

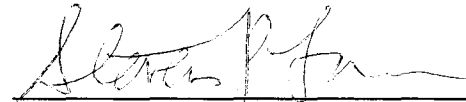
EXHIBIT D

Expert Report of Steven P. Larson
Morgan Hill Litigation

Prepared For:

Sedgwick, Detert, Moran & Arnold LLP

Prepared By:



Steven P. Larson



S. S. PAPANOPULOS & ASSOCIATES, INC.
Environmental & Water-Resource Consultants

February 7, 2005

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Section 1

Introduction

My name is Steven P. Larson. I was retained by Sedgwick, Detert, Moran & Arnold LLP, on behalf of Standard Fusee Corporation, to provide expert evaluation and testimony regarding soil and groundwater conditions at a signal flare manufacturing facility in the community of Morgan Hill, California. I was asked to evaluate the nature, extent, timing, and progression of contamination related to releases of perchlorate that took place at this site.



Section 2

Qualifications

I am a principal and the Executive Vice President of S.S. Papadopoulos & Associates, Inc. (SSP&A), a firm that provides consulting services related to environmental and water-resource issues. My area of expertise is hydrology, with emphasis on groundwater hydrology and assessment of soil and groundwater contamination.

I hold a Bachelor of Science in Civil Engineering from the University of Minnesota, conferred in 1969, and a Master of Science in Civil Engineering, also from the University of Minnesota, conferred in 1971. I am a member of the Association of Ground Water Scientists and Engineers (a division of the National Ground Water Association) and the American Institute of Hydrology. I am also certified as a Professional Hydrologist/Ground Water with the American Institute of Hydrology.

Prior to joining SSP&A in 1980, I was employed as a hydrologist with the Water Resources Division of the U.S. Geological Survey (USGS) for almost 9 years. During my tenure with the USGS, I conducted numerous hydrological studies on a variety of groundwater and surface water problems and conducted research into the development of mathematical models to simulate groundwater flow processes. I have spent the last 24 years with SSP&A conducting and managing projects related to a variety of environmental and water-resource issues. During my tenure at SSP&A, I have been involved in numerous projects covering a wide spectrum of technical, environmental, and legal issues including environmental impact evaluations, evaluations of water-resource development, water-rights permitting and adjudication, remedial investigations at CERCLA and other waste-disposal sites, feasibility studies, engineering evaluations/cost analyses, and remedial action plans.

I have also testified as an expert in numerous legal and administrative forums. These cases have included permit and licensing hearings, water-rights adjudications, arbitration hearings, interstate compact claims, toxic torts, liability claims, various legal actions under CERCLA, property damage claims, and insurance claims. A copy of my curriculum vitae, with lists of publications, depositions, and testimonies, appears in Appendix A.

In the preparation of this report, I have relied on technical reports and site documents, a list of which appears in Appendix B. The documents upon which I have relied are the types of documents typically relied upon by hydrology experts to evaluate the nature, extent, timing, and progression of groundwater contamination at a site, including the evolution of the contamination and the effects of past activities on the current extent of contamination. Finally, I have relied upon my education, training, and more than 30 years of experience in the field of hydrology in formulating the opinions expressed in this report.



Section 3

Statement of Opinions

Based on the documents, information, and data that I reviewed, I have reached the following opinions regarding groundwater contamination by perchlorate associated with the Olin Site.

Opinion 1

The only potential mechanism for groundwater contamination by perchlorate after 1987 would be through dissolution of perchlorate into infiltrating water from precipitation. The capacity for this mechanism to cause and sustain groundwater contamination by perchlorate is limited by the amount and frequency of infiltration events and by the ability of the infiltrating water to contact and dissolve perchlorate residues.

Opinion 2

The extent of perchlorate contamination indicates that the average rate of contaminant migration from the site area over the past 40 to 50 years has been about 3 feet per day. This estimate of the rate of contaminant migration is consistent with hydrogeologic conditions between the site and the distal extent of the contamination.

Opinion 3

Two of the four plaintiff locations (Dalla and Wess) are not located along the path of contaminant migration from the site and have not been impacted by perchlorate from the site. The other two locations (Pereira and Smith) are located along or near the path of perchlorate migration from the site. However, these latter two plaintiff locations are located more than three miles from the site and would not have been adversely impacted by releases of perchlorate to the surface that might have occurred after 1987.

Opinion 4

The amount of perchlorate that might have reached the groundwater beneath the site after 1987 was likely less than a few pounds per year. The source of perchlorate that might have reached groundwater after 1987 would have been from emissions onto the ground surface that became entrained in infiltrating precipitation. The perchlorate reaching groundwater after 1987 via this mechanism could have been associated with emissions that occurred prior to 1987. The amount of perchlorate flux into the groundwater via this mechanism after 1987 would not produce detectable concentrations of perchlorate in groundwater downgradient from the site.



Section 4

Morgan Hill Site

Site Location

The Morgan Hill Site is located at the Olin/Standard Fusee manufacturing facility at 425 Tennant Avenue in the community of Morgan Hill, California. The parcel consists of 13 acres; three acres were developed. It is situated about 30 miles southeast of San Jose, California.

Historical Perspective

Operations at the Morgan Hill Site began in 1955 – 1956 when Olin Corporation (Olin) began manufacturing marine, highway, and railroad signal flares. Other activities at the site included the packaging of swimming pool products and the production of clay targets used in the sport of skeet shooting. Olin disposed of manufacturing wastes in an on-site, unlined evaporation pond between 1956 and 1987. The evaporation pond, which was approximately 15 feet wide, 15 feet long, and 4 feet deep was decommissioned in late 1987. At that time, the pond was drained and the bottom sediments were spread on an adjacent field. The field was subsequently tilled several times. Standard Fusee leased the Morgan Hill Site from Olin, manufactured signal flares from mid-1988 until December 1995. In late November 1996, closure of the Morgan Hill facility was approved. Demolition and remediation activities took place at the Morgan Hill Site in 1997 and 1998.

Physical Site Description

The geology and hydrogeology of the Morgan Hill Site are described in detail in previous site investigation reports. Specific geologic and hydrogeologic details from certain of these reports are highlighted in the Bases of Opinions section of this report (Section 5). These reports include the *Groundwater Flow Assessment Report, Olin/Standard Fusee, Morgan Hill, California*, prepared by MACTEC Engineering and Consulting, Inc. (MACTEC), on September 10, 2004, and the *Groundwater Flow Assessment White Paper, Olin/Standard Fusee, Morgan Hill, California*, dated October 22, 2004, which was also prepared by MACTEC.

Site Contamination

Contamination at the Morgan Hill Site is described in detail in previous site investigation reports. Specific details regarding perchlorate contamination contained in certain of these reports are highlighted in the Bases of Opinions section of this report (Section 5). These reports include the *First Quarter 2003 Groundwater Monitoring Report, Olin/Standard Fusee, 425 Tennant Avenue, Morgan Hill, California*, prepared by MACTEC on April 29, 2003, and the *Third Quarter 2004 Groundwater Monitoring Report, Olin/Standard Fusee, 425 Tennant Avenue, Morgan Hill, California*, prepared by MACTEC on October 29, 2004.



Section 5

Bases of Opinions

Opinion 1

The only potential mechanism for groundwater contamination by perchlorate after 1987 would be through dissolution of perchlorate into infiltrating water from precipitation. The capacity for this mechanism to cause and sustain groundwater contamination by perchlorate is limited by the amount and frequency of infiltration events and by the ability of the infiltrating water to contact and dissolve perchlorate residues.

After the evaporation pond was closed in 1987, wastewater in the plant was recycled and discharges of wastewater to ground ceased. After 1987, perchlorate transport to groundwater was limited to infiltrating precipitation that might entrain perchlorate residues from the soil.

Infiltration of precipitation at the Morgan Hill site is limited. Precipitation at the site totals about 20 inches annually. Rainfall events are episodic and most of the precipitation that enters the soil environment evaporates or is transpired by plants after the rainfall event is over. Only a small fraction of the total precipitation infiltrates deep into the soil environment and reaches the groundwater. In the Morgan Hill area, the amount of this deep infiltration is likely less than about 10 percent of the annual precipitation. At 2 inches per year, the total deep infiltration over the entire 13-acre site would amount to less than two gallons per minute. The plant area on the site occupied only fraction of the 13 acres. Thus the amount of water available to transport perchlorate residues from the surface to the groundwater is limited.

Soil sampling data illustrate the limited ability of infiltrating precipitation to transport perchlorate to the groundwater. Most of the soil sampling data shows decreasing perchlorate concentrations with depth. At many of the soil sampling locations, perchlorate is not detected in soil samples at depths below about 5 feet. These data demonstrate that while some perchlorate is able to penetrate into the shallow soil, the transport process is often insufficient to allow continued penetration to deeper soil and the groundwater.

Opinion 2

The extent of perchlorate contamination indicates that the average rate of contaminant migration from the site area over the past 40 to 50 years has been about 3 feet per day. This estimate of the rate of contaminant migration is consistent with hydrogeologic conditions between the site and the distal extent of the contamination.

Sampling of wells along a south-southeasterly trending path from the site area has been used to delineate the extent of groundwater impacted by perchlorate from the site. As of 2004, concentrations of perchlorate exceeding 2 parts per billion (ppb) have been detected in wells up to about 10 miles south-southeast from the site. Perchlorate concentrations along this path are



typically less than about 10 ppb. Along the path of perchlorate migration, perchlorate is detected over an area that is about 1 to 2 miles wide.

The plant began operating in 1956 and operations included the use of the evaporation pond for the disposal of wastewaters and ignition residues containing perchlorate. The extent of perchlorate contamination to groundwater has thus developed over a period of about 48 years. The perchlorate migration rate from the site would have to average about 0.2 miles per year or about 3 feet per day in order to reach an extent of 10 miles in 48 years.

The groundwater environment along the path of the perchlorate migration has been characterized by various studies. These studies indicate that along the axis of perchlorate migration, the hydraulic conductivity of the groundwater environment averages about 100 feet per day. The groundwater level gradient between the site and the distal extent of the perchlorate contamination is about 17 feet per mile or 0.003 feet per foot. Under these conditions, the effective porosity would have to be about 10 percent to create a groundwater velocity of 3 feet per day. Effective porosity can range from a few percent to as much as 30 or 35% depending on site conditions. Effective porosity is not a property that can be measured directly. Rather, values can be inferred based on other conditions, such as the extent of contamination, hydraulic conductivity and water level gradient. A value of 10 percent for effective porosity is within the plausible range of values for the conditions found in the Morgan Hill area.

Opinion 3

Two of the four plaintiff locations (Dalla and Wess) are not located along the path of contaminant migration from the site and have not been impacted by perchlorate from the site. The other two locations (Pereira and Smith) are located along or near the path of perchlorate migration from the site. However, these latter two plaintiff locations are located more than three miles from the site and would not have been adversely impacted by releases of perchlorate to the surface that might have occurred after 1987.

The path of perchlorate migration in groundwater from the site follows a south-southeasterly trajectory over a distance of about 10 miles. Perchlorate contamination has been detected in wells located within an area about 1 to 2 miles wide (east to west) that straddles the migration path. The homes of two of the plaintiffs (Dalla and Wess) are not located along the migration path and are beyond the easternmost extent of the area of perchlorate contamination. The homes of the other two plaintiffs (Pereira and Smith) are located along or near the perchlorate migration path. These latter homes are about 3.2 and 3.8 miles from the site, respectively.

The perchlorate migration rate is estimated to be about 3 feet per day or about 0.2 miles per year. At this rate, travel times of 16 years and 19 years would be required for groundwater to move from the site area to the two plaintiff homes located along or near the path of migration. Thus groundwater leaving the site in 1987 would just be arriving at the Pereira location in 2003 and would not arrive at the Smith location until 2006. However, some time would be required



for perchlorate that might have been released to the land surface in 1987 to reach the groundwater. The process of migration through the soil to the groundwater would delay the time at which perchlorate that might have been released to the land surface in 1987 would reach groundwater. This delay could be as much as 10 years. Consequently, while groundwater flow leaving the site in 1987 is estimated to reach the Pereira location by about 2003, it is unlikely that it would contain measurable amounts of perchlorate that might have been released to the land surface in 1987.

Opinion 4

The amount of perchlorate that might have reached the groundwater beneath the site after 1987 was likely less than a few pounds per year. The source of perchlorate that might have reached groundwater after 1987 would have been from emissions onto the ground surface that became entrained in infiltrating precipitation. The perchlorate reaching groundwater after 1987 via this mechanism could have been associated with emissions that occurred prior to 1987. The amount of perchlorate flux into the groundwater via this mechanism after 1987 would not produce detectable concentrations of perchlorate in groundwater downgradient from the site.

After 1987, the principal mechanism available to transport perchlorate residues from the land surface to the groundwater was infiltrating precipitation. In the Morgan Hill area, total precipitation averages about 20 inches per year and deep infiltration of precipitation that might reach the groundwater is typically a small fraction (10 percent or less) of the total precipitation. Thus, the water flux available to transport perchlorate residues into the groundwater is likely less than about 2 inches per year.

Soil sampling data show that at many locations on the site, perchlorate has not penetrated below about 5 feet in the soil column between land surface and the groundwater. Furthermore, trends in concentrations of perchlorate in soil are predominantly decreasing with depth. These conditions are characteristic of the limited capacity of infiltrating water to transport perchlorate through the soil zone to the groundwater.

Perchlorate dissolved in infiltrating water is not likely to be adsorbed by the soil matrix. Furthermore, measurements of perchlorate in soil samples will include perchlorate dissolved in soil water that may be present in the sample. If one assumes that all of the perchlorate measured in a soil sample is contained in soil water, the concentration in the soil water can be estimated by estimating the moisture content of the soil. Residual moisture contents for sandy or silty soils will typically be about 10 percent. Using the soil sampling data from the deepest soil sample at each sampling location, a soil water perchlorate concentration can be estimated. Assuming this concentration represents the concentration of perchlorate in infiltrating water that reaches groundwater, a water flux rate of 2 inches per year would indicate a perchlorate flux rate of less than 2 pounds per year.



Historically, perchlorate flux rates via groundwater from the site were likely on the order of about 50 pounds per year. The perchlorate flux rates declined significantly after 1987. More recently, perchlorate flux rates have been less than 10 pounds per year.

Since early 2004, a groundwater extraction and treatment system has been operating at the site. This system effectively intercepts and removes groundwater containing perchlorate and prevents further migration of the perchlorate into downgradient areas. Since the initiation of operation of this system, the perchlorate flux rate into downgradient areas has been effectively eliminated.

The historical perchlorate flux of about 50 pounds per year from the site into downgradient areas has resulted in measured perchlorate concentrations that are typically in the range of 4 to 10 ppb. Perchlorate concentrations in these downgradient areas will vary depending on well depth and location relative to the path of migration and may not even be detected. However, along the path of migration and across a width that is about 1 mile on either side of the path, detected perchlorate concentrations typically range up to about 10 ppb. Conceptually and mathematically, the perchlorate concentrations in the downgradient areas are linearly related to the perchlorate flux rate from the site area. That is, if the historical perchlorate flux had been 25 pounds per year rather than 50 pounds per year, we would expect that perchlorate concentrations in downgradient areas would have been approximately one-half of the concentrations that were measured.

The specific time when perchlorate residuals found in the soil profile during site investigations were released at the land surface cannot be determined. However, regardless of when the perchlorate was released at the land surface, the amount of perchlorate found in the soil profile would only allow for an estimated perchlorate flux of less than 2 pounds per year. A flux rate of this amount is only about 4 percent of the estimated historical perchlorate flux rate of 50 pounds per year. Given that the historical flux rate generated concentrations that were generally in the range of 4 to 10 ppb in downgradient areas from the site, a flux rate of 2 pounds per year would not likely generate concentrations exceeding 1 ppb. Thus, even if some or all of the perchlorate found in the soil profile had been released after 1987, these releases would not be capable of producing concentrations of perchlorate in groundwater downgradient from the site that would be above detection limits typically available for perchlorate.

The installation and operation of a groundwater interception and treatment system has effectively eliminated continuing perchlorate flux into downgradient areas. The interception system consists of three extraction wells, treatment with ion exchange resins, and discharge of the treated water into a nearby storm water drainage system. Analyses of the performance of the system indicate that the system has been effective in providing hydraulic containment (interception) of contaminated groundwater and thus preventing perchlorate flux into downgradient areas. This interception of contaminated groundwater will prevent future perchlorate concentrations in downgradient areas from increasing above current levels.

Appendix A

**Curriculum Vitae; Lists of Publications,
Depositions, and Testimony;
Compensation**



STEVEN P. LARSON

Groundwater Hydrologist

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| EDUCATION | MS Civil Engineering, 1971, University of Minnesota, Minneapolis, Minnesota BS Civil Engineering (with high distinction), 1969, University of Minnesota, Minneapolis, Minnesota |
| REGISTRATIONS | Certified Professional Hydrologist American Institute of Hydrology |
| PROFESSIONAL HISTORY | S.S. Papadopoulos & Associates, Inc. , Bethesda, Maryland Executive Vice President, 1980-present U.S. Geological Survey , Water Resources Division, Reston, Virginia Hydrologist, 1975-1980 U.S. Geological Survey , Water Resources Division, St. Paul, Minnesota Hydrologist, 1971-1975 U.S. Geological Survey , Water Resources Division – National Training Center, Denver, Colorado Hydrologist, 1971 St. Anthony Falls Hydraulic Laboratory , Minneapolis, Minnesota Research Assistant, 1969-1971 |
| SUMMARY OF QUALIFICATIONS | Mr. Larson is a recognized authority on numerical simulation models and their application in the analysis of a variety of groundwater problems. He has developed such models for analyzing groundwater flow, mass- and heat-transport in groundwater systems, contaminant migration, recovery of petroleum products from groundwater, saltwater intrusion in coastal aquifers, and thermal energy storage in aquifers. In addition, he has been in the forefront of combining these methods with linear programming techniques to optimize the development of groundwater supplies or remediation of contaminated groundwater. He has conducted training courses on the use of these models and provided technical support on their application to a variety of hydrologic conditions. Mr. Larson has authored and co-authored publications on the application of aquifer simulation models that are widely used by practicing hydrologists. He has served as an expert witness in numerous judicial forums regarding groundwater issues and the application of simulation models for demonstrating the fate of soil/groundwater contamination and the effect of remediation alternatives. |
| AWARDS & HONORS | Civil Servant of the Year , U.S. Geological Survey, 1974 U.S. Geological Survey Incentive Award , 1974 American Society of Civil Engineering Student Award , 1969 |
| REPRESENTATIVE PROJECT EXPERIENCE | S.S. Papadopoulos & Associates, Inc. , Bethesda, Maryland As senior principal of the company, Mr. Larson assists in the management of the company and in the conduct and management of projects dealing with a wide variety of environmental and water-resource issues. During his many years at SSP&A, he has been involved in numerous projects covering a wide spectrum of technical, environmental, and legal issues including: <ul style="list-style-type: none">▪ Site evaluations for remedial investigations, feasibility studies, engineering evaluation/cost analyses, or remedial action plans at CERCLA and other waste disposal sites including the Stringfellow site in California, the FMC Fridley site in Minnesota, the Chem Dyne site in Ohio, the Conservation Chemical site in |



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Groundwater Hydrologist

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**REPRESENTATIVE
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EXPERIENCE**
— *continued*

Missouri, the Hardage-Criner site in Oklahoma, and the Hastings site in Nebraska.

- Evaluations of groundwater contamination at CERCLA and other waste-disposal sites including Love Canal, New York; Savannah River Plant, South Carolina; Tucson Airport, Arizona; Ottati & Goss site, New Hampshire; Martin-Marietta site, Colorado; and Western Processing site in Washington.
- Environmental impact evaluations of the effects of water development for proposed coal slurry operations in Wyoming, of in-situ mining for trona minerals in Wyoming, and of groundwater development on the shallow-water-table in South Dakota.
- Evaluations of the effects of discharge on groundwater from chemical-manufacturing waste disposal in Wyoming, Virginia, and New York.
- Water-supply development evaluations, including potential impacts of salt water intrusion on water supply development, in Oman, Portugal and in Florida; and analysis of potential impacts of power plant cooling water on groundwater and surface water in Wyoming.
- Evaluations of permitting, licensing, and environmental issues associated with coal mining in Wyoming, Montana, and Arizona, copper mining in Montana and Utah, trona mining in Wyoming, and uranium mining in New Mexico.
- Evaluations of water-rights permitting and adjudication in New Mexico, Texas, Colorado, Kansas, Wyoming, Nebraska, Arizona, and Idaho.
- Environmental audits, groundwater monitoring plans, and other environmental investigations at the Oaks Landfill in Maryland, the FMC Carteret facility in Wyoming, the former IBM facility in Indiana, and the Insilco site in Florida.

SPECIFIC PROJECT EXPERIENCE

- Far-Mar-Co Subsite, Hastings Superfund Site, Nebraska – Supervised the preparation of an engineering evaluation/cost analysis (EE/CA) to support implementation of remediation of groundwater contamination. Worked with regulatory agencies to gain approval of the EE/CA and progress toward design and implementation. Previously, on behalf of Morrison Enterprises, supervised completion of a remedial investigation and a feasibility study which focused on carbon tetrachloride and ethylene dibromide contamination.
- Stringfellow site near Riverside, California – Served as the principal technical advisor on groundwater issues to the Pyrite Canyon Group, which overviewed investigations and remedial activities sponsored by the responsible parties. Designed and evaluated several investigations and remediation programs. Represented the client as a technical spokesperson in workshops, technical seminars, and meetings with regulatory agencies and other interested parties. Prepared key documents to support the decision-making process toward the final Record of Decision.
- In the case of Kansas v. Colorado before the U.S. Supreme Court – Served on a team of technical advisors to the State of Kansas in its litigation with Colorado over violations of the Arkansas River Compact. Assisted in obtaining a finding



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Groundwater Hydrologist

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**REPRESENTATIVE
PROJECT
EXPERIENCE**
— *continued*

of compact violation regarding the pumping of groundwater from wells along the river valley in Colorado. Continues as a technical expert as the case moves into subsequent phases involving the quantification of depletions of supply, assessments of damage, and future compliance by Colorado.

EXPERT AND FACT WITNESS EXPERIENCE

- Litigation associated with soil and groundwater contamination at CERCLA, RCRA, and other facility sites in California, Kansas, Missouri, Oklahoma, Tennessee, Montana, Florida, Iowa, and Nebraska.
- Toxic tort, property damage, and liability litigation regarding soil and groundwater contamination at sites or facilities in New York, Tennessee, Texas, Virginia, Ohio, and other states.
- Insurance recovery litigation associated with contamination at a variety of sites or facilities for commercial clients such as General Electric, FMC Corporation, Upjohn, AT&T, Rohr Industries, Beazer East/Koppers, North American Phillips, DOW Chemical, Occidental Chemical, and Southern California Edison.
- Water-rights permitting litigation and water adjudication including cases in New Mexico, Colorado, and Arizona, as well as interstate river compact disputes involving the states of Kansas, Colorado, Wyoming, and Nebraska.

U.S. Geological Survey, Water Resources Division, Reston, Virginia

Originated, planned and conducted research in the development of numerical simulation models and techniques for the analysis of a variety of problems related to groundwater systems. Mr. Larson applied the developed models to actual field situations for verification and further refinement, and documented these models in a manner suitable for use by others. He served as coordinator and instructor for training courses on groundwater simulation models and methodologies conducted by the Division, and provided primary technical assistance to many groundwater projects conducted by District. Mr. Larson participated in and represented the U.S. Geological Survey in national and international meetings. He conducted groundwater studies of national and regional interest and participated in, or was detailed to, overseas projects conducted or managed by other U.S. agencies and the World Bank.

U.S. Geological Survey, Water Resources Division, St. Paul, Minnesota

Served as Project Chief and participated in studies involving the evaluation of groundwater resources, the assessment of stream-water quality, and the analysis of surface-water/groundwater relationships in various parts of Minnesota.

U.S. Geological Survey, Water Resources Division, National Training Center, Denver

Participated in an extended training program providing in-depth training on both office and field techniques for the collection and the analysis of data and the conduct of surface-water, groundwater, and water-quality studies.



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- REPRESENTATIVE PROJECT EXPERIENCE**
— *continued*
- St. Anthony Falls Hydraulic Laboratory, Minneapolis, Minnesota**
As a Research Assistant, participated in the development and operation of an urban-runoff model to predict sewer flow distribution for the Minneapolis – St. Paul Sanitary District. Assisted in runoff prediction studies for St. Paul and participated in a project to survey and summarize computer programs used in water resources engineering.
- PROFESSIONAL SOCIETIES**
- Association of Ground Water Scientists and Engineers
American Institute of Hydrology
Chi Epsilon
- PUBLICATIONS**
— *LAST 10 YEARS*
- Tonkin, M.J., S.P. Larson, and C. Muffels. 2004. Assessment of Hydraulic Capture through Interpolation of Measured Water Level Data. Presented at Conference on Accelerating Site Closeout, Improving Performance, and Reducing Costs through Optimization, Environmental Protection Agency, Federal Remediation Technology Roundtable, June 15-17, 2004, Dallas, Texas.
- Tonkin, M.J., and S.P. Larson. 2002. Kriging Water Levels with a Regional-Linear and Point-Logarithmic Drifts: *Ground Water*. 40, no. 2, March-April: 185-193.
- Blum, V.S., S. Israel, and S.P. Larson. 2001. Adapting MODFLOW to Simulate Water Movement in the Unsaturated Zone. MODFLOW 2001 and Other Modeling Odysseys, Proceedings, International Groundwater Modeling Center (IGWMC), September 11-14, 2001, Colorado School of Mines, Golden, Colorado. 60-65.
- DEPOSITION AND TESTIMONY EXPERIENCE**
— *LAST 5 YEARS*
- DEPOSITIONS**
- 2004 RHI Holdings, Inc. vs. American Employers Insurance Company. Commonwealth of Massachusetts Superior Court Department. Civil Action No. 01-5443-G. December 7.
- 2004 Massachusetts Electric Company et al. vs. Travelers Casualty & Surety Company et al. Commonwealth of Massachusetts Superior Court. Civil Action No. 99-00467B. November 18-19.
- 2004 PECO Energy Company vs. Insurance Company of North America, et al. Court of Common Pleas of Chester County, Pennsylvania. Case No. 99-07386. June 14-15.
- 2004 Kerr-McGee Corporation and Kerr-McGee Chemical, LLC, vs. Hartford Accident and Indemnity Company and Liberty Mutual Insurance Company. Superior Court of New Jersey Law Division: Somerset County. Docket No.: SOM-L-229-01. May 26.
- 2003 American States Water Company et al. vs. State of California et al. Superior Court of the State of California in and for the County of Sacramento. No. 98AS01998. August 14 and 15.
- 2003 Waste Management, Inc. et al. vs. The Admiral Insurance Company et al. Superior Court of New Jersey Law Division: Hudson County. Case No. HUD-L-931-92. May 15.

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**DEPOSITION AND
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continued*

- 2003 Waste Management, Inc. et al. vs. The Admiral Insurance Company et al. Superior Court of New Jersey Law Division: Hudson County. Case No. HUD-L-931-92. May 6.
- 2003 Landowners, LTD. vs. Litton Industries, Black Copy, Robert Silver, dba Vito's Autobody, West Coast Corporation, doing business as Peabody's Custom Paint and Autobody Specialist, David Mangola, Robert Mangola, David Silver and DOES 1-50, Inclusive. Superior Court of the State of California in and for the County of Los Angeles. Case No.: BC255187. March 25.
- 2003 Bernice Samples et al. vs. Conoco, Inc.; Agrico Chemical Company, Inc; and Escambia Treating Company, Inc. Circuit Court of the First Judicial Circuit in and for Escambia County, Florida. Case No. 01-631-CA-01. March 20.
- 2002 State of Kansas vs. State of Colorado and United States of America. Supreme Court of the United States. Case No. 105 Original. December.
- 2002 PECO Energy Co. vs. Insurance Company of North America et al. Court of Common Plea Chester County, Pennsylvania. No. 99-07386. September 26 and 27.
- 2002 Associated Indemnity Corporation, and The American Insurance Company, vs. The Dow Chemical Company. U.S. District Court for the Eastern District of Michigan, Northern Division. No. 99 CV 76397. June 11 and 12.
- 2002 Bernice Samples et al. vs. Conoco, Inc.; Agrico Chemical Company, Inc; and Escambia Treating Company, Inc. Circuit Court for the First Judicial Court in and for Escambia County. Case No. 01-631-CA-01. June 7.
- 2002 State of New Mexico et al. vs. General Electric Company et al. The U.S. District Court for the District of New Mexico. Case No. CV 99-1254 BSJ/DJS and CV 99-1118 BSJ/LFG. April.
- 2002 Redlands Tort Litigation. Superior Court of the State of California for the County of San Bernardino. No. RCV 31496. February.
- 2001 State of Kansas vs. State of Colorado and United States of America. Supreme Court of the United States. Case No. 105 Original. August 2 and 3.
- 2001 Pfizer Inc. vs. Employers Insurance of Wausau. Superior Court of New Jersey Chancery Division: Middlesex County. Docket No. MID-C-108-92. July.
- 2001 Unisys Corporation et al. vs. Insurance Company of North America. New Jersey Superior Court, Law Division. Case No. L-1434-94-S. April.
- 2001 Gwendolyn Guillory et al. vs. Union Pacific Corporation et al. 14th Judicial District Court, Parish of Calcasieu, State of Louisiana. Case No. 98-5405. January 18.
- 2000 Chevy Chase Bank FSB vs. Shell Oil Company and Motiva Enterprises, LLC. U.S. District Court for the District of Maryland, Southern Division. Case No. PJM 00-CV-1557. November 22.



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**DEPOSITION AND
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continued

- 2000 American Home Products et al. vs. Adriatic Insurance Company et al. Superior Court of New Jersey Law Division: Hudson County. Docket No. HUD-L-5002-92. October.
- 2000 Sherwin-Williams vs. Artra et al. U.S. District Court for the District of Maryland. Case No. S-91-2744. September.
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COMPENSATION

The rates of compensation charged by S.S. Papadopoulos & Associates, Inc., for professional services associated with this report varied according to staff type from \$115.00 to \$240.00 per hour. Mr. Larson's billing and testimony rate are both \$240.00 per hour.

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