year.

Address Closure Requirements for Temporarily Shut-in Wells

Table 4 above lists three UIC wells, excluding the Red River Aluminum well, that have not been in use, in some cases for several years, and have not plugged by their operators. Regulation 40 CFR 144.52(a)(6) requires that wells that have had a two year cessation of operation be plugged by the operator or tested for integrity. Currently, Albemarle's WDW-2 has been on temporary abandonment status for more than two years and had its last 2-part MIT performed April 24, 2005. That means Albemarle's WDW-2 should be closed or tested as soon as possible. Another of the UIC wells on temporary closure status, Great Lakes WDW-8N will be due for its 2-part MIT July 30, 2013. The ADEQ should make every effort to require the operators to either properly plug and abandon these wells or insist the operators thoroughly test each well on a regular basis for mechanical integrity.

Prepare Sources for Two Part MITs

Several sources in Arkansas will be due for their two part MITs this coming fiscal year. The following table shows the wells and the dates the two part MITs will be due.

COMPANY	WELL DESIGNATION	DATE 2-PART MIT IS DUE
GREAT LAKES NEWELL	WDW-7N	13-Jul-2013
	WDW-8N[2]	30-Jul-2013
GREAT LAKES WEST	SWD-14M	30-Jul-2013
ALBEMARLE CORPORATION	WDW #3[4]	9-Jun-2013
	WDW #13	12-Jun-2013

ATTACHMENT I

FY2012 Work Plan

Deliverables: The tables below list the items the state committed to providing as part of their work plan for FY2012 and the dates on which those items were made available to EPA Region 6's Water Quality Protection Division.

ADEQ UIC Program FY2012 Plan Summary and Results October 1, 2011 to September 30, 2012		
Element	**Topic/Description**	**Result/Comments**
ELEMENT A	**ENFORCEMENT AND COMPLIANCE**	
1 Compliance Monitoring	a. Class I well Inspections	See Tables 2, 3 and 4 for details.
	b. Class I Petition Compliance Reviews Class I Hazardous Well Petition Condition Compliance Reviews	Yes, as part of permit compliance inspections for these wells.
	c. Annulus Pressure Testing. Class I MITs	See Tables 2, 3 and 4 for details.
	d. Fluid movement testing. Class I MITs	See Tables 2, 3 and 4 for details.
	e. Reporting	See Tables 2, 3 and 4 for details.
	f. Prompt response to citizen complaints	No complaints received in FY2012.
2. Occasional Sampling of Class I and V wells.		ADEQ sampled tail brine injection fluids in May and Sept, to verify compliance with permit conditions.
3. Program Activity Measures (PAMs)	For each Class I, II and III well: # of wells with significant violations	3, ADEQ detected three violations during FY2012 that was immediately corrected. No enforcement action was deemed necessary.
	# of wells with significant violations that were addressed	0
	For each Class V well: # of wells with significant violations	0
	# of wells with significant violations that were addressed	0
	For Motor Vehicle Waste Disposal Wells (MVWDW): # of MVWDWs on inventory	0, In FY11, and earlier years, the state classified car and truck washes as MVWDWs. Upon investigation of the activities at the sites, the Standard Industrial Code classifications in use, and after review of the requirements in the general permit ADEQ uses to authorize these particular facilities, the state has determined these wells do not meet the criteria of Class V – Subclass K, MVWD wells and should instead be considered Class V subclass 5A2, Car/Truck wash fluid

ADEQ UIC Program FY2012 Plan Summary and Results October 1, 2011 to September 30, 2012		
Element	**Topic/Description**	**Result/Comments**
ELEMENT A	**ENFORCEMENT AND COMPLIANCE**	
		disposal wells with no engine or undercarriage wash operations.
	# of MVWDWs Closed or permitted	0
	For each Class I, II and III (salt solution mining wells only) well: # of wells that failed Mechanical Integrity	0, Note: ADEQ inspected 77 Class II surface facilities during FY2012.
	# of wells that were expected to maintain Integrity	All are expected to maintain mechanical integrity. See Tables 1, 2 and for details.3
	For high-priority Class V wells identified in GW based community water system source water areas: # on inventory	0
	# Closed or permitted	0
4. Formal enforcement actions	Seek penalties for violations involving: Unauthorized injection,	0
	Violation of an AO or Judicial Decree	0
	Recalcitrance on part of Owner/Operator (O/O)	0
	Falsified info. from O/O	0
5. All violations addressed consistent with EPA SNC guidance.	Three violations detected in FY2012.	3, The violations were immediately corrected.
6. Take one or more of these actions after SNC identified.	a. Verify O/O has returned to compliance	3
	b. Draft enforcement letter	0
	c. Initiate enforcement schedule.	N/A
	d. Initiate formal enforcement action.	N/A
7. Revise enforcement requirements as necessary		N/A, No Changes or revisions reported
8. Update enforcement procedure		N/A, No Changes or updates reported
9. Inspect Federal Facilities.		N/A, No Federal UIC facilities in Arkansas
10. Investigate, plug & abandon (P&A) any found Class IV wells Indentified.		N/A, No activity reported or necessary
11. Close or cease operations of any Class V wells endangering GW or USDW.		N/A, No Activity reported or necessary

ADEQ UIC Program FY2012 Plan Summary and Results October 1, 2011 to September 30, 2012		
Element	**Topic/Description**	**Result/Comments**
ELEMENT B	**PERMITTING**	
1. Ensure Class I, III and V wells are permitted		All Class I and V sites are permitted as of the end of FY2012. There are no Class III sites in Ark.

ADEQ UIC Program FY2012 Plan Summary and Results October 1, 2011 to September 30, 2012	
Element **Topic/Description**	**Result/Comments**
ELEMENT B	**PERMITTING**
2. ADEQ / Arkansas Oil and Gas Commission (AOGC) staff review each permit application and modification request for Class I wells	No new permit applications or modification requests received in FY2012.
3. Emphasize permitting or Closure of Class V	No Closure reported. A series of 5 Class V remediation pilot studies are underway.
4. Coordinate Class V shallow Injection well permitting with Arkansas Department of Health (ADH) Wellhead Protection Program (WPP)	No Joint actions were accomplished or needed in FY2012. However the ADEQ maintained communication on Class V authorizations issued.
5. ADEQ will permit surface facility assoc with Class V debrominated brine disposal and Class II salt water disposal (SWD) systems	One permit for a class V debrominated brine disposal-associated facility was issued and 10 were drafted. (In addition the ADEQ Class II Salt Water Disposal Surface facility general permit was reissued inFY12 and will be implemented in FY2013. 367 facilities operate under this general permit.)
6 Finalize Great Lakes and Albemarle new permit and permit renewal application reviews	Two Albemarle permits, 0004-UR-2 and 0012-U, have been combined into permit 0004-UR-3. This final permit was issued April 1, 2012. Great Lakes permits 0015-UR-2 & 0011-UR-1 were issued 1 July 2012. Dow permit 0017-UR-2 was issued 1September 2012. Great Lakes draft permit 0016-UR-1 was not issued because well 1M was plugged and abandoned in September, 2012. This permit will be terminated in FY2013 when the P&A closure report is submitted to ADEQ.
7 Revise permitting procedures as necessary	No Permitting procedural revisions reported by ADEQ in FY2012.
8 Conduct permit appeal hearings as necessary	No permit appeals hearings held in FY2012.
9 Oversee/witness P&A of Class V and Class I well	Great Lakes, SDW-1M, was plugged and abandoned in September, 2012. The process was witnessed by ADEQ staff. No P&A activities for Class V wells were reported in FY2012.
10 Address corrective action for Area of Review of permitted facilities	No Area of Review corrective actions reported for FY2012.
11 Review modification applications for Class I Hazardous well permits	N/A, No modification applications were submitted in FY2012.
12 Incorporate "no migration" requirements into existing Class I permits as EPA issues no migration petition approvals	N/A, No requirements needed incorporation into an ADEQ permit in FY2012.
13 Review injection volume, rates and pressure for Class V and Class I wells to ensure:	
Injection pressure won't initiate or propagate fractures in injection zones	Quarterly review of injection sites for Class I sites were performed during FY2012. Five reviews of Class V wells accomplished in this fiscal year.
Injection pressure won't cause movement of injected or formation fluids into a USDW	No evidence of fluid movement detected in Class I wells. No reviews for fluid movement in Class V wells were done.

ADEQ UIC Program FY2012 Plan Summary and Results October 1, 2011 to September 30, 2012	
Element Topic/Description	**Result/Comments**
ELEMENT C	**TECHNICAL SERVICES/ QUALITY ASSURANCE**
1. Field surveillance using dedicated vehicle.	ADEQ reported using dedicated vehicle for 56 quarterly inspections, 7 1-part MITs, and 3 2-part MITs.
2. Pressure fall off testing	See Tables 1, 2 and 3 for details.
3. RBDMS maintenance	ADEQ reported populating and maintaining RBDMS as necessary.
4. Lab support to ADEQ/AOGC	ADEQ reported assisting AOGC/AOGC with tail brine sampling, QAPP and QMP development and execution.
5. Quality Assurance Project Plan (QAPP) Due April 26, 2012.	QAPP received March 13, 2012.
6. ADEQ operates under FY2011's Quality Assurance (QA) plan until new QA plan is approved by R6.	QA plan was approved March 14, 2012.
7. ADEQ annual report due 10/31/12	Report submitted Dec. 12, 2012.

ADEQ UIC Program FY2012 Plan Summary and Results October 1, 2011 to September 30, 2012	
Element Topic/Description	**Result/Comments**
ELEMENT D	**REPORTING**
1. Submit UIC program reports	See Appendix IV of this table for summary.
2. Follow submission schedule in Table 4 of ADEQ work plan.	See Appendix IV of this table for summary.
3. PAMs to be included in FY2011 work plan.	Included and reported on. See Appendix IV of this table for summary.
4. Notify EPA of Equip purchases =/> $500 two weeks prior to purchase.	No purchases noted.
5. Submit draft WP and QAPP for EPA review.	Work plan for FY2012 and QAPP was submitted for EPA review.
6. Require financial assurance (FA) for any new, renewal, or modified UIC Permits,	FA in place for new, renewed/modified Permits. Details available for public review in permit files.
a. Amt of FA,	Addressed as part of permit and /or modification reviews
b. Length of FA before it is renewed again,	Yes. ADEQ carries out annual review.
c. Permit #, 0004-UR-3, 0017-UR-2, 0011-U, 0009-U, 0015-UR-1, and 0010-UR-3.	These seven permits were reviewed for FA during the review year.
d. Name of Owner and Operator if not the same,	Owner and Operator names are noted in permit file.
e. Name of well,	Noted in EOY permit compliance reviews.
f. Location of well,	Noted in publicly available permit file.
g. Notify R6 of any FA changes for existing or new well within 30 days.	ADEQ did not note any changes to FA requirements in FY2012.

ADEQ UIC Program FY2012 Plan Summary and Results October 1, 2011 to September 30, 2012	
Element Topic/Description	**Result/Comments**
ELEMENT E	**PUBLIC PARTICIPATION AND TRAINING**
1. Public outreach, mainly re: Class V 4/5/00 amendments	Two public meetings regarding the Class II UIC surface storage facilities conducted in FY2012.
2. Public Notice for Class I and V permit applications.	No Public Notices for Class I or Class V permits were needed in FY2012.
3. Provide info /Compliance assistance to O/O	Compliance Assistance provided as necessary during FY2012.
4. Train ADEQ staff as appropriate. Assist O/O with technical assistance as necessary.	ADEQ indicates training for staff provided during FY2012. OSHA 8-hr refresher training attended by L. Hanson in September, 2012.

ADEQ UIC Program FY2012 Plan Summary and Results October 1, 2011 to September 30, 2012	
Element Topic/Description	**Result/Comments**
ELEMENT F	**PROGRAM ADMINISTRATION**
1. Implement UIC program as required by SDWA/ Federal/State UIC programs	ADEQ implemented UIC regulation in Arkansas in FY2012.
2. ADEQ maintains jurisdiction over Class I, III, IV and V wells. ADEQ permits surface facilities associated with Class II well permitted by AOGC.	This status is unchanged since last program review.
3. UIC program will be coordinated with local State and Federal agencies, emphasizing RCRA, 106 GW Program and Class V well regulations of 4/5/00.	Coordination with local, other state and federal officials accomplished in FY2012.
4. Notify EPA any changes to UIC program including regulation/statutory changes. And changes to primacy delegation (AG's statement, MOU) will require Federal and State adoption.	No notifications to EPA provided in FY2012. No significant changes made to program in FY2012.
5. FY2012 WP and grant application will be submitted by 7/15/12.	FY2012 WP and grant application received July 2, 2012.
6. Evaluate impacts of Shallow Class V wells in critical GW areas.	No evaluation conducted and reported to EPA in FY2012.
7. Actions taken to ID Class V wells and address potential endangerment.	No Actions taken or reported to EPA in FY2012.
8. Inventory & permit or Close Class Vs. P&A Class Vs impacting critical GW areas or USDWs	A detailed Class V inventory was provided to EPA. ADEQ indicates no Class V P&A activity to report for FY2012.
9. Permit Class Vs as necessary	A Class V general permit for disposal of car wash residuals was issued in FY2012. In addition 6 authorizations of shallow ground water remediation projects were issued (permit by rule).
10. Class V activities including well inspection, permitting and enforcement actions when necessary	No compliance activity on Class V wells reported in FY2012.
11. Staff will assist other state and federal agency to ensure UIC program mandates are met.	ADEQ assisted AOGC by completing semi-annual tail brine sampling in FY2012. Also accompanied EPA representative on site visits to 4 UIC Class I wells (1 at Dow Chemical and 3 at Albemarle South). Provided input to EPA R6 for program implementation, including PAMs measures.
12. ADEQ will coordinate w/ R6 in adoption and implementation of any new regulation or Best Management Practice (BMP) for Class V wells.	No coordination reported, since there were no new regulations or BMPs were adopted in FY2012.
13. R6 will evaluate ADEQ implementation of FY2012 WP during mid-yr and EOY reviews.	No Midyear provided by EPA during FY2012.
14. ADEQ will assist R6 with petition review for land ban applications.	Assistance provided to R6 Land ban group as needed.
15. ADEQ will participate in joint state and federal multimedia inspections and enforcement actions.	No multimedia inspections or enforcement actions reported in FY2012.
16. ADEQ will coordinate with other State agencies and divisions.	ADEQ reported coordinating as requested and when necessary during FY2012, but did not provide details.
17. Class V well regulation revision package submitted. ADEQ will work with R6 to finalize package in FY2012.	No progress on Class V regulation made in FY2012. Still waiting on input from EPA HQ.

Appendix I Grant Activities	FIELD ACTIVITIES
	See Tables 1, 2 and 3 for details.

Appendix IV (Table 4)		
DELIVERABLE	**DUE DATE**	**RECEIVED**
Program, Regulatory and Legislative Update	October 31, 2012	October 29, 2012
Summary of UIC Program Highlights (end-of-year narrative & table)	October 31, 2012	October 29, 2012
Organizational Chart for the ADEQ and the Water Division	October 31, 2012	October 29, 2012
Updated Contact List	October 31, 2012	October 29, 2012
FY2011 Financial Status Report (FSR)	December 31, 2012	Submitted on 12/04/2012 to the Las Vegas Finance Center (LVFC), but has not been processed yet
Copy of Compliance Verification Forms for Class I Hazardous Wells	December 31, 2012	January 25, 2013
2012 Well Inventory	December 31, 2012	December 19, 2012
Quality Assurance Plan (QAPP) includes updated signature page	April 26, 2012	Received March 13, 2012; Approved March 14, 2012
FY2012 Quarterly Reports (7520s)	January 31, 2012	January 3, 2012
	April 30, 2012	April 4, 2012
	July 31, 2012	July 3, 2012
	October 31, 2012	October 29, 2012
MBE/WBE Quarterly Reports	October 31, 2011; January 31, 2012; April 30, 2012; July 31, 2012	These reports were submitted on time.
PAMs	April 15, 2012	March 5, 2012
	October 15, 2012	October 11, 2012
Final FY2012 Grant Application/Work Plan	July 15, 2012	July 2, 2012