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report.HW.932119.2000-10-20.USEPA-Pollution_Report-2000-2001.pdf

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Project Site numbers will be proceeded by the following:

Municipal Brownfields - B
Superfund - HW
Spills - SP
ERP - E
VCP - V
BCP - C

U.S. ENVIRONMENTAL PROTECTION AGENCY
FINAL POLLUTION REPORT

I. **HEADING**

Date: December 4, 2001

From: Kevin M. Matheis, On-Scene-Coordinator
U.S. EPA Region II

To:

R. Salkie, EPA	J. Rotola, EPA
T. Johnson, 5202G	B. Bellow, 2CD
R. Cahill, 2CD-PAT	M. Basile, 2CD-POB
S. Kivowitz, 2ORC-NYCSFB	
J. LaPadula, 2ERRD-NYRB	R. Byrnes, 2OIG
T. Riverso, 2OPM-GCMB	B. Deese, 2ERRD-RAB
M. O'Toole, NYSDEC	D. King, NYSDEC IX
ERD-Washington (E-Mail)	R. Connolly, Town of Somerset
W. Coates, Twn of Somerset	V. Pitruzzello, 2ERRD-PSB
T. Taccone, 2ERRD-NYRB	E. Sullivan, Niagara County
P. Dicky, Niagara County	M. Forcucci, NYSDOH

Subject: Barker Chemical Site, Town of Somerset, NY - Acid leachate and acidic lagoons, arsenic contaminated soils, and unknowns.

POLREP NO: Twelve (12) and Final

II. **BACKGROUND**

SITE/SPILL NO.:	02PK
RESPONSE AUTHORITY:	CERCLA/SARA
NPL STATUS:	Non-NPL
CERCLIS ID:	NYD981484447
START DATE:	October 9, 2000
COMPLETION DATE:	November 30, 2001
FUNDING DATE:	Action Memo Signed on September 29, 2000
ACTION MEMO STATUS:	Signed September 29, 2000

III. **RESPONSE INFORMATION**

A. Background

The Barker Chemical Site (Site) is located at 8473 West Somerset Road, Village of Barker, Town of Somerset, New York. The ten-acre Site was the location of a fungicide manufacturer from 1930 until the early 1970's. According to the New York State Department of Environmental Conservation (NYSDEC), the facility also apparently handled and stored a variety of other agricultural and chemical products that were not produced on-site. The owner of the Site is deceased and neither his estate nor the beneficiaries of his estate, his two sons, have claimed ownership of the property. The buildings on-site were utilized since 1988, but according to local sources, fungicide operations ceased in the 1970s.

The Site is located in a mixed agricultural and residential area. The Site is adjacent to an unnamed creek on the east that feeds directly into Golden Hill Creek, a tributary of Lake Ontario. A farm and residence is adjacent to the Site on the west, a residence is located across

the street to the south and a wooded area is located adjacent to the Site on the North. Eleven residences are located within 1/4 mile of the Site. Within a one-mile radius of the Site, the population is approximately 500.

Prior to EPA removal actions, the Site contained four buildings and one above-ground storage tank. Three of the buildings appear to have been used as offices and for dry storage. One of the buildings (approximately 100' x 100') was in poor structural condition and was utilized historically as a production building. Two water retention lagoons on-site were used as settling ponds for a water treatment and/or production processes on-site.

On May 16, 2000, the NYSDEC requested that EPA evaluate the Site and perform a removal action to address the threats at the Site from low pH conditions found in site surface waters and two water retention lagoons, and to identify, contain, control and/or remediate any other hazardous wastes or hazardous substances found at the Site. Included in this referral was analytical data the NYSDEC had collected on-site that identified the following problem areas: low pH runoff of surface waters showing pH levels <2.0 that feed directly into the adjacent creek; low pH water in water retention ponds with levels ranging from 2 to 3; and arsenic contamination (up to 2,210 parts per million {ppm}) on the berm of the north water retention pond. The low pH runoff exhibits characteristics of a RCRA hazardous waste.

In addition to the referral, the NYSDEC also notified EPA that the Niagara County Health Department (NCHD) and New York State Department of Health (NYSDOH) had determined that a public health risk existed on-site via direct contact with the low pH waters at the Site. In January 2000, the NCHD issued a public health hazard advisory to nearby residences cautioning against entry onto the Site. NYSDEC implemented an emergency site security action by placing warning signs at the Site and placing high visibility fencing around the direct contact areas of concern.

On June 12, 2000, EPA performed a Removal Site Evaluation (RSE) with EPA's Environmental Response Team (ERT). Since the direct contact threat had been temporarily addressed by the NYSDEC, EPA implemented the RSE with EPA-ERT to determine the extent of contamination. EPA-ERT collected samples from waste piles, water retention ponds, adjacent creeks and runoff areas, process and production areas, suspected dumping areas, spill areas and the area surrounding a former water retention pond that had been filled prior to 1960.

During the RSE, it was observed that the warning signs and high visibility fencing were not adequate for long-term public health protection. Evidence of trespassing and use of off-road vehicles were present in other areas of the Site.

Areas of contamination on-site prior to EPA actions included the following:

Waste Piles - The waste piles on-site consisted of nearly 1,000 cubic yards of discolored and sulfur-rich product used in the fungicide manufacturing process. Though the waste pile contained low concentrations of hazardous substances, it contained up to 55% sulfur. Since the waste piles were adjacent to the low pH runoff areas and water was leaching through the pile, it was likely that this was a major sources for the acid leachate.

Low pH runoff areas - The drainage trough in this area contained elevated concentrations of arsenic up to 204 ppm. This drainage trough fed directly into a creek adjacent to the Site and is a tributary of Golden Hill Creek.

Arsenic Contamination Area - This area was adjacent to the north lagoon on-site and the NYSDEC has identified arsenic contamination up to 2,210 ppm. High concentrations of copper were also discovered (7.6%). During EPA's RSE, small specks of blue chips were identified as the potential source of the contamination. EPA-ERT samples collected in run-off accumulation areas showed arsenic concentrations up to 286 ppm.

Production Building - This 100' x 100' building was the location of production operations at the Site. The rear portion of this production building (a 30' x 30' area) appeared to be the location of the fungicide manufacturing process. The building, which was constructed of wood and brick, was partially collapsed and therefore access had been limited. During the RSE, a glue-like material was noticed detected under the floorboards of the building, but this portion of the building was inaccessible due to poor structural integrity. This rear area of the production building required further investigation and testing to determine the extent of contamination.

Water Retention Ponds (Lagoons) - These water retention ponds were the location of settling lagoons and contained low-pH water and significant amounts of sulfur-bearing sludge. The water was devoid of vegetation and contained approximately 500,000 gallons of low-pH water.

B. Actions Taken

Current Actions

1. Project was demobilized by the EPA contractor on October 26, 2001. A close-out press conference had been held on October 11, 2001. The project completion date is November 30, 2001. On that date, the OSC inspected the site and determined that the site restoration has been satisfactorily been completed and the project is finished.

Previous Actions

2. EPA mobilized to the site on October 9, 2000. EPA began site set up operations and began demolition of the former production buildings to remove the debris covering areas to be further characterized and sampled.

3. In November 2000, EPA constructed a perimeter access loop road near the lagoons and waste piles to provide greater access to the site cleanup areas. EPA excavated the arsenic contaminated drainage ditch and sent 250 tons of soil for off-site disposal at Modern Landfill, located in Model City, New York. The confirmation samples taken from the drainage channel indicated that the cleanup goal had been met and restoration occurred.

4. EPA took sludge samples from the lagoon sediments and sent them to an engineering company to determine a stabilization recipe. Once the recipe was established, EPA used

a mixture of lime, Portland cement, clay and fly ash to stabilize the sludges in the south lagoon. Stabilization of the lagoon sediments occurred in May 2001.

5. EPA excavated and removed the sulfur waste piles in December 2000. 825 tons of contaminated soil and product were sent off-site to Modern Landfill for disposal.

6. In December 2000 and January 2001, the waste from the waste oil tank was removed and the tank scrapped. 475 tons of contaminated soil was sent for off-site disposal at Modern Landfill.

7. EPA shut down operations until May 2001. When EPA remobilized to the site, water from the south lagoon was consolidated into the north lagoon and buffered to make the pH neutral. The south lagoon was then stabilized with lime, portland cement and fly ash to turn the sludge into a non hazardous cement. When stabilization actions in the south lagoon were completed, the stabilized materials were capped with one-foot of clay and one-foot of topsoil. The lagoon was given a grass cover and lagoon actions were completed in July 2001.

8. Samples from the production building showed that arsenic contamination existed in the soils beneath the former buildings. EPA excavated and sent the 400 tons of contaminated soil for off-site disposal at Modern Landfill. The area was sampled and determined to have met EPA's cleanup objectives and was backfilled with certified clean clay and stone.

9. The area of the former waste pile storage area was tested and determined to have met cleanup objectives. The area was backfilled and capped with certified clean clay and topsoil. Like the south lagoon stabilized area, a grass cover was put on top of the restored area.

10. The north lagoon contained the water consolidated from the south lagoon and had been neutralized with lime over the winter and spring. The pH was neutral and samples indicated no concentrations of hazardous constituents. 200,000 gallons of water was discharged on-site and buffered with limestone to keep the pH levels neutral. The other 366,000 gallons of water with sediment and lower pH content was sent off-site for treatment at the water treatment plants in Niagara Falls and North Tonawanda, New York.

11. The volume of sediments in the north lagoon were not as large as anticipated. EPA determined that off-site disposal of the sediments was cheaper than stabilization. In July 2001, EPA removed 3,200 tons of low pH sludge and sent them for landfill at Modern Landfill.

12. EPA restored the north pond wetlands with the use of wetlands soil from the nearby Buckhorn Island Rehabilitation Project, located in Grand Island, NY. The wetlands soil was available to EPA at no cost and is fertile soil with native wetlands species of vegetation. Sampling of the soil indicated that it is clean material. EPA was issued a permit to remove the sediment by New York State Office of Parks and Recreation. EPA

utilized 950 cubic yards of the sediments and lined the bottom of the former lagoon with the sediment. Water was flooded into the pond and it is now a one-acre wildlife refuge. Native species of wetlands plants are growing and waterfowl has returned to the pond.

13. In June and October 2001, the arsenic contaminated area north of the north lagoon was excavated. 600 tons of soil was removed from the area and confirmation samples determined that cleanup objectives had been met. The area was backfilled with certified clean fill and given a vegetative cover.

14. In September/October 2001, EPA relocated its trailers that were situated on a concrete pad that formerly was used for drum storage of liquid products stored at Barker Chemical. After the trailers were removed, EPA removed the concrete and tested the surface and subsurface soils. One of the sampling points showed the presence of arsenic above the cleanup levels and the soil under the pad was subsequently removed and sent off-site for landfill at Modern Landfill. Approximately 200 tons of soil was removed and the area was backfilled with clay and stone and the area was leveled to grade.

C. Future Actions

1. The NYSDEC may perform some additional testing at the site to fill data gaps they may have with respect to groundwater sampling.

2. The Niagara County Brownfields office will work with EPA and NYSDEC with respect to reuse of the property and foreclosure and ownership issues.

3. Cost-recovery against the former owners of the site will be further evaluated by EPA and cost-recovery may occur as appropriate.

D. Key Issues

None.

IV. **COST INFORMATION:** As of 12/04/01

Site Ceiling as of 12/04/01			
	Total Ceiling	Costs to Date	Amount Remaining
WRS Contractor	$ 1,151,000	$ 1,101,000	$ 50,000
RST/EPA	$ 150,000	$ 140,000	$ 10,000
Totals	$ 1,301,000	$ 1,241,000	$ 60,000

The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

V. DISPOSITION OF WASTES

Waste Disposition Table				
Waste type/location	EPA Waste Codes	Quantity	Disposal Facility	Treatment Method
Sulfur/acidic sludge from north lagoon	None	3,200 tons	Modern Landfill, Model City, NY	Landfill
Arsenic contaminated soil from drainage ditch	None	250 tons	Modern Landfill, Model City, NY	Landfill
Arsenic and sulfur contaminated soil from waste piles and roadway construction	None	825 tons	Modern Landfill, Model City, NY	Landfill
Arsenic contaminated soil from beneath former production building	None	475 tons	Modern Landfill, Model City, NY	Landfill
Arsenic contaminated soil from area north of the north lagoon	None	600 tons	Modern Landfill, Model City, NY	Landfill
Arsenic contaminated soil from beneath former drum storage building	None	200 tons	Modern Landfill, Model City, NY	Landfill
Waste oil contaminated soil from storage tank	None	400 tons	Modern Landfill, Model City, NY	Landfill
Low pH water from both the south and north lagoons	None	366,000 gallons	Niagara Falls and North Tonawanda, NY waste water treatment plants	Treatment and Discharge

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. **HEADING**

Date: October 15, 2001

From: Kevin M. Matheis, On-Scene-Coordinator
U.S. EPA Region II

To:

R. Salkie, EPA	J. Rotola, EPA
T. Johnson, 5202G	B. Bellow, 2CD
R. Cahill, 2CD-PAT	M. Basile, 2CD-POB
S. Kivowitz, 2ORC-NYCSFB	
J. LaPadula, 2ERRD-NYRB	R. Byrnes, 2OIG
T. Riverso, 2OPM-GCMB	B. Deese, 2ERRD-RAB
M. O'Toole, NYSDEC	D. King, NYSDEC IX
ERD-Washington (E-Mail)	R. Connolly, Town of Somerset
W. Coates, Twn of Somerset	V. Pitruzzello, 2ERRD-PSB
T. Taccone, 2ERRD-NYRB	E. Sullivan, Niagara County
P. Dicky, Niagara County	M. Forcucci, NYSDOH

Subject: Barker Chemical Site, Town of Somerset, NY - Acid leachate and acidic lagoons, arsenic contaminated soils, and unknowns.

POLREP NO: Eleven (11)

II. **BACKGROUND**

SITE/SPILL NO.:	02PK
RESPONSE AUTHORITY:	CERCLA/SARA
NPL STATUS:	Non-NPL
CERCLIS ID:	NYD981484447
START DATE:	October 9, 2000
COMPLETION DATE:	Pending
FUNDING DATE:	Action Memo Signed on September 29, 2000
ACTION MEMO STATUS:	Signed September 29, 2000

III. **RESPONSE INFORMATION**

A. Situation

See Initial POLREP.

B. Actions Taken

1. Sample results from the north arsenic area were received and only a small area required excavation and disposal. 200 cubic yards of soil were excavated from the north arsenic area and sent off-site for disposal at Modern Landfill, located in Model City, NY. The area was backfilled with clay and topsoil placed on the surface. The area has been seeded for restoration.

2. Sample results from the former drum pad storage area revealed some arsenic contamination in one of the sampling points. 200 cubic yards of contaminated soil was

excavated and sent off-site for disposal at Modern Landfill. The excavated area has been backfilled with stone for restoration.

3. A ecologically desirable grass has been planted on-site and hay straw has been used for mulch. Germination has occured and erosion control measures are in place. Upon satisfactory germination of the vegetative cover, the project will be completed.

4. Contractor is in the process of disconnecting the electric and phone service. Trailers will be moved off-site during the week of October 22.

5. Fencing subcontractors have installed fence posts in areas needing repair. A pole gate will be installed at the roadway entrance to the rear of the site.

6. A press conference and closeout meeting was held with the local officials and media. One newspaper was in attendance and prepared a nice article that appeared in the local newspaper. Niagara Falls External Programs Division of EPA coordinated the event which was well-received by those in attendance.

7. An information sheet summerizing EPA's actions and pending completion of the project was mailed to the citizens adjacent to the site and distributed to the Somerset Town Board.

C. Future Actions

1. Closeout of the project to occur in mid-November, pending the establishment of site cover.

D. Key Issues

None.

IV. **COST INFORMATION:** As of 10/15/01

Site Ceiling as of 10/15/01			
	Total Ceiling	Costs to Date	Amount Remaining
WRS Contractor	$ 1,151,000	$ 1,051,000	$ 100,000
RST/EPA	$ 150,000	$ 110,000	$ 40,000
Totals	$ 1,301,000	$ 1,161,000	$ 140,000

The costs above reflect the amounts obligated to the project at this time but do not reflect the entire site ceiling amounts. If additional funding is necessary, the totals will be adjusted accordingly.

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

BPS JAT

I. **HEADING**

Date: August 1, 2001

From: Kevin M. Matheis, On-Scene-Coordinator
U.S. EPA Region II

To:

R. Salkie, EPA	J. Rotola, EPA
T. Johnson, 5202G	B. Bellow, 2CD
R. Cahill, 2CD-PAT	M. Basile, 2CD-POB
S. Kivowitz, 2ORC-NYCSFB	
J. LaPadula, 2ERRD-NYRB	R. Byrnes, 2OIG
T. Riverso, 2OPM-GCMB	B. Deese, 2ERRD-RAB
M. O'Toole, NYSDEC	D. King, NYSDEC IX
ERD-Washington (E-Mail)	R. Connolly, Town of Somerset
W. Coates, Twn of Somerset	V. Pitruzzello, 2ERRD-PSB
T. Taccone, 2ERRD-NYRB	E. Sullivan, Niagara County
P. Dicky, Niagara County	M. Forcucci, NYSDOH

Subject: Barker Chemical Site, Town of Somerset, NY - Acid leachate and acidic lagoons, arsenic contaminated soils, and unknowns.

POLREP NO: Ten (10)

II. **BACKGROUND**

SITE/SPILL NO.:	02PK
RESPONSE AUTHORITY:	CERCLA/SARA
NPL STATUS:	Non-NPL
CERCLIS ID:	NYD981484447
START DATE:	October 9, 2000
COMPLETION DATE:	Pending
FUNDING DATE:	Action Memo Signed on September 29, 2000
ACTION MEMO STATUS:	Signed September 29, 2000

III. **RESPONSE INFORMATION**

A. Situation

See Initial POLREP.

B. Actions Taken

1. The hydroseeded grass on the south pond cap and sulfur storage area has germinated and is providing cover.

2. Trailers have been relocated and the concrete pad that was used for drum storage has been removed. The area is ready for assessment which will be performed during the week of August 20. EPA's RST contractor will provide the assessment. Samples will be taken at three locations at surface and subsurface depths.

3. A total of 3,200 tons of sludge from the north pond has been excavated and sent off-site for landfill. Confirmation samples taken from the clay lining the pond have shown that

cleanup objectives have been met. The pond was lined with marsh sediments acquired from Buckhorn State Park. The pond has been flooded with water provided by the Town of Somerset and the work in the north pond is completed.

4. Samples taken from the arsenic contaminated area north of the north pond showed additional arsenic contamination. EPA removed an additional 200 cubic yards of contaminated soil and sent it for landfill. Additional confirmation samples show that arsenic contamination still persists in this area. As a result, EPA will utilized its RST contractor during the week of August 20 to implement an extent of contamination survey in the arsenic contaminated area. A 100' x 75' area down to depths of three to four feet will be assessed to delineate the contamination.

5. The cleanup contractor will be demobilized from the site during the week of August 6. The contractor will return in late September to complete the arsenic soil removal and the area of the former drum storage if sampling results reveal a problem.

C. Future Actions

1. Sampling will occur at the site during the week of August 20th to delineate additional areas of contamination. Upon receipt of analysis and disposal approvals, the contractor will remobilize to the site to complete the project.

2. Remobilization is expected to occur in late September and should take 2-3 weeks to complete the project after work begins.

D. Key Issues

None.

IV. COST INFORMATION: As of 08/01/01

Site Ceiling as of 08/01/01			
	Total Ceiling	Costs to Date	Amount Remaining
WRS Contractor	$ 1,151,000	$ 981,000	$ 170,000
RST/EPA	$ 150,000	$ 90,000	$ 60,000
Totals	$ 1,301,000	$ 891,000	$ 230,000

An additional $200,000 has been obligated to the contractor for the project. The current site totals reflected are less than EPA's original cost projection.

The costs above reflect the amounts obligated to the project at this time but do not reflect the entire site ceiling amounts. If additional funding is necessary, the totals will be adjusted accordingly.

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D. Koell
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U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

GMM
BPS

I. **HEADING**

Date: July 6, 2001

From: Kevin M. Matheis, On-Scene-Coordinator
U.S. EPA Region II

To:

R. Salkie, EPA	J. Rotola, EPA
T. Johnson, 5202G	B. Bellow, 2CD
R. Cahill, 2CD-PAT	M. Basile, 2CD-POB
S. Kivowitz, 2ORC-NYCSFB	
J. LaPadula, 2ERRD-NYRB	R. Byrnes, 2OIG
T. Riverso, 2OPM-GCMB	B. Deese, 2ERRD-RAB
M. O'Toole, NYSDEC	D. King, NYSDEC IX
ERD-Washington (E-Mail)	R. Connolly, Town of Somerset
W. Coates, Twn of Somerset	V. Pitruzzello, 2ERRD-PSB
T. Taccone, 2ERRD-NYRB	E. Sullivan, Niagara County
P. Dicky, Niagara County	M. Forcucci, NYSDOH

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Subject: Barker Chemical Site, Town of Somerset, NY - Acid leachate and acidic lagoons, arsenic contaminated soils, and unknowns.

POLREP NO: Nine (9)

II. **BACKGROUND**

SITE/SPILL NO.:	02PK
RESPONSE AUTHORITY:	CERCLA/SARA
NPL STATUS:	Non-NPL
CERCLIS ID:	NYD981484447
START DATE:	October 9, 2000
COMPLETION DATE:	Pending
FUNDING DATE:	Action Memo Signed on September 29, 2000
ACTION MEMO STATUS:	Signed September 29, 2000

III. **RESPONSE INFORMATION**

A. Situation

See Initial POLREP.

B. Actions Taken

1. Shipments of water from the north pond have been completed as of June 28th. A total of 57 trucks containing 285,000 gallons of low pH water was sent to water treatment facilities in Niagara Falls and North Tonawanda, NY.

2. A one-foot clay cap and one-foot topsoil cap has been placed over the stabilized sediments in the south pond. Certified clean fill has been utilized in all restoration areas of the site. The area will be hydroseeded with a temporary grass cover during the week of July 9th. A more suitable cap utilizing native grasses will be planted in late September when growing conditions become more favorable.

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ENVIRONMENTAL REMEDIATION

3. The area of the former production building has been backfilled with clay and stone. Drainage from the cover connects with the drainage trench installed in the center portion of the site. Stone has been placed above the clay backfilled and rolled and compacted.

4. The central portion of the site where sulfur and lime were stored in waste piles on-site have been backfilled. The area has been capped with the same specifications as the south pond. Restoration of vegetative cover will occur at the same time as the south pond.

5. Upon completion of pumping the low pH water from the north pond, stabilization actions began. As the stabilization work progressed, it became apparent that EPA's estimate of the amount of sludge was high. Therefore, a cost-analysis was performed and EPA determined removal of the sludge off-site was cheaper that stabilizing on-site. Therefore, EPA began stockpiling the sludge and began shipments to Modern Landfill, a non-hazardous waste disposal facility, located in Model City, NY. As of July 5th, 2,100 tons of sludge has been removed from the pond. The remaining 1,000 tons will be shipped off-site by July 9th.

6. EPA intends to restore the north pond to a wetlands with the use of wetlands soil from the nearby Buckhorn Island Rehabilitation Project. The wetlands soil is available to EPA at no cost and is fertile soil with native wetlands species of vegetation. Sampling of the soil indicates that it is clean material. EPA was issued a permit to remove the sediment by New York State Office of Parks and Recreation. EPA has stockpiled 350 cubic yards of this sediment on-site thus far. This effort was conducted in cooperation with Niagara County's brownfields office and the Town of Lewiston, New York. EPA requires an additional 650 cubic yards of the sediment and will ship the soil during the week of July 9th. The soil will be placed in the basin of the former pond and then flooded with clean water. The pond will become a thriving habitat based upon EPA use of these sediments at another project.

7. The areas of arsenic contamination north of the north pond have been accessed and excavated. A total of 400 cubic yards of arsenic contaminated soil has been stockpiled. Disposal approvals are in place and the soil will be sent off-site during the week of July 9th. Confirmation samples have been taken and results are due to EPA on July 16th.

8. EPA has utilized one of its civil investigators to conduct interviews with former employees of Barker Chemical and local historians with operational knowledge of the site. This information will potentially assist EPA in enforcement actions against the former company.

C. Future Actions

1. Excavation and disposal of the north pond sludge will be completed by July 9th.

2. Excavation of the arsenic contaminated soil will be completed by July 13th. Pending confirmation sample results, the arsenic contaminated area will be backfilled and restored.

3. Removal of sedim[redacted] from the Buckhorn project will be c[redacted]pleted by July 13th.

D. Key Issues

None.

IV. **COST INFORMATION:** As of 07/06/01

Site Ceiling as of 07/06/01			
	Total Ceiling	Costs to Date	Amount Remaining
WRS Contractor	$ 951,000	$ 801,000	$ 150,000
RST/EPA	$ 100,000	$ 90,000	$ 10,000
Totals	$ 1,051,000	$ 891,000	$ 160,000

An additional $150,000 has been obligated to the contractor for the project. The current site totals reflected are less than EPA's original cost projection.

The costs above reflect the amounts obligated to the project at this time but do not reflect the entire site ceiling amounts. If additional funding is necessary, the totals will be adjusted accordingly.

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

Date:	May 14, 2001	
From:	Kevin M. Matheis, On-Scene-Coordinator U.S. EPA Region II	
To:	R. Salkie, EPA	J. Rotola, EPA
	T. Johnson, 5202G	B. Bellow, 2CD
	R. Cahill, 2CD-PAT	M. Basile, 2CD-POB
	S. Kivowitz, 2ORC-NYCSFB	
	J. LaPadula, 2ERRD-NYRB	R. Byrnes, 2OIG
	T. Riverso, 2OPM-GCMB	B. Deese, 2ERRD-RAB
	M. O'Toole, NYSDEC	D. King, NYSDEC IX
	ERD-Washington (E-Mail)	R. Connolly, Town of Somerset
	W. Coates, Twn of Somerset	V. Pitruzzello, 2ERRD-PSB
	T. Taccone, 2ERRD-NYRB	E. Sullivan, Niagara County
	P. Dicky, Niagara County	M. Forcucci, NYSDOH
Subject:	Barker Chemical Site, Town of Somerset, NY - Acid leachate and acidic lagoons, arsenic contaminated soils, and unknowns.	

POLREP NO: Seven (7)

II. BACKGROUND

SITE/SPILL NO.:	02PK
RESPONSE AUTHORITY:	CERCLA/SARA
NPL STATUS:	Non-NPL
CERCLIS ID:	NYD981484447
START DATE:	October 9, 2000
COMPLETION DATE:	Pending
FUNDING DATE:	Action Memo Signed on September 29, 2000
ACTION MEMO STATUS:	Signed September 29, 2000

III. RESPONSE INFORMATION

A. Situation

See Initial POLREP.

B. Actions Taken

1. Water from the south pond has been consolidated into the north pond. The resulting pH was neutral at 7. Samples were collected from the consolidated water and disposal options are pending sampling results.

2. Stabilization of the sludge in the south lagoon has begun. A mixture of portland cement, fly ash, and lime are being added to the sludge for neutralization and solidification. The test mixes have been successful and the work in the south pond is progressing.

3. Confirmation of meeting cleanup objective samples are being collected in the production building excavations. Another confirmation sample is being collected from a runoff area that had exhibited low pH readings. This area was subsequently excavated to native clay.

4. EPA expects to have one of its civil investigators visit the Town of Somerset to conduct interviews with former employees of Barker Chemical and local historians with operational knowledge of the site. This information will assist EPA in enforcement actions at the site.

5. Sources for restoration needs are being investigated. Needs for restoration include clay, topsoil, wetlands sediments and hydroseeding.

C. Future Actions

1. As indicated previously, EPA will utilize its civil investigator tom conduct interviews in the local area.

2. Stabilization of the north pond will begin upon completion of the south pond.

3. Access to the arsenic contaminated soil areas north of the north pond is forthcoming.

D. Key Issues

None.

IV. **COST INFORMATION:** As of 05/14/01

Site Ceiling as of 05/14/01			
	Total Ceiling	Costs to Date	Amount Remaining
WRS Contractor	$ 801,000	$ 481,000	$ 320,000
RST/EPA	$ 100,000	$ 75,000	$ 25,000
Totals	$ 901,000	$ 406,000	$ 345,000

The costs above reflect the amounts obligated to the project at this time but do not reflect the entire site ceiling amounts. If additional funding is necessary, the totals will be adjusted accordingly.

U.S. E[redacted]ONMENTAL PROTECTION AG[redacted]Y
POLLUTION REPORT

I. **HEADING**

Date: April 26, 2001
From: Kevin M. Matheis, On-Scene-Coordinator
U.S. EPA Region II
To:

R. Salkie, EPA	J. Rotola, EPA
T. Johnson, 5202G	B. Bellow, 2CD
R. Cahill, 2CD-PAT	M. Basile, 2CD-POB
S. Kivowitz, 2ORC-NYCSFB	
J. LaPadula, 2ERRD-NYRB	R. Byrnes, 2OIG
T. Riverso, 2OPM-GCMB	B. Deese, 2ERRD-RAB
M. O'Toole, NYSDEC	D. King, NYSDEC IX
ERD-Washington (E-Mail)	R. Connolly, Town of Somerset
W. Coates, Twn of Somerset	V. Pitruzzello, 2ERRD-PSB
T. Taccone, 2ERRD-NYRB	E. Sullivan, Niagara County
P. Dicky, Niagara County	M. Forcucci, NYSDOH

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APR 27 2001
NYSDEC - REG. 9
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X REL UNREL

Subject: Barker Chemical Site, Town of Somerset, NY - Acid leachate and acidic lagoons, arsenic contaminated soils, and unknowns.

POLREP NO: Six (6)

II. **BACKGROUND**

SITE/SPILL NO.:	02PK
RESPONSE AUTHORITY:	CERCLA/SARA
NPL STATUS:	Non-NPL
CERCLIS ID:	NYD981484447
START DATE:	October 9, 2000
COMPLETION DATE:	Pending
FUNDING DATE:	Action Memo Signed on September 29, 2000
ACTION MEMO STATUS:	Signed September 29, 2000

III. **RESPONSE INFORMATION**

A. Situation

See Initial POLREP.

B. Actions Taken

1. Project was remobilized on April 17th. WRS personnel and equipment are on-site to implement the following tasks: improvement of site drainage; excavation and disposal of sulfur and arsenic contaminated areas; treatment and/or disposal of the site pond waters; stabilization of the sediments in north and south ponds; and restoration.

2. NYSDEC personnel were on-site April 11 to take pH measurements in the site runoff areas. The runoff from the site discharging into the adjacent drainage creek is between

5.5 and 7.0. The south pond, with the addition of lime and cement during the winter is at a pH of 10. The north pond, with the addition of lime in passive placement on the edge of the south rim is 3.2. Some of the standing water in the areas of sulfur waste still remain below 2. These areas have been excavated and the 200 tons of soil has been sent for off-site disposal at Modern Landfill on April 26. The wetlands adjacent to the site has a neutral (~7.0) pH.

3. Analysis of the water from the north pond is favorable for on-site discharge. The top two feet of water in the pond is being discharged on-site and buffered with limestone to neutralize the pH. The remainder of the pond water will be mixed with the south pond waters and sent off-site for disposal due to its turbidity and suspended solids content.

4. When the south pond is pumped into the north pond, the sediment in the south pond will be stabilized with a mixture of fly ash, portland cement and lime. When stabilization is completed, the area will be capped with clay and topsoil and seeded with native grasses.

5. Site drainage has been improved and a spring has been found in the clay layer in the subsurface where excavations have been completed. The spring water is now being diverted into the adjacent creek and water saturation conditions have improved. This spring was the source of the acid runoff since it had been in direct contact with the sulfur waste piles (EPA removed these waste piles in November and December 2000).

6. Access to the rear areas of arsenic contaminated soils has been difficult. The dirt roadway is flooded and equipment cannot get to the areas to complete excavations. The roadway has been pumped and access alternatives are being explored. If necessary, a road will be constructed to access the soils or the access will occur upon completion of the stabilization of the north pond.

7. Fencing and warning signs have been repaired and upgraded around the perimeter of the north and south water retention ponds.

8. The sub-flooring of the production building has been excavated down to native clay and the building footers have been removed. The stockpiled soil is being evaluated for disposal.

9. A safe that was discovered in one of the office buildings was opened by a locksmith and the contents inventoried. The safe contained canceled stock certificates from Barker Chemical, keys to the buildings on-site, and site survey maps from the 1960's.

C. Future Actions

Stabilization of the south and north ponds are forthcoming.

D. Key Issues

An additional $200,000 was obligated to the site project ceiling.

IV. **COST INFORMATION:** As of 04/26/01

Site Ceiling as of 04/26/01			
	Total Ceiling	Costs to Date	Amount Remaining
WRS Contractor	$ 801,000	$ 421,000	$ 380,000
RST/EPA	$ 100,000	$ 70,000	$ 30,000
Totals	$ 901,000	$ 491,000	$ 410,000

The costs above reflect the amounts obligated to the project at this time but do not reflect the entire site ceiling amounts. If additional funding is necessary, the totals will be adjusted accordingly.

Copy. A. Carlson
D. Koelling
M. Doster
DKK

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

Date: January 23, 2001
From: Kevin M. Matheis, On-Scene-Coordinator
U.S. EPA Region II

To:

R. Salkie, EPA	J. Rotola, EPA
T. Johnson, 5202G	B. Bellow, 2CD
R. Cahill, 2CD-PAT	M. Basile, 2CD-POB
S. Kivowitz, 2ORC-NYCSFB	
J. LaPadula, 2ERRD-NYRB	R. Byrnes, 2OIG
T. Riverso, 2OPM-GCMB	B. Deese, 2ERRD-RAB
M. O'Toole, NYSDEC	D. King, NYSDEC IX
ERD-Washington (E-Mail)	R. Connolly, Town of Somerset
W. Coates, Twn of Somerset	V. Pitruzzello, 2ERRD-PSB
T. Taccone, 2ERRD-NYRB	E. Sullivan, Niagara County
P. Dicky, Niagara County	M. Forcucci, NYSDOH

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FEB 02 2001
NYSDEC - REG. 9
FOIL
REL UNREL

Subject: Barker Chemical Site, Town of Somerset, NY - Acid leachate and acidic lagoons, arsenic contaminated soils, and unknowns.

POLREP NO: Five (5)

II. BACKGROUND

SITE/SPILL NO.:	02PK
RESPONSE AUTHORITY:	CERCLA/SARA
NPL STATUS:	Non-NPL
CERCLIS ID:	NYD981484447
START DATE:	October 9, 2000
COMPLETION DATE:	Pending
FUNDING DATE:	Action Memo Signed on September 29, 2000
ACTION MEMO STATUS:	Signed September 29, 2000

III. RESPONSE INFORMATION

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A. Situation

See Initial POLREP.

B. Actions Taken

1. Project was remobilized on January 10th. Confirmation sampling results from the drainage ditch excavations, spill-over lagoon areas, creek sediments and western excavations have all met cleanup objectives.

2. Transportation and disposal of the tank spill areas has been completed. 400 cubic yards of contaminated soil was sent off-site for landfill and excavation areas have been backfilled.

3. Test stabilization [redacted]s for the south lagoon has been com[redacted]d. A portion of the pond was stabilized when a mixture of lime and portland cement was added to the lagoon sludge and mixed with an excavator. Samples were taken to determine the effectiveness of the stabilization efforts and results will be monitored until spring. At that time, EPA will then decide on the best method for stabilization of the entire ponds. The recipe for the stabilization was provided by a bench-scale treatment study.

4. Test excavations in the copper/arsenic contaminated areas north of the north lagoon have shown areas of product dumping, suspected to contain copper arsenate. The test excavations have been covered, and removal will occur in the spring.

5. Drainage ditch has been restored since cleanup objectives have been met.

6. Fencing and warning signs have been repaired and upgraded around the perimeter of the north and south water retention ponds.

7. The EPA cleanup contractor will demobilize from the site on January 25th. Remobilization will occur when spring weather conditions permit.

C. Future Actions

Upon remobilization, the following actions will occur: treatment and disposal of water from the water retention ponds on-site; stabilization of the sediments contained within the ponds; restoration actions on ponds and other excavated areas; removal of copper and arsenic contaminated sediments north of north pond; and, investigation of the suspected contamination under the process building that has been demolished.

D. Key Issues

Barker Chemical requested a two-week time extension for response to the 104e Request for Information. EPA's Office of Regional Counsel has granted the request and reply is due on 2/22.

IV. COST INFORMATION: As of 01/23/00

Site Ceiling as of 01/23/00			
	Total Ceiling	Costs to Date	Amount Remaining
WRS Contractor	$ 601,000	$ 321,000	$ 280,000
RST/EPA	$ 100,000	$ 60,000	$ 40,000
Totals	$ 701,000	$ 381,000	$ 320,000

The costs above reflect the amounts obligated to the project at this time but do not reflect the entire site ceiling amounts. If additional funding is necessary, the totals will be adjusted accordingly.

DKK 1

Copy A. Carlson
D. Koelling
M. Doster

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

BMM 12/27
BPS

I. HEADING

Date: December 13, 2000
From: Kevin M. Matheis, On-Scene-Coordinator
U.S. EPA Region II

To:

R. Salkie, EPA	J. Rotola, EPA
T. Johnson, 5202G	B. Bellow, 2CD
R. Cahill, 2CD-PAT	M. Basile, 2CD-POB
S. Kivowitz, 2ORC-NYCSFB	
J. LaPadula, 2ERRD-NYRB	R. Byrnes, 2OIG
T. Riverso, 2OPM-GCMB	B. Deese, 2ERRD-RAB
M. O'Toole, NYSDEC	D. King, NYSDEC IX
ERD-Washington (E-Mail)	R. Connolly, Town of Somerset
W. Coates, Twn of Somerset	V. Pitruzzello, 2ERRD-PSB
T. Taccone, 2ERRD-NYRB	E. Sullivan, Niagara County
P. Dicky, Niagara County	

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DEC 19 2000
NYSDEC - REG. 9
FOIL
REL UNREL

Subject: Barker Chemical Site, Town of Somerset, NY - Acid leachate and acidic lagoons, arsenic contaminated soils, and unknowns.

POLREP NO: Four (4)

II. BACKGROUND

SITE/SPILL NO.:	02PK
RESPONSE AUTHORITY:	CERCLA/SARA
NPL STATUS:	Non-NPL
CERCLIS ID:	NYD981484447
START DATE:	October 9, 2000
COMPLETION DATE:	Pending
FUNDING DATE:	Action Memo Signed on September 29, 2000
ACTION MEMO STATUS:	Signed September 29, 2000

III. RESPONSE INFORMATION

A. Situation

See Initial POLREP.

B. Actions Taken

1. Oil tank has been decontaminated and scrapped. Samples for profiling oil-contaminated soil has been collected and approvals for disposal are pending. The oil contaminated soil may be excavated and disposed in January. The drums of oil generated from the removal are staged in the warehouse and disposal will occur in spring.

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DIVISION OF
ENVIRONMENTAL REMEDIATION

2. The treatment study for the neutralization and stabilization of pond sediments has been completed. A recipe for stabilization of the sediments includes the use of 20% lime and 5% portland cement. Lime is available at no cost to EPA from a location in Buffalo, NY. 1,000 cubic yard of lime has been trucked to the site for neutralization actions in the pond waters and for preliminary treatment of some of the sediments. Full-scale treatment actions will begin next spring.

3. Excavation and disposal of the waste piles have been completed. 880 tons of arsenic and sulfur contaminated sediments were shipped off-site for landfill at Modern Disposal.

4. Excavations were tentatively completed in the drainage trough contaminated with arsenic and the spill-over area adjacent to the south lagoon. Confirmation samples have been taken and results are expected in January. If cleanup objectives are met in these areas, restoration actions will commence. Otherwise, additional excavations may occur.

5. RST contractor has mobilized to the site and has collected confirmation samples from excavation areas. These confirmation samples include the items listed in #4 above, and the drainage trough along the west end of the property. In addition, investigation samples were collected from the production building flooring. A total of four surface and four subsurface samples were collected. Two samples were also obtained from the waste piles that contain soil and debris from the production floor.

6. North pond waters pH is increasing and should be neutralized with the addition of the lime. The pH will continue to be monitored. Disposal of the pond waters will occur in the spring.

7. Fencing and warning signs have been placed around the perimeter of the north and south water retention ponds.

8. The EPA cleanup contractor will demobilize from the site on December 16th. Remobilization will occur in early January, once analytical results are received from the recent sampling events.

C. Future Actions

1. Profiles will be completed for the selected disposal facility for various waste materials on-site and will be shipped when approvals are received.

9. EPA's Office of Regional Counsel will send a 104e Request for Information Letters in the near future to Barker Chemical.

D. Key Issues

None

IV. **COST INFORMATION:** As of 12/13/00

Site Ceiling as of 12/13/00			
	Total Ceiling	Costs to Date	Amount Remaining
Earth Tech	$ 601,000	$ 351,000	$ 250,000
START/EPA	$ 100,000	$ 30,000	$ 70,000
Totals	$ 701,000	$ 381,000	$ 320,000

The costs above reflect the amounts obligated to the project at this time but do not reflect the entire site ceiling amounts. If additional funding is necessary, the totals will be adjusted accordingly.

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. **HEADING**

Date: November 29, 2000
From: Kevin M. Matheis, On-Scene-Coordinator
U.S. EPA Region II
To:

R. Salkie, EPA	J. Rotola, EPA
T. Johnson, 5202G	B. Bellow, 2CD
R. Cahill, 2CD-PAT	M. Basile, 2CD-POB
S. Kivowitz, 2ORC-NYCSFB	
J. LaPadula, 2ERRD-NYRB	R. Byrnes, 2OIG
T. Riverso, 2OPM-GCMB	B. Deese, 2ERRD-RAB
M. O'Toole, NYSDEC	D. King, NYSDEC IX
ERD-Washington (E-Mail)	R. Connolly, Town of Somerset
W. Coates, Twn of Somerset	V. Pitruzzello, 2ERRD-PSB
T. Taccone, 2ERRD-NYRB	E. Sullivan, Niagara County
P. Dicky, Niagara County	

Subject: Barker Chemical Site, Town of Somerset, NY - Acid leachate and acidic lagoons, arsenic contaminated soils, and unknowns.

POLREP NO: Three (3)

II. **BACKGROUND**

SITE/SPILL NO.:	02PK
RESPONSE AUTHORITY:	CERCLA/SARA
NPL STATUS:	Non-NPL
CERCLIS ID:	NYD981484447
START DATE:	October 9, 2000
COMPLETION DATE:	Pending
FUNDING DATE:	Action Memo Signed on September 29, 2000
ACTION MEMO STATUS:	Signed September 29, 2000

III. **RESPONSE INFORMATION**

A. Situation

See Initial POLREP.

B. Actions Taken

1. Oil from 10,000 gallon tank on-site was removed and tank was cut to facilitate decontamination. Tank will be scrapped. Oil and decontamination water has been drummed and will be profiled for disposal.

2. Fencing and warning signs have been placed around the perimeter of the north and south water retention ponds.

3. Circular roadway has been constructed on-site to facilitate access to water retention ponds. Roadway will be used for access to the ponds for equipment and materials for stabilization actions.

4. South water retention pond acid water was pumped into the north retention pond. The south pond has not recharged and appears to have little interaction with north. Treatment study for stabilization of pond sediments and neutralization of water in north pond has been completed. Lime will be added to the north pond to neutralize the pH.

5. Waste profile approvals for the removal of the sulfur and arsenic contaminated soils is pending approval from the disposal facility. It is hoped that approvals will be received so that shipments may occur within the next two weeks.

C. Future Actions

1. Profiles will be completed for the selected disposal facility for various waste materials on-site and will be shipped when approvals are received.

6. EPA's Office of Regional Counsel will send a 104e Request for Information Letters in the near future to Barker Chemical.

D. Key Issues

None

IV. COST INFORMATION: As of 11/28/00

Site Ceiling as of 11/06/00			
	Total Ceiling	Costs to Date	Amount Remaining
Earth Tech	$ 601,000	$ 191,000	$ 410,000
START/EPA	$ 100,000	$ 10,000	$ 90,000
Totals	$ 701,000	$ 201,000	$ 500,000

The costs above reflect the amounts obligated to the project at this time but do not reflect the entire site ceiling amounts. If additional funding is necessary, the totals will be adjusted accordingly.

Copy A. Carlson
M. Dosters
D. Koelling

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

Date: November 6, 2000
From: Kevin M. Matheis, On-Scene-Coordinator
U.S. EPA Region II
To:

R. Salkie, EPA	J. Rotola, EPA
T. Johnson, 5202G	B. Bellow, 2CD
R. Cahill, 2CD-PAT	M. Basile, 2CD-POB
S. Kivowitz, 2ORC-NYCSFB	
J. LaPadula, 2ERRD-NYRB	R. Byrnes, 2OIG
T. Riverso, 2OPM-GCMB	B. Deese, 2ERRD-RAB
M. O'Toole, NYSDEC	D. King, NYSDEC IX
ERD-Washington (E-Mail)	R. Connolly, Town of Somerset
W. Coates, Twn of Somerset	V. Pitruzzello, 2ERRD-PSB
T. Taccone, 2ERRD-NYRB	E. Sullivan, Niagara County
P. Dicky, Niagara County	

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NOV 15 2000
NYSDEC - REG. 9
FOIL
X REL UNREL

Subject: Barker Chemical Site, Town of Somerset, NY - Acid leachate and acidic lagoons, arsenic contaminated soils, and unknowns.

POLREP NO: Two (2)

II. BACKGROUND

SITE/SPILL NO.:	02PK
RESPONSE AUTHORITY:	CERCLA/SARA
NPL STATUS:	Non-NPL
CERCLIS ID:	NYD981484447
START DATE:	October 9, 2000
COMPLETION DATE:	Pending
FUNDING DATE:	Action Memo Signed on September 29, 2000
ACTION MEMO STATUS:	Signed September 29, 2000

III. RESPONSE INFORMATION

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DIVISION OF
ENVIRONMENTAL REMEDIATION

A. Situation

See Initial POLREP.

B. Actions Taken

1. Site infrastructure has been established. Trailers have been delivered and phones connected. Roadways have been constructed and brush has been cleared.

2. The partially collapsed production building was demolished and the debris removed to Modern Landfill, located in Porter, NY. 200 cubic yards of demolition debris was

removed from the site. Flooring areas are now exposed and will be sampled when stone and other impediments are removed.

3. The 10,000 gallon tank on site was investigated and found to contain approximately 500 gallons of an unknown light-yellow oil. A sample was collected and sent for off-site analysis.

4. Disposal bids have been solicited for the removal of the following waste streams: sulfur contaminated wastes causing low pH runoff, arsenic contaminated soils from drainage trough and chip area, oil contaminated soil in proximity to oil storage tank, and low pH water from water retention ponds.

5. A treatment study is being performed off-site for stabilization of the sediments in the water retention ponds. Samples were sent to an off-site contractor for evaluation.

6. Temporary fencing and warning signs are being erected around the water retention ponds warning of the dangers of entering the area.

C. Future Actions

1. Profiles will be completed for the selected disposal facility for various waste materials on-site and will be shipped when approvals are received.

2. EPA's Office of Regional Counsel will send a 104e Request for Information Letters in the near future to Barker Chemical.

D. Key Issues

None

IV. COST INFORMATION: As of 11/06/00

Site Ceiling as of 11/06/00			
	Total Ceiling	Costs to Date	Amount Remaining
Earth Tech	$ 601,000	$ 71,000	$ 530,000
START/EPA	$ 100,000	$ 4,000	$ 96,000
Totals	$ 701,000	$ 75,000	$ 626,000

The costs above reflect the amounts obligated to the project at this time but do not reflect the entire site ceiling amounts. If additional funding is necessary, the totals will be adjusted accordingly.

EPS BPS GMM

DKK

U.S. ENVIRONMENTAL PROTECTION AGENCY
INITIAL POLLUTION REPORT

I. HEADING

Date: October 20, 2000

From: Kevin M. Matheis, On-Scene-Coordinator
U.S. EPA Region II

To:

R. Salkie, EPA	J. Rotola, EPA
T. Johnson, 5202G	B. Bellow, 2CD
R. Cahill, 2CD-PAT	M. Basile, 2CD-POB
P. Simon, 2ORC-NYCSFB	S. Kivowitz, 2ORC-NYCSFB
J. LaPadula, 2ERRD-NYRB	R. Byrnes, 2OIG
T. Riverso, 2OPM-GCMB	B. Deese, 2ERRD-RAB
M. O'Toole, NYSDEC	D. King, NYSDEC IX
ERD-Washington (E-Mail)	R. Connolly, Town of Somerset
W. Coates, Twn of Somerset	V. Pitruzzello, 2ERRD-PSB
T. Taccone, 2ERRD-NYRB	E. Sullivan, Niagara County
P. Dicky, Niagara County	

Subject: Barker Chemical Site, Town of Somerset, NY - Acid leachate and acidic lagoons, arsenic contaminated soils, and unknowns.

POLREP NO: One (1) and Initial

II. BACKGROUND

SITE/SPILL NO.:	02PK
RESPONSE AUTHORITY:	CERCLA/SARA
NPL STATUS:	Non-NPL
CERCLIS ID:	NYD981484447
START DATE:	October 9, 2000
COMPLETION DATE:	Pending
FUNDING DATE:	Action Memo Signed on September 29, 2000
ACTION MEMO STATUS:	Signed September 29, 2000

III. RESPONSE INFORMATION

A. Situation

The Barker Chemical Site (Site) is located at 8473 West Somerset Road, Village of Barker, Town of Somerset, New York. The ten-acre Site was the location of a fungicide manufacturer from 1930 until the early 1970's. According to the New York State Department of Environmental Conservation (NYSDEC), the facility also apparently handled and stored a variety of other agricultural and chemical products that were not produced on-site. The owner of

the Site is deceased and neither his estate nor the beneficiaries of his estate, his two sons, have claimed ownership of the property. The buildings on-site were utilized since 1988, but according to residents, fungicide operations ceased in the 1970s.

The Site is located in a mixed agricultural and residential area. The Site is adjacent to a creek on the east that feeds directly into Golden Hill Creek, a tributary of Lake Ontario. A farm and residence is adjacent to the Site on the west, a residence is located across the street to the south and a wooded area is located adjacent to the Site on the North. Eleven residences are located within 1/4 mile of the Site. Within a one-mile radius of the Site, the population is approximately 500.

The Site contains four buildings and one above ground storage tank. Three of the buildings appear to have been used as offices and for dry storage. One of the buildings (approximately 100' x 100') is in poor structural condition and was utilized historically as a production building. Two water retention ponds exist and were used as settling ponds for a water treatment and/or production processes on-site.

On May 16, 2000, the NYSDEC requested that EPA evaluate the Site and perform a removal action, as appropriate, to address the threats at the Site from low pH conditions found in site surface waters and two water retention ponds, and to identify, contain, control and/or remediate any other hazardous wastes or hazardous substances found at the Site. Included in this referral was analytical data the NYSDEC had collected on-site that identified the following problem areas: low pH runoff of surface waters showing pH levels <2.0 that feed directly into an adjacent creek; low pH water in water retention ponds with levels ranging from 2 to 3; and arsenic contamination (up to 2,210 parts per million {ppm}) on the berm of the north water retention pond. The low pH runoff exhibits characteristics of a RCRA hazardous waste.

In addition to the referral, the NYSDEC also notified the EPA that the Niagara County Health Department (NCHD) and New York State Department of Health (NYSDOH) had determined that a public health risk exists through direct contact with the low pH waters at the Site. In January 2000, the NCHD issued a public health hazard advisory to nearby residences cautioning against entry onto the Site. NYSDEC implemented an emergency site security action by placing warning signs at the Site and placing high visibility fencing around the direct contact areas of concern.

On June 12, 2000, EPA performed a Removal Site Evaluation (RSE) with EPA's Environmental Response Team (ERT). Since the direct contact threat had been temporarily addressed by the NYSDEC, EPA implemented the RSE with EPA-ERT to determine the extent of contamination. EPA-ERT collected samples from waste piles, water retention ponds, adjacent creeks and runoff areas, process and production areas, suspected dumping areas, spill areas and the area surrounding a former water retention pond that had been filled prior to 1960.

During the RSE, it was observed that the warning signs and high visibility fencing were not adequate for long-term public health protection. Evidence of trespassing and use of off-road vehicles is present in other areas of the Site.

Areas of contamination on-site are as follows:

Waste Piles - The waste piles on-site consist of nearly 1,000 cubic yards of discolored and sulfur-rich product used in the fungicide manufacturing process. Though the waste pile contains low concentrations of hazardous substances, it contains up to 55% sulfur. Since the waste piles are adjacent to the low pH runoff areas and water is leaching through the pile, it is likely that this is a major sources for the acid leachate.

Low pH runoff areas - The drainage trough from this area contains elevated concentrations of arsenic (204 ppm). This drainage trough feeds directly into a creek adjacent to the Site and is a tributary of Golden Hill Creek.

Arsenic Contamination Area - This area is adjacent to the north lagoon on-site and the NYSDEC has identified arsenic contamination up to 2,210 ppm. High concentrations of copper were also discovered (7.6%). During EPA's RSE, small specks of blue chips were located that could be the source of the contamination. EPA-ERT samples collected in run off accumulation areas showed arsenic concentrations of 286 ppm.

Production Building - This 100' x 100' building is the location of production operations at the Site. The rear portion of this production building (a 30' x 30' area) appears to be the location of the fungicide manufacturing process. The building, which is constructed of wood and brick, is partially collapsed and therefore access is limited. During the RSE, a glue-like material was noticed detected under the floorboards of the building, but this portion of the building was inaccessible due to poor structural integrity. This rear area of the production building will require further investigation and testing to determine the extent of contamination.

Process Tank - This 1,000 gallon process tank contains approximately three to six inches of still bottoms that contain 67,000 ppm of total petroleum hydrocarbons. The tank and surrounding soils will be sampled further to characterize the still bottoms. The tank is in poor structural condition and has leaked into the soil below the tank.

Water retention ponds - The north pond contains an estimated 300,000 gallons of water with pH ranging from 2.2 to 2.7. The sediments contain 11.6% sulfur and are estimated to contain 1,500 cubic yards of non-native process material. The south pond contains an estimated 200,000 gallons of water with pH ranging from 2.2 to 3.1. The sediments contain 58.1% sulfur and are estimated to contain 1,200 cubic yards of non-native process material. It appears that the low pH in these ponds is a result of contact with the sulfur-bearing sediment in the ponds. Due to the interaction of the water in the ponds and the sulfur-bearing sediments in the ponds, a sulfuric acid mixture is now present.

B. Actions Taken

1. Upon completion of the RSE, hazards were identified and an Action Memorandum was prepared to address the threats from the site. The Action Memorandum was signed by the Division Director on September 29, 2000, authorizing work to begin at the site.

2. EPA met with the [redacted]p contractor at the Site on October [redacted]0. This marks the start date for the project. The cleanup contractor began infrastructure development and general site setup during the week of October 16.

3. EPA conducted a public meeting and availability session on October 16, 2000. During the meeting, EPA gave citizens an overview of the project. NYSDEC, NYSDOH, local officials and Niagara County's Brownfields office were also in attendance. Approximately 25 people were in attendance and a newspaper article appeared in the local newspaper the following day. EPA's Public Information Office was on-hand to support the OSC during the public meeting.

C. Future Actions

1. Site setup will continue and work zones will be established. Disposal bids for the removal of the sulfur-rich contaminants and arsenic contaminated soils will be solicited. Water treatment options for the retention ponds will be explored and evaluated.

2. EPA's Office of Regional Counsel will send a 104e Request for Information Letters in the near future to Barker Chemical.

D. Key Issues

None

IV. COST INFORMATION: As of 10/15/00

Site Ceiling as of 10/15/00			
	Total Ceiling	Costs to Date	Amount Remaining
Earth Tech	$ 601,000	$ 10,000	$ 591,000
START/EPA	$ 100,000	$ 2,000	$ 98,000
Totals	$ 701,000	$ 12,000	$ 689,000

The costs above reflect the amounts obligated to the project at this time but do not reflect the entire site ceiling amounts. If additional funding is necessary, the totals will be adjusted accordingly.