

# SELMAN

AND ASSOCIATES, LTD  
GEOLOGICAL SERVICES

## DATA SECURITY

**With cyber-attacks and identity theft at an all-time high, we regard confidentiality as our top priority.** Protected by the latest in data center technology, our servers are highly secure. Selman goes to great lengths to protect the integrity and confidentiality of your data. By creating an inborn four-direction backup process and protecting all data communication with trusted SSL certificates, we ensure that your data is safe and guarded from intrusion. We have redundant company-owned servers, locations (data centers), and network connections to ensure productivity, even in the event of power failure, network interruption, or catastrophe. We maintain a state of preparedness at all times to ensure customer satisfaction.



SECURITY

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**Protecting the Integrity and Confidentiality of Your Data**

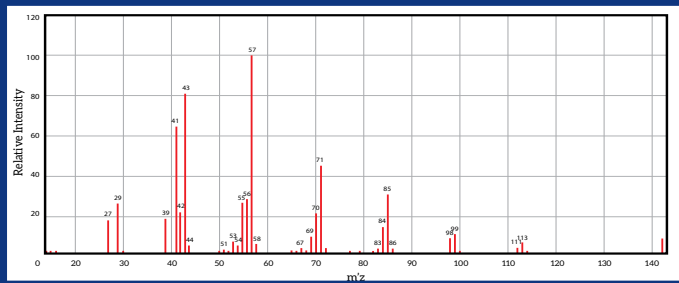
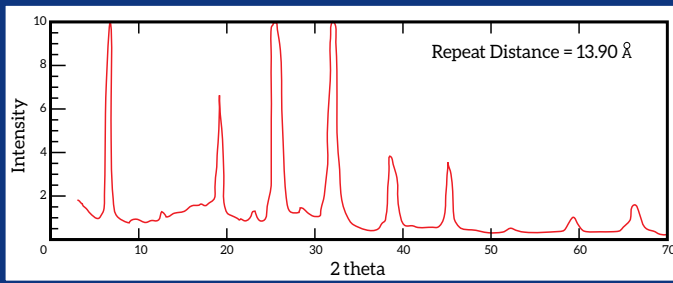
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# SELMAN

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GEOLOGICAL SERVICES

## GEOCHEM INNOVATIONS

Locate and Unlock the potential of your unconventional reservoirs with our Mass Spectrometer Surface Logging service. Bring the laboratory to the field and also have us analyze your samples with X-Ray Diffraction (XRD), X-Ray Fluorescence (XRF), and Quantitative Fluorescence Technique (QFT). Get a quantitative analysis of sample carbonates with our Calcimeter and also have us analyze the Total Organic Compounds (TOC) contained within. Upgrade Your Rig™ with a Selman mobile field laboratory to conduct all your geochemical surface logging needs.



### PERIODIC TABLE OF THE ELEMENTS

1 IA H 1.0079 Hydrogen	2 IIA He 4.0026 Helium																	18 VIIIA He 4.0026 Helium																	
3 Li 6.941 Lithium	4 Be 9.0122 Beryllium																	19 K 39.0983 Potassium	20 Ca 40.078 Calcium	21 Sc 44.9559 Scandium	22 Ti 47.88 Titanium	23 V 50.9415 Vanadium	24 Cr 51.9961 Chromium	25 Mn 54.938 Manganese	26 Fe 55.845 Iron	27 Co 58.9332 Cobalt	28 Ni 58.6934 Nickel	29 Cu 63.546 Copper	30 Zn 65.38 Zinc	31 Ga 69.723 Gallium	32 Ge 72.64 Germanium	33 As 74.9216 Arsenic	34 Se 78.96 Selenium	35 Br 79.904 Bromine	36 Kr 83.80 Krypton
11 Na 22.98976928 Sodium	12 Mg 24.304 Magnesium																	37 Rb 85.4678 Rubidium	38 Sr 87.62 Strontium	39 Y 88.905848 Yttrium	40 Zr 91.224 Zirconium	41 Nb 92.90638 Niobium	42 Mo 95.94 Molybdenum	43 Tc 98 Technetium	44 Ru 101.07 Ruthenium	45 Rh 101.07 Rhodium	46 Pd 106.3675 Palladium	47 Ag 107.8682 Silver	48 Cd 112.411 Cadmium	49 In 114.818 Indium	50 Sn 118.710 Tin	51 Sb 121.757 Antimony	52 Te 127.6 Tellurium	53 I 126.90545 Iodine	54 Xe 131.29 Xenon
55 Cs 132.90545196 Cesium	56 Ba 137.327 Barium	57-71 La-Lu Lanthanide	72 Hf 178.49 Hafnium	73 Ta 180.94788 Tantalum	74 W 183.84 Tungsten	75 Re 186.207 Rhenium	76 Os 190.23 Osmium	77 Ir 192.222 Iridium	78 Pt 195.084 Platinum	79 Au 196.966569 Gold	80 Hg 200.59 Mercury	81 Tl 204.38 Thallium	82 Pb 207.2 Lead	83 Bi 208.980386 Bismuth	84 Po 209 Polonium	85 At 210 Astatine	86 Rn 222 Radon																		
87 Fr 223 Francium	88 Ra 226 Radium	89-103 Ac-Lr Actinide	104 Rf 261 Rutherfordium	105 Db 262 Dubnium	106 Sg 263 Seaborgium	107 Bh 264 Bohrium	108 Hs 265 Hassium	109 Mt 266 Meitnerium	110 Uun 267 Ununium	111 Uuu 268 Ununium	112 Uub 269 Unbinium	113 Uut 270 Ununtrium	114 Uuq 271 Ununquadium	115 Uup 272 Ununpentium	116 Uuh 273 Ununhexium	117 Uus 274 Ununseptium	118 Uuo 276 Ununoctium																		
89 Ac 227 Actinide	90 Th 232.0377 Thorium	91 Pa 231.036888 Protactinium	92 U 238.02891 Uranium	93 Np 237 Neptunium	94 Pu 239.046465 Plutonium	95 Am 243 Americium	96 Cm 247 Curium	97 Bk 247 Berkelium	98 Cf 251 Californium	99 Es 252 Einsteinium	100 Fm 257 Fermium	101 Md 258 Mendelevium	102 No 259 Nobelium	103 Lr 260 Lawrencium																					

Upgrade Your Rig™

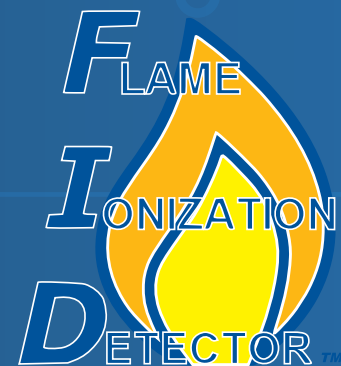
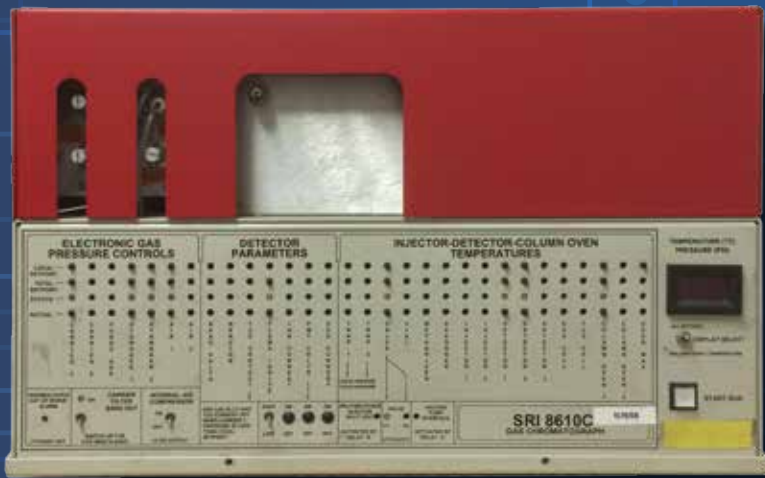
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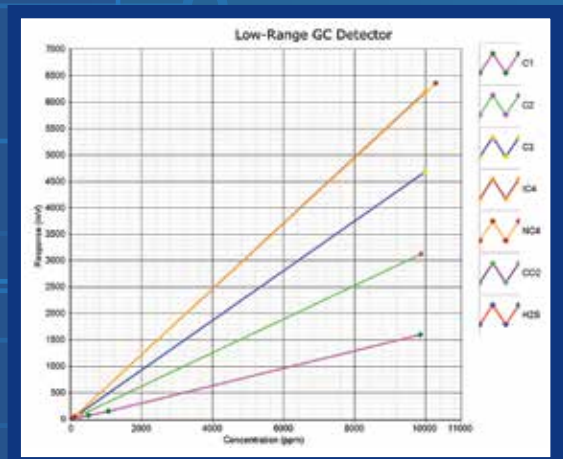
AND ASSOCIATES, LTD  
GEOLOGICAL SERVICES

## FLAME IONIZATION DETECTION

Selman provides pinpoint accuracy with a dual-sensor Flame Ionization Detector (FID) Gas Chromatograph (GC) and the addition of a Total Hydrocarbon Analyzer (THA) sensor, for a total of **three dedicated FID sensors in each instrument**. Our FID instrument features low and high range carbon linear FID GCs for a wide detection range without sacrificing precision. Each instrument is manufactured and tested in-house. Selman's AcquireIt® Software integrates the gas chromatograph curve with a custom developed algorithm that is both consistent and accurate. We deliver graphical calibration reports and perform self-audits to verify the fidelity of our field equipment on a regular basis.



# ACQUIRE IT®



**Three Dedicated FID Sensors in Each Instrument**

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GEOLOGICAL SERVICES

## SURFACE LOGGING UNITS

**Our fleet currently consists of over 70 fully-equipped, wholly owned and maintained mobile logging units.** This fleet is distributed throughout our coverage area. We at Selman take pride in the quality of our mobile logging units. As a result of our in-house manufacturing effort, each state of the art unit is based on a carefully designed, self-contained floor plan, which is unique to our company. The working area is a state of the art professional laboratory, and the living quarters have an “at home”, comfortable feel for our team members when resting. Our custom surface logging unit design achieves the goal of maximum service productivity for our customers.



### In-House Manufacturing Effort

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## MOBILE APP

**Put the Rig  
in Your Pocket™  
with Selman's  
Mobile Application.**

Selman's powerful new mobile app lets you check the status of all of your wells with our service from the palm of your hand. View Real-Time Streaming Data and sort all of your wells with our service by proximity to your location. Now it's easier than ever to see the most up-to-date, near real-time well log at your fingertips!



**Put the Rig in Your Pocket™**

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GEOLOGICAL SERVICES

## REMOTE INDUSTRIAL COMMUNICATIONS

**Selman's Industrial-Grade Remote Satellite Systems provide reliable, mission-critical communications to any drilling location.**

Selman is proudly the largest US Value Added Reseller (VAR) of Galaxy Broadband Satellite Systems. Our industrial satellite system provides your job with reliable, high-speed communications; allowing you to focus your time and energy where it matters!



**High-Speed Communications at the Drilling Location**

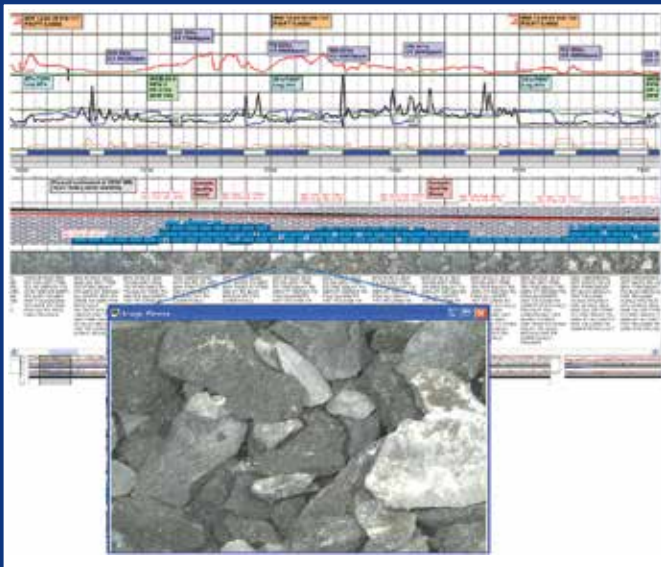
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## LogIt®

**Correlate your mud logs with Pictures!** Selman's engineering team ensures full customizability to meet our customers' needs. LogIt® provides flexible picture tracks and an easy to use graphical interface with auto populating data; which adds another dimension of visibility to surface logging. Our surface logging software allows our well site geologists to concentrate on producing the cleanest and most accurate surface logs. LogIt® includes a Free Viewer that provides a feature rich customer experience.



**Powerful Graphical Interface with Auto-Populating Data**

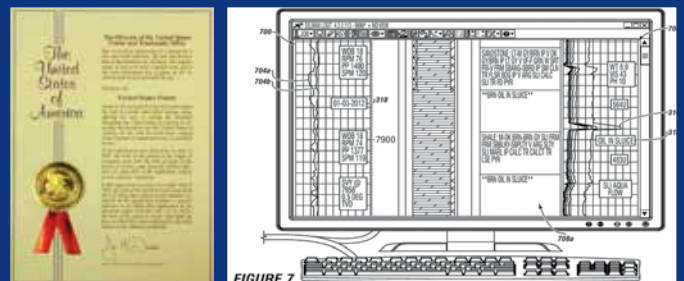
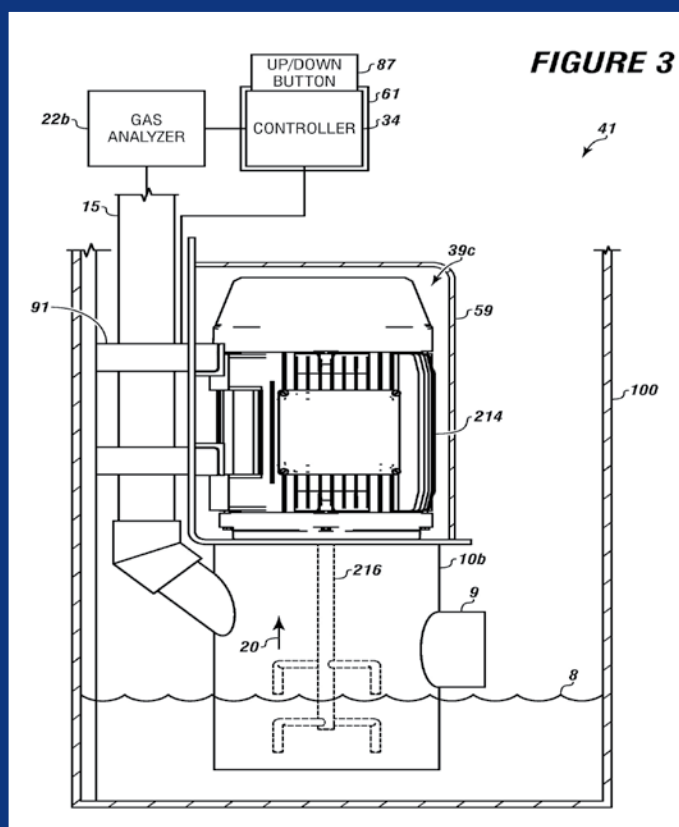
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## Patents and Innovation

Selman is at the forefront of providing new ideas and technologies to the exploration drilling industry. With over 35 patents and patents pending, we provide our clients with state-of-the-art products and services that continuously improve your ability to conduct geological services in a timely and accurate manner.



**Providing our Clients with State-of-the-Art Products and Services**  
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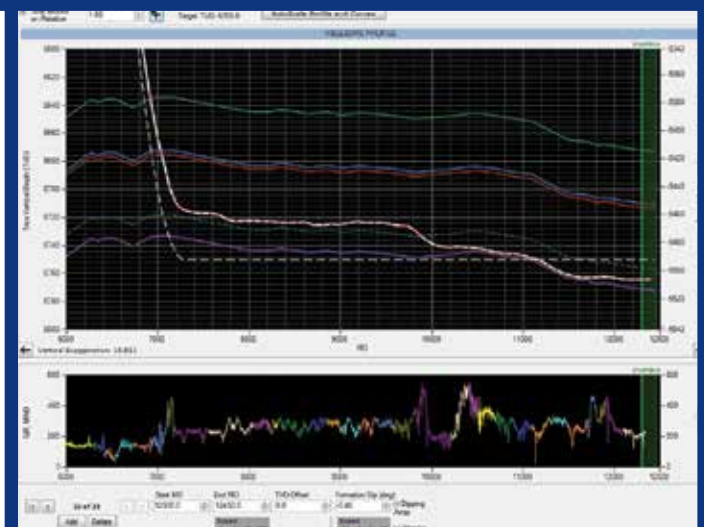
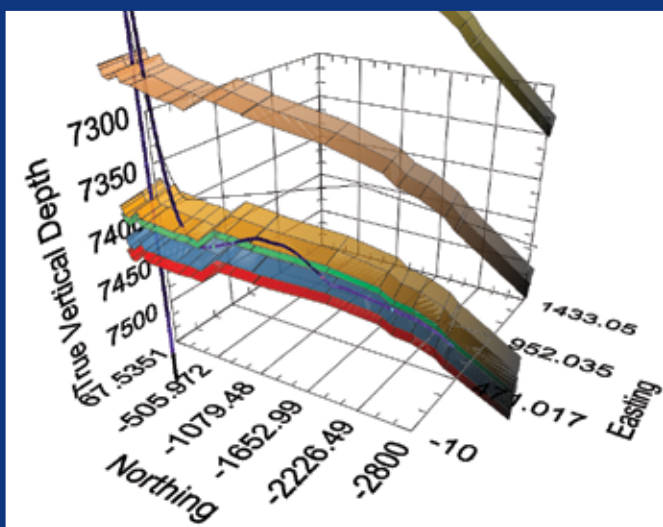
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## Geosteering Software / Services

Selman's Dimensional Steering Services (DSS™) software performs automatic calculations and data imports, allowing you to quickly and easily perform interpretations with accuracy and confidence. The DSS application generates three-dimensional (3-D) images far exceeding the industry's standard and produces reports which achieve communication in real time while drilling, ensuring that you can stay on target. The fact that Selman & Associates, Ltd. developed this software in-house within our own Research & Development team allows us to adjust the program to solve unique customer requirements.

**DSS**  
DIMENSIONAL STEERING SERVICES™



**Easily Perform Interpretations with Accuracy and Confidence**

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## SURFACE LOGGING IMPROVEMENTS

Selman and Associates is setting the standard in logging innovations and improvements. We are working rigorously to bring advancements to surface logging. Our Dual LED / Fiber-Optic Microscopy Lights ensure that you get consistent, clear cuttings sample images. Selman air dries each sample, providing optimal analysis conditions. With SampleCam®, we embed detailed image of each cut within each sample in the surface log for more thorough evaluation. We also provide cuttings gas analysis for measuring porosity and permeability with gas trapped in the reservoir rock.



**Continually Bringing Advancements to Surface Logging**

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A large, semi-transparent watermark of the word "SELMAN" is oriented vertically on the right side of the page. The background features a blue and white circular graphic on the left and a blue grid pattern with glowing nodes.

# **SELMAN**

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GEOLOGICAL SERVICES

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