EQUIPMENT INVESTIGATION CHECKLISTS

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Forms
Dive Computers
Cylinders
Valves
Deco, Pony or Bailout Cylinders
Buoyancy Compensator / Alternate Air Source
Regulators
Wetsuits
Drysuits
Watch, Bottom Timer, SPG, Compass, Depth Gauge, Capillary Gauge, Temperature Gauge
Masks
Snorkels
Fins
Camera and Video Equipment
Slates
Goodie Bags
Lift Bags
Reels
Knives / Cutting Tools
Dive Lights
Jon Lines
Spear Guns and Slings
Diver Propulsion Units

Dive Computer (Complete one form per computer)
Manufacturer: _____ Model: _____

Serial#: _____ Condition: Poor Fair Good Excellent

Battery Status: _____ Computer set to the correct time: Yes No

Computer status: Working Not Working No Battery

Location of the computer: Wrist Mount Console on HP Hose
Attached to BC Attached to Hose Mask
Other: _____
Decedent's Computer Dive Partner's Computer

Type of dive computer: Basic Air Only Basic Nitrox Technical Gas
Air Integrated Dive Profile Recorder
Downloadable: Yes No
Programmable: Yes No

Program/Mode used: Gauge Mode Air Mode Nitrox Mode
Trimix Mode Heliox Mode Not Working
Open Circuit Closed Circuit

Gas(es) programmed into computer: % O_2 _____ %He _____ In use at time

Gas #_____ %He _____ %O_2 _____ OC/CC Gas #_____ %He _____ %O_2 _____ OC/CC
Gas #_____ %He _____ %O_2 _____ OC/CC Gas #_____ %He _____ %O_2 _____ OC/CC
Gas #_____ %He _____ %O_2 _____ OC/CC Gas #_____ %He _____ %O_2 _____ OC/CC
Gas #_____ %He _____ %O_2 _____ OC/CC Gas #_____ %He _____ %O_2 _____ OC/CC
Gas #_____ %He _____ %O_2 _____ OC/CC Gas #_____ %He _____ %O_2 _____ OC/CC

List the computer's status at the following times:

When first located: On Off Dive Mode Violation Mode SI Mode

At the surface: On Off Dive Mode Violation Mode SI Mode

During evaluation: On Off Dive Mode Violation Mode SI Mode

Does computer automatically go into dive mode when submersed: Yes No

At what depth does computer go into Surface Mode (SI): _____

If the computer information has been recorded, download the information as soon as possible and print out hard copies of all relevant profiles and dive details. Maintain a computer file of the data that was downloaded. The computer's manufacturer might need to be contacted to assist in

this process. Chamber Directors like Karl Huggins have also proven to be a valuable resource when assistance is needed in downloading even older computers. If the computer cannot be downloaded, take photographs of the different screens showing any relevant information. After all important information has been gathered, the computer should be tested to insure the computer was/is functioning correctly.

Computer Information Downloaded: Yes No

Downloaded by: _____ Date/Time: _____

Computer records depth/time every _____ seconds

Computer shows gas consumption rates: Yes No

Depth Testing of the Computer

Depth	Computer Depth	Depth	Computer Depth
0 fsw	_____ fsw	130 fsw	_____ fsw
10 fsw	_____ fsw	120 fsw	_____ fsw
20 fsw	_____ fsw	110 fsw	_____ fsw
30 fsw	_____ fsw	100 fsw	_____ fsw
40 fsw	_____ fsw	90 fsw	_____ fsw
50 fsw	_____ fsw	80 fsw	_____ fsw
60 fsw	_____ fsw	70 fsw	_____ fsw
70 fsw	_____ fsw	60 fsw	_____ fsw
80 fsw	_____ fsw	50 fsw	_____ fsw
90 fsw	_____ fsw	40 fsw	_____ fsw
100 fsw	_____ fsw	30 fsw	_____ fsw
110 fsw	_____ fsw	20 fsw	_____ fsw
120 fsw	_____ fsw	10 fsw	_____ fsw
130 fsw	_____ fsw	0 fsw	_____ fsw

Complete a copy of this page for each dive computer worn by the decedent. If possible, complete this page for each dive computer worn by the decedent's dive partner, including all downloadable information.

Notes: _____

_____

Cylinder (Complete one form per cylinder)

Manufacturer: _____

Model: _____ Working Pressure: _____

Serial#: _____ Pressure when recovered_____

Type:Single Sidemount Doubles Bailout Deco Staged Pony

Gas Type: Air Nitrox Trimix Heliox O_2 Clean

Cylinder Condition: Poor Fair Good Excellent

Type: Steel HP or LP Aluminum Composite

Size: _____ Color: _____

Boot: Yes No Tank wrap: Yes No

VIP Date: _____ Where: _____

Hydro Date: _____ Where: _____

Initial fill pressure if known: _____

Where the cylinder was last filled: _____

Compressor owner and address: _____

Current compressor gas analysis on file: Yes No Attach copy of analysis

Last compressor filter change: _____

Oxygen clean compressor: Yes No

Who last filled the cylinder: _____

Date the cylinder was filled: _____

Gas labels attached to cylinder: Nitrox Trimix Other: _____

Reported gas mix used: Air NITROX _____

Heliox/Trimix O_2 _____ He _____

Was decedent trained in the use of the gas: Yes No Certification: _____

Was the cylinder analyzed before the dive: Yes No Unknown

Who analyzed the cylinder: _____

Investigator Analysis:

Pressure in cylinder when tested: _____

Manufacturer, model and serial# of analyzer: _____

Test results of portable analyzer: O_2 _____ He _____

Name of person that tested portable analyzer: _____

Date/Time analyzer was tested: _____

Outside Gas Analysis Information

Cylinder sent for outside analysis: Yes No

Where was cylinder sent: AQMD Lab Private Lab Crime Lab

Name of the lab: _____

Address to the lab: _____

Cylinder given to Mr. / Mrs.: _____

Date and time cylinder was delivered: _____

Cylinder pressure at delivery: _____

Date and time cylinder was returned: _____

Cylinder pressure when returned: _____

Cylinder analyzed by: _____

Results: Meets Grade E SCUBA Air O_2 _____ He_____ N_2 _____

Failed for the following reason: _____

In House Gas Analysis Information

Cylinder gas analyzed by: _____

Where was cylinder analyzed: _____

Date/Time of analysis: _____

Cylinder pressure when analyzed: _____

Cylinder pressure when done: _____

Testing Analyzer Manufacturer: _____ Model: _____ Serial#: _____

Date the analyzer was last tested/calibrated: _____

Gauge Manufacturer/Model/Serial#: _____

Gauge last calibrated: _____

Results: O_2 _____ He_____

Visual Inspection Information

VIP conducted by: _____

Name/address of the company: _____

Date/time VIP was conducted: _____

Results: Pass Fail Fail Reasons: _____

Notes: _____

_____

_____

A complete gas analysis of all cylinders used during diving fatalities should be conducted by an accredited lab to ensure the gas meets SCUBA standards.
Use calibrated stand-alone gauges for cylinder pressure.

Complete a copy of this page for each cylinder used by the decedent. This includes a partner's cylinder if the decedent used it during the dive, or if partner reported problems that may possibly be related to bad gas in the cylinder.

Valves (Complete one form per valve)

Manufacturer: _____ Model: _____

Serial#: _____ Valve Condition: Poor Fair Good Excellent

Serial number of the cylinder to which the valve was attached: _____

Type: Yoke O-ring in place: Yes No O-ring condition: P F G E

DIN Yoke Insert: Yes No O-ring condition: P F G E

Manifold: Yoke DIN N/A

Was the valve oxygen cleaned: Yes No Unknown

How was regulator attached to the valve: _____

Did o-ring or valve leak during underwater test: Yes No

Position of the valve at time of fatality: _____

Position of the valve at start of testing: _____

Was valve manipulated during rescue/recovery: Yes No Unknown

Number of turns from open to close: _____

Difficulty in turning the valve on or off: Easy Moderate Difficult

Notes: _____

_____

_____

Deco, Pony or Bailout Cylinder(s) (Complete one form per cylinder)

Manufacturer: _____

Model: _____ Working Pressure: _____

Serial#: _____ Pressure when recovered: _____

Type: Bailout Deco Staged SpareAir

Gas Type: Air Nitrox Trimix Heliox O_2 Clean

Cylinder Condition: Poor Fair Good Excellent

Type: Steel HP or LP Aluminum Composite

Size: _____ Color: _____

VIP Date: _____ Where: _____

Hydro Date: _____ Where: _____

How was the cylinder carried: _____

How was regulator secured to the cylinder: Band Clip Other: _____

Could decedent reach 2nd stage: Yes No Unknown

Could decedent reach of valve: Yes No Unknown

Initial fill pressure if known: _____

Where the cylinder was last filled: _____

Compressor owner and address: _____

Current compressor gas analysis on file: Yes No Attach copy of analysis

Last compressor filter change: _____

Oxygen clean compressor: Yes No

Who last filled the cylinder: _____

Date the cylinder was filled: _____

Gas labels attached to cylinder: Nitrox Trimix Other: _____

Reported gas mix used: Air NITROX _____

Trimix O_2 _____ He _____

Heliox O_2 _____ He _____

Was decedent trained in the use of the gas: Yes No Certification: _____

Was the cylinder analyzed before the dive: Yes No Unknown

Who analyzed the cylinder: _____

Investigator Analysis:

Manufacturer, model and serial# of analyzer: _____

Pressure in cylinder at time of tsting: _____

Test results of portable analyzer: O_2 _____ He _____

Name of person that tested portable analyzer: _____

Date/Time analyzer was tested: _____

Outside Gas Analysis Information:

Cylinder sent for outside analysis: Yes No

Where was cylinder sent: AQMD Lab Private Lab Crime Lab

Name of the lab: _____

Address to the lab: _____

Cylinder given to Mr. / Mrs.: _____

Date and time cylinder was delivered: _____

Cylinder pressure at delivery: _____

Date and time cylinder was returned: _____

Cylinder pressure when returned: _____

Cylinder analyzed by: _____

Results: Meets Grade E SCUBA Air O_2 _____ He_____ N_2 _____

Failed for the following reason: _____

In House Gas Analysis Information:

Cylinder gas analyzed by: _____

Where was cylinder analyzed: _____

Date/Time of analysis: _____

Cylinder pressure when analyzed: _____

Cylinder pressure when done: _____

Testing Analyzer Manufacturer: _____ Model: _____ Serial#: _____

Date the analyzer was last tested/calibrated: _____

Gauge Manufacturer/Model/Serial#: _____

Gauge last calibrated: _____

Results: O_2 _____ He_____

Visual Inspection Information

VIP conducted by: _____

Name/address of the company: _____

Date/time VIP was conducted: _____

Results: Pass Fail Fail Reasons: _____

Notes: _____

_____

_____

Complete a copy of this page for each cylinder used by the decedent. This includes a partner's cylinder if the decedent used it during the dive, or if partner reported problems that may possibly be related to bad gas in the cylinder.

Buoyancy Compensator

Manufacturer: _____ Model: _____

Serial#: _____

Condition: Poor Fair Good Excellent

Size: XS S M L XL XXL Volume: _____ Color: _____

Type: Jacket Style Horse Collar Jacket/Wing

Back Plate: Steel Composite Aluminum Plastic Other: ___

Wing: Banded Non-Banded

Wing Volume: _____

BC size appropriate for the diver: Yes No

BC attached to cylinder(s) properly: Yes No

Crotch strap: Yes No

Crotch strap interfere with weight ditching: Yes No Unknown

Weight integrated BC: Yes No

Weight integration type: Velcro Snap Buckle Ripcord Pull Other: _____

Weight per integrated pocket: Left: _____ Right: _____

Trim pockets: Yes No

Trim pocket locations: _____

Weight contained in the trim pockets: Left: _____ Right: _____

Integrated weights able to be ditched easily: Yes No

Amount of gas in the BC: _____ cc's

Amount of water in the BC: _____cc's Fresh Salt

Power inflator attached correctly: Yes No

Does power inflator work correctly: Yes No

Does manual inflation work correctly: Yes No

Location of the dump valves: Upper Right Upper left

Lower Right Lower Left

Do all of the dump valves work: Yes No Notes: _____

Does the BC hold air: Yes No Notes: _____

Any leaks detected: Yes No

If yes, where were the leaks: _____

In water testing of power inflator/dump valves:

Worked as designed Did not work as designed

Any type of in water malfunction: _____

Any diver modifications to the BC or weight system: Yes No

Describe in detail: _____

(Is there anything that prevents weight pockets from being dumped as designed?)

Do the regulator hoses interfere with BC operation: Yes No

Auxiliary gear attached to BC: Knife Light Goodie Bag

Reel Lift Bag Camera

Audible Signal Device Other: _____

Alternate Air Source connected to the BC

Manufacturer: _____Model: _____

Serial#: _____Color: _____

Condition: Poor Fair Good Excellent

LP hose connected properly to air source: Yes No

Air source second stage works as designed: Yes No

In water testing worked as designed: Yes No

Inhalation effort: _____ Exhalation effort: _____

Cylinder pressure when tested (should match cylinder pressure at time of fatality): _____

IP pressure: _____ Cracking pressure: _____

Magnahelic Pressure: _____

Notes: _____

_____

_____

Regulators (Complete one form per regulator)

Manufacturer: _____ Model: _____

Serial#: _____ IP Pressure: _____

Type: Piston Diaphragm Yoke DIN

Condition of first stage: Poor Fair Good Excellent

Sinter Screen condition: Poor Fair Good Excellent

How many high pressure ports: _____ How many low pressure ports: _____

How many high pressure hoses are attached to the first stage: _____

HP #1:Brand: _____ Color: _____ Length: _____ Use: _____

HP #2: Brand: _____ Color: _____ Length: _____ Use: _____

How many low pressure hoses are attached to the first stage: _____

LP #1: Brand: _____ Color: _____ Length: _____ Use: _____

LP #2: Brand: _____ Color: _____ Length: _____ Use: _____

LP #3: Brand: _____ Color: _____ Length: _____ Use: _____

LP #4: Brand: _____ Color: _____ Length: _____ Use: _____

LP #5: Brand: _____ Color: _____ Length: _____ Use: _____

Was first stage attached correctly to valve: Yes No Unknown

Condition of the o-ring connecting a DIN first stage to the cylinder valve:

Poor Fair Good Excellent Missing

Second Stage of the Regulator

Manufacturer: _____ Model: _____

Serial#: _____ Color: _____

Condition of 2nd stage: Poor Fair Good Excellent

Condition of the mouthpiece: Poor Fair Good Excellent Missing

Any holes or bite marks noted on the mouthpiece: Yes No Where _____

Type of mouth piece: Standard Orthodontic Heat molded

Brand, type, length and color of the hose: _____

Position of diver control knob (note if none): _____

Position of venture knob (note if none): _____

Inhalation effort: _____ Exhalation effort: _____ PSI tested: _____

Cracking pressure: _____ Magnahelic Pressure: _____ PSI tested: _____

ANSTI test results: Worked as designed Failed the ANSTI test

Worked as designed under water: Yes No

Regulator (Alternate 2nd Stage)

Manufacturer: _____ Model: _____

Serial#: _____ Color: _____

Condition of alternate 2nd stage: Poor Fair Good Excellent

Condition of the mouthpiece: Poor Fair Good Excellent Missing

Any holes or bite marks noted on the mouthpiece: Yes No Where _____

Type of mouth piece: Standard Orthodontic Heat molded

Brand, type, length and color of the hose: _____

Position of diver control knob (note if none): _____

Position of venture knob (note if none): _____

How was the decedent wearing the alternate 2nd stage: _____

Inhalation effort: _____ Exhalation effort: _____ PSI tested: _____

Cracking pressure: _____ Magnahelic Pressure: _____ PSI tested: _____

ANSTI test results: Worked as designed Failed the ANSTI test

Worked as designed under water: Yes No

Notes: _____

_____

_____

Wetsuits

Manufacturer: _____ Model: _____

Serial#: _____ Color: _____

Condition of the suit: Poor Fair Good Excellent Cut off

Wetsuit: Body Size: _____ Thickness: _____ mm

Body Type: Front Zip Side Zip Rear Zip Hooded Vest

Attached hood One Piece Two Piece

Other: _____

Gloves: Hand Size: _____ Thickness: _____ mm Type: _____

Vest: Vest Size: _____ Thickness: _____ mm Type: _____

Hood: Head Size: _____ Thickness: _____ mm Type: _____

Booties: Boot Size: _____ Thickness: _____ mm Type: _____

Lycra Suit: Size: _____ Thickness: _____ mm Type: _____

Does the suit have any holes: Yes No Location: _____

Do the gloves have any holes: Yes No Location: _____

Does the vest have any holes: Yes No Location: _____

Does the hood have any holes: Yes No Location: _____

Do the booties have any holes: Yes No Location: _____

Does the wetsuit have any damage that is consistent with trauma: Yes No

Was the diver experienced in the wetsuit: Yes No

Was the diver used to diving in cold water: Yes No

Notes: _____

_____

_____

Drysuits

Manufacturer: _____Model: _____

Serial#: _____ Color: _____

Condition of the suit: Poor Fair Good Excellent Cut

Condition of the seals: Poor Fair Good Excellent Cut

Condition of the zipper: Poor Fair Good Excellent Cut

Condition of relief zipper: Poor Fair Good Excellent Cut

Drysuit: Body Size: _____ Type: _____

Body Type: Front Zip Side Zip Rear Zip Latex Seals

Attached hood Dry Gloves Attached Boots Neoprene Seals

Gloves: Hand size: _____ Thickness: _____ mm Type: _____

Hood: Head Size: _____ Thickness: _____ mm Type: _____

Pocket Locations: _____

Pocket Type: Velcro Zipper Neoprene

Contents of the pockets: _____

LP hose connected to the drysuit valve: Yes No Unknown

Brand and condition of the LP hose: _____

Does the drysuit valve function: Yes No Unknown

Location of the exhaust valve on the suit: _____

Does the exhaust valve function properly: _____

Any debris located in the exhaust valve: Yes No

Did undergarment get stuck in exhaust valve: Yes No Unknown

In what position was the exhaust valve dial: _____

Did the drysuit flood: Yes No Unknown

Type of insulation worn under the drysuit: _____

Was victim certified or trained in drysuit use: Yes No

Level of experience in a drysuit: None Novice (1-10 dives) Intermediate (11-50 dives) Experienced (>50 dives)

Notes: _____

_____

Watch, Bottom Timer, SPG, Compass, Depth Gauge, Capillary Gauge, Temperature Gauge (Complete one form per instrument)

Manufacturer: _____Model: _____

Serial#: _____ Color: _____

Type of gauge: _____

Condition of the gauge: Poor Fair Good Excellent

Is the time correct on timing devices: Yes No

Is temperature correct on all thermometer devices: Yes No

Depth Testing of the Depth Gauge (Descent / Ascent)

Test Gauge Depth	Computer Depth	Test Gauge Depth	Computer Depth
0 fsw	_____ fsw	130 fsw	_____ fsw
10 fsw	_____ fsw	120 fsw	_____ fsw
20 fsw	_____ fsw	110 fsw	_____ fsw
30 fsw	_____ fsw	100 fsw	_____ fsw
40 fsw	_____ fsw	90 fsw	_____ fsw
50 fsw	_____ fsw	80 fsw	_____ fsw
60 fsw	_____ fsw	70 fsw	_____ fsw
70 fsw	_____ fsw	60 fsw	_____ fsw
80 fsw	_____ fsw	50 fsw	_____ fsw
90 fsw	_____ fsw	40 fsw	_____ fsw
100 fsw	_____ fsw	30 fsw	_____ fsw
110 fsw	_____ fsw	20 fsw	_____ fsw
120 fsw	_____ fsw	10 fsw	_____ fsw
130 fsw	_____ fsw	0 fsw	_____ fsw

Testing of the SPG (Pressurization / Depressurization Cycle)

Test Gauge Pressure	SPG Pressure	Test Gauge Pressure	SPG Pressure
0 psi	_____ psi	3500 psi	_____ psi
500 psi	_____ psi	3000 psi	_____ psi
1000 psi	_____ psi	2500 psi	_____ psi
1500 psi	_____ psi	2000 psi	_____ psi
2000 psi	_____ psi	1500 psi	_____ psi
2500 psi	_____ psi	1000 psi	_____ psi
3000 psi	_____ psi	500 psi	_____ psi
3500 psi	_____ psi	0 psi	_____ psi

Masks (Complete one form per mask)

Manufacturer: _____Model: _____ Color: _____

Data Type Mask: Yes No Serial#: _____

Condition of the mask: Poor Fair Good Excellent Missing

Skirt intact: Yes No Strap intact: Yes No

Mask found on decedent: Yes No Mask on Face Mask on Forehead

Did the decedent have any problems equalizing or clearing the mask: Yes No Unk

Was the mask flooded or partially flooded before fatality occurred: Yes No Unk

Corrective Lenses: Yes No

Decedent's vision without corrective lenses: _____

Was decedent wearing contacts during the dive: Yes No Unknown

Magnifying Inserts: Yes No

LCD Display: Yes No Functioning Properly: Yes No

Did the mask have a purge valve: Yes No Functioning Properly: Yes No

Any blood or foreign objects inside the mask: Yes No

Detail: _____

Data Mask Function Test

Did Data mask function properly: Yes No

Notes: _____

_____

_____

Snorkels

Manufacturer: _____Model: _____ Color: _____

Condition of the Snorkel: Poor Fair Good Excellent Missing

Mouth piece condition: Poor Fair Good Excellent Missing

Bite tabs intact: Yes No Notes: _____

Does the snorkel have a purge valve: Yes No Functioning Properly: Yes No

Any blood or foreign objects inside the snorkel: Yes No

Detail: _____

Where was the snorkel attached: Right side Left side

Other (describe): _____

Notes: _____

_____

_____

Fins

Manufacturer: _____Model: _____ Color: _____

Condition of the fins: Poor Fair Good Excellent Missing

Fin Sizes: XS S M L XL XXL Other: _____

Type of fins: Open Heel Full Foot

Split Fins Free Diving Fins

Were the fins found on the decedent: Yes No Unknown

Type of straps used with the fins: Straps Springs

Did the fin straps have a quick disconnect feature: Yes No

Were the fin strap quick disconnects attached: Yes No Unknown

Did the fins fit the decedent: Yes No

Notes: _____

_____

_____

Camera or Video Equipment (Complete one form per camera)

Camera Manufacturer: _____ Model: _____

Serial#: _____ Color: _____

Camera Type: Digital Still / Video Media Type: _____

Film Still / Movie Film Type: _____

Lens Manufacturer: _____ Type: _____

Serial #: _____ Filter: _____

Housing Manufacturer: _____ Model: _____

Serial#: _____ Color: _____

Lens Port Type: _____

Camera Functional: Yes No Housing flooded: Yes No

Decedent's Camera: Yes No Partner's Camera: Yes No

Strobe #1 Manufacturer: _____ Model: _____

Serial#: _____ Color: _____

Strobe Functional: Yes No Battery Flooded: Yes No

Strobe #2 Manufacturer: _____ Model: _____

Serial#: _____ Color: _____

Strobe Functional: Yes No Battery Flooded: Yes No

Light Manufacturer: _____ Model: _____

Serial#: _____ Color: _____

Light Functional: Yes No Flooded: Yes No

Type of clip or attachment used to secure equipment to the diver:

_____

How was equipment connected to the diver: _____

Did location of equipment affect incident: Yes No

Did the clip, line or attachment become entangled: Yes No

Was the equipment negative or positively buoyant: Negative Positive

How negative or positively buoyant: _____

Did the buoyancy or lack of buoyancy affect incident: _____

How experienced was the decedent with the equipment: _____

Name of person who downloaded photographs/video: _____

Date/Time photographs/video downloaded: _____

Name/Date of person that made duplicate of videotape: _____

Download digital photographs and video to at least two different drives or storage devices and maintain hard copies of all relevant photographs for the case file. If videotape was used in the camera a duplicate copy of the tape should be made.

Does film or slides need to be developed: Yes No

Name of the lab hired to develop film/slides: _____

Date/Time film/slides sent to the lab: _____

Date the negatives, prints or slides were received: _____

Maintain negatives, copy of prints or slides in the case file

Notes: _____

_____

_____

Slate (Complete one form per slate)

Manufacturer: ____________________ Size of the slate: ___________________

Type of Slate: White Board Sketch Type Other: _________________

How slate carried: On Arm On Leg On BC On Console

Clipped to diver/where: ________________________________

In a pocket/where: ____________________________________

Slate attached to lift bag: ______________________________

Was pencil attached: Yes No How was pencil attached: _____________

Did pencil or slate line create entanglement issue: Yes No Unknown

Did the dive plan on the slate match dive profile from the computer: Yes No

What type of deviation from the plan was made: ____________________________

Make a Xerox copy of any slates used by the decedent or dive partner

Try to get slate translation from partner if slate information is in shorthand

Transcribe all notes from slate onto this form.

Notes: ____

____

____

____

____

____

____

____

____

Drawings or sketches from slate:

Goodie Bag (Complete one form per bag)

Manufacturer: _____ Model: _____

Size: XS S M L XL Color: _____

Type: _____ Number of bags: _____

Any items attached to the bag: Game measuring devices Other: _____

List contents: Empty _____

Weight of contents: None _____

Did the extra weight or drag cause any issues: Yes No Unknown

How was the bag carried: _____

Did the manner the bag was attached cause any issues: Yes No Unknown

Was the bag ditched: Yes No Who ditched: Victim Partner Rescuer

Was the ditched bag recovered: Yes No

Where and who recovered: _____

Notes: _____

_____

_____

Lift Bag or Surface Marker Buoy (SMB) (Complete one form per lift bag / SMB)

Manufacturer: _____ Model: _____

Type of bag: _____ Color: _____

Lift bag capacity: _____ pounds Lift bag markings: _____

Where was the lift bag carried: _____

Was the lift bag used during the dive: Yes No

Why was the lift bag used: Part of Plan Emergency Use Lifting Object

How was the bag inflated: Orally Regulator LP Hose Other _____

How was the bag deflated: Open bottom Manual dump Other _____

During testing, any leaks found in lift bag? No Yes Where: _____

After use was the bag stowed, found in the water or located on the surface:

Stowed In the Water Found on the surface

Diver experience level with the bag: None Novice Intermediate Experienced

Notes: _____

_____

_____

Reel (Complete one form per reel)

Manufacturer: _____ Model: _____

Type of reel: Open Closed Other: _____ Color: _____

Type of line: Material_____ Twisted / Braided Size _____ Color: _____

How much line on the reel: _____

Was line marked in increments: Yes No How marked: _____

Handle type: Standard Goodwin Other: _____

Where was reel located: In Pocket BC D-ring Harness Crotch Strap

Weight belt Other: _____

Was the manner in which reel carried contribute to the fatality: Yes No Unknown

Was reel used during the dive: Yes No

Why was the reel used during the dive: _____

If used did the reel ever jam or did the line become entangled: _____

Type of drag / locking mechanism on reel: _____

During testing, any problems noted? No Yes Describe: _____

Cutting device on reel: Yes No

Diver experience level with reel: None Novice Intermediate Experienced

Notes: _____

_____

_____

Knives or Cutting Devices (Complete one form per knife / cutting device)

Manufacturer: _____ Model: _____

Type of tool: Knife (Fixed or Folding) Paramedic Shears

Line Cutters Other: _____

No type of tool carried by decedent

Tool material: Titanium Stainless Non-stainless Steel Other _____

Sheath: Open Locking Other _____ None

Where was the tool carried:

Calf:	Right	Left	Inner	Outer
Thigh:	Right	Left	Inner	Outer
Arm:	Right	Left	Inner	Outer
Waist:	Right	Left	Front	Side
Harness:	Right	Left	Front	Side
Pocket:	Right	Left	Front	Side

Wetsuit Sheath (describe where): _____

Other _____

Was the tool in a position it could be used: Yes No Unknown

During testing could tool be removed easily: Yes No

If no, note why the tool could not be removed: Rust Sand Other: _____

Was tool removed during the dive: Yes No Unknown

Why was tool removed: Emergency Non-Emergency

Was the tool place back into carrying device: Yes No Unknown

Notes: _____

_____

_____

Dive Lights (Complete additional forms as needed)

Primary Light

Manufacturer: _____ Model: _____

Serial #: _____ Color: _____

Battery Type: _____ Number Batteries: _____

Bulb Type: Incandescent HID LED Xenon Other: _____

Light Functional: Yes No Flooded: Yes No

How was the light carried or attached to the diver: _____

_____

Detached light head (Canister light): Yes No

If Yes, describe how light head cable stowed: _____

Did light contribute to the accident?: Yes No Unknown

During testing, did light and switch function properly? Yes No Describe: _____

Second Light

Manufacturer: _____ Model: _____

Serial #: _____ Color: _____

Battery Type: _____ Number Batteries: _____

Bulb Type: Incandescent HID LED Xenon Other: _____

Light Functional: Yes No Flooded: Yes No

How was the light carried or attached to the diver: _____

During testing, did light and switch function properly? Yes No Describe: _____

_____

Third Light

Manufacturer: _____ Model: _____

Serial #: _____ Color: _____

Battery Type: _____ Number Batteries: _____

Bulb Type: Incandescent HID LED Xenon Other: _____

Light Functional: Yes No Flooded: Yes No

How was the light carried or attached to the diver: _____

_____

During testing, did light and switch function properly? Yes No Describe: _____

Fourth Light

Manufacturer: _____ Model: _____

Serial #: _____ Color: _____

Battery Type: _____ Number Batteries: _____

Bulb Type: Incandescent HID LED Xenon Other: _____

Light Functional: Yes No Flooded: Yes No

How was the light carried or attached to the diver: _____

_____

During testing, did light and switch function properly? Yes No Describe: _____

Fifth Light

Manufacturer: _____ Model: _____

Serial #: _____ Color: _____

Battery Type: _____ Number Batteries: _____

Bulb Type: Incandescent HID LED Xenon Other: _____

Light Functional: Yes No Flooded: Yes No

How was the light carried or attached to the diver: _____

_____

During testing, did light and switch function properly? Yes No Describe: _____

Notes: _____

_____

_____

Jon Line (Complete one form per jon line)

Manufacturer: _____ Model: _____

Type: _____ Length: _____

Color: _____

Where was the line carried: Waist: Right Left Front Side

Harness: Right Left Front Side

Pocket: Right Left Front Side

Other (describe): _____

Was the Jon line in a position it could be used: Yes No Unknown

During testing could the line be removed easily: Yes No

If no, note why the Jon line could not be removed: Rust Sand Other: _____

Was Jon line removed during the dive: Yes No Unknown

Why was Jon line removed: Non-Emergency Emergency

Was the Jon line placed back into carrying device: Yes No Unknown

Jon line length: _____ feet / inches

What type of clip was attached to the diver's side of the Jon line: _____

What type of clip was attached to the non-diver end of the Jon line: _____

If deployed, did the Jon line become entangled: Yes No Unknown

Did the Jon line contribute to the fatality?: Yes No Unknown

Notes: _____

_____

_____

Spear Gun and Slings (Complete one form per spear gun)

Manufacturer: _____ Model: _____

Type: Pneumatic Banded Pole Spear Hawaiian Sling Other: _____

Length of gun: _____ Color: _____

How many bands: 1 2 3 4

Material made from: Wood Metal Other: _____

Does the gun have an attached reel: Yes No Unknown

Does the gun have an attached buoyancy device: Yes No Unknown

How much line is on the reel: _____ feet

Is there a "Safety" on the gun? Yes No

If yes, does it function properly? Yes No Describe: _____

Buoyancy of gun : Negative Positive Buoyant force: _____ lbs

Was the gun used during the dive: Yes No Unknown

Was the use of the gun a factor in the incident: Yes No Unknown

Was the gun attached to the diver: Yes No Unknown

How was the gun attached to the diver: _____

Did the gun contribute to the fatality?: Yes No Unknown

Was any game attached to the diver? Yes No Unknown

If Yes, describe types, number, sizes, and how attached: _____

_____

Notes: _____

_____

_____

Diver Propulsion Vehicles (DPV)

Manufacturer: _____ Model: _____

Type: _____ Color: _____

DPV activation mechanism: _____

Was the diver trained to use the unit: Yes No Unknown

How experienced was the diver with the unit: Novice Intermediate Experienced

How was the unit attached to the diver: _____

Number of divers using the DPV at the time of the incident: _____

Number of divers with DPVs in dive team: _____

Was the diver using the unit when the incident occurred: Yes No Unknown

Was the DPV functional at time of the incident: Yes No Unknown

Was the unit negatively or positively buoyant: Negative Positive

How negative or positively buoyant was the unit: _____ pounds

Trim weights added to DPV?: Yes No Unknown _____ pounds

DPV flooded?: Yes No Unknown

Any modifications made to DPV: _____

Did the DPV contribute to the accident?: Yes No Unknown

Note test results below.

Notes: _____

_____

_____

Exhibit B - Rebreather Evaluation Protocol

Consigned by _____Title: _____ Date: _____

Address: _____

Case # _____ Decedent _____

Step 1: Inventory (Photograph all components) Inspection Date: _____

CCR Manufacturer: _____ Model: _____ Serial #: _____

CCR Computer #1 Serial #: _____ #2 Serial #: _____

Description of exterior condition: _____

Attachments and Ancillary Equipment (NOTE: Begin noting this data now, but continue to add to it during later inspection steps as access to items becomes available):

1: _____ Condition: _____S/N: _____

2: _____ Condition: _____S/N: _____

3: _____ Condition: _____S/N: _____

4: _____ Condition: _____S/N: _____

5: _____ Condition: _____S/N: _____

6: _____ Condition: _____S/N: _____

7: _____ Condition: _____S/N: _____

8: _____ Condition: _____S/N: _____

9: _____ Condition: _____S/N: _____

10: _____ Condition: _____S/N: _____

11: _____ Condition: _____S/N: _____

12: _____ Condition: _____S/N: _____

13: _____ Condition: _____S/N: _____

Component Testing (Videotape all steps)

Step 2: Counterlung Gas Sampling

Using a syringe or other sampling device, collect and analyze gas samples from existing volumes within the rebreather BEFORE disassembly or gas additions are made.

Location	**Oxygen**	**Helium**	**CO_2**	**H_2O**
Inhalation counterlung				
Exhalation counterlung				
Inhalation hose				
Exhalation hose				
Canister				
Other (note location)				

Step 3: Functionality Testing

Positive Pressure Test:
Before any disassembly or modification is done to the unit, use the diluent cylinder (or a replacement gas supply, if the diluent cylinder is empty or low on gas) to perform a positive pressure test of the breathing loop. Pay particular attention to any connections and seals, looking for leaks of any type. Snoop may be necessary to complete this evaluation.

Results:
☐ No leaks observed

☐ Minor leaks observed at:
_____

☐ Major leaks observed at:
_____

Cylinders:

Diluent: Valve operational _____ cylinder hydro_____ VIP _____

S/N: _____ Contents: gas type_____% gas pressure _____ psi / bar

Oxygen: Valve operational _____ cylinder hydro_____VIP _____

S/N: _____ Contents: gas type_____% gas pressure _____ psi / bar

Bail-out: Valve operational _____ cylinder hydro_____VIP _____

S/N: _____ Contents: gas type_____% gas pressure _____ psi / bar

Bail-out: Valve operational _____ cylinder hydro_____VIP _____

S/N: _____ Contents: gas type_____% gas pressure _____ psi / bar

Water Containment:
Check each part of the system for water volumes contained. Use a measuring device to determine volume. Note if units measured are ounces or milliliters.
Results:
☐ No significant water volume observed in breathing loop

☐ Water volume found in the following places and quantities:

Mouthpiece / DSV: _____oz / ml Inhalation hose: _____oz / ml

Canister: _____oz / ml Exhalation hose: _____oz / ml

Water trap: _____oz / ml Inhalation C/L: _____oz / ml

Computer/ handset #1: _____oz / ml Exhalation C/L: _____oz / ml

Computer/ handset #2: _____oz / ml Other (list): _____oz / ml

Sensors:
Note sensor conditions both prior to and post cleaning and drying. Pay particular attention to wiring and sensor faces. Note corrosion, discoloration, moisture, debris on sensor faces, etc.

Sensor	Wire condition	Sensor face
1		
2		
3		
4		

Before cleaning:

Sensor	Manufacturer	S/N	Date Code	0.21 PO_2 (Mv)	1.0 PO_2 (Mv)	2.0 PO_2 (Mv)	3.0 PO_2 (Mv)
1							
2							
3							
4							

After cleaning and drying:

Sensor	Manufacturer	S/N	Date Code	0.21 PO_2 (Mv)	1.0 PO_2 (Mv)	2.0 PO_2 (Mv)	3.0 PO_2 (Mv)
1							
2							
3							
4							

CCR Displays:

Primary: calibration: _____

Battery level: _____. Menu scrolls: _____

Secondary: calibration: _____

Battery level: _____. Menu scrolls: _____

HUD: Lights: _____Vibrating? (Y/N) ____

Alarms: _____

CCR Batteries:

Battery	Visual condition (discolor, corrosion, etc)	Flooded (Y/N)	Manufacturer	Date code	Voltage (no load)	Voltage (under load)
1						
2						
3						

General Interior Inspection:

Note any unusual conditions of the CCR interior. Pay particular attention to any residue, foreign materials, or alterations made to the system.

Notes:

_____

_____

Dive Computer(s):
NOTE: Download data to PC as soon as possible!!

Brand: _____, Model: _____

Configuration for: _____

Dives Logged: _____ see attached download

Battery level: _____. Menu scrolls: _____

Brand: _____, Model: _____

Configuration for: _____

Dives Logged: _____ see attached download

Battery level: _____. Menu scrolls: _____

Brand: _____, Model: _____

Configuration for: _____

Dives Logged: _____ see attached download

Battery level: _____. Menu scrolls: _____

Valve Tests:
ADV: Brand: _____ Model: _____

S/N: _____ Inflation test: _____

OPV: Brand: _____ Model: _____

S/N: _____ Inflation/deflation test: _____

Man O_2:Brand: _____ Model: _____

S/N: _____ Inflation test: _____

Man dil: Brand: _____ Model: _____

S/N: _____ Inflation test: _____

DSV: Brand: _____ Model: _____

S/N: _____ Mushroom test: _____

Dil Reg: Brand: _____ Model: _____

S/N: _____ IP pressure_____ test: _____

O_2 Reg: Brand: _____ Model: _____

S/N: _____ IP pressure_____ test: _____

In-Line hose isolation valve: Brand: _____ Position _____

S/N: _____ Location: _____ test: _____

In-Line hose isolation valve: Brand: _____Position: _____

S/N: _____ Location: _____ test: _____

Buoyancy Control Devices

Brand: _____ Model: _____

S/N: _____ Inflations test: _____

Harness Devices: Brand: _____ Model: _____

S/N: _____ Condition test: _____

Crotch strap? (Y/N): _____ Chest straps (Y/N): _____ Scooter ring (Y/N): _____

Notes on any straps, harness clips, or counterlung clips not fastened correctly. Pay particular attention to lower clips on counterlungs that might not be fastened. Also look for any breathing hoses or IP hoses that are misrouted.

Notes:

_____

_____

_____

_____

Absorbent Condition:
Retain absorbent, even if wet, for later analysis of carbonates vs. hydroxides content.

Manufacturer: _____Grade: _____ Type: _____

When filled: _____ By whom: _____

How: _____ Flooded? (Y/N) _____

Channeling prevention o-rings or gaskets noted:
_____

_____

Regulator Testing:

Alternate sir source combined with BC:

Manufacturer: _____Model: _____S/N: _____

Function test:
_____

Cracking pressure: _____ Free flow? (Y/N/Int): _____

Pre-Dive / Dive lever selection: _____Adjustment knob status: _____

Notes:
_____

Other alternate air source attached to on-board diluent cylinder:

Manufacturer: _____ Model: _____S/N: _____

Function test:
_____

Cracking pressure: _____ Free flow? (Y/N/Int):
_____

Pre-Dive / Dive lever selection: _____ Adjustment knob status: _____

Notes:
_____

Bailout regulator 1:

Manufacturer: _____ Model: _____S/N: _____

Function test:
_____

Cracking pressure: _____ Free flow? (Y/N/Int):
_____

Pre-Dive / Dive lever selection: _____ Adjustment knob status: _____

Notes:
_____

Bailout regulator 2:

Manufacturer: _____ Model: _____S/N: _____

Function test:
_____

Cracking pressure: _____ Free flow? (Y/N/Int): _____

Pre-Dive / Dive lever selection: _____ Adjustment knob status: _____

Notes:
_____

Weighting System:
Note amounts and locations of all weights carried by the diver. Note units used.

Weight Belt: _____lbs / Kg Quick release (Y / N) _____

Integrated, left pocket: _____lbs / Kg Quick release (Y / N) _____

Integrated, right pocket: _____lbs / Kg Quick release (Y / N) _____

Integrated, in CCR housing: _____lbs / Kg Quick release (Y / N) _____

Integrated, top of CCR: _____lbs / Kg Quick release (Y / N) _____

Integrated, on backplate: _____lbs / Kg Quick release (Y / N) _____

Other: _____lbs / Kg Quick release (Y / N) _____Location: _____

Other: _____lbs / Kg Quick release (Y / N) _____Location: _____

Other: _____lbs / Kg Quick release (Y / N) _____Location: _____

Weight estimate: ☐ Reasonable amount ☐ Obviously over weighted ☐ Obviously under weighted

Step 4: Post Disassembly Testing
After the complete disassembly and component testing is completed, then the following steps should be completed using appropriate manufacturer's pre-and post-dive checklists:

☐ Unit cleaned, disinfected, and dried
☐ Unit reassembled using new sensors and batteries, charged gas cylinders, etc
☐ Functional tests of calibration, handset / computer function, etc
☐ Functional tests of other electronic components
☐ Functional tests of gas addition and controls
☐ Unit cleaned, disassembles and stored

Step 5: Unit Specific Testing
Refer to unit specific guidelines for other items to inspect or consider during testing.

Inspection Equipment Needs (Inventory)

Oxygen analyzer
Helium analyzer
Voltmeter
IP Gauge
SPG
Rebreather manual
Oxygen cylinder
Diluent cylinder
Special tools for CCR
Set of replacement sensors for CCR
Replacement batteries for CCR
Bags for absorbent
Measuring cups
Pressure chamber to test sensors
Disinfectant and application device
Pre-Dive and Post-Dive checklists for CCR
Regulator test bench
Calipers
Magnifying glass
Camera with macro lens
Media sticks for camera
Video camera with macro
Tapes for video camera

Standard tools (slotted and Philips screwdrivers, hex wrenches, needle nose pliers, slip joint pliers, adjustable wrenches, set box end wrenches, nut drivers, knife, etc)
Flashlight (for inspections)
Snoop (soapy water in spray bottle)
UV light
Scale

Preparation:
Instrument Calibration:

Oxygen Gas analysis: model _____ Calibration date: _____

Helium Gas analysis: model _____ Calibration date: _____

Sensor analysis: model: _____ Calibration date: _____

Voltmeter: model: _____ Calibration date: _____

Pressure analysis: model: _____ Calibration date: _____