



New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson
Governor

Jon Goldstein
Cabinet Secretary
Jim Noel
Deputy Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division



June 11, 2010

Stevens & Johnson Operating Co.
PO Box 2249
Wichita Falls, TX 76307-2249

Re: Remediation Site Closure
Denton South of 82 Site 1RP#2560
Site Location: Sec 1 T15S R37E
Closure Dated: February 26, 2010

The referenced remediation work submitted to New Mexico Oil Conservation Division (OCD) by Safety & Environmental Solutions, Inc. (SES) for Stevens & Johnson Operating Co. is **hereby accepted for record**.

Please be advised that OCD acceptance of this action does not relieve Stevens & Johnson Operating Co. liability should their operations fail to adequately investigate and remediate contaminants that threaten ground water, surface water, human health or the environment. Additionally, OCD acceptance does not relieve Stevens & Johnson Operating Co. of responsibility for compliance with any other federal, state, or local laws and/or regulations.

If you have any questions or need assistance call: (505) 393-6161, ext. 111, or email:
larry.johnson@state.nm.us

Sincerely,

Larry Johnson
NMOCD District 1 Environmental Engineer



RECEIVED

JUN 11 2010

Form C-141
Revised October 10, 2003

District I
1625 N French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Bruzoz Road, Aztec, NM 87410
District IV
1220 S St Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

HOBSOCD

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

Name of Company	Stephens & Johnson Operating Co.	Contact	Bob Gilmore
Address	P O Box 2249	Telephone No.	940-723-2166
Facility Name	Denton North Wolfcamp Unit	Facility Type	Water Supply Line

Surface Owner	Darr Angel	Mineral Owner	Unknown	Lease No.	
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South of 82'

LOCATION OF RELEASE

3002505203

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	1	T15S	R37E	2890	North	10	West	Lea

Latitude $33^{\circ} 02' 38.1'' N$ Longitude $103^{\circ} 09' 33.9'' W$

NATURE OF RELEASE

Type of Release	Salt Water	Volume of Release	Unknown NA	Volume Recovered	Unknown NA
Source of Release	Salt Water Supply Line	Date and Hour of Occurrence	NA	Date and Hour of Discovery	NA
Was Immediate Notice Given?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?			
By Whom?		Date and Hour			
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse			

If a Watercourse was Impacted, Describe Fully *

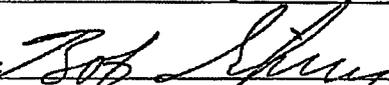
Describe Cause of Problem and Remedial Action Taken *

Leak was from water supply line which developed several years ago. Leak was repaired and returned to service.

Describe Area Affected and Cleanup Action Taken *

SESI environmental consultants determined vertical and horizontal extent of contamination. Contaminated soil was dug out and replaced under OCD procedures.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Bob Gilmore	Approved by District Supervisor:	
Title: Engineer	Approval Date:	Expiration Date:
E-mail Address: bgilmore@sjoc.net	Conditions of Approval:	
Date: 5-3-10 Phone: 940-723-2166	<input type="checkbox"/> Attached IRP# 10.6.2560	

* Attach Additional Sheets If Necessary

RLWJ 1016258720
PLWJ 1016259024



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON

Governor

Joanna Prukop
Cabinet Secretary

Lori Wrotenbery

Director

Oil Conservation Division

June 16, 2003

Stevens & Johnson Operating Co.
PO Box 2249
Wichita Falls, TX 76307-2249

Re: Remediation Work Plan
Denton Field 'South of 82'
Site Location: Sec 1 T15S R37E
Plan Submittal Dated: May 8, 2003

The referenced Work Plan submitted to New Mexico Oil Conservation Division (OCD) by Safety & Environmental Solutions, Inc. (SES) for Stevens & Johnson Operating Co. is **hereby approved** with the following conditions:

- OCD will be given 48 hour notice prior to sampling events to witness and/or split samples
- Drilling to and sampling of groundwater will be prudent if deep chloride contamination is encountered above 250 mg/L or 250 ppm in boring samples
- Provide convex soft soil/sand pad under plastic barrier, pad top to protect from punctureProvide convex soft soil/sand pad under plastic barrier, pad top to protect from puncture
- Increase plastic liner from 20 mil to 30 mil thickness
-
- Increase plastic liner from SES requested 20 mil to 30 mil

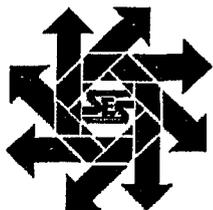
Please be advised that OCD approval of this plan does not relieve Stevens & Johnson Operating Co. liability should their operations fail to adequately investigate and remediate contaminants that threaten ground water, surface water, human health or the environment. Additionally, OCD approval does not relieve Stevens & Johnson Operating Co. of responsibility for compliance with any other federal, state, or local laws and/or regulations.

If you have any questions or need assistance call: (505) 393-6161, ext. 111, or email: lwjohnson@state.nm.us or Paul Sheeley at: ext. 113, email: psheeley@state.nm.us

Sincerely,

Larry Johnson-Environmental Engineer

Cc: Roger Anderson - Environmental Bureau Chief
Chris Williams - District I Supervisor
Bill Olson - Hydrologist
Paul Sheeley - Environmental Engineer



P.O. Box 1613
703 E. Clinton Street
Hobbs, New Mexico 88240
575/397-0510
Fax 575/393-4388
www.sesi-nm.com

Safety & Environmental Solutions, Inc.

April 10, 2010

Mr. Larry Johnson
Environmental Engineer
New Mexico Oil Conservation Division
1625 French Drive
Hobbs, New Mexico 88240

Mr. Larry Johnson:

This letter is a request for closure at the Stevens and Johnson South of 82. All the delineation activities completed for the subject area are listed below in chronological order.

Safety & Environmental Solutions, Inc. (SESI) was engaged by Stephens & Johnson Operating Company to perform a site assessment located in Section 1, Township 15 South, and Range 37 East in Lea County, New Mexico. The subject area was impacted by the spillage of an undetermined amount of produced water from an injection line associated with production in the area. The remediation for this site was initiated in September 2003; however, this site has been dormant for several years.

Surface and Groundwater

The nearest groundwater of record with the New Mexico State Engineer's Office is in Section 2 of 15 South, 37 East. According to measurements taken February 18, 1966, the depth to water in this well is 42.09 feet.

Monitor wells installed by SESI at this site have respective depths to water of 71.25' and 71.15'. The groundwater measurements were taken on January 11, 2010.

Soils

The soils in the area are predominantly sand and sandy loam.

Work Performed

September 23, 2003:

Safety and Environmental (SESI) drilled two (2) boreholes. Borehole #1 was drilled to 10 feet and sampled at that depth. The circulation of air was lost in this borehole due to the close proximity to the open excavation immediately to the east of the borehole. Borehole #2 was drilled to 45 feet at which point wet sand was encountered. Samples were retrieved at 5, 15, 25, 35, and 45 feet.

SESI attempted to drill boreholes # 3 and # 4 to the southeast of borehole #2. Both boreholes ended with auger refusal at 3'. No samples were taken from these boreholes.

All samples were properly packaged and preserved and sent under chain of custody to Cardinal Laboratories in Hobbs, New Mexico for analysis. The samples were analyzed for Chlorides (EPA method 4500-Cl⁻B).

The results of the analysis are as follows:

Date	Sample ID	Cl ⁻ (mg/kg)
9/23/03	BH #1 10'	4399
9/23/03	BH #2 5'	2559
9/23/03	BH #2 15'	4399
9/23/03	BH #2 25'	3279
9/23/03	BH #2 35'	2399
9/23/03	BH #2 45'	2303

The elevated chloride level in borehole #2 at 45' indicated probable groundwater impact. It was recommended that a monitor well be installed in the immediate vicinity of borehole # 2 and groundwater samples be analyzed for chloride levels.

January 15, 2004:

SESI installed a monitor well on the site to determine if chloride contamination at the site had impacted the groundwater. It was determined through a Chloride Field Test that the contamination had impacted the water. SESI notified Mr. Larry Johnson and Mr. Ed Martin of the contamination verbally on this date. On January 16, 2004 Borehole # 5 was drilled to the south of the site to determine if the contamination had migrated horizontally from the site. Borehole # 5 was drilled to a depth of 40 feet. Grab samples were retrieved at 5 feet and every 10 feet after. The samples were sent under chain of custody to Cardinal Laboratories of Hobbs, New Mexico for analysis. The samples were analyzed for Chlorides (EPA Method 4500-Cl⁻B).

The results of the analysis are as follows:

Date	Sample ID	Cl ⁻ (mg/kg)
1/16/04	BH #5 - 5'	3007
1/16/04	BH #5 - 10'	3599
1/16/04	BH #5 - 30'	1839
1/16/04	BH #5 - 40'	256

January 21, 2004

The monitor well was developed and completed. The well was bailed and a water sample retrieved. The sample was properly preserved and sent under chain of custody to Cardinal Laboratories for analysis. The sample was analyzed for Chlorides (EPA method 4500-Cl⁻B) and BTEX (EPA Method SW-846-8020).

The results of the analysis are as follows:

Date	Sample ID	Cl ⁻ (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl Benzene (mg/kg)	Total Xylenes (mg/kg)
1/21/04	MW-#1 Water	2120	<0.002	<0.002	<0.002	<0.006

The results of the groundwater sample indicated that the contamination had impacted the ground water at the location of the well bore of MW # 1. The results of the soil samples in Borehole #5 show that the contamination has migrated to a depth between 30' and 40' in the vadose zone at the location of Borehole # 5. This indicated that the area between Borehole # 2, MW # 1 and Borehole 5 may have been impacted by chloride migration to depths of 30' to 40'.

It was recommended that an additional monitor well be installed in the area of Boreholes # 3, 4, and 5 to determine the extent of groundwater contamination down-gradient of the leak site. An appropriate action plan for this site will be submitted upon review of the results of the installation of this monitor well. In addition, it was recommended that the excavation be backfilled, properly compacted and returned to original grade. The original Work Plan dated May 8, 2003 was followed regarding the top 4' to 5' of the surface soils.

April 28, 2006:

SESI was onsite to retrieve samples and map the excavation at the South of 82 Site. The excavation measures approximately 1,023 sq. ft. and is approximately 5' deep. Samples were retrieved 0 to 6 inches in depth throughout the bottom and sides of the excavation. All samples were transported under Chain of Custody to Argon Laboratories of Hobbs, New Mexico for analysis. The samples were analyzed for Chlorides (EPA Method 300.00).

The results of the analysis are as follows:

Date	Sample ID	Cl (mg/kg)
4/28/06	North Wall	330
4/28/06	East Wall	10,000
4/28/06	West Wall	1,400
4/28/06	NE Bottom	500
4/28/06	SE Bottom	1,800

Groundwater samples were retrieved from the monitor wells on March 9, 2006. The samples were properly preserved and transported under Chain of Custody to Cardinal Laboratories of Hobbs, New Mexico of Hobbs, New Mexico for analysis. The samples were analyzed for Chlorides (Standards Method 4500-Cl⁻B) and BTEX (EPA Method SW-846-8020).

The results of the analysis were as follows:

Date	Sample ID	Cl (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)
3/9/06	MW 1	2340	<0.002	<0.002	<0.002	<0.006
3/9/06	MW 2	200	<0.002	<0.002	<0.002	<0.006

The results of the sampling indicated the chloride levels to be highly elevated in the east wall. It was recommended that the site be excavated additionally on the east side. The monitor wells needed to continue to be sampled on a quarterly basis.

May 12, 2009:

SESI was onsite to retrieve samples of the run and pooling area. Samples were retrieved at depths ranging from 0 to 6 inches throughout the bottom and sides of the excavation. All

samples were transported under Chain of Custody to Ana-Lab of Kilgore, Texas for analysis. The samples were analyzed for Chlorides (EPA Method 300.00).

The results of the analysis are as follows:

Date	Sample ID	Chlorides (mg/kg)
Floor Bottom		
5/12/09	#1	20.1
5/12/09	#2	45.2
5/12/09	#3	42.9
Side Wall		
5/12/09	NW #1	151
5/12/09	NW #2	15,600
5/12/09	NW #3	1550
5/12/09	EW	750
5/12/09	SW #1	108
5/12/09	SW #2	44.8
5/12/09	SW #3	867
5/12/09	WW	1,880

Date	Sample ID	Chlorides (mg/L)
Monitor Wells		
5/12/09	MW #1	1,430
5/12/09	MW #2	128

Date	Sample ID	Chlorides (mg/kg)
5/12/09	Surface 1	5,770
5/12/09	Surface 2	7,180
5/12/09	Surface 3	5,960
5/12/09	Surface 4	7,930

January 4, 2010:

SESI was onsite with Watson Construction to further excavate the area. Samples were retrieved from the floor bottom of the excavation, as well as, the side walls. All grab samples were transported under Chain of Custody to Cardinal Laboratories in Hobbs, New Mexico for analysis. The samples were analyzed for Chlorides (EPA Method 4500-B).

The results of the analysis are as follows:

Date	Sample ID	Chlorides (mg/kg)
Floor Bottom		
1/04/10	#1 6'bgs	32
1/04/10	#2 6'bgs	16
1/04/10	#3 6'bgs	<16
Side Walls		
1/04/10	NW #1	80
1/04/10	NW #2	192
1/04/10	NW #3	96
1/04/10	EW	224

1/04/10	SW #1	208
1/04/10	SW #2	736
1/04/10	WW	5,600

SESI was onsite with Watson Construction to further excavate this area which is approximately 7,500 square feet. This area is immediately adjacent to monitor well # 2 which has been sampled in the past and the chloride levels in this well have never exceeded 250 ppm and is located to the south of the first excavation. This second excavation was excavated to a depth of three (3) feet. An additional four (4) samples were taken. All grab samples were transported under Chain of Custody to Cardinal Laboratories in Hobbs, New Mexico for analysis. The samples were analyzed for Chlorides (EPA Method 4500-B).

The results of the analysis are as follows:

Date	Sample ID	Chlorides (mg/kg)
1/04/10	SS SP #1 3'bgs	896
1/04/10	SS SP #2 3'bgs	4,800
1/04/10	SS SP #3 3'bgs	4,640
1/04/10	SS SP #4 3'bgs	3,320

January 12, 2010:

SESI was onsite to retrieve water samples from monitor well #1 and #2. The samples were transported under Chain of Custody to Cardinal Laboratories in Hobbs, New Mexico for analysis. The samples were analyzed for Chlorides (EPA Method 4500-B), Total Dissolved Solids (TDS) EPA Method 160.1, and Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX) EPA Method SW-846 8021B.

The results of the analysis are as follows:

Sample ID	Chlorides (mg/L)	TDS (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)
	1/14/10	1/14/10	1/13/10	1/13/10	1/13/10	1/13/10
MW #1	2,000	4,120	<0.001	<0.001	<0.001	<0.003
MW #2	104	559	<0.001	<0.001	<0.001	<0.003

January 19, 2010:

SESI was onsite with Mr. Larry Johnson of New Mexico Oil Conservation Division (NMOCD) to discuss the results of the analysis and closure plan. Due to the pipeline on the west side, Mr. Johnson approved that no further excavation be required. Historical sampling of this run and pooling area is immediately adjacent to monitor well # 2 at this site indicated chloride levels never to have exceeded 250s ppm. Since the contamination had not reached the groundwater at this location, SESI requested and Mr. Johnson approved the installation of a 40-mil liner at the bottom of the excavation. Top soil was placed on top of excavation then a 40-mil liner was installed at a depth of six (6) feet on the west side and at a depth three (3) feet in the south excavation prevent further migration. Topsoil was used to backfill location.

Approximately 1,968 yards of contaminated soils were excavated from both excavations and transported to a New Mexico Oil Conservation Division (NMOCD) approved disposal facility. The location was backfilled with 2,124 yards of topsoil and contoured to its natural grade.

Conclusion

Remedial actions at this site have all been performed with the approval of, and in accordance with all NMOCD requirements. It is requested that no further action be required at this site with the exception of re-seeding to the landowner's specifications and to continue sampling the monitor wells quarterly.

Please contact me should you have questions or require further information.

Thank you for your attention in this matter.

Sincerely,

Bob Allen CSP, REM
President

ba/sr