



Pacific States/British Columbia Oil Spill Task Force Data Dictionary

Revised 2014

The U.S. members of the Pacific States/British Columbia Oil Spill Task Force signed an agreement in 1997 to incorporate the terms and logic framework of this Data Dictionary into their agency databases. They also agreed that their agencies would send staff to investigator training sessions in order to ensure consistent application of the data terms and would submit data to the Task Force for compilation into a regional database. Since 2003, our Annual Reports have included a compilation and analysis of regional data from the prior year; these are available on the Task Force website. Our ongoing goal is continuous improvement of this database in order to provide information on spill trends and causal factors; this allows us to better target our spill prevention efforts. The Database Workgroup is chaired by Camille Stevens of the Alaska Department of Environmental Conservation; Camille also compiles the information supplied by other member agencies and produces the final graphics for each Annual Report after Workgroup review. Workgroup members include Cathy Conway, Adrian Chatigny and Damon Williams of the California Office of Spill Prevention and Response; Mike Zollitsch of the Oregon Department of Environmental Quality; Marcia Graf and Curtis Martin of the Hawaii Office of Hazard Evaluation and Emergency Response; and Jack Barfield of the Washington Department of Ecology. The British Columbia Ministry of Environment monitors the project, is developing a spill database and plans to join the Task Force project as soon as possible. The Data Project Workgroup collaborated in 2010 to revise and update the Data Dictionary based on their experience with its use. This revised Data Dictionary updates definitions, adds new terms, and deletes others.

Date of the Incident	Format mm/dd/yyyy	
Time of the Incident	Free text	24-hour clock format
Medium	Land	Spill that impacts the land and/or ground water, but not surface water
	Marine	Spill that impacts surface water or wetlands under the jurisdiction of the U.S. (or Canadian Coast Guard) as Federal On-Scene Coordinator
	Fresh Water	Spill that impacts surface water or wetlands under the jurisdiction of the U.S. Environmental Protection Agency (or Environment Canada) as Federal On-Scene Coordinator
	Impermeable Surface	Spill that has the potential to impact one of the media described above, but does not because it is contained within an impermeable surface from which 100% of the spill volume can be recovered
Location Name	County (U.S.) or District (Canada)	Self-explanatory
	City/Town	Self-explanatory
	Water Body	Affected water body (river, stream, bay, strait, etc.)
	Lat/Long	Preferred entry: separate fields for Lat & Long, decimal degrees to 5 places
Incident Type (all Source Types)		Note: Near Misses and incidents not leading to spills are not described
	Oil Spill	Release of oil to a cited medium without being caused by a secondary incident; normally due to Human Error or Organizational/ Management Failure
	Fire/explosion	Uncontrolled ignition of gas or liquid
	Fitness for service	Unable to safely perform its function without repairs
Incident Type (Source Type: Vessel)	Grounding	Vessel striking the waterway bottom with enough force to damage the vessel and cause the release of oil
	Collision	Vessels striking each other resulting in the release of oil
	Allision	Vessel striking a fixed or semi-fixed object such as a pier, bridge, an anchored vessel, or buoy, resulting in the release of oil
	Loss of vessel	Partial or complete sinking of a vessel, resulting in the release of oil, in which the vessel is lost
	Flooding	Water intrusion into areas on a vessel not intended to hold water, or spill of oil during the dewatering process following flooding
	Loss of propulsion	The failure of the propulsion system to propel the vessel as designed, potentially a precursor to a spill. The shutdown of a vessel's propulsion system while underway to complete repairs is considered a loss of propulsion
	Loss of steering	The failure of the steering system to control the vessel's heading as designed, potentially a precursor to a spill. Stopping a vessel while underway to complete repairs of the steering system is considered a loss of steering
	Loss of electrical power	The failure of the main electrical system to provide power meeting the needs for vessel operation, potentially a precursor to a spill. Stopping a vessel while underway to complete repairs of the electrical system is considered a loss of electrical power

Incident Type (Source Type: Vehicle)	Vehicular accident	Vehicles striking each other or a fixed object, or some other type of traffic accident
	Train accident	Self-explanatory
	Aircraft Accident	Self-explanatory
Source Type		
	Vessel	Any boat, ship, vessel, barge, or other floating craft of any kind
	Facility	Any structure, group of structures, property, equipment, or device, other than a vessel or vehicle, that is used in producing, storing, handling, transferring, processing, or transporting oil in bulk for commercial or governmental (excluding military) purposes
	Vehicle	An aircraft or rolling stock (truck, train, etc) having the potential to cause an oil spill due to improper operation or an accident
	Pipeline	A pipeline which transports petroleum products, including as common carrier (i.e., for oil not owned by the pipeline company). Includes line pipe, valves, assemblies, controls and pump stations
	Private Property	Any structure, group of structures, property, equipment, or device, other than a vessel or vehicle, that is used in producing, storing, handling, transferring, processing, or transporting oil in bulk not on commercial, governmental, or public lands
	Public Lands	Any structure, group of structures, equipment, or property on non-commercial, non-military, or non-private land, other than a vessel or vehicle, on which oil is stored, handled or transported. Includes roads and common-use areas.
	Farm/Agriculture	Any structure, group of structures, property, equipment, or device), other than a vessel or vehicle, that is used in producing, storing, or handling agricultural or livestock products, not to include food processing facilities.
	Military	Any structure, group of structures, property, equipment, or device on a military facility (including USCG), other than a vessel or vehicle, that is used in producing, storing, handling, transferring, processing, or transporting oil in bulk.
	Other	
	Unknown	
Source (Source Type Vessel)	Cargo Barge	A non-self propelled vessel designed to transport non-oil or non-chemical cargo
	Cargo Ship	A self-propelled ship in commerce, other than a tank ship, regulated by a Task Force member agency, excluding container ships or Ro-Ro ships
	Container Ship	A vessel regulated by a Task Force member agency designed to transport cargo in containers
	Ferry	A vessel regulated by a Task Force member agency carrying passengers and/or vehicles on intra-harbor or local routes
	Passenger Ship	A vessel regulated by a Task Force member agency carrying passengers for compensation, excluding ferries
	Ro-Ro Ship	A vessel regulated by a Task Force member agency designed to transport wheeled vehicles and load or discharge cargo by driving the vehicles on/off ramps

	Fishing Vessel	A vessel: (a) commercially engaged in catching, taking or harvesting fish or preparing fish or fish products; or (b) which supplies, stores, refrigerates or transports fish, fish products or materials directly related to fishing or the preparation of fish
	Tank Barge	A non-self propelled vessel designed to transport oil or chemicals in bulk
	Tank Ship	A self-propelled ship designed to transport oil or chemicals in bulk, including combination carriers actually transporting oil. Includes Integrated Tug-Barge (ITB) or Articulated Tug-Barge (ATB) vessels
Source (Source Type Vessel, continued)	Recreational Vessel	A recreational vessel such as a yacht, sailboat, or motorboat, excluding vessels commercially employed in fishing or otherwise engaged in commerce
	Public Vessel	A vessel owned or chartered and operated by a government entity that is not engaged in commercial service and is not included in one of the above categories
	Tug	A boat used to maneuver, primarily by towing or pushing other vessels in harbors, over the open sea or through rivers and canals. They are also used to tow barges or disabled ships. Does not include ITB or ATB vessels
	Hopper/Dredge	A self-propelled vessel engaged in excavating bottom sediments and/or disposing of them in a different area
	Work Boat	A small non-commerce vessel engaged in supporting construction maintenance activities on a waterway
	Spill Response Vessel	Any vessel dedicated to spill response work, whether or not engaged in an actual spill response
	Other	
Source (Source Type Facility)	Marine Terminal	A facility located in or adjacent to marine waters and used for transfer of crude oil or refined petroleum products to or from tank vessels or barges
	Bulk Oil Facility	A facility which receives, stores and transfers crude oil or refined petroleum products; not a refinery
	Refinery	A facility which processes crude oil into usable fractions and refined products
	Commercial/Industrial Facility	A non-marine commercial end use consumer of bulk petroleum products
	Shipyard/Port facility	A facility located in or adjacent to marine waters not involved in oil transfer to/from tank vessels as a primary function
	Marina	A small harbor or boat basin typically providing dockage, supplies, marine fuels and other services for recreational vessels
	Retail Petroleum Outlet	Retail distributors of petroleum fuels, primarily service stations
	Power Generation Utility	Municipal power generation and distribution installations or components; includes transformers
	Government Facilities	Government operated facilities (Local, State, or Federal) such as schools, water treatment and sewage facilities, or other spaces used for community functions. Excludes military installations and power distribution facilities
	Oil Exploration and Production Facilities	A platform, vessel, or other facility used to explore for crude oil or associated hydrocarbons or to produce, store, or

		transport them to the inlet of a pipeline system
	Aboveground storage tank (AST)	A storage tank containing oil that is NOT an underground storage tank as defined by state or provincial regulations
	Underground storage tank (UST)	Any tank or combination of tanks (including underground pipes connected thereto) containing oil which is beneath the surface of the ground as defined by state or provincial regulations
	Drum or Container	A drum, container, or tank that does not meet the definition of an UST or AST (see above) and which is normally portable.
	Other	A facility for which the source of the spill does not fit any of the above categories

Source (Source Type Private Property)	Residential	Property used for private residences, including single family dwellings, apartment buildings, and condominiums. Does not include hotels/motels
	Vacant Land	A parcel of land without any structure, group of structures, equipment, pipeline, or device located thereon that is privately owned
	Above-ground storage tank (AST)	See definition under Source Type Facility
	Underground storage tank (UST)	See definition under Source Type Facility
	Drum or container	A drum, container, or tank that does not meet the definition of an UST or AST (see above) and which is normally portable.
	Other	
Source (Source Type Vehicle)	Aircraft	Self-explanatory
	Tank Truck	Commercial motor vehicle used to transport oil in bulk
	Commercial Truck	Commercial motor vehicle used to transport or deliver non-oil cargo or packaged oil products over public roads
	Construction/utility Vehicle	A work vehicle not designed for transport, typically engaged in construction or earth-moving activity
	Train	Any vehicle designed to carry passengers or cargo by rail, including light rail
	Non-commercial Vehicle	Any motor vehicle not licensed to engage in commerce, including government vehicles
	Bus or Public Transportation	Any vehicle designed to carry passengers for public or private transportation purposes and available for use by the general public
	Other	
Source (Source Type Pipeline)	Transmission Pipeline	See Source Type
	Other	

Source (Source Type Public Lands)	Vacant land	A parcel of land without any structure, group of structures, equipment, pipeline, or device located thereon that is not privately or commercially owned, to include common use areas.
	Highway/Road	A public thoroughfare; roads, streets, or highways that are not privately or commercially owned
	Aboveground storage tank (AST)	A storage tank containing oil that is NOT an underground storage tank as defined by state or provincial regulations
	Underground storage tank (UST)	Any tank or combination of tanks (including underground pipes connected thereto) containing oil which is beneath the surface of the ground as defined by state or provincial regulations
	Drum or container	A drum, container, or tank that does not meet the definition of an UST or AST (see above) and which is normally portable.
	Other	
Source (Source Type Farm/Agriculture)	Dairy	Agricultural land or enterprise associated with production of milk, usually from dairy cows but also from goats or sheep. Not including vehicles used to transport dairy product.
	Other	
Source (Source Type Military)	Facility	See above definitions for Source Type Facility
	Airfield	
	Shipyards/port facility	
	Bulk oil facility	
	Other	
Oil Type		For a technical definition see American Petroleum Institute or Environment Canada classifications
	Crude oil	
	Bunker C/IFO/HFO	
	Diesel oil/Marine gas oil	
	Heating oil	
	Jet fuel/kerosene	A crude oil distillate with volatility between gasoline and diesel; mainly used as jet fuel in the U.S., also used as a home heating oil in some countries
	Cutter stock	A thinner or reducer used in the refining process
	Gasoline	
	Hydraulic oil	
	Lube oil/Motor oil	A type of oil used for lubrication by various kinds of internal combustion engines, turbines, or pumps
	Aviation gasoline	An aviation fuel used to power piston-engine aircraft; contains tetraethyl lead (TEL), a toxic substance used to enhance combustion stability;excludes jet fuel
	Asphalt/creosote	
	Mineral oil/ Transformer oil	A byproduct of the distillation of gasoline; a common household lubricant. Transformer oil is a highly-refined mineral oil is used in oil-filled transformers.

	Edible/Vegetable oil	Oils derived from plants that are composed of triglycerides; includes not only edible, but also inedible vegetable fats and oils such as linseed oil, tung oil, and castor oil, used in lubricants, paints, cosmetics, pharmaceuticals and other industrial purposes
	Waste oil	Oil that must be handled and disposed of under hazardous waste regulations (contains a halogen content of more than 1,000 parts per million); may or may not be hazardous depending on its designation (if designated as non-hazardous it is then considered an "oily waste")
	Oily water mixture	Waste oil (including bilge waste) that may or may not be hazardous depending on its designation - if designated as non-hazardous it is then considered an "oily waste"; if designated as hazardous it is then considered "waste oil"
	Oily waste	Waste oil that has been designated as non-hazardous and can be managed/recycled like used oil
	LNG/LPG	A highly flammable natural or petroleum gas cooled to a liquid-state temperature at atmospheric pressure. LPG is primarily propane
	Paint (oil based)	A type of slow-drying paint that consists of particles of pigment suspended in a drying oil, commonly linseed oil
	Biodiesel	Used as an alternative to petroleum-derived diesel; often a blend of varying levels of vegetable-based oils & petroleum derived diesel
	Ethanol	A two-carbon alcohol, usually derived from corn; must be denatured with gasoline to render it unfit for human consumption in order to be classified as a petroleum product
	Decant Oil	A heavy oil recovered from the bottom of a Fluid Catalytic Cracking Unit (FCC), used as a blending material for either Utility or Bunker Fuels
	Transmission Fluid	A highly specialized oil optimized for the special requirements of a transmission, such as valve operation, brake band friction and the torque converter as well as gear lubrication. Typically contains additives that improve lubricating qualities. Typically colored red or green.
	Cat Feed/VGO	Catalytic Unit Feedstock/Vacuum Gas Oil, a product of the Vacuum Distillation Unit of a refinery; an intermediate distillate used for fuel blending or upgrading.
	Bitumen Oil (dil or syn)	Bitumen is derived from oil sands, and is so heavy and viscous (thick) that it will not flow unless heated or diluted with lighter hydrocarbons. When blended with synthetic crude it is called "synbit", when blended with a diluent it is called "dilbit." Dilbit and synbit approximate the characteristics of typical conventional heavy crude oil.
	LSFO (low sulphur fuel oil)	An intermediate fuel oil containing <1.0% sulphur
	Nonene	A nine-carbon olefin hydrocarbon, used as a plasticizer in the production of polyvinyl chloride (PVC)
	Grease	A semi-solid lubricant, generally consisting of a soap emulsified with mineral or vegetable oil.
	Naptha	A component of natural gas condensate or a distillation product composed of the lightest and most volatile fractions of the liquid hydrocarbons in petroleum. Primarily as feedstock for producing high octane gasoline. It is also used in the bitumen mining industry as a diluent, and in the petrochemical and chemical industries.
	Natural Gas Condensate	Hydrocarbon liquids that are present as gaseous components in the raw natural gas produced from many natural gas fields. It condenses out of the raw gas if the temperature is reduced to

		below the hydrocarbon dew point temperature of the raw gas.
	Used Oil	Recyclable oil that has a halogen content of less than 1,000 parts per million
	Other	
	Unknown	
Quantity Spilled	Note: Threshold for reporting is 42 gallons for all spills, measured ONLY in U.S. gallons. Oil contained in abandoned drums or containers which is <u>not spilled</u> should not be reported.	
	Total spilled	The total estimated amount of oil released/discharged
	Spilled to water	The estimated amount of oil that reached surface water or wetlands
	Spilled to impermeable surface	The estimated amount of oil contained by a surface from which 100% of the volume spilled is recoverable
	Spilled to soil	The estimated amount of oil reaching permeable surfaces not involving surface water
	Recovered	The estimated amount of oil that was recovered
	Unknown	
Activity (at time of the incident)		
	Oil transfer (cargo)	The movement of oil between a vessel or vehicle and a facility (dock, terminal, etc.), neither of which are end-users, or other vessel/vehicle, including C.O.W.
	Oil transfer (non-fuel)	Taking on or discharging lubrication, hydraulic, or other oil not used as fuel to or from an end-user
	Fueling	An oil transfer operation to replenish fuel supply used to propel a vessel (i.e. "bunkering"), conducted over the water from another vessel or land-based facility
	Fueling (non-vessel)	An oil transfer operation to replenish fuel supply used to operate any vehicle other than a vessel, to include construction and utility vehicles
	Internal transfer	The movement of oil from one tank to another within a vessel/vehicle/facility
	Not operating or not performing designed function	(1) Vessel in port, no operations in progress (2) Facility or pipeline shutdown (3) Vehicle stopped or not performing designed function (4) Private Property
	Static, or performing designed function, not to include oil transfers	(1) Vessel in port, performing designed function (2) Facility or pipeline in normal operation, or facility storing oil (3) Vehicle not underway but performing designed function
	Underway or in motion	(1) Vessel underway conducting normal operations, no oil movements in progress (oil movements include ballasting, tank washing, internal transfers) (2) Vehicle in motion conducting designed function
	Ballasting/de-ballasting	Taking on/discharging sea water or fresh water to/from vessel tanks
	Lightering	Transfer of oil as cargo between two vessels over the rail
	Tank/hold cleaning	Spill of oily residues from tank cleaning or cargo hold washing

	Bilge Pumping	The pumping of water and other materials, including oily water mixtures, which has collected in a vessel's bilge
	Maintenance/testing	An action which involves repairing, replacing or working on equipment associated with a vessel/vehicle/ facility/pipeline, including electrical, mechanical, and structural systems
	Construction	The process of building or assembling
	Other	
	Unknown	

Definitions:		
Immediate Cause: Action, inaction, failure, or condition that immediately preceded and resulted in a spill, spill-threat, near-miss, or other event. Only one Immediate Cause may be associated to an event.		
Contributing Factors: Factors that contributed to, or worked in concert with, the immediate cause in an error-chain leading to, or worsening of, a spill, spill-threat, near-miss, or other event. Multiple contributing factors may be associated to an incident.		
Both Immediate Cause and Contributing Factors are chosen from the following selections:		
Cause Type	Equipment Failure	A mechanical, structural, or electrical failure NOT attributable to a human-error related installation, operation, or maintenance deficiency. An example which would NOT be classified as "equipment failure" would be failure from normal wear and tear as a result of lack of maintenance
	Human Error	The inability of an individual to safely complete a task, over which nature the organization has only indirect control
	Organizational/management Failure	The failure of an organization to provide the necessary policies, procedures, equipment, personnel, supervision, training or time to safely design, operate, and maintain a system which could potentially cause a spill
	External Conditions	Natural phenomenon (see Cause entries) which occur with a magnitude outside of reasonably anticipated design or operating limits
	Other	
	Unknown	
Cause (Cause Type Equipment Failure)	Electrical failure	Failure of electrical generation, transmission, or switching equipment
	Mechanical failure	Failure of a mechanical component, device, or system
	Structural failure	Failure of a structure or structural component, including tank plating or shell
	Electronic failure	Failure of an electronic device or one of its components, including computer hardware and/or software
	Other	

Cause (Cause Type Human Error)	Communications	Difficulties in the transfer of information (not language related); failure to understand or comply
	Language	Difficulties in the transfer of information due to language barriers
	Illegal Drugs/alcohol	Any form or level of diminished ability (physical or mental) due to the use of illegal drugs or inappropriate alcohol use or alcohol intoxication.
	Legal Drug Use	Any form or level of diminished ability (physical or mental) due to the use of legal over-the-counter drugs and supplements and/or medications prescribed by a doctor to treat a physical or mental condition
	Inexperience	Inadequate technical knowledge due to a properly trained person not having enough experience to properly perform the task at hand
	Improper equipment use	Using equipment to accomplish tasks other than those for which the equipment was specifically designed
	Inaccurate computation	Mathematical error
	Inattention/Distraction	Loss of attention, not paying attention; the failure to detect, attend to, or be aware of critical or significant information. Includes loss of focus due to external influences such as computer devices or mobile phones
	Procedural error	Unintentional deviation from or failure to follow an established procedure
	Fatigue/Reduced Alertness	Reduced physical or mental performance as the result of factors related to duration/quality of sleep/rest; circadian factors (time of day, jet-lag, shift-maladjustment, etc.); sleep disorders; and/or overwork.
	Illness	Sickness which causes decrease in physical or mental abilities
	Judgment	Incorrect assessment, estimation, interpretation or opinion
	Sabotage/suspected illegal activity	Intentional destruction of property, obstruction of normal operations, treacherous action to defeat or hinder, or criminal act; includes dumping
	Deliberate violation	Purposeful deviation from procedure to make job easier, to save time, to save money, or for personal convenience; does not include acts of sabotage or actions with intent to do harm
	Other	
Cause (Cause Type Organizational/ Management Failure)	Lack of Procedure/Policy	Failure to have company procedures or policies specific to the operation.
	Inadequate Procedure/Policy	Failure of management to provide training and follow-up to ensure procedures or policies are followed.
	Lack of Planned Maintenance Program	Failure to have company planned maintenance program
	Inadequate Implementation of Planned Maintenance Program	Failure of management to provide training and follow-up to ensure planned maintenance program is followed
	Inadequate Maintenance	Equipment, structure, component, or system failed due to a lack of maintenance necessary for their normal functioning.
	Poor Oversight	Failure of management to effectively oversee the performance of subordinates or management systems, or a lack of involvement, inspection, communication, etc.
	Lack of supervision	Lack of Supervision: Failure of management to provide direction,

		information or instruction to subordinates
	Insufficient personnel	Failure of management to ensure that adequate personnel with the proper skill level, physical and mental ability, experience, and/or certification are assigned so all required tasks can be done
	Inadequate training	Inadequate technical knowledge due to insufficient training
	Equipment/system design	Failure of equipment/system design to provide for safe operations under normal operating conditions
	Manufacture/construction	Failure caused by faulty manufacture, construction, or installation (within the control of the responsible party) when operating under normal conditions
	Installation	Failure of equipment when operating under normal conditions caused by faulty installation or lack of testing following installation
	Other	Organizational/management failure not listed above
Cause (Cause Type External Conditions)	Reduced visibility	Self-explanatory
	Rain	Self-explanatory, may limit visibility
	Snow	Self-explanatory, may limit visibility or cause loss of control
	Ice	Self-explanatory, may cause loss of control
	Lightning	Self-explanatory
	Wind	Rapid air movement caused by weather systems
	Sea state	Storms, high waves, shoaling, severe eddies or wind-driven currents that may affect vessel maneuverability
	Tidal conditions	A periodic variation in the level of the earth's waters that may affect vessel maneuverability (including currents)
	Temperature	Self-explanatory
	Landslide	The dislodging and fall of a mass of earth or rock
	Earthquake	Movements in the earth's surface caused by strains along geologic faults or volcanic activity
	Tsunami	A series of water waves caused by the displacement of a large volume of a body of water, generally an ocean or a large lake, often generated by earthquakes, volcanic eruptions, landslides, etc.
	Other	External condition not listed above
Regulated	Yes	Regulated by the state for oil spill prevention purposes
	No	
Narrative	Free text	General description of spill and/or incident. Provide supplemental information on "Other" and "Unknown" data fields. Describe links between Incident Type, Source, Activity, Immediate Cause, and Contributing Factors. The narrative should provide a significant level of detail