

El Futuro en la Detección de Gas en el Trabajo

**Reduciendo el Riesgo y Controlando Costos en el
Programa de Detección de Gases en el trabajo**

16 de Abril 2009



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Agenda

- **Presentar los tres componentes de un programa efectivo de detección de gases**
- **Demostrar como se puede tener un sistema de Detección de Gas efectivo y Reducir los costos de Operacion...al mismo tiempo**



Los Sistemas son Complejos

- **Un sistema tiene una función**
- **No basta tener el instrumento**
- **Funciones**
 - Protección
 - Generación de Informacion
 - Herramienta de Mejoramiento de el Ambiente de Trabajo
 - Preservar la vida de los trabajadores



Que es lo que los clientes quieren?



1. NO queremos calibrar



2. NO queremos mantener registros



3. NO queremos efectuar servicios,



4. En primer lugar no queríamos comprar equipos, pero tenemos regulaciones y debemos cumplirlas

Los mejores sistemas de detección . . .



... e incluyen tres componentes

Monitoreo de Gas

- Estandarización de los instrumentos que cumplan con las especificaciones mínimas de sensores, potencia, confiabilidad, intrínsecamente seguros y datalogging, etc.
- Facilidad de operación con funcionalidad intuitiva
- Operación configurable para características como set de alarmas, displays etc.

Mantenimiento de la flota

- Procedimientos Consistentes en la calibración y Pruebas de Funcionalidad
- Disponibilidad de la Flota y Administración de los activos
- Servicio de reparación Justo a Tiempo
- Procuramiento de partes de refacciones y gas de Calibración

Manejo del sistema

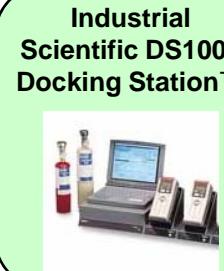
- Visibilidad y control de incidentes de alarmas
- Plantación para reducir los riesgos por exposición de gas
- Planeación de gastos
- Adquisición de equipo y flexibilidad de la flota- compra, renta o arrendamiento
- Visibilidad y control en el uso, entrenamiento y mantenimiento por los usuarios

Una solución que incluye los tres

Monitoreo
Gas

| Early | 1815 | 1927 | 1969 | 1970 | 1974 | 1981 | 1986 | 1999 | 2001 | 2003 | 2007 |
|----------|-------------------|---------------------|-------------------------------|------------------|--------------------|-----------------------------|-------------------|---------------------------|----------------------------------|------|------|
| Canaries | Flame Safety Lamp | Model B LEL Monitor | J-W Model GPK, LEL/O2 Monitor | Riken Model GX-3 | Gastech Gastechtor | Industrial Scientific MX241 | Riken Model GX-86 | Industrial Scientific iTX | Industrial Scientific MX6 iBrid™ | | |

Mmnto
De Flota

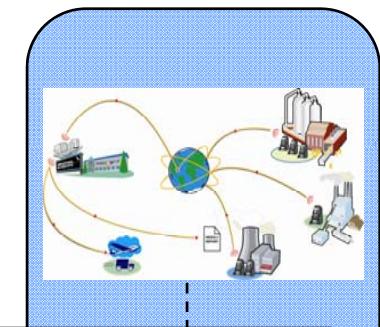


Industrial
Scientific DS1000
Docking Station™



Industrial
Scientific DS2
Docking Station™

Manejo
Del Programa



A través del tiempo, los clientes han mostrado disatisfacción por el enfoque de la instrumentación

Agenda

- Presentar los tres componentes de el mejor programa de detección de gases
- Demostrar como se puede tener un sistema de Detección de Gas efectivo y al mismo tiempo reducir los costos de Operación



Objetivos de un Sistema de Detección

Monitoreo Gas

- Estandarizando su flota con instrumentos confiables que cuentan con displays fáciles de leer por los usuarios

Mantenimient o de Flota

- Reduciendo los costos de Mantenimiento
- Asegurando que los instrumentos están disponibles en cualquier momento que se requieran

Manejo del Programa

- Reduciendo el riesgo de perdidas creando 100% de visibilidad de todos los incidentes de alarma
- Flexibilizando el tamaño de la flota

Permite a los gerentes salvar vidas

Los clientes, reciben reportes en tiempo real con indicadores de condiciones inseguras y conductas de riesgo.

Reporte Status

This screenshot shows a summary of instrument status. It includes sections for 'Status Summary' and 'Calibration Interval (22 days)'. The 'Status Summary' section lists categories like 'High Cylinders', 'Exploded Cylinders', 'Low Cylinders', and 'Empty Cylinders'. The 'Calibration Interval' section provides details for each cylinder type, including sensor type, status, and calibration date. A note at the bottom states that the report is generated specifically for you and is not the best choice for this report.

Reportes de Aviso

This screenshot displays a warning report titled 'Warning Report' for 'Test Account 123'. It lists instruments that have not uploaded data to Inet over 30 days. The table includes columns for 'SN', 'Type', 'Location', 'Status', and 'Last Updated'. The report also includes sections for instruments that have not performed self-diagnostic over 5 days and instruments that have not been calibrated in over 6 days.

Reporte resumido

This screenshot shows a summary of instrument alarms from August 3, 2007, to August 16, 2007. It includes a table for 'Instrument Alarms' with columns for 'Event ID', 'Type', 'Location', 'User', 'Peak', 'Average', 'Duration', 'Low', 'STL', 'TWR', and 'Alarm'. Below this is a table for 'Instrument MONITORING AND MSA' with similar columns. The report also includes sections for 'Last Calibration' and 'Last Diagnostic'.

Alertas

This screenshot shows an email alert titled 'Inet Alert: Calibration Failure, Dot 23 - Development Account'. The email is from 'Inet' to 'Russell McBratton, Justin'. The subject is 'Alert: Calibration Failure, Dot 23 - Development Account (60002)'. The message body indicates that Inet detected an alert condition: Calibration failure. It specifies the equipment as 'TESTVPI1INST05' and provides details about the sensor and its last reading. The alert was triggered by 'UNSCHEDULED' and 'Sensor Type: E2S'. The instrument result is marked as 'Failed'.

Sumariza el estatus del programa en general

Muestra unidades que no han sido probadas, no calibradas, no acopladas, así como tiempo de vida de sensores, presión de CalGas

Muestra eventos de alarma de los instrumentos acoplados, por unidad, usuario, localización, gas fecha, concentración etc

Alerta a los clientes sobre problemas en tiempo real, por ej.- incidentes de alarmas, unidades que fallan calibración, Calgas expirado etc.

Optimiza el tamaño de la Flota

Los clientes, típicamente reducen el costo de su flota de instrumentos en promedio 25% porque reducen el tiempo muerto de la flotilla. Se sustituyen instrumentos y partes en menos de 24 horas de recibir una alerta.

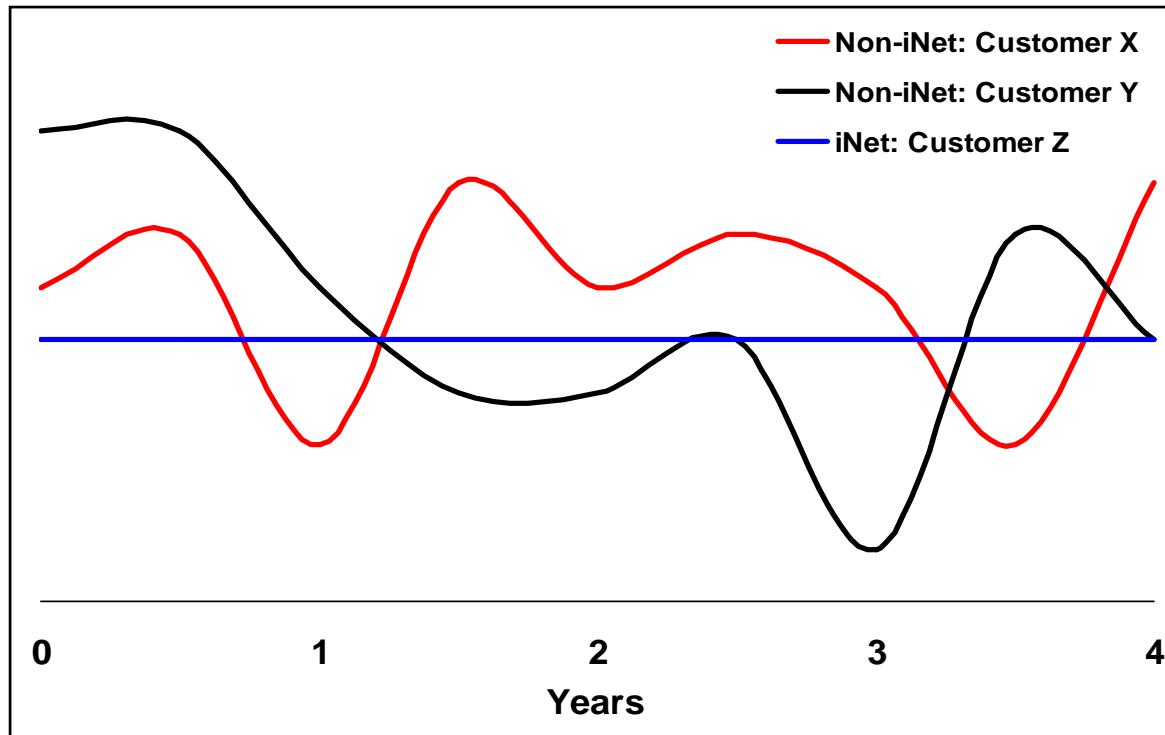
“ nos ha permitido reducir el numero de instrumentos a menos de la mitad, logrando grandes ahorros y sin tiempos muertos”

- *Mark Landgaard, Industrial Hygienist, Metropolitan Water District of Southern California*



Mantener los costos bajo control

Monthly Gas Detection Costs for 4 Years: Non- v. Customer*



All data in chart is for demonstration purposes only



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Incrementar el nivel de Conformidad

Los clientes, tienen registros electrónicos y en papel al 100% para poder demostrar la conformidad del sistema a auditores externos

Muchos clientes usan alertas a la medida y sus reportes para asegurar la conformidad a sus estándares de operación y procedimientos internos.



“He trabajado con los equipos de detección de gas por los últimos 15 años. No pensaría ir a otro lado. Creo que los Docking Stations en conjunto con el es una de las mejores cosas que he visto desde hace mucho tiempo”.

*- Gary DeJean, Safety and Security Supervisor,
Occidental Chemical Corporation*

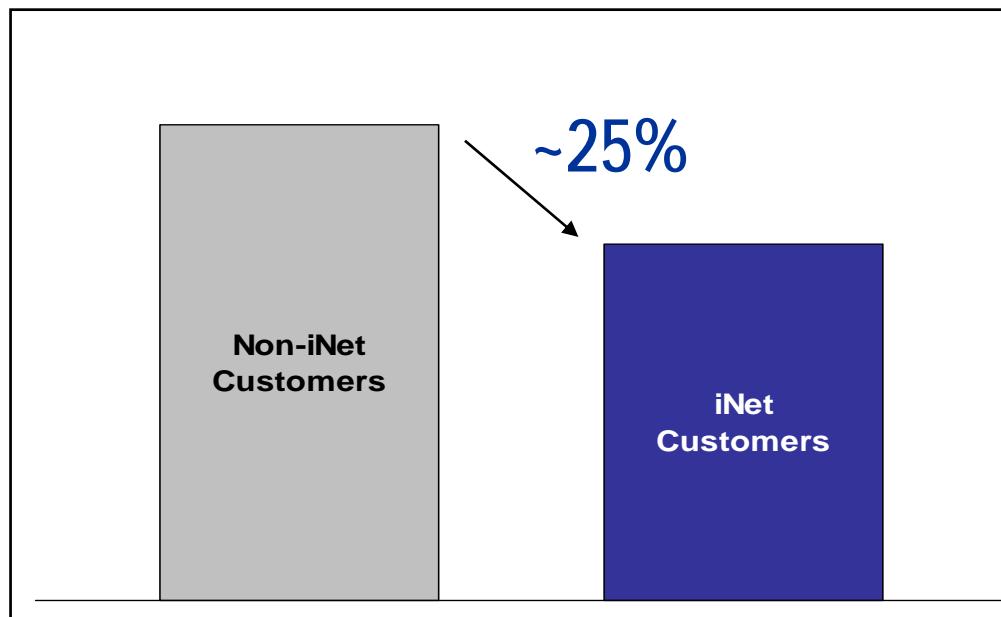
Minimiza el tener que desviar recursos a la administración del sistema

Al contratar la detección de gases afuera, los clientes mitigan el impacto que requiere atender el sistema y poder dedicar estos recursos al verdadero negocio del Cliente, manteniendo a los operadores seguros.



Reducir costos

Avg. Annual Maintenance Costs Non- v. Customers*



*Non- Customers already employing DS2 Docking Stations when investing in generally do not see a 25% reduction in costs

Estandariza los equipos y elimina la necesidad de servicios de compras, embarques, mantenimiento, costos por exceso de inventarios.

Monitorea la flotilla continuamente



Ofrece servicio en tiempo real



Exchange

- Instrumentos de reemplazo en menos de 24 horas de recibir una alerta
- Refacciones y Gas de Calibración



APPENDIX



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MX6 iBrid™ Multi-Gas Monitor



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| | | | |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------|
| Case Material | Lexan/ABS/Stainless Steel w/ Protective Rubber Overmold | | |
| Dimensions | 135 mm x 77 mm x 43 mm (5.3" x 3.05" x 1.7") – Diffusion Version | | |
| Weight | 409 g (14.4 oz) typical | | |
| Sensors | Combustible Gas / Methane: Catalytic Diffusion / Infrared Oxygen and Toxic Gases: Electrochemical CO_2 : Infrared VOCs: Photoionization (PID) | | |
| Measuring Ranges | Gas (Symbol) | | Range |
| | | | Increments |
| | Ammonia (NH_3) | | 0-200 ppm |
| | Carbon Dioxide (CO_2) | | 0-5% of Volume |
| | Carbon Monoxide (CO) | | 0-999 ppm |
| | Chlorine (Cl_2) | | 0-99.9 ppm |
| | Combustible Gases (LEL) | | 0-100% LEL |
| | Chlorine Dioxide (ClO_2) | | 0-1 ppm |
| | Ethylene Oxide ($\text{C}_2\text{H}_4\text{O}$) | | 0-10 ppm |
| | Hydrogen (H_2) | | 0-999 ppm |
| | Hydrogen Chloride (HCl) | | 0-30 ppm |
| | Hydrogen Cyanide (HCN) | | 0-30 ppm |
| | Hydrogen Sulfide (H_2S) | | 0-500 ppm |
| | Methane (CH_4) | | 0-5% of Volume |
| | Nitrogen Dioxide (NO_2) | | 0-99.9 ppm |
| | Nitric Oxide (NO) | | 0-999 ppm |
| | Oxygen (O_2) | | 0-30% of Volume |
| | Phosphine (PH_3) | | 0-5 ppm |
| | Sulfur Dioxide (SO_2) | | 0-99.9 ppm |
| | VOCs (General – PID) | | 0-2,000 ppm |
| Operating Temperature Range | -20°C to 50°C (-4°F to 131°F) typical | | |
| Operating Humidity Range | 15% to 95% non-condensing (continuous) typical | | |
| Power Source / Run Times | Rechargeable Lithium-ion (Li-ion) Battery Pack (24 hours typical) Rechargeable Extended-Range Lithium-ion (Li-ion) Battery Pack (36 hours typical) Replaceable AA Alkaline Battery Pack (10.5 hours typical) | | |
| Certifications | <u>IECEx/ATEX</u> : Intrinsic Safety: EEx ia d IIC T4, Equipment Group & Category: II 2G <u>UL</u> : Class I, Groups A,B,C,D T4; AEx ia d IIC T4 <u>CSA</u> : Class I, Groups A,B,C,D T4 (pending) <u>MSHA</u> : CFR30, Part 18 & 22, Intrinsically safe for methane/air mixtures (pending) | | |

iTX Multi-Gas Monitor



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| | | | |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-------------------|
| Case Material | Type 304 Stainless Steel, .024" (.61mm) thick | | |
| Dimensions | 4.75" x 3.2" x 1.68" (121mm x 81mm x 43mm) | | |
| Weight | 524.5 g (18.5 oz) typical | | |
| Sensors | Combustible Gas / Methane: Catalytic Diffusion / Infrared Oxygen and Toxic Gases: Electrochemical | | |
| Measuring Ranges | Gas (Symbol) | Range | Increments |
| | Ammonia (NH ₃) | 0-200 ppm | 1.0 ppm |
| | Carbon Monoxide (CO) | 0-999 ppm | 1.0 ppm |
| | Chlorine (Cl ₂) | 0.2-50 ppm | 0.1 ppm |
| | Combustible Gases (LEL) | 50ppm-100% LEL | 1.0% |
| | Chlorine Dioxide (ClO ₂) | 0-1 ppm | 0.01 ppm |
| | Hydrogen (H ₂) | 0-999 ppm | 1.0 ppm |
| | Hydrogen Chloride (HCl) | 0.2-30 ppm | 0.1 ppm |
| | Hydrogen Cyanide (HCN) | 0.2-30 ppm | 0.1 ppm |
| | Hydrogen Sulfide (H ₂ S) | 0-999 ppm | 0.1 ppm |
| | Methane (CH ₄) | 0-5% of Volume | 0.1% |
| | Nitrogen Dioxide (NO ₂) | 0.2-99.9 ppm | 0.1 ppm |
| | Nitric Oxide (NO) | 0-999 ppm | 1.0 ppm |
| | Oxygen (O ₂) | 0-30% of Volume | 0.1% |
| | ppm | | |
| | Phosphine (PH ₃) | 0-1 ppm | 0.01 |
| | ppm | | |
| | Sulfur Dioxide (SO ₂) | 0.2-99.9 ppm | 0.1 ppm |
| Operating Temperature Range | -20°C to 50°C (-4°F to 122°F) typical | | |
| Operating Humidity Range | 15% to 95% non-condensing (continuous) typical | | |
| Power Source / Run Times | Rechargeable Lithium-ion (Li-ion) Battery Pack: 24 hours typical Rechargeable, Extended-Range Lithium-ion (Li-ion) Battery Pack: 36 hours typical Replaceable AA Alkaline Battery Pack: 10.5 hours typical | | |
| Certifications | UL and CSA: Class I, Groups A, B, C, D hazardous locations MSHA: Intrinsically safe for methane/air mixtures only ATEX: and Australia – Ex ia s I/IIC T4: IP65 | | |

GasBadge® Pro Single Gas Monitor



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| | | | |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-------------------|
| Case Material | Rugged, water-resistant polycarbonate shell with protective concussion-proof overmold. RFI resistant. | | |
| Dimensions | 3.2 x 1.9 x 1.1 inches (81.3 mm x 48.3 mm x 27.9 mm) | | |
| Weight | 85 g (3 oz) | | |
| Sensors | Combustible Gas / Methane: Catalytic Diffusion / Infrared Oxygen and Toxic Gases: Electrochemical | | |
| Measuring Ranges | Gas (Symbol) | Range | Increments |
| | Ammonia (NH ₃) | 0-100 ppm | 1.0 ppm |
| | Carbon Monoxide (CO) | 0-1,500 ppm | 1.0 ppm |
| | Chlorine (Cl ₂) | 0-100 ppm | 0.1 ppm |
| | Chlorine Dioxide (ClO ₂) | 0-2 ppm | 0.01 ppm |
| | Hydrogen (H ₂) | 0-2,000 ppm | 1.0 ppm |
| | Hydrogen Cyanide (HCN) | 0-30 ppm | 0.1 ppm |
| | Hydrogen Sulfide (H ₂ S) | 0-500 ppm | 0.1 ppm |
| | Nitrogen Dioxide (NO ₂) | 0-150 ppm | 0.1 ppm |
| | Oxygen (O ₂) | 0-30% of Volume | 0.1% ppm |
| Display | Custom LCD with graphical icons; backlight for low light conditions | | |
| Operating Temperature Range | -40°C to 60°C (-40°F to 140°F), typical | | |
| Operating Humidity Range | 0-99% RH (non-condensing), typical | | |
| Power Source / Run Times | User replaceable 3V, CR2 Lithium battery – 2,600 hour runtime (minimum) | | |
| Certifications | <p><u>UL</u> and <u>cUL</u>: Class I, Div 1, Groups A, B, C, D; T4 & Class I, Zone 0, AEx ia IIC T4 <u>CSA</u>: Class I, Div 1, Groups A, B, C, D; T4 & Ex ia IIC T4 <u>ATEX</u>: Intrinsic Safety: EEx ia I/IIC T4; Equipment group and Category: II 1G; I M2; EMC: EN50270 Performance: O₂ (EN50104); CO, H₂S, (EN45544) (pending) <u>Australia</u>: Ex ia I/IIC T4 <u>IEC</u>: Ex ia IIC T4 <u>Russia</u>: GOST-R Approval (pending) <u>MSHA</u>: Intrinsically safe for methane/air mixtures only (pending)</p> | | |

Muestra de Reporte de Status

INDUSTRIAL SCIENTIFIC CORPORATION

Instrument Status Report

Sample Report

Service: Exchange 0550007A September 18, 2006 6:44:34 PM EDT

| Status Summary | | Instruments | | Sensors | |
|---------------------|--|-------------------------------|--|------------------------|--|
| Gas Connections | | 12 Instruments | | 47 Sensors | |
| 7 Cylinders, 10 Air | | 1 Overdue Calibration | | 116% Min Reserve | |
| 0 Expired | | 0 Failed Calibration | | 0 Marginal/Low Reserve | |
| 1 Low | | 34 Max Days since Calibration | | 0 No Calibration Data | |
| 0 Empty | | | | | |

| Calibration Status - Alerts (Calibration Interval = 31 days) | | | | | | | | | |
|---------------------------------------------------------------|------|---------------------------|--------|---------|-------------------|---------------|-----------|-----------------|-----------------|
| S/N | Type | Location | Sensor | Reserve | Reserve Condition | Sensor Status | Cal. Date | Days since Cal. | Sensor Age Cal. |
| 0501027150 | ITX | King INET L/D:0404747-011 | H2S | 140% | Good | Passed | 8/15/06 | 34 | 690 |
| | | 08/31/06 | | | | | | | |
| | | | CO | 180% | Good | Passed | 8/15/06 | 34 | 91 |
| | | | | | | | | | |
| | | | SO2 | 178% | Good | Passed | 8/15/06 | 34 | 94 |
| | | | | | | | | | |
| | | | O2 | 148% | Good | Passed | 8/15/06 | 34 | 115 |
| | | | | | | | | | |
| | | | LEL | 132% | Good | Passed | 8/15/06 | 34 | - |
| | | | | | | | | | |

| Dockingstation Status | | | | | | | | | |
|-----------------------|----------|----------------------|-----------|---------------|---|-----------------|-----------|------------|----------|
| S/N | IDS Type | Location | CYL P/N | Port Gas Type | | | Exp. Date | Age Status | Pressure |
| 0404747-023 | ITX | Artesia Blender | | AIR | 1 | Fresh Air | - | OK | OK |
| | | | 89411A-30 | 1810-2187 | 2 | CO,H2S,O2,C5H12 | 5/1/07 | OK | OK |
| 0404747-009 | ITX | Artesia Fire Station | | AIR | 1 | Fresh Air | - | OK | OK |
| | | | | | | | | | |

| Calibration Status - OK (Calibration Interval = 31 days) | | | | | | | | | | |
|-----------------------------------------------------------|------|------------------------------|--------------|----------|-------------------|---------------|-----------|-----------------|------------|-----|
| S/N | Type | Location | Sensor | Reserve | Reserve Condition | Sensor Status | Cal. Date | Days since Cal. | Sensor Age | |
| 05100M8134 | ITX | Blender INET L/D:0404747-023 | | 09/14/06 | | | | | | |
| | | 09/14/06 | | | | | | | | |
| | | | 007117121016 | CO | 173% | Good | Passed | 9/1/06 | 17 | 206 |
| | | | | | | | | | | |
| | | | 7807492056 | H2S | 172% | Good | Passed | 9/1/06 | 17 | 111 |
| | | | | | | | | | | |
| | | | 7861708056 | O2 | 130% | Good | Passed | 9/1/06 | 17 | 125 |
| | | | | | | | | | | |
| | | | 051101S-203 | LEL | 152% | Good | Passed | 9/1/06 | 17 | - |
| | | | | | | | | | | |
| 0505030451 | ITX | Tom INET L/D:0404747-012 | | 09/15/06 | | | | | | |
| | | 09/15/06 | | | | | | | | |
| | | | 5696353055 | H2S | 140% | Good | Passed | 9/14/06 | 4 | 418 |
| | | | | | | | | | | |
| | | | 7927911066 | CO | 189% | Good | Passed | 9/14/06 | 4 | 88 |
| | | | | | | | | | | |
| | | | 5795006055 | SO2 | 150% | Good | Passed | 9/14/06 | 4 | 419 |
| | | | | | | | | | | |
| | | | 39046407046 | O2 | 154% | Good | Passed | 9/14/06 | 4 | 91 |
| | | | | | | | | | | |
| | | | 0604668044 | LEL | 132% | Good | Passed | 9/14/06 | 4 | - |
| | | | | | | | | | | |

| Contact Us | | | | | | | | | |
|------------|----------------------------------------------------------------|--|--|--|--|--|--|--|--|
| Phone: | 1-800-DETECTS(338-3287) | | | | | | | | |
| Fax: | (412)788-8353 | | | | | | | | |
| Email: | inetadmin@indsci.com | | | | | | | | |
| | www.indsci.com | | | | | | | | |

Muestra de Reporte de Resumen de Exposición de Instrumentos



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iNet
Instrument Exposure Summary Report

ITX test
123456
Report Generated
Service: Exchange Aug 3, 2007 - Aug 10, 2007 8/10/07 3:15 PM GMT-04:00

| Sensor | Time | User | Location | Status | Units | Peak Reading | Average Reading | Duration (Sec) | Low Alarm | STEL Alarm | TWA Alarm |
|-----------------------------------|-----------------|------|----------|---------------|-------|--------------|-----------------|----------------|-----------|------------|-----------|
| Instrument 05MGX01-043 MX6 | | | | | | | | | | | |
| O2 | 3 alarms | | | | | | | | | | |
| | 8/3/07 11:24 AM | DAN | CUBE 3 | Read for CH4 | %vol | 0 | 0 | 342 | 19.5 | - | - |
| | 8/3/07 11:32 AM | DAN | CUBE 3 | Read for CH4 | %vol | 0 | 0 | 96 | 19.5 | - | - |
| | 8/3/07 11:37 AM | DAN | CUBE 3 | Read for CH4 | %vol | 0 | 0 | 138 | 19.5 | - | - |
| Instrument 05MGX01-047 MX6 | | | | | | | | | | | |
| C5H12 | 9 alarms | | | | | | | | | | |
| | 8/3/07 2:59 PM | | | Ready at Hood | %lel | 23 | 18.2 | 10 | 10 | - | - |
| | 8/3/07 3:10 PM | | | Ready at Hood | %lel | 18 | 15 | 6 | 10 | - | - |
| | 8/3/07 3:22 PM | | | Ready at Hood | %lel | 25 | 21.7 | 12 | 10 | - | - |
| | 8/3/07 3:25 PM | | | Ready at Hood | %lel | 22 | 16.5 | 8 | 10 | - | - |
| | 8/3/07 3:29 PM | | | Ready at Hood | %lel | 25 | 20.2 | 10 | 10 | - | - |
| | 8/3/07 3:32 PM | | | Ready at Hood | %lel | 23 | 18.5 | 26 | 10 | - | - |
| | 8/3/07 3:34 PM | | | Ready at Hood | %lel | 22 | 17 | 8 | 10 | - | - |
| | 8/3/07 3:37 PM | | | Ready at Hood | %lel | 23 | 17.3 | 8 | 10 | - | - |
| | 8/3/07 3:57 PM | | | Ready at Hood | %lel | 25 | 21.5 | 12 | 10 | - | - |
| CO | 11 alarms | | | | | | | | | | |
| | 8/3/07 2:59 PM | | | Ready at Hood | ppm | 99 | 68.7 | 14 | 35 | 400 | 35 |
| | 8/3/07 3:10 PM | | | Ready at Hood | ppm | 87 | 63.3 | 8 | 35 | 400 | 35 |
| | 8/3/07 3:18 PM | | | Ready at Hood | ppm | 96 | 80 | 16 | 35 | 400 | 35 |
| | 8/3/07 3:22 PM | | | Ready at Hood | ppm | 102 | 79.4 | 16 | 35 | 400 | 35 |

Contact Us

Phone: 1-800-DETECTS(338-3287)

Fax: (412)788-8353
Email: iNetadmin@indsci.com
URL: <http://www.indsci.com>

Muestra Reporte de Avisos



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iNet
Warning Report

Sample Report

Service: Exchange 0550007A September 18, 2006 6:50:40 PM
EDT

Instrument Warnings

Instruments that have not been calibrated in over 60 days

| S/N | Type | Location | Status | Last Calibration |
|------------|------|-------------------|--------|------------------|
| 0000000000 | ITX | Main Control Room | | 03/16/06 10:35AM |

Instruments that have not been calibrated in over 31 days (account preference)

| S/N | Type | Location | Status | Last Calibration |
|------------|------|--------------------|-----------|------------------|
| 0501027150 | ITX | Compressor Station | King INET | 08/15/06 02:05AM |
| 0000000000 | ITX | Main Control Room | | |

Instruments that have not been Bump-tested in over 7 days

| S/N | Type | Location | Status | Last Bump |
|------------|------|--------------------|------------|------------------|
| 0501027156 | ITX | Chlorine Plant | Spare INET | 08/25/06 02:05AM |
| 0501027150 | ITX | Compressor Station | King INET | 08/31/06 10:38AM |
| 0000000000 | ITX | Main Control Room | | 03/16/06 10:09AM |

Docking Station Warnings

Docking Stations that have not uploaded in over 25 hours

| S/N | Type | Location | Last Upload |
|-------------|------|----------------------|------------------|
| 0404747-009 | ITX | Artesia Fire Station | 07/17/06 03:00AM |

Docking Stations that have not performed self-diagnostics in over 25 hours

| S/N | Type | Location | Last Diagnostics |
|-------------|------|----------------------|------------------|
| 0404747-009 | ITX | Artesia Fire Station | 07/17/06 03:05AM |

Contact us

Phone: 1-800-DETECTS(338-3287)
Fax: (412)788-8353
Email: inetinfo@indsci.com
www.indsci.com

Muestra Reporte de Alarmas



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iNet
Instrument Alarm Summary Report

jpearshall
60010
Mar 1, 2007 - Mar 7, 2008
Last Upload: 3/7/08 12:26 AM GMT-05:00

Report Generated: 3/7/08 1:45 PM GMT-05:00

*Any instruments that do not have Datalogging enabled have not been included in this report.
Any instruments that have not been docked during the report period have not been included in this report.*

| Sensor | Time | User | Location | Status | Units | Peak Reading | Average Reading | Duration (Sec) | Alarm Types | Alarm Settings |
|-----------------------------------|------------------|------|----------|--------|-------|--------------|-----------------|----------------|---------------|----------------|
| Instrument 05MGX01-085 MX6 | | | | | | | | | | |
| CO | 42 alarms | | | | ppm | 69 | 52.5 | 10 | Low | 35 |
| | 1/11/08 8:39 AM | | | | ppm | 92 | 89.3 | 30 | High | 70 |
| | 1/11/08 8:40 AM | | | | ppm | 78 | 75 | 15 | High,TWA | 70,1 |
| | 1/11/08 8:40 AM | | | | ppm | 94 | 85.6 | 25 | High,TWA,STEL | 70,1,5 |
| | 1/11/08 8:40 AM | | | | ppm | 63 | 49.5 | 30 | Low,TWA,STEL | 35,1,5 |
| | 1/11/08 8:41 AM | | | | ppm | 24 | 2 | 255 | TWA,STEL | 1,5 |
| | 1/11/08 9:27 AM | | | | ppm | 43 | 43 | 5 | Low | 35 |
| | 1/11/08 9:27 AM | | | | ppm | 92 | 85.7 | 30 | High | 70 |
| | 1/11/08 9:27 AM | | | | ppm | 67 | 53.5 | 10 | Low | 35 |
| | 1/11/08 10:56 AM | | | | ppm | 49 | 49 | 5 | Low | 35 |
| | 1/11/08 10:56 AM | | | | ppm | 91 | 86 | 35 | High | 70 |
| | 1/11/08 10:56 AM | | | | ppm | 73 | 73 | 5 | High,TWA | 70,1 |
| | 1/11/08 10:56 AM | | | | ppm | 64 | 60 | 10 | Low,TWA | 35,1 |
| | 1/11/08 10:57 AM | | | | ppm | 50 | 43 | 20 | Low,TWA,STEL | 35,1,5 |
| | 1/11/08 10:57 AM | | | | ppm | 34 | 24 | 75 | TWA,STEL | 1,5 |
| | 1/11/08 10:59 AM | | | | ppm | -2 | -11.4 | 370 | TWA | 1 |
| | 1/11/08 11:18 AM | | | | ppm | 43 | 43 | 5 | Low | 35 |
| | 1/11/08 11:18 AM | | | | ppm | 82 | 76 | 10 | High | 70 |
| | 1/11/08 11:19 AM | | | | ppm | 56 | 56 | 5 | Low | 35 |
| | 1/18/08 9:37 AM | | | | ppm | 68 | 57.3 | 6 | Low | 35 |
| | 1/18/08 9:37 AM | | | | ppm | 89 | 82.6 | 14 | High | 70 |
| | 1/18/08 9:37 AM | | | | ppm | 57 | 46 | 6 | Low | 35 |
| | 1/18/08 9:39 AM | | | | ppm | 67 | 51.8 | 6 | Low | 35 |
| | 1/18/08 9:39 AM | | | | ppm | 90 | 83 | 23 | High | 70 |
| | 1/18/08 9:39 AM | | | | ppm | 69 | 51.1 | 7 | Low | 35 |
| | 1/18/08 9:40 AM | | | | ppm | 67 | 52.5 | 6 | Low | 35 |
| | 1/18/08 9:40 AM | | | | ppm | 80 | 76 | 3 | High | 70 |
| | 1/18/08 9:40 AM | | | | ppm | 92 | 89.1 | 10 | High,TWA | 70,1 |
| | 1/18/08 9:40 AM | | | | ppm | 91 | 81.5 | 13 | High,TWA,STEL | 70,1,5 |
| | 1/18/08 9:40 AM | | | | ppm | 67 | 58.2 | 18 | Low,TWA,STEL | 35,1,5 |
| | 1/18/08 9:40 AM | | | | ppm | 92 | 84.1 | 16 | High,TWA,STEL | 70,1,5 |
| | 1/18/08 9:41 AM | | | | ppm | 66 | 50.2 | 5 | Low,TWA,STEL | 35,1,5 |
| | 1/18/08 9:41 AM | | | | ppm | 33 | 5.8 | 221 | TWA,STEL | 1,5 |
| | 1/18/08 9:44 AM | | | | ppm | 66 | 53.4 | 5 | Low,TWA,STEL | 35,1,5 |
| | 1/18/08 9:45 AM | | | | ppm | 73 | 72 | 3 | High,TWA,STEL | 70,1,5 |
| | 1/18/08 9:45 AM | | | | ppm | 69 | 52.2 | 6 | Low,TWA,STEL | 35,1,5 |
| | 1/18/08 9:45 AM | | | | ppm | 32 | 20.8 | 9 | TWA,STEL | 1,5 |
| | 1/18/08 9:47 AM | | | | ppm | 29 | 1.8 | 46 | TWA | 1 |
| | 1/18/08 9:47 AM | | | | ppm | 69 | 53.6 | 8 | Low,TWA | 35,1 |
| | 1/18/08 9:48 AM | | | | ppm | 88 | 83.4 | 38 | High,TWA | 70,1 |
| | 1/18/08 9:48 AM | | | | ppm | 62 | 47.4 | 5 | Low,TWA | 35,1 |
| | 1/18/08 9:48 AM | | | | ppm | 30 | 2.7 | 139 | TWA | 1 |
| O2 | 3 alarms | | | | %vol | 19.1 | 19.2 | 30 | Low | 19.5 |
| | 1/11/08 9:27 AM | | | | %vol | 19.1 | 19.2 | 35 | Low | 19.5 |
| | 1/11/08 10:56 AM | | | | %vol | 19.4 | 19.4 | 5 | Low | 19.5 |

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