National Health and Nutrition Examination Survey

2015-2016 Data Documentation, Codebook, and Frequencies

Volatile Organic Compounds and Trihalomethanes/MTBE - Blood - Special Sample (VOCWBS_I)

Data File: VOCWBS_I.xpt

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Component Description

Volatile Organic Compounds and Trihalomethanes/MTBE (Whole Blood)

Volatile organic compounds (VOCs) are a large group of chemicals that have been used as solvents, degreasers, and cleaning agents in industry and consumer products. Many of the VOCs were found to contaminate ground water and drinking water sources. Because of human health concerns, these VOCs have been banned or restricted from most uses.

The halogenated solvents are VOCs consisting of a hydrocarbon chain or one hydrocarbon substituted with one or more chlorine or bromine atoms. Most of these chemicals are used as degreasers and solvents in various products, such as paint. In the past, 1,1,1-trichloroethane was used as a dry cleaning agent, insect fumigant, and solvent in consumer products. Methylene chloride, tetrachloroethene, and trichloroethene are other VOCs that were widely used in the past.

Benzene, toluene, ethylbenzene, xylene, and styrene, collectively referred to as BTEXS, are components of tobacco smoke. Along with 2,5-dimethylfuran, these VOCs are usually detected in the blood of cigarette smokers at higher levels than in non-smokers. Chlorobenzene (monochlorobenzene) and the three dichlorobenzenes are halogenated aromatic hydrocarbons primarily used in industrial and chemical synthetic processes. Chlorobenzene has been used to produce DDT, phenol, and nitrobenzene. The dichlorobenzenes are also chemical intermediates in the synthesis of dyes, pesticides, and other industrial products. 1,4-Dichlorobenzene (para-dichlorobenzene) is used also as a moth repellent and as a deodorizer. Disinfection by-products (DBP), including bromodichloromethane, dibromochloromethane, bromoform, and chloroform are formed when chlorine interacts with natural organic materials found in water. Primary sources of DBPs are chlorinated drinking water and recreational water bodies, such as swimming pools.

The prevalence of disinfection by-products in drinking water supplies has raised concerns about possible adverse health effects from chronic exposure to these potentially carcinogenic compounds. Methyl-tert-butyl ether (MTBE) was used as an additive to

replace lead in gasoline, but its use was banned after widespread ground water contamination was discovered.

Inhalation is the most common VOC route of exposure in the general population, including indoor sources such as paints, adhesives, cleaning solutions, and aerosolized insecticide sprays; industries producing these solvents; and contaminated waste disposal sites. Drinking water may contribute to exposure when underground drinking water supplies are contaminated. After they are absorbed in the body, VOCs are rapidly eliminated in exhaled breath, or may be rapidly metabolized and eliminated in the urine.

Eligible Sample

Participants aged 18 years and older, who met the regular one-half subsample selection criteria, were included in this special subsample. Additionally, to oversample adult smokers, those participants aged 18 years and older, not in the regular one-half subsample, who smoked at least 100 cigarettes in their entire lifetime (SMQ020=1) and now smoke cigarettes every day (SMQ040=1), were also included in this special subsample.

Description of Laboratory Methodology

An automated analytical method was developed using capillary gas chromatography (GC) and mass spectrometry (MS) with selected-ion monitoring (SIM) detection and isotope-dilution. This method quantifies levels of individual VOCs and Trihalomethanes (THMs) and methyl tert-butyl ether (MTBE) in whole blood to low-parts-per-trillion range. Because non-occupationally exposed individuals have blood VOC concentrations within this range, this method is applicable for determining these quantities and investigating cases of sustained or recent low-level exposure.

Refer to the Laboratory Method Files section for a detailed description of the laboratory methods used.

There were no changes to the lab method, lab equipment, or lab site for this component in the NHANES 2015-2016 cycle.

Laboratory Method Files

Volatile Organic Compounds (VOCs) & Trihalomethanes/MTBE Laboratory Procedure Manual (September 2018)

Laboratory Quality Assurance and Monitoring

Whole blood specimens were processed, stored, and shipped to Division of Laboratory Sciences, National Center for Environmental Health, Centers for Disease Control and

Prevention, Atlanta, GA for analysis.

Detailed instructions on specimen collection and processing are discussed in the NHANES Laboratory Procedures Manual (LPM). Vials are stored under appropriate refrigerated (2-8°C) conditions until they are shipped to National Center for Environmental Health for testing.

The NHANES quality assurance and quality control (QA/QC) protocols meet the 1988 Clinical Laboratory Improvement Act mandates. Detailed QA/QC instructions are discussed in the NHANES LPM.

Mobile Examination Centers (MECs)

Laboratory team performance is monitored using several techniques. NCHS and contract consultants use a structured competency assessment evaluation during visits to evaluate both the quality of the laboratory work and the quality-control procedures. Each laboratory staff member is observed for equipment operation, specimen collection and preparation; testing procedures and constructive feedback are given to each staff member. Formal retraining sessions are conducted annually to ensure that required skill levels were maintained.

Analytical Laboratories

NHANES uses several methods to monitor the quality of the analyses performed by the contract laboratories. In the MEC, these methods include performing blind split samples collected on "dry run" sessions. In addition, contract laboratories randomly perform repeat testing on 2% of all specimens.

NCHS developed and distributed a quality control protocol for all CDC and contract laboratories which outlined the use of Westgard rules (Westgard et al., 1981) when running NHANES specimens. Progress reports containing any problems encountered during shipping or receipt of specimens, summary statistics for each control pool, QC graphs, instrument calibration, reagents, and any special considerations are submitted to NCHS quarterly. The reports are reviewed for trends or shifts in the data. The laboratories are required to explain any identified areas of concern.

All QC procedures recommended by the manufacturers were followed. Reported results for all assays meet Division of Laboratory Services' quality control and quality assurance performance criteria for accuracy and precision, similar to the Westgard rules (Caudill et al., 2008).

Data Processing and Editing

The data were reviewed. Incomplete data or improbable values were sent to the performing laboratory for confirmation.

Analytic Notes

Refer to the 2015-2016 Laboratory Data Overview for general information on NHANES laboratory data.

Volatile Toxicant Questionnaire

A volatile toxicant questionnaire (VTQ) was administered on the mobile examination center (MEC), by trained interviewers, using the Computer-Assisted Personal Interview (CAPI) system. The VTQ section includes data about the SP's home, activities, amount of time spent in various locations, and exposure to different chemicals over the past 48 hours. This questionnaire data can be used in conjunction with the VOC laboratory dataset and found in the Volatile Toxicant Data File in the NHANES 2015-2016 Questionnaire Data section.

Subsample Weights

Whole blood VOCs were measured in a one-half subsample of participants 18 years and older. Special sample weights are required to analyze these data properly. Specific sample weights for this subsample are included in this data file and should be used when analyzing these data.

Demographic and Other Related Variables

The analysis of NHANES laboratory data must be conducted using the appropriate survey design and demographic variables. The NHANES 2015-2016 Demographics File contains demographic data, health indicators, and other related information collected during household interviews as well as the sample design variables. The recommended procedure for variance estimation requires use of stratum and PSU variables (SDMVSTRA and SDMVPSU, respectively) in the demographic data file.

The Fasting Questionnaire file includes auxiliary information such as fasting status, the time of venipuncture, and the conditions precluding venipuncture.

This laboratory data file can be linked to the other NHANES data files using the unique survey participant identifier (i.e., SEQN).

Detection limits

The detection limits were constant for all of the analytes in the data set. Two variables are provided for each of these analytes. The variable name ending in "LC" (ex., LBD2DFLC) indicates whether the result was below the limit of detection: "0" means that the result was at or above the limit of detection, "1" indicates that the result was below the limit of detection. For analytes with analytic results below the lower limit of detection (ex., LBD2DFLC=1), an imputed fill value was placed in the analyte results field. This value is the lower limit of detection divided by square root of 2 (LLOD/sqrt [2]). The other variable prefixed LBX (ex., LBX2DF) provides the analytic result for that analyte. All data are rounded to three significant figures or three decimal places, whichever is less precise.

Lower Limit of Detection (LLOD, in ng/mL) for Whole Blood VOCs:

VARIABLE NAME	SAS LABEL	LLOD
LBX2DF	Blood 2,5-Dimethylfuran (ng/mL)	0.011
LBX4CE	Blood 1,1,1,2-Tetrachloroethane (ng/mL)	0.040
LBXV06	Blood Hexane (ng/mL)	0.122
LBXV07N	Blood Heptane (ng/mL)	0.100
LBXV08N	Blood Octane (ng/mL)	0.100
LBXV1D	Blood 1,2-Dichlorobenzene (ng/mL)	0.025
LBXV2A	Blood 1,2-Dichloroethane (ng/mL)	0.010
LBXV3B	Blood 1,3-Dichlorobenzene (ng/mL)	0.025
LBXV4C	Blood Tetrachloroethene (ng/mL)	0.048
LBXVBF	Blood Bromoform (ng/mL)	0.008
LBXVBM	Blood Bromodichloromethane (ng/mL)	0.006
LBXVBZ	Blood Benzene (ng/mL)	0.024
LBXVBZN	Blood Benzonitrile (ng/mL)	0.150
LBXVC6	Blood Cyclohexane (ng/mL)	0.020
LBXVCB	Blood Chlorobenzene (ng/mL)	0.011
LBXVCF	Blood Chloroform (ng/mL)	0.008
LBXVCM	Blood Dibromochloromethane (ng/mL)	0.005
LBXVCT	Blood Carbon Tetrachloride (ng/mL)	0.005
LBXVDB	Blood 1,4-Dichlorobenzene (ng/mL)	0.040
LBXVDE	Blood 1,2-Dibromoethane (ng/ml)	0.015
LBXVDEE	Blood Diethyl Ether (ng/mL)	0.040
LBXVDX	Blood 1,4-Dioxane (ng/mL)	0.500
LBXVEA	Blood Ethyl Acetate (ng/mL)	0.158
LBXVEB	Blood Ethylbenzene (ng/mL)	0.024
LBXVEC	Blood Chloroethane (ng/mL)	0.045
LBXVFN	Blood Furan (ng/ml)	0.025
LBXVIBN	Blood Isobutyronitrile (ng/mL)	0.040
LBXVIPB	Blood Isopropylbenzene (ng/ml)	0.040
LBXVMC	Blood Methylene Chloride (ng/mL)	0.250
LBXVMCP	Blood Methylcyclopentane (ng/mL)	0.020
LBXVME	Blood MTBE (ng/mL)	0.010
LBXVNB	Blood Nitrobenzene (ng/mL)	0.320
LBXVOX	Blood o-Xylene (ng/mL)	0.024
LBXVTC	Blood Trichloroethene (ng/mL)	0.012

VARIABLE NAME	SAS LABEL	LLOD
LBXVTE	Blood 1,1,1-Trichloroethane (ng/mL)	0.010
LBXVTFT	Blood aaa-Trifluorotoluene (ng/mL)	0.040
LBXVTHF	Blood Tetrahydrofuran (ng/mL)	0.125
LBXVTO	Blood Toluene (ng/mL)	0.025
LBXVTP	Blood 1,2,3-Trichloropropane (ng/ml)	0.040
LBXVVB	LBXVVB Blood Vinyl Bromide (ng/mL)	
LBXVXY	LBXVXY Blood m-/p-Xylene (ng/mL)	

Please refer to the NHANES Analytic Guidelines and the on-line NHANES Tutorial for further details on the use of sample weights and other analytic issues.

References

- Caudill, S.P., Schleicher, R.L., Pirkle, J.L. Multi-rule quality control for the age-related eye disease study. Statist. Med. (2008) 27(20):4094-40106.
- Westgard J.O., Barry P.L., Hunt M.R., Groth T. A multi-rule Shewhart chart for quality control in clinical chemistry. Clin Chem (1981) 27:493-501.

Codebook and Frequencies

SEQN - Respondent sequence number

Variable Name: SEQN

SAS Label: Respondent sequence number

English Text: Respondent sequence number.

Target: Both males and females 18 YEARS - 150 YEARS

WTSVS2YR - VOC Smoking Subsample Weight

Variable Name: WTSVS2YR

SAS Label: VOC Smoking Subsample Weight

English Text: Two year smoking weights

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
5744.883139 to 533055.09127	Range of Values	3017	3017	
0	No Lab Result	249	3266	
	Missing	0	3266	

LBX2DF - Blood 2,5-Dimethylfuran (ng/mL)

Variable Name: LBX2DF

SAS Label: Blood 2,5-Dimethylfuran (ng/mL)

English Text: Blood 2,5-Dimethylfuran (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.008 to 1.45	Range of Values	3010	3010	
	Missing	256	3266	

LBD2DFLC - Blood 2,5-Dimethylfuran Comment Code

Variable Name: LBD2DFLC

SAS Label: Blood 2,5-Dimethylfuran Comment Code

English Text: Blood 2,5-Dimethylfuran Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0	At or above detection limit	874	874	
1	Below lower detection limit	2136	3010	
2	Detectable result and exceeds the calibrated range of assay	0	3010	
	Missing	256	3266	

LBX4CE - Blood 1,1,1,2-Tetrachloroethane (ng/mL)

Variable Name: LBX4CE

SAS Label: Blood 1,1,1,2-Tetrachloroethane (ng/mL)

English Text: Blood 1,1,1,2-Tetrachloroethane (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.028	0.028	3009	3009	
	Missing	257	3266	

LBD4CELC - Blood 1,1,1,2-Tetrachloroethane Cmt Code

Variable Name: LBD4CELC

SAS Label: Blood 1,1,1,2-Tetrachloroethane Cmt Code

English Text: Blood 1,1,1,2-Tetrachloroethane Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0	At or above detection limit	0	0	
1	Below lower detection limit	3009	3009	
2	Detectable result and exceeds the calibrated range of assay	0	3009	
	Missing	257	3266	

LBXV06 - Blood Hexane (ng/mL)

Variable Name: LBXV06

SAS Label: Blood Hexane (ng/mL)

English Text: Blood Hexane (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.086 to 20.9	Range of Values	2772	2772	
	Missing	494	3266	

LBDV06LC - Blood Hexane Comment Code

Variable Name: LBDV06LC

SAS Label: Blood Hexane Comment Code

English Text: Blood Hexane Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
0	At or above detection limit	19	19	
1	Below lower detection limit	2753	2772	
2	Detectable result and exceeds the calibrated range of assay	0	2772	
	Missing	494	3266	

LBXV07N - Blood Heptane (ng/mL)

Variable Name: LBXV07N

SAS Label: Blood Heptane (ng/mL)

English Text: Blood Heptane (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.071 to 3.54	Range of Values	2914	2914	
	Missing	352	3266	

LBDV07LC - Blood Heptane Comment Code

Variable Name: LBDV07LC

SAS Label: Blood Heptane Comment Code

English Text: Blood Heptane Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0	At or above detection limit	33	33	
1	Below lower detection limit	2881	2914	
2	Detectable result and exceeds the calibrated range of assay	0	2914	
	Missing	352	3266	

LBXV08N - Blood Octane (ng/mL)

Variable Name: LBXV08N

SAS Label: Blood Octane (ng/mL)

English Text: Blood Octane (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.071 to 1.58	Range of Values	2928	2928	
	Missing	338	3266	

LBDV08LC - Blood Octane Comment Code

Variable Name: LBDV08LC

SAS Label: Blood Octane Comment Code

English Text: Blood Octane Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0	At or above detection limit	10	10	
1	Below lower detection limit	2918	2928	
2	Detectable result and exceeds the calibrated range of assay	0	2928	
	Missing	338	3266	

LBXV1D - Blood 1,2-Dichlorobenzene (ng/mL)

Variable Name: LBXV1D

SAS Label: Blood 1,2-Dichlorobenzene (ng/mL)

English Text: Blood 1,2-Dichlorobenzene (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.018 to 0.092	Range of Values	2935	2935	
	Missing	331	3266	

LBDV1DLC - Blood 1,2-Dichlorobenzene Comment Code

Variable Name: LBDV1DLC

SAS Label: Blood 1,2-Dichlorobenzene Comment Code

English Text: Blood 1,2-Dichlorobenzene Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
0	At or above detection limit	1	1	
1	Below lower detection limit	2934	2935	
2	Detectable result and exceeds the calibrated range of assay	0	2935	
	Missing	331	3266	

LBXV2A - Blood 1,2-Dichloroethane (ng/mL)

Variable Name: LBXV2A

SAS Label: Blood 1,2-Dichloroethane (ng/mL)

English Text: Blood 1,2-Dichloroethane (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.007 to 0.109	Range of Values	2970	2970	
	Missing	296	3266	

LBDV2ALC - Blood 1,2-Dichloroethane Comment Code

Variable Name: LBDV2ALC

SAS Label: Blood 1,2-Dichloroethane Comment Code

English Text: Blood 1,2-Dichloroethane Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0	At or above detection limit	101	101	
1	Below lower detection limit	2869	2970	
2	Detectable result and exceeds the calibrated range of assay	0	2970	
	Missing	296	3266	

LBXV3B - Blood 1,3-Dichlorobenzene (ng/mL)

Variable Name: LBXV3B

SAS Label: Blood 1,3-Dichlorobenzene (ng/mL)

English Text: Blood 1,3-Dichlorobenzene (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.018 to 0.018	Range of Values	2970	2970	
	Missing	296	3266	

LBDV3BLC - Blood 1,3-Dichlorobenzene Comment Code

Variable Name: LBDV3BLC

SAS Label: Blood 1,3-Dichlorobenzene Comment Code

English Text: Blood 1,3-Dichlorobenzene Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
0	At or above detection limit	0	0	
1	Below lower detection limit	2970	2970	
2	Detectable result and exceeds the calibrated range of assay	0	2970	
	Missing	296	3266	

LBXV4C - Blood Tetrachloroethene (ng/mL)

Variable Name: LBXV4C

SAS Label: Blood Tetrachloroethene (ng/mL)

English Text: Blood Tetrachloroethene (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.034 to 16	Range of Values	3017	3017	
	Missing	249	3266	

LBDV4CLC - Blood Tetrachloroethene Comment Code

Variable Name: LBDV4CLC

SAS Label: Blood Tetrachloroethene Comment Code

English Text: Blood Tetrachloroethene Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0	At or above detection limit	190	190	
1	Below lower detection limit	2827	3017	
2	Detectable result and exceeds the calibrated range of assay	0	3017	
	Missing	249	3266	

LBXVBF - Blood Bromoform (ng/mL)

Variable Name: LBXVBF

SAS Label: Blood Bromoform (ng/mL)

English Text: Blood Bromoform (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.006 to 0.139	Range of Values	2969	2969	
	Missing	297	3266	

LBDVBFLC - Blood Bromoform Comment Code

Variable Name: LBDVBFLC

SAS Label: Blood Bromoform Comment Code

English Text: Blood Bromoform Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0	At or above detection limit	271	271	
1	Below lower detection limit	2698	2969	
2	Detectable result and exceeds the calibrated range of assay	0	2969	
	Missing	297	3266	

LBXVBM - Blood Bromodichloromethane (ng/mL)

Variable Name: LBXVBM

SAS Label: Blood Bromodichloromethane (ng/mL)

English Text: Blood Bromodichloromethane (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.004 to 0.068	Range of Values	3003	3003	
	Missing	263	3266	

LBDVBMLC - Blood Bromodichloromethane Comment Code

Variable Name: LBDVBMLC

SAS Label: Blood Bromodichloromethane Comment Code

English Text: Blood Bromodichloromethane Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
0	At or above detection limit	528	528	
1	Below lower detection limit	2475	3003	
2	Detectable result and exceeds the calibrated range of assay	0	3003	
	Missing	263	3266	

LBXVBZ - Blood Benzene (ng/mL)

Variable Name: LBXVBZ

SAS Label: Blood Benzene (ng/mL)

English Text: Blood Benzene (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.017 to 2.75	Range of Values	2966	2966	
	Missing	300	3266	

LBDVBZLC - Blood Benzene Comment Code

Variable Name: LBDVBZLC

SAS Label: Blood Benzene Comment Code

English Text: Blood Benzene Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
0	At or above detection limit	1441	1441	
1	Below lower detection limit	1525	2966	
2	Detectable result and exceeds the calibrated range of assay	0	2966	
•	Missing	300	3266	

LBXVBZN - Blood Benzonitrile (ng/mL)

Variable Name: LBXVBZN

SAS Label: Blood Benzonitrile (ng/mL)

English Text: Blood Benzonitrile (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.106 to 1.92	Range of Values	2959	2959	
	Missing	307	3266	

LBDVZBLC - Blood Benzonitrile Comment Code

Variable Name: LBDVZBLC

SAS Label: Blood Benzonitrile Comment Code

English Text: Blood Benzonitrile Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
0	At or above detection limit	271	271	
1	Below lower detection limit	2688	2959	
2	Detectable result and exceeds the calibrated range of assay	0	2959	
•	Missing	307	3266	

LBXVC6 - Blood Cyclohexane (ng/mL)

Variable Name: LBXVC6

SAS Label: Blood Cyclohexane (ng/mL)

English Text: Blood Cyclohexane (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.014 to 12.7	Range of Values	2896	2896	
	Missing	370	3266	

LBDVC6LC - Blood Cyclohexane Comment Code

Variable Name: LBDVC6LC

SAS Label: Blood Cyclohexane Comment Code

English Text: Blood Cyclohexane Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
0	At or above detection limit	48	48	
1	Below lower detection limit	2848	2896	
2	Detectable result and exceeds the calibrated range of assay	0	2896	
	Missing	370	3266	

LBXVCB - Blood Chlorobenzene (ng/mL)

Variable Name: LBXVCB

SAS Label: Blood Chlorobenzene (ng/mL)

English Text: Blood Chlorobenzene (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.008 to 0.043	Range of Values	2996	2996	
	Missing	270	3266	

LBDVCBLC - Blood Chlorobenzene Comment Code

Variable Name: LBDVCBLC

SAS Label: Blood Chlorobenzene Comment Code

English Text: Blood Chlorobenzene Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0	At or above detection limit	2	2	
1	Below lower detection limit	2994	2996	
2	Detectable result and exceeds the calibrated range of assay	0	2996	
	Missing	270	3266	

LBXVCF - Blood Chloroform (ng/mL)

Variable Name: LBXVCF

SAS Label: Blood Chloroform (ng/mL)

English Text: Blood Chloroform (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.006 to 0.619	Range of Values	2905	2905	
	Missing	361	3266	

LBDVCFLC - Blood Chloroform Comment Code

Variable Name: LBDVCFLC

SAS Label: Blood Chloroform Comment Code

English Text: Blood Chloroform Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0	At or above detection limit	1688	1688	
1	Below lower detection limit	1217	2905	
2	Detectable result and exceeds the calibrated range of assay	0	2905	
	Missing	361	3266	

LBXVCM - Blood Dibromochloromethane (ng/mL)

Variable Name: LBXVCM

SAS Label: Blood Dibromochloromethane (ng/mL)

English Text: Blood Dibromochloromethane (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.004 to 0.071	Range of Values	3014	3014	
	Missing	252	3266	

LBDVCMLC - Blood Dibromochloromethane Comment Code

Variable Name: LBDVCMLC

SAS Label: Blood Dibromochloromethane Comment Code

English Text: Blood Dibromochloromethane Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
0	At or above detection limit	441	441	
1	Below lower detection limit	2573	3014	
2	Detectable result and exceeds the calibrated range of assay	0	3014	
	Missing	252	3266	

LBXVCT - Blood Carbon Tetrachloride (ng/mL)

Variable Name: LBXVCT

SAS Label: Blood Carbon Tetrachloride (ng/mL)

English Text: Blood Carbon Tetrachloride (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.004 to 0.018	Range of Values	2994	2994	
	Missing	272	3266	

LBDVCTLC - Blood Carbon Tetrachloride Comment Code

Variable Name: LBDVCTLC

SAS Label: Blood Carbon Tetrachloride Comment Code

English Text: Blood Carbon Tetrachloride Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
0	At or above detection limit	21	21	
1	Below lower detection limit	2973	2994	
2	Detectable result and exceeds the calibrated range of assay	0	2994	
	Missing	272	3266	

LBXVDB - Blood 1,4-Dichlorobenzene (ng/mL)

Variable Name: LBXVDB

SAS Label: Blood 1,4-Dichlorobenzene (ng/mL)

English Text: Blood 1,4-Dichlorobenzene (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.028 to 115	Range of Values	2995	2995	
	Missing	271	3266	

LBDVDBLC - Blood 1,4-Dichlorobenzene Comment Code

Variable Name: LBDVDBLC

SAS Label: Blood 1,4-Dichlorobenzene Comment Code

English Text: Blood 1,4-Dichlorobenzene Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
0	At or above detection limit	1595	1595	
1	Below lower detection limit	1400	2995	
2	Detectable result and exceeds the calibrated range of assay	0	2995	
	Missing	271	3266	

LBXVDE - Blood 1,2-Dibromoethane (ng/mL)

Variable Name: LBXVDE

SAS Label: Blood 1,2-Dibromoethane (ng/mL)

English Text: Blood 1,2-Dibromoethane (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.011	0.011	2906	2906	
	Missing	360	3266	

LBDVDELC - Blood 1,2-Dibromoethane Comment Code

Variable Name: LBDVDELC

SAS Label: Blood 1,2-Dibromoethane Comment Code

English Text: Blood 1,2-Dibromoethane Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
0	At or above detection limit	0	0	
1	Below lower detection limit	2906	2906	
2	Detectable result and exceeds the calibrated range of assay	0	2906	
	Missing	360	3266	

LBXVDEE - Blood Diethyl Ether (ng/mL)

Variable Name: LBXVDEE

SAS Label: Blood Diethyl Ether (ng/mL)

English Text: Blood Diethyl Ether (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.028 to 0.564	Range of Values	2961	2961	
	Missing	305	3266	

LBDVEELC - Blood Diethyl Ether Comment Code

Variable Name: LBDVEELC

SAS Label: Blood Diethyl Ether Comment Code

English Text: Blood Diethyl Ether Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
0	At or above detection limit	8	8	
1	Below lower detection limit	2953	2961	
2	Detectable result and exceeds the calibrated range of assay	0	2961	
	Missing	305	3266	

LBXVDX - Blood 1,4-Dioxane (ng/mL)

Variable Name: LBXVDX

SAS Label: Blood 1,4-Dioxane (ng/mL)

English Text: Blood 1,4-Dioxane (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.354 to 0.354	Range of Values	2884	2884	
	Missing	382	3266	

LBDVDXLC - Blood 1,4-Dioxane Comment Code

Variable Name: LBDVDXLC

SAS Label: Blood 1,4-Dioxane Comment Code

English Text: Blood 1,4-Dioxane Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
0	At or above detection limit	0	0	
1	Below lower detection limit	2884	2884	
2	Detectable result and exceeds the calibrated range of assay	0	2884	
	Missing	382	3266	

LBXVEA - Blood Ethyl Acetate (ng/mL)

Variable Name: LBXVEA

SAS Label: Blood Ethyl Acetate (ng/mL)

English Text: Blood Ethyl Acetate (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.112 to 142	Range of Values	2893	2893	
	Missing	373	3266	

LBDVEALC - Blood Ethyl Acetate Comment Code

Variable Name: LBDVEALC

SAS Label: Blood Ethyl Acetate Comment Code

English Text: Blood Ethyl Acetate Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
0	At or above detection limit	75	75	
1	Below lower detection limit	2818	2893	
2	Detectable result and exceeds the calibrated range of assay	0	2893	
	Missing	373	3266	

LBXVEB - Blood Ethylbenzene (ng/mL)

Variable Name: LBXVEB

SAS Label: Blood Ethylbenzene (ng/mL)

English Text: Blood Ethylbenzene (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.017 to 11.2	Range of Values	2988	2988	
	Missing	278	3266	

LBDVEBLC - Blood Ethylbenzene Comment Code

Variable Name: LBDVEBLC

SAS Label: Blood Ethylbenzene Comment Code

English Text: Blood Ethylbenzene Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
0	At or above detection limit	1095	1095	
1	Below lower detection limit	1893	2988	
2	Detectable result and exceeds the calibrated range of assay	0	2988	
•	Missing	278	3266	

LBXVEC - Blood Chloroethane (ng/mL)

Variable Name: LBXVEC

SAS Label: Blood Chloroethane (ng/mL)

English Text: Blood Chloroethane (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.032 to 0.505	Range of Values	2976	2976	
	Missing	290	3266	

LBDVECLC - Blood Chloroethane Comment Code

Variable Name: LBDVECLC

SAS Label: Blood Chloroethane Comment Code

English Text: Blood Chloroethane Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
0	At or above detection limit	7	7	
1	Below lower detection limit	2969	2976	
2	Detectable result and exceeds the calibrated range of assay	0	2976	
	Missing	290	3266	

LBXVFN - Blood Furan (ng/mL)

Variable Name: LBXVFN

SAS Label: Blood Furan (ng/mL)

English Text: Blood Furan (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.018 to 0.605	Range of Values	3017	3017	
	Missing	249	3266	

LBDVFNLC - Blood Furan Comment Code

Variable Name: LBDVFNLC

SAS Label: Blood Furan Comment Code

English Text: Blood Furan Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0	At or above detection limit	718	718	
1	Below lower detection limit	2299	3017	
2	Detectable result and exceeds the calibrated range of assay	0	3017	
	Missing	249	3266	

LBXVIBN - Blood Isobutyronitrile (ng/mL)

Variable Name: LBXVIBN

SAS Label: Blood Isobutyronitrile (ng/mL)

English Text: Blood Isobutyronitrile (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.028 to 1.04	Range of Values	2938	2938	
	Missing	328	3266	

LBDVIBLC - Blood Isobutyronitrile Comment Code

Variable Name: LBDVIBLC

SAS Label: Blood Isobutyronitrile Comment Code

English Text: Blood Isobutyronitrile Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0	At or above detection limit	387	387	
1	Below lower detection limit	2551	2938	
2	Detectable result and exceeds the calibrated range of assay	0	2938	
	Missing	328	3266	

LBXVIPB - Blood Isopropylbenzene (ng/mL)

Variable Name: LBXVIPB

SAS Label: Blood Isopropylbenzene (ng/mL)

English Text: Blood Isopropylbenzene (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.028 to 0.182	Range of Values	2983	2983	
	Missing	283	3266	

LBDVIPLC - Blood Isopropylbenzene Comment Code

Variable Name: LBDVIPLC

SAS Label: Blood Isopropylbenzene Comment Code

English Text: Blood Isopropylbenzene Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0	At or above detection limit	9	9	
1	Below lower detection limit	2974	2983	
2	Detectable result and exceeds the calibrated range of assay	0	2983	
	Missing	283	3266	

LBXVMC - Blood Methylene Chloride (ng/mL)

Variable Name: LBXVMC

SAS Label: Blood Methylene Chloride (ng/mL)

English Text: Blood Methylene Chloride (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.177 to 32.8	Range of Values	2953	2953	
	Missing	313	3266	

LBDVMCLC - Blood Methylene Chloride Comment Code

Variable Name: LBDVMCLC

SAS Label: Blood Methylene Chloride Comment Code

English Text: Blood Methylene Chloride Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0	At or above detection limit	13	13	
1	Below lower detection limit	2940	2953	
2	Detectable result and exceeds the calibrated range of assay	0	2953	
	Missing	313	3266	

LBXVME - Blood MTBE (ng/mL)

Variable Name: LBXVME

SAS Label: Blood MTBE (ng/mL)

English Text: Blood Methyl-tert-butyl ether (MTBE) (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.007 to 0.107	Range of Values	2786	2786	
	Missing	480	3266	

LBDVMELC - Blood MTBE Comment Code

Variable Name: LBDVMELC

SAS Label: Blood MTBE Comment Code

English Text: Blood Methyl-tert-butyl ether (MTBE) Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0	At or above detection limit	133	133	
1	Below lower detection limit	2653	2786	
2	Detectable result and exceeds the calibrated range of assay	0	2786	
	Missing	480	3266	

LBXVMCP - Blood Methylcyclopentane (ng/mL)

Variable Name: LBXVMCP

SAS Label: Blood Methylcyclopentane (ng/mL)

English Text: Blood Methylcyclopentane (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.014 to 33.1	Range of Values	2835	2835	
	Missing	431	3266	

LBDVMPLC - Blood Methylcyclopentane Comment Code

Variable Name: LBDVMPLC

SAS Label: Blood Methylcyclopentane Comment Code

English Text: Blood Methylcyclopentane Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
0	At or above detection limit	54	54	
1	Below lower detection limit	2781	2835	
2	Detectable result and exceeds the calibrated range of assay	0	2835	
•	Missing	431	3266	

LBXVNB - Blood Nitrobenzene (ng/mL)

Variable Name: LBXVNB

SAS Label: Blood Nitrobenzene (ng/mL)

English Text: Blood Nitrobenzene (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.226 to 0.226	Range of Values	2969	2969	
	Missing	297	3266	

LBDVNBLC - Blood Nitrobenzene Comment Code

Variable Name: LBDVNBLC

SAS Label: Blood Nitrobenzene Comment Code

English Text: Blood Nitrobenzene Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
0	At or above detection limit	0	0	
1	Below lower detection limit	2969	2969	
2	Detectable result and exceeds the calibrated range of assay	0	2969	
	Missing	297	3266	

LBXVOX - Blood o-Xylene (ng/mL)

Variable Name: LBXVOX

SAS Label: Blood o-Xylene (ng/mL)

English Text: Blood o-Xylene (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.017 to 6.56	Range of Values	2994	2994	
	Missing	272	3266	

LBDVOXLC - Blood o-Xylene Comment Code

Variable Name: LBDVOXLC

SAS Label: Blood o-Xylene Comment Code

English Text: Blood o-Xylene Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0	At or above detection limit	1007	1007	
1	Below lower detection limit	1987	2994	
2	Detectable result and exceeds the calibrated range of assay	0	2994	
	Missing	272	3266	

LBXVTC - Blood Trichloroethene (ng/mL)

Variable Name: LBXVTC

SAS Label: Blood Trichloroethene (ng/mL)

English Text: Blood Trichloroethene (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.008 to 0.15	Range of Values	3017	3017	
	Missing	249	3266	

LBDVTCLC - Blood Trichloroethene Comment Code

Variable Name: LBDVTCLC

SAS Label: Blood Trichloroethene Comment Code

English Text: Blood Trichloroethene Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
0	At or above detection limit	20	20	
1	Below lower detection limit	2997	3017	
2	Detectable result and exceeds the calibrated range of assay	0	3017	
	Missing	249	3266	

LBXVTE - Blood 1,1,1-Trichloroethane (ng/mL)

Variable Name: LBXVTE

SAS Label: Blood 1,1,1-Trichloroethane (ng/mL)

English Text: Blood 1,1,1-Trichloroethane (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.007 to 1.09	Range of Values	3006	3006	
	Missing	260	3266	

LBDVTELC - Blood 1,1,1-Trichloroethane Comment Code

Variable Name: LBDVTELC

SAS Label: Blood 1,1,1-Trichloroethane Comment Code

English Text: Blood 1,1,1-Trichloroethane Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
0	At or above detection limit	22	22	
1	Below lower detection limit	2984	3006	
2	Detectable result and exceeds the calibrated range of assay	0	3006	
	Missing	260	3266	

LBXVTFT - Blood aaa - Trifluorotoluene (ng/mL)

Variable Name: LBXVTFT

SAS Label: Blood aaa - Trifluorotoluene (ng/mL)

English Text: Blood aaa - Trifluorotoluene (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.028 to 0.028	Range of Values	3002	3002	
	Missing	264	3266	

LBDVFTLC - Blood aaa -Trifluorotoluene Comment Code

Variable Name: LBDVFTLC

SAS Label: Blood aaa -Trifluorotoluene Comment Code

English Text: Blood aaa -Trifluorotoluene Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
0	At or above detection limit	0	0	
1	Below lower detection limit	3002	3002	
2	Detectable result and exceeds the calibrated range of assay	0	3002	
	Missing	264	3266	

LBXVTHF - Blood Tetrahydrofuran (ng/mL)

Variable Name: LBXVTHF

SAS Label: Blood Tetrahydrofuran (ng/mL)

English Text: Blood Tetrahydrofuran (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.088 to 1.22	Range of Values	2920	2920	
	Missing	346	3266	

LBDVHTLC - Blood Tetrahydrofuran Comment Code

Variable Name: LBDVHTLC

SAS Label: Blood Tetrahydrofuran Comment Code

English Text: Blood Tetrahydrofuran Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0	At or above detection limit	20	20	
1	Below lower detection limit	2900	2920	
2	Detectable result and exceeds the calibrated range of assay	0	2920	
	Missing	346	3266	

LBXVTO - Blood Toluene (ng/mL)

Variable Name: LBXVTO

SAS Label: Blood Toluene (ng/mL)

English Text: Blood Toluene (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.018 to 18.1	Range of Values	2998	2998	
	Missing	268	3266	

LBDVTOLC - Blood Toluene Comment Code

Variable Name: LBDVTOLC

SAS Label: Blood Toluene Comment Code

English Text: Blood Toluene Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
0	At or above detection limit	2907	2907	
1	Below lower detection limit	91	2998	
2	Detectable result and exceeds the calibrated range of assay	0	2998	
•	Missing	268	3266	

LBXVTP - Blood 1,2,3-Trichloropropane (ng/mL)

Variable Name: LBXVTP

SAS Label: Blood 1,2,3-Trichloropropane (ng/mL)

English Text: Blood 1,2,3-Trichloropropane (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.028 to 0.028	Range of Values	2963	2963	
	Missing	303	3266	

LBDVTPLC - Blood 1,2,3-Trichloropropane Comt Code

Variable Name: LBDVTPLC

SAS Label: Blood 1,2,3-Trichloropropane Comt Code

English Text: Blood 1,2,3-Trichloropropane Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
0	At or above detection limit	0	0	
1	Below lower detection limit	2963	2963	
2	Detectable result and exceeds the calibrated range of assay	0	2963	
	Missing	303	3266	

LBXVVB - Blood Vinyl Bromide (ng/mL)

Variable Name: LBXVVB

SAS Label: Blood Vinyl Bromide (ng/mL)

English Text: Blood Vinyl Bromide (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.032 to 0.032	Range of Values	2993	2993	
	Missing	273	3266	

LBDVVBLC - Blood Vinyl Bromide Comment Code

Variable Name: LBDVVBLC

SAS Label: Blood Vinyl Bromide Comment Code

English Text: Blood Vinyl Bromide Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0	At or above detection limit	0	0	
1	Below lower detection limit	2993	2993	
2	Detectable result and exceeds the calibrated range of assay	0	2993	
	Missing	273	3266	

LBXVXY - Blood m-/p-Xylene (ng/mL)

Variable Name: LBXVXY

SAS Label: Blood m-/p-Xylene (ng/mL)

English Text: Blood m-/p-Xylene (ng/mL)

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to I tem
0.024 to 30.5	Range of Values	3013	3013	
	Missing	253	3266	

LBDVXYLC - Blood m-/p-Xylene Comment Code

Variable Name: LBDVXYLC

SAS Label: Blood m-/p-Xylene Comment Code

English Text: Blood m-/p-Xylene Comment Code

Target: Both males and females 18 YEARS - 150 YEARS

Code or Value	Value Description	Count	Cumulative	Skip to Item
0	At or above detection limit	2047	2047	
1	Below lower detection limit	966	3013	
2	Detectable result and exceeds the calibrated range of assay	0	3013	
	Missing	253	3266	