

GLENN N. WAGNER, D.O. CHIEF MEDICAL EXAMINER

#### OFFICE OF THE MEDICAL EXAMINER

5570 OVERLAND AVE., SUITE 101, SAN DIEGO, CALIFORNIA 92123-1206 TEL: (858) 694-2895 FAX: (858) 495-5956

# **INVESTIGATIVE REPORT**

7/6/201			INVESTIG		FURI				
0	NAME OF DECEASED (LAST, FIRST I	VIDDLE)		AKA			HIO	CASE NU	MBER
CALL INFO	LOVELACE, Jam	es Derek						16-0	1113
	INVESTIGATOR	REPORTED BY		REPORTING AG	ENCY			PRE	VIOUS WAIVE #
	Angela Benefiel	Paula, RN		Sharp Coro	nado Hospital				
AL	CALL DATE AND TIME						RETURN DATE AND TIME		
Ö	05/06/2016 1522 05/06/201		05/06/2016	016 1628			05/06/2016 1740		
	DATE AND TIME OF DEATH	DATE OF BIRTH		1020	GENDER		RACE	2010	1740
DECEDENT	05/06/2016 1436	05/27/1994			Male		Whit		
	05/00/2010 1430 03/27/1994   RESIDENCE (STREET, CITY, STATE, ZIP) 03/27/1994		21 Year	21 Years			LAST SEEN ALIVE		
	2446 Trident Way Coronado, CA 92155								
			San Diego						
Ш				DCCUPATION					PAID AUTOPSY
	USA Seaman			1					
	LOCATION OF DEATH				TYPE OF PLACE				
	Sharp-Coronado Hospital				ER/OP				
	ADDRESS (STREET, CITY, STATE, ZIP)								
	250 Prospect Place Coronado, CA 92118								
	SUMMARY								
	The decedent was a 21-ye	ar-old, single, W	White male who	o was active-	duty Navy per	sonnel resi	iding oi	n Corona	do. On
	05/06/2016, the decedent								
Ξ	Coronado when he was of								
реатн	initially responsive. 911								
DE	attempts at resuscitation, of			1		1	1	00	
	Medical Examiner's juriso	diction invoked	according to th	ne California	Government C	Code 2749	1: Deat	hs due to	known or
	Medical Examiner's jurisdiction invoked according to the California Government Code 27491: Deaths due to known or suspected as resulting in whole or in part from or related to accident or injury, either old or recent.								
	LOCATION OF INCIDENT			INCIDE	NT PLACE TYPE	ŀ	AT WORK	A	
	Swimming pool								
	ADDRESS (STREET, CITY, STATE, ZIP) COUNTY								
F									
Z	DATE AND TIME OF INCIDENT	INVESTIGATING AG	ENCY	OFFICER	OFFICER BADGE # REPORT #			· #	
NCIDENT				Erika Mar	rinor			-	
U U	05/06/2016 1338 DECEDENT WAS	Naval Crimnal	HELMETEI		POSITION		ON	PRIVATE PR	
N		DELIED			1 Conton		ON		
	VEHICLE		$\Box$ Ye	s 🗆 No				$\Box$ Yes	STATE
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		METHOD							
	IDENTIFIED BY				METHOD DATE AND TIME			40	
	US Navy				Visual 05/06/2016 1340				
N	FUNERAL HOME			PROPERT		PUBLIC AD		_	PE OF EXAM
Ц	Legacy Funeral & Cremation Care			$\Box_{Ye}$		$\Box$ Yes	✓	No Au	utopsy
Ř	NAME OF NOK OR OTHER	RELATIONS	SHIP		DATE NOTIFIED		NC	TIFIED BY	
0	James Lovelace	Father			5/16/2016 6	:30:00 PM	( O	ther	
Ē	NAME OF NOK OR OTHER	RELATIONS	SHIP		DATE NOTIFIED		NC	TIFIED BY	
NOTIFICATION	Benjamin Jackson Military		/		5/6/2016 3:00:00 PM		Н	Hospital	
~	v I ·								

## **INVESTIGATIVE NARRATIVE**

### **Decedent:** James Derek Lovelace

### **Antemortem Events:**

At 1635 hours on 05/06/2016, the following information was learned through a personal interview conducted with Deputy Operations Officer, James Moore. On the morning of 05/06/2016, the decedent had reported to the Naval Base on Coronado for training regimens. He completed a round of evolutions that were land based and reported to the Naval Amphibious Base for a pool evolution which commenced at 1300 hours and was scheduled to last approximately two hours. The sailors were reportedly briefed regarding the exercise and safety measures. The exercise consisted of swimming the length of the pool, which was depth graded between four and fifteen feet, in their fatigues and boots. At 1338 hours, the decedent was observed in some type of distress at the surface and he was pulled from the water. He was reported to be initially verbally responsive. Quickly after being brought out of the pool, he became unresponsive and resuscitative efforts were initiated. At 1343 hours, 911 was contacted and chest compressions were initiated until the arrival of medical personnel.

The following information was learned through medical records obtained from Sharp-Coronado Hospital. Cardiopulmonary resuscitative efforts were initiated in the field by Federal Fire Department at 1345 hours. The decedent arrived to Sharp-Coronado Hospital Emergency Department at 1410 hours with a King airway in place and chest compressions in progress. At 1413 hours, he was intubated and resuscitative efforts were continued. Despite aggressive life saving measures, his death was pronounced at 1436 hours by Dr. Limberg. At 1522 hours, the San Diego Medical Examiner's Office was notified of the death and jurisdiction was invoked at the request of Naval Criminal Investigative Service.

## Past Medical, Surgical, and Social History:

The decedent was reported to be single with no children. He is survived by his father, James Lovelace, who resides in Florida. He was reportedly in Phase One of Naval Special Warfare Development group and was reported to not be a strong swimmer. According to medical records, the decedent had previously been prescribed Singulair for the treatment of asthma, prevention of exercise-induced bronchoconstriction, and relief of allergic rhinitis. He had a prior electrocardiogram that showed sinus bradyarrhythmia with sinus arrhythmia. There were no reports of drug or alcohol abuse. There were no concerns for suicidal behavior.

### **Scene Description:**

The scene was the Emergency Department of Sharp-Coronado Hospital. The room was a portion of a large medical room which was partitioned with curtains. The room was a standard hospital room with multiple pieces of medical equipment. The decedent was lying on a hospital gurney with a spine board located underneath the body. A personal property bag, which contained clothing that was removed during resuscitative efforts, was in the possession of Navy personnel. I observed and photographed the decedent's United States Photo Identification card. The decedent's clothing and other personal belongings were taken into custody by Navy personnel. The remainder of the scene was unremarkable.

### **Body Description:**

At 1630 hours on 05/06/2016, I observed the body of an adult, White male lying supine on a hospital bed. He was lying on top of spine board and his shirt, which had been cut-away by medical personnel, remained on his right arm. His pants and underwear, also cut-away by medical personnel, were observed partially underneath the body. His arms and legs were in line with his torso. Medical therapy observed in place included an

Page 2 of 4 16-01113 endotracheal tube with Ambu-bag, defibrillator patch, an intravenous line in the left antecubital region, and a hospital identification band on the left wrist. There was no crepitus noted upon palpation of the head, neck, or chest. The sclerae were lightly congested with no petechial hemorrhages observed. Faint traces of bloody mucus were noted in the nares. The ears were clear and dry. The oral cavity could not be fully assessed due to medical therapy but it appeared absent of trauma. Small, superficial, reddish-brown crusted abrasions were noted in several placed on the body including; ears, right check, neck, bilaterally on the lower arms and hands, the left hip, and the upper thigh. I noted sand remained around the groin and buttocks. The abdomen was taut with no apparent masses detected.

92M Transport personnel, Yancy, arrived to the scene and assisted me with the body. A yellow identification band was placed around the right ankle. The decedent was placed inside a new, white vinyl pouch for transport. At 1710 hours, blue tamperproof seal 9725898 was affixed to the bag. The decedent was then transported to the San Diego Medical Examiner's Office for an examination to be performed.

### **Special Requests:**

Navy personnel requested that next-of-kin notification be completed by military personnel. I received confirmation that his father had been notified at 2145 hours on 05/06/2016.

### **Identification:**

The decedent was identified to first responders and medical personnel by Navy personnel. I confirmed his identity using his United States Government Identification card.

# **Antemortem Specimens:**

Antemortem specimens were not drawn.

## **Public Administrator:**

No referral necessary.

### **Other Important Factors:**

At 1300 hours on 06/29/2016, I observed video surveillance of the pool exercise provided by and in the presence of Special Agent Erika Mariner, NCIS. I was informed that the training exercise was entitled Combat Swimmer Orientation, which consisted of treading water in fatigues and boots, with their masks filled with water. While in the water, the instructors are to create "adverse" conditions by splashing, making waves, and yelling at the students. Instructors are reportedly advised to not dunk or pull students underwater. In the video, I observed multiple students and instructors in the water. The instructors in the water were equipped with either buoys or flippers. Additional students and instructors were along the perimeter of the pool, along with instructors who were also located on dive platforms overlooking the pool.

During the training exercise, an instructor on the dive platform appears to point out the decedent, who appears to be struggling. An instructor in the water approaches the decedent and apparently dunks the decedent underwater. Over the course of the next approximately five minutes, the instructor follows the decedent around the pool, continually splashing him with water. The decedent is also splashed by other instructors in the water. Throughout the time period, the decedent and appears to go under the water multiple times. At one point, another student approaches the decedent and appears to attempt to assist the decedent in keeping his head above water. The instructor appears to again dunk the decedent and continues to follow him around the water. The instructor also appears to pull the decedent partially up and out of the water and then push him back. Eventually, the decedent is assisted to the side of the pool where he is pulled from the water. After the decedent was pulled from the water, I discontinued the viewing.

Page 3 of 4 16-01113 Following the viewing of the surveillance video, the following information was provided to me by Special Agent Mariner. At 1317 hours, the students entered the pool and the decedent was pulled from the water at 1342 hours. Upon removing him from the water, he was placed into "rescue position" (on his side) and was noted to be audible but not coherent. "Pink sputum" was observed from the decedent and upon rolling the decedent onto his back, he was unresponsive. 911 was called for assistance. At 1349 hours, Federal Fire Department arrived on scene however they were unable to transport. Resuscitative efforts were continued and at 1357 hours, Coronado Emergency Medical Services arrived on scene. The decedent was then transferred to Sharp-Coronado Hospital Emergency Department.

06/29/2016

Angela Benefiel Medical Examiner Investigator

Approved by:

Signed:

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County of San Diego

JONATHAN R. LUCAS, M.D. CHIEF DEPUTY MEDICAL EXAMINER

GLENN N. WAGNER, D.O. CHIEF MEDICAL EXAMINER

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# AUTOPSY REPORT

Name:	JAMES DEREK LOVELACE	ME#:	16-1113
Place of death:	Sharp-Coronado Hospital Coronado, CA 92118	Age:	21 Years
Date of death:	May 6, 2016; 1436 Hours	Sex:	Male
Date of autopsy:	May 7, 2016; 0910 Hours		

CAUSE OF DEATH: DROWNING

Contributing: CARDIOMEGALY; ABERRANT ORIGIN OF RIGHT CORONARY ARTERY OSTIUM

MANNER OF DEATH: HOMICIDE

## AUTOPSY SUMMARY:

- I. Normally-developed, well-nourished male observed to be in distress while in water during a Navy training exercise.
  - A. Pulmonary edema (right lung 960 grams, left lung 880 grams).
  - B. Foam in airways.
  - C. 1 ml fluid in sphenoid sinus.
  - D. Watery gastric fluid.
- II. Cardiomegaly (490 grams) with aberrant origin of right coronary artery ostium.
- III. Incidental, benign hepatic hemangioma.
- IV. Minor cutaneous abrasions on extremities.
- V. Toxicology non-contributory (please see toxicology report).

<u>OPINION</u>: According to investigative information, this 21-year-old male was an active-duty Navy member in the BUD/S program, training to be a navy seal. On May 6, 2016, he reported to base for training regimens and completed beach and ocean-based exercises in the morning. In the afternoon, he reported to the Naval Amphibious Base for a pool exercise. The sailors were briefed on the exercise, entitled "Combat Swimmer Orientation," and safety measures. The training consisted of swimming and treading water in fatigues and boots, with their masks filled with water. Instructors in the water splash, make waves, and yell at the students in order to create an "adverse" environment. They are not to dunk or pull the students under the water. Multiple students and instructors were in the water, and additional instructors were on the edges of the pool and on dive platforms observing.

Video surveillance footage of the pool showing the training exercise was reviewed with NCIS. At some point during the exercise, an instructor observing from the dive platform is seen to point out the decedent, who appeared to be struggling, and an instructor in the water approaches the decedent. That instructor is seen to dunk the decedent under the water and then follow him around the pool for approximately 5 minutes. He continually splashes the decedent, dunks him at least one additional time, and appears to be yelling at him. The decedent is also splashed by other individuals during the event. At one point in the video, another individual in the water is seen pulling him up and away from the instructor. Throughout this time period, the decedent's head is seen to go under the water multiple times, and the instructor can be seen pulling him up multiple times. Eventually the instructor pulls him out of the water, and the exercise is stopped.

At that point, the decedent was, reportedly, still breathing. He was able to track with his eyes and was mumbling. He was turned on his side and abundant discolored water came out of his mouth. When he was turned back onto his back again, he was unresponsive. Resuscitative efforts were begun, and 911 was called. First responders took over resuscitation, and he was transported to Sharp-Coronado Hospital. Despite aggressive resuscitative efforts, death was pronounced at 1436 hours of the same day.

According to multiple witnesses, the decedent was struggling during the event. Multiple people stated that his face was purple and his lips were blue. One individual was even reportedly considering calling a "time-out" to stop the exercise. According to naval records, the decedent was not a strong swimmer.

According to reported medical records, the decedent had previously been prescribed Singulair (last prescription over a year ago), used for the treatment of asthma, prevention of exercise-induced bronchoconstriction, and relief of allergic rhinitis. He had a prior electrocardiogram that showed asymptomatic sinus bradycardia with sinus arrhythmia. He had no other known chronic medical conditions. He had no history of drug or alcohol abuse.

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The autopsy demonstrated a normally developed, muscular, adult male with severe pulmonary edema and a small amount of foam in the airways. There was abundant watery fluid within the gastric contents, and approximately 1 ml of bloody fluid was aspirated from the sphenoid sinus. The heart was enlarged (490 grams), and the right coronary artery ostium had an aberrant origin, located slightly superior and to the left of the junction of the right and left semilunar cusps of the aortic valve. There was an incidental, benign hepatic hemangioma, and no other significant natural disease. Traumatic injuries included multiple superficial cutaneous abrasions, most predominantly involving the extremities. No other significant injuries were noted. Toxicological testing detected no alcohols or drugs of abuse.

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It is not known how the anatomic cardiac findings may have affected the decedent, as aberrant coronary arteries have been associated with sudden cardiac death, especially in athletes or other situations of extreme exertion. However, the decedent was in the pool in an adverse environment and was witnessed to be struggling. He was seen "dunked" under water at least twice by an instructor, and to go under the water several times, witnessed by the same instructor without rendering assistance, for approximately five minutes.

Autopsy findings were consistent with drowning, as noted above. Based on the autopsy findings and the circumstances surrounding the death, as currently understood, the cause of death is listed as **drowning**. **Cardiomegaly** and **aberrant origin of right coronary artery ostium** are listed as possible contributing conditions.

Although the manner of death could be considered by some as an accident, especially given that the decedent was in a rigorous training program that was meant to simulate an "adverse" environment, it is our opinion that the actions, and inactions, of the instructors and other individuals involved were excessive and directly contributed to the death, and the manner of death is best classified as **homicide**.

KIMI VERILHAC, M.D. Forensic Pathology Fellow

Date signed:

SUPERVISING PATHOLOGIST:

ABUBAKR A. MARZOUK, M.D. Deputy Medical Examiner

Date signed:

IDENTIFICATION AND BODY COVERINGS: The body is received sealed in a white Medical Examiner's body bag with blue seal number "9725898". The body is wrapped in a white sheet and is on top of a green mattress pad. A yellow Medical Examiner's identification band is around the right ankle bearing the decedent's name and case number. A second blue Medical Examiner's identification band is secured around the right ankle at the time of autopsy. A white hospital identification bracelet is around the left wrist bearing the decedent's name and the number "70708805".

<u>WITNESSES</u>: NCIS Special Agents Ryan Norris and Erika Mariner, and Forensic Consultant Vivian Stafford are present during the autopsy. Assisting is Forensic Autopsy Specialist Daniel Schaff.

<u>CLOTHING</u>: The body is unclad when initially viewed. No clothing accompanies the body. The decedent was reportedly wearing underwear, a camo shirt, and pair of pants. His boots had reportedly been removed while in the pool.

## EVIDENCE OF MEDICAL THERAPY:

- 1. An endotracheal tube with an attached Ambu bag extends from the mouth, secured in place with white tape. The tube is appropriately located proximal to the carina on internal examination, and there is foam within the tube.
- 2. Two AED pads are on the left chest and mid back.
- 3. A single lumen intravascular catheter is in the left antecubital fossa, secured in placed with an adhesive dressing.
- 4. A pulse oximeter is on the right index finger.

## **EXTERNAL EXAMINATION**

Injuries are described in a separate section below.

<u>GENERAL</u>: The body is that of a normally developed, well-nourished, lightly pigmented male with a lean, muscular body habitus, appearing consistent with the listed age of 21 years. The surfaces of the body are wet, and there is a moderate amount of sand between the upper thighs and on the buttocks. The length is 68 inches, and the weight is 180 pounds as received. The body is well preserved, cold, and has not been embalmed. Rigidity is fully developed in the jaw and extremities. Lividity is pink-purple, blanches with moderate pressure, and in a posterior distribution. There is mottling of the shoulders and thighs.

<u>HEAD</u>: The scalp is covered with closely shaved, blonde hair measuring up to 1/8 inch on the top of the head. The facial hair is clean shaven. The ears are normally formed and without drainage. The irides are blue, the corneas clear, and the bulbar and palpebral conjunctivae free of petechiae. The sclerae are white and mildly congested. The nose is intact, and the nares are unobstructed. There is a small amount of blood-tinged mucus

within the nares. The lips are normally formed. The teeth are natural and in good condition.

NECK: The neck is symmetrical and without injury.

<u>CHEST AND ABDOMEN</u>: The chest is normally formed, symmetrical, and without palpable masses.

The abdomen is flat and soft. No masses are palpable.

EXTERNAL GENITALIA: The external genitalia are those of a circumcised adult male with both testes palpable in the scrotum.

BACK: The back is straight and symmetrical. The anus is atraumatic.

<u>ARMS</u>: The arms are normally formed. No track marks or ventral wrist scars are noted. There are multiple callouses on the palms. The fingernails are short, clean, and do not extend beyond the fingertips.

<u>LEGS</u>: The legs are normally formed and have no edema, amputations, or deformity. The toenails are short, trim, and clean.

## BODY MARKINGS (SCARS AND TATTOOS):

Scars:

- 1. There is a 3/4 inch, linear, hypopigmented, well-healed scar diagonally oriented on the frontal scalp within the hair, just left of midline.
- 2. There is a 1-1/2 x 1/16 inch, linear, hypopigmented, well-healed scar on the dorsal right forearm.
- 3. There is a  $1/2 \times 1/4$  inch, irregular, hypopigmented, well-healed scar on the anterolateral right thigh.
- 4. There are multiple small, irregular, hypopigmented, well-healed scars on the anterior right knee, ranging in size from 1/8 3/8 inch.
- 5. There is a 5/16 x 3/4 inch, irregular, hypopigmented, well-healed scar on the anterolateral right knee.
- 6. There is a  $3 \times 1/4$  inch, linear, hypopigmented, well-healed scar vertically oriented on the anterior right knee.
- 7. There is a 7/8 x 3/4 inch, irregular, hypopigmented, well-healed scar on the anteromedial left knee.
- 8. There are multiple irregular and linear, hypopigmented, well-healed scars on the anterior left knee, ranging in size from 1/4 3/8 inch.

Tattoos:

- 1. There is a monochromatic tattoo of multiple Greek letters on the ventral left forearm, just distal to the antecubital fossa.
- 2. There is a monochromatic tattoo of a shark on the medial right ankle.

# EXTERNAL INJURIES

There is a  $3/8 \times 1/4$  inch, irregular, red abrasion on the right cheek. There is a  $1/4 \times 1/8$  inch red abrasion on the right side of the chin at the corner of the mandible. There is a  $1/2 \times 1/2$  inch faint red abrasion on the inferior surface of the chin. There are multiple red abrasions on the right ear, measuring 1/8 inch each. There is a 1/8 inch red abrasion on the left ear. There is a  $1/4 \times 1/8$  inch, irregular, red abrasion on the anterior midline neck.

There is a 2-1/4 x 1-3/4 inch, irregular, red abrasion and associated pink contusion on the midline chest. There is a 1-1/2 x 1/8 inch, linear, discontinuous, red abrasion horizontally oriented on the right hip. There is a  $1/2 \times 1/4$  inch, irregular, red abrasion on the anterior left hip. There is a  $1/2 \times 1/2$  inch, irregular, red, abraded contusion on the lower back, just right of midline.

There is a 3 x 1 inch area of multiple small red abrasions on the dorsomedial right forearm. There is a  $1-1/2 \times 3/4$  inch, irregular, pink-red abrasion on the dorsal right wrist. There are multiple small, irregular, red abrasions on the dorsal right hand, ranging in size from 1/16 - 1/2 inch. There is a 1 x 1 inch, irregular, red abrasion on the ventral right wrist. There is a 1/8 inch, round, red abrasion on the ventral right wrist.

There is a 1-1/4 x 3/4 inch, irregular, red abrasion on the dorsal left wrist. There are multiple small, irregular, red abrasions on the dorsal left hand, ranging in size from 1/16 - 1/4 inch. There is a 1-1/2 x 1-1/4 inch, irregular, red abrasion on the ventral left wrist. There is a 3/8 x 1/8 inch, irregular, red abrasion on the tip of the left index finger.

There is a 1/4 inch, round, red abrasion on the anterior right knee. There is a  $1/4 \times 1/16$  inch, linear, red abrasion vertically oriented on the lateral right knee. There are two healing, round, 1/8 inch, red abrasions with early hyperpigmented scar formation around the periphery on the anterior and anterolateral left thigh. There are multiple small punctate hemorrhages on the medial knees. There is a  $1/2 \times 1/2$  inch area of multiple linear, pinkred abrasions horizontally oriented on the anteromedial lower left leg.

## **INTERNAL EXAMINATION**

<u>BODY CAVITIES</u>: The abdominal fat layer measures up to 1 cm in thickness. The body cavities have no hemorrhage or abnormal fluid. The serosal surfaces are smooth, glistening, and without adhesions. The organs are normally located. The diaphragm is intact. The body cavities have no internal injuries.

CARDIOVASCULAR SYSTEM: The heart weighs 490 grams and is mildly enlarged. It has a normal shape with a smooth, glistening epicardium with a slight gray discoloration of the right atrium. The right coronary artery has an aberrant origination with the ostium located superior to and just to the left of the junction of the left and right semilunar cusps. The left coronary artery has a normal origin within the left semilunar cusp. The coronary arteries otherwise have a normal distribution with right dominance. They have no atherosclerotic stenosis and are widely patent.

The myocardium is red-brown, firm, and uniform without focal fibrosis, softening, or hyperemia. The ventricles are not dilated or hypertrophied. The right ventricle, left ventricle, and interventricular septum measure 0.3 cm, 1.2 cm, and 1.2 cm, respectively.

The endocardium is intact, smooth, and glistening. The cardiac valve leaflets are of normal number, pliable, intact, and free of vegetations. The atrial and ventricular septa are free of defects.

The aorta follows its usual course and has no atherosclerotic changes. There are no vascular anomalies or aneurysms. The vena cavae and pulmonary arteries are without thrombus or embolus.

<u>RESPIRATORY SYSTEM</u>: The right and left lungs weigh 960 and 880 grams, respectively, and have the usual lobation. The pleura are smooth and glistening with foal red petechiae on the anterior surfaces. The lungs have no anthracotic pigment. The lungs are well expanded and boggy. The parenchyma is dark red and exudes abundant amounts of blood-tinged fluid. The lungs have no consolidation, hemorrhage, infarct, tumor, gross fibrosis, or enlargement of airspaces. The bronchi contain a small amount of liquid bloody material admixed with a small amount of white foam and have tan-pink mucosa.

HEPATOBILIARY SYSTEM: The liver weighs 1980 grams. The intact capsule is smooth and glistening. There is a 0.5 cm, well-circumscribed, red nodule on the surface of the right dome. The parenchyma is otherwise red-brown and uniform without hemorrhage, yellow discoloration, or palpable fibrosis.

The gallbladder contains an estimated 2 - 3 ml of bile and no stones. Its mucosa is uniform and the wall is not thickened.

The pancreas has a normal size, shape, and lobulated structure. The parenchyma is pinktan, firm, and uniform.

<u>HEMOLYMPHATIC SYSTEM</u>: The spleen weighs 210 grams. The capsule is smooth and intact. The parenchyma is maroon, firm, and uniform.

There is a 40 gram residual thymus present in the anterior mediastinum. The parenchyma is lobulated, tan, and uniform.

There is no enlargement of the lymph nodes in the neck, chest, or abdomen.

<u>ENDOCRINE SYSTEM</u>: The thyroid gland is not enlarged, and the lobes are symmetrical. The parenchyma is uniform, firm, and red-brown.

The adrenal glands have the usual size and shape. The cortices are thin, uniform, and yellow, and there is no hemorrhage or tumor. The pituitary gland is not enlarged.

<u>GASTROINTESTINAL SYSTEM</u>: The esophagus and gastroesophageal junction are unremarkable. The stomach contains approximately 1100 ml of partially digested pink-tan food and abundant watery fluid. There are no visible pills or pill residue. The gastric and duodenal mucosae are intact and unremarkable. The small and large intestines and appendix are unremarkable to inspection and palpation.

<u>GENITOURINARY SYSTEM</u>: The right and left kidneys weigh 160 and 190 grams, respectively, and have a normal shape and position. The cortical surfaces are smooth. The kidneys have the usual corticomedullary structure without tumors or cysts. The pelves and ureters are not dilated or thickened. The bladder contains 60 ml of clear yellow urine. The mucosa is intact, and the bladder wall is not hypertrophied.

The prostate gland is of average size and grossly unremarkable.

<u>NECK</u>: The tongue, strap muscles, and other anterior neck soft tissues have no hemorrhage. The hyoid bone and the cartilaginous structures of the larynx and trachea are normally formed and without fracture. The airway is unobstructed, lined by smooth, pink-tan mucosa, and contains no foreign material. The cervical vertebrae have no displacement, hypermobility, or crepitus.

<u>MUSCULOSKELETAL SYSTEM</u>: The musculoskeletal system is well developed and free of deformity. There are no fractures of the clavicles, sternum, ribs, vertebrae, or pelvis. The ribs are not brittle. The skeletal muscle is dark red and firm.

<u>HEAD</u>: The scalp is free of hemorrhage. The calvarium and base of the skull are normally configured and have no fractures. The dura is intact, and there is no epidural or subdural hemorrhage. The sphenoid sinus is opened and contains approximately 1 ml of blood-tinged fluid.

<u>CENTRAL NERVOUS SYSTEM</u>: The unfixed brain weighs 1500 grams. The leptomeninges are glistening and transparent without underlying hemorrhage, exudate, or cortical contusions. The hemispheres are symmetrical and have a normal gyral pattern.

There is very mild flattening of the gyri and narrowing of the sulci, without midline shift or evidence of herniation. There is mild grooving of the cerebellar tonsils and unci without softening or hemorrhage into the parenchyma. The arteries at the base of brain have no atherosclerotic changes or aneurysms.

Sections through the cerebral hemispheres have a uniform, intact cortical ribbon and uniform white matter. The basal ganglia, thalami, hippocampi and other internal structures are symmetrical and without focal change. The ventricles are not enlarged, and the linings are smooth and glistening. Sections of the brainstem and cerebellum show an intact structure without focal lesions.

# SPECIMENS RETAINED

<u>TOXICOLOGY</u>: Samples of central and peripheral blood, vitreous humor, gastric contents, urine, and liver are retained for toxicology.

<u>HISTOLOGY</u>: Representative sections of organs and tissues are retained. Sections of the heart (3), lungs (5), liver (2), and kidney (1) are submitted for histology.

Cassette summary:

- Cassette 1: Liver and right kidney.
- Cassette 2: Right lung.
- Cassette 3: Left lung.
- Cassette 4: AV node.
- Cassette 5: Left ventricle and interventricular septum.

<u>PHOTOGRAPHS</u>: Digital identification photographs, full-body overall photographs, and photographs of abrasions, heart, brain, sphenoid sinus fluid, and gastric contents are taken.

RADIOGRAPHS: None.

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## MICROSCOPIC EXAMINATION

<u>HEART</u>: Sections of the heart demonstrate unremarkable myocardium free of necrosis, fibrosis, and inflammation. The epicardium, endocardium, and cardiac vasculature are unremarkable. The tissue surrounding the atrioventricular node is unremarkable, with mild, focal cardiomyocyte hypertrophy.

<u>LUNGS</u>: Sections of the lungs demonstrate open airspaces containing varying amounts of intact extravasated red blood cells and small amounts of fine, pink, fibrinous debris. There are abundant small to large fragments of eosinophilic foreign material, golden-brown wispy granular material, and bacterial clusters without an associated inflammatory response. The alveolar septae are fine, delicate, and focally congested. The airways are unremarkable with sloughing epithelial cells. There is no basement membrane thickening, glandular hyperplasia, or smooth muscle hypertrophy. The vasculature is congested but unremarkable. There is mild chronic inflammation in a bronchovascular distribution.

<u>LIVER</u>: Sections of the liver demonstrate intact lobular architecture without steatosis. Portal areas are free of fibrosis and inflammation. Bile ducts, sinusoids, and central veins are unremarkable. A section of the red nodule noted grossly shows variably sized, dilated vascular spaces filled with blood, lined by thin endothelium, and separated by thin fibrous septae. There is mild chronic inflammation within the fibrous septae.

<u>KIDNEY</u>: One section of the kidney shows no glomerulosclerosis. Intact glomeruli are normocellular without mesangial expansion. There is no tubular atrophy, interstitial fibrosis, or inflammation. Arteries and arterioles are unremarkable. The renal pelvis shows unremarkable transitional epithelium. There are focal microcalcifications noted throughout the section.

KV:AAM:clb D: 5/7/16 T: 5/18/16 Rev. 7/1/16 lcb



# County of San Diego

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# TOXICOLOGY REPORT

Name: LOVELACE, James Derek Medical Examiner Number: 16-01113 05/06/2016 Date of Death: 14:36 Time of Death: Pathologist: Kimi Verilhac, M.D. / AbuBakr A. Marzouk, M.D. Specimens Received: Central Blood, Gastric #1, Gastric #2, Gastric #3, Liver, Peripheral Blood 1, Peripheral Blood 2, Urine, Vitreous Date Specimens Received: 05/09/2016

Test Name (Method of Analysis)	Specimen Tested	Result
<u>Alcohol Analysis (GC/FID-Headspace)</u> Alcohol (Ethanol) Acetone, Methanol, Isopropanol	Peripheral Blood 2	Not Detected Not Detected
Drugs of Abuse Screen (ELISA)	Central Blood	
Cocaine metabolites		Not Detected
Amphetamines		Not Detected
Opiates		Not Detected
Benzodiazepines		Not Detected
Fentanyl		Not Detected
Cannabinoids		Not Detected
Phencyclidine (PCP)		Not Detected
Oxycodone		Not Detected
Methadone		Not Detected
Zolpidem		Not Detected
Carisoprodol		Not Detected
Buprenorphine		Not Detected

Unless otherwise requested, all specimens will be destroyed six (6) months after the closure of the case by the Medical Examiner End Results

Approved and Signed: 05/17/2016

Iain M. McIntyre, Ph.D. Forensic Toxicology Laboratory Manager (All Inquiries/Correspondence)

Reviewed:

Amber Trochta Toxicologist II

An American Board of Forensic Toxicology (ABFT) Accredited Laboratory