



**fireforensics**  
SOLVING THE PUZZLE OF FIRE

# Fire Forensics Capability Statement

**We at Fire Forensics are leading experts in fire and explosion investigation in Australia and abroad and have offered our clients thorough and impartial fire investigation services for over 40 years.**

Our team of qualified and experienced specialists solve the puzzle of fire; how it started, how it progressed and how future fires can be prevented, based on science and accurately gathering and investigating evidence. Our professional and prompt system of investigation and reporting sets us apart in the industry, and we take pride in our exemplary standards of client services and scientific techniques. Working thoroughly, lawfully and professionally, we are committed to solving the puzzle of fire for our clients with the highest levels of personal, legal and corporate integrity.

Our findings cover the origin, cause, development, spread and circumstances of an incident, together with expert opinions on individual or corporate responsibility, legal liability, compliance with legislation and standards, and many other factors required by our clients.

**WE ARE SKILLED IN THE EXAMINATION AND INTERPRETATION OF FIRE DAMAGE TO:**

- Structures of all kinds, from garden sheds to large industrial complexes
- Road, rail and marine passenger and commercial transport, from motorcycles to container ships
- Static and mobile plants, including mining and civil engineering and farming equipment and machinery

Our philosophy is that no job is too big or small for us to handle, and our comprehensive reporting is easy to understand for the ease of our wide range of clients, including major insurers, national and international legal firms, and global companies in mining and other industrial sectors. Our services are globally renowned, and we have investigated incidents and given expert evidence in numerous locations throughout Australasia, South East Asia and Africa.

All of our investigations, both preliminary and in-depth, are conducted by internationally certified professionals. Where necessary, our team is supported by carefully selected external specialists in fire risk analysis and audits, chemical analysis, including ignitable liquid identification, electrical engineering, metallurgy and wildfire behaviour. Our teams' expertise is also sought by universities to train the next generation of fire investigators.

Please contact us at [office@fireforensics.com.au](mailto:office@fireforensics.com.au) or go to [www.fireforensics.com.au](http://www.fireforensics.com.au) for more information on our services.



# Personnel introductions

## **BELINDA JANE (BJ) JONES | MANAGING DIRECTOR / SENIOR INVESTIGATOR**

BA, BSc, MSc, Grad Dip FI, IAAI-CFI

**BJ is a triple Graduate in Law & Administration (Canberra), Applied Chemistry with Honours (UTS), and Psychological Science (UNSW). She has a Masters Degree in Forensic Science, with a thesis relating to fire investigation, and a Graduate Diploma of Fire Investigation from Charles Sturt University. She has also studied with Gardiner Associates in the UK, completing the Joint Services foundation and practical courses and the Advanced Fire and Explosion course presented by Dr John DeHaan. She has completed a Certificate III in electronics to assist in the identification of electrical fire causes in ITC equipment. She also has a Post-Graduate Certificate in Antarctic Studies, awarded for a study of forensic science requirements in a polar setting.**

BJ worked as a civilian crime scene examiner with the NSW Police Force and is skilled in physical evidence recovery techniques. She then worked as a fire investigator for a major Australian insurance group prior to joining JW Munday & Associates in 2010. She has investigated over 500 fires and explosions in a wide variety of structures, vehicles, machinery and equipment and has given expert evidence in NSW and Tasmanian courts.

BJ is an active member of several professional organisations including the IAAI, where she is a member of the Ethical Practices and Grievances Committee and is the CFI program manager for the NSW Association of Fire Investigators.



## **JAMES (JIM) MUNDAY | FOUNDER / SENIOR INVESTIGATOR**

MIFireE, FSSDip, IAAI-CFI, FCSFS

**Jim is a forensic chemist, a Member of the Institution of Fire Engineers and holds the Forensic Science Society Diploma in Fire Investigation, accredited as a Post-Graduate Diploma by the University of Strathclyde. He is also a Certified Fire Investigator under the International Association of Arson Investigators scheme and in 2007 was elected a Fellow of the Forensic Science Society, now the Chartered Society of Forensic Sciences, in recognition of significant contributions to the field of fire investigation. Jim also holds a UK trade qualification in electrical installations and systems.**

Jim began his career in forensic science in 1972 and has specialised in the investigation of fires and explosions since 1979. Formerly a member of the Fire Investigation Unit at the Metropolitan Police Forensic Science Laboratory ("Scotland Yard") with a background in criminalistics, he has examined more than 4000 fire and explosion scenes including over 350 fatalities, carried out laboratory examinations and analyses on items and materials originating from more than 1000 others, and given evidence as an expert witness on numerous occasions in a wide variety of legal settings.

Jim is one of only a few specialists in the interpretation of thermal damage and injury distribution to injured and deceased victims of fire, helping to explain the person's orientation and movements while the burning was taking place. He has devised and delivered fire investigation education and training in several countries and is widely sought after as a writer and speaker internationally. Jim is a former office holder of the NSW Association of Fire Investigators, where he remains an active member.



## **VITHYAA (VICKY) DAYALAN (FORMERLY THAVAPALAN) | SENIOR MANAGER / SENIOR INVESTIGATOR**

BSC, MSC, GRAD DIP FI, IAAI-FIT, NAFI-CFEI

**Vicky holds a Bachelor of Science and Technology degree from University of Sydney, a Master of Forensic Science from University of Technology Sydney and a Graduate Diploma in Fire Investigation from Charles Sturt University.**

Since the start of her career Vicky has been involved in a range of fire and explosion investigations, including bushfires, heavy machinery, commercial buildings, domestic violence and criminal cases. She also been involved in a number of legal proceedings throughout her career. She is scheduled to have completed 400 cases by mid 2021.

As part of her ongoing professional development, she has also studied with the world-renowned Gardiner Associates Training and Research in the UK during 2016 by completing their Advanced Fire & Explosion Course and Practical Course. In 2019 she had attended the Advanced Principles of Fire Dynamics prepared by Dr. James Quintiere and Gulf Coast Fire US which was host by Fire Investigations UK.

In 2016 she had attended the International Association of Arson Investigators annual International Training Conference in Orlando, USA to further her knowledge and skills with internationally recognised investigators and instructors. In 2017 she had achieved her Fire Investigation Technician (FIT) accreditation and is working towards her CFI qualification with hopes to achieve it by the end of 2022 through the IAAI. In 2020 she had received her Certified Fire and Explosion Investigation certification through the National Fire Protection Association (USA).

In late 2018, Vicky had completed an intensive program in Electricity and Electronics with the University of South Australia, gaining a Distinction in her final examination. She now completing further study to become an electrical engineer. On top of this she also dabbles in bushfires.

In 2019 she attended her first two international cases for two separate heavy machinery fires. During 2020 she was appointed the treasurer of the NSW Association of Fire Investigators and aspires to be on other board of directors of the IAAI.



## **KEITH MURRAY | SENIOR INVESTIGATOR**

GiFireE, IAAI-FIT-CFI, NAFI-CFEI, APAEWE

**Keith's professional career includes 30 years within the Scottish Fire and Rescue Service and Staffordshire Fire Service. He has been involved in many different emergency service positions including Fire Fighter, Crew and Watch Manager and Station Commander, Fire Investigation Officer, National Project Manager, Operational Intelligence Officer, Operational Assurance Officer, Assistant Area Commander, Lead Training Instructor and certified Fire Safety Inspecting Officer. Keith has investigated the cause and origin at incidents of fire and explosions within the Fire and Rescue Service for 14 years.**

As part of his Station Commander role and as a Fire Investigator, he undertook fire investigation and explosions where part of this role which included gathering photographic and physical evidence, conducting investigations to documentation of onsite conditions. These investigations also included interviewing witnesses and evidence/data gathering and research. Evidence gathered allowed the preparation of oral and written reports that documented the cause of fire and or explosion. This position also allowed him the experience in preparing and giving expert witness testimony in Court. Keith joined the private sector in 2018 and has conducted investigations in USA, Poland, France and the UK. Keith has also conducted international training webinars both in the UK and in Africa.

Keith has been responsible for writing National Policy and Procedures for operational intelligence and operational assurance. His previous role as Resilience Manager was to ensure that the Regional Delivery Plan on Pandemic Flu, Flooding, Terrorism, natural disasters etc, and successfully implemented on behalf of the Regional Resilience Partnership and Scottish Government Departments. Within this role Keith has National Security Clearance (SC), due to the sensitive and secretive details and information which he was exposed to a daily basis.

Keith has completed national certifications and qualification as Fire Investigator, Fire Behaviour Instructor, Fire Safety and Accident Investigation Officer. Furthermore, he has participated in the designs, deliver and instructing of educational fire related courses across three Fire and Rescue Services. He is also a member of the United Kingdom Association of Fire Investigators (UK-AFI), International Association Arson Investigators (IAAI), National Association of Fire Investigators (NAFI) and Member of the Institute of Fire Engineers (IFE). He also has a degree in Fire and Rescue Service Management.

## **ELLIE JOHNSTON | INVESTIGATOR**

BSC, MSC, GRAD CERT FI, IAAI-FIT, NAFI-CFEI

**Ellie graduated from Victoria University with a Bachelor of Science in Biomedical Science, she then went on to complete a Master of Science in Forensic Science at the University of Technology Sydney. She also holds a Forensic Medicine and Crime Scene Investigation Certificate from Victoria University, and is currently studying with Charles Sturt University for her Graduate Certificate in Fire Investigation.**

Ellie joined us as an intern in 2017 during her Master's course and showed a natural aptitude and enthusiasm for fire and explosion investigation. On finishing her MSc, in July 2018 she took up a full time position with us and completed our in-house training program, augmented by studies in the UK at the world-renowned Gardiner Associates Training and Research facilities. There she reached the level required for UK Skills for Justice Level 5 Certification. In April 2019 she attended the International Association of Arson Investigators annual International Training Conference in Jacksonville, USA to increase her knowledge and skills with some of the world's best investigators and instructors.

In the relatively short time Ellie has been with us, she has already been involved in investigating over 100 fire and explosion incidents in structures, vehicles and mining machinery.



## **AARON MARKEY | INVESTIGATOR**

BSc, BSC MIAAI GRAD CERT FI

**Aaron is the newest member of our team and holds a Bachelor of Forensic Science in Applied Chemistry degree from University of Technology Sydney and a Graduate Certificate in Fire Investigation from Charles Sturt University.**

Aaron joined Fire Forensics as an intern in 2018 and is now a qualified fire investigator. Since the start of his career, Aaron has been involved in a range of fire and explosion investigations, including

bushfires, heavy machinery, commercial buildings, domestic violence and criminal cases. He has also been involved in a number of legal proceedings throughout his career.

As part of his ongoing professional development Aaron has studied with the world-renowned Gardiner Associates Training and Research in the UK during 2019. He completed their Advanced Fire & Explosion Course and Practical Course.

Aaron's specialist area of interest is vehicle fires, in which he has already investigated roughly 30 vehicle fires. In 2021, Aaron plans to gain both the IAAI FIT (Fire Investigation Technician) and the NAFI Certified Fire and Explosion Investigators credentials.

Also, during 2020 he was appointed as a committee member of the NSW Association of Fire Investigators.



## **JOHN LORDING | SENIOR INVESTIGATOR**

GRAD CERT FI, ADV DIP FI, ADV DIP Public Safety, LMVAFI MIAAI MANZFSS

**John's law enforcement career began with the Australian Customs Service and later moved into the Victoria Police Force, where he had a varied career as a uniform officer and a detective. His duties included arson and explosives investigation and his training involved a placement with the Metropolitan Fire Brigade Fire Investigation and Analysis Unit. Later he worked in the insurance industry investigating and managing large fire claims before setting up his own consultancy in 2010.**

John holds a Graduate Certificate in Fire Investigation from Charles Sturt University and an Advanced Diploma in Public Safety (Fire Investigation) from the Canberra Institute of Technology. The latter is an approved qualification by AFAC for Police and Fire Service investigators. Since 2014 John worked as an Associate with JW Munday & Associates on a contract basis and continues to do so for Fire Forensics Pty Ltd. He has particular expertise in vehicle and machinery fires.

