Telemetry System

Remote Corrosion Monitoring

Metal Samples' remote telemetry system obtains real-time corrosion monitoring data via the Internet from anywhere in the world. The system features communications via satellite to a secure Web Monitor data server. With this powerful web-based back end, you can bring the data to your desk no matter where the site is located.

System Benefits Include:

- Eliminating costly travel to remote sites
- Gathering important corrosion data at a low cost



Remote corrosion monitoring telemetry system with solar panel

The built-in solar panel powers the Base Station, allowing use where no local power is available. Using its internal battery and charge control circuit, the unit functions in the 'Monitor & Sleep' mode and can operate unattended for many years.

This 4-input system allows data from up to four corrosion monitoring sites to be transmitted. The system will transmit a daily reading of each monitoring point. The web server will maintain history for each site, and allows for review of the data and calculation of corrosion rates from various, user-selectable time periods.

| METAL SAMPLES > HAWK 1007 > Probe Overview Thursday, March 14, 2013 12:32:29 PM | | | | | |
|---|--------------|------------------------------|----------|--|--|
| Filters | Export Excel | ort PDF 💷 Export CSV 🏾 PHelp | | | |
| | Adde | csv | | | |
| Tag | Туре | Time | Value | | |
| 1007_LOSS.1 | Metal Loss | 9/15/2012 6:51:00 AM | 9.6 mils | | |
| 1007_LOSS.1 | Metal Loss | 9/16/2012 6:51:00 AM | 9.6 mils | | |
| 1007_LOSS.1 | Metal Loss | 9/17/2012 6:51:00 AM | 9.6 mils | | |
| 1007_LOSS.1 | Metal Loss | 9/18/2012 6:51:00 AM | 9.6 mils | | |
| 1007_LOSS.1 | Metal Loss | 9/19/2012 6:51:00 AM | 9.6 mils | | |
| 1007_LOSS.1 | Metal Loss | 9/20/2012 6:51:00 AM | 9.6 mils | | |
| 1007_LOSS.1 | Metal Loss | 9/21/2012 6:51:00 AM | 9.6 mils | | |
| 1007_LOSS.1 | Metal Loss | 9/22/2012 6:51:00 AM | 9.6 mils | | |
| 1007_LOSS.1 | Metal Loss | 9/23/2012 6:51:00 AM | 9.6 mils | | |
| 1007_LOSS.1 | Metal Loss | 9/24/2012 6:51:00 AM | 9.6 mils | | |
| 1007_LOSS.1 | Metal Loss | 9/25/2012 6:51:00 AM | 9.6 mils | | |
| 1007_LOSS.1 | Metal Loss | 9/26/2012 6:51:00 AM | 9.6 mils | | |
| 1007_LOSS.1 Metal Loss | | 9/27/2012 6:51:00 AM | 9.6 mils | | |

Once the telemetry system is in place, just log in to the provided website to view your data. Above: Sample data as viewed on the Internet from a corrosion probe connected to the telemetry system. Data can be exported to multiple formats.



Graphs of corrosion data can be viewed from the web site or can be copied into Excel for more detailed analysis.

Right: Points on the graph can be selected to calculate the corrosion rate and annotations can be added to the plot.

Below: Multi-probe plot.

Specifications

Base Station

Power: Solar panel for autonomous *'Monitor and Sleep'* Operation Enclosure: NEMA 4X case

System Operating Environment

Temperature: -20° to +70° C Humidity: 0 - 100% non-condensing

| Metal Loss Name: Name: | | | | | Properties | | |
|--|---------------------------------------|--|---|------------|---|---|--|
| 2 | 12 10- 8- 5 5 6- 4- | Metal L | DS5 | | Name: Installation Date: Probe Model: Current Battery Voltage Current Startery Voltage Current Temperature Effective Life: Select Date to Search From: 03/14/2012 000 To: 03/14/2013 000 | HAWK 1007 06/32/2013 M/2200 12.5V 2/14/2013 6:51:00 AM 12.7V 3/14/2013 6:51:00 AM 12.4V 3/14/2013 11:37:35 AM 10 mile 58 100 000 Sear | |
| Corrosion Probe(s) Add Note Probe 1 © Probe 2 © Probe 3 © Probe 4 Add Note Tag Description Time 1007_DAY5.1 Days to replace probe 3/14/2013 6/51 AM 0 days 1002_IDAY5.1 Heal loss 3/14/2013 6/51 AM 10 anys | 21 | 11/2012 11/1/2012 12/1/20 Ti — Probe 2 — Probe 3 — | 12 1/1/2013 2/1/2013 me — Probe 4 | 3 3/1/2013 | Calculate Corrosion Rate Series Probe 1 Probe 2 Pr Position 1: | robe 3 Probe 4 | |
| Tog Description Time Value 1007_DAYS.1 Days to replace probe 2/14/2013 6:51 AM 0 days 1002_LOAYS.1 Ketal lass 2/14/2013 6:51 AM 0 days | Corrosion Probe(s Probe 1 O Prob | ;) e 2 ® Probe 3 ® Probe 4 | | | Add Note | Reset. Carcuit | |
| 1007_LOSS.1 Metal Loss 3/14/2013 6:51 AM 0 days | Tag | Description | Time | Value | | | |
| 11 1007 1025.1 [PRIALLOSS] 3/19/2013 0:31 MP] 10 MIS | 1007_DAYS.1 | Days to replace probe | 3/14/2013 6:51 AM | 0 days | | | |
| bbA | 100/ LOSS.1 | Metal Loss | 3/14/2013 6:51 AM | 10 mils | | | |

System Features

- Configurable from the website no laptop necessary in the field
- Worldwide communications
- Easy-to-use web interface
- Low monthly messaging costs

Communications Via

Skyware Inmarset ISatM2M

Available Configurations

Electrical Resistance Corrosion Monitor (1 to 4 channels) Linear Polarization Resistance Corrosion Monitor (1 to 4 channels) Sand (Erosion) Probe (4-channel)

Call for special applications or configurations.



Metal Samples Company

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