APPENDIX B-3

LIST OF ALL FIELDS AND CONTENT OF DATABASE LIQLCK

LIQLCK Dataset

INTERSTATE PIPELINE?

INTER		COUNT
	0	24
Yes	1	1262
No	2	591
Total		1877

FEDERAL LAND?

IFED		COUNT
	0	17
Yes	1	71
No	2	1789
Total		1877

PARTS OF SYSTEM INVOLVED

	CSYS	COUNT
	0	59
line Pipe	1	1251
tank farm	2	279
pump st.	3	288
	Total	1877

ITEM INVOLVED

ORGLK		COUNT
	0	77
pipe	1	1026
valve	2	136
scraper trap	3	28
pump	4	61
welding fitting	5	26
girth weld	6	44
tank	7	135
bolted fitting	8	39
long. weld	9	49
others	10	254
	Total	1875

ITEMS INVOLVED OTHERS

ORGLO	COUNT
NOT GIVEN	3
UNKNOWN	1
8 FLANGE GASKET	1
.5 INCH PIPING	1
1" BALL VALVE ON DRAIN	1
1" CONN. ATTACHED TO PIPE	1
1" DRAIN VALVE	1
1" NIPPLE BETWEEN MAINLIN	1
1' NIPPLE TO PRESSURE GAG	1
1' PIPE TAP OF 20' LINE.	1
1' PRESSURE SENSING LINE	1
1" THREAD LEAK	1
1" THREADED PIPE FITTING	1
1-IN PIPE; 2- IN SAFTY JO	1
1/2 INCH BLEEDER LINE ON	1
1/2" 80 PRESS. GUAGE PIPE	1
1/2" COLLAR, NIPPLE, VALV	1
1/2" FITTING	1
1/2" HIGH PRESSURE NIPPLE	2
1/2" NIPPLE	1
1/2" SCHEDULE 80 NIPPLE	1
1/2"LINE ON A GRAVITOMETE	1
1/2INCH SEAL COOLING LINE	1
114' NEW NIPPLE ON SAMPLE	1
1/4IN. STEEL.80 PIPE USED	1
10' THREAD & COLLAR PIPE	1
12' CHECK VALVE	1
2 INCH PIPING ON THERMAL	1
2' BYPASS VALVE	1
2" PIPE COUPLING	1
2' PRESSURE EQUALIZATION	1
2" THREAD CONN. ON TANK	1

2' THREADED PIPE	1
2"X1" SCREWED REDUCING EL	1
2-INCH DRAIN HOSE CONNECT	1
24' PROVER (BLOWN GASKET)	1
3/4" INSTR. LINE REMOVED	1
3/4" PIPE NIPPLE ON PUMP	1
3/4" STAINLESS STEEL TUBI	1
3/4" TAP ON LINE INSTALLE	1
3/4" THREADED PIPE NIPPLE	1
3/4"THREADED FITTING	1
3/8 INCH STAINLESS STEEL	1
3/8" INSTRUMENT TUBING	1
3/8" PRESSURE SWITCH TUB	1
3RD PARTY DAMAGE	1
4' BULL PLUG BOT.DRAIN VA	1
4' GASKET	1
5/8" S S TUBING	1
5/8" SEAL COOLING RUPTURE	1
6	1
9	1
90 ELL	1
A 3/4 INCH X 6 INCH PIPE	1
ACETYLENE WELD BROKE	1
ACETYLENE WELDED	1
ALSO LONGITUDIAL WELD	1
AUTOMATC CONTROL VALVE	1
BASKET STRAINER	1
BEARING COOLING LINE ON	1
BELL SPICKET JOINT	1
BOLTED FITTING	1
BOLTED LEAK CLAMP	1
BOOSTER ST SCRAPER LAUNCH	1
BRINE WATER STORAGE PIT	1

CAVERN WELL SHAFT	1
CHECK VALVE	1
CHECK VALVE FLANGE GASKET	1
CHECK VALVES FAILED	1
CLAMP	1
COLLAR	1
COLLAR COUPLING	2
COLLAR COUPLING ON PIPE	1
COLLAR THREADS	1
COLTON STATION SURGE TANK	1
COMPRESSED ASBESTOS GASKE	1
CONTINUOUS COMP. SAMPLER	1
CONTROL VALVE	1
CORROSION COUPON HOLDER	1
CRACK IN 12' PIPE COLLAR	1
CRACK IN HORIZONTAL WELD	1
CRACK IN SEAM OF PIPE	1
DENSITOMETER PUMP COUPLIN	1
DENSITOMETER SUCTION LINE	1
DIA. TUBING ON MAINLINE	1
DIFFERENTIAL PRESSURE GAU	1
DOPPLER LINE INTEGRITY ME	1
DOZIER KNOCKED DOWN LINE	1
DRAIN LINE	1
DRAIN TILES THAWED RELEAS	1
DRAIN VALVE LEAK	1
DRESSER COUPLING	1
DRESSER COUPLING - P	1
ELECTRIC DRIVER	1
ELECTRIC MOTOR & PUMP	1
EXACT ITEM UNKNOWN	1
EXPANSION JOINT	3

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FABRICATED PIPE BEND	1
FAILURE AT WELD	1
FAILURE OF WELD	1
FAULTY PLUG BLEW OUT LINE	1
FILLET WELD HEAT-AFFECTED	1
FILLET WELD ON EXISTING	1
FILTER HOUSING ON REMOTE	1
FILTER POT (VESSEL)	1
FILTER VESSEL & SUMP TANK	1
FILTER/ COALESCER	1
FITTING IN ROOF DRAIN FAI	1
FLANGE GASKET	3
FLANGE GASKET FAILURE	1
FLANGE GASKET LEAK	1
FLANGE GASKET ON 3' TANK	1
FLANGE IN VALVE VAULT ON	1
FLARE	1
FLOW SWITCH-LINE PRESSURE	1
FREE WATER KNOCKOUT VESSE	1
FUEL GAS SYSTEM ON TURBIN	1
GASKET	3
GASKET BETWEEN FLANGE & M	1
GASKET FAILED CAUSE LEAK	1
GASKET FAILED ON STRAINER	1
GASKET FAILURE	1
GASKET LEAK IN FLANGES	1
GASKET ON 10' WAFER VALVE	1
GASKET ON STOPPLE FITTING	1
GASKET ON SURGE SYSTEM	1
GIRTH WELD	1
GLANGE GASKET	1
GRAVITOMETER ATTACHED TO	1
HAND OPERATED BLOCK VALVE	1
HEAT EXCHANGER	1
HEAT EXCHANGER STEAM TRAP	1
HYDROSTATIC WATER PURGE L	1
IN CASING	2
INBOARD PUMP SEAL	1
INJECTION PUMP SEAL FAIL.	1
INSTRUMENTATION	1
INSULATING FLANGE	1
INSULATING KIT FLANGES	1
INTERNAL DRAIN LINE HOSE	1
LACK OF PENETRATION	1
LEAK IN ROOF DRAIN	1
LEAK OCCURED IN THE	1
LINE PACKER	1
LOADING HOSE BLOW DOWN	1
LONGITUDIAL WELD	1
LONGITUDINAL WELD	1
MAINLINE CHECK VALVE	1
MAJOR HEAD SWITCH USED	1
MECHANICAL PUMP SEAL	1
METER #PDM 401	1
METER CASE	1
METERING STATION	1
MIXER ON TANK 1997	2
NIPPLE 1/2 INCH	1
NIPPLE FAILED ON DISCHARG	1
NIPPLE FROM STRAINER BAR.	1
NITROGEN VENTING AT STA.	1
NO. 1 SCRAPER PASSAGE IND	1
NON SPECIFIED	12

NON-REGULATED < 20% SMYS	1
NON-SPECIFIED	1
NONE SPECIFIED	2
NOT GIVEN	1
NOT LISTED ON FORM	1
NOT SPECIFIED	3
OIL TRANSFER HOSE ON SHIP	1
OIL/WATER SEPARATOR	1
ON A 1/4 INCH USED TO FEE	1
ONE-HALF INCH NIPPLE	1
ORANGE BY PASS VALVE	1
ORFICE FITTING	1
PACKING GLAND	1
PACKING GLAND LEAK ON 1-I	1
PACKING NUT ON PUMP.	1
PIG RECEIVER WAS OPEN.	1
PIG TRAP BLOCK VALVE	1
PIN HOLE IN WELD	1
PINHOLE IN WELD	1
PIPE AND VALVE	1
PIPE COUPLING CONNECTION	1
PIPE NIPPLE	2
PIPE NIPPLE ON PUMP	1
PIPE REPLACEMENT	1
PIPELINE FILTER COVER.	1
PIPELINE SCRAPER TRAP APP	1
PIPELINE WAS TORN IN HALF	1
PIPLN. CLAMP COVER WELD	1
POP-OFF VALVE	1
PRE-FABRICATED30DEG BEND	1
PRESSURE GAUGE	1
PRESSURE HOSE	1
PROBALY PUMP SEAL	1
PROD. SEPARATOR SUMP	1
PRODUCER	1
PRODUCT ESCAPE (WATER)	1
PROVER BARREL	1
PROVER LOOP FITTING	1
PROVER LOOP/SUMP TANK	1
PUMP 71-OUTBOARD SEAL FAL	1
RECOMPRESSOR AND CAVERN	1
H	
RELIEF	1
RELIEF VALVE	6
RELIEF VALVE ON TANK	1
RELIEF VALVE OUTAGE	1
RETRACTABLE SAMPLE PROBE	1
ROAD CASING	1
ROOF DRAIN HOSE	1
ROOF DRAIN HOSE FAILURE	1
ROOF DRAIN HOSE.	1
ROOF DRAIN LINE HOSE	1
ROOF, DRAIN, HOSE & VALVE	1
ROOT DRAIN LINE	1
SALT DRYER	1
SCREW FITTING ON MAIN LIN	1
SCREWED 10" PIPE PLUG	1
SCREWED PIPE COUPLING	1
SCREWED PIPE NIPPLE	1
SEAL ON INSTR. PROBE	1
SEE ATTACHMENT	1
SEE REMARKS	1
SHOP FABRICATED BEND	1

SLOP TANK, NOT BREAKOUT	1
ST. RELIEF FLOW LINE	1
STOPPLE FITTING	2
STOPPLE FITTING (O-RING)	1
STRAINER	3
STUB CONNEC. OFF 8' PIPE.	1
SUBSEA MANIFOLD	1
SUMP	6
SUMP & 112 INCH VALVE	1
SUMP OVERFILLED	2
SUMP OVERFLOW	1
SUMP OVERFLOWED	2
SUMP TANK	4
SUN PRESSURE REL. VALVE	1
SUPPORT SLEEVE	1
T.D. WILLIAMSON T101 TAPP	1
TANK	2
TANK DRAIN VALVE OPEN	1
TANK EXTERNAL FLOATING RO	1
TANK MIXER-ON TANK #48398	1
TANK OVERFILL	1
TANK ROOF DRAIN	1
TANK ROOF DRAIN LINE	1
TANK ROOF DRAIN LINE ON	1
TANK ROOF DRAIN LINE ON #	1
TANK SUMP	1
TANK W-3	1
TANK WAS VANDALIZED BY PE	1
TANK-3 AT WINK TANK FARM	1
TAP INSTLD BY THIEVES	1
TATTLE-TALE VALVE	1
TD WILLIAMSON COMP. PLUG	1
TEMPORARY BLIND FLANGE	1
TEMPORARY FLARE	1
TEMPORARY HOSE	1
TEMPORARY PIPELINE PLUGGI	1
TEMPORARY PIPING	1
THERMAL RELIEF VALVE	1
THREADED COLLAR	1
THREADED FITTING	5
THREADED FITTING INTO 2"	1
THREADED INSTR. ON PIPE.	1
THREE (3) 1' PIPE NIPPLES	1
TOR	1
TRANSFER HOSE	1
TRANSMIX TANK	1
TWO-INCH NIPPLE	1
UNDERGROUND SUMP TANK	1
UNKNOWN	32
UNKNOWN AT PRESENT	1
UNKNOWN AT THIS TIME	1
VACUUM TRUCK HOSE	1
VALVE & STATION PIPING	1
VITAULIC COUPLING	1
WELD FAILURE	1
WELD ON ENCIRCLEMENT SLEE	1
WELD ON STOPPLE FITTING	1
WELD PLUS ENDS	1
WELDING FITTING	1
YARD DRAIN	1
Total	363

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YEAR ITEM INSTALLED

ITMYR	COUNT
0	174
1905	2
1910	1
1911	1
1917	2
1918	6
1919	19
1920	12
1921	5
1922	1
1923	10
1924	10
1925	19
1926	4
1927	22
1928	18
1929	27
1930	41
1931	23
1932	3
1933	5
1934	1
1935	9
1936	14
1937	8
1938	6
1939	16
1940	19
1941	26
1942	28
1943	12
1944	17
1945	10
1946	29
1947	37
1948	40
1949	26
1950	43
1951	27
1952	41
1953	34
1954	46
1955	36
1956	26
1957	40
1958	32
1959	17
1960	38
1961	24
1962	44
1963	48
1964	34
1965	36
1966	30
1967	45
1968	56
1969	27
1970	18
1971	29
1972	19
1973	24
1974	16
1975	14
1976	23
1977	24
1978	18
1979	21
1980	30
1981	22
1982	14
1983	9
1984	20
1985	13
1986	18
1987	16
1988	13
1989	17
1990	12
1991	15
1992	16
1993	22
1994	7
Total	1877

CAUSE OF ACCIDENT

	CAUS	COUNT
CORROSION	1	479
FAILED WELD	2	90
INCORRECT OPERATION BY OPERATOR PERSONNEL	3	109
FAILED PIPE	4	108
OUTSIDE FORCE DAMAGE	5	486
MALFUNCTIONING OF CONTROL OR RELIEF EQUIP.	6	97
OTHERS	7	508
	Total	1877

CAUSE OF ACCIDENT, OTHERS

CAUSO	COUNT
& FAILED PIPE	1
FATIGUE CRACK NEAR WELD	1
"D" RING SEAL FAILED	1
"O" RING IN SCRAPER TRAP	1
& MALFUNC OF CONTROL EQUP	1
. LABORATORY TESTS BEING	1
O-RING FAILED	1
O-RING SEAL FAILURE	1
1 INCH DEFECT ON L. WELD	1
1' DRAIN VALVE LEFT OPEN.	1
1' LINE ON PUMP BROKE	1
1' VALVE UNSCREWED	1
1/2 INCH COOLING LINE	1
112' LONG HAIRLINE CRACK	1
112" PIPE NIPPLE CRACKED	1
1/2"LINE ON A GRAVITOMETE	1
1/4" DEEP FLAT SPOT IN PI	1
114' HOLE BURNED TANK FLO	1
10" TANK VALVE FAILURE	1
16' CHECK VALVE O-RING LE	1
2' PLUG NOT INSTALLED	1
2" THREADED CONN. LOOSEN	1
3/4 INCH DRAIN LINE VALVE	1
3/4" PIPE NIPPLE, ON MAIN	1
3RD PARTY CAUSED DAMAGE	1
3RD PARTY DAMAGE-AUGER DR	1
3RD PARTY LINE DAMAGE	1
3RD PARTY PUNCTURED LINE	1
4 1/2 LINE DAMAGED	1
4' CAST IRON GATE VALVE	1
4" GASKET FAILED BETWEEN	1
5/8" S S TUBING BROKE AT	1
8' PIPE COLLAR COUPLING	1
A BELL & PICKET JOINT PUL	1
ABRASION/ROCK UNDER PIPE	1
ACCIDENTAL PUNCTURE	1
ALSO MALFUNCTION OF CONTR	1
ALSO OUTSIDE FORCE DAMAGE	1
APPARENT CRACK IN VALVE M	1
APPARENTLY A COW BUMPED A	1
BACK PRESSURE VALVE FAILU	1
BACKBONE OPERATOR BROKE A	1
BACKHOE DIGGING NEW PIPEL	1
BACKHOE DUG INTO LINE	1
BALL CHECK ASSEMPLY LEAK	1
BLK VALVE GASKET SWEATLEA	1
BONNET GASKET LEAK	1
BOOSTER PUMP MOTOR FAILED	1
BOOSTER PUMP SEAL FAILURE	1
BREAK IN STEEL PIPE	1
BROKEN 3/4" NIPPLE IN THR	1
BROKEN GLAND BOLT	1
BROKEN ROOF DRAIN	1
BROKING INSTRU. TUBING	1
BRUSH HOG HIT LINE	1
BUCKLED TO UNKNOWN REASON	1
BULL PLUG WAS REMOVED.	1
BULLDOZER HIT LPG P/L	1
BULLDOZER OPERATED BY OTH	1
BULLET FIRED BY UNK. PERS	1
BULLET HOLE	1
BULLET HOLE IN PIPE.	1
BURN THROUGH FLOOR PLATE	1
CAUSE OF BREAK UNKNOWN AT	1
CAUSE UNDER INVESTIGATION	1
CAUSE WILL BE DETERMINED	1
CAUSED BY SHORTED CASING	1
CHECK VALVE	1
CHECK VALVE SEAL FAILURE	2
CHECK VALVE TO SUMP DID	1
CHECK VALVES FAILED	1
CHK VALVE SHAFT GLND FAIL	1
CLAPPER SHAFT SEAL FAIL	1
CLOSED VALVE GATE LEAKAGE	1
COATING DAMAGED.	1
COLD CUT LINE FOR SCHEDUL	1
COLD CUT TO IMPROPERLY ID	1
COLD WEATHER	1
COLLAR COUPLING BROKE OUT	1
COLLAR FAILURE, THREADS	1
COLLAR SEEP	1
COLLAR SEPARATED	1
COND. OF PIPE, CLAMP LEAK	1

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CORROSION	1
CORROSION PIT	1
CRACK CAUSED BY CORROSION	1
CRACK DEVELOPED IN BOTTOM	1
CRACK IN 6 INCH CHECK VAL	1
CRACK IN BODY OF VALVE	1
CRACK IN CHECK VALVE	1
CRACK IN FIBERGLASS TANK	1
CRACK IN NIPPLE	1
CRACK IN TANK FLOOR	1
CRACK IN THE FLOOR TO	1
CRACK IN THE SUMP	1
CRACK IN THREADED SECTION	1
CRACK IN VALVE BODY	1
CRACKONDENT	1
CRAKED PUMP CASE	1
CREVICE CORROSION	1
DAMAGE TO PIPE	1
DAMAGED VALVE FAILED	1
DEFECT IN LONG. WELD	1
DEFECT IN SEAM	1
DEFECTIVE MATERIAL - 1/4"	1
DEFECTIVE WELD	1
DENT FROM ORIGINAL CONSTR	2
DIAMETER TUBING FAILED	1
DIAPHRAGM ON LEVEL GAUGE	1
DOZER BLADE HIT LINE	1
DRAIN VALVE LEAK	1
DRILLED INTO THE PIPELINE	1
DRILLED THROUGH P/L	1
DRIP	1
DRIP LEAK ON SUBSEA MANIF	1
DRIVER SHAFT TORQUE TWIST	1
DROPPED ANCHOR ON LINE.	1
ELECTRICAL POWER OUTAGE	1
ELECTRICIAN PULLED ON 1/4	1
EQMT FAIL & INT CORR	1
EQUIP RUPT LINE	1
EQUIP.MALFUNCTIONED	1
EQUIPMENT FAILURE	1
EQUIPMENT MALFUNCTION	2
EQUIPMENT RUPTURING LINE	1
ERROR BY CONTRACTOR PERS.	1
EXACT CAUSE IS UNDER IVES	1
EXCESSIVE FORCE	1
EXTENDED LOW TEMP. NEAR 0	1
EXTERNAL CORROSION	1
FAIL PIPLN CLAMP	1
FAILED 'ASBESTOS-TYPE" GA	1
FAILED CAST IRON VALVE	1
FAILED CHECK VALVE SEAL	1
FAILED CHECK VALVE SHAFT	1
FAILED CHECK VALVE STEM S	1
FAILED DENSITOMETER PUMP	1
FAILED DOCK HOSE	1
FAILED DRAIN HOSE	1
FAILED FITTING IN ROOF DR	1
FAILED FLANGE GASKET	2
FAILED FORGED FITTING	1
FAILED GASKET	2
FAILED GASKET IN FLANGES	1
FAILED GASKET IN TRAP	1
FAILED INSUL. FLANGE GASK	1
FAILED O-RING IN CHECK VA	1
FAILED O-RING IN GRAVITOM	1
FAILED O-RING IN SCRAPER	1
FAILED PACKING ON VALVE	1
FAILED PIN IN VALVE SHAFT	1
FAILED PIPE NIPPLE	1
FAILED PLUG	1
FAILED PUMP	1
FAILED ROOF DRAIN VALVE	1
FAILED STAINLESS STEEL TU	1
FAILED TANK MIXER SHAFT	1
FAILED THREADED COUPLING	1
FAILED WELD	1
FAILED WELD IN SUPPORT SL	1
FAILED WELD PLUS END	1
FAILUE OF GARLOCK GASKET	1
FAILURE AT SIGLE CORR PIT	1
FAILURE IN BOTTOM PLATE O	1
FAILURE IN FITTING	1
FAILURE IN TANK BOTTOM	1
FAILURE OF 1.5" FORGED ST	1
FAILURE OF 2' 90 ELL	1
FAILURE OF A 20' GASKET A	1
FAILURE OF A TANK ROOF DR	1
FAILURE OF BOLTED INSULAT	1
FAILURE OF FILTER HOUSING	1
FAILURE OF FLANGE GASKET	1
FAILURE OF FLEXITALLIC	1
FAILURE OF FOUR LINER CAP	1
FAILURE OF LINER CAP BOLT	1
FAILURE OF METER	1
FAILURE OF MR ELECTRICAL	1
FAILURE OF NIPPLE AT THRE	1
FAILURE OF PACKING GLAND	1
FAILURE OF PRESSURE HOSE	1
FAILURE OF PUMP MOTOR THR	1
FAILURE OF TANK ROOF	2
FAILURE OF TANK ROOF DRAI	2
FAILURE OF TEMPORARY CONN	1
FAILURE OF VICTAULIC	1
FAILURE OF WELDED FITTING	1
FAILURE TO FOLLOW MAINTEN	1
FAILURE/THREADED NIPPLE	1
FARMER HIT WITH PLOW	1
FATIGUE CRACK IN TANK FL	1
FATIGUE FAILURE	1
FATIQUE DUE TO VIBRATION	1
FAULTY 'O' RING SEAL	1
FAULTY CAST ON CHECK VALV	1
FIBER GASKET FAILURE	1
FIRE	1
FIRE - CAUSE UNKNOWN	1
FIRE AND EXPLOSION	1
FIRE CAUSED BY LIGHTNING	1
FIRE CAUSED FROM AUTO	1
FIVE CRACKS IN THE FLOOR	1
FLANGE BOLTS MAY BE LOOSE	1
FLANGE GASKET FAILED	1
FLANGE GASKET FAILURE	1
FLANGE GASKET ON 8' VALVE	1
FLAW IN PRE-FABRICATED 30	1
FLOATING ROOF DRAIN FAIL	1
FLOOD	1
FLOW SWITCH FAILED	1
FOUND NO PROBLEM	1
FOUR-FOUR CONSTRUCTION CO	1
FRACTURE OF .5 X 2' NIPPL	1
FREEZING TEMP CAUSED	1
FROZEN 1-INCH PRESSURE RE	1
GASKET FAILED	3
GASKET FAILED AT BOLT	1
GASKET FAILURE	10
GASKET FAILURE IN SWIVEL	1
GASKET FAILURE-UNKNOWN RE	1
GASKET FITTING	1
GASKET LEAK	1
GASKET MISALIGNMENT	1
GASKET ON DISCHARGE SIDE	1
GASKET ON LEAK FAILED.	1
GAUGE LINE CRACK	1
GUN SHOT	1
GUN SHOT BY VANDALISM	1
HASKET FAILURE	1
HEAVY RAINS	1
HEAVY RAINS(12"-14") CAUS	1
HIGH LEVEL SHUT DOWN SWIT	1
HIGH PRESSURE	1
HIGH PRESSURE NIPPLE BROK	1
HIGH WIND CAUSE TANK FLEX	1
HIT BY ROAD GRADER	1
HIT BY THIRD PARTY PERFOR	1
HIT PIPELINE	1
HOLE BURNED THROUGH PIPE	1
HOSE SEPARATED FROM ITS C	1
HOSE TO PIPELINE FAILED	1
HUMAN ERROR, EMPLOYEE CLO	1
HYDROGEN STRESS	1
ICE FREEZING IN WATER DRA	1
ICE FROM TANK ROOF FELL	1
IGNITION OF PRODUCT VAPOR	1
ILLEGAL TAP	1
IMPRO.TIGHTING OF VALVE	1
IMPROPER DRAIN PIPING	1
IMPROPER INSTALLATION BY	1
IMPROPERLY TORQUED FLANGE	1
INBOARD PUMP SEAL FAILED	1
INCOMPLETE CLOSURE OF 1'	1
INCORRECT MAINTENANCE PRO	1
INCORRECT OPERATION	3
INCORRECT OPERATION BY	1
INCORRECT OPERATIONS	1
INCORRECT PROCEDURE	1
INJECTION PUMP SEAL FAIL.	1
INSUFFICIENT SEALING OF V	1
INSUFFICIENT SURFACE AREA	1
INSUFFICIENTLY TIGHTENED	1
INSUL. FLANGE GASK. FAIL	1
INSULATING GASKET FAILED	1
INT. CORROSION (UNKNOWN)	1
INTERNAL MILL DEFECT	1
IT APPEARS PIPE WAS DAMGD	1
LAKE WAS CAUSED BY A BROK	1
LAND OWNER HIT LINE	1
LEAK AT FLANGE ON MAINLIN	1
LEAK FLANGE,CORR. ELBOW	1
LEAKING 1' NEEDLE VALVE	1

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LEAKING DRAIN VALVE	1
LEAKING GASKET	1
LEAKING ON MAINLINE	1
LEAKING SEAL SURGE PUMP	1
LEV. MONITOR. SYS. FAILED	1
LIGHTNING	4
LIGHTNING STRIKE	2
LIGHTNING STRUCK TANK	1
LINE DAMAGED BY 3RD PARTY	2
LINE HIT BY THIRD PARTY C	1
LINE SPLASHED BACK DURING	1
LINE STRUCK BY DOZER	1
LINE WAS HIT	1
LINE WAS SHOT BY A RIFLE	1
LIQUID RELEASED FROM VENT	1
LOADING VALVE REMAINED	1
LOOSE CONN. TO HEAT EXCH	1
LOOSE FLANGE BOLT	1
LOOSE GREASE FIITING CAP	1
LOOSE SEGMENT BOLT	1
LOST PACKING/CHECK VALVE	1
MAINTANER HIT 2' VALVE	1
MALFUCTION OF RELIEF EQUP	1
MALFUNCTIONOF CONTROL OR	1
MALFUNCTIONOF HIGH LEVEL	1
MALFUNCTION OF SWIVEL	1
MALFUNCTION OF VALVE	1
MALFUNCTION OF VALVE OPER	1
MALFUNCTION PUMP SLEEVE	1
MANIFOLD VALVE MALFUNC.	1
MANUFACTURING DEFECT PIPE	1
MECH BREAKDOWN COUPLER	1
MECHANICAL DAMAGE	1
MECHANICAL FAILURE	2
MECHANICAL FAILURE OF A	1
MECHANICAL FAILURE OF BOL	1
MECHANICAL FAILURE OF RUP	1
MECHANICAL FAILURE VALVE	1
MECHANICAL PUMP SEAL	1
MECHANICAL SEAL FAILURE	2
MECHANICAL SEAL FAILURE.	1
METAL FATIGUE (VIBRATION)	1
METAL FATIGUE OF NIPPLE	1
METALLURGICAL EXAMINATION	1
MISALIGNED THREADS	1
MISCALCULATED VOLUMES	1
MOTOR GRADER	2
MOTOR GRADER STRUCK LINE.	1
MUDSILDE DUE TO HURRICANE	1
NATURAL CAUSE RAINFALL	1
NATURAL WEAR AND TEAR	1
NCRA 6"PRDTS PIPELINE HIT	1
NIPPLE FAILED	1
NIPPLE ON VOL.BOT. BROKE	1
NIPPLE VOL BOTTLE BROKE	1
NOT GIVEN	1
NUT ON PUMP BACKED OFF	1
O RING FAILURE	1
O RING FAILURE METER CASE	1
O RING FAILURE/DOOR CLOSE	1
O-RING FAILURE	2
O-RING GASKET FAILED ON S	1
O-RING ON CHECK VALVE LID	1
O-RING SEAL FAILURE	1
O-RING SPLIT	1
O-RING STOPPLE FIITING	1
O-RING/BONNET SEAL FAILUR	1
OIL BACKED UP FROM PUMP	1
OLD BOLTED CLAMP BEGAN LE	1
ONE-INCH DIAMETER PIPE	1
OPENNED VALVE	1
OPERATIONAL ERROR	1
OPERATOR ERROR	2
OUTBOARD PUMP SEAL FAILUR	1
OUTBOARD SEAL FAILURE	1
OUTSIDE FORCE DAMAGE	1
OVER PRESSURING/PIPING	1
OVERFILLED TANK	1
OVERPRESSURE OF STEAM TRP	1
OVERPRESSURED PIPE	1
PACK. NUT ON PUMP CAME OF	1
PACKING FAILED	1
PACKING GLAND BLOT BROKE	1
PACKING GLAND BOLTS BROKE	2
PACKING GLAND FAILED.	1
PACKING GLAND FAILURE ON	2
PACKING GLAND LEAK ON PMP	1
PACKING NUT BACKED OFF ON	1
PACKING ON PD PUMP FAILED	1
PIN HOLE IN THE FLOOR FIL	1
PIN HOLE IN WELD	1
PIN HOLE LEAK	1
PIN LOOSEN ON MIXER	1
PIN SHIFTED OUT OF PLACE	2
PINHOLE LEAK	1
PINHOLE LEAK IN A WELD	1
PINHOLE LEAK IN SEAM.	1
PINHOLE LEAK IN WELD	2
PIPE BROKEN BY FLOOD	1
PIPE CONTRACTED	1
PIPE FAILED AT PREV DENT	1
PIPE FAILED FROM EXT.GOUG	1
PIPE FAILED/PIN HOLE INVE	1
PIPE FAILURE DUE TO DAMAG	1
PIPE HAS BEEN SENT FOR	1
PIPE IN DRESSER COUPLING	1
PIPE PUNCTURED/3RD PARTY	1
PIPE RESTING ON ROCK/CRAC	1
PIPE SEAM FAILURE	1
PIPELINE STRUCK BY EARTHM	1
PIPELINE WAS PUNCTURED BY	1
POWER FAIL- TANK RAN OVER	1
POWER FAILURE SHUTDN	1
PRESSURE FROM PIPELINE	1
PRESSURE SENSING LINE	1
PROBE FAILURE	1
PRODUCT IGNITED IN TANK	1
PROPANE VAPORS IGNITED	1
PROVER LOOP VENT VALVE NO	1
PUMP CASE BROKE	1
PUMP CASE CRACKED	1
PUMP CASE SPLIT	1
PUMP COOLING LINE SEP.	1
PUMP PACKING & PLUNGER FA	1
PUMP PACKINGS	1
PUMP ROD BROKE	2
PUMP SEAL	1
PUMP SEAL FAILED	2
PUMP SEAL FAILURE	3
PUMP SEAL LEAK	1
PUMP VIBRATION	1
PUMP/MOTOR MALFUNCTION	1
RD MAIN EQUIP RUPT LINE	1
RELEASE ETHANE FRM FUEL	1
RELIEF LINE REMOVED	1
RETAINING STUDS BREAK	1
RETRACTABLE SAMPLE PROBE	1
ROAD GRADER	1
ROAD GRADER HIT LINE	1
ROD PACKING BLEW	1
ROD PULLED OUT PACKING	1
RODS PARTED ON PIPELINE	1
ROOF DRAIN FAILURE	1
ROOF DRAIN HOSE BROKE APA	1
ROOF DRAIN LINE RUPTURE	1
ROOF LEG PUNCTURED TANK	1
ROOF TANK TO DEFLECT	1
ROTATE ELEM.OF PUMP SEIZE	1
RUPTURED GASKET ON SURGE	1
SCRAPER TRAP DOOR FAILURE	1
SCRATCH DEVELOPED CRACK	1
SEAL FAILURE	5
SEAM SPLIT ACCEL 8Y CORR	1
SEE BACK OF FORM (PARK K	1
SEE COMMENTS SECTION	1
SEE MEMO FIELD	1
SEE PART K	3
SEE REMARKS	12
SEEPAGE AROUND THE PLUG	1
SENDING PIPE FOR TESTING	1
SLOP TANK OVERFLOW	1
SMALL CRACK IN DENT	1
SMALL FLASH FIRE	1
SMALL PINHOLE IN PLIDCO	1
SPARK IGNITED DRIP	1
SPLIT IN HEAT AFFECT ZONE	1
SPRING IN PUMP BROKE	1
STA. BLOCK VALVE LEAKED	1
STILL UNDER INVESTIGATION	1
STOPPLE SEALING ELEMENT F	1
STRAINER NIPPLE FAILED	1
STREE CRACKING AT UNKNOWN	1
STRESS CRACK	1
STRESS CRACK IN FLOOR PLA	1
STRESS CRACK IN THE COLUM	1
STRUCK BY LIGHTENING	1
STUDS ON PUMP FAILED.	1
SUB-SOILER STRUCK LINE	1
SUDDEN UNEXPEC. PRESSURE	1
SUMP OVERFLOWED	1
SUN PRESSURE	1
TANDEM PUMP SEAL	1
TANK BOTTOM CORROSION	1
TANK BOTTOM FAILURE	2
TANK BOTTOMS SEAL LEAK.	1
TANK C-9 CRACK IN WELD	1
TANK CAUGHT ON FIRE WHILE	1
TANK DRAIN VALV FAILURE	1
TANK EQUIP MALFUNCTIONED	1

LIQLCK Dataset

TANK BOTTOM FAILURE	2	TOP FLANGE GASKET FAILED	1	VALVE KNOCKED OFF BY CREW	1
TANK BOTTOMS SEAL LEAK.	1	TOP/THERMAL VALVE UNSCREW	1	VALVE LEAK	1
TANK C-9 CRACK IN WELD	1	TRANSFER HOSE RUPTURED	1	VALVE MALFUNCTION	1
TANK CAUGHT ON FIRE WHILE	1	TUBE STRING FAILURE.	1	VALVE OPEN RELEASE OIL	1
TANK DRAIN VALV FAILURE	1	TUBE TURN CLOSURE 'O-RING	1	VALVE PACKING BLEW OUT	1
TANK EQUIP MALFUNCTIONED	1	TUBING WORN THIN RUPTURED	1	VALVE SEAL FAILURE.	1
TANK MIXER VIBRATION	1	UNAUTHORIZED TAMPERING/VA	1	VALVE SEAL LEAKED	1
TANK OVERRUN CAUSED BY	1	UNDER INVESTIGATION	7	VALVE STEM SEAL LEAK	1
TANK OVERFLOW	1	UNEXPLAINED OPEN VALVE	1	VALVE WAS PULLED LOOSE	1
TANK ROOF DRAIN HOSE FAIL	1	UNIT CHECK VALVE SHAFT SE	1	VANDALISM	4
TANK ROOF DRAIN LINE HOSE	1	UNKNOWN	14	VENTED PLUG ON VALVE STEM	1
TANK TGGAUGING EQUIPMENT	1	UNKNOWN - VACUUM TRUCK HO	1	VIBRA.ON PUMP BROKE LINE	1
TANK VALVE CRACKED	1	UNKNOWN AT PRESENT	1	VIBRATION	1
TANK WAS VANDALIZED BY PE	1	UNKNOWN AT THIS TIME	2	VIBRATION/WEAR	1
TEMP. RESTRAINT FAILED	1	UNKNOWN AT THIS TIME (WAI	1	VISIBLE THIRD PARTY DAMAG	1
TEMPORARY PLUGGING DEVICE	1	UNKNOWN SOURCE IGNITION	1	WAITING FOR REPORT	1
THE COATING HAD APPARENTL	1	UNKNOWN, LINE BYPASSED	1	WATER DRAIN LINE FAILED	1
THE DAMAGED PIPE WILL BE	1	UNKNOWN, SEE ATTACHMENT	1	WATER FROZE & CR. HOUSE	1
THE PIPING IN QUESTION HA	1	UNKNOWN-VACUUM TRUCK HOSE	1	WATER IN VALVE FROZEN	1
THERMAL EXPANSION CAUSED	1	UNKNOWN;CRACK AT BOTTOM	1	WATER LINE FROZE	1
THERMAL PRESSURE PIPING	1	VALVE BODY CRACKED	2	WATER SEAL IN WELL LOST	1
THIRD PARTY DAMAGE	3	VALVE DID NOT SEAT COMPLE	1	WEATHER CONDITIONS " FROZ	1
THIRD PARTY INCIDENT	1	VALVE FAILED	1	WEEPER IN LONG. SEAM	1
THIRD PARTY TRAC HOE HIT	1	VALVE FAILED/METAL FATIGU	1	WELD FAILURE	1
THIRD PARY DAMAGED LINE	1	VALVE FAILURE	1	WELDERS WORKING	1
THREAD LEAK (DRIP)	1	VALVE FLANGE FAILURE	1	Total	622
THREADS FAILED ON 2' NIPP	1	VALVE GASKET FAILURE	1		

NUMBER OF PERSONS KILLED?		EMPLOYEE		NON-EMPLOYEE	
TFAT	count	EFAT	count	NFAT	count
0	1862	0	1874	0	1865
1	10	1	3	1	7
2	4	Total	1877	2	4
3	1			3	1
Total	1877			Total	1877

NUMBER OF PERSONS INJURED?		EMPLOYEE		NON-EMPLOYEE	
TINJ	count	EINJ	count	NINJ	count
0	1821	0	1847	0	1847
1	26	1	18	1	12
2	19	2	9	2	9
3	3	3	3	3	2
4	1			4	1
5	1			5	1
6	2			6	1
8	1			8	1
22	1			20	1
26	1			26	1
31	1			31	1
Total	1877	Total	1877	Total	1877

ESTIMATED PROPERTY DAMAGE $

PRPTY	COUNT								
0	268	100	12	300	8	450	1	700	3
3	1	115	1	302	1	470	1	720	1
5	1	150	4	314	1	500	34	740	1
10	2	160	1	336	1	505	1	750	3
20	2	200	12	350	2	510	1	800	4
45	1	250	6	375	1	550	1	810	1
50	4	269	1	384	1	575	1	850	2
92	1	275	1	391	1	600	4	880	1
		283	1	400	2	650	1	900	1

LIQLCK Dataset

1000	49	3650	1	7958	1	16000	6	30000	39
1100	2	3680	1	8000	11	16200	1	30294	1
1125	1	3690	1	8100	1	16400	2	30382	1
1200	3	3700	4	8225	1	16500	1	30500	1
1224	1	3740	1	8400	1	16600	1	30800	1
1250	4	3800	1	8500	3	16800	1	31180	1
1271	1	3803	1	8800	2	17000	9	31218	1
1300	3	3876	1	8818	1	17199	1	31920	1
1323	1	3900	2	8830	1	17500	2	32000	4
1350	2	3940	1	9000	7	17800	1	32300	1
1362	2	4000	19	9050	1	17854	1	33000	1
1400	2	4021	1	9283	1	18000	12	33780	1
1487	1	4025	1	9350	1	18240	1	34000	2
1500	25	4100	1	9476	1	18265	1	34153	1
1546	1	4115	1	9500	3	18310	1	34474	1
1600	2	4159	1	9550	1	18500	2	34550	1
1650	1	4200	3	9600	2	19000	4	35000	9
1700	3	4250	2	9700	2	19006	1	35151	1
1740	1	4300	1	9800	1	19180	1	35646	1
1750	1	4370	1	9850	1	19200	1	36000	1
1770	1	4400	2	10000	61	19300	1	36757	1
1800	1	4459	1	10300	1	19450	1	36950	1
1900	3	4500	8	10492	1	19593	1	37000	3
1930	1	4536	1	10500	1	19600	1	37452	1
1950	1	4600	1	10768	1	20000	36	38000	3
2000	37	4900	1	10865	1	20100	1	38700	1
2025	1	4958	1	10929	1	20200	1	40000	21
2030	1	5000	75	11000	7	20500	1	41000	1
2070	1	5028	1	11099	1	20800	1	42000	1
2097	1	5075	1	11137	1	21000	2	42700	1
2200	1	5076	1	11200	1	21093	1	42895	1
2250	2	5100	1	11300	1	21119	1	43000	2
2260	1	5150	1	11400	1	21200	1	43284	1
2273	1	5250	1	11546	1	21600	1	44000	1
2300	3	5383	1	11751	1	22000	1	44131	1
2362	1	5400	5	12000	20	22267	1	45000	11
2400	2	5450	2	12100	1	22269	1	45229	1
2500	16	5500	3	12136	1	22500	1	45453	1
2520	1	5550	1	12360	1	22911	1	46000	1
2536	1	5800	1	12450	1	23000	4	46073	1
2580	1	5858	1	12500	3	23025	1	46500	2
2600	1	5880	1	12567	1	23200	1	47000	3
2690	1	5928	1	13000	9	23315	1	47250	1
2698	1	6000	15	13323	1	23400	1	48000	1
2750	1	6063	1	13500	2	23940	1	48740	1
2751	1	6100	2	13600	1	24000	1	50000	59
2800	1	6219	1	13700	1	24220	1	50400	1
2840	1	6400	1	13900	1	24351	1	51000	1
2842	1	6500	3	13976	1	25000	42	51189	1
2875	1	6520	1	14000	4	25360	1	52000	1
2889	1	6824	1	14041	1	25500	1	52500	1
3000	28	7000	12	14300	2	25795	1	52800	1
3075	1	7054	1	14304	1	26000	7	53000	1
3200	2	7070	1	14420	1	26500	1	53500	1
3235	1	7120	1	14600	1	27000	2	54000	2
3300	2	7139	1	14820	1	27490	1	55000	7
3384	1	7200	1	15000	51	27500	1	56000	1
3402	1	7212	1	15120	1	27850	1	57000	2
3415	1	7250	1	15175	1	28000	1	57650	1
3440	1	7450	1	15400	1	28147	1	57750	1
3480	1	7500	9	15500	2	29000	2	60000	18
3500	9	7516	1	15600	2	29096	1	60057	1
3600	1	7700	1	15840	1	29622	1	60400	1

LIQLCK Dataset

62400	1	100000	28	188000	1	343733	1	855000	1
62512	1	102000	1	200000	23	345000	1	900000	3
63000	1	104000	2	210000	1	349487	1	983000	1
63300	1	104104	1	212000	1	350000	2	991100	1
64000	1	104823	1	216000	1	360000	1	1000000	8
64500	1	105000	2	220000	1	375000	1	1108000	1
65000	8	108581	1	225000	2	380000	1	1244000	1
66000	2	110000	3	226000	1	400000	6	1260743	1
67000	2	115000	2	229600	1	412000	1	1400000	2
68000	1	116053	1	230000	1	425000	1	1429620	1
70000	11	118000	2	237000	1	442500	1	1500000	5
70600	1	118425	1	238000	1	450000	4	1644165	1
71000	1	119500	1	240000	1	500000	19	1836014	1
71500	1	120000	2	241000	1	530000	1	2000000	4
72000	2	125000	2	244000	1	535000	1	2350000	1
72692	1	127680	1	247600	1	540625	1	2359000	1
74100	1	130000	2	250000	13	550000	1	3000000	2
75000	19	132326	1	254000	1	574221	1	4000000	2
75820	1	134000	1	262410	1	591000	1	7500000	1
80000	12	135000	1	268000	1	600000	1	10000000	1
85000	1	140000	3	270075	1	648066	1	11000000	1
85700	1	145000	2	275000	1	650000	5	12000000	1
86000	1	150000	13	280000	1	670000	1	20000000	1
88000	3	152000	1	294500	1	700000	1	25000000	1
90000	8	152184	1	300000	14	708000	1	Total	1877
91000	2	160000	3	300451	1	734000	1		
91400	1	162000	1	306000	1	735000	1		
93600	1	165300	1	313000	1	736000	1		
95000	1	170000	3	325000	1	750000	1		
96560	1	175000	8	333000	1	800000	2		
99820	1	180000	2	340000	1	815000	1		

COMMODITY SPILLED

COMM	COUNT
ANHYDROUS AMMONIA	32
BUTANE	2
CARBON DIOXIDE	3
CONDENSATE	4
CONDENSATE -WATER	7
CRUDE OIL	820
DIESEL FUEL	104
ETHYLENE	2
FERTITL.,AMMON.NITR.	1
FUEL OIL	134
GASOLINE	369
GASOLINE AND FUEL OIL	1
JET FUEL	42
KEROSENE	18
L.P.G.	41
L.P.G. - PROPANE	81
NATURAL GAS LIQUID	117
NOT GIVEN	21
OIL AND GASOLINE	26
PIPELINE SOLVENT (#2 OIL)	1
PROPANE	1
TOLUENE	8
TRANSMIX (PART. REFINED PETRO)	17
TURBINE FUEL	19
XYLENE	6
Total	**1877**

COMMODITY ID

COMID	COUNT						
1311110	821	2871244	2	2911315	104	4908176	117
2813320	3	2911130	42	2911715	134	9999999	21
2814167	7	2911135	369	2911735	19	**Total**	**1877**
2814170	6	2911190	27	2911976	11		
2819815	32	2911225	19	4905706	2		
		2911230	18	4905711	123		

CLASSIFICATION OF COMMODITY

	CLASS	COUNT
	0	26
petroliurn	1	959
petrolium product, HVL	2	357
petrolium product, non-HVL	3	535
	Total	1877

LIQLCK Dataset

ESTIMATED BARRELS SPILLED

LOSS	COUNT
0	67
1	124
2	43
3	31
4	23
5	62
6	11
7	13
8	8
9	1
10	29
11	2
12	6
13	3
15	18
16	2
17	2
18	1
20	22
21	1
22	2
23	1
24	3
25	19
26	1
28	1
30	17
32	1
33	1
34	1
35	14
37	3
38	1
40	14
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42	4
43	3
45	9
47	1
48	1
49	1
50	36
51	2
52	1
53	2
55	4
56	1
58	1
59	4
60	31
61	2
64	1
65	5
66	1
67	5
69	2
70	13
71	2
72	2
74	1
75	27
76	3
78	1
79	2
80	14
81	1
83	1
84	1
85	8
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87	1
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90	13
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92	2
95	5
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98	2
99	1
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103	2
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119	5
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555	1
557	1
560	1
566	1
568	1
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605	2
610	2
618	1
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625	2
628	1
630	1
634	1
636	1
640	2
644	2
645	3

LIQLCK Dataset

650	4	950	1	1550	1	2400	2	4191	1
651	1	951	1	1560	1	2401	1	4200	1
652	1	952	1	1583	1	2431	1	4370	1
653	2	965	1	1593	1	2444	1	4500	3
654	1	970	3	1600	4	2500	5	4767	1
660	1	972	1	1622	1	2505	1	4800	1
661	1	977	1	1647	1	2519	1	4836	1
663	1	984	1	1650	3	2525	1	4843	1
668	1	997	1	1661	1	2553	1	4886	1
670	2	1000	13	1665	2	2583	1	4935	1
672	1	1009	1	1666	1	2600	1	4961	1
676	1	1034	1	1670	1	2610	1	4965	1
685	1	1036	1	1689	1	2622	1	5000	3
689	1	1043	1	1700	3	2623	1	5016	1
690	4	1045	1	1730	1	2640	1	5037	1
691	1	1050	1	1740	1	2653	1	5043	1
693	1	1092	1	1749	1	2738	1	5200	1
695	1	1100	3	1777	1	2751	1	5225	1
700	9	1107	1	1800	3	2768	1	5250	1
706	1	1108	2	1810	1	2800	1	5277	1
710	1	1113	1	1824	1	2816	1	5290	1
715	1	1137	1	1825	1	2870	1	5359	1
717	1	1140	1	1826	1	2875	1	5374	1
732	2	1150	5	1834	1	2881	1	5375	1
740	2	1155	1	1845	1	2895	1	5500	1
745	1	1170	1	1890	1	2899	1	5577	1
750	6	1171	1	1896	1	2979	1	5692	1
758	1	1175	1	1900	5	2981	1	5770	1
768	1	1186	1	1901	1	3000	7	5840	1
775	1	1194	1	1903	1	3020	1	5918	1
780	1	1197	2	1906	1	3058	1	5980	1
795	2	1200	3	1926	1	3082	1	6000	2
800	8	1208	1	1968	1	3100	2	6139	1
802	1	1214	1	1974	1	3115	1	6200	1
805	1	1234	1	1980	1	3150	3	6235	1
813	2	1250	5	2000	12	3155	1	6263	1
815	1	1256	1	2003	1	3200	2	6330	1
819	1	1260	1	2014	1	3250	1	6415	1
825	1	1266	1	2023	1	3283	1	6500	2
827	1	1268	1	2089	1	3300	1	6600	1
837	1	1291	1	2092	1	3337	1	6713	1
850	6	1300	5	2108	1	3381	1	6720	1
855	1	1320	1	2119	1	3384	2	7000	1
863	1	1342	1	2140	1	3500	2	7200	1
871	1	1345	2	2150	1	3548	1	7560	1
876	1	1365	1	2172	1	3571	1	8000	1
878	1	1370	1	2173	1	3589	1	8150	1
880	1	1384	1	2179	1	3600	1	8517	1
886	1	1395	1	2200	2	3622	1	8800	1
889	1	1400	1	2203	1	3623	1	9000	1
894	1	1417	1	2220	1	3696	1	9092	2
900	4	1433	1	2221	1	3763	1	9377	1
901	1	1446	1	2237	1	3780	1	9708	1
903	1	1451	1	2238	1	3800	1	10000	2
912	1	1455	1	2240	1	3862	1	10020	1
917	1	1459	1	2255	1	3869	1	10107	1
919	1	1470	1	2286	1	3900	1	10495	1
920	1	1493	1	2295	1	3920	1	11077	1
930	1	1500	7	2297	1	3950	1	11145	1
931	1	1514	1	2300	4	4000	6	11911	1
933	1	1516	1	2310	1	4111	1	12000	3
935	1	1520	1	2369	1	4120	1	12500	1
938	1	1540	1	2375	1	4150	1	13100	1

LIQLCK Dataset

14000	1	18000	1	20554	1	28200	1	55000	1
15000	1	19150	1	23534	1	31300	1	122000	1
17294	1	20027	1	24000	1	40500	1	Total	1868

ESTIMATED BARRELS RECOVERED

RECOV	COUNT								
0	573	62	3	140	9	240	6	390	3
1	74	63	4	142	1	242	1	394	1
2	32	65	11	145	5	244	1	398	1
3	24	68	3	147	1	245	2	400	5
4	15	69	1	148	3	249	1	410	2
5	30	70	7	149	2	250	9	415	1
6	6	71	1	150	11	255	2	420	2
7	5	72	2	155	3	258	2	430	5
8	7	73	1	157	3	260	3	431	1
9	6	74	2	159	1	263	1	432	3
10	20	75	8	160	4	264	1	437	1
11	3	76	2	161	2	265	1	439	1
12	6	77	1	162	2	266	1	440	2
13	2	78	2	163	2	270	3	443	1
14	2	79	2	164	2	272	1	450	5
15	16	80	18	165	1	275	2	454	1
16	4	82	1	166	2	276	1	455	1
17	1	83	1	168	1	280	5	460	1
18	4	85	9	169	1	281	1	465	1
19	2	86	4	170	4	285	6	468	1
20	16	87	3	171	1	288	1	470	2
21	1	88	1	173	1	289	1	477	1
22	3	89	2	174	1	294	1	480	2
24	2	90	12	175	4	295	2	482	1
25	11	91	1	178	1	296	1	485	1
26	1	92	2	180	6	297	1	490	4
27	2	93	1	184	1	298	2	491	1
29	1	95	8	185	1	300	15	495	1
30	20	96	2	187	1	305	1	498	1
31	2	97	1	190	4	309	2	499	1
32	3	98	3	192	2	310	7	500	11
33	2	99	3	193	2	311	1	510	2
34	3	100	19	194	1	314	1	519	2
35	9	101	1	195	9	315	3	520	1
36	1	102	1	196	1	318	1	524	1
37	2	103	2	197	3	320	7	526	1
38	1	104	1	199	2	324	1	535	1
40	15	105	6	200	20	325	2	538	1
41	3	107	2	203	1	326	1	539	1
42	1	108	1	204	2	330	2	540	1
43	2	110	6	205	3	332	1	545	1
44	1	112	2	209	1	340	4	550	3
45	8	114	2	210	4	342	1	551	1
47	2	115	6	212	2	344	2	557	2
48	3	116	1	213	1	346	1	558	1
49	1	117	1	215	2	350	6	559	1
50	26	118	2	217	2	356	1	560	1
51	2	119	1	219	2	360	1	570	1
52	1	120	10	220	1	365	1	573	2
53	1	124	2	222	2	370	3	576	1
54	1	125	4	224	1	371	1	585	1
55	4	126	1	225	3	372	1	591	1
56	4	128	1	226	2	375	1	592	1
58	4	130	12	230	6	379	2	595	2
59	3	134	1	234	1	380	2	600	8
60	25	135	4	236	2	385	2	605	1
		138	3	238	1	386	1	610	2

LIQLCK Dataset

611	1	899	1	1295	1	2000	3	4350	1
612	1	900	4	1300	2	2008	1	4360	1
615	1	928	1	1310	1	2055	1	4400	1
618	1	930	1	1315	1	2110	1	4565	1
622	1	950	1	1320	1	2115	1	4600	1
625	1	956	1	1341	1	2188	1	4609	1
640	1	958	1	1390	1	2201	1	4634	1
642	1	975	2	1400	3	2220	1	4759	1
643	1	979	1	1405	1	2250	1	4950	1
645	1	985	1	1420	1	2295	1	4975	1
650	2	990	1	1426	1	2297	1	5016	1
658	1	995	1	1435	1	2300	1	5031	1
674	1	1000	3	1443	1	2401	1	5275	1
680	1	1010	1	1444	1	2440	1	5375	1
685	1	1014	1	1454	1	2450	1	5849	1
700	2	1015	1	1460	1	2453	1	6000	1
705	1	1050	1	1465	1	2511	1	6517	1
708	1	1051	1	1500	4	2600	1	7300	1
719	1	1070	2	1530	1	2660	1	8000	1
720	1	1080	1	1582	1	2800	1	8463	1
722	1	1090	1	1590	1	2861	1	9000	1
730	1	1091	1	1600	3	2870	1	9357	1
749	1	1098	1	1630	1	2900	1	10200	1
750	3	1100	2	1653	1	2999	1	10722	1
757	1	1105	1	1682	1	3000	1	11500	1
770	1	1121	1	1700	2	3060	1	12600	1
780	1	1125	1	1705	1	3082	1	18739	1
790	1	1130	1	1732	1	3100	1	26900	1
805	2	1137	1	1735	1	3180	1	39800	1
810	1	1140	1	1750	1	3300	1	**Total**	**1857**
820	1	1144	1	1772	1	3312	1		
823	1	1150	1	1793	1	3361	1		
833	2	1185	1	1800	1	3500	2		
843	1	1200	6	1802	1	3535	1		
854	1	1218	1	1849	1	3600	1		
855	1	1240	1	1879	1	3700	1		
860	4	1256	1	1880	1	3784	1		
888	1	1282	1	1900	2	3796	1		
890	1	1285	1	1924	1	3841	1		
897	1	1290	1	1950	1	4300	1		

WAS THERE?

FIRE		COUNT	EXP		COUNT
	0	12		0	13
Yes	1	111	Yes	1	26
No	2	1754	No	2	1838
Total		**1877**	**Total**		**1877**

NOMINAL DIAMETER

NMDIA	COUNT								
0	617	5	5	8.63	1	12.75	30	32	3
0.5	1	5.5	2	8.65	2	73	3	34	12
1	4	6	151	9	7	14	30	36	4
2	12	6.25	2	10	168	16	53	40	4
3	4	6.375	1	10.5	2	18	13	45	2
3.5	3	6.625	51	10.75	33	20	32	48	2
4	53	6.63	1	10.77	2	22	13	12750	1
4.5	11	7	11	10.783	2	24	15	**Total**	**1849**
4.625	1	8	275	11	4	26	6		
		8.625	68	12	117	30	15		

WALL THICKNESS

LIQLCK Dataset

THK	COUNT
0	549
0.0156	2
0.025	1
0.0279	1
0.0281	1
0.091	1
0.1	1
0.109	1
0.12	1
0.125	18
0.128	4
0.135	1
0.141	9
0.142	1
0.147	1
0.153	1
0.154	3
0.156	38
0.165	1
0.172	3
0.1875	1
0.188	135
0.203	51
0.206	2
0.216	2
0.218	5
0.219	83
0.22	1
0.225	1
0.23	1
0.237	21
0.238	1
0.25	247
0.259	6
0.261	1
0.275	1
0.277	13
0.279	16
0.28	64
0.281	47
0.285	2
0.288	1
0.3	6
0.301	1
0.303	3
0.304	1
0.305	1
0.307–	23
0.31	1
0.312	50
0.3125	1
0.313	2
0.318	1
0.32	1
0.322	128
0.325	4
0.33	1
0.332	1
0.337	1
0.34	2
0.344	22
0.35	1
0.365	68
0.373	2
0.375	68
0.389	1
0.395	1
0.406	3
0.432	1
0.438	1
0.453	1
0.5	12
0.562	1
0.628	1
0.75	1
3.12	1
Total	1753

SMYS

SMYS	COUNT
0	646
1	1
10	1
30	1
42	6
46	1
50	1
52	7
60	1
80	1
100	2
150	1
288	1
300	2
340	2
400	2
440	1
700	1
702	1
860	1
947	1
964	1
1000	3
1016	1
1021	1
1083	1
1111	2
1139	1
1180	1
1300	1
1354	1
1360	1
1370	1
1405	3
1423	2
1438	1
1440	2
1444	1
1460	1
1461	1
1465	2
1490	1
1493	1
1560	1
1585	1
1609	1
1628	1
1630	2
1640	2
1647	1
1648	1
1655	3
1700	3
1710	1
1716	1
1750	1
1752	1
1753	1
1760	2
1788	1
1792	1
1800	1
1819	2
1830	1
1831	1
1865	1
1875	1
1881	4
1902	1
1944	3
1950	1
1953	2
1960	1
1978	3
1980	1
1986	2
1999	1
2005	1
2009	3
2028	3
2029	1
2030	2
2039	5
2040	1
2044	1
2050	1
2087	1
2120	1
2132	1
2133	1
2140	2
2150	1
2165	1
2166	1
2180	2
2193	1
2200	1
2210	1
2256	2
2264	2
2266	1
2284	1
2299	1
2300	1
2310	1
2330	1
2350	1
2375	1
2377	1
2383	1
2400	4
2430	1
2435	1
2530	1
2535	1
2540	1
2590	1
2610	1
2612	1
2613	1
2614	2
2632	3
2640	2
2641	2
2650	1
2750	1
2777	1
2850	1
2900	1
2912	4
2924	1
2958	1
2960	1
3000	1
3014	1
3460	1
3500	1
3506	1
3529	1
3550	1
3610	1
3687	1
4320	1
5200	3
6000	1
11514	1
12500	1
24000	39
24110	1
25000	78
25069	1
25200	1
26000	1
26627	1
28000	2
28350	1
29000	1
30000	34
35000	269
36000	5
37440	1
38250	1
40000	13
40700	1
42000	156
45000	12
46000	57
48000	1
50000	1
52000	168
56000	6
60000	13
61200	2
65000	3
70000	1
350000	1
Total	1729

TYPE OF JOINT

	JNT	COUNT
	0	678
welded	1	1084

PIPE WAS

	GRND	COUNT
	0	667
below ground	1	1097

LIQLCK Dataset

flanged	2	22
threaded	3	60
coupled	4	14
Other	5	17
	Total	1875

above ground	2	111
	Total	1875

MAXIMUM OPERATING PRESSURE

DSPRS	COUNT
0	662
10	4
20	4
30	1
40	2
45	1
50	4
60	2
75	3
80	1
90	2
100	6
120	1
125	1
133	1
140	1
150	10
175	1
178	1
179	2
200	6
202	2
205	1
225	1
250	7
260	1
270	1
275	17
300	10
315	1
320	1
325	2
340	4
350	1
360	1
377	1
400	7
410	1
413	1
415	1
425	2
430	1
440	1
450	5
456	1
460	3
470	1
480	7
490	2
495	2
500	13
507	1
520	2
522	1
525	1
533	1
534	1
535	1
536	1
540	1
550	10
555	1
560	2
570	2
573	1
576	2
580	5
584	3
585	1
587	1
592	2
595	1
596	1
600	31
602	1
605	1
609	1
610	1
611	4
613	1
615	1
617	2
619	1
620	5
621	1
624	1
628	1
630	1
632	2
633	2
637	1
638	4
640	2
642	2
649	1
650	11
657	2
660	4
662	1
664	2
665	1
668	2
675	4
677	1
679	1
682	1
685	1
687	2
689	1
690	3
694	1
695	5
699	3
700	29
701	1
702	2
704	1
709	2
710	1
719	1
720	38
722	1
724	1
725	2
727	1
728	1
740	3
741	3
743	1
747	1
750	19
762	1
765	2
770	1
771	1
775	4
780	3
784	1
788	3
790	2
732	3
795	2
800	24
801	1
802	1
806	1
816	4
818	1
820	1
822	3
823	1
825	2
827	1
829	2
830	1
832	1
835	2
836	1
840	4
845	1
047	1
850	72
860	3
861	1
867	1
870	8
872	1
875	1
876	1
880	5
885	2
890	1
895	1
900	25
901	2
908	1
909	2
910	4
913	1
920	1
928	1
929	1
930	6
936	5
940	2
944	1
945	3
950	6
951	1
953	1
957	1
960	14
965	1
970	1
975	1
980	2
990	2
992	1
1000	20
1010	1
1012	1
1024	1
1025	1
1029	1
1033	2
1035	1
1039	1
1040	1
1048	1
1050	15
1054	1
1058	1
1060	2
1065	1
1070	1
1075	1
1077	1
1080	9
1090	1
1091	2
1095	1
1097	1
1100	27
1104	4
1114	1
1120	1
1125	1
1130	1
1133	1
1140	8
1142	2
1144	1
1146	1
1150	22
1152	2
1159	1
1160	1
1165	3
1169	2
1170	22
1171	1
1172	1
1177	1
1180	5
1186	1
1189	3
1192	1
1193	3
1197	1
1198	1
1200	51
1204	2
1205	1
1208	1
1210	1
1212	1
1214	1
1215	1
1220	3
1230	2
1235	1
1237	1
1240	2
1245	2
1248	3
1250	7
1256	1
1260	2
1264	3
1269	1
1270	5
1273	1
1275	2
1280	3

LIQLCK Dataset

1286	4	1368	1	1472	2	1632	4	1881	1
1293	1	1375	1	1480	2	1640	2	1895	1
1298	1	1376	1	1482	1	1650	3	1900	3
1300	5	1377	1	1485	1	1670	1	1901	1
1304	1	1380	1	1500	4	1700	1	1970	2
1305	1	1390	1	1504	1	1702	1	2001	1
1310	3	1395	1	1525	1	1716	1	2040	1
1313	1	1400	11	1526	1	1719	2	2050	1
1315	2	1407	1	1530	1	1727	1	2080	1
1318	4	1410	1	1535	1	1753	1	2100	1
1320	2	1420	6	1540	2	1754	1	2120	2
1324	1	1423	1	1550	3	1760	1	2125	1
1325	1	1424	2	1555	2	1790	1	2130	3
1330	1	1426	1	1563	1	1800	1	2150	2
1333	1	1430	2	1570	1	1820	1	2160	4
1336	1	1433	1	1577	1	1826	1	2256	1
1340	5	1440	113	1579	1	1850	1	2800	1
1349	1	1446	2	1600	4	1856	1	4369	1
1350	8	1447	1	1610	2	1860	1	Total	1875
1354	4	1450	11	1620	2	1864	3		
1360	2	1460	2	1630	3	1870	2		
1365	1	1468	1	1631	2	1880	1		

PRESSURE AT TIME OF ACCIDENT

ACPRS	COUNT								
0	717	75	2	185	2	305	1	430	2
4	2	80	12	188	1	307	1	432	1
5	4	85	4	190	5	320	2	440	1
6	1	90	3	192	1	325	6	441	2
7	3	92	1	195	1	328	1	444	1
8	1	95	1	197	1	329	1	448	1
9	1	100	46	198	1	330	5	450	21
10	11	103	1	200	35	333	1	453	1
11	1	105	1	202	1	340	4	456	1
12	3	110	1	209	1	342	1	457	1
14	1	111	1	210	4	345	1	460	2
15	8	113	1	220	3	350	13	468	1
17	1	115	1	221	1	353	2	470	5
18	1	120	5	225	4	355	1	473	1
20	12	124	1	228	2	358	1	475	1
21	1	125	5	230	2	360	4	476	1
23	1	129	1	233	1	362	1	460	4
25	6	130	2	235	1	364	1	484	2
27	1	135	3	240	5	367	1	485	3
28	1	137	1	242	1	369	1	490	2
30	11	138	2	243	1	370	1	491	1
35	1	140	2	244	1	374	1	493	1
38	1	144	1	245	1	375	3	495	2
40	12	147	2	246	2	378	1	500	34
42	1	150	27	250	23	380	1	503	1
43	1	155	1	251	1	386	1	507	1
44	1	159	1	255	2	390	4	508	1
45	3	160	3	256	1	399	1	510	1
47	1	161	2	260	6	400	33	512	1
50	28	163	1	262	1	401	1	513	2
54	1	168	1	270	3	405	1	514	1
55	1	170	4	275	2	410	2	515	1
56	2	171	2	280	3	415	1	520	4
60	11	175	1	282	1	419	1	522	1
70	7	176	1	283	1	420	2	528	1
71	1	178	2	290	1	422	1	529	1
74	1	180	1	295	1	423	1	530	3
		181	2	300	41	424	1	532	1

LIQLCK Dataset

533	1	689	1	870	1	1095	1	1421	1
535	2	690	3	875	4	1096	2	1425	1
538	1	695	1	880	2	1099	1	1428	1
540	6	696	1	888	1	1100	7	1434	1
542	1	700	20	889	1	1110	2	1440	3
543	1	705	1	890	2	1114	1	1441	1
544	1	714	1	892	1	1118	1	1454	1
545	3	715	1	900	20	1120	3	1456	1
550	12	720	4	910	1	1145	1	1460	1
554	2	723	1	915	1	1149	1	1466	1
560	2	733	1	920	4	1155	2	1468	1
563	1	738	1	923	1	1160	3	1480	1
564	1	744	1	925	2	1163	2	1518	1
565	1	745	3	929	1	1166	1	1525	1
566	1	747	1	930	2	1170	2	1535	1
567	1	750	13	933	1	1175	2	1541	1
570	1	755	1	935	2	1176	1	1550	2
575	4	760	4	937	1	1180	3	1560	1
579	1	761	1	940	2	1185	1	1561	1
580	5	762	1	942	1	1195	1	1613	1
587	1	765	1	950	7	1197	1	1650	1
590	1	766	1	970	3	1198	1	1760	1
595	1	769	1	974	1	1200	7	1800	2
596	1	770	2	975	1	1210	1	1804	1
600	27	775	1	980	2	1214	1	1860	1
607	2	779	1	987	1	1220	1	1900	1
610	2	780	1	1000	11	1225	1	1903	1
619	1	783	1	1010	1	1234	1	1920	1
623	1	789	1	1016	1	1240	2	1961	1
625	1	792	1	1017	1	1245	1	2000	1
626	1	795	2	1020	3	1250	1	2200	1
630	2	800	19	1026	1	1256	1	Total	1873
633	1	810	4	1029	1	1275	1		
635	1	820	6	1030	2	1280	1		
636	1	825	1	1040	1	1285	1		
638	1	830	1	1043	3	1300	2		
640	5	837	1	1045	1	1306	1		
650	10	840	3	1050	6	1315	1		
652	1	844	1	1055	1	1326	1		
656	1	845	1	1070	1	1346	1		
660	3	846	2	1072	1	1350	3		
670	2	850	5	1076	1	1369	1		
672	1	852	2	1077	1	1370	1		
675	5	853	1	1080	1	1373	1		
677	1	856	1	1085	2	1375	1		
680	6	860	7	1087	1	1380	4		
685	1	861	1	1090	1	1400	1		

HAD THERE BEEN A PRESSURE TEST ON SYSTEM

PRTST	COUNT
0	682
1	906
2	288
Total	1876

DURATION OF TEST (HRS)

DUR	COUNT												
0	1036	4	71	9	3	24	385	36	5	55	1
1	4	5	4	10	7	25	2	41	1	72	2
2	28	6	1	12	23	26	4	48	2	77	1
3	3	7	1	13	1	27	1	50	1	83	1
		8	273	19	1	28	1	51	1	Total	1869
				22	1	30	2	54	2		

LIQLCK Dataset

MAXIMUM TEST PRESSURE

MXPRS	COUNT
0	1003
125	1
150	1
200	1
225	1
300	4
334	1
375	1
377	1
400	1
420	1
425	2
450	1
455	1
471	1
500	6
503	1
513	1
530	2
540	1
550	2
570	1
575	1
586	2
590	1
600	4
601	1
611	1
623	1
634	1
640	1
650	4
660	1
669	1
680	1
700	5
708	1
713	1
719	2
720	2
730	1
731	1
745	1
750	9
751	1
755	1
756	1
758	1
760	3
762	1
763	1
764	3
768	1
771	2
772	2
774	1
775	1
780	3
785	1
789	1
790	2
792	1
794	1
795	1
797	3
800	5
802	1
804	2
810	1
815	1
816	1
820	1
824	1
830	2
831	1
832	1
835	2
843	1
845	6
846	1
850	1
853	1
857	1
858	2
860	2
863	1
864	1
865	1
866	1
868	1
869	3
875	3
879	1
880	3
885	2
886	1
890	1
894	1
895	1
899	1
900	29
902	1
905	1
906	1
908	2
909	1
910	1
911	1
915	1
917	2
923	1
925	3
934	1
938	1
940	1
950	1
953	1
954	1
960	3
964	1
965	1
968	3
972	1
973	3
980	1
990	1
991	2
995	1
1000	29
1001	1
1005	1
1006	2
1007	1
1009	1
1020	8
1025	1
1038	2
1043	1
1050	9
1070	2
1075	1
1076	2
1083	1
1090	1
1093	1
1097	2
1100	7
1105	1
1113	1
1118	1
1121	1
1125	1
1130	1
1136	1
1140	1
1145	1
1149	1
1151	2
1155	1
1160	1
1162	3
1167	2
1168	1
1169	1
1170	1
1174	4
1175	3
1180	2
1183	1
1184	1
1185	1
1200	8
1204	1
1205	1
1213	1
1219	1
1220	2
1225	1
1235	1
1240	1
1250	8
1260	2
1266	2
1268	1
1269	1
1273	1
1275	1
1280	1
1300	2
1308	1
1309	1
1310	2
1311	1
1313	1
1315	2
1318	1
1320	1
1323	1
1329	1
1330	1
1331	1
1335	1
1345	1
1346	1
1347	1
1357	1
1360	1
1365	1
1367	1
1372	1
1375	4
1378	2
1379	1
1380	5
1390	1
1393	1
1395	2
1399	1
1400	5
1404	1
1410	1
1412	1
1415	1
1430	3
1433	1
1434	1
1437	1
1439	1
1440	7
1442	1
1445	1
1449	1
1450	5
1453	1
1455	1
1460	3
1464	5
1465	1
1470	5
1475	1
1478	1
1480	2
1483	3
1487	2
1488	1
1490	2
1492	1
1493	1
1495	1
1496	3
1500	22
1506	1
1508	2
1509	3
1510	1
1513	2
1514	2
1520	4
1530	2
1532	1
1535	2
1536	1
1540	3
1547	1
1549	1
1550	4
1551	1
1554	2
1559	1
1560	4
1561	1
1570	3
1576	1
1579	1
1580	3
1581	1
1587	2
1590	2
1600	10
1608	1
1615	2
1617	1
1620	1
1625	2
1628	1
1630	1
1643	1
1650	7
1656	1
1660	1
1662	1
1665	1
1666	1
1668	1
1670	1
1674	2
1675	1
1677	1
1679	1

LIQLCK Dataset

1682	1	1810	2	1913	1	2017	2	2376	1
1687	1	1813	1	1920	3	2025	2	2377	1
1690	1	1815	1	1926	1	2031	1	2379	1
1696	2	1819	1	1927	1	2039	1	2400	1
1700	1	1820	3	1930	1	2050	6	2425	1
1702	1	1825	4	1934	2	2059	1	2430	1
1704	1	1830	8	1938	1	2085	2	2436	1
1708	1	1831	2	1940	1	2088	1	2460	1
1710	1	1835	2	1943	1	2100	3	2483	1
1715	1	1837	1	1945	1	2105	1	2542	1
1720	1	1840	1	1950	4	2107	1	2560	1
1727	1	1843	1	1953	1	2124	1	2578	1
1740	1	1848	2	1954	1	2125	2	2600	1
1743	2	1850	4	1955	2	2130	2	2642	1
1750	5	1857	2	1960	1	2135	1	2650	2
1753	1	1860	1	1961	1	2148	2	2660	3
1756	1	1861	1	1962	1	2150	2	2669	1
1760	2	1863	1	1969	3	2160	5	2680	1
1761	1	1866	1	1970	3	2162	1	2700	2
1764	1	1869	1	1972	1	2164	1	2750	1
1775	1	1870	2	1975	1	2166	1	2800	1
1777	1	1871	1	1979	1	2184	1	2860	1
1778	1	1875	2	1980	2	2198	1	2863	1
1780	1	1877	1	1985	1	2200	5	3200	1
1790	2	1879	1	1986	1	2220	2	3600	1
1792	1	1882	1	1987	1	2240	1	4600	1
1793	2	1884	2	1991	1	2243	1	Total	1869
1795	1	1890	2	1994	1	2262	1		
1798	1	1893	1	1995	1	2273	1		
1800	27	1900	5	2000	9	2325	2		
1801	1	1902	1	2008	1	2330	1		
1802	2	1903	1	2011	1	2335	1		
1804	1	1910	2	2012	1	2349	1		
1805	1	1912	1	2014	1	2350	1		

DATE OF TEST MONTH

TSTMM	COUNT								
0	486	4	50	9	6 3	19	1	**Total**	1213
1	171	5	49	10	88	22	1		
2	21	6	48	11	53	23	1		
3	3 4	7	53	12	35	30	1		
		8	55	14	2	38	1		

DATE OF TEST YEAR

TSTYY	COUNT								
0	359	53	6	64	20	75	23	86	28
8	1	54	19	65	10	76	36	87	35
26	1	55	6	66	16	77	21	88	39
37	1	56	6	67	25	78	19	89	37
42	2	57	11	68	45	79	16	90	35
47	2	58	9	69	29	80	18	91	21
48	14	59	2	70	35	81	26	92	21
49	4	60	6	71	18	82	30	93	5
50	4	61	10	72	19	83	23	94	2
52	4	**62**	7	73	25	84	32	**Total**	1253
		63	18	74	16	85	36		

LOCATION OF CORROSION

	CORLC	COUNT
	0	1380
internal	1	105
external	2	381
	Total	1866

FACILITY COATED

	FACTD	COUNT
	0	1311
Yes	1	406
No	2	157
	Total	1874

LIQLCK Dataset

FACILITY UNDER CATHODIC PROTECTION?

FACAT		COUNT
	0	1317
Yes	1	505
No	2	52
Total		1874

TYPE OF CORROSION

	CORR	COUNT
	0	1411
galvanic	1	294
other	2	161
Total		1866

CORRO	COUNT
2	1
ACCUMULATION OF WATER IN	1
ANAEROBIC BACTERIAL	2
ANEROBIC BACTERIAL CORR	1
ATMOSPHERIC	10
ATMOSPHERIC CORROSION	1
ATMOSPHERIC CORROSION ADJ	1
ATMOSPHERIC TIDE ZONE EFF	1
ATMOSPHERIC, INSIDE CASIN	1
BACTERIA	1
BACTERIAL	1
BACTERIAL CORROSION	1
BARE FILE	1
CATHODIC INTERFERENCE	1
COAL TAR/FELT	1
COATING DAMAGE SHIELDING	1
COATING DAMAGED 3RD PARTY	1
COATING WAS LOOSE.	1
CONCENTRATED CORROSION CE	1
CONCENTRATION CELL	2
CORRO	1
CORROSION FROM TANK SEDIM	1
CORROSION WAS NOT A FACTO	1
CRACK IN TANK FLOOR PLATE	1
CREVICE (SPOT) CORROSION	1
CREVICE CORROSION	2
DEEP PIT AT 3 O'CLOCK	1
DISBONDED COATING	1
DNA	1
ELECTRO CHEMICAL	1
ELECTROLYTIC	3
ELECTROYSIS	1
EROSION CORROSION	1
EXPOSED IN CREEK BOTTOM	1
EXTERNAL	1
EXTERNAL CORROSION	1
FOREIGN INTERFERENCE	1
GALVANIC CORROSION IN THE	1
GENERAL	1
GROOVING	1
GROOVING CORROSION	1
IMPRESS CURRENT RECTIFIER	1
IMPRESSED CURRENT	4
IMPRESSED RECTIFIERS	1
INADEQUATE PROTECTION	1
INCIDENT NOT RELATED TO C	1
INTERFERENCE	1
INTERFERENCE FOREIGN P/L	1
INTERFERENCE RELATED	1
INTERNAL	10
INTERNAL ANAROBIC CORR	1
INTERNAL CHEM IONIZATION	1
INTERNAL CORR. ON LINE	1
INTERNAL CORROSION	1
INTERNAL CORROSION OF PIP	2
INTERNAL OXIDATION	1
INTERNAL PITTING	1
INTERNAL SALT WATER	1
ISOLATED CELL	1
ISOLATED INACTIVE CELL PO	1
ISOLATED PIT	1
ISOLATION CORROSION PIT D	1
LACK OF FLOW IN PIPE.	1
LOCALIZED CORR. PITTING	1
LOCALIZED CORROSION	2
LOCALIZED CORROSION - PIT	1
LOCALIZED PITTING	1
LOCALIZED PITTING ON TOP	1
MIRCOBIO. INFL. CORR	1
N/A	3
NON SPECIFIED	1
NONE	3
NOT GIVEN	9
NOT KNOWN AT THIS TIME.	1
NOT LISTED	2
OXIDATION	2
PINHOLE CORR. LEAK AT COA	1
PINHOLE CORROSION LEAK	2
PINHOLE CORROSION LEAK AT	1
PIPE CORRODED	1
PIPE GRADUALLY CORRODED.	1
PIPE IS COATED, BUT SCREW	1
PIT CORROSION	1
PITTING	1
PITTING, UNDER DISBONDED	1
PROBABLE CAUSE - SULFATE	1
RECTIFIER .68	1
SALT WATER	3
SALTWATER	2
SEE REMARKS	1
SHORTED RAILROAD CASING	1
SLAG-ACIDIC CORROSION	1
SMALL PIT HOLE	1
SOIL	1
SOIL CORROSION	1
SRB-SULFATE REDUCING BAC	1
STRAY CURRENT INTERFERENC	1
STRESS CORROSION CRACKING	1
SULFATE REDUC. BACTERIA	1
TO BE ANALIZED	1
UNDER INVESTIGATION	2
UNKNOWN	32
WAITING ON METALLURG REP.	1
WILL BE DETERMINED	1
Total	182

CAUSE BY OUTSIDE FORCES

	CAULK	COUNT
	0	1273
Damage by operator or its contractor	1	77
Damage by others	2	399
Damage by natural forces	3	45
Landslide	4	2
Subsidence	5	8
Washout	6	3
Frostheave	7	5
Earthquake	8	10
Ship anchor	9	6
Mudslide	10	1
Fishing operations	11	4

LIQLCK Dataset

Others	12	34
	Total	1867

CAUSE BY OUTSIDE FORCES, OTHERS

CAULO	COUNT
NOT GIVEN	1
3RD PARTY WHEN EXCAVATING	1
BULLET FIRED BY UNK. PERS	1
CAULO	1
CAUSE UNKNOWN	1
CAUSED DURING INSTALLATIO	1
CHECK VALVE PACKING FAIL	1
COW STRUCK BLEEDER VALVE	1
CRACK IN PIPE	1
DAMAGE BY CNTY RD GRADER	1
DAMAGE BY OTHERS	1
DENT CAUSED - UNIDENTIFIE	1
DRAIN LINE NOT CLOSED	1
EQUIPMENT FAILURE	1
EXERNAL DAMAGE	1
EXTERNAL CORROSION	1
FAILURE IN TEMPORARY VALV	1
FARM IMPLEMENT	1
FENCE POST AUGER	1
FLOOD	1
FREESING WEATHER	1
FREEZING WATER IN WATER D	1
GROUND SHIFT	1
GUN SHOT	1
HOSE RUPTURE	1
LARGE STONE	1
LINE VIBRATION	1
LUBBOCK COUNTY (MAINT. GR	1
MECH & POWER FAILURE	1
MUDSLIDE IN AN EXCAVATION	1
N	1
N/A	12
NIPPLE FATIGUE	1
NON SPECIFIED	2
NOT GIVEN	2
OWNERSHIP OF DAMAGING EQU	1
P/L PERSONNEL CLOSED VALV	1
PUMP PACKING GLAND	1
PUMPING STATION	1
ROADGRADER	1
ROCK UNDER PIPE	2
SEE REMARKS	2
SUDDEN DROP IN TEMP.	1
TANK PUMP MECH FAILURE	1
THIRD PARTY (BULLET)	1
UNDER INVESTIGATION	2
UNDERTERMINED	1
UNDETERMINED SOURCE	1
UNKNOWN	3
VANDALISM	1
VANDALISM/GUN SHOT	1
VANDALIZED	1
VIBRATION	1
WASHOUT	2
WELD FAILED DO TO ADJACEN	1
WILL BE DETER. AFTER TEST	1
Y	1
Total	76

DAMAGE PREVENTION PROGRAM IN EFFECT?

	PREVT	COUNT
	0	1374
Yes	1	455
No	2	42
	Total	1871

WAS THE PROGRAM?

	ONECL	COUNT
	0	1426
"one-call"	1	301
Other	2	139
	Total	1866

OTHER PREVENTION PROGRAM

ONEOT	COUNT
"DOTTIE"	1
14 DAY AERIAL SURVEY	2
14DAY AERIAL SURVEY	1
24 COLLECT CALL	1
AERIAL PATROL	2
AERIAL SURVEILLANCE	3
AERIAL SURVEILLANCE, PIPE	2
AIR PATROL	3
AMOCO PUBLIC EDUCATION	1
AMOCO PUBLIC EDUCTION	1
AOGC ANCHOR PROCEDURE	1
API'S PIPELINE PUBLIC EDU	1
CO-REPRESENTATIVES ON SIT	1
CALL AMOCO PIPELINE	1
CALL FOR LOCATE	1
CALL OPERTOR	1
CO REP ON SITE ST DRAWING	1
CO. LINE MARKERS	1
COASTAL	1
COASTAL ZONE NOTIFICATION	1
COMPANY EMERGENCY	1
COMPANY EMERGENCY RESPONS	1
COMPANY PROGRAM	8
CONTRACTOR-PUBLIC AWARE	1
CPL PUBLIC AWARENESS	1
PROG	
DAMAGE DONE	1
CONSTRUCTION	
DIRECT CALL TO AMOCO	1
DISCOVERED BY PRODUCER	1
DOT APPROVED SIGNS	1
DOT REGULATIONS	1
ENTERPRISE INSPEC ON SITE	1
INCIDENT OCCURRED INSIDE	1
INSPECTOR AT LOCATION	1
INSPECTOR ON SITE AND	1
LAND OWNER CONTACT	1
LANDOWNER CONTACT	1
LINE FLYER	1
LINE MARKED	1
LINE MARKER	1
LINE MARKER; NEAREST MARK	1
LINE MARKERS	10
LINE MARKERS ON R.O.W	1
LINE MARKERS PUBLIC EDUCA	1
LINE MARKERS ROAD CROSSIN	1
LINE MARKERS, AERIAL	1
LINE MARKERS, AIR PATROL	1
LINE MARKERS, COMPANY INS	1
LINE MARKERS, ETC	1
LINE MARKINGS	1
LINE MARKINGS, AIR PATROL	2
LINE PATROL	2
LINE SURVEYED & STAKED	1
MAILINGS TO EXCAVATORS	1
MARKER AND INSPECTOR	1
MARKERS, INSPECTORS	1
N/A	1
NEWSPAPER CAMPAIGN	1
NOT GIVEN	2
NOTIFICATION OF OFFICIALS	1
OIL SPILL CONTINGENCY PLA	1
ONEOT	1
OPERATOR	1
P. NOTIFICATION SIGN	1
P/L WARNING SIGNS	1
PENNSYLVANIA ACT	1
PERIODIC CONTACT	1
PERSONAL CONTACT BY COMP	1
PHYSICAL LINE STAKING	1
PHYSICAL LOCATION	1
PIPE LINE MARKERS	3
PIPELINE MARKERS	2
PIPELINE MARKERS IN GROUN	1
PIPELINE MARKERS; PUBLIC &	1
PIPELINE MARKINGS AND SUR	1
PIPELINE PUBLIC AWARENESS	1
PIPELINE SAFETY PROGRAM	1
PIPELINE WARN. SIGNS	1

LIQLCK Dataset

PIPELINE WARNING SIGNS	17	SIGNS & NAV. LIGHTS	1	UNKNOWN	16
PLANNED LINE WORK	1	SIGNS & PERSONAL	1	VIBRA. CHECK PERIOD	1
PRE-CONSTRUCTION	1	STANDARD PIPELINE MARKERS	1	VIS. FROM DAMAGE LOCATION	1
MEETINGS		STANDARDS PIPELINE MARKER	1	WARNING SIGNS	3
PUBLIC AWARENESS	2	STATION PROCEDURES	1	WARNING SIGNS AT RR XINGS	1
PUBLIC AWARENESS/MARKERS	1	TEXAS PREVENTION CONTROL	1	WARNING SIGNS POSTED	1
PUBLIC EDUCATION	4	TV, MAIL-OUTS, PERSONAL	1	WARNING- ROAD CROSSING SI	1
PUBLIC EDUCTION MAILINGS	1	TV, NEWSPAPER	1	WORK CONDUCTED UNDER	1
RIVER CROSSING SIGNS 'DO	1	TV, NEWSPAPER, CONTACT	1	OPER	
RT-OF-WAY MARKERS	1	UNDERGROUND SERVICE	1	WRITTEN AGREEMENT	1
SEE BELOW	1	ALERT		**Total**	**172**

DID EXCAVATOR CALL?

EXCAL		COUNT
	0	1467
Yes	1	96
No	2	308
	Total	**1871**

WAS PIPELINE LOCATION TEMP. MARKED FOR EXCAV.?

TMPMK		COUNT
	0	1468
Yes	1	136
No	2	267
	Total	**1871**

????

NORPT	COUNT
	0
Total	0

YOR	count
1919	1
1990	122
1991	225
1992	220
1993	225
1994	202
Total	995

YOC	count
1987	57
1988	113
1989	69
1990	50
1991	544
1992	43
1993	266
1994	185
Total	**1327**