



**OFFICE OF THE MEDICAL EXAMINER
701 W. Jefferson St.
Phoenix, AZ 85007**

MEDICAL EXAMINER REPORT

DECEDENT: Clayton Whitted

CASE: 13-04427

DATE OF EXAMINATION: 07/02/2013

TIME: 1136 Hours

PERSONS PRESENT AT EXAMINATION:

Yavapai County Sheriff's Office: Lieutenant Tom Boelts

Deputy State Forester: Jerry Payne

PATHOLOGIC DIAGNOSES

- I. Fire related injuries.
 - A. Thermal injuries.
 - 1. Greater than 95 percent full thickness total body surface area burning with charring of the abdominal wall and exposure to intestines.
 - 2. Partial thickness burns of the apex of the scalp, the anterior aspect of the right upper arm, the right hand, the posterior aspect of the right shoulder, a fraction of the left buttock, the posterior aspect of the right knee, and the distal aspects of the lower legs, bilaterally.
 - 3. Partial sparing of the feet.
 - 4. Pugilistic posturing.
 - B. Inhalation of products of combustion.
 - 1. See separate Toxicology Report.
 - 2. Cherry red discoloration of the musculature.
 - 3. Soot in airways.
- II. Superficial blunt force injuries.
 - A. Subscalp hemorrhage.

PATHOLOGIC DIAGNOSES CONTINUED

CAUSE OF DEATH: Fire related injuries

MANNER: Accident

10/22/2013
Date Signed

A handwritten signature in black ink, appearing to read "Christopher K. Poulos".

**CHRISTOPHER K. POULOS, MD
MEDICAL EXAMINER**

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PATHOLOGIC DIAGNOSES CONTINUED

III. No evidence of significant natural disease.

IV. See separate Toxicology Report.

REPORTED CIRCUMSTANCES OF DEATH

On July 1, 2013, Yavapai County officials requested assistance from the Maricopa County Office of the Medical Examiner with the medicolegal death investigations of 19 firefighters who died in the Yarnell Hill wildfire on June 30, 2013. Under the Maricopa County Manager's authority and direction, the Maricopa County Office of the Medical Examiner examined the firefighters' remains for the purpose of forensic identification and postmortem evaluation. The Maricopa County Office of the Medical Examiner also agreed to provide consultative services to investigating authorities and the Yavapai County Medical Examiner. The Yavapai County Medical Examiner agreed it will certify the firefighters' death certificates. The following Maricopa County Office of the Medical Examiner case numbers were designated for this incident: 13-04425, 13-04426, 13-04427, 13-04428, 13-04429, 13-04430, 13-04431, 13-04432, 13-04433, 13-04434, 13-04435, 13-04436, 13-04437, 13-04438, 13-04439, 13-04440, 13-04441, 13-04442, and 13-04443.

The decedent was a 28-year-old male who was a firefighter involved in a wildfire.

EXTERNAL EXAMINATION

The body is received in a zippered body pouch secured by evidence seal number 025562.

PHOTOGRAPHS:

Photographs are taken during the examination.

RADIOGRAPHS:

Total body radiographs reveal equipment adherent to the body and no definitive fractures, surgical devices or foreign bodies.

IDENTIFICATION:

The body is identified by dental radiographs on 7/3/2013.

CLOTHING AND PERSONAL EFFECTS

Include a fire retardant pouch from which the decedent's feet and head protrude, a pair of gloves without labels on the hands (the left glove is charred); a pair of partially burned

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brown leather boots with no definitive brand label (on the feet), a melted helmet, Ballard brand (not on the head at the time of autopsy); a pair of blue and white socks; a yellow fire hood within the right cargo pocket of a pair of hard and green fragmented pants; and a charred and yellow long sleeve shirt. Within the pockets of the shirt are a US Forest Service, "Think Safety" whistle, a compass, a cloth type ruler, a pack of powdered drink, and a screwdriver in its pocket. Also present are second dark colored charred and fragmented shirt, a melted plastic bottle, a leather sheath for an unknown tool, miscellaneous debris, an all-weather notebook and fire manual within the pants pockets, and miscellaneous cards including identification for Clayton Whitted, business cards, qualification cards, remnants of black briefs, and a Casio G shock brand watch.

EVIDENCE OF MEDICAL INTERVENTION

There is no evidence of recent medical intervention

EVIDENCE OF TRAUMA

Evidence of injury Includes greater than 95 percent total body surface area full thickness burns with pugilistic posturing, skeletonization of the medial aspect of the left upper and lower arm, full thickness charring of the abdomen with exposure of the abdominal contents, charring of the skin of the right hip through to the musculature. Thermal related rib fractures are identified. Partial thickness burning is identified on the apex of the scalp, the anterior aspect of the right upper arm, the palmar portion of the right hand, a small portion of the left buttock, an area of the posterior aspect of the right knee, and the distal anterior aspects of the lower extremities, bilaterally. Additionally the feet are partially spared with no burning of the soles.

Evidence of inhalation of combustion products includes soot in the airways and cherry red discoloration of musculature.

Evidence of blunt force injuries include a 4 x 3 cm area of left frontal subscalp hemorrhage and a 3 x 1 cm area of right frontal subscalp hemorrhage.

SCARS, TATTOOS AND OTHER IDENTIFYING BODY FEATURES:

No scars, tattoos, or other identifying body features are readily apparent.

GENERAL EXTERNAL EXAMINATION

The unembalmed body is that of a male 69 inches in height, weighing 159 pounds. Rigor mortis is generalized. Livor mortis is indeterminate. The body is cold (refrigerated). The scalp hair is brown, straight, and approximately 1 inch in length. The irides are of indeterminate color secondary to heat related opacification of the corneas. There are no lesions of the sclerae or conjunctivae. No petechial hemorrhages are identified on the sclerae, conjunctiva, or oral mucosa. The decedent appears to wear a singed chin beard and moustache. The ears are unremarkable and

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appear to be unpierced. Dentition is natural and in good condition. The trachea is in the midline. The thorax is well developed and symmetrical. The abdomen where intact is flat with no palpable intra-abdominal masses. The external genitalia are charred, however, they appear to be those of normal adult male. The extremities are well developed and symmetrical with no significant cyanosis, clubbing, edema or deformity. The fingernails are unremarkable where present. The feet and toes are not remarkable. The posterior aspects of the torso are injured, as previously described. General appearance is compatible with the reported age of 28 years.

INTERNAL EXAMINATION

The body is opened by a standard Y-shaped thoraco abdominal incision. All viscera occupy their appropriate anatomic relationships. Serous surfaces where present are smooth and glistening throughout. There is no significant free fluid accumulation or adhesions within the body cavities.

CARDIOVASCULAR SYSTEM

The 400-gram heart occupies its usual mediastinal site. The external configuration is unremarkable. The epicardial surfaces are smooth and glistening. All major vessels arise in their appropriate anatomic relationships. The coronary arteries arise normally and are distributed in a right dominant pattern with no significant atherosclerotic stenosis. The myocardium is slightly softened by autolysis, red-brown without areas of hemorrhage or gross scarring. The right ventricle appears to be mildly dilated, however, this may be secondary to autolytic softening. No abnormal communications exist between the cardiac chambers. Ventricular thicknesses are: left 1.1 cm, right 0.6 cm, and 1.2 cm. in the interventricular septum. The cardiac valves have thin, pliable leaflets. The valve circumferences are appropriate to the caliber of the cardiac chambers. The valve cusps and surfaces are free of fusion or vegetations.

The aorta is of normal caliber with all major arterial branches arising in their appropriate anatomic relationship. Elasticity is normal. The intimal surfaces are smooth without aneurysm formation or dissection. No systemic venous abnormalities or thrombi are present.

RESPIRATORY SYSTEM

The lungs weigh 625 grams left and 825 grams right. The upper and lower airways contain soot but are otherwise patent and of normal caliber. The pleural surfaces are smooth and glistening. The parenchyma is well expanded, light pink to dark red-purple, exuding moderate amounts of blood and frothy fluid. There are no areas of induration, consolidation, hemorrhage or gross scarring. The pulmonary vessels are patent and of normal caliber.

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DIGESTIVE/HEPATOBIILIARY SYSTEM

The oropharynx is grossly normal and unobstructed. The esophagus is of normal caliber with a smooth, white mucosal lining. The gastroesophageal junction is well defined. The stomach has intact mucosal surfaces and the lumen contains 40 ml of thick red-brown fluid with partially digested food fragments. No areas of ulceration, erosion, or hemorrhage or scarring are present. The small and large intestines are externally unremarkable and are without palpable masses or diverticula. The appendix is present, with thermal changes. The lobular tan pancreas is firm, without areas of fat necrosis, gross hemorrhage or space-occupying lesions. The pancreatic ducts are patent and of normal caliber.

The 2000-gram liver has a smooth intact capsule, covering red-brown parenchyma. No localizing masses, lesions or areas of hemorrhage are evident on external or cut surfaces. The intrahepatic and extrahepatic ducts are patent and of normal caliber. The gallbladder contains viscid bile. The gallbladder mucosa is grossly normal.

GENITOURINARY SYSTEM

The symmetric kidneys weigh left 175 grams and right 150 grams. They are similar in size and shape. The capsules strip with ease from the smooth, red-brown cortical surfaces. The cortices are sharply delineated from the medullary pyramids. The calyces, pelves and ureters are unremarkable. The renal vessels are patent and of normal caliber.

The urinary bladder contains approximately 100 ml of red tinged urine. The mucosal surfaces are flat and pink-tan. The prostate and seminal vesicles are unremarkable.

HEMATOPOIETIC SYSTEM

The 150-gram spleen occupies its usual anatomic site, with an intact, smooth and glistening capsule covering dark purple, moderately firm parenchyma. Regional lymph nodes have their usual distribution and appearance. Rib bone marrow where present is unremarkable, however, it is not visible in several ribs secondary to charring.

ENDOCRINE SYSTEM

The thyroid and adrenal glands are grossly not remarkable.

NECK

The cervical spine is structurally intact. The hyoid bone and thyroid cartilage are intact. There are no hemorrhages in the strap muscles or soft tissues of the neck. The upper airway is patent.

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MUSCULOSKELETAL SYSTEM

The bony framework, supporting musculature and soft tissues are unremarkable except where described.

NERVOUS SYSTEM

The scalp is reflected in the usual fashion to describe the previously described areas of subscalp hemorrhage. There are no contusions, lacerations, or abrasions. There is no skull fracture. The 1400-gram brain is covered by thin, clear, delicate leptomeninges. The dura mater and falx cerebri are intact. There is good preservation of cerebral symmetry without flattening of gyri or widening of sulci. Convolutional patterns remain intact. External landmarks are readily identified. There is no evidence of herniation or either diffuse or localized swelling. The cerebral vessels are intact with no evidence of aneurysm or thrombosis. Atherosclerotic changes are not identified. Multiple coronal sections of cerebrum, cerebellum, and brain stem reveal no localized hemorrhages, masses, or lesions. The ventricular system is symmetrical, non-dilated and filled with clear fluid. The basal ganglia are grossly normal. The atlanto-occipital articulation is grossly normal.

EVIDENCE

Brown boots, brown gloves, a helmet, a fire hood, and a flame retardant pouch, remnants of a yellow long sleeve shirt, and remnants of green pants.

TOXICOLOGY SPECIMENS

Samples of nasal swabs, head hair, vitreous fluid, iliac blood, subcutaneous fat, cardiac blood, bile, gastric contents, urine, lung tissue, kidney tissue, psoas muscle tissue, spleen, liver, and brain are collected and submitted for toxicological testing.

FINAL SUMMARY

Based on the autopsy findings and investigative history, as available to me, it is my opinion that Clayton Whitted, a 28-year-old male, died as a result of fire related injuries.

The manner of death is accident.

CKP/ogm
D/T:07/03/2013

MARICOPA COUNTY OFFICE OF THE MEDICAL EXAMINER
REPORT OF TOXICOLOGICAL EXAMINATION

Case Number: 13-04427
Decedent: CLAYTON THOMAS WHITTED
Date Submitted: 07/02/2013
Report Date: 07/26/2013

Rev CMP
10/22/13

Specimens Collected: NASAL SWAB, KNOWN HEAD HAIR, VITREOUS,
BLOT/FILTER PAPER, ILIAC BLOOD, SUBCUTANEOUS
ADIPOSE TISSUE, CARDIAC BLOOD, BILE, GASTRIC, URINE,
LUNG TISSUE, KIDNEY, PSOAS MUSCLE, SPLEEN, LIVER,
BRAIN

Medical Examiner: CHRISTOPHER K. POULOS, MD

RESULTS*:

Vitreous: None detected for ethanol, methanol, isopropanol and acetone


Iliac Blood: Positive for
Carboxyhemoglobin (14% saturation)
None detected for ethanol, methanol, isopropanol, acetone,
amphetamine, methamphetamine, phencyclidine, cocaine,
benzoylecgonine, methadone, morphine, codeine,
benzodiazepines, barbiturates, antihistamines, phenothiazines,
tricyclic antidepressants, fentanyl, oxycodone, and acid neutral
drugs

Brain: Positive by GC/MS for
Benzene
Toluene
Xylene

Lung: Positive by GC/MS for Benzene

Urine: None detected for amphetamine, methamphetamine,
phencyclidine, cocaine, methadone, codeine, antihistamines,
phenothiazines, and tricyclic antidepressants

*If results are not listed for any specimen(s), that/those specimen(s) is/are deemed to be on "HOLD"


Norman A. Wade
Laboratory Director

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The Maricopa County Medical Examiner's Office is required by statute (A.R.S. § 11-594(A)(2) and (4)) to certify the cause and manner of death following completion of the death investigation of each case over which it assumes jurisdiction, and to promptly execute a death certificate, on a form provided by the state registrar of vital statistics, indicating the cause and manner of death. The form provided by the state registrar of vital statistics includes five manners of death: homicide, suicide, accident, natural, and undetermined. The determination of manner of death is a forensic determination by the pathologist predicated upon the totality of all then-known forensic evidence and other circumstances surrounding the cause of death; it is not a legal determination of criminal or civil responsibility of any person(s) for the death.



Maricopa County
Office of the Medical Examiner

Forensic Science Center
701 West Jefferson Street
Phoenix, Arizona 85007-2908
Phone: (602) 506-3322
Fax: (602) 506-1546

July 8, 2013.

Christopher Poulos, M.D.
Maricopa County Forensic Science Center
Phoenix, Arizona

Re: Maricopa County Medical Examiner Case # 13-4427

Dear Dr. Poulos,

On July 3, 2013, a dental examination including dental radiographs was completed at the Maricopa County Forensic Science Center on Medical Examiner Case # 13-4427.

Also on July 3, 2013, I received the dental radiographs and records of Mr. Clayton Whitted from the dental office of Dr. Robert Donaldson in Prescott, Arizona for a comparison to Case #13-4427.

Upon comparing the antemortem dental radiographs and records of Mr. Clayton Whitted and the postmortem dental radiographs and records of Case # 13-4427, a positive identification has been established, meaning that the antemortem and postmortem dental radiographs & records match in sufficient detail to establish that they are from the same individual.

Sincerely,

John A. Piakis DDS
John Piakis D.D.S., D.A.B.F.O.
Forensic Odontologist
Maricopa County
Phoenix, Arizona