

## HEATH PIPELINE SERVICES PTY LTD

## ADVANCED LEAK DETECTION PROGRAM INFRARED EQUIPMENT SELECTION 2016













# A New Look In Leak Survey



The **HEATH** Detecto Pak-Infrared (DP-IR™) is a highly advanced technology capable of detecting methane without false alarming on other gases. The DP-IR is the latest of a new generation of leak survey instruments from **HEATH** that will greatly improve the productivity and safety of a walking/mobile survey.

The DP-IR functions by using an infrared optical gas detection system. This instrument is intended to replace the current surveying equipment using the traditional Flame lonization with next generation technology utilizing a simple light beam, eliminating the need for expensive gas cylinders and refill systems. It is designed to be selective to detecting methane only, and will not false alarm on other hydrocarbon gases.









#### DP-IR Kit includes: Carrying case, battery charger, shoulder strap, survey probe, bar hole probe, dust filters, water filter and CD manual.

Detection Method:	Infrared Controlled Interference Polarization Spectrometer							
Measurement Range:	0 to 10,000 PPM 0 to 100% Gas							
Display Range:	Auto Ranging:       Manual Ranging:         PPM: 0-10,000       PPM scale: 0-10,000         %Gas: 1-100%       %Gas scale: 0-100%							
Sensitivity:	0-1000 PPM: 1 PPM 1000-10,000 PPM: 5 PPM 1-100%Gas: 0.5%							
Accuracy:	Greater of +/5% or +/-10% of reading (typical, std condition) (%gas on manual mode							
Detection Alarms Modes:	Digital Methane Detection (DMD): Audible tone when detection threshold exceeded. Adjustable Alarm Level from 1 to 9,000 PPM Tick: Continuous audio tone relative to concentration							
System Fault Warning:	Audible tone and indication on the display							
Self Test & Calibration:	Built in Self Test and Calibration function verifies operation and adjusts calibration for maximum sensitivity. Test gas cell integrated within the instrument.							
Compliance:	EN 61326-1 Conducted Emissions Class B EN 61326-1 Radiated Emissions Class B EN 61000-4-2 4kV/8kV ANSI C63.4 Class B EN 61000-4-3 3 V/M FCC 47 CFR Part 15 Class B							
Dust Filter:	Replaceable filter provides dust protection. Easy change out quick disconnect filter cap.							
Display:	Large easy to read backlit LCD (.75" Numeric)							
Operating Temperature:	0 to + 122 F (-17 to 50 C) (nominal battery voltage)							
Humidity:	5 to 95% RH, non-condensing							
Enclosure:	IP54 (Water splash and Dust resistant)							
Instrument Weight:	5.6 lbs.							
Carry Case:	13 lbs empty; 21lbs filled 24.5" x 21" x 9"							
Power Supply:	Internal rechargeable Li-ion battery or External 12vdc car battery with power conditioner							
Battery Operating Life:	8 hours at 32° F with out backlight on							
Battery Charger:	External, in-line, 110 - 240 VAC, 50 / 60 hertz. 10 hours to 90% charge							
Shoulder Strap:	Single over the shoulder padded strap							
Alarm Volume:	108 dBs @ Alarm port (A-fast)							
Survey Probe:	Quick connect fitting with locking clasp. Adjustable length from 25" to 41"							
Bar hole Probe:	Std: 20"; Optional 36"							
Intrinsic Safety:	Class I Division I Group D T3 UL 913 MetLab #E112840							



## **TECHNICAL SPECIFICATIONS**

**Detection Method:** Tunable Diode Laser Absorption

Spectroscopy (TDLAS)

**Measurement Range:** 0 to 99,999 ppm-m

**Sensitivity:** 5 ppm-m at distance from 0 to 50 ft (15 m)

10 ppm-m or better at distance from

50 to 100 ft (15 to 30 m)

**Detection Distance**: 100 ft (30 m) nominal. Actual distance may vary

due to background type and conditions.

Beam Size: Conical in shape with a 22" width at 100 ft (56 cm at 30 m)

**Detection Alarms Modes:**Digital Methane Detection (DMD): Audible tone relative to concentration when detection threshold exceeded.

Adjustable Alarm Level from 0 to 255 ppm-m

Pure Tone: Continuous audio tone relative to concentration

**System Fault Warning:** Unique audible tone and indication on the display

Self Test & Calibration: Built-in Self Test and Calibration function verifies operation and

adjusts laser wavelength for maximum sensitivity. Test gas cell

integrated within carrying case.

**Compliance:** EMC (EN61000-6-2, EN6100-6-4)

Laser Eye Safety: IR Detector Laser: Class I

(CDRH, ANSI and IEC) Green Spotter Laser: Class IIIa; Do not stare

into beam or view directly with optical instruments.

**Display:** Large easy to read backlit LCD (.75" Numeric)

Operating Temperature: 0° to + 122° F (-17° to 50° C)

Humidity: 5 to 95% RH, non-condensing

**Enclosure:** IP54 (Water splash and Dust resistant)

**Instrument Weight:** 9 lbs (Transceiver 3 lbs,

Controller 6 lbs) (4 kg;

1.3 kg, 2.7 kg)

**Carry Case:** 14 lbs; 34" x 9 ½" x 14"

(6.4 kg; 86 cm x 24 cm

x 36 cm)

Power Supply: Internal rechargeable

Li ion battery pack, 7.2

External backup battery optional

Battery Operating Life: 8 hours at 32° F without back-

light on (Internal battery)

Battery Charging: External, in-line, 110 - 240

Vac, 50 / 60 hertz international, 2 cell charger

Charging Indicator: Integrated into charger

Charge Time, Maximum: 8 hours

**Shoulder Strap:** Single over the shoulder

padded strap with

Ergonomic dual strap and

belt system



## RMLD-IS TECHNICAL SPECIFICATIONS

Intrinsic

Safety:

Class I Division I Group D T4 UL 913 MetLab #E112840 MET

Power Supply: IS, internal, rechargeable,

Li ion battery pack, 11.1 Vdc.

Battery

Charging: External, in-line, 110-240 Vac,

50 / 60 hertz, international,

18 Vdc power supply.

Charging Indicator:

Integrated into controller panel.

**Charge Time** 

Maximum: 8 hours

Instrument

Weight: 10 lbs (Transceiver 3 lbs,

Controller 7 lbs) (4.5 kg, 1.3 kg, 3.2 kg).







## Faster...Safer...Reliable...Efficient



#### **Revolutionary Technology**

The portable, reliable
Remote Methane Leak
Detector (RMLD<sup>TM</sup>) changed
the way methane surveys are
conducted.

Instead of having to walk the entire length of the service line to check for methane leaks... the RMLD quickly and efficiently detects leaks up to one hundred feet away allowing remote detection of hard-to-reach areas and difficult terrains. Remote detection allows the user to safely survey difficult to reach areas, such as busy roadways, yards with large dogs, locked gates, compressor stations, offshore platforms and other hard to access places.

For utilities and their employees, this time-

saving method represents the potential for significant productivity gains, reduced operations and maintenance costs, and a safer survey.

#### **Tunable Diode Laser Absorption Spectroscopy**

Available gas detectors that deploy technologies such as flame ionization must be positioned within the leak plume to detect the presence of methane. The RMLD does not have to be within the gas plume because it uses laser technology known as Tunable Diode Laser Absorption Spectroscopy. When the laser passes through a gas plume, the methane absorbs a portion of the light, which the RMLD then detects. This quantum leap in technology makes it possible to detect methane leaks along the sight line without always having to walk the full length of the service line.

#### **Components**

The Remote Methane Leak Detector consists of two interactive components; a transceiver subsystem and a signal processing/ user interface controller. The transceiver has two lasers: an infrared laser beam that is non-visible and is continuously on while the unit is turned on. The green spotter laser is similar to those used for presentation pointers and is turned on by the operator depressing the trigger button.

#### **How Does It Work?**

When the infrared laser beam is transmitted from the launch port some of the laser light is reflected by a normal background such as brick, concrete, grass, etc., to the detector. This reflected light is collected and converted to an electrical signal that carries the information needed to deduce the relative methane concentration. This





## EyeCGas™

The only Infrared gas imaging camera certified and classified for Hazardous Locations:
ATEX, UL, ANSI & CSA







#### Opgal's EyeCGas camera is certified to the following standards

- **UL1604** Electrical Equipment for Use in Class I and II, Division 2, and Class III (Classified) Locations. Third edition.
- CSA C22.2 No. 213-M1987 Non-Incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations. First edition.
- ANSI/ISA-12.12.01 Non-incendive Electrical Equipment for Use in Class I and II, Division 2, and Class III Hazardous (Classified) Locations. 2011 edition.
- ATEX II 3G Ex nL IIC T6 -

EN600079-0 Electrical apparatus for explosive gas atmospheres - Part 0: General requirements. EN60079-15 Electrical apparatus for explosive gas atmospheres - Part 15: Construction, test and marketing of type protection "n" electrical apparatus.

Utilizing certified equipment for use in hazardous location allows a higher level of safety and operability confidence. It increases operators efficiency as it eliminates the need for getting a "hot permit" before entering the inspection area.

#### What is a hazardous location?

The hazardous location classification system was designed to promote the safe use of electrical equipment in environments where fire or explosion hazards may exist due to the presence of ignitable concentrations of flammable gases or vapors. These locations are grouped according to the characteristics of the hazard that may exist and the likelihood of their existence.

Areas are classified according to the likelihood that they will produce a combustion hazard for the electronic device. In a hazardous area each apparatus must possess the appropriate approvals for safe

operation in that area (i.e. to ensure that it does not become a source of ignition). Various methods of protection are used to meet this need.

In the gas detection applications, hazardous areas are generally defined by a few factors: the type of gas that may be present, and the degree of probability that it will be present at any given instant.

Hazardous areas and certification standards are defined differently in various countries, this document will explain the ones that are relevant for the EyeCGas camera.





EyeCGas is certified for Class I Division 2, Groups A-D, T6

#### According to UL1604, CSA C22.2 No. 213-M1987 and ANSI/ISA-12.12.01

The NEC and CSA define hazardous locations by class and division

There are three classes:

- Class 1 Locations are made hazardous by the presence of flammable gases, liquids or vapors.
- Class 2 Locations are described as hazardous because of the presence of combustible dusts.
- Class 3 Locations contain easily ignitable fibers or flyings.

Division refers to the likelihood that ignitable concentrations of flammable materials are present.

- Division 1 Designates an environment where ignitable concentrations of flammable gases, liquids, vapors or dusts can exist some of the time or all of the time under normal operating conditions or where easily ignitable fibers and flyings are manufactured, handled or used.
- Divison 2 Locations are areas where ignitable concentrations are not likely to exist under normal operating conditions or where Class 3 materials are stored or handled.

Hazardous classes are further defined by groups. Combustible materials are grouped by their relevant physical properties.

These groups include (but are not limited to):

Group A Acetylene Hydrogen

Group B

Group C Ethylene, carbon monoxide

Group D Propane, gasoline, naphtha, benzene, butane, ethyl alcohol, acetone, methane

Group E Metals including aluminum, magnesium (Div 1 only) Carbonaceous dusts including coal, carbon black, coke Group F

Dusts not included in E and F including wood, plastics, flour, starch or grain dusts Group G

EyeC	as Certifi	cation:		Class I Division 2, Groups A-D, T6
Class I	Division 2	Groups A-D	<b>T</b> 6	
			<b>т</b> 6	Maximum Surface Temperature Of Electrical Apparatus = 85°C Ignition Temperature Of Gas Or Vapor > 85°C T6 marked equipment can be used in T5 – T1
			Group A-D	Typical gases for the different groups are: Group A Acetylene Group B Hydrogen Group C Ethylene, carbon monoxide Group D Propane, gasoline, naphtha, benzene, butane, ethyl alcohol, acetone, methane
			Division 2	Where ignitable concentrations of flammable gases, vapors or liquids are not likely to exist under normal operating conditions
			Class I	Flammable Gases, Vapors Or Liquids

## For Europe

EyeCGas is certified for Ex II 3G EX nL IIC T6

#### According to ATEX ratings for use in potentially explosive atmospheres:

**EN60079-15:2009:** Electrical apparatus for explosive gas atmosphere – Part 0: General Requirements **EN60079-15:2005:** Electrical apparatus for explosive gas atmosphere – Part 15: Construction, test and marking of type of protection "n" electrical apparatus

Marking element	Examples of possible values					
Equipment Group	I Mines II Above ground					
Equipment Category	<ul> <li>Gas, Vapor, Mist, Dust – Two Faults</li> <li>Gas, Vapor, Mist, Dust – one Faults</li> <li>Gas, Vapor, Mist, Dust – Normal Operation</li> </ul>					
EX	Explosion protection					
Protection concept	nc Hermetic sealing, keep flammable gas out ia Intrinsically safe, limit energy of sparks & temp pz Pressurized, keep flammable gas out nL Energy limited nC Flame proof, contain the explosion					
Gas Group	Gases are grouped based on MESG - Maximum Experimental Safe Gap (IEC 60079-1A) and the MIC - Minimum Ignition Current (IEC 60079-3)  II Gas/Vapor (broken in IIA, IIB, IIC)  III Dust ( broken in IIA, IIB, IIC)					
Temperature Classification	The equipment Maximum surface Temp. (T6 is the most stringent, as T6 covers T1-T5) T1 - $450^\circ$ , T2 - $300^\circ$ , T3 - $200^\circ$ , T4 - $135^\circ$ , T5 - $100^\circ$ , T6 - $85^\circ$					

Eye	EyeCGas Certification:							Ex II 3G EX nL IIC T6
	3	G	EX	nL	IIC	<i>T</i> 6		
					ľ		<b>T</b> 6	Device surface temperature will not exceed 85° T6 marked equipment can be used in T5 – T1 (100° - 450°)
							IIC	Protected for gases of Gas group IIC that includes groups IIA & IIB Typical gases for the different groups are: II A Acetic Acid, Acetone, Ammonia, Butane, Ethanol, Kerosene, Methane (Natural Gas), Methanol, Propane, Iso-propyl alcohol, Toulene, Xylene II B Ethylene, MEK, n-propyl alcohol, THF II C Acetylene, Hydrogen
							nL	Type of protection code 'nL' energy limited
							EX	Explosion-protected equipment, certified to European ATEX
							G	Gas
							3	Normal protection Category 2 (non-mining) for Zone 2 (normal protection)
							11	Group II "other" environments (chemical industries, refineries, etc.)



## HEATH PIPELINE SERVICES PTY LTD

## **CAPABILITIES STATEMENT & EQUIPMENT HIRE** 2016













## HEATH PIPELINE SERVICES



#### **EXCLUSIVE PRODUCTS & KEY SERVICES**

Heath Pipeline Services Pty Ltd (previously known as Heath Consultants) has served gas and oil providers located in Australia, New Zealand and Papua New Guinea, for more than 40 years. Today we focus our offering across three core pillars ...

#### **EQUIPMENT- HIRE, LEASE, PURCHASE**

We are proud to be the distributor of choice for world leading brands, delivering increased accuracy, safety and productivity to our clients.

Our clients can HIRE items from a fleet of specialist gas leak detection equipment. (See page 5 & 6 for more information.)

Our clients can LEASE or **PURCHASE** equipment from us. We offer competitive prices, calculated daily. We frequently source items from overseas and manage all aspects of the supply chain. This may include negotiation of design specifications or even the development of prototypes.

#### **SERVICES**

We provide in-field and corporate consultancy services. Operating under a sustainability framework, designed to map to client requirements, we provide the below services:

- Calibration and repair of GMI and Heath gas leak detectors
- F-class testing
- Fugitive emissions detection
- Gas leak surveys Above and below ground pipelines (associated infrastructure), well heads, gathering systems, and compounds i.e. compression and sales stations
- Hot tapping & line stopping
- Right of Way survey (ROW)
- Valve servicing

#### **TRAINING**

Our qualified trainers deliver bespoke courses and we host international trainers for specialist 'schools'.

We partner with SIMTARS training, research and testing (Department of Natural Resources and Mines) and recommend their industry courses to our clients. When we sell equipment, we often include SIMTARS training as standard. ensuring that our clients receive recognised training solutions for the best possible results in the

Any training that we provide or recommend focuses on manufacturer guidelines, industry standards and overarching legislation, for accurate, productive and safe use.











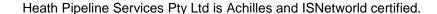


## DISTRIBUTOR OF CHOICE

Heath Pipeline Services Pty Ltd is the distributor of choice for market leading products, sourced internationally, including:

- Gas leak detectors (GMI, Heath)
- Fugitive emissions sampling equipment (Heath)
- Fugitive emission detection cameras (Opgal)
- Hot tapping machines and fittings (Ravetti, Tecpesa)
- Intelligent pigging solutions
- Pipe locators (Goldak, Heath)
- Valve servicing pumps, lubricants and fittings (Sealweld)

## A QUALITY PROVIDER







## EQUIPMENT - HIRE OR LEASE



#### HIRE EQUIPMENT

We offer short term HIRE of specialist equipment, to account holders, at competitive rates, including:

- Gas leak detectors (GMI, Heath)
- RMLD Remote methane leak detector (Heath)
- Hi-Flow Sampler Fugitive emissions detector (Heath)
- Hot tapping machines (Ravetti)
- EyeCGas Fugitive emissions camera (Opgal)
- Pipe locators (Goldak, Heath)
- Active-8 pump (Sealweld)
- Mongoose pump (Sealweld)

#### LEASE EQUIPMENT

We offer 36 month LEASES across a broad range of equipment with financing sourced from recognised providers.

We seek to offer complete leasing solutions for clients that need to leverage OPEX budgets (rather than CAPEX), incorporating recognised training and maintenance solutions.

TO REVIEW OUR CURRENT HIRE EQUIPMENT SELECTION PLEASE SEE PAGE 5 & 6.

## FIELD SERVICES (AUSTRALIA WIDE)

#### HOT TAPPING AND LINE STOPPING, VALVE SERVICING

Heath Pipeline Services Pty Ltd offers field services in accordance with client requirements, manufacturers guidelines and any relevant legislation and codes of practice. We develop *Standard Operating Procedures* (SOP's) in partnership with our clients, customised to the requirements of the specific project.

When performing hot tapping, line stopping or valve servicing an experienced one, two or three man team, will achieve the best results using specialised equipment, leveraging training received from our suppliers located in Europe and the USA.

Our consultants provide accurate, productive and safe services for our clients. We utilise equipment from the below suppliers.

- Gas leak detectors (GMI, Heath)
- Fugitive emissions sampling equipment (Heath)
- Fugitive emission detection cameras (Opgal)
- Hot tapping machines and fittings (Ravetti, Tecpesa)
- Pipe locators (Goldak, Heath)
- Valve servicing pumps (Sealweld)
- Proprietary software

#### **CALIBRATION AND REPAIR SERVICES**

Within Australia, we are the authorised service and repair agent for GMI and Heath gas leak detection equipment. We have negotiated extended service agreements with agents located in Queensland, Victoria and South Australia to ensure our clients can access standard or NATA certified calibrations on guaranteed turnaround times. We can also assist clients with in-house bumping and calibration requirements.

Wherever required we diagnose faults, arrange repairs and facilitate any warranty claims.

#### FREE HEALTH CHECKS

At our Queensland facility, we provide HEALTH CHECKS for any GMI or Heath gas detector at NO CHARGE. This is a completely free service designed to enhance safety in the field through improved equipment maintenance. Our eight point HEALTH CHECK verifies the condition of your gas detector including: calibration validity, filter condition, battery condition, flow leak check, range change check, specific fault diagnosis, age of your device and external instrument condition.

### GAS LEAK DETECTION SURVEYS

#### ABOVE AND BELOW GROUND PIPELINES (ASSOCIATED INFRASTRUCTURE), WELL HEADS, GATHERING SYSTEMS, AND COMPOUNDS I.E. COMPRESSION AND **SALES STATIONS**

Heath Pipeline Services Ptv Ltd performs GAS LEAK SURVEYS in accordance with Australian standards. relevant legislation and codes of practice. We have developed Standard Operating Procedures (SOP's) that clearly describe the services we provide. However we do adapt our procedures to meet client requirements, where full consultation and planning has taken place. Typically we survey above and below ground pipelines (associated infrastructure), well heads, gathering systems, and compounds i.e. compression and sales stations.

When performing a survey an experienced one, two or three man team, will survey facilities/infrastructure as described by SOP's and client directions. Upon completion of a survey we produce a final report, ordinarily covering:

- Summary of results
- Instrument calibration details
- Safety vehicle details
- Survey procedures
- Daily reports
- Report data
- Scope and coverage
- Classified leak lists
- Reports for facilities, including GPS coordinates
- Other information as may be requested by our client (this may include photos and videos)

Our consultants are highly trained and utilise industry leading, INTRINSCIALLY SAFE equipment, achieving accurate, productive and safe surveys for our clients. The types of equipment available for surveys include:

- Gas leak detectors (GMI, Heath)
- Fugitive emissions sampling equipment (Heath)
- Fugitive emission detection cameras (Opgal)
- Pipe locators (Goldak, Heath)
- Proprietary software

When performing a GAS LEAK AUDIT an additional consultant attends for the duration of a gas leak survey and performs consistent pipe location, using a pipe locator as an alternative to following ROW (Right of way signage) for the location of any pipes.

A RIGHT OF WAY (ROW) SURVEY can be completed at the same time as a gas leak survey or gas leak audit. As a complementary service our consultant will compile a comprehensive report related to the condition of your right of way. Right of Way Survey report includes GPS references (photos and videos where requested) to aid with completing rectification works.

Heath Pipeline Services Pty Ltd is Achilles and ISNetworld certified.

### KEY CONTACTS

- GENERAL MANGER, Jay Giemzo
- OPERATIONS MANAGER, Rachel Webb
- SUSTAINABILITY MANAGER. Sheril-lee Field
- FIELD SERVICES MANAGER, Andrew Steele
- TRAINING MANAGER, Mark Lumley









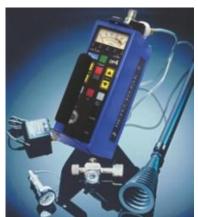






## INDUSTRY LEADING EQUIPMENT FOR HIRE

Heath Pipeline Services is a distributor of choice for world leading brands. We offer a selection of specialist equipment for short or medium term hire. In many cases this equipment is not available for hire through any other Australian provider.



HEATH DP4
FLAME IONISATION DETECTOR



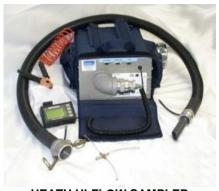
HEATH RMLD REMOTE METHANE LEAK DETECTOR



Pipeline

Services Ptv Lto

**HEATH DPIR**INFRARED DETECTOR



**HEATH HI-FLOW SAMPLER** FUGITIVE EMISSIONS SAMPLER



GMI LEAKSURVEYOR FAST RESPONSE, PPM, %LEL & VOL



GMI 512 CONFINED SPACE, PPM, %LEL &VOL



GMI GASURVEYOR 3-500R %LEL & VOL GAS/AIR PURGE



GMI GASURVEYOR PPM 500 FAST RESPONSE PPM, %LEL & VOL



GMI PS200 CONFINED SPACE, 4 GASES PUMPED PERSONAL DETECTOR

#### **CONTACT US FOR A QUOTE TO HIRE EQUIPMENT**

Contact us to receive a quote for equipment hire. In many cases we provide free training and generous rebates are available for customers who decide to purchase equipment upon completion of a hire contract.

## INDUSTRY LEADING EQUIPMENT FOR HI



**EYECGAS** FUGITIVE EMISSIONS CAMERA



**CRYSTAL PRESSURE GAUGES** 70 BAR XP2i



Pipeline

Services Ptv Lto

**HEATH SURELOCK** PIPE LOCATOR



**RAVETTI ART 325** 1 - 6 HOT TAPPING/DRILLING MACHINE



**RAVETTI 530** 1 – 6" HOT TAPPING/DRILLING **MACHINE** 



**SEALWELD ACTIV-8** PNEUMATIC/HYDRAULIC PUMP 10,000 PSI

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