



# LEAK LOCATION SERVICES, INC.

## *Qualifications Statement – 2018*

### I. INTRODUCTION

Leak Location Services, Inc. (LLSI) is the world leader in geoelectric leak location testing. Our highly experienced and trained staff have the in-depth understanding of electrical leak location methods to successfully perform leak location services with the efficiency required to keep projects on time and within the cost proposed.

The founders of LLSI began the development of the geoelectric leak location method at Southwest Research Institute in 1980 and the first commercial leak location survey was performed in 1985. Leak Location Services, Inc. was formed in 1992 as a Texas corporation.

The technical staff of LLSI have a combined total of more than 78 years of commercial geomembrane leak location experience. LLSI has performed more than 3,520 leak location surveys and surveyed more than 517,000,000 square feet of survey. LLSI has successfully performed leak location surveys in 47 states, eight Canadian provinces, and 28 foreign countries.

In 2017, LLSI completed 141 geomembrane leak location surveys. The area surveyed was more than 24,000,000 square feet (551 acres). In the last three years, LLSI has surveyed more than 96,017,000 square feet (2,204 acres) of geomembrane. These surveys were performed in accordance with ASTM standards D7002, D7007, D7240, and D7953.

LLSI has developed, designed, and built the specialized equipment required to perform these services. LLSI leak location equipment, software, and procedures are custom designed and fabricated by LLSI employees to produce unequaled leak detection capabilities. The equipment and procedures have been improved and optimized through 25 years of field applications.

### II. PERSONNEL QUALIFICATIONS

The personnel qualifications of Leak Location Services, Inc. are unmatched in the world. Five LLSI leak location supervisors have at least eight years of experience and have surveyed more than 9 million square feet of geomembrane in the last three years. Table 1 in Section III of this document lists the leak location experience in the last three years.

LLSI holds training meetings to maximize operator proficiency and knowledge. LLSI field personnel also have received safety training for OSHA HAZWOPER, OSHA Construction Safety and Health, OSHA 30 Hour Construction Industry Outreach, MSHA work at surface mines, SafeLand USA, confined space entry, first aid, and CPR. In addition, LLSI subscribes to ISNetworld, PICS, PEC, Browz, and CanQual safety programs. Resumes of the LLSI personnel follow.

## **MATTHEW KEMNITZ**

Mr. Kemnitz is the President of Leak Location Services, Inc. (LLSI). He has obtained the Engineer in Training certification, has a Bachelor of Science Degree in Mechanical Engineering from the University of Texas at Arlington, and has completed course work toward a Master's Degree in Civil Engineering. As Operations Officer, Matthew Kemnitz is responsible for:

- Scheduling of projects
- Project Consulting
- Management of systems related to the delivery of LLSI's services to clients
- Ensuring business operations are efficient
- Management of payables/receivables and payroll
- Management of LLSI technicians, implementation of rewards/recognition, and coaching practices to align personnel with company goals
- Improvement of systems and equipment
- Prioritizing of company, employee, and client requirements

Mr. Kemnitz has expert knowledge of the principles and application of all leak location methods and is fluently conversant as a technical consultant to clients for potential and ongoing projects. He has been instrumental in promoting industry education of the leak location method through his technical papers and presentations at major industry events. Mr. Kemnitz has personally supervised numerous leak location surveys. Mr. Kemnitz has performed multiple ELIM (Electrical Leak Imaging and Monitoring) System data collections and surveys and is principal in updating the design of these systems.

Through his prior positions, Mr. Kemnitz developed skills in the design of large scale civil engineering projects on a variety of scales, and was involved with various elements of site design, erosion control, grading, drainage, sewer, water, storm water and franchise utilities. His skills also include preparation of feasibility studies, obtaining permits, final engineering design and site plans, and supplying accurate projections of production costs. Additionally, he interfaced with project managers, CAD technicians, city employees, and senior staff to assess client needs and devise appropriate technical solutions to meet them.

## **JOHN ORTIZ**

John Ortiz is a Senior Project Manager and Safety Manager at LLSI. Mr. Ortiz has been employed with LLSI since 2008. He obtained a Bachelor of Science in Environmental Science from the University of Phoenix and a Bachelor of Arts in Psychology with a focus in Industrial and Organizational Psychology from The University of Texas at San Antonio. Mr. Ortiz is also a certified MSHA safety instructor and is responsible for developing safety plans, implementing safety programs and conducting safety training. Mr. Ortiz is a technical expert in each geomembrane leak location survey method and provides consulting to clients for projects requiring these services. Mr. Ortiz's responsibilities at LLSI also include developing proposals, reports, training employees, and scheduling.

In 2017, Mr. Ortiz supervised 13 geomembrane leak location surveys including an area of approximately 2,185,755 square feet. Mr. Ortiz has also installed an Electrical Leak Imaging and Monitoring System (ELIM) system as well as performed several ELIM System data collections and surveys.

### **DALE KEMNITZ**

Dale Kemnitz is the Operations Manager at Leak Location Services, Inc. Mr. Kemnitz joined the company in 2013 and is a business professional equipped with more than 30 years combined leadership expertise with diverse business development capabilities in environmental services, engineering support, and commercial product services. Relative to his position is his track record of building, maintaining, and cultivating business relationships, along with procuring and managing accounts. Mr. Kemnitz' business skills include enhanced operational productivity, efficiency, and improved performance of organizations through skillful application and understanding of internal business processes and environments as affected by external forces and trends. He has first-hand knowledge of all geomembrane leak location methods with most of his experience in geomembranes covered with earth materials.

### **MARTIN MORALES**

Mr. Morales is the Field Services Manager for field applications of the geoelectric leak location method and is the Shop Manager for the construction and repair of the custom LLSI leak location equipment. He has a Bachelor of Science Degree in Electronic Engineering Technology from DeVry Institute. He began performing geomembrane leak location services in 1998. His experience includes leading crews for more than 460 geomembrane leak location projects. He was the on-site supervisor for the installation of four permanent leak monitoring systems. He is thoroughly familiar with the work, including field applications, equipment construction, troubleshooting, and maintenance. In 2017, Mr. Morales performed or supervised 20 geomembrane leak location surveys for a total area of approximately 3,332,294 square feet of geomembrane.

### **EDGAR BARRAZA**

Mr. Barraza is a Senior Field Technician and started work at LLSI in 2002. He has an Associate of Applied Science in Electronic Engineering Technology from Hallmark Institute. He has first-hand knowledge and all leak location methods, including leading more than 400 projects. In 2017 Mr. Barraza led or worked on 31 geomembrane leak location projects including an area of 3,596,458 square feet of geomembrane.

### **THANE HEFLEY**

Mr. Hefley is a Senior Field Technician and has an Associate of Applied Science in Electronic Engineering Technology from Hallmark Institute. He started work at LLSI in 2002. He has experience in all the implementations of leak location surveys. In 2017, Mr. Hefley supervised or performed 22 geomembrane leak location surveys including a total area of 3,013,091 square feet.

**PISSANU GATESUWAN**

Mr. Gatesuwan is a Senior Field Technician and has an Associate Degree in Computer and Electronics Engineering Technology from ITT Technical Institute. He started work at LLSI in 2008. He is experienced in electronic equipment fabrication and in all types of leak location surveys provided by LLSI. In 2017, he performed 30 geomembrane leak location surveys including an area of 3,505,309 square feet of geomembrane.

**JAMES HAYNES**

Mr. Haynes is a Field Technician and has a BA in Business Management from Whitworth University. He has training in higher-level leadership and heavy aircraft maintenance in the Air Force where he was responsible for training new employees for preflight servicing. He joined LLSI in 2015 and has performed or supervised 75 geomembrane leak location surveys. In 2017 he surveyed 3,682,853 square feet of geomembrane.

**III. EXPERIENCE**

The area surveyed, in square feet, by current LLSI key personnel for the previous three years is shown in Table 1.

Table 1. Leak Location Field Experience for the Previous Three Years (2015 - 2017)

Survey Operator	Survey Type - ASTM D 7007, D7002, D7240,			Total (sq. ft.)
	Earth	Water	Bare	
Martin Morales	3,834,457	3,067,730	1,589,500	8,491,687
Edgar Barraza	11,360,738	3,261,381	3,521,689	18,143,808
Thane Hefley	8,770,068	3,921,431	2,527,500	15,218,999
Pissanu Gatesuwan	2,011,300	3,058,000	4,531,309	9,600,609
John Ortiz	6,285,334	2,110,555	566,000	8,961,889
Matthew Kemnitz	1,624,000	450,000	230,000	2,304,000
Dale Kemnitz	302,000	77,000	383,000	762,000
James Haynes	13,640,778	3,632,628	3,210,247	20,483,653
Bryan Bergemann	7,681,086	1,906,231	2,463,800	12,051,117
	55,509,761	21,484,957	19,023,044	96,017,762

**IV. PUBLICATIONS**

LLSI founders and personnel have published more than 30 technical papers regarding leak location methods and applications over 25 years. A list of most of these publications is available and can be downloaded from the LLSI web site at [www.llsi.com/publication](http://www.llsi.com/publication).

V. PROJECTS

In the year 2017, LLSI completed 141 geomembrane leak location surveys including more than 24,000,000 square feet (552 acres) of geomembrane. Table 2 lists the survey type, leak location operators, area, and number of leaks located for these geomembrane leak location surveys completed in 2017.

Table 2. Leak Location Surveys Completed in 2017

Survey Type	Surveyor (s)	Sq. Ft.	Leaks
Bare	Morales	75,000	1
Soil	Bergemann, Hefley	785,820	0
Soil	Haynes	108,900	4
Soil	Bergemann	70,580	1
Soil	Morales, Hefley	376,500	12
Bare	Gatesuwan	135,000	1
Bare	Gatesuwan	135,000	2
Bare	Gatesuwan	112,500	0
Bare	Gatesuwan	112,500	0
Bare	Gatesuwan	84,000	0
Bare	Gatesuwan	84,000	4
Bare	Gatesuwan	20,800	0
Bare	Gatesuwan	20,800	4
Bare	Gatesuwan	65,000	1
Bare	Gatesuwan	65,000	2
Bare	Gatesuwan	115,200	1
Bare	Gatesuwan	115,200	1
Bare	Gatesuwan	72,800	0
Bare	Gatesuwan	72,800	2
Bare	Hefley	85,000	0
Bare	Hefley	85,000	1
Soil	Ortiz, Barraza	435,600	0
Water	Hefley, Haynes	1,525,000	16
Soil	Morales, Haynes	327,115	0
Soil	Morales, Haynes	100,000	0
Soil	Barraza	400	0
Bare	Gatesuwan	52,000	20
Bare	Gatesuwan	590,000	4
Water	Bergemann	145,500	0
Bare	Gatesuwan	90,000	5
Soil	Barraza, Haynes	350,000	0
Bare	Ortiz	35,000	9

Bare	Ortiz	35,000	0
Soil	Haynes	15,000	0
Soil	Bergemann	15,000	0
Soil	Morales	15,000	6
Water	Barraza	163,000	8
Bare	Hefley	81,500	3
Water	Barraza	52,500	1
Water	Hefley	24,000	1
Water	Ortiz, Morales	538,195	4
Water	Morales, Ortiz	538,195	11
Water	Morales, Haynes	538,195	6
Bare	Barraza	490,834	0
Soil	Barraza	174,000	1
Bare	Barraza, Gatesuwan, Haynes	2,300,000	6
Bare	Bergemann	72,000	0
Soil	Barraza	17,000	0
Bare	Barraza	60,000	0
Bare	Barraza	60,000	0
Water	Haynes	46,200	6
Water	Bergemann	366,500	5
Water	Barraza	52,850	6
Water	Haynes	200,000	1
Soil	Morales	20,000	1
Bare	Gatesuwan	188,250	2
Bare	Bergemann	95,000	1
Bare	Gatesuwan	270,000	24
Soil	Morales	102,257	1
Bare, Water	Bergemann, Haynes	117,600	5
Bare	Bergemann	10,000	1
Soil	Barraza	218,000	0
Water	Bergemann, Barraza	164,063	24
Water	Hefley, Haynes	164,063	14
Soil	Bergemann	305,000	0
Bare	Hefley	175,000	6
Bare	Bergemann	495,139	15
Water	Barraza	120,000	2
Bare, Soil	Barraza	242,188	7
Bare	Hefley	90,000	3
Water	Haynes	135,000	23
Water	Gatesuwan	87,000	0



Bare	Bergemann	80,000	2
Bare	Gatesuwan	94,722	15
Soil	Bergemann	152,500	1
Bare	Gatesuwan	265,000	0
Bare	Hefley	20,000	5
Bare	Gatesuwan	78,000	0
Soil	Hefley	78,000	0
Bare	Barraza	78,000	1
Water	Barraza	84,500	1
Water	Barraza	84,500	1
Soil	Bergemann, Hefley	609,840	5
Soil	Haynes	26,000	1
Water	Hefley	135,000	1
Soil	Ortiz	458,400	16
Water	Hefley	176,400	0
Water	Gatesuwan	57,000	5
Water	Hefley	20,000	15
Water	Ortiz, Morales	522,720	0
Water	Gatesuwan	376,000	0
Water	Morales	472,000	2
Soil	Hefley	9,000	1
Bare	Haynes	20,580	37
Soil	Ortiz	195,000	7
Bare	Barraza	135,000	7
Water	Barraza	40,000	0
Water	Hefley	179,000	37
Water	Hefley	65,000	1
Soil	Ortiz	205,000	1
Water	Morales	399,556	8
Bare	Gatesuwan	160,000	0
Bare	Hefley	30,000	0
Soil	Ortiz	42,000	0
Soil	Haynes	95,000	0
Soil	Bergemann	210,000	0
Bare	Gatesuwan	55,320	1
Water	Hefley	55,000	3
Bare	Haynes	174,000	0
Soil	Morales	1,000	0
Soil	Morales	77,000	0
Water	Hefley	42,000	5



Water	Morales	113,021	18
Water	Barraza	490,834	3
soil	Ortiz	63,000	1
Soil	Hefley	200,000	3
Bare	Bergemann	8,800	33
Water	Barraza	145,000	6
Bare	Barraza	160,000	1
Water	Morales	3,500	2
Water	Morales, Haynes	350,000	2
Soil	Ortiz	90,000	2
Soil	Ortiz	45,000	1
Water	Barraza	40,000	0
Bare	Morales	90,500	0
Soil	Bergemann	348,480	0
Soil	Bergemann	261,360	0

