

# **SOUTHWEST**

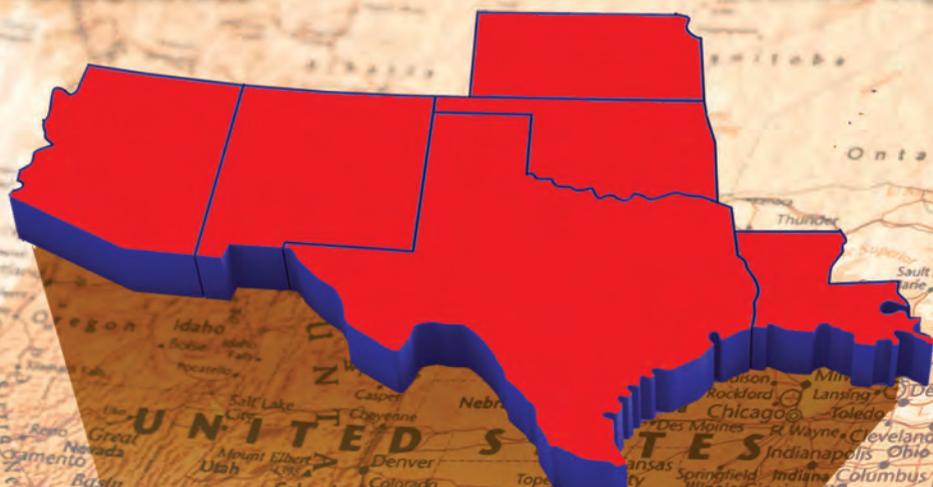
**Mobile App**

**Digital Sample  
Photography**

**Standardized  
Steering Reports**

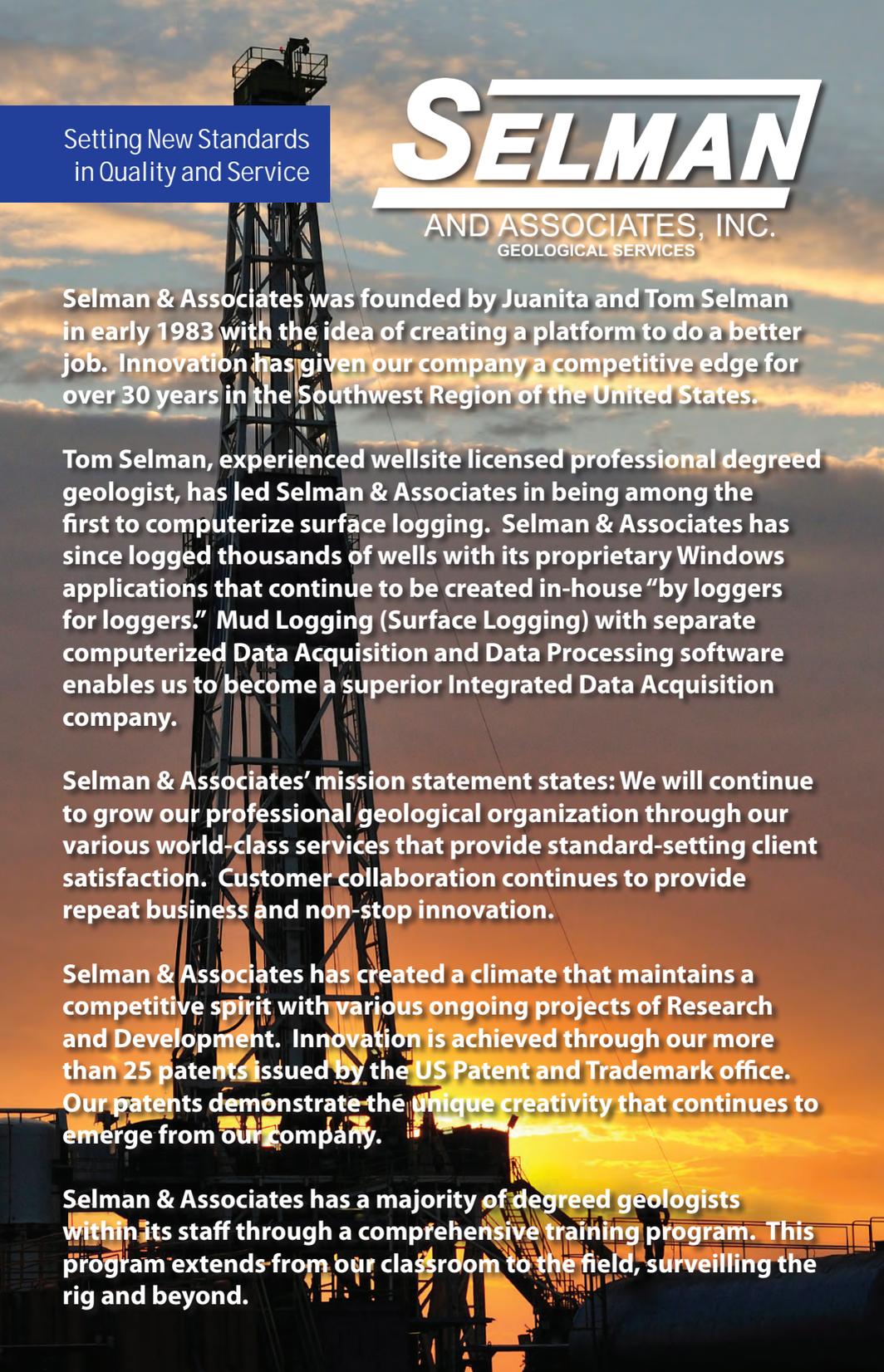
**Certified Advanced  
Gas Detection**

**Geochemical  
Surface Log**



# **SELMAN**

**AND ASSOCIATES, INC.**  
GEOLOGICAL SERVICES



Setting New Standards  
in Quality and Service

# **SELMAN**

AND ASSOCIATES, INC.  
GEOLOGICAL SERVICES

**Selman & Associates was founded by Juanita and Tom Selman in early 1983 with the idea of creating a platform to do a better job. Innovation has given our company a competitive edge for over 30 years in the Southwest Region of the United States.**

**Tom Selman, experienced wellsite licensed professional degreed geologist, has led Selman & Associates in being among the first to computerize surface logging. Selman & Associates has since logged thousands of wells with its proprietary Windows applications that continue to be created in-house "by loggers for loggers." Mud Logging (Surface Logging) with separate computerized Data Acquisition and Data Processing software enables us to become a superior Integrated Data Acquisition company.**

**Selman & Associates' mission statement states: We will continue to grow our professional geological organization through our various world-class services that provide standard-setting client satisfaction. Customer collaboration continues to provide repeat business and non-stop innovation.**

**Selman & Associates has created a climate that maintains a competitive spirit with various ongoing projects of Research and Development. Innovation is achieved through our more than 25 patents issued by the US Patent and Trademark office. Our patents demonstrate the unique creativity that continues to emerge from our company.**

**Selman & Associates has a majority of degreed geologists within its staff through a comprehensive training program. This program extends from our classroom to the field, surveilling the rig and beyond.**

# Certified Advanced Gas Detection

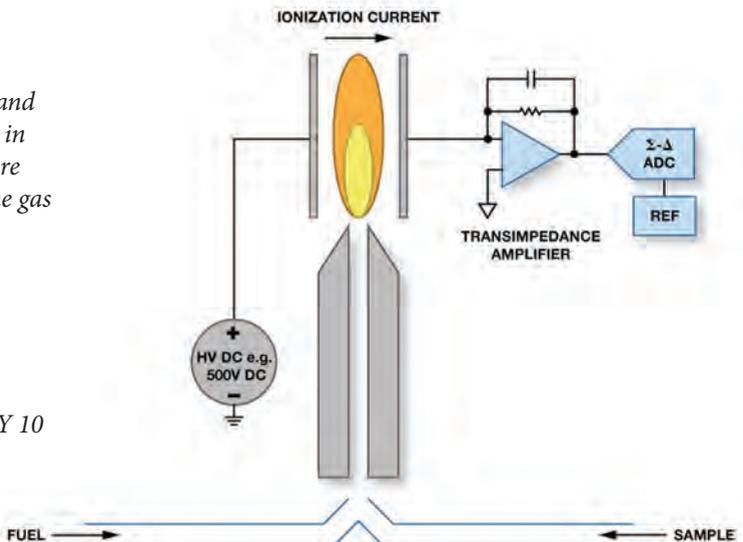
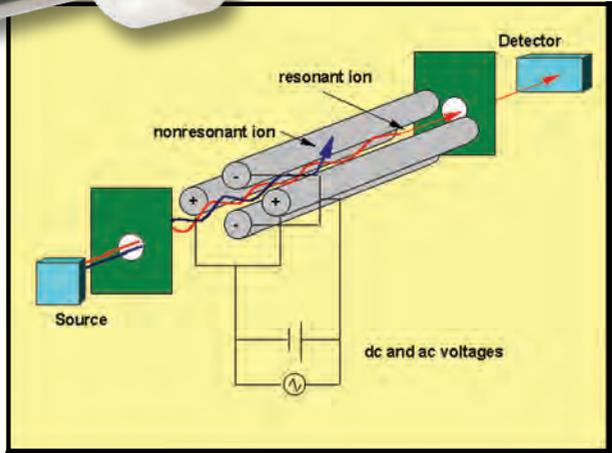


## Try our Industry-Leading Advanced Gas Detection equipment.

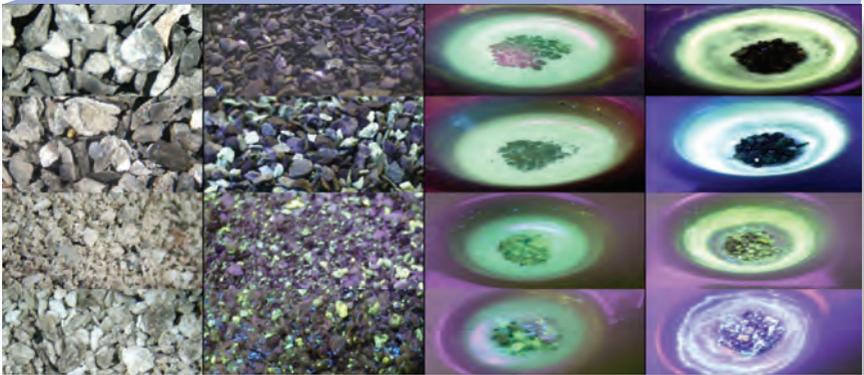
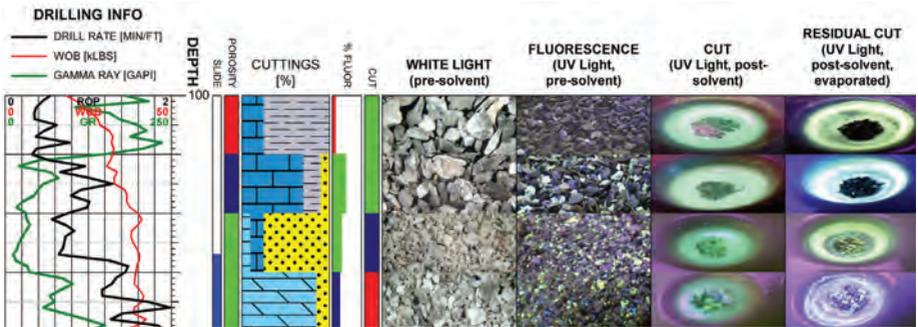
*We wholly own and develop software for all of our Certified Advanced Gas Detection*

*equipment using our 30+ years of field experience. With Mass Spectrometry, Flame Ionization Detection, or both, we provide faster sample speed, more linear readings, more gas species, and a lower detection limit than anyone else! In seconds, we measure Alkanes, Paraffins, Naphthalenes, Aromatics, Atmospherics, Sulfur Species, and others resulting in magnitudes more data in the same gas sample.*

*Remember, our equipment can measure 34 DISTINCT GASSES EVERY 10 SECONDS!*



# Digital Sample Pictures



## Correlate your wells with Photos!

We advance **digital photo microscopy** by creating a BRAND NEW detailed Photo Log, which visualizes each step of the sample analysis process. Using proprietary methods, we obtain a sample of the lithology every 10 feet, even when drilling rapidly. This method creates a more detailed mud log and photo log than the industry standard. Our standard two-man logging service includes photo log creation at no additional charge.

Our FREE LogIt® Viewer enables one-click access to full-sized versions of each photo on the Photo Log during and after drilling operations.

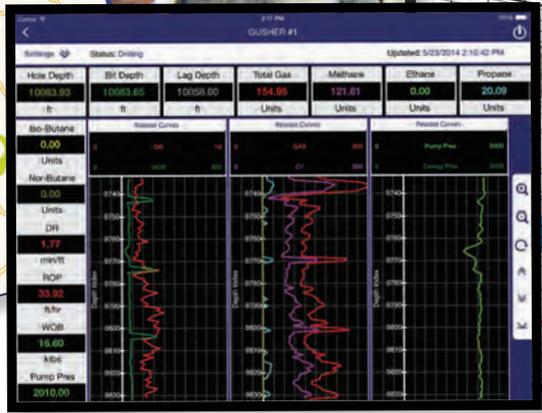
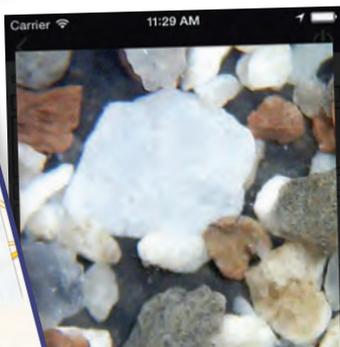
This unique photo log allows you to visually access and view more detailed samples without having to expend extra manpower and research in the future. This virtual photo sample tray enables you to easily identify changes as they occur and trends over large intervals of the borehole.

# Mobile App



Put the Rig in Your Pocket™ with our convenient Mobile Application.

The "Selman Surface Logging" app gives you access to all of your logs, reports, streaming data, and cuttings sample pictures, all in NEAR REAL TIME! This app (available on Apple's App Store and Google Play) frees you from a life in front of your computer. Now you can obtain the latest logging information wherever you are on your Internet-connected Smart Phone or Tablet. Any Selman logging service that collects data in real time and creates a log includes access via our mobile application for NO ADDITIONAL CHARGE. View real and accurate data at your own convenience, instead of waiting on e-mail.



# Standardized Steering Reports

*Gain an Extra Set of Eyes on your horizontal and deviated wells with Selman's standardized Steering Reports. As part of Selman's two-man logging service, we provide two Steering Reports per day for NO ADDITIONAL CHARGE on deviated and horizontal wells. The Steering Reports come from Selman's proprietary Dimensional Steering Services™ GeoSteering software, and they clearly visualize the current drilling situation with respect to the borehole(s) and formation(s), even for non-geologists.*

*These standardized steering reports are useful in facilitating communication among interdisciplinary teams from start to finish for each customer project.*

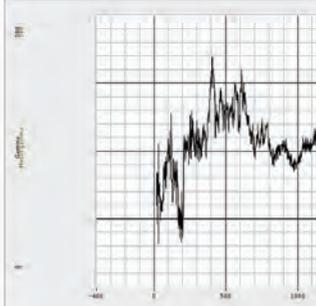
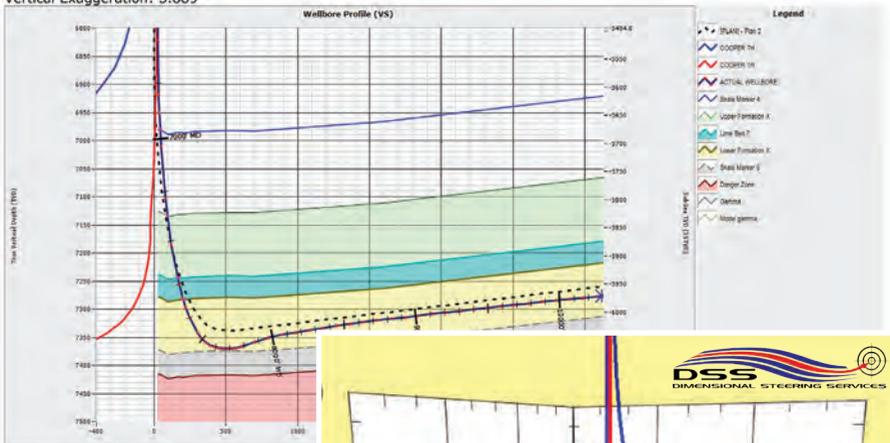
## Current Position Information

All information is based on a current Measured Depth (MD) of: 10291.0

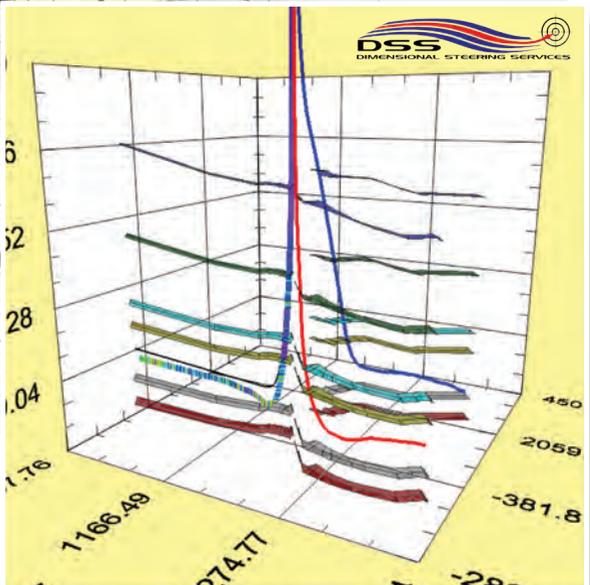


Current Formation Name	Next Formation Name	Distance to Next Formation (MD)	Est. SubSea of Next Formation	Current Dip (deg)	Regional Dip (deg)	Current TVD	Current SS TVD	Current VS	Distance to End of Well (MD)
Lower Formation X	N/A	0.0	0.0	1.70	1.70	7276.9	-5971.7	3115.0	47.0

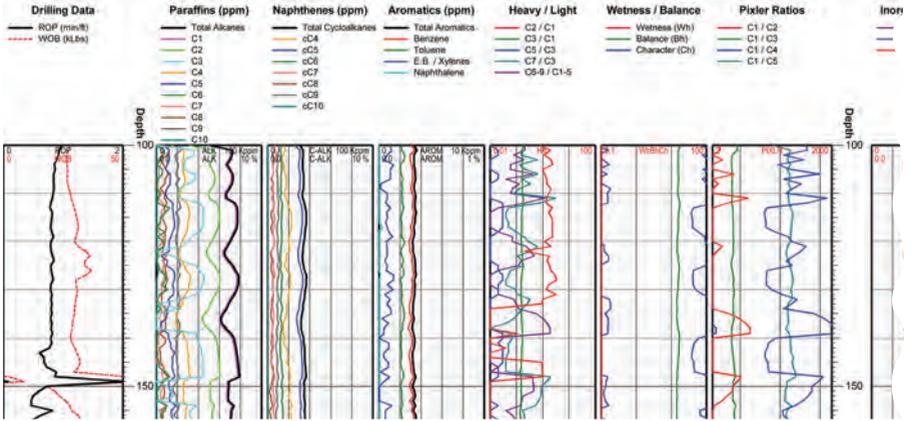
Vertical Exaggeration: 3.889



3D Wellbore Profile

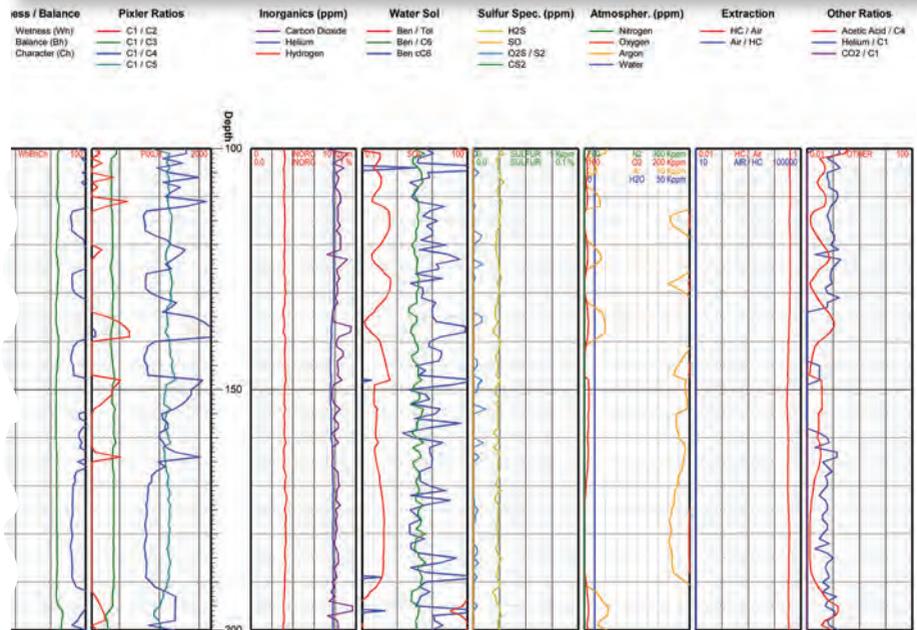


# GeoChemical Surface Log



Unlock the potential of your unconventional reservoirs with our Geochemistry!

We quantify many aspects of the drill cuttings and formation gas while drilling. Selman Mass Spectrometers can provide measurements for 34 distinct gas species every 7-10 seconds. X-Ray Fluorescence (XRF) provides a deterministic measurement of the elemental composition of your cuttings samples while X-Ray Diffraction (XRD) analyzes the mineralogical content. Total Organic Carbon (TOC) measurements can tell you the exact percentage of carbon in your samples from organic, non-mineral sources. Calcimetry also differentiates percentages of limestone from dolomite and quantifies total carbonates.



# SAFETY



*Our goal is to promote a safe and healthy work environment for all of our team members. We accomplish this through communication, safety training, and the promotion of a healthy and safe attitude of all of our personnel.*

**Safety is our way of life...  
Our mindset at all times**



**IADC  
MEMBER**

## Well Control Awareness Certification

*Additionally, our field personnel hold Well Control Awareness Certification, giving our clients confidence that our logging crews possess the core knowledge and job-related skills required to understand well control situations with competency.*



## Advanced Gas Detection (AGD) Certification

*Selman & Associates field personnel are certified in Advanced Gas Detection, qualified in Mass Spectrometry and Flame Ionization Detection.*

