
Carden
Water Systems
Industry Applications

Carden-A New Competitive Advantage

- CARDEN Water Systems, LLC (CWS*),* an Arizona LLC, is based in Phoenix, Arizona. The company designs and manufactures modularized, skid mounted, commercial membrane water purification systems
- One of CWS*'* skid mounted units can be configured to treat up to 2.5 million gallons per day (GPD). Since the system is modular, additional "slave" units can be attached.
- The industry standards of efficiencies, capitalization and operation costs have been proven to be substantially improved with the automated CWS skid compared with conventional Reverse Osmosis (RO) equipment.
- CWS can treat almost any water supply, including, but not limited to, brackish & sea water, produced water from oil & gas, cooling tower feed & "blow down" water, beverage companies for feed water, RO recovery and crushed can sugar concentration, breweries, wineries, bilge and grey water (Navy, cruise lines, tankers etc.), industrial, landfill & agricultural waste water and mine discharge.
- CWS allows for improved company performance by providing company management the tools to quickly respond to changing business conditions with proven solution(s) technology. The small footprint design is disruptive to large traditional RO systems that lack the ability to optimize efficiency and performance.
- The CWS technology opens up a new era in commercial and industrial water regeneration and conservation. No longer will industry have to choose between containing costs and environmental stewardship. No longer will it be necessary to wash billions of gallons of "used" water down the drain – and pay mightily for the privilege. The CWS technology economically and fully answers industry's and environmentalists' most pressing water concerns.
- In summary, CWS can produce any standard of water, from almost any water supply on land and sea. It can pre-treat almost any water for direct discharge/reuse or use the water as feed water in its membrane purified water production skid. CWS has also demonstrated the ability to reduce the reject water to a powder form, condense the steam to water and blend it back with the RO permeate for an approximate 99.5% feed water recovery rate. These are fully integrated and automated systems that can be switched to manual run in case of emergencies.

CWS Technology Benefits

- Can remove contaminates in solution, rejecting and/or recovering them as separate flow streams in a recycle and pass system.
- High TDS & TSS Filtration Mechanisms
- Production units are fully automated and require minimal operator interface
- Enhances water conservation efforts
- Reduces ground water or municipal water depletion
- Unique Vertical Design option & IP allows a smaller “footprint”.
- Reduces required maintenance in comparison to current RO systems
- Proprietary Energy Recovery System reduces large energy consumption
- Systems can be scaled to handle any size flow, from several thousand/gpd to tens of millions/gpd
- Will accept any RO membrane, including 16” diameter, from any membrane manufacturer
- Automated cleaning (CIP) prevents membrane clogging – increasing membrane longevity
- Ease of use allows non “engineering” staff to operate and maintain
- Achieves greater than 90% membrane utilization
- Solar powered options are available
- All systems are “Made in America”
- 99.6% - 99.7% contaminates removed
- 80% - 90% "Brilliant Clean Water" recovered
- Achieve Brackish Water Reverse Osmosis (BWRO) & Sea Water Reverse Osmosis (SWRO)

Industry Applications

TILE WATER

PANOCHE Water District

Los Banos-Central Valley, CA

- Tile Water is highly contaminated sub-surface water. The extreme contamination is a direct result of decades of heavy concentrations of Sodium, Selenium, Boron, Arsenic coupled with the indiscriminate use of chemicals across vast acreage of farm land. Contaminated Tile Water is an alarming and growing dilemma in California throughout the USA and one that poses a grave threat to freshwater reserves for agriculture and communities which are unable access this vital resource.
- The Panoche Water District (PWD) sent CWS numerous barrels of this Tile Water, which was analyzed and processed by CWS. Prior to CWS' participation, the PWD had been unable to treat its water. Over the years, PWD explored the services of regional and global water technology providers without any degree of success. Membrane fouling and failure are the chief obstacles that face even the highest profile water technology providers.
- The Tile Water that CWS received varied between 15,000 and 18,000 Mg/l. Although PWD requested the water be cleaned to between 450-650 Mg/l, CWS was able to clean the water to 30 Mg/l.
- PWD generates approximately 2500 acre feet/year of Tile Water (800 million gallons). There are numerous other drainages just in California.
- The following slides show the test results (conducted by PWD) that demonstrate CWS' ability to treat this contaminated water. CWS has received a Letter of Interest and contract from PWD to utilize the CWS technology to treat the Tile Water issue(s).

Results

Panoche Drainage District
52027 W. Althea
Firebaugh, CA 93622

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Juan Cadena

Project: COMPREHENSIVE SAMPLES

Sample ID: TS-1

Sample Collection Date: 06/16/11

APPL ID: AY39910

ARF: 64917

Analyte	Method	Result	PQL	Dilution	Units	Prep Date	Analysis Date
ALUMINUM (AL)	200.7/11.2	ND	50.0	1	ug/L	06/22/11	07/02/11
ANTIMONY (SB)	200.7/11.2	ND	2.0	1	ug/L	06/22/11	07/02/11
ARSENIC (AS)	200.7/11.2	13.5	2.0	1	ug/L	06/22/11	07/02/11
BARIUM (BA)	200.7/11.2	9.0	1.5	1	ug/L	06/22/11	07/02/11
BERYLLIUM (BE)	200.7/11.2	ND	1.0	1	ug/L	06/22/11	07/02/11
BICARBONATE AS CACO3	SM 2320B	187	2.0	1	mg/L	06/23/11	06/23/11
BORON (B)	200.7/11.2	29300	5000.0	200	ug/L	06/22/11	07/02/11
CADMIUM (CD)	200.7/11.2	ND	0.25	1	ug/L	06/22/11	07/02/11
CALCIUM (CA)	200.7/11.2	509000	10000.0	200	ug/L	06/22/11	07/02/11
CARBONATE AS CACO3	SM 2320B	ND	2.0	1	mg/L	06/23/11	06/23/11
CHLORIDE	EPA 300.0	1730	200.0	200	mg/L	06/17/11	06/17/11
CHROMIUM (CR)	200.7/11.2	6.6	0.5	1	ug/L	06/22/11	07/02/11
COLOR (APPARENT)	SM 2120B	8@pH7.7	5.0	1	UNITS	06/17/11	06/17/11
COPPER (CU)	200.7/11.2	4.5	2.5	1	ug/L	06/22/11	07/02/11
DISSOLVED ORGANIC CARBON	SM5310B	11.2	0.5	1	mg/L	06/27/11	06/27/11
FLUORIDE	EPA 300.0	ND	2.0	20	mg/L	06/17/11	06/17/11
HARDNESS	SM2340B/Z	2720	1.0	1	mg/L	07/02/11	07/02/11
HYDROXIDE AS CACO3	SM 2320B	ND	2.0	1	mg/L	06/23/11	06/23/11
IRON (FE)	200.7/11.2	43.9	25.0	1	ug/L	06/22/11	07/02/11
IRON (FE) (DISSOLVED)	200.7/11.1	ND	25.0	1	ug/L	06/22/11	07/02/11
LEAD (PB)	200.7/11.2	ND	1.5	1	ug/L	06/22/11	07/02/11
MAGNESIUM (MG)	200.7/11.2	353000	5000.0	200	ug/L	06/22/11	07/02/11
MANGANESE (MN)	200.7/11.2	387	1.0	1	ug/L	06/22/11	07/02/11
MANGANESE (MN) (DISSOLVED)	200.7/11.1	55.4	1.0	1	ug/L	06/22/11	07/02/11
MBAS	SM 5540C	0.046	0.02	1	mg/L	06/17/11	06/17/11
MERCURY (HG)	245.1/245.1	0.97	0.2	1	ug/L	06/22/11	06/28/11
NICKEL (NI)	200.7/11.2	3.7	1.0	1	ug/L	06/22/11	07/02/11

KAF [illegible] → [illegible] & ALPINO

$300.00

[illegible] MCCANN

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Panoche

District Feed Water

Results

Panoche Water District
52027 W. Althea
Firebaugh, CA 93622

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Juan Cadena

Project: AESS TREATMENT

Sample ID: AESS TREATED WATER

Sample Collection Date: 11/01/11

APPL ID: AY49839

ARF: 66164

Analyte	Method	Result	PQL	Dilution	Units	Prep Date	Analysis Date
ALUMINUM (AL)	200.7/11.2	ND	50.0	1	ug/L	11/09/11	11/11/11
ANTIMONY (SB)	200.7/11.2	ND	2.0	1	ug/L	11/09/11	11/11/11
ARSENIC (AS)	200.7/11.2	ND	2.0	1	ug/L	11/09/11	11/13/11
BARIUM (BA)	200.7/11.2	ND	1.5	1	ug/L	11/09/11	11/11/11
BERYLLIUM (BE)	200.7/11.2	ND	1.0	1	ug/L	11/09/11	11/11/11
BORON (B)	200.7/11.2	4970	2500.0	100	ug/L	11/09/11	11/10/11
CADMIUM (CD)	200.7/11.2	ND	0.25	1	ug/L	11/09/11	11/11/11
CALCIUM (CA)	200.7/11.2	444	50.0	1	ug/L	11/09/11	11/11/11
CHROMIUM (CR)	200.7/11.2	ND	0.5	1	ug/L	11/09/11	11/11/11
COPPER (CU)	200.7/11.2	ND	2.5	1	ug/L	11/09/11	11/11/11
DISSOLVED ORGANIC CARBON	SM5310B	1.8	0.5	1	mg/L	11/14/11	11/14/11
HARDNESS	SM2340B/Z	2.0	1.0	1	mg/L	11/11/11	11/11/11
IRON (FE)	200.7/11.2	ND	25.0	1	ug/L	11/09/11	11/11/11
IRON (FE) (DISSOLVED)	200.7/11.1	ND	25.0	1	ug/L	11/09/11	11/11/11
LEAD (PB)	200.7/11.2	9.1	1.5	1	ug/L	11/09/11	11/11/11
MAGNESIUM (MG)	200.7/11.2	215	25.0	1	ug/L	11/09/11	11/11/11
MANGANESE (MN)	200.7/11.2	ND	1.0	1	ug/L	11/09/11	11/11/11
MANGANESE (MN) (DISSOLVED)	200.7/11.1	ND	1.0	1	ug/L	11/09/11	11/11/11
MBAS	SM 5540C	0.025	0.02	1	mg/L	11/02/11	11/02/11
MERCURY (HG)	245.1/245.1	0.31	0.2	1	ug/L	11/09/11	11/11/11
NICKEL (NI)	200.7/11.2	ND	1.0	1	ug/L	11/09/11	11/11/11
ODOR	SM 2150B	1 @ 60 C	1.0	1	T.O.N.	11/01/11	11/01/11
POTASSIUM (K)	200.7/11.2	ND	500	1	ug/L	11/09/11	11/11/11
SELENIUM (SE)	200.8	ND	1.0	1	ug/L	11/09/11	11/14/11
SILVER (AG)	200.7/11.2	ND	0.5	1	ug/L	11/09/11	11/11/11
SODIUM (NA)	200.7/11.2	6110	500	1	ug/L	11/09/11	11/11/11
STRONTIUM (SR)	200.7/11.2	6.0	1.0	1	ug/L	11/09/11	11/11/11

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Panoche

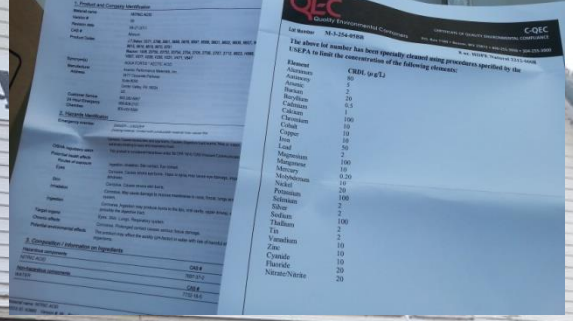
- Samples Sent for Testing

Mine Drainage- Selenium

- The Clean Water Act of 1972, administered by the U.S. Environmental Protection Agency (EPA), established a program in section 402 to regulate the discharge of pollutants into the nation's rivers, streams, and lakes. This program, the National Pollutant Discharge Elimination System (NPDES), is exactly what its name implies: a system to eliminate pollutants from being discharged into waters of the U.S. Any organization, company, or person (entity) discharging water into a receiving body of water in the U.S. must apply for and receive an NPDES permit.
- Effluent limits are assigned to NPDES permits by the regulatory authority (usually the state as provided for by its Legislature) under direction of the USEPA and the Clean Water Act.
- Almost all NPDES permits contain standards or limits to the amount of pollutant that can be discharged by assigning an upper level concentration of the pollutant in the discharge water. The effluent limits for mining NPDES permits can be assigned in three ways: 1) technology-based, 2) water quality-based, and 3) best professional judgment.

Whether the mine drainage was alkaline or acidic, the CARDEN Water System removed the subject pollutants to near detectable levels well below the discharge limits, and concentrated the wastes into a small flow reject stream (<20% of total flow) in 1 pass. Subsequent passes of the reject through additional units would reduce the waste stream to flow volumes less than 1% of total flow and allow for zero liquid discharge.


QEC
ITEM# 2212-0008


QEC
Quality Environmental Components
C-QEC
Lot Number NI-5-254-0588
The above lot number has been specially cleaned using procedures specified by the USEPA to limit the concentration of the following elements:
Element CRDL (µg/L)
Aluminum 50
Antimony 5
Barium 2
Beryllium 20
Cadmium 0.5
Calcium 5
Chromium 100
Cobalt 10
Copper 10
Iron 10
Lead 50
Magnesium 5
Manganese 100
Mercury 10
Molybdenum 0.20
Nickel 10
Potassium 20
Selenium 100
Silver 2
Sodium 2
Thallium 100
Tin 2
Vanadium 2
Zinc 10
Cyanide 10
Fluoride 10
Nitrate/Nitrite 20


CUSTODY SEAL

Location	date	Field Readings			Laboratory concentrations									
Client I		pH	T°C	SpCond umho	Se ug/L	TDS mg/L	sulfate mg/L	Al mg/L	Fe mg/L	Mn mg/L	As mg/L	Ba mg/L	Be ug/L	Alkalinity mg/L
Tote Rinsate	11/5/2013				0.2									
WV @ Mine	11/6/2103	6.80	11.50	3030	6.9	2080	2330							
Arizona	11/13/2013	6.40	21.20	3054	6.6	2150	2300	0.214	0.229	31.2	0.001	0.0146	0.441	21.5
Permeate	11/13/2013	5.90	20.20	21	0.2	13	4	<0.006	<0.010	0.053	<0.001	<0.001	<0.02	2.8
Reject	11/13/2013	7.50	20.20	>4000	20.8	3580	4740	<0.006	0.432	62.2	<0.001	0.0598	0.099	291

Location	date	Field Readings			Laboratory concentrations									
Client A		pH	T°C	SpCond	Se ug/L	TDS mg/L	sulfate mg/L	Al mg/L	Fe mg/L	Mn mg/L	As mg/L	Ba mg/L	Be ug/L	Alkalinity mg/L
Tote Rinsate	11/5/2013				<0.2									
WV @ Mine	11/7/2103	7.50	14.90	1120	9.4	727	313							
Arizona	11/13/2013	7.70	21.20	1109	11.4	708	321	0.648	1.83	0.121	0.002	0.0402	0.328	306
Permeate	11/13/2013	6.40	19.20	8	0.2	5	<1	<0.006	<0.010	<0.002	<0.001	<0.001	<0.02	2.8
Reject	11/13/2013	8.10	19.20	2052	25.8	1560	818	<0.006	0.275	0.027	<0.001	0.0814	<0.02	640

Location	date	Field Readings			Laboratory concentrations									
Client C		pH	T°C	SpCond	Se ug/L	TDS mg/L	sulfate mg/L	Al mg/L	Fe mg/L	Mn mg/L	As mg/L	Ba mg/L	Be ug/L	Alkalinity mg/L
Tote Rinsate	11/5/2013				0.3									
WV @ Mine	11/6/2103	3.70	15.90	3480	21.8	2410	2810							
Arizona	11/13/2013	3.80	21.60	3716	21.1	2580	2800	19.4	1.19	53.6	0.005	0.0137	25	<1
Permeate	11/13/2013	4.00	20.50	81	0.2	42	4.21	0.04	0.02	0.118	<0.001	<0.001	0.047	<1
Reject	11/13/2013	4.40	20.30	>4000	58.7	4640	6660	45.5	13	134	0.011	0.0449	73.1	<1

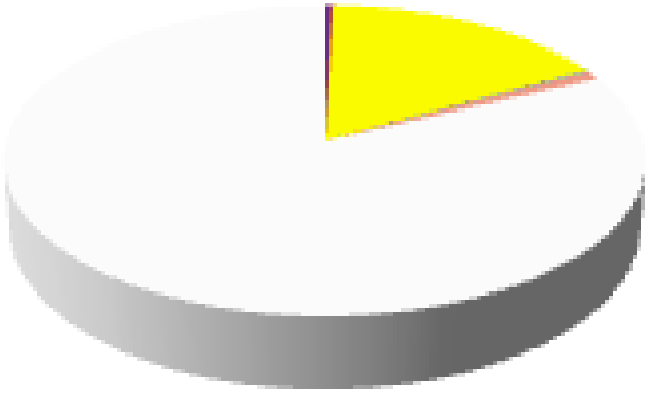
Trip Blank	12/4/2013				0.2									

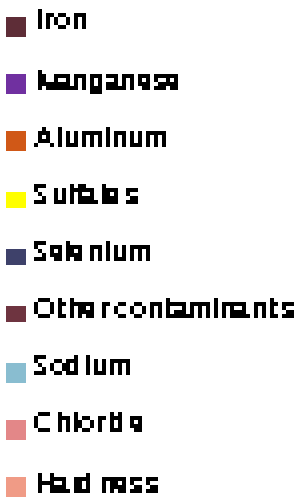
Note: these laboratory concentrations are FINAL as of 2013-12-19 10:15

Results of treatment of three mine drainage sources by Carden Water Systems, LLC. Each test was conducted with a single pass through one unit. Permeate (>80% of flow) is suitable to discharge to receiving stream unless hardness is a concern. (Easily remedied by water management).

Contaminant reduction by sequential concentration

Mine Selenium Case

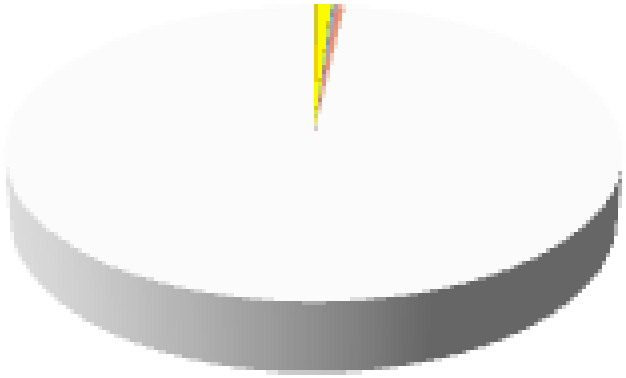




Raw Water

CARDEN WATER SYSTEM

20% of flow to Reject (and subsequent filtration)



80% of flow discharges to Stream

CARDEN WATER SYSTEM

10% of flow to Reject (and subsequent filtration)

90% of flow discharges to Stream

90% of flow discharges to Stream

10% of flow to Reject (and subsequent filtration)

LANDFILL LEACHATE CASE
Trip Report
Landfill Site-Houston, Texas

9/16/2013
CARDEN Water Systems, LLC demo unit arrived at Landfill site in Houston, Texas.
09/17/2013
Set up and testing operations began at 10:30 AM. CARDEN was provided 6 complete sets of sample coolers from Test America. Samples taken. Feed water from the leachate equalization tank was very dark in color with a viscosity equivalent to antifreeze . Leachate feed water pressure for the Nano/Ultra Membrane assembly was 120 PSI. Reject water was flowing at the rate of 2 GPM. Combined permeate flow was unmetered but estimated at 30 gallons per minute.
First run was a combined permeate from the Nano and the Ultra Filters into one 275 gallon tote. Tote filled, the permeate and the reject water recycled back into the leachate feed water tank. That tote of ultra/nano permeate used as feedwater for the RO System. Process pressure and pumping was provided on the skid by 3-2 hp motors @460 volts, 3.7amps, plus a re-circulating1hp pump @ 460 volts, 1.6 amps.
After about a half an hour of operations and continuous running the WM 6,500 gal feed water leachate tank level was not able to provide enough water to continue the testing. CARDEN operators reconfigured the feed water arrangement and resumed operations and testing.
About 2 pm, the unit was switched over to the RO section and began running the RO test and sampling procedures. Process pressure of 170 psi and pumping for the RO section was provided on the skid by 2-3 hp motors @460 volts, 4.75 amps, plus a re-circulating 1hp pump @ 460 volts, 1.6 amps. Flow rate of the reject water was metered at 2 gallons per minute. RO permeate was unmetered but estimated at 35 gallons per minute
After all the samples were collected, the CARDEN demo unit was cleaned and all components placed back in the trailer for pick up in the morning to go to site in San Antonio, Texas .

Analytical Testing Results of Untreated MSW Leachate

17-Sep-13

M. Caldwell

CARDEN Water Unit Field-Scale Test - Atascocita LF Leachate

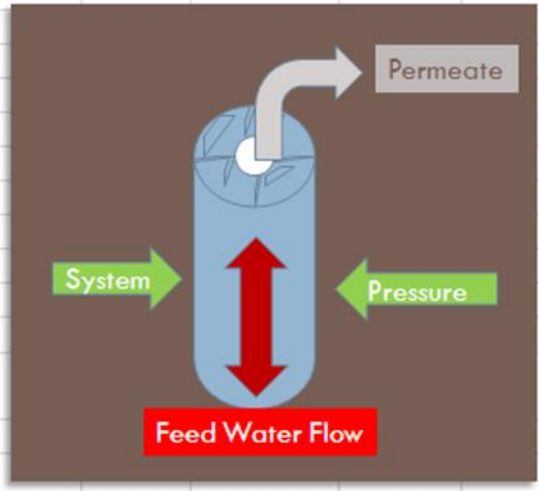
CONFIDENTIAL - For WM Use Only

Analyte	Feed Water	Ultra Perm	Nano Perm	RO Perm	Reject (1)	Bealine WWTP	30 TAC 210
	(concentration mg/L)					standards (mg/L)	
HEM (Oil and Grease)	8.9	12	<3	<3	6.9		10
TDS	8,400	7,800	700	290	12,000		2,000
Cyanide, available	0.078	0.017	0.039	<0.002	0.019	< 1*	0.200
Phenols, total	16	12	1.3	0.17	30	< 1	
COD	6,300	4,800	160	<20	13,000	< 30,000	
Sulfide	8.7	4.2	21	<0.05	3.6	< 10	
TOC	2,800	1,600	27	4.7	4,100		55
BOD	1,700		170	28	2,700		
Chloride	2,300	2,200	190	100	2,100		
Ammonia	990	920	96	27	1,200		
Nitrate	<1	< 1	0.24	0.26	2		10
pH	7.48	7.56	7.29	7.28	7.48	6 to 12	
UV transmittance (%)	0	6.3	50.1	90.4	0		

* - Total

(1) - Measured op efficiency - ≈90%

Nano permeate	Nano filtration permeate achieves all performance standards for 30 TAC 210 land application rules and Bealine PT limits (except for total phenols and sulfides (possible lab error))
Process Flow - Leachate tank => centrifugal clarifier => 10 µ filter => 5 µ filter => ultra membrane/nano membranes in parallel (separated permeate) => RO membrane => reject	**Operating Pressure at each stage** -ultra & nano - 120 psi; RO - between 170-200 psi (predominant pressure 170)
Flow - Field test run at ≈20-30 gpm; measured ≈ 2 gpm reject; closed loop system does not require depressurization between stages; reverse flow across the membranes every 10 mins.	**Process Pressure** - 3, 2-HP motors at 460 volts, 3.7 amps, plus a recirculation pump 1-HP motor @ 460 volts, 1.6 amps;



Membrane Flow (patented)

FRACKING & PRODUCED WATER

- The U.S. Oil and Gas industry is faced with serious concerns regarding water used in, and generated by, hydraulic fracturing (or fracking) extraction technology. A few solutions are currently being used to try to deal with this “produced water” such as injection well “dumping”, transport to treatment facilities, and first-generation on-site treatment technology. None of these methods produce a completely satisfactory, environmentally acceptable and financially practical answer.
- The 16,000 new wells last year required up to 94 billion gallons of water.
- The 19,000 new wells this year will require up to 111 billion gallons of water.
- *All of it needs to be treated.*
- Produced water amounts to the highest volume by-product or waste stream resulting from oil and gas exploration and production activities. Produced water volume estimates can range anywhere from 16-20 billion barrels annually in the Unites States. This equates to a volume of 1.8 to 2.3 billion gallons generated daily.
- Managing produced water is a major challenge for oil and gas operators.
- About 11.65 billion bbl of water was re-injected into the ground as secondary recovery to enhance oil and gas production
- About 40%,or 8.03 billion bbl, of water was disposed of in underground injection wells.
- About 58% (11.65 billion bbl) of the U.S. produced water market is used in enhanced recovery efforts to stimulate production from active gas and oil wells. This produced water, rich in organic and inorganic suspended and dissolved solids must be treated prior to re-use. If not treated, or clarified, this re-injected water rich in minerals and hydrocarbons can literally kill the well it is intended to stimulate.
- No longer will oil and gas producers have to choose between containing costs and environmental stewardship. No longer will it be necessary to wash billions of gallons of “used” water down the drain – and pay surcharge penalties for the privilege.

FRACKING & PRODUCED WATER

- Produced Water Market
  'Produced' water is the term used to describe the water generated and used by the oil and gas industry. According to Global Water Intelligence, handling and treating this wastewater is an industry currently worth more than $7billion a year in North America and it's growing fast. With conventional oil and gas – that is, onshore and offshore wells – having likely peaked in some regions, North America being one of them, energy companies are now focusing on 'unconventional' projects such as shale gas, oil sands and coal bed methane. Once too difficult and too expensive to exploit, widespread adoption of technological innovations such as hydraulic fracturing ('fracking') and horizontal drilling means these projects are now commercially viable – and they're providing a real boost to supplies.
- These 'unconventional' projects are highly water intensive however. On average, for every barrel of oil recovered, eight barrels of water are also generated. Over the next 15 years, this oil-to-water ratio is forecast to increase from 1:8 to 1:12. During this time, the size of the produced water market (in the US) is set double to $10 billion.
- The main growth sector within this industry is advanced treatment. This refers to treating the produced water to a high level which allows it to be safely recycled or re-injected. Treating water to higher standards can relieve stress on local water supplies, reduce environmental concerns and improve oil recovery rates. Technologies include filtration, biological treatment and desalination. With the market for the latter projected to grow at more than 20% annually, this is a particularly promising area for investors and corporations operating in the oil services sector. Produced water is highly saline and if it's to be reused onsite or sold for use offsite, the salinity needs to be reduced to a specific level. The winners will be providers of low cost solutions that offer superior water recovery rates.
- **Benefits of the CWS Technology to Exploration Drillers**
- Recycle Produced water to "fresh" standards or acceptable levels for discharge
- Separate and recover suspended solids and solubles, and optionally recapture as much as 95% as a dry powder
- Provide recycled water for frack makeup or other re-use
- Markedly reduce use of natural fresh water supplies
- Reduce or eliminate the number of $2mm± "disposal" wells and trucking/piping costs

OIL WELL PRODUCED WATER
Trip Report
San Antonio, Texas

09/18/2013

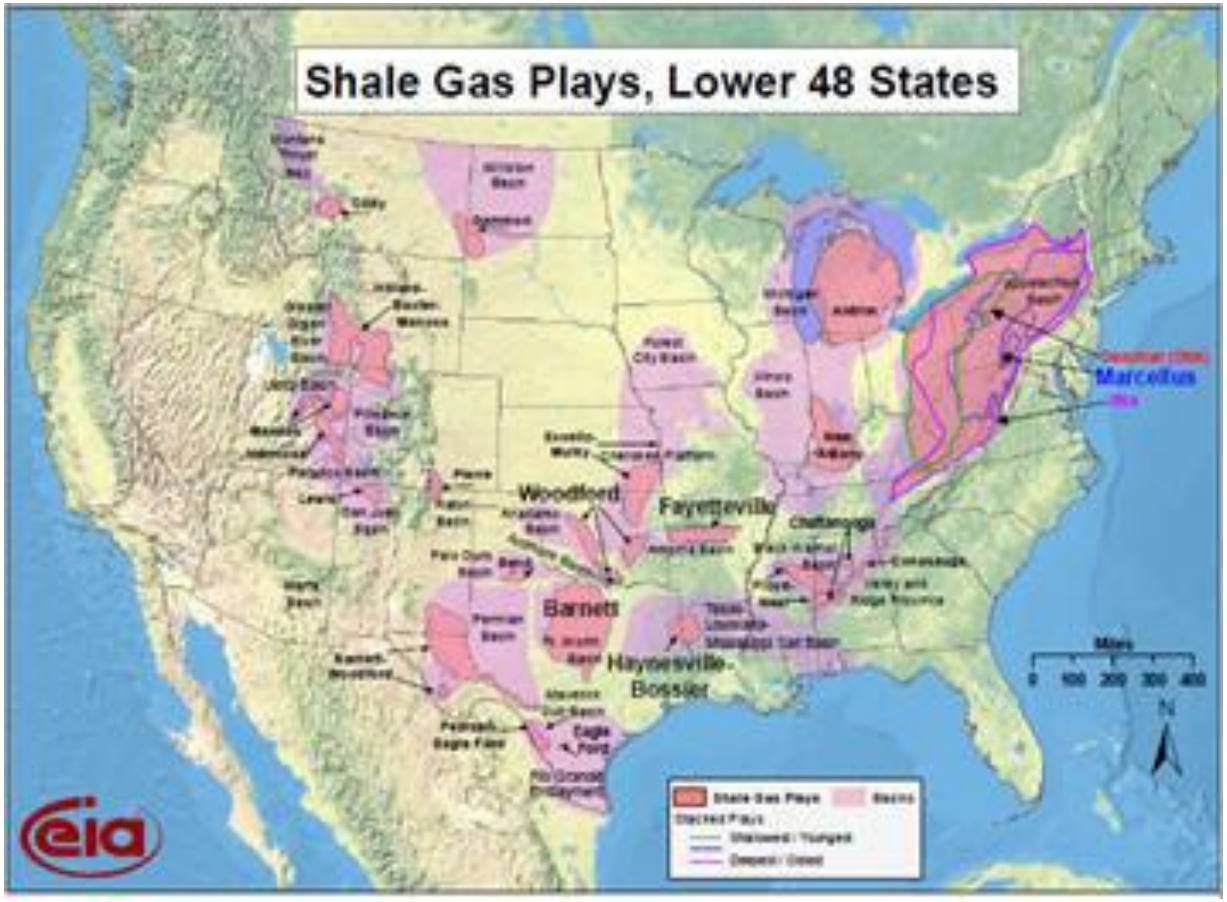
Travel day and setup at San Antonio, Texas landfill and oil well produced water processing site.

09/19/2013
07:30: Set up and began processing oil saturated water at the produced water site.
Power for the testing was provided by using a portable generator.
Process pressure and pumping for the ultra/nano was provided on the skid by 3-2 hp motors @460 volts, 3.7amps.. plus a re-circulating 1hp pump @ 460 volts, 1.6 amps. 120psi and 2gpm reject.

Note: High concentrations of dissolved oil in the feed water and a 1" thick floating oil foam inside the produced water feed water tank for this test. See pictures

A complete set of samples were taken for the Nano/Ultra feed water, the reject water and both sets of permeates.

2:00: Switched over to the RO section and began running the RO test and sampling procedures. Process pressure of 170 psi and pumping for the RO section was provided on the skid by 2-3 hp motors @460 volts, 4.75 amp, plus a re-circulating 1hp pump @ 460 volts, 1.6 amps. Flow rate of the reject water was metered at 2 gallons per minute. RO permeate was unmetered but estimated at 30 gallons per minute.
5 pm, clean and pack up the trailer for shipment back to Phoenix, AZ.


Shale Gas Plays, Lower 48 States
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Bossier
Eagle
Ford
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Ultra filtration, Nano filtration, Reverse Osmosis and Hyper RO

Demonstration Skid

Demo Unit in Trailer

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Demo Unit

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