

Keys to a Successful Inline Inspection Workshop



T.D. Williamson

November 1-3, 2022
TD Williamson

Tuesday, November 1

7:30 a.m.		Shuttle departs from Hampton Inn and Suites to TDW Technology Center 6801 South 65 th West Avenue Tulsa, OK 74131 <i>Full shuttle schedule provided on last page of agenda.</i> <i>Breaks will be included throughout the day.</i>
8:00 a.m.	9:00 a.m.	Workshop Opener <i>Instructor: Jed Ludlow, TD Williamson or Chuck Harris, TD Williamson</i> Introductions Overview of the workshop Summary of types of pigs Historical developments
9:00 a.m.	12:00 p.m.	Pigging Field Operations: Factors to Success <i>Instructor: Rusty Jackson, Quest Integrity Group</i> Pipeline piggability evaluation. Line cleanliness requirements. Bends, fittings, and other restrictions. Modeling – simulation – verification Pig launching, propelling, tracking, and receiving. Defect locating: marker systems and GPS coordination. What pigging vendors expect from pipeline operators.
12:00 p.m.	1:00 p.m.	Lunch provided
1:00 p.m.	2:00 p.m.	Chemical Cleaning of Pipelines <i>Instructor: Nicholas Landon, Coastal Chemical/Brenntag</i> Use of chemicals, handling, and disposal. Optimizing a cleaning program. Knowing if the line is clean.
2:00 p.m.	3:30 p.m.	Operation of Geometry and Mapping ILI Tools <i>Instructor: Tod Barker, TD Williamson</i> Geometry deformation tools XYZ mapping technology

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Tuesday, November 1, continued

3:30 p.m.	5:00 p.m.	Operation of Metal Loss ILI Tools <i>Instructor: Jed Ludlow, TD Williamson</i> Utilizing MFL tools: <ul style="list-style-type: none">• Basic principles, magnets, sensors, and resolution.• Operational limitations; velocity, bends, pipe density.• Detecting defects; understanding pipeline features.• Metal loss corrosion sizing.
6:30 p.m.		Class Workshop Dinner (offsite) TBD <i>Hosted and provided by Nick Landon, Coastal Chemical/Brenntag</i> Shuttle transportation provided.

Wednesday, November 2

7:30 a.m.		Shuttle departs from Hampton Inn and Suites to TDW Technology Center 6801 South 65 th West Avenue Tulsa, OK 74131 <i>(Breaks will be included throughout the day.)</i>
8:00 a.m.	10:00 a.m.	Operation of Metal Loss ILI Tools, continued <i>Instructor: Jed Ludlow, TD Williamson</i> Familiarization with MFL tools. Understanding ultrasonic tools for corrosion and cracking.
10:00 a.m.	12:00 p.m.	Data Analysis Demonstration <i>Instructor: Dane Burden, TD Williamson</i> Practice data diving and analyzing ILI data. Understand raw signal data from key ILI technologies. Familiarize with how your ILI report is developed and generated. Utilize close collaboration for fostering accuracy.
12:00 p.m.	1:00 p.m.	Lunch provided
1:00 p.m.	1:15 p.m.	Shuttle transfer to TDW Test Loop Facility

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Wednesday, November 2, continued

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| 1:15 p.m. | 3:00 p.m. | MFL Signal Scavenger Hunt TDW Test Loop Facility
<i>Instructor: Chuck Harris, TD Williamson</i>
Learning objective:
During this hands-on session, participants will utilize knowledge gained in the training thus far by working to locate defects based on data collected from an intelligent pig test run. |
| 3:00 p.m. | 5:00 p.m. | Field Defect Measurements TDW Test Loop Facility
<i>Instructor: Daniel Ringer, TD Williamson</i>
<i>Instructor: Greg Donikowski, TD Williamson</i>
Learning objective:
During this hands-on session, an <i>in-the-ditch</i> measurement of corrosion will be performed using methods from low to high tech. Following an introduction to measurement methods, participants will measure pits using gauges and bridging bars. They will compare labor time and accuracy of high-resolution laser scans. |
| 6:30 pm- 8:30 pm | | Class Workshop Dinner- Hosted and provided by TD Williamson
GolfSuites Tulsa:
600 Riverwalk Terrace, Jenks, OK 74037
<u>Tulsa's GolfSuites</u>
Golf and Dinner
6:00 pm Shuttle transportation provided from hotel and returning after the event. |

Thursday, November 3

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| 7:30 a.m. | | Shuttle departs from Hampton Inn and Suites to TDW Technology Center
6801 South 65 th West Avenue Tulsa, OK 74131
<i>(Breaks will be included throughout the day.)</i> |
| 8:00 a.m. | 9:00 a.m. | ILI Service Center Tour
Presented by: Jeremy Young, TD Williamson |
| 9:00 a.m. | 9:15 a.m. | Shuttle transfer to TDW Test Loop Facility
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Thursday, November 3 continued

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| 9:15 a.m. | 11:30 a.m. | SAFETY: Introduction, Orientation, and Demonstrations
<i>Instructor: P.J. Robinson, TD Williamson</i>
<i>Instructor: Matt Logan, TD Williamson</i>
Line locating
AGM site selection
Pig launching and receiving
Pig tracking (pig passages and locating a stuck pig) |
| 11:30 a.m. | 11:45 a.m. | Shuttle transfer to TDW Technology Center |
| 11:45 a.m. | 12:15 p.m. | Review of Test Loop ILI Data
<i>Instructor: Dane Burden, TD Williamson</i>
Understand key areas of interest from test loop pipeline.
Familiarize how operational conditions affected the ILI data.
List new and unique features in the pipeline. |
| 12:15 p.m. | 1:00 p.m. | Lunch provided |
| 1:00 p.m. | 2:00 p.m. | Tool Performance: Specifications and Determinations + Validation with Field Results
<i>Instructor: Dane Burden, TD Williamson</i>
Introduction to API 1163 Inline Inspection Systems qualification.
ILI and operator responsibilities for ILI tools.
Tools for assessment; are ILI results in/out of specification. |
| 2:00 p.m. | 4:00 p.m. | Pigging Standardization
<i>Instructor: Bryce Brown, ROSEN USA</i>
Learning objective:
Documents reviewed during this session are to provide understanding and guidance so the pipeline operator can make informed decisions of implementation and utilization of in-line inspection systems and technologies to mitigate risk.
Participants will learn the following standards and practices of: <ul style="list-style-type: none">• Pipeline Operators Forum Standard• NACE Pigging Recommended Practice• API ILI Equipment Standard• ASNT Personnel Qualification Standard |
| 4:00 p.m. | | Workshop concludes |

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Shuttle Transportation Schedule

Tuesday, November 1

- 7:30 a.m. Shuttle departs from Hampton Inn and Suites
7004 South Olympia Avenue | Tulsa, OK 74132 *going to*
TDW Technology Center
6801 South 65th West Avenue | Tulsa, OK 74131
- 5:00 p.m. Shuttle departs from TDW Technology Center *going to*
Hampton Inn and Suites
- 6:00 p.m. Shuttle departs from Hampton Inn and Suites *going to Workshop Dinner (offsite). Shuttle provided back to hotel following dinner.*

Wednesday, November 2

- 7:30 a.m. Shuttle departs from Hampton Inn and Suites *going to*
TDW Technology Center
- 1:00 p.m. Shuttle transfer to from TDW Technology Center *going to* TDW Test Loop Facility
- 5:00 p.m. Shuttle departs from TDW Test Loop Facility *going to*
Hampton Inn and Suites
- 6:00 p.m. Shuttle departs from Hampton Inn and Suites *going to Workshop Dinner (offsite). Shuttle provided back to hotel following dinner.*

Thursday, November 3

- 7:30 a.m. Shuttle departs from Hampton Inn and Suites *going to*
TDW Central Services
- 9:00 a.m. Shuttle transfer to from TDW Central Services *going to* TDW Test Loop Facility
- 11:30 a.m. Shuttle departs from TDW Test Loop Facility *going to* TDW Technology Center
- 4:00 p.m. Shuttle departs from TDW Technology Center *going to* Hampton Inn and Suites

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