ABSTRACT

The developmental toxicity of gasoline with MTBE Vapor Condensate was evaluated in 25 confirmed-mated female Crl:CD-1®(ICR)BR mice/exposure group at target concentrations of 0, 2000, 10,000, and 20,000 mg/m^3 in air. The animals were exposed daily for six hours from Gestation Day 5 through Gestation Day 17. There was no evidence of maternal toxicity. There were no biologically significant differences for uterine implantation data, and external, visceral, and skeletal observations in the fetuses. There was a statistically significant increase in the number of litters in the 10,000 mg/m^3 target concentration group with visceral malformations. There was also a finding of two unusual external malformations: ectopia cordis in one dead fetus at the 2000 mg/m^3 target concentration and in two live fetuses from one litter at the 10,000 mg/m^3 target concentration, and gastroschisis in one live fetus from the same litter. Neither the increase in visceral malformations nor the finding of these external malformations was considered toxicologically significant due to the lack of a dose response. Thus, exposure to gasoline with MTBE vapor condensate at levels up to 20,000 mg/m^3 did not cause maternal or developmental toxicity.

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FINAL REPORT

PROJECT NUMBER: 171334M

TEST SUBSTANCE: GASOLINE WITH MTBE VAPOR CONDENSATE
(MRD-00-713)

WHOLE-BODY INHALATION DEVELOPMENTAL TOXICITY STUDY IN MICE WITH BASELINE GASOLINE WITH MTBE VAPOR CONDENSATE (MRD-00-713)

PERFORMED FOR:

AMERICAN PETROLEUM INSTITUTE
1220 L Street Northwest
Washington, D.C. 20005-4070

PERFORMED AT:

EXXONMOBIL BIOMEDICAL SCIENCES, INC.
Laboratory Operations, Mammalian Toxicology Laboratory
1545 Route 22 East, P.O. Box 971
Annandale, New Jersey 08801-0971

09TP 2

COMPLETION DATE: March 13, 2009

APPROVAL SIGNATURES

D. J. Devlin, Ph.D.
Director, Toxicology and Environmental Sciences

March 12, 2009
Date

I hereby accept responsibility for the validity of these data and declare that to the best of my knowledge, the study contained herein was performed under my supervision in compliance with the EPA, United States Environmental Protection Agency, Good Laboratory Practices (GLP) Standards for Inhalation Exposure Health Effects Testing, 40CFR, Part 79.60, 1994 with the following exception.

The storage of the sorbent tubes collected for the detailed capillary/GC analysis was not documented. The tubes were stored in the necropsy freezer after sample collection until they were transferred to the Analytical Chemistry Group for analysis.

G. W. Trimmer, B.A.
Study Director

13/MAR/09
Date

T.M. Gray, M.S. D.A.B.T.
Sponsor

3/10/09
Date

PERSONNEL

Study Director:	G. W. Trimmer, B.A.
Sponsor:	American Petroleum Institute 1220 L Street Northwest Washington, D.C. 20005-4070
Sponsor Representative:	T. M. Gray, M.S., D.A.B.T.
Director, Laboratory Operations (Study Initiation through October 31, 2004)	J. J. Freeman, Ph.D., D.A.B.T.
Laboratory Coordinator (effective November 1, 2004):	G. W. Trimmer, B. A.
Toxicology and Animal Care Supervisor:	R. C. Forgash, B.S.
Compound Preparation Supervisor:	E. J. Febbo, M.S.
Analytical Chemistry Supervisor:	D. J. Letinski, M.S.
Quality Assurance/Archives Section Head (Study Initiation through February 28, 2005)	W. J. Bover, Ph.D.
Quality Assurance/Archives Supervisor (effective March 1, 2005) :	R. Pristas, M.S.
Veterinarian:	R. L. Harris, D.V.M.
Reproductive Toxicology Consultant:	S. B. Harris, Ph.D.
Statistician:	M. J. Nicolich, Ph.D
Statistician Consultant:	G. Bukhbinder, Ph.D.

QUALITY ASSURANCE STATEMENT

STUDY NUMBER: 171334M

TEST SUBSTANCE: MRD-00-713

STUDY SPONSOR: American Petroleum Institute

Listed below are the inspections performed by the Quality Assurance Unit of ExxonMobil Biomedical Sciences, Inc., the date(s) of inspection, and the date(s) findings were reported to the Study Director and Management.

Study Phase Inspected	Date(s) of Inspection	Reported to Study Director	Reported to Management
Protocol	06 Sep 01	06 Sep 01	12 Sep 01
30 Minute Observations	02 Oct 01	02 Oct 01	03,08 Oct 01
Valve Tapping	08 Oct 01	08 Oct 01	12,16 Oct 01
Dosing	09,10 Oct 01	10 Oct 01	12,16 Oct 01
Pup Visceral Examination	12,22 Oct 01	22 Oct 01	25,31 Oct 01
Changing of Fetal Heads from Bouin's Fluid into ETOH	22 Oct 01	23 Oct 01	23,31 Oct 01
Final Report	11 Feb-08 Mar 02	08 Mar 02	03,22 May 02
Second Review of Final Report	18,19,22 Mar 02, 01-07 May 02	07 May 02	27 Feb 06
Third Review of Final Report	10,13-15 Feb 06	15 Feb 06	10 Mar 06
Review of Report Amendment 1	09 Apr 09	09 Apr 09	09,27 Apr 09
Review of Report Amendment 2	29 May 09	29 May 09	29 May 09

The final report accurately reflects the methods, procedures and observations documented in the raw data.

Robert Pristas, M.S. Robert Pristas Date 29 May '09
Quality Assurance Unit Coordinator

Section 1

SUMMARY

This study was conducted to evaluate the potential developmental toxicity of the test substance, Gasoline with MTBE Vapor Condensate (GMVC). GMVC was administered via whole-body inhalation exposure to pregnant mice during the period of major organogenesis and fetal growth. GMVC was administered by whole-body inhalation exposure to 25 confirmed-mated Crl:CD-1®(ICR)BR female mice at target doses of 0 (air control) 2000, 10,000, and 20,000 mg/m^3 for six hours (plus the theoretical equilibration time) daily from Gestation Day (GD) 5 through GD 17. The Sponsor selected the exposure levels based upon safety considerations and previously conducted mammalian toxicity studies.

Clinical observations were made daily during gestation. Body weight and food consumption measurements were made on GD 0, 5, 8, 11, 14, 17, and 18. On GD 18, animals were sacrificed and cesarean sections (C-sections) were performed. Gross necropsies were performed, uterine weights with ovaries attached were recorded, uterine contents were examined, and the required uterine implantation data were recorded. All fetuses were weighed, sexed externally, and examined externally for gross malformations.

The viscera of approximately one-half of the fetuses of each litter were examined by fresh dissection. After these fetuses were examined, they were decapitated. The heads were preserved in Bouin's solution for at least two weeks, rinsed, and subsequently stored in 70% ethanol. The fetal heads were sectioned and examined with a dissecting microscope for the presence of abnormalities. The remaining fetuses that were judged to be alive at the C-section were eviscerated, processed for skeletal staining, stained for bone and cartilage, and examined for the presence of skeletal malformations and variations.

With the exception of one dam exposed to the 20,000 mg/m^3 target concentration that delivered her litter on GD 17, all dams survived to scheduled terminal sacrifice on GD 18 and were free of clinical or postmortem effects attributable to treatment with GMVC. One control dam, one dam exposed to the 2000 mg/m^3 target concentration and two dams exposed to the 20,000 mg/m^3 target delivered all or part of their litters prior to the scheduled terminal sacrifice. Additionally, four dams exposed to the 2000 mg/m^3 target concentration and three dams exposed to the 20,000 mg/m^3 target concentration were not pregnant at the scheduled terminal sacrifice.

There were no statistically significant differences between the control group and the GMVC treated groups for fetal body weights, uterine implantation data, external observations, and skeletal observations. There was a statistically significant increase in the number of litters in the 10,000 mg/m^3 target concentration group with visceral malformations. There was also a finding of two unusual external malformations: ectopia cordis in one dead fetus at the 2000 mg/m^3 target concentration and in two live fetuses from one litter at the 10,000 mg/m^3 target concentration, and gastroschisis in one live fetus from the same litter. Neither the increase in visceral malformations nor the finding of these external malformations was considered toxicologically significant due to the lack of a dose response.

SUMMARY (CONT'D)

The most frequently noted observation in the fetal examinations was the skeletal observation of ossification of the calcaneous. This observation is an indication of slightly advanced development and is considered normal in the GD 18 mouse fetus. The second most frequently noted observation was the skeletal variation of well-formed lumbar ribs. Rudimentary lumbar ribs also were noted frequently. As alluded to previously, the incidence of lumbar rib abnormalities in the treated groups was not statistically different from the control group's incidence of these abnormalities and was similar across the groups. Additionally, the incidence of rudimentary lumbar ribs for each group was within the historical control range of the laboratory. The incidence of well-formed lumbar ribs in the control, 2000 mg/m^3 target concentration, and 20,000 mg/m^3 target concentration groups was outside the historical control range of the laboratory, but the incidence in the control group and the 20,000 mg/m^3 target concentration group were similar (35.4 and 35.7%, respectively).

In conclusion, administration of the test substance to mice by whole-body inhalation exposure during the period of organogenesis and fetal growth produced no evidence of maternal toxicity in this study at any concentration tested. There were no statistically significant differences between the control and treated groups for any of the fetal parameters or observations with the exception of the statistically significant, but not toxicologically significant, increase in visceral malformations in the 10,000 mg/m^3 target concentration group.

Therefore, the maternal and developmental No Observable Adverse Effect Levels for this study were established at the target concentration of 20,000 mg/m^3.

Section 2

INTRODUCTION

This study was conducted to evaluate the developmental toxicity of Gasoline with MTBE Vapor Condensate (MRD-00-713) administered whole-body inhalation exposure to pregnant mice during the period of major organogenesis and fetal growth.

This study was conducted for the American Petroleum Institute, 1220 L Street Northwest, Washington, D.C. 20005-4070 (subsequently referred to as the Sponsor).

The study was conducted by ExxonMobil Biomedical Sciences, Inc. (EMBSI) Laboratory Operations, Mammalian Toxicology Laboratory, 1545 Route 22 East, P.O. Box 971, Annandale, New Jersey 08801-0971. The EMBSI Mammalian Toxicology Laboratory is accredited by the Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC International).

STUDY INITIATION (PROTOCOL SIGNATURE DATE)

September 19, 2001

EXPERIMENTAL START DATE

September 25, 2001

EXPERIMENTAL TERMINATION DATE

January 8, 2002

INLIFE TEST PERIOD

September 19, 2001 to October 17, 2001

JUSTIFICATION FOR SELECTION OF TEST SYSTEM

The mouse is one of the species required by the EPA for the developmental toxicity testing requirement of Section 211b of the Clean Air Act.

JUSTIFICATION OF DOSING ROUTE

Exposure by inhalation is a likely route of human exposure.

JUSTIFICATION OF DOSE SELECTION

The Sponsor selected the exposure levels based upon safety considerations and previously conducted mammalian toxicity studies

COMPLIANCE

This study was conducted to meet/exceed compliance with the following standards and requirements:

EPA, United States Environmental Protection Agency, Good Laboratory Practices (GLP) Standards for Inhalation Exposure Health Effects Testing. 79.60 CFR Vol. 59, No. 122, 27 June 1994.

EPA, United States Environmental Protection Agency, Vehicle Emissions Inhalation Exposure Guideline. 79.61 CFR Vol. 59, No. 122, 27-June 1994.

Animal Welfare Act of 1966 (P.L. 89-544), as amended in 1970, 1976, and 1985. Code of Federal Regulations, Title 9 [Animals and Animal Products], Subchapter A - Animal Welfare Parts 1, 2, and 3.

This study was conducted in accord with the following guidelines and standards:

EPA, United States Environmental Protection Agency, Health Effects Test Guidelines OPPTS 870.3600 Inhalation Developmental Toxicity Study, Public Draft, June 1996.

EPA, United States Environmental Protection Agency, Health Effects Test Guidelines, OPPTS 870.3700, August 1998.

OECD, Organization for Economic Cooperation and Development, Guidelines for the Testing Chemicals, Proposal for Updating Guideline 414, January 2001.

Guide for the Care and Use of Laboratory Animals, Institute of Laboratory Animal Resources, Commission on Life Sciences, National Research Council, National Academy Press, Washington, D.C., 1996.

Section 3

MATERIALS AND METHODS

TEST SUBSTANCE

Substance Identification

EMBSI Identification:	MRD-00-713
Supplier Identification:	Gasoline with MTBE Vapor Condensate
Supplier:	Chevron Research and Technology
Lot #:	API 00-02
Description:	Colorless liquid
Storage Condition:	Outdoor ambient under nitrogen

Date Received:	Container numbers[a]:	Expiration Date:
December 11, 2000	2 (2), 8 (8), 4 (4), 5 (5), 6 (6), 7 (7)	December 2005
April 9, 2001	9 (1), 10 (2)13 (5), 14 (6)	April 2006

[a] - Numbers in () are the Supplier's tank identification numbers

Characterization of the Test Substance

The stability, identity, strength, purity, and composition or other characteristics that appropriately identified the test substance was performed by the testing laboratory (EMBSI). Documentation is maintained at ExxonMobil Biomedical Sciences, Inc., Annandale, New Jersey. Characterization will be reported as part of EMBSI Study 167490. Additionally, Appendix J shows the stability of the test substance over the course of the exposure interval.

The methods of synthesis, fabrication, and/or derivation of the test substance were the responsibility of the Sponsor.

TEST SUBSTANCE (CONT'D)

Analysis of Mixtures

Nominal Concentration. A nominal exposure concentration was calculated on a daily basis. The net weight of test substance used was determined and was divided by the total volume of air passing through the chamber to give the nominal concentration.

Analytical Concentration. The concentration of the test atmosphere in each chamber and the chamber room was determined approximately hourly during each exposure by on-line gas chromatography. The chamber concentrations were measured in the breathing zone of the mice. A backup analytical device (calibrated infrared vapor monitor) was also available. The hourly chromatographic analyses showed five of the major components of the test atmosphere and were used to assess the stability of the test substance over the duration of the study.

Additionally, a sorbent tube sample of the test atmosphere was collected by drawing a known volume of the test atmosphere from each chamber through a calibrated critical orifice once during each week of the study. These samples were stored in a freezer until after the end of the exposure phase of the study and then transferred to the analytical chemistry laboratory. The samples were desorbed and analyzed by the detailed capillary/GC method used for the initial characterization analysis of the liquid test substance. This analysis was done to determine component proportions of the test material atmosphere compared to the liquid test material.

Chamber Homogeneity. Distribution samples were drawn from twelve different points within the chamber at each exposure level during the validation of the exposure system for this study and Study 171334.

Particle Size Analysis. A particle size determination of the aerosol portion of the test atmosphere was conducted from the control and 20,000 mg/m^3 concentration. The sample was taken using a multistage cascade impactor. Preweighed glass fiber filters were used to collect aerosol on each stage, which are associated with specific cutoff diameters for aerodynamic particle size in microns.

Sample Retention

No retention samples were taken due to the practical and safety considerations of storing a mixed gas/liquid phase substance under pressure.

Carrier

Air

TEST SYSTEM

Test Animal

Species:	Mouse
Strain/stock:	Crl:CD-1®(ICR)BR
Supplier:	Charles River Laboratories, Inc. Portage, MI

Animal Receipt Information (Females)

Receipt Date:	September 10, 2001
CTL#	7989732

Quarantine and Acclimation Period

9 days; animals were checked for viability at least once daily.

Number and Sex

150 sexually mature virgin females

100 females were allocated to study groups after confirmation of mating; additional animals received for mating purposes only.

50 sexually mature males (received for mating purposes only)

Age at Initiation of Gestation (Designated GD 0)

Females: Approximately 11-12 weeks

Weight at Initiation of Gestation (Designated GD 0)

Females: 25 to 33 grams

TEST SYSTEM (CONT'D)

Animal Identification

Individual ear tags and corresponding cage identification.

Selection

More animals than required for the conduct of the study were purchased and acclimated. Animals determined to be unsuitable for inclusion on this study because of poor health, outlying body weights, or other abnormalities were excluded from selection by the Study Director, and/or technical staff.

Feed

Certified Rodent Diet Meal 5002, ad libitum

Manufacturer:	PMI Feeds Inc. Richmond, Indiana
Analysis:	Performed by PMI Feeds Inc. Copies of the feed analyses are maintained in the EMBSI Toxicology Laboratory. The feed analyses were not conducted by a GLP-compliant laboratory.
Contaminants:	There were no known contaminants in the feed believed to have been present at levels that may have interfered with this study.

The availability of feed was checked daily for all animals. Animals were without food while in the exposure chambers.

Water

Automatic watering system, ad libitum

Supplier:	ExxonMobil Research and Engineering De-ionized Water System.
Analysis:	Periodic analysis is the responsibility of the testing laboratory. A copy of the results is maintained at the testing laboratory. The analysis was not performed in a GLP-compliant laboratory.
Contaminants:	There were no known contaminants in the water believed to have been present at levels that may have interfered with this study.

The availability of water was checked daily for all animals. Animals were without water while in the exposure chambers.

TEST SYSTEM (CONT'D)

Housing

Room Number:	PE104
Chamber rooms:	PE102, PE110
Housing:	Single housed during the study period, except during mating.
Caging:	Suspended stainless steel and wire mesh with absorbent paper below cages.

Environmental Conditions

Animal Room

Temperature:	64 to 72 degrees Fahrenheit
Humidity:	20.7 to 70 percent relative humidity (see Protocol Exceptions)
Lighting:	Approximately 12 hours light (0600 to 1800 hours) and 12 hours dark (1800 to 0600 hours) by automatic timer.

Temperature was monitored at least twice daily and humidity was monitored at least once daily. Additionally, a non-validated computerized system monitored the temperature, humidity, and lighting continuously for alarm purposes.

Chambers

Temperature:	58 to 76 degrees Fahrenheit (see Protocol Exceptions and Appendix I)
Humidity:	34 to 100 percent relative humidity (see Protocol Exceptions and Appendix I)

Temperature and humidity were monitored continuously and recorded approximately every 30 minutes during the exposure.

Light Intensity

Animal Room Light Intensity:	10.1 to 44.9 foot-candles
Chamber Room Light Intensity:	32.5 to 46.3 foot-candles

Light intensity was measured three times during the study (the first day of exposures, during the second week of exposures and the last day of exposures) in both the animal room and the chamber room. Light intensity was measured in the animal room in a cage approximately three feet above the floor level. In the chamber room the light intensity was measured three feet above floor level in the approximate center of each generation room.

TEST SYSTEM (CONT'D)

Environmental Conditions (cont'd)

Chamber Noise Levels and Oxygen Levels

Noise Level: 74.0 to 83.1 db
Oxygen Level: 20.7 to 20.8%
The oxygen level and the noise level were measured in each exposure chamber on the first day of exposures, during the second week of exposures and on the last day of exposures.

EXPERIMENTAL DESIGN

Mating

On the initial scheduled mating day, females were placed in males' cages in a 1:1 (male: female) ratio. Males and females were paired based on sequential Physical Identification Numbers. A sufficient number of animals were co-housed in an attempt to produce an acceptable number of mated animals to accommodate lab scheduling. Mating was confirmed on the following morning by observation of a copulatory plug (vaginal). The day on which mating was confirmed was considered Day 0 of gestation (GD 0). After confirmation of mating, each mated female was returned to its own cage. New females then were placed in the males' cages until the required number of mated females was obtained by continuous cohabitation in consideration of lab scheduling. Mated females subsequently were assigned to dose groups by a computer generated body weight sorting program using the GD 0 body weights to ensure mean body weight was similar between all groups on GD 0.

Experimental Groups

Group	Number of Females per Group	Target Concentration (mg/m^3)
1 (Carrier Control)	25	0
2 (Low)	25	2000
3 (Intermediate)	25	10,000
4 (High)	25	20,000

Administration of Test Substance and Exposure Schedule

The experimental and control animals were placed (whole body) into 1.0 M^3 inhalation chambers that were operated under dynamic conditions. The exposure period was at least 6 hours per day. The test substance atmosphere generation system was started after the last animal was placed in the exposure chambers and the generation system was stopped six hours later. The animals remained in the chambers for at least an additional 23 minutes (theoretical equilibration time) while the test atmosphere cleared. The animals were exposed from GD 5 through GD 17.

The Chamber

The chambers used for exposure are stainless steel and glass or plastic and have a total volume of approximately 1.0 M^3. They operated at a flow rate (approximately 12-15 air changes/hour) sufficient to ensure timely equilibration. The flow of air through each chamber was monitored continuously using a calibrated flow measuring device and recorded approximately every 30 minutes. All chambers were maintained at a slight negative pressure. The pressure was monitored continuously and recorded approximately every 30 minutes.

EXPERIMENTAL DESIGN (CONT'D)

The Test Atmosphere

The control group was exposed to clean filtered air under conditions identical to those used for groups exposed to the test substance. The test substance was administered fully vaporized in the breathing air of the animals. The test atmosphere composition and concentration remained constant at each exposure level over the daily six-hour period. The daily mean exposure concentrations were within ± 10% of the target exposure levels with the exceptions listed in the Protocol Exceptions section.

Experimental Evaluation

Animals were examined for viability at least twice daily during the study. Body weights were taken prior to selection, and on GD 0, 5, 8, 11, 14, 17, and 18. Food consumption was measured for mated females on GD 5, 8, 11, 14, 17, and 18. A clinical examination was given to each female prior to selection, and daily during gestation. Additionally, group observations of the animals for mortality and obvious toxic signs while in the chambers were recorded at 15, 30, 45, and 60 minutes after initiation of the exposure and then hourly during each exposure.

Euthanasia and Cesarean Section

Euthanasia of the dams was by CO_2 asphyxiation followed by exsanguination. A gross necropsy was performed on all confirmed-mated females.

The fetuses were euthanized by hypothermia after the external examination and weighing.

Mated females were euthanized on GD 18. Body weights were recorded on the day of necropsy. Uterine weights with ovaries attached were recorded at the time of necropsy. Uterine contents were examined and the numbers and locations of implantation sites, early and late resorptions, live and dead (alive or dead *in utero*) fetuses were counted. Corpora lutea also were counted. The uteri of all apparently non-pregnant females were stained using 10% ammonium sulfide to confirm pregnancy status.

Evaluations of dams during cesarean section and subsequent fetal evaluations were conducted without knowledge of treatment group in order to minimize bias.

All animals that delivered litters were weighed and euthanized by CO_2 asphyxiation followed by exsanguination. A gross postmortem examination was performed on each dam and the uterus was weighed with the ovaries attached. The number of implantation sites or conceptus in each horn was counted and the number of corpora lutea was counted. The fetuses/pups were sexed externally and counted. No further examination was performed on the fetuses/pups. All fetuses were euthanized by a subcutaneous injection of sodium pentobarbital and all pups were euthanized by CO_2 asphyxiation.

EXPERIMENTAL DESIGN (CONT'D)

Examination of Fetuses

Each fetus was weighed and examined externally for gross malformations. Fetal sex was determined by external examination and confirmed internally only on those fetuses receiving visceral examinations.

The viscera of approximately one-half of the fetuses of each litter were examined by fresh dissection (Staples, 1974; Stuckhardt and Poppe, 1984). After these fetuses were examined, they were decapitated. The heads were preserved in Bouin's solution for at least two weeks, then rinsed and subsequently stored in 70% ethanol. Free-hand razor blade sections of the Bouin's-fixed fetal heads were examined for the presence of abnormalities. The remaining live fetuses (alive *in utero*) were eviscerated, processed by double staining with Alizarin red and Alcian blue, and examined for the presence of bone and cartilage malformations and ossification variations. Abnormal fetuses may have received both visceral and skeletal examinations at the discretion of the Study Director. Two fetuses from Dam IFA84 had visceral and skeletal examinations due to external observations noted.

Fetal evaluations were conducted without knowledge of treatment group in order to minimize bias.

Tissue Preservation

Fetal heads were fixed in Bouin's solution and then preserved in 70% ethanol. The fetal skeletons were preserved in glycerine with thymol after they were processed and stained.

Records

A copy of the protocol, final report, raw data, computer generated listings of raw data, supporting documentation, and tissue specimens are maintained in the EMBSI Toxicology Laboratory Archives.

Statistical Analysis

Statistical evaluation of equality of means was done by an appropriate one way analysis of variance and a test for ordered response in the dose groups. First, Bartlett's Test was performed to determine if the dose groups had equal variance (Snedecor and Cochran, 1989). If the variances were equivalent, the hypothesis that there was no difference in response between the groups was tested using a standard one-way analysis of variance (Snedecor and Cochran, 1989). If the variances were equal, the testing was done using parametric methods, otherwise nonparametric techniques were used.

Continuous data will be tested for statistical significance as follows: Where applicable, percentages were calculated and transformed by Cochran's transformation, followed by the arc sine transformation (Snedecor and Cochran, 1989). The raw percentages and the transformed percentages both were tested for statistical significance.

EXPERIMENTAL DESIGN (CONT'D)

Statistical Analysis (Cont'd)

For the parametric procedures, a standard one way ANOVA using the F distribution to assess significance was used (Snedecor and Cochran, 1989). If significant differences among the means were indicated, Dunnett's Test was used to determine which treatment groups differed significantly from control (Dunnett, 1964). In addition to the ANOVA, a standard regression analysis for linear response in the dose groups was performed. The regression also tested for linear lack of fit in the model.

For the nonparametric procedures, the test of equality of means was performed using the Kruskal-Wallis Test (Hollander and Wolfe, 1973). If significant differences among the means were indicated, Dunn's Summed Rank Test was used to determine which treatment groups differed significantly from the control (Hollander and Wolfe, 1973). In addition to the Kruskal-Wallis Test, Jonckheere's Test for monotonic trend in the dose response was performed.

Bartlett's Test for equal variance was conducted at the 1% level of significance. The 5% level of significance was considered statistically significant for all other tests. Notations also were made when the results of these tests were at the 1% level of significance.

The following data were not included in the statistical analyses:

- Gestation body weight and body weight change data for dams that delivered their litters before GD 18
- Gestation body weight and body weight change data for females that were not pregnant
- Gestation food consumption for dams that delivered their litters before GD 18
- Gestation food consumption for females that were not pregnant
- Pup body weights from litters that delivered before GD 18 were not included in the analyses of fetal body weights
- Pup external observations from litters that delivered before GD 18 were not included in the analyses of fetal observations

Means and standard deviations were calculated for animal, exposure and chamber environmental data. The coefficient of variation also was calculated when considered relevant for the exposure data.

EXPERIMENTAL DESIGN (CONT'D)

Statistical Analysis (Cont'd)

Fetal body weight was analyzed by a mixed model analysis of variance that provided an accurate statistical model of the biology. The analysis used the litter as the basis for analysis and effectively used the litter size as a covariate. The model considered dose group, litter size, and fetal sex as explanatory variables. If the overall effect of dose, or the dose by sex effect, was statistically significant the dose groups means were tested pairwise vs. the control group using least squares means. The least squares means allowed comparisons that accounted for differences in litter size and sex. The mathematical model was based on a paper by Chen, et al (1996). The analysis was run using SAS with code suggested in Little, et al (1997).

The analysis of anomalies (malformations or variations) was based on a Generalized Estimating Equation (GEE) application of the linearized model, Ryan (1992). The model used the litter as the basis for analysis and considered correlation among littermates by incorporating an estimated constant correlation and the litter size as a covariate. If the overall effect of dose, or the dose by sex effect, was statistically significant the dose groups were tested pairwise vs. the control group using least squares means. The least squares means allowed comparisons that accounted for differences in litter size. Three categories of anomalies were tested, and within each category specific anomalies also were tested. In addition to the category specific anomalies a series of combined analyses were performed within each category as applicable:

Combined Malformations and Variations for All Fetuses
Combined Malformations and Variations for Alive Fetuses
Combined Malformations and Variations for Dead Fetuses
Malformations for All Fetuses
Malformations for Alive Fetuses
Malformations for Dead Fetuses
Variations for All Fetuses
Variations for Alive Fetuses
Variations for Dead Fetuses

Section 4

RESULTS AND CONCLUSIONS/DISCUSSION

CLINICAL INLIFE OBSERVATIONS AND SURVIVAL

Survival Bar Graph: Appendix A
Incidence of Gestation Observations: Appendix B
Individual Gestation Observations: Appendix B

With the exception of one dam in the 20,000 mg/m^3 target concentration group (IFA005) that delivered on GD 17, all maternal animals survived to scheduled study termination on GD 18.

One control dam (IFA007), one dam exposed to the 2000 mg/m^3 target concentration (IFA043) and two dams exposed to the 20,000 mg/m^3 target concentration (IFA005 and IFA 078) delivered all or part of their litters prior to the scheduled terminal sacrifice. Additionally, four dams exposed to the 2000 mg/m^3 target concentration (IFA017, IFA027, IFA038, and IFA096) and three dams exposed to the 20,000 mg/m^3 target concentration (IFA023, IFA034, and IFA090) were not pregnant at the scheduled terminal sacrifice.

Clinical signs associated with exposure were not evident during the gestation period in any group.

GESTATION BODY WEIGHT

Mean Gestation Body Weight and Body Weight Change: Appendix C
Individual Gestation Body Weight and Body Weight Change: Appendix C

There were no statistically significant differences in the mean gestation body weight, mean gestation body weight change, or mean uterine weight between treated and control dams at any interval during the gestation period. Additionally, there were no statistically significant linear dose response trends in the data.

RESULTS AND CONCLUSIONS/DISCUSSION

GESTATION FOOD CONSUMPTION

Mean Gestation Food Consumption: Appendix D
Individual Gestation Food Consumption: Appendix D

The only statistically significant difference in mean gestation food consumption between treated and control dams was a statistically significant decrease that occurred at the GD17-18 interval in the 10,000 mg/m^3 target concentration group. This difference was not considered related to treatment due to the lack of a dose response. There were no other statistically significant differences in mean gestation food consumption between treated and control dams at any other interval during the gestation period.

The analysis of the GD17-18 interval data also indicated that the data did not fit the linear response model.

There was a statistically significant difference among the means at the GD 11-14 interval. However, this difference did not involve the control group. There also was a statistically significant dose response trend at the GD 11-14 interval. As the treated groups were not statistically significantly different from the control group, this trend was not biologically significant. No other linear trends were evident from the data.

GROSS POSTMORTEM OBSERVATIONS

Incidence of Gross Postmortem Observations: Appendix E
Individual Gross Postmortem Observations: Appendix E

The only observation at the gross postmortem examination of the dams was an observation of red contents in the stomach of a dam that had delivered her litter. Additionally the fetus closest to the cervix in one of the uterine horns of a control dam was found partially in the body of the uterus. This apparently was the beginning of her delivery. As the fetus had not delivered, the dam and litter were treated as a terminal sacrifice and not a delivered litter. All other dams were free of grossly observable abnormalities at the gross postmortem examination.

UTERINE IMPLANTATION DATA

Mean Uterine Implantation Data: Appendix F
Individual Uterine Implantation Data: Appendix F

There were no statistically significant differences in the implantation parameters between the control group and the treated group. Additionally, there were no linear trends identified by the statistical analyses.

RESULTS AND CONCLUSIONS/DISCUSSION (CONT'D)

FETAL BODY WEIGHT

Mean Fetal Body Weight: Appendix G
Individual Fetal Body Weight: Appendix G

There were no statistically significant differences in the mean fetal body weights between the control group and all treated groups of both sexes.

Table 4-1 - Mean Fetus Weights

Fetus Weights (grams)				
Male	Target Concentration 0 mg/m^3	Target Concentration 2000 mg/m^3	Target Concentration 10,000 mg/m^3	Target Concentration 20,000 mg/m^3
Mean	1.33	1.33	1.34	1.27
S.D.	0.10	0.11	0.12	0.12
N (litters)	24	20	25	20
Female	Target Concentration 0 mg/m^3	Target Concentration 2000 mg/m^3	Target Concentration 10,000 mg/m^3	Target Concentration 20,000 mg/m^3
Mean	1.29	1.29	1.29	1.22
S.D.	0.09	0.11	0.13	0.11
N (litters)	23	20	24	20

S.D. Standard Deviation

FETAL OBSERVATIONS

Incidence of Fetal Observations: Appendix H
Individual Fetal Observations: Appendix H
Statistician's Report: Appendix K

There were no statistically significant differences between the control group and the treated group for external variations and malformations, visceral variations, or skeletal variations and malformations on either a fetus or litter basis. There was a statistically significant increase in the number of alive fetuses with visceral malformations in the target concentration of 10,000 mg/m^3 when compared to the control group. This difference was not considered biologically significant due to the lack of dose response.

<u>External Observations in Live Fetuses</u>

Malrotated hindpaw was the most frequently noted external observation. Ectopia cordis, gastroschisis, microstomia, and cleft palate also were noted during the external examination. Ectopia cordis and gastroschisis were observed in the same litter (IFA084) in the group exposed to the target concentration of 10,000 mg/m^3. The incidence of these malformations can be found in Table 4-2.

RESULTS AND CONCLUSIONS/DISCUSSION (CONT'D)

FETAL OBSERVATIONS (CONT'D)

Table 4-2 – Incidence of External Observations in Live Fetuses

Fetal Incidence (# of live fetuses with observation/# of live fetuses examined)				
Observation	Target Concentration0 mg/m^3	Target Concentration 2000 mg/m^3	Target Concentration 10,000 mg/m^3	Target Concentration 20,000 mg/m^3
Malrotated Hindpaw	5/297	2/252	6/303	5/255
Ectopia Cordis	0/297	0[a]/252	2/303	0/255
Gastroschisis	0/297	0/252	1/303	0/255
Microstomia	1/297	0/252	0[b]/303	0/255
Cleft Palate	0/297	0/252	0/303	1/255
Litter Incidence (# of litters with observation/# of litters examined)				
Observation	Target Concentration0 mg/m^3	Target Concentration 2000 mg/m^3	Target Concentration 10,000 mg/m^3	Target Concentration 20,000 mg/m^3
Malrotated Hindpaw	4/24	2/20	6/25	5/20
Ectopia Cordis	0/24	0/20	1/25	0/20
Gastroschisis	0/24	0/20	1/25	0/20
Microstomia	1/24	0/20	0/25	0/20
Cleft Palate	0/24	0/20	0/25	1/20

a - Ectopia cordis also was observed in one dead fetus in the 2000 mg/m^3 target concentration group.

b - Microstomia also was observed in one dead fetus in the 10,000 mg/m^3 target concentration group.

Microstomia and misshapen nose also were observed in a dead fetus in the group exposed to the target concentration of 10,000 mg/m^3 and micromelia and syndactyly were observed in another dead fetus exposed to the target concentration of 10,000 mg/m^3.

Visceral Observations in Live Fetuses

The most common visceral observation was the variation, umbilical artery on the left side of the urinary bladder. Other visceral observations that were noted included the malformations, malpositioned adrenal glands, malpositioned kidneys, malpositioned ovaries, large atria, narrow pulmonary trunk, and elongated aorta and pulmonary trunk. The observations of large atria, narrow pulmonary trunk, and elongated aorta and pulmonary trunk were noted for the fetuses that had ectopia cordis. The malpositioned viscera (with the exception of the malpositioned kidneys) were noted in the same fetus. The incidence of these observations can be found in Table 4-3.

Discolored liver and discolored thymus were noted for one fetus each in the control group and 10,000 mg/m^3 target concentration group, respectively.

RESULTS AND CONCLUSIONS/DISCUSSION (CONT'D)

FETAL OBSERVATIONS (CONTD)

Table 4-3 – Incidence of Visceral Variations and Malformations in Live Fetuses

Fetal Incidence (# of live fetuses with observation/# of live fetuses examined)				
Observation	Target Concentration 0 mg/m^3	Target Concentration 2000 mg/m^3	Target Concentration 10,000 mg/m^3	Target Concentration 20,000 mg/m^3
Umbilical artery on the left side of the urinary bladder	4/150	1/124	1/154	4/129
Malpositioned adrenal glands	0/150	0/124	1/154	0/129
Malpositioned kidneys	0/150	0/124	2/154	0/129
Malpositioned ovaries	0/150	0/124	1/154	0/129
Large atria	0/150	0/124	1/154	0/129
Narrow pulmonary trunk	0/150	0/124	1/154	0/129
Elongated aorta and pulmonary trunk	0/150	0/124	2/154	0/129
Total malformations	0/150	0/124	4/154	0/129
Litter Incidence (# of litters with observation/# of litters examined)				
Observation	Target Concentration 0 mg/m^3	Target Concentration 2000 mg/m^3	Target Concentration 10,000 mg/m^3	Target Concentration 20,000 mg/m^3
Umbilical artery on the left side of the urinary bladder	4/24	1/20	1/25	3/20
Malpositioned adrenal glands	0/24	0/20	1/25	0/20
Malpositioned kidneys	0/24	0/20	2/25	0/20
Malpositioned ovaries	0/24	0/20	1/25	0/20
Large atria	0/24	0/20	1/25	0/20
Narrow pulmonary trunk	0/24	0/20	1/25	0/20
Elongated aorta and pulmonary trunk	0/24	0/20	1/25	0/20
Total malformations	0/24	0/20	3/25	0/20

RESULTS AND CONCLUSIONS/DISCUSSION (CONT'D)

FETAL OBSERVATIONS (CONTD)

Skeletal Observations in Live Fetuses

All skeletal observations were observed at a low incidence with the exception of the rib abnormalities of well-formed and rudimentary supernumerary ribs and the observation of ossification of the calcaneous. Ossification of the calcaneous is an indication of slightly advanced development and is considered normal. The incidence of well-formed lumbar ribs and rudimentary lumbar ribs were not statistically significantly different from the control group's incidence of these abnormalities. There was slight increase in bifid sternebrae (fetus basis) in the group exposed to the 20,000 mg/m^3 target concentration. However, this increase was due to a high incidence of bifid sternebrae in one litter (IFA033). The incidence of all skeletal observations can be found in Appendix H.

Dead Fetus Observations

The dead fetuses were subjected to an external and visceral examination as appropriate. The external observations included stunted fetuses, pale fetus, anasarca, microstomia, ectopia cordis, misshapen nose, malrotated hindpaw, micromelia, and syndactyly. The majority of these observations came from two litters (Dams IFA037 and IFA002) in the 10,000 mg/m^3 target concentration group. The malformations of microstomia and misshapen nose were observed in a single fetus from Dam IFA037 and the malformations of anasarca, micromelia, and syndactyly were observed in a single fetus from Dam IFA002. All observations of malrotated hindpaw were from the litters of IFA037 and IFA002. The incidence of these observations can be found in Appendix H.

The visceral observations included liquid-filled abdominal cavity, large atria and elongated aorta and pulmonary trunk. The liquid-filled abdominal cavity was noted in the same fetus from Dam IFA037 that had microstomia and misshapen nose. The malformations of large atria and elongated aorta and pulmonary trunk were observed in the fetus that had ectopia cordis. This fetus was from Dam IFA016 that was exposed to the target concentration of 2000 mg/m^3. The incidence of these observations can be found in Appendix H.

RESULTS AND CONCLUSIONS/DISCUSSION (CONT'D)

EXPOSURE DATA AND CHAMBER CONDITIONS

Summary of Exposure Data: Appendix I
Analytical Chemistry Report; Appendix J

The range of chamber concentrations for the exposure period as represented by the daily mean analytical data and the nominal data of each day are listed in Table 4-4:

Table 4-4 - Mean Exposure Concentrations (Analytical and Nominal)

Target Concentration	2000 mg/m^3		10,000 mg/m^3		20,000 mg/m^3	
	Analytical	Nominal	Analytical	Nominal	Analytical	Nominal
Mean	2122	1736	10788	9321	20741	17309
S.D.	56.5	64.6	322.4	212.5	923.4	488.9
Minimum	2034	1632	10293	8935	18401	16418
Maximum	2313	1908	11371	9954	22279	18485

S.D. - Standard deviation

Satisfactory chamber uniformity was observed for the 12 points in the chamber that were analyzed. The ranges of the concentrations for each chamber are listed in Table4-5.

Table 4-5 - Summary of Chamber Uniformity

Target Concentration	2000 mg/m^3	10,000 mg/m^3	20,000 mg/m^3
Mean	2108	10776	20341
S.D.	62.8	330.6	813.7
CV (%)	3.0	3.1	4.0
Minimum	2022	10397	19226
Maximum	2200	11714	21646

S.D. - Standard deviation
CV - Coefficient of variation

The particle size determination for the control chamber and 20,000 mg/m^3 target concentration chamber did not detect particles in either chamber. Therefore, there was no aerosol component to the chamber concentrations.

The hydrocarbon and MTBE distribution measured from the chamber characterization samples were in good agreement with the distribution measured from characterization of neat MRD-00-713 performed as part of EMBSI study 167490.

RESULTS AND CONCLUSIONS/DISCUSSION (CONT'D)

DISCUSSION

There was no evidence of maternal toxicity in this study at any concentration tested. There were no statistically significant differences between the control and treated groups for any of the fetal parameters or observations.

However, a malformation that is rarely observed in control fetuses, ectopia cordis, was observed in one dead fetus in the 2000 mg/m^3 target concentration group and two viable fetuses from a single litter in the 10,000 mg/m^3 target concentration group. This malformation was not considered related to treatment for the following reasons:

- The malformation was not observed in the 20,000 mg/m^3 target concentration group (i.e. there was no dose response).

- Fatal malformations often are associated with increased incidence of early and late resorptions which may cause an observation to not be observed. The 20,000 mg/m^3 target concentration group had a lower incidence of early and late resorptions than the control group. Thus, malformations were not "missed" at 20000 mg/m3 target concentration due to prenatal death.

- The two components of this test substance, gasoline vapor condensate (EMBSI, 2002) and methyl tertiary-butyl ether (Bevan, 1997), have been tested separately in the mouse and this observation has not been observed. In the methyl tertiary-butyl ether (MTBE) study the high dose concentration was approximately six and one-half times higher than the concentration of MTBE in this study.

The cause of this malformation in this study is unknown. As stated previously it was not considered treatment related. One possible explanation is that the two females were siblings from a litter that had a genetic predisposition to this abnormality. This possibility could not be investigated because the supplier does not identify the animals. The supplier was contacted to determine if they had observed this malformation or if it had been reported to them by other customers during this time frame. The supplier had not observed this malformation and had not received any other calls from customers regarding this malformation. Additionally, this malformation had not been observed previously by the testing laboratory in control mice.

In conclusion, administration of the test substance to mice by whole-body inhalation exposure during the period of organogenesis and fetal growth produced no evidence of maternal toxicity in this study at any concentration tested. There were no statistically significant differences between the control and treated groups for any of the fetal parameters or observations.

Therefore, the maternal and developmental No Observable Adverse Effect Levels for this study were established at the target concentration of 20,000 mg/m^3.

PROTOCOL EXCEPTIONS

DATA NOT RECORDED: The following data points were not recorded or the following procedures not performed due to oversight.

IFA070 - Gestation Day 14 feeder weights
IFA117 - Gestation Day 17 observations
IFA002 - Uterine weight
IFA009 - Corpora lutea
IFA081 - Visceral abdominal and thorax data were not recorded (fetus #13), therefore the fetal sex was not confirmed
IFA020 – Visceral examination of fetus # 5 not performed
IFA002 – Visceral examination of fetus # 13 not performed
IFA065 – Visceral examination of fetus # 4 not performed

ANIMAL ROOM HUMIDITY: The humidity in Room PE104 was out of range on October 7, 2001 (21.3%) and October 8, 2001 (20.7%).

CHAMBER CONCENTRATION: The mean chamber concentrations for the treatment group chambers were outside the acceptable range (± 10%) on the following days:

Date	Target conc.(mg/m^3)	Mean Concentration (mg/m^3)
September 26, 2001	2000	2212
September 28, 2001	20,000	22,122
September 29, 2001	10,000	11,192
September 29, 2001	20,000	22,065
October 1, 2001	2000	2313
October 3, 2001	10,000	11,371
October 10, 2001	10,000	11,019
October 11, 2001	10,000	11,074
October 13, 2001	10,000	11,052
October 15, 2001	10,000	11,285
October 16, 2001	10,000	11,270

CHAMBER TEMPERATURE AND HUMIDITY: Due to the method used to generate the test substance atmospheres, the chamber-room air was kept as cool as possible to keep the temperature in the 10,000 mg/m^3 and the 20,000 mg/m^3 target concentration chambers from exceeding the protocol-defined range. The cooler room air resulted in numerous instances of the mean temperature and humidity in the control chamber being below the protocol defined range. The decreased temperature also caused the humidity in the chambers to be above the protocol-defined range on numerous occasions. The individual temperature and humidity deviations are noted in Appendix I.

CHAMBER OBSERVATIONS: Due to an oversight the 4-hour in-chamber observations were not recorded for the 20,000 mg/m^3 target concentration animals on October 11, 2001.

The deviations listed above had no adverse effect on the study results or integrity. No other circumstances occurred that would have affected the quality or integrity of the data.

Section 5

LIST OF ABBREVIATIONS

STATISTICAL SYMBOLS AND ABBREVIATIONS

No difference	p≤0.05	p≤0.01	Statistical Statement
(PARAMETRIC)			
A-			No statistical difference among the means
	A	A+	Significant difference among the means
L-			No linear response to the dose levels
	L	L+	Response is linearly related to dose
	Q	Q+	Linear response shows lack of fit
	*	**	Mean significantly different from control mean
(NONPARAMETRIC)			
K-			No statistical difference among the means
	K	K+	Means differ significantly
J-			No ordered response to the dose levels
	J	J+	An ordered response to the dose Levels
	*	**	Mean significantly different from control mean
NT			Data not tested

UTERINE IMPLANTATION DATA ABBREVIATIONS

ABBREVIATION	PARAMETER
Resorp	Resorptions (early and late)
Implants	Implantation sites
CL	Corpora Lutea
Preimplant	Pre implantation loss = (corpora lutea - implantation sites)/corpora lutea x 100
Postimplant	Post implantation loss = (implantation sites - total live)/implantation sites x 100
Mal	Live fetuses with malformations
Var	Live fetuses with variations
Total Affected	Resorptions + dead + malformations
F/I Tran	Fetuses/implantation sites transformed
R/I Tran	Resorptions/implantation sites transformed
D/I Tran	Dead/implantation sites transformed

FETAL EXTERNAL AND VISCERAL EXAMINATION ABBREVIATIONS

+ = No observable abnormalities
Stunted = Any fetus weighing less than 0.85 grams

Organs and tissues examined

External: General body size, contour, and integrity (e.g. head, spine, abdomen); limbs; digits; pinnae; eye bulges; palate/lip; tongue; snout/jaw; anogenital region; tail

Visceral: Urogenital system; adrenals; stomach; spleen; pancreas; thymus; large/small intestines; liver; lungs; heart and associated major vessels; thyroid; trachea; esophagus; brain ventricles (single free-hand razor section)

Malformations are indicated by a capitalized footnote (e.g. "A"). Developmental variations are indicated by a lower case footnote (e.g. "a"). Observations which are not considered malformations or variations are indicated by an asterisk (e.g. "*").

Section 6

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APPENDIX A - SURVIVAL BAR GRAPH
DOSE: 0 MG/M^3

ANIMAL NUMBER GD	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
IFA007F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=D
IFA011F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA014F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA018F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA024F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA032F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA006F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA050F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA030F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA061F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA008F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA051F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA083F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA088F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA055F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA095F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA065F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA087F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA109F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA076F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA112F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA117F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA121F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA103F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA085F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P

APPENDIX A - SURVIVAL BAR GRAPH
TARGET DOSE: 2000 MG/M^3

ANIMAL NUMBER GD	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
IFA017F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=N
IFA019F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA027F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=N
IFA038F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=N
IFA043F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=D
IFA010F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA013F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA016F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA022F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA060F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA068F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA070F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA036F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA004F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA089F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA053F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA028F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA097F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA099F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA100F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA093F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA096F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=N
IFA110F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA119F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA122F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P

APPENDIX A - SURVIVAL BAR GRAPH
TARGET DOSE: 10,000 MG/M^3

ANIMAL NUMBER GD	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
IFA040F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA001F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA041F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA045F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA048F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA049F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA020F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA037F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA002F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA062F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA015F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA047F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA052F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA080F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA066F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA084F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA072F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA081F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA104F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA101F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA108F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA113F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA114F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA079F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA092F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P

APPENDIX A - SURVIVAL BAR GRAPH
TARGET DOSE: 20,000 MG/M^3

ANIMAL NUMBER GD	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
IFA003F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA009F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA021F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA023F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=N
IFA031F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA034F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=N
IFA035F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA025F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA033F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA005F (17)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=D	
IFA063F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA071F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA026F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA042F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA012F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA090F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=N
IFA029F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA056F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA077F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA091F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA078F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=D
IFA107F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA115F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA123F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P
IFA074F (18)	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=P

NOTE: GD - GESTATION DAY P - PREGNANT N - NOT PREGNANT D - EARLY DELIVERY
= - 24 HOURS

APPENDIX B - GESTATION OBSERVATIONS
(INCIDENCE OF GESTATION OBSERVATIONS BY TARGET DOSE)

GESTATION DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
SURVIVORS (A)																			
0 MG/M^3	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
2000 MG/M^3	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
10,000 MG/M^3	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
20,000 MG/M^3	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	21
NO OBSERVABLE ABNORMALITIES																			
0 MG/M^3	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	24	25
2000 MG/M^3	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
10,000 MG/M^3	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
20,000 MG/M^3	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	21
DELIVERY IN PROGRESS																			
0 MG/M^3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2000 MG/M^3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
10,000 MG/M^3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20,000 MG/M^3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
OBSERVATION NOT RECORDED																			
0 MG/M^3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
2000 MG/M^3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10,000 MG/M^3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20,000 MG/M^3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

NOTE: (A) - TOTALS DO NOT INCLUDE NON-PREGNANT ANIMALS

APPENDIX B - GESTATION OBSERVATIONS
(INDIVIDUAL GESTATION OBSERVATIONS)
TARGET DOSE: 0 MG/M^3

ANIMAL NUMBER	OBSERVATION DAY:	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
IFA007F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	DELIVERY IN PROGRESS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+
IFA011F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA014F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA018F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA024F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA032F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA006F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA050F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA030F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA061F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA008F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA051F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA083F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

APPENDIX B - GESTATION OBSERVATIONS
(INDIVIDUAL GESTATION OBSERVATIONS)
TARGET DOSE: 0 MG/M^3 (CONT'D)

ANIMAL NUMBER	OBSERVATION DAY:	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
IFA088F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA055F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA095F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA065F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA087F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA109F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA076F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA112F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA117F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+
	NOT RECORDED DUE TO OVERSIGHT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
IFA121F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA103F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA085F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

APPENDIX B - GESTATION OBSERVATIONS
(INDIVIDUAL GESTATION OBSERVATIONS)
TARGET DOSE: 2000 MG/M^3

ANIMAL NUMBER	OBSERVATION DAY:	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
IFA017F																				
	ANIMAL NOT PREGNANT																			
IFA019F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA027F																				
	ANIMAL NOT PREGNANT																			
IFA038F																				
	ANIMAL NOT PREGNANT																			
IFA043F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	DELIVERY IN PROGRESS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+
IFA010F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA013F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA016F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA022F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA060F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA068F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA070F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA036F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

APPENDIX B - GESTATION OBSERVATIONS
(INDIVIDUAL GESTATION OBSERVATIONS)
TARGET DOSE: 2000 MG/M^3 (CONT'D)

ANIMAL NUMBER	OBSERVATION DAY:	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
IFA004F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA089F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA053F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA028F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA097F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA099F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA100F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA093F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA096F																				
	ANIMAL NOT PREGNANT																			
IFA110F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA119F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA122F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

APPENDIX B - GESTATION OBSERVATIONS
(INDIVIDUAL GESTATION OBSERVATIONS)
TARGET DOSE: 10,000 MG/M^3

ANIMAL NUMBER	OBSERVATION DAY:	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
IFA040F	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA001F	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA041F	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA045F	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA048F	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA049F	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA020F	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA037F	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA002F	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA062F	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA015F	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA047F	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA052F	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

APPENDIX B - GESTATION OBSERVATIONS
(INDIVIDUAL GESTATION OBSERVATIONS)
TARGET DOSE: 10,000 MG/M^3 (CONT'D)

ANIMAL NUMBER	OBSERVATION DAY:	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
IFA080F	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA066F	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA084F	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA072F	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA081F	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA104F	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA101F	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA108F	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA113F	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA114F	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA079F	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA092F	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

APPENDIX B - GESTATION OBSERVATIONS
(INDIVIDUAL GESTATION OBSERVATIONS)
TARGET DOSE: 20,000 MG/M^3

ANIMAL NUMBER	OBSERVATION DAY:	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
IFA003F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA009F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA021F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA023F																				
	ANIMAL NOT PREGNANT																			
IFA031F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA034F																				
	ANIMAL NOT PREGNANT																			
IFA035F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA025F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA033F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA005F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	DELIVERY IN PROGRESS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	
IFA063F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA071F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA026F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

APPENDIX B - GESTATION OBSERVATIONS
(INDIVIDUAL GESTATION OBSERVATIONS)
TARGET DOSE: 20,000 MG/M^3 (CONT'D)

ANIMAL NUMBER	OBSERVATION DAY:	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
IFA042F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA012F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA090F																				
	ANIMAL NOT PREGNANT																			
IFA029F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA056F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA077F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA091F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA078F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	DELIVERY IN PROGRESS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+
IFA107F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA115F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA123F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
IFA074F																				
	NO OBSERVABLE ABNORMALITIES	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

APPENDIX C - GESTATION BODY WEIGHT AND BODY WEIGHT CHANGE
(MEAN GESTATION BODY WEIGHT BY TARGET DOSE)
(GRAMS)

	GD 0	GD 5	GD 8	GD 11	GD 14	GD 17	GD 18	UTERUS	GD 18C
FEMALE	A-L-	A-L-	A-L-	A-L-	A-L-	K-J-	A-L-	K-J-	A-L-
0 MG/M^3									
MEAN	28.9	31.6	33.5	37.8	44.5	53	55.5	20.8	34.7
STD.DEV.	1.4	1.9	2.0	2.4	2.9	3.5	4.0	2.8	2.1
(N)	24	24	24	24	24	24	24	24	24
2000 MG/M^3									
MEAN	28.9	31.4	33.5	37.2	44	53.3	55.9	20.9	35.0
STD.DEV.	1.3	1.7	1.6	1.9	2.7	4.1	4.8	3.5	2.4
(N)	20	20	20	20	20	20	20	20	20
10000 MG/M^3									
MEAN	28.6	31.1	33.1	36.6	43.6	52.2	54.8	20.6	34.0
STD.DEV.	1.6	1.7	1.7	2.6	3.7	5.8	6.3	5.3	2.1
(N)	25	25	25	25	25	25	25	24	24
20000 MG/M^3									
MEAN	28.7	31.3	33.1	37.1	43.7	52.8	54.9	20.4	34.5
STD.DEV.	1.3	1.4	1.3	1.5	2.1	2.7	3.1	2.2	2.3
(N)	20	20	20	20	20	20	20	20	20

RUN 2

APPENDIX C - GESTATION BODY WEIGHT AND BODY WEIGHT CHANGE
(MEAN GESTATION BODY WEIGHT CHANGE BY TARGET DOSE)
(GRAMS)

	GD 0-5	GD 5-8	GD 8-11	GD 11-14	GD 14-17	GD 17-18	GD 5-18	GD 0-18	GD 0-18C
FEMALE	A-L-	A-L-	A-L-	A-L-	K-J-	A-L-	A-L-	A-L-	A-L-
0 MG/M3									
MEAN	2.7	1.9	4.2	6.8	8.5	2.5	23.8	26.5	5.8
STD.DEV.	1.0	1.0	1.3	1.3	1.4	1.0	3.0	3.4	1.9
(N)	24	24	24	24	24	24	24	24	24
2000 MG/M^3									
MEAN	2.5	2.1	3.8	6.8	9.3	2.6	24.5	27	6.1
STD.DEV.	0.8	1.0	1.0	1.3	1.9	1.5	3.9	4.1	1.6
(N)	20	20	20	20	20	20	20	20	20
10000 MG/M^3									
MEAN	2.6	2	3.5	7	8.6	2.6	23.7	26.2	5.5
STD.DEV.	1.1	1.1	1.6	1.8	2.6	1.0	5.3	5.3	2.0
(N)	25	25	25	25	25	25	25	25	24
20000 MG/M^3									
MEAN	2.6	1.9	4	6.6	9.1	2.2	23.7	26.3	5.9
STD.DEV.	1.2	0.7	1.0	1.4	1.0	0.8	2.8	2.8	1.9
(N)	20	20	20	20	20	20	20	20	20

NOTE:
GD - GESTATION DAY
18C (DAY 18 CORRECTED) = DAY 18 BODY WEIGHT - UTERINE WEIGHT

APPENDIX C - GESTATION BODY WEIGHT AND BODY WEIGHT CHANGE
(INDIVIDUAL GESTATION BODY WEIGHT)
(GRAMS)
TARGET DOSE: 0 MG/M^3

ANIMAL NUMBER	GD 0	GD 5	GD 8	GD 11	GD 14	GD 17	GD 18	GD 18C	UTERINE WEIGHT
IFA007F D	**27**	**30**	**31**	**35**	**42**	**44**	**49**		
IFA011F	29	31	33	37	45	54	56	33	23
IFA014F	29	33	35	39	43	51	53	36	17
IFA018F	29	31	34	36	40	48	50	35	15
IFA024F	29	32	34	40	45	53	57	35	22
IFA032F	31	34	35	41	47	56	58	34	24
IFA006F	29	33	36	40	49	60	63	38	25
IFA050F	26	28	29	32	38	44	44	30	14
IFA030F	30	33	36	38	45	56	59	35	24
IFA061F	28	31	33	38	45	52	55	35	20
IFA008F	30	32	33	37	43	52	55	35	20
IFA051F	29	30	33	35	42	50	54	33	21
IFA083F	29	31	32	35	40	48	50	33	17
IFA088F	28	32	33	37	44	51	54	35	19
IFA055F	33	37	38	43	50	57	61	38	23
IFA095F	30	34	34	40	48	58	61	38	23
IFA065F	29	31	33	36	44	53	56	35	21
IFA087F	27	28	29	34	41	52	53	31	22
IFA109F	28	31	33	39	46	54	57	37	20
IFA076F	28	31	32	38	46	54	57	36	21
IFA112F	30	32	35	38	46	53	55	34	21
IFA117F	29	31	33	38	46	55	57	34	23
IFA121F	28	30	34	38	44	51	52	32	20
IFA103F	28	32	34	39	45	54	56	35	21
IFA085F	28	31	34	38	46	56	58	35	23

APPENDIX C - GESTATION BODY WEIGHT AND BODY WEIGHT CHANGE
(INDIVIDUAL GESTATION BODY WEIGHT)
(GRAMS)
TARGET DOSE: 2000 MG/M^3

ANIMAL NUMBER	GD 0	GD 5	GD 8	GD 11	GD 14	GD 17	GD 18	GD 18C	UTERINE WEIGHT
IFA017F NP									
IFA019F	27	29	32	35	40	50	52	31	21
IFA027F NP									
IFA038F NP									
IFA043F D	28	31	32	36	46	54	48		
IFA010F	30	34	35	39	48	58	62	38	24
IFA013F	28	30	32	35	43	53	54	34	20
IFA016F	29	32	34	37	45	54	56	34	22
IFA022F	31	33	36	40	48	59	62	38	24
IFA060F	27	29	31	36	41	48	52	34	18
IFA068F	29	31	33	34	38	42	42	33	9
IFA070F	27	29	31	35	42	53	54	33	21
IFA036F	29	31	34	39	46	58	59	35	24
IFA004F	31	34	36	40	48	60	64	38	26
IFA089F	29	32	34	37	44	52	55	34	21
IFA053F	30	32	34	37	45	55	57	35	22
IFA028F	29	31	33	38	44	55	58	34	24
IFA097F	27	30	30	35	41	49	53	33	20
IFA099F	30	34	34	39	45	55	59	36	23
IFA100F	30	32	34	38	44	53	56	36	20
IFA093F	29	30	33	36	44	52	54	36	18
IFA096F NP									
IFA110F	29	33	35	39	46	54	59	40	19
IFA119F	27	29	33	36	42	51	51	31	20
IFA122F	30	32	35	39	45	54	58	37	21

APPENDIX C - GESTATION BODY WEIGHT AND BODY WEIGHT CHANGE
(INDIVIDUAL GESTATION BODY WEIGHT)
(GRAMS)
TARGET DOSE: 10,000 MG/M^3

ANIMAL NUMBER	GD 0	GD 5	GD 8	GD 11	GD 14	GD 17	GD 18	GD 18C	UTERINE WEIGHT
IFA040F	32	34	35	40	47	58	61	35	26
IFA001F	29	32	35	37	45	54	56	34	22
IFA041F	29	32	33	35	41	48	51	34	17
IFA045F	28	31	33	36	43	52	54	34	20
IFA048F	30	31	34	38	46	57	60	35	25
IFA049F	27	30	32	33	41	47	49	30	19
IFA020F	31	34	36	40	49	58	60	35	25
IFA037F	28	31	32	37	46	57	61	35	26
IFA002F	30	31	33	37	47	57	60	I	I
IFA062F	28	28	30	33	40	50	52	31	21
IFA015F	29	32	34	36	43	50	53	37	16
IFA047F	27	31	32	34	37	41	43	36	7
IFA052F	30	34	36	41	48	59	62	36	26
IFA080F	27	31	34	39	49	58	60	36	24
IFA066F	27	30	32	35	43	48	51	34	17
IFA084F	27	31	32	35	41	53	56	33	23
IFA072F	30	33	35	39	48	58	60	35	25
IFA081F	29	30	32	38	44	55	59	35	24
IFA104F	27	30	32	36	43	53	57	35	22
IFA101F	28	30	33	35	42	49	51	33	18
IFA108F	25	27	30	30	33	34	35	29	6
IFA113F	29	31	36	39	44	52	56	35	21
IFA114F	29	30	32	35	41	50	50	30	20
IFA079F	30	32	31	38	44	55	57	34	23
IFA092F	28	32	33	38	45	53	56	35	21

APPENDIX C - GESTATION BODY WEIGHT AND BODY WEIGHT CHANGE
(INDIVIDUAL GESTATION BODY WEIGHT)
(GRAMS)
TARGET DOSE: 20,000 MG/M^3

ANIMAL NUMBER	GD 0	GD 5	GD 8	GD 11	GD 14	GD 17	GD 18	GD 18C	UTERINE WEIGHT
IFA003F	26	32	33	38	42	51	52	36	16
IFA009F	28	28	31	36	42	51	53	32	21
IFA021F	28	32	33	37	44	52	54	32	22
IFA023F NP									
IFA031F	28	30	32	35	41	51	53	32	21
IFA034F NP									
IFA035F	28	31	32	35	41	47	48	30	18
IFA025F	29	32	34	37	47	57	59	36	23
IFA033F	30	31	34	37	44	54	55	36	19
IFA005F D	32	34	36	40	47	58			
IFA063F	30	32	33	37	42	51	52	35	17
IFA071F	29	31	33	38	45	55	58	37	21
IFA026F	30	32	34	37	42	51	53	34	19
IFA042F	29	32	35	39	48	58	61	36	25
IFA012F	29	32	34	37	44	54	57	36	21
IFA090F NP									
IFA029F	27	29	31	34	41	50	52	32	20
IFA056F	29	32	35	38	45	53	56	38	18
IFA077F	28	30	32	36	43	51	53	34	19
IFA091F	31	33	34	40	47	57	59	38	21
IFA078F D	30	31	34	38	48	54	55		
IFA107F	26	29	31	36	44	53	55	32	23
IFA115F	29	33	34	38	43	52	55	33	22
IFA123F	29	31	32	38	43	53	55	35	20
IFA074F	30	33	35	39	45	54	58	36	22

NOTE: GD - GESTATION DAY D - EARLY DELIVERY I - UTERINE WEIGHT INADVERTENTLY NOT RECORDED
18C (DAY 18 CORRECTED) = DAY 18 BODY WEIGHT - UTERINE WEIGHT

APPENDIX C - GESTATION BODY WEIGHT AND BODY WEIGHT CHANGE
(INDIVIDUAL GESTATION BODY WEIGHT CHANGE)
(GRAMS)
TARGET DOSE: 0 MG/M^3

ANIMAL NUMBER	GD 0-5	GD 5-8	GD 8-11	GD 11-14	GD 14-17	GD 17-18	GD 5-18	GD 0-18	GD 0-18C
IFA007F D	3	1	4	7	2	5	19	22	
IFA011F	2	2	4	8	9	2	25	27	4
IFA014F	4	2	4	4	8	2	20	24	7
IFA018F	2	3	2	4	8	2	19	21	6
IFA024F	3	2	6	5	8	4	25	28	6
IFA032F	3	1	6	6	9	2	24	27	3
IFA006F	4	3	4	9	11	3	30	34	9
IFA050F	2	1	3	6	6	0	16	18	4
IFA030F	3	3	2	7	11	3	26	29	5
IFA061F	3	2	5	7	7	3	24	27	7
IFA008F	2	1	4	6	9	3	23	25	5
IFA051F	1	3	2	7	8	4	24	25	4
IFA083F	2	1	3	5	8	2	19	21	4
IFA088F	4	1	4	7	7	3	22	26	7
IFA055F	4	1	5	7	7	4	24	28	5
IFA095F	4	0	6	8	10	3	27	31	8
IFA065F	2	2	3	8	9	3	25	27	6
IFA087F	1	1	5	7	11	1	25	26	4
IFA109F	3	2	6	7	8	3	26	29	9
IFA076F	3	1	6	8	8	3	26	29	8
IFA112F	2	3	3	8	7	2	23	25	4
IFA117F	2	2	5	8	9	2	26	28	5
IFA121F	2	4	4	6	7	1	22	24	4
IFA103F	4	2	5	6	9	2	24	28	7
IFA085F	3	3	4	8	10	2	27	30	7

APPENDIX C - GESTATION BODY WEIGHT AND BODY WEIGHT CHANGE
(INDIVIDUAL GESTATION BODY WEIGHT CHANGE)
(GRAMS)
TARGET DOSE: 2000 MG/M^3

ANIMAL NUMBER	GD 0-5	GD 5-8	GD 8-11	GD 11-14	GD 14-17	GD 17-18	GD 5-18	GD 0-18	GD 0-18C
IFA017F NP									
IFA019F	2	3	3	5	10	2	23	25	4
IFA027F NP									
IFA038F NP									
IFA043F D	3	1	4	10	8	-4	17	20	
IFA010F	4	1	4	9	10	4	28	32	8
IFA013F	2	2	3	8	10	1	24	26	6
IFA016F	3	2	3	8	9	2	24	27	5
IFA022F	2	3	4	8	11	3	29	31	7
IFA060F	2	2	5	5	7	4	23	25	7
IFA068F	2	2	1	4	4	0	11	13	4
IFA070F	2	2	4	7	11	1	25	27	6
IFA036F	2	3	5	7	12	1	28	30	6
IFA004F	3	2	4	8	12	4	30	33	7
IFA089F	3	2	3	7	8	3	23	26	5
IFA053F	2	2	3	8	10	2	25	27	5
IFA028F	2	2	5	6	11	3	27	29	5
IFA097F	3	0	5	6	8	4	23	26	6
IFA099F	4	0	5	6	10	4	25	29	6
IFA100F	2	2	4	6	9	3	24	26	6
IFA093F	1	3	3	8	8	2	24	25	7
IFA096F NP									
IFA110F	4	2	4	7	8	5	26	30	11
IFA119F	2	4	3	6	9	0	22	24	4
IFA122F	2	3	4	6	9	4	26	28	7

APPENDIX C - GESTATION BODY WEIGHT AND BODY WEIGHT CHANGE
(INDIVIDUAL GESTATION BODY WEIGHT CHANGE)
(GRAMS)
TARGET DOSE: 10,000 MG/M^3

ANIMAL NUMBER	GD 0-5	GD 5-8	GD 8-11	GD 11-14	GD 14-17	GD 17-18	GD 5-18	GD 0-18	GD 0-18C
IFA040F	2	1	5	7	11	3	27	29	3
IFA001F	3	3	2	8	9	2	24	27	5
IFA041F	3	1	2	6	7	3	19	22	5
IFA045F	3	2	3	7	9	2	23	26	6
IFA048F	1	3	4	8	11	3	29	30	5
IFA049F	3	2	1	8	6	2	19	22	3
IFA020F	3	2	4	9	9	2	26	29	4
IFA037F	3	1	5	9	11	4	30	33	7
IFA002F	1	2	4	10	10	3	29	30	I
IFA062F	0	2	3	7	10	2	24	24	3
IFA015F	3	2	2	7	7	3	21	24	8
IFA047F	4	1	2	3	4	2	12	16	9
IFA052F	4	2	5	7	11	3	28	32	6
IFA080F	4	3	5	10	9	2	29	33	9
IFA066F	3	2	3	8	5	3	21	24	7
IFA084F	4	1	3	6	12	3	25	29	6
IFA072F	3	2	4	9	10	2	27	30	5
IFA081F	1	2	6	6	11	4	29	30	6
IFA104F	3	2	4	7	10	4	27	30	8
IFA101F	2	3	2	7	7	2	21	23	5
IFA108F	2	3	0	3	1	1	8	10	4
IFA113F	2	5	3	5	8	4	25	27	6
IFA114F	1	2	3	6	9	0	20	21	1
IFA079F	2	-1	7	6	11	2	25	27	4
IFA092F	4	1	5	7	8	3	24	28	7

APPENDIX C - GESTATION BODY WEIGHT AND BODY WEIGHT CHANGE
(INDIVIDUAL GESTATION BODY WEIGHT CHANGE)
(GRAMS)
TARGET DOSE: 20,000 MG/M^3

ANIMAL NUMBER	GD 0-5	GD 5-8	GD 8-11	GD 11-14	GD 14-17	GD 17-18	GD 5-18	GD 0-18	GD 0-18C
IFA003F	6	1	5	4	9	1	20	26	10
IFA009F	0	3	5	6	9	2	25	25	4
IFA021F	4	1	4	7	8	2	22	26	4
IFA023F NP									
IFA031F	2	2	3	6	10	2	23	25	4
IFA034F NP									
IFA035F	3	1	3	6	6	1	17	20	2
IFA025F	3	2	3	10	10	2	27	30	7
IFA033F	1	3	3	7	10	1	24	25	6
IFA005F D	2	2	4	7	11				
IFA063F	2	1	4	5	9	1	20	22	5
IFA071F	2	2	5	7	10	3	27	29	8
IFA026F	2	2	3	5	9	2	21	23	4
IFA042F	3	3	4	9	10	3	29	32	7
IFA012F	3	2	3	7	10	3	25	28	7
IFA090F NP									
IFA029F	2	2	3	7	9	2	23	25	5
IFA056F	3	3	3	7	8	3	24	27	9
IFA077F	2	2	4	7	8	2	23	25	6
IFA091F	2	1	6	7	10	2	26	28	7
IFA078F D	1	3	4	10	6	1	24	25	
IFA107F	3	2	5	8	9	2	26	29	6
IFA115F	4	1	4	5	9	3	22	26	4
IFA123F	2	1	6	5	10	2	24	26	6
IFA074F	3	2	4	6	9	4	25	28	6

NOTE: GD - GESTATION DAY NP - NOT PREGNANT D - EARLY DELIVERY, DATA NOT USED IN STATISTICS
I - UTERINE WEIGHT INADVERTENTLY NOT RECORDED
18C (DAY 18 CORRECTED) = DAY 18 BODY WEIGHT - UTERINE WEIGHT

APPENDIX D - GESTATION FOOD CONSUMPTION
(MEAN GESTATION FOOD CONSUMPTION BY TARGET DOSE)
(SEE LIST OF ABBREVIATIONS FOR STATISTICAL SYMBOLS)
(GRAMS)

	GD 0-5	GD 5-8	GD 8-11	GD 11-14	GD 14-17	GD 17-18	GD 5-17	GD 0-18
FEMALE	A-L-	A-L-	K-J-	KJ	K-J-	AL-Q+	K-J-	K-J-
0 MG/M^3								
MEAN	35	22.9	23	24.1	24.9	8.8	95	138.8
STD.DEV.	5.8	3.4	3.2	1.9	2.1	1.0	7.5	12.0
(N)	24	24	24	24	24	24	24	24
2000 MG/M^3								
MEAN	34.3	24.1	23.4	25.1	25.5	8.5	96.7	139.7
STD.DEV.	4.4	4.0	2.4	3.0	1.9	0.9	4.7	6.6
(N)	20	19	20	19	19	20	18	18
10000 MG/M^3						a		
MEAN	33.3	24.1	22	23.3	24.2	7.9	93.6	134.9
STD.DEV.	5.5	5.5	3.2	3.0	2.1	0.8	10.1	13.8
(N)	25	25	25	25	25	25	25	25
20000 MG/M^3								
MEAN	34.8	24.9	24.9	23.6	27.2	8.6	100.7	143.7
STD.DEV.	4.7	5.4	5.8	1.5	7.7	0.9	14.1	17.5
(N)	20	20	20	19	19	20	19	19

NOTE: GD - GESTATION DAY

APPENDIX D - GESTATION FOOD CONSUMPTION
(INDIVIDUAL GESTATION FOOD CONSUMPTION BY TARGET DOSE)
(GRAMS)
DOSE: 0 MG/M^3

ANIMAL NUMBER	GD 0-5	GD 5-8	GD 8-11	GD 11-14	GD 14-17	GD 17-18
IFA007F D	28	24	22	21	22	7
IFA011F	31	20	21	23	23	8
IFA014F	38	27	30	23	26	10
IFA018F	30	24	34	24	29	9
IFA024F	35	24	23	24	24	9
IFA032F	32	22	22	23	24	9
IFA006F	52	23	23	25	28	9
IFA050F	27	20	20	23	22	7
IFA030F	50	36	21	23	24	7
IFA061F	36	22	25	26	26	10
IFA008F	31	23	21	22	25	7
IFA051F	31	21	21	21	23	8
IFA083F	31	21	19	23	22	9
IFA088F	32	22	22	24	24	10
IFA055F	34	21	23	25	25	10
IFA095F	34	21	23	26	25	10
IFA065F	31	20	20	22	21	8
IFA087F	32	21	21	24	24	8
IFA109F	38	23	24	29	26	10
IFA076F	35	25	22	27	24	9
IFA112F	36	24	25	26	25	8
IFA117F	39	22	24	25	26	8
IFA121F	32	20	21	22	25	8
IFA103F	36	21	24	23	28	10
IFA085F	38	27	23	26	29	9

APPENDIX D - GESTATION FOOD CONSUMPTION
(INDIVIDUAL GESTATION FOOD CONSUMPTION BY TARGET DOSE)
(GRAMS)
DOSE: 2000 MG/M^3

ANIMAL NUMBER	GD 0-5	GD 5-8	GD 8-11	GD 11-14	GD 14-17	GD 17-18
IFA017F NP						
IFA019F	30	27	27	23	24	9
IFA027F NP						
IFA038F NP						
IFA043F D	31	20	21	23	25	5
IFA010F	35	26	23	23	27	9
IFA013F	32	26	22	24	26	7
IFA016F	35	29	27	25	25	8
IFA022F	29	21	23	27	30	8
IFA060F	33	25	23	24	26	7
IFA068F	32	S	30	36	26	8
IFA070F	33	29	23	I	I	9
IFA036F	35	26	25	23	26	7
IFA004F	33	21	21	26	27	10
IFA089F	33	25	24	22	22	9
IFA053F	34	21	22	26	26	9
IFA028F	38	23	23	26	27	9
IFA097F	44	29	21	24	23	9
IFA099F	35	20	22	24	23	9
IFA100F	25	23	21	26	25	8
IFA093F	42	26	21	25	24	9
IFA096F NP						
IFA110F	36	13	25	25	26	10
IFA119F	32	21	21	23	24	8
IFA122F	40	26	23	25	27	8

APPENDIX D - GESTATION FOOD CONSUMPTION
(INDIVIDUAL GESTATION FOOD CONSUMPTION BY TARGET DOSE)
(GRAMS)
DOSE: 10,000 MG/M^3

ANIMAL NUMBER	GD 0-5	GD 5-8	GD 8-11	GD 11-14	GD 14-17	GD 17-18
IFA040F	32	26	30	22	25	9
IFA001F	31	21	20	21	24	7
IFA041F	36	30	29	21	27	8
IFA045F	32	20	20	22	26	8
IFA048F	26	24	25	24	23	9
IFA049F	27	22	20	20	21	6
IFA020F	40	30	24	31	27	8
IFA037F	30	20	20	20	25	9
IFA002F	32	24	20	25	26	7
IFA062F	38	24	20	23	22	8
IFA015F	34	36	21	26	26	8
IFA047F	30	19	25	22	23	8
IFA052F	33	23	21	24	25	8
IFA080F	49	27	23	27	27	8
IFA066F	45	38	19	23	23	7
IFA084F	36	26	19	22	24	8
IFA072F	36	24	23	25	26	8
IFA081F	31	30	23	31	23	7
IFA104F	30	19	19	22	23	7
IFA101F	31	18	19	21	21	9
IFA108F	33	20	21	19	19	8
IFA113F	30	19	20	21	23	9
IFA114F	33	22	23	25	24	7
IFA079F	24	15	19	22	26	9
IFA092F	34	25	28	23	27	8

APPENDIX D - GESTATION FOOD CONSUMPTION
(INDIVIDUAL GESTATION FOOD CONSUMPTION BY TARGET DOSE)
(GRAMS)
DOSE: 20,000 MG/M^3

ANIMAL NUMBER	GD 0-5	GD 5-8	GD 8-11	GD 11-14	GD 14-17	GD 17-18
IFA003F	32	22	24	23	25	10
IFA009F	25	21	21	22	22	8
IFA021F	30	21	22	23	25	9
IFA023F NP						
IFA031F	32	32	32	23	24	9
IFA034F NP						
IFA035F	32	27	30	22	22	7
IFA025F	38	24	22	26	28	10
IFA033F	37	24	21	24	28	9
IFA005F D	40	22	24	22	27	
IFA063F	30	19	22	23	26	8
IFA071F	32	18	22	23	26	9
IFA026F	34	27	22	22	26	8
IFA042F	44	34	27	25	26	9
IFA012F	43	34	24	26	27	8
IFA090F NP						
IFA029F	36	26	23	23	24	7
IFA056F	36	26	23	25	58	9
IFA077F	35	20	20	23	23	8
IFA091F	36	27	29	27	27	8
IFA078 DF	38	19	22	25	24	6
IFA107F	31	19	20	23	25	9
IFA115F	32	20	24	22	25	8
IFA123F	40	35	45	23	30	8
IFA074F	40	21	24	I	I	10

NOTE: GD - GESTATION DAY NP - NOT PREGNANT S - EXCESS SPILLAGE
I - INADVERTENTLY NOT RECORDED D - EARLY DELIVERY, DATA NOT USED FOR STATISTICS

APPENDIX E - GROSS POSTMORTEM OBSERVATIONS
(INCIDENCE OF GROSS POSTMORTEM OBSERVATIONS)

TARGET DOSE	FEMALES			
	0 MG/M^3	2000 MG/M^3	10,000 MG/M^3	20,000 MG/M^3
TOTAL AT TERMINAL SACRIFICE (A)	25	25	25	24
NO OBSERVABLE ABNORMALITIES	23	25	25	25
STOMACH: Contents red	1	0	0	0
UTERUS: Pup partially located in body of uterus	1	0	0	0
NO EVIDENCE OF UTERINE IMPLANTATION SITES	0	4	0	3
ANIMAL DELIVERED PRIOR TO SCHEDULED C-SECTION	1	1	0	2

NOTE: (A) - INCLUDES NON-PREGNANT ANIMALS AND ANIMALS THAT DELIVERED ON GD 18

APPENDIX E - GROSS POSTMORTEM OBSERVATIONS (INDIVIDUAL GROSS POSTMORTEM OBSERVATIONS) TARGET DOSE: 0 MG/M^3

IFA007F - EARLY DELIVERY/EUTHANASIA: GESTATION DAY 18
STOMACH: Contents red.
CORPORA LUTEA: (Right): 4 (Left): 6

IFA011F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA014F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA018F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA024F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA032F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA006F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA050F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA030F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA061F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA008F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA051F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA083F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA088F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA055F - ALL TISSUES AND ORGANS: No observable abnormalities.

APPENDIX E - GROSS POSTMORTEM OBSERVATIONS (INDIVIDUAL GROSS POSTMORTEM OBSERVATIONS) TARGET DOSE: 0 MG/M^3 (CONT'D)

IFA095F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA065F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA087F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA109F - UTERUS: Pup number 8 partially located in body of uterus.

IFA076F - ALL TISSUES AND ORGANS: No observable abnormalities

IFA112F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA117F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA121F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA103F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA085F - ALL TISSUES AND ORGANS: No observable abnormalities.

APPENDIX E - GROSS POSTMORTEM OBSERVATIONS (INDIVIDUAL GROSS POSTMORTEM OBSERVATIONS) TARGET DOSE: 2000 MG/M^3

IFA017F - ALL TISSUES AND ORGANS: No observable abnormalities.
NOTE: No evidence of uterine implantation sites.

IFA019F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA027F - ALL TISSUES AND ORGANS: No observable abnormalities.
NOTE: No evidence of uterine implantation sites.

IFA038F - ALL TISSUES AND ORGANS: No observable abnormalities.
NOTE: No evidence of uterine implantation sites.

IFA043F - EARLY DELIVERY/EUTHANASIA: GESTATION DAY 18
ALL TISSUES AND ORGANS: No observable abnormalities.
CORPORA LUTEA: (Right): 7 (Left): 5

IFA010F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA013F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA016F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA022F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA060F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA068F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA070F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA036F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA004F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA089F - ALL TISSUES AND ORGANS: No observable abnormalities.

APPENDIX E - GROSS POSTMORTEM OBSERVATIONS (INDIVIDUAL GROSS POSTMORTEM OBSERVATIONS) TARGET DOSE: 2000 MG/M^3 (CONT'D)

IFA053F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA028F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA097F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA099F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA100F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA093F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA096F - ALL TISSUES AND ORGANS: No observable abnormalities.
NOTE: No evidence of uterine implantation sites.

IFA110F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA119F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA122F - ALL TISSUES AND ORGANS: No observable abnormalities.

APPENDIX E - GROSS POSTMORTEM OBSERVATIONS (INDIVIDUAL GROSS POSTMORTEM OBSERVATIONS) TARGET DOSE: 10,000 MG/M^3

IFA040F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA001F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA041F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA045F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA048F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA049F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA020F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA037F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA002F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA062F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA015F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA047F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA052F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA080F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA066F - ALL TISSUES AND ORGANS: No observable abnormalities.

APPENDIX E - GROSS POSTMORTEM OBSERVATIONS (INDIVIDUAL GROSS POSTMORTEM OBSERVATIONS) TARGET DOSE: 10,000 MG/M^3 (CONT'D)

IFA084F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA072F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA081F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA104F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA101F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA108F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA113F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA114F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA079F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA092F - ALL TISSUES AND ORGANS: No observable abnormalities.

APPENDIX E - GROSS POSTMORTEM OBSERVATIONS (INDIVIDUAL GROSS POSTMORTEM OBSERVATIONS) TARGET DOSE: 20,000 MG/M^3

IFA003F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA009F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA021F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA023F - ALL TISSUES AND ORGANS: No observable abnormalities.
NOTE: No evidence of uterine implantation sites.

IFA031F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA034F - ALL TISSUES AND ORGANS: No observable abnormalities.
NOTE: No evidence of uterine implantation sites.

IFA035F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA025F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA033F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA005F - EARLY DELIVERY/EUTHANASIA: GESTATION DAY 17
ALL TISSUES AND ORGANS: No observable abnormalities.
CORPORA LUTEA: (Right): 6 (Left): 10

IFA063F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA071F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA026F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA042F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA012F - ALL TISSUES AND ORGANS: No observable abnormalities.

APPENDIX E - GROSS POSTMORTEM OBSERVATIONS (INDIVIDUAL GROSS POSTMORTEM OBSERVATIONS) TARGET DOSE: 20,000 MG/M^3 (CONT'D)

IFA090F - ALL TISSUES AND ORGANS: No observable abnormalities.
NOTE: No evidence of uterine implantation sites.

IFA029F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA056F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA077F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA091F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA078F - EARLY DELIVERY/EUTHANASIA: GESTATION DAY 18
ALL TISSUES AND ORGANS: No observable abnormalities.
CORPORA LUTEA: (Right): 7 (Left): 7

IFA107F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA115F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA123F - ALL TISSUES AND ORGANS: No observable abnormalities.

IFA074F - ALL TISSUES AND ORGANS: No observable abnormalities.

APPENDIX F - UTERINE IMPLANTATION DATA
(MEAN UTERINE IMPLANTATION DATA BY TARGET DOSE)
(SEE LIST OF ABBREVIATIONS FOR STATISTICAL SYMBOLS AND ABBREVIATIONS)

FEMALE	Total Live A-L-	Male Fetuses A-L-	Female Fetuses A-L-	Resorptions A-L-	Implantation Sites K-J-	Corpora Lutea A-L-	Total Dead K-J-	Fetuses/ Implantation A-L-	Resorptions/ Implantation A-L-
0 MG/M^3									
MEAN	12.38	7.08	5.29	1.08	13.54	14.04	0.08	0.91	0.08
STD.DEV.	1.97	1.86	1.90	1.14	1.53	1.78	0.28	0.08	0.09
(N)	24	24	24	24	24	24	24	24	24
2000 MG/M^3									
MEAN	12.60	6.70	5.90	0.55	13.20	13.35	0.05	0.95	0.04
STD.DEV.	2.33	2.56	2.69	1.00	2.35	2.21	0.22	0.07	0.07
(N)	20	20	20	20	20	20	20	20	20
10000 MG/M^3									
MEAN	12.12	6.00	6.12	0.64	12.92	13.48	0.16	0.94	0.05
STD.DEV.	3.23	2.29	2.42	0.99	3.44	2.97	0.47	0.07	0.07
(N)	25	25	25	25	25	25	25	25	25
20000 MG/M^3									
MEAN	12.75	6.30	6.45	0.55	13.30	13.47	0	0.96	0.04
STD.DEV.	1.92	1.84	2.26	0.60	1.95	2.50	0	0.05	0.05
(N)	20	20	20	20	20	19	20	20	20

RUN 2

APPENDIX F - UTERINE IMPLANTATION DATA
(MEAN UTERINE IMPLANTATION DATA BY TARGET DOSE)
(SEE LIST OF ABBREVIATIONS FOR STATISTICAL SYMBOLS AND ABBREVIATIONS)

FEMALE	F/I Tran A-L-	R/I Tran A-L-	D/I Tran K-J-	Dead/ Implantation K-J-	% Preimplant Loss K-J-	% Postimplant Loss A-L-	Total Malformations A-L-	Total Variations A-L-	Total Affected[a] A-L-
0 MG/M^3									
MEAN	73.509292	15.811792	8.528	0	3.3	8.9	0.33	3.7	1.5
STD.DEV.	7.456701	7.833777	2.398	0	5.0	8.2	0.70	2.4	1.3
(N)	24	24	24	24	24	24	24	24	24
2000 MG/M^3									
MEAN	77.594200	12.094950	8.404	0	1.5	4.6	0.30	3.8	0.9
STD.DEV.	6.959305	6.703117	1.737	0	3.8	7.4	0.73	1.9	1.2
(N)	20	20	20	20	20	20	20	20	20
10000 MG/M^3									
MEAN	75.742880	13.183840	9.651	0	6.0	5.7	0.60	3.0	1.3
STD.DEV.	7.089445	7.059886	3.871	0	12.5	7.5	1.00	2.1	1.3
(N)	25	25	25	25	25	25	25	25	25
20000 MG/M^3									
MEAN	77.724850	12.275450	7.945	0	0.6	4.1	0.30	3.6	0.9
STD.DEV.	4.658028	4.658177	0.620	0	4.3	4.5	0.47	2.4	0.7
(N)	20	20	20	20	19	20	20	20	20

a – The number of affected fetuses per litter is the sum of the number of fetuses that were resorbed, dead, or malformed in each litter

APPENDIX F - UTERINE IMPLANTATION DATA
(INDIVIDUAL UTERINE IMPLANTATION DATA BY TARGET DOSE)
(SEE LIST OF ABBREVIATIONS FOR ABBREVIATIONS)
DOSE: 0 MG/M^3

ANIMAL NUMBER	Live	Live Male	Live Female	Resorp	Implants	CL	Dead	Mal	Var
IFA007F D									
IFA011F	13	4	9	2	15	15	0	0	4
IFA014F	9	9	0	2	11	12	0	1	5
IFA018F	9	3	6	4	13	13	0	0	1
IFA024F	12	8	4	3	15	17	0	0	6
IFA032F	15	9	6	0	15	15	0	0	0
IFA006F	16	9	7	0	16	18	0	1	7
IFA050F	8	5	3	2	10	10	0	1	0
IFA030F	14	7	7	0	14	14	0	1	6
IFA061F	12	8	4	1	13	14	0	0	2
IFA008F	11	9	2	0	12	12	1	0	4
IFA051F	13	8	5	0	13	15	0	0	2
IFA083F	10	6	4	1	11	11	0	0	2
IFA088F	12	6	6	1	13	13	0	0	6
IFA055F	13	8	5	3	16	16	0	0	0
IFA095F	14	7	7	0	14	14	0	1	6
IFA065F	13	8	5	0	14	14	1	0	1
IFA087F	13	6	7	1	14	14	0	0	7
IFA109F	12	5	7	2	14	14	0	3	3
IFA076F	13	7	6	1	14	14	0	0	6
IFA112F	12	6	6	1	13	14	0	0	6
IFA117F	14	8	6	0	14	14	0	0	7
IFA121F	11	5	6	1	12	13	0	0	2
IFA103F	13	8	5	1	14	16	0	0	3
IFA085F	15	11	4	0	15	15	0	0	2

APPENDIX F - UTERINE IMPLANTATION DATA
(INDIVIDUAL UTERINE IMPLANTATION DATA BY TARGET DOSE)
(SEE LIST OF ABBREVIATIONS FOR ABBREVIATIONS)
DOSE: 0 MG/M^3

ANIMAL NUMBER	F/I Tran	R/I Tran	D/I Tran
IFA007F D			
IFA011F	68.584	21.417	7.4176
IFA014F	64.761	25.24	8.6708
IFA018F	56.310	33.690	7.9712
IFA024F	63.435	26.565	7.4176
IFA032F	82.583	7.418	7.4176
IFA006F	82.820	7.181	7.1808
IFA050F	63.435	26.565	9.0975
IFA030F	82.321	7.679	7.6795
IFA061F	73.898	16.102	7.9712
IFA008F	73.222	8.299	16.7787
IFA051F	82.029	7.971	7.9712
IFA083F	72.452	17.548	8.6708
IFA088F	73.898	16.102	7.9712
IFA055F	64.341	25.659	7.1808
IFA095F	82.321	7.679	7.6795
IFA065F	74.499	7.679	15.5014
IFA087F	74.499	15.501	7.6795
IFA109F	67.793	22.208	7.6795
IFA076F	74.499	15.501	7.6795
IFA112F	73.898	16.102	7.9712
IFA117F	82.321	7.679	7.6795
IFA121F	73.222	16.779	8.299
IFA103F	74.499	15.501	7.6795
IFA085F	82.583	7.418	7.4176

APPENDIX F - UTERINE IMPLANTATION DATA
(INDIVIDUAL UTERINE IMPLANTATION DATA BY TARGET DOSE)
(SEE LIST OF ABBREVIATIONS FOR ABBREVIATIONS)
DOSE: 2000 MG/M^3

ANIMAL NUMBER	Live	Live Male	Live Female	Resorp	Implants	CL	Dead	Mal	Var
IFA017F NP									
IFA019F	14	8	6	0	14	14	0	1	2
IFA027F NP									
IFA038F NP									
IFA043F D									
IFA010F	15	13	2	1	16	16	0	0	7
IFA013F	12	6	6	1	13	13	0	1	4
IFA016F	14	6	8	1	16	17	1	0	2
IFA022F	15	5	10	0	15	15	0	0	3
IFA060F	10	5	5	0	10	11	0	0	3
IFA068F	5	3	2	1	6	7	0	0	3
IFA070F	13	8	5	0	13	13	0	0	5
IFA036F	16	4	12	0	16	16	0	0	5
IFA004F	14	10	4	0	14	14	0	0	1
IFA089F	12	7	5	1	13	13	0	0	6
IFA053F	12	7	5	0	12	12	0	0	6
IFA028F	14	6	8	0	14	14	0	0	1
IFA097F	12	6	6	0	12	12	0	1	6
IFA099F	13	6	7	0	13	13	0	0	2
IFA100F	12	11	1	0	12	12	0	3	3
IFA093F	12	7	5	0	12	12	0	0	3
IFA096F NP									
IFA110F	11	2	9	2	13	13	0	0	6
IFA119F	14	7	7	0	14	14	0	0	2
IFA122F	12	7	5	4	16	16	0	0	5

APPENDIX F - UTERINE IMPLANTATION DATA
(INDIVIDUAL UTERINE IMPLANTATION DATA BY TARGET DOSE)
(SEE LIST OF ABBREVIATIONS FOR ABBREVIATIONS)
DOSE: 2000 MG/M^3

ANIMAL NUMBER	F/I Tran	R/I Tran	D/I Tran
IFA017F NP			
IFA019F	82.321	7.679	7.6795
IFA027F NP			
IFA038F NP			
IFA043F D			
IFA010F	75.523	14.478	7.1808
IFA013F	73.898	16.102	7.9712
IFA016F	69.296	14.478	14.4776
IFA022F	82.583	7.418	7.4176
IFA060F	80.903	9.097	9.0975
IFA068F	65.906	24.095	11.7783
IFA070F	82.029	7.971	7.9712
IFA036F	82.820	7.181	7.1808
IFA004F	82.321	7.679	7.6795
IFA089F	73.898	16.102	7.9712
IFA053F	81.702	8.299	8.299
IFA028F	82.321	7.679	7.6795
IFA097F	81.702	8.299	8.299
IFA099F	82.029	7.971	7.9712
IFA100F	81.702	8.299	8.299
IFA093F	81.702	8.299	8.299
IFA096F NP			
IFA110F	66.907	23.094	7.9712
IFA119F	82.321	7.679	7.6795
IFA122F	60.000	30.000	7.1808

APPENDIX F - UTERINE IMPLANTATION DATA
(INDIVIDUAL UTERINE IMPLANTATION DATA BY TARGET DOSE)
(SEE LIST OF ABBREVIATIONS FOR ABBREVIATIONS)
DOSE: 10,000 MG/M^3

ANIMAL NUMBER	Live	Live Male	Live Female	Resorp	Implants	CL	Dead	Mal	Var
IFA040F	15	9	6	0	15	15	0	0	5
IFA001F	13	6	7	1	14	15	0	1	2
IFA041F	10	5	5	2	12	14	0	0	2
IFA045F	11	6	5	2	13	15	0	1	1
IFA048F	16	9	7	0	16	16	0	1	3
IFA049F	11	5	6	0	11	11	0	1	1
IFA020F	13	5	8	1	15	15	1	1	4
IFA037F	15	6	9	0	17	17	2	3	5
IFA002F	15	8	7	0	16	16	1	0	5
IFA062F	13	7	6	0	13	13	0	0	0
IFA015F	9	3	6	1	10	12	0	0	1
IFA047F	5	2	3	0	5	8	0	1	2
IFA052F	14	5	9	1	15	16	0	0	1
IFA080F	14	7	7	0	14	14	0	1	4
IFA066F	9	4	5	3	12	12	0	1	2
IFA084F	15	2	13	0	15	15	0	4	2
IFA072F	14	7	7	3	17	18	0	0	7
IFA081F	14	11	3	0	14	14	0	0	2
IFA104F	13	6	7	0	13	13	0	0	7
IFA101F	11	7	4	0	11	11	0	0	4
IFA108F	2	2	0	0	2	4	0	0	0
IFA113F	12	7	5	0	12	12	0	0	6
IFA114F	12	5	7	0	12	12	0	0	1
IFA079F	14	8	6	2	16	16	0	0	6
IFA092F	13	8	5	0	13	13	0	0	2

APPENDIX F - UTERINE IMPLANTATION DATA
(INDIVIDUAL UTERINE IMPLANTATION DATA BY TARGET DOSE)
(SEE LIST OF ABBREVIATIONS FOR ABBREVIATIONS)
DOSE: 10,000 MG/M^3

ANIMAL NUMBER	F/I Tran	R/I Tran	D/I Tran
IFA040F	82.583	7.418	7.4176
IFA001F	74.499	15.501	7.6795
IFA041F	65.906	24.095	8.299
IFA045F	66.907	23.094	7.9712
IFA048F	82.820	7.181	7.1808
IFA049F	81.330	8.671	8.6708
IFA020F	68.584	14.963	14.9633
IFA037F	69.941	6.965	20.0597
IFA002F	75.523	7.181	14.4776
IFA062F	82.029	7.971	7.9712
IFA015F	71.565	18.435	9.0975
IFA047F	77.079	12.921	12.921
IFA052F	75.037	14.963	7.4176
IFA080F	82.321	7.679	7.6795
IFA066F	60.000	30.000	8.299
IFA084F	82.583	7.418	7.4176
IFA072F	65.160	24.84	6.9653
IFA081F	82.321	7.679	7.6795
IFA104F	82.029	7.971	7.9712
IFA101F	81.330	8.671	8.6708
IFA108F	69.296	20.705	20.7049
IFA113F	81.702	8.299	8.299
IFA114F	81.702	8.299	8.299
IFA079F	69.296	20.705	7.1808
IFA092F	82.029	7.971	7.9712

APPENDIX F - UTERINE IMPLANTATION DATA
(INDIVIDUAL UTERINE IMPLANTATION DATA BY TARGET DOSE)
(SEE LIST OF ABBREVIATIONS FOR ABBREVIATIONS)
DOSE: 20,000 MG/M^3

ANIMAL NUMBER	Live	Live Male	Live Female	Resorp	Implants	CL	Dead	Mal	Var
IFA003F	9	5	4	0	9	9	0	0	2
IFA009F	13	7	6	0	13	I	0	0	1
IFA021F	13	8	5	0	13	13	0	0	1
IFA023F NP									
IFA031F	14	6	8	0	14	14	0	1	1
IFA034F NP									
IFA035F	11	3	8	1	12	11	0	0	0
IFA025F	14	4	10	1	15	15	0	0	6
IFA033F	14	9	5	0	14	14	0	0	7
IFA005F D									
IFA063F	9	4	5	1	10	10	0	0	4
IFA071F	14	6	8	0	14	14	0	0	3
IFA026F	12	7	5	1	13	13	0	0	3
IFA042F	17	6	11	1	18	21	0	1	4
IFA012F	13	7	6	1	14	14	0	0	4
IFA090F NP									
IFA029F	12	6	6	0	12	12	0	0	5
IFA056F	12	7	5	0	12	12	0	1	5
IFA077F	11	5	6	1	12	12	0	0	0
IFA091F	12	11	1	1	13	14	0	0	5
IFA078F D									
IFA107F	14	8	6	0	14	14	0	1	7
IFA115F	14	6	8	0	14	14	0	1	3
IFA123F	12	5	7	2	14	14	0	0	2
IFA074F	15	6	9	1	16	16	0	1	8

APPENDIX F - UTERINE IMPLANTATION DATA
(INDIVIDUAL UTERINE IMPLANTATION DATA BY TARGET DOSE)
(SEE LIST OF ABBREVIATIONS FOR ABBREVIATIONS)
DOSE: 20,000 MG/M^3

ANIMAL NUMBER	F/I Tran	R/I Tran	D/I Tran
IFA003F	80.406	9.594	9.5941
IFA009F	82.029	7.971	7.9712
IFA021F	82.029	7.971	7.9712
IFA023F NP			
IFA031F	82.321	7.679	7.6795
IFA034F NP			
IFA035F	73.222	16.779	8.299
IFA025F	75.037	14.963	7.4176
IFA033F	82.321	7.679	7.6795
IFA005F D			
IFA063F	71.565	18.435	9.0975
IFA071F	82.321	7.679	7.6795
IFA026F	73.898	16.102	7.9712
IFA042F	76.367	13.633	6.7681
IFA012F	74.499	15.501	7.6795
IFA090F NP			
IFA029F	81.702	8.299	8.299
IFA056F	81.702	8.299	8.299
IFA077F	73.222	16.779	8.299
IFA091F	73.898	16.102	7.9712
IFA078F D			
IFA107F	82.321	7.679	7.6795
IFA115F	82.321	7.679	7.6795
IFA123F	67.793	22.208	7.6795
IFA074F	75.523	14.478	7.1808

NOTE: GD - GESTATION DAY D - EARLY DELIVERY NP - NOT PREGNANT I - INADVERTENTLY NOT RECORDED

APPENDIX G - FETAL BODY WEIGHT
(MEAN FETAL BODY WEIGHTS)
(GRAMS)
BY TARGET DOSE

	MALES	FEMALES
0 MG/M^3		
MEAN	1.33	1.29
STD. DEV.	0.10	0.09
(N)	24	23
2000 MG/M^3		
MEAN	1.33	1.29
STD. DEV.	0.11	0.11
(N)	20	20
10,000 MG/M^3		
MEAN	1.34	1.29
STD. DEV.	0.12	0.13
(N)	25	24
20,000 MG/M^3		
MEAN	1.27	1.22
STD. DEV.	0.12	0.11
(N)	20	20

APPENDIX G - FETAL BODY WEIGHT
(INDIVIDUAL FETAL BODY WEIGHT/INDIVIDUAL LITTER MEAN FETAL WEIGHTS)
(GRAMS)
TARGET DOSE: 0 MG/M^3

ANIMAL NUMBER	SEX										Litter Weight		Fetus Weights Males	Fetus Weights Females
IFA007F D	M	1.44	1.52	1.38	1.38									
IFA007F D	F	1.34												
IFA011F	M	1.44	1.38	1.49	1.46						18.22	Mean	1.44	1.38
IFA011F	F	1.44	1.34	1.33	1.21	1.50	1.28	1.37	1.46	1.52		S.D.	0.05	0.10
IFA014F	M	1.36	1.32	1.34	1.28	1.18	1.32	1.34	1.22	1.39	11.75	Mean	1.31	
IFA014F	F											S.D.	0.07	
IFA018F	M	1.36	1.42	1.40							12.26	Mean	1.39	1.35
IFA018F	F	1.37	1.34	1.43	1.35	1.30	1.29					S.D.	0.03	0.05
IFA024F	M	1.41	1.33	1.23	1.43	1.41	1.50	1.57	1.49		16.92	Mean	1.42	1.39
IFA024F	F	1.45	1.38	1.34	1.38							S.D.	0.11	0.05
IFA032F	M	1.30	1.31	1.28	1.28	1.29	1.14	1.35	1.34	1.35	19.28	Mean	1.29	1.27
IFA032F	F	1.27	1.27	1.22	1.34	1.30	1.24					S.D.	0.06	0.04
IFA006F	M	1.34	1.27	1.43	1.27	1.32	1.28	1.22	1.29	1.30	20.31	Mean	1.30	1.23
IFA006F	F	1.25	1.29	1.27	1.16	1.08	1.35	1.19				S.D.	0.06	0.09
IFA050F	M	1.34	1.32	1.31	1.45	1.29					10.32	Mean	1.34	1.20
IFA050F	F	1.28	1.26	1.07								S.D.	0.06	0.12
IFA030F	M	1.52	1.51	1.40	1.48	1.31	1.34	1.39			19.48	Mean	1.42	1.36
IFA030F	F	1.39	1.40	1.40	1.31	1.38	1.35	1.30				S.D.	0.08	0.04
IFA061F	M	1.33	1.32	1.12	1.34	1.27	1.37	1.41	1.39		15.7	Mean	1.32	1.29
IFA061F	F	1.28	1.26	1.33	1.28							S.D.	0.09	0.03
IFA008F	M	1.39	1.37	1.33	0.77	1.38	1.33	1.39	1.35	1.46	14.4	Mean	1.31	1.32
IFA008F	F	1.33	1.30									S.D.	0.21	0.02
IFA051F	M	1.14	1.27	1.26	1.27	1.31	1.46	1.37	1.39		16.74	Mean	1.31	1.25
IFA051F	F	1.23	1.27	1.17	1.31	1.29						S.D.	0.10	0.06
IFA083F	M	1.41	1.45	1.35	1.31	1.31	1.42				13.63	Mean	1.38	1.35
IFA083F	F	1.39	1.24	1.48	1.27							S.D.	0.06	0.11

APPENDIX G - FETAL BODY WEIGHT
(INDIVIDUAL FETAL BODY WEIGHT/INDIVIDUAL LITTER MEAN FETAL WEIGHTS)
(GRAMS)
TARGET DOSE: 0 MG/M^3

ANIMAL NUMBER	SEX												Litter Weights		Fetus Weights Males	Fetus Weights Females
IFA088F	M	1.12	1.29	1.28	1.24	1.29	1.33						14.78	Mean	1.26	1.21
IFA088F	F	1.24	1.10	1.16	1.12	1.28	1.33							S.D.	0.07	0.09
IFA055F	M	1.50	1.41	1.41	1.35	1.41	1.42	1.40	1.42				18.29	Mean	1.42	1.39
IFA055F	F	1.44	1.39	1.40	1.34	1.40								S.D.	0.04	0.04
IFA095F	M	1.48	1.47	1.36	1.20	1.37	1.17	1.38					18.5	Mean	1.35	1.30
IFA095F	F	1.28	1.32	1.33	1.25	1.33	1.25	1.31						S.D.	0.12	0.04
IFA065F	M	1.22	1.28	1.22	1.13	1.12	1.23	1.18	1.24				15.37	Mean	1.20	1.15
IFA065F	F	1.09	1.15	1.17	1.13	1.21								S.D.	0.06	0.04
IFA087F	M	1.37	1.45	1.44	1.32	1.33	1.36						17.52	Mean	1.38	1.32
IFA087F	F	1.28	1.39	1.36	1.31	1.30	1.37	1.24						S.D.	0.05	0.05
IFA109F	M	1.37	1.30	1.42	1.40	1.40							16.16	Mean	1.38	1.32
IFA109F	F	1.37	1.26	1.36	1.16	1.44	1.37	1.31						S.D.	0.05	0.09
IFA076F	M	1.40	1.39	1.31	1.34	1.41	1.32	1.32					17.36	Mean	1.36	1.31
IFA076F	F	1.40	1.34	1.29	1.25	1.32	1.27							S.D.	0.04	0.05
IFA112F	M	1.48	1.39	1.34	1.29	1.38	1.42						16.39	Mean	1.38	1.35
IFA112F	F	1.38	1.34	1.36	1.36	1.30	1.35							S.D.	0.07	0.03
IFA117F	M	1.09	1.21	1.31	1.27	1.28	1.25	1.37	1.41				17.78	Mean	1.27	1.27
IFA117F	F	1.15	1.29	1.35	1.31	1.25	1.24							S.D.	0.10	0.07
IFA121F	M	1.31	1.31	1.21	1.28	1.26							14.45	Mean	1.27	1.35
IFA121F	F	1.37	1.28	1.34	1.40	1.29	1.40							S.D.	0.04	0.05
IFA103F	M	1.32	1.31	1.29	1.28	1.31	1.34	1.37	1.30				16.47	Mean	1.32	1.19
IFA103F	F	1.27	1.10	1.17	1.25	1.16								S.D.	0.03	0.07
IFA085F	M	1.20	1.10	1.09	1.21	1.20	1.14	1.24	1.21	1.29	1.29	1.25	17.86	Mean	1.20	1.16
IFA085F	F	1.13	1.18	1.13	1.20									S.D.	0.07	0.04
													Mean	16.25		
													S.D.	2.52		

APPENDIX G - FETAL BODY WEIGHTS
(INDIVIDUAL FETAL BODY WEIGHT/INDIVIDUAL LITTER MEAN FETAL WEIGHTS)
(GRAMS)
TARGET DOSE: 2000 MG/M^3

ANIMAL NUMBER	SEX		Litter Weights		Fetus Weights Males	Fetus Weights Females
IFA017F NP						
IFA019F	M	1.24 1.28 1.14 1.19 1.19 1.25 1.20 1.29	16.46	Mean	1.22	1.11
IFA019F	F	0.94 1.20 1.21 1.11 1.04 1.18		S.D.	0.05	0.11
IFA027F NP						
IFA038F NP						
IFA043F D	M	1.43 1.21 1.32				
IFA043F D	F	1.20 1.25 1.32 1.27 1.20 1.37 1.21				
IFA010F	M	1.42 1.32 1.20 1.25 1.33 1.30 1.29 1.25 1.32 1.30 1.29 1.31 1.32	19.41	Mean	1.30	1.26
IFA010F	F	1.33 1.18		S.D.	0.05	0.11
IFA013F	M	1.21 1.37 1.27 1.27 1.28 1.31	15.24	Mean	1.29	1.26
IFA013F	F	1.24 1.24 1.27 1.26 1.21 1.31		S.D.	0.05	0.03
IFA016F	M	1.21 1.20 1.03 1.23 1.20 1.28	16.66	Mean	1.19	1.19
IFA016F	F	1.24 1.19 1.21 1.20 1.13 1.16 1.10 1.28		S.D.	0.08	0.06
IFA022F	M	1.30 1.35 1.32 1.20 1.35	19.72	Mean	1.30	1.32
IFA022F	F	1.19 1.34 1.37 1.44 1.25 1.34 1.32 1.39 1.23 1.33		S.D.	0.06	0.08
IFA060F	M	1.40 1.32 1.32 1.42 1.44	13.82	Mean	1.38	1.38
IFA060F	F	1.43 1.41 1.38 1.37 1.33		S.D.	0.06	0.04
IFA068F	M	1.47 1.44 1.43	6.91	Mean	1.45	1.29
IFA068F	F	1.31 1.26		S.D.	0.02	0.04
IFA070F	M	1.28 1.34 1.26 1.23 1.23 1.30 1.28 1.24	16.4	Mean	1.27	1.25
IFA070F	F	1.30 1.19 1.21 1.34 1.20		S.D.	0.04	0.07
IFA036F	M	1.37 1.25 1.30 1.42	20.71	Mean	1.34	1.28
IFA036F	F	1.29 1.28 1.22 1.26 1.17 1.29 1.36 1.27 1.37 1.27 1.20 1.39		S.D.	0.08	0.07

APPENDIX G - FETAL BODY WEIGHT
(INDIVIDUAL FETAL BODY WEIGHT/INDIVIDUAL LITTER MEAN FETAL WEIGHTS)
(GRAMS)
TARGET DOSE: 2000 MG/M^3

ANIMAL NUMBER	SEX		Litter Weights		Fetus Weights Males	Fetus Weights Females
IFA004F	M	1.50 1.49 1.48 1.48 1.48 1.46 1.48 1.51 1.38 1.45	20.4	Mean	1.47	1.42
IFA004F	F	1.43 1.38 1.46 1.42		S.D.	0.04	0.03
IFA089F	M	1.43 1.37 1.42 1.44 1.43 1.34 1.40	16.75	Mean	1.40	1.38
IFA089F	F	1.43 1.35 1.40 1.31 1.43		S.D.	0.04	0.05
IFA053F	M	1.43 1.30 1.41 1.36 1.46 1.43 1.45	16.96	Mean	1.41	1.42
IFA053F	F	1.41 1.49 1.37 1.45 1.40		S.D.	0.06	0.05
IFA028F	M	1.35 1.45 1.32 1.27 1.54 1.50	18.92	Mean	1.41	1.31
IFA028F	F	1.27 1.26 1.34 1.26 1.37 1.34 1.37 1.28		S.D.	0.11	0.05
IFA097F	M	1.38 1.31 1.33 1.35 1.26 1.39	15.89	Mean	1.34	1.31
IFA097F	F	1.33 1.33 1.31 1.36 1.32 1.22		S.D.	0.05	0.05
IFA099F	M	1.48 1.46 1.31 1.33 1.54 1.39	17.96	Mean	1.42	1.35
IFA099F	F	1.49 1.19 1.32 1.33 1.51 1.30 1.31		S.D.	0.09	0.11
IFA100F	M	1.54 1.40 1.34 1.40 1.39 1.27 1.31 1.24 1.23 1.32 1.39	16.01	Mean	1.35	1.18
IFA100F	F	1.18		S.D.	0.09	NA
IFA093F	M	1.20 1.36 1.32 1.31 1.24 1.23 1.20	15.03	Mean	1.27	1.23
IFA093F	F	1.28 1.20 1.20 1.22 1.27		S.D.	0.06	0.04
IFA096F NP						
IFA110F	M	1.38 0.99	14.6	Mean	1.19	1.36
IFA110F	F	1.33 1.40 1.28 1.36 1.42 1.39 1.33 1.37 1.35		S.D.	0.28	0.04
IFA119F	M	1.18 1.20 1.20 1.13 1.12 1.13 1.22	16.24	Mean	1.17	1.15
IFA119F	F	1.18 1.21 1.15 1.13 1.18 1.07 1.14		S.D.	0.04	0.05
IFA122F	M	1.33 1.44 1.38 1.40 1.40 1.30 1.58	16.83	Mean	1.40	1.40
IFA122F	F	1.43 1.48 1.51 1.16 1.42		S.D.	0.09	0.14
			Mean 16.55			
			S.D. 2.97			

APPENDIX G - FETAL BODY WEIGHT
(INDIVIDUAL FETAL BODY WEIGHT/INDIVIDUAL LITTER MEAN FETAL WEIGHTS)
(GRAMS)
TARGET DOSE: 10,000 MG/M^3

ANIMAL NUMBER	SEX		Litter Weights		Fetus Weights Males	Fetus Weights Females
IFA040F	M	1.44 1.45 1.47 1.30 1.53 1.43 1.32 1.44 1.50	20.85	Mean	1.43	1.33
IFA040F	F	1.30 1.35 1.29 1.29 1.37 1.37		S.D.	0.08	0.04
IFA001F	M	1.29 1.29 1.35 1.25 1.35 1.35	16.77	Mean	1.31	1.27
IFA001F	F	1.25 1.18 1.08 1.21 1.38 1.37 1.42		S.D.	0.04	0.12
IFA041F	M	1.44 1.36 1.41 1.43 1.34	13.69	Mean	1.40	1.34
IFA041F	F	1.37 1.35 1.32 1.26 1.41		S.D.	0.04	0.06
IFA045F	M	1.41 1.40 1.41 1.34 1.54 1.54	15.73	Mean	1.44	1.42
IFA045F	F	1.40 1.35 1.47 1.38 1.49		S.D.	0.08	0.06
IFA048F	M	1.23 1.27 1.33 1.27 1.28 1.24 1.20 1.23 1.27	20.11	Mean	1.26	1.26
IFA048F	F	1.16 1.31 1.24 1.33 1.25 1.23 1.27		S.D.	0.04	0.06
IFA049F	M	1.32 1.28 1.52 1.34 1.39	14.59	Mean	1.37	1.29
IFA049F	F	1.29 1.31 1.27 1.34 1.29 1.24		S.D.	0.09	0.03
IFA020F	M	1.57 1.63 1.38 1.31 1.51	18.35	Mean	1.48	1.37
IFA020F	F	1.48 1.37 1.37 1.41 1.22 1.44 1.35 1.31		S.D.	0.13	0.08
IFA037F	M	1.40 1.21 1.21 1.25 1.20 1.23	18.73	Mean	1.25	1.25
IFA037F	F	1.23 1.31 1.22 1.28 1.35 1.21 1.13 1.17 1.33		S.D.	0.08	0.07
IFA002F	M	1.33 1.20 1.12 1.26 1.21 1.16 1.19 1.09	17.56	Mean	1.20	1.14
IFA002F	F	1.10 1.15 1.13 1.17 1.22 1.18 1.05		S.D.	0.08	0.06
IFA062F	M	1.37 1.26 1.30 1.25 1.32 1.34 1.34	16.75	Mean	1.31	1.26
IFA062F	F	1.28 1.26 1.22 1.15 1.32 1.34		S.D.	0.04	0.07
IFA015F	M	1.47 1.37 1.39	12.5	Mean	1.41	1.38
IFA015F	F	1.41 1.36 1.43 1.28 1.40 1.39		S.D.	0.05	0.05
IFA047F	M	0.78 0.78	3.58	Mean	0.78	0.67
IFA047F	F	0.72 0.56 0.74		S.D.	0.00	0.10
IFA052F	M	1.35 1.38 1.38 1.38 1.38	19.34	Mean	1.37	1.39
IFA052F	F	1.36 1.36 1.36 1.34 1.31 1.39 1.42 1.49 1.44		S.D.	0.01	0.06

APPENDIX G - FETAL BODY WEIGHT
(INDIVIDUAL FETAL BODY WEIGHT/INDIVIDUAL LITTER MEAN FETAL WEIGHTS)
(GRAMS)
TARGET DOSE: 10,000 MG/M^3

ANIMAL NUMBER	SEX		Litter Weights		Fetus Weights Males	Fetus Weights Females
IFA080F	M	1.45 1.43 1.42 1.33 1.33 1.42 1.35	18.96	Mean	1.39	1.32
IFA080F	F	1.35 1.31 1.34 1.42 1.24 1.23 1.34		S.D.	0.05	0.07
IFA066F	M	1.43 1.34 1.34 1.31	11.98	Mean	1.36	1.31
IFA066F	F	1.30 1.33 1.35 1.28 1.30		S.D.	0.05	0.03
IFA084F	M	1.16 1.24	17.79	Mean	1.20	1.18
IFA084F	F	1.18 1.16 1.04 1.15 1.16 1.02 0.99 1.34 1.31 1.19 1.31 1.28 1.26		S.D.	0.06	0.12
IFA072F	M	1.35 1.29 1.43 1.38 1.36 1.36 1.48	18.85	Mean	1.38	1.31
IFA072F	F	1.23 1.29 1.32 1.34 1.34 1.37 1.31		S.D.	0.06	0.05
IFA081F	M	1.42 1.36 1.50 1.48 1.32 1.31 1.50 1.39 1.43 1.34 1.35	19.51	Mean	1.40	1.37
IFA081F	F	1.42 1.35 1.34		S.D.	0.07	0.04
IFA104F	M	1.35 1.38 1.38 1.37 1.36 1.39	17.44	Mean	1.37	1.32
IFA104F	F	1.33 1.30 1.27 1.34 1.25 1.34 1.38		S.D.	0.01	0.05
IFA101F	M	1.42 1.25 1.41 1.43 1.37 1.45 1.44	14.96	Mean	1.40	1.30
IFA101F	F	1.28 1.31 1.18 1.42		S.D.	0.07	0.10
IFA108F	M	1.72 1.57	3.29	Mean	1.65	
IFA108F	F			S.D.	0.11	
IFA113F	M	1.39 1.47 1.43 1.32 1.39 1.51 1.40	16.87	Mean	1.42	1.39
IFA113F	F	1.36 1.50 1.40 1.33 1.37		S.D.	0.06	0.07
IFA114F	M	1.30 1.23 1.20 1.37 1.39	15.71	Mean	1.30	1.32
IFA114F	F	1.27 1.27 1.30 1.37 1.33 1.33 1.35		S.D.	0.08	0.04
IFA079F	M	1.11 1.24 1.20 1.24 1.27 1.23 1.37 1.35	17.85	Mean	1.25	1.31
IFA079F	F	1.29 1.30 1.32 1.24 1.31 1.38		S.D.	0.08	0.05
IFA092F	M	1.29 1.30 1.22 1.32 1.36 1.31 1.35 1.31	17.01	Mean	1.31	1.31
IFA092F	F	1.31 1.24 1.29 1.40 1.31		S.D.	0.04	0.06
			Mean 15.95			
			S.D. 4.38			

APPENDIX G - FETAL BODY WEIGHT
(INDIVIDUAL FETAL BODY WEIGHT/INDIVIDUAL LITTER MEAN FETAL WEIGHTS)
(GRAMS)
TARGET DOSE: 20,000 MG/M^3

ANIMAL NUMBER	SEX		Litter Weights		Fetus Weights Males	Fetus Weights Females
IFA003F	M	1.31 1.32 1.38 1.46 1.39	12.17	Mean	1.37	1.33
IFA003F	F	1.29 1.34 1.33 1.35 .		S.D.	0.06	0.03
IFA009F	M	1.33 1.22 1.30 1.25 1.20 1.34 1.26	16.39	Mean	1.27	1.25
IFA009F	F	1.26 1.28 1.24 1.21 1.28 1.22		S.D.	0.05	0.03
IFA021F	M	1.37 1.41 1.28 1.31 1.22 1.44 1.39 1.39	17.21	Mean	1.35	1.28
IFA021F	F	1.34 1.26 1.14 1.33 1.33		S.D.	0.07	0.08
IFA023F NP						
IFA031F	M	1.34 1.26 1.22 1.23 1.24 1.21	16.97	Mean	1.25	1.18
IFA031F	F	1.24 1.17 1.17 1.26 1.10 1.08 1.20 1.25		S.D.	0.05	0.07
IFA034F NP						
IFA035F	M	1.35 1.46 1.35	14.48	Mean	1.39	1.29
IFA035F	F	1.37 1.19 1.37 1.31 1.30 1.34 1.16 1.28		S.D.	0.06	0.08
IFA025F	M	1.31 1.32 1.33 1.25	17.61	Mean	1.30	1.24
IFA025F	F	1.23 1.18 1.17 1.13 1.25 1.27 1.31 1.32 1.27 1.27		S.D.	0.04	0.06
IFA033F	M	1.03 0.97 1.01 0.95 1.09 1.04 1.05 0.89 0.90	13.7	Mean	0.99	0.95
IFA033F	F	1.03 0.99 0.91 0.91 0.93		S.D.	0.07	0.05
IFA005F D	M	1.36 1.28 1.29 1.32 1.26 1.24 1.41				
IFA005F D	F	1.35 1.36 1.30 1.24 1.17 1.21 1.21 1.20				
IFA063F	M	1.20 1.32 1.40 1.45	12.05	Mean	1.34	1.34
IFA063F	F	1.31 1.41 1.37 1.23 1.36		S.D.	0.11	0.07
IFA071F	M	1.32 1.29 1.33 1.32 1.30 1.35	17.84	Mean	1.32	1.24
IFA071F	F	1.27 1.27 1.22 1.30 1.29 1.25 1.24 1.09		S.D.	0.02	0.07
IFA026F	M	1.20 1.27 1.26 1.37 1.30 1.25 1.33	15.17	Mean	1.28	1.24
IFA026F	F	1.21 1.24 1.24 1.22 1.28		S.D.	0.06	0.03
IFA042F	M	1.22 1.20 1.28 1.19 1.09 1.20	19.2	Mean	1.20	1.09
IFA042F	F	1.14 1.16 1.11 1.21 1.07 1.08 0.96 0.95 1.11 1.07 1.16		S.D.	0.06	0.08
IFA012F	M	1.37 1.32 1.35 1.29 1.20 1.31 1.18	16.57	Mean	1.29	1.26
IFA012F	F	1.25 1.27 1.24 1.20 1.24 1.35		S.D.	0.07	0.05
IFA090F NP						

APPENDIX G - FETAL BODY WEIGHT
(INDIVIDUAL FETAL BODY WEIGHT/INDIVIDUAL LITTER MEAN FETAL WEIGHTS)
(GRAMS)
TARGET DOSE: 20,000 MG/M^3

ANIMAL NUMBER	SEX		Litter Weights		Fetus Weights Males	Fetus Weights Females
IFA029F	M	1.31 1.35 1.23 1.36 1.36 1.34	15.62	Mean	1.33	1.28
IFA029F	F	1.26 1.36 1.34 1.23 1.25 1.23		S.D.	0.05	0.06
IFA056F	M	1.27 1.19 1.11 1.25 1.24 1.10 1.24	14.25	Mean	1.20	1.17
IFA056F	F	1.17 0.99 1.12 1.22 1.35		S.D.	0.07	0.13
IFA077F	M	1.20 1.25 1.25 1.34 1.25	13.98	Mean	1.26	1.28
IFA077F	F	1.34 1.34 1.27 1.20 1.35 1.19		S.D.	0.05	0.07
IFA091F	M	1.45 1.42 1.43 1.47 1.40 1.45 1.27 1.36 1.33 1.47 1.48	16.89	Mean	1.41	1.36
IFA091F	F	1.36		S.D.	0.07	NA
IFA078F D	M	1.41 1.34 1.40 1.37 1.42				
IFA078F D	F	1.30 1.35 1.27 1.32 1.36 1.33 1.34				
IFA107F	M	1.23 1.31 1.14 1.27 1.33 1.27 1.28 1.25	17.67	Mean	1.26	1.27
IFA107F	F	1.33 1.21 1.21 1.33 1.21 1.30		S.D.	0.06	0.06
IFA115F	M	1.40 1.23 1.29 1.26 1.22 1.33	17.48	Mean	1.29	1.22
IFA115F	F	1.24 1.26 1.27 1.30 1.24 0.98 1.25 1.21		S.D.	0.07	0.10
IFA123F	M	1.46 1.29 1.32 1.33 1.30	15.62	Mean	1.34	1.27
IFA123F	F	1.29 1.34 1.25 1.32 1.16 1.27 1.29		S.D.	0.07	0.06
IFA074F	M	1.27 0.96 1.10 1.28 1.14 1.33	17.07	Mean	1.18	1.11
IFA074F	F	1.04 0.97 1.12 1.18 1.12 1.03 1.10 1.14 1.29		S.D.	0.14	0.09
			Mean 15.90			
			S.D. 1.94			

NOTE: NP - NOT PREGNANT D - EARLY DELIVERY, PUP WEIGHTS NOT USED IN ANY CALCULATIONS

APPENDIX H - INCIDENCE OF FETAL OBSERVATIONS
(LIVE FETUSES)

TARGET DOSE:	0 MG/M³	2000 MG/M³	10000 MG/M³	20000 MG/M³
TOTAL FETUSES WITH EXTERNAL VARIATIONS[a]	0/297	1/252	0/303	0/255
TOTAL LITTERS WITH EXTERNAL VARIATIONS[a]	[0/24]	[1/20]	[0/25]	[0/20]
TOTAL FETUSES WITH EXTERNAL MALFORMATIONS	6/297	2/252	9/303	6/255
TOTAL LITTERS WITH EXTERNAL MALFORMATIONS	[5/24]	[2/20]	[7/25]	[6/20]
TOTAL FETUSES WITH VISCERAL VARIATIONS	4/150	1/124	1/154	4/129
TOTAL LITTERS WITH VISCERAL VARIATIONS	[4/24]	[1/20]	[1/25]	[3/20]
TOTAL FETUSES WITH VISCERAL MALFORMATIONS	0/150	0/124	4/154	0/129
TOTAL LITTERS WITH VISCERAL MALFORMATIONS	[0/24]	[0/20]	[3/25]	[0/20]
TOTAL FETUSES WITH SKELETAL VARIATIONS	84/147	74/128	74/151	67/126
TOTAL LITTERS WITH SKELETAL VARIATIONS	[21/24]	[20/20]	[23/25]	[17/20]
TOTAL FETUSES WITH SKELETAL MALFORMATIONS	2/147	4/128	3/151	1/126
TOTAL LITTERS WITH SKELETAL MALFORMATIONS	[2/24]	[2/20]	[2/25]	[1/20]
EXTERNAL EXAMINATIONS				
-TOTAL FETUSES EXAMINED:	297	252	303	255
-TOTAL LITTERS EXAMINED:	[24]	[20]	[25]	[20]
INDIVIDUAL EXTERNAL OBSERVATIONS				
STUNTED (<0.85 grams)	1	0	5	0
	[1]	[0]	[1]	[0]
HEMATOMA	0	1	0	0
	[0]	[1]	[0]	[0]
INDIVIDUAL EXTERNAL MALFORMATIONS				
MICROSTOMIA	1	0	0	0
	[1]	[0]	[0]	[0]
ECTOPIA CORDIS	0	0	2	0
	[0]	[0]	[1]	[0]
GASTROSCHISIS	0	0	1	0
	[0]	[0]	[1]	[0]
MALROTATED HINDPAW	5	2	6	5
	[4]	[2]	[6]	[5]
CLEFT PALATE	0	0	0	1
	[0]	[0]	[0]	[1]

NOTE: [] Represents litter-based data
A Includes observations of hematoma

APPENDIX H - INCIDENCE OF FETAL OBSERVATIONS (CONT'D)
(LIVE FETUSES)

TARGET DOSE:	0 MG/M^3	2000 MG/M^3	10000 MG/M^3	20000 MG/M^3
VISCERAL EXAMINATIONS				
-TOTAL FETUSES EXAMINED:	150	124	153	129
-TOTAL LITTERS EXAMINED:	[24]	[20]	[25]	[20]
INDIVIDUAL VISCERAL OBSERVATIONS				
DISCOLORED LIVER	1	0	0	0
	[1]	[0]	[0]	[0]
DISCOLORED THYMUS	0	0	1	0
	[0]	[0]	[1]	[0]
INDIVIDUAL VISCERAL VARIATIONS				
UMBILICAL ARTERY ON LEFT SIDE OF	4	1	1	4
URINARY BLADDER	[4]	[1]	[1]	[3]
INDIVIDUAL VISCERAL MALFORMATIONS				
MALPOSITIONED ADRENAL GLANDS	0	0	1	0
	[0]	[0]	[1]	[0]
MALPOSITIONED KIDNEYS	0	0	2	0
	[0]	[0]	[2]	[0]
MALPOSITIONED OVARIES	0	0	1	0
	[0]	[0]	[1]	[0]
LARGE ATRIA	0	0	1	0
	[0]	[0]	[1]	[0]
NARROW PULMONARY TRUNK	0	0	1	0
	[0]	[0]	[1]	[0]
ELONGATED AORTA AND PULMONARY TRUNK	0	0	2	0
	[0]	[0]	[1]	[0]

NOTE: [] Represents litter-based data

APPENDIX H - INCIDENCE OF FETAL OBSERVATIONS (CONT'D)
(LIVE FETUSES)

TARGET DOSE:	0 MG/M³	2000 MG/M³	10000 MG/M³	20000 MG/M³
SKELETAL EXAMINATIONS				
-TOTAL FETUSES EXAMINED:	147	128	151	126
-TOTAL LITTERS EXAMINED:	[24]	[20]	[25]	[20]
INDIVIDUAL OSSIFICATION OBSERVATIONS				
ADVANCED - CALCANEUS OSSIFIED	100	96	110	76
	[21]	[20]	[23]	[18]
INDIVIDUAL OSSIFICATION VARIATIONS				
SKULL BONE(S):				
HYOID HYPOPLASTIC	0	0	2	0
	[0]	[0]	[1]	[0]
INTERPARIETAL HYPOPLASTIC	0	1	0	1
	[0]	[1]	[0]	[1]
MALAR HYPOPLASTIC	1	0	0	0
	[1]	[0]	[0]	[0]
SQUAMOSAL HYPOPLASTIC	0	0	2	0
	[0]	[0]	[1]	[0]
SQUAMOSAL PROCESS HYPOPLASTIC	3	1	5	0
	[2]	[1]	[3]	[0]
SUPRAOCCIPITAL HYPOPLASTIC	1	4	0	1
	[1]	[2]	[0]	[1]
MULTIPLE BONES HYPOPLASTIC	0	0	2	0
	[0]	[0]	[1]	[0]
TYMPANICS UNOSSIFIED	1	0	0	0
	[1]	[0]	[0]	[0]
FOREPAW:				
UNOSSIFIED	0	1	1	0
	[0]	[1]	[1]	[0]
STERNEBRAE:				
ASYMMETRIC	4	1	0	2
	[4]	[1]	[0]	(2]
BIFID *	0	0	0	4
	[0]	[0]	[0]	[1]
HYPOPLASTIC	1	1	3	2
	[1]	[1]	[2]	[2]
SUPERNUMERARY	0	0	0	1
	[0]	[0]	[0]	[1]

NOTE: [] Represents litter-based data

APPENDIX H - INCIDENCE OF FETAL OBSERVATIONS (CONT'D)
(LIVE FETUSES)

TARGET DOSE:	0 MG/M³	2000 MG/M³	10000 MG/M³	20000 MG/M³
INDIVIDUAL OSSIFICATION VARIATIONS (CONT'D)				
RIB(S):				
RUDIMENTARY LUMBAR RIB	29	27	32	27
	[14]	[14]	[18]	[15]
WELL-FORMED LUMBAR RIB	52	44	39	45
	[19]	[17]	[14]	[15]
WELL-FORMED SUPERNUMERARY THORACIC RIB (T14[a])	2	4	1	2
	[2]	[4]	[1]	[2]
VERTEBRAE:				
EXTRA PRESACRAL	3	4	1	2
	[2]	[4]	[1]	[2]
HINDPAW:				
UNOSSIFIED	4	1	0	1
	[2]	[1]	[0]	[1]
HYPOPLASTIC	0	0	1	0
	[0]	[0]	[1]	[0]
INDIVIDUAL SKELETAL MALFORMATIONS				
STERNEBRAE:				
FUSED	0	0	1	0
	[0]	[0]	[1]	[0]
RIB(S):				
AGENESIS (THORACIC)	0	0	2	0
	[0]	[0]	[1]	[0]
FUSED	1	0	1	0
	[1]	[0]	[1]	[0]
VERTEBRAE:				
THORACIC ARCH AGENESIS	0	0	2	0
	[0]	[0]	[1]	[0]
ONE LESS PRESACRAL	1	1	0	0
	[1]	[1]	[0]	[0]

NOTE: [] Represents litter-based data
a – Extra presacral vertebrae present and designated a thoracic vertebrae

APPENDIX H - INCIDENCE OF FETAL OBSERVATIONS (CONT'D)
(LIVE FETUSES)

TARGET DOSE:	0 MG/M³	2000 MG/M³	10000 MG/M³	20000 MG/M³
INDIVIDUAL CARTILAGINOUS STRUCTURAL VARIATIONS				
STERNEBRAL ANLAGE:				
EXTRA UNSTRUCTURED OSSIFICATION SITE	2	4	7	2
	[1]	[3]	[4]	[2]
RIB ANLAGE:				
RUDIMENTARY LUMBAR	2	2	1	3
	[2]	[2]	[1]	[3]
VERTEBRAL ANLAGE:				
THORACIC CENTRA HYPOPLASTIC	0	1	0	0
	[0]	[1]	[0]	[0]
THORACIC ARCH HYPOPLASTIC	0	0	1	0
	[0]	[0]	[1]	[0]
SACRAL ARCH HYPOPLASTIC	2	1	1	0
	[2]	[1]	[1]	[0]
INDIVIDUAL CARTILAGINOUS STRUCTURAL MALFORMATIONS				
RIB ANLAGE:				
FUSED (THORACIC)	0	3	1	0
	[0]	[1]	[1]	[0]
MALFORMED (THORACIC)	0	0	0	1
	[0]	[0]	[0]	[1]
VERTEBRAL ANLAGE:				
CERVICAL CENTRA MALFORMED	0	0	1	0
	[0]	[0]	[1]	[0]
THORACIC ARCH MALFORMED	0	0	1	0
	[0]	[0]	[1]	[0]
THORACIC CENTRA MALFORMED	0	0	2	0
	[0]	[0]	[1]	[0]

NOTE: [] Represents litter-based data

APPENDIX H - INCIDENCE OF FETAL OBSERVATIONS (CONT'D)
(DEAD FETUSES)

TARGET DOSE:	0 MG/M³	2000 MG/M³	10000 MG/M³	20000 MG/M³
TOTAL FETUSES WITH EXTERNAL VARIATIONS[a]	1/2	0/1	0/4	0/0
TOTAL LITTERS WITH EXTERNAL VARIATIONS[a]	[1/2]	[0/1]	[0/3]	[0/0]
TOTAL FETUSES WITH EXTERNAL MALFORMATIONS	0/2	1/1	3/4	0/0
TOTAL LITTERS WITH EXTERNAL MALFORMATIONS	[0/2]	[1/1]	[2/3]	[0/0]
TOTAL FETUSES WITH VISCERAL VARIATIONS	0/1	0/1	0/2	0/0
TOTAL LITTERS WITH VISCERAL VARIATIONS	[0/1]	[0/1]	[0/1]	[0/0]
TOTAL FETUSES WITH VISCERAL MALFORMATIONS	0/1	1/1	0/2	0/0
TOTAL LITTERS WITH VISCERAL MALFORMATIONS	[0/1]	[1/1]	[0/1]	[0/0]
EXTERNAL EXAMINATIONS				
-TOTAL FETUSES EXAMINED:	2	1	4	0
-TOTAL LITTERS EXAMINED:	[2]	[1]	[3]	[0]
INDIVIDUAL EXTERNAL OBSERVATIONS				
STUNTED (<0.85 grams)	2	0	0	0
	[2]	[0]	[0]	[0]
PALE HEAD	1	0	0	0
	[1]	[0]	[0]	[0]
ALL LIMBS PALE	0	0	1	0
	[0]	[0]	[1]	[0]
INDIVIDUAL EXTERNAL MALFORMATIONS				
MICROSTOMIA	0	0	1	0
	[0]	[0]	[1]	[0]
ECTOPIA CORDIS	0	1	0	0
	[0]	[1]	[0]	[0]
ANASARCA	0	0	1	0
	[0]	[0]	[1]	[0]
MALROTATED HINDPAW	0	0	3	0
	[0]	[0]	[2]	[0]
MISSHAPEN NOSE	0	0	1	0
	[0]	[0]	[1]	[0]
MICROMELIA	0	0	1	0
	[0]	[0]	[1]	[0]
SYNDACTYLY	0	0	1	0
	[0]	[0]	[1]	[0]

NOTE: a – Includes observations of pale

APPENDIX H - INCIDENCE OF FETAL OBSERVATIONS (CONT'D)
(DEAD FETUSES)

TARGET DOSE:	0 MG/M^3	2000 MG/M^3	10000 MG/M^3	20000 MG/M^3
VISCERAL EXAMINATIONS				
-TOTAL FETUSES EXAMINED:	1	1	2	0
-TOTAL LITTERS EXAMINED:	[1]	[1]	[1]	[0]
INDIVIDUAL VISCERAL OBSERVATIONS				
ABDOMINAL CAVITY FILLED WITH LIQUID	0	0	1	0
	[0]	[0]	[1]	[0]
INDIVIDUAL VISCERAL MALFORMATIONS				
LARGE ATRIA	0	1	0	0
	[0]	[1]	[0]	[0]
ELONGATED AORTA AND PULMONARY TRUNK	0	1	0	0
	[0]	[1]	[0]	[0]

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 0 MG/M3
ANIMAL NUMBER: IFA007F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 0 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL		SKELETAL
				HEAD	ABDOMEN/THORAX	
1*		M				
2**						
3		M				
4C		M				
5		F				
6		M				
E						
7		M				
8		F				
9		M				

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE: Animal delivered prior to C-section, fetus numbers assigned arbitrarily.
* - Partially cannibalized
** - Partially cannibalized, sex undeterminable

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 0 MG/M3
ANIMAL NUMBER: IFA011F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 4 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	F	+	+	+	
2	A	M	+			(*,b)
E						
3	A	F	+	+	+	
4	A	F	+			(*,a)
5	A	F	+	+	+	
6	A	F	+			(*,c)
7	A	F	+	+	+	
8C	A	F	+			(*,d)
E						
9	A	M	+	+	+	
10	A	F	+			+(*)
11	A	M	+	+	+	
12	A	M	+			+(*)
13	A	F	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/STERNEBRAE (III,IV): Asymmetric form; Bilateral (Ribs T3 - T5 attach to sternum in alternate pattern rather than opposite)
(b) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(c) - SKELETAL/RIBS (L1): Rudimentary; Bilateral
(d) - SKELETAL/RIBS (L1): Rudimentary; Right
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 0 MG/M3
ANIMAL NUMBER: IFA014F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 5 MALFORMATIONS: 1

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1C	A	M	+			(b,h)
2	A	M	+	+	+	
3	A	M	+			(*,c)
4	A	M	+	+	+	
E						
5	A	M	+			(d,e)
E						
6	A	M	+	+	+	
7	A	M	+			(*,f,g)
8	A	M	+	+	+	
9	A	M	+			(b,A,h)

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(A) - SKELETAL/RIBS (T10,11): Fused; Left
(b) - SKELETAL/RIBS (T14): Well-formed; Bilateral
(c) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(d) - SKELETAL/RIBS (L1): Rudimentary; Left
(e) - SKELETAL/RIBS (L1 Anlage): Rudimentary, Right
(f) - SKELETAL/RIBS (L1): Well-formed; Left
(g) - SKELETAL/RIBS (L1): Rudimentary; Right
(h) - SKELETAL/VERTEBRAE (T): Extra presacral vertebrae
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 0 MG/M3
ANIMAL NUMBER: IFA018F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 1 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	F	+			(a,*)
2	A	M	+	+	+	
E						
E						
3	A	F	+			+(*)
EC						
4	A	F	+	+	+	
5	A	M	+			+(*)
6	A	F	+	+	+	
E						
7	A	F	+			+(*)
8	A	F	+	+	+	
9	A	M	+			+(*)

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 0 MG/M3
ANIMAL NUMBER: IFA024F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 6 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+			(a,b,*)
2	A	F	+	+	+	
3	A	M	+			(c,*)
4	A	M	+	+	+	
5	A	F	+			(e,f,j,k,*)
E						
6	A	M	+	+	+	
7	A	F	+			(g,*)
8	A	F	+	+	+	
E						
9C	A	M	+			(d,h,i,*)
10	A	M	+	+	+	
11	A	M	+			(c,*)
E						
12	A	M	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/RIBS (L1): Well-formed; Left
(b) - SKELETAL/RIBS (L1): Rudimentary; Right
(c) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(d) - SKELETAL/RIBS (L1): Rudimentary; Bilateral
(e) - SKELETAL/HINDPAW (DP 4): Unossified; Right
(f) - SKELETAL/HINDPAW (DP 2): Unossified; Left
(g) - SKELETAL/HINDPAW (DP 5): Unossified; Left
(h) - SKELETAL/HINDPAW (DP 4): Unossified; Left
(i) - SKELETAL/HINDPAW (DP 3-5): Unossified; Right
(j) - SKELETAL/SKULL (Malar): Hypoplastic; Right
(k) - SKELETAL/SKULL (Squamosal Process): Hypoplastic; Right
(*) - SKELTAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 0 MG/M3
ANIMAL NUMBER: IFA032F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 0 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+			+(*)
2	A	M	+	+	+	
3	A	M	+			+(*)
4	A	F	+	+	+	
5	A	F	+			+(*)
6	A	F	+	+	+	
7	A	M	+			+(*)
8	A	M	+	+	+	
9C	A	M	+			+
10	A	M	+	+	+	
11	A	F	+			+(*)
12	A	F	+	+	+	
13	A	M	+			+(*)
14	A	F	+	+	+	
15	A	M	+			+(*)

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 0 MG/M3
ANIMAL NUMBER: IFA006

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 1
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 1 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 6 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	F	+			+
2	A	F	+	+	+	
3	A	M	+			(c)
4	A	M	+	+	+	
5	A	M	+			(c)
6	A	F	+	+	+	
7C	A	M	+			(d)
8	A	M	+	+	+	
9	A	M	(A)			+
10	A	M	+	+	+	
11	A	F	+			(f)
12	A	F	+	+	(b)	
13	A	M	+			(e)
14	A	M	+	+	+	
15	A	F	+			(e)
16	A	F	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(A) - EXTERNAL: Malrotated hind paw; Right
(b) - ABDOMEN/THORAX: Umbilical artery arises from left side of urinary bladder
(c) - SKELETAL/RIBS (L1): Rudimentary; Bilateral
(d) - SKELETAL/RIBS (L1): Rudimentary; Left
(e) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(f) - SKELETAL/STERNEBRAE (IV): Asymmetric form

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 0 MG/M3
ANIMAL NUMBER: IFA050F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 1
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 0 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	F	+			+
2	A	F	(A)	+	+	
3	A	M	+			+(*)
4	A	M	+	+	+	
5	A	M	+			+(*)
E						
6C	A	F	+	+	+	
7	A	M	+			+(*)
E						
8	A	M	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(A) - EXTERNAL: Microstomia
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 0 MG/M3
ANIMAL NUMBER: IFA030F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 1
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 6 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+			+(*)
2	A	F	+	+	+	
3	A	F	+			(b,*)
4	A	F	+	+	+	
5	A	F	+			(b,*)
6C	A	M	(A)	+	+	
7	A	F	+			(c,d,*)
8	A	M	+	+	+	
9	A	M	+			(e,f,*)
10	A	F	+	+	+	
11	A	M	+			(e,f,*)
12	A	F	+	+	+	
13	A	M	+			(g,h)
14	A	M	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(A) - EXTERNAL: Malrotated hind paw; Left
(b) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(c) - SKELETAL/RIBS (L1): Well-formed; Left
(d) - SKELETAL/RIBS (L1): Rudimentary; Right
(e) - SKELETAL/RIBS (L1): Well-formed; Right
(f) - SKELETAL/RIBS (L1): Rudimentary; Left
(g) - SKELETAL/RIBS (T14): Well-formed; Bilateral
(h) - SKELETAL/VERTEBRAE (T14): Extra presacral
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 0 MG/M3
ANIMAL NUMBER: IFA061F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 2 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+	+	+	
2	A	M	+			+
3	A	M	+	+	+	
4	A	M	+			(a,*)
5	A	M	+	+	+	
6	A	M	+			(a,*)
E						
7C	A	M	+	+	+	
8	A	M	+			+(*)
9	A	F	+	+	+	
10	A	F	+			+(*)
11	A	F	+	+	+	
12	A	F	+			+(*)

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/SKULL (Squamosal Process): Hypoplastic; Left
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 0 MG/M3
ANIMAL NUMBER: IFA008F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 1 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 3 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+			(b,**)
2*	D	F	+	+	+	
3	A	F	+			+(**)
4	A	M	+	+	+	
5	A	M	+			(c,**)
6C*	A	M	+	+	+	
7	A	M	+			+(**)
8	A	M	+	+	(a)	
9	A	F	+			+
10	A	M	+	+	+	
11	A	M	+			(c)
12	A	M	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
* - Stunted
(a) - ABDOMEN/THORAX: Umbilical artery arises from the left side of urinary bladder
(b) - SKELETAL/STERNEBRAE (I-IV): Asymmetric form (Rib pairs attach to the sternum in an alternate pattern rather than opposite)
(c) - SKELETAL/RIBS (L1): Rudimentary; Left
(**) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 0 MG/M3
ANIMAL NUMBER: IFA051F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 2 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	F	+	+	+	
2	A	M	+			+
3	A	M	+	+	+	
4	A	M	+			(a)
5	A	F	+	+	+	
6	A	F	+			+
7	A	F	+	+	+	
8	A	M	+			+
9C	A	M	+	+	+	
10	A	M	+			(a,*)
11	A	F	+	+	+	
12	A	M	+			+
13	A	M	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 0 MG/M3
ANIMAL NUMBER: IFA083F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 2 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	F	+	+	+	
2	A	M	+			+(*)
3	A	M	+	+	+	
4C	A	F	+			(a,*)
5	A	F	+	+	+	
6	A	M	+			+(*)
7	A	F	+	+	+	
8	A	M	+			(b,*)
9	A	M	+	+	+	
E						
10	A	M	+			+(*)

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(b) - SKELETAL/RIBS (L1): Well-formed; Left
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 0 MG/M3
ANIMAL NUMBER: IFA088F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 1 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 5 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	F	+			(b)
2	A	F	+	+	+	
3	A	F	+			+(*)
4	A	M	+	+	+	
5	A	M	+			(f)
6	A	M	+	+	(a)	
7C	A	F	+			(c)
8	A	M	+	+	+	
9	A	M	+			(d,*)
10	A	F	+	+	+	
E						
11	A	F	+			(e)
12	A	M	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - ABDOMEN/THORAX: Umbilical artery arises from left side of urinary bladder
(b) - SKELETAL/RIBS (L1): Rudimentary; Bilateral
(c) - SKELETAL/RIBS (L1): Well-formed; Left
(d) - SKELETAL/RIBS (L1): Rudimentary; Left
(e) - SKELETAL/RIBS (L1): Rudimentary; Right
(f) - SKELETAL/HINDPAW (DP2): Unossified; Left
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 0 MG/M3
ANIMAL NUMBER: IFA055F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 0 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+	+	+	
2	A	F	+			+(*)
3	A	M	+	+	+	
4	A	M	+			+(*)
5	A	M	+	+	+	
6	A	F	+			+(*)
7C	A	F	+	+	+	
8	A	M	+			+(*)
9	A	F	+	+	+	
E						
E						
E						
10	A	M	+			+(*)
11	A	M	+	+	+	
12	A	M	+			+(*)
13	A	F	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 0 MG/M3
ANIMAL NUMBER: IFA095F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 1
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 6 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+	+	+	
2	A	M	+			(b,*)
3	A	M	+	+	+	
4	A	F	+			(c)
5C	A	F	+	+	+	
6	A	M	+			(d)
7	A	F	+	+	+	
8	A	F	(A)			(e,*)
9	A	F	+	+	+	
10	A	F	+			(d)
11	A	M	+	+	+	
12	A	M	+			+
13	A	F	+	+	+	
14	A	M	+			(b,*)

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(A) - EXTERNAL: Malrotated hind paw; Right
(b) - SKELETAL/RIBS (L1): Rudimentary; Left
(c) - SKELETAL/RIBS (L1): Rudimentary; Bilateral
(d) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(e) - SKELETAL/RIBS (L1): Rudimentary; Right
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 0 MG/M3
ANIMAL NUMBER: IFA065F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 1 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+	+	+	
2	A	M	+			+
3	A	F	+	+	+	
4*	D	F	(**)			
5	A	M	+	+	+	
6	A	F	+			+
7	A	M	+	+	+	
8	A	M	+			+
9C	A	F	+	+	+	
10	A	F	+			+
11	A	M	+	+	+	
12	A	F	+			(a,b)
13	A	M	+	+	+	
14	A	M	+			+

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
* - Stunted
(**) - Pale head
(a) - SKELETAL/RIBS (L1): Well-formed; Left
(b) - SKELETAL/RIBS (L1): Rudimentary; Right

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 0 MG/M3
ANIMAL NUMBER: IFA087F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 1 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 6 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+	+	+	
2	A	F	+			(b,*)
3	A	F	+	+	+	
4	A	M	+			(b,*)
5	A	M	+	+	+	
6	A	F	+			(b,*)
EC						
7	A	M	+	+	+	
8	A	F	+			(b,*)
9	A	F	+	+	+	
10	A	F	+			(b,c,*)
11	A	M	+	+	+	
12	A	M	+			(b,*)
13	A	F	+	+	(a)	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - ABDOMEN/THORAX: Umbilical artery arises from left side of urinary bladder
(b) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(c) - SKELETAL/VERTEBRAE (S1 Arch Anlage): Hypoplastic; Left
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 0 MG/M3
ANIMAL NUMBER: IFA109F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 2
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 3 MALFORMATIONS: 1

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	F	+	+	+	
E						
2	A	F	+			+(*)
3	A	M	+	+	+	
E						
4	A	M	+			+(*)
5	A	F	(A)	+	+	
6	A	M	(A)			+(*)
7	A	F	+	+	+	
8C	A	M	+			(b,c,*)
9	A	F	+	+	+	
10	A	F	+			(E,f,*)
11	A	M	+	+	+	
12	A	F	+			(d)

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(A) - EXTERNAL: Malrotated hind paw; Left
(b) - SKELETAL/RIBS (L1): Well-formed; Right
(c) - SKELETAL/RIBS (L1): Rudimentary; Left
(d) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(E) - SKELETAL/VERTEBRAE (L): One less presacral vertebrae
(f) - SKELETAL/VERTEBRAE (S1 Arch Anlage): Hypoplastic; Left
(*) - SKELETAL/HINDPAW (CC): Ossified, Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 0 MG/M3
ANIMAL NUMBER: IFA076F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 6 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+			(a,b,*)
E						
2	A	F	+	+	+	
3	A	M	+			(b,e,*)
4	A	M	+	+	+	
5C	A	F	+			+(*)
6	A	M	+	+	+	
7	A	M	+			(b,f,*)
8	A	M	+	+	+	
9	A	M	+			(b,*)
10	A	F	+	+	+	
11	A	F	+			(c,*)
12	A	F	+	+	+	
13	A	F	+			(d,f,*)

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/SKULL (Supraoccipital): Hypoplastic
(b) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(c) - SKELETAL/RIBS (L1): Rudimentary; Left
(d) - SKELETAL/RIBS (L1): Well-formed; Left
(e) - SKELETAL/STERNEBRAE (I): Hypoplastic
(f) - SKELETAL/STERNEBRAE (Between V and VI): Extra unstructured ossification site
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 0 MG/M3
ANIMAL NUMBER: IFA112F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 6 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+			(a,b,*)
2	A	F	+	+	+	
3	A	F	+			(c,*)
4	A	M	+	+	+	
5	A	F	+			(c,*)
6	A	F	+	+	+	
7	A	M	+			(d,e,*)
8C	A	M	+	+	+	
9	A	F	+			(f,*)
10	A	M	+	+	+	
11	A	F	+			(c,*)
E						
12	A	M	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/RIBS (L1): Rudimentary; Left
(b) - SKELETAL/RIBS (L1 Anlage): Rudimentary; Right
(c) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(d) - SKELETAL/RIBS (L1): Well-formed; Left
(e) - SKELETAL/RIBS (L1): Rudimentary; Right
(f) - SKELETAL/STERNEBRAE (IV): Asymmetric form
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 0 MG/M3
ANIMAL NUMBER: IFA117F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 7 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+	+	+	
2	A	M	+			(a,b,*)
3	A	F	+	+	+	
4	A	M	+			(c,*)
5	A	F	+	+	+	
6	A	M	+			(c,*)
7	A	M	+	+	+	
8C	A	M	+			(c)
9	A	F	+	+	+	
10	A	F	+			(c,*)
11	A	F	+	+	+	
12	A	M	+			(c,*)
13	A	F	+	+	+	
14	A	M	+			(c,*)

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/RIBS (L1): Well-formed; Left
(b) - SKELETAL/RIBS (L1): Rudimentary; Right
(c) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 0 MG/M3
ANIMAL NUMBER: IFA121F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 2 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	F	+	+	+	
2	A	M	+			+
3	A	M	+	+	+	
4C	A	F	+			(a,*)
5	A	F	+	+	+	
6	A	F	+			+(**)
E						
7	A	F	+	+	+	
8	A	M	+			+
9	A	M	+	+	+	
10	A	M	+			(b,***)
11	A	F	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(b) - SKELETAL/SKULL (Tympanics): Unossified; Left
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral
(**) - SKELETAL/HINDPAW (CC): Ossified; Right
(***) - SKELETAL/HINDPAW (CC): Ossified; Left

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 0 MG/M3
ANIMAL NUMBER: IFA103F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 3 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	F	+	+	+	
2	A	M	+			(a,*)
3	A	M	+	+	+	
4	A	M	+			(a,*)
5C	A	F	+	+	+	
6	A	F	+			+(*)
7	A	F	+	+	+	
E						
8	A	M	+			(a,*)
9	A	M	+	+	+	
10	A	M	+			+(*)
11	A	F	+	+	+	
12	A	M	+			+(*)
13	A	M	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 0 MG/M3
ANIMAL NUMBER: IFA085F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 2 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+	+	(*)	
2	A	M	+			+
3	A	M	+	+	+	
4	A	F	+			+
5	A	F	+	+	+	
6	A	M	+			+
7	A	M	+	+	+	
8	A	M	+			+
9C	A	F	+	+	+	
10	A	M	+			(b,c)
11	A	F	+	+	+	
12	A	M	+			+
13	A	M	+	+	+	
14	A	M	+			(d)
15	A	M	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(*) - ABDOMEN/THORAX: Liver discolored; Right lobe
(b) - SKELETAL/RIBS (L1): Well-formed; Left
(c) - SKELETAL/RIBS (L1): Rudimentary; Right
(d) - SKELETAL/RIBS (L1): Rudimentary; Left

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 2000 MG/M3
ANIMAL NUMBER: IFA019F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 2 MALFORMATIONS: 1

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	F	+	+	+	
2	A	F	+			(a,B,*)
3	A	F	+	+	+	
4	A	F	+			+
5	A	M	+	+	+	
6	A	M	+			+
7	A	M	+	+	+	
8	A	F	+			(c,d,e,**)
9	A	M	+	+	+	
10	A	M	+			+(*)
11C	A	M	+	+	+	
12	A	M	+			+(**)
13	A	F	+	+	+	
14	A	M	+			+(*)

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/VERTEBRAE (S1 Arch Anlage): Hypoplastic; Left
(B) - SKELETAL/VERTEBRAE (L): One less presacral vertebrae
(c) - SKELETAL/VERTEBRAE (T3-8 Anlage): Hypoplastic centra
(d) - SKELETAL/RIBS (L1): Rudimentary; Left
(e) - SKELETAL/STERNEBRAE (III,IV): Asymmetric form
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral
(**) - SKELETSL/HINDPAW (CC): Ossified; Right

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 2000 MG/M3
ANIMAL NUMBER: IFA043F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 0 MALFORMATIONS: 0

FETUS NO. *	STATUS	SEX	EXTERNAL	VISCERAL		SKELETAL
				HEAD	ABDOMEN/THORAX	
1		F				
2		M				
3		F				
4		F				
5		F				
6		F				
7		M				
8		F				
9		M				
10		F				
11		F				
12		M				

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE: Animal delivered prior to C-section, fetus numbers arbitrarily assigned
* - Location of cervix inadvertently not recorded

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 2000 MG/M3
ANIMAL NUMBER: IFA010F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 7 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+			(a,*)
2	A	M	+	+	+	
E						
3	A	F	+			(b)
4	A	M	+	+	+	
5	A	M	+			(b,*)
6C	A	M	+	+	+	
7	A	M	+			+(*)
8	A	M	+	+	+	
9	A	M	+			(c,d,*)
10	A	M	+	+	+	
11	A	F	+			(b,*)
12	A	M	+	+	+	
13	A	M	+			(b)
14	A	M	+	+	+	
15	A	M	+			(c,*)

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/RIBS (L1): Rudimentary; Right
(b) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(c) - SKELETAL/RIBS (L1): Well-formed; Right
(d) - SKELETAL/RIBS (L1): Rudimentary; Left
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 2000 MG/M3
ANIMAL NUMBER: IFA013F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 1
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 4 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	F	+	+	+	
2	A	M	(A)			+
3	A	M	+	+	+	
4	A	M	+			(b,c,*)
LC						
5	A	F	+	+	+	
6	A	F	+			+(*)
7	A	F	+	+	+	
8	A	M	+			(d,**)
9	A	M	+	+	+	
10	A	F	+			(e)
11	A	M	+	+	+	
12	A	F	+			(c,*)

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(A) - EXTERNAL: Malrotated hind paw; Left
(b) - SKELETAL/RIBS (L1): Well-formed; Left
(c) - SKELETAL/RIBS (L1): Rudimentary; Right
(d) - SKELETAL/RIBS (L1): Rudimentary; Bilateral
(e) - SKELETAL/RIBS (L1 Anlage): Rudimentary; Bilateral
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral
(**) - SKELETAL/HINDPAW (CC): Ossified; Right

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 2000 MG/M3
ANIMAL NUMBER: IFA016F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 1
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 1
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 2 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	F	+			+(**)
2	A	F	+	+	+	
3	D	M	(A)	(*)	(B,C)	
4	A	F	+	+	+	
5	A	M	+			+(***)
6	A	M	+	+	+	
7	A	M	+			+
8C	A	M	+	+	+	
9	A	F	+			(d,***)
E						
10	A	F	+	+	+	
11	A	F	+			+
12	A	M	+	+	+	
13	A	F	+			(e)
14	A	M	+	+	+	
15	A	F	+			+(***)

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(*) - Head inadvertently not saved for evaluation.
(A) - EXTERNAL: Ectopia cordis
(B) - ABDOMEN/THORAX: Enlarged atria chamber; Right
(C) - ABDOMEN/THORAX: Pulmonary trunk aorta elongated
(d) - SKELETAL/RIBS (L1): Rudimentary; Right
(e) - SKELETAL/RIBS (L1): Rudimentary; Left
(**) - SKELETAL/HINDPAW (CC): Ossified; Left
(***) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 2000 MG/M3
ANIMAL NUMBER: IFA022F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 3 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	F	+			+(*)
2	A	F	+	+	+	
3	A	M	+			+(*)
4	A	F	+	+	+	
5	A	F	+			(a,e,*)
6C	A	F	+	+	+	
7	A	M	+			+(*)
8	A	M	+	+	+	
9	A	F	+			(b,d,*)
10	A	F	+	+	+	
11	A	M	+			+(*)
12	A	F	+	+	+	
13	A	M	+			(c,*)
14	A	F	+	+	+	
15	A	F	+			+(*)

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/RIBS (T14): Well-formed; Bilateral
(b) - SKELETAL/RIBS (L1): Well-formed; Left
(c) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(d) - SKELETAL/STERNEBRAE (Between V and VI): Extra unstructured ossification site
(e) - SKELETAL/VERTEBRAE (T14): Extra presacral
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 2000 MG/M3
ANIMAL NUMBER: IFA060F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 3 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	F	+			(a,*)
2	A	M	+	+	+	
3	A	M	+			(b,*)
4	A	F	+	+	+	
5	A	F	+			+
6C	A	M	+	+	+	
7	A	M	+			(c)
8	A	M	+	+	+	
9	A	F	+			+(*)
10	A	F	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/SKULL (Squamosal Process): Hypoplastic; Right
(b) - SKELETAL/RIBS (L1): Rudimentary; Bilateral
(c) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 2000 MG/M3
ANIMAL NUMBER: IFA068F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 3 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+			(a,*)
2	A	M	+	+	+	
3C	A	F	+			(a,*)
4	A	M	+	+	+	
E						
5	A	F	+			(b)

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(b) - SKELETAL/STERNEBRAE (VI): Hypoplastic
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 2000 MG/M3
ANIMAL NUMBER: IFA070F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 5 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	F	+			+
2	A	M	+	+	+	
3	A	F	+			(a,*)
4	A	M	+	+	+	
5	A	M	+			(a,*)
6	A	M	+	+	+	
7C	A	F	+			(a,*)
8	A	F	+	+	+	
9	A	M	+			+
10	A	F	+	+	+	
11	A	M	+			(b)
12	A	M	+	+	+	
13	A	M	+			(a,*)

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(b) - SKELETAL/RIBS (L1): Rudimentary; Bilateral
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 2000 MG/M3
ANIMAL NUMBER: IFA036F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 1 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 4 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	F	+			+(*)
2	A	F	+	+	+	
3	A	M	+			(b,*)
4	A	F	+	+	(a)	
5	A	F	+			(e,*)
6	A	M	+	+	+	
7	A	F	+			+
8	A	F	+	+	+	
9	A	M	+			+(*)
10C	A	F	+	+	+	
11	A	F	+			+(*)
12	A	F	+	+	+	
13	A	F	+			(c,*)
14	A	F	+	+	+	
15	A	M	+			(d,*)
16	A	F	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - ABDOMEN/THORAX: Umbilical artery arises from left side of urinary bladder
(b) - SKELETAL/RIBS (L1): Rudimentary; Left
(c) - SKELETAL/RIBS (L1): Well-formed; Left
(d) - SKELETAL/RIBS (L1): Rudimentary; Bilateral
(e) - SKELETAL/SKULL (Suproccipital): Hypoplastic
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 2000 MG/M3
ANIMAL NUMBER: IFA004F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 1 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+			(a,*)
2	A	F	+	+	+	
3	A	M	+			+(*)
4	A	M	+	+	+	
5	A	M	+			+(*)
6C	A	M	+	+	+	
7	A	F	+			+(*)
8	A	F	+	+	+	
9	A	M	+			+(*)
10	A	M	+	+	+	
11	A	F	+			+(*)
12	A	M	+	+	+	
13	A	M	+			+(*)
14	A	M	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 2000 MG/M3
ANIMAL NUMBER: IFA089F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 6 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	F	+	+	+	
2	A	F	+			(a,b,e,*)
3	A	M	+	+	+	
4	A	M	+			(c,*)
L						
5C	A	F	+	+	+	
6	A	F	+			(d,*)
7	A	M	+	+	+	
8	A	M	+			(c,*)
9	A	M	+	+	+	
10	A	F	+			(a,c,*)
11	A	M	+	+	+	
12	A	M	+			(c,*)

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/STERNEBRAE (Between V and VI): Extra unstructured ossification site
(b) - SKELETAL/RIBS (T14): Well-formed; Bilateral
(c) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(d) - SKELETAL/RIBS (L1): Well-formed; Right
(e) - SKELETAL/VERTEBRAE (T14): Extra presacral
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 2000 MG/M3
ANIMAL NUMBER: IFA053F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 6 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	F	+	+	+	
2	A	M	+			(a,f,*)
3	A	F	+	+	+	
4	A	M	+			(a,*)
5	A	F	+	+	+	
6	A	M	+			(a,*)
7C	A	M	+	+	+	
8	A	M	+			(a,e)
9	A	F	+	+	+	
10	A	M	+			(a,*)
11	A	M	+	+	+	
12	A	F	+			(b,c,d,*)

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(b) - SKELETAL/RIBS (T14): Well-formed; Bilateral
(c) - SKELETAL/STERNEBRAE (Between V and VI): Extra unstructured ossification site
(d) - SKELETAL/VERTEBRAE (T14): Extra presacral
(e) - SKELETAL/FOREPAW (DP1): Unossified; Left
(f) - SKELETAL/HINDPAW (DP5): unossified; Left
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 2000 MG/M3
ANIMAL NUMBER: IFA028F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 1 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	F	+			+(*)
2	A	M	+	+	+	
3	A	F	+			+(*)
4	A	F	+	+	+	
5	A	M	+			+(*)
6	A	M	+	+	+	
7C	A	F	+			+(*)
8	A	F	+	+	+	
9	A	F	+			(a,b,c,*)
10	A	F	+	+	+	
11	A	F	+			+(*)
12	A	M	+	+	+	
13	A	M	+			+(*)
14	A	M	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/SKULL (Interparietal): Hypoplastic
(b) - SKELETAL/RIBS (L1): Well-formed; Left
(c) - SKELETAL/RIBS (L1): Rudimentary; Right
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TAREGT DOSE: 2000 MG/M3
ANIMAL NUMBER: IFA097F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 1
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 6 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	F	+	+	+	
2	A	F	+			(c,*)
3	A	M	(A)	+	+	
4	A	M	+			(b,d,*)
5	A	F	+	+	+	
6	A	M	+			(d)
7C	A	F	+	+	+	
8	A	M	+			(b,d,*)
9	A	M	+	+	+	
10	A	F	+			(d,*)
11	A	F	+	+	+	
12	A	M	+			(b,d,*)

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(A) - EXTERNAL: Malrotated hind paw; Right
(b) - SKELETAL/SKULL (Supraoccipital): Hypoplastic
(c) - SKELETAL/RIBS (L1): Rudimentary; Left
(d) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 2000 MG/M3
ANIMAL NUMBER: IFA099F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 2 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	F	+	+	+	
2	A	F	+			(a)
3	A	F	+	+	+	
4	A	M	+			+(*)
5	A	M	+	+	+	
6	A	M	+			(b,*)
7	A	M	+	+	+	
8C	A	F	+			+(*)
9	A	M	+	+	+	
10	A	F	+			+(*)
11	A	F	+	+	+	
12	A	F	+			+
13	A	M	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/RIBS (L1): Rudimentary; Left
(b) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 2000 MG/M3
ANIMAL NUMBER: IFA100F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 3 MALFORMATIONS: 3

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+			(A,*)
2	A	M	+	+	+	
3	A	M	+			(B,c,*)
4C	A	M	+	+	+	
5	A	M	+			(B,d,*)
6	A	M	+	+	+	
7	A	M	+			(d)
8	A	F	+	+	+	
9	A	M	+			+
10	A	M	+	+	+	
11	A	M	+			+(*)
12	A	M	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(A) - SKELETAL/RIBS (T1 Anlage, T2 Anlage): Fused; Right
(B) - SKELETAL/RIBS (T1 Anlage, T2 Anlage): Fused; Bilateral (Both ribs T1 and T2 attach to sternum where T1 would attach normally. All remaining ribs that attach to the sternum attach at one position above normal.)
(c) - SKELETAL/RIBS (L1): Well-formed; Left
(d) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 2000 MG/M3
ANIMAL NUMBER: IFA093F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 3 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	F	+	+	+	
2	A	F	+			(a)
3	A	M	+	+	+	
4	A	F	+			+
5	A	M	+	+	+	
6	A	M	+			+(*)
7C	A	M	+	+	+	
8	A	F	+			+(*)
9	A	M	+	+	+	
10	A	M	+			(a,b)
11	A	F	+	+	+	
12	A	M	+			(c,d)

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/RIBS (L1): Rudimentary; Right
(b) - SKELETAL/RIBS (L1): Well-formed; Left
(c) - SKELETAL/RIBS (L1): Rudimentary; Left
(d) - SKELETAL/RIBS (L1 Anlage): Rudimentary; Right
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 2000 MG/M3
ANIMAL NUMBER: IFA110F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 6 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	F	+			(b,**)
2	A	M	+	+	+	
3	A	F	(*)			(b,**)
4	A	F	+	+	+	
E						
5C	A	F	+			(c,**)
E						
6	A	F	+	+	+	
7	A	F	+			(c,**)
8	A	M	+	+	+	
9	A	F	+			(d,e)
10	A	F	+	+	+	
11	A	F	+			(b,**)

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(*) - EXTERNAL: Hematoma trunk
(b) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(c) - SKELETAL/RIBS (L1): Rudimentary; Bilateral
(d) - SKELETAL/RIBS (T14): Well-formed; Bilateral
(e) - SKELETAL/VERTEBRAE (T14): Extra presacral
(**) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 2000 MG/M3
ANIMAL NUMBER: IFA119F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 2 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	F	+	+	+	
2	A	F	+			(a,*)
3	A	M	+	+	+	
4	A	F	+			+
5	A	M	+	+	+	
6C	A	F	+			+(*)
7	A	M	+	+	+	
8	A	M	+			+(**)
9	A	F	+	+	+	
10	A	M	+			+
11	A	F	+	+	+	
12	A	M	+			(a)
13	A	M	+	+	+	
14	A	F	+			+

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/RIBS (L1): Rudimentary; Left
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral
(**) - SKELETAL/HINDPAW (CC): Ossified; Right

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 2000 MG/M3
ANIMAL NUMBER: IFA122F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 5 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
E						
1	A	M	+			(a)
2	A	F	+	+	+	
3	A	F	+			(c,*)
E						
4	A	F	+	+	+	
5C	A	M	+			(a,b,*)
6	A	M	+	+	+	
7	A	M	+			(d,*)
8	A	M	+	+	+	
9	A	M	+			(a,b,*)
10	A	F	+	+	+	
E						
11	A	F	+			+(*)
E						
12	A	M	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/RIBS (L1): Rudimentary; Right
(b) - SKELETAL/RIBS (L1): Well-formed; Left
(c) - SKELETAL/RIBS (L1): Rudimentary; Left
(d) - SKELETAL/RIBS (L1): Rudimentary; Bilateral
(*) - SKELETAL/HINDPAWS (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 10000 MG/M3
ANIMAL NUMBER: IFA040F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 5 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+			+(*)
2	A	M	+	+	+	
3	A	F	+			(a,*)
4	A	F	+	+	+	
5	A	M	+			+(*)
6	A	F	+	+	+	
7C	A	F	+			(b,e,f,*)
8	A	M	+	+	+	
9	A	M	+			(d,*)
10	A	F	+	+	+	
11	A	M	+			(c,g,*)
12	A	M	+	+	+	
13	A	F	+			+(*)
14	A	M	+	+	+	
15	A	M	+			(b,*)

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/SKULL (Squamosal Process): Hypoplastic; Right
(b) - SKELETAL/SKULL (Squamosal): Hypoplastic; Left
(c) - SKELETAL/SKULL (Squamosal Process): Hypoplastic; Bilateral
(d) - SKELETAL/STERNEBRAE (Between V and VI): Extra unstructured ossification site
(e) - SKELETAL/RIBS (L1): Well-formed; Right
(f) - SKELETAL/RIBS (L1): Rudimentary; Left
(g) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 10000 MG/M3
ANIMAL NUMBER: IFA001F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 1
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 2 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+	+	+	
E						
2	A	M	+			+
3	A	F	+	+	+	
4	A	M	+			+
5	A	F	+	+	+	
6	A	M	+			(d)
7	A	F	+	+	(A,B,C)	
8	A	F	+			+
9	A	M	+	+	+	
10C	A	M	+			+
11	A	F	+	+	+	
12	A	F	+			(e,*)
13	A	F	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(A) - ABDOMEN/THORAX: Ovaries malpositioned
(B) - ABDOMEN/THORAX: Kidneys malpositioned
(C) - ABDOMEN/THORAX: Adrenal glands malpositioned
(d) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(e) - SKELETAL/RIBS (L1): Rudimentary; Right
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 10000 MG/M3
ANIMAL NUMBER: IFA041F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 2 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	F	+	+	+	
2	A	F	+			+(*)
E						
3	A	F	+	+	+	
4	A	F	+			+(*)
E						
5C	A	M	+	+	+	
6	A	M	+			+(*)
7	A	M	+	+	+	
8	A	F	+			(a,b)
9	A	M	+	+	+	
10	A	M	+			(c)

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/STERNEBRAE (Between V and VI): Extra unstructured ossification site
(b) - SKELETAL/RIBS (L1): Rudimentary; Bilateral
(c) - SKELETAL/RIBS (L1 Anlage): Rudimentary; Right
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 10000 MG/M3
ANIMAL NUMBER: IFA045F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 1
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 1 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	F	(A)	+	+	
2	A	M	+			+(*)
3	A	M	+	+	+	
4	A	M	+			+(*)
5	A	F	+	+	+	
6	A	M	+			(b)
E						
E						
7C	A	M	+	+	+	
8	A	F	+			+(*)
9	A	M	+	+	+	
10	A	F	+			+(*)
11	A	F	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(A) - EXTERNAL: Malrotated hind paw; Right
(b) - SKELETAL/RIBS (L1): Rudimentary; Bilateral
(*) - SKELETAL/HINDPAWS (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TAREGT DOSE: 10000 MG/M3
ANIMAL NUMBER: IFA048F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 1
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 1 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 2 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+			+(*)
2	A	M	+	+	+	
3	A	F	(A)			+(*)
4	A	M	+	+	+	
5	A	M	+			(c,*)
6	A	M	+	+	+	
7	A	F	+			+(*)
8	A	M	+	+	(b)	
9C	A	F	+			+(*)
10	A	F	+	+	+	
11	A	F	+			+
12	A	F	+	+	+	
13	A	M	+			+(*)
14	A	M	+	+	+	
15	A	M	+			(d,*)
16	A	F	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(A) - EXTERNAL: Malrotated hind paw; Right
(b) - ABDOMEN/THORAX: Umbilical artery arises from left side of urinary bladder
(c) - SKELETAL/RIBS (L1): Rudimentary; Left
(d) - SKELETAL/VERTEBRAE (T3-5 Arch Anlage): Hypoplastic
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 10000 MG/M3
ANIMAL NUMBER: IFA049F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 1 MALFORMATIONS: 1

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+	+	+	
2	A	F	+			+(*)
3	A	F	+	+	+	
4	A	F	+			+(*)
5	A	M	+	+	+	
6C	A	F	+			+(*)
7	A	M	+	+	+	
8	A	F	+			(a,*)
9	A	F	+	+	+	
10	A	M	+			(B,*)
11	A	M	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/VERTEBRAE (S1 Arch Anlage): Hypoplastic; Left
(B) - SKELETAL/RIBS (T1 Anlage, T2 Anlage): Fused; Bilateral
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 10000 MG/M3
ANIMAL NUMBER: IFA020F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 1
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 4 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	F	+			(b,c,*)
2	A	F	+	+	+	
E						
3	A	M	+			(d,*)
4	A	F	+	+	+	
5	D	F	+			
6	A	F	+	+	+	
7C	A	F	(A)			+(*)
8	A	M	+	+	+	
9	A	F	+			(d,*)
10	A	F	+	+	+	
11	A	M	+			(c,*)
12	A	F	+	+	+	
13	A	M	+			+(*)
14	A	M	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(A) - EXTERNAL: Malrotated hind paw; Left
(b) - SKELETAL/RIBS (L1): Well-formed; Right
(c) - SKELETAL/RIBS (L1): Rudimentary; Left
(d) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 10000 MG/M3
ANIMAL NUMBER: IFA037F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 3
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 5 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	(A)	+	+	
2	A	F	+			+(**)
3	A	M	+	+	+	
4	A	F	+			(e,**)
5	A	F	+	+	+	
6	A	F	+			(f,**)
7C	A	F	+	+	+	
8	A	F	+			+(**)
9	A	F	+	+	+	
10	A	M	+			(g,**)
11	A	M	+	+	+	
12	A	M	+			(h,**)
13	D	F	(A)	+	+	
14	A	F	+			+(**)
15	D	F	(A,B,C)	+	(*)	
16	A	M	+			(h,**)
17	A	F	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(A) - EXTERNAL: Malrotated hind paw; Left
(B) - EXTERNAL: Microstomia
(C) - EXTERNAL: Misshapen nose (Broad)
(*) - ABDOMEN/THORAX: Abdominal cavity filled with thin clear liquid
(e) - SKELETAL/RIBS (L1): Well-formed; Left
(f) - SKELETAL/RIBS (L1): Rudimentary; Right
(g) - SKELETAL/RIBS (L1): Rudimentary; Left
(h) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(**) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 10000 MG/M3
ANIMAL NUMBER: IFA002F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 1
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 5 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+	+	+	
2	A	M	+			+
3	A	M	+	+	+	
4	A	F	+			(e)
5	A	F	+	+	+	
6	A	M	+			+
7	A	F	+	+	+	
8	A	M	+			(f)
9	A	F	+	+	+	
10C	A	M	+			(g)
11	A	M	+	+	+	
12	A	M	+			(h)
13	D	M	(A,B,C,D,*)			
14	A	F	+			(f)
15	A	F	+	+	+	
16	A	F	+			+

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(*) - EXTERNAL: All limbs pale
(A) - EXTERNAL: Malrotated hind paw; Right
(B) - EXTERNAL: Anasarca
(C) - EXTERNAL: Micromelia; Right hindpaw
(D) - EXTERNAL: Syndactyly; Right hindpaw
(e) - SKELETAL/RIBS (L1): Well-formed; Right
(f) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(g) - SKELETAL/RIBS (L1): Rudimentary; Bilateral
(h) - SKELETAL/RIBS (L1): Rudimentary; Right

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 10000 MG/M3
ANIMAL NUMBER: IFA062F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 0 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	F	+			+(*)
2	A	F	+	+	+	
3	A	M	+			+(*)
4	A	F	+	+	+	
5	A	M	+			+(*)
6	A	M	+	+	+	
7C	A	F	+			+
8	A	F	+	+	+	
9	A	M	+			+(*)
10	A	M	+	+	+	
11	A	F	+			+(*)
12	A	M	+	+	+	
13	A	M	+			+

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 10000 MG/M3
ANIMAL NUMBER: IFA015F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 1 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+	+	+	
2	A	F	+			+(*)
3C	A	F	+	+	+	
4	A	F	+			+(*)
E						
5	A	F	+	+	+	
6	A	F	+			+(*)
7	A	M	+	+	+	
8	A	M	+			(a,*)
9	A	F	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/RIBS (L1): Rudimentary; Bilateral
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 10000 MG/M3
ANIMAL NUMBER: IFA047F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 1
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 2 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1*	A	M	+	+	+	
2*	A	F	+			(b,c,d,e,f)
3C*	A	M	+	+	(A)	
4*	A	F	+			(b,e)
5*	A	F	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
* - Stunted
(A) - ABDOMEN/THORAX: Kidney malpositioned, flaccid; Bilateral
(b) - SKELETAL/SKULL: Multiple bones hypoplastic
(c) - SKELETAL/FOREPAW (MC 1,2): Unossified; Right
(d) - SKELETAL/FOREPAW (PP 1,2): Unossified; Right
(e) - SKELETAL/STERNEBRAE: Multiple bones hypoplastic
(f) - SKELETAL/HINDPAW (MT 5): Hypoplastic; Right

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 10000 MG/M3
ANIMAL NUMBER: IFA052F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 1 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	F	+			+(*)
2	A	F	+	+	+	
3	A	M	+			+(*)
4	A	M	+	+	+	
5	A	F	+			(a,*)
6	A	F	+	+	+	
E						
7C	A	F	+			+(*)
8	A	F	+	+	+	
9	A	F	+			+
10	A	F	+	+	+	
11	A	M	+			+
12	A	M	+	+	+	
13	A	M	+			+(*)
14	A	F	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/SKULL (Squamosal Process): Hypoplastic; Right
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 10000 MG/M3
ANIMAL NUMBER: IFA080F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 1
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 4 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+			+(**)
2	A	M	+	+	+	
3	A	M	+			+(**)
4	A	F	+	+	+	
5	A	M	+			(b,**)
6	A	F	+	+	(*)	
7	A	F	+			(c,**)
8C	A	M	+	+	+	
9	A	M	+			+(**)
10	A	F	+	+	+	
11	A	F	(A)			(d,e,**)
12	A	F	+	+	+	
13	A	M	+			(b,f,g,**)
14	A	F	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(A) - EXTERNAL: Malrotated hind paw; Right
(*) - ABDOMEN/THORAX: Thymus mottled red, white
(b) - SKELETAL/RIBS (L1): Rudimentary; Right
(c) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(d) - SKELETAL/RIBS (L1): Well-formed; Right
(e) - SKELETAL/RIBS (L1): Rudimentary; Left
(f) - SKELETAL/RIBS (L1): Well-formed; Left
(g) - SKELETAL/STERNRBRAE (Between V and VI): Extra unstructured ossification site
(**) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 10000 MG/M3
ANIMAL NUMBER: IFA066F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 1
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 2 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+			+(*)
2	A	M	+	+	+	
E						
3	A	M	+			(b,*)
4C	A	F	+	+	+	
5	A	F	+			+(**)
E						
E						
6	A	F	+	+	+	
7	A	M	+			(b,*)
8	A	F	+	+	+	
9	A	F	(A)			+

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(A) - EXTERNAL: Malrotated hind paw; Right
(b) - SKELETAL/SKULL (Hyoid): Hypoplastic
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral
(**) - SKELETAL/HINDPAW (CC): Ossified; Left

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 10000 MG/M3
ANIMAL NUMBER: IFA084F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 3
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 2
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 2 MALFORMATIONS: 2

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	F	+			+
2	A	F	+	+	+	
3	A	F	(A)		(C,E)	(f)
4	A	M	+	+	+	
5	A	F	(B)		+	(G,h,i,J,K,M,N,O,P,*)
6	A	F	+	+	+	
7	A	F	+			+
8	A	F	(A)	+	(C,D)	
9	A	F	+			+(*)
10	A	F	+	+	+	
11	A	F	+			+(*)
12C	A	M	+	+	+	
13	A	F	+			(L,Q,R)
14	A	F	+	+	+	
15	A	F	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(A) - EXTERNAL: Ectopia cordis
(B) - EXTERNAL: Gastroschisis
(C) - ABDOMEN/THORAX: Aorta and pulmonary trunk elongated
(D) - ABDOMEN/THORAX: Right atria large, flaccid
(E) - ABDOMEN/THORAX: Narrowed pulmonary trunk
(f) - SKELETAL/STERNEBRAE (IV): Hypoplastic
(G) - SKELETAL/STERNEBRAE (II,III): Fused
(h) - SKELETAL/RIBS (L1): Well-formed; Right
(i) - SKELETAL/RIBS (L1): Rudimentary; Left
(J) - SKELETAL/RIBS (T1): Agenesis; Right
(K) - SKELETAL/RIBS (T4,T5): Fused; Right
(L) - SKELETAL/RIBS (T5): Agenesis; Right
(M) - SKELETAL/VERTEBRAE (CE7 Anlage): Malformed centra
(N) - SKELETAL/VERTEBRAE (T1 Anlage): Malformed centra
(O) - SKELETAL/VERTEBRAE (T1 Arch): Agenesis; Left
(P) - SKELETAL/VERTEBRAE (T3 Arch Anlage): Malformed
(Q) - SKELETAL/VERTEBRAE (T5 Anlage): Malformed centra
(R) - SKELETAL/VERTEBRAE (T5 Arch): Agenesis; Right
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 10000 MG/M3
ANIMAL NUMBER: IFA072F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 7 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+			(a,*)
2	A	M	+	+	+	
3	A	F	+			(a)
4	A	F	+	+	+	
E						
5	A	F	+			(a,*)
6	A	M	+	+	+	
7	A	M	+			(b)
8	A	M	+	+	+	
L						
9	A	F	+			(c,*)
10C	A	F	+	+	+	
E						
11	A	M	+			(a)
12	A	F	+	+	+	
13	A	F	+			(b,*)
14	A	M	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(b) - SKELETAL/RIBS (L1): Rudimentary; Bilateral
(c) - SKELETAL/RIBS (L1): Rudimentary; Left
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 10000 MG/M3
ANIMAL NUMBER: IFA081F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 2 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+	+	+	
2	A	F	+			(a,*)
3	A	M	+	+	+	
4	A	M	+			+(*)
5	A	M	+	+	+	
6	A	M	+			+(*)
7C	A	M	+	+	+	
8	A	F	+			(b,*)
9	A	M	+	+	+	
10	A	M	+			+(*)
11	A	M	+	+	+	
12	A	F	+			+(*)
13	A	M	+	+	**	
14	A	M	+			+

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
** - Visceral Abdomen/Thorax data not recorded due to oversight. Fetal sex not confirmed.
(a) - SKELETAL/RIBS (L1): Rudimentary; Bilateral
(b) - SKELETAL/RIBS (L1): Well-formed; Right
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 10000 MG/M3
ANIMAL NUMBER: IFA104F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 7 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	F	+			(c,d,*)
2	A	M	+	+	+	
3	A	F	+			(a,e,*)
4	A	M	+	+	+	
5	A	M	+			(a,b,e,*)
6	A	F	+	+	+	
7C	A	M	+			(b,e,*)
8	A	M	+	+	+	
9	A	F	+			(b,e,**)
10	A	M	+	+	+	
11	A	F	+			(e)
12	A	F	+	+	+	
13	A	F	+			(b,f,g)

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/SKULL (Squamosal Process): Hypoplastic; Bilateral
(b) - SKELETAL/STERNEBRAE (Between V and VI): Extra unstructured ossification site
(c) - SKELETAL/RIBS (L1): Rudimentary; Right
(d) - SKELETAL/RIBS (L1): Well-formed; Left
(e) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(f) - SKELETAL/RIBS (T14): Well-formed; Bilateral
(g) - SKELETAL/VERTEBRAE (T): Extra presacral
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral
(**) - SKELETAL/HINDPAW (CC): Ossified; Right

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 10000 MG/M3
ANIMAL NUMBER: IFA101F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 4 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+	+	+	
2	A	M	+			(a,*)
3	A	F	+	+	+	
4	A	M	+			(b,c,*)
5	A	M	+	+	+	
6	A	M	+			(d,*)
7C	A	M	+	+	+	
8	A	M	+			+(*)
9	A	F	+	+	+	
10	A	F	+			(d,*)
11	A	F	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/RIBS (L1): Rudimentary; Bilateral
(b) - SKELETAL/RIBS (L1): Well-formed; Left
(c) - SKELETAL/RIBS (L1): Rudimentary; Right
(d) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 10000 MG/M3
ANIMAL NUMBER: IFA108F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 0 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL		SKELETAL
				HEAD	ABDOMEN/THORAX	
1	A	M	+			+(*)
2C	A	M	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 10000 MG/M3
ANIMAL NUMBER: IFA113F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 6 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	F	+	+	+	
2C	A	F	+			(a,*)
3	A	F	+	+	+	
4	A	M	+			(b,c,*)
5	A	M	+	+	+	
6	A	M	+			(b,c,*)
7	A	M	+	+	+	
8	A	M	+			(a,*)
9	A	M	+	+	+	
10	A	F	+			(d,*)
11	A	M	+	+	+	
12	A	F	+			(a,*)

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(b) - SKELETAL/RIBS (L1): Well-formed; Left
(c) - SKELETAL/RIBS (L1): Rudimentary; Right
(d) - SKELETAL/RIBS (L1): Rudimentary; Bilateral
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 10000 MG/M3
ANIMAL NUMBER: IFA114F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 1 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	F	+			+(*)
2	A	F	+	+	+	
3	A	M	+			(a,*)
4	A	F	+	+	+	
5	A	F	+			+(**)
6	A	M	+	+	+	
7C	A	M	+			+(*)
8	A	F	+	+	+	
9	A	F	+			+(*)
10	A	F	+	+	+	
11	A	M	+			+(*)
12	A	M	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/RIBS (L1): Rudimentary; Left
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral
(**): SKELETAL/HINDPAW (CC): Ossified; Right

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 10000 MG/M3
ANIMAL NUMBER: IFA079F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 6 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+	+	+	
2	A	F	+			(a,b)
3	A	M	+	+	+	
4	A	M	+			(a)
E						
5	A	M	+	+	+	
6	A	F	+			(c,*)
7C	A	M	+	+	+	
8	A	F	+			+(*)
9	A	F	+	+	+	
10	A	F	+			(b,*)
11	A	M	+	+	+	
E						
12	A	M	+			(d,*)
13	A	F	+	+	+	
14	A	M	+			(b,*)

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/RIBS (L1): Well-formed; Left
(b) - SKELETAL/RIBS (L1): Rudimentary; Right
(c) - SKELETAL/RIBS (L1): Rudimentary; Bilateral
(d) - SKELETAL/RIBS (L1): Rudimentary; Left
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 10000 MG/M3
ANIMAL NUMBER: IFA092F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 2 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	F	+			+
2	A	M	+	+	+	
3	A	M	+			(a,*)
4	A	M	+	+	+	
5	A	M	+			+
6	A	F	+	+	+	
7C	A	F	+			+(*)
8	A	F	+	+	+	
9	A	M	+			(a)
10	A	M	+	+	+	
11	A	M	+			+
12	A	M	+	+	+	
13	A	F	+			+

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 20000 MG/M3
ANIMAL NUMBER: IFA003F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 2 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+	+	+	
2	A	F	+			+
3	A	M	+	+	+	
4	A	F	+			+(*)
5	A	M	+	+	+	
6C	A	F	+			(a,*)
7	A	M	+	+	+	
8	A	F	+			(b,*)
9	A	M	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/RIBS (L1): Rudimentary; Bilateral
(b) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 20000 MG/M3
ANIMAL NUMBER: IFA009F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 1 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 0 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+	+	+	
2	A	F	+			+(*)
3	A	F	+	+	+	
4	A	F	+			+(*)
5	A	F	+	+	+	
6C	A	M	+			+
7	A	M	+	+	+	
8	A	F	+			+(*)
9	A	F	+	+	(a)	
10	A	M	+			+(*)
11	A	M	+	+	+	
12	A	M	+			+(*)
13	A	M	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - ABDOMEN/THORAX: Umbilical artery arises from left side of urinary bladder
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 20000 MG/M3
ANIMAL NUMBER: IFA021F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 1 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+	+	+	
2	A	M	+			+(*)
3	A	F	+	+	+	
4	A	M	+			+(*)
5	A	F	+	+	+	
6C	A	M	+			(a,b)
7	A	M	+	+	+	
8	A	F	+			+(**)
9	A	F	+	+	+	
10	A	M	+			+(*)
11	A	F	+	+	+	
12	A	M	+			+(*)
13	A	M	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/RIBS (L1): Well-formed; Right
(b) - SKELETAL/RIBS (L1): Rudimentary; Left
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral
(**) - SKELETAL/HINDPAW (CC): Ossified; Right

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 20000 MG/M3
ANIMAL NUMBER: IFA031F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 1
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 1 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+	+	+	
2	A	M	+			(b,*)
3	A	M	+	+	+	
4	A	M	+			+
5	A	M	+	+	+	
6	A	F	+			+(*)
7C	A	F	+	+	+	
8	A	F	+			+
9	A	M	+	+	+	
10	A	F	+			+(*)
11	A	F	+	+	+	
12	A	F	(A)			+
13	A	F	+	+	+	
14	A	F	+			+

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(A) - EXTERNAL: Malrotated hind paw; Left
(b) - SKELETAL/RIBS (L1): Rudimentary; Bilateral
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 20000 MG/M3
ANIMAL NUMBER: IFA035F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 0 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	F	+	+	+	
2	A	M	+			+(*)
E						
3	A	F	+	+	+	
4	A	F	+			+(*)
5	A	F	+	+	+	
6	A	F	+			+(*)
7C	A	M	+	+	+	
8	A	F	+			+(*)
9	A	M	+	+	+	
10	A	F	+			+(*)
11	A	F	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 20000 MG/M3
ANIMAL NUMBER: IFA025F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 6 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+	+	+	
2	A	F	+			(c)
3	A	F	+	+	+	
4	A	M	+			(d,*)
5	A	M	+	+	+	
6	A	F	+			(c,*)
7	A	F	+	+	+	
8	A	F	+			+
L						
9C	A	F	+	+	+	
10	A	F	+			(a,b,*)
11	A	F	+	+	+	
12	A	F	+			(c,*)
13	A	M	+	+	+	
14	A	F	+			(e,*)

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/SKULL (Supraoccipital): Hypoplastic
(b) - SKELETAL/SKULL (Interparietal): Hypoplastic
(c) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(d) - SKELETAL/RIBS (L1): Rudimentary; Right
(e) - SKELETAL/RIBS (L1): Rudimentary; Bilateral
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 20000 MG/M3
ANIMAL NUMBER: IFA033F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 7 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+	+	+	
2	A	M	+			(a,d)
3	A	M	+	+	+	
4	A	M	+			(a,d)
5	A	M	+	+	+	
6	A	M	+			(b,c,d)
7C	A	F	+	+	+	
8	A	F	+			(d)
9	A	M	+	+	+	
10	A	M	+			(a,d)
11	A	F	+	+	+	
12	A	M	+			(a,d)
13	A	F	+	+	+	
14	A	F	+			(d)

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/STERNEBRAE (VI): Bifid
(b) - SKELETAL/STERNEBRAE (I): Hypoplastic
(c) - SKELETAL/STERNEBRAE (II-IV): Assymetric form
(d) - SKELETAL/RIBS (L1): Well-formed; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 20000 MG/M3
ANIMAL NUMBER: IFA005F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 0 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL		SKELETAL
				HEAD	ABDOMEN/THORAX	
1		F				
2*		M				
3*		M				
4*		M				
5C*		M				
6*		M				
7*		F				
8		F				
9		M				
10		F				
11		F				
12		F				
13		F				
14		F				
15		M				

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE: Delivery in progress, 6 pups delivered prior to C-section.
* - Fetus numbers arbitrarily assigned

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 20000 MG/M3
ANIMAL NUMBER: IFA063F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 4 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	F	+	+	+	
2	A	M	+			(b,g)
3	A	M	+	+	+	
L						
4C	A	M	+			(a,c,*)
5	A	M	+	+	+	
6	A	F	+			(d,*)
7	A	F	+	+	+	
8	A	F	+			(e,f,*)
9	A	F	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/STERNEBRAE (Between V and VI): Supernumerary
(b) - SKELETAL/RIBS (T14): Well-formed; Right
(c) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(d) - SKELETAL/RIBS (L1): Rudimentary; Bilateral
(e) - SKELETAL/RIBS (L1): Well-formed; Left
(f) - SKELETAL/RIBS (L1 Anlage): Rudimentary; Right
(g) - SKELETAL/VERTEBRAE (T14): Extra presacral
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 20000 MG/M3
ANIMAL NUMBER: IFA071F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 3 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	F	+	+	+	
2	A	F	+			(a,b,*)
3	A	F	+	+	+	
4	A	F	+			+(*)
5	A	F	+	+	+	
6	A	F	+			(c,*)
7C	A	M	+	+	+	
8	A	M	+			+(*)
9	A	M	+	+	+	
10	A	M	+			(a,b,*)
11	A	F	+	+	+	
12	A	M	+			+(*)
13	A	M	+	+	+	
14	A	F	+			+

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE: Fetus numbers 8, 10, and 12, found with identification tags detached, numbers arbitrarily assigned for skeletal exams
(a) - SKELETAL/RIBS (L1): Well-formed; Left
(b) - SKELETAL/RIBS (L1): Rudimentary; Right
(c) - SKELETAL/RIBS (L1): Well-formed; Right
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 20000 MG/M3
ANIMAL NUMBER: IFA026F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 3 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+			+(*)
2	A	M	+	+	+	
3	A	M	+			(a,b,*)
E						
4	A	F	+	+	+	
5	A	M	+			+(*)
6	A	F	+	+	+	
7C	A	F	+			+(**)
8	A	M	+	+	+	
9	A	F	+			(c)
10	A	M	+	+	+	
11	A	M	+			(d,*)
12	A	F	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/RIBS (L1): Well-formed; Left
(b) - SKELETAL/RIBS (L1): Rudimentary; Right
(c) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(d) - SKELETAL/STERNEBRAE (Between V and VI): Extra unstructured ossification site
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral
(**) - SKELETAL/HINDPAW (CC): Ossified; Right

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 20000 MG/M3
ANIMAL NUMBER: IFA042F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 1
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 4 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+			+(*)
2	A	F	+	+	+	
3	A	F	+			+
E						
4	A	F	+	+	+	
5	A	F	+			+
6	A	M	+	+	+	
7	A	F	+			+
8C	A	M	+	+	+	
9	A	M	+			(b,f)
10	A	F	+	+	+	
11	A	F	+			(c,d,e)
12	A	F	+	+	+	
13	A	M	(A)			+
14	A	F	+	+	+	
15	A	F	+			(c)
16	A	M	+	+	+	
17	A	F	+			(c)

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(A) - EXTERNAL: Malrotated hind paw; Right
(b) - SKELETAL/RIBS (L1): Rudimentary; Bilateral
(c) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(d) - SKELETAL/STERNEBRAE (II): Asymmetric form
(e) - SKELETAL/STERNEBRAE (III,IV): Asymmetric form
(f) - SKELETAL/HINDPAW (DP): Unossified
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 20000 MG/M3
ANIMAL NUMBER: IFA012F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 4 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+			(a,*)
2	A	M	+	+	+	
3	A	M	+			(b)
4	A	M	+	+	+	
5C	A	F	+			+(*)
6	A	M	+	+	+	
7	A	F	+			(b)
8	A	M	+	+	+	
E						
9	A	F	+			+
10	A	M	+	+	+	
11	A	F	+			(a)
12	A	F	+	+	+	
13	A	F	+			+(*)

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/RIBS (L1): Rudimentary; Left
(b) - SKELETAL/RIBS (L1): Rudimentary; Bilateral
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 20000 MG/M3
ANIMAL NUMBER: IFA029F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 5 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+	+	+	
2	A	F	+			(a,b,*)
3	A	M	+	+	+	
4	A	F	+			(a,c,*)
5C	A	M	+	+	+	
6	A	F	+			(d,e,*)
7	A	M	+	+	+	
8	A	F	+			(f,*)
9	A	F	+	+	+	
10	A	M	+			(f,*)
11	A	M	+	+	+	
12	A	F	+			+

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/RIBS (L1): Well-formed; Left
(b) - SKELETAL/RIBS (L1): Rudimentary; Right
(c) - SKELETAL/RIBS (L1 Anlage): Rudimentary; Right
(d) - SKELETAL/RIBS (L1): Well-formed; Right
(e) - SKELETAL/RIBS (L1): Rudimentary; Left
(f) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 20000 MG/M3
ANIMAL NUMBER: IFA056F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 1
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 5 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+			(c)
2	A	F	+	+	+	
3	A	F	(A)			(d,e)
4	A	M	+	+	+	
5	A	M	+			(b)
6	A	F	+	+	+	
7	A	M	+			(f)
8	A	M	+	+	+	
9	A	M	+			(f)
10C	A	F	+	+	+	
11	A	M	+			+
12	A	F	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(A) - EXTERNAL: Malrotated hind paw; Left
(b) - SKELETAL/STERNEBRAE (VI): Hypoplastic
(c) - SKELETAL/RIBS (L1): Rudimentary; Bilateral
(d) - SKELETAL/RIBS (L1): Well-formed; Left
(e) - SKELETAL/RIBS (L1): Rudimentary; Right
(f) - SKELETAL/RIBS (L1): Well-formed; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 20000 MG/M3
ANIMAL NUMBER: IFA077F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 0 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+	+	+	
2	A	M	+			+
L						
3	A	F	+	+	+	
4	A	F	+			+(*)
5C	A	M	+	+	+	
6	A	F	+			+(*)
7	A	F	+	+	+	
8	A	M	+			+(*)
9	A	F	+	+	+	
10	A	M	+			+(*)
11	A	F	+	+	+	

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 20000 MG/M3
ANIMAL NUMBER: IFA091F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 5 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+	+	+	
2	A	M	+			(a,*)
3	A	M	+	+	+	
4	A	M	+			(b,c,*)
5C	A	F	+	+	+	
6	A	M	+			(d,*)
E						
7	A	M	+	+	+	
8	A	M	+			(e,g,**)
9	A	M	+	+	+	
10	A	M	+			+(**)
11	A	M	+	+	+	
12	A	M	+			(f,*)

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/RIBS (L1): Rudimentary; Bilateral
(b) - SKELETAL/RIBS (L1): Well-formed; Right
(c) - SKELETAL/RIBS (L1 Anlage): Rudimentary; Left
(d) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(e) - SKELETAL/RIBS (T14): Well-formed; Bilateral
(f) - SKELETAL/RIBS (L1): Rudimentary; Right
(g) - SKELETAL/VERTEBRAE (T14): Extra presacral
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral
(**) - SKELETAL/HINDPAW (CC): Ossified; Right

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 20000 MG/M3
ANIMAL NUMBER: IFA078F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 0 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL		SKELETAL
				HEAD	ABDOMEN/THORAX	
1		F				
2		M				
3		F				
4		F				
5		M				
6		F				
EC						
7		F				
8		F				
9		M				
10		M				
11		M				
12		F				
13 *						

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE: Delivery in progress, 1 pup delivered prior to C-section.
* - Cannibalized, sex undeterminable

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 20000 MG/M3
ANIMAL NUMBER: IFA107F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 1
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 7 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	F	+	+	+	
2	A	F	+			(c,*)
3	A	F	(A)	+	+	
4	A	M	+			(c)
5	A	M	+	+	+	
6	A	M	+			(c,*)
7	A	F	+	+	+	
8C	A	F	+			(c,**)
9	A	M	+	+	+	
10	A	M	+			(b,c)
11	A	M	+	+	+	
12	A	M	+			(c,*)
13	A	F	+	+	+	
14	A	M	+			(c,**)

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(A) - EXTERNAL: Malrotated hind paw; Left
(b) - SKELETAL/STERNEBRAE (Between V and VI): Unstructured ossification site
(c) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(*) - SKELETAL/HINDPAW (CC): Ossified; Right
(**) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 20000 MG/M3
ANIMAL NUMBER: IFA115F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 1
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 1 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 2 MALFORMATIONS: 1

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+	+	+	
2	A	F	+			+
3	A	F	+	+	+	
4	A	F	+			+(*)
5	A	F	+	+	(b)	
6	A	F	+			+(*)
7	A	F	+	+	+	
8C	A	M	+			+
9	A	F	+	+	+	
10	A	M	(A)			(C,*)
11	A	F	+	+	+	
12	A	M	+			(d,e,*)
13	A	M	+	+	+	
14	A	M	+			(f,*)

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(A) - EXTERNAL: Malrotated hind paw; Left
(b) - ABDOMEN/THORAX: Umbilical artery arises from left side of urinary bladder
(C) - SKELETAL/RIBS (T1 Anlage): Malformed; Left (Cartilage at vertebra is reduced in size)
(d) - SKELETAL/RIBS (L1): Well-formed; Right
(e) - SKELETAL/RIBS (L1): Rudimentary; Left
(f) - SKELETAL/RIBS (L1): Rudimentary; Bilateral
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 20000 MG/M3
ANIMAL NUMBER: IFA123F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 0 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 2 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+	+	+	
2	A	F	+			+
E						
3	A	F	+	+	+	
4	A	M	+			+(*)
5C	A	F	+	+	+	
E						
6	A	M	+			(a)
7	A	F	+	+	+	
8	A	F	+			(a,b,*)
9	A	F	+	+	+	
10	A	M	+			+(*)
11	A	M	+	+	+	
12	A	F	+			+(*)

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(a) - SKELETAL/RIBS (L1): Well-formed; Left
(b) - SKELETAL/RIBS (L1): Rudimentary; Right
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX H - INDIVIDUAL FETAL OBSERVATIONS
(ABBREVIATIONS PRESENTED BELOW OBSERVATIONS)

TARGET DOSE: 20000 MG/M3
ANIMAL NUMBER: IFA074F

NUMBER OF FETUSES WITH EXTERNAL VARIATIONS: 0 MALFORMATIONS: 1
NUMBER OF FETUSES WITH VISCERAL VARIATIONS: 2 MALFORMATIONS: 0
NUMBER OF FETUSES WITH SKELETAL VARIATIONS: 6 MALFORMATIONS: 0

FETUS NO.	STATUS	SEX	EXTERNAL	VISCERAL HEAD	VISCERAL ABDOMEN/THORAX	SKELETAL
1	A	M	+			+(*)
2	A	M	(A)	+	+	
3	A	M	+			(c)
4	A	F	+	+	+	
5	A	F	+			(d,e)
6	A	F	+	+	+	
7	A	M	+			(f,*)
8	A	F	+	+	+	
E						
9	A	M	+			(c)
10	A	F	+	+	(b)	
11	A	F	+			+
12	A	F	+	+	(b)	
13C	A	F	+			(f)
14	A	M	+	+	+	
15	A	F	+			(d,*)

A = ALIVE M = MALE E = EARLY RESORPTION C = CERVIX
D = DEAD F = FEMALE L = LATE RESORPTION + = NO OBSERVABLE ABNORMALITIES

NOTE:
(A) - EXTERNAL: Cleft palate (confirmed internally)
(b) - ABDOMEN/THORAX: Umbilical artery arises from left side of urinary bladder
(c) - SKELETAL/RIBS (L1): Well-formed; Bilateral
(d) - SKELETAL/RIBS (L1): Rudimentary; Left
(e) - SKELETAL/RIBS (L1): Well-formed; Right
(f) - SKELETAL/RIBS (L1): Rudimentary; Right
(*) - SKELETAL/HINDPAW (CC): Ossified; Bilateral

APPENDIX I - INHALATION EXPOSURE DATA

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APPENDIX I - INHALATION EXPOSURE DATA

Exposure Chambers

The chambers used in this study were constructed of stainless steel and glass and had a total volume of approximately 1.0 m^3. They were operated at an airflow rate of 200 liters per minute ensuring 12 air changes per hour and a theoretical equilibration time (T_{99}) of 23 minutes. The chamber volume and airflow were considered adequate to ensure an oxygen level greater than 19% and an animal loading below 5%. The chamber airflow rate was monitored continuously with a calibrated flow-limiting orifice and differential pressure gauge and recorded approximately every 30 minutes. All of the chambers were maintained at a slight negative pressure to the room.

Test Atmosphere Generation

Figure 1 presents a schematic of the test atmosphere generation and exposure system.

Aliquots of the test substance for use in the daily conduct of the study were received in gas cylinders (~20 L nominal volume) via a specially constructed distribution manifold. A manifold system maintained the test substance under nitrogen pressure, ensuring that the transferred substance remained in liquid phase and retained the same composition as the original container.

The test substance was delivered via a dip tube from the outlet valve of the cylinder to a variable area rotameter which regulated the rate of liquid flow into a heated glass round-bottom flask. The test substance volatilized within the flask and the resulting vapors mixed with the supply air as they were drawn into the exposure chamber.

Chamber Environmental Conditions

Chamber temperature and humidity were monitored by wet/dry bulb hygrometers and recorded at approximately thirty minute intervals throughout each exposure.

APPENDIX I - INHALATION EXPOSURE DATA

Analytical Procedures

Schematic of the analytical calibration system: Figure I-2.
Analytical calibration response curves: Figure I-3
Sample chromatograms: Figure I-4
Mean exposure data: Table I-1
Gas chromatograph operating conditions: Table I-2
Summary of exposure data: Table I-3

Exposure concentrations were determined on both a nominal and analytical basis. Nominal concentrations for each exposure level were calculated by weighing the tank containing the test substance before and after exposure and dividing the net loss in weight by the total volume of air passing through the chamber during the exposure.

Analytical exposure concentrations were determined hourly during each exposure by on-line gas chromatography (Hewlett Packard 6890). Samples of the chamber atmosphere were continuously delivered to the GC via 1/8" Teflon tubing connected to an automated 12-port multiposition gas sampling valve. The multiposition valve was programmed to sequentially direct each stream to a sample loop which injected a fixed sample volume (2 cc) directly onto the column for analysis. A complete sampling cycle was performed during each hour of exposure.

The analytical system was calibrated against a series of known concentrations of the test substance in air. The air concentrations were determined by injecting a weighed amount the test substance from a gas-tight syringe into a closed loop system of a known air volume (see schematic drawing). The closed loop system consisted of an infrared vapor analyzer (MIRAN 1A-CVF, Foxboro Analytical) connected to the gas sampling valve of the GC. A metal bellows pump was used to circulate the injected test substance vapors through the sample cell of the infrared monitor and the gas sampling valve of the GC. The response of the infrared analyzer was monitored until the air concentration appeared equilibrated and stable, then three replicate samples were taken using the gas sample loop of the GC. The entire closed loop system was cleared with clean air between each calibration injection. The average response of the GC (total peak area) for the five main constituents of the atmosphere, at each air concentration was used to construct a linear calibration for the test substance.

This method permitted the GC and the infrared analyzer (a backup analytical method) to be calibrated simultaneously and under conditions similar to actual chamber sampling. Once established, the calibration was checked daily during the study by sampling a certified standard of n-butane, the major component of the test substance mixture.

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Samples of the chamber atmospheres were collected on sorbent tubes four times during the conduct of Study 171334M. The samples were collected to confirm that the test substance used for the chamber exposures was stable.

The samples were collected by drawing a sample of the chamber atmosphere through Anasorb 800/200 mg charcoal tubes at a flow rate of 0.1 liters per minute. The duration of the sampling was 120, 60, and 30 minutes for the 2000, 10,000, and 20,000 mg/m^3 concentrations, respectively. The sampling times were varied so that the tubes would be loaded to approximately 24, 60, and 60 mg for the 2000, 10,000, and 20,000 mg/m^3 concentrations, respectively.

After the samples were collected at each study interval, the tubes were placed in the necropsy freezer until they were transferred to the Analytical Chemistry Group for desorption and analysis. The methodology and results from these analyses are presented in Appendix J.

Chamber Homogeneity

Table I-4 presents a summary of the chamber distribution data.

During the method development trials for this study, samples were drawn from twelve different points within the chamber at each target concentration to demonstrate the homogeneity of test atmosphere distribution.

APPENDIX I - INHALATION EXPOSURE DATA

FIGURE I-1 - SCHEMATIC OF GENERATION AND EXPOSURE SYSTEM

APPENDIX I - INHALATION EXPOSURE DATA

FIGURE I-1 - SCHEMATIC OF GENERATION AND EXPOSURE SYSTEM (CONT'D)

APPENDIX I - INHALATION EXPOSURE DATA

FIGURE I-2 - SCHEMATIC OF THE ANALYTICAL CALIBRATION SYSTEM

APPENDIX I - INHALATION EXPOSURE DATA

TABLE I-1 - MEAN EXPOSURE DATA

GROUP:	1	2	3	4
Target Exposure Concentration (mg/m^3)	0	2000	10000	20000
Mean Analytical Exposure Concentration (mg/m^3)	0	2122	10788	20741
Average Chamber Temperature (^{O}F)	66	70	74	68
Average Chamber Relative Humidity (% RH)	62	58	51	61

APPENDIX I - INHALATION EXPOSURE DATA

TABLE I-1 - MEAN EXPOSURE DATA (CONT'D)

SUMMARY OF DAILY CHAMBER CONCENTRATIONS

	0 MG/M^3 TARGET				2000 MG/M^3 TARGET				10,000 MG/M^3 TARGET				20,000 MG/M^3 TARGET			
Date	Mean	Nominal	Chamber		Mean	Nominal	Chamber		Mean	Nominal	Chamber		Mean	Nominal	Chamber	
	(mg/m^3)	(mg/m^3)	^{o}F	% Rh	(mg/m^3)	(mg/m^3)	^{o}F	% Rh	(mg/m^3)	(mg/m^3)	^{o}F	% Rh	(mg/m^3)	(mg/m^3)	^{o}F	% Rh
25-Sep-01	0	0	65*	75*	2086	1683	69	65*	10589	9519	74	58	21869	17478	68	72*
26-Sep-01	0	0	65*	58	2212	1908	70	51	10521	9503	73	45	20994	17229	67*	55
27-Sep-01	0	0	66*	58	2077	1707	69	54	10689	9389	74	47	21405	17619	69	56
28-Sep-01	0	0	66*	54	2115	1717	70	56	10774	9236	74	49	22122	17171	69	54
29-Sep-01	0	0	67*	65*	2136	1839	70	57	11192	9954	75	49	22065	17799	68	64*
30-Sep-01	0	0	66*	53	2152	1713	70	48	10421	9408	74	41	20580	17193	69	47
1-Oct-01	0	0	67*	52	2313	1813	69	51	10370	9375	74	48	20697	17097	69	49
2-Oct-01	0	0	67*	63*	2034	1699	70	62*	10671	9385	75	54	20807	17233	69	63*
3-Oct-01	0	0	66*	71*	2113	1744	70	66*	11371	9158	74	57	19869	17407	69	65*
4-Oct-01	0	0	67*	69*	2129	1711	71	62*	10694	9242	75	55	20219	18485	69	66*
5-Oct-01	0	0	68	72*	2103	1654	70	66*	10840	9257	76*	59	19942	17896	70	65*
6-Oct-01	0	0	67*	65*	2093	1725	70	65*	10293	9169	75	55	21278	16661	70	64*
7-Oct-01	0	0	66*	45	2103	1753	70	38*	10765	9372	73	35	21256	16860	69	44
8-Oct-01	0	0	63*	72*	2097	1679	68	58	10327	9350	73	52	20994	17293	67	62*
9-Oct-01	0	0	64*	62*	2139	1719	69	58	10545	9022	73	50	21279	18210	68	58
10-Oct-01	0	0	66*	62*	2142	1804	70	56	11019	8935	74	51	21355	17021	68	56
11-Oct-01	0	0	66*	65*	2108	1742	69	62*	11074	9282	74	55	21355	16831	68	64*
12-Oct-01	0	0	66*	62*	2160	1696	70	64*	10889	9314	74	52	20128	16964	68	65*
13-Oct-01	0	0	65*	65*	2119	1808	69	64*	11052	9568	73	57	20361	16418	68	64*
14-Oct-01	0	0	66*	62*	2065	1747	69	63*	10675	9374	73	57	20280	17029	66	77*
15-Oct-01	0	0	66*	62*	2116	1692	69	57	11285	9074	73	52	18401	17610	68	64*
16-Oct-01	0	0	65*	61*	2073	1632	69	56	11270	9179	73	51	19039	17297	68	57*
MEAN	0	0	66	62	2122	1736	70	58	10788	9321	74	51	20741	17309	68	61
S.D.	0	0	1.1	7.2	56.5	64.6	0.7	6.9	322.4	212.5	0.9	5.8	923.4	488.9	1.0	7.8

* - Value outside protocol-defined range

APPENDIX I - INHALATION EXPOSURE DATA

TABLE I-2 - GAS CHROMATOGRAPH OPERATING CONDITIONS

GAS CHROMATOGRAPH:	Hewlett Packard 6890GC
DETECTOR:	Flame Ionization
COLUMN:	Supelco Part # 13867, MTO-SS, 2M 1/8”, Carbopack C 80/100 0.19% Picric Acid 15g
GAS FLOWS (cc/min):	H_2 - 45.0 Air - 450.0 Makeup Gas (Helium) - 30.0
INLET TEMPERATURE:	100°C
INLET FLOW (cc/min)	Helium - 19.8
OVEN TEMPERATURE:	110°C
DETECTOR TEMPERATURE:	250°C
SAMPLE LOOP SIZE:	2 cc
ATTENUATION:	0
RUN TIME:	8.5 Minutes

APPENDIX I - INHALATION EXPOSURE DATA

FIGURE I-3 - ANALYTICAL CALIBRATION RESPONSE CURVES

APPENDIX I - INHALATION EXPOSURE DATA

TABLE I-3 - SUMMARY OF EXPOSURE DATA

TARGET DOSE - 0 mg/m^3

Date	Exposure Number	Nominal Concentration (mg/m^3)	Mean Analytical Concentration (mg/m^3)	Mean Temperature (^{o}F)	Mean Relative Humidity (%)
25-Sep-01	1	0	0	65	75
26-Sep-01	2	0	0	65	58
27-Sep-01	3	0	0	66	58
28-Sep-01	4	0	0	66	54
29-Sep-01	5	0	0	67	65
30-Sep-01	6	0	0	66	53
1-Oct-01	7	0	0	67	52
2-Oct-01	8	0	0	67	63
3-Oct-01	9	0	0	66	71
4-Oct-01	10	0	0	67	69
5-Oct-01	11	0	0	68	72
6-Oct-01	12	0	0	67	65
7-Oct-01	13	0	0	66	45
8-Oct-01	14	0	0	63	72
9-Oct-01	15	0	0	64	62

APPENDIX I - INHALATION EXPOSURE DATA

TABLE I-3 (CONT'D) - SUMMARY OF EXPOSURE DATA

TARGET DOSE - 0 mg/m^3

Date	Exposure Number	Nominal Concentration (mg/m^3)	Mean Analytical Concentration (mg/m^3)	Mean Temperature (^{o}F)	Mean Relative Humidity (%)
10-Oct-01	16	0	0	66	62
11-Oct-01	17	0	0	66	65
12-Oct-01	18	0	0	66	62
13-Oct-01	19	0	0	65	65
14-Oct-01	20	0	0	66	62
15-Oct-01	21	0	0	66	62
16-Oct-01	22	0	0	65	61
Mean		0	0	66	62
Std. Dev.		0	0	1.1	7.2

APPENDIX I - INHALATION EXPOSURE DATA

TABLE I-3 (CONT'D) - SUMMARY OF EXPOSURE DATA

TARGET DOSE - 2000 mg/m^3

Date	Exposure Number	Nominal Conc. (mg/m^3)	Hourly Analytical Concentrations (mg/m^3) 1	2	3	4	5	6	Mean Concentration (mg/m^3)	Mean Temperature (^{o}F)	Mean Relative Humidity (%)
25-Sep-01	1	1683	2280	2107	1910	2168	2075	1978	2086	69	65
26-Sep-01	2	1908	2305	2090	1858	2480	2414	2125	2212	70	51
27-Sep-01	3	1707	2157	1993	2099	2129	2080	2004	2077	69	54
28-Sep-01	4	1717	2243	2289	1812	2008	2250	2088	2115	70	56
29-Sep-01	5	1839	2112	2443	2254	2083	1973	1949	2136	70	57
30-Sep-01	6	1713	2351	2154	2140	1996	2171	2099	2152	70	48
1-Oct-01	7	1813	3015	2442	2122	2123	2081	2096	2313	69	51
2-Oct-01	8	1699	2080	**	0*	2024	2001	2030	2034	70	62
3-Oct-01	9	1744	2014	2256	2097	2134	2090	2084	2113	70	66
4-Oct-01	10	1711	2160	2146	2016	2141	2109	2200	2129	71	62
5-Oct-01	11	1654	2241	1959	2119	2014	2176	2109	2103	70	66
6-Oct-01	12	1725	2162	2125	2113	2010	2119	2031	2093	70	65
7-Oct-01	13	1753	**	2161	2037	2015	2188	2116	2103	70	38
8-Oct-01	14	1679	2126	2060	2000	2146	2136	2115	2097	68	58
9-Oct-01	15	1719	1843	2178	2128	2245	2120	2319	2139	69	58

* - Backup analytical system used; value excluded from mean because instrument was used with incorrect setting
** - No sample taken

APPENDIX I - INHALATION EXPOSURE DATA

TABLE I-3 (CONT'D) - SUMMARY OF EXPOSURE DATA

TARGET DOSE - 2000 mg/m^3

Date	Exposure Number	Nominal Conc. (mg/m^3)	Hourly Analytical Concentrations (mg/m^3) 1	2	3	4	5	6	Mean Concentration (mg/m^3)	Mean Temperature (^{o}F)	Mean Relative Humidity (%)
10-Oct-01	16	1804	2029	2049	2136	2231	2211	2195	2142	70	56
11-Oct-01	17	1742	2132	2148	2018	2212	2016	2124	2108	69	62
12-Oct-01	18	1696	2075	2210	2204	2124	2228	2116	2160	70	64
13-Oct-01	19	1808	2231	2177	2065	1995	2029	2218	2119	69	64
14-Oct-01	20	1747	2207	1979	2175	1987	1961	2083	2065	69	63
15-Oct-01	21	1692	2048	2236	2122	2043	2065	2179	2116	69	57
16-Oct-01	22	1632	1906	1856	2285	2194	2174	2020	2073	69	56
MEAN		1736							2122	70	58
Std. Dev.		64.6							56.5	0.7	6.9

APPENDIX I - INHALATION EXPOSURE DATA

TABLE I-3 (CONT'D) - SUMMARY OF EXPOSURE DATA

TARGET DOSE - 10,000 mg/m^3

Date	Exposure Number	Nominal Conc. (mg/m^3)	Hourly Analytical Concentration (mg/m^3) 1	2	3	4	5	6	Mean Concentration (mg/m^3)	Mean Temperature (^{o}F)	Mean Relative Humidity (%)
25-Sep-01	1	9519	11028	10270	10546	10712	10697	10279	10589	74	58
26-Sep-01	2	9503	10671	10538	10000	9994	10539	11382	10521	73	45
27-Sep-01	3	9389	11046	10647	10803	10302	10768	10565	10689	74	47
28-Sep-01	4	9236	11484	10928	10694	10521	10481	10535	10774	74	49
29-Sep-01	5	9954	11390	11153	11403	11216	11060	10931	11192	75	49
30-Sep-01	6	9408	11056	10406	10272	9964	10522	10308	10421	74	41
1-Oct-01	7	9375	10231	10914	9897	10595	10293	10288	10370	74	48
2-Oct-01	8	9385	10592	**	497*	10613	10537	10943	10671	75	54
3-Oct-01	9	9158	10700	10793	10795	11345	12179	12413	11371	74	57
4-Oct-01	10	9242	10904	10965	10615	10578	10728	10372	10694	75	55
5-Oct-01	11	9257	11013	10561	10609	11611	10551	10696	10840	76	59
6-Oct-01	12	9169	10847	10379	10117	10231	10054	10130	10293	75	55
7-Oct-01	13	9372	**	10832	10754	10851	10363	11027	10765	73	35
8-Oct-01	14	9350	10376	10383	9914	10403	10556	10328	10327	73	52
9-Oct-01	15	9022	10567	9051	10877	10998	11092	10682	10545	73	50

* - Backup analytical system used; value excluded from mean because instrument was used with incorrect setting
** - No sample taken

APPENDIX I - INHALATION EXPOSURE DATA

TABLE I-3 (CONT'D) - SUMMARY OF EXPOSURE DATA

TARGET DOSE - 10,000 mg/m^3

Date	Exposure Number	Nominal Conc. (mg/m^3)	Hourly Analytical Concentration (mg/m^3) 1	2	3	4	5	6	Mean Concentration (mg/m^3)	Mean Temperature (^{o}F)	Mean Relative Humidity (%)
10-Oct-01	16	8935	10789	11263	11048	10886	11001	11125	11019	74	51
11-Oct-01	17	9282	11366	11206	11036	11058	10805	10974	11074	74	55
12-Oct-01	18	9314	10731	10888	11155	10854	10905	10798	10889	74	52
13-Oct-01	19	9568	10832	11273	10997	11104	11353	10752	11052	73	57
14-Oct-01	20	9374	10524	9727	10945	11053	10974	10824	10675	73	57
15-Oct-01	21	9074	11997	11547	11005	10445	12082	10631	11285	73	52
16-Oct-01	22	9179	10837	11046	11292	11327	11042	12077	11270	73	51
MEAN		9321							10788	74	51
Std. Dev.		212.5							322.4	0.9	5.8

APPENDIX I - INHALATION EXPOSURE DATA

TABLE I-3 (CONT'D) - SUMMARY OF EXPOSURE DATA

TARGET DOSE - 20,000 mg/m^3

Date	Exposure Number	Nominal Conc. (mg/m^3)	Hourly Analytical Concentration (mg/m^3) 1	2	3	4	5	6	Mean Concentration (mg/m^3)	Mean Temperature (^{o}F)	Mean Relative Humidity (%)
25-Sep-01	1	17478	23896	22354	20580	21868	21623	20893	21869	68	72
26-Sep-01	2	17229	22097	20761	20320	19681	20908	22199	20994	67	55
27-Sep-01	3	17619	22303	21392	20699	21707	21683	20645	21405	69	56
28-Sep-01	4	17171	22676	23666	22083	21585	21353	21368	22122	69	54
29-Sep-01	5	17799	23084	22447	21563	22496	21935	20862	22065	68	64
30-Sep-01	6	17193	22423	21564	19307	19747	21018	19420	20580	69	47
1-Oct-01	7	17097	20573	21425	20535	20556	20445	20649	20697	69	49
2-Oct-01	8	17233	21196	**	1329*	20711	20524	20798	20807	69	63
3-Oct-01	9	17407	20852	21040	19249	16973	20891	20207	19869	69	65
4-Oct-01	10	18485	18791	20581	19915	20458	20692	20879	20219	69	66
5-Oct-01	11	17896	24060	24511	19571	20100	18651	12761	19942	70	65
6-Oct-01	12	16661	22741	21297	21266	21058	20909	20395	21278	70	64
7-Oct-01	13	16860	20475	21511	21944	21402	21354	20847	21256	69	44
8-Oct-01	14	17293	21116	20879	20681	20990	21346	20953	20994	67	62
9-Oct-01	15	18210	20906	20956	20951	21426	21801	21633	21279	68	58

* - Backup analytical system used; value excluded from mean because instrument was used with incorrect setting
** - No sample taken

APPENDIX I - INHALATION EXPOSURE DATA

TABLE I-3 (CONT'D) - SUMMARY OF EXPOSURE DATA

TARGET DOSE - 20,000 mg/m^3

Date	Exposure Number	Nominal Conc. (mg/m^3)	Hourly Analytical Concentration (mg/m^3) 1	2	3	4	5	6	Mean Concentration (mg/m^3)	Mean Temperature (^{o}F)	Mean Relative Humidity (%)
10-Oct-01	16	17021	21108	21377	20815	19920	21900	20891	21355	68	56
11-Oct-01	17	16831	22210	22186	21348	20898	20839	20646	21355	68	64
12-Oct-01	18	16964	20192	19375	20628	20233	20322	20015	20128	68	65
13-Oct-01	19	16418	20443	20983	20144	19691	20084	20819	20361	68	64
14-Oct-01	20	17029	21008	19879	20561	19605	20782	19842	20280	66	77
15-Oct-01	21	17610	19159	19093	19265	19268	17184	16437	18401	68	64
16-Oct-01	22	17297	21438	19692	20407	19883	12066	20750	19039	68	57
MEAN		17309							20741	68	61
Std. Dev.		488.9							923.4	1.0	7.8

APPENDIX I - INHALATION EXPOSURE DATA

TABLE I-4 - SUMMARY OF CHAMBER DISTRIBUTION SAMPLING

SAMPLE LOCATION	TARGET EXPOSURE LEVELS		
	2000 MG/M^3	10,000 MG/M^3	20,000 MG/M^3
Left Top Back	2119	10397	19313
Left Top Front	2186	10716	20118
Left Middle Back	2099	11714	20556
Left Middle Front	2063	10957	21646
Left Bottom Back	2189	10652	19226
Left Bottom Front	2099	10603	19814
Right Top Back	2046	10620	19858
Right Top Front	2083	10573	21170
Right Middle Back	2200	10782	19590
Right Middle Front	2158	10872	21415
Right Bottom Back	2033	10627	20603
Right Bottom Front	2022	10794	20788
MEAN	2108	10776	20341
SD	62.8	330.6	813.7
%CV	3.0	3.1	4.0
Minimum	2022	10397	19226
Maximum	2200	11714	21646

NOTE: Top, middle, bottom sample locations represent horizontal planes within exposure chamber. Left, right, front, back represent corners of each horizontal plane. Samples were taken in series approximately 8 minute intervals.

APPENDIX I - INHALATION EXPOSURE DATA

TABLE I-5 - PARTICLE SIZE DATA

0 MG/M^3 TARGET

IMPACTOR STAGE	STAGE CONSTANT (um)	FILTER WEIGHT DIFFERENCE (UG)	PERCENT IN SIZE RANGE
FILTER	0.30	0	0
8	0.54	0	0
7	0.84	0	0
6	1.50	0	0
5	2.60	0	0
4	4.10	0	0
3	6.80	0	0
2	17.0	0	0
1	28.0	0	0
		TOTAL = 0	
PARTICLE CONCENTRATION = 0 MG/M^3			

PARTICLE SIZE DETERMINED WITH A SIERRA SERIES 210 CASCADE IMPACTOR

CONDITIONS:
SAMPLE FLOWRATE (Liters/Minute): 3 SAMPLE DURATION (Minutes): 3

CALCULATION OF PARTICLE CONCENTRATION:
SAMPLE VOLUME = SAMPLE FLOW RATE*SAMPLE DURATION
PARTICLE CONCENTRATION =
((TOTAL FILTER WEIGHT DIFFERENCE [ug]/1000 [ug/mg])/(SAMPLE VOLUME [L]))*1000 [L/M^3]

APPENDIX I - INHALATION EXPOSURE DATA

TABLE I-5 - PARTICLE SIZE DATA (CONT'D)

20,000 MG/M^3 TARGET

IMPACTOR STAGE	STAGE CONSTANT (um)	FILTER WEIGHT DIFFERENCE (UG)	PERCENT IN SIZE RANGE
FILTER	0.30	0	0
8	0.54	0	0
7	0.84	0	0
6	1.50	0	0
5	2.60	0	0
4	4.10	0	0
3	6.80	0	0
2	17.0	0	0
1	28.0	0	0
		TOTAL = 0	

CONCENTRATION OF PARTICLES = 0 MG/M^3

PARTICLE SIZE DETERMINED WITH A SIERRA SERIES 210 CASCADE IMPACTOR

CONDITIONS:
SAMPLE FLOWRATE (Liters/Minute): 4 SAMPLE DURATION (Minutes): 15

CALCULATION OF PARTICLE CONCENTRATION:
SAMPLE VOLUME (Liters) = SAMPLE FLOW RATE*SAMPLE DURATION
PARTICLE CONCENTRATION =
((TOTAL FILTER WEIGHT DIFFERENCE/1000 ug/mg)/(SAMPLE VOLUME))*1000 L/M^3

APPENDIX I - INHALATION EXPOSURE DATA

TABLE I-6 LIGHTING, NOISE, AND OXYGEN LEVELS

Environmental Conditions			
	25-September-01	**3-October-01**	**16-October-01**
Light Intensity: (fc)			
Room PE104 in a cage 3 feet above the floor.	44.7	44.9	10.1
Center of room PE102 3 feet above the floor.	46.3	45.8	32.5
Center of room PE110 3 feet above the floor.	42.8	42.5	33.7
Noise level: (db)			
1m - 1: Door open	79.3	79.6	76.9
1m - 1: Through port	81.2	80.7	80.2
1m - 2: Door open	78.7	79.4	76.6
1m - 2: Through port	80.4	80.2	80.8
1m - 3: Door open	78.8	78.3	78.2
1m - 3: Through port	80.6	80.6	83.1
1m - 4: Door open	79.7	78.8	74.0
1m - 4: Through port	80.9	80.0	77.3
O_2 Level: (%) (Reading upon removal)	No Alarm	No Alarm	No Alarm
1m - 1	20.7	20.7	20.8
1m - 2	20.7	20.7	20.8
1m - 3	20.7	20.7	20.8
1m - 4	20.7	20.7	20.8

1m-1, 1m-2, 1m-3, 1m-4 are exposure chamber designations.
fc – foot-candles
db – decibels

APPENDIX I - INHALATION EXPOSURE DATA

TABLE I-7 CHAMBER TEMPERATURES

Target concentration 0 mg/m^3
Time from Start of exposure (Hours)

Date	0	0.5	1.0	1.5	2	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0
25-Sep-01	65	65	65	65	65	65	65	65	65	65	65	65	65
26-Sep-01	64	64	64	64	64	65	65	65	65	65	65	65	65
27-Sep-01	65	65	65	66	66	66	66	66	66	66	66	66	66
28-Sep-01	65	65	65	66	66	66	66	66	66	66	66	66	66
29-Sep-01	66	66	66	66	66	68	68	68	68	68	68	68	68
30-Sep-01	66	66	66	66	66	66	66	66	66	66	66	66	66
1-Oct-01	66	66	66	66	66	67	67	67	67	67	68	68	68
2-Oct-01	66	66	66	66	66	66	68	68	68	68	68	68	68
3-Oct-01	66	66	66	66	66	66	66	66	66	66	66	66	66
4-Oct-01	66	66	66	66	66	66	66	66	66	68	68	68	68
5-Oct-01	66	66	68	68	68	68	68	68	68	68	68	68	68
6-Oct-01	66	66	66	66	66	66	68	68	68	68	68	68	68
7-Oct-01	65	66	66	66	66	66	66	66	66	66	66	66	66
8-Oct-01	62	58	58	60	62	64	64	64	64	66	66	66	66
9-Oct-01	62	64	64	64	64	64	64	64	64	66	66	66	66
10-Oct-01	64	64	64	66	66	66	66	66	66	66	66	66	66
11-Oct-01	66	65	65	65	66	66	66	66	66	66	66	66	66
12-Oct-01	66	66	66	66	66	66	66	66	66	66	66	66	66
13-Oct-01	62	64	64	64	66	66	66	66	66	66	66	66	66
14-Oct-01	64	66	66	66	66	66	66	66	66	66	66	66	66
15-Oct-01	66	66	66	66	66	66	66	66	66	66	66	66	66
16-Oct-01	64	64	64	66	66	66	66	66	66	66	66	66	66

APPENDIX I - INHALATION EXPOSURE DATA

TABLE I-7 CHAMBER TEMPERATURES (CONT'D)

Target concentration 2000 mg/m^3
Time from Start of Exposure (Hours)

Date	**0**	**0.5**	**1**	**1.5**	**2**	**2.5**	**3**	**3.5**	**4**	**4.5**	**5**	**5.5**	**6**
25-Sep-01	66	68	68	70	70	70	70	70	70	70	70	70	70
26-Sep-01	66	68	70	70	70	70	70	70	70	70	70	70	70
27-Sep-01	66	68	70	70	70	70	70	70	70	70	70	70	70
28-Sep-01	66	68	70	70	70	70	70	70	70	70	70	70	70
29-Sep-01	68	69	70	70	70	70	70	70	70	70	70	70	70
30-Sep-01	68	68	70	70	70	70	70	70	70	70	70	70	70
1-Oct-01	66	68	69	69	70	70	70	70	70	70	70	70	70
2-Oct-01	67	68	70	70	70	70	70	70	70	70	70	70	70
3-Oct-01	68	68	68	70	70	70	70	70	72	72	72	72	72
4-Oct-01	68	70	70	70	70	70	70	70	72	72	72	72	72
5-Oct-01	68	70	70	70	70	70	70	70	70	70	70	70	70
6-Oct-01	68	70	70	70	70	70	70	70	70	70	70	70	70
7-Oct-01	66	68	70	70	70	70	70	70	70	70	70	70	70
8-Oct-01	64	64	66	66	68	70	70	70	70	70	70	70	70
9-Oct-01	64	66	68	68	68	68	70	70	70	72	72	72	72
10-Oct-01	68	68	70	70	70	70	70	70	70	70	70	70	70
11-Oct-01	66	68	68	70	70	70	70	70	70	70	70	70	70
12-Oct-01	68	68	70	70	70	70	70	70	70	70	70	70	70
13-Oct-01	66	68	68	68	68	70	70	70	70	70	70	70	70
14-Oct-01	66	68	68	70	70	70	70	70	70	70	70	70	70
15-Oct-01	66	68	68	70	70	70	70	70	70	70	70	70	70
16-Oct-01	66	68	68	70	70	70	70	70	70	70	70	70	70

APPENDIX I - INHALATION EXPOSURE DATA

TABLE I-7 CHAMBER TEMPERATURES (CONT'D)

Target concentration 10,000 mg/m^3
Time from Start of Exposure (Hours)

Date	**0**	**0.5**	**1**	**1.5**	**2**	**2.5**	**3**	**3.5**	**4**	**4.5**	**5**	**5.5**	**6**
25-Sep-01	70	72	74	74	74	74	74	74	74	74	74	74	74
26-Sep-01	68	70	72	74	74	74	74	74	74	74	74	74	74
27-Sep-01	65	72	74	74	74	74	74	74	74	76	76	76	76
28-Sep-01	70	72	74	74	74	74	74	74	74	74	76	76	76
29-Sep-01	70	72	74	74	74	76	76	76	76	76	76	76	76
30-Sep-01	70	70	74	74	74	74	74	76	76	76	76	76	76
1-Oct-01	68	71	73	73	75	75	75	75	75	75	75	75	75
2-Oct-01	68	72	74	74	74	76	76	76	76	76	76	76	76
3-Oct-01	70	72	74	74	76	76	76	76	76	74	74	74	74
4-Oct-01	70	70	74	74	76	76	76	76	76	76	76	76	76
5-Oct-01	72	74	76	76	76	76	76	76	76	76	76	76	76
6-Oct-01	72	74	74	74	76	76	76	76	76	76	76	76	76
7-Oct-01	68	72	74	74	74	74	74	74	74	74	74	74	74
8-Oct-01	68	68	70	72	72	74	74	74	74	74	76	76	76
9-Oct-01	64	68	72	72	74	74	74	74	76	76	74	74	74
10-Oct-01	70	72	74	74	74	74	74	74	74	74	74	74	76
11-Oct-01	68	72	74	74	74	74	74	74	74	76	76	76	76
12-Oct-01	70	72	74	74	74	74	74	74	74	74	74	74	74
13-Oct-01	68	72	74	74	74	74	74	74	74	74	74	74	74
14-Oct-01	68	68	70	72	74	74	74	74	74	74	74	74	74
15-Oct-01	68	72	73	74	74	74	74	74	74	74	74	74	74
16-Oct-01	68	72	72	74	74	74	74	74	74	74	74	74	74

APPENDIX I - INHALATION EXPOSURE DATA

TABLE I-7 CHAMBER TEMPERATURES (CONT'D)

Target concentration 20,000 mg/m^3
Time from Start of Exposure (Hours)

Date	**0**	**0.5**	**1**	**1.5**	**2**	**2.5**	**3**	**3.5**	**4**	**4.5**	**5**	**5.5**	**6**
25-Sep-01	66	68	68	68	68	68	68	68	68	68	68	68	68
26-Sep-01	65	66	66	68	68	68	68	68	68	68	68	68	68
27-Sep-01	66	66	68	68	68	68	70	70	70	70	70	70	70
28-Sep-01	66	68	68	69	69	69	69	69	69	69	70	70	70
29-Sep-01	66	66	68	68	68	68	68	68	68	68	68	68	68
30-Sep-01	66	68	68	68	68	68	70	70	70	70	70	70	70
1-Oct-01	66	67	68	68	70	70	70	70	70	70	70	70	70
2-Oct-01	66	68	68	68	70	70	70	70	70	70	70	70	70
3-Oct-01	66	68	68	70	70	70	70	70	70	70	70	70	70
4-Oct-01	66	68	68	70	70	70	70	70	70	70	70	70	70
5-Oct-01	68	68	70	70	70	70	70	70	70	70	70	70	70
6-Oct-01	68	70	70	70	70	70	70	70	70	70	70	70	70
7-Oct-01	66	68	68	69	69	69	69	69	69	69	69	69	69
8-Oct-01	64	64	64	66	66	68	68	68	68	68	70	70	70
9-Oct-01	63	64	66	68	68	68	68	68	68	70	70	70	70
10-Oct-01	66	68	68	68	68	68	68	68	68	68	68	68	68
11-Oct-01	66	67	68	68	68	68	68	68	68	68	68	68	68
12-Oct-01	66	66	68	68	68	68	68	68	68	68	68	68	68
13-Oct-01	66	66	68	68	68	68	68	68	68	68	68	68	68
14-Oct-01	62	64	66	66	66	66	66	66	68	68	68	68	68
15-Oct-01	66	67	68	68	68	68	68	68	68	68	68	68	68
16-Oct-01	66	66	66	68	68	68	68	68	68	68	68	68	68

APPENDIX I - INHALATION EXPOSURE DATA

TABLE I-7 CHAMBER HUMIDITIES %RH (CONT'D)

Target concentration 0 mg/m^3
Time from Start of Exposure (Hours)

Date	**0**	**0.5**	**1**	**1.5**	**2**	**2.5**	**3**	**3.5**	**4**	**4.5**	**5**	**5.5**	**6**
25-Sep-01	75	75	75	75	75	75	75	75	75	75	75	75	75
26-Sep-01	61	61	61	61	57	57	57	57	57	57	57	57	57
27-Sep-01	57	57	62	62	62	62	62	62	62	53	53	53	53
28-Sep-01	57	57	53	53	53	53	53	53	53	53	53	53	53
29-Sep-01	71	71	62	62	64	64	64	64	64	64	64	64	64
30-Sep-01	53	53	53	53	53	53	53	53	53	53	53	53	53
1-Oct-01	53	53	53	53	50	50	50	50	50	50	55	55	55
2-Oct-01	62	62	62	62	62	64	64	64	64	64	64	64	64
3-Oct-01	71	71	71	71	71	71	71	71	71	71	71	71	71
4-Oct-01	71	71	71	71	71	71	71	71	71	64	64	64	64
5-Oct-01	71	71	72	72	72	72	72	72	72	72	72	72	72
6-Oct-01	71	71	71	71	71	71	64	64	64	64	55	55	55
7-Oct-01	48	45	45	45	45	45	45	45	45	45	45	45	45
8-Oct-01	100	100	89	89	69	61	61	61	61	53	62	62	62
9-Oct-01	69	61	61	61	61	61	61	61	61	62	62	62	62
10-Oct-01	61	61	61	62	62	62	62	62	62	62	62	62	62
11-Oct-01	53	66	66	66	62	62	62	62	62	71	71	71	71
12-Oct-01	62	62	62	62	62	62	62	62	62	62	62	62	62
13-Oct-01	79	70	70	70	62	62	62	62	62	62	62	62	62
14-Oct-01	70	62	62	62	62	62	62	62	62	62	62	62	62
15-Oct-01	62	62	62	62	62	62	62	62	62	62	58	62	62
16-Oct-01	61	61	61	61	61	61	61	61	61	61	61	61	61

APPENDIX I - INHALATION EXPOSURE DATA

TABLE I-7 CHAMBER HUMIDITIES % RH (CONT'D)

Target concentration 2000 mg/m^3
Time from Start of Exposure (Hours)

Date	**0**	**0.5**	**1**	**1.5**	**2**	**2.5**	**3**	**3.5**	**4**	**4.5**	**5**	**5.5**	**6**
25-Sep-01	71	67	72	64	64	64	64	64	64	64	64	64	64
26-Sep-01	53	51	48	48	52	52	52	52	52	52	52	52	52
27-Sep-01	62	55	55	56	56	56	56	56	56	48	48	48	48
28-Sep-01	55	55	56	56	56	56	56	56	56	56	56	56	56
29-Sep-01	63	59	56	56	56	56	56	56	56	56	56	56	56
30-Sep-01	47	47	48	48	48	48	48	48	48	48	48	48	48
1-Oct-01	53	55	51	51	48	48	48	48	48	48	52	52	56
2-Oct-01	58	63	56	56	64	64	64	64	64	64	64	64	64
3-Oct-01	72	72	72	64	64	64	64	64	65	65	65	65	65
4-Oct-01	72	64	64	64	64	64	64	64	57	57	57	57	57
5-Oct-01	72	64	72	72	64	64	64	64	64	64	64	64	64
6-Oct-01	72	64	64	64	64	64	64	64	64	64	64	64	64
7-Oct-01	41	39	38	38	38	38	38	38	38	38	38	38	38
8-Oct-01	100	70	53	62	55	48	48	48	48	48	56	56	56
9-Oct-01	61	62	55	55	63	63	56	56	56	57	57	57	57
10-Oct-01	55	63	56	56	56	56	56	56	56	56	56	56	56
11-Oct-01	62	55	63	56	56	64	64	64	64	64	64	64	64
12-Oct-01	63	63	64	64	64	64	64	64	64	64	64	64	64
13-Oct-01	71	63	63	63	63	64	64	64	64	64	64	64	64
14-Oct-01	62	55	63	64	64	64	64	64	64	64	64	64	64
15-Oct-01	62	55	63	56	56	56	56	56	56	56	56	56	56
16-Oct-01	62	55	55	56	56	56	56	56	56	56	56	56	56

APPENDIX I - INHALATION EXPOSURE DATA

TABLE I-7 CHAMBER HUMIDITIES % RH (CONT'D)

Target concentration 10,000 mg/m^3
Time from Start of Exposure (Hours)

Date	0	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
25-Sep-01	64	57	58	58	58	58	58	58	58	58	58	58	58
26-Sep-01	47	48	46	44	44	44	44	44	44	44	44	44	44
27-Sep-01	55	50	44	51	51	51	51	51	51	38	38	38	38
28-Sep-01	48	50	51	51	51	51	51	51	51	51	45	45	45
29-Sep-01	56	57	51	51	51	38	38	45	49	49	49	49	49
30-Sep-01	48	48	37	44	44	44	44	38	38	38	38	38	38
1-Oct-01	55	49	47	47	48	48	48	48	48	48	48	48	48
2-Oct-01	63	57	51	51	58	52	52	52	52	52	52	52	52
3-Oct-01	64	57	58	58	52	52	52	52	59	58	58	58	58
4-Oct-01	64	64	58	58	52	52	52	52	52	52	52	52	52
5-Oct-01	65	58	59	59	59	59	59	59	59	59	58	58	58
6-Oct-01	57	58	58	58	52	59	52	52	52	52	57	57	57
7-Oct-01	43	35	34	34	34	34	34	34	34	34	34	34	34
8-Oct-01	90	63	56	50	50	44	44	44	44	51	45	45	45
9-Oct-01	61	55	50	50	51	51	51	51	51	45	45	45	45
10-Oct-01	56	50	51	51	51	51	51	51	51	51	51	51	45
11-Oct-01	55	57	51	51	58	58	58	58	58	52	52	52	52
12-Oct-01	56	57	51	51	51	51	51	51	51	51	51	51	51
13-Oct-01	63	57	51	51	58	58	58	58	58	58	58	58	58
14-Oct-01	63	63	56	57	51	51	51	58	58	58	58	58	58
15-Oct-01	63	50	54	51	51	51	51	51	51	51	51	51	51
16-Oct-01	55	50	52	51	51	51	51	51	51	51	51	51	51

APPENDIX I - INHALATION EXPOSURE DATA

TABLE I-7 CHAMBER HUMIDITIES % RH (CONT'D)

Target concentration 20,000 mg/m^3
Time from Start of Exposure (Hours)

Date	**0**	**0.5**	**1**	**1.5**	**2**	**2.5**	**3**	**3.5**	**4**	**4.5**	**5**	**5.5**	**6**
25-Sep-01	71	72	72	72	72	72	72	72	72	72	72	72	72
26-Sep-01	57	53	58	55	55	55	55	55	55	55	55	55	55
27-Sep-01	62	62	55	64	64	64	57	57	57	48	48	48	48
28-Sep-01	53	55	55	55	55	55	55	55	55	55	52	52	52
29-Sep-01	62	62	64	64	64	64	64	64	64	64	64	64	64
30-Sep-01	53	47	47	47	47	47	41	41	48	48	48	48	48
1-Oct-01	53	54	51	57	48	48	48	48	48	48	48	48	48
2-Oct-01	62	64	64	64	64	57	57	64	64	64	64	64	64
3-Oct-01	71	64	72	64	64	64	64	64	64	64	64	64	64
4-Oct-01	71	72	72	64	64	64	64	64	64	64	64	64	64
5-Oct-01	72	64	64	64	64	64	64	64	64	64	64	64	64
6-Oct-01	64	64	64	64	64	64	64	64	64	64	64	64	64
7-Oct-01	41	43	43	44	44	44	44	44	44	44	44	44	44
8-Oct-01	90	70	61	62	62	55	55	55	55	64	57	57	57
9-Oct-01	65	61	53	55	55	55	55	64	64	57	57	57	57
10-Oct-01	62	55	55	55	55	55	55	55	55	55	55	55	55
11-Oct-01	62	67	64	64	64	64	64	64	64	64	64	64	64
12-Oct-01	71	71	64	64	64	64	64	64	64	64	64	64	64
13-Oct-01	62	62	64	64	64	64	64	64	64	64	64	64	64
14-Oct-01	89	80	80	80	80	80	80	72	72	72	72	72	72
15-Oct-01	62	62	64	64	64	64	64	64	64	64	64	64	64
16-Oct-01	62	62	62	55	55	55	55	55	55	55	55	55	55

APPENDIX J- ANALYTICAL CHEMISTRY REPORT

SUMMARY

Charcoal tube sorbent tube samples were received by the Analytical Chemistry Laboratory from inhalation chamber exposures and were characterized for hydrocarbon distribution using capillary gas chromatography with flame ionization detection (GC/FID). Sorbent tube samples were stored in a freezer pending analysis.

SAMPLE PREPARATION

The front and back sections of each charcoal sample tube were desorbed and analyzed separately to assess potential sampling breakthrough. The charcoal tube sections were desorbed with 3.0 mL carbon disulfide (CS_2) for at least 30 minutes. Aliquots were stored in the freezer until they were analyzed. Aliquots were analyzed by GC-FID.

STANDARDIZATION

A standard mixture was prepared in (CS_2) containing each of the 18 target hydrocarbons plus MTBE oxygenate. Analysis of the standard mixture was used to confirm the relative retention times of each target hydrocarbon and was not used for quantitative purposes. Since MTBE coelutes with the hydrocarbon 2,3 dimethylbutane, a distribution factor was applied to the coeluting pair to calculate the final hydrocarbon - oxygenate distribution. This distribution factor (96% MTBE: 4% 2,3 dimethylbutane) was determined as part of the EMBSI neat test substance characterization study 167490.

CHARACTERIZATION

Characterization of the neat MRD-00-713 (gasoline vapor condensate with MTBE) was performed separately and will be reported as part of EMBSI Study 167490. Neat test substance characterization included a similar analysis of the relative distribution of target hydrocarbons and oxygenate as was performed for the chamber sorbent tube samples.

APPENDIX J- ANALYTICAL CHEMISTRY REPORT

INSTRUMENT CONDITIONS FOR MRD-00-713 ON CHARCOAL SORBENT TUBE

The following GC conditions and equipment were used to determine the hydrocarbon distribution of test substance on chamber characterization sorbent tubes:

GC	Perkin Elmer XL Autosystem
Detector Type (range)	FID (2^4)
Detector Temperature; (gas flows)	225°C (H_2 45 mL/min; Air 450 mL/min)
Injector Temperature (Split ratio)	200°C (split injection ~5:1)
Injection Volume	1.0 µL
Analytical Column	Supelco Petrocol DH 150 fused silica capillary column (150m x 0.25mm; 1.0µm film thickness)
Oven Temperature Program	35°C (hold 130 minutes); ramp @ 2°C/minute to 200°C
Data Collection	Perkin Elmer Nelson Turbochrom (TC4) version 4.1
Carrier Gas Program	65 psi (He)

RESULTS

Hydrocarbon characterization was performed on an area percent basis for each of the 18 target hydrocarbons and MTBE oxygenate. Results are listed in Table J-1.

The hydrocarbon and MTBE distribution measured from the chamber characterization samples was in good agreement with the distribution measured from characterization of neat MRD-00-713 performed as part of EMBSI study 167490.

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Analytical Chemistry Supervisor

11 Mar 09
Date

APPENDIX J- ANALYTICAL CHEMISTRY REPORT

TABLE J-1 - CHAMBER CHARACTERIZATION - SORBENT TUBES

HYDROCARBON DISTRIBUTION

Sample Date	28-Sep-01			3-Oct-01			10-Oct-01			16-Oct-01		
Inhalation ID	1	2	3	4	5	6	7	8	9	10	11	12
	target mg/m^3			target mg/m^3			target mg/m^3			target mg/m^3		
	2000	10,000	20,000	2000	10,000	20,000	2000	10,000	20,000	2000	10,000	20,000
Compound	*RESULTS ARE in "AREA %" of TARGET HYDROCARBONS*											
isobutane	1.7	1.7	1.9	1.8	1.5	1.9	1.8	2.0	2.0	1.7	2.0	1.9
n-butane	9.5	9.6	10.2	9.7	9.1	10.3	9.8	10.4	10.4	9.6	10.7	10.3
isopentane	31.7	31.3	31.7	31.9	31.6	31.8	31.8	31.8	32.1	31.7	31.9	31.7
n-pentane	9.1	9.1	9.1	9.2	9.1	9.1	9.2	9.1	9.1	9.1	9.1	9.1
trans-2-pentene	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
2-methyl-2-butene	2.6	2.5	2.6	2.8	2.5	2.6	2.8	2.5	2.5	2.7	2.6	2.6
MtBE	21.6	22.0	21.7	20.8	22.2	21.6	21.1	21.5	21.5	21.4	21.2	21.5
2,3-dimethylbutane	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
2-methylpentane	4.8	4.8	4.7	4.8	4.9	4.7	4.8	4.7	4.7	4.8	4.7	4.7
3-methylpentane	2.8	2.8	2.7	2.8	2.8	2.7	2.8	2.7	2.7	2.8	2.7	2.7
n-hexane	2.3	2.3	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2
methylcyclopentane	1.2	1.2	1.2	1.2	1.2	1.1	1.2	1.2	1.1	1.2	1.1	1.2
2,4-dimethylpentane	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
benzene	2.1	1.7	1.6	2.0	1.7	1.6	2.0	1.6	1.6	2.0	1.6	1.6
2-methylhexane	1.0	1.1	1.0	1.0	1.1	1.0	1.0	1.0	1.0	1.1	1.0	1.0
2,3-dimethylpentane	1.1	1.1	1.0	1.1	1.1	1.0	1.1	1.0	1.0	1.1	1.0	1.0
3-methylhexane	1.2	1.3	1.2	1.2	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2
isooctane	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.2	1.3	1.4	1.3	1.4
toluene	2.2	2.3	2.1	2.2	2.3	2.1	2.2	2.2	2.0	2.2	2.1	2.2
Sum	100	100	100	100	100	100	100	100	100	100	100	100

No hydrocarbon target compounds were detected on the back section of the sorbent tubes analyzed.

APPENDIX K – STATISTICIANS REPORT

Analysis Of Fetal Data From A Whole-Body Inhalation Developmental Toxicity Study In Mice With Baseline Gasoline with MTBE Vapor Condensate (MRD-00-713)

This report details the statistical analysis of fetal body weight and anomaly data from ExxonMobil Study 171334M. The study was conducted to evaluate the potential developmental toxicity of Baseline Gasoline with MTBE Vapor Condensate (GMVC). GMVC was administered via whole-body inhalation exposure to pregnant mice during the period of major organogenesis and fetal growth. GMVC was administered by whole-body inhalation exposure to 25 confirmed-mated Crl: CD-1®(ICR) BR female mice at target doses of 0 (air control) 2000, 10,000, and 20,000 mg/m^3 for six hours (plus the theoretical equilibration time) daily from Gestation Day (GD) 5 through GD 17.

The fetal body weight was analyzed by a mixed model analysis of variance that provides an accurate statistical model of the biology. The analysis used the litter as the basis for analysis and effectively used the litter size as a covariate. The model considered dose group, litter size, and fetal sex as explanatory variables. When the overall effect of dose, or the dose by sex effect, was statistically significant the dose groups means were tested pairwise vs. the control group using least squares means. The least squares means allows comparisons that account for differences in litter size and sex. The mathematical model is based on a paper by Chen, et al (1996). The analysis was run using SAS with code suggested in Little, et al (1997).

The analysis of anomalies (observation, malformations, or variations) was based on a Generalized Estimating Equation (GEE) application of the linearized model, Ryan (1992). The model used the litter as the basis for analysis and considered correlation among littermates by incorporating an estimated constant correlation and the litter size as a covariate. When the overall effect of dose, or the dose by sex effect, was statistically significant the dose groups were tested pairwise vs. the control group using least squares means. The least squares means allows comparisons that account for differences in litter size. There were three categories of anomalies tested, and within each category specific anomalies were also tested. In addition to the category specific anomalies a series of combined analyses were performed within each category:

- Combined Malformations and Variations for All Fetuses
- Combined Malformations and Variations for Alive Fetuses
- Combined Malformations and Variations for Dead Fetuses
- Malformations for All Fetuses
- Malformations for Alive Fetuses
- Malformations for Dead Fetuses
- Variations for All Fetuses
- Variations for Alive Fetuses
- Variations for Dead Fetuses

In some cases there were no dead fetuses in a category, as in the grouping Skeletal Variations and Malformations.

APPENDIX K – STATISTICIANS REPORT (CONT'D)

Table I lists the three categories and corresponding sub-categories. Within each category several subcategories were combined into a group of similar anomalies. For example in the Category External the separate sub-categories of "All limbs pale" and "Pale head" were combined into a sub-category "Pale appearance". In this combined category an animal is counted once when he, or she, exhibits more than one characteristic. The sub-categories that were combined are listed in the Sub-categories Combined column of Table 1 by the sub-category number. The analyses were run using SAS.

Table I
Anomaly Categories and Corresponding Sub-categories

Category	**Sub-Category**	**Sub-categories combined**
External	1 - EXTERNAL: All limbs pale	
	2 - EXTERNAL: Anasarca	
	3 - EXTERNAL: Cleft palate (confirmed internally)	
	4 - EXTERNAL: Ectopia cordis	
	5 - EXTERNAL: Gastroschisis	
	6 - EXTERNAL: Hematoma trunk	
	7 - EXTERNAL: Micromelia; Right hindpaw	
	8 - EXTERNAL: Microstomia	
	9 - EXTERNAL: Misshapen nose (Broad)	
	10 - EXTERNAL: Syndactyly; Right hindpaw	
	11 - EXTERNAL: Malrotated paw	
	12 - EXTERNAL: Pale head	
	13 - EXTERNAL: Pale appearance	1,12
Abdomen/ Thorax	1 - ABDOMEN/THORAX: Abdominal cavity filled with thin clear liquid	
	2 - ABDOMEN/THORAX: Adrenal glands malpositioned	
	3 - ABDOMEN/THORAX: Aorta and pulmonary trunk elongated	
	4 - ABDOMEN/THORAX: Enlarged atria chamber; Right	
	5 - ABDOMEN/THORAX: Liver discolored; Right lobe	
	6 - ABDOMEN/THORAX: Malpositioned kidney	
	7 - ABDOMEN/THORAX: Narrowed pulmonary trunk	
	8 - ABDOMEN/THORAX: Ovaries malpositioned	
	9 - ABDOMEN/THORAX: Pulmonary trunk aorta elongated	
	10 - ABDOMEN/THORAX: Right atria large, flaccid	
	11 - ABDOMEN/THORAX: Thymus mottled red, white	
	12 - ABDOMEN/THORAX: Umbilical artery arises from left side of urinary bladder	
	13 - ABDOMEN/THORAX: Abnormal heart or great vessels	3,4,7,9,10
	14 - ABDOMEN/THORAX: Malpositioned abdominal organs	2,6,8

APPENDIX K – STATISTICIANS REPORT (CONT'D)

Table I
Anomaly Categories and Corresponding Sub-categories (cont'd)

Category	Sub-Category	Sub-categories combined
Skeletal	1 - SKELETAL/HINDPAW (MT **5**): Hypoplastic; Right	
	2 - SKELETAL/HINDPAW: Ossified calcaneous	
	3 - SKELETAL/HINDPAW: Unossified digits	
	4 - SKELETAL/RIBS (T1 Anlage): Malformed; Left (Cartilage at vertebra is reduced in size)	
	5 - SKELETAL/RIBS: Fused rib anlage	
	6 - SKELETAL/RIBS: Fused ribs	
	7 - SKELETAL/RIBS: Rib agenesis	
	8 - SKELETAL/RIBS: Rudimentary supernumerary rib anlage	
	9 - SKELETAL/RIBS: Rudimentary supernumerary ribs	
	10 - SKELETAL/RIBS: Well-formed supernumerary ribs	
	11 - SKELETAL/SKULL (Hyoid): Hypoplastic	
	12 - SKELETAL/SKULL (Interparietal): Hypoplastic	
	13 - SKELETAL/SKULL (Malar): Hypoplastic; Right	
	14 - SKELETAL/SKULL (Tympanics): Unossified; Left	
	15 - SKELETAL/SKULL: Hypoplastic squamosal process	
	16 - SKELETAL/SKULL: Hypoplastic supraoccipital	
	17 - SKELETAL/SKULL: Multiple bones hypoplastic	
	18 - SKELETAL/STERNEBRAE (II,III): Fused	
	19 - SKELETAL/STERNEBRAE (VI): Bifid	
	20 - SKELETAL/STERNEBRAE: Asymmetric sternebrae	
	21 - SKELETAL/STERNEBRAE: Hypoplastic sternebrae	
	22 - SKELETAL/STERNEBRAE: Supernumerary sternebrae ossification site	
	23 - SKELETAL/VERTEBRAE (L): One less presacral vertebrae	
	24 - SKELETAL/VERTEBRAE (T3 Arch Anlage): Malformed	
	25 - SKELETAL/VERTEBRAE (T3-**8** Anlage): Hypoplastic centra	
	26 - SKELETAL/VERTEBRAE: Agenesis vertebral arch	
	27 - SKELETAL/VERTEBRAE: Extra presacral vertebrae	
	28 - SKELETAL/VERTEBRAE: Hypoplastic vertebral anlage	
	29 - SKELETAL/VERTEBRAE: Malformed vertebral centra anlage	
	30 - SKELETAL/HINDPAW: Delayed ossification of the digits	1,3
	31 - SKELETAL/RIBS: Supernumerary ribs	9,10,
	32 - SKELETAL/SKULL: Hypoplastic skull bones	11,12,13,14,15,16,17
	33 - SKELETAL/STERNEBRAE: Delayed ossification of the sternebrae	19,21
	34 - SKELETAL/VERTEBRAE: Hypoplastic vertebral anlage	25,28
	35 - SKELETAL/VERTEBRAE: Malformed vertebrae	24,29

APPENDIX K – STATISTICIANS REPORT (CONT'D)

RESULTS:

BODY WEIGHT ANALYSIS

There was no statistically significant difference in the mean fetal litter weights among the dose groups. Table II shows the mean fetal weight, the least squares mean fetal weight. The dose and dose by sex interaction were not statistically significant indicating there was not a dose related effect.

Table II
Mean fetal weight, the least squares mean fetal weight

Dose Group (mg/m^3)	n litters	n fetuses†	observed fetus mean (gm)	Least squares fetus mean (gm)*
0	24	297	1.31	1.30
2,000	20	252	1.31	1.31
10,000	25	303	1.32	1.31
20,000	20	255	1.25	1.25

† Males and females combined
* The least squares mean accounts for litter size.

ANOMALY ANALYSES

The count of combined visceral malformations for alive fetuses indicated a statistically significant difference between the dose group (10,000 mg/m^3) and the control group, data shown in Table III. The analyses of supernumerary sternebrae ossification site and of extra presacral vertebrae, both in the category skeletal/sternebrae, indicated statistically significant dose by sex interactions; a testing of differences indicated the statistically significant interactions were among the dosed groups and there were no differences between the dosed and control groups. These two findings are not considered relevant. None of the other measures indicated statistically significant differences among the dose groups or the dose by sex interactions. Incidence tables for all anomalies are provided in the appendix.

Table III
Incidence of Visceral Malformations for Alive Fetuses

Dose Group (mg/m^3)	dams examined	fetuses examined	dams affected	fetuses affected
0	24	150	0	0
2,000	20	124	0	0
10,000	25	154	3	4
20,000	20	129	0	0

APPENDIX K – STATISTICIANS REPORT (CONT'D)

CONCLUSION:

Based on these findings there was an increased incidence of combined visceral malformations for alive fetuses in the 10,000 mg/m^3 dose group relative to the control group; because there is no indication of a dose response, this finding is not considered toxicologically meaningful. Based on these findings, administration of the test substance at the exposures tested is not associated with a change in mean litter fetal body weight or a compound related change in the number of anomalies.

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APPENDIX K – STATISTICIANS REPORT (CONT'D)

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APPENDIX K – STATISTICIANS REPORT (CONT'D)

APPENDIX
Anomaly Counts
Study # 171334M

External Variations and Malformations - combined
All Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	299	6	7
2000 MG/M3	20	253	4	4
10000 MG/M3	25	307	8	12
20000 MG/M3	20	255	6	6

External Variations and Malformations - combined
Alive Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	297	5	6
2000 MG/M3	20	252	3	3
10000 MG/M3	25	303	7	9
20000 MG/M3	20	255	6	6

External Variations and Malformations - combined
Dead Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	2	2	1	1
2000 MG/M3	1	1	1	1
10000 MG/M3	3	4	2	3

External Variations - combined
All Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	299	1	1
2000 MG/M3	20	253	1	1
10000 MG/M3	25	307	1	1
20000 MG/M3	20	255	0	0

APPENDIX K – STATISTICIANS REPORT (CONT'D)

External Variations – combined
Alive Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	297	0	0
2000 MG/M3	20	252	1	1
10000 MG/M3	25	303	0	0
20000 MG/M3	20	255	0	0

External Variations – combined
Dead Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	2	2	1	1
2000 MG/M3	1	1	0	0
10000 MG/M3	3	4	1	1

External Malformations – combined
All Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	299	5	6
2000 MG/M3	20	253	3	3
10000 MG/M3	25	307	8	12
20000 MG/M3	20	255	6	6

External Malformations – combined
Alive Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	297	5	6
2000 MG/M3	20	252	2	2
10000 MG/M3	25	303	7	9
20000 MG/M3	20	255	6	6

APPENDIX K – STATISTICIANS REPORT (CONT'D)

External Malformations – combined
Dead Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	2	2	0	0
2000 MG/M3	1	1	1	1
10000 MG/M3	3	4	2	3

external – individual
EXTERNAL: All limbs pale

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	299	0	0
2000 MG/M3	20	253	0	0
10000 MG/M3	25	307	1	1
20000 MG/M3	20	255	0	0

external – individual
EXTERNAL: Anasarca

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	299	0	0
2000 MG/M3	20	253	0	0
10000 MG/M3	25	307	1	1
20000 MG/M3	20	255	0	0

external – individual
EXTERNAL: Cleft palate (confirmed internally)

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	299	0	0
2000 MG/M3	20	253	0	0
10000 MG/M3	25	307	0	0
20000 MG/M3	20	255	1	1

APPENDIX K – STATISTICIANS REPORT (CONT'D)

external – individual
EXTERNAL: Ectopia cordis

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	299	0	0
2000 MG/M3	20	253	1	1
10000 MG/M3	25	307	1	2
20000 MG/M3	20	255	0	0

external – individual
EXTERNAL: Gastroschisis

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	299	0	0
2000 MG/M3	20	253	0	0
10000 MG/M3	25	307	1	1
20000 MG/M3	20	255	0	0

external – individual
EXTERNAL: Hematoma trunk

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	299	0	0
2000 MG/M3	20	253	1	1
10000 MG/M3	25	307	0	0
20000 MG/M3	20	255	0	0

external – individual
EXTERNAL: Micromelia; Right hindpaw

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	299	0	0
2000 MG/M3	20	253	0	0
10000 MG/M3	25	307	1	1
20000 MG/M3	20	255	0	0

APPENDIX K – STATISTICIANS REPORT (CONT'D)

external – individual
EXTERNAL: Microstomia

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	299	1	1
2000 MG/M3	20	253	0	0
10000 MG/M3	25	307	1	1
20000 MG/M3	20	255	0	0

external – individual
EXTERNAL: Misshapen nose (Broad)

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	299	0	0
2000 MG/M3	20	253	0	0
10000 MG/M3	25	307	1	1
20000 MG/M3	20	255	0	0

external – individual
EXTERNAL: Syndactyly; Right hindpaw

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	299	0	0
2000 MG/M3	20	253	0	0
10000 MG/M3	25	307	1	1
20000 MG/M3	20	255	0	0

external – individual
EXTERNAL: Malrotated paw

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	299	4	5
2000 MG/M3	20	253	2	2
10000 MG/M3	25	307	7	9
20000 MG/M3	20	255	5	5

APPENDIX K – STATISTICIANS REPORT (CONT'D)

external - individual
Pale head

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	299	1	1
2000 MG/M3	20	253	0	0
10000 MG/M3	25	307	0	0
20000 MG/M3	20	255	0	0

external - combined
EXTERNAL: Pale appearance

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	299	1	1
2000 MG/M3	20	253	0	0
10000 MG/M3	25	307	1	1
20000 MG/M3	20	255	0	0

Visceral Variations and Malformations - combined
All Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	151	5	5
2000 MG/M3	20	125	2	2
10000 MG/M3	25	156	6	7
20000 MG/M3	20	129	3	4

Visceral Variations and Malformations - combined
Alive Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	150	5	5
2000 MG/M3	20	124	1	1
10000 MG/M3	25	154	5	6
20000 MG/M3	20	129	3	4

APPENDIX K – STATISTICIANS REPORT (CONT'D)

Visceral Variations and Malformations - combined
Dead Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	1	1	0	0
2000 MG/M3	1	1	1	1
10000 MG/M3	1	2	1	1

Visceral Variations - combined
All Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	151	5	5
2000 MG/M3	20	125	1	1
10000 MG/M3	25	156	3	3
20000 MG/M3	20	129	3	4

Visceral Variations - combined
Alive Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	150	5	5
2000 MG/M3	20	124	1	1
10000 MG/M3	25	154	2	2
20000 MG/M3	20	129	3	4

Visceral Variations - combined
Dead Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	1	1	0	0
2000 MG/M3	1	1	0	0
10000 MG/M3	1	2	1	1

APPENDIX K – STATISTICIANS REPORT (CONT'D)

Visceral Malformations – combined
All Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	151	0	0
2000 MG/M3	20	125	1	1
10000 MG/M3	25	156	3	4
20000 MG/M3	20	129	0	0

Visceral Malformations – combined
Alive Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	150	0	0
2000 MG/M3	20	124	0	0
10000 MG/M3	25	154	3	4
20000 MG/M3	20	129	0	0

Visceral Malformations – combined
Dead Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	1	1	0	0
2000 MG/M3	1	1	1	1
10000 MG/M3	1	2	0	0

visceral – individual
ABDOMEN/THORAX: Abdominal cavity filled with thin clear liquid

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	151	0	0
2000 MG/M3	20	125	0	0
10000 MG/M3	25	156	1	1
20000 MG/M3	20	129	0	0

APPENDIX K – STATISTICIANS REPORT (CONT'D)

visceral – individual
ABDOMEN/THORAX: Adrenal glands malpositioned

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	151	0	0
2000 MG/M3	20	125	0	0
10000 MG/M3	25	156	1	1
20000 MG/M3	20	129	0	0

visceral – individual
ABDOMEN/THORAX: Aorta and pulmonary trunk elongated

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	151	0	0
2000 MG/M3	20	125	0	0
10000 MG/M3	25	156	1	2
20000 MG/M3	20	129	0	0

visceral – individual
ABDOMEN/THORAX: Enlarged atria chamber; Right

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	151	0	0
2000 MG/M3	20	125	1	1
10000 MG/M3	25	156	0	0
20000 MG/M3	20	129	0	0

visceral – individual
ABDOMEN/THORAX: Liver discolored; Right lobe

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	151	1	1
2000 MG/M3	20	125	0	0
10000 MG/M3	25	156	0	0
20000 MG/M3	20	129	0	0

APPENDIX K – STATISTICIANS REPORT (CONT'D)

visceral – individual
ABDOMEN/THORAX: Malpositioned kidney

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	151	0	0
2000 MG/M3	20	125	0	0
10000 MG/M3	25	156	2	2
20000 MG/M3	20	129	0	0

visceral – individual
ABDOMEN/THORAX: Narrowed pulmonary trunk

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	151	0	0
2000 MG/M3	20	125	0	0
10000 MG/M3	25	156	1	1
20000 MG/M3	20	129	0	0

visceral – individual
ABDOMEN/THORAX: Ovaries malpositioned

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	151	0	0
2000 MG/M3	20	125	0	0
10000 MG/M3	25	156	1	1
20000 MG/M3	20	129	0	0

visceral – individual
ABDOMEN/THORAX: Pulmonary trunk aorta elongated

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	151	0	0
2000 MG/M3	20	125	1	1
10000 MG/M3	25	156	0	0
20000 MG/M3	20	129	0	0

APPENDIX K – STATISTICIANS REPORT (CONT'D)

visceral - individual
ABDOMEN/THORAX: Right atria large, flaccid

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	151	0	0
2000 MG/M3	20	125	0	0
10000 MG/M3	25	156	1	1
20000 MG/M3	20	129	0	0

visceral - individual
ABDOMEN/THORAX: Thymus mottled red, white

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	151	0	0
2000 MG/M3	20	125	0	0
10000 MG/M3	25	156	1	1
20000 MG/M3	20	129	0	0

visceral - individual
ABDOMEN/THORAX: Umbilical artery arises from left side of urinary bladder

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	151	4	4
2000 MG/M3	20	125	1	1
10000 MG/M3	25	156	1	1
20000 MG/M3	20	129	3	4

visceral - combined
ABDOMEN/THORAX: Abnormal heart or great vessels

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	151	0	0
2000 MG/M3	20	125	1	1
10000 MG/M3	25	156	1	2
20000 MG/M3	20	129	0	0

APPENDIX K – STATISTICIANS REPORT (CONT'D)

visceral - combined
ABDOMEN/THORAX: Malpositioned abdominal organs

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	151	0	0
2000 MG/M3	20	125	0	0
10000 MG/M3	25	156	2	2
20000 MG/M3	20	129	0	0

Skeletal Variations and Malformations - combined
All Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	24	124
2000 MG/M3	20	128	20	113
10000 MG/M3	25	151	25	131
20000 MG/M3	20	126	20	106

Skeletal Variations and Malformations - combined
Alive Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	24	124
2000 MG/M3	20	128	20	113
10000 MG/M3	25	151	25	131
20000 MG/M3	20	126	20	106

Skeletal Variations - combined
All Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	24	124
2000 MG/M3	20	128	20	113
10000 MG/M3	25	151	25	130
20000 MG/M3	20	126	20	106

APPENDIX K – STATISTICIANS REPORT (CONT'D)

Skeletal Variations - combined
Alive Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	24	124
2000 MG/M3	20	128	20	113
10000 MG/M3	25	151	25	130
20000 MG/M3	20	126	20	106

Skeletal Malformations - combined
All Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	2	2
2000 MG/M3	20	128	2	4
10000 MG/M3	25	151	2	3
20000 MG/M3	20	126	1	1

Skeletal Malformations - combined
Alive Fetuses

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	2	2
2000 MG/M3	20	128	2	4
10000 MG/M3	25	151	2	3
20000 MG/M3	20	126	1	1

skeletal - individual
SKELETAL/HINDPAW (MT 5): Hypoplastic; Right

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	0	0
2000 MG/M3	20	128	0	0
10000 MG/M3	25	151	1	1
20000 MG/M3	20	126	0	0

APPENDIX K – STATISTICIANS REPORT (CONT'D)

skeletal – individual
SKELETAL/HINDPAW: Ossified calcaneous

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	21	100
2000 MG/M3	20	128	20	96
10000 MG/M3	25	151	23	110
20000 MG/M3	20	126	18	76

skeletal – individual
SKELETAL/HINDPAW: Unossified digits

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	2	4
2000 MG/M3	20	128	1	2
10000 MG/M3	25	151	1	1
20000 MG/M3	20	126	1	1

skeletal – individual
SKELETAL/RIBS (T1 Anlage): Malformed; Left
(Cartilage at vertebra is reduced in size)

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	0	0
2000 MG/M3	20	128	0	0
10000 MG/M3	25	151	0	0
20000 MG/M3	20	126	1	1

skeletal – individual
SKELETAL/RIBS: Fused rib anlage

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	0	0
2000 MG/M3	20	128	1	3
10000 MG/M3	25	151	1	1
20000 MG/M3	20	126	0	0

APPENDIX K – STATISTICIANS REPORT (CONT'D)

skeletal - individual
SKELETAL/RIBS: Fused ribs

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	1	1
2000 MG/M3	20	128	0	0
10000 MG/M3	25	151	1	1
20000 MG/M3	20	126	0	0

skeletal - individual
SKELETAL/RIBS: Rib agenesis

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	0	0
2000 MG/M3	20	128	0	0
10000 MG/M3	25	151	1	2
20000 MG/M3	20	126	0	0

skeletal - individual
SKELETAL/RIBS: Rudimentary supernumerary rib anlage

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	2	2
2000 MG/M3	20	128	2	2
10000 MG/M3	25	151	1	1
20000 MG/M3	20	126	3	3

skeletal - individual
SKELETAL/RIBS: Rudimentary supernumerary ribs

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	14	29
2000 MG/M3	20	128	14	27
10000 MG/M3	25	151	18	32
20000 MG/M3	20	126	15	27

APPENDIX K – STATISTICIANS REPORT (CONT'D)

skeletal – individual
SKELETAL/RIBS: Well-formed supernumerary ribs

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	19	54
2000 MG/M3	20	128	17	48
10000 MG/M3	25	151	14	40
20000 MG/M3	20	126	15	47

skeletal – individual
SKELETAL/SKULL (Hyoid): Hypoplastic

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	0	0
2000 MG/M3	20	128	0	0
10000 MG/M3	25	151	1	2
20000 MG/M3	20	126	0	0

skeletal – individual
SKELETAL/SKULL (Interparietal): Hypoplastic

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	0	0
2000 MG/M3	20	128	1	1
10000 MG/M3	25	151	0	0
20000 MG/M3	20	126	1	1

skeletal – individual
SKELETAL/SKULL (Malar): Hypoplastic; Right

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	1	1
2000 MG/M3	20	128	0	0
10000 MG/M3	25	151	0	0
20000 MG/M3	20	126	0	0

APPENDIX K – STATISTICIANS REPORT (CONT'D)

skeletal - individual
SKELETAL/SKULL (Tympanics): Unossified; Left

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	1	1
2000 MG/M3	20	128	0	0
10000 MG/M3	25	151	0	0
20000 MG/M3	20	126	0	0

skeletal - individual
SKELETAL/SKULL: Hypoplastic squamosal process

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	2	3
2000 MG/M3	20	128	1	1
10000 MG/M3	25	151	3	7
20000 MG/M3	20	126	0	0

skeletal - individual
SKELETAL/SKULL: Hypoplastic supraoccipital

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	1	1
2000 MG/M3	20	128	2	4
10000 MG/M3	25	151	0	0
20000 MG/M3	20	126	1	1

skeletal - individual
SKELETAL/SKULL: Multiple bones hypoplastic

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	0	0
2000 MG/M3	20	128	0	0
10000 MG/M3	25	151	1	2
20000 MG/M3	20	126	0	0

APPENDIX K – STATISTICIANS REPORT (CONT'D)

skeletal – individual
SKELETAL/STERNEBRAE (II,III): Fused

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	0	0
2000 MG/M3	20	128	0	0
10000 MG/M3	25	151	1	1
20000 MG/M3	20	126	0	0

skeletal – individual
SKELETAL/STERNEBRAE (VI): Bifid

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	0	0
2000 MG/M3	20	128	0	0
10000 MG/M3	25	151	0	0
20000 MG/M3	20	126	1	4

skeletal – individual
SKELETAL/STERNEBRAE: Assymetric sternebrae

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	4	4
2000 MG/M3	20	128	1	1
10000 MG/M3	25	151	0	0
20000 MG/M3	20	126	2	2

skeletal – individual
SKELETAL/STERNEBRAE: Hypoplastic sternebrae

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	1	1
2000 MG/M3	20	128	1	1
10000 MG/M3	25	151	2	3
20000 MG/M3	20	126	2	2

APPENDIX K – STATISTICIANS REPORT (CONT'D)

skeletal - individual
SKELETAL/STERNEBRAE: Supernumerary sternebrae ossification site

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	1	2
2000 MG/M3	20	128	3	4
10000 MG/M3	25	151	4	7
20000 MG/M3	20	126	3	3

skeletal - individual
SKELETAL/VERTEBRAE (L): One less presacral vertebrae

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	1	1
2000 MG/M3	20	128	1	1
10000 MG/M3	25	151	0	0
20000 MG/M3	20	126	0	0

skeletal - individual
SKELETAL/VERTEBRAE (T3 Arch Anlage): Malformed

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	0	0
2000 MG/M3	20	128	0	0
10000 MG/M3	25	151	1	1
20000 MG/M3	20	126	0	0

skeletal - individual
SKELETAL/VERTEBRAE (T3-8 Anlage): Hypoplastic centra

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	0	0
2000 MG/M3	20	128	1	1
10000 MG/M3	25	151	0	0
20000 MG/M3	20	126	0	0

APPENDIX K – STATISTICIANS REPORT (CONT'D)

skeletal – individual
SKELETAL/VERTEBRAE: Agenesis vertebral arch

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	0	0
2000 MG/M3	20	128	0	0
10000 MG/M3	25	151	1	2
20000 MG/M3	20	126	0	0

skeletal – individual
SKELETAL/VERTEBRAE: Extra presacral vertebrae

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	2	3
2000 MG/M3	20	128	4	4
10000 MG/M3	25	151	1	1
20000 MG/M3	20	126	2	2

skeletal – individual
SKELETAL/VERTEBRAE: Hypoplastic vertebral anlage

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	2	2
2000 MG/M3	20	128	1	1
10000 MG/M3	25	151	2	2
20000 MG/M3	20	126	0	0

skeletal – individual
SKELETAL/VERTEBRAE: Malformed vertebral centra anlage

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	0	0
2000 MG/M3	20	128	0	0
10000 MG/M3	25	151	1	2
20000 MG/M3	20	126	0	0

APPENDIX K – STATISTICIANS REPORT (CONT'D)

skeletal - combined
SKELETAL/HINDPAW: Delayed ossification of the digits

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	2	4
2000 MG/M3	20	128	1	2
10000 MG/M3	25	151	1	1
20000 MG/M3	20	126	1	1

skeletal - combined
SKELETAL/RIBS: Supernumerary ribs

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	20	73
2000 MG/M3	20	128	20	69
10000 MG/M3	25	151	19	62
20000 MG/M3	20	126	17	64

skeletal - combined
SKELETAL/SKULL: Hypoplastic skull bones

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	4	5
2000 MG/M3	20	128	4	6
10000 MG/M3	25	151	5	11
20000 MG/M3	20	126	1	1

skeletal - combined
SKELETAL/STERNEBRAE: Delayed ossification of the sternebrae

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	1	1
2000 MG/M3	20	128	1	1
10000 MG/M3	25	151	2	3
20000 MG/M3	20	126	2	6

APPENDIX K – STATISTICIANS REPORT (CONT'D)

skeletal - combined
SKELETAL/VERTEBRAE: Hypoplastic vertebral anlage

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	2	2
2000 MG/M3	20	128	1	2
10000 MG/M3	25	151	2	2
20000 MG/M3	20	126	0	0

skeletal - combined
SKELETAL/VERTEBRAE: Malformed vertebrae

DOSE	dams examined	fetuses examined	dams affected	fetuses affected
0 MG/M3	24	147	0	0
2000 MG/M3	20	128	0	0
10000 MG/M3	25	151	1	2
20000 MG/M3	20	126	0	0

APPENDIX L - HISTORICAL CONTROL DATA

SUPPLIER: Charles River Laboratories, Inc.

FEED: PMI Certified Rodent Chow (5002 Meal)

STUDY NUMBER	STUDY DATES	SUPPLIER LOCATION/AREA	SPECIES/STRAIN	TESTING FACILITY LOCATION	DOSING ROUTE/CARRIER
1 (A, B)	March 5, 2000 - March 28, 2000	Portage, MI/P01	Crl:CD-1® (ICR)BR	Annandale, NJ	Inhalation/Air
2	June 27, 2001 - July 24, 2001	Portage, MI/P01	Crl:CD-1®(ICR)BR	Annanadale, NJ	Inhalation/Air

APPENDIX L - HISTORICAL CONTROL DATA
(UTERINE IMPLANTATION DATA)

	LIVE	MALE	FEMALE	RESORPTIONS	IMPLANTS	CORPORA LUTEA	DEAD	FETUS/ IMPLANTS	RESORPTIONS/ IMPLANTS	F/I TRANSFORMED
HIGH	13.61	7.43	7.15	0.65	14.09	14.59	0.30	0.97	0.05	78.896044
LOW	11.43	5.13	6.17	0.35	12.39	13.35	0	0.93	0.02	73.866783
STUDY #										
2	13.61	7.43	6.17	0.35	14.09	14.59	0.13	0.97	0.02	78.896044
STD	2.06	2.25	1.95	0.78	2.13	2.40	0.46	0.06	0.05	5.561341
(N)	23	23	23	23	23	22	23	23	23	23
1(B)	11.43	5.13	6.30	0.65	12.39	13.35	0.30	0.93	0.05	73.866783
STD	2.74	2.22	2.18	0.78	2.82	1.47	0.56	0.08	0.06	7.684326
(N)	23	23	23	23	23	23	23	23	23	23
1(A)	12.55	5.40	7.15	0.45	13.00	13.47	0	0.97	0.03	78.327650
STD	2.74	2.28	3.62	0.69	2.71	2.63	0	0.05	0.05	5.257504
(N)	20	20	20	20	20	19	20	20	20	20

	R/I TRANSFORMED	D/I TRANSFORMED	DEAD/ IMPLANTS	PRE IMPLANT LOSS	POST IMPLANT LOSS	MALFORMATIONS	VARIATIONS	AFFECTED
HIGH	14.070435	11.407	0	8.00	7.30	1.35	3.7	2.30
LOW	10.162870	8.169	0	1.30	3.20	0.17	3.2	0.70
STUDY #								
2	10.162870	8.685	0	2.8	3.2	0.17	3.7	0.70
STD	5.081602	3.241	0	4.2	5.6	0.39	1.8	0.90
(N)	23	23	23	22	23	23	23	23
1(B)	14.070435	11.407	0	8.0	7.3	1.35	3.2	2.3
STD	6.755171	5.925	0	18.9	8.1	1.40	1.9	1.5
(N)	23	23	23	23	23	23	23	23
1(A)	11.672700	8.169	0	1.3	3.4	0.90	3.4	1.4
STD	5.257537	1.307	0	4.4	5.3	1.25	1.3	1.3
(N)	20	20	20	19	20	20	20	20

APPENDIX L - HISTORICAL CONTROL DATA
(FETAL BODY WEIGHTS)

	MALE	FEMALE
HIGH	1.39	1.34
LOW	1.35	1.28
STUDY #		
2	1.35	1.29
STD	0.11	0.11
(N)	171	142
1(B)	1.39	1.34
STD	0.11	0.11
(N)	118	145
1(A)	1.36	1.28
STD	0.11	0.11
(N)	104	134

APPENDIX L - HISTORICAL CONTROL DATA
(EXTERNAL DATA)

STUDY #	2	1(B)	1(A)
% STUNTED - F	0.00	0.00	0.00
% STUNTED - L	0.00	0.00	0.00
% EXT. VAR. - F	0.00	0.00	0.00
% EXT. VAR. - L	0.00	0.00	0.00
% EXT. MAL - F	0.64	9.89	5.18
% EXT. MAL. - L	8.70	60.87	40.00
Amniotic fluid red - F		0.38	
Amniotic fluid red - L		4.35	
Exencephaly - F		0.38	
Exencephaly - L		4.35	
Cleft palate - F		0.38	0.40
Cleft palate - L		4.35	5.00
Cleft face - F			0.40
Cleft face - L			5.00
Malrotated hindpaw - F	0.64	8.75	4.78
Malrotated hindpaw - L	8.70	60.87	35.00

NOTE: F - Fetus
L - Litter

APPENDIX L - HISTORICAL CONTROL DATA
(INTERNAL DATA)

STUDY #	2	1(B)	1(A)
% VIS. VAR. - F	2.58	3.03	1.56
% VIS. VAR. - L	13.04	18.18	10.00
% VIS. MAL. - F	1.29	0.00	3.13
% VIS. MAL. - L	8.70	0.00	20.00
Cerebra misshapen - F	0.65		
Cerebra misshapen - L	4.35		
Retina fold - F	0.65		0.78
Retina fold - L	4.35		5.00
Carotid narrowed - F			1.56
Carotid narrowed- L			10.00
Kidney large - F			0.78
Kidney large - L			5.00
Umbilical artery left of urinary bladder - F	2.58	3.03	1.56
Umbilical artery left of urinary bladder - L	13.04	18.18	10.00

NOTE: F - Fetus
L - Litter

APPENDIX L - HISTORICAL CONTROL DATA
(SKELETAL DATA)

STUDY #	2	1(B)	1(A)
% SKEL. VAR. - F	50.63	53.43	53.23
% SKEL. VAR. - L	91.30	91.30	100.00
% SKEL. MAL. - F	0.00	3.82	1.61
% SKEL. MAL. - L	0.00	8.70	10.00
Skull bone(s): Absent - F			0.81
Skull bone(s): Absent - L			5.00
Skull bone(s): Hypoplastic - F	8.86		1.61
Skull bone(s): Hypoplastic - L	47.83		10.00
Forepaw: Unossified - F		1.53	3.23
Forepaw: Unossified - L		8.70	10.00
Sternebrae: Fused - F		0.76	1.61
Sternebrae: Fused - L		4.35	10.00
Sternebrae: Asymmetric form - F		0.76	
Sternebrae: Asymmetric form - L		4.35	
Sternebrae: Bifid - F		0.76	
Sternebrae: Bifid - L		4.35	
Sternebrae: Dumbbell/8-shaped - F		0.76	
Sternebrae: Dumbbell/8-shaped - L		4.35	
Sternebrae: Site of extra ossification - F		3.82	0.81
Sternebrae: Site of extra ossification - L		13.04	5.00
Sternebrae: Supernumerary - F		0.76	0.81
Sternebrae: Supernumerary - L		4.35	5.00
Sternebral anlage: Bifid - F			0.81
Sternebral anlage: Bifid - L			5.00
Vertebral arches: Fused - F			0.81
Vertebral arches: Fused - L			5.00
Vertebral arches: Hypoplastic - F		0.76	
Vertebral arches: Hypoplastic - L		4.35	
Vertebrae: Supernumerary presacral thoracic - F	0.63		0.81
Vertebrae: Supernumerary presacral thoracic - L	4.35		5.00

APPENDIX L - HISTORICAL CONTROL DATA
(SKELETAL DATA)

STUDY #	9(B)	9(A)	8
Rib(s): Fused - F		0.76	
Rib(s): Fused - L		4.35	
Rib(s): Short - F		0.76	
Rib(s): Short - L		4.35	
Rib(s): Misshapen - F		0.76	
Rib(s): Misshapen - L		4.35	
Rib(s): Rudimentary cervical - F		0.76	
Rib(s): Rudimentary cervical - L		4.35	
Rib(s): Rudimentary lumbar - F	25.32	29.77	29.84
Rib(s): Rudimentary lumbar - L	78.26	69.57	95.00
Rib(s): Unossified - F			0.81
Rib(s): Unossified - L			5.00
Rib(s): Well formed lumbar - F	26.58	26.72	30.65
Rib(s): Well formed lumbar - L	69.57	78.26	70.00
Rib(s): Well formed thoracic - F	0.63	0.76	0.81
Rib(s): Well formed thoracic - L	4.35	4.35	5.00
Rib(s) anlage: Branched - F		0.76	
Rib(s) anlage: Branched - L		4.35	
Rib(s) anlage: Fused - F		2.29	
Rib(s) anlage: Fused - L		8.70	
Rib(s) anlage: Hypoplastic - F			0.81
Rib(s) anlage: Hypoplastic - L			5.00
Calcaneus: Advanced - F	56.96	45.04	54.03
Calcaneus: Advanced - L	91.30	73.91	85.00
Hindpaw: Unossified - F		1.53	2.42
Hindpaw: Unossified - L		8.70	15.00

NOTE: F - Fetus
L - Litter

APPENDIX M – FEED AND WATER ANALYSES
FEED ANALYSES

LabDiet PMI NUTRITION INTERNATIONAL

Return to Certified Analysis Retrieval

Product Code: 5002M
Product Desc: CERTIFIED RODENT DIET MEAL
Lab Number: L0114619-2
Lot Code: APR 01 01 1B
Entered: 3/26/2001

Assay	Analysis	Units
PROTEIN	21.1	%
FAT ACID (HYDRO.)	6.11	%
FIBER (CRUDE)	4.19	%
ARSENIC	0.211	PPM
CADMIUM	0.069	PPM
CALCIUM	0.988	%
LEAD	0.159	PPM
MERCURY	LESS THAN 0.025	PPM
PHOSPHORUS	0.635	%
SELENIUM	0.299	PPM

ORGANOPHOSPHATES	PPM	ORGANOPHOSPHATES	PPM
Diazinon	LESS THAN 0.02	Disulfoton	LESS THAN 0.02
Ethion	LESS THAN 0.02	Malathion	0.11
Methyl Parathion	LESS THAN 0.02	Parathion	LESS THAN 0.02
Thimet	LESS THAN 0.02	Thiodan	LESS THAN 0.02
Trithion	LESS THAN 0.02		

PESTICIDES AND PCB	PPM	PESTICIDES AND PCB	PPM
Aldrin	LESS THAN 0.02	Alpha-BHC	LESS THAN 0.02
Beta-BHC	LESS THAN 0.02	Chlordane	LESS THAN 0.02
DDE	LESS THAN 0.02	DDT	LESS THAN 0.02
Delta-BHC	LESS THAN 0.02	Dieldrin	LESS THAN 0.02
Endrin	LESS THAN 0.02	HCB	LESS THAN 0.02
Heptachlor	LESS THAN 0.02	Heptachlor Epoxide	LESS THAN 0.02
Lindane	LESS THAN 0.02	Methoxychlor	LESS THAN 0.02
Mirex	LESS THAN 0.02	PCB	LESS THAN 0.15

AFLATOXINS	Aflatoxins	LESS THAN 5 PPB

No notes.
For additional information, please contact:
1) Customer Service at (314) 982-1310 -- for assay methodology
2) Dr. Dorrance Haught at (314) 317-5178 -- for nutritional interpretation
3) Richmond, IN Manufacturing Plant at (765) 962-9561 -- all other questions

The term "Less Than" is used to signify the lower limit of quantitation of the procedure under the conditions employed.
The use of the term "Less Than" does not imply that traces of analyte were present.

APPENDIX M – FEED AND WATER ANALYSES (CONT'D)
FEED ANALYSES (CONT'D)

LabDiet PMI NUTRITION INTERNATIONAL

Return to Certified Analysis Retrieval

Product Code: 5002M
Product Desc: CERTIFIED RODENT DIET MEAL
Lab Number: L0120470-2
Lot Code: JUL 09 01 3B
Entered: 7/11/2001

Assay	Analysis	Units
PROTEIN	21.3	%
FAT ACID (HYDRO.)	5.67	%
FIBER (CRUDE)	4.57	%
ARSENIC	0.435	PPM
CADMIUM	0.059	PPM
CALCIUM	0.930	%
LEAD	0.162	PPM
MERCURY	LESS THAN 0.025	PPM
PHOSPHORUS	0.742	%
SELENIUM	0.297	PPM

ORGANOPHOSPHATES	PPM	ORGANOPHOSPHATES	PPM
Diazinon	LESS THAN 0.02	Disulfoton	LESS THAN 0.02
Ethion	LESS THAN 0.02	Malathion	LESS THAN 0.02
Methyl Parathion	LESS THAN 0.02	Parathion	LESS THAN 0.02
Thimet	LESS THAN 0.02	Thiodan	LESS THAN 0.02
Trithion	LESS THAN 0.02		

PESTICIDES AND PCB	PPM	PESTICIDES AND PCB	PPM
Aldrin	LESS THAN 0.02	Alpha-BHC	LESS THAN 0.02
Beta-BHC	LESS THAN 0.02	Chlordane	LESS THAN 0.02
DDE	LESS THAN 0.02	DDT	LESS THAN 0.02
Delta-BHC	LESS THAN 0.02	Dieldrin	LESS THAN 0.02
Endrin	LESS THAN 0.02	HCB	LESS THAN 0.02
Heptachlor	LESS THAN 0.02	Heptachlor Epoxide	LESS THAN 0.02
Lindane	LESS THAN 0.02	Methoxychlor	LESS THAN 0.02
Mirex	LESS THAN 0.02	PCB	LESS THAN 0.15

AFLATOXINS	Aflatoxins	LESS THAN 5 PPB

No notes.
For additional information, please contact:
1) Customer Service at (314) 982-1310 -- for assay methodology
2) Dr. Dorrance Haught at (314) 317-5178 -- for nutritional interpretation
3) Richmond, IN Manufacturing Plant at (765) 962-9561 -- all other questions

The term "Less Than" is used to signify the lower limit of quantitation of the procedure under the conditions employed.
The use of the term "Less Than" does not imply that traces of analyte were present.

APPENDIX M – FEED AND WATER ANALYSES (CONT'D)
WATER ANALYSES

Accutest Laboratories

Report of Analysis

Page 1 of 2

Client Sample ID:	PE 106		
Lab Sample ID:	E91651-1	**Date Sampled:**	05/22/01
Matrix:	DW - Drinking Water	**Date Received:**	05/22/01
Method:	EPA 624	**Percent Solids:**	n/a
Project:	Lab Animal Room Water		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T20546.D	1	05/26/01	YYL	n/a	n/a	VT649
Run #2							

VOA PPL List

CAS No.	Compound	Result	MCL	RL	Units	Q
107-02-8	Acrolein	ND		6.6	ug/l	
107-13-1	Acrylonitrile	ND		4.0	ug/l	
71-43-2	Benzene	ND	1.0	0.27	ug/l	
75-27-4	Bromodichloromethane	ND		0.19	ug/l	
75-25-2	Bromoform	ND		0.53	ug/l	
74-83-9	Bromomethane	ND		0.72	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	0.67	ug/l	
108-90-7	Chlorobenzene	ND	50	0.31	ug/l	
75-00-3	Chloroethane	ND		0.86	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND		0.60	ug/l	
67-66-3	Chloroform	ND		0.60	ug/l	
74-87-3	Chloromethane	ND		1.0	ug/l	
124-48-1	Dibromochloromethane	ND		0.28	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	600	0.58	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	600	0.66	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	75	0.70	ug/l	
75-71-8	Dichlorodifluoromethane	ND		1.1	ug/l	
75-34-3	1,1-Dichloroethane	ND	50	0.55	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	0.75	ug/l	
75-35-4	1,1-Dichloroethene	ND	2.0	0.69	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	70	0.89	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	100	0.89	ug/l	
78-87-5	1,2-Dichloropropane	ND	5.0	0.29	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND		0.55	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND		0.60	ug/l	
100-41-4	Ethylbenzene	ND	700	0.60	ug/l	
1634-04-4	**Methyl Tert Butyl Ether**	ND	70	0.26	ug/l	
75-09-2	Methylene chloride	1.2	3.0	0.39	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.28	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.91	ug/l	
108-88-3	Toluene	ND	1000	0.62	ug/l	
71-55-6	1,1,1-Trichloroethane	1.0	30	0.78	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	3.0	0.59	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.30	ug/l	
75-69-4	Trichlorofluoromethane	ND		1.3	ug/l	
75-01-4	Vinyl chloride	ND	2.0	1.3	ug/l	

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ND = Not detected
MCL = Maximum Contamination Level (NJAC 7:10-1 11/96)
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

APPENDIX M – FEED AND WATER ANALYSES (CONT'D)
WATER ANALYSES (CONT'D)

Accutest Laboratories

Report of Analysis

Page 2 of 2

Client Sample ID:	PE 106		
Lab Sample ID:	E91651-1	**Date Sampled:**	05/22/01
Matrix:	DW - Drinking Water	**Date Received:**	05/22/01
Method:	EPA 624	**Percent Solids:**	n/a
Project:	Lab Animal Room Water		

VOA PPL List

CAS No.	Compound	Result	MCL	RL	Units	Q
1330-20-7	Xylenes (total)	ND	1000	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	105%		73-127%
2037-26-5	Toluene-D8 (SUR)	102%		88-111%
460-00-4	4-Bromofluorobenzene (SUR)	94%		75-114%

6

ND = Not detected
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APPENDIX M – FEED AND WATER ANALYSES (CONT'D)
WATER ANALYSES (CONT'D)

Accutest Laboratories

Report of Analysis

Page 1 of 2

Client Sample ID:	PE 106		
Lab Sample ID:	E91651-1	**Date Sampled:**	05/22/01
Matrix:	DW - Drinking Water	**Date Received:**	05/22/01
Method:	EPA 625 EPA 625	**Percent Solids:**	n/a
Project:	Lab Animal Room Water		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M15002.D	1	06/02/01	CBD	05/27/01	OP9476	EM440
Run #2							

ABN AP9 special List

CAS No.	Compound	Result	MCL	RL	Units	Q
95-57-8	2-Chlorophenol	ND		1.4	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND		0.99	ug/l	
120-83-2	2,4-Dichlorophenol	ND		1.4	ug/l	
105-67-9	2,4-Dimethylphenol	ND		1.4	ug/l	
51-28-5	2,4-Dinitrophenol	ND		1.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND		1.2	ug/l	
88-75-5	2-Nitrophenol	ND		1.5	ug/l	
100-02-7	4-Nitrophenol	ND		1.7	ug/l	
87-86-5	Pentachlorophenol	ND	1.0	3.8	ug/l	
108-95-2	Phenol	ND		0.64	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND		1.7	ug/l	
83-32-9	Acenaphthene	ND		0.20	ug/l	
208-96-8	Acenaphthylene	ND		0.22	ug/l	
120-12-7	Anthracene	ND		0.10	ug/l	
92-87-5	Benzidine	ND		20	ug/l	
56-55-3	Benzo(a)anthracene	ND		0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.20	0.23	ug/l	
205-99-2	Benzo(b)fluoranthene	ND		0.28	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND		0.30	ug/l	
207-08-9	Benzo(k)fluoranthene	ND		0.41	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND		0.27	ug/l	
85-68-7	Butyl benzyl phthalate	ND		0.16	ug/l	
91-58-7	2-Chloronaphthalene	ND		0.19	ug/l	
106-47-8	4-Chloroaniline	ND		0.19	ug/l	
218-01-9	Chrysene	ND		0.22	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND		0.12	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND		0.26	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND		0.20	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND		0.25	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	600	0.25	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND		0.21	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	600	0.27	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	75	0.24	ug/l	
121-14-2	2,4-Dinitrotoluene	ND		0.29	ug/l	
606-20-2	2,6-Dinitrotoluene	ND		0.44	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND		0.47	ug/l	

ND = Not detected
MCL = Maximum Contamination Level (NJAC 7:10-1 11/96)
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

APPENDIX M – FEED AND WATER ANALYSES (CONT'D)
WATER ANALYSES (CONT'D)

Accutest Laboratories

Report of Analysis

Page 2 of 2

Client Sample ID:	PE 106		
Lab Sample ID:	E91651-1	**Date Sampled:**	05/22/01
Matrix:	DW - Drinking Water	**Date Received:**	05/22/01
Method:	EPA 625 EPA 625	**Percent Solids:**	n/a
Project:	Lab Animal Room Water		

ABN AP9 special List

CAS No.	Compound	Result	MCL	RL	Units	Q
53-70-3	Dibenzo(a,h)anthracene	ND		0.20	ug/l	
60-51-5	Dimethoate	ND		5.0	ug/l	
298-04-4	Disulfoton	ND		5.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND		0.12	ug/l	
117-84-0	Di-n-octyl phthalate	ND		0.16	ug/l	
84-66-2	Diethyl phthalate	ND		0.25	ug/l	
131-11-3	Dimethyl phthalate	ND		0.18	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	6.0	0.29	ug/l	
52-85-7	Famphur	ND		5.0	ug/l	
206-44-0	Fluoranthene	ND		0.11	ug/l	
86-73-7	Fluorene	ND		0.19	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.13	ug/l	
87-68-3	Hexachlorobutadiene	ND		0.28	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	50	20	ug/l	
67-72-1	Hexachloroethane	ND		0.14	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND		0.20	ug/l	
78-59-1	Isophorone	ND		0.10	ug/l	
298-00-0	Methyl parathion	ND		5.0	ug/l	
91-20-3	Naphthalene	ND	300	0.14	ug/l	
98-95-3	Nitrobenzene	ND		0.28	ug/l	
62-75-9	n-Nitrosodimethylamine	ND		0.44	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND		0.33	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND		0.16	ug/l	
56-38-2	Parathion	ND		10	ug/l	
85-01-8	Phenanthrene	ND		0.15	ug/l	
298-02-2	Phorate	ND		5.0	ug/l	
129-00-0	Pyrene	ND		0.19	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	9.0	0.16	ug/l	
297-97-2	Thionazin	ND		5.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	45%		15-93%
4165-62-2	Phenol-d5	11%		10-76%
118-79-6	2,4,6-Tribromophenol	80%		38-144%
4165-60-0	Nitrobenzene-d5	100%		43-126%
321-60-8	2-Fluorobiphenyl	94%		38-130%
1718-51-0	Terphenyl-d14	110%		24-155%

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ND = Not detected
MCL = Maximum Contamination Level (NJAC 7:10-1 11/96)
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

APPENDIX M – FEED AND WATER ANALYSES (CONT'D)
WATER ANALYSES (CONT'D)

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	PE 106		
Lab Sample ID:	E91651-1	**Date Sampled:**	05/22/01
Matrix:	DW - Drinking Water	**Date Received:**	05/22/01
Method:	EPA 508 EPA 508	**Percent Solids:**	n/a
Project:	Lab Animal Room Water		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	XX20502.D	1	05/30/01	KLS	05/27/01	OP9477	GXX402
Run #2	CD49493.D	1	06/05/01	LLP	05/27/01	OP9477	GCD1882

Pesticide/PCB PPL List

CAS No.	Compound	Result	MCL	RL	Units	Q
309-00-2	Aldrin	ND		0.0075	ug/l	
319-84-6	alpha-BHC	ND		0.0055	ug/l	
319-85-7	beta-BHC	ND		0.0049	ug/l	
319-86-8	delta-BHC	ND		0.0075	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.20	0.0055	ug/l	
12789-03-6	Chlordane	ND	0.50	0.19	ug/l	
60-57-1	Dieldrin	ND		0.0065	ug/l	
72-54-8	4,4'-DDD	ND		0.014	ug/l	
72-55-9	4,4'-DDE	ND		0.012	ug/l	
50-29-3	4,4'-DDT	ND		0.010	ug/l	
72-20-8	Endrin	ND	2.0	0.0095	ug/l	
1031-07-8	Endosulfan sulfate	ND		0.0075	ug/l	
7421-93-4	Endrin aldehyde	ND		0.0080	ug/l	
959-98-8	Endosulfan-I	ND		0.0050	ug/l	
33213-65-9	Endosulfan-II	ND		0.0075	ug/l	
76-44-8	Heptachlor	ND	0.40	0.0075	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.20	0.0060	ug/l	
72-43-5	Methoxychlor	ND	40	0.049	ug/l	
8001-35-2	Toxaphene	ND	3.0	0.34	ug/l	
12674-11-2	Aroclor 1016	ND [a]	0.50	0.24	ug/l	
11104-28-2	Aroclor 1221	ND [a]	0.50	0.090	ug/l	
11141-16-5	Aroclor 1232	ND [a]	0.50	0.12	ug/l	
53469-21-9	Aroclor 1242	ND [a]	0.50	0.30	ug/l	
12672-29-6	Aroclor 1248	ND [a]	0.50	0.22	ug/l	
11097-69-1	Aroclor 1254	ND [a]	0.50	0.11	ug/l	
11096-82-5	Aroclor 1260	ND [a]	0.50	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	82%	81%	66-121%
877-09-8	Tetrachloro-m-xylene	80%	89%	66-121%
2051-24-3	Decachlorobiphenyl	79%	98%	61-131%
2051-24-3	Decachlorobiphenyl	76%	103%	61-131%

(a) Result is from Run# 2

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ND = Not detected
MCL = Maximum Contamination Level (NJAC 7:10-1 11/96)
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

APPENDIX M – FEED AND WATER ANALYSES (CONT'D)
WATER ANALYSES (CONT'D)

Accutest Laboratories

Report of Analysis

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Client Sample ID:	PE 106		
Lab Sample ID:	E91651-1	**Date Sampled:**	05/22/01
Matrix:	DW - Drinking Water	**Date Received:**	05/22/01
Method:	SW846 8151 SW846 3510C	**Percent Solids:**	n/a
Project:	Lab Animal Room Water		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF32253.D	1	05/25/01	YYX	05/24/01	OP9472	GEF1846
Run #2							

Herbicide List

CAS No.	Compound	Result	MCL	RL	Units	Q
94-75-7	2,4-D	ND	70	0.50	ug/l	
93-72-1	2,4,5-TP (Silvex)	ND	50	0.10	ug/l	
93-76-5	2,4,5-T	ND		0.10	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	85%		57-158%
19719-28-9	2,4-DCAA	88%		57-158%

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ND = Not detected
MCL = Maximum Contamination Level (NJAC 7:10-1 11/96)
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

APPENDIX M – FEED AND WATER ANALYSES (CONT'D)
WATER ANALYSES (CONT'D)

Accutest Laboratories

Report of Analysis

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Client Sample ID:	PE 106		
Lab Sample ID:	E91651-1	**Date Sampled:**	05/22/01
Matrix:	DW - Drinking Water	**Date Received:**	05/22/01
		Percent Solids:	n/a
Project:	Lab Animal Room Water		

Metals Analysis

Analyte	Result	MCL	RL	Units	DF	Prep	Analyzed	By	Method
Antimony	<0.0050	0.0060	0.0050	mg/l	1	06/07/01	06/07/01	JDM	EPA 200.9
Arsenic	<0.0050	0.050	0.0050	mg/l	1	05/31/01	05/31/01	LH	EPA 200.7
Beryllium	<0.0030	0.0040	0.0030	mg/l	1	05/31/01	05/31/01	LH	EPA 200.7
Cadmium	<0.0040	0.0050	0.0040	mg/l	1	05/31/01	05/31/01	LH	EPA 200.7
Calcium	49.6		5.0	mg/l	1	05/31/01	05/31/01	LH	EPA 200.7
Chromium	<0.010	0.10	0.010	mg/l	1	05/31/01	05/31/01	LH	EPA 200.7
Copper	0.097	1.3	0.025	mg/l	1	05/31/01	05/31/01	LH	EPA 200.7
Lead	<0.0030	0.015	0.0030	mg/l	1	05/24/01	05/24/01	JDM	EPA 200.9
Magnesium	26.7		5.0	mg/l	1	05/31/01	05/31/01	LH	EPA 200.7
Manganese	<0.015	0.050	0.015	mg/l	1	05/31/01	05/31/01	LH	EPA 200.7
Mercury	<0.00020	0.0020	0.00020	mg/l	1	06/01/01	06/04/01	RP	EPA 245.1
Nickel	<0.040		0.040	mg/l	1	05/31/01	05/31/01	LH	EPA 200.7
Selenium	<0.0050	0.050	0.0050	mg/l	1	05/25/01	05/25/01	JDM	EPA 200.9
Silver	<0.010	0.10	0.010	mg/l	1	05/31/01	05/31/01	LH	EPA 200.7
Thallium	<0.0020	0.0020	0.0020	mg/l	1	06/13/01	06/15/01	JDM	EPA 200.9
Zinc	0.040	5.0	0.020	mg/l	1	05/31/01	05/31/01	LH	EPA 200.7

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RL = Reporting Limit
MCL = Maximum Contamination Level (NJAC 7:10-1 11/96)

APPENDIX M – FEED AND WATER ANALYSES (CONT'D)
WATER ANALYSES (CONT'D)

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	PE 106		
Lab Sample ID:	E91651-1	**Date Sampled:**	05/22/01
Matrix:	DW - Drinking Water	**Date Received:**	05/22/01
		Percent Solids:	n/a
Project:	Lab Animal Room Water		

General Chemistry

Analyte	Result	MCL	Units	DF	Analyzed By		Method
Florescent Pseudomonas							
Florescent Pseudomonads	0		col/ml	1	05/23/01	MJC	ACCUTEST
Coliform, Fecal	0		col/100ml	1	05/22/01	MJC	SM18 9222D
Coliform, Total	NEGATIVE	0		1	05/22/01	MJC	SM18 9223B
Cyanide	<0.010	0.20	mg/l	1	05/24/01	AMS	EPA 335.4
Hardness, Total	235		mg/l	1	05/31/01	KY	EPA 130.2
Nitrogen, Ammonia	0.17		mg/l	1	05/26/01	JK	EPA350.1, SM4500NH3H
Phenols	<0.050		mg/l	1	05/25/01	JK	EPA 420.2
Plate Count, Total	0		CFU/ml	1	05/23/01	MJC	SM18 9215B
Solids, Total Suspended	<4.0		mg/l	1	05/23/01		EPA 160.2

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MCL = Maximum Contamination Level (NJAC 7:10-1 11/96)